

RECORD OWNER (97 & 99 MILL ROAD):
TOWN OF LITTLETON
MUNICIPAL LIGHT DEPARTMENT
39 AYER ROAD
LITTLETON, MA 01460
DEED BOOK 81505, PAGE 533 (97 MILL ROAD)
DEED BOOK 82573, PAGE 396 (99 MILL ROAD)
PROJECT CONTACT: NICK LAWLER, (978) 540-2251

APPLICANT:
LITTLETON BESS LLC (STEVE BERN)
C/O CITIZENS ENERGY CORPORATION
2 SEAPORT LANE, SUITE 5C
BOSTON, MA 02210
(617) 951-0409

- GENERAL NOTES:**
- THE EXISTING CONDITION DEPICTED HEREON IS THE RESULT OF AN ON-THE-GROUND INSTRUMENT SURVEY PERFORMED BY THE MORIN-CAMERON GROUP, INC. ON APRIL 15 & JUNE 1 2024.
 - HORIZONTAL LOCATION OF SITE BENCHMARKS SHOWN ARE APPROXIMATE
 - THE LOCATIONS OF ALL UNDERGROUND UTILITY INFORMATION AND LOCATIONS SHOWN HEREON ARE APPROXIMATE AND ARE BASED ON A COMBINATION OF FIELD LOCATIONS AND COMPILED INFORMATION FROM PLANS SUPPLIED BY VARIOUS UTILITY COMPANIES AND GOVERNMENT AGENCIES. LOCATIONS OF ALL UTILITIES SHOULD BE CONFIRMED WITH THE UTILITY PROVIDER PRIOR TO THE COMMENCEMENT OF ANY SITE WORK. THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANY, ANY GOVERNING PERMITTING AUTHORITY, AND "DIGSAFE" AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION WORK TO REQUEST EXACT FIELD LOCATION OF UTILITIES.
 - REFERENCE PLAN 3 SHOWS DISCONTINUED WAY WITH BRIDGE ACCESS ONTO LOCUS. WAY PER PLAN IS SAID TO BE DISCONTINUED. AREA OF OBSERVED GRADING IS OVERGROWN AND GENERALLY IMPASSABLE. NO EVIDENCE OF CURRENT USE WAS OBSERVED DURING SURVEY
 - DRAINAGE EASEMENT AREA AS CALCULATED FROM REFERENCE PLAN 2 DOES NOT CLOSE MATHEMATICALLY. LINE SHOWN HEREON IS APPROXIMATE AND BASED ON PLAN DIMENSIONS NEAREST TO LOCUS.
 - EASTERLY PROPERTY LINE FOLLOWS CENTERLINE OF BROOK WITH EXCEPTION OF DEPARTURE TO NORTHEAST PROPERTY CORNER WHICH HAS AN ESTABLISHED RECORD DISTANCE FROM STONEWALL OF ADJUTER. POSSIBLE PAST RECONSTRUCTION OF MILL ROAD CULVERT RESULTING IN CHANGE IN COURSE FOR BEAVER BROOK. ALSO SEE PUBLICATION "EVIDENCE AND PROCEDURES FOR BOUNDARY LOCATION 7TH EDITION. CH. 8 SEC. 16 BY WILSON, NETTLEMAN AND ROBILARD.

- REFERENCE PLANS:**
- "PLAN OF LAND IN LITTLETON, MASS PREPARED FOR WARREN'S MILL REALTY, LLC"; PREPARED BY DAVID E. ROSS ASSOCIATES, INC.; DATED APRIL, 2023; RECORDED AT THE MIDDLESEX SOUTHERN DISTRICT REGISTRY OF DEEDS AS PLAN 242-2023.
 - 1960 STATE HIGHWAY LAYOUT NO. 4891 SHEET 4 OF 20 RECORDED AT THE MIDDLESEX SOUTHERN DISTRICT REGISTRY OF DEEDS AS PLAN IN 1951 PLAN NO. 724.
 - "LAND IN LITTLETON OWNED BY CURTIS W. DREW"; PREPARED BY HORACE F. TUTTLE CE; DATED MAY 19, 1953; RECORDED AT THE MIDDLESEX SOUTHERN DISTRICT REGISTRY OF DEEDS AS PLAN IN 1956 PLAN NO. 166.
 - "LAND IN LITTLETON, MASS. SURVEYED FOR AMREVEST INCORPORATED"; SURVEYED BY CHARLES A PERKINS CO, INC CIVIL ENGINEERS & SURVEYORS; DATED JAN. 21, 1981; RECORDED AT THE MIDDLESEX SOUTHERN DISTRICT REGISTRY OF DEEDS AS PLAN IN 1981 PLAN NO. 65.
 - PLAN OF LAND IN LITTLETON, MASS. BELONGING TO HENRY G. MARILYN PARALEE"; SURVEYED BY RICHARD L. MCGILNCHIEY; DATED DEC. 14, 1971; RECORDED AT THE MIDDLESEX SOUTHERN DISTRICT REGISTRY OF DEEDS AS PLAN IN 1971 PLAN NO. 1416.

