SITE DEVELOPMENT PLAN FOR

NORTHEAST GREAT DANE

100 WORCESTER-PROVIDENCE TURNPIKE SUTTON, MASSACHUSETTS

APPLICANT:

EASTLAND PARTNERS, INC.

997 MILLBURY STREET, WORCESTER, MA 01607

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:

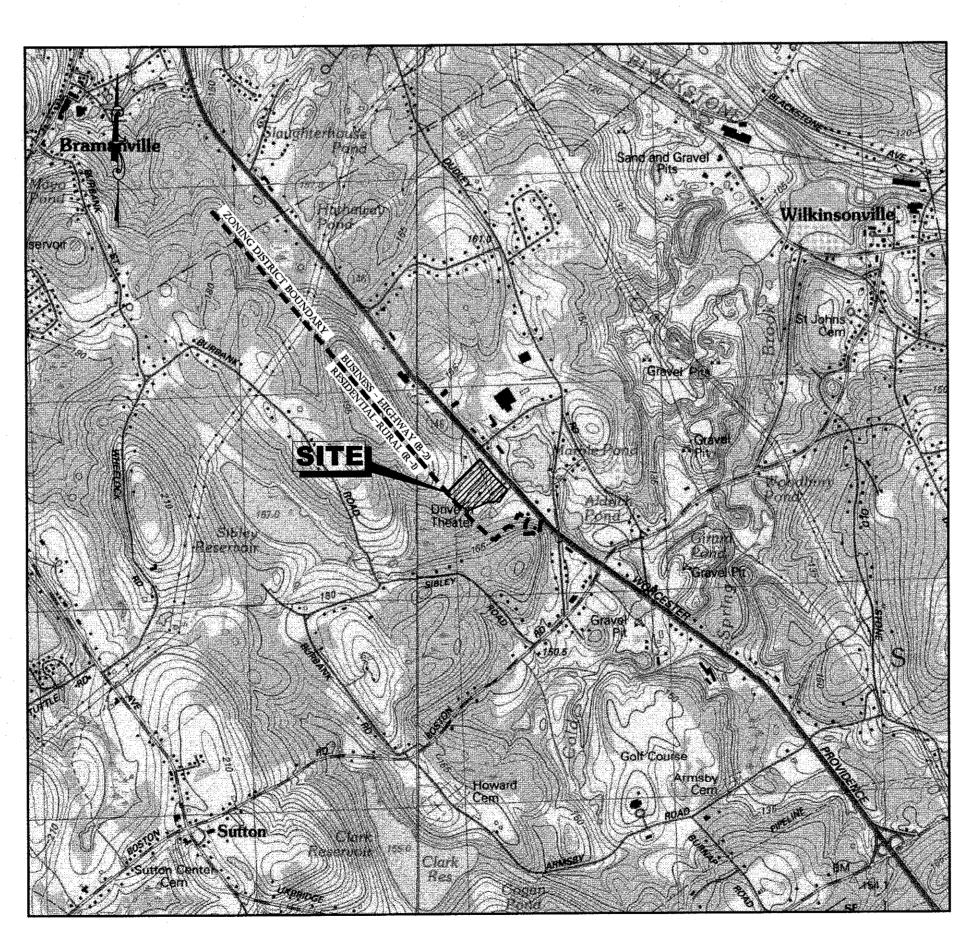
B&C ASSOCIATES, INC.

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
OPEN SPACE PLAN	C-8.1
SITE LIGHTING PHOTOMETRIC PLAN	C-9.1
CONDITIONS OF APPROVAL	C-10.1
LANDSCAPE PLAN	L-1.0
LANDSCAPE SCHEDULE & DETAILS	L-2.0
LANDSCAPE NOTES	L-3.0

DRAWING LIST

OWNER OF RECORD:
SUTTON MOTOR-IN TRUST
ONE MERCANTILE STREET, SUITE 540
WORCESTER, MA 01608

DEED REFERENCE: BK. 9774, PG. 388

PLAN REFERENCES: 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'

PROPERTY INFORMATION

OPENSPACE: 35% (MIN.)



URNING POINT ENGINEERIN

P.O. Box 757 • Sutton, MA 0159 P:(508) 381-1515 F:(508) 647-0189 www.tpecivildesign.com

APPROVAL UNDER SITE PLAN REVIEW.
SUTTON PLANNING BOARD

BEING A MAJORITY

MAJORITY

MAJORITY

APPROVAL DATE: ______

CRIPTION

NORTHEAST GREAT DANK

100 WORCESTER-PROVIDENCE TURNPIK

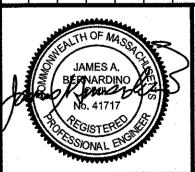
SUTTON, MASSACHUSETTS

SUTTON MOTOR-IN TRUST

ONE MERCANTILE STREET, SUITE 540

WORCESTER, MA 01608

PREPARED FOR



BRUCE E. WILSON, JR. NO. 36870

P.L.S.

SHEET TITLE

.

COVER SHEET

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 ITEMS/AREAS OF CONTRACTOR JURISDICTION.

C-0.0

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 ON THE GROUND SURVEY PERFORMED FOR FIELD VERIFICATION.
- 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).

F 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 MORTÁRED PIPE OPENINGS.
- 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

A. 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.

C. 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.

C. 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

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.
- 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.
- 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.

TYPICAL ABBREVIATIONS DESCRIPTION KEY KEY DESCRIPTION BITUMINOUS BIT NOW OR FORMERLY CONCRETE CAPE COD BERM PAGE BCC BITUMINOUS CONCRETE CURB P.B. PLAN BOOK VERTICAL GRANITE CURB SGC SLOPED GRANITE CURB BOTTOM OF CURB PCC PRECAST CONCRETE CURB TOP OF CURB BOTTOM OF WALL HDPE POLYETHYLENE PIPE CLDI | CEMENT LINED DUCTILE IRON TOP OF WALL RCP REINFORCED CONCRETE PIP EXIST. EXISTING POLYVINYL CHLORIDE PIPE PROP. PROPOSED INVERT TBM TEMPORARY BENCHMARK INV. FLARED END SECTION TEMP. TEMPORARY OCS OUTLET CONTROL STRUCTUR N.T.S. NOT TO SCALE DRAIN MANHOLE DMH TYP. TYPICAL CATCH BASIN ELEV. ELEVATION DCB DOUBLE CATCH BASIN BLDG. BUILDING SMH BSMT. BASEMENT SEWER MANHOLE CLEANOUT F.F.E. FINISHED FLOOR ELEVATION HYD HYDRANT TOC TOP OF CONCRETE ON CENTER O.C GAR. GARAGE RADIUS TBR TO BE REMOVED FND FOUND SLOPE HANDICAP DHDRILL HOLE UTILITY POLE IRON PIPE WETLAND FLAG WF TRON ROD DHCB CONCRETE BOUND W/ DH GRANITE BOUND W/ DH

TYPICAL LEGEND

DHGB

EXISTING		PROPOSED
	PROPERTY LINE	
	EASEMENT LINE	
	TOWN LINE	
	MATCH LINE	
	BUILDING SETBACK	
	CENTERLINE	
	STONEWALL	~~~~~~
energy Hammon mains and L'ancaranana	BARBED WIRE FENCE	
	CHAIN LINK FENCE	-0
	STOCKADE FENCE	_0
	GRAVEL ROAD	
ECP	EDGE OF PAVEMENT	EOP
	CURB (SEE ABBREVIATIONS)	CCB
	EROSION CONTROL BARRIER	
	TREELINE	$\sim\sim\sim$
×100.5	SPOT ELEVATION	x100.5
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CO no 4	UTILITY POLE	വം ⊕B
ø ^B	BOLLARD	•
www.goven	STREET OR TRAFFIC SIGN	•
<u> </u>	HANDICAP PARKING SPACE	<u>&</u>
38)	NUMBER OF PARKING SPACES	38
	TRAFFIC FLOW	
<u> </u>	ELECTRIC MANHOLE	<u> </u>
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×	WATER GATE VALVE	×
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©	DOMESTIC WELL	®
	DEEP SOIL OBSERVATION HOLE	
	PERCOLATION TEST	
4	ELEVATION BENCHMARK	
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TURNING POINT ENGINEERING CIVIL SITE DESIGN 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

