# Site Plans

Issued for Local Approvals

Date Issued June 23, 2025

Latest Issue July 31, 2025

Nashoba
Satellite
Emergency
Facility

490 Main Street Groton, MA

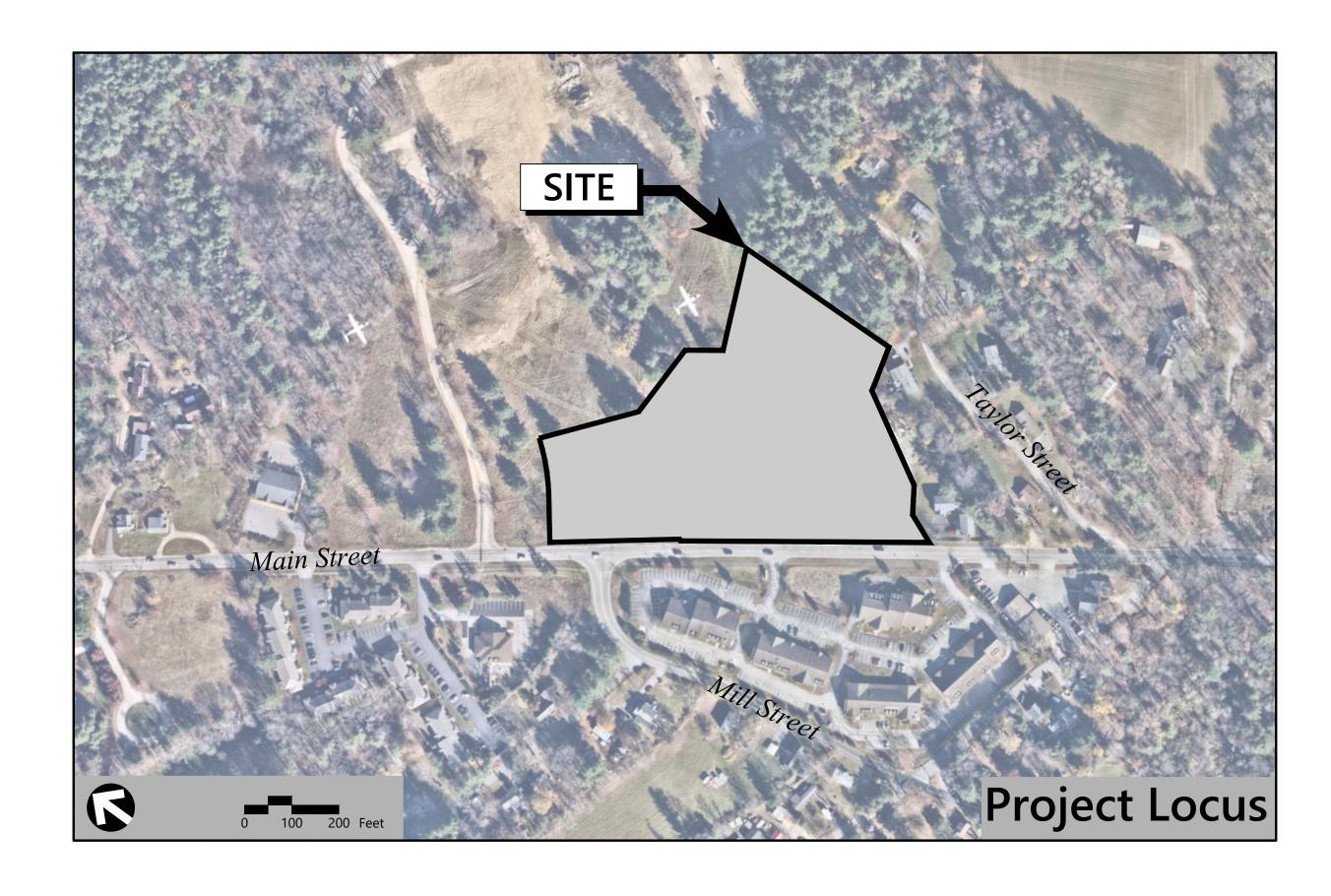
UMass Memorial Health Care, Inc.
Hahnemann Campus - Grosvenor Building
281 Lincoln Street
Worcester, MA 01605

**Parcel ID's:** 216-96, 216-98, & 216-99

# **Parking Summary Chart**

CRITERIA) OR 10 SPACES (MAX. CRITERIA)

				R	equire	ed	Provided
Current Project				57	7 - 95 Spa	ces	74 Spaces
Current Project + Future Projec	t		~~~	136	5 - 252 Sp	aces	145 Spaces
Land Banked Spaces		*			-		10 Spaces
Parking Requiremen	ts: Current Project N	/linin	num				
OUT-PATIENT CLINICS	19 TREATMENT AREAS	Х	3 SPACES	S		=	57 SPAC
			TOTA	L PARKING	REQUIRE	D =	57 SPAC
Parking Requirement OUT-PATIENT CLINICS	19 TREATMENT AREAS	Х	5 SPACES	S		=	95 SPAC
			5 SPACES	S L PARKING	REQUIRE		95 SPAC 95 SPAC
OUT-PATIENT CLINICS	19 TREATMENT AREAS PER 1,000 SF OUT-PATIENT CL	X INIC AF	5 SPACE: TOTA REA OF 3 SP	L PARKING ACES (MIN.		D =	
OUT-PATIENT CLINICS  * MINIMUM REQUIREMENT SPACES (MAX. CRITERIA)	19 TREATMENT AREAS PER 1,000 SF OUT-PATIENT CL	x INIC AF	5 SPACE: TOTA REA OF 3 SP	L PARKING ACES (MIN.	CRITERIA	D =	95 SPAC
* MINIMUM REQUIREMENT SPACES (MAX. CRITERIA)  Parking Requirement	19 TREATMENT AREAS PER 1,000 SF OUT-PATIENT CL ts: Potential Future	x INIC AF Proje	5 SPACE: TOTA REA OF 3 SP	ACES (MIN.  mum  1,000 SF	CRITERIA	D =	95 SPAC
* MINIMUM REQUIREMENT SPACES (MAX. CRITERIA)  Parking Requirement	19 TREATMENT AREAS  PER 1,000 SF OUT-PATIENT CL  ts: Potential Future  15,700 SF x	X INIC AF Proje 5 SF TOTA	5 SPACES TOTA REA OF 3 SP  PACES / LL PARKING	ACES (MIN.  mum  1,000 SF  REQUIRED	CRITERIA	D = A) OR 5 79 SPACE	95 SPAC
OUT-PATIENT CLINICS  * MINIMUM REQUIREMENT SPACES (MAX. CRITERIA)  Parking Requirement MEDICAL OFFICE BUILDING	19 TREATMENT AREAS  PER 1,000 SF OUT-PATIENT CL  ts: Potential Future  15,700 SF x	X Proje 5 SF TOTA Proje 10 S	5 SPACES TOTA REA OF 3 SP  PACES / LL PARKING	mum  1,000 SF  mum  1,000 SF	CRITERIA  = 7  = 7	D = A) OR 5 79 SPACE	95 SPAC



Shee	t Index	
Nø.	Drawing_Title	Latest Issue
C101	Legend and General Notes	July 31, 2025
C201	Project Delineation Plan	July 31, 2025
C301	Erosion and Sedimentation Control Plan	July 31, 2025
C401	Layout and Materials Plan	July 31, 202
C402	Fire Access and Circulation Plan	July 31, 2025
C501	Grading and Drainage Plan	July 31, 202
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C702	Aerial Site Plan and Approach & Departure Plan	July 31, 202
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L101	Planting Plan	July 31, 202
L102	Planting Enlargement Plan	July 31, 202
L201	Planting Details	July 31, 202
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	Refer	ence Drawings	
<u> </u>	No.	Drawing Title	Latest Issue
$\left\langle \right\rangle$	SV101	Existing Conditions	June 18, 2025
5)		Preliminary Plan of Land	June 19, 2025
5	A101-PZ	First Floor Plan - PZ	June 23, 2025
5)	A102-PZ	First Floor Plan With Potential Future Project	June 23, 2025
5(	A301-PZ	Exterior Elevations - PZ	July 31, 2025
5	A302-PZ	Exterior Elevations - PZ With Potential Future Project	June 23, 2025
~	SL101	Site Lighting Photometric Calculation	July 31, 2025
5 ( 5 )			<b>,</b> , , , , ,

# **Zoning Summary Chart**

<u> </u>		
Zoning District(s):	General Business (GB) None	
Overlay District(s):		
Zoning Regulation Requirements	Required <sup>1</sup>	Provided
MINIMUM LOT AREA	0 <sup>2</sup>	6.6 Acres <sup>3</sup>
FRONTAGE	0 <sup>2</sup>	800 Feet
FRONT YARD SETBACK (MAX.)	20 Feet	99.3 Feet <sup>4</sup>
SIDE YARD SETBACK (MIN.)	15 Feet	96.9 Feet <sup>5</sup>
REAR YARD SETBACK (MIN.)	15 Feet	105.6 Feet
MAXIMUM BUILDING HEIGHT	35 Feet / 3 Stories	34.8 Feet / 1 Story
MAXIMUM IMPERVIOUS	50 %	45 %

- 1. Zoning regulation requirements as specified in the Zoning Bylaw of the Town of Groton, Massachusetts, Chapter 218, amended through 5-01-2021.
- Per Note 2 Section 218-6.2, no minimum for nonresidential uses.
- The lot proposes to utilize all of parcels 216-98 and 216-99 and a portion of parcel 216-96 as generally shown on the draft Approval Not Required Plan attached hereto. The Applicant proposes to finalize the Approval Not Required plan should the project proposed herein be approved.
- 4. Per Note 6 to Section 218-6.2, maximum and minimum setbacks may be waived by special permit from the Planning Board, where it finds such waiver to be harmonious with the intent of the district and the character and scale of the building's location. The Applicant is pursuing a waiver to the front yard setback maximum.
- 5. Side yard setback identified here is to the nearest point on the building. There may be other permanent features on the site closer than this including fences, walls, and utility infrastructure.



SLAM 80 Glastonbury Boulevard Glastonbury, CT 06033-4410 860.657.8077

**Architect** 

# Surveyor

Dillis & Roy 1 Main Street, Suite 1 Lunenburg, MA 01462 978.779.6091

Wetland Scientist

Oxbow Associates Inc. P.O. Box 971 Acton, MA 01720 978.929.9058

#### **General Contractor**

The Whiting-Turner Contracting Company 300 East Joppa Road Baltimore, MD 21286 410.821.1100

Worcester, MA 01608

508.752.1001

#### \_\_\_\_

Consulting Engineering Services, LLC 128 Carnegie Row, Suite 104 Norwood, MA 02062 617.261.7161

APPROVED BY THE GROTON PLANNING BOARD

DATE:
SIGNATURES:



IN ACCORDANCE WITH OSHA STANDARDS AND LOCAL REQUIREMENTS.

PAVEMENTS, WALKS, ETC.) SHALL RECEIVE SIX (6) INCHES LOAM AND SEED.

REGULATIONS (WHICHEVER ARE MORE STRINGENT).

OPERATIONS REQUIRED UP TO SUBGRADE ELEVATIONS.

STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.

SUBSEQUENT ACTION CAN BE TAKEN.

ADDITIONAL COST TO OWNER.

1. CONTRACTOR SHALL NOTIFY "DIG-SAFE" (1-888-344-7233) AT LEAST 72 HOURS BEFORE EXCAVATING

2. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SECURITY AND JOB SAFETY. CONSTRUCTION ACTIVITIES SHALL BE

CONFORMANCE WITH THE FEDERAL AMERICANS WITH DISABILITIES ACT AND WITH STATE AND LOCAL LAWS AND

3. ACCESSIBLE ROUTES, PARKING SPACES, RAMPS, SIDEWALKS AND WALKWAYS SHALL BE CONSTRUCTED IN

4. AREAS DISTURBED DURING CONSTRUCTION AND NOT RESTORED WITH IMPERVIOUS SURFACES (BUILDINGS,

6. WORK WITHIN THE LOCAL RIGHTS-OF-WAY SHALL CONFORM TO LOCAL MUNICIPAL STANDARDS. WORK WITHIN

INDICATED ON THE DRAWINGS, IN THE SPECIFICATIONS, AND IN THE CONTRACT DOCUMENTS. DO NOT CLOSE

STATE RIGHTS-OF-WAY SHALL CONFORM TO THE LATEST EDITION OF THE STATE HIGHWAY DEPARTMENTS

7. UPON AWARD OF CONTRACT, CONTRACTOR SHALL MAKE NECESSARY CONSTRUCTION NOTIFICATIONS AND APPLY FOR AND OBTAIN NECESSARY PERMITS, PAY FEES, AND POST BONDS ASSOCIATED WITH THE WORK

OR OBSTRUCT ROADWAYS, SIDEWALKS, AND FIRE HYDRANTS, WITHOUT APPROPRIATE PERMITS.

8. TRAFFIC SIGNAGE AND PAVEMENT MARKINGS SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC

RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.

11. CONTRACTOR SHALL PREVENT DUST, SEDIMENT, AND DEBRIS FROM EXITING THE SITE AND SHALL BE

12. DAMAGE RESULTING FROM CONSTRUCTION LOADS SHALL BE REPAIRED BY THE CONTRACTOR AT NO

RESPONSIBLE FOR CLEANUP, REPAIRS AND CORRECTIVE ACTION IF SUCH OCCURS.

OWNER HAS ALSO FILED A NOTICE OF INTENT WITH THE EPA.

9. AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE

10. IN THE EVENT THAT SUSPECTED CONTAMINATED SOIL, GROUNDWATER, AND OTHER MEDIA ARE ENCOUNTERED DURING EXCAVATION AND CONSTRUCTION ACTIVITIES BASED ON VISUAL, OLFACTORY, OR OTHER EVIDENCE, THE

THE MATERIAL, AND SHALL NOTIFY THE OWNER IMMEDIATELY SO THAT THE APPROPRIATE TESTING AND

13. CONTRACTOR SHALL CONTROL STORMWATER RUNOFF DURING CONSTRUCTION TO PREVENT ADVERSE IMPACTS

CONTRACTOR IS TO FILE A CGP NOTICE OF INTENT WITH THE EPA AND PREPARE A STORMWATER POLLUTION

PREVENTION PLAN IN ACCORDANCE WITH THE NPDES REGULATIONS. CONTRACTOR SHALL CONFIRM THE

TO OFF SITE AREAS, AND SHALL BE RESPONSIBLE TO REPAIR RESULTING DAMAGES, IF ANY, AT NO COST TO

14. THIS PROJECT DISTURBS MORE THAN ONE ACRE OF LAND AND FALLS WITHIN THE NPDES CONSTRUCTION

GENERAL PERMIT (CGP) PROGRAM AND EPA JURISDICTION. PRIOR TO THE START OF CONSTRUCTION

CONTRACTOR SHALL STOP WORK IN THE VICINITY OF THE SUSPECT MATERIAL TO AVOID FURTHER SPREADING OF

5. WITHIN THE LIMITS OF THE BUILDING FOOTPRINT, THE SITE CONTRACTOR SHALL PERFORM EARTHWORK

Notes

General

NASHOBA SATELLITE **EMERGENCY** 

490 Main Street Groton, MA 01450

Number	Date	Issued For
1	7/31/25	Response to Peer Review Comments

LEGEND AND GENERAL

**Drawing Number** 

06/23/2025 N.T.S.

