SITE DEVELOPMENT PLAN **FOR**

NORTHEAST GREAT DANE

100 WORCESTER-PROVIDENCE TURNPIKE SUTTON, MASSACHUSETTS

APPLICANT:

EASTLAND PARTNERS, INC.

997 MILLBURY STREET, WORCESTER, MA 01607 P: 508-647-1919

OWNER:

SUTTON MOTOR-IN TRUST

ONE MERCANTILE STREET, SUITE 540, WORCESTER, MA 01608

CIVIL ENGINEERING & LAND SURVEYING:

TURNING POINT ENGINEERING

P.O. BOX 757, SUTTON, MA 01590 P: 508-381-1515

TRAFFIC:

GREENMAN-PEDERSEN, INC.

181 BALLARDVILLE STREET, SUITE 202 WILMINGTON, MA 01887 P: 978-570-2999

WETLANDS CONSULTANT:

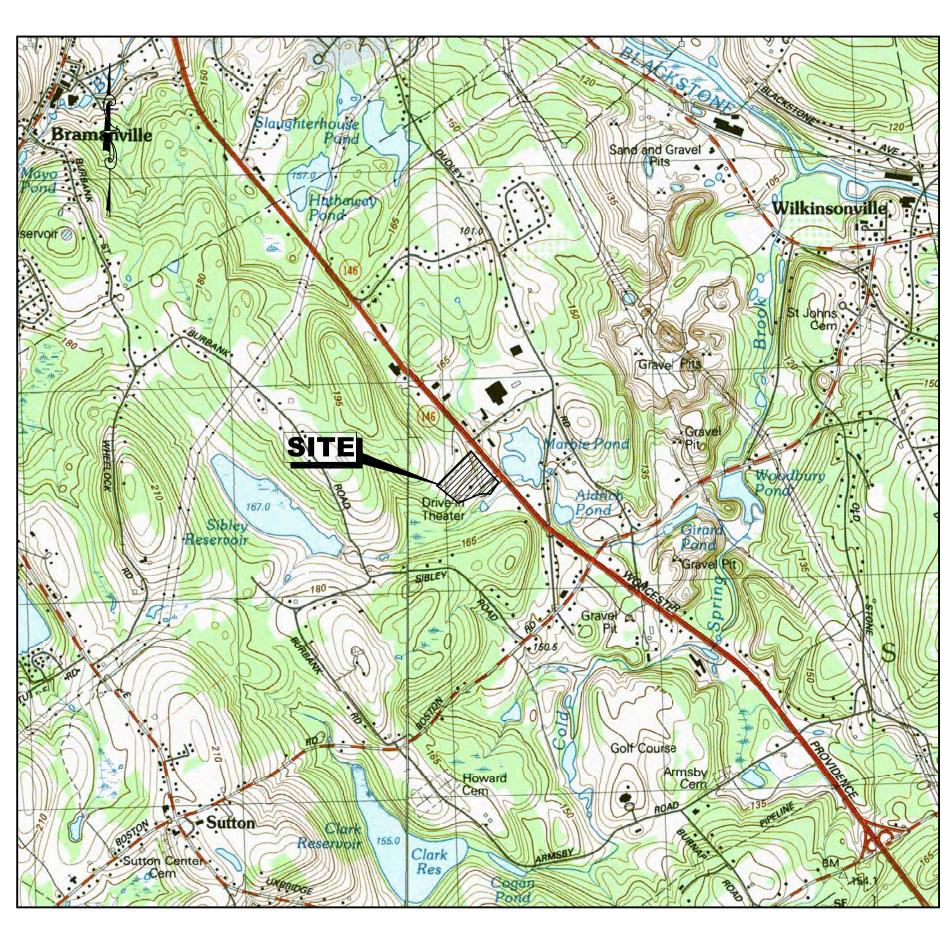
B&C ASSOCIATES, INC.

2 RICE STREET, HUDSON, MA 01749 P: 978-568-0135

LANDSCAPE ARCHITECT:

EARTHDESIGN LANDSCAPE ARCHITECTURE LLC

280 BEVERLY ROAD, WORCESTER, MA 01605 P: 508-852-2644



U.S.G.S MAP SCALE: 1" = 1,500'

SHEET TITLE	SHEET NUMBER
COVER SHEET	C-0.0
GENERAL NOTES, ABBREVIATIONS & LEGEND	C-1.1
LOCATION PLAN	C-1.2
EXISTING CONDITIONS & DEMOLITION PLAN	C-2.1
LAYOUT & MATERIALS PLAN	C-3.1
UTILITY PLAN	C-4.1
GRADING & DRAINAGE PLAN	C-5.1
EROSION CONTROL PLAN, NOTES & DETAILS	C-6.1 - C-6.3
CONSTRUCTION DETAILS	C-7.1 - C-7.5
LANDSCAPE PLAN	L-1.0
LANDSCAPE SCHEDULE & DETAILS	L-2.0
LANDSCAPE NOTES	L-3.0
BUILDING PLANS	

DRAWING LIST

OWNER OF RECORD: SUTTON MOTOR-IN TRUST ONE MERCANTILE STREET, SUITE 540

WORCESTER, MA 01608

DEED REFERENCE: BK. 9774, PG. 388

P.B. 138, PL. 52

P.B. 509, PL. 84 1936 STATE HIGHWAY LAYOUT

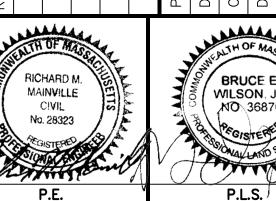
SUTTON ASSESSORS INFORMATION: MAP 10, PARCEL 18 9.41± ACRES

SUTTON ZONING INFORMATION:

ROUTE 146 OVERLAY DISTRICT UNDERLYING ZONE: BUSINESS-HIGHWAY (B-2) MINIMUM AREA: 40,000 S.F. MINIMUM LOT WIDTH & FRONTAGE: 200' SETBACKS: FRONT 50', SIDE 20', REAR 40' OPENSPACE: 35% (MIN.)

PROPERTY INFORMATION





SHEET TITLE

COVER SHEET

DRAWING ISSUED FOR: SHEET NO.

THIS PLAN IS INTENDED TO SHOW CONSTRUCTIBILITY AND MAY NOT SHOW ALL CONSTRUCTION DETAILS AND SPECIFICATIONS FOR THE SHOWN IMPROVEMENTS AND MAY NOT IDENTIFY ALL CONSTRUCTION ITEMS/AREAS OF CONTRACTOR JURISDICTION.

GENERAL NOTES

PART 1 - PROPERTY INFORMATION

1. NOTICE TO CONTRACTOR: THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AND STRUCTURES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. 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. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES INTERFERING WITH THE PROPOSED CONSTRUCTION AND APPROPRIATE REMEDIAL ACTION SHALL BE TAKEN BEFORE PROCEEDING WITH THE WORK. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLAN.

2. PROPERTY LINE AND TOPOGRAPHY:

- EXISTING PROPERTY BOUNDARY INFORMATION TAKEN FROM PLAN BOOK 509, PLAN 84, 1936 STATE HIGHWAY LAYOUT AND
- EXISTING TOPOGRAPHIC INFORMATION BASED UPON LIDAR TOPOGRAPHY PROVIDED BY NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION AND ON THE GROUND SURVEY PERFORMED FOR FIELD VERIFICATION.
- DEED REFERENCE: BK. 9774, PG. 388.
- 3. WETLAND DELINEATION BY B&C ASSOCIATES, INC. ON FEBRUARY 15, 2023

4. DATUM: NAVD 88

5. COORDINATE SYSTEM: MASSACHUSETTS STATE PLANE 83

6. FLOODPLAIN: THE PROPERTY DOES NOT LIE IN A FLOOD HAZARD AREA OR 100-YEAR FLOODPLAIN ACCORDING TO THE MOST RECENT FLOOD INSURANCE RATE MAP #25027C0836E, EFFECTIVE 7/4/11.

PART 2 - GENERAL

A. ALL WORK SHALL BE IN ACCORDANCE WITH THE PERMITS AND APPROVALS ISSUED AND THE CONSTRUCTION SPECIFICATIONS. BLASTING IS PROHIBITED ON THE PROJECT SITE.

B. DISPOSAL OF ALL DEMOLISHED MATERIALS IS THE RESPONSIBILITY OF THE CONTRACTOR AND MUST BE HAULED OFF-SITE IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL MUNICIPAL REQUIREMENTS.

C. THE CONTRACTOR SHALL PROTECT AND/OR CAP OFF ALL EXISTING ON-SITE UTILITY SERVICES DESIGNATED AS SUCH ON THESE

D. THE LIMIT OF WORK LINE FOR THE AREA TO BE CLEARED AND GRUBBED SHALL BE THE SAME AS THE LIMIT OF WORK LINE NECESSARY FOR GRADING PURPOSES, (I.E., THE GRADING LIMITS AROUND THE PERIMETER OF THE PROJECT AREA).

E. THE AREA OR AREAS OF ENTRANCE AND EXIT TO AND FROM THE SITE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED IMMEDIATELY.

F. THE MATERIALS AND METHODS USED IN THE CONSTRUCTION OF ROADWAYS SHALL CONFORM TO THE REQUIREMENTS OF THE TOWN CONSTRUCTION STANDARDS AND SPECIFICATIONS. WHEN NO CITY SPECIFICATION IS PROVIDED THE MATERIALS AND METHODS USED IN THE CONSTRUCTION OF ROADWAYS SHALL CONFORM TO THE REQUIREMENTS OF "THE COMMONWEALTH OF MASSACHUSETTS, DEPARTMENT OF PUBLIC WORKS, STANDARDS & SPECIFICATIONS FOR HIGHWAYS & BRIDGES," LATEST EDITION.

PART 3 - STORM DRAINS

- STORM DRAIN PIPING (INDICATED BY LETTER "D") SHALL BE CORRUGATED POLYETHYLENE PIPE (HDPE) AS INDICATED, PER AASHTO M294 AND M252 MANUFACTURED WITH HIGH DENSITY POLYETHYLENE PLASTIC. HDPE SHALL BE ADS N-12 PIPE AS MANUFACTURED BY ADVANCED DRAINAGE SYSTEMS, INC. OR HANCOR HI Q PIPE AS MANUFACTURED BY HANCOR, INC. OR
- B. STORM DRAIN MANHOLES (INDICATED BY LETTERS "DMH") SHALL BE PRECAST 4', 5' OR 6' DIAMETER CONCRETE PER ASTM C478 (AS CALLED FOR ON DRAWINGS OR FIELD CONDITIONS REQUIRE) WITH RUBBER GASKET JOINTS CONFORMING TO ASTM C443. PIPE TO MANHOLE CONNECTIONS SHALL BE MORTARED PIPE OPENINGS.
- C. CATCH BASINS (INDICATED BY LETTERS "CB") SHALL BE PRECAST 4' DIAMETER CONCRETE PER ASTM C478, (ALTERNATE TOP SLAB WHERE NECESSARY) AND RUBBER GASKET JOINTS CONFORMING TO ASTM C443, WITH 4 FOOT SUMPS AND GAS TRAP OUTLET ELBOW. PIPE TO STRUCTURE CONNECTIONS SHALL BE MORTARED PIPE
- D. COORDINATES OF MANHOLES REFER TO CENTERS OF STRUCTURES AND CATCH BASINS REFER TO THE CENTER BACK OF THE FRAME AND GRATE.
- FLARED END SECTIONS (FES) SHALL BE CORRUGATED POLYETHYLENE PIPE AS INDICATED, MANUFACTURED WITH HIGH DENSITY POLYETHYLENE PLASTIC. HDPE SHALL BE ADS N-12 PIPE AS MANUFACTURED BY ADVANCED DRAINAGE SYSTEMS, INC. OR HANCOR HI Q PIPE AS MANUFACTURED BY HANCOR, INC. OR APPROVED EQUAL.

PART 4 - UTILITIES

4.1 - WATER DISTRIBUTION AND FIRE PROTECTION

. WATER MAINS 3" DIA. AND LARGER SHALL HAVE 5'-0" MINIMUM COVER AND SHALL BE CEMENT LINED DUCTILE IRON (CLDI), CLASS 52 MINIMUM, CONFORMING TO AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) A21.50, A21.4, A21.10 AND A21.51. JOINTS AT FITTINGS, VALVES AND HYDRANT LATERALS SHALL BE MECHANICAL JOINT PER ANSI A21.11, WITH GASKETS. JOINTS AT OTHER LOCATIONS SHALL BE PUSH-ON TYPE WITH GASKETS PER ANSI A21.11. ALL FITTINGS, VALVES, HYDRANTS AND CAPS SHALL BE CLASS 350 PROVIDED WITH THRUST RESTRAINTS (THRUST BLOCKS AND RETAINING RODS) IN CONFORMANCE WITH THE DETAILS.

B. GENERALLY, WATER MAIN FITTINGS IDENTIFIED ON THIS DRAWING ARE SHOWN FOR INSTALLATION LOCATION PURPOSES. THE CONTRACTOR IS ADVISED THAT NOT ALL FITTINGS AND SUPPLY LINES ARE NOTED, SHOWN, OR INDICATED.

ALL HYDRANTS SHALL BE INSTALLED WITH A 6" CLDI LATERAL AND SHALL BE INSTALLED WITH A 6" GATE VALVE, BOX, AND

TEE FITTING. ALL HYDRANTS SHALL MEET AND BE INSTALLED IN ACCORDANCE WITH ALL LOCAL MUNICIPAL STANDARDS. D. ALL WATER MAIN APPURTENANCES, MATERIALS, AND METHODS OF INSTALLATION SHALL MEET OR EXCEED ALL LOCAL MUNICIPAL

PRESSURE AND LEAKAGE TEST, DISINFECTION AND FLUSHING SHALL BE IN ACCORDANCE WITH ALL LOCAL MUNICIPAL STANDARDS AND REQUIREMENTS. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS IN CONNECTIONS WITH UTILITY TESTS, FLUSHING, AND INSPECTIONS AS REQUIRED BY THE LOCAL MUNICIPALITY.

F. EXISTING SERVICES SHALL BE CUT AND A WATERTIGHT PLUG SHALL BE INSTALLED. EXISTING GATE VALVES TO BE ABANDONED SHALL BE PERMANENTLY CLOSED AND CAPPED, AND WATER SERVICES SHOULD BE SHUT OFF AT THE MAIN CORPORATION.

A. A MINIMUM 10 FEET CLEAR HORIZONTAL DISTANCE SHALL BE MAINTAINED BETWEEN SANITARY SEWER MAINS AND WATER MAINS. WHENEVER CONDITIONS PREVENT A LATERAL SEPARATION OF 10 FEET. THE WATER MAIN SHALL BE LAID IN A SEPARATE TRENCH AND THE ELEVATION OF THE CROWN OF THE SEWER SHALL BE AT LEAST 18 INCHES BELOW THE INVERT OF THE WATER MAIN.

B. A MINIMUM OF 18" VERTICAL CLEARANCE SHALL BE MAINTAINED WHERE WATER MAINS CROSS STORM DRAIN LINES.

WHERE SANITARY SEWERS CROSS WATER MAINS, THE SEWER SHALL BE LAID AT SUCH AN ELEVATION THAT THE CROWN OF THE SEWER IS AT LEAST TWO FEET BELOW THE INVERT OF THE WATER MAIN. IF THE ELEVATION OF THE SEWER CANNOT BE VARIED TO MEET THIS REQUIREMENT, THE CONTRACTOR SHALL DO THE FOLLOWING:

THE WATER MAIN SHALL BE RELOCATED TO PROVIDE THIS SEPARATION OR CONSTRUCTED WITH MECHANICAL-JOINT PIPE FOR A DISTANCE OF TEN FEET ON EACH SIDE OF THE SEWER. ONE FULL LENGTH OF WATER MAIN SHALL BE CENTERED OVER THE SEWER SO THAT BOTH JOINTS WILL BE AS FAR FROM THE SEWER AS POSSIBLE. IN ADDITION, THE WATER MAIN SHALL BE ENCASED IN CONCRETE.

D. PRIMARY ELECTRICAL ENCASED CONDUIT MUST BE SEPARATED FROM GAS BY 3' MIN. AND FROM OTHER UTILITIES BY 2'

- E. TELEPHONE AND FIRE ALARM WHICH SHARE THE SAME TRENCH MUST HAVE A 1' VERTICAL SEPARATION.
- F. GAS MAINS MUST BE SEPARATED FROM OTHER UTILITIES BY 2' MINIMUM.
- 4.3 ELECTRIC AND COMMUNICATIONS
- INSTALLATION OF COMMUNICATIONS (TELEPHONE, CABLE AND FIRE ALARM) SYSTEMS SHALL BE COORDINATED AND SCHEDULED BY THE CONTRACTOR WITH THE APPROPRIATE UTILITY COMPANY SERVICING THE PROJECT SITE.
- B. COORDINATES REFER TO THE CENTER OF STRUCTURES UNLESS OTHERWISE NOTED OR DETAILED. CONTRACTOR SHALL COORDINATE LIGHT BASE LOCATIONS WITH PROPOSED CURBING AND PARKING LOT STRIPING.
- C. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ELECTRICAL SERVICE PRIOR TO ORDERING ANY EQUIPMENT.

