

MEMORANDUM

TO: Anne Capra, AICP, Director
Planning & Conservation, South Hadley, MA
M. James Riordan, AICP, LEED AP, Team Leader

FROM: James Pearson, PE, Technical Leader
Daron Kurkjian, PE, Senior Project Manager

DATE: April 1, 2022

SUBJECT: E Ink Expansion: Special Permit Peer Review

Introduction

Weston & Sampson was requested by the Town of South Hadley (the Town) to provide a review of the Special Permit and Stormwater Permit application for the proposed expansion of the E Ink facility at 7 Gaylord Street in South Hadley. The project site is fully developed as an existing industrial facility with an existing building, curbs, paving and utilities. The applicant proposes to remove a portion of the existing building and construct a new building and covered loading dock. Construction is approximately within the same footprint as the existing building. Other site improvements are also proposed, including storage tanks, drainage improvements, utility relocation and paving/cub replacement.

This memorandum summarizes the results of our peer reviews, which were prepared pursuant to our February 18, 2022 contract with the Town as well as our March 29, 2022 proposal. In general, materials that we reviewed to prepare this memorandum include those submitted with the Special Permit application as of February 14, 2022 and second material set provided on March 27, 2022. Below, we list the contents of the two sets of materials.

February 14, 2022

- E Ink Corporation Facility Expansion, 7 Gaylord Street, South Hadley, Massachusetts, Application for Special Permit (Two Pages, No Author, January 5, 2022)
- E Ink Corporation Facility Expansion, 7 Gaylord Street, South Hadley, Massachusetts, Project Narrative (Two Pages, No Author, Revised February 9, 2022)
- E Ink Corporation Facility Expansion, 7 Gaylord Street, South Hadley, Massachusetts, Drawing Set (Nine Sheets, BSC Group, January 5, 2022, Revised February 2, 2022)
- E Ink Corporation Facility Expansion, 7 Gaylord Street, South Hadley, Massachusetts, Application for Stormwater Permit (Two Pages, No Author, January 5, 2022)

- E Ink Corporation Facility Expansion, South Hadley, Massachusetts, Stormwater Management Report (41 Pages, BSC Group, January 2022)
- E Ink Corporation Hazardous Waste/Material Contingency Plan for South Hadley 950-1028 REVE (34 Pages, Tony Vinciguerra, June 18, 2021)
- Summary of E Ink South Hadley – Flammable and Combustible Chemicals (One Page, No Author, January 31, 2022)
- Safety Data Sheets (SDS) provided as of February 14, 2022 (142 Pages, No Author, No Date)
- E Ink Pigment Functionalization Process Overview (One Page, E Ink, No Date)
- First and Second Floor Area Control Drawings (Two Pages, IF Design, No Date)
- Letter from Troccoli to Captain Houle with attachments regarding tank farm questions at the E Ink facilities (Nine Pages, February 4, 2022)
- Letter from Troccoli to Capra regarding Special Permit and NOI Application at the E Ink facilities, attachments listed but not included with letter (Seven Pages, February 4, 2022)
- E Ink Permits Required (Two Pages, No Author, February 4, 2022)

March 27, 2022

- E Ink Permits Required (Two Pages, No Author, February 4, 2022)
- Emergency Response Plan/Hazardous Waste Contingency Plan for South Hadley 950-1028 REV F (58 Pages, Tony Vinciguerra, No Date)
- E Ink Corporation Facility Expansion, 7 Gaylord Street, South Hadley, Massachusetts, Drawing Set (16 Sheets, BSC Group, January 5, 2022, Revised March 25, 2022)
- E Ink Corporation Facility Expansion, South Hadley, Massachusetts, Stormwater Management Report (61 Pages, BSC Group, January 2022, Revised March 28, 2022)
- E Ink Response Narrative (11 Pages, BSC Group, March 25, 2022)
- Letter from Vinciguerra to Captain Houle (Two Pages, March 25, 2022)
- 2006 CAI/Arnel Danvers Chemical Plant Explosives Analysis (14 Pages, No Date, E Ink)
- 500-Foot Radius Map, E Ink Corporation Expansion (One Sheet, March 23, 2022, BSC Group)
- Current E Ink Inspections (One Page, March 21, 2022, No Author)
- Tank Specifications Ensuring Structural Integrity (Six Pages, No Date, E Ink)

