Special Permit Application and Site Plan Review

Prepared For

BENCHMARK DEVELOPMENT

West Park Street and Main Street Lee, Massachusetts



Prepared by:



2 FEDERICO DR., PITTSFIELD, MA 01201

(413) 443-3537

August 2020

SK Project No.190103

Drainage Highways Reports Land Planning Building Design Survey

August 24, 2020

Lee Planning Board Town Hall - 32 Main St. Lee, MA 01238

Zoning Board of Appeals Town Hall - 32 Main St. Lee, MA 01238

> RE: Special Permit Application Site Plan Review Application Benchmark Development West Park Street & Main Street Lee, Massachusetts

Dear Board Members,

Enclosed for your review and approval please find your respective copies of an Application for Special Permit and Site Plan Review in connection with the above-named property.

The proposed project includes the redevelopment of the property located at 88 West Park Street, which is the location of the former Price Chopper Supermarket. The property also has frontage on Main Street, opposite from the Lee Town Hall.

The project will include the construction of a 4-story residential building located on the west side of the property and will front West Park Street. It will also include the construction of a 3-story mixed use residential and commercial building located adjacent to Main Street.

The proposed use falls under the Lee Zoning Bylaw Section 10.5 Redevelopment Projects Within the DCBC Zone. This requires a Special Permit Application and Site Plan Review to the Lee Planning Board. Additionally, portions of the proposed work fall within the floodplain of the Housatonic River and require a Special Permit form the Zoning Board of Appeals in accordance with Section 3.2 of the Lee Zoning Bylaws. Supporting documentation and project plans can be seen herein.

If you have any questions, or require additional information, please feel free to contact the office.

Sincerely,

SK DESIGN GROUP, INC.

Matthew D. Puntin, P.E. Senior Engineer

Enclosures

Cc: Michael Charles, Benchmark File

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Application for Site Plan Approval And Special Permit Applications

The Commonwealth of Massachusetts TOWN OF LEE

Planning Board Application for Site Plan Review/Approval

August 24, 2020

1. Name of A	Applicant: Benchmark Development
Address:	34 Bridge Street, P.O. Box 8, Great Barrington, MA 01230
Location	of Property: 88 West Park Street
MAP: <u>18</u>	A, LOT: <u>61</u>
2. Name of Archi	tect, Engineer or Surveyor: <u>SK Design Group, Inc.</u>
	Address: 2 Federico Drive, Pittsfield, MA 01201
I hereby r application.	request a meeting before the Planning Board with reference to the above
	Signature of Owner MCHAEL CHABLES -APPLICA
	Address BENCHUMBY DEVELOPMENT (MDP) 3 4 BB1065 ST, GT, BT,
Estimated constr	uction costs from Building Permit:
Cost 1. \$0 - \$5,000	Fee \$ 25.00
2. \$5,000 - \$25,00	0 \$100.00
3. \$25,000 - \$50,0	00 \$250.00
4. Over \$50,000	\$500.00
	\$ Check # from the applicant the fee to apply against osts for the public meeting.
	Received by:
	Received Date:

TOWN OF LEE 32 MAIN STREET LEE, MASSACHUSETTS 01238

PLANNING BOARD

APPLICATION FOR SPECIAL PERMIT HEARING

NAME OF PETITIONER: Benchmark Development
ADDRESS: 34 Bridge Street, P.O. Box 8, Great Barrington, MA 01230
LOCATION OF PROPERTY: 88 West Park Street
APPLICANT IS (owner, tenant, licensee, prospective purchaser) Prospective purchaser
NATURE OF SPECIAL PERMIT: Proposed housing and mixed-use development within
the Downtown Commercial Business Corridor (DCBC).
APPLICABLE SECTION OF ZONING BYLAW:
Section 10.5 Redevelopment Projects Within DCBC Zone
I hereby request a hearing before the Special Permit Granting Authority with reference to the above noted application.
Signed: MICHAEL CHARLES (MOP)
Signed:
Received from the above applicant, the sum of \$500.00 to apply against advertising costs for this public hearing.
Received by:
Received Date:

TOWN OF LEE 32 MAIN STREET LEE, MASSACHUSETTS 01238

ZONING BOARD OF APPEAL

APPLICATION FOR SPECIAL PERMIT HEARING

NAME OF PETITIONER; Benchmark I	Эечегоритент
ADDRESS: 34 Bridge Street, P.O. Box 8,	Great Barrington, MA 01230
LOCATION OF PROPERTY: 88 West	Park Street
APPLICANT IS (owner, tenant, licensee,	prospective purchaser) Prospective purchaser
and addition to the The Anti-to District	levelopment including buildings, parking, grading,
APPLICABLE SECTION OF ZONING	BYLAW:
Section 3.2 Floodplain District	
I hereby request a hearing before to the above noted application.	the Special Permit Granting Authority with reference
	Signed: MICHAEL CAABLES (MOP)
	Signed:
Received from the above applicant, the su this public hearing.	um of \$500.00 to apply against advertising costs for
	Received by:
	Received Date:

IMPACT REPORT & PROJECT NARRATIVE FOR SITE PLAN REVIEW AND SPECIAL PERMIT APPLICATION

AUGUST 2020

Benchmark Development 88 West Park Street Lee, Massachusetts

A. Overview and Background

This Impact Report and Project Narrative has been prepared in support of a Site Plan Review and Special Permit Application for Benchmark Development, for a proposed redevelopment project at the former Price Chopper Supermarket property at West Park Street and Main Street in Lee, MA. The application is submitted in accordance with the Town of Lee Zoning By-laws.

The property was formerly used by Price Chopper for several decades starting in 1960 before it eventually closed in July 2017. Prior to Price Chopper, the property was used by various commercial businesses dating back to the 1920s.

The proposed project includes the demolition of the existing building and the construction of two new buildings along with site improvements. The buildings will be a standalone residential building at the rear of the property and mixed-use commercial/residential building at the front of the property. The details of each building are described below.

B. Existing Conditions

The project site is approximately 2.2 acres with frontage on West Park Street, Main Street, and Consolati Way. It is identified on the Town of Lee Assessor's Maps as Map 18A, Lot 61.

The site is essentially fully developed with the building and pavement. The former Price Chopper building is approximately 17,410 s.f., the paved parking is 1.7± acres, and there is a small amount of vegetation along the western property line adjacent to the Housatonic River. The property is serviced by town water and sewer. There is an 18" town sewer main which passes through the western edge of the property. There are several private sewer laterals which cross the property and tie into the sewer main. Onsite stormwater is managed with several catch basins which discharge into the town stormwater system on West Park Street. Additionally, the property is serviced by private utilities including: electric, telephone, cable, and natural gas.

C. Proposed Site Development

The project will be divided into two phases. A new driveway will run from south to north between West Park Street to Consolati Way. This driveway will essentially bisect the parcel into the two phases.

Phase 1 will include the demolition of the existing building and the construction of a 4-story 64-unit apartment building to be constructed along the western edge of the property, generally in the area of the Price Chopper building. In addition to the building construction, other site improvements will include parking, landscaping, and utilities. Also, the existing town sewer main will be relocated to accommodate the location of the new building. A new entrance will be constructed on West Park Street, directly across from the driveway to Lee Bank.

Phase 2 will include the construction of a 3-story mixed-use building adjacent to Main Street. This building will include 10,000± s.f. of commercial use on the first floor and a total of 20 residential units on the second and third floor. The location of the mixed-use building will eliminate the curb cut on Main Street. The access to Consolati Way will remain the same.

The two buildings will be serviced by onsite parking. The parking configuration will include typical surface parking along the driveway. Additionally, parking will be located at the basement level of the Phase 1 building and a portion of the first-floor level of the Phase 2 building. There will be a total 107 parking spaces throughout the property. A more detailed breakdown of parking demands is found in Section D: Zoning Compliance.

A traffic analysis has been included as Attachment A.

There is an 18" town sewer main which travels north to south along the west edge of the property. As part of Phase 1, the sewer main will be relocated to accommodate the new residential building. This has been reviewed with Mr. Alan Zerbato from the DPW and the town's consultant Mr. David Lenart of Lenart Consulting Services, LLC. See Attachment B: Town Sanitary Sewer Relocation Proposal for the review and approval of sewer main relocation proposal. The relocated main will accommodate the two new buildings and the existing sewer laterals which service the surrounding buildings.

In order to determine the best location for the water service, we reviewed the project with Chief Ryan Brown and Mr. Zerbato. In light of the fact that the Town of Lee is installing a new 12" water main on Main Street, it was determined that a new 8" water main be installed from Main street into the project. The new water main will provide the domestic and fire sprinkler service to each building. Additionally, a fire hydrant will be installed centrally within the project site.

Other private utilities (electric, cable, gas, etc.) will be installed from either West Park Street or Main Street. General layout of the utilities is shown on the plan.

The existing stormwater is somewhat managed via several catch basins which collect surface water and discharge into the town stormwater system on West Park Street. The town system appears to discharge to the Housatonic River. There is minimal treatment if any, and no mitigation of peak storms or infiltration provided.

The proposed stormwater management system will consist of several catch basins and manholes on the site. These will collect the surface water and direct it into an underground infiltration system. The underground system will help mitigate peak storm and provide groundwater infiltration.

The proposed redevelopment contains measures for collecting stormwater from impervious areas, discharging it to treatment best management practices (BMP's), mitigating peak storms and providing infiltration to the maximum extent practical under the Stormwater Management Standards as the site is redevelopment. Please refer to the complete Stormwater Report in Attachment C for additional details.

When complete the project will result in a <u>decrease</u> of impervious area. Currently there is approximately 2.1 acres of impervious areas (building, pavement, and sidewalk). The proposed project will result in approximately 1.75 acres of impervious area (buildings, pavement, and sidewalks), which is a reduction of approximately .35 acre (15,000± s.f.).

A majority of the site falls within the 100-year floodplain. The proposed buildings will be entirely or partially located within the floodplain, and thus compensation will be required. The calculations for the compensation have been provided in Attachment D: Floodplain Calculations. The calculations show that the project will result in a net reduction of fill in the floodplain of approximately 1,100 cubic yards. This is primarily due to the fact the existing building, which will be completely removed, is considered a solid structure at approximately 2,000 c.y. The proposed Phase 1 residential building will have a garage in the lower level which will be floodable. This means the Phase 1 building will generate a small amount of new fill in the floodplain, approximately 100 c.y. The proposed Phase 2 building will be partially located in the floodplain and result in 625 c.y. of fill. Additionally, new grading is proposed on site which will result in 175 c.y. of fill.

D. Zoning Compliance

The site falls within the DCBC-Downtown Commercial Business Corridor District. The proposed project will include the redevelopment of the property and thus Section 10.5 Redevelopment Projects within DCBC Zone will apply. The project will require a special permit and site plan review by the Planning Board. The specific requirements of Section 10.5 are described in detail below.

In addition to the Planning Board review, the project will require a special permit from the Zoning Board of Appeals per Section 3.2 as it is located within the Floodplain District. The requirements for this section are detailed below.

Section 10.5 Redevelopment Projects Within DCBC Zone

- A) Purpose. The purpose of this section is to encourage increased density, housing, and mixed-use development projects within the DCBC, without requiring the construction of affordable housing. There are three specific requirements which include the following:
- **B)** Applicability of Specific SGOD Provisions. By special permit granted under section 13.4, the Planning Board may approve a redevelopment project within the DCBC. Within that project:
- 1) Uses may include those uses allowed by Section 4.2(H)(I) (DCBC as of right uses) and Section 16.5 (permitted uses in SGOD).

The proposed development includes residential and commercial (office, retail, etc.) which is considered a mixed-use. This is permitted as-of-right in Section 16.5 and thus this requirement is met.

2) Dimensional and density shall be consistent with Section 16.7 (SGOD).

Section 16.7 (A)(1) requires a minimum of 20 dwelling units per acre of Developable Land and the maximum number of units allowed within the SGOD is 122. By definition in Section 16.2, approximately 2 acres of the property is developable land which would require a minimum of 40 units. The project will include a total of 84 residential units and thus this requirement is met.

The dimensional requirements for the SGOD is shown in the table below.

Table 1
Dimensional Requirements for the Smart Growth Overlay District

	Min, Area (sq. ft.)	Min. Lot Frontage	In	dividual Lo Requireme			n Building ght	Max. Coverage for Bldgs.
		(feet)	Front (feet)	Side (feet)	Rear (feet)	Feet	Stories	
Required	10,000	75	10	10	10	55	4	N/A
Provided*	95,800	275	22 (Ph 1)	13 (Ph 1)	11 (Ph 1)	50 (Ph 1)	4 (Ph 1)	30% Combined
			29 (Ph 2)	11 (Ph 2)	30+ (Ph 2)	37 (Ph 2)	3 (Ph 2)	

^{*}All dimensions are approximate.

3) Parking shall be consistent with Section 16.8 (SGOD).

The parking requirements for the residential building is one parking space per unit. The parking requirement for the mixed-use building is one parking space per residential unit plus the commercial requirement. The commercial requirement is 1 space per 300 s.f. of net usable floor area.

Table 2
Parking Spaces Required for the Smart Growth Overlay District

		Required		Provided
Building	Residential	Commercial	Combined	
Total	84	20	104	107

Section 10.5 (B) also states that any project obtaining a special permit under this section shall not be subject to the other provisions of Section 16.

C) Other Review Waived. Notwithstanding Section 4.2(H)(2) (multifamily housing), any redevelopment project which obtains a special permit under this section shall not be required to obtain a special permit from the Board of Selectmen.

This application is not utilizing Section 4.2(H)(2) and thus a special permit from the Board of Selectmen is not required.

Section 3.2 - Floodplain District

B) District Delineation

(1) The general boundaries of the Floodplain District are shown on the Lee Flood Insurance Rate Map (FIRM) dated June 1, 1982, as Zones A and A1-30 to indicate the one-hundred-year floodplain. The exact boundaries of the district are defined by the one-hundred-year water surface elevations shown on the FIRM and further defined by the flood profiles contained in the Flood Insurance Study dated June 1, 1982. The floodway boundaries are delineated on the Town of Lee Floodway Boundary Floodway Map (FBFM) dated June 1, 1982, and further defined by the floodway data tables contained in the Hood Insurance Study. These two maps, as well as the accompanying study, are incorporated herein by reference and are on file with the Town Clerk, Conservation Commission, Planning Board, Building Inspector and the Board of Selectmen.

The project site falls within an A7 zone as outlined on the FEMA FIRM maps. The elevation was transferred from a benchmark located at the Lee Town Hall. Then using AutoCAD computer software, elevations were generated, and the floodplain boundary was established. The boundaries of the Floodplain District coincide with the boundaries outlined on the Lee Flood Insurance Rate Map (FIRM) and the Federal Emergency Management Act (FEMA) maps dated June 1, 1982. This elevation varies across the subject lots. The Floodway boundary is delineated on the Town of Lee Floodway boundary Maps dated June 1, 1982. This boundary was digitized on the attached permit plans. Proposed work associated with the buildings, parking areas, and driveway will be located in the floodplain. No work is proposed within the floodway.

(2) Within Zone A, where the one-hundred-year flood elevation is not provided on the FIRM, the developer/applicant shall obtain any existing flood elevation data and it shall be reviewed by the Building Inspector. If the data is sufficiently detailed and accurate, it shall be relied upon to require compliance with this chapter and the State Building Code.

This does not apply. The 100-year flood elevations are provided on the FIRM.

C) Use Regulations. The Floodplain District is established as an overlay district to all other districts. All development, including structural and nonstructural activities, whether permitted by right or special permit, must be in compliance with MGL c. 131, Section 40 and with the requirements of the Massachusetts State Building Code pertaining to construction in the floodplain (currently Section 744).

This project requires a Site Plan Review and Special Permit from the Planning Board in accordance with the Zoning Bylaws. The project will also comply with the requirements of the Massachusetts State Building Code in regard to construction in the floodplain and flood-proofing the buildings.

(1) Permitted uses. The following uses of low flood damage potential and causing no obstructions to flood flows shall be allowed, provided that they are permitted in the underlying district or in Section 9 Supplemental Use Regulations. The following uses must not require permanent structures, fill or permanent storage of materials or equipment:

The project is not a listed permitted use under Section 3.2(c)(1), therefore will require a Special Permit.

- (2) Special permits. No structure or building shall be erected, constructed, substantially improved or otherwise created or moved, and no earth or other materials shall be dumped, filled, excavated or transferred, unless a special permit is granted by the Zoning Board of Appeals. Said Board may issue a special permit hereunder (subject to other applicable provisions of this chapter) if the application is compliant with the following provisions:
 - (a) The proposed use shall comply in all respects with the provisions of the underlying district.

The proposed use complies with the provision of Section 10.5 Redevelopment Projects Within DCBC Zone.

(b) Within 10 days of receipt of the application, the Board shall transmit one copy of the development plan to the Conservation Commission, Planning Board, Board of Health, Building Inspector and Board of Public Works. Final action shall not be taken until reports have been received from the above boards or until 35 days have elapsed.

No response required.

(c) All encroachments, including fill, new construction, substantial improvements to existing structures and other developments, are prohibited unless certification by a registered professional engineer is provided by the applicant demonstrating that such encroachment shall not result in an increase in flood levels during the occurrence of the one-hundred-year flood.

The proposed buildings will be either completely or partially located within the floodplain, and thus compensation will be required. Calculations have been included in Attachment C. The calculations show that project will result in a net reduction of fill in the floodplain of approximately 1,100 cubic yards. Compensation will be provided by demolition and removal of the existing building. The new buildings will be constructed to meet the Massachusetts Building Code requirements, including floodproofing as required.

(d) The Board may specify such additional requirements and conditions it finds necessary to protect the health, safety and welfare of the public and the occupants of the proposed use.

No response required.

(e) In Zone AO, any new construction and any substantial improvements to existing buildings or structures must, in addition to the above requirements, comply with the following:

The project site is not located in an AO zone, therefore this does not apply.

Section 13.4 - Special Permits

The Special Permit granting authority, in this case the Zoning Board of Appeals, is required to determine if the proposed project meets the finding outlined in Section 13.4(D) in order to issue the Special Permit. Compliance with the finding can be seen herein.

13.4(D) SPECIAL PERMIT FINDINGS

(1) Is in compliance with all provisions and requirements of this chapter and in harmony with its general intent and purpose;

The project is in compliance with the provisions and requirements of the bylaw. The uses are allowed by site plan review and the project meets all the requirements outlined herein.

- (2) Is essential or desirable to the public convenience or welfare at the proposed location; The project site is an abandoned supermarket which closed in 2017. The developer is proposing to redevelop and revitalize the site into a mixed-use development that will provide housing, commercial space, provide a tax base, and create jobs.
- (3) Will not be detrimental to adjacent uses or to the established or future character of the neighborhood;

The existing building has not been used since 2017 when Price Chopper closed. The building is an eyesore and the structure is slowly deteriorating. The property is currently primarily used as a pass through or shortcut for townspeople and parking for surrounding properties.