PART 5 - PAVEMENT AND CURBING

A. JOINTS BETWEEN NEW BITUMINOUS CONCRETE PAVEMENT AND SAWCUT EXISTING PAVEMENT SHALL BE SEALED WITH BITUMEN AND BACKSANDED.

- B. ALL CURBING SHALL BE INSTALLED AS FOLLOWS:
- VERTICAL GRANITE CURB (VGC) WITH 6" REVEAL AT DRIVEWAY ENTRANCE ROUNDINGS • MODIFIED CAPE COD BERM (CCB) ALONG DRIVEWAY AND PERIMETER OF PAVEMENT. • PRECAST CONCRETE CURB (PCC) WITHIN PARKING AREAS IN THE SITE
- C. DIMENSIONS REFER TO FACE OF CURB UNLESS NOTED OTHERWISE.
- D. ALL LIMITS OF PAVING SHALL BE CURBED UNLESS NOTED OR DETAILED OTHERWISE.

PART 6 - TRAFFIC CONTROL

- A. INCLUDING, BUT NOT LIMITED TO, ALL CROSSWALKS, STOP LINES AND LEGENDS.
- •LEGENDS SHALL BE PREFORMED PERMANENT PLASTIC. PAVEMENT MARKINGS SHALL BE THERMO PLASTIC (ALKYD). THE MARKINGS, LEGENDS SHALL BE INSTALLED IN ACCORDANCE WITH THE THE RELEVANT PORTIONS OF MASSACHUSETTS HIGHWAY DEPARTMENT (MHD) STANDARD SPECIFICATIONS. THE CONTRACTOR'S ATTENTION ALSO IS DIRECTED TO THE STANDARD SPECIFICATIONS, FOR REQUIREMENTS REGARDING THE AMBIENT AIR TEMPERATURE AT THE TIME OF APPLICATION.

PART 7 - 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 OF REGULATORY APPROVAL DIFFER FROM REQUIREMENTS CONTAINED HEREIN OR ON THE DRAWINGS, COMPLY WITH THE MORE STRINGENT REQUIREMENT.

PART 8 - EROSION AND SEDIMENT CONTROL

A. SEE SHEETS C-6.1 THRU C-6.3 FOR EROSION CONTROL PLAN, NOTES AND DETAILS.

PART 9 - GENERAL NOTES

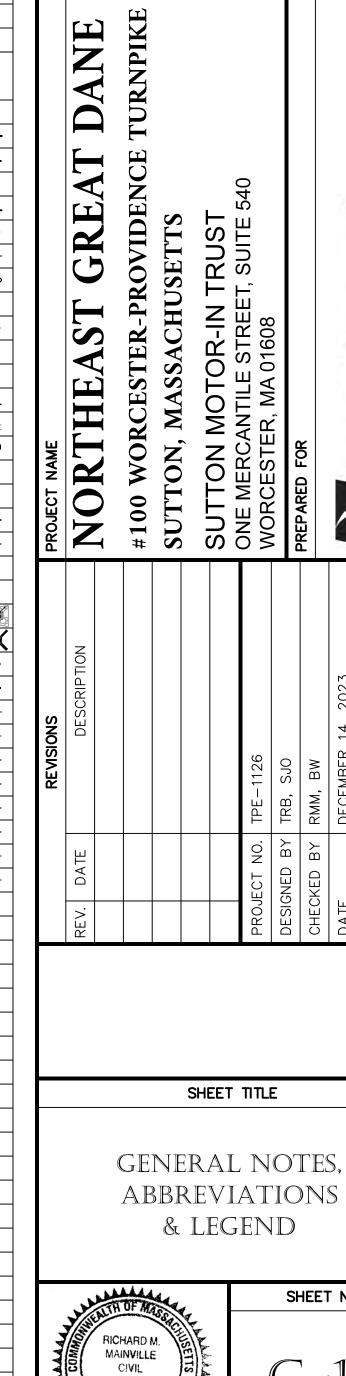
- A. FORBID THE USE OF FILL CONTAINING HAZARDOUS MATERIALS OR WASTE.
- B. REQUIRE THE MARKING OF LIMITS OF WORK IN THE FIELD PRIOR TO THE START OF CONSTRUCTION OR SITE CLEARING.
- C. REQUIRE THE CLEANING OF CATCH BASIN SUMPS AND STORM WATER BASINS FOLLOWING CONSTRUCTION AND ANNUALLY
- D. RESTRICT THE HAULING OF EARTH OR CONSTRUCTION DEBRIS TO OR FROM THE SIT TO THE HOURS BETWEEN 9 AM AND 4 PM ON WEEKDAYS IF SUCH MATERIALS ARE INTENDED TO BE REMOVED FROM OR BROUGHT TO THE SITE.

KEY	DESCRIPTION	KEY	DESCRIPTION	
N/F	NOW OR FORMERLY	BIT.	BITUMINOUS	
BK.	BOOK	CONC.	CONCRETE	
PG.	PAGE	CCB	CAPE COD BERM	
P.B.	PLAN BOOK	ВСС	BITUMINOUS CONCRETE CURB	
PL.	PLAN	VGC	VERTICAL GRANITE CURB	
ВС	BOTTOM OF CURB	SGC	SLOPED GRANITE CURB	
TC	TOP OF CURB	PCC	PRECAST CONCRETE CURB	
BW	BOTTOM OF WALL	HDPE	HIGH DENSITY Polyethylene pipe	
TW	TOP OF WALL	CLDI	CEMENT LINED DUCTILE IRON	
EXIST.	EXISTING	RCP	REINFORCED CONCRETE PIPE	
PROP.	PROPOSED	PVC	POLYVINYL CHLORIDE PIPE	
TBM	TEMPORARY BENCHMARK	INV.	INVERT	
ТЕМР.	TEMPORARY	FES	FLARED END SECTION	
N.T.S.	NOT TO SCALE	ocs	OUTLET CONTROL STRUCTURE	
TYP.	TYPICAL	DMH	DRAIN MANHOLE	
ELEV.	ELEVATION	СВ	CATCH BASIN	
BLDG.	BUILDING	DCB	DOUBLE CATCH BASIN	
BSMT.	BASEMENT	SMH	SEWER MANHOLE	
F.F.E.	FINISHED FLOOR ELEVATION	CO	CLEANOUT	
TOC	TOP OF CONCRETE	HYD	HYDRANT	
GAR.	GARAGE	O.C.	on Center	
TBR	TO BE REMOVED	R=	RADIUS	
FND	FOUND	S=	SLOPE	
DH	DRILL HOLE	НС	HANDICAP	
IP	IRON PIPE	UP	UTILITY POLE	
IR	IRON ROD	WF	WETLAND FLAG	
DHCB	CONCRETE BOUND W/ DH			
DIIGE				

TYPICAL LEGEND EXISTING PROPOSED PROPERTY LINE EASEMENT LINE TOWN LINE MATCH LINE BUILDING SETBACK CENTERLINE ∞ STONEWAL BARBED WIRE FENCE CHAIN LINK FENCE _____ STOCKADE FENCE GRAVEL ROAD EDGE OF PAVEMENT CURB (SEE ABBREVIATIONS) EROSION CONTROL BARRIER ×100.5 SPOT ELEVATION x100.5 INDEX CONTOUR ELEVATION —— 100 —— INTER CONTOUR ELEVATION —— 102 —— INTERMITTANT STREAM EDGE OF SHORELINE STORM DRAIN PIPE, FLARE END & RIP-RAP APRON STORM DRAIN W/ HEADWAI — - RD — - -ROOF DRAIN — — RD— — -FOUNDATION DRAIN — — FD— — -— - FD — — ---- OHW -----OVERHEAD WIRE UNDERGOUND ELECTRIC —— E —— —— G—— GAS SERVICE ----- GS --------- W -----WATER MAIN WATER SERVICE -----WS-----SEWER LINE ———S — FORCE MAIN - — —FM — — LIGHT POLE ℃UP# UTILITY POLE ഹ∩P# BOLLARD STREET OR TRAFFIC SIGN HANDICAP PARKING SPACE NUMBER OF PARKING SPACES \rightarrow \equiv TRAFFIC FLOW ELECTRIC MANHOLE TELEPHONE MANHOLE (T) SEWER MANHOLE DRAIN MANHOLE CATCH BASIN DOUBLE GRATE CATCH BASII GAS GATE VALVE WATER GATE VALVE HYDRANI DOMESTIC WELL DEEP SOIL OBSERVATION HOLE PERCOLATION TEST ELEVATION BENCHMARK

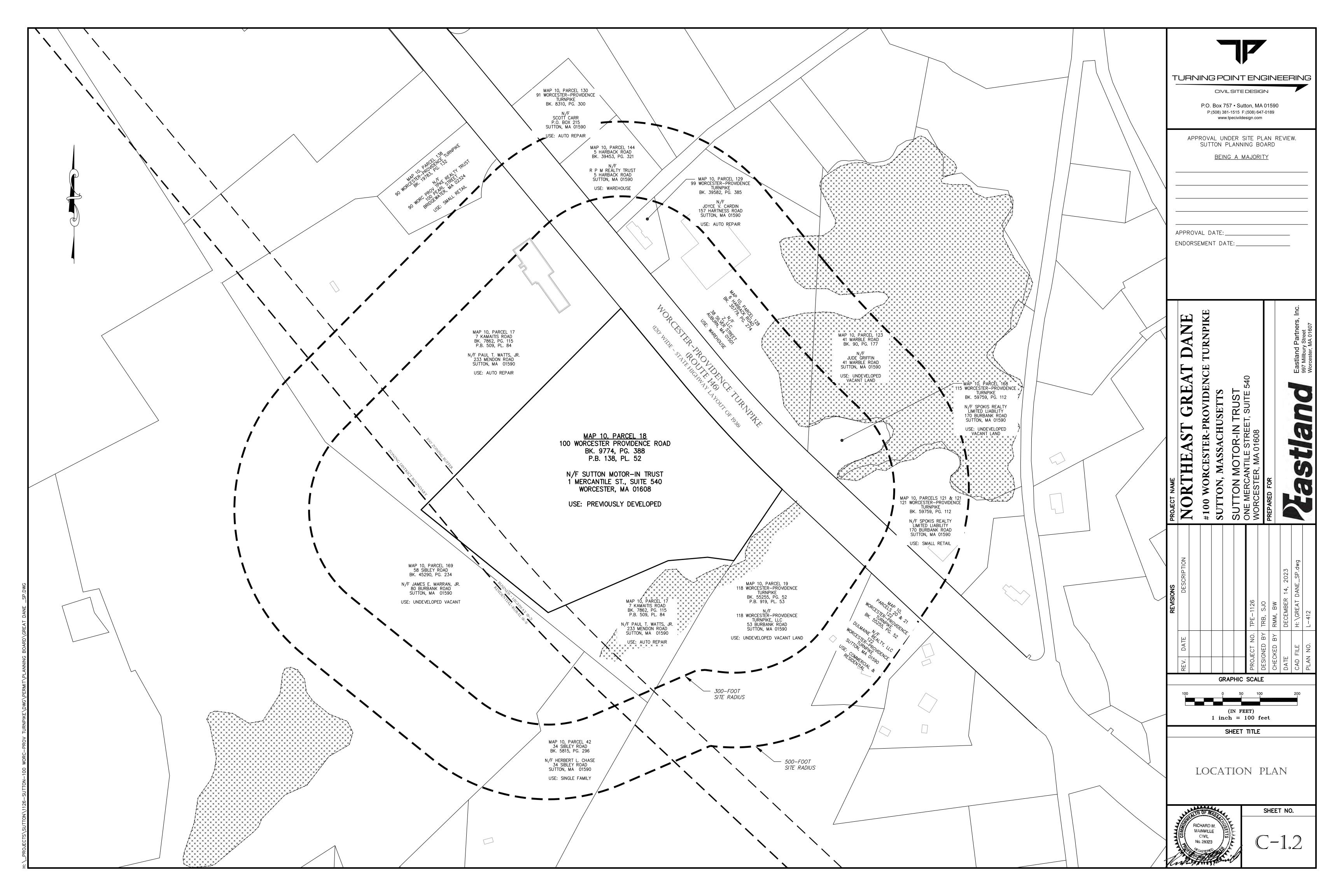
BUILDING MOUNTED LIGHT

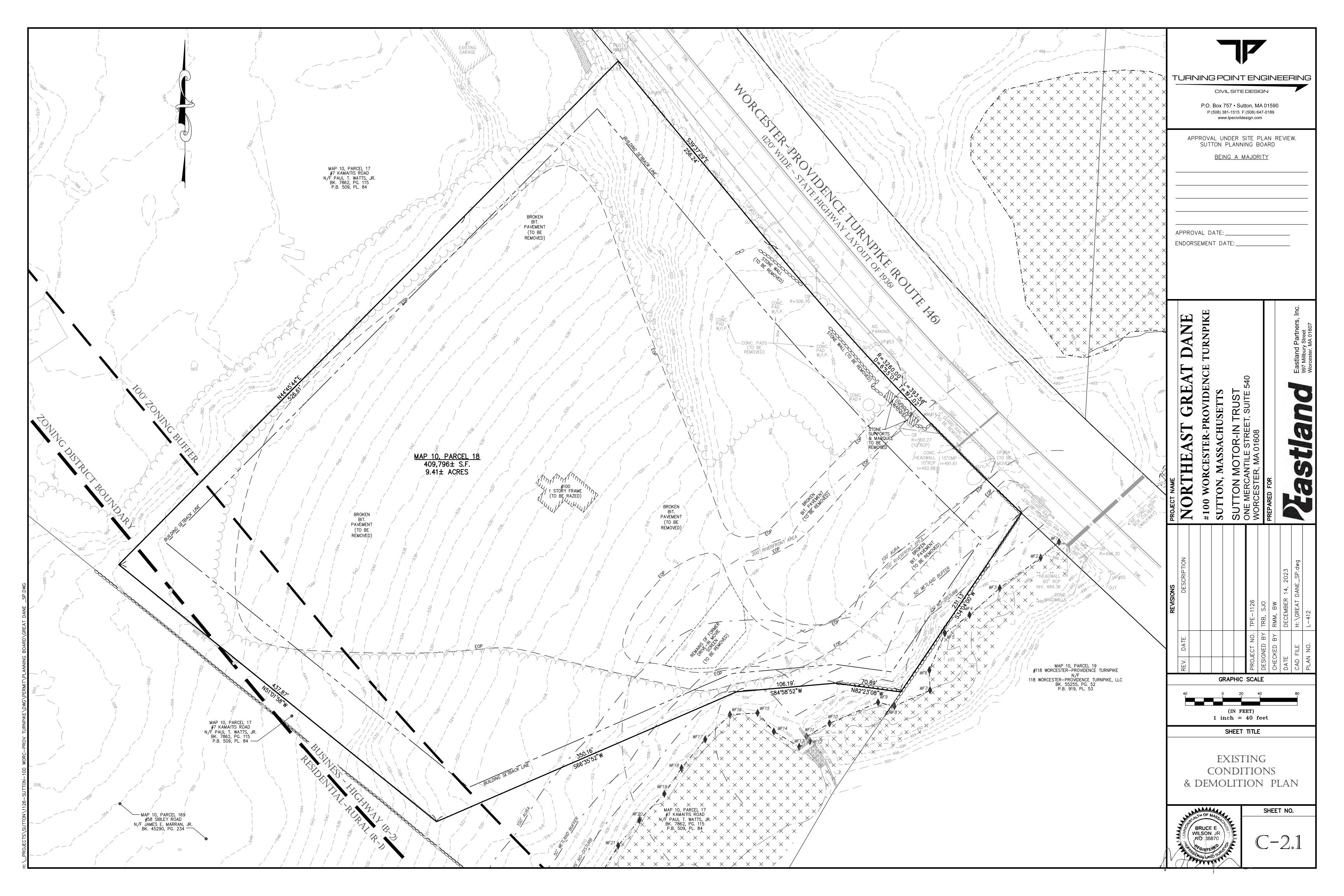
TURNING POINT ENGINEERING CIVILSITEDESIGN P.O. Box 757 • Sutton, MA 01590 P:(508) 381-1515 F:(508) 647-0189 www.tpecivildesign.com APPROVAL UNDER SITE PLAN REVIEW. SUTTON PLANNING BOARD BEING A MAJORITY APPROVAL DATE:_ ENDORSEMENT DATE: DHGB GRANITE BOUND W/ DH