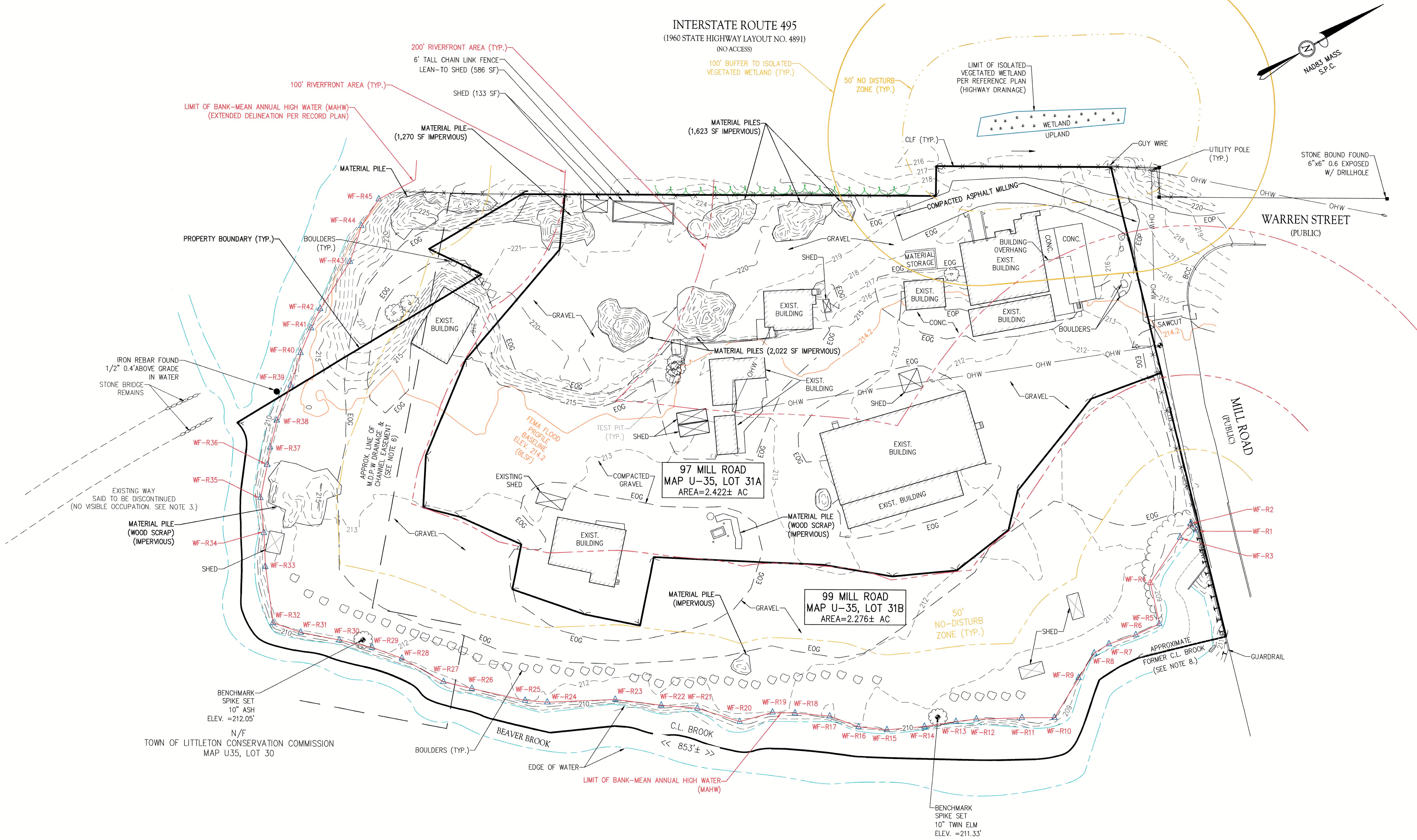
- ZONING DISTRICT:**
- INDUSTRIAL B DISTRICT (IB)
 - AQUIFER ZONING OVERLAY DISTRICT
 - WATER RESOURCE OVERLAY DISTRICT

- FLOOD NOTE:**
- ACCORDING TO FEMA FLOOD INSURANCE RATE MAP COMMUNITY-PANEL NUMBER 2501700236F. DATED EFFECTIVE JULY 7, 2012, A PORTION OF THE SITE IS LOCATED IN ZONE AE:AREA OF MINIMAL FLOOD HAZARD - ELEVATION 214.2 FEET (NAVD88).

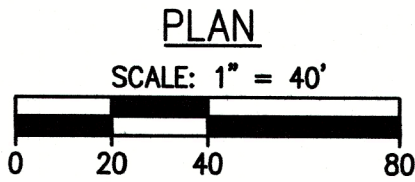
- WETLAND NOTE:**
- WETLAND RESOURCE AREA DELINEATED ON APRIL 17, 2024 BY DAN WELLS OF LEC ENVIRONMENTAL CONSULTING, INC., 380 LOWELL STREET, SUITE 101, WAKEFIELD, MA 01880 (781-245-2500).

- DATUM:**
- ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988.

- WATER SUPPLY:**
- THE SUBJECT PARCEL IS LOCATED WITHIN A KNOWN DRINKING WATER SUPPLY ZONE II. THERE ARE KNOWN INTERIM WELLHEAD PROTECTION ZONES ON THE SUBJECT PARCEL BASED ON THE DEPARTMENT OF ENVIRONMENTAL PROTECTION MAPS.



OVERALL EXISTING SITE PLAN



The Morin-Cameron GROUP, INC.
CIVIL ENGINEERS • ENVIRONMENTAL CONSULTANTS
LAND SURVEYORS • LAND USE PLANNERS
66 ELM STREET, DANVERS, MASSACHUSETTS 01923
P: 978-777-8886, W: WWW.MORINCAMERON.COM



SURVEY BY: BP, BS, & SR
DRAFTED BY: CW/AM
CHECKED BY: SPC
APPROVED BY: SPC
SCALE: AS-NOTED
DATE: APRIL 29, 2025

NO.	REVISIONS		DATE
	DESCRIPTION	DATE	
1	APPLICANT NAME CHANGE CONSERVATION COMMENTS AND PROPOSED FIRE HYDRANT	6/18/25	
2	WATER SUPPLY NOTE	7/11/25	
3	EXISTING CONDITIONS SURFACE CLARIFICATION AND REVISED PERVIOUS AND IMPERVIOUS AREA TABLE	7/22/25	
4	PROPOSED ENCLOSURE CONTAINMENT SYSTEM WITH IMPERVIOUS LINER	10/6/25	

SITE REDEVELOPMENT PLAN
IN
LITTLETON, MASSACHUSETTS
97 & 99 MILL ROAD
(ASSESSOR'S MAP U-35, LOTS 31A & 31B)
PREPARED FOR:
LITTLETON BESS LLC

