EBT Environmental Consultants, Inc. GLENN E. KREVOSKY, CONSULTANT 601 Main Street North Oxford, MA 01537 glenn.krevosky@charter.net

Cell: (508)769-3659 Office: (508)987-0979

Sturbridge Conservation Commission 308 Main Street Sturbridge, MA 01566 March 1, 2022

Re. 150 Charlton Road, Sturbridge - Alternatives Analysis Narrative

Dear Commission,

Summit Engineering and Survey, Inc. and EBT Environmental Consultants, Inc. prepared two alternative plans for the site which were derived from our initial reviews of the site – Sketch Plan #3, dated 2/28/2022 (Alt 3) and Sketch 2, dated 3/1/2022 (Alt 2). The two alternative plans arrive at significantly more alteration in the riparian zones (with the basins).

Alt 3 shows 18,141 square feet of alteration in the 100'-200' riparian zone including a stormwater basin. This plan shows 7,439 square feet of restoration of the riparian zones arriving at a 10,072 square foot or 7.2% decrease of natural riverfront area on the site. Without the stormwater basin Alt 3 shows 6,496 square feet of alteration which makes the restoration to alteration ratio of 1.15 to 1 under the Wetland Protection Act.

Alt 2 shows 14,189 square feet of alteration in the 100'-200' riparian zone including a stormwater basin. This plan shows 9,810 square feet of restoration of the riparian zones arriving at a 4,421 square 2.9% decrease of natural riverfront area on site. Without the stormwater basin Alt 2 shows 6,073 square feet of alteration which makes the restoration to alteration ratio of 1.62 to 1 under the Wetland Protection Act.

Our current plan shows 6,073 square feet of alteration in the 100'-200' riparian zone with no stormwater basin in the riverfront area on the site. This plan shows 9,810 square feet of restoration of the riparian zones arriving at a 3,737 square foot or 2.5% increase of natural riverfront area. Our current restoration to alteration ratio of 1.62 to 1. Our current revision of the plan conforms to the performance standards under 310 CMR 10.58 and is the best scenario arrived at to conform with the Sturbridge Wetland Bylaw.

Respectfully,

<u>Glenn E. Hewsthy</u> Glenn E. Krevosky, Consultant

Attached: Sketch Plan #3 by Summit Engineering and Survey, Inc., dated 2/28/2022 Sketch 2 by Summit Engineering and Survey, Inc., dated 3/1/2022

Massachusetts Department of Environmental Protection Bureau of Resource Protection - Wetlands Provided by MassDEP:

WPA Form 3 – Notice of Intent

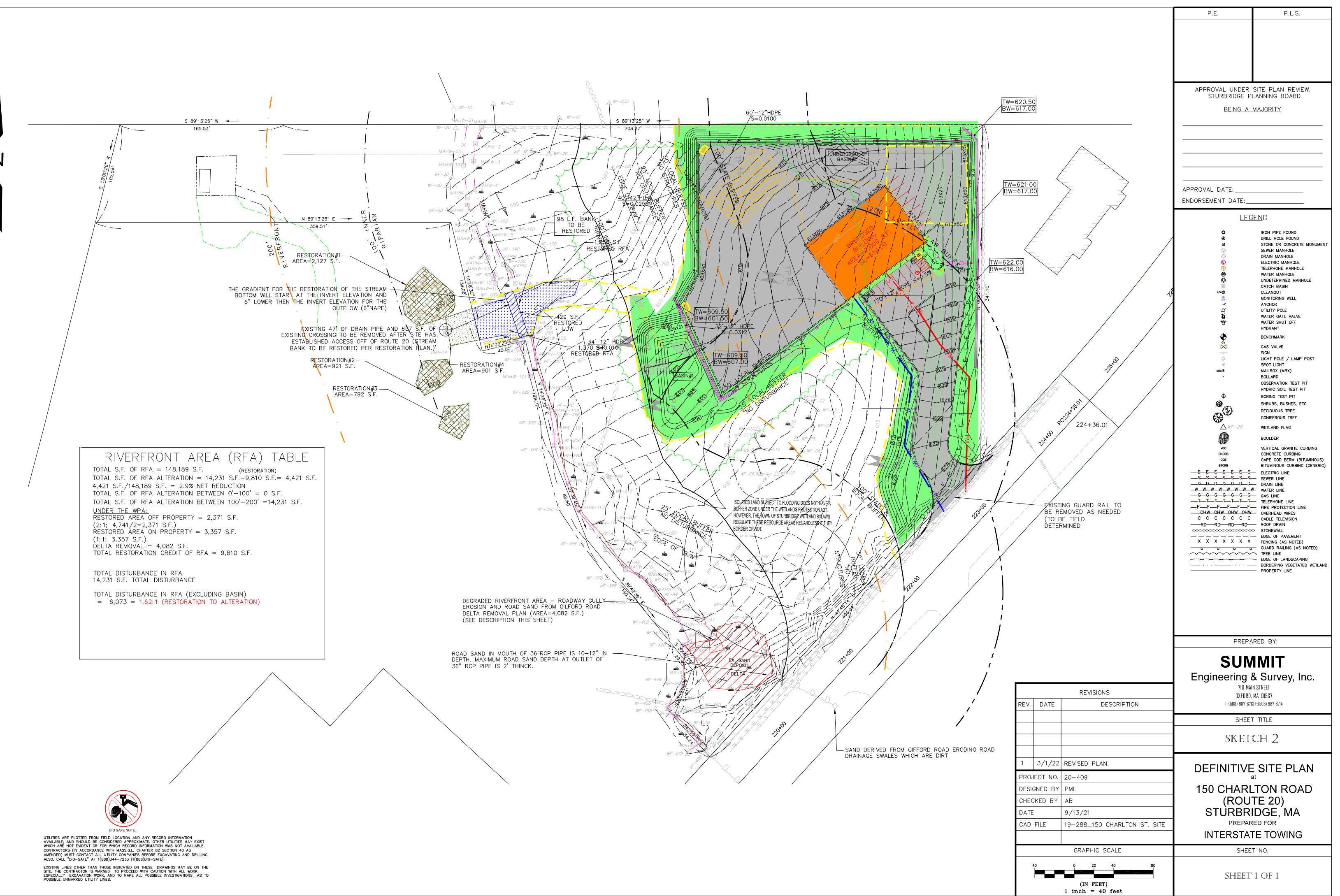
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

MassDEP File Number

Document Transaction Number Sturbridge City/Town

B. Buffer Zone & Resource Area Impacts (temporary & permanent) (cont'd)

	<u>Resour</u>	ce Area	Size of Proposed Alteration	Proposed	Replacement (if any)
		Duala	49' of RCP	98 (resto	red)
For all projects	a. 🔀	Bank	1. linear feet	2. linear fee	
affecting other	b. 🔀	Bordering Vegetated	Existing sediment delta	4,013 (re	stored)
Resource Areas,		Wetland	1. square feet	2. square fe	
please attach a narrative	c. 🖂	Land Under	49' of RCP	429 (rest	
explaining how	0.	Waterbodies and	1. square feet	2. square fe	eet
the resource area was delineated.		Waterways	3. cubic yards dredged		
	<u>Resour</u>	<u>ce Area</u>	Size of Proposed Alteration	Proposed	Replacement (if any)
	d. 🗌	Bordering Land			
		Subject to Flooding	1. square feet	2. square fe	eet
			3. cubic feet of flood storage lost	4. cubic fee	t replaced
	e. 🗌	Isolated Land			a ropidood
	0.	Subject to Flooding	1. square feet		
			2. cubic feet of flood storage lost	3. cubic fee	tranlagad
			2. Cubic reet of hood storage lost	5. Cubic lee	a replaced
	f. 🛛	Riverfront Area	1. Name of Waterway (if available) - spe	cify coastal o	r inland
	2.	Width of Riverfront Area (erfront Area (check one):		
		25 ft Designated De	ensely Developed Areas only		
		100 ft New agricult	ural projects only		
		🛛 200 ft All other proj	ects		
					148,189
	3.	Total area of Riverfront Are	a on the site of the proposed proje	<u></u>	square feet
	4.	Proposed alteration of the F	Riverfront Area:		
	6,0	073	0	6,073	
		total square feet	b. square feet within 100 ft.	c. square feet	between 100 ft. and 200 ft.
	5.	Has an alternatives analysi	s been done and is it attached to th	nis NOI?	🛛 Yes 🗌 No
	6.	Was the lot where the activ	ity is proposed created prior to Aug	gust 1, 1996 [.]	? 🗌 Yes 🛛 No
3	6. 🗌 Coa	astal Resource Areas: (See	e 310 CMR 10.25-10.35)		
	Note:	for coastal riverfront areas.	please complete Section B.2.f. at	oove.	



