

**ZONING MAP AMENDMENT
JUSTIFICATION STATEMENT
LANDS OF
WINDRIDGE PROPERTIES L.C.**

Introduction

Windridge Properties L.C. and Windridge Farm, L.L.C. (collectively “Applicant”) submit this justification statement in support of its application for a zoning map amendment for +/- 223.524 AC on the north side of the intersection of Cap Stine Road and MD Route 351 - Ballenger Creek Pike (Tax ID # 01-002198) (the “Subject Property” or “Property”). The Applicant requests rezoning from Agricultural (A) To General Industrial (GI) to allow for Critical Digital Infrastructure (“CDI”) uses.

The Property is zoned Agricultural and has a comprehensive plan land use designation of General Industrial. The Property is currently recommended to be shown as Planned Service (PS) on the County Water and Sewerage Plan (Fall 2021 Cycle, Case # WS-21-33).

The Property is currently in Agricultural use and serves as a base of operations for Applicant’s agricultural and property management businesses. Other agricultural uses are located to the west of the Property; the Property is bound to the north (Mullinix) and east (Eastalco/Quantum Loophole or “QL”) by General Industrial (GI) zoned property in use/planned for use as permitted thereunder.

Justification

Below quoted in bold font are the relevant portions of the Frederick County Code, followed by the Applicant’s responses.

§ 1-19-3.110.4. APPROVAL CRITERIA

(A) Approval or disapproval of a request for an individual zoning map amendment or floating zone reclassification shall be determined through review of several criteria. The Planning Commission and County Council review will include, but not be limited to:

(1) Consistency with the comprehensive plan;

RESPONSE:

The requested zoning of GI is consistent with the Property's land use designation of General Industrial (GI).

The Livable Frederick Master Plan ("LFMP") supports this application and the rezoning of the Subject Property to GI. Part of the LFMP's "Vivid Description" of its Vision is that:

Frederick County provides interesting and fulfilling JOBS and options for everyone to support their families.

We embrace businesses of all types and sizes to ensure a vibrant and STRONG ECONOMY.

We value our traditional industries while seizing the opportunity of THE FUTURE, healthcare biotech, advanced technology, and more. (LFMP at 25).

The requested rezoning will allow for CDI uses to locate on the Property. This will provide much needed zoned property for this growing and important use, which is integral to the current economic needs of the County, State and Nation. As such, rezoning the property and allowing for CDI uses will provide interesting and fulfilling jobs, will allow for ensuring a strong economy and will seize opportunity for future, consistent with the LFMP Vision's Vivid Description.

The LMFP Thematic Plan includes the Property in the "Primary Growth Sector" (LFMP at 43). As the Subject Property is directly across Ballenger Creek Pike from the Eastalco/QL property, the Subject Property is part of the "Eastalco Growth Area", which is a "continuing focal point for development . . . including, but not limited to, land holdings of the former Alcoa aluminum refinery and production plant". (*Id.*).

The LFMP underlines the change that has occurred in the Eastalco Growth Area, as it notes that this "area is currently the largest concentration of undeveloped land in the county zoned for general and/or light industrial development and presents a unique opportunity for future development." (*Id.*).

This application is consistent with LFMP Economy Vision Goals, including:

"Goal: Pro-Business Climate -- Attract, retain, and grow opportunities to create a business climate in Frederick County that is attractive to firms and

supportive of the many diverse groups of people, with diverse expertise and experiences, who wish to live and work in Frederick County.” (*Id.* at 160). By allowing for CDI uses on the Property, the rezoning will attract and grow CDI opportunities in the County. As a new and developing use, locating CDI at the Property will attract diverse groups of people with diverse expertise and experiences. There are a limited number of areas in the State that support CDI; by rezoning the Property, the County will bring this use and its related and supporting workers to the County.

“Goal: Infrastructure -- Ensure that infrastructure needed to support and maintain Frederick County as a great place to live and work is in place to meet the needs of residents and the business community by expanding, augmenting, or creating new infrastructure as opportunities expand to live and work in Frederick County.” (LFMP at 163). The application directly addresses this Goal by allowing for the augmentation of digital infrastructure in the County. It will be a prime component of meeting the LFMP Initiative for “Information Infrastructure” (*Id.* at 164).

(2) Availability of current and planned public facilities;

RESPONSE: The Subject Property is recommended to be PS in the County’s Water and Sewerage Plan (Fall 2021 Cycle, Case # WS-21-33). Extension of services is possible from the north (from existing service at Manor Woods Road) or from the south. As development plans for the adjacent QL property proceed, further interconnection opportunities may arise.

The Property has direct access to MD Route 351 - Ballenger Creek Pike, an existing Minor Arterial road. As with water and sewer, opportunities for the County to further conform the road network in this area may arise as development plans for the adjacent QL property proceed.

At the appropriate stage of development after rezoning, any plans proceeding for the Property will comply with the County’s Adequate Public Facilities Ordinance (“APFO”) requirements.

(3) Adequacy of existing and planned future transportation systems;

RESPONSE: See above.

(4) Compatibility with existing and proposed development;

RESPONSE: The application will allow for uses on the Property to seamlessly integrate with existing industrial uses to the north and planned CDI uses to the

east. With the QL project comprising a major planned development in the Eastalco Growth Area, rezoning the Subject Property ensures compatibility.

(5) Population change, including availability and location of land zoned to meet the ten-year need for residential development;

RESPONSE: Not applicable, as the requested zoning is non-residential.

(6) The timing of development, planned future transportation systems and planned public facilities;

RESPONSE: As more fully discussed above, the timing is ideal for the requested rezoning, given QL's development plans and the related transportation and public facility improvements.

(7) Sensitive environmental resources have been identified and impacts to these resources are avoided or minimized to the maximum extent practicable; and

RESPONSE: The Applicant intends that any plans for the Property will avoid or minimize to the maximum extent practicable the floodplain in the southern portion of the Property, and the intermittent stream running north-south through the Property. Site designs will include appropriate stream buffers and tree area buffers.

(8) Historic resources have been identified and impacts to these resources are avoided or minimized to the maximum extent practicable.

RESPONSE: Not applicable; no such resources exist on or near the Property.

(B) In addition to the criteria above, approval or disapproval of a request for an individual zoning map amendment shall be granted only where a finding has been made that there was:

(1) A substantial change in the character of the neighborhood where the property is located;

RESPONSE: Substantial change in character of the Property's neighborhood has occurred since the 2012 County Comprehensive Plan and the Sept. 3, 2019 adoption of the LFMP. The neighborhood of the Subject Property may properly be considered the Eastalco Community Growth Area as shown on the County Comprehensive Plan.

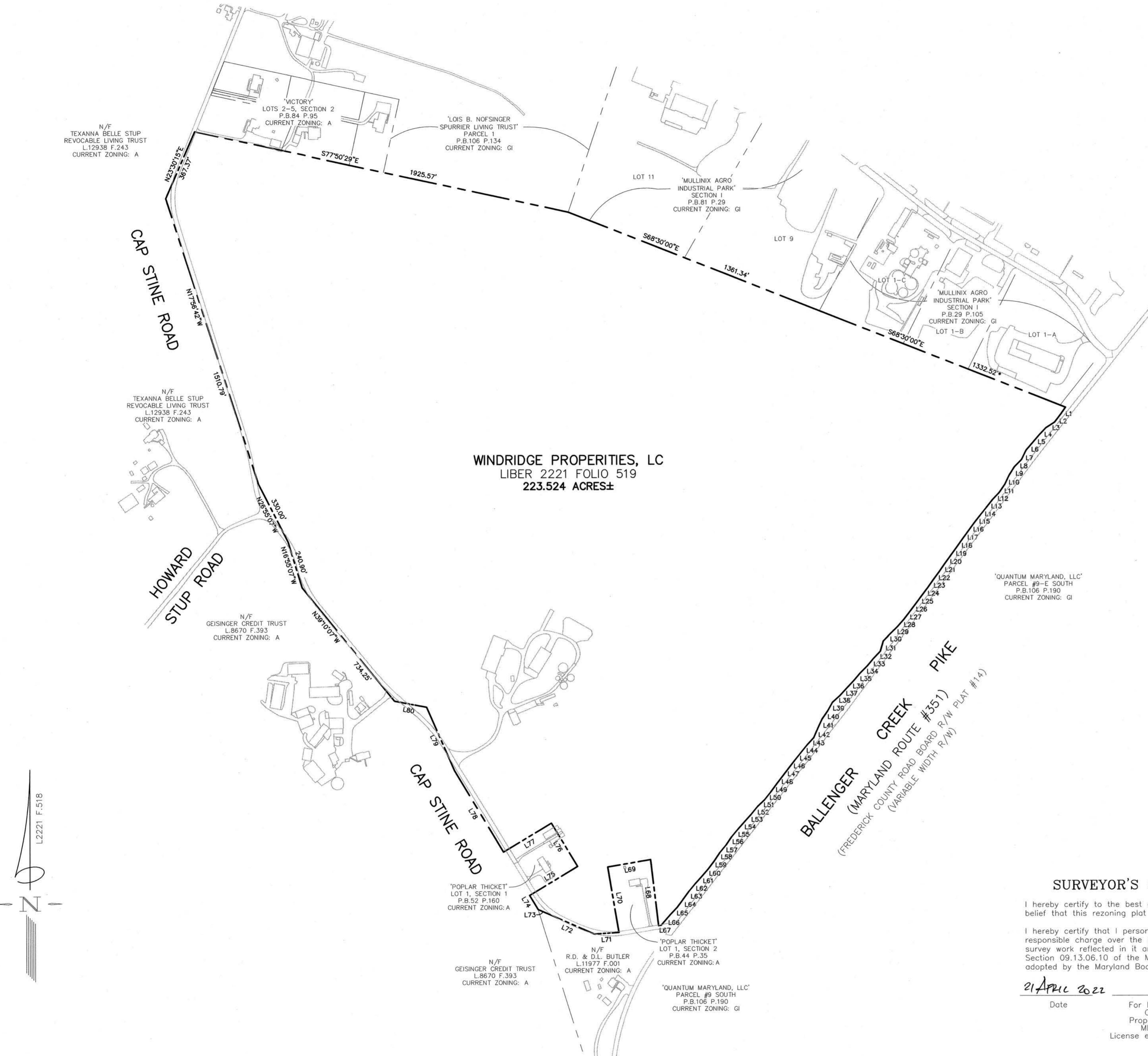
The QL group purchased the Eastalco property subsequent to the adoption of the LFMP. QL's purchase of the 2,100 acres of Eastalco, and its plans to bring a "first-of-its kind master planned data center to Frederick, Maryland" constitute a substantial change in the Property's neighborhood.¹ This follows Maryland passing the Data Center Maryland Sales and Use Tax Exemption Incentive Program, effective July 1, 2020 (also subsequent to enactment of the LFMP).