The proposed project will not be detrimental to the neighborhood and will be a benefit to Lee. The 84± apartments will provide needed housing in downtown Lee. The commercial use will provide space for offices, retail business, or a small market or café, which is similar to the existing downtown.

- (4) Will not create undue traffic congestion or unduly impair pedestrian safety; and Please refer to Traffic Impact Statement in Attachment A. The study concludes the project will not create undue traffic congestion or impair pedestrian safety.
- (5) Will not overload any public water, drainage or sewer system or any other municipal facility to such an extent that the proposed use or any existing use in the immediate area or in any other area of the town will be unduly subjected to the hazards affecting public health, safety or general welfare.

The project will not overload public utilities. This project has been be reviewed with the Department of Public Works and the town's consultant, Lenart Consulting Services, LLC. Additionally, it will be reviewed with respective utility companies.

Section 16 - Smart Growth Overlay District

16.5 PERMITTED USES.

The following uses are permitted as-of-right for Projects within the SGOD.

- A) Mixed-use Development Projects. A Mixed-use Development Project within the SGOD mayinclude:
 - (1) Multi-family Residential Use(s), which may include live/work units;
 - (2) Any of the following Non-residential uses:
 - (a) Offices, including medical offices
 - (b) Retail stores, including banks, and wholesale establishments, but excluding stores and establishments with drive-through windows
 - (c) Business service establishments and personal service establishments
 - (d) Bakeries and artisan food or beverage producers
 - (e) Restaurants and cafes, indoor or outdoor
 - (f) Hotels
 - (g) Community, education, or recreational uses, including museums, parks, playgrounds, health clubs and gym/fitness centers
 - (h) Light industrial uses

The proposed Benchmark Development Redevelopment project is a mixed-use development including, but not limited to housing, retail, office or business uses.

(3) Parking accessory to any of the above permitted uses, including surface, garage-under, and structured parking (e.g., parking garages); and

Adequate surface parking is provided on-site and under one of the structures for the development.

(4) Accessory uses customarily incidental to any of the above permitted uses. No accessory uses are proposed under this application.

B) The total gross floor area devoted to Non-residential uses within a Mixed-use Development Project shall not exceed forty-nine percent [49%] of the total gross floor area of the Project.

The total gross floor area of the development is shown in the table below.

Table 3
Building Use Areas* (approximate)

Building	Residential	Non-Residential	Combined
	(sq. ft.)	(sq. ft.)	(sq. ft.)
Phase 1 (Residential)	75,380	0	75,380
Phase 2 (Mixed-use)	20,970	10,485	31,455
TOTAL	96,350 (90%)	10,485 (10%)	106,835

^{*}Does not include the garage areas.

The non-residential use is approximately 10%, which meets the requirement.

16.7 DIMENSIONAL AND DENSITY REQUIREMENTS

The dimensional and density requirements of the SGOD are met as listed previously in this narrative.

16.8 PARKING REQUIREMENTS

- A) The parking requirements applicable for Projects within the SGOD are as follows.
 - (1) Number of parking spaces. Unless otherwise approved by the PAA, the following minimum numbers of off-street parking spaces shall be provided by use, either in surface parking, within garages or other structures:
 - (a) Residential project: One parking space per residential unit
 - (b) Mixed-use project: One parking space per residential unit plus the applicable quantity computed per the table below:

USE MINIMUM I	PARKING REQUIRED
Office, retail, wholesale, general service, and personal service establishments	1 space per 300 square feet of net useable floor area
Bakeries and artisan food or beverage producers	1 space per employee
Restaurants and cafes	1 space per three seats
Hotels or bed and breakfast establishments	1 space per guest room
Community, education, or recreational uses	1 space for each four seats or equivalent floor area
Light industrial uses	One parking space for each two employees, computed on the basis of the estimated maximum number of employees at any one time.

The parking requirements of the SGOD are met as listed previously in this narrative.

- B) Loading spaces: Unless otherwise approved by the PAA, one loading space shall be provided for every 20,000 gross square feet of floor area for non-residential use. Loading spaces must be demonstrated to be of sufficient area and height to serve the intended use. The total floor area for non-residential use is approximately 10,000 gross s.f. and thus one loading space must be provided. This has been shown on the design plans.
- C) Shared Parking. Notwithstanding anything to the contrary herein, the use of shared parking to fulfill parking demands noted above that occur at different times of day is strongly encouraged. Minimum parking requirements above may be reduced by the PAA through the Plan Approval process, if the applicant can demonstrate that shared spaces will meet parking demands by using accepted methodologies (e.g. the Urban Land Institute Shared Parking Report, ITE Shared Parking Guidelines, or other approved studies).

There is no proposed shared parking. This project includes common parking within the site for the two proposed buildings, however it does not include shared parking with abutting properties.

- D) Reduction in parking requirements. Notwithstanding anything to the contrary herein, any minimum required amount of parking may be reduced by the PAA through the Plan Approval process, if the applicant can demonstrate that the lesser amount of parking will not cause excessive congestion, endanger public safety, or that lesser amount of parking will provide positive environmental or other benefits, taking into consideration: No reduction in parking is proposed as a part of this application.
- E) Location of Parking. Any surface parking lot shall, to the maximum extent feasible, be located at the rear or side of a building, relative to any principal street, public open space, or pedestrian way.

The proposed surface parking will be located to the rear and the side of the buildings, relative to the streets.

E. Other Impacts

Sewer

An existing 18" sewer gravity main and associated town easement passes through the site from north to south. It is located along the western edge of the property, west of the existing building. Also, there are several sewer laterals crossing the property which service surrounding buildings.

The proposal includes relocating the 18" sewer main in order to accommodate the Phase 1 residential building. Additionally, the relocated main will accommodate the Phase 2 Building and, the sewer laterals, one of which reportedly has had previous problems. The proposed buildings and existing sewer laterals will gravity feed into the relocated sewer main

This proposed change to the sewer main has been reviewed with Mr. Alan Zerbato, DPW, and the town's consultant, Mr. David Lenart.

The proposed sewer flows are calculated in accordance with DEP Title 5 criteria. The following table shows the breakdown of each use.

Table 4
Estimated Sewer Flows

Use	Units	Unit Flow	Calculated Flow
Residential (bedrooms)	93 bedrooms (Phase 1)	110 GPD per bedroom	117 bedrooms x
	24 bedrooms (Phase 2)		110 GPD = 12,870 GPD
	117 bedrooms (Total)		
Office/Commercial	10,000± s.f. (Phase 2)	75 GPD per 1000 s.f.	(10,000 s.f. /1,000) x
			75 GPD = 750 GPD
		TOTAL	12,870 + 750 =
			13,620 GPD

The proper applications, details and fees will be provided for connection to the towns' sewerage system.

Water and Fire Protection

The water service location and size to the existing building is unknown. It is assumed to be serviced from West Park Street. Regardless, the existing service will be abandoned at time of demolition.

Prior to this submission, SKGD met with Alan Zerbato and Chief Ryan Brown to discuss water service. It was determined that a new water 8" main will be installed into the property from Main

Benchmark Development Site Plan Review and Special Permit Application August 2020 Page 13 of 14

Street. This is in part because of the proposed new water main project on Main Street which will include installing a new 12" main. Additionally, a new hydrant will be installed centrally onsite. No building or parking area will be located greater than 500 feet from a hydrant. The buildings will have individual connections for domestic water service and sprinklers.

For purposes of this application, the anticipated water demand will be equivalent to the expected sewage flows. The demand will be 13,200± gallons per day.

The appropriate fees and applications and construction details will be filed when required. The application will also be reviewed with the Fire Chief for emergency vehicle access.

Stormwater Management

Please refer to Attachment C for the full Stormwater Report.

Erosion Control

The site is mostly developed. A construction entrance is proposed where feasible. Silt fence with straw wattles will be installed along the perimeter of the project to protect abutting properties from silt and sediment run-off and delineate a limit of work.

A Stormwater Pollution Prevention Plan (SWPPP) is required for land disturbances greater than 1 acre. This will be filed prior to construction.

Solid Waste Disposal

The buildings will have internal trash rooms for collecting waste. A dumpster location will be located on the north side of the Phase 1 building. Refuse will be collected by a local hauler under a contract with the developer.

Snow Removal

Sidewalks will be shoveled and snow-blown and collected on-site. The driveway and parking areas will be plowed and stored along the perimeter of the parking Excessive snow storm events may have to be removed from the project site.

Construction Timing and Phasing

A specific construction schedule will be provided when funding is approved. However, an anticipated phasing and timeline can be seen below.

Note: All dates and phases subject to change as project is defined in coming months.

Project Overview:

- Phase 1 New Residential Building (Start in 2021)
 - o Demolition and removal of the existing building.
 - o Relocate sewer main.
 - o Excavate and construct foundation for Phase 1 building.
 - o Install utilities to site
 - o Construct Phase 1 building.
 - o Finish associated site work around building including parking and landscaping.
- Phase 2 New Mixed-use Building (dates to be determined)
 - o Remove parking area adjacent to Main Street.
 - o Excavate and construct foundation for Phase 1 building.
 - o Install utilities to building.
 - o Construct Phase 2 building.
 - o Finish associated site work around building including parking and landscaping.

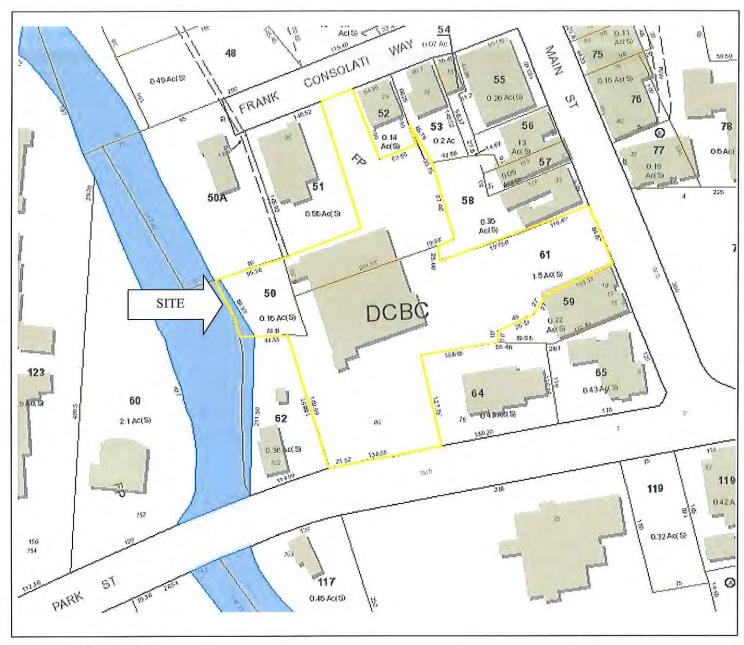
F. Conclusion

As outlined above, the project, as proposed, meets the design goals of the petitioner and the intent of the Lee Zoning By-Laws. The proposed project is the construction of a mixed-use development, for which housing is in need in Southern Berkshire County. The development revitalizes an abandoned site provides adequate parking, it will not overload municipal utilities and will not negatively impact traffic patterns in the neighborhood.

Based upon the design and supporting materials included herein, all design objectives have been met. We look forward to discussing the project with the board.

grisk design group 2019/190103 benchmark dylpt-88 west park st, lee-mixed use dylpt-documents/word-special peanit/5 manative, doex