RIVERFRONT AREA (RFA) TABLE TOTAL S.F. OF RFA = 148,189 S.F. (RESTORATION)

S/89'13'25"/W

VERIZON TOWER LEASING AREA-

N 8913'25" E ----

359.51

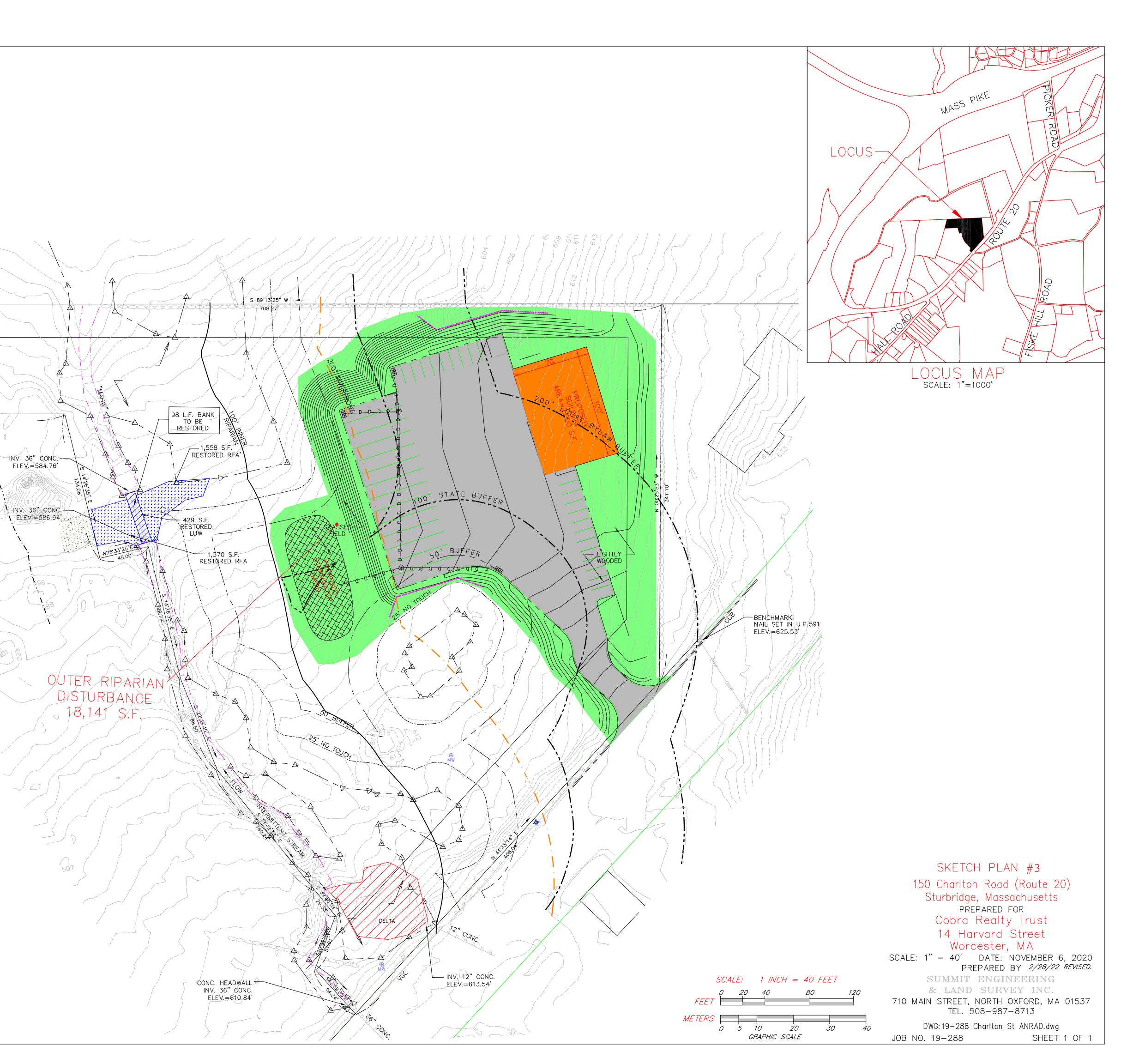
165.53

TOTAL S.F. OF RFA ALTERATION = 18,141 S.F.-7,439 S.F.= 10,072 S.F. 10,072 S.F./148,189 S.F. = 7.2% NET REDUCTIONTOTAL S.F. OF RFA ALTERATION BETWEEN 0'-100' = 0 S.F. TOTAL S.F. OF RFA ALTERATION BETWEEN 100'-200' = 18,141 S.F.<u>UNDER THE WPA:</u> RESTORED AREA ON PROPERTY = 3,357 S.F. (1:1; 3,357 S.F.)DELTA REMOVAL = 4,082 S.F.TOTAL RESTORATION CREDIT OF RFA = 7,439 S.F.

UNDER THE SWB: STURBRIDGE 2:1 MITIGATION: RESTORED AREA ON PROPERTY = 3,357 S.F. (1:1; 3,357 S.F.) DELTA REMOVAL = 4,082 S.F. TOTAL RESTORATION CREDIT OF RFA = 7,439 S.F.

TOTAL DISTURBANCE IN RFA 18,141 S.F. TOTAL DISTURBANCE

TOTAL DISTURBANCE IN RFA (EXCLUDING BASIN) = 6,496 S.F. 1.15:1 (RESTORATION TO ALTERATION)



1.) PROPERTY LINES/SITE FEATURES ARE THE RESULT OF AN ON THE GROUND SURVEY PERFORMED BY SUMMIT ENGINEERING & SURVEY, INC.

2.) ALL MATERIALS AND CONSTRUCTION PRACTICES SHALL BE IN CONFORMANCE WITH THE LATEST EDITION OF THE TOWN OF STURBRIDGE'S DEPARTMENT OF PUBLIC WORKS & PARKS STANDARD SPECIFICATIONS & DETAILS, UNLESS OTHERWISE SPECIFIED BY LOCAL AUTHORITY OR THE ENGINEER.

3.) THE CONTRACTOR SHALL UTILIZE ALL MEASURES AND MATERIALS NECESSARY TO ENSURE THE SAFETY OF ALL PERSONS AND PROPERTIES AT THE SITE DURING CONSTRUCTION. ALL EXCAVATIONS SHALL CONFORM TO CURRENT OSHA STANDARDS.

4.) UNLESS OTHERWISE NOTED, ALL DISTURBED AREAS SHALL BE DRESSED WITH A MINIMUM OF FOUR INCHES (4") OF LOAM AND SHALL BE SEEDED WITH AN APPROVED GRASS MIX.

5.) THE CONTRACTOR SHALL PROVIDE APPROPRIATE EROSION AND SEDIMENTATION CONTROL MEASURES AT ALL TIMES. DEWATERING OPERATIONS SHALL BE PROVIDED, IF REQUIRED; ALL DISCHARGE SHALL PASS THROUGH SEDIMENTATION CONTROL DEVICES TO PREVENT IMPACTS UPON WATER BODIES, BORDERING VEGETATED WETLANDS, DRAINAGE SYSTEMS AND ABUTTING PROPERTIES.

6.) DISTURBED AREAS SHALL BE STABILIZED BY LOAMING AND SEEDING SOON AFTER THE FINISHED GRADE HAS BEEN MET. IF FINAL GRADING DOES NOT OCCUR DURING THE GROWING SEASON, THESE AREAS SHALL BE MULCHED WITH HAY SECURED BY WEIGHTED SNOW FENCE, CHICKEN WIRE MESH OR JUTE NETTING WITH STAPLES. SEED FOR PERMANENT GRASS COVER SHOULD BE ACCORDING TO SOIL CONSERVATION SERVICE GUIDELINES FOR SOIL AND MOISTURE CONDITIONS FOUND ON THE SITE.

7.) SEDIMENTATION CONTROL FENCE AND/OR STRAW BALES SHALL BE MAINTAINED UNTIL ALL SLOPES HAVE BEEN STABILIZED AND THERE IS NO DANGER OF EROSION DIRECTLY ONTO ABUTTING PROPERTIES.

8.) PRIOR TO INITIATING CONSTRUCTION, SEDIMENTATION CONTROL DEVICES SHALL BE INSTALLED . THE CONTRACTOR SHALL MAINTAIN THE DEVICES UNTIL ALL WORK IS COMPLETE AND ALL AREAS HAVE BEEN STABILIZED.

9.) IF THE PROPOSED ROADWAY AREAS ARE NOT PAVED IMMEDIATELY AFTER THE INSTALLATION OF THE DRAINAGE STRUCTURES, HAY BALES SHALL BE PLACED TO PROTECT THE INTEGRITY OF THE STRUCTURES.

10.) THE LOCATION OF UNDERGROUND UTILITIES AND STRUCTURES ARE BASED ON FIELD AND RECORD INFORMATION. THE ENGINEER DOES NOT GUARANTEE THEIR ACCURACY OR THAT ALL UTILITIES AND SUBSURFACE STRUCTURES ARE SHOWN. THE CONTRACTOR SHALL VERIFY SIZE, LOCATION AND INVERT ELEVATIONS OF STRUCTURES AND UTILITIES, AS REQUIRED PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES WITH RECORD DATA SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY. PRIOR TO, AND DURING CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY AND COORDINATE WITH THE LOCAL UTILITY COMPANIES, WITH THE TOWN OF STURBRIDGE'S HIGHWAY DEPARTMENT, OTHER TOWN UTILITY DEPARTMENTS, APPLICABLE PRIVATELY OWNED UTILITY COMPANIES AND DIG-SAFE (1-888-344-7233) TO VERIFY UTILITY LOCATION AND TO PROTECT UTILITIES DURING AND AFTER CONSTRUCTION.

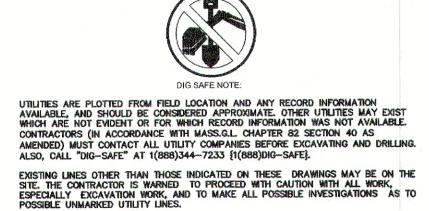
11.) IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE HIS WORK WITH THE APPROPRIATE HIGHWAY AND UTILITY DEPARTMENTS. CONTRACTOR SHALL MAINTAIN ALL EXISTING AND NEWLY INSTALLED UTILITIES IN GOOD WORKING ORDER AND SHALL PROTECT THEM FROM DAMAGE AT ALL TIMES UNTIL THE WORK IS COMPLETED AND ACCEPTED.