ENDORSEMENT DATE: _

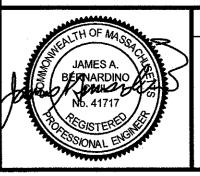
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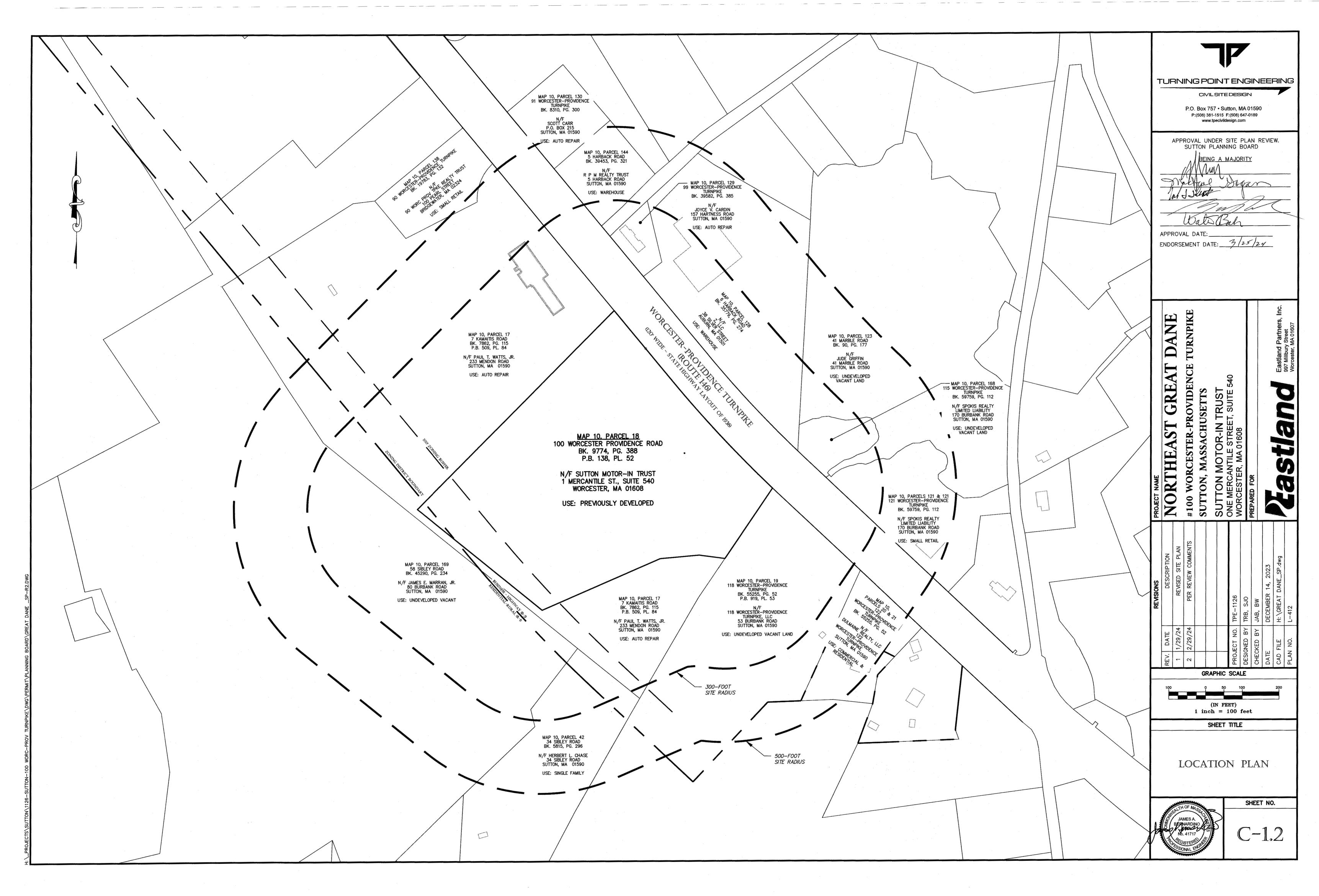
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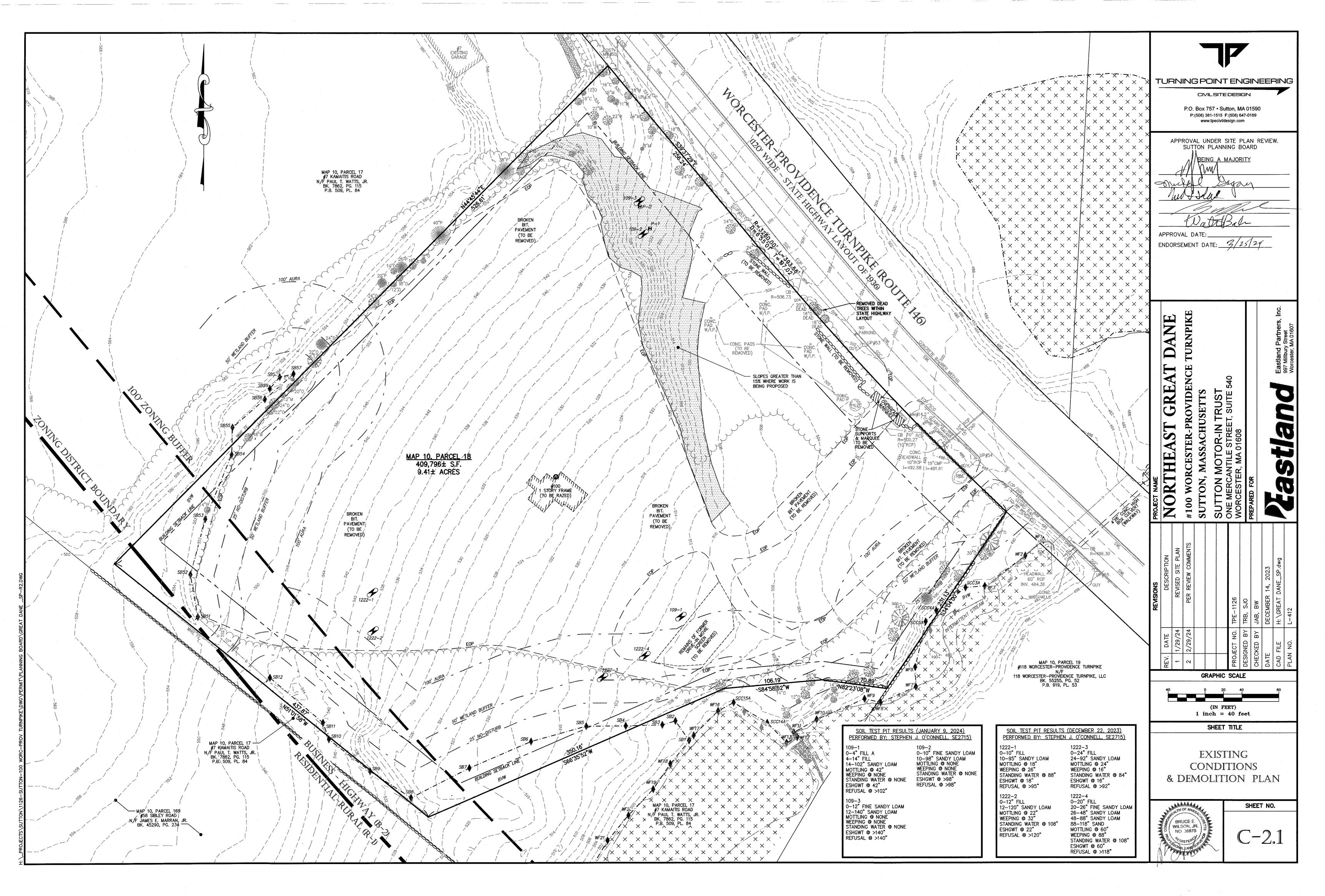
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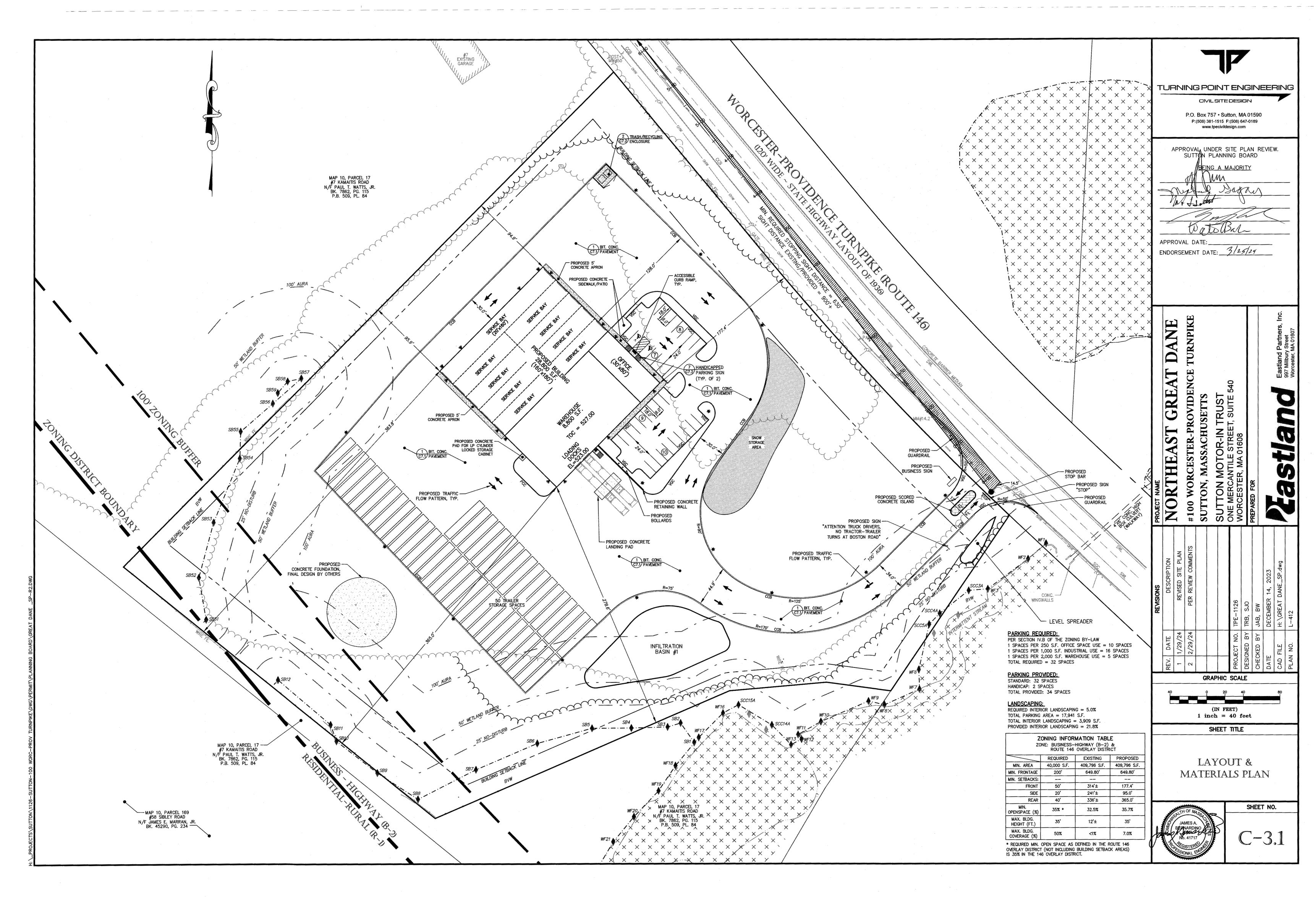
GENERAL NOTES, **ABBREVIATIONS** & LEGEND

