

PROPOSED PLAN 485 MAIN STREET TEWKSBURY, MASSACHUSETTS



PROJECT
LOCATION

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DATE:

No.	Date	Description
3		
2	06/24/23	REV 2
1	02/08/23	REV 1

Prepared for:
EUGENIE SAHYOUNI
485 MAIN STREET
TEWKSBURY, MA

Property of:
EUGENIE SAHYOUNI
485 MAIN STREET
TEWKSBURY, MA

Prepared By:

Structural Engineering / Building Design
Civil Engineering / Management Services
ISRAA ISMAIL, PROFESSIONAL ENGINEER
221 BOSTON POST ROAD # 365E
MARLBOROUGH, MASSACHUSETTS 01752
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Project Title
PROPOSED PLAN
485 MAIN STREET
TEWKSBURY, MA

Sheet Title
TITLE SHEET

SCALE	AS NOTED
DRAWN	IAI
CHECKED	GA
FILE NAME	FILE.DWG
PROJECT	485 MAIN STREET, TEWKSBURY
ISSUE DATE	DECEMBER 8, 2023
JOB NO.	JOB NUMBER

GENERAL NOTES:

1. THE PURPOSE OF THIS PLAN IS TO SHOW PROPOSED ATTACHED EXTENDED BUILDING AS WELL AS THE PROPOSED 3-BED ROOM SECOND FLOOR ON THE PROPERTY.
2. PROPERTY BEARING AND DISTANCES, AND OTHER PROPERTY FEATURES LOCATIONS ARE OBTAINED FROM A PLAN PREPARED BY DAVID TEREZONI PLS , SEPTEMBER 18, 2023 AND UPDATED JANUARY 08, 2025.
3. ALL CONSTRUCTION MATERIALS & STANDARDS SHALL CONFORM TO THE CITY OF TEWKSBURY STANDARD SPECIFICATIONS. FOR ADDITIONAL DESIGN DETAILS CONSULT THE CITY OF TEWKSBURY'S "CONSTRUCTION DETAIL MANUAL" AS PREPARED BY THE DEPARTMENT OF PUBLIC WORKS.
4. ANY OR ALL PROPOSED UTILITY CONNECTIONS (i.e. SEWER & WATER) TO BE INSTALLED PER CITY OF TEWKSBURY STANDARDS.
5. SEVENTY TWO HOURS PRIOR TO COMMENCING ANY EXCAVATION, THE CONTRACTOR SHALL NOTIFY DIGSAFE AT (888) 344-7233. THE CONTRACTOR SHALL COORDINATE INSTALLATION OF NEW UTILITIES WITHIN IN THE VICINITY OF EXISTING UTILITIES. (UNDERGROUND AND OVERHEAD) WITH THE APPROPRIATE UTILITY PROVIDER.
6. THE CONTRACTOR SHALL:
 - 6.1. BE RESPONSIBLE TO COORDINATE HIS WORK WITH THE MUNICIPALITY TO LIMIT THE POTENTIAL DISRUPTIONS TO THE GENERAL PUBLIC.
 - 6.2. EMPLOY DUE CARE AND CAUTION TO PROTECT THE PUBLIC FROM DANGERS ASSOCIATED WITH THE OPERATION.
7. THE CONTRACTOR SHALL RECORD AND PROVIDE THE OWNER WITH AS-BUILT LOCATIONS OF ALL UTILITIES INSTALLED AS PART OF HIS/HER WORK, INCLUDING UTILITIES NOT INDICATED ON THE PLAN (I.E. GAS, CABLE, TV TELEPHONE, ELECTRIC, ETC.) IF APPLICABLE.
8. THE CONTRACTOR SHALL BE RESPONSIBLE TO LAY OUT THE CONSTRUCTION AS SHOWN ON PLAN.
9. EXISTING UTILITIES WERE LOCATED AS PART OF THIS PLAN USING CITY GIS SYSTEM AND ARE TO BE FIELD VERIFIED. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE EXISTING UTILITY LOCATIONS AND ENSURING THAT THE PROPOSED WORK DOES NOT CONFLICT WITH THE EXISTING UTILITY NOT SHOWN. ALL REQUIRED PERMITS SHALL BE SECURED PRIOR TO COMMENCING WORK. PRIOR TO COMMENCING ANY WORK ONSITE THE CONTRACTOR SHALL NOTIFY THE CITY OF TEWKSBURY DEPARTMENT OF PUBLIC WORKS.
10. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES DURING THE CONSTRUCTION PHASES OF THIS PROJECT. THE CONTRACTOR WILL BE HELD SOLELY RESPONSIBLE FOR ANY DAMAGES TO THE ADJACENT PROPERTIES OCCURRING DURING THE CONSTRUCTION.

CONSTRUCTION POLLUTION PREVENTION PLAN

- THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS INCLUDING MASSACHUSETTS STORMWATER MANAGEMENT STANDARDS AND TEWKSBURY CONSERVATION COMMISSION REQUIREMENTS TO ADDRESS WATER QUALITY ISSUES ASSOCIATED WITH STORMWATER RUNOFF AND PROTECT NATURAL WATER RESOURCES DURING CONSTRUCTION.
- EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED THROUGHOUT THE CONSTRUCTION PERIOD TO PREVENT SEDIMENT FROM LEAVING THE CONSTRUCTION SITE AND ENTERING WATER BODIES AND STORMWATER SYSTEM. DISTURBED SOIL AREAS SHALL BE STABILIZED WITH MULCH, EROSION CONTROL BLANKETS, OR OTHER APPROVED MEASURES TO REDUCE THE POTENTIAL FOR SEDIMENT TRANSPORT.
- HAZARDOUS MATERIALS, INCLUDING OILS, FUELS, AND SOLVENTS SHALL BE STORED IN SECURE LABELED CONTAINERS ON IMPERVIOUS SURFACES, AWAY FROM SENSITIVE AREAS SUCH AS THE EXISTING WELLHEAD.
- A DESIGNATED REFUELING AREA SHALL BE ESTABLISHED AT LEAST 100 FT FROM THE EXISTING WELL OR OTHER SENSITIVE RECEPTORS AND SHALL BE EQUIPPED WITH SECONDARY CONTAINMENT MEASURES, SPILL KITS, AND ABSORBENT MATERIALS TO MANAGE POTENTIAL SPILLS EFFECTIVELY. UTILIZE DRIP PANS AND ABSORBENT MATERIALS DURING ALL FUELING AND MAINTENANCE ACTIVITIES TO CAPTURE ANY SPILLS OR LEAKS TO PREVENT SOIL AND WATER CONTAMINATION
- ENSURE THAT PERSONNEL ARE TRAINED IN PROPER REFUELING TECHNIQUES TO PREVENT OVERFLOWS, SPILLS, AND LEAKS. ALL REFUELING ACTIVITIES SHALL BE SUPERVISED BY A QUALIFIED OPERATOR TO MAINTAIN SAFETY AND COMPLIANCE.
- IMPLEMENT SPILL PREVENTION MEASURES AT ALL TIMES. REGULARLY INSPECT FUEL STORAGE CONTAINERS FOR LEAKS, AND PROMPTLY REPLACE ANY DAMAGED CONTAINERS TO PREVENT ENVIRONMENTAL CONTAMINATION.
- THE CONTRACTOR SHALL DEVELOP AND IMPLEMENT A SPILL RESPONSE PLAN TO MITIGATE ENVIRONMENTAL RISKS IN THE EVENT OF A FUEL OR HAZARDOUS MATERIAL SPILL.
- ALL EQUIPMENT AND MACHINERY SHALL BE PARKED AND STORED AWAY FROM THE EXISTING WELL TO PREVENT ACCIDENTAL LEAKS OF FUEL, OIL, OR OTHER FLUIDS FROM CONTAMINATING GROUNDWATER RESOURCES.
- PERFORM ROUTINE INSPECTIONS OF ALL EQUIPMENT FOR LEAKS, WORN HOSES, AND FAULTY CONNECTIONS. IMMEDIATELY REPAIR OR REMOVE FROM SERVICE ANY EQUIPMENT FOUND TO BE LEAKING TO PREVENT ENVIRONMENTAL CONTAMINATION.
- DISPOSE OF ALL USED OILS, LUBRICANTS, AND OTHER HAZARDOUS MATERIALS IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS TO ENSURE ENVIRONMENTAL PROTECTION AND REGULATORY COMPLIANCE. PROVIDE CLEARLY LABELED, LEAK-PROOF CONTAINERS FOR THE COLLECTION AND DISPOSAL OF CONSTRUCTION-RELATED WASTE AND ENSURE PROPER WASTE MANAGEMENT
- INSPECT POLLUTION PREVENTION MEASURES, INCLUDING REFUELING STATIONS, SPILL KITS, AND EROSION CONTROL DEVICES, REGULARLY AND FOLLOWING SEVERE WEATHER EVENTS TO ENSURE THEIR EFFECTIVENESS AND INTEGRITY AND PROMPTLY CORRECT ANY DEFICIENCIES IDENTIFIED DURING INSPECTION.

DIG SAFE NOTIFICATION

THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING DIG SAFE® (811) AT LEAST 72 HOURS (3 BUSINESS DAYS) BEFORE STARTING ANY EXCAVATION ACTIVITIES, EXCLUDING WEEKENDS AND HOLIDAYS. ALL UNDERGROUND UTILITIES MUST BE PROPERLY MARKED PRIOR TO EXCAVATION. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UTILITIES ON-SITE AND PROCEED WITH CAUTION TO PREVENT DAMAGE.

FOR ADDITIONAL INFORMATION, VISIT WWW.DIGSAFE.COM OR CALL 811.