12.) THE CONTRACTOR SHALL PROVIDE FOR ALL TRAFFIC CONTROL IN ACCORDANCE WITH THE TOWN OF STURBRIDGE REQUIREMENTS.

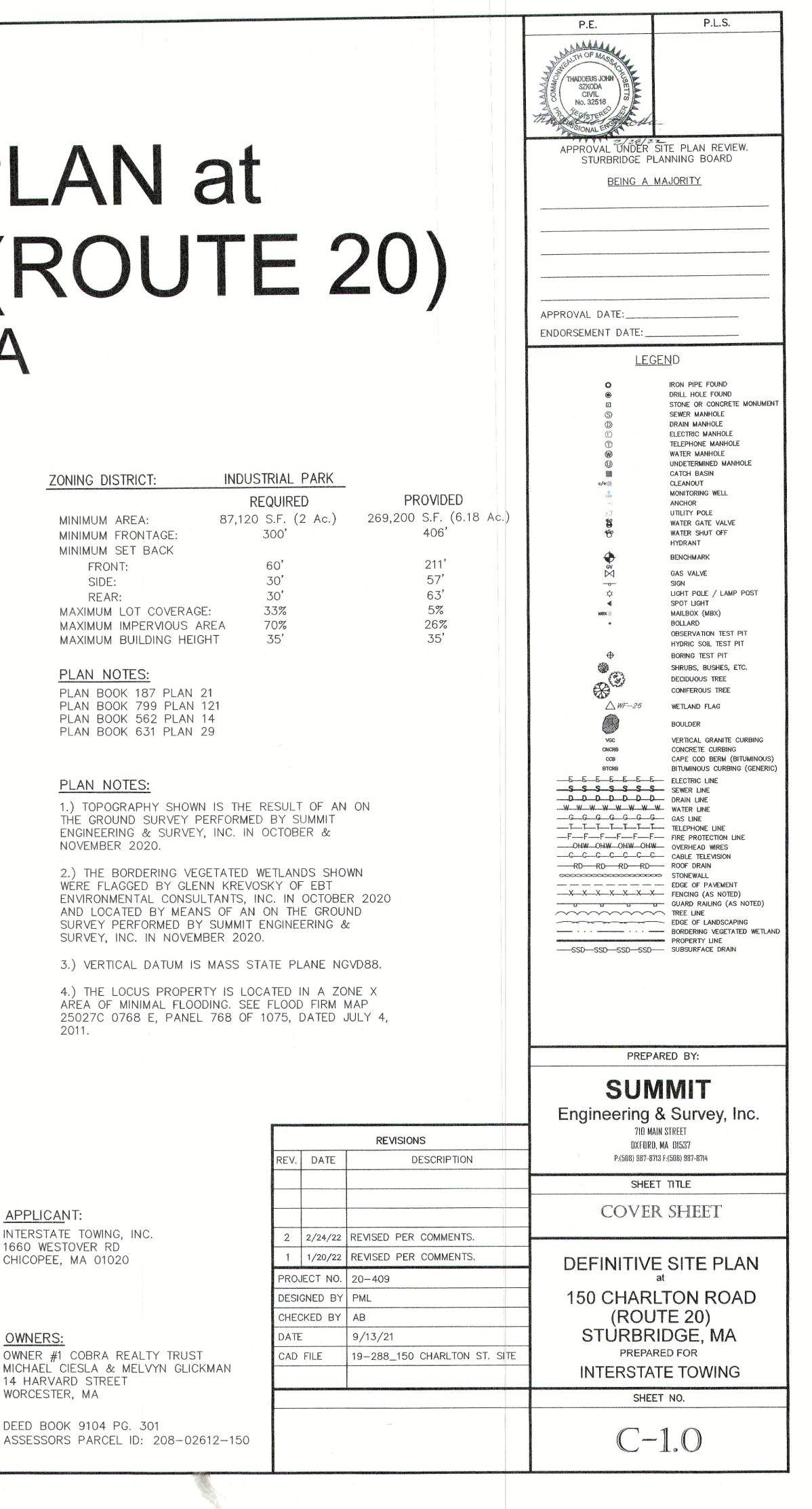
13.) NO TRENCHES SHALL BE ALLOWED TO REMAIN OPEN OVERNIGHT.

14.) ALL POTABLE WATER AND SANITARY BUILDING SERVICE CONNECTIONS SHALL BE SEPARATED HORIZONTALLY BY A MINIMUM OF TEN FEET.

15.) TREE WORK MUST BE COMPLETED BY COMPANIES HOLDING CURRENT COMPLIANCE AGREEMENTS WITH THE MASSACHUSETTS LONGHORNED BEETLE ERADICATION PROJECT. ANY COMPANY CAN BECOME COMPLIANT BY ATTENDING A TRAINING SESSION AT THE PROGRAM OFFICE IN WORCESTER, MA



DEFINITIVE SITE PLAN at 150 CHARLTON ROAD (ROUTE 20) STURBRIDGE, MA



APPLICANT: INTERSTATE TOWING, INC. 1660 WESTOVER RD CHICOPEE, MA 01020

OWNERS:

