



TOWN OF WARRENTON

Department of Community Development

PO BOX 341
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LandDevelopment@warrentonva.gov
(540) 347-2405

COMBINED COMMENT LETTER

May 19, 2023

Project Name	Warrenton Data Center	
Project Number	SDP-2023-6	
Location	Corner of Blackwell Road and Lee Highway (6984-69-2419-000)	
Use	Data Center (Ordinance Section 3-4.12.3)	
Zoning	Industrial (I)	
Engineer/ Applicant Representative	Owner/Applicant	
John Wright, P.E. Bohler Engineering 28 Blackwell Park Lane, Suite 201 Warrenton, VA 20186 jwright@bohlereng.com 540-349-4500	Michael Gore, Point of Contact Amazon Data Services, Inc. P.O. Box 80416 ATTN: Real Estate Mgr (AWS) DCA62 Seattle, WA 98108 253-260-2494	

Provide the 2nd submission set to the Community Development Department at 21 Main Street with the following materials:

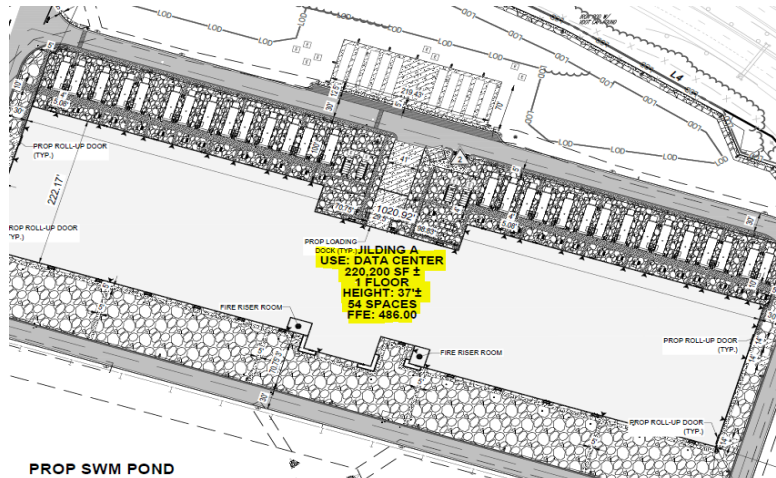
- 12 originally sealed, signed, and ***folded*** copies of the plan for review.
- 12 copies of a response letter explaining how comments are being addressed.
- 12 copies of a Bond Estimate, certified by the engineer.
- 5 copies of a SWM/BMP Maintenance Agreement and Schedule, ***signed***.
- 3 copies of a noise study, certified by a qualified professional.
- 3 copies of a fire flow study, certified by a qualified professional.
- A complete application for an Easement Plat.
- A flash drive containing individual PDFs of all materials being submitted.

The 1st submission of the site development plan **application is not approved.** If the following comments are addressed satisfactorily in accordance with the referenced codes, policies, and regulations, and the project is resubmitted with all deficiencies corrected, the plan will be reviewed in accordance with the application submitted on March 22, 2023.

Zoning Review Comments

General:

1. Revise “Building A” information provided to be in compliance with SUP requirements throughout the plan. (height, parking spaces, etc.) See photo reference below.



2. Show all electrical lines, to include all relocated, existing, and proposed lines; specify above or below ground.
3. Show all setbacks throughout the plan as required by the Zoning Ordinance. (3-4.12.4 ZO)
4. Provide a complete application for an easement plat with the next submission of the plan, to include the following:
 - A Land Development Application (signed).
 - A Land Use Application Affidavit (signed).
 - Five copies of an easement plat (signed).
 - Five copies of a deed of dedication (signed).
 - A PDF copy of all documents on a thumb drive.
 - Application fee - \$300.

Sheet C-101:

5. The property owner address is not the same as is listed on the Fauquier County Real Estate Records. Update address or provide clarification for difference.

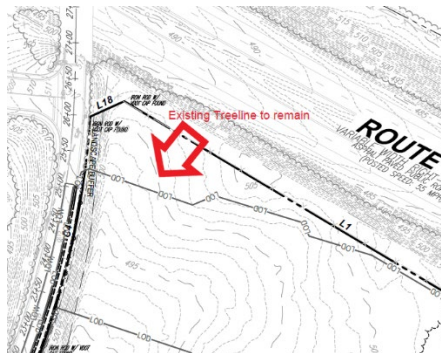
Sheet C-202A- C202H:

6. Provide clear explanation for tree removal within tree save area of trees marked as in “good” or “fair” condition.
 - a. Where any trees have been removed prior to review of this plan, update the tree survey to match currently existing conditions.

7. Provide written **permission** from applicable adjacent property owners to **remove trees located on adjacent property.**
8. Tree **removal sheets** appear to be different than that of the tree exhibit submitted with the approved SUP plan, and the disturbed area appears to have **shifted on the site plan; justify the difference.**
9. Provide a **detailed tree protection plan.** (8-4.2.5 ZO)

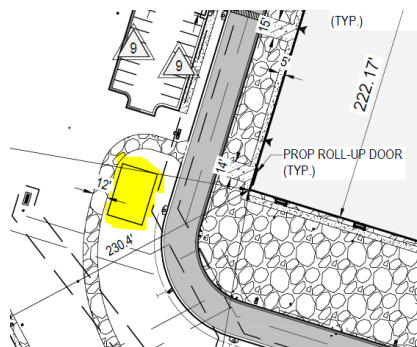
Sheet C-203:

10. Provide a note to state that the construction entrance shall be closed as noted on Sheet C-301.
11. The limits of disturbance are depicted outside of the property line across Lee Highway. Revise limits of disturbance or **provide a letter of non-objection from the property owner.**
12. The **existing powerline** is noted as to be **relocated**; **show the new location** of the line.
13. Add **note "Existing treeline to remain"** to the Northwest corner of the site just outside of the limits of disturbance. (See image below)



Sheet C-301 & C-304:

14. Provide details for **rectangular object** located between the access road and stormwater access way (See photo reference below)



Sheet C-301:

15. Revise site data table to note **that proposed height of 37 feet was approved by the Town Council under SUP 22-3.**
16. Provide legend icon for the **"E" symbol** throughout the plan to indicate what this is meant to indicate.

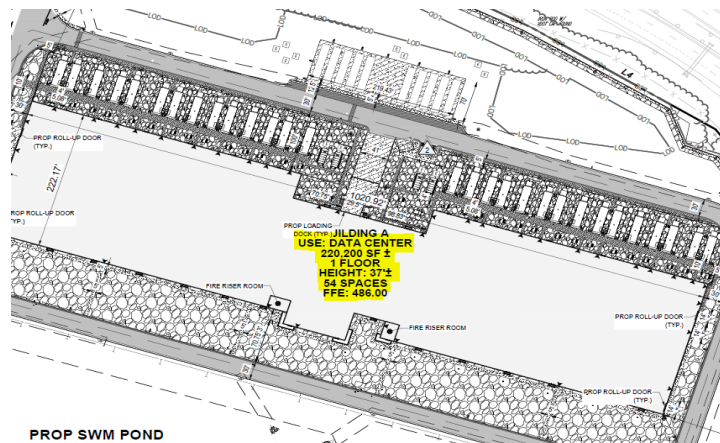
- 17. Provide a detailed calculation of the proposed building height for all structures proposed on-site, to meet the definition of *Building, Height* of as found in Article 12 of the Zoning Ordinance. Provide a plan view to show where ground elevation data was sampled, as well as a table of corresponding roof height measurements that are depicted on a building elevation drawing. (Art. 12 ZO)
- 18. Remove reference to substation from all plan sheets and verify lot coverage calculation, as a substation was not approved as part of the special use permit for the data center. (SUP approval condition #4) (See photo reference below)

SITE DATA				
ADDRESS	BLACKWELL ROAD & LEE HIGHWAY			
JURISDICTION	TOWN OF WARRENTON			
ZONING	EXISTING	PROPOSED		
	I (INDUSTRIAL)	I (INDUSTRIAL)		
PROPOSED USE	DATA CENTER			
SITE AREA	41.793 ACRES			
LIMITS OF DISTURBANCE	32.9 ACRES			
PARKING REQUIREMENTS	REQUIRED	PROPOSED		
	1 SPACE PER EMPLOYEE ON LARGEST SHIFT, PLUS 1 SPACE PER COMPANY VEHICLE ON-SITE. (49 EMPLOYEES)	54 SPACES (2 ADA)		
SETBACK REQUIREMENTS	REQUIRED	PROPOSED		
	FRONT (W) (BLACKWELL RD)	100'	710.9'±	
			100'	232.8'±
			100'	256.7'±
			100'	159.9'±
BUILDING AREA	N/A	220,200 SF		
LOT COVERAGE	75% MAX	146%		
MAX BUILDING HEIGHT	**35' MAX.	37'		

* EXCLUDES SUBSTATION AREA
 ** MAY BE INCREASED BY TOWN COUNCIL

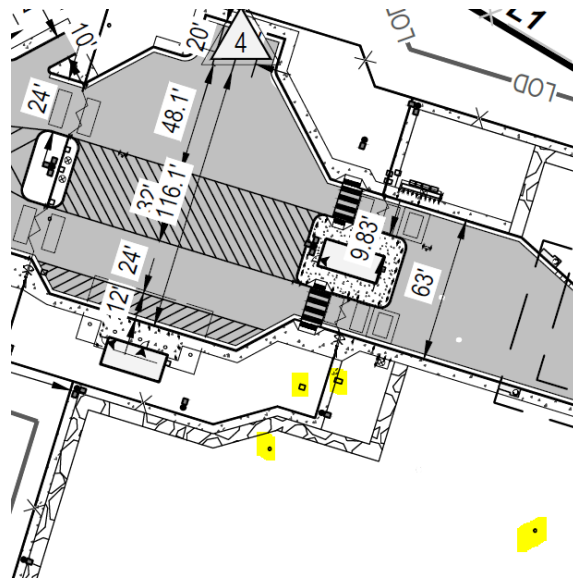
Sheet C-302:

- 19. Revise building height to the actual calculated height throughout the plan, to show conformance with SUP condition #6c. (See photo reference below)



- 20. Provide to-scale elevations for proposed guard booth, cargo screening building, and canopy, and indicate height, material, fenestration and color, ensuring that these structures complement the architectural design of the main building as included in SUP approval condition #6b.

21. The 20-foot screen wall does not extend around the entire perimeter of the generator area as shown on the elevation drawings approved as a part of the SUP; revise the plan to show the wall extending the full length of this area in conformance with SUP approval condition #6.
22. Provide a cross-section/elevation detail for proposed perimeter fence, anti-dig pad, and gravel pathway.
23. Show the location of the required stop sign and stop bar at the entrance to the facility off of Blackwell Road.
24. Provide more information pertaining to the unlabeled boxes shown on the plan. (Photo reference provided below)



25. Provide more information pertaining to the proposed pedestal mount EPU unit shown on the plan; what is this object to be utilized for?