DATE:

No.	Date	Description
3		
2		
1	02/08/25	REV 1

Prepared for:
EUGENIE SAHYOUNI
485 MAIN STREET
TEWKSBURY, MA

Property of:
EUGENIE SAHYOUNI
485 MAIN STREET
TEWKSBURY, MA

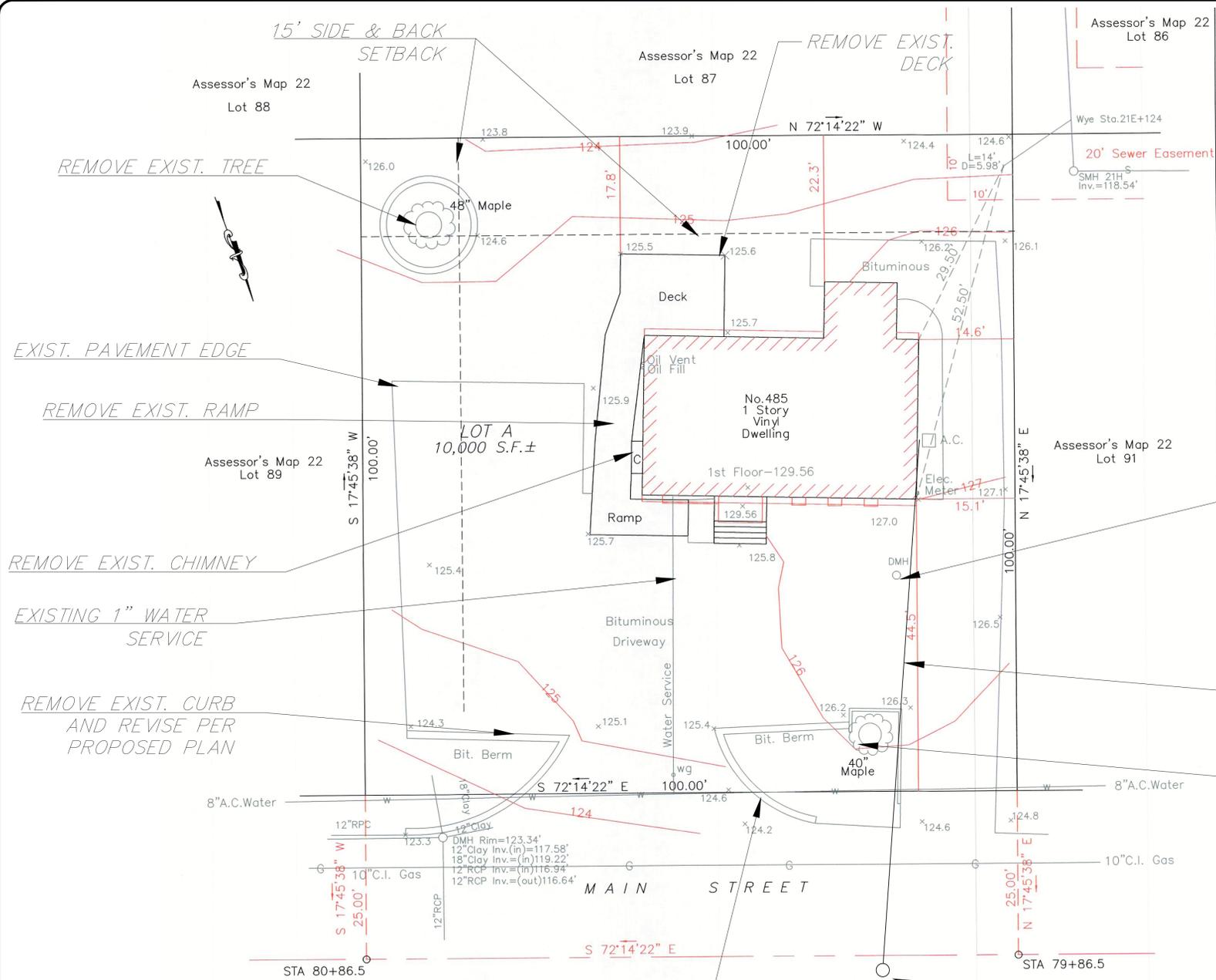
Prepared By:

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Civil Engineering / Management Services
GEORGE ATALLAH PROFESSIONAL ENGINEER
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Project Title
PROPOSED PLAN
485 MAIN STREET
TEWKSBURY

Sheet Title
GENERAL NOTES

SCALE	
DRAWN	IAI
CHECKED	GA
FILE NAME	FILE.DWG
PROJECT	485 MAIN STREET, TEWKSBURY
ISSUE DATE	DECEMBER 8, 2023
JOB NO.	JOB NUMBER



GENERAL NOTES:

1. PROPERTY BEARING AND DISTANCES, AND OTHER PROPERTY FEATURES LOCATIONS ARE OBTAINED FROM A PLAN PREPARED BY DAVID TERENCE PLS, SEPTEMBER 18, 2023 AND UPDATED JANUARY 08, 2025.

EXISTING 1,500 GALLON UNDERGROUND CONCRETE STORAGE TANK FOR HAIR WASHING STATION WASTEWATER (PUMPED AS NEEDED)

EXIST. ELECTRIC LINE

REMOVE EXIST. TREE

APPROX. LOCATION OF EXIST. ELECTRIC POLE

REMOVE EXIST. CURB, TO BE REVISED PER PROPOSED PLAN

"I CERTIFY THAT AN ACTUAL ON GROUND INSTRUMENT SURVEY WAS PERFORMED ON SEPTEMBER 14, 2023, AND THAT THE RESULTS ARE SHOWN HEREON."
 DAVID P. TERENCE, P.L.S. 1/8/25

**PLOT PLAN OF LAND
TEWKSBURY, MA.**

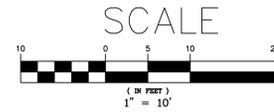
PREPARED FOR:
EUGENIE SAHYOUNI
 485 MAIN STREET
 4 ALLEN ROAD, PEABODY, MA. 01960

SCALE: 1"=20' DATE: JANUARY 8, 2025

DAVID P. TERENCE, P.L.S.



Zoning District: COM
 Deed Reference: Book 17881, Page 265
 Assessor's Map 22, Lot 90
 Existing Lot Coverage = 15.6% ±



DATE:		
3		
2		
No.	Date	Description
Revisions		

Prepared for:
 EUGENIE SAHYOUNI
 485 MAIN STREET
 TEWKSBURY, MA

Property of:
 EUGENIE SAHYOUNI
 485 MAIN STREET
 TEWKSBURY, MA

Prepared By:

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Project Title
 PROPOSED PLAN
 485 MAIN STREET
 TEWKSBURY

Sheet Title
 DEMOLITION &
 EXISTING PLAN

SCALE	1"=20'
DRAWN	IAI
CHECKED	GA
FILE NAME	FILE.DWG
PROJECT	485 MAIN STREET, TEWKSBURY
ISSUE DATE	DECEMBER 8, 2023
JOB NO.	JOB NUMBER

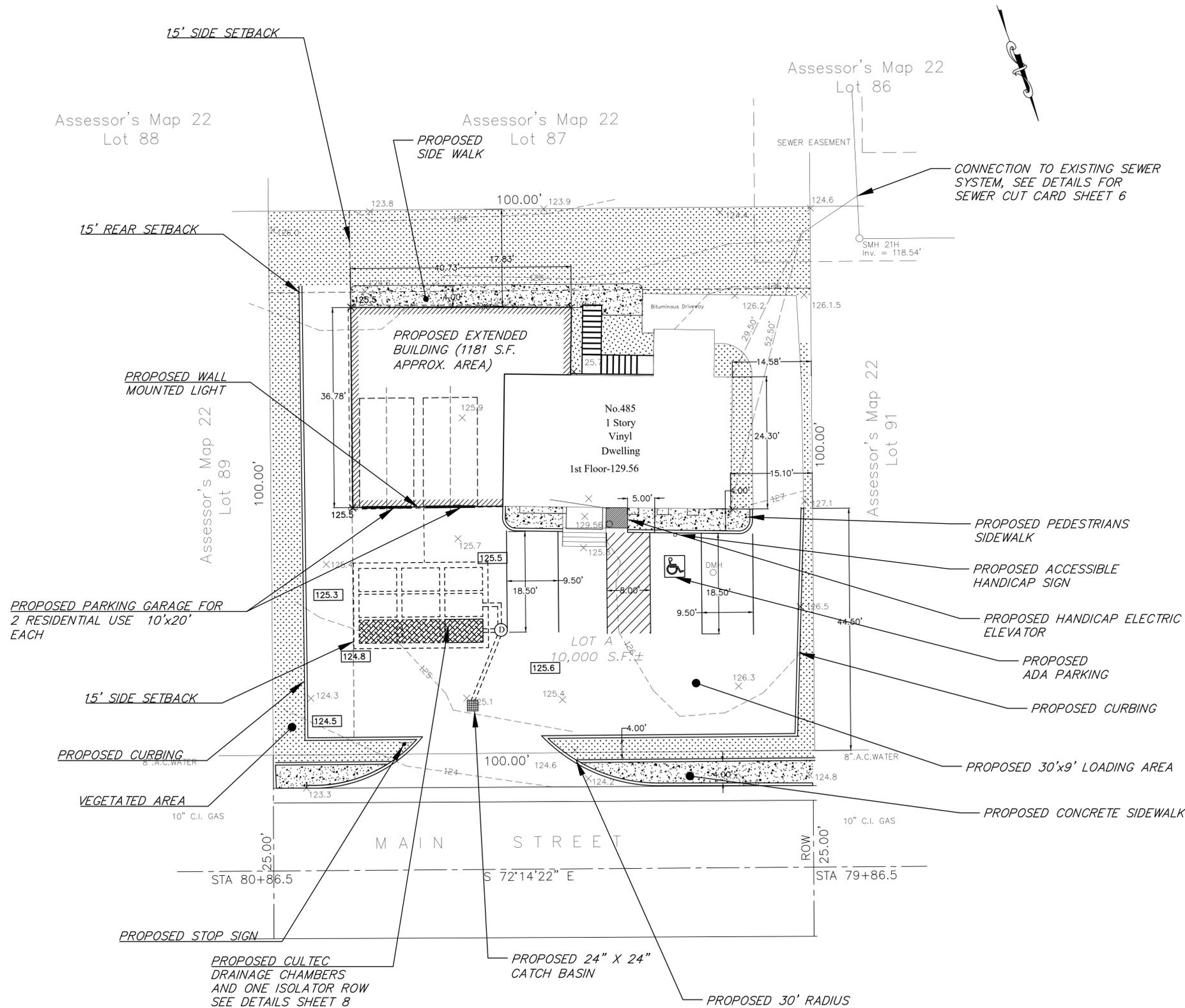


TABLE OF DIMENSIONAL REQUIREMENTS

All items listed below are identified as to Min. for requirement imposed	ZONING DISTRICT GENERAL BUSINESS (GB)			
	REQU'D	PROVIDED	RELIEF	
Lot Area (Min. in sq.ft.)	43,560	10,000	1	
Lot Frontage (Min. in ft.)	150	100	2	
Setback (Min. in ft.)	Front	25	41+	0
	Side	15	14.6	3
	Rear	15	18	0
Lot Width to Depth Ratio (Min.)	1:3	1:1	0	
Open Area (Min.)	20%	28.5%	0	
Building Coverage (Max.)	30%	23%	0	
Building Height (Max. ft)	35	16.83	0	

RELIEF REQUESTED

- 1- Pre-existing structure
- 2- Pre-existing structure
- 3- Pre-existing structure

GENERAL NOTES:

1. Property bearing and distances, and other property features locations are obtained from a plot plan prepared by David P. Terenzoni, PLS dated 9/18/2023.
2. Minimum parking spaces required (Sec 6.1.3 Zoning Bylaw):
 - 2.1. For the existing business (personal service establishment /hair salon) is 1 space per 200 sq.ft of gross floor area. Existing hair salon business will remain and reduced in size to one station with area less than 600 sq. ft. Hence parking spaces required for the hair salon will be 600/200 = 3 parking spaces.
 - 2.2. For the proposed residential unit 2 spaces are proposed for a three-bedroom unit.