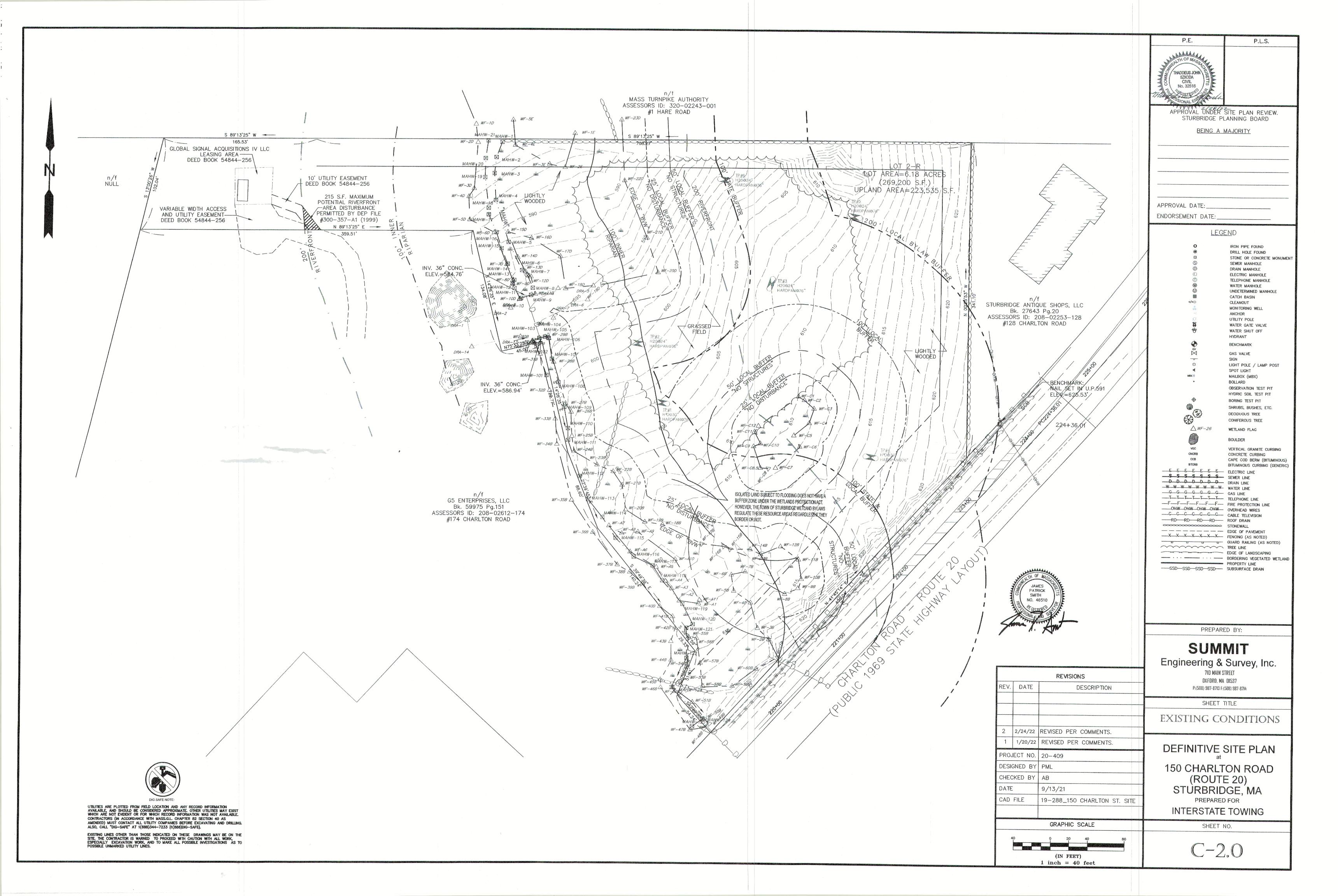
14 HARVARD STREET WORCESTER, MA

DEED BOOK 9104 PG. 301

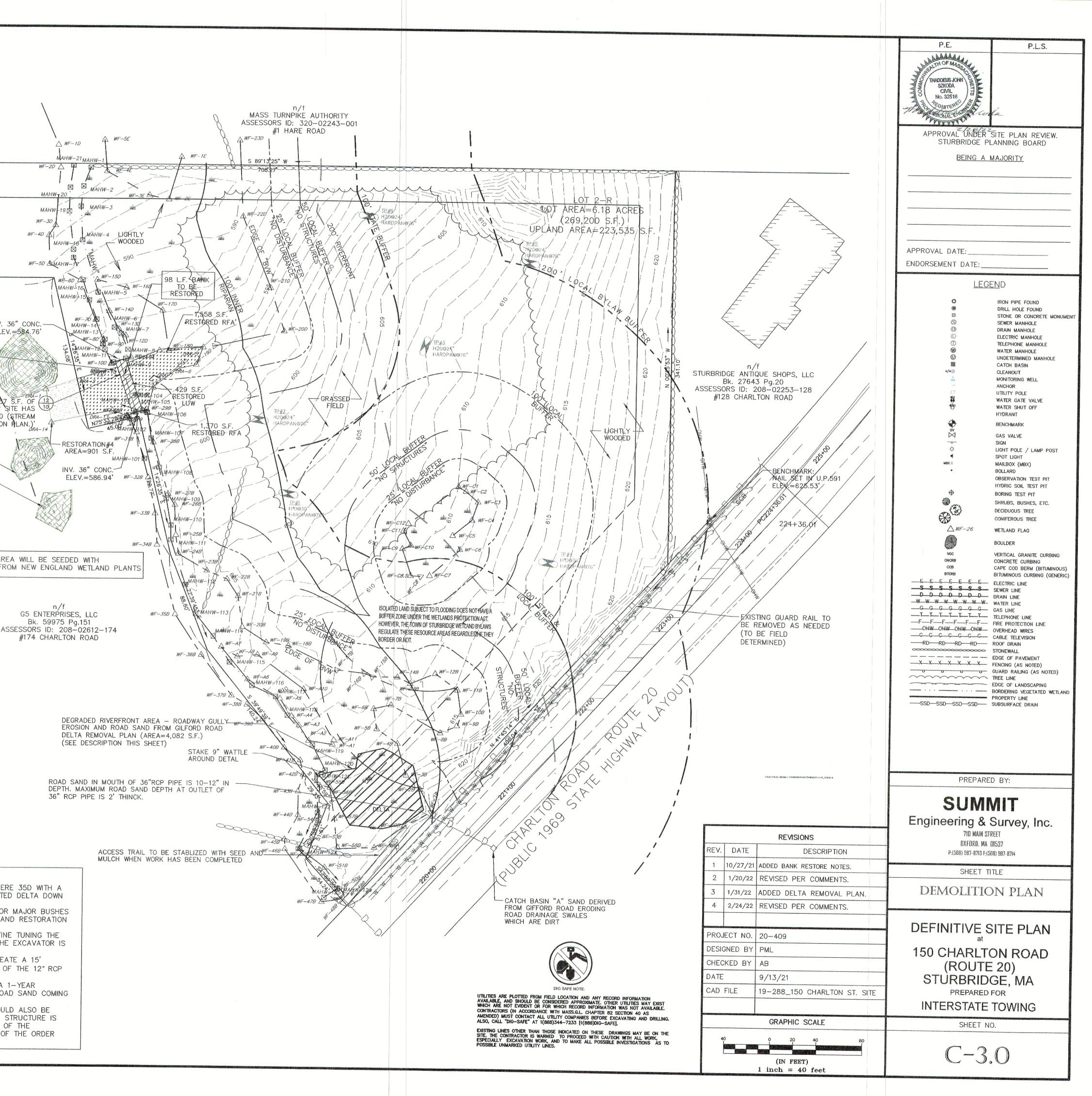
LOCUS MAP 1"=2000'

LIST OF DRAWINGS:

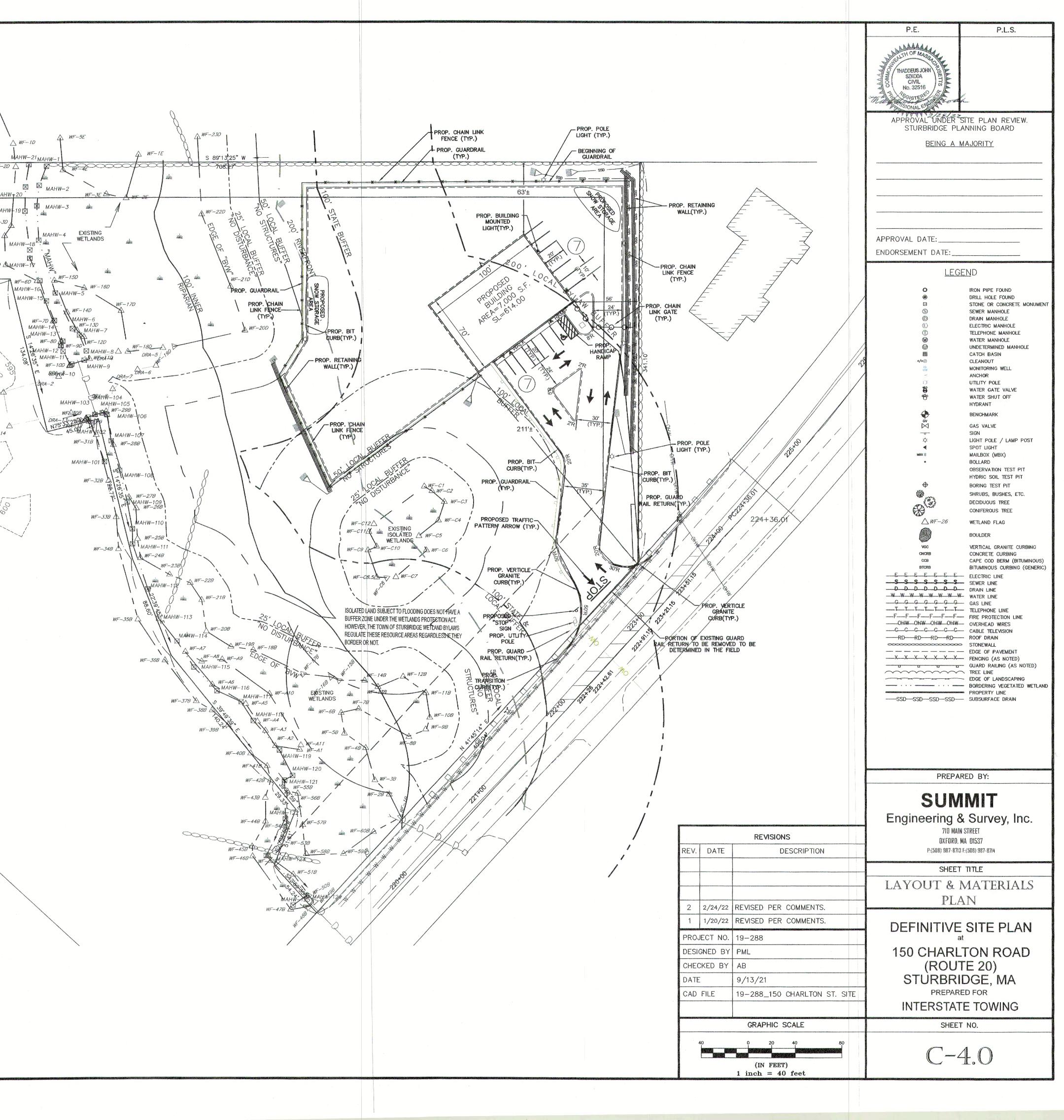
SHEET - 1	COVER SHEET
SHEET - 2	EXISTING CONDITIONS
SHEET - 3	DEMOLITION PLAN
SHEET - 4	LAYOUT & MATERIALS PLAN
SHEET - 5	GRADING & DRAINAGE
SHEET - 6	UTILITY PLAN
SHEET - 7	EROSION & SEDIMENTATION CONTROL
SHEET - 8	LANDSCAPE PLAN
SHEET - 9	CONSTRUCTION DETAIL SHEET#1
SHEET - 10	CONSTRUCTION DETAIL SHEET#2
SHEET - 11	CONSTRUCTION DETAIL SHEET#3
SHEET - 12	LIGHTING PLAN
SHEET - 13	TRUCK TURNING PLAN

