



380 St. Peter Street, Ste. 600
Saint Paul, MN 55102

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bwbr.com

January 21, 2022

Londell Pease & Nick Johnson
City of Bloomington

Re: Seagate Normandale Wafer South Addition
BWBR Commission No. 3.2021141.00

Written Documentation as outlined in "Plan Submission Checklist" is as follows:

1. Name, address, email address, and telephone number of the owner/developer and architect/engineer
 - a. Owner – Seagate Technology, 7801 Computer Ave; contact Martin Leppert (612-723-8721, martin.l.leppert@seagate.com)
 - b. Architect – BWBR, address above; contact Nate Roisen (651-290-1960, nroisen@bwbr.com)
 - c. Civil Engineer – Loucks, 7200 Hemlock Ln N #300; contact Trevor Gruys (763-496-6706, TGruys@loucksinc.com)
2. A complete description of the project including use(s), site, and building statistics
 - a. Wafer South fab addition to the existing Seagate Normandale campus, including a skyway connection to the existing Wafer East building, and physical connection/minor remodel to the existing Wafer West building, as well as sitework revisions as needed to accomplish the addition. The new addition will be separated into its own 2-story fire area of type II-B construction and approximately 79,000 GSF, of primarily precast sandwich panel construction with varying architectural finishes.
 - b. A note that on previous plans distributed to city staff, the building and foundations did partially encroach into the 20' ROW setback at the southeast corner of the building. This has been remedied in the latest plans, and the building walls and foundations are now outside of the 20' setback. However, there is (1) stoop and (1) exterior landing on the south façade that encroach on the required 20' landscape yard per Section 21.301.15(c)(4)(A). We are requesting flexibility from this requirement, as making the building any narrower is not feasible for Seagate because it makes the fabrication and mechanical spaces at best extremely inefficient, and at worse not possible. The closest setback point to the property line as shown on the site plan is 16' to the property line from the southeast stoop.
 - c. A request for flexibility to off-street parking requirements as outlined in Section 21.301.06 is being requested as a part of this project. Civil sheet 223.CS provides a proof of parking count that demonstrates the required stalls can be constructed later to within 10% of the required total, which per Section 21.301.06(e)(A)(i) waives the requirement for a parking study. As this is zoned PD, per Section 21.301.06(e)(5) we are also requesting flexibility for the remaining gap. Seagate does not require the full allotment of parking at this time because the density of their fabrication spaces is far lower than required by code. For example, Bloomington city code would require 76 parking stalls for the proposed addition per Section 21.301.06(d), and egress in the

- building is sized for 401 occupants per the IBC; however, there will only be approximately 45 workers per shift in this building due to the low density of the fabrication work. This is in part due to the sheer size of the equipment occupying the fabrication spaces. Similar ratios would apply to the rest of the building, of which the addition is less than 10% of the total.
- d. This facility also necessitates large uninhabitable mechanical and plumbing shafts, which we are proposing to exempt as "non-occupied" in the parking analysis given these areas physically are impossible to occupy. These areas make up nearly 8% of just the Wafer South addition alone and over 18,000 sq. ft. in the entire facility. Areas that are physically uninhabitable due to shafts is also a large reason for Seagate's need for less parking and lesser employee density.
 3. Any project phasing and construction scheduling
 - a. Construction anticipated to be completed in a single phase beginning in March 2022 and completed in Summer 2023, with the building to be fully enclosed and sitework completed by Fall 2022.
 4. Proposed hours of operation
 - a. Operation does not cease at this facility – 24/7/365
 5. A description of the covenants or agreements that may influence the use and maintenance of the proposed development
 - a. As part of the proposed development, the property owner (Seagate) will enter into a proof of parking agreement with the City, which will be required to be recorded with the County prior to issuance of a building permit.
 6. Anticipated Employment
 - a. This project is anticipated to add 45 fabrication employees per shift to the campus.
 7. Anticipated trip generation based on the most recent ITE Trip Generation Manual
 - a. This would not apply to this project as it is an existing facility that does not require a traffic study.
 8. Anticipated peak hour and average day water demand and wastewater flow.
 - a. Make-up water needs: 75gpm peak totaling 68,400 gallons per day
 - b. Drain needs: 82gpm peak totaling 67,000 gallons per day

BWBR Responses to Post-Application DRC Review Comments (see also separate response letter from civil engineer):

