

Farmington Technology Park Community Meeting

August 20, 2024

Project Team

We work with data-center operators, local communities, landowners, and energy and technology companies to streamline a horizontal approach to technology campus development that aligns interests and priorities to benefit everyone.

YOUR SUPPORT TEAM









LOCAL CONSULTANT TEAM

Alan Catchpool, PE Ashley Payne



Kimley **»Horn**

Expect More. Experience Better.

We are a trusted partner for planning responsible infrastructure

We are a team of data center technology and energy experts that partner with communities to strategically coordinate master-planned development projects with a long-term vision.

Our technology campuses, which will house data centers, are thoughtfully designed and planned to maximize economic benefits for communities while minimizing disruption.



What We Do



Site Acquisition

- Deep experience architecting / siting networks and data center platforms
- Long-term orientation and focus to masterplan scale and efficiency
- Secure water rights and infrastructure



Energy

- Develop transmission and substation Infrastructure
- Capacity and Energy Supply Planning
- Site Power Distribution Planning



Entitlements

- Master planning and appropriate zoning approvals are achieved through partnership with local jurisdiction
- Secure development agreements and other necessary approvals to set the course for continued development of the site



Construction Development

- Site grading and preparation
- Power, fiber, water extensions where needed
- Public and private access and easement master-planning



How We Work: Long-Term Collaboration



We work closely with **communities** to create economic impact that directly supports local priorities. Revenues from data-center campuses contribute to better local infrastructure, schools, and services, with minimal traffic or municipal strain.



We work closely with **local economic development** departments to help establish diversified long-term local tax base, with permanent well-paying jobs and community investment that extends beyond our technology campus.



Our team works directly with **energy companies** to ensure that power resources are efficiently deployed and build dedicated substations.



We work collaboratively with **municipalities** to ensure that the development and infrastructure plans align with local priorities. Our long-term horizontal planning and community-first approach provides a strategic commitment from planning through development.



We work directly with **state and local officials** to develop a strategic approach to development that supports critical infrastructure improvements, job growth, and significant economic impacts locally, regionally, and statewide.



What We've Accomplished

10+ ACTIVE MARKETS across the US

Successful ENTITLEMENT approvals in multiple

jurisdictions

Construction Development

Breaking ground on multiple projects





Farmington Site Location

- Two Sites (342 ac):
 - Fountain Valley Golf Club &
 - Farmington Public Schools
- Total Developable Area: 205 ac (59%)
- Access from 220th / MN 50, 225th St. & Biscayne Ave.
- Existing power line south of the site





Why We Are Here Tonight:

- We are following the City's process to rezone the property with a PUD overlay.
- The PUD Overlay was determined to be a better tool which allowed more customized development standards and more transparency.
- Planning Commission Preliminary Rezoning hearing will be scheduled in the near future, followed by a City Council hearing.
- The AUAR process is separate from the rezoning and with a focus on separate issues.





Processes

Rezoning + PUD Overlay

- Development Standards
 - Building Setbacks
 - Height
 - Parking
 - Landscaping
- Development Areas
- General Access locations
- General Utility Layout
- Street Standards
- Identification of Environmental Features

Preliminary and Final Plat

- Establishes lot boundaries
- Location and types of streets
- Location and size of sewer lines and water mains
- ROW dedication
- Easements
- Traffic Improvements

Alternative Urban Areawide Review (AUAR)

- Environmental review process
- Fish, wildlife, & ecologically sensitive resources
- Physical impacts on water resources
- Water Use
- Water Quality-Wastewater
- Impact on infrastructure and public services
- Erosion and sedimentation
- Geologic hazards & soil conditions
- Traffic
- Archeological, historic, & architectural resources.
- Mitigation Plans



What We Have Heard

- Concerns & Questions about:
 - Location
 - Noise
 - Traffic
 - Water use
 - Power
- Sustainability
- Alternative uses
- Broader community benefits
- Need more information





PUD Development Standards

- 40' Natural Buffer
- 250' building setback adj. to residential uses
- 150' building setback adj. to non-residential uses
- 50' max building height at the building setback
 - 80' max building height starting at 310' from the property line adj. to residential uses.
- Land Dedication in the NW corner for a Town Water Tank.