Figures



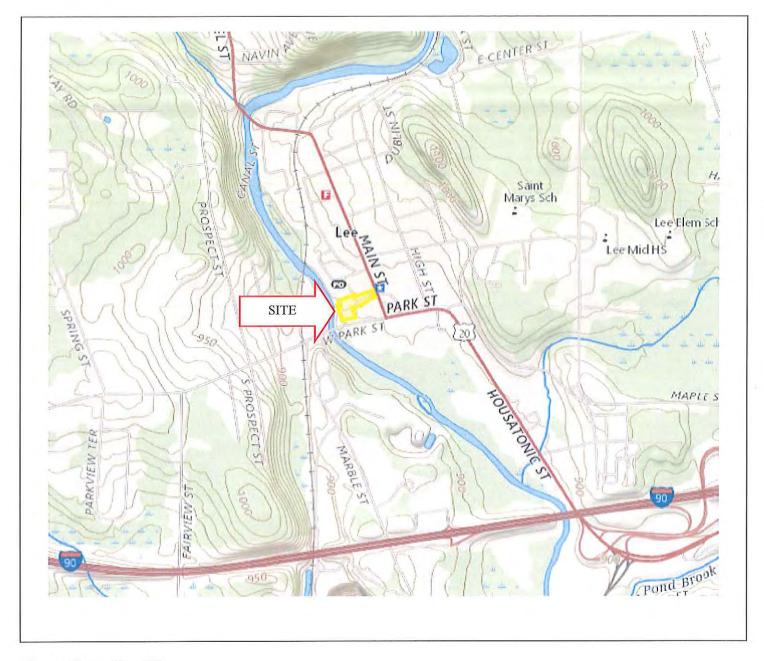
Source: Town of Lee GIS

FIGURE #1

Town of Lee Assessor's Map

88 West Park Street Lee, MA (Map 18A, Lot 61)



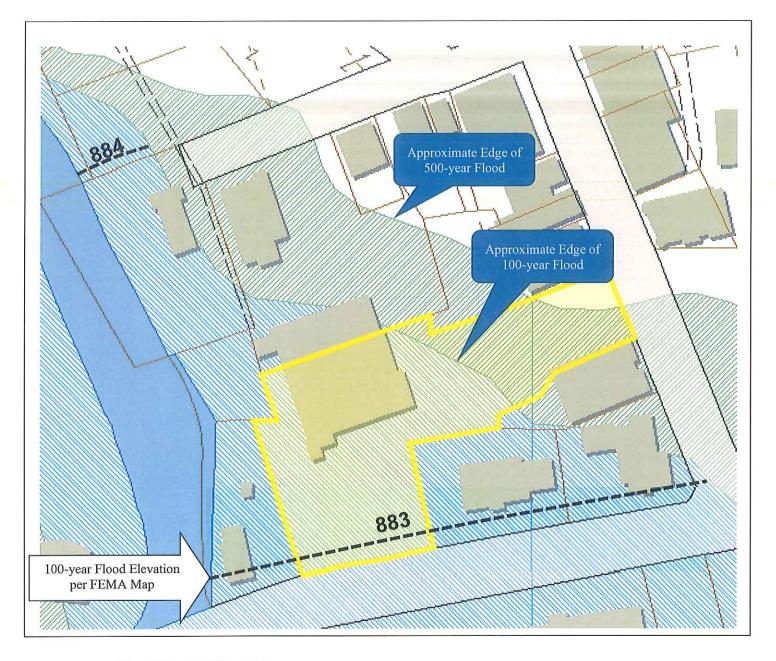


Source: Town of Lee GIS

FIGURE #2

U.S.G.S. Map 88 West Park Street Lee, MA



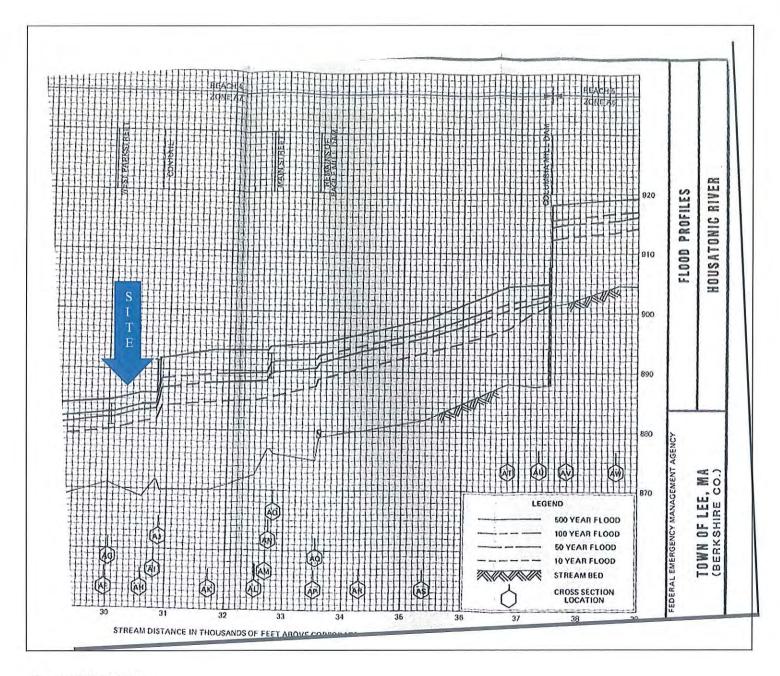


Source: Town of Lee GIS and FEMA website

FIGURE #3

FEMA Floodplain Map



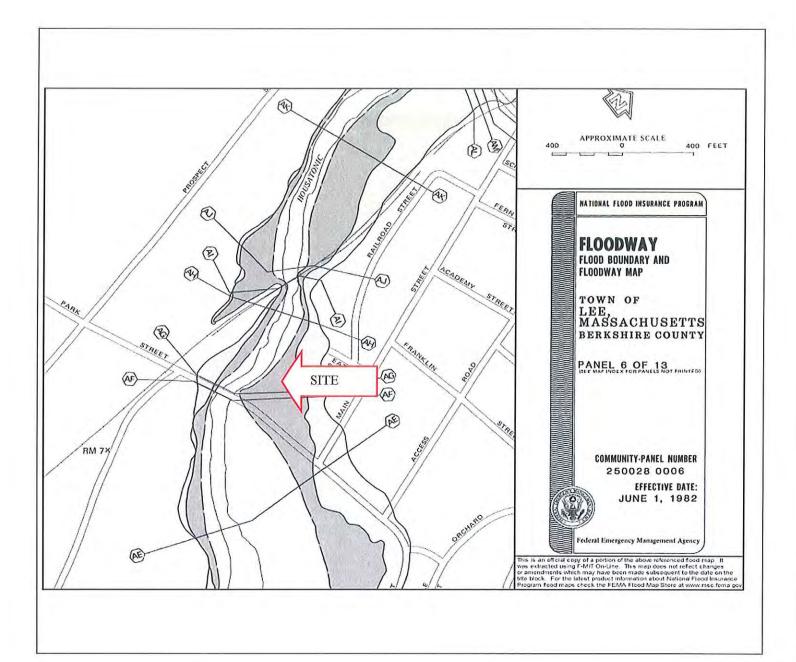


Source: FEMA Maps

FIGURE #4

FEMA Flood Profile





Source: FEMA Maps

FIGURE #5

FEMA Flood Profile





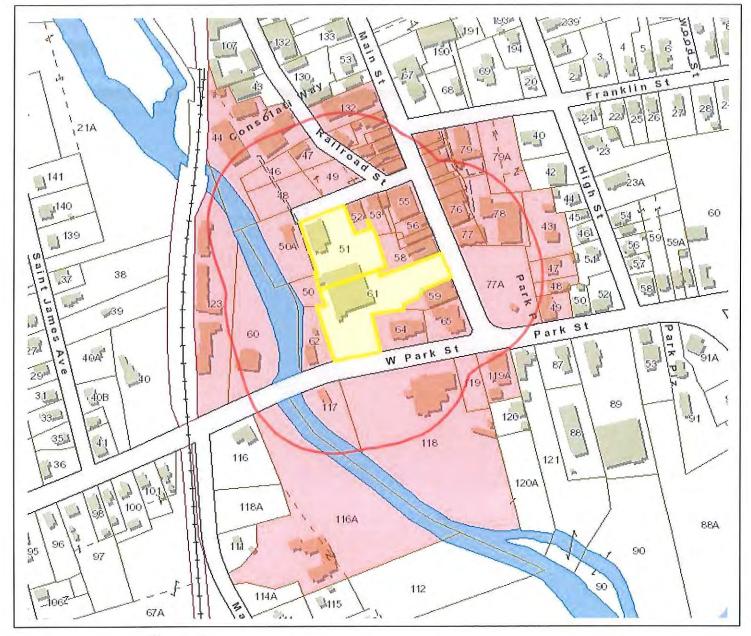
PRIORITY & ESTIMATED HABITAT

Source: Mass Oliver GIS

FIGURE #6

NHESP MAP 88 West Park Street Lee, MA





Source: Lee Assessor's Office

FIGURE #7

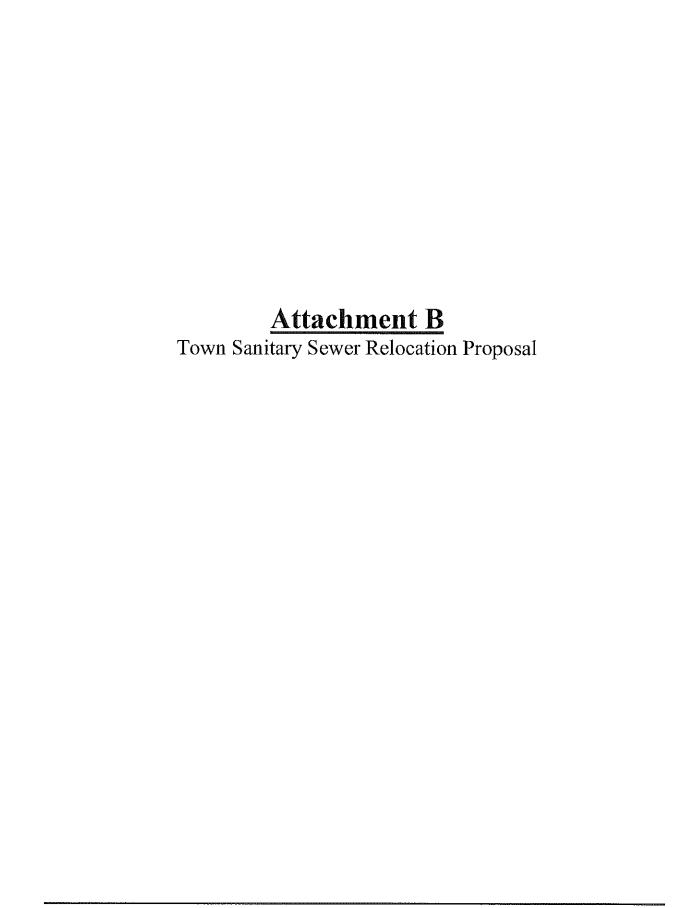
300' ABUTTER'S MAP



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Attachment A Traffic Analysis

(Separate Attachment)



Lenart Consulting Services, LLC 408 Memorial Drive

408 Memorial Drive Chicopee, MA 01020 413-535-5754

L-021-00 July 30, 2020

Alan Zerbato, Superintendent Department of Public Works Town of Lee 45 Railroad Street Lee, MA 01238

Re: Price Chopper Development Site

Town Sanitary Sewer Relocation Proposal

Lee, MA

Dear Alan:

As requested, Lenart Consulting Service has made a review of the proposed relocation of the Town Lee's existing sanitary sewer by Benchmark Development for the proposed development at the former Price Chopper site.

The existing sanitary sewer main interceptor pipeline crosses the area to be developed to the west. The initial relocation preliminary plan submittal from the developer indicated that there was inadequate clearance between the development and pipeline and there was not adequate space for easement access to the sewer for maintenance, if necessary. The proposed structure feature conflict with the existing pipeline and inadequate easement resulted in the developer providing an alternate relocation plan for the sewer pipeline, manholes and easement and to accommodate the proposed development, to the east side of the proposed Phase 1 building.

Lenart Consulting Service, LLC (LCS) issued a letter of understanding to Benchmark Development indicating that the intent of the review was to ensure that the relocation design and relocation of the sanitary sewer is in full conformance with the Town's utility installation standards and good engineering practice for design, quality of materials, construction methods and access for future maintenance. Also, since the sanitary sewer to be relocated is an active pipeline that conveys raw sewerage, means and methods are required to insure that the sewerage flow is not interrupted, diverted for discharge to any location without adequate treatment and the hydraulic capacity of the pipeline altered decreasing the original pipeline capability.

The proposed relocation involves routing the pipeline east of the proposed Phase 1 building, between a variety of existing other utilities and obstructions. This new route results in the length of the relocation being of a longer length than the section of pipeline in conflict with the Phase 1 proposal. The relocation, with the longer length, results in the slope of the pipe being flatter in

order to meet the existing pipeline downstream of the development. The flatter slope will result in the sewerage flow velocity being slower and the depth of flow deeper in the new pipeline section.

The developer's engineer, SK Design Group, Inc., was asked by Lenart Consulting Service, LLC to conduct investigations into the existing flow rates and flow depths in the existing pipeline and calculate the expected flow rates and flow depth conditions in the section of pipe being relocated, at a flatter slope.

SK's evaluation spanned over 3 months involving spot checks of the existing flow and depth in the Town's existing sewer and calculation of flow in the proposed replacement sewer pipeline.

Based on the preliminary design and investigation data that SK presented to date, it can be concluded that the proposed relocation with the added length and flatter slope will not create any adverse hydraulic issues in the Town's sewer pipeline. Also, the additional sewerage discharge stated by SK, from the proposed development, will not adversely affect the hydraulics of the Town's sewer pipeline.

The Department of Public Works should require, from the developer, the following for review before construction of the relocation begins:

- 1. Final design plans with proposed materials with means and methods for installation.
- 2. Easement plan and description per Town Counsel's requirements.
- 3. Proposed methods for continuous by-pass pumping or diversion of sewerage during construction.
- 4. Provisions for flexibility at manhole connections to the existing AC pipe. Rigid connections could fracture the AC pipe if there is any settlement of the new manhole structure. Normally a pipe joint is provided within 2-feet of the manhole during new construction.
- 5. Schedule for allowing curing of any concrete used for brick manhole shelf and inverts before reactivating the sewer.
- 6. Procedures and methods for testing the new pipeline and manholes for leakage before reactivation.

The sewer service pipe from the building is shown on the preliminary plan connecting into a manhole, which is appropriate and proper for maintenance, if needed. The service may have a significant vertical drop to the main sewer invert. To avoid excessive pipe slope, the connection should be done with the use of outside concrete encased drop inlet for discharge into the sewer at a suitable elevation with a channel in the manhole brick shelf.

I appreciate the opportunity to submit this review. Should you have any questions regarding the contents of this letter, please contact the undersigned at 413-535-5754.

Very truly yours,

LENART CONSULTING SERVICE, LLC

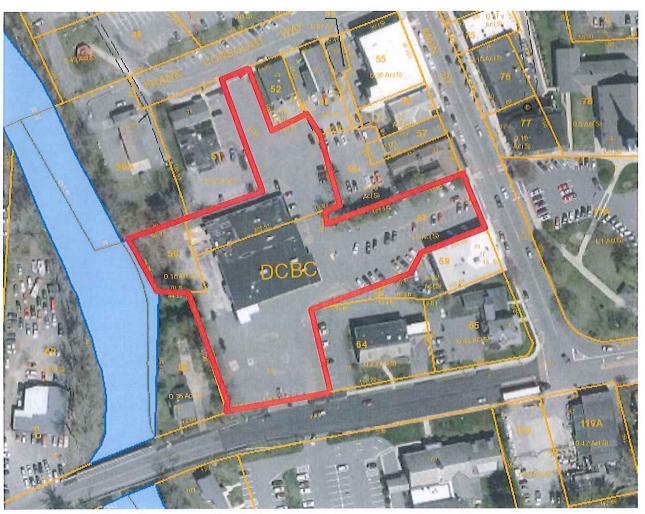
David M. Lenart, P.E.

Owner

Attachment C Stormwater Report

STORMWATER REPORT

Benchmark Development 88 West Park Street Lee, Massachusetts August 2020



Prepared by:



SK Job Number: 190103

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	1.3	POST-DEVELOPMENT DRAINAGE CONDITIONS				
	1.4	ENVIRONMENTAL SENSITIVE SITE DESIGN				
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SECTION 1.0

PROJECT NARRATIVE

1.1 PROJECT DESCRIPTION

The project site is the former Price Chopper Supermarket, which closed in 2017. The building was constructed in the 1960s. Prior to Price Chopper, the property was used by various commercial businesses dating back to the 1920s. The site is approximately 2.2 acres and is essentially fully developed with the building and pavement.

The proposed project includes the demolition and removal of the existing building and the construction of two new buildings. Phase 1 will include a residential apartment building at the west side of the property and Phase 2 will include a mixed-use commercial and residential building adjacent to Main Street. The majority of the existing parking lot will be reconfigured, and various site improvements will be made.

The project is considered a redevelopment project and thus the stormwater manage standards will be met to the maximum extent practical.

1.2 PRE-DEVELOPMENT DRAINAGE CONDITIONS

The majority of the existing stormwater is somewhat managed via several catch basins which collect surface water and discharge into the town stormwater system on West Park Street. The town system appears to discharge to the Housatonic River. There is minimal treatment if any, and no mitigation of peak storms or infiltration provided. There is small area of developed area west of the existing building which flows towards the Housatonic River with no structures.

1.3 POST-DEVELOPMENT DRAINAGE CONDITIONS

As part of the site improvements, a new stormwater management system will be constructed. This will include catch basins and manholes to collect the stormwater and direct it into an underground infiltration system. The infiltration system will promote groundwater recharge and reduce the runoff rate of the stormwater. The stormwater will discharge into the town system, similar to what it currently does.

The system has been designed to mitigate the 2, 10, 25 and 100-year storm events, provide treatment of TSS and infiltration. These are improvements over existing conditions.

1.4 ENVIRONMENTALLY SENSITIVE SITE DESIGN

Per the Massachusetts Stormwater Handbook, and as detailed in the Massachusetts Stormwater Report Checklist the applicant has considered environmentally sensitive site design and low impact development techniques for the project.

Environmentally Sensitive Project Approach

The existing site was evaluated as a whole and it was determined where the existing line of activity was, or development envelope. This included all hardscape features, as well as mowed turf lawns. Some naturally vegetated areas are located along the sloped bank of the Housatonic River. The proposed project respected the limit of the existing natural vegetation and left it undisturbed. Work areas are limited to those areas previously altered by human activity.

No disturbance to any Wetland Resource Areas

The project design avoids impacts to the resource areas on-site. No wetlands will be disturbed as part of this project. The project site is a redevelopment project within the Riverfront and Bordering Land Subject to Flooding of the Housatonic River. The proposal meets riverfront redevelopment standards outlined in the Wetlands Protection Act. Both of these areas were previously altered.

Fit into the Development of the Terrain

The Phase 1 building will be constructed generally in the same footprint as demolished building. New parking areas are proposed over existing parking areas with additional landscaped areas to reduce impervious cover. Portions of the site located within floodplain were carefully designed to meet design criteria outlined in the Wetlands Protection Act in addition to being sensitive to stormwater considerations.

Reproduce Pre-Development Hydrological Conditions

The project has been designed in accordance with the Stormwater Management Standards to meet or reduce the pre-development run-off produced with the site. Outlined below depicts how the project reduces run-off for the 2-year, 10-year, 25-year and 100-year storm events. The proposed development mimics existing drainage patterns as well.

Preserve and use Natural Drainage Systems

The existing site is captured in a series of drainage structures and underground piping, or unmitigated. The proposed development uses this same concept. However, more catch basins and an underground infiltration system is proposed. NO additional point source discharges are proposed to the Housatonic River and no increase of stormwater flows is proposed.

1.5 STORMWATER MANAGEMENT STANDARDS

A Stormwater Report must be submitted for every project subject to the requirements of the Wetlands Protection Act which include a point source discharge to a resource area and the Stormwater Management Standards. This report will document compliance with all ten (10) standards outline in the Stormwater Management Handbook and depict compliance with the proposed project and said standards.

The report is prepared under the direction of the Professional Engineer as well as the project plans. This supporting documentation assists in the review of projects that are before Conservation Commissions. The required computations for each of the standards can be seen below:

The project is considered a redevelopment project and thus the stormwater manage standards will be met to the maximum extent practical.

Standard #1 - Computations to show that discharges do not cause scour or erosion.

Each point source discharge must be shown that it is compliance with this standard.

The project proposes to reutilize the existing outlet into the Housatonic River. Under proposed conditions less flow will reach the existing pipe outlet which will reduce scour and erosion potential. The northern portion of the site will continue to sheet flow as it currently does, but at a lesser flow rate.

Standard #2 - Peak Rate Attenuation

The enclosed HydroCAD calculations show that peak storms, 2-year and 10-year storms are mitigated. This requires that post development flows are at or less than pre-development flows. This standard also requires that no off-site flooding impacts will occur during the 100-year storm event. The peaks flow to the design point can be seen below:

Design Points

DESCRIPTION	LOCATION
DP-N	West side of Existing Building
DP-S	West Park Street
DP River	Combined Flows from Site at River

Existing Flows (Pre-Development)

DESCRIPTION	2-YR PEAK FLOW (cfs)	10-YR PEAK FLOW (cfs)	25-YR PEAK FLOW (cfs)	100-YR PEAK FLOW (cfs)
DP-N	2.09	3.16	4.00	5.68
DP-S	5.30	7.96	10.02	14.21
DP River	7.38	11.12	14.01	19.87

Proposed Flows (Post-Development)

DESCRIPTION	2-YR PEAK FLOW (cfs)	10-YR PEAK FLOW (cfs)	25-YR PEAK FLOW (cfs)	100-YR PEAK FLOW (cfs)
DP-N	1.47	2.38	3.08	4.48
DP-S	3.56	5.50	8.60	9.64
DP River	4.59	7.16	10.74	13.89

As seen in the tables above, the 2-year and 10-year storms have been mitigated in accordance with the standards. Additionally, the 25-year storm was evaluated. The project also cannot increase off-site flooding impacts during the 100-year storm event. It is not required to mitigate the 100-year storm, but this project has mitigated it. It should also be noted most of the development are is located within the 100-year storm event. On-site flooding is likely to occur because of the proximity of the Housatonic River.

Standard #3 - Stormwater Recharge

Method of Recharge used: Static

NRCS Soil Survey of site: The Soil Survey classifies the on-site soils as Pittsfield Urban Land Complex, which mainly consists of developed areas. Test pits were performed across the entire development site. Soils were found to be somewhat disturbed, but mainly the subsoil classified as a Sandy Loam. Classification of the onsite soils as observed by a Competent Soils Professional has classified the soils as Hydrological Soil Group B. The locations of these test pits are on the project plans and the test pit information can be seen herein.

Minimum Infiltration Rate: It has been determined from the soil conditions found on site that the Rawl's Infiltration Rate for Stormwater is 1.02 inches/hour.

TSS Treatment: 80% TSS removal is required for any project with a discharge to a protected area in the Wetlands Protection Act. This project is considered redevelopment, and thus will be met to maximum extent practical. The northern portion of the site will continue to sheet flow as it currently does. The

middle section of the site will provide 85% TSS removal. The southern section of the site will provide 25% TSS removal. The calculations for the TSS removal have been attached in Section 6.0.

The Housatonic River is considered a cold-water fishery therefore the project proposes discharges to a critical area. Also, the project site is a Land Use with Higher Potential Pollutant Load (LUHPPL) for traffic counts greater than 1,000 vehicle trips per day. These criteria require pretreatment of stormwater into infiltration features, except run-off from non-metal rooftops, to be treated with a minimum 44% TSS removal prior to infiltration.

Soil Evaluation

Soil tests pits were performed at the site to determine the soil conditions, presence of ledge and seasonal high groundwater. These test pit results can be seen attached herein.

Required Recharge Volume

As noted in the stormwater handbook, the required recharge volume is equal to the target depth factor multiplied by the total impervious area on site.

"B" Soils = 84,250 s.f. x 0.35"/12 = 2,457 cubic feet required

Sizing

There are three (3) possible methods to sizing infiltration units; static, simple dynamic and dynamic field method.

This project proposes the static method for infiltration sizing. This method assumes that there is no exfiltration until the entire recharge device is filled to the elevation associated with the require recharge volume. Therefore, the amount of required recharge volume $\approx 2,457$ cubic feet.

The proposed infiltration bed provides 2,875 cubic feet, and thus this requirement is met.

Drawdown within 72 hours

A requirement of the standards is that any infiltration unit proposed must be able to completely drain within 72 hours. This is determined, in the static method, by using the same Rawls Rate used to size the system, the bottom area of the system. This will determine approximately how long it will take to drawdown the system. The formula for drawdown is as follows:

Time = required volume / Rawls rate * bottom area of system. Rawls rate = 1.02 Infiltration bed = 2,457 / (1.02/12 * 630) = 46 hours. This requirement is met.

Mounding Analysis

Test pit information for the infiltration bed shows groundwater at greater than 8 feet. The proposed infiltration bed is approximately 4 feet below grade and will have a minimum of 4 feet separation to groundwater, and thus a groundwater mounding an analysis is not required.

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Standard #4 Water Quality

Water Quality Volume:

The site is discharges to a critical area and is considered a LUHPPL, thus the water quality depth is 1" time the total impervious area.

V = (water quality depth / 12 inches/foot) * (impervious area in square feet) = volume in cubic ft <math>V = (1 / 12) * 84,250 square feet = 7,020 cubic feet.

When a BMP is sized for both recharge and water quality, the larger volume is required to be met. The proposed infiltration bed provides 2,875 cubic feet of storage. This is less than the required amount, but because the site is redevelopment, this Standard is required to be met to the maximum extent practical. Refer to the Standard #7 – Redevelopment below.

Stormwater Treatment Train

Please see attached TSS Removal Form for the stormwater train in Section 6.0.

Standard #5 Land Uses with Higher Potential Pollutant Loads

The project will trigger a LUHPPL by creating over 1,000 vehicle trips per day. The Traffic Impact Analysis submitted as a part of the Special Permit and Site Plan Review Application stated that the development will generate over 3,000 vehicle trips per day.

