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# Town of Haymarket Planning Commission

15000 Washington Street,

Haymarket, VA 20169

## Work Session

<http://www.townofhaymarket.org/>

### ~ Agenda ~

Robert B. Weir

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Wednesday, October 22, 2014

7:00 PM

Council Chambers

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## 1. Call to Order

## 2. Public Portion

### a. Information Item (ID # 2109)

Haymarket 230 KV Transmission Line and Substation

#### ATTACHMENTS:

- 10-22 Work Session - Dominion Report (PDF)
- 10-22 Work Session - Draft Resolution (PDF)



TO: Town of Haymarket Planning Commission  
SUBJECT: Haymarket 230 KV Transmission Line and Substation  
DATE: 10/22/14

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Final Version of Planning Commissions Report and Findings, and the Draft Resolution to present to Town Council.

**ATTACHMENTS:**

- 10-22 Work Session - Dominion Report (PDF)
- 10-22 Work Session - Draft Resolution (PDF)

# Haymarket 230 kV Transmission Line and Substation

Report and Finding of the Town of Haymarket Planning Commission

October 22, 2014



Haymarket Planning Commission

Robert Weir – Chairman

Ralph Ring – Vice Chairman

Matt Caudle - Council Liaison

Josh Mattox

Christopher Johnson

## Introduction

Dominion Virginia Power (Dominion) proposes to construct a new overhead 230 kilovolt (kV) double circuit transmission line, using existing transportation corridors, where possible, and new right of way (ROW) that will tap into the existing Gainesville to Loudoun transmission line near the Route 234 Bypass and extend to a new substation west of the Haymarket town limits.

Dominion has proposed a two-phase approach to the project. The first phase will require the addition of distribution reinforcements to the existing distribution lines (double build) along Washington Street in the Town of Haymarket to provide “bridging power” until the new transmission lines have been completed and energized; this phase will provide dedicated 34.5 kV service to a single Dominion client, allowing them to begin operations. Phase two entails the actual construction of the overhead 230 kV double circuit transmission line as detailed above. Dominion’s preliminary route for the overhead 230kV line includes a corridor that spans the southern boundary of the Town of Haymarket. As a result of input from the Town of Haymarket and numerous local citizens, Dominion has identified and mapped several alternate routes consisting of both overhead and underground transmission lines.

Dominion asserts the need for the Haymarket 230kV Line and Substation project is due to increased energy demand and future growth projections within the Haymarket area and western Prince William County. Dominion claims the need comes as a result of the rapid growth of the high-tech and commercial sectors in the region. Similarly, Dominion states that current demand from growth has already outgrown the steady and reliable infrastructure that is in place today, and will strain the existing system, thus causing issues for the community and its economic development efforts. Dominion holds that the proposed transmission infrastructure will address forecast increases in energy demand that will exceed the capabilities of the current distribution system beginning in 2017. Despite those assertions, Dominion has provided no indication that the local load is projected to result in violations of either federally-mandated reliability criteria on existing facilities or the North American Electric Reliability Corporation (NERC) Transmission Reliability Criteria. Rather, Dominion does note that the primary driver for the

new substation is an expected block load addition from an existing local customer that has rapid and substantial plans for expansion.<sup>1</sup>

### Meetings

In order to present the merits of their proposal and solicit public input, Dominion held a public meeting with the Haymarket Town Council on August 25, 2014, the Haymarket Planning Commission on September 8, 2014 and an open house community outreach event at Battlefield High School on September 10, 2014.

At the August 25, 2014 meeting with the Haymarket Town Council, Dominion presented, among other materials, a singular preferred route (denoted in red) with no alternate routes (Fig. 1). Dominion also provided a rendering of the “double-build” distribution reinforcements to be added to the existing distribution lines (Fig. 2).

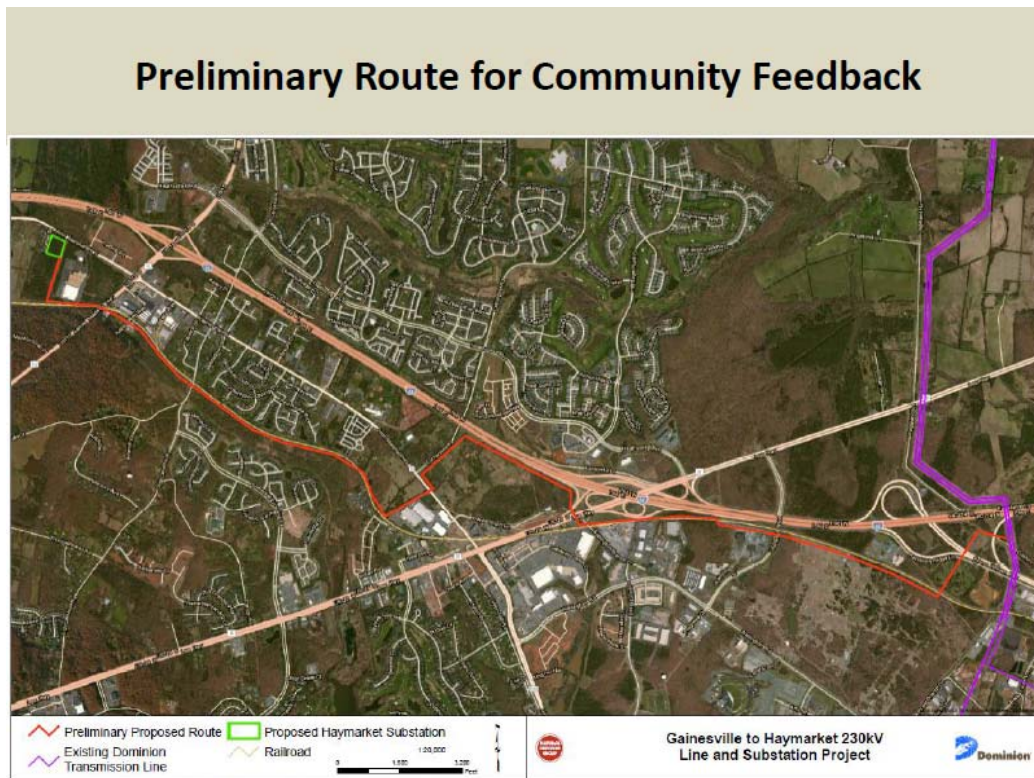


Fig. 1

<sup>1</sup> Haymarket 230 kV Line and Substation Project, <https://www.dom.com/about/electric-transmission/haymarket/index.jsp>

Attachment: 10-22 Work Session - Dominion Report (2109 : Haymarket 230 KV Transmission Line and Substation)

# Phase 1: Distribution Reinforcements - AFTER

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Viewpoint 10 - Intersection of Washington Street and Coach Way - Proposed View

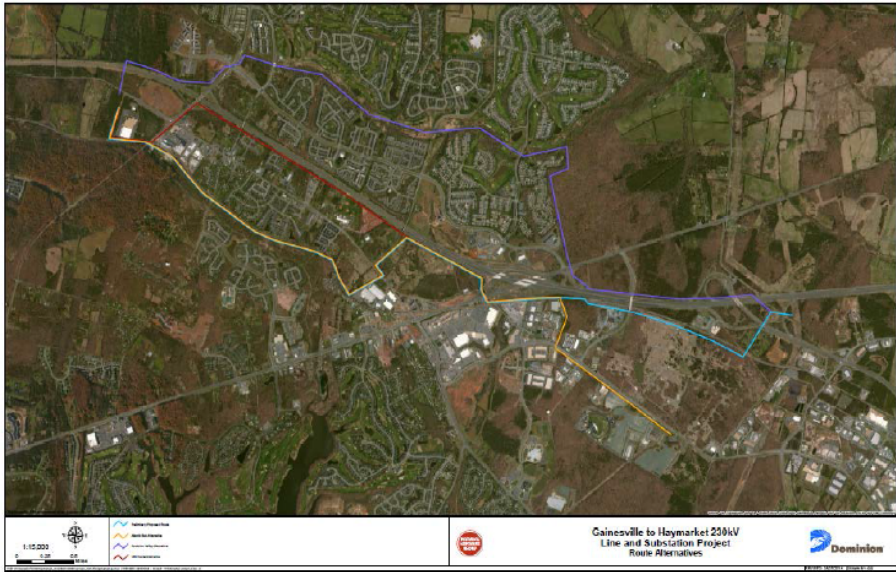
Fig. 2

At the September 8, 2014 meeting with the Haymarket Planning Commission, Dominion presented, among other materials, both a map of preliminary route options that were considered (Fig. 3) as well as a map denoting modified route options based on community feedback (Fig. 4.). Dominion also provided maps of the Study Area and Route Constraints (Fig. 5 and Fig. 6) as well as a map of existing transmission lines and substations in the region (Fig. 7).