Proj. Number

25082.00

	<b>Abbreviations</b>

Exist.	Prop.		Exist.	Prop.	
		PROPERTY LINE			CONCRETE
		PROJECT LIMIT LINE			HEAVY DUTY PAVEMENT
		RIGHT-OF-WAY/PROPERTY LINE			BUILDINGS
		EASEMENT			RIPRAP
		BUILDING SETBACK		1021201 1/2/2	CONSTRUCTION EXIT
		PARKING SETBACK		<u> </u>	
10+00	10+00	BASELINE	27.35 TC×	27.35 TC×	TOP OF CURB ELEVATION
,		CONSTRUCTION LAYOUT	26.85 BC×	26.85 BC×	BOTTOM OF CURB ELEVATION
		ZONING LINE	132.75 ×	132.75 ×	SPOT ELEVATION
		TOWN LINE	45.0 TW 38.5 BW	45.0 TW 38.5 BW	TOP & BOTTOM OF WALL ELEVATION
		TOWN LINE	_	<b>+</b>	BORING LOCATION
		LIMIT OF DISTURBANCE			TEST PIT LOCATION
<u> </u>		WETLAND LINE WITH FLAG	MW	→ MW	MONITORING WELL
		FLOODPLAIN			
DI 05		BORDERING LAND SUBJECT	———UD——— 12"D	——UD—— 12"D»	UNDERDRAIN
BLSF		TO FLOODING	12 0		DRAIN
BZ		WETLAND BUFFER ZONE	6"RD	6"RD»	ROOF DRAIN
NDZ		NO DISTURB ZONE	12"S	12"S	SEWER
200'RA—		200' RIVERFRONT AREA	FM	<u>FM</u>	FORCE MAIN
			—— OHW ——	——— OHW ———	OVERHEAD WIRE
		GRAVEL ROAD	6"W	6"W	WATER
<u>EOP</u>	<u>EOP</u>	EDGE OF PAVEMENT	4"FP	——4"FP——	FIRE PROTECTION
BB	BB	BITUMINOUS BERM		2"DW	DOMESTIC WATER
BC	BC	BITUMINOUS CURB	3"G	———G———	GAS
CC	CC	CONCRETE CURB	——E——	——Е—	ELECTRIC
	CG	CURB AND GUTTER	STM	——STM——	STEAM
CC	ECC	EXTRUDED CONCRETE CURB	——т—	—т—	TELEPHONE
CC	<u>MCC</u>	MONOLITHIC CONCRETE CURB	——FA——	——FA——	FIRE ALARM
CC	PCC	PRECAST CONC. CURB		CATV	CABLE TV
SGE	SGE	SLOPED GRAN. EDGING			
VGC	VGC	VERT. GRAN. CURB			CATCH BASIN CONCENTRIC
		LIMIT OF CURB TYPE			CATCH BASIN ECCENTRIC
		SAWCUT			DOUBLE CATCH BASIN CONCENTRIC
17	• 1		_		DOUBLE CATCH BASIN ECCENTRIC
(///////		BUILDING	<b>===</b>	<b>==</b>	GUTTER INLET
K	EN	BUILDING ENTRANCE	(1)	left	DRAIN MANHOLE CONCENTRIC
	=	LOADING DOCK	(1)		DRAIN MANHOLE ECCENTRIC
_N	<b>]</b> LD	BOLLARD	=TD=		TRENCH DRAIN
•	•		L	ŗ	PLUG OR CAP
D	D	DUMPSTER PAD	CO	co	CLEANOUT
0	•	SIGN	<b>&gt;</b>	<b>&gt;</b>	FLARED END SECTION
<u> </u>	<b>=</b>	DOUBLE SIGN		$\checkmark$	HEADWALL
т т	т т	STEEL GUARDRAIL			
			\$	•	SEWER MANHOLE CONCENTRIC
		WOOD GUARDRAIL	<u>(S)</u>		SEWER MANHOLE ECCENTRIC
		DATU	CS ⊚	ĈS <b>⊚</b>	CURB STOP & BOX
		PATH	₩V	₩V •	
$\sim$	<b></b>	TREE LINE	TSV	TSV	WATER VALVE & BOX
<del>*************************************</del>	<del>-x</del> -	WIRE FENCE	<b>→</b>	<b>→</b>	TAPPING SLEEVE, VALVE & BOX
<b>——</b>	•	FENCE	HYD	HYD <b>⊙</b>	FIRE DEPARTMENT CONNECTION
)—————	-	STOCKADE FENCE	WM	WM	FIRE HYDRANT
XXXXXX		STONE WALL	PIV	PIV	WATER METER
		RETAINING WALL	<ul><li>•</li></ul>	<b>©</b>	POST INDICATOR VALVE
		STREAM / POND / WATER COURSE		<u> </u>	WATER WELL
		DETENTION BASIN	GG <b>○</b>	GG	GAS GATE
	••••••	HAY BALES	GM ⊡	GM ⊡	GAS METER
×	——×——	SILT FENCE	E	<b>●</b> EMH	ELECTRIC MANHOLE
<pre></pre>	· C::::::> ·	SILT SOCK / STRAW WATTLE	EM	EM	
4	4	MINOR CONTOUR	<b>-</b> □	<b>.</b>	ELECTRIC METER
- —20— —	20	MAJOR CONTOUR	\$	<b>*</b>	LIGHT POLE
		INITOOK COINTOOK		● <sup>TMH</sup>	TELEPHONE MANHOLE
(10)	10	PARKING COUNT	T	T	TRANSFORMER PAD
	<u>(C10)</u>	COMPACT PARKING STALLS		•	
DYL	DYL	DOUBLE YELLOW LINE	-0-	→	UTILITY POLE
SL	SL	STOP LINE	0-	•	GUY POLE
			HH _	, HH	GUY WIRE & ANCHOR
		CROSSWALK	•	HH © DD	HAND HOLE
		ACCESSIBLE CURB RAMP	PB ⊡	PB ⊡	PULL BOX
Ĕ.	گِ				

VAN-ACCESSIBLE PARKING

MATCHLIN

Legend

Abbreviations			
ABANDON			

۱b	brevia	ations
	General	
	ABAN	ABANDON
	ACR	ACCESSIBLE CURB RAMP
	ADJ	ADJUST
	APPROX	APPROXIMATE
	BIT	BITUMINOUS
	BS	BOTTOM OF SLOPE
	BWLL	BROKEN WHITE LANE LINE
	CONC	CONCRETE
	DYCL	DOUBLE YELLOW CENTER LINE
	EL	ELEVATION
	ELEV	ELEVATION
	EV	ELECTRIC VEHICLE CHARGING SPACE
	EX	EXISTING
	FDN	FOUNDATION
	FFE	FIRST FLOOR ELEVATION
	GRAN	GRANITE
	GTD	GRADE TO DRAIN
	LA	LANDSCAPE AREA
	LOD	LIMIT OF DISTURBANCE
	MAX	MAXIMUM
	MIN	MINIMUM
	NIC	NOT IN CONTRACT
	NTS	NOT TO SCALE
	PERF	PERFORATED
	PROP	PROPOSED

REMOVE AND DISPOSE

DRAIN MANHOLE

**DUCTILE IRON PIPE** 

FORCE MAIN

**GUTTER INLET** 

GREASE TRAP

HEADWALL

LIGHT POLE

**INVERT ELEVATION** 

INVERT ELEVATION

METAL END SECTION

PAVED WATER WAY

RIM ELEVATION

RIM ELEVATION

SEWER MANHOLE

UNDERGROUND

UTILITY POLE

POST INDICATOR VALVE

POLYVINYLCHLORIDE PIPE

REINFORCED CONCRETE PIPE

TAPPING SLEEVE, VALVE AND BOX

HYDRANT

FLARED END SECTION

FRAME AND GRATE

FRAME AND COVER

HIGH DENSITY POLYETHYLENE PIPE

CAST IRON PIPE

CONDUIT

COND

KEIVIOVE	AND DISPOSE		
REMOVE	E AND RESET	1.	THE LOCATIONS, SIZES, AND TYPES OF EXISTING UTILITIES ARE SHOWN AS AN APPROXIMATE REPRESENTATION ONLY. THE OWNER OR ITS REPRESENTATIVE(S) HAVE NOT INDEPENDENTLY VERIFIED THIS INFORMATION AS
SOLID W	/HITE EDGE LINE		SHOWN ON THE PLANS. THE UTILITY INFORMATION SHOWN DOES NOT GUARANTEE THE ACTUAL EXISTENCE, SERVICEABILITY, OR OTHER DATA CONCERNING THE UTILITIES, NOR DOES IT GUARANTEE AGAINST THE
SOLID W	/HITE LANE LINE		POSSIBILITY THAT ADDITIONAL UTILITIES MAY BE PRESENT THAT ARE NOT SHOWN ON THE PLANS. PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY AND DETERMINE THE
TOP OF S	SLOPE		EXACT LOCATIONS, SIZES, AND ELEVATIONS OF THE POINTS OF CONNECTIONS TO EXISTING UTILITIES AND, SHALL CONFIRM THAT THERE ARE NO INTERFERENCES WITH EXISTING UTILITIES AND THE PROPOSED UTILITY ROUTES, INCLUDING ROUTES WITHIN THE PUBLIC RIGHTS OF WAY.
TYPICAL			INCLUDING ROUTES WITHIN THE FUBLIC RIGHTS OF WAT.
у		2.	WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, OR EXISTING CONDITIONS DIFFER FROM THOSE SHOWN SUCH THAT THE WORK CANNOT BE COMPLETED AS INTENDED, THE LOCATION, ELEVATION, AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE
САТСН В	BASIN		CONTRACTOR, AND THE INFORMATION FURNISHED IN WRITING TO THE OWNER'S REPRESENTATIVE FOR THE RESOLUTION OF THE CONFLICT AND CONTRACTOR'S FAILURE TO NOTIFY PRIOR TO PERFORMING ADDITIONAL
CORRUG	GATED METAL PIPE		WORK RELEASES OWNER FROM OBLIGATIONS FOR ADDITIONAL PAYMENTS WHICH OTHERWISE MAY BE WARRANTED TO RESOLVE THE CONFLICT.
CLEANO	UT	3.	SET CATCH BASIN RIMS, AND INVERTS OF SEWERS, DRAINS, AND DITCHES IN ACCORDANCE WITH ELEVATIONS ON
DOUBLE	CATCH BASIN		THE GRADING AND UTILITY PLANS.

# 4. RIM ELEVATIONS FOR DRAIN AND SEWER MANHOLES, WATER VALVE COVERS, GAS GATES, ELECTRIC AND TELEPHONE PULL BOXES, AND MANHOLES, AND OTHER SUCH ITEMS, ARE APPROXIMATE AND SHALL BE SET/RESET A. PAVEMENTS AND CONCRETE SURFACES: FLUSH

- B. ALL SURFACES ALONG ACCESSIBLE ROUTES: FLUSH C. LANDSCAPE, LOAM AND SEED, AND OTHER EARTH SURFACE AREAS: ONE INCH ABOVE SURROUNDING
- 5. THE LOCATION, SIZE, DEPTH, AND SPECIFICATIONS FOR CONSTRUCTION OF PROPOSED PRIVATE UTILITY SERVICES SHALL BE INSTALLED ACCORDING TO THE REQUIREMENTS PROVIDED BY, AND APPROVED BY, THE RESPECTIVE UTILITY COMPANY (GAS, TELEPHONE, ELECTRIC, FIRE ALARM, ETC.). FINAL DESIGN LOADS AND LOCATIONS TO BE COORDINATED WITH OWNER AND ARCHITECT.
- 6. CONTRACTOR SHALL MAKE ARRANGEMENTS FOR AND SHALL BE RESPONSIBLE FOR PAYING FEES FOR POLE RELOCATION AND FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE, FIRE ALARM, AND ANY OTHER PRIVATE UTILITIES, WHETHER WORK IS PERFORMED BY CONTRACTOR OR BY THE UTILITIES COMPANY.
- 7. UTILITY PIPE MATERIALS SHALL BE AS FOLLOWS, UNLESS OTHERWISE NOTED ON THE PLAN:
- A. WATER PIPES SHALL BE CLASS 52 DUCTILE IRON (DI)
- B\_SANITARY SEWER PIPES SHALL BE POLYVINYL CHLORIDE (PVC) SEWER PIPE

AREA AND TAPER EARTH TO THE RIM ELEVATION.

- C. STORM DRAINAGE PIPES SHALL BE HIGH DENSITY POLYETHELYNE (HDPE) PIPE D. PIPE INSTALLATION AND MATERIALS SHALL COMPLY WITH THE STATE PLUMBING CODE WHERE
- 8. CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR AND SHALL FURNISH EXCAVATION, INSTALLATION, AND BACKFILL OF ELECTRICAL FURNISHED SITEWORK RELATED ITEMS SUCH AS PULL BOXES, CONDUITS, DUCT BANKS, LIGHT POLE BASES, AND CONCRETE PADS. SITE CONTRACTOR SHALL FURNISH CONCRETE ENCASEMENT OF DUCT BANKS IF REQUIRED BY THE UTILITY COMPANY AND AS INDICATED ON THE
- 9. CONTRACTOR SHALL EXCAVATE AND BACKFILL TRENCHES FOR GAS IN ACCORDANCE WITH GAS COMPANY'S
- 10. ALL DRAINAGE AND SANITARY STRUCTURE INTERIOR DIAMETERS (4' MIN.) SHALL BE DETERMINED BY THE MANUFACTURER BASED ON THE PIPE CONFIGURATIONS SHOWN ON THESE PLANS AND LOCAL MUNICIPAL STANDARDS. FOR MANHOLES THAT ARE 20 FEET IN DEPTH AND GREATER, THE MINIMUM DIAMETER SHALL BE 5

## Layout and Materials

REQUIREMENTS.

- 1. DIMENSIONS ARE FROM THE FACE OF CURB, FACE OF BUILDING, FACE OF WALL, AND CENTER LINE OF PAVEMENT MARKINGS, UNLESS OTHERWISE NOTED.
- 2. CURB RADII ARE THREE (3) FEET UNLESS OTHERWISE NOTED.
- 3. CURBING SHALL BE PORTLAND CEMENT CONCRETE (PCC) CURB WITHIN THE SITE UNLESS OTHERWISE INDICATED ON THE PLANS.
- 4. SEE ARCHITECTURAL DRAWINGS FOR EXACT BUILDING DIMENSIONS AND DETAILS CONTIGUOUS TO THE BUILDING, INCLUDING SIDEWALKS, RAMPS, BUILDING ENTRANCES, STAIRWAYS, UTILITY PENETRATIONS, CONCRETE DOOR PADS, COMPACTOR PAD, LOADING DOCKS, BOLLARDS, ETC.
- 5. PROPOSED BOUNDS AND ANY EXISTING PROPERTY LINE MONUMENTATION DISTURBED DURING CONSTRUCTION SHALL BE SET OR RESET BY A PROFESSIONAL LAND SURVEYOR.
- 6. PRIOR TO START OF CONSTRUCTION, CONTRACTOR SHALL VERIFY EXISTING PAVEMENT ELEVATIONS AT INTERFACE WITH PROPOSED PAVEMENTS, AND EXISTING GROUND ELEVATIONS ADJACENT TO DRAINAGE OUTLETS TO ASSURE PROPER TRANSITIONS BETWEEN EXISTING AND PROPOSED FACILITIES.

# Demolition

- 1. CONTRACTOR SHALL REMOVE AND DISPOSE OF EXISTING MANMADE SURFACE FEATURES WITHIN THE LIMIT OF WORK INCLUDING BUILDINGS, STRUCTURES, PAVEMENTS, SLABS, CURBING, FENCES, UTILITY POLES, SIGNS, ETC. UNLESS INDICATED OTHERWISE ON THE DRAWINGS. REMOVE AND DISPOSE OF EXISTING UTILITIES, FOUNDATIONS AND UNSUITABLE MATERIAL BENEATH AND FOR A DISTANCE OF 10 FEET BEYOND THE PROPOSED BUILDING FOOTPRINT INCLUDING EXTERIOR COLUMNS.
- EXISTING UTILITIES SHALL BE TERMINATED, UNLESS OTHERWISE NOTED, IN CONFORMANCE WITH LOCAL, STATE AND INDIVIDUAL UTILITY COMPANY STANDARD SPECIFICATIONS AND DETAILS. THE CONTRACTOR SHALL COORDINATE UTILITY SERVICE DISCONNECTS WITH THE UTILITY REPRESENTATIVES.
- 3. CONTRACTOR SHALL DISPOSE OF DEMOLITION DEBRIS IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, ORDINANCES AND STATUTES.
- 4 THE DEMOLITION LIMITS DEPICTED IN THE PLANS IS INTENDED TO AID THE CONTRACTOR DURING THE BIDDING AND CONSTRUCTION PROCESS AND IS NOT INTENDED TO DEPICT EACH AND EVERY ELEMENT OF DEMOLITION. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING THE DETAILED SCOPE OF DEMOLITION BEFORE SUBMITTING ITS BID/PROPOSAL TO PERFORM THE WORK AND SHALL MAKE NO CLAIMS AND SEEK NO ADDITIONAL COMPENSATION FOR CHANGED CONDITIONS OR UNFORESEEN OR LATENT SITE CONDITIONS RELATED TO ANY CONDITIONS DISCOVERED DURING EXECUTION OF THE WORK.
- 5. UNLESS OTHERWISE SPECIFICALLY PROVIDED ON THE PLANS OR IN THE SPECIFICATIONS, THE ENGINEER HAS NOT PREPARED DESIGNS FOR AND SHALL HAVE NO RESPONSIBILITY FOR THE PRESENCE, DISCOVERY, REMOVAL, ABATEMENT OR DISPOSAL OF HAZARDOUS MATERIALS, TOXIC WASTES OR POLLUTANTS AT THE PROJECT SITE. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR ANY CLAIMS OF LOSS, DAMAGE, EXPENSE, DELAY, INJURY OR DEATH ARISING FROM THE PRESENCE OF HAZARDOUS MATERIAL AND CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE ENGINEER FROM ANY CLAIMS MADE IN CONNECTION THEREWITH. MOREOVER, THE ENGINEER SHALL HAVE NO ADMINISTRATIVE OBLIGATIONS OF ANY TYPE WITH REGARD TO ANY CONTRACTOR AMENDMENT INVOLVING THE ISSUES OF PRESENCE, DISCOVERY, REMOVAL, ABATEMENT OR DISPOSAL OF ASBESTOS OR OTHER HAZARDOUS MATERIALS.