Per our contract with the Town, our peer review includes the following:

1. Peer review for compliance with Chapter 200 Stormwater Management (Town of South Hadley, MA Stormwater Management (ecode360.com)), paying particular attention to containment of the industrial chemicals and relationship to the storm sewer on site.
2. Peer review of for compliance with the Wetlands Protection Act and South Hadley Wetlands Bylaw Chapter 240 as submitted with the Notice of Intent.
3. Peer review of project plans and supplemental materials related to the containment, handling, and transport of industrial chemicals. This review includes review of management practices from onsite delivery of virgin materials, spent materials, and any emissions (air quality) associated with these processes.
4. Peer review of traffic management materials provided by the Town to us as part of the March 27, 2022 revisions. We will review materials provided in accordance with industry standards for traffic management.

5. Written peer review report with findings for #1-4 above, which addresses how the proposed project meets the Special Permit standards as outlined in the South Hadley Zoning Code 255-129 (ecode360.com).

Overview of the Proposed Facility Expansion

The applicant proposes to demolish an existing administrative building and replace it with an expansion to its chemical processing facility. Work outside of the building will include relocation of sewer and storm drain infrastructure within the footprint of the expansion, replacement of pavement and curb, installation of chemical storage tanks, a chemical delivery spill containment system, and stormwater quality structures.

The applicant proposes to install stormwater structures to improve stormwater management at the site. Proposed structures include deep-sump, hooded catch basins and proprietary hydrodynamic separator stormwater treatment units. The applicant has indicated that one of the units will be installed on the main storm drain line that collects runoff from an abutter.

Peer Review

This peer review is provided under the following general review topics:

- Stormwater Management
- Environmental Management
- Traffic Management

Our review provides a section for each area of concern. The sections are structured to include a listing of review standards, our findings for the review standard, and then additional review findings. For clarification **green text** indicates comments that require no further action; **orange text** indicates open comments or questions.

Stormwater

Review Findings for Stormwater

We reviewed the application materials as listed above. Below, we provide a review, standard by standard:

Section 200-20

We reviewed the applicant's stormwater management permit submission pursuant to requirements of Section 200-20 of the Town's Bylaws and find that it has been prepared in conformance with the requirements therein, except for certain items for which additional information has been requested as further described below.

Section 200-17, 200-18, and 200-19

We reviewed the applicant's submission pursuant to requirements of Section 200-17 to 200-19 of the Town's Bylaws and find that it to be prepared in conformance with the stormwater elements except as provided below:

1. Section 200-17: *To prevent the adverse impacts of stormwater runoff, the stormwater performance standards in this Article VI must be met at new development sites.*

To prevent the adverse impacts of stormwater runoff, the Town requires that new developments must adhere to Massachusetts Stormwater Management Standards. Section 200-18(A) of the Town's bylaws specifies this requirement. Our comments related to the Massachusetts Stormwater Management Standards our provided below, under our findings related to Section 200-18(A).

2. Section 200-18 (A): *Projects must meet the standards of the Massachusetts Stormwater Management Standards as promulgated by the Massachusetts DEP.*

The Massachusetts Stormwater Standards are established in Volume 3 of the Massachusetts Stormwater Handbook. There are 10 standards, which include:

- *Standard 1 - No new stormwater conveyances may discharge untreated stormwater to or cause erosion in wetlands or water of the Commonwealth*

Untreated stormwater is not being discharged to wetlands or waters of the Commonwealth. The applicant proposes to install stormwater quality management BMPs which are expected to improve stormwater quality in comparison with existing conditions. Adequate riprap protection for a new outfall has been provided to prevent erosion to the receiving waterbody. This standard has been met.

- *Standard 2 - Peak Rate Attenuation*

The proposed development will result in less impervious area onsite than existing conditions. The applicant asserts that this fact, on its face and without computational analysis, is evidence that peak stormwater discharge rates will not increase. We concur with this assessment and believe that this standard has been met to the maximum extent practicable.