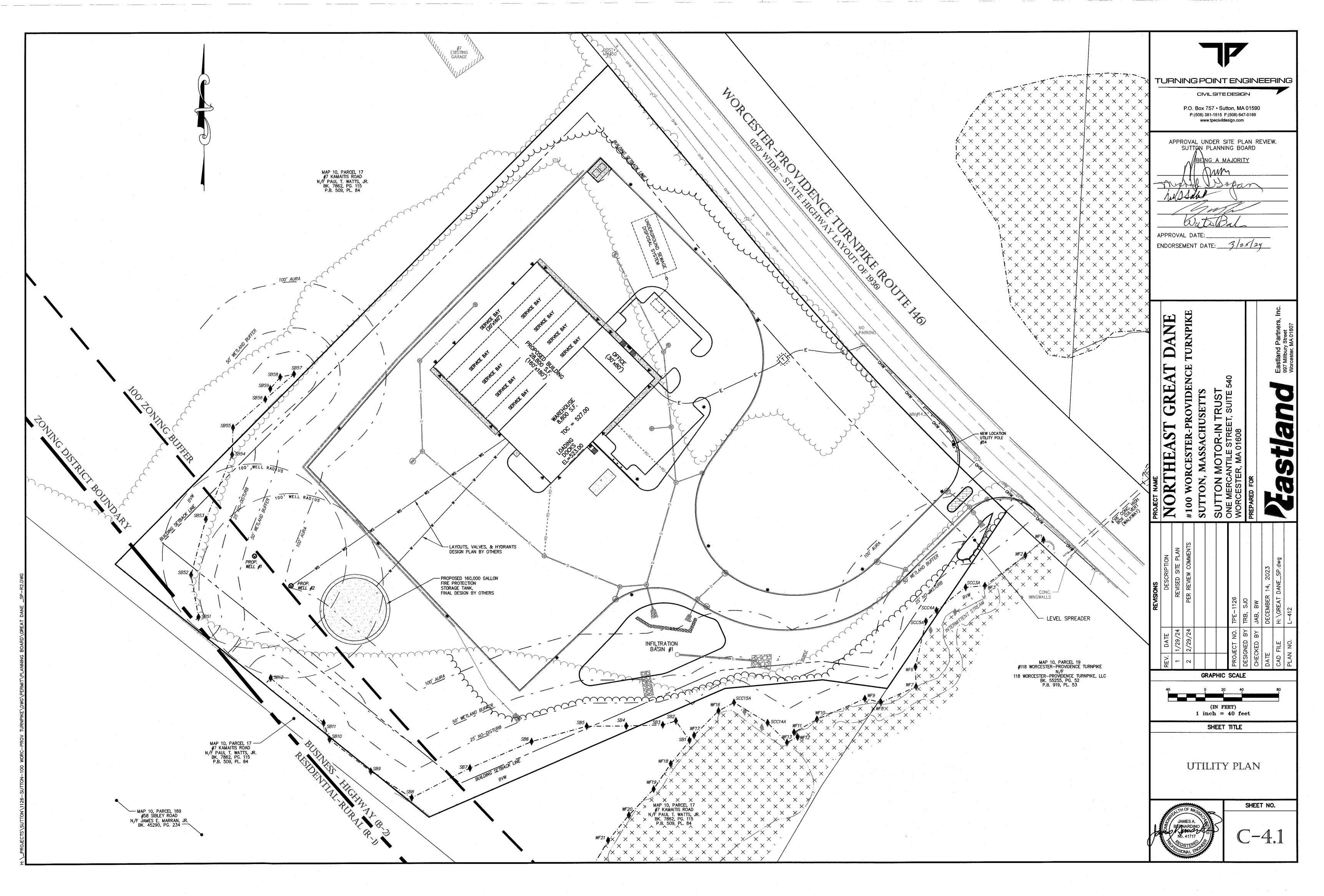


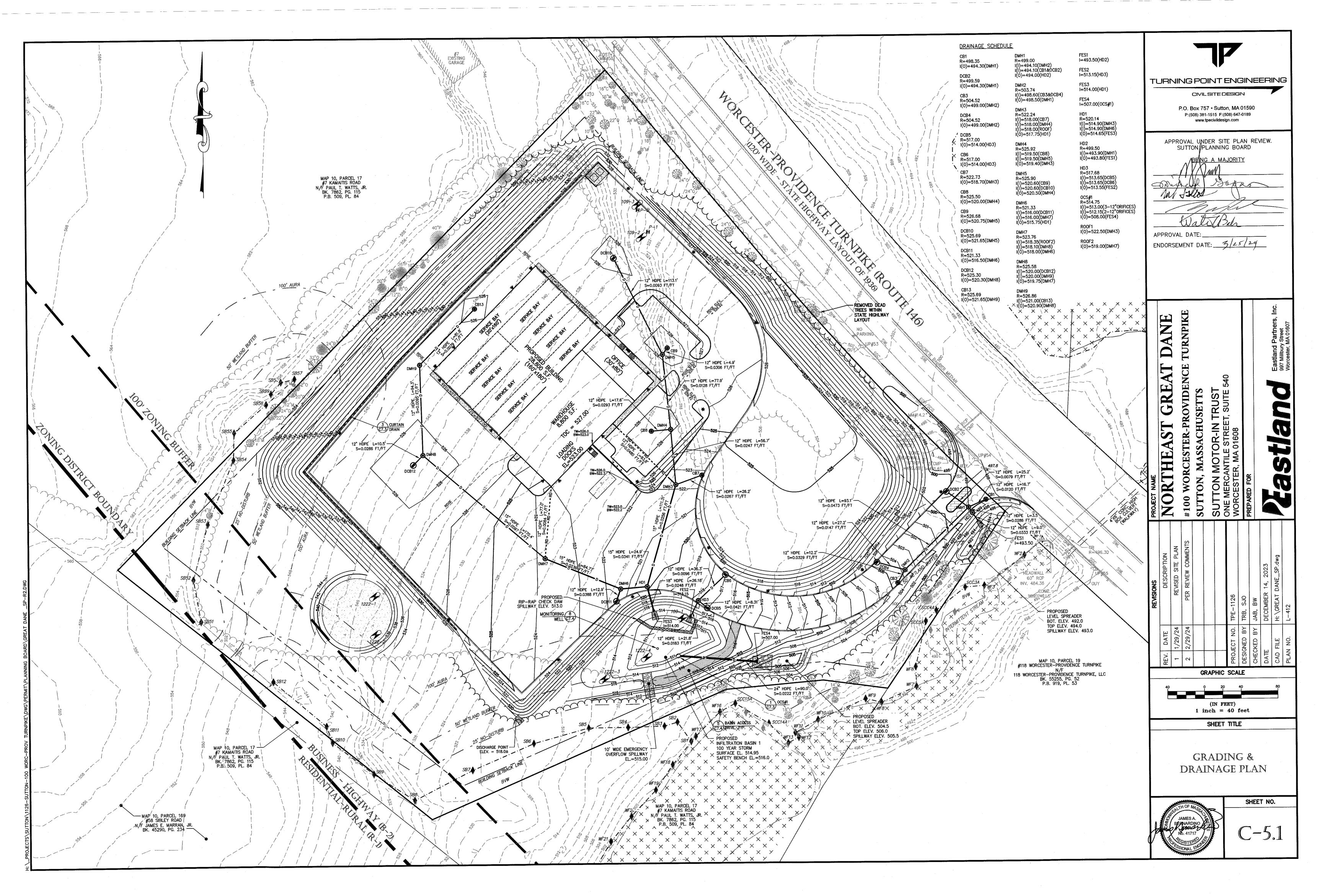
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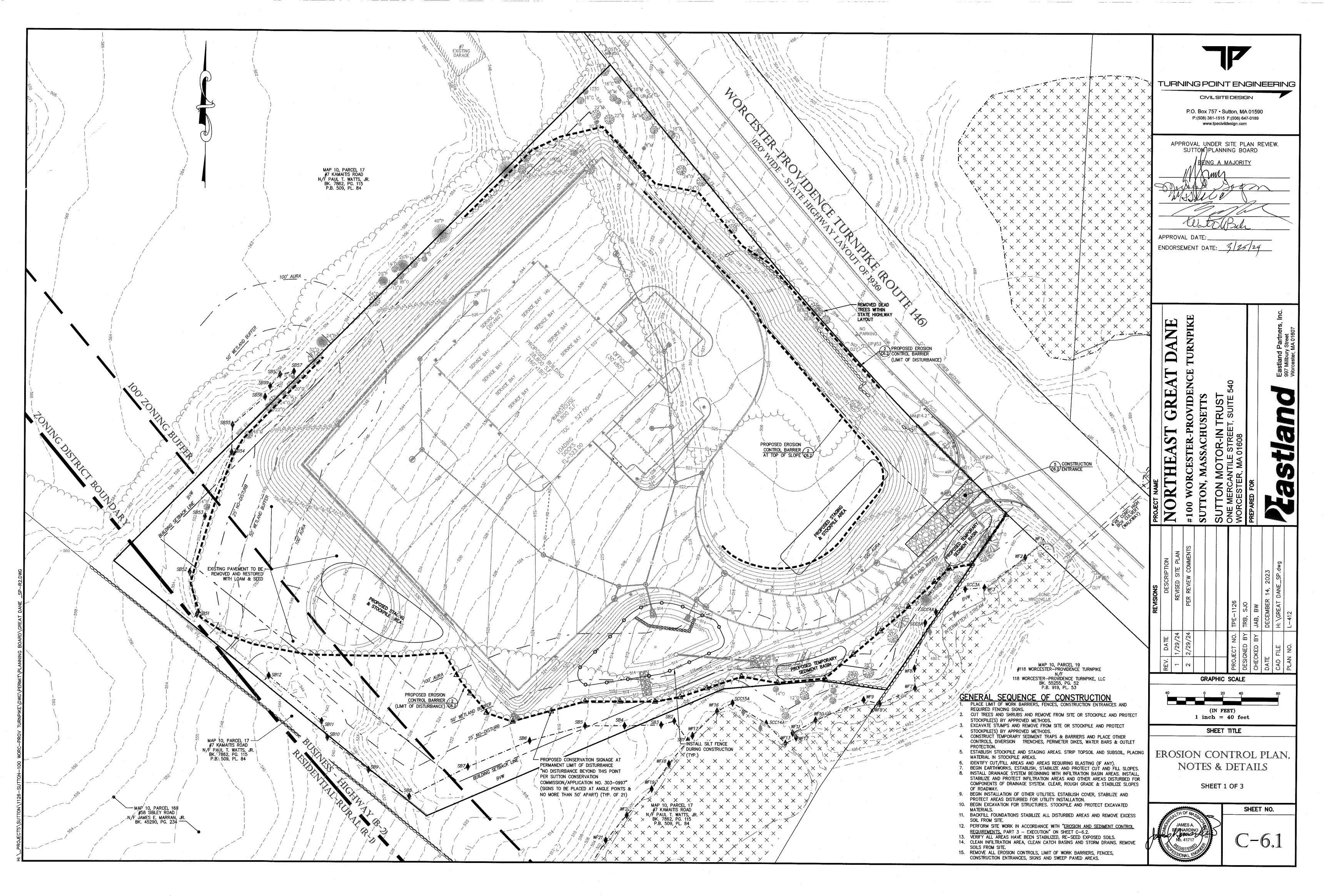












EROSION AND SEDIMENT CONTROL REQUIREMENTS

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.
- 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.
- 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 THI 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

- 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.
- 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 CHEMICAL ADDITIVES. USE CURLEX I BLANKET BY AMERICAN EXCELSIOR COMPANY, OR APPROVED EQUAL.
- O. ROCK RIPRAP: SOUND, ANGULAR, 6-INCH MINUS PROCESSED ROCK, BLAST ROCK, OR
- P. 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 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 THE CONSTRUCTION SPECIFICATIONS.
- C. FROSION 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 CONTROLS IMMEDIATELY.
- 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 SHALL ENTER THE ON-SITE OR OFF-SITE DRAINAGE SYSTEMS AT ANY TIME.
- F. STOCKPILES SHALL BE SURROUNDED ON THEIR PERIMETERS WITH STAKED STRAW WATTLES AND/OR SILTATION FENCES TO PREVENT AND/OR CONTROL SILTATION AND EROSION.
- G. ALL DISTURBED OR EXPOSED AREAS 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.
- THE LOCATION OF TEMPORARY DRAINAGE SWALES AND SEDIMENTATION TRAPS ARE APPROXIMATE ONLY AND SHALL BE RELOCATED AS REQUIRED AS CONSTRUCTION
- 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

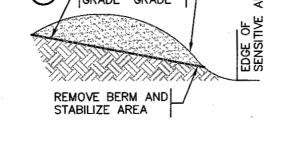
- L. MAINTAIN SPARE MATERIAL STOCKPILES FOR IMMEDIATE EMPLOYMENT / REPAIR / EXPANSION OF CONTROL MEASURES. AT A MINIMUM, SUCH MATERIALS SHALL INCLUDE STRAW WATTLES, SILT FENCE AND STAKES, AND CRUSHED STONE.
- M. INSPECT AND MAINTAIN EFFECTIVENESS OF CONTROL MEASURES BY REPAIRING AS NECESSARY TO ENSURE 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
- 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 / BYPRODUCTS OFF SITE.

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
- 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.
- 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
- 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 OTHER APPROVED METHOD.
- 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.

EXCAVATION GRADE GRADE CONTINUE EXCAVATION MAINTAIN SLOPE EXCAVATED SLOPE SHOULD AS BEFORE, STABILIZE PREVENT FROSION INTO - AWAY FROM UNDISTURBED AREAS UNDISTURBED AREAS DISTURBED AREA GRADE GRADE GRADE

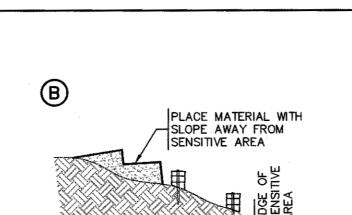












INSTALL EROSION CONTROL DEVICES UPGRADIENT OF SENSITIVE AREA

GRUB AND STRIP SITE

-UNDISTURBED MATERIA

TO PREVENT LOCALIZED

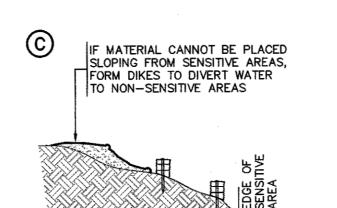
LEAVING DIKES OF

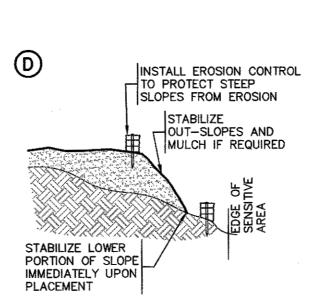
IRUNOFF

CONTINUE EXCAVATION,

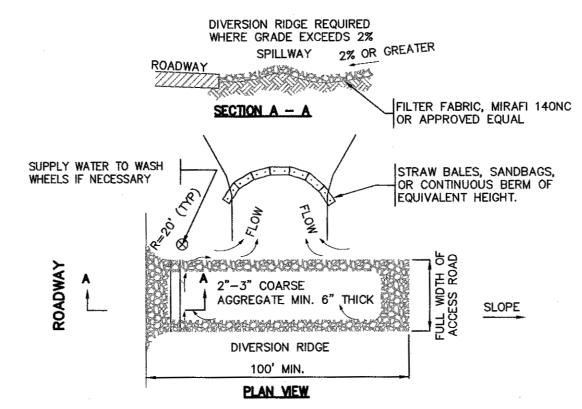
IN DISTURBED AREA

ESTABLISH GRASS COVER LEAVE 2'





FILL PROCEDURE

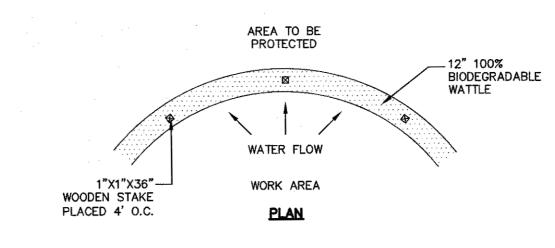


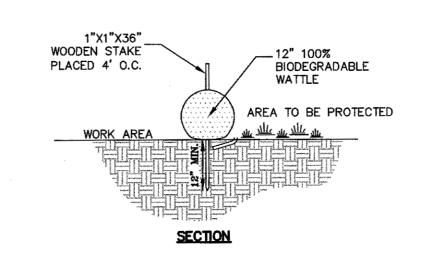
- [1] THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
- [2] WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC

[3] WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AREA STABILIZED WITH CRUSHED

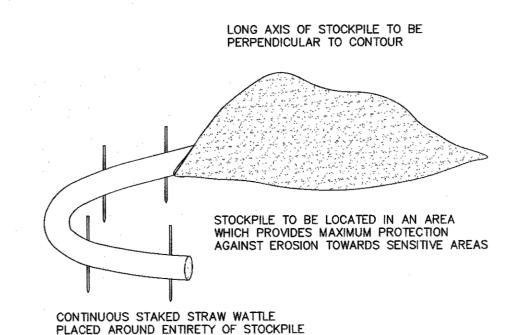
- STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN. [4] USE SANDBAGS, STRAW BALES OR OTHER APPROVED METHODS TO CHANNELIZE RUNOFF TO BASIN AS REQUIRED.

CONSTRUCTION ENTRANCE N.T.S.

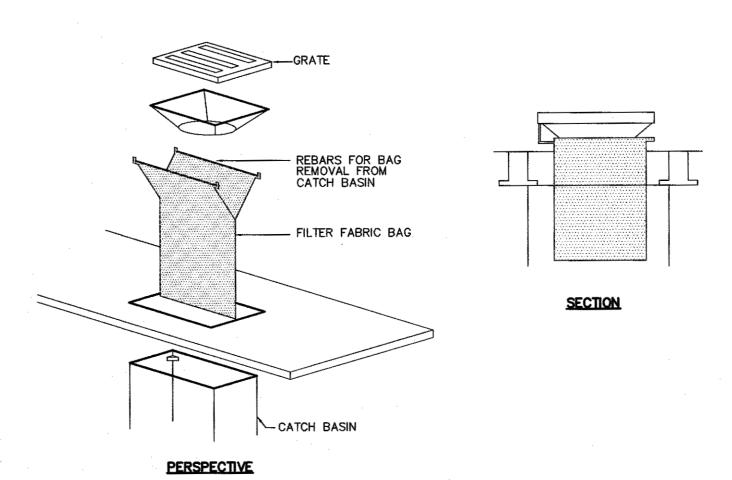




EROSION CONTROL BARRIER (ECB) N.T.S.