#### **Erosion Control**

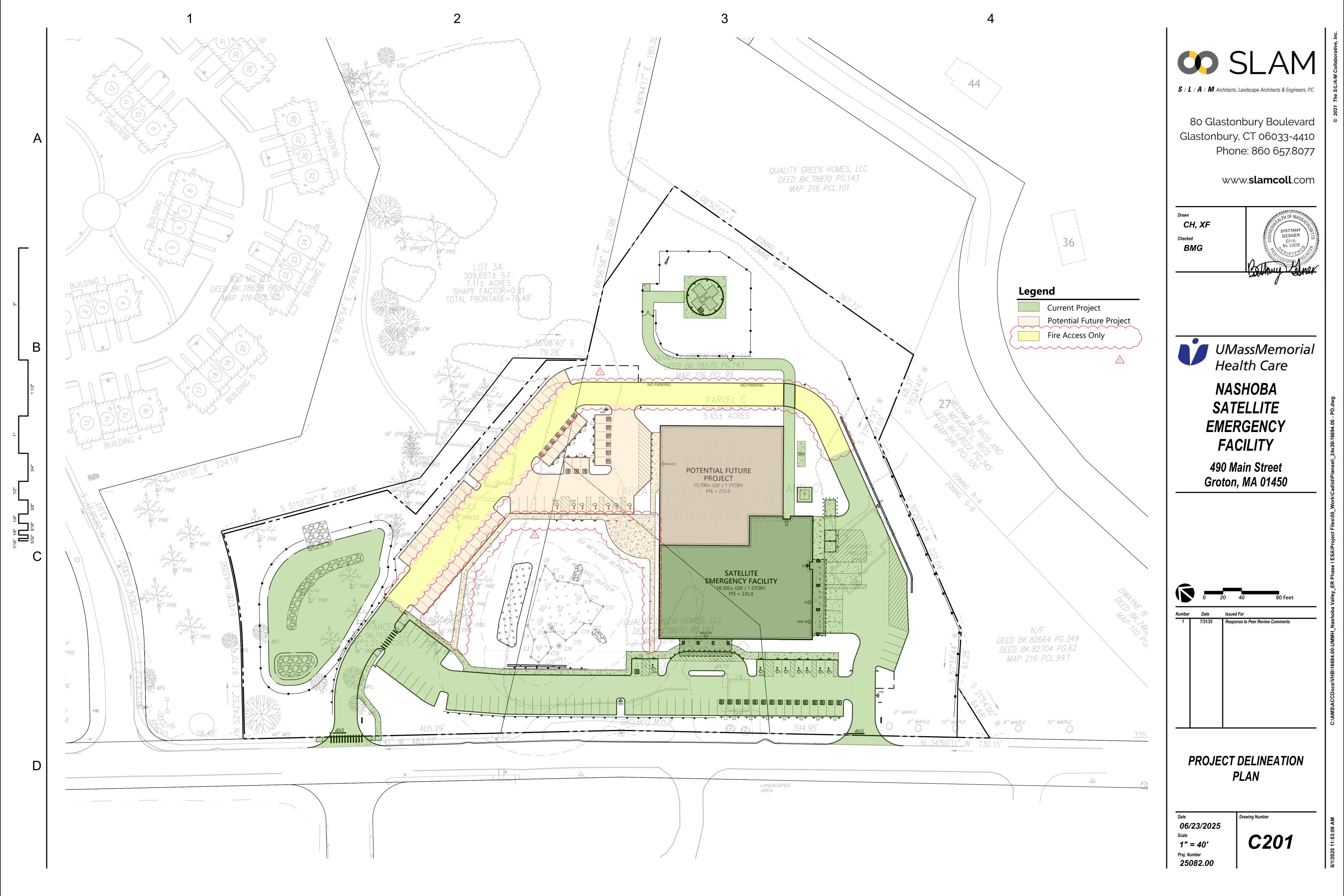
- 1. PRIOR TO STARTING ANY OTHER WORK ON THE SITE, THE CONTRACTOR SHALL NOTIFY APPROPRIATE AGENCIES AND SHALL INSTALL EROSION CONTROL MEASURES AS SHOWN ON THE PLANS AND AS IDENTIFIED IN FEDERAL, STATE, AND LOCAL APPROVAL DOCUMENTS PERTAINING TO THIS PROJECT.
- 2. CONTRACTOR SHALL INSPECT AND MAINTAIN EROSION CONTROL MEASURES ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF THE OCCURRENCE OF A STORM EVENT THAT PRODUCES 0.25 INCHES OR MORE OF RAIN WITHIN A 24-HOUR PERIOD, OR WITHIN 24 HOURS OF A SNOWMELT DISCHARGE FROM A STORM EVENT THAT PRODUCES 3.25 INCHES OR MORE OF SNOW IN A 24-HOUR PERIOD. THE CONTRACTOR SHALL ADDRESS DEFICIENCIES AND MAINTENANCE ITEMS WITHIN TWENTY-FOUR HOURS OF INSPECTION. CONTRACTOR SHALL PROPERLY DISPOSE OF SEDIMENT SUCH THAT IT DOES NOT ENCUMBER OTHER DRAINAGE STRUCTURES AND
- Contractor shall be fully responsible to control construction such that sedimentation shall NOT AFFECT REGULATORY PROTECTED AREAS, WHETHER SUCH SEDIMENTATION IS CAUSED BY WATER, WIND, OR
- 4. CONTRACTOR SHALL PERFORM CONSTRUCTION SEQUENCING SUCH THAT EARTH MATERIALS ARE EXPOSED FOR A MINIMUM OF TIME BEFORE THEY ARE COVERED, SEEDED, OR OTHERWISE STABILIZED TO PREVENT EROSION.
- 5. UPON COMPLETION OF CONSTRUCTION AND ESTABLISHMENT OF PERMANENT GROUND COVER, CONTRACTOR SHALL REMOVE AND DISPOSE OF EROSION CONTROL MEASURES AND CLEAN SEDIMENT AND DEBRIS FROM ENTIRE DRAINAGE AND SEWER SYSTEMS.
- 6. FOR THE LONG-TERM FUNCTION OF THE INFILTRATION BASIN(S)/STRUCTURE(S), CARE SHALL BE TAKEN IN THE INFILTRATION AREAS DURING CONSTRUCTION. THE CONTRACTOR SHALL EMPLOY THE FOLLOWING MINIMUM **BEST MANAGEMENT PRACTICES (BMPs):** 
  - A. INFILTRATION AREAS SHALL NOT BE USED AS TEMPORARY CONSTRUCTION SEDIMENTATION BASINS WITHOUT THE PRIOR APPROVAL OF THE ENGINEER. IF INFILTRATION AREAS ARE USED AS TEMPORARY SEDIMENTATION BASINS DURING CONSTRUCTION, THEN THE SOILS SHALL BE EXCAVATED A MINIMUM OF 2' FROM THE TEMPORARY BASIN BOTTOM TO REMOVE CLOGGED SOILS.
  - B. STORMWATER RUNOFF FROM EXPOSED SURFACES SHALL BE DIRECTED AWAY FROM THE INFILTRATION BASIN(S)/STRUCTURE(S) DURING CONSTRUCTION.
  - C. CONSTRUCTION EQUIPMENT, VEHICULAR TRAFFIC, PARKING OF VEHICLES, AND STOCKPILING OF CONSTRUCTION MATERIALS SHALL BE LOCATED OUTSIDE OF THE INFILTRATION AREAS.
  - D. EXCAVATION FOR CONSTRUCTION OF THE INFILTRATION BASIN(S)/STRUCTURE(S) SHALL ENSURE THAT
  - THE SOIL AT THE BOTTOM OF THE EXCAVATION IS NOT COMPACTED OR SMEARED. E. THE PERIMETER OF THE INFILTRATION AREAS SHALL BE STAKED AND FLAGGED TO PREVENT THE USE OF
  - THE AREA FOR ACTIVITIES THAT MIGHT DAMAGE THE INFILTRATION ABILITY OF THE SYSTEM.
  - F. IF INFILTRATION AREAS ARE USED AS TEMPORARY SEDIMENTATION BASINS DURING CONSTRUCTION, THEN THE SOILS SHALL BE EXCAVATED A MINIMUM OF 2' FROM THE TEMPORARY BASIN BOTTOM TO REMOVE CLOGGED SOILS.

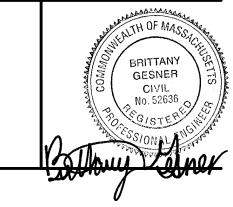
#### **Existing Conditions Information**

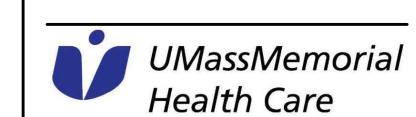
- . BASE PLAN: THE PROPERTY LINES SHOWN WERE DETERMINED BY AN ACTUAL FIELD SURVEY CONDUCTED BY DILLIS AND ROY, AND FROM PLANS OF RECORD. THE TOPOGRAPHY AND PHYSICAL FEATURES ARE BASED ON AN ACTUAL FIELD SURVEY PERFORMED ON THE GROUND BY DILLIS AND ROY, DURING APRIL THROUGH JUNE 2025 AND ARE REPRESENTED ON SHEET SV-1 - EXISTING CONDITIONS BASE PLAN DATED JUNE 23, 2025.
  - A. DELINEATION OF THE WETLANDS AND PLACEMENT OF THE FLAGS WAS PERFORMED BY: OXBOW ASSOCIATES INC.
- B. FLAGS MARKING THE WETLANDS WERE LOCATED BY: OXBOW ASSOCIATES INC. VIA GPS
- 2. TOPOGRAPHY: ELEVATIONS ARE BASED ON NGVD 1988.
- 3. GEOTECHNICAL DATA INCLUDING TEST PIT AND BORING LOCATIONS AND ELEVATIONS WERE OBTAINED FROM GZA IN APRIL 2025 AND AS OBSERVED BY VHB IN JULY 2025. .

### **Document Use**

- 1. THESE PLANS AND CORRESPONDING CADD DOCUMENTS ARE INSTRUMENTS OF PROFESSIONAL SERVICE, AND SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE OTHER THAN FOR WHICH IT WAS CREATED WITHOUT THE EXPRESSED, WRITTEN CONSENT OF VHB. ANY UNAUTHORIZED USE, REUSE, MODIFICATION OR APPLICABLE. CONTRACTOR SHALL COORDINATE WITH LOCAL PLUMBING INSPECTOR PRIOR TO BEGINNING ALTERATION, INCLUDING AUTOMATED CONVERSION OF THIS DOCUMENT SHALL BE AT THE USER'S SOLE RISK WITHOUT LIABILITY OR LEGAL EXPOSURE TO VHB.
  - 2. CONTRACTOR SHALL NOT RELY SOLELY ON ELECTRONIC VERSIONS OF PLANS, SPECIFICATIONS, AND DATA FILES THAT ARE OBTAINED FROM THE DESIGNERS, BUT SHALL VERIFY LOCATION OF PROJECT FEATURES IN ACCORDANCE WITH THE PAPER COPIES OF THE PLANS AND SPECIFICATIONS THAT ARE SUPPLIED AS PART OF THE CONTRACT DOCUMENTS.
  - 3. SYMBOLS AND LEGENDS OF PROJECT FEATURES ARE GRAPHIC REPRESENTATIONS AND ARE NOT NECESSARILY SCALED TO THEIR ACTUAL DIMENSIONS OR LOCATIONS ON THE DRAWINGS. THE CONTRACTOR SHALL REFER TO THE DETAIL SHEET DIMENSIONS, MANUFACTURERS' LITERATURE, SHOP DRAWINGS AND FIELD MEASUREMENTS OF SUPPLIED PRODUCTS FOR LAYOUT OF THE PROJECT FEATURES.

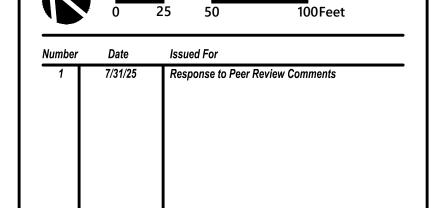






NASHOBA SATELLITE **EMERGENCY FACILITY** 

490 Main Street Groton, MA 01450



**EROSION AND** SEDIMENTATION CONTROL **PLAN** 

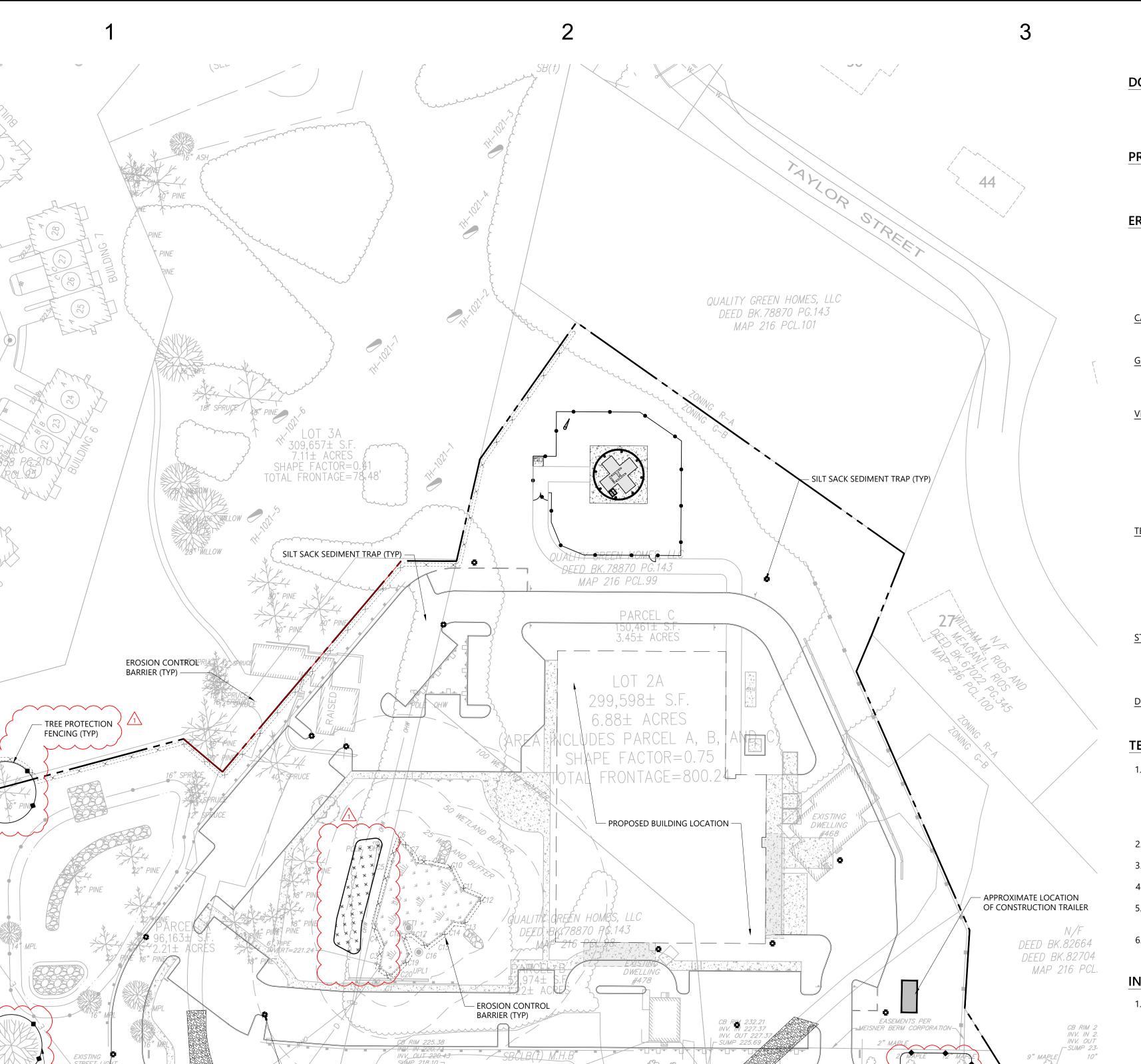
06/23/2025

1" = 50'

Proj. Number 25082.00

rawing Number

C301



SILT SACK SEDIMENT EET

INV IN-12"PVC=213.483 INV IN-8"PVC=213.483

BY SITE CONTRACTOR

STABILIZED CONSTRUCTION EXIT (TYP)

-FINAL LOCATION TO BE DETERMINED

PUBLIC ~ 50' WIDÉ ~ STATE LAYOUT 1901)

SMH RIM 227.85

CL TROUGH INV. 221.46

OP INV. 212.27

PVC INV. 209.38 TROUGH INV. 208.

- TREE PROTECTION

FENCING (TYP)

#### **DOCUMENT USE**

THIS BASE PLAN ILLUSTRATES THE MINIMUM PERIMETER EROSION & SEDIMENTATION CONTROLS. THE SWPPP OPERATOR SHALL UPDATE THIS PLAN THROUGHOUT THE DURATION OF CONSTRUCTION TO SHOW THE LOCATIONS OF PROPOSED/CONSTRUCTED E&S CONTROLS DEEMED NECESSARY TO MEET THE REQUIREMENTS OF THE NPDES CGP.

#### PROJECT E&S NARRATIVE

THE PROJECT DISTURBANCE EXCEEDS 1 ACRE THEREFORE IS SUBJECT TO THE REQUIREMENTS OF THE NPDES CONSTRUCTION GENERAL PERMIT. A SWPPP WILL BE SUBMITTED BEFORE LAND DISTURBANCE BEGINS. REFER TO THE STORMWATER MANAGEMENT REPORT FOR MORE INFORMATION.

#### **EROSION AND SEDIMENTATION CONTROL TECHNIQUES**

THE EROSION AND SEDIMENTATION CONTROLS SHOWN HEREON ARE PERIMETER MEASURES ONLY AND ARE PROVIDED AS A STARTING POINT FOR CONTRACTOR'S STORMWATER POLLUTION PREVENTION PLAN (SWPPP). THE CONTRACTOR IS REQUIRED TO PROVIDE ADDITIONAL INTERIM EROSION AND SEDIMENTATION CONTROLS, INCLUDING BUT NOT LIMITED TO THOSE LISTED BELOW. THE CONTRACTOR SHALL MANAGE EROSION AND SEDIMENTATION DURING CONSTRUCTION TO PREVENT IMPACTS TO RESOURCE AREAS, ROADWAYS, AND ABUTTING PROPERTIES. THE CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN THE EROSION AND SEDIMENTATION CONTROLS THROUGHOUT THE DURATION OF CONSTRUCTION.