- *Standard 3 – Recharge*

The proposed development will result in less impervious area on site than existing conditions. The applicant asserts that there is, therefore, no loss to groundwater recharge because of this development, and that in fact the development will result in a slight increase in recharge. We concur with this assessment and believe that this standard has been met to the maximum extent practicable.

- *Standard 4 - Required Water Quality Volume.*

The applicant has provided calculations for water quality volume and equivalent water quality flow for purposes of sizing two stormwater-quality structures. [In our](#)

previous review, we offered suggested revisions to the calculations. The applicant has completed the revisions and we have no further comment.

- *Standard 5 - Land Uses with Higher Potential Pollutant Loads*

In our previous review, the applicant's statement in the stormwater report narrative under this standard was ambiguous. Based on our review we believe that the site is occupied by a land use with a higher potential pollutant load. The applicant has revised this narrative as requested and we have no further comment.

- *Standard 6: Standards concerning discharges within Zone II, Interim Wellhead protection areas of public water supplies, and stormwater discharges near or to any other critical areas*

The site does not appear to be within critical areas under this standard.

- *Standard 7: Computations demonstrating that peak rate attenuation, recharge, and water quality treatment is provided to maximum extent practicable for redevelopment projects.*

We agree that this project is correctly classified as a redevelopment project. As such, we believe that the project approach generally meets the standards to the maximum extent practicable.

- *Standard 8: Development of an Erosion and Sediment Control Plan*

The applicant has shown erosion and sediment control measures on their plans and has included a comprehensive erosion and sediment control plan as part of their stormwater report. The measures proposed appear to be appropriate to address Standard 8; however, see our review of Standard 9 (below) regarding operation and maintenance of erosion and sediment control measures.

- *Standard 9: Operation and Maintenance*

The applicant has provided an operation and maintenance plan for stormwater best management practices. The operation and maintenance plan appears acceptable. However, the narrative description of the O&M approach under this standard (14th page of the PDF stormwater report) appears to only include language about construction-period measures that properly belongs under Standard 8. We recommend that the applicant revise the narrative to identify long-term operations and maintenance considerations that are applicable to this standard. Temporary construction period measures are not applicable to this standard but should be handled under Standard 8.

- *Standard 10: Illicit Discharge Compliance Statement*

The applicant states that there are "no known illicit discharges to the stormwater drainage system, and no new ones are proposed."

Low Impact Development

The Massachusetts Stormwater Handbook indicates that proponents of projects subject thereto must consider environmentally sensitive site design and low impact development (LID) techniques to manage stormwater.

The Massachusetts Stormwater Standards list specific credits for LID that the applicant may pursue for compliance in lieu of installing dedicated stormwater management BMPs. We understand that the applicant is not seeking LID credit. We find that the applicant has complied with standards 3 and 4 to the maximum extent practicable and is, therefore, not required to achieve LID credit standards.

3. *Section 200-18 (B): When the proposed discharge may have an impact upon a sensitive receptor, including streams, storm sewers, and/or combined sewers, the Planning Board may require an increase in these minimum requirements, based on existing stormwater system capacity and standards of other Town boards, including, but not limited to, the Board of Health and the Conservation Commission.*

To our knowledge, the Town has required no increase in the minimum standards. Stormwater quality treatment at the proposed development is to be primarily provided by stormwater quality structures. We find the selected best management practice to be appropriate for the proposed project. As noted above, additional information is requested to verify that the system is sized and designed in accordance with MassDEP standards.

Section 200-19

We reviewed the applicants Stormwater Management Permit submission pursuant to requirements of Section 200-19 of the Town's Bylaws and found it to be prepared in general conformance with the stormwater elements, provided that the applicant furnishes the information requested herein.

Special Permit Review

Review Standards for the Special Permit

Standards for special permits are included in the Town Bylaws § 255-129. These are reproduced below with comments updated to reflect the applicant's responses in a letter dated March 25, 2022.

A. Except in the case of a special permit for changing a nonconforming use or structure, which is governed by § 255-7B, the SPGA must make written findings on the following mandatory standards, requiring that a proposed use will:

(1) Comply with all applicable land use district, overlay district, and other specific requirements of this and other bylaws and regulations, and be consistent with the purpose and intent of this bylaw and of the land use district in which it is located.

