Wilcox & Barton INC.
CIVIL • ENVIRONMENTAL • GEOTECHNICAL

TRANSMITTAL

April 15, 2026

Concord City Hall – Planning Division
41 Green Street
Concord, New Hampshire 03301

RE: Major Site Plan and Conditional Use Permit Applications
3JB, LLC
Tax Map 7413Z, Lot 9
47 & 49 South State St, Concord, New Hampshire

Item No.	Quantity	Description
0	1	Transmittal Letter
1	1	Major Site Plan Checklist
2	1	Project Narrative
3	1	Waiver Request Letter
4	1	CUP Request Letter
5	1	Abutter List
6	1	Owner Authorization Letter
7	1	Site Photos
8	1	ZBA Variances
9	1	Stormwater Management Plan
10	1	Site Plan Set (24x36)
11	1	Architectural Elevations and Floor Plan (24x36)

If you have any questions, or require additional information, please contact me at (603) 369-4190 x527.

Very truly yours,

WILCOX & BARTON, INC.

Erin Lambert

Erin R. Lambert, P.E, LEED AP
Senior Vice President

PLANNING BOARD CITY OF CONCORD, NH
MAJOR SITE PLAN CHECKLIST

This checklist is intended to assist applicants and design professionals in the preparation of major site plan applications for consideration by the City of Concord Planning Board. The checklist is also intended as an aid to City staff in its review of a subdivision application. Any question about the applicability of any of the items in the checklist to a particular subdivision application should be discussed with a member of the Planning staff at 603-225-8515, before an application is submitted.

The first section lists the plans and documents needed for an application to be complete. The second section lists elements of each of the plans and documents required for an application to be complete. The third section is designed to provide guidance on the items to be completed after conditional Planning Board approval is obtained from the Planning Board.

Summary

Name of Development: 3JB, LLC Mixed Use Development

Owner's Name(s): T3JB, LLC

Street Address: 47 - 49 S. State St Nearest Street(s): Concord Street

Map\Block\Lot(s): 7413\Z\9 Map\Block\Lot(s): _____ Map\Block\Lot(s): _____

Zoning District(s): Urban Commercial (CU) Overlay District(s): N/A

Municipal Water Supply Available: Yes X No____ Municipal Sanitary Sewer Available: Yes X No_____

Lot Frontage: 292 LF Lot Frontage Required: 100 LF

Lot Size 28,746 SF Minimum Lot Size Required: 12,500 SF

Building Setbacks Required: Front 15 LF Back 15 LF Side 15 LF Shoreland N/A

Building Setbacks Proposed: Front 5 LF Back 17 LF Side 3 LF Shoreland N/A

Part 1: The following documents and plans are needed for an application to be determined complete by the Planning Board.

Documents

X An application either signed by all the current owner(s) of the property or signed by an individual authorized by the owner(s) to act as the agent. A letter must be submitted with the application authorizing the individual to act as agent on the owner(s) behalf when the agent signs the application.

X The appropriate application fees.

X List of the current abutters to the property including those property owners located across streets and streams from the property being subdivided. Please include the name, address, and profession of the professionals responsible for the preparation of the subdivision plans and supporting studies.

N/A If the project is to be phased, a description of project phasing and the proposed start and completion date for each phase.

X Two (2) copies of a Storm Water Management Plan as called for in Section 22.

N/A Two (2) copies of a Traffic Study as called for in Section 32.

N/A Special Investigative fee for review of a Traffic Study as set forth in Section 32.

N/A One (1) copy of any Impact Study which may be required by the Clerk of the Board.

N/A Special Investigative or Third Party Review fees as set forth in Section 32.
X Requests for any waivers from the Site Plan Regulations if any.
N/A A copy of any variances or special exceptions, which have been granted by the Zoning Board of Adjustment.
X Where Conditional Use Permits (CUP) are required in conjunction with a proposed subdivision, two (2) copies of complete CUP applications shall be provided for each CUP as set forth in Section 34.

Drawings

X Five (5) full sized hard copies of the site plans and one (1) digital copy sized at 11" x 17", including existing condition plan(s), demolition plan(s), site layout plan(s), grading, drainage and erosion control plan(s), utility plan(s), landscape plan(s), lighting plan(s), construction detail plan(s), and other improvement plans(s). Please note pursuant to Section 16, the plans may be consolidated onto one or more sheets, if the information can be clearly shown without obscuring information.
N/A Five (5) full sized hard copies of any off-site improvement plans and one (1) digital copy sized at 11" x 17".
X Two (2) hard copies of the architectural elevations and one (1) digital copy.
X Colored overview plan showing entire development with lot lines, buildings, parking lots, driveways, loading areas, solid waste facilities, green space and tree plantings, fences/walls/buffers, any outside sales and display areas, adjacent streets, along with other significant physical features shown on a single sheet suitable for display purposes.
X One (1) set of reductions (8½ x 11) of the site plan drawings except for construction detail plans, including architectural elevations.
X A New Hampshire Licensed Land Surveyor shall prepare, sign and seal the existing condition plan.
X A New Hampshire Licensed Professional Engineer shall prepare, sign and seal all plans where grading, drainage and utility information is proposed.
X Landscape plans shall be prepared by a New Hampshire Licensed Landscape Architect who shall sign and seal the landscape plan(s).
X Architectural elevations shall be signed or sealed by a New Hampshire Licensed Architect, or a New Hampshire Licensed Professional Engineer, as allowed by the State of New Hampshire professional licensing boards.
N/A Where wetland boundaries are required to be delineated, the delineation shall be performed by a New Hampshire Certified Wetland Scientist who shall sign and seal the plan upon which the wetland boundaries are mapped.
N/A Where soils are required to be identified, classified, and delineated, the identification, classification, and delineation shall be performed by a New Hampshire Certified Soil Scientist who shall sign and seal the plan upon which the soils are mapped.

Part 2: The following standards and items need to be shown on plans in order for a site plan application to be determined complete.

Drawing Standards

X All drawings shall be shown at 1"=10', 1"=20', 1"=30', 1"=40' or 1"=50' for all drawing sheets except for location plans, cover sheets, architectural elevations or engineering detail sheets. If alternative map scales may be warranted by the size and/or shape of the site, consult with the Planning Division staff prior to preparing the drawings.
X If multiple sheets are necessary to provide design detail at required scales, then a concept drawing sheet or cover sheet shall be included. The concept drawing sheet can be flexible in scale while showing general project information and a graphic conceptual layout. Each detail sheet must be indexed on the concept drawing sheet.

X North arrow.
X Bar scale.
X Drawing sheets not exceed 24" x 36" except for the colored overlay plan.

Title Block
X Title of development.
X Name and address of the owner and applicant.
X Date the plan was prepared and the date of subsequent revisions.
X Name, address, seal, and signature of the licensed professional who prepared the plan.
X Street Address(s).

Vicinity Plan
X The location of the development shall be shown.
X Streets, water bodies, city limits, parks, schools, and other significant physical and man made features shall be shown on the vicinity plan.
X Scale between 1"=1000' and 1"=2000'.

Location Plan
X Proposed property to be developed.
X Property lines.
X Abutters' property lines.
X Names and locations of nearby and adjacent City streets.
N/A Names and locations of adjacent water bodies and watercourses.
N/A Names and locations of nearby and adjacent parks, schools, churches, and other significant physical and man-made features.
N/A Nearest street intersections.
X The Tax Assessor's map-block-lot number, or map-lot number as applicable, for abutters and the properties to be developed.
X Zoning district designations and boundaries.
N/A Other special information which may be required by the Planning Board.
X Minimum scale 1" = 400'.

Standard Notes
X Purpose of the site plan.
X Ownership of parcel with deed references.
X Tax map-block-lot numbers, or map-lot number as applicable, of the existing parcels.
X Title reference for Book and Page number of the lot(s) being proposed for development and abutting properties from the Merrimack County Registry of Deeds. Title reference shall not be more than 5 days old at the time of filing.
N/A Plan references for prior recorded subdivisions or surveys on the properties proposed for development or abutting said properties proposed to be developed.
N/A Addresses for all proposed buildings or condominium units.
X Area of subject parcel(s).
X Zoning designation of subject parcel(s) including all overlay zones.
X Minimum lot area, frontage, and setback dimensions required for the zoning district(s) and for wetland buffers, bluff setbacks, the Shoreland Protection Overlay District buffers, and Aquifer Protection Areas.
X Required useable lot and buildable lot area and calculations.
X Tabulations of existing and proposed areas of wetlands, bluffs and ravines, steep slopes greater than 15% and greater than 25%. Existing and proposed impervious surface areas.

N/A Plan or deed references for recorded easements, whether public or private, on the properties proposed for development and existing easements on abutting properties, which are for the purposes of providing access, utilities, and drainage to the properties proposed to be subdivided.

N/A Deed reference and statement of any existing recorded covenants or restrictions relating to the use of the land proposed to be developed.

X Source of sanitary sewer and potable water supply.

N/A Zoning variances and/or special exceptions granted.

N/A Flood Insurance Rate Map sheets used to identify 100 year flood elevation and zone designation.

N/A If applicable, Flood Hazard Designation along Merrimack River (F1) or (F2) and minimum finished floor elevation.

X List of required local, state, and federal permits.

N/A List of any Planning Board waivers and Conditional Use Permits requested.

N/A Phasing description.

Existing Condition Plan

X Property lines for the parcel to be developed with bearings and dimensions.

X Full names and addresses of all abutters of the property.

X Addresses of the existing lots and/or uses located on the property.

X Title reference for Book and Page number of the lot from the Merrimack County Registry of Deeds. Title reference shall not be more than 5 days old at the time of filing.

X Zoning district designation and boundaries including Floodway and Floodplain Districts.

X Building setback lines and dimensions for all lots including wetland buffers, bluff setbacks, the Shoreland Protection Overlay District buffers, and Aquifer Protection areas.

X The location of existing features such as water courses and bodies, parks, open space, large trees, foliage lines, rock outcrops, railroads, buildings, and significant natural and man-made features. Other pertinent features such as, but not limited to, wetlands, cemeteries, and drainage ditches.

X The location of all existing buildings, structures, fences, stonewalls, driveways, parking, and any vehicular use areas.

X The location and dimensions of existing driveways, curb cuts, parking lots, loading areas, or any other vehicular use areas.

X The location of all existing access points (driveways) onto city streets.

X The location, travel way width, and rights-of-way of all existing adjacent city streets, as well as mapped future streets.

X The location, dimensions, and purpose of any easements or rights-of-way.

X Existing topographic conditions and all proposed changes in ground elevation at a contour interval of two (2) feet referred to sea level datum of the US Coast and Geodetic Survey.

X Where the land slopes less than two percent, spot elevations shall be shown at all breaks in grade, along all drainage channels or swales, and at selected points not more than 100 feet apart in all directions.

X Finished floor elevations and minimum finished floor elevations required within the Floodway or Floodplain Zoning District, if applicable.

N/A Wetland Delineation by NH Certified Wetland Scientist if the presence of wetlands is suspected.

N/A Steep slopes greater than 15% and greater than 25%.

X Buildable and Useable land area calculations as applicable.

X The location and size of existing ground signs.

X The type and location of existing outdoor lighting.

X The identification and classification of the extent and type of soils using the USDA Soil Conservation Services system, specifically identifying those soils recognized as wetlands and those important for agriculture.

N/A Soil test data as required by the NH Water Supply and Pollution Control Division, where municipal sewers are not present. A High Intensity Soil Survey may be required.

X The location, size, and invert elevations of existing sanitary and storm sewers including manholes, catch basins, and culverts.

X The location and size of all existing water mains including hydrants, gates, valves, and blowoffs.

N/A The location of wells and subsurface disposal systems if the property is not served by municipal water and sanitary sewers, including those on abutting property.

X The location of all existing non-municipal utilities including electric, telephone, gas, steam, and CATV systems, along with fire alarm cables, both on-site and within abutting rights-of-way.

N/A The type and location of existing solid waste disposal facilities.

Demolition Plan

X The demolition plan shall be based on the existing condition plan.

X The location and extent of removal of all buildings, structures, paving and landscaping shall be shown on the plan including the limits of any clearing, or site disturbance.

X Provisions for the removal or reuse or any construction or demolition debris from the site.

X The location and extent of any removal of utilities and drainage along with the provisions for the removal, and capping of underground public and private utilities.

X Plans and provisions for site restoration, erosion control and repaving of public or private streets disturbed.

Site Plan

X Property lines of the parcel to be developed including bearings and dimensions.

X Zoning district designation and boundaries including the Floodway and Floodplain Districts.

X Building setback lines, including dimensions including wetland buffers, bluff setbacks, the Shoreland Protection Overlay District buffers, and Aquifer Protection areas including labels.

X Full names and addresses of all abutters to the property.

X Title reference for Book and Page number of the lot from the Merrimack County Registry of Deeds. Title reference shall not be more than 5 days old at the time of filing.

N/A Locations of any wetlands, bluffs and ravines, and steep slopes greater than 15% and greater than 25%.

N/A Flood Hazard areas and boundaries.

X Finished floor elevations and minimum finished floor elevations required within the Floodway or Floodplain Zoning District, if applicable.

N/A Wetland Delineation by NH Certified Wetland Scientist if the presence of wetlands is suspected.

X The location, use and dimensions of all existing and proposed buildings and structures including fences, stonewalls, towers, mechanical equipment, etc. Separately identify proposed additions to buildings and structures.

X The location and dimensions of existing and proposed driveways, curb cuts, parking lots, loading areas, or any other vehicular use areas, including the number of parking and loading spaces per bay, and the designation of spaces for compact vehicles and the handicapped.

X The location and dimensions of existing and proposed pedestrian walkways, sidewalks and other paved surfaces, both on-site and within abutting rights-of-way.

X The location of existing features such as water courses and bodies, parks, open space, large trees, foliage lines, railroads, buildings, and significant natural and man-made features. Other pertinent features such as, but not limited to, wetlands, cemeteries, and drainage ditches.

X The location, travel way width, and right-of-way of all existing adjacent city streets, as well as mapped future streets.

X Existing public or private street names.

X Addresses for all existing and proposed buildings or condominium units.
N/A The location of any wells and the NHDES well radii.
N/A The location of septic tank drainfields and the required 4,000 square foot septic drain field area required by the NHDES.
X Fire lanes and fire access for fire apparatus.
X Phase boundaries and labels.
N/A The location, bearings, and dimensions and area of all property proposed to be set aside for park or playground use or other public or private reservation, with designation of the purpose thereof, and conditions, if any, of the dedication or reservation.
X The location, bearings, and dimensions of all existing and proposed easements.
N/A Notations of all covenants, easements, self-imposed restrictions, and any other restrictions or notations required by the Board.

Tabulations

X Gross acreage - Lot size in square feet is recommended for projects less than 1 acre.
X Square feet or acres devoted to the various uses.
X Ground coverage of buildings and structures in square feet and percent.
X Ground coverage for parking and loading areas including aisles and internal landscaping in square feet and percent.
X Internal parking lot landscaping in square feet and percent.
X Impervious surface coverage in square feet and percent.
X Useable land area calculations for residential development and net land area calculations for non-residential development.
X Total number of dwelling units, and total numbers of dwelling units by type and number of bedrooms.
X Square feet of floor area by type of use for all non-residential uses.
X Projected number of employees by shift if necessary for calculating required parking.
X Building occupancy or fixed seating if necessary for calculating required parking.
X Calculations of required parking and loading areas, including handicapped and compact spaces.
X Parking and loading areas provided including handicapped and compact spaces.

Note: Tabulations shall be completed for the entire project and for each development phase. When a site falls into more than one zoning district, separate tabulations will be required for each area covered by a different zoning district.

Please note the existing condition plan, demolition plan, grading and drainage plans, utilities plan, lighting, landscape and erosion control plans may be combined on the site plan or other drawing sheets if all the existing and proposed information is presented in a clear, understandable and legible manner.

Grading & Drainage Plans

X Existing topographic conditions and all proposed changes in ground elevation at a contour interval of two (2) feet referred to sea level datum of the North American Vertical Datum 1988 (NAVD88). Where the land slopes less than two percent (2%), spot elevations shall be shown at all breaks in grade, along all drainage channels or swales, and at selected points not more than one hundred (100) feet apart in all directions.

X Where the land slopes less than two percent, spot elevations shall be shown at all breaks in grade, along all drainage channels or swales, and at selected points not more than 100 feet apart in all directions.

X The identification and classification of the extent and type of soils using the USDA Soil Conservation Services system, specifically identifying those soils recognized as wetlands and those important for agriculture.

N/A The location of all significant natural features including, but not limited to, ledge outcroppings, streams and water bodies, wetlands, bluffs and ravines, and steep slopes in excess of 15% and 25%.

X Setbacks shall be shown and dimensioned including those required for yards, and the Shoreland Protection District, as well as bluff and wetland buffers and setbacks.

X The location and size of all swales, drainage ditches, culverts, drain pipes, inlet and outlet structures, catch basins and manholes, storm water treatment structures, easements, and detention and retention ponds, including invert elevations and cross-sections as may be necessary to determine the suitability and adequacy of the proposed system.

X 2-year, 10-year, 25-year and 100-year storm water runoff estimates, including all calculations.

X The location and size of proposed buildings, driveways (including proposed grades), and septic tank drain fields and receiving layers.

N/A Where municipal sewer service is not available, soil data and test results sufficient to submit an application for subdivision approval to the NHDES including a plan showing the location of test pits, the soil profiles, ground water elevation, and seasonal high water table elevation at each test pit. The required 4,000 square foot septic drain field area required by the NHDES shall be shown.

X The location, width, and purpose of existing and proposed easements for road rights-of-way, utilities, drainage, slope, open space or conservation easements, and any other easement as required. The easements to be shown include both public and private easements. The dimensions and bearings shall be shown for the boundaries of all easement areas except slope easements.

Utility Plans

X The location, size, and invert elevations of existing and proposed sanitary and storm sewers, including manholes, catch basins, culverts, and the location of any pump stations, lift stations, and other appurtenant facilities or structures.

X The location and size of all existing and proposed water mains, including hydrants, gates, valves, and blowoffs, and the location of any other appurtenant facilities.

X Profiles of all municipal utilities.

X Details for pump or lift stations, manholes, catch basins, fire hydrants, valves, etc. The use of details from the City of Concord Construction Standards is required when available, unless otherwise approved by the City Engineer.

X The location and size of all existing and proposed private underground and overhead utility improvements including, but not limited to, gas lines, electric transmission lines, telephone transmission lines, cable television, steam distribution mains, and fire and police alarm transmission lines. The location of all manholes, transformers, poles, and other appurtenant facilities or structures shall be shown.

N/A In the absence of municipal water supply, a plan indicating individual well locations shall be submitted including the NHDES required well radii.

N/A Where municipal sewer service is not available, soil data and test results sufficient to submit an application for subdivision approval to the NHDES including a plan showing the location of test pits, soil profiles, ground water elevation, and seasonal high water table elevation at each test pit. The 4,000 square foot septic drain field area required by the NHDES shall be shown.

X The location, width, and purpose of existing and proposed easements for road rights-of-way, utilities, drainage, slope, open space or conservation easements, and any other easement as required. The easements to be shown include both public and private easements. The dimensions and bearings shall be shown for the boundaries of all easement areas except slope easements.

Lighting Plan

X Lighting including building and pole and luminaire locations and details for poles and fixtures including colors, materials, dimensions and wattage.
X A lighting plan showing light levels in foot-candles shall be provided.
X Details of fixtures, poles, and mounting details.

Landscaping and Erosion Control Plans

X Plantings including location, caliper size, common and botanical names, and planting specifications and details. A landscape table is required.
X Plants to be preserved and methods to preserve trees during construction.
X Clearing limits.
X Calculations of trees required to be planted or preserved and the number and type provided and/or protected.
X Phased clearing plan with provisions for soil stabilization.
X Erosion Control and Sedimentation Plan.

Architectural Elevations

X Architectural elevations of all sides of all new buildings and of those sides or areas which are proposed to be altered showing the following types of information:
X Exterior materials and colors.
X Type and pitch of roofs.
X Size, spacing of windows, doors, and other openings.
X Size, location, colors, and copy of signs to be affixed to, or hanging from, the building.
X Size, height, colors, and copy of proposed ground signs.
X Size, type, and location of towers, chimneys, roof structures, flagpoles, antennas and similar structures.
X The relationship in bulk and height to other existing structures in the vicinity.
X Photographs of all existing facades and adjacent buildings and lots.

