

August 11, 2023

City of Stamford Zoning Board
c/o Ralph Blessing, Land Use Bureau Chief
888 Washington Boulevard
Stamford, CT 06901

Re: 210 Long Ridge Road
Final Site & Architectural Plans and/or requested uses Application

Dear Mr. Blessing and Board Members,


As discussed, on behalf of Andrew Banoff and TJH Senior Living LLC (Owner & Applicant), consistent with the recently approved GDP & Special Permit #222-09, enclosed please find applications and supportive materials for Final Site Plan to facilitate 210 units of Senior Living at 210 Long Ridge Road (003-8215). Application details and design elements are described further in the attached Project Narrative and reflected in the enclosed plans.

In support of the applications, enclosed please find:

1. A check in the amount of \$4,071 for:
 - FSP Fee: \$3,071;
 - Public Hearing Fee: \$1,000
2. FSP Application;
3. Project Narrative;
4. Drawing List;
5. General Property Description;
6. Zoning Data Chart;
7. Aerial Exhibit;
8. Property and Topographic Survey;
9. Architectural Plans;
10. Engineering Plans;
11. Landscape Plans;
12. Parking Management Plan;
13. Drainage Report;
14. Sustainability Score Card;
15. Letter of Authorization;

Please feel free to contact us with any questions or comments. We look forward to continuing to work with you and the Planning & Zoning Boards on this opportunity.

Sincerely,



Richard W. Redniss, FAICP



APPLICATION FOR APPROVAL OF SITE & ARCHITECTURAL PLANS AND / OR REQUESTED USES

Complete, notarize, and forward **thirteen (13) hard copies and one (1) electronic copy in PDF format** to Clerk of the Zoning Board with a **\$1,000.00 Public Hearing Fee** and the required application filling fee (see **Fee Schedule below**), payable to the City of Stamford.

NOTE: Cost of required Public Hearing advertisements are payable by the Applicant and performance of required mailing to surrounding property owners is the sole responsibility of the applicant. **LAND RECORDS RECORDING FEE:** \$60.00 for First page - \$5.00 for each additional page)

Fee Schedule –WITHOUT GDP

Site Plans 20,000 sq. ft. or less of building area application fee –without GDP	\$460.00
Site Plans more than 20,000 sq. ft. of building area-application Fee –without GDP	\$460.00 + \$30 per 1,000 sq. ft. or portion thereof in excess of 20,000 sq. ft.

Fee Schedule –WITH GDP

Site Plans 20,000 sq. ft. or less of building area application fee –with GDP.	\$260.00
Site Plans more than 20,000 sq. ft. of building area-application Fee –with GDP.	\$260.00 + \$10 per 1,000 sq. ft. or portion thereof in excess of 20,000 sq. ft.

APPLICANT NAME (S): TJH SENIOR LIVING LLC

APPLICANT ADDRESS: c/o Redniss & Mead - 22 First Street, Stamford, CT 06905

APPLICANT PHONE #: c/o 203-327-0500

IS APPLICANT AN OWNER OF PROPERTY IN THE CITY OF STAMFORD? Yes

LOCATION OF PROPERTY IN STAMFORD OWNED BY APPLICANT (S): 0 Long Ridge Road (003-8215)
aka 210 Long Ridge Road

ADDRESS OF SUBJECT PROPERTY: 0 Long Ridge Road (003-8215) aka 210 Long Ridge Road

PRESENT ZONING DISTRICT: C-D

TITLE OF SITE PLANS & ARCHITECTURAL PLANS: Please see attached Drawing List

REQUESTED USE: Please see attached Project Narrative

LOCATION: (Give boundaries of land affected, distance from nearest intersecting streets, lot depths and Town Clerk’s Block Number)

Please see attached General Property Description

NAME AND ADDRESS OF OWNERS OF ALL PROPERTY INVOLVED IN REQUEST:

NAME & ADDRESS

LOCATION

TJH SENIOR LIVING LLC
4200 PARK AVENUE
BRIDGEPORT, CT 06604-1049

0 Long Ridge Road (003-8215)
aka 210 Long Ridge Road
Stamford, CT

DOES ANY PORTION OF THE PREMISES AFFECTED BY THIS APPLICATION LIE WITHIN 500 FEET OF THE BORDER LINE WITH GREENWICH, DARIEN OR NEW CANAAN? NO (If yes, notification must be sent to Town Clerk of neighboring community by registered mail within 7 days of receipt of application – PA 87-307).

DOES THE PROJECT RESULT IN THE CREATION OF 10 OR MORE UNITS OR 10,000 SF OR MORE IN FLOOR AREA OR DISTURBANCE OF 20,000 SF OR MORE IN LAND AREA, THROUGH NEW DEVELOPMENT, RECONSTRUCTION, ENLARGEMENT OR SUBSTANTIAL ALTERATIONS? Yes (If yes, then complete the Stamford Sustainability Scorecard per Section 15.F).



DATED AT STAMFORD, CONNECTICUT, THIS 1 DAY OF June 2023

SIGNED: _____

NOTE: The application cannot be scheduled for public hearing until 35 days have elapsed from the date of referral to the Stamford Planning Board. If applicant wishes to withdraw the application, this must be done in writing, and be received by the Zoning Board at least three (3) working days prior to public hearing in order to provide sufficient time to publicize the withdrawal. Applications withdrawn less than three (3) days prior to a schedule hearing date will not be rescheduled within 90 days.

STATE OF CONNECTICUT
COUNTY OF FAIRFIELD ss STAMFORD June 1 2023

Personally appeared Richard W. Rednus, signer of the foregoing application, who made oath to the truth of the contents thereof, before me.

DAVID PINTO
Notary Public, State of Connecticut
My Commission Expires Mar 31, 2026

Notary Public - Commissioner of the Superior Court

FOR OFFICE USE ONLY

APPL. #: _____ Received in the office of the Zoning Board: Date: _____

By: _____

Project Narrative
210 Long Ridge Road
Final Site & Architectural Plans and/or requested uses Application
August 11, 2023

1. Introduction/Background

Consistent with the recently approved GDP and Special Permit (#222-09), TJH Senior Living LLC (Owner & Applicant) is moving forward with plans to redevelop the existing vacant parcel located at 210 Long Ridge Road (the “Property”) to create 210 units of senior living.

The Property consists of 15 acres located on the westerly side of Long Ridge Road in Master Plan Category 8 (Mixed-Use-Campus) and the C-D (Designed Commercial) Zoning District. The Property, which was previously owned by General Electric, has been vacant for at least 20+ years and is sandwiched between two office complexes.

The Property was approved for 200 senior living apartments in a recent application by Trammel Crow Company and Allegro Senior Living (ZB 219-19). The prior deal structure concentrated the entire senior living development on a proposed condo parcel occupying the easterly 7 acres of the Property. This posed two issues that were discussed at length during the public hearing process. One was the clearing of the vegetated knoll along Long Ridge Road. The other was the uncertainty of the future use of the westerly 8 acres.

The proposed development alleviates both of those issues. With the new development occupying the entire site and the main building centrally located within the Property, both the front (Long Ridge Road) and rear (Rippowam River) buffers are left largely intact.

The Special Permit and GDP approved 210 units situated in one main building and two smaller “manor” buildings which remains consistent with the proposed Final Site & Architectural Plan application.

2. Surrounding Area

The surrounding area consists of Master Plan Category 2 (Residential – Low Density Single-Family) to the east and west (separated by Long Ridge Road and the Rippowam River, respectively) and Category 8 (Mixed Use-Campus) to the north and south. Adjacent zoning districts include C-D to the immediate north and south, R-20 to the west (separated by the Rippowam River) and a mix of commercial and residential zones on the opposite side of Long Ridge Road to the east, including C-N, C-L, RM-1, and R-7 ½.

The Property is centrally located approximately midway between I-95 and the Merritt Parkway. It is well served by local bus routes and connections to the surrounding community. The Property’s frontage, Long Ridge Road, is an arterial road with a variety of uses including single-family and multi-family homes, traditional office, medical office, institutional, religious, restaurant, and retail uses.

3. Project Area/Development Site

The site is 15 acres with frontage on Long Ridge Road. It is currently a vacant site between two office developments, improved only with surface parking and drives serving the parking to the south and some utility connections. There are currently no curb cuts along the street frontage. The westerly side of the property is bordered by the Rippowam River.

4. Proposed Development

The proposed “Senior Housing and Nursing Home Facility Complex” is anticipated to include 168 Independent Living (IL) units, 14 Assisted Living (AL) units, 14 Memory Care (MC) units, and 14 Nursing Home units with both separate and communal building amenities, outdoor patios and walking paths, parking, and landscaping.

A. Proposed Unit Mix

The 168 IL apartments include 37 one-bedroom and 131 two-bedroom units. The IL units are located throughout the main building with 35 units located in the two “manor” buildings toward the southeast corner of the site. All other unit types (AL, Nursing, Memory Care) are located in the northern wing of the main building.

B. Building Composition & Features

The main building is designed with a rich amenity package, largely concentrated within the lower levels of the main building. Indoor amenities include a several communal and private dining and lounge areas, aquatic center, exercise areas, health and wellness, an events center, movie viewing room, library, golf simulator, other flexible space, and resident storage areas.

The main building includes several different “wings” providing a natural break and change in direction of the building facades such that no one view is unnecessarily long or dominating. The changes provide a unique view for each angle of the building. Within each wing the visual interest is enhanced by movement throughout the façade with balconies and bay windows.

Both the main building and manor buildings are dressed with high quality and complementary materials. The base of the buildings are primarily cast or Jerusalem stone, which carry vertically for certain portions of the buildings. Upper floors are lighter colored cementitious siding broken up by bays of darker standing seam metal. The pitched rooflines vary in both height and direction throughout the buildings with an effective use of dormers and rounded corner elements.

C. Outdoor Amenities and Landscaping

The buildings are thoughtfully situated in the middle of the site, maintaining much of the knoll along Long Ridge Road and existing trees thereon. All 4-story elements of the building are set back at least 200’ from the front property line and 250’ from the abutting residential districts. Environmentally sensitive areas along the riverfront continue to be maintained and protected. The previously proposed Conservation Easement Area is also maintained as a part of this application.

Outdoor amenities, including courtyards and exercise areas, are located in several areas around the main building and manor houses. Such amenities include a dog walk, child playground, exercise areas, and pickleball courts. A walking path loops around the entire developed portion of the property,

meanders through the preserved natural features of the knoll, and connects to the proposed sidewalk along the site frontage on Long Ridge Road.

Much of the walking paths and natural outdoor spaces are open to the public and serve as Publicly Accessible Amenity Space. In total the publicly accessible areas are more than double the minimum 5% area requirement.

A robust landscaping plan includes over 330 new, mostly deciduous, trees consisting of nearly 20 different varieties. Another 300 large and smaller shrubs, as well as thousands of flowers are also proposed throughout the site – the exact species of which are not yet fully determined. In total over 2/3 of the site will be maintained as either natural green space and/or open outdoor amenities (walking paths, patios, etc.).

D. Access and Parking

The site maintains no direct curb cut on Long Ridge Road, and, consistent with the prior approvals, none are proposed. Rather, the facility's main entry drive will connect to the existing signalized driveway at 260 Long Ridge Road to the north (opposite Terrace Avenue). Notably, senior housing is well-recognized as a low traffic generator. A traffic report prepared by Milone & MacBroom was included with the prior approval. They maintain and confirm that the proposed development will not significantly impact peak hour traffic of the surrounding areas.

Parking is provided at grade and in lower-level garages beneath both the main and manor buildings. A total of 251 self-park spaces are provided for residents, staff, and visitors. An additional 32 valet spaces are provided as an added convenience for IL residents. All required ADA, EV, and Bicycle parking spaces are provided and further described in the Parking and Transportation Demand Management Plan included herewith.

The main driveway is accessed from the existing signalized driveway at 260 Long Ridge Road and leads toward a grand entry plaza at the front of the building. The drive loops fully around all buildings providing access to some surface parking, loading docks, and the entrances to the lower-level garages.

E. Conformity with Stamford Zoning Regulations and Master Plan

Master Plan

Category 8 (Mixed-Use Campus) of the Master Plan contemplates “limited expansion and adaptive reuse of compatible office, research and development, residential, government, educational and medical uses.” The proposed senior housing development fulfills this goal by eliminating another potential office site, thereby helping to limit the office inventory that Stamford is struggling to fill and replacing it with a senior living use that is increasingly in demand as the “baby boomer” population continues to come of age. The residential nature of the use is highly compatible with the nearby single-family neighborhoods and provides an opportunity for older residents in the neighborhood to age in place. Other Master Plan policy goals realized through this redevelopment include:

- **1.3B.1** Amend zoning to allow for redevelopment of office parks outside Downtown for mixed-use
- **4E.4** Consider opportunities for mixed-use transit supportive redevelopment of underutilized office parks on High Ridge and Long Ridge Roads
- **6A.1** Balance new development with preservation of existing residential communities
- **6B.6** Support senior and accessible housing
- **6C.2** Promote development of a variety of housing types

Zoning Regulations

The C-D zone was updated several years ago, and again more recently, with unanimous support from the Planning Board and Zoning Board, to permit this type of senior housing redevelopment and design elements. The proposed development meets all the requirements and standards of the C-D Zone. Please refer to the Zoning Data Chart for additional information on zoning compliance.

5. Action Items

To facilitate the development, the Applicant has filed the following applications:

Final Site & Architectural Plans and Requested Uses to permit the proposed 210-unit senior living community. The proposed design is consistent with the preceding Special Permit and GDP approval and all conditions thereof, many of which continue as requirements for receipt of either a Building Permit or Certificate of Occupancy for the final development.

6. Conclusion

The proposed development embodies nearly all the applicable policy goals of the Mixed-Use Campus Master Plan Category and its vision for the future of the C-D Zone. The proposed buildings are appropriately scaled for the site's location within the surrounding neighborhood. The proposed development is anticipated to have little-to-no impact on peak hour traffic and provide much needed housing opportunities for senior residents. The proposed public access throughout the site is an additional benefit to the surrounding neighborhood.

7. Statement of Findings

A. Pursuant to Section 19.D.4 Standards for Review the applicant submits that all applicable criteria are met for the following reasons:

In reviewing site plans the Zoning Board shall take into consideration the purpose of these Regulations, including the purpose of the applicable zoning district and the goals and policies of the Stamford Master Plan, the public health, safety and general welfare and convenience of the general public and the maintenance of property values. In its review the Board may modify a site plan or condition an approval to the extent necessary to conform the site plan to the following standards and objectives:

(1) Safe, adequate and convenient vehicular traffic circulation, operation, parking and loading, and pedestrian circulation, both within and without the site.

(a) The number, locations and dimensions of all vehicular and pedestrian access drives and walkways, parking spaces, drop-off and loading areas, and provisions for handicapped access shall conform to the standards of Section 12 of these Regulations, to the adopted design criteria and engineering practices of the Dept. of Traffic and Parking, and all other

applicable standards. Such areas shall be constructed of suitable hard surface materials and maintained in good condition.

The number, locations and dimensions of all vehicular and pedestrian access drives and walkways, parking spaces, drop-off areas, loading areas, and handicapped access areas conform to the applicable provisions of Section 12 of the Zoning Regulations.

- (b) The number of vehicle access drives shall be minimized and shall be located and designed to provide safe and convenient turning movements and safe sightline as determined in accordance with the Geometric Highway Design Standards of the Conn. Dept. of Transportation.*

Existing vehicle access from the public right-of-way is being maintained. Private drives throughout the site are safe and appropriate.

- (c) Area streets and traffic controls shall be determined to have adequate capacity to service the site without causing undue congestion or hazardous conditions.*

The Stamford Transportation Traffic and Parking department (TTP) has reviewed the proposed traffic and concluded that the streets have adequate capacity to serve the site.

- (2) The protection of environmental quality, landscaping of open space and harmony with existing development. The Board shall take into consideration the following features and standards:*

- (a) The location, height, design and materials of walls, fences, hedges and plantings shall be appropriate to the vicinity and shall suitably screen parking, loading, garbage collection facilities, outside storage areas, accessway drives, utility installations and other such features; such landscaping shall be appropriate to the general character of the vicinity and consider the proximity and nature of abutting uses and the level of use of adjoining public streets and walkways.*

The proposed plans were designed specifically to be appropriate to the general character of the neighborhood, with enhanced planting and screening from public view and neighboring properties.

- (b) All open space areas, exclusive of undisturbed natural areas, shall be suitably landscaped to the satisfaction of the Board. Site landscaping shall be performed at a minimum dollar value equivalent to one shade tree of 2.5 inch caliper for every two hundred (200) square feet of landscaped area. In multi-family developments, open space shall be designed to provide functional outdoor living and play areas meeting the needs of intended residents.*

The Applicant has submitted a robust landscaping plan and maintenance of sensitive and significant natural features of the site.

- (c) Soil erosion, sediment and the release of excessive dust shall be controlled through implementation of suitable short term and long term controls in accordance with the standards and procedures of Section 15-B.*

A Sedimentation and Erosion Control Plan has been prepared by Redniss and Mead, which ensures that the standards and procedures of Section 15-B of the Regulations are satisfied. A copy of this plan is enclosed herewith.

- (d) Site development shall seek to preserve existing specimen trees, historic structures and other significant natural features of the site. Accordingly, the premature demolition and site clearance of prospective development sites is specifically discouraged and may be taken into consideration in subsequent site plan reviews.*

The site was designed to maintain much of the front knoll and its plantings. A landscaping plan with over 300 new deciduous and evergreen trees has also been submitted to mitigate the any unavoidable loss of existing trees.

- (e) Artificial lighting, and site generated noise, odors, particles and other disturbances shall be controlled to avoid interference with the use and enjoyment of neighboring properties. The location, height, design and arrangement of outside lighting shall be consistent with safety such as to avoid glare on any other lot and to avoid hazards to traffic on any street.*

All artificial lighting and site generated noise and other disturbance shall be controlled and will not interfere with the use and enjoyment of the neighboring properties. Furthermore, the location, height, design, and arrangement of outside lighting shall be consistent with safety to avoid glare on any other lot and to avoid hazards to traffic on adjacent roadways.

- (f) Available public utilities shall be adequate in capacity to safely service the requirements of the site. Surface water drainage facilities shall be adequate to safely drain the site while minimizing the risk of downstream flooding and erosion. Where infrastructure capacity is judged not to be adequate the Board may accept a binding agreement to perform suitable improvements.*

A full site engineering and drainage report is included with the application and demonstrates the safe and adequate drainage and erosion controls.

- (g) Adequate provision shall be made for emergency vehicle access, fire lanes, and safe fire flows, upon the recommendation of the Fire Marshall and the public water utility.*

Emergency first responders will be able to access the Property safely and conveniently, as that is of the utmost concern for senior living communities.

- (h) The arrangement, location, apparent bulk, architectural features, materials, texture and color of proposed buildings and structures shall establish an architectural character and overall site design compatible with the scale and general character of the vicinity.*

The proposed building is centrally located within the site, and its architecture maintains a residential look and feel to complement surrounding residential neighborhoods.

- (i) Building setbacks and the configuration of open space shall be appropriate to the existing*

structures on adjoining properties and established patterns of use of side and rear yard areas, and to the existing physical conditions of the site.

The buildings setbacks and design of open spaces and buffers are appropriate to both the existing surrounding structures and enhance and maintain important physical features at both the eastern (planted knoll) and western (riverfront) sides of the property.

- (j) *No use shall be permitted that will cause or result in:*
- dissemination of dust, smoke, observable gas or fumes, odor, noise or vibration beyond the immediate site of the building in which such use is conducted, or*
 - unusual hazard of fire or explosion or other physical hazard to any adjacent buildings, or*
 - harmful discharge of liquid materials, or*
 - unusual traffic hazard or congestion due to the type of vehicles required in the use or due to the manner in which traffic enters or leaves the site of the use.*

No nuisance or hazardous conditions are anticipated, consistent with the engineering materials provided herein.

- (k) *All buildings and grounds and other structures shall be maintained in good repair and in safe, clean and sanitary condition. All landscaping required pursuant to an approved site plan shall be installed to the satisfaction of the Director of Parks and Recreation and shall thereafter be maintained in accordance with an agreement to be made part of the application of record, which agreement shall be enforced by the Zoning Enforcement Officer, upon advice of the Director.*

The Applicants are amenable to a condition of approval requiring the execution of a Landscape Maintenance Agreement and a Drainage Maintenance Agreement prior to the issuance of a Certificate of Occupancy.

PARKING & TRANSPORTATION DEMAND MANAGEMENT PLAN PROPOSED RESIDENTIAL DEVELOPMENT

**210 Long Ridge Road
Stamford, CT**

August 11, 2023

This plan has been prepared in support of a proposed Senior Housing and Nursing Home Facility Complex encompassing 15 acres of land in Master Plan Category 8 (Mixed Use - Campus) and the C-D Zone with frontage on Long Ridge Road.

PROJECT OVERVIEW

The Applicant proposes to redevelop the existing vacant site with 210 units of senior living consisting of 168 Independent Living units and 14 units each of Assisted Living, Nursing, and Memory Care. The complex consists of one main building and two connected “manor” buildings. The proposed plan includes a total of 251 self-park spaces located at the ground level and in basement garages. An additional 32 valet spaces, for the convenience of IL residents, are also located in the main garage.

EXISTING DATA

Section 12 requires a total of 187 spaces based on the mix of senior housing types. The proposed plan includes 250+ spaces which should be sufficient to accommodate all residents, employees and visitors.

The site is centrally located between I-95 and the Merritt Parkway. The site has a Walk Score of 57 “Somewhat Walkable”, which we expect to improve upon the completion of the Whole Foods and restaurant developments across the street, as well as the City/State sidewalk implementation plan to which the applicant has already committed to contribute \$400k.

Based on the above, we feel the proposed parking is more than adequate to accommodate the expected demand.

PARKING OPERATIONS

The site maintains no direct curb cut on Long Ridge Road, and, consistent to the prior approval, none are proposed. Rather, the facility’s main entry drive will connect to the existing signalized driveway at 260 Long Ridge Road to the north (opposite Terrace Avenue). A loop driveway around the buildings provides access to all parking and loading areas.

All required parking is accommodated by onsite self-park spaces. An additional 32 spaces serve a complementary valet operation for the convenience of IL residents. There are no additional fees to residents for parking spaces or use of the valet.

Ten spaces will be designated for Electric Vehicle charging with 8 located in the main garage and 2 in the manor garage. This number may increase as construction plans are refined. A

total of 48 Class A bicycle parking spaces, which satisfy the entire (A + B) bicycle parking requirement, will be accommodated within both the main and manor garages. Both garages are directly accessible from the loop driveway. Class B spaces can be included for added convenience with the exact locations still being determined.

LOADING

A loading and receiving area is located at the northwest wing of the main building with convenient access to delivery and receiving offices, package storage, kitchen, and other “back of house” areas.

DEMAND MANAGEMENT STRATEGIES

Public Transportation

The proposed development is located approximately 2 miles from the Stamford Transportation Center, which provides access to both Amtrak and Metro North Railroad services, as well as Greyhound and Peter Pan buses.

A CT Transit stop (336) is located along the site frontage which runs from Rock Rimmon to the Stamford Transportation Center with stops near the Merritt Parkway, Bulls Head, and Downtown Stamford.

Additionally, Uber, Lyft, Metro Pool and NuRide provide corporate and personal ride sharing programs that are currently utilized by residents in the area.

Bicycle Storage

To encourage ridership as an alternate means of travel, and as an amenity to residents and employees, the applicant is providing safe and convenient access to bicycle parking spaces. Additional indoor and/or outdoor bike parking may be installed on the ground level in the future if there is such demand.

Sidewalk Improvements

The Applicant has committed to up to \$400k of cash or in-kind contributions to a proposed sidewalk improvement plan for the neighborhood. The completion of nearby shopping, convenience and other restaurant improvements should add to the “walkability” of the site and surrounding neighborhood.

Drawing List
Final Site & Architectural Plans and/or requested uses Application
210 Long Ridge Road
August 10, 2023

<u>Sheet #</u>	<u>Title/Description</u>	<u>Prepared by</u>	<u>Date</u>
<u>Civil</u>			
ZSP	Zoning Site Plan	Redniss & Mead	8/09/2023
PSTS	Property and Topographic Survey	Redniss & Mead	5/12/2023
SE-1	Site Development Plan	Redniss & Mead	8/09/2023
SE-1B	Pavement & Signage Plan	Redniss & Mead	8/09/2023
SE-2	Site Grading Plan	Redniss & Mead	8/09/2023
SE-3	Site Utility Plan	Redniss & Mead	8/09/2023
SE-4	Inset Plan	Redniss & Mead	8/09/2023
SE-5A	Sediment & Erosion Control Plan Phase I	Redniss & Mead	8/09/2023
SE-5B	Sediment & Erosion Control Plan Phase II	Redniss & Mead	8/09/2023
SE-5C	Sediment & Erosion Control Plan Phase III	Redniss & Mead	8/09/2023
SE-5D	Sediment & Erosion Control Plan Phase IV	Redniss & Mead	8/09/2023
SE-5E	Sediment & Erosion Control Plan Phase V	Redniss & Mead	8/09/2023
SE-5F	Sediment & Erosion Control Plan Phase VI	Redniss & Mead	8/09/2023
SE-6	Fire Department Access Plan	Redniss & Mead	8/09/2023
SE-7	Details	Redniss & Mead	8/09/2023
SE-8	Details	Redniss & Mead	8/09/2023
SE-9	Details	Redniss & Mead	8/09/2023
SE-10	Details	Redniss & Mead	8/09/2023
SE-11	Details	Redniss & Mead	8/09/2023
SE-12	Details	Redniss & Mead	8/09/2023
SE-13	Details	Redniss & Mead	8/09/2023

SE-14	Pipe Information & Soil Data	Redniss & Mead	8/09/2023
SE-15	Soil Data	Redniss & Mead	8/09/2023
MPT-1	Maintenance & Protection of Traffic Plan 1	Redniss & Mead	8/09/2023
MPT-2	Maintenance & Protection of Traffic Plan 2	Redniss & Mead	8/09/2023
MPT-3	Maintenance & Protection of Traffic Plan 3	Redniss & Mead	8/09/2023

Architectural

A-1.00	Residences – Overall Basement Level	Perkins Eastman	8/09/2023
A-1.01	Residences – Level 1 Overall Floor Plan	Perkins Eastman	8/09/2023
A-1.02	Residences – Level 2 Overall Floor Plan	Perkins Eastman	8/09/2023
A-1.03	Residences – Level 3 Overall Floor Plan	Perkins Eastman	8/09/2023
A-1.04	Residences – Level 4 Overall Floor Plan	Perkins Eastman	8/09/2023
A-1.05	Residences – Overall Roof Plan	Perkins Eastman	8/09/2023
A-1.10	Manors – Overall Terrace Level Plan	Perkins Eastman	8/09/2023
A-1.11	Manors – Overall First Floor Plan	Perkins Eastman	8/09/2023
A-1.12	Manors – Overall Second Floor Plan	Perkins Eastman	8/09/2023
A-1.13	Manors – Overall Third Floor Plan	Perkins Eastman	8/09/2023
A-1.14	Manors – Overall Fourth Floor Plan	Perkins Eastman	8/09/2023
A-1.15	Manors – Overall Roof Plan	Perkins Eastman	8/09/2023
A-2.00	Residences – Building Elevations	Perkins Eastman	8/09/2023
A-2.10	Residences – Building Elevations	Perkins Eastman	8/09/2023

A-2.11	Residences – Building Elevations	Perkins Eastman	8/09/2023
A-2.12	Residences – Building Elevations	Perkins Eastman	8/09/2023
A-2.14	Manor – Building Elevations	Perkins Eastman	8/09/2023
A-2.15	Manor – Building Elevations	Perkins Eastman	8/09/2023
A-3.00	Building Sections	Perkins Eastman	8/09/2023
A-4.00	Sample Unit Plans	Perkins Eastman	8/09/2023
A-5.00	Exterior Renderings	Perkins Eastman	8/09/2023

Landscape

L-100	Landscape Layout Plan	Perkins Eastman	8/09/2023
L-101	Landscape Planting Plan	Perkins Eastman	8/09/2023
L-200	Courtyard Plan	Perkins Eastman	8/09/2023
L-300	Courtyard Sections	Perkins Eastman	8/09/2023
L-400	Landscape Details	Perkins Eastman	8/09/2023

August 11, 2023

General Property Description
Final Site & Architectural Plans and/or requested uses Application
210 Long Ridge Road (003-8215)

Block #: 247

Area: 15± Acres

All that parcel of land referred to as 0 Long Ridge Road (Assessor's Card #003-8215) and commonly known as 210 Long Ridge Road, located in the City of Stamford. Said property is located on the westerly side of Long Ridge Road, opposite Cross Road, McClean Avenue and Terrace Avenue, and is generally bounded by the following:

Northerly: 906' ± by land n/f of 260 Long Ridge Land LLC (Parcel "A-1")- on Map #7521 Stamford Land Records, commonly known as 260 Long Ridge Road); and

Easterly: 846' ± by the westerly side of Long Ridge Road.

Southerly: 852' ± by land n/f of 120 Long Ridge LLC(Parcel "B-R" on Map #11551 Stamford Land Records, commonly known as 120 Long Ridge Road);

Westerly: 669' ± by the Rippowam River;

210 Long Ridge Road
Senior Housing & Nursing Home Facility Complex
Zoning Data Chart - C-D Zone

	Required/Allowed	Approved GDP	Proposed FSP	Notes
Lot Area	15 acres	15.0 acres	15.0 acres	Complies.
Building Coverage	17%	16.5%	17.0%	Complies.
Lot Coverage	35%	35%	35%	Complies. Excludes additional walkways/patios per existing Regulations.
Density	210 DU 14 DU/Acre	210	210	Complies.
Building Stories	4	4	4	Complies.
Building Height	60'	<60'	<60'	Complies.
Street Line Setback	50'/200'	75'/200'	160'/203'	Complies. 4-story elements located 200' from Street Line
Non-Residential Setback	50'	50'	52'	Complies.
Residential Setback	250'	250'	251'	Complies. 4-story elements located 250' from adjacent residential zones.
PAAS	5%	TBD	10%+	Complies.

Parking

Unit Type	# Units	Rate	Total Required	Provided (GDP)	Provided (FSP)	Notes
IL	168	1.00	168	250-275±	251-283	Complies. 251 self-park spaces plus additional 32 valet spaces as a convenience for IL residents.
AL	14	0.50	7			
MC	14	0.50	7			
Nursing	14	0.33	5			
TOTAL	210	-	187			

Bicycle Parking

	Required	Provided	Notes
Class A	27	48	Complies. 48 Class A spaces located in main building and manor garages. Location of additional Class B spaces TBD.
Class B	21	TBD	
Total	48	48	

	Required	Provided	Notes
EV Spaces	8.5	10	Complies. 8 spaces in main garage and 2 in manor.



EXISTING AERIAL EXHIBIT
210 LONG RIDGE ROAD
STAMFORD, CT



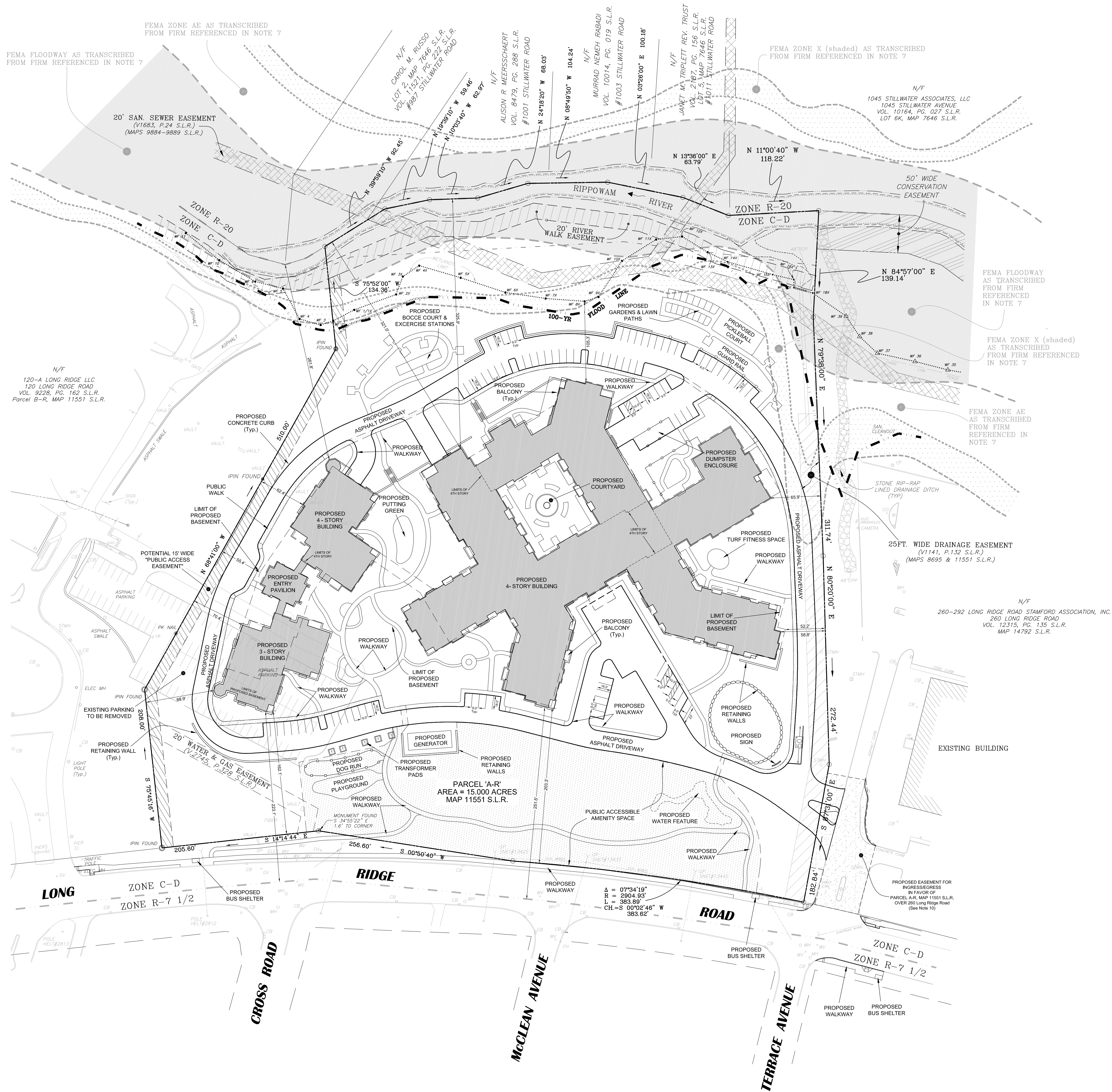
REDNISS
& MEAD

LAND SURVEYING
CIVIL ENGINEERING
PLANNING & ZONING CONSULTING
PERMITTING

22 First Street | Stamford, CT 06905
Tel: 203.327.0500 | Fax: 203.357.1118
www.rednissmead.com

COMM. NO.:
1730

DATE:	2/16/2022
SCALE:	1"=150'



Legend	
	PROPERTY LINE
	CURB LINE
	CHAIN LINK FENCE
	STONE WALL
	STONE MASONRY WALL
	ZONE LINE
	BUILDING SETBACK LINE
	WATER VALVE
	GAS VALVE
	STAND PIPE / FIRE HYDRANT
	CATCH BASIN
	SANITARY MANHOLE
	STORM MANHOLE
	ELECTRIC MANHOLE
	TELEPHONE MANHOLE
	CLEAN OUT
	LIGHT POLE
	UTILITY POLE
	GUY POLE
	BUILDING FACE

- ZONING SITE PLAN NOTES:**
- This drawing is intended only to depict the Zoning Site Plan in conjunction with Zoning Board Submission.
 - All survey data, boundary lines, and building locations are from a survey prepared by Redniss & Mead entitled "Property & Topographic Survey" dated 5/12/2023. Elevations depicted or labeled are based on NAVD-88.
 - Limit of Wetlands, depicted hereon, was field identified and flagged by Bruce C. Laskey on 2/27/1995 and located by Redniss & Mead on 2/28/1995. Also refer to letter prepared by Jay Fain dated 8/15/2019 for further information.
 - Refer to plans prepared by Perkins Eastman for information and design of proposed buildings.
 - Property lies in a C-D zone.
 - All construction shall comply with City of Stamford requirements, the State of Connecticut Basic Building Code, Americans with Disabilities Act (ADA), the Connecticut Guidelines for Soil and Erosion and Sediment Control, OSHA, CT DOT Form 618 (Latest Edition), and FEMA Flood Regulations.
 - Reference is made to FEMA Flood Insurance Map Panel No. 508 of 528, Map No. 09001C0500P, effective date June 16, 2010. Portion of the Subject Property lies within a Special Flood Hazard Area. 100-Year Flood Line (BFE 52.0-52.3) is shown based on actual ground elevations (field located 2015) as derived from said FEMA MAP, in conjunction with the Flood Profiles of Rippowam River (Lower Reach) and shown as transcribed from said FEMA Map.
 - The property shall be serviced by public waters and sewers.
 - No EPB regulated activities proposed.

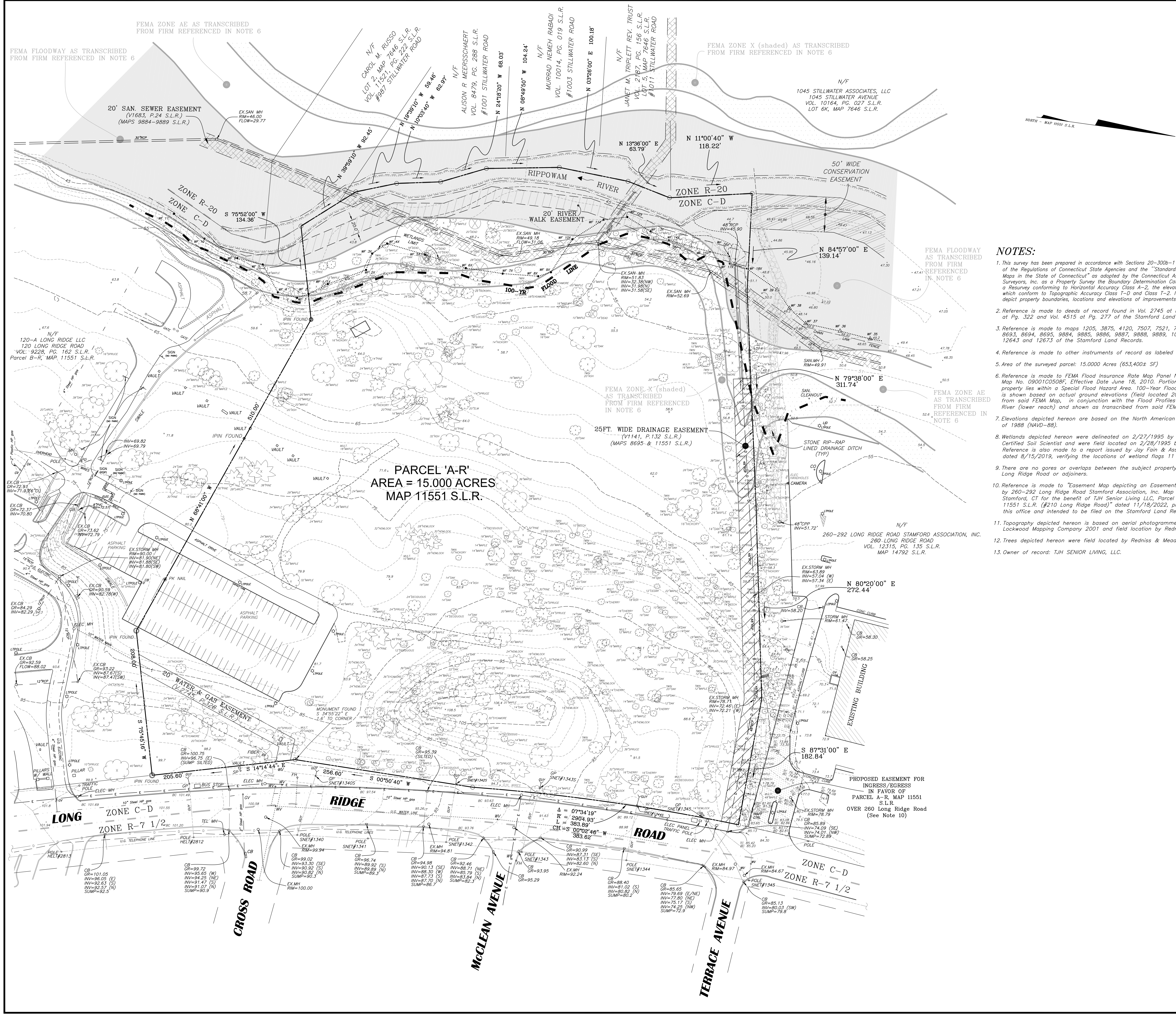
2	08/09/2023	DESIGN DEVELOPMENT / ZB RESUBMISSION
1	5/31/2023	ORIGINAL ISSUE DATE

ZONING SITE PLAN
DEPICTING
PARCEL 'A-R', MAP 11551 S.L.R.
#210 LONG RIDGE ROAD
STAMFORD, CT
PREPARED FOR
TJH Senior Living LLC

REDNISS & MEAD
LAND SURVEYING
CIVIL ENGINEERING
PLANNING & ZONING CONSULTING
PRINTING

22 First Street | Stamford, CT 06901
Tel: 203.327.0900 | Fax: 203.327.1118
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SCALE: 0 50 100
1"=50'
DRAWN BY: TRM
CHECKED BY: TEM
SHEET No:
ZSP
Comm. No: 1730N-2



BLOCK: 247 ZONE: C_D

STAMFORD, CT SCALE: 1"=500'

ORIENTATION

Legend

	PROPERTY LINE
	CURB LINE
	CHAIN LINK FENCE
	STONE WALL
	STONE MASONRY WALL
	OVERHEAD WIRES
	ZONE LINE
	BUILDING SETBACK LINE
	WATER VALVE
	GAS VALVE
	STAND PIPE / FIRE HYDRANT
	CATCH BASIN
	SANITARY MANHOLE
	STORM MANHOLE
	ELECTRIC MANHOLE
	TELEPHONE MANHOLE
	CLEAN OUT
	LIGHT POLE
	UTILITY POLE
	GUY POLE
	BUILDING FACE

Abbreviations

AC	AIR CONDITIONING
CB	CATCH BASIN
CI	CAST IRON PIPE
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
FEMA	FED. EMERG. MAN. AG.
FM	FIRE HYDRANT
FFE	FINISHED FLOOR ELEVATION
F/P	FLAG POLE
GP	GUY POLE
GR	GRATE
HEM	HEMLOCK
HW	HEADWALL
INV	INVERT
IPIN	IRON PIN
MAP	MAPLE
MH	MANHOLE
N/F	NOW OR FORMERLY
RCP	RE-ENFORCED CONC. PIPE
SAN	SANITARY
SLR	STANDFORD LAND RECORDS
SP	SPRINKLER CONNECTION
TRAF	TRAFFIC
W	WETLAND LIMIT FLAG
WV	WATER VALVE

- NOTES:**
- This survey has been prepared in accordance with Sections 20-300b-1 thru 20-300b-20 of the Regulations of Connecticut State Agencies and the "Standards for Surveys and Maps in the State of Connecticut" as adopted by the Connecticut Association of Land Surveyors, Inc. as a Property Survey the Boundary Determination Category of which is a Resurvey conforming to Horizontal Accuracy Class A-2, the elevations of which conform to Topographic Accuracy Class T-0 and Class T-2. It is intended to depict property boundaries, locations and elevations of improvements and topographic features.
 - Reference is made to deeds of record found in Vol. 2745 at Pg. 328, Vol. 3659 at Pg. 322 and Vol. 4515 at Pg. 277 of the Stamford Land Records.
 - Reference is made to maps 1205, 3875, 4120, 7507, 7521, 7530, 7646, 8317, 8693, 8694, 8695, 9884, 9885, 9886, 9887, 9888, 9889, 10292, 11551, 12643 and 12673 of the Stamford Land Records.
 - Reference is made to other instruments of record as labeled hereon.
 - Area of the surveyed parcel: 15.0000 Acres (653,400± SF)
 - Reference is made to FEMA Flood Insurance Rate Map Panel No. 508 of 626, Map No. 09001C0508F, Effective Date June 18, 2010. Portion of the Subject property lies within a Special Flood Hazard Area. 100-Year Flood Line (BFE 52.0-56.0) is shown based on actual ground elevations (field located 2015) as derived from said FEMA Map, in conjunction with the Flood Profiles of Rippowam River (lower reach) and shown as transcribed from said FEMA Map.
 - Elevations depicted hereon are based on the North American Vertical Datum of 1988 (NAVD-88).
 - Wetlands depicted hereon were delineated on 2/27/1995 by Bruce C. Laskey, Certified Soil Scientist and were field located on 2/28/1995 by Redniss & Mead. Reference is also made to a report issued by Jay Fain & Associates LLC, dated 8/15/2019, verifying the locations of wetland flags 11 - 18.
 - There are no gores or overlaps between the subject property and Long Ridge Road or adjoiners.
 - Reference is made to "Easement Map depicting an Easement to be granted by 260-292 Long Ridge Road Stamford Association, Inc. Map 14792 S.L.R., Stamford, CT for the benefit of TJH Senior Living LLC, Parcel 'A-R', Map 11551 S.L.R. (#210 Long Ridge Road)" dated 11/18/2022, prepared by this office and intended to be filed on the Stamford Land Records.
 - Topography depicted hereon is based on aerial photogrammetry by Lockwood Mapping Company 2001 and field location by Redniss & Mead 2015.
 - Trees depicted hereon were field located by Redniss & Mead 2001, 2015, 2019 & 2023.
 - Owner of record: TJH SENIOR LIVING, LLC.

PROPERTY & TOPOGRAPHIC SURVEY
DEPICTING
PARCEL 'A-R', MAP 11551 S.L.R.
#210 LONG RIDGE ROAD
STAMFORD, CONNECTICUT
PREPARED FOR
TJH Senior Living LLC

LAND SURVEYING
CIVIL ENGINEERING
PLANNING & ZONING CONSULTING
PERMITTING

Scale: 1"=50'

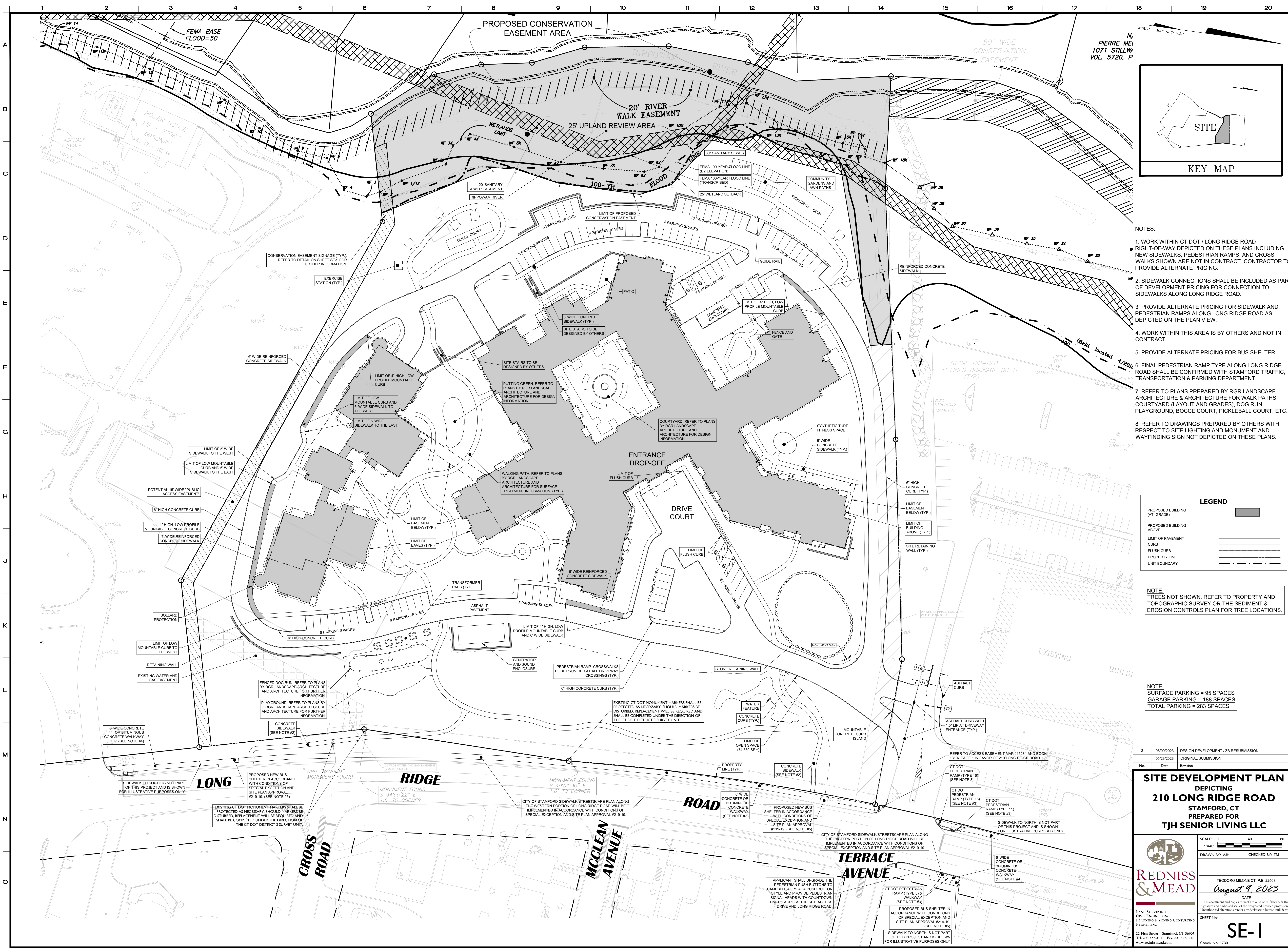
Drawn By: JPP Checked By: JPP Date: 5/12/2023

To my knowledge and belief this map is substantially correct on matters shown.

JORGE P. PERERA CT L.S. #70179
5/12/2023
DATE

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Sheet No:
PSTS
Conn. No.: 1730N-1



- NOTES:
1. WORK WITHIN CT DOT / LONG RIDGE ROAD RIGHT-OF-WAY DEPICTED ON THESE PLANS INCLUDING NEW SIDEWALKS, PEDESTRIAN RAMPS, AND CROSS WALKS SHOWN ARE NOT IN CONTRACT. CONTRACTOR TO PROVIDE ALTERNATE PRICING.
 2. SIDEWALK CONNECTIONS SHALL BE INCLUDED AS PART OF DEVELOPMENT PRICING FOR CONNECTION TO SIDEWALKS ALONG LONG RIDGE ROAD.
 3. PROVIDE ALTERNATE PRICING FOR SIDEWALK AND PEDESTRIAN RAMPS ALONG LONG RIDGE ROAD AS DEPICTED ON THE PLAN VIEW.
 4. WORK WITHIN THIS AREA IS BY OTHERS AND NOT IN CONTRACT.
 5. PROVIDE ALTERNATE PRICING FOR BUS SHELTER.
 6. FINAL PEDESTRIAN RAMP TYPE ALONG LONG RIDGE ROAD SHALL BE CONFIRMED WITH STAMFORD TRAFFIC, TRANSPORTATION & PARKING DEPARTMENT.
 7. REFER TO PLANS PREPARED BY RGR LANDSCAPE ARCHITECTURE & ARCHITECTURE FOR WALK PATHS, COURTYARD (LAYOUT AND GRADES), DOG RUN, PLAYGROUND, BOCCO COURT, PICKLEBALL COURT, ETC.
 8. REFER TO DRAWINGS PREPARED BY OTHERS WITH RESPECT TO SITE LIGHTING AND MONUMENT AND WAYFINDING SIGN NOT DEPICTED ON THESE PLANS.

LEGEND	
PROPOSED BUILDING (AT GRADE)	
PROPOSED BUILDING ABOVE	
LIMIT OF PAVEMENT	
FLUSH CURB	
PROPERTY LINE	
UNIT BOUNDARY	

NOTE: TREES NOT SHOWN. REFER TO PROPERTY AND TOPOGRAPHIC SURVEY OR THE SEDIMENT & EROSION CONTROLS PLAN FOR TREE LOCATIONS.

NOTE: SURFACE PARKING = 95 SPACES
GARAGE PARKING = 188 SPACES
TOTAL PARKING = 283 SPACES

No.	Date	Revision
2	08/09/2023	DESIGN DEVELOPMENT / 2B RESUBMISSION
1	06/23/2023	ORIGINAL SUBMISSION

SITE DEVELOPMENT PLAN
DEPICTING
210 LONG RIDGE ROAD
STAMFORD, CT
PREPARED FOR
TJH SENIOR LIVING LLC

LAND SURVEYING
CIVIL ENGINEERING
PLANNING & ZONING CONSULTING
PLANNING

TEODORO MILONE CT. P.E. 22563
August 9, 2023
DATE

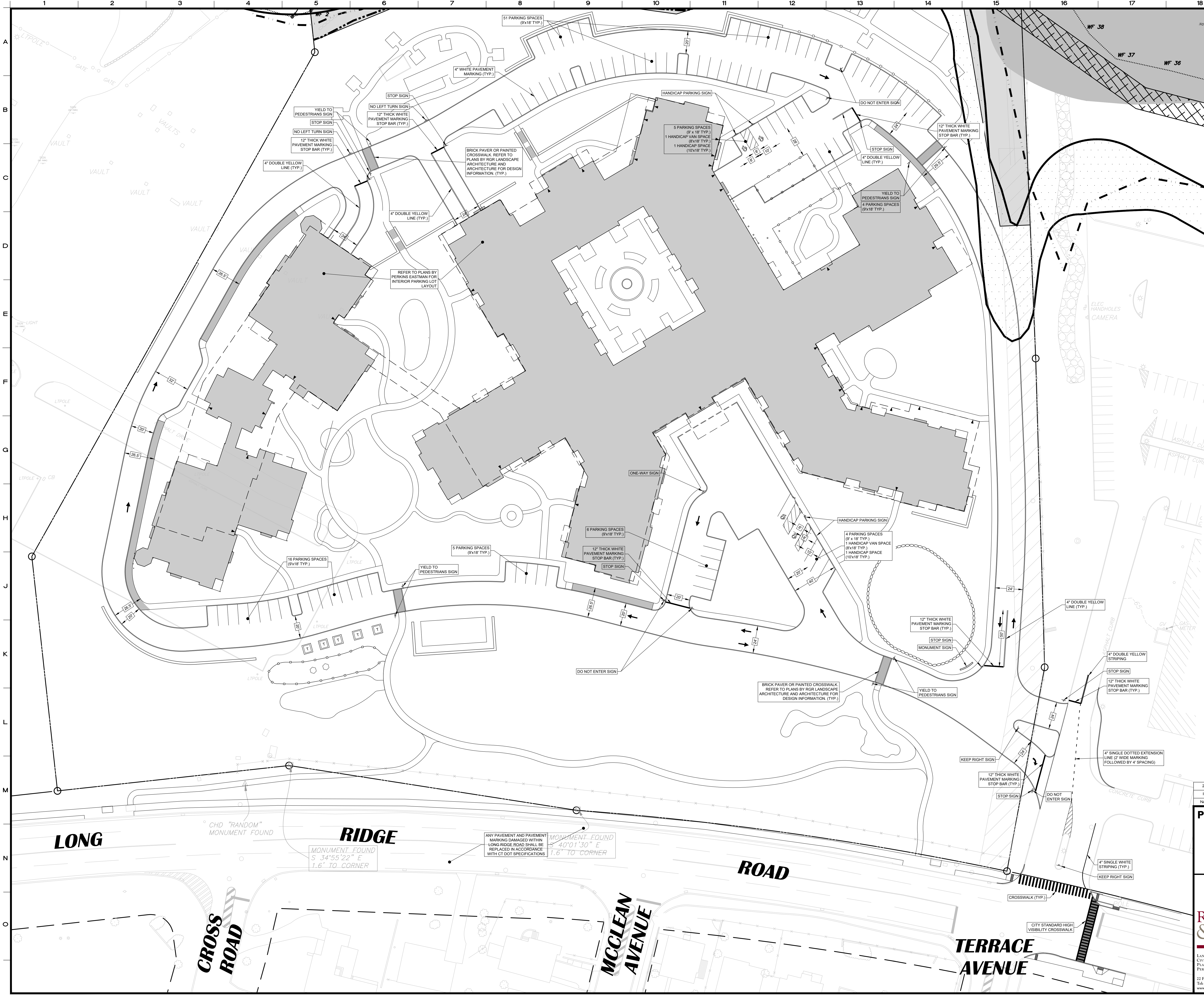
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SHEET No: **SE-1**

22 First Street | Stamford, CT 06905
Tel: 203.327.0500 | Fax: 203.357.1118
www.rednissandmead.com

Scale: 0 60 90
1"=40'
DRAWN BY: V.JH
CHECKED BY: T.M.
Comm. No: 1730

2023-08-09 12:47 PM C:\PROJECTS\210 LONG RIDGE ROAD\210 LONG RIDGE ROAD.dwg (Sheet) User: TJH



NOTE:
TREES NOT SHOWN. REFER TO PROPERTY AND TOPOGRAPHIC SURVEY OR THE SEDIMENT & EROSION CONTROLS PLAN FOR TREE LOCATIONS.

SURFACE PARKING PROVIDED	
95	9'X18'
2	REGULAR HANDICAP
2	VAN HANDICAP

208/09/2023

DESIGN DEVELOPMENT / 2B RESUBMISSION

1

05/23/2023

ORIGINAL SUBMISSION

No.

Date

Revision

PAVEMENT & SIGNAGE PLAN

DEPICTING

210 LONG RIDGE ROAD

STAMFORD, CT

PREPARED FOR

TJH SENIOR LIVING LLC

REDNISS & MEAD

LAND SURVEYING

CIVIL ENGINEERING

PLANNING & ZONING CONSULTING

PLANNING

22 First Street | Stamford, CT 06905

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SCALE: 0 30 60

1"=30'

DRAWN BY: VJH

CHECKED BY: TM

TEODORO MILONE CT. P.E. 22563

August 9, 2023

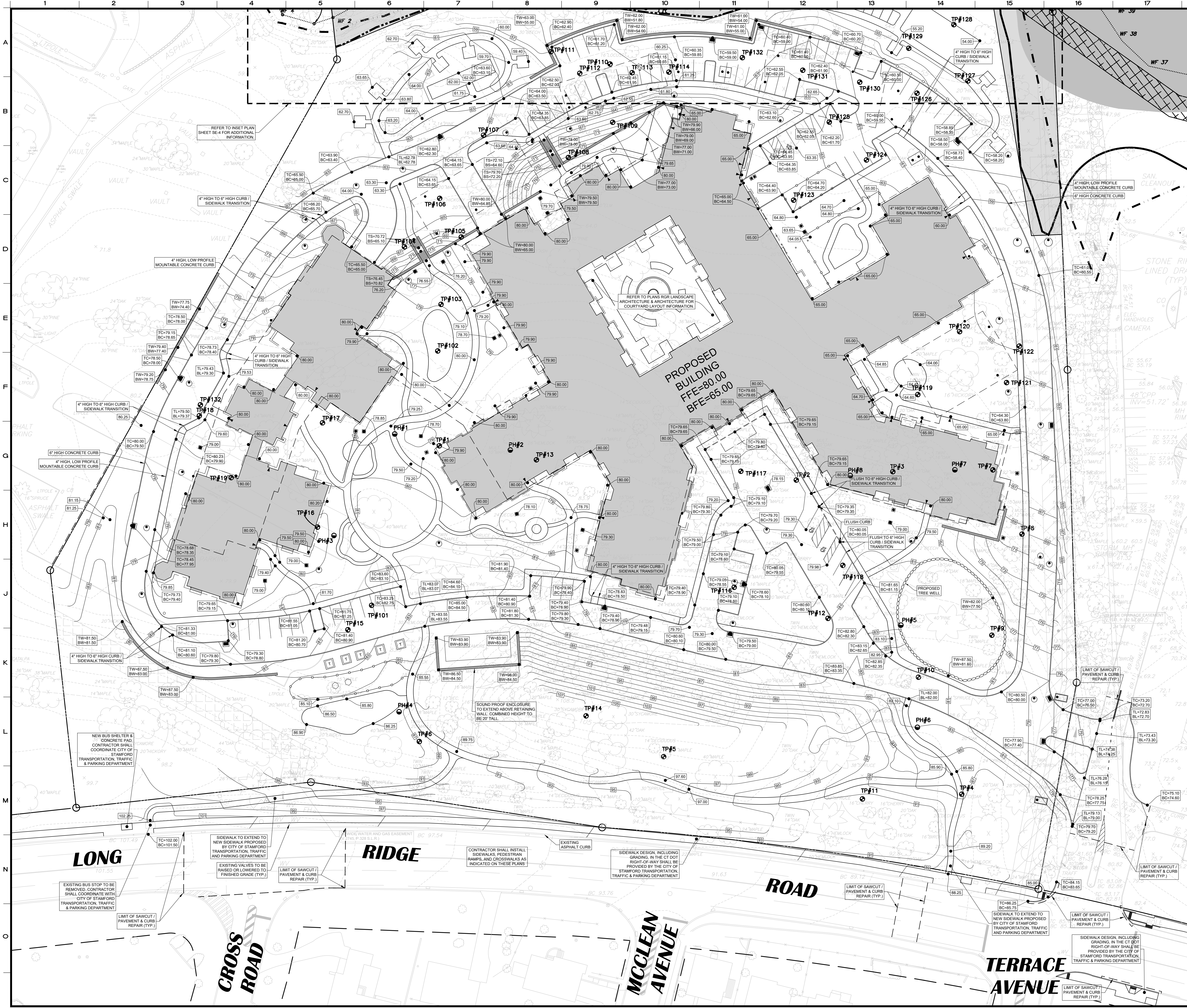
DATE

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SHEET No:

SE-1B

Comm. No: 1730



- GENERAL NOTES:
1. REFER TO SHEET SE-7 FOR NOTES AND SHEET SE-7 THROUGH SE-13 FOR DETAILS.
 2. REFER TO PROJECT ARCHITECT OR OTHER CONSULTANTS FOR DESIGN INFORMATION INCLUDING ALL BUILDINGS, STEPS, STAIRS, RAMPS (INCLUDING APPROPRIATE RAILS), DUMPSTER AREA, GENERATOR PAD, PATIOS, SITE RETAINING WALLS (INCLUDING ANY REQUIRED FALL PROTECTION), SITE LIGHTING (INCLUDING CONDUITS), MONUMENT SIGNS, AND ALL OF THE INFORMATION NOT SHOWN ON THESE PLANS. RAMPS SHALL NOT EXCEED 1:12 SLOPE FOR MORE THAN 30 FEET AND SHALL HAVE A LANDING GRADED AT MAXIMUM OF 2% IN ALL DIRECTIONS FOR A 5 FOOT LONG AREA.
 3. THE CONTRACTOR SHALL PAVE BETWEEN THE CURB AND LIMIT OF PAVEMENT SUCH THAT NO BIRD BATHS ARE CREATED.
 4. ALL SITE WALKWAYS AND CROSSWALKS SHALL NOT EXCEED 5% LONGITUDINAL SLOPE AND 2% CROSS SLOPE.
 5. THE CONTRACTOR SHALL FOLLOW THE PROPOSED GRADING PLAN SHOWN ON THIS PLAN. IF CONFLICTS EXIST, THE SITE CONTRACTOR SHALL ADVISE THE SITE ENGINEER WHO SHALL REVIEW AND APPROVE ANY DEVIATIONS FROM THIS GRADING PLAN.
 6. ADJUST EXISTING AND PROPOSED UTILITIES, MANHOLE COVERS, AND GRATES AS REQUIRED TO BE FLUSH WITH FINISHED GRADE.

No.	Date	Revision
2	08/09/2023	DESIGN DEVELOPMENT / 2B RESUBMISSION
1	05/23/2023	ORIGINAL SUBMISSION

SITE GRADING PLAN
DEPICTING
210 LONG RIDGE ROAD
STAMFORD, CT
PREPARED FOR
TJH SENIOR LIVING LLC

REDNISS & MEAD

TEODORO MILONE CT. P.E. 22563
August 9, 2023
DATE

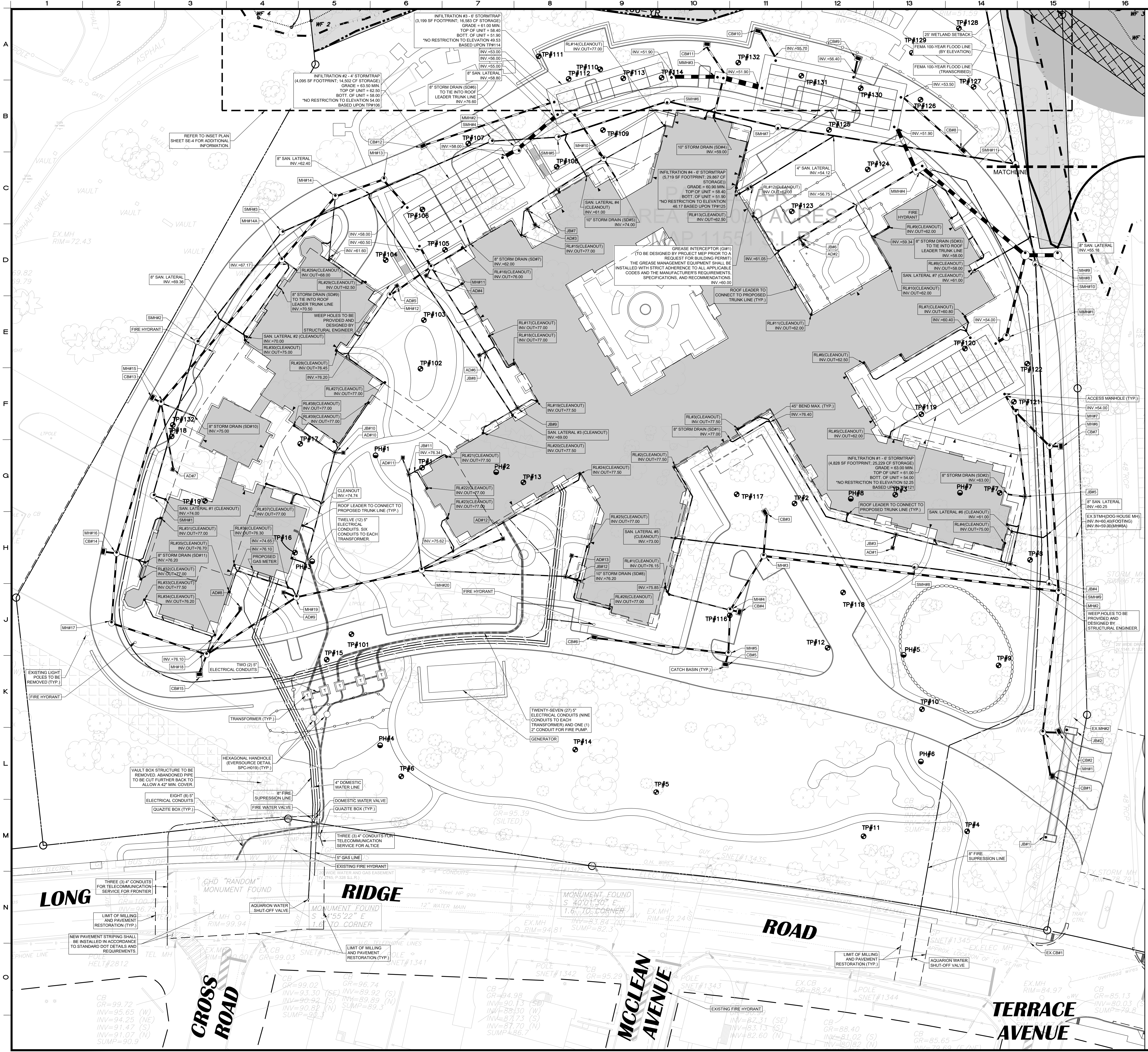
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SHEET No: **SE-2**

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Scale: 0' 30' 60'
1"=30'
DRAWN BY: V.JH
CHECKED BY: TM

Comm. No: 1730



- GENERAL NOTES:
- REFER TO PLANS PREPARED BY PLUMBING ENGINEER FOR THE STORM SYSTEM LAYOUT OF THE ROOF AND PARKING GARAGE AREAS. THIS DRAWING SHOWS INFORMATION FOR STORM SEWER SYSTEMS FROM 5 FEET OFF OF THE BUILDING PERIMETER TO THE CITY SEWER SYSTEMS.
 - REFER TO PLANS PREPARED BY PLUMBING ENGINEER FOR THE SANITARY SEWER SYSTEM LAYOUT. INTERIOR PARKING GARAGE WITH DRAINS MUST BE Piped TO AN OIL GRIT SEPARATOR DESIGNED BY PLUMBING ENGINEER. THIS DRAWING SHOWS INFORMATION FOR SANITARY SEWER SYSTEMS FROM 5 FEET OFF OF THE BUILDING PERIMETER TO THE CITY SEWER SYSTEMS.
 - UTILITIES SHOWN ON THESE PLANS ARE "NOT GUARANTEED" TO BE COMPLETE OR CORRECT. PRIOR TO ANY SITE ACTIVITIES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF CLEARANCES OF PROPOSED UTILITIES FROM EXISTING UTILITIES. THIS VERIFICATION SHALL INCLUDE PHYSICAL OBSERVATION BY MEANS OF TEST PITS OF THE LOCATIONS OF AFFECTED UTILITIES. THE CONTRACTOR SHALL NOTIFY THE SITE ENGINEER IMMEDIATELY OF ANY CONFLICT AND SHALL ALLOW FOR A MINIMUM OF 10 DAYS FOR ANY REDESIGN / TO OBTAIN CITY/STATE APPROVALS. ALL TEST PITS SHALL BE CONDUCTED AS PART OF THE BASE CONTRACT.
 - THIS PLAN SHOWS SERVICE LOCATION TO BE PROVIDED FOR THE DEVELOPMENT. SERVICE LOCATIONS SHALL BE COORDINATED AND INSTALLED AS DIRECTED BY THE APPLICABLE UTILITY COMPANIES.
 - ANY UTILITY COVERS WITHIN PAVED AREAS AND SIDEWALKS SHALL BE RAISED OR LOWERED IN ACCORDANCE WITH THE UTILITY COMPANY STANDARDS. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING SUCH WORK WITH THE UTILITY COMPANY.
 - THE CONTRACTOR IS RESPONSIBLE TO WORK WITH THE UTILITY COMPANIES TO APPROVE CONDUIT LAYOUT BEFORE INSTALLATION. UTILITY COMPANIES MAY REQUIRE FIELD CHANGES.
 - THE CONTRACTOR SHALL COORDINATE ALL LANE CLOSURES WITH THE CITY OF STAMFORD AND/OR THE STATE OF CONNECTICUT DOT.
 - THE CONTRACTOR SHALL USE EXTREME CAUTION AGAINST ACCIDENTAL DUMPING OF DIRT, CONCRETE, OR ANY OTHER MATERIAL INTO THE PROPOSED OR EXISTING SANITARY SEWER LINE DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY CLEANUP AND DAMAGE CAUSED TO PUMP STATION EQUIPMENT DOWNSTREAM.
 - THE CONTRACTOR SHALL CONTACT THE CITY OF STAMFORD WATER POLLUTION CONTROL AUTHORITY (WPCA) AT (203) 977-5896 OR (203) 977-4750 FOR INSPECTION OF THE SANITARY SEWER CONNECTION INTO THE MAIN. AS PART OF THE FINAL APPROVAL, THE LOCATION OF THE LATERAL CONNECTION TO THE SANITARY SEWER SHALL BE PROVIDED ON A SKETCH WITH THE FOLLOWING INFORMATION:
 - DISTANCE INFORMATION FROM AT LEAST TWO PERMANENT STATIONS (I.E. TELEPHONE POLE WITH NUMBER, NEAREST MANHOLE COVER, CORNER OF BUILDING WITH ADDRESS, ETC.)
 - DEPTH OF LATERAL CONNECTION
 - INSTALL 6" CONCRETE ENCASUREMENT AROUND PROPOSED UTILITIES WHERE CLEARANCES FROM EXISTING AND PROPOSED UTILITIES ARE LESS THAN TWO (2) FEET.
 - REFER TO SHEET SE-7 FOR ADDITIONAL NOTES AND SHEET SE-7 THROUGH SE-13 FOR DETAILS.
 - ALL UTILITIES WITHIN THE CT DOT RIGHT-OF-WAY SHALL BE INSTALLED A MINIMUM OF 36" BELOW THE ROADWAY SURFACE.

REFER TO SHEET SE-14 FOR
STORM AND SANITARY STRUCTURE
AND PIPE INFORMATION

2	08/09/2023	DESIGN DEVELOPMENT / 2B RESUBMISSION
1	05/23/2023	ORIGINAL SUBMISSION
No.	Date	Revision

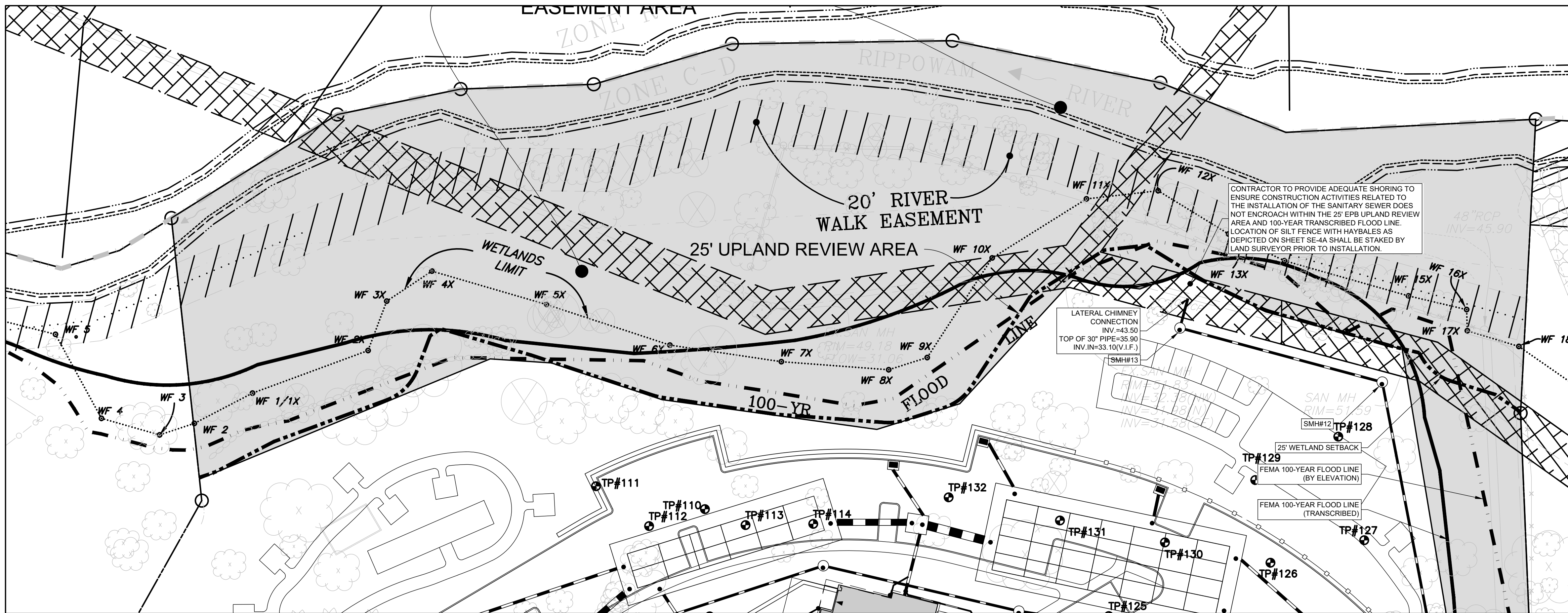
SITE UTILITY PLAN
DEPICTING
210 LONG RIDGE ROAD
STAMFORD, CT
PREPARED FOR
TJH SENIOR LIVING LLC

REDNISS & MEAD
LAND SURVEYING
CIVIL ENGINEERING
PLANNING & ZONING CONSULTING
PLUMBING

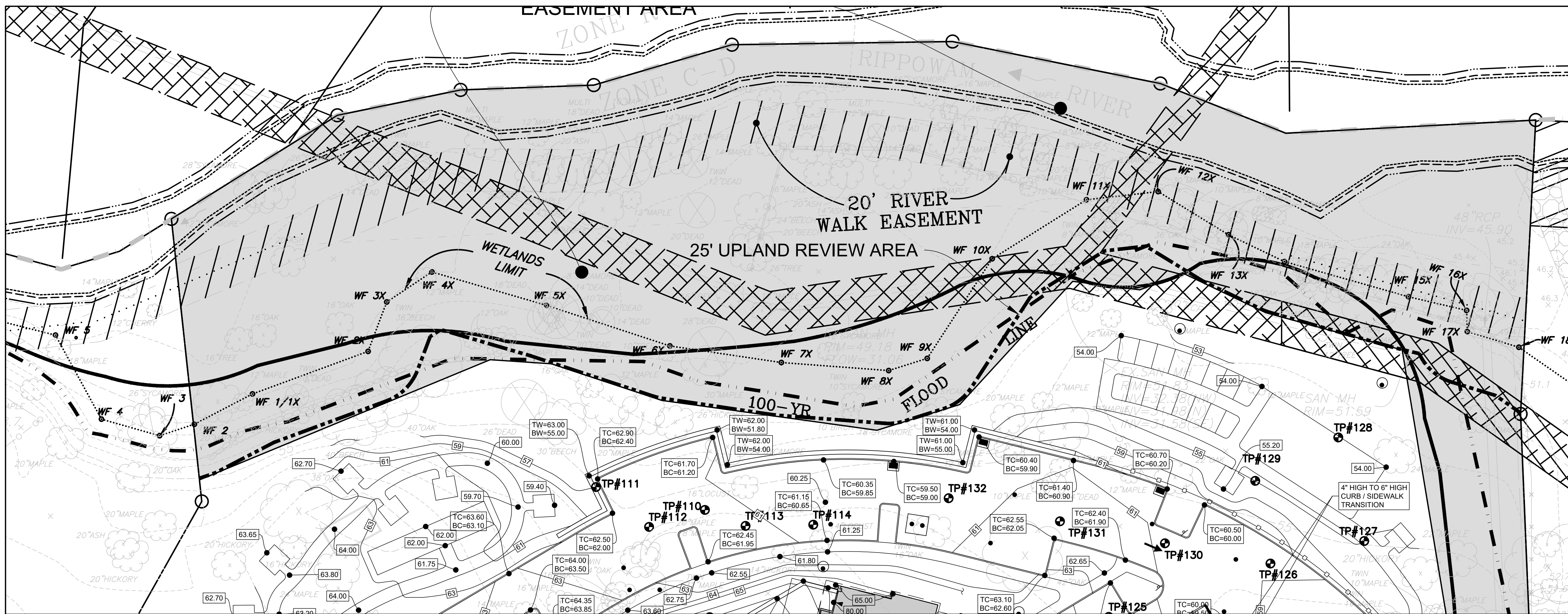
TEODORO MILONE CT. P.E. 22563
August 9, 2023
DATE
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SHEET No:
SE-3
Comm. No. 1730

SCALE: 0 30 60
1"=30'

DRAWN BY: VJH
CHECKED BY: TM



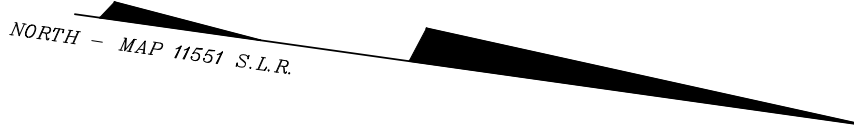
UTILITY INSET
SCALE: 1"=30'



GRADING INSET
SCALE: 1"=30'

GENERAL NOTES:

1. REFER TO PLANS PREPARED BY PLUMBING ENGINEER FOR THE STORM SYSTEM LAYOUT OF THE ROOF AND PARKING GARAGE AREAS. THIS DRAWING SHOWS INFORMATION FOR STORM SEWER SYSTEMS FROM 5 FEET OFF OF THE BUILDING PERIMETER TO THE CITY SEWER SYSTEMS.
2. REFER TO PLANS PREPARED BY PLUMBING ENGINEER FOR THE SANITARY SEWER SYSTEM LAYOUT. INTERIOR PARKING GARAGE WITH DRAINS MUST BE PIPED TO AN OIL GRIT SEPARATOR DESIGNED BY PLUMBING ENGINEER. THIS DRAWING SHOWS INFORMATION FOR SANITARY SEWER SYSTEMS FROM 5 FEET OFF OF THE BUILDING PERIMETER TO THE CITY SEWER SYSTEMS.
3. UTILITIES SHOWN ON THESE PLANS ARE "NOT GUARANTEED" TO BE COMPLETE OR CORRECT. PRIOR TO ANY SITE ACTIVITIES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF CLEARANCES OF PROPOSED UTILITIES FROM EXISTING UTILITIES. THIS VERIFICATION SHALL INCLUDE PHYSICAL OBSERVATION BY MEANS OF TEST PITS OF THE LOCATIONS OF AFFECTED UTILITIES. THE CONTRACTOR SHALL NOTIFY THE SITE ENGINEER IMMEDIATELY OF ANY CONFLICT AND SHALL ALLOW FOR A MINIMUM OF 10 DAYS FOR ANY REDESIGN / TO OBTAIN CITY/STATE APPROVALS. ALL TEST PITS SHALL BE CONDUCTED AS PART OF THE BASE CONTRACT.
4. THIS PLAN SHOWS SERVICE LOCATION TO BE PROVIDED FOR THE DEVELOPMENT. SERVICE LOCATIONS SHALL BE COORDINATED AND INSTALLED AS DIRECTED BY THE APPLICABLE UTILITY COMPANIES.
5. ANY UTILITY COVERS WITHIN PAVED AREAS AND SIDEWALKS SHALL BE RAISED OR LOWERED IN ACCORDANCE WITH THE UTILITY COMPANY STANDARDS. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING SUCH WORK WITH THE UTILITY COMPANY.
6. THE CONTRACTOR IS RESPONSIBLE TO WORK WITH THE UTILITY COMPANIES TO APPROVE CONDUIT LAYOUT BEFORE INSTALLATION. UTILITY COMPANIES MAY REQUIRE FIELD CHANGES.
7. THE CONTRACTOR SHALL COORDINATE ALL LANE CLOSURES WITH THE CITY OF STAMFORD AND/OR THE STATE OF CONNECTICUT DOT.
8. THE CONTRACTOR SHALL USE EXTREME CAUTION AGAINST ACCIDENTAL DUMPING OF DIRT, CONCRETE, OR ANY OTHER MATERIAL INTO THE PROPOSED OR EXISTING SANITARY SEWER LINE DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY CLEANUP AND DAMAGE CAUSED TO PUMP STATION EQUIPMENT DOWNSTREAM.
9. THE CONTRACTOR SHALL CONTACT THE CITY OF STAMFORD WATER POLLUTION CONTROL AUTHORITY (WPCA) AT (203) 977-5896 OR (203) 977-4750 FOR INSPECTION OF THE SANITARY SEWER CONNECTION INTO THE MAIN AT LEAST 3-DAYS IN ADVANCE, ANYTIME BETWEEN 7:30 A.M. AND 2 P.M. (MONDAY THROUGH FRIDAY). THE CONTRACTOR IS NOT TO BREAK INTO THE PUBLIC SEWER LINE WITHOUT WPCA BEING PRESENT. AS PART OF THE FINAL APPROVAL, THE LOCATION OF THE LATERAL CONNECTION TO THE SANITARY SEWER SHALL BE PROVIDED ON A SKETCH WITH THE FOLLOWING INFORMATION:
 - 9.1. DISTANCE INFORMATION FROM AT LEAST TWO PERMANENT STATIONS (I.E. TELEPHONE POLE WITH NUMBER, NEAREST MANHOLE COVER, CORNER OF BUILDING WITH ADDRESS, ETC.
 - 9.2. DEPTH OF LATERAL CONNECTION
10. INSTALL 6" CONCRETE ENCASEMENT AROUND PROPOSED UTILITIES WHERE CLEARANCES FROM EXISTING AND PROPOSED UTILITIES ARE LESS THAN TWO (2) FEET.
11. REFER TO SHEET SE-7 FOR ADDITIONAL NOTES AND SHEET SE-7 THROUGH SE-13 FOR DETAILS.
12. ALL UTILITIES WITHIN THE CT DOT RIGHT-OF-WAY SHALL BE INSTALLED A MINIMUM OF 36" BELOW THE ROADWAY SURFACE.



REFER TO SHEET SE-14 FOR
STORM AND SANITARY STRUCTURE
AND PIPE INFORMATION

2	08/09/2023	DESIGN DEVELOPMENT / 2B RESUBMISSION
1	05/23/2023	ORIGINAL SUBMISSION
No.	Date	Revision

INSET PLAN
DEPICTING
210 LONG RIDGE ROAD
STAMFORD, CT
PREPARED FOR
TJH SENIOR LIVING LLC

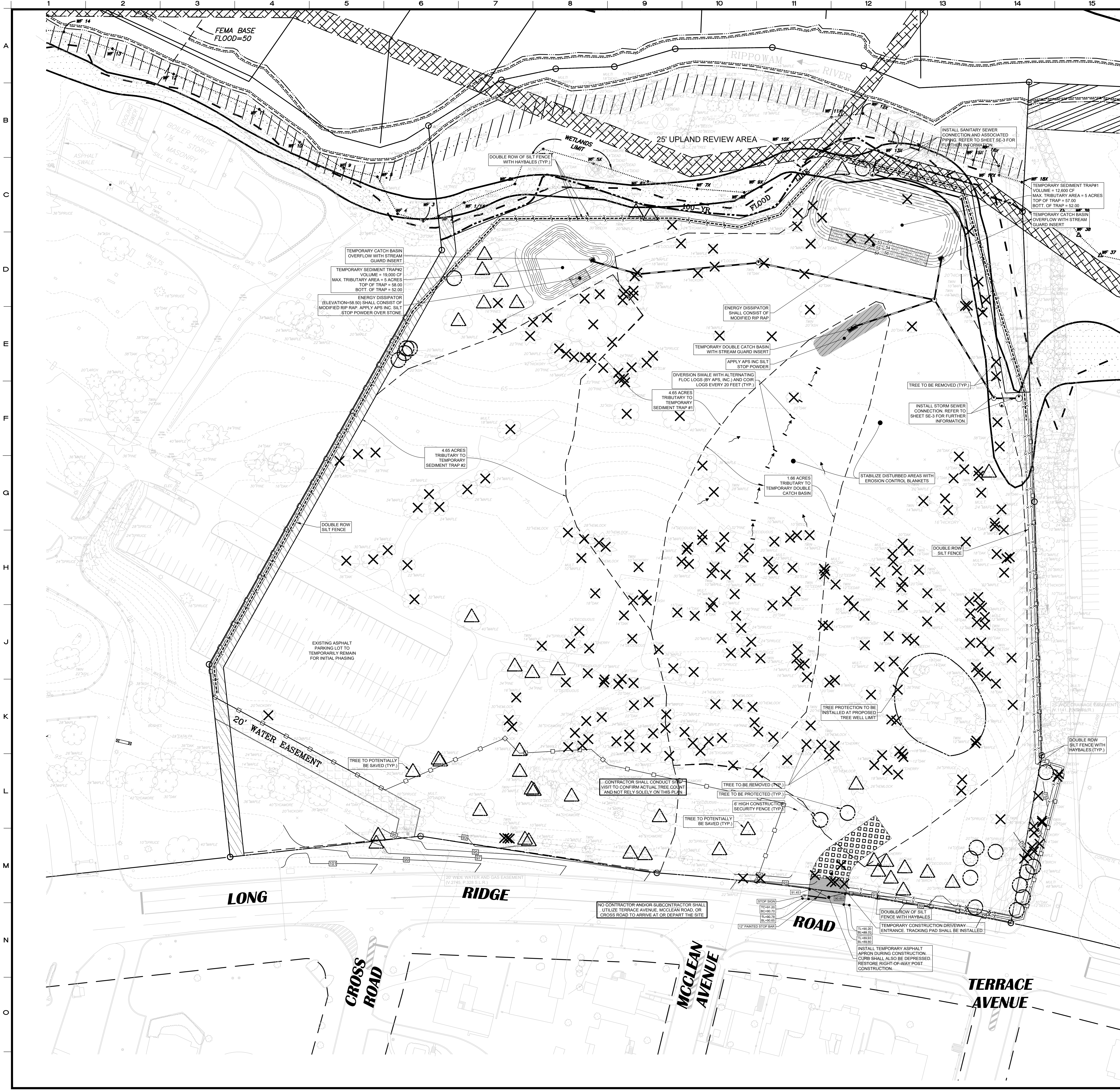
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LAND SURVEYING
CIVIL ENGINEERING
PLANNING & ZONING CONSULTING
PLANNING

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Tel: 203.327.0500 | Fax: 203.357.1118
www.rednissmead.com

SCALE: 0 30 60
1"=30'
DRAWN BY: V.JH
CHECKED BY: TM

TEODORO MILONE CT. P.E. 22563
August 9, 2023
DATE
This document and copies thereof are valid only if they bear the
signature and embossed seal of the designated licensed professional.
Unauthorized alterations render any declaration herein null & void.
SHEET No:
SE-4
Comm. No: 1730



PHASE I - CLEARING / INITIAL MOBILIZATION

- NOTE: THE FOLLOWING DESCRIPTION OF CONSTRUCTION PHASING IS INTENDED TO DEMONSTRATE A FEASIBLE SEQUENCE OF CONSTRUCTION. THE ACTUAL SEQUENCE MAY VARY DUE TO FIELD CONDITIONS IF APPROVED BY THE INSPECTING ENGINEER. THIS CONSTRUCTION PHASING PLAN WAS PREPARED FOR CONSTRUCTION PURPOSES.
1. THE INSPECTING ENGINEER (CIVIL, GEOTECHNICAL AND ENVIRONMENTAL) SHALL MEET WITH THE CONTRACTOR AND OWNER TO REVIEW THE SEDIMENT AND EROSION CONTROL (S&E) PLAN TO DISCUSS ANY MODIFICATIONS TO CONSTRUCTION SEQUENCE OR S&E PLAN AND REVIEW CONTRACTORS LOGISTICS PLAN.
 2. OBTAIN ALL NECESSARY PERMITS AND APPROVALS PRIOR TO STARTING WORK. PRIOR TO ANY SITE ACTIVITIES, OBTAIN CTDEP GENERAL PERMIT FOR THE DISCHARGE OF STORMWATER AND DOWATERING WASTEWATERS FROM CONSTRUCTION ACTIVITIES. MOST PERMITS ARE REQUIRED TO BE FILED 60 TO 90 DAYS PRIOR TO ANY SITE ACTIVITIES.
 3. CT DEEP GENERAL PERMIT FOR DISCHARGE OF GROUNDWATER FROM THE CT DEEP WATER PERMITTING AND ENFORCEMENT DIVISION IS REQUIRED PRIOR TO ANY DOWATERING ACTIVITIES. IF DOWATERING IS REQUIRED TO SANITARY SEWERS, A STAMFORD WPCA TEMPORARY DOWATERING TO SANITARY SEWERS PERMIT WILL BE REQUIRED. MOST PERMITS ARE REQUIRED TO BE FILED 60 TO 90 DAYS PRIOR TO ANY SITE ACTIVITIES.
 4. INSTALL SITE CONSTRUCTION ENTRANCE / TRACKING PAD.
 5. INSTALL CONSTRUCTION FENCE, SILT FENCE, AND HAYBALES AS INDICATED.
 6. INSTALL TREE PROTECTION.
 7. REMOVE TREES AS INDICATED.
 8. INSTALL PORTION OF SANITARY AND STORM SEWER SYSTEMS.
 9. INSTALL TEMPORARY SEDIMENT BASIN.
 10. FLOC LOSS BY APS, INC. SHALL BE PLACED IN 20' INTERVALS ALONG THE TEMPORARY SWALES. FLOC LOSS TO BE REPLACED AFTER A CUMULATIVE 10" OF RAINFALL.
 11. SILT STOP POWDER TO BE SPREAD ALONG THE TEMPORARY SWALES AT A RATE RECOMMENDED BY APS, INC.

GENERAL DEEP NPDES NOTES:

1. ALL REQUIRED SEDIMENT AND EROSION CONTROLS SHALL BE MAINTAINED AS SHOWN ON CONTRACT DOCUMENTS. ADDITIONAL CONTROLS SHALL BE ADDED AS NECESSARY FOR THIS PHASE OF WORK AS DIRECTED BY THE SITE ENGINEER OF RECORD, TOWN OFFICIALS AND DEEP OFFICERS.
2. IT IS RECOMMENDED TO LIMIT SITE DISTURBANCE AS MUCH AS POSSIBLE.
3. SILT FENCE SHALL BE ACTIVELY MAINTAINED UNTIL FINAL STABILIZATION OF UPHILL DISTURBED AREAS AND APPROVAL FROM SITE ENGINEER.
4. EXISTING VEGETATION SHALL BE PRESERVED WHERE ATTAINABLE.
5. INSTALL SEED AND HAY MULCH AS EARLY AS POSSIBLE IN ALL DISTURBED AREAS.
6. STABILIZATION PRACTICES SHALL BE IMPLEMENTED WITHIN SEVEN (7) DAYS OF COMPLETION OF CONSTRUCTION ACTIVITIES, IN THE EVENT THAT CONSTRUCTION HAS BEEN TEMPORARILY SUSPENDED FOR MORE THAN THIRTY (30) DAYS. OR WITHIN 30 DAYS FROM WHEN TEMPORARY OR FINAL GRADES ARE REACHED IN ANY PORTION OF THE SITE. TEMPORARY STABILIZATION SHALL BE COMPLETED USING ONE OF THE FOLLOWING METHODS:
 - a. DURING SPRING, SUMMER, OR EARLY FALL, SEED AREAS OF DISTURBANCE WITH PERGRASS (ANNUAL OR PERENNIAL) AT 30 LBS. PER ACRE
 - b. DURING LATE FALL OR EARLY WINTER, SEED AREAS OF DISTURBANCE WITH CERTIFIED 'ARROSTOCK' WINTER RYE (CEREAL RYE) AT 100 LBS. PER ACRE
 - c. DURING WINTER, AREAS OF DISTURBANCE SHALL BE STABILIZED USING 4 TO 6 INCHES OF HAY, WHICH IS KEYED INTO THE DISTURBED EARTH WITH JUTE NETTING.
7. AREAS THAT WILL REMAIN DISTURBED BEYOND THE PLANTING SEASON SHALL BE STABILIZED USING NON-VEGETATIVE METHODS.
8. SITE CONTRACTOR TO MAINTAIN A CURRENT BINDER ON-SITE WITH THE SEDIMENT AND EROSION CONTROL PLANS AND ALL SEDIMENT AND EROSION OBSERVATION REPORTS.
9. NO FUEL OR OTHER HAZARDOUS MATERIAL SHALL BE STORED ON-SITE. SPILLS MUST BE REPORTED TO D.E.P. AND LOCAL AUTHORITIES. THE SITE CONTRACTOR SHALL MAINTAIN A SPILL KIT ON-SITE AND MAKE ACCESSIBLE TO WORKERS. SPILL KITS SHALL BE ABLE TO ABSORB 50 GALLONS AND SHALL CONSIST OF ABSORBENT PADS AND SOCKS, BOOMS, PILLOWS, NEOPRENE GLOVES, CAUTION TAPE, AND POLYETHYLENE DISPOSABLE BAGS. A PIG FUEL STATION SPILL KIT MODEL KIT4002 OR EQUIVALENT SHALL BE PROVIDED ON-SITE.
10. IN THE EVENT OF A SPILL ANY DOWATERING ACTIVITIES SHALL BE STOPPED UNTIL IT IS DETERMINED THAT THE SPILL WILL NOT CAUSE ADDITIONAL IMPACTS.

INSPECTION NOTES:

1. QUALIFIED PERSONNEL SHALL INSPECT DISTURBED AREAS OF THE CONSTRUCTION ACTIVITY THAT HAVE NOT BEEN FINALLY STABILIZED. STRUCTURAL CONTROL MEASURES AND LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN TWENTY-FOUR (24) HOURS OF THE END OF A STORM THAT IS 0.5 INCHES OR GREATER. WHERE SITES HAVE BEEN TEMPORARILY OR FINALLY STABILIZED, SUCH INSPECTION SHALL BE CONDUCTED AT LEAST ONCE EVERY MONTH FOR THREE MONTHS.
2. DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE INSPECTED DAILY BY THE CONTRACTOR FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFF-SITE SEDIMENT TRACKING.
3. BASED ON RESULTS OF INSPECTIONS, THE DESCRIPTION OF POTENTIAL SOURCES AND POLLUTION PREVENTION MEASURES IDENTIFIED IN THE PLAN SHALL BE REVISED BY THE QUALIFIED PERSONNEL AS APPROPRIATE AS SOON AS PRACTICABLE AFTER SUCH INSPECTION. SUCH MODIFICATIONS SHALL PROVIDE FOR TIMELY IMPLEMENTATION OF ANY CHANGES TO THE SITE WITHIN TWENTY-FOUR (24) HOURS AND IMPLEMENTATION OF ANY CHANGES TO THE PLAN BY THE CONTRACTOR WITHIN THREE (3) CALENDAR DAYS FOLLOWING THE INSPECTION.
4. A REPORT SUMMARIZING THE SCOPE OF THE INSPECTION, NAME(S) AND QUALIFICATIONS OF PERSONNEL MAKING THE INSPECTION, DATE(S) OF THE INSPECTION, MAJOR OBSERVATIONS RELATING TO THE IMPLEMENTATION OF THE PLAN BY THE QUALIFIED PERSONNEL, AND ACTIONS TAKEN AND DOCUMENTED SHALL BE MADE BY THE CONTRACTOR AND RETAINED AS PART OF THE PLAN. THE DOCUMENT SHALL BE SUBMITTED BY THE CONTRACTOR TO THE DEVELOPER TO BE RETAINED FOR AT LEAST THREE YEARS AFTER THE DATE OF INSPECTION. THE REPORT SHALL BE SIGNED BY THE PERMITTEE OR HIGHER AUTHORIZED REPRESENTATIVE.

SPILL PREVENTION / STORM PREPAREDNESS

THIS PLAN IS ESTABLISHED TO PROVIDE THE CONTRACTOR GENERAL GUIDANCE AND PROCEDURES TO MANAGE PROJECT OPERATIONS WHICH HAVE THE POTENTIAL TO CAUSE ENVIRONMENTAL DAMAGE, AND PREPARATION FOR SEVERE FLOODING.

1. AFTER EACH STORM EVENT OF AT LEAST 0.50 INCHES OR AT LEAST ONCE PER WEEK, ALL SEDIMENT AND EROSION CONTROLS SHALL BE OBSERVED. UPON COMPLETION OF OBSERVATION THE SITE ENGINEER IS TO PROVIDE AN OBSERVATION REPORT TO THE CONTRACTOR. THE CONTRACTOR SHALL ADDRESS ANY COMMENTS RECEIVED WITHIN 24 HOURS OF RECEIPT.
2. SITE CONTRACTOR TO MAINTAIN A CURRENT BINDER ON-SITE WITH THE SEDIMENT AND EROSION CONTROL PLANS AND ALL SEDIMENT AND EROSION OBSERVATION REPORTS.
3. NO FUEL OR OTHER HAZARDOUS MATERIAL SHALL BE STORED ON-SITE. SPILLS MUST BE REPORTED TO DEEP OIL AND CHEMICALS SPILLS UNIT (860-424-3338) AND LOCAL AUTHORITIES. THE PHONE NUMBER SHOULD BE POSTED PROMINENTLY AT THE PROJECT SITE. THE SITE CONTRACTOR SHALL MAINTAIN A SPILL KIT ON-SITE AND MAKE ACCESSIBLE TO WORKERS. SPILL KITS SHALL BE ABLE TO ABSORB 50 GALLONS AND SHALL CONSIST OF ABSORBENT PADS AND SOCKS, BOOMS, PILLOWS, NEOPRENE GLOVES, CAUTION TAPE, AND POLYETHYLENE DISPOSABLE BAGS. A PIG FUEL STATION SPILL KIT MODEL KIT4002 OR EQUIVALENT SHALL BE PROVIDED ON-SITE.
4. IN THE EVENT OF A SPILL ANY DOWATERING ACTIVITIES SHALL BE STOPPED UNTIL IT IS DETERMINED THAT THE SPILL WILL NOT CAUSE ADDITIONAL IMPACTS.
5. DURING CONSTRUCTION, NO EQUIPMENT OR MACHINERY SHOULD BE REFUELED, MAINTAINED OR PARKED IN AREAS WHERE STORM RUNOFF CAN WASH POLLUTANTS INTO STORM DRAINS.
6. IN THE EVENT OF SEVERE FLOODING, MONITORING OF CONDITIONS AS THEY INTENSIFY AND DISSEMINATION OF EMERGENCY INFORMATION WILL BE HANDLED THROUGH THE CITY OF STAMFORD EMERGENCY OPERATIONS CENTER (EOC). IN CONJUNCTION WITH THE ENVIRONMENTAL PROTECTION BOARD. IN THE EVENT OF A FLOOD, DESIGNATED EMPLOYEES SHOULD TUNE INTO LOCAL RADIO AND/OR TELEVISION STATIONS. BROADCASTS FROM THE FOLLOWING LIST OF STATIONS SHOULD BE MONITORED THROUGHOUT SEVERE STORMS FOR INFORMATION REGARDING CURRENT FLOODING CONDITIONS AND POSSIBLE EMERGENCY EVACUATIONS:
FAIRFIELD COUNTY PUBLIC RADIO (91.1 FM AND 1400 AM)
WGCH RADIO (1490 AM)
FOX RADIO (95.9 FM)
TELEVISION: NEWS12 CONNECTICUT (CHANNEL 12)
STAMFORD EMERGENCY OPERATIONS CENTER: TREVOR ROACH, FIRE CHIEF 203-977-5900 OR 203-977-8840
7. ADDITIONAL SOURCES OF INFORMATION (NON-EMERGENCY) ARE LISTED BELOW:
FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA): 800-421-FEMA OR WWW.FEMA.GOV
NATIONAL FLOOD INSURANCE PROGRAM (NFIP): 888-379-9531 OR WWW.NFIP.FEMA.GOV/NFIP
CT DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION: 860-424-3000
STAMFORD CITIZEN SERVICE CENTER: 203-977-4140
CITY OF STAMFORD: 203-977-6600
STAMFORD ENVIRONMENTAL PROTECTION BOARD: 203-977-4028
STAMFORD PLANNING AND ZONING: 203-977-9711
FERGUSON LIBRARY: 203-964-1000

LEGEND

SEDIMENT & EROSION CONTROLS

SILT FENCE WITH HAYBALES

HAYBALES @ INLET

TRACKING PAD

STOCKPILE AREA

TREE TO BE REMOVED

TREE PROTECTION

TREE POTENTIALLY TO BE SAVED

6" HIGH CONSTRUCTION SECURITY FENCE

CONSTRUCTION FENCE

2	08/09/2023	DESIGN DEVELOPMENT / 2B RESUBMISSION
1	05/23/2023	ORIGINAL SUBMISSION
No.	Date	Revision

SEDIMENT & EROSION CONTROL PLAN PHASE I
DEPICTING
210 LONG RIDGE ROAD
STAMFORD, CT
PREPARED FOR
TJH SENIOR SERVICES, LLC

SCALE: 0 60 90
1"=40'

DRAWN BY: VJH CHECKED BY: TM

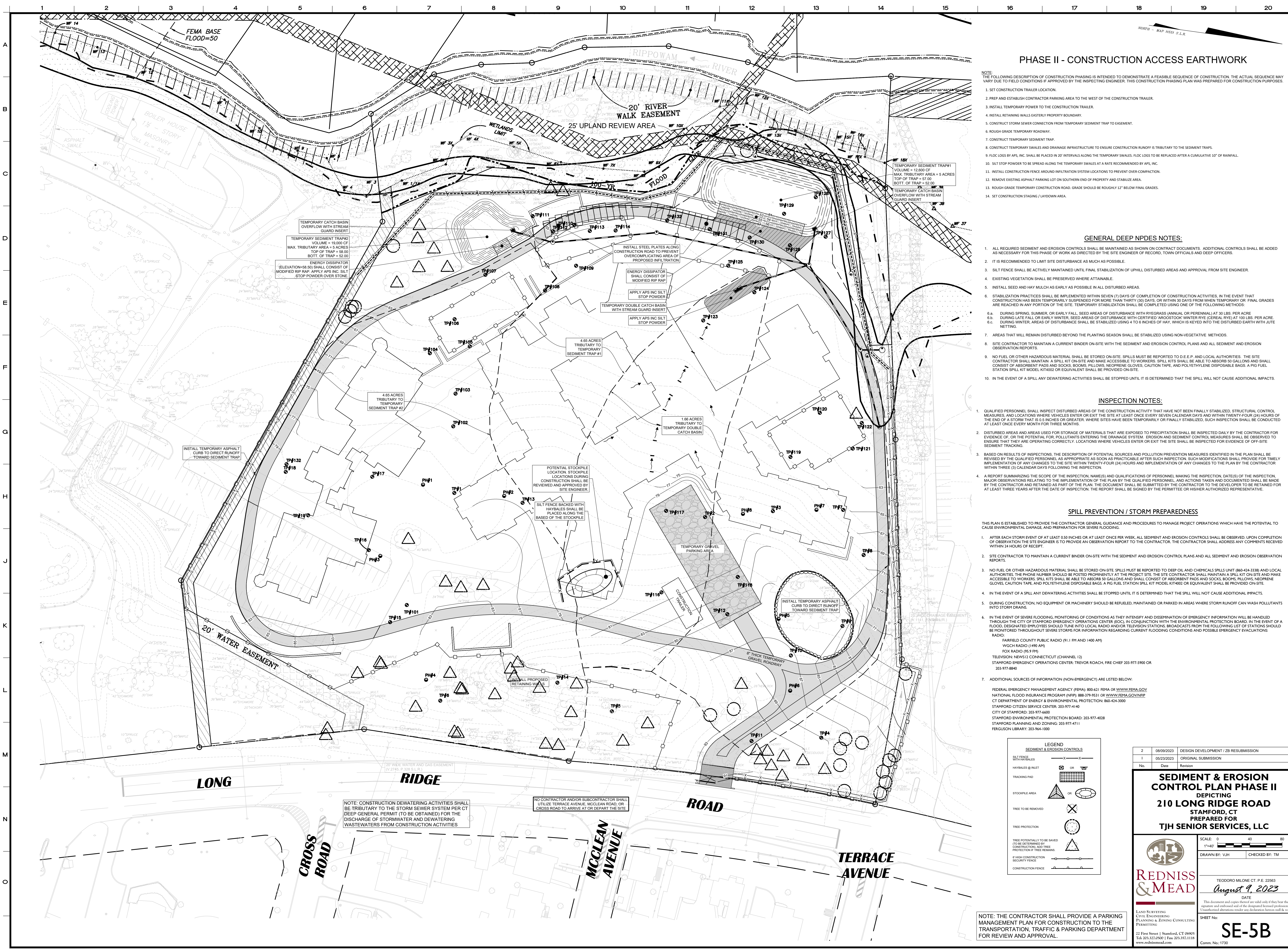
TEODORO MILONE CT. P.E. 22563
August 9, 2023
DATE

LAND SURVEYING
CIVIL ENGINEERING
PLANNING & ZONING CONSULTING
PLANNING

22 First Street | Stamford, CT 06905
Tel: 203.327.0500 | Fax: 203.357.1118
www.rednissmead.com

SHEET No:
SE-5A
Comm. No: 1730

NOTE: THE CONTRACTOR SHALL PROVIDE A PARKING MANAGEMENT PLAN FOR CONSTRUCTION TO THE TRANSPORTATION, TRAFFIC & PARKING DEPARTMENT FOR REVIEW AND APPROVAL.