Sites that are LUHPPL's require a detailed source control and pollution prevention plan, in addition to providing 44% TSS removal prior to infiltration and treating the 1.0 inch of runoff.

As noted above, greater than 44% TSS will be removed prior to infiltration. Please see below for compliance with treatment of the water quality volume under the redevelopment criteria.

Stormwater Pollution Source Reduction Plan

Project: Benchmark Development

Date: August 2020

The following Stormwater Pollution Source Reduction Plan was developed for the proposed Benchmark Development Mixed Use project. The project is considered one with higher potential pollutant loads due the volume of traffic anticipated upon full build-out (greater than 1,000 vehicle trips/day). As such, the following source controls will be implemented throughout the site:

Source reduction plan:

1. Snow stockpiles will be located such that meltwater will drain only into one or more of the proposed catchment devices.

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- 2. Sweeping of paved surfaces shall occur on a regular basis;
- 3. Catch basins shall be equipped with a 4'-0" deep sump *and* hooded outlet (oil/water separator). This structure shall be maintained in accordance with the Operations and Maintenance Plan;
- 4. The application of de-icing agents shall be limited to times when necessary and only in areas with frequent pedestrian traffic. Close-to-pavement plowing shall be the preferred method of keeping paved surfaces safe for pedestrian and vehicular traffic;
- 5. No de-icing agents will be stored in areas without proper cover.
- 6. Install cigarette butt bins and permanent recycle bins near all commercial and business use.

Standard #6 Critical Areas

The Housatonic River is considered a cold-water fishery, which is a critical area. This makes the required water quality volume be computed using 1" of run-off. This also requires that stormwater be treated with 44% TSS removal prior to infiltration BMP's and general BMP's specific for discharging to critical areas.

As noted above, greater than 44% TSS will be removed prior to infiltration. Please see below for compliance with treatment of the water quality volume under the redevelopment criteria.

Standard #7 Redevelopment

This project is a redevelopment site. The majority of the Riverfront Area on the site was developed and has degraded areas prior to 1996. The previous development includes the building (constructed in the 1960s) and surrounding pavement. The application has met the required standards to the maximum extent practical.

The project design followed the guidance outlined in Volume 2, Chapter 3 – Checklist for Redevelopment Projects as outlined in the Stormwater Management Handbook. This guidance describes what a redevelopment project is and how project are required to comply, either fully or to the maximum extent practicable, with the standards.

The project fully complies with the requirements of Standards 1, 2, 5, 6, 7, 8, 9 and 10. This information can be seen herein and within the supporting documentation. The project meets the maximum extent practicable for Standards 3 and 4 in accordance with the checklist. The project has taken all measures to capture currently untreated stormwater and manage it on-site, treat it through stormwaters best management practice and infiltrate where it currently is not. The project meets the groundwater recharge volume as a whole but do to the aerial extent of all impervious areas and required treatment, it is not feasible to capture at least 65% of the site into infiltration BMP's. All new structures will meet the current design requirements. The project has also included more vegetated surfaces with the ability to treat stormwater and reduce flow paths. The stormwater was designed in smaller, micro-watersheds in order to provide treatment to smaller areas and break up large impervious areas, where possible. The site is significantly constrained do the location of the river and undisturbed vegetated, lot configuration and the presence of existing site features and zoning requirements. The notice of intent narrative depicts compliance with the riverfront redevelopment standards.

Standard #8 Construction Period Controls

Proposed area of disturbance overall site: 2.2 ± acres

A NPDES stormwater pollution prevention plan is required to be filed on sites disturbing more than one (1) acre of land. A NPDES plan will be filed prior to construction.

Standard #9 Operation and Maintenance Plan

Please see the enclosed Operation and Maintenance plan for the proposed stormwater system prepared for Benchmark Development.

Standard #10 Illicit Discharges to Drainage System

Please see the enclosed Illicit Discharge Statement and accompanying plan to show that no discharges other than Stormwater will be directed into BMP's. Also, if any illicit discharges are found, they will be remedied immediately.

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1.6 CONCLUSION

The proposed project is the redevelopment of a vacant paper mill and surrounding properties. The project is fully compliant with Standards 1, 2, 5, 6, 7, 8, 9 and 10 of the Stormwater Management Standards and meets maximum compliance with Standards 3 & 4. The site constraints and economics restrict full compliance with all 10 Standards. The site development is a great improvement over the existing unmitigated, untreated stormwater run-off. No negative impacts will result as a part of the proposed development.

SECTION 2.0

Operation and Maintenance Plan

of

The Stormwater System

For

Benchmark Development

Located at

88 West Park Street

Lee, Massachusetts

April 2020

Background

Once rain reaches the ground, what happens next depends largely on land cover type. Rain falling in a forest is slowed, filtered, and absorbed as it makes its way into the ground or to the nearest stream, river, or reservoir. In contrast, hard, impervious surfaces such as roof tops and roads send stormwater rushing to the nearest ditch, culvert, storm drain, and stream. This stormwater picks up pollutants, such as heavy metals, gas, oil, nutrients, and sediment along the way. Uncontrolled stormwater erodes stream banks, causes flooding, and carries nutrients and sediment downstream. An excess of nutrients contributes to the expansion of oxygen-depleted "dead zones" in local waterways. The solution to improve the quality and reduce the quantity of stormwater runoff before it enters natural waterways are referred to as Best Management Practices, or BMPs. BMPs range from structural facilities, such as ponds, bio-retention areas, and underground vaults, to non-structural practices, such as street sweeping and educational efforts.

Routine maintenance will keep a **BMPs** functioning properly and will pay off in the long run by preventing unnecessary repairs. Also, preventing pollutants from reaching the **BMP** will result in lower maintenance costs and cleaner water.

Common Routine Maintenance Needs for Most BMPs

- Regular Inspections
- Vegetation Management
- Mowing
- Pest and Weed control
- Removing Sediment Build-Up
- Stabilize Eroded Areas or Bare Spots
- Unwanted Vegetation
- Embankment and Outlet Stabilization
- Debris and Litter Control
- Mechanical Components Maintenance
- Insect Control
- Access Maintenance
- Overall Pond Maintenance
- Regular Inspections

Each of the above is briefly described below:

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Vegetation Management

Most **BMPs** rely on vegetation to filter sediment from stormwater. Vegetation also serves to prevent erosion of the banks and stabilize the bottom of the facility. While turf grass is the most common groundcover, many **BMPs** are designed with woody vegetation and wetland plants to increase pollutant removal.

Mowing.

Most grass is hardiest if it is maintained as an upland meadow. Therefore, grass within BMPs (drainage channels) should not be mowed shorter than six to eight inches. Grass should be cut at least twice during the growing seasons and once during the summer.

Pest and Weed Control

To reduce the amount of pollutants reaching the BMP, avoid using any fertilization and/or pesticides.

Removing Sediment Build-Up.

Since the vegetation surrounding the **BMP** is designed to trap sediment, it is likely to become laden with sediment. When this happens, the sediment should be removed prior to it rendering the **BMP**s ineffective.

Stabilize Eroded Areas or Bare Spots.

Bare spots should be vigorously raked, backfilled if needed, covered with top soil, and seeded. This is particularly import during the initial construction period.

Unwanted Vegetation.

Some vegetation is destructive to a **BMP**. Keeping dams and bottom areas free of deep-rooted vegetation is critical as roots may destabilize the structure. Consistent mowing and monitoring will control any unwanted vegetation.

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Embankment and Outlet Stabilization

A stable embankment is important to ensure that erosion does not contribute to water quality problems and that embankments are not breached resulting in downstream flooding. Maintaining a healthy vegetative cover and preventing the growth of deep-rooted (woody) vegetation on embankment areas is an important component to stabilization. Animal burrows will also deteriorate the structural integrity of an embankment. Muskrats and groundhogs in particular will burrow tunnels up to six inches in diameter. Efforts should be made to control excessive animal burrowing and existing burrows should be filled as soon as possible. Outlet structures are particularly prone to undercutting and erosion. Unchecked, a small problem can easily result in the need to replace the entire structure. A professional engineer should be consulted if sink holes, cracking, wet areas around the outlet pipe, displacement, or rusting of the pipe is observed.

Debris and Litter Control

Regular removal of debris and litter can be expected to help in the following areas: reduce the chance of clogging outlet structures and trash racks; prevent damage to vegetated structures; reduce mosquito breeding habitats; maintain facility appearance; and, reduce conditions for excessive algae growth. Special attention should be given to the removal of floating debris which can clog inlets, outlets, and low-flow orifices.

Mechanical Components Maintenance

Some **BMPs** have mechanical components that need periodic attention - valves, sluice gates, pumps, **antivortex devices**, fence gates, locks, and access hatches should be functional at all times. This type of routine maintenance is best left to a professional.

Insect Control

A healthy ecosystem actually promotes biological controls of mosquitoes. However, mosquito and other insect breeding grounds can be created by standing water. Though perceived as a significant nuisance, mosquitoes are not as big a problem as is often thought, and there are ways to address the issue.

The best technique is to ensure that stagnant pools of water do not develop. For **BMPs** that have a permanent pool of water, this means the prompt removal of floatable debris.

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The development of a mosquito problem, particularly in dry ponds, infiltration trenches, and rain gardens, is usually an early indication that there is a maintenance problem, such as clogging. In such cases, the infiltration capacity of the **BMP** needs to be increased or sediment needs to be removed.

Access Maintenance

Most **BMPs** are designed so that heavy equipment can safely and easily reach the facility for non-routine maintenance. Routine maintenance of access areas is particularly important since one never knows when emergency access will be needed. Maintenance includes removal of woody vegetation, upkeep of gravel areas, fences, and locks.

Overall Pond Maintenance

An often overlooked aspect of maintenance, especially for wet ponds, is the need to ensure a healthy aquatic ecosystem. A healthy ecosystem should require little maintenance. An indicator of an unhealthy system is excessive algal growth or the proliferation of a single species of plant in the permanent pool of a wet pond. This may be caused by excess nutrients from fertilization practices (of a landscape company or surrounding neighbors), or by excess sediment. Steps should be taken to reduce excess nutrients at their source and to encourage the growth of native aquatic and semi-aquatic vegetation in and around the permanent pool.

Goals of this document

- > Section 1: Identify Facility Characteristics and Maintenance Needs
- Section 2: Outline Routine Inspections
- > Section 3 Define Maintenance Tasks, for each BMP
- Section 4 Establish a Record Keeping Procedure

Identify Facility Characteristics and Maintenance Needs

Understand how the facility works and its specific maintenance needs. The system owner and the Best Management Practices (BMPs) included in the system are outlined below:

Stormwater Management System Operator: Benchmark Development

- The owner of the property will be responsible for the operation and maintenance of the system.

 The maintenance will be performed by a combination of hired staff and an appropriate contractor.
- Future property owners will be made aware of this Operation & Maintenance Plan by means of a condition in the Order of Conditions. The Condition attached to the deed will indicate that there is a long-term plan that must be followed in perpetuity.
- The following documentation describes the maintenance required for each stormwater best management practice (BMP). The BMPS are as follows:
 - o Deep Sump Catch Basins/Drain Manholes
 - o Underground Infiltration Bed
- The project plans have been attached, which shows the locations of the BMPs that must be maintained.

Note that all waste should be disposed in accordance with applicable local, state, and federal guidelines and regulations.

Perform Routine Inspections

The frequency of required inspections is dependent upon the BMP and is outlined below. Inspections and maintenance of the stormwater system is the responsibility of the property owner and/or operator. BMPs will be visually inspected in accordance with the following chart

			What	to Lo	What to Look For			
	Inspection Frequency	Evosion	Tree growth	noitatagaV	Slope integrity siyash Debris	Juamibas	accumulatio the second of the	Remarks
1. Deep Sump Catch Basin	Monthy (yr #1 then annually)				>	>	>	Inspect outlet hood and inlet grate. Remove sediment once it reaches a depth of 2'-0"
2. Underground Infiltration Bed	Monthly (yr #1 then annually)				>	>	>	Inspect Inlet Manholes, Remove debris as needed. Use vacuum truck to clean isolator row as needed

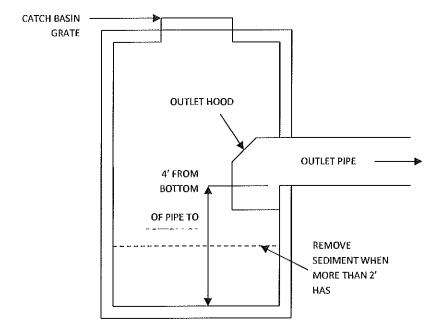
Define Maintenance Tasks, for each BMP

Defining maintenance tasks and who will undertake these tasks – along with establishing a regular inspection program - is the core of a successful stormwater management facility maintenance program. Each BMP is outlined as follows:

- o Section 3.1 Deep Sump Catch Basin
- o Section 3.2 Underground Infiltration Bed

Section 3.1-Deep Sump Catch Basins

- Inspect four times a year for sediment (and debris) accumulation and integrity of structure(s). The outlet hood should be inspected to ensure that it is still attached properly.
- Cleaned a minimum of four times per year or when sediment accumulation is greater than 50% within sump.
- The sump in the catch basin is four feet deep; therefore if there is less than two feet of capacity beneath the pipe the accumulated sediment should be removed. The availability capacity of the sump can be checked by using a measuring tape and measuring from the catch basin grate as a reference point. The distance between the bottom of the pipe and the accumulated sediment should be at least two feet, but it is difficult to measure this distance because of the outlet hood. A conservative approach is to measure the distance from the bottom of the hood to the accumulated sediment, which if this distance is less than 2 feet then the sediment should be removed.

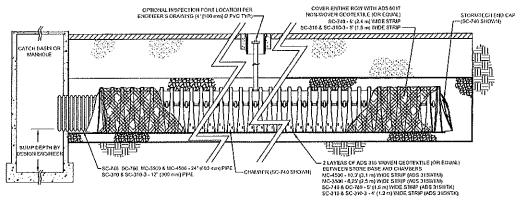


- The sediment should be removed by means of a vacuum pump or clamshell bucket.
- All waste from catch basins should be treated as solid waste and disposed in accordance with applicable local, state, and federal guidelines and regulations.
- Clean snow and ice during winter.

The Tree Box Filter consists of an open bottom concrete barrel filled with a porous soil media, an underdrain in crushed gravel, and a tree. Stormwater is directed from surrounding impervious surfaces through the top of the soil media. Stormwater percolates through the media to the underlying ground. Treated stormwater beyond the design capacity is directed to the underdrain where it may be directed to a storm drain, other device, or surface water discharge.

Section 3.2 – Underground Infiltration Chambers with Isolator Row and Manifold

StormTech Isolator Row (not to scale)



NOTE: NON-WOVEN FABRIC IS ONLY REQUIRED OVER THE INLET PIPE CONNECTION INTO THE END CAP FOR DC-780, MC-3500 AND MC-4500 CHAMBER MODELS AND IS NOT REQUIRED OVER THE ENTIRE ISQLATOR ROW.

- The underground infiltration chambers utilize a drain manhole, isolator row, and manifold to distribute stormwater.
- There is a manhole, located at the entrance of the chambers, which provides access for inspection and maintenance of the isolator row and manifold. There are also inspection ports located above the rows, to inspect for sediment.
- The isolator row and manifold should initially be inspected immediately after completion of the site's construction.
- The isolator row and manifold should be inspected <u>bi-annually</u> for sediment (and debris) accumulation and integrity of structure(s).
- The Isolator Row should be cleaned if an average depth of 3" or more has accumulated inside the chambers. It should be cleaned a <u>minimum of once a year</u>. A JetVac process with a culvert cleaning nozzle should be used to clean the sediment from inside the Isolator Row.
- The sediment in the manhole should be removed by means of a vacuum pump.
- All waste should be disposed in accordance with applicable local, state, and federal guidelines and regulations.

Establish a Record Keeping Procedure

Establishing a record keeping procedure will help to define chronic maintenance problems and aid in future budget preparation. A periodic examination of maintenance practices will assist in identifying persistent problems early.

Attached is a sample Stormwater Inspection Form.

Stormwater Inspection Form

Project:		
nspector Name:	Weather:	
Date:	Time:	
1. Deep Sump Catch Basin: (each structure to be individually inspected)		
Is sediment depth greater than 2'-0"?	Yes	No
Is structural integrity sound?	Yes	No
Is outlet hood attached?	Yes	No
Is inlet grate clogged?	Yes	No
Action Required:		

^{*}Attach additional pages as necessary.

3. Underground Detention bed

Inspec	t Inlet Manhole					
	Depth of sediment:		_ inches			
	Structural Integrity:	Good		Poor		
Inspec	t Outlet Manhole					
	Depth of sediment:		_ inches			
	Structural Integrity:	Good		Poor		
Action	Required:					

^{*}Attach additional pages as necessary.

-	n serve as confirmation that the stormwater system is being ance with the approved plans and the discharge permit em is in good operating condition.
Signature	Date
Print or Type Name	-
Record Keeping:	
	ting documents, including but not limited to, photographs, kept on file at the premises for a minimum of three (3) years.
G:\SK DESIGN GROUP\2019\190103 Benchmark Dvlpt-88 West Park St, Lee-I sections.docx	Mixed Use Dvlpt\Documents\Word\Stormwater Design\01 Stormwater Report - Compiled w.

SECTION 3.0

Drainage Calculations

The HydroCAD drainage calculations and accompanying plans are over 200 pages in total and have been omitted from this submission. Hard copies are available upon request.

Illicit Discharge Statement

Of

The Stormwater and Sanitary Sewer System

Prepared For

Benchmark Development

Located at

West Park Street and Main Street

Lee, Massachusetts

August 2020

This statement, along with the accompanying plan, verifies that the proposed site does not propose any illicit discharges to the stormwater management systems.

As seen on the enclosed project plans, stormwater is conveyed off-site through open and closed drainage.

The existing sanitary sewer service for the site is connected to the municipal sewer found on the property.

If it is found that any illicit discharges have been constructed or are found on the existing site, action will be taken immediately in accordance with state and local regulations to correct the matter.

Project Proponent

Michael Charles

SECTION 5.0

Soils Test Pits

The soil test pit information can be found on the site plans.