Off-site Improvement Plans

N/A Off-site improvement plans shall be prepared by a registered architect or engineer who shall sign the drawings and place his/her seal upon it.
N/A Any off-site improvement plans shall conform to the requirements as set forth in the City of Concord Subdivision Regulations and Construction Standards.

Part 3: The following documents and plans are required for a Certificate of Approval to successfully complete the site plan approval process prior to the issuance of any building permits.

Documents Needing Approval Prior To Issuance of a Certificate of Approval, where applicable.

_____ Easement deeds for street rights-of-way, utility, drainage, slope, conservation, or other public easements.
_____ Warranty deed or conservation easements for land set aside as open space.
_____ Agreements to convey easements for private access, utilities, drainage, or other common facilities to be recorded with a future property transfer.
_____ Construction cost estimate for all public and private common facilities.
_____ Financial guarantees for all public improvements.

_____ Where applicable, a Site Stabilization Guarantee.
_____ Agreements between the applicant and the City regarding public improvements.
_____ Certificate of City Council approval where required for utility extension.
_____ Copies of any approvals or permits required from State and Federal agencies.
_____ Electronic plan submission as set forth in Section 12.08 of the Subdivision Regulations.
_____ License from City Council, where applicable, for a use within the public right-of-way.

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25th ANNIVERSARY W&B

Project: 3JB, LLC Mixed-Use Development
Address: 47 - 49 S. State Street, Concord, NH
Applicant: 3JB, LLC

Project Narrative

The project parcel at 47 - 49 S. State Street (Map 7413Z, Lot 9) is in the Urban Commercial (CU) zoning district. The parcel area is 0.66 acres (28,746 SF). The property was previously owned and operated by McLeod's Florist, with on-site parking provided for employees and customers. The site includes a brick paver entrance, 3 greenhouses and a garage / storage building. The greenhouses and garage will be removed, and the existing building will be renovated on the interior.

The project involves constructing a 2-story 3,500 SF commercial addition with a basement, then converting the addition and the 3-story portion of the existing building into 5 residential townhouses. Site improvements include updates to the paved parking areas, site lighting, landscaping, and stormwater controls. The 31 parking spaces will be comprised of 28 surface spaces (2 ADA accessible parking spaces, 7 compact spaces, and 22 standard spaces) and 3 garage spaces. Stormwater from rear of the building addition will be directed into a perimeter drip edge.

The property contains 3 existing easements: a 10' common passway that is shared access with the property to the south, addressed as 55 S. State Street; 1 10' passway through the center of the property; and an 8' common passway shared with the abutter to the east at 11-13 Concord Street.

The project requests a Conditional Use Permit for Driveway Separation Alternatives and Driveway Width. The project requests waivers related to off-street parking, landscaping and dumpster enclosure dimensions. Details are provided in a separate narrative.

On March 4, 2026, the Concord Zoning Board of Adjustment granted the following variances:

1. A variance to section 28-7-7(e), minimum aisle width, to permit the existing aisle width at the entrance to be 20 feet, with an expansion to 22 feet, where 24 feet is required and along the southern parking area to remain at the existing 13'-10" to 15', where 24 feet is required.
2. A variance to section 28-7-7(f), driveway width, to permit the existing driveway width at the entrance to remain at 20 feet, where 24 feet is required.
3. A variance to section 28-7-7(g)(2), setbacks from lot lines, to permit parking up to the property line, where a 5 foot setback is required, with the parking in the southern parking area to have a 4 foot setback, the parking area in the southeast area to have a 1.67 foot setback, and one parking spot in the northeast area to have a 1.1 foot setback.

4. A variance to section 28-7-10(a), parking lot perimeter landscaping required, to permit the existing parking lot along the southern parking and the additional parking areas on the property to have no landscaping area, where a five-foot landscape area is required.
5. A variance to section 28-7-10(c), use of required landscape areas restricted, to permit parking within the required landscaped area, where parking is not permitted under the ordinance.
6. A variance to section 28-7-13(b), location of loading spaces, to permit the existing loading space within the building to remain on the front of the building, with it backing into the street, where it would not be permitted under the ordinance.

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25th ANNIVERSARY W&B

April 15, 2026

Concord City Hall – Planning Board
41 Green Street
Concord, New Hampshire 03301

RE: Major Site Plan Application – Waiver Request
3JB, LLC Multi-Use Development
Tax Map 7413Z, Lot 9
47 - 49 S. State Street, Concord, New Hampshire

Dear Planning Board:

On behalf of 3JB, LLC and in support of the site plan application referenced above, Wilcox & Barton, Inc. hereby requests the following waivers from the Site Plan Regulations:

A waiver to Section 18.12 Perimeter Landscaping to allow off-street parking within 5' of a lot line and to allow parking in a non-residential district to occur within 10' of the front lot line where it abuts the right-of-way of an arterial street. On March 4, 2026, the Zoning Board of Adjustment (ZBA) granted variances to allow parking within the front yard and within 5' of a lot line. The waiver from the site plan regulations will be consistent with the relief granted by the Zoning Board to allow the existing site features to continue in support of the redevelopment.

A waiver to Section 16.02(22) and 20.07 Design of Solid Waste Disposal Area to allow a dumpster pad to be 10'x12' where the City of Concord Construction Detail requires 12'x12'. The reduced width will accommodate a standard 8-cy dumpster.

A waiver to Section 20.04 Location of Loading Space to allow a loading space in front of the building where required on the side or rear. The building contains an indoor loading space accessed by a garage door on the front of the building. On March 4, 2026, the ZBA granted a variance to allow this loading space to be maintained.

1. *The granting of the waiver will not be detrimental to the public safety, health, welfare or injurious to other property*.

   The granting of the waiver would allow existing site features to continue in support of the redevelopment of the project. Regarding the loading space, the existing sidewalk, parking spaces and striping within the right-of-way were designed and built to accommodate this building feature. Dumpster: the dimensional changes will have no impact on public safety or welfare as the structure will be of adequate size and will be fully screened. Landscaping: the on-site parking exists today and will not be detrimental to public safety.

2. *The conditions upon which the request for a waiver is based are unique to the property for which the waiver is sought and are not applicable generally to other property*.

The conditions of this waiver request are unique to the property due to the existing development; the parking spaces located in the front yard and/or proximity to the property line are existing features and are interconnected with adjacent properties through permanent easements. Loading Area: it is unique to have a loading space located inside of the building. It has existed for many years, and the recent improvements of S. State Street accommodate the use. Dumpster: this is a tight, urban site and reducing the dumpster pad while still accommodating a full-size dumpster facilities redevelopment and reducing impervious area.

3. *Because of the particular physical surroundings, shape or topographical conditions of the specific property involved, an unnecessary hardship to the owner would result, as distinguished from a mere inconvenience, if the strict letter of these regulations are carried out*.

   The property contains 3 easements which permanently grant access rights to abutting property owners and restrict changes to parking spaces and aisles on site. This includes interconnected parking and aisles to adjacent properties to the east and south. An unnecessary financial hardship would arise from not allowing the existing site configuration to continue to support the redevelopment.

4. *Specific circumstances relative to the site plan or conditions of the land where a site plan is proposed indicate that the waiver will properly carry out, or not be contrary to, the spirit and intent of these regulations*.

   The waiver will properly carry out the spirit and intent of these regulations by providing adequate on-site parking and interconnectivity to adjacent properties. Regarding the dumpster: this is a tight urban site and reducing the dimensions of the enclosure while still providing adequate space for a full-size dumpster, facilities redevelopment and reduces impervious area which carry out the spirit of the regulations.

5. *The waivers will not in any manner vary the provisions of the Zoning Ordinance, Master Plan Reports or Official Map*.

   The waiver will not vary the provisions of the Zoning Ordinance, Master Plan Reports, or Official Map.

If you have any questions, or require additional information, please contact me at (603) 369-4190 x527.

Very truly yours,

WILCOX & BARTON, INC.

Erin Lambert

Erin R. Lambert, P.E, LEED AP
Senior Vice President

Existing 20’ wide driveway with mature trees on each side (left).
Existing curb cut for 10’ shared passageway at south end of property (right).

Existing curb cut for 10’ shared passageway at south end of property.

Existing 20’ wide driveway with mature trees on each side.
Sidewalk tip-downs and parking striping are existing.

Existing Overhead Door to interior loading area (view looking north)

Existing Overhead Door to interior loading area (view looking south).
Sidewalk tip downs and “No parking” striping are existing.

Interior view of overhead door / inside loading area

Wilcox & Barton INC.

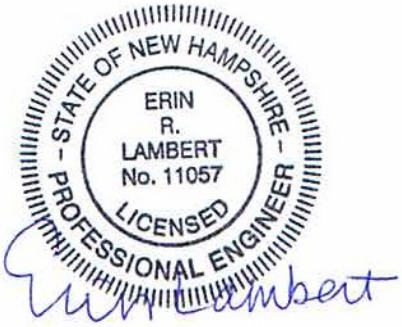
CIVIL • ENVIRONMENTAL • GEOTECHNICAL

STORMWATER MANAGEMENT PLAN
for

3JB, LLC Mixed-Use Development
47-49 South State Street
Concord, NH 03301

Prepared for:
3JB, LLC
12 Wilderness Lane
Bow, NH 03304

Prepared by:
Wilcox & Barton, Inc.
2 Home Ave.
Concord, New Hampshire 03301
Contact: Erin R. Lambert, PE, (603) 369-4190 x527



Wilcox & Barton, Inc.
Project No.: RNBS0002

April 15, 2026

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1.0 PROJECT NARRATIVE

1.1 Project Description

The project involves the redevelopment of the existing parcel (Map 7413Z, Lot 9) for three townhouses of 3,400 SF total and the repurposing of the existing shop and townhouse buildings. Proposed work includes the demolition of existing greenhouses, storage building, and portion of the paver area, followed by the construction of new paved areas, three townhouses, landscaping improvements, and the implementation of stormwater and erosion control measures. The project lot has a total area of 0.66 acres (28,746 SF) and approximately 0.57 acres (24,635 SF) of impervious area. The existing retail and housing building, along with the majority of the impervious and pervious areas located on the northern and western portions of the property, will remain unchanged. Construction activities associated with the redevelopment will result in an overall decrease in impervious area of approximately 0.05 acres (2,259 SF). The total area of disturbance is approximately 12,360 SF; therefore, an Alteration of Terrain Permit is not required. The proposed project also includes the installation of a building drip edge to provide additional stormwater management for part of the proposed townhouse's roof runoff. Erosion and sediment control during construction will be achieved through the installation of silt fencing and filter fabric inlet protection along downgradient areas of disturbance and catch basins to control sediment migration and protect stormwater quality at the limits of construction.

1.2 Site Soils

On-site soil consists of Windsor-Urban land complex, 0 to 8 percent slopes. The soil is classified as hydrologic soil group A. Refer to the NRCS Soil Information report (Section 2.0) for more soil information.

A confirmatory test pit shall be performed during construction within the footprint of the proposed stormwater management system to verify the estimated seasonal high water table elevation. A minimum of 3 feet of separation shall be maintained between the estimated seasonal high water table elevation and the bottom of the stormwater practice. Please refer to the civil plan set for the confirmatory test pit requirements.

1.3 Pre-Development Watershed

The pre-development watershed includes the entire project area, including the full parcel as well as portions of Concord Street, South State Street, the southern and eastern abutting properties. The existing lot is fully developed and consists of impervious surfaces such as pavement, concrete, and pavers, along with five existing buildings with landscaped areas.

The northern portion of the site slopes toward Concord Street, while part of the western side of the existing building and sidewalk drains toward South State Street. The remainder of the parcel, along with portions of the abutting properties to the south and east, slopes toward an existing catch basin located in the southern portion of the site. Runoff from impervious areas is collected by catch basins located along Concord Street, South State Street, and within the parcel. The on-

site catch basin directs runoff to the closed drainage system on South State Street. As a result, the pre-development watershed has been represented by three points of interest (POIs).

POI #1 includes the northern portion of the project area, consisting primarily of impervious surfaces such as pavement and building roof areas, along with some landscaped areas, which drain to an existing catch basin on Concord Street.

POI #2 includes a portion of South State Street runoff, the western portion of the existing building roof, and adjacent grassed and sidewalk areas, all of which direct runoff to an existing catch basin on South State Street.

POI #3 includes the majority of the project area, consisting of impervious surfaces including pavement and building roof areas, as well as some grassed areas, which direct runoff to an existing catch basin located within the on-site parking lot to the south.

1.4 Post-Development Watershed

The post-development watershed includes the same overall drainage area as the pre-development watershed. Post-development site cover will consist of existing and proposed pavement, paver patio areas, existing buildings and proposed townhouses, concrete pads, and landscaped areas. Construction of the project will not change the locations of the POIs.

The project proposes a decrease in impervious area on the site. A building drip edge has been incorporated as a stormwater management feature to capture a portion of the townhouse roof runoff and ensure that flow to POI #3 does not increase from pre-development runoff conditions. The system has been designed to accommodate the 100-year storm event without overtopping.

To the maximum extent possible, runoff from the site will sheet flow toward the existing on-site catch basin. The proposed parking area has been graded to promote sheet flow to this existing catch basin. The additional landscaped areas and the building drip edge will support groundwater recharge through infiltration.

POI #1 includes the same drainage area as pre-development conditions, consisting of the northern portion of the project area, primarily made up of existing pavement and building roof areas, along with some landscaped areas, which drain to an existing catch basin on Concord Street.

POI #2 includes the same drainage area as pre-development conditions, consisting of portion of South State Street runoff, the western portion of the existing building roof, and adjacent grassed and sidewalk areas, all of which direct runoff to an existing catch basin on South State Street.

POI #3 includes the majority of the project area, consisting of runoff from existing buildings, pavement, and concrete areas, as well as proposed townhouses, parking areas, and landscaped areas. Flow is directed to the existing catch basin located in the southern portion of the parcel and to the building drip edge located in the northern portion of the parcel. The on-site catch basin ultimately directs stormwater runoff to the closed drainage system at South State Street.

1.5 Schedule

Construction is planned to commence upon Town approval in Fall 2026 with estimated completion by Spring 2027.

1.6 Points of Interest

There are three points of interest in the hydraulic model. Please see the pre-development and post-development watershed section for a description of the points of interest.

1.7 Erosion Sediment Control/Site Stabilization

The methods to be used to control sediment migration and erosion of the site include use of filter fabric inlet protection, silt fencing, and landscaping in accordance with best management practices. The contractor will be responsible for all temporary erosion and sediment control measures during construction, while the property owner will be ultimately responsible for maintaining all permanent erosion and sediment control measures as may be required.

1.8 Water Quality

During construction, filter fabric inlet protection and silt fencing will be installed to maintain the quality of stormwater leaving the site. Runoff from disturbed areas will be directed to the existing catch basins and landscaped areas to promote infiltration into the groundwater and allow sediments and pollutants to settle.

After construction is completed and the site is stabilized, stormwater quality will be maintained through infiltration provided by the building drip edge, promoting groundwater recharge. Landscaped areas and the maintenance of existing stormwater flow paths will also help support stormwater quality for site runoff.

1.9 Summary of Results

POI		Peak Discharge						
		2-yr		10-yr		25-yr	50-yr	100-yr
		Peak Q	Discharged Volume	Peak Q	Discharged Volume	Peak Q	Peak Q	Peak Q
#1	Pre	0.17 cfs	0.01 ac-ft	0.26 cfs	0.02 ac-ft	0.32 cfs	0.38 cfs	0.46 cfs
	Post	0.17 cfs	0.01 ac-ft	0.26 cfs	0.02 ac-ft	0.32 cfs	0.38 cfs	0.46 cfs
#2	Pre	0.60 cfs	0.05 ac-ft	0.89 cfs	0.07 ac-ft	1.11 cfs	1.32 cfs	1.56 cfs
	Post	0.60 cfs	0.05 ac-ft	0.89 cfs	0.07 ac-ft	1.11 cfs	1.32 cfs	1.56 cfs
#3	Pre	1.42 cfs	0.13 ac-ft	2.12 cfs	0.20 ac-ft	2.65 cfs	3.15 cfs	3.75 cfs
	Post	1.03 cfs	0.11 ac-ft	1.54 cfs	0.17 ac-ft	1.92 cfs	2.28 cfs	2.74 cfs

1.10 Conclusions

The preceding table and following calculations indicate that the post-development peak flow rates of the property decrease or remain unchanged when compared to the pre-development peak flow in the 2-year, 10-year, 25-year, 50-year, and 100-year storm events for POI #1, POI #2, and

POI #3. The post-development discharged volume decreases or remains unchanged when compared to the pre-development discharged volumes in the 2- and 10-year storm events.

Stormwater is conveyed through the development via sheet flow to the existing catch basins and to the proposed building drip edge. The proposed design meets the Env-Wq 1507.05 Channel Protection Requirement. The 2-year, 24-hour post-development peak flow rate at all points of interest is less or equal to the 2-year, 24-hour pre-development peak flow rate.

Calculations are included for the 2-year, 10-year, 25-year, 50-year, and 100-year events.

2.0 NRCS SOIL INFORMATION

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Merrimack and Belknap Counties, New Hampshire

March 31, 2026

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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Contents

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map

Map Scale: 1:536 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 5 10 20 30

Feet: 0 25 50 100 150

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Merrimack and Belknap Counties, New Hampshire
Survey Area Data: Version 31, Sep 10, 2025

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Oct 6, 2022—Oct 22, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background

MAP LEGEND

MAP INFORMATION

imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
598B	Windsor-Urban land complex, 0 to 8 percent slopes	0.8	100.0%
Totals for Area of Interest		**0.8**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Merrimack and Belknap Counties, New Hampshire

598B—Windsor-Urban land complex, 0 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2w2wq
Landscape: Valleys
Elevation: 0 to 920 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 240 days
Farmland classification: Not prime farmland

Map Unit Composition

Windsor and similar soils: 45 percent
Urban land: 35 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Windsor

Setting

Landscape: Valleys
Landform: Dunes, Deltas, Outwash terraces, Outwash plains
Landform position (three-dimensional): Tread, riser
Down-slope shape: Convex, linear
Across-slope shape: Convex, linear
Parent material: Loose sandy glaciofluvial deposits derived from granite and/or loose sandy glaciofluvial deposits derived from schist and/or loose sandy glaciofluvial deposits derived from gneiss

Typical profile

A - 0 to 3 inches: loamy sand
Bw - 3 to 25 inches: loamy sand
C - 25 to 65 inches: sand

Properties and qualities

Slope: 0 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Excessively drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very high (1.42 to 99.90 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 4.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2s
Hydrologic Soil Group: A
Ecological site: F144AY022MA - Dry Outwash
Hydric soil rating: No

Description of Urban Land

Setting

Landscape: Glaciated uplands
Anthropogenic Feature: Urban land

Typical profile

M - 0 to 10 inches: cemented material

Properties and qualities

Slope: 0 to 8 percent
Depth to restrictive feature: 0 inches to manufactured layer
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)
Available water supply, 0 to 60 inches: Very low (about 0.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8
Hydrologic Soil Group: D
Hydric soil rating: Unranked

Minor Components

Udorthents

Percent of map unit: 10 percent
Landscape: Valleys
Landform: Dunes, Deltas, Outwash terraces, Outwash plains
Landform position (three-dimensional): Tread, riser
Down-slope shape: Convex, linear
Across-slope shape: Convex, linear
Hydric soil rating: No

Hinckley

Percent of map unit: 5 percent
Landscape: Outwash plains, valleys
Landform: Deltas, Kames, Eskers, Outwash plains
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Head slope, nose slope, side slope, crest, rise
Down-slope shape: Convex
Across-slope shape: Convex, linear
Hydric soil rating: No

Deerfield

Percent of map unit: 5 percent
Landscape: Outwash plains, valleys
Landform: Deltas, Kame terraces, Outwash plains
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread, talf
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

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3.0 HYDRAULIC CALCULATIONS

- 3.1 Extreme Precipitations
- 3.2 Pre-Development Stormwater Plan – SW.1
- 3.3 Post-Development Stormwater Plan – SW.2
- 3.4 Pre-development Conditions
  - 3.4.1 Drainage Diagram
  - 3.4.2 Area Listing
  - 3.4.3 Soil Listing
  - 3.4.4 2-yr Node Listing and Full Summary
  - 3.4.5 10-yr Node Listing and Full Summary
  - 3.4.6 25-yr Node Listing and Full Summary
  - 3.4.7 50-yr Node Listing
  - 3.4.8 100-yr Node Listing and Full Summary
- 3.5 Post-Development Conditions
  - 3.5.1 Drainage Diagram
  - 3.5.2 Area Listing
  - 3.5.3 Soil Listing
  - 3.5.4 2-yr Node Listing and Full Summary
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Extreme Precipitation Tables

Northeast Regional Climate Center

Data represents point estimates calculated from partial duration series. All precipitation amounts are displayed in inches.