PHASE II - CONSTRUCTION ACCESS EARTHWORK

- NOTE: THE FOLLOWING DESCRIPTION OF CONSTRUCTION PHASING IS INTENDED TO DEMONSTRATE A FEASIBLE SEQUENCE OF CONSTRUCTION. THE ACTUAL SEQUENCE MAY VARY DUE TO FIELD CONDITIONS IF APPROVED BY THE INSPECTING ENGINEER. THIS CONSTRUCTION PHASING PLAN WAS PREPARED FOR CONSTRUCTION PURPOSES.
1. SET CONSTRUCTION TRAILER LOCATION.
 2. PREP AND ESTABLISH CONTRACTOR PARKING AREA TO THE WEST OF THE CONSTRUCTION TRAILER.
 3. INSTALL TEMPORARY POWER TO THE CONSTRUCTION TRAILER.
 4. INSTALL RETAINING WALLS EASTERLY PROPERTY BOUNDARY.
 5. CONSTRUCT STORM SEWER CONNECTION FROM TEMPORARY SEDIMENT TRAP TO EASEMENT.
 6. ROUGH GRADE TEMPORARY ROADWAY.
 7. CONSTRUCT TEMPORARY SEDIMENT TRAP.
 8. CONSTRUCT TEMPORARY SWALES AND DRAINAGE INFRASTRUCTURE TO ENSURE CONSTRUCTION RUNOFF IS TRIBUTARY TO THE SEDIMENT TRAPS.
 9. FLOOD LOGS BY APS, INC. SHALL BE PLACED IN 20' INTERVALS ALONG THE TEMPORARY SWALES. FLOOD LOGS TO BE REPLACED AFTER A CUMULATIVE 10" OF RAINFALL.
 10. SILT STOP POWDER TO BE SPREAD ALONG THE TEMPORARY SWALES AT A RATE RECOMMENDED BY APS, INC.
 11. INSTALL CONSTRUCTION FENCE AROUND INFILTRATION SYSTEM LOCATIONS TO PREVENT OVER-COMPACTION.
 12. REMOVE EXISTING ASPHALT PARKING LOT ON SOUTHERN END OF PROPERTY AND STABILIZE AREA.
 13. ROUGH GRADE TEMPORARY CONSTRUCTION ROAD. GRADE SHOULD BE ROUGHLY 12" BELOW FINAL GRADES.
 14. SET CONSTRUCTION STAGING / LAYDOWN AREA.

GENERAL DEEP NPDES NOTES:

1. ALL REQUIRED SEDIMENT AND EROSION CONTROLS SHALL BE MAINTAINED AS SHOWN ON CONTRACT DOCUMENTS. ADDITIONAL CONTROLS SHALL BE ADDED AS NECESSARY FOR THIS PHASE OF WORK AS DIRECTED BY THE SITE ENGINEER OF RECORD, TOWN OFFICIALS AND DEEP OFFICERS.
2. IT IS RECOMMENDED TO LIMIT SITE DISTURBANCE AS MUCH AS POSSIBLE.
3. SILT FENCE SHALL BE ACTIVELY MAINTAINED UNTIL FINAL STABILIZATION OF UPHILL DISTURBED AREAS AND APPROVAL FROM SITE ENGINEER.
4. EXISTING VEGETATION SHALL BE PRESERVED WHERE ATTAINABLE.
5. INSTALL SEED AND HAY MULCH AS EARLY AS POSSIBLE IN ALL DISTURBED AREAS.
6. STABILIZATION PRACTICES SHALL BE IMPLEMENTED WITHIN SEVEN (7) DAYS OF COMPLETION OF CONSTRUCTION ACTIVITIES. IN THE EVENT THAT CONSTRUCTION HAS BEEN TEMPORARILY SUSPENDED FOR MORE THAN THIRTY (30) DAYS, OR WITHIN 30 DAYS FROM WHEN TEMPORARY OR FINAL GRADES ARE REACHED IN ANY PORTION OF THE SITE, TEMPORARY STABILIZATION SHALL BE COMPLETED USING ONE OF THE FOLLOWING METHODS:
 - 6.a. DURING SPRING, SUMMER, OR EARLY FALL, SEED AREAS OF DISTURBANCE WITH FIVEGRASS (ANNUAL OR PERENNIAL) AT 30 LBS. PER ACRE.
 - 6.b. DURING LATE FALL OR EARLY WINTER, SEED AREAS OF DISTURBANCE WITH CERTIFIED "ARBOSTOCK" WINTER RYE (CEREAL RYE) AT 100 LBS. PER ACRE.
 - 6.c. DURING WINTER, AREAS OF DISTURBANCE SHALL BE STABILIZED USING 4 TO 6 INCHES OF HAY, WHICH IS KEYED INTO THE DISTURBED EARTH WITH JUTE NETTING.
7. AREAS THAT WILL REMAIN DISTURBED BEYOND THE PLANTING SEASON SHALL BE STABILIZED USING NON-VEGETATIVE METHODS.
8. SITE CONTRACTOR TO MAINTAIN A CURRENT BINDER ON-SITE WITH THE SEDIMENT AND EROSION CONTROL PLANS AND ALL SEDIMENT AND EROSION OBSERVATION REPORTS.
9. NO FUEL OR OTHER HAZARDOUS MATERIAL SHALL BE STORED ON-SITE. SPILLS MUST BE REPORTED TO D.E.P. AND LOCAL AUTHORITIES. THE SITE CONTRACTOR SHALL MAINTAIN A SPILL KIT ON-SITE AND MAKE ACCESSIBLE TO WORKERS. SPILL KITS SHALL BE ABLE TO ABSORB 50 GALLONS AND SHALL CONSIST OF ABSORBENT PADS AND SOCKS, BOOMS, PILLOWS, NEOPRENE GLOVES, CAUTION TAPE, AND POLYETHYLENE DISPOSABLE BAGS. A PIG FUEL STATION SPILL KIT MODEL KIT4002 OR EQUIVALENT SHALL BE PROVIDED ON-SITE.
10. IN THE EVENT OF A SPILL, ANY DEWATERING ACTIVITIES SHALL BE STOPPED UNTIL IT IS DETERMINED THAT THE SPILL WILL NOT CAUSE ADDITIONAL IMPACTS.

INSPECTION NOTES:

1. QUALIFIED PERSONNEL SHALL INSPECT DISTURBED AREAS OF THE CONSTRUCTION ACTIVITY THAT HAVE NOT BEEN FINALLY STABILIZED. STRUCTURAL CONTROL MEASURES, AND LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN TWENTY-FOUR (24) HOURS OF THE END OF A STORM THAT IS 0.5 INCHES OR GREATER, WHERE SITES HAVE BEEN TEMPORARILY OR FINALLY STABILIZED, SUCH INSPECTION SHALL BE CONDUCTED AT LEAST ONCE EVERY MONTH FOR THREE MONTHS.
2. DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE INSPECTED DAILY BY THE CONTRACTOR FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFF-SITE SEDIMENT TRACKING.
3. BASED ON RESULTS OF INSPECTIONS, THE DESCRIPTION OF POTENTIAL SOURCES AND POLLUTION PREVENTION MEASURES IDENTIFIED IN THE PLAN SHALL BE REVISED BY THE QUALIFIED PERSONNEL, AS APPROPRIATE AS SOON AS PRACTICABLE AFTER SUCH INSPECTION. SUCH MODIFICATIONS SHALL PROVIDE FOR TIMELY IMPLEMENTATION OF ANY CHANGES TO THE SITE WITHIN TWENTY-FOUR (24) HOURS AND IMPLEMENTATION OF ANY CHANGES TO THE PLAN BY THE CONTRACTOR WITHIN THREE (3) CALENDAR DAYS FOLLOWING THE INSPECTION.
4. A REPORT SUMMARIZING THE SCOPE OF THE INSPECTION, NAME(S) AND QUALIFICATIONS OF PERSONNEL MAKING THE INSPECTION, DATE(S) OF THE INSPECTION, MAJOR OBSERVATIONS RELATING TO THE IMPLEMENTATION OF THE PLAN BY THE QUALIFIED PERSONNEL, AND ACTIONS TAKEN AND DOCUMENTED SHALL BE MADE BY THE CONTRACTOR AND RETAINED AS PART OF THE PLAN. THE DOCUMENT SHALL BE SUBMITTED BY THE CONTRACTOR TO THE DEVELOPER TO BE RETAINED FOR AT LEAST THREE YEARS AFTER THE DATE OF INSPECTION. THE REPORT SHALL BE SIGNED BY THE PERMITTEE OR HIS/HER AUTHORIZED REPRESENTATIVE.

SPILL PREVENTION / STORM PREPAREDNESS

THIS PLAN IS ESTABLISHED TO PROVIDE THE CONTRACTOR GENERAL GUIDANCE AND PROCEDURES TO MANAGE PROJECT OPERATIONS WHICH HAVE THE POTENTIAL TO CAUSE ENVIRONMENTAL DAMAGE, AND PREPARATION FOR SEVERE FLOODING.

1. AFTER EACH STORM EVENT OF AT LEAST 0.50 INCHES OR AT LEAST ONCE PER WEEK, ALL SEDIMENT AND EROSION CONTROLS SHALL BE OBSERVED. UPON COMPLETION OF OBSERVATION THE SITE ENGINEER IS TO PROVIDE AN OBSERVATION REPORT TO THE CONTRACTOR. THE CONTRACTOR SHALL ADDRESS ANY COMMENTS RECEIVED WITHIN 24 HOURS OF RECEIPT.
2. SITE CONTRACTOR TO MAINTAIN A CURRENT BINDER ON-SITE WITH THE SEDIMENT AND EROSION CONTROL PLANS AND ALL SEDIMENT AND EROSION OBSERVATION REPORTS.
3. NO FUEL OR OTHER HAZARDOUS MATERIAL SHALL BE STORED ON-SITE. SPILLS MUST BE REPORTED TO DEEP OIL AND CHEMICALS SPILLS UNIT (860-424-3338) AND LOCAL AUTHORITIES. THE PHONE NUMBER SHOULD BE POSTED PROMINENTLY AT THE PROJECT SITE. THE SITE CONTRACTOR SHALL MAINTAIN A SPILL KIT ON-SITE AND MAKE ACCESSIBLE TO WORKERS. SPILL KITS SHALL BE ABLE TO ABSORB 50 GALLONS AND SHALL CONSIST OF ABSORBENT PADS AND SOCKS, BOOMS, PILLOWS, NEOPRENE GLOVES, CAUTION TAPE, AND POLYETHYLENE DISPOSABLE BAGS. A PIG FUEL STATION SPILL KIT MODEL KIT4002 OR EQUIVALENT SHALL BE PROVIDED ON-SITE.
4. IN THE EVENT OF A SPILL, ANY DEWATERING ACTIVITIES SHALL BE STOPPED UNTIL IT IS DETERMINED THAT THE SPILL WILL NOT CAUSE ADDITIONAL IMPACTS.
5. DURING CONSTRUCTION, NO EQUIPMENT OR MACHINERY SHOULD BE REFUELED, MAINTAINED OR PARKED IN AREAS WHERE STORM RUNOFF CAN WASH POLLUTANTS INTO STORM DRAINS.
6. IN THE EVENT OF SEVERE FLOODING, MONITORING OF CONDITIONS AS THEY INTENSIFY AND DISSEMINATION OF EMERGENCY INFORMATION WILL BE HANDLED THROUGHOUT THE CITY OF STAMFORD EMERGENCY OPERATIONS CENTER (EOC), IN CONJUNCTION WITH THE ENVIRONMENTAL PROTECTION BOARD. IN THE EVENT OF A FLOOD, DESIGNATED OPERATORS SHOULD TUNE INTO LOCAL RADIO AND/OR TELEVISION STATIONS. BROADCASTS FROM THE FOLLOWING LIST OF STATIONS SHOULD BE MONITORED THROUGHOUT SEVERE STORMS FOR INFORMATION REGARDING CURRENT FLOODING CONDITIONS AND POSSIBLE EMERGENCY EVACUATIONS.

RADIO:
FAIRFIELD COUNTY PUBLIC RADIO (91.1 FM AND 1400 AM)
WGCH RADIO (1190 AM)
FOX RADIO (95.9 FM)
TELEVISION: NEWS12 CONNECTICUT (CHANNEL 12)
STAMFORD EMERGENCY OPERATIONS CENTER: TREVOR ROACH, FIRE CHIEF 203-977-5900 OR 203-977-8840
7. ADDITIONAL SOURCES OF INFORMATION (NON-EMERGENCY) ARE LISTED BELOW:

FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA): 800-421-FEMA OR WWW.FEMA.GOV
NATIONAL FLOOD INSURANCE PROGRAM (NFIP): 888-379-9531 OR WWW.FEMA.GOV/NFIP
CT DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION: 860-424-3000
STAMFORD CITIZEN SERVICE CENTER: 203-977-4140
CITY OF STAMFORD: 203-977-6500
STAMFORD ENVIRONMENTAL PROTECTION BOARD: 203-977-4028
STAMFORD PLANNING AND ZONING: 203-977-4711
FERGUSON LIBRARY: 203-964-1000

LEGEND
SEDIMENT & EROSION CONTROLS

SILT FENCE WITH HAYBALES	X
HAYBALES @ INLET	OR
TRACKING PAD	OR
STOCKPILE AREA	OR
TREE TO BE REMOVED	X
TREE PROTECTION	OR
TREE POTENTIALLY TO BE SAVED (TO BE DETERMINED BY CONTRACTOR)	OR
PROTECTION IF TREE REMAINS	OR
IF HIGH CONSTRUCTION SECURITY FENCE	OR
CONSTRUCTION FENCE	OR

2	08/09/2023	DESIGN DEVELOPMENT / 2B RESUBMISSION
1	05/23/2023	ORIGINAL SUBMISSION
No.	Date	Revision

SEDIMENT & EROSION CONTROL PLAN PHASE II
DEPICTING
210 LONG RIDGE ROAD
STAMFORD, CT
PREPARED FOR
TJH SENIOR SERVICES, LLC

SCALE: 0 60 90
1"=40'
DRAWN BY: VJH
CHECKED BY: TM

TEODORO MILONE CT. P.E. 22563
August 9, 2023
DATE

This document and copies thereof are valid only if they bear the signature and embossed seal of the designated licensed professional. Unauthorized alterations render any declaration herein null & void.

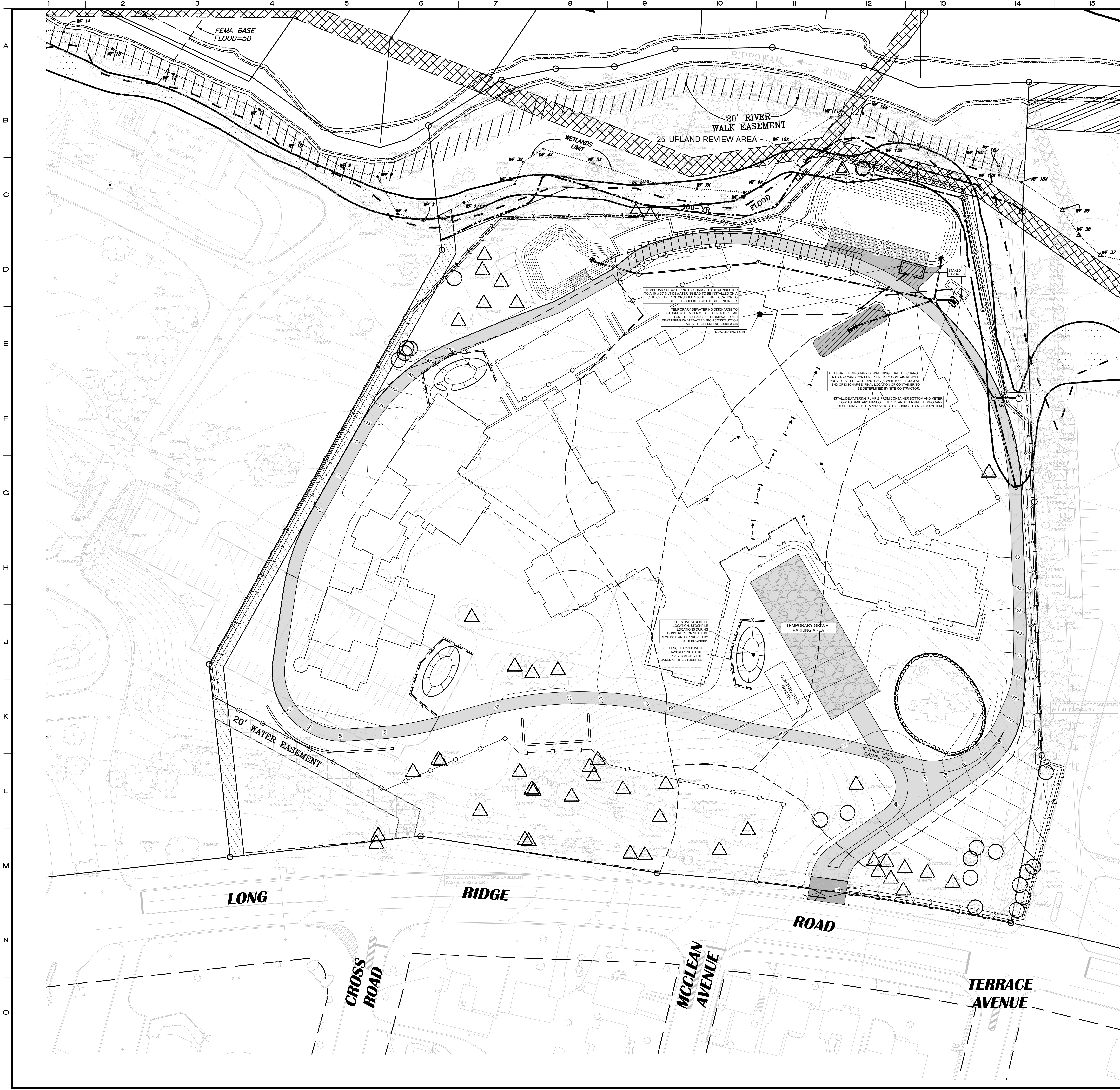
SHEET No:
SE-5B

LAND SURVEYING
CIVIL ENGINEERING
PLANNING & ZONING CONSULTING
PLANNING

22 First Street | Stamford, CT 06905
Tel: 203.327.0500 | Fax: 203.357.1118
www.rednissmead.com

Comm. No: 1730

NOTE: THE CONTRACTOR SHALL PROVIDE A PARKING MANAGEMENT PLAN FOR CONSTRUCTION TO THE TRANSPORTATION, TRAFFIC & PARKING DEPARTMENT FOR REVIEW AND APPROVAL.



PHASE III - FOUNDATION EXCAVATION

- NOTE:
THE FOLLOWING DESCRIPTION OF CONSTRUCTION PHASING IS INTENDED TO DEMONSTRATE A FEASIBLE SEQUENCE OF CONSTRUCTION. THE ACTUAL SEQUENCE MAY VARY DUE TO FIELD CONDITIONS IF APPROVED BY THE INSPECTING ENGINEER. THIS CONSTRUCTION PHASING PLAN WAS PREPARED FOR CONSTRUCTION PURPOSES.
1. EXCAVATE FOR BUILDING FOUNDATIONS.
 2. INSTALL FOUNDATIONS AND SUB-GRADE UTILITY SERVICES WITHIN BUILDING FOOTPRINT AS NECESSARY. MODIFY TEMPORARY SWALES AS NECESSARY TO DIRECT CONSTRUCTION RUNOFF TO THE TEMPORARY SEDIMENT TRAPS.
 3. STORM SEWER LINE TO BE USED AS TEMPORARY OUTLET FOR CONSTRUCTION DEWATERING ACTIVITIES PER CT DEEP GENERAL PERMIT FOR THE DISCHARGE OF STORMWATER AND DEWATERING WASTEWATERS FROM CONSTRUCTION ACTIVITIES.

GENERAL DEEP NPDES NOTES:

1. ALL REQUIRED SEDIMENT AND EROSION CONTROLS SHALL BE MAINTAINED AS SHOWN ON CONTRACT DOCUMENTS. ADDITIONAL CONTROLS SHALL BE ADDED AS NECESSARY FOR THIS PHASE OF WORK AS DIRECTED BY THE SITE ENGINEER OF RECORD, TOWN OFFICIALS AND DEEP OFFICERS.
2. IT IS RECOMMENDED TO LIMIT SITE DISTURBANCE AS MUCH AS POSSIBLE.
3. SILT FENCE SHALL BE ACTIVELY MAINTAINED UNTIL FINAL STABILIZATION OF UPHILL DISTURBED AREAS AND APPROVAL FROM SITE ENGINEER.
4. EXISTING VEGETATION SHALL BE PRESERVED WHERE ATTAINABLE.
5. INSTALL SEED AND HAY MULCH AS EARLY AS POSSIBLE IN ALL DISTURBED AREAS.
6. STABILIZATION PRACTICES SHALL BE IMPLEMENTED WITHIN SEVEN (7) DAYS OF COMPLETION OF CONSTRUCTION ACTIVITIES, IN THE EVENT THAT CONSTRUCTION HAS BEEN TEMPORARILY SUSPENDED FOR MORE THAN THIRTY (30) DAYS. OR WITHIN 30 DAYS FROM WHEN TEMPORARY OR FINAL GRADES ARE REACHED IN ANY PORTION OF THE SITE. TEMPORARY STABILIZATION SHALL BE COMPLETED USING ONE OF THE FOLLOWING METHODS:
 - a. DURING SPRING, SUMMER, OR EARLY FALL, SEED AREAS OF DISTURBANCE WITH PERMANENT (ANNUAL OR PERENNIAL) AT 30 LBS. PER ACRE
 - b. DURING LATE FALL OR EARLY WINTER, SEED AREAS OF DISTURBANCE WITH CERTIFIED 'ARROSTOCK' WINTER RYE (CEREAL RYE) AT 100 LBS. PER ACRE
 - c. DURING WINTER, AREAS OF DISTURBANCE SHALL BE STABILIZED USING 4 TO 6 INCHES OF HAY, WHICH IS KEYED INTO THE DISTURBED EARTH WITH JUTE NETTING.
7. AREAS THAT WILL REMAIN DISTURBED BEYOND THE PLANTING SEASON SHALL BE STABILIZED USING NON-VEGETATIVE METHODS.
8. SITE CONTRACTOR TO MAINTAIN A CURRENT BINDER ON-SITE WITH THE SEDIMENT AND EROSION CONTROL PLANS AND ALL SEDIMENT AND EROSION OBSERVATION REPORTS.
9. NO FUEL OR OTHER HAZARDOUS MATERIAL SHALL BE STORED ON-SITE. SPILLS MUST BE REPORTED TO D.E.P. AND LOCAL AUTHORITIES. THE SITE CONTRACTOR SHALL MAINTAIN A SPILL KIT ON-SITE AND MAKE ACCESSIBLE TO WORKERS. SPILL KITS SHALL BE ABLE TO ABSORB 50 GALLONS AND SHALL CONSIST OF ABSORBENT PADS AND SOCKS, BOOMS, PILLOWS, NEOPRENE GLOVES, CAUTION TAPE, AND POLYETHYLENE DISPOSABLE BAGS. A PIG FUEL STATION SPILL KIT MODEL KIT4002 OR EQUIVALENT SHALL BE PROVIDED ON-SITE.
10. IN THE EVENT OF A SPILL ANY DEWATERING ACTIVITIES SHALL BE STOPPED UNTIL IT IS DETERMINED THAT THE SPILL WILL NOT CAUSE ADDITIONAL IMPACTS.

INSPECTION NOTES:

1. QUALIFIED PERSONNEL SHALL INSPECT DISTURBED AREAS OF THE CONSTRUCTION ACTIVITY THAT HAVE NOT BEEN FINALLY STABILIZED. STRUCTURAL CONTROL MEASURES, AND LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN TWENTY-FOUR (24) HOURS OF THE END OF A STORM THAT IS 0.5 INCHES OR GREATER. WHERE SITES HAVE BEEN TEMPORARILY OR FINALLY STABILIZED, SUCH INSPECTION SHALL BE CONDUCTED AT LEAST ONCE EVERY MONTH FOR THREE MONTHS.
2. DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE INSPECTED DAILY BY THE CONTRACTOR FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFF-SITE SEDIMENT TRACKING.
3. BASED ON RESULTS OF INSPECTIONS, THE DESCRIPTION OF POTENTIAL SOURCES AND POLLUTION PREVENTION MEASURES IDENTIFIED IN THE PLAN SHALL BE REVISED BY THE QUALIFIED PERSONNEL AS APPROPRIATE AS SOON AS PRACTICABLE AFTER SUCH INSPECTION. SUCH MODIFICATIONS SHALL PROVIDE FOR TIMELY IMPLEMENTATION OF ANY CHANGES TO THE SITE WITHIN TWENTY-FOUR (24) HOURS AND IMPLEMENTATION OF ANY CHANGES TO THE PLAN BY THE CONTRACTOR WITHIN THREE (3) CALENDAR DAYS FOLLOWING THE INSPECTION.
4. A REPORT SUMMARIZING THE SCOPE OF THE INSPECTION, NAME(S) AND QUALIFICATIONS OF PERSONNEL MAKING THE INSPECTION, DATE(S) OF THE INSPECTION, MAJOR OBSERVATIONS RELATING TO THE IMPLEMENTATION OF THE PLAN BY THE QUALIFIED PERSONNEL, AND ACTIONS TAKEN AND DOCUMENTED SHALL BE MADE BY THE CONTRACTOR AND RETAINED AS PART OF THE PLAN. THE DOCUMENT SHALL BE SUBMITTED BY THE CONTRACTOR TO THE DEVELOPER TO BE RETAINED FOR AT LEAST THREE YEARS AFTER THE DATE OF INSPECTION. THE REPORT SHALL BE SIGNED BY THE PERMITTEE OR HIGHER AUTHORIZED REPRESENTATIVE.

SPILL PREVENTION / STORM PREPAREDNESS

THIS PLAN IS ESTABLISHED TO PROVIDE THE CONTRACTOR GENERAL GUIDANCE AND PROCEDURES TO MANAGE PROJECT OPERATIONS WHICH HAVE THE POTENTIAL TO CAUSE ENVIRONMENTAL DAMAGE, AND PREPARATION FOR SEVERE FLOODING.

1. AFTER EACH STORM EVENT OF AT LEAST 0.50 INCHES OR AT LEAST ONCE PER WEEK, ALL SEDIMENT AND EROSION CONTROLS SHALL BE OBSERVED. UPON COMPLETION OF OBSERVATION THE SITE ENGINEER IS TO PROVIDE AN OBSERVATION REPORT TO THE CONTRACTOR. THE CONTRACTOR SHALL ADDRESS ANY COMMENTS RECEIVED WITHIN 24 HOURS OF RECEIPT.
2. SITE CONTRACTOR TO MAINTAIN A CURRENT BINDER ON-SITE WITH THE SEDIMENT AND EROSION CONTROL PLANS AND ALL SEDIMENT AND EROSION OBSERVATION REPORTS.
3. NO FUEL OR OTHER HAZARDOUS MATERIAL SHALL BE STORED ON-SITE. SPILLS MUST BE REPORTED TO DEEP OIL AND CHEMICALS SPILLS UNIT (860-424-3338) AND LOCAL AUTHORITIES. THE PHONE NUMBER SHOULD BE POSTED PROMINENTLY AT THE PROJECT SITE. THE SITE CONTRACTOR SHALL MAINTAIN A SPILL KIT ON-SITE AND MAKE ACCESSIBLE TO WORKERS. SPILL KITS SHALL BE ABLE TO ABSORB 50 GALLONS AND SHALL CONSIST OF ABSORBENT PADS AND SOCKS, BOOMS, PILLOWS, NEOPRENE GLOVES, CAUTION TAPE, AND POLYETHYLENE DISPOSABLE BAGS. A PIG FUEL STATION SPILL KIT MODEL KIT4002 OR EQUIVALENT SHALL BE PROVIDED ON-SITE.
4. IN THE EVENT OF A SPILL ANY DEWATERING ACTIVITIES SHALL BE STOPPED UNTIL IT IS DETERMINED THAT THE SPILL WILL NOT CAUSE ADDITIONAL IMPACTS.
5. DURING CONSTRUCTION, NO EQUIPMENT OR MACHINERY SHOULD BE REFUELED, MAINTAINED OR PARKED IN AREAS WHERE STORM RUNOFF CAN WASH POLLUTANTS INTO STORM DRAINS.
6. IN THE EVENT OF SEVERE FLOODING, MONITORING OF CONDITIONS AS THEY INTENSIFY AND DISSEMINATION OF EMERGENCY INFORMATION WILL BE HANDLED THROUGH THE CITY OF STAMFORD EMERGENCY OPERATIONS CENTER (EOC). IN CONJUNCTION WITH THE ENVIRONMENTAL PROTECTION BOARD. IN THE EVENT OF A FLOOD, DESIGNATED EMPLOYEES SHOULD TUNE INTO LOCAL RADIO AND/OR TELEVISION STATIONS. BROADCASTS FROM THE FOLLOWING LIST OF STATIONS SHOULD BE MONITORED THROUGHOUT SEVERE STORMS FOR INFORMATION REGARDING CURRENT FLOODING CONDITIONS AND POSSIBLE EMERGENCY EVACUATIONS:
RADIO:
FAIRFIELD COUNTY PUBLIC RADIO (91.1 FM AND 1400 AM)
WGCH RADIO (1490 AM)
FOX RADIO (35.9 FM)
TELEVISION: NEWS12 CONNECTICUT (CHANNEL 12)
STAMFORD EMERGENCY OPERATIONS CENTER: TREVOR ROACH, FIRE CHIEF 203-977-5900 OR 203-977-8840
7. ADDITIONAL SOURCES OF INFORMATION (NON-EMERGENCY) ARE LISTED BELOW:
FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA): 800-421-FEMA OR WWW.FEMA.GOV
NATIONAL FLOOD INSURANCE PROGRAM (NFIP): 800-378-3531 OR WWW.NFIP.GOV/NFIP
CT DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION: 860-424-3000
STAMFORD CITIZEN SERVICE CENTER: 203-977-4140
CITY OF STAMFORD: 203-977-6600
STAMFORD ENVIRONMENTAL PROTECTION BOARD: 203-977-4028
STAMFORD PLANNING AND ZONING: 203-977-9711
FERGUSON LIBRARY: 203-964-1000

LEGEND

SEDIMENT & EROSION CONTROLS

SILT FENCE WITH HAYBALES

HAYBALES @ INLET

TRACKING PAD

STOCKPILE AREA

TREE TO BE REMOVED

TREE PROTECTION

TREE POTENTIALLY TO BE SAVED (TO BE DETERMINED BY CONSTRUCTION FENCE REMAINS PROTECTION IF TREE REMAINS)

6" HIGH CONSTRUCTION SECURITY FENCE

CONSTRUCTION FENCE

NOTE: CONTROLLED FILL WILL BE BROUGHT IN TO CONSTRUCT THE TEMPORARY ROADWAY. THE TEMPORARY FILL WILL BE REMOVED PRIOR TO INSTALLATION OF THE INFILTRATION SYSTEMS. ONCE REMOVED, A PERCOLATION TEST WILL BE CONDUCTED TO VERIFY THE DESIGN RATES. IF THE RATES ARE ACCEPTABLE THE CONTRACTOR WILL BE ALLOWED TO INSTALL THE REQUIRED CRUSHED STONE. IF NOT, ADDITIONAL PROVISIONS WOULD NEED TO BE MADE AT THAT TIME.

No.	Date	Revision
2	08/09/2023	DESIGN DEVELOPMENT / 2B RESUBMISSION
1	05/23/2023	ORIGINAL SUBMISSION

SEDIMENT & EROSION CONTROL PLAN PHASE III
DEPICTING
210 LONG RIDGE ROAD
STAMFORD, CT
PREPARED FOR
TJH SENIOR SERVICES, LLC

SCALE: 0 60 90
1"=40'

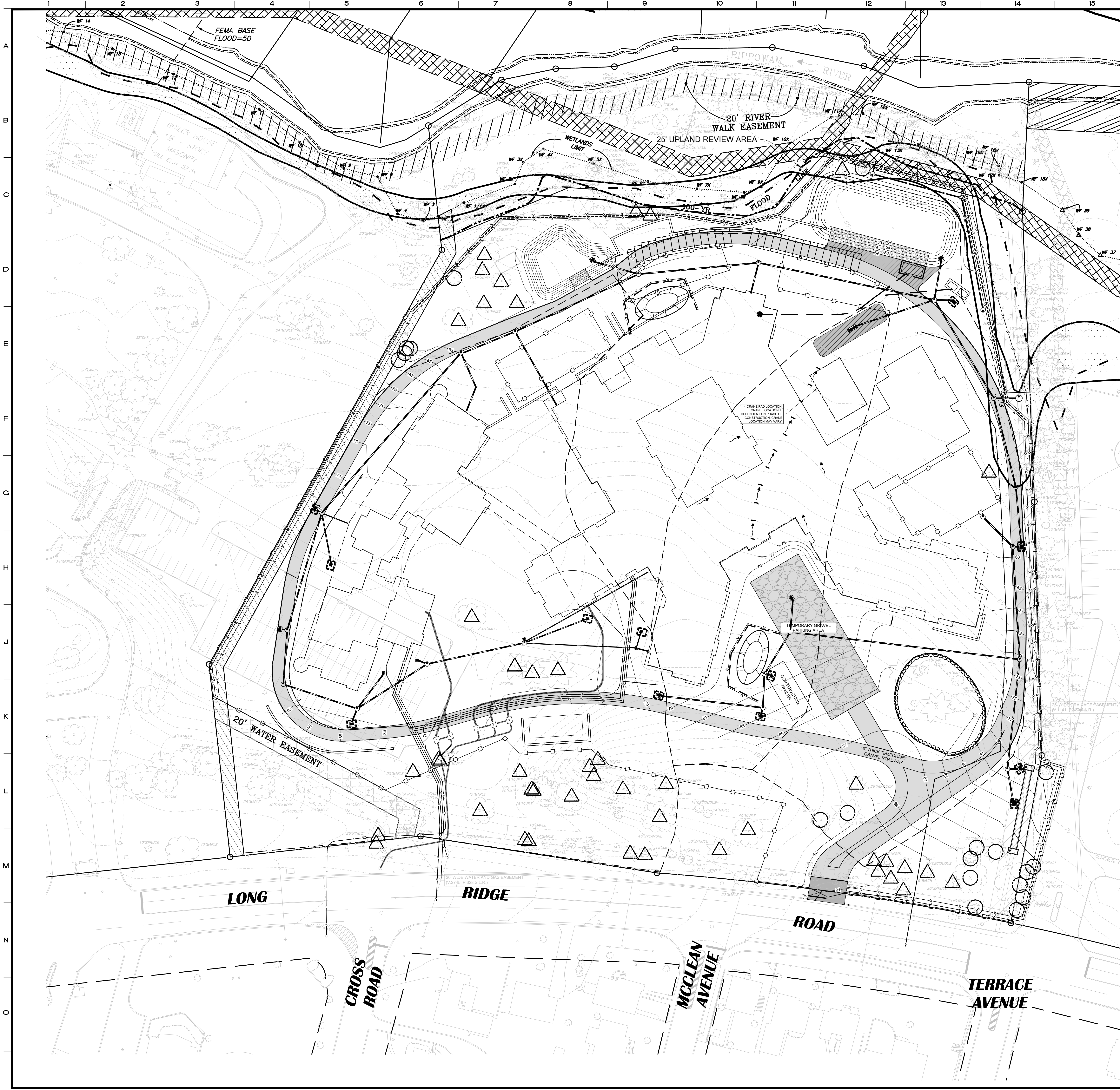
DRAWN BY: VJH CHECKED BY: TM

TEODORO MILONE CT. P.E. 22563
August 9, 2023
DATE

LAND SURVEYING
CIVIL ENGINEERING
PLANNING & ZONING CONSULTING
PLUMBING

22 Five Street | Stamford, CT 06905
Tel: 203.327.0502 | Fax: 203.357.1118
www.rednissmead.com

SHEET No:
SE-5C
Comm. No: 1730



PHASE IV - BUILDING CONSTRUCTION

- THE FOLLOWING DESCRIPTION OF CONSTRUCTION PHASING IS INTENDED TO DEMONSTRATE A FEASIBLE SEQUENCE OF CONSTRUCTION. THE ACTUAL SEQUENCE MAY VARY DUE TO FIELD CONDITIONS IF APPROVED BY THE INSPECTING ENGINEER. THIS CONSTRUCTION PHASING PLAN WAS PREPARED FOR CONSTRUCTION PURPOSES.
- BEGIN FRAMING AND CONSTRUCT REMAINING FIRST FLOOR FOOTINGS AND SLAB. FINISHED FLOOR ELEVATION IS 93.90.
 - ROUGH GRADE AREAS ADJACENT TO THE BUILDING, INCLUDING THE COURTYARDS. CONSTRUCT RETAINING WALLS AS APPROPRIATE. INSTALL STORM INFRASTRUCTURE WITHIN COURTYARDS. AREAS TRIBUTARY TO INFILTRATION SYSTEMS A AND B SHALL BE ROUTED TO MANNING AND MANNING UNITS SUCH THAT THE INFILTRATION SYSTEMS CAN BE INSTALLED. AFTER MANHOLLS ARE TO BE ROUTED TO TEMPORARY STORM INFRASTRUCTURE INSTALLED DURING PHASE 2. MODIFY TEMPORARY SWALES AS NECESSARY TO DIRECT CONSTRUCTION RUNOFF TO THE TEMPORARY SEDIMENT TRAPS.
 - INSTALL STORM, SANITARY, GAS, ELECTRIC, AND COMMUNICATIONS UTILITIES TO THE BUILDING AS APPROPRIATE.

GENERAL DEEP NPDES NOTES:

- ALL REQUIRED SEDIMENT AND EROSION CONTROLS SHALL BE MAINTAINED AS SHOWN ON CONTRACT DOCUMENTS. ADDITIONAL CONTROLS SHALL BE ADDED AS NECESSARY FOR THIS PHASE OF WORK AS DIRECTED BY THE SITE ENGINEER OF RECORD, TOWN OFFICIALS AND DEEP OFFICERS.
- IT IS RECOMMENDED TO LIMIT SITE DISTURBANCE AS MUCH AS POSSIBLE.
- SILT FENCE SHALL BE ACTIVELY MAINTAINED UNTIL FINAL STABILIZATION OF UPHILL DISTURBED AREAS AND APPROVAL FROM SITE ENGINEER.
- EXISTING VEGETATION SHALL BE PRESERVED WHERE ATTAINABLE.
- INSTALL SEED AND HAY MULCH AS EARLY AS POSSIBLE IN ALL DISTURBED AREAS.
- STABILIZATION PRACTICES SHALL BE IMPLEMENTED WITHIN SEVEN (7) DAYS OF COMPLETION OF CONSTRUCTION ACTIVITIES, IN THE EVENT THAT CONSTRUCTION HAS BEEN TEMPORARILY SUSPENDED FOR MORE THAN THIRTY (30) DAYS. OR WITHIN 30 DAYS FROM WHEN TEMPORARY OR FINAL GRADES ARE REACHED IN ANY PORTION OF THE SITE. TEMPORARY STABILIZATION SHALL BE COMPLETED USING ONE OF THE FOLLOWING METHODS:
 - DURING SPRING, SUMMER, OR EARLY FALL, SEED AREAS OF DISTURBANCE WITH PERennial (ANNUAL OR PERennial) AT 30 LBS. PER ACRE
 - DURING LATE FALL OR EARLY WINTER, SEED AREAS OF DISTURBANCE WITH CERTIFIED 'AROSTOOK' WINTER RYE (CEREAL RYE) AT 100 LBS. PER ACRE
 - DURING WINTER, AREAS OF DISTURBANCE SHALL BE STABILIZED USING 4 TO 6 INCHES OF HAY, WHICH IS KEYED INTO THE DISTURBED EARTH WITH JUTE NETTING.
- AREAS THAT WILL REMAIN DISTURBED BEYOND THE PLANTING SEASON SHALL BE STABILIZED USING NON-VEGETATIVE METHODS.
- SITE CONTRACTOR TO MAINTAIN A CURRENT BINDER ON-SITE WITH THE SEDIMENT AND EROSION CONTROL PLANS AND ALL SEDIMENT AND EROSION OBSERVATION REPORTS.
- NO FUEL OR OTHER HAZARDOUS MATERIAL SHALL BE STORED ON-SITE. SPILLS MUST BE REPORTED TO D.E.P. AND LOCAL AUTHORITIES. THE SITE CONTRACTOR SHALL MAINTAIN A SPILL KIT ON-SITE AND MAKE ACCESSIBLE TO WORKERS. SPILL KITS SHALL BE ABLE TO ABSORB 50 GALLONS AND SHALL CONSIST OF ABSORBENT PADS AND SOCKS, BOOMS, PILLOWS, NEOPRENE GLOVES, CAUTION TAPE, AND POLYETHYLENE DISPOSABLE BAGS. A PIG FUEL STATION SPILL KIT MODEL KIT4002 OR EQUIVALENT SHALL BE PROVIDED ON-SITE.
- IN THE EVENT OF A SPILL ANY DEWATERING ACTIVITIES SHALL BE STOPPED UNTIL IT IS DETERMINED THAT THE SPILL WILL NOT CAUSE ADDITIONAL IMPACTS.

INSPECTION NOTES:

- QUALIFIED PERSONNEL SHALL INSPECT DISTURBED AREAS OF THE CONSTRUCTION ACTIVITY THAT HAVE NOT BEEN FINALLY STABILIZED. STRUCTURAL CONTROL MEASURES AND LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN TWENTY-FOUR (24) HOURS OF THE END OF A STORM THAT IS 0.5 INCHES OR GREATER. WHERE SITES HAVE BEEN TEMPORARILY OR FINALLY STABILIZED, SUCH INSPECTION SHALL BE CONDUCTED AT LEAST ONCE EVERY MONTH FOR THREE MONTHS.
- DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE INSPECTED DAILY BY THE CONTRACTOR FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFF-SITE SEDIMENT TRACKING.
- BASED ON RESULTS OF INSPECTIONS, THE DESCRIPTION OF POTENTIAL SOURCES AND POLLUTION PREVENTION MEASURES IDENTIFIED IN THE PLAN SHALL BE REVISED BY THE QUALIFIED PERSONNEL AS APPROPRIATE AS SOON AS PRACTICABLE AFTER SUCH INSPECTION. SUCH MODIFICATIONS SHALL PROVIDE FOR TIMELY IMPLEMENTATION OF ANY CHANGES TO THE SITE WITHIN TWENTY-FOUR (24) HOURS AND IMPLEMENTATION OF ANY CHANGES TO THE PLAN BY THE CONTRACTOR WITHIN THREE (3) CALENDAR DAYS FOLLOWING THE INSPECTION.
- A REPORT SUMMARIZING THE SCOPE OF THE INSPECTION, NAME(S) AND QUALIFICATIONS OF PERSONNEL MAKING THE INSPECTION, DATE(S) OF THE INSPECTION, MAJOR OBSERVATIONS RELATING TO THE IMPLEMENTATION OF THE PLAN BY THE QUALIFIED PERSONNEL, AND ACTIONS TAKEN AND DOCUMENTED SHALL BE MADE BY THE CONTRACTOR AND RETAINED AS PART OF THE PLAN. THE DOCUMENT SHALL BE SUBMITTED BY THE CONTRACTOR TO THE DEVELOPER TO BE RETAINED FOR AT LEAST THREE YEARS AFTER THE DATE OF INSPECTION. THE REPORT SHALL BE SIGNED BY THE PERMITTEE OR HIGHER AUTHORIZED REPRESENTATIVE.

SPILL PREVENTION / STORM PREPAREDNESS

THIS PLAN IS ESTABLISHED TO PROVIDE THE CONTRACTOR GENERAL GUIDANCE AND PROCEDURES TO MANAGE PROJECT OPERATIONS WHICH HAVE THE POTENTIAL TO CAUSE ENVIRONMENTAL DAMAGE, AND PREPARATION FOR SEVERE FLOODING.

- AFTER EACH STORM EVENT OF AT LEAST 0.50 INCHES OR AT LEAST ONCE PER WEEK, ALL SEDIMENT AND EROSION CONTROLS SHALL BE OBSERVED. UPON COMPLETION OF OBSERVATION THE SITE ENGINEER IS TO PROVIDE AN OBSERVATION REPORT TO THE CONTRACTOR. THE CONTRACTOR SHALL ADDRESS ANY COMMENTS RECEIVED WITHIN 24 HOURS OF RECEIPT.
- SITE CONTRACTOR TO MAINTAIN A CURRENT BINDER ON-SITE WITH THE SEDIMENT AND EROSION CONTROL PLANS AND ALL SEDIMENT AND EROSION OBSERVATION REPORTS.
- NO FUEL OR OTHER HAZARDOUS MATERIAL SHALL BE STORED ON-SITE. SPILLS MUST BE REPORTED TO DEEP OIL AND CHEMICALS SPILLS UNIT (860-424-3338) AND LOCAL AUTHORITIES. THE PHONE NUMBER SHOULD BE POSTED PROMINENTLY AT THE PROJECT SITE. THE SITE CONTRACTOR SHALL MAINTAIN A SPILL KIT ON-SITE AND MAKE ACCESSIBLE TO WORKERS. SPILL KITS SHALL BE ABLE TO ABSORB 50 GALLONS AND SHALL CONSIST OF ABSORBENT PADS AND SOCKS, BOOMS, PILLOWS, NEOPRENE GLOVES, CAUTION TAPE, AND POLYETHYLENE DISPOSABLE BAGS. A PIG FUEL STATION SPILL KIT MODEL KIT4002 OR EQUIVALENT SHALL BE PROVIDED ON-SITE.
- IN THE EVENT OF A SPILL ANY DEWATERING ACTIVITIES SHALL BE STOPPED UNTIL IT IS DETERMINED THAT THE SPILL WILL NOT CAUSE ADDITIONAL IMPACTS.
- DURING CONSTRUCTION, NO EQUIPMENT OR MACHINERY SHOULD BE REFUELED, MAINTAINED OR PARKED IN AREAS WHERE STORM RUNOFF CAN WASH POLLUTANTS INTO STORM DRAINS.
- IN THE EVENT OF SEVERE FLOODING, MONITORING OF CONDITIONS AS THEY INTENSIFY AND DISSEMINATION OF EMERGENCY INFORMATION WILL BE HANDLED THROUGH THE CITY OF STAMFORD EMERGENCY OPERATIONS CENTER (EOC). IN CONJUNCTION WITH THE ENVIRONMENTAL PROTECTION BOARD. IN THE EVENT OF A FLOOD, DESIGNATED EMPLOYEES SHOULD TUNE INTO LOCAL RADIO AND/OR TELEVISION STATIONS. BROADCASTS FROM THE FOLLOWING LIST OF STATIONS SHOULD BE MONITORED THROUGHOUT SEVERE STORMS FOR INFORMATION REGARDING CURRENT FLOODING CONDITIONS AND POSSIBLE EMERGENCY EVACUATIONS:
RADIO:
FAIRFIELD COUNTY PUBLIC RADIO (91.1 FM AND 1400 AM)
WGCH RADIO (1490 AM)
FOX RADIO (95.9 FM)
TELEVISION: NEWS12 CONNECTICUT (CHANNEL 12)
STAMFORD EMERGENCY OPERATIONS CENTER: TREVOR ROACH, FIRE CHIEF 203-977-5900 OR 203-977-8840

ADDITIONAL SOURCES OF INFORMATION (NON-EMERGENCY) ARE LISTED BELOW:

FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA): 800-421-FEMA OR WWW.FEMA.GOV
NATIONAL FLOOD INSURANCE PROGRAM (NFIP): 800-378-3531 OR WWW.NFIP.GOV/NFIP
CT DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION: 860-424-3000
STAMFORD CITIZEN SERVICE CENTER: 203-977-4140
CITY OF STAMFORD: 203-977-6600
STAMFORD ENVIRONMENTAL PROTECTION BOARD: 203-977-4028
STAMFORD PLANNING AND ZONING: 203-977-9711
FERGLSON LIBRARY: 203-964-1000

LEGEND		
SEDIMENT & EROSION CONTROLS		
SILT FENCE WITH HAYBALES	X	X
HAYBALES @ INLET	OR	OR
TRACKING PAD	OR	OR
STOOPLE AREA	OR	OR
TREE TO BE REMOVED	X	X
TREE PROTECTION	OR	OR
TREE POTENTIALLY TO BE SAVED (TO BE DETERMINED BY CONSTRUCTION OF TREE REMAINS PROTECTION IF TREE REMAINS)	OR	OR
8" HIGH CONSTRUCTION SECURITY FENCE	OR	OR
CONSTRUCTION FENCE	OR	OR

NOTE: CONTROLLED FILL WILL BE BROUGHT IN TO CONSTRUCT THE TEMPORARY ROADWAY. THE TEMPORARY FILL WILL BE REMOVED PRIOR TO INSTALLATION OF THE INFILTRATION SYSTEMS. ONCE REMOVED, A PERCOLATION TEST WILL BE CONDUCTED TO VERIFY THE DESIGN RATES. IF THE RATES ARE ACCEPTABLE THE CONTRACTOR WILL BE ALLOWED TO INSTALL THE REQUIRED CRUSHED STONE. IF NOT, ADDITIONAL PROVISIONS WOULD NEED TO BE MADE AT THAT TIME.

2	08/09/2023	DESIGN DEVELOPMENT / 2B RESUBMISSION
1	05/23/2023	ORIGINAL SUBMISSION
No.	Date	Revision

SEDIMENT & EROSION CONTROL PLAN PHASE IV
DEPICTING
210 LONG RIDGE ROAD
STAMFORD, CT
PREPARED FOR
TJH SENIOR SERVICES, LLC

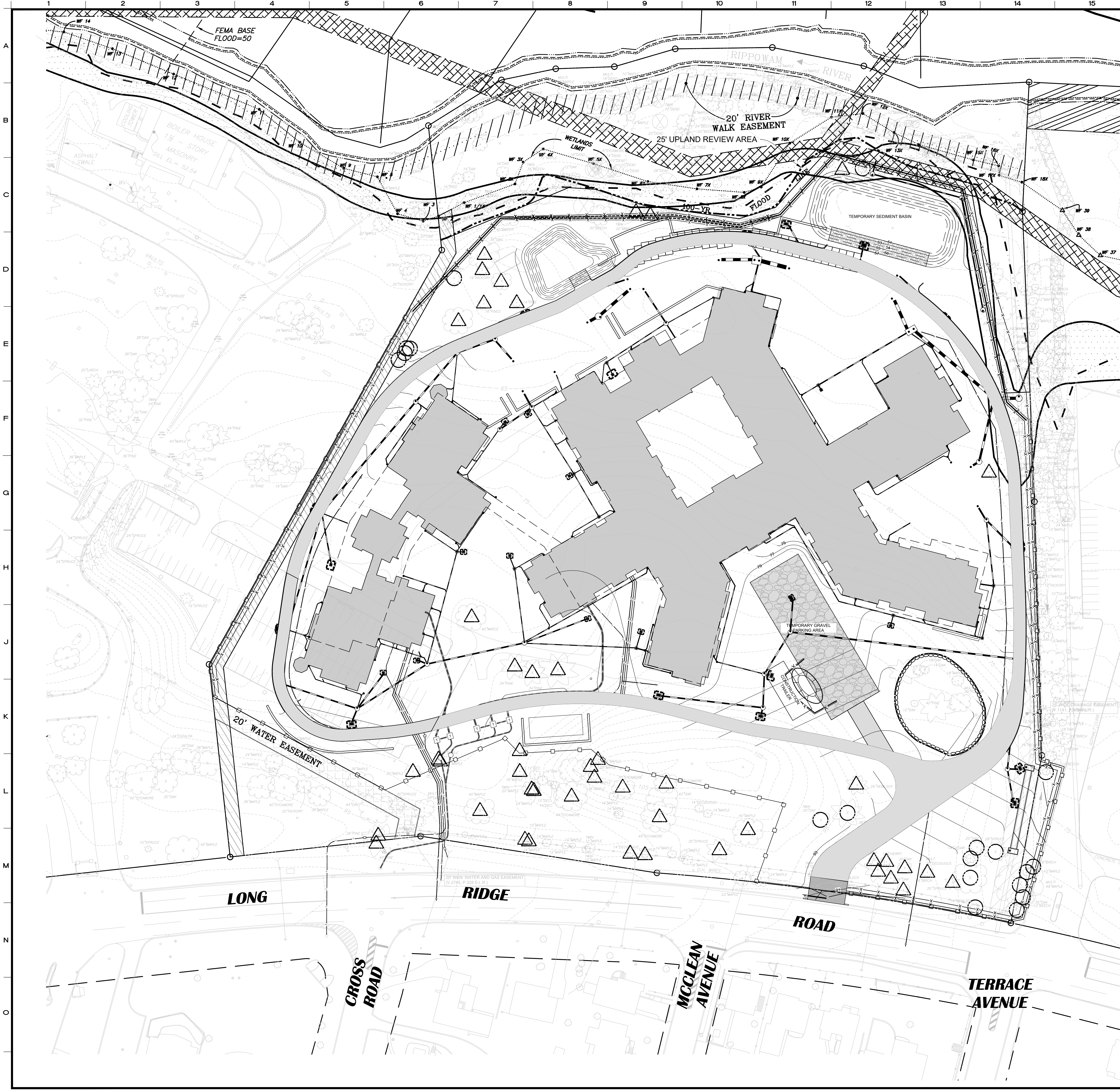
REDNISS & MEAD

TEODORO MILONE CT. P.E. 22563
August 9, 2023
DATE

LAND SURVEYING
CIVIL ENGINEERING
PLANNING & ZONING CONSULTING
PLANNING

22 First Street | Stamford, CT 06905
Tel: 203.327.0500 | Fax: 203.357.1118
www.rednissmead.com

SHEET No:
SE-5D
Comm. No: 1730



PHASE V - SITE CONSTRUCTION

- THE FOLLOWING DESCRIPTION OF CONSTRUCTION PHASING IS INTENDED TO DEMONSTRATE A FEASIBLE SEQUENCE OF CONSTRUCTION. THE ACTUAL SEQUENCE MAY VARY DUE TO FIELD CONDITIONS IF APPROVED BY THE INSPECTING ENGINEER. THIS CONSTRUCTION PHASING PLAN WAS PREPARED FOR CONSTRUCTION PURPOSES.
1. CONTINUE VERTICAL CONSTRUCTION OF THE BUILDING.
 2. INSTALL REMAINING SERVICE CONNECTIONS FOR GAS, WATER, ELECTRIC, AND COMMUNICATION UTILITIES.
 3. ROUGH GRADE DRIVEWAYS AND PARKING LOTS, MOVING EAST TO WEST. INSTALL DRAINAGE INFRASTRUCTURE AS AREAS ARE GRADED.
 4. INSTALL SILT SACKS IN EACH DRAIN INLET STRUCTURE UPON STRUCTURE INSTALLATION.
 5. CONSTRUCT REMAINING SITE RETAINING WALLS DURING THIS PHASE.
 6. REMOVE TEMPORARY SEDIMENT TRAPS AFTER INSTALLATION OF TEMPORARY DRAINAGE INFRASTRUCTURE. ENSURE THAT THE AREAS ARE STABILIZED PRIOR TO REMOVAL OF SEDIMENT TRAPS. OBTAIN SITE ENGINEER APPROVAL/PERMISSION PRIOR TO REMOVAL OF SEDIMENT TRAPS.

GENERAL DEEP NPDES NOTES:

1. ALL REQUIRED SEDIMENT AND EROSION CONTROLS SHALL BE MAINTAINED AS SHOWN ON CONTRACT DOCUMENTS. ADDITIONAL CONTROLS SHALL BE ADDED AS NECESSARY FOR THIS PHASE OF WORK AS DIRECTED BY THE SITE ENGINEER OF RECORD, TOWN OFFICIALS AND DEEP OFFICERS.
2. IT IS RECOMMENDED TO LIMIT SITE DISTURBANCE AS MUCH AS POSSIBLE.
3. SILT FENCE SHALL BE ACTIVELY MAINTAINED UNTIL FINAL STABILIZATION OF UPHILL DISTURBED AREAS AND APPROVAL FROM SITE ENGINEER.
4. EXISTING VEGETATION SHALL BE PRESERVED WHERE ATTAINABLE.
5. INSTALL SEED AND HAY MULCH AS EARLY AS POSSIBLE IN ALL DISTURBED AREAS.
6. STABILIZATION PRACTICES SHALL BE IMPLEMENTED WITHIN SEVEN (7) DAYS OF COMPLETION OF CONSTRUCTION ACTIVITIES, IN THE EVENT THAT CONSTRUCTION HAS BEEN TEMPORARILY SUSPENDED FOR MORE THAN THIRTY (30) DAYS. OR WITHIN 30 DAYS FROM WHEN TEMPORARY OR FINAL GRADES ARE REACHED IN ANY PORTION OF THE SITE. TEMPORARY STABILIZATION SHALL BE COMPLETED USING ONE OF THE FOLLOWING METHODS:
 - a. DURING SPRING, SUMMER, OR EARLY FALL, SEED AREAS OF DISTURBANCE WITH RYEGRASS (ANNUAL OR PERENNIAL) AT 30 LBS. PER ACRE
 - b. DURING LATE FALL OR EARLY WINTER, SEED AREAS OF DISTURBANCE WITH CERTIFIED 'AROSTOOK' WINTER RYE (CEREAL RYE) AT 100 LBS. PER ACRE
 - c. DURING WINTER, AREAS OF DISTURBANCE SHALL BE STABILIZED USING 4 TO 6 INCHES OF HAY, WHICH IS KEYED INTO THE DISTURBED EARTH WITH JUTE NETTING.
7. AREAS THAT WILL REMAIN DISTURBED BEYOND THE PLANTING SEASON SHALL BE STABILIZED USING NON-VEGETATIVE METHODS.
8. SITE CONTRACTOR TO MAINTAIN A CURRENT BINDER ON-SITE WITH THE SEDIMENT AND EROSION CONTROL PLANS AND ALL SEDIMENT AND EROSION OBSERVATION REPORTS.
9. NO FUEL OR OTHER HAZARDOUS MATERIAL SHALL BE STORED ON-SITE. SPILLS MUST BE REPORTED TO D.E.P. AND LOCAL AUTHORITIES. THE SITE CONTRACTOR SHALL MAINTAIN A SPILL KIT ON-SITE AND MAKE ACCESSIBLE TO WORKERS. SPILL KITS SHALL BE ABLE TO ABSORB 50 GALLONS AND SHALL CONSIST OF ABSORBENT PADS AND SOCKS, BOOMS, PILLOWS, NEOPRENE GLOVES, CAUTION TAPE, AND POLYETHYLENE DISPOSABLE BAGS. A PIG FUEL STATION SPILL KIT MODEL KIT4002 OR EQUIVALENT SHALL BE PROVIDED ON-SITE.
10. IN THE EVENT OF A SPILL ANY DEWATERING ACTIVITIES SHALL BE STOPPED UNTIL IT IS DETERMINED THAT THE SPILL WILL NOT CAUSE ADDITIONAL IMPACTS.

INSPECTION NOTES:

1. QUALIFIED PERSONNEL SHALL INSPECT DISTURBED AREAS OF THE CONSTRUCTION ACTIVITY THAT HAVE NOT BEEN FINALLY STABILIZED. STRUCTURAL CONTROL MEASURES AND LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN TWENTY-FOUR (24) HOURS OF THE END OF A STORM THAT IS 0.5 INCHES OR GREATER. WHERE SITES HAVE BEEN TEMPORARILY OR FINALLY STABILIZED, SUCH INSPECTION SHALL BE CONDUCTED AT LEAST ONCE EVERY MONTH FOR THREE MONTHS.
2. DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE INSPECTED DAILY BY THE CONTRACTOR FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFF-SITE SEDIMENT TRACKING.
3. BASED ON RESULTS OF INSPECTIONS, THE DESCRIPTION OF POTENTIAL SOURCES AND POLLUTION PREVENTION MEASURES IDENTIFIED IN THE PLAN SHALL BE REVISED BY THE QUALIFIED PERSONNEL AS APPROPRIATE AS SOON AS PRACTICABLE AFTER SUCH INSPECTION. SUCH MODIFICATIONS SHALL PROVIDE FOR TIMELY IMPLEMENTATION OF ANY CHANGES TO THE SITE WITHIN TWENTY-FOUR (24) HOURS AND IMPLEMENTATION OF ANY CHANGES TO THE PLAN BY THE CONTRACTOR WITHIN THREE (3) CALENDAR DAYS FOLLOWING THE INSPECTION.
4. A REPORT SUMMARIZING THE SCOPE OF THE INSPECTION, NAME(S) AND QUALIFICATIONS OF PERSONNEL MAKING THE INSPECTION, DATE(S) OF THE INSPECTION, MAJOR OBSERVATIONS RELATING TO THE IMPLEMENTATION OF THE PLAN BY THE QUALIFIED PERSONNEL, AND ACTIONS TAKEN AND DOCUMENTED SHALL BE MADE BY THE CONTRACTOR AND RETAINED AS PART OF THE PLAN. THE DOCUMENT SHALL BE SUBMITTED BY THE CONTRACTOR TO THE DEVELOPER TO BE RETAINED FOR AT LEAST THREE YEARS AFTER THE DATE OF INSPECTION. THE REPORT SHALL BE SIGNED BY THE PERMITTEE OR HIGHER AUTHORIZED REPRESENTATIVE.

SPILL PREVENTION / STORM PREPAREDNESS

THIS PLAN IS ESTABLISHED TO PROVIDE THE CONTRACTOR GENERAL GUIDANCE AND PROCEDURES TO MANAGE PROJECT OPERATIONS WHICH HAVE THE POTENTIAL TO CAUSE ENVIRONMENTAL DAMAGE, AND PREPARATION FOR SEVERE FLOODING.

1. AFTER EACH STORM EVENT OF AT LEAST 0.50 INCHES OR AT LEAST ONCE PER WEEK, ALL SEDIMENT AND EROSION CONTROLS SHALL BE OBSERVED. UPON COMPLETION OF OBSERVATION THE SITE ENGINEER IS TO PROVIDE AN OBSERVATION REPORT TO THE CONTRACTOR. THE CONTRACTOR SHALL ADDRESS ANY COMMENTS RECEIVED WITHIN 24 HOURS OF RECEIPT.
2. SITE CONTRACTOR TO MAINTAIN A CURRENT BINDER ON-SITE WITH THE SEDIMENT AND EROSION CONTROL PLANS AND ALL SEDIMENT AND EROSION OBSERVATION REPORTS.
3. NO FUEL OR OTHER HAZARDOUS MATERIAL SHALL BE STORED ON-SITE. SPILLS MUST BE REPORTED TO DEEP OIL AND CHEMICALS SPILLS UNIT (860-424-3338) AND LOCAL AUTHORITIES. THE PHONE NUMBER SHOULD BE POSTED PROMINENTLY AT THE PROJECT SITE. THE SITE CONTRACTOR SHALL MAINTAIN A SPILL KIT ON-SITE AND MAKE ACCESSIBLE TO WORKERS. SPILL KITS SHALL BE ABLE TO ABSORB 50 GALLONS AND SHALL CONSIST OF ABSORBENT PADS AND SOCKS, BOOMS, PILLOWS, NEOPRENE GLOVES, CAUTION TAPE, AND POLYETHYLENE DISPOSABLE BAGS. A PIG FUEL STATION SPILL KIT MODEL KIT4002 OR EQUIVALENT SHALL BE PROVIDED ON-SITE.
4. IN THE EVENT OF A SPILL ANY DEWATERING ACTIVITIES SHALL BE STOPPED UNTIL IT IS DETERMINED THAT THE SPILL WILL NOT CAUSE ADDITIONAL IMPACTS.
5. DURING CONSTRUCTION, NO EQUIPMENT OR MACHINERY SHOULD BE REFUELED, MAINTAINED OR PARKED IN AREAS WHERE STORM RUNOFF CAN WASH POLLUTANTS INTO STORM DRAINS.
6. IN THE EVENT OF SEVERE FLOODING, MONITORING OF CONDITIONS AS THEY INTENSIFY AND DISSEMINATION OF EMERGENCY INFORMATION WILL BE HANDLED THROUGH THE CITY OF STAMFORD EMERGENCY OPERATIONS CENTER (EOC), IN CONJUNCTION WITH THE ENVIRONMENTAL PROTECTION BOARD. IN THE EVENT OF A FLOOD, DESIGNATED EMPLOYEES SHOULD TUNE INTO LOCAL RADIO AND/OR TELEVISION STATIONS. BROADCASTS FROM THE FOLLOWING LIST OF STATIONS SHOULD BE MONITORED THROUGHOUT SEVERE STORMS FOR INFORMATION REGARDING CURRENT FLOODING CONDITIONS AND POSSIBLE EMERGENCY EVACUATIONS:
RADIO:
FAIRFIELD COUNTY PUBLIC RADIO (91.1 FM AND 1400 AM)
WGCH RADIO (1490 AM)
FOX RADIO (95.9 FM)
TELEVISION: NEWS12 CONNECTICUT (CHANNEL 12)
STAMFORD EMERGENCY OPERATIONS CENTER: TREVOR ROACH, FIRE CHIEF 203-977-5900 OR 203-977-8840

7. ADDITIONAL SOURCES OF INFORMATION (NON-EMERGENCY) ARE LISTED BELOW:

FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA): 800-421-FEMA OR WWW.FEMA.GOV
NATIONAL FLOOD INSURANCE PROGRAM (NFIP): 888-378-9331 OR WWW.NFIP.GOV/NFIP
CT DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION: 860-424-3000
STAMFORD CITIZEN SERVICE CENTER: 203-977-4140
CITY OF STAMFORD: 203-977-6600
STAMFORD ENVIRONMENTAL PROTECTION BOARD: 203-977-4028
STAMFORD PLANNING AND ZONING: 203-977-9711
FERGUSON LIBRARY: 203-964-1000

LEGEND			
SEDIMENT & EROSION CONTROLS			
SILT FENCE WITH HAYBALES	X	X	
HAYBALES @ INLET		OR	
TRACKING PAD			
STOOPLE AREA		OR	
TREE TO BE REMOVED	X		
TREE PROTECTION			
TREE POTENTIALLY TO BE SAVED (TO BE DETERMINED BY CONSTRUCTION FENCE REMAINS)			
IF HIGH CONSTRUCTION SECURITY FENCE			
CONSTRUCTION FENCE			

NOTE: CONTROLLED FILL WILL BE BROUGHT IN TO CONSTRUCT THE TEMPORARY ROADWAY. THE TEMPORARY FILL WILL BE REMOVED PRIOR TO INSTALLATION OF THE INFILTRATION SYSTEMS. ONCE REMOVED, A PERCOLATION TEST WILL BE CONDUCTED TO VERIFY THE DESIGN RATES. IF THE RATES ARE ACCEPTABLE THE CONTRACTOR WILL BE ALLOWED TO INSTALL THE REQUIRED CRUSHED STONE. IF NOT, ADDITIONAL PROVISIONS WOULD NEED TO BE MADE AT THAT TIME.

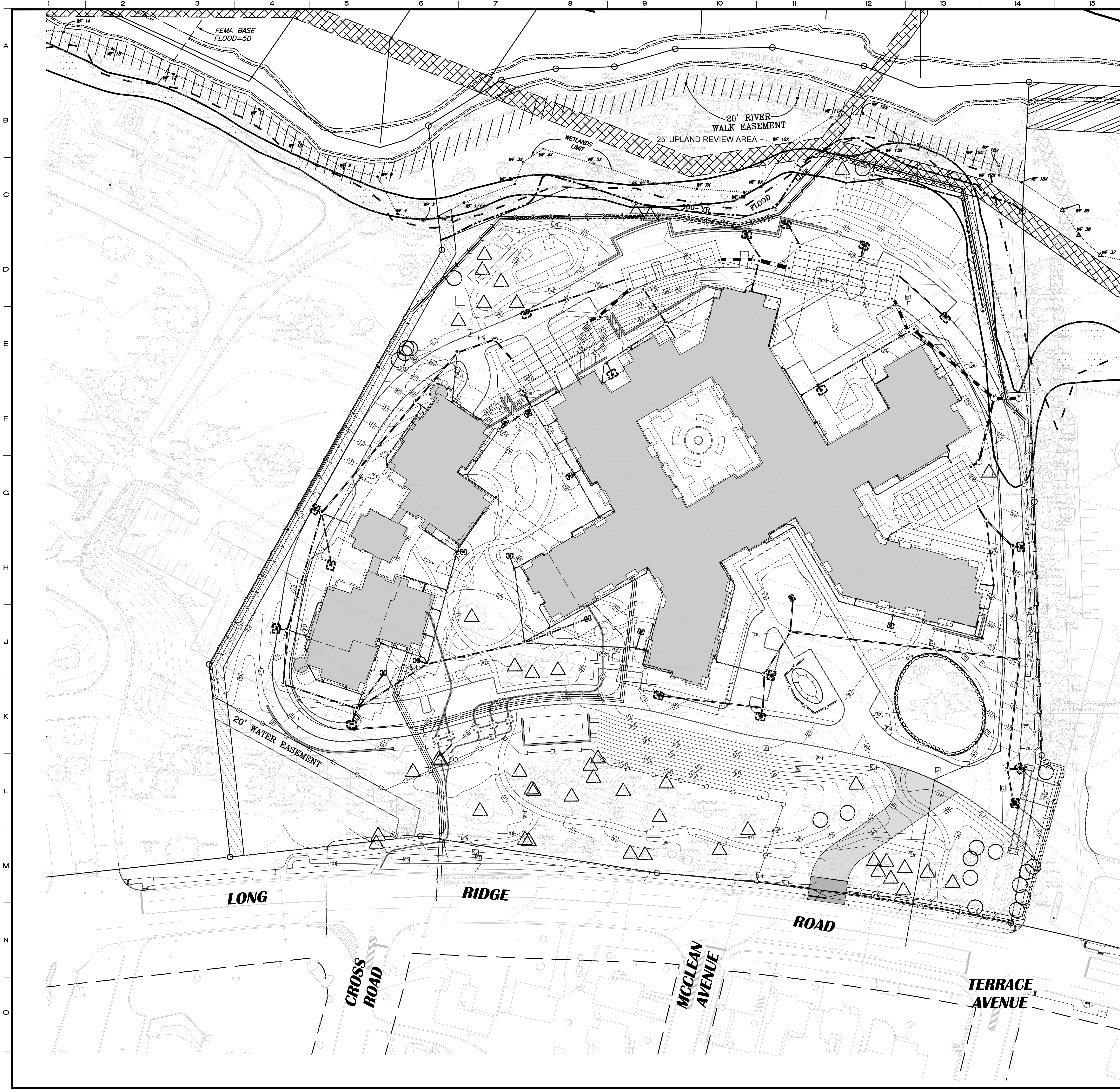
2	08/09/2023	DESIGN DEVELOPMENT / 2B RESUBMISSION
1	05/23/2023	ORIGINAL SUBMISSION
No.	Date	Revision

SEDIMENT & EROSION CONTROL PLAN PHASE V
DEPICTING
210 LONG RIDGE ROAD
STAMFORD, CT
PREPARED FOR
TJH SENIOR LIVING LLC

REDNISS & MEAD
LAND SURVEYING
CIVIL ENGINEERING
PLANNING & ZONING CONSULTING
PLANNING

SCALE: 0 60 90
1"=40'
DRAWN BY: V.JH
CHECKED BY: TM

TEODORO MILONE CT. P.E. 22563
August 9, 2023
DATE
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SHEET No:
SE-5E
22 First Street | Stamford, CT 06905
Tel: 203.327.0500 | Fax: 203.357.1118
www.rednissandmead.com
Comm. No: 1730



PHASE VI - FINAL SITE STABILIZATION

THE FOLLOWING DESCRIPTION OF CONSTRUCTION PHASING IS INTENDED TO DEMONSTRATE A FEASIBLE SEQUENCE OF CONSTRUCTION. THE ACTUAL SEQUENCE MAY VARY DUE TO FIELD CONDITIONS IF APPROVED BY THE INSPECTING ENGINEER. THIS CONSTRUCTION PHASING PLAN WAS PREPARED FOR CONSTRUCTION PURPOSES.

1. INSTALL REMAINING UTILITIES.
2. ACHIEVE FINAL GRADES AND STABILIZE ALL SURFACES WITH FINAL SURFACE TREATMENTS (PAVEMENT, PAVERS, HAY/MULCH OR SOD, ETC.).
3. REMOVE SILT SACKS IN EACH DRAIN INLET STRUCTURE UPON COMPLETE STABILIZATION OF ALL TRIBUTARY AREAS.
4. REMOVE TRACKING PAD AND CONSTRUCTION ACCESS. SWEEP FINISHED ROADWAYS AS NECESSARY TO PREVENT TRACKING OF SILT OFFSITE WHILE TEMPORARY EROSION CONTROLS ARE BEING REMOVED.
5. REMOVE TREE PROTECTION, SILT FENCE, AND CONSTRUCTION FENCE.

GENERAL DEEP NPDES NOTES:

1. ALL REQUIRED SEDIMENT AND EROSION CONTROLS SHALL BE MAINTAINED AS SHOWN ON CONTRACT DOCUMENTS. ADDITIONAL CONTROLS SHALL BE ADDED AS NECESSARY FOR THIS PHASE OF WORK AS DIRECTED BY THE SITE ENGINEER OF RECORD, TOWN OFFICIALS AND DEEP OFFICERS.
2. IT IS RECOMMENDED TO LIMIT SITE DISTURBANCE AS MUCH AS POSSIBLE.
3. SILT FENCE SHALL BE ACTIVELY MAINTAINED UNTIL FINAL STABILIZATION OF UPHILL DISTURBED AREAS AND APPROVAL FROM SITE ENGINEER.
4. EXISTING VEGETATION SHALL BE PRESERVED WHERE ATTAINABLE.
5. INSTALL SEED AND HAY MULCH AS EARLY AS POSSIBLE IN ALL DISTURBED AREAS.
6. STABILIZATION PRACTICES SHALL BE IMPLEMENTED WITHIN SEVEN (7) DAYS OF COMPLETION OF CONSTRUCTION ACTIVITIES, IN THE EVENT THAT CONSTRUCTION HAS BEEN TEMPORARILY SUSPENDED FOR MORE THAN THIRTY (30) DAYS. OR WITHIN 30 DAYS FROM WHEN TEMPORARY OR FINAL GRADES ARE REACHED IN ANY PORTION OF THE SITE. TEMPORARY STABILIZATION SHALL BE COMPLETED USING ONE OF THE FOLLOWING METHODS:
 - a. DURING SPRING, SUMMER, OR EARLY FALL, SEED AREAS OF DISTURBANCE WITH PERennial (ANNUAL OR PERENNIAL) AT 30 LBS. PER ACRE
 - b. DURING LATE FALL OR EARLY WINTER, SEED AREAS OF DISTURBANCE WITH CERTIFIED 'AROSTOOK' WINTER RYE (CEREAL RYE) AT 100 LBS. PER ACRE
 - c. DURING WINTER, AREAS OF DISTURBANCE SHALL BE STABILIZED USING 4 TO 6 INCHES OF HAY, WHICH IS KEYED INTO THE DISTURBED EARTH WITH JUTE NETTING.
7. AREAS THAT WILL REMAIN DISTURBED BEYOND THE PLANTING SEASON SHALL BE STABILIZED USING NON-VEGETATIVE METHODS.
8. SITE CONTRACTOR TO MAINTAIN A CURRENT BINDER ON-SITE WITH THE SEDIMENT AND EROSION CONTROL PLANS AND ALL SEDIMENT AND EROSION OBSERVATION REPORTS.
9. NO FUEL OR OTHER HAZARDOUS MATERIAL SHALL BE STORED ON-SITE. SPILLS MUST BE REPORTED TO D.E.E.P. AND LOCAL AUTHORITIES. THE SITE CONTRACTOR SHALL MAINTAIN A SPILL KIT ON-SITE AND MAKE ACCESSIBLE TO WORKERS. SPILL KITS SHALL BE ABLE TO ABSORB 50 GALLONS AND SHALL CONSIST OF ABSORBENT PADS AND SOCKS, BOOMS, PILLOWS, NEOPRENE GLOVES, CAUTION TAPE, AND POLYETHYLENE DISPOSABLE BAGS. A PIG FUEL STATION SPILL KIT MODEL KIT4002 OR EQUIVALENT SHALL BE PROVIDED ON-SITE.
10. IN THE EVENT OF A SPILL ANY DEWATERING ACTIVITIES SHALL BE STOPPED UNTIL IT IS DETERMINED THAT THE SPILL WILL NOT CAUSE ADDITIONAL IMPACTS.

INSPECTION NOTES:

1. QUALIFIED PERSONNEL SHALL INSPECT DISTURBED AREAS OF THE CONSTRUCTION ACTIVITY THAT HAVE NOT BEEN FINALLY STABILIZED. STRUCTURAL CONTROL MEASURES AND LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN TWENTY-FOUR (24) HOURS OF THE END OF A STORM THAT IS 0.5 INCHES OR GREATER. WHERE SITES HAVE BEEN TEMPORARILY OR FINALLY STABILIZED, SUCH INSPECTION SHALL BE CONDUCTED AT LEAST ONCE EVERY MONTH FOR THREE MONTHS.
2. DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE INSPECTED DAILY BY THE CONTRACTOR FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFF-SITE SEDIMENT TRACKING.
3. BASED ON RESULTS OF INSPECTIONS, THE DESCRIPTION OF POTENTIAL SOURCES AND POLLUTION PREVENTION MEASURES IDENTIFIED IN THE PLAN SHALL BE REVISED BY THE QUALIFIED PERSONNEL AS APPROPRIATE AS SOON AS PRACTICABLE AFTER SUCH INSPECTION. SUCH MODIFICATIONS SHALL PROVIDE FOR TIMELY IMPLEMENTATION OF ANY CHANGES TO THE SITE WITHIN TWENTY-FOUR (24) HOURS AND IMPLEMENTATION OF ANY CHANGES TO THE PLAN BY THE CONTRACTOR WITHIN THREE (3) CALENDAR DAYS FOLLOWING THE INSPECTION.
4. A REPORT SUMMARIZING THE SCOPE OF THE INSPECTION, NAME(S) AND QUALIFICATIONS OF PERSONNEL MAKING THE INSPECTION, DATE(S) OF THE INSPECTION, MAJOR OBSERVATIONS RELATING TO THE IMPLEMENTATION OF THE PLAN BY THE QUALIFIED PERSONNEL, AND ACTIONS TAKEN AND DOCUMENTED SHALL BE MADE BY THE CONTRACTOR AND RETAINED AS PART OF THE PLAN. THE DOCUMENT SHALL BE SUBMITTED BY THE CONTRACTOR TO THE DEVELOPER TO BE RETAINED FOR AT LEAST THREE YEARS AFTER THE DATE OF INSPECTION. THE REPORT SHALL BE SIGNED BY THE PERMITTEE OR HIGHER AUTHORIZED REPRESENTATIVE.

SPILL PREVENTION / STORM PREPAREDNESS

THIS PLAN IS ESTABLISHED TO PROVIDE THE CONTRACTOR GENERAL GUIDANCE AND PROCEDURES TO MANAGE PROJECT OPERATIONS WHICH HAVE THE POTENTIAL TO CAUSE ENVIRONMENTAL DAMAGE, AND PREPARATION FOR SEVERE FLOODING.

1. AFTER EACH STORM EVENT OF AT LEAST 0.50 INCHES OR AT LEAST ONCE PER WEEK, ALL SEDIMENT AND EROSION CONTROLS SHALL BE OBSERVED. UPON COMPLETION OF OBSERVATION THE SITE ENGINEER IS TO PROVIDE AN OBSERVATION REPORT TO THE CONTRACTOR. THE CONTRACTOR SHALL ADDRESS ANY COMMENTS RECEIVED WITHIN 24 HOURS OF RECEIPT.
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TELEVISION: NEWS12 CONNECTICUT (CHANNEL 12)
STAMFORD EMERGENCY OPERATIONS CENTER: TREVOR ROACH, FIRE CHIEF 203-977-5900 OR 203-977-8840

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STAMFORD ENVIRONMENTAL PROTECTION BOARD: 203-977-4028
STAMFORD PLANNING AND ZONING: 203-977-4711
FERGUSON LIBRARY: 203-964-1000

LEGEND
SEDIMENT & EROSION CONTROLS

SILT FENCE WITH HAYBALES
HAYBALES @ INLET
TRACKING PAD
STOCKPILE AREA
TREE TO BE REMOVED
TREE PROTECTION
TREE POTENTIALLY TO BE SAVED (TO BE DETERMINED BY CONSTRUCTION FENCE REMAINS)
IF HIGH CONSTRUCTION SECURITY FENCE
CONSTRUCTION FENCE

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2	08/09/2023	DESIGN DEVELOPMENT / 2B RESUBMISSION
1	06/23/2023	ORIGINAL SUBMISSION
No.	Date	Revision

SEDIMENT & EROSION CONTROL PLAN PHASE VI
DEPICTING
210 LONG RIDGE ROAD
STAMFORD, CT
PREPARED FOR
TJH SENIOR LIVING LLC

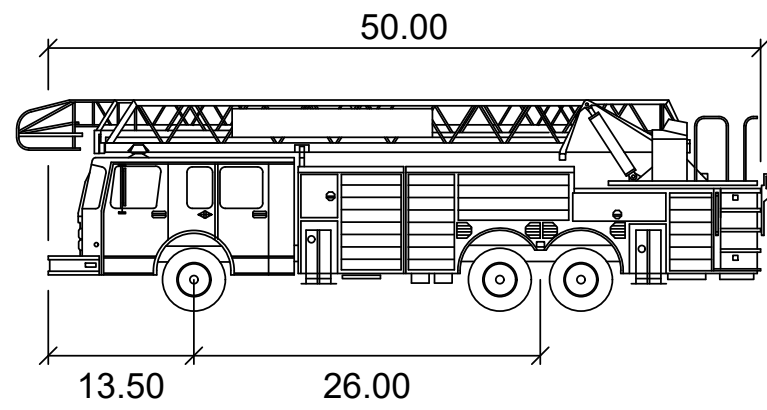
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1"=40'
DRAWN BY: VJH
CHECKED BY: TM

TEODORO MILONE CT. P.E. 22563
August 9, 2023
DATE

LAND SURVEYING
CIVIL ENGINEERING
PLANNING & ZONING CONSULTING
PLANNING

22 Five Street | Stamford, CT 06905
Tel: 203.327.0500 | Fax: 203.357.1118
www.rednissandmead.com

SHEET No:
SE-5F
Comm. No: 1730



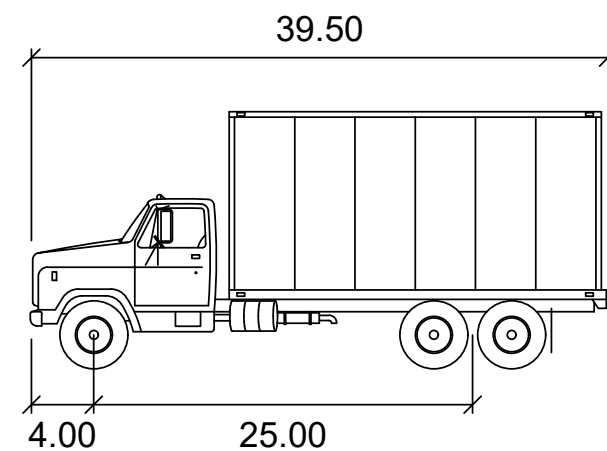
Stamford Ladder

	feet
Width	: 9.50
Track	: 9.00
Lock to Lock Time	: 6.0
Steering Angle	: 40.0

NOTE:
TREES NOT SHOWN. REFER TO PROPERTY AND
TOPOGRAPHIC SURVEY OR THE SEDIMENT &
EROSION CONTROLS PLAN FOR TREE LOCATIONS.



SU-40 TRUCK DELIVERY INSET
SCALE: 1"=40'



SU-40

	feet
Width	: 8.00
Track	: 8.00
Lock to Lock Time	: 6.0
Steering Angle	: 31.8

LEGEND	
VEHICLE ENVELOPE	—
FRONT TIRES	—
REAR TIRES	—
VEHICLE BODY	■

2	08/09/2023	DESIGN DEVELOPMENT / ZB RESUBMISSION
1	05/23/2023	ORIGINAL SUBMISSION
No.	Date	Revision

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August 9, 2023

DATE

This document and copies thereof are valid only if they bear the
signature and embossed seal of the designated licensed professional.
Unauthorized alterations render any declaration herein null & void.

SHEET No:

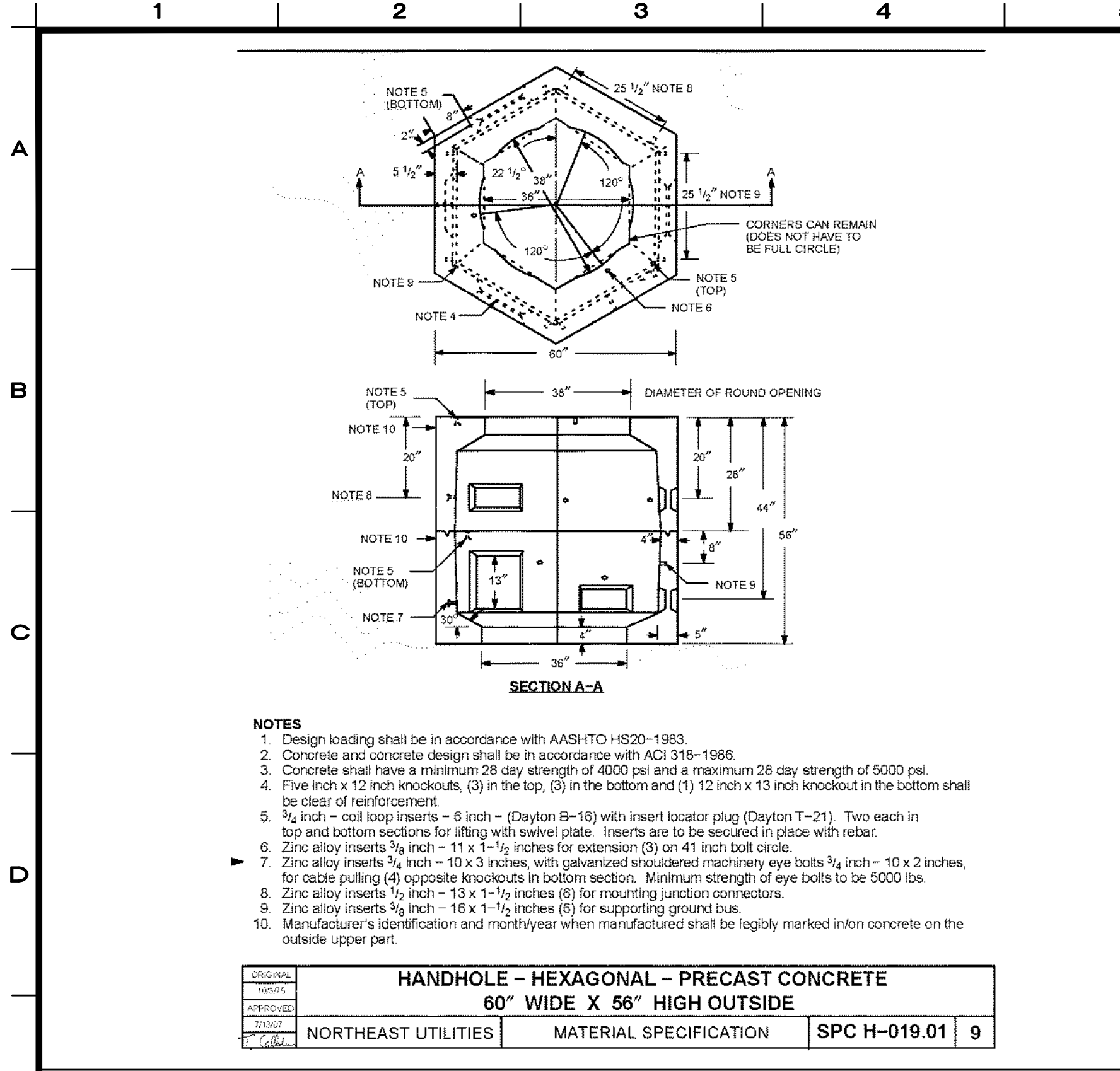
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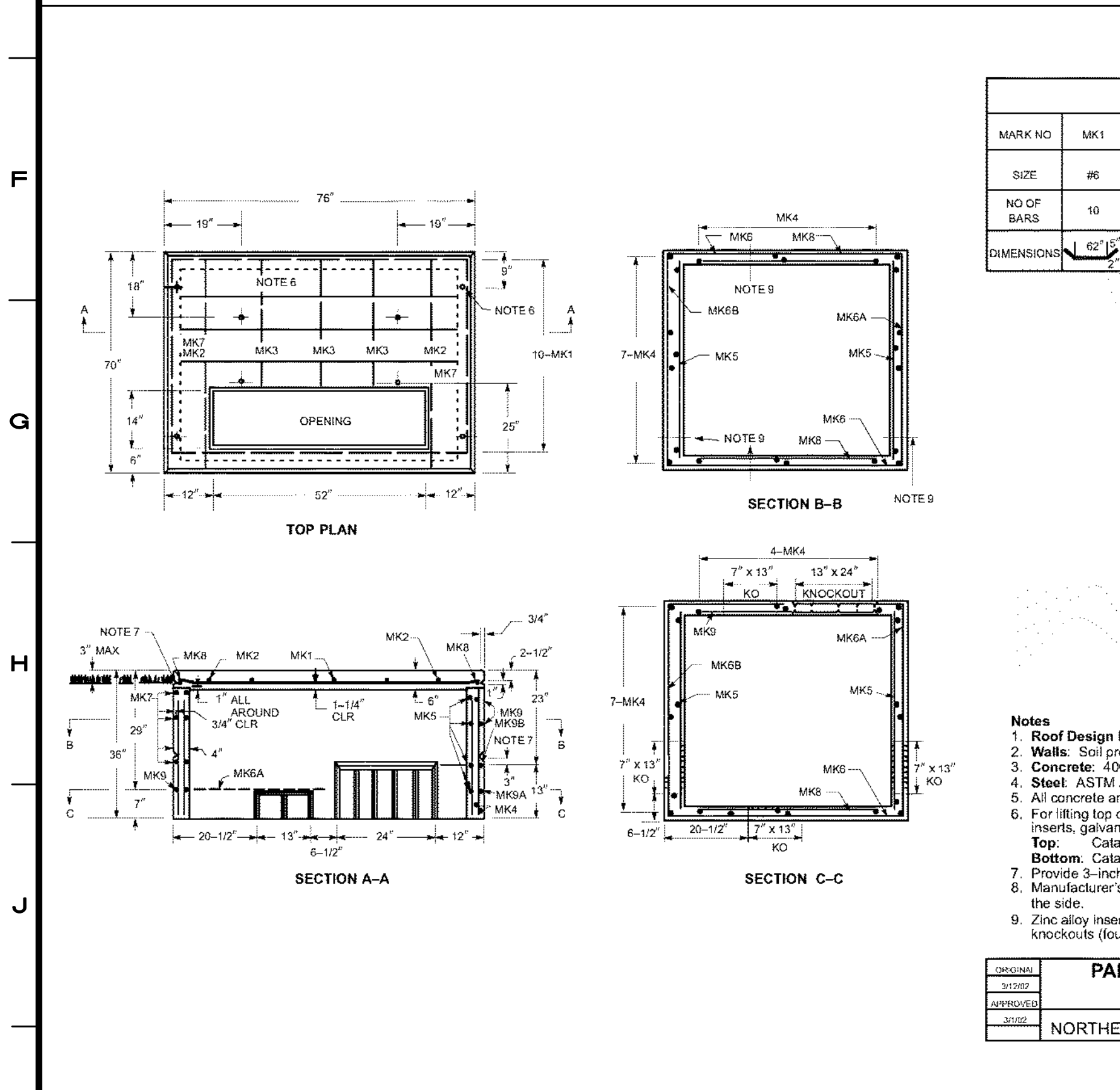
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DRAWN BY: V.J.H. CHECKED BY: T.M.

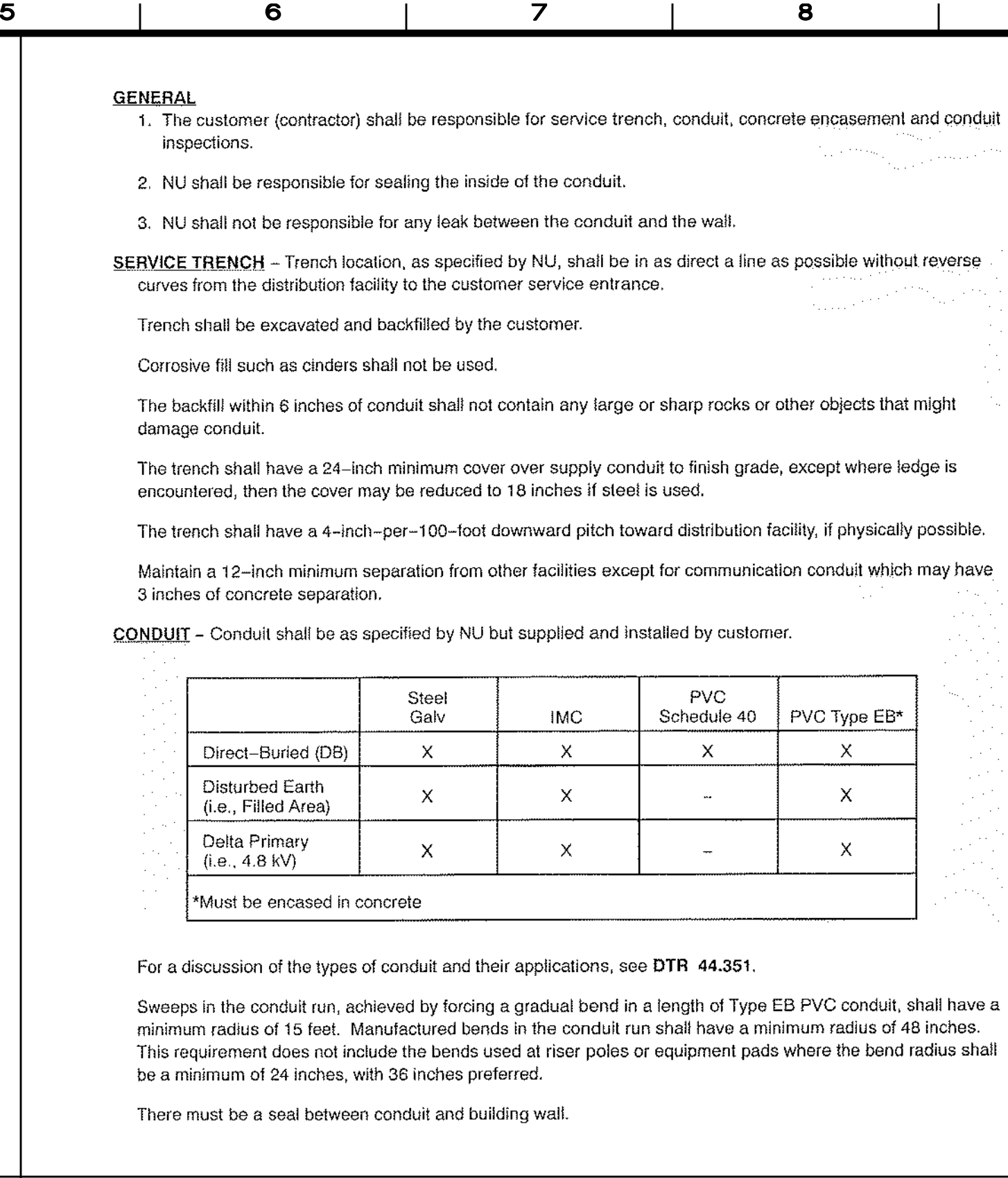
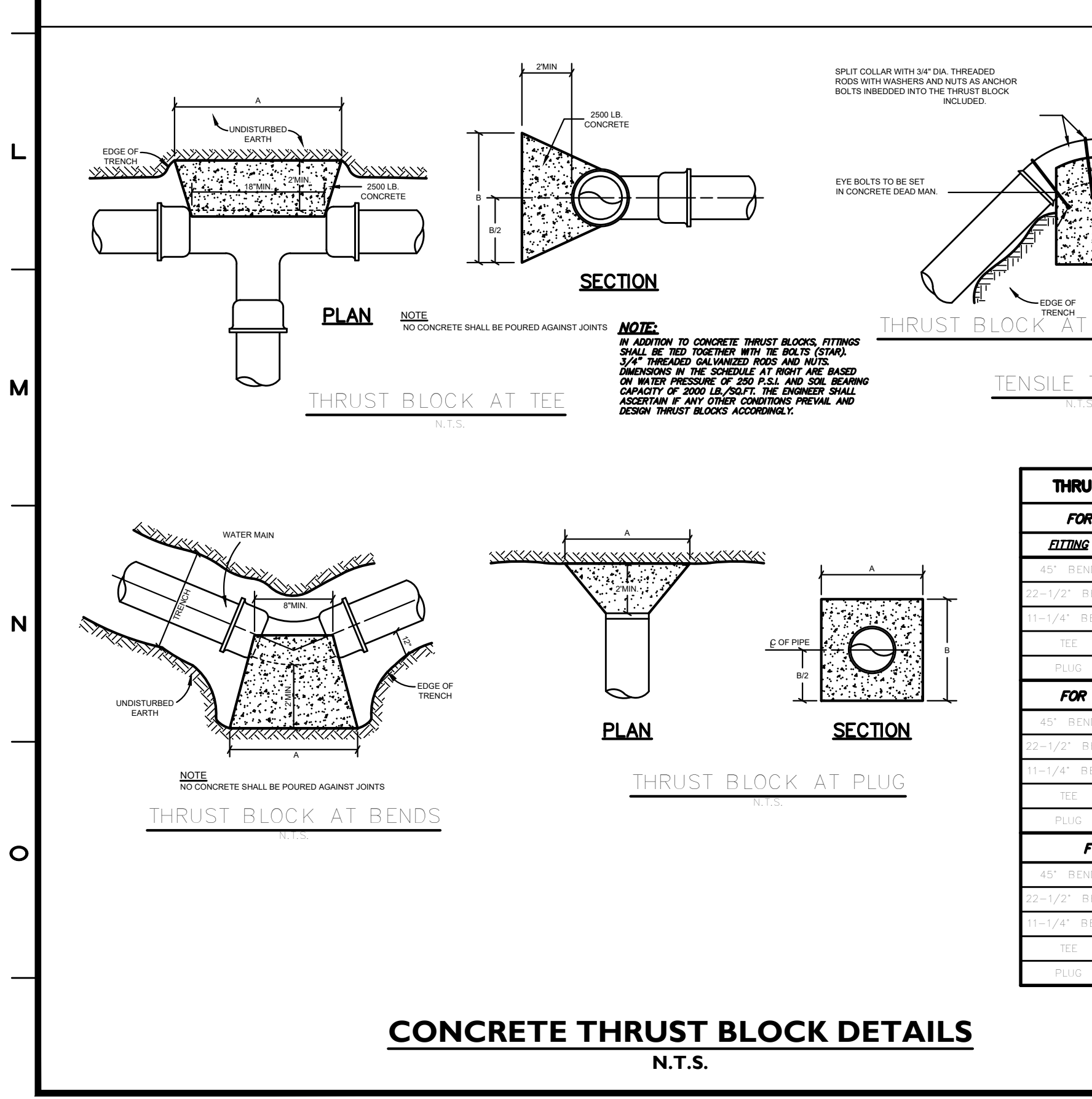
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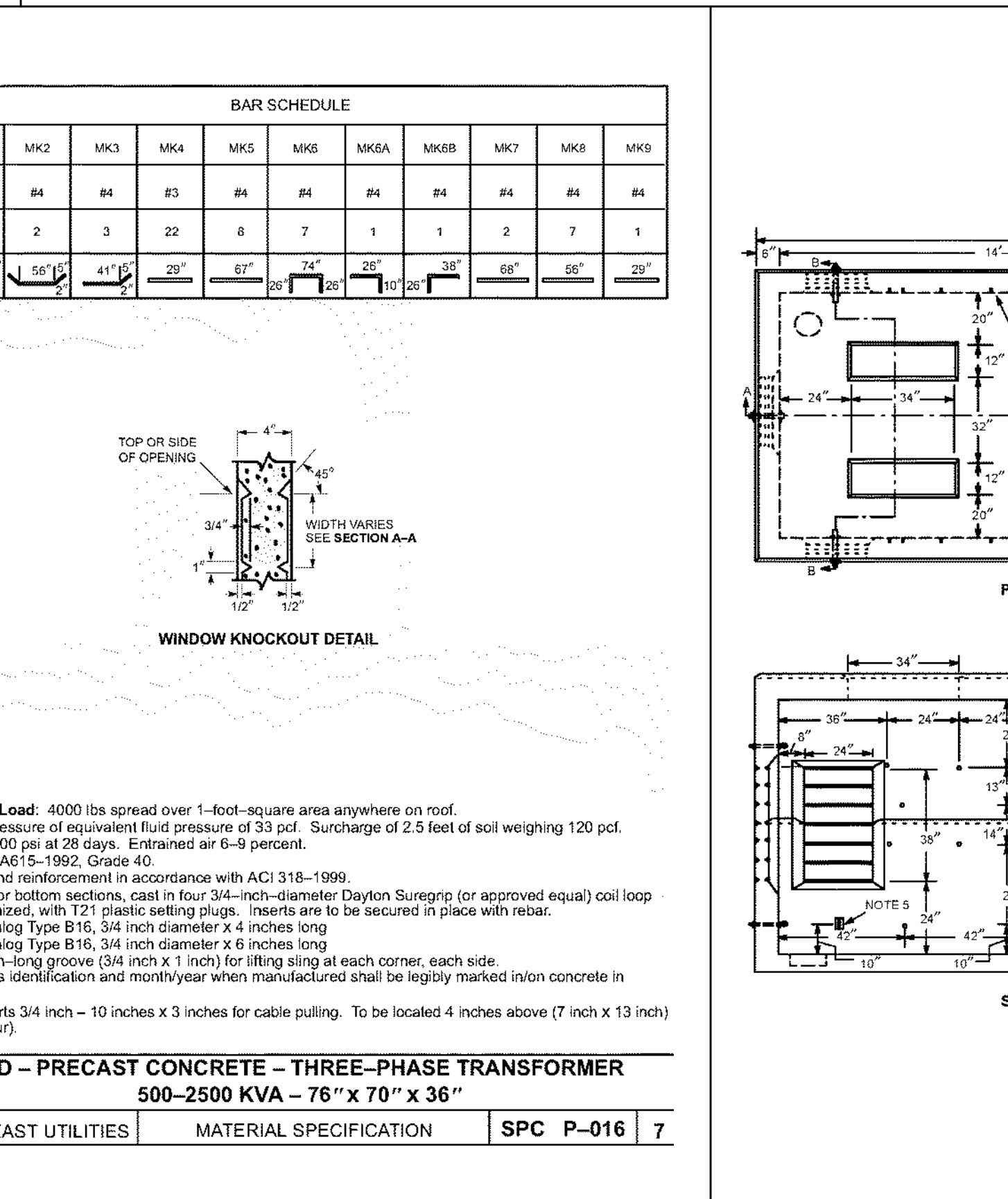
HEXAGONAL HANDHOLE
N.T.S.