TEMPORARY STOCKPILE 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.

CATCH BASIN FILTER BAG



TURNING POINT ENGINEERING CIVIL SITE DESIGN

> 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 Stoger IM SULAZ

APPROVAL DATE: ENDORSEMENT DATE:_

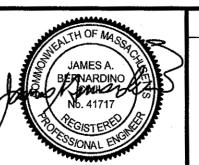
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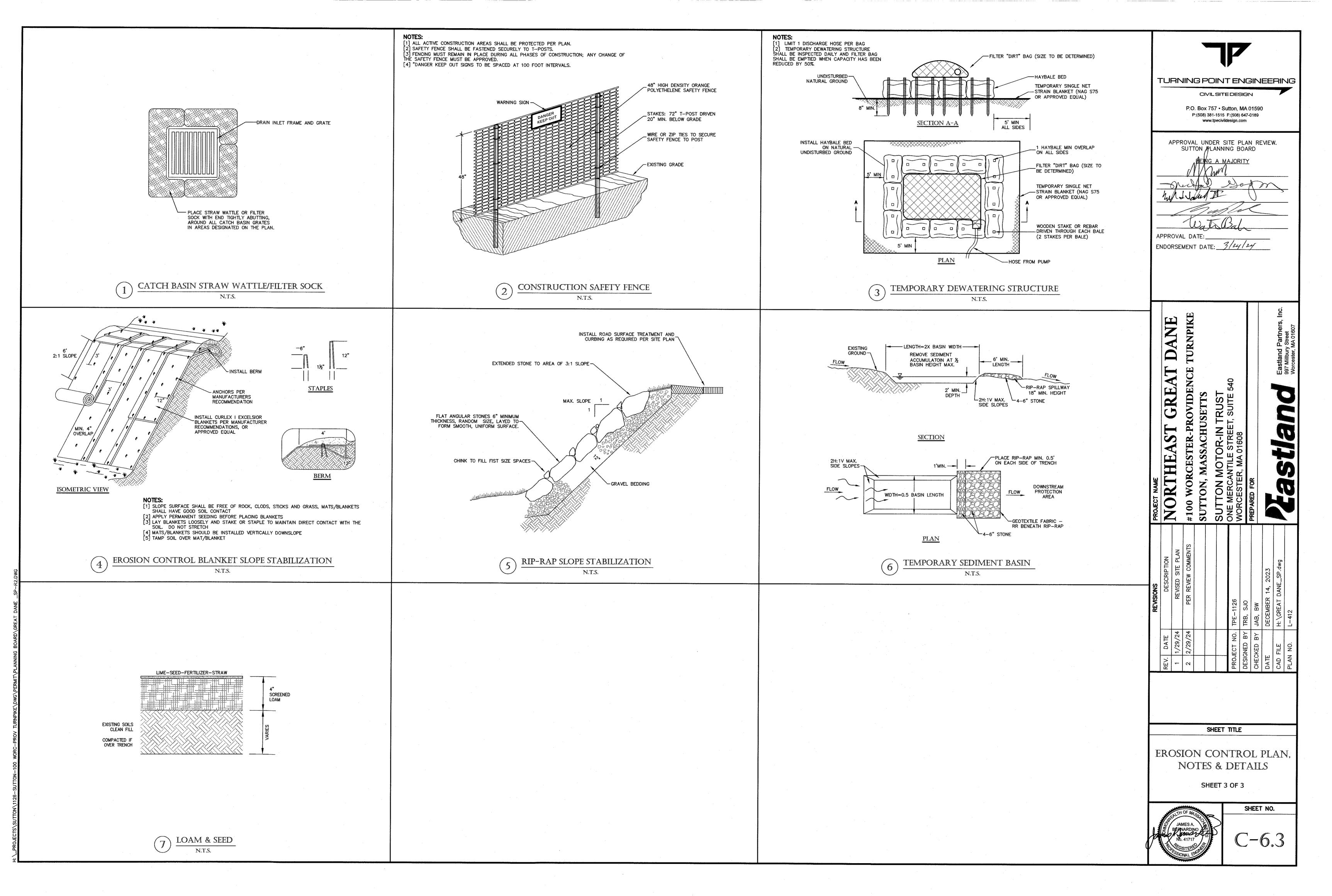
SHEET TITLE