Metadata for Point	
Smoothing	Yes
State	
Location	
Latitude	43.200 degrees North
Longitude	71.535 degrees West
Elevation	80 feet
Date/Time	Tue Mar 31 2026 09:37:49 GMT-0400 (Eastern Daylight Time)

Extreme Precipitation Estimates

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.26	0.39	0.49	0.64	0.80	1.01	**1yr**	0.69	0.98	1.17	1.47	1.86	2.36	2.56	**1yr**	2.09	2.46	2.89	3.59	4.12	**1yr**
2yr	0.31	0.48	0.60	0.79	1.00	1.25	**2yr**	0.86	1.15	1.45	1.81	2.26	2.81	3.15	**2yr**	2.49	3.03	3.50	4.19	4.78	**2yr**
5yr	0.37	0.58	0.73	0.98	1.25	1.58	**5yr**	1.08	1.45	1.83	2.28	2.83	3.50	3.99	**5yr**	3.10	3.83	4.43	5.20	5.90	**5yr**
10yr	0.42	0.66	0.84	1.14	1.48	1.89	**10yr**	1.28	1.71	2.19	2.73	3.37	4.14	4.77	**10yr**	3.66	4.59	5.29	6.13	6.91	**10yr**
25yr	0.50	0.79	1.01	1.39	1.85	2.38	**25yr**	1.60	2.15	2.76	3.44	4.24	5.17	6.06	**25yr**	4.57	5.83	6.69	7.63	8.53	**25yr**
50yr	0.56	0.90	1.16	1.62	2.20	2.85	**50yr**	1.89	2.55	3.32	4.13	5.05	6.11	7.26	**50yr**	5.41	6.99	8.00	9.00	10.01	**50yr**
100yr	0.65	1.05	1.35	1.91	2.60	3.39	**100yr**	2.25	3.03	3.96	4.92	6.00	7.23	8.71	**100yr**	6.40	8.38	9.57	10.63	11.75	**100yr**
200yr	0.74	1.21	1.57	2.24	3.09	4.05	**200yr**	2.67	3.61	4.72	5.86	7.14	8.57	10.45	**200yr**	7.58	10.05	11.45	12.56	13.79	**200yr**
500yr	0.89	1.47	1.91	2.77	3.88	5.11	**500yr**	3.35	4.54	5.97	7.40	8.98	10.72	13.30	**500yr**	9.49	12.79	14.52	15.66	17.06	**500yr**

Lower Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.21	0.32	0.39	0.52	0.64	0.88	**1yr**	0.56	0.86	1.04	1.36	1.59	2.00	2.41	**1yr**	1.77	2.32	2.65	3.27	3.84	**1yr**
2yr	0.30	0.47	0.57	0.78	0.96	1.15	**2yr**	0.83	1.12	1.31	1.72	2.19	2.74	3.05	**2yr**	2.43	2.93	3.41	4.07	4.66	**2yr**
5yr	0.34	0.53	0.66	0.90	1.15	1.37	**5yr**	0.99	1.34	1.53	2.00	2.56	3.28	3.70	**5yr**	2.90	3.55	4.12	4.86	5.54	**5yr**
10yr	0.38	0.58	0.72	1.01	1.31	1.54	**10yr**	1.13	1.51	1.74	2.24	2.86	3.76	4.29	**10yr**	3.33	4.12	4.74	5.55	6.32	**10yr**
25yr	0.44	0.66	0.83	1.18	1.55	1.80	**25yr**	1.34	1.76	2.05	2.60	3.33	4.49	5.19	**25yr**	3.97	5.00	5.69	6.63	7.53	**25yr**
50yr	0.48	0.73	0.91	1.31	1.76	2.02	**50yr**	1.52	1.98	2.33	2.92	3.74	5.14	6.01	**50yr**	4.55	5.78	6.52	7.58	8.58	**50yr**
100yr	0.54	0.81	1.02	1.47	2.02	2.28	**100yr**	1.74	2.23	2.65	3.27	4.20	5.90	6.96	**100yr**	5.22	6.69	7.49	8.67	9.79	**100yr**
200yr	0.60	0.90	1.14	1.64	2.29	2.55	**200yr**	1.98	2.50	3.00	3.68	4.72	6.76	8.05	**200yr**	5.99	7.74	8.58	9.94	11.18	**200yr**
500yr	0.69	1.03	1.32	1.92	2.73	2.97	**500yr**	2.35	2.90	3.56	4.30	5.53	8.10	9.76	**500yr**	7.17	9.39	10.21	11.93	13.35	**500yr**

Upper Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.29	0.45	0.55	0.73	0.90	1.08	**1yr**	0.78	1.06	1.19	1.59	1.99	2.50	2.74	**1yr**	2.22	2.64	3.15	3.82	4.35	**1yr**
2yr	0.33	0.50	0.62	0.84	1.03	1.24	**2yr**	0.89	1.21	1.39	1.83	2.33	2.90	3.25	**2yr**	2.57	3.12	3.63	4.32	4.94	**2yr**
5yr	0.41	0.63	0.78	1.07	1.36	1.58	**5yr**	1.17	1.54	1.79	2.29	2.91	3.73	4.29	**5yr**	3.30	4.13	4.76	5.53	6.27	**5yr**
10yr	0.49	0.75	0.93	1.30	1.68	1.92	**10yr**	1.45	1.88	2.17	2.72	3.47	4.54	5.31	**10yr**	4.02	5.10	5.88	6.68	7.56	**10yr**
25yr	0.62	0.95	1.18	1.69	2.22	2.50	**25yr**	1.92	2.45	2.79	3.42	4.35	5.86	7.04	**25yr**	5.19	6.77	7.75	8.59	9.65	**25yr**
50yr	0.75	1.13	1.41	2.03	2.73	3.06	**50yr**	2.36	2.99	3.37	4.08	5.16	7.13	8.71	**50yr**	6.31	8.37	9.56	10.40	11.67	**50yr**
100yr	0.90	1.37	1.71	2.47	3.39	3.75	**100yr**	2.93	3.66	4.09	4.86	6.14	8.68	10.80	**100yr**	7.69	10.39	11.83	12.58	14.06	**100yr**
200yr	1.09	1.64	2.07	3.00	4.19	4.59	**200yr**	3.61	4.48	4.95	5.79	7.31	10.56	13.38	**200yr**	9.35	12.87	14.66	15.24	16.93	**200yr**
500yr	1.40	2.09	2.69	3.91	5.56	6.01	**500yr**	4.79	5.88	6.38	7.31	9.22	13.71	17.80	**500yr**	12.13	17.12	19.48	19.63	21.67	**500yr**

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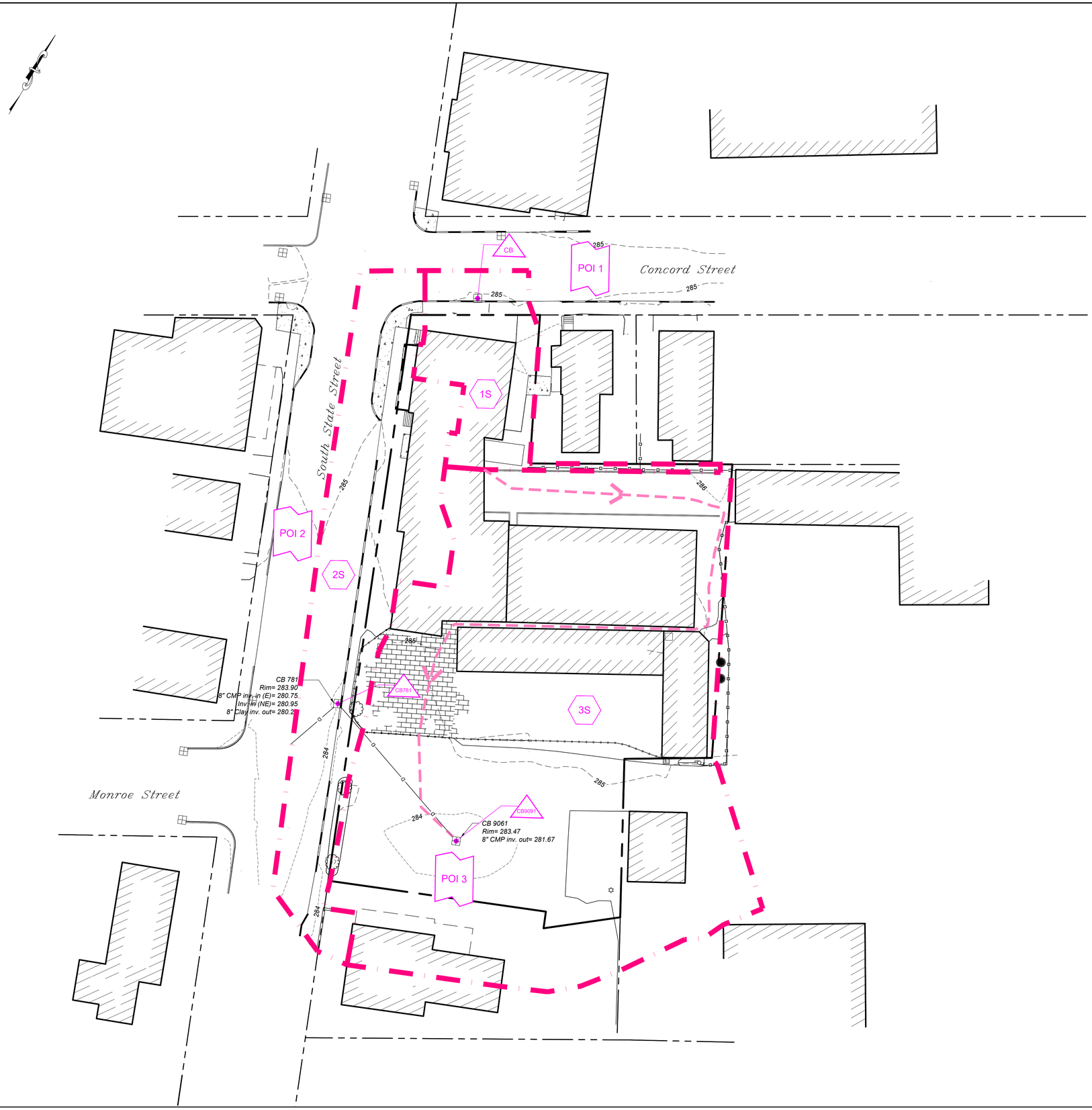
Northeast Regional Climate Center



STORMWATER PLAN LEGEND

- SUBCATCHMENT NODE
- POND NODE
- POINT OF INTEREST NODE
- PRE-DEVELOPMENT SUBWATERSHED BOUNDARY
- PRE-DEVELOPMENT SUBWATERSHED TIME OF CONCENTRATION

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

Wilcox & Barton INC.
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603-369-4190
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12 WILDERNESS LANE
BOW, NH 03304

SITE

3JB, LLC
47-49 S. STATE ST
CONCORD, NH

MBLU: 7413/Z/9

DRAWING TITLE

PRE-DEVELOPMENT STORMWATER PLAN

SCALE	DATE
1" = 20'	04/15/2026

DRAFTED BY	CHECKED BY	PROJECT MGR	PROJECT NO.
KAD	ERL	ERL	RNBS0002

STATE OF NEW HAMPSHIRE
ERIN R. LAMBERT
No. 11057
LICENSED
PROFESSIONAL ENGINEER

ENGINEER: ERIN R. LAMBERT
NH P.E. #11057

SHEET NO.

SW.1

01 OF 02

STORMWATER PLAN LEGEND

- SUBCATCHMENT NODE
- POND NODE
- REACH NODE
- POINT OF INTEREST NODE
- POST-DEVELOPMENT SUBWATERSHED BOUNDARY
- POST-DEVELOPMENT SUBWATERSHED TIME OF CONCENTRATION

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

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BOW, NH 03304

SITE

3JB, LLC
47-49 S. STATE ST
CONCORD, NH

MBLU: 7413/Z/9

DRAWING TITLE

POST-DEVELOPMENT STORMWATER PLAN

SCALE	DATE
1" = 20'	04/15/2026

DRAFTED BY	CHECKED BY	PROJECT MGR	PROJECT NO.
KAD	ERL	ERL	RNBS0002

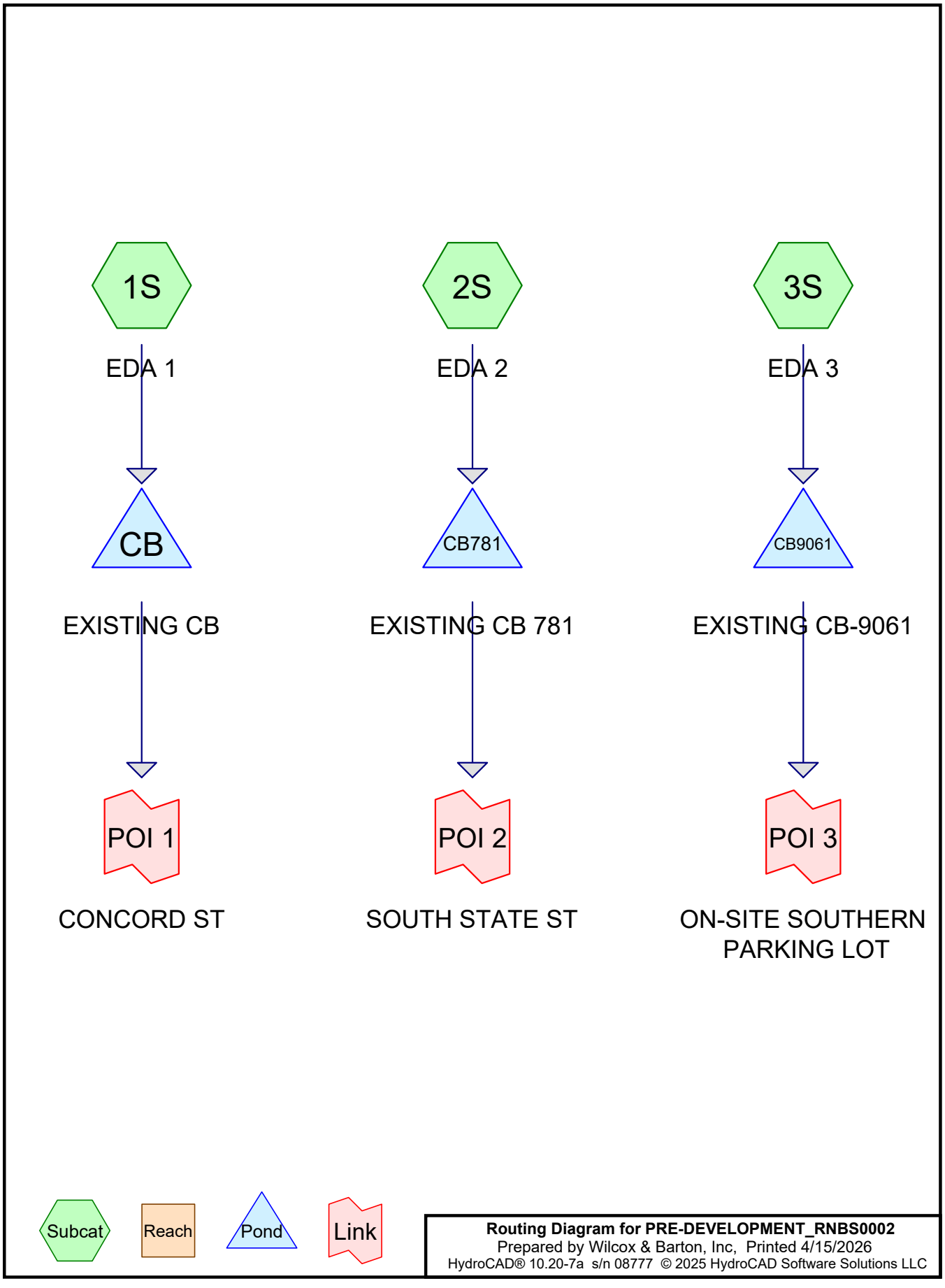
STATE OF NEW HAMPSHIRE
ERIN R. LAMBERT
No. 11057
LICENSED
PROFESSIONAL ENGINEER

ENGINEER: ERIN R. LAMBERT
NH P.E. #11057

SHEET NO.

SW.2

02 OF 02



Routing Diagram for PRE-DEVELOPMENT_RNBS0002
Prepared by Wilcox & Barton, Inc, Printed 4/15/2026
HydroCAD® 10.20-7a s/n 08777 © 2025 HydroCAD Software Solutions LLC

Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
4,611	39	>75% Grass cover, Good, HSG A (1S, 2S, 3S)
1,719	98	DILAPIDATED GREENHOUSE (3S)
1,485	98	EXISTING BLACK TARP (3S)
9,569	98	EXISTING BUILDING (3S)
3,017	98	EXISTING BUILDINGS (1S, 2S)
282	85	EXISTING COMPACTED SAND (3S)
339	98	EXISTING CONCRETE (1S, 2S)
183	98	EXISTING MISCELLANEOUS (1S, 2S)
18,563	98	EXISTING PAVEMENT (1S, 2S, 3S)
1,023	98	EXISTING PAVER PATIO (2S, 3S)
81	98	EXISTING RET. WALL (3S)
2,841	98	EXISTING SIDEWALK (1S, 2S)
43,713	**92**	**TOTAL AREA**

Soil Listing (all nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
4,611	HSG A	1S, 2S, 3S
0	HSG B	
0	HSG C	
0	HSG D	
39,102	Other	1S, 2S, 3S
43,713		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (sq-ft)	HSG-B (sq-ft)	HSG-C (sq-ft)	HSG-D (sq-ft)	Other (sq-ft)	Total (sq-ft)	Ground Cover
4,611	0	0	0	0	4,611	>75% Grass cover, Good
0	0	0	0	1,719	1,719	DILAPIDATED GREENHOUSE
0	0	0	0	1,485	1,485	EXISTING BLACK TARP
0	0	0	0	9,569	9,569	EXISTING BUILDING
0	0	0	0	3,017	3,017	EXISTING BUILDINGS
0	0	0	0	282	282	EXISTING COMPACTED SAND
0	0	0	0	339	339	EXISTING CONCRETE
0	0	0	0	183	183	EXISTING MISCELLANEOUS
0	0	0	0	18,563	18,563	EXISTING PAVEMENT
0	0	0	0	1,023	1,023	EXISTING PAVER PATIO
0	0	0	0	81	81	EXISTING RET. WALL
0	0	0	0	2,841	2,841	EXISTING SIDEWALK
4,611	**0**	**0**	**0**	**39,102**	**43,713**	**TOTAL AREA**

Time span=0.00-36.00 hrs, dt=0.05 hrs, 721 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: EDA 1 Runoff Area=3,589 sf 76.87% Impervious Runoff Depth=1.98"
Tc=5.0 min CN=WQ Runoff=0.17 cfs 593 cf

Subcatchment2S: EDA 2 Runoff Area=9,777 sf 97.26% Impervious Runoff Depth=2.51"
Tc=5.0 min CN=WQ Runoff=0.60 cfs 2,044 cf

Subcatchment3S: EDA 3 Runoff Area=30,347 sf 87.49% Impervious Runoff Depth=2.27"
Flow Length=354' Tc=10.6 min CN=WQ Runoff=1.42 cfs 5,740 cf