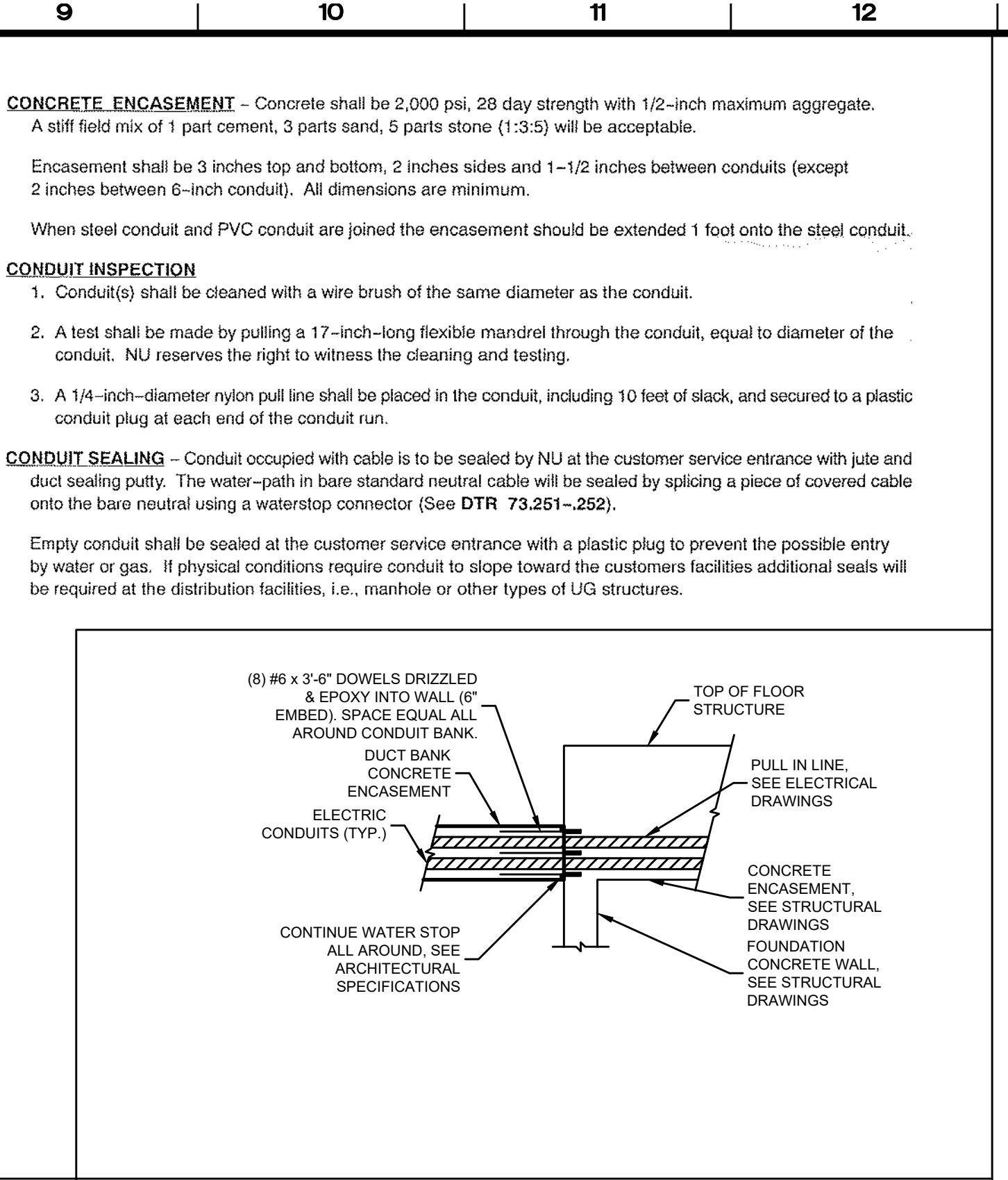
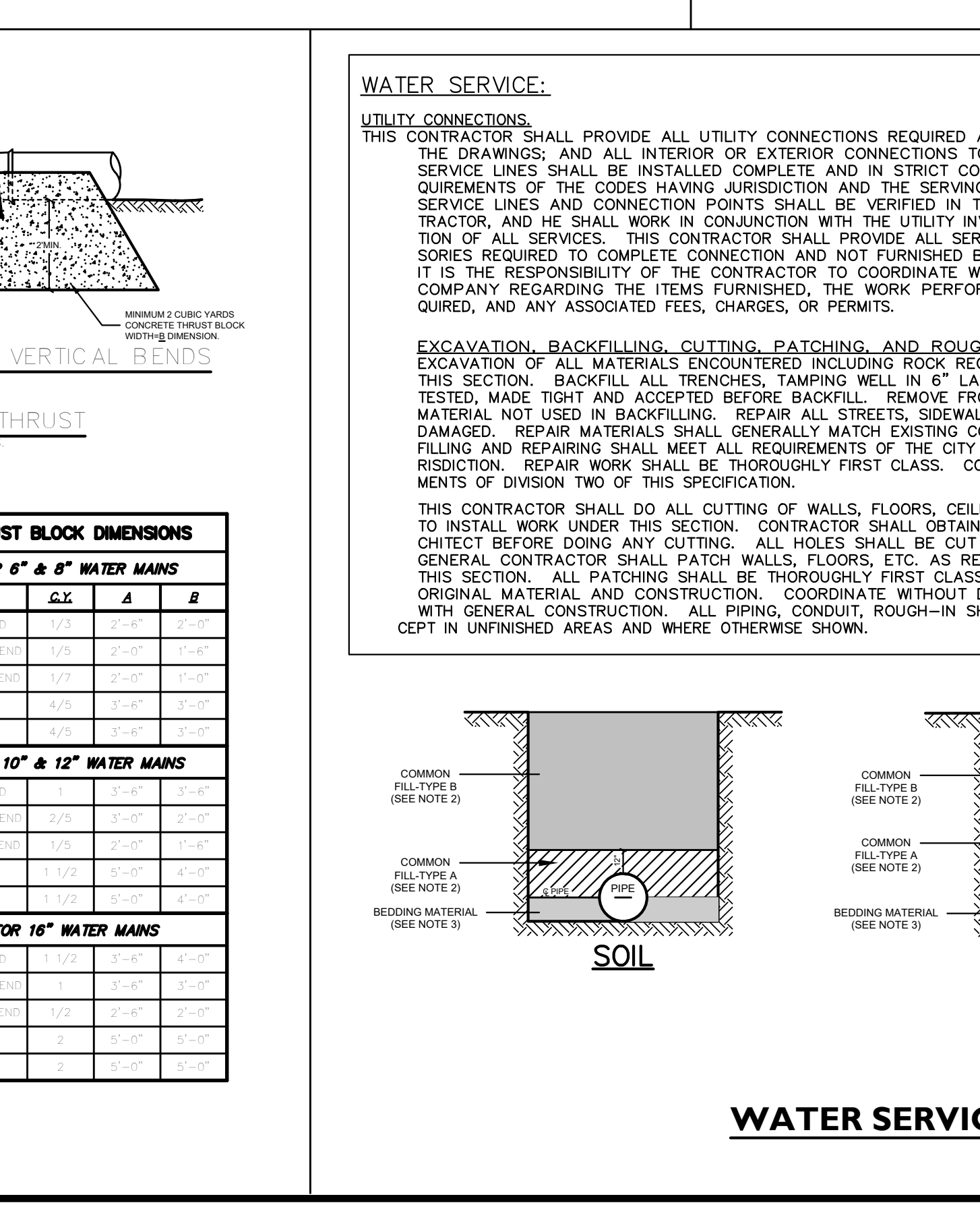
THREE-PHASE TRANSFORMER PAD
(PRECAST CONCRETE - 76" x 70" x 36")
N.T.S.



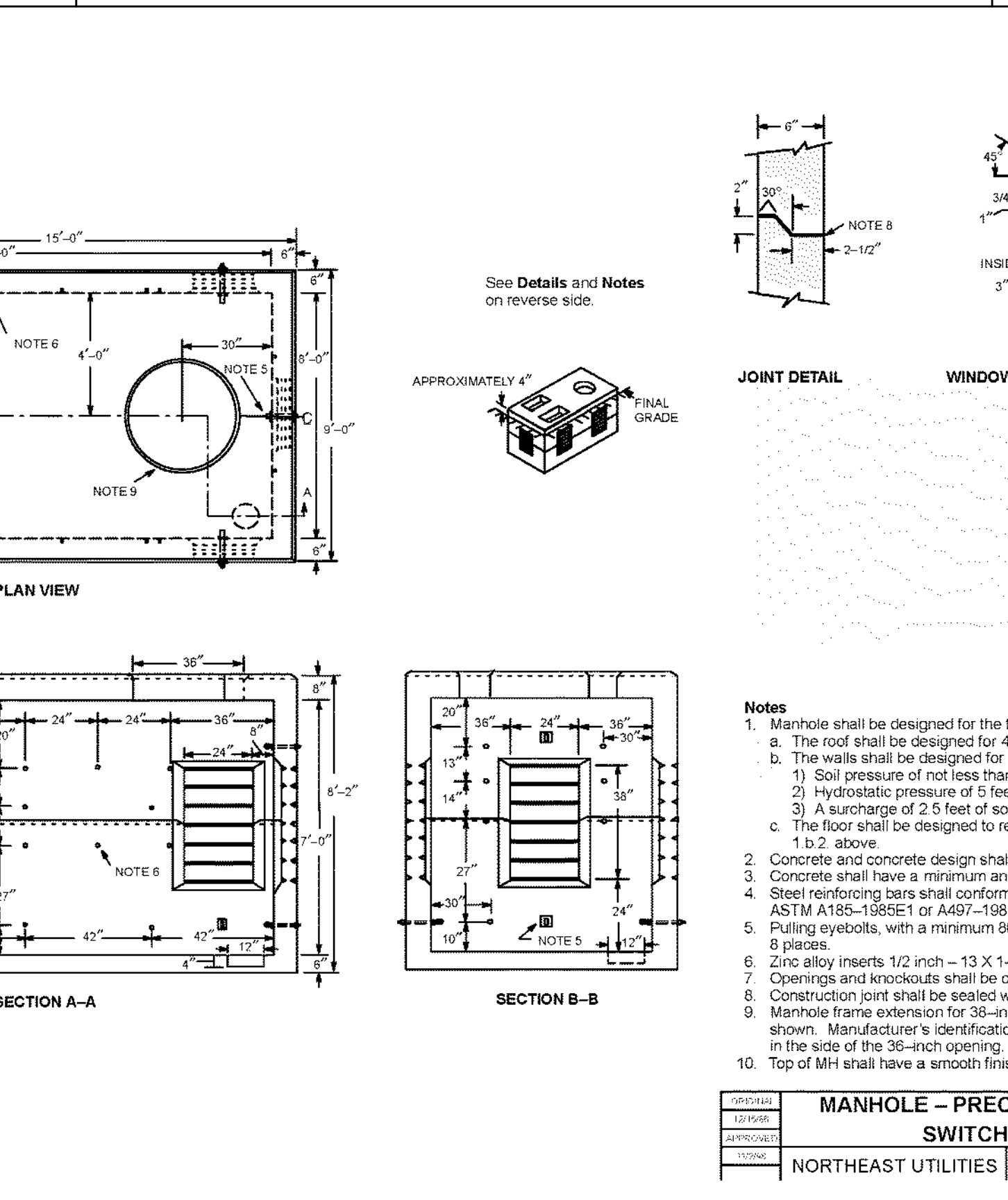
EVERSOURCE CONDUIT
INSTALLATION DETAIL
N.T.S.



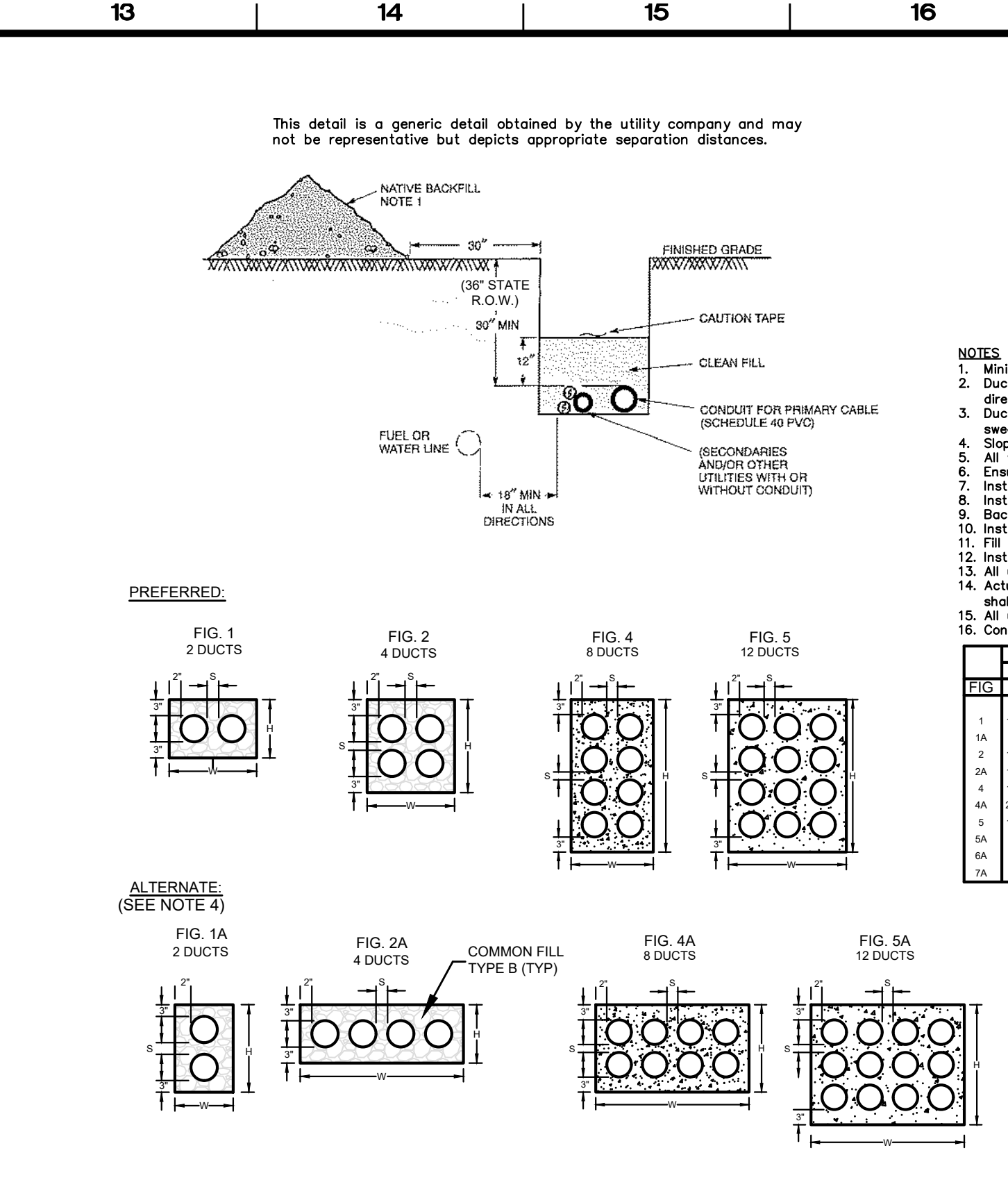
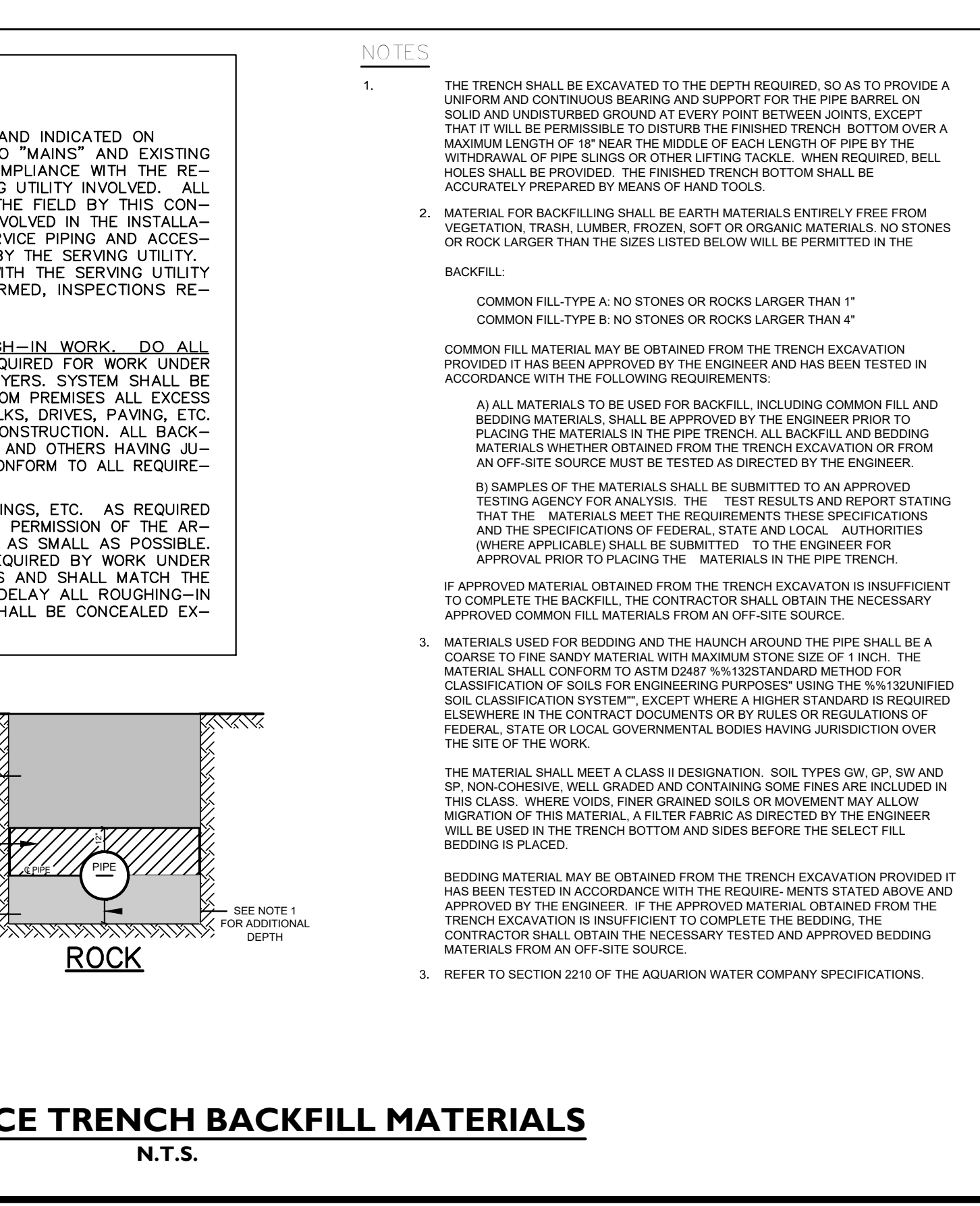
THREE-PHASE SWITCH GEAR
(PRECAST CONCRETE)
N.T.S.



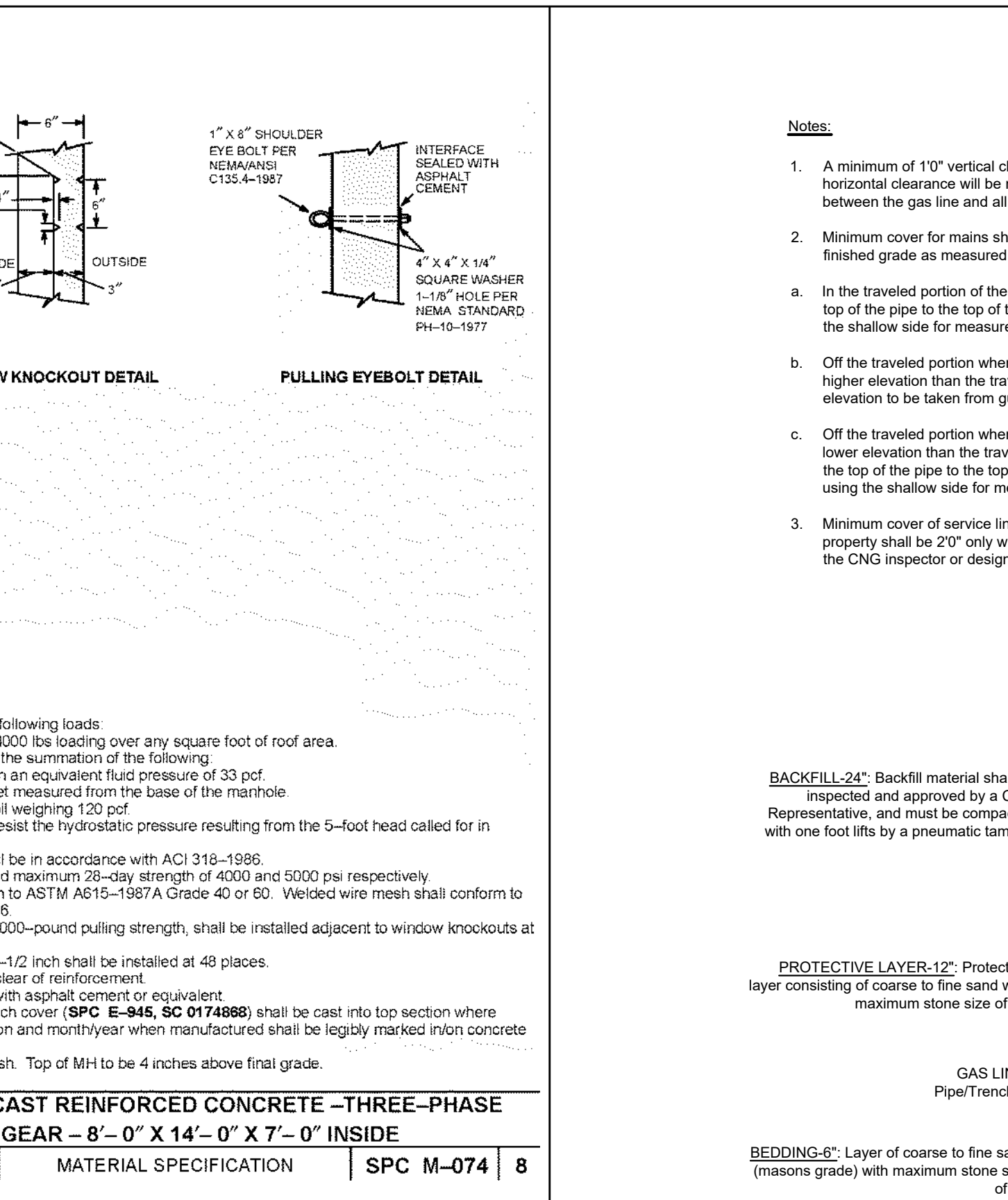
DUCT BANK AT FOUNDATION
WALL DETAIL
N.T.S.



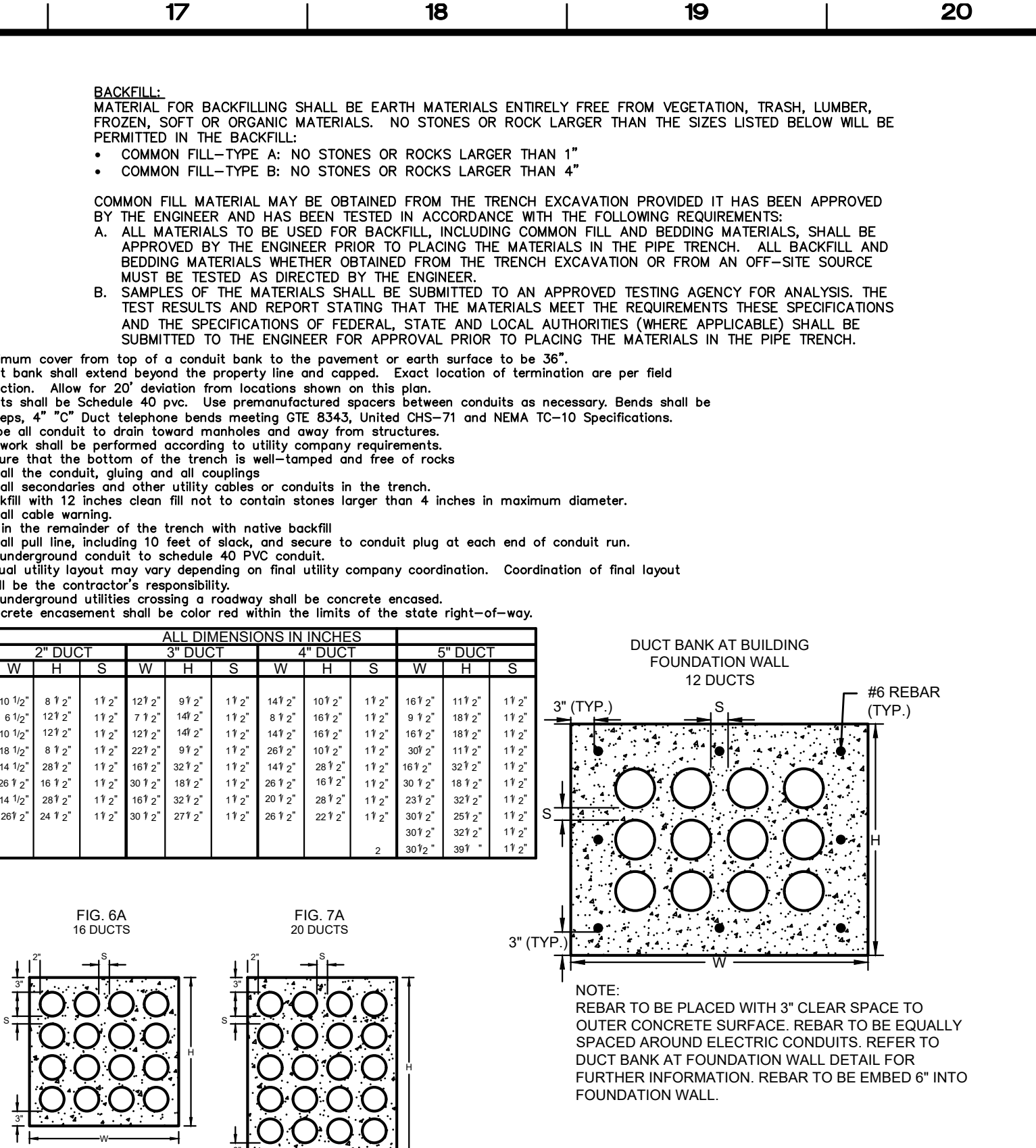
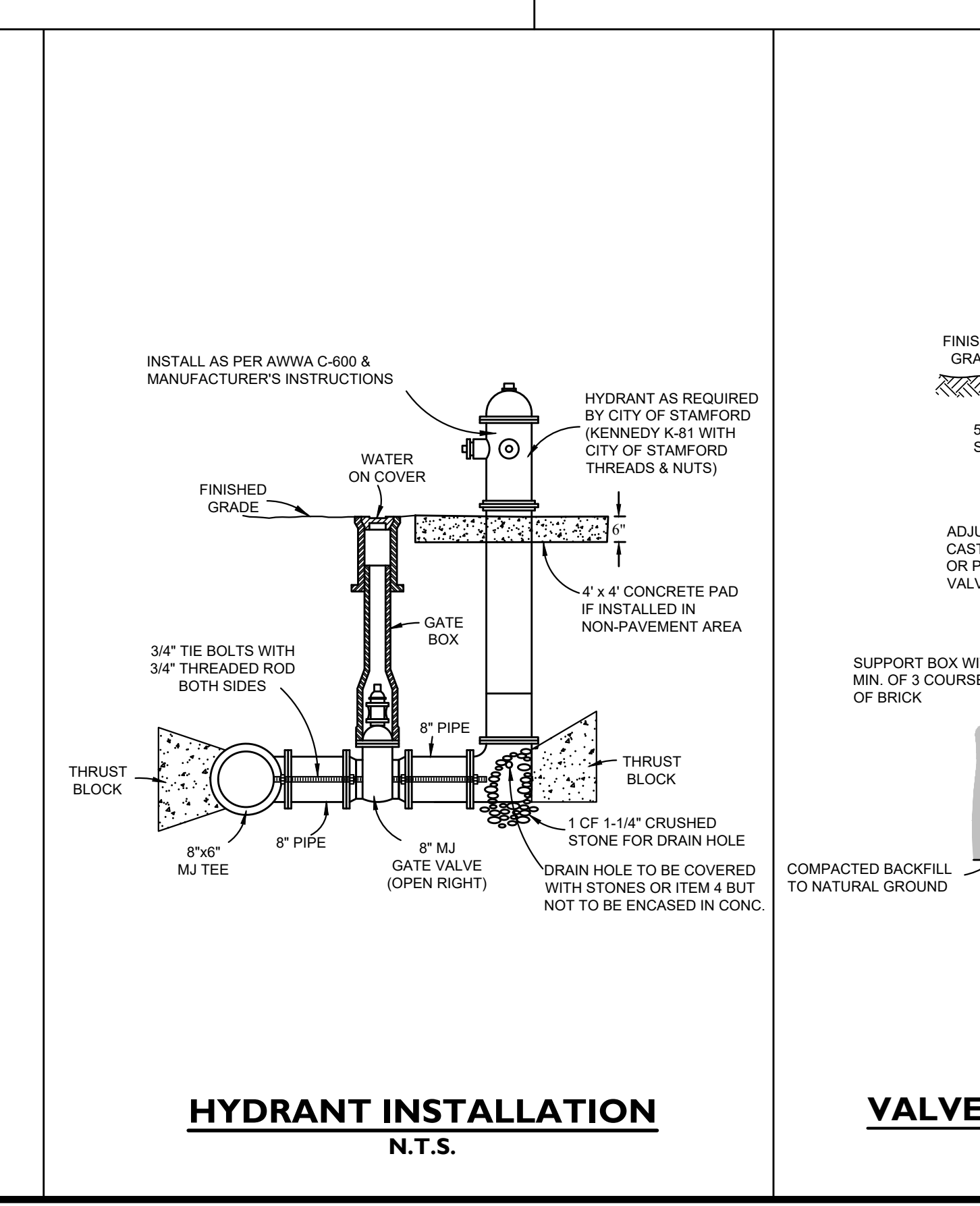
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(PRECAST CONCRETE)
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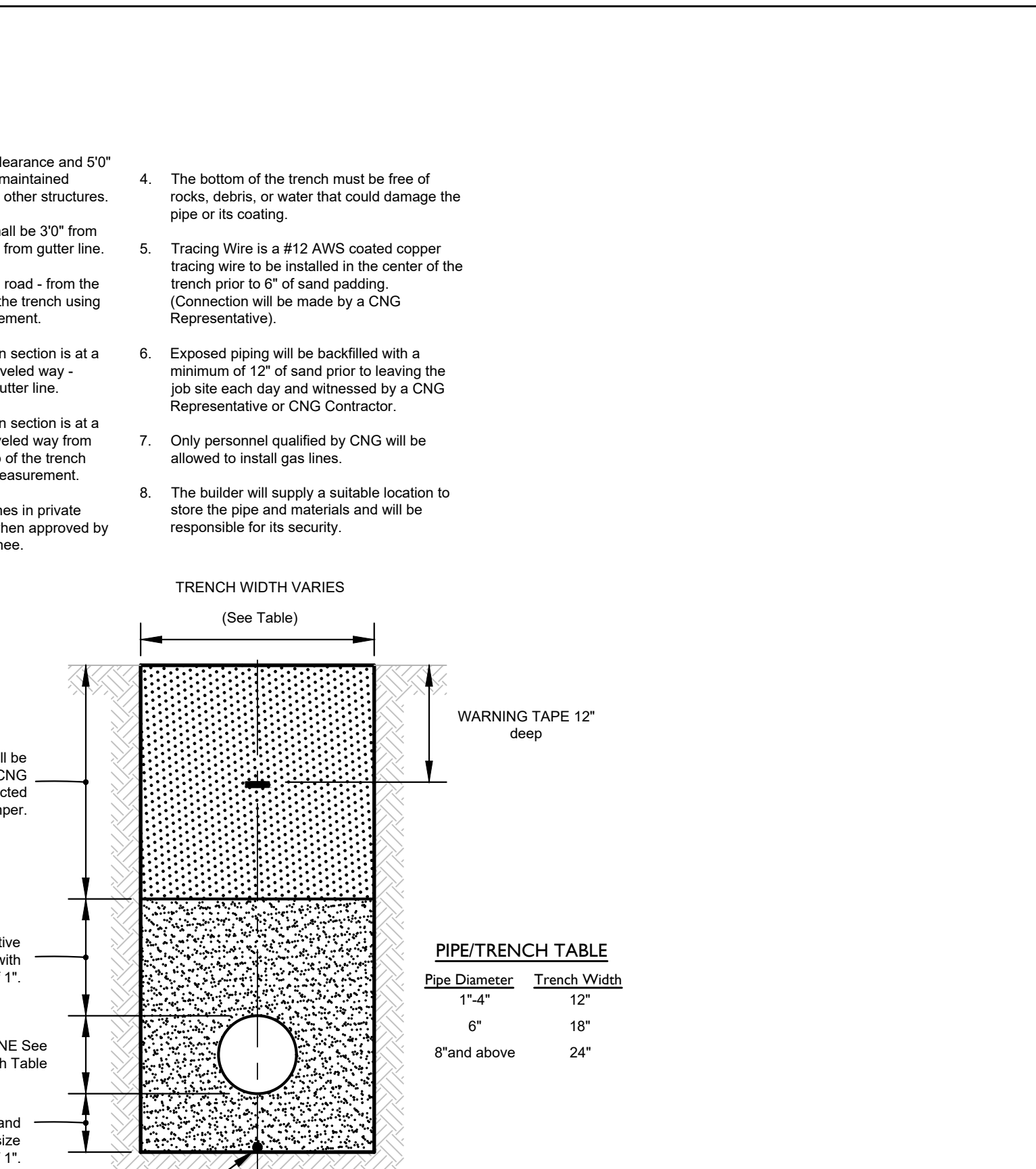
DUCT BANK AT FOUNDATION
WALL DETAIL
N.T.S.



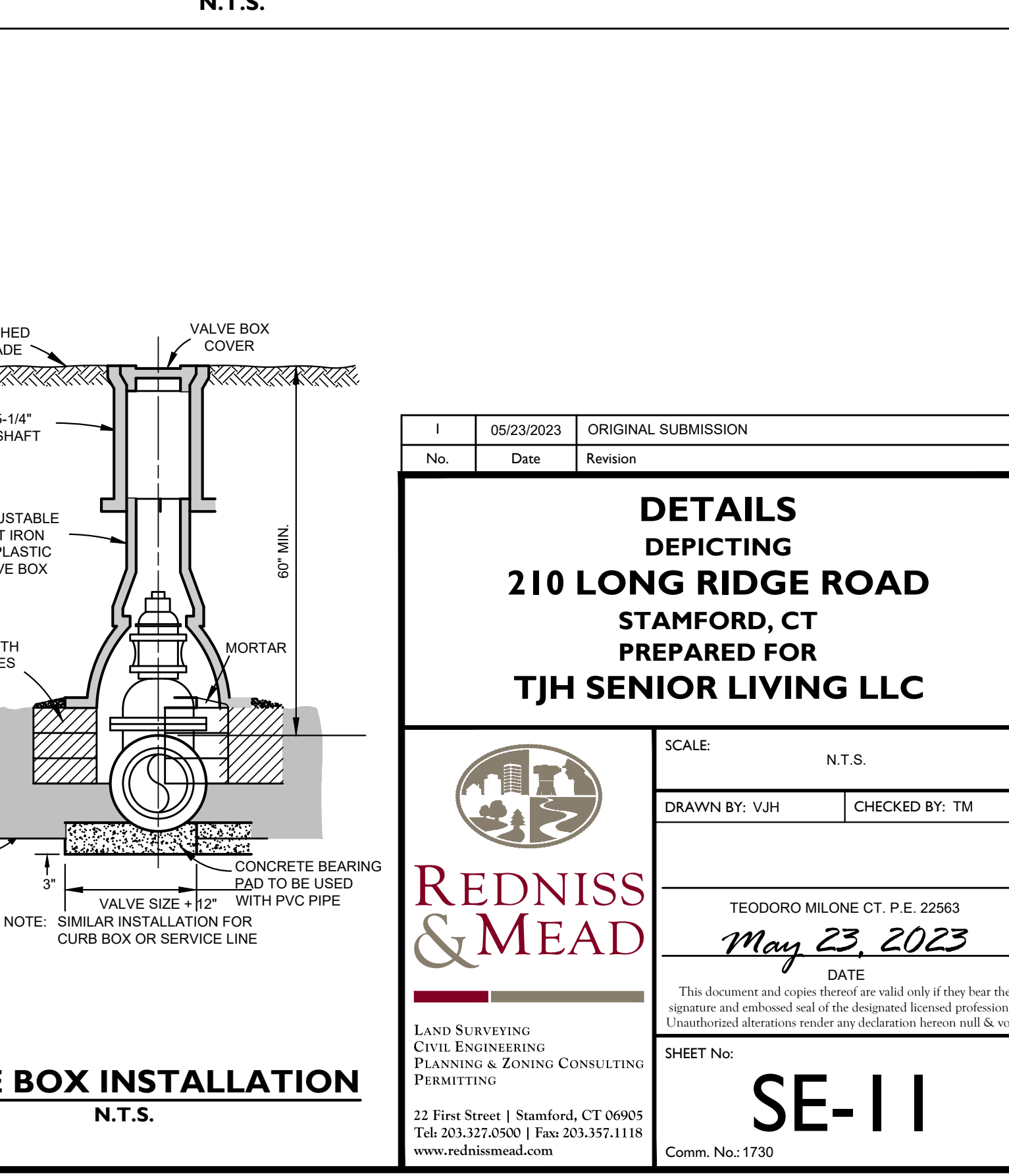
THREE-PHASE SWITCH GEAR
(PRECAST CONCRETE)
N.T.S.



DUCT BANK AT FOUNDATION
WALL DETAIL
N.T.S.



THREE-PHASE SWITCH GEAR
(PRECAST CONCRETE)
N.T.S.



A
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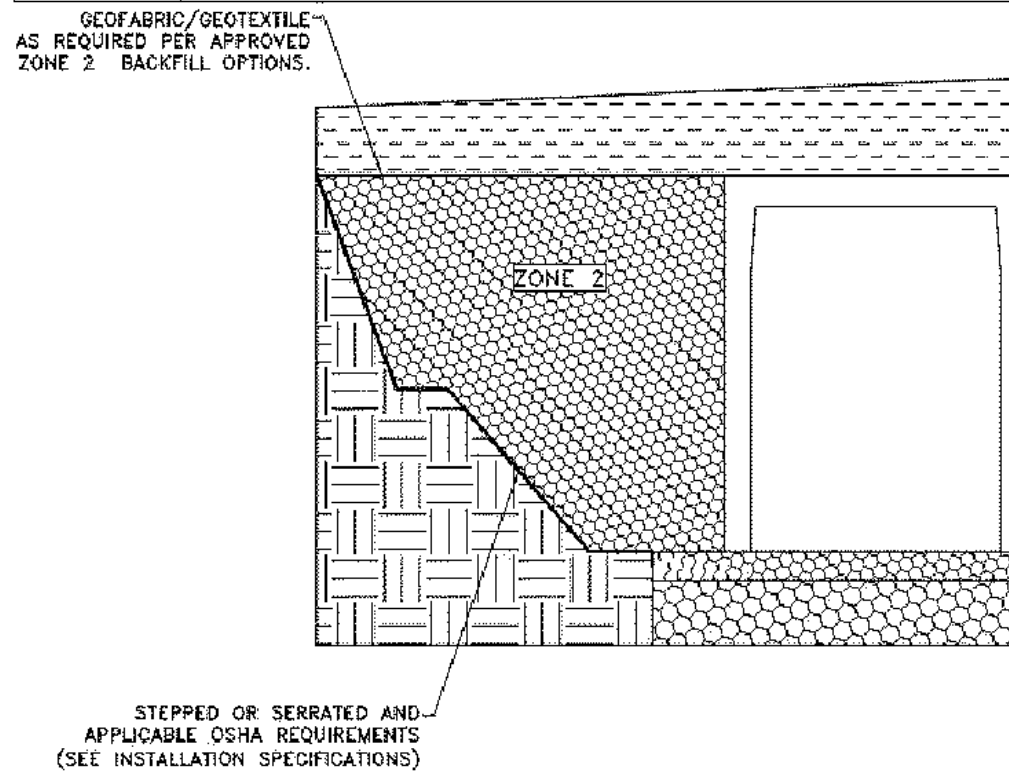
DESIGN NOTES:

1. INFILTRATION SYSTEM SHALL BE STORM TRAP SINGLETRAP SYSTEMS (4" UNIT FOR INFILTRATION AND 6.5" UNIT FOR INFILTRATION, 3" AND 4" UNIT FOR INFILTRATION).
2. H-20 DESIGN LOADINGS PER AASHTO HS-20-44.
3. ALL DIMENSIONS ARE TYPICAL.
4. ALL PIPE PENETRATIONS SHALL BE FIT WITH WATERIGHT FLANGED GASKET PLATES.
5. A MINIMUM OF 6" OF 3/4" CRUSHED STONE BASE PLACED IN A 95% COMPACTED LEVEL GRADE.
6. REFER TO MANUFACTURER SPECIFICATIONS FOR ADDITIONAL INSTALLATION DETAILS.
7. MINIMUM DEPTH OF CRUSHED STONE BENEATH UNITS SHALL BE 6" MINIMUM UNLESS OTHERWISE REQUIRED BY THE MANUFACTURER.
8. FULL BELOW UNITS SHALL BE FREE DRAINING, SANDY, MATERIAL. A PERCOLATION TEST SHALL BE CONDUCTED PRIOR TO PLACING UNITS TO CONFIRM A MINIMUM INFILTRATION RATE OF 1" IN 20 MINUTES IS AVAILABLE.
9. CONTRACTOR SHALL INSTALL IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS.

ZONE CHART		
ZONES	ZONE DESCRIPTIONS	REMARKS
ZONE 1 A	FOUNDATION AGGREGATE (INFILTRATION NOT ALLOWED)	#10 STONE AGGREGATE (SEE NOTE 4)
ZONE 1 B	FOUNDATION AGGREGATE (INFILTRATION ALLOWED)	#10 STONE AGGREGATE (SEE NOTE 4)
ZONE 2	BACKFILL	UNION CLASSIFICATION (LOW, SP, HP) OR SEE BELOW FOR APPROVED BACKFILL OPTIONS
ZONE 3	FINAL COVER OVERTOP	MATERIALS NOT TO EXCEED 120 PPS

APPROVED ZONE 2 BACKFILL OPTIONS

OPTION	REMARKS
#10 STONE AGGREGATE	THE STONE AGGREGATE SHALL CONSIST OF CLEAN AND FREE DRAINING ANGULAR MATERIAL. THE SIZE OF THIS MATERIAL SHALL HAVE 100% PASSING THE 1" SIEVE WITH 0% TO 5% PASSING THE #60 SIEVE. THIS MATERIAL SHALL BE SEPARATED FROM NATIVE MATERIAL USING GEOBAR/GEOTEXTILE AROUND THE PERIMETER OF THE BACKFILL (ASTM SIZE #57) AS DETERMINED BY THE GEOTECHNICAL ENGINEER.
SAND	IMPORTED PURE SAND IS PERMITTED TO BE USED AS BACKFILL IF IT IS CLEAN AND FREE DRAINING. THE SAND USED FOR BACKFILLING SHALL HAVE LESS THAN 5% PASSING THE #200 SIEVE AND LESS THAN 0% PASSING THE #40 SIEVE. THIS MATERIAL SHALL BE SEPARATED FROM NATIVE MATERIAL USING GEOBAR/GEOTEXTILE AROUND THE PERIMETER OF THE SAND BACKFILL.
CRUSHED CONCRETE AGGREGATE	CLEAN, FREE DRAINING CRUSHED CONCRETE AGGREGATE MATERIAL CAN BE USED AS BACKFILL FOR STORMTRAP'S MODULES. THE SIZE OF THIS MATERIAL SHALL HAVE 100% PASSING THE 1" SIEVE WITH 0% TO 5% PASSING THE #60 SIEVE. THIS MATERIAL SHALL BE SEPARATED FROM NATIVE MATERIAL USING GEOBAR/GEOTEXTILE AROUND THE PERIMETER OF THE BACKFILL.
ROAD PACK	STONE AGGREGATE 100% PASSING THE 1"-1 1/2" SIEVE WITH LESS THAN 1.5% PASSING THE #200 SIEVE (ASTM SIZE #487). GEOBAR/GEOTEXTILE AS PER GEOTECHNICAL ENGINEER RECOMMENDATION.



BACKFILL DETAIL

RECOMMENDED ACCESS OPENING SPECIFICATION

1. A TYPICAL ACCESS OPENING FOR THE STORMTRAP SYSTEM ARE 2'-0" IN DIAMETER. ACCESS OPENINGS LARGER THAN 2'-0" IN DIAMETER NEED TO BE APPROVED BY STORMTRAP. ALL OPENINGS MUST RETAIN AT LEAST 1'-0" OF CLEARANCE FROM THE END OF THE STORMTRAP MODULE UNLESS NOTED OTHERWISE. ALL ACCESS OPENINGS TO BE LOCATED ON THE SIDE OF THE MODULE UNLESS OTHERWISE SPECIFIED.
2. PLASTIC COATED STEEL STEPS PRODUCED BY M.A. INDUSTRIES PART #PES-PPC OR APPROVED EQUAL, (SEE STEP DETAIL) ARE PROVIDED INSIDE ANY MODULE WHERE DEEMED NECESSARY. THE HIGHEST STEP IN THE MODULE IS TO BE PLACED AT A DISTANCE OF 1'-0" FROM THE INSIDE EDGE OF THE STORMTRAP MODULES. ALL CHANGING STEPS SHALL BE PLACED AT A DISTANCE BETWEEN 10" MIN AND 14" MAX BETWEEN THEM. STEPS MAY BE MOVED OR ALTERED TO AVOID OPENINGS OR OTHER IRREGULARITIES IN THE MODULE.
3. STORMTRAP LIFTING INSERTS MAY BE RELOCATED TO AVOID INTERFERENCE WITH ACCESS OPENINGS OR THE CENTER OF GRAVITY OF THE MODULE AS NEEDED.
4. STORMTRAP ACCESS OPENINGS MAY BE RELOCATED TO AVOID INTERFERENCE WITH INLET AND/OR OUTLET PIPE OPENINGS SO PLACEMENT OF STEPS IS ATTAINABLE.
5. ACCESS OPENINGS SHOULD BE LOCATED IN ORDER TO MEET THE APPROPRIATE MUNICIPAL REQUIREMENTS. STORMTRAP RECOMMENDS AT LEAST TWO ACCESS OPENINGS PER SYSTEM FOR ACCESS AND INSPECTION.
6. USE PRECAST ADJUSTING RINGS AS NEEDED TO MEET GRADE. STORMTRAP RECOMMENDS FOR COVER OVER 2' TO USE PRECAST BARREL OR CONE SECTIONS. (PROVIDED BY OTHERS)

RECOMMENDED PIPE OPENING SPECIFICATION

1. MINIMUM EDGE DISTANCE FOR AN OPENING ON THE OUTSIDE WALL SHALL BE NO LESS THAN 1'-0".
2. MAXIMUM OPENING SIZE TO BE DETERMINED BY THE MODULE HEIGHT. PREFERRED OPENING SIZE IS IF 36" OR LESS, ANY OPENING NEEDED THAT DOES NOT FIT THIS CRITERIA SHALL BE BROUGHT TO THE ATTENTION OF STORMTRAP FOR REVIEW.
3. CONNECTING PIPES SHALL BE INSTALLED WITH A 1'-0" CONCRETE COLLAR, AND AN AGGREGATE CRADLE FOR AT LEAST ONE PIPE LENGTH (SEE PIPE CONNECTION DETAIL). A STRUCTURAL GRADE CONCRETE OR HIGH STRENGTH NON-SHRINKING GROUT WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI SHALL BE USED.
4. THE ANNULAR SPACE BETWEEN THE PIPE AND THE HOLE SHALL BE FILLED WITH HIGH STRENGTH NON-SHRINKING GROUT.

RECOMMENDED PIPE INSTALLATION INSTRUCTIONS

1. CLEAN AND LIGHTLY LUBRICATE ALL OF THE PIPE TO BE INSERTED INTO STORMTRAP.
2. IF PIPE IS CUT, CARE SHOULD BE TAKEN TO ALLOW NO SHARP EDGES, BEVEL AND LUBRICATE LEAD END OF PIPE.
3. ALIGN CENTER OF PIPE TO CORRECT ELEVATION AND INSERT INTO OPENING.

NOTE: ALL ANGLIARY PRODUCTS/SPECIFICATIONS RECOMMENDED AND SHOWN ON THIS SHEET ARE RECOMMENDATIONS ONLY AND SUBJECT TO CHANGE PER THE INSTALLING CONTRACTOR AND/OR PER LOCAL MUNICIPAL CODE REQUIREMENTS.

STORMTRAP INFILTRATION SYSTEM DETAILS (N.T.S.)

Engineered Storm System Requirements During Construction

The process outlined below is required to confirm the installation of the drainage system is in accordance with City standards and the approved design drawings:

Pre-Installation

- The contractor is to confirm with the design engineer that the contractor has the current design plans.
- The contractor installs sediment and erosion controls including fencing to protect the infiltration systems.
- These controls shall remain in place until the end of construction.
- The contractor submits shop drawings for the all related structures and materials to design engineer for approval. Allow 3 to 5 days for shop review.

Installation of Drainage Structures and Pipes

- The contractor shall excavate pipes and structures to the required depth. The engineer shall be informed of any unsuitable material.
- Install structures over a minimum 6" layer of crushed stone or as specified on the drawings.
- Install pipe bedding as shown on the pipe bedding detail. The design engineer shall be informed of any unsuitable material. All pipes shall be installed straight with a uniform slope unless otherwise specified on the drawings.
- Install frames with mortar to structures. Mortar shall be applied on the outside and inside of structures.
- Backfill pipes and drainage structures with material specified on the drawings.
- Construct formed inverts within manholes.
- Install manhole stairs such that the last step is not into the primary flow line.
- Plug all pick holes with mortar.
- Once the installation is complete, project survey shall be contact to prepare as-built information.

Installation of Infiltration Systems

- The contractor scarifies the subgrade. Site Engineer performs percolation test, once approved, contractor installs the infiltration system. The design engineer will make a field visit to observe the prepared subgrade.
- The contractor submits a sieve analysis for crushed stone and/or specified material from the supplier to the design engineer for approval. Once the sieve and supplier are approved, material may be delivered to a stockpile on-site (not installed). Design engineer to observe the crushed stone and/or specified material. Design engineer may take a sample from the stockpile for independent testing. Allow 3 to 5 days for testing. Compliance tests, if necessary are required before the material is installed.
- The contractor installs the crushed stone and/or specified material and infiltration system, but does not cover or backfill the system. The elevation of each layer of material shall be verified and documented by the engineer.
- Once the system is installed and prior to backfill, surveyors to field verify the locations and elevations of the infiltration system including any pipes.

Post-Installation

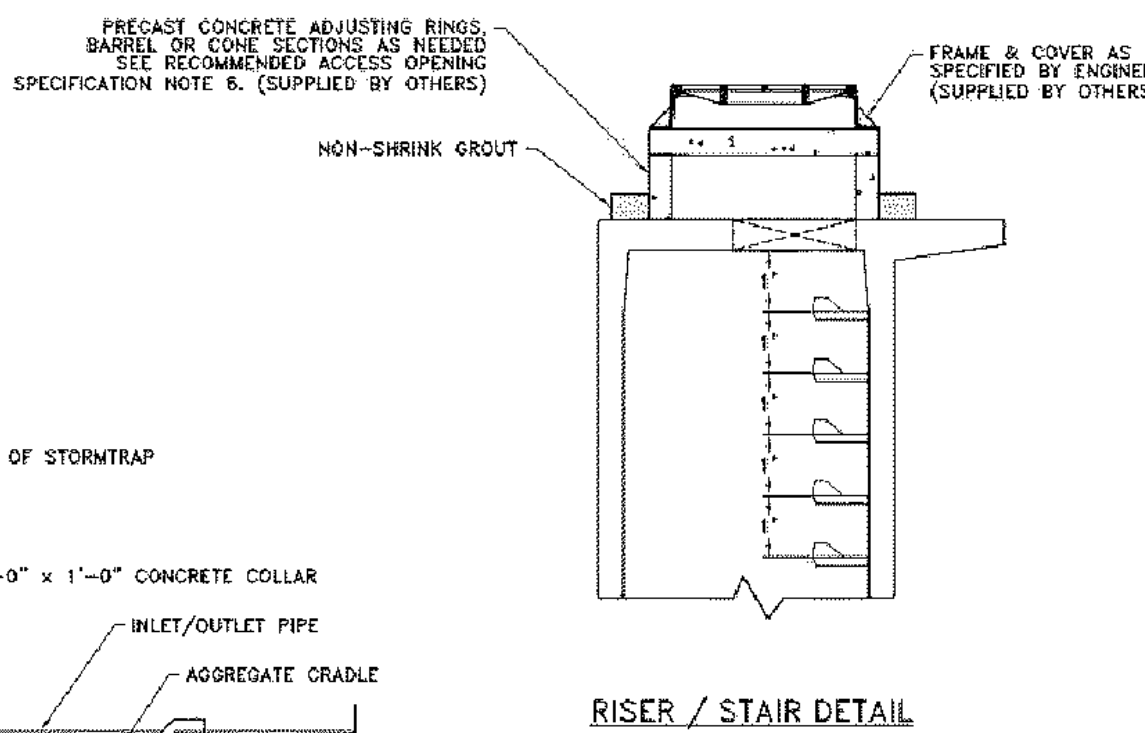
- Design engineer conducts a review of all drainage structures and Improvement Location survey and prepares a punch list (if applicable).
- Design engineer conducts a final review and once the installation is approved prepares a drainage compliance letter.
- Design engineer submits the Improvement Location Survey and drainage compliance letter to the Engineering Bureau and other pertinent department (if applicable).

Contract design engineer with any questions regarding this process. Design engineer requires advanced notice for engineering field visits (2 days) and survey crew field visits (3 days).

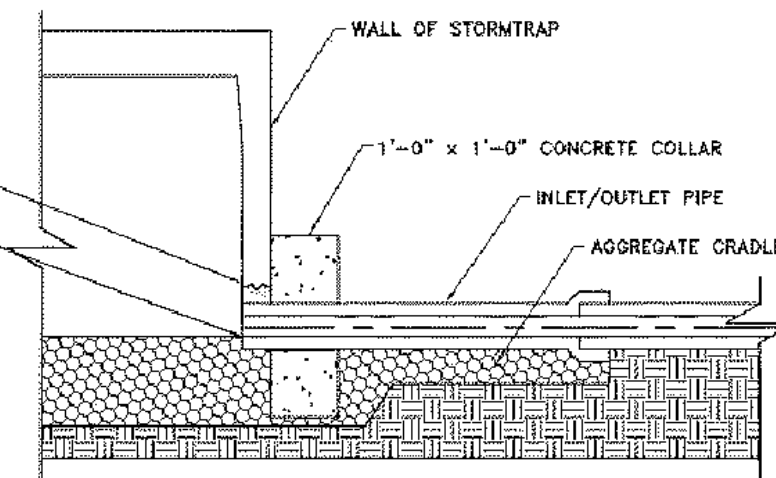
ENGINEERED STORM SYSTEM REQUIREMENTS DURING CONSTRUCTION DETAIL (N.T.S.)

STORMTRAP ZONE INSTALLATION SPECIFICATIONS/PROCEDURES

1. THE FILL PLACED AROUND THE STORMTRAP MODULES MUST DEPOSITED ON BOTH SIDES AT THE SAME TIME AND TO APPROXIMATELY THE SAME ELEVATION. AT NO TIME SHALL THE FILL BEHIND ONE SIDE WALL BE MORE THAN 2'-0" HIGHER THAN THE FILL ON THE OPPOSITE SIDE. BACKFILL SHALL EITHER BE COMPACTED AND/OR VIBRATED TO ENSURE THAT BACKFILL AGGREGATE/SAND MATERIAL IS WELL SEATED AND PROPERLY INTER LOCKED. CARE SHALL BE TAKEN TO PREVENT ANY WEDGING ACTION AGAINST THE STRUCTURE, AND ALL SLOPES WITHIN THE AREA TO BE BACKFILLED MUST BE STEPPED OR SERRATED TO PREVENT WEDGING ACTION. CARE SHALL ALSO BE TAKEN AS NOT TO DISRUPT THE JOINT WORK FROM THE JOINT DURING THE BACKFILL PROCESS. BACKFILL MUST BE FREE-DRAINING MATERIAL. SEE ZONE 2 BACKFILL CHART ON THIS PAGE FOR APPROVED BACKFILL OPTIONS. IF NATIVE EARTH IS SUSCEPTIBLE TO MORTARION, CONFIRM WITH GEOTECHNICAL ENGINEER AND PROVIDE PROTECTION AS REQUIRED (PROVIDED BY OTHERS).
2. DURING PLACEMENT OF MATERIAL OVERTOP THE SYSTEM, AT NO TIME SHALL MACHINERY BE USED OVERTOP THAT EXCEEDS THE DESIGN LIMITATIONS OF THE SYSTEM. WHEN PLACEMENT OF MATERIAL OVERTOP, MATERIAL SHALL BE PLACED SUCH THAT THE DIRECTION OF PLACEMENT IS PARALLEL WITH THE OVERALL LONGITUDINAL DIRECTION OF THE SYSTEM WHENEVER POSSIBLE.
3. THE FILL PLACED OVERTOP THE SYSTEM SHALL BE PLACED AT A MINIMUM OF 6" LIFTS: AT NO TIME SHALL MACHINERY OR VEHICLES GREATER THAN THE DESIGN HS-20 LOADING CRITERIA TRAVEL OVERTOP THE SYSTEM WITHOUT THE MINIMUM DESIGN COVERAGE. IF TRAVEL IS NECESSARY PRIOR TO ACHIEVING THE MINIMUM DESIGN COVERAGE, IT MAY BE NECESSARY TO REDUCE THE ULTIMATE LOAD/STRESS OF THE OPERATING MACHINERY SO AS TO NOT EXCEED THE DESIGN CAPACITY OF THE SYSTEM IN SOME CASES. IN ORDER TO ACHIEVE REQUIRED COMPACTION, HAND COMPACTION MAY BE NECESSARY IN ORDER NOT TO EXCEED THE ALLOTTED DESIGN LOADING. SEE CHART FOR TRACKED VEHICLE WIDTH AND ALLOWABLE MAXIMUM PRESSURE PER TRACK.
4. FREE DRAINING AGGREGATE - 80% AGGREGATE RETAINED ON 1" SIEVE MAJORITY OF AGGREGATE SIZE BETWEEN 1" AND 1 1/2" ONLY 5% OF MATERIAL PASSING #60 SIEVE.
5. FREE DRAINING, NO FINES, 3" AGGREGATE - MAJORITY OF STONE SIZE IN BETWEEN 1 1/2" AND 3" - VERY SIMILAR TO AASHTO #21, #22, #23, & #24) STONE AGGREGATE GRADATION.
6. CRUSHED CONCRETE AGGREGATE IS KNOWN TO REACT WITH WATER AND CAN INCREASE THE PH VALUE OF THE GROUND WATER. PRIOR TO USING CRUSHED CONCRETE AGGREGATE IN ZONE 1B IT IS IMPERATIVE THAT THE USE OF SUCH MATERIAL SHALL BE VERIFIED BY THE EOR AND/OR THE PROJECT GEOTECHNICAL ENGINEER.



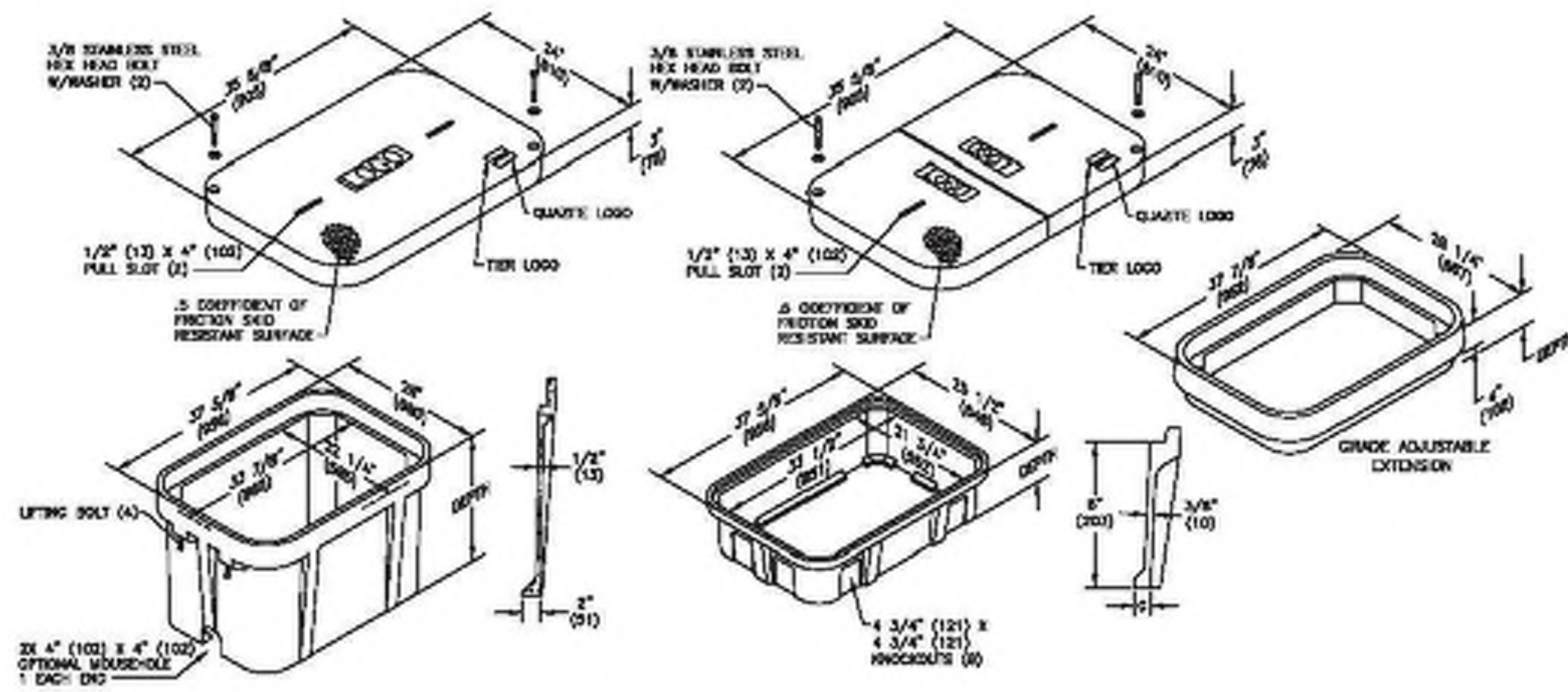
RISER / STAIR DETAIL



PIPE CONNECTION DETAIL

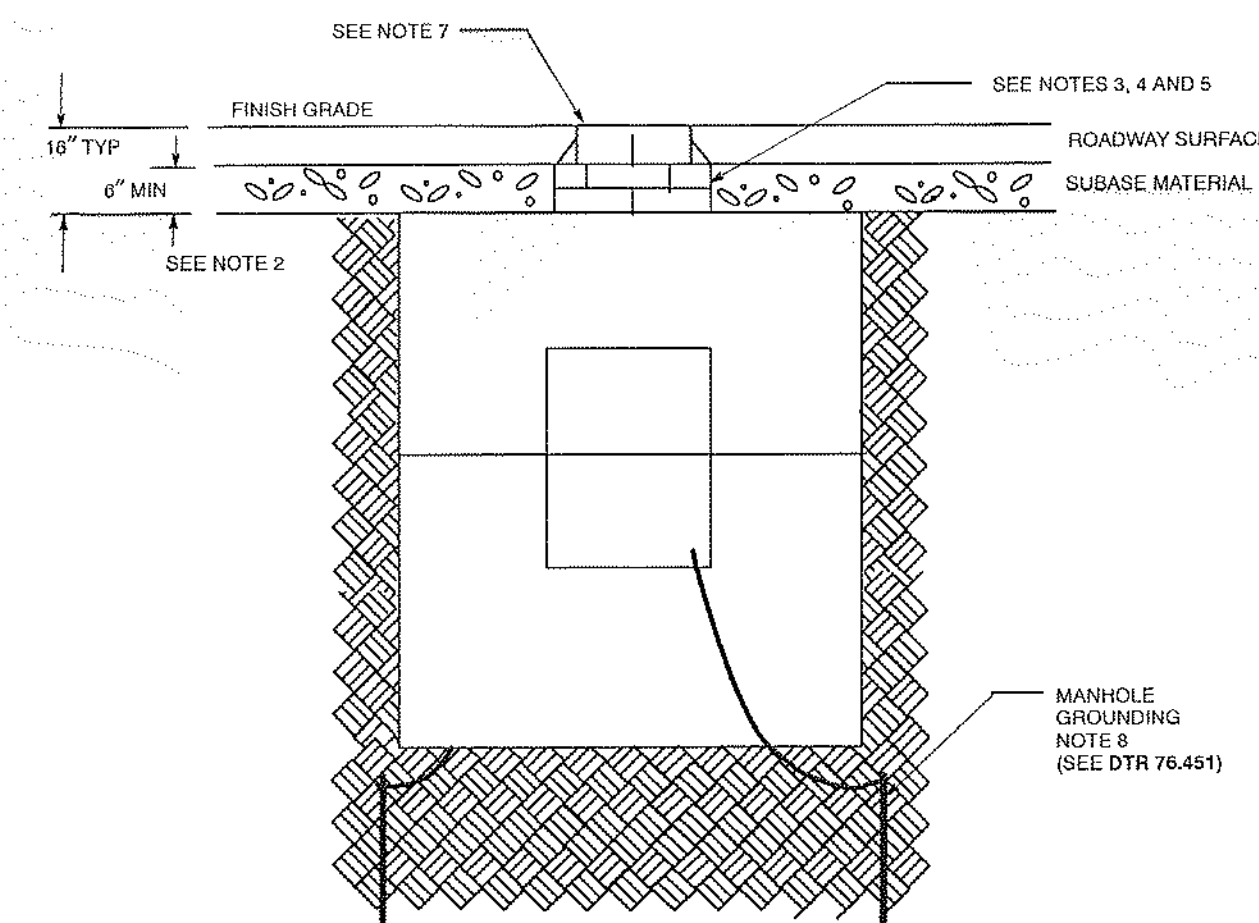
STEP DETAIL

*** NOTICE *** 03-25-2022
DUE TO CURRENT INCONSISTENCIES IN THE 18" STEP SUPPLY, STORMTRAP MAY SUBSTITUTE THE 18" STEP WITH THE CLOSEST ALTERNATIVE LENGTH STEP UNTIL THE SUPPLY CHAIN ISSUE IS RESOLVED.



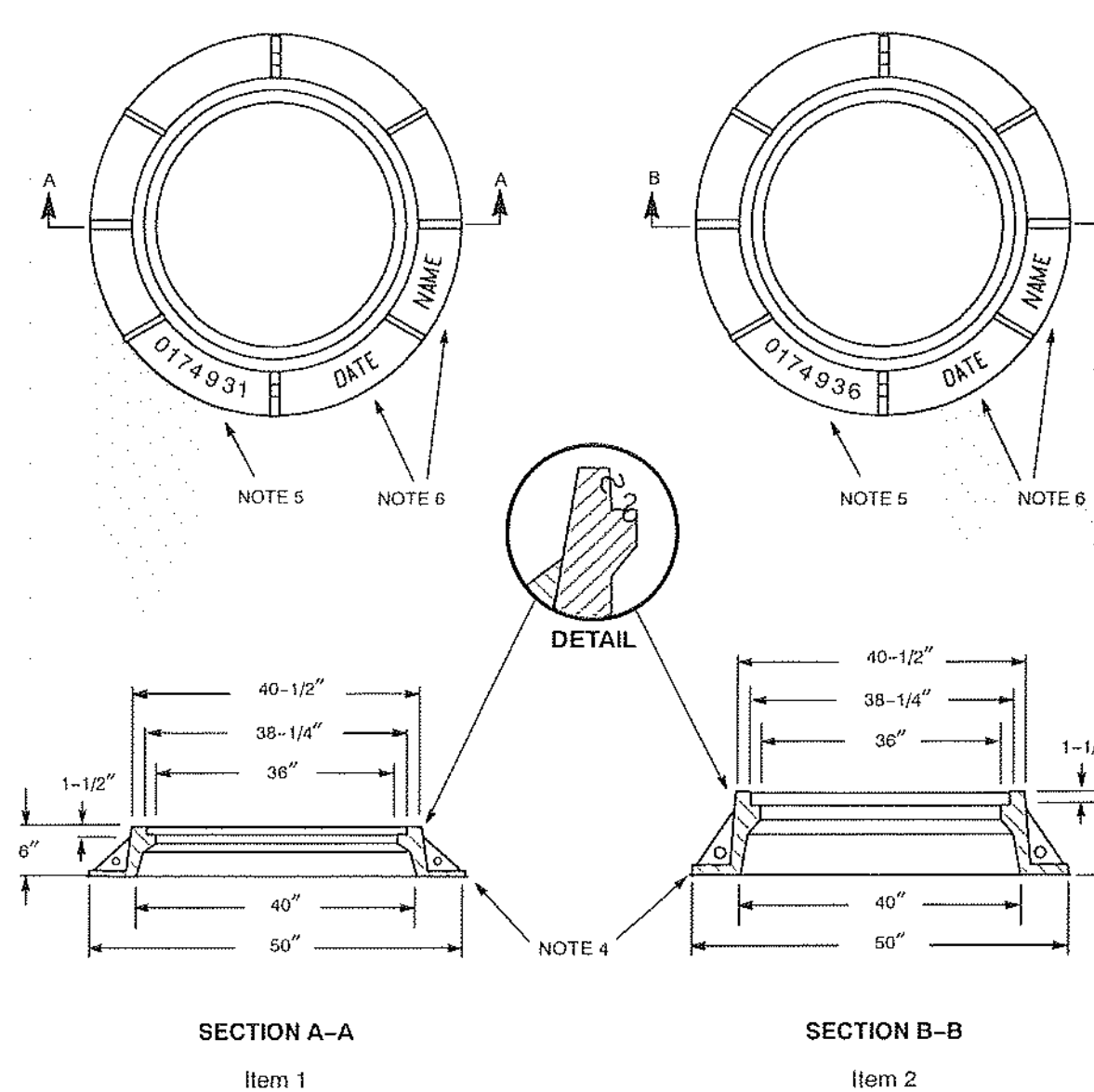
*PROVIDE EXTENSIONS AS REQUIRED TO BE FLUSH WITH FINISHED GRADE.

24" x 36" QUAZITE BOX DETAIL N.T.S.



- Notes:
1. Subbase and roadway surface shall be installed in accordance with applicable Local, State and National codes.
 2. Finish Grade should be 16 inches above the roof top of the precast manhole to allow the use of 12 foot ladders. Finish grades above 16 inches above the outside surface of the top section of the precast manhole but less than 24 inches will require the use of 14 foot ladders to meet OSHA Regulations. Consult Distribution Engineering and Design - Distribution Standards when any the finish grade above the manhole roof exceeds 24 inches.
 3. Precast concrete manhole extensions shall be used to make adjustment of finish grade of roadway surface prior to placing the manhole frame and cover. Precast concrete manhole extension rings shall be located below the bituminous or concrete roadway surface in the subbase material. (Standard masonry blocks may be used in lieu of precast concrete manhole extensions.)
 4. Joints between precast, concrete manhole extensions shall be mortared.
 5. Manhole concrete extensions shall be sealed with a 1/2" thin coat of mortar (garging).
 6. Top of the manhole rod shall not be above the subgrade.
 7. The cast iron manhole frames shall be installed in the bituminous or concrete roadway surface but may be partially installed in the subbase material as necessary.
 8. Manhole grounding shall be installed prior to setting precast Manhole structure.

EVERSOURCE SUBSURFACE DETAIL N.T.S.



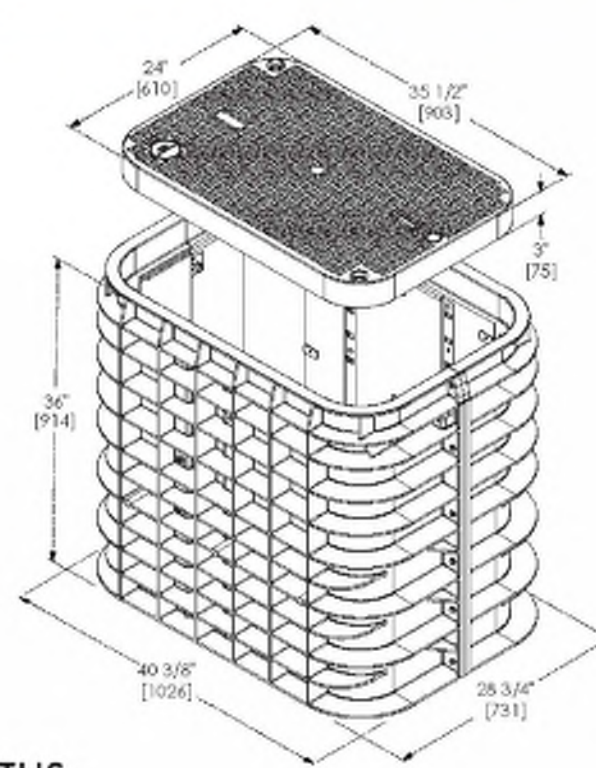
- Notes
1. The gray cast iron shell conform to the latest edition of ASTM A48-1983 Class 30B castings.
 2. Design loading shall be in accordance with the latest edition of AASHTO HS20-1983.
 3. Bearing and side surfaces of frames for cover seat shall be machine finished with tolerances of +1/16 inch -0 inches.
 4. Four lifting holes (alternate ribs). 1-1/4 inch diameter with center 1-1/4 inch from base and side of frame.
 5. NU SC 586655 shall be cast in the flange.
 6. Foundry name or insignia and date (year) shall be cast in the flange adjacent to NU stock code.
 7. The 36 inch-frame requires a 38-inch cover.
 8. Weight of 36-inch frame is approximately 550 pounds.

EVERSOURCE MANHOLE FRAME & COVER DETAIL N.T.S.

BULK Series TECHNICAL SPECIFICATIONS

BODY SPECIFICATIONS

Cover Weight 50 lbs [23 kg]
Fit Weight 82 lbs [37 kg]
Assembled Weight 132 lbs [60 kg]



ADDITIONAL BODY DEPTHS

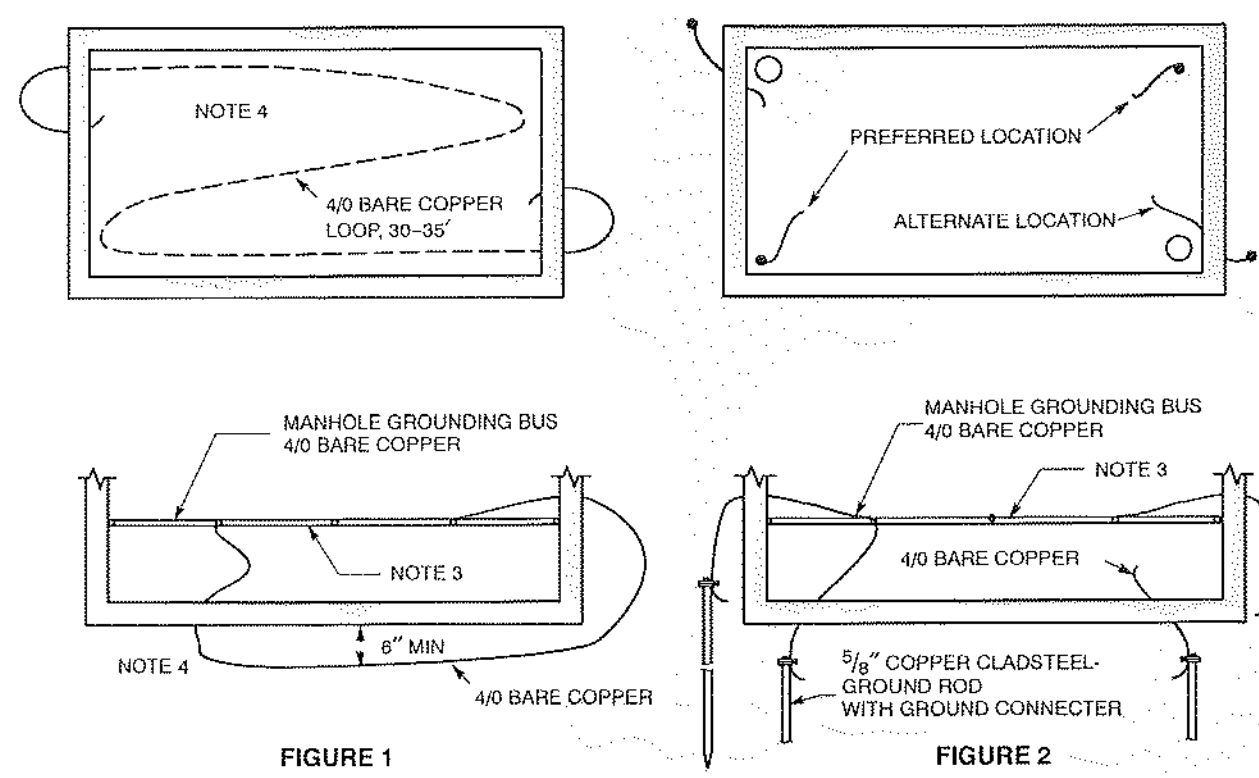
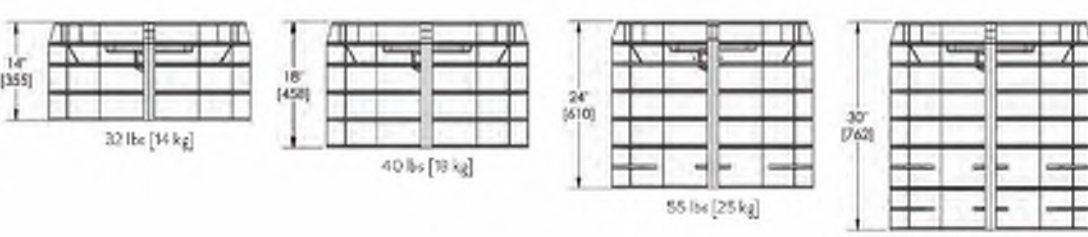


FIGURE 1

FIGURE 2

- FIGURE 1 - Use when bottom of manhole or vault will be below permanent water level.
- a. Install 4/0 bare copper wire, 30 to 35 feet long, a minimum of six inches below floor.
 - b. In areas with a high water table, the 4/0 ground wire should be sealed. This is done by adding a compression sleeve with an oil stop SC 504601 and placing the sleeve in the concrete or joint girth.
- FIGURE 2 - Use when bottom of manhole or vault is above permanent water level or in rocky soil.
- a. Install two 3/4" x 8" copper clad steel ground rods below floor (preferred) or adjacent to walls (alternate).
 - b. Drive ground rods sideways, if necessary, in rocky soil.

- Notes
1. Install all loop wires or grounds to 25 ohms or less.
 2. Connect grounds to 4/0 copper bus in manhole or vault.
 3. Install manhole grounding bus with 4-4/0, 4-way compression branch connectors, SC 516739.
 4. For forced in place manholes, or overcast, grounding tail can be brought into the manhole through the floor. For all other manholes, bring two (2) tails through duct opening.

EVERSOURCE CONDUIT GROUNDING DETAIL N.T.S.

