TOWN OF BOXFORD

THE CENTER AT 10 ELM COMMUNITY/SENIOR CENTER

10 ELM STREET
BOXFORD, MA 01921
DESIGN DEVELOPMENT SET
12/22/2020

		SD SET 9/24/2020	DD SET 12/22/2020	Release 3 DATE	Release 4 DATE
		SD 8	12/	Relea	Relea DATE
GENERAL G0.0	- COVERSHEET	Х	Х		
G0.1	CODE ANALYSIS LOCUS MAP GENERAL NOTES ABBREVIATIONS				
G0.2	BUILDING AXONS	Х	Х		
G0.3	BUILDING AXONS	Х	Х		
CIVIL					
C-100	CIVIL NOTES & ABBREVIATIONS	X	χ		
C-200	CIVIL EROSION CONTROL PLAN	X	Х		
C-300 C-400	CIVIL LAYOUT PLAN CIVIL GRADING PLAN	X	X		
C-500	CIVIL UTILITY PLAN	X	Х		
C-600	CIVIL DETAILS I	X	X		
C-601	CIVIL DETAILS II	X	Х		
C-602	CIVIL DETAILS III	Х	Х		
C-603	CIVIL DETAILS IV	X	X		
C-604	CIVIL DETAILS V	X	X		
C-605 C-606	CIVIL DETAILS VI		X		
		<u> </u>			
Landsca L1.0	PE PLANTING PLAN	Х	Х		
		<u> </u>	1	1	
ARCHITE(AD1.1	FIRST AND SECOND FLOOR DEMOLITION PLANS	Х	Х		
A1.1	FIRST FLOOR PLAN	X	Х		
A1.2	SECOND FLOOR/ ATTIC PLAN		Х		
A1.3	ROOF PLAN	X	Х		
A2.1	FIRST AND SECOND FLOOR REFLECTED CEILING PLAN	X	X		\vdash
43.1 43.2	SOUTH AND EAST ELEVATIONS NORTH AND WEST ELEVATIONS	X	X		\vdash
A3.2 A5.1	NORTH AND WEST ELEVATIONS ENLARGED KITCHEN PLANS AND ELEVATIONS	X	Х		
A5.2	ENLARGED TOILET ROOMS PLANS AND ELEVATIONS	X	X		
46.1	BUILDING SECTIONS	X	X		
411.1	FIRST FLOOR FURNITURE PLAN	X	Х		
STRUCTU	IDAI				
S1.1	FOUNDATION PLAN	X	Х		
S1.3	ROOF FRAMING PLAN	X	X		
S2.0	PROGRAM OF SPECIAL INSPECTIONS	Х	Х		
S2.1	GENERAL NOTES	Х	Х		
S2.2	TYPICAL CONCRETE SECTIONS AND DETAILS	Х	Χ		
S2.3	TYPICAL FRAMING SECTIONS AND DETAILS	Х	X		
S4.1	FOUNDATION SECTIONS AND DETAILS	X	Х		
FIRE PRO	TECTION				
FP0.1	FIRE PROTECTION LEGEND, SCHEDULES, & DETAILS	X	Х		
FP0.2	FIRE PROTECTION DETAILS	Х	X		
FP1.1	REFLECTIVE CEILING PLANS - FIRE PROTECTION	Х	Х		
PLUMBIN	G				
P0.1	PLUMBING LEGEND SCHEDULES & DETAILS	X	Х		
P1.0	UNDERGROUND PLAN - PLUMBING	X	X		
P1.1 P1.2	FIRST FLOOR PLAN - PLUMBING ROOF PLAN PLUMBING	X	X		
MECHANI M1.1	CAL FIRST FLOOR PLAN - HVAC	Х	Х		
M1.2	ATTIC FLOOR PLAN - HVAC	X	X		
M1.3	ROOF PLAN - HVAC		Х		
M2.1	EQUIPMENT SCHEDULES- HVAC		Х		
M2.2	EQUIPMENT DETAILS I- HVAC		χ		
M2.3 VS1.1	EQUIPMENT CONTROLS I- HVAC VIBRATION 7 SEISMIC DETAILS I		X		
LECTRIC 0.1	CAL ELECTRICAL SYMBOL LIST	Х	X		
E0.2	LIGHTING FIXTURE SCHEDULE	X	X		\vdash
E0.3	ELECTRICAL SITE PLAN	X	X		\Box
E0.4	ELECTRICAL SITE DETAILS I	X	Х		
E0.5	ELECTRICAL SITE DETAILS II	X	Х		
1.1	FIRST FLOOR PLAN - LIGHTING	X	Х		
E1.2	SECOND FLOOR PLAN - LIGHTING	X	Х		\square
2.1	FIRST FLOOR PLAN - POWER	X	X		
2.2 2.3	SECOND FLOOR PLAN - POWER ELECTRICAL ROOF PLAN - POWER	X	X		
2.3 2.4	LIGHTNING PROTECTION DETAILS	Х	Х		\vdash
, -	ONE LINE POWER RISER	X	Х		\vdash
	ELECTRICAL DETAILS	X	Х		\vdash
3.0	MECHANICAL & PLUMBING SCHEDULES	X	X		\vdash
E3.0 E3.1		X	X		\vdash
E3.0 E3.1 E3.2	FIRE ALARM RISER	A		1	1
E3.0 E3.1 E3.2 E4.0	FIRE ALARM RISER FIRST FLOOR PLAN - FIRE ALARM	X	Х		
E3.0 E3.1 E3.2 E4.0			X		
E3.0 E3.1 E3.2 E4.0 E4.1 E4.2	FIRST FLOOR PLAN - FIRE ALARM SECOND FLOOR PLAN - FIRE ALARM SECURITY DETAILS & RISER	X X X	X		
E3.0 E3.1 E3.2 E4.0 E4.1 E4.2 E5.0	FIRST FLOOR PLAN - FIRE ALARM SECOND FLOOR PLAN - FIRE ALARM SECURITY DETAILS & RISER FIRST FLOOR PLAN - SECURITY	X X X X	X X X		
E3.0 E3.1 E4.0 E4.1 E4.2 E5.0 E5.1	FIRST FLOOR PLAN - FIRE ALARM SECOND FLOOR PLAN - FIRE ALARM SECURITY DETAILS & RISER FIRST FLOOR PLAN - SECURITY TECHNOLOGY SYMBOL LIST & DETAILS	X X X X	X X X X		
3.0 3.1 3.2 4.0 4.1 4.2 5.0	FIRST FLOOR PLAN - FIRE ALARM SECOND FLOOR PLAN - FIRE ALARM SECURITY DETAILS & RISER FIRST FLOOR PLAN - SECURITY	X X X X	X X X		