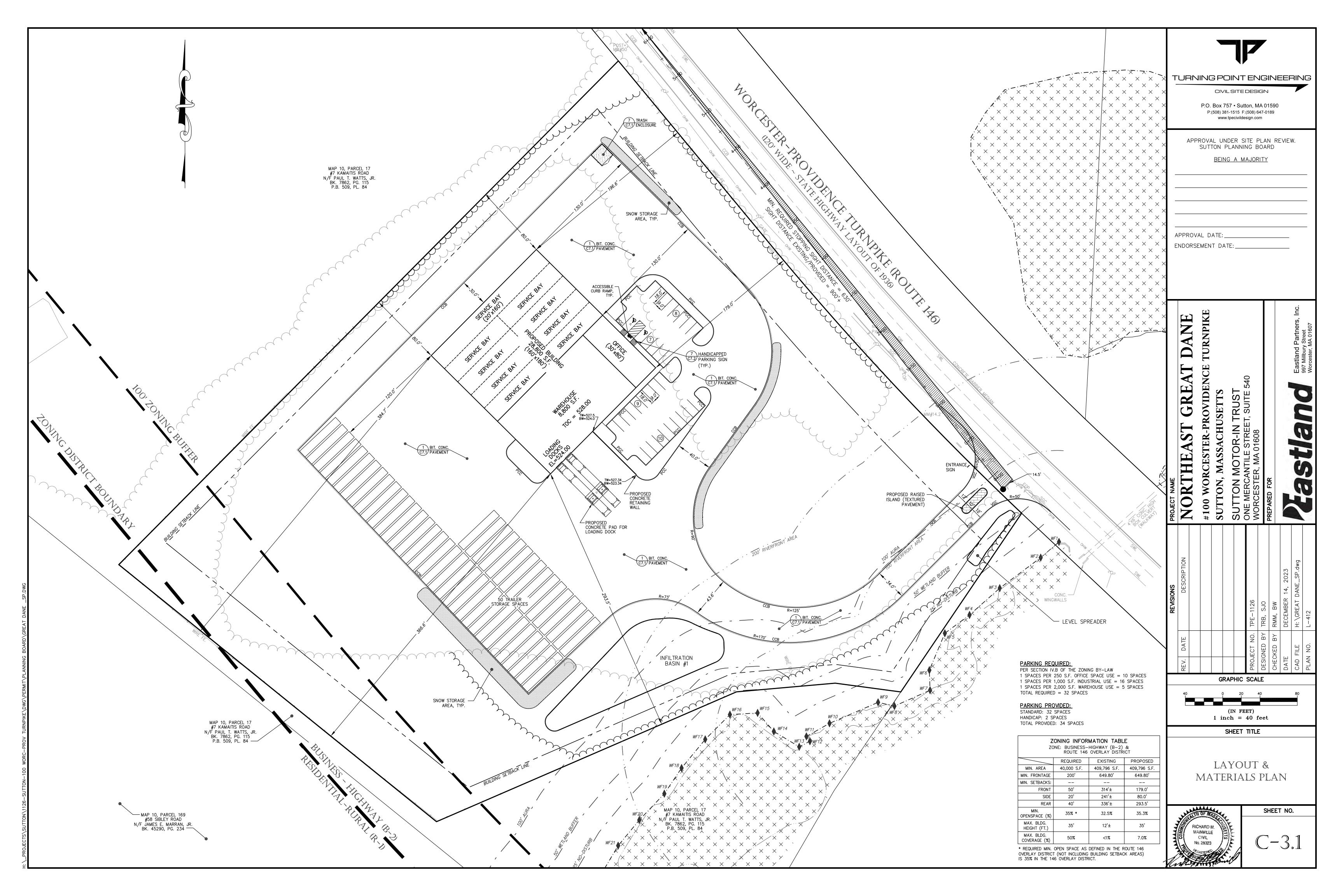


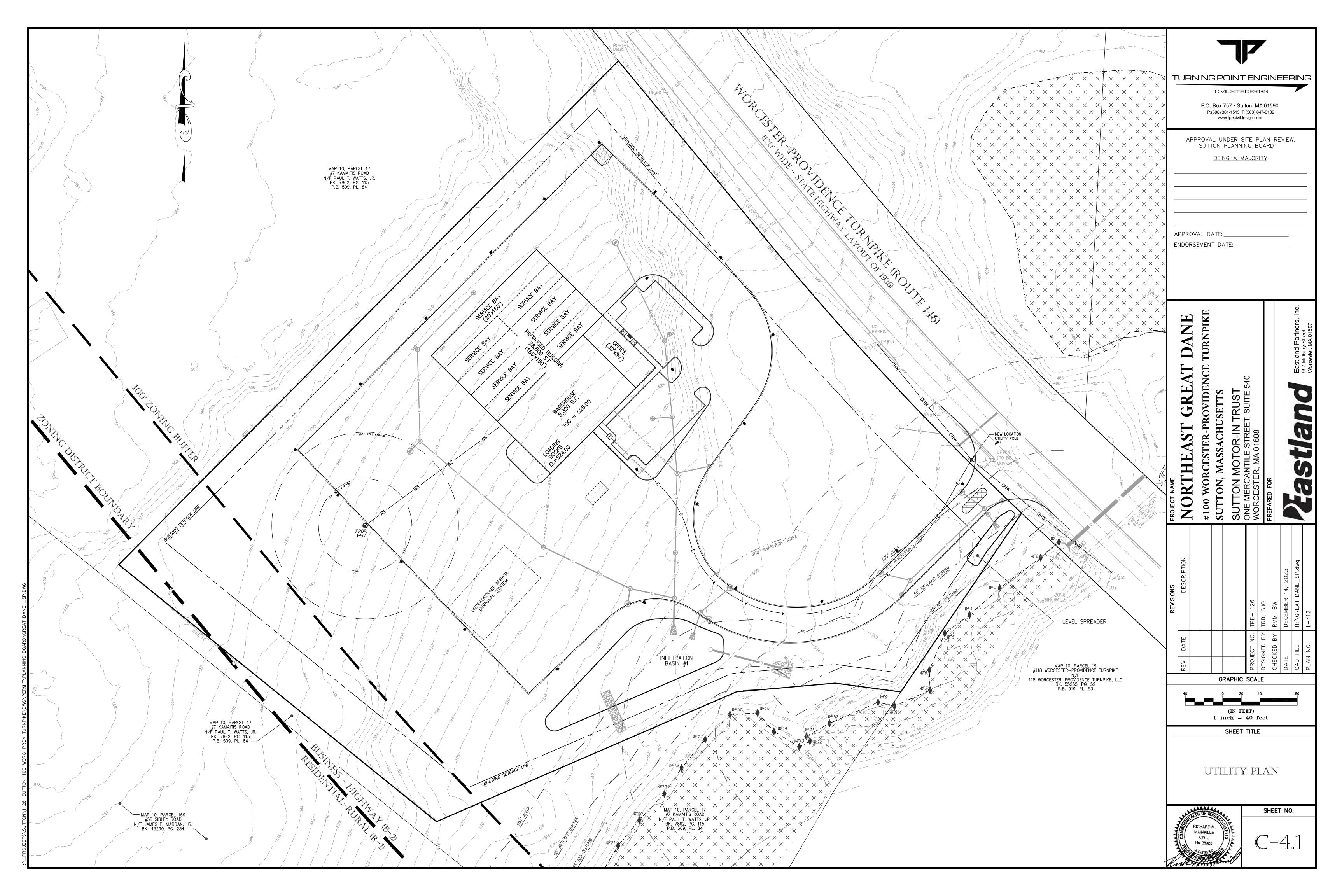


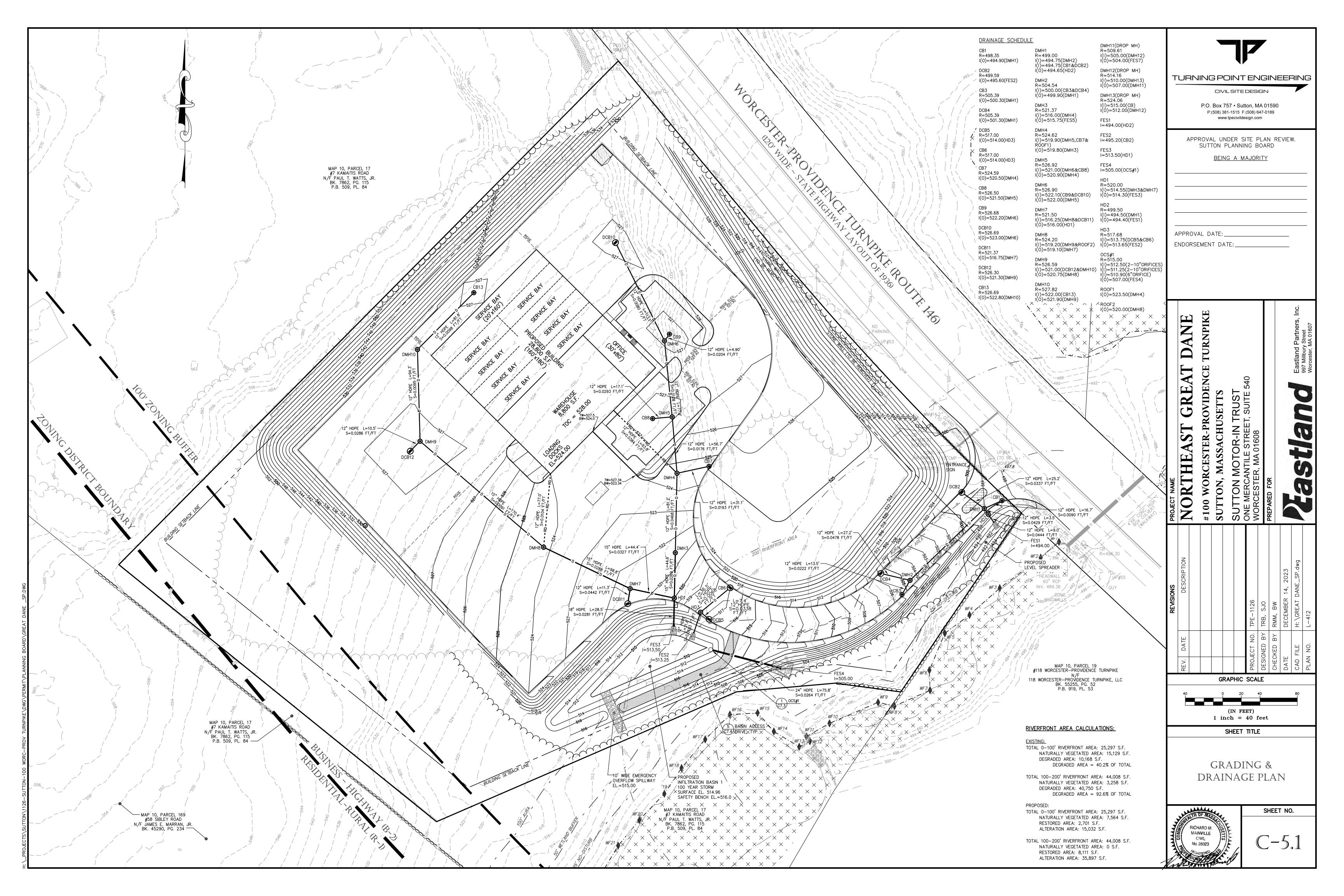
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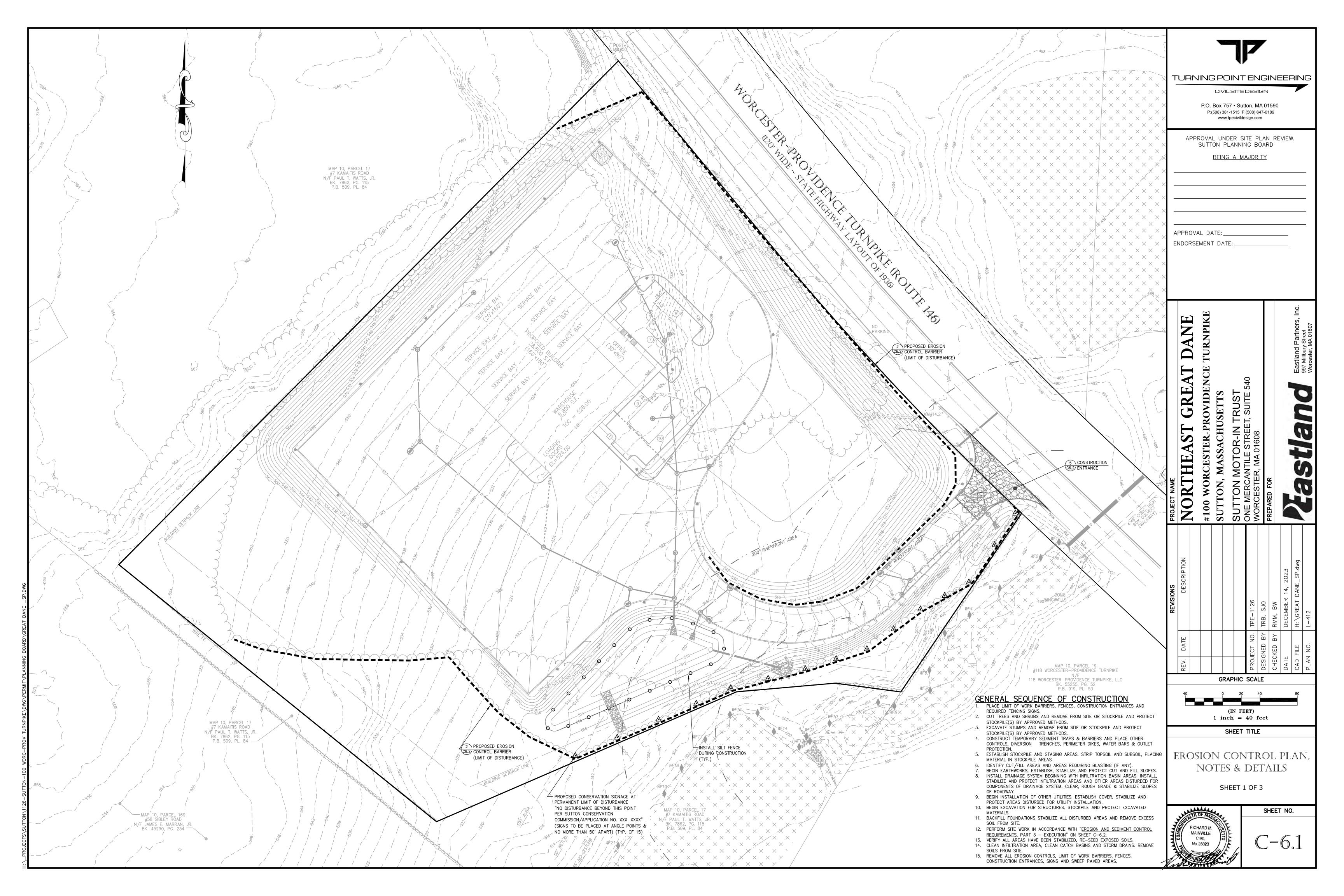












A. FURNISH, INSTALL, AND MAINTAIN TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL MEASURES, SUCH AS, BUT NOT NECESSARILY LIMITED TO, STRAW BALE AND SILT FENCE BARRIERS, RIPRAP, VEHICLE TRACKING PADS, DIVERSION CHANNELS AND BERMS, CHECK DAMS, STRATEGICALLY LOCATED STOCKPILES, SEDIMENT BASINS, MULCH, 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.

B. 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.

C. 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.

D. BASED ON THE COMPOSITION OF SOILS ENCOUNTERED DURING THE EXPLORATION PROGRAM, SITE SOILS ARE GENERALLY CLASSIFIED AS TYPE A SOILS AS DEFINED BY (USGS) NATIONAL RESOURCES CONSERVATION SERVICE (NRCS), FORMERLY SOIL CONSERVATION SURVEY (SCS). TEMPORARY CONSTRUCTION SLOPES SHOULD BE DESIGNED IN STRICT COMPLIANCE WITH THE MOST RECENT GOVERNING REGULATIONS. STOCKPILES SHOULD BE PLACED WELL AWAY FROM THE EDGE OF THE EXCAVATION AND THEIR HEIGHT SHOULD BE CONTROLLED TO PREVENT SURCHARGE TO THE SIDES OF THE EXCAVATION. SURFACE DRAINAGE SHOULD BE CONTROLLED TO AVOID FLOW OF SURFACE WATER INTO THE EXCAVATIONS.

E. 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.

F. 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.

G. 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.

H. 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 DRAWINGS.

B. SUBMIT SKETCH SHOWING LOCATIONS OF PROPOSED STOCKPILE AREAS, CONSTRUCTION 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.

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 OF REGULATORY APPROVAL DIFFER FROM REQUIREMENTS CONTAINED HEREIN OR ON THE DRAWINGS, COMPLY WITH THE MORE STRINGENT REQUIREMENT.

PART 2 - PRODUCTS

2.01 MATERIALS

1.01 SUMMARY

I. 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.

J. STRAW WATTLES: NORTH AMERICAN GREEN MODEL WS1210 OR APPROVED EQUAL.

K. 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.

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

M. 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.

N. EXCELSIOR BLANKET: CURLED WOOD FIBER ON PHOTODEGRADABLE EXTRUDED PLASTIC MATRIX. 80% OF FIBERS 6-INCHES LONG OR LONGER. WEIGHT 0.975 POUNDS / SY. CONTAINING

NO CHÉMICAL ADDITIVES. USE CURLEX I BLANKET BY AMERICAN EXCELSIOR CÓMPANY, OR APPROVED EQUAL.