NEWLY CONSTRUCTED AND EXISTING CATCH BASINS WILL BE PROTECTED WITH SILT SACKS THROUGHOUT CONSTRUCTION

#### GRAVEL AND CONSTRUCTION ENTRANCE/EXIT

A TEMPORARY CRUSHED-STONE CONSTRUCTION ENTRANCE/EXIT WILL BE CONSTRUCTED. A CROSS SLOPE WILL BE PLACED IN THE ENTRANCE TO

#### **VEGETATIVE SLOPE STABILIZATION**

STABILIZATION OF OPEN SOIL SURFACES WILL BE IMPLEMENTED WITHIN 14 DAYS AFTER GRADING OR CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, UNLESS THERE IS SUFFICIENT SNOW COVER TO PROHIBIT IMPLEMENTATION. VEGETATIVE SLOPE STABILIZATION WILL BE USED TO MINIMIZE EROSION ON SLOPES. ANNUAL GRASSES, SUCH AS ANNUAL RYE, WILL BE USED TO ENSURE RAPID GERMINATION AND PRODUCTION OF ROOTMASS. PERMANENT STABILIZATION WILL BE COMPLETED WITH THE PLANTING OF PERENNIAL GRASSES OR LEGUMES. ESTABLISHMENT OF TEMPORARY AND PERMANENT VEGETATIVE COVER MAY BE ESTABLISHED BY HYDRO-SEEDING OR SODDING. A SUITABLE TOPSOIL, GOOD SEEDBED PREPARATION, AND ADEQUATE LIME, FERTILIZER AND WATER WILL BE PROVIDED FOR EFFECTIVE ESTABLISHMENT OF THESE VEGETATIVE STABILIZATION METHODS. MULCH WILL ALSO BE USED AFTER PERMANENT SEEDING TO PROTECT SOIL FROM THE IMPACT OF FALLING RAIN AND TO INCREASE THE CAPACITY OF THE SOIL TO ABSORB WATER.

#### TEMPORARY SEDIMENT BASINS

TEMPORARY SEDIMENT BASINS WILL BE DESIGNED EITHER AS EXCAVATIONS OR BERMED STORMWATER DETENTION STRUCTURES (DEPENDING ON GRADING) THAT WILL RETAIN RUNOFF FOR A SUFFICIENT PERIOD OF TIME TO ALLOW SUSPENDED SOIL PARTICLES TO SETTLE OUT PRIOR TO DISCHARGE. THESE TEMPORARY BASINS WILL BE LOCATED BASED ON CONSTRUCTION NEEDS AS DETERMINED BY THE CONTRACTOR AND OUTLET DEVICES WILL BE DESIGNED TO CONTROL VELOCITY AND SEDIMENT. POINTS OF DISCHARGE FROM SEDIMENT BASINS WILL BE STABILIZED TO MINIMIZE EROSION. AT A MINIMUM, SEDIMENTATION BASINS SHALL BE DESIGNED AND CONSTRUCTED TO PROVIDE STORAGE FOR THE VOLUME OF RUNOFF GENERATED FROM A 2-YR, 24-HR DESIGN STORM, OR AT LEAST 3,600 CUBIC FEET OF STORAGE PER ACRE DRAINING TO THE

SIDE-SLOPES OF STOCKPILED MATERIAL SHALL BE NO STEEPER THAN 2:1. STOCKPILES NOT USED WITHIN 30 DAYS NEED TO BE SEEDED AND MULCHED IMMEDIATELY AFTER FORMATION OF THE STOCKPILE. STRAW BALES AND SILT FENCE ARE TO BE PLACED AROUND THE STOCKPILE AREA APPROXIMATELY 10 FEET FROM THE TOE OF SLOPE

#### **DUST CONTROL**

PERIODICALLY MOISTEN EXPOSED SURFACES ON UNPAVED TRAVELWAYS TO KEEP THE TRAVELWAY DAMP AND REDUCE DUST.

#### TEMPORARY EROSION AND SEDIMENTATION CONTROL MAINTENANCE (THROUGHOUT CONSTRUCTION)

- 1. CONTRACTOR SHALL INSPECT AND MAINTAIN EROSION CONTROL MEASURES ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF THE OCCURRENCE OF A STORM EVENT THAT PRODUCES 0.25 INCHES OR MORE OF RAIN WITHIN A 24-HOUR PERIOD, OR WITHIN 24 HOURS OF A SNOWMELT DISCHARGE FROM A STORM EVENT THAT PRODUCES 3.25 INCHES OR MORE OF SNOW WITHIN A 24-HOUR PERIOD, AS REQUIRED PER THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP). THE CONTRACTOR SHALL ADDRESS DEFICIENCIES AND MAINTENANCE ITEMS WITHIN TWENTY-FOUR HOURS OF INSPECTION. CONTRACTOR SHALL PROPERLY DISPOSE OF SEDIMENT SUCH THAT IT DOES NOT ENCUMBER OTHER DRAINAGE STRUCTURES AND PROTECTED AREAS.
- 2. ILT SHALL BE REMOVED FROM BEHIND BARRIERS IF GREATER THAN 6-INCHES DEEP OR AS NEEDED.
- 3. DAMAGED OR DETERIORATED ITEMS WILL BE REPAIRED IMMEDIATELY AFTER IDENTIFICATION.
- 4. SEDIMENT THAT IS COLLECTED IN PROTECTIVE MEASURES SHALL BE DISPOSED OF PROPERLY AND COVERED IF STORED ON-SITE.
- 5. EROSION CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL ALL DISTURBED EARTH HAS BEEN SECURELY STABILIZED. AFTER REMOVAL OF STRUCTURES, DISTURBED AREAS SHALL BE REGRADED AND STABILIZED AS SOON AS POSSIBLE.
- 6. MAINTAIN THE CONSTRUCTION EXIT IN A CONDITION WHICH WILL PREVENT TRACKING AND WASHING OF SEDIMENTS ONTO PAVED SURFACES. MAINTENANCE MAY INCLUDE TURNING THE MATERIAL IN THE EXIT OR ADDING ADDITIONAL ROCK.

# INFILTRATION AREA PROTECTION DURING CONSTRUCTION

- 1. FOR THE LONG-TERM FUNCTION OF THE INFILTRATION BASIN(S)/STRUCTURE(S), CARE SHALL BE TAKEN IN THE INFILTRATION AREAS DURING CONSTRUCTION. THE CONTRACTOR SHALL EMPLOY THE FOLLOWING MINIMUM BEST MANAGEMENT PRACTICES (BMPs):
  - A. INFILTRATION AREAS SHALL NOT BE USED AS TEMPORARY CONSTRUCTION SEDIMENTATION BASINS WITHOUT THE PRIOR APPROVAL OF THE ENGINEER. IF INFILTRATION AREAS ARE USED AS TEMPORARY SEDIMENTATION BASINS DURING CONSTRUCTION, THEN THE SOILS SHALL BE EXCAVATED A MINIMUM OF 2' FROM THE TEMPORARY BASIN BOTTOM TO REMOVE CLOGGED SOILS.
  - B. STORMWATER RUNOFF FROM EXPOSED SURFACES SHALL BE DIRECTED AWAY FROM THE INFILTRATION BASIN(S)/STRUCTURE(S) DURING
  - C. CONSTRUCTION EQUIPMENT, VEHICULAR TRAFFIC, PARKING OF VEHICLES, AND STOCKPILING OF CONSTRUCTION MATERIALS SHALL BE LOCATED OUTSIDE OF THE INFILTRATION AREAS.
  - D. EXCAVATION FOR CONSTRUCTION OF THE INFILTRATION BASIN(S)/STRUCTURE(S) SHALL ENSURE THAT THE SOIL AT THE BOTTOM OF THE EXCAVATION IS NOT COMPACTED OR SMEARED.
  - E. THE PERIMETER OF THE INFILTRATION AREAS SHALL BE STAKED AND FLAGGED TO PREVENT THE USE OF THE AREA FOR ACTIVITIES THAT MIGHT DAMAGE THE INFILTRATION ABILITY OF THE SYSTEM.
  - F. IF INFILTRATION AREAS ARE USED AS TEMPORARY SEDIMENTATION BASINS DURING CONSTRUCTION, THEN THE SOILS SHALL BE EXCAVATED A MINIMUM OF 2' FROM THE TEMPORARY BASIN BOTTOM TO REMOVE CLOGGED SOILS.

# CONSTRUCTION PHASING PLAN

- 1. ESTABLISH SITE EROSION CONTROLS.
- 2. SITE DEMOLITION AND CLEARING.
- 3. BULK EARTHWORK.

TREE PROTECTION

FENCING (TYP)

SMH RIM 239.74

EROSION CONTROL

STABILIZED CONSTRUCTION EXIT (TYP)

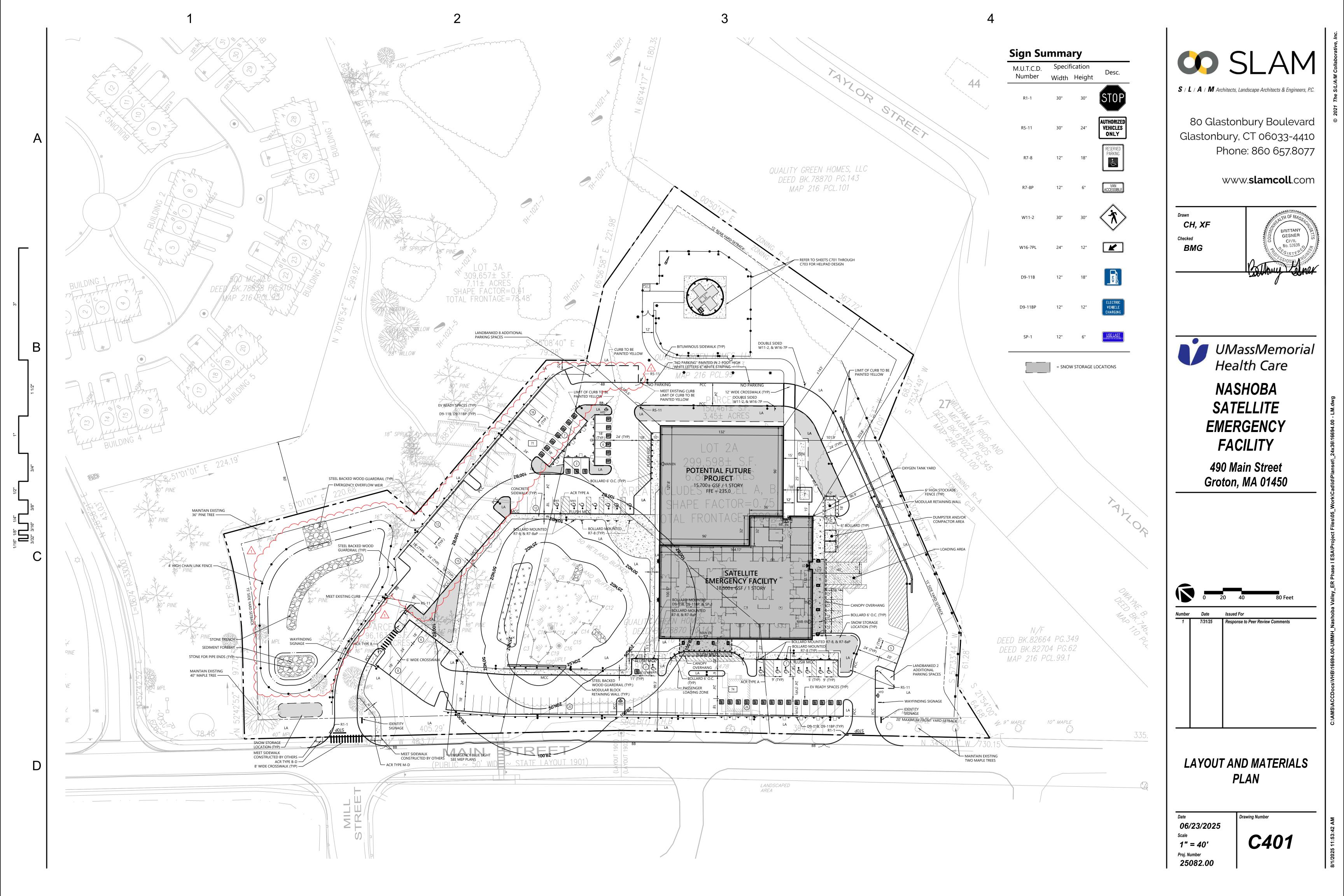
FINAL LOCATION TO BE DETERMINED

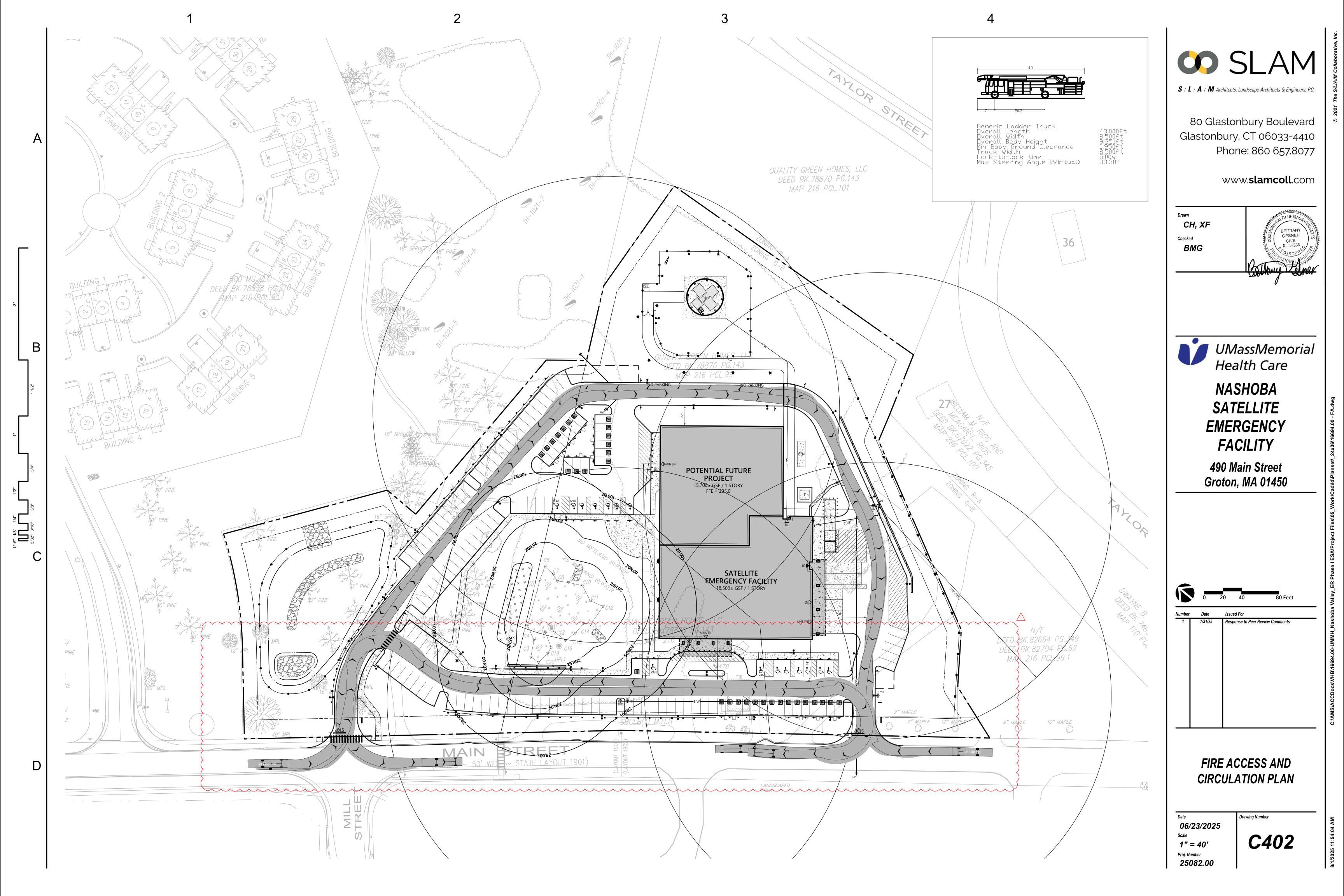
BARRIER (TYP)

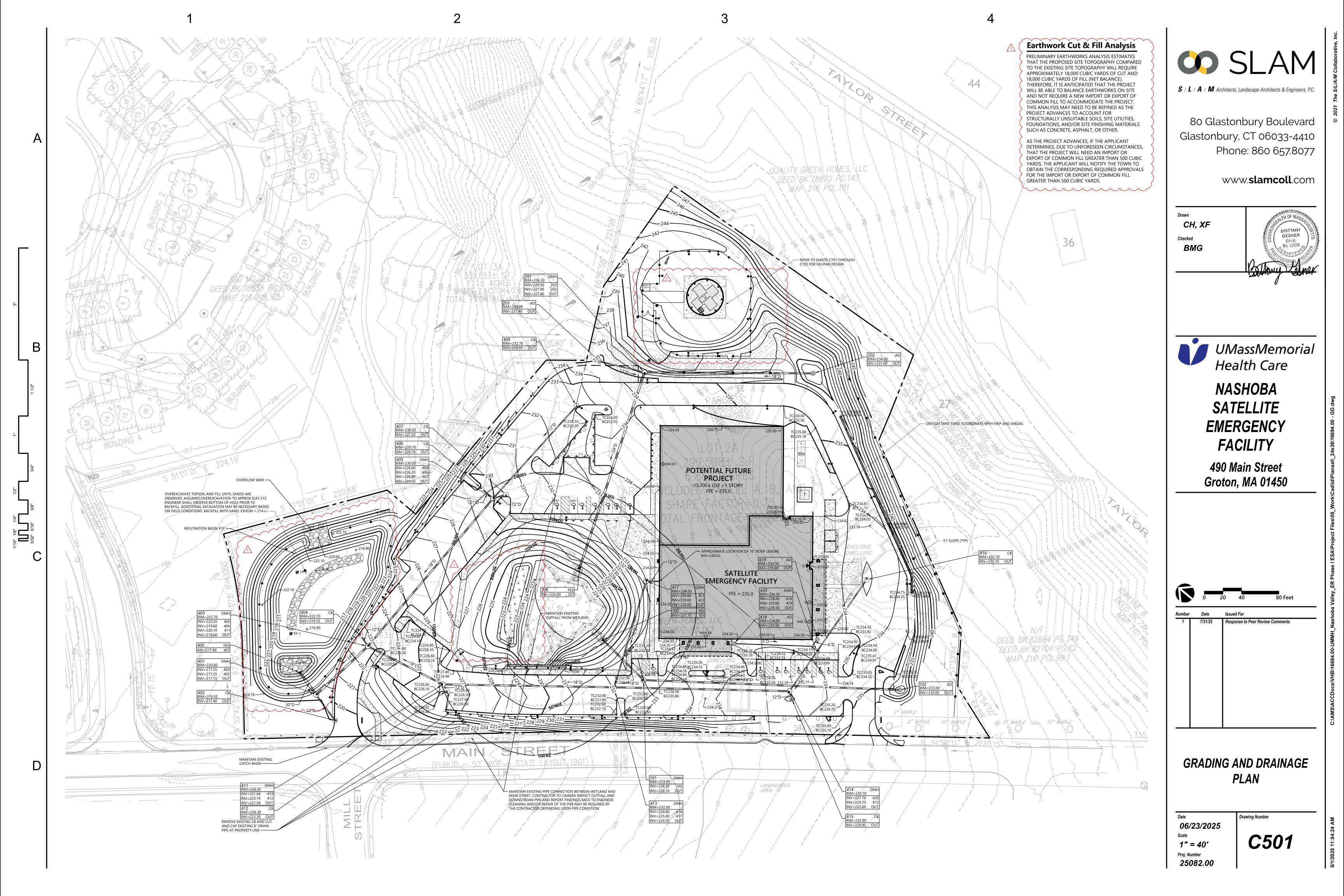
BY SITE CONTRACTOR

- 4. SITE UTILITY & BUILDING CONSTRUCTION.
- 5. SITE FINISHING: PAVING, HARDSCAPE / LANDSCAPING.

