Actual Submittal Date 6/10/2024

DEFINITIVE SITE PLAN APPROVAL DCU/RETAIL EXPANSION PROJECT 225 SHREWSBURY STREET WORCESTER, MASSACHUSETTS

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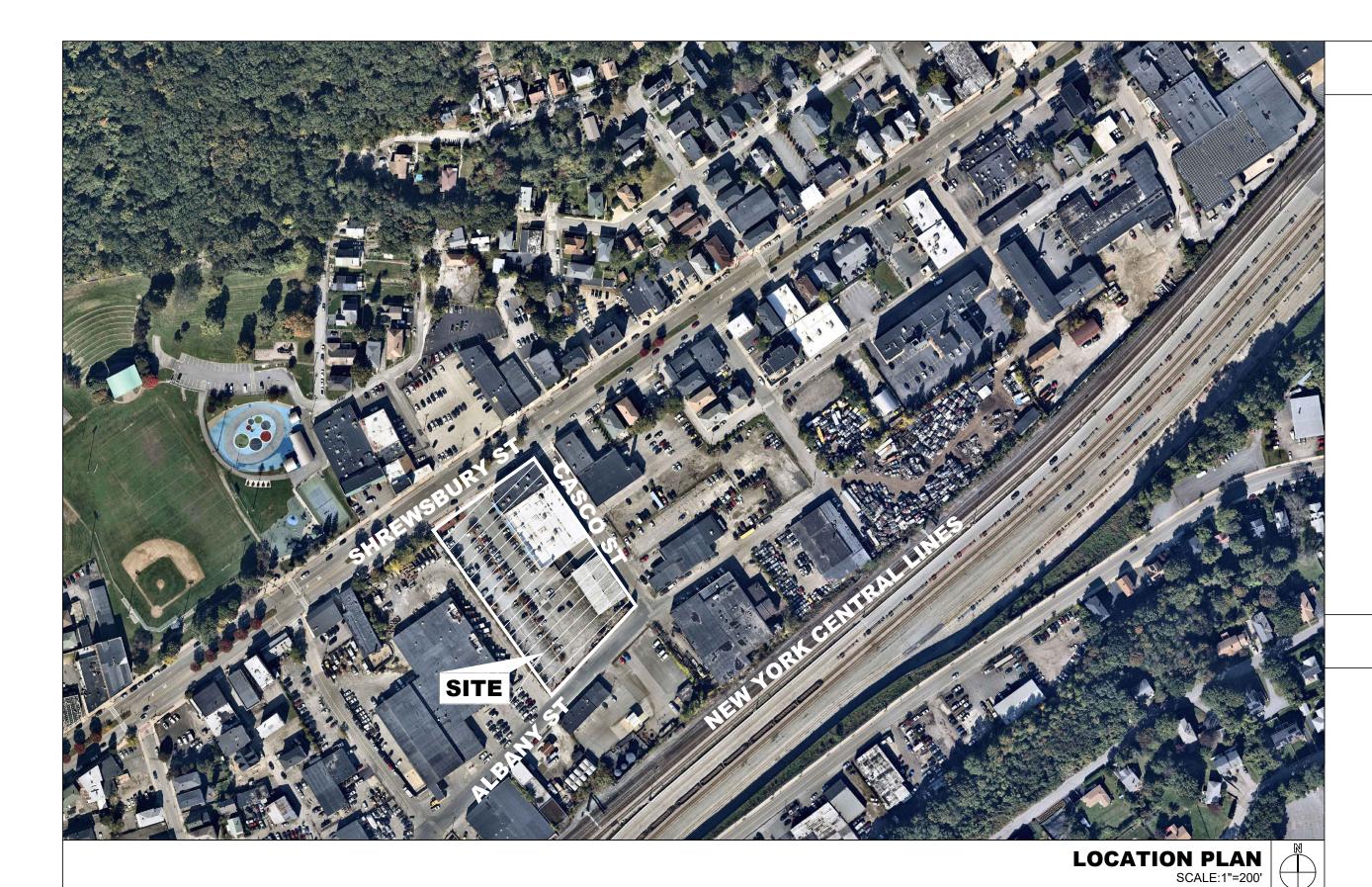
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UNDGREN EQUITY PARTNERS

ISSUED FOR DEFINITIVE SITE PLAN APPROVAL / SPECIAL PERMIT: JUNE 6TH, 2024

CONSULTANT:



SUMMA	SUMMARY OF REQUIRED PERMITS & ZONING RELIEF REQUESTED										
ZO SECTION	SPGA	REQUIREMENT	REQUEST								
§IX-7	PLANNING BOARD	SITE PARKING REQUIREMENTS	ALLOWABLE REDUCTION OF SITE PARKING REQUIREMENTS IN THE COMMERCIAL CORRIDOR OVERLAY DISTRICT BY 41%								
§IX-4.C.1	ZONING BOARD OF APPEALS	PERMITTED USE REGULATION	ALLOW FOR RELOCATION OF EXISTING DRIVE-THRU								
§IV-7	ZONING BOARD OF APPEALS	LOADING REQUIREMENTS	WAIVER OF THE REQUIREMENT TO PROVIDE ONE (1) LOADING SPACES FOR THE PROPOSED BUILDING								

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DCU/RETAIL EXPANSION PROJECT

REV	DATE	DESCRIPTION

ISSUE TYPE:
PERMIT
ISSUE DATE:
06/06/2024
PROJECT NUMBER:
24009

DRAWN BY: MJH
CHECKED BY: DTB/DJH

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SHEET TITLE:

TITLE SHEET

SHEET NUMBER:

GENERAL NOTES

- 1. THE CONTRACTOR SHALL REPORT TO THE OWNER AND ENGINEER ANY SIGNIFICANT VARIATIONS IN EXISTING SITE CONDITIONS FROM THOSE SHOWN ON THESE PLANS. ANY PROPOSED REVISIONS TO THE WORK, IF REQUIRED BY THESE SITE CONDITIONS, SHALL NOT BE UNDERTAKEN UNTIL REVIEWED AND APPROVED BY THE OWNER AND THE ENGINEER
- REVIEWED AND APPROVED BY THE OWNER AND THE ENGINEER.

 2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSTITUTE ANY AND ALL SAFETY MEASURES NECESSARY TO PROTECT THE PUBLIC SAFETY DURING CONSTRUCTION. THESE SHALL INCLUDE SIGNS, BARRICADES, FENCES, POLICE OFFICERS, ETC. AS IS NECESSARY, OR AS DIRECTED BY THE PUBLIC AUTHORITIES AND THE OWNER. CONSTRUCTION ACTIVITIES SHALL BE IN
- 3. THE EXISTING SITE CONDITIONS SHOWN ON THESE PLANS WERE DETERMINED BY A FIELD SURVEY AND COMPILATION OF PLANS OF RECORD. ANY VARIATIONS FROM THE CONDITIONS SHOWN ON THESE PLANS SHOULD BE REPORTED TO THE ENGINEER BEFORE PROCEEDING WITH THE PROPOSED WORK.

ACCORDANCE WITH OSHA STANDARDS AND LOCAL REQUIREMENTS.

- I. UNLESS OTHERWISE SPECIFIED ON THE PLANS AND SPECIFICATIONS ALL SITE CONSTRUCTION MATERIALS AND METHODOLOGIES ARE TO CONFORM TO THE COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, 1988 EDITION OR THE LATEST EDITION.
- 5. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS, INCLUDING (BUT NOT LIMITED TO) DEMOLITION PERMIT, UTILITY CONNECTIONS PERMIT, GENERAL PERMIT, ETC.
- 6. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR JOB SITE SAFETY AND ALL CONSTRUCTION MEANS AND METHODS.
- 7. LIMIT OF WORK SHALL BE DELINEATED BY LOW LINE.
- 8. CONTRACTOR TO VERIFY UTILITY STUB LOCATIONS AND ELEVATIONS IN THE FIELD PRIOR TO
- 9. ANY ALTERATION TO THESE DRAWINGS MADE IN THE FIELD DURING CONSTRUCTION SHALL NOT BE PERFORMED WITHOUT WRITTEN CONSENT FROM ENGINEER. CONTRACTOR SHALL KEEP A RECORD OF ALL CHANGES MADE DURING OCNSTRUCTION.
- 10. ANY AREA OUTSIDE THE LIMIT OF WORK THAT IS DISTURBED SHALL BE RESTORED TO ITS ORIGINAL CONDITION AT NO COST TO OWNER.
- 11. ALL WORK TO BE DONE WITHIN PUBLIC RIGHT-OF-WAYS SHALL CONFORM TO CITY OF WORCESTER LOCAL STANDARD CONSTRUCTION REQUIREMENTS FOR THE INSTALLATION OF AND/OR REPAIR OF UNDERGROUND FACILITIES, EXCAVATIONS AND PAVING IN THE PUBLIC WAY.
- 12. IN THE EVENT THAT SUSPECTED CONTAMINATED SOIL, GROUNDWATER AND OTHER MEDIA ARE ENCOUNTERED DURING EXCAVATION AND CONSTRUCTION ACTIVITIES BASED ON VISUAL, OLFACTORY, OR OTHER EVIDENCE, THE CONTRACTOR SHALL STOP WORK IN THE VICINITY OF THE SUSPECT MATERIAL AND SHALL NOTIFY THE OWNER/ENGINEER IMMEDIATELY SO THAT THE APPROPRIATE TESTING AND SUBSEQUENT ACTION CAN BE TAKEN.
- 13. WRITTEN NOTICE OF FINAL DISPOSITION OF MATERIALS SHALL BE PROVIDED TO THE WORCESTER PLANNING BOARD

E	KISTING SYMBOL LEGEND
Ë	ACCESSIBLE PARKING PAVEMENT MARKING
	SIGN
CW	CONCRETE WALL
CC	CONCRETE CURB
CCB	CAPE COD BERM
VGC	VERTICAL GRANITE CURB
· · · · · · · · · · · · · · · · · · ·	REINFORCED CONCRETE SIDEWALK
	PEASTONE
	VARIOUS TREES
— — -99 — —	MINOR CONTOUR
-100	MAJOR CONTOUR
	PROPERTY LINE
	RIGHT OF WAY
	EASEMENT
	TREELINE
SD	STORM DRAIN LINE
——— UGE ———	UNDER GROUND ELECTRIC
	WATER LINE
GAS	GAS LINE
т	TELEPHONE LINE
SS	SEWER LINE
OOOOOOOO-	STONE WALL
	CONCRETE WALL
HANDRAIL	HANDRAIL
● 禁 ○□	SITE LIGHTING
(D) (D)	DRAIN MANHOLE
	CATCH BASIN
	FLARED END SECTION
BOOT	FLARED END SECTION w/ RIP RAP
CLEANOUT O	CLEANOUT
①	TELEPHONE MANHOLE
©	CABLE MANHOLE
E	ELECTRIC MANHOLE
ELECT. H.H.	HAND HOLE
WML GLSPL	VARIOUS LIGHTING
M	MANHOLE
<u>S</u>	SEWER MANHOLE
□ ∘ ICV	IRRIGATION CONTROL VALVE
₩Ġ	WATER GATE
ns _o	WATER SHUT OFF
	HYDRANT
PIV ■ PIV	POST INDICATOR VALVE
• PIV	
_	BOLLARD

SEDIMENTATION/EROSION CONTROL NOTES

- UNLESS DIRECTED OTHERWISE, ALL EXISTING TURF OR VEGETATED AREAS WITHIN THE PROPOSED LIMITS OF WORK FOR EXCAVATION, GRADING, OR IMPROVEMENT SHALL BE CLEARED AND GRUBBED. WITHIN THE CLEARING AND GRUBBING AREA, REMOVE ALL TREES, SHRUBS AND ROOTS UNLESS DESIGNATED OTHERWISE. CLEARING SHALL INCLUDE THE FELLING, CUTTING AND OFF-SITE DISPOSAL OF ALL TREES, SHRUBS, STUMPS AND VEGETATIVE DEBRIS PRODUCED THROUGH THE CLEARING OPERATIONS.
- UNLESS OTHERWISE STATED IN THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP), THE FOLLOWING EROSION CONTROL SPECIFICATIONS SHOWN ON SHEET C100 SHALL BE INSTITUTED.
- B. THE LOCATION OF EROSION CONTROL BARRIERS SHOWN ON DRAWINGS ARE INTENDED TO BE MINIMUM REQUIREMENTS AND A GUIDE FOR THE PLACEMENT OF THESE BARRIERS. OTHER MEASURES MAY BE WARRANTED BASED UPON EXPERIENCE AT THE SITE. WHEN NO SEDIMENTATION CONTROL SYSTEM IS SHOWN ON THE DRAWING, THE CONTRACTOR SHALL BE REQUIRED TO ESTABLISH A SYSTEM TO PREVENT SILTATION OR POLLUTION OF ADJACENT PROPERTY. THE SYSTEMS SHOWN SHALL NOT RELIEVE THE CONTRACTOR FROM THE RESPONSIBILITY OF PLACING ADDITIONAL BARRIERS OR REPLACING BARRIERS AS REQUIRED BY SITE CONDITIONS. THE IMPLEMENTATION, MAINTENANCE, REPLACEMENT AND ADDITIONS TO THESE SYSTEMS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. AS CONSTRUCTION PROGRESSES AND SEASONAL CONDITIONS DICTATE, MORE SILTATION CONTROL FACILITIES MAY BE REQUIRED. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ADDRESS NEW CONDITIONS THAT MAY BE CREATED.
- 4. THE CONTRACTOR SHALL REGULARLY INSPECT THE PERIMETER OF THE PROPERTY TO CLEAN UP AND REMOVE LOOSE CONSTRUCTION DEBRIS BEFORE IT LEAVES THE SITE. ALL DEMOLITION DEBRIS SHALL BE PROMPTLY REMOVED FROM THE SITE AND DISPOSED AT A LEGAL DUMP SITE. ALL TRUCKS LEAVING THE SITE SHALL BE COVERED.
- 5. PRIOR TO STARTING ANY OTHER WORK ON THE SITE, THE CONTRACTOR SHALL NOTIFY APPROPRIATE AGENCIES AND SHALL INSTALL EROSION CONTROL MEASURES AS SHOWN ON PLANS AND AS
- IDENTIFIED IN FEDERAL, STATE, AND LOCAL APPROVAL DOCUMENTS PERTAINING TO THIS PROJECT.
 6. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSTITUTE EROSION CONTROL MEASURES ON AN AS NECESSARY BASIS, SUCH THAT EXCESSIVE SOIL EROSION DOES NOT OCCUR. MEASURES