Sheet C-303 & C-305:

26. Note the height of the proposed generator yard fencing shown on the plan sheet; fencing cannot exceed 8' per SUP condition #8. Note above comment for Sheet C-302 – 20-foot tall brick screen wall must encircle entire generator area. (2-19.1 ZO)
27. Provide a typical elevation drawing for the 50,000 gallon fuel tanks, to include dimensions and height, and show whether any lighting will be placed on the tanks. The fuel tank area must be screened; see landscaping plan comments below.

Sheet 501:

28. Per SUP approval condition #14, provide prominent notes to state that:
 - a. The use of public water is strictly limited to internal domestic uses such as service to bathrooms, kitchens, humidification, and external irrigation.
 - b. The use of public water for fire suppression is permitted.

- c. The use of **public water for cooling** the data center is **strictly prohibited** except for the initial charging of the cooling system.
- d. The applicant must **schedule the initial charging of the cooling system** with the Director of the Department of Public Works and Utilities at 540-347-1858.

Sheet C-701:

29. Remove **reference to substation from Western perimeter landscaping table**; the substation was not approved as part of the Special Use Permit. (SUP Approval condition #4)
30. Advisory: Pitch pine is commonly noted as suitable for sandy soils; local soils are generally heavy and not sandy. **Justify use of Pitch Pine or select a different species.**
31. Revise the Landscape Schedule to **note minimum required height at the time of planting** per ZO Article 8:
 - a. Canopy Trees – 15 feet
 - b. Evergreen Trees – 8 feet
 - c. Shrubs – 2 feet
32. Provide a **tree preservation easement over all areas of existing forest/woodlands that are to remain in conformance with the SUP plan.** Provide notes regarding maintenance of the wooded areas to address dead, dying or diseased vegetation, removal of invasive species, and replanting/replacement as needed to maintain wooded areas in a healthy growing condition.
33. A **52-ft. wide landscape buffer yard is required between the building and Lee Highway per ZO Section 8-8.4 and in conformance with SUP approval condition #21:**
 - a. Minimum screening required is twice the ordinance requirement, equal to a quadruple staggered row of evergreen trees planted 15-ft. on-center.
 - b. Along the south face of the building, locate the trees at the top of the slope adjacent to the building area to conform with approved SUP.
 - c. Extend the line of screening to either extend past the building corners, or to wrap around the corners, to provide effective screening at either end of the structure.
 - d. A mixture of evergreen species is strongly recommended to avoid monoculture susceptibilities.
34. A 52-ft. wide landscape buffer yard is required along Blackwell Road per Section 8-8.4 and in conformance with SUP approval condition #21:
 - a. Minimum screening required is twice the ordinance requirement, equal to a quadruple staggered row of evergreen trees planted 15-ft. on-center.
 - b. This requirement is in addition to the 100-foot wooded buffer to be retained as shown on the SUP plan and condition #21.
 - c. A mixture of evergreen species is strongly recommended to avoid monoculture susceptibilities.

Sheet C-701 & C-702:

35. **Show new tree planting** within the area of the relocated power line - a gap in landscaping is currently shown. (SUP approval condition #21)

Sheet C-702- C-706:

36. Show all existing trees within the wooded areas that are to remain as shown on the tree survey.
 - a. **Where the tree survey shows trees to be removed within designated tree preservation areas, show equivalent trees being replanted to maintain a dense, wooded buffer.**
37. Provide a detailed tree protection plan for all trees and wooded areas to remain. (8-4.2.5 ZO)

Sheet C-703:

38. Revise number of American Holly provided to 32; count is incorrect.
39. Provide **proposed screening for the 50,000 gallon fuel tanks**; tanks must be screened from view of adjacent properties and Rte. 17 to meet ZO Section 8-8.2.1. Provide either a double-staggered row of 8-ft. tall evergreen trees planted 15 ft. on-center at the top of the graded bank or provide a combination of 8-ft. evergreen trees and solid fence/wall around the perimeter of the tank area.

Sheet C-707:

40. The building height is noted as 42'; revise building height to maximum permitted 37' per SUP condition #6c.

Sheet C-707- C-711:

41. Lighting plan is largely illegible as presented; revise so that all labels are at a legible scale. (9-8 ZO)
42. Revise photometric plan to include lighting values to each property line. (9-8 ZO)
43. Provide SUP approval condition #18 as it relates to lighting on each sheet and illustrate how the lighting plan meets the SUP approval condition.
44. Provide certified lighting plan by a qualified professional. Plans submitted do not have a seal.

Sheet C-711:

45. Fixture catalog cut sheets not provided. Staff is unable to determine that fixtures will be full cutoff and meet requirements of SUP approval condition #18. (9-8 ZO)
 - a. Note mounting height of all fixtures and provide a **prominent** note that all lighting shall be reduced by at least 50% between the hours of 11:00pm and dawn per SUP approval condition #18.
 - b. Recommendation: Consider fixtures that emit light with a color temperature of 3,000 K or lower to reduce sky glow.

Sheet C-902:

46. The plan does not specify what area of the site the proposed fencing details apply to; provide labels or notes as necessary to clarify.
47. Provide elevations for all fencing and walls that are proposed on-site, with corresponding labels or notes indicating which areas they apply to. (SUP condition #1, #8)

Sheet C-903:

48. Provide elevations for the proposed trash enclosure screening per SUP approval condition #11.

Sheet C-904 (SUP Condition Analysis):

49. Noise emitting equipment is not delineated, nor is the plan phased as per SUP condition # 2; resolve.
50. Undergrounding of electrical lines from a power source to the facility is not shown on the plan per SUP condition #5; show all existing and proposed lines on the plan sheets, and specify whether these lines are above ground or below ground.
51. To-scale elevations are not provided to show conformance with SUP approval condition# 6; provide to-scale elevations to demonstrate conformance with SUP approval condition #6b and Zoning Ordinance Article 9-26.1. F. Elevations must be of sufficient detail to show conformance with the architectural requirements (fenestration, material, canopies or porticos, varying roof lines, etc.) as described in SUP approval condition #6b. Please be aware that elevations are required for all structures/buildings to be located on the site.
52. Provide a calculation to show the proposed height of the building to show conformance with SUP approval condition #6c.
53. Specify what type of noise mitigation measures are being implemented per SUP approval condition #6d. A noise study demonstrating the projected noise levels of each development phase, along with proposed mitigation measures as needed to meet Ordinance limitations, must be provided for review with the next submission. Any required mitigation measures must be shown in this plan document.
54. Provide an elevation/detail for each type of fencing shown on the plan set to show conformance with SUP approval condition #8.
55. Provide plan notes as needed to state the type and size of fuel tanks, and provide a note to specify that the fuel supply is solely for use in the event of a loss of external electrical power, per SUP approval condition #9.
56. Ensure parking and loading space requirements are met and clearly labeled throughout the plan per SUP approval condition #10.
57. Provide a detail for the masonry screening wall around the dumpster area, to demonstrate compliance with SUP approval condition #11.
58. Provide a prominent note in the plan set to state that water use is strictly limited to internal domestic uses, and shall not be used for cooling the data center except for the initial charging of the cooling system per SUP approval condition #14.

59. Provide fire-flow information for review by the Fire Marshal with the second submission of the plan per SUP approval condition # 15b. The information must demonstrate that minimum required fire flows are available.
60. In conformance with SUP approval condition #17a, show intended phasing of construction and associated noise study for each phase.
61. SUP condition #18: Refer to previous comments regarding site lighting; provide a lighting plan that is legible and provides sufficient detail for a complete review.
62. SUP condition #19: Refer to previous comments regarding tree save areas; provide a detailed tree protection plan for existing vegetation to remain, and a maintenance plan for wooded areas to remain.
63. SUP condition #20: Specify how this condition is intended to be met; provide details in the plan set as needed.
64. SUP condition #21: Refer to previous comments regarding landscaping requirements, specifically the necessity to provide twice the ordinance requirement.
65. SUP condition #22: Specify how this condition is intended to be met.
66. SUP condition #23: Specify how this condition is intended to be met.
67. SUP condition #24: Specify how this condition is intended to be met.
68. Provide an acknowledgement of SUP condition #25 by the property owner.

Sheet C-906:

69. To-scale elevations not provided. Provide to-scale elevations in conformance with SUP approval condition #6b and Zoning Ordinance Article 9-26.1. F.
 - a. Provide detailed elevations for the proposed fuel tanks and generators, guard booth, cargo screening building and canopy, as well as all other structures that extend above the ground surface.

Building Official/Fire Official Review Comments

1. No building comments with this submission.

VDOT Review Comments

General:

1. Please provide Trip Generation analysis and Left/Right Turn Lane warrants.
2. **Existing GR** is not clearly shown on the plan lines do not clearly terminate. How will GR be impacted with new entrance and sidewalk? GR warrants should be investigated for **possible removal from barrier warrants analysis**. Reference Road Design Manual Appendix J – Barrier Installation Criteria (MASH).
3. Sidewalks do not clearly tie into other existing networks either by physically connecting, or by crosswalk to adjacent sidewalk. Please revise to provide connectivity.
4. Suggest adding **a pavement markings and signing plan**. Items not clearly identified on plan include a STOP Sign and STOP Bar at entrance.

Sheet C-302:

5. Commercial entrance standard width should be between 30-40' wide per Road Design Manual Appendix F Page F-120.
6. Crosswalk on south side of entrance is considered a **Mid-Block crossing**. Consider relocating to an intersection or providing justification.
7. Crosswalk on south side of entrance does not feature a CG-12 on opposite side of Blackwell Road. Please revise for ADA needs.
8. Please **clarify sidewalk connection at north side of entrance**. Will there be a CG-12 and Crosswalk across entrance?
9. Please clarify sidewalk termination at very north end of property. Suggest to extend **and tie into sidewalk at bridge over Rt. 17**.
10. Please clarify sidewalk termination at very south end of property. Suggest to terminate and provide crosswalk to sidewalk across Blackwell Road.

Fire Department Review Comments

1. What is the width of the road from the shoulder of the road to the security office coming into the complex on the entrance and exit? What is the width of the road going around the building and distance from the road to the building? **The building code calls for a dedicated fire lane, can the developer show the fire lane on the design as well as the curb markings describing the location.**
2. Mountable curbs on entrance and exits to ensure fire and EMS apparatus aren't damaged during operations in tight spaces.
3. Will the security office be staffed 24 hours a day year-round, to allow for entry during an emergency?
4. Supra boxes installed front and rear on buildings and security office to gain access to allow Fire Department access. Needed in the Security Office and outside Fire Alarm Control Room and outside sprinkler rooms.
5. Fire Department Connection (FDC) to be a 4" Storz connection and marked with signage.
6. Need plans that show Fire Hydrant locations.
7. A Fire Hydrant outside the complex prior to the entrance secured gate.
8. Signage on doors for fire alarm, sprinkler, generator, electrical and mechanical rooms.
9. Annunciator panel for the fire alarm at the front entrance inside the building.
10. **Will the containment pit or pits around the above ground, 50,000-gallon fuel storage tank or tanks, be able to hold that much product?**
11. Will there be **water/fuel separator for water runoff**, out of the containment pit or pits? Will the separator automatically shut off if fuel is detected?
12. Will there be a secondary entrance or exit in case of an emergency at the security gate?
13. Location of the emergency shut off valves for the storage tanks and/ or generators.
14. **Any storage or operations with dangerous chemicals or the possibility of any off gassing of any equipment?**
15. Emergency shut offs for equipment locations.
16. **Centralized atmospheric** monitoring station's location inside the building or in the Security gate.
17. Operational and competent staffing 24/7/365 if an emergency arises or do those employees need to respond into the facility?