NOTE: DURING ALL PHASES OF DEMOLITION, EARTHWORK AND CONSTRUCTION, EROSION CONTROLS WILL BE MAINTAINED AND ADJUSTED AS DETAILED IN SECTION A: EROSION AND SEDIMENTATION CONTROL MEASURES.



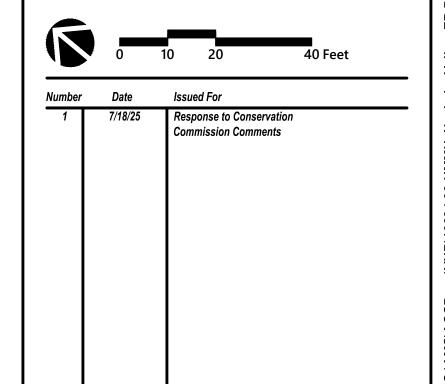




S / L / A / M Architects, Landscape Architects & Engineers, P.C.

NASHOBA SATELLITE EMERGENCY FACILITY

490 Main Street Groton, MA 01450



BUFFER ZONE IMPROVEMENT PLAN

**Drawing Number** 

Date
06/23/2025
Scale
1" = 20'

Proj. Number

25082.00

C502

**Wet Meadow Area Notes:** 

 CONSTRUCTION OF THE WET MEADOW AREA WILL INCLUDE GRADING, SOILS PLACEMENT, AND PLANTING, AND ALL WORK SHALL BE PERFORMED UNDER THE SUPERVISION OF AN EXPERIENCED WETLAND SCIENTIST. ALL PLANTINGS SHALL BE PERFORMED IN SPRING (APRIL 15 TO JUNE 15) OR FALL (SEPTEMBER 1 TO OCTOBER 31).

2. AN EROSION CONTROL BARRIER OF ENTRENCHED SILT FENCING OR STAKED MULCH/COMPOST TUBES SHALL BE INSTALLED ALONG THE ENTIRE PERIMETER OF THE JURISDICTIONAL WETLAND AREA.

3. ALL AREAS TO BE PLANTED AS PART OF THE WET MEADOW AREA SHALL BE CLEARED AND GRUBBED (AS NEEDED) AND SHALL BE EXCAVATED TO A DEPTH OF 12 INCHES BELOW THE FINAL DESIGN ELEVATIONS. MINOR MODIFICATIONS TO THE GRADING PLAN MAY BE MADE IN THE FIELD BY THE SUPERVISING WETLAND SCIENTIST IN RESPONSE TO HYDROLOGIC CONDITIONS. NATIVE WETLAND SOILS REMOVED DURING GRADING MAY BE REUSED ONSITE; ANY SUCH SOILS SHALL BE STOCKPILED AND SURROUNDED BY A PERIMETER OF EROSION CONTROLS UNTIL READY FOR USE. THE SUPERVISING WETLAND SCIENTIST WILL INSPECT THE FINAL SUB-GRADE OF THE REPLACEMENT AREA TO ENSURE THAT THE PROPER HYDROLOGY HAS BEEN ESTABLISHED.

4. THE WET MEADOW AREA WILL THEN BE BACKFILLED WITH APPROXIMATELY 12 INCHES OF NATIVE WETLAND SOILS AND/OR PREPARED TOPSOIL. PREPARED SOILS SHALL CONSIST OF A 1:1 MIXTURE (OR EQUAL VOLUMES) OF ORGANIC AND MINERAL MATERIALS (IN THE SILT LOAM, LOAM, OR LOAMY SAND RANGE) AND CONTAIN 12 PERCENT ORGANIC CARBON CONTENT. CLEAN LEAF OR COMMERCIALLY AVAILABLE COMPOST IS THE PREFERRED AMENDMENT TO ACHIEVE THIS STANDARD, ALTHOUGH OTHER MATERIALS MAY BE USED IF APPROVED BY THE SUPERVISING WETLAND SCIENTIST. AREAS TO BE PLANTED AS BVW SHOULD BE GRADED IN A SLIGHTLY IRREGULAR FASHION TO ALLOW FOR SMALL HUMMOCKS AND HOLLOWS APPROXIMATELY 6 INCHES ABOVE AND BELOW GRADE TO CREATE A PIT AND MOUND TOPOGRAPHY. WETLAND SOILS WILL BE APPROVED BY THE WETLAND SCIENTIST.

5. ONCE WETLAND SOILS AND ANY NATURAL MATERIALS HAVE BEEN PLACED, ANY EQUIPMENT OR VEHICLES EXERTING A GROUND PRESSURE OF 3 PSI OR GREATER SHALL NO LONGER BE ALLOWED IN THE REPLACEMENT AREA TO AVOID COMPACTING THE WETLAND SOILS.

6. PLANTINGS WILL BE INSTALLED ONCE THE ABOVE TASKS HAVE BEEN COMPLETED. ALL SHRUB PLANTING WORK SHALL BE PERFORMED BY HAND USING HAND TOOLS ONLY. THE SPECIES, SIZE, AND QUANTITY OF PLANTINGS SHALL FOLLOW THE PLANTING SCHEDULE. ONLY PLANT MATERIALS NATIVE TO THE REGION SHALL BE USED. IN THE EVENT THAT PLANT SUBSTITUTIONS ARE NECESSARY, THE SUPERVISING WETLAND SCIENTIST OR ANOTHER QUALIFIED WETLAND SCIENTIST OR BOTANIST SHALL BE CONSULTED. ALL WOODY PLANT STOCK SHALL EITHER BE BARE-ROOT OR CONTAINER-GROWN PLANTINGS

7. AFTER ROUGH GRADING, SCARIFY SUBGRADE TO A MINIMUM 4-INCH DEPTH. THE LAND SURFACE SHALL BE DICED OR ROTOTILLED TO SCARIFY THE GROUND.

8. ALL PLANTING WILL OCCUR UNDER THE SUPERVISION OF A WETLAND SCIENTIST.

9. ALL PLANT MATERIAL SHALL HAVE TAGS INDICATION COMMON NAME, BOTANICAL NAME & SIZE. SEE SPECIFICATIONS FOR REQUIREMENTS.

10. FINAL LOCATION OF ALL PLANT MATERIAL WILL BE APPROVED BY THE WETLAND SCIENTIST PRIOR TO PLANTING. SHRUBS SHOULD PLANTED IN CLUSTERS OF 3-4 PLANTS TO SIMULATE A NATURAL DISTRIBUTION. SPACING BETWEEN INDIVIDUAL PLANTS SHOULD BE AS SPECIFIED IN THE PLANTING SCHEDULE, WITH SPACING IN BETWEEN CLUSTERS OF 10 TO 12 FEET. 11. FOLLOWING SHRUB PLANTINGS, THE AREA WILL BE SEEDED WITH A NATIVE WETLAND SEED MIX AS SPECIFIED IN THE PLANTING SCHEDULE OR A SIMILAR MIX. THE SEED MIX SHALL BE APPLIED AT A RATE AND IN A MANNER ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS.

12. ALL EROSION CONTROLS AROUND THE JURISDICTIONAL WETLAND AREA SHALL REMAIN IN PLACE UNTIL VEGETATION IS WELL-ESTABLISHED AND SOILS HAVE STABILIZED, AT WHICH POINT THE BARRIERS SHALL BE REMOVED AND DISPOSED OF.

13. INVASIVE SPECIES WITHIN THE WET MEADOW AREA SHALL BE REMOVED BY HAND AS DIRECTED BY THE CONSERVATION COMMISSION. IF NECESSARY, ANY AREAS WHERE INVASIVE SPECIES HAVE BEEN REMOVED WILL BE RESEEDED WITH A SUITABLE WETLAND SEED MIX.

14. TRANSPLANTS AND PLANT MATERIAL COLLECTED FROM THE WILD IS PROHIBITED UNLESS APPROVED IN WRITING BY THE WETLAND SCIENTIST. PLANT MATERIALS SHALL BE SELECTED FROM CERTIFIED NURSERIES THAT HAVE BEEN INSPECTED BY STATE AND/OR FEDERAL AGENCIES. NURSERY INSPECTION CERTIFICATES SHALL BE FURNISHED TO THE WETLAND SCIENTIST UPON REQUEST.

15. ALL PLANT MATERIAL SHALL BE HEALTHY, FREE OF DISEASE AND PESTS AND CONTAIN A WELL-DEVELOPED ROOT SYSTEM.

16. ALL PLANTS SHALL BE DELIVERED TO THE SITE AS LIVE, ACTIVELY GROWING, OR JUST BREAKING DORMANCY, AND ARRIVE TO THE PROJECT SITE READY FOR PLANTING. THE WETLAND SCIENTIST MAY REJECT PLANTS DAMAGED IN HANDLING OR TRANSPORT. PLANT MATERIAL SHALL BE INSTALLED AS SOON AS POSSIBLE AFTER IT HAS BEEN DELIVERED TO THE SITE.

17. THE CONTRACTOR WILL HAVE A WATERING PLAN IN PLACE AND UTILIZE IF CONDITIONS WARRANT.

18. MATTING (EITHER STRAW OR COIR) WILL BE APPLIED TO ALL SLOPES FOR ADDITIONAL STABILIZATION.

19. A BONDED FIBER MATRIX SHALL BE HYDRAULICALLY APPLIED TO THE RESTORATION AREA AT THE RATE OF 3,000 LBS. PER ACRE TO PROMOTE STABILIZATION. THE WETLAND SEED MIXTURE SHALL BE INCORPORATED INTO THE APPLICATION AT THE SPECIFIED RATE. THE BONDED FIBER MATRIX SHALL BE APPLIED FROM ALTERNATE DIRECTIONS TO ALLEVIATE SHADOWING AND WILL BE APPLIED WHEN NO RAINFALL IS EXPECTED FOR 24 HOURS. PROPER APPLICATION WILL PERMIT THE GROUNDCOVER TO GERMINATE AND GROW IN AND BENEATH THE LAYER. EROSION AND SEDIMENTATION CONTROLS WILL REMAIN IN PLACE UNTIL ALL AREAS ARE STABILIZED.

20. STABILIZING BEFORE THE END OF CONSTRUCTION: DO NOT LEAVE BARE SOIL FOR MORE THAN 3 DAYS. IF EARTHWORK IS COMPLETE BUT CANNOT BE SEEDED WITHIN THE STANDARD SEEDING WINDOW (APRIL 1 - MAY 15 AND OCTOBER 1 - NOVEMBER 15), OR IF CONSTRUCTION IS PAUSED WITHOUT VEGETATIVE STABILIZATION, CONTRACTOR SHALL SUBMIT A PROPOSED METHOD FOR INTERIM STABILIZATION, TO BE APPROVED BY THE ENGINEER. SLOPES SHALL BE TEMPORARILY STABILIZED UNTIL THE CONTRACTOR IS ABLE TO SEED THE AREA AS SPECIFIED.

21. SEE SHEETS L101 AND L102 FOR ADDITIONAL INFORMATION.

SHRUBS

CAM Cornus amomum Silky Dogwood 18 - 24" HT. 42" o.c.

HV Hamamelis virginiana Common Witch Hazel 36 - 40" HT. 60" o.c.

PERENNIALS

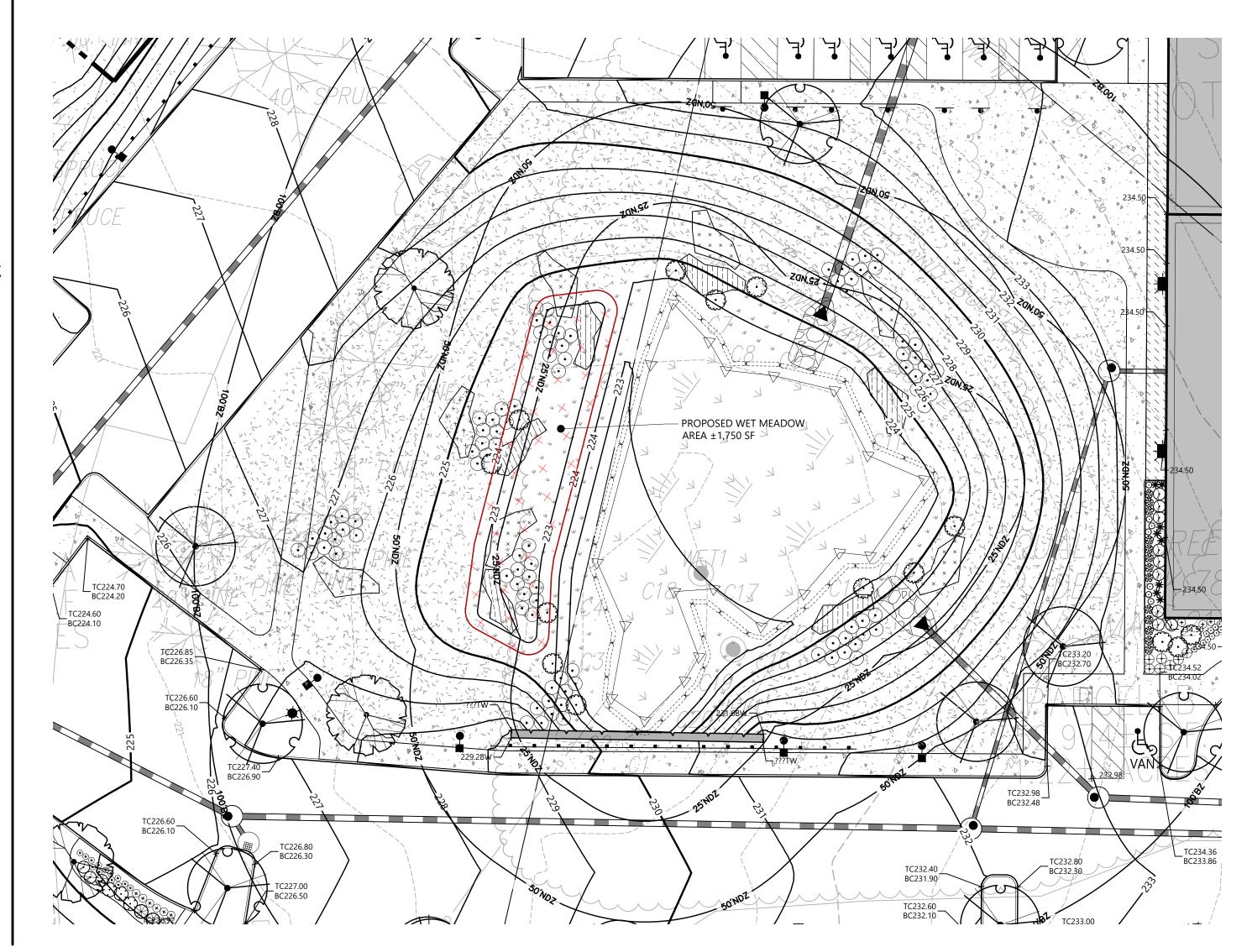
VIris versicolor Blue Flag 1 GAL. 24" o.c.

SR Solidago rugosa Rough Goldenrod 1 GAL. 24" o.c.

PLANT SCHEDULE WET MEADOW AREA

2. REFER TO SHEET L102 FOR WET MEADOW SEED MIX.

REFER TO SHEET L102 FOR PLANT LIST WITH QUANTITIES.