SHALL INCLUDE HAY BALE DIKES AROUND DRAINAGE INLETS, MULCHING, AND PLANTING OF

- 7. AN EROSION CONTROL BARRIER IS TO BE INSTALLED AT THE PROPOSED DOWN GRADIENT TOE OF SLOPE AT ALL LOCATIONS WHERE EARTHWORK IS PROPOSED.
- 8. DURING CONSTRUCTION THE EROSION CONTROL MEASURES SHALL BE INSPECTED ONCE PER WEEK AND WITHIN 24 HOURS OF ANY STORM EVENT GENERATING MORE THAN 1/4" OF RAINFALL. THE EROSION CONTROL MEASURES SHALL BE CLEANED REGULARLY AND ADJUSTED IF NECESSARY, TO ENSURE THAT NO SILT OR DEBRIS LEAVES THE SITE.
- 9. ALL POINTS OF CONSTRUCTION EGRESS OR INGRESS SHALL BE MAINTAINED TO PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADS. ANY SEDIMENT TRACKED ONTO PUBLIC RIGHT-OF-WAYS SHALL BE SWEPT AT THE END OF EACH WORKING DAY.
- 10. EXPOSED SLOPES GREATER THAN 50' IN LENGTH ARE TO HAVE CHECK DAMS, TERRACES AND/OR MULCHING INSTALLED IN ORDER TO REDUCE EROSION AND TO ENHANCE SURFACE STABILIZATION. IF CHECK DAMS ARE USED, THEY SHOULD BE PLACED APPROXIMATELY 50' O/C PARALLEL WITH THE FACE
- 11. UNTIL DRIVEWAYS ARE PAVED, TEMPORARY DIKES ARE TO BE STAKED ACROSS DRIVEWAYS AS REQUIRED TO DIRECT RUNOFF WATER TO CATCH BASINS. SILT SCREENS ARE TO BE INSTALLED AT CATCH BASIN GRATES (SEE DETAIL) AND SUMPS OF BASINS ARE TO BE CLEANED AS NECESSARY TO PREVENT SILT FROM ENTERING THE SUBSURFACE DRAINAGE SYSTEM.
- 12. FILTER FABRIC SHALL BE MIRAFI 140N OR APPROVED EQUAL
- 13. CONTRACTOR SHALL PREVENT DUST, SEDIMENT, AND DEBRIS FROM EXITING THE SITE AND SHALL BE RESPONSIBLE FOR CLEANUP, REPAIRS AND CORRECTIVE ACTION IF SUCH OCCURS. ANY DAMAGE RESULTING FROM CONSTRUCTION LOADS SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO OWNER.
- 14. ANY WATER PUMPED FROM EXCAVATIONS WILL BE CONVEYED BY HOSE TO AN UPLAND AREA AND DISCHARGED INTO HAYBALE CORRALS OR SEDIMENTATION BAGS
- 15. ALL AREAS DISTURBED DURING CONSTRUCTION AND NOT SPECIFIED FOR PAVEMENT OR NOT LEFT IN A NATURAL CONDITION SHALL RECEIVE SIX (6) INCHES OF LOAM AND SEED.
- 16. AREAS NOT DISTURBED BY CONSTRUCTION SHALL BE LEFT NATURAL. CARE SHALL BE TAKEN TO PRESERVE EXISTING TREES. GROUND COVER AND OTHER NATURAL FEATURES WHENEVER POSSIBLE.
- 17. AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL STATE AT THE CONTRACTOR'S EXPENSE.
- 18. CONTRACTOR SHALL CONTROL STORMWATER RUNOFF DURING CONSTRUCTION TO PREVENT ADVERSE IMPACTS TO OFF SITE AREAS, AND SHALL BE RESPONSIBLE TO REPAIR RESULTING DAMAGES, IF ANY, AT NO COST TO OWNER.
- 19. ALL STOCKPILE AREAS SHALL BE LOCATED WITHIN LIMIT OF WORK LINE AND STABILIZED TO PREVENT EROSION. REFER TO STORMWATER POLLUTION PREVENTION PLAN FOR STABILIZATION REQUIREMENTS.
- 20. ALL DEBRIS GENERATED DURING SITE PREPARATION ACTIVITIES SHALL BE LEGALLY DISPOSED OF
- 21. SITE ELEMENTS TO REMAIN MUST BE PROTECTED FOR DURATION OF PROJECT.
- 22. ALL TOPSOIL ENCOUNTERED WITHIN WORK AREA SHALL BE STRIPPED TO ITS FULL DEPTH AND STOCKPILED FOR REUSE. EXCESS TOPSOIL SHALL BE DISPOSED OF ON-SITE AS DIRECTED BY OWNER. TOPSOIL PILES SHALL REMAIN SEGREGATED FROM EXCAVATED SUBSURFACE SOIL MATERIALS.
- 23. DUST SHALL BE CONTROLLED BY SPRINKLING OR OTHER APPROVED METHODS AS NECESSARY, OR AS DIRECTED BY THE OWNER OR HIS REPRESENTATIVE.
- 24. EXTREME CARE SHALL BE EXERCISED SO AS TO PREVENT ANY UNSUITABLE MATERIAL FROM ENTERING ENVIRONMENTALLY SENSITIVE OR JURISDICTIONAL RESOURCE AREAS.
- 25. ALL DISTURBED SLOPES EITHER NEWLY CREATED OR EXPOSED PRIOR TO OCTOBER 15 SHALL BE SEEDED OR PROTECTED BY THAT DATE.
- 26. LOAMING AND SEEDING OR MULCHING OF NON-PAVEMENT AREAS SHALL TAKE PLACE AS SOON AS PRACTICABLE.
- 27. ALL SLOPES WITH SURFACE GRADES STEEPER THAN 3:1 AND PRESERVED EXISTING GRADES STEEPER THAN 15% SHALL BE STABILIZED WITH EROSION CONTROL BLANKETS.
 28. STRAW WATTLES, HAYBALES, SILT FENCE OR OTHER SILTATION CONTROLS SHALL BE MAINTAINED IN
- A SATISFACTORY CONDITION UNTIL CONSTRUCTION IS COMPLETED AND THE POTENTIAL FOR ON-SITE EROSION HAS PASSED.
- 29. AT THE END OF CONSTRUCTION, THE CONTRACTOR SHALL REMOVE ALL CONSTRUCTION DEBRIS AND SURPLUS MATERIALS FROM THE SITE. A THOROUGH INSPECTION OF THE WORK PERIMETER IS TO BE MADE AND ALL DISCARDED MATERIALS, BLOWN OR WATER CARRIED DEBRIS, SHALL BE COLLECTED AND REMOVED FROM THE SITE. THE CONTRACTOR SHALL NOT REMOVE ANY SILTATION CONTROLS UNTIL AUTHORIZED (IN WRITING) BY THE OWNER OR OWNER'S REPRESENTATIVE.
- 30. AT THE END OF CONSTRUCTION ALL DRAINAGE STRUCTURES ARE TO BE CLEANED OF SILT, STONES AND OTHER DEBRIS. EROSION CONTROL BARRIERS ARE TO BE REMOVED AND DISPOSED OF IN ACCORDANCE TO LOCAL REQUIREMENTS.

SITE LAYOUT AND MATERIALS NOTES

- CONTRACTOR SHALL REPORT SIGNIFICANT CONFLICTS TO THE OWNER OR OWNER'S REPRESENTATIVE FOR RESOLUTION.
- ACCESSIBLE ROUTES, PARKING SPACES, RAMPS, SIDEWALKS AND WALKWAYS SHALL BE CONSTRUCTED IN CONFORMANCE WITH FEDERAL AMERICANS WITH DISABILITIES ACT AND WITH STATE AND LOCAL LAWS AND REGULATIONS (WHICHEVER ARE MORE STRINGENT).
- 3. TRAFFIC SIGNAGE AND PAVEMENT MARKINGS SHALL CONFORM TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
- 4. CROSSWALKS SHALL BE STRIPED WITH 12" WIDE LINES OF WHITE THERMO PLASTIC SPACED 2' ON CENTER. STOP LINES SHALL BE STRIPED WITH 12" WIDE LINES OF WHITE THERMO PLASTIC. ALL OTHER STRIPING SHALL BE 4" WIDE LINES OF THERMO PLASTIC IN COLORS INDICATED HEREON.
- 5. NEW CURBS SHALL BE PRECAST CONCRETE CURB, CAPE COD BERM OR VERTICAL CONCRETE
- 6. EXISTING CURBS TO REMAIN AS SHOWN HEREON ARE ASSUMED TO BE IN SATISFACTORY CONDITION BUT ARE TO BE PARGED OR REPLACED IN KIND IN LOCATIONS OF DAMAGE.
- 7. INSTALL EXPANSION AND CONTROL JOINTS IN SIDEWALKS AT INTERVALS OF 5 FEET AND 25 FEET, RESPECTIVELY. PROVIDE BROOM FINISH IN TRANSVERSE DIRECTION ON ALL WALKS.
- 8. SIDEWALK WIDTHS INDICATED HEREON ARE MEASURED FROM BACK OF CURB TO BACK OF
- SIDEWALK. 6" WIDTH OF CURBS NOT INCLUDED.
- ALL CURB RADIUS DIMENSIONS SHOWN HEREON ARE MEASURED ALONG FACE OF CURB.
 ALL WORK CONDUCTED WITHIN PUBLIC RIGHT-OF-WAYS SHALL CONFORM TO THE LOCAL

CURB AS SHOWN ON SHEET C200 OR UNLESS OTHERWISE NOTED.

- REQUIREMENTS AND SPECIFICATIONS.

 1. THE FOLLOWING LAYOUT CRITERIA SHALL CONTROL UNLESS OTHERWISE NOTED ON THE PLAN:
 DIMENSIONS FROM BUILDING ARE FROM FACE OF BUILDING.
- DIMENSIONS FROM BUILDING ARE FROM FACE OF BUILDING.
 DIMENSIONS ARE TO FACE OF CURB AT GUTTER LINE.
 DIMENSIONS ARE TO THE CENTER OF PAVEMENT MARKINGS.
- 13. ALL LINES AND DIMENSIONS AND TIES TO PROPERTY LINES ARE PERPENDICULAR TO THE PROPERTY LINE UNLESS OTHERWISE NOTED.
- 14. COORDINATE THE LOCATION OF ALL SITE LIGHT STANDARDS WITH IMPROVEMENTS SHOWN ON THESE DRAWINGS.
- 15. CONTRACTOR SHALL FURNISH AND SET ALL LINES AND GRADES REQUIRED AND PROTECT ALL PERMANENT BENCHMARKS OR MONUMENTS. DAMAGED MONUMENTS SHALL BE REPLACED BY A LICENSED SURVEYOR AT NO COST TO THE OWNER.
- 16. ALL BITUMINOUS CONCRETE PAVING SHALL COMPLY WITH THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, 2020 EDITION AS AMENDED. THE CONTRACTOR SHALL SUBMIT A JOB MIX FORMULA DEMONSTRATING COMPLIANCE WITH THESE SPECIFICATIONS. THE CONTRACTOR SHALL SUPPLY THE ENGINEER WITH A CERTIFICATE OF COMPLIANCE SUPPLIED BY THE PAVING CONTRACTOR.
- 17. BITUMINOUS CONCRETE PAVEMENT: CLASS I, TYPE I-1 CONFORMING TO THE STANDARD SPECIFICATIONS, SECTIONS 420 AND 460, AND M3.11.03 FOR BINDER COURSE AND TOP COURSE JOB MIX FORMULAS.
- 18. ALL CONCRETE WORK SHALL COMPLY WITH ACI301, "SPECIFICATION FOR STRUCTURAL CONCRETE," AND ACI 316R, UNLESS MODIFIED BY THE CONTRACT DOCUMENTS. COMPLY WITH CRSI'S "MANUAL OF STANDARD PRACTICE" FOR FABRICATING, PLACING, AND SUPPORTING REINFORCEMENT. COMPLY WITH ACI 306.1 FOR COLD WEATHER PROTECTION, AND FOLLOW RECOMMENDATIONS IN ACI 350R FOR HOT WEATHER PROTECTION DURING CURING. COMPLY WITH ACI 304 "GUIDE FOR MEASURING, MIXING, TRANSPORTING, AND PLACING CONCRETE."
- 19. SAW-CUT EXISTING PAVEMENT WHERE NEW BITUMINOUS CONCRETE PAVEMENT IS TO COME IN CONTACT. PRIME COAT THE CUT EDGE PRIOR TO PLACEMENT.
- CONTRACTOR(S) SHALL THOROUGHLY FAMILIARIZE THEMSELVES WITH ALL CONSTRUCTION DOCUMENTS, SPECIFICATIONS, AND ALL SITE CONDITIONS PRIOR TO CONSTRUCTION.
- 21. OUT OF FUNCTION OR SCREENED IMAGES REPRESENT EXISTING CONDITIONS. WHERE EXISTING CONDITIONS LIE UNDER OR ARE IMPACTED BY PROPOSED BUILDINGS AND/OR SITE ELEMENTS, THE EXISTING CONDITION WILL BE REMOVED, ABANDONED AND/OR CAPPED OR DEMOLISHED AS REQUIRED.
- 22. PAVEMENT OR BASE MATERIALS SHALL NOT BE PLACED ON A MUDDY OR FROZEN SUBGRADE.

GRADING NOTES

- THE CONTRACTOR SHALL VERIFY EXISTING GRADES IN THE FIELD AND REPORT ANY DISCREPANCIES
 IMMEDIATELY TO THE OWNER OR HIS REPRESENTATIVE.
- 2. ALL STUMPS, PEAT, CONSTRUCTION DEBRIS AND OTHER DELETERIOUS MATERIALS ON THE SITE AT THE TIME OF CONSTRUCTION ARE TO BE REMOVED FROM THE SITE TO AN APPROVED LANDFILL. NO SUCH MATERIALS ARE TO BE BURIED OR OTHERWISE DISPOSED OF ON THE SITE. MATERIAL FOR BACKFILL SHALL NOT INCLUDE UNSUITABLE MATERIAL SUCH AS PEAT, TRASH, STUMPS, DEBRIS OR HAZARDOUS WASTE.
- 3. FILL MATERIAL SHALL BE AS SPECIFIED BY THE ARCHITECT/ENGINEER AND SELECTED FROM ON-SITE EXCAVATION MATERIAL WHERE POSSIBLE.
- 4. AT ALL LOCATIONS WHERE EXISTING CURB OR PAVEMENT ABUTS NEW CONSTRUCTION, THE EDGE OF THE EXISTING CURB OR PAVEMENT SHALL BE SAW CUT TO A CLEAN, SMOOTH EDGE. BLEND NEW PAVEMENT, CURBS AND EARTHWORK SMOOTHLY INTO EXISTING BY MATCHING LINES, GRADES AND JOINTS. PITCH EVENLY BETWEEN SPOT GRADES. GRADE ALL AREAS TO DRAIN.
- 5. CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE AWAY FROM ALL BUILDING FOUNDATIONS, STRUCTURES AND PLANTING BEDS.
- 6. THE CONTRACTOR SHALL SCHEDULE HIS WORK TO ALLOW THE FINISHED SUBGRADE ELEVATIONS TO DRAIN PROPERLY WITHOUT PUDDLING. SPECIFICALLY, ALLOW WATER TO ESCAPE WHERE PROPOSED CURB MAY RETAIN RUNOFF PRIOR TO APPLICATION OF THE FINISH SUBGRADE AND/OR SURFACE PAVING. PROVIDE TEMPORARY POSITIVE DRAINAGE AS REQUIRED.
- 7. PITCH EVENLY BETWEEN SPOT GRADES. GRADE ALL AREAS TO DRAIN. ALL PAVED AREAS MUST PITCH TO DRAIN AT A MINIMUM OF 1/8" PER FOOT UNLESS OTHERWISE SPECIFIED (1/16" PER FOOT MAY BE ALLOWED AT SPECIFICALLY DEFINED DRAINAGE GUTTER LINES). ANY DISCREPANCIES NOT ALLOWING THIS MINIMUM PITCH SHALL BE REPORTED TO THE OWNER OR HIS REPRESENTATIVE BRICK TO CONTINUING WORK.
- 8. ACCESSIBLE CURB RAMPS, RAMP, LANDINGS, WALKWAYS, CROSSWALKS, PATIOS/PLAZAS AND PARKING AREAS SHALL BE PER THE MASSACHUSETTS ARCHITECTURAL ACCESS BOARD (MAAB) AND THE AMERICANS WITH DISABILITIES ACT (ADA) ACCESSIBILITY REQUIREMENTS. WALKWAY AND CROSSWALK ALONG ACCESSIBLE ROUTE(S) SHALL HAVE 5% MAX. LONGITUDINAL SLOPE AND 2% MAX CROSS SLOPE. LANDINGS, PATIOS/PLAZAS, AND ACCESSIBLE PARKING SPACES SHALL BE 2% MAX IN ALL DIRECTIONS. RAMPS SHALL BE 1:12 MAXIMUM.
- A GEOTECHNICAL ENGINEER MAY BE RETAINED BY THE OWNER TO OBSERVE PERFORMANCE OF WORK, FOR CONFORMANCE WITH THESE CONTRACT DOCUMENTS, IN CONNECTION WITH EXCAVATING, TRENCHING, FILLING, BACKFILLING AND GRADING, AND TO PERFORM ASSOCIATED FIELD TESTS.
- 10. DURING THE PROGRESS OF THE WORK, THE CONTRACTOR MAY BE REQUIRED TO EXCAVATE ADDITIONAL TEST PITS FOR THE PURPOSE OF LOCATING UNDERGROUND UTILITIES OR STRUCTURES AS AN AID IN ESTABLISHING THE PRECISE LOCATION OF NEW WORK. THIS WORK IS TO BE PERFORMED AT NO ADDITIONAL COST TO THE OWNER. TEST PITS SHALL BE BACKFILLED, AS SOON AS THE DESIRED INFORMATION HAS BEEN OBTAINED.
- 11. PROTECT STRUCTURES, UTILITIES, SIDEWALKS, PAVEMENTS AND OTHER FACILITIES FROM DAMAGE CAUSED BY SETTLEMENT, LATERAL MOVEMENT, UNDERMINING, WASHOUT AND OTHER HAZARDS CREATED BY CONTRACTOR OPERATIONS.
- 12. EXISTING TREES AND SHRUBS OUTSIDE THE LIMITS OF GRADING SHALL BE REMOVED ONLY UPON PRIOR APPROVAL OF THE OWNER.
- 13. FILL DEPRESSIONS CAUSED BY TEST PITS AND CLEARING AND GRUBBING OPERATIONS WITH SATISFACTORY SOIL MATERIAL UNLESS FURTHER EXCAVATION OR EARTHWORK IS INDICATED.
- 14. THE CONTRACTOR SHALL PREVENT SURFACE WATER AND SUBSURFACE OR GROUNDWATER FROM FLOWING INTO EXCAVATIONS OR EARTHWORK AREAS WHICH WOULD CAUSE FLOODING OF THE PROJECT SITE AND SURROUNDING AREA, OR SOFTENING OR LOOSENING OF THE SOIL AT EXCAVATION OR EARTHWORK SUB-GRADES.
- 15. THE CONTRACTOR SHALL PROVIDE, INSTALL, OPERATE, MAINTAIN AND REMOVE ADEQUATE AND SATISFACTORY DEWATERING SYSTEMS AND DRAINAGE OF EXCAVATIONS TO PERMIT CONSTRUCTION TO PROCEED "IN THE DRY". THE CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY FOR THE ADEQUACY OF THE METHODS, MATERIALS AND EQUIPMENT EMPLOYED. THE CONTRACTOR SHALL BEAR THE FULL COST OF PROVIDING ALL NECESSARY DEWATERING.
- 16. THE CONTRACTOR SHALL PROHIBIT SEEPAGE, GROUNDWATER FLOW OR SURFACE INFILTRATION AND RUNOFF FROM UNDERMINING OR OTHERWISE DAMAGING ADJACENT STRUCTURES AND UTILITIES.
- ESTABLISHMENT OF GRADES, GRADE CONTROL, AND CONFORMANCE TO REQUIRED GRADE TOLERANCES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- 18. PROTECT GRADED, FINISHED OR PAVED AREAS FROM DAMAGE AND KEEP THEM FREE OF TRASH AND DEBRIS RESULTING FROM CONSTRUCTION OPERATIONS. REPAIR AND RE-ESTABLISH GRADES IN SETTLED, ERODED AND RUTTED AREAS.
- 19. PAVEMENT, LAWN OR PLANTING AREAS EXCAVATED DURING UTILITY CONSTRUCTION, WHETHER ON THE SITE OR ADJACENT PROPERTIES, SHALL BE RESTORED AND MATCHED WITH EXACTLY THE SAME MATERIALS AND TOLERANCES AS PRIOR TO DISRUPTION, AT NO ADDITIONAL COST TO THE OWNER, OR ADJACENT PROPERTY OWNERS