SECTION 6.0

Stormwater TSS Treatment Train

B BMP ¹	C TSS Removal Rate ¹	D Starting TSS Load*	E Amount Removed (C*D)	F Remaining Load (D-E)
Deep Sump and Hooded Catch Basin	0.25	1.00	0.25	0.75
Subsurface Infiltration Structure	0.80	0.75	0.60	0.15
Subsurface Infiltration Structure	0.00	0.15	0.00	0.15
	0.00	0.15	0.00	0.15
	0.00	0.15	0.00	0.15
	Total T	SS Removal =	85%	to be Completed for Each Outlet or BMP Train
Prepared By:	SKDG 8.26.2020		*Equals remaining load from	m previous BMP (E)

	Location:	South Drainage Area			
	B BMP ¹	C TSS Removal Rate ¹	D Starting TSS Load*	E Amount Removed (C*D)	F Remaining Load (D-E)
TSS Removal Calculation Worksheet	Deep Sump and Hooded Catch Basin	0.25	1.00	0.25	0.75
Salcu		0.00	0.75	0.00	0.75
moval Calo Worksheet		0.00	0.75	0.00	0.75
Rem		0.00	0.75	0.00	0.75
TSS		0.00	0.75	0.00	0.75
			SS Removal =	25%	Separate Form Needs to be Completed for Each Outlet or BMP Train
	Prepared By:	Benchmark Dev. SKDG 8.26.2020		*Equals remaining load fro which enters the BMP	m previous BMP (E)

Long Term Pollution Prevention Plan

For

Benchmark Development

Located at

88 West Park Street

Lee, Massachusetts

August 2020

Introduction

A long term pollution prevention plan is key is making sure that few to no preventable pollutants enter the stormwater system. Simple steps, followed in perpetuity, can help minimize the impact of pollution to the maximum extent practicable into the stormwater system.

Overall, following the guidelines below, will allow the system to function properly, more economically and discharge cleaner run-off into the waters of the Commonwealth.

The Long-Term Pollution Prevention Plan typically includes the following:

- Good housekeeping practices
- Provisions for storing materials and waste products
- Vehicle washing controls
- Requirements for routine inspections and maintenance of stormwater BMP's
- Spill prevention and response plans
- Provisions for maintenance of lawns, gardens, and other landscaped areas
- Requirement for storage and use of fertilizers, herbicides and pesticides
- Pet waste management
- Provision for operation and management of septic systems
- Snow disposal and plowing plans relative to wetland resource areas
- Winter road salt and/or sand use and storage restrictions
- Street sweeping schedules
- Provisions for prevention of illicit discharges to the stormwater management system
- Documentation that stormwater BMP's are designed for shutdown and containment in the event of a spill or discharges to or near critical areas or from a LUHPPL
- Training for staff or personnel involved with implementing long term pollution prevent plan
- List of emergency contacts for implementing long term pollution prevention plan

Each of the above is briefly described below:

Good housekeeping practices

General housekeeping practices are the first defense in minimizing the amount of potential pollutants into the stormwater system. Some of these general practices include monitoring areas around dumpsters for trash and spillage, providing an adequate number of trash receptacles and cleaning up parking lots and sidewalks of litter.

Provisions for storing materials and waste products

It is anticipated materials won't be stored outside on this site.

Waste products will be stored in on-site dumpsters. This should be routinely maintained through a contract with a local trash removal service.

Vehicle washing controls

It isn't anticipated that vehicles will be washed on the premises. The mixed-use development doesn't encourage space to provide for outdoor vehicle washing areas. Vehicle washing areas can be found in town.

Requirements for routine inspections and maintenance of stormwater BMP's

Requirements for inspections and maintenance of stormwater structures can be seen in the Operation and Maintenance Plan, Section 2.0 of the Stormwater Analysis of the submission package.

Spill prevention and response plans

The site contractor, and later the site manager, will be trained on spill prevention and response plans. There will be flyers posted in common employee areas in the buildings, along with emergency numbers on how to clean up minor spills to hazardous spills.

Provisions for maintenance of lawns, gardens, and other landscaped areas

An outside company, such as a local landscaping company, will be hired keep the grounds. These areas will be maintained in accordance with the contact between the two companies. It is expected that the grounds will be immaculately manicured as aesthetics is highly important in a professional business.

Requirement for storage and use of fertilizers, herbicides and pesticides

It is not likely that fertilizers, herbicides or pesticides will be stored on the grounds. These would be provided by the landscape contractor in charge of the lawns, gardens and landscaped areas.

Pet waste management

There will be signs posted stating that you must clean up after your pet and dispose of it accordingly. Pet waste removal stations will be located near the residential buildings.

Provision for operation and management of septic systems

There are no septic systems proposed for this project. The development will connect into the municipal sewer found in West Center Street.

Snow disposal and plowing plans relative to wetland resource areas

During the winter months, snow will be plowed typically by a local contractor. Snow storage areas will be located along all edges of drives and in lawn areas. No snow will be plowed or stored in wetland resource area.

In the chance there is an extreme winter; snow can be trucked offsite to a town approved storage facility.

Winter road salt and/or sand use and storage restrictions

As noted above, typically the parking lots and driveways will be maintained during the winter months by a local contractor. They will supply the necessary salt and/or sand required for the site. No salt or sand will be stored outside at the site.

There is a need for handicap access all buildings per the Architectural Access Board (AAB), therefore the sidewalks will have to be sanded or salted in order to provide safe access.

Street sweeping schedules

The parking lot and sidewalk areas will be scheduled for sweeping and cleaning in the spring. This will clean up any sands, salts and sediment from all the snow melt.

Provisions for prevention of illicit discharges to the stormwater management system

Please refer to Section 4.0 for the Illicit Discharge Statement and accompanying plan, signed by both the applicant and current land owner.

Documentation that stormwater BMP's are designed for shutdown and containment in the event of a spill or discharges to or near critical areas or from a LUHPPL

The site is designed to capture all stormwater run-off from the site in catch basins, which drain into an a number of underground detention beds. The outlet of the western most bed on the north development and the outlet of the southernmost bed on the south development will be fitted with a gate valve that can be closed in the event of a spill. This will allow a clean-up of any spill or discharges prior to outleting to the

adjacent wetlands.

Training for staff or personnel involved with implementing long term pollution prevent plan

Typically the contractor hired to do general maintenance will be responsible for implementing the long term pollution prevention plan.

List of emergency contacts for implementing long term pollution prevention plan

At the time of permitting, it is unknown who will be the contractor responsible for the plan. A list can be created and kept at the front desk of each building.

Attachment D Floodplain Calculations

Floodplain Volume Computations for Benchmark Development West Park Street and Main Street

FLOODPL	AIN CALCU	JLATIONS		
	Cut	/Compensatio	on Volume (C	F)
Elevation	880-881	881-882	882-883	883-883.5
Existing Building Demo	13,200	16,590	17,420	8,710
Grading on Site	0	0	0	0
Total Cut/Compensation	(13,200)	(16,590)	(17,420)	(8,710)

TOTAL VOL	UME
CUT	
CF	CY
55920	2071
0	0
(55,920)	(2,071)

	Proposed Fill (CF)				
Elevation	880-881	881-882	882-883	883-883.5	
Phase 1 (Residential) Building	742	742	742	371	
Phase 2 (Mixed-use) Building	0	4000	6000	6880	
Proposed Grading	4370	1215	0	0	
Total Fill on Development	5112	5957	6742	7251	

FILL			
CF	CY		
2597	96		
16880	625		
5585	207		
25,062	928		

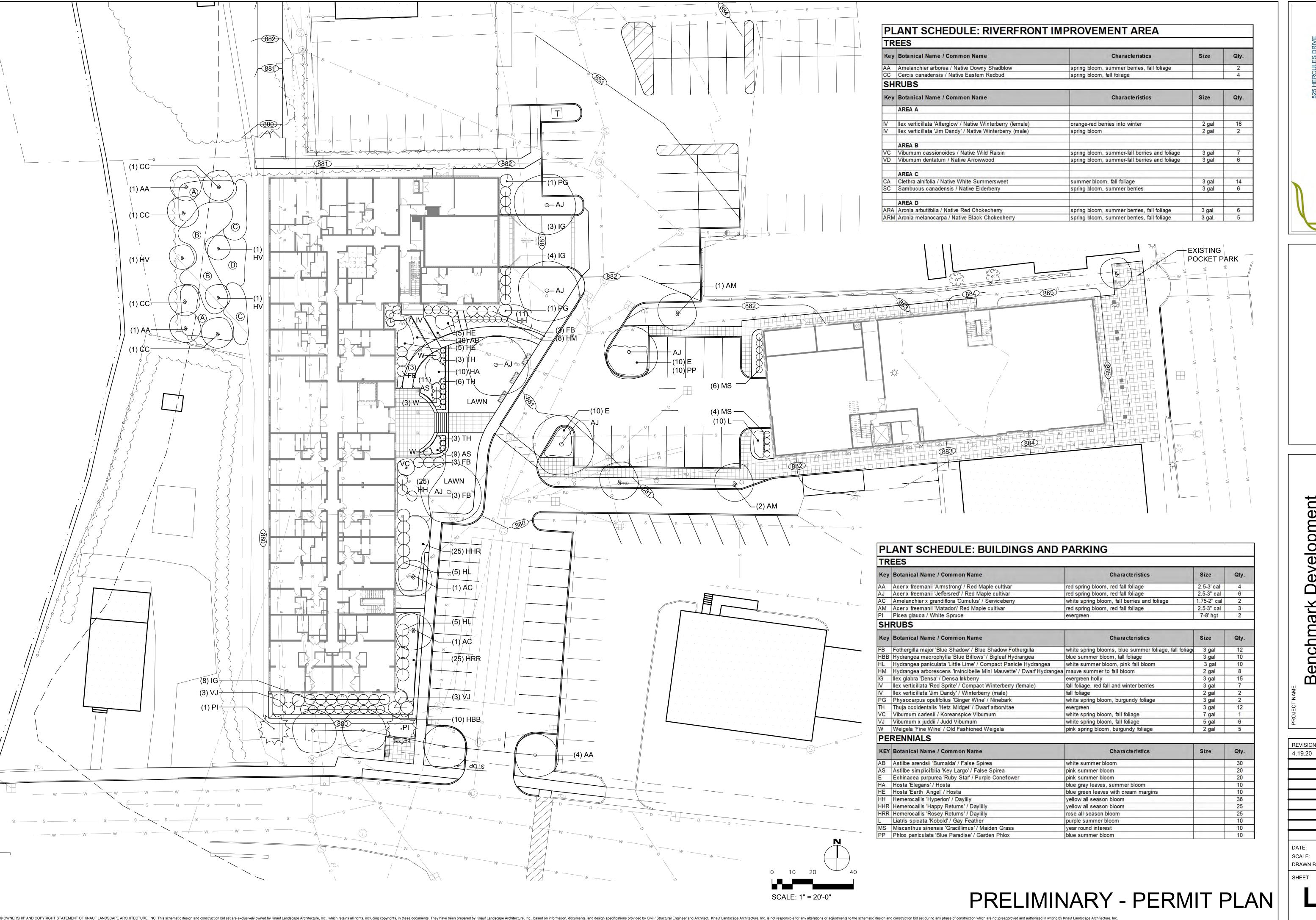
to the second se				
Net Floodplain Calculations	(8,088)	(10,633)	(10,678)	(1,459)

(30.858)	(1,143)

Total Cut on Site	(30,858) Cubic Feet
	(1,143) Cubic Yards

^{*} Numbers in parenthesis () indicate a reduction in volume

Attachment E Landscaping Plan





mark Development

Street
Lee, Massachuse

Benchmark
West Park Street & Main Street

DATE: 4.2.20
SCALE: As Indicated

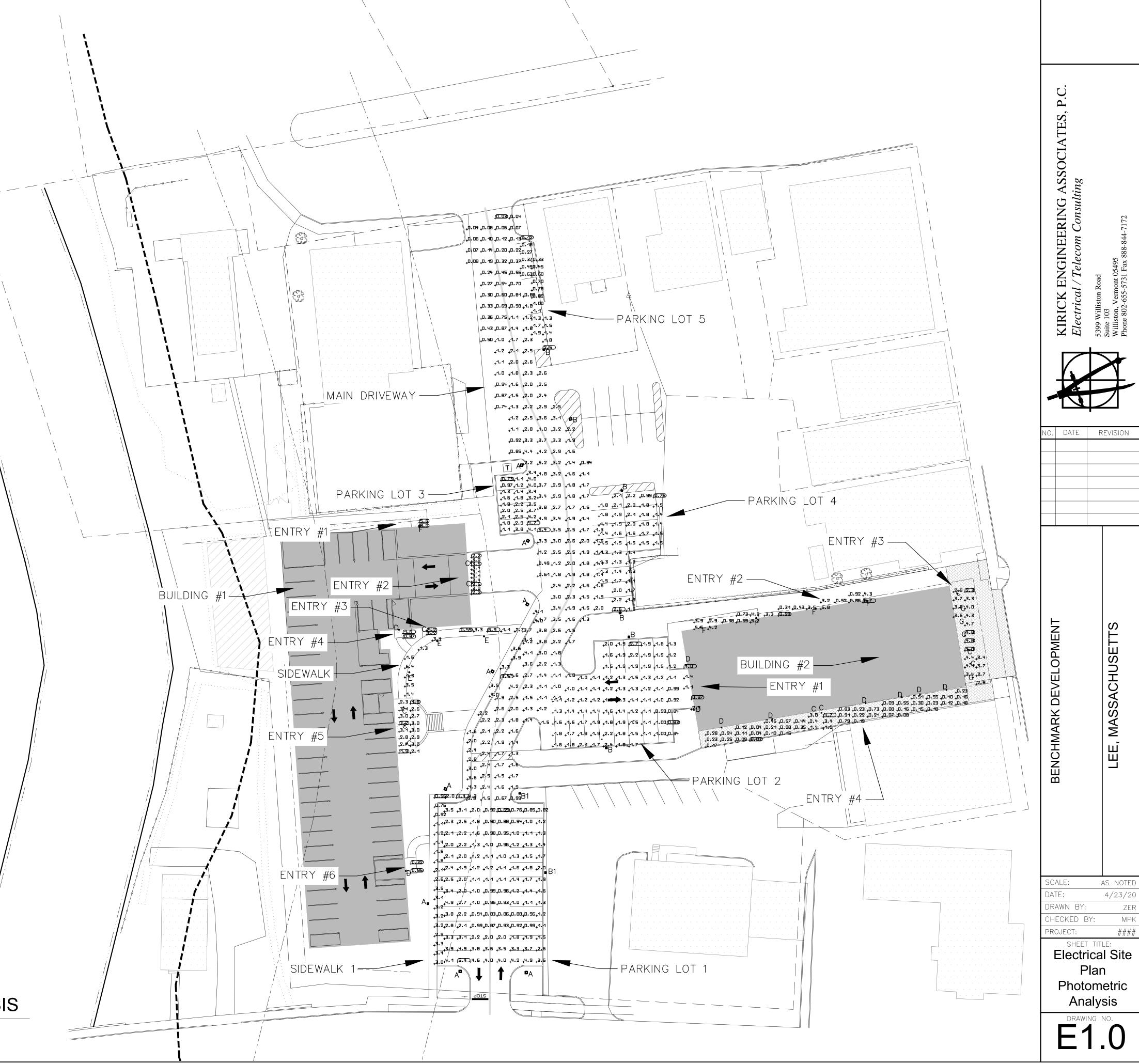
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Attachment F Lighting Plan

			Luminair	e parts list				
Index	Manufacturer	Luminaire type	Item number	Fitting	Luminous flux	Light loss factor	Connected load	Quantit
Α	Beacon Products		TRA30-AC-24N B-55-3K-UNV -DIR3		4801 lm	0.90	57 W	8
В	Hubbell Lighting Inc, dba Beacon Products		VP-S-24L-55- 3K7-3	1xX-70-CRI	5492 lm	0.90	54 W	6
B1	Hubbell Lighting Inc, dba Beacon Products		VP-S-24L-55- 3K7-4	1xX-70-CRI	5400 lm	0.90	54 W	2
С	PROGRESS	1—Lt. Small LED Wall Lantern w/ HAL 9 W Module	P6084-3130K9	1x20 - NICHIA 3000K LEDs	129 lm	0.90	7.6 W	10
D	PROGRESS	5" Edgelit Round — T1 Sample	30	1x36- Bridgelux 3000K LEDs	769 lm	0.90	11.8 W	15
E	BEACON	BRISTOL PARK BOLLARD	BRP42/AF/12N B-36/3K/UNV/ ND5		1662 lm	0.90	37.2 W	3
F	HUBBELL OUTDOOR LIGHTING	Sling Series	SG1-20-3K7-F T	1x	2053 lm	0.50	21.6 W	5