06/23/2023 ORIGINAL SUBMISSION

No. Date Revision

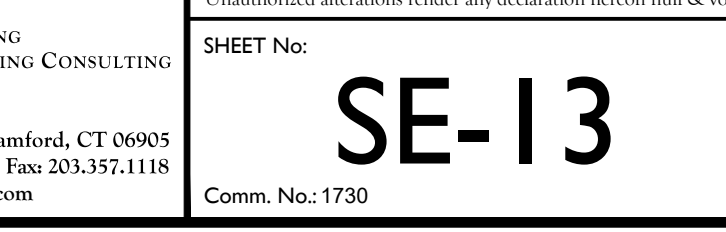
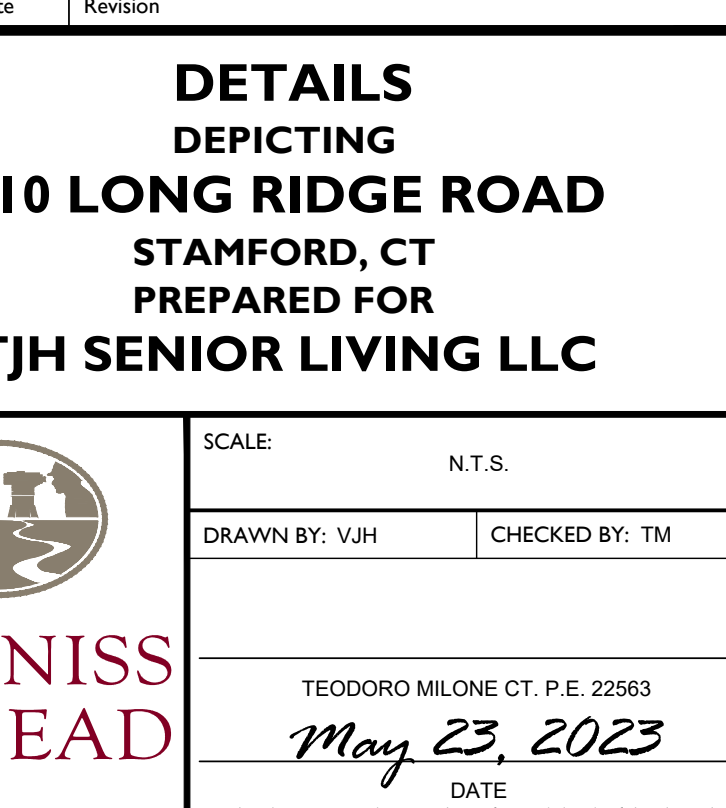
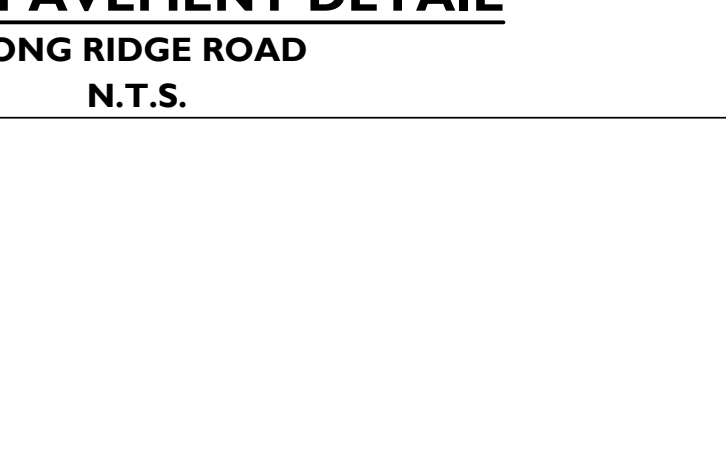
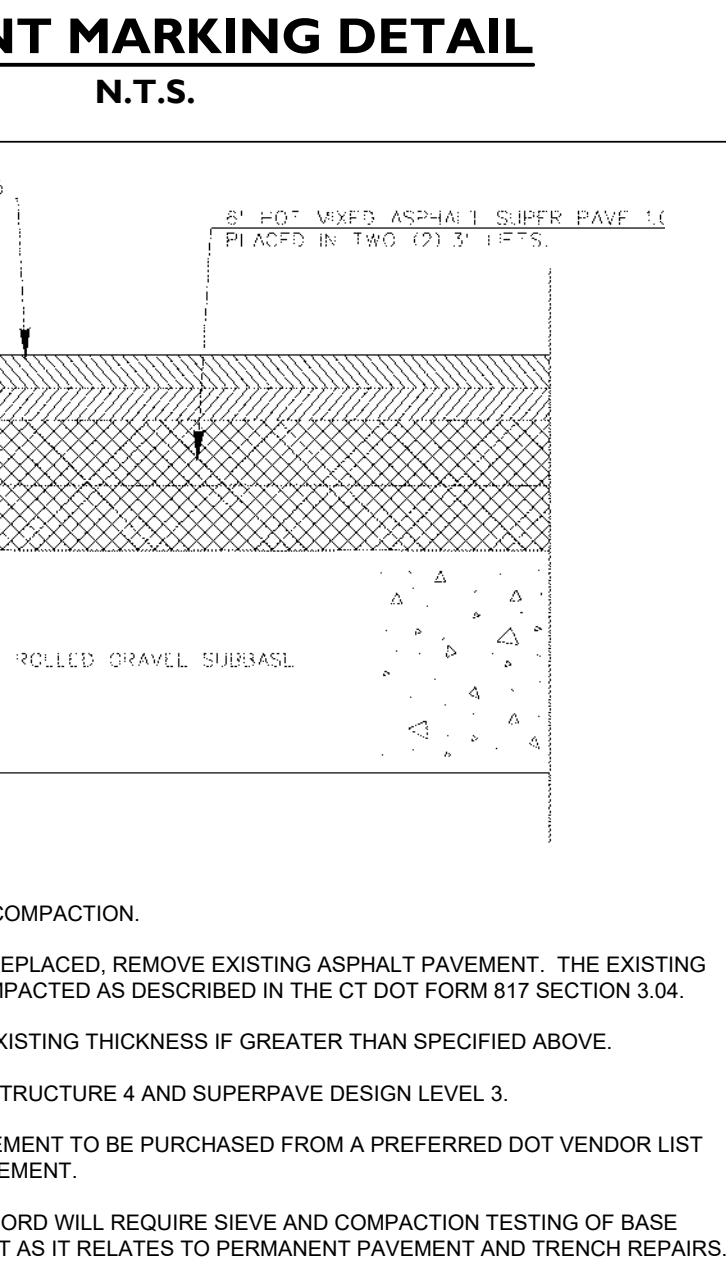
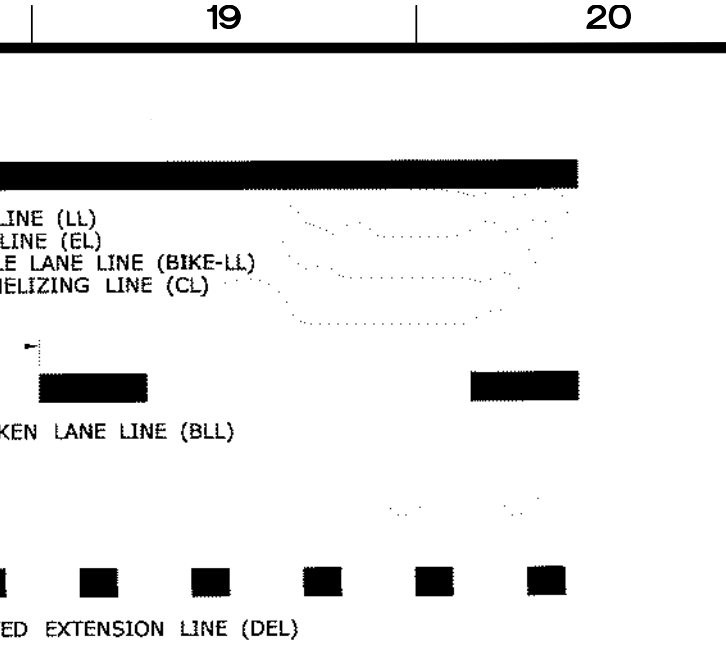
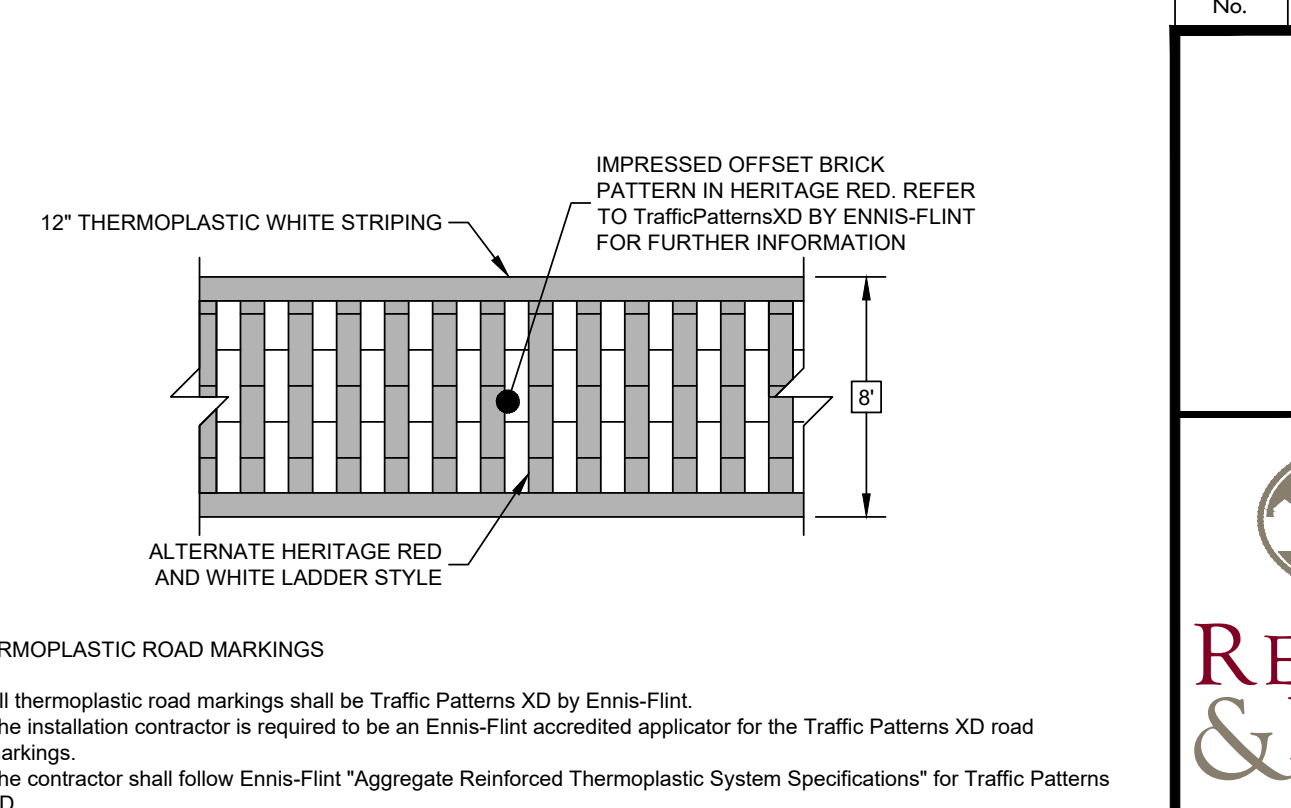
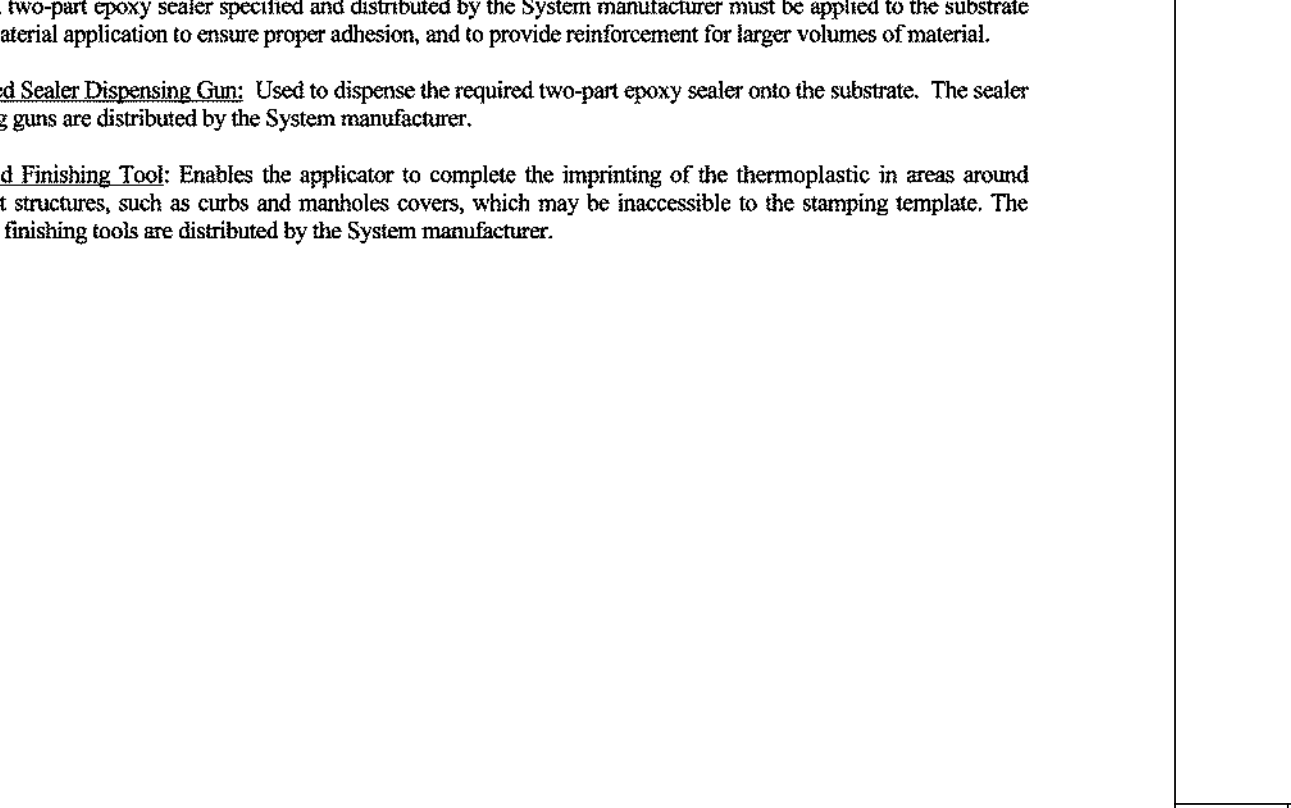
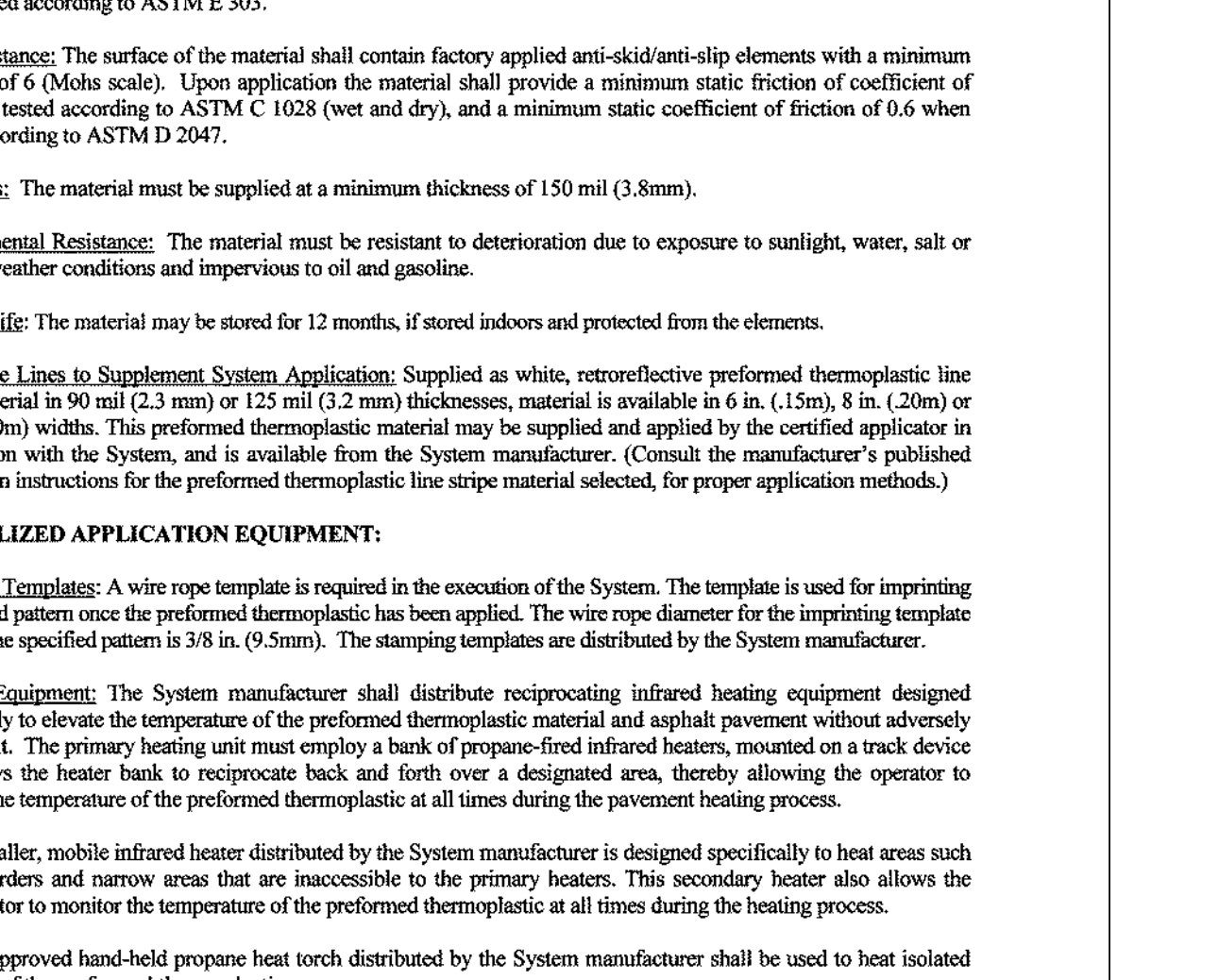
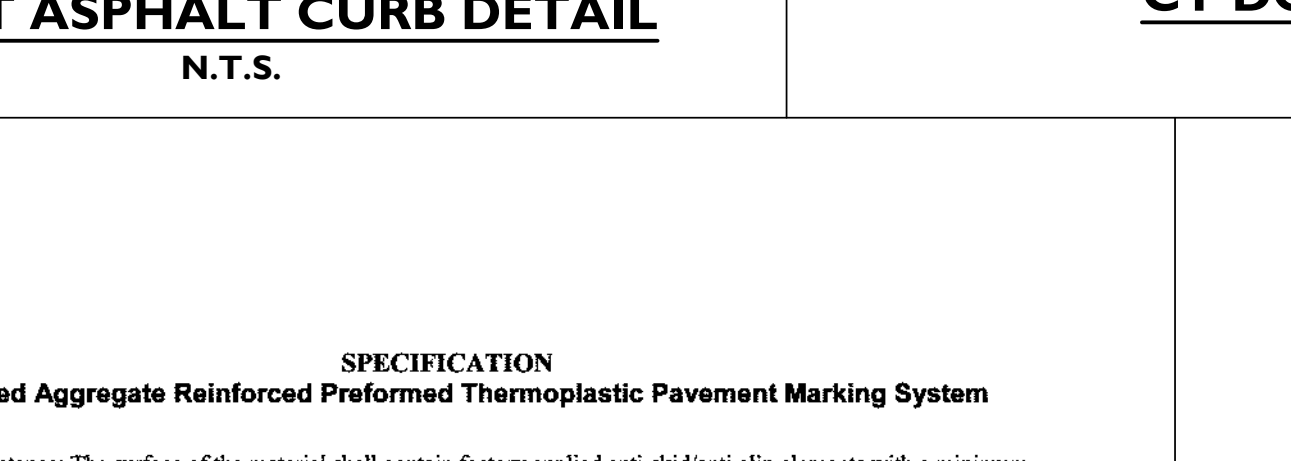
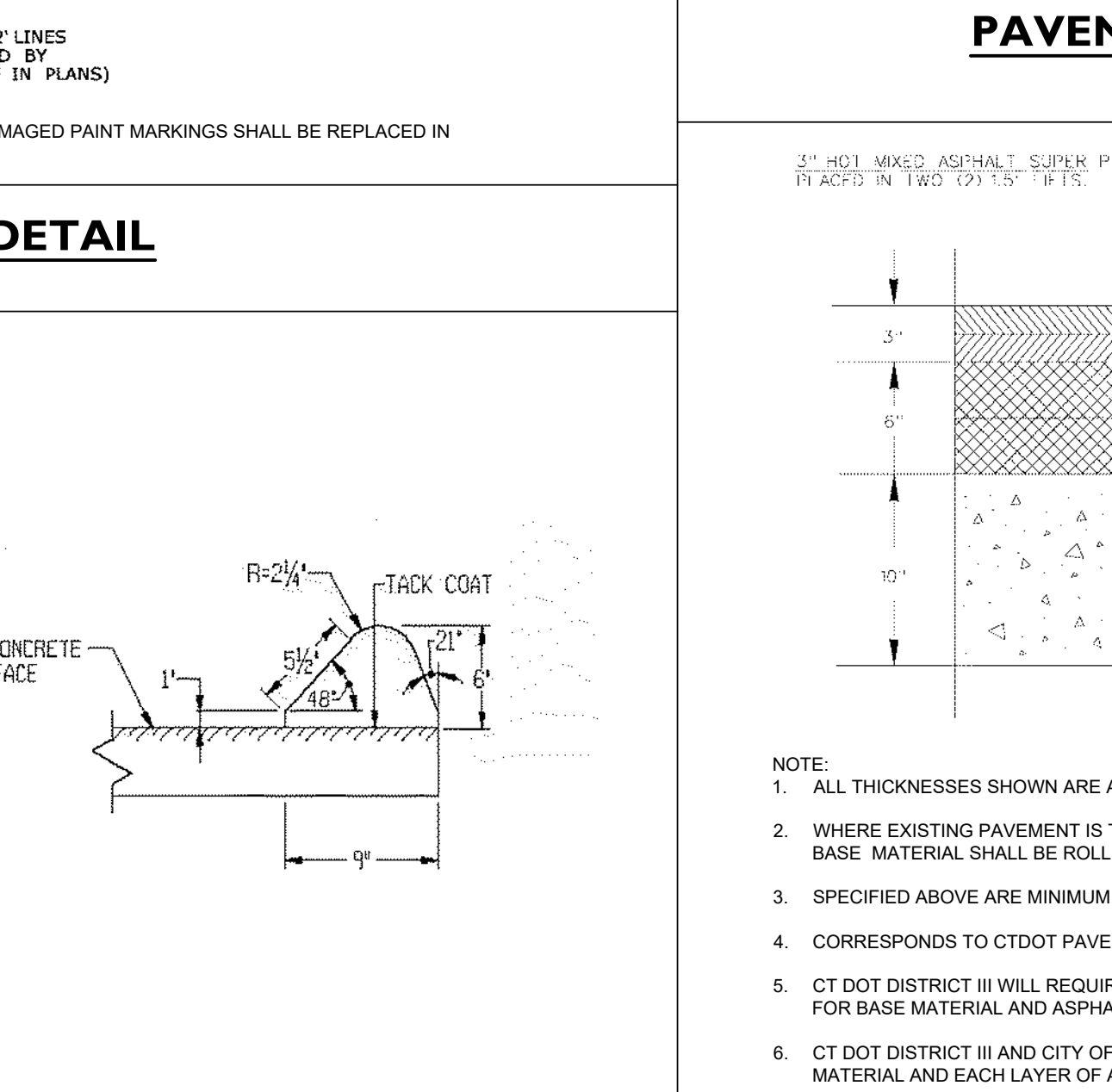
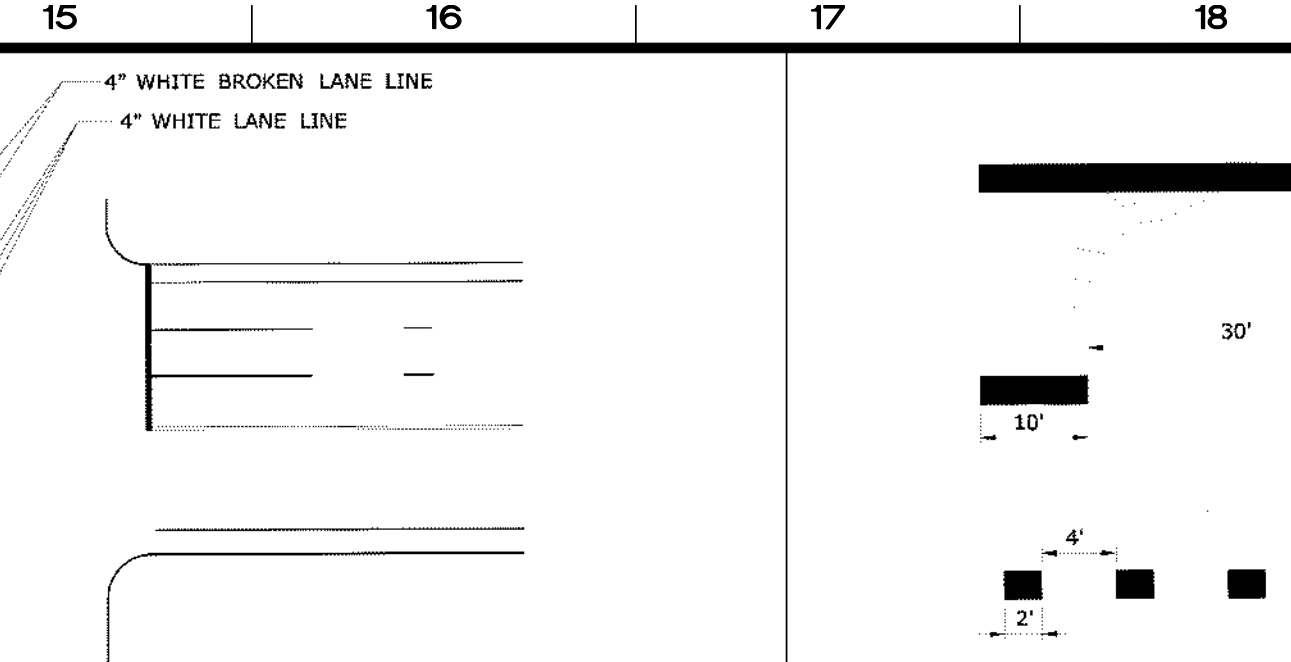
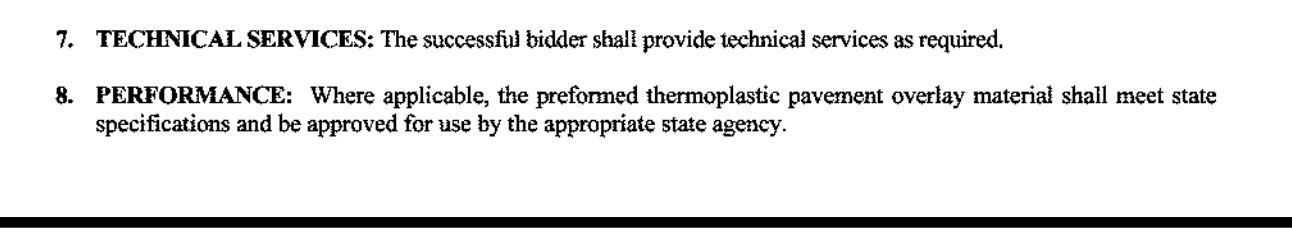
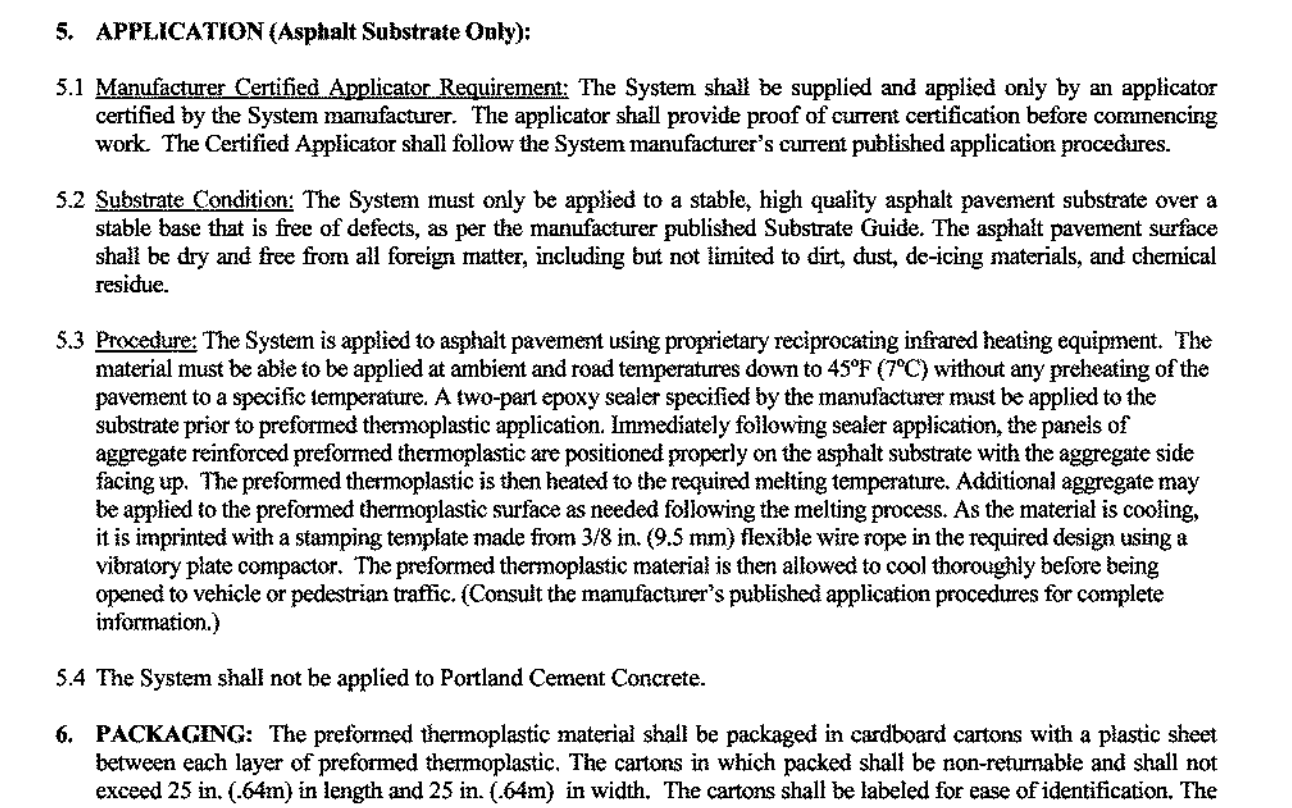
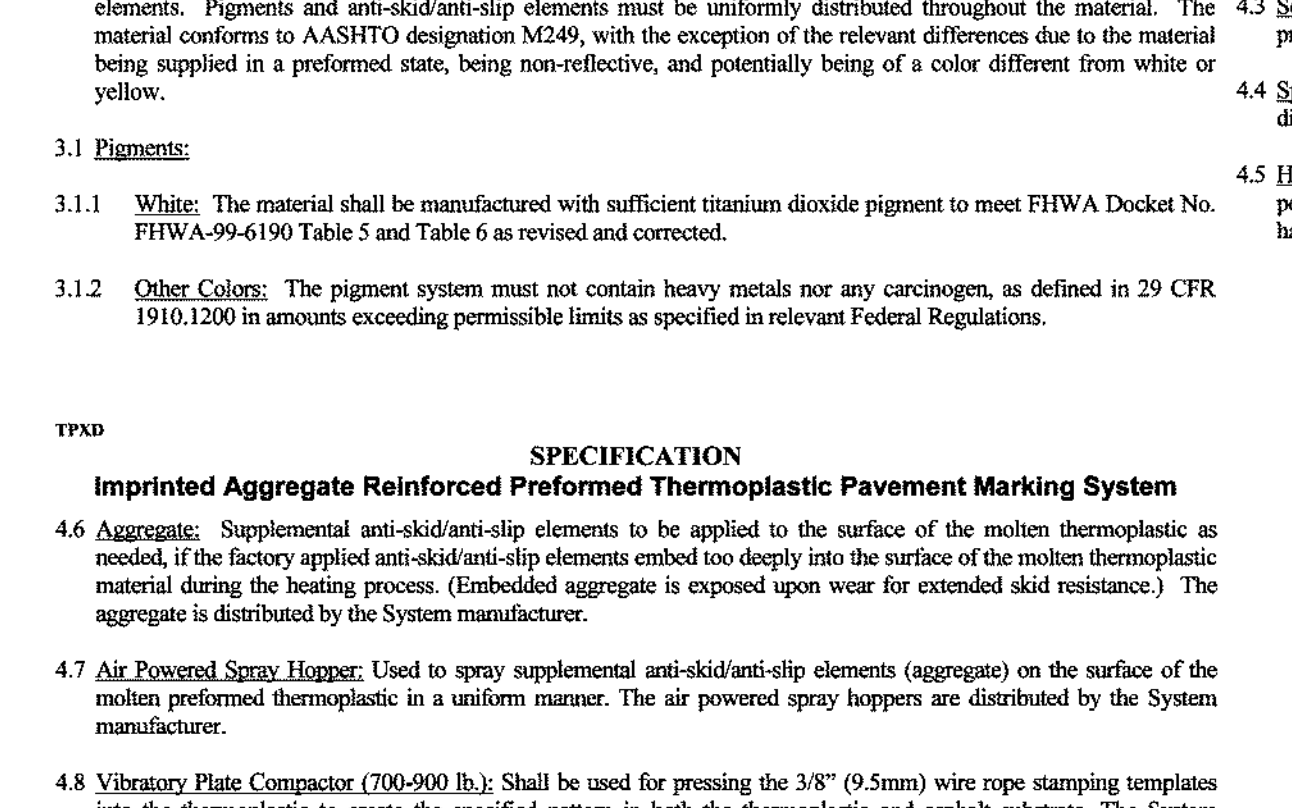
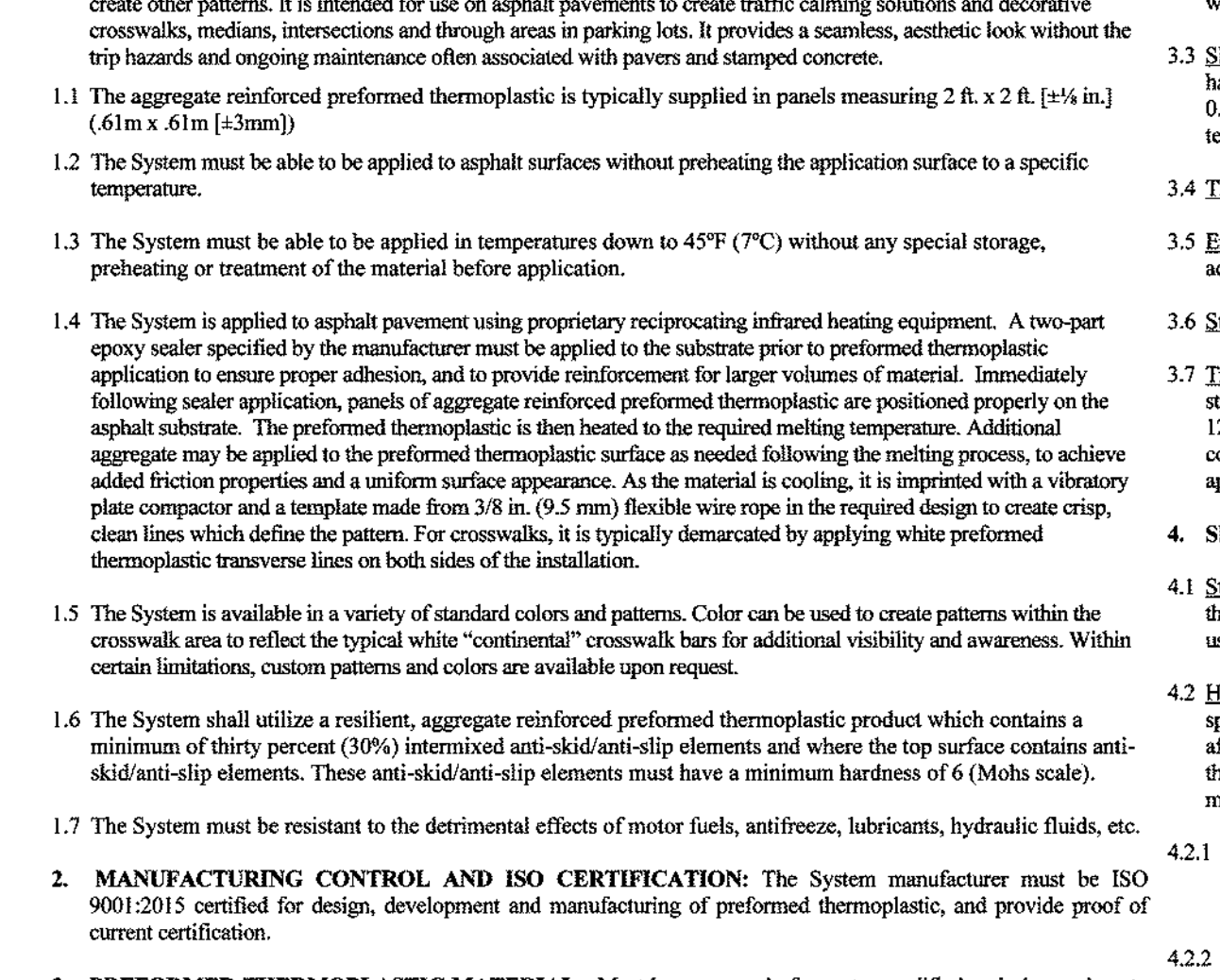
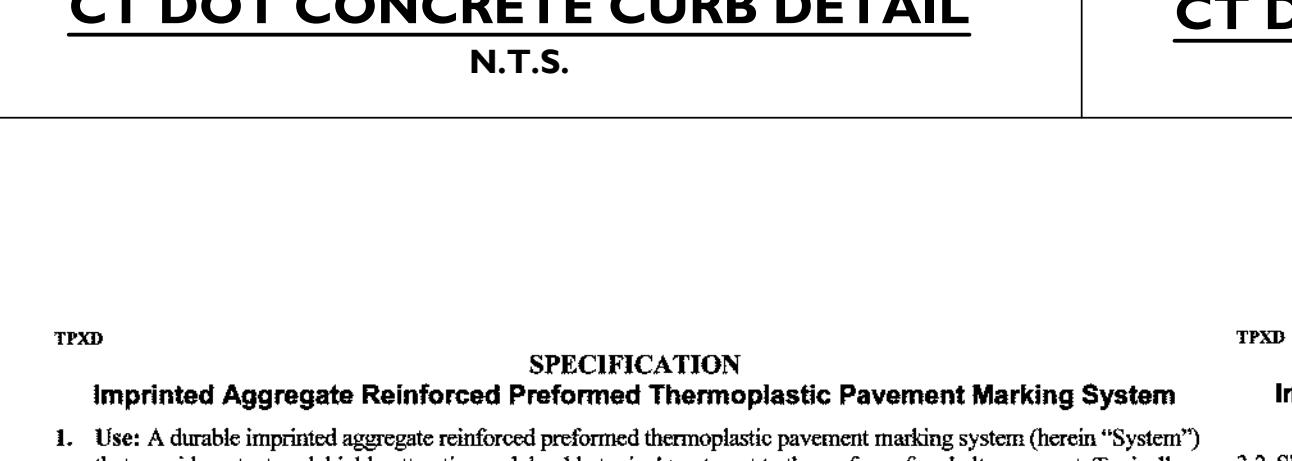
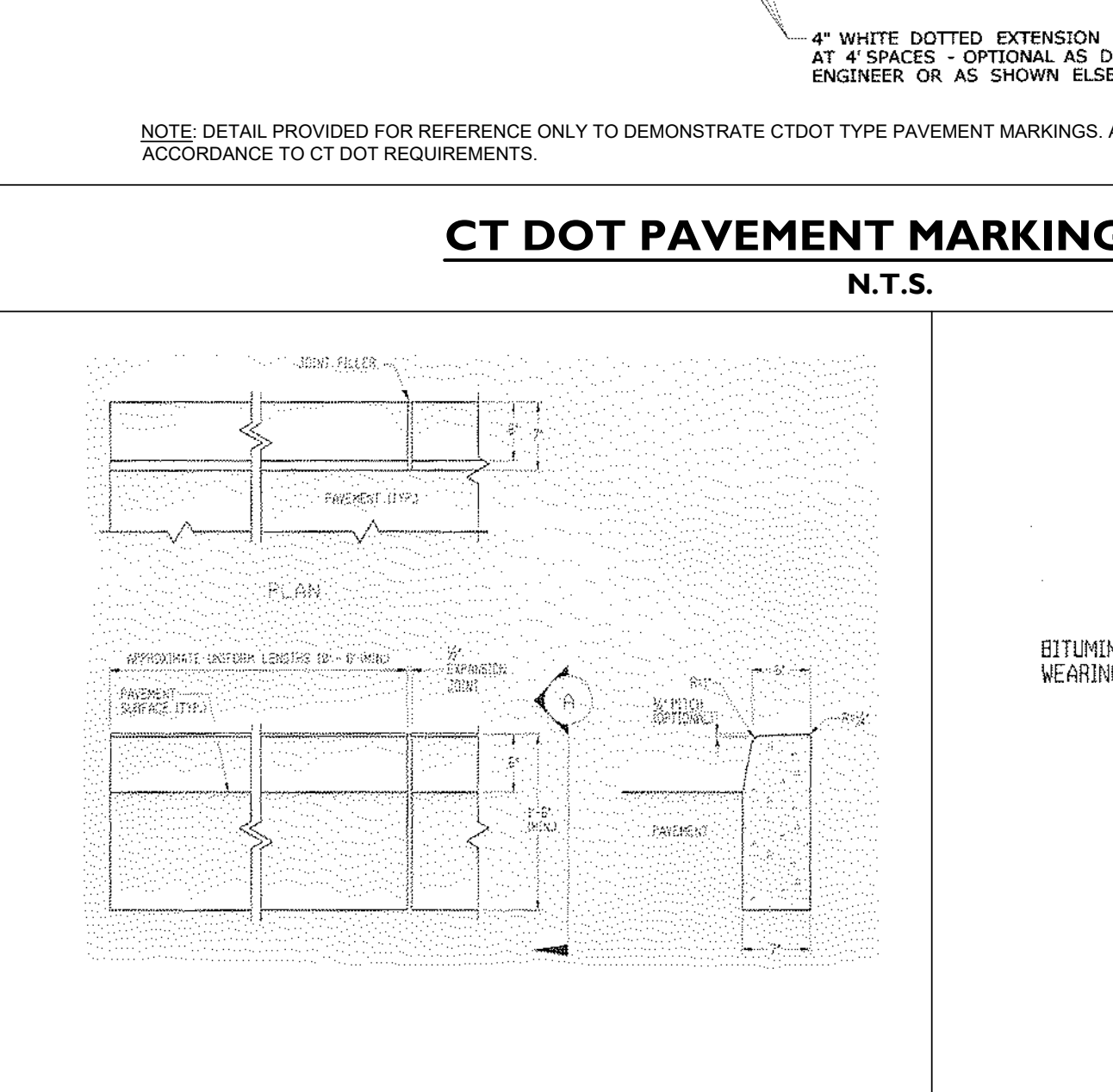
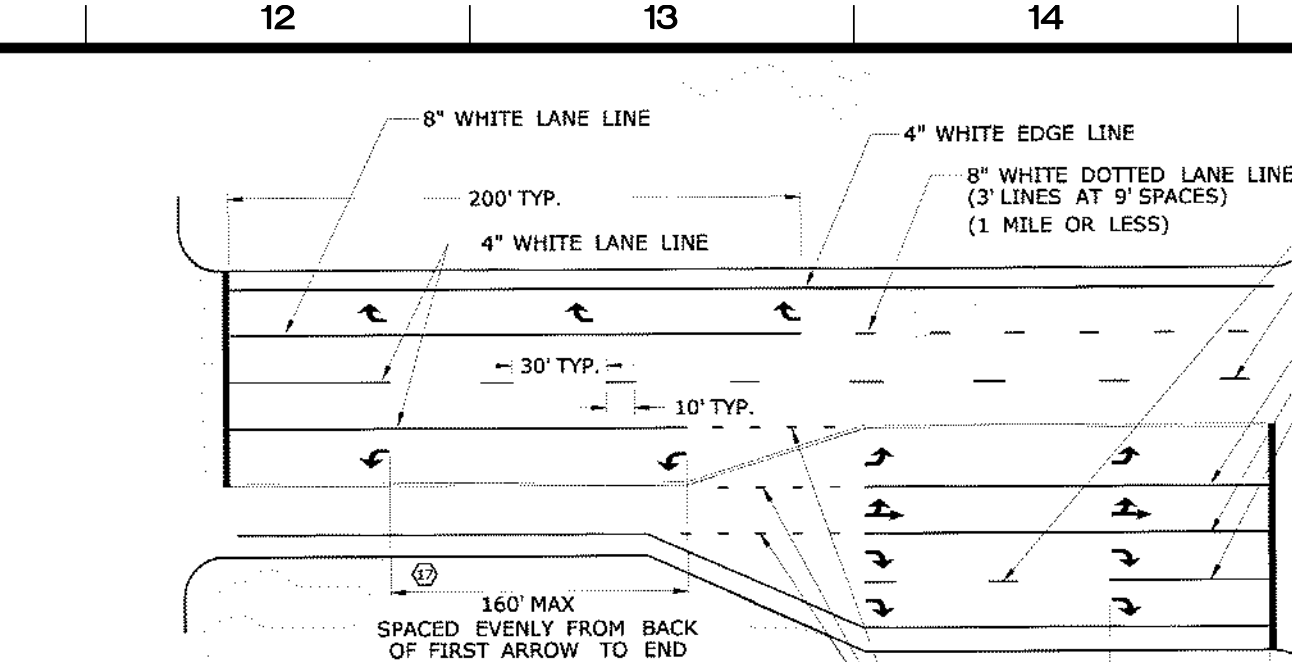
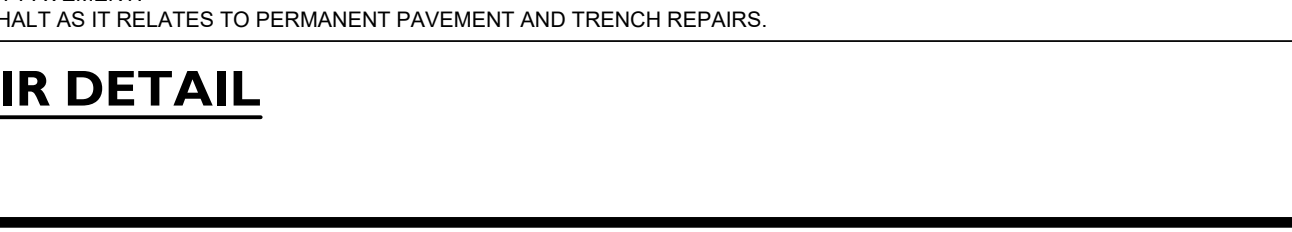
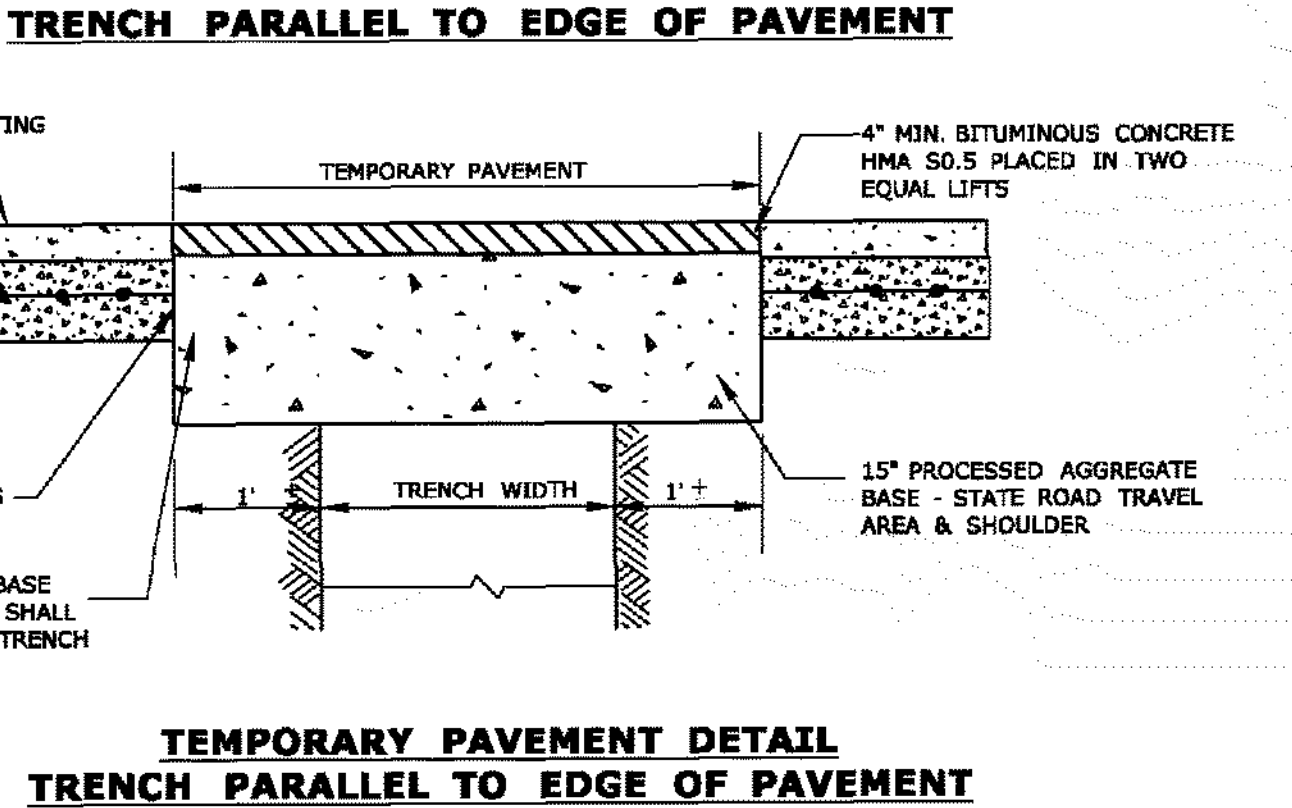
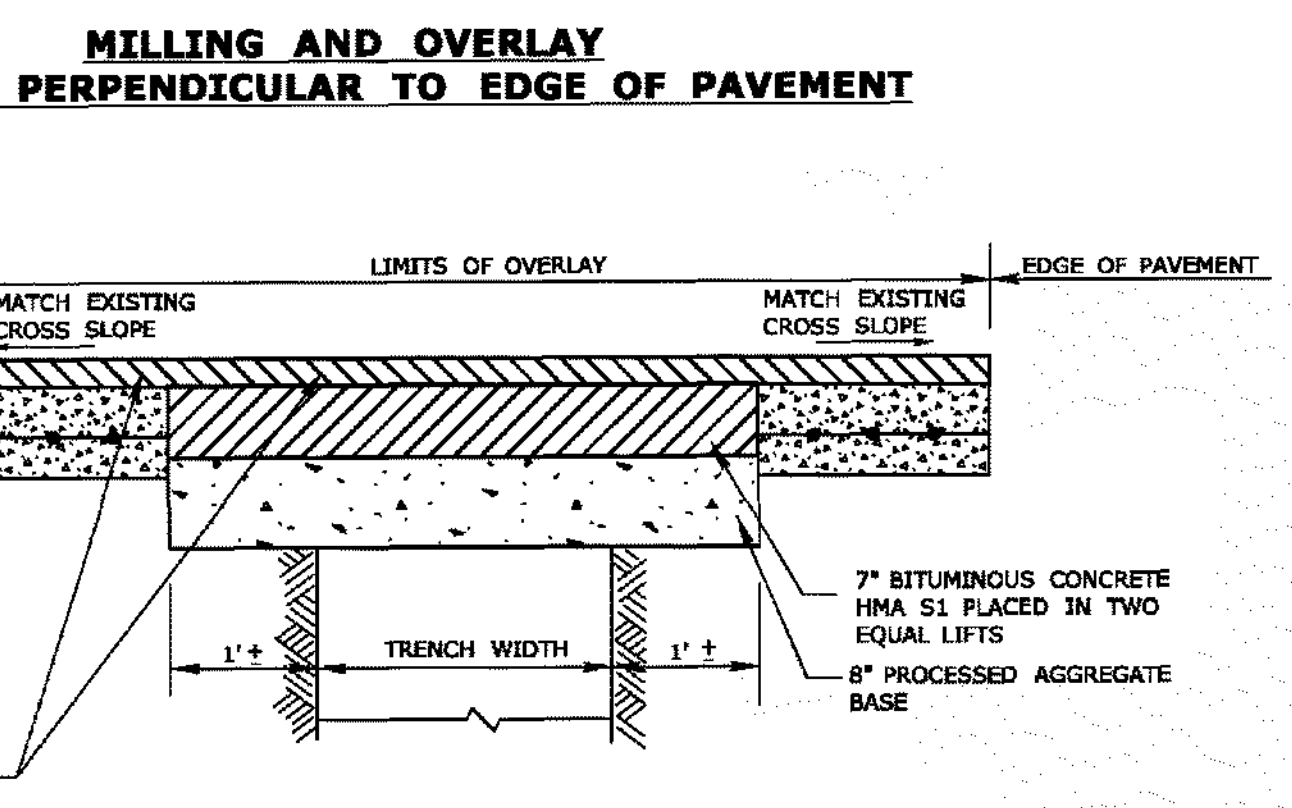
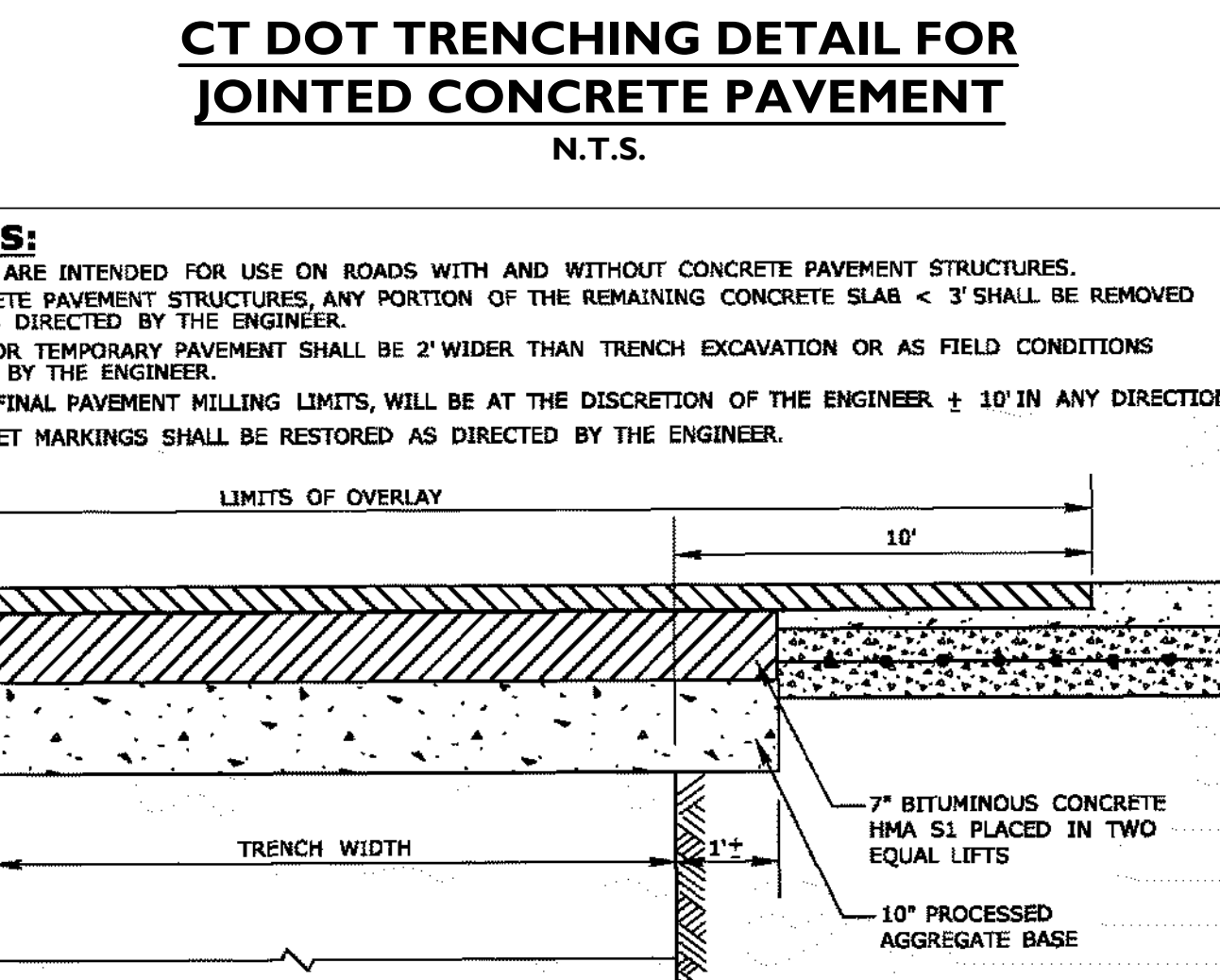
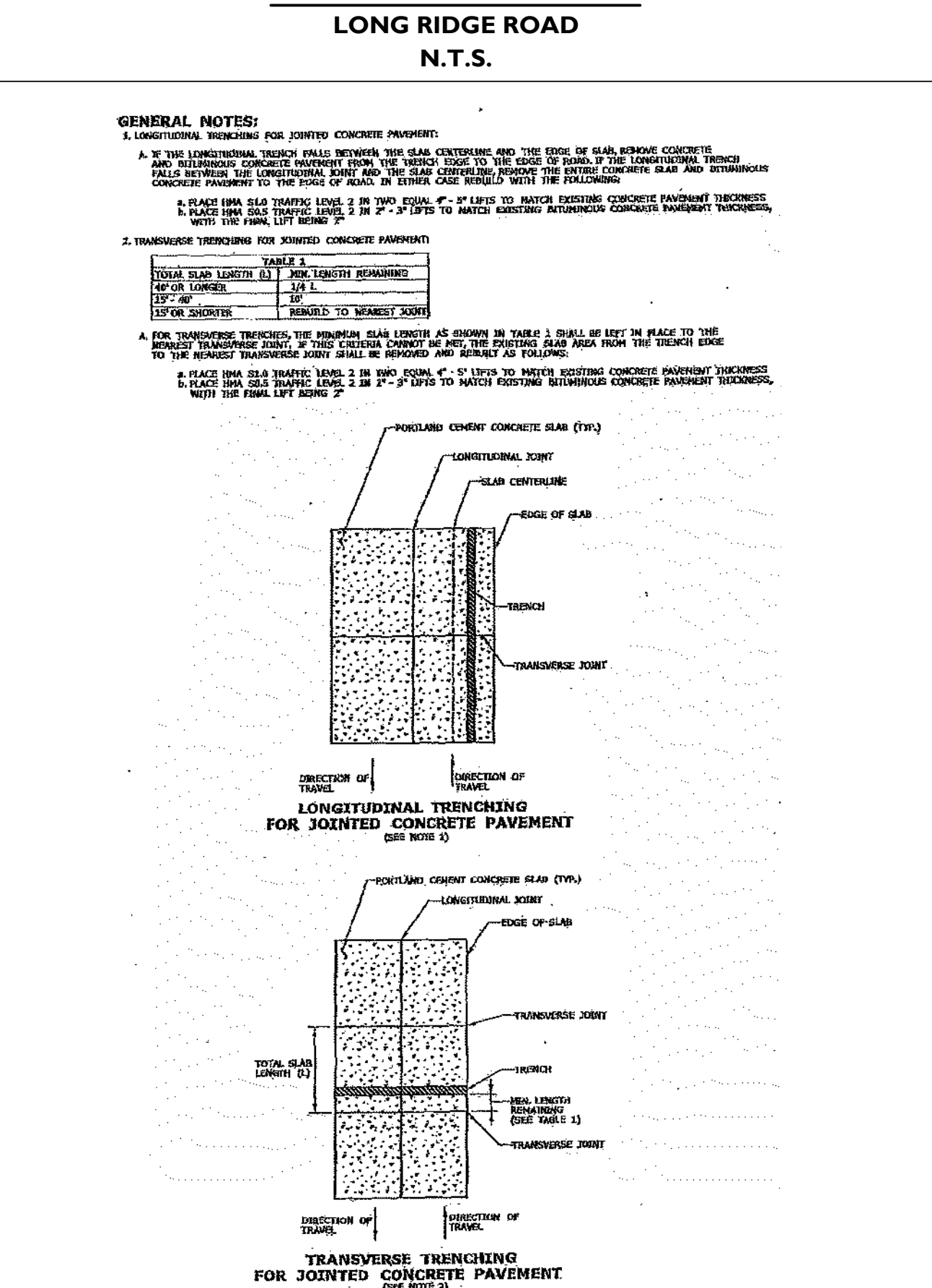
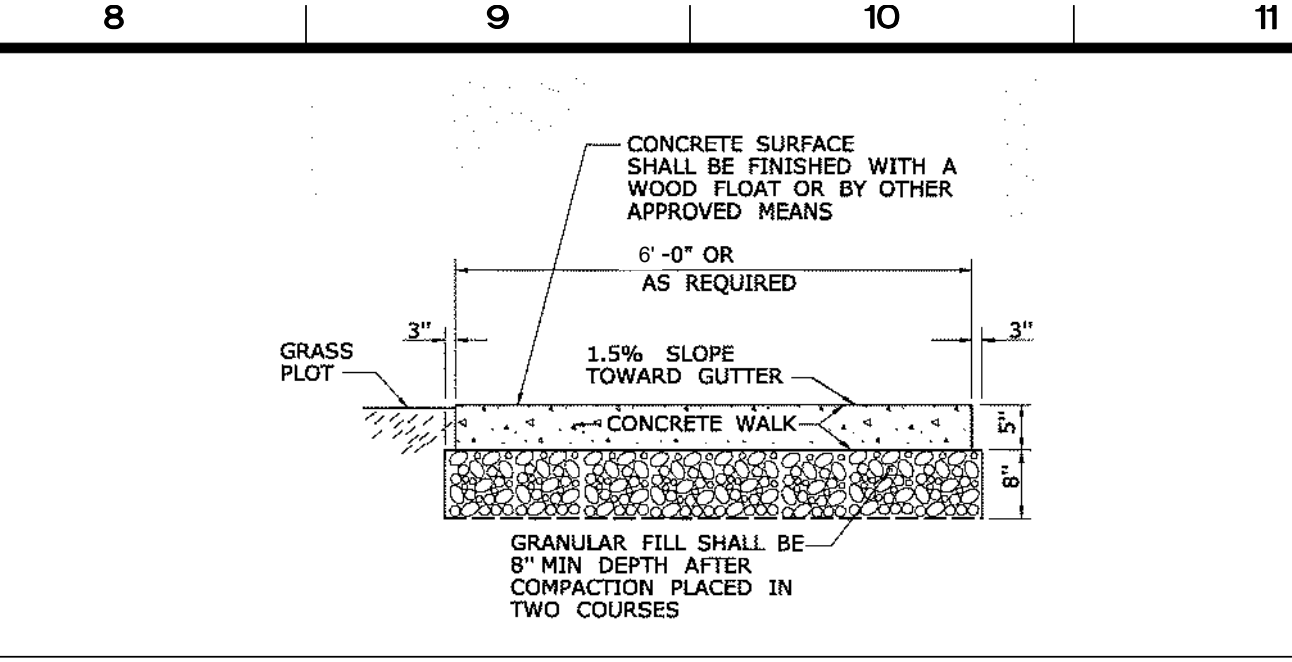
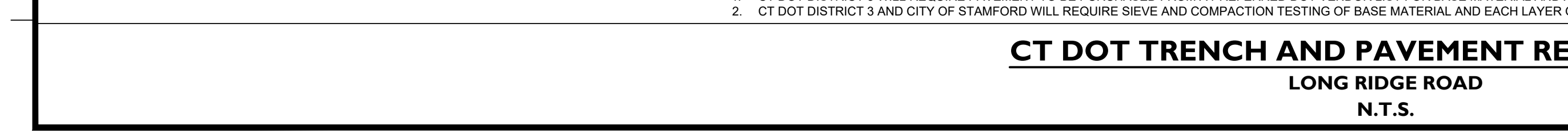
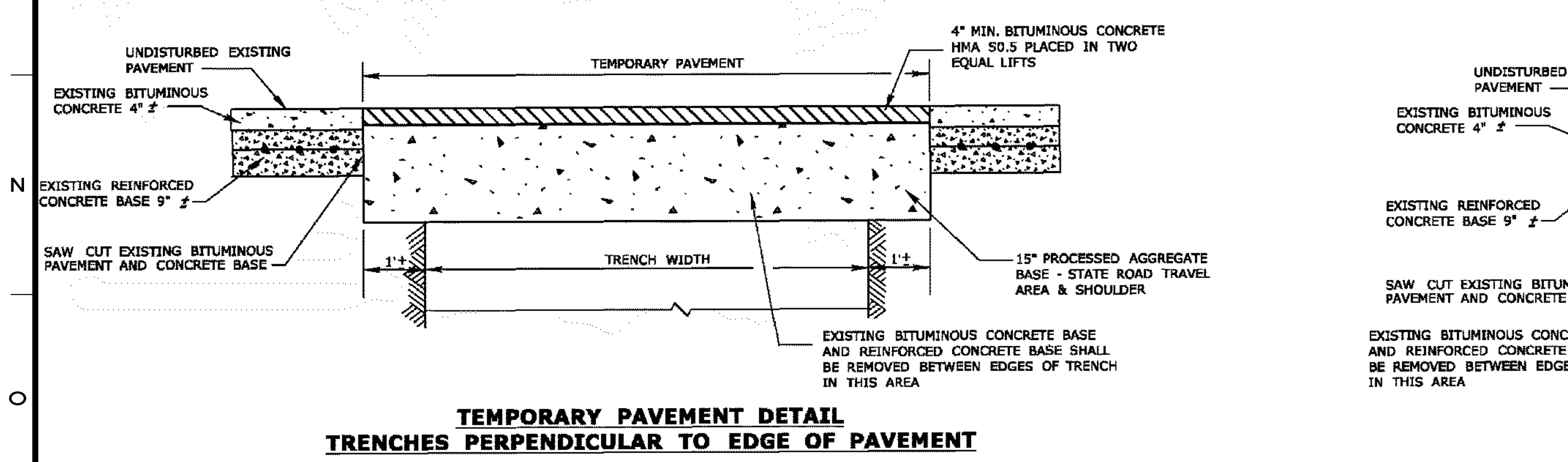
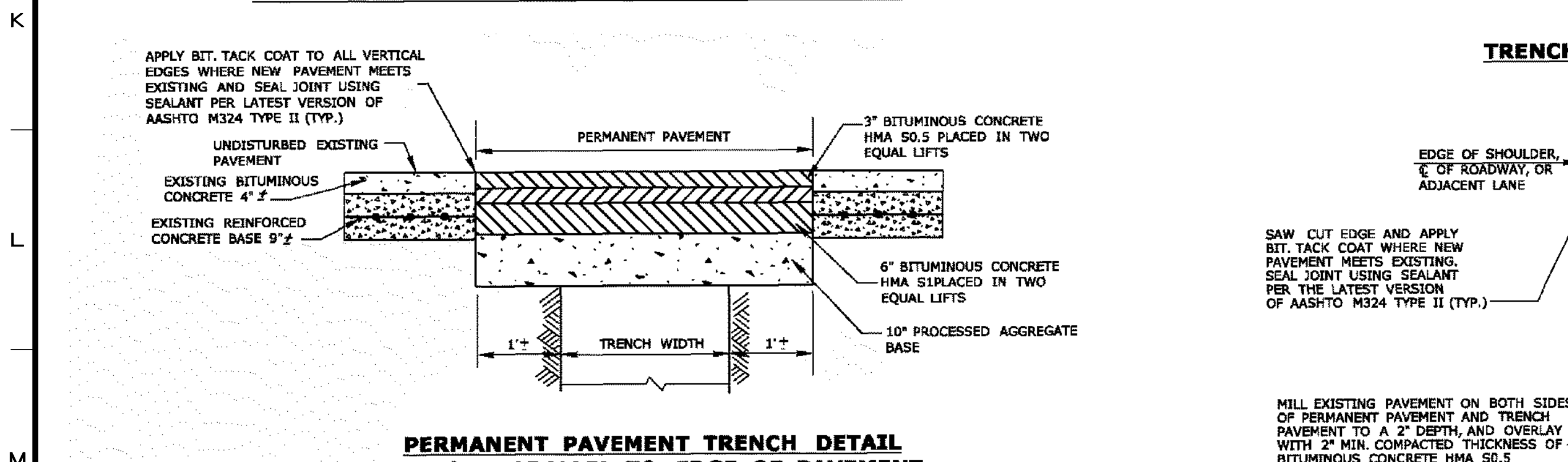
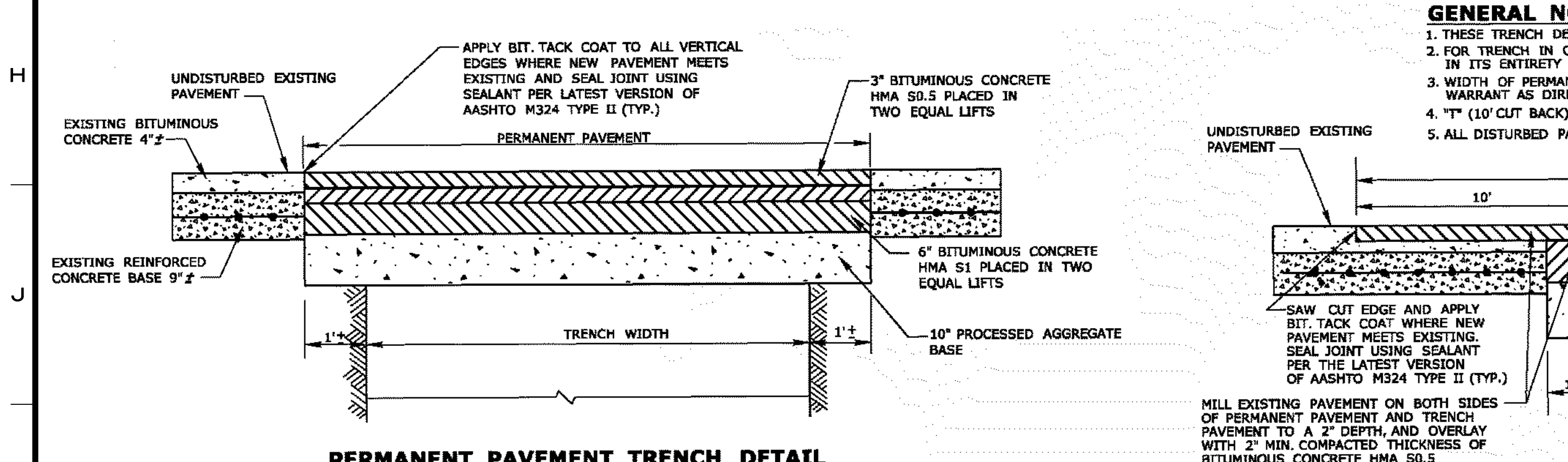
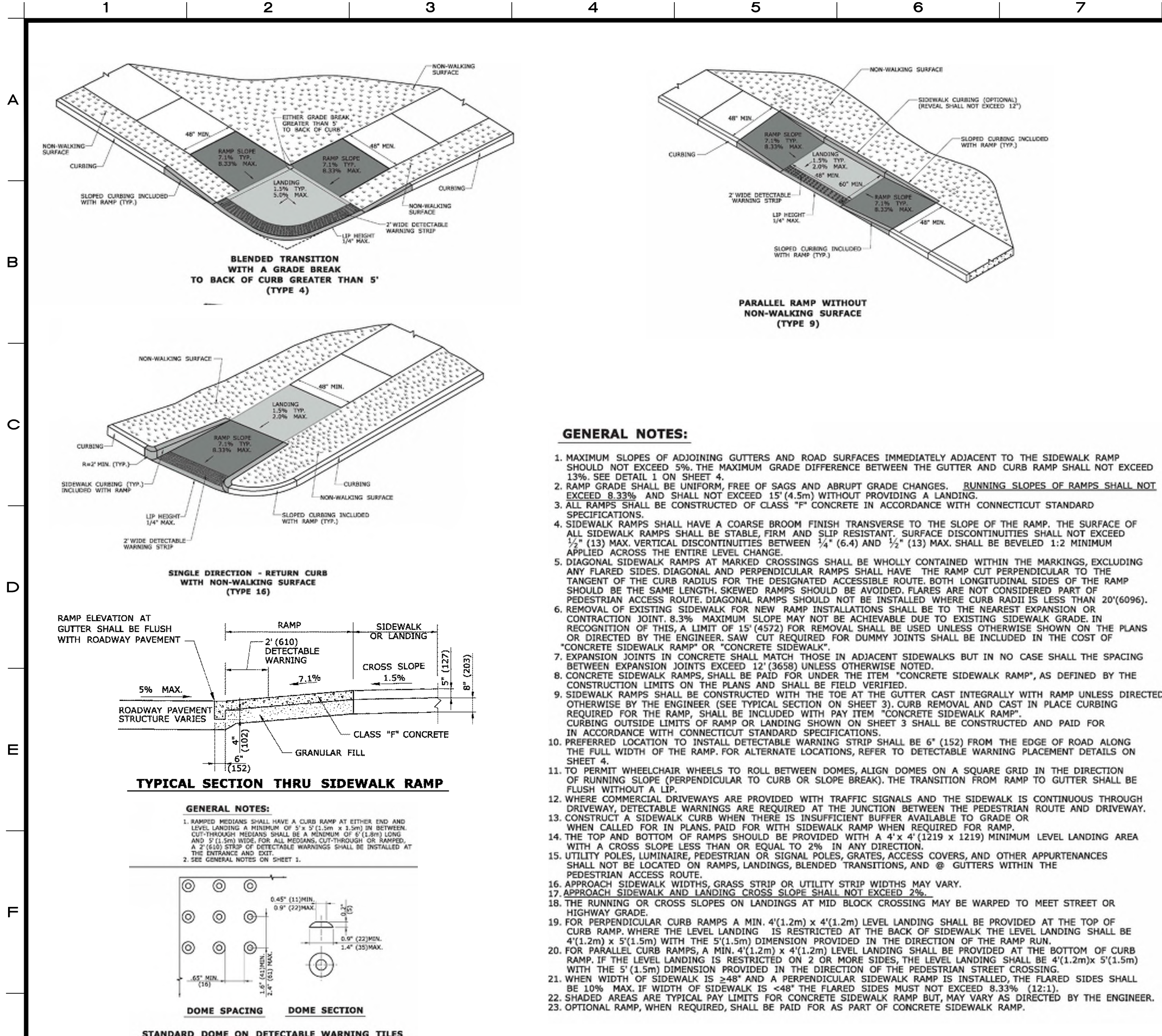
DETAILS
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TEODORO MILONE CT. P.E. 22563
May 23, 2023
DATE
This document and copies thereof are valid only if they bear the signature and embossed seal of the designated licensed professional. Unauthorized alteration renders any declaration herein null & void.
SHEET No:
SE-12
Comm. No: 1730



	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
A	TEST PITS																			
B	Subsurface Soil Investigation Soil Profile										Subsurface Soil Investigation Soil Profile									
	Test Pit #: 101 Inspector: VJH Ledge at: 68" Water at: N/A					Date: 04/12/2023 Sanitarian: N/A Mottling at: N/A Roots at: 22"					Test Pit #: 111 Inspector: VJH Ledge at: N/A Water at: N/A					Date: 04/12/2023 Sanitarian: N/A Mottling at: N/A Roots at: 20"				
	Depth: 68" 0"-22" 22"-51" 51"-68"					Soil Description Topsoil/fill Orange Brown Sandy Loam Fine Tan Sand					Depth: 112" 0"-20" 20"-36" 36"-112"					Soil Description Topsoil Orange Brown Sandy Loam with Boulders Fine Tan Sand				
C	Subsurface Soil Investigation Soil Profile										Subsurface Soil Investigation Soil Profile									
	Test Pit #: 102 Inspector: VJH Ledge at: N/A Water at: N/A					Date: 04/12/2023 Sanitarian: N/A Mottling at: N/A Roots at: 22"					Test Pit #: 112 Inspector: VJH Ledge at: N/A Water at: N/A					Date: 04/12/2023 Sanitarian: N/A Mottling at: N/A Roots at: 27"				
	Depth: 121" 0"-18" 18"-51" 51"-121"					Soil Description Topsoil Fill Brown Sandy Loam with Bankrun Gravel					Depth: 103" 0"-27" 27"-74" 74"-103"					Soil Description Topsoil Orange Brown Sandy Loam Fine Tan Sand				
D	Subsurface Soil Investigation Soil Profile										Subsurface Soil Investigation Soil Profile									
	Test Pit #: 103 Inspector: VJH Ledge at: N/A Water at: N/A					Date: 04/12/2023 Sanitarian: N/A Mottling at: N/A Roots at: N/A					Test Pit #: 113 Inspector: VJH Ledge at: N/A Water at: 151"					Date: 04/12/2023 Sanitarian: N/A Mottling at: N/A Roots at: 20"				
	Depth: 118" 0"-11" 11"-38" 38"-118"					Soil Description Topsoil/fill Orange Brown Silty Loam Orange Brown Sandy Loam with Bankrun and Boulders					Depth: 151" 0"-20" 20"-48" 48"-93" 93"-151"					Soil Description Topsoil Orange Brown Silty Loam Orange Brown Sandy Loam Red Sand				
E	Subsurface Soil Investigation Soil Profile										Subsurface Soil Investigation Soil Profile									
	Test Pit #: 104 Inspector: VJH Ledge at: N/A Water at: N/A					Date: 04/12/2023 Sanitarian: N/A Mottling at: N/A Roots at: N/A					Test Pit #: 114 Inspector: VJH Ledge at: N/A Water at: N/A					Date: 04/12/2023 Sanitarian: N/A Mottling at: N/A Roots at: 46"				
	Depth: 115" 0"-15" 15"-104" 104"-115"					Soil Description Topsoil Brown Sandy Loam with Boulders Bankrun Gravel					Depth: 98" 0"-20" 20"-48" 48"-98"					Soil Description Topsoil Orange Brown Silty Loam Orange Brown Sandy Loam with Bankrun				
F	Subsurface Soil Investigation Soil Profile										Subsurface Soil Investigation Soil Profile									
	Test Pit #: 105 Inspector: VJH Ledge at: N/A Water at: N/A					Date: 04/12/2023 Sanitarian: N/A Mottling at: N/A Roots at: 58"					Test Pit #: 116 Inspector: VJH Ledge at: 95" Water at: N/A					Date: 04/14/2023 Sanitarian: N/A Mottling at: 58" Roots at: 58"				
	Depth: 121" 0"-24" 24"-32" 32"-74" 74"-121"					Soil Description Fill Original Topsoil Orange Brown Sandy Loam Brown Sandy Loam with Bankrun					Depth: 95" 0"-20" 20"-58" 58"-95"					Soil Description Topsoil Orange Brown Silty Loam Gray Sandy Loam				
H	Subsurface Soil Investigation Soil Profile										Subsurface Soil Investigation Soil Profile									
	Test Pit #: 106 Inspector: VJH Ledge at: N/A Water at: N/A					Date: 04/12/2023 Sanitarian: N/A Mottling at: N/A Roots at: 30"					Test Pit #: 117 Inspector: VJH Ledge at: N/A Water at: 172"					Date: 04/14/2023 Sanitarian: N/A Mottling at: N/A Roots at: 45"				
	Depth: 108" 0"-30" 30"-65" 65"-108"					Soil Description Topsoil/fill Orange Brown Silty Loam Brown Sandy Loam					Depth: 175" 0"-18" 18"-45" 45"-75" 75"-175"					Soil Description Topsoil Orange Brown Silty Loam Gray Fine Sandy Loam Gray Coarse Sand and Bankrun				
J	Subsurface Soil Investigation Soil Profile										Subsurface Soil Investigation Soil Profile									
	Test Pit #: 107 Inspector: VJH Ledge at: N/A Water at: N/A					Date: 04/12/2023 Sanitarian: N/A Mottling at: N/A Roots at: 33"					Test Pit #: 118 Inspector: VJH Ledge at: N/A Water at: N/A					Date: 04/13/2023 Sanitarian: N/A Mottling at: N/A Roots at: 18"				
	Depth: 135" 0"-17" 17"-33" 33"-135"					Soil Description Topsoil Orange Brown Silty Loam Brown Sandy Loam with Bankrun					Depth: 170" 0"-18" 18"-77" 77"-120" 120"-170"					Soil Description Topsoil Orange Brown Silty Loam Gray Coarse Material with Cobbles Gray Silty Loam with Fines				
K	Subsurface Soil Investigation Soil Profile										Subsurface Soil Investigation Soil Profile									
	Test Pit #: 108 Inspector: VJH Ledge at: N/A Water at: N/A					Date: 04/12/2023 Sanitarian: N/A Mottling at: N/A Roots at: 42"					Test Pit #: 119 Inspector: VJH Ledge at: N/A Water at: N/A					Date: 04/14/2023 Sanitarian: N/A Mottling at: N/A Roots at: 28"				
	Depth: 170" 0"-20" 20"-42" 42"-81" 81"-141" 141"-170"					Soil Description Topsoil Orange Brown Silty Loam Brown Sandy Loam Coarse Brown Sand Fine Tan Sand					Depth: 169" 0"-19" 19"-28" 28"-70" 70"-169"					Soil Description Topsoil Orange Brown Silty Loam Gray Coarse Material with Cobbles Gray Silty Loam with Fines				
M	Subsurface Soil Investigation Soil Profile										Subsurface Soil Investigation Soil Profile									
	Test Pit #: 109 Inspector: VJH Ledge at: N/A Water at: 151"					Date: 04/12/2023 Sanitarian: N/A Mottling at: 105" Roots at: 20"					Test Pit #: 120 Inspector: VJH Ledge at: N/A Water at: 172"					Date: 04/14/2023 Sanitarian: N/A Mottling at: N/A Roots at: 28"				
	Depth: 185" 0"-20" 20"-42" 42"-73" 73"-185"					Soil Description Topsoil Orange Brown Silty Loam Brown Sandy Loam Red Sand					Depth: 172" 0"-14" 14"-28" 28"-172"					Soil Description Topsoil Orange Brown Silty Loam Brown Coarse Sand with Cobbles				
N	Subsurface Soil Investigation Soil Profile										Subsurface Soil Investigation Soil Profile									
	Test Pit #: 110 Inspector: VJH Ledge at: N/A Water at: N/A					Date: 04/12/2023 Sanitarian: N/A Mottling at: 128" Roots at: 30"					Test Pit #: 121 Inspector: VJH Ledge at: N/A Water at: N/A					Date: 04/13/2023 Sanitarian: N/A Mottling at: N/A Roots at: 50"				
	Depth: 168" 0"-20" 20"-60" 60"-168"					Soil Description Topsoil Brown Sandy Loam Fine Tan Sand					Depth: 153" 0"-20" 20"-50" 50"-90" 90"-153"					Soil Description Topsoil Orange Brown Silty Loam with Trace Sand Tan Fine Sand with Silt Brown Coarse Sand with Cobble				
O	Subsurface Soil Investigation Soil Profile										Subsurface Soil Investigation Soil Profile									
	Test Pit #: 112 Inspector: VJH Ledge at: N/A Water at: 151"					Date: 04/12/2023 Sanitarian: N/A Mottling at: N/A Roots at: 20"					Test Pit #: 122 Inspector: VJH Ledge at: N/A Water at: N/A					Date: 04/13/2023 Sanitarian: N/A Mottling at: 111" Roots at: 42"				
	Depth: 137" 0"-29" 29"-60" 60"-89" 89"-137"					Soil Description Topsoil Orange Brown Silty Loam with Fines Brown Sandy Loam Tan Fine Sand					Depth: 168" 0"-20" 20"-42" 42"-83" 83"-111" 111"-168"					Soil Description Topsoil Orange Brown Silty Loam with Trace Sand Brown Silty Loam Brown Sand with Cobbles Fine Tan Sand				
	Subsurface Soil Investigation Soil Profile										Subsurface Soil Investigation Soil Profile									
	Test Pit #: 113 Inspector: VJH Ledge at: N/A Water at: 155"					Date: 04/12/2023 Sanitarian: N/A Mottling at: 130" Roots at: 37"					Test Pit #: 123 Inspector: VJH Ledge at: N/A Water at: 192"					Date: 04/13/2023 Sanitarian: N/A Mottling at: N/A Roots at: 44"				
	Depth: 160" 0"-17" 17"-37" 37"-98" 98"-160"					Soil Description Topsoil Orange Brown Silty Loam Tan Sand with Silt Brown Sand with Bankrun					Depth: 204" 0"-16" 16"-44" 44"-168" 168"-204"					Soil Description Topsoil Orange Brown Silty Loam Brown Sand with Cobbles Brown Sand with Bankrun				
	Subsurface Soil Investigation Soil Profile										Subsurface Soil Investigation Soil Profile									
	Test Pit #: 114 Inspector: VJH Ledge at: N/A Water at: N/A					Date: 04/12/2023 Sanitarian: N/A Mottling at: N/A Roots at: N/A					Test Pit #: 124 Inspector: VJH Ledge at: N/A Water at: 172"					Date: 04/13/2023 Sanitarian: N/A Mottling at: 120" Roots at: 16"				
	Depth: 162" 0"-63" 63"-107" 107"-162"					Soil Description Fill Brown Sandy Loam with Cobbles Brown Fine Sand					Depth: 175" 0"-18" 18"-44" 44"-100" 100"-175"					Soil Description Topsoil Orange Brown Silty Loam Brown Sandy Loam Fine Tan Sand				
	Subsurface Soil Investigation Soil Profile										Subsurface Soil Investigation Soil Profile									
	Test Pit #: 115 Inspector: VJH Ledge at: N/A Water at: N/A					Date: 04/12/2023 Sanitarian: N/A Mottling at: N/A Roots at: N/A					Test Pit #: 125 Inspector: VJH Ledge at: N/A Water at: N/A					Date: 04/13/2023 Sanitarian: N/A Mottling at: N/A Roots at: 15"				
	Depth: 162" 0"-63" 63"-107" 107"-162"					Soil Description Fill Brown Sandy Loam with Cobbles Brown Fine Sand					Depth: 118" 0"-15" 15"-39" 39"-54" 54"-74" 74"-118"					Soil Description Topsoil Orange Brown Silty Loam Fine Tan Sand with Silt Brown Sand and Cobbles Brown Sand with Silt				
	Subsurface Soil Investigation Soil Profile										Subsurface Soil Investigation Soil Profile									
	Test Pit #: 116 Inspector: VJH Ledge at: N/A Water at: 147"					Date: 04/13/2023 Sanitarian: N/A Mottling at: N/A Roots at: 14"					Test Pit #: 126 Inspector: VJH Ledge at: N/A Water at: 147"					Date: 04/13/2023 Sanitarian: N/A Mottling at: N/A Roots at: 14"				
	Depth: 152" 0"-14" 14"-24" 24"-52" 52"-115" 115"-152"					Soil Description Topsoil Orange Brown Silty Loam Brown Silty Loam with Coarse Sand Brown Sandy Loam Tan Fine Sand					Depth: 152" 0"-14" 14"-24" 24"-52" 52"-115" 115"-152"					Soil Description Topsoil Orange Brown Silty Loam Brown Silty Loam with Coarse Sand Brown Sandy Loam Tan Fine Sand				
	Subsurface Soil Investigation Soil Profile										Subsurface Soil Investigation Soil Profile									
	Test Pit #: 117 Inspector: VJH Ledge at: N/A Water at: 132"					Date: 04/13/2023 Sanitarian: N/A Mottling at: 99" Roots at: 17"					Test Pit #: 127 Inspector: VJH Ledge at: N/A Water at: 132"					Date: 04/13/2023 Sanitarian: N/A Mottling at: 99" Roots at: 17"				
	Depth: 140" 0"-17" 17"-29" 29"-140"					Soil Description Topsoil Orange Brown Silty Loam with fines Brown Coarse Sand with Bankrun					Depth: 140" 0"-17" 17"-29" 29"-140"					Soil Description Topsoil Orange Brown Silty Loam with fines Brown Coarse Sand with Bankrun				
	Subsurface Soil Investigation Soil Profile										Subsurface Soil Investigation Soil Profile									
	Test Pit #: 118 Inspector: VJH Ledge at: N/A Water at: 110"					Date: 04/13/2023 Sanitarian: N/A Mottling at: N/A Roots at: 29"					Test Pit #: 128 Inspector: VJH Ledge at: N/A Water at: 110"					Date: 04/13/2023 Sanitarian: N/A Mottling at: N/A Roots at: 29"				
	Depth: 110" 0"-29" 29"-72" 72"-114"					Soil Description Topsoil/fill Orange Brown Silty Loam Orange Brown Sandy Loam					Depth: 110" 0"-29" 29"-72" 72"-114"					Soil Description Topsoil/fill Orange Brown Silty Loam Orange Brown Sandy Loam				

I	05/23/2023	ORIGINAL SUBMISSION
No.	Date	Revision

SOIL DATA DEPICTING 210 LONG RIDGE ROAD STAMFORD, CT PREPARED FOR TJH SENIOR LIVING LLC	
	SCALE: 0 40 80 1"=40' DRAWN BY: VJH CHECKED BY: TM
REDNISS & MEAD	TEODORO MILONE CT. P.E. 22563 <i>May 23, 2023</i> DATE This document and copies thereof are valid only if they bear the signature and embossed seal of the designated licensed professional. Unauthorized alterations render any declaration herein null & void.
LAND SURVEYING CIVIL ENGINEERING PLANNING & ZONING CONSULTING PERMITS 22 First Street Stamford, CT 06905 Tel: 203.352.0001 Fax: 203.352.1118 www.rednissandmead.com	SHEET No: SE-I5 Comm. No.: 1730

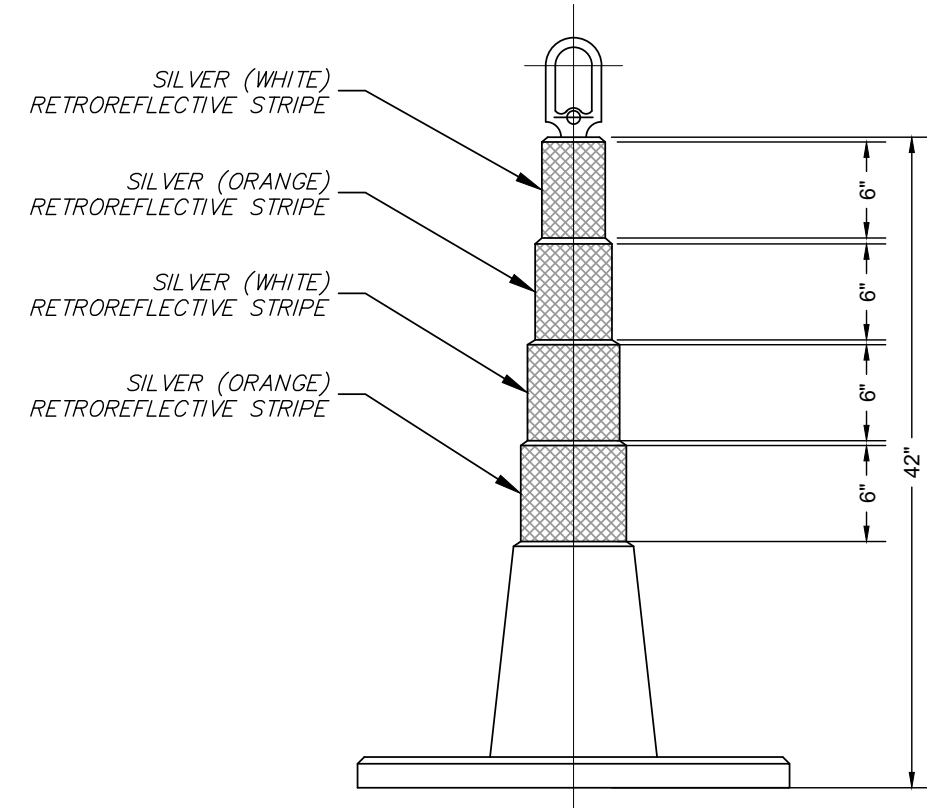


REFER TO SHEETS MPT-2 & MPT-3 FOR MAINTENANCE & PROTECTION OF TRAFFIC WITH RESPECT TO THE INSTALLATION OF UTILITY CONNECTIONS WITHIN LONG RIDGE ROAD.



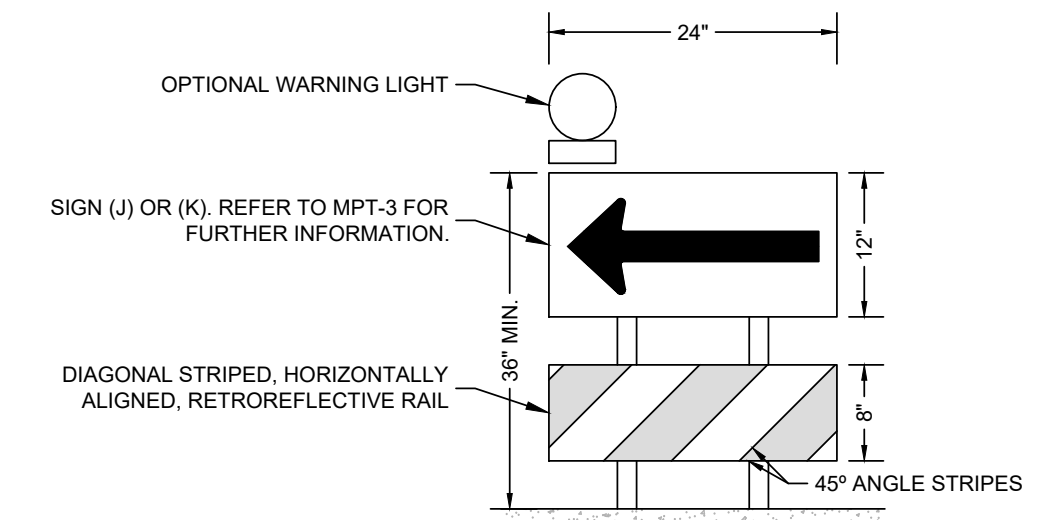
- NOTES FOR PORTABLE SIGN SUPPORTS:
- SIGNS AND THEIR PORTABLE SUPPORTS SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST EDITION OF M.U.T.C.D.
 - MOUNTING HEIGHT OF SIGNS SHALL BE A MINIMUM OF 12" AND A MAXIMUM OF 24". SIGNS SHALL BE MOUNTED HIGHER AS NEEDED TO MEET FIELD CONDITIONS OR AS DIRECTED BY THE ENGINEER.
 - THE ENGINEER RESERVES THE RIGHT TO REJECT ANY SUPPORT DEEMED UNSUITABLE FOR THE PURPOSE INTENDED.

PORTABLE SIGN SUPPORTS
N.T.S.



- NOTES:
- THE TRAFFIC CONES SHALL CONFORM TO THE REQUIREMENTS OF NCHRP REPORT 350 AND THE LATEST EDITION OF MUTCD.
 - CONES SHALL BE PREDOMINANTLY FEDERAL ORANGE IN COLOR AND RETROREFLECTIVE AS REQUIRED IN THE SPECIFICATIONS.
 - IF RUBBER CONES ARE USED, THEY SHALL BE COLOR IMPREGNATED.
 - THE ENGINEER RESERVES THE RIGHT TO REJECT ANY CONE DEEMED UNSUITABLE FOR THE PURPOSE INTENDED.

42" TRAFFIC CONE
N.T.S.



- NOTES:
- DIRECTION INDICATOR BARRICADE SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST EDITION OF M.U.T.C.D.
 - THE ONE-DIRECTION LARGE ARROW SHALL BE BLACK ON AN ORANGE BACKGROUND.
 - RAIL STRIPE WIDTHS SHALL BE 6 INCHES, EXCEPT THAT 4-INCH WIDE STRIPES MAY BE USED IF RAIL LENGTHS ARE LESS THAN 36 INCHES.
 - THE SIDES OF BARRICADES FACING TRAFFIC SHALL HAVE RETROREFLECTIVE RAIL FACES.

DIRECTION INDICATOR BARRICADE
N.T.S.

- TRAFFIC MANAGEMENT PLAN NOTES**
- THESE DRAWINGS ARE ISSUED TO DEPICT THE MAINTENANCE & PROTECTION OF TRAFFIC PLAN IN CONJUNCTION WITH UTILITY INSTALLATIONS WITHIN LONG RIDGE ROAD FOR THE 210 LONG RIDGE ROAD DEVELOPMENT. REFER TO SITE PLANS PREPARED BY REDNISS & MEAD FOR FURTHER INFORMATION REGARDING UTILITY AND SITE DESIGN.
 - ALL SIGNS AND TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), CT DOT TRAFFIC CONTROL PATTERNS FOR HIGHWAY MAINTENANCE OPERATIONS, AND CT DOT FORM 518.
 - TEMPORARY MAINTENANCE AND PROTECTION OF TRAFFIC SIGNS SHALL BE INSTALLED ON PORTABLE SIGN SUPPORTS, REFER TO DETAIL. IF POST MOUNTED SIGNS ARE INSTALLED, THEY SHALL BE INSTALLED ON BREAKAWAY POSTS.
 - NO SIGNAGE SHALL BE PLACED THAT OBSTRUCTS EXISTING SIGNAGE, EXCEPT WHERE THE NEW SIGN INFORMATION SUPERSEDES THE EXISTING SIGNAGE, AND IS REQUIRED TO ACCOMMODATE CONSTRUCTION ACTIVITIES. SIGN LOCATIONS ARE APPROXIMATE AND ARE TO BE FIELD ADJUSTED AS DIRECTED BY THE ENGINEER.
 - NO SIGNS OR PAVEMENT MARKINGS ARE TO BE REMOVED. EXISTING SIGNS IN CONFLICT WITH TEMPORARY SIGNS SHALL BE COVERED TO MEET FIELD CONDITIONS.
 - RETROREFLECTIVE COLORED SHEETING USED FOR CONSTRUCTION SIGNS AND TRAFFIC CONTROL DEVICES SHALL MEET THE MINIMUM RETROREFLECTIVE REQUIREMENTS OF THE LATEST EDITION OF THE MUTCD.
 - CONTRACTOR TO PROVIDE TRAFFIC POLICE OFFICERS AS REQUIRED BY THE CITY OF STAMFORD & CT DOT DISTRICT 3.
 - IF GEOMETRIC CONDITIONS ALLOW OR UNLESS OTHERWISE SPECIFIED, MERGING TAPER LENGTHS APPROACHING WORK ZONES SHALL BE 320 FEET AND DOWNSTREAM TAPER LENGTHS LEAVING WORK ZONES SHALL BE 100 FEET AS PER CT DOT WORK ZONE SAFETY GUIDELINES FOR MAINTENANCE OPERATIONS 2013. WHEN TEMPORARY TRAFFIC BARRIERS ARE USED FOR A CONSTRUCTED / RESTRICTED TEMPORARY TRAFFIC CONTROL ZONE, THE TAPER LENGTH SHOULD BE DESIGNED TO OPTIMIZE ROAD USER OPERATIONS GIVEN ANY GEOMETRIC RESTRICTIONS.
 - ADVANCED AND TERMINATION WARNING SIGNS ARE TO BE INSTALLED PER MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES LATEST EDITION, 350 FEET FROM THE START OF THE TAPER TRAFFIC CONES. WARNING SIGNS IN SERIES SHALL BE INSTALLED 100 FEET APART.
 - TRAFFIC CONE SPACING SHALL BE 20 FEET PER MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES LATEST EDITION.
 - ROADWAY PLATE DESIGN AND DETAIL, IF REQUIRED, SHALL BE DESIGNED BY OTHERS AND A P.E. STAMPED AND SIGNED DETAIL MUST BE SUBMITTED FOR APPROVAL TO THE CT DOT DISTRICT 3 OFFICE A MINIMUM OF TWO WEEKS PRIOR TO THE START OF WORK.
 - BASE INFORMATION TO PREPARE THIS PLAN WAS TAKEN FROM MULTIPLE SOURCES INCLUDING CITY OF STAMFORD GIS. INFORMATION IS NOT GUARANTEED TO BE CORRECT.

SIGN LEGEND

31-1906 COLOR WHITE	80-9604 COLOR ORANGE	80-9848 COLOR ORANGE	80-9847 COLOR ORANGE
80-9847 COLOR ORANGE	80-9917 COLOR ORANGE	80-9918 COLOR ORANGE	31-0117 COLOR WHITE
31-0118 COLOR WHITE	(REFER TO DIRECTION INDICATOR BARRICADE DETAIL BELOW)	(REFER TO DIRECTION INDICATOR BARRICADE DETAIL BELOW)	80-9812 COLOR ORANGE

SIGN Z TO BE A PORTABLE VARIABLE MESSAGE SIGN

ROADWORK - PRE-WARNING THREE WEEKS PRIOR TO CONSTRUCTION ACTIVITIES, AND FROM 4AM - 8PM UNTIL CONSTRUCTION IS COMPLETE	ROADWORK - ACTIVE FROM 8PM - 4AM DURING CONSTRUCTION ACTIVITIES
FRAME 1 NIGHT WORK MM/DD - MM/DD 8PM - 4AM	FRAME 1 ROAD WORK AHEAD
FRAME 2 EXPECT DELAYS	FRAME 2 EXPECT LANE CLOSURES

- PORTABLE VARIABLE MESSAGE SIGN NOTES:**
- PORTABLE VARIABLE MESSAGE SIGNS (PVMS) SHALL CONFORM WITH THE PVMS STANDARDS IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), AND THE PORTABLE VARIABLE MESSAGE SIGNS OPERATIONS GUIDE PREPARED FOR CT DOT BY BI GROUP, DATED MAY 5, 2014.
 - THE ONLY ACCEPTABLE COLOR COMBINATION SHOULD BE AMBER CHARACTERS ON A BLACK BACKGROUND. REVERSE COLORING SHOULD NOT BE USED.
 - THE LETTERS ON PVMS SHALL BE AT LEAST 10" HIGH.
 - SINGLE STROKE FONTS ONLY SHALL BE USED FOR LETTERS, NUMBERS, AND CHARACTERS ON PVMS. NO DOUBLE STROKE FONTS SHALL BE USED. MESSAGES SHALL USE UPPER-CASE LETTERS ONLY.
 - THERE SHOULD BE A DISTANCE OF AT LEAST 1,000 FEET BETWEEN:
 - A PVMS AND AN ARROW PANE.
 - A PVMS AND A PERMANENT VARIABLE MESSAGE SIGN (VMS).
 - A PVMS AND A STATIC SIGN.
 - PVMS SHOULD NOT BE INSTALLED WHERE THEY WOULD BE OBSTRUCTED BY OTHER SIGNS, STRUCTURES, TREES/VEGETATION, OTHER LARGE OBJECTS. LOCATIONS OF PVMS TO BE COORDINATED WITH CITY OF STAMFORD AND/OR CT DOT DISTRICT III.
 - PVMS SHOULD BE PLACED OFF THE SHOULDER OF THE ROADWAY AND BEHIND A TRAFFIC BARRIER, IF PRACTICAL, AND SHOULD BE VISIBLE FROM ALL TRAVEL LANES TO GIVE MOTORISTS ENOUGH TIME TO READ THE WHOLE PVMS MESSAGE.
 - PVMS SHOULD BE INSTALLED ON LEVEL SURFACES, SHOULD BE ANGLED 5 TO 10 DEGREES TOWARDS ONCOMING TRAFFIC, AND THE BOTTOM SHOULD BE LOCATED AT LEAST 7 FEET ABOVE THE ROADWAY SURFACE.
 - INSTALL PVMS 3 WEEKS IN ADVANCE OF CONSTRUCTION ACTIVITIES ON LONG RIDGE ROAD. FINAL LOCATION OF PVMS TO BE DETERMINED BY CITY OF STAMFORD TRANSPORTATION, TRAFFIC & PARKING DEPARTMENT.

2	08/09/2023	DESIGN DEVELOPMENT / 2B RESUBMISSION
1	05/23/2023	ORIGINAL SUBMISSION
No.	Date	Revision

MAINTENANCE & PROTECTION OF TRAFFIC PLAN I
DEPICTING
210 LONG RIDGE ROAD
STAMFORD, CT
PREPARED FOR
TJH SENIOR LIVING LLC

TEODORO MILONE CT. P.E. 22563
August 9, 2023
DATE

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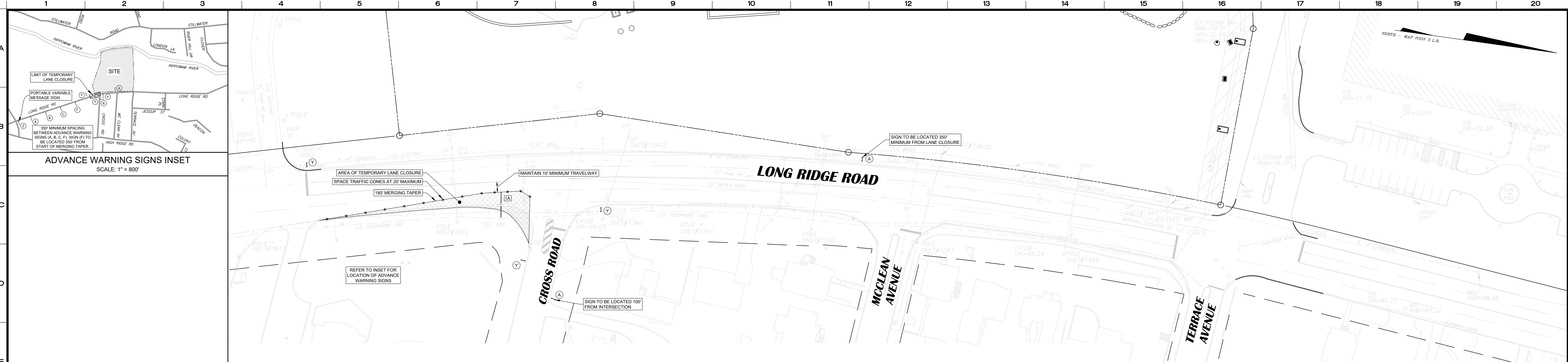
SHEET No:
MPT-1

LAND SURVEYING
CIVIL ENGINEERING
PLANNING & ZONING CONSULTING
PLANNING

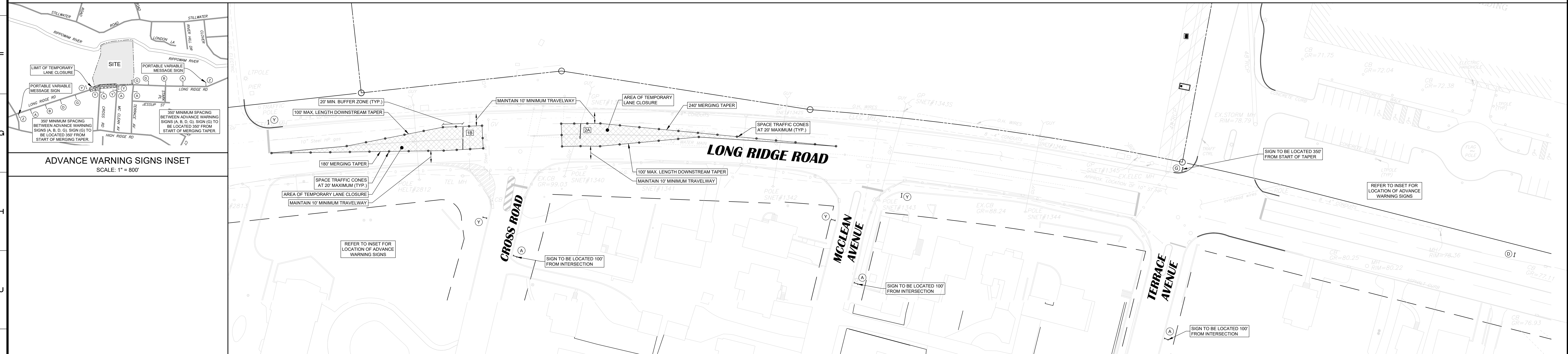
22 First Street | Stamford, CT 06905
Tel: 203.327.0500 | Fax: 203.357.1118
www.rednissmead.com

Scale: 0 60 80
1"=40'
DRAWN BY: V.JH
CHECKED BY: TM

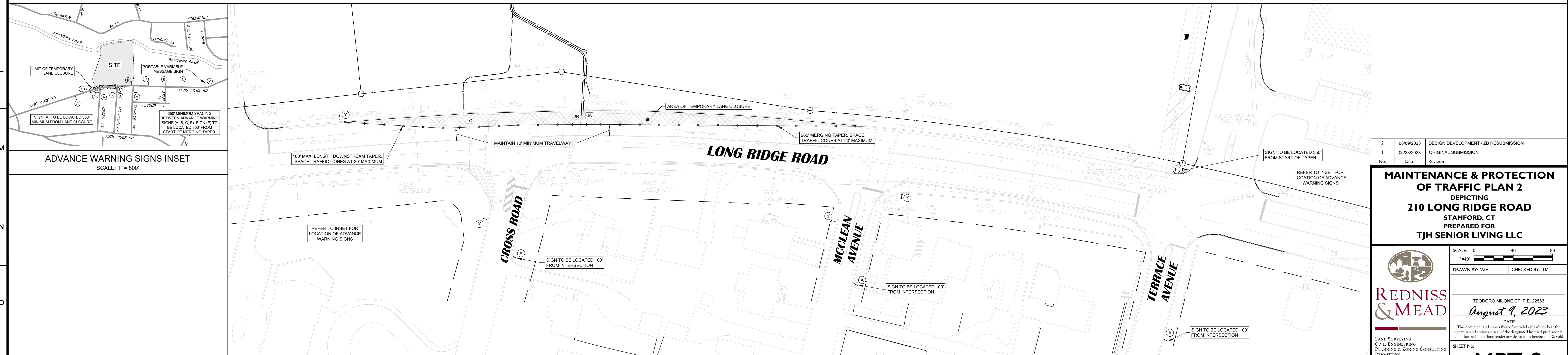
Comm. No: 1730



SPECIFIC MPT PLAN FOR LONG RIDGE ROAD UTILITY INSTALLATION - PHASE 1



SPECIFIC MPT PLAN FOR LONG RIDGE ROAD UTILITY INSTALLATION - PHASE 2



SPECIFIC MPT PLAN FOR LONG RIDGE ROAD UTILITY INSTALLATION - PHASE 3

No.	Date	Revision
2	08/09/2023	DESIGN DEVELOPMENT / 2B RESUBMISSION
1	06/23/2023	ORIGINAL SUBMISSION

MAINTENANCE & PROTECTION OF TRAFFIC PLAN 2
DEPICTING
210 LONG RIDGE ROAD
STAMFORD, CT
PREPARED FOR
TJH SENIOR LIVING LLC

SCALE: 0 40 80
1"=40'
DRAWN BY: V.JH
CHECKED BY: TM

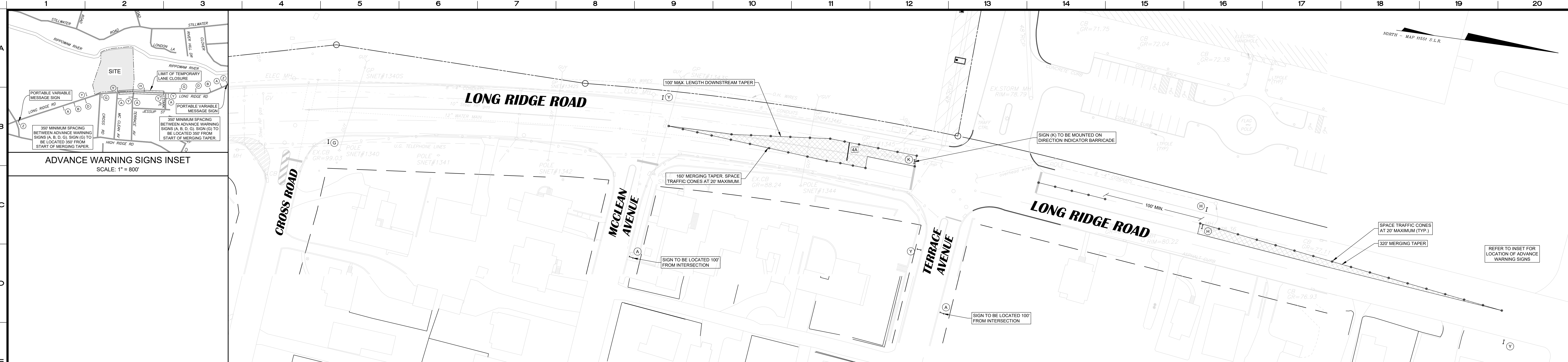
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August 9, 2023
DATE

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PLANNING

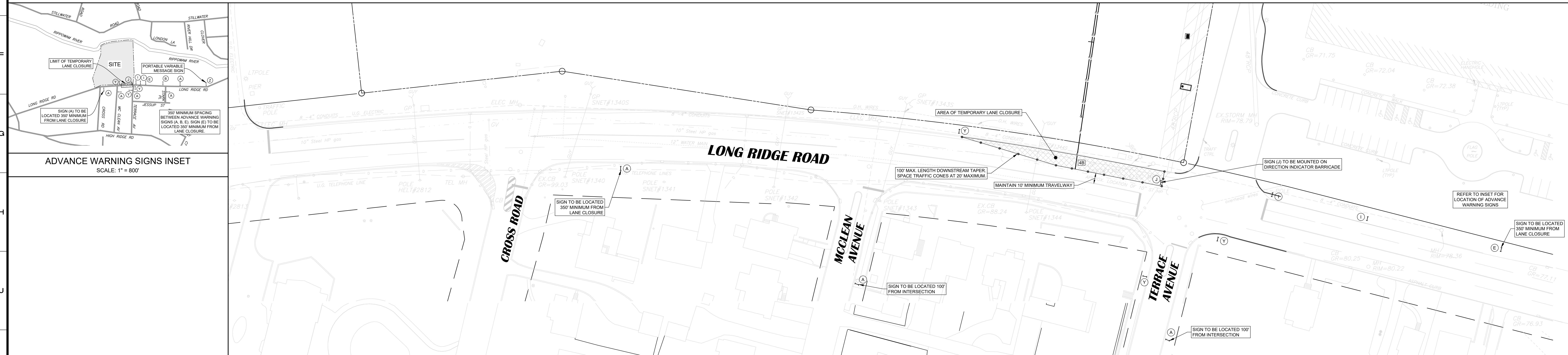
22 First Street | Stamford, CT 06905
Tel: 203.327.0500 | Fax: 203.327.1118
www.rednissmead.com

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MPT-2



SPECIFIC MPT PLAN FOR LONG RIDGE ROAD UTILITY INSTALLATION - PHASE 4



SPECIFIC MPT PLAN FOR LONG RIDGE ROAD UTILITY INSTALLATION - PHASE 5

2	08/09/2023	DESIGN DEVELOPMENT / 2B RESUBMISSION
1	06/23/2023	ORIGINAL SUBMISSION
No.	Date	Revision

**MAINTENANCE & PROTECTION
OF TRAFFIC PLAN 3**
DEPICTING
210 LONG RIDGE ROAD
STAMFORD, CT
PREPARED FOR
TJH SENIOR LIVING LLC

REDNISS & MEAD
LAND SURVEYING
CIVIL ENGINEERING
PLANNING & ZONING CONSULTING
PLANNING

TEODORO MILONE CT. P.E. 22563
August 9, 2023
DATE

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SHEET No:
MPT-3

22 First Street | Stamford, CT 06905
Tel: 203.327.0500 | Fax: 203.327.1118
www.rednissmead.com

Scale: 0 40 80
1"=40'
DRAWN BY: V.JH
CHECKED BY: TM

Comm. No: 1730



The key plan shows the layout of the site. On the left, under the heading 'MANORS', are two detached houses labeled 'ME' and 'MW'. A dashed line separates them from the 'RESIDENCES' on the right. The residences are a central two-story block with six units labeled A through F. Units A, B, and C are on the left side of the block, while D, E, and F are on the right. Unit A is at the bottom, B is above it, and C is to the left of B. Units D, E, and F are on the right side, with D above E, and F to the right of E. A north arrow is located in the bottom right corner, pointing towards the top right of the page.

677 Washington Blvd.
Suite 101
Stamford, CT 06901
T. +1 203 251 7400
F. +1 203 251 7474

PROJECT TITLE:

210 LONG RIDGE ROAD;
STAMFORD, CT 06901

DRAWING TITLE:
**RESIDENCES -
OVERALL
BASEMENT LEVEL
PLAN**
SCALE: 1" = 20'-0"

ZB RESUBMISSION
NOT FOR CONSTRUCTION
08/09/2023



RESIDENCES - OVERALL BASEMENT LEVEL PLAN

c:\REVIT LOCAL\93250_R22_ARCH_G_Zeiss5XJAV.rvt
8/11/2023 8:54:49 AM



Owner:
Mosaic Senior Life
4200 Park Avenue
Bridgeport CT 06604
Developer:
Greenbrier
3232 McKinney, Ste 1160, Dallas, TX
75204
Construction Manager:
Pike Construction Services
15 Circle Street
Rochester NY 14607
Civil/ Site:
Reddish & Mead
22 First Street
Stamford, CT 06905
Landscape:
RGR Landscape
115 First Ave, Floor 3
New York, NY 10003
Structural:
DeSimone Consulting Engineers
55 Church St 4th Floor
New Haven, CT 06510
MEP:
Centennial Associates Inc
495 Seventh Avenue
New York, NY 10018
Aquatic Consultant:
Westport Pools
156 Webster Parkway
Maryland Heights, MO 63043
Lighting Consultant:
Goodrich Lighting Design, Ltd.
620 Fifth Ave., Suite 204
Plegham, NY 10803
Pool Services:
SCOPES Hospitality Group
300 W Chestnut St., Ste 201
Elyria, OH 44022
Vertical Transportation Consultant:
Jenkins & Huntington
1251 Ave. of the Americas, Suite 920, New
York, 10020
Envelope Consultant:
Henshell & Buccellato
590 Westchester Avenue, Suite 207
Shrewsbury, NJ 07702
Acoustical Consultant:
AKRF, Inc
307 Fellowship Road, Suite 214
Mount Laurel, NJ 08054
Accessibility Consultant:
United Spinal Association
120-54 Queens Blvd., Suite 320
Forest Hills, NY 11415
Low Voltage Consultant:
Softronic
12210 E. 1st. Park Commons Blvd, Units 1-6
Estero, FL 33928

PROJECT TITLE: _____

MOZAIC
CONCIERGE
LIVING

210 LONG RIDGE ROAD;
STAMFORD, CT 06901

PROJECT No: 93250

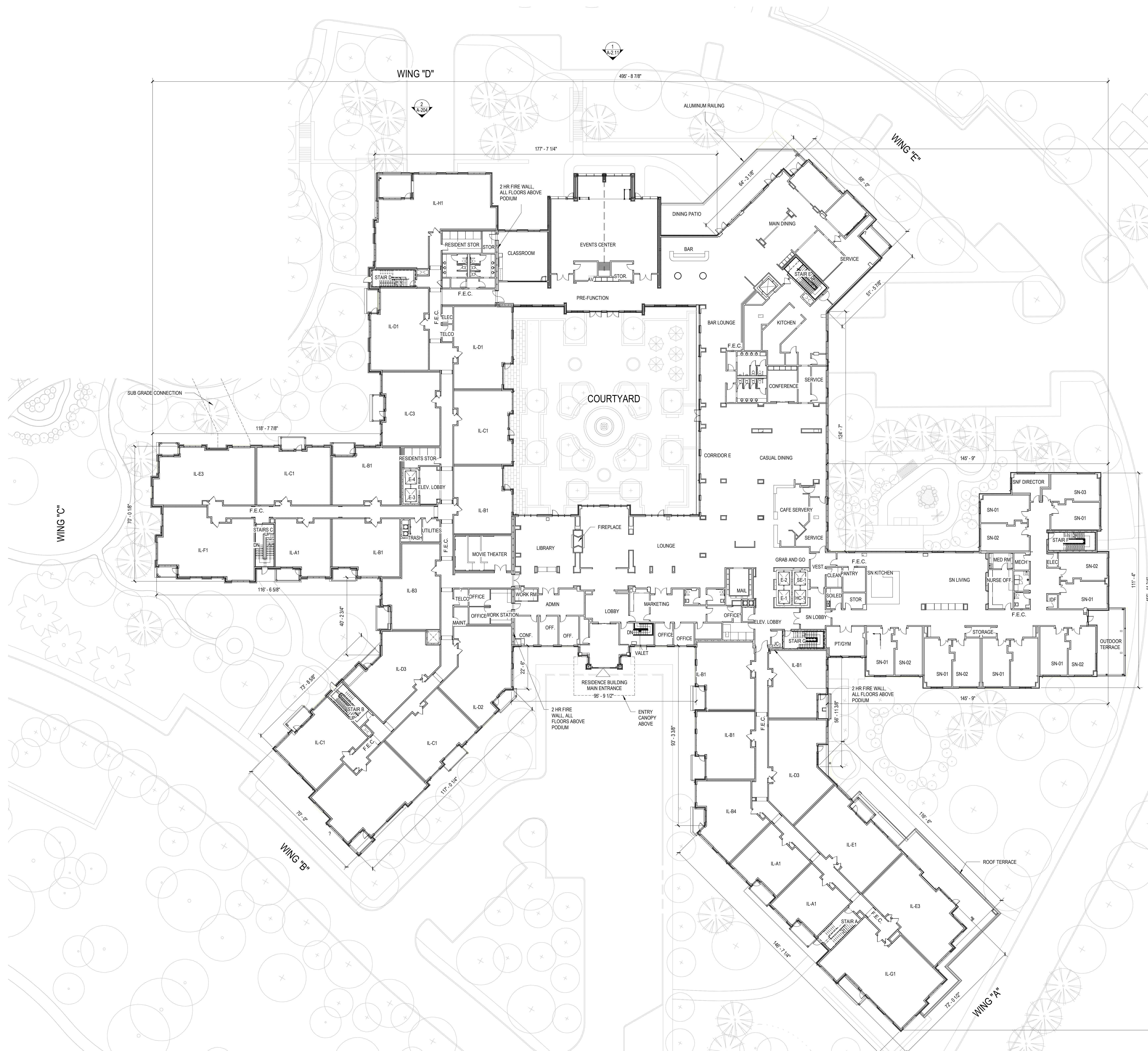
DRAWING TITLE:

**RESIDENCES -
LEVEL 1 OVERALL
FLOOR PLAN**

SCALE: 1" = 20'-0"

A-1.01

ZB RESUBMISSION
NOT FOR CONSTRUCTION
08/09/2023



1 **RESIDENCES - OVERALL FIRST FLOOR**
1" = 20'-0"



The key plan shows the layout of the site. On the left, under the heading 'MANORS', are two detached houses labeled 'ME' and 'MW'. A dashed line separates them from the 'RESIDENCES' on the right. The residences are a central two-story block with six units labeled A through F. Units A, B, and C are on the left side of the block, while D, E, and F are on the right. Unit A is at the bottom, B is above it, and C is to the left of B. Units D, E, and F are on the right side, with D above E, and F to the right of E. A north arrow is located in the bottom right corner, pointing towards the top right of the page.

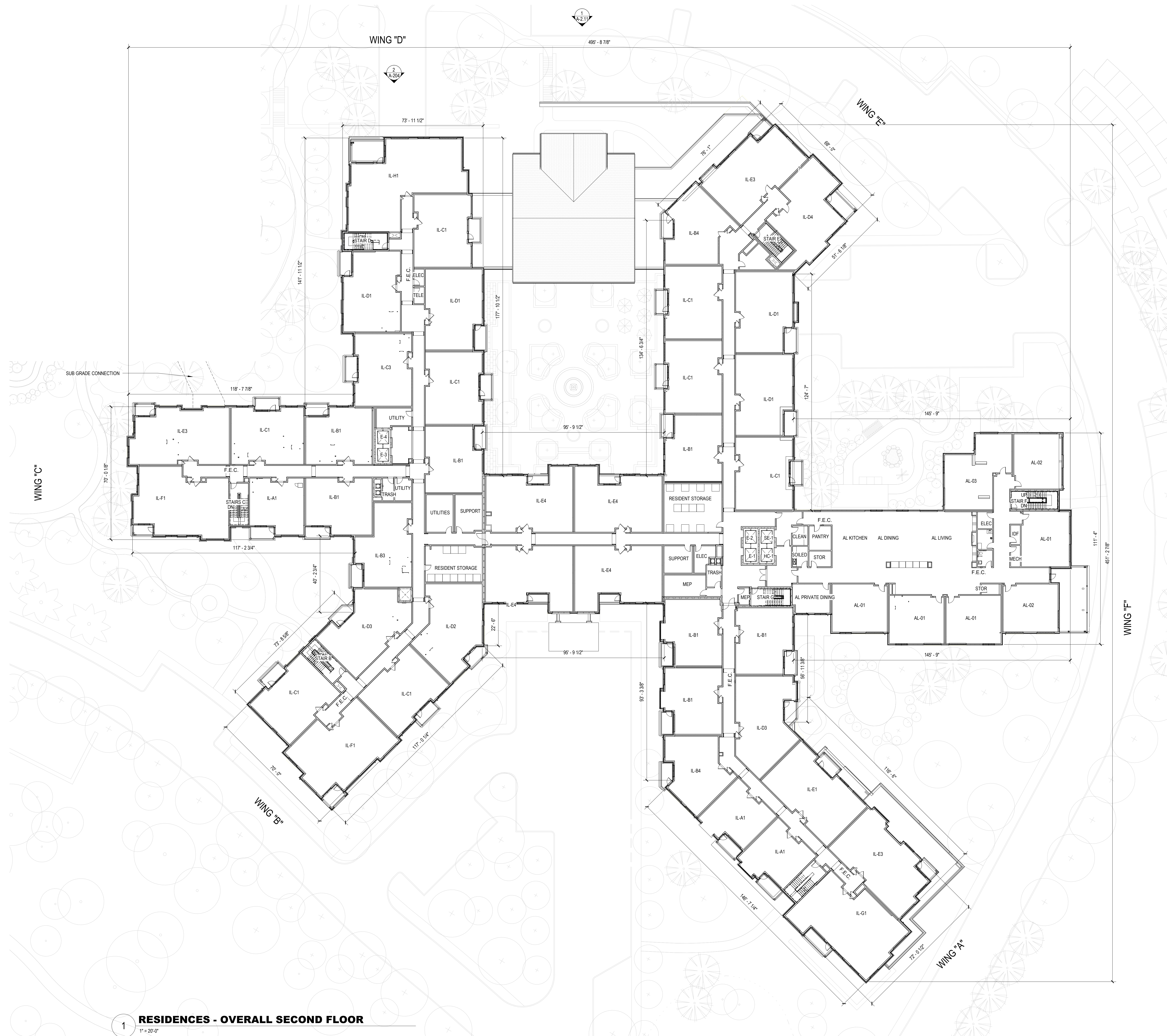
677 Washington Blvd.
Suite 101
Stamford, CT 06901
T. +1 203 251 7400
F. +1 203 251 7474

PROJECT TITLE:

210 LONG RIDGE ROAD;
STAMFORD, CT 06901

SCALE: 1" = 20'-0"

ZB RESUBMISSION
NOT FOR CONSTRUCTION
08/09/2023



The map shows a study area divided into two sections by a dashed line. The top section is labeled 'MANORS' and contains two irregular shapes labeled 'ME' and 'MW'. The bottom section is labeled 'RESIDENCES' and contains a larger, more complex shape divided into several sub-sections labeled 'A', 'B', 'C', 'D', 'E', and 'F'. A 'KEY PLAN' is shown in the bottom right corner, consisting of a circle with a diagonal line and a shaded segment.

677 Washington Blvd.
Suite 101
Stamford, CT 06901
T. +1 203 251 7400
F. +1 203 251 7474

PROJECT TITLE:

210 LONG RIDGE ROAD;
STAMFORD, CT 06901

SCALE: 1" = 20'-0"

ZB RESUBMISSION
NOT FOR CONSTRUCTION
08/09/2023





The map shows the study area divided into two sections: MANORS and RESIDENCES. The MANORS section includes ME and MW. The RESIDENCES section includes A, B, C, D, E, and F. A dashed line separates the two sections. A KEY PLAN is provided in the bottom right corner.

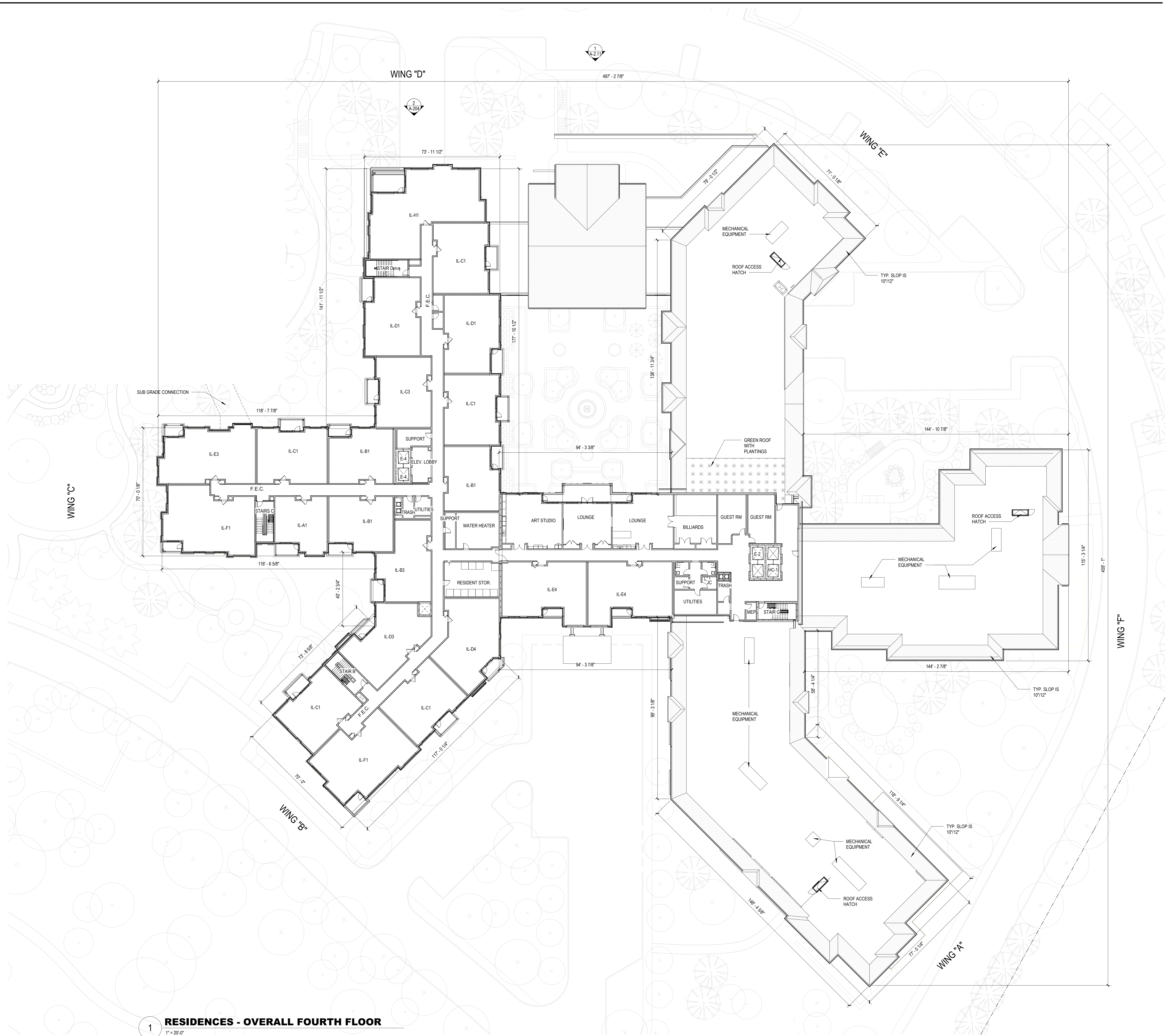
Owner:
Mosaic Senior Life
4200 Port Avenue
Bridgeport CT 06604
Developer:
Greenbrier
3232 McKinney, Ste 1160, Dallas, TX
75204
Construction Manager:
Pike Construction Services
15 Circle Street
Rochester NY 14607
Civil / Site:
Redniss & Mead
22 2nd Street
Stamford, CT 06905
Landscape:
RGR Landscape
115 Fifth Ave, Floor 3
New York, NY 10003
Structural:
DeSImone Consulting Engineers
35 Church St 4th Floor
New Haven, CT 06510
MEP:
Cosentini Associates Inc
408 Seventh Avenue
New York, NY 10018
Acoustic Consultant:
Westport Pools
156 Weldon Parkway
Meydick Heights, MD 63043
Landscape Consultant:
Goldstead Lighting, Ltd.,
629 Fifth Ave, Suite 204
Palham, NY 10803
Food Service:
SCOPUS Hospitality Group
300 W. Chestnut St., Ste 201
Eatinga, PA 17522
Vertical Transportation Consultant:
Jenkins & Huntington
1251 15th Street Americas, Suite 920, New
York, 10020
Envelope Consultant:
Henshell & Bucealato
565 Broadway Avenue, Suite 207
Shrewsbury, NJ 07702
Acoustical Consultant:
AKRI, Inc
307 Fellowship Road, Suite 214
Mount Laurel, NJ 08054
Accessibility Consultant:
United Spinal Association
120 St. Quierens Blvd., Suite 320
Kew Gardens, NY 11415
Low Voltage Consultant:
Softronic
3710 Riverport Park Commons Blvd, Units 1-6
Estero, FL 33928

MOZAIC
CONCIERGE
LIVING

DRAWING TITLE:
RESIDENCES -
LEVEL 4 OVERALL
FLOOR PLAN

A-1.04

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08/09/2023



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The key plan shows the layout of the site. On the left, under the heading 'MANORS', are two detached houses labeled 'ME' and 'MW'. To their right, under the heading 'RESIDENCES', is a larger complex of six houses labeled 'A' through 'F'. Houses A, B, and C are on the left side of this complex, while D, E, and F are on the right. A dashed line separates the manors from the residences. A north arrow is located in the bottom right corner, pointing towards the top right of the page.