Building Dept Review

1. None

Fire Dept Review

1. Access shall be provided to/from stairwells on all floors.
 - a. See preliminary floor plans included with this submittal.
2. See civil response
3. Standpipe coverage/hose valves shall be located in stairwells and within 200' of all areas.
 - a. Addressed in pre-app response.
4. See civil response
5. FDC shall be on the south exterior wall of the Water Room on the 1st floor. See also floor plan for room location and civil response.
6. Minimum of 13-6 clearance below skyway.
 - a. Addressed in pre-app response.
7. See civil response

8. Fire alarm and annunciator panels and Knox Box locations TBD by Fire Prevention Division. This project may require multiple panels and knox boxes.
 - a. Acknowledged.
9. Standpipes requirement in all stairwells and hose valves shall be located at the floor landing.
 - a. Addressed in pre-app response.
10. Emergency responder radio coverage meeting the requirements of appendix L in the 2015 MSFC shall be provided throughout the property and within the structure.
 - a. Acknowledged.

Construction/Infrastructure Review – see civil responses

Traffic Review – see civil responses

Water Resources Review – see civil for all responses not listed below

14. The low floor elevation of all new and reconstructed structures must be constructed at a minimum of two feet above the established 100-year flood elevation of 822.4 ft.
 - a. We are addressing flood mitigation with a series of measures at the (6) sets of exterior doors(s) in the project. The (2) southern doors will be raised by 9" to get to the threshold at the required 2' above flood plain, with modified ramping as appropriate. The electrical yard is protected by an 18" tall curb around the entirety of the yard, except for the gate access – this gate area will be protected with an active measure such as a flood barrier in the event of a flood, which will in turn protect the (2) doors exiting into the yard. All (6) of the exterior door(s) will be fitted with enhanced door hardware (auto door bottoms, gasketing, astragals, weatherstripping, minimum 10" bottom stile, etc.) that minimize seepage into the building during a flood event.
 - b. See also civil response.

Utility Review – see civil responses

Planning Review

1. Exterior materials must meet Section 19.63.08, including the metals proposed for the skyway. A preliminary review of the concrete wall material has been completed.
 - a. The skyway is changing back to an architectural finish concrete material to comply with Section 19.63.08. Updated elevations are provided along with a percentage of each material indicated.
 - b. Although the totality of the north façade exceeds the 15% allowable area for metal panel as a "secondary material" (currently 41.3% as indicated on elevation), per email from Nick Johnson dated 1/7/22, the city would except this metal as a "primary material" provided it is either 22ga steel or 0.040 aluminum, and the allowable area would not apply. Elevations have been updated to reflect a metal panel product that meets this criterion and is therefore compliant.
 - c. Sample product specifications/data for precast finish and metal panel were emailed to Nick Johnson on 1/5/22 and 1/6/22 respectively.
2. See civil response
3. Parking lot and exterior security lighting must meet Section 21.301.07 for all parking spaces required to serve the addition and for any parking lot areas removed and replaced. A minimum of 1.5 foot-candles is required on the parking surface, which may be reduced to 0.75 foot-candles for the outer perimeter of the parking lot. These maintained levels, 0.81 LLF or lower.
 - a. Updated plans meet Bloomington City Code, including Section 21.301.07.
4. Code allows for a 30 foot pole on a three foot base for parking lot lighting. With the higher power LED fixtures, check with the designer to verify if additional height would benefit

distribution. Staff has found at other sites a deviation to 38 feet (35 foot pole on three foot base) decreased the number of poles overall installation cost.

- a. Updated plans indicate poles 25' tall with 3' bases (to match existing), not exceeding the city limit of 30'.
5. See civil response
6. See civil response
7. See civil response
8. Interior trash and recycling must be provided (see City Code Section 21.301.17). Clearly identify the trash, recycling, and organics storage location on the permit plans.
 - a. Addressed in pre-app response.
9. All rooftop equipment must be screened equal to the height of the equipment (Section 21.301.18). Clearly identify the screening on the permit plans.
 - a. The mechanical cooling towers in the northwest corner of the roof will be screened to the full height of the towers. See updated elevations.
 - b. Some of the vent stacks on the eastern low roof of the building will be visible above the parapet, as they are chimneys that would be exempt from screening per Section 21.301.18(c). Also, per IBC 1510.2.1, rooftop screening is not allowed to extend more than 18 feet above the roof deck, and per so this is the maximum height by code that we can screen the equipment on the low roof. See updated elevations.
10. See civil response
11. With the expansion significantly impacting the parking provided, a staging plan that includes parking management throughout construction must be provided with the building permit application. The plan must be approved by the Planning Manager and City Engineer.
 - a. Acknowledged. BWBR and the contractor will work together to develop for permit submittal.
12. See civil response
13. See civil response
14. Exterior storage is limited to that allowed in Section 21.301.16. Clearly identify any storage areas on the permit set.
 - a. There are no new exterior storage areas being proposed with this project.
15. Sheets 510, 511, and 512 on the architectural set shows a "site screening fence." Provide additional detail on the fence for review.
 - a. This will be an 8' tall chain link fence with privacy slats and steel security posts and rails. See updated elevations.
16. See civil response