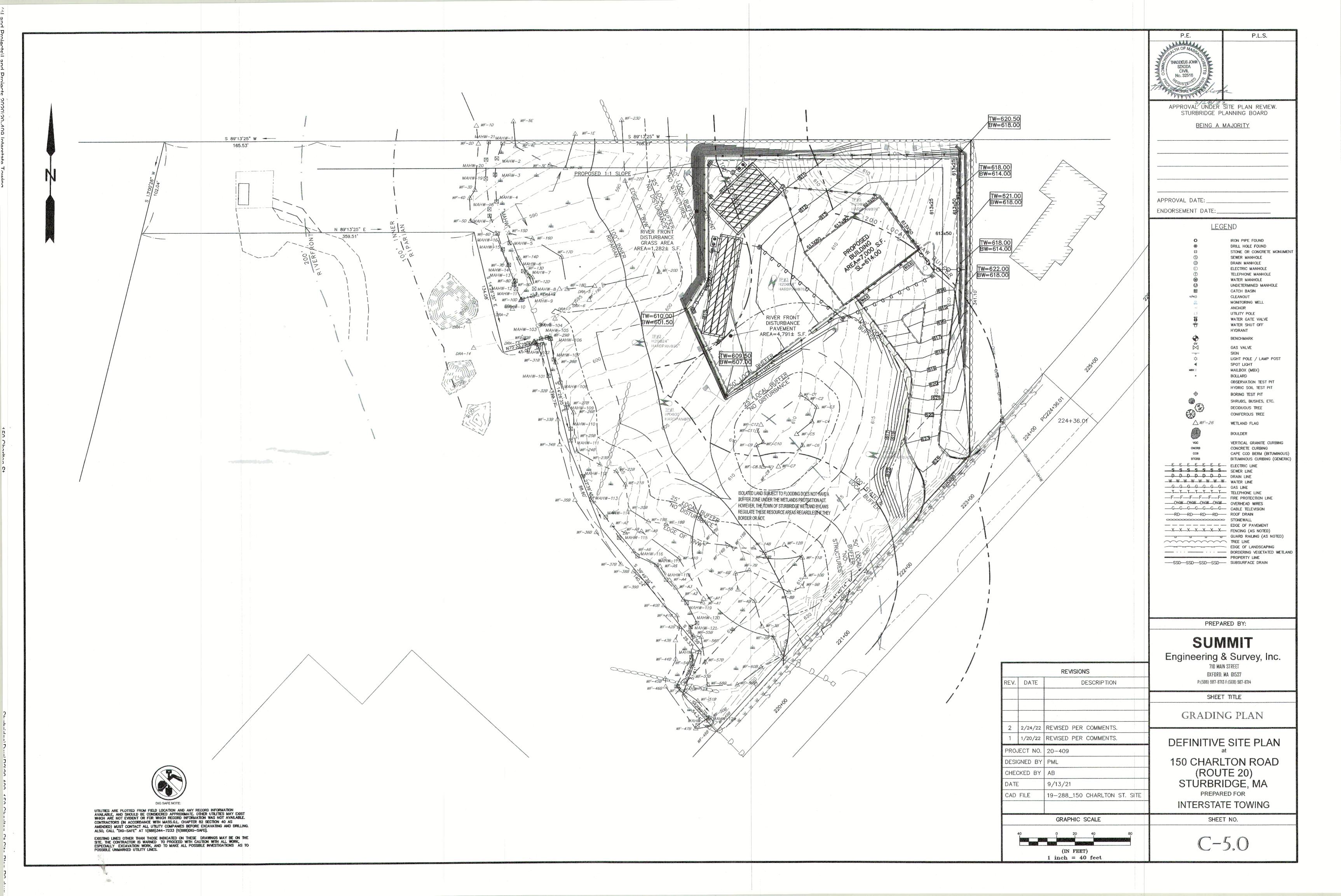


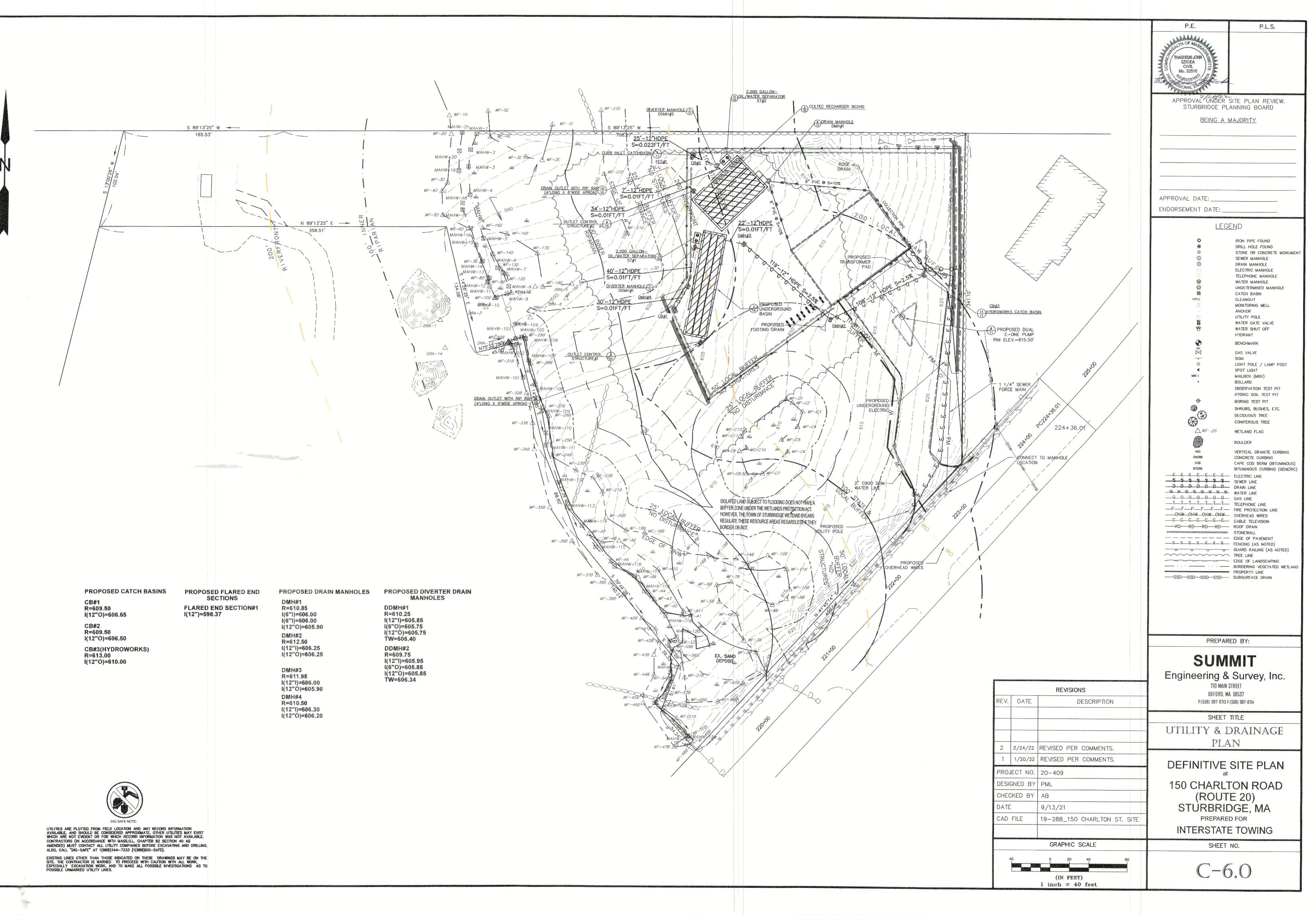
S 89°13'25" W -165.53' GLOBAL SIGNAL ACQUISITIONS IV LLC LEASING AREA DEED BOOK 54844-256 n/f NULL 10' UTILITY EASEMENT DEED BOOK 54844-256 WF-3D 215 S.F. MAXIMUM WE-4D X POTENTIAL RIVERFRONT VARIABLE WIDTH ACCESS -AREA DISTURBANCE AND UTILITY EASEMENT-PERMITTED BY DEP FILE DEED BOOK 54844-256 #300-357-A1 (1999) WF-50 MAHW-N 89'13'25" E - 359.51 ER 00 RESTORATION#1 AREA=2,127 \$.F INV. 36" CONC .-ELEV. = 584,76' 6" LOWER THEN THE INVERT ELEVATION FOR THE OUTFLOW (6"NAPE) XISTING 471 OF DRAIN PIPE AND 697 S.F. OF EXISTING CROSSING TO BE REMOVED AFTER SITE HAS ESTABLISHED ACCESS OFF OF ROUTE 20 (STREAM BANK TO BE RESTORED PER RESTORATION PLAN.)' RESTORATION#2 AREA=921 S.F. RIVERFRONT AREA (RFA) TABLE RESTORATION#3 -TOTAL S.F. OF RFA = 148,189 S.F. (RESTORATION) AREA=792 S.F. TOTAL S.F. OF RFA ALTERATION = 6,073 S.F.-9,810 S.F.= -3,737 S.F. -3,737 S.F./148,189 S.F. = -2.5% NET REDUCTION TOTAL S.F. OF RFA ALTERATION BETWEEN 0'-100' = 0 S.F. TOTAL S.F. OF RFA ALTERATION BETWEEN 100'-200' =6,073 S.F. UNDER THE WPA: RESTORED AREA OFF PROPERTY = 2,371 S.F. (2:1; 4,741/2=2,371 S.F.) RESTORED AREA ON PROPERTY = 3,357 S.F. (1:1; 3,357 S.F.) THE BANK RESTORATION AREA WILL BE SEEDED WITH DELTA REMOVAL = 4,082 S.F. CONSERVATION SEED MIX FROM NEW ENGLAND WETLAND PLANTS TOTAL RESTORATION CREDIT OF RFA = 9,810 S.F. UNDER THE SWB: STURBRIDGE 2:1 MITIGATION: RESTORED AREA OFF PROPERTY = 4,741 S.F. RESTORED AREA ON PROPERTY = 3,357 S.F. (1:1; 3,357 S.F.) DELTA REMOVAL = 4,082 S.F. TOTAL RESTORATION CREDIT OF RFA = 12,180 S.F. TOTAL DISTURBANCE IN REA 6,073 S.F. TOTAL DISTURBANCE RATIO CALCULATION: 12,180 S.F./6,073 S.F.=2:1 RATIO COMPLIANT DEGRADED RIVERFRONT AREA TAILINGS PILES 3. CART ROAD DELTA RESTORATION PLAN 1. UTILIZE A TRACK TRUCK AND A JOHN DEERE 35D WITH A LKKKKKKKKKKKKKKKK CLEANUP BUCKET TO REMOVE ACCUMULATED DELTA DOWN TO ORIGINAL BURIED A HORIZON. -FILL TO BE REMOVED TO 6" 2. AVOIDING DAMAGE TO SAPLINGS, TREES, OR MAJOR BUSHES SUBGRADE AND BACKFILLED WITH 6" UNDER THE DIRECT GUIDANCE OF A WETLAND RESTORATION OF RICH TOP SOIL SPECIALIST. 3. UTILIZE TWO LABORERS WITH HOES FOR FINE TUNING THE NOTES: SEDIMENT REMOVAL AT THE SAME TIME THE EXCAVATOR IS IN OPERATION. 1. PLANTINGS TO BE NATURALLY OCCURING PLANTS IDENTIFIED IN ADJECENT 4. SEED WITH A WET MEADOW SEED MIX. CREATE A 15' AREAS. SIX FOOT SPACING OF PLANTS TO INCLUDE (33) NORTHERN RED OAK, (33) RED MAPLE, (33) WHITE PINE, (33) SWEET PEPPER BUSH, (33) AMERICAN DIAMETER 2' DEEP SUMP AT THE OUTLET OF THE 12" RCP HAZEL, (33) NORTHERN BAYBERRY AND (33) WITCH HAZEL. (SOURCE OF SAND DISCHARGE). 2. THE AREA WILL BE SEEDED WITH NEW ENGLAND CONSERVATION/WILDLIFE MIX. 5. MONITOR THE SMALL SETTLING AREA AT A 1-YEAR INTERVAL TO MONITOR THE VOLUME OF ROAD SAND COMING 3. ALL PLANTS AND SEED MIX SHALL BE PURCHASED FROM NEW ENGLAND WETLAND PLANTS. INTO THE SITE. 4. RESTORATION SHALL BE OVERSEEN BY EBT ENVIRONMENTAL CONSULTANTS, 6. CATCH BASIN "A" AT GILFORD STREET COULD ALSO BE VACCUMED OUT TWICE A YEAR OR WHEN STRUCTURE IS AT 50% CAPCAITY OF SEDIMENT AS PART OF THE UPLAND RIVERFRONT RESTORATION DETAIL MAINTENANCE PLAN DURING THE LENGTH OF THE ORDER FOR THE PROJECT. NOT TO SCALE