Pond CB: EXISTING CB Inflow=0.17 cfs 593 cf
Primary=0.17 cfs 593 cf

Pond CB781: EXISTING CB 781 Inflow=0.60 cfs 2,044 cf
Primary=0.60 cfs 2,044 cf

Pond CB9061: EXISTING CB-9061 Inflow=1.42 cfs 5,740 cf
Primary=1.42 cfs 5,740 cf

Link POI 1: CONCORD ST Inflow=0.17 cfs 593 cf
Primary=0.17 cfs 593 cf

Link POI 2: SOUTH STATE ST Inflow=0.60 cfs 2,044 cf
Primary=0.60 cfs 2,044 cf

Link POI 3: ON-SITE SOUTHERN PARKING LOT Inflow=1.42 cfs 5,740 cf
Primary=1.42 cfs 5,740 cf

Total Runoff Area = 43,713 sf Runoff Volume = 8,377 cf Average Runoff Depth = 2.30"
11.19% Pervious = 4,893 sf 88.81% Impervious = 38,820 sf

Summary for Subcatchment 1S: EDA 1

Runoff = 0.17 cfs @ 12.07 hrs, Volume= 593 cf, Depth= 1.98"
Routed to Pond CB : EXISTING CB

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=2.81"

	Area (sf)	CN	Description
*	1,411	98	EXISTING BUILDINGS
*	939	98	EXISTING PAVEMENT
*	241	98	EXISTING SIDEWALK
*	27	98	EXISTING CONCRETE
*	141	98	EXISTING MISCELLANEOUS
	830	39	>75% Grass cover, Good, HSG A
	3,589		Weighted Average
	830		23.13% Pervious Area
	2,759		76.87% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 2S: EDA 2

Runoff = 0.60 cfs @ 12.07 hrs, Volume= 2,044 cf, Depth= 2.51"
Routed to Pond CB781 : EXISTING CB 781

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=2.81"

	Area (sf)	CN	Description
*	1,606	98	EXISTING BUILDINGS
*	4,649	98	EXISTING PAVEMENT
*	2,600	98	EXISTING SIDEWALK
*	312	98	EXISTING CONCRETE
*	42	98	EXISTING MISCELLANEOUS
*	300	98	EXISTING PAVER PATIO
	268	39	>75% Grass cover, Good, HSG A
	9,777		Weighted Average
	268		2.74% Pervious Area
	9,509		97.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 3S: EDA 3

Runoff = 1.42 cfs @ 12.14 hrs, Volume= 5,740 cf, Depth= 2.27"
Routed to Pond CB9061 : EXISTING CB-9061

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=2.81"

	Area (sf)	CN	Description
*	9,569	98	EXISTING BUILDING
*	12,975	98	EXISTING PAVEMENT
*	81	98	EXISTING RET. WALL
*	282	85	EXISTING COMPACTED SAND
*	723	98	EXISTING PAVER PATIO
*	1,485	98	EXISTING BLACK TARP
*	1,719	98	DILAPIDATED GREENHOUSE
	3,513	39	>75% Grass cover, Good, HSG A
	30,347		Weighted Average
	3,795		12.51% Pervious Area
	26,552		87.49% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.2	50	0.0280	0.16		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.81"
3.3	108	0.0060	0.54		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.1	196	0.0060	1.57		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
10.6	354	Total			

Summary for Pond CB: EXISTING CB

Inflow Area = 3,589 sf, 76.87% Impervious, Inflow Depth = 1.98" for 2-yr event
Inflow = 0.17 cfs @ 12.07 hrs, Volume= 593 cf
Primary = 0.17 cfs @ 12.07 hrs, Volume= 593 cf, Atten= 0%, Lag= 0.0 min
Routed to Link POI 1 : CONCORD ST

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Summary for Pond CB781: EXISTING CB 781

Inflow Area = 9,777 sf, 97.26% Impervious, Inflow Depth = 2.51" for 2-yr event
Inflow = 0.60 cfs @ 12.07 hrs, Volume= 2,044 cf
Primary = 0.60 cfs @ 12.07 hrs, Volume= 2,044 cf, Atten= 0%, Lag= 0.0 min
Routed to Link POI 2 : SOUTH STATE ST

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Summary for Pond CB9061: EXISTING CB-9061

Inflow Area = 30,347 sf, 87.49% Impervious, Inflow Depth = 2.27" for 2-yr event
Inflow = 1.42 cfs @ 12.14 hrs, Volume= 5,740 cf
Primary = 1.42 cfs @ 12.14 hrs, Volume= 5,740 cf, Atten= 0%, Lag= 0.0 min
Routed to Link POI 3 : ON-SITE SOUTHERN PARKING LOT

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Summary for Link POI 1: CONCORD ST

Inflow Area = 3,589 sf, 76.87% Impervious, Inflow Depth = 1.98" for 2-yr event
Inflow = 0.17 cfs @ 12.07 hrs, Volume= 593 cf
Primary = 0.17 cfs @ 12.07 hrs, Volume= 593 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Summary for Link POI 2: SOUTH STATE ST

Inflow Area = 9,777 sf, 97.26% Impervious, Inflow Depth = 2.51" for 2-yr event
Inflow = 0.60 cfs @ 12.07 hrs, Volume= 2,044 cf
Primary = 0.60 cfs @ 12.07 hrs, Volume= 2,044 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Summary for Link POI 3: ON-SITE SOUTHERN PARKING LOT

Inflow Area = 30,347 sf, 87.49% Impervious, Inflow Depth = 2.27" for 2-yr event
Inflow = 1.42 cfs @ 12.14 hrs, Volume= 5,740 cf
Primary = 1.42 cfs @ 12.14 hrs, Volume= 5,740 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Time span=0.00-36.00 hrs, dt=0.05 hrs, 721 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: EDA 1 Runoff Area=3,589 sf 76.87% Impervious Runoff Depth=3.02"
Tc=5.0 min CN=WQ Runoff=0.26 cfs 902 cf

Subcatchment2S: EDA 2 Runoff Area=9,777 sf 97.26% Impervious Runoff Depth=3.80"
Tc=5.0 min CN=WQ Runoff=0.89 cfs 3,096 cf

Subcatchment3S: EDA 3 Runoff Area=30,347 sf 87.49% Impervious Runoff Depth=3.45"
Flow Length=354' Tc=10.6 min CN=WQ Runoff=2.12 cfs 8,719 cf

Pond CB: EXISTING CB Inflow=0.26 cfs 902 cf
Primary=0.26 cfs 902 cf

Pond CB781: EXISTING CB 781 Inflow=0.89 cfs 3,096 cf
Primary=0.89 cfs 3,096 cf

Pond CB9061: EXISTING CB-9061 Inflow=2.12 cfs 8,719 cf
Primary=2.12 cfs 8,719 cf

Link POI 1: CONCORD ST Inflow=0.26 cfs 902 cf
Primary=0.26 cfs 902 cf

Link POI 2: SOUTH STATE ST Inflow=0.89 cfs 3,096 cf
Primary=0.89 cfs 3,096 cf

Link POI 3: ON-SITE SOUTHERN PARKING LOT Inflow=2.12 cfs 8,719 cf
Primary=2.12 cfs 8,719 cf

Total Runoff Area = 43,713 sf Runoff Volume = 12,716 cf Average Runoff Depth = 3.49"
11.19% Pervious = 4,893 sf 88.81% Impervious = 38,820 sf

Summary for Subcatchment 1S: EDA 1

Runoff = 0.26 cfs @ 12.07 hrs, Volume= 902 cf, Depth= 3.02"
Routed to Pond CB : EXISTING CB

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.14"

	Area (sf)	CN	Description
*	1,411	98	EXISTING BUILDINGS
*	939	98	EXISTING PAVEMENT
*	241	98	EXISTING SIDEWALK
*	27	98	EXISTING CONCRETE
*	141	98	EXISTING MISCELLANEOUS
	830	39	>75% Grass cover, Good, HSG A
	3,589		Weighted Average
	830		23.13% Pervious Area
	2,759		76.87% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 2S: EDA 2

Runoff = 0.89 cfs @ 12.07 hrs, Volume= 3,096 cf, Depth= 3.80"
Routed to Pond CB781 : EXISTING CB 781

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.14"

	Area (sf)	CN	Description
*	1,606	98	EXISTING BUILDINGS
*	4,649	98	EXISTING PAVEMENT
*	2,600	98	EXISTING SIDEWALK
*	312	98	EXISTING CONCRETE
*	42	98	EXISTING MISCELLANEOUS
*	300	98	EXISTING PAVER PATIO
	268	39	>75% Grass cover, Good, HSG A
	9,777		Weighted Average
	268		2.74% Pervious Area
	9,509		97.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 3S: EDA 3

Runoff = 2.12 cfs @ 12.14 hrs, Volume= 8,719 cf, Depth= 3.45"
Routed to Pond CB9061 : EXISTING CB-9061

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.14"

	Area (sf)	CN	Description
*	9,569	98	EXISTING BUILDING
*	12,975	98	EXISTING PAVEMENT
*	81	98	EXISTING RET. WALL
*	282	85	EXISTING COMPACTED SAND
*	723	98	EXISTING PAVER PATIO
*	1,485	98	EXISTING BLACK TARP
*	1,719	98	DILAPIDATED GREENHOUSE
	3,513	39	>75% Grass cover, Good, HSG A
	30,347		Weighted Average
	3,795		12.51% Pervious Area
	26,552		87.49% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.2	50	0.0280	0.16		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.81"
3.3	108	0.0060	0.54		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.1	196	0.0060	1.57		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
10.6	354	Total			

Summary for Pond CB: EXISTING CB

Inflow Area = 3,589 sf, 76.87% Impervious, Inflow Depth = 3.02" for 10-yr event
Inflow = 0.26 cfs @ 12.07 hrs, Volume= 902 cf
Primary = 0.26 cfs @ 12.07 hrs, Volume= 902 cf, Atten= 0%, Lag= 0.0 min
Routed to Link POI 1 : CONCORD ST

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Summary for Pond CB781: EXISTING CB 781

Inflow Area = 9,777 sf, 97.26% Impervious, Inflow Depth = 3.80" for 10-yr event
Inflow = 0.89 cfs @ 12.07 hrs, Volume= 3,096 cf
Primary = 0.89 cfs @ 12.07 hrs, Volume= 3,096 cf, Atten= 0%, Lag= 0.0 min
Routed to Link POI 2 : SOUTH STATE ST

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Summary for Pond CB9061: EXISTING CB-9061

Inflow Area = 30,347 sf, 87.49% Impervious, Inflow Depth = 3.45" for 10-yr event
Inflow = 2.12 cfs @ 12.14 hrs, Volume= 8,719 cf
Primary = 2.12 cfs @ 12.14 hrs, Volume= 8,719 cf, Atten= 0%, Lag= 0.0 min
Routed to Link POI 3 : ON-SITE SOUTHERN PARKING LOT

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Summary for Link POI 1: CONCORD ST

Inflow Area = 3,589 sf, 76.87% Impervious, Inflow Depth = 3.02" for 10-yr event
Inflow = 0.26 cfs @ 12.07 hrs, Volume= 902 cf
Primary = 0.26 cfs @ 12.07 hrs, Volume= 902 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Summary for Link POI 2: SOUTH STATE ST

Inflow Area = 9,777 sf, 97.26% Impervious, Inflow Depth = 3.80" for 10-yr event
Inflow = 0.89 cfs @ 12.07 hrs, Volume= 3,096 cf
Primary = 0.89 cfs @ 12.07 hrs, Volume= 3,096 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Summary for Link POI 3: ON-SITE SOUTHERN PARKING LOT

Inflow Area = 30,347 sf, 87.49% Impervious, Inflow Depth = 3.45" for 10-yr event
Inflow = 2.12 cfs @ 12.14 hrs, Volume= 8,719 cf
Primary = 2.12 cfs @ 12.14 hrs, Volume= 8,719 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Time span=0.00-36.00 hrs, dt=0.05 hrs, 721 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: EDA 1 Runoff Area=3,589 sf 76.87% Impervious Runoff Depth=3.85"
Tc=5.0 min CN=WQ Runoff=0.32 cfs 1,150 cf

Subcatchment2S: EDA 2 Runoff Area=9,777 sf 97.26% Impervious Runoff Depth=4.80"
Tc=5.0 min CN=WQ Runoff=1.11 cfs 3,914 cf

Subcatchment3S: EDA 3 Runoff Area=30,347 sf 87.49% Impervious Runoff Depth=4.38"
Flow Length=354' Tc=10.6 min CN=WQ Runoff=2.65 cfs 11,067 cf

Pond CB: EXISTING CB Inflow=0.32 cfs 1,150 cf
Primary=0.32 cfs 1,150 cf

Pond CB781: EXISTING CB 781 Inflow=1.11 cfs 3,914 cf
Primary=1.11 cfs 3,914 cf

Pond CB9061: EXISTING CB-9061 Inflow=2.65 cfs 11,067 cf
Primary=2.65 cfs 11,067 cf

Link POI 1: CONCORD ST Inflow=0.32 cfs 1,150 cf
Primary=0.32 cfs 1,150 cf

Link POI 2: SOUTH STATE ST Inflow=1.11 cfs 3,914 cf
Primary=1.11 cfs 3,914 cf

Link POI 3: ON-SITE SOUTHERN PARKING LOT Inflow=2.65 cfs 11,067 cf
Primary=2.65 cfs 11,067 cf

Total Runoff Area = 43,713 sf Runoff Volume = 16,131 cf Average Runoff Depth = 4.43"
11.19% Pervious = 4,893 sf 88.81% Impervious = 38,820 sf

Summary for Subcatchment 1S: EDA 1

Runoff = 0.32 cfs @ 12.07 hrs, Volume= 1,150 cf, Depth= 3.85"
Routed to Pond CB : EXISTING CB

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.17"

	Area (sf)	CN	Description
*	1,411	98	EXISTING BUILDINGS
*	939	98	EXISTING PAVEMENT
*	241	98	EXISTING SIDEWALK
*	27	98	EXISTING CONCRETE
*	141	98	EXISTING MISCELLANEOUS
	830	39	>75% Grass cover, Good, HSG A
	3,589		Weighted Average
	830		23.13% Pervious Area
	2,759		76.87% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 2S: EDA 2

Runoff = 1.11 cfs @ 12.07 hrs, Volume= 3,914 cf, Depth= 4.80"
Routed to Pond CB781 : EXISTING CB 781

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.17"

	Area (sf)	CN	Description
*	1,606	98	EXISTING BUILDINGS
*	4,649	98	EXISTING PAVEMENT
*	2,600	98	EXISTING SIDEWALK
*	312	98	EXISTING CONCRETE
*	42	98	EXISTING MISCELLANEOUS
*	300	98	EXISTING PAVER PATIO
	268	39	>75% Grass cover, Good, HSG A
	9,777		Weighted Average
	268		2.74% Pervious Area
	9,509		97.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 3S: EDA 3

Runoff = 2.65 cfs @ 12.14 hrs, Volume= 11,067 cf, Depth= 4.38"
Routed to Pond CB9061 : EXISTING CB-9061

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.17"

	Area (sf)	CN	Description
*	9,569	98	EXISTING BUILDING
*	12,975	98	EXISTING PAVEMENT
*	81	98	EXISTING RET. WALL
*	282	85	EXISTING COMPACTED SAND
*	723	98	EXISTING PAVER PATIO
*	1,485	98	EXISTING BLACK TARP
*	1,719	98	DILAPIDATED GREENHOUSE
	3,513	39	>75% Grass cover, Good, HSG A
	30,347		Weighted Average
	3,795		12.51% Pervious Area
	26,552		87.49% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.2	50	0.0280	0.16		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.81"
3.3	108	0.0060	0.54		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.1	196	0.0060	1.57		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
10.6	354	Total			

Summary for Pond CB: EXISTING CB

Inflow Area = 3,589 sf, 76.87% Impervious, Inflow Depth = 3.85" for 25-yr event
Inflow = 0.32 cfs @ 12.07 hrs, Volume= 1,150 cf
Primary = 0.32 cfs @ 12.07 hrs, Volume= 1,150 cf, Atten= 0%, Lag= 0.0 min
Routed to Link POI 1 : CONCORD ST

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Summary for Pond CB781: EXISTING CB 781

Inflow Area = 9,777 sf, 97.26% Impervious, Inflow Depth = 4.80" for 25-yr event
Inflow = 1.11 cfs @ 12.07 hrs, Volume= 3,914 cf
Primary = 1.11 cfs @ 12.07 hrs, Volume= 3,914 cf, Atten= 0%, Lag= 0.0 min
Routed to Link POI 2 : SOUTH STATE ST

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Summary for Pond CB9061: EXISTING CB-9061

Inflow Area = 30,347 sf, 87.49% Impervious, Inflow Depth = 4.38" for 25-yr event
Inflow = 2.65 cfs @ 12.14 hrs, Volume= 11,067 cf
Primary = 2.65 cfs @ 12.14 hrs, Volume= 11,067 cf, Atten= 0%, Lag= 0.0 min
Routed to Link POI 3 : ON-SITE SOUTHERN PARKING LOT

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Summary for Link POI 1: CONCORD ST

Inflow Area = 3,589 sf, 76.87% Impervious, Inflow Depth = 3.85" for 25-yr event
Inflow = 0.32 cfs @ 12.07 hrs, Volume= 1,150 cf
Primary = 0.32 cfs @ 12.07 hrs, Volume= 1,150 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Summary for Link POI 2: SOUTH STATE ST

Inflow Area = 9,777 sf, 97.26% Impervious, Inflow Depth = 4.80" for 25-yr event
Inflow = 1.11 cfs @ 12.07 hrs, Volume= 3,914 cf
Primary = 1.11 cfs @ 12.07 hrs, Volume= 3,914 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Summary for Link POI 3: ON-SITE SOUTHERN PARKING LOT

Inflow Area = 30,347 sf, 87.49% Impervious, Inflow Depth = 4.38" for 25-yr event
Inflow = 2.65 cfs @ 12.14 hrs, Volume= 11,067 cf
Primary = 2.65 cfs @ 12.14 hrs, Volume= 11,067 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Time span=0.00-36.00 hrs, dt=0.05 hrs, 721 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: EDA 1 Runoff Area=3,589 sf 76.87% Impervious Runoff Depth=4.62"
Tc=5.0 min CN=WQ Runoff=0.38 cfs 1,383 cf

Subcatchment2S: EDA 2 Runoff Area=9,777 sf 97.26% Impervious Runoff Depth=5.72"
Tc=5.0 min CN=WQ Runoff=1.32 cfs 4,664 cf

Subcatchment3S: EDA 3 Runoff Area=30,347 sf 87.49% Impervious Runoff Depth=5.23"
Flow Length=354' Tc=10.6 min CN=WQ Runoff=3.15 cfs 13,236 cf

Pond CB: EXISTING CB Inflow=0.38 cfs 1,383 cf
Primary=0.38 cfs 1,383 cf

Pond CB781: EXISTING CB 781 Inflow=1.32 cfs 4,664 cf
Primary=1.32 cfs 4,664 cf

Pond CB9061: EXISTING CB-9061 Inflow=3.15 cfs 13,236 cf
Primary=3.15 cfs 13,236 cf

Link POI 1: CONCORD ST Inflow=0.38 cfs 1,383 cf
Primary=0.38 cfs 1,383 cf

Link POI 2: SOUTH STATE ST Inflow=1.32 cfs 4,664 cf
Primary=1.32 cfs 4,664 cf

Link POI 3: ON-SITE SOUTHERN PARKING LOT Inflow=3.15 cfs 13,236 cf
Primary=3.15 cfs 13,236 cf

Total Runoff Area = 43,713 sf Runoff Volume = 19,282 cf Average Runoff Depth = 5.29"
11.19% Pervious = 4,893 sf 88.81% Impervious = 38,820 sf

Time span=0.00-36.00 hrs, dt=0.05 hrs, 721 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: EDA 1 Runoff Area=3,589 sf 76.87% Impervious Runoff Depth=5.57"
Tc=5.0 min CN=WQ Runoff=0.46 cfs 1,666 cf

Subcatchment2S: EDA 2 Runoff Area=9,777 sf 97.26% Impervious Runoff Depth=6.82"
Tc=5.0 min CN=WQ Runoff=1.56 cfs 5,559 cf

Subcatchment3S: EDA 3 Runoff Area=30,347 sf 87.49% Impervious Runoff Depth=6.27"
Flow Length=354' Tc=10.6 min CN=WQ Runoff=3.75 cfs 15,846 cf