Sincerely,
Nate Roisen, AIA
Senior Project Manager
BWBR



January 10, 2022

Attn: Nick Johnson
City Planner
City of Bloomington
952-563-8925
nmjohnson@BloomingtonMN.gov

**RE: Seagate Technology – Normandale Wafer South Addition
Response to City of Bloomington Pre-Application DRC Review Comments
Loucks Project No. 20244.0A**

Nick,

On behalf of Seagate Technology and BWBR, Loucks has prepared the following responses to the City of Bloomington's Pre-Application DRC review comments received via email on December 21, 2021.

Fire Department Review Contact: Laura McCarthy at lmccarthy@BloomingtonMN.gov, (952)-563-8965

- 1) *Access shall be provided to/from all stairwells on all floors.*

Response:

BWBR to respond...

- 2) *Maintain emergency vehicle access and circulation throughout the property.*

Response:

Emergency vehicle access and circulation will be maintained throughout the property.

- 3) *Standpipe coverage/hose valves shall be located in stairwells and within 200' of all areas.*

Response:

BWBR/Dunham to respond...

- 4) *Ensure landscaping doesn't interfere with access to the building, hydrants, and/or FDC.*

Response:

Landscaping does not interfere with building access, hydrants, and/or the FDC.

- 5) *Hydrant coverage shall be provided within 50' of the FDC and within 150' of all portions of the structure.*

Response:

Hydrant coverage has been provided within 150' of all exterior walls of all buildings. FDC has been located within 50' of a hydrant. BWBR/Dunham to confirm...

- 6) *Minimum of 13'6" clearance below the skyway.*

Response:

BWBR to respond...

- 7) *Provide adequate turning radius for BFD Ladder 3 for all emergency vehicle access lanes.*

Response:

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Adequate turning radii have been provided for all emergency access lanes. A turning movement exhibit has been provided.

- 8) *Fire alarm and annunciator panels and Knox box locations to be determined by the Fire Prevention Division. This project may require multiple panels and Knox boxes.*

Response:

BWBR/Dunham to respond...

- 9) *Standpipes requirement in all stairwells and hose valves shall be located at the floor landing.*

Response:

BWBR/Dunham to respond...

- 10) *Emergency responder radio coverage meeting the requirements of appendix L in the 2015 MSFC shall be provided throughout the property and within the structures.*

Response:

BWBR/Dunham to respond...

Construction/Infrastructure Review Contact: Brian Hansen at bhansen@BloomingtonMN.gov, (952)-563-4543

- 1) *If the retaining wall reaches 4' or greater, it will need to be designed by an Engineer licensed in MN.*

Response:

Comment noted.

Traffic Review Contact: Brian Hansen at bhansen@BloomingtonMN.gov, (952)-563-4543

- 1) *All construction and post-construction parking and storage of equipment and materials must be on-site. Use of public streets for private construction parking, loading/unloading, and storage will not be allowed. Add this note to site plan sheets, not just grading and drainage plan sheet.*

Response:

Note has been added to the site plans.

Water Resources Review Contact: Brian Hansen at bhansen@BloomingtonMN.gov, (952)-563-4543

- 1) *To be considered as a restricted site for volume retention please follow the priority sequence provided in the City's Surface Water Management Plan: 1. Retention of at least 0.55" of runoff from new and/or fully reconstructed impervious surface; 2. Retention of runoff onsite to the maximum extent practical; 3. Other options at the discretion of the City Engineer.*

Response:

Based on discussions with Brian Hansen and Brian Gruidl with City of Bloomington Engineering on December 3, 2021, infiltration practices would not be supported due to high groundwater levels, low permeable soils, and concerns with contamination within the region.

- 2) *Work in swale likely to trigger WCA rules. A boundary survey and other mitigation may be required depending on proposed work.*

Response:

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Minimal work is proposed within the swale to provide an outlet culvert for the proposed underground stormwater system. It is our understanding that this will not trigger WCA rules.

- 3) *Construction of this outlet likely to require wetland boundary survey.*

Response:

Minimal work is proposed within the swale to provide an outlet culvert for the proposed underground stormwater system. It is our understanding that this will not trigger WCA rules.

- 4) *An erosion control bond is required.*

Response:

An erosion control bond will be provided prior to permit issuance.