Police Department CPTED Review Comments

This proposal involves **major new construction, and construction traffic will have significant impacts on the north and northeastern gateways into town, specifically Rt. 17 Broadview Ave. / Oak Springs Dr., and Lee Hwy. / Blackwell Rd.** Vehicular and pedestrian traffic will be affected. **That issue is not addressed by this memo.**

The proposed data center is in a unique location that effectively insulates it from the rest of the Town. From a public safety perspective, the impact to the citizens will mostly

begin and end at the entry and exit point on Blackwell Rd. The following factors were analyzed: Traffic safety, pedestrian safety, lighting issues and landscaping.

Traffic:

- As currently configured, vehicular traffic traveling northbound on Blackwell Rd. does not stop at the intersection of Oak Springs Drive, allowing for continuous flow past the entry/exit point. Vehicular traffic traveling southbound on Blackwell Rd. must stop at the intersection of Oak Springs Drive, which will allow for a break in traffic for vehicles exiting the data center and turning left.
- With only 32 employees expected at any one time on the property, entering and exiting the facility should not affect traffic flow. **A turning lane added to the east side of Blackwell Rd. could be considered.** A center turn lane for southbound traffic would require the widening of Blackwell Rd.
- There is a drop in elevation from Blackwell Rd. to the property at the entry/exit point. I recommend that be brought up to grade so that traffic exiting the property can have a clear line of sight in both directions.
- The proposed 50,000 gallon fuel tanks, in the event of a catastrophic incident, would have **an immediate effect on both northbound and southbound lanes on the Rt. 17 Spur.** This would likely require a closure of a major north/south corridor and result in a Hazmat situation.
- Emergency vehicle access into the facility does not appear to be an issue.

Pedestrian:

- This proposal would have minimum impact on pedestrian traffic. There is currently no sidewalk on the east side of Blackwell Rd. There is a sidewalk on the west side of Blackwell Rd. The applicant has proposed, in their Site Development Plan, to build a 5' sidewalk on the east side of Blackwell Rd. along their property. Pedestrian crossing hashmarks and warning signs should be clearly visible from both directions. I would recommend putting 3 pedestrian crossings. 1 closest to Country Chevrolet where foot traffic heading to Sheetz would cross, 1 in the middle by the Giant entrance and one near the intersection of Oak Springs Drive.

Lighting:

- Lighting should be LED or OLED with a correlated color temperature of between 2700 and 3000 Kelvin. After installation a night-time lighting study should be done to check illumination, uniformity, and brightness and to ensure the lights are properly shielded so glare doesn't affect traffic on Lee Hwy, the Rt. 17 Spur and Blackwell Rd.

Landscaping:

- Trees surrounding the property would effectively screen the data center from view from the road and could shield drivers from the security lights. In the employee parking lot shrubs should be low growing so as not to obscure sight lines or cover windows. This is particularly important near entrances and exits where someone could conceal themselves from view. Tree type and placement should be planned so the canopy doesn't interfere with the lights in the parking lot as they grow.

Planning Review Comments

General:

1. The SDP sheets are all marked confidential. The Applicant should be aware that all submissions are public, subject to FOIA, and should consider removing these notes.
2. Approval for this development was heavily conditioned through the Special Use Permit approval. As such, the Applicant should move the Conditions of Approval, SUP Plans, and SUP elevations to the front section of the SDP sheets.
3. The Applicant should overlay the Site Plan on the approved SUP Plan to ensure substantial conformance. At this time, staff is unable to fully assess the conditions have been met based on the materials submitted.
4. The Applicant should include a Conditions of Approval matrix and analysis to demonstrate the conditions are met.
5. The Applicant should add the Conditions of Approval as Notes to the specific sheets. For example, lighting condition to the notes on the lighting sheets, landscape conditions on the notes of the landscape sheets, etc.
6. Multiple sheets reference a 5' landscape buffer on the perimeter of the property. Please clarify what specifically this note is regarding.
7. Multiple sheets indicate a LOD over an area with a note of "existing treeline to remain." Please clarify and address.
8. Multiple sheets indicate a LOD on the tree preservation area without taking into account the drip line that would actually preserve the trees. Trees within the preservation area must remain viable and not have their roots cut.
9. The SUP Approval speaks to phasing of the project. However, the SDP plans do not speak to the phasing of the project. This impacts the construction entrance, landscaping of said entrance, generators, and noise. Please clarify phasing and elements of each phase.
10. Multiple sheets indicate a large "standard gravel" that is 70'-90' in width on the south side of the building. In order to meet the landscaping requirements established in the SUP Conditions of Approval the Applicant should reduce the size of this gravel pad. The Applicant, in public meetings, indicated to Town Council that it was appropriate to add the additional landscape screen against the building. Staff agrees that the SDP does not capture this intent by placing the screening on a lower grade beyond the gravel pad.
11. Multiple sheets indicate extensive grading. The SUP process spoke to potential blasting in the geo-technical report. Please indicate if the geotechnical report has been updated and submit the latest copy, as well as indicate blasting on the SDP. A note on the SDP that the Applicant is responsible for any damages related to blasting and the Town holds no liability to the Applicant or other properties.
12. There will be right-of-way improvements along Blackwell Road, yet it does not appear that the existing trees are taken into consideration on the survey and impacts. Instead there is simply a LOD line with none of the existing trees identified within it. Please address.

Specific Sheet Comments:

(Please note these may be updated once the General Comments are addressed in the next Submission)

1. Sheet C101 – The Date on the Architectural Plan reference should be updated to February 14, 2023.
2. C102 – Under Lighting Notes add Condition of Approval 18.
3. C202A-K – **These sheets are not accompanied by a Tree Preservation Plan, nor is staff able to determine where the tree save area is delineated on the approved SUP Plan, how trees are being replaced that are identified for removal, or how substantial conformance with the Conditions of Approval are being met for conditions 1, 19, and 21.**
4. C2023 – Note #6 states the contractor will ensure existing treelines are removed to provide a minimum 10ft. clear of proposed perimeter security fence. This will need to be delineated on the SDP to **demonstrate protected drip lines of tree save areas and how it might impact required landscaping.**
5. C301 – Overall site plan does not indicate **how Condition of Approval 12 will be met in restricting access to Lee Highway.** Please revise.
6. C302 – The site plan needs to include a high visibility crosswalk across the entrance of the site and across Blackwell.
7. C305 – The site plan needs to label the refuse and meet Condition of Approval 11. **The site notes should include all applicable conditions, including 1, 6, 7, 8, 10, 11, 12, 16, 18, 19, 20, and 21.**
8. C307 – MOT needs to provide proper area mapping and diagrams with labels to be able to properly evaluate.
9. **C408 – Add Condition of Approval 20 as a note and in the design.**
10. **C409 – Add Condition of Approval 20 as a note and in the design.**
11. C601 – **The proposed wet storage/dry storage appears to conflict with the SUP Plan and tree preservation area. Please clarify.**
12. C701- C705 - Add Conditions of Approval 1, 19, and 21 to the notes. See additional comments above under **General Comments as they relate to phasing and landscaping requirements.**
13. C707- C711 - Add Condition of Approval 18 to the notes. See additional comments above under General Comments as they relate to lighting.
14. C901 – Add diagram and notes for the installation of a high visibility crosswalk.
15. C903 – Add Conditions of Approvals 1 and 11 and adjust the refuse plan to meet the requirements.
16. C904-C906 – **Ensure all SUP plans, Conditions of Approval, and elevations are incorporated and met throughout the SDP.**

Utility Review Comments**Water & Sewer:**

1. The site is connected to public water at two locations. Water meters will be required for both locations so the Town can monitor and bill for on-site water use.

2. Please provide the fire hydrant labeling and valve locations on the Fire Lane Plan
3. Please have your consultant provide fire flow calculations for the network on site.
4. Please explain the sewer gas interceptor structure at the building connection. It appears that this structure will function as a solids septic tank. Is the wastewater from the building planned to be pumped?
5. Why is the Sewer Gas structure not included in the profile?
6. As an advisory comment, a good portion of the sanitary service main on-site is proposed at a 0.5% slope, the minimum slope in the Town's PFM. This sanitary sewer will be privately owned and maintained since it only serves this facility and no other public purpose. We have seen issues with construction where the as-built construction of sewers such as these turn out to be less than the minimum 0.5% slope. Great care will be required during construction to ensure the minimum slopes are met, or waivers to this condition will be needed.
7. Please provide wastewater projections to accompany the water use and fire flow projections.
8. Sanitary sewer service laterals require a cleanout every 100 feet per PFM 302-13-B-5.d.
9. The minimum vertical separation for water and sanitary sewers from other utilities is 18-inches unless approved on a case-by-case basis by the Director, per PFM 202.07-B.

Public Works Review Comments

1. For additional street lighting on Blackwell, poles are to match existing poles on Blackwell and Oak Springs.
2. What lighting is proposed at the site entrances to Blackwell Road?
3. Where are the proposed lighting details to include pole type, height, and fixture specifications?
4. Markings for crosswalks within Town right of way shall be at least 6 feet wide and not 5 feet.
5. Blackwell Road widening and lane markings to accommodate the center lane turning and straight-through directions.
6. Please clarify how the flow under the existing culverts under Lee Highway to the stream on the east side is changing with this plan. Much of the flow appears diverted through the pond to the culvert furthest to the southeast. But it is not clear how the comparison table was determined.
7. The SWM Narrative implies the site drainage will be conveyed to POI #1. It is not clear through the grading and stormwater plans how the 9.22 acres by-pass area will be conveyed to POI #1.
8. Plan Sheet C-407, the Post Development Drainage Plan, implies the 9.22 acres should be divided into multiple drainage areas discharging to the different existing culverts under Lee Hwy.

9. With this, the plan needs to demonstrate the plan graphics and calculations that show what the anticipated flows will be to each of these culverts and the existing capacity for those culverts to accept those flows. In most of those cases, it is likely that the post-development flows will be less than the existing flows. But this needs to be clearly demonstrated. The table on sheet C-408 summarizes that the total site meets the Pre-Development test by the energy balance system, but it is not clear how these were determined for each of the existing culverts under Lee Hwy, which is a critical feature for this development.
10. Please provide adequate designations for the existing contours on the proposed grading plan. It is difficult to line up and match the tie-ins of the proposed contours to existing contours.
11. Why do the 479 and 478 contours across the proposed surveillance trail direct runoff towards to proposed pond rather than toward the bypass area?
12. Please provide the proposed construction profile for the Stormwater Management discharge structure, pipe and outfall. Please include the pipe calculations with the Stormwater Calculations. Include with this the proposed channel to the existing culvert under Lee Hwy as well as the existing culvert capacity calculations.
13. With the size and extent of earthmoving required for this project, **a multi-phase-2 E&S Plan is needed.**
14. The Town is preparing for a major stream restoration project for the un-named tributary of Cedar Run flowing on the south side of Lee Hwy. from Blackwell Road to the Rt. 17 interchange. It will be critical that a well-designed E&S program is carefully implemented and followed during construction.
15. For the 2-to-1 and 2.5-to-1 slopes downstream of the proposed construction entrance draining to the wetland, the existing culvert under Country Chevrolet, and the new building they constructed, a drainage diversion is needed to ensure the fill slope does not cause an erosion issue. The diversion should be directed toward the proposed SWM facility.
16. The CG-7 and CG-7R details appear to be the same detail.