# BIODEGRADABLE EROSION CONTROL FABRIC AS MANUFACTURED BY NORTH AMERICAN GREEN SC150 OR APPROVED EQUIVALENT HYDROSEED APPLICATION TO BE CONSISTENT WITH NEW ENGLAND WETLANDS MIX STRAW WATTLE AND SILT FENCE APPROXIMATE LIMIT OF WETLAND IMPORTED COMMON FILL IMPORTED COMMON FILL

#### NOTES \*

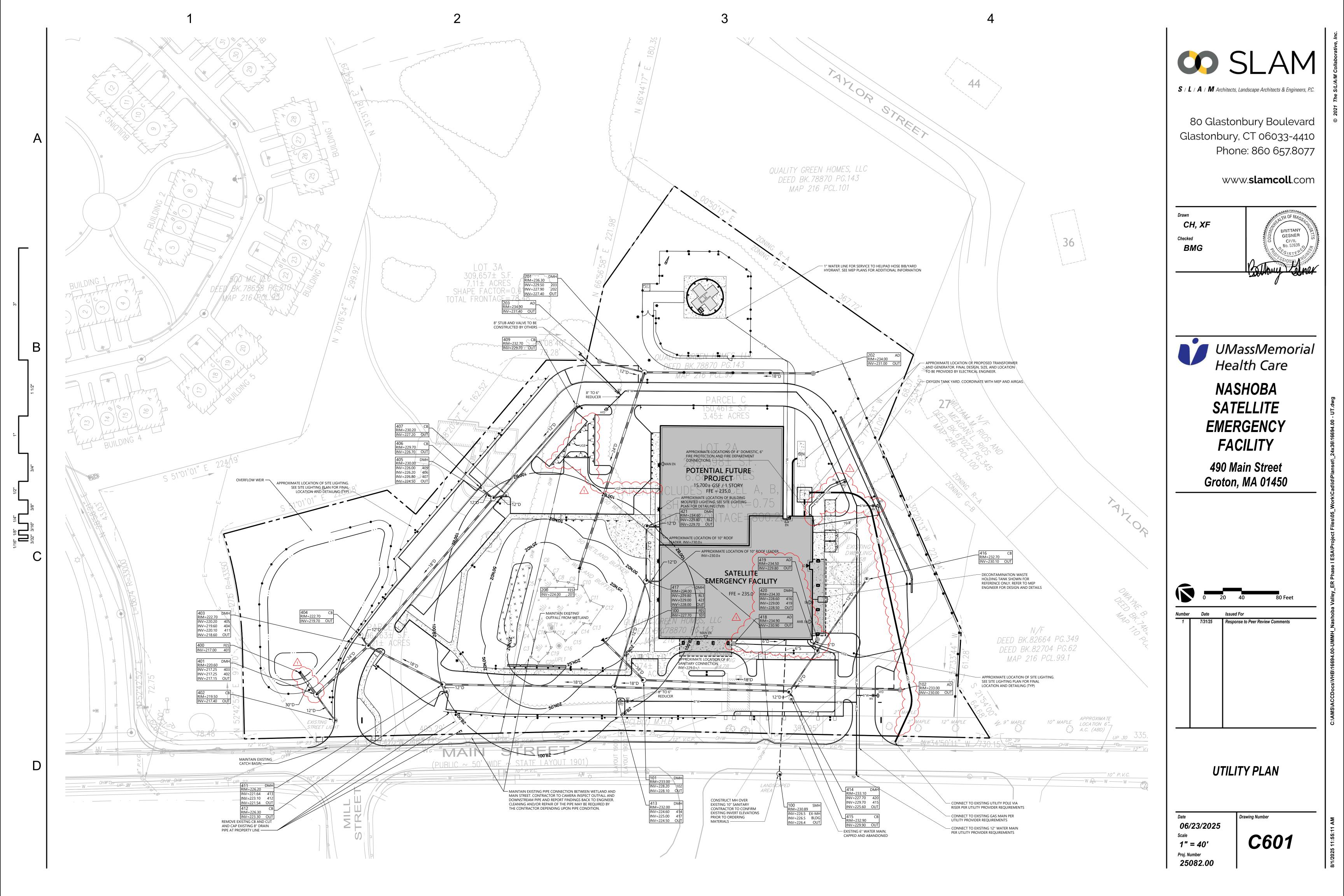
1. FOR SLOPES WITH GRADES STEEPER THAN 5:1 AND WITHIN THE 100' BUFFER ZONE, USE EROSION CONTROL MATERIAL NORTH AMERICAN GREEN SC150 OR APPROVED EQUIVALENT (SECURED USING ANCHORS AT PATTERN RECOMMENDED BY MANUFACTURER).

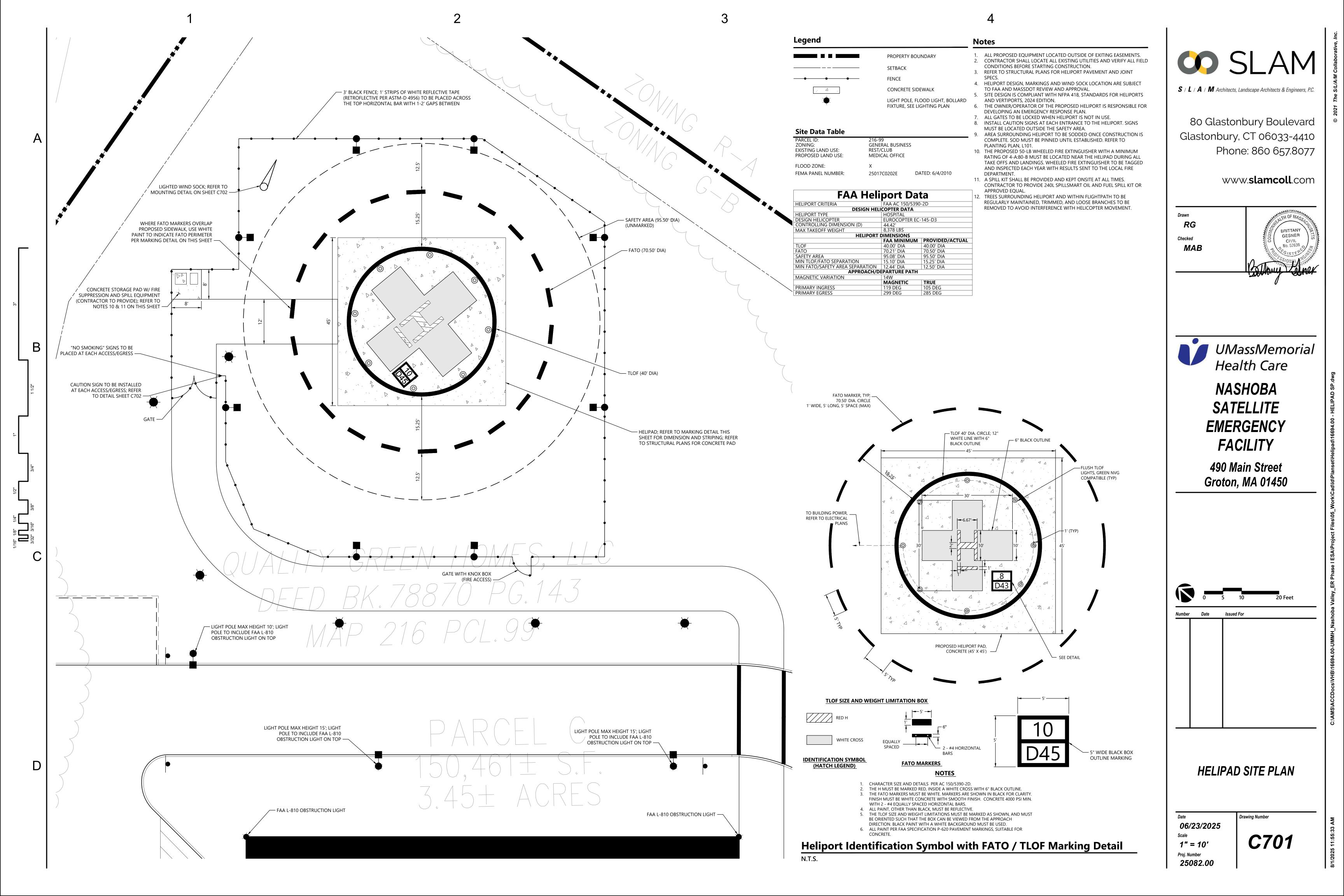
2. FOR DISTURBED/EXPOSED SOIL AREAS SHALLOWER THAN 5:1, USE EROSION CONTROL MATERIAL NORTH AMERICAN GREEN S75 OR APPROVED EQUIVALENT (SECURED USING ANCHORS AT PATTERN RECOMMENDED BY MANUFACTURER).

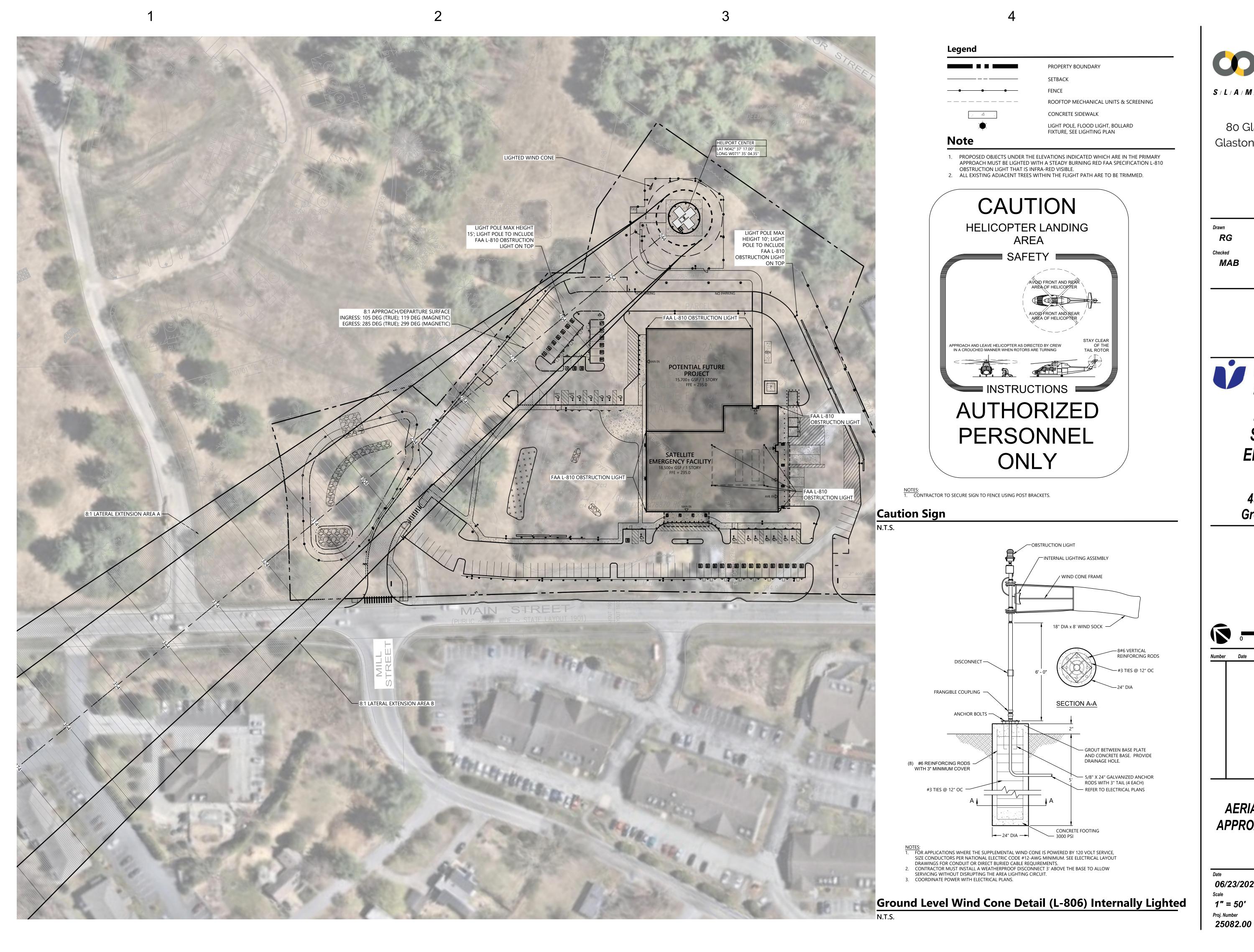
\* APPLICABLE WITHIN 100' OF WET MEADOW AREA ONLY

# **Representative Cross Section Proposed Conditions**

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SLAM

S / L / A / M Architects, Landscape Architects & Engineers, P.C.

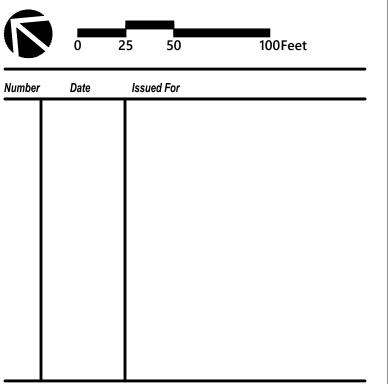
80 Glastonbury Boulevard Glastonbury, CT 06033-4410 Phone: 860 657.8077

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NASHOBA SATELLITE **EMERGENCY FACILITY** 