Pond CB: EXISTING CB Inflow=0.46 cfs 1,666 cf
Primary=0.46 cfs 1,666 cf

Pond CB781: EXISTING CB 781 Inflow=1.56 cfs 5,559 cf
Primary=1.56 cfs 5,559 cf

Pond CB9061: EXISTING CB-9061 Inflow=3.75 cfs 15,846 cf
Primary=3.75 cfs 15,846 cf

Link POI 1: CONCORD ST Inflow=0.46 cfs 1,666 cf
Primary=0.46 cfs 1,666 cf

Link POI 2: SOUTH STATE ST Inflow=1.56 cfs 5,559 cf
Primary=1.56 cfs 5,559 cf

Link POI 3: ON-SITE SOUTHERN PARKING LOT Inflow=3.75 cfs 15,846 cf
Primary=3.75 cfs 15,846 cf

Total Runoff Area = 43,713 sf Runoff Volume = 23,071 cf Average Runoff Depth = 6.33"
11.19% Pervious = 4,893 sf 88.81% Impervious = 38,820 sf

Summary for Subcatchment 1S: EDA 1

Runoff = 0.46 cfs @ 12.07 hrs, Volume= 1,666 cf, Depth= 5.57"
Routed to Pond CB : EXISTING CB

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=7.23"

	Area (sf)	CN	Description
*	1,411	98	EXISTING BUILDINGS
*	939	98	EXISTING PAVEMENT
*	241	98	EXISTING SIDEWALK
*	27	98	EXISTING CONCRETE
*	141	98	EXISTING MISCELLANEOUS
	830	39	>75% Grass cover, Good, HSG A
	3,589		Weighted Average
	830		23.13% Pervious Area
	2,759		76.87% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 2S: EDA 2

Runoff = 1.56 cfs @ 12.07 hrs, Volume= 5,559 cf, Depth= 6.82"
Routed to Pond CB781 : EXISTING CB 781

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=7.23"

	Area (sf)	CN	Description
*	1,606	98	EXISTING BUILDINGS
*	4,649	98	EXISTING PAVEMENT
*	2,600	98	EXISTING SIDEWALK
*	312	98	EXISTING CONCRETE
*	42	98	EXISTING MISCELLANEOUS
*	300	98	EXISTING PAVER PATIO
	268	39	>75% Grass cover, Good, HSG A
	9,777		Weighted Average
	268		2.74% Pervious Area
	9,509		97.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 3S: EDA 3

Runoff = 3.75 cfs @ 12.14 hrs, Volume= 15,846 cf, Depth= 6.27"
Routed to Pond CB9061 : EXISTING CB-9061

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=7.23"

	Area (sf)	CN	Description
*	9,569	98	EXISTING BUILDING
*	12,975	98	EXISTING PAVEMENT
*	81	98	EXISTING RET. WALL
*	282	85	EXISTING COMPACTED SAND
*	723	98	EXISTING PAVER PATIO
*	1,485	98	EXISTING BLACK TARP
*	1,719	98	DILAPIDATED GREENHOUSE
	3,513	39	>75% Grass cover, Good, HSG A
	30,347		Weighted Average
	3,795		12.51% Pervious Area
	26,552		87.49% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.2	50	0.0280	0.16		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.81"
3.3	108	0.0060	0.54		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.1	196	0.0060	1.57		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
10.6	354	Total			

Summary for Pond CB: EXISTING CB

Inflow Area = 3,589 sf, 76.87% Impervious, Inflow Depth = 5.57" for 100-yr event
Inflow = 0.46 cfs @ 12.07 hrs, Volume= 1,666 cf
Primary = 0.46 cfs @ 12.07 hrs, Volume= 1,666 cf, Atten= 0%, Lag= 0.0 min
Routed to Link POI 1 : CONCORD ST

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Summary for Pond CB781: EXISTING CB 781

Inflow Area = 9,777 sf, 97.26% Impervious, Inflow Depth = 6.82" for 100-yr event
Inflow = 1.56 cfs @ 12.07 hrs, Volume= 5,559 cf
Primary = 1.56 cfs @ 12.07 hrs, Volume= 5,559 cf, Atten= 0%, Lag= 0.0 min
Routed to Link POI 2 : SOUTH STATE ST

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Summary for Pond CB9061: EXISTING CB-9061

Inflow Area = 30,347 sf, 87.49% Impervious, Inflow Depth = 6.27" for 100-yr event
Inflow = 3.75 cfs @ 12.14 hrs, Volume= 15,846 cf
Primary = 3.75 cfs @ 12.14 hrs, Volume= 15,846 cf, Atten= 0%, Lag= 0.0 min
Routed to Link POI 3 : ON-SITE SOUTHERN PARKING LOT

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Summary for Link POI 1: CONCORD ST

Inflow Area = 3,589 sf, 76.87% Impervious, Inflow Depth = 5.57" for 100-yr event
Inflow = 0.46 cfs @ 12.07 hrs, Volume= 1,666 cf
Primary = 0.46 cfs @ 12.07 hrs, Volume= 1,666 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Summary for Link POI 2: SOUTH STATE ST

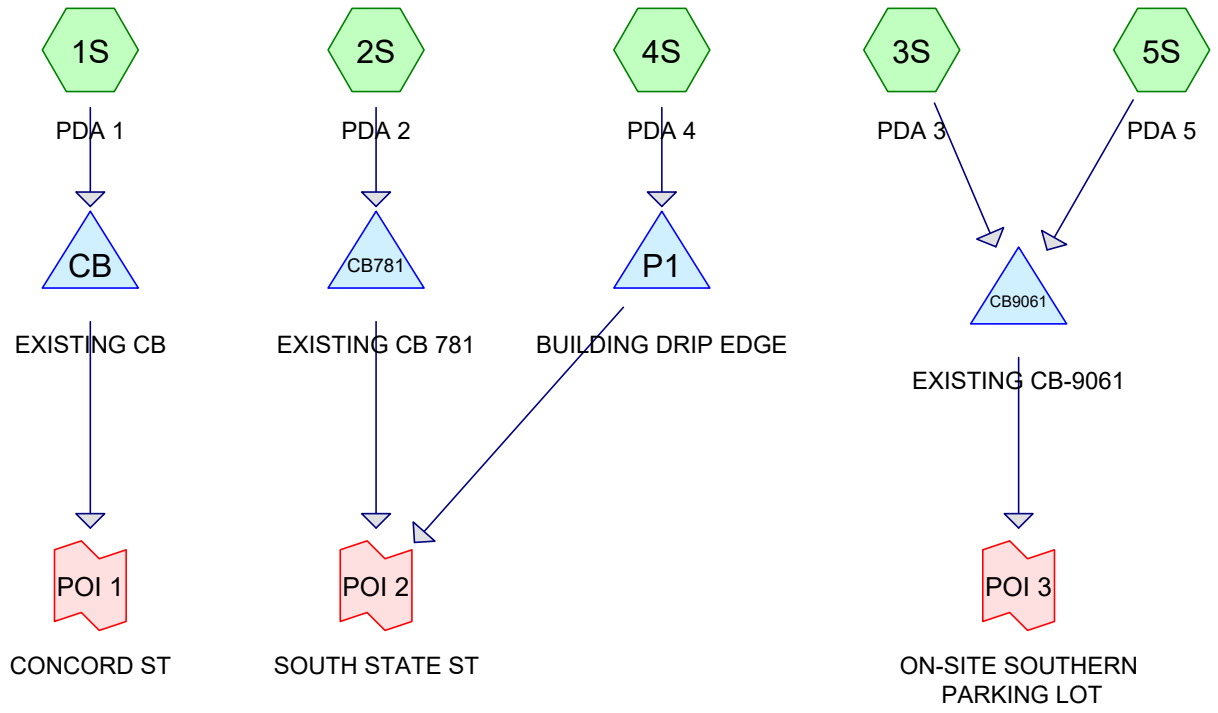
Inflow Area = 9,777 sf, 97.26% Impervious, Inflow Depth = 6.82" for 100-yr event
Inflow = 1.56 cfs @ 12.07 hrs, Volume= 5,559 cf
Primary = 1.56 cfs @ 12.07 hrs, Volume= 5,559 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Summary for Link POI 3: ON-SITE SOUTHERN PARKING LOT

Inflow Area = 30,347 sf, 87.49% Impervious, Inflow Depth = 6.27" for 100-yr event
Inflow = 3.75 cfs @ 12.14 hrs, Volume= 15,846 cf
Primary = 3.75 cfs @ 12.14 hrs, Volume= 15,846 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs



Subcat Reach Pond Link

Routing Diagram for POST-DEVELOPMENT_RNBS0002
Prepared by Wilcox & Barton, Inc, Printed 4/15/2026
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Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
6,728	39	>75% Grass cover, Good, HSG A (1S, 2S, 3S)
3,837	98	EXISTING BUILDING (3S)
3,017	98	EXISTING BUILDINGS (1S, 2S)
339	98	EXISTING CONCRETE (1S, 2S)
183	98	EXISTING MISCELLANEOUS (1S, 2S)
17,288	98	EXISTING PAVEMENT (1S, 2S, 3S)
1,890	98	EXISTING PAVER PATIO (2S, 3S)
2,841	98	EXISTING SIDEWALK (1S, 2S)
3,428	98	PROPOSED BUILDING (4S, 5S)
120	98	PROPOSED CONCRETE (3S)
170	98	PROPOSED GRAVEL (3S)
130	98	PROPOSED MISCELLANEOUS (3S)
3,742	98	PROPOSED PAVEMENT (3S)
43,713	**89**	**TOTAL AREA**

Soil Listing (all nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
6,728	HSG A	1S, 2S, 3S
0	HSG B	
0	HSG C	
0	HSG D	
36,985	Other	1S, 2S, 3S, 4S, 5S
43,713		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (sq-ft)	HSG-B (sq-ft)	HSG-C (sq-ft)	HSG-D (sq-ft)	Other (sq-ft)	Total (sq-ft)	Ground Cover
6,728	0	0	0	0	6,728	>75% Grass cover, Good
0	0	0	0	3,837	3,837	EXISTING BUILDING
0	0	0	0	3,017	3,017	EXISTING BUILDINGS
0	0	0	0	339	339	EXISTING CONCRETE
0	0	0	0	183	183	EXISTING MISCELLANEOUS
0	0	0	0	17,288	17,288	EXISTING PAVEMENT
0	0	0	0	1,890	1,890	EXISTING PAVER PATIO
0	0	0	0	2,841	2,841	EXISTING SIDEWALK
0	0	0	0	3,428	3,428	PROPOSED BUILDING
0	0	0	0	120	120	PROPOSED CONCRETE
0	0	0	0	170	170	PROPOSED GRAVEL
0	0	0	0	130	130	PROPOSED MISCELLANEOUS
0	0	0	0	3,742	3,742	PROPOSED PAVEMENT
6,728	**0**	**0**	**0**	**36,985**	**43,713**	**TOTAL AREA**

Time span=0.00-36.00 hrs, dt=0.05 hrs, 721 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: PDA 1 Runoff Area=3,589 sf 76.87% Impervious Runoff Depth=1.98"
Tc=5.0 min CN=WQ Runoff=0.17 cfs 593 cf

Subcatchment2S: PDA 2 Runoff Area=9,777 sf 97.26% Impervious Runoff Depth=2.51"
Tc=5.0 min CN=WQ Runoff=0.60 cfs 2,044 cf

Subcatchment3S: PDA 3 Runoff Area=26,919 sf 79.09% Impervious Runoff Depth=2.04"
Flow Length=333' Tc=16.3 min CN=WQ Runoff=0.98 cfs 4,576 cf

Subcatchment4S: PDA 4 Runoff Area=1,650 sf 100.00% Impervious Runoff Depth=2.58"
Tc=5.0 min CN=98 Runoff=0.10 cfs 355 cf

Subcatchment5S: PDA 5 Runoff Area=1,778 sf 100.00% Impervious Runoff Depth=2.58"
Tc=5.0 min CN=98 Runoff=0.11 cfs 382 cf

Pond CB: EXISTING CB Inflow=0.17 cfs 593 cf
Primary=0.17 cfs 593 cf

Pond CB781: EXISTING CB 781 Inflow=0.60 cfs 2,044 cf
Primary=0.60 cfs 2,044 cf

Pond CB9061: EXISTING CB-9061 Inflow=1.03 cfs 4,958 cf
Primary=1.03 cfs 4,958 cf

Pond P1: BUILDING DRIP EDGE Peak Elev=283.76' Storage=76 cf Inflow=0.10 cfs 355 cf
Discarded=0.03 cfs 355 cf Primary=0.00 cfs 0 cf Outflow=0.03 cfs 355 cf

Link POI 1: CONCORD ST Inflow=0.17 cfs 593 cf
Primary=0.17 cfs 593 cf

Link POI 2: SOUTH STATE ST Inflow=0.60 cfs 2,044 cf
Primary=0.60 cfs 2,044 cf

Link POI 3: ON-SITE SOUTHERN PARKING LOT Inflow=1.03 cfs 4,958 cf
Primary=1.03 cfs 4,958 cf

Total Runoff Area = 43,713 sf Runoff Volume = 7,949 cf Average Runoff Depth = 2.18"
15.39% Pervious = 6,728 sf 84.61% Impervious = 36,985 sf

Summary for Subcatchment 1S: PDA 1

Runoff = 0.17 cfs @ 12.07 hrs, Volume= 593 cf, Depth= 1.98"
Routed to Pond CB : EXISTING CB

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=2.81"

	Area (sf)	CN	Description
*	1,411	98	EXISTING BUILDINGS
*	939	98	EXISTING PAVEMENT
*	241	98	EXISTING SIDEWALK
*	27	98	EXISTING CONCRETE
*	141	98	EXISTING MISCELLANEOUS
	830	39	>75% Grass cover, Good, HSG A
	3,589		Weighted Average
	830		23.13% Pervious Area
	2,759		76.87% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 2S: PDA 2

Runoff = 0.60 cfs @ 12.07 hrs, Volume= 2,044 cf, Depth= 2.51"
Routed to Pond CB781 : EXISTING CB 781

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=2.81"

	Area (sf)	CN	Description
*	1,606	98	EXISTING BUILDINGS
*	4,649	98	EXISTING PAVEMENT
*	2,600	98	EXISTING SIDEWALK
*	312	98	EXISTING CONCRETE
*	42	98	EXISTING MISCELLANEOUS
*	300	98	EXISTING PAVER PATIO
	268	39	>75% Grass cover, Good, HSG A
	9,777		Weighted Average
	268		2.74% Pervious Area
	9,509		97.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 3S: PDA 3

Runoff = 0.98 cfs @ 12.21 hrs, Volume= 4,576 cf, Depth= 2.04"
Routed to Pond CB9061 : EXISTING CB-9061

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=2.81"

	Area (sf)	CN	Description
*	3,837	98	EXISTING BUILDING
*	11,700	98	EXISTING PAVEMENT
*	1,590	98	EXISTING PAVER PATIO
*	3,742	98	PROPOSED PAVEMENT
*	170	98	PROPOSED GRAVEL
*	120	98	PROPOSED CONCRETE
*	130	98	PROPOSED MISCELLANEOUS
	5,630	39	>75% Grass cover, Good, HSG A
	26,919		Weighted Average
	5,630		20.91% Pervious Area
	21,289		79.09% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	50	0.0100	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.81"
7.6	174	0.0030	0.38		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.8	109	0.0140	2.40		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
16.3	333	Total			

Summary for Subcatchment 4S: PDA 4

Runoff = 0.10 cfs @ 12.07 hrs, Volume= 355 cf, Depth= 2.58"
Routed to Pond P1 : BUILDING DRIP EDGE

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=2.81"

	Area (sf)	CN	Description
*	1,650	98	PROPOSED BUILDING
	1,650		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 5S: PDA 5

Runoff = 0.11 cfs @ 12.07 hrs, Volume= 382 cf, Depth= 2.58"
Routed to Pond CB9061 : EXISTING CB-9061

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=2.81"

	Area (sf)	CN	Description
*	1,778	98	PROPOSED BUILDING
	1,778		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Pond CB: EXISTING CB

Inflow Area = 3,589 sf, 76.87% Impervious, Inflow Depth = 1.98" for 2-yr event
Inflow = 0.17 cfs @ 12.07 hrs, Volume= 593 cf
Primary = 0.17 cfs @ 12.07 hrs, Volume= 593 cf, Atten= 0%, Lag= 0.0 min
Routed to Link POI 1 : CONCORD ST

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Summary for Pond CB781: EXISTING CB 781

Inflow Area = 9,777 sf, 97.26% Impervious, Inflow Depth = 2.51" for 2-yr event
Inflow = 0.60 cfs @ 12.07 hrs, Volume= 2,044 cf
Primary = 0.60 cfs @ 12.07 hrs, Volume= 2,044 cf, Atten= 0%, Lag= 0.0 min
Routed to Link POI 2 : SOUTH STATE ST

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Summary for Pond CB9061: EXISTING CB-9061

Inflow Area = 28,697 sf, 80.38% Impervious, Inflow Depth = 2.07" for 2-yr event
Inflow = 1.03 cfs @ 12.21 hrs, Volume= 4,958 cf
Primary = 1.03 cfs @ 12.21 hrs, Volume= 4,958 cf, Atten= 0%, Lag= 0.0 min
Routed to Link POI 3 : ON-SITE SOUTHERN PARKING LOT

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Summary for Pond P1: BUILDING DRIP EDGE

Inflow Area = 1,650 sf,100.00% Impervious, Inflow Depth = 2.58" for 2-yr event
Inflow = 0.10 cfs @ 12.07 hrs, Volume= 355 cf
Outflow = 0.03 cfs @ 12.43 hrs, Volume= 355 cf, Atten= 74%, Lag= 21.4 min
Discarded = 0.03 cfs @ 12.43 hrs, Volume= 355 cf
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Link POI 2 : SOUTH STATE ST

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Peak Elev= 283.76' @ 12.43 hrs Surf.Area= 252 sf Storage= 76 cf
Flood Elev= 286.00' Surf.Area= 252 sf Storage= 302 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 15.9 min (774.2 - 758.3)

Volume	Invert	Avail.Storage	Storage Description
#1	283.00'	302 cf	**3.00'W x 84.00'L x 3.00'H DRIP EDGE** 756 cf Overall x 40.0% Voids

Device	Routing	Invert	Outlet Devices
#1	Discarded	283.00'	**3.000 in/hr Exfiltration over Wetted area**
#2	Primary	286.00'	**90.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Discarded OutFlow Max=0.03 cfs @ 12.43 hrs HW=283.76' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.03 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=283.00' TW=0.00' (Dynamic Tailwater)
↑—**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Link POI 1: CONCORD ST

Inflow Area = 3,589 sf, 76.87% Impervious, Inflow Depth = 1.98" for 2-yr event
Inflow = 0.17 cfs @ 12.07 hrs, Volume= 593 cf
Primary = 0.17 cfs @ 12.07 hrs, Volume= 593 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Summary for Link POI 2: SOUTH STATE ST

Inflow Area = 11,427 sf, 97.65% Impervious, Inflow Depth = 2.15" for 2-yr event
Inflow = 0.60 cfs @ 12.07 hrs, Volume= 2,044 cf
Primary = 0.60 cfs @ 12.07 hrs, Volume= 2,044 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Summary for Link POI 3: ON-SITE SOUTHERN PARKING LOT

Inflow Area = 28,697 sf, 80.38% Impervious, Inflow Depth = 2.07" for 2-yr event
Inflow = 1.03 cfs @ 12.21 hrs, Volume= 4,958 cf
Primary = 1.03 cfs @ 12.21 hrs, Volume= 4,958 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Time span=0.00-36.00 hrs, dt=0.05 hrs, 721 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: PDA 1 Runoff Area=3,589 sf 76.87% Impervious Runoff Depth=3.02"
Tc=5.0 min CN=WQ Runoff=0.26 cfs 902 cf

Subcatchment2S: PDA 2 Runoff Area=9,777 sf 97.26% Impervious Runoff Depth=3.80"
Tc=5.0 min CN=WQ Runoff=0.89 cfs 3,096 cf

Subcatchment3S: PDA 3 Runoff Area=26,919 sf 79.09% Impervious Runoff Depth=3.10"
Flow Length=333' Tc=16.3 min CN=WQ Runoff=1.46 cfs 6,956 cf