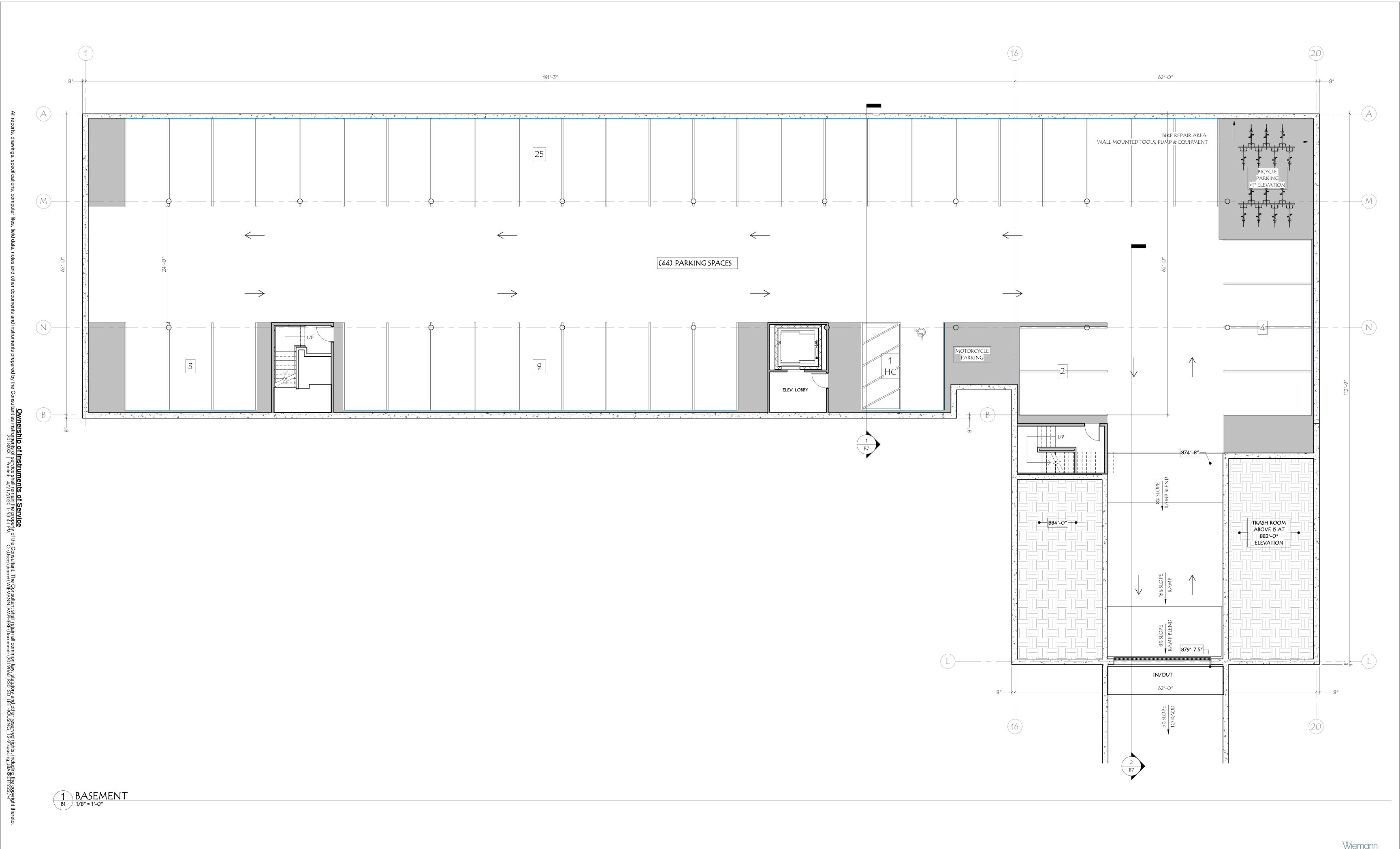
#	Name	Parameter	Min	Max	Average	Min/average	Min/max
1	Parking Lot 1	Perpendicular illuminance (Adaptive)	0.49 fc	6.07 fc	1.91 fc	0.256	0.080
2	Parking Lot 2	Perpendicular illuminance (Adaptive)	0.68 fc	2.71 fc	1.45 fc	0.465	0.250
3	Sidewalk 1	Pèrpendicular illuminance (Adaptive)	0.37 fc	5.47 fc	2.80 fc	0.131	0.067
4	Parking Lot 3	Perpendicular illuminance (Adaptive)	0.57 fc	5.36 fc	2.48 fc	0.229	0.106
5	Parking Lot 4	Perpendicular illuminance (Adaptive)	0.45 fc	2.72 fc	1.66 fc	0.271	0.165
6	Parking Lot 5	Perpendicular illuminance (Adaptive)	0.11 fc	3.10 fc	1.00 fc	0.114	0.037
7	Main Driveway	Perpendicular illuminance (Adaptive)	0.027 fc	6.10 fc	1.89 fc	0.014	0.004
8	Building #1 — Entry #1	Perpendicular illuminance (Adaptive)	3.09 fc	8.82 fc	5.52 fc	0.560	0.350
9	Building #1 — Entry #2	Perpendicular illuminance (Adaptive)	1.81 fc	3.52 fc	2.96 fc	0.610	0.513
10	Building #1 — Entry #3	Perpendicular illuminance (Adaptive)	3.43 fc	9.32 fc	5.58 fc	0.614	0.368
11	Building #1 — Entry #4	Perpendicular illuminance (Adaptive)	0.54 fc	3.61 fc	1.27 fc	0.424	0.149
12	Building #1 — Entry #5	Pèrpendicular illuminance (Adaptive)	1.32 fc	3.88 fc	2.82 fc	0.468	0.340
13	Building #1 — Entry #6	Perpendicular illuminance (Adaptive)	0.24 fc	3.54 fc	0.82 fc	0.288	0.067
14	Building #2 — Entry #1	Perpendicular illuminance (Adaptive)	0.96 fc	4.59 fc	1.61 fc	0.598	0.210
15	Building #2 — Entry #2	Perpendicular illuminance (Adaptive)	0.16 fc	9.05 fc	2.52 fc	0.065	0.018
16	Building #2 — Entry #3	Perpendicular illuminance (Adaptive)	1.77 fc	4.93 fc	3.93 fc	0.451	0.360
17	Building #2 — Entry #4	Perpendicular illuminance (Adaptive)	0.034 fc	5.48 fc	0.67 fc	0.050	0.006
18	Building #1 — Sidewalk	Pèrpendicular illuminance (Adaptive)	0.59 fc	12.9 fc	3.10 fc	0.189	0.046



ELECTRICAL SITE PLAN PHOTOMETRIC ANALYSIS

SCALE: 1" = 30'-0"

Attachment G
Preliminary Architectural Plans
and Elevations





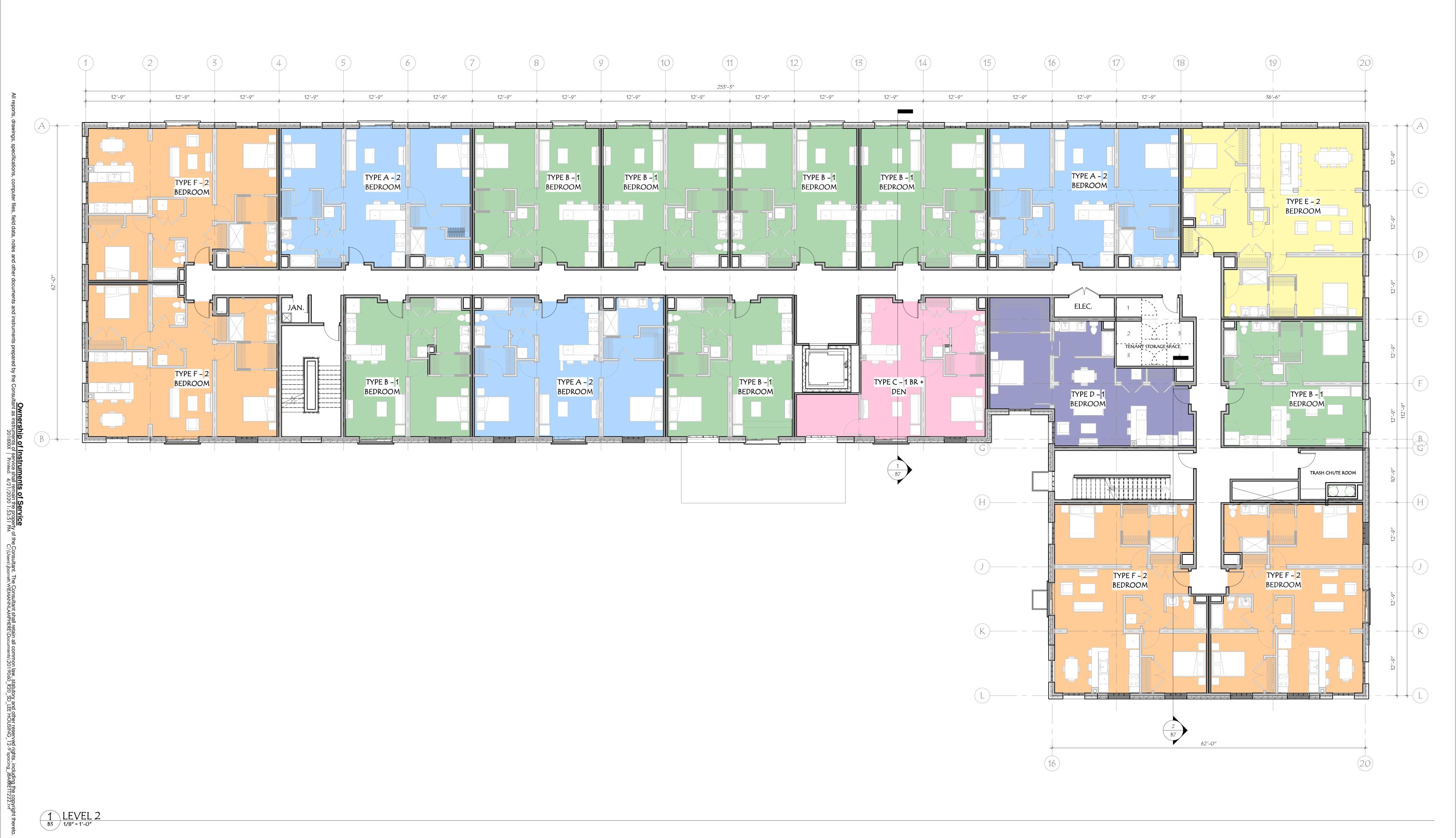
LEE, MA.





EVEL 1

ARCHITECTS



Lee Riverside Housing

LEE, MA.

LEVELS 2-3

Wiemann Lamphere



1 LEVEL 4
1/8" = 1'-0"

LEE, MA.





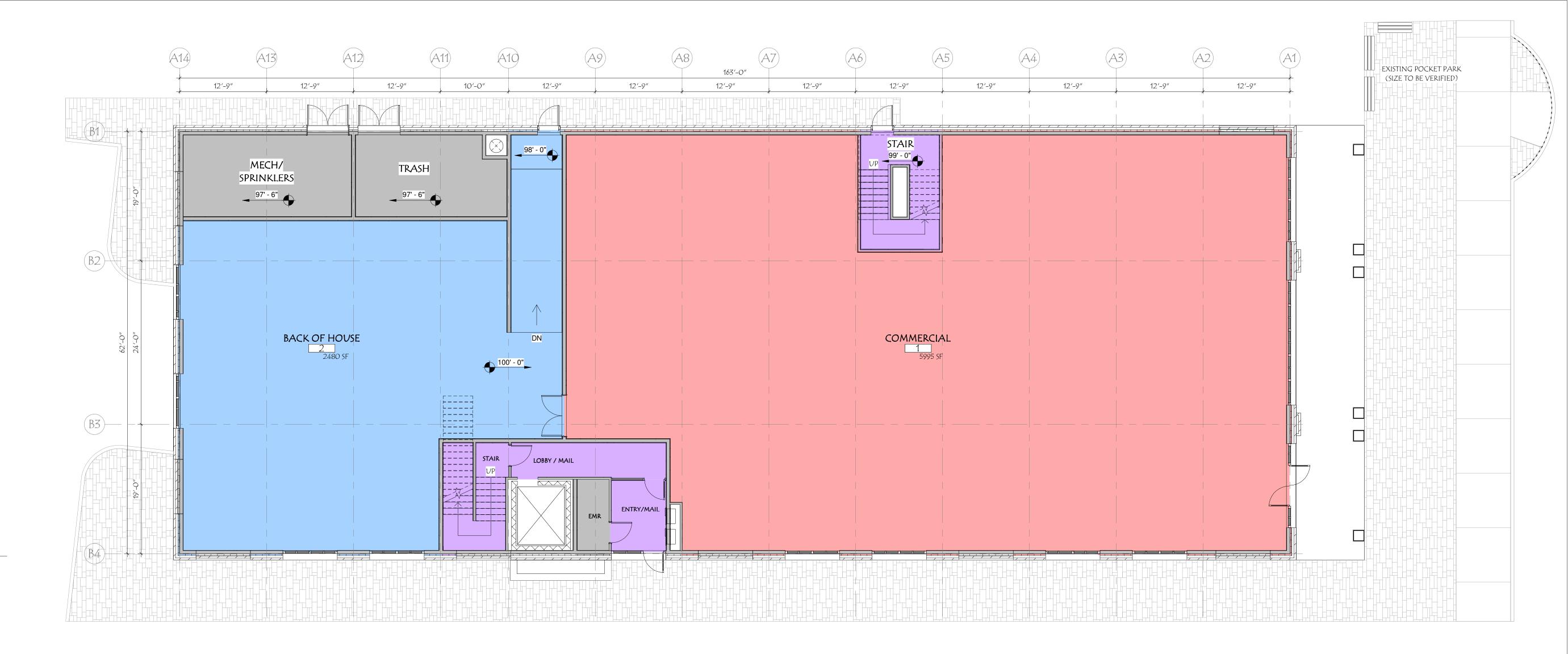




LEE, MA.







1 LEVEL 1
1/8" = 1'-0"



LEE MIXED USE







Attachment H

Plans to Accompany Permit Applications
Prepared for
Benchmark Development

PLANS TO ACCOMPANY PERMIT APPLICATIONS

PREPARED FOR

BENCHMARK DEVELOPMENT

LOCATED AT

88 WEST PARK STREET LEE, MA 01238



THE HOUSATONIC RIVER EDGE WAS COMPILED

LOCUS PLAN

IST OF DRAWINGS COVER SHEET EXISTING SITE PLAN EXISTING GRADING PLAN EXISTING UTILITY PLAN PROPOSED SITE PLAN PROPOSED GRADING PLAN PROPOSED UTILITY PLAN EROSION CONTROL PLAN RIVERFRONT AREA PLAN FLOODPLAIN SITE PLAN FLOODPLAIN CROSS SECTIONS

sk design group project #: 190103

LICENSE #46069 PHONE: 413-443-3537

AUGUST 26, 2020

(IN FEET) I INCH =40 FEET

SITE PLAN SCALE: 1"=40'

THESE PLANS ARE FOR PERMITTING PURPOSES ONLY **NOT FOR CONSTRUCTION**

EDGE OF RIVER (APPROX.) 200' RIVERFRONT (APPROX.)

100-YR. FLOODPLAIN (APPROX.) (ESTIMATED & PRIORITY HABITAT)

EXISTING CONTOUR EXISTING TREELINE EXISTING FENCE

EXISTING GUARDRAIL SEWER EASEMENT (APPROX.) EXISTING UTILITY POLE

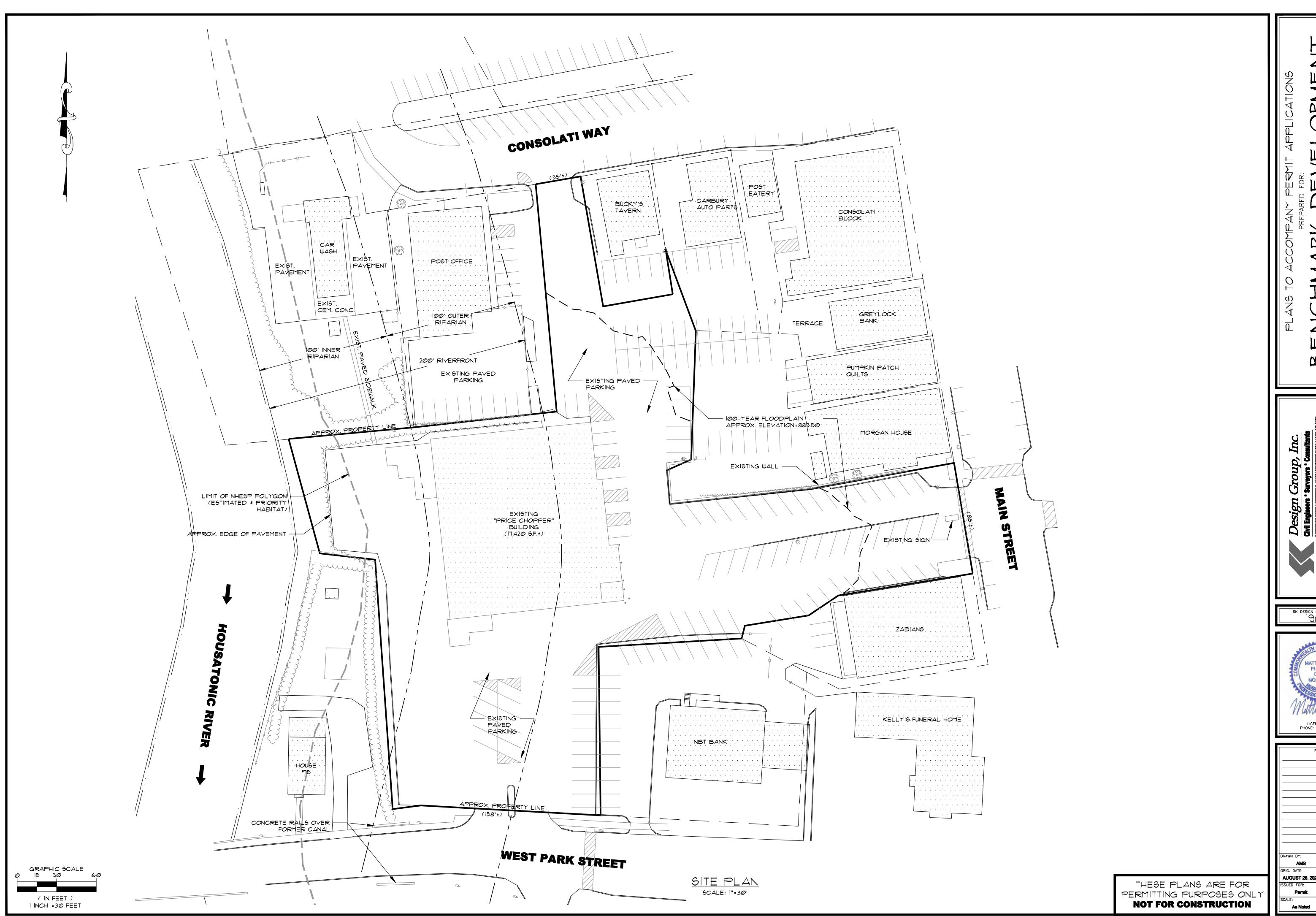
EXISTING ELECTRIC EXISTING CABLE SERVICE EXISTING VERIZON SERVICE EXISTING SEWER LINE EXISTING DRAIN LINE