Attachment: 10-22 Work Session - Dominion Report (2109 : Haymarket 230 KV Transmission Line and Substation)



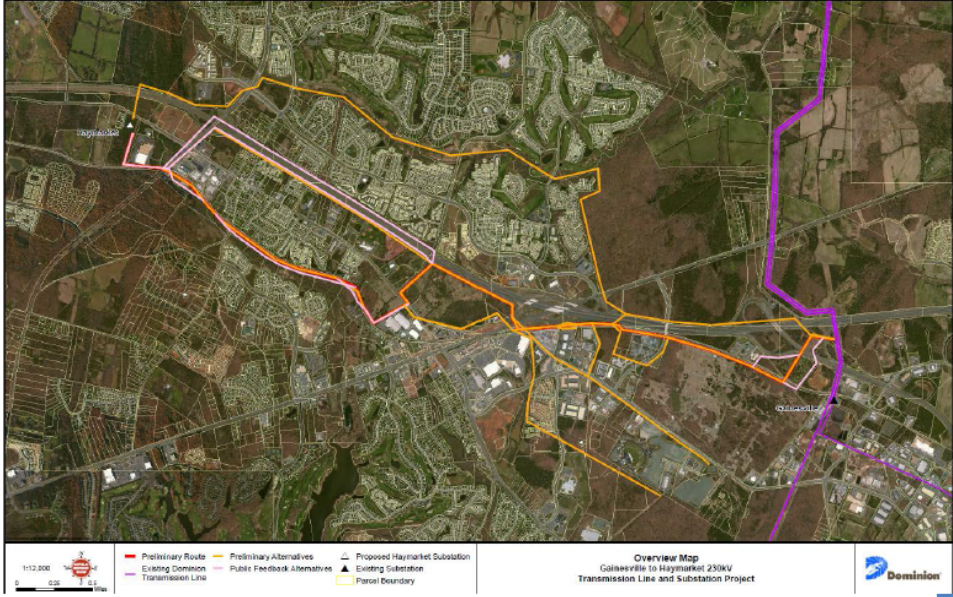
# Preliminary Route Options Considered



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Fig. 3

# Modified Route Options Based on Community Feedback

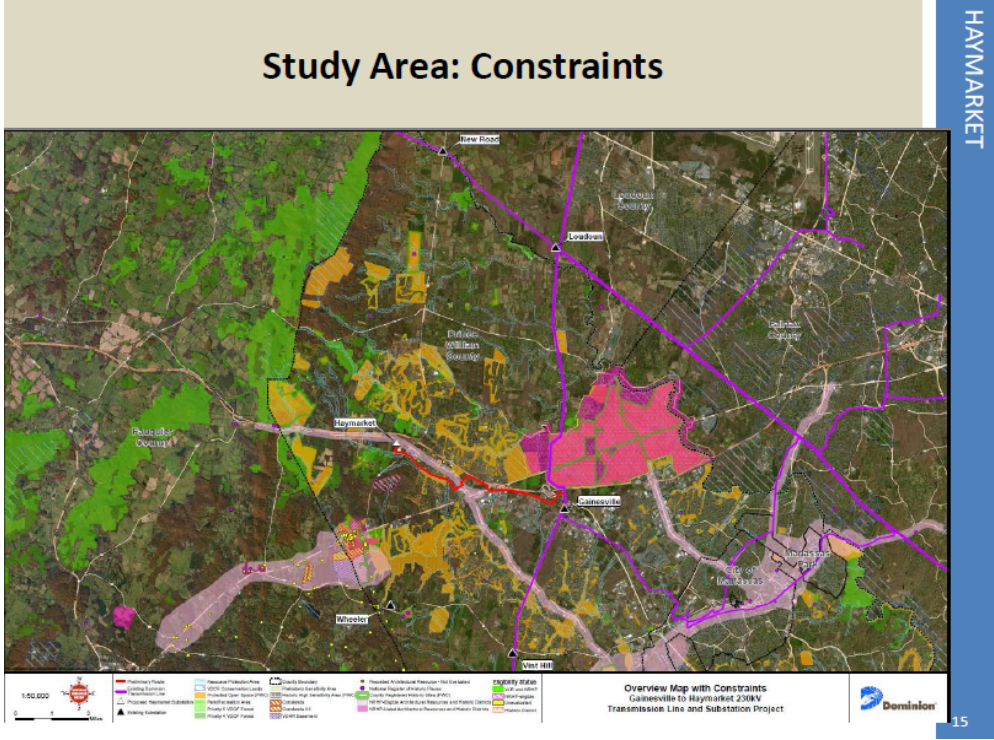


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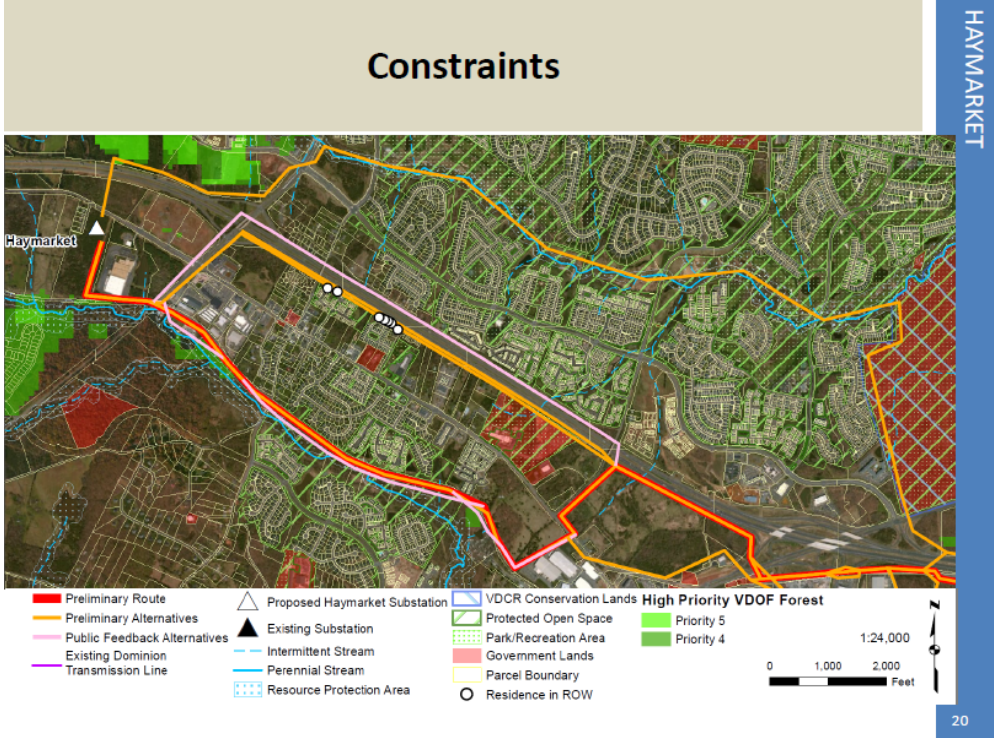
Fig. 4