O. ROCK RIPRAP: SOUND, ANGULAR, 6-INCH MINUS PROCESSED ROCK, BLAST ROCK, OR TAILINGS.

P. CRUSHED STONE: SOUND, ANGULAR, 2-INCH MINUS PROCESSED CRUSHED STONE.

PART 3 - EXECUTION

3.01 THROUGHOUT CONSTRUCTION

THE CONSTRUCTION SPECIFICATIONS.

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 SEDIMENT BASINS TO SUBDIVIDE DRAINAGE AREAS INTO SMALL, MANAGEABLE SUBAREAS, THEREBY MINIMIZING RUNOFF AND THE POTENTIAL FOR EROSION.

B. ALL WORK SHALL BE IN ACCORDANCE WITH THE PERMITS AND APPROVALS ISSUED AND

C. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO THE COMMENCEMENT OF ANY SITE WORK OR EARTHWORK OPERATIONS, SHALL BE MAINTAINED DURING CONSTRUCTION, AND SHALL REMAIN IN PLACE UNTIL ALL SITE WORK IS COMPLETE AND GROUNDCOVER IS ESTABLISHED.

D. INSPECT EROSION CONTROLS DAILY THROUGHOUT CONSTRUCTION REPAIR DAMAGED

SHALL ENTER THE ON-SITE OR OFF-SITE DRAINAGE SYSTEMS AT ANY TIME.

E. STRAW WATTLES SHALL BE PLACED AT ALL EXISTING & PROPOSED CATCH BASINS LOCATED IN FILL AREAS & SUBJECT TO STORMWATER RUN-OFF FROM PROPOSED FILL AREAS DURING CONSTRUCTION, OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE. NO SEDIMENTS

F. STOCKPILES SHALL BE SURROUNDED ON THEIR PERIMETERS WITH STAKED STRAW WATTLES AND/OR SILTATION FENCES TO PREVENT AND/OR CONTROL SILTATION AND EROSION.

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.

H. THE LOCATION OF TEMPORARY DRAINAGE SWALES AND SEDIMENTATION TRAPS ARE APPROXIMATE ONLY AND SHALL BE RELOCATED AS REQUIRED AS CONSTRUCTION

I. CULVERT/PIPE INLETS AND OUTFALLS SHALL BE PROTECTED BY STRAW WATTLE FILTERS UNTIL DISTURBED AREAS ARE PERMANENTLY STABILIZED.

J. ALL PROPOSED NON-RIPRAP SLOPES STEEPER THAN 3:1 SHALL BE STABILIZED WITH EXCELSIOR BLANKETS AND PROTECTED FROM EROSION.

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

PART 3 - CONTINUED

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

M. 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.

N. LIMIT EXTENT OF WORK AREA SO THAT ALL DISTURBED AREAS CAN BE STABILIZED WITH CONTROL MEASURES AS SOON AS PRACTICABLE.

O. WHEN RAINFALL GREATER THAN 1.0" IS EXPECTED, CONSIDER, DEVISE, AND EMPLOY 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.

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

Q. PROPERLY DISPOSE OF DEBRIS, SOLID WASTE, TRASH, AND CONSTRUCTION WASTE / $\mbox{\ensuremath{\mathsf{BYPRODUCTS}}}$ OFF SITE.

3.02 SITE PREPARATION AND ACCESS

3.03 CLEARING, GRUBBING, AND STRIPPING

A. WALK SITE AND IDENTIFY LOCATIONS OF LIMIT OF WORK AND ENVIRONMENTALLY SENSITIVE AREAS. ESTABLISH CONSTRUCTION STAGING AREA, LOCATED BEYOND ENVIRONMENTALLY SENSITIVE

B. INSTALL CONTROL MEASURES AS SHOWN ON THE DRAWINGS, INCLUDING THOSE DEFINING THE

C. LIMIT VEHICULAR TRAFFIC TO AND FROM SITE TO MINIMIZE TRANSPORT OF SEDIMENT.

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.

C. 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.

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

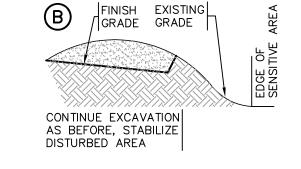
D. SLOPES STEEPER THAN 3:1 SHALL BE STABILIZED IMMEDIATELY AFTER COMPLETION.

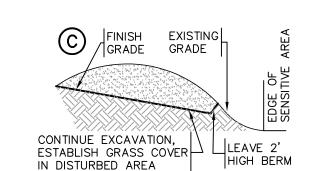
A. COMPLETE LANDSCAPING AS SOON AS POSSIBLE AFTER COMPLETION OF FINAL SUBGRADE.

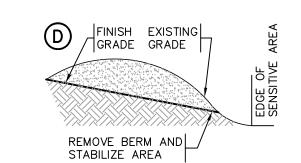
B. IMMEDIATELY AFTER PLACEMENT OF TOPSOIL, STABILIZE WITH CONTROL MEASURES INCLUDING, BUT NOT NECESSARILY LIMITED TO, SEED MIX, MULCH, AND / OR BLANKET.

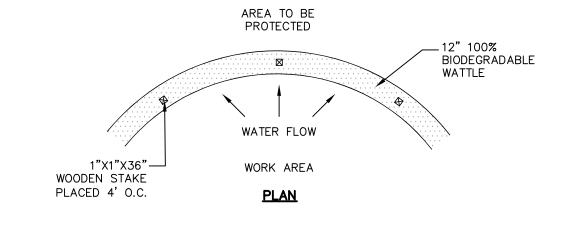
C. PERMANENT SEEDING MAY BE PERFORMED IN THE SPRING PRIOR TO JULY 1 AND IN BETWEEN AUGUST 1 AND OCTOBER 15. PERMANENT SEEDING AT OTHER TIMES SHALL BE APPROVED AND SHALL ONLY BE ALLOWED WITH AN APPROVED MULCHING AND IRRIGATION PROGRAM.

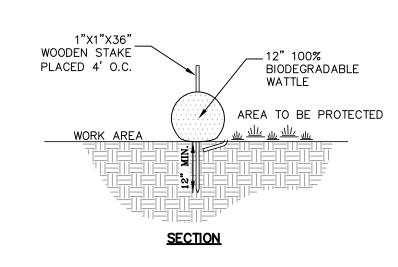
MAINTAIN SLOPE AWAY FROM UNDISTURBED AREAS UNDISTURBED AREAS















VIDE

TURNING POINT ENGINEERING

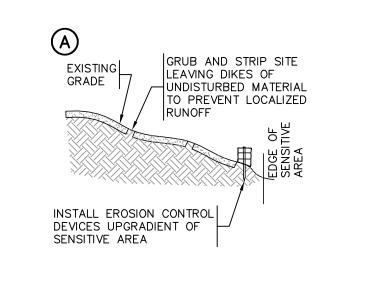
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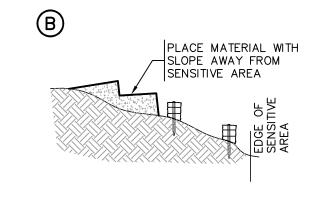
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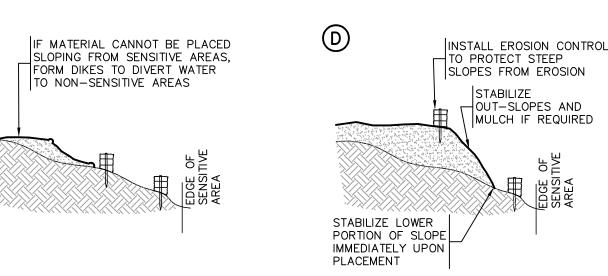
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APPROVAL UNDER SITE PLAN REVIEW.

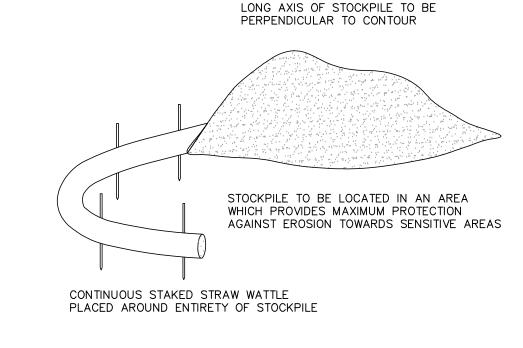




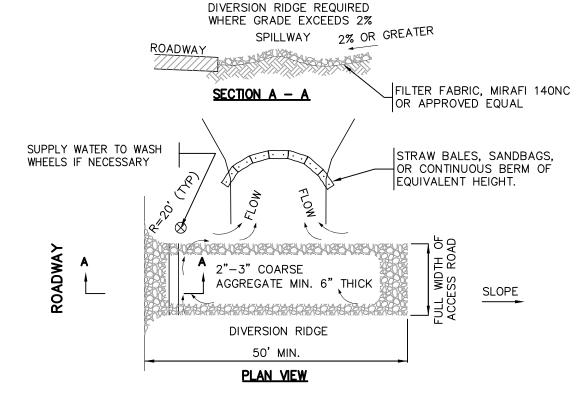


FILL PROCEDURE

EXCAVATION PROCEDURE







NOTES:

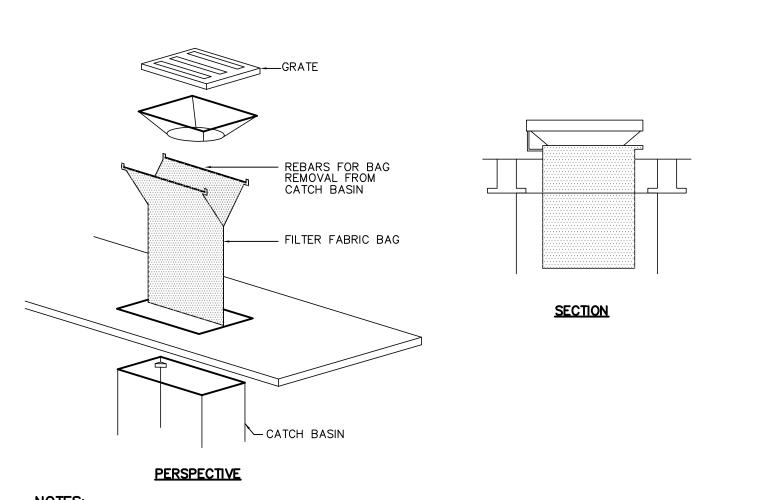
[1] THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT—OF—WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.

[2] WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT—OF—WAY.

[3] WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

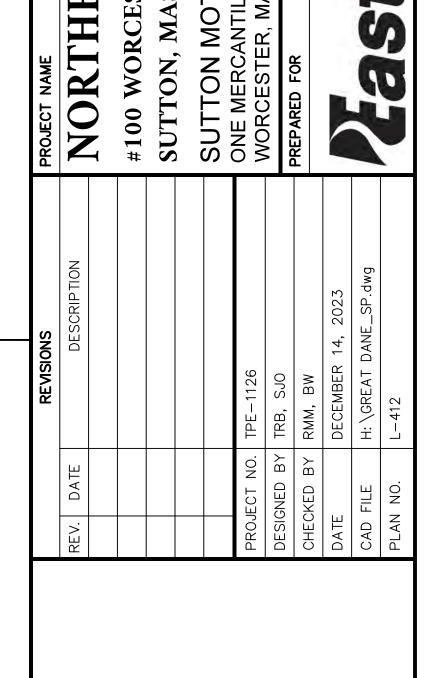
[3] WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.[4] USE SANDBAGS, STRAW BALES OR OTHER APPROVED METHODS TO CHANNELIZE RUNOFF TO BASIN AS REQUIRED.

5 CONSTRUCTION ENTRANCE
N.T.S.



[1] TO BE SILTSTACK BY ATLANTIC CONSTRUCTION FABRICS, INC., OR APPROVED EQUAL.
[2] TO BE INSTALLED IMMEDIATELY FOLLOWING THE INSTALLATION OF CATCH BASIN STRUCTURE AND REMAIN UNTIL FINISH COURSE IS PLACED.
[3] FILTER BAG SHALL BE MAINTAINED AND CLEANED AS NEEDED.