CONSTRUCTION NOTES

- THE CONTRACTOR SHALL REPORT TO THE OWNER AND ENGINEER ANY SIGNIFICANT VARIATIONS IN EXISTING SITE CONDITIONS FROM THOSE SHOWN ON THESE PLANS. ANY PROPOSED REVISIONS TO THE WORK, IF REQUIRED BY THESE SITE CONDITIONS, SHALL NOT BE UNDERTAKEN UNTIL REVIEWED AND APPROVED BY THE OWNER AND THE ENGINEER.
- 2. THE CONTRACTOR SHALL NOTIFY THE ENGINEER, WORCESTER DPW AND/OR CONSERVATION COMMISSION AT LEAST 48 HOURS IN ADVANCE OF ANY REQUIRED INSPECTIONS.
- 3. IN ORDER TO PROTECT THE PUBLIC SAFETY DURING CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING AND MAINTAINING AT ALL TIMES ALL NECESSARY SAFETY DEVICES AND PERSONNEL, WARNING LIGHTS, BARRICADES, AND POLICE OFFICERS FOR ALL WORK IN AND NEAR SHREWSBURY ST, CASCO ST, AND ALBANY ST.
- 4. THE CONTRACTOR SHALL REGULARLY INSPECT THE PERIMETER OF THE PROPERTY TO CLEAN UP AND REMOVE LOOSE CONSTRUCTION DEBRIS BEFORE IT LEAVES THE SITE.

5. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSTITUTE EROSION CONTROL

- MEASURES ON AN AS NECESSARY BASIS, SUCH THAT EXCESSIVE SOIL EROSION DOES NOT OCCUR. MEASURES SHALL INCLUDE FILTER SOCK MEMBRANE BARRIERS ALONG THE PERIMETER OF CUTS AND FILLS, MULCHING, AND PLANTING OF DISTURBED AREAS. EROSION CONTROL FEATURES SHALL BE REGULARLY INSPECTED AND ADJUSTED IF NECESSARY.

 6. AT THE END OF CONSTRUCTION THE CONTRACTOR SHALL REMOVE ALL CONSTRUCTION DEBRIS
- AND SURPLUS MATERIALS FROM THE SITE. A THOROUGH INSPECTION OF THE WORK PERIMETER IS TO BE MADE AND ALL DISCARDED MATERIALS AND BLOWN OR WATER CARRIED DEBRIS, SHALL BE COLLECTED AND REMOVED FROM THE SITE. FILTER SOCK BARRIERS ARE TO BE REMOVED.
- AT THE END OF CONSTRUCTION, AFTER ALL DISTURBED AREAS HAVE BEEN STABILIZED, THE CONTRACTOR SHALL CLEAN THE SUMPS OF ALL CATCH BASINS AND THE INVERTS OF ALL DRAIN MANHOLES.
- 8. THE LOCATION OF UNDERGROUND UTILITIES AS REPRESENTED ON THESE PLANS IS BASED UPON PLANS AND INFORMATION PROVIDED BY THE RESPECTIVE UTILITY COMPANIES OR MUNICIPAL DEPARTMENTS SUPPLEMENTED BY FIELD IDENTIFICATION WHEREVER POSSIBLE, OR BY WAY OF DESIGN AND/OR AS-BUILT PLANS OF RECORD. NO WARRANTY IS MADE AS TO THE ACCURACY OF THESE LOCATIONS OR THAT ALL UNDERGROUND UTILITIES ARE SHOWN. THE CONTRACTOR IS TO CONTACT DIG SAFE AT LEAST 72 HOURS PRIOR TO THE START OF CONSTRUCTION. DIG SAFE TELEPHONE NUMBER IS 1-800-322-4844.
- 9. THE CONTRACTOR SHALL VERIFY THE LOCATION, SIZE AND DEPTH OF EXISTING UTILITIES PRIOR TO TAPPING INTO, CROSSING OR EXTENDING THEM. IF THE NEW WORK POSES A CONFLICT WITH EXISTING UTILITIES, THE ENGINEER IS TO BE NOTIFIED PRIOR TO THE CONTRACTOR CONTINUING.
- 10. HDPE (HIGH DENSITY POLYETHYLENE) PIPE SHALL BE ADS N-12 OR APPROVED EQUIVALENT. SEWER PIPE SHALL SDR 35 WITH RUBBER RING JOINTS.
- 11. NO LEDGE, BOULDERS, OR OTHER UNYIELDING MATERIALS SHALL BE LEFT WITHIN 6" OF THE WATER AND SEWER IN THE TRENCH, NOR ARE THEY TO BE USED FOR BACKFILL FOR THE FIRST 12" ABOVE THE PIPES.
- THE WORCESTER FIRE CHIEF.

 13. MATERIAL FOR BACKFILL SHALL NOT INCLUDE UNSUITABLE MATERIAL SUCH AS PEAT, TRASH,

12. HYDRANTS AND MINIMUM SIZING OF WATER PIPES SHALL BE SUBJECT TO THE APPROVAL OF

- STUMPS, DEBRIS OR HAZARDOUS WASTE.

 14. ALL MATERIALS FOR INSTALLATION OF WATER, SEWER, DRAIN, GAS, DATA/TELECOM. AND ELECTRICITY SHALL BE IN ACCORDANCE WITH LOCAL STATE AND UTILITY COMPANY
- 15. CITY OF WORCESTER WATER AND FIRE DEPARTMENTS SHALL BE NOTIFIED PRIOR TO THE START OF ANY WORK ON THE WATER SYSTEM.

STANDARDS AND REGULATIONS AS THEY APPLY.

- 16. CITY OF WORCESTER DEPARTMENT OF PUBLIC WORKS SHALL BE NOTIFIED PRIOR TO THE START OF ANY WORK ON THE SANITARY SEWER SYSTEM.
- 17. ALL STUMPS, PEAT, CONSTRUCTION DEBRIS AND OTHER DELETERIOUS MATERIALS ON THE SITE AT THE TIME OF CONSTRUCTION ARE TO BE REMOVED FROM THE SITE TO AN APPROVED LANDFILL. NO SUCH MATERIALS ARE TO BE BURIED OR OTHERWISE DISPOSED OF ON THE SITE.

UTILITY NOTES

OTHERWISE NOTED.

- 1. THE LOCATION OF UNDERGROUND UTILITIES AS REPRESENTED ON THESE PLANS IS BASED UPON EXISTING CONDITIONS PLANS AND POTENTIALLY INFORMATION PROVIDED BY THE LOCAL MUNICIPALITIES. ADDITIONAL INFORMATION MAY BE SUPPLEMENTED BY FIELD INVESTIGATIONS WHEREVER POSSIBLE. NO WARRANTY IS MADE AS TO THE ACCURACY OF THESE LOCATIONS OR THAT ALL UNDERGROUND UTILITIES ARE SHOWN. THE CONTRACTOR SHALL CONTACT DIG SAFE AT LEAST 72 HOURS PRIOR TO THE START OF CONSTRUCTION. DIG SAFE TELEPHONE NUMBER IS
- UNDERGROUND UTILITIES WERE COMPILED FROM AVAILABLE RECORD PLANS OF UTILITY COMPANIES AND PUBLIC AGENCIES AND ARE APPROXIMATE AND ASSUMED.
- 3. ALL PVC SANITARY SEWER PIPE SHALL BE SDR 35 WITH RUBBER RING JOINTS UNLESS
- REFER TO PLUMBING PLANS FOR EXACT SIZE AND LOCATION OF SANITARY CONNECTIONS.

THE LOCAL MUNICIPAL WATER AND FIRE DEPARTMENTS SHALL BE NOTIFIED PRIOR TO THE START

- OF ANY WORK ON THE WATER SYSTEM.

 6. THE PROPOSED WATER MAINS ARE TO BE CL 52 CLDI. ALL FITTINGS, HYDRANTS, VALVES, ETC.,
- USED ON THE SITE ARE TO BE IN ACCORDANCE WITH THE LOCAL MUNICIPAL WATER DEPARTMENT SPECIFICATIONS.

HYDRANTS AND MINIMUM SIZING OF WATER PIPES SHALL BE SUBJECT TO THE APPROVAL OF THE

THE CONTRACTOR SHALL NOTIFY THE LOCAL MUNICIPAL DEPARTMENT OF PUBLIC WORKS AT

EXISTING UTILITIES, THE ENGINEER IS TO BE NOTIFIED PRIOR TO THE CONTRACTOR CONTINUING.

- CITY OF WORCESTER FIRE CHIEF. HYDRANTS ARE TO CONFORM TO THE CITY OF WORCESTER STANDARD SPECIFICATIONS.
- 9. UNDERGROUND INFRASTRUCTURE LOCATED IN THE PUBLIC WAY SHALL BE SUBJECT TO THE

LEAST 48 HOURS IN ADVANCE OF ANY REQUIRED INSPECTIONS.

- APPROVAL OF THE LOCAL MUNICIPAL DEPARTMENT OF PUBLIC WORKS.

 10. NO LEDGE, BOULDERS, OR OTHER UNYIELDING MATERIALS SHALL BE LEFT WITHIN 6" OF THE WATER AND SEWER IN THE TRENCH, NOR ARE THEY TO BE USED FOR BACKFILL FOR THE FIRST
- 11. THE CONTRACTOR SHALL VERIFY THE LOCATION, SIZE AND DEPTH OF EXISTING UTILITIES PRIOR TO TAPPING INTO, CROSSING OR EXTENDING THEM. IF THE NEW WORK POSES A CONFLICT WITH
- 12. EXCAVATION SHALL BE TO THE LINES AND ELEVATIONS AS SHOWN ON THE PLANS.
- 13. ALL MATERIALS FOR INSTALLATION OF WATER, SEWER, DRAIN, GAS, DATA/TELECOM. AND ELECTRICITY SHALL BE IN ACCORDANCE WITH LOCAL STATE AND UTILITY COMPANY STANDARDS AND REGULATIONS AS THEY APPLY.
- 14. ALL BENDS, TEES, VALVES, AND HYDRANTS ARE TO BE SECURED BY MEANS OF THREADED TIE RODS.
- 15. UNLESS OTHERWISE NOTED, ALL UTILITY TRENCHES ARE TO BE BACKFILLED WITH BANK RUN GRAVEL. NO STONES GREATER THAN 3" IN DIAMETER ARE TO BE USED WITHIN 12" OF THE PIPES. THE TRENCHES, WHEN UNDER PROPOSED PAVED AREAS, ARE TO BE MECHANICALLY COMPACTED IN 12" LIFTS.
- 16. THE SITE CONTRACTOR IS TO INSTALL A GAS SERVICE IN THE APPROXIMATE LOCATION SHOWN ON THE MEP PLANS. THE SIZE AND EXACT LOCATION OF THE SERVICE IS TO BE DETERMINED AND COORDINATED WITH THE PLUMBING PLANS.
- 17. THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE AND ANY OTHER PRIVATE UTILITIES BY THE UTILITY COMPANIES, AS REQUIRED. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED TO THE OWNER AND ARCHITECT FOR RESOLUTION.
- 18. ALL UTILITY COVERS, GRATES, ETC. SHALL BE ADJUSTED TO BE FLUSH WITH THE PAVEMENT FINISH GRADE UNLESS OTHERWISE NOTED. RIM ELEVATIONS OF DRAINAGE STRUCTURES AND MANHOLES ARE APPROXIMATE.
- 19. CONTRACTOR SHALL PROTECT ALL UNDERGROUND DRAINAGE, SEWER AND UTILITY FACILITIES FROM EXCESSIVE VEHICULAR LOADS DURING CONSTRUCTION. ANY DAMAGE TO THESE FACILITIES RESULTING FROM CONSTRUCTION LOADS WILL BE RESTORED TO ORIGINAL CONDITION AT NO COST TO OWNER. NO EXCAVATION SHALL BE DONE UNTIL UTILITY COMPANIES ARE PROPERLY NOTIFIED IN ADVANCE.
- 20. EXCAVATION REQUIRED WITHIN THE PROXIMITY OF EXISTING UTILITY LINES SHALL BE DONE BY HAND. CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING UTILITY LINES OR STRUCTURES INCURRED DURING CONSTRUCTION OPERATIONS AT NO COST TO THE OWNER.
- DRAINAGE STRUCTURES AS NECESSARY FOR CHANGES IN GRADE, AND RESET ALL WATER AND DRAINAGE FRAMES, GRATES AND BOXES TO THE PROPOSED FINISH SURFACE GRADE.

 22. PROVIDE UNDERGROUND ELECTRIC CONDUIT FOR SITE LIGHTS AS APPROPRIATE. REFER TO MEP

. THE CONTRACTOR SHALL ALTER THE MASONRY OF THE TOP SECTION OF ALL EXISTING

23. ENSURE ALL EXISTING (TO REMAIN) AND PROPOSED MANHOLE COVERS PROPERLY IDENTIFY UTILITY SERVED.

24. UNLESS OTHERWISE INDICATED, ABANDONED EXISTING UTILITY LINES SHALL BE CAPPED AND

- ABANDONED IN PLACE UNLESS THEY CONFLICT WITH PROPOSED IMPROVEMENTS. CAP REMAINING PORTIONS WHERE PARTIALLY REMOVED.
- 25. REFER TO ELECTRICAL DRAWINGS FOR ALL SITE ELECTRICAL WORK.
 26. THE CONTRACTOR SHALL COLLECT AND DISPOSE OF WATER FROM ALL SYSTEMS IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL CODES, ORDINANCES AND REGULATIONS AND OBTAIN ALL NECESSARY PERMITS.

DRAINAGE NOTES

- ALL STORM DRAIN SHALL HIGH DENSITY POLYETHYLENE (HDPE) PIPE UNLESS OTHERWISE NOTED. INSTALLATION OF ALL DRAINAGE STRUCTURES SHALL CONFORM TO MANUFACTURER'S RECOMMENDATION
- 2. MANHOLES SHALL BE 48-INCH DIAMETER (UNLESS OTHERWISE SPECIFIED). CAST-IN-PLACE BASES SHALL BE USED WHERE MANHOLES ARE CONSTRUCTED OVER EXISTING PIPES.
- 3. FRAMES AND COVERS FOR DRAINAGE STRUCTURES SHALL PROVIDE 24-INCH MINIMUM DRAINAGE STRUCTURE COVERS SHALL HAVE THE WORD "DRAIN" CENTERED ON THE COVERS IN 3-INCH HIGH
- 4. SINGLE AND DOUBLE CATCH BASIN FRAMES AND GRATES SHALL BE BY EAST JORDAN IRON WORKS AND SHALL CONFORM TO THE STANDARDS OF THE CITY OF WORCESTER DPW.
- WITH BRICK MASONRY.

 6. PRE-CAST CONCRETE STRUCTURES INCLUDING TANKS, BARREL SECTIONS, CATCH BASINS AND BASES SHALL CONFORM TO ASTM C478 AND AASHTO HS20-44. PLACEMENT SHALL BE IN

JOINTS, SEALS, OPENINGS, ETC. MUST BE WATERTIGHT.

FRAMES, GRATES AND COVERS SHALL BE SET FIRM AND TRUE TO GRADE, ADJUST FOR GRADE

ACCORDANCE WITH MANUFACTURER INSTRUCTIONS. ALL PRE-CAST STRUCTURES INCLUDING

- 7. AT THE END OF CONSTRUCTION, AFTER ALL DISTURBED AREAS HAVE BEEN STABILIZED, THE CONTRACTOR SHALL CLEAN THE SUMPS OF ALL CATCH BASINS AND THE INVERTS OF ALL DRAIN
- 8. ALL DRAIN LINES SHOWN SHALL BE MINIMUM 12" DIAMETER (EXCEPT TRENCH DRAINS) UNLESS OTHERWISE REQUIRED BY THE WORCESTER ENGINEERING DEPARTMENT.