Attachment: 10-22 Work Session - Dominion Report (2109 : Haymarket 230 KV Transmission Line and Substation)





(Fig. 5)



(Fig. 6)

Attachment: 10-22 Work Session - Dominion Report (2109 : Haymarket 230 KV Transmission Line and Substation)



# Prince William County and Surrounding Counties Transmission Lines and Substations (Existing and Proposed)

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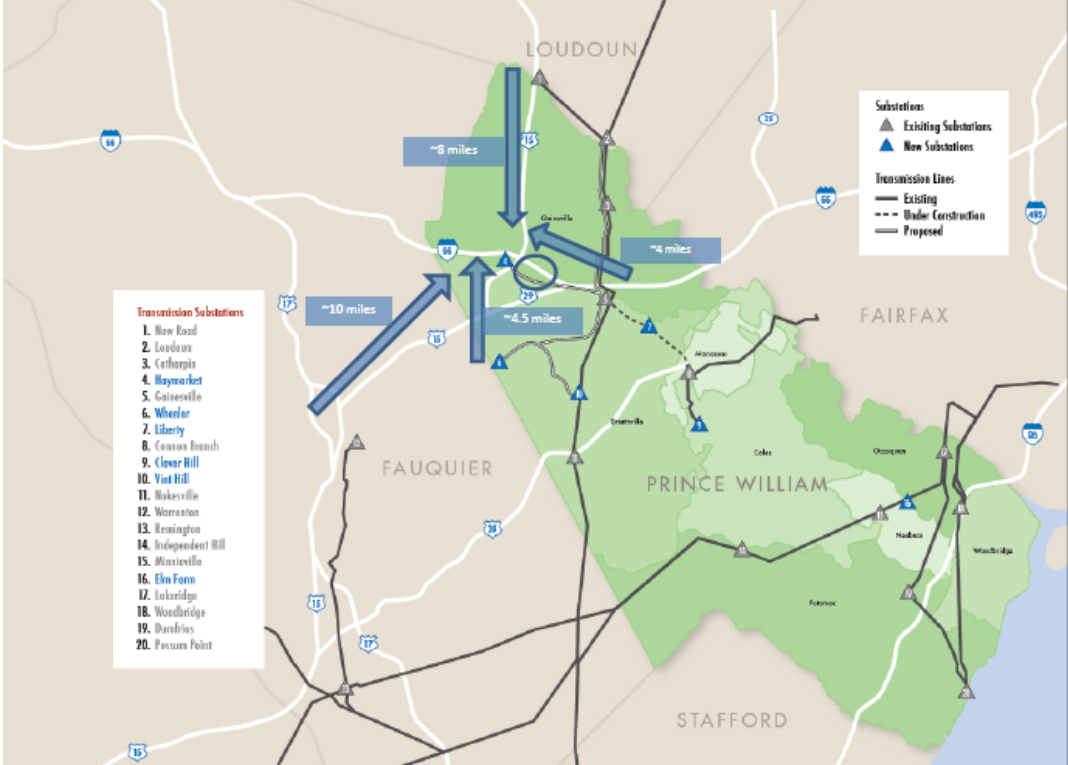


Fig. 7

At the September 10, 2014 Open House held at Battlefield High School, Dominion presented all materials, updated as required, previously presented to the Haymarket Town Council and the Haymarket Planning Commission as well as additional renderings of project details and route photo simulations denoting the visual impact of the transmission lines and double-build distribution reinforcements to be added to the existing distribution lines along Washington Street.

Attachment: 10-22 Work Session - Dominion Report (2109 : Haymarket 230 KV Transmission Line and Substation)

### **Duty of the Planning Commission**

The Haymarket Planning Commission was created in order to promote the orderly development of the locality and its environs. As such, the primary responsibility of the Planning Commission is to ensure the public health, safety, convenience, and welfare of the citizens and to plan for the future development of the Town. To that end, the Planning Commission must ensure that transportation systems are carefully planned; new community centers are developed with adequate highway, utility, health, educational, and recreational facilities; the need for mineral resources and the needs of agriculture, industry, and business be recognized for future growth; residential areas shall be provided with healthy surroundings for family life; agricultural and forestal land be preserved; and that the growth of the community remains consonant with the efficient and economical use of public funds.<sup>2</sup>

The Haymarket Planning Commission is also charged with the responsibility of ensuring the compatibility of land use, protecting residential areas from the adverse aspects of commercial and industrial land use and identifying land best suited for residential, commercial, and industrial activities with regard to available public infrastructure, environmental constraints, as well as economic and aesthetic considerations. In so doing, the Haymarket Planning Commission is tasked with determining the optimum density of development by considering: 1) environmental capacity of land; 2) capacity of public utilities; and 3) transportation networks and reappraising their identification periodically, and amending the zoning districts if appropriate.<sup>3</sup>

### **Dominion's Process Going Forward**

1. Finalize proposed route or routes and impact analysis
2. Submit application to the State Corporation Commission (SCC)
3. Department of Environmental Quality (DEQ) reviews the application and issues a report. As part of the review, DEQ will coordinate additional reviews by multiple agencies, i.e.: Virginia Marine Resources Commission, Department of Conservation and Recreation, Department of Games and Inland Fisheries, Department of Historic Resources, Army Corps of Engineers and others.
4. SCC issues an order and the review schedule is set
5. Review process begins, environmental review, SCC staff review, etc. are initiated

<sup>2</sup> Code of Virginia Title § 15.2-2200

<sup>3</sup> Comprehensive Plan, Town of Haymarket, Commonwealth of Virginia 2008-2013, Chapter 2.7 Land Use

6. Commission shall receive and give consideration to all reports that relate to the proposed facility if requested by any municipality in which the facility is proposed to be built, to local comprehensive plans that have been adopted pursuant to Article 3 (§ 15.2-2223 et seq.) of Chapter 22 of Title 15.2<sup>4</sup>
7. Public comments are accepted by the SCC
8. Interested respondents may participate in the case after filing a notice of participation with the SCC
9. Participants may submit testimony in response to Dominion's application
10. Dominion may rebut public testimony and agency analysis
11. SCC may conduct public hearings in the affected areas, if written requests therefor are received from 20 or more interested parties, the Commission shall hold at least one hearing in the area which would be affected by construction of the line, for the purpose of receiving public comment on the proposal<sup>5</sup>
12. The SCC may conduct a formal evidentiary hearing in Richmond
13. Hearing Examiner's report and recommendation are forwarded to the SCC
14. Dominion, participants and SCC staff may respond to the Hearing Examiner's report
15. SCC issues final order

#### **Factors Considered by the Planning Commission**

1. Capacity required to serve growth
2. Location of future growth in demand
3. Location of past and future population growth
4. Reliability of the current electrical grid
5. Impact of the transmission line on the community and economic development opportunities
6. Cost burdens and physical impacts
7. Location of proposed lines within Town boundaries
8. Compatibility of routes with the Comprehensive Plan
9. Chesapeake Bay Act compliance
10. Possibility of mini-substations and antennae arrays within the Dominion ROW
11. Estimated cost of underground options
12. Use of VDOT ROW
13. Use of Norfolk Southern ROW
14. Impact of construction on residential and commercial property values
15. Construction with densely populated suburban areas
16. Construction within areas with limited ROW
17. Construction with the flood plain
18. Construction across wetlands
19. Environmental impact of the proposed route
20. Potential impact on endangered species
21. Visual impact of overhead powerlines
22. Impact of construction within the context of the Town of Haymarket Historic District
23. Impact on the Journey Through Hallowed Ground National Heritage Area

<sup>4</sup> Code of Virginia Title § 56-46.1

<sup>5</sup> Code of Virginia Title § 56-46.1

24. Concordance with Prince William County Zoning and Overlay Districts
25. Health considerations
26. Alternative routes
27. Alternative substation locations

### Route Analysis

The Haymarket Planning Commission has considered all preferred and alternate routes currently proposed by Dominion. For purposes of this report, the analysis will focus on those routes and portions of routes that lie within or directly adjacent to the Town of Haymarket.