EXISTING CONDITIONS PLAN
SHEET NO.
1 OF 3

ZONING MATRIX (INDUSTRIAL B/AQUIFER & WATER RESOURCE DISTRICT)			
DIMENSIONAL REGULATION	REQUIRED	EXISTING	PROPOSED
LOT AREA (1)	3 ACRES MIN.	4.725± ACRES	NO CHANGE
STREET SETBACK (2)	30 FT MIN.	N/A	266 FT
SIDE SETBACK (2)	20 FT MIN.	N/A	25 FT
REAR SETBACK (2)	20 FT MIN.	N/A	37 FT
BUILDING HEIGHT	40 FT MAX.	N/A	N/A
LOT COVERAGE (BUILDINGS)	35% MAX.	8.3%	8.2%
LOT COVERAGE (BUILDINGS & PAVEMENT)	80% MAX.	10.1%	10.4%

NOTES:
(1) USE IS PART OF A COMMERCIAL SOLAR PHOTOVOLTAIC INSTALLATION AND PER LITTLETON ZONING BYLAW ARTICLE XXVI §173-183, A MINIMUM LOT AREA OF 3 ACRES IS REQUIRED.
(2) SETBACKS ARE MEASURED TO THE SECURITY FENCE, PER LITTLETON ZONING BYLAW ARTICLE XXVI §173-183 "ALL SECURITY FENCES SURROUNDING THE INSTALLATIONS SHALL BE SET BACK FROM THE PROPERTY LINE IN A DISTANCE EQUAL TO THE SETBACK REQUIREMENT APPLICABLE TO BUILDINGS WITHIN THE ZONING DISTRICT IN WHICH THE INSTALLATION IS REQUIRED."

PERVIOUS & IMPERVIOUS AREAS (97 & 99 MILL ROAD)				
TYPE	EXISTING (SF)	PROPOSED (SF)	CHANGE (SF)	IMPERVIOUS CHANGE (SF)
BUILDING/ROOF (TO GRAVEL)	17,124	16,405	-719	-719
PAVEMENT/CONCRETE	3,473	5,045	+1,572	+1,572
WATER (BEAVER BROOK)	13,456	13,456	0	0
IMPERVIOUS COMPACTED ASPHALT MILLING	2,873	0	-2,873	-2,873
IMPERVIOUS STOCKPIILING (TO BE PERVIOUS GRAVEL*)	7,264	2,348	-4,916	-4,630*
GRAVEL WITH IMPERVIOUS LINER WITHIN ENCLOSURE (NEW)	0	2,750	+2,750	+2,750
TOTAL IMPERVIOUS	44,190	40,290*	-	-3,900
TOTAL PERVIOUS AREA	161,714	165,614	-	+3,900
TOTAL AREA	205,904	205,904	-	0

*286 SF OF EXISTING IMPERVIOUS STOCKPILES TO BE WITHIN PROPOSED IMPERVIOUS AREA

ONSITE RIVERFRONT AREA CALCULATIONS			
	EXISTING DEGRADED AREA	PROPOSED DEGRADED AREA	NET CHANGE
0'-100' BUFFER	36,483 SF	35,845 SF	-638 SF
100'-200' BUFFER	58,228 SF	58,228 SF	0
TOTAL	94,711 SF	94,073 SF	-638 SF±

NOTE: 3,314 SF OFFSITE ENCROACHMENT TO BE RESTORED

RIVERFRONT AREA NOTE:

BASED ON A REVIEW OF SATELLITE IMAGERY FROM MARCH 1995, THE PROPOSED WORK AREA IS PREVIOUSLY DEGRADED AS A RESULT IMPERVIOUS SURFACES AND AN ABSENCE OF TOPSOIL. PER 310 CMR 10.58(5), PREVIOUSLY DEGRADED OR DEVELOPED AREAS MAY BE REDEVELOPED, INCLUDING REUSED.

THE PROPOSED DEVELOPMENT WILL IMPROVE EXISTING CONDITIONS BY REMOVING IMPERVIOUS COMPACTED GRAVEL SURFACES AND RESTORING VEGETATION, STORMWATER MANAGEMENT WILL BE PROVIDED ACCORDING TO THE MASSDEP STANDARDS, WORK IS NOT LOCATED CLOSER THAN EXISTING CONDITIONS, AND THE AREA OF PROPOSED WORK DOES NOT EXCEED THE AMOUNT OF DEGRADED AREA. ALL PROPOSED WORK IS WITHIN A PREVIOUSLY DEGRADED AREA AND NO ALTERATION IS PROPOSED.

STORMWATER MANAGEMENT NOTE:

THE PROJECT WILL REDUCE IMPERVIOUS AREA AND THEREFORE QUALIFIES AS A REDEVELOPMENT PROJECT UNDER THE MASSDEP STORMWATER MANAGEMENT STANDARDS. PER THE STANDARDS "A REDEVELOPMENT PROJECT IS REQUIRED TO MEET THE FOLLOWING STORMWATER MANAGEMENT STANDARDS ONLY TO THE MAXIMUM EXTENT PRACTICABLE: STANDARD 2, STANDARD 3, AND THE PRETREATMENT AND STRUCTURAL BEST MANAGEMENT PRACTICE REQUIREMENTS OF STANDARDS 4, 5, AND 6. EXISTING STORMWATER DISCHARGES SHALL COMPLY WITH STANDARD 1 ONLY TO THE MAXIMUM EXTENT PRACTICABLE."

GENERAL NOTE:

THESE PLANS ARE PREPARED FOR OUR CLIENTS USE ONLY FOR THE SPECIFIC PURPOSE OF LAND USE PLANNING ONLY AND ARE NOT TO BE USED OR RELIED UPON AS A PERMIT OR CONSTRUCTION DOCUMENT WITHOUT THE WRITTEN CONSENT OF THE MORIN-CAMERON GROUP, INC.