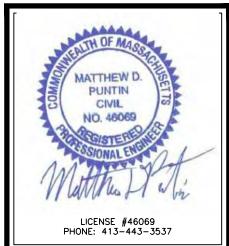
EXISTING WATER LINE EXISTING DRAIN MANHOLE EXISTING CATCH BASIN

EXISTING SEWER MANHOLE PROPOSED SEWER

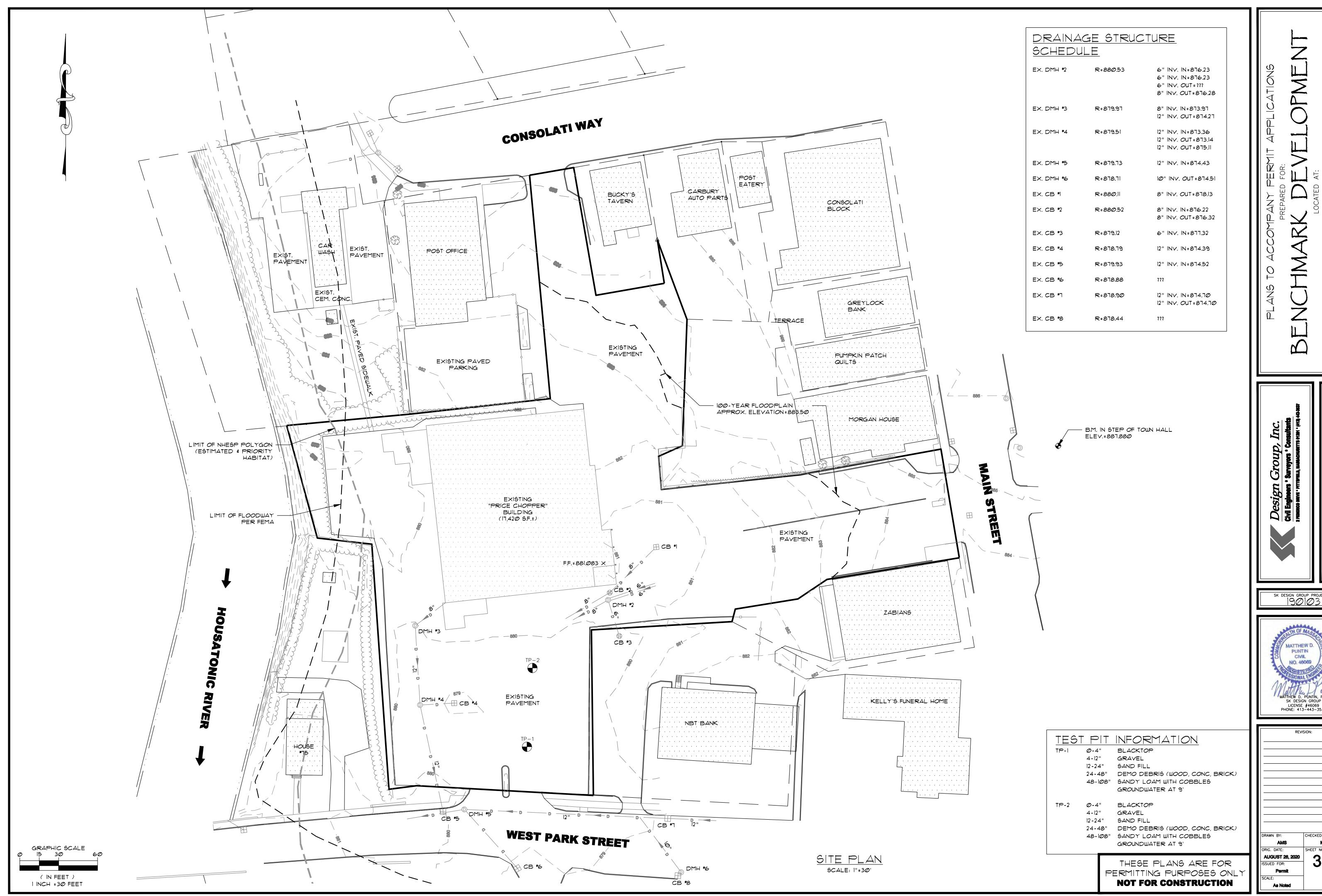
PROPOSED DRAIN MANHOLE PROPOSED CATCHBASIN

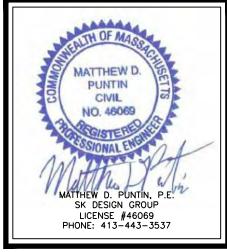
PROPOSED SEWER MANHOLE PROPOSED CONTOUR - PROPOSED EROSION CONTROL



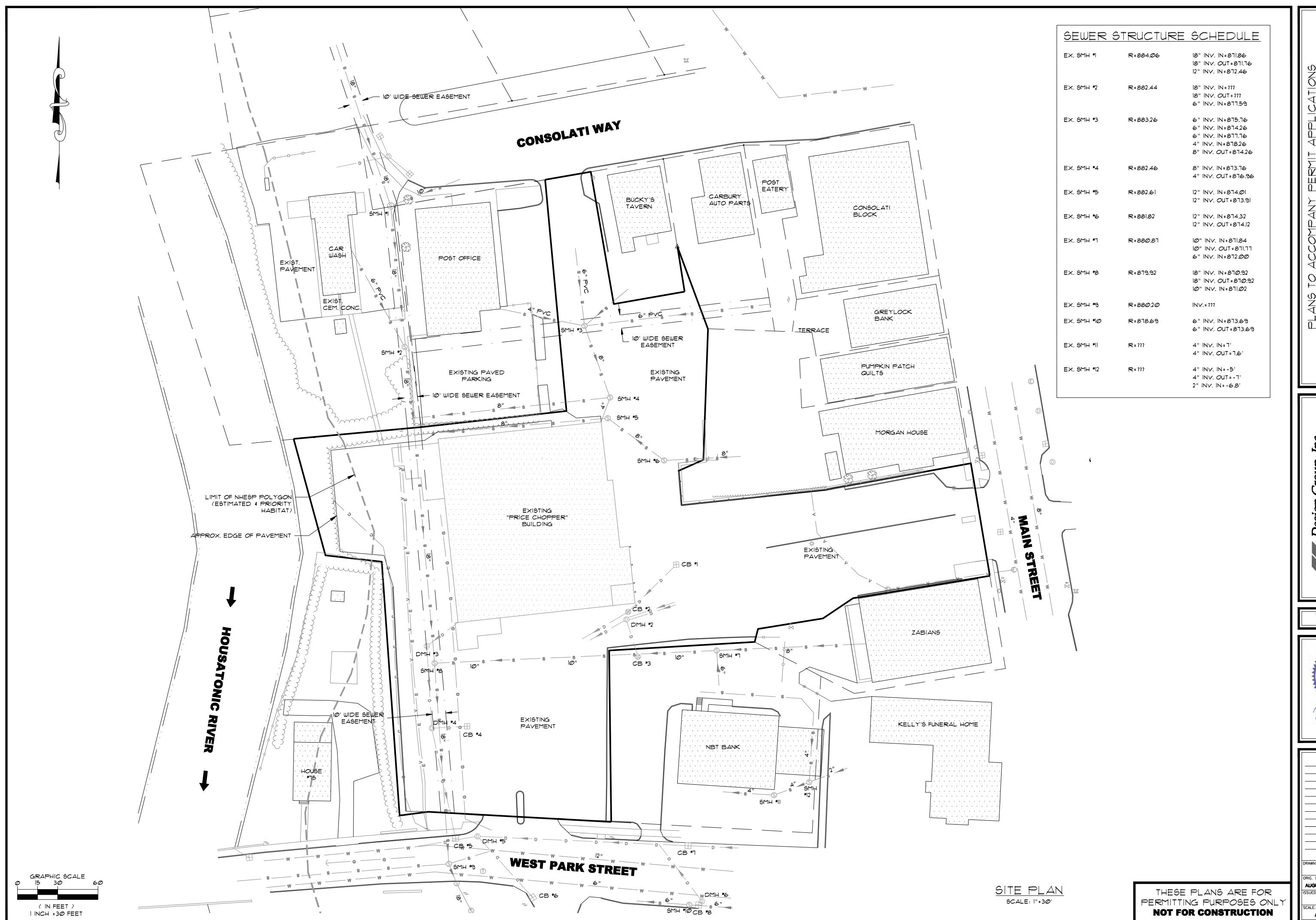


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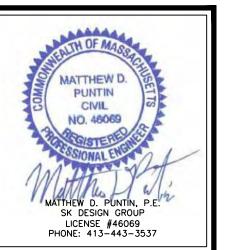


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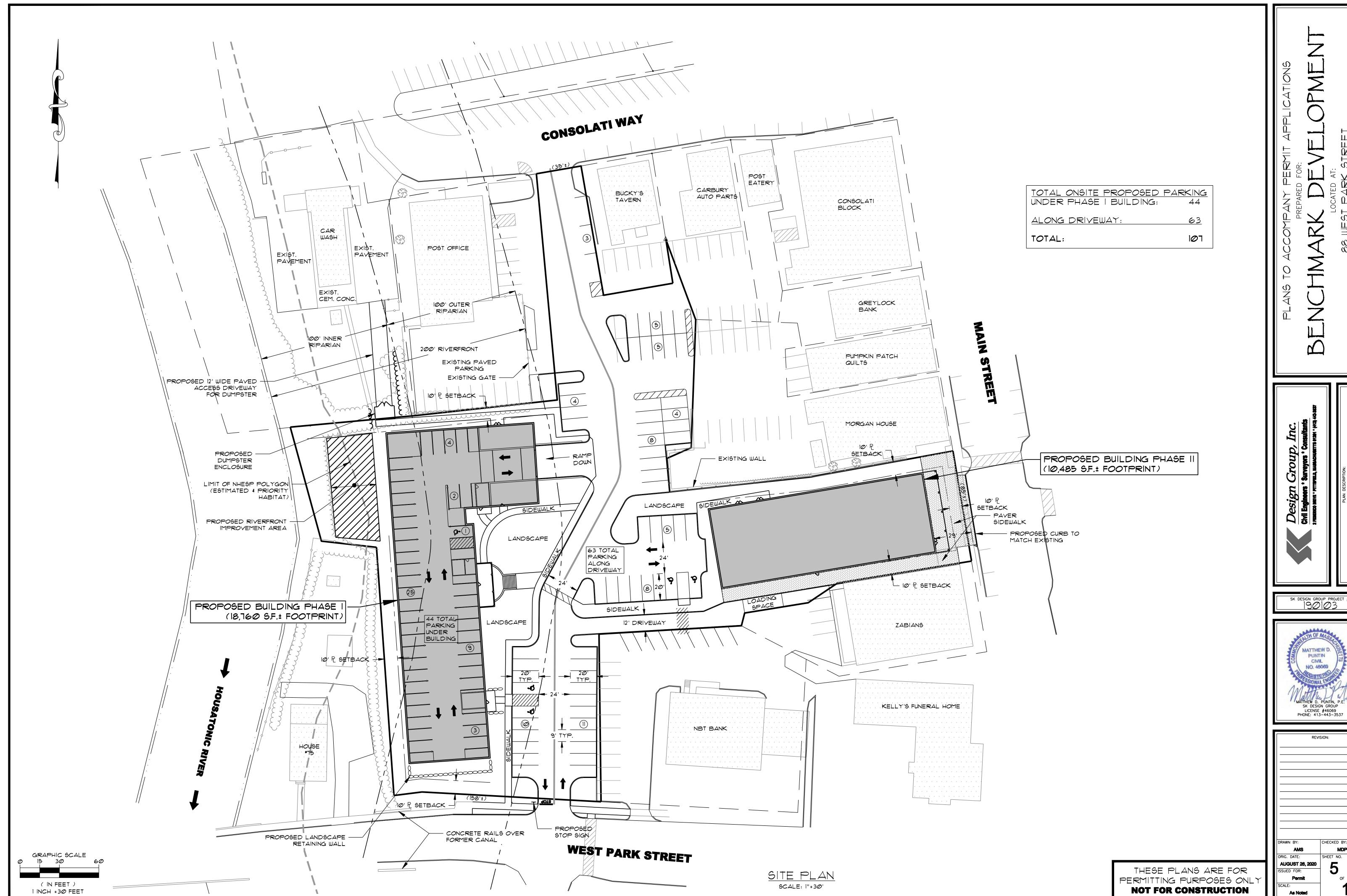
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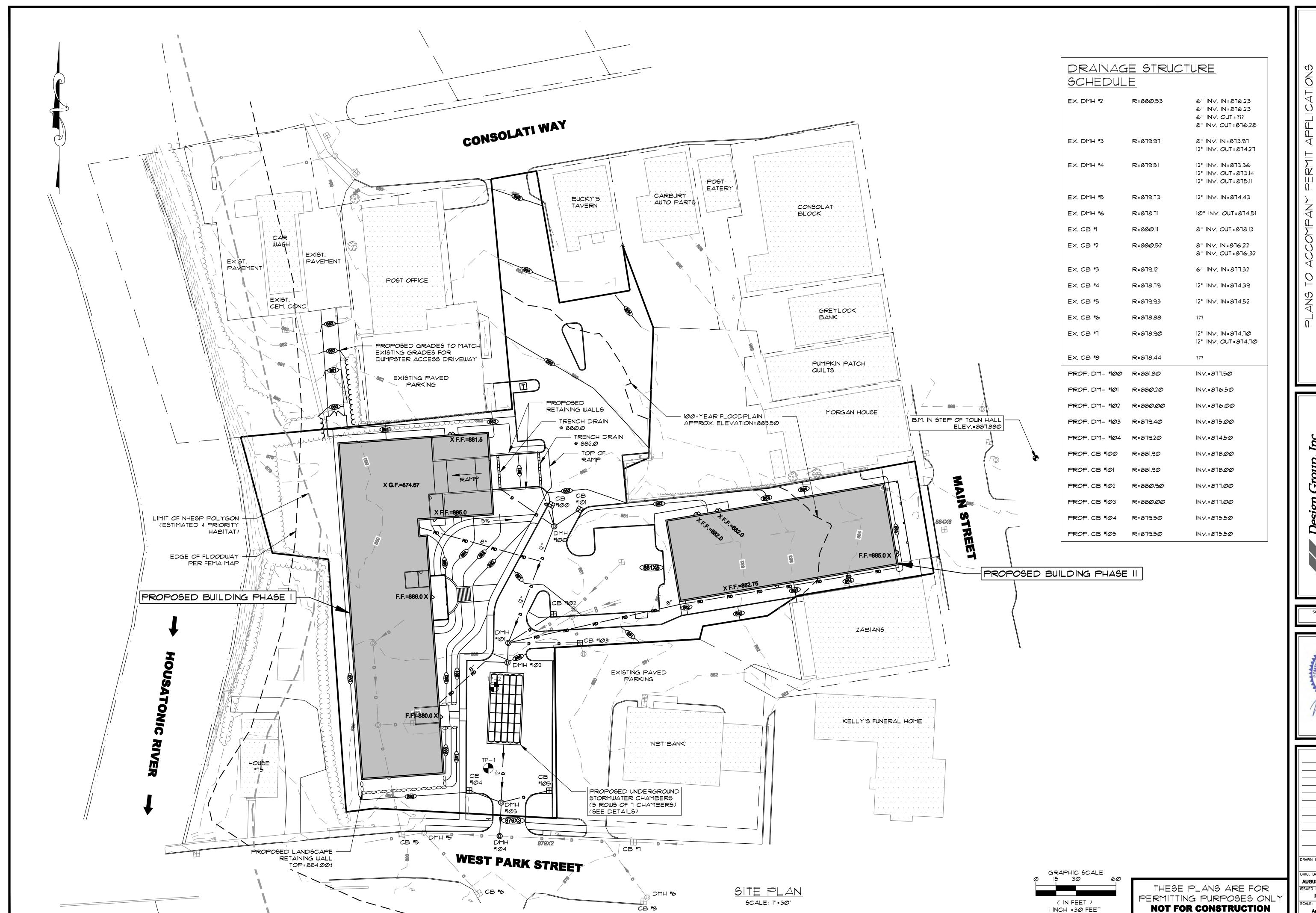
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PLANS TO ACCOMPANY PERMIT APPLICATIONS
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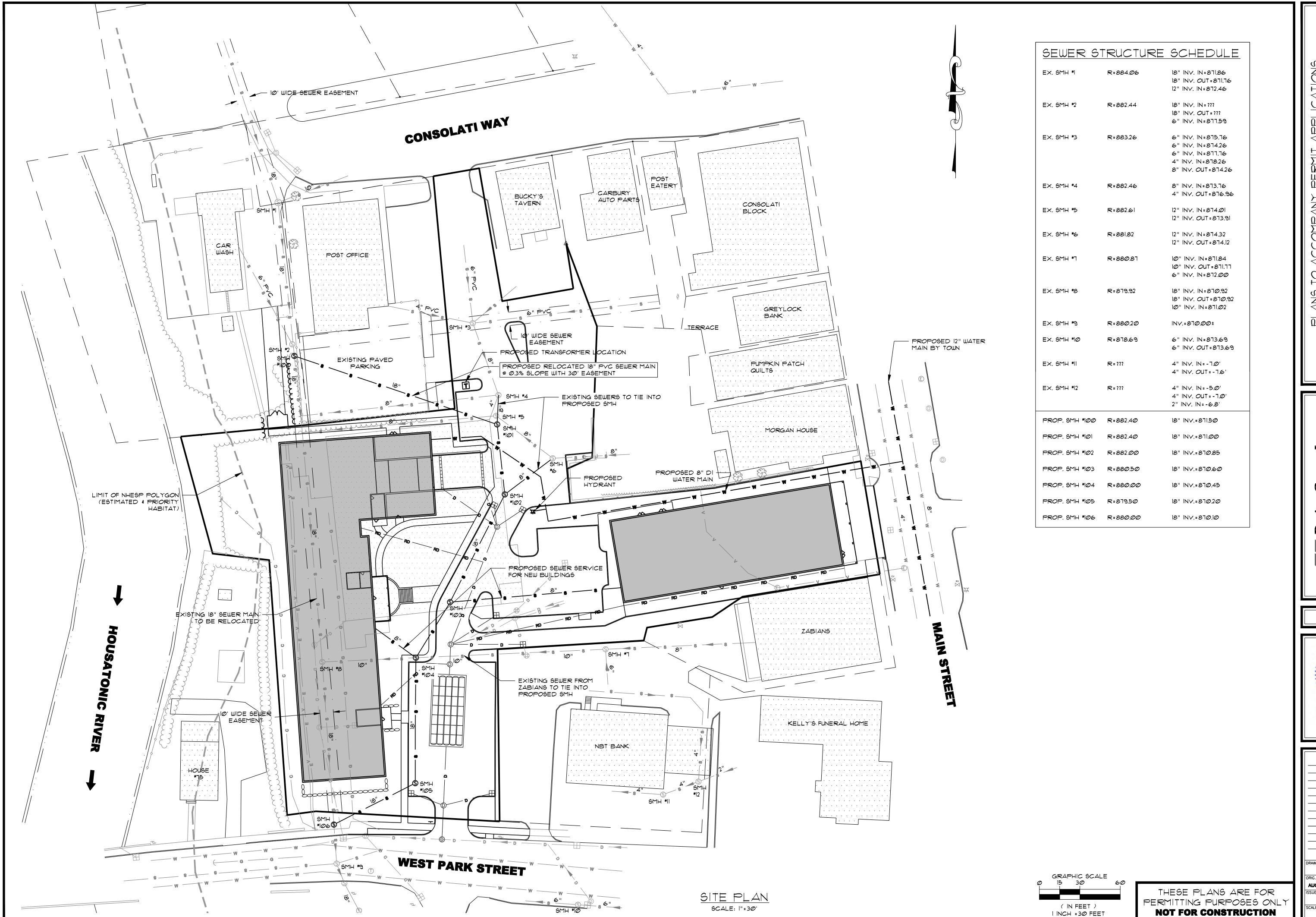
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MATTHEW D. PUNTIN, P.E. SK DESIGN GROUP LICENSE #46069 PHONE: 413-443-3537

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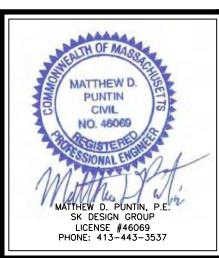