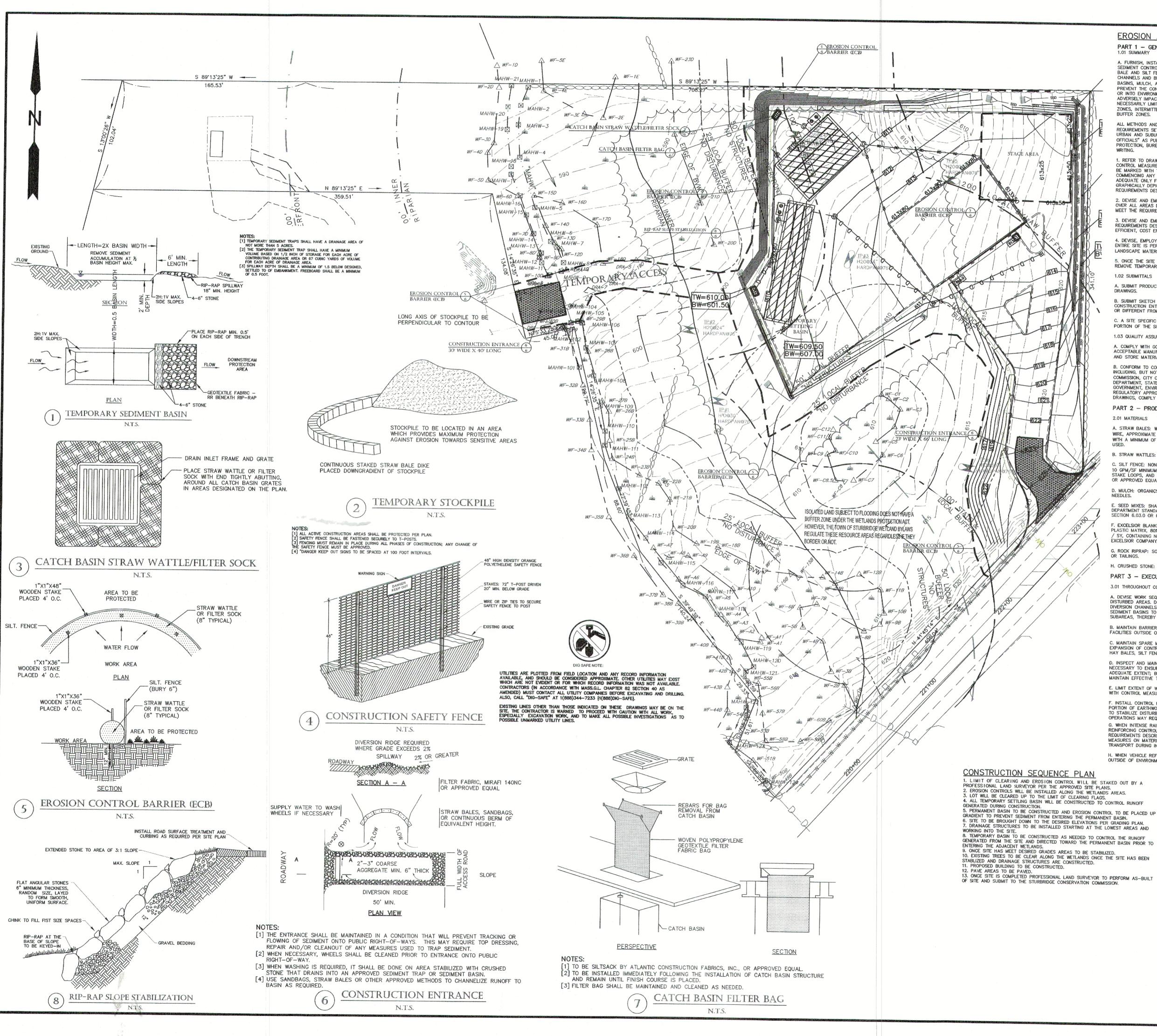
S 89'13'25" W 165.53' M 165.53'		И И WF4
	N 89'13'25" E - 2 Z Z 359.51' Z - 7 Z 0 - 7 Z	WF
ZONING DISTRICT: INDUSTRIA	PROVIDED (2 Ac.) 269,200 S.F. (6.18 Ac.) (6) 406' (11) 406' (11) 56' (11) 56' (11) 56' (11) 56' (11) 56' (11) 56' (11) 56' (11) 56' (11) 56' (11) 56' (12) 57' (13) 57' (14) 26%	











EROSION AND SEDIMENT CONTROL REQUIREMENTS PART 1 - GENERAL 1.01 SUMMARY

A. FURNISH, INSTALL, AND MAINTAIN TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL MEASURES, SUCH AS, BUT NOT NECESSARILY LIMITED TO, STRAW BALE AND SILT FENCE BARRIERS, RIPRAP, VEHICLE TRACKING PADS, DIVERSION CHANNELS AND BERMS, CHECK DAMS, STRATEGICALLY LOCATED STOCKPILES, SEDIMENT BASINS, MULCH, AND SEED MIX (HEREINAFTER "CONTROL MEASURES") ADEQUATE TO PREVENT THE CONVEYANCE OF EROSION PRODUCTS (E.G. SOIL, MULCH, SOD) OFF SITE, OR INTO ENVIRONMENTALLY SENSITIVE AREAS, OR INTO AREAS WHERE WORK WILL BE ADVERSELY IMPACTED. ENVIRONMENTALLY SENSITIVE AREAS INCLUDE, BUT ARE NOT NECESSARILY LIMITED TO, WETLANDS, TRIBUTARIES TO WETLANDS, WETLAND BUFFER ZONES, INTERMITTENT AND PERENNIAL STREAMS / RIVERS, AND THEIR ATTENDANT BUFFER ZONES.

ALL METHODS AND MATERIALS USED FOR EROSION CONTROL SHALL CONFORM TO THE REQUIREMENTS SET FORTH IN "EROSION AND SEDIMENT CONTROL GUIDELINES FOR URBAN AND SUBURBAN AREAS A GUIDE FOR PLANNERS, DESIGNERS, AND MUNICIPAL OFFICIALS" AS PUBLISHED BY THE MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION, BUREAU OF RESOURCE PROTECTION, UNLESS OTHERWISE APPROVED IN WRITING.

1. REFER TO DRAWINGS FOR LOCATION AND DETAILS OF LIMITS OF DISTURBANCE AND CONTROL MEASURES REQUIRED TO COMMENCE WORK. LIMITS OF DISTURBANCE SHALL BE MARKED WITH TAPE, SIGNS, OR ORANGE CONSTRUCTION FENCE PRIOR TO COMMENCING ANY LAND DISTURBANCE ACTIVITIES. CONTROL MEASURES WILL BE ADEQUATE ONLY FOR VEGETATION CLEARING. THE DRAWINGS ARE NOT INTENDED TO GRAPHICALLY DEPICT ALL CONTROL MEASURES THAT WILL BE REQUIRED TO MEET THE REQUIREMENTS DESCRIBED IN 1.01.A.

2. DEVISE AND EMPLOY CONTROL MEASURES THROUGHOUT THE DURATION OF PROJECT. OVER ALL AREAS DISTURBED OR UNDISTURBED BY CONSTRUCTION, AS NECESSARY TO MEET THE REQUIREMENTS DESCRIBED IN 1.01.A.

3. DEVISE AND EMPLOY TEMPORARY CONTROL MEASURES AS NECESSARY TO MEET THE REQUIREMENTS DESCRIBED IN 1.01.A, WHILE ALLOWING WORK TO PROCEED IN AN EFFICIENT, COST EFFECTIVE MANNER.