MOT/Public Works Review Comments

General:

1. Provide a turn radius plan to include wheel paths of the largest expected vehicle, to include entrance/exit and pathway around the building.
2. There shall be no off-site staging permitted. Staging shall not take place outside of authorized work hours.
3. Provide travel routes and truck access routes for all construction activities for review and approval prior to commencement of construction activities.
4. Provide a capacity analysis of construction traffic leaving the site and impacts on existing traffic flow.

Sheet C-302:

5. **Due to the heavy equipment and increased traffic volume. All of Blackwell Road shall be milled and paved from Lee Highway to station 26+/-50.**

6. Asphalt material shall be an approved VDOT Mix Design and shall meet the density, placement and material specified in the 2020 VDOT Road and Bridge Specifications.
7. Entrance at Blackwell Road shall consist of a CG-13.

Sheet C-307:

8. Need additional plan sheets and information regarding Maintenance of Traffic Plan
9. Sequence of Construction plan sheet is required.
10. Detail plan laying out the placement of temporary, permanent signage, and traffic control devices.
11. Road Work Ahead and End Road Work signage shall be far enough ahead to allow room for Temporary signage.
12. Allowable hours for any lane closures are 9AM to 3PM and no work allowed in right-of-way on Saturday or Sunday
13. 72-hour notification to Town of Warrenton required for any lane closures and/or impeding traffic flow
14. Need a work zone layout plan for traffic control devices along Lee Highway
15. All traffic control devices shall be installed per 2011 VDOT Work Area Protection Manual revision 2 September 1, 2019 and MUTCD
16. The minimum allowable traffic lane is 11 feet.
17. Pavement Markings plan sheet needed.
18. All traffic markings in the right-of-way shall be VDOT Class I Thermoplastic.
19. How do you plan to maintain traffic flow with a 10x10 bore pit located in the median of Lee Highway?
20. A certified shoring device will be required for all bore pits.
21. How will you maintain drainage ditch in median along Lee Highway?

Sheet C-504:

22. Water Main tap at station 10+/-00 shall be moved approximately 50 feet East, to avoid conflict with existing box culvert.
23. The existing 12-inch Water Main along Lee Highway is made of cast iron, and is a main water service line for the Town. So great care shall be taken when working on and/or around this pipe. Any damage will need to be addressed at owner's expense, to include vibration damage from blasting and/or excavation activities.
24. Water Main back flow preventors are required at each tie-in location.
25. The Town's main sanitary sewer feed runs through the area tie-in area proposed along Lee Highway. This line needs test pitted and found prior to any other activities in this area.
26. There is an existing sanitary manhole #823 located on the Westside of Country Chevrolet entrance along Lee Highway. This could be a more suitable location to tap the sanitary.
27. Guardrail located along WBL Lee Highway from 174+/-50 to station 176+/-00 left of baseline and EBL Lee Highway from station 174+/-50 to station 176+/-50 right of baseline shall be brought up to VDOT guardrail standards.

28. Shall notify adjacent property owners when working on their property via Town easement.
29. WBL and EBL Lee Highway will be paved by the end of 2023. Any pavement damage shall be addressed by milling and overlaying damaged asphalt.
30. Possible blasting will occur, need a plan on how you plan to protect the existing utilities from damage. A plan must be submitted for review and approval prior to commencement of blasting activities.

Sheet C-509:

31. Water Main trench width shall be one foot on each side of pipe plus OD of ductile pipe.
32. Details on type of casing for sanitary sewer and water main
33. Minimum of 4 inches of bedding required under all sanitary and water main in right-of-way.
34. Bedding material shall be crusher run or VDOT # 57's.

Sheet C-901:

35. Density testing will be required when working on any item within the right-of-way. All tests shall meet the 2020 VDOT Road and Bridge Specifications
36. All concrete placed within Town's right-of-way shall be tested and meet the 2020 VDOT Road and Bridge Specifications
37. VDOT CG-6 shall be used in Town of Warrenton's right-of-way; provide CG-6 detail on Sheet C-901 and show/note on all affected plan views.
38. Max ADA ramp slope is 1:48 per VDOT CG-12 of the 2016 VDOT Road and Bridge Standards; revise as needed on all plan sheets. On Sheet C-901, update the ADA ramp details to the current revision 4/2019.
39. Sidewalk width shall be 5 feet or more.
40. ADA ramp widths shall be 5 foot or more.

SWM & ESC Review Comments

Virginia Stormwater Management Program (VSMP) Regulations and Permit, Town of Warrenton Zoning Ordinance (ZO), Article 3-5.1 Floodplain District (FPD), Article 4 Site Conservation Manual (SCM), Article 5 Stormwater Management (SWM), and Article 10 Site Development Plan (SDP), Town of Warrenton Subdivision Ordinance and Public Facilities Manual (PFM), the Commonwealth of Virginia Erosion and Sediment Control (ESC) Law, Virginia Erosion and Sediment Control Handbook (VESCH), VAC 9-25-840, VAC 9-25-870.

IN GENERAL

1. Legends need to apply to each page.
2. Correctly delineate and update the limits of disturbance and limits of work.

3. When the limits of disturbance include areas on the adjacent properties (Parcel ID 6984-59-4220-000 & 6984-58-7618-000), evidence that the adjacent properties are aware of and agree with the proposed land disturbance is required.
4. **If the limit of disturbance is in areas outside the property line, please indicate them as a limit of work.**
5. Update the necessary documentation showing concurrence by the Army Corps of Engineers, Department of Environmental Quality (DEQ) - Virginia Water Protection (VWP), or other agencies and the proposed disturbed and protected areas (updated permits).
6. Stormwater Pollution Prevention Plan will be required before plan approval. [ZO Article 5-7].
7. This project requires a General VPDES Permit for Discharges of Stormwater from construction activities (VAR10) Registration Statement.
8. Land disturbance activity will only occur once the Department of Environmental Quality (DEQ) issues the permit coverage and the operator and the Town receive a coverage letter.
9. Show all proposed easements, including storm drainage, stormwater management, BMPs, and stormwater access; ensure the minimum required width is provided to meet Public Facilities Manual Sec. D-17. [Z.O. 10-4.2.1 & 10-6.3].
10. A maintenance agreement is required for the BMP facility and shall be submitted to the Administrator for review/approval prior to the approval of the plan. [ZO 5-11.a].
11. A construction record drawing for permanent SWM facilities and public utilities shall be submitted to the Administrator. [ZO 5-6.d].
12. Per the SUP condition of approval #13, Access for Town Staff, the applicant shall provide the Town Manager with an on-site employee who shall serve as the sole point of contact for arranging access to the Property for the Town's conduct stormwater inspection required by the Virginia Department of Environmental Quality; and shall keep that point of contact current at all times.
13. **Advisory comment: If an additional disturbance occurs at this property during the SDP review process or in the future during construction activities, the Town of Warrenton reserves the right to further comments on the SWM and ESC measures.**

C-102: GENERAL NOTES

1. Include in the "General Notes" the narrative indicated below in italics:
 - *"The contractor shall call "Miss Utility" (1-800-257-7777) a minimum of 48 hours in advance of any excavation, boring, pile driving, and/or digging for the location of utility lines."*
 - *"All materials and construction methods shall conform to the Town of Warrenton and/or VDOT Standards, Town of Warrenton, Public Facilities Manual, and the Virginia Erosion and Sediment Control Handbook, current Edition."*
 - *"The Land Disturbance Permit (LDP), the SWPPP, the Registration Statement and a copy of the notice of coverage letter, and the Operator's Contact Information and Emergency Contacts List MUST BE DISPLAYED outside of the property, near the construction entrance, where it is visible from the street and must not be removed until the construction is completed. A copy of the approved construction documents shall always be kept on-site."*
2. Include (in italics) and remove (in strikethrough) in the "Soil Erosion and Sediment Control Plan Notes" the narrative indicated below:
 - 4.B. Sediment Fence – Install silt fence(s) ~~and/or silt sock~~ around the downslope perimeter of the site, temporary fill, and soil stockpile. *Notify the*

Sediment Control Town Inspector and obtain approval to modify or remove sediment erosion control devices.

3. **Add the narrative indicated below in italics in the “Soil Erosion and Sediment Control Plan Notes”:**

- *18. All Erosion and Sediment Control Measures shall conform to the Virginia Sediment Control Handbook’s most current edition.*
- *19. The Town of Warrenton ESC Inspector has the authority to add or delete ESC measures as necessary in the field as site conditions change.*
- *20. All ESC structures should be inspected by the contractor every four days or five days and after each storm event. The contractor shall repair each ESC control structure as specified in the “Maintenance” section in the Virginia and Erosion and Sediment Control Handbook, current edition for each ESC structure until it can be removed at the competition of construction (9VAC25-840-60). [ZO Article 4 4-8.8; 9VAC25-840-60].*
- *21. A pre-construction conference must be coordinated with the Town of Warrenton ESC Inspector prior to construction.*
- *22. Dumpsters will be covered daily after work [9VAC25-840-40].*
- *23. The Land Disturbance Permit (LDP), the SWPPP, the Registration Statement and a copy of the notice of coverage letter, and the Operator’s Contact Information and Emergency Contacts List MUST BE DISPLAYED outside of the property, near the construction entrance, where it is visible from the street and must not be removed until the construction is completed. A copy of the approved construction documents shall always be kept on-site.*
- *24. No building construction will occur until the Building Official authorizes by writing the construction of the new buildings and all required building/zoning permits are obtained by the owner/applicant.*
- *25. All work shall be done between the hours of 7:00 a.m. and 6:00 p.m. Monday through Friday. Any other times must be approved in advance and written by the Town Manager.*
- *26. All the sediment trapping facilities will be constructed as the first step in land disturbance activities and will be adequately maintained per the Erosion and Sediment Control Handbook, Current Edition, and per approval plans (including safety fence, silt fence, construction entrance, etc.).*
- *27. Silt fence will be installed between the property line and the right-of-way, never in the right of way.*
- *28. The contractor shall be responsible for scheduling all inspections by calling the ESC Town’s Inspector no less than 48 hours in advance.*
- *29. All denuded areas requiring temporary or permanent stabilization will be stabilized and restabilized, if needed, during the length of the project.*
- *30. A temporary and/ or permanent vegetative cover will be established to be uniform, mature enough to survive, and will inhibit erosion.*
- *31. Care must be taken during construction to prevent erosion, dust, and mud from damaging adjacent property, clogging ditches, tracking public streets, and otherwise creating a public nuisance to surrounding areas.*
- *32. Upon completion of the work, the construction area is to be cleaned of construction debris litter daily.*
- *33. Excavated material will be located within the limits of disturbance inside the property. If excavated material is taken off-site, the Offsite Soil Tracking Form will be required (9VAC25-840-80, Chapter 8, VESCH).*
- *34. If construction equipment and vehicles are needed will be staged inside the*

property.