A primary factor for the terminus of the route is a single Dominion customer with a 100 mW power demand. Dominion states that they have a customer that will be the primary consumer of electricity provided by the 230 kV lines. This customer is the sole consumer for the power supplied by the 34.5 kV lines. Due to a confidentiality agreement, Dominion will not release the name of the customer at this time. Although not delineated in any of Dominion's presentations, Amazon is in the process of receiving approval to build a 491,625 square foot data center at 15505 John Marshall Highway<sup>6</sup>. Dominion's proposed substation is located on the same parcel, adjoining Amazon's proposed facility.

### **Distribution Reinforcements to existing distribution lines (Doublebuild)**

Presuming the location of the proposed datacenter does not change, each route for the new transmission lines will require the addition of distribution reinforcements to the existing distribution lines along Washington Street in order to provide enough "bridging power" for the datacenter's startup operations.

#### Strengths

- The distribution reinforcements may provide some measure of increased reliability, redundancy and the potential for backup service for existing customers.
- Dominion will be able to use existing infrastructure and there will be no need to acquire additional ROW.
- There is no additional environmental impact

#### Weaknesses

- Given the power demands of the new datacenter (100mw), the distribution reinforcements will not provide capacity for its full operations or for additional future growth.
- The aesthetics of the design creates a visual image that is not in concordance with the Town's Historic District ordinances.

<sup>6</sup> Prince William County Land Plan Review Status, Final Site Plan No. 15-00046R00S01, [http://eservice.pwcgov.org/apps/landstatus/review.asp?CaseNo=15-00046R00S01&ParcelNo=7298-42-4221&Status=Quality\\_Control](http://eservice.pwcgov.org/apps/landstatus/review.asp?CaseNo=15-00046R00S01&ParcelNo=7298-42-4221&Status=Quality_Control) (as of October 9, 2014)



- The addition of the distribution reinforcements may be in violation of Chapter 58 Sec. 58-62, 58-104, 58-145, 58-185, 58-225, 58-266 and 58-305 of the Code of the Town of Haymarket.
- Dominion's engineers have stated that the distribution reinforcements will require the replacement of the existing distribution lines with new distribution line poles.
- The distribution reinforcements will minimize, but not guarantee protection from potential blackouts as a result of the new datacenter's aggressive implementation schedule.
- No alternate routes have been provided.

## Conclusion

Although the distribution reinforcements will likely provide some degree of service benefits to the Town, those benefits must be weighed against the service requirements of future growth and their visual impact.

Dominion's professional staff has asserted that the planned datacenter will have an immediate 100mw power requirement, effectively negating any immediate benefits of the transmission lines to existing and/or future residents or businesses.

The Town's zoning ordinance provides that "except for transmission powerlines of 34.5 kV or greater" all "utility facilities serving new uses or installed after the effective date of the ordinance except for good cause shown because of unusual soil or topographical conditions, shall be installed underground including, among others, electrical, water, sewer, power, gas, telephone and cable utilities". At this point, it is clear that the distribution reinforcements will carry at least 34.5 kV. Thus, the upgrade to the current infrastructure along Washington Street does not fall within the Town's Zoning Ordinance requirement for underground installation.

Similarly, the aesthetics of the design create a visual impact that is not in concordance with the vision of the Town of Haymarket as detailed in the Historic District Ordinance and the Comprehensive Plan. Further, the requirement to replace the existing distribution poles will likely have an adverse impact on the existing Streetscape improvements.

The Planning Commission thus can not support the current distribution reinforcements plan and suggests that the Haymarket Town Council contact Dominion to secure additional information regarding the capacity of those lines and the possibility of using an alternate route to access the datacenter site.

### **Preferred Preliminary Route, Alternate Preferred Preliminary Route and Public Input Preferred Alternate Preliminary Route**

Dominion's preferred preliminary route, an overhead transmission line, designated by the red line in Figure 1, traverses the length of the Town of Haymarket's southern boundary and is virtually identical to both the alternate preferred preliminary route and the public input preferred alternate route designated by the orange and pink lines respectively at the

same general locations as the preferred preliminary route in Figure 4. This report contemplates both overhead and underground construction of the lines.

### Strengths

- The routes make use of existing ROW.

### Weaknesses

- The routes bisect two heavily populated residential subdivisions.
- The routes bisect several commercial parcels within the Town.
- The routes traverse most of the Town's Conservation District.
- The routes traverse two of the Gateways into the Town's Historic District.
- The routes traverse that area of the Town that constitutes a portion of the Journey Through Hallowed Ground.
- Given the power demands of the new datacenter (100mw), the new transmission lines will not provide capacity for additional future growth.
- The aesthetics of the design creates a visual image that is not in concordance with the Town's Historic District ordinances.
- The routes are not in accordance with the Town's Comprehensive Plan.
- The routes are not in accordance with Prince William County's Comprehensive Plan.
- The routes, terminus point and proposed substation are not located in the principal area of future residential, commercial and industrial growth.
- The overhead routes will adversely impact the value of many existing residential units.<sup>7 8</sup>
- Diminished property values do not appear to be explicitly considered as a factor by the SCC.<sup>9</sup>
- The routes will adversely impact several existent commercial properties in the Town's southwestern corner.
- The routes will be constructed largely within the 100 year flood plain.
- The routes will traverse several designated wetlands.
- The routes may jeopardize the Town's ability to comply with the provisions of the Chesapeake Bay Act.
- Upon information and belief, the routes will traverse areas containing several endangered species.
- In addition to the fiscal impact that will be absorbed by residential ratepayers, many of those residential ratepayers within the Town limits will also have to absorb the visual impact of the overhead lines on their viewshed.
- The overhead lines would allow for the construction of substations and communication arrays on the towers and within Dominion's ROW without public hearings or public facilities reviews.

<sup>7</sup> Report of the Joint Legislative Audit and Review Commission to the Governor and the General Assembly of Virginia, Evaluation of Underground Electric Transmission Lines in Virginia, page 106.

<sup>8</sup> The Price Effects of HVTLs on Abutting Homes, (Appraisal Journal, Oct. 2, 2013)

<sup>9</sup> Report of the Joint Legislative Audit and Review Commission to the Governor and the General Assembly of Virginia, Evaluation of Underground Electric Transmission Lines in Virginia, page 106.

- Upon information and belief, Dominion has not negotiated with the Norfolk Southern Railroad (NS) regarding use of NS's existing ROW.
- The overhead routes have a ROW that is severely limited by existing utility and railroad ROWs and numerous conservation easements.
- Due to environmental and topographical constraints, placing the transmission lines underground would be prohibitively expensive.
- Due to environmental and topographical constraints, placing the transmission lines underground would present significant engineering challenges.
- The overhead routes present a potential health hazard.

## Conclusion

As a preliminary matter, the Planning Commission notes that on October 21, 2014 the Prince William County Board of Supervisors adopted a resolution urging Dominion and the SCC to “consider alternatives to the preliminary route”.<sup>10</sup>

Although the Preferred Preliminary Route, Alternate Preferred Preliminary Route and Public Input Preferred Alternate Route all allow Dominion to make use of existing ROW and by default are purported to be the most cost-effective routes offered by Dominion, the cost benefits must be weighed against the fiscal and physical impacts on existing residents and business, the service requirements of future growth and the visual impact of the overhead lines.

Dominion's professional staff has asserted that the planned datacenter will have an immediate 100mw power requirement, effectively negating any immediate benefits of the transmission lines to existing and/or future residents or businesses. Similarly, the proposed routes are not located in the principal area of future residential, commercial and industrial growth as designated by both the Town of Haymarket and Prince William County Comprehensive Plans.