The applicant's special permit modifies the existing manufacturing facility usage by the inclusion of a tank farm for chemical storage. The additional chemical storage and processes are presented in a "Pigment Functionalization Process Overview Diagram." We recommend clarification on the new tank farm and chemical loading/unloading area including:

- a) The applicant has labeled eight rectangular features shown adjacent and northeast to the proposed storage tanks as pumps on Drawing A-0108. No further comment.
- b) The applicant provided secondary containment system detail on Drawing A-0108; no further comment.
- c) The applicant has clarified truck deliveries will be connect by hose to fixed pumps. **Please confirm that the pumps are piped to the tanks.**
- d) The applicant clarified that nitrogen (an inert gas) will be used to empty hoses and no rinsate water will be generated. No further comment.
- e) The applicant has eliminated the shared valved connection of the holding tank to the stormwater system. No further comment on this revised design.
- f) The applicant has provided renderings and expanded site plans that aid in the understanding of the tank farm layout. No further comment.
- g) The applicant has provided updated text for the tank farm labeling. No further comment.
- h) The applicant's plans are updated as requested to identify fixed features vs. temporary vehicles. No further comment.

(2) Be suitable to the surrounding neighborhood and the "Land Use Area" in which it is located. Land Use Areas are identified and described in the section of South Hadley's Master Plan entitled "Land Use Area Vision Statements" (pages 1-10 through 1-19). In making this determination, the Planning Board shall take into consideration any guidance provided by the land use goals articulated in South Hadley's Master Plan, goals articulated in South Hadley's open space and recreation plan, and input from relevant boards, Town officials, and the public.

(3) Be compatible with existing uses and uses allowed by right in the neighborhood, Land Use Area, and zoning district.

(4) Be compatible with the existing character of the neighborhood and Land Use Area, and/or zoning district. "Character" shall be understood to include prevalent patterns of: site design; setbacks from property lines; amount and location of parking; amount, type, location and quality of open spaces and landscaped areas; amount, type, and location of impervious surfaces; distances and relationships between buildings; density of building(s) relative to land area; building massing; architectural style and detailing; materials; buffering from adjacent uses; traffic volume and timing; noise; odors; and light.

(5) Be suitable for the property on which it is proposed, considering the property's, scenic, cultural and historic significance, and its ability to be buffered or screened from neighboring properties and public roads.

Bylaw items 2 through 5 refer to zoning and land use. The applicant's narrative, dated February 9, 2022, notes that the tank farm will be screened and the building will include landscaping and a vegetative buffer. The applicant has listed they have been recognized by the South Hadley Falls Neighborhood Association for being a good neighbor and carefully considering landscaping.

The applicant's March 25, 2022 response provides renderings of landscaping along Gaylord Street including small trees and shrubs. The site plans do not indicate these plantings and retain the "Loam and Seed" labelling. Weston & Sampson recommends the site plans reflect the renderings placement of plantings (either small trees or shrubs) that would provide improved aesthetics as part of the facility upgrades than grass. Drought tolerant, low maintenance species suited for South Hadley are widely available and may provide lower long-term maintenance than grass.

(6) Provide safe access for fire, police, and other emergency vehicles.

The applicant has engaged with the Town Fire Department. These files are included in the peer review and provide additional useful information on the nature of the proposed tank farm. We have no further comment.

(7) Provide adequate water, drainage and waste disposal systems without causing significant harm to any natural water system or overloading any public water, drainage, or sewer system, or any other municipal facility.

Please refer to the stormwater peer review comments related to stormwater handling.

E Ink noted that they have communicated with Fuel Services (an abutter) to maintain a stormwater quality treatment unit and easement. The applicant has indicated in February 2022 and again in March 2022 that "E Ink intends to memorialize the easement after discussions with the Planning Board and Conservation Commission." To facilitate this, we suggest a condition of approval include that the easements and any agreements to operate, maintain and manage this stormwater equipment are provided to the South Hadley Planning Board by a reasonable date as determined by the South Hadley Planning Board.