- 35. If adjacent properties or the right-of-way are disturbed during construction activities, the construction company will repair the portion affected (grass or other materials) to return to existing conditions.
- 36. If the contractor or his subcontractors or their employees dumps, discharges, or spills any oil or chemical that reaches or has the potential to reach a wetland and/ or waterway, the contractor shall immediately notify all appropriate jurisdictional agencies (federal, state, and Town), and shall take immediate actions for containment and/ or removal of the oil or chemical.

C-201A-C-201B-C-201C: ALTA/NSPS SURVEY (BY OTHERS)

1. Indicate the existing utility line (power line) on the plan.

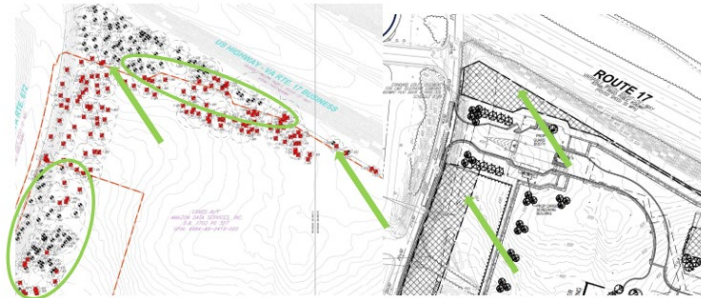


2. Label the material and diameter of the existing pipes that extend across W. Lee Hwy; see the picture below:



C-202A-C-202B-C-202C-C-202D-C-202E-C-202F-C-202G-C-202H: TREE REMOVAL BASE (BY OTHERS)

1. Indicate on the plan the **location of the existing wetlands**.
2. Correctly delineate and update the limits of disturbance and limits of work.
3. Clearly identify the tree preservation area. **The plans indicate trees to be removed in the preservation area and outside the limits of disturbance (find pictures below indicated in green). Are the roots of these trees going to be removed? How will the tree-cut trunks be removed from the preservation area without disturbing and damaging the vegetative ground cover? Please clarify and note in the plans how the remaining trees will be protected from construction activities without disturbing the ground. Otherwise, correctly delineate and increase the limits of disturbance and limits of work.**



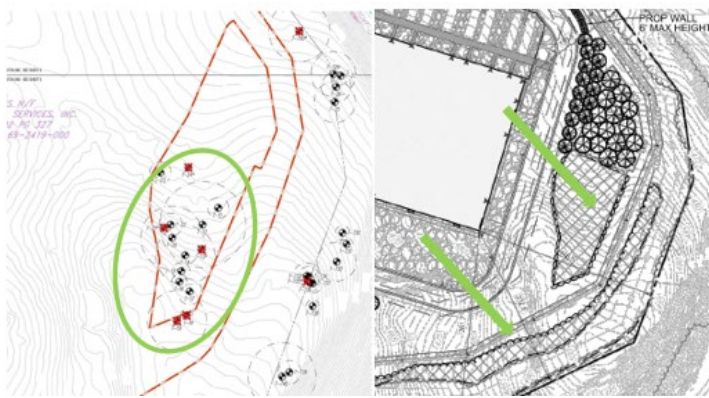
SDP plan (under review)

SUP plan (approved)



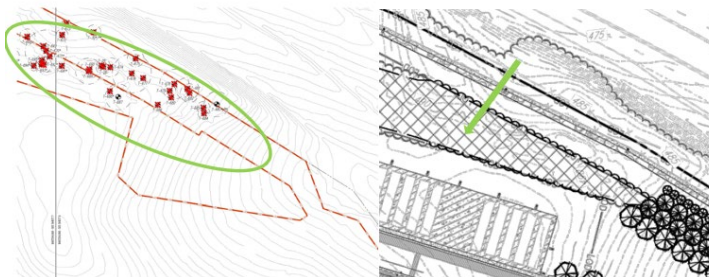
SDP plan (under review)

SUP plan (approved)



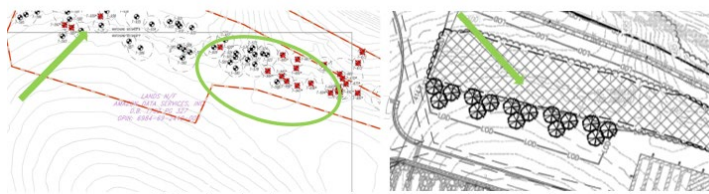
SDP plan (under review)

SUP plan (approved)



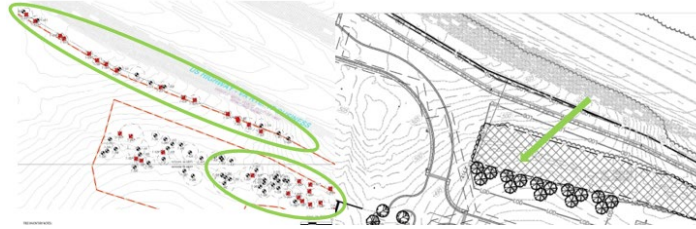
SDP plan (under review)

SUP plan (approved)



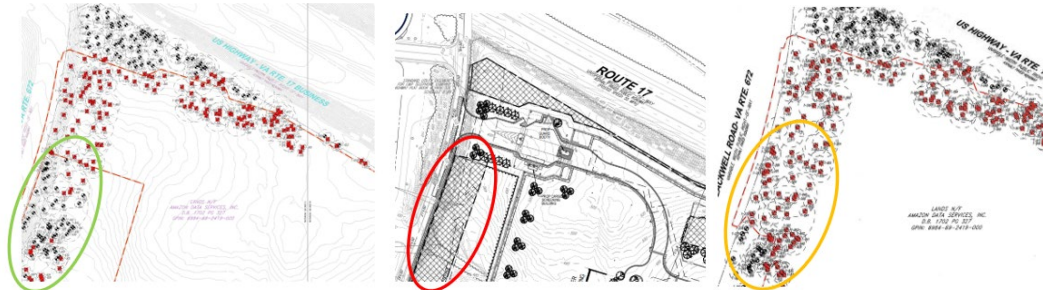
SDP plan (under review)

SUP plan (approved)

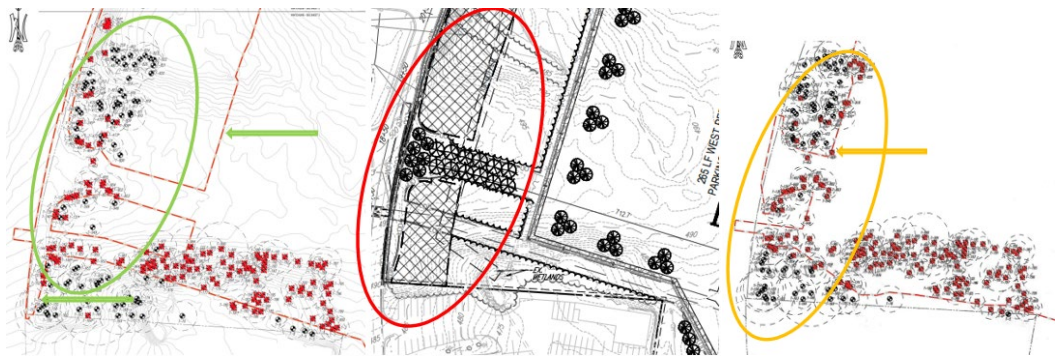


SDP plan (under review) SUP plan (approved)

- Per the SUP condition of approval #19, Tree Save, the applicant was requested to seek to minimize land disturbance and maximize on-site vegetation. It appears the limits of disturbance (LOD) indicated on the SUP plans (shown in red), and the proposed SDP plans (marked in green) are relatively the same; however, the Exhibit 1 Tree Study provided with the SUP (indicated in orange) and the SDP and SUP plans (shown in red and green) are different; please clarify.



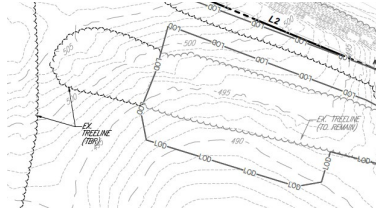
SDP plan (under review) SUP plan (approved) Exhibit 1 Tree Study (SUP)



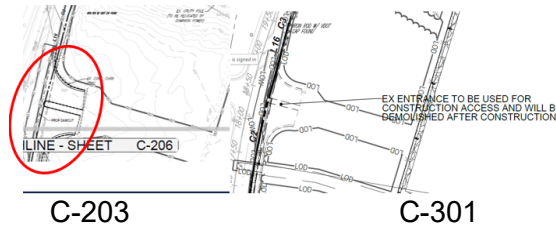
SDP plan (under review) SUP plan (approved) Exhibit 1 Tree Study (SUP)

C-203-C-204-C-205-C-206-C-207: OVERALL DEMOLITION PLAN

- Correctly delineate the limits of disturbance and limits of work.
- It is difficult to identify the tree preservation area vs. the tree line to be removed (same type line). Please indicate the tree preservation area with other type/dash lines on the plan and add this to the legend.



3. Additional narrative, indicated in “italics,” is required in the “Demolition Notes”:
 - 3. Prior to starting any demolition, the contractor is responsible for obtaining all required permits, *Federal, State, and Local*, and maintaining the same on-site for review by the engineer and other public agencies having jurisdiction through the duration of the project.
4. Please, clarify if the utility line will be removed during construction activities and add a note to the plans.
5. Sheet # C-301 indicates that the existing entrance will be used for construction access and will be demolished after construction. Please, show this in this sheet.



6. Label the material and diameter of the existing pipes that extend across W. Lee Hwy; see the picture below:

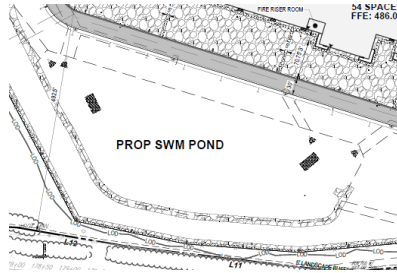


C-301-C-302-C-303-C-304-C-305: OVERALL SITE PLAN

1. Correctly delineate the limits of disturbance and limits of work.
2. It is difficult to identify the tree preservation area vs. the tree line to be removed (same type line). Please indicate the tree preservation area with other type/dash lines on the plan and add this to the legend.
3. Indicate on the plan the existing utility line to be relocated by Dominion Power. Please, clarify if the utility line will be removed during construction activities and add a note to the plans.



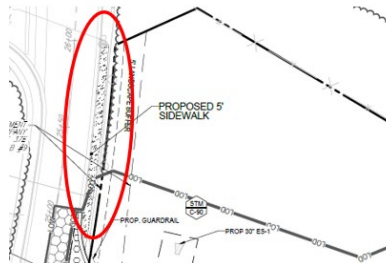
4. Indicate on the plans the general contours/shape of the SW facility.



5. It is confusing to identify the location of the light-duty asphalt (same color as the pervious area, no color/white); please use another color to differentiate previous areas from asphalt.