ABBREVIATIONS:

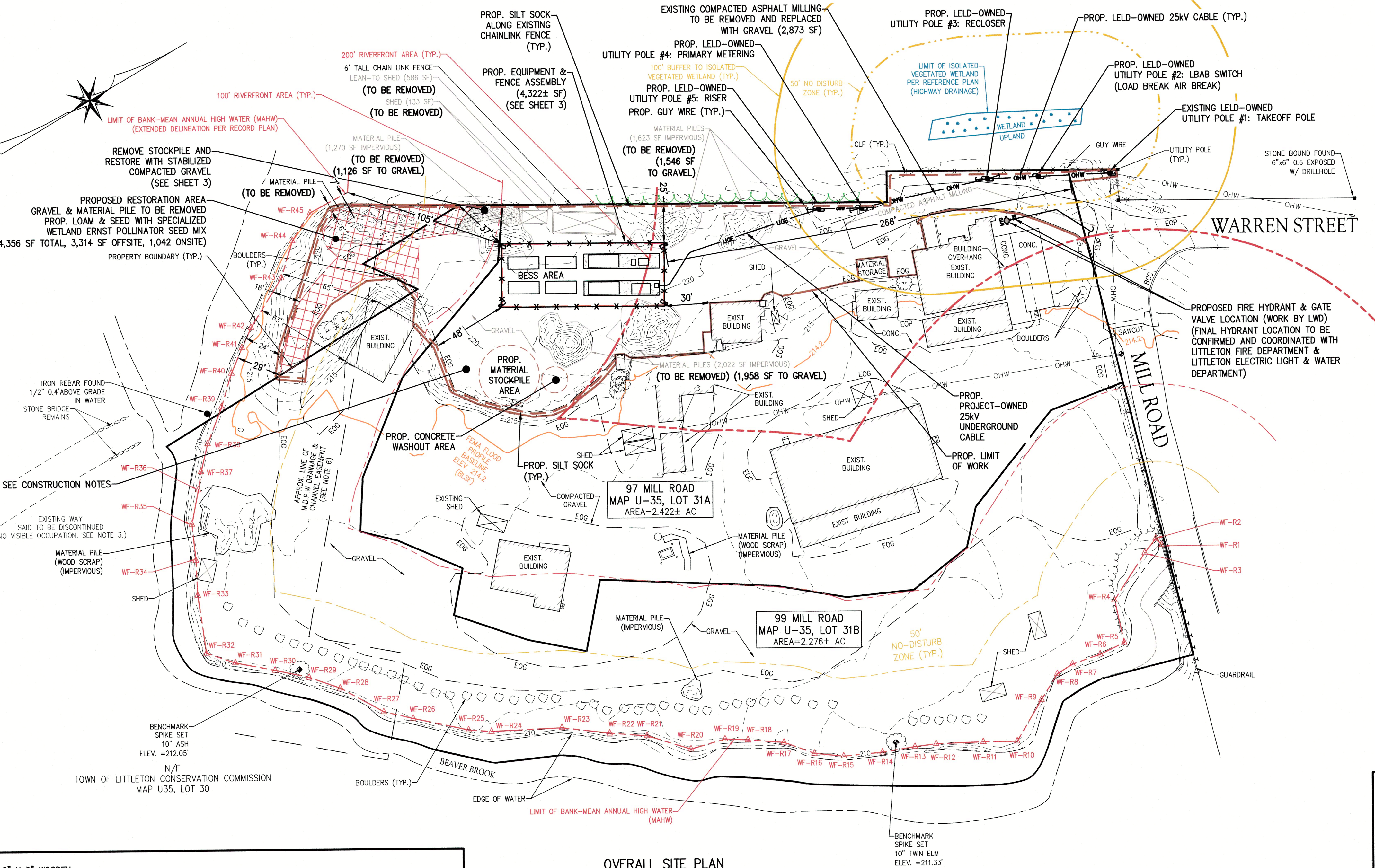
AC	ACRES
APPROX	APPROXIMATE
BCC	BITUMINOUS CONCRETE CURB
BESS	BATTERY ENERGY STORAGE SYSTEM
BLSF	BORDERING LAND SUBJECT TO FLOODING
BWV	BORDERING VEGETATED WETLAND
CLF	CHAIN LINK FENCE
CONC	CONCRETE
ELEV	ELEVATION
EOG	EDGE OF GRAVEL
EOP	EDGE OF PAVEMENT
FEMA	FEDERAL EMERGENCY MANAGEMENT AGENCY
FG	FINISHED GRADE
LELD	LITTLETON ENERGY LIGHT DEPARTMENT
MASSDEP	MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION
OHW	OVERHEAD WIRE
TYP	TYPICAL
UGE	UNDERGROUND ELECTRIC
WF	WETLAND FLAG

LEGEND

CONTOURS	EXISTING	PROPOSED
MAJOR	-220-	220
MINOR	-219-	219
50' NO DISTURB ZONE (ISOLATED WETLAND)		
50' NO DISTURB ZONE (BANK)		
100' BUFFER ZONE (ISOLATED WETLAND)		
100' BUFFER ZONE (BANK)		
200' RIVERFRONT AREA		
LIMIT OF BANK-MEAN ANNUAL HIGH WATER		
EDGE OF WATER		
FEMA FLOOD ELEVATION (BLSF)		
LIMIT OF ISOLATED WETLAND		
OVERHEAD WIRES	OHW	OHW
DRAIN PIPE	D	D
UNDERGROUND ELECTRIC	UGE	UGE
CHAIN LINK FENCE		
GUARDRAIL		
TREELINE		
BENCHMARK		
LIGHT POLE		
TEST PIT		
TREE		
UTILITY POLE		
WETLAND FLAG		
FIRE HYDRANT		

RIVERFRONT CALCULATIONS:

RIVERFRONT AREA ON PROPERTY= 171,287 SF ± (10%= 7,129 SF)
PREVIOUSLY DEGRADED RIVERFRONT= 94,711 SF±
PROPOSED ALTERATION IN RIVERFRONT (0'-100' RFA)= 3,391 SF±
PROPOSED ALTERATION IN RIVERFRONT (100'-200' RFA)= 13,718 SF±
PROPOSED ALTERATION IN RIVERFRONT (TOTAL)= 17,110 SF± (9.9%)
DEGRADED RIVERFRONT RESTORED (REMOVAL OF GRAVEL ACCESS ROAD) = 2,673 SF±
DEGRADED RIVERFRONT PROPOSED = 0 SF±