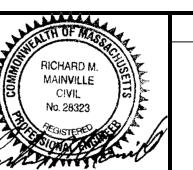
6 CATCH BASIN FILTER BAG



EROSION CONTROL PLAN NOTES & DETAILS

SHEET TITLE

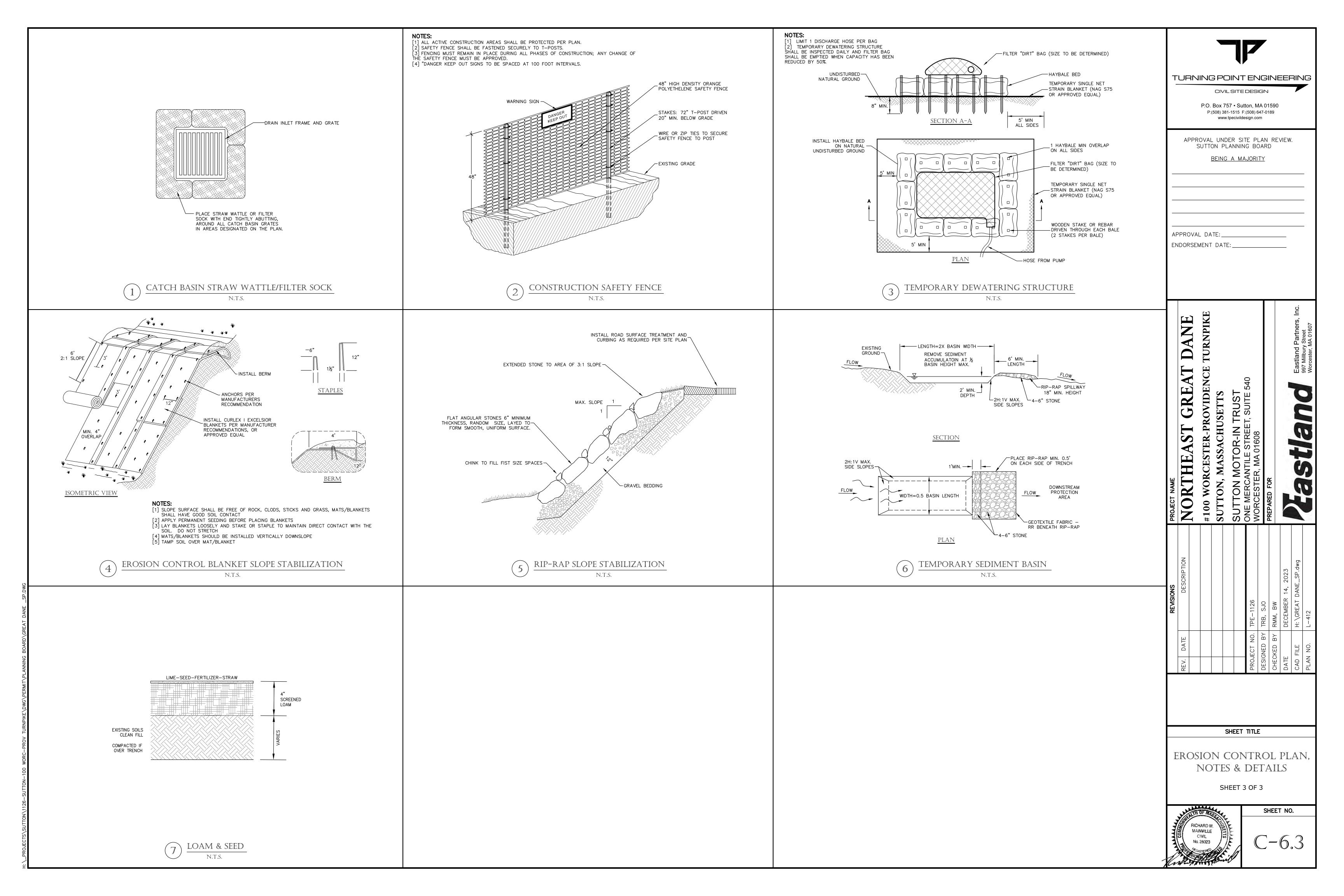
SHEET 2 OF 3

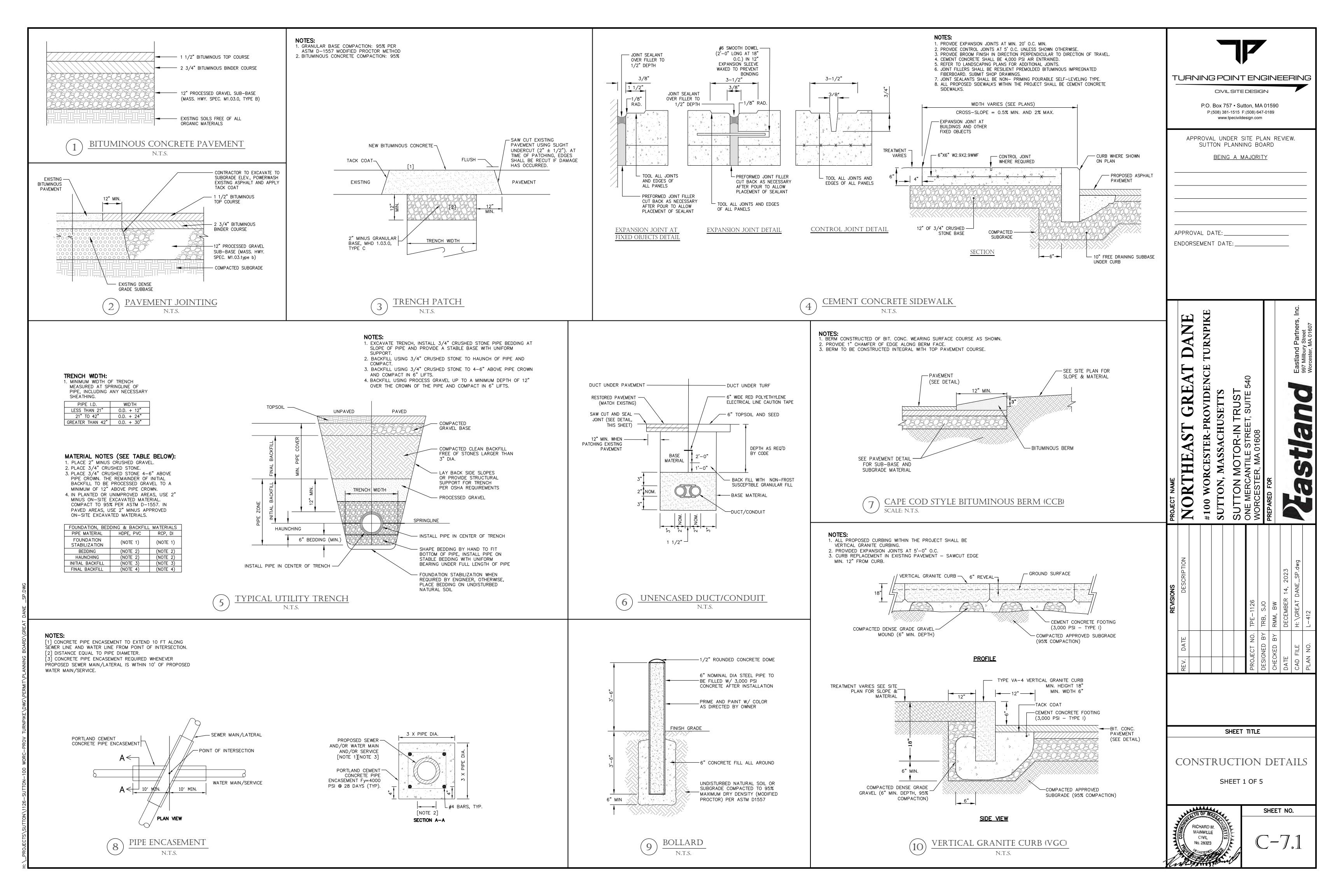


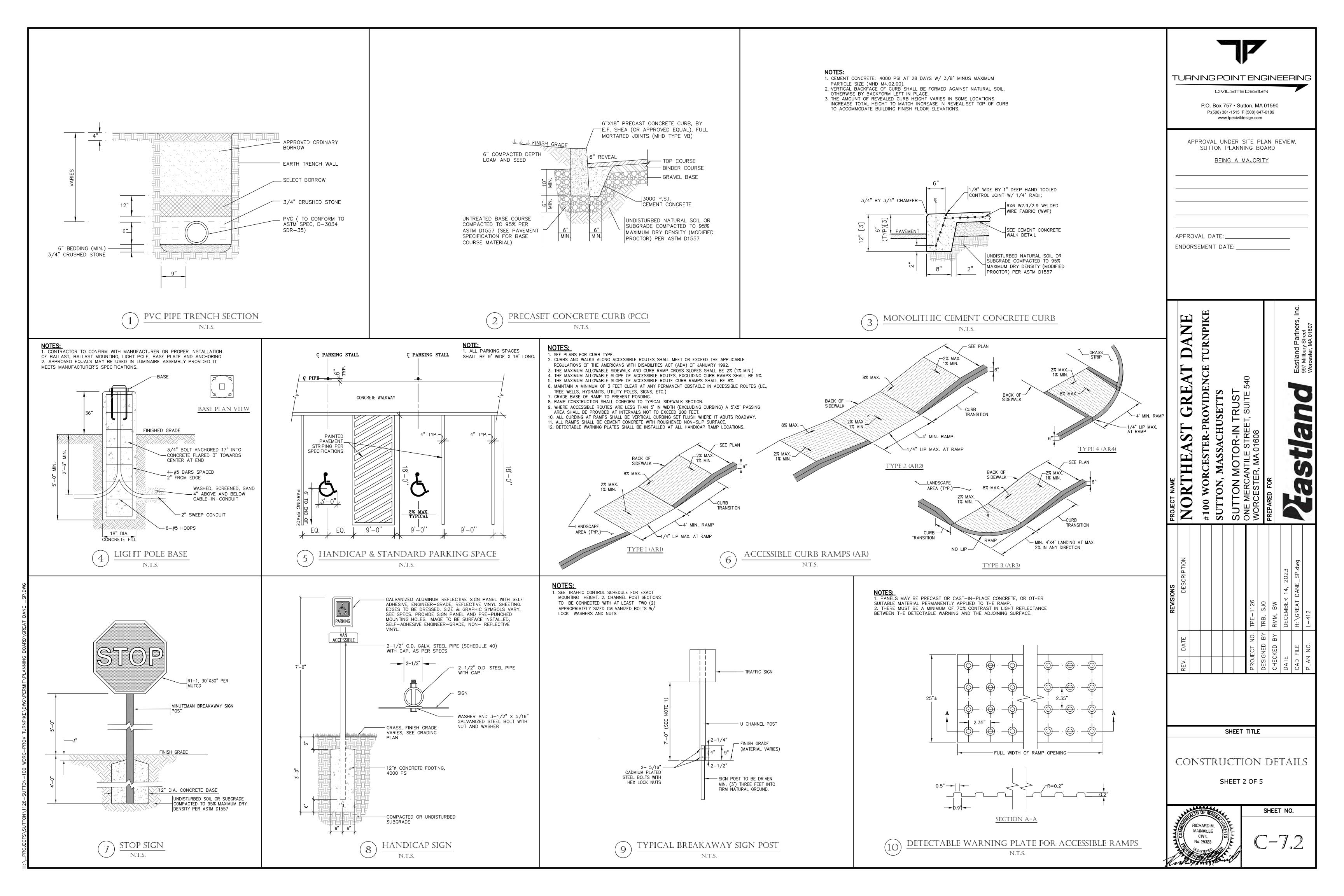
C-6.2

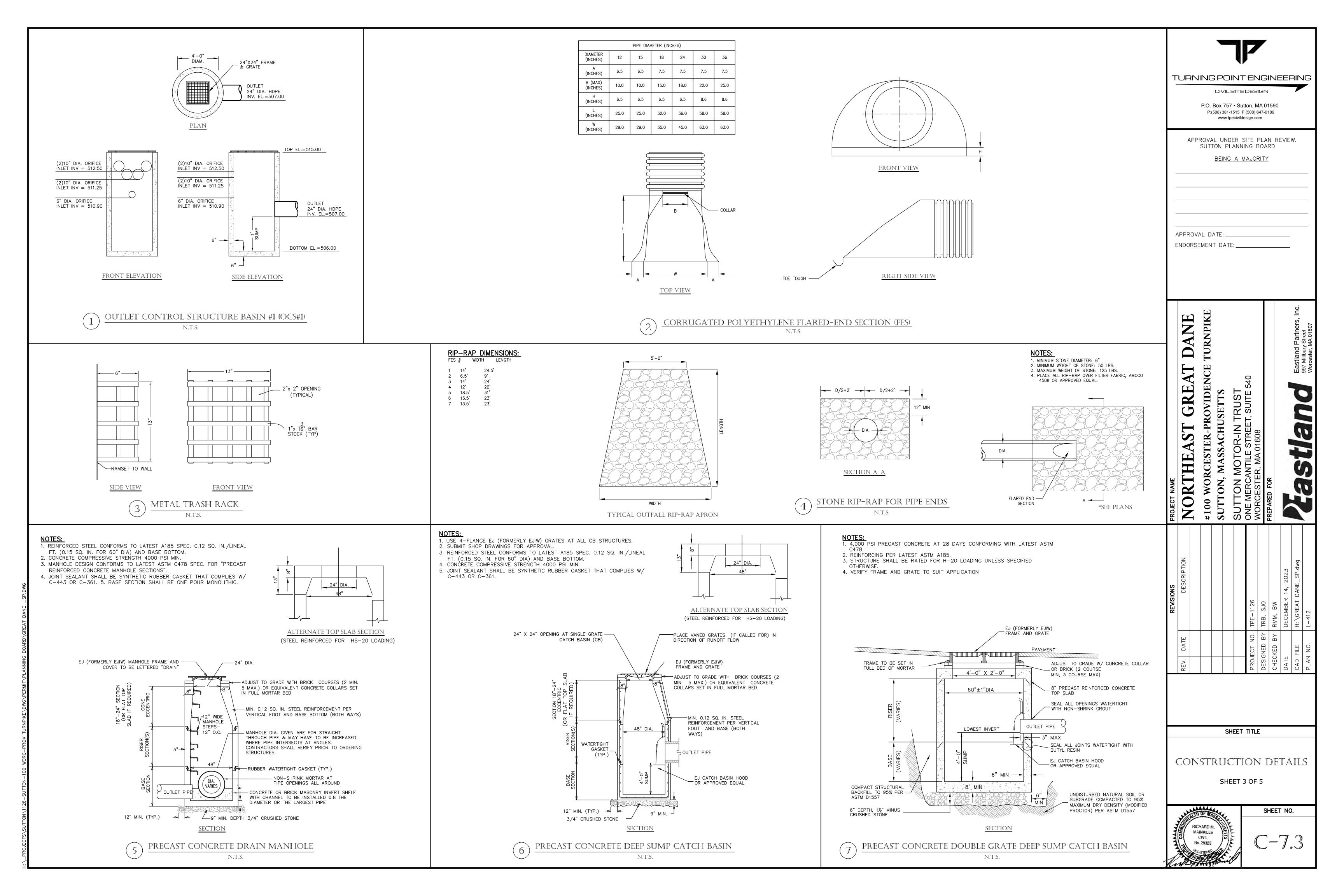
SHEET NO.