6. Increase the LOW for the proposed 5' sidewalk.



C-306: FIRE LANE PLAN

1. Indicate on the plans the general contours/shape of the SW facility.

C-401-C-402-C-403-C-404-C-405: OVERALL GRADING PLAN

1. Correctly delineate the limits of disturbance and limits of work.
2. Increase the LOW for the proposed 5' sidewalk.



3. Clearly identify the tree preservation area.
4. Indicate on the plan the existing utility line to be relocated by Dominion Power. Please, clarify if the utility line will be removed during construction activities and add a note to the plans.

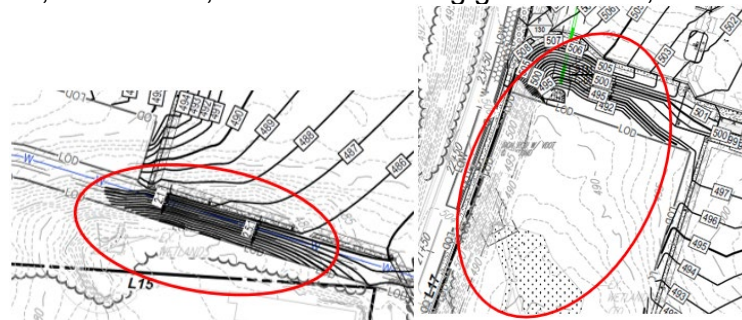
5. Provide the geotechnical report entitled “Geotechnical Engineering Report, Warrenton Data Center, Warrenton, Virginia, 20186, prepared by ECS Mid-Atlantic, LLC, Dated 08/15/2022.
6. Please, verify that all the steep slopes comply with the Town of Warrenton Zoning Ordinance, Article 4 Site Conservation Manual, Section 4.6.3.2. Steep Slopes.

Average Percentage of Slope	Adjustment to Riparian Setback
15%-20%	Add 25 feet
21% - 25%	Add 50 feet
>25%	Add 100 feet*

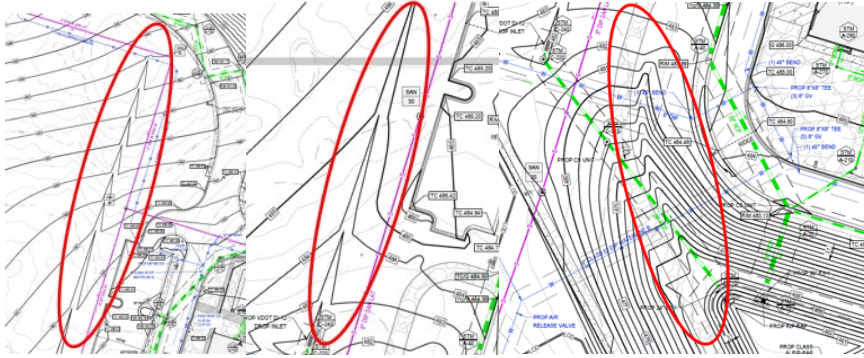
7. Indicate on the plans slopes bigger than 25%.



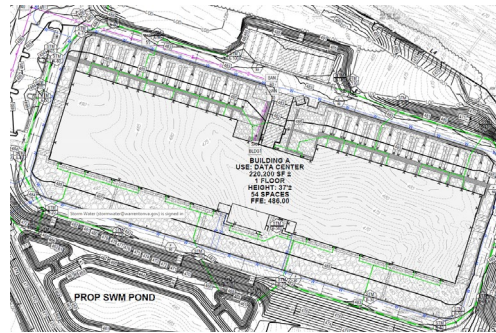
8. Where steep slopes are near or greater than 25%, provide slope calculations and ensure compliance with Article 9-17 of the Zoning Ordinance. Critical areas such as adjacent properties, rights-of-way, wetlands, and others, adequate protection methods to reduce excessive runoff, soil erosion, removal of existing ground cover, etc.



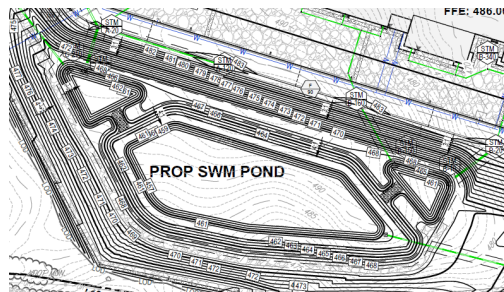
9. Provide the average percentage of slope for the following areas:



10. Please provide additional spot elevations for the building and surroundings.



11. Please provide additional spot elevations and geographical coordinates for the proposed SWM Pond and surroundings.

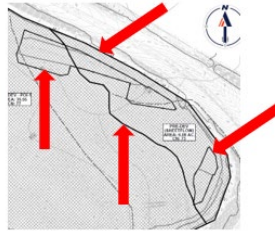


12. Identify critical areas with * or “star” symbol on the plan (streams, wetlands, channels, sediment traps, basins, stockpile, steep slopes, etc.).

13. Label the material and diameter of the existing pipes that extend across W. Lee Hwy; see the picture below:



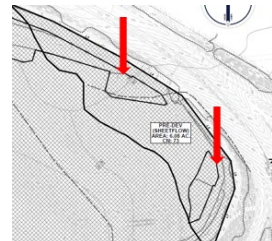
1. It is difficult to identify the drainage patterns calculations on the plans (same type of lines indicating preservation and drainages areas, missing areas, etc.).



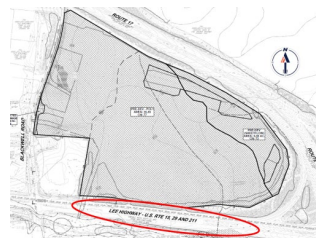
2. Provide a table with the pre and post-development land cover areas, including the name of the area, type of cover (impervious, pervious), acres, CN, and location (outfall-POI 1 and 2) to which they drain. Note: Impervious surfaces include asphalt, concrete, and gravel.
3. Forested/wooded areas, stream buffers, or areas designated as “conserved” open spaces should be designated on the plans as undisturbed and be protected after construction with a protective covenant or easement and signage where applicable. Please clearly indicate on the plans all these areas as “undisturbed areas.”
4. Please clarify if the protected area indicated below is included in the 35.55 ac. Otherwise, change the weight of the line.



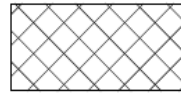
5. Please clarify if the protected area indicated below is included in the 6.08 ac. Otherwise, change the weight of the line.



6. Indicate on the plan the existing pipes that extend across W. Lee Hwy. Please, clarify how the flow under the existing culverts (four in total) under Lee Highway to the stream on the east side is flowing with this plan. Indicate with arrows the direction of the flow. Provide calculations.

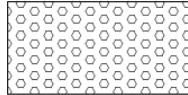


7. Indicate on the plan the POI-2.
8. Please clarify the existing pervious area: 35.61 acres or 6.08+35.55 acres?



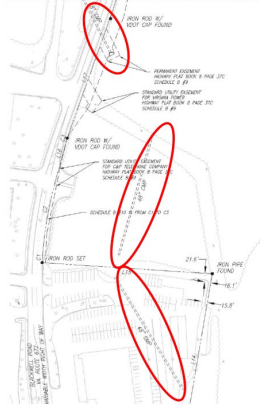
EXISTING PERVIOUS AREA
35.81 AC (99.9%)

9. Please clarify the existing impervious area: 0.18 acres or 0.04 acres?



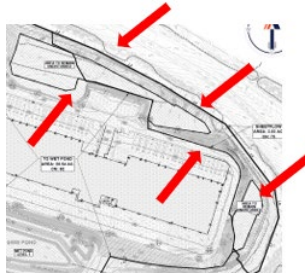
EXISTING IMPERVIOUS AREA
0.04 AC (0.1%)

10. Indicate on the plan the existing pipes; see the picture below:



C-407: POST-DEVELOPMENT DRAINAGE PLAN

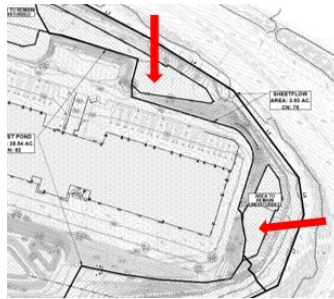
1. It is difficult to identify the drainage patterns calculations on the plans (same type of lines indicating preservation and drainages areas, missing areas, etc.).



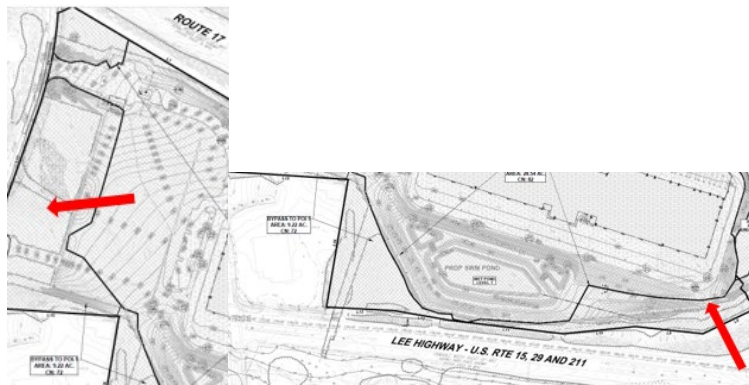
2. Provide a table with the pre and post-development land cover areas, including the name of the area, type of cover (impervious, pervious), acres, CN, and location (outfall-POIs) to which they drain. Note: Impervious surfaces include asphalt, concrete, and gravel.
3. Forested/wooded areas, stream buffers, or areas designated as “conserved” open spaces should be designated on the plans as undisturbed and be protected after construction with a protective covenant or easement and signage where applicable. Please clearly indicate on the plans all these areas as “undisturbed areas.”
4. Please clarify if the protected area indicated below is included in the 28.54 ac. Otherwise, change the weight of the line.



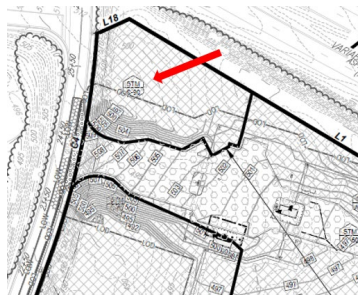
- 5. Please clarify if the protected area indicated below is included in the 3.93 ac. Otherwise, change the weight of the line.



- 6. Please clarify if the area indicated below is included in the 9.22 ac.

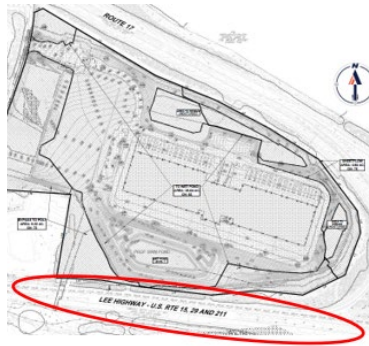


- 7. Please clarify where the area indicated below is included.