Developing and locating a "master planned gigawatt scale data center community" across the road from the Subject Property is a substantial change in the character of the neighborhood. It is such a substantial change that the CDI use did not even exist in the Frederick County Zoning Ordinance until 2022 (*See* Frederick County Bill No. 22-05). The fiber optics and other improvements being planned for construction in the neighborhood to support hyperscale data development further illustrates the substantial change in the character of the neighborhood. Frederick County government itself acknowledges the substantial change in character of the neighborhood, as its Planning Department is recommending advanced designation of "Planned Service" in the Water and Sewerage Plan for numerous properties, including the Subject Property.

With these substantial changes, rezoning the Subject Property to GI is justified and appropriate (consistent with the Subject Property's land use designation). The timing is right for the "master planned gigawatt scale data center community" to service cloud data and cloud computing and other data needs; rezoning the Property will further allow these needs to be met, in concert with the substantial changes in the neighborhood.

For the above reasons, in conjunction with the exhibit and additional written and oral testimony provided and to be provided, the Applicant respectfully requests the grant of its rezoning request.

¹ "Maryland Commerce, Frederick County Announce Purchase of Former Alcoa Eastalco Site." <<https://commerce.maryland.gov/media/maryland-commerce-frederick-county-announce-purchase-of-former-alcoa-eastalco-site>> (visited Apr. 14, 2022).





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January 27, 2023

VIA E-MAIL & HAND DELIVERY

Planning Commission
Frederick County, Maryland
30 North Market Street
Frederick, Maryland 21701

RE: Justification Update - Windridge Application for Rezoning (Case # R-22-03)

Honorable Planning Commission:

This office represents Windridge Properties L.C. and Windridge Farm, L.L.C. (collectively "Applicant") in the above-referenced matter regarding a request to rezone Applicant's property located at 3681 Cap Stine Road, Frederick MD 21703 (the "Property"). On behalf of the Applicant, we are providing this update to the application materials submitted May 18, 2022 (the "Application").

With the intervening eight months since our initial submission, please review this update when considering the Application.

I. INTRODUCTION

A. Maryland Case Law on "Substantial Change in the Neighborhood"

The Maryland Court of Appeals articulates that for a legislature to rezone property based on change, "there must be a satisfactory showing that there has been significant and unanticipated change in a relatively well-defined area (the 'neighborhood') surrounding the property in question since its original or last comprehensive rezoning, whichever occurred most recently." *Mayor & Council of Rockville v. Rylyns Enterprises, Inc.*, 372 Md. 514, 538, 814 A.2d 469, 483 (2002).

Regarding the evidence presented to show a change has occurred, the Maryland Court of Appeals has further ruled that changes in the neighborhood should be evaluated cumulatively "...determining whether the aggregate changes in the character of the neighborhood since the last zoning were such as to make the question fairly debatable." *Bowman Grp. v. Moser*, 112 Md. App. 694, 700, 686 A.2d 643, 646 (1996).

The Maryland Court of Appeals has also stated that "...the character of the neighborhood evolves more from the uses of the property in the neighborhood, rather than the rezoning of the property where such rezoning has not been acted upon." *Buckel v. Bd. of Cnty. Comm'r's of Frederick Cnty.*, 80 Md. App. 305, 316, 562 A.2d 1297, 1302 (1989).

In evaluating the application, Frederick County (the "County") must determine that within the Property's neighborhood, there is enough cumulative evidence of significant change, particularly the use of surrounding properties, since the last comprehensive rezoning, such that the question of whether a substantial change to the surrounding neighborhood has occurred is fairly debatable.

II. SUBSTANTIAL CHANGE IN THE NEIGHBORHOOD

A. The "Neighborhood" - The Eastalco Community Growth Area

As stated in Application, the County should consider the neighborhood to be the Eastalco Community Growth Area, as shown on the 2012 Comprehensive Plan Map (the "Neighborhood"). The Neighborhood includes the Stanford Industrial Park to the west of the Property, the Agro Drive properties to the north, and all of the former Eastalco holdings to the east of the Property. The former Eastalco holdings are the most significant neighbor, being +/- 2,100 acres immediately across Ballenger Creek Pike from the Property.

B. The Last Comprehensive Zoning Affecting the Property

The last time the County comprehensively zoned and land planned the Neighborhood was with the adoption of the Comprehensive Plan Map in 2012. The County also adopted the Livable Frederick Master Plan in 2019 ("LFMP"), which states the "Livable Frederick Comprehensive Plan is, and will be, composed of the Livable Frederick Master Plan, the Comprehensive Plan Map, future Community and Corridor plans, future 'large area' plans, and future functional plans." *Livable Frederick Comprehensive Plan* at 14.

The Comprehensive Plan Map of 2012 did not contemplate Critical Digital Infrastructure ("CDI") use, nor did the LFMP in 2019, because the County added this new use to the Zoning Ordinance in 2022. The County would not have contemplated CDI on the Quantum Loophole/Quantum Frederick data center ("QL") property when it comprehensively land planned and zoned the neighborhood in 2012; and it likewise would not have contemplated CDI at QL when it formulated the LFMP.

C. Substantial Changes to the Neighborhood

As stated above, CDI is a new use not previously contemplated by the County when it last comprehensively zoned the Neighborhood. Now, the property directly adjacent to the Applicant's Property will be used for CDI. As was also stated above, Maryland Courts have held that the character of the neighborhood evolves more from the uses of the property in the neighborhood. However, the new use of the QL property is not the only change to the character of the neighborhood. The list below summarizes the changes which have taken place to the QL property and other properties in the Neighborhood since the last comprehensive rezoning in 2012.

- Alcoa facility completely demolished and industrial substation removed in 2017¹; these actions irrevocably prevent the recommencement of the industrial aluminum manufacturing activity that had defined the property for the previous 30+ years;
- "Between 2012 thru 2014, Alcoa completed additional site characterization activities and designated approximately a 200 acre area where additional environmental requirements had to be completed to

¹ Maryland Department of the Environment, "Former Alcoa Eastalco Works - What You Need to Know" (2018)

manage residual PAH, PCB and inorganic contamination in soil, surface water and groundwater", leading to a Site Management Plan and Environmental Covenant in 2017²;

- October 3, 2022 - Potomac Energy Press Release: "Potomac Edison, a subsidiary of FirstEnergy Corp., has started planning a 230-kilovolt substation that is expected to support the 240 megawatts of power anticipated for the first phase of [QL]. The substation will be near the campus center and will be designed to accommodate up to 1,000 megawatts . . . The campus will connect to the Ashburn, Virginia data center community via QLoop, a 40-mile hyperscale fiber ring"³;
- July 20, 2022 - Business Wire Press Release: "The Quantum Loophole team broke ground on the company's massive QLoop network, a 43-mile hyperscale ring offering capacity for more than 200,000 strands of fiber connecting the company's 2,100+ acre Quantum Frederick data center development site in Maryland to the Ashburn, Virginia ecosystem"⁴;
- May 10, 2022 - Frederick County Office of Economic Development Press Release: "Aligned Data Centers signs agreement with Quantum Loophole";
- The plans for the construction of the fiber optic cable facilities have been approved, based on Applicant's knowledge and belief;
- Frederick County has approved a Mass Grading permit for the Phase 2 construction on the QL property. The Mass Grading permit is for 215 acres and includes the initial phase for the MD Rt 80 connector. The notice to proceed was issued on November 23, 2022. The permit area is bounded by Manor Woods Rd to the North, the railroad tracks to the east, Tuscarora Creek to the west and projects property line to the south;
- Proposed extension of public sewer and water systems to the Neighborhood;
- Construction/installation at QL - road/entrance construction (Happy Landing Drive); materials delivered on QL site (see enclosed photographs);
- The Mullinx Agro Industrial Park was 100% completed in 2014 with the construction of a 30K building on Lot 13;
- The Stanford Industrial Park has had buildings constructed on three lots since 2012 and is approximately 55% completed; and
- District Farms, LLC located at 4500 East Basford Road has constructed a 11.6K hydroponic complex in 2019.

III. CONCLUSION

Since the last comprehensive rezoning in 2012, the character of the Neighborhood has changed substantially due to the cumulative effects of the new CDI use, the changed use of the QL property, the

² *Id.*

³ Potomac Energy Press Release, "Potomac Edison Planning to Build New Substation at Frederick Data Campus." Oct. 3, 2022.

⁴ Business Wire Press Release, "Quantum Loophole Breaks Ground on Massive QLoop Fiber Network." July 20, 2022.

Planning Commission
Frederick County, Maryland
January 27, 2023
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improvements to the roadways within the Neighborhood, and the numerous proposed improvements to infrastructure to support the CDI use on the QL property. When viewed cumulatively, it is clear the character of the Eastalco Community Growth Area has changed and is changing to accommodate the growing technology-based industry in the County.

Sincerely,



Noel Manalo
MCNEES WALLACE & NURICK LLC

Enclosures

cc: Kathy L. Mitchell, Esquire
B&R Design Group
Windridge Properties L.C.
Windridge Farm L.L.C.