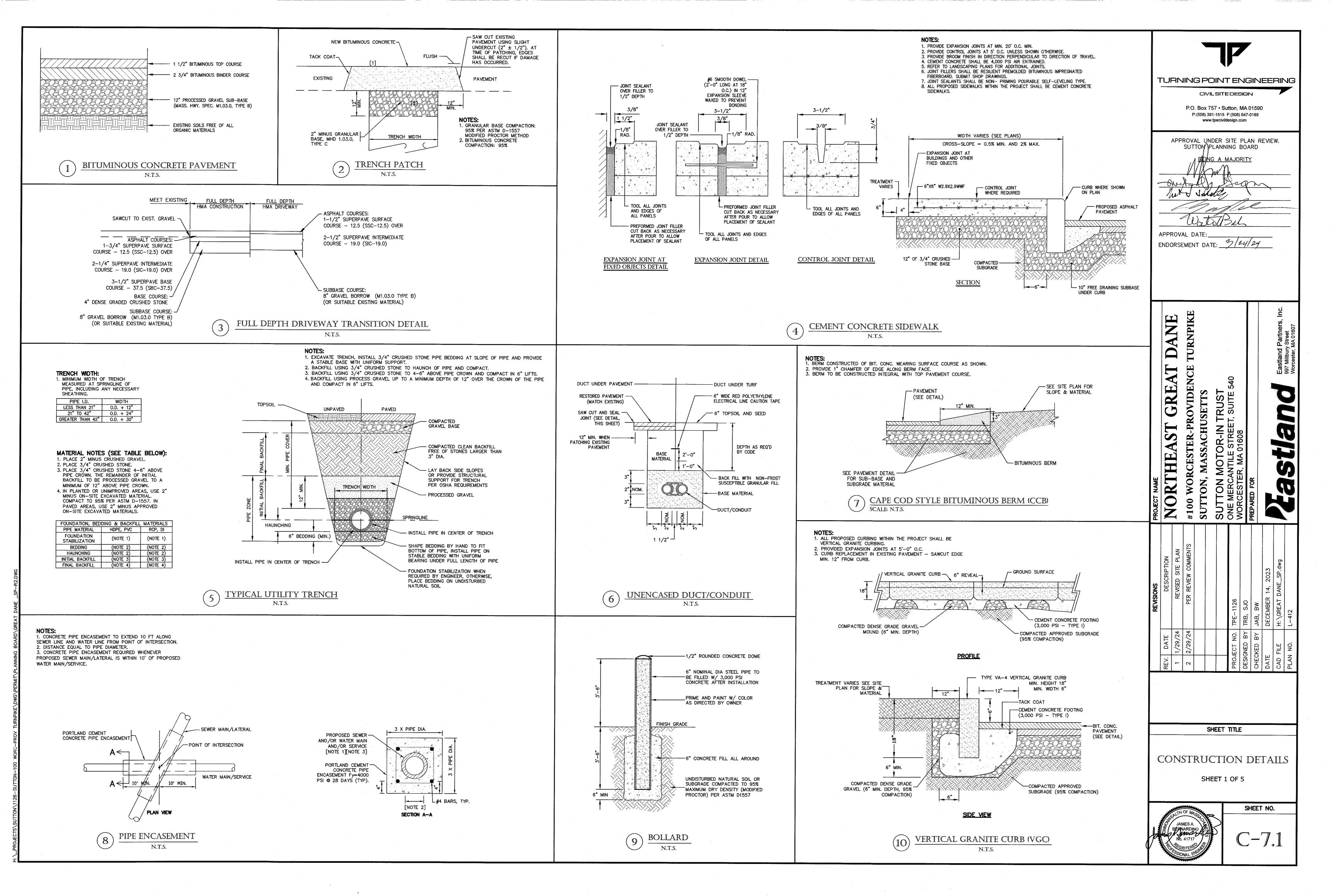
EROSION CONTROL PLAN, NOTES & DETAILS

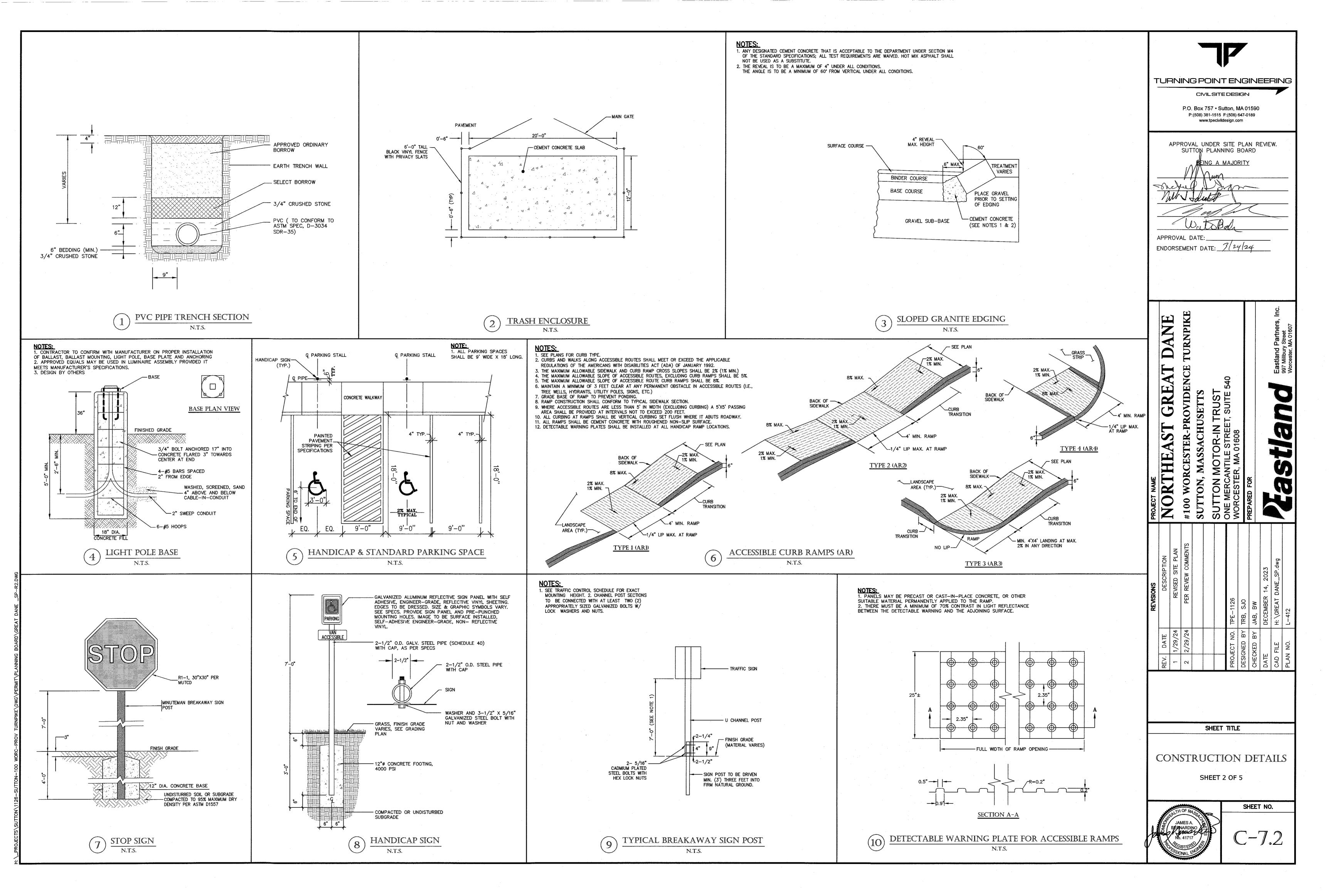
SHEET 2 OF 3

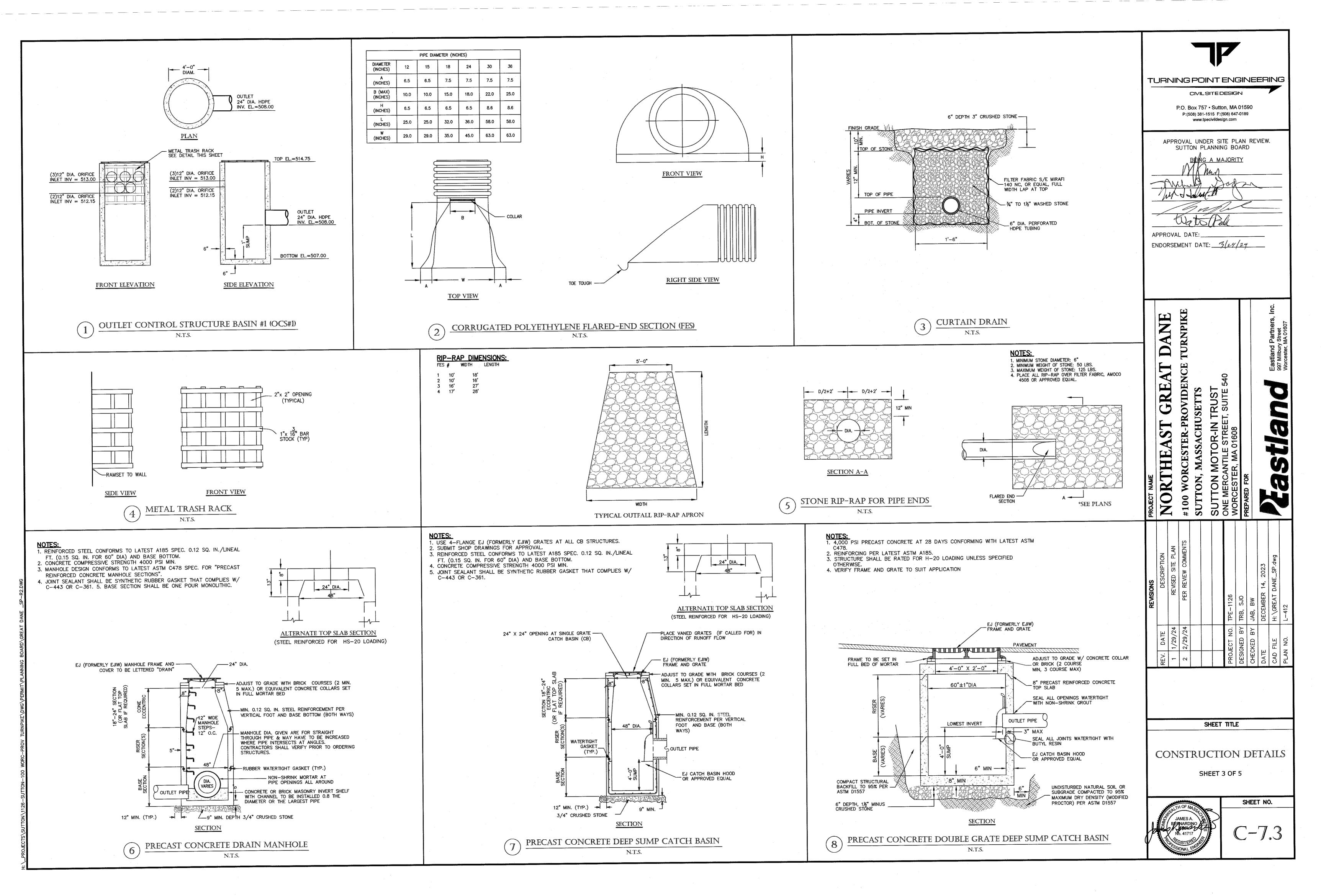


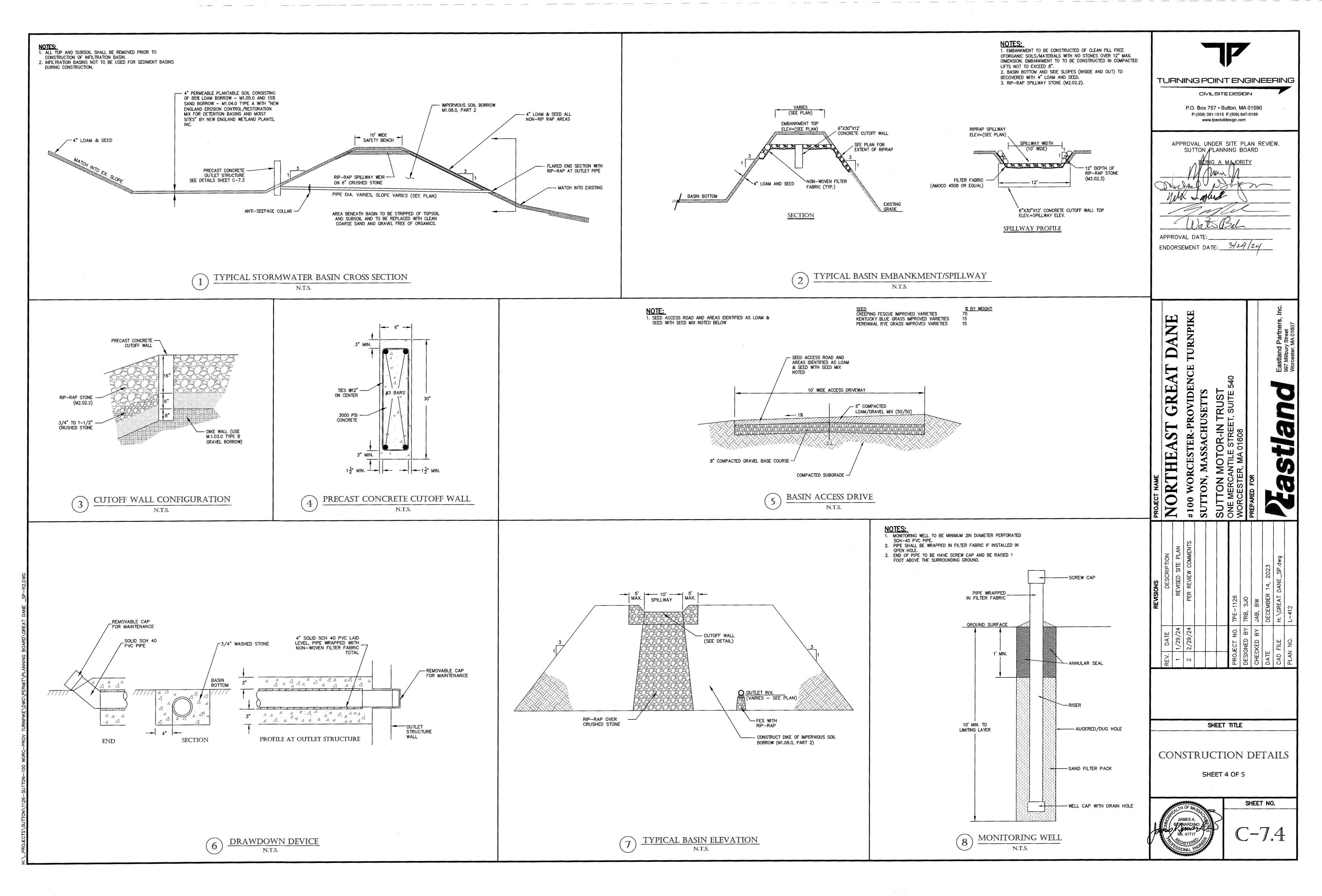
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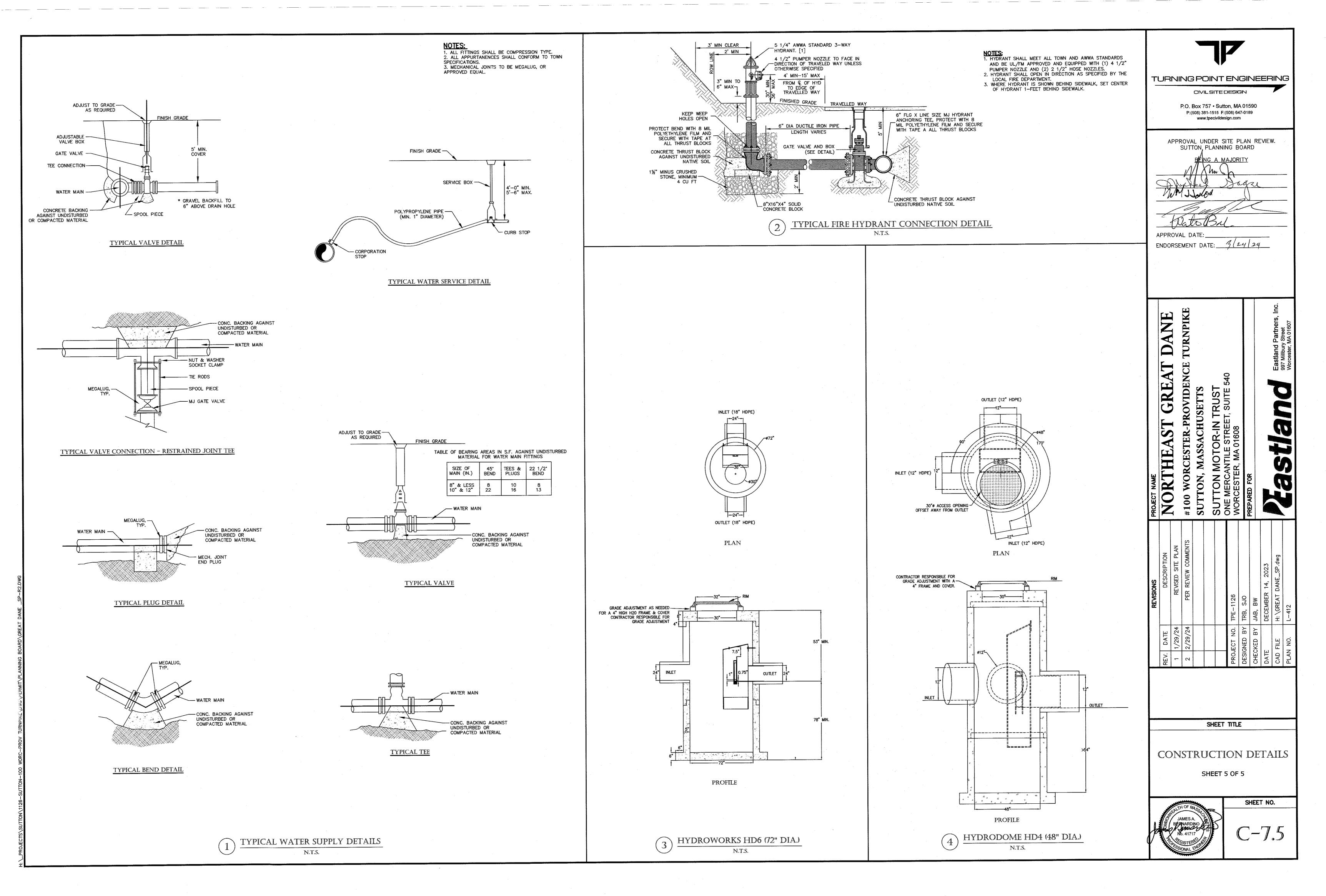