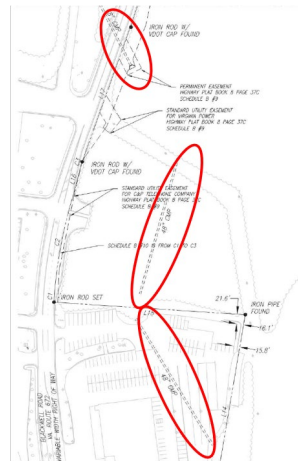


- 8. Indicate on the plan the existing pipes that extend across W. Lee Hwy. Please, clarify how the flow under the existing culverts (four in total) under Lee Highway to the stream

on the east side is flowing with this plan. Indicate with arrows the direction of the flow. Provide calculations.



9. Indicate on the plan the POI-2.
10. Indicate on the plan the existing pipes; see the picture below:



C-408: SWM / BMP POND PLAN

1. Update the Stormwater Management Narrative, including all the comments indicated in this memo.
2. It is difficult to identify the drainage patterns calculations on the plans (same type of lines indicating preservation and drainages areas, missing areas, etc.). Provide a table with the pre and post-development land cover areas, including the name of the area, type of cover (impervious, pervious), acres, CN, and location (outfall-POIs) to which they drain. Note: Impervious surfaces include asphalt, concrete, and gravel.
3. Refer to Stormwater (SW) Public Works Review Comments # 6-7-8-9-10-11-12.

C-409: SWM / BMP DETAILS

1. Per the SUP condition of approval #20, Best Management Practices, the applicant shall incorporate aeration for water retention using solar power. Please provide calculations and details.
2. Indicate on the plans how the applicant will operate-manage the maintenance of the SW facility.
3. Refer to Stormwater (SW) Public Works Review Comments # 6-7-8-9-10-11-12.

C-410-C-411-C-412-C-413-C-414: SWM / BMP COMPUTATIONS

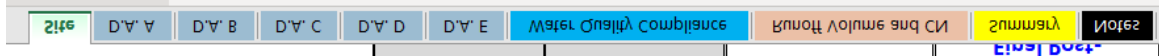
1. Provide the Town with a recordable document confirming that the purchase of the nutrient credits has become part of the land records for this property (if required).
2. The VRRM considers Forest & Open Space as land that will remain undisturbed or restored to a hydrologically functional state, including streams buffer and wetlands. Please clarify why in the water quality calculation the total acres that will remain undisturbed are indicated as managed turf instead of forest/open space.

Site Land Cover Summary

	A soils	B Soils	C Soils	D Soils	Totals	% of Total
Forest/Open (acres)	0.00	0.00	0.00	0.00	0.00	0
Managed Turf (acres)	0.00	12.70	8.24	5.17	26.11	62
Impervious Cover (acres)	0.00	12.92	2.44	0.32	15.68	38
					41.79	100

Site Tv and Land Cover Nutrient Loads

3. Indicate on the plans how the applicant will operate-manage the control of invasive species, replanting, and revegetating after construction is finished in the preservation areas (tree preservation).
4. Please provide additional tables on this plan from the VRRM worksheet (including Site, D.A.A., Water Quality, and Summary sheets). See the picture below.



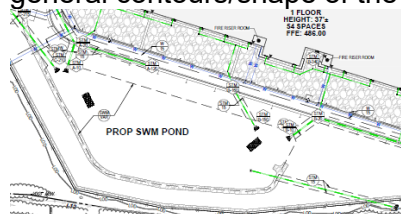
5. Refer to Stormwater (SW) Public Works Review Comments # 6-7-8-9-10-11-12.

C-501-C-502-C-503-C-504-C-505: OVERALL UTILITY PLAN

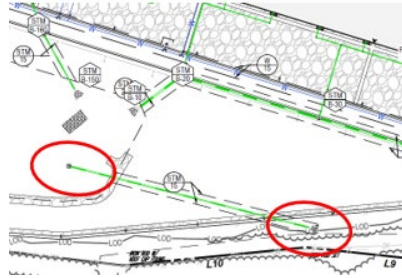
1. A legend for the utility services is needed it.
2. Indicate on the plan the existing utility line to be relocated by Dominion Power. Please, clarify if the utility line will be removed during construction activities and add a note to the plans.



3. Indicate on the plan the tree preservation area.
4. Correctly delineate the limits of disturbance and limits of work.
5. Indicate on the plans the general contours/shape of the SW facility.



6. Label all the SW pipes and inlets: diameter, slope, material, and inlets. See the picture below:

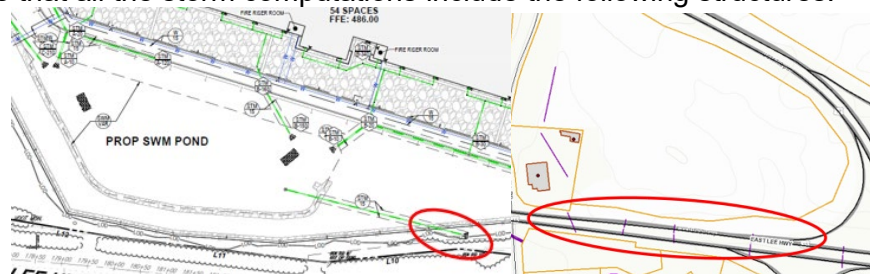


7. Inlets # overlapping. See the pictures below:



C-506 C-507 C-508: UTILITY COMPUTATIONS

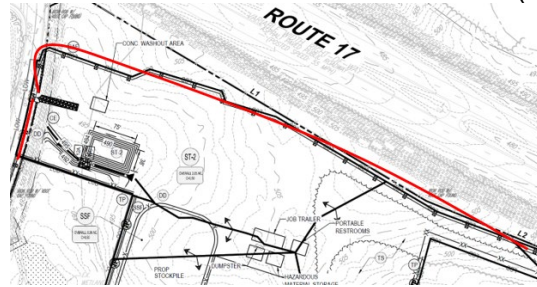
1. Refer to Stormwater (SW) Public Works Review Comments # 6-7-8-9-10-11-12.
2. Ensure that all the storm computations include the following structures:



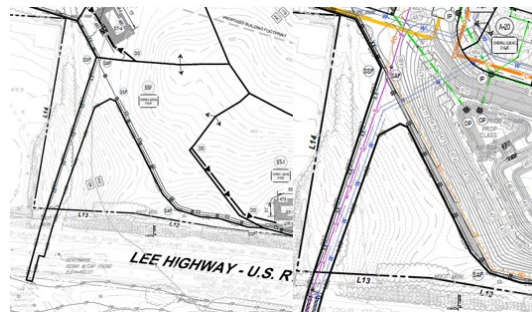
C-601 EROSION AND SEDIMENT CONTROL PLAN PHASE I

1. Multi-phase-1 and 2 ESC Plan is needed.
2. Identify critical areas with * or "star" symbol on Phase 1 & 2 ESC plan (streams, wetlands, channels, sediment traps, basins, stockpile, steep slopes, etc.).
3. Please include on the plans the notes indicated above in italics:
 - *"Temporary construction entrance note: Where the construction vehicle access routes intersect paved or public roads, provisions shall be made to minimize the transport of sediment by vehicular tracking onto the paved surface. Where sediment is transported onto a paved or public road surface, the road surface shall be cleaned thoroughly at the end of each day. Sediment shall be removed from the roads by shoveling or sweeping and transported to a sediment control disposal area. Street washing shall be allowed only after the sediment is removed in this manner."*
 - *"Silt trap maintenance note: Silt traps, basins, and stockpiles have been noted as a critical element by the Town of Warrenton. Maintenance, as shown on sheet C-603, shall be conducted regularly by the contractor."*

4. Demonstrate drainage area to silt fence does not exceed ¼ acre per 100 LF. [ZO 5-10.1C, VESCH 3.05].
5. Additional silt fence is needed in the areas indicated in red (find below):

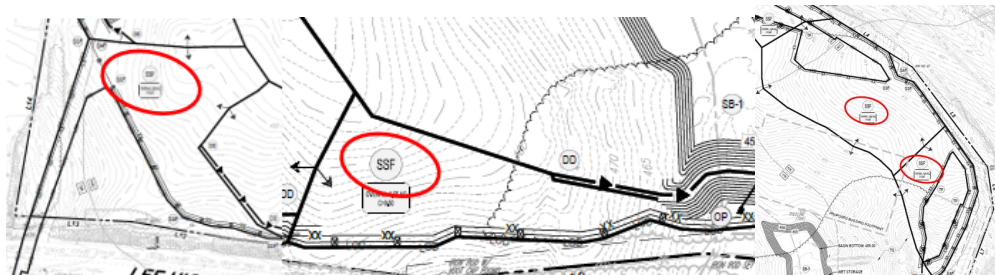


6. Additional ESC measures may be needed to avoid sediment leaving the site during the sewer installation and water services.

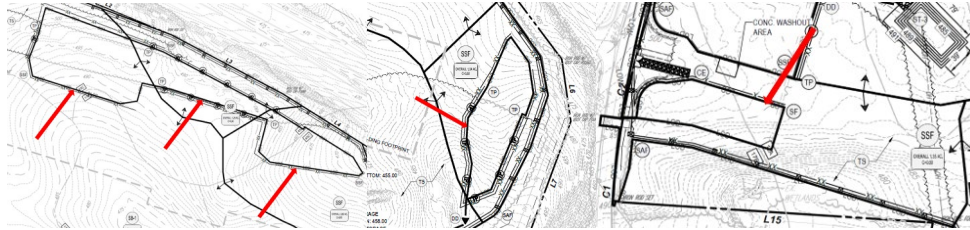


7. It is difficult to identify the drainage areas and acreage on Phases 1 and 2 (typos such as SSF, use of the same type of lines indicating preservation area and drainages areas, etc.). Provide a table with the drainage areas and acres for both phases. Please find below some issues:

- a. Missing the name of the areas indicated below. “SSF” appears to be a typo.



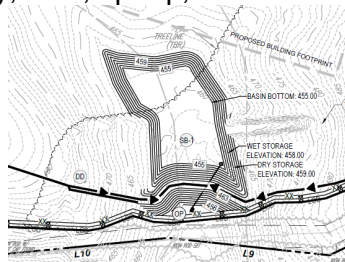
- b. Please clarify if the following protected areas are included on the 15.5 ac, 1.29 ac, 2.82 ac., 1.34 ac., or 1.35 ac. Otherwise, change the weight of the line.



c. Please clarify the discrepancies between ESC Phase I and 2 in relation to the preservation areas (ST-2 vs. C-90, A-170, etc.).



8. Indicate the temporary construction entrance with washrack in the plans and the legend.
9. Additional information is required on the plan. Indicate the location of the dewatering device, emergency spillway, riser, rip rap, etc.



10. Stockpiles should be located in areas that do not have a high potential for contributing sediments to stormwater facilities, neighboring properties, natural waterways, and sensitive environmental areas. The plans indicate the location of the stockpile near the existing wetlands. In addition, the applicant should have provided the potential dimensions of the temporary stockpile (excavation of the stormwater facility, grading of the site, etc.). It will be critical that a well-designed stockpile (dimensions) and stockpile management (maintenance) will be implemented to prevent air and stormwater pollution from the soil, sand, paving materials, or other loose materials used during construction activities. Please, include in the plans:

- Max. High (H) and max. Slope.
- Separation between the stockpile and the ESC measures.
- Stockpile entrance (to be located upslope side).