Owner:
Mosaic Senior Life
4200 Park Avenue
Bridgeport CT 06624
Developer:
Greenbrier
7320 McKinney, Ste 1160, Dallas, TX
75224
Consulting Manager:
15 Circle Street Services
15 Circle Street
Rochester NY 14607
Civil Site:
Redniss & Mandert
22 First Street
Stamford, CT 06905
Landscape:
RGR Landscape
115 Fifth Ave, Floor 3
New York, NY 10003
Structural:
DeSimone Consulting Engineers
55 Church St 4th Floor
New Haven, CT 06510
MEP:
Cosentini Associates Inc
608 Seventh Avenue
New York, NY 10018
Acoustic Consultant:
Westport Pools
156 Weldon Parkway
Maryland Heights, MO 63043
Landscape Consultant:
Goldstick Lighting Design, Ltd.
629 Fifth Ave, Suite 204
Pelham, NY 10803
Food Service:
SCOPUS Hospitality Group
300 W. Chestnut St., Ste 201
Ephrata, PA 17522
Vertical Transportation Consultant:
Jenkins & Huntington
1251 Lake of the Americas, Suite 920, New
York, 10020
Envelope Consultant:
Henshell & Buccellato
505 Shrewsbury Avenue, Suite 207
Shrewsbury, NJ 07702
Acoustical Consultant:
AKRF, Inc.
307 Fellowship Road, Suite 214
Mount Laurel, NJ 08054
Accessibility Consultant:
United Spinal Association
120-20 Queens Blvd., Suite 320
Kew Gardens, NY 11415
Low-Voltage Consultant:
Softronic
8210 River Park Commons Blvd., Units 1-6
Estero, FL 33928

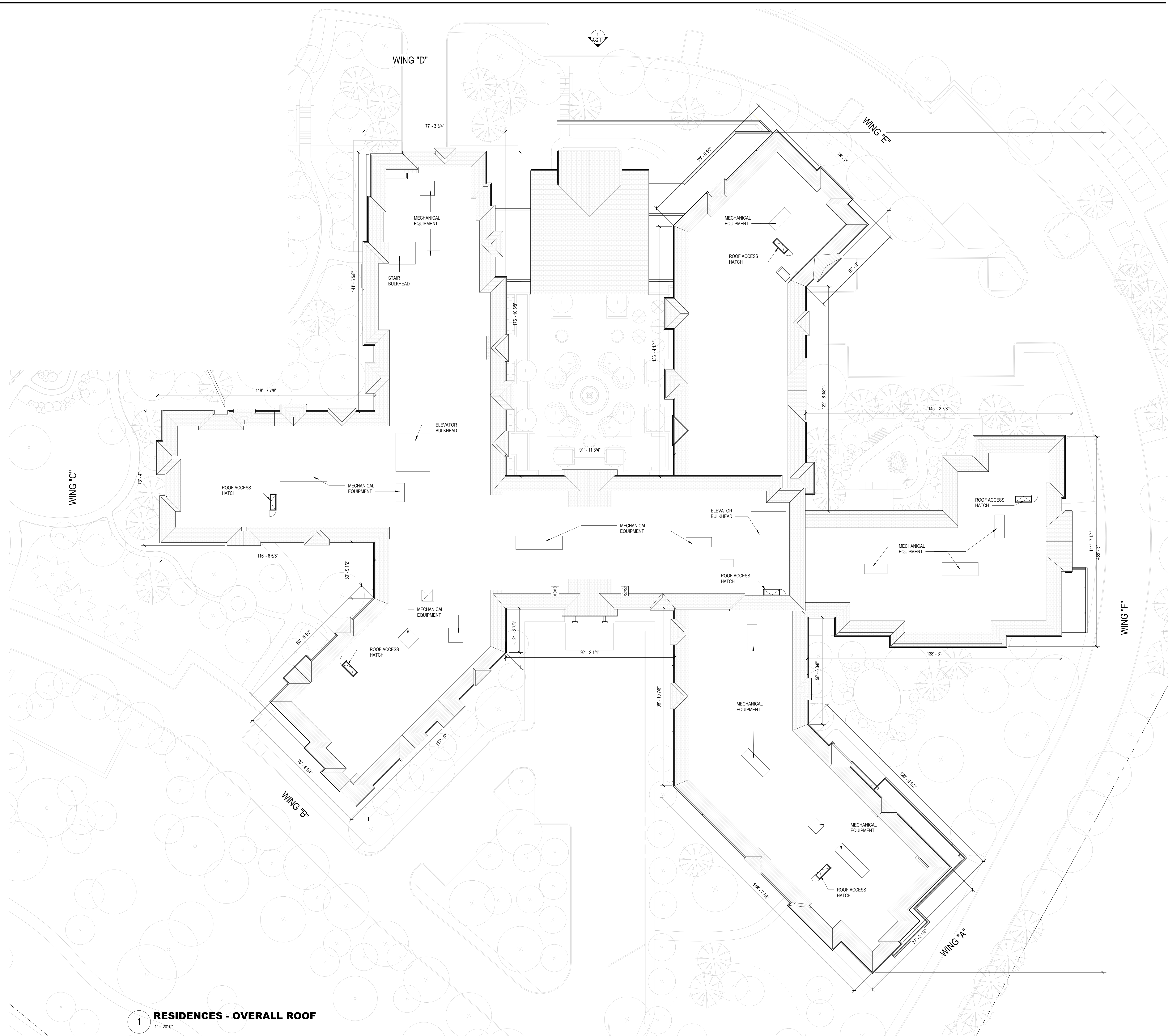
MOZAIC
CONCIERGE
LIVING

DRAWING TITLE:

RESIDENCES -
OVERALL ROOF
PLAN

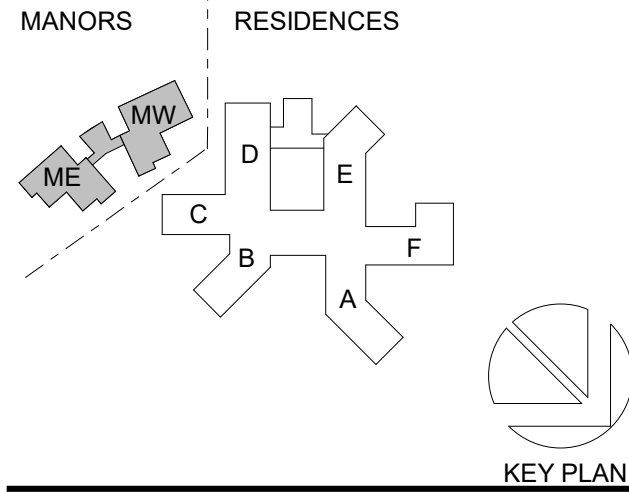
A-1.05

ZB RESUBMISSION
NOT FOR CONSTRUCTION
08/09/2023



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SEAL



Owner:
Mosaic Senior Life
4200 Park Avenue
Bridgeport CT 06604
Developer:
Greenbrier
3232 McKinney, Ste 1160, Dallas, TX
75204
Construction Manager:
Pike Construction Services
15 Circle Street
Rochester NY 14607
Civil / Site
Redniss & May
22 First Street
Stamford, CT 06905
Landscape
RGR Landscape
115 Fifth Ave, Floor 3
New York, NY 10003
DeSimone Consulting Engineers
55 Church St 4th Floor
New Haven, CT 06510
MEP:
Cosentino Associates Inc
408 Seventh Avenue
New York, NY 10018
Architectural Consultant:
Westport Pools
136 Westport Parkway
Maryland Heights, MO 63043
Landscape Consultant:
Goldstick Lighting Design, Ltd.
629 Fifth Ave, Suite 204
Paham, NY 10803
Food Service
SCOPUS Hospitality Group
300 W. Chestnut St., Ste 201
Evanston, PA 17522
Vertical Transportation Consultant:
Jenkins & Huntington
1251 E. 10th Americas, Suite 202, New
York, 10020
Envelope Consultant:
Henshelt & Buccellato
565 Broadway Avenue, Suite 207
Shrewsbury, NJ 07702
Acoustical Consultant:
AKR, Inc
307 Fellowship Rd., Suite 214
Mount Laurel, NJ 08054
Accessibility Consultant:
United Special Association
120-34 Quakers Blvd., Suite 320
Kew Gardens, NY 11415
Low Voltage Consultant:
Softronic
3710 River Park Commons Blvd., Units 1-6
Estero, FL 33928

PROJECT TITLE:

210 LONG RIDGE ROAD;
STAMFORD, CT 06901

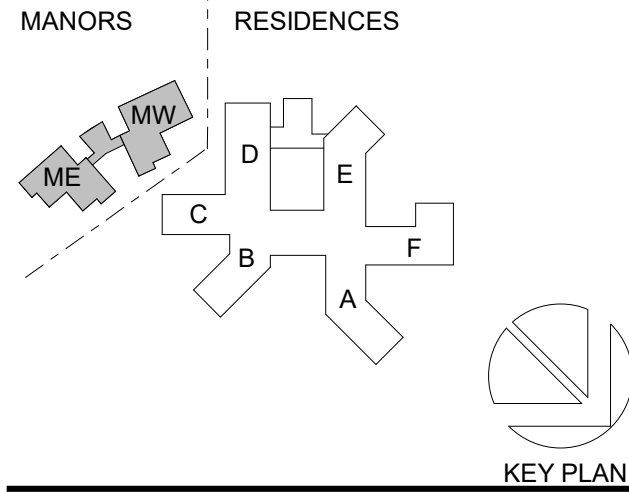
PROJECT No: 93250

DRAWING TITLE:
MANORS -
OVERALL
TERRACE LEVEL
PLAN
SCALE: 1" = 20'-0"

ZB RESUBMISSION
NOT FOR CONSTRUCTION
08/09/2023



SEAL



Owner:
Mosaic Senior Life
4200 Park Avenue
Bridgeport CT 06604
Developer:
Greenbrier
3232 McKinney, Ste 1160, Dallas, TX
75204
Construction Manager:
Pike Construction Services
15 Circle Street
Rochester NY 14607
Civil / Site
Redniss & May
22 First Street
Stamford, CT 06905
Landscape
RGR Landscape
115 Fifth Ave, Floor 3
New York, NY 10003
DeSimone Consulting Engineers
55 Church St 4th Floor
New Haven, CT 06510
MEP:
Cosentino Associates Inc
408 Seventh Avenue
New York, NY 10018
Architectural Consultant:
Westport Pools
136 Westport Parkway
Maryland Heights, MO 63043
Landscape Consultant:
Goldstick Lighting Design, Ltd.
629 Fifth Ave, Suite 204
Pahgan, NY 10803
Food Service
SCOPUS Hospitality Group
300 W. Chestnut St., Ste 201
Evanston, PA 17522
Vertical Transportation Consultant:
Jenkins & Huntington
1251 E. The Americas, Suite 202, New
York, 10020
Envelope Consultant:
Henshelt & Buccellato
565 Broadway Avenue, Suite 207
Sheneshell, NY 07702
Acoustical Consultant:
AKRF, Inc
307 Fellowship Rd., Suite 214
Mount Laurel, NJ 08054
Accessibility Consultant:
United Special Association
120-34 Quakers Blvd., Suite 320
Kew Gardens, NY 11415
Low Voltage Consultant:
Softronic
3710 Rock Park Commons Blvd., Units 1-6
Estero, FL 33928

MOZAIC
CONCIERGE
LIVING

PROJECT No: 93250

SCALE: 1" = 20'-0"

ZB RESUBMISSION
NOT FOR CONSTRUCTION
08/09/2023



The map shows a study area divided into two sections by a dashed line. The top-left section is labeled 'MANORS' and contains two shaded areas labeled 'ME' and 'MW'. The top-right section is labeled 'RESIDENCES' and contains several white areas labeled 'A', 'B', 'C', 'D', 'E', and 'F'. A dashed line runs diagonally from the bottom-left towards the top-right, separating the manors from the residences. A 'KEY PLAN' is shown in the bottom right corner, consisting of a circle with a diagonal line and a shaded segment.

Owner:
Mosaic Senior Life
4200 Park Avenue
Bridgeport CT 06604

Greenleifer
3230 Glenway, Ste 1160, Dallas, TX
75204

Construction Manager:
Pike Construction Services
15 Circle Street
Rochester NY 14607

Civil/ Site:
Redmoss & Madort
22 First Street
Stamford, CT 06905

Landscape:
RGR Landscape
115 Fifth Ave, Floor 3
New York, NY 10003

Structural:
DeSimone Consulting Engineers
55 Church St 4th Floor
New Haven, CT 06510

MEP:
Cosentini Associates Inc
488 Seventh Avenue
New York, NY 10018

Acoustic Consultant:
Westport Pools
156 Weldon Parkway
Maryland Heights, MO 63043

Lighting Consultant:
Goldstick Lighting Design, Ltd.
629 Fifth Ave, Suite 204
Paham, NY 10803

Food Service:
SCOPUS Hospitality Group
300 W. Chestnut St., Ste 201
Estrata, PA 17522

Vertical Transportation Consultant:
Jenkins & Huntington
1251 Ave. of the Americas, Suite 920, New
York, 10020

Envelope Consultant:
Henshall & Buccellato
595 Westbury Avenue, Suite 207
Shrewsbury, NJ 07702

Acoustical Consultant:
AKR, Inc
307 Fellowship Road, Suite 214
Mount Laurel, NJ 08054

Accessibility Consultant:
United Spatial Association
120-34 Queens Blvd, Suite 320
Kew Gardens, NY 11415

Low Voltage Consultant:
Softronic
3010 Estero Park Commons Blvd., Units 1-6
Estero, FL 33928

MOZAIC
CONCIERGE
LIVING

DRAWING TITLE:
MANOR - OVERALL
SECOND FLOOR
PLAN

A-1.12

The map shows a study area divided into two sections: MANORS and RESIDENCES. The MANORS section includes two shaded areas labeled ME and MW. The RESIDENCES section includes several white areas labeled A, B, C, D, E, and F. A dashed line separates the two sections. A KEY PLAN is shown in the bottom right corner, indicating the orientation of the map.

Owner:
Mosaic Senior Life
4200 Park Avenue
Bridgeport CT 06604

Greenleifer
3230 Glenway, Ste 1160, Dallas, TX
75204

Construction Manager:
Pike Construction Services
15 Circle Street
Rochester NY 14607

Civil/ Site:
Redmoss & Madort
22 First Street
Stamford, CT 06905

Landscape:
RGR Landscape
115 Fifth Ave, Floor 3
New York, NY 10003

Structural:
DeSimone Consulting Engineers
55 Church St 4th Floor
New Haven, CT 06510

MEP:
Cosentini Associates Inc
488 Seventh Avenue
New York, NY 10018

Aquatic Consultant:
Westport Pools
156 Weldon Parkway
Maryland Heights, MO 63043

Lighting Consultant:
Goldstick Lighting Design, Ltd.
629 Fifth Ave, Suite 204
Paham, NY 10803

Food Service:
SCOPUS Hospitality Group
300 W. Chestnut St., Ste 201
Estrata, PA 17522

Vertical Transportation Consultant:
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1251 Ave. of the Americas, Suite 920, New
York, 10020

Envelope Consultant:
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Mount Laurel, NJ 08054

Accessibility Consultant:
United Spatial Association
120-34 Queens Blvd, Suite 320
Kew Gardens, NY 11415

Low Voltage Consultant:
Softronic
3010 Estero Park Commons Blvd., Units 1-6
Estero, FL 33928

MOZAIC
CONCIERGE
LIVING

SCALE: 1" = 20'-0"

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08/09/2023



The diagram illustrates the spatial arrangement of the study area. A dashed line divides the area into two sections: 'MANORS' on the left and 'RESIDENCES' on the right. In the 'MANORS' section, there are two shaded rectangular areas labeled 'ME' and 'MW'. In the 'RESIDENCES' section, there are six white, irregularly shaped areas labeled 'A', 'B', 'C', 'D', 'E', and 'F'. A 'KEY PLAN' is located in the bottom right corner, showing a circular area with a diagonal line and a shaded segment.

677 Washington Blvd.
Suite 101
Stamford, CT 06901
T. +1 203 251 7400
F. +1 203 251 7474

PROJECT TITLE:

210 LONG RIDGE ROAD;
STAMFORD, CT 06901

DRAWING TITLE:
MANORS -
OVERALL FOURTH
FLOOR PLAN

A-1.14

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8/11/2023 8:57:00 AM



MANORS

RESIDENCES

ME Mw

D E

C B A F

KEY PLAN

Owner:
Mosaic Senior Life
4200 Park Avenue
Bridgeport CT 06604

Greenleifer
3230 Glenway, Ste 1160, Dallas, TX
75204

Construction Manager:
Pike Construction Services
15 Circle Street
Rochester NY 14607

Civil/ Site:
Redmoss & Madort
22 First Street
Stamford, CT 06905

Landscape:
RGR Landscape
115 Fifth Ave, Floor 3
New York, NY 10003

Structural:
DeSimone Consulting Engineers
55 Church St 4th Floor
New Haven, CT 06510

MEP:
Cosentini Associates Inc
488 Seventh Avenue
New York, NY 10018

Aquatic Consultant:
Westport Pools
156 Weldon Parkway
Maryland Heights, MO 63043

Lighting Consultant:
Goldstick Lighting Design, Ltd.
629 Fifth Ave, Suite 204
Paham, NY 10803

Food Service:
SCOPPO Hospitality Group
300 W. Chestnut St., Ste 201
Estrata, PA 17522

Vertical Transportation Consultant:
Jenkins & Huntington
1251 Ave. of the Americas, Suite 920, New
York, 10020

Envelope Consultant:
Henshall & Buccellato
595 Westbury Avenue, Suite 207
Shrewsbury, NJ 07702

Acoustical Consultant:
AKR, Inc
307 Fellowship Road, Suite 214
Mount Laurel, NJ 08054

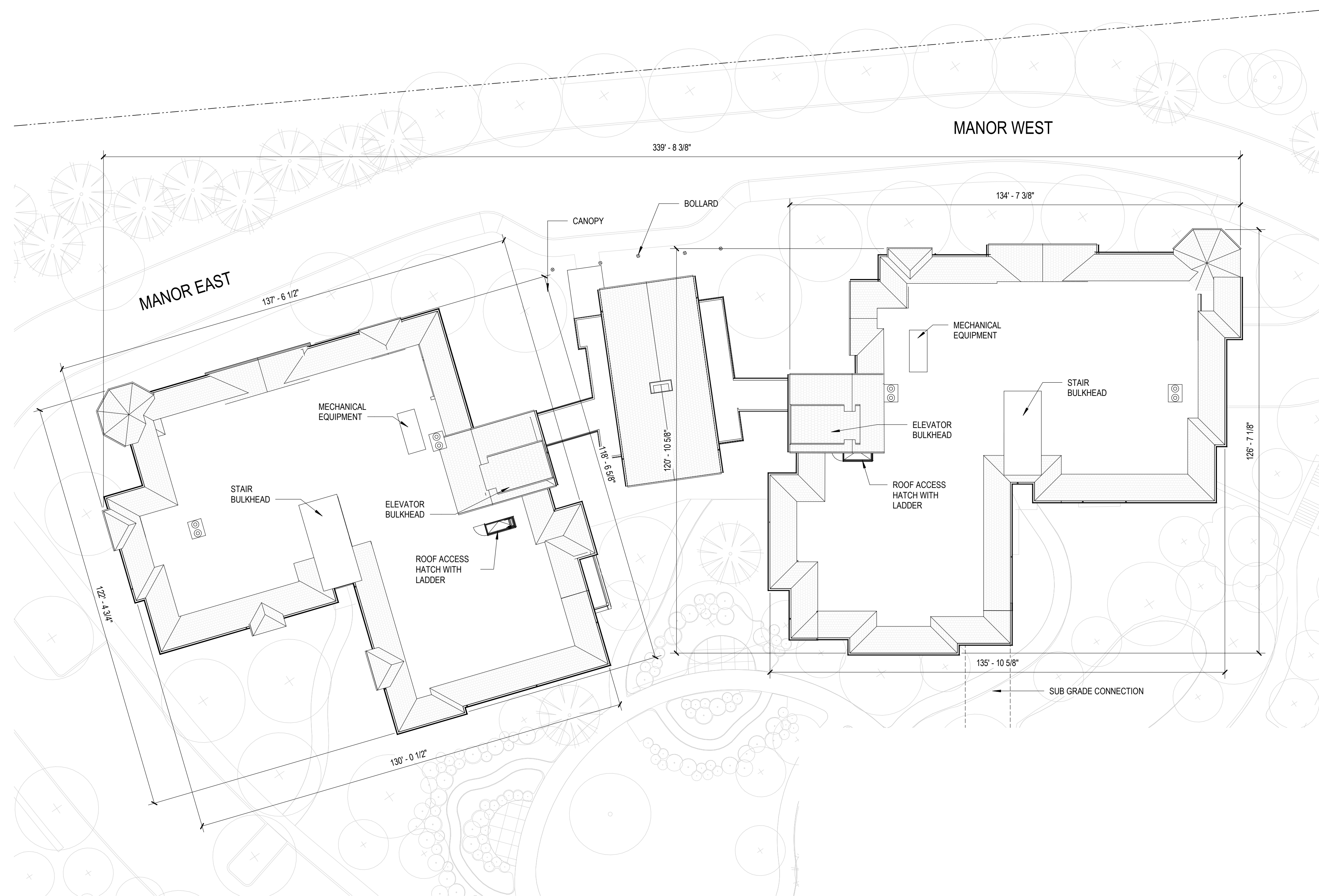
Accessibility Consultant:
United Spatial Association
120-34 Queens Blvd, Suite 320
Kew Gardens, NY 11415

Low Voltage Consultant:
Softronic
3710 Estero Park Commons Blvd., Units 1-6
Estero, FL 33928

MOZAIC
CONCIERGE
LIVING

DRAWING TITLE:
MANOR - OVERALL
ROOF PLAN

A-1.15



1 **MANORS - OVERALL ROOF LEVEL PLAN**
1" = 20'-0"











210 LONG RIDGE ROAD;
STAMFORD, CT 06901

SCALE: As indicated

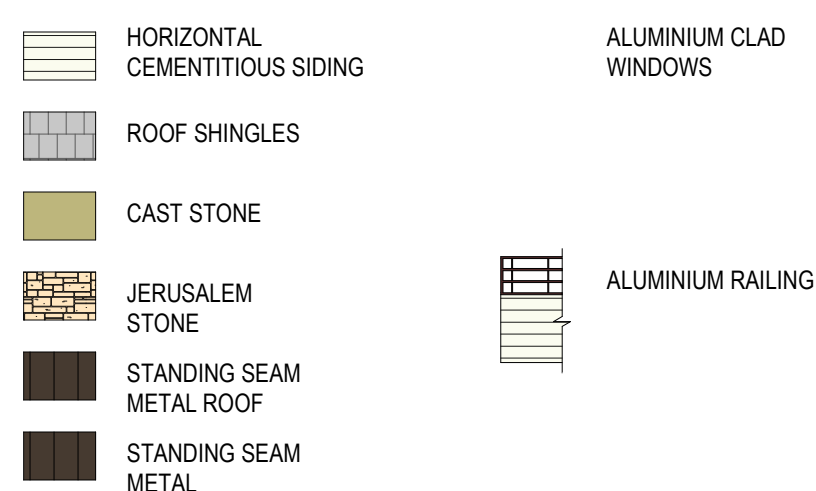
ZB RESUBMISSION
NOT FOR CONSTRUCTION
08/09/2023




	HORIZONTAL CEMENTITIOUS SIDING		ALUMINIUM CLAD WINDOWS
	ROOF SHINGLES		
	CAST STONE		
	JERUSALEM STONE		ALUMINIUM RAILING
	STANDING SEAM METAL ROOF		
	STANDING SEAM METAL		



**PERKINS —
EASTMAN**
677 Washington Blvd.
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Stamford, CT 06901
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F. +1 203 251 7474





KEY PLAN

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Suite 101
Stamford, CT 06901
T. +1 203 251 7400
F. +1 203 251 7474

PROJECT TITLE:









210 LONG RIDGE ROAD;
STAMFORD, CT 06901

DRAWING TITLE:
RESIDENCES -
BUILDING
ELEVATIONS

A-2.11

ZB RESUBMISSION
NOT FOR CONSTRUCTION
08/09/2023



	HORIZONTAL CEMENTITIOUS SIDING		ALUMINIUM CLAD WINDOWS
	ROOF SHINGLES		
	CAST STONE		
	JERUSALEM STONE		ALUMINIUM RAILING
	STANDING SEAM METAL ROOF		
	STANDING SEAM METAL		

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Owner:
Mosaic Senior Life
4200 Park Avenue
Bridgeport CT 06604
Developer:
Greenbrier
7322 McKinney, Ste 1160, Dallas, TX
75244
Consulting Manager:
Pike Construction Services
15 Circle Street
Rochester NY 14607
Civil Site:
Redniss & Mead
22 First Street
Stamford, CT 06905
Landscape:
RGR Landscape
115 Fifth Ave, Floor 3
New York, NY 10003
Structural:
DeSimone Consulting Engineers
55 Church St 4th Floor
New Haven, CT 06510
MEP:
Cosentini Associates Inc
608 Seventh Avenue
New York, NY 10018
Acoustic Consultant:
Westport Pools
156 Weldon Parkway
Maryland Heights, MO 63043
Landscape Consultant:
Goldstick Lighting Design, Ltd.
629 Fifth Ave, Suite 204
Polign, NY 10803
Food Service:
SCOPUS Hospitality Group
300 W. Chestnut St., Ste 201
Ephrata, PA 17522
Vertical Transportation Consultant:
Jenkins & Huntington
1251 Lake of the Americas, Suite 920, New
York, 10020
Envelope Consultant:
Henshell & Buccellato
505 Shrewsbury Avenue, Suite 207
Shrewsbury, NJ 07702
Acoustical Consultant:
AKRF, Inc.
307 Fellowship Road, Suite 214
Mount Laurel, NJ 08054
Accessibility Consultant:
United Spinal Association
120-20 Queens Blvd., Suite 320
Kew Gardens, NY 11415
Low-Voltage Consultant:
Softronic
8210 River Park Commons Blvd., Units 1-6
Estero, FL 33928

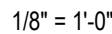
MOZAIC
CONCIERGE
LIVING









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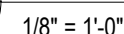
RESIDENCES -
BUILDING
ELEVATIONS

A-2.12

ZB RESUBMISSION
NOT FOR CONSTRUCTION
08/09/2023



- | | | | |
|---|-----------------------------------|---|---------------------------|
|  | HORIZONTAL
CEMENTITIOUS SIDING |  | ALUMINIUM CLAD
WINDOWS |
|  | ROOF SHINGLES | | |
|  | CAST STONE | | |
|  | JERUSALEM
STONE |  | ALUMINIUM RAILING |
|  | STANDING SEAM
METAL ROOF | | |
|  | STANDING SEAM
METAL | | |



The diagram illustrates the spatial arrangement of the study area. A dashed line divides the area into two sections: 'MANORS' on the left and 'RESIDENCES' on the right. In the 'MANORS' section, two buildings are labeled 'ME' and 'MW'. In the 'RESIDENCES' section, six buildings are labeled 'A', 'B', 'C', 'D', 'E', and 'F'. A 'KEY PLAN' is shown in the bottom right corner, featuring a circle with a diagonal line and a shaded segment, likely representing the orientation or a specific feature of the study area.

Owner:
Mozalic Senior Life
4200 Park Avenue
Bridgport CT 06634
Developer:
Greenbrier
3230 McKinney, Ste 1160, Dallas, TX
75204
Construction Manager:
Pike Construction Services
15 Circle Street
Rochester NY 14607
Civil/ Site:
Redniss & Mead
22 2nd Street
Stamford, CT 06905
Landscape:
RGR Landscape
115 Fifth Ave, Floor 3
New York, NY 10003
Structural:
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MEP:
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New York, NY 10018
Acoustic Consultant:
Westport Pools
156 Weldon Parkway
Maryland Heights, MO 63043
Liaison Consultant:
Goldstick Lighting Design, Ltd.
629 Fifth Ave, Suite 204
Pahgan, NY 10803
Food Service:
SCOPUS Hospitality Group
300 W. Chestnut St., Ste 201
Estrine, PA 17520
Vertical Transportation Consultant:
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York, NY 10020
Envelope Consultant:
Henshelf & Buccellato
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Shirshewbury, NJ 07702
Acoustical Consultant:
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307 Fellowship Road, Suite 214
Mount Laurel, NJ 08054
Accessibility Consultant:
United Spinal Association
120 Quakers Bridge, Suite 320
Kew Gardens, NY 11416
Low Voltage Consultant:
Softronic
3070 Edrdo Park Commons Blvd Units 1-6
Estero, FL 33928

MOZAIC
CONCIERGE
LIVING

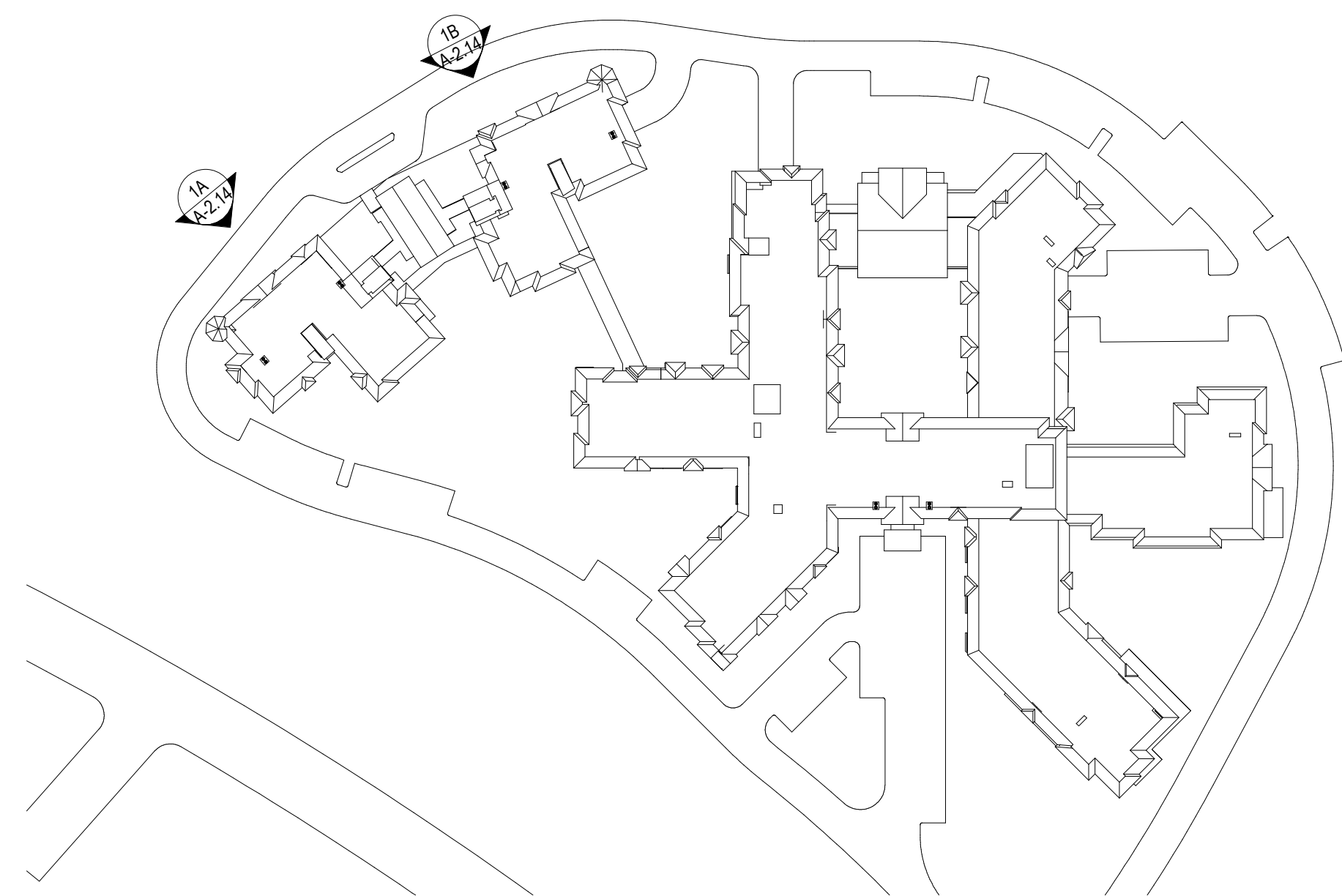
DRAWING TITLE:

**MANORS -
BUILDING
ELEVATIONS**









A-2.14



1B **MANOR WEST - SOUTH ELEVATION**
1/8" = 1'-0"











MATERIAL LEGEND

- | | | | |
|---|-----------------------------------|---|---------------------------|
|  | HORIZONTAL
CEMENTITIOUS SIDING |  | ALUMINIUM CLAD
WINDOWS |
|  | ROOF SHINGLES | | |
|  | CAST STONE | | |
|  | JERUSALEM
STONE |  | ALUMINIUM RAILING |
|  | STANDING SEAM
METAL ROOF | | |
|  | STANDING SEAM
METAL | | |



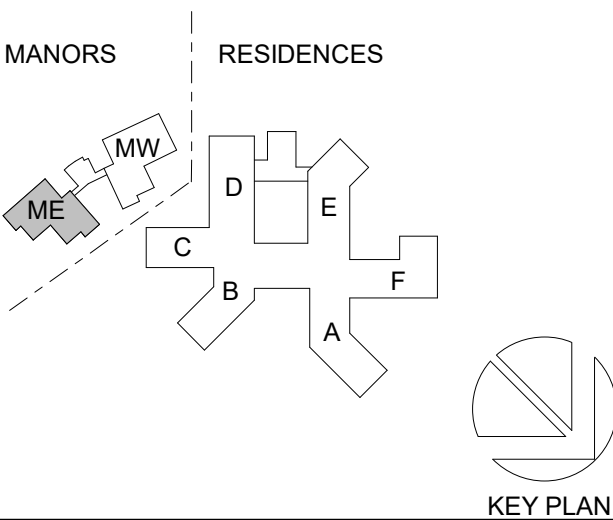
1A **MANOR EAST - SOUTH ELEVATION**
1/8" = 1'-0"



- | | | | |
|---|--------------------------------|---|------------------------|
|  | HORIZONTAL CEMENTITIOUS SIDING |  | ALUMINIUM CLAD WINDOWS |
|  | ROOF SHINGLES | | |
|  | CAST STONE | | |
|  | JERUSALEM STONE |  | ALUMINIUM RAILING |
|  | STANDING SEAM METAL ROOF | | |
|  | STANDING SEAM METAL | | |

[illegible]

SEAL



**PERKINS —
EASTMAN**

677 Washington Blvd.
Suite 101
Stamford, CT 06901
T. +1 203 251 7400
F. +1 203 251 7474

Owner:

Mozaic Senior Life
4200 Park Avenue;
Bridgeport CT 06604

Developer:

Greenbrier
3232 McKinney, Ste 1160; Dallas, TX
75204

Construction Manager:

Pike Construction Services
15 Circle Street
Rochester NY 14607

Civil / Site:

Redniss & Mead

22 First Street
Stamford, CT 06905
andscape:

RGR Landscape
115 Fifth Ave, Floor 3
New York, NY 10003

DeSimone Consulting Engineers
55 Church St. 4th Floor

MEP:

Cosentini Associates Inc.
498 Seventh Avenue
New York, NY 10018
Aquatic Consultant:

Westport Pools
156 Weldon Parkway;
Maryland Heights, MO 63043

Lighting Consultant:
Goldstick Lighting Design

629 Fifth Ave, Suite 204
Pelham, NY 10803
Food Service:

SCOPOS Hospitality Group
300 W. Chestnut St., Ste 201
Ephrata, PA 17522

Jenkins & Huntington
1251 Ave. of the Americas, Suite 920; New
York, 10020

Envelope Consultant:
H. L. H. B.

Henshell & Buccellato
595 Shrewsbury Avenue, Suite 207
Shrewsbury, NJ 07702
Acoustical Consultant:

AKRE, Inc.

307 Fellowship Road, Suite 21
Mount Laurel, NJ 08054
Accessibility Consultant:

United Spinal Association
120-34 Queens Blvd., Suite 32
Kew Gardens, NY 11415

Low Voltage Consultant

Softrim
9210 Estero Park Commons Blvd, Units 1-10
Estero, FL 33928

PROJECT TITLE:

MOZAIC
CONCIERGE
LIVING

210 LONG RIDGE ROAD;
STAMFORD, CT 06901

PROJECT No: 93250

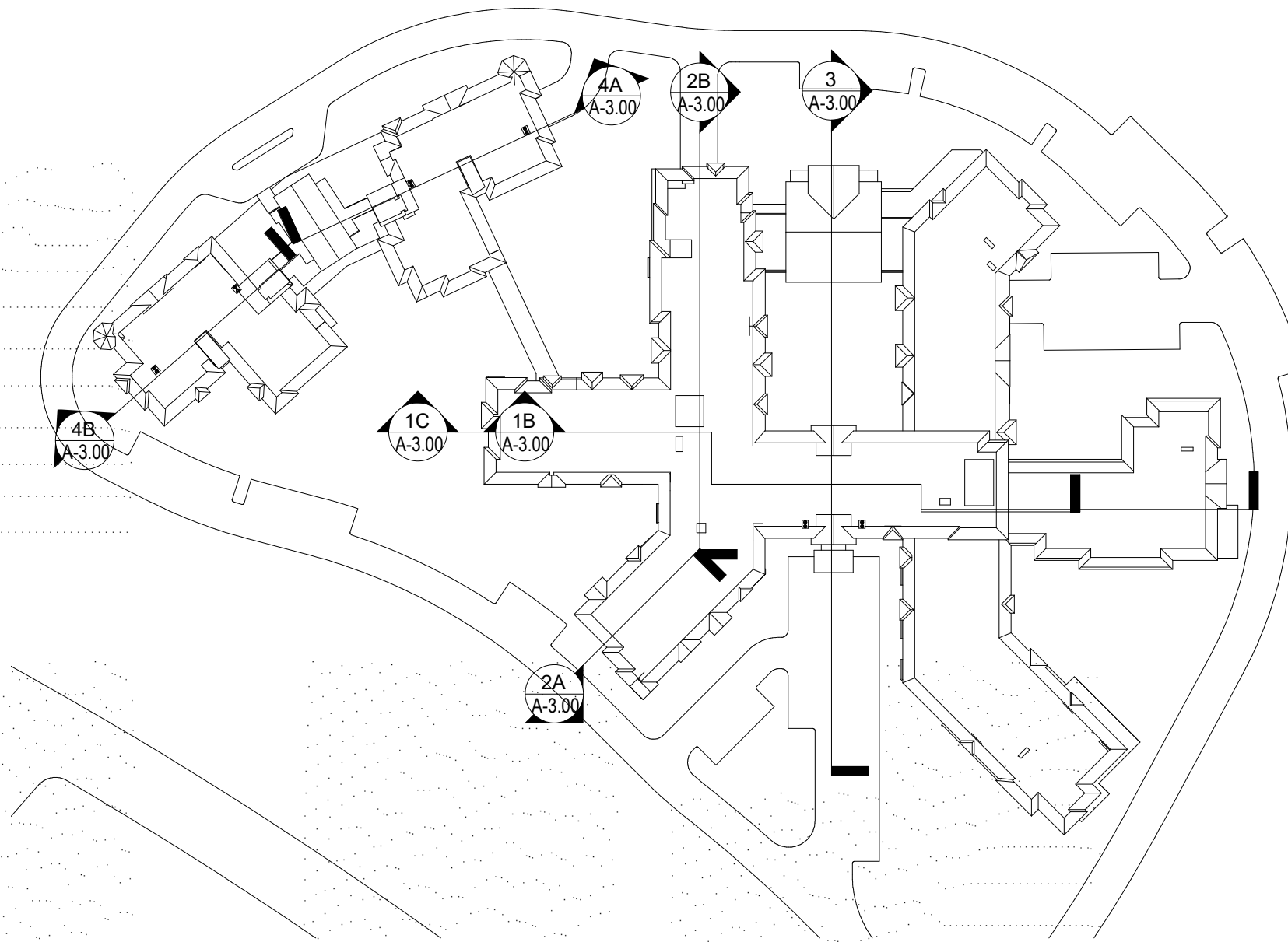
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MANORS - BUILDING ELEVATIONS

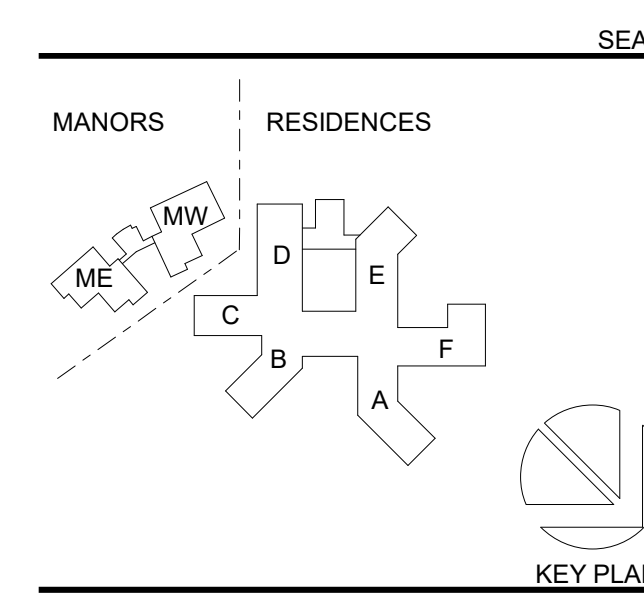
SCALE: As indicated

A-2.15

ZB RESUBMISSION
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 08/09/2023



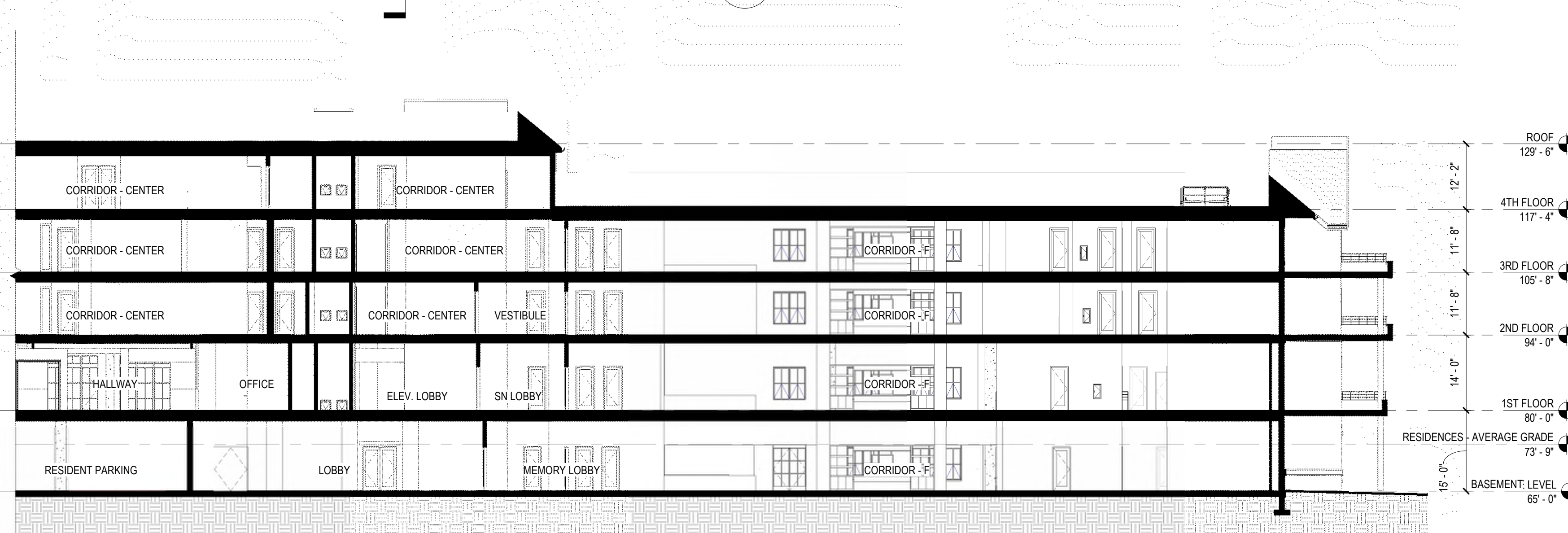
4A SECTION 4A - MANOR BUILDING WEST
1/16" = 1'-0"



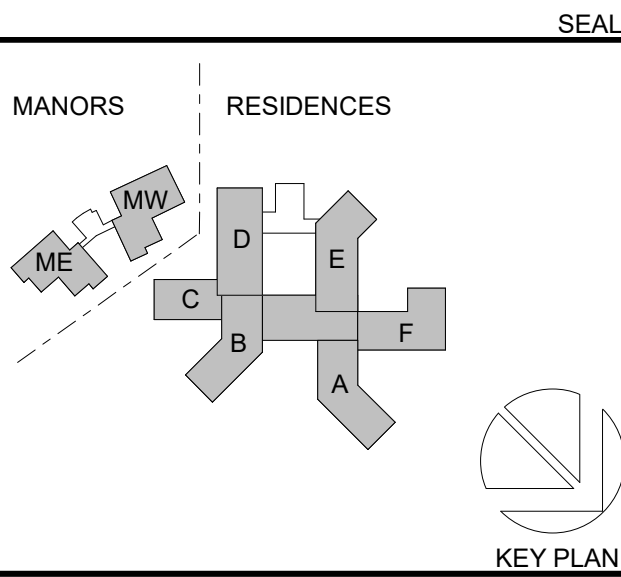
3 SECTION 3 - RESIDENCES MAIN ENTRY



2A SECTION 2 - RESIDENCES WING D
1/16" = 1'-0"



1B SECTION 1.2 - RESIDENCE WING CENTER
1/16" = 1'-0"

[illegible]

Dwimer:
Mosaic Senior Life
4200 Park Avenue,
Bridgeport CT 06604
Greenbrier
7224 McKinney, Ste 1160; Dallas, TX
75204
Construction Manager:
Pike Construction Services
15 Circle Street
Rochester NY 14607
Civil / Site:
Redness & May
22 First Street
Stamford, CT 06905
and/or
RGR Landscape
115 Fifth Ave, Floor 3
New York, NY 10003
Structural:
DeSimone Consulting Engineers
55 Church St 3rd Floor
New Haven, CT 06510
MEP:
Cosentini Associates Inc
498 Seventh Avenue
New York, NY 10018
Aquatic Consultant;
Westport Pools
156 Weldon Parkway
Maryland Heights, MO 63043
aquatic consultant;
Goldschick Lighting Design, Ltd.
629 Fifth Ave, Suite 204
Poughkeepsie, NY 10803
Food Service;
SCOPUS Hospitality Group
300 W. Chestnut St., Ste 201
Erie, PA 17502
Vertical Transportation Consultant;
Jenkins & Huntington
1251 Avenue of the Americas, Suite 290, New
York, 10020
Envelope Consultant;
Henshell & Buccellato
595 Strawberry Avenue, Suite 207
Strewsbury, NJ 07702
Acoustical Consultant;
AKRF, Inc
307 Fellowship Road, Suite 214
Mount Laurel, NJ 08054
Accessibility Consultant
United Spinal Association
120-33 Queens Blvd., Suite 320
Kew Gardens, NY 11416
Low Voltage Consultant;
Softronic
92-010 Park Commons Blvd, Units 1-6
Estero, FL 33928

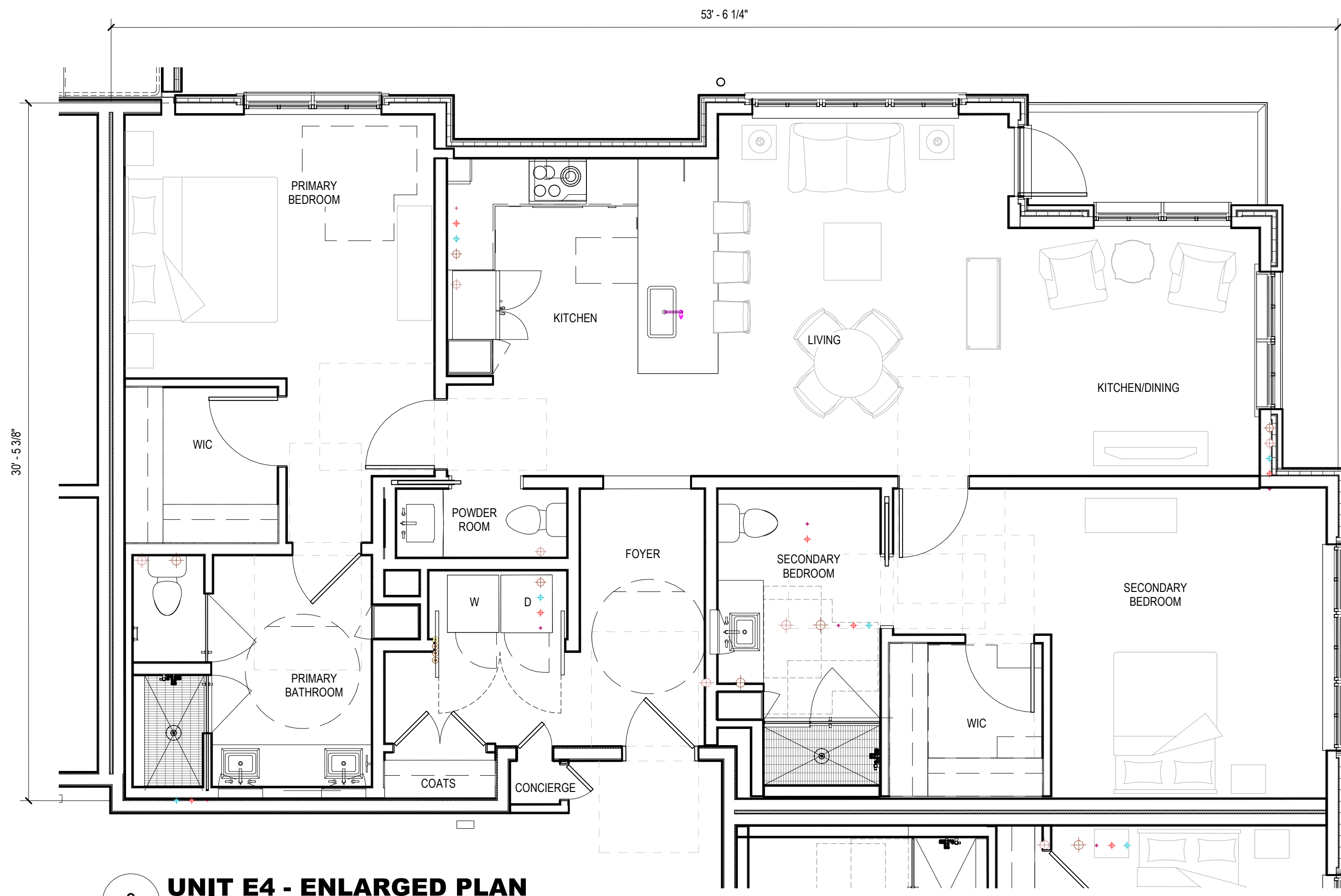
MOZAIC
CONCIERGE
LIVING

DRAWING TITLE:

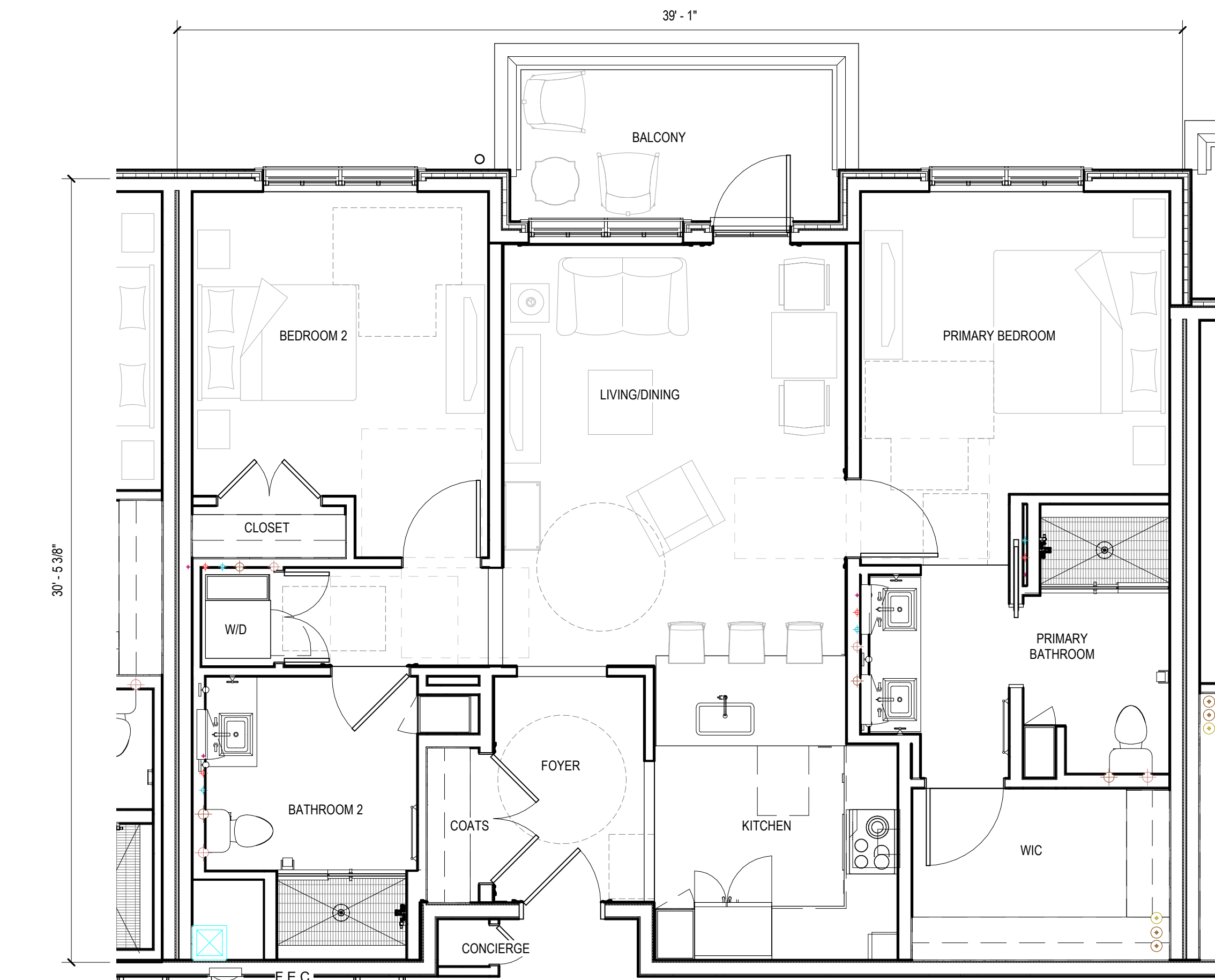
**SAMPLE UNIT
PLANS**

A-4.01

ZB RESUBMISSION
NOT FOR CONSTRUCTION
08/09/2023



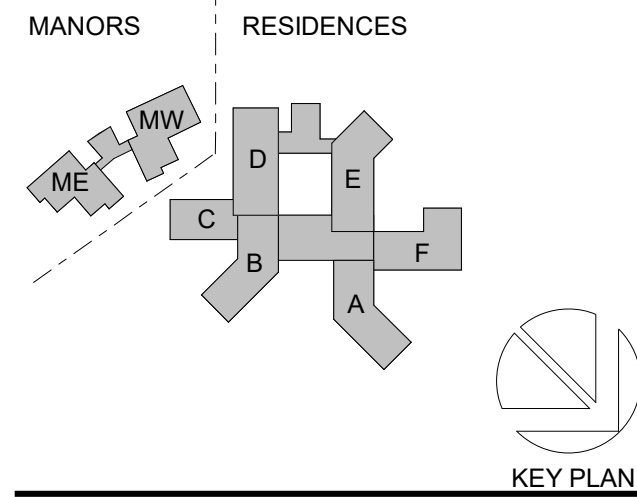
3 UNIT E4 - ENLARGED PLAN
1/4" = 1'-0"



1 UNIT C1 - ENLARGED UNIT
1/4" = 1'-0"

c:\REVIT LOCAL\93250_R22_ARCH_G_Zeiss5XJAV.rvt
8/11/2023 8:58:19 AM

SEAL



Owner:
Mosaic Senior Life
4200 Park Avenue,
Bridgewater CT 06604
Developer:
Greenbrier
3232 McKinney, Ste 1160, Dallas, TX
75204
Construction Manager:
Pike Construction Services
15 Circle Street
Rochester NY 14607
Client Site:
Redniss & Moad
22 First Street
Stamford, CT 06905
Landscape:
RJR Landscape
115 Fifth Ave, Floor 3
New York, NY 10003
Structural:
DeSimone Consulting Engineers
35 Church St 4th Floor
New Haven, CT 06510
MEP:
Centinini Associates Inc
436 Seventh Avenue
New York, NY 10018
Acoustic Consultant:
Westport Pools
156 Weldon Parkway,
Malden Heights, MA 02043
Lighting Consultant:
Goldstick Lighting Design, Ltd.
629 Fifth Ave, Suite 201
Palmam, NY, NY 10003
Food Service:
SCOPES Hospitality Group
300 W. Chestnut St., Ste 201
Exton, PA 19342
Vertical Transportation Consultant:
Jenkins & Huntington
1251 17th St. Americas, Suite 920, New
York, 10020
Envelope Consultant:
Isabel & Buccellato
595 Shrevebury Avenue, Suite 207
Shrevebury, NJ 07702
Acoustical Consultant:
AKRF, Inc
307 Fellowship Road, Suite 214
Mount Laurel, NJ 08054
Accessibility Consultant:
United Spatial Association
123 Queens Blvd., Suite 323
Kew Gardens, NY 11445
Low Voltage Consultant:
Estefan
8210 Estefan Park Commons Blvd., Units 1-6
Estero, FL 33928

MOZAIC
CONCIERGE
LIVING

DRAWING TITLE:
EXTERIOR
RENDERINGS

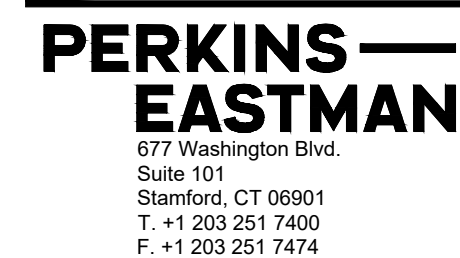
A-5.00

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 LAWN
 WATER



Low Voltage Consultant

210 LONG RIDGE ROAD;
STAMFORD, CT 06901

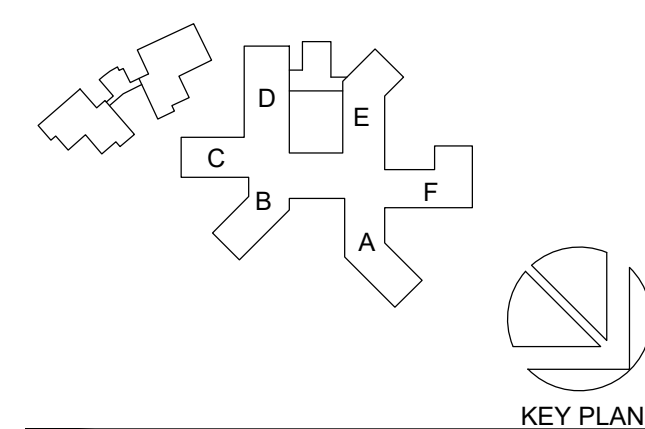
SCALE: 1" = 40'-0"

ZB RESUBMISSION
NOT FOR CONSTRUCTION
08/09/2023



- | KEY | QTY | BOTANICAL NAME | COMMON NAME | SIZE | MATURE HEIGHT AND SPREAD |
|--------------|------------|-----------------------------------|-----------------------|--------------------|--|
| | | DECIDUOUS SHADE TREES | | | |
| Ar | 26 | Acer rubrum 'October Glory' | Red Maple | 2.5-3" caliper B&B | Height: 40.00 to 50.00 feet. Spread: 30.00 to 40.00 feet |
| Gl | 13 | Gleditsia inaequalis 'Stylosil' | Honey Locust | 2.5-3" caliper B&B | Height: 35.00 to 45.00 feet. Spread: 25.00 to 35.00 feet |
| Li | 12 | Liquidambar styraciflua | Sweet Gum | 2.5-3" caliper B&B | Height: 60.00 to 80.00 feet. Spread: 40.00 to 60.00 feet |
| Li | 3 | Liriodendron tulipifera | Tulip Tree | 2.5-3" caliper B&B | Height: 60.00 to 90.00 feet. Spread: 30.00 to 50.00 feet |
| Qc | 26 | Quercus palustris | Pin Oak | 2.5-3" caliper B&B | Height: 50.00 to 70.00 feet. Spread: 40.00 to 60.00 feet |
| Qr | 25 | Quercus rubra | Red Oak | 2.5-3" caliper B&B | Height: 50.00 to 75.00 feet. Spread: 50.00 to 75.00 feet |
| Tc | 15 | Tilia Cordata | Littleleaf Linden | 2.5-3" caliper B&B | Height: 50.00 to 70.00 feet. Spread: 35.00 to 50.00 feet |
| | | EVERGREEN TREES | | | |
| Jv | 11 | Ilex opaca | American Holly | 6-8" height B&B | Height: 15.00 to 30.00 feet. Spread: 10.00 to 20.00 feet |
| Jo | 23 | Juniperus virginiana | Eastern Red Cedar | 6-8" height B&B | Height: 20.00 to 65.00 feet. Spread: 8.00 to 35.00 feet |
| Pa | 9 | Picea abies | Norway Spruce | 6-8" height B&B | Height: 40.00 to 60.00 feet. Spread: 25.00 to 30.00 feet |
| Ps | 8 | Pinus strobus | Eastern White Pine | 6-8" height B&B | Height: 50.00 to 80.00 feet. Spread: 20.00 to 40.00 feet |
| To | 22 | Thuja occidentalis | American Arborvitae | 6-8" height B&B | Height: 20.00 to 40.00 feet. Spread: 10.00 to 15.00 feet |
| | | DECIDUOUS FLOWERING TREES | | | |
| Ac | 25 | Amelanchier canadensis | Shadblow Serviceberry | 6-8" height B&B | Height: 25.00 to 30.00 feet. Spread: 15.00 to 20.00 feet |
| Cc | 30 | Cercis canadensis | Eastern Redbud | 6-8" height B&B | Height: 20.00 to 30.00 feet. Spread: 25.00 to 35.00 feet |
| Cf | 25 | Cornus florida | Flowering Dogwood | 6-8" height B&B | Height: 15.00 to 30.00 feet. Spread: 15.00 to 30.00 feet |
| Li | 17 | Laegerstroemia indica | Crape Myrtle | 6-8" height B&B | Height: 6.00 to 25.00 feet. Spread: 6.00 to 20.00 feet |
| Mi | 16 | Magnolia soulangeana | Saucer Magnolia | 6-8" height B&B | Height: 20.00 to 25.00 feet. Spread: 20.00 to 25.00 feet |
| Mt | 13 | Magnolia stellata | Star Magnolia | 6-8" height B&B | Height: 15.00 to 20.00 feet. Spread: 10.00 to 15.00 feet |
| Pak | 16 | Prunus serrulata 'Kwanzan' | Japanese Cherry | 6-8" height B&B | Height: 15.00 to 25.00 feet. Spread: 15.00 to 25.00 feet |
| Total | 335 | | | | |
| | | SHRUBS | | | |
| | 100 | Large Shrubs | - | No. 5 container | - |
| | 200 | Small Shrubs | - | No. 3 container | - |
| | | Perennials and Groundcover | | | |
| | 1500 | Perennials | - | No. 1 container | - |
| | 2000 | Groundcover | - | #sp4 container | - |

STATE OF CONNECTICUT
ROBERT G. ROESSIG
LICENSED LANDSCAPE ARCHITECT
NO. 1157



EASTMAN
677 Washington Blvd.
Suite 101
Stamford, CT 06901
T. +1 203 251 7400
F. +1 203 251 7474

Jewish Senior Services
4200 Park Avenue;
Bridgeport CT 06604
Developer:

Greenbrier
3232 McKinney, Ste 1160; Dallas, TX 75204

Pike Construction Services

Rochester NY 14607
Civil (Site)

Perkins Eastman
445 Fifth Ave., Floor 9

Landscape:

RGR Landscape
115 Fifth Ave. Floor 3

Structural:

55 Church St 4th Floor

MEP:

498 7th Ave

Aquatic Consultant:

Lighting Consultant:
Callahan, B. & B.

629 Fifth Ave, Suite 20
 Daltown, NY 10902

SCOROS Hospital

Enhrata, PA 17522

Jenkins & Hunting

10020

Henshell & Bucco

07702

AKRF, Inc

Accessibility Consultant

Low Voltage Consultant

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[Contact Us](#)
[Privacy Policy](#)

MOZAIC
CONCIERGE
LIVING

210 LONG RIDGE ROAD
STAMFORD, CT 06901

PROJECT N. 00000

DRAWING TITLE

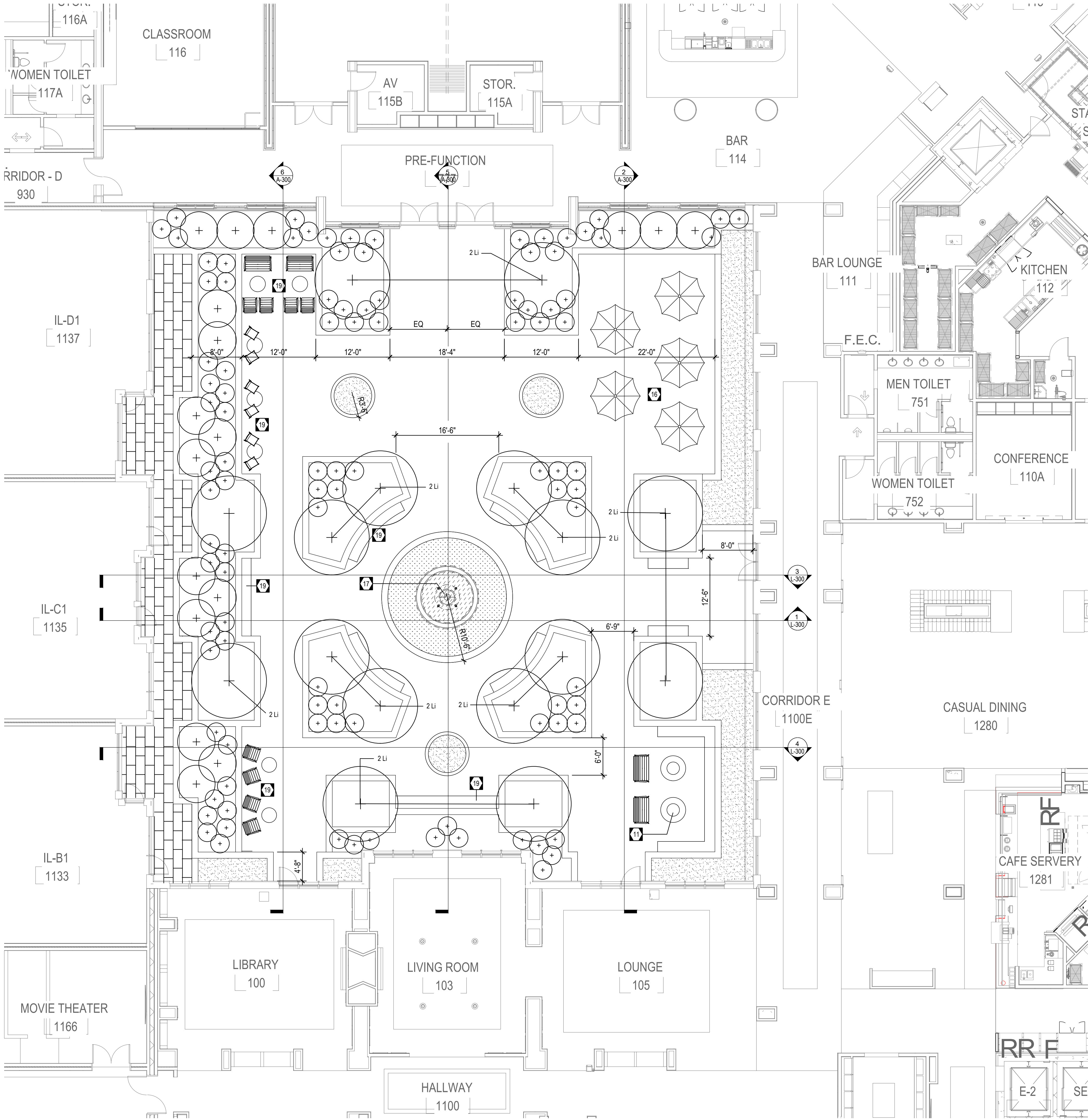
DRAWING TITLE:
LANDSCAPE
PLANTING PLAN

SCALE: 1" = 40'-0"

L-101

ZB RESUBMISSION
NOT FOR CONSTRUCTION
08/09/2023

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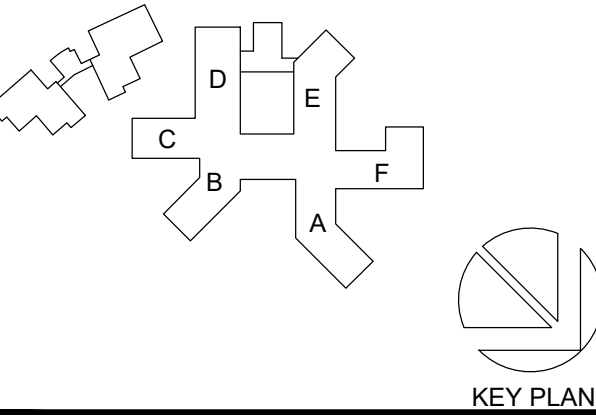
- LEGEND
- 1 PICKLEBALL COURT
 - 2 COMMUNITY GARDENS
 - 3 EXERCISE STATION
 - 4 SITTING AREA
 - 5 BOCC COURT
 - 6 PUTTING GREEN
 - 7 WOODLAND WALK
 - 8 SENSORY GARDEN
 - 9 BUTTERFLY GARDEN
 - 10 EVENT LAWN
 - 11 FIRE PIT
 - 12 DOG RUN
 - 13 PLAY AREA
 - 14 ROCK WATER FEATURE
 - 15 ARBORETUM WALK
 - 16 PATIO
 - 17 WATER FEATURE/LAWN/ GARDEN
 - 18 OUTDOOR CAFE SEATING
 - 19 SEATING/ BENCH
 - 20 OUTDOOR KITCHEN DINING
 - 21 MEMORY GARDEN
 - 22 WETLAND WALK
 - 23 FITNESS SPACE (SYNTHETIC TURF)
 - 24 MONUMENT SIGN
 - 25 FENCE
 - 26 PERGOLA
 - 27 SCULPTURE
 - 28 RAISED PLANTING BEDS
- LAWN
- WATER
- GROUND COVER/ PERENNIALS

- LEGEND
- PROPOSED FLOWERING TREE
- PROPOSED SHRUBS
- PERENNIAL
- LAWN
- WATER

No.	Description	Date
1	SCHEMATIC DESIGN	03/31/2023
2	ZONING SUBMISSION	05/24/2023
3	ZB RESUBMISSION	08/09/2023



SEA



PERKINS — EASTMAN

677 Washington Blvd.
Suite 101
Stamford, CT 06901
T +1 203 251 7400
F +1 203 251 7474

Owner:

Jewish Senior Services
4200 Park Avenue
Bridgeport CT 06604

Developer:

Greenbrier
3232 McKinney, Ste 1160, Dallas, TX 75204

Construction Manager:

Pike Construction Services
15 Circle Street
Rochester NY 14607

Civil / Site:

Perkins Eastman
115 Fifth Ave, Floor 3

Landscape:

RGR Landscape
115 Fifth Ave, Floor 3
New York, NY 10003

Structural:

DeSimone Consulting Engineers
55 Church St 4th Floor
New Haven, CT 06510

MEP:

Cosentini Associates Inc
499 7th Ave
New York, NY 10018
Aquatic Consultant:

Lighting Consultant:

Goldstick Lighting Design, Ltd.
629 Fifth Ave, Suite 204
Pittsford, NY 14603
Food Service:

SCOPOS Hospitality Group

300 W. Chestnut St., Ste 201
Ephrata, PA 17522
Vertical Transportation Consultant:

Jenkins & Huntington

1251 Ave. of the Americas, Suite 20, New York,
10020

Envelope Consultant:

Henshall & Buccellato
595 Shrewsbury Avenue, Suite 207 Shrewsbury, NJ
07702

Acoustical Consultant:

AKRF, Inc

530 Walnut Street, Suite 998, Philadelphia, PA 19106

Accessibility Consultant:

Low Voltage Consultant:

PROJECT TITLE:

**MOZAIC
CONCIERGE
LIVING**

210 LONG RIDGE ROAD,
STAMFORD, CT 06901

PROJECT No: 93250

DRAWING TITLE:

**COURTYARD
PLAN**

SCALE: 1/8" = 1'-0"

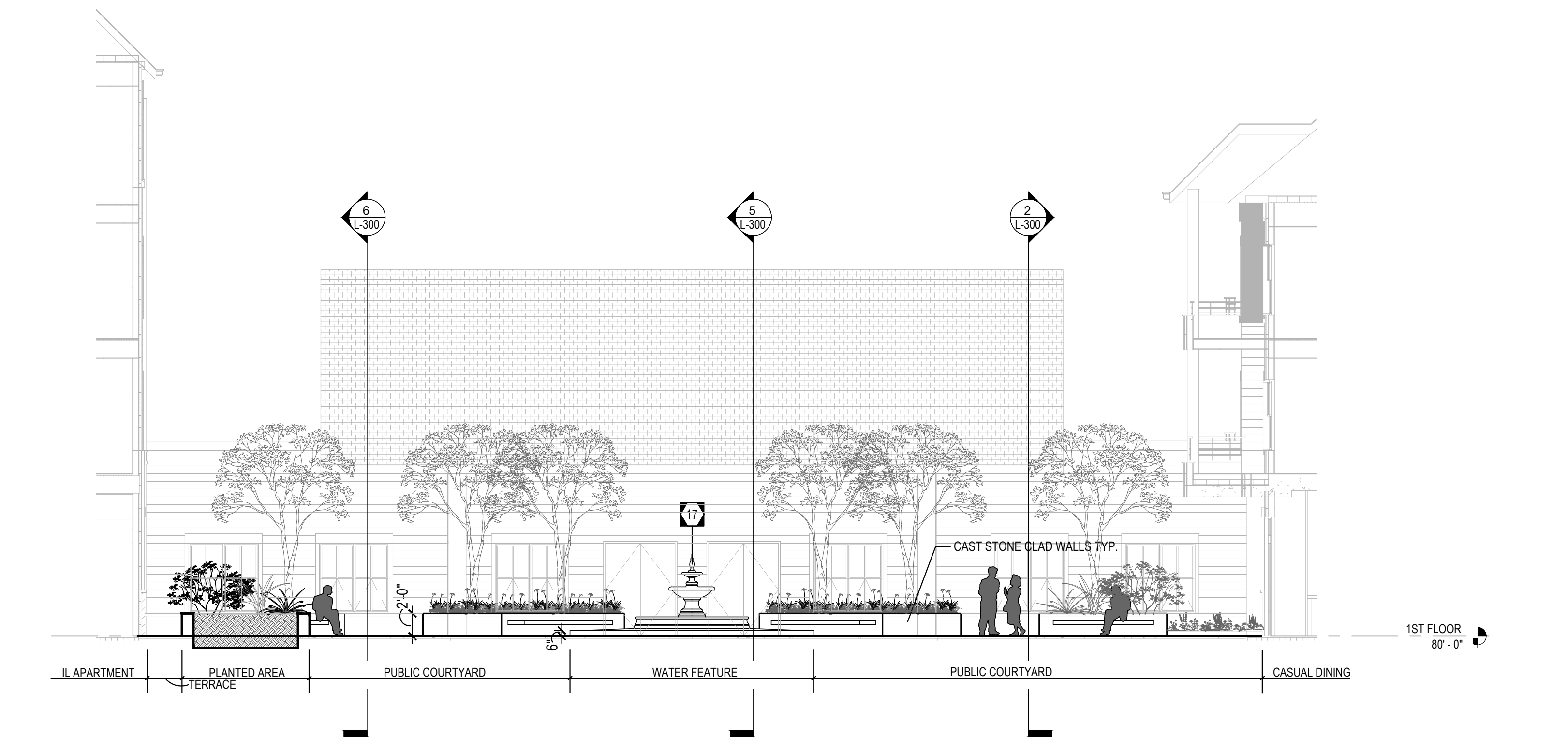
L-200

ZB RESUBMISSION

NOT FOR CONSTRUCTION

08/09/2023

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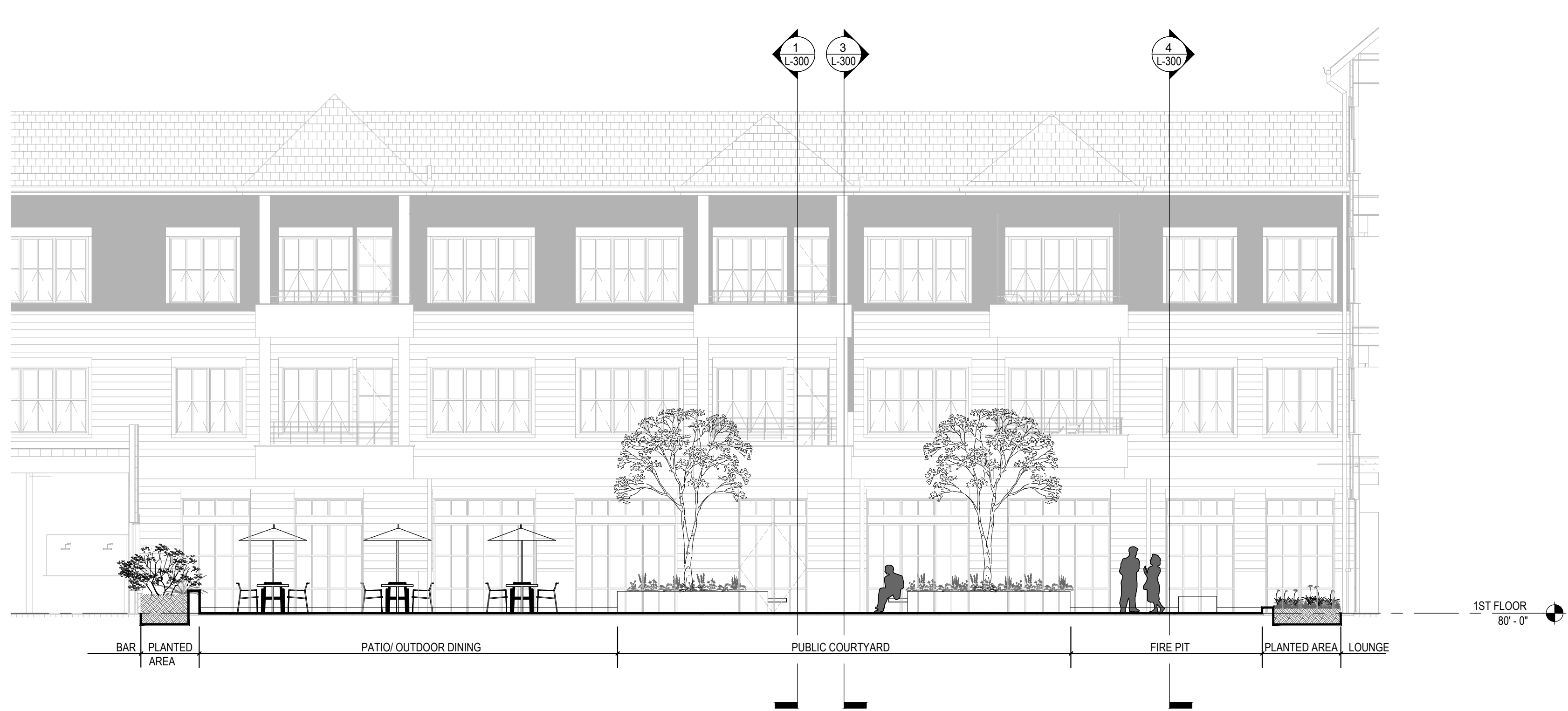
1 COURTYARD - LOOKING TOWARD PRE-FUNCTION AREA
1/8" = 1'-0"



3 COURTYARD - LOOKING TOWARD LIBRARY/ LIVING ROOM/ LOUNGE
1/8" = 1'-0"



5 COURTYARD - LOOKING TOWARD INDEPENDENT LIVING
1/8" = 1'-0"



2 COURTYARD - LOOKING TOWARD CASUAL DINING
1/8" = 1'-0"



4 COURTYARD - LOOKING TOWARD LIBRARY/ LIVING ROOM/ LOUNGE
1/8" = 1'-0"

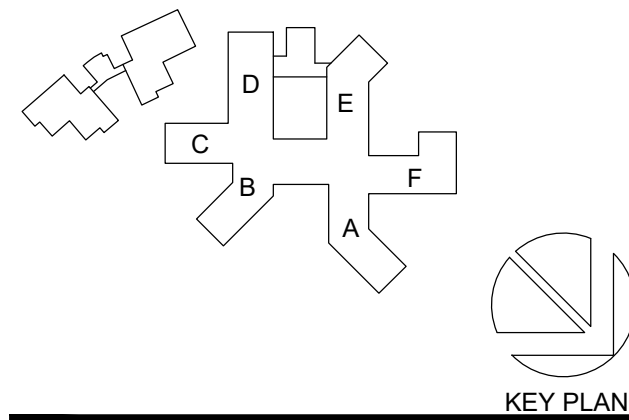


6 COURTYARD - LOOKING TOWARD INDEPENDENT LIVING
1/8" = 1'-0"

No.	Description	Date
1	SCHEMATIC DESIGN	03/31/2023
2	ZONING SUBMISSION	05/24/2023
3	ZB RESUBMISSION	08/09/2023



SEA1



PERKINS — EASTMAN

677 Washington Blvd.
Suite 101
Stamford, CT 06901
T +1 203 251 7400
F +1 203 251 7474

Owner:

Jewish Senior Services
4200 Park Avenue
Bridgeport CT 06604

Developer:

Greenbrier
3232 McKinney, Ste 1160, Dallas, TX 75204

Construction Manager:

Pike Construction Services
15 Circle Street
Rochester NY 14607

Civil / Site:

Perkins Eastman
115 Fifth Ave, Floor 3

Landscape:

RGR Landscape
115 Fifth Ave, Floor 3
New York, NY 10003

Structural:

DeSimone Consulting Engineers
55 Church St 4th Floor
New Haven, CT 06510

MEP:

Cosentini Associates Inc
499 7th Ave
New York, NY 10018
Aquatic Consultant:

Lighting Consultant:

Goldstick Lighting Design, Ltd.
629 Fifth Ave, Suite 204
Pittsford, NY 14883
Food Service:

SCOPOS Hospitality Group

300 W. Chestnut St., Ste 201
Ephrata, PA 17522
Vertical Transportation Consultant:

Jenkins & Huntington

1251 Ave. of the Americas, Suite 20, New York, 10020

Envelope Consultant:

Henshall & Buccellato
595 Shrewsbury Avenue, Suite 207 Shrewsbury, NJ 07702

Acoustical Consultant:

AKRF, Inc
530 Walnut Street, Suite 998, Philadelphia, PA 19106

Accessibility Consultant:

Low Voltage Consultant:

PROJECT TITLE:

MOZAIC
CONCIERGE
LIVING

210 LONG RIDGE ROAD,
STAMFORD, CT 06901

PROJECT No. 93250

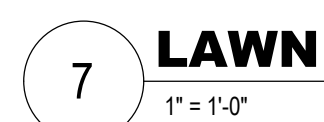
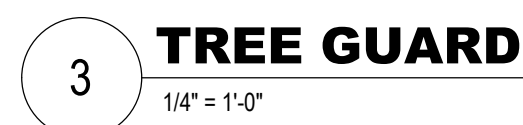
DRAWING TITLE:

COURTYARD
SECTIONS

SCALE: 1/8" = 1'-0"

L-300

ZB RESUBMISSION
NOT FOR CONSTRUCTION
08/09/2023



Lighting Consultant:
Goldstick Lighting Design, Ltd.
629 Fifth Ave., Suite 204
Pelham, NY 10803
Food Service:
SCOPUS Hospitality Group
300 W. Chestnut St., Ste 211
Ephrata, PA 17522
Vertical Transportation Consultant:
Jenkins & Huntington
1251 Ave. of the Americas, Suite 20; New York,
10020
Envelope Consultant:
Henshell & Buccellato
595 Shrewsbury Avenue, Suite 207 Shrewsbury, NJ
07702
Acoustical Consultant:
AKRF, Inc
530 Walnut Street, Suite 998; Philadelphia, PA 19106

PROJECT No: 93250

DRAWING TITLE:

LANDSCAPE
DETAILS

SCALE: AS NOTED

L-400

ZB RESUBMISSION
NOT FOR CONSTRUCTION
08/09/2023

PARKING & TRANSPORTATION DEMAND MANAGEMENT PLAN PROPOSED RESIDENTIAL DEVELOPMENT

**210 Long Ridge Road
Stamford, CT**

August 11, 2023

This plan has been prepared in support of a proposed Senior Housing and Nursing Home Facility Complex encompassing 15 acres of land in Master Plan Category 8 (Mixed Use - Campus) and the C-D Zone with frontage on Long Ridge Road.

PROJECT OVERVIEW

The Applicant proposes to redevelop the existing vacant site with 210 units of senior living consisting of 168 Independent Living units and 14 units each of Assisted Living, Nursing, and Memory Care. The complex consists of one main building and two connected “manor” buildings. The proposed plan includes a total of 251 self-park spaces located at the ground level and in basement garages. An additional 32 valet spaces, for the convenience of IL residents, are also located in the main garage.

EXISTING DATA

Section 12 requires a total of 187 spaces based on the mix of senior housing types. The proposed plan includes 250+ spaces which should be sufficient to accommodate all residents, employees and visitors.

The site is centrally located between I-95 and the Merritt Parkway. The site has a Walk Score of 57 “Somewhat Walkable”, which we expect to improve upon the completion of the Whole Foods and restaurant developments across the street, as well as the City/State sidewalk implementation plan to which the applicant has already committed to contribute \$400k.

Based on the above, we feel the proposed parking is more than adequate to accommodate the expected demand.

PARKING OPERATIONS

The site maintains no direct curb cut on Long Ridge Road, and, consistent to the prior approval, none are proposed. Rather, the facility’s main entry drive will connect to the existing signalized driveway at 260 Long Ridge Road to the north (opposite Terrace Avenue). A loop driveway around the buildings provides access to all parking and loading areas.

All required parking is accommodated by onsite self-park spaces. An additional 32 spaces serve a complementary valet operation for the convenience of IL residents. There are no additional fees to residents for parking spaces or use of the valet.

Ten spaces will be designated for Electric Vehicle charging with 8 located in the main garage and 2 in the manor garage. This number may increase as construction plans are refined. A

total of 48 Class A bicycle parking spaces, which satisfy the entire (A + B) bicycle parking requirement, will be accommodated within both the main and manor garages. Both garages are directly accessible from the loop driveway. Class B spaces can be included for added convenience with the exact locations still being determined.

LOADING

A loading and receiving area is located at the northwest wing of the main building with convenient access to delivery and receiving offices, package storage, kitchen, and other “back of house” areas.

DEMAND MANAGEMENT STRATEGIES

Public Transportation

The proposed development is located approximately 2 miles from the Stamford Transportation Center, which provides access to both Amtrak and Metro North Railroad services, as well as Greyhound and Peter Pan buses.

A CT Transit stop (336) is located along the site frontage which runs from Rock Rimmon to the Stamford Transportation Center with stops near the Merritt Parkway, Bulls Head, and Downtown Stamford.

Additionally, Uber, Lyft, Metro Pool and NuRide provide corporate and personal ride sharing programs that are currently utilized by residents in the area.

Bicycle Storage

To encourage ridership as an alternate means of travel, and as an amenity to residents and employees, the applicant is providing safe and convenient access to bicycle parking spaces. Additional indoor and/or outdoor bike parking may be installed on the ground level in the future if there is such demand.

Sidewalk Improvements

The Applicant has committed to up to \$400k of cash or in-kind contributions to a proposed sidewalk improvement plan for the neighborhood. The completion of nearby shopping, convenience and other restaurant improvements should add to the “walkability” of the site and surrounding neighborhood.

SITE ENGINEERING REPORT

**Parcel 'A-R' MAP 11551 S.L.R.
(aka 210 Long Ridge Road)**

Prepared For
TJH Senior Living LLC

Prepared by
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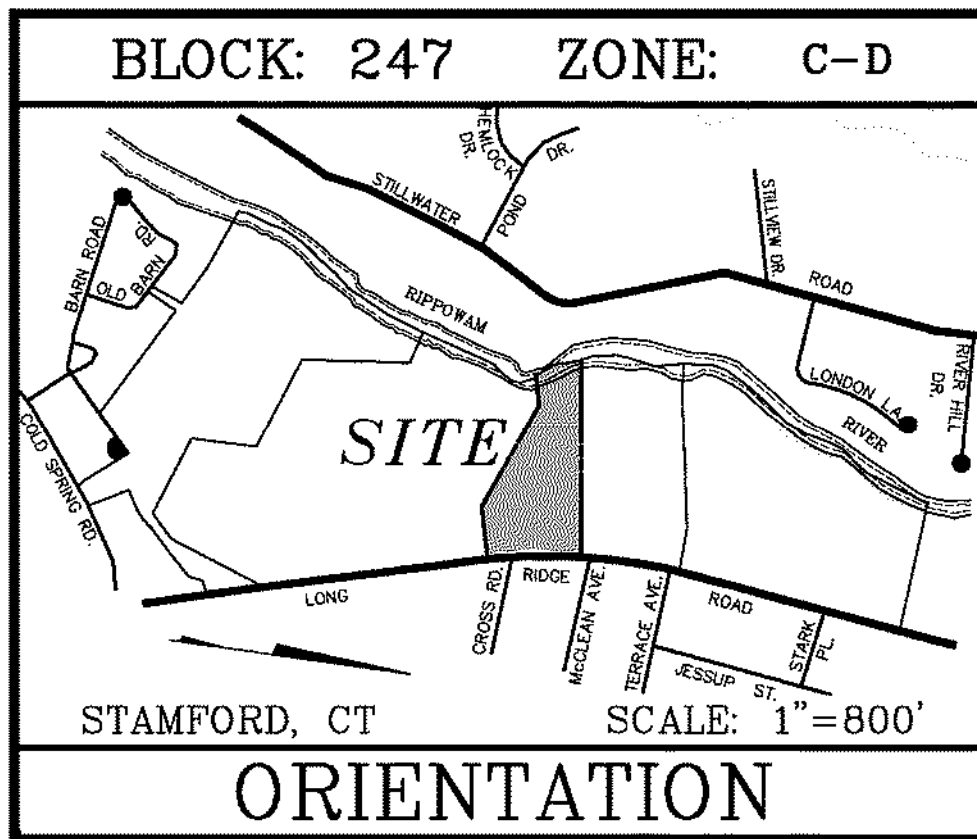


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Narrative

Project Description:

TJH Senior Living LLC, is seeking Final Site Plan approval to construct new Senior Living Community known as “Moziac Senior Life” located on a Parcel ‘A-R’ MAP 11551 S.L.R. (aka 210 Long Ridge Road) in Stamford, CT. Moziac Senior Life will include a main building and a manor totaling 210 senior living units (with a mix of 168 Independent Living (IL) units, 14 Assisted Living (AL) units, 14 Memory Care (MC) units, and 14 Skilled Nursing (SN) units), outdoor patios, walking paths, parking, landscaping, and other associated site improvements.

The Property is 15 acres located on the westerly side of Long Ridge Road in Master Plan Category 8 (Mixed-Use-Campus) and the C-D (Designed Commercial) Zoning District. A portion of the property lies within the regulatory 100-year floodplain as established by the Federal Emergency Management Agency (FEMA) as shown on the "Flood Insurance Rate Map" (FIRM) for Fairfield County, Community No. 09001C0508F, Panel 508 of 626, effective date June 18, 2010. However, the development is not proposed within the floodplain. The property does not lie within a drinking water supply watershed and will be served by public water and sewers.

Redniss & Mead visited the site and surrounding properties to observe existing drainage patterns as well as City and State-owned storm and sanitary sewer facilities on and around the property. The State and City systems were observed on May 13, 2019, June 13, 2019, and more recently on May 10, 2023 and observed to be functional and in relatively good condition. Pipes and structures were observed to be clean with minimal debris within catch basin sumps. There is a 25-foot wide drainage easement in favor of the State of Connecticut along the northern property line (refer to S.L.R. Volume 1141, Pg.132 and Map 8695). There is also a 20-foot wide sanitary sewer easement in favor of the City of Stamford the along the western portion (refer to S.L.R. Volume 1683, Pg.24 and Map 9884-9889). Other utility easements exist on the property as referenced on the survey.

Drainage computations are based on both the State of Connecticut and City of Stamford criteria per the Connecticut DOT Drainage Manual Chapter 6 Appendix A and the Stamford Stormwater Drainage Manual based on the precipitation frequency published by NOAA Atlas 14 Volume 10: Precipitation-Frequency Atlas of the United States, Northeastern State, found in Appendix 1. The State of Connecticut storm design criteria is a 10-year storm event and the City of Stamford design storm criteria is based on a 1, 2, 5, 10, 25 and 50-year storm event.

This Site Engineering Report reflects Civil Site Plan Drawing set (Sheets SE-1 through SE-15) dated May 23, 2023.

Existing Conditions:

The 15-acre property is undeveloped between two office complexes located at 120 Long Ridge Road to the south and 260 Long Ridge Road to the north. The property is mostly wooded with approximately 46,236 sf of impervious coverage (asphalt parking lot).

Drainage Patterns & Conveyance Systems

There are four drainage basins that exist on the parcel as follows: To the north, 2.92+/- acres of the property sheet flows into a riprap swale or drainage structures located on 260 Long Ridge Road; to the south, 2.34+/- acres of the property sheet flows into drainage structures located on 120 Long Ridge Road; To the east, 0.42+/- acres of the development area sheet flows onto Long Ridge Road; and to the west the remaining 9.32+/- acres sheet flows directly into the Rippowam River. Ultimately all basins are tributary to the Rippowam River via sheet flow or pipe flow. Refer to Existing Onsite Drainage Basin Map in Appendix 2.

Offsite runoff collected within Long Ridge Road and from the surrounding neighborhood is piped through a 48" reinforced concrete pipe (RCP) located within the aforementioned easement along the northerly property line prior to discharging into the Rippowam River. The existing 10-year peak rate of runoff within the 48" pipe was calculated to be 104.26 cfs (124.30 cfs during a 25-year event). Refer to the Offsite Watershed Map within in Appendix 2 for the tributary offsite area.

Soils

The USDA Natural Resources Conservation Service's Websoil Survey indicates the soils on the subject parcel to be primarily Charlton Chatfield Complex (60% sand / 40% silt) within Hydrologic Soils Group B. On site investigation within the development envelope determined the soils do not have the characteristics of Charlton Chatfield Complex soils since depth to bedrock was deeper than six feet and are well-drained and of glacial-fluvial origin. The Geotechnical Report notes the presence of gravel, sand or silt and our test holes note the presence of sandy loam or bank run gravel in nearly all of the holes. A total of fifty-one (51) deep test pits were excavated and observed to assess the existing soil profile and for use in developing the site design and stormwater management plan. In addition to the deep test pits, a total of eight (8) percolation tests were conducted. The results of the testing can be found on sheets SE-14 and SE-15 of the site plan set. Soil conditions in the vicinity of the proposed infiltration systems were observed to be sandy loam material over a bank run gravel layer consistent with a soil in the hydrologic soil group classification B. The default infiltration rate for hydrologic soil group B pursuant to The City of Stamford Stormwater Drainage Manual, Section 5.6 was used to calculate the drawdown within the infiltration systems. The onsite soil testing was used to establish the elevations of the infiltration systems. The location of each test is depicted on the Proposed LID Map (Appendix 2).

Proposed Conditions:

The development will result in a net increase of impervious coverage of approximately 224,441 sf for a total site impervious coverage of approximately 270,677 sf. The site will be split into eight sub drainage basins as follows: (1) to the north, 0.64+/- acres of the property sheet flows into a riprap swale or drainage structures located on 260 Long Ridge Road; (2) to the south, 0.19+/- acres of the property sheet flows into drainage structures located on 120 Long Ridge Road; (3) to the east, 0.19 +/- acres of the development area sheet flows onto Long Ridge Road; (4) to the west, 2.99 +/- acres sheet flows will continue to the Rippowam River; (5) 3.31 +/- acres will be collected and treated via Infil#1; (6) 4.44 +/- acres will be collected and treated via Infil#2; (7) 1.09 +/- acres will be collected and treated via Infil#3; and (8) 2.15 +/- acres will be collected and treated via Infil#4. Refer to the Proposed Onsite Drainage Basin Map in Appendix 2.

Stormwater Management System

The stormwater management systems consist of four (4) infiltration systems; stormwater manholes and meter structures; catch basins and area drains with two-foot sumps and bell traps. In addition to conveying and attenuating runoff, these systems will improve water quality by removing pollutants from the parking lots and driveways, providing groundwater recharge and cooling runoff prior to discharging into the Rippowam River. Once treated and attenuated, runoff from the stormwater management system will be discharged to a manhole discharging into the 48" RCP located on the property. A portion of the property will continue to sheet flow directly into the Rippowam River. (see "Proposed Stormwater Treatment Practices").

Project Classification

The proposed development is classified as a redevelopment project with more than 1/2 an acre of disturbance abutting a large river making it ineligible for a drainage exemption and, therefore, shall comply with Standards 1 through 5 of the Stamford Stormwater Drainage Manual. To comply with Standard 1, this project needs to provide 100% Water Quality Volume (WQV) via non-structural practices OR infiltration best management practices (BMP's).

Methodology & General Design Criteria

The design approach chosen is to provide the required water quality volume (WQV) via infiltration BMP's consisting of infiltration practices (see "Proposed Stormwater Treatment Practices"). With respect to Standard 2, no increase is being proposed for the 1, 2, 5, 10 and 25-year storm event. A waiver is being requested to increase flow towards the Rippowam River during a 50-year storm event as the increase towards a large water body will have no adverse impact result to neighboring properties or City owned infrastructure. The peak rates of runoff have been mitigated to the greatest extent practical (see "Hydrologic Analysis of Peak Rates of Runoff"). Note, the Rippowam River (Lower Reach) at the Stillwater Pond has a peak discharge of 2,670 cfs during a 10-year storm event (and 5,350 cfs during a 50-year storm event) as depicted in Flood Insurance Study Number 09001CV001C, Volume 1, Section 3, Table 5, last revised October 16, 2013 for Fairfield County, CT.

Proposed LID Techniques

Low impact development and site planning techniques were used to the maximum extent practicable given the existing constraints of this site. The site is in an urban area with limited space for LID practices due to setback requirements from existing and proposed buildings and property lines, constraining flood hazard area requirements, easements, and preserving existing vegetation. LID techniques include development within areas already developed, limiting the amount of disturbance around the proposed improvements, and minimizing impervious surfaces where possible. The limit of disturbance for the proposed development has been set to allow for the proposed development, while aiming to minimize impact to adjacent trees and vegetation.

Proposed Stormwater Treatment Practices

The design approach chosen to satisfy Standard 1 of the Stamford Drainage Manual is to provide the required water quality volume (WQV) via subsurface filtration and infiltration systems. The WQV requirement

was to provide 100% of the WQV since the existing site coverage exceeds 40% DCIA. These systems are described in detail below. Reference is also made to Appendix 2 which includes information on water quality volumes, BMP volume, and system drawdown time.

- **Infil #1** is located to the north of the main building. It will consist of 6' Storm Trap units within a footprint of approximately 4,830 SQ.FT. and will collect and treat stormwater runoff generated from 144,300± SQ.FT. of tributary area (including driveway, parking, and roof area). The BMP is designed to treat 7,148 CU.FT. of stormwater below the lowest outlet devise (6,029 CU.FT required).
- **Infil #2** is located in the southwest quadrant of the site, adjacent to the main building garage entrance. It will consist of 4' Storm Trap units within a footprint of approximately 4,095 SQ.FT. and will collect and treat stormwater runoff generated from 201,110± SQ.FT. of tributary area (including driveway, parking, roof, and off-site area). The BMP is designed to treat 8,338 CU.FT. of stormwater below the lowest outlet devise (7,806 CU.FT required).
- **Infil #3** is located to the west of the main building, beneath the driveway. It will consist of 6' Storm Trap units within a footprint of approximately 3,200 SQ.FT. and will collect and treat stormwater runoff generated from 47,480± SQ.FT. of tributary area (including driveway, parking, and roof area). The BMP is designed to treat 5,113 CU.FT. of stormwater below the lowest outlet devise (2,543 CU.FT required).
- **Infil #4** is located in the northwest quadrant of the site, adjacent to the trash and loading driveway. It will consist of 6' Storm Trap units within a footprint of approximately 5,720 SQ.FT. and will collect and treat stormwater runoff generated from 93,790± SQ.FT. of tributary area (including driveway, parking, and roof area). The BMP is designed to treat 7,965 CU.FT. of stormwater below the lowest outlet devise (5,296 CU.FT required).

Summaries of the Water Quality Volumes required and provided by the stormwater practices are provided in the table below:

Standard I (Retention and Treatment) Calculations				
Drainage Area (Subcatchment ID)	Total Area (SF)	Impervious Area (SF)	WQV Required (CF)	WQV Provided (CF)
Infil#2 (PR1)	193,546	91,917	7,806*	8,338
Infil#3 (PR2)	47,480	31,266	2,543	5,113
Infil#4 (PR3)	93,792	65,407	5,296	7,965
Infil#1 (PR4)	144,300	72,365	6,029	7,148
120 Long Ridge Road (PR5)	8,316	0	-	-
Long Ridge Road (PR6)	8,038	90	-	-
260 Long Ridge Road (PR7)	27,901	2,778	-	-
Rippowam River (PR8)	130,027	6,854	-	-
TOTAL	653,400	270,677	23,004	28,564

*Includes offsite area

Hydrologic Analysis of Peak Rates of Runoff

Hydrologic models have been prepared utilizing the SCS Runoff Curve Number Method from NRCS TR-55 to analyze the pre- and post-development rainfall runoff rates and volumes. Watershed areas, curve numbers (CN), and times of concentration (TC) were calculated for each contributing watershed. The pre-development drainage basin boundaries and the post-development drainage basin boundaries are shown in Appendix 2. The City of Stamford Transportation Traffic & Parking Department proposed sidewalk project along the project frontage is also included in this analysis. It is anticipated that the sidewalk will slope towards Long Ridge Road rather than to be back pitched onto the property.

The results of the HydroCad model used to analyze the pre- and post-development watershed conditions are presented in Appendix 3. A comparison of the pre- and post-development peak discharge rates is provided in the tables below.

Standard 2 - Storm Sewer Peak Flow (cfs)				
Return Period (years)	Existing (Link EXJ)	Proposed (Link 4J)	Change	% Change
1	4.23	1.96	-2.27	-53.66
2	8.34	3.50	-4.84	-58.03
5	16.80	9.95	-6.85	-40.77
10	24.87	17.25	-7.62	-30.64
25	36.95	30.39	-6.56	-17.75
50	46.61	46.97	0.36	0.77

Comparison of the peak discharge rates for pre- and post-development watershed conditions demonstrates that the peak rate of runoff from the proposed development decrease in the 1-year, 2- year, 5-year, 10-year, and 25-year storm events. A waiver is being requested to increase flow towards the Rippowam River in the 50-year storm event as an increase to a large body of water will not have an impact and will not result in adverse impacts to neighboring properties or City-owned infrastructure. As such, the proposed development will not adversely impact adjacent or downstream properties or City-owned drainage facilities.

The following table indicates the calculated peak rates of runoff for the portion of the parcel tributary to the north onto 260 Long Ridge Road:

Storm Sewer Peak Flow (cfs) to 260 Long Ridge Road				
Return Period (years)	Existing (Subcatchment EX3)	Proposed (Subcatchment PR7)	Change	% Change
1	0.48	0.25	-0.23	-47.92
2	1.16	0.49	-0.67	-57.76
5	2.67	0.97	-1.70	-63.67
10	4.16	1.42	-2.74	-65.87
25	6.42	2.10	-4.32	-67.29
50	8.25	2.63	-5.62	-68.12

The following table indicates the calculated peak rates of runoff for the portion of the parcel tributary to the south onto 120 Long Ridge Road:

Storm Sewer Peak Flow (cfs) to 120 Long Ridge Road				
Return Period (years)	Existing (Subcatchment EX1)	Proposed (Subcatchment PR5)	Change	% Change
1	1.26	0.04	-1.22	-96.83
2	2.05	0.09	-1.96	-95.61
5	3.53	0.21	-3.32	-94.05
10	4.88	0.32	-4.56	-93.44
25	6.84	0.49	-6.35	-92.84
50	8.37	0.63	-7.74	-92.47

The following table indicates the calculated peak rates of runoff for the portion of the parcel tributary to the east onto Long Ridge Road:

Storm Sewer Peak Flow (cfs) to Long Ridge Road				
Return Period (years)	Existing (Subcatchment EX4)	Proposed (Subcatchment PR6)	Change	% Change
1	0.09	0.36	0.27	300.00
2	0.21	0.56	0.35	166.67
5	0.48	0.91	0.43	89.58
10	0.75	1.23	0.48	64.00

25	1.15	1.69	0.54	46.96
50	1.48	2.04	0.56	37.84

*Proposed increases are pursuant to The City of Stamford Transportation Traffic & Parking Department sidewalk project assuming the area is graded towards Long Ridge Road.

Hydraulic Grade Line (HGL) Analysis:

A hydraulic grade line (HGL) analysis was performed to determine if the 48" RCP has enough capacity to receive the additional runoff generated from the development's stormwater management system. The total proposed flow within the 48" RCP will increase from 104.26 cfs to 119.71 cfs. (10-year event) or 124.30 cfs to 151.07 cfs (25-year event).

The hydraulic grade line analysis was performed with a starting tailwater based upon the Rippowam River elevation at the 48" outfall (as taken from the FEMA Flood Insurance Study profiles). The tailwater is elevation 49.25 during a 10-year storm event and 50.25 during a 25-year storm event (NAVD-88). Refer to Appendix 4 for StormCAD report for the HGL analysis using NOAA rainfall distribution for the 10-year storm event and Appendix 5 for StormCAD report for the HGL analysis using NOAA rainfall distribution for the 25-year storm event. The watershed tributary to the 48" pipe and outfall for existing conditions is approximately 33.8 acres. The watershed to this pipe under proposed conditions is approximately 45.0 acres.