DATE: _____

No.	Date	Description
3	06/24/23	REV 3
2	04/14/23	REV 2
1	02/08/23	REV 1

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485 MAIN STREET
TEWKSBURY, MA

Property of:
EUGENIE SAHYOUNI
485 MAIN STREET
TEWKSBURY, MA

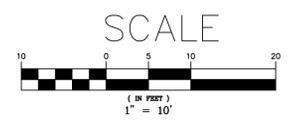
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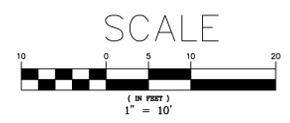
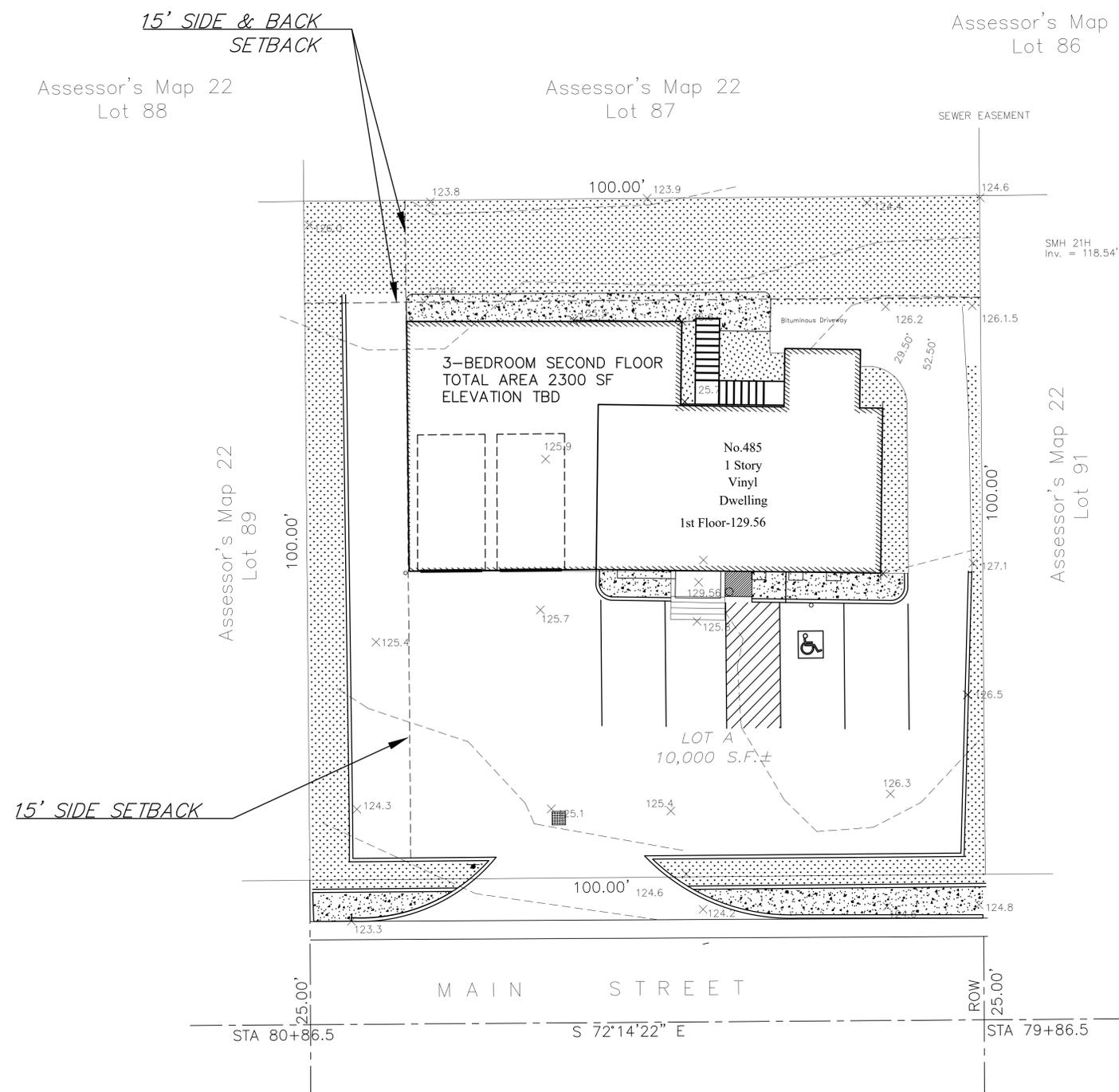
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Civil Engineering / Management Services
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Project Title
PERMIT PLAN
485 MAIN STREET
TEWKSBURY

Sheet Title
PROPOSED SITE
PLAN- FIRST
FLOOR EXTENSION

SCALE	1"=10'
DRAWN	IAI
CHECKED	GA
FILE NAME	FILE.DWG
PROJECT	H85 MAIN STREET, TEWKSBURY
ISSUE DATE	DECEMBER 8, 2023
JOB NO.	JOB NUMBER





DATE:

No.	Date	Description
3		
2	04/14/23	REV 2
1	02/08/23	REV 1

Prepared for:

EUGENIE SAHYOUNI
485 MAIN STREET
TEWKSBURY, MA

Property of:

EUGENIE SAHYOUNI
485 MAIN STREET
TEWKSBURY, MA

Prepared By:



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Civil Engineering / Management Services
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Project Title

PROPOSED PLAN
485 MAIN STREET
TEWKSBURY

Sheet Title

PROPOSED SITE
PLAN- SECOND
FLOOR

SCALE 1"=10'

DRAWN IAI

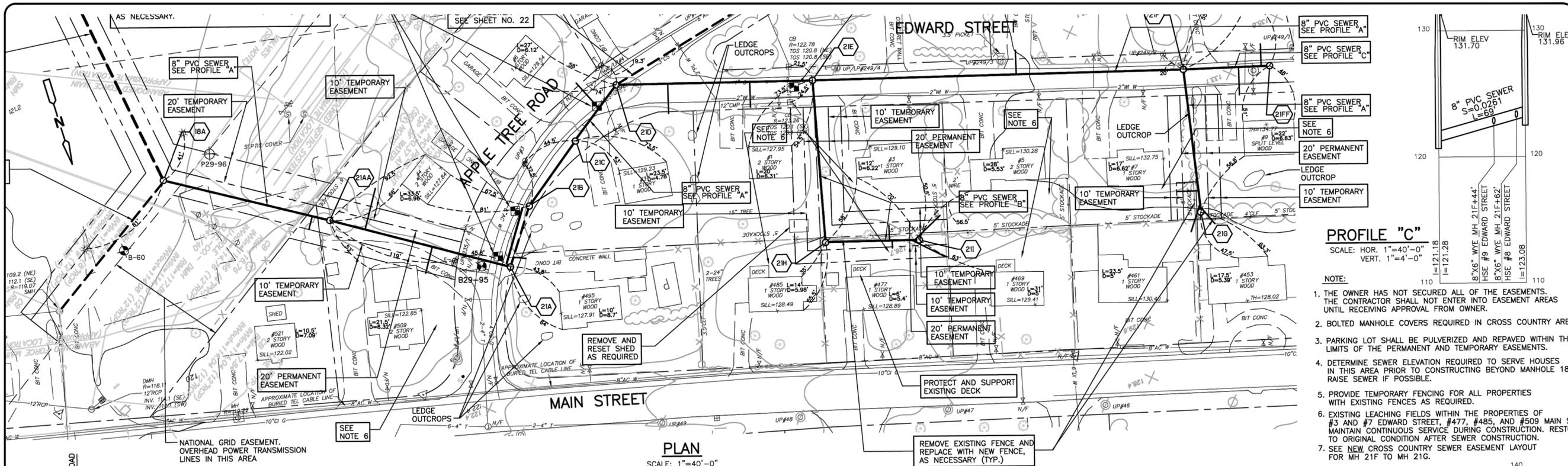
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PROJECT 485 MAIN STREET, TEWKSBURY

ISSUE DATE DECEMBER 8, 2023

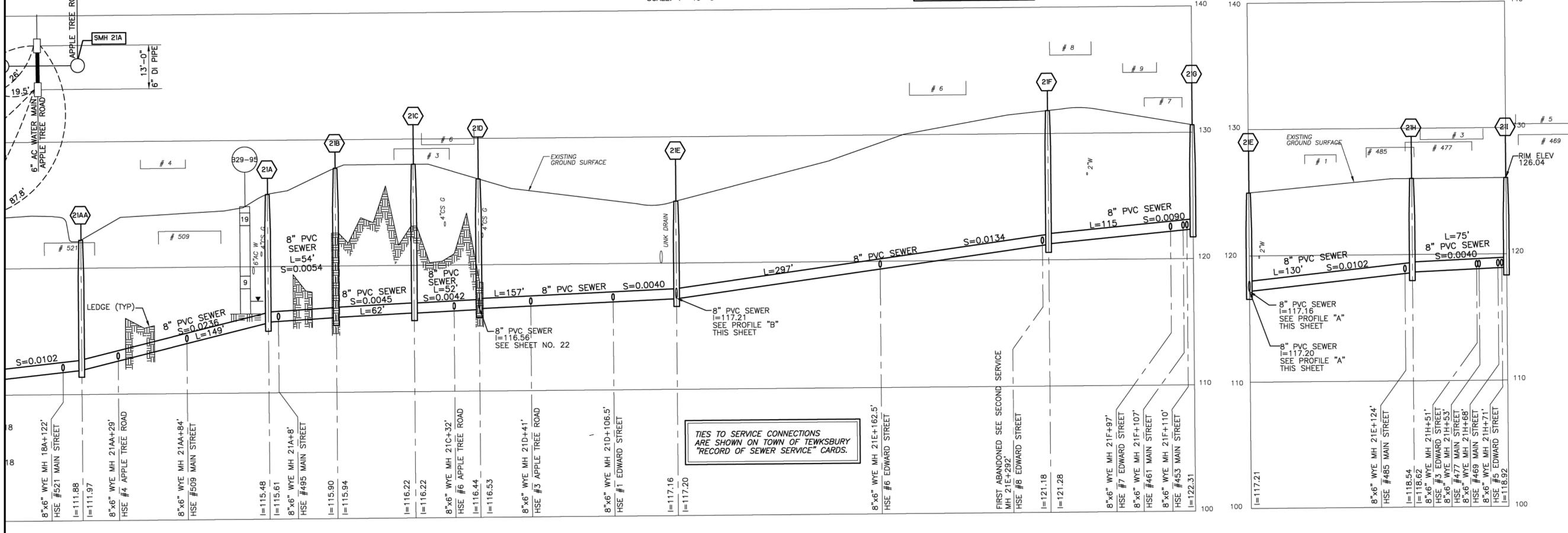
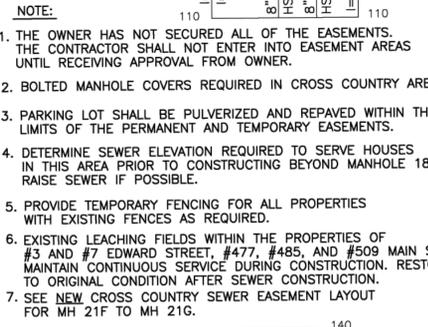
JOB NO. JOB NUMBER