Further, as the routes do not fall within the “Designated Corridors or Routes for Electric Transmission Lines of 150 Kilovolts or More” as delineated in the Long Range Land Use Chapter of the Prince William County Comprehensive Plan<sup>11</sup> (Fig. 8) and thus do not comport with Land Use Policy 3.14, “Designated Corridors or Routes for Electric Transmission Lines of 150 Kilovolts or More,” that designates the corridors that all future electric utility lines of 150 kilovolts or more should follow.

Additionally, the aesthetics of the overhead lines create a visual impact that is not in concordance with the vision of the Town of Haymarket as detailed in the Historic District Ordinance and the Comprehensive Plan. Similarly, the aesthetics of the overhead lines create a similar circumstance with regard to that area of the proposed route designated as a portion of the Journey Through Hallowed Ground.

<sup>10</sup> <http://eservice.pwccgov.org/documents/bocs/agendas/2014/1021/10-B.pdf>

<sup>11</sup> Prince William County Long-Range Land Use Plan, pages LU-7, LU-37

Further, as the routes traverse that portion of the Town that lies within the 100 year flood plain, contain several areas designated as wetlands and potentially contain several endangered species, the routes present significant environmental issues. Given those circumstances, the proposed routes may make the Town's concordance with the provisions of the Chesapeake Bay Act difficult and expensive.

Upon review, the proposed routes of the overhead lines will have a significant, detrimental impact on the assessed value of a considerable percentage of the Town's residential properties and several commercial parcels. Although the SCC tends to disregard that as a factor in their review, the Planning Commission can not ignore the financial impact on the Town's residents and businesses.

Upon further review, it appears that the proposed routes may be restricted by existing railroad and utility ROW and potentially constrained by existing conservation easements. It must be noted that as regards said existing ROW, Dominion has informed the Town that it has not as of yet contacted the Norfolk Southern Railroad to negotiate use of their ROW.

Additionally, the Planning Commission finds the potential for unrestricted construction of additional Dominion electrical infrastructure and third-party communication arrays on the proposed transmission towers and within the Dominion ROW an unacceptable condition, particularly as such construction within Prince William County requires neither a public facilities review nor public hearing.

Lastly, although the subject of heated debate, the Planning Commission can not ignore the potential hazard to the public health that may be attributed to the electromagnetic field surrounding high voltage transmission lines.

Thus, the Planning Commission can not support these proposed routes and suggests the Haymarket Town Council adopt a resolution in opposition to those routes, enumerating the weaknesses of the proposed routes in the text of the resolution and appending this report as an exhibit to the resolution. The Planning Commission recommends forwarding any such resolution and a copy of this report to Dominion prior to their submission of their proposed route or routes to the SCC.



Figure 5: Designated Corridors or Routes for Electric Transmission Lines of 150 Kilovolts or More

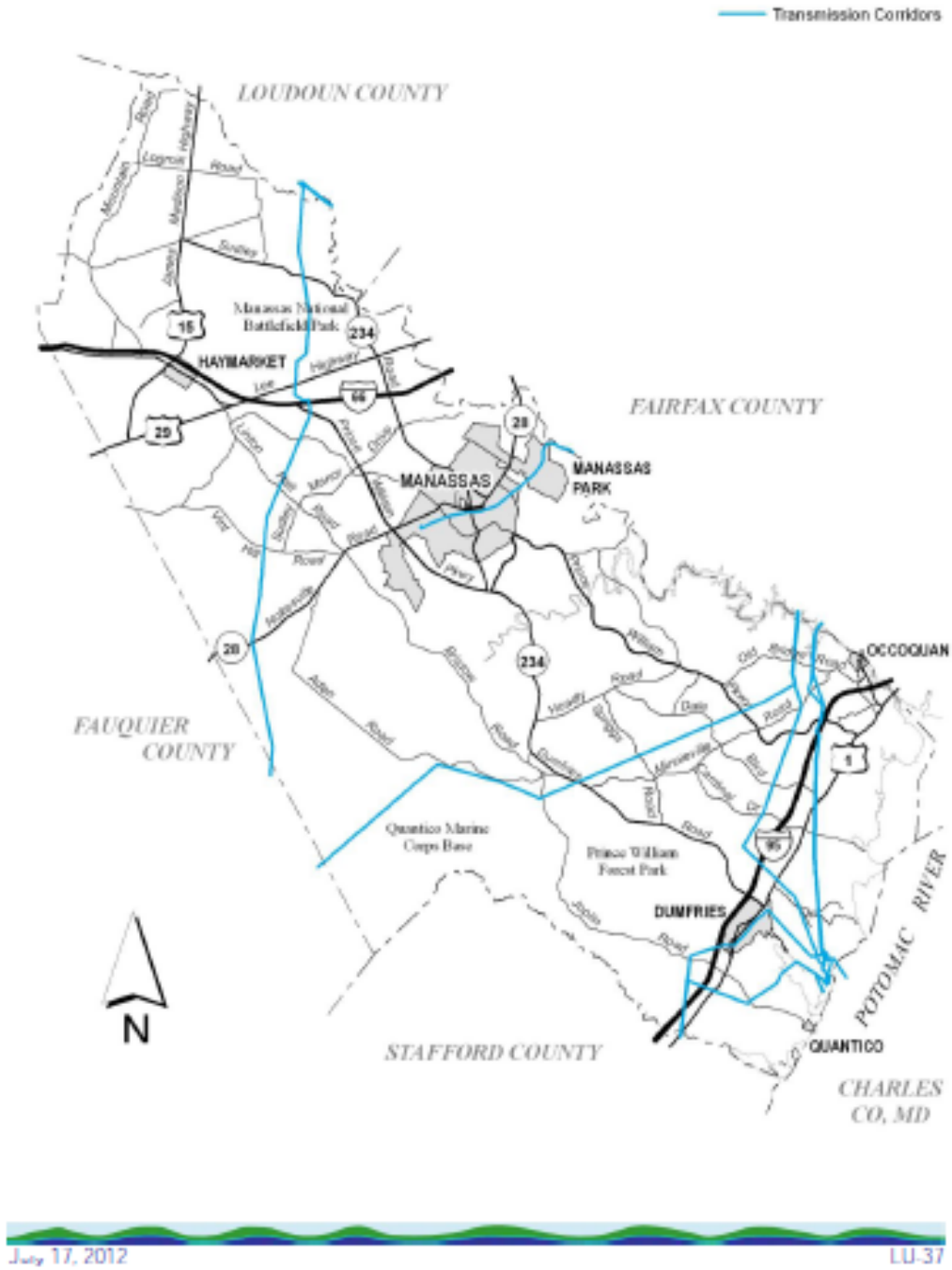


Fig. 8

Attachment: 10-22 Work Session - Dominion Report (2109 : Haymarket 230 KV Transmission Line and Substation)

## Alternate Preliminary Route and Public Input Alternate Preliminary Route, South of I-66

Dominion's has presented an alternate preliminary route, an overhead transmission line, designated by the orange line just to the south of I-66 in Figure 4 that traverses the length of the Town of Haymarket's northern boundary and is virtually identical to the underground public input alternate route designated by the pink line at the same general location as the alternate preliminary route in Figure 4.

### Strengths

- The routes make use of existing ROW.
- The routes do not fall within the 100 year flood plain.
- The routes do not traverse any known designated wetlands.