4. DEVISE, EMPLOY AND MAINTAIN CONTROL MEASURES UNTIL SUCH TIME AS THE ENTIRE SITE IS PERMANENTLY STABILIZED BY ESTABLISHED VEGETATION, FINISH LANDSCAPE MATERIALS, PAVED SURFACES, AND/OR ROOF AREA.

5. ONCE THE SITE IS PERMANENTLY STABILIZED AND CERTIFIED AS SUCH BY ENGINEER, REMOVE TEMPORARY CONTROL MEASURES WHILE PROTECTING STABILIZED SURFACES. 1.02 SUBMITTALS

A. SUBMIT PRODUCT DATA, WARRANTY, AND TEST REPORTS AS INDICATED ON THE

B. SUBMIT SKETCH SHOWING LOCATIONS OF PROPOSED STOCKPILE AREAS, STRUCTION ENTRANCES AND EROSION CONTROLS IF NOT SHOWN ON THE SITE PLAN OR DIFFERENT FROM THOSE LOCATIONS SHOWN ON THE SITE PLAN.

C. A SITE SPECIFIC SEQUENCE OF CONSTRUCTION FOR EACH PORTION OF THE SITE. NO PORTION OF THE SITE SHALL EXCEED FIVE (5) ACRES. 1.03 QUALITY ASSURANCE

A. COMPLY WITH GOVERNING CODES AND REGULATIONS. PROVIDE PRODUCTS FROM ACCEPTABLE MANUFACTURERS. USE EXPERIENCED INSTALLERS. DELIVER, HANDLE, AND STORE MATERIALS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

B. CONFORM TO CONDITIONS OF APPROVAL ISSUED BY REGULATORY AGENCIES INCLUDING, BUT NOT NECESSARILY LIMITED TO, LOCAL PLANNING BOARD, CONSERVATION COMMISSION, CITY COUNCIL, BOARD OF HEALTH, PUBLIC WORKS / HIGHWAY DEPARTMENT, STATE ENVIRONMENTAL PROTECTION DEPARTMENT, AND U.S. GOVERNMENT, ENVIRONMENTAL PROTECTION AGENCY. WHERE CONDITIONS C

REGULATORY APPROVAL DIFFER FROM REQUIREMENTS CONTAINED HEREIN OR ON THE DRAWINGS, COMPLY WITH THE MORE STRINGENT REQUIREMENT. PART 2 - PRODUCTS

2.01 MATERIALS

A. STRAW BALES: WEED FREE DRY GRASS OR STRAW, MACHINE BOUND WITH JUTE OR WIRE, APPROXIMATE SIZE EACH BALE 42" X 16" X 16". EACH BALE SHALL BE STAKED WITH A MINIMUM OF TWO 24" LONG HARDWOOD STAKES. NOTE: HAY SHALL NOT BE USFI

B. STRAW WATTLES: NORTH AMERICAN GREEN MODEL WS1210 OR APPROVED EQUAL. SILT FENCE: NON-WOVEN, UV-RESISTANT, POLYPROPYLENE FABRIC, FLOW RATED AT 10 GPM/SF MINIMUM, GRAB TENSILE RATED AT 124 POUNDS MINIMUM, WITH INTEGRAL STAKE LOOPS, AND HARDWOOD STAKES. USE NO. 2130 BY AMOCO FABRICS & FIBERS, OR APPROVED EQUAL.

). MULCH: ORGANICS INCLUDING STRAW, PROCESSED PINE / HEMLOCK TWIGS AND NEEDLES.

E. SEED MIXES: SHALL MEET THE REQUIREMENTS OF MASSACHUSETTS HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, LATEST EDITION SECTION 6.03.0 OR 6.03.1 AS APPROPRIATE.

EXCELSION BLANKET: CURLED WOOD FIBER ON PHOTODEGRADABLE EXTRUDED PLASTIC MATRIX, 80% OF FIBERS 6-INCHES LONG OR LONGER, WEIGHT 0.975 POUNDS / SY, CONTAINING NO CHEMICAL ADDITIVES. USE CURLEX I BLANKET BY AMERICAN EXCELSIOR COMPANY, OR APPROVED EQUAL.

G. ROCK RIPRAP: SOUND, ANGULAR, 6-INCH MINUS PROCESSED ROCK, BLAST ROCK, H. CRUSHED STONE: SOUND, ANGULAR, 2-INCH MINUS PROCESSED CRUSHED STONE.

PART 3 - EXECUTION

3.01 THROUGHOUT CONSTRUCTION

A. DEVISE WORK SEQUENCE SO AS TO LIMIT DRAINAGE AREA THAT IS TRIBUTARY TO DISTURBED AREAS. DEVISE, EMPLOY, AND MAINTAIN CONTROL MEASURES SUCH AS DIVERSION CHANNELS AND BERMS, STRATEGICALLY LOCATED STOCKPILES, AND EDIMENT BASINS TO SUBDIVIDE DRAINAGE AREAS INTO SMALL, MANAGEABLE SUBAREAS, THEREBY MINIMIZING RUNOFF AND THE POTENTIAL FOR EROSION.

B. MAINTAIN BARRIER AT LIMIT OF WORK AND PROTECT EXISTING VEGETATION / FACILITIES OUTSIDE OF LIMIT OF WORK.

C. MAINTAIN SPARE MATERIAL STOCKPILES FOR IMMEDIATE EMPLOYMENT / REPAIR / EXPANSION OF CONTROL MEASURES. AT A MINIMUM, SUCH MATERIALS SHALL INCLUDE HAY BALES, SILT FENCE AND STAKES, AND CRUSHED STONE.

D. INSPECT AND MAINTAIN EFFECTIVENESS OF CONTROL MEASURES BY REPAIRING AS NECESSARY TO ENSURE INTENDED FUNCTION; BY SUPPLEMENTING AS NECESSARY FOR ADEQUATE EXTENT; BY REMOVING TRAPPED PRODUCTS OF EROSION AS NECESSARY TO MAINTAIN EFFECTIVE TRAP VOLUME.

E. LIMIT EXTENT OF WORK AREA SO THAT ALL DISTURBED AREAS CAN BE STABILIZED WITH CONTROL MEASURES WITHIN A 24-HOUR PERIOD.

F. INSTALL CONTROL MEASURES AS SOON AS PRACTICABLE AFTER EACH MANAGEABLE PORTION OF EARTHWORK IS COMPLETE. EMPLOY TEMPORARY MEASURES AS NECESSARY TO STABILIZE DISTURBED AREAS, EVEN WHERE SUBSEQUENT CONSTRUCTION OPERATIONS MAY REQUIRE RE-DISTURBANCE.

REINFORCING CONTROL MEASURES PRIOR TO THE RAINFALL EVENT TO MEET THE REQUIREMENTS DESCRIBED IN 1.01.A. IF NECESSARY, EMPLOY TEMPORARY CONTROL MEASURES ON MATERIAL STOCKPILES TO COUNTERACT POTENTIAL SEDIMENT TRANSPORT DURING INTENSE RAINFALL

H. WHEN VEHICLE REFUELING IS REQUIRED ON SITE, CONDUCT REFUELING OPERATIONS OUTSIDE OF ENVIRONMENTALLY SENSITIVE AREAS.

NAAAA THADDEUS JOHN SZKODA CIVIL No. 32516 APPROVAL UNDER SITE PLAN REVIEW. STURBRIDGE PLANNING BOARD BEING A MAJORITY

P.L.S.

APPROVAL DATE: ENDORSEMENT DATE

P.E.

PART 3 - CONTINUED

I. PROPERLY DISPOSE OF DEBRIS, SOLID WASTE, TRASH, AND CONSTRUCTION WASTE , BYPRODUCTS OFF SITE. J. SWEEP ON-SITE PAVED AREAS AND OFF-SITE STREETS AS NECESSARY TO PREVENT SILT AND DEBRIS ORIGINATING ON SITE FROM ENTERING CLOSED DRAINAGE SYSTEMS AND / OR ENVIRONMENTALLY SENSITIVE AREAS. WHEN NECESSARY UTILIZE WATER

SPRAYING, SURFACE ROUGHENING AND/OR APPLY POLYMERS, SPRAY-ON TACKIFIERS, CHLORIDES AND BARRIERS FOR DUST CONTROL. K. INSPECT EROSION CONTROLS DAILY THROUGHOUT CONSTRUCTION REPAIR DAMAGED CONTROLS IMMEDIATELY.

3.02 SITE PREPARATION AND ACCESS

A. WALK SITE AND IDENTIFY LOCATIONS OF LIMIT OF WORK AND ENVIRONMENTALLY SENSITIVE AREAS. ESTABLISH CONSTRUCTION STAGING AREA, LOCATED BEYOND ENVIRONMENTALLY SENSITIVE AREAS. B. INSTALL CONTROL MEASURES AS SHOWN ON THE DRAWINGS, INCLUDING THOSE

DEFINING THE LIMIT OF WORK, C. LIMIT VEHICULAR TRAFFIC TO AND FROM SITE TO MINIMIZE TRANSPORT OF SEDIMENT 3.03 CLEARING, GRUBBING, AND STRIPPING

A. SCHEDULE GRUBBING AND STRIPPING TO OCCUR IMMEDIATELY PRIOR TO EARTH DISTURBANCE. DEPENDING ON SITE AREA, CONSIDER MULTIPLE GRUBBING PHASES, SEQUENCED TO TAKE ADVANTAGE OF THE EROSION PREVENTION POTENTIAL OF EXISTING VEGETATIVE COVER.