PLAN
SCALE: 1"=40'-0"

PROFILE "C"

SCALE: HOR. 1"=40'-0"
VERT. 1"=4'-0"



PROFILE "A"

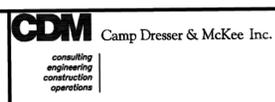
SCALE: HOR. 1"=40'-0"
VERT. 1"=4'-0"

PROFILE "B"

SCALE: HOR. 1"=40'-0"
VERT. 1"=4'-0"

RECORD DRAWING

DESIGNED BY:	M. COTE
DRAWN BY:	G. BELIZAJRE
SHEET CHK'D BY:	M. GUIDICE
CROSS CHK'D BY:	R. SOUPPA
APPROVED BY:	R. SOUPPA
DATE:	MARCH 2006



**TOWN OF TEWKSBURY, MASSACHUSETTS
SEWERAGE WORKS IMPROVEMENTS
PHASE 9
CONTRACT NO. 29**

**APPLE TREE ROAD, EDWARD STREET AND
CROSS COUNTRY**

PROJECT NO.	0959
FILE NAME:	C
SHEET NO.	21
ACCESSION NO.	0959-

No.	Date	Description
3		
2		
1		

Prepared for:
EUGENIE SAHYOUNI
485 MAIN STREET
TEWKSBURY, MA

Property of:
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485 MAIN STREET
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Prepared By:

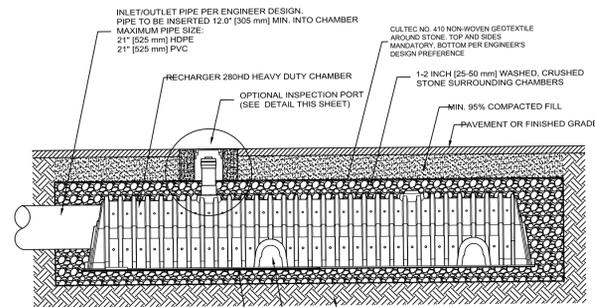
LEBRA
THE ENGINEERING & DESIGN, LLC

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Project Title
**PROPOSED PLAN
485 MAIN STREET
TEWKSBURY**

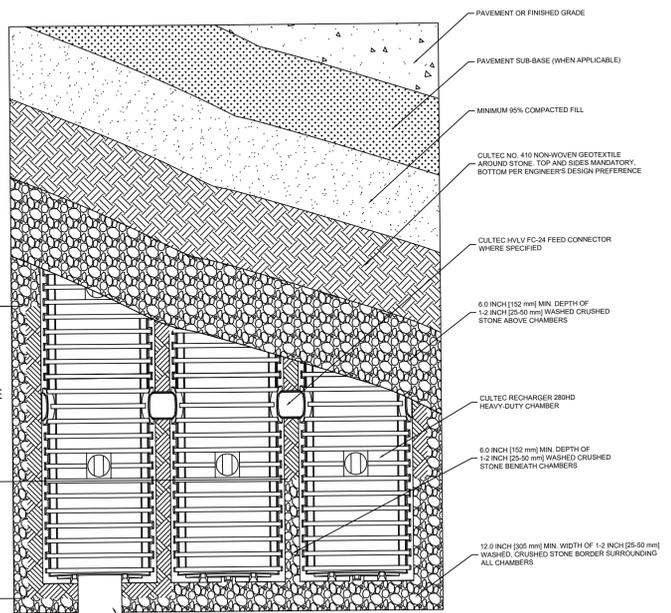
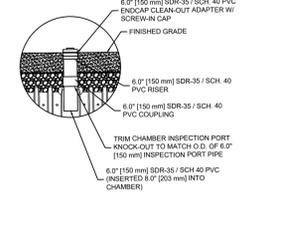
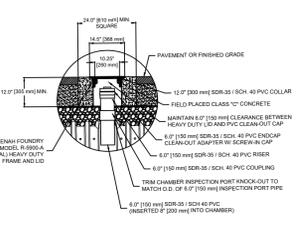
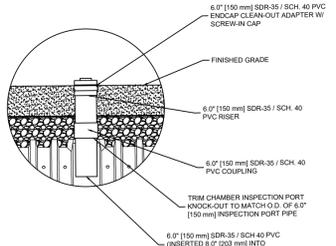
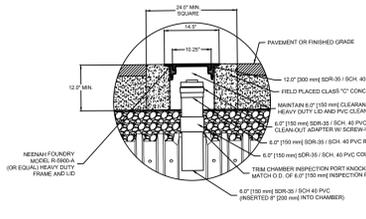
Sheet Title
**SEWER
CONNECTION CUT
CARD**

SCALE	1"=40'
DRAWN	IAI
CHECKED	GA
FILE NAME	FILE.DWG
PROJECT	485 MAIN STREET, TEWKSBURY
ISSUE DATE	DECEMBER 8, 2023
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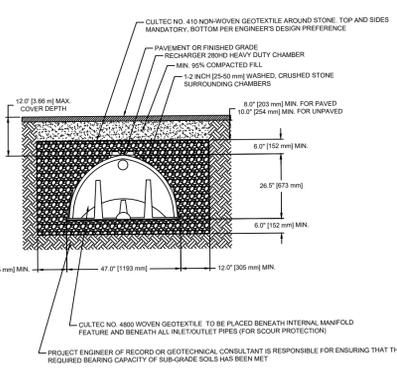
CULTEC NO. 4800 WOVEN GEOTEXTILE TO BE PLACED BENEATH INTERNAL MANIFOLD FEATURE AND BENEATH ALL INLET/OUTLET PIPES (FOR SCOUR PROTECTION). SIDE PORTAL TO BE CUT IN FIELD TO ALLOW FOR HVLV® FC-24 FEED CONNECTOR OR STORM PIPE AS NEEDED (SEE FIGURE 1). CUT SHALL BE WITHIN 1/4" (6 mm) TOLERANCE OF SIDE PORTAL TRIM GUIDELINE.

PROJECT ENGINEER OF RECORD OR GEOTECHNICAL CONSULTANT IS RESPONSIBLE FOR ENSURING THAT THE REQUIRED BEARING CAPACITY OF SUB-GRADE SOILS HAS BEEN MET



7.5' [2.29 m] MIN. CULTEC NO. 4800 WOVEN GEOTEXTILE BENEATH FEED CONNECTORS

1' [3.0 m] MIN. WOVEN GEOTEXTILE WITH INLET PIPES



CULTEC Recharger® 330XLHD Stormwater Chamber

CULTEC Recharger® 330XLHD Specifications

GENERAL
CULTEC Recharger® 330XLHD chambers are designed for underground stormwater management. The chambers may be used for retention, recharging, detention or controlling the flow of on-site stormwater runoff.

CHAMBER PARAMETERS

- The chambers shall be manufactured in the U.S.A. by CULTEC, Inc. of Brookfield, CT (cultec.com, 203-775-4416).
- The chamber shall be vacuum thermoformed of polyethylene with a black interior and blue exterior.
- The chamber shall be arched in shape.
- The chamber shall be open-bottomed.
- The chamber shall be joined using an interlocking overlapping rib method. Connections must be fully shouldered overlapping ribs, having no separate couplings or separate end walls.
- The nominal chamber dimensions of the CULTEC Recharger® 330XLHD shall be 30.5 inches (775 mm) tall, 52 inches (1321 mm) wide and 8.5 feet (2.59 m) long. The installed length of a joined Recharger® 330XLHD shall be 7 feet (2.13 m).
- Maximum inlet opening on the chamber end wall is 24 inches (600 mm) HDPE, PVC.
- The chamber shall have two side portals to accept CULTEC HVLV® FC-24 Feed Connectors to create an internal manifold. Maximum allowable O.D. in the side portal is 10 inches (250 mm) HDPE and 12 inches (300 mm) PVC.
- The nominal chamber dimensions of the CULTEC HVLV® FC-24 Feed Connector shall be 12 inches (305 mm) tall, 16 inches (406 mm) wide and 24.2 inches (614 mm) long.
- The nominal storage volume of the Recharger® 330XLHD chamber shall be 7.459 ft³ / ft (0.693 m³ / m) - without stone. The nominal storage volume of a single Recharger® 330XLHD Stand Alone unit shall be 63.40 ft³ (1.80 m³) - without stone. The nominal storage volume of a joined Recharger® 330XLHD Intermediate unit shall be 52.213 ft³ (1.478 m³) - without stone. The nominal storage volume of the length adjustment amount per run shall be 11.19 ft³ (1.04 m³) - without stone.
- The nominal storage volume of the HVLV® FC-24 Feed Connector shall be 0.913 ft³ / ft (0.026 m³ / m) - without stone.
- The Recharger® 330XLHD chamber shall have fifty-six discharge holes bored into the sidewalls of the unit's core to promote lateral conveyance of water.
- The Recharger® 330XLHD chamber shall have 16 corrugations.
- The end wall of the chamber, when present, shall be an integral part of the continuously formed unit. Separate end plates cannot be used with this unit.
- The Recharger® 330XLHD Stand Alone unit must be formed as a whole chamber having two fully formed integral end walls and having no separate end plates or separate end walls.
- The Recharger® 330XLHD Starter unit must be formed as a whole chamber having one fully formed integral end wall and one partially formed integral end wall with a lower transfer opening of 14 inches (356 mm) high x 34.5 inches (876 mm) wide.
- The Recharger® 330XLHD Intermediate unit must be formed as a whole chamber having one fully open end wall and one partially formed integral end wall with a lower transfer opening of 14 inches (356 mm) high x 34.5 inches (876 mm) wide.
- The Recharger® 330XLHD End unit must be formed as a whole chamber having one fully formed integral end wall and one fully open end wall and having no separate end plates or end walls.
- The HVLV® FC-24 Feed Connector must be formed as a whole chamber having two open end walls and having no separate end plates or separate end walls. The unit shall fit into the side portals of the Recharger® 330XLHD and act as cross feed connections.
- Chambers must have horizontal stiffening flex reduction steps between the ribs.
- The chamber shall have a raised integral cap at the top of the arch in the center of each unit to be used as an optional inspection port or clean-out.
- The units may be trimmed to custom lengths by cutting back to any corrugation on the large rib end.
- The chamber shall be manufactured in an ISO 9001:2015 certified facility.
- The chamber shall be designed and manufactured to meet the material and structural requirements of IAPMO PS 63-2019, including resistance to AASHTO H-10 and H-20 highway live loads, when installed in accordance with CULTEC's installation instructions.
- The chamber shall be designed and manufactured in accordance with the specifications of NSAI Irish Agreement Board Certificate for Cultec Attenuation and Infiltration.
- Maximum allowable cover over the top of the chamber shall be 12' (3.66 m).
- The chamber shall be designed to withstand traffic loads when installed according to CULTEC's recommended installation instructions.