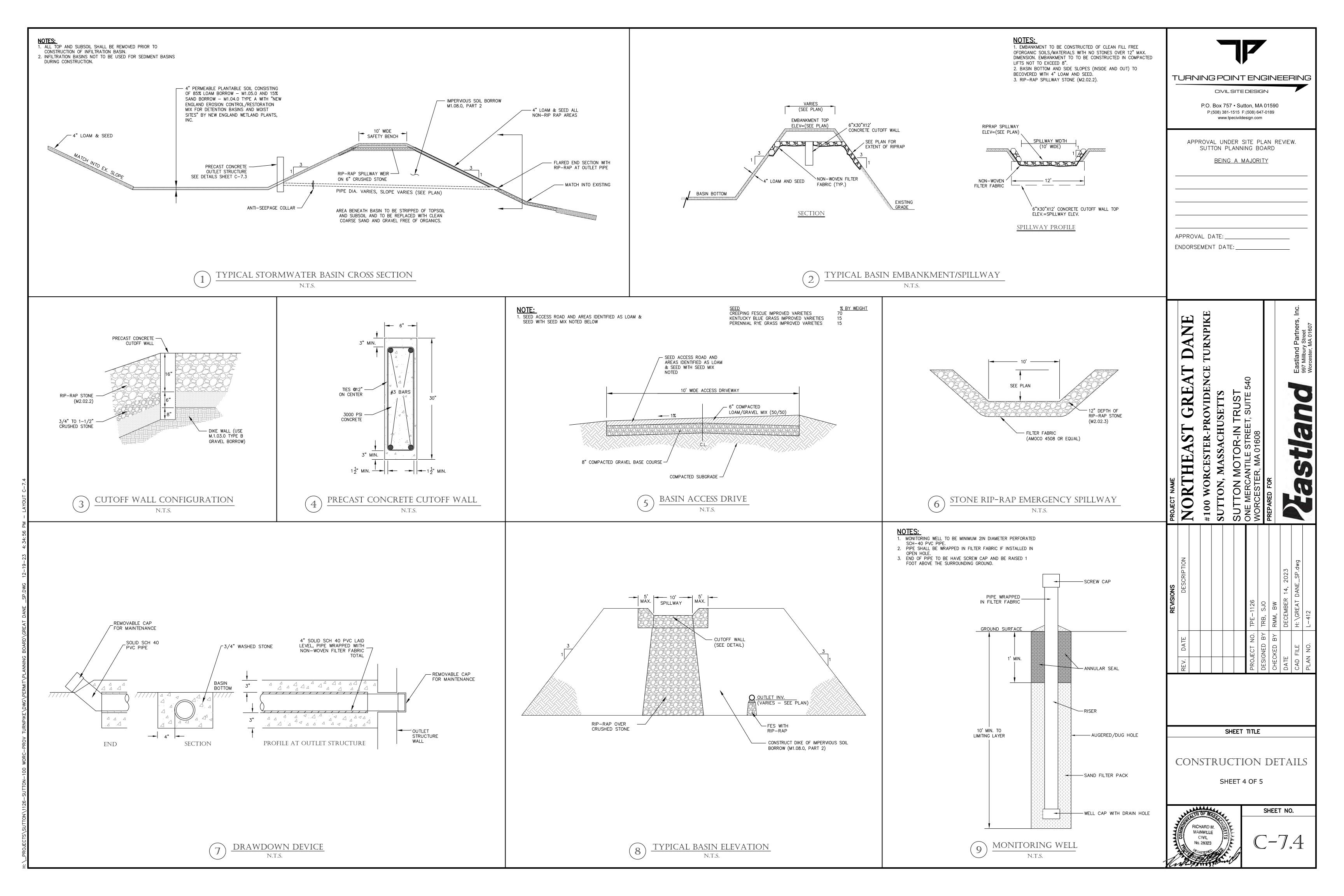
H:_PROJECTS\SUTTON\1126—SUTTON—100 WORC—PROV TURNPIKE\DWG\PERMI

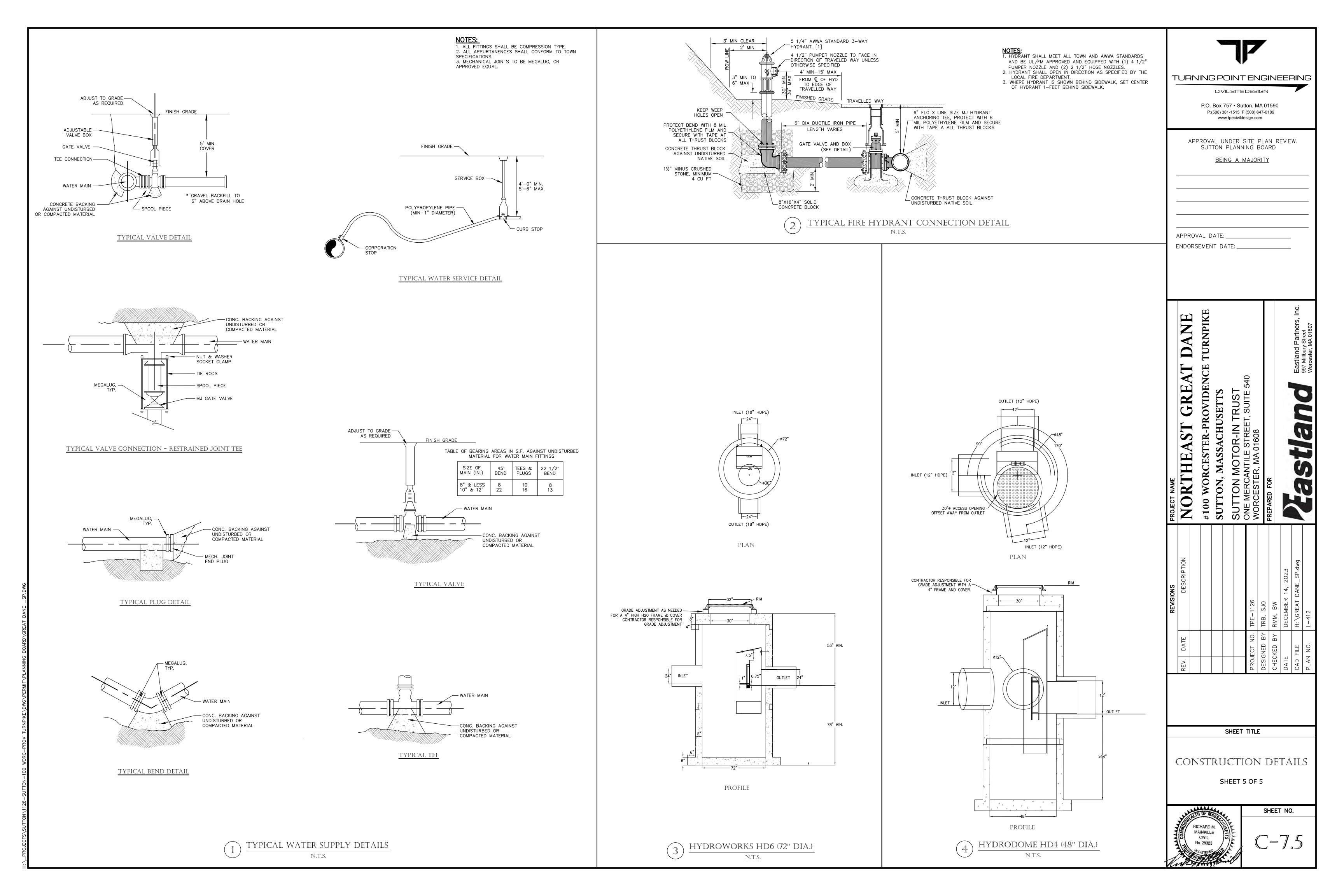


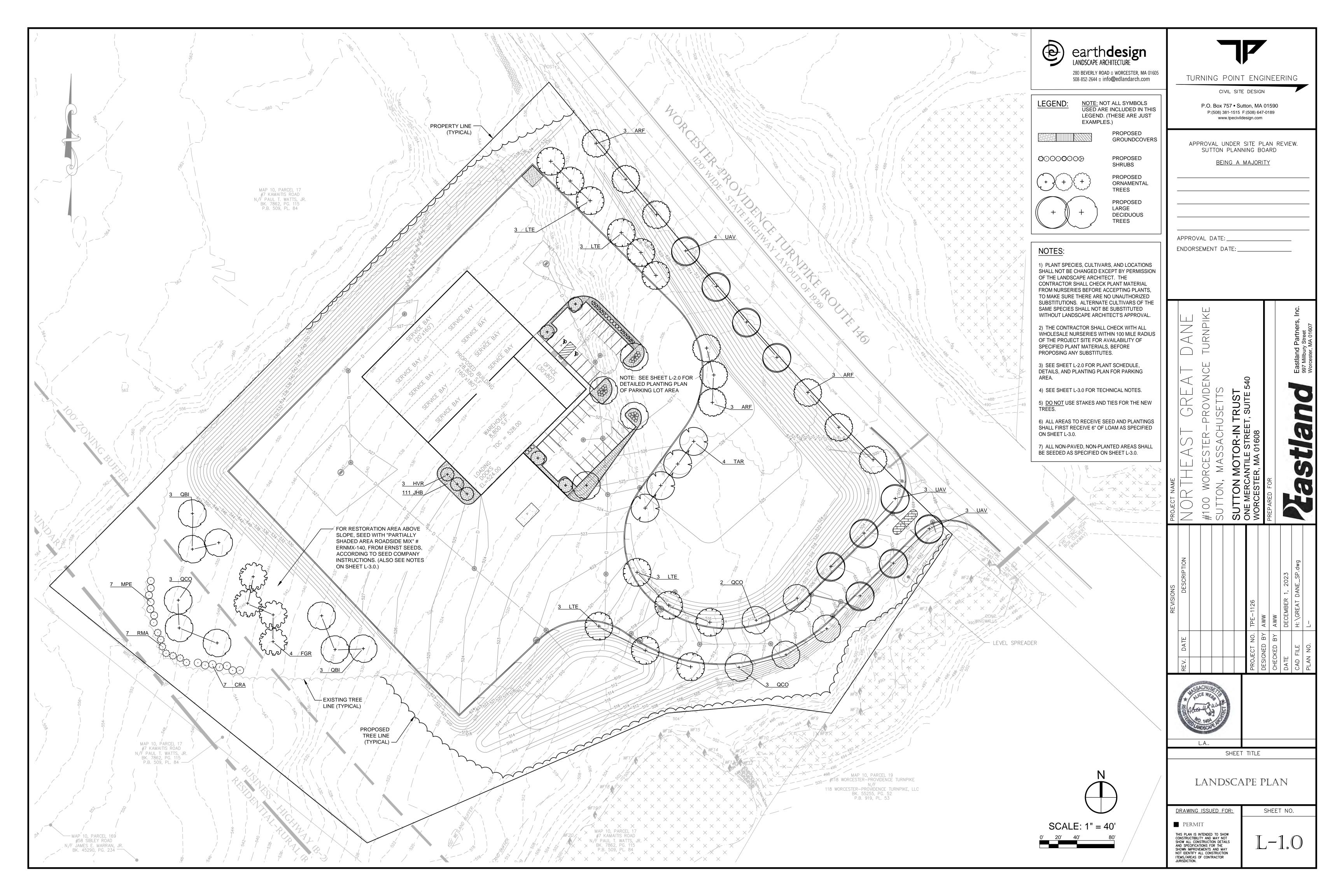


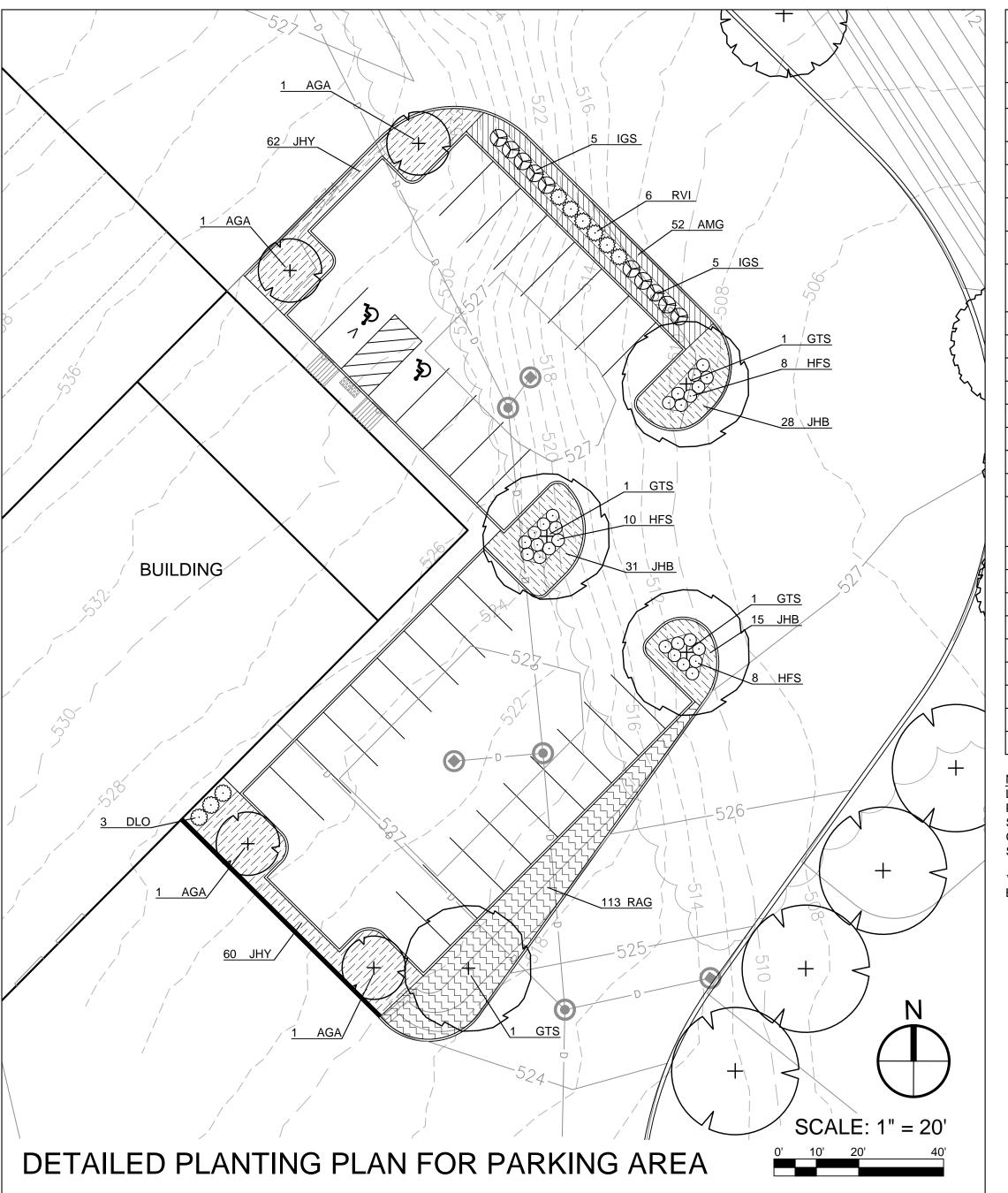












PRIOR TO MULCHING, LIGHTLY TAMP NATIVE SOIL AROUND THE

AROUND THE ROOT BALL TO SETTLE THE SOIL, AND THEN ADD

4" THICK DOUBLE-SHREDDED HARDWOOD MULCH OUTSIDE

OF ROOT BALL, EXTENDING OVER LOOSENED SOIL AREA. NO

MORE THAN 1" THICKNESS OF MULCH ALLOWED ABOVE ROOT

ADDITIONAL SOIL IF NEEDED, AND WATER AGAIN.

BALL, AND NO MULCH WITHIN 6" OF TRUNK.

FINISHED GRADE

DO NOT ADD ANY SOIL AMENDMENTS.

LOOSENED SOIL: DIG AND TURN THE SOIL TO THE

AREA AND DEPTH SHOWN, TO REDUCE COMPACTION.

REMOVE TOP 1/2 OF BURLAP FROM B&B TREES. TOP OF ROOT

BALL SHALL BE 1" TO 2" ABOVE FINISHED GRADE. INSTALL TO

MINIMIZE SETTLING. CONTACT OWNER'S REPRESENTATIVE OR

LANDSCAPE ARCHITECT TO INSPECT ROOT BALL PRIOR TO

FILLING SOIL AROUND IT. REMOVE TOP 2/3 OF WIRE BASKET

WHERE PRESENT. LOOSEN ROOT BALL, ALLEVIATE MATTED

ROOTS, REMOVE ENCIRCLING ROOTS, AND SPREAD ROOTS OUT

NOT TO SCALE

SHRUB PLANTING

ROOT BALL IN 6" LIFTS TO BRACE TREE. DO NOT OVER-COMPACT.

WHEN THE PLANTING HOLE HAS BEEN BACKFILLED, POUR WATER

TREE PLANTING NOTES:

AND MULTI-STEM TREES.

1) THIS DETAIL APPLIES TO SINGLE-

DIRECTIONS. DO NOT STAKE TREE.

3) DO NOT PRUNE OR CUT LEADER

EXCEPT TO STABILIZE DAMAGE OR AS

DIRECTED BY LANDSCAPE ARCHITECT.

4) SEE TECHNICAL NOTES FOR OTHER

4" HIGH X 8" WIDE SOIL SAUCER

EXISTING SOIL -

SLOPE SIDES OF

LOOSENED SOIL

TREE PLANTING

SET BOTTOM OF ROOT

BALL ON EXISTING OR

RECOMPACTED SOIL

SURROUNDING TREE, JUST

OUTSIDE OF ROOT BALL

AREA OF LOOSENED SOIL

3X ROOT BALL DIA. (MIN.)

PLANTING REQUIREMENTS.

2) SET TREE VERTICALLY IN ALL

SYMBOL	QTY.	BOTANICAL NAME	COMMON NAME	MINIMUM SIZE AT PLANTING	PLANT SPACING & NOTES
LARGE TRE	ES				
ARF	9	ACER RUBRUM 'FRANKSRED'	RED SUNSET MAPLE	2" CAL., 6' HT.	B&B, PLANT 50' ON CENTER ALONG RTE. 146 AND 30' ON CENTER ELSEWHERE
FGR	4	FAGUS GRANDIFOLIA	AMERICAN BEECH	2" CAL., 6' HT.	B&B, PLANT 30' ON CENTER
GTS	4	GLEDITZIA TRIACANTHOS F. INERMIS 'SKYLINE'	SKYLINE HONEYLOCUST	2" CAL., 6' HT.	B&B, PLANT WHERE SHOWN
LTE	12	LIRIODENDRON TULIPIFERA 'EMERALD CITY'	EMERALD CITY TULIP POPLAR	2" CAL., 6' HT.	B&B, PLANT 50' ON CENTER ALONG ENTRANCE DRIVE AND 30' ON CENTER ELSEWHERE
QBI	6	QUERCUS BICOLOR	SWAMP WHITE OAK	2" CAL., 6' HT.	B&B, PLANT 30' ON CENTER EXCEPT WHERE SHOWN FURTHER APART
QCO	8	QUERCUS COCCINEA	SCARLET OAK	2" CAL., 6' HT.	B&B, PLANT 50' ON CENTER ALONG ENTRANCE DRIVE, AND 30' ON CENTER ELSEWHERE EXCEPT WHERE SHOWN FURTHER APART
TAR	4	TILIA AMERICANA 'REDMOND'	REDMOND AMERICAN BASSWOOD	2" CAL., 6' HT.	B&B, PLANT 30' ON CENTER
JAV	10	ULMUS AMERICANA 'VALLEY FORGE'	VALLEY FORGE ELM	2" CAL., 6' HT.	B&B, PLANT 50' ON CENTER
SMALL ORN	IAMENTAL	TREES			
AGA	4	AMELANCHIER X GRANDIFLORA 'AUTUMN BRILLIANCE'	AUTUMN BRILLIANCE SERVICEBERRY	6' HEIGHT	B&B, PLANT WHERE SHOWN
HVR	3	HAMAMELIS VIRGINIANA	AMERICAN WITCHHAZEL	6' HEIGHT	B&B, PLANT 15' ON CENTER
SHRUBS					
CRA	7	CORNUS RACEMOSA	GRAY DOGWOOD	# 5 POT	PLANT 8' ON CENTER
DLO	3	DIERVILLA LONICERA	NORTHERN BUSH HONEYSUCKLE	# 3 POT	PLANT 4' ON CENTER
HFS	26	HYPERICUM FRONDOSUM 'SUNBURST'	SUNBURST ST. JOHN'S WORT	# 3 POT	PLANT 3' ON CENTER; IF UNAVAILABLE, THIS MAY BE SUBSTITUTED WITH HYPERICUM KALMIANUM 'DEPPE' (SUNNY BOULEVARD ST. JOHN'S WORT)
IGS	10	ILEX GLABRA 'SHAMROCK'	SHAMROCK INKBERRY	# 3 POT	PLANT 4' ON CENTER
MPE	7	MYRICA PENNSYLVANICA	NORTHERN BAYBERRY	# 5 POT	PLANT 8' ON CENTER
RMA	7	RHODODENDRON MAXIMUM	ROSEBAY RHODODENDRON	# 5 POT	PLANT 8' ON CENTER
RVI	6	ROSA VIRGINIANA	VIRGINIA ROSE	# 3 POT	PLANT 4' ON CENTER
GROUNDCC	<u>OVERS</u>				
AMG	52	ARONIA MELANOCARPA 'GROUND HUG'	GROUND HUG CHOKEBERRY	# 3 POT	PLANT 3' ON CENTER
JHB	185	JUNIPERUS HORIZONTALIS 'BAR HARBOR'	BAR HARBOR JUNIPER	# 3 POT	PLANT 3' ON CENTER
JHY	122	JUNIPERUS HORIZONTALIS 'YOUNGSTOWN'	YOUNGSTOWN JUNIPER	# 3 POT	PLANT 3' ON CENTER
RAG	113	RHUS AROMATICA 'GRO-LOW'	GRO-LOW SUMAC	# 3 POT	PLANT 3' ON CENTER

NOTE: PLANT SPECIES, CULTIVARS, SIZES, AND LOCATIONS SHALL NOT BE CHANGED EXCEPT BY PERMISSION OF THE LANDSCAPE ARCHITECT.** THE CONTRACTOR SHALL CHECK PLANT MATERIAL FROM NURSERIES BEFORE ACCEPTING PLANTS, TO MAKE SURE THERE ARE NO UNAUTHORIZED SUBSTITUTIONS. ALTERNATE CULTIVARS OF THE SAME SPECIES SHALL NOT BE SUBSTITUTED WITHOUT LANDSCAPE ARCHITECT'S APPROVAL.** THE CONTRACTOR SHALL CHECK WITH ALL WHOLESALE NURSERIES WITHIN 100 MILE RADIUS OF THE PROJECT SITE FOR AVAILABILITY OF SPECIFIED PLANT MATERIALS, BEFORE PROPOSING ANY SUBSTITUTES.

** EXCEPT AS NOTED UNDER "PLANT SPACING & NOTES" IN THE PLANT SCHEDULE, BUT THOSE SUBSTITUTIONS MAY ONLY BE USED IF THE SPECIFIED PLANT IS NOT AVAILABLE AT ANY WHOLESALE NURSERIES IN THE REGION, AS NOTED ABOVE.