Happy Landing Drive Entrance



Happy Landing Drive



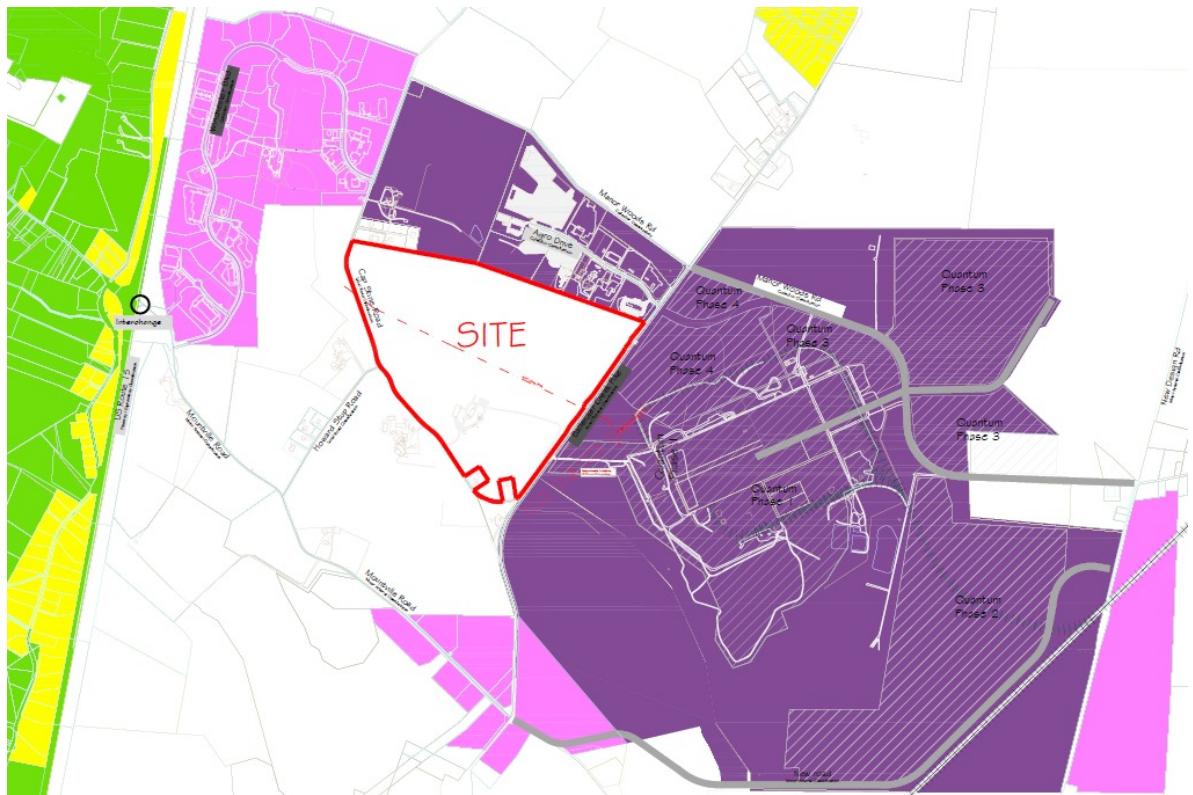
Construction Materials Onsite at QL

An analysis of Change

2010 - Present



Background - Our site is the *only property* in the Adamstown planning region that has existing zoning different from the comprehensive zoning plan.

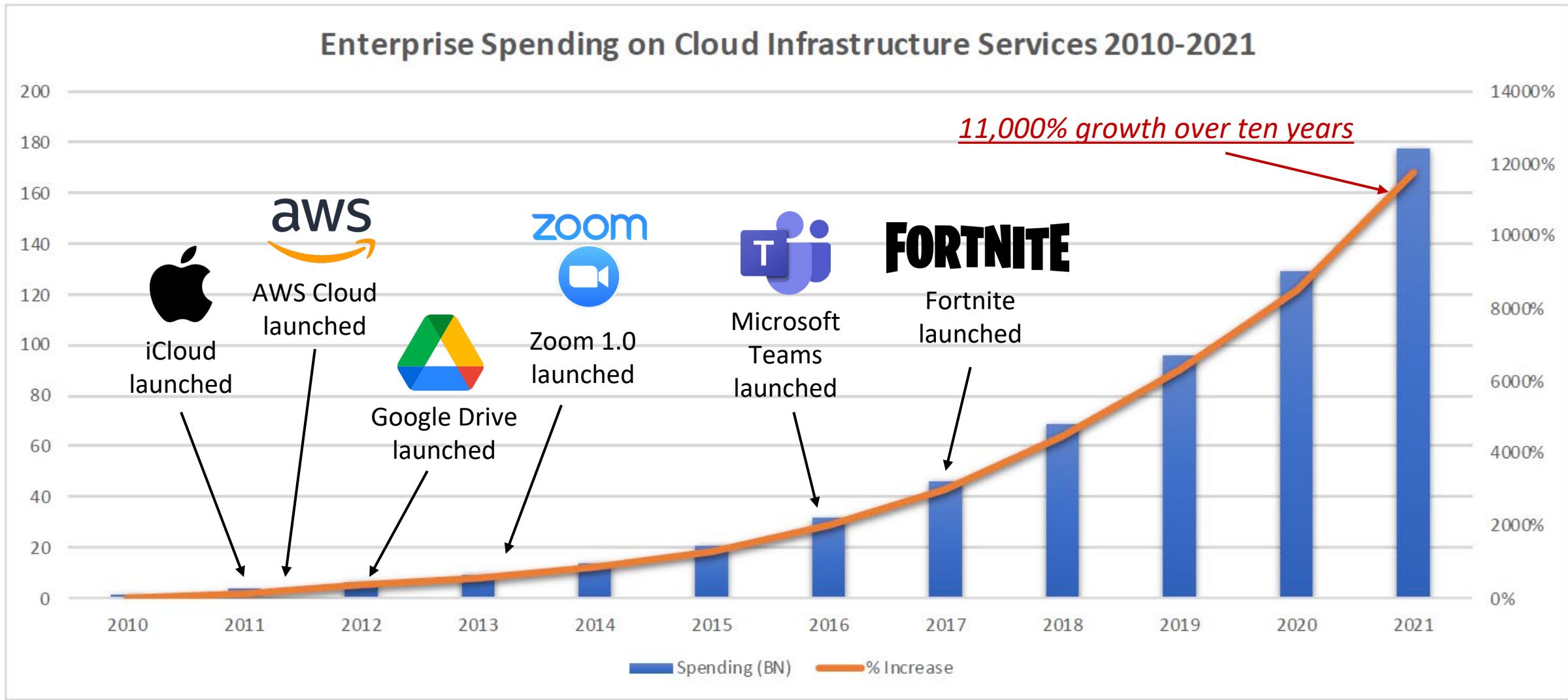


Current zoning



2012 Adamstown Master Plan

Background - Growth in cloud computing is a massive macro-scale change that could not have been predicted when the 2010 master plan was adopted



September 2019 – Livable Frederick Master Plan adopted

The site is located in the Eastalco “Primary Growth Area”



Multi-Modal District:

The Rail Corridor

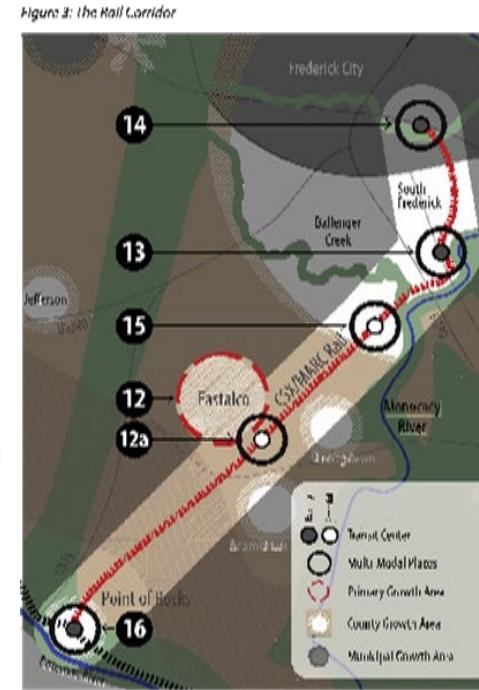
The Rail Corridor represents a concentration of growth within a development corridor in the southern portion of the county along the existing CSX/MARC rail line that runs from the Downtown Frederick Transit Center to Point of Rocks (Figure 3). Growth along the Rail Corridor will occur in the form new development and redevelopment in a transit-oriented, mixed-use fashion. The existing Monocacy MARC Station, located behind the Riverview Plaza on MD 355, provides an opportunity for such future development.

Eastalco Growth Area

A continuing focal point for development is identified in the area surrounding the decommissioned “Eastalco” site (12) (identified as the Eastalco Employment Area in the 2010 plan, and including, but not limited to, land holdings of the former Alcoa aluminum refinery and production plant located along Manor Woods Road between New Design Road and Ballenger Creek Pike). This area is currently the largest concentration of undeveloped land in the county zoned for general and/or light industrial development and presents a unique opportunity for future development.

The opportunity for future development at points along this corridor – including the Eastalco site, South Frederick (13, 15), and Point of Rocks (16) – will be assessed and considered carefully during the development of small area plans for each of these places. While each small area plan will involve a study of those attributes and limitations unique to that growth area, many of the assessments will be similar in scope.

For the Eastalco Growth Area, overarching development issues and opportunities would require a detailed assessment of the following elements as part of a future community planning effort, including:



12) Eastalco Growth Area

12a) Multi-Modal Development Surrounding Potential New MARC Station

13) South Frederick Triangle Redevelopment and Multi-Modal Center

March 2020 – Covid 19 changes how we work and communicate

COVID-19's impact on work, workers, and the workplace of the future

SEPTEMBER 25, 2020 BY: JANICE ENDRESEN



What will the world of work look like, post COVID-19? A paper co-authored by Dyson School faculty member [Kevin Kniffin](#) along with 28 other researchers and scholars from around the world – ["COVID-19 and the Workplace: Implications, Issues, and Insights for Future Research and Action"](#) (*American Psychologist*) – includes a preview of how COVID-19 may change work practices in the long term and offers projections about the workplace of the future.