For more information, contact CULTEC at (203) 775-4416 or visit www.cultec.com.

© CULTEC, Inc., June 2020 SUB330XLHD 06-20



DATE:

No.	Date	Description
3		
2	06/24/25	REV 2
1	02/08/25	REV 1

Prepared for:
EUGENIE SAHOUNI
485 MAIN STREET
TEWKSBURY, MA

Prepared by:
EUGENIE SAHOUNI
485 MAIN STREET
TEWKSBURY, MA

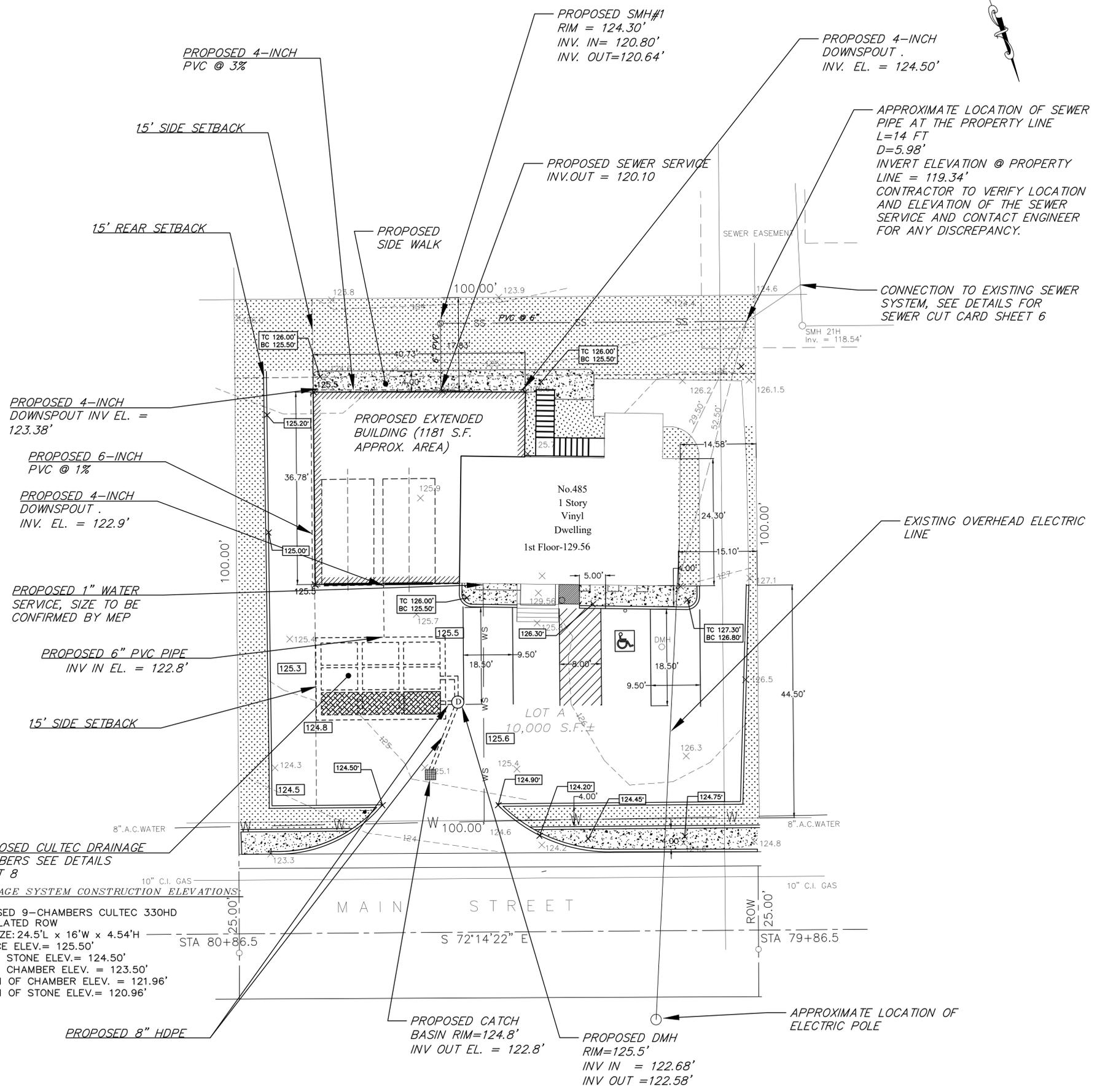
Prepared By:

Structural Engineering / Building Design
Civil Engineering / Management Services
ISRAEL ISMAIL, PROFESSIONAL ENGINEER
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Project Title
PROPOSED PLAN
485 MAIN STREET
TEWKSBURY

Sheet Title
MISCELLANEOUS
CULTEC SYSTEM
DETAILS

SCALE	1"=10'
DRAWN	IAI
CHECKED	GA
FILE NAME	FILE.DWG
PROJECT	H85 MAIN STREET, TEWKSBURY
ISSUE DATE	DECEMBER 8, 2023
JOB NO.	JOB NUMBER



UTILITIES NOTES:

The underground utilities presented on the drawings have been drawn from field survey information and a plan prepared by David Terenzoni pls , September 18, 2023 and updated January 08, 2025.

LEBRA Engineering doesn't warrant that the underground utilities shown are in the exact location indicated on the drawing although they are plotted as accurately as possible from the information available.

LEBRA Engineering makes no guarantees that the underground utilities depicted comprise all utilities in the area and has not physically located the underground utilities.

DRAINAGE NOTES:

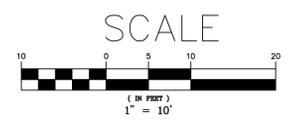
1. The Stormwater management system is designed to catch entire run-off on the proposed roof for the building extension sized for 2-year, 10-year and 100-year storm events.
2. Estimated depth to high groundwater per soil assessment conducted on July 25, 2024 is 7 ft
3. Runoff from the property should not be directed across property lines towards abutting properties or streets.
4. Connecting sump pump systems and foundation drains to the CULTEC system is prohibited.
5. Contractor to coordinate with the Tewksbury Engineering Division to perform inspections of i) bottom of excavation and ii) CULTEC system after installation but before backfill. The Engineering Division should be notified 24 hours prior to inspection.
6. If subsurface conditions do not match the soil assessment conditions, then the Contractor shall contact the Design Engineer and the Tewksbury Engineering Division for review immediately.

CULTEC SYSTEM STORAGE AND SIZE CALCULATIONS:

52.0" Wide + 6.0" Spacing = 58.0" C-C Row Spacing
 3 Chambers/Row x 7.00' Long +1.50' Row Adjustment = 22.50' Row Length +12.0" End Stone x 2 = 24.50' Base Length
 3 Rows x 52.0" Wide + 6.0" Spacing x 2 + 12.0" Side Stone x 2 = 16.00' Base Width
 12.0" Stone Base + 30.5" Chamber Height + 12.0" Stone Cover = 4.54' Field Height
 9 Chambers x 52.2 cf +1.50' Row Adjustment x 7.45 sf x 3 Rows = 502.9 cf Chamber Storage
 1,780.3 cf Field - 502.9 cf Chambers = 1,277.4 cf Stone x 40.0% Voids = 511.0 cf Stone Storage
 Chamber Storage + Stone Storage = 1,013.9 cf = 0.023 af
 Overall Storage Efficiency = 56.9%
 Overall System Size = 24.50' x 16.00' x 4.54'

9 Chambers
 65.9 cy Field
 47.3 cy Stone

DRAINAGE SYSTEM CONSTRUCTION ELEVATIONS
 PROPOSED 9-CHAMBERS CULTEC 330HD
 1- ISOLATED ROW
 SYS. SIZE: 24.5'L x 16'W x 4.54'H
 SURFACE ELEV.= 125.50'
 TOP OF STONE ELEV.= 124.50'
 TOP OF CHAMBER ELEV. = 123.50'
 BOTTOM OF CHAMBER ELEV. = 121.96'
 BOTTOM OF STONE ELEV.= 120.96'



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2	06/24/25	REV 2
1	04/14/25	REV 1

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 485 MAIN STREET
 TEWKSBURY, MA

Property of:
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 485 MAIN STREET
 TEWKSBURY, MA

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Project Title
 PERMIT PLAN
 485 MAIN STREET
 TEWKSBURY