The following table indicates the summary of the HGL analysis for the 10-year storm event:

HGL Analysis - NOAA Atlas 14 10-Year Storm Event					
Structure	Elevation (ft)	Existing WSEL (ft)	Proposed WSEL (ft)	Change (ft)	Proposed Freeboard (ft)
EX.CB#1	85.89	77.16	77.17	0.01	8.72
EX.CB#2	85.65	77.90	77.91	0.01	7.74
EX.CB#3	85.13	81.39	81.39	0.00	3.74
EX.CB#4	88.40	83.73	83.74	0.01	4.66
EX.CB#5	90.99	85.52	85.53	0.01	5.46
EX.CB#6	92.46	86.50	86.51	0.01	5.95
EX.CB#7	94.98	90.28	90.29	0.01	4.69
EX.CB#8	96.74	92.48	92.48	0.00	4.26
EX.CB#9	99.02	93.82	93.84	0.02	5.18
EX.CB#10	99.72	94.22	94.24	0.02	5.48
EX.MH#1	63.89	60.16	60.18	0.02	3.71
EX.MH#2	78.71	75.34	75.35	0.01	3.36
PR.MH#9	57.90	-	54.79	-	3.11
PR.MH#8	59.90	-	54.78	-	5.12

The following table indicates the summary of the HGL analysis for the 25-year storm event:

HGL Analysis - NOAA Atlas 14 25-Year Storm Event					
Structure	Elevation (ft)	Existing WSEL (ft)	Proposed WSEL (ft)	Change (ft)	Proposed Freeboard (ft)
EX.CB#1	85.89	77.41	77.42	0.01	8.47
EX.CB#2	85.65	78.26	78.28	0.02	7.37
EX.CB#3	85.13	81.51	81.51	0.00	3.62
EX.CB#4	88.40	83.99	84.00	0.01	4.40
EX.CB#5	90.99	85.78	85.79	0.01	5.20
EX.CB#6	92.46	86.74	86.75	0.01	5.71
EX.CB#7	94.98	90.44	90.45	0.01	4.53
EX.CB#8	96.74	92.64	92.64	0.00	4.10
EX.CB#9	99.02	94.48	94.50	0.02	4.52
EX.CB#10	99.72	95.03	95.05	0.02	4.67
EX.MH#1	63.89	60.42	60.43	0.01	3.46
EX.MH#2	78.71	75.59	75.61	0.02	3.10
PR.MH#9	57.90	-	55.09	-	2.81
PR.MH#8	59.90	-	55.09	-	4.81

The HGL analysis demonstrates the existing stormwater management system within the state or city owned drainage system flows under surcharged conditions for both pre and post-construction conditions and can accommodate the proposed developments. The change in the water surface elevations within Long Ridge Road is a result of the conceptual sidewalk that the City of Stamford is proposing along the frontage of Long Ridge Road. The slight increase in HGL is only realized within an onsite manhole and the catch basins within Long Ridge Road.

Meter Structures:

Meter structure's weir was designed to pass the 100-year flow. The following table tabulates the 100-year peak elevations and the top elevation of the interior meter structure slab, which is a minimum 12" above weir.

Meter Manhole Structure				
Structure	Weir Elevation (ft)	Bottom Elevation of Top Slab (ft)	100-year Elevation (ft)	Proposed Freeboard (ft)
MMH#1	59.00	60.67	59.85	0.82
MMH#2	61.10	63.07	61.93	1.14
MMH#3	57.00	58.16	57.86	0.30
MMH#4	56.75	58.16	57.65	0.51

Gutter Flow Analysis

A gutter flow analysis, using Flowmaster V.10.2, was performed to determine if the streetscape design along the property frontage would negatively impact the State drainage facilities within Long Ridge Road. Pursuant to the CT DOT Drainage Manual, Sections 11.7 Design Frequency and Spread & 11.9 Gutter Flow Calculations, a gutter line analysis was performed. Long Ridge Road is a State Arterial Highway and was analyzed using NOAA 10-year storm event (on-grade catch basin conditions) and NOAA 50-year storm event (in-sag catch basin conditions). The catch basins within the State ROW are either Type A Grate or Type "C" Catch Basin with Type A Double Grate Type. The result indicates that the spread for existing and proposed conditions are within the allowable spread as depicted within Table 11-2 Pavement Drainage Design Criteria. For further information, refer to Appendix 11.

Outlet Protection:

The existing outlet protection at the end of the 48" RCP was observed and surveyed by this office. The outlet consists of a preformed scour hole with overall dimensions of 23.6'(W) x 26.6'(L) including a depression with overall dimensions of 12.4'(W) x 17.9'(L) x 2.9' to 4.8' (D) suitable to protect the outlet area from scour and erosion. The rip-rap stone conforms to the Modified Riprap gradation with the median stone size being 4 inches to 10 inches.

To determine if the outlet protection is adequate it was compared to the Outlet Protection requirements within Section 11.13 of the ConnDOT Drainage Manual for a 100-year storm event. During a 100-year storm event the Rippowam River tailwater will be above half the pipe diameter requiring a Type I Preformed Scour Hole with overall dimensions of 20'(W) x 24'(L) including a depression with overall dimensions of 8'(W) x 12'(L) x 2'(D). Based on field investigation the existing outlet protection exceeds the minimum requirements and will therefore protect the area from scouring and erosion. For further information refer to Appendix 2.

100 Year Flood Hazard Zone:

Portions of the subject property are located within the regulatory 100-year floodplain (BFE 52.0-52.3) of the Long Island Sound as established by the Federal Emergency Management Agency (FEMA). This area is illustrated on the FEMA "Flood Insurance Rate Maps" (FIRM) for the Long Island Sound, Map No. 09001C0508F, map effective date June 18, 2010. The floodplain is depicted by transcription of the FEMA flood maps and by elevations. All improvements are proposed outside the 100-year flood hazard area and therefore not subject to the special provisions outlined within Section 15.B. Flood Prone Area Regulations of the City of Stamford Zoning Regulations.

As part of the previous proposed "Senior Housing and Nursing Home Facility Complex" development Zoning Board Application 219-19 support of excavation (SOE) plans certified by Pennoni Associates Inc. (sheets CS5.01 and CS6.01) demonstrating the sanitary sewer can be installed without encroachments to areas regulated by the Environmental Protection Board (EPB). SOE design demonstrating same for the current development will be prepared prior to a Building Permit request. Should the SOE design demonstrate the sanitary sewer cannot be installed without encroaching within regulated areas an EPB Permit shall be obtained prior to working within regulated areas.

260 Long Ridge Road:

Access to the development will be from 260 Long Ridge Road which will result in a net increase in impervious coverage of approximately 3,946 sf on that property. There will however, be a decrease of approximately 11,196 sf in the portion of the site flowing from 210 Long Ridge Road onto 260 Long Ridge Road. Runoff that flows from the site onto 260 Long Ridge Road is tributary to an existing catch basin in the driveway of that property. The 25-year peak rate of runoff to this catch basin will be decrease slightly from 1.91 cfs to 1.90 cfs under proposed conditions. Refer to Appendix 6 for further information. The project will result in an overall decrease in the peak rates of runoff to the Rippowam River.

Compliance with Stormwater Management Standards

The project site will be designed to meet the Stamford Stormwater Management Standards to the maximum extent practicable as summarized below:

Standard 1: Runoff and Pollutant Reduction

- A. The runoff and pollutant reduction requirements for this project is to retain 100% of the WQV. The proposed Stormwater Treatment Practice (subsurface infiltration) treats more than the required WQV. See "Proposed Conditions" for a detailed description of the systems, their required WQV's, and provided storage volumes.
- B. Not Applicable. Stormwater systems retain 100% of WQV.
- C. The proposed development has been designed within areas previously developed and avoids encroachments within the FEMA 100-year flood hazard area. To prevent impacts to the Rippowam River and City owned drainage systems a detailed Sediment & Erosion Control Plan was prepared.
- D. Noted

- E. All surface parking areas are tributary to the infiltration systems. The Total Suspended Solids pollutant load removal efficiency for infiltration systems are 90% as noted within the attached 'BPM Pollutant Removal Efficiency' found within the New Hampshire Stormwater Manual Volume 2 (Appendix I). Post-development the property will provide to the extent feasible the removal of TSS within the parking areas.
Any interior drains located within the parking garage shall pass through an oil/grit separator prior to discharging into the sanitary sewers. Interior systems shall be designed by the project Plumbing Engineer.
- F. The proposed development is proposed within areas previously developed which will limit the amount of clearing that will be necessary to employ the development. Improvements along the Rippowan River have been avoided minimizing the potential impacts to the river.

Standard 2: Peak Flow Control

- A. Stream Channel Protection is being provided by reducing the proposed 2-year peak flow (3.50 cfs) below the existing 1-year peak flow (4.23 cfs).
- B. Conveyance Protection is designed to adequately pass flows leading to, from and through it up to and including the 25-year design storm event as required in section 3 of the Stormwater Drainage Manual. Refer to the HydroCAD model found in Appendix 3.
- C. Peak Rates Control at the Rippowan River are controlled from the 1-year, 2-year, 5-year, 10-year, and 25-year 24-hour storm events. Reference is made to the HydroCAD report found in Appendix 3. A waiver is being requested to increase the 50-year flow towards the Rippowam River as the increase is towards a large water body will have no impact and will not result in adverse impacts to neighboring properties or City owned infrastructure. Note, the Rippowam River (Lower Reach) at the Stillwater Pond has a peak discharge of 2,670 cfs during a 10-year storm event (and 5,350 cfs during a 50-year storm event) as depicted in Flood Insurance Study Number 09001CV001C, Volume 1, Section 3, Table 5, last revised October 16, 2013 for Fairfield County, CT. The peak rates of runoff increase from 46.61 cfs to 46.97 cfs during a 50-year storm event. The increase in peak rates of runoff represent an increase to the Lower Reach of 0.01 % of the peak discharge rate in a 50-year storm event. Reference is made to the HydroCAD report found in Appendix 3.
- D. Emergency Outlets have been sized to pass the post-development peak runoff from the 100-year, 24-hour storm.
- E. A hydraulic grade line analysis was performed with a starting tailwater based upon the Rippowam River elevation at the 48" outfall. The tailwater is elevation 49.25 during a 10-year storm event and 50.25 during a 25-year storm event (NAVD-88). The analysis demonstrates the system is self-contained and the proposed infiltration systems will pass the tributary stormwater.

Standard 3: Construction Erosion and Sediment Control

- A. Site plan sheets SE-5A – SE-5F depict erosion control measures to be implemented to control construction related impacts. Sediment and erosion controls such as silt fencing, stone tracking pads at construction zone entrance/exit point, hay bale inlet/outlet protection, and tree protection are proposed. The plan will be fully developed prior to a Building Permit request.

- a. It is noted a DEEP General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities will be required.

Standard 4: Operation and Maintenance

- A. A Standard City of Stamford Drainage Maintenance Agreement will be executed with the Environmental Protection Board (EPB). A draft maintenance agreement has been prepared and is included in Appendix 9.
- B. The construction plans will include notes describing the long-term maintenance requirements for the site-specific drainage system(s) including routine and non-route inspection and maintenance tasks to be undertaken after construction is completed as well as the schedule for implementing these tasks.

Standard 5: Stormwater Management Report

- A. This document and its associated appendices serve as the required Stormwater Management Report.
- B. Based on the above information, the proposed improvements are designed in accordance with the City of Stamford Stormwater Drainage Manual and will not adversely impact adjacent or downstream properties or City-owned drainage facilities.

Conclusion:

As noted above, the proposed improvements are designed in accordance with the City of Stamford Stormwater Drainage Manual and will not adversely impact adjacent or downstream properties or City-owned drainage facilities.

Sanitary Sewer Summary

A City owned 30" sanitary sewer main exists along the westerly portion of the property adjacent to the Rippowam River and on the east side of Long Ridge Road. An 8" sanitary sewer main exists on the east side of Long Ridge Road. It is proposed to pipe the development via a 12" lateral into the 30" sewer main located along the western portion of the property. Refer to Sanitary Sewer Connection Exhibit in Appendix 8 for a plan view of the surrounding sanitary sewer system along with the proposed connection and lateral locations.

All covered parking areas will be collected via drains and piped into an oil/grit separator prior to discharging into the sanitary sewer system. The proposed commercial kitchen would adhere to the City of Stamford fats, oil and grease (FOG) abatement program and would be registered with the City WPCA. The oil/grit separator, as well as adhering to the FOG, will be designed by other consultants and will be coordinated prior to a Building Permit request.

Under proposed conditions, the developer is seeking permission to construct a total of 210 senior living units with a mix of 168 Independent Living (IL) units, 14 Assisted Living (AL) units, 14 Memory Care (MC) units, and 14 Skilled Nursing (SN) units. The building will house a commercial kitchen for IL residents and casual dining, as well as central kitchens for each other unit type. Laundry facilities will be available in each IL unit and central facilities will be available for each other unit type. Using the CT Health Code guidelines, the proposed development would result in a total average daily sewage flow of 64,940 GPD (0.10 cfs). Using a peak factor of 4, the peak sewage flow is 259,760 GPD (0.40 cfs). The existing 30" RCP sanitary main with a maximum pipe capacity of 26.55 cfs will be increased by 1.6% of its capacity. Refer to Appendix 8 for sanitary flow assumptions and calculations.

A visual inspection of this 30" sanitary main was conducted on June 20, 2019 to observe the depth of flow in order to assess available capacity. Refer to Sanitary Sewer Flow Monitoring in Appendix 3 for the observed depths of flow within the main. The maximum observed depth was 0.60 inches. To estimate the existing peak rates of runoff within the 30" main, the observed flow was quadrupled. The existing and proposed flow rates along with the proposed remaining pipe capacity are tabulated below.

LOCATION	PIPE CAPACITY* (cfs)	OBSERVED FLOW (cfs)	EX. PEAK FLOW** (cfs)	PR. PEAK FLOW*** (cfs)	PR. CAPACITY REMAINING UNDER PEAK CONDITIONS**** (%)
EX. SAN MH	26.55	3.93	15.73	16.13	39.2%

* Based on 30" sanitary main within the west side of 210 Long Ridge Road sloped at 0.3%± per City of Stamford as-built records

** Highest observed flow was quadrupled for the existing flow rate to be conservative

*** Using peak project flow rate of 0.40 cfs

**** Under average flow conditions there will be 84%± capacity remaining.

The City of Stamford Water Pollution Control Authority last upgraded the Wastewater Treatment Facility (WWTF) in 2006. The WWTF upgrade was designed for an average daily flow of 24 MGD and a peak flow of 30 MGD. The current average daily flow usage provided by the Water Pollution Control Authority is 18 MGD (provided by WPCA on November 14, 2013). The WWTF can accommodate an additional sewer

capacity of 6 MGD. The project will generate an average daily flow of 64,940 GPD (or 0.065 MGD). Therefore, the WWTF has more than adequate capacity to accommodate the development.

Based on the above information, it is our opinion the City owned sanitary sewer system has sufficient capacity to accommodate the proposed development, and with proper implementation of the design drawings, the proposed development will not adversely impact the existing sanitary sewer system.

Appendix I

FEMA Flood Insurance Map
FEMA FIS Rippowam River Flood Profile & Summary of Discharges
USGS Quadrangle Map – Site Vicinity Map
NOAA Atlas 14 Volume 10 – Precipitation Frequency
NRCS Web Soil Survey
New Hampshire Stormwater Manual Volume 2

National Flood Hazard Layer FIRMette



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		Area of Minimal Flood Hazard Zone X
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard Zone D
		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped



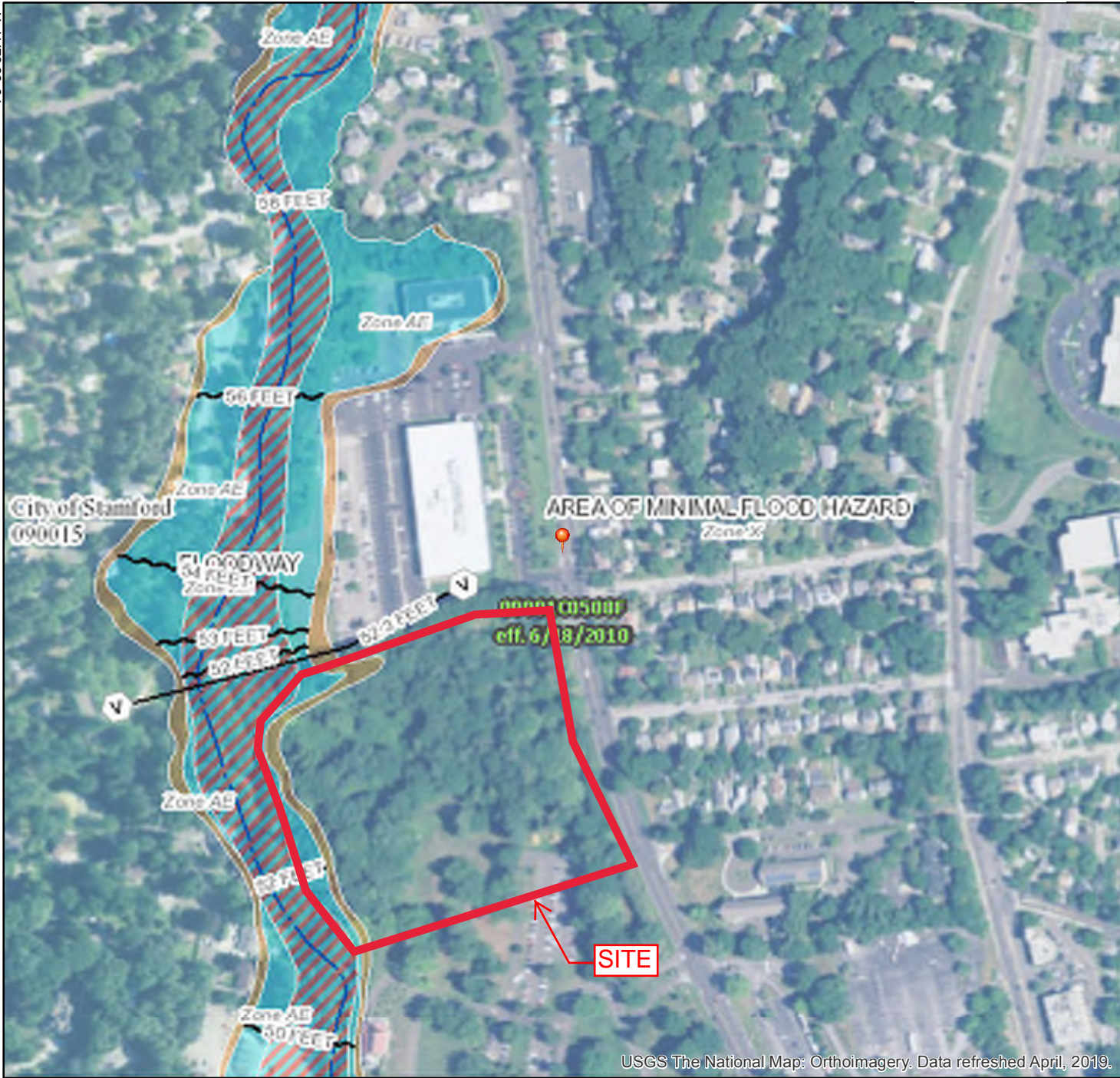
The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 7/9/2019 at 2:10:54 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

41°4'58.34"N



USGS The National Map: Orthoimagery. Data refreshed April, 2019.

0 250 500 1,000 1,500 2,000 Feet 1:6,000

41°4'31.22"N

73°32'54.65"W

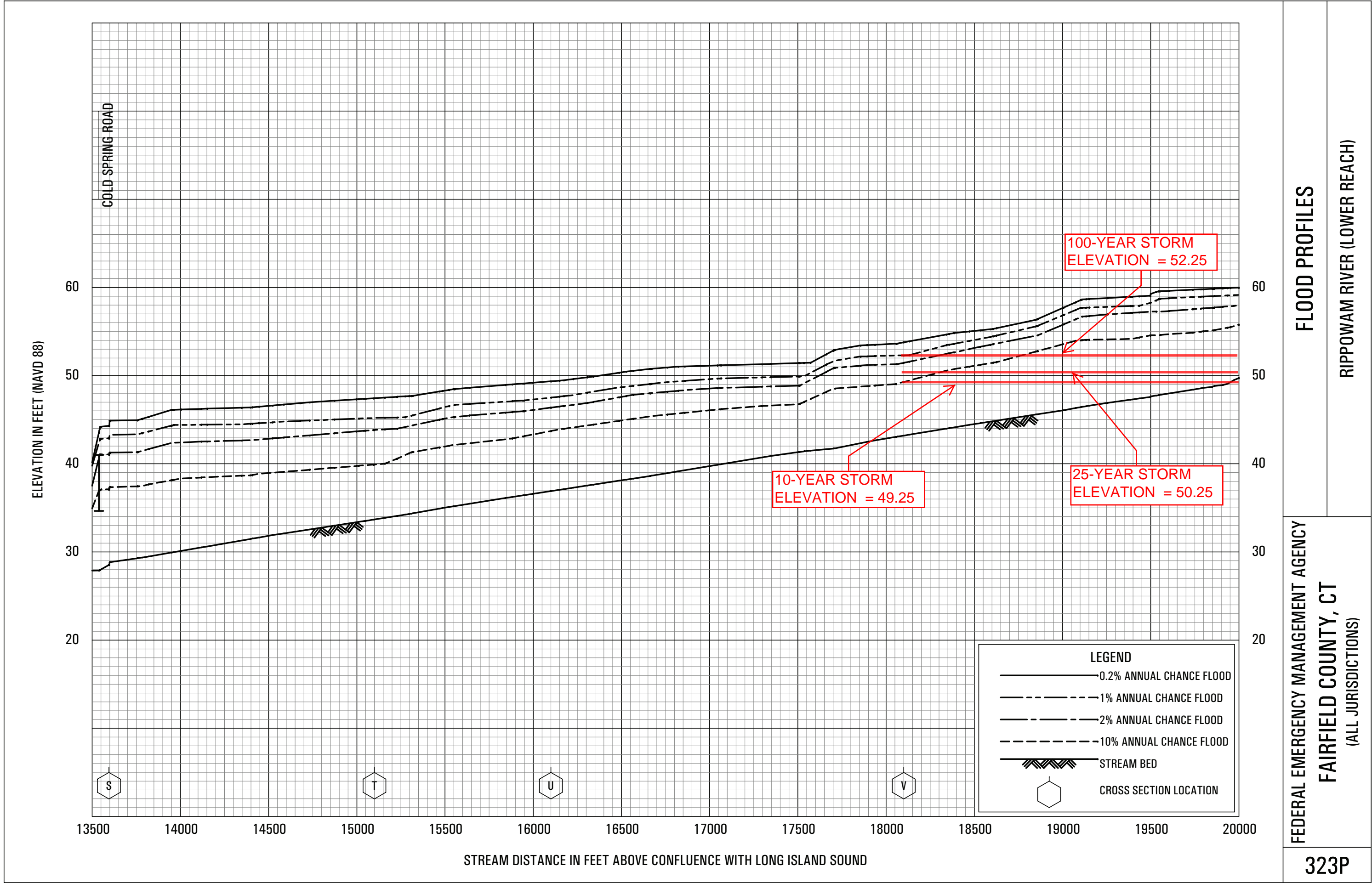
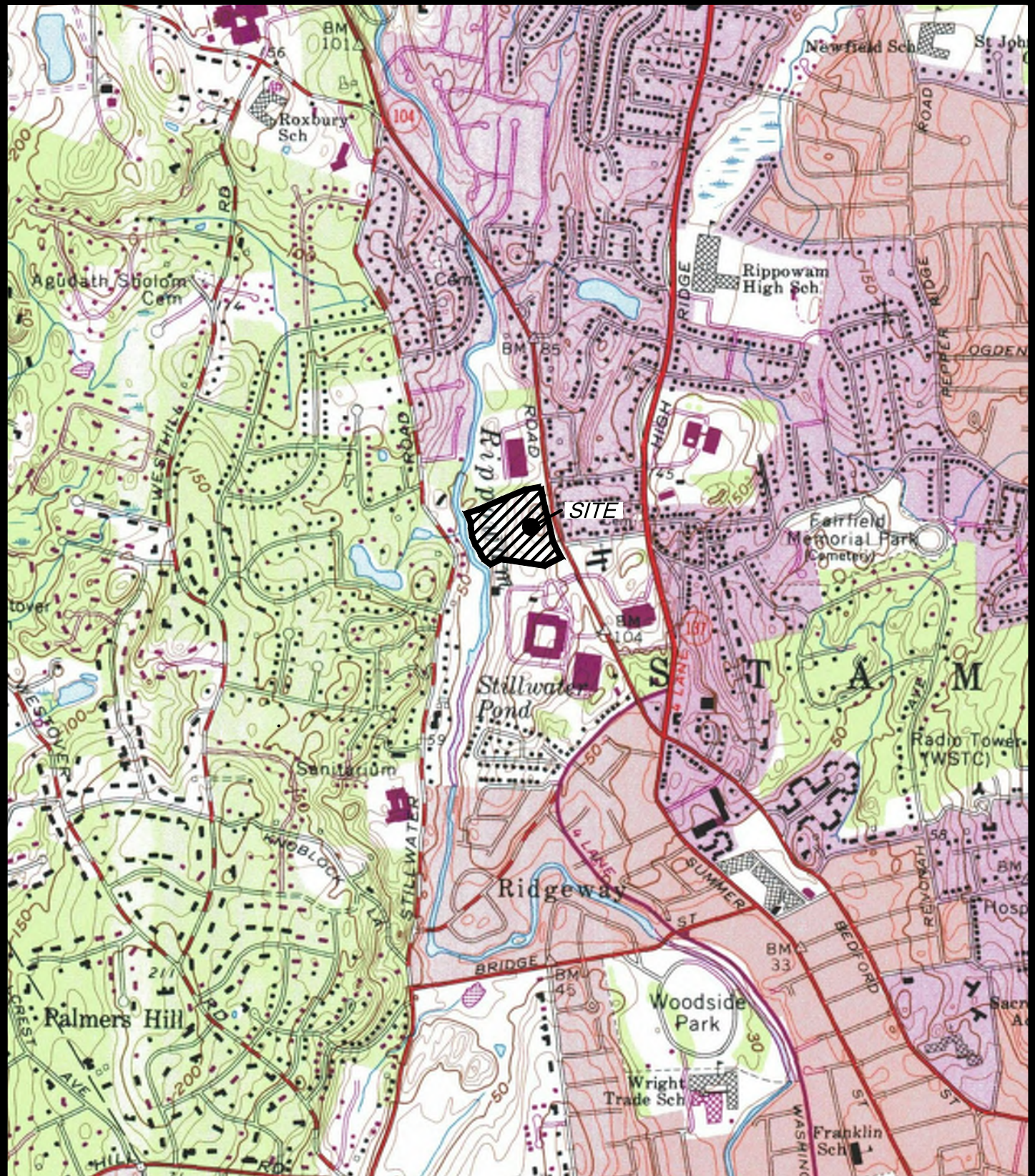


TABLE 5 - SUMMARY OF DISCHARGES - continued

<u>FLOODING SOURCE AND LOCATION</u>	<u>DRAINAGE AREA (sq. miles)</u>	<u>PEAK DISCHARGES (cfs)</u>			
		<u>10- PERCENT- ANNUAL- CHANCE</u>	<u>2- PERCENT- ANNUAL- CHANCE</u>	<u>1- PERCENT- ANNUAL- CHANCE</u>	<u>0.2- PERCENT- ANNUAL- CHANCE</u>
POPLAR PLAINS BROOK					
At confluence with Saugatuck River (Lower Reach)	0.94	145	195	245	480
PUMPKIN GROUND BROOK					
At confluence with Long Brook	6.12	1,165	1,640	1,895	2,875
At Beaver Dam Lake	1.15	935	1,330	1,550	2,290
PUTNAM PARK BROOK					
Upstream of confluence of Wolf Pit Brook	0.93	130	175	220	320
RIDGEFIELD BROOK					
At State Route 35	2.60	125	185	235	410
RIPPOWAM RIVER (LOWER REACH)					
At the mouth	37.5	2,900	5,800	7,400	9,300
At the Stillwater Pond	33.4	2,670	5,350	6,820	8,580
Downstream of confluence of Haviland Brook	28.7	2,400	4,800	6,140	7,710
Upstream of confluence of Haviland Brook	24.6	2,160	4,320	5,500	6,920
RIPPOWAM RIVER (UPPER REACH)					
At New Canaan- Stamford corporate limits	34.85	1,760	3,170	3,910	7,060
Upstream of confluence of Laurel Brook	5.15	720	1,240	1,550	2,700
Upstream of Lockwood Pond	4.33	610	1,040	1,300	2,270
At Siscowit Reservoir	3.46	480	830	1,040	1,810



SITE VICINITY MAP
STAMFORD QUADRANGLE
210 LONG RIDGE ROAD
STAMFORD, CT

**REDNISS
& MEAD**

COMM. NO.: 1730

DATE: 05/23/2023

SCALE: 1"=2000'



POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sandra Pavlovic, Michael St. Laurent, Carl Trypaluk, Dale Unruh, Orlan Wilhite

NOAA, National Weather Service, Silver Spring, Maryland

[PF tabular](#) | [PF graphical](#) | [Maps & aerals](#)

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)¹

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.366 (0.281-0.467)	0.426 (0.326-0.543)	0.523 (0.399-0.669)	0.603 (0.458-0.776)	0.714 (0.526-0.948)	0.798 (0.577-1.08)	0.885 (0.621-1.23)	0.979 (0.657-1.39)	1.11 (0.718-1.62)	1.22 (0.769-1.80)
10-min	0.519 (0.398-0.661)	0.603 (0.462-0.769)	0.740 (0.565-0.947)	0.854 (0.649-1.10)	1.01 (0.745-1.34)	1.13 (0.817-1.53)	1.25 (0.880-1.74)	1.39 (0.931-1.97)	1.57 (1.02-2.29)	1.72 (1.09-2.56)
15-min	0.610 (0.468-0.778)	0.709 (0.543-0.905)	0.871 (0.665-1.11)	1.00 (0.763-1.29)	1.19 (0.877-1.58)	1.33 (0.960-1.80)	1.47 (1.04-2.05)	1.63 (1.10-2.31)	1.85 (1.20-2.70)	2.03 (1.28-3.01)
30-min	0.854 (0.654-1.09)	0.993 (0.760-1.27)	1.22 (0.932-1.56)	1.41 (1.07-1.81)	1.67 (1.23-2.22)	1.87 (1.35-2.52)	2.07 (1.45-2.87)	2.29 (1.54-3.24)	2.58 (1.67-3.77)	2.82 (1.78-4.18)
60-min	1.10 (0.841-1.40)	1.28 (0.978-1.63)	1.57 (1.20-2.01)	1.82 (1.38-2.33)	2.15 (1.58-2.85)	2.41 (1.74-3.24)	2.67 (1.87-3.69)	2.94 (1.98-4.17)	3.32 (2.15-4.84)	3.61 (2.28-5.35)
2-hr	1.42 (1.10-1.80)	1.67 (1.28-2.11)	2.07 (1.59-2.64)	2.41 (1.84-3.08)	2.87 (2.13-3.79)	3.22 (2.34-4.32)	3.59 (2.53-4.95)	3.98 (2.68-5.61)	4.53 (2.94-6.56)	4.97 (3.15-7.32)
3-hr	1.64 (1.27-2.06)	1.93 (1.50-2.44)	2.42 (1.86-3.06)	2.82 (2.16-3.58)	3.37 (2.50-4.43)	3.78 (2.76-5.06)	4.22 (2.99-5.81)	4.70 (3.17-6.59)	5.37 (3.50-7.76)	5.92 (3.77-8.69)
6-hr	2.06 (1.61-2.59)	2.45 (1.91-3.08)	3.09 (2.40-3.89)	3.62 (2.79-4.57)	4.34 (3.25-5.68)	4.89 (3.59-6.51)	5.46 (3.90-7.50)	6.10 (4.14-8.52)	7.03 (4.59-10.1)	7.79 (4.97-11.4)
12-hr	2.55 (2.00-3.18)	3.05 (2.39-3.80)	3.86 (3.02-4.82)	4.53 (3.52-5.69)	5.46 (4.12-7.11)	6.16 (4.55-8.16)	6.89 (4.95-9.42)	7.73 (5.26-10.7)	8.95 (5.86-12.8)	9.96 (6.38-14.4)
24-hr	3.00 (2.37-3.71)	3.62 (2.86-4.48)	4.64 (3.65-5.76)	5.49 (4.29-6.84)	6.65 (5.05-8.62)	7.52 (5.60-9.92)	8.44 (6.12-11.5)	9.53 (6.50-13.1)	11.1 (7.32-15.8)	12.5 (8.02-18.0)
2-day	3.36 (2.67-4.13)	4.12 (3.28-5.07)	5.37 (4.26-6.62)	6.41 (5.05-7.94)	7.84 (5.99-10.1)	8.89 (6.67-11.7)	10.0 (7.34-13.7)	11.4 (7.82-15.6)	13.5 (8.90-19.0)	15.3 (9.85-21.9)
3-day	3.63 (2.90-4.44)	4.47 (3.57-5.47)	5.84 (4.64-7.17)	6.97 (5.51-8.60)	8.54 (6.55-11.0)	9.69 (7.30-12.7)	10.9 (8.03-14.9)	12.5 (8.56-17.0)	14.8 (9.76-20.7)	16.8 (10.8-23.9)
4-day	3.89 (3.12-4.75)	4.77 (3.82-5.83)	6.22 (4.96-7.62)	7.42 (5.88-9.12)	9.06 (6.97-11.6)	10.3 (7.76-13.4)	11.6 (8.53-15.7)	13.2 (9.08-17.9)	15.6 (10.3-21.8)	17.7 (11.4-25.1)
7-day	4.65 (3.74-5.64)	5.61 (4.52-6.81)	7.18 (5.76-8.75)	8.49 (6.76-10.4)	10.3 (7.94-13.1)	11.6 (8.79-15.1)	13.0 (9.60-17.5)	14.7 (10.2-19.9)	17.3 (11.5-24.0)	19.4 (12.6-27.4)
10-day	5.39 (4.36-6.51)	6.40 (5.17-7.75)	8.06 (6.48-9.78)	9.43 (7.55-11.5)	11.3 (8.77-14.3)	12.7 (9.66-16.4)	14.2 (10.5-18.9)	16.0 (11.1-21.5)	18.5 (12.3-25.6)	20.6 (13.4-29.0)
20-day	7.60 (6.19-9.13)	8.74 (7.11-10.5)	10.6 (8.60-12.8)	12.2 (9.79-14.7)	14.3 (11.1-17.9)	15.9 (12.1-20.2)	17.6 (12.9-23.0)	19.4 (13.5-25.8)	21.8 (14.6-30.0)	23.8 (15.5-33.2)
30-day	9.42 (7.70-11.3)	10.7 (8.70-12.8)	12.7 (10.3-15.2)	14.3 (11.6-17.3)	16.7 (13.0-20.7)	18.4 (14.0-23.2)	20.2 (14.8-26.1)	22.0 (15.4-29.3)	24.4 (16.4-33.4)	26.3 (17.1-36.5)
45-day	11.7 (9.57-13.9)	13.0 (10.7-15.5)	15.2 (12.4-18.2)	17.0 (13.8-20.4)	19.5 (15.2-24.1)	21.5 (16.3-26.9)	23.4 (17.1-30.0)	25.2 (17.7-33.4)	27.6 (18.6-37.6)	29.3 (19.1-40.6)
60-day	13.5 (11.1-16.0)	14.9 (12.3-17.8)	17.3 (14.2-20.6)	19.2 (15.6-23.0)	21.9 (17.1-26.9)	23.9 (18.3-29.9)	26.0 (19.0-33.1)	27.9 (19.6-36.7)	30.3 (20.4-41.0)	31.9 (20.9-44.1)

¹ Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

[Back to Top](#)

PF graphical



NOAA Atlas 14, Volume 10, Version 3
Location name: Stamford, Connecticut, USA*
Latitude: 41.0791°, Longitude: -73.5537°
Elevation: 82 ft**
* source: ESRI Maps
** source: USGS



POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sandra Pavlovic, Michael St. Laurent, Carl Trypaluk, Dale Unruh, Orlan Wilhite

NOAA, National Weather Service, Silver Spring, Maryland

[PF tabular](#) | [PF graphical](#) | [Maps & aerals](#)

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches/hour) ¹										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	4.39 (3.37-5.60)	5.11 (3.91-6.52)	6.28 (4.79-8.03)	7.24 (5.50-9.31)	8.57 (6.31-11.4)	9.58 (6.92-12.9)	10.6 (7.45-14.7)	11.7 (7.88-16.7)	13.3 (8.62-19.4)	14.6 (9.23-21.6)
10-min	3.11 (2.39-3.97)	3.62 (2.77-4.61)	4.44 (3.39-5.68)	5.12 (3.89-6.59)	6.07 (4.47-8.06)	6.78 (4.90-9.16)	7.52 (5.28-10.4)	8.32 (5.59-11.8)	9.44 (6.11-13.8)	10.3 (6.54-15.3)
15-min	2.44 (1.87-3.11)	2.84 (2.17-3.62)	3.48 (2.66-4.46)	4.02 (3.05-5.17)	4.76 (3.51-6.32)	5.32 (3.84-7.18)	5.90 (4.14-8.19)	6.52 (4.38-9.25)	7.40 (4.79-10.8)	8.10 (5.13-12.0)
30-min	1.71 (1.31-2.18)	1.99 (1.52-2.53)	2.44 (1.86-3.12)	2.82 (2.14-3.63)	3.34 (2.46-4.43)	3.74 (2.70-5.04)	4.14 (2.90-5.74)	4.58 (3.07-6.49)	5.17 (3.35-7.54)	5.63 (3.57-8.36)
60-min	1.10 (0.841-1.40)	1.28 (0.978-1.63)	1.57 (1.20-2.01)	1.82 (1.38-2.33)	2.15 (1.58-2.85)	2.41 (1.74-3.24)	2.67 (1.87-3.69)	2.94 (1.98-4.17)	3.32 (2.15-4.84)	3.61 (2.28-5.35)
2-hr	0.709 (0.547-0.898)	0.833 (0.642-1.06)	1.04 (0.796-1.32)	1.20 (0.920-1.54)	1.44 (1.06-1.90)	1.61 (1.17-2.16)	1.79 (1.26-2.48)	1.99 (1.34-2.80)	2.26 (1.47-3.28)	2.48 (1.58-3.66)
3-hr	0.544 (0.421-0.687)	0.643 (0.497-0.812)	0.804 (0.620-1.02)	0.937 (0.719-1.19)	1.12 (0.834-1.48)	1.26 (0.919-1.69)	1.40 (0.996-1.94)	1.56 (1.06-2.20)	1.79 (1.16-2.58)	1.97 (1.25-2.90)
6-hr	0.344 (0.269-0.432)	0.409 (0.319-0.514)	0.516 (0.400-0.649)	0.604 (0.466-0.763)	0.725 (0.542-0.949)	0.816 (0.599-1.09)	0.911 (0.651-1.25)	1.02 (0.690-1.42)	1.17 (0.766-1.68)	1.30 (0.830-1.90)
12-hr	0.211 (0.166-0.263)	0.253 (0.198-0.315)	0.320 (0.250-0.400)	0.376 (0.292-0.472)	0.453 (0.341-0.590)	0.510 (0.377-0.676)	0.571 (0.411-0.782)	0.641 (0.436-0.889)	0.743 (0.486-1.06)	0.827 (0.529-1.20)
24-hr	0.124 (0.098-0.154)	0.150 (0.119-0.186)	0.193 (0.152-0.240)	0.228 (0.178-0.285)	0.277 (0.210-0.358)	0.313 (0.233-0.413)	0.351 (0.255-0.479)	0.397 (0.271-0.546)	0.464 (0.305-0.657)	0.521 (0.334-0.749)
2-day	0.069 (0.055-0.085)	0.085 (0.068-0.105)	0.111 (0.088-0.137)	0.133 (0.105-0.165)	0.163 (0.124-0.210)	0.185 (0.138-0.243)	0.209 (0.152-0.284)	0.237 (0.162-0.325)	0.281 (0.185-0.396)	0.318 (0.205-0.455)
3-day	0.050 (0.040-0.061)	0.062 (0.049-0.076)	0.081 (0.064-0.099)	0.096 (0.076-0.119)	0.118 (0.090-0.152)	0.134 (0.101-0.176)	0.152 (0.111-0.206)	0.173 (0.118-0.235)	0.205 (0.135-0.287)	0.232 (0.150-0.331)
4-day	0.040 (0.032-0.049)	0.049 (0.039-0.060)	0.064 (0.051-0.079)	0.077 (0.061-0.095)	0.094 (0.072-0.120)	0.107 (0.080-0.139)	0.120 (0.088-0.163)	0.137 (0.094-0.186)	0.162 (0.107-0.227)	0.184 (0.119-0.261)
7-day	0.027 (0.022-0.033)	0.033 (0.026-0.040)	0.042 (0.034-0.052)	0.050 (0.040-0.061)	0.061 (0.047-0.077)	0.069 (0.052-0.089)	0.077 (0.057-0.104)	0.087 (0.060-0.118)	0.102 (0.068-0.142)	0.115 (0.074-0.163)
10-day	0.022 (0.018-0.027)	0.026 (0.021-0.032)	0.033 (0.027-0.040)	0.039 (0.031-0.047)	0.047 (0.036-0.059)	0.053 (0.040-0.068)	0.059 (0.043-0.078)	0.066 (0.046-0.089)	0.077 (0.051-0.106)	0.085 (0.055-0.120)
20-day	0.015 (0.012-0.019)	0.018 (0.014-0.021)	0.022 (0.017-0.026)	0.025 (0.020-0.030)	0.029 (0.023-0.037)	0.033 (0.025-0.042)	0.036 (0.026-0.047)	0.040 (0.028-0.053)	0.045 (0.030-0.062)	0.049 (0.032-0.069)
30-day	0.013 (0.010-0.015)	0.014 (0.012-0.017)	0.017 (0.014-0.021)	0.019 (0.016-0.024)	0.023 (0.018-0.028)	0.025 (0.019-0.032)	0.028 (0.020-0.036)	0.030 (0.021-0.040)	0.033 (0.022-0.046)	0.036 (0.023-0.050)
45-day	0.010 (0.008-0.012)	0.012 (0.009-0.014)	0.014 (0.011-0.016)	0.015 (0.012-0.018)	0.018 (0.014-0.022)	0.019 (0.015-0.024)	0.021 (0.015-0.027)	0.023 (0.016-0.030)	0.025 (0.017-0.034)	0.027 (0.017-0.037)
60-day	0.009 (0.007-0.011)	0.010 (0.008-0.012)	0.011 (0.009-0.014)	0.013 (0.010-0.015)	0.015 (0.011-0.018)	0.016 (0.012-0.020)	0.018 (0.013-0.022)	0.019 (0.013-0.025)	0.021 (0.014-0.028)	0.022 (0.014-0.030)

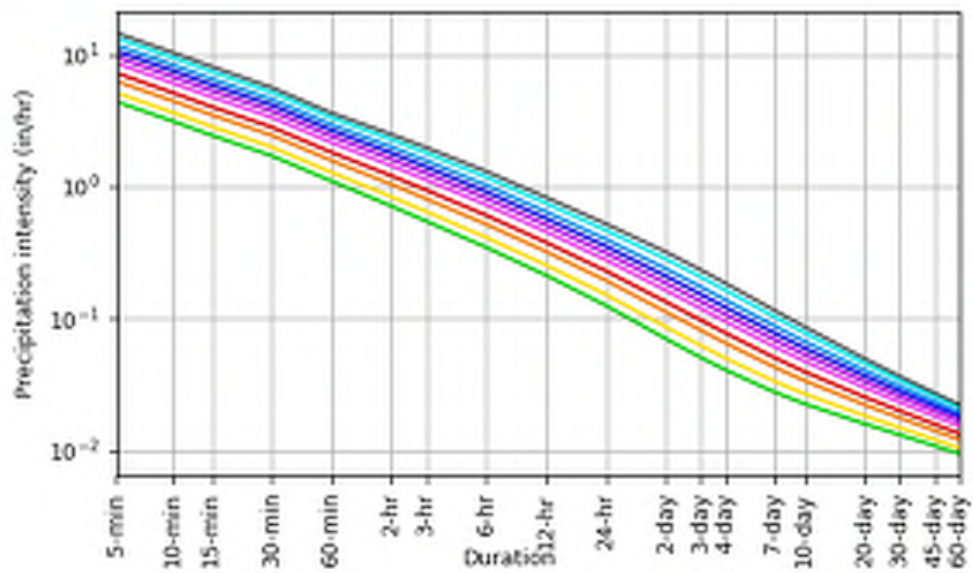
¹ Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).
Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.
Please refer to NOAA Atlas 14 document for more information.

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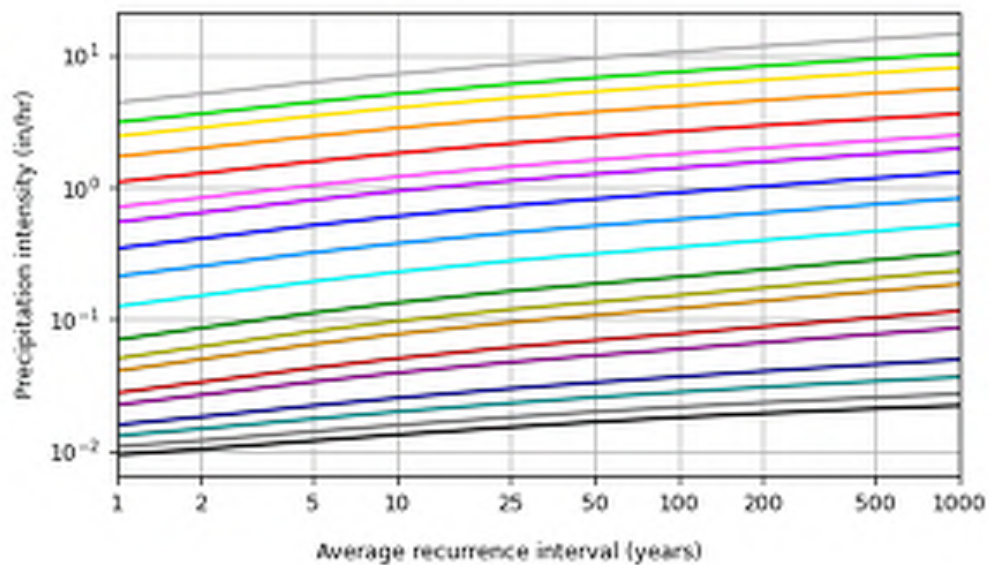
PF graphical

PDS-based intensity-duration-frequency (IDF) curves

Latitude: 41.0791°, Longitude: -73.5537°



Average recurrence interval (years)
1
2
5
10
25
50
100
200
500
1000

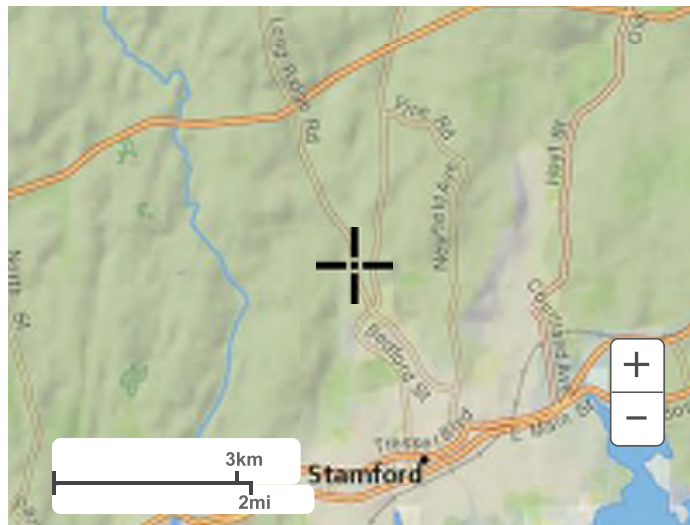


Duration
5-min
10-min
15-min
30-min
60-min
2-hr
3-hr
6-hr
12-hr
24-hr
2-day
3-day
4-day
7-day
10-day
20-day
30-day
45-day
60-day

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Maps & aerials

Small scale terrain



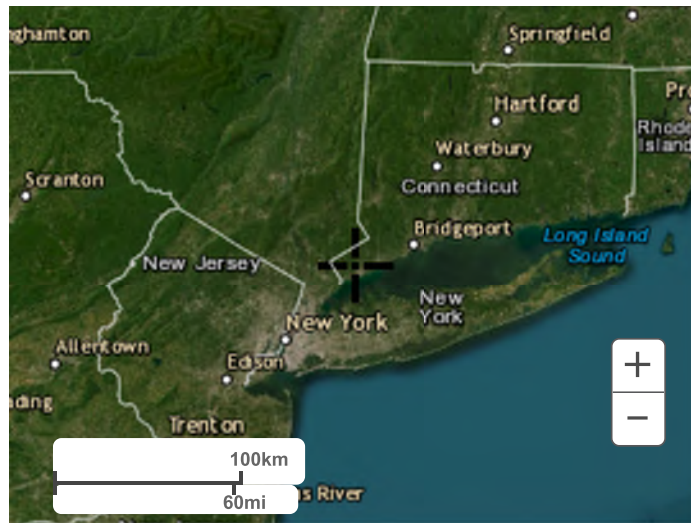
Large scale terrain



Large scale map



Large scale aerial

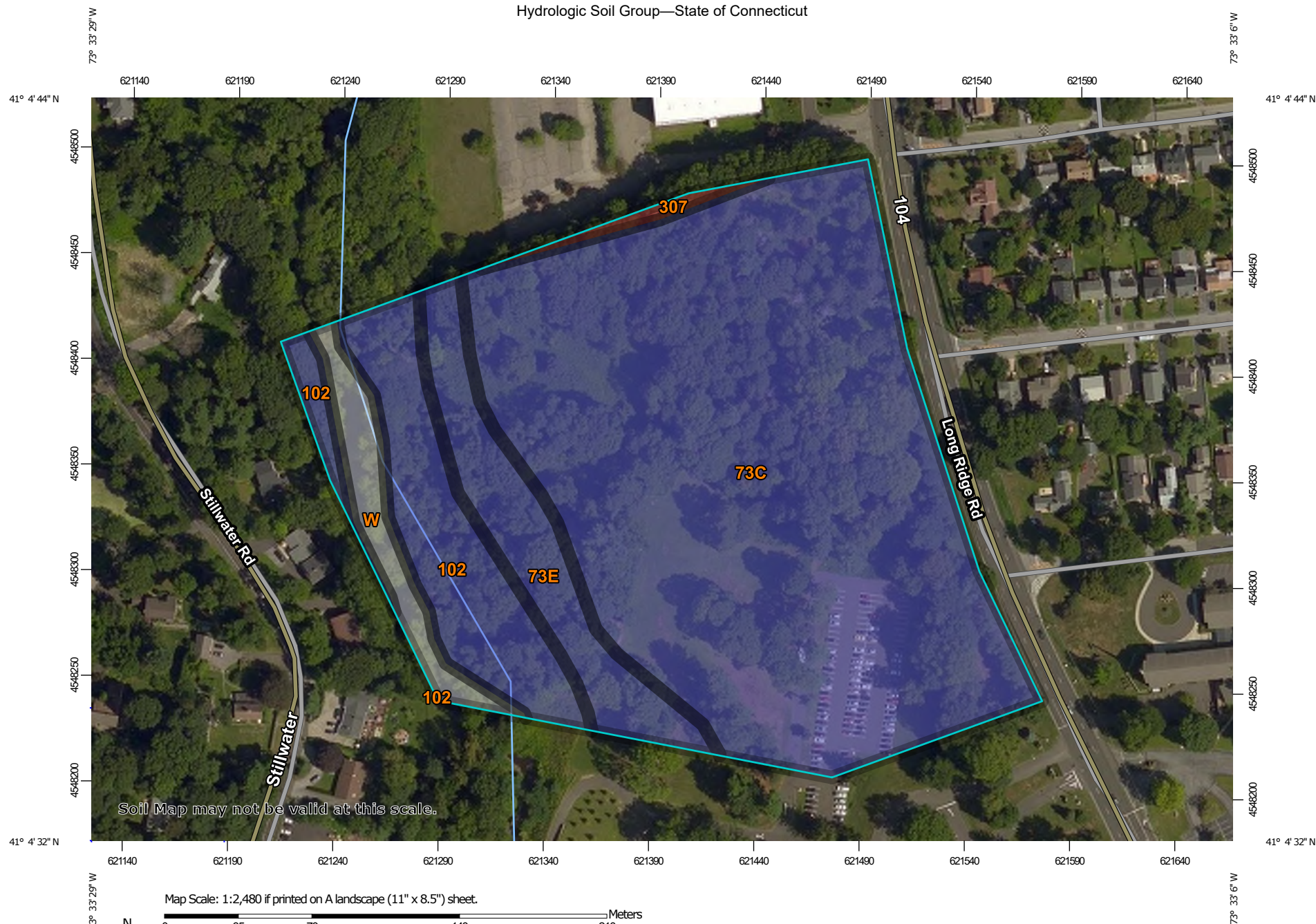


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[National Weather Service](#)
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Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov

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Hydrologic Soil Group—State of Connecticut



**Natural Resources
Conservation Service**









Web Soil Survey
National Cooperative Soil Survey

5/14/2019
Page 1 of 4

MAP LEGEND**Area of Interest (AOI)**
 Area of Interest (AOI)
Soils**Soil Rating Polygons**





-  A
-  A/D
-  B
-  B/D
-  C
-  C/D
-  D
-  Not rated or not available

Soil Rating Lines






-  A
-  A/D
-  B
-  B/D
-  C
-  C/D
-  D
-  Not rated or not available

Soil Rating Points

-  A
-  A/D
-  B
-  B/D

-  C
-  C/D
-  D
-  Not rated or not available

Water Features
 Streams and Canals
Transportation

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

Background
 Aerial Photography
MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

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

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

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

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

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

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

Soil Survey Area: State of Connecticut
Survey Area Data: Version 18, Dec 6, 2018

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

Date(s) aerial images were photographed: Jul 21, 2014—Aug 27, 2014

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
73C	Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky	B	12.3	71.9%
73E	Charlton-Chatfield complex, 15 to 45 percent slopes, very rocky	B	1.7	9.8%
102	Pootatuck fine sandy loam	B	2.2	12.9%
307	Urban land	D	0.1	0.8%
W	Water		0.8	4.6%
Totals for Area of Interest			17.1	100.0%

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Appendix B.

BMP Pollutant Removal Efficiency

Pollutant Removal Efficiencies for Best Management Practices for Use in Pollutant Loading Analysis

Best Management Practice (BMP) removal efficiencies for pollutant loading analysis for total suspended solids (TSS), total nitrogen (TN), and total phosphorus (TP) are presented in the table below. These removal efficiencies were developed by reviewing various literature sources and using best professional judgment based on literature values and general expectation of how values for different BMPs should relate to one another. The intent is to update this information and add BMPs and removal efficiencies for other parameters as more information/data becomes available in the future.

NHDES will consider other BMP removal efficiencies if sufficient documentation is provided.

Please note that all BMPs must be designed in accordance with the specifications in the Alteration of Terrain (AoT) Program Administrative Rules (Env-Wq 1500). If BMPs are not designed in accordance with the AoT Rules, NHDES may require lower removal efficiencies to be used in the analysis.

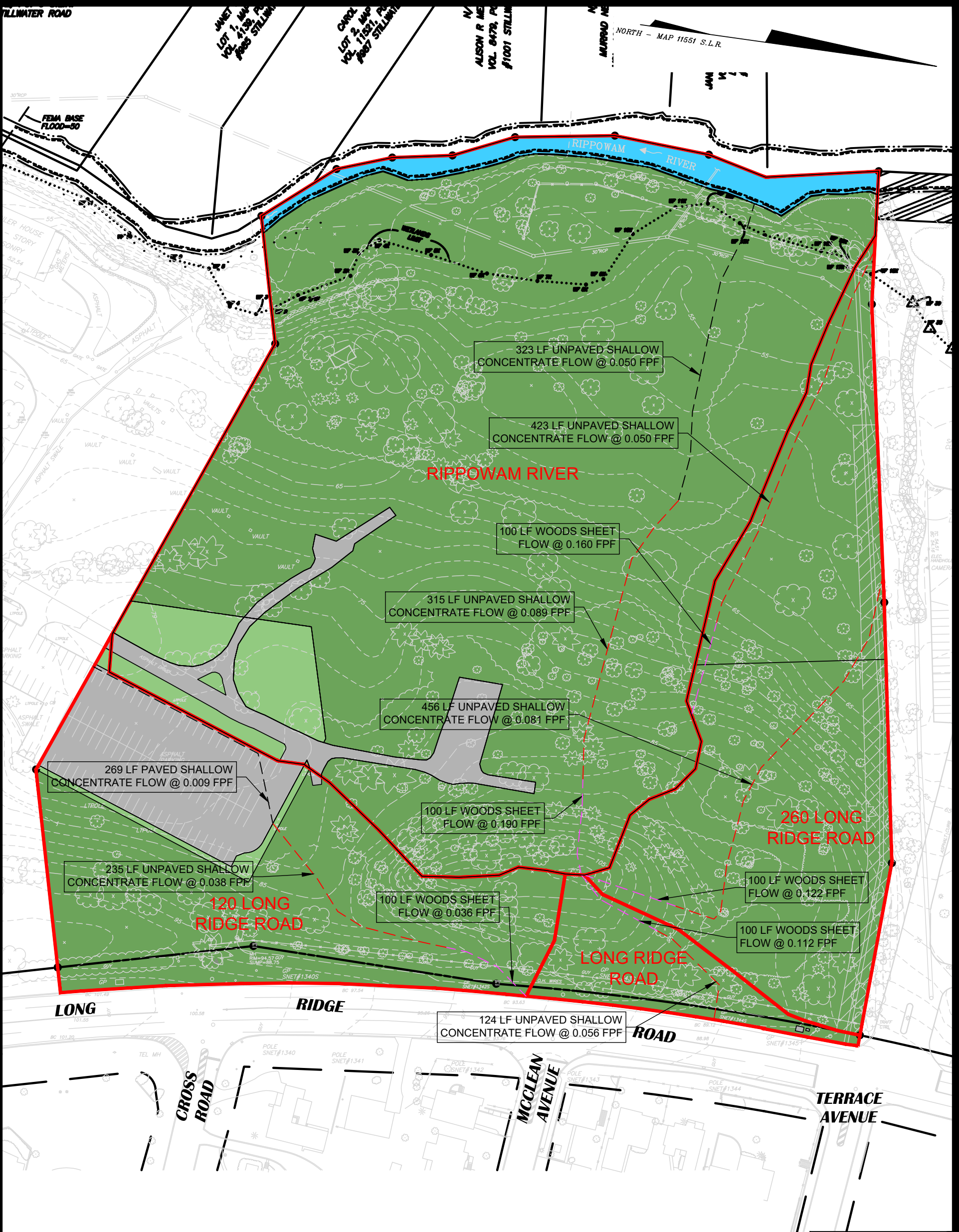
BMP in Series: When BMPs are placed in series, the BMP with the highest removal efficiency shall be the efficiency used in the model for computing annual loadings. Adding efficiencies together is generally not allowed because removals typically decrease rapidly with decreasing influent concentration and, in the case of primary BMPs (i.e., stormwater ponds, infiltration and filtering practices), pre-treatment is usually part of the design and is therefore, most likely already accounted for in the efficiencies cited for these BMPs.

Pollutant Removal Efficiencies for Best Management Practices for Use in Pollutant Loading Analysis				Values Accepted for Loading Analyses		
BMP Type	BMP	Notes	Lit. Ref.	TSS	TN	TP
Stormwater Ponds	Wet Pond		B, F	70%	35%	45%
	Wet Extended Detention Pond		A, B	80%	55%	68%
	Micropool Extended Detention Pond	TBA				
	Multiple Pond System	TBA				
	Pocket Pond	TBA				
Stormwater Wetlands	Shallow Wetland		A, B, F, I	80%	55%	45%
	Extended Detention Wetland		A, B, F, I	80%	55%	45%
	Pond/Wetland System	TBA				
	Gravel Wetland		H	95%	85%	64%
Infiltration Practices	Infiltration Trench (≥75 ft from surface water)		B, D, I	90%	55%	60%
	Infiltration Trench (<75 ft from surface water)		B, D, I	90%	10%	60%
	Infiltration Basin (≥75 ft from surface water)		A, F, B, D, I	90%	60%	65%
	Infiltration Basin (<75 ft from surface water)		A, F, B, D, I	90%	10%	65%
	Dry Wells			90%	55%	60%
	Drip Edges			90%	55%	60%
Filtering Practices	Aboveground or Underground Sand Filter that infiltrates WQV (≥75 ft from surface water)		A, F, B, D, I	90%	60%	65%
	Aboveground or Underground Sand Filter that infiltrates WQV (<75 ft from surface water)		A, F, B, D, I	90%	10%	65%
	Aboveground or Underground Sand Filter with underdrain		A, I, F, G, H	85%	10%	45%
	Tree Box Filter	TBA				
	Bioretention System		I, G, H	90%	65%	65%
	Permeable Pavement that infiltrates WQV (≥75 ft from surface water)		A, F, B, D, I	90%	60%	65%
	Permeable Pavement that infiltrates WQV (<75 ft from surface water)		A, F, B, D, I	90%	10%	65%
	Permeable Pavement with underdrain		Use TN and TP values for sand filter w/ underdrain and outlet pipe	90%	10%	45%


Pollutant Removal Efficiencies for Best Management Practices for Use in Pollutant Loading Analysis				Values Accepted for Loading Analyses		
BMP Type	BMP	Notes	Lit. Ref.	TSS	TN	TP
Treatment Swales	Flow Through Treatment Swale	TBA				
Vegetated Buffers	Vegetated Buffers		A, B, I	73%	40%	45%
Pre-Treatment Practices	Sediment Forebay	TBA				
	Vegetated Filter Strip		A, B, I	73%	40%	45%
	Vegetated Swale		A, B, C, F, H, I	65%	20%	25%
	Flow-Through Device - Hydrodynamic Separator		A, B, G, H	35%	10%	5%
	Flow-Through Device - ADS Underground Multichamber Water Quality Unit (WQU)		G, H	72%	10%	9%
	Other Flow-Through Devices	TBA				
	Off-line Deep Sump Catch Basin		J, K, L, M	15%	5%	5%

Appendix 2

Existing & Proposed On-Site Drainage Basin Exhibit
Existing & Proposed Offsite Watershed Map
Proposed LID Map
Water Quality Volume Calculations
72-Hour Draw Down Calculations
Outfall Protection



EXISTING ONSITE DRAINAGE BASIN MAP
210 LONG RIDGE ROAD
STAMFORD, CT



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	1"=100'



PROPOSED ONSITE DRAINAGE BASIN EXHIBIT
210 LONG RIDGE ROAD
STAMFORD, CT

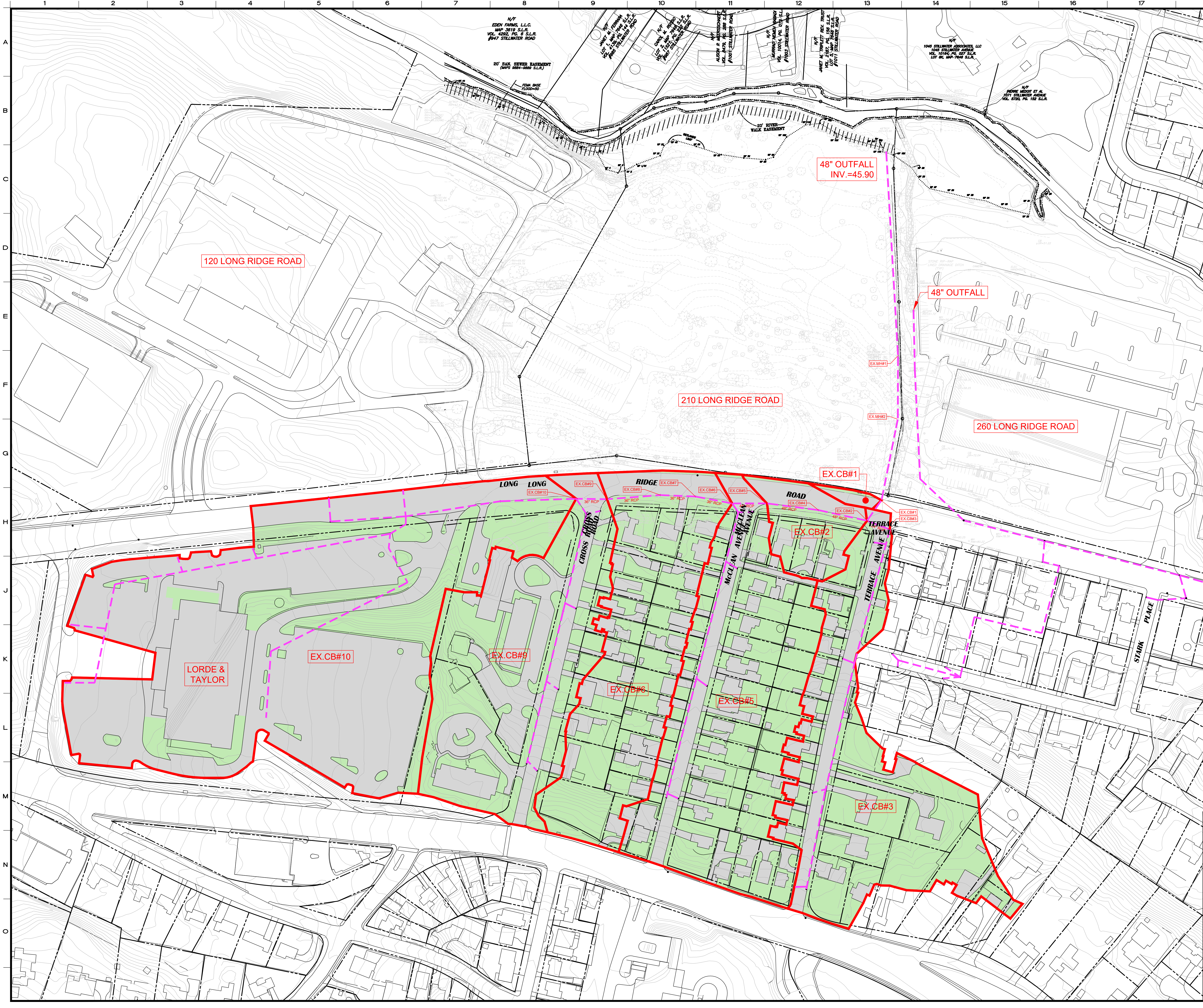


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	SCALE:
	1"=100'



1

06/23/2023

ZONING SUBMISSION

No.

Date

Revision

OFFSITE WATERSHED MAP

DEPICTING

210 LONG RIDGE ROAD

STAMFORD, CT

PREPARED FOR

MOZAIC SENIOR LIFE



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SCALE: 0 50 100

1"=50'

DRAWN BY: V.J.H.

CHECKED BY: T.M.

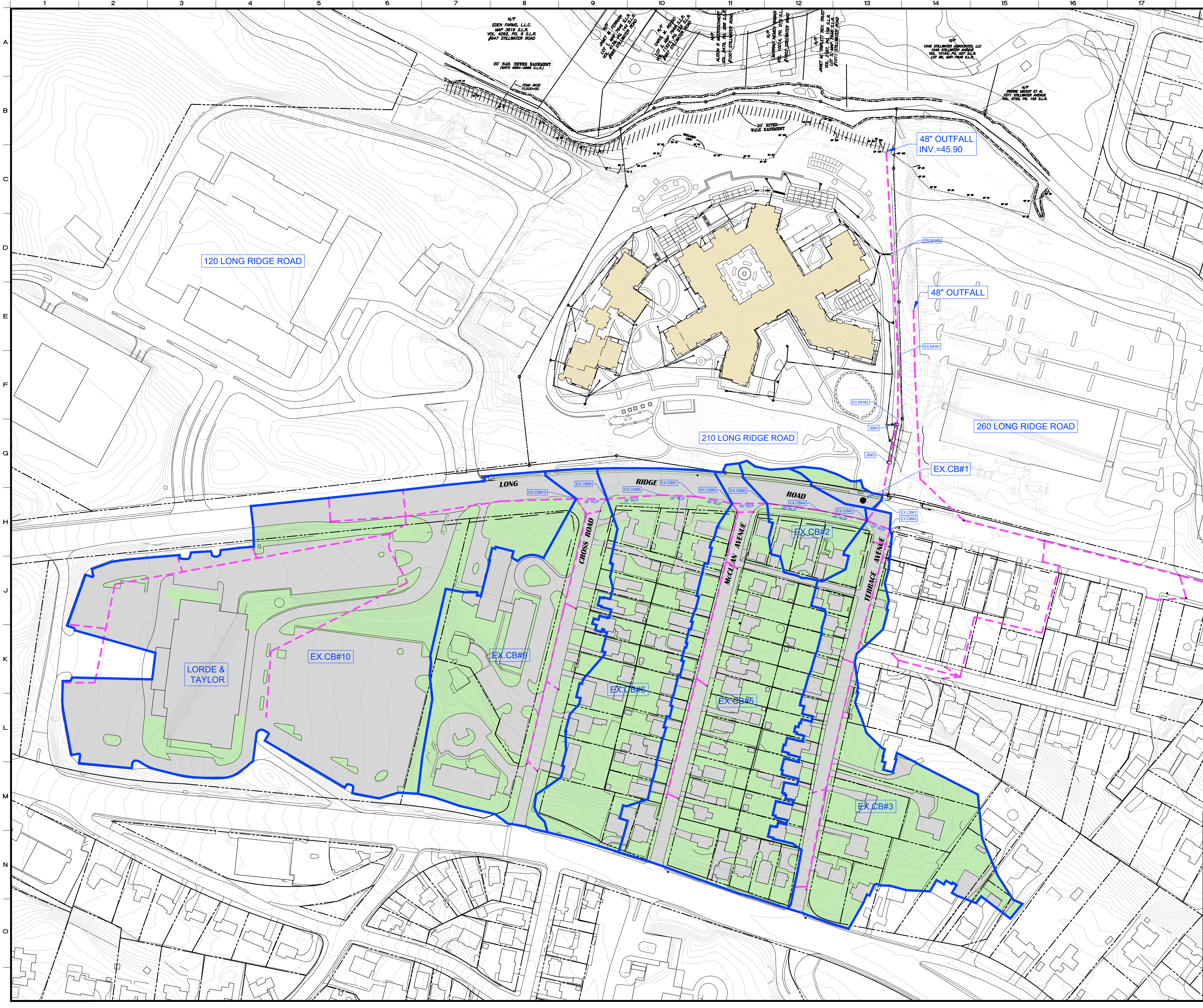
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SHEET No:

EX-VS

Comm. No: 1730

5/23/2023 10:50 AM G:\CADD\FILES\1000\1730\1730\Zoning\Senior Services\210 LRR Existing CB Map.dwg



No.

Date

Revision

1

08/09/2023

ZONING RESUBMISSION

OFFSITE WATERSHED MAP

DEPICTING

210 LONG RIDGE ROAD

STAMFORD, CT

PREPARED FOR

TJH SENIOR LIVING LLC



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SCALE: 0 50 100
1"=50'

DRAWN BY: V.J.H. CHECKED BY: T.M.

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- LIMIT OF DISTURBANCE

TEST PIT LOCATION

WATERSHED TO BMP

PROPOSED BMP

STEEP SLOPES

PROPOSED BUILDING

IMPERVIOUS AREA

PERVIOUS AREA

FLOODPLAIN
- TP#X

SUMMARY TABLE			
TOTAL SITE AREA	653,400 SF	TOTAL DISTURBED AREA	491,810 SF
PRE-DEVELOPMENT IMPERVIOUS	46,236 SF	POST-DEVELOPMENT IMPERVIOUS	270,677 SF
REQUIRED RETENTION/TREATMENT VOLUME	23,023 CF	PROVIDED RETENTION/TREATMENT VOLUME	28,564 CF
PRE-DEVELOPMENT DCIA	29,252 SF	POST-DEVELOPMENT DCIA	2,868 SF
DIFFERENCE IN DCIA		-26,384 SF	

NOTE: ALL SITE SOILS CLASSIFIED AS NRCS HSG B

LOW IMPACT DEVELOPMENT MAP
210 LONG RIDGE ROAD
STAMFORD, CT

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DATE:
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SCALE:
1"=100'

Water Quality Volume Calculations

Project: *Mozaic Senior Life*

Project #: *1730*

Date: *8/9/2023*

Location: *210 Long Ridge Road, Stamford, CT*

By: *VJH*

Checked: *TM*

Proposed Conditions - Overall Site

Area=	15.000	acres
Impervious Area=	6.214	acres ^d
I=	0.414	^a
R=	0.423	^b
WQV=	0.529	ac. ft. ^c

WQV=	23,023 ft.³
WQV Provided=	28,564 ft.³

^a I=Percent Impervious Coverage

^b R=0.05+0.009(I); Volumetric runoff Coefficient, Equation taken from 2004 Connecticut Stormwater Quality Manual section 7.4.1

^c WQV=(1"xRxA)/12; Water Quality Volume, Equation taken from 2004 Connecticut Stormwater Quality Manual section 7.4.1

Water Quality Volume Calculations

Project: *Mozaic Senior Life*

Project #: *1730*

Date: *8/9/2023*

Location: *210 Long Ridge Road, Stamford, CT*

By: *VJH*

Checked: *TM*

Infiltration #1

Area=	3.313	acres
Impervious Area=	1.661	acres ^d
I=	0.501	^a
R=	0.501	^b
WQV=	0.138	ac. ft. ^c

WQV_{req'd}=	6,029 ft.³
WQV_{provided} @ El 55.70=	7,148 ft.³

^a I=Percent Impervious Coverage

^b $R=0.05+0.009(I)$; Volumetric runoff Coefficient, Equation taken from 2004 Connecticut Stormwater Quality Manual section 7.4.1

^c $WQV=(I \times R \times A)/12$; Water Quality Volume, Equation taken from 2004 Connecticut Stormwater Quality Manual section 7.4.1

Water Quality Volume Calculations

Project: *Mozaic Senior Life*

Project #: *1730*

Date: *8/9/2023*

Location: *210 Long Ridge Road, Stamford, CT*

By: *VJH*

Checked: *TM*

Infiltration #2

Area=	4.617	acres [*]
Impervious Area=	2.133	acres ^{d*}
I=	0.462	^a
R=	0.466	^b
WQV=	0.179	ac. ft. ^c

WQV_{req'd}=	7,806 ft.³
WQV_{provided} @ El 60.30=	8,338 ft.³

^a I=Percent Impervious Coverage

^b $R=0.05+0.009(I)$; Volumetric runoff Coefficient, Equation taken from 2004 Connecticut Stormwater Quality Manual section 7.4.1

^c $WQV=(I \times R \times A)/12$; Water Quality Volume, Equation taken from 2004 Connecticut Stormwater Quality Manual section 7.4.1

* Includes offsite area

Water Quality Volume Calculations

Project: *Mozaic Senior Life*

Project #: *1730*

Date: *8/9/2023*

Location: *210 Long Ridge Road, Stamford, CT*

By: *VJH*

Checked: *TM*

Infiltration #3

Area=	1.090	acres
Impervious Area=	0.718	acres ^d
I=	0.659	^a
R=	0.643	^b
WQV=	0.058	ac. ft. ^c

WQV_{req'd}=	2,543 ft.³
WQV_{provided} @ El 53.75=	5,113 ft.³

^a I=Percent Impervious Coverage

^b R=0.05+0.009(I); Volumetric runoff Coefficient, Equation taken from 2004 Connecticut Stormwater Quality Manual section 7.4.1

^c WQV=(I"xRxA)/12; Water Quality Volume, Equation taken from 2004 Connecticut Stormwater Quality Manual section 7.4.1

Water Quality Volume Calculations

Project: *Mozaic Senior Life*

Project #: *1730*

Date: *8/9/2023*

Location: *210 Long Ridge Road, Stamford, CT*

By: *VJH*

Checked: *TM*

Infiltration #4

Area=	2.153	acres
Impervious Area=	1.502	acres ^d
I=	0.697	^a
R=	0.678	^b
WQV=	0.122	ac. ft. ^c

WQV_{req'd}=	5,296 ft.³
WQV_{provided} @ El 53.50=	7,965 ft.³

^a I=Percent Impervious Coverage

^b R=0.05+0.009(I); Volumetric runoff Coefficient, Equation taken from 2004 Connecticut Stormwater Quality Manual section 7.4.1

^c WQV=(1"xRxA)/12; Water Quality Volume, Equation taken from 2004 Connecticut Stormwater Quality Manual section 7.4.1

72-Hour Draw Down Calculations

Project: *Mozaic Senior Life*

Project #: *1730*

Date: *8/9/2023*

Location: *210 Long Ridge Road*

By: *VJH*

Checked: *TM*

Infiltration Systems

Infiltration System #1

Surface Area of Infiltration System (SA) *	4,828	ft ²
Volume of Storage of Infiltration System (VS)	7,148	ft ³
Infiltration Rate (IR)	1.02	in/hr ^c
Theoretical Water Column Height	17.77	in ^a
Time of Draw Down	17.42	hr^b

Infiltration System #2

Surface Area of Infiltration System (SA) *	4,095	ft ²
Volume of Storage of Infiltration System (VS)	8,338	ft ³
Infiltration Rate (IR)	1.02	in/hr ^c
Theoretical Water Column Height	24.43	in ^a
Time of Draw Down	23.95	hr^b

^a Theoretical Water Column Height (WCH) = VS/SA*12

^b Time of Draw Down = WCH/IR

^c Infiltration Rate (IR) per NRCS Hydrologic Group B for Sandy Loam

* Surface area underneath the infiltration galleries only.

72-Hour Draw Down Calculations

Project: *Mozaic Senior Life*

Project #: *1730*

Date: *8/9/2023*

Location: *210 Long Ridge Road*

By: *VJH*

Checked: *TM*

Infiltration Systems

Infiltration System #3

Surface Area of Infiltration System (SA) *	3,199	ft ²
Volume of Storage of Infiltration System (VS)	5,113	ft ³
Infiltration Rate (IR)	1.02	in/hr ^c
Theoretical Water Column Height	19.18	in ^a
Time of Draw Down	18.80	hr^b

Infiltration System #4

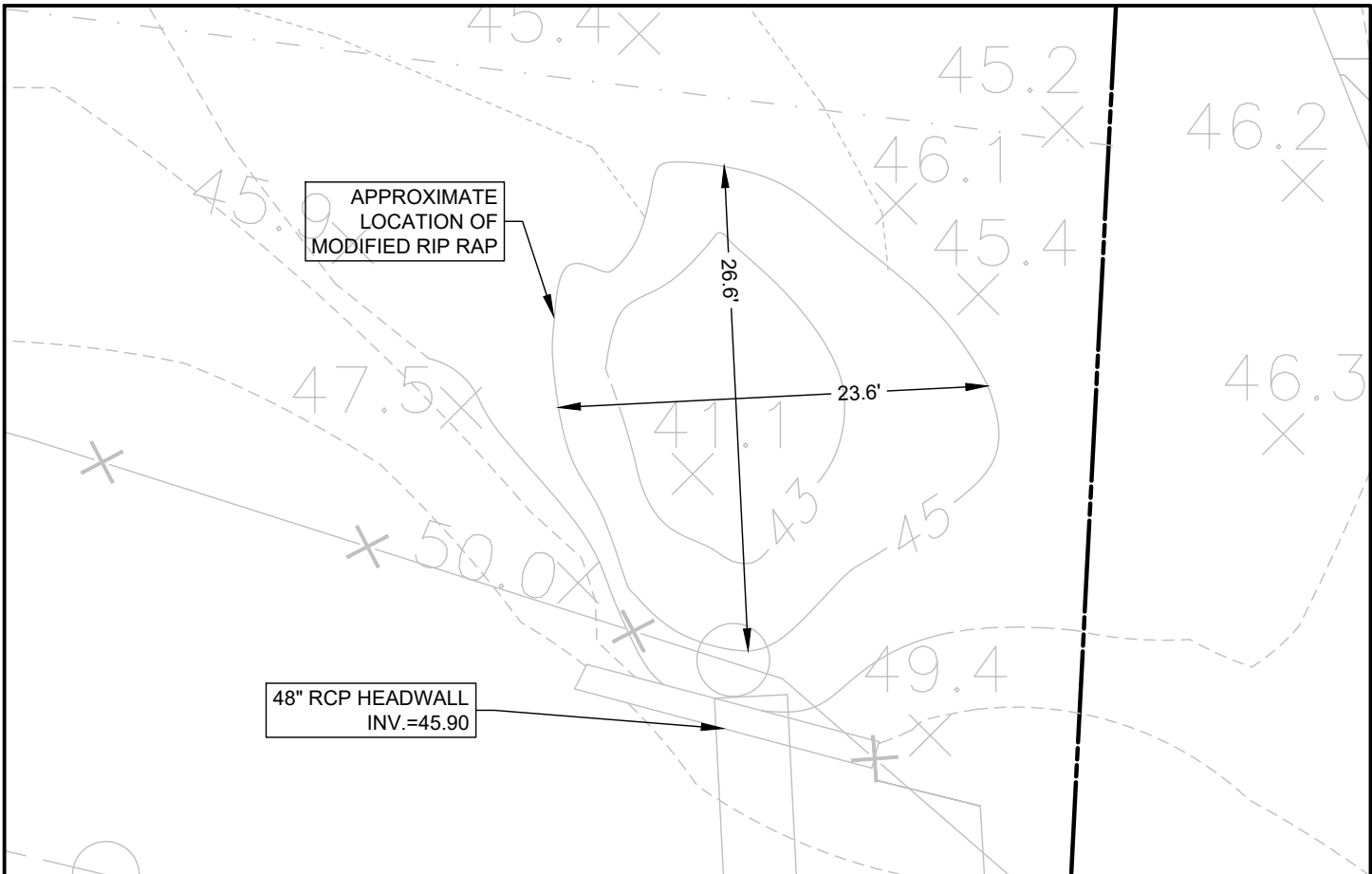
Surface Area of Infiltration System (SA) *	5,719	ft ²
Volume of Storage of Infiltration System (VS)	7,965	ft ³
Infiltration Rate (IR)	1.02	in/hr ^c
Theoretical Water Column Height	16.71	in ^a
Time of Draw Down	16.39	hr^b

^a Theoretical Water Column Height (WCH) = VS/SA*12

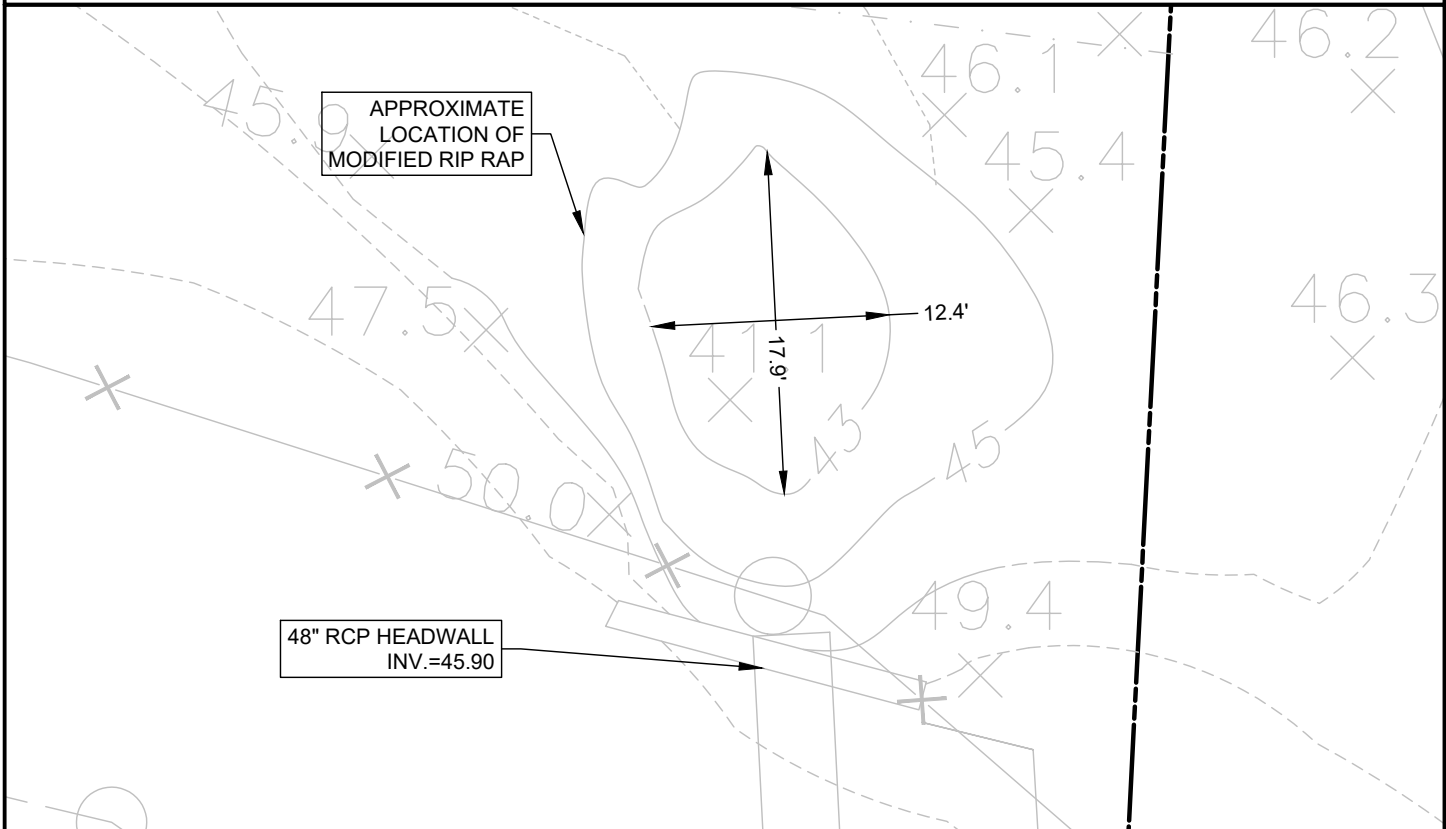
^b Time of Draw Down = WCH/IR

^c Infiltration Rate (IR) per NRCS Hydrologic Group B for Sandy Loam

* Surface area underneath the infiltration galleries only.



OVERALL BASIN DIMENSIONS



DEPRESSION BASIN DIMENSIONS

EXISTING SCOUR HOLE EXHIBIT
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STAMFORD, CT



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Type 1 Preformed Scour Hole Sizing

Project: *Mozaic Senior Life*

Project #: *1730*

Date: *5/23/2023*

Location: *210 Long Ridge Road*

By: *VJH*

Checked: *TM*

Proposed Conditions - 48" RCP to Rippowam River

Flow (Q)	207.22	cfs*
Tailwater (Tw)	6.35	ft
Pipe Size (Sp)	4.00	ft
d ₅₀ =	0.38	ft ^a
Required RipRap	Modified	^b
Basin Depression (F)	2.00	ft ^c
Basin Length (C)	24.00	ft ^d
Basin Width (B)	20.00	ft ^e
Depression Length	12.00	ft ^f
Depression Width	8.00	ft ^g

^a $d_{50} = (0.0125 \times Sp^2 / Tw)(Q / Sp^{2.5})^{1.333}$ = Equation 11.35 from Section 11.13.6 of the Connecticut Department of Transportation Drainage Manual

^b From the table on Page 11.13-5 of the Connecticut Department of Transportation Drainage Manual

^c Basin Depression (F)=0.5Sp=Equation 11.37 from Section 11.13.6 of the Connecticut Department of Transportation Drainage Manual

^d Basin Length (C)=3Sp+6F=Equation 11.37 from Section 11.13.6 of the Connecticut Department of Transportation Drainage Manual

^e Basin Width (B)=2Sp+6F=Equation 11.37 from Section 11.13.6 of the Connecticut Department of Transportation Drainage Manual

^f Depression Length=3Sp=Equation from Page 11.13-19 of the Connecticut Department of Transportation Drainage Manual

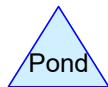
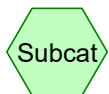
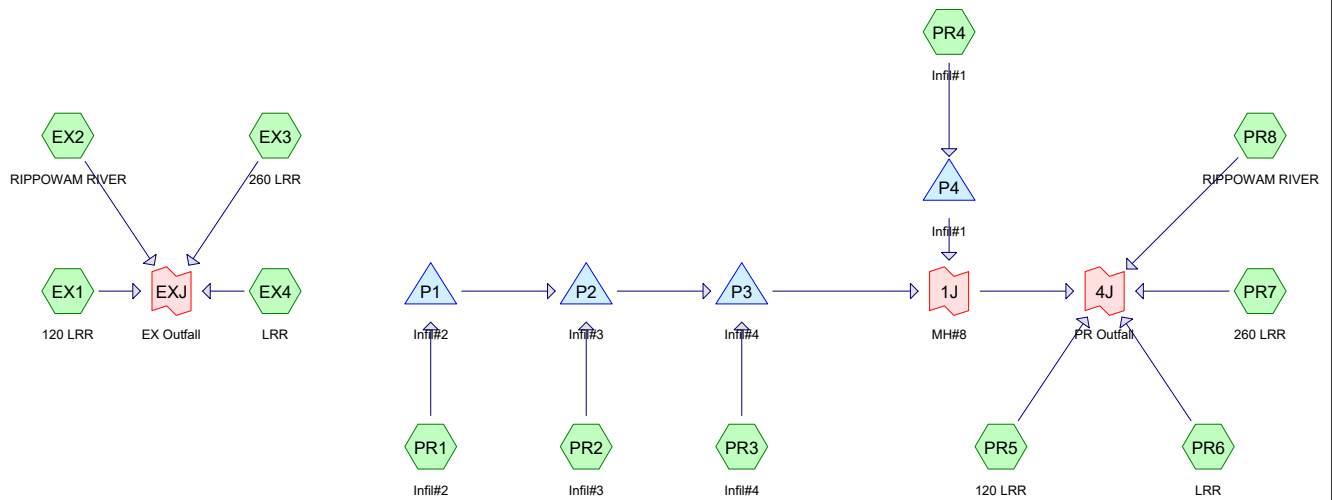
^g Depression Width=2Sp=Equation from Page 11.13-19 of the Connecticut Department of Transportation Drainage Manual

* 100-year storm event

Appendix 3

Existing & Proposed HydroCAD Report

HydroCAD Based on
NOAA Rainfall
Distribution



Routing Diagram for HydroCAD Model 3
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HydroCAD Model 3

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Rainfall Events Listing

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-Year	Type III 24-hr		Default	24.00	1	3.00	2
2	2-Year	Type III 24-hr		Default	24.00	1	3.62	2
3	5-Year	Type III 24-hr		Default	24.00	1	4.64	2
4	10-Year	Type III 24-hr		Default	24.00	1	5.49	2
5	25-Year	Type III 24-hr		Default	24.00	1	6.65	2
6	50-Year	Type III 24-hr		Default	24.00	1	7.52	2
7	100-Year	Type III 24-hr		Default	24.00	1	8.44	2

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Type III 24-hr 1-Year Rainfall=3.00"

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Page 3

Time span=0.00-24.00 hrs, dt=0.005 hrs, 4801 points x 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

SubcatchmentEX1: 120 LRRRunoff Area=114,122 sf 25.63% Impervious Runoff Depth>0.70"
Flow Length=604' Tc=19.8 min CN=69.77 Runoff=1.26 cfs 6,653 cf**SubcatchmentEX2: RIPPOWAMRIVER**Runoff Area=405,982 sf 7.89% Impervious Runoff Depth>0.43"
Flow Length=738' Tc=11.0 min CN=63.04 Runoff=2.57 cfs 14,630 cf**SubcatchmentEX3: 260 LRR**Runoff Area=127,378 sf 0.00% Impervious Runoff Depth>0.33"
Flow Length=556' Tc=11.7 min CN=60.00 Runoff=0.48 cfs 3,521 cf**SubcatchmentEX4: LRR**Runoff Area=22,256 sf 0.24% Impervious Runoff Depth>0.33"
Flow Length=224' Tc=10.9 min CN=60.09 Runoff=0.09 cfs 621 cf**SubcatchmentPR1: Infil#2**Runoff Area=201,111 sf 46.20% Impervious Runoff Depth>1.12"
Flow Length=213' Tc=10.3 min CN=77.84 Runoff=5.07 cfs 18,713 cf**SubcatchmentPR2: Infil#3**Runoff Area=47,480 sf 65.85% Impervious Runoff Depth>1.61"
Tc=5.0 min CN=85.36 Runoff=2.14 cfs 6,382 cf**SubcatchmentPR3: Infil#4**Runoff Area=93,792 sf 69.74% Impervious Runoff Depth>1.72"
Flow Length=277' Tc=10.8 min CN=86.80 Runoff=3.71 cfs 13,443 cf**SubcatchmentPR4: Infil#1**Runoff Area=144,300 sf 50.15% Impervious Runoff Depth>1.21"
Flow Length=273' Tc=10.8 min CN=79.46 Runoff=3.94 cfs 14,591 cf**SubcatchmentPR5: 120 LRR**Runoff Area=8,316 sf 0.00% Impervious Runoff Depth>0.35"
Flow Length=196' Tc=7.5 min CN=60.57 Runoff=0.04 cfs 243 cf**SubcatchmentPR6: LRR**Runoff Area=16,749 sf 32.87% Impervious Runoff Depth>0.84"
Tc=5.0 min CN=72.69 Runoff=0.36 cfs 1,173 cf**SubcatchmentPR7: 260 LRR**Runoff Area=27,965 sf 9.93% Impervious Runoff Depth>0.46"
Tc=5.0 min CN=63.91 Runoff=0.25 cfs 1,083 cf**SubcatchmentPR8: RIPPOWAMRIVER**Runoff Area=130,027 sf 16.84% Impervious Runoff Depth>0.57"
Flow Length=163' Tc=8.8 min CN=66.58 Runoff=1.40 cfs 6,136 cf**Pond P1: Infil#2**Peak Elev=60.49' Storage=9,029 cf Inflow=5.07 cfs 18,713 cf
Outflow=0.81 cfs 10,216 cf**Pond P2: Infil#3**Peak Elev=55.10' Storage=8,831 cf Inflow=2.14 cfs 16,598 cf
Outflow=0.64 cfs 7,778 cf**Pond P3: Infil#4**Peak Elev=55.09' Storage=15,900 cf Inflow=3.71 cfs 21,221 cf
Outflow=0.33 cfs 5,336 cf**Pond P4: Infil#1**Peak Elev=56.03' Storage=8,549 cf Inflow=3.94 cfs 14,591 cf
Outflow=0.34 cfs 6,829 cf

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Type III 24-hr 1-Year Rainfall=3.00"

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Link 1J: MH#8

Inflow=0.49 cfs 12,165 cf

Primary=0.49 cfs 12,165 cf

Link 4J: PR Outfall

Inflow=1.96 cfs 20,799 cf

Primary=1.96 cfs 20,799 cf

Link EXJ: EX Outfall

Inflow=4.23 cfs 25,424 cf

Primary=4.23 cfs 25,424 cf

Total Runoff Area = 1,339,478 sf Runoff Volume = 87,187 cf Average Runoff Depth = 0.78"

73.61% Pervious = 986,013 sf 26.39% Impervious = 353,465 sf

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Type III 24-hr 2-Year Rainfall=3.62"

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Time span=0.00-24.00 hrs, dt=0.005 hrs, 4801 points x 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

SubcatchmentEX1: 120 LRRRunoff Area=114,122 sf 25.63% Impervious Runoff Depth>1.06"
Flow Length=604' Tc=19.8 min CN=69.77 Runoff=2.05 cfs 10,118 cf**SubcatchmentEX2: RIPPOWAMRIVER**Runoff Area=405,982 sf 7.89% Impervious Runoff Depth>0.72"
Flow Length=738' Tc=11.0 min CN=63.04 Runoff=5.30 cfs 24,296 cf**SubcatchmentEX3: 260 LRR**Runoff Area=127,378 sf 0.00% Impervious Runoff Depth>0.58"
Flow Length=556' Tc=11.7 min CN=60.00 Runoff=1.16 cfs 6,173 cf**SubcatchmentEX4: LRR**Runoff Area=22,256 sf 0.24% Impervious Runoff Depth>0.59"
Flow Length=224' Tc=10.9 min CN=60.09 Runoff=0.21 cfs 1,086 cf**SubcatchmentPR1: Infil#2**Runoff Area=201,111 sf 46.20% Impervious Runoff Depth>1.57"
Flow Length=213' Tc=10.3 min CN=77.84 Runoff=7.30 cfs 26,384 cf**SubcatchmentPR2: Infil#3**Runoff Area=47,480 sf 65.85% Impervious Runoff Depth>2.15"
Tc=5.0 min CN=85.36 Runoff=2.85 cfs 8,503 cf**SubcatchmentPR3: Infil#4**Runoff Area=93,792 sf 69.74% Impervious Runoff Depth>2.27"
Flow Length=277' Tc=10.8 min CN=86.80 Runoff=4.87 cfs 17,732 cf**SubcatchmentPR4: Infil#1**Runoff Area=144,300 sf 50.15% Impervious Runoff Depth>1.69"
Flow Length=273' Tc=10.8 min CN=79.46 Runoff=5.57 cfs 20,307 cf**SubcatchmentPR5: 120 LRR**Runoff Area=8,316 sf 0.00% Impervious Runoff Depth>0.61"
Flow Length=196' Tc=7.5 min CN=60.57 Runoff=0.09 cfs 421 cf**SubcatchmentPR6: LRR**Runoff Area=16,749 sf 32.87% Impervious Runoff Depth>1.24"
Tc=5.0 min CN=72.69 Runoff=0.56 cfs 1,731 cf**SubcatchmentPR7: 260 LRR**Runoff Area=27,965 sf 9.93% Impervious Runoff Depth>0.76"
Tc=5.0 min CN=63.91 Runoff=0.49 cfs 1,774 cf**SubcatchmentPR8: RIPPOWAMRIVER**Runoff Area=130,027 sf 16.84% Impervious Runoff Depth>0.89"
Flow Length=163' Tc=8.8 min CN=66.58 Runoff=2.50 cfs 9,687 cf**Pond P1: Infil#2**Peak Elev=60.78' Storage=10,073 cf Inflow=7.30 cfs 26,384 cf
Outflow=3.23 cfs 17,856 cf**Pond P2: Infil#3**Peak Elev=55.16' Storage=9,013 cf Inflow=4.00 cfs 26,359 cf
Outflow=2.31 cfs 17,536 cf**Pond P3: Infil#4**Peak Elev=55.15' Storage=16,155 cf Inflow=4.87 cfs 35,268 cf
Outflow=1.30 cfs 19,380 cf**Pond P4: Infil#1**Peak Elev=56.35' Storage=9,869 cf Inflow=5.57 cfs 20,307 cf
Outflow=0.95 cfs 12,461 cf

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Type III 24-hr 2-Year Rainfall=3.62"

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Link 1J: MH#8

Inflow=1.97 cfs 31,841 cf

Primary=1.97 cfs 31,841 cf

Link 4J: PR Outfall

Inflow=3.50 cfs 45,454 cf

Primary=3.50 cfs 45,454 cf

Link EXJ: EX Outfall

Inflow=8.34 cfs 41,673 cf

Primary=8.34 cfs 41,673 cf

Total Runoff Area = 1,339,478 sf Runoff Volume = 128,211 cf Average Runoff Depth = 1.15"
73.61% Pervious = 986,013 sf 26.39% Impervious = 353,465 sf

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Type III 24-hr 5-Year Rainfall=4.64"

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Time span=0.00-24.00 hrs, dt=0.005 hrs, 4801 points x 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

SubcatchmentEX1: 120 LRR

Runoff Area=114,122 sf 25.63% Impervious Runoff Depth>1.75"
Flow Length=604' Tc=19.8 min CN=69.77 Runoff=3.53 cfs 16,622 cf

SubcatchmentEX2: RIPPOWAMRIVER

Runoff Area=405,982 sf 7.89% Impervious Runoff Depth>1.28"
Flow Length=738' Tc=11.0 min CN=63.04 Runoff=10.80 cfs 43,458 cf

SubcatchmentEX3: 260 LRR

Runoff Area=127,378 sf 0.00% Impervious Runoff Depth>1.09"
Flow Length=556' Tc=11.7 min CN=60.00 Runoff=2.67 cfs 11,595 cf

SubcatchmentEX4: LRR

Runoff Area=22,256 sf 0.24% Impervious Runoff Depth>1.10"
Flow Length=224' Tc=10.9 min CN=60.09 Runoff=0.48 cfs 2,037 cf

SubcatchmentPR1: Infil#2

Runoff Area=201,111 sf 46.20% Impervious Runoff Depth>2.39"
Flow Length=213' Tc=10.3 min CN=77.84 Runoff=11.22 cfs 40,058 cf

SubcatchmentPR2: Infil#3

Runoff Area=47,480 sf 65.85% Impervious Runoff Depth>3.07"
Tc=5.0 min CN=85.36 Runoff=4.04 cfs 12,141 cf

SubcatchmentPR3: Infil#4

Runoff Area=93,792 sf 69.74% Impervious Runoff Depth>3.20"
Flow Length=277' Tc=10.8 min CN=86.80 Runoff=6.82 cfs 25,041 cf

SubcatchmentPR4: Infil#1

Runoff Area=144,300 sf 50.15% Impervious Runoff Depth>2.53"
Flow Length=273' Tc=10.8 min CN=79.46 Runoff=8.39 cfs 30,406 cf

SubcatchmentPR5: 120 LRR

Runoff Area=8,316 sf 0.00% Impervious Runoff Depth>1.13"
Flow Length=196' Tc=7.5 min CN=60.57 Runoff=0.21 cfs 782 cf

SubcatchmentPR6: LRR

Runoff Area=16,749 sf 32.87% Impervious Runoff Depth>1.98"
Tc=5.0 min CN=72.69 Runoff=0.91 cfs 2,757 cf

SubcatchmentPR7: 260 LRR

Runoff Area=27,965 sf 9.93% Impervious Runoff Depth>1.34"
Tc=5.0 min CN=63.91 Runoff=0.97 cfs 3,132 cf

SubcatchmentPR8: RIPPOWAMRIVER

Runoff Area=130,027 sf 16.84% Impervious Runoff Depth>1.52"
Flow Length=163' Tc=8.8 min CN=66.58 Runoff=4.60 cfs 16,513 cf

Pond P1: Infil#2

Peak Elev=61.19' Storage=11,566 cf Inflow=11.22 cfs 40,058 cf
Outflow=8.39 cfs 31,484 cf

Pond P2: Infil#3

Peak Elev=55.77' Storage=10,690 cf Inflow=10.18 cfs 43,625 cf
Outflow=5.89 cfs 34,797 cf

Pond P3: Infil#4

Peak Elev=55.62' Storage=18,494 cf Inflow=9.79 cfs 59,839 cf
Outflow=6.38 cfs 43,944 cf

Pond P4: Infil#1

Peak Elev=57.31' Storage=13,921 cf Inflow=8.39 cfs 30,406 cf
Outflow=1.90 cfs 22,438 cf

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Type III 24-hr 5-Year Rainfall=4.64"

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Link 1J: MH#8

Inflow=8.28 cfs 66,382 cf

Primary=8.28 cfs 66,382 cf

Link 4J: PR Outfall

Inflow=9.95 cfs 89,567 cf

Primary=9.95 cfs 89,567 cf

Link EXJ: EX Outfall

Inflow=16.80 cfs 73,712 cf

Primary=16.80 cfs 73,712 cf

Total Runoff Area = 1,339,478 sf Runoff Volume = 204,542 cf Average Runoff Depth = 1.83"

73.61% Pervious = 986,013 sf 26.39% Impervious = 353,465 sf

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Type III 24-hr 10-Year Rainfall=5.49"

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Time span=0.00-24.00 hrs, dt=0.005 hrs, 4801 points x 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

SubcatchmentEX1: 120 LRRRunoff Area=114,122 sf 25.63% Impervious Runoff Depth>2.38"
Flow Length=604' Tc=19.8 min CN=69.77 Runoff=4.88 cfs 22,593 cf**SubcatchmentEX2: RIPPOWAMRIVER**Runoff Area=405,982 sf 7.89% Impervious Runoff Depth>1.83"
Flow Length=738' Tc=11.0 min CN=63.04 Runoff=16.07 cfs 61,766 cf**SubcatchmentEX3: 260 LRR**Runoff Area=127,378 sf 0.00% Impervious Runoff Depth>1.59"
Flow Length=556' Tc=11.7 min CN=60.00 Runoff=4.16 cfs 16,889 cf**SubcatchmentEX4: LRR**Runoff Area=22,256 sf 0.24% Impervious Runoff Depth>1.60"
Flow Length=224' Tc=10.9 min CN=60.09 Runoff=0.75 cfs 2,964 cf**SubcatchmentPR1: Infil#2**Runoff Area=201,111 sf 46.20% Impervious Runoff Depth>3.11"
Flow Length=213' Tc=10.3 min CN=77.84 Runoff=14.62 cfs 52,134 cf**SubcatchmentPR2: Infil#3**Runoff Area=47,480 sf 65.85% Impervious Runoff Depth>3.86"
Tc=5.0 min CN=85.36 Runoff=5.04 cfs 15,262 cf**SubcatchmentPR3: Infil#4**Runoff Area=93,792 sf 69.74% Impervious Runoff Depth>4.00"
Flow Length=277' Tc=10.8 min CN=86.80 Runoff=8.45 cfs 31,284 cf**SubcatchmentPR4: Infil#1**Runoff Area=144,300 sf 50.15% Impervious Runoff Depth>3.27"
Flow Length=273' Tc=10.8 min CN=79.46 Runoff=10.83 cfs 39,265 cf**SubcatchmentPR5: 120 LRR**Runoff Area=8,316 sf 0.00% Impervious Runoff Depth>1.64"
Flow Length=196' Tc=7.5 min CN=60.57 Runoff=0.32 cfs 1,134 cf**SubcatchmentPR6: LRR**Runoff Area=16,749 sf 32.87% Impervious Runoff Depth>2.64"
Tc=5.0 min CN=72.69 Runoff=1.23 cfs 3,685 cf**SubcatchmentPR7: 260 LRR**Runoff Area=27,965 sf 9.93% Impervious Runoff Depth>1.90"
Tc=5.0 min CN=63.91 Runoff=1.42 cfs 4,422 cf**SubcatchmentPR8: RIPPOWAMRIVER**Runoff Area=130,027 sf 16.84% Impervious Runoff Depth>2.11"
Flow Length=163' Tc=8.8 min CN=66.58 Runoff=6.55 cfs 22,892 cf**Pond P1: Infil#2**Peak Elev=61.43' Storage=12,450 cf Inflow=14.62 cfs 52,134 cf
Outflow=13.07 cfs 43,526 cf**Pond P2: Infil#3**Peak Elev=56.37' Storage=12,346 cf Inflow=15.71 cfs 58,787 cf
Outflow=11.82 cfs 49,954 cf**Pond P3: Infil#4**Peak Elev=56.25' Storage=21,637 cf Inflow=18.01 cfs 81,239 cf
Outflow=11.11 cfs 65,336 cf**Pond P4: Infil#1**Peak Elev=58.27' Storage=17,964 cf Inflow=10.83 cfs 39,265 cf
Outflow=2.51 cfs 31,207 cf