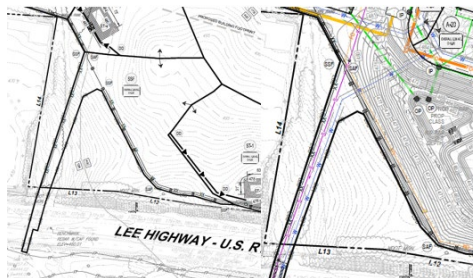
11. Please provide additional spot elevations and geographical coordinates for the proposed sediment traps and basins.
12. Refer to Erosion and Sediment Control (ESC) Public Works Review Comments # 13-14-15.
13. Indicate on the plans the temporary and permanent seeding.

C-602 EROSION AND SEDIMENT CONTROL PLAN PHASE II

1. Multi-phase-1 and 2 EC Plan is needed.
2. Identify critical areas with * or “star” symbol on Phase 1 & 2 ESC plan (streams, wetlands, channels, sediment traps, basins, stockpile, steep slopes, etc.).
3. Please include on the plans the notes indicated above in cursive:
 - *“Temporary construction entrance note: Where the construction vehicle access routes intersect paved or public roads, provisions shall be made to minimize the transport of sediment by vehicular tracking onto the paved surface. Where sediment is transported onto a paved or public road surface, the road surface shall be cleaned thoroughly at the end of each day. Sediment shall be removed from the roads by shoveling or sweeping and transported to a sediment control disposal area. Street washing shall be allowed only after the sediment is removed in this manner.”*
 - *“Silt trap maintenance note: Silt traps, basins, and stockpiles have been noted as a critical element by the Town of Warrenton. Maintenance, as shown on sheet C-603, shall be conducted regularly by the contractor.”*
4. Demonstrate drainage area to silt fence does not exceed ¼ acre per 100 LF. [ZO 5-10.1C, VESCH 3.05].
5. Additional silt fence is needed in the areas indicated in red (find below):



6. Additional ESC measures may be needed to avoid sediment leaving the site during the sewer installation and water services.



7. It is difficult to identify the drainage areas and acreage on Phases 1 and 2 (typos such as SSF, use of the same type of lines indicating preservation area and drainages areas, etc.). Provide a table with the drainage areas and acres for both phases. Please find below some issues:

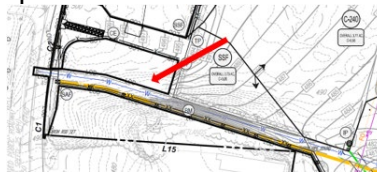
- a. Missing the name of the areas indicated below. “SSF” appears to be a typo.



- b. C-80 and SFF indicate the same area.



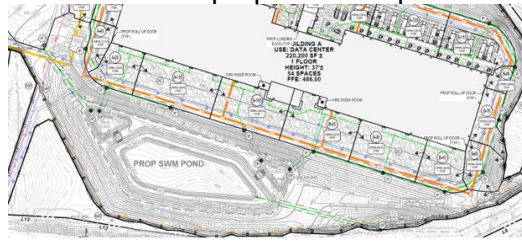
- c. Please clarify if the preservation area is included in the 0.55 acre.



- d. Please clarify if the preservation area is included in the 0.66 acres.



- e. Identify the total area for the proposed SW pond and surroundings.



- f. Identify the total area indicated below.



8. Stockpiles should be located in areas that do not have a high potential for contributing sediments to stormwater facilities, neighboring properties, natural waterways, and sensitive environmental areas. The plans indicate the location of the stockpile near the existing wetlands. In addition, the applicant should have provided the potential dimensions of the temporary stockpile (excavation of the stormwater facility, grading of the site, etc). It will be critical that a well-designed stockpile (dimensions) and stockpile management (maintenance) will be implemented to prevent air and stormwater pollution from the soil, sand, paving materials, or other loose materials used during construction activities. Please, include in the plans:

- Max. High (H) and max. Slope.
- Separation between the stockpile and the ESC measures.
- Stockpile entrance (to be located upslope side).



9. Indicate on the plans the temporary and permanent seeding.

C-603 EROSION AND SEDIMENT CONTROL NOTES

1. Update the ESC Narrative, including all the comments indicated in this memo.
2. Noted on the ESC Narrative as critical areas the stockpile, sediment traps, and sediment basins.
3. Stockpiles should be located in areas that do not have a high potential for contributing sediments to stormwater facilities, neighboring properties, natural waterways, and sensitive environmental areas. The plans indicate the location of the stockpile near the existing wetlands. In addition, the applicant should have provided the potential

dimensions of the temporary stockpile (excavation of the stormwater facility, grading of the site, etc. It will be critical that a well-designed stockpile (dimensions) and stockpile management (maintenance) will be implemented to prevent air and stormwater pollution from the soil, sand, paving materials, or other loose materials used during construction activities. Please, include in the plans:

- Provide the dimensions of the temporary stockpile: volume, shape, and perimeter.
- A cross-section is needed: max. High (H) and max. Slope.
- The type of controls to manage the stockpile: stockpile duration restriction, plastic sheeting cover, sediment control fence, runoff diversion, soil stabilization, etc.
- Stockpile and stockpile management should be indicated on the SWPPP.
- Proper BMP implementation for the inactive or active stockpile should be implemented until stockpiling activities cease (maintenance of the stockpile).
- Indicate how contaminated soil should be managed if it occurs.
- Separation between the stockpile and the ESC measures.
- Stockpile entrance (to be located upslope side).



4. The following information needs to be included in the plan:
 - *"At the time of building permit application, the individual/at owner is responsible for preparing an erosion and sediment control plan for review or applying for an agreement-in-lieu-of at the discretion of the Town prior to any land disturbing activities beyond what is shown and bonded on the approved final construction plans."*
 - *"No erosion and sediment control plan review was done for the individual lot improvements beyond what is shown on the approved final construction plans. At the time of building permit application, the individual lot owner is responsible for preparing an erosion and sediment control plan for review or applying for an agreement-in-lieu-of at the discretion of the Town prior to any land disturbing activities".*
5. Per Chapter 6 of the VESCH, include the phasing of removal for each sediment basin & sediment trap until all upslope areas are stabilized. Take into consideration of utility installation, roadways, building locations, etc.
6. Please include on the plans "Other Important Notes," the narrative indicated above:
 - *All materials and construction methods shall conform to the Town of Warrenton and/or VDOT Standards, Town of Warrenton, Public Facilities Manual, and the Virginia Erosion and Sediment Control Handbook, current Edition.*
 - *A copy of the approved erosion and sediment control plans, the Land Disturbance Permit (LDP), the Registration Statement, the "Confirmation of Construction General Permit (CGP)" coverage, the SWPPP, and the Operator's Contact Information and Emergency Contacts List MUST BE DISPLAYED outside of the property, near the construction entrance, where it*

is visible from the street and must not be removed until the construction is completed. A copy of the approved construction documents shall always be kept on-site.

- *A pre-construction meeting must be coordinated with the Town of Warrenton ESC Inspector.*
 - *Dumpsters will be covered daily after work. (9VAC25-840-40)*
 - *All ESC structures should be inspected by the contractor every four days or five days and after each storm event. The contractor shall repair each ESC control structure as specified in the "Maintenance" section in the Virginia and Erosion and Sediment Control Handbook, current edition for each ESC structure until it can be removed at the completion of construction (9VAC25-840-60). [ZO Article 4 4-8.8; 9VAC25-840-60]*
 - *Notify the Sediment Control Town Inspector and obtain approval to remove sediment erosion control devices.*
 - *The Town of Warrenton ESC Inspector has the authority to add or delete ESC as necessary in the field as site conditions change.*
 - *No building construction will occur until the Building Official authorizes by writing the construction of the new buildings and all required building/zoning permits are obtained by the owner/applicant.*
 - *All work shall be done between the hours of 7:00 a.m. and 6:00 p.m. Monday through Friday. Any other times must be approved in advance and written by the Town Manager.*
7. Refer to Erosion and Sediment Control (ESC) Public Works Review Comments # 13-14-15.

C-604: EROSION AND SEDIMENT CONTROL DETAILS

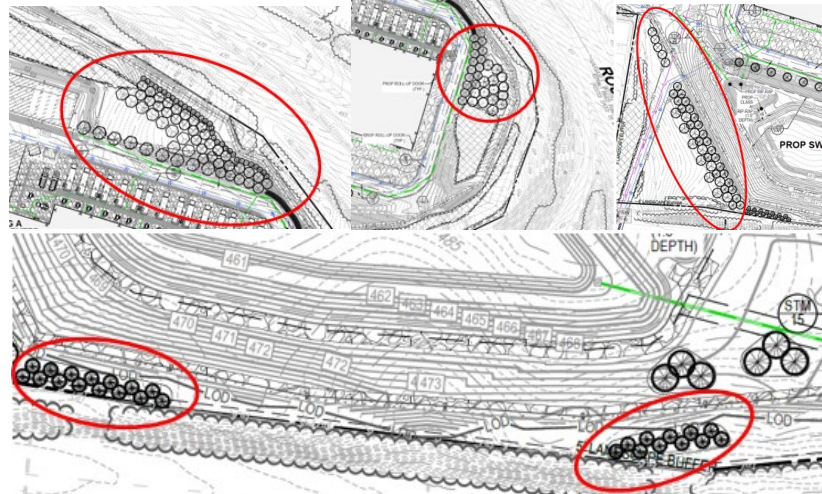
1. Provide details for the super silt fence, concrete washout, table 3.31-B (temporary seeding guidelines), table 3.32-D (permanent seeding guidelines), and table 3.35-A (mulching guidelines).

C-605: EROSION AND SEDIMENT CONTROL DETAILS

1. Outlet protection calculations are required.
2. For the Sediment Basin:
 - Show the length of the flow path from the inflow at the wet pool to the outflow to ensure that the length-to-width ratio is adequate.
 - Add a note: "A stake or spray paint marker on a riser for cleanout elevation will need to be in place for sediment basins & sediment traps."

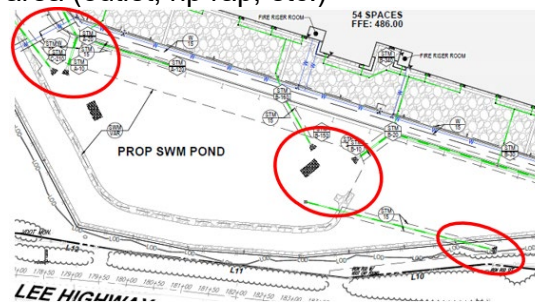
C-701-C-702-C-703-C-704-C-705: LANDSCAPE PLAN

1. Correctly delineate and increase the limits of disturbance and/or limits of work because of the new landscaping; see pictures below.



C-801-C-802-C-803: STORM PROFILES

1. Provide the geotechnical report entitled “Geotechnical Engineering Report, Warrenton Data Center, Warrenton, Virginia, 20186, prepared by ECS Mid-Atlantic, LLC, Dated 08/15/2022.
2. Ensure that all the storm pipe system includes the storm profile:
 - Stormwater area (outlet, rip rap, etc.)



3. Refer to Stormwater (SW) Public Works Review Comments # 6-7-8-9-10-11-12.