Sheet Title
 PROPOSED
 DRAINAGE AND
 UTILITIES PLAN

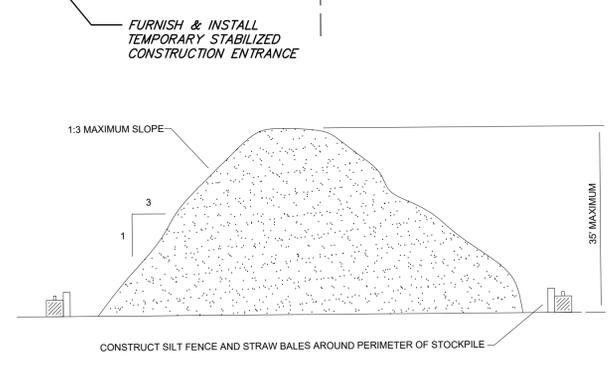
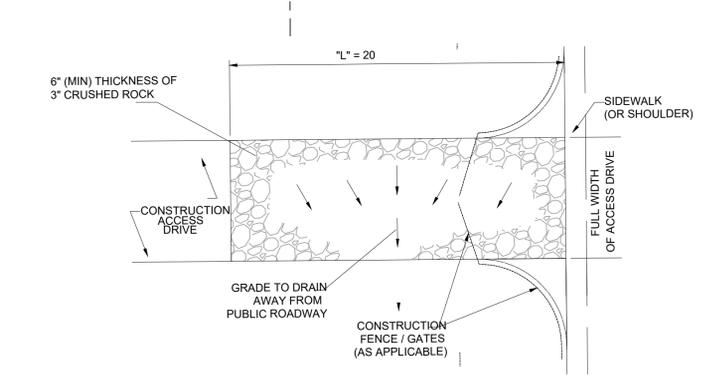
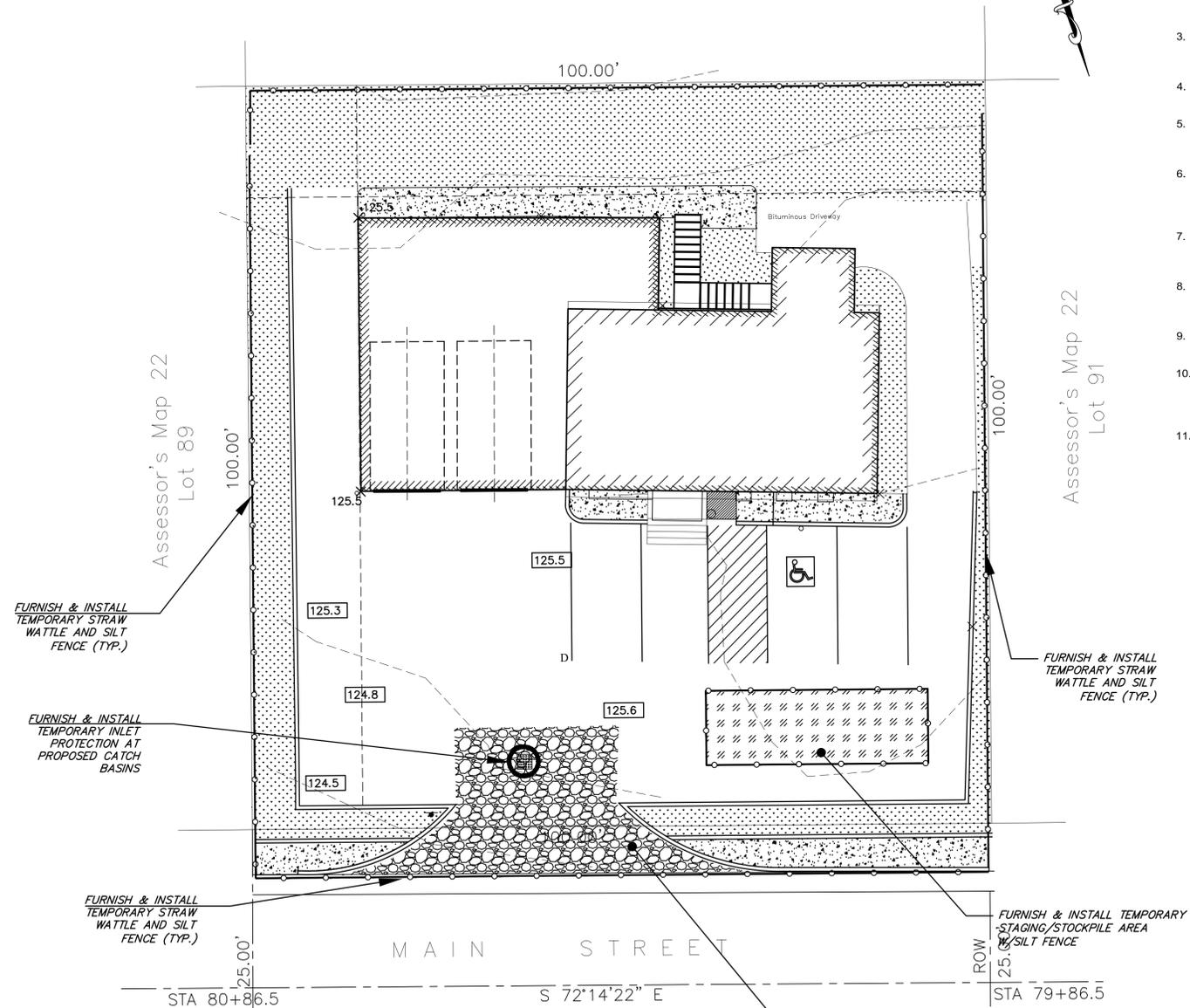
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DRAWN	IAI
CHECKED	GA
FILE NAME	FILE.DWG
PROJECT	485 MAIN STREET, TEWKSBURY
ISSUE DATE	FEB 08, 2025
JOB NO.	JOB NUMBER

Assessor's Map 22
Lot 88

Assessor's Map 22
Lot 87

Lot 86

Assessor's Map 22
Lot 91



- NOTES:**
- REGULAR INSPECTION AND MAINTENANCE SHALL BE PERFORMED OVER LIFE OF USE.
 - THE EXIT SHALL BE MAINTAINED TO PREVENT DRAINAGE OR SEDIMENTS FROM FLOWING ONTO PUBLIC ROAD RIGHT OF WAY.
 - IF SEDIMENT TRACKING IS OBSERVED ON EXISTING PAVED ROADWAY, THE CONTRACTOR SHALL SCRAPER AND SWEEP THE SURFACE WITH A PICKUP BROOM ATTACHMENT OR VEHICLE

STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE

TEMPORARY STOCKPILE DETAIL

EROSION AND SEDIMENT CONTROL NOTES:

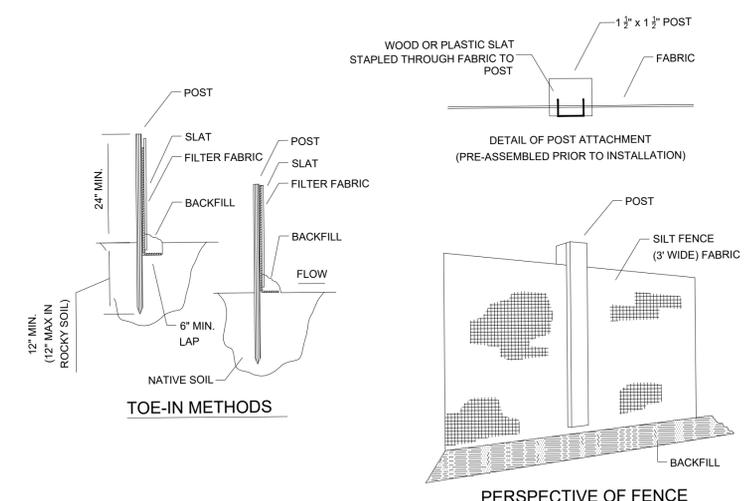
- THE PURPOSE OF THIS PLAN IS TO DEPICT THE TEMPORARY CONSTRUCTION EROSION CONTROL MEASURES REQUIRED ON THE PROJECT SITE.
- THE LIMIT OF WORK LINE SHALL BE CLEARLY MARKED IN THE FIELD BY FIELD SURVEY PRIOR TO CONSTRUCTION WITHIN DESIGNATED AREA. THE AREA OF DISTURBANCE SHALL BE KEPT TO A MINIMUM AND SHALL NOT EXCEED THE WORK LINE SHOWN ON THE PLAN.
- ALL EROSION AND CONTROL MEASURES SHOWN ON THE SITE PLAN SHALL MEET AT A MINIMUM, THE BEST MANAGEMENT PRACTICES SET FORTH IN MASSACHUSETTS EROSION AND SEDIMENT CONTROL GUIDELINES FOR URBAN AND SUB URBAN AREAS.
- WHENEVER PRACTICAL, EXISTING VEGETATED AREAS SHALL BE RETAINED AND PROTECTED TO PREVENT SOIL EROSION.
- DURING CONSTRUCTION, ADEQUATE PROTECTIVE MEASURES SHALL BE PROVIDED TO MINIMIZE DAMAGE CAUSED BY SURFACE WATER AT THE EXCAVATED OR DISTURBED AREAS.
- STOCK PILES SHALL BE SET BACK A MINIMUM OF 5 FEET FROM THE EDGE OF PAVEMENT. STOCK PILES SHALL BE CONTAINED WITH STRAWBALES OR SILT FENCE TO PREVENT SEDIMENTS FROM ENTERING DRAINAGE WAY AND SHALL BE COVERED WITH TARPULIN SHEETS OR STABILIZED WITH SEED OR MULCH.
- THE DEVELOPER IS REQUIRED TO CLEAN UP ANY SAND, DIRT OR DEBRIS ERODES DURING CONSTRUCTION FROM SITE ONTO ANY PUBLIC ROAD OR PRIVATE PROPERTY AND REMOVE SILT AND DEBRIS THAT ENTERS ANY EXISTING DRAINAGE SYSTEM.
- ALL DRAINAGE STRUCTURES SHALL BE CLEANED UP DURING AND FOLLOWING THE CONSTRUCTION.
- ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED IN FUNCTIONING CONDITIONS UNTIL FINAL STABILIZATION ON SITE IS ACHIEVED.
- ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED AFTER FINAL STABILIZATION, TRAPPED SEDIMENTS OR OTHER DISTURBED AREAS OBSERVED UNDER THE TEMPORARY MEASURES SHALL BE STABILIZED WITHIN 14 DAYS UNLESS CONDITIONS DICTATE OTHERWISE.
- THE TOWN OF TEWKSBURY SHALL RESERVE THE RIGHT TO REQUIRE ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHOULD THEY FIND IT NECESSARY.

CONSTRUCTION SEQUENCE:

- CUT TREES AND BRUSH WITHIN THE LIMIT OF CLEARING AS DEPICTED IN THE DEMOLITION PLAN AS NECESSARY TO FACILITATE CONSTRUCTION ACTIVITIES. THE TREES SHALL BE REMOVED AND DISPOSED PROPERLY BY THE CONTRACTOR OFF THE SITE.
- TEMPORARY EROSION CONTROL MEASURES AS PRESENTED IN THE DRAWING SHALL BE PLACED BEFORE ANY CONSTRUCTION WORK COMMENCE. MEASURES INCLUDE CONSTRUCTION ENTRANCE STABILIZATION, SILT FENCING, FIBER ROLLS AS REQUIRED AND AS SHOWN ON THE EROSION CONTROL PLAN.
- BEGIN EARTHWORK MOVEMENT AND EXCAVATION TO FACILITATE CONSTRUCTION OF THE BUILDING FOUNDATION.
- ONCE BUILDING FOUNDATION WORK IS UNDERWAY, EARTHWORK SHALL BE CONTINUED TO ACHIEVE THE REQUIRED LEVEL OF SUBGRADE.
- INSTALL UTILITIES WORKING FROM LOW TO HIGH INCLUDING SEWER, WATER AND DRAINAGE SYSTEM. ALL UTILITIES CONSTRUCTION ACTIVITIES SHALL BE KEPT PROTECTED FROM SILTATION BY SILTATION BARRIERS UNTIL THE SITE IS FULLY STABILIZED.