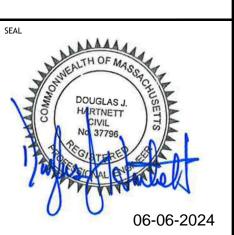


CLIENT:
LUNDGREN EQUITY PARTNERS
163 Washington street

www.HighpointEng.com

NSULTANT:

Auburn, MA 01501



L EXPANSION PROJI

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REV DATE DESCRIPTION

1SSUE DATE: 06/06/2024 PROJECT NUMBER: 24009

DRAWN BY: MJH

HEET TITLE:

SSUE TYPE:

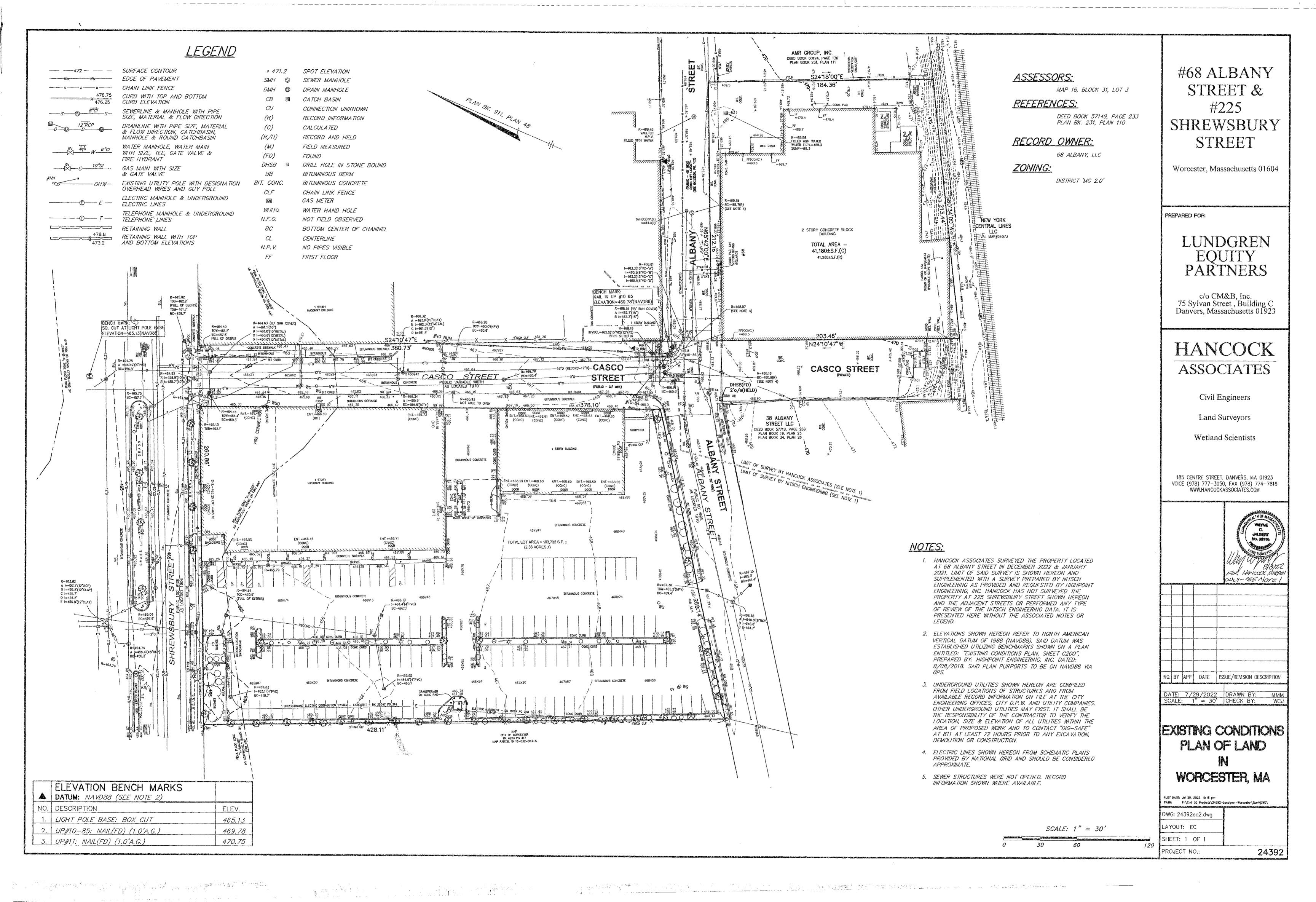
PERMIT

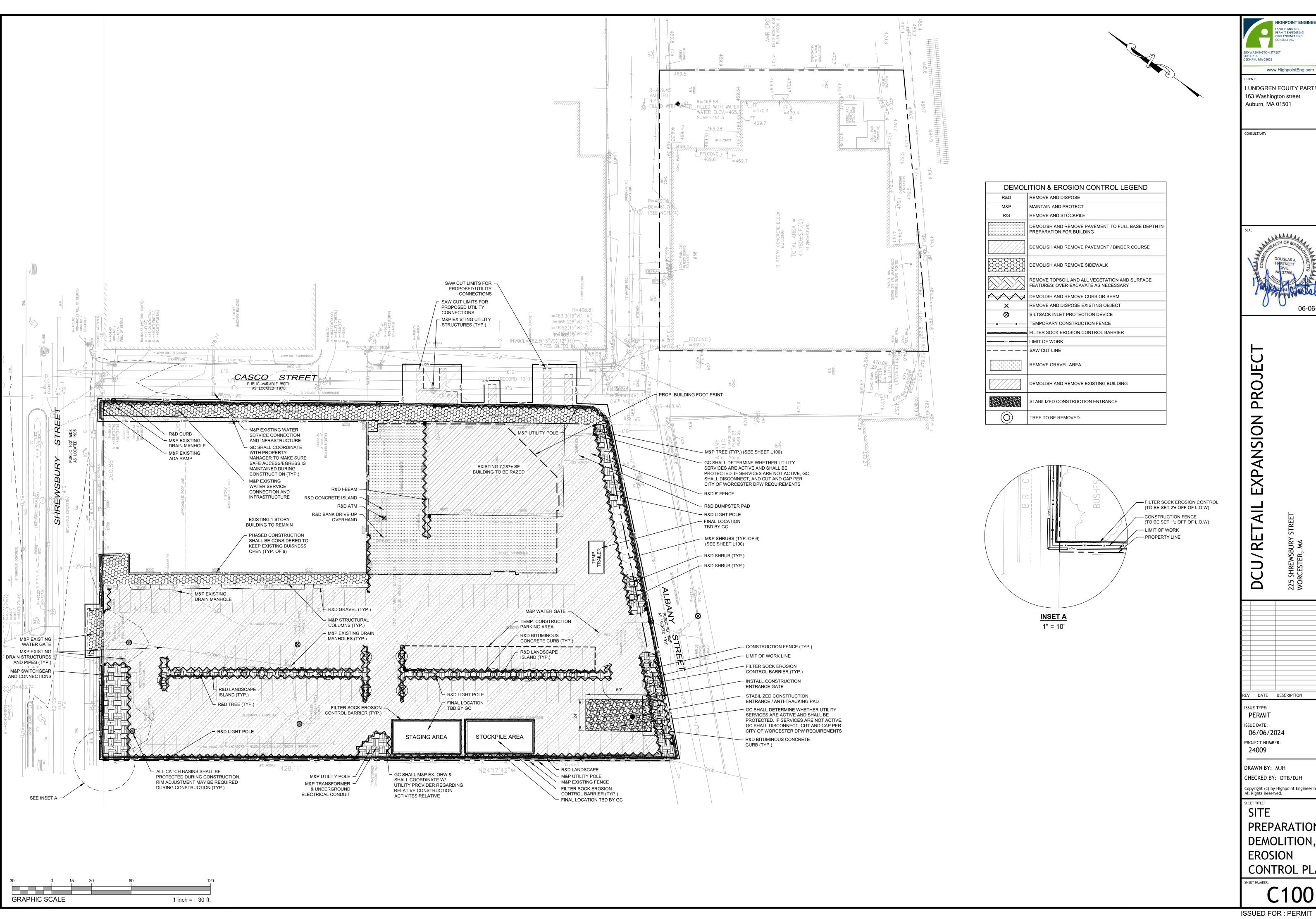
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GENERAL NOTES

SHEET NUMBER:





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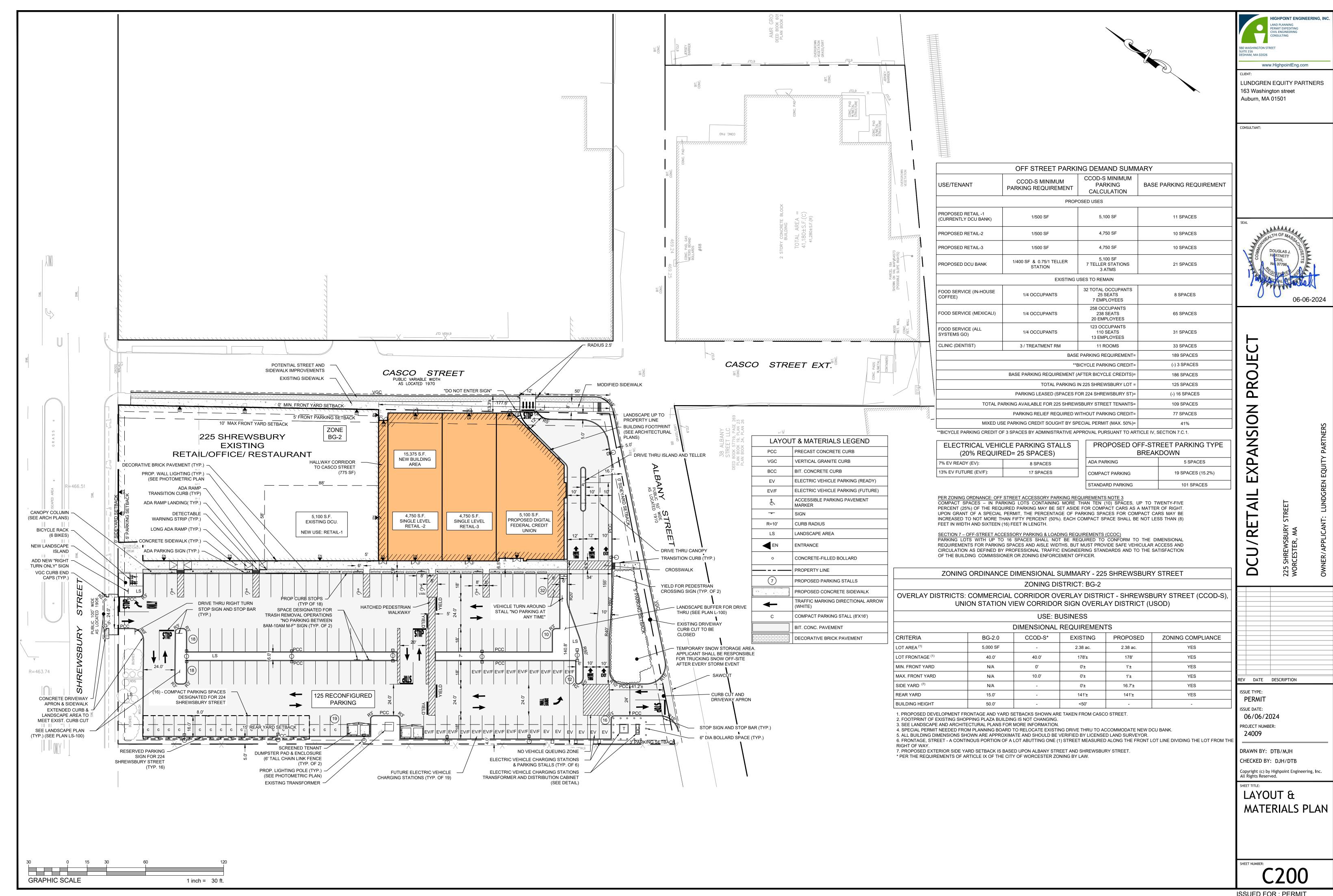
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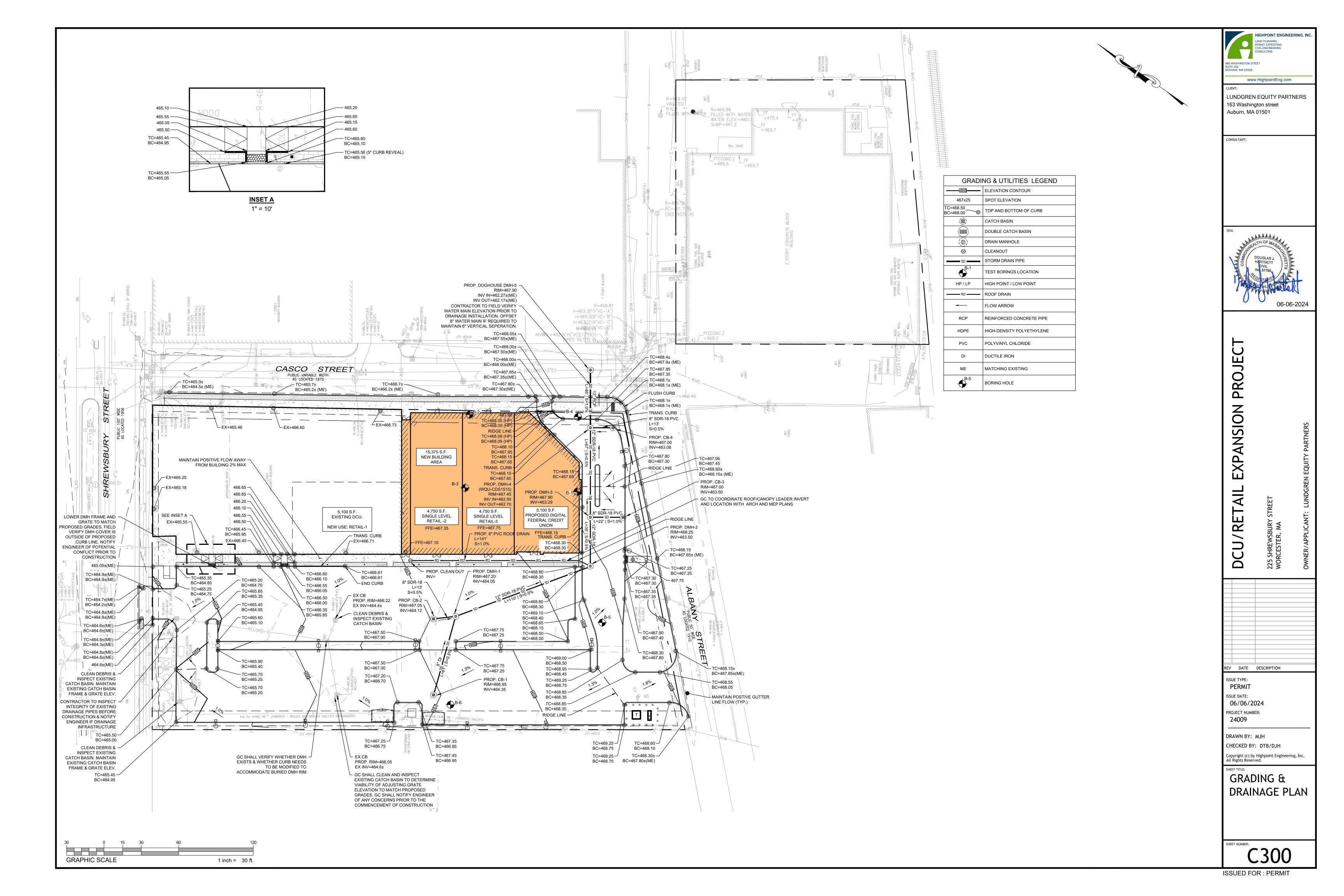
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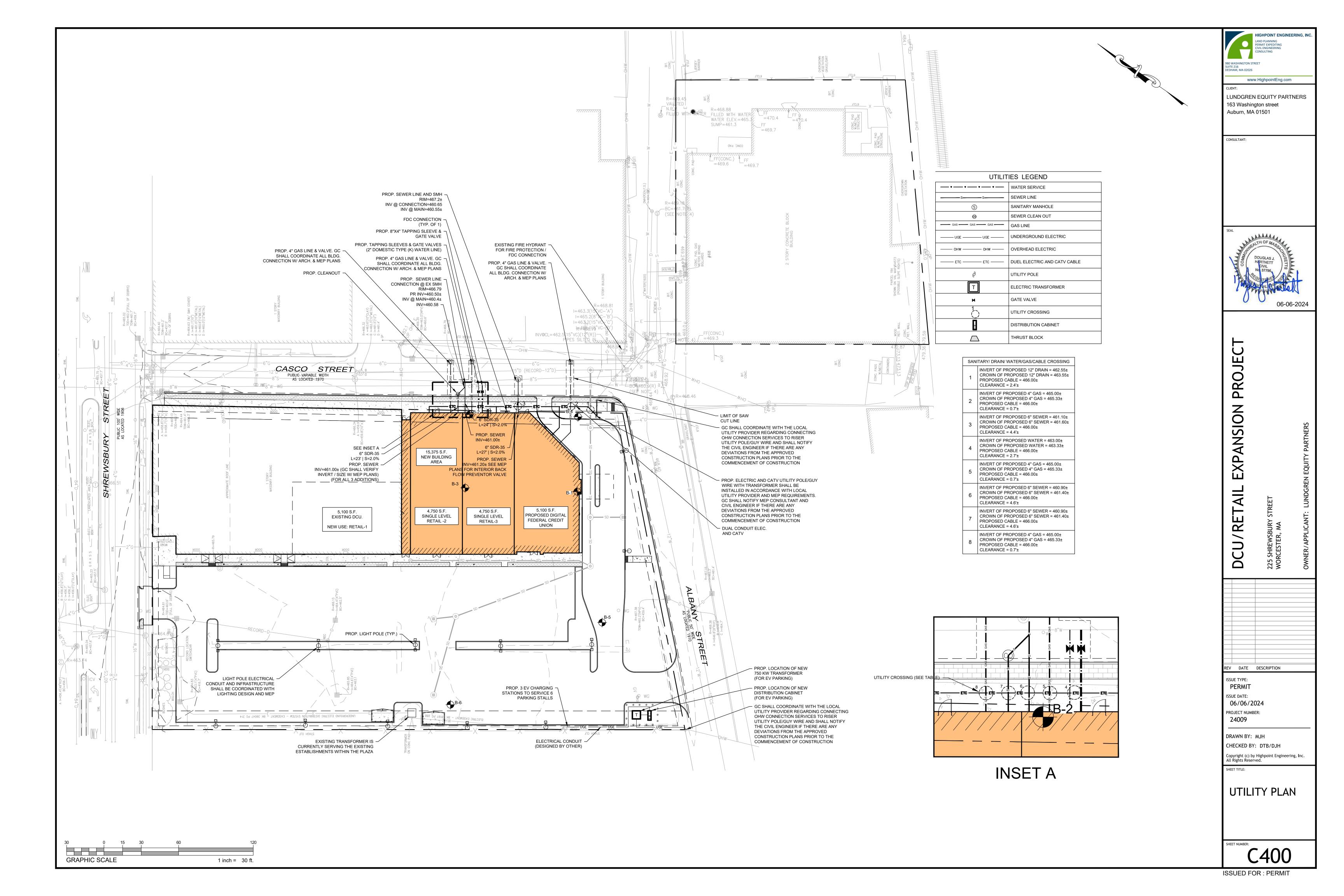
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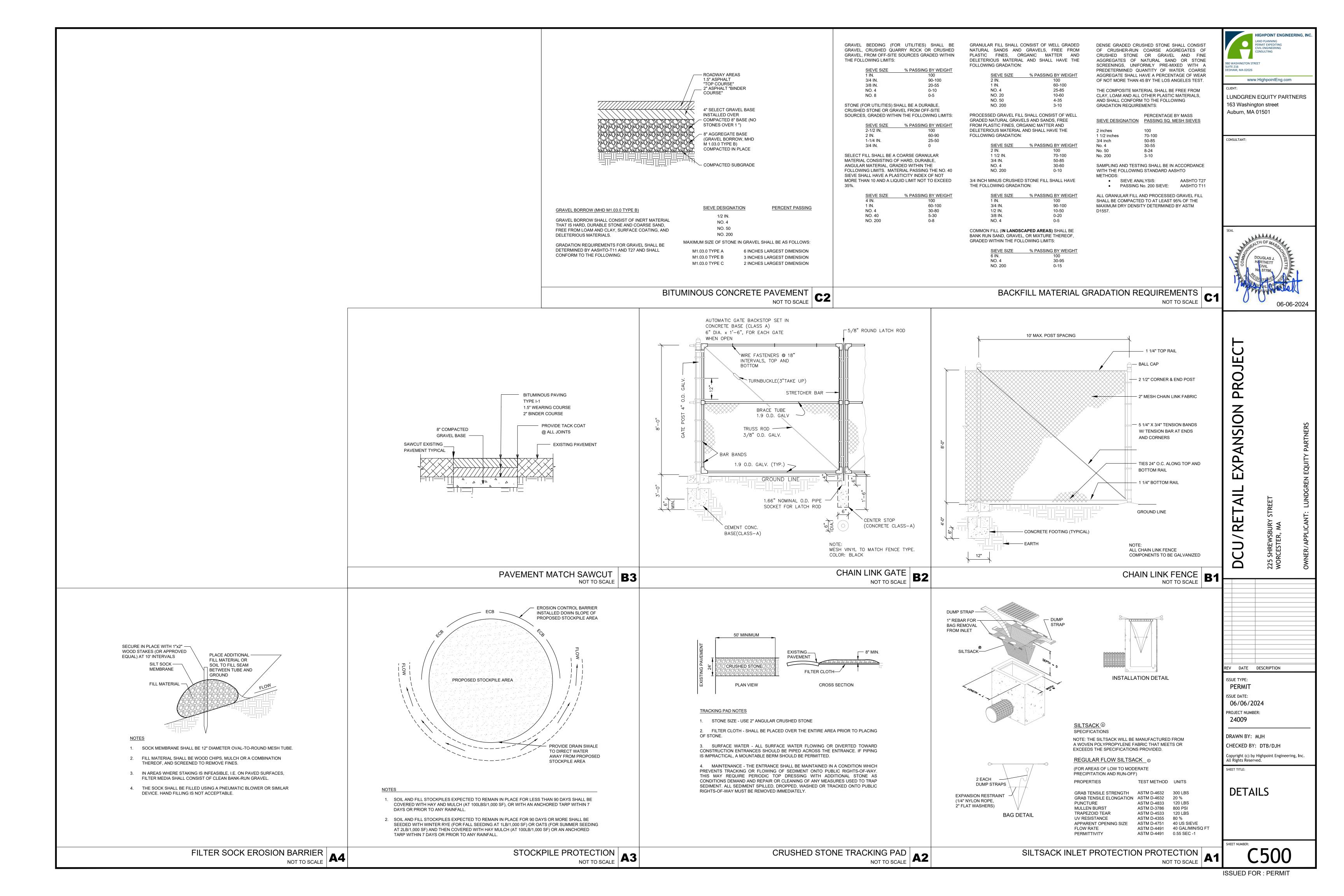
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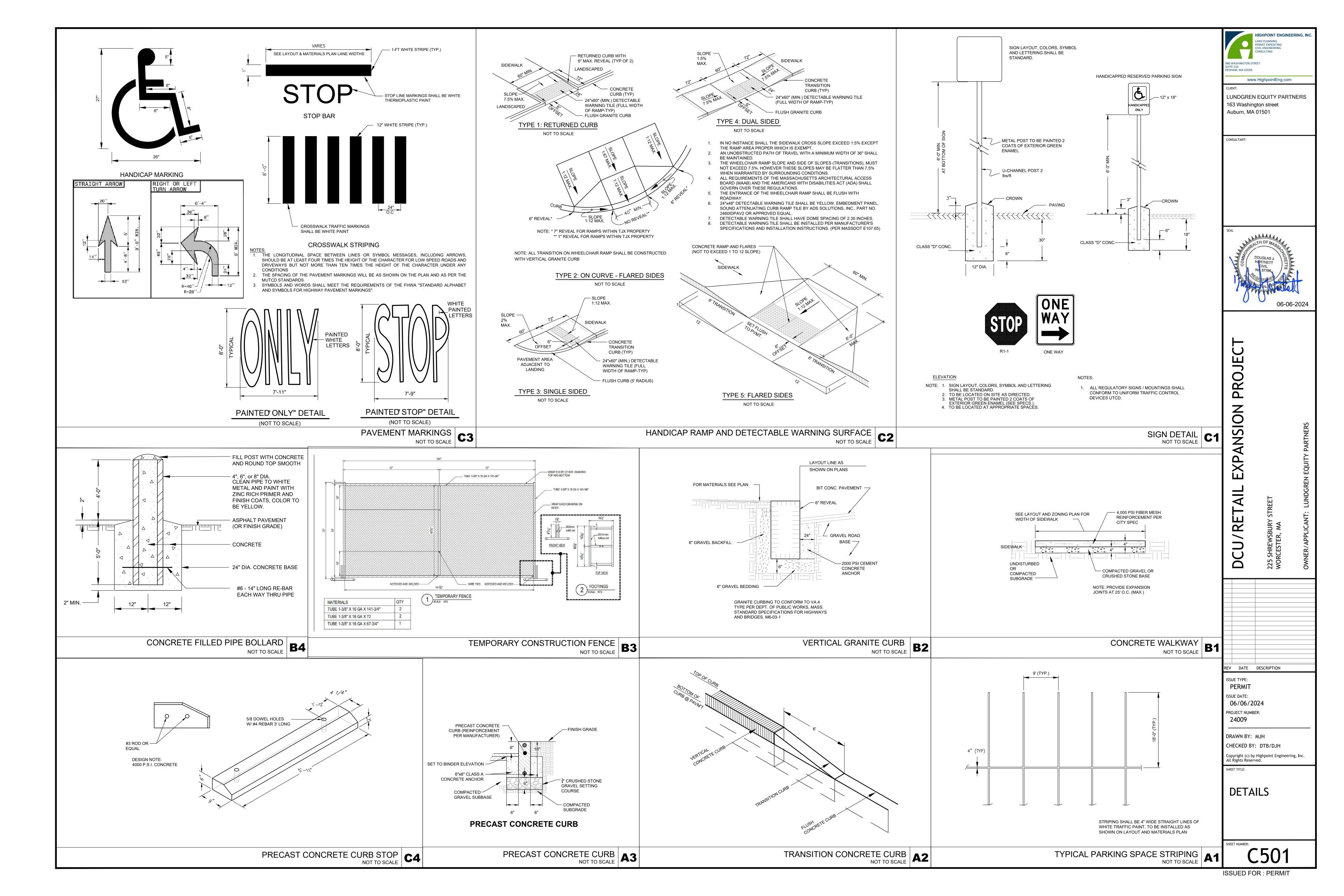
SITE PREPARATION, DEMOLITION, & **EROSION CONTROL PLAN**