Kniffin and his co-authors took a broad view of the pandemic's many impacts on the workplace, encapsulating existing research, predicting a few likely outcomes, and pointing to new questions worthy of study. "By organizing our experiences as researchers in a wide array of topical areas," they wrote, "we present a review of relevant literatures along with an evidence-based preview of changes that we expect in the wake of COVID-19 for both research and practice."



Kevin Kniffin, assistant professor

"'Sensemaking' was the first value generated by this extraordinary collaboration, which we undertook because of the extraordinary impacts associated with the emergence of COVID-19," says Kniffin. "With so many dimensions of work and life changing rapidly in relation to COVID-19, a clear and succinct assessment was our first task—and a foundation for charting roadmaps for future research and action."

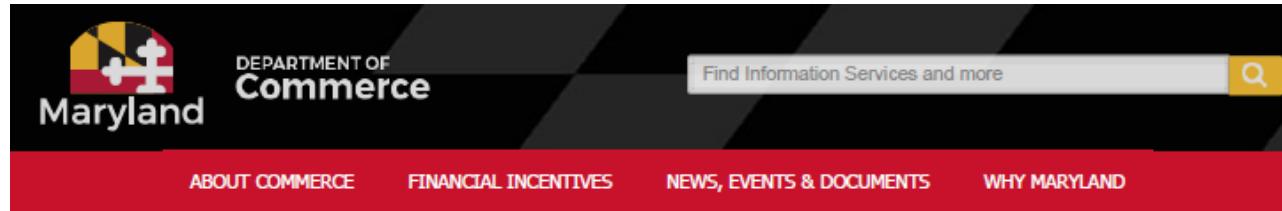
A new normal: Working from home

When the pandemic hit the U.S. hard in March, millions of workers began working from home – an unprecedented and ongoing phenomenon "facilitated by the rise of connectivity and communication technologies," Kniffin and his co-authors note in the paper.

The authors project that working from home will not only continue for many workers, but that "COVID-19 will accelerate trends towards working from home past the immediate impacts of the pandemic." This will be driven, in part, as organizations recognize the health risks of open-plan offices. "As we now live and work in globally interdependent communities, infectious disease threats such as COVID-19 need to be recognized as part of the workscape," write Kniffin et al. "To continue to reap the benefits from global cooperation, we must find smarter and safer ways of working together." Organizations will also appreciate the cost-savings of replacing full-time employees with contractors who can stay connected digitally, note the authors.

In light of this anticipated shift, one goal of the paper is to guide future research to "examine whether and how the COVID-19 quarantines that required millions to work from home affected work productivity, creativity, and innovation."

September 2020 – State of Maryland changes the tax code promoting data center development



The image shows the header of the Maryland Department of Commerce website. It features the Maryland state logo on the left, followed by the text "DEPARTMENT OF COMMERCE". To the right is a search bar with the placeholder "Find Information Services and more" and a magnifying glass icon. Below the header is a red navigation bar with four links: "ABOUT COMMERCE", "FINANCIAL INCENTIVES", "NEWS, EVENTS & DOCUMENTS", and "WHY MARYLAND".

Maryland Commerce > News, Events & Documents > Maryland Accepting Applications for New Data Center Tax Incentive Program

News, Events & Documents

- + Press Room
- + Calendar
- + Document Library
- + More News & Features
- + Subscribe to our Newsletter
- + Business Pulse Archive

Related Items

> [Data Center Tax Incentive](#)

Maryland Accepting Applications for New Data Center Tax Incentive Program

Companies that meet requirements are eligible for up to 20 years of sales and use tax exemption.

BALTIMORE, MD (September 29, 2020) - The Maryland Department of Commerce announced today that it is now accepting applications for the [Data Center Maryland Sales and Use Tax Exemption Incentive Program](#). As part of this new economic development incentive, data centers that locate or expand in Maryland and create new, full-time jobs can receive an exemption from the state sales and use tax for up to 20 years.

This program, approved by the Maryland General Assembly during the 2020 legislative session and signed into law by Governor Larry Hogan, is designed to make Maryland more competitive as states work to attract more data centers to the region.

"Making Maryland a more supportive and competitive state for business has been a top priority of my administration since I took office," said Governor Hogan. "Ensuring that Maryland is 'Open for Business' is more important now than it ever was. This new incentive program will ensure that data center companies see that Maryland is the best place for their new or expanding facilities and the good jobs that come with them."

Data center businesses are eligible for a 10-year exemption, subject to annual renewal, if they create at least five qualified jobs within three years of applying for the program and make a minimum investment. In Tier 1 Areas of the state, businesses must invest at least \$2 million in qualified data center personal property; in all other areas of the state, businesses must invest at least \$5 million in data center personal property.

June 2020 – Quantum Loophole purchases the Eastalco property and changes its use to data center development



FOR IMMEDIATE RELEASE

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Alcoa sells former Eastalco site for \$100 million; buyer to use repurposed land for next-generation data centers

PITTSBURGH, June 28, 2021 – Alcoa Corporation (NYSE: AA) announced today that it has completed a sale of land in the state of Maryland for \$100 million in cash.

The 2,100-acre property covers more than three square miles in Frederick County, Maryland and once served as the site of the former Eastalco smelter, which permanently closed in 2010.

The sale transaction, completed on June 23, 2021, was between Eastalco Aluminum Company, a wholly owned subsidiary of Alcoa Corporation, and a joint venture between Quantum Loophole and TPG Real Estate Partners (TREP).

Since the smelter's closure, Alcoa has worked to prepare the site for redevelopment, including removing former facilities, completing all required remediation activities, and grading the site's land for new business opportunities.

"When Alcoa closed the Eastalco site, we made a commitment to bring this property back into productive and sustainable use," said Mark Stiffler, Alcoa's Vice President for Asset Management. "The sale to Quantum Loophole and TREP is a story of economic and environmental sustainability, taking a former industrial site through the remediation process and bringing it forward for a new industrial use."

Quantum Loophole intends to develop the property into a next-generation data center community, following the county's comprehensive Liveable Frederick Master Plan that calls for new employment and opportunities for local businesses.

"The Eastalco property is ready and ideal for a data center project of unprecedented scale," said Josh Snowhorn, Founder and CEO of Quantum Loophole. "We are changing the way hyperscale data center developments are deployed, and this Maryland location has the entitlement, power, water, and proximity to Northern Virginia that the Internet industry needs for success."

Project plans include efficient design for sustainable power and water use, investments in robust fiber connectivity, a nature first design aesthetic to protect views and reduce visibility from public roadways, and thoughtful preservation of existing structures important to local history.

In the second quarter of 2021, Alcoa expects to record a gain of approximately \$90 million from this transaction. Consistent with prior transactions, Alcoa reflects gains or losses from non-core asset sales as special items.

About Alcoa

Alcoa (NYSE: AA) is a global industry leader in bauxite, alumina and aluminum products, with a strong portfolio of value-added cast and rolled products and substantial energy assets. Alcoa is built on a foundation of strong values and operating excellence dating back 135 years to the world-changing discovery that made aluminum an affordable and vital part of modern life. Since inventing the aluminum industry, and throughout our history, our talented Alcoans have followed on with breakthrough innovations and best practices that have led to efficiency, safety, sustainability and stronger communities wherever we operate. Visit us online on www.alcoa.com, follow @Alcoa on Twitter and on Facebook at <http://www.facebook.com/Alcoa>.

Dissemination of Company Information

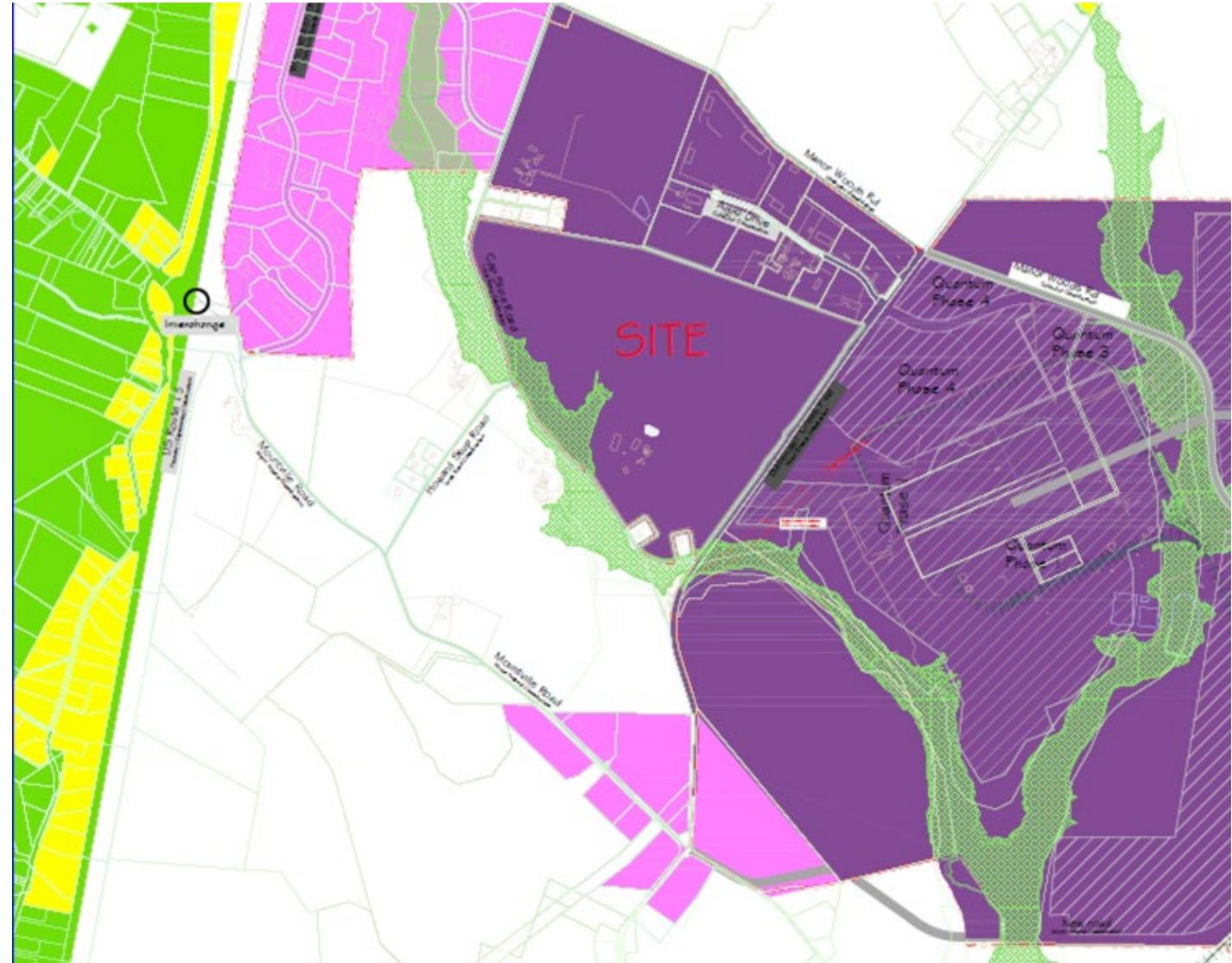
Alcoa Corporation intends to make future announcements regarding company developments and financial performance through its website at www.alcoa.com, as well as through press releases, filings with the Securities and Exchange Commission, conference calls and webcasts.