### Weaknesses

- The routes pass through at least eighteen (18) residential lots.
- The routes cross four heavily populated residential subdivisions.
- The routes cross several commercial parcels within the Town.
- The routes traverse most of the Town's Planned Interchange Park.
- The routes traverse two of the Gateways into the Town's Historic District.
- The routes traverse that area of the Town that constitutes a portion of the Journey Through Hallowed Ground.
- Given the power demands of the new datacenter (100mw), the new transmission lines will not provide the capacity for additional future growth.
- The aesthetics of the design creates a visual image that is not in concordance with the Town's Historic District ordinances.
- The routes are not in accordance with the Town's Comprehensive Plan.
- The routes, terminus point and proposed substation are not located in the principal area of future residential, commercial and industrial growth.
- The overhead routes will adversely impact the value of many existing residential units.<sup>12</sup>
- Diminished property values do not appear to be explicitly considered as a factor by the SCC.<sup>13</sup>
- The routes will adversely impact several commercial properties in the Town's northwestern corner.
- In addition to the fiscal impact that will be absorbed by residential ratepayers, many of those residential ratepayers within the Town limits will also have to absorb the visual impact of the overhead lines on their viewshed.

<sup>12</sup> Report of the Joint Legislative Audit and Review Commission to the Governor and the General Assembly of Virginia, Evaluation of Underground Electric Transmission Lines in Virginia, page 106.

<sup>13</sup> Report of the Joint Legislative Audit and Review Commission to the Governor and the General Assembly of Virginia, Evaluation of Underground Electric Transmission Lines in Virginia, page 106.

- The overhead lines would allow for the construction of substations and communication arrays on the towers and within Dominion's ROW without public hearings or public facilities reviews.
- The overhead routes present a potential health hazard.

## Conclusion

Although the Alternate Preliminary Route and Public Input Alternate Preliminary Route, South of I-66 both allow Dominion to make use of existing ROW and are cost-effective routes offered by Dominion, the cost benefits must be weighed against the fiscal and physical impacts on existing residents and business, the service requirements of future growth and the visual impact of the overhead lines.

The most immediate impact of these proposed routes would be the likely demolition of approximately eighteen existing residential units within the Town limits, many of them built within the last five years. Additionally, the routes would require the construction of the transmission lines in the backyards of several dozen additional residential properties. Given that the Dominion would have to acquire those properties through condemnation proceedings, the acquisition costs would likely be greater than the savings realized from the existing ROW.

Dominion's professional staff has asserted that the planned datacenter will have an immediate 100mw power requirement, effectively negating any immediate benefits of the transmission lines to existing and/or future residents or businesses. Similarly, the proposed routes are not located in the principal area of future residential, commercial and industrial growth as designated by both the Town of Haymarket and Prince William County Comprehensive Plans.

Further, as the routes do not fall within the "Designated Corridors or Routes for Electric Transmission Lines of 150 Kilovolts or More" as delineated in the Long Range Land Use Chapter of the Prince William County Comprehensive Plan<sup>14</sup> (Fig. 8) and thus do not comport with Land Use Policy 3.14, "Designated Corridors or Routes for Electric Transmission Lines of 150 Kilovolts or More," that designates the corridors that all future electric utility lines of 150 kilovolts or more should follow.

Additionally, the aesthetics of the overhead lines create a visual impact that is not in concordance with the vision of the Town of Haymarket as detailed in the Historic District Ordinance and the Comprehensive Plan. Similarly, the aesthetics of the overhead lines create a similar circumstance with regard to that area of the proposed route designated as a portion of the Journey Through Hallowed Ground.

Upon review, the proposed routes of the overhead lines will have a significant, detrimental impact on the assessed value of a considerable percentage of the Town's residential properties and several commercial parcels. Although the SCC tends to

<sup>14</sup> Prince William County Long-Range Land Use Plan, pages LU-7, LU-37

disregard that as a factor in their review, the Planning Commission can not ignore the financial impact on the Town's residents and businesses.

Additionally, the Planning Commission finds the potential for unrestricted construction of additional Dominion electrical infrastructure and third-party communication arrays on the proposed transmission towers and within the Dominion ROW an unacceptable condition, particularly as such construction within Prince William County requires neither a public facilities review nor public hearing.

Lastly, although the subject of heated debate, the Planning Commission can not ignore the potential hazard to the public health that may be attributed to the electromagnetic field surrounding high voltage transmission lines.

Thus, the Planning Commission can not support these proposed routes and suggests the Haymarket Town Council adopt a resolution in opposition to those routes, enumerating the weaknesses of the proposed routes in the text of the resolution and appending this report as an exhibit to the resolution. The Planning Commission recommends forwarding any such resolution and a copy of this report to Dominion prior to their submission of their proposed route or routes to the SCC.

### **Alternate Public Input Alternate Preliminary Route, North of I-66**

Dominion's has presented a public input alternate route designated by the pink line just to the north of I-66 in Figure 4 that traverses the length of the Town of Haymarket's northern boundary. Dominion has presented no information with regard to whether the proposed route is to be overhead or underground but has agreed to provide cost estimates for both options.

#### Strengths

- The route makes use of existing ROW.
- The route does not fall within the 100 year flood plain.
- The route does not traverse any known designated wetlands.
- The route does not require the demolition of any existing residential units.

#### Weaknesses

- The route traverses the Town's Planned Interchange Park.
- The route traverses one of the Gateways into the Town's Historic District.
- The route traverses that area of the Town that constitutes a portion of the Journey Through Hallowed Ground.
- Given the power demands of the new datacenter (100mw), the new transmission lines will not provide the capacity for additional future growth.
- The aesthetics of the design creates a visual image that is not in concordance with the Town's Historic District ordinances.
- The route is not in accordance with the Town's Comprehensive Plan.



- The route, terminus point and proposed substation are not located in the principal area of future residential, commercial and industrial growth.
- The overhead route will adversely impact the value of many existing residential units.<sup>15</sup>
- Diminished property values do not appear to be explicitly considered as a factor by the SCC.<sup>16</sup>
- The route will adversely impact a large commercial parcel in the Town's northwestern corner.
- In addition to the fiscal impact that will be absorbed by residential ratepayers, many of those residential ratepayers within the Town limits will also have to absorb the visual impact of the overhead lines on their viewshed.
- The overhead routes present a potential health hazard.

## Conclusion

Although the Public Input Alternate Route, north of I-66 allows Dominion to make use of existing ROW and is a cost-effective route offered by Dominion, the cost benefits must be weighed against the fiscal and physical impacts on existing residents and business, the service requirements of future growth and the visual impact of the overhead lines.

Dominion's professional staff has asserted that the planned datacenter will have an immediate 100mw power requirement, effectively negating any immediate benefits of the transmission lines to existing and/or future residents or businesses. Similarly, the proposed routes are not located in the principal area of future residential, commercial and industrial growth as designated by both the Town of Haymarket and Prince William County Comprehensive Plans.

Further, as the routes do not fall within the "Designated Corridors or Routes for Electric Transmission Lines of 150 Kilovolts or More" as delineated in the Long Range Land Use Chapter of the Prince William County Comprehensive Plan<sup>17</sup> (Fig. 8) and thus do not comport with Land Use Policy 3.14, "Designated Corridors or Routes for Electric Transmission Lines of 150 Kilovolts or More," that designates the corridors that all future electric utility lines of 150 kilovolts or more should follow.

Additionally, the aesthetics of the overhead lines create a visual impact that is not in concordance with the vision of the Town of Haymarket as detailed in the Historic District Ordinance and the Comprehensive Plan. Similarly, the aesthetics of the overhead lines create a similar circumstance with regard to that area of the proposed route designated as a portion of the Journey Through Hallowed Ground.

<sup>15</sup> Report of the Joint Legislative Audit and Review Commission to the Governor and the General Assembly of Virginia, Evaluation of Underground Electric Transmission Lines in Virginia, page 106.

<sup>16</sup> Report of the Joint Legislative Audit and Review Commission to the Governor and the General Assembly of Virginia, Evaluation of Underground Electric Transmission Lines in Virginia, page 106.

<sup>17</sup> Prince William County Long-Range Land Use Plan, pages LU-7, LU-37

Upon review, the proposed routes of the overhead lines will have a significant, detrimental impact on the assessed value of a considerable percentage of the Town's residential properties and several commercial parcels. Although the SCC tends to disregard that as a factor in their review, the Planning Commission can not ignore the financial impact on the Town's residents and businesses.