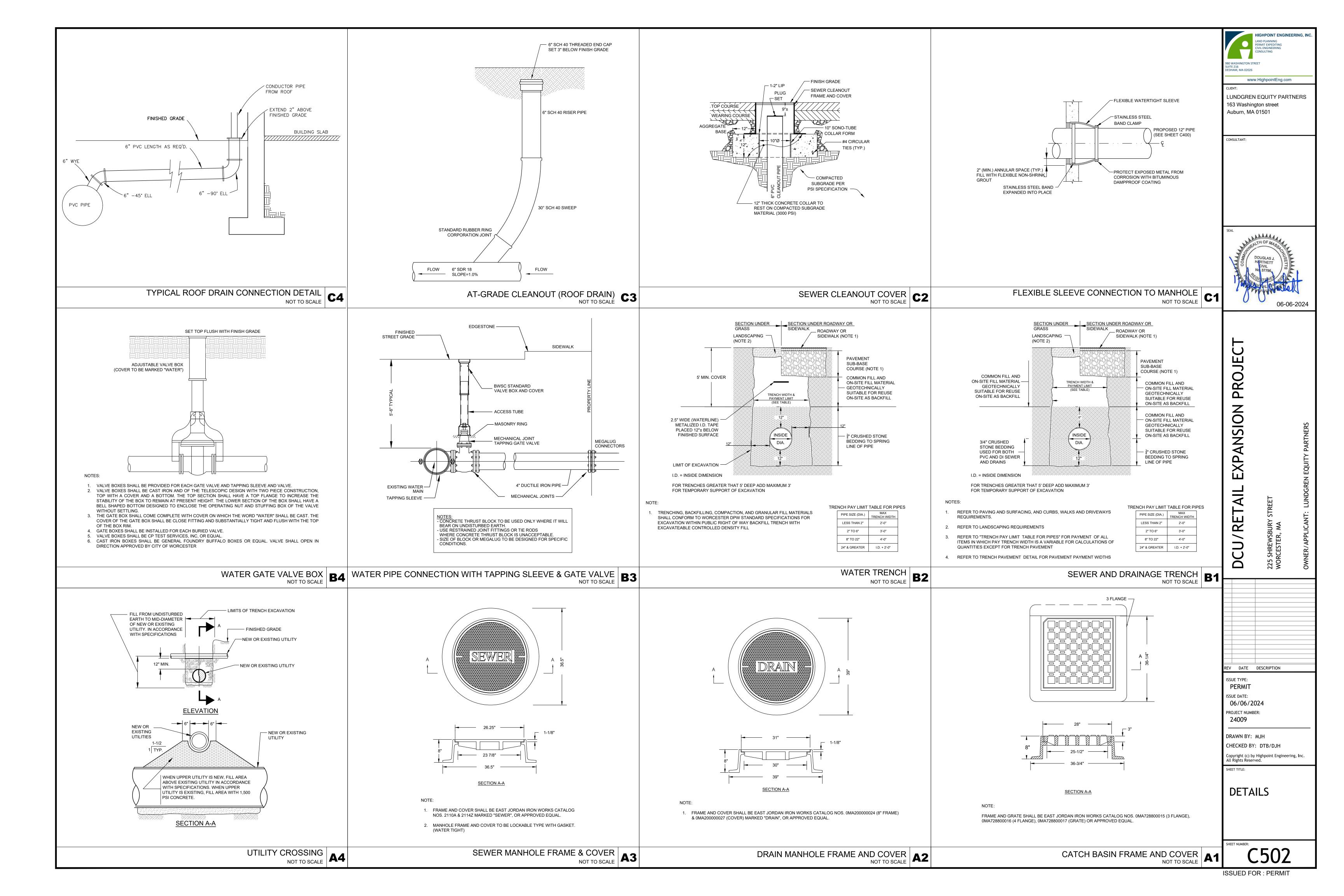


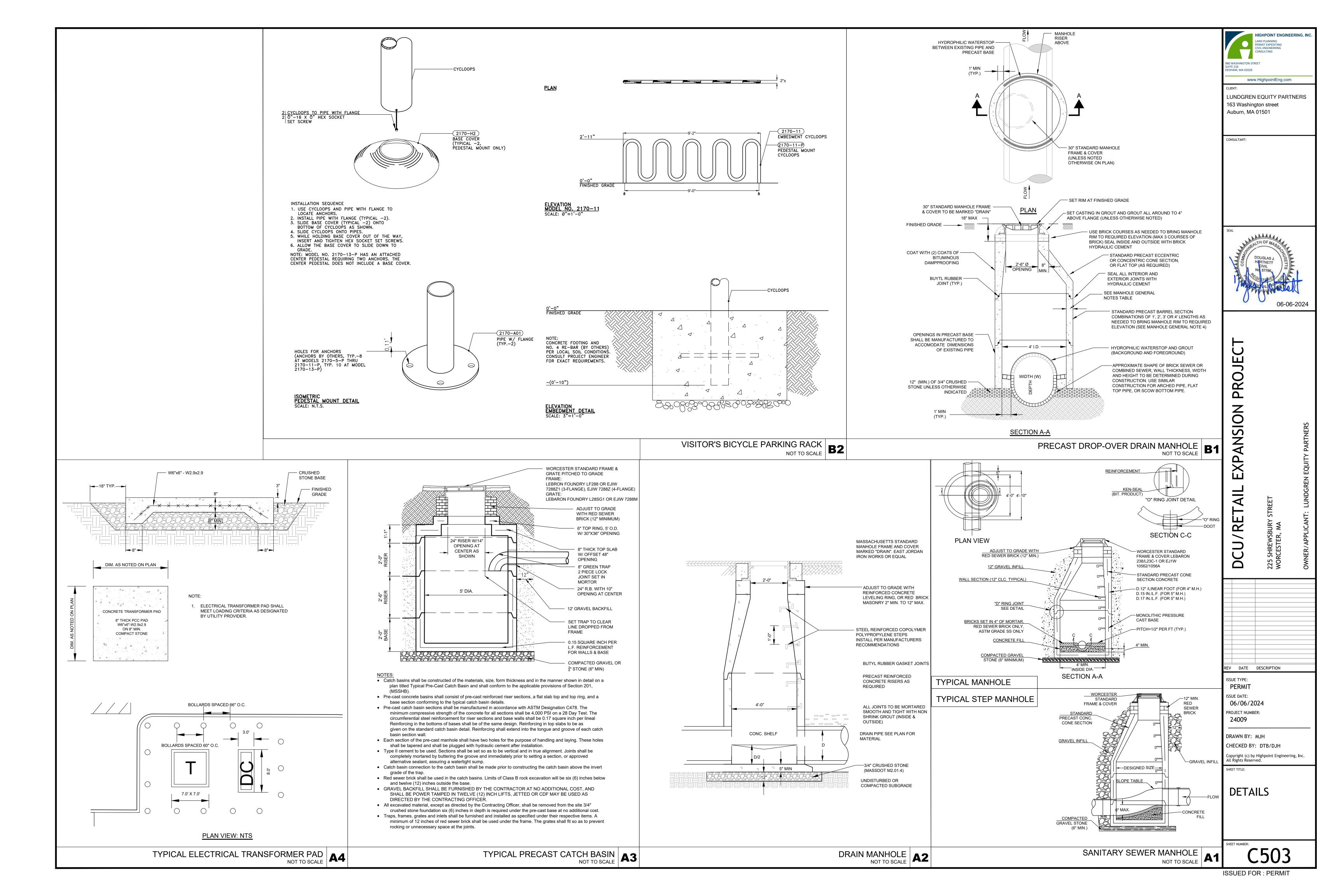


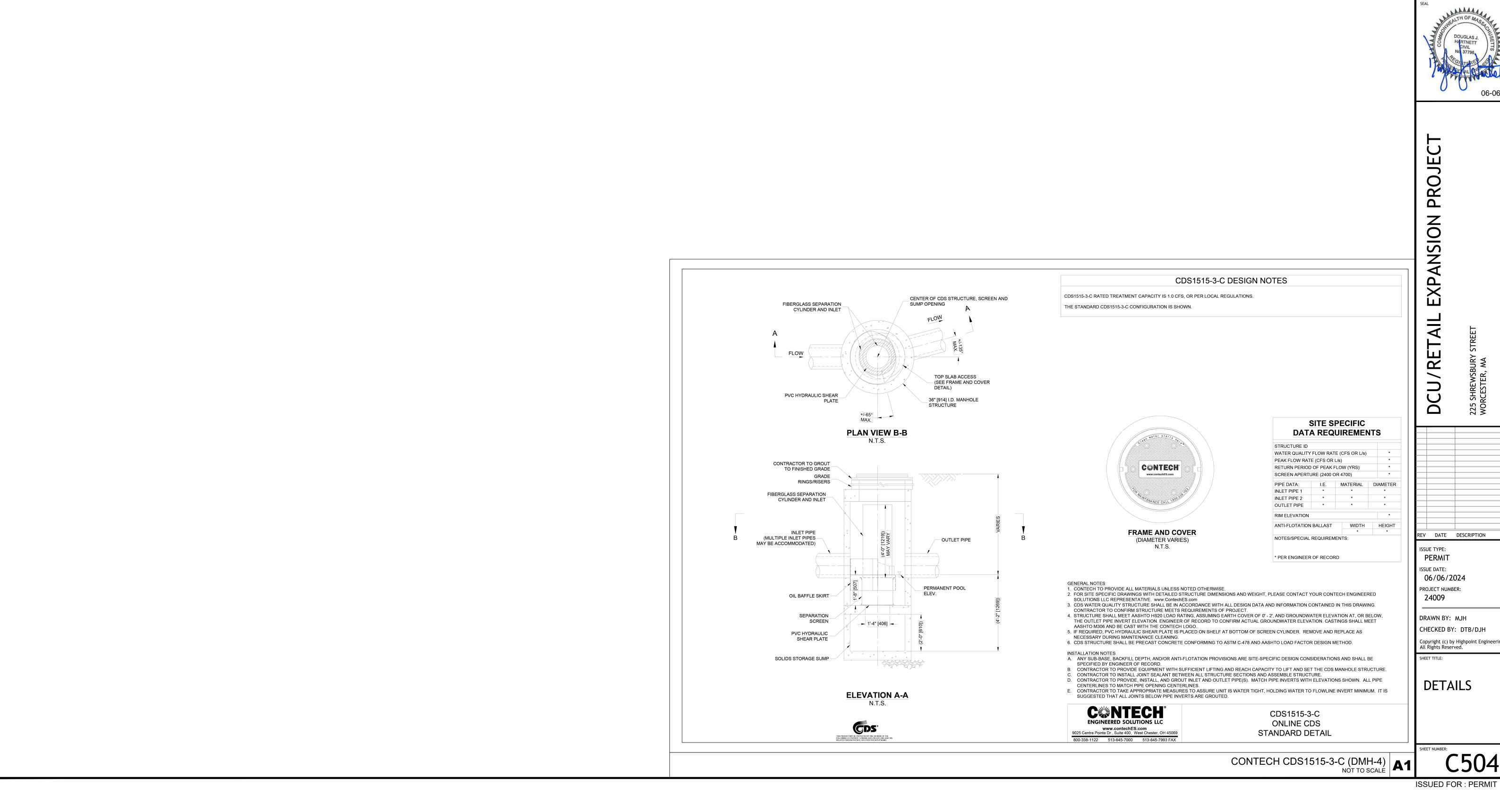










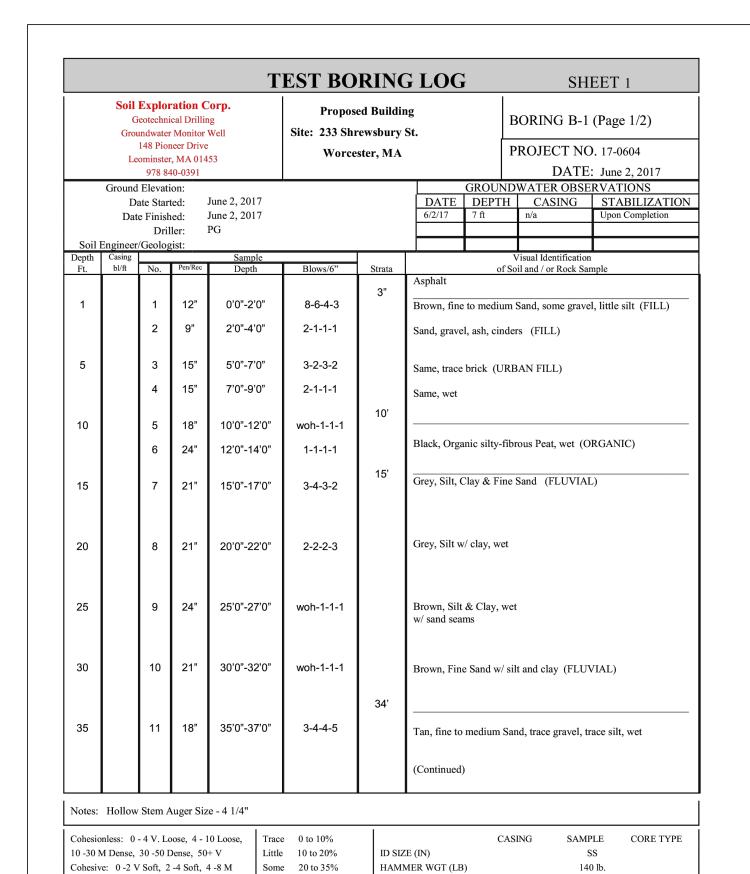


LUNDGREN EQUITY PARTNERS 163 Washington street Auburn, MA 01501

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CONSULTANT:

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8 - 15 Stiff, 15 - 30 V. Stiff, 30 + Hard. And 35% to 50%

	G Grou Le	eotechni indwater 148 Pior ominster 978 84	ration C ical Drilling Monitor Meer Drive c, MA 014	g Well	Proposed Building Site: 233 Shrewsbury St. Worcester, MA				BORING B-1 (Page 2/2) PROJECT NO. 17-0604 DATE: June 2, 2017			
Soil F		ate Start e Finish Dril	ted: ned: ler:	June 2, 2017 June 2, 2017 PG	GROU DATE DEPT 6/2/17 7 ft					ER OBSER ASING	STABILIZATI Upon Completion	ON
epth Ft.	Casing bl/ft	No.	Pen/Rec	Sample	Blows/6"	Strata				dentification or Rock Sam	-1-	
40 45	OHR	12	18"	Depth 40'0"-42'0"	13-18-21-26	Strata	Grey, coars End of borin Water at 7 f	e Sand &	Gravel, li		pic	
50												
55												
60												
65												
70												
75												
79	Hollow	Stem A	Allger Sig	e - 4 1/4"								
ohesion	nless: 0	- 4 V. Lo 30 -50 I	oose, 4 - 1 Dense, 50-	0 Loose, Trace + V Little	10 to 20%	ID SIZE	(IN) ER WGT (LB		ASING	SAMPI SS 140	\$	PE

	G Grou	eotechni indwater 148 Pior ominster	cation C cal Drilling Monitor T neer Drive MA 014 40-0391	ng Well	Site: 233 Shi	sed Building rewsbury S ester, MA		<u> </u>	ORING B-2 ROJECT NO			
Soil I		ate Star e Finish Dril	ted: ned: ler:	June 2, 2017 June 2, 2017 PG			DATE 6/2/17	GROUND DEPTH 5 ft	WATER OBSE CASING n/a			
epth	Casing			Sample	774 /611		ļ		/isual Identification			
1 1	bl/ft	No. 1 2	15" 6"	Depth 0'0"-2'0" 2'0"-4'0"	3-4-4-3 2-1-1-2		Asphalt Sand, silt, g	ravel, ash, ci	il and / or Rock Sa	mple		
5		3 4	9" 6"	5'0"-7'0" 7'0"-9'0"	2-1-1-1 1-1-2-2		Same, trace	brick, rubble	e, wet			
10		5 6	15" 18"	10'0"-12'0" 12'0"-14'0"	1-1-1-1 1-1-1-2	10'	Black, Organic, silty-fibrous Peat (ORGANIC) Dark Brown, Organic Silt w/ fibers, wet (ORGANIC) Grey, Silt, Clay & Fine Sand, wet (FLUVIAL)					
15		7 8	21" 24"	15'0"-17'0" 17'0"-19'0"	woh-1-1-2 2-1-1-1							
20		9	21"	20'0"-22'0"	1-1-1-2	20'						
25		10	21"	25'0"-27'0"	woh-1-1-1							
30		11	21"	30'0"-32'0"	woh-1-1-2		Brown, Silt	& Clay w/ f	ine sand, wet			
35		12	24"	35'0"-37'0"	1-2-2-1		Tan, Silt, w	et (FLUVIA	Ź	ontinued)		
lotes:	Hollow	Stem A	Auger Siz	e - 4 1/4"								
0 -30 N	I Dense,	30 -50 I	oose, 4 - 1 Dense, 50 -4 Soft, 4	+ V Little	e 10 to 20%	ID SIZE	(IN) ER WGT (LB	CAS	1	PLE CORE TYPE SS 0 lb.		

		ominste	neer Drive r, MA 014 40-0391		Worce	ester, MA	PROJECT NO. 17-0604 DATE: June 2, 2017
Soil 1	Dat Engineer	ate Star e Finish Drii	ted: ned: ller:	June 2, 2017 June 2, 2017 PG			GROUNDWATER OBSERVATIONS DATE DEPTH CASING STABILIZATIO OUTDITIONS TO STABILIZATIO
Depth Ft.	Casing bl/ft	No.	Pen/Rec	Sample Depth	Blows/6"	Strata	Visual Identification of Soil and / or Rock Sample
40		13	21"	40'0"-42'0"	woh-1-1-1		Tan, Silt & Clay wet w/ sand seams
45		14	24"	45'0"-47'0"	1-1-1-1		(FLUVIAL)
50		15	18"	50'0"-52'0"	woh-1-1-2	53'	Brown, Silt, Clay & Fine Sand
55		16	21"	55'0"-57'0"	6-8-8-9		Tan, fine to medium Sand, trace gravel, trace silt (SAND) End of boring 57 ft
60							Water at 6 ft upon completion
65							
70							
75							
79		<u> </u>		ze - 4 1/4"			

			EST BO	RING	LOG		S	HEET 5		
	oil Exploratio Geotechnical Di Groundwater Mon	rilling	Propos Site: 233 Shi	ed Building			BORING B-3 (Page 1/2)			
	148 Pioneer D Leominster, MA 978 840-039	rive 01453	Worcester, MA				PROJECT N			
Gro	ound Elevation:	, i			1	GROIT	NDWATER OB	E: June 6, 2017 SERVATIONS		
Gre	Date Started:	June 6, 2017			DATE	DEPT				
	Date Finished:	June 6, 2017			6/6/17	6 ft	n/a			
Soil Engi	Driller: neer/Geologist:	TF								
epth Cas	ing	Sample					Visual Identificat			
Ft. bl/	ft No. Pen/I	Rec Depth	Blows/6"	Strata	Asphalt	C	of Soil and / or Rock	Sample		
		410" 010"		3"						
1	1 1	1'0"-3'0"	7-6-7-5		Dark Brown	, loamy,	silty Sand w/ grav	rel (FILL)		
	2	3'0"-5'0"	5-4-6-6	3'	Brown, San	d, ash, gr	ravel, cinders (UI	RBAN FILL)		
5	3	5'0"-7'0"	4-5-5-6		Sand, silt, cl	ay w/ tra	ice wood, brick, oi	rganic		
	4	7'0"-9'0"	3-3-3-4							
				_	Sana, silt, gi	ravei w/	trace wood, brick,	giass (FILL)		
10	5	10'0"-12'0"	1-2-1-2	9'	Plack O	nia Cili				
					Black, Organic Silt Black, Organic Silt, trace fibers, wet (ORGANIC)					
	6	12'0"-14'0"	1-1-1-2							
15	7	15'0"-17'0"	2-3-3-3	15'						
					Grey, Silt &	Clay w/	fine sand (FLUV	/IAL)		
20	8	20'0"-22'0"	1-1-2-2							
		24'0" 26'0"	4422		(FLUVIA	AL)				
25	9	24'0"-26'0"	1-1-2-3							
	10	29'0"-31'0"	woh-1-1-2		Grev. Fine S	Sand w/ s	silt, wet (FLUVI	AL)		
30					J, ~		, (:== +2	,		
35	11	34'0"-36'0"	1-2-1-1		Grey, Silt &	-				
~~					w/ sand sear	ns				
						(Continu	ued)			
						(Conun				
otes: Hol	low Stem Auger	Size - 4 1/4"	1							
ohesionless:	0 - 4 V. Loose,	4 - 10 Loose, Trac	e 0 to 10%			(CASING SA	MPLE CORE TYPE		
	0 - 4 V. Loose, 4 ise, 30 -50 Dense,	· I		ID SIZI	E (IN)	(CASING SA	MPLE CORE TYPE SS		
ohesive: 0	-2 V Soft, 2 -4 So	ft, 4 -8 M Som	e 20 to 35%	HAMM	IER WGT (LB)		140 lb.		

HAMMER FALL (IN)

	G Grou Le	eotechni indwater 148 Pior ominster 978 84	ration (cal Drilling Monitor Drive peer Drive peer MA 014	ng Well	Proposed Building Site: 233 Shrewsbury Street Worcester, MA				PROJE	CCT NO DATE:	(Page 2/2) . 17-0604 June 6, 2017	,
Soil I		ate Start e Finish Dril	ed: ed: ler:	June 6, 2017 June 6, 2017 TF			DATE 6/6/17	GROUN DEPT 6 ft		R OBSEI	RVATIONS STABILIZA	TION
Depth	Casing bl/ft		Pen/Rec	Sample	D1 (C)	G				entification	1	
Ft. 40	ov.tt	No.	24"	Depth 39'0"-41'0"	Blows/6" 1-1-1-1	Strata 44'	Brown, Silt w/ sand lens	& Clay,	Soil and / c		pie	
45		13	20"	44'0"-46'0"	11-11-13-15		Brown, fine	to coarse	Sand, littl	e gravel, tr	race silt, wet	
50		14	14"	49'0"-51'0"	9-10-11-9		Brown, fine to medium Sand, little silt (SAND) Brown, fine to medium Sand, trace/little silt					
55		15	14"	54'0"-56'0"	10-10-13-14							
60		16	16"	59'0"-61'0"	9-12-13-12		Brown, fine End of borin		Sand, son	ne gravel, t	race silt	
65							Water at 6 f	t upon co	mpletion			
70												
75												
	NW Ca			1		1						
0 -30 N	nless: 0 M Dense, re: 0 -2 V	30 -50 I	Dense, 50	+ V Little	e 10 to 20%	ID SIZE	E (IN) IER WGT (LB		ASING	SAMPI SS 140	S	ГҮРЕ

	G Grou Le	eotechni indwater 148 Pior ominster 978 84	cation C cal Drillin Monitor neer Drive MA 014	ng Well	Site: 233 Sh	Proposed Buiding Site: 233 Shrewsbury St. Worcester, MA					. 17-	0604 e 12, 2017
Soil l		ate Star e Finish Dril	ted: ied: ler:	June 12, 2017 June 12, 2017 TF		DATE DEPT 6/12/17 7 ft				ASING	ST	ABILIZATION Completion
Depth Ft.	Casing bl/ft	No.	Pen/Rec	Sample Depth	Blows/6"	Strata		01		lentification or Rock Sam	nole	
1		1 2	8" 6"	1'0"-3'0" 3'0"-5'0"	7-5-6-5 5-4-5-6	4"	Asphalt Sand, cinder	s, ash, gi	ravel	01 110 VII 5 WII		
_							Same w/ rub					
5		3	8"	5'0"-7'0"	4-4-3-2		Brown Sand	, ash, gra	vel, brick	, glass (UR	BAN	FILL)
10		4 5 6	4" 16" 16"	7'0"-9'0" 10'0"-12'0" 12'0"-14'0"		9'	Black, Organ	nic Silt w	/ fibers, w		(NIC)	
15		7	24"	15'0"-17'0"	2-1-2-1	15'	Black, Organic, silty-fibrous Peat Clay & Silt w/ fine sand seams					
20		8	18"	19'0"-21'0"	2-1-1-1							
25		9	24"	24'0"-26'0"	1-1-1-1							
30		10	24"	29'0"-31'0"	1-1-1-1		Brown, Silt of w/ sand sean		(FLUV	/IAL)		
35		11	24"	34'0"-36'0"	woh-1-1-1							
						39'	Continued					
Notes:	NW Ca	sing										
10 -30 N	onless: 0 M Dense, re: 0 -2 V	30 -50 I Soft, 2	Dense, 50 -4 Soft,	+ V Lit 4 -8 M So	ace 0 to 10% ttle 10 to 20% ome 20 to 35% and 35% to 50%	1	E (IN) ⁄IER WGT (LB) ⁄IER FALL (IN)	ı	ASING	SAMP S 140	S lb.	CORE TYPE