(8) Not cause significant traffic congestion, impair pedestrian or bicycle safety, or overload existing roads, sidewalks and trails, considering their current width, surfacing, and condition, and any improvements proposed to be made to them by the applicant.

This peer review did not include a review of traffic outside of the proposed development site; however, we did review the site for potential traffic management issues onsite. The applicant has provided supplemental information including truck turn radius on the site plans and response letter. The Fuel Services Delivery Plan Drawing C-5.1 includes a truck route through building hatching; the hatching could be improved to show this building outline is an open canopy with the height clearance for this proposed truck traffic. *Weston & Sampson suggest a condition of approval is documentation of an agreement to use the abutter's driveway.*

(9) Not result in excessive air, water, noise, or light pollution, or create any other public or private nuisance.

The applicant has listed a closed loop system with minimal air exposure. We understand that the proposed project will require permit review for air quality. Since our review overlaps with air quality, we offer the following air related questions and comments:

- a) The applicant clarified vapor/emissions controls will include closed loop systems and a Regenerative Thermal Oxidizer (RTO). No further comment.
- b) The applicant clarified the RTO will limit emissions by breaking down volatile organic compounds (VOCs). Low nitrogen pressure will be placed in vessels to further address safety and emissions concerns. No further comment.
- c) The applicant indicated immediate reporting to the MassDEP will occur if monthly data for VOCs or Hazardous Air Pollutants (HAP) exceed permitted levels. This response is does not fully address the questions related to the system start-up and initial chemical delivery air monitoring question. *It is common for municipalities to also be included in emissions notification that are also submitted to the MassDEP. Weston & Sampson recommends the applicant add the Town of South Hadley municipal contacts that would like to be added to the notification list. These could include emergency, public health, or others. As much of the MassDEP files are publicly available, links to this information would also be beneficial for the applicant to provide for interested parties to be able to review the emissions testing.*

It would be reasonable for the Planning Board as part of the review of nuisance concerns, require the system start-up be monitored with perimeter monitors, typically downwind and in three remaining cardinal directions. A new system should be carefully checked for tightness for leaks and functioning. These perimeter monitors for VOCs or other expected HAPs could be set to alarm at elevated levels. It would be beneficial to confirm breathing zone are OSHA compliant on-property and downwind of the property. These checks would confirm the RTO and closed loop system are functioning as intended and could be suspended once data reach action levels.

- d) The applicant has detailed a process to address spills to the precast concrete holding tank. No further comment.
- e) The applicant confirmed a Hazardous Building Materials Inventory (HBMI) was performed on December 3, 2018 and an AQ-06 MassDEP Notification for Construction/Demolition was filed on March 23, 2022. No further comment.
- f) The applicant has included a Standard Operating Procedure (SOP) to control odors and indicated all operating venting of toluene tanks will be to the RTO for treatment prior to emission. As condition for approval, the finalize SOP should be provided to the Planning Board to document its implementation.
- g) The applicant has noted that no hazardous waste tanks will be included in this design. No further comment.
- h) See response to item g above. No further comment.
- i) The applicant confirmed tightness tests will be performed prior to putting the tanks into use.

(10) Not degrade the scenic, rural, or historic character of the Town with structures or other lot features which are deemed visually objectionable in light of prevailing community as reflected in the goals articulated in South Hadley's Master Plan.

(11) Be consistent with the South Hadley Master Plan, provided that the Comprehensive Plan provides legally sufficient guidance and that the applicable provision of the Master Plan is not inconsistent with any specific provision of this bylaw.

(12) Comply with applicable criteria for site plans under § 255-148.

For bylaw items 10, 11 and 12 the applicant has provided two renderings of the building improvements and a building section. To document that façade materials in the architectural set, we recommend the applicant architectural drawings confirming the façade construction. It appears a mix of brick and other cladding materials are proposed. So long as these plans match the renderings and barring objection from the Town of South Hadley PB, the visual nature of proposed construction and review criteria of § 255-148 would be met for this industrial area.

Thank you for the opportunity to assist the Town of South Hadley with this review. If you should have questions related to this review, please contact Jim Riordan at (401) 497-6705 (mobile) or by email at riordanj@wseinc.com.