Additionally, the Planning Commission finds the potential for unrestricted construction of additional Dominion electrical infrastructure and third-party communication arrays on the proposed transmission towers and within the Dominion ROW an unacceptable condition, particularly as such construction within Prince William County requires neither a public facilities review nor public hearing.

Moreover, although the subject of heated debate, the Planning Commission can not ignore the potential hazard to the public health that may be attributed to the electromagnetic field surrounding high voltage transmission lines.

If however, the transmission lines were placed underground in the northern I-66 ROW from Catharpin Road to a point west of the I-66/Route 15 interchange and then to the terminus at the planned substation, many of the Planning Commission's concerns would be alleviated.

Underground transmission lines would not create an adverse visual impact and thus would have a far less detrimental impact on the assessed value of the Town's residential properties, commercial properties, Gateways to the Town's Historic District or the Journey Through Hallowed Ground.

Similarly, underground transmission lines would dramatically decrease the potential hazard to the public health that may be attributed to the electromagnetic field surrounding high voltage transmission lines.

Further, underground service from Catharpin Road to the terminus at the substation location would provide greater security for both the transmission line and the end-user's facility, effectively diminishing the potential for intentional damage or disruption.

Dominion has asserted that the cost of constructing underground transmission lines is prohibitively expensive in that it several orders of magnitude more costly than the construction of overhead lines. That being said, the Planning Commission has been advised that dedicated fiber optic lines servicing the Amazon site have already been buried in the southern I-66 ROW and that on or about October 8, 2014, Dominion filed a request with VDOT to bury the transmission lines on the north side of I-66.

Moreover, the Planning Commission notes that Dominion has undertaken or completed the construction of several underground transmission lines in Arlington County, Loudoun County and the City of Alexandria. The Planning Commission notes that said underground transmission lines ranged in length from one half to nearly four miles and traversed densely populated urban and suburban areas, areas with limited ROW, and

areas where overhead transmission lines were deemed unacceptable for visual amenity reasons.

**Arlington County, Radnor Heights 230 kV Underground Transmission Lines and Substation<sup>18</sup>**

Dominion is constructing 3.7 miles of new 230kV underground electric transmission lines and a new electrical substation to support future growth and continue to provide reliable electricity to customers in Arlington County. (Fig. 9)

**Arlington County, City of Alexandria, Glebe – Potomac River Substation New 230kV Line and Substation Modifications<sup>19</sup>**

Dominion is proposing a new underground transmission line between Dominion’s Glebe Substation located at the intersection of S. Glebe Road and S. Eads Street, and Pepco’s Station C Substation at the intersection of Slaters Lane and E. Abingdon Drive. (Fig. 10)

**Loudoun County, Beaumeade - NIVO 230kV Double-Circuit Line<sup>20</sup>**

In the Ashburn area of Loudoun County Dominion installed a 230 kV double circuit underground transmission line, approximately 2700 feet (0.5 mile±) long, from the existing Beaumeade substation to a new substation (NIVO) located near the intersection of Smith Switch Road and Chillum Place. (Fig. 11)

Although, the Planning Commission can not support the proposed overhead route, it can support the proposed route if the transmission lines are constructed underground and suggests in the interest of the public health, safety, convenience, and welfare, the Haymarket Town Council adopt a resolution in support of said underground route, enumerating the strengths of the proposed route in the text of the resolution and appending this report as an exhibit to the resolution. The Planning Commission recommends forwarding any such resolution and a copy of this report to Dominion prior to their submission of their proposed route or routes to the SCC.

<sup>18</sup> <https://www.dom.com/about/electric-transmission/radnor/index.jsp>

<sup>19</sup> <https://www.dom.com/about/electric-transmission/glebe/index.jsp>

<sup>20</sup> <https://www.dom.com/about/electric-transmission/ashburn/index.jsp>

# Radnor Heights Proposed 230 kV Line & Substation



Fig. 9

Attachment: 10-22 Work Session - Dominion Report (2109 : Haymarket 230 KV Transmission Line and Substation)