Forward-Looking Statements

This news release contains statements that relate to future events and expectations and as such constitute forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements include those containing such words as "anticipates," "believes," "could," "estimates," "expects," "forecasts," "goal," "intends," "may," "outlook," "plans," "projects," "seeks," "sees," "should," "targets," "will," "would," or other words of similar meaning. All statements by Alcoa Corporation that reflect expectations, assumptions or projections about the future, other than statements of historical fact, are forward-looking statements. Forward-looking statements are not guaranteeing of future performance and are subject to known and unknown risks, uncertainties, and changes in circumstances that are difficult to predict. Although Alcoa Corporation believes that the expectations reflected in any forward-looking statements are based on reasonable assumptions, it can give no assurance that these expectations will be attained, and it is possible that actual results may differ materially from those indicated by these forward-looking statements due to a variety of risks and uncertainties. Additional information concerning factors that could cause actual results to differ materially from those projected in the forward-looking statements is contained in Alcoa Corporation's filings with the Securities and Exchange Commission. Alcoa Corporation disclaims any obligation to update publicly any forward-looking statements, whether in response to new information, future events or otherwise, except as required by applicable law.

December 2021 – Frederick County approves Quantum's preliminary plan for data center development

FREDERICK COUNTY PLANNING COMMISSION December 15, 2021	
TITLE:	Quantum Frederick
FILE NUMBER:	S-1179 PP266504, F266567, A266569
REQUEST:	Preliminary Subdivision Plan Approval The Applicant is requesting Preliminary Subdivision Plan approval for 29 nonresidential lots, 3 outlots, and 7 open space parcels located on 1,053.78 acres.
PROJECT INFORMATION:	
ADDRESS/LOCATION:	Between Ballenger Creek Pike and New Design Road, along Manor Woods Road
MAP/PARCEL:	Tax Map 94, Parcel 9, 70, and 71
COMP. PLAN:	General Industrial, Agricultural/Rural, and Natural Resource
ZONING:	GI – General Industrial and A – Agricultural
PLANNING REGION:	Adamstown
WATER/SEWER:	W-1/S-1, W-5/S-5, and No Planned Service
APPLICANT/REPRESENTATIVES:	
APPLICANT:	Quantum Maryland, LLC
OWNER:	Quantum Maryland, LLC
ENGINEER:	Rodgers Consulting
STAFF:	Ashley M. Moore
RECOMMENDATION:	<u>Conditional Approval</u>
Enclosures:	
Exhibit #1 – Rendered Preliminary Plan	
Exhibit #2 – Modification Letter	
Exhibit #3 – Soil Evaluation (attachment)	
Exhibit #4 – APFO LOU (attachment)	
Exhibit #5 – APFO LOU Length Justification (attachment)	
Exhibit #6 – FRO Modification Letter / Plan (attachment)	
Exhibit #7 – DNR Letter for Environmental Review (attachment)	
Exhibit #8 – Sensitive Species Project Review Area (SSPRA) (attachment)	



February 2022 – Frederick County changes the zoning code by adding Critical Digital Infrastructure (CDI) as a new use

FREDERICK COUNTY PLANNING COMMISSION	
February 16, 2022 9:30 a.m.	
	
TITLE:	Bill #22-05 Amend 1-19- of the Frederick County Code (Zoning Ordinance) to Add Critical Digital Infrastructure as a New Use
FILE NUMBER:	N/A
REQUEST:	Bill #22-05 Amend 1-19 of the Frederick County Code (Zoning Ordinance) to Add Critical Digital Infrastructure as a New Use Public Hearing
PROJECT INFORMATION: N/A	
APPLICANT/REPRESENTATIVES:	
STAFF: Michael Wilkins, Director of Development Review and Planning	
RECOMMENDATION: That the Planning Commission provide a recommendation to the Frederick County Council regarding the Text Amendment.	
ATTACHMENTS:	Proposed Bill Staff Memo

FREDERICK COUNTY DRAFT BUILDING AND SITE DESIGN GUIDELINES FOR CRITICAL DIGITAL INFRASTRUCTURE



[Fannie Mae Data Center – rodgers.com](http://rodgers.com)

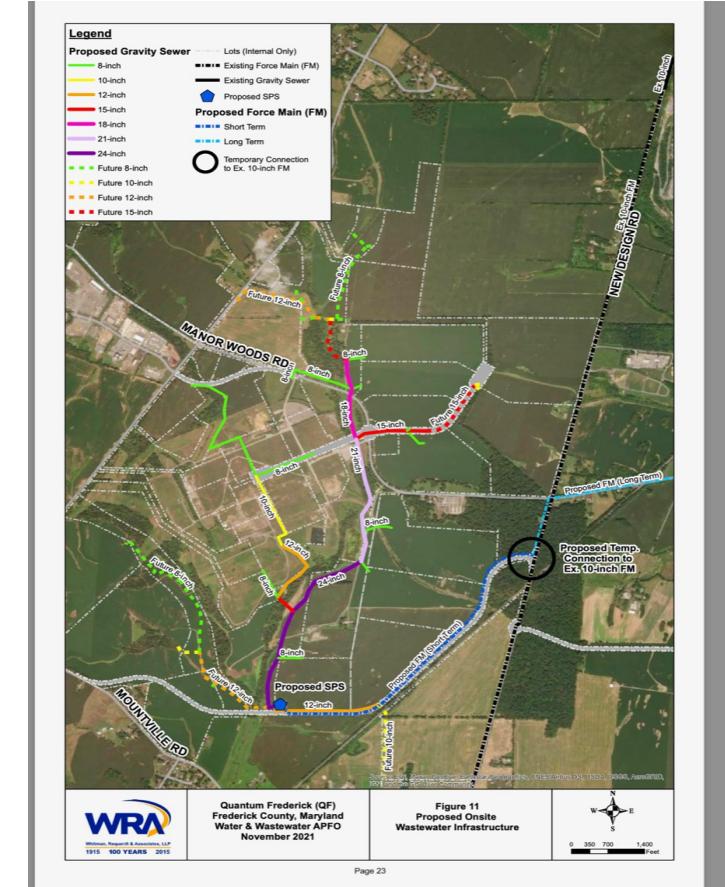
April 2022 – Frederick County changes water and sewer planning for the Adamstown region

The site is upgraded to planned service

Sewer Alignment

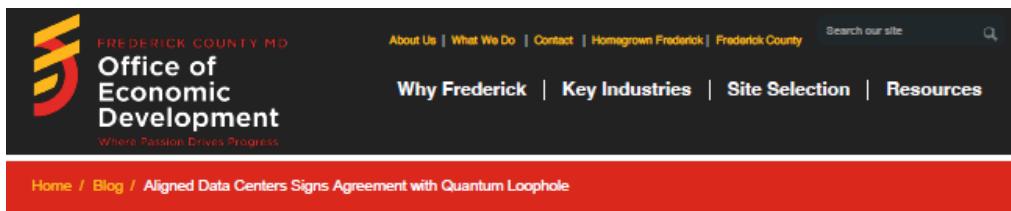


Frederick County W&S Staff concept alignment



Quantum Loophole proposed
W&S expansion

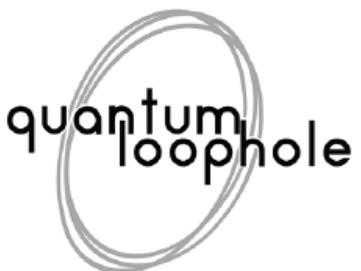
May 2022 – Quantum sells its first data center parcel on the Frederick Campus to Aligned Data Centers



The screenshot shows the homepage of the Frederick County MD Office of Economic Development. The header includes the county logo, navigation links for About Us, What We Do, Contact, Homegrown Frederick, Frederick County, and a search bar. Below the header, there are links for Why Frederick, Key Industries, Site Selection, and Resources. The main content area features a red banner with the text "Home / Blog / Aligned Data Centers Signs Agreement with Quantum Loophole". The article title is "Aligned Data Centers Signs Agreement with Quantum Loophole". The date is May 10, 2022, and the category is DATA CENTERS. The Quantum Loophole logo is displayed.

Aligned Data Centers Signs Agreement with Quantum Loophole

MAY 10, 2022 / DATA CENTERS



First Mover Advantage Lays Ground for Future Data Center Development

Frederick, MD – May 10, 2022 – Quantum Loophole, Inc., an innovative developer of first-of-its-kind Gigawatt-scale master planned data center communities, today announced that [Aligned Data Centers](#) has signed an agreement to acquire land, power, and water at Quantum Loophole's [Frederick County, Maryland data center campus](#). This comes on the heels of Frederick County's approval of an amendment to its Zoning Ordinance explicitly designating data centers as a permitted use in areas zoned light industrial or general industrial.