	Grou Le	indwater 148 Pior ominster 978 84	cal Drilling Monitor neer Driver, MA 014	Well	Site: 233 Shrewsbury St. Worcester, MA				BORING B-4 (Page 2/2) PROJECT NO. 17-0604 DATE: June 12, 2017			
	Date Engineer	ate Star e Finish Dril	ted: ned: ller:	June 12, 2017 June 12, 2017 TF			DATE 6/12/17	GROUI DEPT 7 ft	H C	ER OBSE ASING	STAB Upon Co	ONS ILIZATION ompletion
Depth Ft.	Casing bl/ft	No.	Pen/Rec	Sample Depth	Blows/6"	Strata		o		Identification / or Rock Sar		
40		12	12"	39'0"-41'0"	5-6-6-7	39'	Brown, fine	to mediu	ım Sand,	trace silt		
45		13	12"	44'0"-46'0"	12-16-13-20		Brown, fine	to coars	e Sand, li	ttle gravel		
		44	40"	401011 541011	44 47 40 05	48'						
50		14	12"	49'0"-51'0"	14-17-18-25		weathered re	ock, shal	e (WEA	ΓHERED R	OCK)	
55		15	10"	54'0"-56'0"	19-24-29-52							
60							End of Bori Water at 7 f					
65												
70												
75												
Notes:	NW Ca	sing										
	nless: 0		oose, 4 - 1			ID SIZI		C	CASING	SAMP	PLE (CORE TYPE

HIGHPOINT ENGINEERING, INC. LAND PLANNING PERMIT EXPEDITING CIVIL ENGINEERING CONSULTING 980 WASHINGTON STREET SUITE 216 DEDHAM, MA 02026
www.HighpointEng.com
CLIENT:
LUNDGREN EQUITY PARTNERS 163 Washington street Auburn, MA 01501
CONSULTANT:
DOUGLAS J. HARTNETT CIVIL NO 37796 06-06-2024

PROJE ANSION DCU/RETAIL

REV	DATE	DESCRIPTION							
	ISSUE TYPE: PERMIT								
ISSUE DATE:									

06/06/2024 PROJECT NUMBER: 24009 DRAWN BY: MJH

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TEST BORING LOGS SHEET 1

	Gro Le	deotechni undwater 148 Pior cominster 978 84	cation C cal Drillin Monitor neer Drive MA 014 40-0391	ng Well	Proposed Building Site: 233 Shrewsbury Street Worcester, MA			CDOLL	SHEET 1 BORING B-5 PROJECT NO. 17-0647 DATE: June 30, 2017 UNDWATER OBSERVATIONS			
Soil	D	l Elevati ate Start te Finish Dril	ted: ied: iler:	June 29, 2017 June 29, 2017 TF			DATE 6/29/17	DEPT 7 ft		CASING		ATIONS TABILIZATION
Depth	Casing			Sample			ļ			isual Identifica		
Ft. 1	bl/ft	No.	Pen/Rec	Depth 1'0" - 3'0"	Blows/6" 4-5-7-6	Strata 4"	Asphalt Dark Brow brick, cinde	n, fine		l and / or Rock		gravel, little trace
5		2	6"	5'0" – 7'0"	4-4-6-6		Sand & Gra	vel w/ si	lt, ru	bble, ash, we	et (FILI	(L)
10		3	10"	10'0" – 12'0"	4-4-6-7		Brown, fine	to coars	e Saı	nd, trace rubl	ole, wet	(FILL)
		4	12"	12'0" – 14'0"	1-1-1-1	12'	Doult Buoye	Omeomi	o C:1	t wood fibor	o (ODC	A NIIC')
15		5	12"	15'0"- 17'0"	9-8-4-3	15'				ine sand (FI		·
20		6	21"	20'0" – 22'0"	WOH-1-1-1	23'				me sand (11		
25		7	18"	25'0" – 27'0"	4-5-7-8		Brown, med	lium to c	oarse	e Sand, little	gravel, r	ninor silt, wet
30							End of Bori Water at 7 f			e to "Runnin etion	g Sand"	
35												
Notes:	Hollow	Stem A	L Auger Siz	ze - 4 1/4"	<u> </u>	<u> </u>						
Cohesio 10 -30 I Cohesiv	onless: 0	- 4 V. Lo 30 -50 I / Soft, 2	Dose, 4 - 1 Dense, 50 -4 Soft,	10 Loose, Trace + V Little 4 -8 M Som	e 10 to 20%	l l	E (IN) ER WGT (LB ER FALL (IN)	CASI	NG SA	AMPLE SS 140 lb. 30"	CORE TYPE

Date Finished: June 29, 2017		Gro Le	eominster 978 84	cal Drilli Moniton neer Driv r, MA 01 40-0391	ing Well ee	Proposed Building Site: 233 Shrewsbury Street Worcester, MA				BORING B-6 (Page 1/2) PROJECT NO. 17-0647 DATE: June 30, 2017				
Fi. bl/ht No. Peo/Rec Depth Blows/6" Strata of Soil and / or Rock Sample Asphalt	Soil	D Da	ate Star te Finish Dril	ted: ned: ller:	June 29, 2017		DATE	DEPT	H CA		RVATIONS STABILIZATION			
Asphalt 1	Depth	Casing				Plows/6"	Strata		0.5					
25 6 24" 25'0" – 27'0" 1-1-1-1 Clay & Silt little some fine sand seams and fine sand lays (FLUVIAL) 30 7 24" 30'0"-32'0" WOH-1-1-1	1 5		1 2 3	6" 12"	1'0" - 3'0" 5'0" - 7'0" 10'0" - 12'0"	5-7-8-6 4-5-9-7 5-5-6-7	4" 14'	Asphalt Brown, fine to medium Sand, little gravel, little silt Brick, rubble (FILL) Trace cinders, concrete f-c Sand, little gravel, wet (FILL)						
25 6 24" 25'0" – 27'0" 1-1-1-1 little some fine sand seams and fine sand layer 30 7 24" 30'0"-32'0" WOH-1-1-1	20		5	24"	20'0" – 22'0"	WOH-1-1								
	25		6	24"	25'0" – 27'0"	1-1-1-1		little some fine sand seams and fine sand layers						
35 8 24" 35'0" – 37'0" 1-1-1-1 Continued	30 35		7	24" 24"	30'0"-32'0" 35'0" – 37'0"	WOH-1-1-1								
Notes: Hollow Stem Auger Size - 4 1/4" Cohesionless: 0 - 4 V. Loose, 4 - 10 Loose, Trace 0 to 10% CASING SAMPLE						e 0 to 10%			C	ASING	SAMP	LE CORE TYPE		

Soil Exploration Corp. Geotechnical Drilling Groundwater Monitor Well 148 Pioneer Drive Leominster, MA 01453 978 840-0391					Propose Site: 233 Shr Worcest	•	PROJECT NO. 17-0647 DATE: June 30, 2017
Soil 1		ate Star e Finish Dril	ted: ied: ler:	June 29, 2017 June 29, 2017 TF			GROUNDWATER OBSERVATIONS DATE DEPTH CASING STABILIZATIO 6/29/17 8 ft n/a
Depth Ft.	Casing bl/ft	No.	Pen/Rec	Sample Depth	Blows/6"	Strata	Visual Identification of Soil and / or Rock Sample
40 45		9	24"	45'0" – 47'0"	1-1-2-2		Clay & Silt
50		10	24"	50'0" — 52'0"	1-1-2-3	54'	little fine sand seams and fine sand layers (FLUVIAL)
55		11	12"	55'0" – 57'0"	11-16-17-22		Grey, fine to medium Sand, some gravel, some silt, cobble (GLACIAL) weathered rock at bottom
60 65		12	10"	60'0" — 62'0"	17-25-29-43		End of Boring at 62 ft Water at 8 ft upon completion
70							
75							
Notes:	Hollow	Stem A	Auger Siz	ze - 4 1/4"			
10 -30 N	onless: 0 of Dense, re: 0 -2 V	30 -50 I	Dense, 50	+ V Little	10 to 20%	ID SIZI	CASING SAMPLE CORE TYPE E (IN) SS MER WGT (LB) 140 lb.

BORING LOG 225 SHREWSBURY STREET NOT TO SCALE

PROJECT XPANSION DCU/RETAIL

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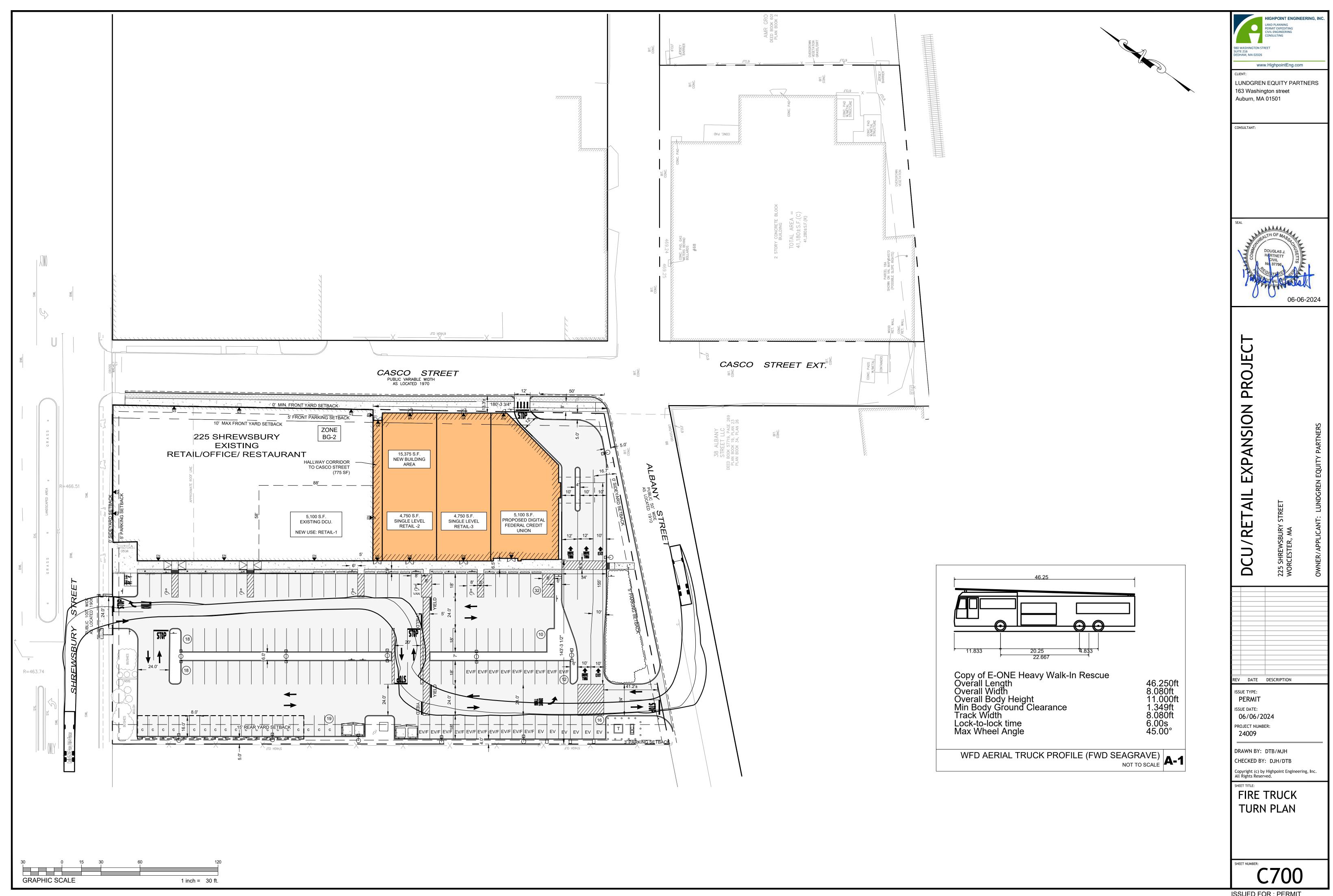
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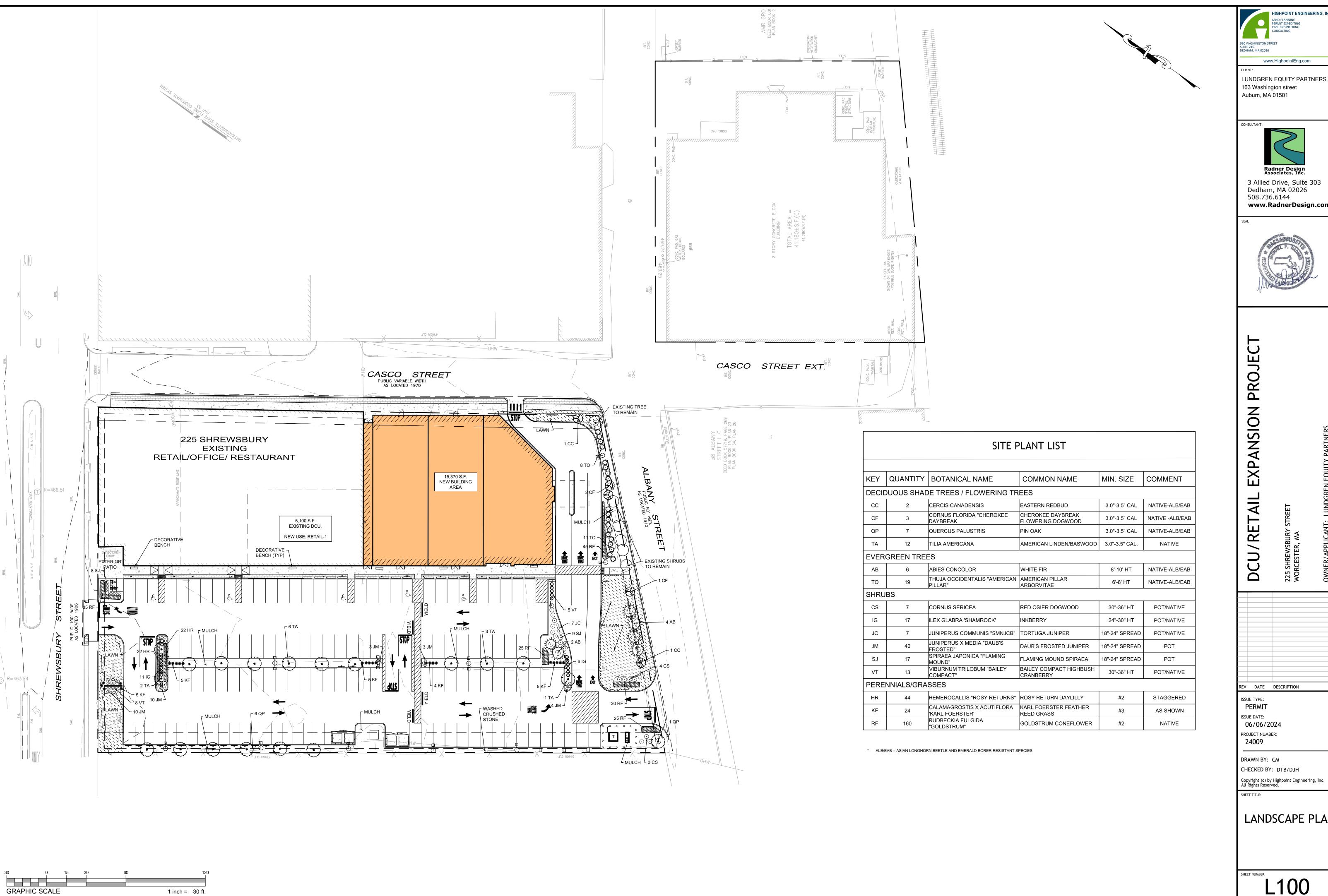
SHEET TITLE:

TEST BORING LOGS SHEET 2

C601



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LANDSCAPE PLAN

L100

LANDSCAPE NOTES

ALL WORK SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY OF WORCESTER, MA. ALL PLANTING SHALL COME FROM THE BEST DEVELOPMENT PRACTICES GUIDEBOOK.