Subcatchment4S: PDA 4 Runoff Area=1,650 sf 100.00% Impervious Runoff Depth=3.90"
Tc=5.0 min CN=98 Runoff=0.15 cfs 537 cf

Subcatchment5S: PDA 5 Runoff Area=1,778 sf 100.00% Impervious Runoff Depth=3.90"
Tc=5.0 min CN=98 Runoff=0.17 cfs 579 cf

Pond CB: EXISTING CB Inflow=0.26 cfs 902 cf
Primary=0.26 cfs 902 cf

Pond CB781: EXISTING CB 781 Inflow=0.89 cfs 3,096 cf
Primary=0.89 cfs 3,096 cf

Pond CB9061: EXISTING CB-9061 Inflow=1.54 cfs 7,535 cf
Primary=1.54 cfs 7,535 cf

Pond P1: BUILDING DRIP EDGE Peak Elev=284.35' Storage=136 cf Inflow=0.15 cfs 537 cf
Discarded=0.03 cfs 538 cf Primary=0.00 cfs 0 cf Outflow=0.03 cfs 538 cf

Link POI 1: CONCORD ST Inflow=0.26 cfs 902 cf
Primary=0.26 cfs 902 cf

Link POI 2: SOUTH STATE ST Inflow=0.89 cfs 3,096 cf
Primary=0.89 cfs 3,096 cf

Link POI 3: ON-SITE SOUTHERN PARKING LOT Inflow=1.54 cfs 7,535 cf
Primary=1.54 cfs 7,535 cf

Total Runoff Area = 43,713 sf Runoff Volume = 12,069 cf Average Runoff Depth = 3.31"
15.39% Pervious = 6,728 sf 84.61% Impervious = 36,985 sf

Summary for Subcatchment 1S: PDA 1

Runoff = 0.26 cfs @ 12.07 hrs, Volume= 902 cf, Depth= 3.02"
Routed to Pond CB : EXISTING CB

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.14"

	Area (sf)	CN	Description
*	1,411	98	EXISTING BUILDINGS
*	939	98	EXISTING PAVEMENT
*	241	98	EXISTING SIDEWALK
*	27	98	EXISTING CONCRETE
*	141	98	EXISTING MISCELLANEOUS
	830	39	>75% Grass cover, Good, HSG A
	3,589		Weighted Average
	830		23.13% Pervious Area
	2,759		76.87% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 2S: PDA 2

Runoff = 0.89 cfs @ 12.07 hrs, Volume= 3,096 cf, Depth= 3.80"
Routed to Pond CB781 : EXISTING CB 781

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.14"

	Area (sf)	CN	Description
*	1,606	98	EXISTING BUILDINGS
*	4,649	98	EXISTING PAVEMENT
*	2,600	98	EXISTING SIDEWALK
*	312	98	EXISTING CONCRETE
*	42	98	EXISTING MISCELLANEOUS
*	300	98	EXISTING PAVER PATIO
	268	39	>75% Grass cover, Good, HSG A
	9,777		Weighted Average
	268		2.74% Pervious Area
	9,509		97.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 3S: PDA 3

Runoff = 1.46 cfs @ 12.21 hrs, Volume= 6,956 cf, Depth= 3.10"
Routed to Pond CB9061 : EXISTING CB-9061

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.14"

	Area (sf)	CN	Description
*	3,837	98	EXISTING BUILDING
*	11,700	98	EXISTING PAVEMENT
*	1,590	98	EXISTING PAVER PATIO
*	3,742	98	PROPOSED PAVEMENT
*	170	98	PROPOSED GRAVEL
*	120	98	PROPOSED CONCRETE
*	130	98	PROPOSED MISCELLANEOUS
	5,630	39	>75% Grass cover, Good, HSG A
	26,919		Weighted Average
	5,630		20.91% Pervious Area
	21,289		79.09% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	50	0.0100	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.81"
7.6	174	0.0030	0.38		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.8	109	0.0140	2.40		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
16.3	333	Total			

Summary for Subcatchment 4S: PDA 4

Runoff = 0.15 cfs @ 12.07 hrs, Volume= 537 cf, Depth= 3.90"
Routed to Pond P1 : BUILDING DRIP EDGE

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.14"

	Area (sf)	CN	Description
*	1,650	98	PROPOSED BUILDING
	1,650		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 5S: PDA 5

Runoff = 0.17 cfs @ 12.07 hrs, Volume= 579 cf, Depth= 3.90"
Routed to Pond CB9061 : EXISTING CB-9061

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.14"

	Area (sf)	CN	Description
*	1,778	98	PROPOSED BUILDING
	1,778		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Pond CB: EXISTING CB

Inflow Area = 3,589 sf, 76.87% Impervious, Inflow Depth = 3.02" for 10-yr event
Inflow = 0.26 cfs @ 12.07 hrs, Volume= 902 cf
Primary = 0.26 cfs @ 12.07 hrs, Volume= 902 cf, Atten= 0%, Lag= 0.0 min
Routed to Link POI 1 : CONCORD ST

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Summary for Pond CB781: EXISTING CB 781

Inflow Area = 9,777 sf, 97.26% Impervious, Inflow Depth = 3.80" for 10-yr event
Inflow = 0.89 cfs @ 12.07 hrs, Volume= 3,096 cf
Primary = 0.89 cfs @ 12.07 hrs, Volume= 3,096 cf, Atten= 0%, Lag= 0.0 min
Routed to Link POI 2 : SOUTH STATE ST

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Summary for Pond CB9061: EXISTING CB-9061

Inflow Area = 28,697 sf, 80.38% Impervious, Inflow Depth = 3.15" for 10-yr event
Inflow = 1.54 cfs @ 12.21 hrs, Volume= 7,535 cf
Primary = 1.54 cfs @ 12.21 hrs, Volume= 7,535 cf, Atten= 0%, Lag= 0.0 min
Routed to Link POI 3 : ON-SITE SOUTHERN PARKING LOT

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Summary for Pond P1: BUILDING DRIP EDGE

Inflow Area = 1,650 sf,100.00% Impervious, Inflow Depth = 3.90" for 10-yr event
Inflow = 0.15 cfs @ 12.07 hrs, Volume= 537 cf
Outflow = 0.03 cfs @ 12.47 hrs, Volume= 538 cf, Atten= 78%, Lag= 23.9 min
Discarded = 0.03 cfs @ 12.47 hrs, Volume= 538 cf
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Link POI 2 : SOUTH STATE ST

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Peak Elev= 284.35' @ 12.47 hrs Surf.Area= 252 sf Storage= 136 cf
Flood Elev= 286.00' Surf.Area= 252 sf Storage= 302 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 25.5 min (775.9 - 750.4)

Volume	Invert	Avail.Storage	Storage Description
#1	283.00'	302 cf	**3.00'W x 84.00'L x 3.00'H DRIP EDGE** 756 cf Overall x 40.0% Voids

Device	Routing	Invert	Outlet Devices
#1	Discarded	283.00'	**3.000 in/hr Exfiltration over Wetted area**
#2	Primary	286.00'	**90.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Discarded OutFlow Max=0.03 cfs @ 12.47 hrs HW=284.35' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.03 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=283.00' TW=0.00' (Dynamic Tailwater)
↑—**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Link POI 1: CONCORD ST

Inflow Area = 3,589 sf, 76.87% Impervious, Inflow Depth = 3.02" for 10-yr event
Inflow = 0.26 cfs @ 12.07 hrs, Volume= 902 cf
Primary = 0.26 cfs @ 12.07 hrs, Volume= 902 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Summary for Link POI 2: SOUTH STATE ST

Inflow Area = 11,427 sf, 97.65% Impervious, Inflow Depth = 3.25" for 10-yr event
Inflow = 0.89 cfs @ 12.07 hrs, Volume= 3,096 cf
Primary = 0.89 cfs @ 12.07 hrs, Volume= 3,096 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Summary for Link POI 3: ON-SITE SOUTHERN PARKING LOT

Inflow Area = 28,697 sf, 80.38% Impervious, Inflow Depth = 3.15" for 10-yr event
Inflow = 1.54 cfs @ 12.21 hrs, Volume= 7,535 cf
Primary = 1.54 cfs @ 12.21 hrs, Volume= 7,535 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Time span=0.00-36.00 hrs, dt=0.05 hrs, 721 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: PDA 1 Runoff Area=3,589 sf 76.87% Impervious Runoff Depth=3.85"
Tc=5.0 min CN=WQ Runoff=0.32 cfs 1,150 cf

Subcatchment2S: PDA 2 Runoff Area=9,777 sf 97.26% Impervious Runoff Depth=4.80"
Tc=5.0 min CN=WQ Runoff=1.11 cfs 3,914 cf

Subcatchment3S: PDA 3 Runoff Area=26,919 sf 79.09% Impervious Runoff Depth=3.95"
Flow Length=333' Tc=16.3 min CN=WQ Runoff=1.82 cfs 8,862 cf

Subcatchment4S: PDA 4 Runoff Area=1,650 sf 100.00% Impervious Runoff Depth=4.93"
Tc=5.0 min CN=98 Runoff=0.19 cfs 678 cf

Subcatchment5S: PDA 5 Runoff Area=1,778 sf 100.00% Impervious Runoff Depth=4.93"
Tc=5.0 min CN=98 Runoff=0.21 cfs 731 cf

Pond CB: EXISTING CB Inflow=0.32 cfs 1,150 cf
Primary=0.32 cfs 1,150 cf

Pond CB781: EXISTING CB 781 Inflow=1.11 cfs 3,914 cf
Primary=1.11 cfs 3,914 cf

Pond CB9061: EXISTING CB-9061 Inflow=1.92 cfs 9,593 cf
Primary=1.92 cfs 9,593 cf

Pond P1: BUILDING DRIP EDGE Peak Elev=284.82' Storage=184 cf Inflow=0.19 cfs 678 cf
Discarded=0.04 cfs 679 cf Primary=0.00 cfs 0 cf Outflow=0.04 cfs 679 cf

Link POI 1: CONCORD ST Inflow=0.32 cfs 1,150 cf
Primary=0.32 cfs 1,150 cf

Link POI 2: SOUTH STATE ST Inflow=1.11 cfs 3,914 cf
Primary=1.11 cfs 3,914 cf

Link POI 3: ON-SITE SOUTHERN PARKING LOT Inflow=1.92 cfs 9,593 cf
Primary=1.92 cfs 9,593 cf

Total Runoff Area = 43,713 sf Runoff Volume = 15,336 cf Average Runoff Depth = 4.21"
15.39% Pervious = 6,728 sf 84.61% Impervious = 36,985 sf

Summary for Subcatchment 1S: PDA 1

Runoff = 0.32 cfs @ 12.07 hrs, Volume= 1,150 cf, Depth= 3.85"
Routed to Pond CB : EXISTING CB

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.17"

	Area (sf)	CN	Description
*	1,411	98	EXISTING BUILDINGS
*	939	98	EXISTING PAVEMENT
*	241	98	EXISTING SIDEWALK
*	27	98	EXISTING CONCRETE
*	141	98	EXISTING MISCELLANEOUS
	830	39	>75% Grass cover, Good, HSG A
	3,589		Weighted Average
	830		23.13% Pervious Area
	2,759		76.87% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 2S: PDA 2

Runoff = 1.11 cfs @ 12.07 hrs, Volume= 3,914 cf, Depth= 4.80"
Routed to Pond CB781 : EXISTING CB 781

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.17"

	Area (sf)	CN	Description
*	1,606	98	EXISTING BUILDINGS
*	4,649	98	EXISTING PAVEMENT
*	2,600	98	EXISTING SIDEWALK
*	312	98	EXISTING CONCRETE
*	42	98	EXISTING MISCELLANEOUS
*	300	98	EXISTING PAVER PATIO
	268	39	>75% Grass cover, Good, HSG A
	9,777		Weighted Average
	268		2.74% Pervious Area
	9,509		97.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 3S: PDA 3

Runoff = 1.82 cfs @ 12.21 hrs, Volume= 8,862 cf, Depth= 3.95"
Routed to Pond CB9061 : EXISTING CB-9061

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.17"

	Area (sf)	CN	Description
*	3,837	98	EXISTING BUILDING
*	11,700	98	EXISTING PAVEMENT
*	1,590	98	EXISTING PAVER PATIO
*	3,742	98	PROPOSED PAVEMENT
*	170	98	PROPOSED GRAVEL
*	120	98	PROPOSED CONCRETE
*	130	98	PROPOSED MISCELLANEOUS
	5,630	39	>75% Grass cover, Good, HSG A
	26,919		Weighted Average
	5,630		20.91% Pervious Area
	21,289		79.09% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	50	0.0100	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.81"
7.6	174	0.0030	0.38		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.8	109	0.0140	2.40		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
16.3	333	Total			

Summary for Subcatchment 4S: PDA 4

Runoff = 0.19 cfs @ 12.07 hrs, Volume= 678 cf, Depth= 4.93"
Routed to Pond P1 : BUILDING DRIP EDGE

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.17"

	Area (sf)	CN	Description
*	1,650	98	PROPOSED BUILDING
	1,650		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 5S: PDA 5

Runoff = 0.21 cfs @ 12.07 hrs, Volume= 731 cf, Depth= 4.93"
Routed to Pond CB9061 : EXISTING CB-9061

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.17"

	Area (sf)	CN	Description
*	1,778	98	PROPOSED BUILDING
	1,778		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Pond CB: EXISTING CB

Inflow Area = 3,589 sf, 76.87% Impervious, Inflow Depth = 3.85" for 25-yr event
Inflow = 0.32 cfs @ 12.07 hrs, Volume= 1,150 cf
Primary = 0.32 cfs @ 12.07 hrs, Volume= 1,150 cf, Atten= 0%, Lag= 0.0 min
Routed to Link POI 1 : CONCORD ST

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Summary for Pond CB781: EXISTING CB 781

Inflow Area = 9,777 sf, 97.26% Impervious, Inflow Depth = 4.80" for 25-yr event
Inflow = 1.11 cfs @ 12.07 hrs, Volume= 3,914 cf
Primary = 1.11 cfs @ 12.07 hrs, Volume= 3,914 cf, Atten= 0%, Lag= 0.0 min
Routed to Link POI 2 : SOUTH STATE ST

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Summary for Pond CB9061: EXISTING CB-9061

Inflow Area = 28,697 sf, 80.38% Impervious, Inflow Depth = 4.01" for 25-yr event
Inflow = 1.92 cfs @ 12.21 hrs, Volume= 9,593 cf
Primary = 1.92 cfs @ 12.21 hrs, Volume= 9,593 cf, Atten= 0%, Lag= 0.0 min
Routed to Link POI 3 : ON-SITE SOUTHERN PARKING LOT

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Summary for Pond P1: BUILDING DRIP EDGE

Inflow Area = 1,650 sf,100.00% Impervious, Inflow Depth = 4.93" for 25-yr event
Inflow = 0.19 cfs @ 12.07 hrs, Volume= 678 cf
Outflow = 0.04 cfs @ 12.48 hrs, Volume= 679 cf, Atten= 79%, Lag= 24.9 min
Discarded = 0.04 cfs @ 12.48 hrs, Volume= 679 cf
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Link POI 2 : SOUTH STATE ST

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Peak Elev= 284.82' @ 12.48 hrs Surf.Area= 252 sf Storage= 184 cf
Flood Elev= 286.00' Surf.Area= 252 sf Storage= 302 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 31.9 min (778.4 - 746.5)

Volume	Invert	Avail.Storage	Storage Description
#1	283.00'	302 cf	**3.00'W x 84.00'L x 3.00'H DRIP EDGE** 756 cf Overall x 40.0% Voids

Device	Routing	Invert	Outlet Devices
#1	Discarded	283.00'	**3.000 in/hr Exfiltration over Wetted area**
#2	Primary	286.00'	**90.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Discarded OutFlow Max=0.04 cfs @ 12.48 hrs HW=284.82' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.04 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=283.00' TW=0.00' (Dynamic Tailwater)
↑—**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Link POI 1: CONCORD ST

Inflow Area = 3,589 sf, 76.87% Impervious, Inflow Depth = 3.85" for 25-yr event
Inflow = 0.32 cfs @ 12.07 hrs, Volume= 1,150 cf
Primary = 0.32 cfs @ 12.07 hrs, Volume= 1,150 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Summary for Link POI 2: SOUTH STATE ST

Inflow Area = 11,427 sf, 97.65% Impervious, Inflow Depth = 4.11" for 25-yr event
Inflow = 1.11 cfs @ 12.07 hrs, Volume= 3,914 cf
Primary = 1.11 cfs @ 12.07 hrs, Volume= 3,914 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Summary for Link POI 3: ON-SITE SOUTHERN PARKING LOT

Inflow Area = 28,697 sf, 80.38% Impervious, Inflow Depth = 4.01" for 25-yr event
Inflow = 1.92 cfs @ 12.21 hrs, Volume= 9,593 cf
Primary = 1.92 cfs @ 12.21 hrs, Volume= 9,593 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Time span=0.00-36.00 hrs, dt=0.05 hrs, 721 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: PDA 1 Runoff Area=3,589 sf 76.87% Impervious Runoff Depth=4.62"
Tc=5.0 min CN=WQ Runoff=0.38 cfs 1,383 cf

Subcatchment2S: PDA 2 Runoff Area=9,777 sf 97.26% Impervious Runoff Depth=5.72"
Tc=5.0 min CN=WQ Runoff=1.32 cfs 4,664 cf

Subcatchment3S: PDA 3 Runoff Area=26,919 sf 79.09% Impervious Runoff Depth=4.74"
Flow Length=333' Tc=16.3 min CN=WQ Runoff=2.17 cfs 10,641 cf

Subcatchment4S: PDA 4 Runoff Area=1,650 sf 100.00% Impervious Runoff Depth=5.87"
Tc=5.0 min CN=98 Runoff=0.23 cfs 807 cf

Subcatchment5S: PDA 5 Runoff Area=1,778 sf 100.00% Impervious Runoff Depth=5.87"
Tc=5.0 min CN=98 Runoff=0.25 cfs 870 cf

Pond CB: EXISTING CB Inflow=0.38 cfs 1,383 cf
Primary=0.38 cfs 1,383 cf

Pond CB781: EXISTING CB 781 Inflow=1.32 cfs 4,664 cf
Primary=1.32 cfs 4,664 cf

Pond CB9061: EXISTING CB-9061 Inflow=2.28 cfs 11,511 cf
Primary=2.28 cfs 11,511 cf

Pond P1: BUILDING DRIP EDGE Peak Elev=285.28' Storage=229 cf Inflow=0.23 cfs 807 cf
Discarded=0.04 cfs 808 cf Primary=0.00 cfs 0 cf Outflow=0.04 cfs 808 cf

Link POI 1: CONCORD ST Inflow=0.38 cfs 1,383 cf
Primary=0.38 cfs 1,383 cf

Link POI 2: SOUTH STATE ST Inflow=1.32 cfs 4,664 cf
Primary=1.32 cfs 4,664 cf

Link POI 3: ON-SITE SOUTHERN PARKING LOT Inflow=2.28 cfs 11,511 cf
Primary=2.28 cfs 11,511 cf

Total Runoff Area = 43,713 sf Runoff Volume = 18,365 cf Average Runoff Depth = 5.04"
15.39% Pervious = 6,728 sf 84.61% Impervious = 36,985 sf

Time span=0.00-36.00 hrs, dt=0.05 hrs, 721 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: PDA 1 Runoff Area=3,589 sf 76.87% Impervious Runoff Depth=5.57"
Tc=5.0 min CN=WQ Runoff=0.46 cfs 1,666 cf

Subcatchment2S: PDA 2 Runoff Area=9,777 sf 97.26% Impervious Runoff Depth=6.82"
Tc=5.0 min CN=WQ Runoff=1.56 cfs 5,559 cf

Subcatchment3S: PDA 3 Runoff Area=26,919 sf 79.09% Impervious Runoff Depth=5.71"
Flow Length=333' Tc=16.3 min CN=WQ Runoff=2.60 cfs 12,802 cf

Subcatchment4S: PDA 4 Runoff Area=1,650 sf 100.00% Impervious Runoff Depth=6.99"
Tc=5.0 min CN=98 Runoff=0.27 cfs 961 cf

Subcatchment5S: PDA 5 Runoff Area=1,778 sf 100.00% Impervious Runoff Depth=6.99"
Tc=5.0 min CN=98 Runoff=0.29 cfs 1,036 cf