Categories

- > All Categories
- > Advanced Technology
- > Agriculture
- > BAW
- > Bioscience
- > Commercial Real Estate
- > Construction
- > COVID-19
- > Craft Beverages
- > Data Centers
- > Diversity and Inclusion
- > E-commerce
- > Education
- > Entrepreneurs
- > Expansion
- > Infrastructure
- > Legislative
- > Location
- > Manufacturing
- > Minority Business Executive Development Program
- > Minority Business Vision

The agreement provides Aligned with additional, strategic expansion capacity, enabling rapid scale to meet the needs of its customers in a highly land-and-power-constrained region. Frederick County will be Aligned's third hyperscale data center campus in the region, with additional expansion planned for 2022. Their first mover advantage helps ensure that Aligned can leverage the new Maryland data center tax incentives. Located just 20 miles from the center of Ashburn, Virginia's interconnection ecosystem in Loudoun County (about the same distance to Manassas), Quantum Loophole's Frederick County site not only provides the equivalent of Virginia's sales and use tax exemption associated with data center infrastructure and servers, it also takes advantage of Maryland's exemption of personal property tax on certain data center infrastructure and servers. This aspect could prove significantly beneficial to hyperscale, colocation and enterprise data center owners and operators.

Furthermore, Quantum Loophole's planned custom fiber build, QLoop, will connect the Frederick County site to Loudoun County, Virginia via an ultra-high count fiber optic cable system, enabling automatic cross connections and fully redundant regional fiber connectivity capable of sub-millisecond latency between the two counties.

Gartner projects global spending on data center systems will grow to \$226 billion in 2022, up 11.4 percent year over year. The demand for data center capacity is at an all-time high, spurred by digital transformation initiatives and demand for cloud services. As data center needs accelerate, the associated land, power, water, and connectivity continue to be constrained, as the cost of land and the infrastructure required to support data center development also increases.

Aligned Data Centers is a leading technology infrastructure company offering innovative, sustainable and adaptive [Scale Data Centers](#) and [Build-to-Scale](#) solutions for global hyperscale and enterprise customers. The company's commitment to sustainability in future developments was a key driving force behind the decision to secure land in Quantum Loophole's first mass-scale data center development project.

"Aligned's ability to acquire power- and connectivity-rich land in strategic regions is critical to delivering infrastructure at the quality and velocity our customers have come to expect," comments Andrew Schaap, CEO of Aligned Data Centers. "The attractive tax exemptions, power availability, proximity to Northern Virginia, and holistic approach to enabling data center development were key drivers in our decision to choose Frederick County. The expansion comes on the heels of Aligned's ORD-01 data center launch and the groundbreaking of ORD-02 in Chicago, with 400+ MW of additional capacity planned in the Northern Virginia region alone."

"Location is everything in the data center industry, and Aligned Data Centers is one of the first to recognize this opportunity for their future development needs. Quantum Loophole identified a location in proximity to a market that has sparse availability for future development. With more than 2,100 acres of land, our Frederick County community is purposely designed to support mass-scale data center developments including gigawatts of power, recycled water, and dedicated connectivity in an automated environment," comments Josh Snowhorm, founder and CEO of Quantum Loophole. "Our sales funnel is bursting with interest. Now is the time for companies to make their commitments to ensure their future data center developments are in the right location, with the right infrastructure, and the right incentives to make it accessible."

> Municipalities

> OED News

> Opportunities

> Partner News

> Shop Local

> Small Business

> Sustainability

> Technology

> Top 50 Frederick

> Tourism

> Workforce Development

May 2022 – Aligned advertises sites available to customers



Overview

With industrial zoning, access to significant power capacity, and close proximity to Ashburn's internet ecosystem, Frederick County, MD is an attractive and strategic alternative to Northern Virginia. Master-planned for four multi-story data center facilities, Aligned's Frederick County hyperscale campus is part of Quantum Loophole's 2,100-acre, environmentally friendly "clean cloud community." The campus offers efficient design for sustainable power and water use, investments in robust fiber connectivity, and ample availability for future development.

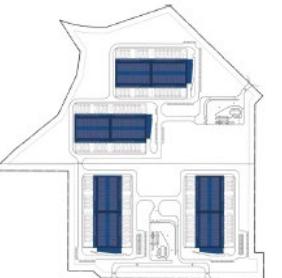
75
BUILDING ACRES

~1.3M
SQUARE FEET
-325K SQ. FT. PER FACILITY

264
MEGAWATTS
-48MW PER FACILITY

Campus Specifications

- 75 acres
- Master-planned for four multi-story data center facilities
- ~25 miles North of Ashburn, VA (equivalent distance as Manassas, VA)
- Campus, Build-to-Scale, Powered Shell and Scalable Data Center options available
- 100% uptime service level agreement (SLA)
- Initial capacity delivery: 18 months from commitment
- Subsequent capacity delivery: +12 months
- Latency to key hubs: <1 ms from core Ashburn
- Incentives available: Sales and Use tax exemption
- Strategic benefits to a fast-growing hyperscale tenant base focused on speed of delivery



Data Center Specifications

POWER

- 1+GW utility power available to campus, from diverse 230kV substations
- Power cost: \$0.065c/kWh
- Utility provider: FirstEnergy/Potomac Edison
- Concurrently maintainable UPS
- N+2 power generation
- Redundant A+B distribution
- Revenue-grade metering

NETWORK

- Access to QLoop Fiber Network, a 43-mile fiber ring that will connect Quantum Frederick and Ashburn, VA
- Network ring will offer capacity for more than 200,000 strands of fiber connecting to the Ashburn Internet ecosystem in under one half millisecond Round Trip Time (RTT)
- Diverse meet-me-rooms and fiber entrances

DESIGN

- Tier III Design
- Concrete slab-on-grade and structured steel
- ASCE 7 occupancy category IV, data hall FM-120 and office FM-90 roof lift ratings
- Wind importance factor of 1.15
- Two bays with delivery platform and equipment trap
- 24x7x365 accessibility

SUPPLY CHAIN

- Pre-purchased, replenishable Vendor Managed Inventory (VMI)
- Prefabricated, factory-built and tested power & cooling equipment
- Accelerated project timelines & lower cost
- Strong partner MSAs / robust supplier performance management

SECURITY

- 8' Impasse steel security fencing with laser intrusion detection
- Multi-layer security design
- Card reader access
- 24x7x365 on-site security guards
- Multiple checkpoints: mantraps, dual authentication (biometrics and RFID badge readers)
- Event-driven IP video surveillance and visual light-based alerts

COMMUNITY

- Campus closely aligned with Livable Frederick Master Plan (LFMP)
- Increased tax revenue with incremental growth year-over-year for Frederick County
- Addition of well-paying jobs to the community
- Local business partnership opportunities
- Commitment to preserving existing historical sites
- Commitment to sustainable and environmentally friendly development
- Nature-first design aesthetic to protect views and reduce visibility from public roadways



CONTACT ALIGNED TO LEARN MORE

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+1.833.425.4463

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Plano, TX 75074

ABOUT ALIGNED

Aligned is an infrastructure technology company that offers adaptable colocation and build-to-scale solutions to cloud, enterprise, and managed service providers. Our intelligent infrastructure allows densification and vertical growth within the same footprint, enabling customers to scale up without disruption, all while maintaining industry-leading Power Usage Effectiveness (PUE). By reducing the energy, water and space needed to operate our data center solutions, combined with our patented cooling technology, offer businesses a competitive advantage by improving sustainability, reliability and their bottom line.

For more information, visit www_aligneddc_com and connect with us on [Twitter](#), [LinkedIn](#) and [Facebook](#).



CLIENT PORTAL

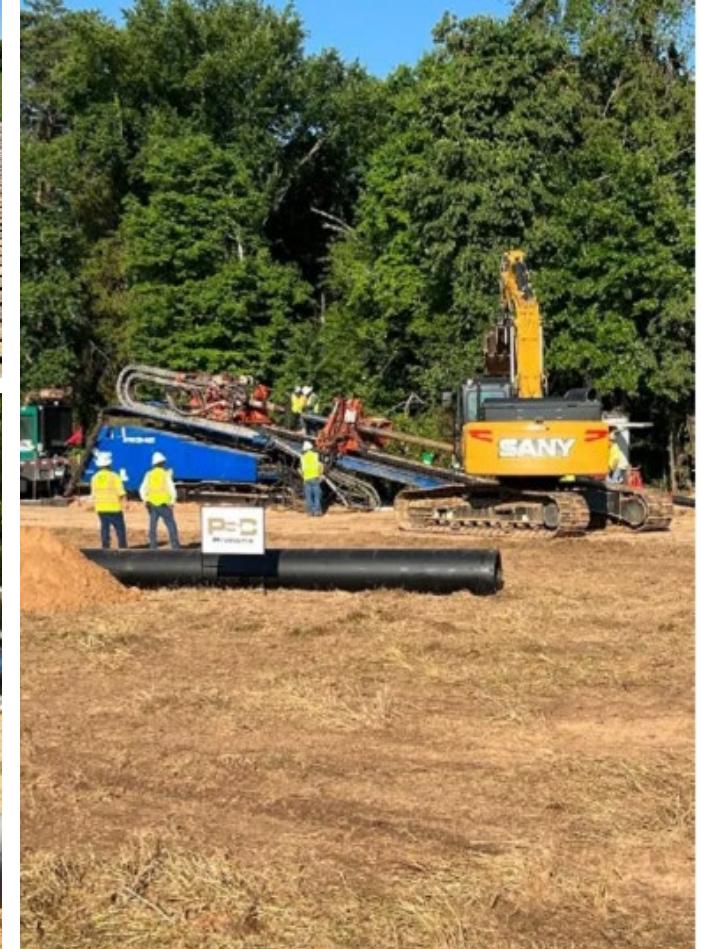
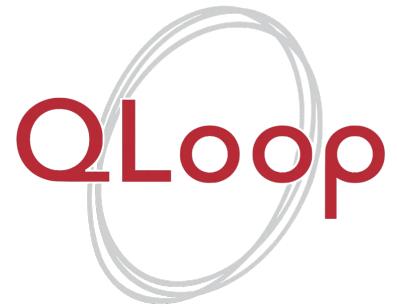
- Fully integrated user experience that spans asset monitoring, ticketing, business intelligence, and capacity forecasting
- Broad transparency and control from a convenient and singular entry point