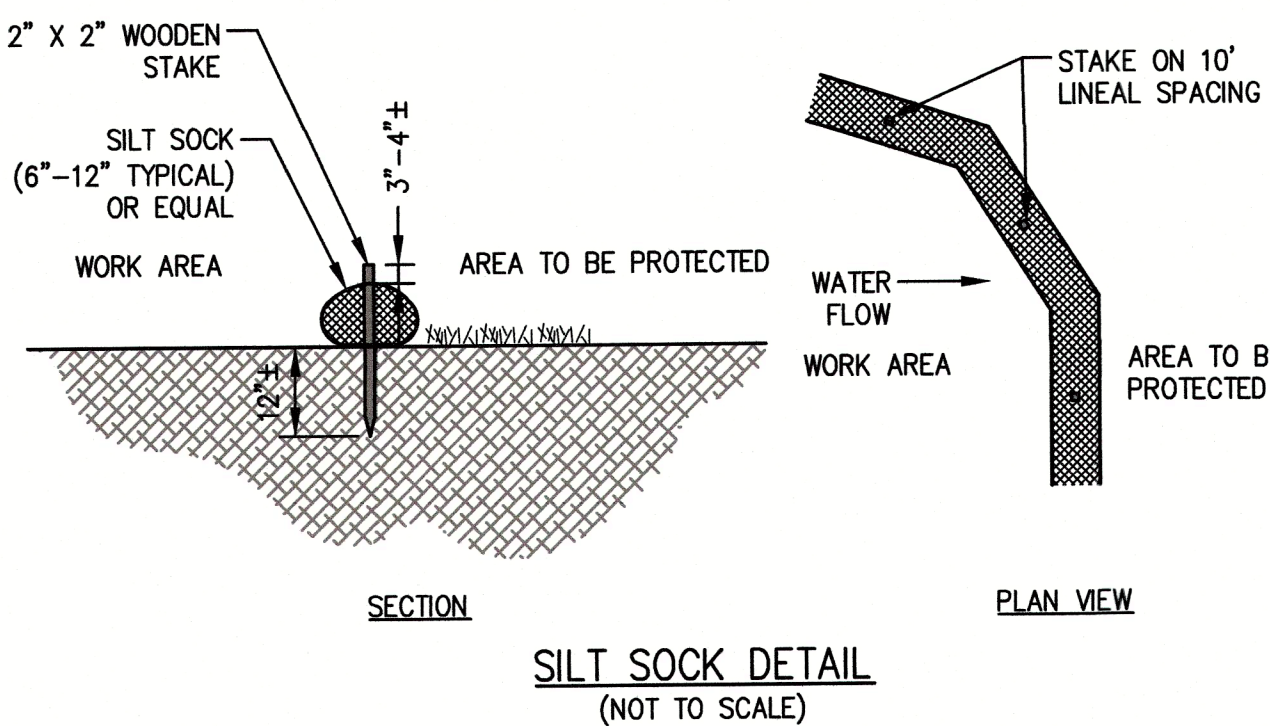


OVERALL SITE PLAN

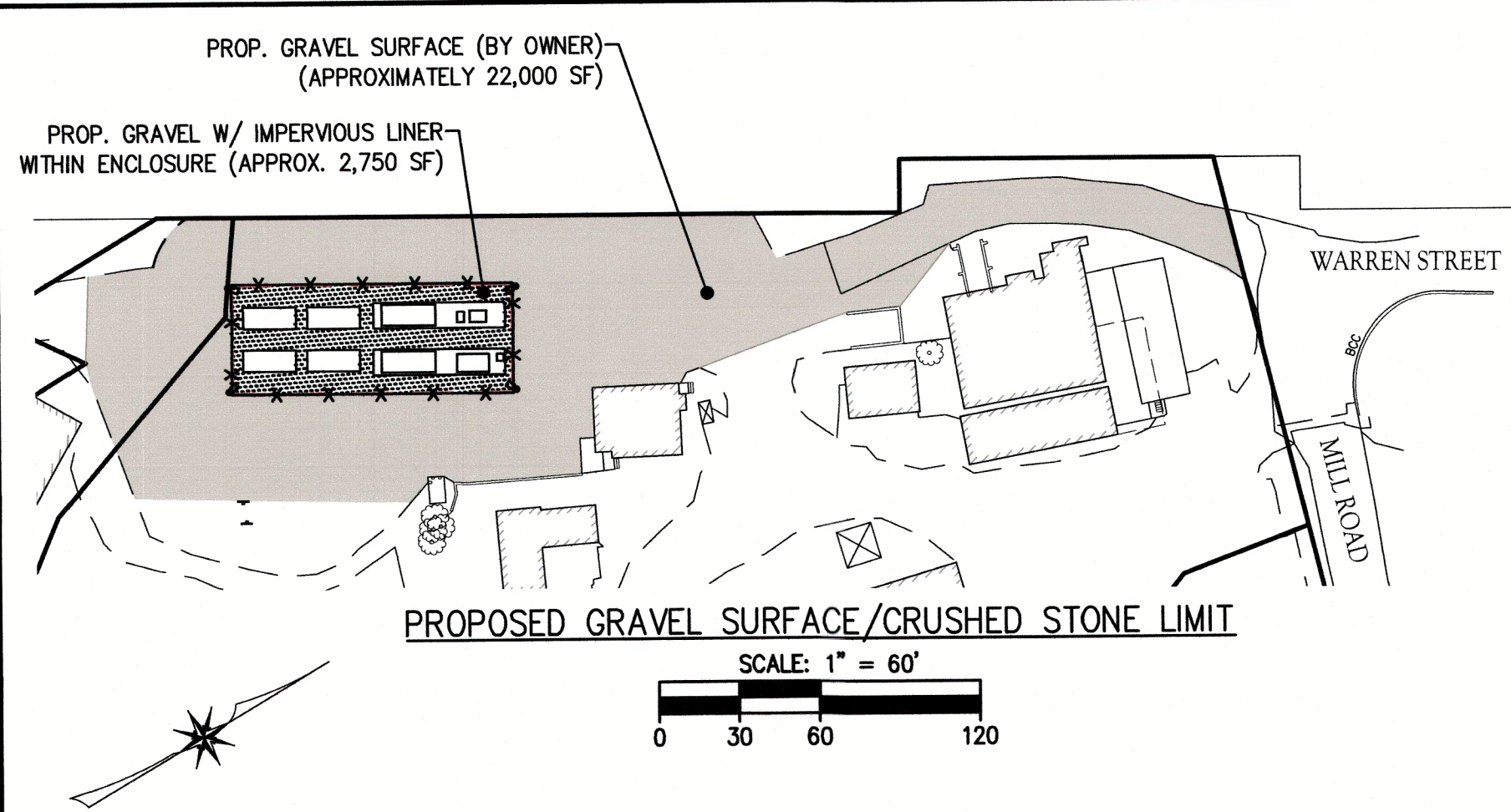
SCALE: 1" = 40'