INSTALLATION:

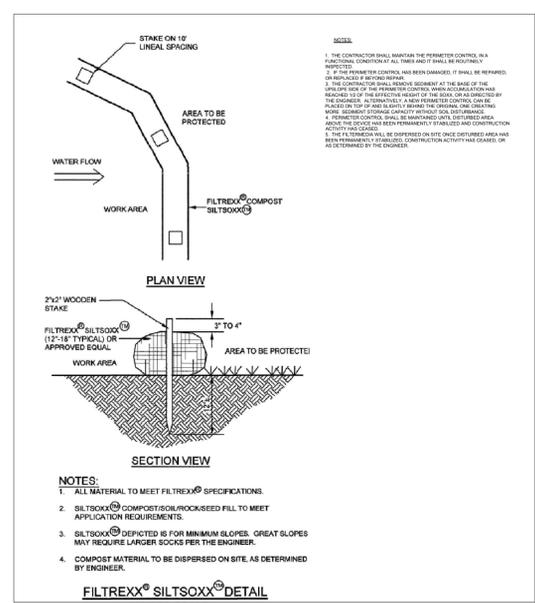
- EXCAVATE A 6"x 6" TRENCH ALONG THE LINE OF EROSION CONTROL OF THE SITE.
- UNROLL SILTATION FENCE AND POSITION THE POSTS AGAINST THE BACK (DOWNSTREAM) WALL OF THE TRENCH (NET SIDE AWAY FROM FLOW DIRECTION).
- DRIVE THE POST INTO THE GROUND UNTIL THE NETTING IS LAYING ACROSS THE TRENCH BOTTOM.
- LAY THE TOE-IN FLAP OF THE FABRIC ONTO THE UNDISTURBED BOTTOM OF THE TRENCH, BACKFILL THE TRENCH AND TAMP THE SOIL. TOE-IN CAN ALSO BE ACCOMPLISHED BY LAYING FABRIC FLAP ON UNDISTURBED GROUND AND PILING & TAMP-ING FILL AT THE BASE.



MAINTENANCE:

- INSPECT SILT FENCE IMMEDIATELY AFTER EACH RAIN EVENT AND PROVIDE ANY IMMEDIATE REPAIR WHEN REQUIRED
- THE FABRIC ON SILT FENCE SHALL BE REPLACED PROMPTLY WHEN IS DAMAGED OR BECOME INEFFICIENT.
- SEDIMENT DEPOSITS SHALL BE REMOVED REGULARLY AFTER EACH RAIN EVENT.

TYP. SILTATION FENCE DETAIL



- NOTES:**
- ALL MATERIAL TO MEET FILTREXX SPECIFICATIONS.
 - SILTOSOX COMPOST/ROCK/SEED FILL TO MEET APPLICATION REQUIREMENTS.
 - SILTOSOX DESIGNED FOR MINIMUM SLOPES. GREAT SLOPES MAY REQUIRE LARGER SOCKS PER THE ENGINEER.
 - COMPOST MATERIAL TO BE DISPERSED ON SITE AS DETERMINED BY ENGINEER.
- 6. CONTINUE TO INSPECT AND MONITOR EROSION AND CONTROL MEASURES UNTIL ENTIRE SITE APPEARS TO BE COMPLETELY STABILIZED.**
- 7. COMPLETE INSTALLATION OF LANDSCAPING, SIGNAGE AND ALL OTHER SITE AMENITIES.**



DATE: _____

No.	Date	Description
3		
2	06/24/25	REV 2
1	04/14/25	REV 1

Prepared for:
EUGENIE SAHYOUNI
485 MAIN STREET
TEWKSBURY, MA

Property of:
EUGENIE SAHYOUNI
485 MAIN STREET
TEWKSBURY, MA

Prepared By:

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Project Title
PROPOSED PLAN
485 MAIN STREET
TEWKSBURY

Sheet Title
EROSION AND SEDIMENT CONTROL PLAN

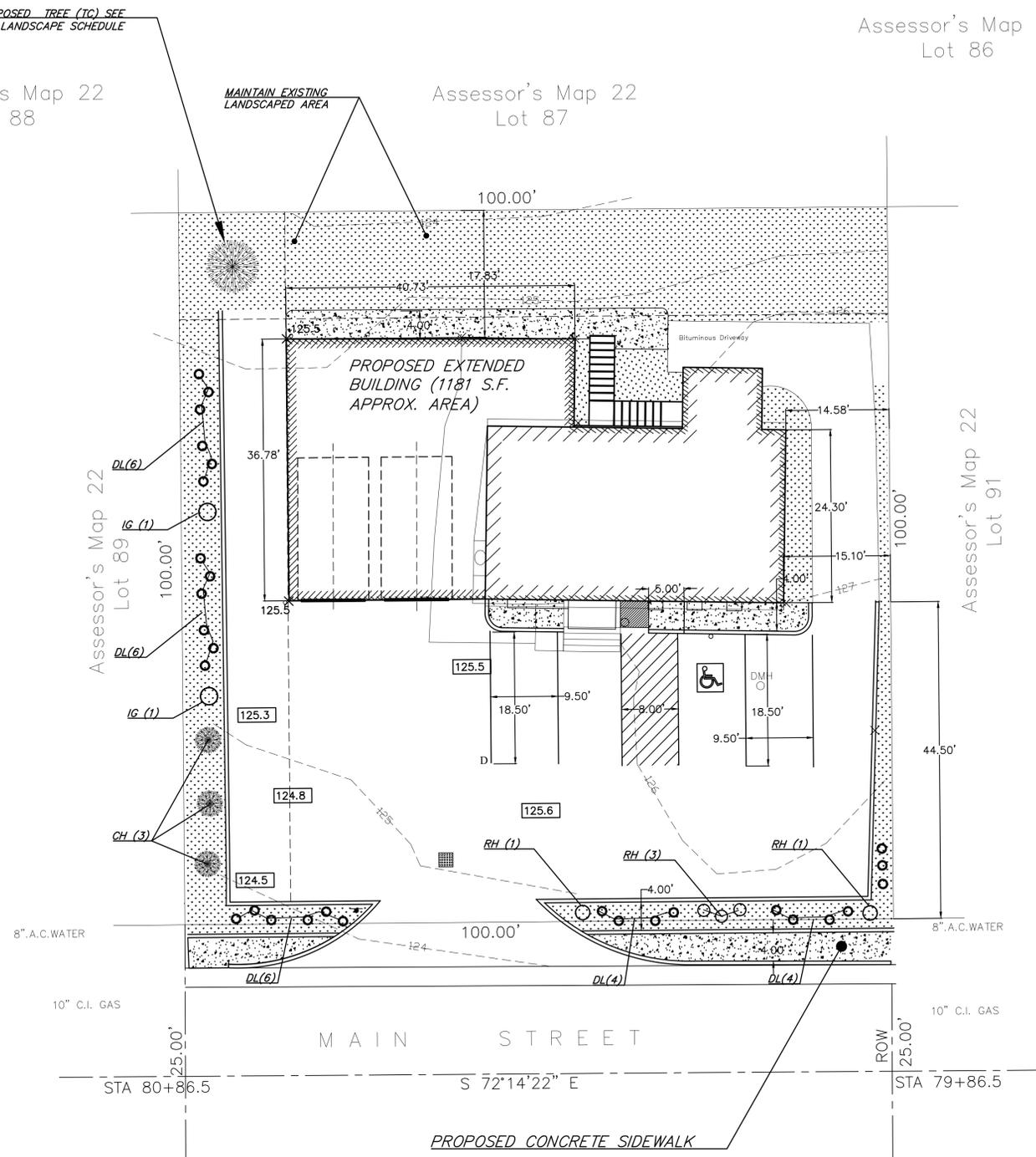
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DRAWN	IAI
CHECKED	GA
FILE NAME	FILE.DWG
PROJECT	485 MAIN STREET, TEWKSBURY
ISSUE DATE	FEB 08, 2025
JOB NO.	JOB NUMBER

Assessor's Map 22
Lot 88

Assessor's Map 22
Lot 86

Assessor's Map 22
Lot 87

Assessor's Map 22
Lot 91



LANDSCAPE NOTES:

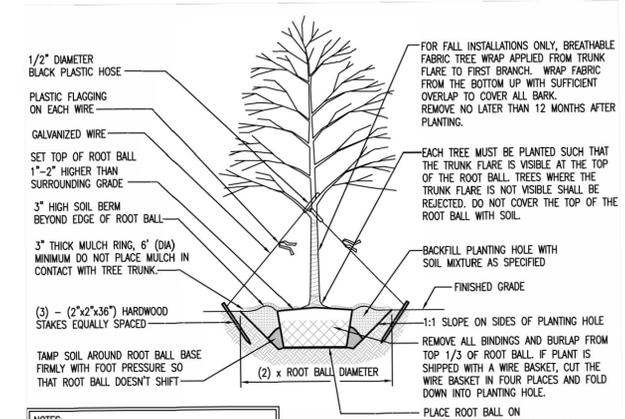
1. ALL PLANT MATERIALS USED SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM DATE OF INSTALLATION. ANY MATERIAL SHOWS UNHEALTHY APPEARANCE WITHIN THIS TIME SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
2. ANY CONSTRUCTION MATERIALS ENCOUNTERED IN ANY LAWN OR PLANTING BED SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR WITH SUITABLE SOILS INSTALLED PER REQUIRED SPECIFICATIONS.
3. COMPACTED TOPSOIL LAYER (6"-8") SHALL BE PLACED IN THE BASE OF THE PLANT TO CONTAIN MOISTURE IF SOIL PROPERTIES ARE EXTREMELY SANDY.

LANDSCAPING CALCULATIONS

Proposed Building Expansion Area = 1,181 S.F.
 Required = 5% of Proposed total expansion area = 5% X 1,181 S.F. = 59 S.F.
 Added Landscaped Area: 430 S.F. Provided
 Total Landscaped area = 2,208 S.F.