280 BEVERLY ROAD

WORCESTER, MA 01605

508-852-2644 🛘 info@edlandarch.com

NOTE: NOT ALL SYMBOLS USED ARE INCLUDED IN THIS LEGEND. (THESE ARE JUST

EXAMPLES.) PROPOSED

♥○○○**○**○○

PROPOSED ORNAMENTAL TREES

PROPOSED

SHRUBS

PROPOSED LARGE DECIDUOUS

NOTES:

1) PLANT SPECIES, CULTIVARS, AND LOCATIONS SHALL NOT BE CHANGED EXCEPT BY PERMISSION OF THE LANDSCAPE ARCHITECT. THE CONTRACTOR SHALL CHECK PLANT MATERIAL FROM NURSERIES BEFORE ACCEPTING PLANTS, TO MAKE SURE THERE ARE NO UNAUTHORIZED SUBSTITUTIONS. ALTERNATE CULTIVARS OF THE SAME SPECIES SHALL NOT BE SUBSTITUTED WITHOUT LANDSCAPE ARCHITECT'S APPROVAL.

2) THE CONTRACTOR SHALL CHECK WITH ALL WHOLESALE NURSERIES WITHIN 100 MILE RADIUS OF THE PROJECT SITE FOR AVAILABILITY OF SPECIFIED PLANT MATERIALS, BEFORE PROPOSING ANY SUBSTITUTES.

3) SEE SHEET L-1.0 FOR PLANTING PLAN FOR THE REST OF THE SITE.

4) SEE SHEET L-3.0 FOR TECHNICAL NOTES.

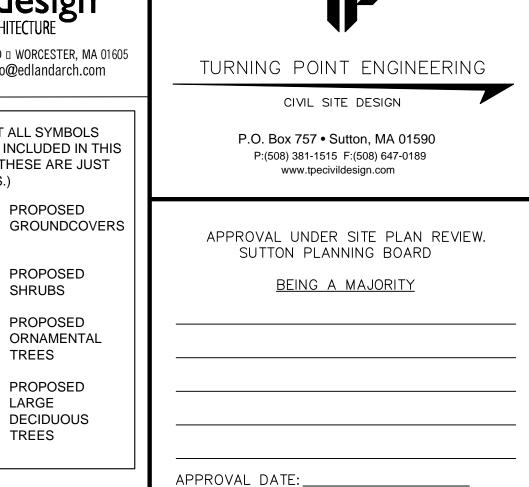
5) <u>DO NOT</u> USE STAKES AND TIES FOR THE NEW

6) ALL AREAS TO RECEIVE SEED AND PLANTINGS SHALL FIRST RECEIVE 6" OF LOAM AS SPECIFIED ON SHEET L-3.0.

7) ALL NON-PAVED, NON-PLANTED AREAS SHALL BE SEEDED AS SPECIFIED ON SHEET L-3.0.

1. LIGHTLY TAMP PLANTING MIX AS PIT IS

EQUAL SPACING



ENDORSEMENT DATE:

 \bigcirc

 \cong \leq



STAGGERED

L EDGE OF

PLANTING BED

L.A.. SHEET TITLE

LANDSCAPE SCHEDULE & DETAILS

DRAWING ISSUED FOR: SHEET NO.

1. LIGHTLY TAMP PLANTING MIX AS PIT IS SEE PLANTING PLAN & PLANT FILLED AROUND EACH PLANT'S ROOT BALL, SCHEDULE IN LIFTS NOT EXCEEDING 6". DO NOT 2. SOAK EACH PLANT'S ROOT BALL AND PIT IMMEDIATELY AFTER INSTALLATION. 3. SEE TECHNICAL NOTES FOR OTHER SET TOP OF ROOT PLANTING REQUIREMENTS. BALL 1" TO 2" ABOVE ADJACENT GRADE -4" HIGH X 8" WIDE SOIL SAUCER SURROUNDING EACH SHRUB, JUST OUTSIDE OF ROOT BALL ADJACENT GRADE -4" THICK DOUBLE-SHREDDED HARDWOOD MULCH OUTSIDE OF ROOT BALL, EXTENDING OVER ENTIRE PLANT BED. NO MORE THAN 1" THICKNESS OF MULCH ALLOWED ABOVE ROOT BALL. 12" MINIMUM "V" TRENCH AROUND ENTIRE PLANTING BED — STAGGERED EDGE OF PLANTING BED -TAMP SOIL UNDER EACH PLANT - SOIL REMOVED FROM PLANT BED FOR BALL TO MINIMIZE SETTLEMENT -PLACEMENT OF SHRUBS SHALL BE AMENDED WITH 20 PERCENT COMPOSTED FILL AND COMPACT NATIVE GROUND PINE BARK. EQUAL SPACING \ SOIL BENEATH ROOT BALL PLANTING BED BETWEEN ALL PLANTS — TO ACHIEVE REQUIRED LOOSEN ROOT BALL, ALLEVIATE MATTED OR HEIGHT OF PLANT.-TYPICAL PLANTING BED PLAN ENCIRCLING ROOTS. SPREAD ROOTS OUT PLANT SHRUBS IN THIS ARRANGEMENT UNLESS SHOWN OTHERWISE ON THE

SPACING VARIES

FILLED AROUND EACH PLANT'S ROOT BALL, SET TOP OF ROOT BALL 1" IN LIFTS NOT EXCEEDING 6". DO NOT ABOVE ADJACENT GRADE -SPACING VARIES SEE PLANTING 2. SOAK EACH PLANT'S ROOT BALL AND PIT 2" TO 3" LAYER OF PLAN & - 2" UNMULCHED IMMEDIATELY AFTER INSTALLATION. DOUBLE-SHREDDED PLANT SCHEDULE HARDWOOD MULCH 3. SEE TECHNICAL NOTES FOR OTHER PLANTING REQUIREMENTS. ADJACENT GRADE "V" TRENCH AT EDGES OF BED --COMPACTED OR LIMIT OF PLANTING BED — UNDISTURBED SUBGRADE - SOIL REMOVED FROM PLANT BED FOR TAMP SOIL UNDER PLACEMENT OF PLANTS SHALL BE EACH PLANT BALL TO AMENDED WITH 20 PERCENT COMPOSTED MINIMIZE SETTLEMENT -BETWEEN ALL PLANTS— GROUND PINE BARK. TYPICAL PLANTING BED PLAN - LOOSEN ROOT BALL. ALLEVIATE MATTED INSTALL PLANTS IN THIS ARRANGEMENT OR ENCIRCLING ROOTS, AND SPREAD ROOTS OUT EVENLY. UNLESS SHOWN OTHERWISE ON THE

NOT TO SCALE

GROUNDCOVER & PERENNIAL PLANTING

PERMIT THIS PLAN IS INTENDED TO SHOW CONSTRUCTIBILITY AND MAY NOT SHOW ALL CONSTRUCTION DETAILS AND SPECIFICATIONS FOR THE SHOWN IMPROVEMENTS AND MAY NOT IDENTIFY ALL CONSTRUCTION NOT TO SCALE ITEMS/AREAS OF CONTRACTOR JURISDICTION.



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APPROVAL UNDER SITE PLAN REVIEW. SUTTON PLANNING BOARD

BEING A MAJORITY

APPROVAL DATE: _

ENDORSEMENT DATE:

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JURISDICTION.

THIS PLAN IS INTENDED TO SHOW CONSTRUCTIBILITY AND MAY NOT SHOW ALL CONSTRUCTION DETAILS AND SPECIFICATIONS FOR THE SHOWN IMPROVEMENTS AND MAY NOT IDENTIFY ALL CONSTRUCTION ITEMS/AREAS OF CONTRACTOR

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TECHNICAL NOTES FOR LOAM BORROW:

1) <u>SCOPE OF WORK</u>: FOR THIS PROJECT, THE WORK SHALL INCLUDE PLACING LOAM ALL AREAS TO RECEIVE PLANTS AND TURFGRASS SEEDING.

2) THE CONTRACTOR SHALL FURNISH A CERTIFIED LABORATORY REPORT SHOWING THE SOILS CLASSIFICATION AND NUTRIENT ANALYSIS OF REPRESENTATIVE SAMPLES OF THE LOAM THIS IS PROPOSED TO BE USED, INCLUDING THE EXTENT OF LIME AND FERTILIZER REQUIRED. ALL COSTS FOR SUCH WORK SHALL BE BORNE BY THE CONTRACTOR.

3) IN ACCORDANCE WITH THE SPECIFIC REQUIREMENTS OF THIS PROJECT, EXISTING ON-SITE SOIL MAY BE RE-USED AS LOAM BORROW ONLY IF IT MEETS THIS SPECIFICATION. EXISTING TOPSOIL THAT DOES NOT MEET THIS SPECIFICATION MAY BE RE-USED ONLY UP TO THE SUBGRADE ELEVATION WITHIN THE LIMITS OF AREAS TO RECEIVE NEW LOAM BORROW. THE CONTRACTOR SHALL FURNISH ALL REQUIRED LOAM BORROW, FROM OFF-SITE SOURCES, AS NECESSARY, TO COMPLETE THE PROJECT.

4) SCREENED LOAM SHALL BE "FINE SANDY LOAM" OR "SANDY LOAM" DETERMINED BY MECHANICAL ANALYSIS (ASTM D-422) AND BASED ON THE "USDA CLASSIFICATION SYSTEM". SCREENED LOAM SHALL HAVE THE FOLLOWING MECHANICAL ANALYSIS:

TEXTURAL CLASS PERCENTAGE	PERCENTAGE OF TOTAL WEIGHT	AVERAGE PERCENTAGE
SAND (0.05 - 2.0 MM)	45 - 75	60
SILT (0.002 - 0.05 MM)	5 - 35	25
CLAY (LESS THAN 0.002 MM)	5 - 20	15

5) SCREENED LOAM SHALL BE A NATURAL PRODUCT CONSISTING PRIMARILY OF NATURAL TOPSOIL, FREE FROM SUBSOIL, AND OBTAINED FROM AN AREA THAT HAS NEVER BEEN STRIPPED BEFORE. SCREENED LOAM SHALL NOT CONTAIN LESS THAN FIVE PERCENT (5%) NOR MORE THAN TEN PERCENT (10%) ORGANIC MATTER. TO ADJUST ORGANIC MATTER CONTENT, THE SOIL MAY BE AMENDED, PRIOR TO SITE DELIVERY, BY THE ADDITION OF COMPOSTED LEAF MOLD OR PEAT MOSS. NO MIXING OR AMENDING OF LOAM IS PERMITTED ON SITE.

6) THE LOAM SHALL NOT BE DELIVERED IN A WET OR FROZEN CONDITION.

7) SCREENED LOAM SHALL CONSIST OF FERTILE, FRIABLE, LOAM CAPABLE OF SUSTAINING VIGOROUS PLANT GROWTH. LOAM SHALL BE WITHOUT ADMIXTURE OF SUBSOIL AND REFUSE. IT SHALL BE A HOMOGENEOUS MATERIAL FREE OF STONES GREATER THAN ONE-HALF (1/2) INCH IN THE LONGEST DIMENSION; FREE OF LUMPS, PLANTS, GRASS, ROOTS, STICKS, EXCESSIVE STONE CONTENT, DEBRIS, AND EXTRANEOUS MATTER AS DETERMINED BY THE OWNER.

8) SCREENED LOAM SHALL BE WITHIN THE PH RANGE OF 6.0 TO 6.5. IT SHALL BE UNCONTAMINATED BY SALT WATER, FOREIGN MATTER, AND SUBSTANCES HARMFUL TO PLANT GROWTH. THE MAXIMUM SOLUBLE SALT INDEX SHALL BE 100. SCREENED LOAM SHALL NOT HAVE LEVELS OF ALUMINUM GREATER THAN 200 PARTS PER MILLION.

9) SEE TURFGRASS NOTES FOR LIME AND FERTILIZER REQUIREMENTS FOR LAWN AREAS.

10) TOPSOIL STRUCTURE SHALL NOT BE DESTROYED THROUGH EXCESSIVE AND UNNECESSARY HANDLING OR COMPACTION. INAPPROPRIATE HANDLING LEADING TO THE COMPACTION OF DETERIORATION OF SOIL STRUCTURE WILL RESULT IN REJECTION OF TOPSOIL FOR USE.

11) AT NO TIME SHALL EQUIPMENT OR MATERIAL REST ON THE SOIL

12) THE CONTRACTOR SHALL FURNISH AND SPREAD LOAM TO A MINIMUM 6 INCH DEPTH (AFTER SOIL SETTLEMENT) IN ALL LAWN AND PLANT BED AREAS. SUBSOIL SHALL BE SCARIFIED PRIOR TO PLACEMENT OF LOAM. THE TOP OF THE SETTLED LOAM BORROW LAYER SHALL BE TO GRADES SPECIFIED ON THE DRAWINGS. NO COMPACTION SHALL BE REQUIRED BEYOND THAT EXTENT NECESSARY TO PLACE SOD OR OR TO PLANT TREES AND SHRUBS TO ENSURE AGAINST UNEVENNESS OR SETTLING BELOW ACCEPTED GROWTH LINES.

TECHNICAL NOTES FOR TURFGRASS & PERENNIAL SEEDING:

1) SCOPE OF WORK: FOR THIS PROJECT, THE WORK SHALL INCLUDE SEEDING AREAS DENUDED BY CONSTRUCTION.

2) ALL AREAS SHALL BE SEEDED WITHIN 30 DAYS AFTER FINISHED GRADES ARE ESTABLISHED AND OTHER ELEMENTS INCLUDED IN THIS CONTRACT ARE CONSTRUCTED.

3) SEED SPECIFICATIONS:

A) RESTORATION AREA (ABOVE SLOPE, AS NOTED ON PLAN):

SEED MIXTURE SHALL BE "PARTIALLY SHADED AREA ROADSIDE MIX" # ERNMX-140 SUPPLIED BY ERNST SEEDS, MEADVILLE, PA, PHONE # 800-873-3321. PREPARE SOIL AND SOW SEED IN ACCORDANCE WITH THIS COMPANY'S INSTRUCTIONS FOR THIS TYPE OF SEED MIX.

B) LOW-MAINTENANCE TURFGRASS: SLOPES STEEPER THAN 3:1:

MIXTURE REQUIREMENTS ARE AS FOLLOWS (WITH APPROXIMATE PERCENTAGES):

24% CREEPING RED FESCUE 24% CHEWINGS FESCUE 24% SHEEPS FESCUE 24% HARD FESCUE 4% PERENNIAL RYEGRASS

C) TURFGRASS: AREAS RECEIVING FULL SUN OR PART SHADE, IN AREAS WITH SLOPES 3:1 OR LESS STEEP:

MIXTURE REQUIREMENTS ARE AS FOLLOWS (WITH APPROXIMATE PERCENTAGES):

35% FINE FESCUE (ENDOPHYTIC) 35% KENTUCKY BLUEGRASS 30% PERENNIAL RYEGRASS (ENDOPHYTIC)

D) TURFGRASS: AREAS RECEIVING MOSTLY SHADE, IN AREAS WITH SLOPES 3:1 OR LESS STEEP:

MIXTURE REQUIREMENTS ARE AS FOLLOWS (WITH APPROXIMATE PERCENTAGES)

90% FINE FESCUE (ENDOPHYTIC) 10% PERENNIAL RYEGRASS (ENDOPHYTIC)

E) ANY PROPOSED SUBSTITUTIONS SHALL BE PRESENTED TO THE LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO SEEDING.

F) ALL TURFGRASS SEED SHALL HAVE A MINIMUM PURITY OF 98 PERCENT AND A GERMINATION RATE OF 85 PERCENT.

G) ALL TURFGRASS SEED SHALL BE LABELED TO SHOW THAT IT IS WITHIN THE REQUIREMENTS OF THE USDA AS TO PURITY, GERMINATION, AND PRESENCE OF RESTRICTED OR PROHIBITED WEEDS.

4) <u>BED PREPARATION FOR AREAS TO BE SEEDED WITH TURFGRASS:</u> A ROTOVATOR, CHISEL PLOW, OR CULTIVATOR SHALL BE USED TO WORK THE SOIL TO A DEPTH OF SIX INCHES. AFTER THIS OPERATION, REMOVE AND DISPOSE OF STICKS, STONES OVER 1 INCH DIAMETER, AND RUBBISH TO A MINIMUM DEPTH OF TWO INCHES.

5) <u>LIME AND NUTRIENTS FOR TURFGRASS AREAS:</u> LIME SHALL BE GROUND DOLOMITIC LIMESTONE, APPLIED AT THE RATE OF 50 POUNDS PER 1000 SQUARE FEET. LIME SHALL BE WELL-MIXED INTO THE TOP THREE INCHES OF LOAM.

6) <u>FERTILIZER FOR TURFGRASS AREAS:</u> FERTILIZER SHALL BE A COMMERCIAL GRADE WITH A MINIMUM OF 50 PERCENT OF THE NITROGEN COMPONENT IN A CONTROLLED RELEASE FORM LABELED TO RELEASE NITROGEN FOR A MINIMUM OF SIX WEEKS. FERTILIZER SHALL HAVE AN N/P/K RATIO IN THE RANGE OF 1:1:1 TO 1:2:2. IT SHALL BE APPLIED AT A RATE WHICH ACHIEVES ONE POUND OF NITROGEN PER 1000 SQUARE

7) <u>SEEDING PROCEDURE FOR TURFGRASS:</u> SOWING OF SEED SHALL BE DONE ONLY AFTER THE PREPARED SOIL, TO WHICH LIME AND FERTILIZER HAVE BEEN ADDED AS SPECIFIED, HAS BEEN THOROUGHLY SETTLED BY RAINFALL OR ARTIFICIAL WATERING. IMMEDIATELY BEFORE ANY SEED IS SOWN, THE GROUND SHALL BE SCARIFIED AS SPECIFIED. LAWN AREAS SHALL BE SEEDED EVENLY WITH A MECHANICAL SPREADER. SEED MIXTURES SHALL BE SOWN AT A RATE OF 5 POUNDS PER 1000 SQUARE FEET. AFTER SEEDING, THE LAWN SHALL BE LIGHTLY RAKED, ROLLED WITH A 200-POUND ROLLER, AND WATERED WITH A FINE SPRAY. THIS METHOD OF SEEDING MAY BE VARIED AT THE DISCRETION OF THE CONTRACTOR ON HIS OWN RESPONSIBILITY TO ESTABLISH A SMOOTH, UNIFORMLY GRASSED LAWN.