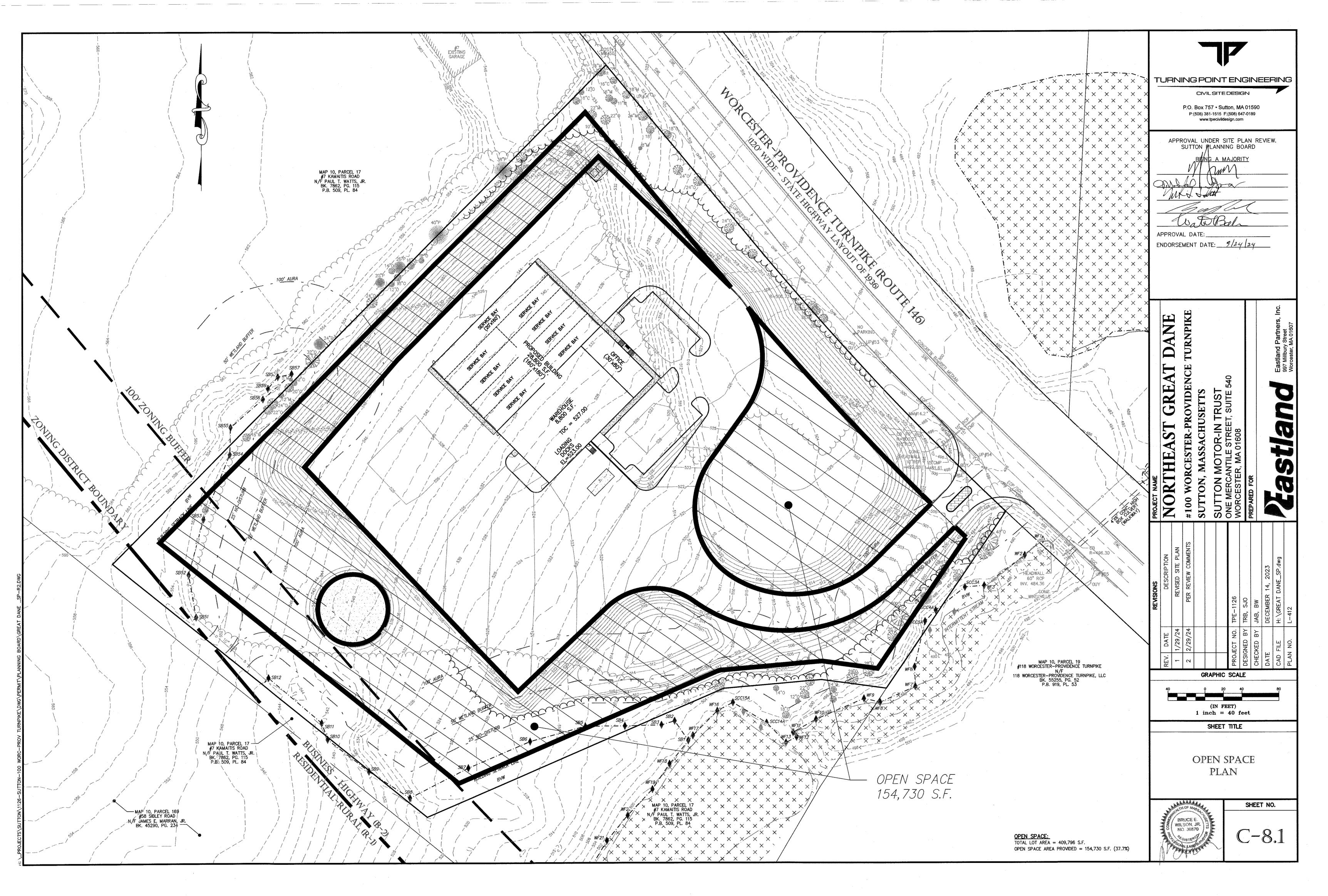


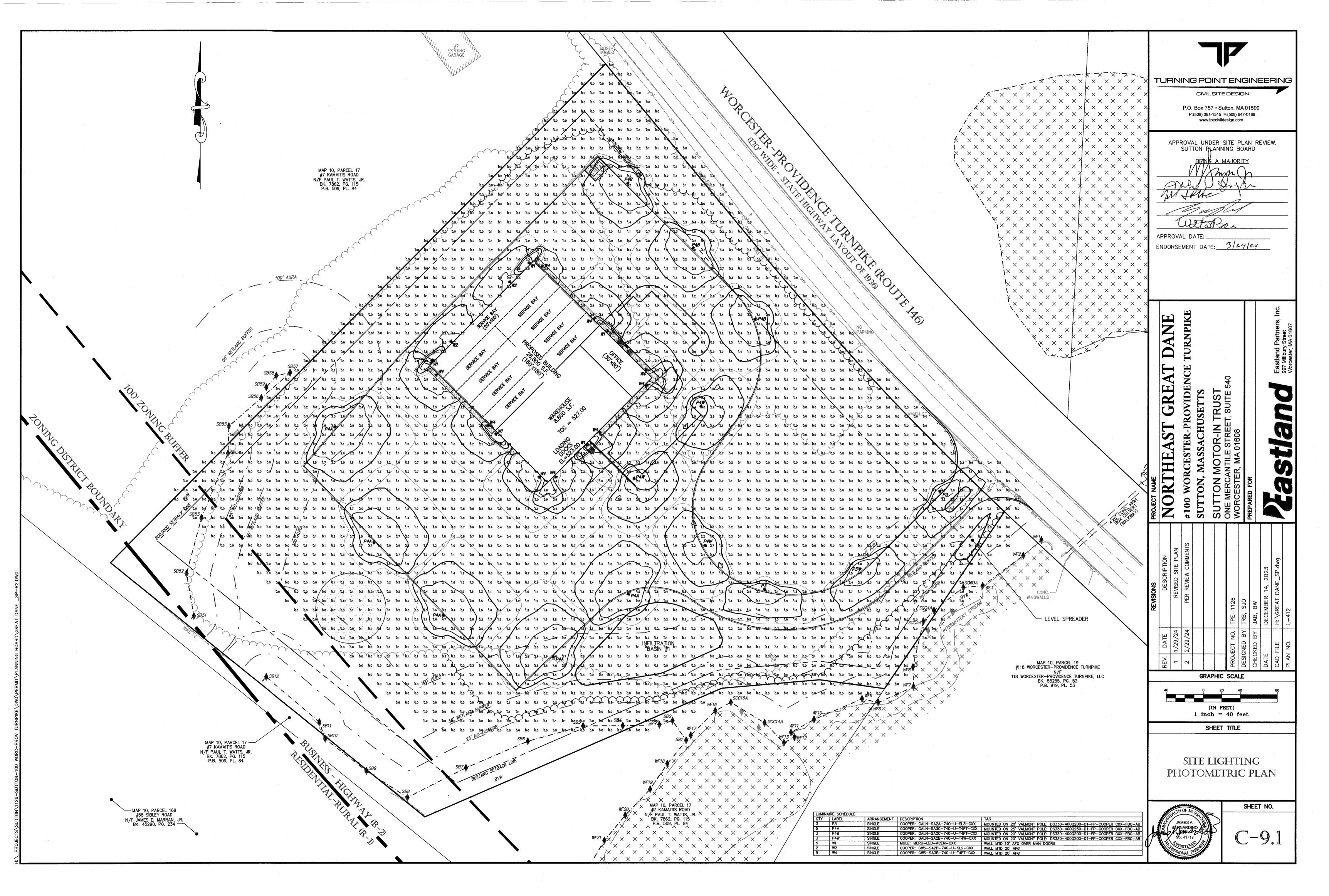












Community Development Director



Sutton Town Hall 4 Unbridge Road Sultan, Massachusetts 01590 (500) 865-8729 NAME OF STREET OF STREET

TOWN OF SUTTON PLANNING BOARD & DEPARTMENT

NOTICE OF DECISION SITEPLAN SPECIAL PERMITS FOR ROUTE 146 OVERLAY DISTRICT & GROUNDWATER PROTECTION DISTRICT

February 28, 2024

Town Clerk, Town of Sulton At a meeting held on February 26, 2024, the Sutton Planning Board, in accordance with Zoning Bylaw IV.C. -Site Plan Review, V.D. - Route 146 Overlay District, and V.B. Groundwater Protection District, voted to approve the Site Plan and Special Permit applications. The applications were submitted by Eastland Partners, Inc of Worcester, MA for property owned by them at 100 Worcester Providence Turnpike. The applicant requested to construct a 28,800 of building for service and repair of semi-trailers with associated site work.

Public hearings concerning the application and associated project were held on the following evening(s): 1/22/24, 2/5/24, & 2/26/24

The Planning Board conducted deliberations on the following evening: 2/26/24

Hearing Attendance Absence:

R. Largess, Jr., S. Paul, W. Talcett, W. Baker, M. Gagan, E. McCallian (associate, absent) 1/8/24 R. Largess, Jr., S. Paul, W Talcott, W. Baker, M. Gagan, E. McCallum (associate) 1/22/24 R. Largess, Jr., S. Paul, W. Talcolt, W. Baker, M. Gagan, E. McCalhum (associate, absent) R. Largess, Jr., S. Paul, W. Talcott, W. Baker, M. Gagan, E. McCalhum (associate) 2/26/24

Eligible to vote: R. Largess, Jr., S. Paul, W. Talcott, M. Gagan, W. Baker

In addition to the Board and Town bodies, the following individuals raised questions and/or expressed concerns with the applications: J. Marran (80 Burbank Road), William Pepka (36 Sibley Road)

In addition to the applicant and their representatives, the following individuals spoke in favor of the application:

100 Worcester Providence Tumpike Site Plan, Special Permits & Earth Removal/Disturbance

Filed in the Town Clerk's office

Laura J. Caruso, Town Clerk

This decision is subject to appeal in accordance with M.G.L. c. 40A § 17 within 20 days after this decision if filed with the Town Clerk.

I. Hereby certify that twenty-one days have lapsed since the filing of the above reference decision in the Town and that no appeal has been filed. Clock's office on

Laura J. Caruso, Town Clerk

The project permitted berein must commence construction within two (2) years from the date filed in the Town Clerk's office or this permit will no longer be valid.

100 Worsester Providence Tompike Site Plan, Special Pennits & Earth Removal/Ossurbance

The Board granted the following waivers after findings in open meeting:

To allow a driveway width greater than 30' having found a greater width is necessary to provide enough room for safe maneuverability of large vehicles into and out of the site. To allow work on slopes in excess of 15% having found these slopes were artificially created for the prior drive in operations and need to be adjusted accommodate adequate maneuvering on site. They will be made more gradual and proper erosion control measures will be employed during and after construction.

V.D.4.c.2.d. To eliminate facilities to enhance transit services. V.D.4.c.3.d. To allow more than 25% of parking in front of the building having found that site configuration requires a larger percentage of the parking be located in front of the building mitigated by

topography and landscaping elements.

V.D.4c.3.f. To allow broom finished sidewalks instead of brick or block having found this is not a site open to the general public nor are the sidewalks visible from the public way and this particular use won't benefit from this extra expense.

V.D.4,c.3.g. To eliminate car and van pool parking spots having found this particular basiness with minimal employees would be better served by an additional unrestricted parking spot.

Approval was based on the following Sife Development plan: Turning Point Engineering (sev 1/29/24) for Northeast Great Dane (Eastland Partners, Inc.)

Cover Sheet C-0.0 General Notes C-1.1 (-12 Location Plan Existing Conditions & Demolition Plan C-2.1 Lavout & Materials Plan C-3.1

Utility Plan C4.I Grading & Dramage Plan Erosion Control Plan, Notes & Details C-6.1 - C-6.3 Construction Details C-7.1-C-7.5 C-8.1 Open Space Plan Site Lighting Photometric Plan C-9.I LLD Landscape Plan Landscape Schedule & Details 1-20 LU Landscaping Notes

The Boards approval was based on the following conditions:

Robert S. Largers, Jr., Chair

Erics McCallum, Associate

Community Development Director

Scott Paul, Vice-Chair

William Talcott

Walter A. Baker

Michael Gagun

Jenuiter S. Hager

February 28, 2024

25/24. & 2/26/24

1/22/24

Hearing Attendance/Absence:

Town Clerk, Town of Suiton

- The Applicant shall submit on O & M plan approved by the Town's consulting engineer. The Applicant shall revise landscape plans to address all related comments from the
- review memo dated 2/23/24 from the Community Development Director. The Applicant shall address all comments from the Review Letter date 2.23.24 from Graves Engineering.

- Within a month of the appeal period concluding, the applicant shall provide a final set of plans with waivers granted and conditions of approval on the plan set for the Board's endorsement as the record set of plans upon which construction shall be based.
- Unless a specific exception is approved by the Planning Director or Building Commissioner,

TOWN OF SUTTON

PLANNING BOARD & DEPARTMENT

NOTICE OF DECISION

CLASS 2 - EARTH REMOVAL/DISTURBANCE

At a meeting held on February 26, 2024, the Station Planning Board, in accordance General Bylaw 5 - Earth

Removal/Disturbance, voted to approve the Class 2 application. The application was submitted by Eastland

applicant requested earth removal and disturbance related to the construction of a 28,800 st building for service

and repair of semi-trailers with associated site work, including removal from the site of approximately 1,500 cy.

Public hearings concerning the application and associated project were held on the following evening(s): 1/22/24,

R. Largess, Jr., S. Paul, W. Talcott, W. Baker, M. Gagan, E. McCallum (associate, absent)

R. Largess, Jr., S. Paul, W. Talcott, W. Baker, M. Gagan, E. McCallum (associate, absent)

R. Largess, Jr., S. Paul, W Talcott, W. Baker, M. Gagan, E. McCallum (associate)

R. Largess, Jr., S. Paul, W. Talcott, W. Haker, M. Gagan, E. McCallinn (associate)

In addition to the Board and Town bodies, the following individuals raised questions and/or expressed concerns

In addition to the applicant and their representatives, the following individuals spoke in favor of the application:

Turning Point Engineering for Northeast Great Dane (Eastland Partners, Inc.) - 100 Worcester/Providence Toke

C-0.0

C-11

Partners, Inc of Worcester, MA for property owned by them at 100 Worcester Providence Tumpike. The

The Planning Board conducted deliberations on the following evening: 2/26/24

Eligible to vote: R. Langess, Jr., S. Pani, W. Tolcott, M. Gagon, W. Baker

Approval was based on the following Site Development plans:

Cut/Fill Pian

Cover Sheet

General Notes

with the applications: J. Marran (80 Burbank Road), William Pepka (36 Sibley Road)

Site Plan, Special Permits & Earth Rensoval/Disturbance

100 Worcester Providence Turnerike

construction shall be limited to Monday through Friday, 7:00 a.m. to 5:00 p.m. and Saturdays, 8:00 a.m. to 12:00 p.m., and shall exclude Sundays and the following holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving, after 12 PM on Christmas Eve, and Christmas. From November 15th to April 1st equipment may be started at 6:30 a.m. but no construction may commence until 7:00 a.m. unless a specific exception is granted as noted above.