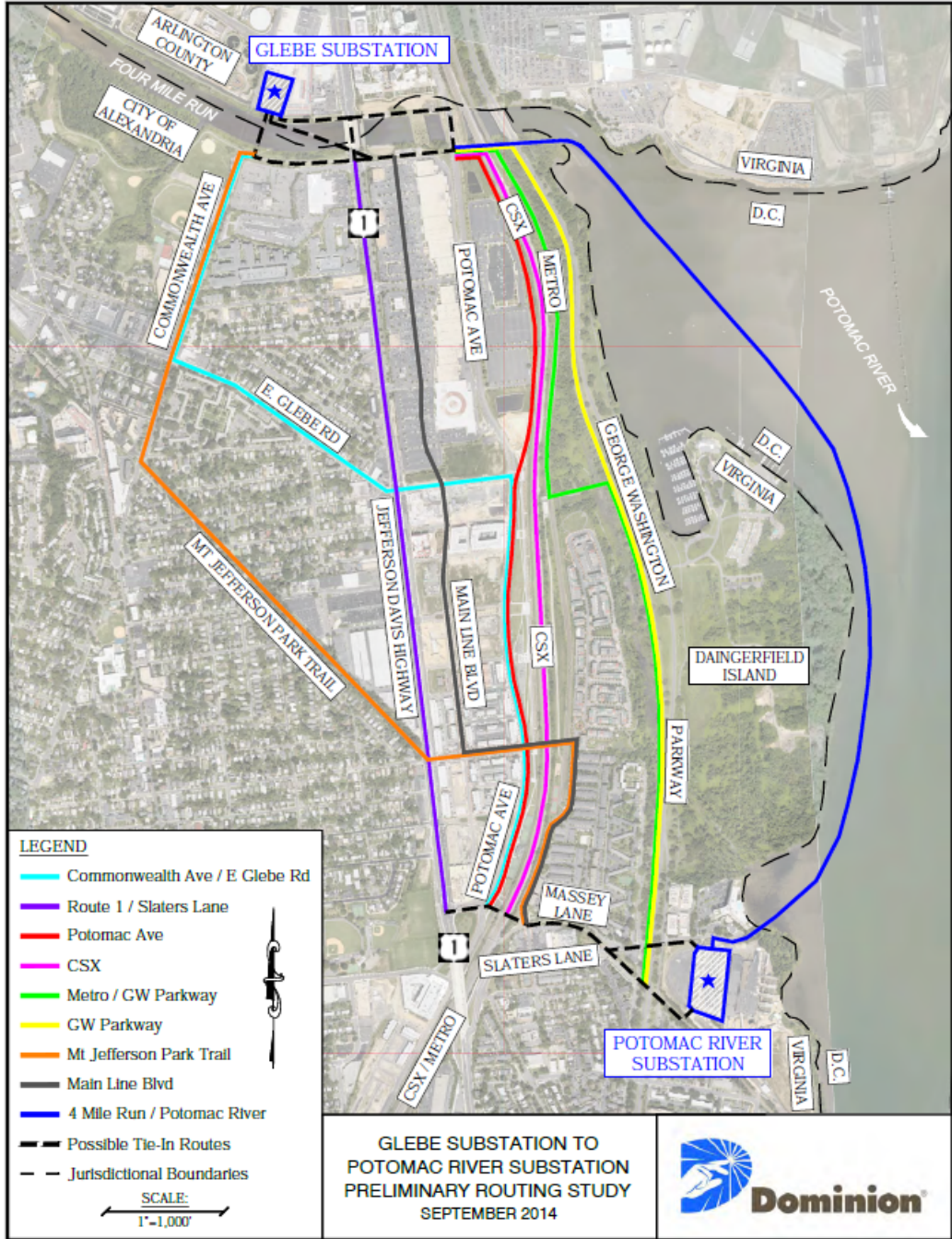
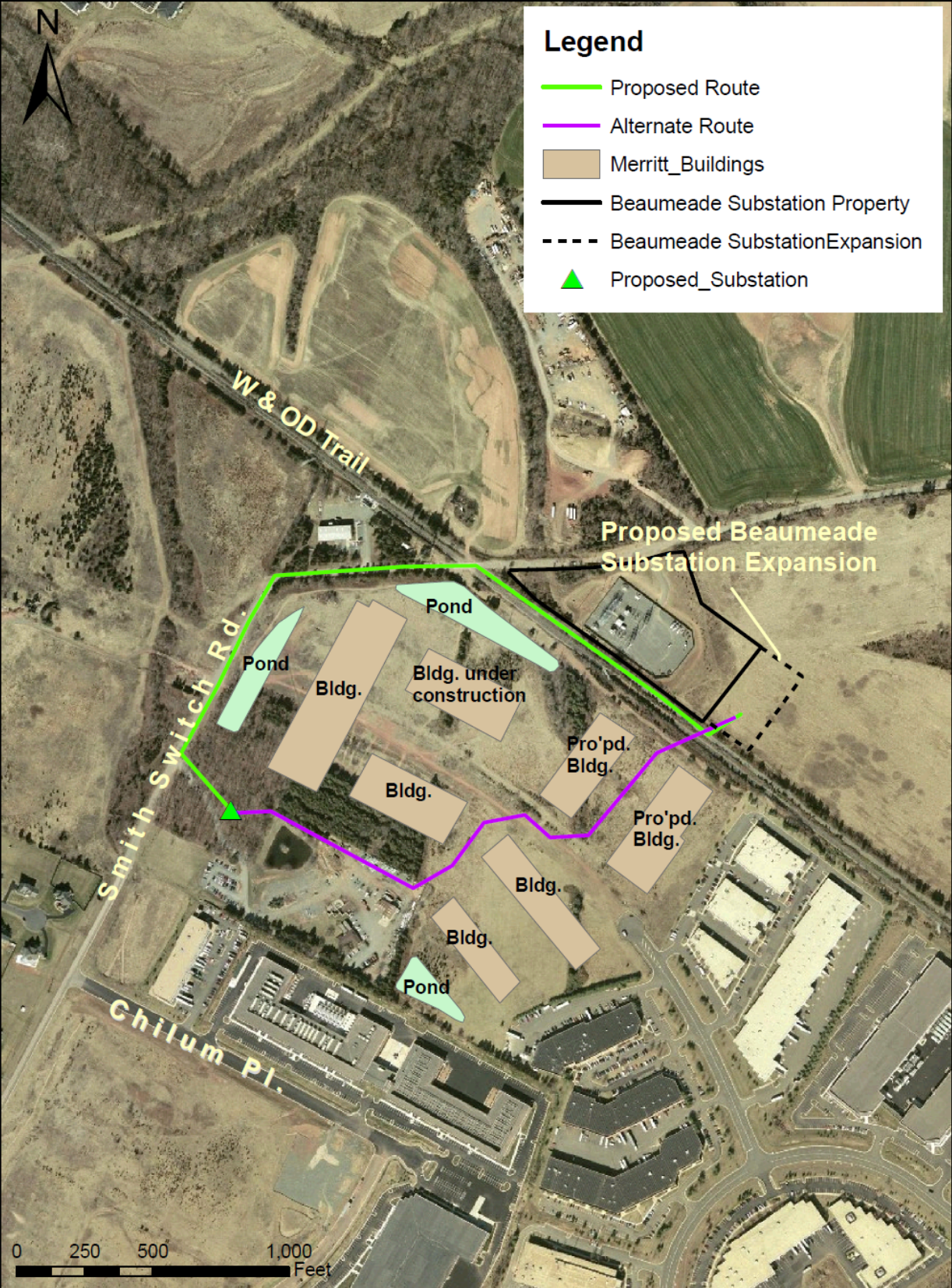


Fig. 10





Attachment: 10-22 Work Session - Dominion Report (2109 : Haymarket 230 KV Transmission Line and Substation)

Fig. 11

## Summary

Upon consideration of the of the potential fiscal, physical and aesthetic impacts, the Planning Commission can not support the proposed distribution enforcements, Preferred Preliminary Route, Alternate Preferred Preliminary Route, Public Input Preferred Alternate Preliminary Route, Alternate Preliminary Route (South of I-66), Public Input Alternate Preliminary Route (South of I-66) and the Overhead Public Input Alternate Preliminary Route (North of I-66).

The Planning Commission does however support the Public Input Alternate Preliminary Route North of I-66 provided that the transmission lines are constructed underground and suggests in the interest of the public health, safety, convenience, and welfare, the Haymarket Town Council adopt a resolution in support of said underground route, enumerating the strengths of the proposed route in the text of the resolution and appending this report as an exhibit to the resolution. The Planning Commission recommends forwarding any such resolution and a copy of this report to 1. Dominion, prior to their submission of their proposed route or routes to the SCC, 2. The Commonwealth of Virginia State Corporation Commission, 3. the Gainesville Magisterial District Supervisor, the Honorable Peter Candland, and 4. the Chairman of the Prince William County Board of County Supervisors, the Honorable Corey Stewart.



## RESOLUTION

A RESOLUTION IN OPPOSITION TO THE PREFERRED PRELIMINARY ROUTE AND OTHER PROPOSED ALTERNATIVE ROUTES FOR THE DOMINION VIRGINIA POWER GAINESVILLE-HAYMARKET TRANSMISSION LINE AND IN SUPPORT OF AN UNDERGROUND PUBLIC ALTERNATIVE ROUTE FOR THE DOMINION VIRGINIA POWER GAINESVILLE-HAYMARKET TRANSMISSION LINE

WHEREAS, Dominion Virginia Power is in the process of developing the route for a new 23 kilovolt (kV) double circuit transmission line, extending approximately six miles from Gainesville to a new substation west of the Town of Haymarket; and

WHEREAS, Dominion Virginia Power is designing the transmission line to address forecast increases in energy demand that exceed the capabilities of the current distribution system; and

WHEREAS, Dominion Virginia Power is exploring various route options within the study area and, after receiving public input, plans to submit one proposed route in its application with the State Corporation Commission, along with alternatives that have been considered; and

WHEREAS, the preliminary route and several alternatives developed by Dominion Virginia Power follow the railroad right-of-way for a portion of the distance between Lee Highway (Route 29) and James Madison Highway (Route 15); and

WHEREAS, those routes will adversely impact residents and businesses to the north and south of those alignments; and

WHEREAS, those routes will have an adverse environmental impact on the corridor; and

WHEREAS, Dominion Virginia Power had developed overhead routes for the transmission lines encompassing either the southern or northern right-of-way of Interstate Route 66; and

WHEREAS, those overhead routes will adversely impact residents and businesses to the north and south of those alignments; and

WHEREAS, the Town of Haymarket has reviewed and considered all of the proposed routes; and

WHEREAS, the Town of Haymarket has determined that an underground utilizing the existent right-of-way along the northern boundary of Interstate Route 66 would have the least adverse environmental, economic and aesthetic impact; and

WHEREAS, the State Corporation Commission is vested with the power to approve said transmission lines after considering all relevant factors;

NOW, THEREFORE, BE IT RESOLVED that the Town of Haymarket opposes all routes currently proposed by Dominion Virginia Power and recommends that Dominion Virginia Power and the State Corporation Commission consider an underground utilizing the existent right-of-way along the northern boundary of Interstate Route 66 as the only viable alternative.

Done this 3rd day of November, 2014.

TOWN OF HAYMARKET, VIRGINIA

BY \_\_\_\_\_  
Mayor

ATTEST:

\_\_\_\_\_  
Clerk

Voting Aye: \_\_\_\_\_

Voting Nay: \_\_\_\_\_

Abstaining: \_\_\_\_\_

Absent: \_\_\_\_\_