8) SEED FOR PERMANENT TURFGRASS SHALL ONLY BE SOWN FROM THE THIRD WEEK IN APRIL THROUGH JUNE AND DURING THE MONTH OF SEPTEMBER.

9) TEMPORARY SEEDING FOR EROSION CONTROL: IN THE EVENT THAT THE CONTRACT IS SUSPENDED, TEMPORARY SEEDING SHALL BE USED ON ANY BARE AREAS THAT MAY BE SUBJECT TO EROSION AND WHERE TEMPORARY VEGETATION CAN BE USED TO RETARD EROSION FROM 2 TO 12 MONTHS. THE SEED TYPE USED FOR TEMPORARY COVER SHALL BE 100 PERCENT TALL FESCUE APPLIED AT A RATE OF 300 POUNDS PER ACRE.

10) MAINTENANCE: MAINTAIN THE TURFGRASS FROM TIME OF INSTALLATION UNTIL THE FINAL INSPECTION IMMEDIATELY PRIOR TO THE BEGINNING OF THE GUARANTEE PERIOD. MAINTENANCE SHALL INCLUDE WATERING OF TURF AREAS, REPAIRS TO TURF AREAS, AND OTHER NECESSARY OPERATIONS. THE MAINTAINED TURF AREAS (EXCEPT FOR LOW-MAINTENANCE TURF ON STEEP SLOPES) SHALL BE MOWED TO A UNIFORM HEIGHT OF APPROXIMATELY TWO AND ONE-HALF INCHES. MOWING SHALL BE PROVIDED AS REQUIRED SO THAT THE TURF NEVER EXCEEDS FOUR INCHES IN HEIGHT. TURF SHALL BE PROTECTED AND REPLANTED AS NECESSARY TO ESTABLISH A UNIFORM STAND OF THE SPECIFIED TURF AND UNTIL ACCEPTANCE. SCATTERED BARE SPOTS, NONE OF WHICH IS LARGER THAN ONE SQUARE FOOT, WILL BE ALLOWED UP TO A MAXIMUM OF THREE PERCENT OF ANY TURF AREA. WHEN TURF AREAS ARE READY FOR FINAL INSPECTION, THE MAINTAINED TURF AREAS SHALL BE NEATLY MOWED TO THE UNIFORM HEIGHTS AS NOTED ABOVE. THE LAWNS SHALL BE CONSIDERED ESTABLISHED ONLY WHEN THE SPECIFIED GRASS IS VIGOROUS AND GROWING WELL IN ADDITION TO MEETING THE OTHER REQUIREMENTS SPECIFIED. AT THE TIME OF ACCEPTANCE FOLLOWING FINAL INSPECTION, THE CONTRACTOR IS RELIEVED OF ROUTINE MAINTENANCE RESPONSIBILITIES FOR THE TURF UNDER THIS CONTRACT.

11) <u>FINAL INSPECTION</u>, <u>CLEANUP AND COMPLETION</u>: FINAL INSPECTION SHALL BE FOR THE COMPLETED LANDSCAPE AND SHALL BE MADE AT THE CONCLUSION OF THE LANDSCAPE WORK. UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL REMOVE FROM THE SITE ALL EQUIPMENT AND OTHER ARTICLES USED. ALL EXCESS SOIL, STONES, AND DEBRIS SHALL BE REMOVED FROM THE SITE. ALL WORK AREAS SHALL BE LEFT IN A CLEAN AND NEAT CONDITION. ALL DAMAGE TO EXISTING CONSTRUCTION CAUSED BY THE LANDSCAPING OPERATIONS SHALL BE REPAIRED TO THE SATISFACTION OF THE OWNER AT THE CONTRACTOR'S EXPENSE.

12) <u>GUARANTY AND REPLACEMENT:</u> IF A SATISFACTORY STAND OF MAINTAINED TURF HAS BEEN PRODUCED AT THE TIME OF FINAL INSPECTION, IT SHALL BE GUARANTEED THROUGH ONE COMPLETE GROWING SEASON. IF RENOVATION AND/OR RESEEDING ARE REQUIRED AT THE END OF THE GUARANTEE PERIOD, THIS WORK SHALL BE DONE IN CONFORMANCE WITH THE REQUIREMENTS NOTED ABOVE. IF A SATISFACTORY STAND OF MAINTAINED TURF HAS <u>NOT</u> BEEN PRODUCED AT THE TIME OF FINAL INSPECTION, NECESSARY REPAIRS SHALL BE PERFORMED IN CONFORMANCE WITH THE REQUIREMENTS NOTED ABOVE. UPON COMPLETION OF THESE REPAIRS, THE TURF GRASS SHALL BE GUARANTEED AS NOTED ABOVE.

TECHNICAL NOTES FOR TREE, SHRUB, GROUNDCOVER, AND PERENNIAL PLANTINGS:

1) NOMENCLATURE: THE NAMES OF PLANTS REQUIRED UNDER THIS CONTRACT SHALL CONFORM TO THOSE GIVEN IN STANDARDIZED PLANT NAMES, LATEST EDITION, PREPARED BY THE AMERICAN JOINT COMMITTEE ON HORTICULTURAL NOMENCLATURE. NAMES OF VARIETIES NOT INCLUDED THEREIN SHALL CONFORM GENERALLY WITH NAMES ACCEPTED IN THE NURSERY TRADE.

2) QUALITY AND SIZE: PLANTS SHALL HAVE A HABIT OF GROWTH THAT IS NORMAL FOR THE SPECIES AND SHALL BE SOUND, HEALTHY, VIGOROUS, AND FREE FROM INSECT PESTS, PLANT DISEASES, AND INJURIES. ALL PLANTS SHALL EQUAL OR EXCEED THE MEASUREMENTS SPECIFIED IN THE PLANT LIST, WHICH ARE MINIMUM ACCEPTABLE SIZES. THEY SHALL BE MEASURED BEFORE PRUNING IS DONE AT TIME OF PLANTING. REQUIREMENTS FOR THE MEASUREMENTS, BRANCHING, GRADING, QUALITY, BALLING, AND BURLAPPING OF PLANTS IN THE PLANT LIST SHALL FOLLOW THE CODE OF STANDARDS CURRENTLY RECOMMENDED BY THE AMERICAN ASSOCIATIONS OF NURSERYMEN, INC., IN THE AMERICAN STANDARD FOR NURSERY STOCK.

3) <u>SUBSTITUTIONS</u>: SUBSTITUTIONS WILL BE PERMITTED ONLY UPON SUBMISSION OF PROOF THAT ANY PLANT AS SPECIFIED IS NOT OBTAINABLE DURING THE SCHEDULED PLANTING SEASON. WRITTEN AUTHORIZATION BY THE LANDSCAPE ARCHITECT SHALL BE REQUIRED FOR ANY SUBSTITUTION. THE NEAREST EQUIVALENT SIZE OR VARIETY OF PLANT HAVING THE SAME ESSENTIAL CHARACTERISTICS SHALL BE PROPOSED FOR SUBSTITUTION.

4) BALLED AND BURLAPPED MATERIALS: PLANTS DESIGNATED "B&B" IN THE PLANT LIST SHALL BE BALLED AND BURLAPPED. THEY SHALL BE DUG WITH FIRM, NATURAL BALLS OF EARTH OF SUFFICIENT DIAMETER AND DEPTH TO ENCOMPASS THE FIBROUS AND FEEDING ROOT SYSTEM NECESSARY FOR FULL RECOVERY OF THE PLANT. MATERIAL SHALL BE IN A CONDITION WHERE THE NATURAL ROOT COLLAR OF THE PLANT IS WITHIN APPROXIMATELY TWO (2) INCHES OF THE SOIL LEVEL OF THE BALL. BALLS SHALL BE FIRMLY WRAPPED WITH BURLAP OR SIMILAR MATERIAL AND BOUND WITH TWINE, CORD, OR WIRE MESH. NO SYNTHETIC FABRIC IS ALLOWED. WHERE NECESSARY TO PREVENT BREAKING OR CRACKING OF THE BALL DURING THE PROCESS OF PLANTING, THE BALL MAY BE SECURED TO A PLATFORM. BALLS SHALL BE KEPT MOIST AND SHADED UNTIL THEY ARE PLANTED. REMOVE ALL BALL TIES OR STRAPPING FROM ROOT BALL PRIOR TO PLANTING. PLANT IN ACCORDANCE WITH TREE AND SHRUB PLANTING DETAILS. BALLED AND BURLAPPED TREES SHALL ONLY BE DUG IN THE SPRING.

5) <u>CONTAINER-GROWN MATERIALS:</u> PLANTS NOT DESIGNATED OTHERWISE IN THE PLANT LIST MAY BE PURCHASED AS CONTAINER-GROWN OR BALLED/BURLAPPED. CONTAINER-GROWN PLANTS, IF STORED ON THE SITE, SHALL BE WATERED THOROUGHLY AT LEAST ONCE EVERY 48 HOURS. ROOT SYSTEMS OF CONTAINER-GROWN PLANTS SHALL BE WELL-DEVELOPED BUT NOT IN "POT-BOUND" CONDITION OF DENSE, ENCIRCLING ROOTS. THE ROOT BALL OF THE PLANT SHALL BE LOOSENED TO ALLEVIATE ENCIRCLING ROOTS AND TO PROVIDE AN INCREASED ROOT INTERFACE WITH THE FILL SOIL. PLANT IN ACCORDANCE WITH TREE, SHRUB, AND GROUNDCOVER PLANTING DETAILS. CONTAINER-GROWN TREES SHALL ONLY BE PLANTED IN THE FALL (SEPTEMBER - OCTOBER).

6) PROTECTION OF PLANTS PRIOR TO INSTALLATION: THE ROOT ZONE OF ALL PLANTS NOT YET INSTALLED SHALL BE PROTECTED FROM FREEZING, DRYING, AND DIRECT SUNLIGHT.

7) <u>MULCHING:</u> DOUBLE-SHREDDED HARDWOOD MULCH SHALL BE USED AS THE MULCH FOR ALL PLANT BEDS INDICATED ON THE LANDSCAPE PLAN, INCLUDING AREAS SURROUNDING THE PLANTS AS SHOWN ON THE TREE, SHRUB, AND GROUNDCOVER PLANTING DETAILS.

8) PLANTING SEASON: THE NORMAL PLANTING SEASON IS APRIL THROUGH NOVEMBER. SOME PLANTS SPECIFIED AS BALLED AND BURLAPPED CANNOT BE DUG DURING PORTIONS OF THIS PLANTING SEASON -- CHECK WITH NURSERIES FOR SPECIFICS. PLANTING OPERATIONS SHALL BE CONDUCTED UNDER FAVORABLE WEATHER CONDITIONS DURING THE NORMAL PLANTING SEASON.

9) WEATHER CONDITIONS: PLANTING SHALL NOT TAKE PLACE WHEN SOILS ON SITE ARE FROZEN OR WET AND IN POOR TILTH

10) <u>LAYOUT:</u> NEW PLANTINGS SHALL BE LOCATED ACCORDING TO THE LANDSCAPE PLAN. THE CONTRACTOR SHALL STAKE THE PLANT LOCATIONS, AND SHALL THEN CONTACT THE LANDSCAPE ARCHITECT FOR APPROVAL

11) <u>SETTING PLANTS:</u> ALL PLANTS SHALL BE PLANTED IN PREPARED SOILS BEDS, AND SET ON FIRM SOIL TO SUCH DEPTH AS INDICATED IN THE PLANTING DETAILS. TREES, SHRUBS, GROUNDCOVERS, AND PERENNIALS SHALL BE SET SO THAT THE PLANT'S NATURAL ROOT COLLAR OR CROWN IS ABOVE FINISHED GRADE AT THE HEIGHTS INDICATED IN THE PLANTING DETAILS. NO BURLAP SHALL BE PULLED FROM UNDER THE BALLS. ROOTS ON BARE-ROOT PLANTS SHALL BE SPREAD IN THEIR NORMAL POSITION. ALL BROKEN OR FRAYED ROOTS SHALL BE CUT OFF CLEANLY. PREPARED SOIL SHALL BE PLACED AND COMPACTED CAREFULLY TO AVOID INJURY TO ROOTS, TO FILL ALL VOIDS, AND TO MINIMIZE ROCKING OF ROOT BALL. ADD WATER AND TAMP THE BACKFILL UNTIL THE BACKFILL IS COMPLETELY SATURATED, THEN ALLOW IT TO SOAK AWAY. FILL THE HOLE TO FINISHED GRADE, AND FORM A SAUCER AROUND EACH TREE AND SHRUB BY PLACING A RIDGE OF TOPSOIL AROUND THE EDGE OF EACH ROOT BALL, IN ACCORDANCE WITH THE PLANTING DETAILS. AFTER THE GROUND SETTLES, ADDITIONAL SOIL SHALL BE FILLED IN TO THE LEVEL OF THE FINISHED GRADE, AND WATERED

12) <u>STAKING TREES:</u> DO NOT STAKE TREES, UNLESS TREES ARE PLANTED ON STEEP SLOPES, IN WHICH CASE THE CONTRACTOR SHALL CONTACT THE LANDSCAPE ARCHITECT FOR PERMISSION TO STAKE THOSE TREES.

13) <u>MAINTENANCE:</u> MAINTAIN PLANTS AND PLANT BEDS FROM THE TIME OF INSTALLATION UNTIL THE FINAL INSPECTION IMMEDIATELY PRIOR TO COMMENCEMENT OF THE GUARANTEE PERIOD. MAINTENANCE SHALL INCLUDE WATERING AND PROTECTION OF PLANTINGS AND OTHER NECESSARY OPERATIONS.

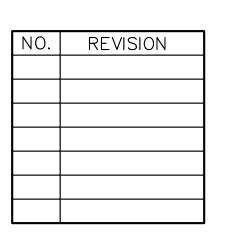
14) <u>FINAL INSPECTION:</u> WHEN THE TREE AND SHRUB PLANTINGS ARE READY FOR FINAL INSPECTION, ALL MULCHED AREAS SHALL BE FREE FROM WEEDS AND MULCHED TO THE EXTENT INDICATED ON THESE DRAWINGS. PLANT TAGS SHALL BE REMOVED BY THE CONTRACTOR PRIOR TO THE INSPECTION FOR ACCEPTANCE

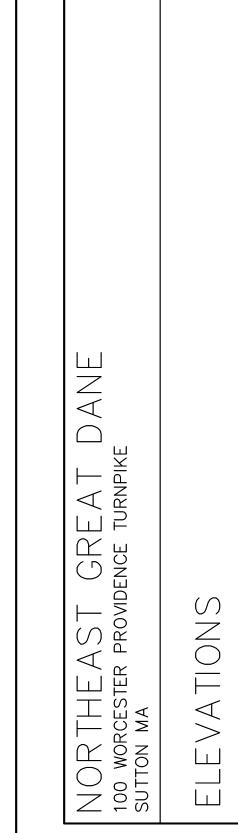
15) <u>GUARANTEE:</u> AFTER ACCEPTANCE AT TIME OF FINAL INSPECTION, ALL PLANTS SHALL BE GUARANTEED FOR ONE (1) YEAR. PLANTINGS SHALL BE ALIVE AND IN SATISFACTORY VIGOR AT THE END OF THE GUARANTEE PERIOD.

16) <u>REPLACEMENT</u>: AT THE END OF THE GUARANTEE PERIOD, ANY PLANT REQUIRED UNDER THIS CONTRACT THAT IS DEAD OR IN POOR VIGOR SHALL BE REMOVED FROM THE SITE. THESE AND ANY MISSING PLANTS SHALL BE REPLACED AS SOON AS CONDITIONS PERMIT, BUT DURING THE NORMAL PLANTING SEASON. ALL REPLACEMENTS SHALL BE PLANTS OF THE SAME KIND AS ORIGINALLY PLANTED AND SHALL BE OF SIZE EQUAL TO THAT ATTAINED BY ADJACENT PLANTS OF THE SAME KIND AT THE TIME REPLACEMENT IS MADE. ONLY ONE REPLACEMENT WILL BE REQUIRED FOR EACH PLANT DECLARED DEAD, IN AN UNHEALTHY OR BADLY IMPAIRED CONDITION, OR MISSING AT THE TIME OF FINAL INSPECTION.









DATE: 12/20/23

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