June 2022 - Construction Begins at Quantum Frederick's Data Campus

Public officials, community join Quantum Loophole for kickoff of two-year buildout of power, water, fiber, shared facilities at Quantum Frederick



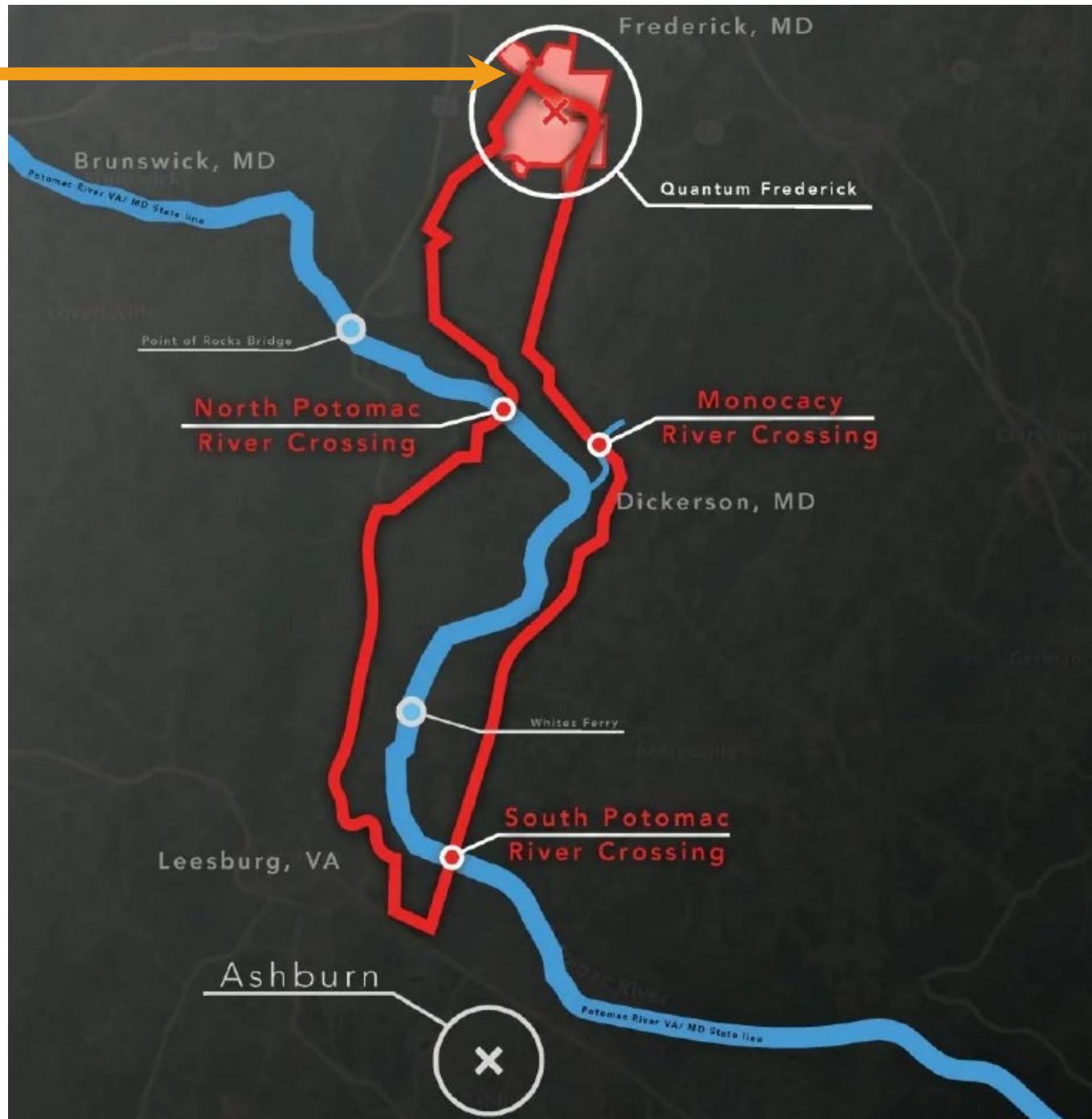
July 2022 - Quantum Loophole Breaks Ground on Massive QLoop Fiber Network



Our Site

quantum
loophole

235,000 strands of fiber
connected directly to
Ashburn VA



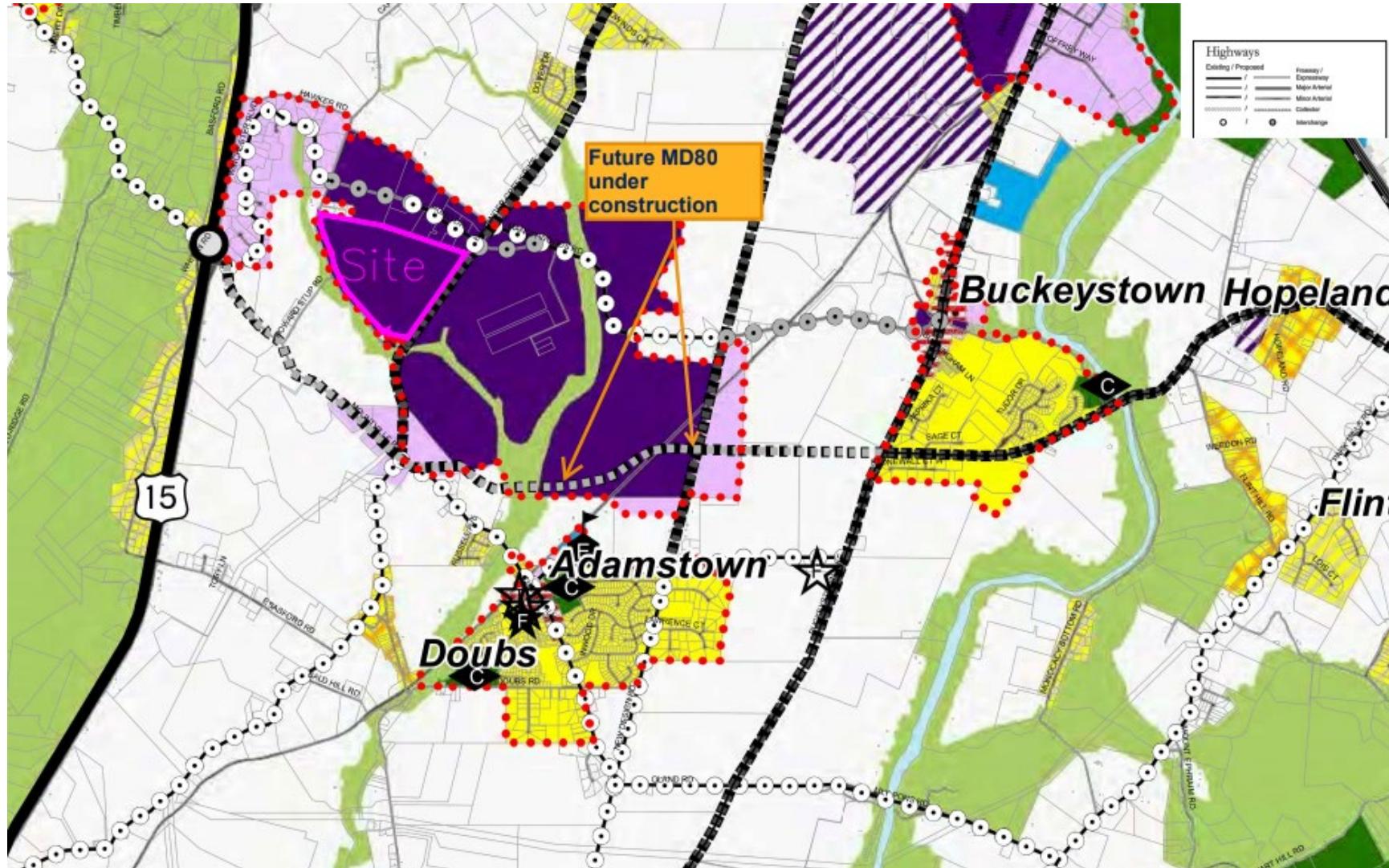
Approximately 80% of
the World's internet
traffic passes through
Ashburn every day

QLoop

December 2022 – Construction begins on Happy Landing Drive
This new road will eventually become MD-80



Comprehensive Plan Zoning & Highway Classifications



January 2023 – Potomac Edison commits to installing electrical substation

“The 230-kilovolt substation will be located near the center of the Quantum Frederick campus and is expected to support the 240 megawatts of power anticipated for its first phase. The substation yard design will accommodate up to 1,000 megawatts in future phases.”

 | Investor Relations

[INVESTOR MATERIALS](#) [STOCK INFORMATION](#) [FIXED INCOME](#) [SEC FILINGS & REPORTS](#) [SHAREHOLDER ENGAGEMENT](#) [GOVERNANCE](#)

[Investor Materials](#) | [News Releases](#) | [News Details](#) | [2022](#) | [Potomac Edison Planning To Build New Substation At Frederick Data Campus](#)

Press Release

Potomac Edison Planning to Build New Substation at Frederick Data Campus

Company Release - 10/3/2022 11:32 AM ET

New transmission project will support first phase of Quantum Frederick

WILLIAMSPORT, Md., Oct. 3, 2022 /PRNewswire/ — Potomac Edison, a subsidiary of FirstEnergy Corp. (NYSE: FE), has begun planning a new high-voltage transmission substation that will provide power for the first phase of Quantum Frederick, Quantum Loophole's 2,100-acre data center campus under development in Frederick, Maryland.