- 5) *HDPE pipe connections into all concrete structures must be made with water tight materials utilizing an A-Lok or WaterStop gasket or boot, cast-in-place rubber boot, or approved equal. Where the alignment precludes the use of the above approved watertight methods, Con Seal 231 WaterStop sealant, or approved equal will only be allowed as approved by the Engineer.*

Response:

Note has been added to the plans.

- 6) *Utility as-builts must be provided prior to issuance of Certificate of Occupancy.*

Response:

Note has been added to the plans.

- 7) *A National Pollutant Discharge Elimination System (NPDES) construction site permit and Storm Water Pollution Prevention Plan (SWPPP) must be provided.*

Response:

A NPDES construction site permit will be obtained. A Storm Water Pollution Prevention Plan has been provided. (231.SW, 232.SW)

- 8) *A maintenance agreement must be signed by the property owner and recorded at Hennepin County.*

Response:

A maintenance agreement will be executed and recorded at Hennepin County when stormwater design is finalized and approved.

- 9) *Submit a copy of Nine Mile Creek Watershed District permit and comments prior to issuance of City of Bloomington permits (www.ninemilecreek.org)*

Response:

Nine Mile Creek Watershed District permit will be obtained prior to issuance of City of Bloomington permits. Documents were submitted to NMCWD on 01/03/2022.

- 10) *Provide stormwater management plan meeting the requirements of Bloomington Comprehensive Surface Water Management Plan.*

Response:

Stormwater management plan has been provided.

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- 11) *Provide civil plans for the project. Plan sheets may include grading, drainage, utility, erosion control, traffic control, civil site, etc.*

Response:

All civil plans have been provided.

- 12) *Show erosion control BMP locations on the plan.*

Response:

All erosion control BMP locations have been provided.

- 13) *List erosion control maintenance notes on the plan.*

Response:

All erosion control maintenance notes have been provided.

- 14) *The low floor elevation of all new and reconstructed structures must be constructed at a minimum of two feet above the established 100-year flood elevation of 822.4-ft.*

Response:

Based on email from Nick Johnson with City of Bloomington Planning on January 5, 2022, it was determined that the project will be exempt from the requirements of Section 15.08(a) of the City Code as the project does not constitute as a new or reconstructed structure. The low floor elevation does not need to be set two feet above the 100-year flood elevation, but flood mitigation will need be implemented to effectively address the concern as determined by the Water Resource staff and City Engineer. Future discussions are planned with the appropriate entities to determine an agreeable solution.

Utility Review Contact: Brian Hansen at bhansen@BloomingtonMN.gov, (952)-563-4543

- 1) *Water alterations should be designed to allow pressure and bacterial testing. Consider adding, replacing and/or moving valve(s) and/or additional pipe to minimize untested lengths of pipe. Stage hydrant removals to minimize out of service areas for fire protection.*

Response:

Note has been added for contractor to phase watermain construction to minimize duration of fire hydrants being out of service. Watermain alterations have been designed to minimize untested lengths of pipe to the maximum extent practical. Valves have been added to the plans to properly isolate the system. Phasing of hydrant removal and relocation will be coordinated with the selected contractor.

- 2) *Add note about phasing watermain, see note 4 on Utility Plan*

Response:

Note has been added for contractor to phase watermain construction to minimize duration of fire hydrants being out of service. Phasing of all watermain work will be coordinated with the selected contractor. Additional information can be provided at the City's request after contractor selection.

- 3) *A minimum 10-foot horizontal separation and 18-inch vertical separation is required between watermain and sewers. Provide a table with all sewers crossing watermains and the separation.*

Response:

Table has been provided showing all sewer/watermain crossings and the separation provided.

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- 4) *Add thrust block detail. Use updated city standard details for driveways, utilities, erosion control, etc. found on the website at www.bloomingtonmn.gov/information-sheets-and-handouts-engineering-division.*

Response:

Thrust block detail has been added. All applicable city standard details have been included.

- 5) *Install hydrants to provide fire protection for entire building. Each hydrant covers 150-foot radius. Provide hydrant within 50' of FDC.*

Response:

Hydrant coverage has been provided within 150' of all exterior walls of all buildings. FDC has been located within 50' of a hydrant. BWBR/Dunham to confirm...

- 6) *Water alterations should be designed to allow pressure and bacterial testing. Consider adding, replacing and/or moving valve(s) and/or additional pipe to minimize untested lengths of pipe.*

Response:

Watermain alterations have been designed to minimize untested lengths of pipe to the maximum extent practical. Valves have been added to the plans to properly isolate the system.