Pond CB: EXISTING CB Inflow=0.46 cfs 1,666 cf
Primary=0.46 cfs 1,666 cf

Pond CB781: EXISTING CB 781 Inflow=1.56 cfs 5,559 cf
Primary=1.56 cfs 5,559 cf

Pond CB9061: EXISTING CB-9061 Inflow=2.74 cfs 13,838 cf
Primary=2.74 cfs 13,838 cf

Pond P1: BUILDING DRIP EDGE Peak Elev=285.83' Storage=285 cf Inflow=0.27 cfs 961 cf
Discarded=0.05 cfs 962 cf Primary=0.00 cfs 0 cf Outflow=0.05 cfs 962 cf

Link POI 1: CONCORD ST Inflow=0.46 cfs 1,666 cf
Primary=0.46 cfs 1,666 cf

Link POI 2: SOUTH STATE ST Inflow=1.56 cfs 5,559 cf
Primary=1.56 cfs 5,559 cf

Link POI 3: ON-SITE SOUTHERN PARKING LOT Inflow=2.74 cfs 13,838 cf
Primary=2.74 cfs 13,838 cf

Total Runoff Area = 43,713 sf Runoff Volume = 22,024 cf Average Runoff Depth = 6.05"
15.39% Pervious = 6,728 sf 84.61% Impervious = 36,985 sf

Summary for Subcatchment 1S: PDA 1

Runoff = 0.46 cfs @ 12.07 hrs, Volume= 1,666 cf, Depth= 5.57"
Routed to Pond CB : EXISTING CB

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=7.23"

	Area (sf)	CN	Description
*	1,411	98	EXISTING BUILDINGS
*	939	98	EXISTING PAVEMENT
*	241	98	EXISTING SIDEWALK
*	27	98	EXISTING CONCRETE
*	141	98	EXISTING MISCELLANEOUS
	830	39	>75% Grass cover, Good, HSG A
	3,589		Weighted Average
	830		23.13% Pervious Area
	2,759		76.87% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 2S: PDA 2

Runoff = 1.56 cfs @ 12.07 hrs, Volume= 5,559 cf, Depth= 6.82"
Routed to Pond CB781 : EXISTING CB 781

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=7.23"

	Area (sf)	CN	Description
*	1,606	98	EXISTING BUILDINGS
*	4,649	98	EXISTING PAVEMENT
*	2,600	98	EXISTING SIDEWALK
*	312	98	EXISTING CONCRETE
*	42	98	EXISTING MISCELLANEOUS
*	300	98	EXISTING PAVER PATIO
	268	39	>75% Grass cover, Good, HSG A
	9,777		Weighted Average
	268		2.74% Pervious Area
	9,509		97.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 3S: PDA 3

Runoff = 2.60 cfs @ 12.22 hrs, Volume= 12,802 cf, Depth= 5.71"
Routed to Pond CB9061 : EXISTING CB-9061

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=7.23"

	Area (sf)	CN	Description
*	3,837	98	EXISTING BUILDING
*	11,700	98	EXISTING PAVEMENT
*	1,590	98	EXISTING PAVER PATIO
*	3,742	98	PROPOSED PAVEMENT
*	170	98	PROPOSED GRAVEL
*	120	98	PROPOSED CONCRETE
*	130	98	PROPOSED MISCELLANEOUS
	5,630	39	>75% Grass cover, Good, HSG A
	26,919		Weighted Average
	5,630		20.91% Pervious Area
	21,289		79.09% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	50	0.0100	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.81"
7.6	174	0.0030	0.38		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.8	109	0.0140	2.40		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
16.3	333	Total			

Summary for Subcatchment 4S: PDA 4

Runoff = 0.27 cfs @ 12.07 hrs, Volume= 961 cf, Depth= 6.99"
Routed to Pond P1 : BUILDING DRIP EDGE

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=7.23"

	Area (sf)	CN	Description
*	1,650	98	PROPOSED BUILDING
	1,650		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment 5S: PDA 5

Runoff = 0.29 cfs @ 12.07 hrs, Volume= 1,036 cf, Depth= 6.99"
Routed to Pond CB9061 : EXISTING CB-9061

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=7.23"

	Area (sf)	CN	Description
*	1,778	98	PROPOSED BUILDING
	1,778		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Pond CB: EXISTING CB

Inflow Area = 3,589 sf, 76.87% Impervious, Inflow Depth = 5.57" for 100-yr event
Inflow = 0.46 cfs @ 12.07 hrs, Volume= 1,666 cf
Primary = 0.46 cfs @ 12.07 hrs, Volume= 1,666 cf, Atten= 0%, Lag= 0.0 min
Routed to Link POI 1 : CONCORD ST

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Summary for Pond CB781: EXISTING CB 781

Inflow Area = 9,777 sf, 97.26% Impervious, Inflow Depth = 6.82" for 100-yr event
Inflow = 1.56 cfs @ 12.07 hrs, Volume= 5,559 cf
Primary = 1.56 cfs @ 12.07 hrs, Volume= 5,559 cf, Atten= 0%, Lag= 0.0 min
Routed to Link POI 2 : SOUTH STATE ST

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Summary for Pond CB9061: EXISTING CB-9061

Inflow Area = 28,697 sf, 80.38% Impervious, Inflow Depth = 5.79" for 100-yr event
Inflow = 2.74 cfs @ 12.21 hrs, Volume= 13,838 cf
Primary = 2.74 cfs @ 12.21 hrs, Volume= 13,838 cf, Atten= 0%, Lag= 0.0 min
Routed to Link POI 3 : ON-SITE SOUTHERN PARKING LOT

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Summary for Pond P1: BUILDING DRIP EDGE

Inflow Area = 1,650 sf,100.00% Impervious, Inflow Depth = 6.99" for 100-yr event
Inflow = 0.27 cfs @ 12.07 hrs, Volume= 961 cf
Outflow = 0.05 cfs @ 12.50 hrs, Volume= 962 cf, Atten= 81%, Lag= 25.8 min
Discarded = 0.05 cfs @ 12.50 hrs, Volume= 962 cf
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Link POI 2 : SOUTH STATE ST

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Peak Elev= 285.83' @ 12.50 hrs Surf.Area= 252 sf Storage= 285 cf
Flood Elev= 286.00' Surf.Area= 252 sf Storage= 302 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 42.5 min (784.1 - 741.6)

Volume	Invert	Avail.Storage	Storage Description
#1	283.00'	302 cf	**3.00'W x 84.00'L x 3.00'H DRIP EDGE** 756 cf Overall x 40.0% Voids

Device	Routing	Invert	Outlet Devices
#1	Discarded	283.00'	**3.000 in/hr Exfiltration over Wetted area**
#2	Primary	286.00'	**90.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Discarded OutFlow Max=0.05 cfs @ 12.50 hrs HW=285.83' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.05 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=283.00' TW=0.00' (Dynamic Tailwater)
↑—**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Link POI 1: CONCORD ST

Inflow Area = 3,589 sf, 76.87% Impervious, Inflow Depth = 5.57" for 100-yr event
Inflow = 0.46 cfs @ 12.07 hrs, Volume= 1,666 cf
Primary = 0.46 cfs @ 12.07 hrs, Volume= 1,666 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Summary for Link POI 2: SOUTH STATE ST

Inflow Area = 11,427 sf, 97.65% Impervious, Inflow Depth = 5.84" for 100-yr event
Inflow = 1.56 cfs @ 12.07 hrs, Volume= 5,559 cf
Primary = 1.56 cfs @ 12.07 hrs, Volume= 5,559 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Summary for Link POI 3: ON-SITE SOUTHERN PARKING LOT

Inflow Area = 28,697 sf, 80.38% Impervious, Inflow Depth = 5.79" for 100-yr event
Inflow = 2.74 cfs @ 12.21 hrs, Volume= 13,838 cf
Primary = 2.74 cfs @ 12.21 hrs, Volume= 13,838 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

PLANTING NOTES

1. CONTRACTOR SHALL OBTAIN APPROVAL FROM LANDSCAPE ARCHITECT PRIOR TO PURCHASING AND/OR INSTALLING SUBSTITUTE PLANT MATERIAL PRIOR TO PURCHASE OF ANY SUBSTITUTE MATERIALS.

2. CONSTRUCTION ACCESS WILL BE AS DIRECTED BY LANDSCAPE ARCHITECT. CONTRACTOR IS RESPONSIBLE FOR RESTORATION OF ACCESS ROUTE AND ALL AREAS DISTURBED BY PLANTING OPERATIONS UPON COMPLETION OF CONSTRUCTION OPERATIONS, AT NO ADDITIONAL COST TO THE OWNER.

3. LAYOUT OF ALL PLANTING BEDS AND LOCATION OF PLANTS TO BE APPROVED BY LANDSCAPE ARCHITECT ON SITE PRIOR TO CONSTRUCTION AND INSTALLATION.

4. CONTRACTOR TO REMOVE ALL DEBRIS GENERATED BY PLANT INSTALLATION. DEBRIS TO BE DISPOSED OF IN A LEGAL MANNER.

5. ALL PLANT MATERIAL SHALL BE GUARANTEED TO BE IN GOOD, HEALTHY AND FLOURISHING CONDITION FOR ONE YEAR FROM THE DATE OF FINAL INSTALLATION APPROVAL BY LANDSCAPE ARCHITECT. CONTRACTOR SHALL REPLACE, WITHOUT COST TO OWNER, AND AS SOON AS WEATHER CONDITIONS PERMIT, ALL DEAD AND NON-FLOURISHING PLANTS AS DETERMINED BY THE LANDSCAPE ARCHITECT. REPLACEMENT PLANTS SHALL BE BE GUARANTEED IDENTICALLY TO ORIGINAL PLANTS, TIME PERIOD COMMENCING FROM DATE OF REPLACEMENT PLANTING APPROVAL BY LANDSCAPE ARCHITECT.

6. ALL BEDS TO BE MULCHED WITH 4" DEPTH SHREDDED BARK MULCH UNLESS NOTED OTHERWISE.

7. CONTRACTOR TO PROVIDE NECESSARY TEMPORARY IRRIGATION IF NEEDED BASED ON TIME OF YEAR THE PROJECT IS IMPLEMENTED.

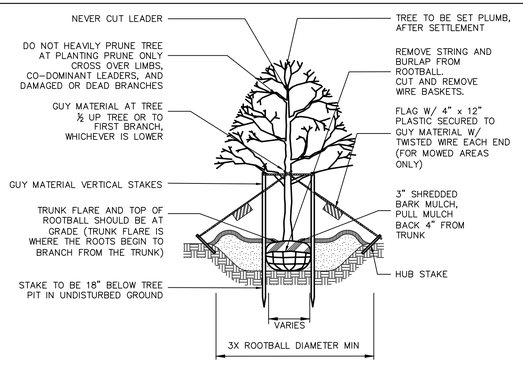
PLANTING SCHEDULE

Botanical Name/ Common Name	Size	Label	Quantity	Mature Height
Trees				
Cercis candensis / Eastern Redbud	2.5-3" CAL.	CC	1	20-30'
Crataegus crusgalli inermis 'Crusader' / Crusader Thronless Hawthron	2.5-3" CAL.	CI	1	10-15'
Quercus coccinea / Scarlet Oak	2.5-3" CAL.	QC	1	60'+
Tilia cordata 'Greenspire' / Greenspire Littleleaf Linden	2.5-3" CAL.	TC	1	40-60'
Shrubs				
Hydrangea paniculata 'Pinky Winky' / Pinky Winky Panicle Hydrangea	3-3.5'	HP	3	6-8'
Ilex glabra 'Compacta' / Compact Inkberry	3-3.5'	IG	5	5-6'

LANDSCAPE CALCULATIONS :

REQUIRED: 1 SHADE TREE / 2,000 SF OF PARKING
8,760 SF OF PARKING / 2,000 = 4.4 = 4 SHADE TREES REQUIRED

PROPOSED: 2 TREES EXISTING + 3 TREES PROPOSED = 5 TREES PROVIDED



NOTES:
1. GUYING AND STAKING TO BE DETERMINED IN THE FIELD BY THE LANDSCAPE ARCHITECT. LOCAL FIELD CONDITIONS AS WELL AS PLANT CHARACTERISTICS WILL DETERMINE THE NECESSITY OF GUYING AND STAKING.
2. TYPICALLY ONLY TREES WITH A 3" OR GREATER CALIPER NEED TO BE STAKED. TREES WITH LESS THAN A 3" CALIPER NEED TO BE STAKED ONLY AS REQUIRED BY LANDSCAPE ARCHITECT.
3. ONLY WRAP TREE TRUNKS AS REQUIRED BY LANDSCAPE ARCHITECT.
4. TREE SHALL BE SET PLUMB, AFTER SETTLEMENT.
5. LOAM FOR BACKFILLING SHALL BE AMENDED AS REQUIRED BY LANDSCAPE ARCHITECT.
6. CITY TREES PLANTED ON PRIVATE PROPERTY, ADJACENT TO A PUBLIC RIGHT-OF-WAY, NEED TO BE PLANTED A MINIMUM OF 5 FEET FROM THE EDGE OF THE CITY SIDEWALK.

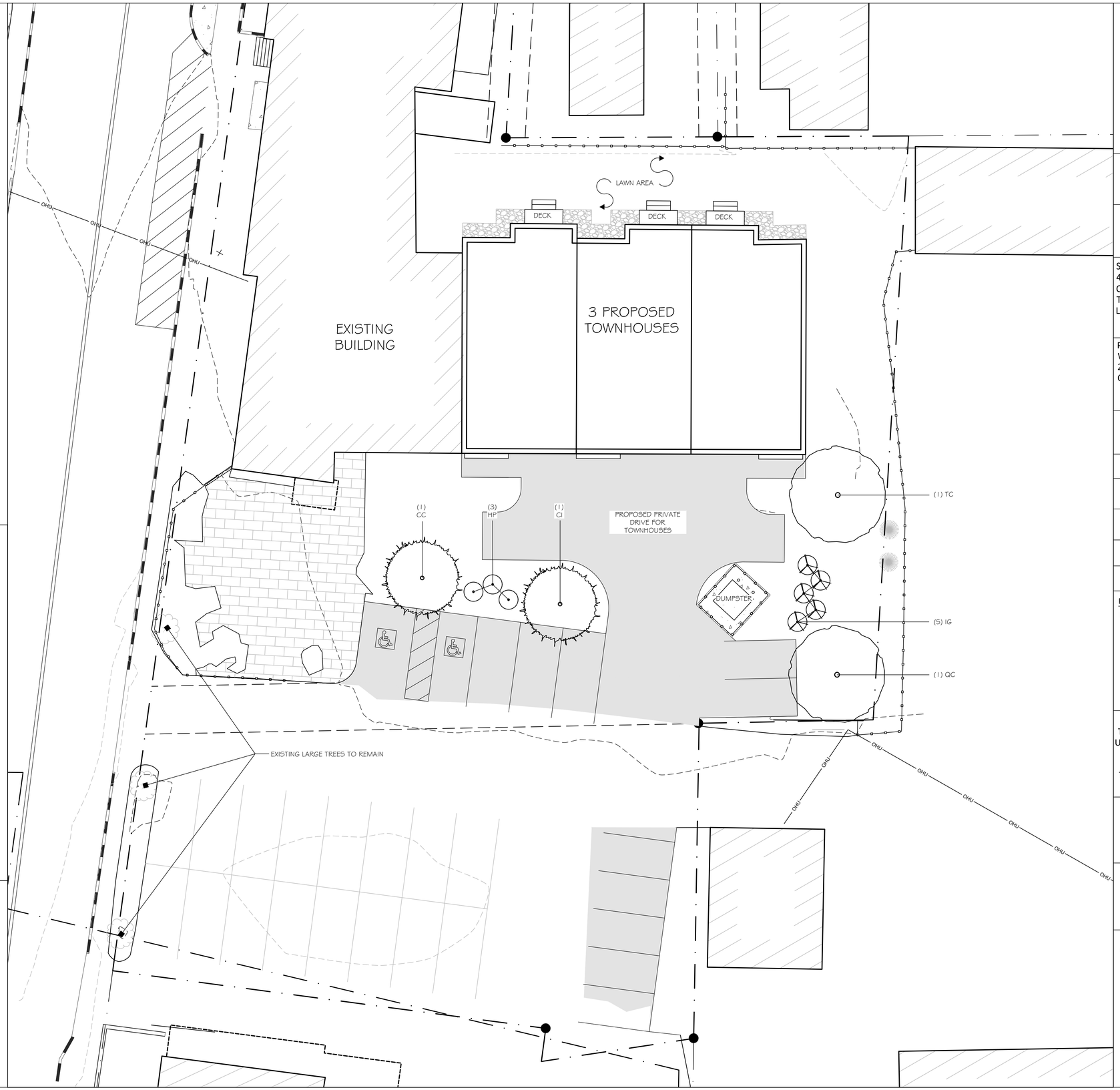
DECIDIOUS TREE PLANTING

LINETYPE LEGEND

- PROPERTY LINE
- PROPERTY SETBACK
- TOPOGRAPHY (MAJOR)
- TOPOGRAPHY (MINOR)

DIG SAFE
811 OR 1-888-DIG-SAFE
CONTACT DIG SAFE 72 HOURS PRIOR TO CONSTRUCTION

0' 10' 30'
5' 20' 50'



terrain
planning & design llc
311 kast hill road
hopkinton nh 03229
603. 746. 2023
terrainplanning.com

47-49 SOUTH STATE STREET

Site Location:
47-49 South State Street
Concord, NH 03301
Tax Map: 7413
Lot #: Z-9

Prepared For:
Wilcox & Barton Inc.
2 Home Avenue
Concord, NH 03301

LANDSCAPE PLAN

DATE: 04 - 24 - 26

SCALE: 1" = 10'

PROJECT #: 26029

Drawn By: RNM

Checked By: ERB

REVISIONS: DATE:
Issued for Client Review

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L - 1

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LICENSED LANDSCAPE ARCHITECT
RONN N. MAURER
086
STATE OF NEW HAMPSHIRE

Schedule

Symbol	Label	QTY	Manufacturer	Catalog Number	Description	Lamp	Lumens per Lamp	LLF	Wattage	Polar Plot
	S	2	Acuity Brands	RADPT LED P1 30K ASY MVOLT PT4 DBLXD with RSS 10 4B PT DBLXD	RADEAN Post-Top with P1 3000K Asymmetric distribution; mounted at 12ft	LED	3021	0.9	25.4134	Max: 1342cd
	S-HS	1	Acuity Brands	RADPT LED P1 30K ASY MVOLT PT4 HS DBLXD with RSS 10 4B PT DBLXD	RADEAN Post-Top with P1 3000K Asymmetric distribution with house-side shield; mounted at 12ft	LED	2720	0.9	25.4134	Max: 1663cd
	W	3	Visual Comfort	700WSBOW 4in H LED30	Bowman 4in Wall Sconce; mounted at 9ft	LED	699	0.9	17.9	Max: 481cd

3JB
Concord, NH
Site Lighting Layout

Designer
Heidi G. Connors
Visible Light, Inc.
24 Stickney Terrace
Suite 6
Hampton, NH 03842

Date
04/21/2026

Scale
1"=20'

Drawing No.

Summary

BOWMAN 4 WALL SCONCE

TECH LIGHTING

The classic silhouette of this sleek LED wall sconce makes it suitable for both indoor and outdoor applications. The Bowman's die-cast aluminum body houses a powerful, long-lasting LED light source tightly controlled for down light only, yet supplying significant illumination for even the darkest nights. Available in two sizes and five finishes.

Outstanding protection against the elements:

- Powder coat finishes
- Stainless Steel mounting hardware
- Impact-resistant, UV stabilized frosted acrylic lensing

SPECIFICATIONS

DELIVERED LUMENS	696.6
WATTS	17.8
VOLTAGE	120V, 277V
DIMMING	ELV
LIGHT DISTRIBUTION	Symmetric
MOUNTING OPTIONS	Downlight
CCT	2700K**, 3000K
CRI	80+
COLOR BINNING	3 Step
BUG RATING	B1-U0-G0
DARK SKY	Compliant
WET LISTED	IP65
GENERAL LISTINGS	ETL
CALIFORNIA TITLE 24	Can be used to comply with CEC 2019 Title 24 Part 6 for outdoor use. Registration with CEC Appliance Database not required.
START TEMP	-30°C
FIELD SERVICEABLE LED	No
CONSTRUCTION	Aluminum
HARDWARE	Stainless Steel
FINISH	Powder Coat
LED LIFETIME	L70; >60,000 Hours
WARRANTY*	5 Years
WEIGHT	1.7 lbs.