CONSTRUCTION NOTES:

- OWNER TO FINISH AREAS OUTSIDE FENCE ENCLOSURE & RESTORATION AREAS WITH SUITABLE COMPACTED GRAVEL OR CRUSHED STONE.
- ALL UNSUITABLE SOIL FOUND DURING CONSTRUCTION OF THE PROPOSED EQUIPMENT AREA/CONCRETE PADS SHALL BE REPLACED WITH SUITABLE/STABLE SOIL. CONTRACTOR TO VERIFY WITH CIVIL ENGINEER SOIL IS SUITABLE FOR CONCRETE PADS AND/OR FOUNDATIONS.

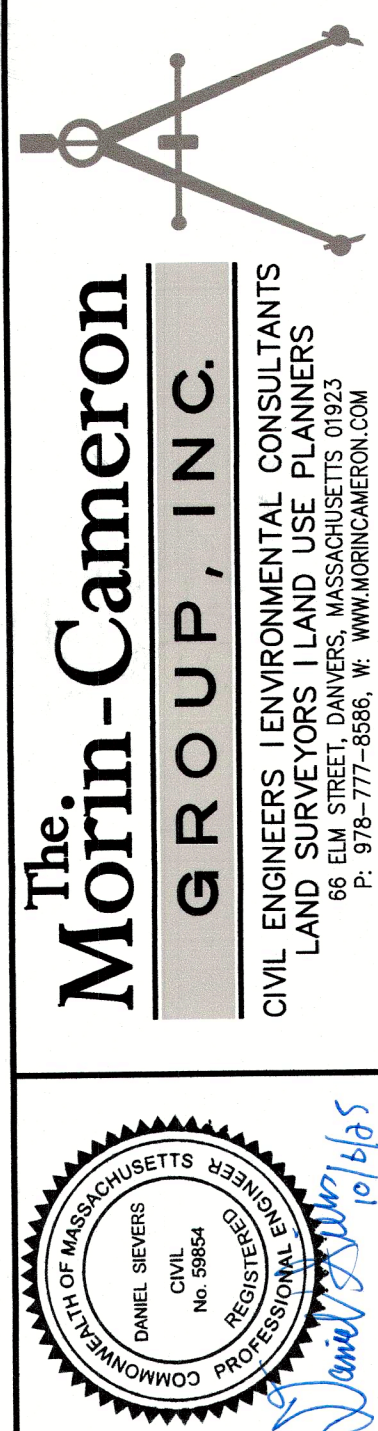


SILT SOCK DETAIL
(NOT TO SCALE)



PROPOSED GRAVEL SURFACE/CRUSHED STONE LIMIT

SCALE: 1" = 60'