During any construction, the Applicant shall maintain all feasible and reasonable means of dust control and shall collect all trash and debris daily.

The Applicant shall implement measures to ensure that noise during construction activities does not exceed acceptable levels, as set forth by Federal and State regulatory agencies. The Applicant shall cease any excessively loud noise during construction activities when directed by a duly appointed agent of the Board. No excessively loud activities are permitted prior to 8:00 AM or after 5:00 PM

The Board reserves the right to review landscaping for the purpose of requiring the addition of plants or screening materials which may be reasonably necessary to complete the intended sesthetics and screening.

The Board reserves the right to review lighting and require adjustments if they find it to be a danger or nuisance.

The Board reserves the right to review and assess noise complaints related to onsite operations. If the applicant/operator fails to cure or remedy a complaint the Board decays to be valid within a reasonable time as determined by the Board, the Board reserves the right to require the applicant and/or operator to provide adequate mitigation.

11. Loaded earth removal tracks may not exit the site during peak hours of 6:30-8 AM and 5 to 6:30 PM

 The applicant must provide a minimum of 4 weeks' notice if they anticipate blasting will be necessary on the site in order for the Board to establish an education and notification process for abatters and to evaluate and require mitigation of any potential impacts, all to be funded and carried out by the applicant with oversight of the Planning Board.

13. The yard dogs used to move trailers on the site will not have backup alarms. If the Applicant intends to utilize back up alarms on this equipment, they must return to the Board for discussion about the noise impacts.

Prior to Commencement of Construction:

14. All required approvals and/or permits shall be received from applicable permitting authorities except MassDOT which shall be received prior to issuance of the building

15. The applicant shall request permission from MassDOT to remove any compromised trees within their right of way while site tree removal is being undertaken. Evidence of this

request and response from the State shall be provided to the Planning Board. The applicant must maintain vegetation along Worcester Providence Tumpike to ensure clear sight lines for entering and exiting the site.

 A pre-construction meeting shall be held with the Community Development Director and other Town staff as appropriate, the Town's consulting engineer, the applicant and/or his representative, the applicant's engineer, and the applicant's construction supervisor, and a representative from the blasting contractor if applicable. Minutes shall be drafted by the Town's consulting engineer and provided to all parties in attendance within 48 hours for approval prior to construction start to ensure all parties are in agreement.

100 Worcester Providence Tompite Site Plan, Special Permits & Earth Removal Disturbance

Summ Town Hall

Sutton, Massachusetts 01590

12/14/23

1/29/24

1/29/24

4 Unbridge Road

(508) 865-8729

WWW.SIEDODOUG.OFF

Location Plan	C12	1/29/24
Existing Conditions & Demolition Plan	C-2.1	1/29/24
Layout & Materials Plan	C-3,1	1/29/24
Utility Plan	C4.1	1/29/24
Grading & Drainage Plan	C-5.1	1/29/24
Erosion Control Plan, Notes & Details	C-6.1 - C-6.3	1/29/24
Construction Details	C-7.1 - C-7.5	1/29/24

The Boards approval was based on the following conditions:

Unless a specific exception is approved by the Planning Director or Building Commissioner, construction shall be limited to Monday through Friday, 7:00 a.m. to 5:00 p.m. and Saturdays, 8:00 a.m. to 12:00 p.m., and shall exclude Sundays and the following holidays. New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving, after 12 PM on Christmas Eve, and Christmas, From November 15th to April 1st equipment may be started at 6:30 a.m. but no construction may commence until 7:00 a.m. unless a specific exception is granted as noted above.

Loaded earth removal trucks may not exit the site during peak hours of 6:30-8 AM and 5 to 6:30 PM. The applicant must provide a minimum of 4 weeks' notice if they anticipate blasting will be necessary on the site in order for the Board to establish an education and notification process for abutters and to evaluate and require mitigation of any potential impacts, all to be funded and carried out by the applicant with oversight of the Planning Board.

During any earth disturbance activities, the Applicant shall maintain all feasible and reasonable means of dust control and shall collect all trash and debris daily.

The Applicant shall implement measures to ensure that noise during construction activities does not exceed acceptable levels, as set forth by Federal and State regulatory agencies. The Applicant shall cease any excessively loud noise during construction activities when directed by a duly appointed agent of the Board. No excessively load activities are permitted prior to 8:00 AM or after 5:00 PM.

The Board reserves the right to review and assess noise complaints related to onsite operations. If the applicant/operator fails to cure or remedy a complaint the Board deems to be valid within a reasonable time as determined by the Board, the Board reserves the right to require the applicant and/or operator to provide adequate mitigation.

Prior to Commencement of Site Work:

The applicant shall provide the Planning Board with the receiving location of earth removed from the site and travel routes and receive the Boards approval of routes and receiving locations within Sutton. All required approvals and/or permits shall be received from applicable permitting authorities except

MassDOT which shall be received prior to issuance of the building permit.

The applicant shall request permission from MassDOT to remove any compromised trees within their right of way while site tree removal is being undertaken. Evidence of this request and response from the State shall be provided to the Planning Board.

10. A pre-construction meeting shall be held with the Community Development Director and other Town staff as appropriate, the Town's consulting engineer, the applicant and/or his representative, the applicant's engineer, and the applicant's construction supervisor, and a representative from the blasting contractor if applicable. Minutes shall be drafted by the Town's consulting engineer and provided to all parties in attendance within 48 hours for approval prior to construction start to ensure all parties are in agreement.

The applicant will provide a minimum of one week's notice to review staked limits of clearing with a Planning Board representative.

100 Worcester Providence Tumpike Site Plan, Special Permits & Earth Responsal/Disturbance

> 18. The applicant will provide a minimum of one week's notice to review staked limits of clearing with a Planning Board representative.

Prior to Issuance of Building or Sign Permits:

 Prior to issuance of permits for signage, the applicant shall submit a compliant sign design and receive approval from the Planning Board.

Prior to Issuance of Occupancy Permits:

20. Once HVAC equipment is installed, it's visibility shall be reviewed by the Planning Board or their agent and a determination shall be made if screening is required. If it is required, it shall be installed prior to issuance of a certificate of occurancy.

Prior to issuance of a certificate of occupancy, security systems and all necessary amplifiers shall be installed as required by the Police and Fire Chiefs.

Prior to issuance of a certificate of occupancy on any building, the Applicant shall submit to the Planning Board and receive approval for an As-Built Plan and written certification from the Project's engineer that the site and all infrastructure to serve this area of the site has been constructed substratially in accordance with the Site Plan. Additionally, the Applicant shall provide an As-Built plan to the Town of Sutton Assessors in accordance with their

23. Prior to issuance of occupancy on any structure a lock box with building access keys and/or codes, a building layout plan and emergency contact shall be installed to the satisfaction of

24. All exterior doors and roof access shall be marked on the interior and exterior with reflective, sequential numbering that is reflected on the building layout plans in the lock

25. The Fire Departments shall be given the opportunity to tour the building to orient themselves with the new structure.

26. The building occupant shall detail the method and location of snow removal from trailers before they leave the site.

Site Maintenance:

27. The Applicant shall ensure proper maintenance of plantings on the site, including immediate replacement of dead or diseased plantings unless it is winter or summer, in which case in the following planting season.

28. The applicant shall comply with the final O&M plan for the site drainage systems. Inspection and maintenance shall be performed in accordance with the recommended schedule and a written report shall be prepared by the inspector, including any required correction actions to be taken, such report to be submitted to the Planning Board within fourteen (14) business days of owner's receipt of the report. Any required correction actions shall be promptly implemented by the owner at its expense.

Robert S. Largess, Jr., Chair

Police Department

Sewer Department

Applicant

Building Commissioner

Select Board Town Manager Board of Assessors Fire Department Wilkinsonville Water Highway Department Parties in Interest Board of Health

100 Worsester Providence Tumpike Site Plan, Special Permits & Earth Removal/Disturbance

Robert S. Largess, Jr., Chair

Select Board Town Manager Board of Assessors Fire Department Wilkinsonville Water Highway Department Parties in Interest Board of Health

Filed in the Town Clerk's office

Building Commissioner Police Department Sewer Department Applicant

Laum J. Caruso, Town Clerk

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APPROVAL UNDER SITE PLAN REVIEW.

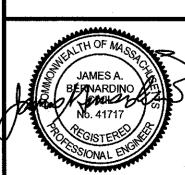
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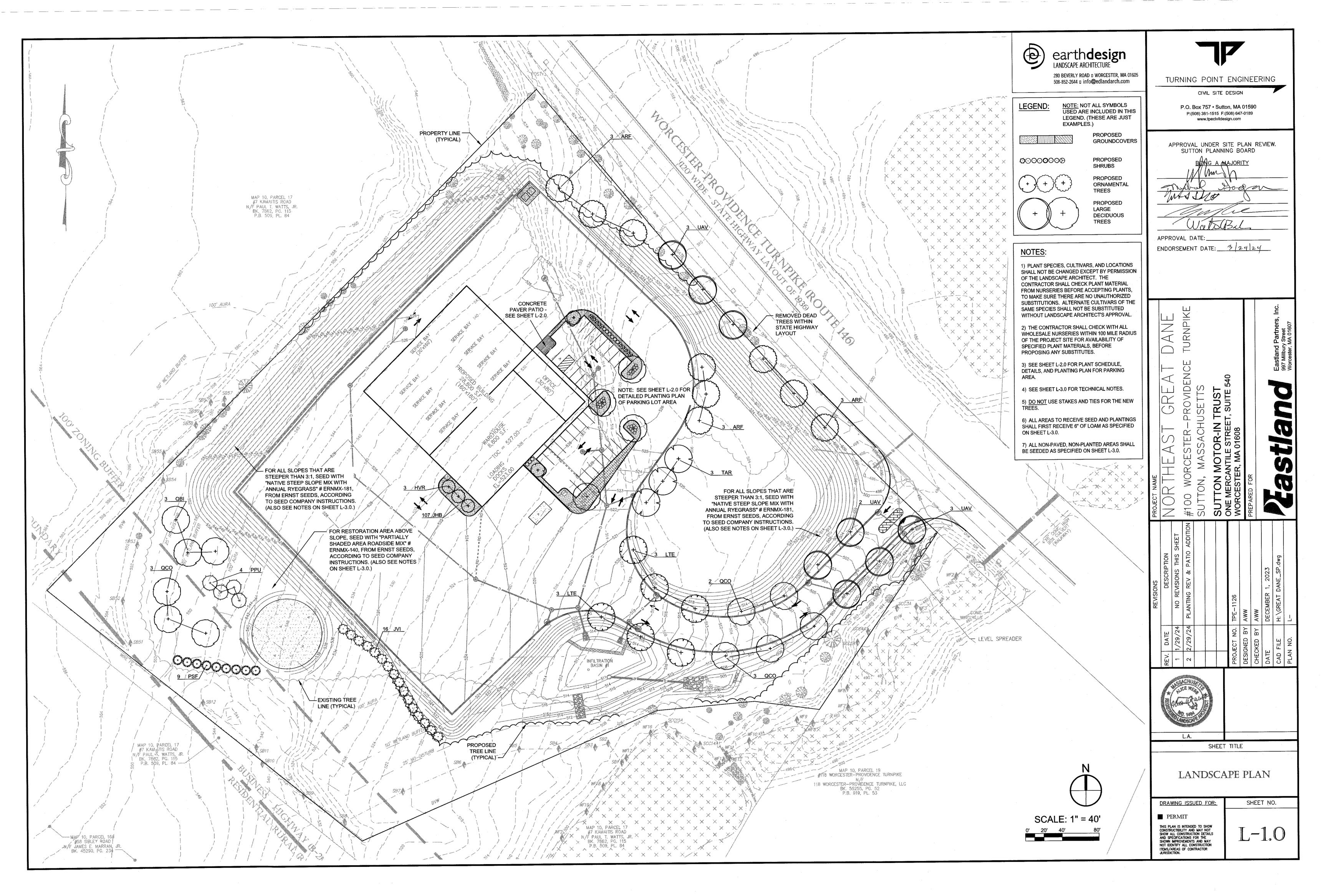
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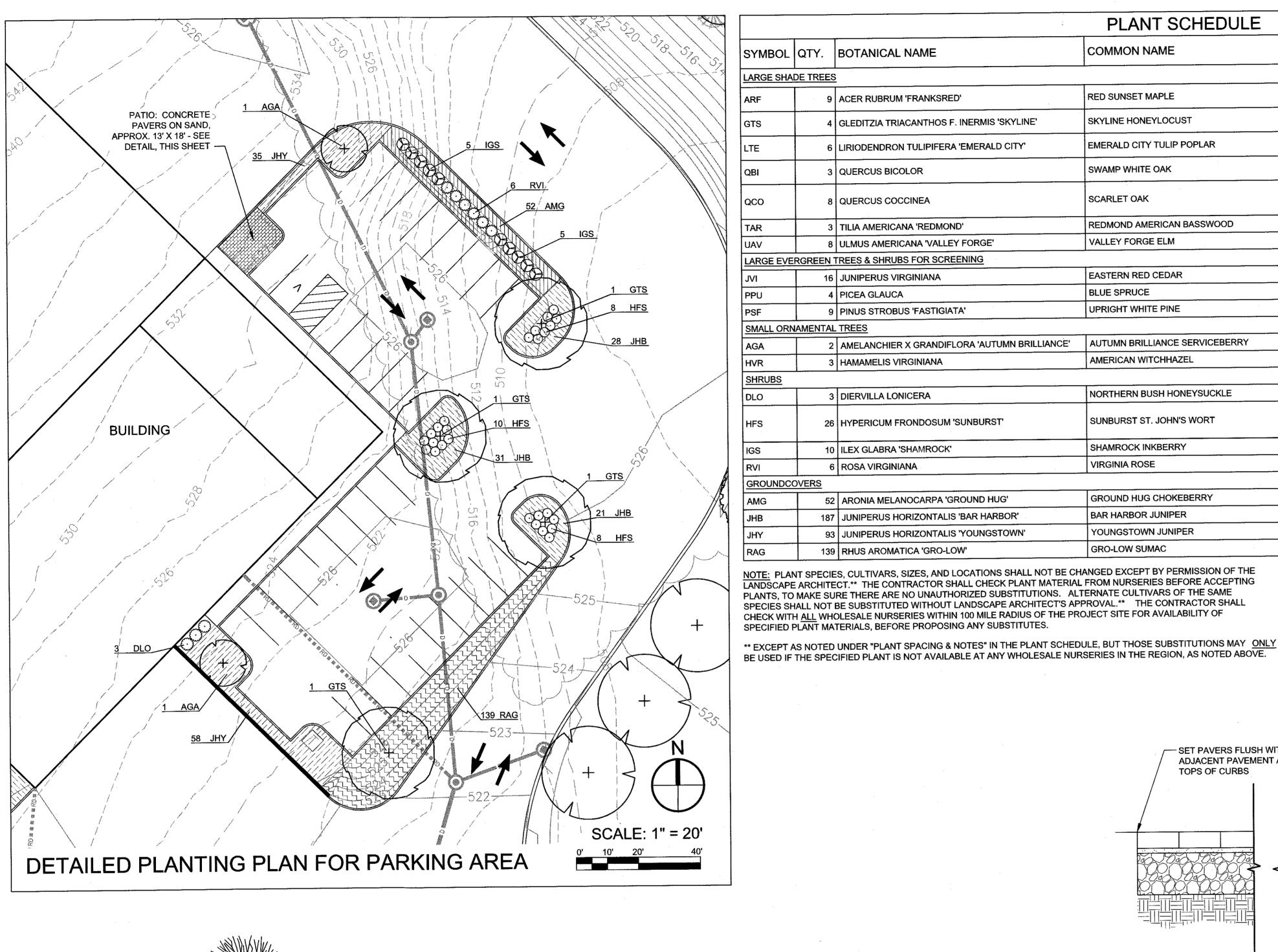
SHEET TITLE