Noise

- Noise is regulated by the Minnesota Pollution Control Agency (MPCA)
- Residential (NAC 1): 60 -65 dBA daytime / 50-55 dBA nighttime
- Data Centers are categorized as NAC 3
 - Noise from data centers cannot create noise that exceeds the dBA on adjacent residential property.
- PUD standards vs straight zoning
- Tonal noise

Sound	Subjective Evaluation	Environment		
Level (dBA)		Outdoor	Indoor	
140	Deafening	Jet aircraft at 75 ft		
130	Threshold of pain	Jet aircraft at 300 ft during takeoff		
120	Threshold of feeling		Rock band concert	
110	Extremely Loud	Accelerating motorcycle at a few feet away.		
100	Manufaud	Auto horn at 10 ft		
90	Very Loud	Jackhammer at 50 ft	Noisy factory	
80	Loud	Diesel truck (40 mph) at 50 ft Noisy urban street	Cafeteria with sound-reflecting surfaces	
70	Moderately Loud	Busy highway at 100 ft	Vacuum cleaner at 10 ft	
60	Moderate		Face-to-face conversation	
50	Quiet		Open office area Quiet dishwasher	
40	Quiet	Small town residence		
30			Bedroom, typical residence (without TV or sound system)	
20	very quiet	Rustling leaves	Audiometric testing room Whisper	
10	Just audible		Human breathing	
0	Threshold of hearing			

Table 1. Typical Sound Pressure Levels Associated with Common Noise Sources

Source: Adapted from Architectural Acoustics, M. David Egan (1988) and Noise Control in Buildings, Cyril M. Harris, (1994).



Generators

Noise Attenuation

- Generator Enclosures
- Exhaust Mufflers/Bellows
- Noise Deadening Material
- Louvers



- 1 Sound attenuated louvers
- 2 Ducted air redirected at right angles reduces noise
- 3 Spring vibration isolators with rubber pads
- 4 Flexible exhaust bellows

- 5 Noise absorbent lining on ducting
- 6 Secondary silencer
- 7 Noise absorbent lining on internal siding
- 8 Sheet metal enclosure



Traffic & Road Improvements

Traffic Impact Study Completed April 2024

Average Daily Trips

- At full build-out, campus will generate 273 Employees
- 2,498 Average Daily Trips projected

Road Improvements

- MN 50 Eastbound right and Westbound left turn lanes.
- MN 3 & 225th St. Northbound right and Southbound left turn lanes.
- Optimize signal timing at adjacent intersections.





Job Creation

- Data Center Operations (~275 permanent jobs. Average salary: ~\$100,000 annually.
 - Network Engineers
 - Computer Programmers
 - Computer Support Specialists
 - Database Administrators
 - Computer Research Scientists
 - Security
 - HVAC

2. Construction Jobs:

- Electricians
- Mechanical Engineers
- Utility Contractors
- Plumbers
- Steel Workers
- Grading Contractor
- 3. Indirect Jobs : "For every job inside a Virginia data center, there are 3.5 additional jobs that are supported in the rest of the Virginia economy, not counting construction jobs."*



Data Center Industry Jobs		Entry Level Education	Median Annual Wage
Data Center Site Director / Manager	Optimizes all operations of a data center facility to ensure data performance, availability, and security. Designs operating procedures and policies for installing, configuring, and maintaining servers, networks, and storage systems within a data center to maximize operational efficiency.	pperations of a data center facility to ensure data performance, availability, and ns operating procedures and policies for installing, configuring, and maintaining orks, and storage systems within a data center to maximize operational efficiency.	
Data Center Engineer Technician	Other Titles: Critical Facility Technician, Engineering Operations, Shift Engineer: Operating & maintain the power, cooling and various other systems that keep the data center operational 24/7/365. These systems include UPS, Generators, ATS, Switch Gear, CRAHs, Chillers & other complex electrical & mechanical equipment	n, Engineering Operations, Shift Engineer: Operating & us other systems that keep the data center operational Generators, ATS, Switch Gear, CRAHs, Chillers & other opent Activity of the systems of the	
Facility & Grounds Maintenance	Noncritical operations and maintenance like housekeeping, monitor maintenance to interiors and building, plumbing, groundskeeping, etc.	ekeeping, monitor maintenance to interiors and No Degree Required	
Data Center Security Officer	Monitoring & safeguarding the human assets, intellectual property, integrity, reputation & physical assets to ensure continuity of operations inside and outside of the data center. Monitoring visitors, systems, alarms & CCTV.	Trade School or exposure to security, law enforcement, correction or military	\$57,000
Customer Success Manager	Other titles: Customer / Client Support, Account Manager: Advocate on behalf of customer and ensure high quality service delivery and customer satisfaction.	customer No Degree Required (but preferred)	
Computer Network Architects	Computer network architects design and implement data communication networks, including local area networks (LANs), wide area networks (WANs), and intranets.	networks, including Bachelor's Degree Preferred	
Information Security Analysts	Information security analysts plan and carry out security measures to protect an organization's computer networks and systems.	Bachelor's Degree	\$112,000