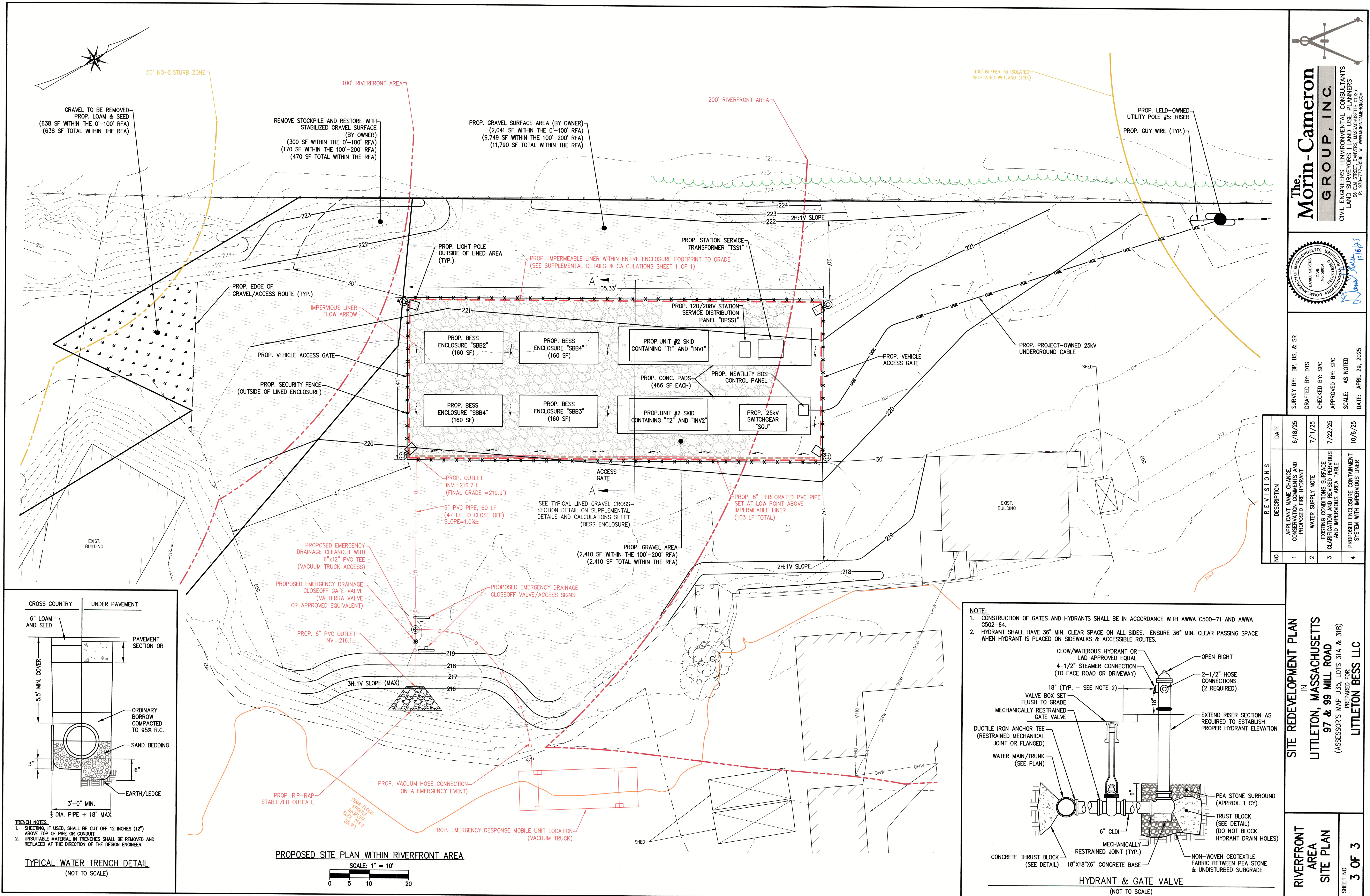


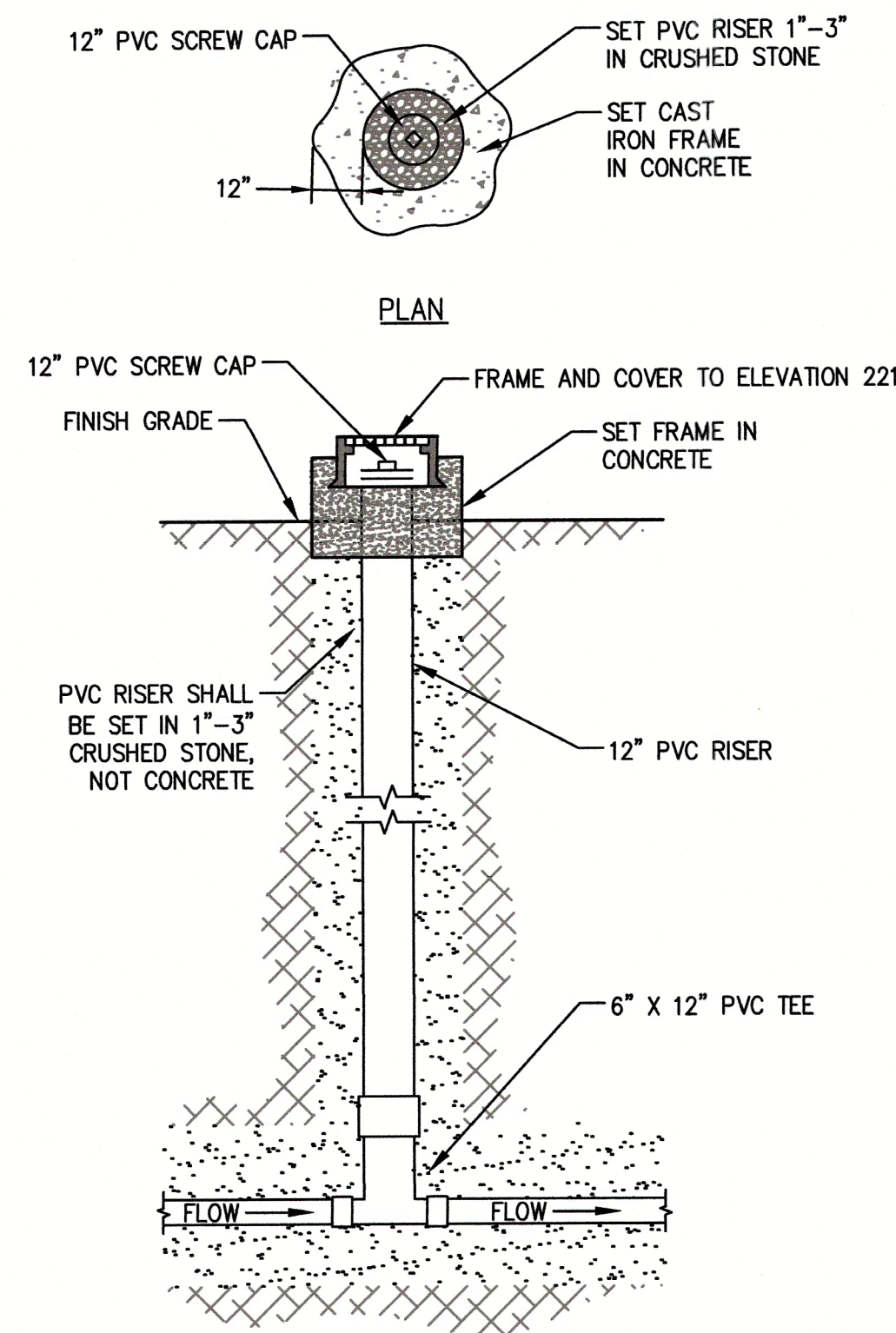
SURVEY BY: BP, BS, & SR
DRAFTED BY: JMB/DJS
CHECKED BY: SPC
APPROVED BY: SPC
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DATE: APRIL 29, 2025