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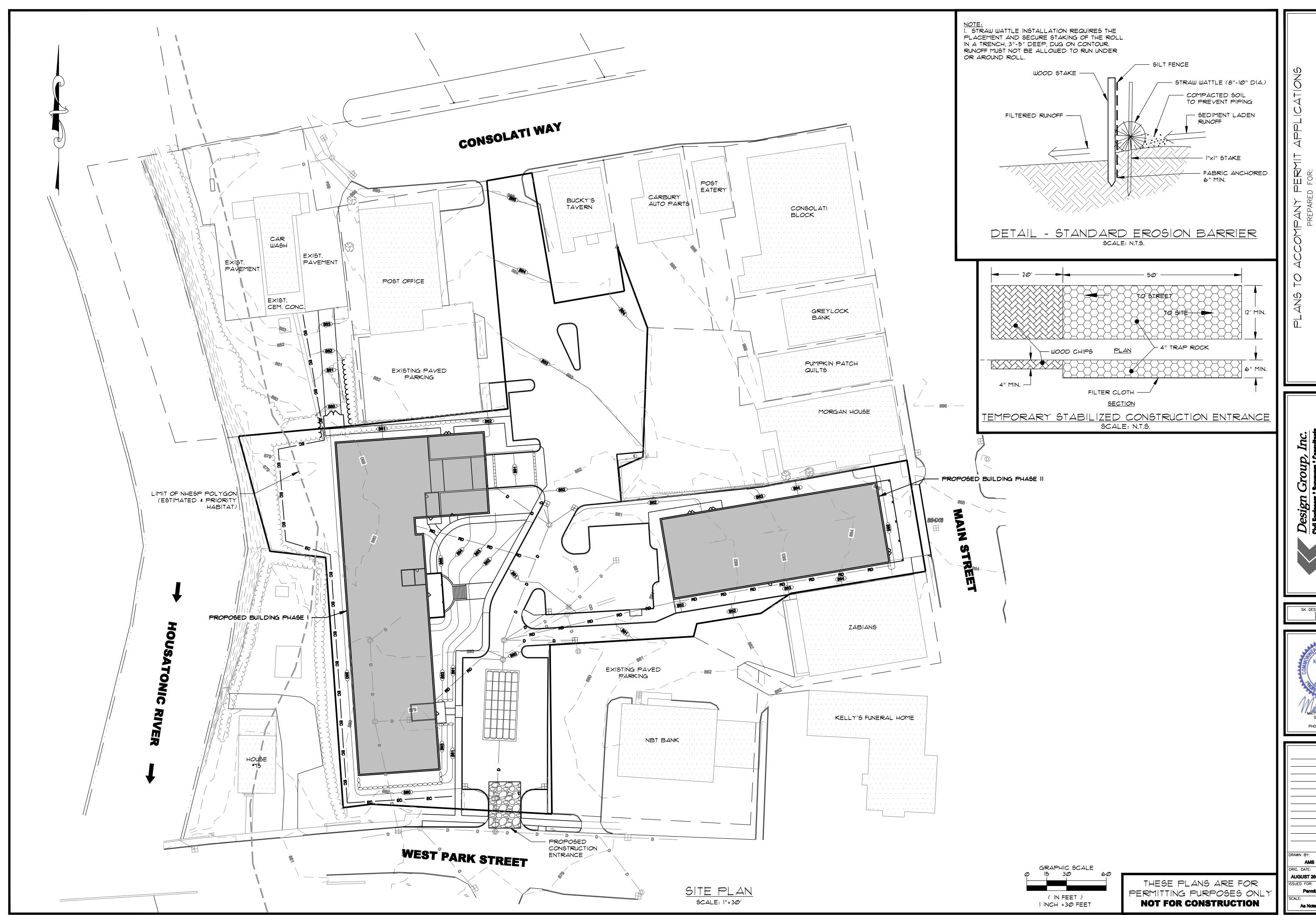
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Civil Engineers * Survey

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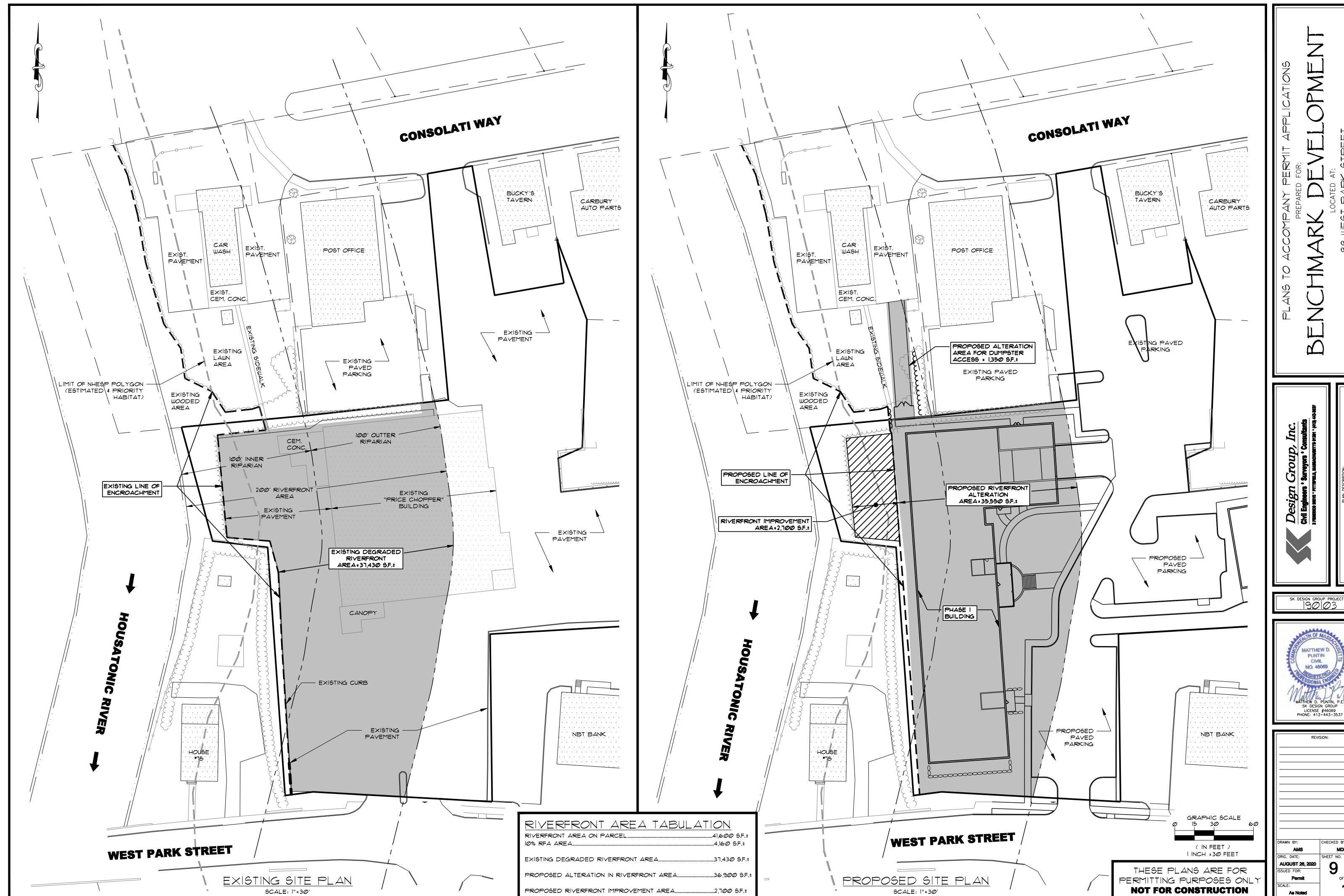


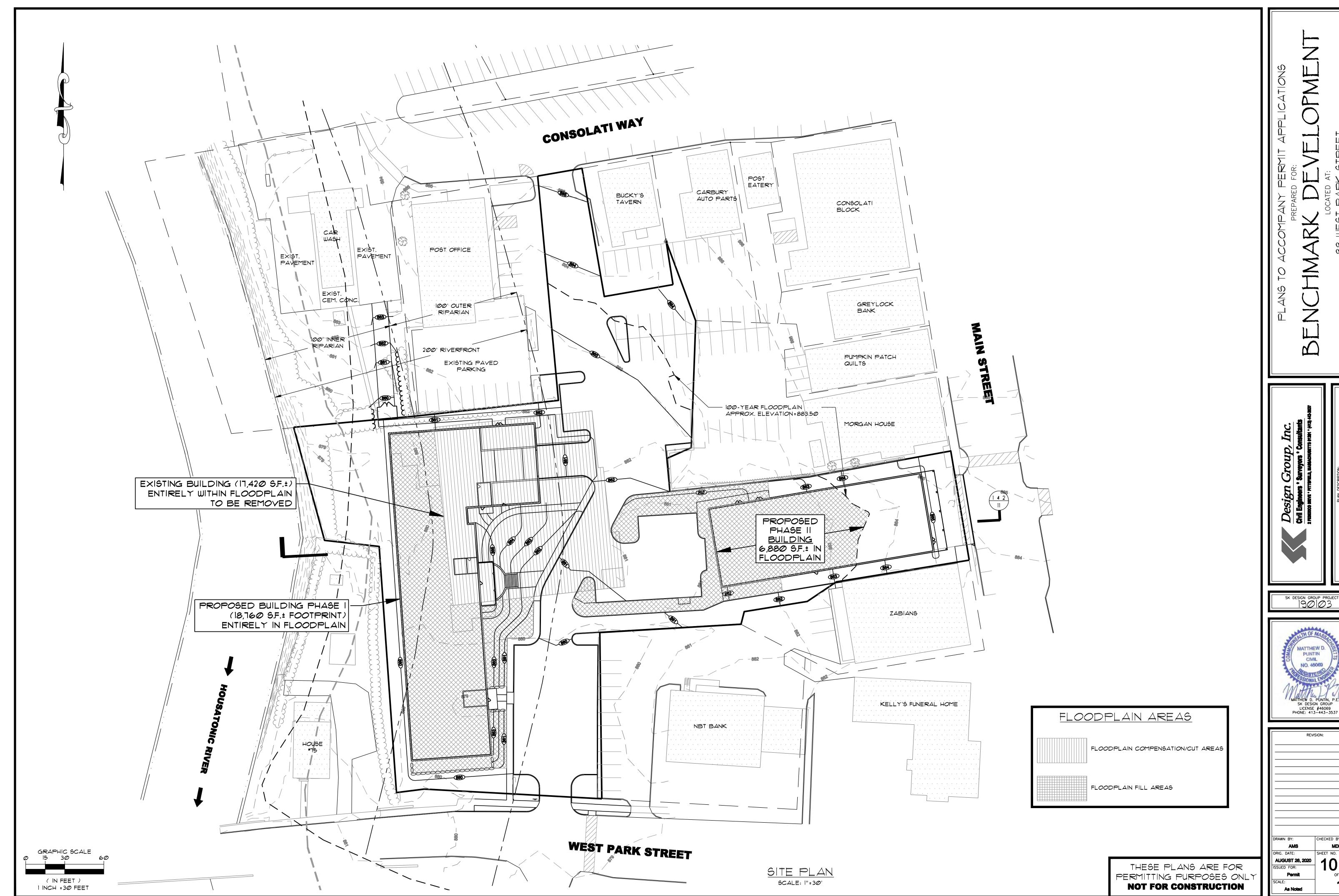
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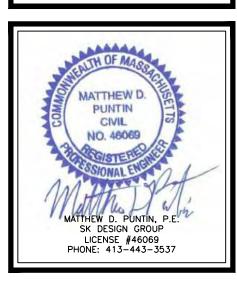
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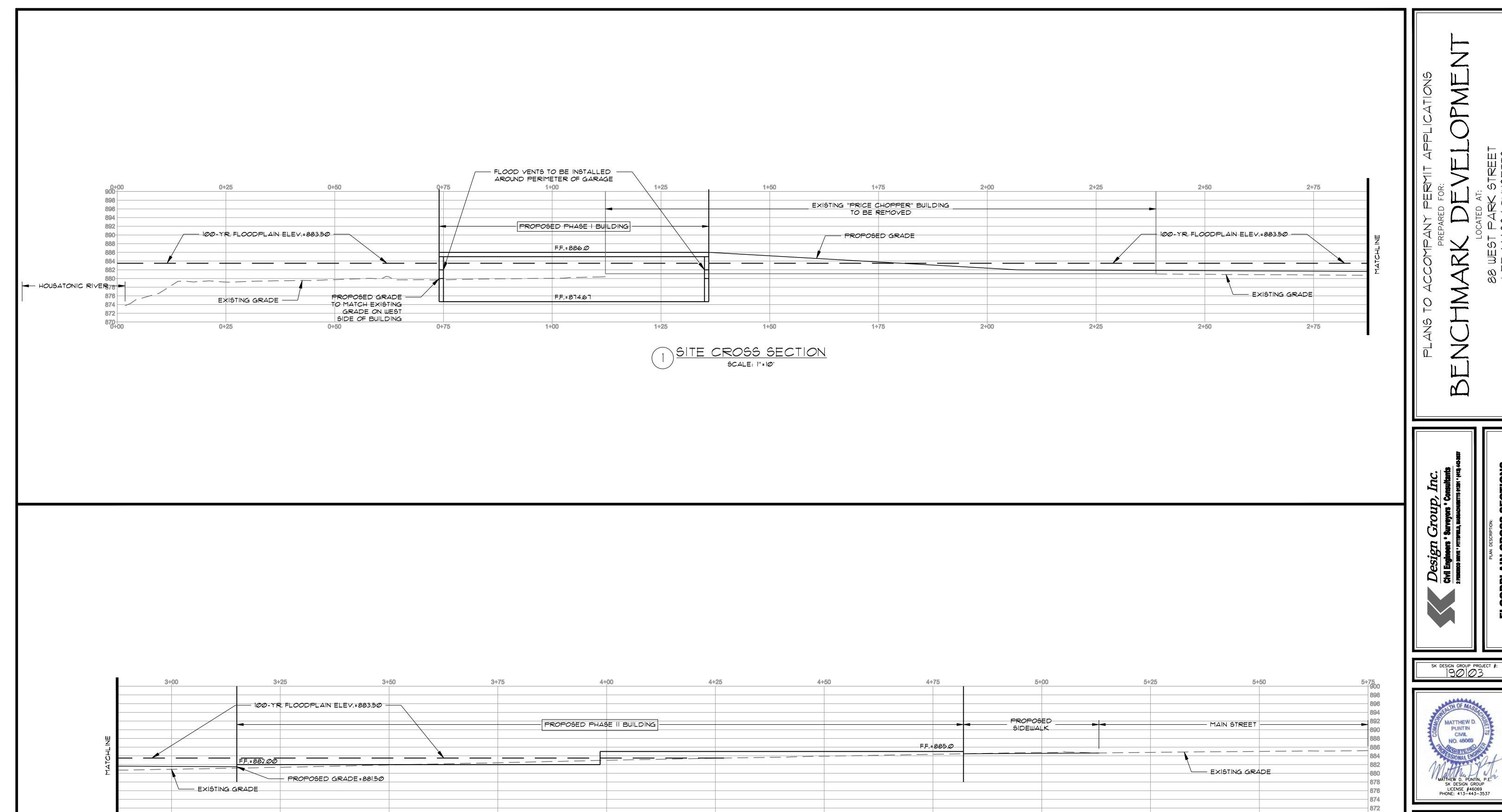




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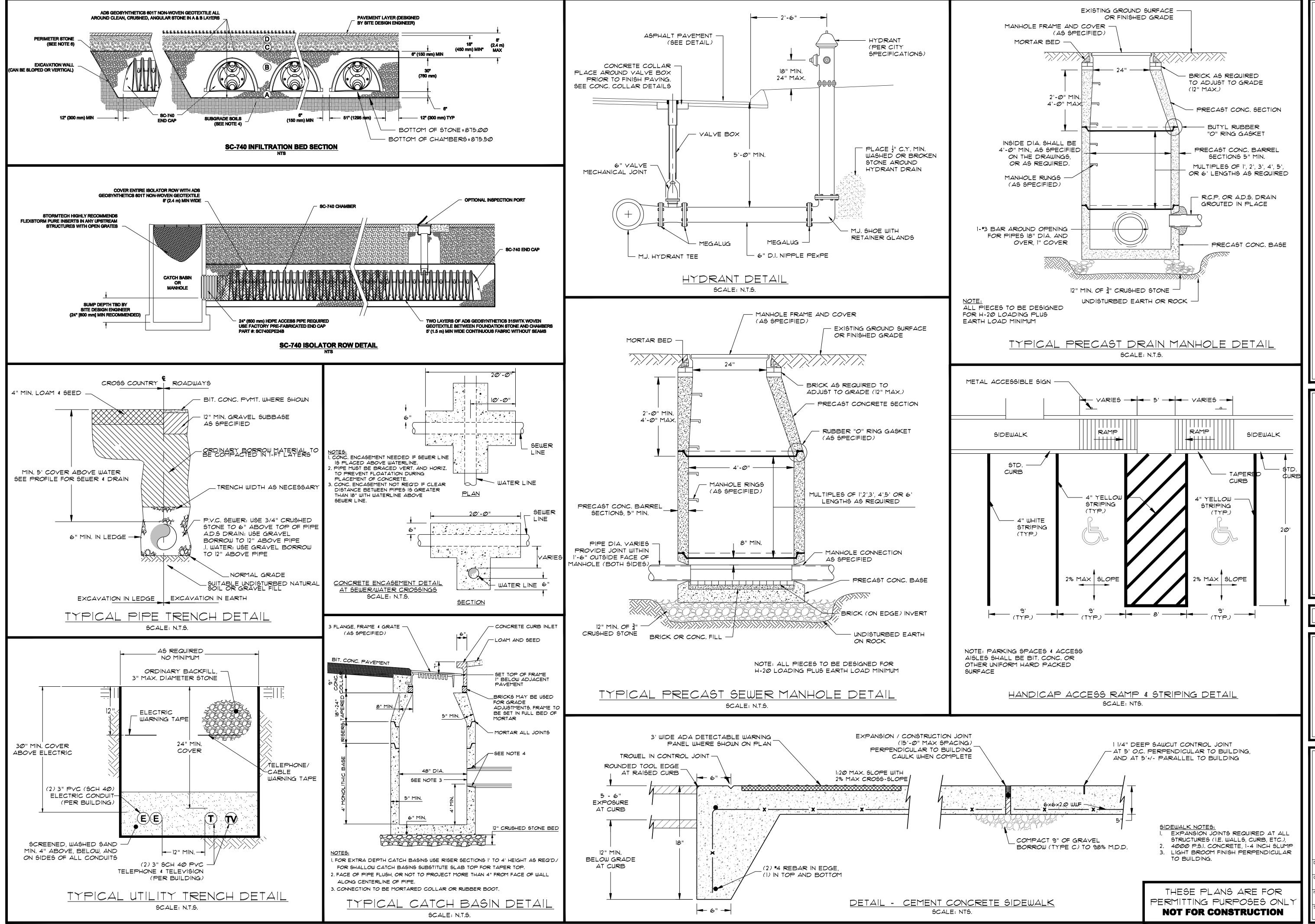
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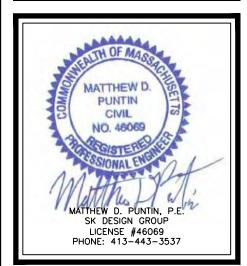


BENCHMARK DEVELOPMENT
LOCATED AT:

Civil Engineers * Surveyors * Consultants
2 PERIOD BRIVE PITTOFILD, INSOLCHURETTS 61261 - (413), 403-3837

SK DESIGN GROUP PROJECT #:

190103



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