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Type III 24-hr 10-Year Rainfall=5.49"

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Link 1J: MH#8

Inflow=13.58 cfs 96,543 cf

Primary=13.58 cfs 96,543 cf

Link 4J: PR Outfall

Inflow=17.25 cfs 128,676 cf

Primary=17.25 cfs 128,676 cf

Link EXJ: EX Outfall

Inflow=24.87 cfs 104,213 cf

Primary=24.87 cfs 104,213 cf

Total Runoff Area = 1,339,478 sf Runoff Volume = 274,291 cf Average Runoff Depth = 2.46"
73.61% Pervious = 986,013 sf 26.39% Impervious = 353,465 sf

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Type III 24-hr 25-Year Rainfall=6.65"

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Time span=0.00-24.00 hrs, dt=0.005 hrs, 4801 points x 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

SubcatchmentEX1: 120 LRR

Runoff Area=114,122 sf 25.63% Impervious Runoff Depth>3.29"
Flow Length=604' Tc=19.8 min CN=69.77 Runoff=6.84 cfs 31,308 cf

SubcatchmentEX2: RIPPOWAMRIVER

Runoff Area=405,982 sf 7.89% Impervious Runoff Depth>2.64"
Flow Length=738' Tc=11.0 min CN=63.04 Runoff=23.91 cfs 89,268 cf

SubcatchmentEX3: 260 LRR

Runoff Area=127,378 sf 0.00% Impervious Runoff Depth>2.35"
Flow Length=556' Tc=11.7 min CN=60.00 Runoff=6.42 cfs 24,964 cf

SubcatchmentEX4: LRR

Runoff Area=22,256 sf 0.24% Impervious Runoff Depth>2.36"
Flow Length=224' Tc=10.9 min CN=60.09 Runoff=1.15 cfs 4,378 cf

SubcatchmentPR1: Infil#2

Runoff Area=201,111 sf 46.20% Impervious Runoff Depth>4.13"
Flow Length=213' Tc=10.3 min CN=77.84 Runoff=19.38 cfs 69,275 cf

SubcatchmentPR2: Infil#3

Runoff Area=47,480 sf 65.85% Impervious Runoff Depth>4.95"
Tc=5.0 min CN=85.36 Runoff=6.40 cfs 19,603 cf

SubcatchmentPR3: Infil#4

Runoff Area=93,792 sf 69.74% Impervious Runoff Depth>5.11"
Flow Length=277' Tc=10.8 min CN=86.80 Runoff=10.68 cfs 39,940 cf

SubcatchmentPR4: Infil#1

Runoff Area=144,300 sf 50.15% Impervious Runoff Depth>4.31"
Flow Length=273' Tc=10.8 min CN=79.46 Runoff=14.20 cfs 51,779 cf

SubcatchmentPR5: 120 LRR

Runoff Area=8,316 sf 0.00% Impervious Runoff Depth>2.41"
Flow Length=196' Tc=7.5 min CN=60.57 Runoff=0.49 cfs 1,668 cf

SubcatchmentPR6: LRR

Runoff Area=16,749 sf 32.87% Impervious Runoff Depth>3.60"
Tc=5.0 min CN=72.69 Runoff=1.69 cfs 5,024 cf

SubcatchmentPR7: 260 LRR

Runoff Area=27,965 sf 9.93% Impervious Runoff Depth>2.73"
Tc=5.0 min CN=63.91 Runoff=2.10 cfs 6,352 cf

SubcatchmentPR8: RIPPOWAMRIVER

Runoff Area=130,027 sf 16.84% Impervious Runoff Depth>2.98"
Flow Length=163' Tc=8.8 min CN=66.58 Runoff=9.41 cfs 32,322 cf

Pond P1: Infil#2

Peak Elev=61.65' Storage=13,244 cf Inflow=19.38 cfs 69,275 cf
Outflow=18.08 cfs 60,623 cf

Pond P2: Infil#3

Peak Elev=57.20' Storage=14,658 cf Inflow=21.72 cfs 80,226 cf
Outflow=15.97 cfs 71,384 cf

Pond P3: Infil#4

Peak Elev=57.07' Storage=25,712 cf Inflow=26.43 cfs 111,324 cf
Outflow=20.30 cfs 95,409 cf

Pond P4: Infil#1

Peak Elev=59.34' Storage=22,470 cf Inflow=14.20 cfs 51,779 cf
Outflow=5.39 cfs 43,609 cf

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Type III 24-hr 25-Year Rainfall=6.65"

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Link 1J: MH#8

Inflow=24.34 cfs 139,018 cf

Primary=24.34 cfs 139,018 cf

Link 4J: PR Outfall

Inflow=30.39 cfs 184,385 cf

Primary=30.39 cfs 184,385 cf

Link EXJ: EX Outfall

Inflow=36.95 cfs 149,918 cf

Primary=36.95 cfs 149,918 cf

Total Runoff Area = 1,339,478 sf Runoff Volume = 375,882 cf Average Runoff Depth = 3.37"
73.61% Pervious = 986,013 sf 26.39% Impervious = 353,465 sf

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Type III 24-hr 25-Year Rainfall=6.65"

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Summary for Subcatchment EX1: 120 LRR

Runoff = 6.84 cfs @ 12.28 hrs, Volume= 31,308 cf, Depth> 3.29"
Routed to Link EXJ : EX Outfall

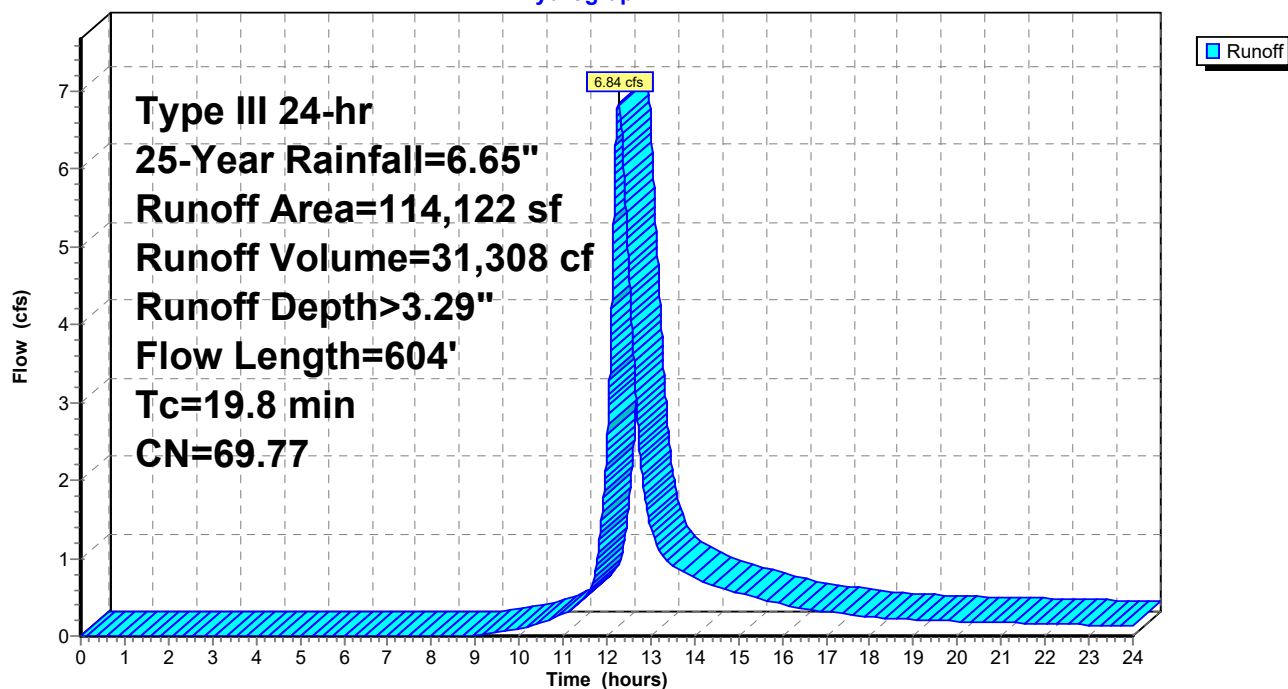
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.005 hrs
Type III 24-hr 25-Year Rainfall=6.65"

Area (sf)	CN	Description
29,252	98.00	Paved parking, HSG B
69,607	60.00	Woods, Fair, HSG B
2,890	61.00	>75% Grass cover, Good, HSG B
* 12,373	60.00	Offsite - Woods, Fair, HSG B
114,122	69.77	Weighted Average
84,870		74.37% Pervious Area
29,252		25.63% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.3	100	0.0360	0.10		Sheet Flow, Woods Sheet Flow
					Woods: Light underbrush n= 0.400 P2= 3.45"
1.2	235	0.0380	3.14		Shallow Concentrated Flow, Unpaved Shallow Concentrated Flow
					Unpaved Kv= 16.1 fps
2.3	269	0.0090	1.93		Shallow Concentrated Flow, Paved Shallow Concentrated Flow
					Paved Kv= 20.3 fps
19.8	604	Total			

Subcatchment EX1: 120 LRR

Hydrograph



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Type III 24-hr 25-Year Rainfall=6.65"

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Summary for Subcatchment EX2: RIPPOWAM RIVER

Runoff = 23.91 cfs @ 12.16 hrs, Volume= 89,268 cf, Depth> 2.64"
Routed to Link EXJ : EX Outfall

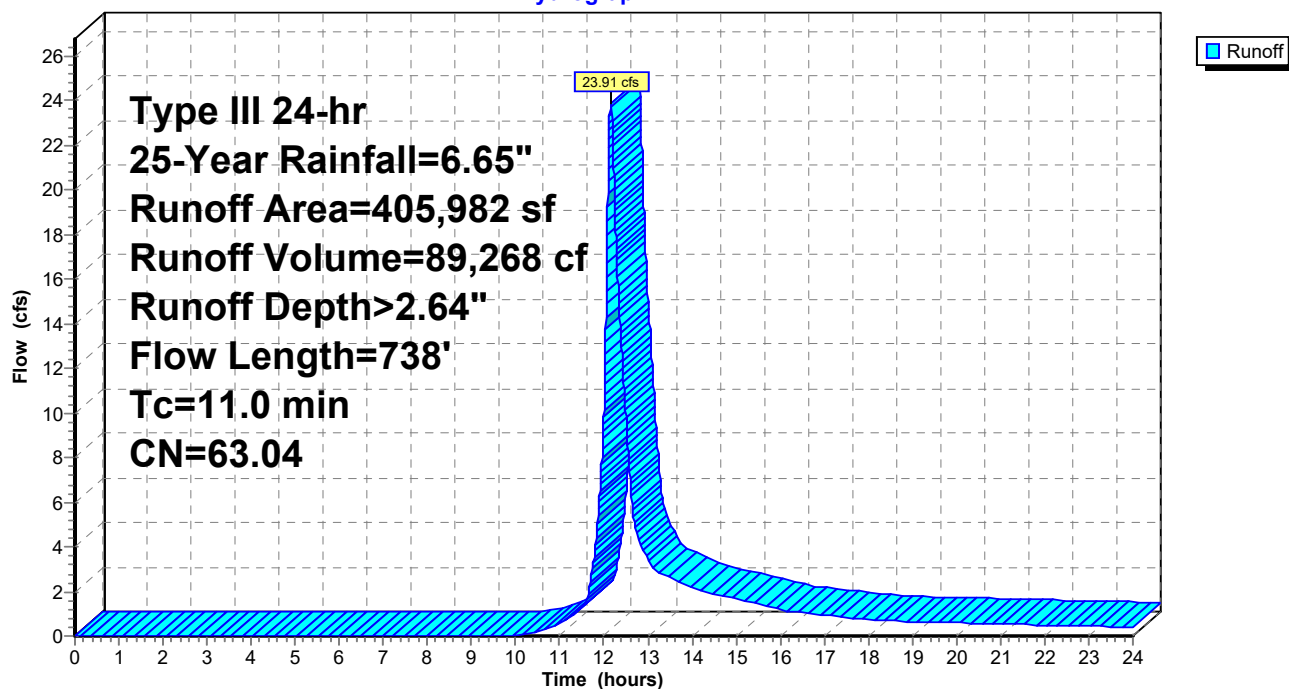
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.005 hrs
Type III 24-hr 25-Year Rainfall=6.65"

Area (sf)	CN	Description
16,984	98.00	Paved parking, HSG B
355,352	60.00	Woods, Fair, HSG B
18,602	61.00	>75% Grass cover, Good, HSG B
* 15,044	98.00	Water Surface, HSG B
405,982	63.04	Weighted Average
373,954		92.11% Pervious Area
32,028		7.89% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.4	100	0.1900	0.20		Sheet Flow, Woods Sheet Flow
					Woods: Light underbrush n= 0.400 P2= 3.45"
1.1	315	0.0890	4.80		Shallow Concentrated Flow, Unpaved Shallow Concentrated Flow
					Unpaved Kv= 16.1 fps
1.5	323	0.0500	3.60		Shallow Concentrated Flow, Unpaved Shallow Concentrated Flow
					Unpaved Kv= 16.1 fps
11.0	738	Total			

Subcatchment EX2: RIPPOWAM RIVER

Hydrograph



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Type III 24-hr 25-Year Rainfall=6.65"

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Summary for Subcatchment EX3: 260 LRR

Runoff = 6.42 cfs @ 12.17 hrs, Volume= 24,964 cf, Depth> 2.35"
Routed to Link EXJ : EX Outfall

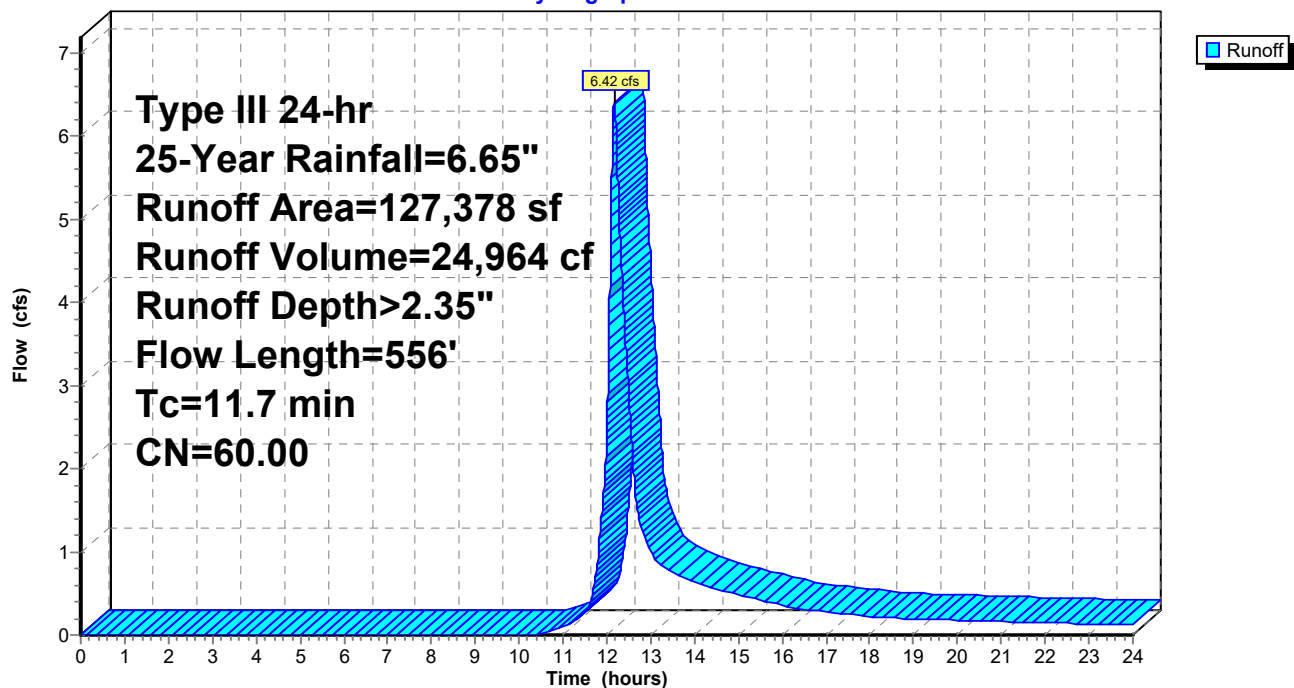
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.005 hrs
Type III 24-hr 25-Year Rainfall=6.65"

Area (sf)	CN	Description
127,378	60.00	Woods, Fair, HSG B
127,378		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0	100	0.1220	0.17		Sheet Flow, Woods Sheet Flow
					Woods: Light underbrush n= 0.400 P2= 3.45"
1.7	456	0.0810	4.58		Shallow Concentrated Flow, Unpaved Shallow Concentrated Flow
					Unpaved Kv= 16.1 fps
11.7	556	Total			

Subcatchment EX3: 260 LRR

Hydrograph



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Type III 24-hr 25-Year Rainfall=6.65"

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Summary for Subcatchment EX4: LRR

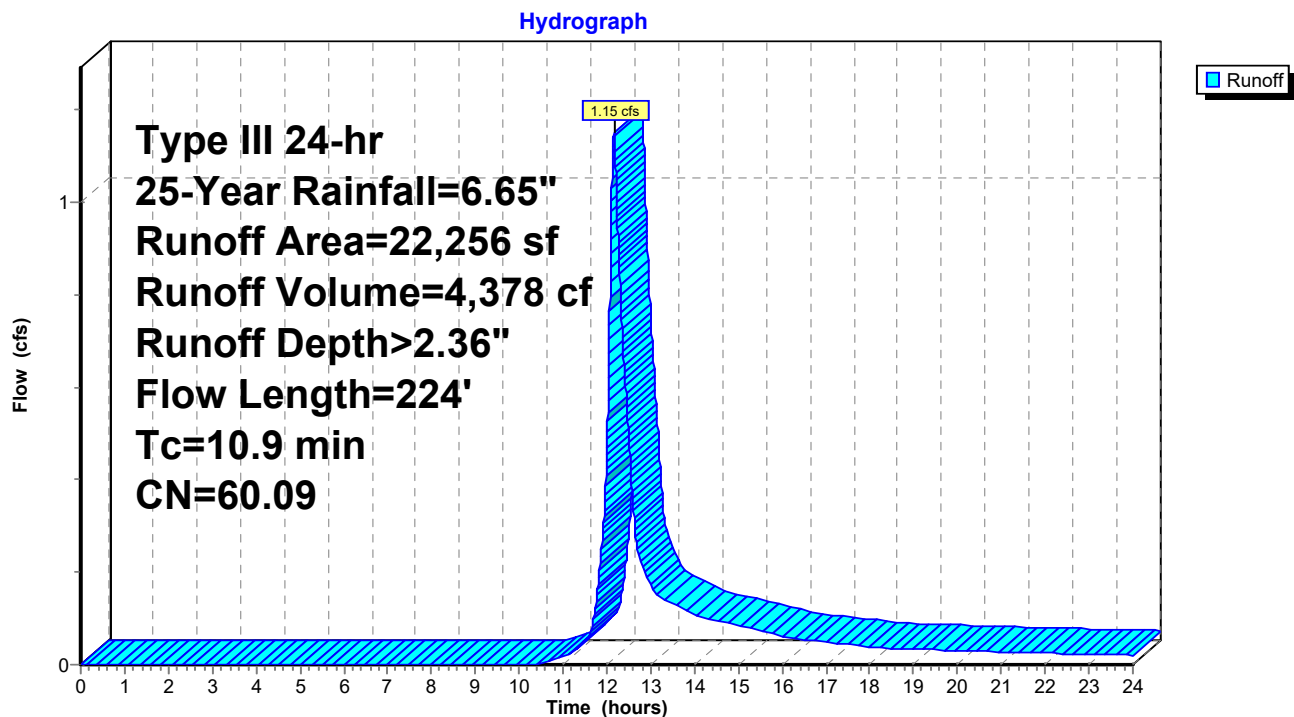
Runoff = 1.15 cfs @ 12.16 hrs, Volume= 4,378 cf, Depth> 2.36"
Routed to Link EXJ : EX Outfall

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.005 hrs
Type III 24-hr 25-Year Rainfall=6.65"

Area (sf)	CN	Description
18,291	60.00	Woods, Fair, HSG B
* 53	98.00	Offsite - Paved parking, HSG B
* 3,912	60.00	Offsite - Woods, Fair, HSG B
22,256	60.09	Weighted Average
22,203		99.76% Pervious Area
53		0.24% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.4	100	0.1120	0.16		Sheet Flow, Woods Sheet Flow
					Woods: Light underbrush n= 0.400 P2= 3.45"
0.5	124	0.0560	3.81		Shallow Concentrated Flow, Unpaved Shallow Concentrated Flow
					Unpaved Kv= 16.1 fps
10.9	224	Total			

Subcatchment EX4: LRR



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Type III 24-hr 25-Year Rainfall=6.65"

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Summary for Subcatchment PR1: Infil#2

Runoff = 19.38 cfs @ 12.14 hrs, Volume= 69,275 cf, Depth> 4.13"
 Routed to Pond P1 : Infil#2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.005 hrs
 Type III 24-hr 25-Year Rainfall=6.65"

Area (sf)	CN	Description
88,613	98.00	Paved parking, HSG B
57,988	61.00	>75% Grass cover, Good, HSG B
43,641	60.00	Woods, Fair, HSG B
* 3,304	98.00	Synthetic Turf, HSG B
* 996	98.00	Offsite - Paved parking, HSG B
* 6,569	60.00	Offsite - Woods, Fair, HSG B
201,111	77.84	Weighted Average
108,198		53.80% Pervious Area
92,913		46.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.9	100	0.1250	0.17		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.45"
0.1	54	0.1760	6.75		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.3	59	0.0340	3.74		Shallow Concentrated Flow, Paved Kv= 20.3 fps
10.3	213	Total			

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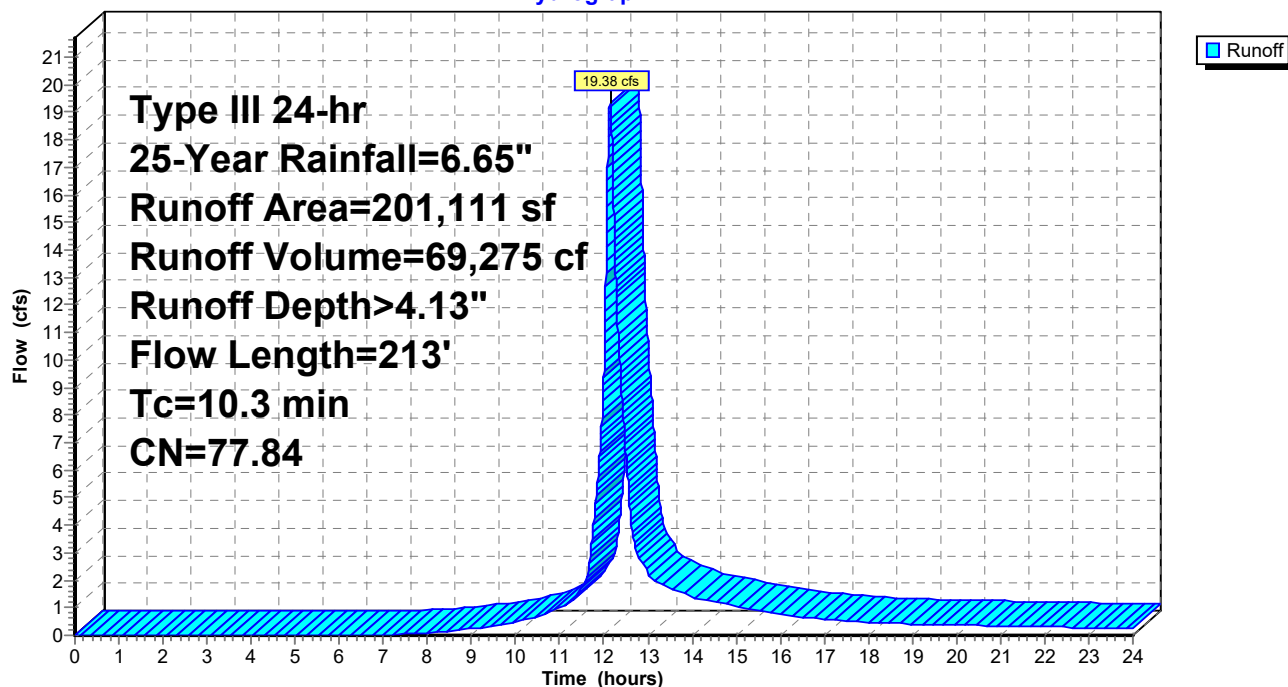
Type III 24-hr 25-Year Rainfall=6.65"

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Subcatchment PR1: Infil#2

Hydrograph



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Type III 24-hr 25-Year Rainfall=6.65"

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Summary for Subcatchment PR2: Infil#3

Runoff = 6.40 cfs @ 12.07 hrs, Volume= 19,603 cf, Depth> 4.95"
Routed to Pond P2 : Infil#3

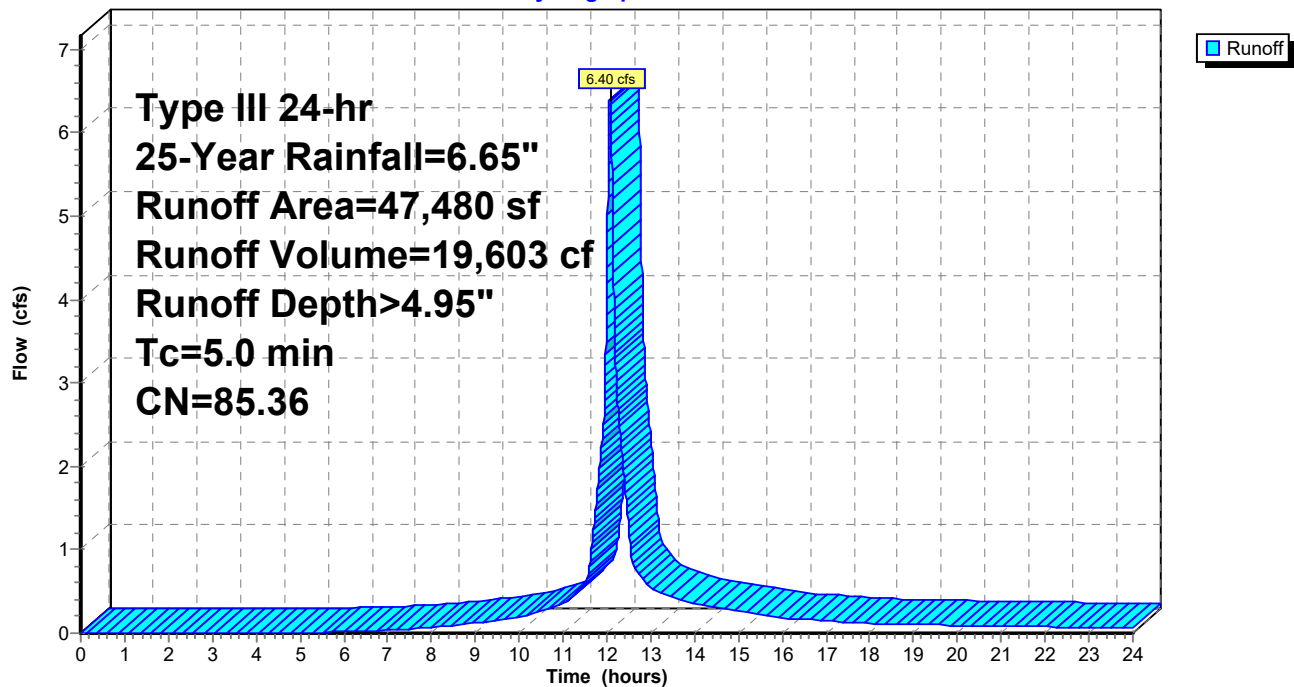
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.005 hrs
Type III 24-hr 25-Year Rainfall=6.65"

Area (sf)	CN	Description
31,266	98.00	Paved parking, HSG B
16,214	61.00	>75% Grass cover, Good, HSG B
47,480	85.36	Weighted Average
16,214		34.15% Pervious Area
31,266		65.85% Impervious Area

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

Subcatchment PR2: Infil#3

Hydrograph



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Type III 24-hr 25-Year Rainfall=6.65"

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Summary for Subcatchment PR3: Infil#4

Runoff = 10.68 cfs @ 12.15 hrs, Volume= 39,940 cf, Depth> 5.11"
Routed to Pond P3 : Infil#4

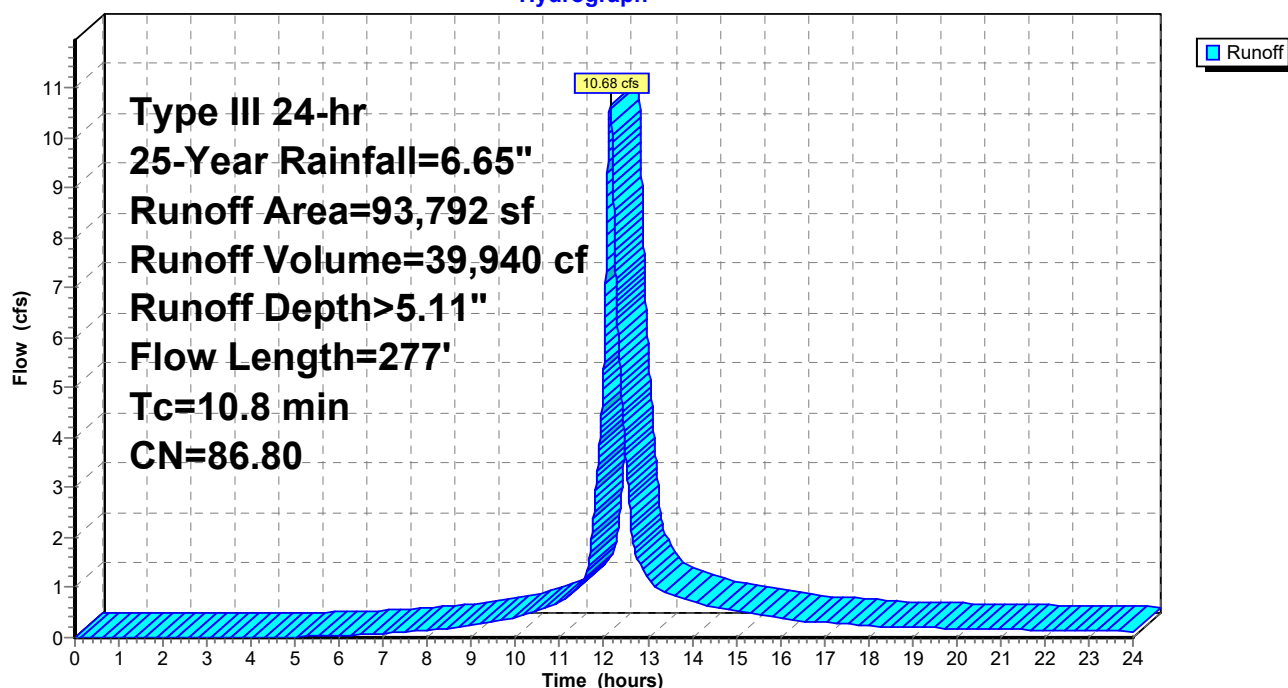
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.005 hrs
Type III 24-hr 25-Year Rainfall=6.65"

Area (sf)	CN	Description
64,818	98.00	Paved parking, HSG B
28,385	61.00	>75% Grass cover, Good, HSG B
* 589	98.00	Synthetic Turf, HSG B
93,792	86.80	Weighted Average
28,385		30.26% Pervious Area
65,407		69.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.8	100	0.0180	0.17		Sheet Flow, Grass: Short n= 0.150 P2= 3.45"
0.3	53	0.0283	2.71		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.7	124	0.0242	3.16		Shallow Concentrated Flow, Paved Kv= 20.3 fps
10.8	277	Total			

Subcatchment PR3: Infil#4

Hydrograph



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Type III 24-hr 25-Year Rainfall=6.65"

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Summary for Subcatchment PR4: Infil#1

Runoff = 14.20 cfs @ 12.15 hrs, Volume= 51,779 cf, Depth> 4.31"
Routed to Pond P4 : Infil#1

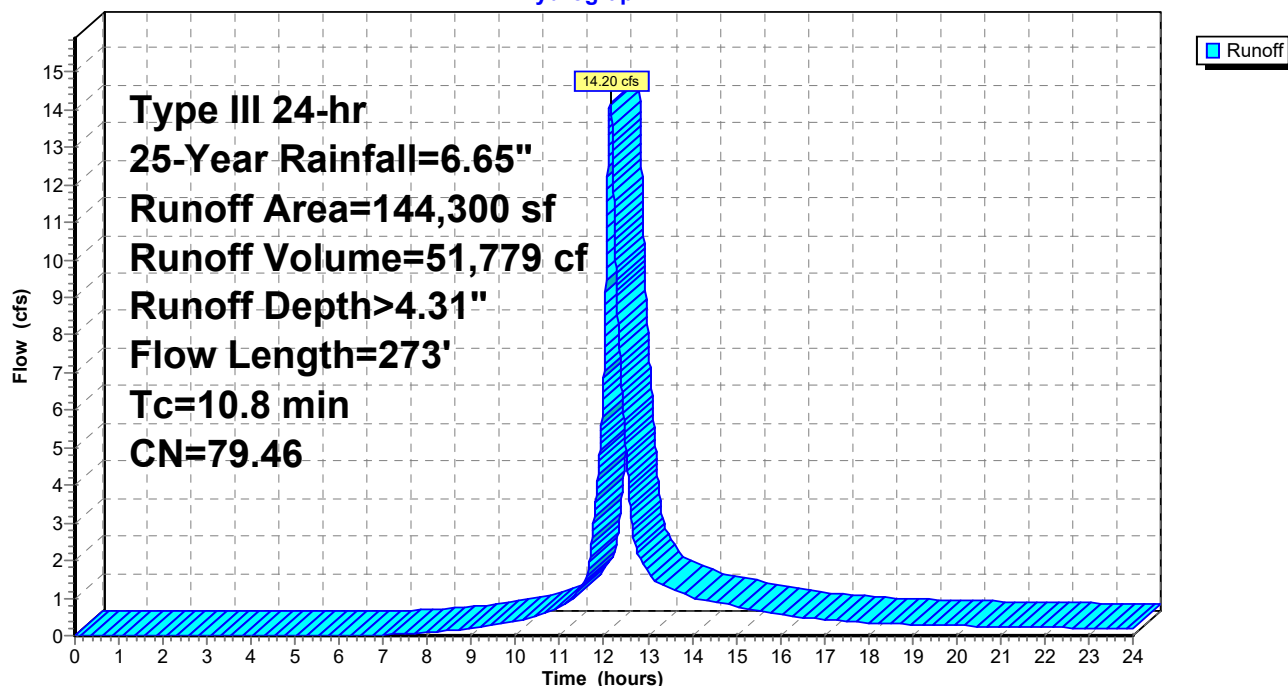
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.005 hrs
Type III 24-hr 25-Year Rainfall=6.65"

	Area (sf)	CN	Description
*	72,365	98.00	Paved parking, HSG B
	57,834	61.00	>75% Grass cover, Good, HSG B
	14,101	60.00	Woods, Fair, HSG B
	144,300	79.46	Weighted Average
	71,935		49.85% Pervious Area
	72,365		50.15% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.2	100	0.1180	0.16		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.45"
0.1	45	0.2000	7.20		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.5	128	0.0480	4.45		Shallow Concentrated Flow, Paved Kv= 20.3 fps
10.8	273	Total			

Subcatchment PR4: Infil#1

Hydrograph



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Type III 24-hr 25-Year Rainfall=6.65"

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Summary for Subcatchment PR5: 120 LRR

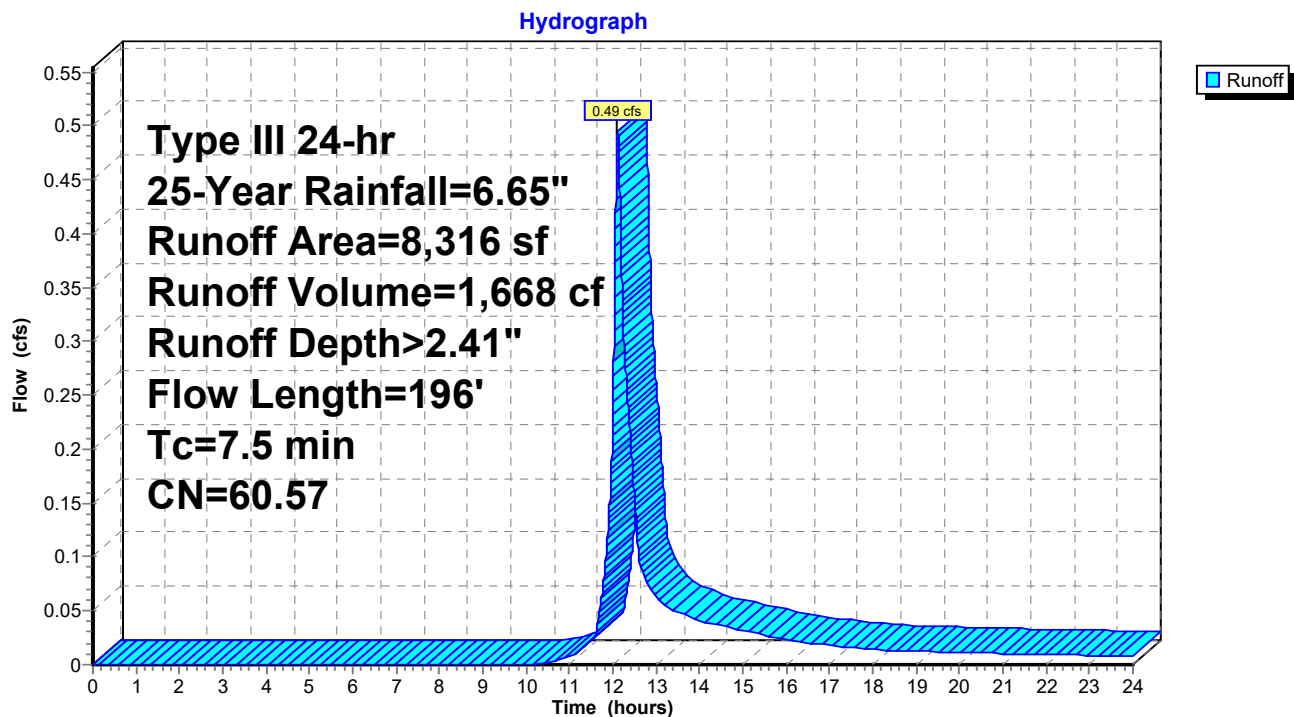
Runoff = 0.49 cfs @ 12.11 hrs, Volume= 1,668 cf, Depth> 2.41"
Routed to Link 4J : PR Outfall

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.005 hrs
Type III 24-hr 25-Year Rainfall=6.65"

Area (sf)	CN	Description
4,754	61.00	>75% Grass cover, Good, HSG B
3,562	60.00	Woods, Fair, HSG B
8,316	60.57	Weighted Average
8,316		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.1	100	0.1050	0.24		Sheet Flow, Lawn Sheet Flow Grass: Dense n= 0.240 P2= 3.45"
0.3	72	0.0640	4.07		Shallow Concentrated Flow, Unpaved Shallow Concentrated Flow Unpaved Kv= 16.1 fps
0.1	24	0.0420	3.30		Shallow Concentrated Flow, Unpaved Shallow Concentrated Flow Unpaved Kv= 16.1 fps
7.5	196	Total			

Subcatchment PR5: 120 LRR



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Type III 24-hr 25-Year Rainfall=6.65"

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Summary for Subcatchment PR6: LRR

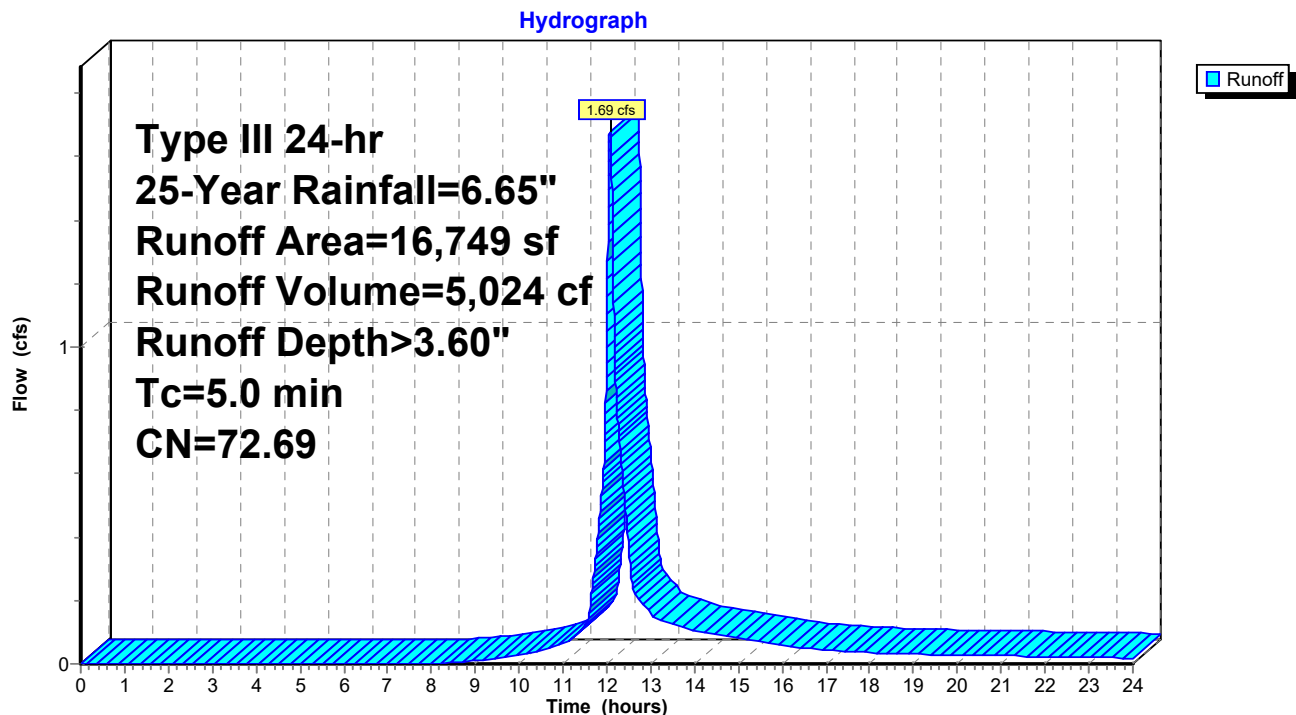
Runoff = 1.69 cfs @ 12.07 hrs, Volume= 5,024 cf, Depth> 3.60"
Routed to Link 4J : PR Outfall

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.005 hrs
Type III 24-hr 25-Year Rainfall=6.65"

	Area (sf)	CN	Description
*	90	98.00	Paved parking, HSG B
	422	61.00	>75% Grass cover, Good, HSG B
	7,550	60.00	Woods, Fair, HSG B
*	5,415	98.00	Offsite - Paved parking, HSG B
*	284	60.00	Offsite - Woods, Fair, HSG B
*	2,988	61.00	Offsite - >75% Grass cover, Good, HSG B
	16,749	72.69	Weighted Average
	11,244		67.13% Pervious Area
	5,505		32.87% Impervious Area

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

Subcatchment PR6: LRR



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Type III 24-hr 25-Year Rainfall=6.65"

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Summary for Subcatchment PR7: 260 LRR

Runoff = 2.10 cfs @ 12.08 hrs, Volume= 6,352 cf, Depth> 2.73"
Routed to Link 4J : PR Outfall

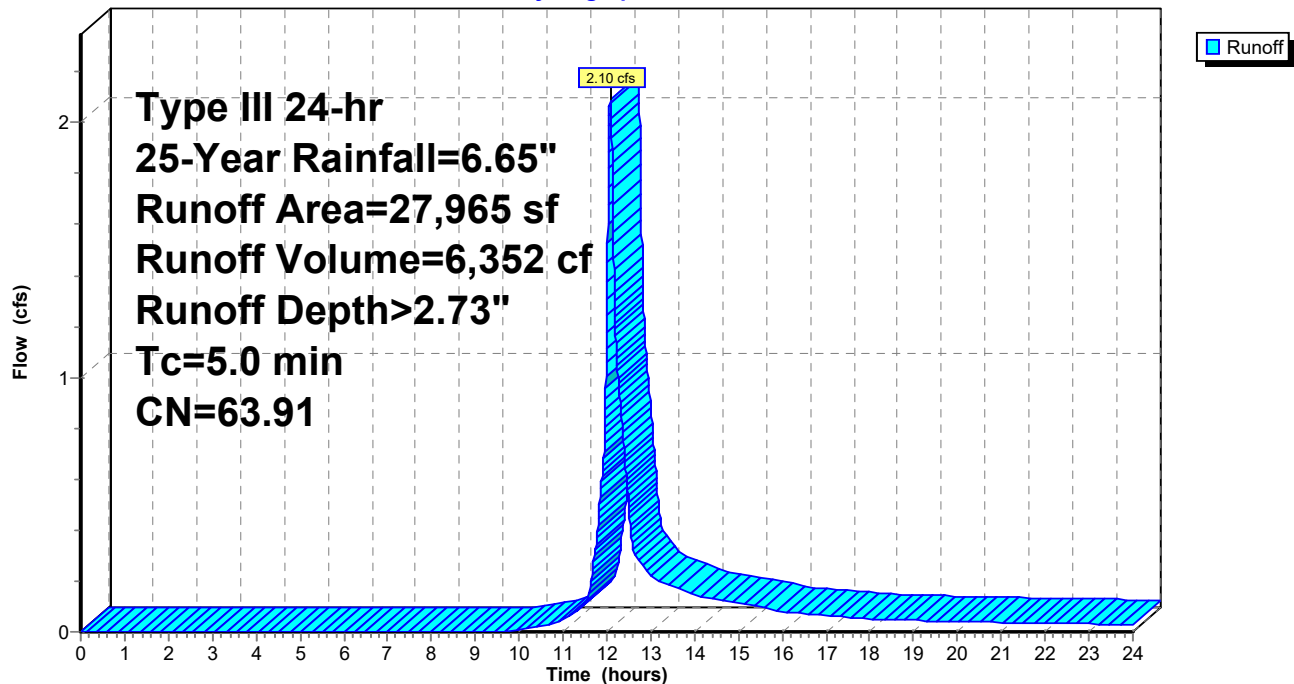
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.005 hrs
Type III 24-hr 25-Year Rainfall=6.65"

Area (sf)	CN	Description
2,778	98.00	Paved parking, HSG B
3,714	61.00	>75% Grass cover, Good, HSG B
21,409	60.00	Woods, Fair, HSG B
* 64	60.00	Offsite - Woods, Fair, HSG B
27,965	63.91	Weighted Average
25,187		90.07% Pervious Area
2,778		9.93% Impervious Area

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

Subcatchment PR7: 260 LRR

Hydrograph



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Type III 24-hr 25-Year Rainfall=6.65"

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Summary for Subcatchment PR8: RIPPOWAM RIVER

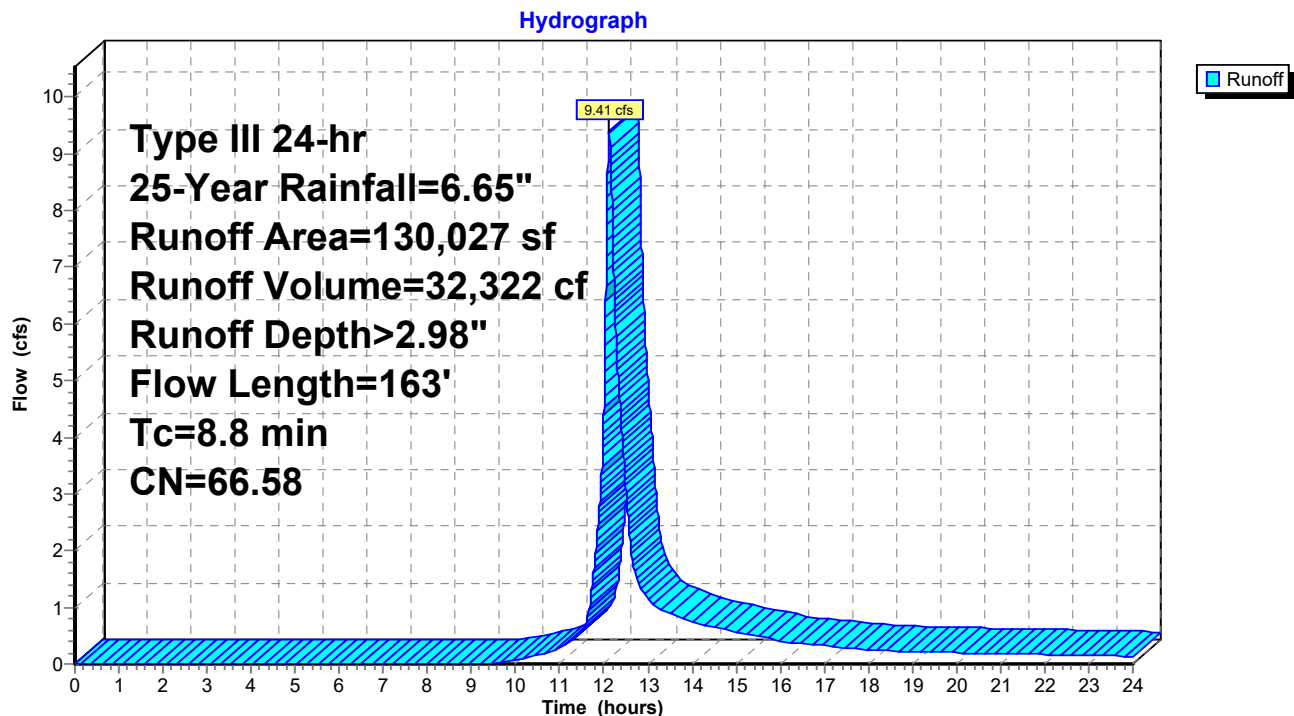
Runoff = 9.41 cfs @ 12.13 hrs, Volume= 32,322 cf, Depth> 2.98"
Routed to Link 4J : PR Outfall

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.005 hrs
Type III 24-hr 25-Year Rainfall=6.65"

Area (sf)	CN	Description
6,854	98.00	Paved parking, HSG B
24,022	61.00	>75% Grass cover, Good, HSG B
* 84,107	60.00	Woods, Fair, HSG B
* 15,044	98.00	Water Surface, HSG B
130,027	66.58	Weighted Average
108,129		83.16% Pervious Area
21,898		16.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.6	100	0.0650	0.19		Sheet Flow, Lawn Sheet Flow
					Grass: Dense n= 0.240 P2= 3.45"
0.2	63	0.0710	4.29		Shallow Concentrated Flow, Unpaved Shallow Concentrated Flow
					Unpaved Kv= 16.1 fps
8.8	163	Total			

Subcatchment PR8: RIPPOWAM RIVER



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Summary for Pond P1: Infil#2

Inflow Area = 201,111 sf, 46.20% Impervious, Inflow Depth > 4.13" for 25-Year event
 Inflow = 19.38 cfs @ 12.14 hrs, Volume= 69,275 cf
 Outflow = 18.08 cfs @ 12.18 hrs, Volume= 60,623 cf, Atten= 7%, Lag= 2.5 min
 Primary = 18.08 cfs @ 12.18 hrs, Volume= 60,623 cf
 Routed to Pond P2 : Infil#3

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.005 hrs / 3

Peak Elev= 61.65' @ 12.18 hrs Surf.Area= 4,095 sf Storage= 13,244 cf

Plug-Flow detention time= 87.7 min calculated for 60,610 cf (87% of inflow)

Center-of-Mass det. time= 31.4 min (849.5 - 818.0)

Volume	Invert	Avail.Storage	Storage Description
#1A	58.00'	0 cf	38.75'W x 105.69'L x 4.50'H Field A 18,429 cf Overall - 18,429 cf Embedded = 0 cf x 40.0% Voids
#2A	58.00'	14,502 cf	StormTrap ST2 SingleTrap 4-0x 18 Inside #1 Inside= 101.7"W x 48.0"H => 30.55 sf x 15.40'L = 470.3 cf Outside= 101.7"W x 54.0"H => 38.16 sf x 15.40'L = 587.4 cf 18 Chambers in 3 Rows 25.44' x 92.38' Core + 6.66' Border = 38.75' x 105.69' System
		14,502 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Device 2	60.30'	Asymmetrical Weir, C= 3.27 Offset (feet) 0.00 0.00 1.00 1.01 3.99 4.00 4.99 5.00 Elev. (feet) 62.50 61.10 61.10 60.30 60.30 61.10 61.10 62.50
#2	Primary	59.00'	36.0" Round Culvert L= 39.0' Ke= 0.500 Inlet / Outlet Invert= 59.00' / 55.00' S= 0.1026 '/' Cc= 0.900 n= 0.011, Flow Area= 7.07 sf

Primary OutFlow Max=18.08 cfs @ 12.18 hrs HW=61.65' TW=56.67' (Dynamic Tailwater)↑ **2=Culvert** (Passes 18.08 cfs of 36.67 cfs potential flow)↑ **1=Asymmetrical Weir** (Weir Controls 18.08 cfs @ 3.50 fps)

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Pond P1: Infil#2 - Chamber Wizard Field A

Chamber Model = StormTrapST2 SingleTrap 4-0 (StormTrapST2 SingleTrap®Type II+IV)

Inside= 101.7"W x 48.0"H => 30.55 sf x 15.40'L = 470.3 cf

Outside= 101.7"W x 54.0"H => 38.16 sf x 15.40'L = 587.4 cf

6 Chambers/Row x 15.40' Long = 92.38' Row Length +79.9" Border x 2 = 105.69' Base Length

3 Rows x 101.7" Wide + 79.9" Side Border x 2 = 38.75' Base Width

54.0" Chamber Height = 4.50' Field Height

18 Chambers x 470.3 cf + 6,036.8 cf Border = 14,501.7 cf Chamber Storage

18 Chambers x 587.4 cf + 7,855.2 cf Border = 18,429.3 cf Displacement

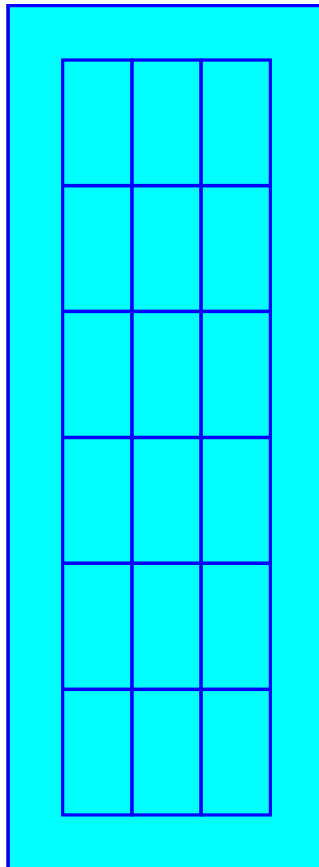
Chamber Storage = 14,501.7 cf = 0.333 af

Overall Storage Efficiency = 78.7%

Overall System Size = 105.69' x 38.75' x 4.50'

18 Chambers (plus border)

682.6 cy Field



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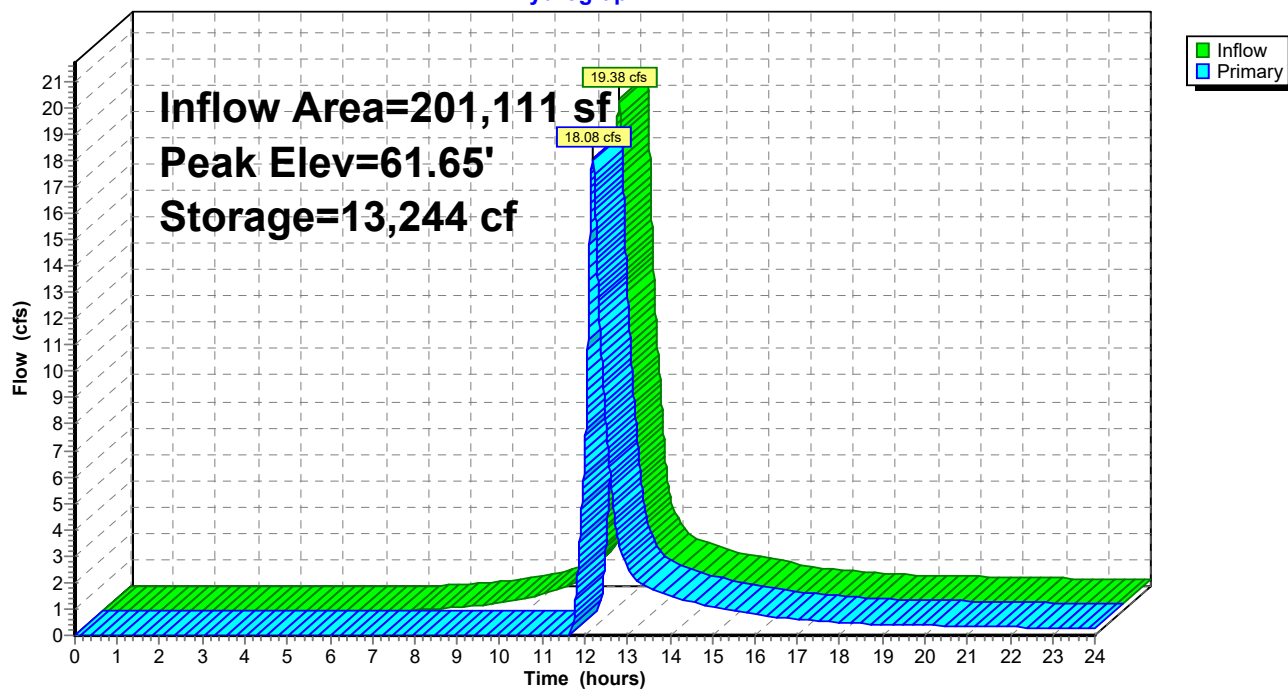
Type III 24-hr 25-Year Rainfall=6.65"

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Pond P1: Infil#2

Hydrograph



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Stage-Area-Storage for Pond P1: Infil#2

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
58.00	0	60.60	9,426
58.05	181	60.65	9,607
58.10	363	60.70	9,789
58.15	544	60.75	9,970
58.20	725	60.80	10,151
58.25	906	60.85	10,332
58.30	1,088	60.90	10,514
58.35	1,269	60.95	10,695
58.40	1,450	61.00	10,876
58.45	1,631	61.05	11,058
58.50	1,813	61.10	11,239
58.55	1,994	61.15	11,420
58.60	2,175	61.20	11,601
58.65	2,357	61.25	11,783
58.70	2,538	61.30	11,964
58.75	2,719	61.35	12,145
58.80	2,900	61.40	12,326
58.85	3,082	61.45	12,508
58.90	3,263	61.50	12,689
58.95	3,444	61.55	12,870
59.00	3,625	61.60	13,052
59.05	3,807	61.65	13,233
59.10	3,988	61.70	13,414
59.15	4,169	61.75	13,595
59.20	4,351	61.80	13,777
59.25	4,532	61.85	13,958
59.30	4,713	61.90	14,139
59.35	4,894	61.95	14,320
59.40	5,076	62.00	14,502
59.45	5,257	62.05	14,502
59.50	5,438	62.10	14,502
59.55	5,619	62.15	14,502
59.60	5,801	62.20	14,502
59.65	5,982	62.25	14,502
59.70	6,163	62.30	14,502
59.75	6,344	62.35	14,502
59.80	6,526	62.40	14,502
59.85	6,707	62.45	14,502
59.90	6,888	62.50	14,502
59.95	7,070		
60.00	7,251		
60.05	7,432		
60.10	7,613		
60.15	7,795		
60.20	7,976		
60.25	8,157		
60.30	8,338		
60.35	8,520		
60.40	8,701		
60.45	8,882		
60.50	9,064		
60.55	9,245		

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Summary for Pond P2: Infil#3

Inflow Area = 248,591 sf, 49.95% Impervious, Inflow Depth > 3.87" for 25-Year event
Inflow = 21.72 cfs @ 12.17 hrs, Volume= 80,226 cf
Outflow = 15.97 cfs @ 12.18 hrs, Volume= 71,384 cf, Atten= 26%, Lag= 1.1 min
Primary = 15.97 cfs @ 12.18 hrs, Volume= 71,384 cf
Routed to Pond P3 : Infil#4

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.005 hrs / 3
Peak Elev= 57.20' @ 12.33 hrs Surf.Area= 3,199 sf Storage= 14,658 cf

Plug-Flow detention time= 76.5 min calculated for 71,369 cf (89% of inflow)
Center-of-Mass det. time= 25.4 min (861.4 - 836.0)

Volume	Invert	Avail.Storage	Storage Description
#1A	51.90'	0 cf	30.27'W x 105.69'L x 6.50'H Field A 20,795 cf Overall - 20,795 cf Embedded = 0 cf x 40.0% Voids
#2A	51.90'	16,583 cf	StormTrap ST2 SingleTrap 6-0x 12 Inside #1 Inside= 101.7"W x 72.0"H => 45.09 sf x 15.40'L = 694.1 cf Outside= 101.7"W x 78.0"H => 55.11 sf x 15.40'L = 848.5 cf 12 Chambers in 2 Rows 16.96' x 92.38' Core + 6.66' Border = 30.27' x 105.69' System
		16,583 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Device 3	55.50'	Asymmetrical Weir, C= 3.27 Offset (feet) 0.00 0.00 1.00 1.01 4.00 4.01 7.99 8.00 Elev. (feet) 58.50 57.00 57.00 55.50 55.50 57.00 57.00 58.50
#2	Device 3	53.75'	12.0" Vert. Orifice/Grate X 2 rows with 18.0" cc spacing C= 0.600 Limited to weir flow at low heads
#3	Primary	53.00'	48.0" Round Culvert L= 28.0' Ke= 0.500 Inlet / Outlet Invert= 53.00' / 51.90' S= 0.0393 '/' Cc= 0.900 n= 0.011, Flow Area= 12.57 sf
#4	Device 3	54.30'	12.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=15.97 cfs @ 12.18 hrs HW=56.68' TW=56.32' (Dynamic Tailwater)

↑ **3=Culvert** (Passes 15.97 cfs of 34.55 cfs potential flow)
↑ **1=Asymmetrical Weir** (Weir Controls 9.23 cfs @ 2.61 fps)
↑ **2=Orifice/Grate** (Orifice Controls 4.49 cfs @ 2.86 fps)
↑ **4=Orifice/Grate** (Orifice Controls 2.25 cfs @ 2.86 fps)

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Type III 24-hr 25-Year Rainfall=6.65"

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Pond P2: Infil#3 - Chamber Wizard Field A

Chamber Model = StormTrapST2 SingleTrap 6-0 (StormTrapST2 SingleTrap®Type II+IV)

Inside= 101.7"W x 72.0"H => 45.09 sf x 15.40'L = 694.1 cf

Outside= 101.7"W x 78.0"H => 55.11 sf x 15.40'L = 848.5 cf

6 Chambers/Row x 15.40' Long = 92.38' Row Length +79.9" Border x 2 = 105.69' Base Length

2 Rows x 101.7" Wide + 79.9" Side Border x 2 = 30.27' Base Width

78.0" Chamber Height = 6.50' Field Height

12 Chambers x 694.1 cf + 8,253.7 cf Border = 16,583.4 cf Chamber Storage

12 Chambers x 848.5 cf + 10,612.7 cf Border = 20,795.1 cf Displacement

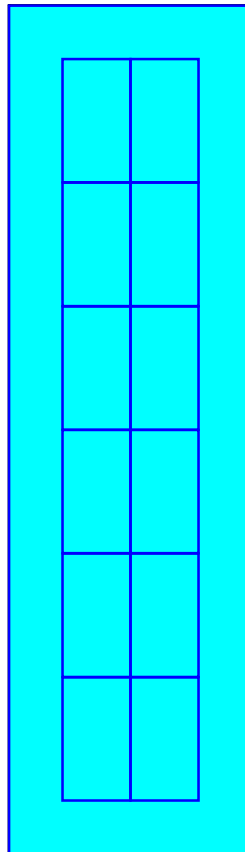
Chamber Storage = 16,583.4 cf = 0.381 af

Overall Storage Efficiency = 79.7%

Overall System Size = 105.69' x 30.27' x 6.50'

12 Chambers (plus border)

770.2 cy Field



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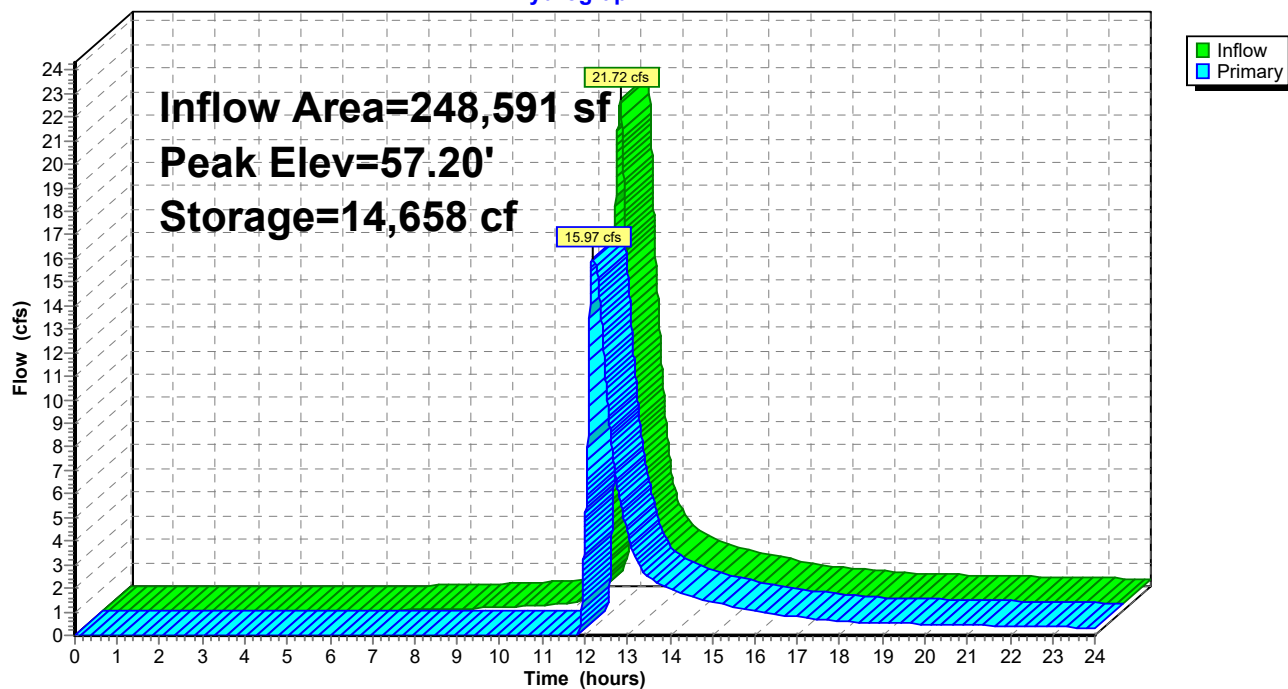
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Pond P2: Infil#3

Hydrograph



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Stage-Area-Storage for Pond P2: Infil#3

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
51.90	0	54.50	7,186	57.10	14,372
51.95	138	54.55	7,324	57.15	14,510
52.00	276	54.60	7,463	57.20	14,649
52.05	415	54.65	7,601	57.25	14,787
52.10	553	54.70	7,739	57.30	14,925
52.15	691	54.75	7,877	57.35	15,063
52.20	829	54.80	8,015	57.40	15,201
52.25	967	54.85	8,154	57.45	15,340
52.30	1,106	54.90	8,292	57.50	15,478
52.35	1,244	54.95	8,430	57.55	15,616
52.40	1,382	55.00	8,568	57.60	15,754
52.45	1,520	55.05	8,706	57.65	15,892
52.50	1,658	55.10	8,844	57.70	16,031
52.55	1,797	55.15	8,983	57.75	16,169
52.60	1,935	55.20	9,121	57.80	16,307
52.65	2,073	55.25	9,259	57.85	16,445
52.70	2,211	55.30	9,397	57.90	16,583
52.75	2,349	55.35	9,535	57.95	16,583
52.80	2,488	55.40	9,674	58.00	16,583
52.85	2,626	55.45	9,812	58.05	16,583
52.90	2,764	55.50	9,950	58.10	16,583
52.95	2,902	55.55	10,088	58.15	16,583
53.00	3,040	55.60	10,226	58.20	16,583
53.05	3,178	55.65	10,365	58.25	16,583
53.10	3,317	55.70	10,503	58.30	16,583
53.15	3,455	55.75	10,641	58.35	16,583
53.20	3,593	55.80	10,779	58.40	16,583
53.25	3,731	55.85	10,917	58.45	16,583
53.30	3,869	55.90	11,056	58.50	16,583
53.35	4,008	55.95	11,194		
53.40	4,146	56.00	11,332		
53.45	4,284	56.05	11,470		
53.50	4,422	56.10	11,608		
53.55	4,560	56.15	11,747		
53.60	4,699	56.20	11,885		
53.65	4,837	56.25	12,023		
53.70	4,975	56.30	12,161		
53.75	5,113	56.35	12,299		
53.80	5,251	56.40	12,438		
53.85	5,390	56.45	12,576		
53.90	5,528	56.50	12,714		
53.95	5,666	56.55	12,852		
54.00	5,804	56.60	12,990		
54.05	5,942	56.65	13,129		
54.10	6,081	56.70	13,267		
54.15	6,219	56.75	13,405		
54.20	6,357	56.80	13,543		
54.25	6,495	56.85	13,681		
54.30	6,633	56.90	13,820		
54.35	6,772	56.95	13,958		
54.40	6,910	57.00	14,096		
54.45	7,048	57.05	14,234		

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Summary for Pond P3: Infil#4

Inflow Area = 342,383 sf, 55.37% Impervious, Inflow Depth > 3.90" for 25-Year event
 Inflow = 26.43 cfs @ 12.16 hrs, Volume= 111,324 cf
 Outflow = 20.30 cfs @ 12.35 hrs, Volume= 95,409 cf, Atten= 23%, Lag= 11.2 min
 Primary = 20.30 cfs @ 12.35 hrs, Volume= 95,409 cf
 Routed to Link 1J : MH#8

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.005 hrs / 3

Peak Elev= 57.07' @ 12.35 hrs Surf.Area= 5,719 sf Storage= 25,712 cf

Plug-Flow detention time= 95.8 min calculated for 95,409 cf (86% of inflow)

Center-of-Mass det. time= 34.2 min (871.7 - 837.6)

Volume	Invert	Avail.Storage	Storage Description
#1A	51.90'	0 cf	47.23'W x 121.08'L x 6.50'H Field A 37,171 cf Overall - 37,171 cf Embedded = 0 cf x 40.0% Voids
#2A	51.90'	29,867 cf	StormTrap ST2 SingleTrap 6-0x 28 Inside #1 Inside= 101.7"W x 72.0"H => 45.09 sf x 15.40'L = 694.1 cf Outside= 101.7"W x 78.0"H => 55.11 sf x 15.40'L = 848.5 cf 28 Chambers in 4 Rows 33.92' x 107.77' Core + 6.66' Border = 47.23' x 121.08' System
		29,867 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Device 4	56.75'	6.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#2	Device 4	53.50'	12.0" Vert. Orifice/Grate X 2 rows with 18.0" cc spacing C= 0.600 Limited to weir flow at low heads
#3	Device 4	54.75'	12.0" Vert. Orifice/Grate X 2 rows with 18.0" cc spacing C= 0.600 Limited to weir flow at low heads
#4	Primary	53.00'	36.0" Round Culvert L= 109.0' Ke= 0.500 Inlet / Outlet Invert= 53.00' / 52.10' S= 0.0083 '/' Cc= 0.900 n= 0.011, Flow Area= 7.07 sf

Primary OutFlow Max=20.30 cfs @ 12.35 hrs HW=57.07' TW=55.09' (Dynamic Tailwater)

- 4=Culvert (Passes 20.30 cfs of 47.84 cfs potential flow)
 1=Broad-Crested Rectangular Weir (Weir Controls 3.05 cfs @ 1.61 fps)
 2=Orifice/Grate (Orifice Controls 10.05 cfs @ 6.40 fps)
 3=Orifice/Grate (Orifice Controls 7.20 cfs @ 4.90 fps)

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Pond P3: Infil#4 - Chamber Wizard Field A

Chamber Model = StormTrapST2 SingleTrap 6-0 (StormTrapST2 SingleTrap®Type II+IV)

Inside= 101.7"W x 72.0"H => 45.09 sf x 15.40'L = 694.1 cf

Outside= 101.7"W x 78.0"H => 55.11 sf x 15.40'L = 848.5 cf

7 Chambers/Row x 15.40' Long = 107.77' Row Length +79.9" Border x 2 = 121.08' Base Length

4 Rows x 101.7" Wide + 79.9" Side Border x 2 = 47.23' Base Width

78.0" Chamber Height = 6.50' Field Height

28 Chambers x 694.1 cf + 10,431.0 cf Border = 29,867.1 cf Chamber Storage

28 Chambers x 848.5 cf + 13,412.3 cf Border = 37,171.3 cf Displacement

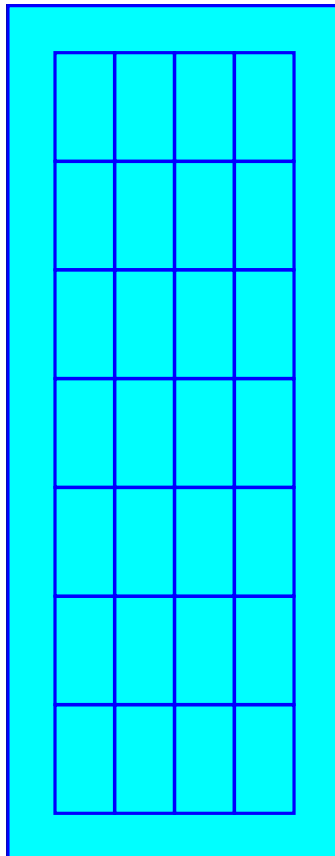
Chamber Storage = 29,867.1 cf = 0.686 af

Overall Storage Efficiency = 80.3%

Overall System Size = 121.08' x 47.23' x 6.50'

28 Chambers (plus border)

1,376.7 cy Field



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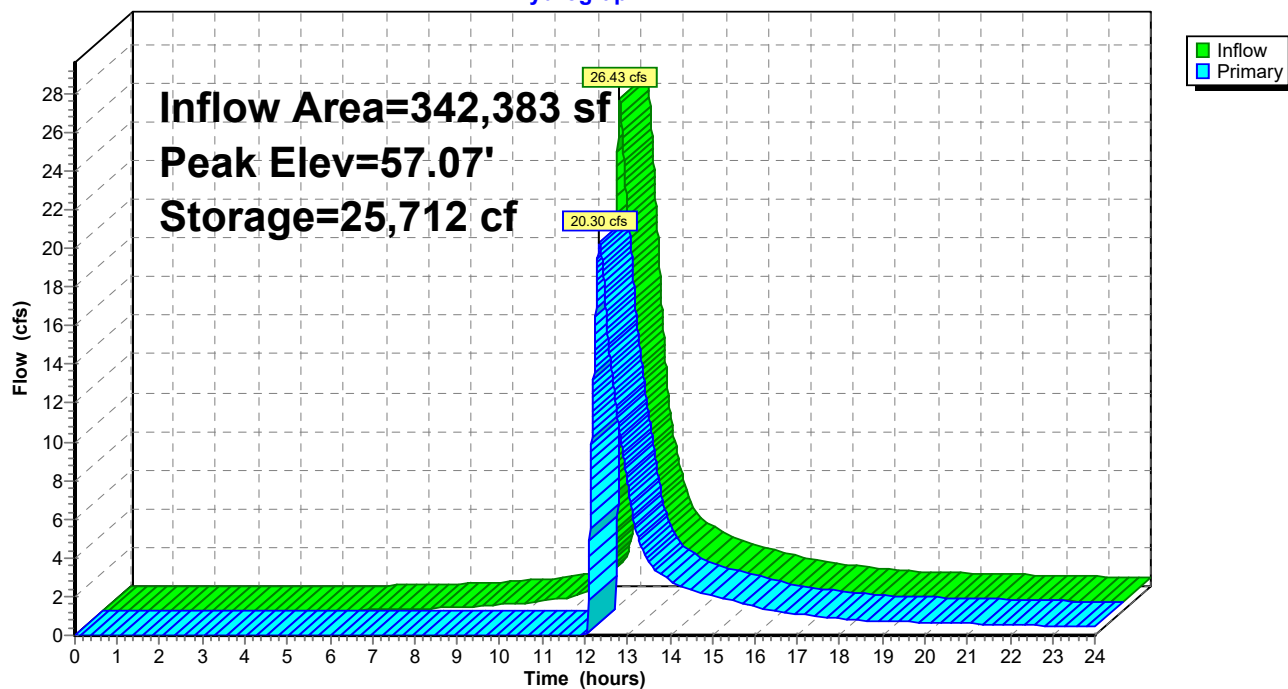
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Pond P3: Infil#4

Hydrograph



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Stage-Area-Storage for Pond P3: Infil#4

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
51.90	0	54.50	12,942	57.10	25,885
51.95	249	54.55	13,191	57.15	26,134
52.00	498	54.60	13,440	57.20	26,383
52.05	747	54.65	13,689	57.25	26,631
52.10	996	54.70	13,938	57.30	26,880
52.15	1,244	54.75	14,187	57.35	27,129
52.20	1,493	54.80	14,436	57.40	27,378
52.25	1,742	54.85	14,685	57.45	27,627
52.30	1,991	54.90	14,934	57.50	27,876
52.35	2,240	54.95	15,182	57.55	28,125
52.40	2,489	55.00	15,431	57.60	28,374
52.45	2,738	55.05	15,680	57.65	28,623
52.50	2,987	55.10	15,929	57.70	28,871
52.55	3,236	55.15	16,178	57.75	29,120
52.60	3,484	55.20	16,427	57.80	29,369
52.65	3,733	55.25	16,676	57.85	29,618
52.70	3,982	55.30	16,925	57.90	29,867
52.75	4,231	55.35	17,174	57.95	29,867
52.80	4,480	55.40	17,422	58.00	29,867
52.85	4,729	55.45	17,671	58.05	29,867
52.90	4,978	55.50	17,920	58.10	29,867
52.95	5,227	55.55	18,169	58.15	29,867
53.00	5,476	55.60	18,418	58.20	29,867
53.05	5,725	55.65	18,667	58.25	29,867
53.10	5,973	55.70	18,916	58.30	29,867
53.15	6,222	55.75	19,165	58.35	29,867
53.20	6,471	55.80	19,414	58.40	29,867
53.25	6,720	55.85	19,662		
53.30	6,969	55.90	19,911		
53.35	7,218	55.95	20,160		
53.40	7,467	56.00	20,409		
53.45	7,716	56.05	20,658		
53.50	7,965	56.10	20,907		
53.55	8,213	56.15	21,156		
53.60	8,462	56.20	21,405		
53.65	8,711	56.25	21,654		
53.70	8,960	56.30	21,903		
53.75	9,209	56.35	22,151		
53.80	9,458	56.40	22,400		
53.85	9,707	56.45	22,649		
53.90	9,956	56.50	22,898		
53.95	10,205	56.55	23,147		
54.00	10,453	56.60	23,396		
54.05	10,702	56.65	23,645		
54.10	10,951	56.70	23,894		
54.15	11,200	56.75	24,143		
54.20	11,449	56.80	24,391		
54.25	11,698	56.85	24,640		
54.30	11,947	56.90	24,889		
54.35	12,196	56.95	25,138		
54.40	12,445	57.00	25,387		
54.45	12,693	57.05	25,636		

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Summary for Pond P4: Infil#1

Inflow Area = 144,300 sf, 50.15% Impervious, Inflow Depth > 4.31" for 25-Year event
Inflow = 14.20 cfs @ 12.15 hrs, Volume= 51,779 cf
Outflow = 5.39 cfs @ 12.48 hrs, Volume= 43,609 cf, Atten= 62%, Lag= 19.7 min
Primary = 5.39 cfs @ 12.48 hrs, Volume= 43,609 cf
Routed to Link 1J : MH#8

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.005 hrs / 3
Peak Elev= 59.34' @ 12.48 hrs Surf.Area= 4,828 sf Storage= 22,470 cf

Plug-Flow detention time= 143.9 min calculated for 43,609 cf (84% of inflow)
Center-of-Mass det. time= 78.3 min (892.8 - 814.5)

Volume	Invert	Avail.Storage	Storage Description
#1A	54.00'	0 cf	81.15'W x 59.50'L x 6.50'H Field A 31,383 cf Overall - 31,383 cf Embedded = 0 cf x 40.0% Voids
#2A	54.00'	25,229 cf	StormTrap ST2 SingleTrap 6-0x 24 Inside #1 Inside= 101.7"W x 72.0"H => 45.09 sf x 15.40'L = 694.1 cf Outside= 101.7"W x 78.0"H => 55.11 sf x 15.40'L = 848.5 cf 24 Chambers in 8 Rows 67.83' x 46.19' Core + 6.66' Border = 81.15' x 59.50' System
		25,229 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Device 3	59.00'	4.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#2	Device 3	55.70'	8.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Primary	55.00'	24.0" Round Culvert L= 65.0' Ke= 0.500 Inlet / Outlet Invert= 55.00' / 53.10' S= 0.0292 '/' Cc= 0.900 n= 0.011, Flow Area= 3.14 sf

Primary OutFlow Max=5.39 cfs @ 12.48 hrs HW=59.34' TW=55.09' (Dynamic Tailwater)

↑ **3=Culvert** (Passes 5.39 cfs of 27.66 cfs potential flow)

↑ **1=Broad-Crested Rectangular Weir** (Weir Controls 2.33 cfs @ 1.69 fps)

↑ **2=Orifice/Grate** (Orifice Controls 3.06 cfs @ 8.76 fps)

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Pond P4: Infil#1 - Chamber Wizard Field A

Chamber Model = StormTrapST2 SingleTrap 6-0 (StormTrapST2 SingleTrap®Type II+IV)

Inside= 101.7"W x 72.0"H => 45.09 sf x 15.40'L = 694.1 cf

Outside= 101.7"W x 78.0"H => 55.11 sf x 15.40'L = 848.5 cf

3 Chambers/Row x 15.40' Long = 46.19' Row Length +79.9" Border x 2 = 59.50' Base Length

8 Rows x 101.7" Wide + 79.9" Side Border x 2 = 81.15' Base Width

78.0" Chamber Height = 6.50' Field Height

24 Chambers x 694.1 cf + 8,569.2 cf Border = 25,228.6 cf Chamber Storage

24 Chambers x 848.5 cf + 11,018.3 cf Border = 31,383.2 cf Displacement

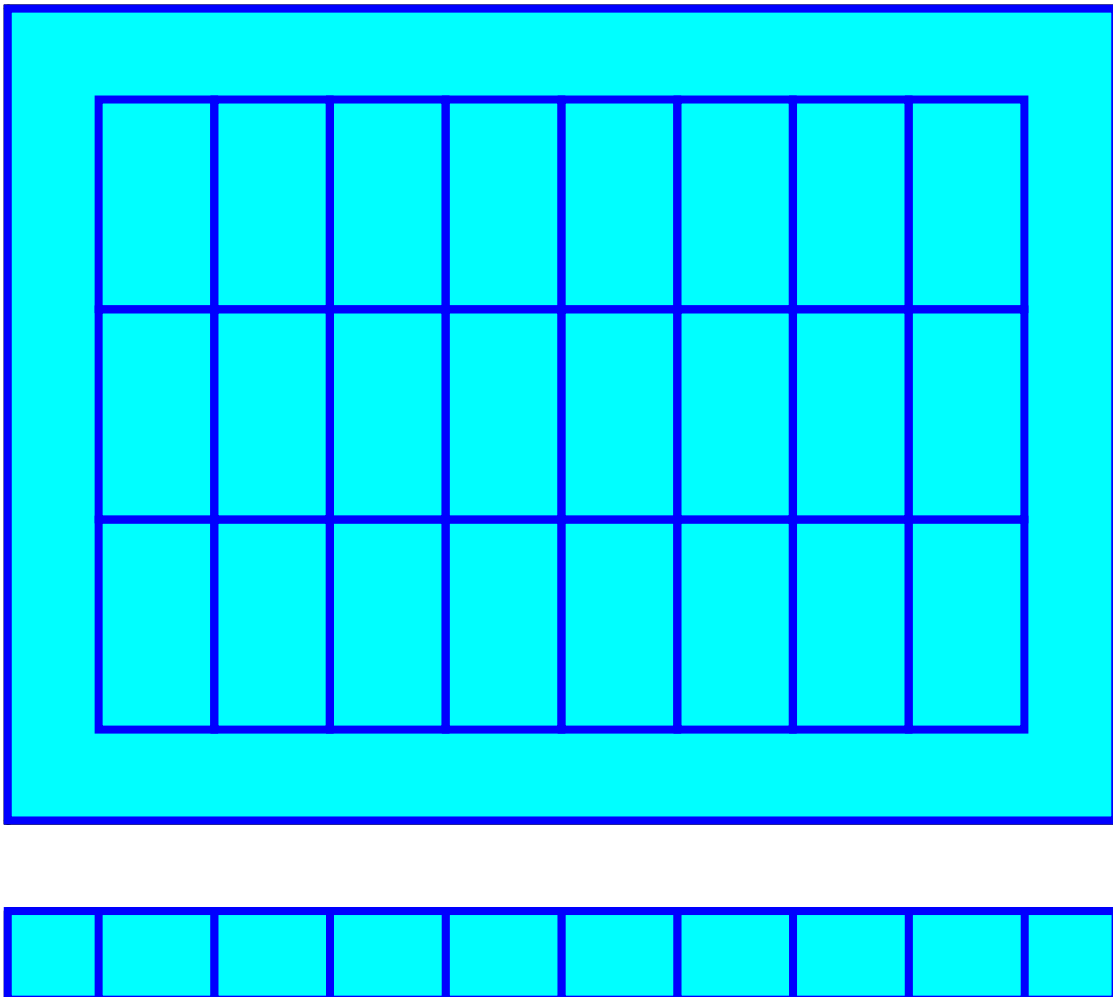
Chamber Storage = 25,228.6 cf = 0.579 af

Overall Storage Efficiency = 80.4%

Overall System Size = 59.50' x 81.15' x 6.50'

24 Chambers (plus border)

1,162.3 cy Field



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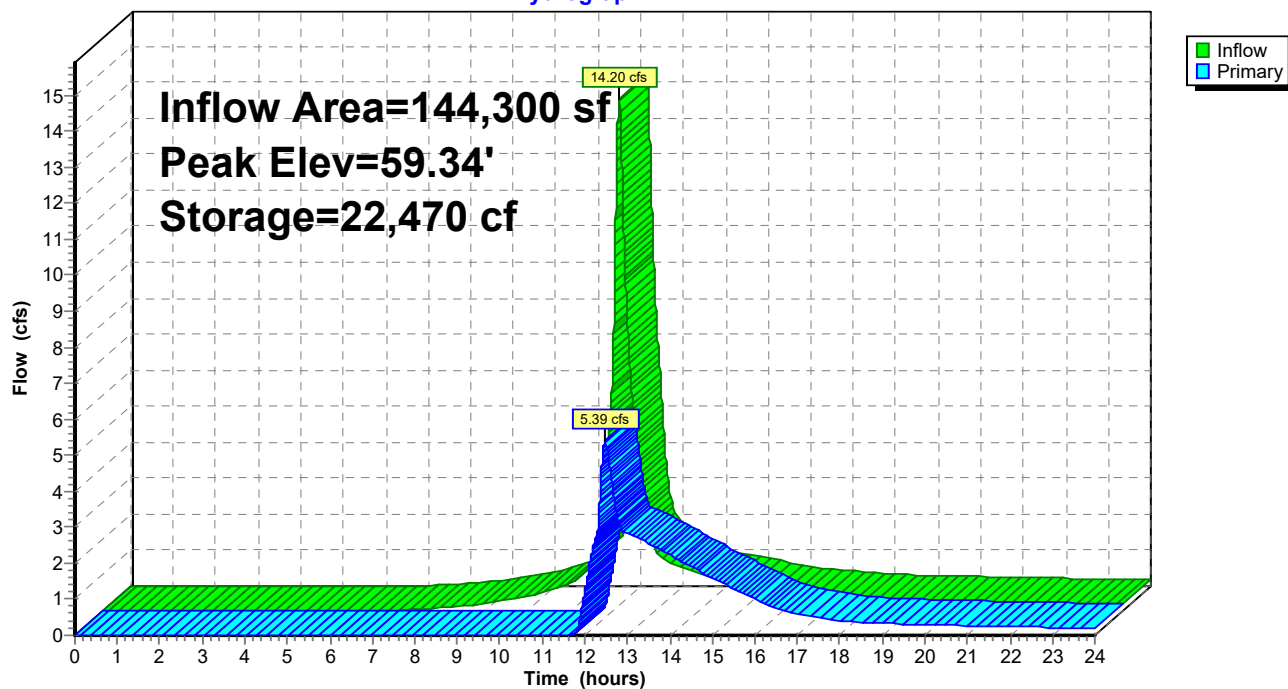
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Pond P4: Infil#1

Hydrograph



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Stage-Area-Storage for Pond P4: Infil#1

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
54.00	0	56.60	10,932	59.20	21,865
54.05	210	56.65	11,143	59.25	22,075
54.10	420	56.70	11,353	59.30	22,285
54.15	631	56.75	11,563	59.35	22,495
54.20	841	56.80	11,773	59.40	22,706
54.25	1,051	56.85	11,984	59.45	22,916
54.30	1,261	56.90	12,194	59.50	23,126
54.35	1,472	56.95	12,404	59.55	23,336
54.40	1,682	57.00	12,614	59.60	23,547
54.45	1,892	57.05	12,825	59.65	23,757
54.50	2,102	57.10	13,035	59.70	23,967
54.55	2,313	57.15	13,245	59.75	24,177
54.60	2,523	57.20	13,455	59.80	24,388
54.65	2,733	57.25	13,665	59.85	24,598
54.70	2,943	57.30	13,876	59.90	24,808
54.75	3,154	57.35	14,086	59.95	25,018
54.80	3,364	57.40	14,296	60.00	25,229
54.85	3,574	57.45	14,506	60.05	25,229
54.90	3,784	57.50	14,717	60.10	25,229
54.95	3,995	57.55	14,927	60.15	25,229
55.00	4,205	57.60	15,137	60.20	25,229
55.05	4,415	57.65	15,347	60.25	25,229
55.10	4,625	57.70	15,558	60.30	25,229
55.15	4,835	57.75	15,768	60.35	25,229
55.20	5,046	57.80	15,978	60.40	25,229
55.25	5,256	57.85	16,188	60.45	25,229
55.30	5,466	57.90	16,399	60.50	25,229
55.35	5,676	57.95	16,609	60.55	25,229
55.40	5,887	58.00	16,819	60.60	25,229
55.45	6,097	58.05	17,029	60.65	25,229
55.50	6,307	58.10	17,240	60.70	25,229
55.55	6,517	58.15	17,450	60.75	25,229
55.60	6,728	58.20	17,660	60.80	25,229
55.65	6,938	58.25	17,870	60.85	25,229
55.70	7,148	58.30	18,080	60.90	25,229
55.75	7,358	58.35	18,291	60.95	25,229
55.80	7,569	58.40	18,501	61.00	25,229
55.85	7,779	58.45	18,711		
55.90	7,989	58.50	18,921		
55.95	8,199	58.55	19,132		
56.00	8,410	58.60	19,342		
56.05	8,620	58.65	19,552		
56.10	8,830	58.70	19,762		
56.15	9,040	58.75	19,973		
56.20	9,250	58.80	20,183		
56.25	9,461	58.85	20,393		
56.30	9,671	58.90	20,603		
56.35	9,881	58.95	20,814		
56.40	10,091	59.00	21,024		
56.45	10,302	59.05	21,234		
56.50	10,512	59.10	21,444		
56.55	10,722	59.15	21,655		

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Type III 24-hr 25-Year Rainfall=6.65"

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Summary for Link 1J: MH#8

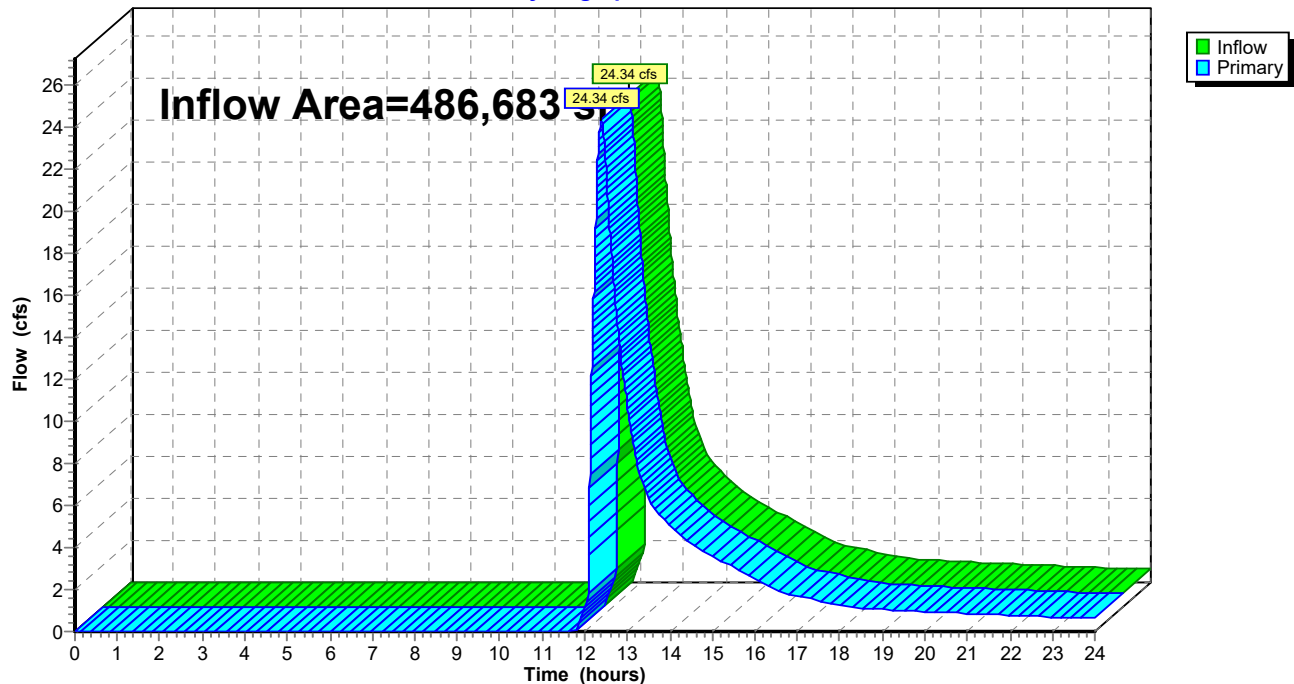
Inflow Area = 486,683 sf, 53.82% Impervious, Inflow Depth > 3.43" for 25-Year event
Inflow = 24.34 cfs @ 12.39 hrs, Volume= 139,018 cf
Primary = 24.34 cfs @ 12.39 hrs, Volume= 139,018 cf, Atten= 0%, Lag= 0.0 min
Routed to Link 4J : PR Outfall

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.005 hrs

Fixed water surface Elevation= 55.09'

Link 1J: MH#8

Hydrograph



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Type III 24-hr 25-Year Rainfall=6.65"

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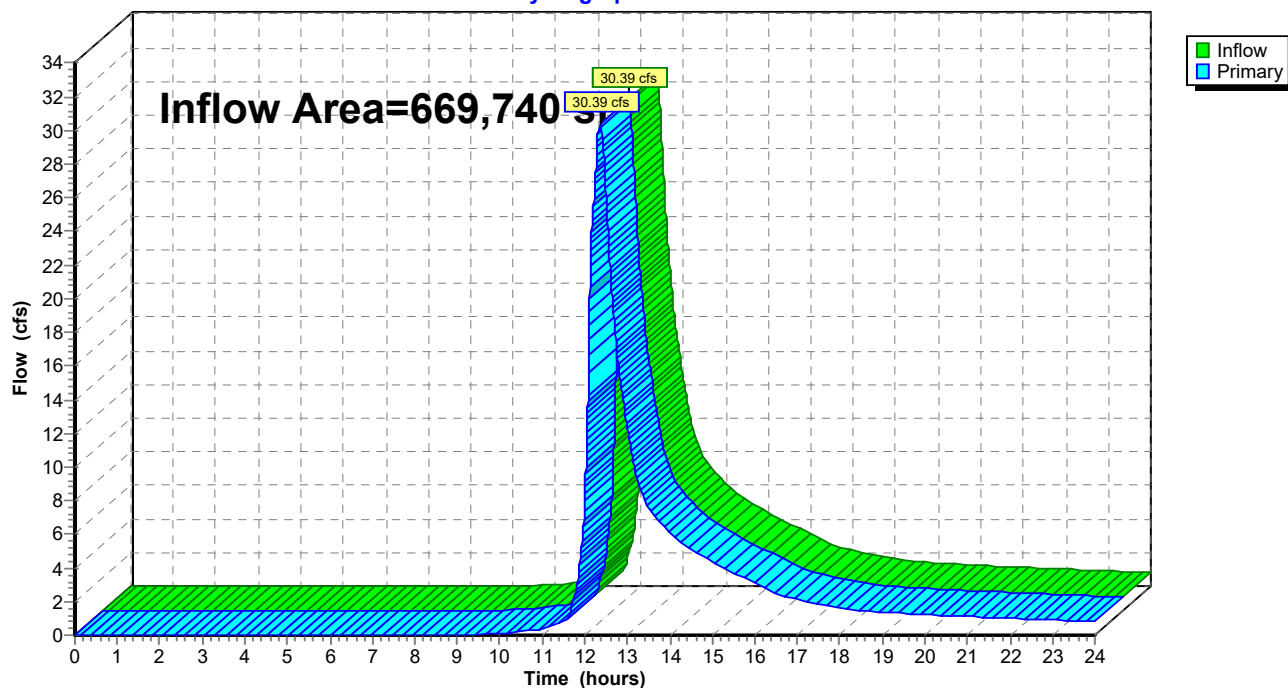
Summary for Link 4J: PR Outfall

Inflow Area = 669,740 sf, 43.62% Impervious, Inflow Depth > 3.30" for 25-Year event
Inflow = 30.39 cfs @ 12.36 hrs, Volume= 184,385 cf
Primary = 30.39 cfs @ 12.36 hrs, Volume= 184,385 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.005 hrs

Link 4J: PR Outfall

Hydrograph



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Type III 24-hr 25-Year Rainfall=6.65"

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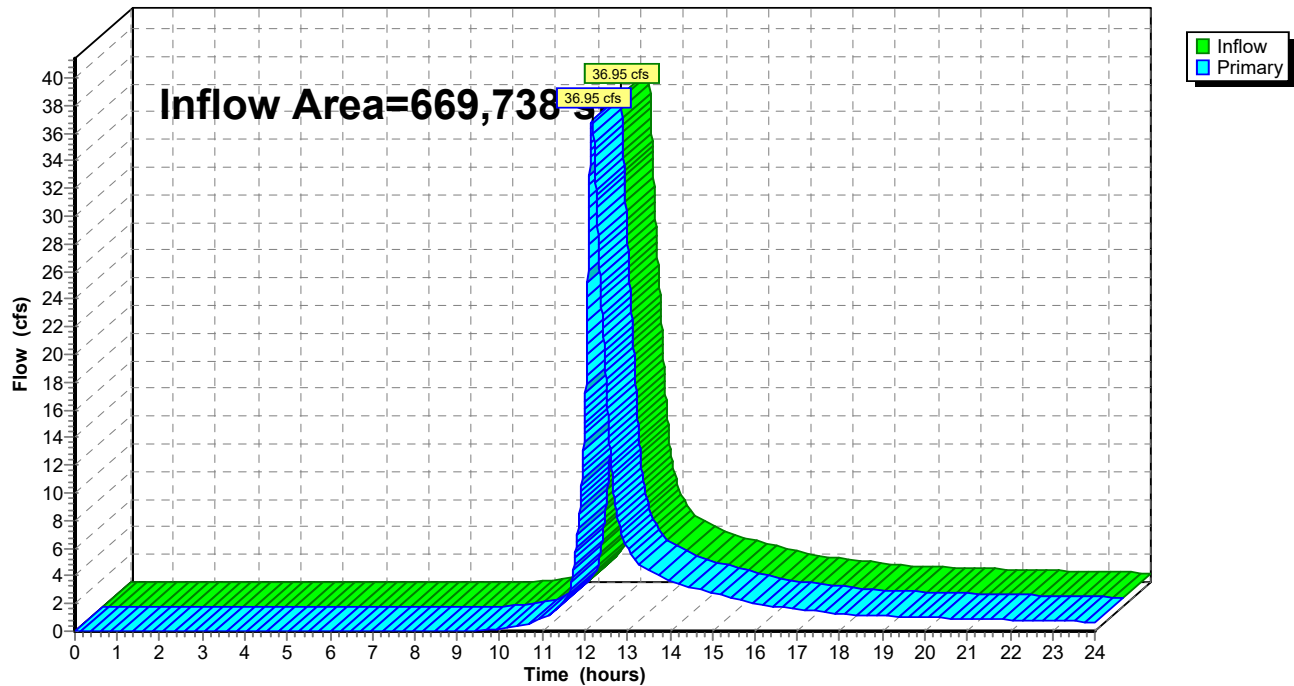
Summary for Link EXJ: EX Outfall

Inflow Area = 669,738 sf, 9.16% Impervious, Inflow Depth > 2.69" for 25-Year event
Inflow = 36.95 cfs @ 12.17 hrs, Volume= 149,918 cf
Primary = 36.95 cfs @ 12.17 hrs, Volume= 149,918 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.005 hrs

Link EXJ: EX Outfall

Hydrograph



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Type III 24-hr 50-Year Rainfall=7.52"

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Time span=0.00-24.00 hrs, dt=0.005 hrs, 4801 points x 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

SubcatchmentEX1: 120 LRRRunoff Area=114,122 sf 25.63% Impervious Runoff Depth>4.01"
Flow Length=604' Tc=19.8 min CN=69.77 Runoff=8.37 cfs 38,161 cf**SubcatchmentEX2: RIPPOWAMRIVER**Runoff Area=405,982 sf 7.89% Impervious Runoff Depth>3.29"
Flow Length=738' Tc=11.0 min CN=63.04 Runoff=30.17 cfs 111,350 cf**SubcatchmentEX3: 260 LRR**Runoff Area=127,378 sf 0.00% Impervious Runoff Depth>2.97"
Flow Length=556' Tc=11.7 min CN=60.00 Runoff=8.25 cfs 31,519 cf**SubcatchmentEX4: LRR**Runoff Area=22,256 sf 0.24% Impervious Runoff Depth>2.98"
Flow Length=224' Tc=10.9 min CN=60.09 Runoff=1.48 cfs 5,526 cf**SubcatchmentPR1: Infil#2**Runoff Area=201,111 sf 46.20% Impervious Runoff Depth>4.92"
Flow Length=213' Tc=10.3 min CN=77.84 Runoff=22.99 cfs 82,484 cf**SubcatchmentPR2: Infil#3**Runoff Area=47,480 sf 65.85% Impervious Runoff Depth>5.79"
Tc=5.0 min CN=85.36 Runoff=7.42 cfs 22,901 cf**SubcatchmentPR3: Infil#4**Runoff Area=93,792 sf 69.74% Impervious Runoff Depth>5.95"
Flow Length=277' Tc=10.8 min CN=86.80 Runoff=12.33 cfs 46,501 cf**SubcatchmentPR4: Infil#1**Runoff Area=144,300 sf 50.15% Impervious Runoff Depth>5.11"
Flow Length=273' Tc=10.8 min CN=79.46 Runoff=16.76 cfs 61,389 cf**SubcatchmentPR5: 120 LRR**Runoff Area=8,316 sf 0.00% Impervious Runoff Depth>3.03"
Flow Length=196' Tc=7.5 min CN=60.57 Runoff=0.63 cfs 2,101 cf**SubcatchmentPR6: LRR**Runoff Area=16,749 sf 32.87% Impervious Runoff Depth>4.35"
Tc=5.0 min CN=72.69 Runoff=2.04 cfs 6,069 cf**SubcatchmentPR7: 260 LRR**Runoff Area=27,965 sf 9.93% Impervious Runoff Depth>3.39"
Tc=5.0 min CN=63.91 Runoff=2.63 cfs 7,898 cf**SubcatchmentPR8: RIPPOWAMRIVER**Runoff Area=130,027 sf 16.84% Impervious Runoff Depth>3.67"
Flow Length=163' Tc=8.8 min CN=66.58 Runoff=11.66 cfs 39,807 cf**Pond P1: Infil#2**Peak Elev=61.79' Storage=13,756 cf Inflow=22.99 cfs 82,484 cf
Outflow=21.64 cfs 73,801 cf**Pond P2: Infil#3**Peak Elev=57.56' Storage=15,656 cf Inflow=25.96 cfs 96,702 cf
Outflow=21.88 cfs 87,852 cf**Pond P3: Infil#4**Peak Elev=57.41' Storage=27,408 cf Inflow=32.64 cfs 134,354 cf
Outflow=29.61 cfs 118,428 cf**Pond P4: Infil#1**Peak Elev=59.62' Storage=23,633 cf Inflow=16.76 cfs 61,389 cf
Outflow=9.25 cfs 53,141 cf

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Type III 24-hr 50-Year Rainfall=7.52"

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Link 1J: MH#8

Inflow=37.80 cfs 171,569 cf
Primary=37.80 cfs 171,569 cf

Link 4J: PR Outfall

Inflow=46.97 cfs 227,444 cf
Primary=46.97 cfs 227,444 cf

Link EXJ: EX Outfall

Inflow=46.61 cfs 186,556 cf
Primary=46.61 cfs 186,556 cf

Total Runoff Area = 1,339,478 sf Runoff Volume = 455,707 cf Average Runoff Depth = 4.08"
73.61% Pervious = 986,013 sf 26.39% Impervious = 353,465 sf

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Type III 24-hr 100-Year Rainfall=8.44"

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Time span=0.00-24.00 hrs, dt=0.005 hrs, 4801 points x 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