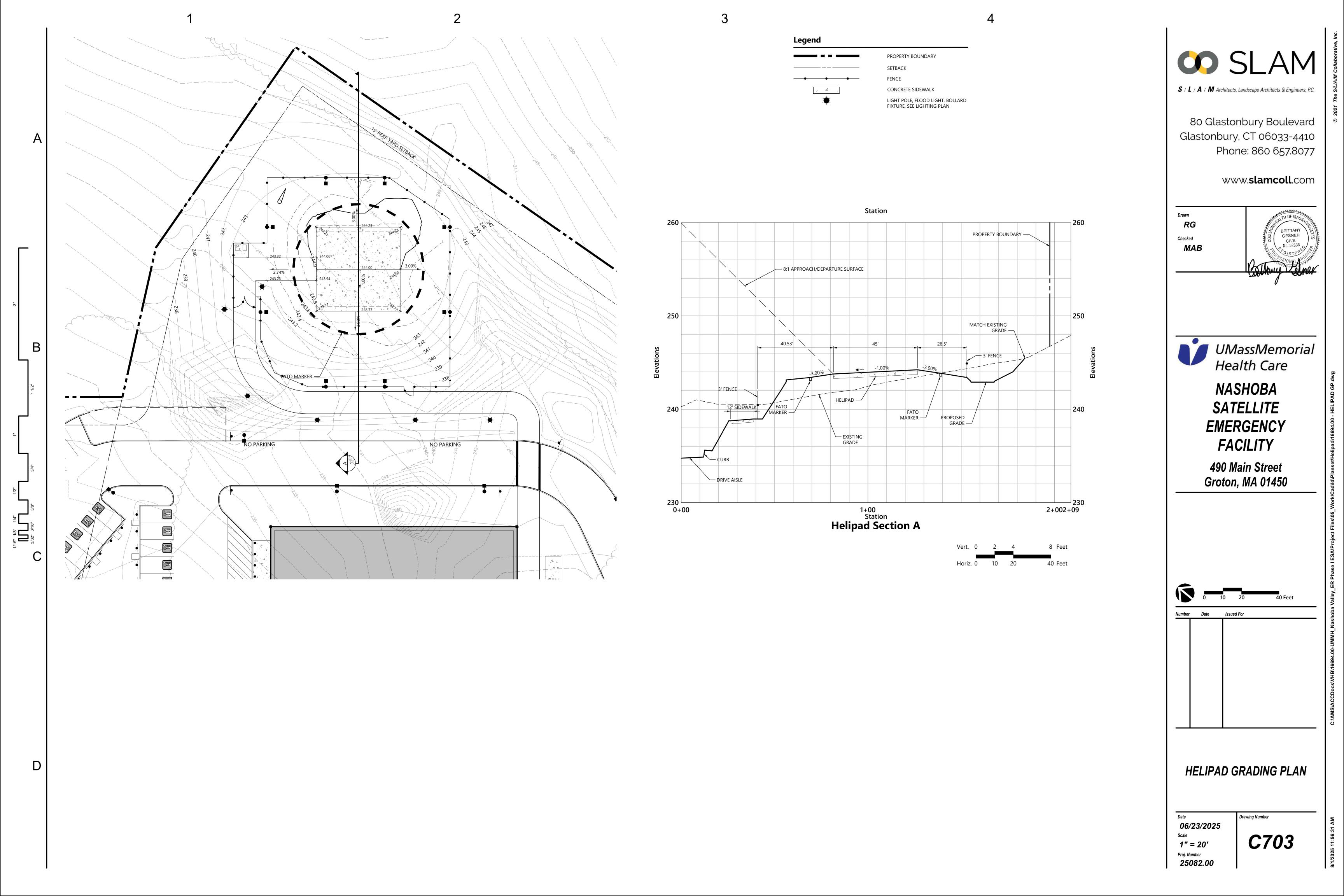
490 Main Street Groton, MA 01450

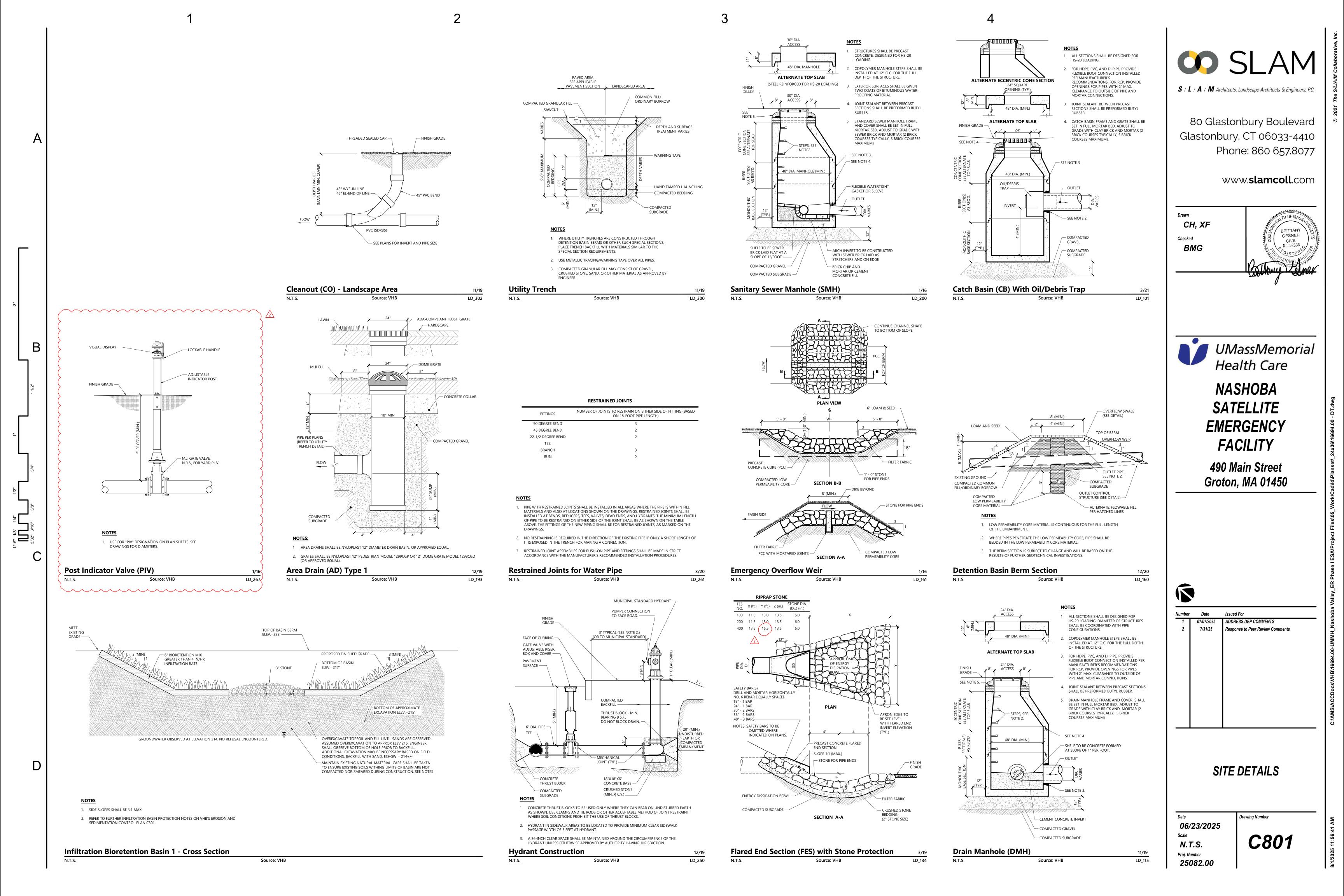


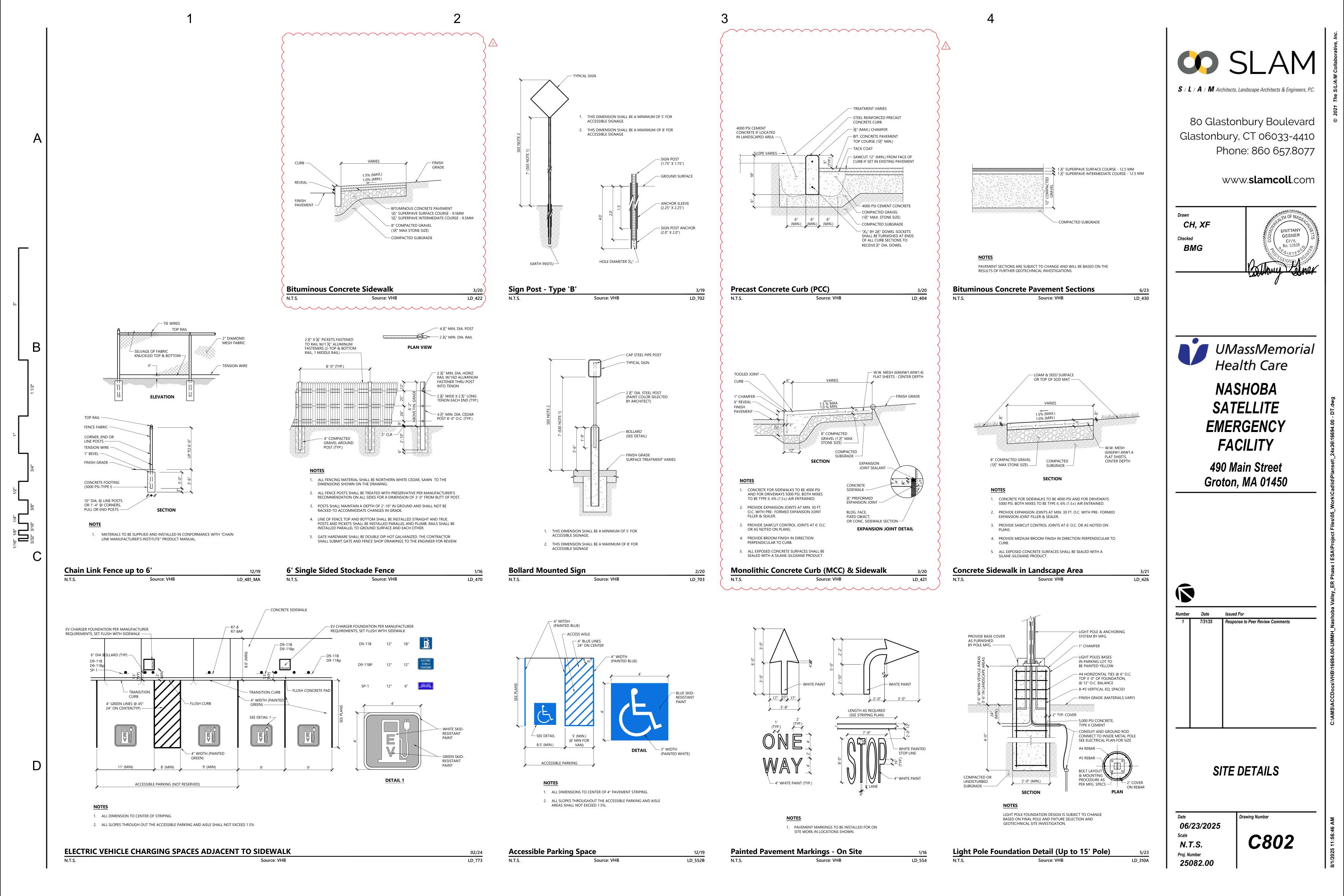
AERIAL SITE PLAN AND APPROACH & DEPARTURE PLAN

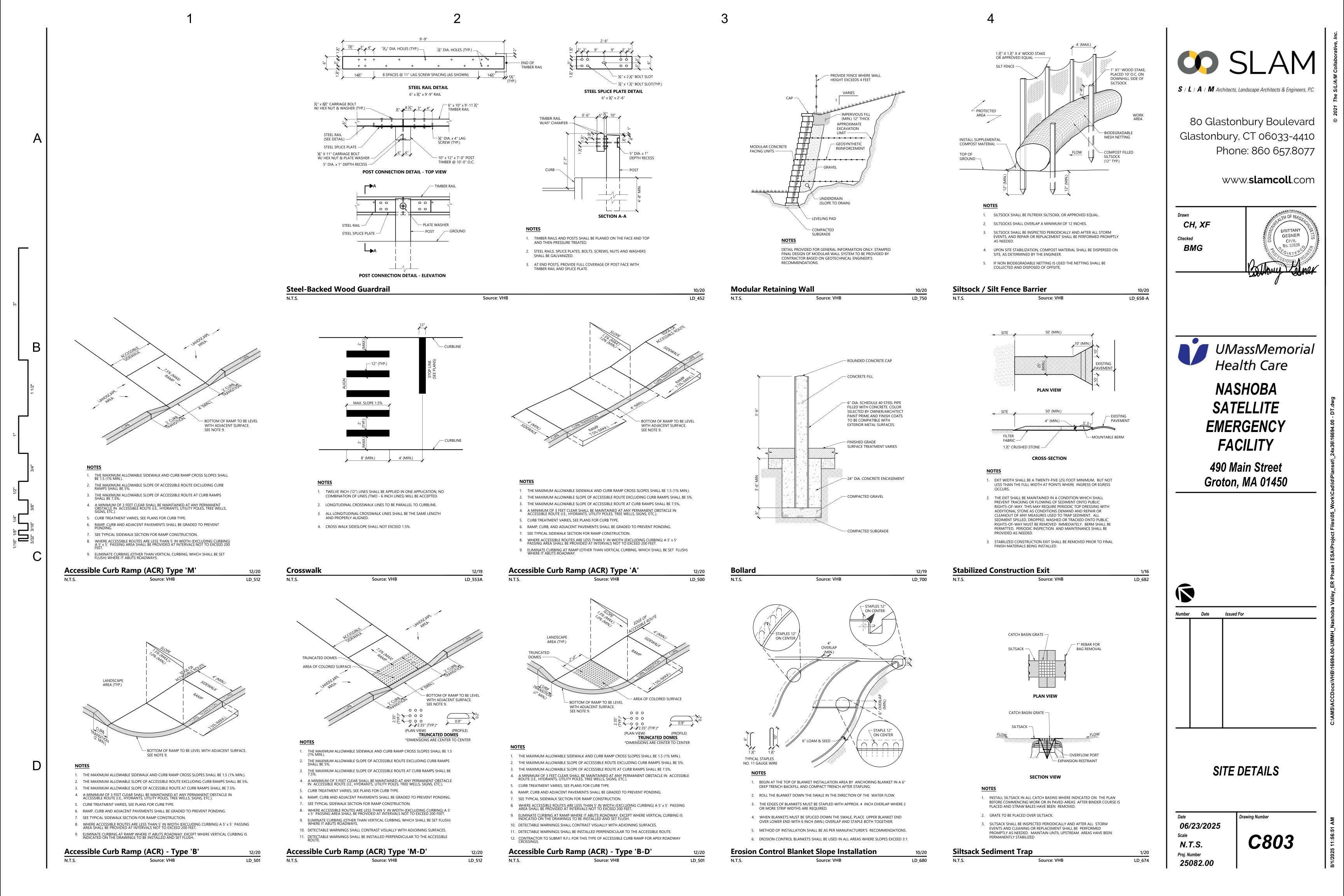
06/23/2025

C702

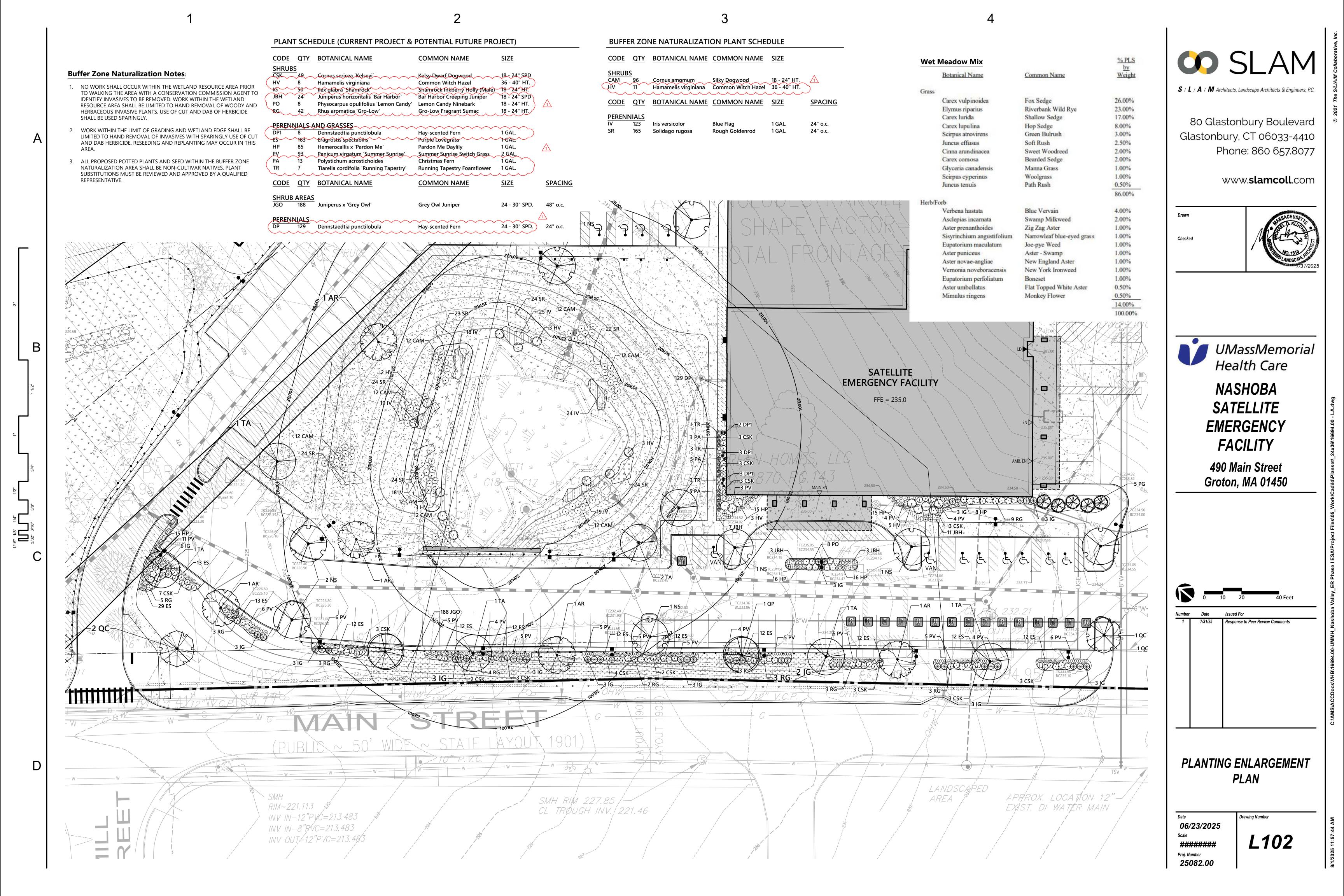


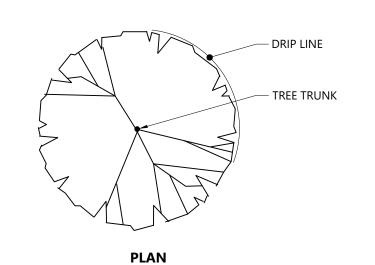


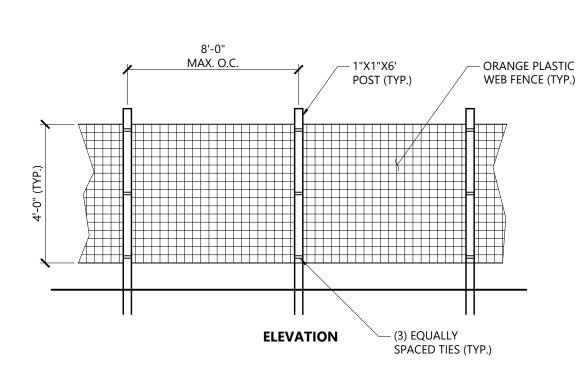


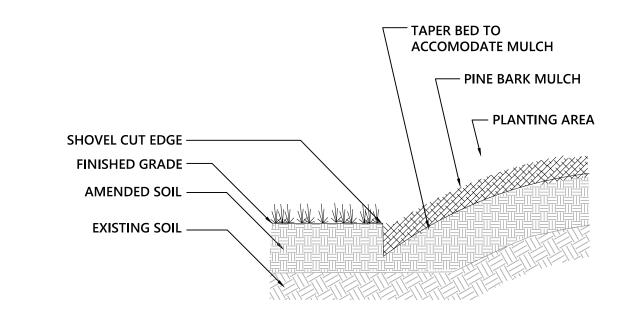


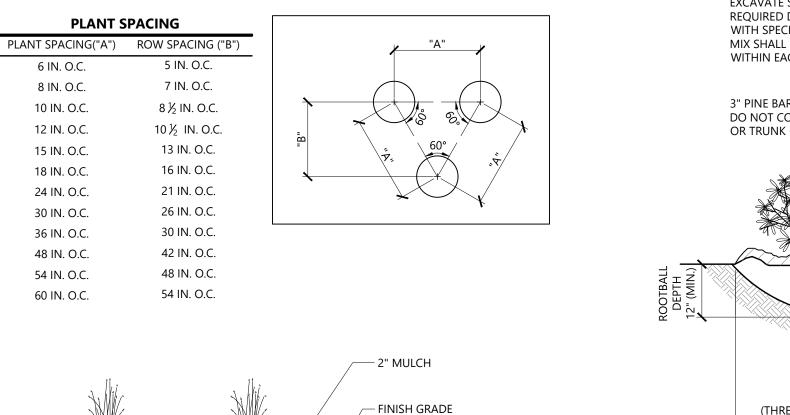
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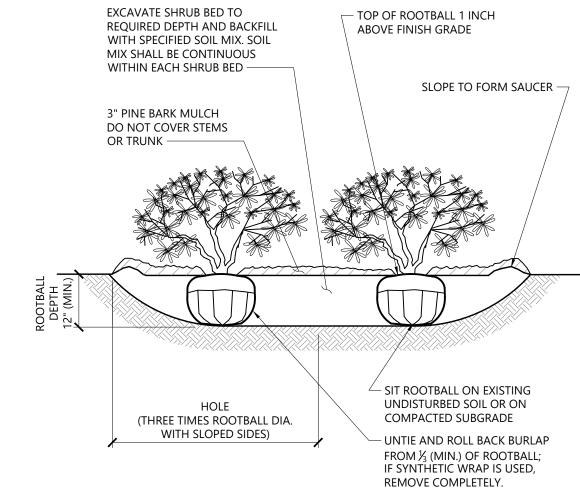


PLANTING SOIL

CONTINUOUS IN BED

- UNDISTURBED OR

COMPACTED SUBGRADE





LOOSEN ROOTS AT THE OUTER EDGE OF ROOTBALL OF CONTAINER

1. INSTALL TREE PROTECTION FENCE AT THE DRIP LINE OF EXISTING TREES TO REMAIN.

**SOIL PREPARATION** 

**GROUNDCOVER AND SHRUBS** 

**SOIL PREPARATION AT LAWN** 

Source: VHB

**Soil Preparation** 

<b>Tree Protection Fence</b>		1/16
N.T.S.	Source: VHB	LD_610

- PLANT SOIL BACKFILL MIX ABOVE TRANSITIONAL LAYER

SCARIFY SUBGRADE AND BLEND

WITH PLANTING SOIL PER SPECIFICATIONS TO MINIMUM

UNDISTURBED SUBGRADE

- PLANT SOIL BACKFILL MIX

- SCARIFY SUBGRADE AND BLEND WITH PLANTING SOIL PER SPECIFICATIONS TO

UNDISTURBED SUBGRADE

3/25

N.T.S.