* Visit techlighting.com for specific warranty limitations and details.
** Available in Black and Bronze finish only.

BOWMAN 4
Shown in Black

BOWMAN 4
Shown in Bronze

BOWMAN 4
Shown in Charcoal

BOWMAN 4
Shown in Silver

BOWMAN 4
Shown in White

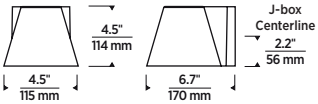
ORDERING INFORMATION

PRODUCT	LENGTH	FINISH	LAMP
700WSBOW	**4** 4"	**B** BLACK	**-LED827** LED 90 CRI, 2700K 120V*
		Z BRONZE	**-LED827-277** LED 90 CRI, 2700K 277V*
		H CHARCOAL	**-LED830** LED 90 CRI, 3000K 120V
		I SILVER	**-LED830-277** LED 90 CRI, 3000K 277V
		W WHITE	

*AVAILABLE IN BLACK AND BRONZE FINISH ONLY

BOWMAN 4 WALL SCONCE

TECH LIGHTING



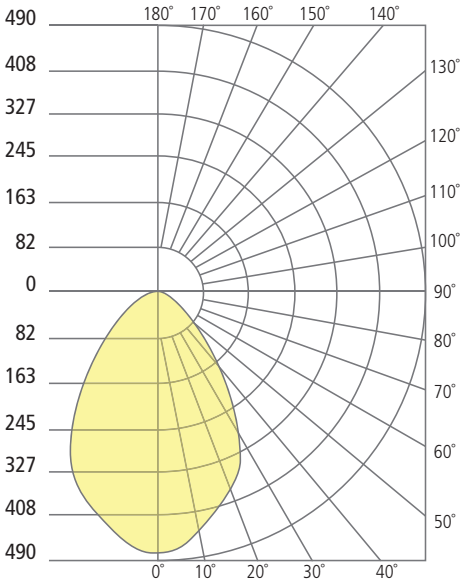
Bowman 4

PHOTOMETRICS*

*For latest photometrics, please visit www.techlighting.com/OUTDOOR

BOWMAN 4

Total Lumen Output:	696.7
Total Power:	17.2
Luminaire Efficacy:	39.1
Color Temp:	3000K
CRI:	80+
BUG Rating:	B1-U0-G0



PROJECT INFO

FIXTURE TYPE & QUANTITY

JOB NAME & INFO

NOTES

TECH LIGHTING

VISUAL COMFORT & CO.

7400 Linder Avenue, Skokie, Illinois 60077
T 847.410.4400

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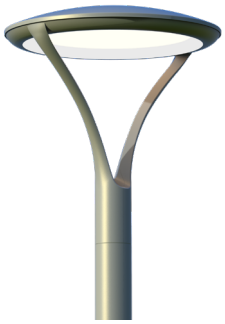


Radean Post Top
LED Area Luminaire

Catalog Number

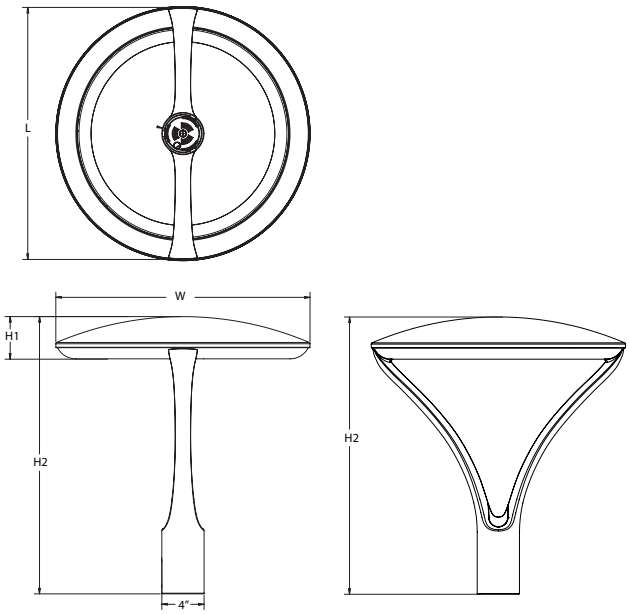
Notes

Type

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

EPA:	1.02 ft² (0.105 m²)
Length:	24" (61cm)
Width:	24" (61cm)
H1 Luminaire Height:	4" (10.16cm)
H2 Luminaire Height:	26" (66.04cm)
Weight:	38lbs (17.24Kg)



Introduction

The architecturally-inspired shape of the RADEAN™ post top area luminaire embodies the grace and strength of the RADEAN family. The twin copper-core cast aluminum arms support the slender superstructure, creating a beautiful sculpture by day transforming into a beacon of comfort by night. Triangular arms redirect reflection maintaining its visually quiet appearance. With sleek lines and simple silhouettes, these LED luminaires use specialized lighting and visual comfort to transform common areas like courtyards, outdoor retail locations, universities and corporate campuses into pedestrian-friendly nighttime environments.

Ordering Information

EXAMPLE: RADPT LED P3 30K SYM MVOLT PT4 PE DNAXD

RADPT LED

Series	Performance package	Color temperature	Distribution	Voltage	Mounting *(required)*
RADPT LED	P1 3,000 Lumens P2 5,000 Lumens P3 7,000 Lumens P4 10,000 Lumens P5 15,000 Lumens	27K 2700K 30K 3000K 35K 3500K 40K 4000K 50K 5000K	SYM Symmetric type V ASY Asymmetric type IV PATH Pathway Type III	MVOLT[2] 277[2] 120[2] 347 208[2] 480 240[2]	PT4[3] Slips inside a 4" OD round metal pole RADPT20 Slips over a 2 3/8" diameter tenon (4" tall tenon required) RADPT25 Slips over a 2 7/8" diameter tenon (4" tall tenon required)

Control options	Other options	Finish *(required)*
Shipped installed NLTAIR2 nLight AIR 2.0 enabled[4] PE Button photocell[4] FAO Field adjustable output[4] DMG 0-10v dimming wires pulled outside fixture (for use with an external control, ordered separately)[5]	SF Single Fuse[2] DF Double Fuse[2] R90 Rotated optics[6] **Shipped installed** HS Houseside shield[7]	DDBXD Dark bronze DBLXD Black DNAXD Natural aluminum DWHXD White DDBTXD Textured dark bronze DBLBXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white

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Ordering Information

Accessories

Ordered and shipped separately.

RADHS	Houseside shield (shield is white)

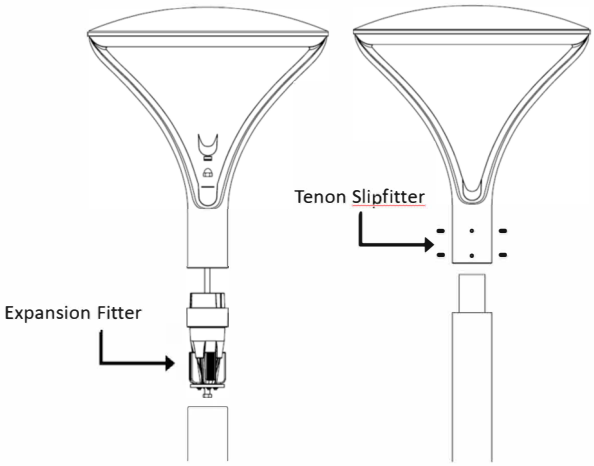
NOTES

1. 2700K and 3500K may require extended lead-times.
2. MVOLT driver operates on any line voltage from 120-277V (50/60 Hz). Single fuse (SF) requires 120, 277 or 347 voltage option. Double fuse (DF) requires 208, 240 or 480 voltage option.
3. Requires nominal 4" round straight metal pole.
4. NLTAIR2 not available with PE or FAO. Must link to external nLight Air network. Does not include occupancy sensor. For more information refer to rSBOR pole mount sensor.
5. DMG not available with NLTAIR2 or FAO.
6. For left rotation, select R90 and rotate luminaire 180° on pole.
7. Also available as a separate accessory; see Accessories information at left. HS not available with R90. Shield is field rotatable shield in 180° increments.

Mounting

PT4

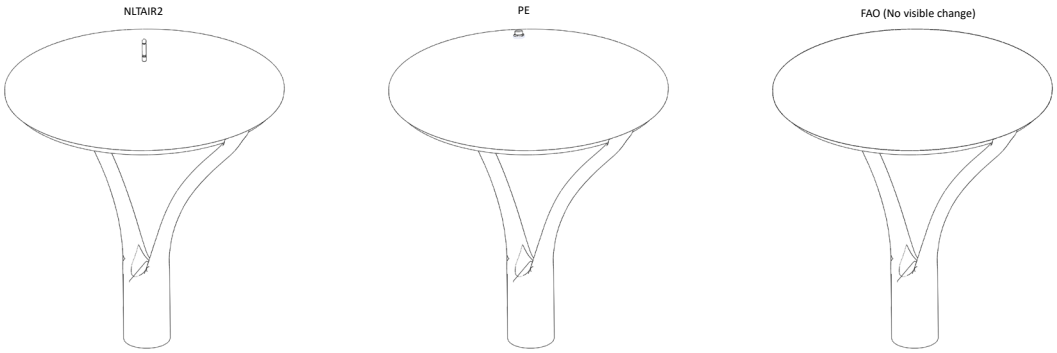
RADPT20 or RADPT25
RADPT20 and RADPT25 mounting require a 4" tall tenon (standard on Lithonia poles).



Recommended Poles for use with RADEAN RADPT LED Luminaires.			
Acuity Part Number	**Description**	**For luminaires**	**Used with Mounting**
RSS 10 4B PT DDBXD	10' Round Straight Steel - 4" O.D. - Open Top	RADPT LED	PT4
RSS 12 4B PT DDBXD	12' Round Straight Steel - 4" O.D. - Open Top	RADPT LED	PT4
RSS 14 4B PT DDBXD	14' Round Straight Steel - 4" O.D. - Open Top	RADPT LED	PT4
RSS 16 4B PT DDBXD	16' Round Straight Steel - 4" O.D. - Open Top	RADPT LED	PT4
RSS 18 4B PT DDBXD	18' Round Straight Steel - 4" O.D. - Open Top	RADPT LED	PT4
RSS 20 4B PT DDBXD	20' Round Straight Steel - 4" O.D. - Open Top	RADPT LED	PT4
RSS 25 4B PT DDBXD	25' Round Straight Steel - 4" O.D. - Open Top	RADPT LED	PT4
RSS 10 4B T20 DDBXD	10' Round Straight Steel - 4" O.D. - Tenon Top	RADPT LED	RADPT20
RSS 12 4B T20 DDBXD	12' Round Straight Steel - 4" O.D. - Tenon Top	RADPT LED	RADPT20
RSS 14 4B T20 DDBXD	14' Round Straight Steel - 4" O.D. - Tenon Top	RADPT LED	RADPT20
RSS 16 4B T20 DDBXD	16' Round Straight Steel - 4" O.D. - Tenon Top	RADPT LED	RADPT20
RSS 18 4B T20 DDBXD	18' Round Straight Steel - 4" O.D. - Tenon Top	RADPT LED	RADPT20
RSS 20 4B T20 DDBXD	20' Round Straight Steel - 4" O.D. - Tenon Top	RADPT LED	RADPT20
RSS 25 4B T20 DDBXD	25' Round Straight Steel - 4" O.D. - Tenon Top	RADPT LED	RADPT20

* Customer must verify pole loading per required design criteria and specified wind speed. Consult pole specification sheet for additional details.

Control Options



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Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown. Contact factory for performance data on any configurations not shown here.

Performance Package	Input Wattage	Distribution	2700K					3000K					3500K					4000K					5000K				
			Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
P1	25	ASY	2,924	2	1	2	115	3,022	2	2	2	119	3,095	2	2	2	122	3,168	2	2	2	125	3,168	2	2	2	125
		PATH	2,529	2	1	2	100	2,613	2	2	2	103	2,676	2	2	2	105	2,739	2	2	2	108	2,739	2	2	2	108
		SYM	3,086	2	1	1	121	3,189	2	1	1	126	3,266	2	1	1	129	3,344	2	1	1	132	3,344	2	1	1	132
P2	38	ASY	4,521	3	2	3	119	4,672	3	2	3	123	4,785	3	2	3	126	4,898	3	2	3	129	4,898	3	2	3	129
		PATH	3,909	2	2	2	103	4,040	2	2	2	106	4,137	2	2	2	109	4,235	3	2	3	111	4,235	3	2	3	111
		SYM	4,772	2	2	1	126	4,931	3	2	1	130	5,050	3	2	1	133	5,169	3	2	1	136	5,169	3	2	1	136
P3	54	ASY	6,387	3	2	3	119	6,600	3	2	3	123	6,760	3	2	3	126	6,919	3	2	3	129	6,919	3	2	3	129
		PATH	5,523	3	2	3	103	5,707	3	2	3	106	5,845	3	2	3	109	5,983	3	2	3	112	5,983	3	2	3	112
		SYM	6,741	3	2	2	126	6,966	3	2	2	130	7,135	3	2	2	133	7,303	3	2	2	136	7,303	3	2	2	136
P4	86	ASY	10,150	4	2	4	118	10,489	4	2	4	122	10,742	4	2	4	125	10,996	4	2	4	128	10,996	4	2	4	128
		PATH	8,777	3	2	3	102	9,070	3	2	3	106	9,289	3	2	3	108	9,509	3	2	3	111	9,509	3	2	3	111
		SYM	10,713	3	2	2	125	11,071	3	2	2	129	11,338	3	2	2	132	11,606	3	2	2	135	11,606	3	2	2	135
P5	123	ASY	14,250	4	2	4	116	14,724	4	2	4	120	15,081	4	3	4	123	15,437	4	3	4	126	15,437	4	3	4	126
		PATH	12,322	4	2	4	101	12,733	4	3	4	104	13,041	4	3	4	106	13,349	4	3	4	109	13,349	4	3	4	109
		SYM	15,040	4	2	3	123	15,541	4	2	3	127	15,917	4	2	3	130	16,293	4	2	3	133	16,293	4	2	3	133

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		LAT Factor
0°C	32°F	1.06
5°C	41°F	1.05
10°C	50°F	1.04
15°C	59°F	1.02
20°C	68°F	1.01
25°C	**77°F**	**1.00**
30°C	86°F	0.99
35°C	95°F	0.98
40°C	104°F	0.96

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the **RADPT LED** platform in a **25°C ambient**, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Projected LED Lumen Maintenance				
	0	25,000	50,000	100,000
P1	1.00	0.96	0.91	0.82
P2	1.00	0.96	0.91	0.82
P3	1.00	0.96	0.91	0.82
P4	1.00	0.96	0.91	0.82
P5	1.00	0.95	0.89	0.78

Electrical Load

Lumen Package	LED Drive Current	Voltage	Wattage		Current (A)					
					120	208	240	277	347	480
P1	500	42.8	21.4	Input Current	0.22	0.13	0.11	0.1	0.08	0.06
				System Watts	26	26	26	27	25	26
P2	770	43	33.1	Input Current	0.33	0.19	0.16	0.14	0.11	0.08
				System Watts	39	39	39	39	38	38
P3	1100	43.2	47.5	Input Current	0.46	0.26	0.23	0.2	0.16	0.12
				System Watts	55	54	54	54	54	54
P4	900	87.3	78.6	Input Current	0.73	0.42	0.36	0.32	0.25	0.18
				System Watts	87	86	86	86	86	86
P5	1250	88.2	110.2	Input Current	1	0.58	0.5	0.44	0.35	0.25
				System Watts	120	119	119	119	120	120

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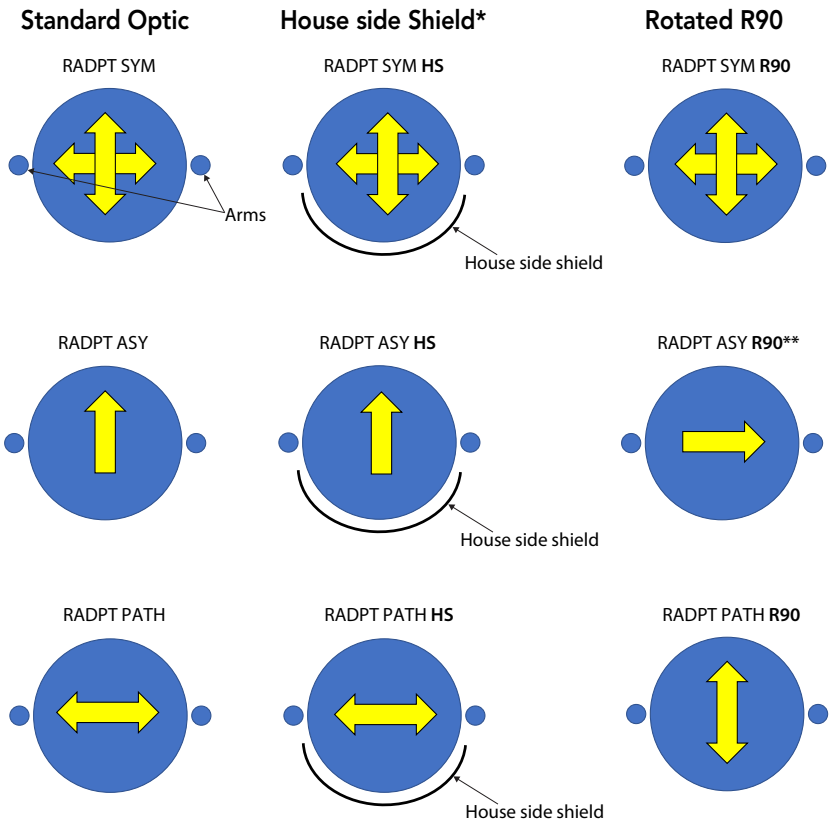
Orientation Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's RADPT LED homepage.

Isofootcandle plots are considered to be representative of available optical distributions.



*HS not available with R90
**For L90, use R90 and rotate luminaire 180° on pole

FEATURES & SPECIFICATIONS

INTENDED USE
Pedestrian areas such as parks, campuses, pathways, courtyards and pedestrians malls.

CONSTRUCTION
Single-piece die-cast aluminum housing with nominal wall thickness of 0.125" on a 6mm thick acrylic waveguide is fully gasketd with a single piece tubular silicone gasket.

FINISH
Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Standard Super Durable colors include dark bronze, black, natural aluminum and white. Available in textured and non-textured finishes.

OPTICS
6MM thick acrylic waveguide with 360° flexible LED board. Available in 2700K, 3000K, 3500K, 4000K and 5000K (80CRI) CCT configurations.

ELECTRICAL
Light engine consists of 96 high-efficacy LEDs mounted to a flexible circuit board and aluminum heat sink, ensuring optimal thermal management and long life. Fixtures ship standard with 0-10v dimming driver (order option DMG for connection to exterior controls). Class 1 electronic driver has a power factor >90%, THD <20%, and with an expected life of 100,000 hours with <1% failure rate. Serviceable 10kV surge protection device meets a minimum Category C Low for operation (per ANSI/IEEE C62.41.2).

INSTALLATION
Standard post-top PT4 type mounting configuration fits into a 4" OD open pole top (round pole only). Alternate tenon (2-3/8" or 2-7/8") mounting also available and require 4" tall tenons.

LISTINGS
CSA certified to U.S. and Canadian standards. Luminaire is IP65 rated. Rated for -40°C minimum ambient.

DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product. Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

International Dark-Sky Association (IDA) Fixture Seal of Approval (FSA) is available for all products on this page utilizing 3000K color or less. U.S. Patent No. D925,088S

GOVERNMENT PROCUREMENT
BAA – Buy America(n) Act: Product qualifies as a domestic end product under the Buy American Act as implemented in the FAR and DFARS. Product also qualifies as manufactured in the United States under DOT Buy America regulations.
BABA – Build America Buy America: Product qualifies as produced in the United States under the definitions of the Build America, Buy America Act.
Please refer to www.acuitybrands.com/buy-american for additional information.

WARRANTY
5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

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