The 230-kilovolt substation will be located near the center of the Quantum Frederick campus and is expected to support the 240 megawatts of power anticipated for its first phase. The substation yard design will accommodate up to 1,000 megawatts in future phases.

“Potomac Edison is pleased to be a part of this transformational development project that will generate significant economic benefits for the Frederick community and beyond,” said Linda Moss, president of FirstEnergy’s Maryland operations. “We have a long history of promoting economic development and helping to attract new jobs to our service area, and we look forward to energizing multiple phases of the Quantum Frederick campus over time.”

In support of the project, Potomac Edison plans to reenergize an existing 230-kilovolt transmission line that previously served the property. The company will also install two transformers to convert the high-voltage power from the substation to a lower voltage that can be distributed to Quantum Frederick buildings.

The substation is subject to review by regional transmission organization PJM and its stakeholders, and various components of Potomac Edison’s planned work are subject to review and approval by Frederick County and the Maryland Public Service Commission.

In late June, Quantum Loophole broke ground on critical infrastructure supporting the Quantum Frederick development, which is located at the former Alcoa Eastalco Industrial property on Manor Woods Road. The master-planned campus will be connected to the Ashburn, Virginia, data center community by a massive fiber network called QLoop, a 40-mile hyperscale fiber ring capable of supporting more than 200,000 strands of fiber.

FirstEnergy was recently named by *Site Selection* magazine as one of the nation’s leading utilities in promoting economic development for the fourth year in a row, helping to attract nearly 22,000 new jobs and \$5.4 billion in third-party corporate facility investment in its six-state service area in 2021.

Potomac Edison serves about 275,000 customers in all or parts of Allegany, Carroll, Frederick, Garrett, Howard, Montgomery, and Washington counties. The company also serves about 151,000 customers in the Eastern Panhandle of West Virginia. Follow Potomac Edison at [www.potomacedison.com](#), on Twitter @PotomacEdison, and on Facebook at [www.facebook.com/PotomacEdison](#).

FirstEnergy is dedicated to integrity, safety, reliability and operational excellence. Its 10 electric distribution companies form one of the nation’s largest investor-owned electric systems, serving customers in Ohio, Pennsylvania, New Jersey, West Virginia, Maryland and New York. The company’s transmission subsidiaries operate approximately 24,000 miles of transmission lines that connect the Midwest and Mid-Atlantic regions. Follow FirstEnergy online at [www.firstenergycorp.com](#) and on Twitter @FirstEnergyCorp.

January 2023

Snowhorn's QLoop digs into the mud and under the river

Alan Burkitt-Gray January 27, 2023 12:19 PM



Fans of giant construction projects have been entranced by the pictures Quantum Loophole CEO Josh Snowhorn has been posting of his network build.

The company has been digging a tunnel under the Potomac river from its new campus in Frederick, Maryland, to the Ashburn internet ecosystem.

Eventually "over 235,000 strands of fiber can be put in the system using 6,912 fiber cables", Snowhorn wrote on his LinkedIn feed.

Giant construction equipment are digging ducts through muddy winter fields (pictured) and under the river to make the connection.

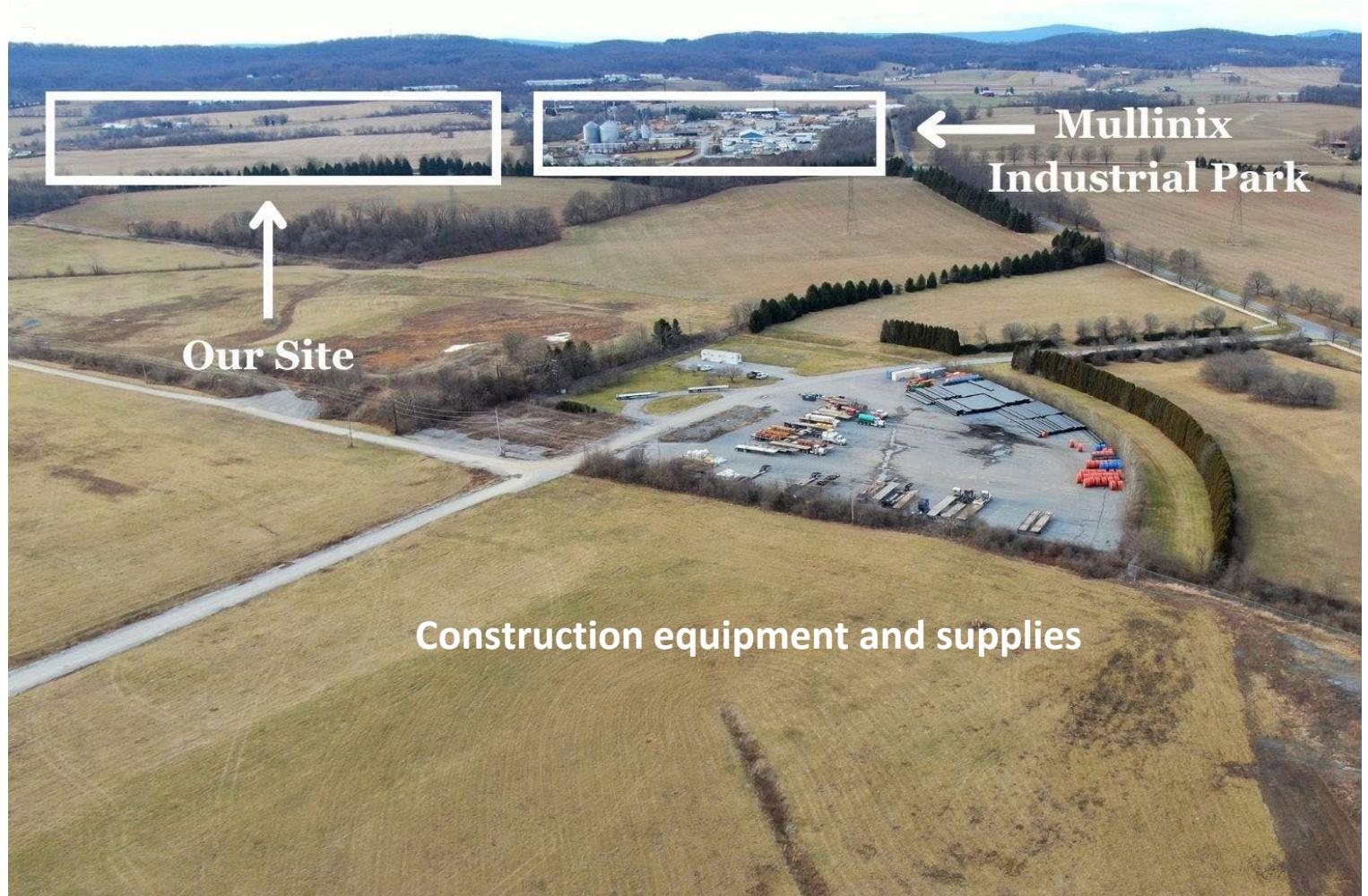
"This system is buried deeply to support the strictest security requirements while also achieving

January 2023

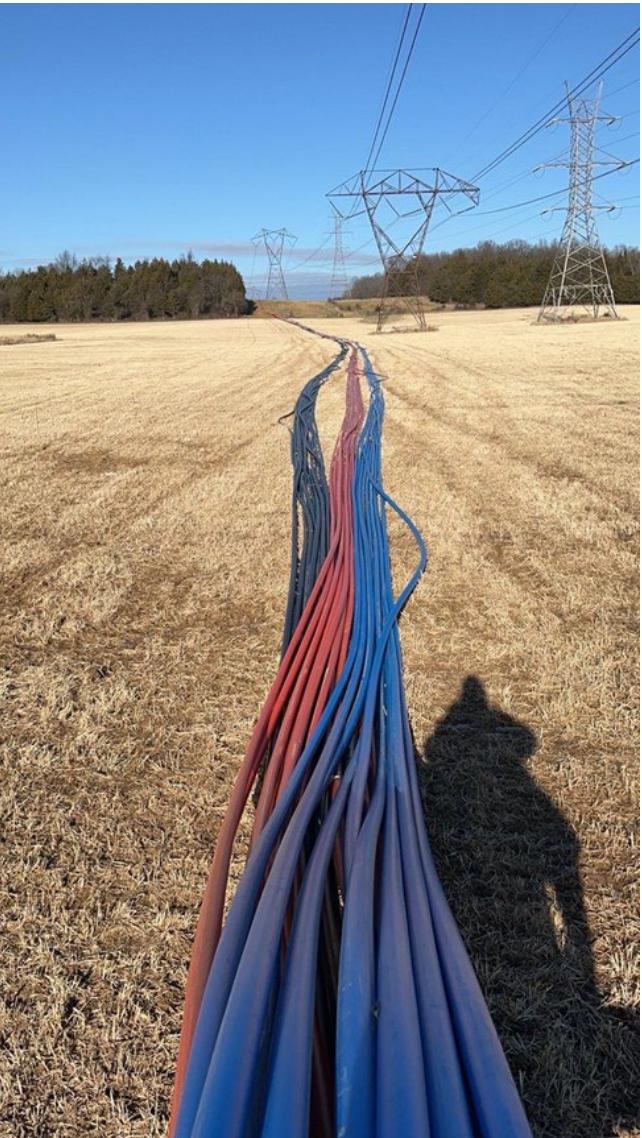


February 2023 – Construction is well underway at Quantum

Industrial construction is occurring next door to our site



February 2023



In Summary

- The site has been designated for industrial growth for 30 years
- Frederick planning department re-affirmed this growth designation in the last Adamstown master plan and reinforced it with upgrades to planned water and sewer
- Massive changes in cloud computing have changed the need for industrial space
- Quantum Loophole's activities have substantially changed the neighborhood
- Quantum's Qloop fiber network creates new development opportunities