PLANTING PLAN IS DIAGRAMMATIC IN NATURE. FINAL PLACEMENT OF PLANTS TO BE APPROVED BY THE

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL UTILITY COMPANIES, ANY PERMITTING AGENCIES, AND "DIG-SAFE" (1-888-344-7233) AT LEAST 72 HOURS IN ADVANCE OF ANY WORK THAT WILL REQUIRE EXCAVATION. CONTRACTOR SHALL NOTIFY THE OWNERS REPRESENTATIVE OF NAY CONFLICTS

NO PLANT MATERIAL SHALL BE INSTALLED UNTIL ALL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA, ANY TREES NOTED AS "SEAL OR SELECTED SPECIMEN" SHALL BE TAGGED AND SEALED BY THE LANDSCAPE ARCHITECT.

OWNER'S REPRESENTATIVE AND LANDSCAPE ARCHITECT. CONTRACTOR SHALL VERIFY QUANTITIES SHOWN ON PLANT LIST. QUANTITIES SHOWN ON PLANS SHALL

ANY PROPOSED PLANT SUBSTITUTIONS MUST BE APPROVED IN WRITING BY OWNER'S REPRESENTATIVE

ALL PLANT MATERIALS INSTALLED SHALL MEET THE GUIDELINES ESTABLISHED BY THE STANDARDS FOR

ALL PLANT MATERIALS SHALL BE GUARANTEED FOR ONE YEAR FOLLOWING DATE OF ACCEPTANCE. ALL DISTURBED AREAS NOT OTHERWISE NOTED SHALL RECEIVE 6" OF SUITABLE LOAM & SEED LAWNS WITH 3:1 OR GREATER SLOPES SHALL BE PROTECTED WITH AN EROSION CONTROL BLANKET.

TREES SHALL HAVE A MINIMUM CALIPER AS INDICATED ON THE PLANTING SCHEDULE TAKEN ONE FOOT

ALL PLANT BEDS AND TREE SAUCERS TO RECEIVE 3" OF PINE BARK MULCH. GROUND COVER AREAS SHALL RECEIVE 1" OF PINE BARK MULCH

ALLOW FOR A MINIMUM OF 7' OF CLEARANCE BETWEEN THE GROUND AND THE LOWEST BRANCH. ALL TREE STAKES SHALL BE STAINED DARK BROWN.

OF VEGETATION IS ESTABLISHED AND ACCEPTED.

THE 18" OF TOPSOIL AROUND TREES AND SHRUBS DOES NOT INCLUDE AMENDED PLANTING SOIL WITHIN TREE/SHRUB PIT FOR FULL DEPTH OF ROOTBALLS. SEE PLANTING DETAILS FOR PLANTING DEPTH AT SHRUB AND TREES. ALL AREAS OF LOAM AND SEED TO HAVE A MINIMUM OF 6" DEPTH OF TOPSOIL. TOPSOIL TO BE TESTED BY CONTRACTOR AND APPROVED BY LANDSCAPE ARCHITECT PRIOR TO PURCHASE AND OR PLACEMENT. GENERAL CONTRACTOR, DEMOLITION CONTRACTOR AND LANDSCAPE CONTRACTOR TO COORDINATE PROPER DEPTH OF EXISTING MATERIAL REMOVAL ACROSS THE SITE SO THAT 18" MINIMUM AND 6" MINIMUM DEPTHS OF PROPOSED TOPSOIL NOTED ABOVE ARE MET AT NO ADDITIONAL COST TO THE OWNER. SEE TOPSOIL DETAIL.

— SEED. SEE LANDSCAPE PLAN FOR <u> 1 MARIXWALLI MARIXWALLI MARIXWALLI MARIXWALLI MAR</u> — OFFSITE COMPACTED SCREENED TOPSOIL (NO STONES LARGER THAN 3/8") MIN. @ LAWNS 18" @ PLANT BED COMPACTED SUBGRADE SOILS. SILT 15% - 35% 5% - 20%

60-85

38-60

10-35

LESS THAN 5%

WILMA CHEWINGS COMMUTATA WILMA 1.SEED TO BE SPREAD AT MINIMUM RATE OF 5 LBS. PER 1000 SQ. FT.

PALMER PERENNIAL

COMMON NAME

CREEPING RED

FESCUE

BLUEGRASS

RYEGRASS

LOAM AND SEEDING NOTES:

PAO PRAENTENSIS BARON KENTUCKY

PLAN PER SPECIFICATIONS BELOW

SCIENTIFIC NAME

FESTUCA RUBRA

LOLIUM PERENNE

FESTUCA RUBRA

"RUBRA"

"BARON"

"PALMER"

2. SEEDING TO BE COMPLETED "IN SEASON" BETWEEN APRIL 1 TO JUNE 15 OR AUGUST 15 TO OCTOBER 1, EXCEPT FOR RESEEDING OF BARE SPOTS. IF UNABLE TO SEED WITHIN THESE TIMEFRAMES, CONTRACTOR TO INSTALL EROSION CONTROL MATS ON ALL SLOPES 3:1 AND OVER, HYDROSEED ALL EXPOSED AREAS, ADD SOIL STABILIZER "FLUX TERRA HP-FGM SOIL STABILIZER" AS MANUFACTURED BY "PROFILE" TO HYDROSEED (AT RATE OF 3,000 LBS PER ACRE), AT NO ADDITIONAL COST TO THE OWNER. CONTRACTOR TO COMPLETE ALL ABOVE "OUT OF SEASON" REQUIREMENTS AND THEN ALSO BE RESPONSIBLE FOR RE-GRADING AND RE-SEEDING ALL DISTURBED, ERODED, OR BARE SPOTS WITHIN NEXT CLOSEST PLANTING SEASON IN FALL OR SPRING AT NO ADDITIONAL COST TO OWNER. CONTRACTOR RESPONSIBLE FOR ALL MAINTENANCE UNTIL FINAL ACCEPTANCE OF LAWN AREAS INCLUDING: WATERING, ADDING FERTILIZERS AND LIME AND MOWING AT NO ADDITIONAL COST

CONTRACTOR SHALL SEED ALL DISTURBED AREAS NOT NOTED TO RECEIVE OTHER MATERIALS, AND AT AREAS SHOWN ON THE

PROPORTION BY WEIGHT PERCENT PURITY

PERCENTGERMINATION

90%

90%

90%

80%

- 3.COMMERCIAL FERTILIZER SHALL BE APPLIED AT THE RATE OF 25 POUNDS PER 1000 SQ. FT. OR AS RECOMMENDED BY THE TESTING AGENCY. LIME TO BE SPREAD AT THE RATE OF 100 POUNDS PER 1000 SQ. FT OR AS RECOMMENDED BY THE TESTING AGENCY. COMMERCIAL FERTILIZER SHALL BE A COMPLETE FERTILIZER CONTAINING AT LEAST 50% OF THE NITROGEN OF WHICH IS DERIVED FROM NATURAL ORGANIZE SOURCES OF UREAFORM. IT SHALL CONTAIN THE FOLLOWING PERCENTAGES BY WEIGHT: NITROGEN (N) 10%, PHOSPHORUS (P) 6%, POTASH (K) 4%. LIME SHALL BE AN APPROVED AGRICULTURAL LIMESTONE CONTAINING NOT LESS THAN 85% OF TOTAL CARBONATES. LIMESTONE SHALL BE GROUND TO SUCH FINENESS THAT 50% WILL PASS A 100 MESH SIEVE AND 90% WILL PASS THROUGH A 20 MESH SIEVE.
- 4. LAWN AREAS TO BE SEEDED BY SOWING EVENLY WITH AN APPROVED MECHANICAL SEEDER AT THE RATE OF TEN POUNDS PER 1000 SQUARE FEET.

5.CONTRACTOR RESPONSIBLE FOR WATERING, MOWING, AND RESEEDING OF LAWN BARE SPOTS UNTIL A UNIFORM, HEALTHY STAND OF GRASS IS ESTABLISHED AND ACCEPTED.

ALL TREES SHALL BE BALLED AND BURLAPPED (B&B) UNLESS OTHERWISE NOTED OR APPROVED BY THE

GOVERN OVER PLANT LIST.

NURSERY STOCK PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.

ANY FALL TRANSPLANTING HAZARD PLANTS SHALL BE DUG IN THE SPRING AND STORED FOR FALL

ALL DECIDUOUS TREES ADJACENT TO WALKWAYS AND ROADWAYS SHALL HAVE A BRANCHING PATTERN TO

CONTRACTOR RESPONSIBLE FOR WATERING, AND RESEEDING OF BARE SPOTS UNTIL A UNIFORM STAND

ALL LANDSCAPE AREAS WITH SHRUBS, TREES AND PERENNIALS TO HAVE 18" MINIMUM DEPTH OF TOPSOIL.

CALIPER 6" MIN. TOPSOIL, NEW -OR EXISTING

TOP OF LOAM (TOPSOIL) IS FINISH GRADE.

NO. 4

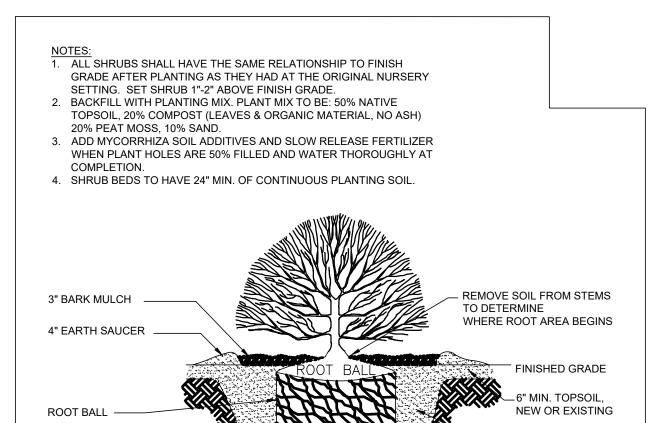
NO. 40 NO. 100

NO. 200

20 um

- 2. ALL TOPSOIL (BOTH ONSITE AND OFFSITE SOURCES) SHALL BE COMPOSED OF A NATURAL, FERTILE, FRIABLE SOIL TYPICAL OF CULTIVATED TOPSOILS OF THE LOCALITY. OFFSITE SOIL SHALL BE SUITABLE FOR THE GERMINATION OF SEEDS AND SUPPORT OF VEGETATIVE GROWTH, WITH ADDITIVES, IF REQUIRED, TO ACHIEVE PARTICLE DISTRIBUTION AND ORGANIC CONTENT BELOW. TOPSOIL SHALL BE TAKEN FROM A WELL-DRAINED, ARIABLE SITE, FREE OF SUBSOIL, LARGE STONES, EARTH CLODS, STICKS, STUMPS, CLAY LUMPS, ROOTS, OTHER OBJECTIONABLE, EXTRANEOUS MATTER OR DEBRIS NOR CONTAIN TOXIC SUBSTANCES.
- 3. THE CONTRACTOR SHALL PROVIDE THE OWNER / LANDSCAPE ARCHITECT WITH TOPSOIL TEST RESULTS (RECOMMEND UMASS AMHERST SOIL TESTING LAB) FOR APPROVAL PRIOR TO OBTAINING AND PLACING THE SOIL. IF ANY TOPSOIL IS PURCHASED OR PLACED PRIOR TO APPROVAL BY OWNER / LANDSCAPE ARCHITECT, IT IS AT CONTRACTORS RISK, AND IT CAN BE REMOVED AT NO ADDITIONAL COST TO THE OWNER. IF THE PLANTING SOIL (BOTH ONSITE AND OFFSITE SOURCES) DOES NOT FALL WITHIN THE REQUIRED SIEVE ANALYSIS, TEXTURAL CLASS, ORGANIC CONTENT, OR PH RANGE, IT SHALL BE ADJUSTED TO MEET THE SPECIFICATIONS THROUGH THE ADDITION OF SAND, COMPOST, LIMESTONE, OR ALUMINUM SULFATE TO BRING IT WITHIN THE SPECIFIED LIMITS AT NO ADDITIONAL COST TO THE OWNER.
- 4. TOPSOIL SHALL HAVE A PH VALUE BETWEEN 5.5 AND 6.5. TOPSOIL SHALL CONTAIN 8% ORGANIC MATTER OF TOTAL DRY WEIGHT AND SHALL CONFORM TO THE FOLLOWING GRADATION AND TEXTURE CLASS ABOVE.

TOP SOIL FOR LAWN,TREES,SHRUBS & PERENNIALS A2 NOT TO SCALE



SHRUB PLANTING DETAIL C1 NOT TO SCALE

-PLANTING MIX

BACKFILL SEE

NOTES #2 &3

CUT & ROLL DOWN

BURLAP @ TOP 1/3

SYNTHETIC, REMOVE

OF ROOT BALL. II

ENTIRELY.

- REMOVE ARBORKNOT AFTER ONE GROWING SEASON

- PLANT SAUCER, 4" CONTINUOUS WITH BARK MULCH

SET ANGLE OF GUYS TO ENTER GROUND AT LIMIT OF BRANCH

- PLANTING SOIL MIX: BACKFILL IN LOOSE LIFTS OF 6"-8" DEPTH.

SETTLE WITH THOROUGH WATERING. SEE NOTES 3&4.

CUT AND REMOVE BURLAP AND WIRE BASKETS ENTIRELY.

-4" EARTH SAUCER WITH

CUT & REMOVE BURLAP AND

WIRE BASKET ENTIRELY.

REINFORCED RUBBER HOSE

-3 POSTS FOR ALL TREES 3"

CALIPER & OVER

BARK MULCH

-ROOTBALL

ROOTBALL

WITH SLOPED

SIDES

ROOTBALL

WITH SLOPED

ARBORKNOT BY DEEP ROOTS OR

- 3" BARK MULCH IN SAUCER

WARNING FLAG 18" ABOVE FINISH

- STEEL EYE STAKES BY DEEP ROOTS

OR APPROVED EQUAL

APPROVED EQUAL

GRADE

3 X DIA. OF

ROOTBALL

SIDES

PLANTING MIX

BACK FILL SEE

UNDISTURBED SOIL -

NOTE 2 &3.

ROOTBALL

WITH SLOPED

FINISH GRADE

- 1. TREES SHALL BEAR SAME RELATIONSHIP TO FINISH GRADE AS IT BORE TO NURSERY OR FIELD GRADE. ROOT FLARE SHALL BE 2" ABOVE FINISH GRADE. REMOVE SOIL FROM TRUNK FLARE OF TREE TO DETERMINE ACTUAL TOP OF ROOTBALL AREA.
- 2. INSTALL THREE GUYS PER TREE; EQUALLY SPACED AROUND BALL.
- 3. ATTACH GUYS AT 2/3 HEIGHT OF TREE.

20% PEAT MOSS, 10% SAND.

3 X DIA. OF

ROOTBALL WITH SLOPED

SIDES

- 4. BACKFILL WITH PLANTING MIX. PLANT MIX TO BE: 50% NATIVE TOPSOIL, 20% COMPOST (LEAVES & ORGANIC MATERIAL, NO ASH)
- 5. ADD MYCORRHIZA SOIL ADDITIVES AND SLOW RELEASE FERTILIZER WHEN PLANT HOLES ARE 50% FILLED AND WATER THOROUGHLY AT COMPLETION.

EVERGREEN TREE DETAIL B1

NOT TO SCALE

1. ALL TREES SHALL HAVE THE SAME RELATIONSHIP TO FINISH GRADE (2) MIN. 2" X 2" X 8' WOOD ARBOR TIES BY DEEP ROOTS AFTER PLANTING AS THEY HAD AT THE ORIGINAL NURSERY POSTS FOR TREES UNDER 3' SETTING. ROOT FLARE SHALL BE 2" ABOVE FINISH GRADE. REMOVE OR APPROVED EQUAL SOIL FROM TRUNK FLARE OF TREE TO DETERMINE ACTUAL REMOVE STAKES AFTER ONE ROOTBALL AREA. GROWING SEASON 2. BACKFILL WITH PLANTING MIX. PLANT MIX TO BE: 50% NATIVE TOPSOIL, 20% COMPOST (LEAVES & ORGANIC MATERIAL, NO ASH) 20% PEAT MOSS, 10% SAND, 10'-0" FOR TREES > 3" CAL. 8'0" FOR TREES 3" CAL. AND UNDER 3" BARK MULCH

3. ADD MYCORRHIZA SOIL ADDITIVES AND SLOW RELEASE FERTILIZER

WHEN PLANT HOLES ARE 50% FILLED AND WATER THOROUGHLY AT COMPLETION.

DECIDUOUS TREE DETAIL A1

NOT TO SCALE

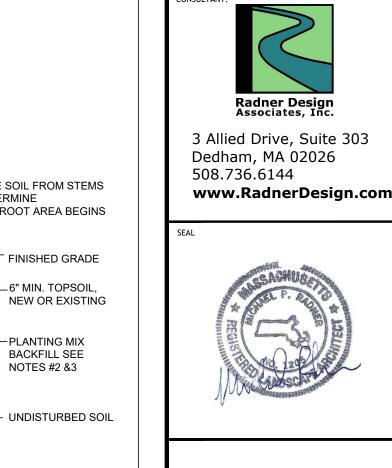
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LANDSCAPE

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DETAILS PLAN

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