Salary estimates based on market data



Job Creation – Many with no degree required

Critical Facility Operations	Site Security	Logistics	Construction Jobs
 Site Director Site Manager Shift Supervisor - Elevated from technician. Critical Facility Technician I, II, III - 3 or 4 per shift - HVAC and Electrical Facility and grounds maintenance – non-critical operations and maintenance like housekeeping, monitor maintenance to interiors and building, plumbing, groundskeeping, etc 	 Security Manager Security officers 	 Shipping & Receiving Warehousing 	 Electricians Utility Contractors Plumbers Steel Workers Grading Contractor



Deborah Martinez Castellanos checks out the rooftop chillers at the data center where she works to ensure they are functioning properly

- Data Center Operations Programs at Community Colleges can offer 1year certification and two-year degrees covering topics from fiberoptic technology to power transmission (salaries could range from \$29/hr to \$43/hour and up).
- Data centers currently employ ~500,000 people across the country
- Equinix trains workers with just a high-school diploma.
- "Data-center careers offer an unusual proposition: low barriers to entry and generous paychecks, often in low-cost areas, and plenty of demand and promotion potential."

Power

- Tract is engaged with Dakota Electric Association ("Utilities")
 - Proceeding with Service Application and engineering studies to interconnect to the grid.
- Site is located at the eastern and southern edges of Farmington and is ideally suited adjacent to the 345kV line.





Water & Wastewater

Water & Wastewater Use

 Taking advantage of Minnesota's temperate climate, Tract is assuming that future DC developers will utilize Direct Evaporative Cooling (DEC)

Direct Evaporative Cooling (DEC)

 Utilizes the direct evaporation of water to produce significant cooling and humidification with low energy consumption. Outside air is drawn through a wet medium. Water evaporates and delivers cool air into the data center.

System Infrastructure Impact

- Capital Improvement Plan (CIP) to support Comp Plan Update
- Campus water and sewer capacity to be included in CIP
- DC industry is motivated to utilize reclaimed water





Sustainability

- Hyperscalers have Environmental, Social, & Governance ("ESG") goals to meet based on corporate policies which encourage companies to act responsibly.
- The data center industry is a major buyer of "Power Purchase Agreements" for renewable energy.
- 2021: Amazon and Microsoft were the two largest corporate buyers of renewable energy in the world through PPA.
- Meta : Operations for their DCs have already reached net zero emissions and are supported by 100% renewable energy.
- Google has a goal to run on 24/7 carbon-free energy on every grid where they operate by 2030.
- Microsoft, Google & Meta have a goal to replenish more water than they consume by 2030.



SILICON RANCH

Tract: ESG policy / Collaboration Agreement with Silicon Ranch align advanced renewable projects with future Data Center development in Nevada and Utah



Community Benefits Driven by Data Center Development:

- AWS: STEAM learning opportunities and pathways, partners with local educational organizations to connect the workforce with careers in data centers and technology
- Meta: Community Action Grants, STEM contributions, small business trainings
- Google: STEM grants, Skilled Trades and Readiness Program (STAR)
- Microsoft: \$1.9B given to nonprofit organizations last year
- Henrico County, VA: \$60M Housing Trust Fund created from data center taxes.
- Loudoun County, VA: Reduced property taxes due to significant tax collection on data centers (2020 = \$333M)











SCHEDULE



Website

https://www.mnlcofarmington.com/



COMMUNITY BENEFITS TRACT TEAM CONTACT FAQ



Bringing Tax Revenue + Jobs to Farmington

Tract is the trusted partner for planning responsible technology infrastructure. We're working with the Farmington community to unlock tax revenue and highpaying jobs through a master-planned technology campus.

SEE THE BENEFITS ψ





THANK YOU