- 7) *Move valve to here to minimize untested lengths of pipe.*

Response:

Valves have been provided to minimize untested lengths of pipe.

- 8) *Water alterations should be designed to allow pressure and bacterial testing. Consider adding, replacing and/or moving valve(s) and/or additional pipe to minimize untested lengths of pipe. For hydrants like this valve should be as close to tee as practical.*

Response:

Valve has been relocated as close to tee as practical.

Planning Review Contact: Nick Johnson at nmjohnson@BloomingtonMN.gov, (952)-563-8925

- 1) *Exterior building materials must meet Section 19.63.08, including the metals proposed for the skyway. A preliminary review of the concrete wall material has been completed.*

Response:

BWBR to respond...

- 2) *Landscaping provided is deficient by 36 trees (30 for the development and six removed trees must be replaced) and 76 shrubs. Adequate area must be provided to accommodate the required plant material.*

Response:

Adequate area has been provided to accommodate the required plant material.

- 3) *Parking lot and exterior security lighting must meet Section 21.301.07 of the City Code for all parking spaces required to serve the addition and for any parking lot areas removed and replaced. A minimum of 1.5 foot-candles is required on the parking surface, which may be reduced to 0.75 foot-candles for the outer perimeter of the parking lot. These are maintained levels, 0.81 LLF or lower.*

Response:

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Seagate Technology – Normandale Wafer South Addition January 10, 2022
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Dunham to respond...

- 4) *Code allows for a 30 foot pole on a three foot base for parking lot lighting. With the higher power LED fixtures, check with the designer to verify if additional height would benefit distribution. Staff has found at other sites a deviation to 38 feet (35 foot light pole on three foot base) decreased the number of poles overall installation cost.*

Response:

Dunham to respond...

- 5) *The minimum drive aisle width or parking space must meet the City Code requirements (21.301.06). For 90 degree parking, this is a 24 foot drive aisle. All other drive lanes as per ITE guidelines and as determined by the Fire Marshal.*

Response:

All drive aisle widths and parking spaces meet City Code requirements.

- 6) *Parking spaces to serve the new facility must meet the minimum parking lot standards. Each parking lot island must be 8 feet wide (inside to inside measurements) and must have a minimum of one tree. Islands are required at the end of each parking tier and intermittent islands at least every 200 feet internal and 300 feet external.*

Response:

Parking lot islands meet the minimum parking lot standards.

- 7) *All parking stall striping must be painted white. Parking islands must be 3-feet shorter than the parking stall and 8-feet wide.*

Response:

Note on site plans indicate that all stall striping shall be painted white. Parking islands are three feet shorter than adjacent parking stall to enhance maneuverability. All parking islands are a minimum of 8-feet wide.

- 8) *Interior trash and recycling must be provided (see City Code Section 21.301.17). Clearly identify the trash, recycling and organics storage location on the permit plans.*

Response:

BWBR to respond...

- 9) *All rooftop equipment must be screened equal to the height of the equipment (Section 21.301.15). Clearly identify the screening on the permit plans.*

Response:

BWBR/Dunham to respond...

- 10) *A three foot high screen for a parking lot adjacent to all public streets (see City Code Section 21.301.15). If flexibility is desired for the proposed street along the south, please provide supporting reasoning for the flexibility.*

Response:

No flexibility is required as adequate space will be available for screening as shown on the proof of parking plan.

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- 11) *With the expansion significantly impacting the parking provided, a staging plan that includes parking management throughout construction must be provided with the building permit application. The plan must be approved by the Planning Manager and City Engineer.*

Response:

McGough to respond...

- 12) *A 20 foot wide landscaped yard must be provided along each street. Any stormwater ponds must not encroach into the required yard areas. Sheet 232 GC shows the ponds in the yard and must be revised.*

Response:

Pond footprint has been revised to not encroach into the required landscape yards along the street.

- 13) *Foundation plantings are required for 50% of the foundation for any building facing a public street. The new structure currently has no foundation plantings. They must be added to meet the requirement.*

Response:

Foundation plantings have been added.

- 14) *Exterior storage is limited to that allowed in Section 21.301.16. Clearly identify any storage areas on the permit set.*

Response:

BWBR to respond...

- 15) *Sheets 510, 511, and 512 on the architectural set shows a "site screening fence". Provide additional detail on the fence for review.*

Response:

BWBR to respond...

- 16) *Parking spaces at the southeast side are not included in off-street parking supply compliance sheet and must be removed if the public constructs the public street between Computer Ave and W 78th St Circle.*

Response:

Comment noted.

Sincerely,

LOUCKS

Trevor Gruys, PE
Zach Moen, PE