B. MINIMIZE THE AREA OF EXISTING VEGETATION REMOVED WHEREVER POSSIBLE. NO GREATER THAN FIVE (5) ACRES SHALL BE UNSTABLE AT ANY TIME. 2. LOCATE AND SIZE STOCKPILES TO MINIMIZE EROSION POTENTIAL, TAKING ADVANTAGE

OF TERRAIN SLOPE AND ASPECT, WHERE APPROPRIATE. D. PROTECT VEGETATION, INCLUDING ROOT SYSTEMS, BEYOND LIMIT OF CLEARING.

E. PROCESS TIMBER, STUMPS, SLASH, AND BRUSH SO AS TO PROTECT ENVIRONMENTALLY SENSITIVE AREAS AND INSTALLED CONTROL MEASURES. PROPERLY DISPOSE OF EXCESS OFF SITE. BURIAL OF STUMPS ON SITE IS PROHIBITED. 3.04 EXCAVATION FOR BUILDING FOUNDATIONS AND UTILITIES

A. DEVISE AND INSTALL CONTROL MEASURES ADEQUATE TO HANDLE DISCHARGES AND TRAP SEDIMENT FROM FOOTING SUMP AND WELL POINT PUMPS PRIOR TO EXCAVATION. B. ARMOR SUMP PUMP DISCHARGE LOCATIONS TO PREVENT EROSION AT POINT OF

DISCHARGE AND AREAS DOWNSTREAM. C. IF FOUNDATION EXCAVATIONS GRADE TO DAYLIGHT ON THE LOW SIDE, DEVISE AND

INSTALL CONTROL MEASURES TO HANDLE SURFACE AND GROUNDWATER FLOW FROM EXCAVATION LOW POINT. D. STOCKPILE EXCAVATED MATERIALS TO BAFFLE OVERLAND RUNOFF, AVOIDING THE CREATION OF LENGTHY PATHS OF CONCENTRATED RUNOFF. STOCKPILE SLOPES SHALL

NOT EXCEED 2:1. E. BACKFILL UTILITY TRENCHES AS SOON AS PRACTICABLE TO PREVENT FLOODING,

SLOUGHING, POTENTIAL OVERFLOW, AND REPETITIVE EARTH DISTURBANCE. 3.05 SITE GRADING

A. WHERE APPLICABLE, FOLLOW EXCAVATION AND FILL PRACTICES SHOWN ON DRAWINGS TO LOCALIZE AND MINIMIZE EROSION.

B. MONITOR SEDIMENT VOLUME IN TEMPORARY SEDIMENT BASINS AND AT DIVERSION BERMS AND CHECK DAMS. IN ALL AREAS EXCEPT THOSE THAT DO NOT PRESENT POTENTIAL PROBLEMS WITH REGARD TO FUTURE SOIL STABILITY, DRAINAGE, OR BEARING CAPACITY, REMOVE AND PROPERLY DISPOSE OF TRAPPED SEDIMENT BEFORE BRINGING SITE TO FINAL SUBGRADE.

C. EXPOSED SOILS SHALL BE PERMANENTLY STABILIZED WITHIN FIVE (5) BUSINESS DAYS OF COMPLETION OF CONSTRUCTION OF A GIVEN AREA. EXPOSED AREAS WHERE NO WORK HAS OCCURRED FOR FOURTEEN (14) DAYS SHALL BE TEMPORARILY STABILIZED WITH HYDROSEED OR OTHER APPROVED METHOD.

D. SLOPES STEEPER THAN 3:1 SHALL BE STABILIZED IMMEDIATELY AFTER COMPLETION. 3.06 LANDSCAPING

A. COMPLETE LANDSCAPING AS SOON AS POSSIBLE AFTER COMPLETION OF FINAL SUBGRADE

B. IMMEDIATELY AFTER PLACEMENT OF TOPSOIL, STABILIZE WITH CONTROL MEASURES INCLUDING, BUT NOT NECESSARILY LIMITED TO, SEED MIX, MULCH, AND / OR BLANKET.

C. PERMANENT SEEDING MAY BE PERFORMED IN THE SPRING PRIOR TO JULY 1 AND IN BETWEEN AUGUST 1 AND OCTOBER 15. PERMANENT SEEDING AT OTHER TIMES SHALL BE APPROVED AND SHALL ONLY BE ALLOWED WITH AN APPROVED MULCHING AND IRRIGATION PROGRAM.

PREPARED BY:

SUMMIT

Engineering & Survey, Inc. **71D MAIN STREET**

> OXFORD, MA 01537 P:(508) 987-8713 F:(508) 987-8714

> > SHEET TITLE

EROSION CONTROL PLAN

DEF		SITE	PLAN
150	CHADIT		

150 CHARLION ROAD (ROUTE 20) STURBRIDGE, MA PREPARED FOR

INTERSTATE TOWING

SHEET NO.

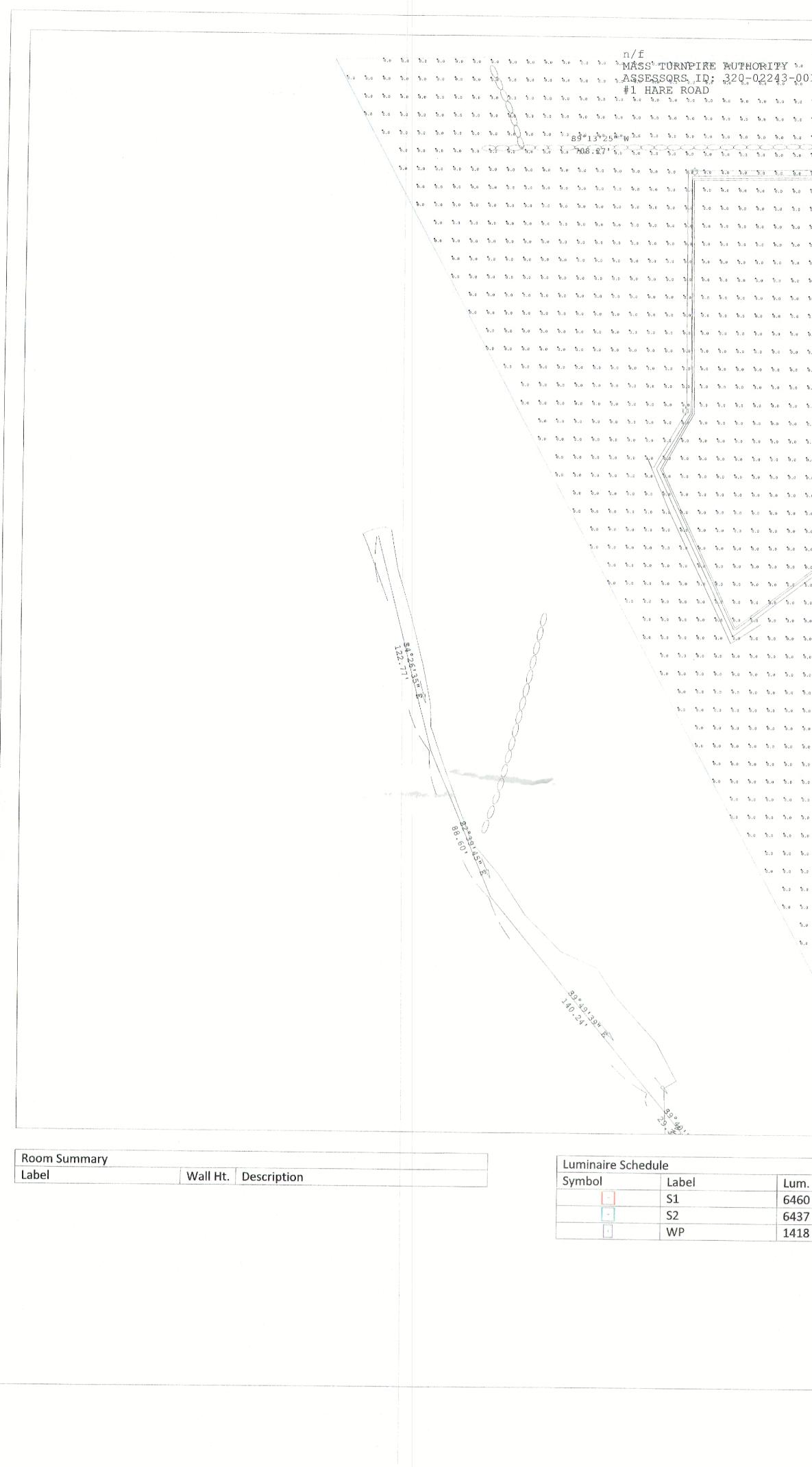
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	REV.	DATE	DESCRIPTION
	2	2/24/22	REVISED PER COMMENTS.
C. A. S. M. C. S. M. C. M. M. S. M.	1	1/20/22	REVISED PER COMMENTS.
Charles Street of	PROJ	ECT NO.	20-409
	DESIC	GNED BY	PML
	CHEC	KED BY	AB
	DATE		9/13/21
	CAD	FILE	19-288_150 CHARLTON ST. SITE
			GRAPHIC SCALE
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REVISIONS

(IN FEET) 1 inch = 40 feet

G. WHEN INTENSE RAINFALL IS EXPECTED, CONSIDER, DEVISE, AND EMPLOY



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m. Lumens	Lum. Watts	LLF	Description	
60	52	0.900	LUMARK: PRV-C15-D-UNV-T3-BZ-HSS	
37	52	0.900	LUMARK: PRV-C15-D-UNV-T4-BZ-HSS	
18	12.2		LUMARK: XTOR1B	

Calculation Summary Label SITE_Planar