SubcatchmentEX1: 120 LRR	Runoff Area=114,122 sf 25.63% Impervious Runoff Depth>4.80" Flow Length=604' Tc=19.8 min CN=69.77 Runoff=10.02 cfs 45,630 cf
SubcatchmentEX2: RIPPOWAMRIVER	Runoff Area=405,982 sf 7.89% Impervious Runoff Depth>4.01" Flow Length=738' Tc=11.0 min CN=63.04 Runoff=37.02 cfs 135,755 cf
SubcatchmentEX3: 260 LRR	Runoff Area=127,378 sf 0.00% Impervious Runoff Depth>3.66" Flow Length=556' Tc=11.7 min CN=60.00 Runoff=10.27 cfs 38,818 cf
SubcatchmentEX4: LRR	Runoff Area=22,256 sf 0.24% Impervious Runoff Depth>3.67" Flow Length=224' Tc=10.9 min CN=60.09 Runoff=1.84 cfs 6,803 cf
SubcatchmentPR1: Infil#2	Runoff Area=201,111 sf 46.20% Impervious Runoff Depth>5.77" Flow Length=213' Tc=10.3 min CN=77.84 Runoff=26.82 cfs 96,691 cf
SubcatchmentPR2: Infil#3	Runoff Area=47,480 sf 65.85% Impervious Runoff Depth>6.68" Tc=5.0 min CN=85.36 Runoff=8.49 cfs 26,416 cf
SubcatchmentPR3: Infil#4	Runoff Area=93,792 sf 69.74% Impervious Runoff Depth>6.84" Flow Length=277' Tc=10.8 min CN=86.80 Runoff=14.08 cfs 53,484 cf
SubcatchmentPR4: Infil#1	Runoff Area=144,300 sf 50.15% Impervious Runoff Depth>5.96" Flow Length=273' Tc=10.8 min CN=79.46 Runoff=19.48 cfs 71,702 cf
SubcatchmentPR5: 120 LRR	Runoff Area=8,316 sf 0.00% Impervious Runoff Depth>3.73" Flow Length=196' Tc=7.5 min CN=60.57 Runoff=0.79 cfs 2,583 cf
SubcatchmentPR6: LRR	Runoff Area=16,749 sf 32.87% Impervious Runoff Depth>5.16" Tc=5.0 min CN=72.69 Runoff=2.41 cfs 7,202 cf
SubcatchmentPR7: 260 LRR	Runoff Area=27,965 sf 9.93% Impervious Runoff Depth>4.12" Tc=5.0 min CN=63.91 Runoff=3.21 cfs 9,602 cf
SubcatchmentPR8: RIPPOWAMRIVER	Runoff Area=130,027 sf 16.84% Impervious Runoff Depth>4.43" Flow Length=163' Tc=8.8 min CN=66.58 Runoff=14.10 cfs 48,016 cf
Pond P1: Infil#2	Peak Elev=61.93' Storage=14,264 cf Inflow=26.82 cfs 96,691 cf Outflow=25.42 cfs 87,976 cf
Pond P2: Infil#3	Peak Elev=57.86' Storage=16,459 cf Inflow=30.43 cfs 114,393 cf Outflow=27.41 cfs 105,534 cf
Pond P3: Infil#4	Peak Elev=57.65' Storage=28,640 cf Inflow=40.60 cfs 159,018 cf Outflow=38.12 cfs 143,080 cf
Pond P4: Infil#1	Peak Elev=59.85' Storage=24,582 cf Inflow=19.48 cfs 71,702 cf Outflow=13.57 cfs 63,377 cf

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Type III 24-hr 100-Year Rainfall=8.44"

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Link 1J: MH#8

Inflow=51.33 cfs 206,456 cf
Primary=51.33 cfs 206,456 cf

Link 4J: PR Outfall

Inflow=64.04 cfs 273,858 cf
Primary=64.04 cfs 273,858 cf

Link EXJ: EX Outfall

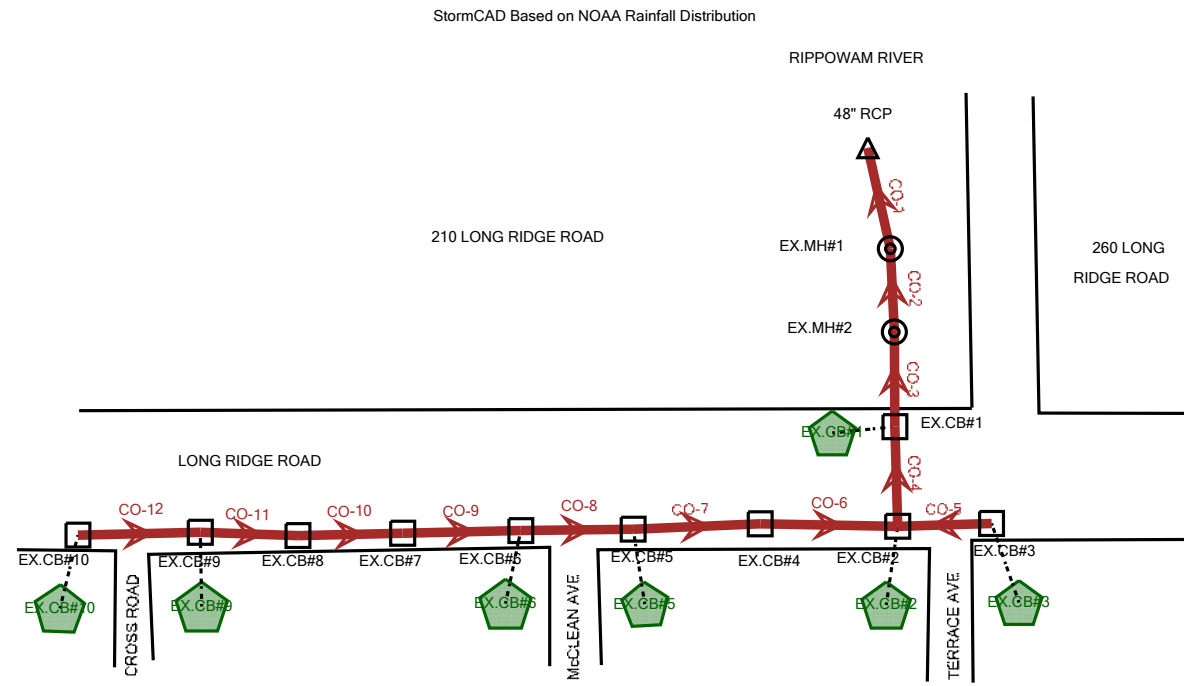
Inflow=57.22 cfs 227,005 cf
Primary=57.22 cfs 227,005 cf

Total Runoff Area = 1,339,478 sf Runoff Volume = 542,701 cf Average Runoff Depth = 4.86"
73.61% Pervious = 986,013 sf 26.39% Impervious = 353,465 sf

Appendix 4

10-year Storm Event Hydraulic Grade Line Analysis

Scenario: Existing Conditions



FlexTable: Catchment Table

Label	Outflow Element	Area (User Defined) (acres)	Runoff Coefficient (Rational)	Time of Concentration (hours)	Flow (Total Out) (cfs)
EX.CB#9	EX.CB#9	5.175	0.613	0.167	16.38
EX.CB#6	EX.CB#6	4.438	0.559	0.167	12.79
EX.CB#5	EX.CB#5	5.946	0.543	0.167	16.66
EX.CB#2	EX.CB#2	0.944	0.600	0.083	4.13
EX.CB#3	EX.CB#3	5.115	0.539	0.167	14.22
EX.CB#1	EX.CB#1	0.093	0.760	0.083	0.52
EX.CB#10	EX.CB#10	12.103	0.799	0.167	49.88

FlexTable: Manhole Table

Label	Elevation (Rim) (ft)	Elevation (Invert in 1) (ft)	Flow (Local from Inflow Collection) (cfs)	Flow (Total Out) (cfs)	Depth (Out) (ft)	Hydraulic Grade Line (Out) (ft)	Hydraulic Grade Line (In) (ft)
EX.MH#1	63.89	57.34	0.00	106.49	3.12	60.16	60.16
EX.MH#2	78.71	72.46	0.00	106.88	3.13	75.34	75.34

FlexTable: Catch Basin Table

Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Flow (Captured) (cfs)	Hydraulic Grade Line (In) (ft)
EX.CB#1	85.89	72.89	0.52	77.16
EX.CB#2	85.65	72.90	4.13	77.90
EX.CB#3	85.13	79.80	14.22	81.39
EX.CB#5	90.99	82.10	16.66	85.52
EX.CB#6	92.46	82.30	12.79	86.50
EX.CB#9	99.02	90.30	16.38	93.82
EX.CB#10	99.72	90.90	49.88	94.22
EX.CB#4	88.40	80.20	0.00	83.73
EX.CB#7	94.98	86.70	0.00	90.28
EX.CB#8	96.74	89.30	0.00	92.48

FlexTable: Conduit Table

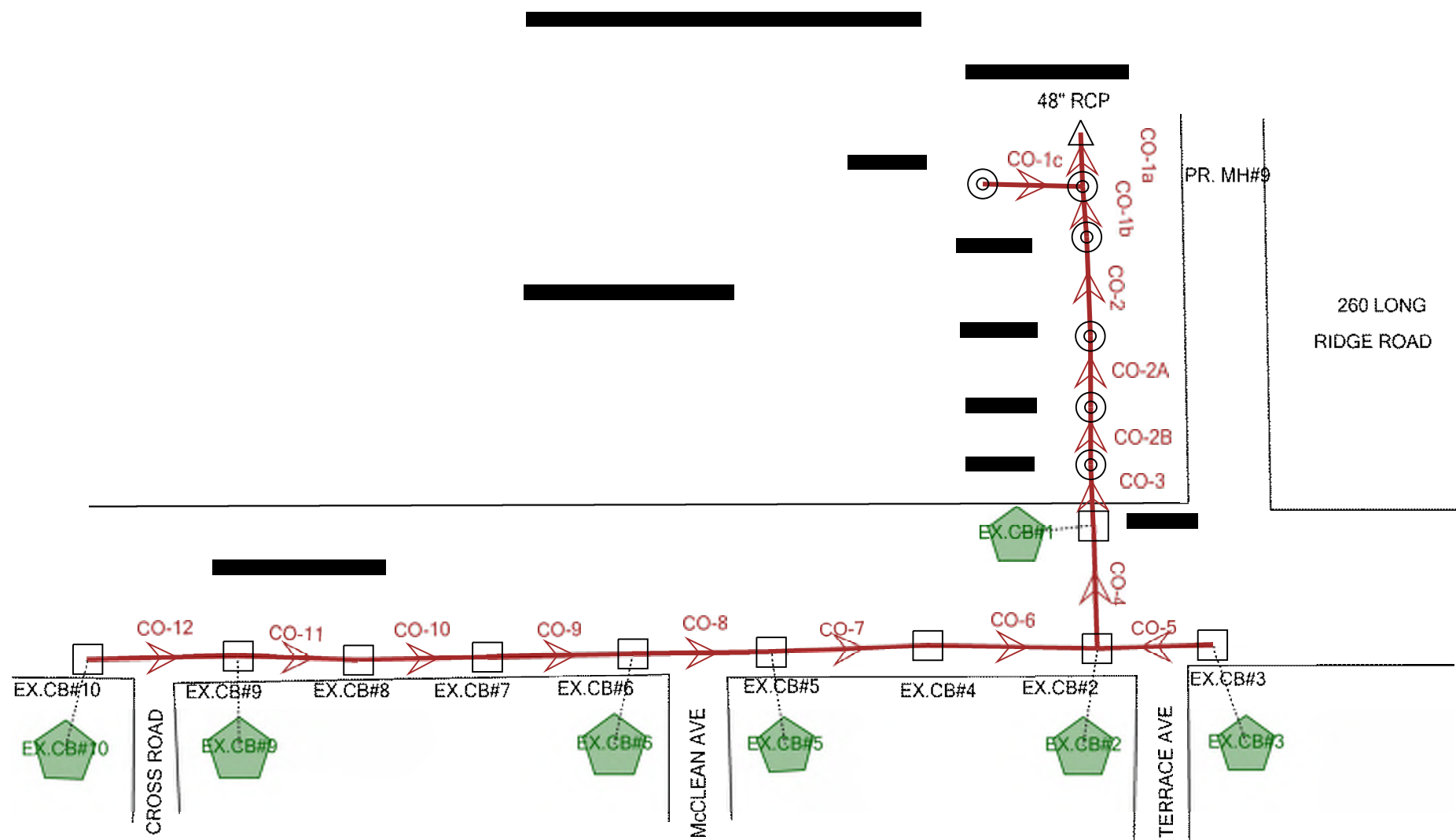
Label	Start Node	Elevation Ground (Start) (ft)	Hydraulic Grade Line (In) (ft)	Invert (Start) (ft)	Stop Node	Elevation Ground (Stop) (ft)	Hydraulic Grade Line (Out) (ft)	Invert (Stop) (ft)	Diameter (in)	Rise (ft)	Span (ft)	Manning's n	Length (User Defined) (ft)	Slope (Calculated) (ft/ft)	Flow (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)
CO-1	EX.MH#1	63.89	60.16	57.04	48" RCP	45.90	49.25	45.90	48.0			0.013	475.0	0.023	106.49	219.97	48.4
CO-2	EX.MH#2	78.71	75.34	72.21	EX.MH#1	63.89	58.75	57.34	48.0			0.013	144.0	0.103	106.88	461.57	23.2
CO-3	EX.CB#1	85.89	77.16	74.01	EX.MH#2	78.71	75.26	72.46	48.0			0.013	190.0	0.008	108.22	129.73	83.4
CO-4	EX.CB#2	85.65	77.90	74.25	EX.CB#1	85.89	77.24	74.09	48.0			0.013	57.0	0.003	108.41	76.10	142.5
CO-5	EX.CB#3	85.13	81.39	80.03	EX.CB#2	85.65	78.62	77.80	24.0			0.013	57.0	0.039	14.22	44.74	31.8
CO-6	EX.CB#4	88.40	83.73	80.82	EX.CB#2	85.65	76.80	75.17	48.0			0.013	112.9	0.050	92.30	321.32	28.7
CO-7	EX.CB#5	90.99	85.52	82.60	EX.CB#4	88.40	83.28	81.02	48.0			0.013	120.0	0.013	92.91	164.82	56.4
CO-8	EX.CB#6	92.46	86.50	83.84	EX.CB#5	90.99	85.38	83.13	48.0			0.013	80.0	0.009	77.14	135.31	57.0
CO-9	EX.CB#7	94.98	90.28	87.70	EX.CB#6	92.46	87.69	85.79	36.0			0.013	85.0	0.022	64.93	99.98	64.9
CO-10	EX.CB#8	96.74	92.48	89.89	EX.CB#7	94.98	89.56	87.73	36.0			0.013	80.0	0.027	65.16	109.59	59.5
CO-11	EX.CB#9	99.02	93.82	90.82	EX.CB#8	96.74	92.52	89.92	36.0			0.013	122.0	0.007	65.79	57.28	114.8
CO-12	EX.CB#10	99.72	94.22	91.07	EX.CB#9	99.02	93.82	90.92	36.0			0.013	70.0	0.002	49.88	30.87	161.6

FlexTable: Outfall Table

Label	Elevation (Ground) (ft)	Elevation (Invert) (ft)	Elevation (User Defined Tailwater) (ft)	Hydraulic Grade (ft)	Flow (Total Out) (cfs)
48" RCP	45.90	45.90	49.25	49.25	104.26

*Note: Tailwater elevation taken as 10-year flood elevation within Rippowam River per FEMA Flood Insurance Study (Datum = NAVD 88)

Scenario: 10 - Yr Event



FlexTable: Catchment Table

Label	Outflow Element	Area (User Defined) (acres)	Runoff Coefficient (Rational)	Time of Concentration (hours)	Flow (Total Out) (cfs)
EX.CB#9	EX.CB#9	5.205	0.615	0.167	16.51
EX.CB#6	EX.CB#6	4.477	0.563	0.167	13.00
EX.CB#5	EX.CB#5	5.970	0.543	0.167	16.73
EX.CB#2	EX.CB#2	1.031	0.591	0.083	4.44
EX.CB#3	EX.CB#3	5.115	0.539	0.167	14.22
EX.CB#1	EX.CB#1	0.203	0.610	0.083	0.90
EX.CB#10	EX.CB#10	12.138	0.799	0.167	50.02

FlexTable: Manhole Table

Label	Elevation (Rim) (ft)	Elevation (Invert in 1) (ft)	Flow (Local from Inflow Collection) (cfs)	Flow (Total Out) (cfs)	Depth (Out) (ft)	Hydraulic Grade Line (Out) (ft)	Hydraulic Grade Line (In) (ft)
EX.MH#1	63.89	57.34	0.00	107.40	3.14	60.18	60.18
EX.MH#2	78.71	72.46	0.00	107.79	3.14	75.35	75.35
PR.JB#2	79.00	72.57	0.00	107.85	3.14	75.66	75.66
PR.JB#1	84.50	73.33	0.00	108.62	3.19	76.44	76.44
PR. MH#9	57.90	51.50	0.00	120.78	3.31	54.79	54.79
PR.MH#8	59.90	(N/A)	14.51	14.51	2.78	54.78	54.78

FlexTable: Catch Basin Table

Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Flow (Captured) (cfs)	Hydraulic Grade Line (In) (ft)
EX.CB#1	85.89	72.89	0.90	77.17
EX.CB#2	85.65	72.90	4.44	77.91
EX.CB#3	85.13	79.80	14.22	81.39
EX.CB#5	90.99	82.10	16.73	85.53
EX.CB#6	92.46	82.30	13.00	86.51
EX.CB#9	99.02	90.30	16.51	93.84
EX.CB#10	99.72	90.90	50.02	94.24
EX.CB#4	88.40	80.20	0.00	83.74
EX.CB#7	94.98	86.70	0.00	90.29
EX.CB#8	96.74	89.30	0.00	92.48

FlexTable: Conduit Table

Label	Start Node	Elevation Ground (Start) (ft)	Hydraulic Grade Line (In) (ft)	Invert (Start) (ft)	Stop Node	Elevation Ground (Stop) (ft)	Hydraulic Grade Line (Out) (ft)	Invert (Stop) (ft)	Diameter (in)	Rise (ft)	Span (ft)	Manning's n	Length (User Defined) (ft)	Slope (Calculated) (ft/ft)	Flow (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)
CO-1a	PR. MH#9	57.90	54.79	51.48	48" RCP	45.90	49.25	45.90	48.0	2.0	6.0	0.013	235.0	0.024	120.78	221.33	54.6
CO-1b	EX.MH#1	63.89	60.18	57.04	PR. MH#9	57.90	54.79	51.50	48.0			0.013	238.0	0.023	107.40	219.14	49.0
CO-1c	PR.MH#8	59.90	54.78	52.00	PR. MH#9	57.90	54.79	51.75	42.0			0.010	21.0	0.012	14.51	142.70	10.2
CO-2	EX.MH#2	78.71	75.35	72.21	EX.MH#1	63.89	58.76	57.34	48.0			0.013	144.0	0.103	107.79	461.57	23.4
CO-2A	PR.JB#2	79.00	75.66	72.52	EX.MH#2	78.71	75.49	72.46	48.0			0.013	8.0	0.008	107.85	124.39	86.7
CO-2B	PR.JB#1	84.50	76.44	73.25	PR.JB#2	79.00	75.66	72.57				0.013	85.0	0.008	108.62	101.27	107.3
CO-3	EX.CB#1	85.89	77.17	74.01	PR.JB#1	84.50	76.21	73.33	48.0			0.013	85.0	0.008	109.23	128.47	85.0
CO-4	EX.CB#2	85.65	77.91	74.25	EX.CB#1	85.89	77.25	74.09	48.0			0.013	57.0	0.003	109.16	76.10	143.4
CO-5	EX.CB#3	85.13	81.39	80.03	EX.CB#2	85.65	78.62	77.80	24.0			0.013	57.0	0.039	14.22	44.74	31.8
CO-6	EX.CB#4	88.40	83.74	80.82	EX.CB#2	85.65	76.80	75.17	48.0			0.013	112.9	0.050	92.83	321.32	28.9
CO-7	EX.CB#5	90.99	85.53	82.60	EX.CB#4	88.40	83.28	81.02	48.0			0.013	120.0	0.013	93.45	164.82	56.7
CO-8	EX.CB#6	92.46	86.51	83.84	EX.CB#5	90.99	85.39	83.13	48.0			0.013	80.0	0.009	77.62	135.31	57.4
CO-9	EX.CB#7	94.98	90.29	87.70	EX.CB#6	92.46	87.70	85.79	36.0			0.013	85.0	0.022	65.20	99.98	65.2
CO-10	EX.CB#8	96.74	92.48	89.89	EX.CB#7	94.98	89.57	87.73	36.0			0.013	80.0	0.027	65.44	109.59	59.7
CO-11	EX.CB#9	99.02	93.84	90.82	EX.CB#8	96.74	92.52	89.92	36.0			0.013	122.0	0.007	66.06	57.28	115.3
CO-12	EX.CB#10	99.72	94.24	91.07	EX.CB#9	99.02	93.84	90.92	36.0			0.013	70.0	0.002	50.02	30.87	162.0

FlexTable: Outfall Table

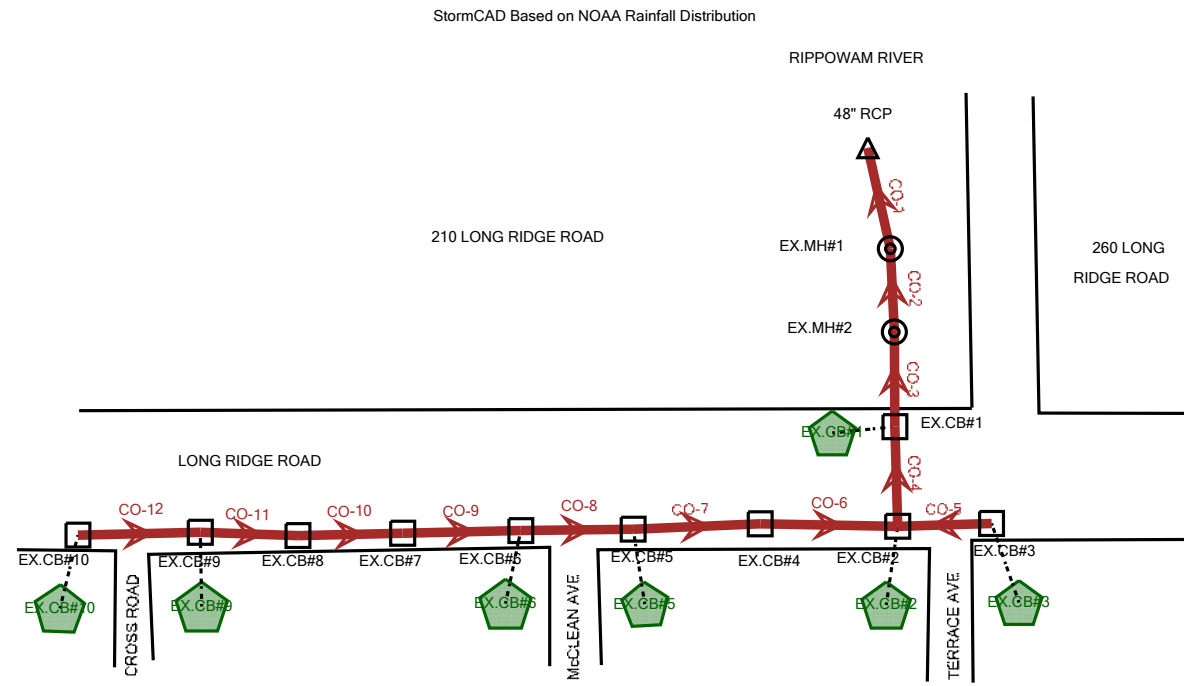
Label	Elevation (Ground) (ft)	Elevation (Invert) (ft)	Elevation (User Defined Tailwater) (ft)	Hydraulic Grade (ft)	Flow (Total Out) (cfs)
48" RCP	45.90	45.90	49.25	49.25	119.71

*Note: Tailwater elevation taken as 10-year flood elevation within Rippowam River per FEMA Flood Insurance Study (Datum = NAVD 88)

Appendix 5

25-year Storm Event Hydraulic Grade Line Analysis

Scenario: Existing Conditions



FlexTable: Catchment Table

Label	Outflow Element	Area (User Defined) (acres)	Runoff Coefficient (Rational)	Time of Concentration (hours)	Flow (Total Out) (cfs)
EX.CB#9	EX.CB#9	5.175	0.613	0.167	19.42
EX.CB#6	EX.CB#6	4.438	0.559	0.167	15.17
EX.CB#5	EX.CB#5	5.946	0.543	0.167	19.76
EX.CB#2	EX.CB#2	0.944	0.600	0.083	4.88
EX.CB#3	EX.CB#3	5.115	0.539	0.167	16.85
EX.CB#1	EX.CB#1	0.093	0.760	0.083	0.61
EX.CB#10	EX.CB#10	12.103	0.799	0.167	59.13

FlexTable: Manhole Table

Label	Elevation (Rim) (ft)	Elevation (Invert in 1) (ft)	Flow (Local from Inflow Collection) (cfs)	Flow (Total Out) (cfs)	Depth (Out) (ft)	Hydraulic Grade Line (Out) (ft)	Hydraulic Grade Line (In) (ft)
EX.MH#1	63.89	57.34	0.00	126.84	3.38	60.42	60.42
EX.MH#2	78.71	72.46	0.00	127.28	3.38	75.59	75.59

FlexTable: Catch Basin Table

Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Flow (Captured) (cfs)	Hydraulic Grade Line (In) (ft)
EX.CB#1	85.89	72.89	0.61	77.41
EX.CB#2	85.65	72.90	4.88	78.26
EX.CB#3	85.13	79.80	16.85	81.51
EX.CB#5	90.99	82.10	19.76	85.78
EX.CB#6	92.46	82.30	15.17	86.74
EX.CB#9	99.02	90.30	19.42	94.48
EX.CB#10	99.72	90.90	59.13	95.03
EX.CB#4	88.40	80.20	0.00	83.99
EX.CB#7	94.98	86.70	0.00	90.44
EX.CB#8	96.74	89.30	0.00	92.64

FlexTable: Conduit Table

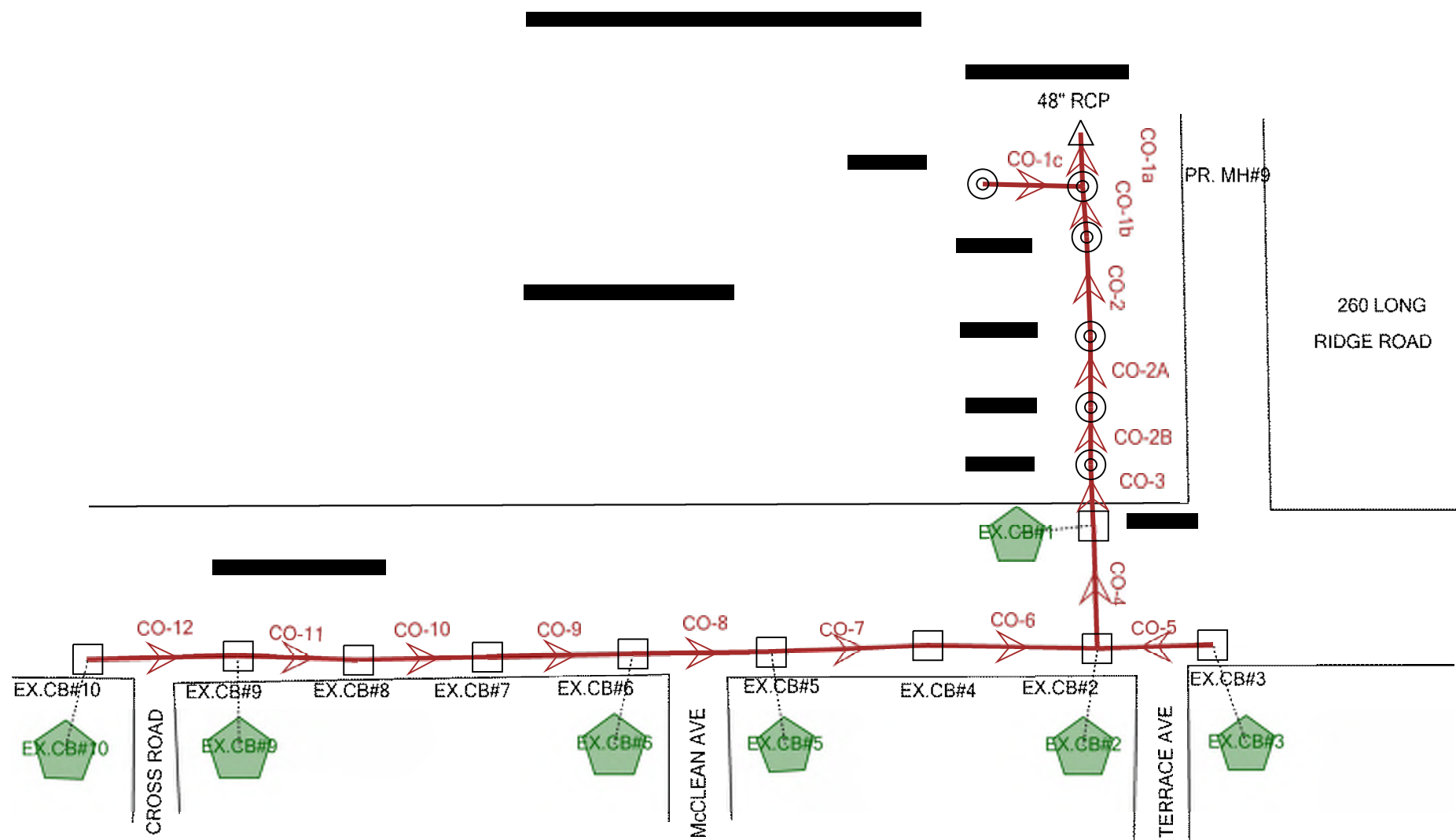
Label	Start Node	Elevation Ground (Start) (ft)	Hydraulic Grade Line (In) (ft)	Invert (Start) (ft)	Stop Node	Elevation Ground (Stop) (ft)	Hydraulic Grade Line (Out) (ft)	Invert (Stop) (ft)	Diameter (in)	Rise (ft)	Span (ft)	Manning's n	Length (User Defined) (ft)	Slope (Calculated) (ft/ft)	Flow (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)
CO-1	EX.MH#1	63.89	60.42	57.04	48" RCP	45.90	50.25	45.90	48.0			0.013	475.0	0.023	126.84	219.97	57.7
CO-2	EX.MH#2	78.71	75.59	72.21	EX.MH#1	63.89	58.91	57.34	48.0			0.013	144.0	0.103	127.28	461.57	27.6
CO-3	EX.CB#1	85.89	77.41	74.01	EX.MH#2	78.71	75.71	72.46	48.0			0.013	190.0	0.008	128.85	129.73	99.3
CO-4	EX.CB#2	85.65	78.26	74.25	EX.CB#1	85.89	77.49	74.09	48.0			0.013	57.0	0.003	128.97	76.10	169.5
CO-5	EX.CB#3	85.13	81.51	80.03	EX.CB#2	85.65	78.71	77.80	24.0			0.013	57.0	0.039	16.85	44.74	37.7
CO-6	EX.CB#4	88.40	83.99	80.82	EX.CB#2	85.65	76.98	75.17	48.0			0.013	112.9	0.050	109.78	321.32	34.2
CO-7	EX.CB#5	90.99	85.78	82.60	EX.CB#4	88.40	83.54	81.02	48.0			0.013	120.0	0.013	110.48	164.82	67.0
CO-8	EX.CB#6	92.46	86.74	83.84	EX.CB#5	90.99	85.63	83.13	48.0			0.013	80.0	0.009	91.72	135.31	67.8
CO-9	EX.CB#7	94.98	90.44	87.70	EX.CB#6	92.46	87.92	85.79	36.0			0.013	85.0	0.022	77.18	99.98	77.2
CO-10	EX.CB#8	96.74	92.64	89.89	EX.CB#7	94.98	89.78	87.73	36.0			0.013	80.0	0.027	77.45	109.59	70.7
CO-11	EX.CB#9	99.02	94.48	90.82	EX.CB#8	96.74	92.67	89.92	36.0			0.013	122.0	0.007	78.08	57.28	136.3
CO-12	EX.CB#10	99.72	95.03	91.07	EX.CB#9	99.02	94.48	90.92	36.0			0.013	70.0	0.002	59.13	30.87	191.5

FlexTable: Outfall Table

Label	Elevation (Ground) (ft)	Elevation (Invert) (ft)	Elevation (User Defined Tailwater) (ft)	Hydraulic Grade (ft)	Flow (Total Out) (cfs)
48" RCP	45.90	45.90	50.25	50.25	124.30

*Note: Tailwater elevation taken as 25-year flood elevation within Rippowam River per FEMA Flood Insurance Study (Datum = NAVD 88)

Scenario: 25 - Yr Event



FlexTable: Catchment Table

Label	Outflow Element	Area (User Defined) (acres)	Runoff Coefficient (Rational)	Time of Concentration (hours)	Flow (Total Out) (cfs)
EX.CB#9	EX.CB#9	5.205	0.615	0.167	19.57
EX.CB#6	EX.CB#6	4.477	0.563	0.167	15.41
EX.CB#5	EX.CB#5	5.970	0.543	0.167	19.84
EX.CB#2	EX.CB#2	1.031	0.591	0.083	5.25
EX.CB#3	EX.CB#3	5.115	0.539	0.167	16.85
EX.CB#1	EX.CB#1	0.203	0.610	0.083	1.07
EX.CB#10	EX.CB#10	12.138	0.799	0.167	59.31

FlexTable: Manhole Table

Label	Elevation (Rim) (ft)	Elevation (Invert in 1) (ft)	Flow (Local from Inflow Collection) (cfs)	Flow (Total Out) (cfs)	Depth (Out) (ft)	Hydraulic Grade Line (Out) (ft)	Hydraulic Grade Line (In) (ft)
EX.MH#1	63.89	57.34	0.00	128.05	3.39	60.43	60.43
EX.MH#2	78.71	72.46	0.00	128.49	3.40	75.61	75.61
PR.JB#2	79.00	72.57	0.00	128.56	3.41	75.93	75.93
PR.JB#1	84.50	73.33	0.00	129.34	3.79	77.04	77.04
PR. MH#9	57.90	51.50	0.00	152.28	3.61	55.09	55.09
PR.MH#8	59.90	(N/A)	25.52	25.52	3.09	55.09	55.09

FlexTable: Catch Basin Table

Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Flow (Captured) (cfs)	Hydraulic Grade Line (In) (ft)
EX.CB#1	85.89	72.89	1.07	77.42
EX.CB#2	85.65	72.90	5.25	78.28
EX.CB#3	85.13	79.80	16.85	81.51
EX.CB#5	90.99	82.10	19.84	85.79
EX.CB#6	92.46	82.30	15.41	86.75
EX.CB#9	99.02	90.30	19.57	94.50
EX.CB#10	99.72	90.90	59.31	95.05
EX.CB#4	88.40	80.20	0.00	84.00
EX.CB#7	94.98	86.70	0.00	90.45
EX.CB#8	96.74	89.30	0.00	92.64

FlexTable: Conduit Table

Label	Start Node	Elevation Ground (Start) (ft)	Hydraulic Grade Line (In) (ft)	Invert (Start) (ft)	Stop Node	Elevation Ground (Stop) (ft)	Hydraulic Grade Line (Out) (ft)	Invert (Stop) (ft)	Diameter (in)	Rise (ft)	Span (ft)	Manning's n	Length (User Defined) (ft)	Slope (Calculated) (ft/ft)	Flow (cfs)	Capacity (Full Flow) (cfs)	Flow / Capacity (Design) (%)
CO-1a	PR. MH#9	57.90	55.09	51.48	48" RCP	45.90	50.25	45.90	48.0	2.0	6.0	0.013	235.0	0.024	152.28	221.33	68.8
CO-1b	EX.MH#1	63.89	60.43	57.04	PR. MH#9	57.90	55.09	51.50	48.0			0.013	238.0	0.023	128.05	219.14	58.4
CO-1c	PR.MH#8	59.90	55.09	52.00	PR. MH#9	57.90	55.09	51.75	42.0			0.010	21.0	0.012	25.52	142.70	17.9
CO-2	EX.MH#2	78.71	75.61	72.21	EX.MH#1	63.89	58.92	57.34	48.0			0.013	144.0	0.103	128.49	461.57	27.8
CO-2A	PR.JB#2	79.00	75.93	72.52	EX.MH#2	78.71	75.86	72.46	48.0			0.013	8.0	0.008	128.56	124.39	103.4
CO-2B	PR.JB#1	84.50	77.04	73.25	PR.JB#2	79.00	75.93	72.57				0.013	85.0	0.008	129.34	101.27	127.7
CO-3	EX.CB#1	85.89	77.42	74.01	PR.JB#1	84.50	77.04	73.33	48.0			0.013	85.0	0.008	130.05	128.47	101.2
CO-4	EX.CB#2	85.65	78.28	74.25	EX.CB#1	85.89	77.50	74.09	48.0			0.013	57.0	0.003	129.86	76.10	170.6
CO-5	EX.CB#3	85.13	81.51	80.03	EX.CB#2	85.65	78.71	77.80	24.0			0.013	57.0	0.039	16.85	44.74	37.7
CO-6	EX.CB#4	88.40	84.00	80.82	EX.CB#2	85.65	76.98	75.17	48.0			0.013	112.9	0.050	110.42	321.32	34.4
CO-7	EX.CB#5	90.99	85.79	82.60	EX.CB#4	88.40	83.55	81.02	48.0			0.013	120.0	0.013	111.12	164.82	67.4
CO-8	EX.CB#6	92.46	86.75	83.84	EX.CB#5	90.99	85.64	83.13	48.0			0.013	80.0	0.009	92.28	135.31	68.2
CO-9	EX.CB#7	94.98	90.45	87.70	EX.CB#6	92.46	87.93	85.79	36.0			0.013	85.0	0.022	77.51	99.98	77.5
CO-10	EX.CB#8	96.74	92.64	89.89	EX.CB#7	94.98	89.78	87.73	36.0			0.013	80.0	0.027	77.78	109.59	71.0
CO-11	EX.CB#9	99.02	94.50	90.82	EX.CB#8	96.74	92.68	89.92	36.0			0.013	122.0	0.007	78.40	57.28	136.9
CO-12	EX.CB#10	99.72	95.05	91.07	EX.CB#9	99.02	94.50	90.92	36.0			0.013	70.0	0.002	59.31	30.87	192.1

FlexTable: Outfall Table

Label	Elevation (Ground) (ft)	Elevation (Invert) (ft)	Elevation (User Defined Tailwater) (ft)	Hydraulic Grade (ft)	Flow (Total Out) (cfs)
48" RCP	45.90	45.90	50.25	50.25	151.07

*Note: Tailwater elevation taken as 25-year flood elevation within Rippowam River per FEMA Flood Insurance Study (Datum = NAVD 88)

Appendix 6

Existing & Proposed 260 Long Ridge Road Drainage Basin Map
Existing & Proposed 260 Long Ridge Road HydroCAD Report

87 LF PAVEMENT SHALLOW
CONCENTRATED FLOW @ 0.080 FPF

25' WIDE DR
(V.1141, P.1)

180 LF WOODS SHEET
FLOW @ 0.140 FPF

TERRACE AVENUE

EXISTING CONDITIONS 260 LRR DRAINAGE BASIN MAP
210 LONG RIDGE
STAMFORD, CT



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COMM. NO.:
1730

DATE:
05/23/2023
SCALE:
1"=30'



TERRACE AVENUE

PROPOSED CONDITIONS 260 LRR DRAINAGE BASIN MAP
210 LONG RIDGE
STAMFORD, CT



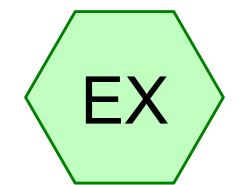
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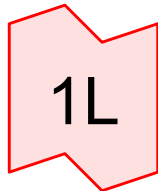
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	SCALE: 1"=30'

HydroCAD Based on SCS Type III Rainfall Distribution



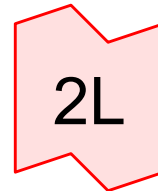
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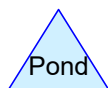
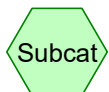
EX Outfall



PROPOSED



PR Outfall



Routing Diagram for HydroCAD Model Offsite

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HydroCAD Model Offsite

Prepared by {enter your company name here}

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Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	25-Year	Type III 24-hr		Default	24.00	1	5.70	2

HydroCAD Model Offsite

Type III 24-hr 25-Year Rainfall=5.70"

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Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

SubcatchmentEX: EXISTING

Runoff Area=40,537 sf 19.75% Impervious Runoff Depth>2.35"

Tc=15.0 min CN=67.61 Runoff=1.91 cfs 7,940 cf

SubcatchmentPR: PROPOSED

Runoff Area=29,341 sf 40.74% Impervious Runoff Depth>3.09"

Tc=14.0 min CN=75.74 Runoff=1.90 cfs 7,553 cf

Link 1L: EX Outfall

Inflow=1.91 cfs 7,940 cf

Primary=1.91 cfs 7,940 cf

Link 2L: PR Outfall

Inflow=1.90 cfs 7,553 cf

Primary=1.90 cfs 7,553 cf

Total Runoff Area = 69,878 sf Runoff Volume = 15,493 cf Average Runoff Depth = 2.66"
71.43% Pervious = 49,916 sf 28.57% Impervious = 19,962 sf

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Type III 24-hr 25-Year Rainfall=5.70"

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Summary for Subcatchment EX: EXISTING

Runoff = 1.91 cfs @ 12.22 hrs, Volume= 7,940 cf, Depth> 2.35"
Routed to Link 1L : EX Outfall

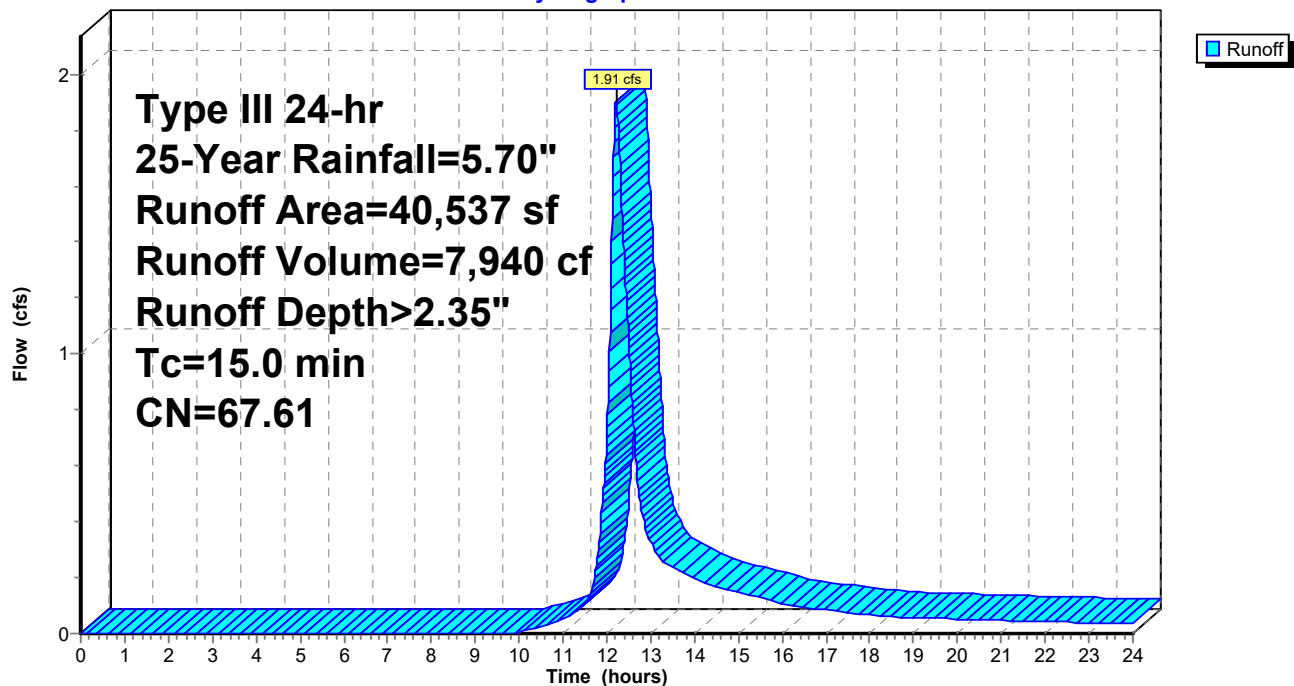
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=5.70"

Area (sf)	CN	Description
8,008	98.00	Paved parking, HSG B
4,110	61.00	>75% Grass cover, Good, HSG B
28,419	60.00	Woods, Fair, HSG B
40,537	67.61	Weighted Average
32,529		80.25% Pervious Area
8,008		19.75% Impervious Area

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

Subcatchment EX: EXISTING

Hydrograph



HydroCAD Model Offsite

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Type III 24-hr 25-Year Rainfall=5.70"

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Summary for Subcatchment PR: PROPOSED

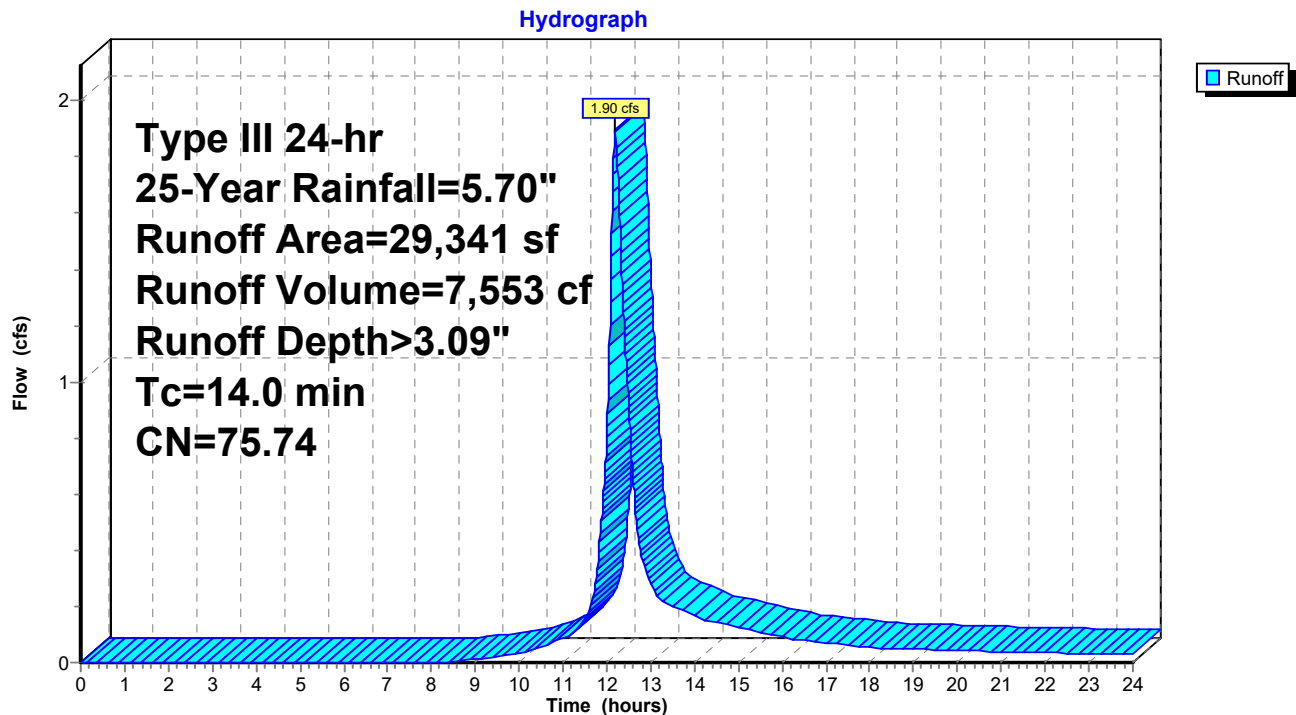
Runoff = 1.90 cfs @ 12.19 hrs, Volume= 7,553 cf, Depth> 3.09"
Routed to Link 2L : PR Outfall

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=5.70"

Area (sf)	CN	Description
11,954	98.00	Paved parking, HSG B
7,531	61.00	>75% Grass cover, Good, HSG B
9,856	60.00	Woods, Fair, HSG B
29,341	75.74	Weighted Average
17,387		59.26% Pervious Area
11,954		40.74% Impervious Area

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

Subcatchment PR: PROPOSED



HydroCAD Model Offsite

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Type III 24-hr 25-Year Rainfall=5.70"

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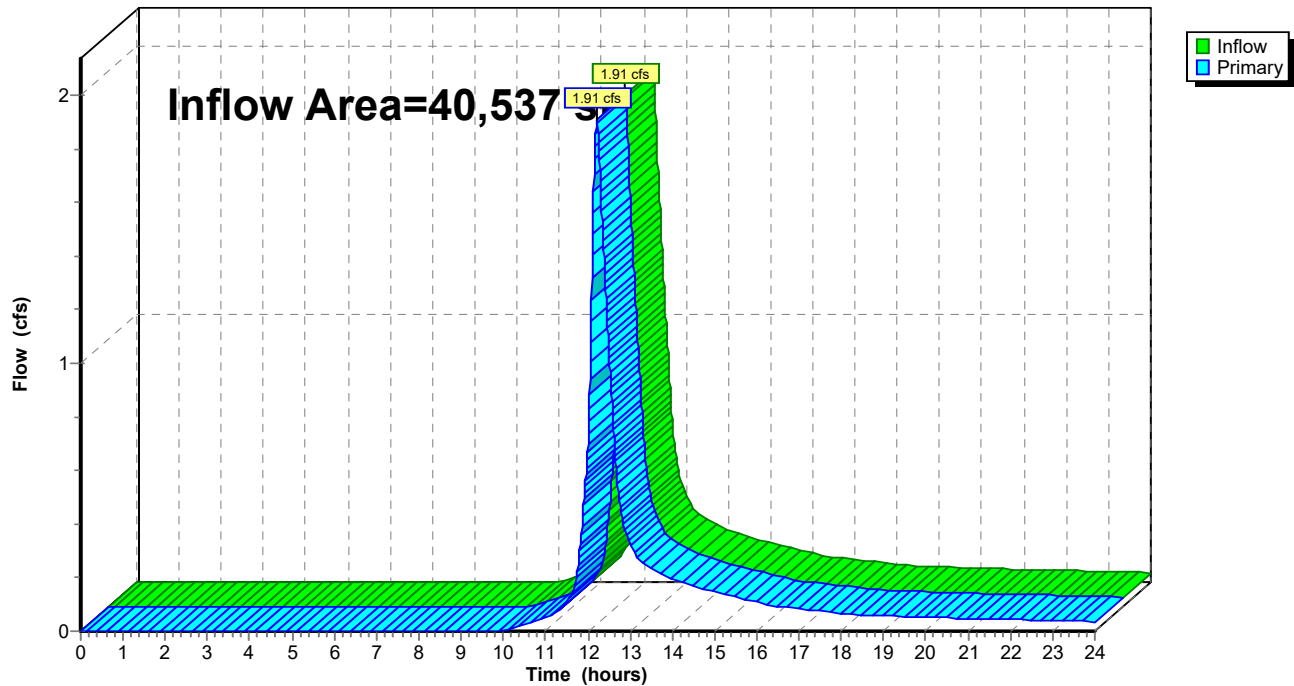
Summary for Link 1L: EX Outfall

Inflow Area = 40,537 sf, 19.75% Impervious, Inflow Depth > 2.35" for 25-Year event
Inflow = 1.91 cfs @ 12.22 hrs, Volume= 7,940 cf
Primary = 1.91 cfs @ 12.22 hrs, Volume= 7,940 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Link 1L: EX Outfall

Hydrograph



HydroCAD Model Offsite

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Type III 24-hr 25-Year Rainfall=5.70"

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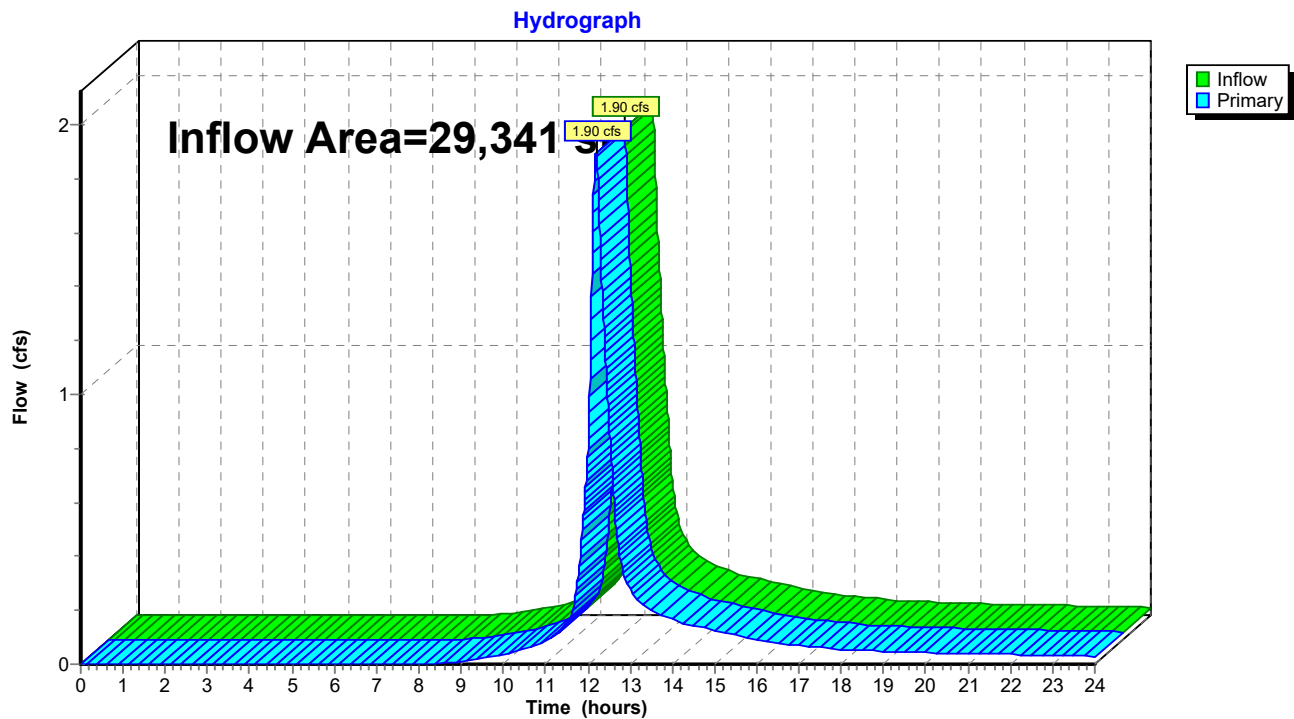
Page 7

Summary for Link 2L: PR Outfall

Inflow Area = 29,341 sf, 40.74% Impervious, Inflow Depth > 3.09" for 25-Year event
Inflow = 1.90 cfs @ 12.19 hrs, Volume= 7,553 cf
Primary = 1.90 cfs @ 12.19 hrs, Volume= 7,553 cf, Atten= 0%, Lag= 0.0 min

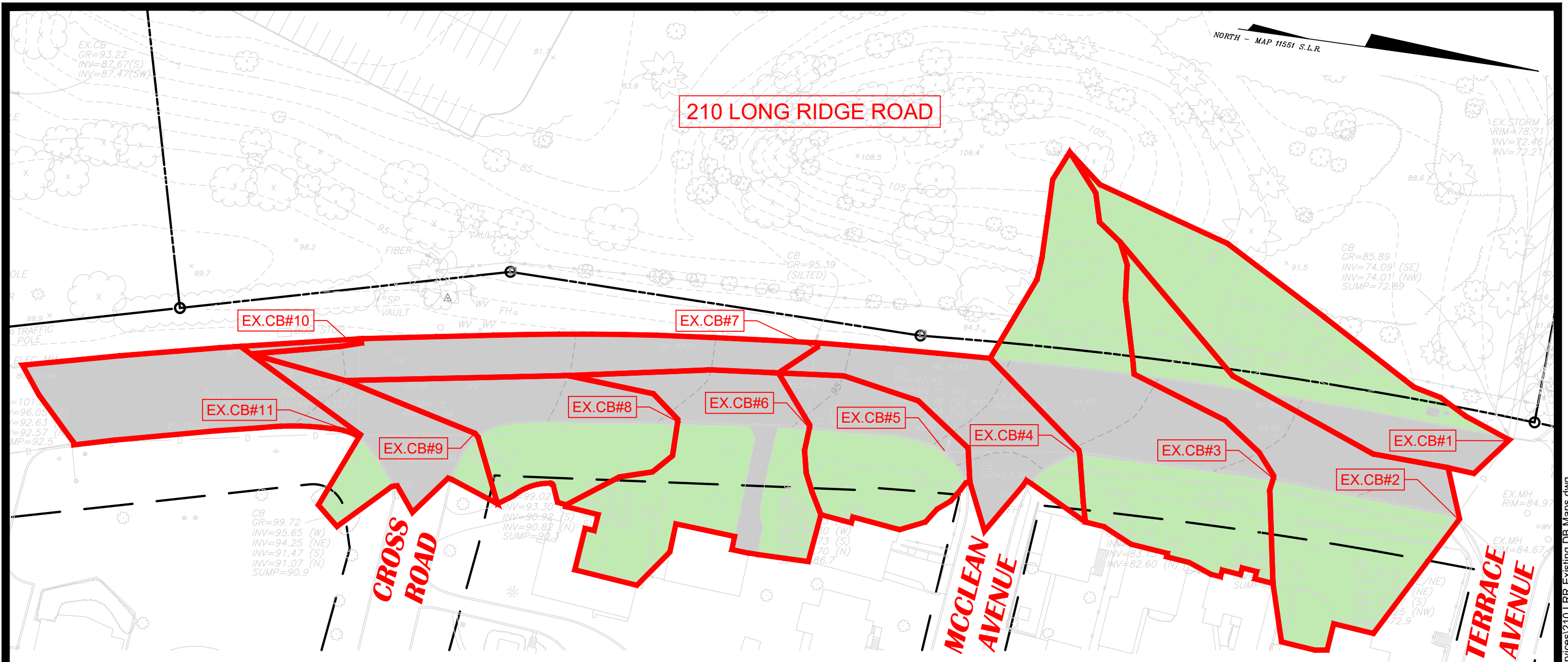
Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Link 2L: PR Outfall




Appendix 7

Gutter Flow Analysis



EXISTING GUTTER ANALYSIS DRAINAGE BASIN MAP
LONG RIDGE ROAD
STAMFORD, CT



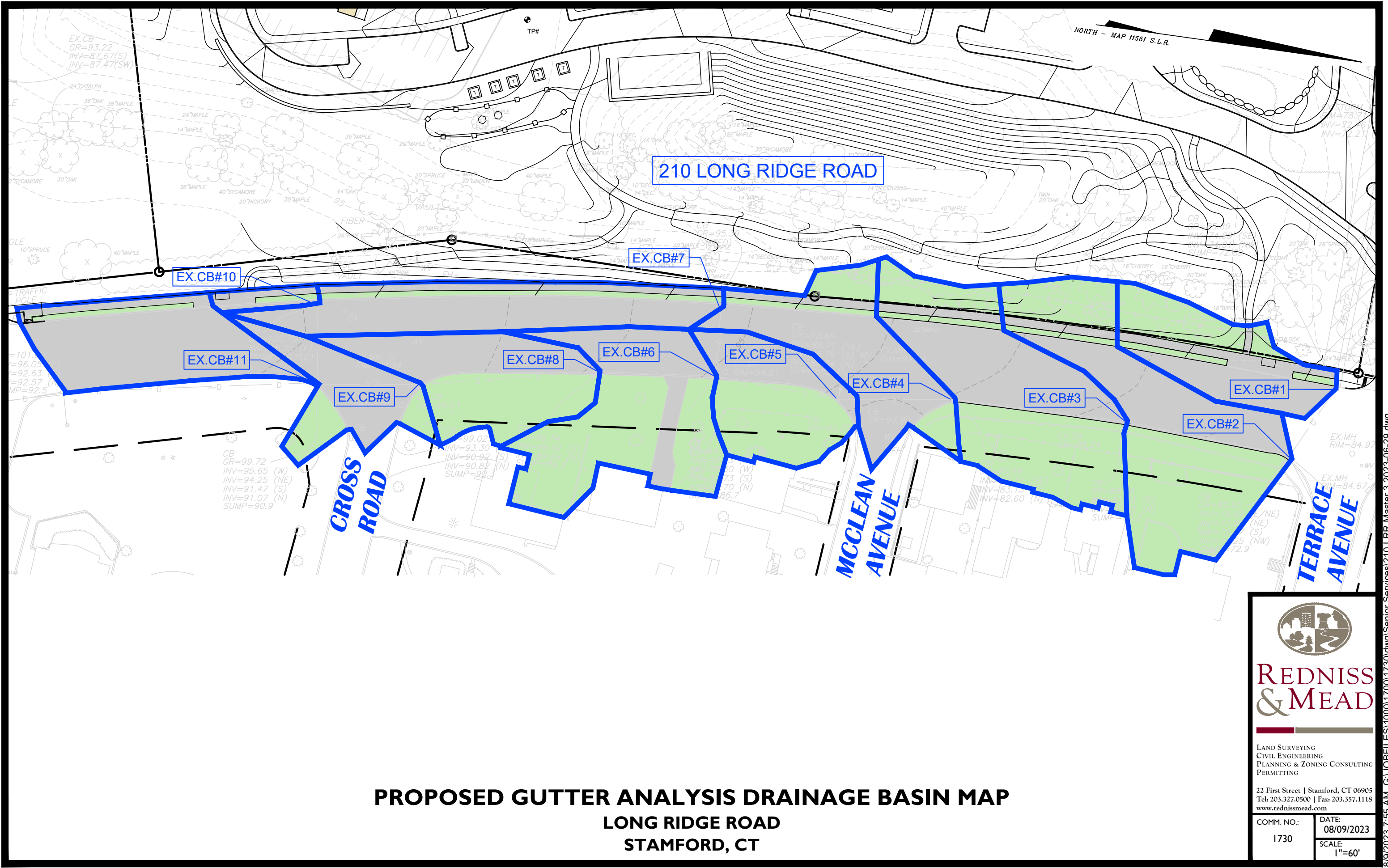
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COMM. NO.: 1730	DATE: 05/23/2023 SCALE: 1"=60'
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5/3/2023 10:47 AM G:\JOBFILES\1000\1700\1730\dwg\Senior Services\210 LRR Existing DB Maps.dwg



PROPOSED GUTTER ANALYSIS DRAINAGE BASIN MAP
LONG RIDGE ROAD
STAMFORD, CT



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COMM. NO.: 1730	DATE: 08/09/2023 SCALE: 1"=60'
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HYDRAULIC DATA FOR RATIONAL METHOD

Project:	<i>Mozaic Senior Life</i>	Project #:	<i>1730</i>	Date:	<i>5/23/2023</i>
Location:	<i>210 Long Ridge Road, Stamford, CT</i>	By:	<i>VJH</i>	Checked:	<i>TM</i>

Existing Conditions

Drainage Basin	Basin Description				Drainage Path				Time (min)	10yr. or 50yr.* Rainfall Intensity (in/hr)	Q = ACI (cfs)
	Acres	C	Description	AC	Length (ft)	ΔH	Slope (%)	Description			
Ex. Catch Basin #11	0.18	0.95	Impervious	0.17							
	0.00	0.30	Pervious	0.00							
	0.18		Total	0.17	N/A	N/A	N/A	Pavement	5	7.24	1.25
Ex. Catch Basin #10	0.01	0.95	Impervious	0.01							
	0.00	0.30	Pervious	0.00							
	0.01		Total	0.01	N/A	N/A	N/A	Pavement	5	7.24	0.05
Ex. Catch Basin #9	0.09	0.95	Impervious	0.09							
	0.04	0.30	Pervious	0.01							
	0.13		Total	0.10	N/A	N/A	N/A	Pavement	5	9.58*	0.95
Ex. Catch Basin #8	0.10	0.95	Impervious	0.10							
	0.10	0.30	Pervious	0.03							
	0.21		Total	0.13	N/A	N/A	N/A	Pavement	5	7.24	0.94
Ex. Catch Basin #7	0.17	0.95	Impervious	0.16							
	0.00	0.30	Pervious	0.00							
	0.17		Total	0.16	N/A	N/A	N/A	Pavement	5	7.24	1.16
Ex. Catch Basin #6	0.10	0.95	Impervious	0.09							
	0.20	0.30	Pervious	0.06							
	0.29		Total	0.15	N/A	N/A	N/A	Pavement	5	7.24	1.09
Ex. Catch Basin #5	0.07	0.95	Impervious	0.07							
	0.11	0.30	Pervious	0.03							
	0.17		Total	0.10	N/A	N/A	N/A	Pavement	5	9.58*	0.93
Ex. Catch Basin #4	0.16	0.95	Impervious	0.15							
	0.02	0.30	Pervious	0.00							
	0.18		Total	0.16	N/A	N/A	N/A	Pavement	5	7.24	1.13

[illegible]

HYDRAULIC DATA FOR RATIONAL METHOD

Project: <i>Mozaic Senior Life</i>	Project #: <i>1730</i>	Date: <i>5/23/2023</i>
Location: <i>210 Long Ridge Road, Stamford, CT</i>	By: <i>VJH</i>	Checked: <i>TM</i>

Proposed Conditions

Drainage Basin	Basin Description				Drainage Path				Time (min)	10yr. or 50yr.* Rainfall Intensity (in/hr)	Q = ACI (cfs)
	Acres	C	Description	AC	Length (ft)	ΔH	Slope (%)	Description			
Ex. Catch Basin #11	0.20	0.95	Impervious	0.19							
	0.01	0.30	Pervious	0.00							
	0.21		Total	0.19	N/A	N/A	N/A	Pavement	5	7.24	1.41
Ex. Catch Basin #10	0.02	0.95	Impervious	0.02							
	0.00	0.30	Pervious	0.00							
	0.02		Total	0.02	N/A	N/A	N/A	Pavement	5	7.24	0.15
Ex. Catch Basin #9	0.09	0.95	Impervious	0.09							
	0.04	0.30	Pervious	0.01							
	0.13		Total	0.10	N/A	N/A	N/A	Pavement	5	9.58*	0.95
Ex. Catch Basin #8	0.10	0.95	Impervious	0.10							
	0.10	0.30	Pervious	0.03							
	0.21		Total	0.13	N/A	N/A	N/A	Pavement	5	7.24	0.94
Ex. Catch Basin #7	0.21	0.95	Impervious	0.20							
	0.02	0.30	Pervious	0.01							
	0.23		Total	0.20	N/A	N/A	N/A	Pavement	5	7.24	1.48
Ex. Catch Basin #6	0.10	0.95	Impervious	0.09							
	0.20	0.30	Pervious	0.06							
	0.29		Total	0.15	N/A	N/A	N/A	Pavement	5	7.24	1.09
Ex. Catch Basin #5	0.07	0.95	Impervious	0.07							
	0.11	0.30	Pervious	0.03							
	0.17		Total	0.10	N/A	N/A	N/A	Pavement	5	9.58*	0.93
Ex. Catch Basin #4	0.17	0.95	Impervious	0.16							
	0.05	0.30	Pervious	0.02							
	0.22		Total	0.18	N/A	N/A	N/A	Pavement	5	7.24	1.30

[illegible]

Allegro Stamford EX Gutter Flow Analysis (On Grade) Report

Label	Discharge* (cfs)	Bypass Flow (cfs)	Slope (ft/ft)	Grate Width (ft)	Grate Length (ft)	Gutter Cross Slope (ft/ft)	Road Cross Slope (ft/ft)	Manning Coefficient	Grate Type	Depth (in)	Velocity (ft/s)	Efficiency (%)	Spread (ft)	Allowable Spread (1/2 lane width + shoulder width)**
EX CB 11 (EX)	1.25	0.55	0.032	1.35	2.3	0.020	0.020	0.011	P-50 mm (P-1-7/8")	1.3	4.17	56.07	5.5	15.7 ft
EX CB 10 (EX)	0.05	0.00	0.028	1.35	2.3	0.020	0.020	0.011	P-50 mm (P-1-7/8")	0.4	1.76	98.99	1.7	6.8 ft
EX CB 8 (EX)	0.94	0.38	0.029	1.35	2.3	0.020	0.020	0.011	P-50 mm (P-1-7/8")	1.2	3.72	60.00	5.0	8.8 ft
EX CB 7 (EX)	1.16	0.52	0.019	1.35	2.3	0.020	0.020	0.011	P-50 mm (P-1-7/8")	1.4	3.36	54.81	5.9	8.0 ft
EX CB 6 (EX)	1.47	0.71	0.022	1.35	2.3	0.020	0.020	0.011	P-50 mm (P-1-7/8")	1.5	3.77	51.82	6.2	9.2 ft
EX CB 4 (EX)	1.65	0.82	0.023	1.35	2.3	0.020	0.020	0.011	P-50 mm (P-1-7/8")	1.6	3.95	50.31	6.5	10.5 ft
EX CB 3 (EX)	1.98	1.04	0.023	1.35	2.3	0.020	0.020	0.011	P-50 mm (P-1-7/8")	1.7	4.13	47.63	6.9	8.2 ft
EX CB 2 (EX)	2.03	0.85	0.023	1.35	4.6	0.020	0.020	0.011	P-50 mm (P-1-7/8")	1.7	4.16	57.99	7.0	10.3 ft
EX CB 1 (EX)	0.70	0.25	0.028	1.35	2.3	0.020	0.020	0.011	P-50 mm (P-1-7/8")	1.1	3.43	64.73	4.5	10.0 ft

*Pursuant to CT DOT Drainage Manual Section 11.7, table 11-2 is based on 10-year storm event for Arterial Highways in an on-grade condition, plus the bypass flow from upstream catch basins.

**Pursuant to CT DOT Drainage Manual Section 11.7, table 11-2 the allowable spread for an on-grade condition is 1/2 of lane width + shoulder width.

Allegro Stamford EX Gutter Flow Analysis (In Sag) Report

Label	Discharge* (cfs)	Gutter Cross Slope (ft/ft)	Road Cross Slope (ft/ft)	Local Depression (in)	Local Depression Width (in)	Grate Width (ft)	Grate Length (ft)	Grate Type	Depth (in)	Open Grate Area (ft²)	Spread (ft)	Allowable Spread (all except one lane width)**	
EX CB 9 (EX)	1.50	0.020	0.020	0.0	0.0	1.35	2.3	P-50 mm (P-1-7/8")	2.8	2.8	11.7	25.0 ft	
EX CB 5 (EX)	1.64	0.020	0.020	0.0	0.0	1.35	2.3	P-50 mm (P-1-7/8")	3.0	2.8	12.4	24.7 ft	

*Pursuant to CT DOT Drainage Manual Section 11.7, table 11-2 is based on 50-year storm event for Arterial Highways in an in-sag condition, plus the bypass flow from upstream catch basins.

**Pursuant to CT DOT Drainage Manual Section 11.7, table 11-2 the allowable spread for in-sag conditions is all except one lane.

210 Long Ridge Road PR Gutter Flow Analysis (On-Grade)

Label	Discharge (cfs)	Bypass Flow (cfs)	Slope (ft/ft)	Grate Width (ft)	Grate Length (ft)	Gutter Cross Slope (ft/ft)	Road Cross Slope (ft/ft)	Manning Coefficient	Grate Type	Depth (in)	Velocity (ft/s)	Efficiency (%)	Spread (ft)	Allowable Spread (1/2 lane width + shoulder width)**
EX CB 11 (PR)	1.41	0.65	0.032	1.35	2.3	0.020	0.020	0.011	P-50 mm (P-1-7/8")	1.4	4.30	54.20	5.7	15.7 ft
EX CB 10 (PR)	0.15	0.02	0.028	1.35	2.3	0.020	0.020	0.011	P-50 mm (P-1-7/8")	0.6	2.32	88.93	2.5	6.8 ft
EX CB 8 (PR)	0.94	0.38	0.029	1.35	2.3	0.020	0.020	0.011	P-50 mm (P-1-7/8")	1.2	3.72	60.00	5.0	8.8 ft
EX CB 7 (PR)	1.50	0.74	0.019	1.35	2.3	0.020	0.020	0.011	P-50 mm (P-1-7/8")	1.6	3.58	50.93	6.5	8.0 ft
EX CB 6 (PR)	1.47	0.71	0.022	1.35	2.3	0.020	0.020	0.011	P-50 mm (P-1-7/8")	1.5	3.77	51.82	6.2	9.2 ft
EX CB 4 (PR)	2.04	1.08	0.023	1.35	2.3	0.020	0.020	0.011	P-50 mm (P-1-7/8")	1.7	4.17	47.24	7.0	10.5 ft
EX CB 3 (PR)	2.59	1.45	0.023	1.35	2.3	0.020	0.020	0.011	P-50 mm (P-1-7/8")	1.8	4.41	43.91	7.7	8.2 ft
EX CB 2 (PR)	2.93	1.39	0.023	1.35	4.6	0.020	0.020	0.011	P-50 mm (P-1-7/8")	1.9	4.57	52.61	8.0	10.3 ft
EX CB 1 (PR)	0.82	0.31	0.028	1.35	2.3	0.020	0.020	0.011	P-50 mm (P-1-7/8")	1.1	3.57	62.14	4.8	10.0 ft

*Pursuant to CT DOT Drainage Manual Section 11.7, table 11-2 is based on 10-year storm event for Arterial Highways in an on-grade condition, plus the bypass flow from upstream catch basins.

**Pursuant to CT DOT Drainage Manual Section 11.7, table 11-2 the allowable spread for an on-grade condition is 1/2 of lane width + shoulder width.

210 Long Ridge Road PR Gutter Flow Analysis (In Sag)

Label	Discharge (cfs)	Gutter Cross Slope (ft/ft)	Road Cross Slope (ft/ft)	Local Depression (in)	Local Depression Width (in)	Grate Width (ft)	Grate Length (ft)	Grate Type	Depth (in)	Open Grate Area (ft²)	Spread (ft)	Allowable Spread (all except one lane width)**
EX CB 9 (PR)	1.60	0.020	0.020	0.0	0.0	1.35	2.3	P-50 mm (P-1-7/8")	2.9	2.8	12.2	25.0 ft
EX CB 5 (PR)	1.64	0.020	0.020	0.0	0.0	1.35	2.3	P-50 mm (P-1-7/8")	3.0	2.8	12.4	24.7 ft

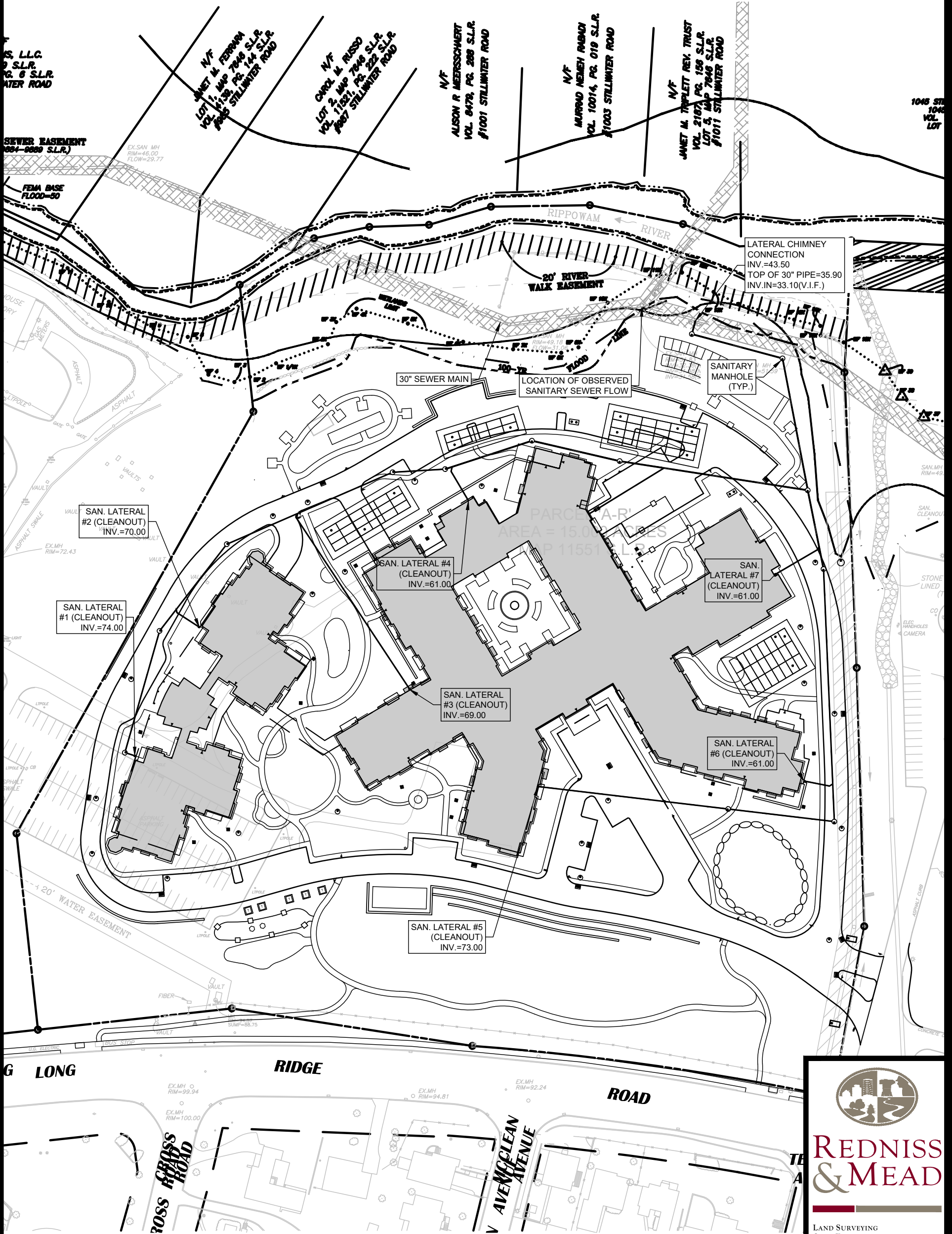
*Pursuant to CT DOT Drainage Manual Section 11.7, table 11-2 is based on 50-year storm event for Arterial Highways in an in-sag condition, plus the bypass flow from upstream catch basins.

**Pursuant to CT DOT Drainage Manual Section 11.7, table 11-2 the allowable spread for in-sag conditions is all except one lane.


Appendix 8

Sanitary Sewer Connection Exhibit
Sanitary Sewer Flow Monitoring
Existing Flow Rate in 30" Pipe
Proposed Design Flow
Existing & Proposed Sanitary Sewer Flow Capacity Calculation within 30" Pipe

NORTH - MAP 11551 S.L.R.



SANITARY SEWER CONNECTION EXHIBIT
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COMM. NO.: 1730	DATE: 05/23/2023 SCALE: 1"=100'
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Sanitary Flow Monitoring Calculations

Project: <i>Allegro Stamford</i>	Project #: <i>1730</i>	Date: <i>8/9/2019</i>
Location: <i>210 Long Ridge Road</i>	By: <i>CAC</i>	Checked: <i>TM</i>

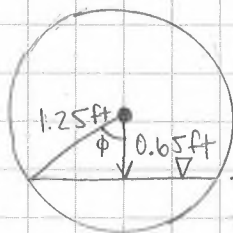
Sanitary Sewer Flow Monitoring

Date	Time	Depth of Ex. San MH (ft)	Depth to San. Flow (ft)	Depth of flow in 30" Sewer Main (ft)
6/20/19	9:30 AM	20.1	19.7	0.4
6/20/19	11:00 AM	20.1	19.8	0.3
6/20/19	12:00 PM	20.1	19.6	0.5
6/20/19	1:00 PM	20.1	19.5	0.6
7/1/19	2:00 PM	20.1	19.7	0.4
7/1/19	3:00 PM	20.1	19.5	0.6
7/1/19	4:00 PM	20.1	19.7	0.4
7/1/19	5:00 PM	20.1	19.5	0.6
7/1/19	6:00 PM	20.1	19.5	0.6

Rippowam River Existing Sanitary Manhole

Pipe 2.5ft RCP
 $n = 0.011$
 $s = 0.003$
 $Q_{full} = 26.55 \text{ cfs}$

Depth of flow = 0.6 ft* * highest observed flow



$$\cos \phi = \frac{0.6 \text{ ft}}{1.25 \text{ ft}}, \quad \phi = 1.07 \text{ radians}$$

$$\alpha = 2\phi = 2(1.07 \text{ radians}) = 2.14 \text{ radians}$$

$$A = (\alpha - \sin \alpha) \frac{D^2}{8}$$

$$= (2.14 - \sin(2.14)) \left(\frac{(2.5 \text{ ft})^2}{8} \right)$$

$$= 1.01 \text{ ft}^2$$

$$P_w = \frac{\alpha D}{2} = \frac{2.14(2.5 \text{ ft})}{2} = 2.68 \text{ ft}$$

$$R = \frac{A}{P_w} = \frac{1.01 \text{ ft}^2}{2.68 \text{ ft}} = 0.38 \text{ ft}$$

$$Q_{obs} = \frac{1.49}{n} A R^{2/3} s^{1/2}$$

$$= \frac{1.49}{0.011} (1.01 \text{ ft}^2)^{2/3} (0.38 \text{ ft})^{2/3} (0.003)^{1/2}$$

$$= 3.93 \text{ cfs}$$

$$Q_{ex} = Q_{obs} \times 4 = 15.73 \text{ cfs}$$

Sanitary Sewer Flow Worksheet

Project: <i>Mozaic Senior Life</i>	Project #: <i>1730</i>	Date: <i>5/23/2023</i>
Location: <i>210 Long Ridge Road, Stamford, CT</i>	By: <i>VJH</i>	Checked: <i>TM</i>

Proposed Design Flows

Residential Unit Types	# of Units	# of Bedrooms per unit	# of Beds	Expected Flows (Gal/Day)	Design Flow (GPD)	ADF Factor	Peak Generated Flow (GPD)	Peak Generated Flow (CFS)
IL:1BR	37	1	37	150	5,550	4	22,200	0.034
IL:2BR	131	2	262	150	39,300	4	157,200	0.243
AL:1BR	12	1	12	150	1,800	4	7,200	0.011
AL:2BR	2	2	4	150	600	4	2,400	0.004
MC: 1BR	14	1	14	150	2,100	4	8,400	0.013
SN: 1BR	14	1	14	150	2,100	4	8,400	0.013
Total	210		343		51,450		205,800	0.318

Miscellaneous Amenities	No. of Units	Expected Flows (Gal/Day)	Design Flow (GPD)	ADF Factor	Peak Generated Flow (GPD)	Peak Generated Flow (CFS)
Commercial Kitchen	343*	30	10,290	4	41,160	0.064
Laundry	8	400	3,200	4	12,800	0.020
Total			13,490		53,960	0.083

Total Peak Sanitary Flow	259,760 GPD
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Total Peak Sanitary Flow	0.40 CFS
---------------------------------	-----------------

*No. of units calculated using total number of bedrooms

IL = Independent Living unit
 AL = Assisted Living unit
 MC = Memory Care unit
 SN = Skilled Nursing unit

Mannings Equation - Circular Pipe

Project:	<i>Mozaic Senior Life</i>	Project #:	<i>1730</i>	Date:	<i>5/23/23</i>
Location:	<i>210 Long Ridge Road</i>	By:	<i>VJH</i>	Checked:	<i>TM</i>

30" Sanitary Pipe (Rippowam River)

Calculate the maximum flow capacity using Manning's equation.

Pipe material	PVC	
Manning's n	0.011	
Pipe diameter, D	2.5 ft	
Area, A	4.91 ft ²	$A = \frac{\pi}{4} D^2$
Wetted perimeter, P	7.85 ft	$P = \pi D$
Hydraulic radius, R _h	0.63 ft	$R_h = \frac{A}{P}$
Slope, S	0.0030 ft/ft	
Flow, Q_{full}	26.55 cfs	$Q = \frac{1.486}{n} A R_h^{2/3} S^{1/2}$
Existing Flow, Q	15.73 cfs ¹	
Existing Flow to Flow Full, Q/Q_{full}	0.59	59.2%
Proposed Added Flow to system, Q	0.400 cfs ²	
Proposed Total Flow to System	16.13	60.8%

¹Estimated existing peak flow based upon monitored measured depth of flow in EX.SMH. Maximum depth of flow measured = 0.60'. Factor of safety of 4.0 applied.

² Refer to proposed Sanitary Sewer Flow Calculations for further information.

Appendix 9

Draft Operations and Maintenance Plan

Block _____

AGREEMENT COVENANT

AGREEMENT made this _____ by and between _____ and the **CITY OF STAMFORD**, a municipal corporation lying within the County of Fairfield and State of Connecticut, acting herein by its duly authorized Mayor, Caroline Simmons (hereinafter referred to as the "City"), and the **ENVIRONMENTAL PROTECTION BOARD OF THE CITY OF STAMFORD**, acting herein by its duly authorized Chairman, Gary H. Stone (hereinafter referred to as the "EPB").

WITNESSETH:

WHEREAS, OWNER has commenced the planning and construction of _____ on a parcel of land owned by them and as more particularly described on Schedule "A", attached hereto and made a part hereof (the "Property").

WHEREAS, certain drainage facilities ("Drainage Facilities"), including but not limited to _____ as more particularly described on Schedule "B" attached (the "Construction Plans") shall be installed in connection with the aforesaid construction and in accordance with the Construction Plans and _____ issued therefore, (the "Permit") and;

WHEREAS, OWNER, the CITY and EPB share a joint concern that the Drainage Facilities be maintained in a functioning condition so as to avoid pollution of surface and groundwaters, flooding and/or improper drainage.

NOW, THEREFORE, in consideration of ten dollars and other good and valuable consideration receipt of which is hereby acknowledged by the OWNER, it is hereby agreed as follows:

- 1) OWNER shall clean the drainage facilities or cause such facilities to be cleaned by periodic removal of accumulated sediment and debris in a good and workman-like manner, at least two (2) times during every twelve (12) month period, which times shall be in the period between April and June and between October and December and more often as the City may determine to be necessary.
- 2) OWNER shall sweep, or cause to be swept, garage facilities, driveways and roadway surfaces located on the Property at least once per calendar quarter.
- 3) OWNER shall utilize only sand or calcium chloride in connection with the de-icing of areas within the Property meaning and intending that road salt (Sodium Chloride) shall not be used for said purpose.
- 4) OWNER shall repair or replace any defects or defective drainage facilities so as to maintain the drainage facilities, at all times, in a fully functional capacity.
- 5) OWNER shall file as-built drainage plans with the EPB immediately upon the completion of work. Said plans shall be prepared by a professional engineer/surveyor registered in the State of Connecticut.

- 6) OWNER grants the CITY and/or EPB, its agents, and employees, the right to enter the Property at all reasonable times upon twenty-four (24) hours notice to the OWNER for the purpose of inspecting the Property to determine if OWNER is complying with the requirements hereunder. A representative of the Owner shall have the right to accompany the City and/or EPB on their inspection of the Property.
- 7) If, after an inspection is made pursuant to Paragraph Six (6) hereof, the CITY and/or EPB determines that the owner has failed to comply with the aforesaid undertakings, then the CITY and/or EPB shall give written notice of said determination to the then OWNER of the Property which notice shall also specify the said failure. Said notice shall be sent by registered or certified mail to the last known address of said Owner. If the Owner disputes the claim, he shall give written notice thereof to City and/or EPB within ten (10) days of receipt of said notice, and the EPB shall hold a hearing as promptly as possible to decide the merits of the disputed claim. If the claim is not disputed within said ten (10) days, the OWNER shall have thirty (30) days from the receipt of said notice to correct said failure, unless it is impossible to cure said defect within said time, in which case, the necessary repairs shall be immediately commenced and diligently pursued to completion within a reasonable time.
- 8) If the said failure is not remedied within the time frame herein stated, the CITY and/or EPB may proceed to cure the same and charge the actual cost thereof to the OWNER of the Property.

- 9) OWNER agrees to reimburse the CITY and/or EPB for reasonable legal fees and court costs if it becomes necessary for the CITY and/or EPB to sue for reimbursement of sums expended by the CITY and/or EPB in performance of OWNER'S obligation.
- 10) OWNER agrees and covenants to indemnify and save harmless the CITY and the EPB against any and all claims, suits, actions or judgments arising out of the delay in the performance of any of their obligations pursuant to this Agreement.
- 11) OWNER agrees that this covenant and restriction shall apply to and run with the land. It shall be binding on all future owners, administrators, executors, successors and assigns.
- 12) The OWNER hereby represents to the CITY and EPB that he/she is the owner, in fee simple, of all of the property described in "Schedule A" attached hereto and made a part hereof.
- 13) OWNER agrees that this Agreement and restrictive covenant upon execution of the same, shall be recorded on the land records at the OWNER'S expense at the time that a permit is issued for the Property herein and while the OWNER is in title.
- 14) OWNER agrees not to assert the invalidity of this document.
- 15) OWNER agrees that nothing herein shall be construed to be a limitation upon the right of the EPB to assert and enforce any rights it may have under federal, state or City statute, ordinance or regulation.

16) This agreement shall be governed by the laws of the State of Connecticut.

IN WITNESS WHEREOF, the said parties hereto have hereunto set their hands and seals, the day and year first above written.

WITNESSED:

THE CITY OF STAMFORD

BY:_____

Caroline Simmons
Its duly authorized Mayor

**THE ENVIRONMENTAL PROTECTION
BOARD**

BY:_____

Gary H. Stone
Its duly authorized Chairman

OWNER

BY:_____

(Owner's Name)

(Acknowledgement on the Following Page)

}

Date:

}

Commissioner of the Superior
Court or Notary Public

}

Date:

}

Commissioner of the Superior Court
or Notary Public

}

Date:

}

Commissioner of the Superior Court
or Notary Public

SCHEDULE "A"

SCHEDULE "B"

Appendix 10

DCIA Tracking Spreadsheets
Checklist for Stormwater Management Report



Note to user: complete all cells of this color *only*

Part 1: General Information

Project Name	Mozaic Senior Life
Project Address	210 Long Ridge Road, Stamford, CT
Project Applicant	TJH Senior Living LLC
Date of Submittal	9-Aug-23
Tax Account Number	003-8215

Part 2: Project Details

1. What type of development is this? (choose from dropdown)	New Development	
2. What is the total area of the project site?	653,400	ft ²
3. What is the total area of land disturbance for this project?	491,810	ft ²
4. Does project site drain to High Quality Waters, a Direct Waterfront, or within 500 ft. of Tidal Wetlands? (Yes/No)	No	
5. What is the <u>current</u> DCIA for the site?	29,252	ft ²
6. Will the proposed development increase DCIA (without consideration of proposed stormwater management)? (Yes/No)	Yes	
7. What is the <u>proposed-development</u> total impervious area for the site?	270,677	ft ²

Part 3: Water Quality Target Total

Does Standard 1 apply based on information above?	Yes	
Water Quality Volume (WQV)	23023.3	ft ³
Standard 1 requirement	Retain WQV on-site	
Required retention volume	23023.3	ft ³
Provided retention volume for proposed development	28,564.0	ft ³

Part 4: Proposed DCIA Tracking

<u>Pre-development</u> total impervious area	46,236	ft ²
<u>Current</u> DCIA	29,252	ft ²
<u>Proposed-development</u> total impervious area	270,677	ft ²
<u>Proposed-development</u> DCIA (after stormwater management)	2,868	ft ²
Net change in DCIA from <u>pre-development</u> to <u>proposed-development</u>	-26,384	ft ²

Part 5: Post-Development (As-Built Certified) DCIA Tracking

<u>Post-development</u> (per as-built) total impervious area		ft ²
<u>Post-development</u> (per as-built) DCIA (after stormwater management)		ft ²
Net change in DCIA from <u>pre-development</u> to <u>post-development</u>		ft ²

Certification Statement

I hereby certify that the information contained in this worksheet is true and correct.

Engineer's Signature _____ Date 9-Aug-23 Engineer's Seal _____



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Engineering Bureau
888 Washington Boulevard, 7th Floor Stamford, CT 06901
Phone 203-977-4189

CHECKLISTS

Project Name: _____

Project Address _____

Property Owner(s) _____

Tax Account Number(s) _____

Engineer's Signature _____ Date: _____

All checklists must be completed and submitted. Provide a brief explanation for any items not provided. Check boxes as completed or N/A as not applicable.

<input type="checkbox"/>	Existing Conditions Plan
<input type="checkbox"/>	Stormwater Management Report
<input type="checkbox"/>	Stormwater Management Plan / Construction Plan
<input type="checkbox"/>	Certificate of Occupancy

Checklist for Existing Conditions Plan

I. General Information

<input type="checkbox"/>	Site address
<input type="checkbox"/>	Orientation, block, zone, City, street name
<input type="checkbox"/>	Applicant name and legal address
<input type="checkbox"/>	Surveyor name, address, contact information
<input type="checkbox"/>	North arrow, bar scale, horizontal and vertical datum
<input type="checkbox"/>	24" x 36" sheet size unless otherwise approved
<input type="checkbox"/>	Existing conditions survey shall be prepared in accordance with the Minimum Standards for Surveys and Maps in the State of Connecticut. The class of survey shall be A-2 and T-2 and shall be represented as such on the map. The base map shall be sealed and signed by a Professional Land Surveyor licensed in the State of Connecticut.
<input type="checkbox"/>	Drawing scale shall be set at 1" = 20' or 1" = 40' when possible



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II. Existing Conditions Plan Elements

	Show and label all property boundaries with linear bearing / distances and curve information
	Required zoning setbacks
	Show and label monument information
	Show and label at least one permanent benchmark on the parcel with northing, easting and elevation
	Label adjacent property ownership information
	Existing contours based on NAVD 88 (no exceptions) at 2 foot contour interval or 1 foot contour interval when slope is flatter than 2 percent at a minimum of 20 ft. beyond the property boundaries of the subject parcel
	Show spot elevations at low points, high points, and where topography is flatter than 2 percent
	All buildings and structures (label current use and finished floor elevations)
	All pavement, parking, driveways, property access points
	All roadways, streets, and rights-of-way. Label streets as public or private with street name
	All patios, decks, walkways, sidewalks, curb ramps (both adjacent to and opposite and existing roadways or intersections)
	Show and label (size, material, inverts) all existing utilities (overhead and underground) within the right-of-way and the project site (label ownership) including but not limited to water, gas and electrical services, wells, storm sewers, sanitary sewers and subsurface sewerage disposal systems.
	Show and label existing conveyance systems (swales, ditches, storm drains) including dimensions, elevations, sizes, slopes, and direction of flow
	Show and label boundaries of all easements, both public and private, with type, owner, and width
	Show and label all other existing features and improvements (e.g. light poles, mature trees of 8" (dbh) diameter or greater, vegetation, walls with top and bottom elevations, fences, pavement markings)

III. Resource Areas

	Show and label limits of inland wetlands, tidal wetlands and any associated setbacks.
	Show and label existing natural site features including tree canopy, outcroppings, permanent and intermittent watercourses, waterbodies, streams
	Show and label limits of floodplain and floodway along with FIRM references (Community Number, Panel, Suffix, and Date) including any effective Letters of Map Revision/Amendment, zone designation and elevation.
	Show and label any Conservation Easement Areas
	Show and label Connecticut Coastal Jurisdiction Line (CJL)
	Show and label existing steep slopes (25% and greater)



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Checklist for Stormwater Management Report

I. Project Report

A. Applicant / Site Information

	Applicant name, legal address, contact information (email & phone)
	Engineers name, legal address, contact information (email & phone)
	Site address and legal description
	Current / proposed zoning and land use
	Site vicinity map (8.5" x 11")

B. Project Description and Purpose

	Project description including proposed project elements and anticipated construction schedule
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C. Existing Conditions Description

	Site area, ground cover, vegetation, features (roads, buildings, utilities, etc.)
	Site topography, slopes, drainage patterns, conveyances systems (swales, storm drains, etc.), stormwater discharge locations
	Receiving waterbody information including stormwater impairments and TMDL information (See the most recent State of Connecticut Integrated Water Quality Report)
	Site soils information including soil types, hydrologic soil group, bedrock / outcroppings, groundwater elevation, significant geologic features
	Provide NRCS Soils Mapping
	Resource protection areas (wetlands, streams, lakes, etc.), buffers, floodplains, floodways

D. Summary of Applicable General Design Criteria

	Methodology, design storm frequency
	Hydrologic design criteria
	Hydraulic design criteria
	Flood hazard areas

	<u>Applying under "Lite" Stormwater Management: Skip to Section I</u> (Refer to Flow Chart on page vii of the City of Stamford Stormwater Drainage Manual)
--	--

E. Project Type in Accordance with Standard 1 Definitions

	Area of disturbance, receiving waterbody classification (High Quality, Tidal Wetlands, Direct Waterfront)
	Project type (development, redevelopment, linear development)
	Pollutant reduction standard per flowchart Section 2.4



F. Summary of LID Site Constraints

	Description of sensitive areas for protection
	Mature tree inventory, which shall include 8-inch (dbh) diameter trees or greater
	Steep slopes
	Ledge and bedrock depth
	Seasonal high groundwater elevation
	Pollutant hotspots
	Summary of infiltration rates

G. Summary of Proposed Stormwater Treatment Practices

	Proposed LID controls (i.e. minimize impervious, minimize DCIA, minimize disturbance, increase time of concentrations, other LID controls and strategies)
	Location, size, types
	Design criteria and references
	Stormwater treatment practice, drainage area characteristics / details

H. Summary of Compliance with Standards 1

	Required pollutant reduction criteria
	Provided pollutant reduction (WQV) by stormwater treatment practice
	Summary of compliance with Standard 1

I. Summary of Compliance with Standards 2, 3, and 4

	Description of proposed stormwater management system
	Pre-development site hydrology with delineation of each watershed area and sub-basin
	Post-development site hydrology with delineation of each watershed area and sub-basin
	Comparison table of pre- and post-development hydrology, peak flow, volume, and percent difference
	Summary table of watershed areas and sub-basin areas, time of concentration and runoff coefficients
	Summary table demonstrating the 2-year, 24-hour post development peak flow rate is less than or equal to the lowest of either: - The pre-development 1-year, 24-hour storm peak flow rate - 50 percent of the pre-development 2-year, 24-hour storm peak flow rate
	Conveyance protection, emergency outlet sizing
	Hydraulic grade line summary and tail water elevation used in analysis
	Construction erosion and sediment control description, Standard 3
	Operation and Maintenance, maintenance tasks and schedule on construction plans per Standard 4



J. Summary of Compliance with Applicable Drainage Facility Design Requirements

	Description of applicable design requirements and compliance
	Description of proposed drainage facilities and compliance

K. Stormwater Management Report

	Signed and stamped by professional engineer licensed in the State of Connecticut
	Drainage impact statement in accordance with Standard 5B.

II. **Supporting Calculations** (as appendix to Project Report)

	<u>Applying under "Lite" Stormwater Management: Skip to Section N</u>
--	--

L. Water Quality Volume / Water Quality Flow Calculations

	Calculations demonstrating the total Water Quality Volume generated by the post-development site and the required retention/treatment volume per Standard 1 in cubic feet.
	Calculations demonstrating the total Water Quality Volume retained/treated by each stormwater treatment practice and the total Water Quality Volume generated by the post-development contributing drainage area to each stormwater treatment practice

M. Stormwater Treatment Practice Sizing Calculations

	Calculations demonstrating how each stormwater treatment practice has been designed and sized in accordance with the Structural Stormwater BMP Design references in Appendix B. Calculations will vary by stormwater treatment practice, but a minimum, applicants shall provide calculations in accordance with design criteria from the Connecticut Stormwater Quality Manual.
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N. Hydrologic and Hydraulic Design Calculations

	Stream channel protection, Standard 2A
	Conveyance protection, Standard 2B
	Peak flow control (1-year, 2-year, 5-year, 10-year, 25-year, and 50-year storms), Standard 2C
	Inlet analysis
	Gutter flow (Site by site basis as requested by Engineering Bureau)
	Storm sewers and culverts (velocities, capacity, hydraulics)
N/A	Hydraulic grade line required when pipe is flowing at full capacity <ul style="list-style-type: none"> o Provide existing and proposed summary table o Provide existing and proposed mapping, label structures
N/A	Detention facilities (outlet structure, stage/storage, freeboard)
	Emergency outlet sizing, safely pass the 100 year storm, Standard 2D
	Outlet protection calculations, based on conveyance protection (i.e. riprap, energy dissipater)

WAIVER
 REQUESTED
 N/A



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O. Hydrologic and Hydraulic Model, Existing and Proposed

	Drainage routing diagram
	Summary
	Storage pond input

P. Downstream analysis (Site by site basis as required by the Engineering Bureau)

N/A

	Downstream analysis, Standard 2E
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III. Supporting Mapping (as appendix to Project Report)

Q. Pre-Development Drainage Basin Area Mapping

	11" x 17" or 8.5" x 11" sheet size
	Topography, drainage patterns, drainage area boundaries and sub basins, flow paths, times of concentration
	Locations of existing stormwater discharges
	Perennial and intermittent streams, wetlands, and floodplain / floodways
	NRCS soil types, locations, boring locations, infiltration testing locations
	Vegetation and groundcover
	Existing roads, buildings, driveways, parking areas, walks, patios, pools and other impervious surfaces, decks and other structures
	Location, size, type of existing structural stormwater controls, facilities and conveyance systems

R. Post-Development Drainage Basin Area Mapping

	11" x 17" or 8.5" x 11" sheet size
	Topography, drainage patterns, drainage area boundaries and sub basins, flow paths, times of concentration
	Locations of proposed stormwater discharges
	Perennial and intermittent streams, wetlands, and floodplain / floodways
	NRCS soil types, locations, boring locations, infiltration testing locations
	Vegetation, ground cover and proposed limits of clearing/disturbance
	Proposed, roads, buildings, driveways, parking areas, walks, patios, pools and other impervious surfaces, decks and other structures
	Location, size, type of proposed structural stormwater controls, facilities and conveyance systems

IV. DCIA Tracking Worksheet (as appendix to Project Report)

	DCIA Tracking Worksheet (Use form found in Appendix E)
--	--



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V. Proposed LID Review Map

	Applying under "Lite" Stormwater Management - Proposed LID Review Map <u>NOT</u> required.
--	---

A. General

	Site address
	Applicant name, legal address, contact information
	Engineers name, address, contact information
	North arrow, bar scale, horizontal and vertical datum
	Drawing scale shall be set at 1"=20' or 1"=40' when possible
	Signed and stamped by a Licensed Professional Engineer in the State of Connecticut
	11" x 17" or 24" x 36" sheet size unless otherwise approved
	Existing and proposed contours based on NAVD 88 at 2 foot contour interval or 1 foot contour interval when slope is flatter than 2 percent
	Locations of existing stormwater discharges
	Roads, buildings, driveways, parking areas, walks, patios, pools and other impervious surfaces, and decks and other structures
	Location, size, ownership of stormwater conveyance systems (swales, pipes, etc.)

B. LID Constraints:

	Boring / test pit locations
	Infiltration testing locations and results
	Vegetation and proposed limits of clearing / disturbance
	NRCS soils mapping
	Steep slopes
	Surface waters / Perennial and intermittent streams
	Resource protection areas and buffers, wetlands, floodplain / floodways
	Existing vegetation and mature trees, which shall include 8-inch (dbh) diameter trees or greater
	Poor soils (HSG C & D)
	Shallow bedrock / ledge
	Seasonal high groundwater elevation
	Other site constraints (e.g. brownfield caps)

C. Proposed Stormwater Treatment Measures:

	Location, size, type, limits, and WQV provided by each proposed stormwater treatment practices
	Drainage area to each proposed stormwater treatment practice (total area, impervious area, WQV)

D. Site Summary Table:

	Total site area, disturbed area, pre- and post-development impervious areas
	Required pollutant reduction volume (retention or detention)
	Provided pollutant reduction volume (retention or detention)



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Checklist for Stormwater Management Plan / Construction Plans

A. General

	Site orientation, address and legal description
	Applicant name, legal address, contact information
	Engineers name, address, contact information
	North arrow, bar scale, horizontal and vertical datum
	Drawing scale shall be set at 1"=20' or 1"=40' when possible
	Stamped by a Licensed Professional Engineer in the State of Connecticut
	24" x 36" sheet size unless otherwise approved

B. Site Development Plans

	City of Stamford Standard Notes
	As required by the Drainage Maintenance Agreement, provide a written narrative describing the nature of the proposed development activity and the program for operation and maintenance of drainage facilities and control measures throughout the life of the project.
	Existing and proposed contours based on NAVD 88 at 2 foot contour interval or 1 foot contour interval when slope is flatter than 2 percent
	All required spot elevations to clearly depict positive pitch
	Top and bottom elevation of all walls
	Roads, buildings, driveways, parking areas, walks, patios, pools and other impervious surfaces, and decks and other structures
	All utilities and easements
	Location, size, maintenance access, type of proposed structural stormwater controls and facilities with elevations and inverts
	Location, size, maintenance access, type of proposed non-structural stormwater controls and facilities with elevations and inverts
	Location, size, type of proposed stormwater infrastructure, inlets, manholes, infiltration and detentions systems, control structures with elevations and inverts
	Location, size, ownership of stormwater conveyance systems (swales, pipes, etc.) with elevations and inverts
	Identify roof leaders, curtain drains and foundation drains with elevations and inverts
	Proposed water quality treatment systems, size and model type
	Final stabilization measures which may include slope stabilization

C. Erosion and Sedimentation Control Plan

	Phasing and schedule
	Construction access and staging and stock pile areas
	Operation and maintenance of erosion and sedimentation controls
	Tree protection
	Downstream protection such as location of silt fencing
	Limit of disturbance
	Construction fencing



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D. Construction Details

	Standard City of Stamford details
	Infiltration system details
	Control structure details
	Water quality treatment details
	Infiltration testing results

Checklist for Certificate of Occupancy

	Final Improvement Location Survey
	Stormwater Management Certification Form
	Final DCIA Tracking Worksheet
	Standard City of Stamford Drainage Maintenance Agreement (Agreement Covenant)

Other Certifications at the discretion of the Engineering Bureau and/or EPB

	Wall Certification
	Landscape Certification
	Landscape Maintenance Agreement
	Waiver Covering Storm Sewer Connection
	Waiver Covering Granite Block, Depressed Curb, and Driveway Aprons
	Flood Certification



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February 16, 2022

City of Stamford Planning & Zoning Boards
c/o Ralph Blessing, Land Use Bureau Chief
888 Washington Boulevard
Stamford, CT 06901

Re: 210 Long Ridge Road (003-8215)- Stamford, CT

Dear Mr. Blessing:

This letter serves to authorize Redniss & Mead, Inc. (with offices at 22 First Street in Stamford, CT) to act as our agent in connection with the preparing, filing, and processing of applications required for Planning and Zoning approvals relating to the above referenced property.

Thank you for your acknowledgement of said authority.

Sincerely,

Andrew H. Banoff
President & CEO
Jewish Senior Services

* semiretired