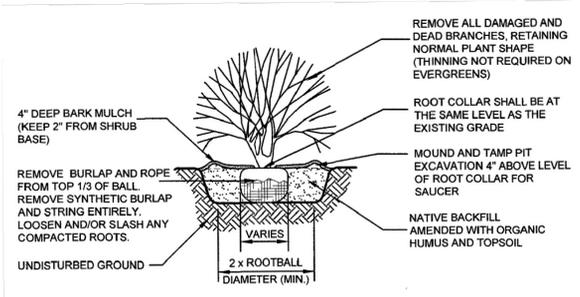
PLANT SCHEDULE:

Botanical Name Common name	Symbol	Quantity	Size
Ilex glabra 'Compacta' compact inkberry	IG	2	4'-5'
Hemerocallis 'Happy Returns' Happy Return Daylily	DL	29	18"-24"
Rhododendron Maximum Roseum Pink Rosebay Rhododendron	RH	5	18"-24"
Tilia cordata 'Greenspire' Greenspire Littleleaf Linden	TC	1	3" CAL
Chamaecyparis Thyoides Hopkinton Hopkinton White Cedar	CH	3	4'-5' B & B



- NOTES:**
1. CONTRACTOR SHALL VERIFY THAT PLANTING HOLE IS FREE DRAINING PER SPECIFICATION PRIOR TO PLANTING.
 2. DO NOT HEAVILY PRUNE THE TREE AT PLANTING. PRUNE ONLY CROSSOVER LIMBS, CO-DOMINANT LEADERS, AND BROKEN OR DEAD BRANCHES.
 3. MARK THE NORTH SIDE OF THE TREE IN THE NURSERY, AND ROTATE TREE TO FACE NORTH.

DECIDUOUS TREE PLANTING DETAIL
NO SCALE



BALLED & BURLAP SHRUB PLANTING DETAIL
NOT TO SCALE



DATE:

No.	Date	Description
1	04/14/25	REV 1

Prepared for:
EUGENIE SAHYOUNI
 485 MAIN STREET
 TEWKSBURY, MA

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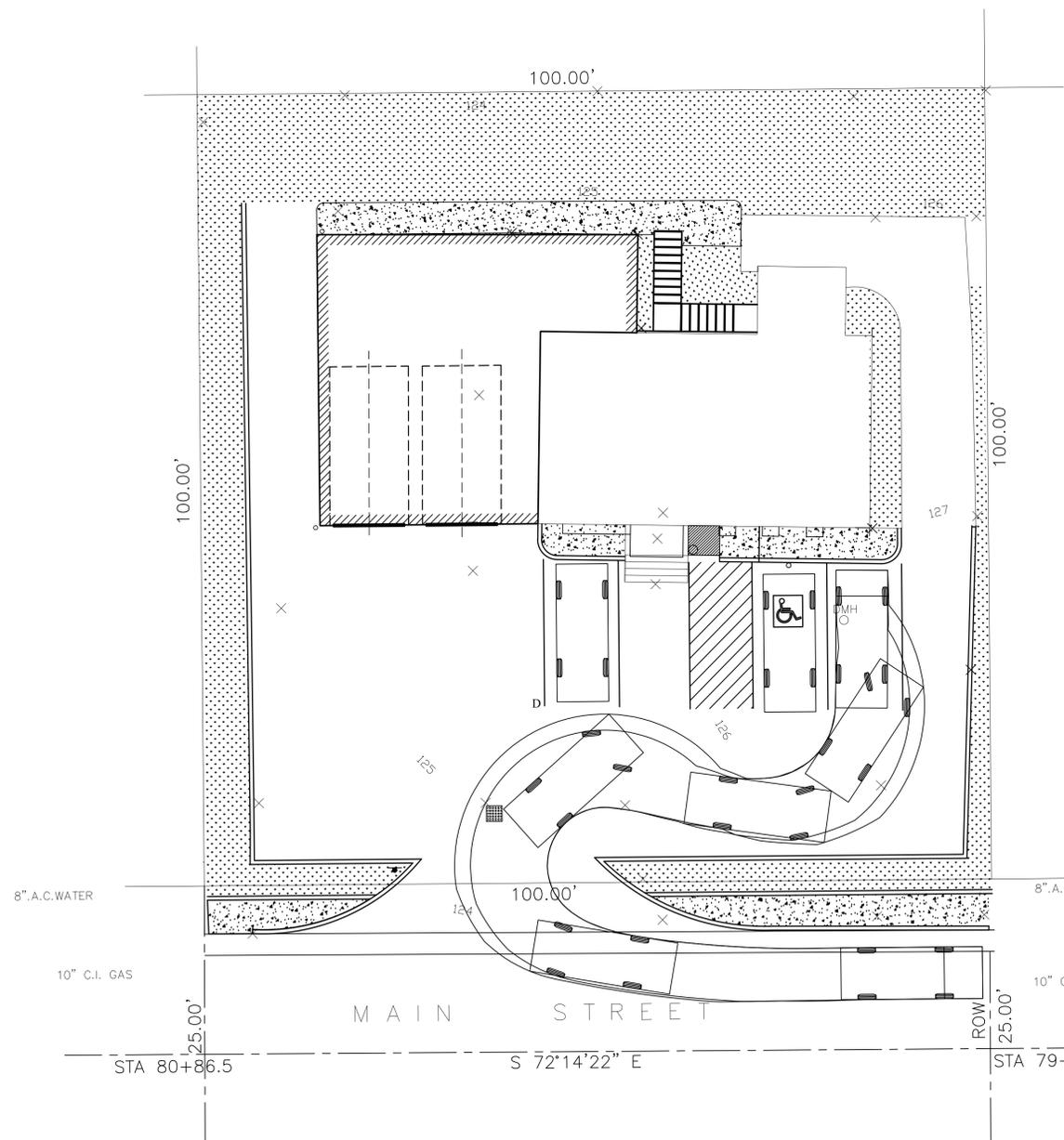
Prepared By:

LEBRA
 THE ENGINEERING & DESIGN, LLC
 Structural Engineering / Building Design
 Civil Engineering / Management Services
 ISRAA ISMAIL, PROFESSIONAL ENGINEER
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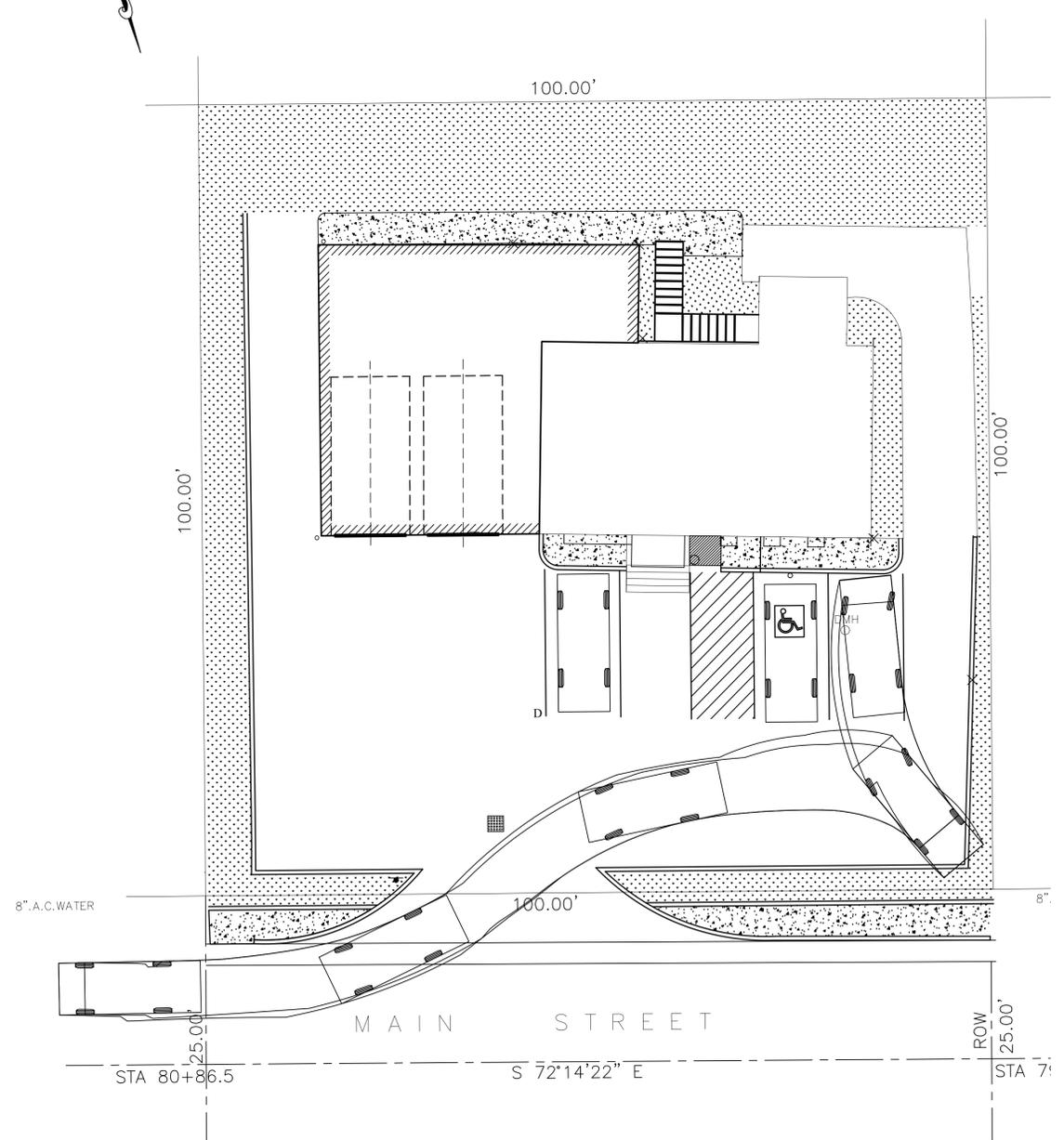
Project Title
PROPOSED PLAN
 485 MAIN STREET
 TEWKSBURY

Sheet Title
LANDSCAPING PLAN

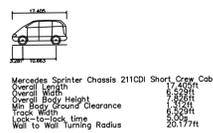
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DRAWN	IAI
CHECKED	GA
FILE NAME	FILE.DWG
PROJECT	H85 MAIN STREET, TEWKSBURY
ISSUE DATE	FEB 08, 2025
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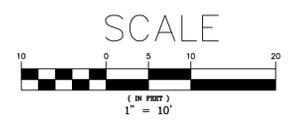
INBOUND MOVEMENT



OUTBOUND MOVEMENT



Mercedes Sprinter Chassis 2110DI Short_Crew_Cab
 Overall Length 21'0"
 Overall Width 7'6"
 Overall Body Height 8'6"
 Min Body Ground Clearance 6"5"
 Top-to-Track Rise 2'0"
 Wall-to-Wall Turning Radius 20'7"7"



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2		
1		

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Project Title
 PERMIT PLAN
 485 MAIN STREET
 TEWKSBURY

Sheet Title
 VEHICLE INBOUND
 & OUTBOUND
 MOVEMENT

SCALE 1"=10'
 DRAWN IAI
 CHECKED GA
 FILE NAME FILE.DWG
 PROJECT 485 MAIN STREET, TEWKSBURY
 ISSUE DATE JUNE 24, 2025
 JOB NO. JOB NUMBER