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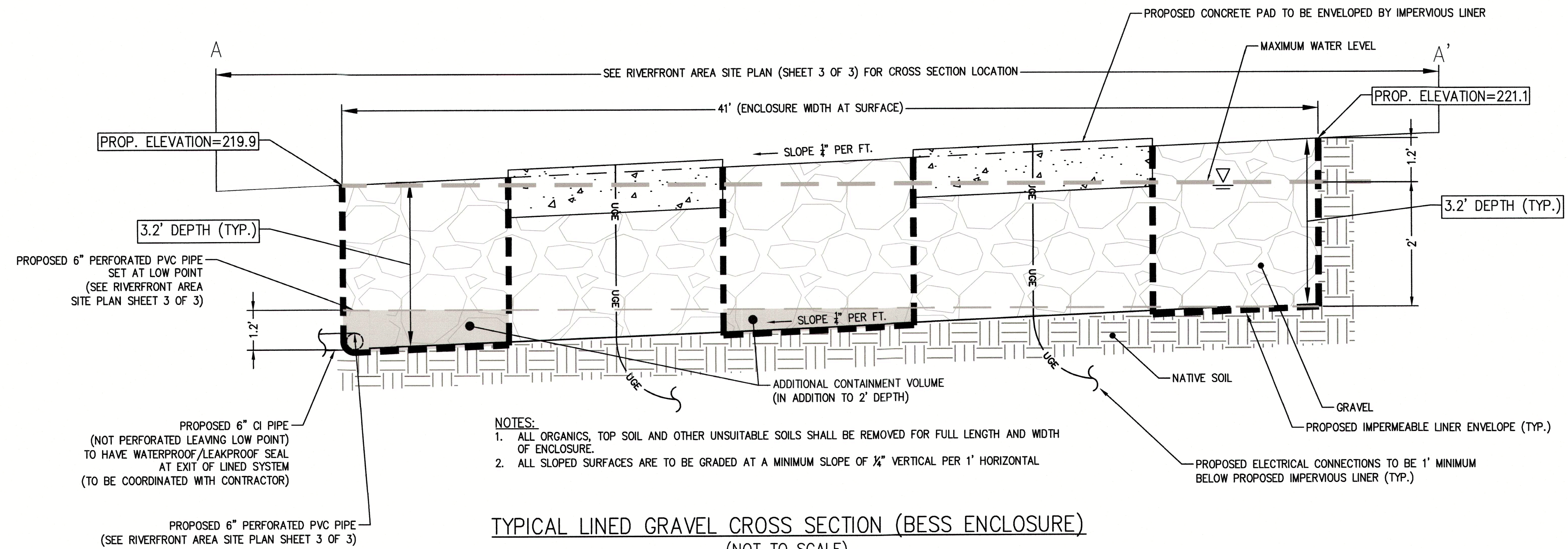
SITE REDEVELOPMENT PLAN
IN
LITTLETON, MASSACHUSETTS
97 & 99 MILL ROAD
(ASSESSOR'S MAP U35, LOTS 31A & 31B)
PREPARED FOR:
LITTLETON BESS LLC

OVERALL SITE
PLAN
& DETAILS
SHEET NO.
2 OF 3





EMERGENCY DRAINAGE CLEANOUT
(VACUUM TRUCK ACCESS)
NOT TO SCALE



TYPICAL LINED GRAVEL CROSS SECTION (BESS ENCLOSURE)
(NOT TO SCALE)

ENCLOSURE CONTAINMENT CALCULATION (3.2' DEPTH)

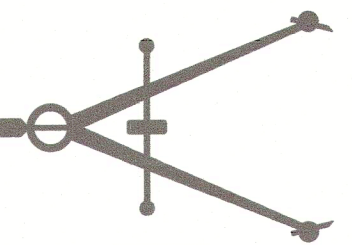
TOTAL AREA OF PROPOSED ENCLOSURE= 4,322 SF
TOTAL AREA OF PROPOSED LINED ENCLOSURE (NO CONCRETE PADS) = 1,572 SF

PROPOSED DEPTH OF GRAVEL THAT CAN BE CLAIMED FOR CONTAINMENT VOLUME THROUGHOUT ENCLOSURE = 2'
VOLUME OF GRAVEL WITHIN LINED ENCLOSURE (ONLY 2' DEPTH) = 1,572 SF X 2' = 3,144 CF

ESTIMATED ADDITIONAL VOLUME OF CONTAINMENT UNACCOUNTED FOR BELOW 2' DEPTH (SEE ABOVE DETAIL):
[(1/2) X WIDTH X HEIGHT] X LENGTH X 0.4* ASSUMED REDUCTION FACTOR DUE TO CONCRETE PADS=
[(1/2) X 41' X 1.2'] X 105.33' X 0.4= 1,036 CF

ASSUMED VOID SPACE OF PROPOSED GRAVEL= 40% = 0.40
PROPOSED CONTAINMENT VOLUME (NO PERF. PIPE VOID SPACE INCLUDED)= (3,144 CF + 1,036) X 0.40= 1,672 CF
CONVERT TO GALLONS: 1,672 CF X 7.48 GALLONS/CF= 12,506 GALLONS

*[NOTE: 0.4 ASSUMED REDUCTION FACTOR ESTIMATED FROM RATIO OF LINER AREA/TOTAL SURFACE AREA=
2,750 SF/4,322 SF= 0.35,
ROUNDED UP TO 0.4 DUE TO MOST OF THE CLAIMABLE VOLUME BEING OUTSIDE OF THE CONCRETE PADS FOOTPRINTS.]



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66 ELIZABETH STREET, DARTMOUTH, MASSACHUSETTS 01923
P: 978-777-8886 W: WWW.MORINCAMERON.COM



SURVEY BY: BP, BS, & SR
DRAFTED BY: DTS
CHECKED BY: SPC
APPROVED BY: SPC
SCALE: AS NOTED
DATE: OCTOBER 6, 2025

REVISIONS		DATE
NO.	DESCRIPTION	

SITE REDEVELOPMENT PLAN
IN
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(ASSESSOR'S MAP U35, LOTS 31A & 31B)
PREPARED FOR:
LITTLETON BESS LLC

**SUPPLEMENTAL
DETAILS &
CALCULATIONS**
SHEET NO.
1 OF 1