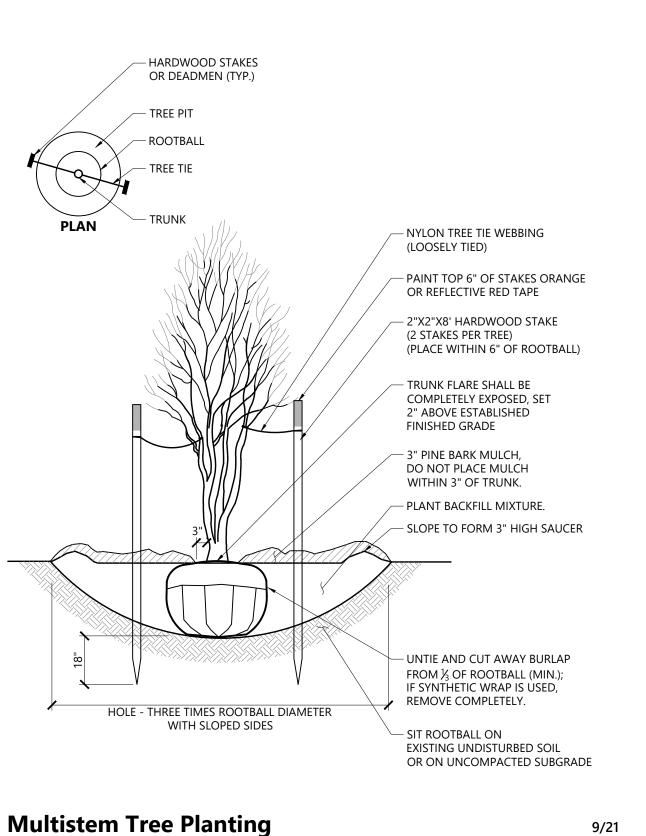
MINIMUM 6" DEPTH

- COMPACTED OR

12" DEPTH

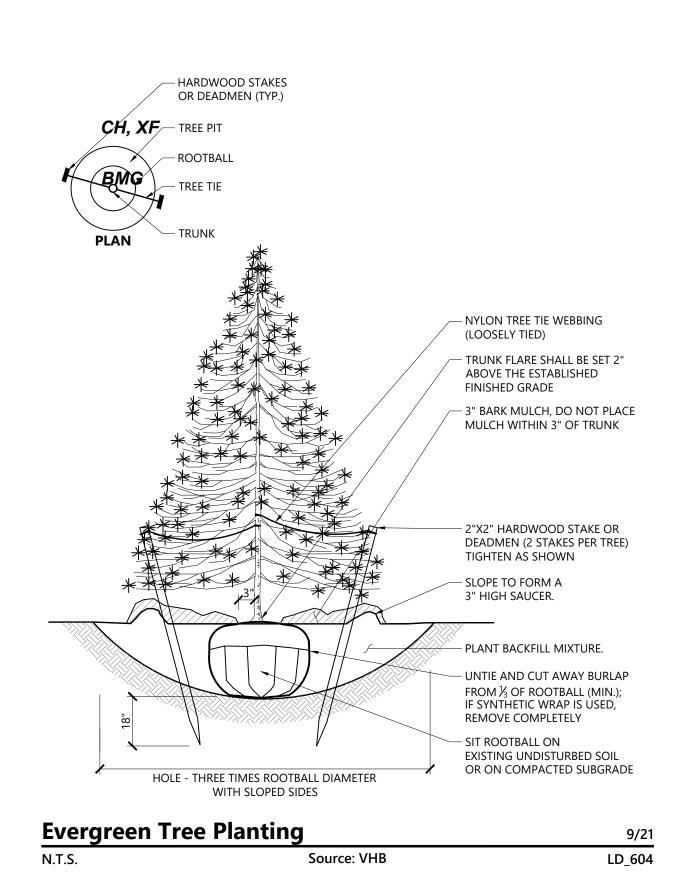
- COMPACTED OR

<b>Shovel Cut Edging</b>		9/23
N.T.S.	Source: VHB	LD 620



Source: VHB

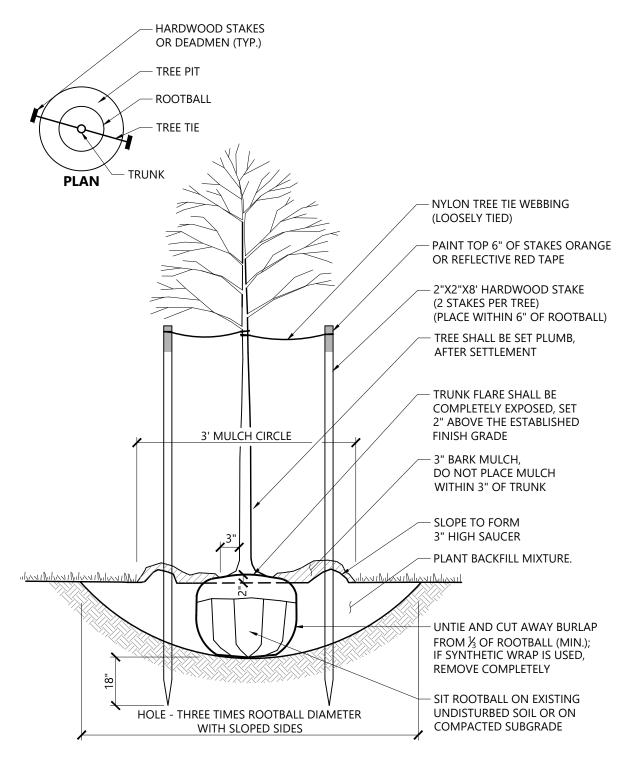
LD\_606



**Perennial and Ornamental Grass Planting** 

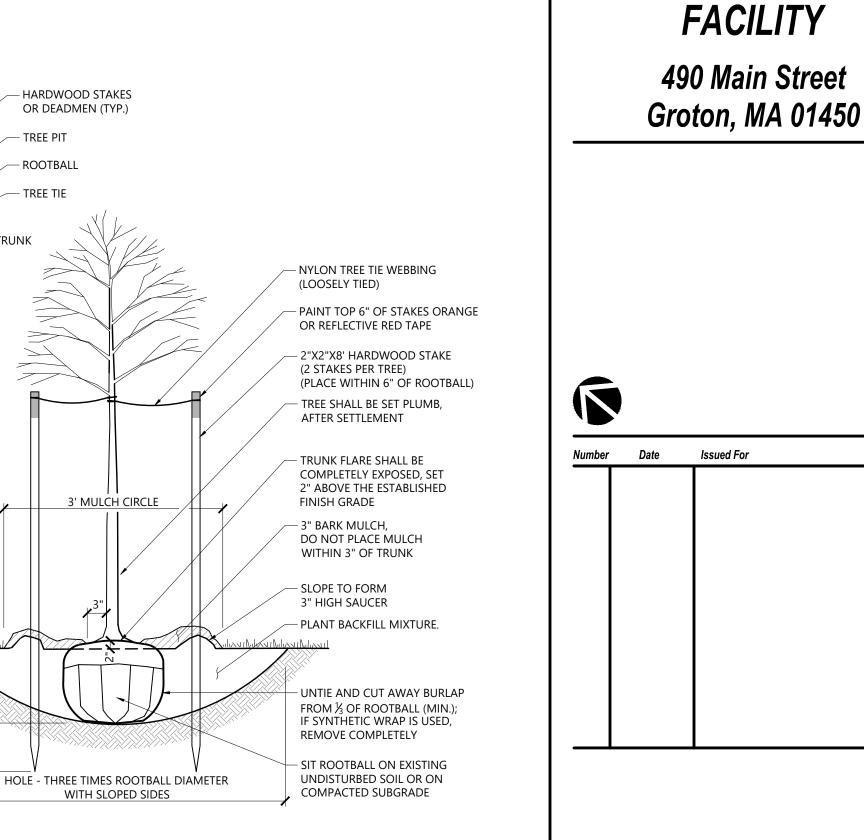
Source: VHB

N.T.S.



**Tree Planting (For Trees Under 4" Caliper)** 

Source: VHB



9/21

LD\_602

PLANTING DETAILS

**Drawing Number** 

O SLAM

S / L / A / M Architects, Landscape Architects & Engineers, P.C.

80 Glastonbury Boulevard

Phone: 860 657.8077

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**UMassMemorial** 

Health Care

NASHOBA

SATELLITE

**EMERGENCY** 

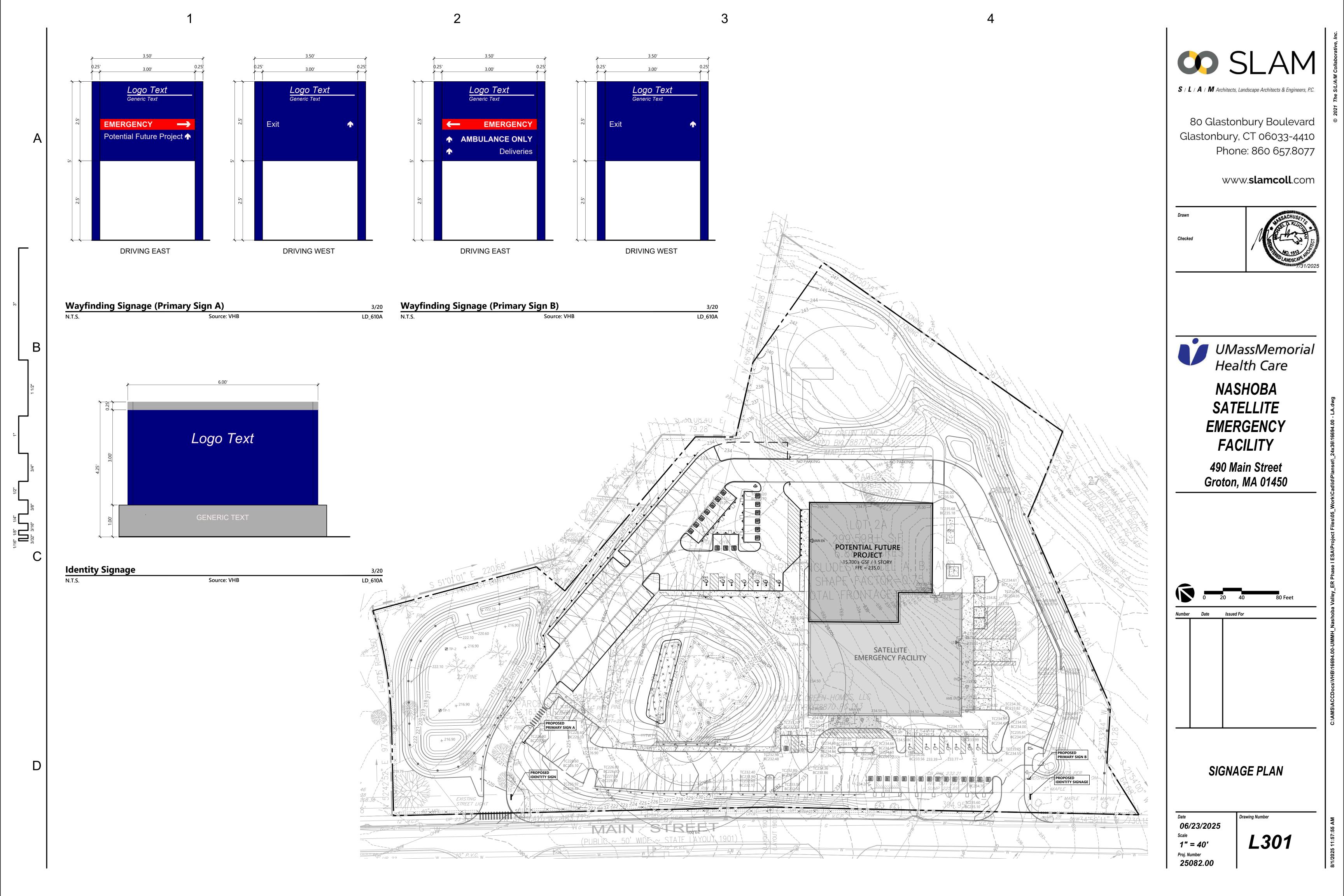
Glastonbury, CT 06033-4410

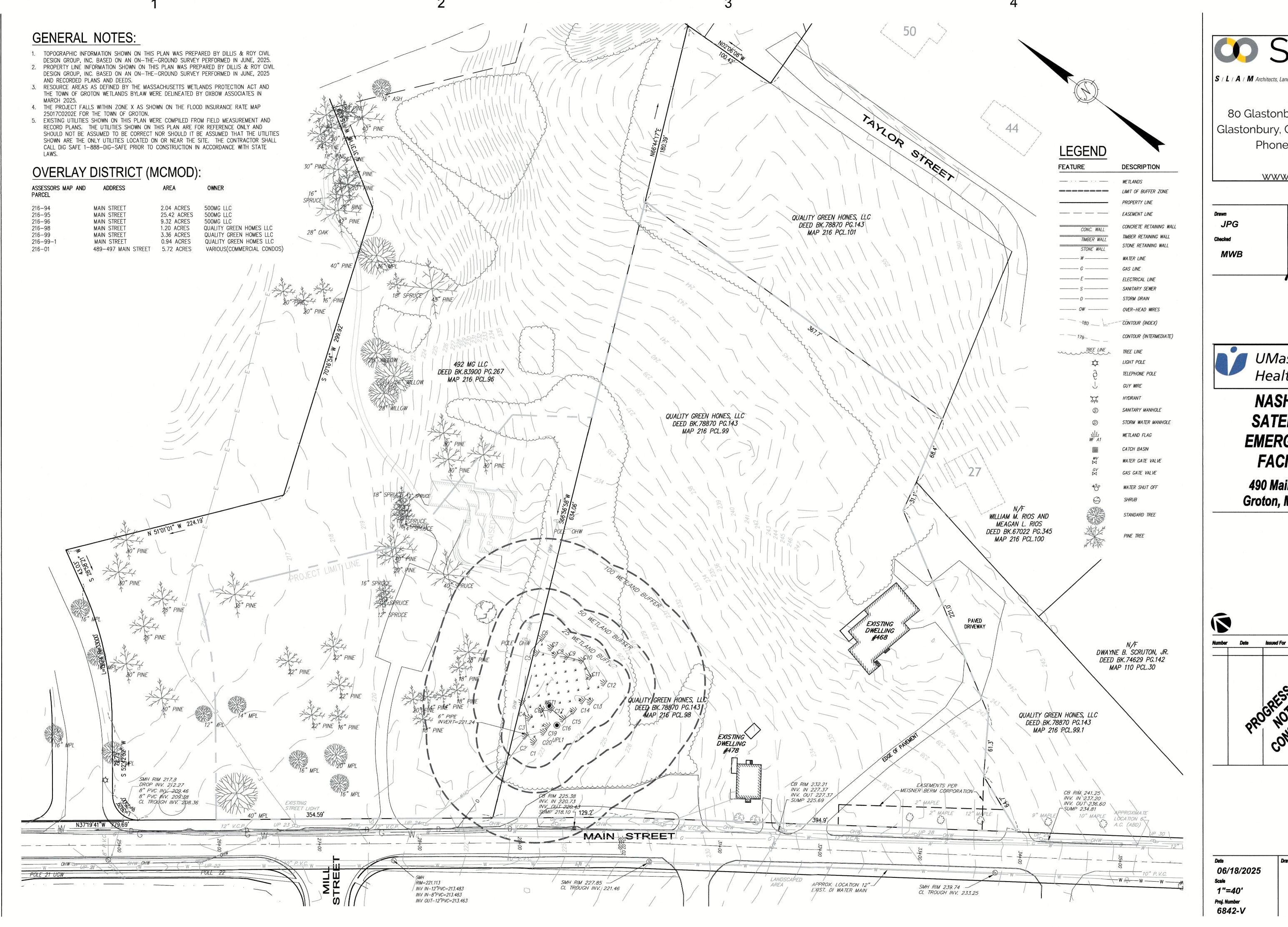
Drawn

Checked

06/23/2025 N.T.S.

Proj. Number 25082.00 L201





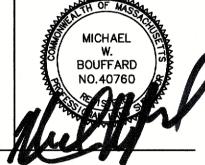
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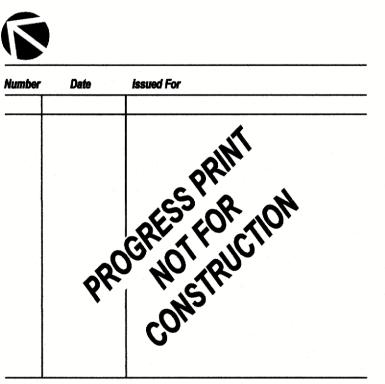
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NASHOBA SATELLITE **EMERGENCY FACILITY** 

490 Main Street Groton, MA 01450



**Drawing Number** SV101