CONDITIONS OF APPROVAL



SHEET NO.







280 BEVERLY ROAD I WORCESTER, MA 01605 508-852-2644 p info@edlandarch.com

LEGEND. (THESE ARE JUST

EXAMPLES.)

NOTE: NOT ALL SYMBOLS USED ARE INCLUDED IN THIS

©○○○**○**○○○

PROPOSED ORNAMENTAL TREES **PROPOSED**

PROPOSED

PROPOSED

SHRUBS

GROUNDCOVERS

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) DO NOT 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.

CONCRETE PAVERS: 4" X 8" X 2.375" BOSTON COLONIAL BY IDEAL (WWW.IDEALCONCRETEBLOCK.COM), OR APPROVED EQUAL - COLOR TO BE SELECTED BY OWNER POLYMERIC SAND IN JOINTS OF PAVERS SET PAVERS FLUSH WITH ADJACENT PAVEMENT AND 8" THICK COMPACTED **TOPS OF CURBS** CRUSHED STONE BASE COURSE 1" THICK SAND SETTING BED - FINISHED GRADE OF PLANT BED OR LAWN "PAVE EDGE" PLASTIC RESTRAINT BY PAVE TECH, OR APPROVED EQUAL. INSTALL 10" GALVANIZED STEEL SPIKES THROUGH EDGING **EVERY 2 FEET MAXIMUM.** COMPACTED SUBGRADE

CONCRETE PAVER SURFACING

NOT TO SCALE

1. LIGHTLY TAMP PLANTING MIX AS PIT IS

IN LIFTS NOT EXCEEDING 6". DO NOT

IMMEDIATELY AFTER INSTALLATION.

3. SEE TECHNICAL NOTES FOR OTHER

PLANTING REQUIREMENTS.

FILLED AROUND EACH PLANT'S ROOT BALL,

2. SOAK EACH PLANT'S ROOT BALL AND PIT

TREE PLANTING NOTES 1) THIS DETAIL APPLIES TO SINGLE-AND MULTI-STEM TREES. PRIOR TO MULCHING, LIGHTLY TAMP NATIVE SOIL AROUND THE 2) SET TREE VERTICALLY IN ALL DIRECTIONS. DO NOT STAKE TREE. ROOT BALL IN 6" LIFTS TO BRACE TREE. DO NOT OVER-COMPACT. SET TOP OF ROOT BALL 1" TO 2" ABOVE WHEN THE PLANTING HOLE HAS BEEN BACKFILLED, POUR WATER AROUND THE ROOT BALL TO SETTLE THE SOIL, AND THEN ADD ADJACENT GRADE 3) DO NOT PRUNE OR CUT LEADER EXCEPT TO STABILIZE DAMAGE OR AS ADDITIONAL SOIL IF NEEDED, AND WATER AGAIN. DIRECTED BY LANDSCAPE ARCHITECT. 4" THICK DOUBLE-SHREDDED HARDWOOD MULCH OUTSIDE 4) SEE TECHNICAL NOTES FOR OTHER ADJACENT OF ROOT BALL, EXTENDING OVER LOOSENED SOIL AREA. NO PLANTING REQUIREMENTS. MORE THAN 1" THICKNESS OF MULCH ALLOWED ABOVE ROOT GRADE-BALL, AND NO MULCH WITHIN 6" OF TRUNK 4" HIGH X 8" WIDE SOIL SAUCER SURROUNDING TREE, JUST --- FINISHED GRADE OUTSIDE OF ROOT BALL "V" TRENCH AROUND ENTIRE PLANTING BED -EXISTING SOIL -LOOSENED SOIL: DIG AND TURN THE SOIL TO THE TAMP SOIL UNDER EACH PLANT AREA AND DEPTH SHOWN, TO REDUCE COMPACTION. SLOPE SIDES OF OO NOT ADD ANY SOIL AMENDMENTS. BALL TO MINIMIZE SETTLEMENT -LOOSENED SOIL - REMOVE TOP 1/2 OF BURLAP FROM B&B TREES. TOP OF ROOT FILL AND COMPACT NATIVE SET BOTTOM OF ROOT BALL SHALL BE 1" TO 2" ABOVE FINISHED GRADE. INSTALL TO SOIL BENEATH ROOT BALL BALL ON EXISTING OR TO ACHIEVE REQUIRED MINIMIZE SETTLING. CONTACT OWNER'S REPRESENTATIVE OR RECOMPACTED SOIL -HEIGHT OF PLANT. --LANDSCAPE ARCHITECT TO INSPECT ROOT BALL PRIOR TO AREA OF LOOSENED SOIL FILLING SOIL AROUND IT. REMOVE TOP 2/3 OF WIRE BASKET 3X ROOT BALL DIA. (MIN.) WHERE PRESENT. LOOSEN ROOT BALL, ALLEVIATE MATTED ROOTS, REMOVE ENCIRCLING ROOTS, AND SPREAD ROOTS OUT SHRUB PLANTING TREE PLANTING

NOT TO SCALE

SEE PLANTING PLAN & PLANT SCHEDULE 1. LIGHTLY TAMP PLANTING MIX AS PIT IS FILLED AROUND EACH PLANT'S ROOT BALL, IN LIFTS NOT EXCEEDING 6". DO NOT OVER-COMPACT. 2. SOAK EACH PLANT'S ROOT BALL AND PIT IMMEDIATELY AFTER INSTALLATION. SEE TECHNICAL NOTES FOR OTHER PLANTING REQUIREMENTS. - 4" HIGH X 8" WIDE SOIL SAUCER SURROUNDING EACH SHRUB, JUST OUTSIDE OF ROOT BALL — 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. SOIL REMOVED FROM PLANT BED FOR PLACEMENT OF SHRUBS SHALL BE AMENDED WITH 20 PERCENT COMPOSTED GROUND PINE BARK. EQUAL SPACING \ BETWEEN ALL PLANTS-· LOOSEN ROOT BALL, ALLEVIATE MATTED OR ENCIRCLING ROOTS. SPREAD ROOTS OUT TYPICAL PLANTING BED PLAN PLANT SHRUBS IN THIS ARRANGEMENT

SPACING VARIES

SET TOP OF ROOT BALL 1" SPACING VARIES ABOVE ADJACENT GRADE -SEE PLANTING PLAN & 2" TO 3" LAYER OF -PLANT SCHEDULE DOUBLE-SHREDDED HARDWOOD MULCH ADJACENT, GRADE -"V" TRENCH AT EDGES OF BED -LIMIT OF PLANTING BED -TAMP SOIL UNDER EACH PLANT BALL TO MINIMIZE SETTLEMENT -

-COMPACTED OR UNDISTURBED SUBGRADE SOIL REMOVED FROM PLANT BED FOR PLACEMENT OF PLANTS SHALL BE AMENDED WITH 20 PERCENT COMPOSTED GROUND PINE BARK LOOSEN ROOT BALL, ALLEVIATE MATTED OR ENCIRCLING ROOTS, AND SPREAD ROOTS OUT EVENLY.

- 2" UNMULCHED

RADIUS

EQUAL SPACING BETWEEN ALL PLANTS——

OVER-COMPACT.

- EDGE OF PLANTING BED TYPICAL PLANTING BED PLAN INSTALL PLANTS IN THIS ARRANGEMENT

UNLESS SHOWN OTHERWISE ON THE

NOT TO SCALE

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APPROVAL UNDER SITE PLAN REVIEW. SUTTON PHANNING BOARD

ENDORSEMENT DATE: 3/24/24

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SHEET TITLE

LANDSCAPE SCHEDULE & DETAILS

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 INTENDED CONTINUE C ITEMS/AREAS OF CONTRACTOR JURISDICTION.

DRAWING ISSUED FOR:

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SHEET NO.

GROUNDCOVER & PERENNIAL PLANTING

NOT TO SCALE

UNLESS SHOWN OTHERWISE ON THE

PLANTING BED

STAGGERED



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APPROVAL UNDER SITE PLAN REVIEW. SUTTON PLANNING BOARD ENDORSEMENT DATE: 3/24/24

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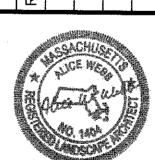
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LANDSCAPE NOTES

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DRAWING ISSUED FOR:

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SHEET NO.

TECHNICAL NOTES FOR LOAM BORROW:

1) SCOPE OF WORK: 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) SLOPES STEEPER THAN 3:1:

SEED MIXTURE SHALL BE "NATIVE STEEP SLOPE MIX WITH ANNUAL RYEGRASS" # ERNMX-181 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.

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) BED PREPARATION FOR AREAS TO BE SEEDED WITH TURFGRASS: 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) LIME AND NUTRIENTS FOR TURFGRASS AREAS: 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) FERTILIZER FOR TURFGRASS AREAS: 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 FEET.

7) SEEDING PROCEDURE FOR TURFGRASS: 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

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

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) FINAL INSPECTION, CLEANUP AND COMPLETION: 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) GUARANTY AND REPLACEMENT: 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 NOT 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) SUBSTITUTIONS: 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

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) CONTAINER-GROWN MATERIALS: 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) MULCHING: 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

10) LAYOUT: 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

11) SETTING PLANTS: 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) STAKING TREES: 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) MAINTENANCE: 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) FINAL INSPECTION: 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) GUARANTEE: 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) REPLACEMENT: 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.