GRLA PROJECT NUMBER: 2020120.01

CLIENT:
TOWN OF POYEODD

DESIGN DEVELOPMENT

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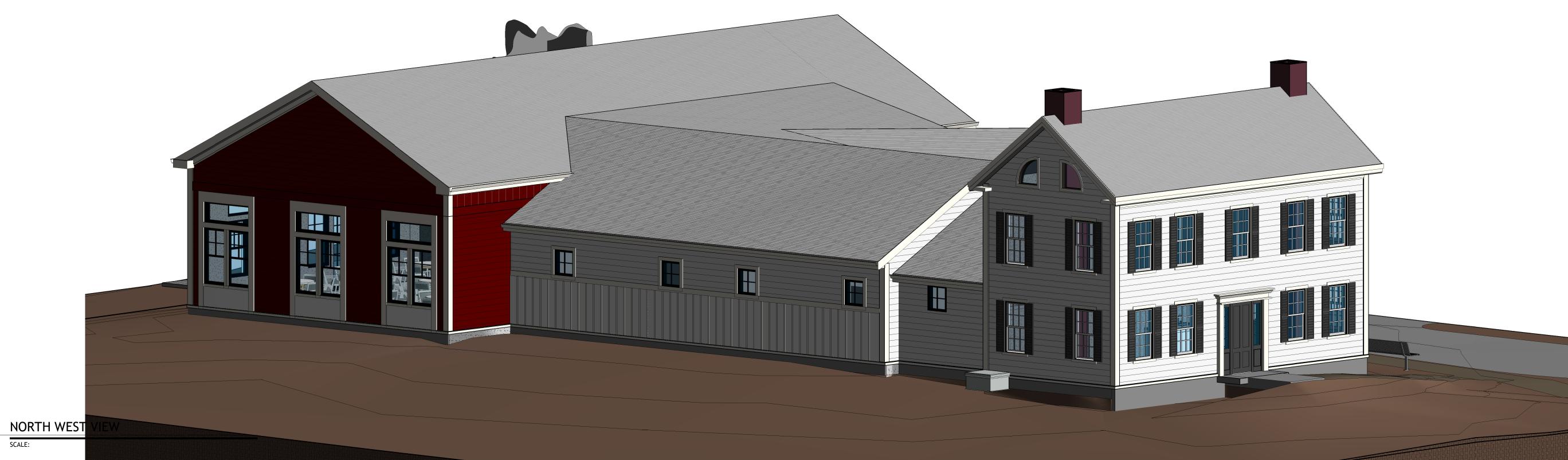
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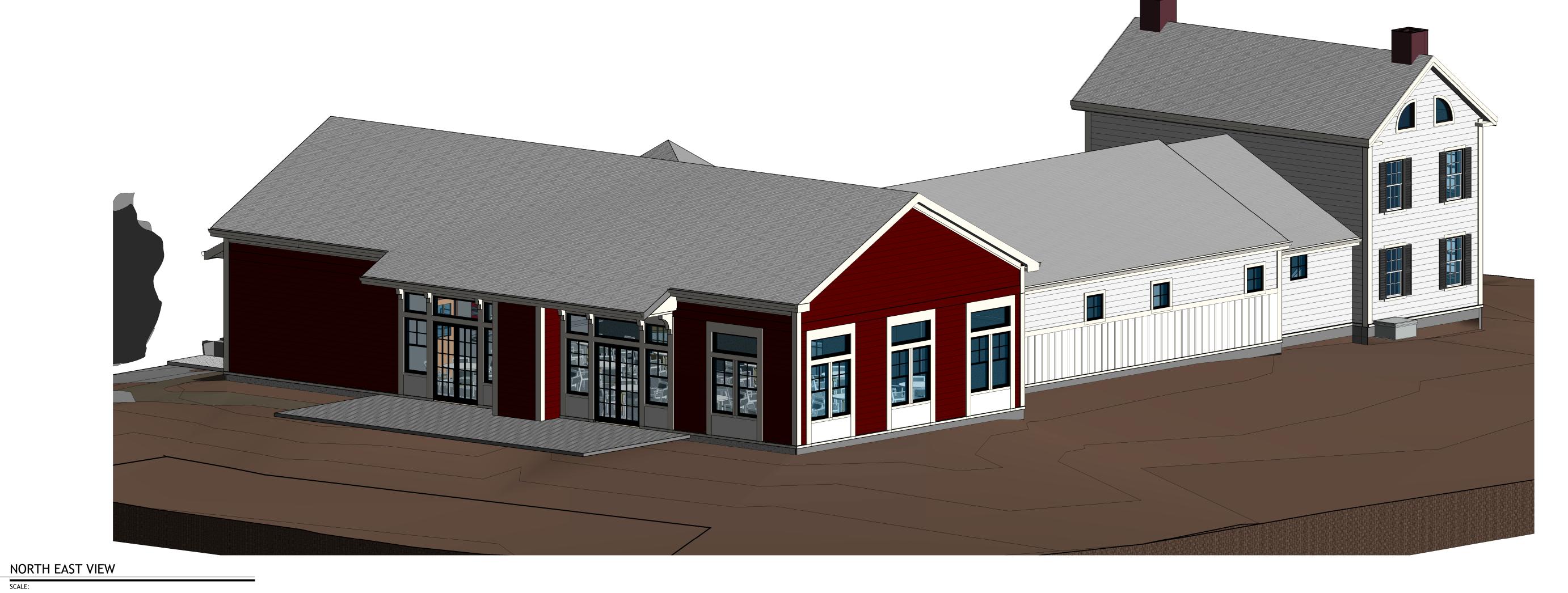




THE CENTER AT 10 ELM COMMUNITY/ SENIOR CENTER 10 ELM STREET BOXFORD, MA 01921 TOWN OF BOXFORD 2/22/2020 TOWN HALL 7A SPOFFORD ROAD BOXFORD, MA 01921 Gorman Richardson Lewis Architects 239 South Street Hopkinton, MA 01748 www.grlarchitects.com DESIGN DEVELOPMENT SENIOR CENTER No. Description 12/22/2020 Proj. No.: 2020120.01 Checked By: SR

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DEMOLITION NOTES

- SITE PREPARATION AND DEMOLITION SHALL INCLUDE THOSE AREAS WITHIN THE LIMIT OF WORK LINE AS 1. SHOWN ON THE CONTRACT DOCUMENTS.
- ANY AREA OUTSIDE THE LIMIT OF WORK THAT IS DISTURBED SHALL BE RESTORED TO ITS ORIGINAL CONDITION AT NO ADDITIONAL COST TO THE OWNER.
- CONSULT ALL OF THE DRAWINGS AND SPECIFICATIONS FOR COORDINATION REQUIREMENTS BEFORE COMMENCING DEMOLITION.
- THE CONTRACTOR SHALL COORDINATE SITE DEMOLITION EFFORTS WITH ALL TRADES THAT MAY BE AFFECTED BY THE WORK.
- ALL ITEMS REQUIRING REMOVAL SHALL BE REMOVED TO FULL DEPTH TO INCLUDE BASE MATERIAL AND FOOTINGS OR FOUNDATIONS AS REQUIRED TO FACILITATE CONSTRUCTION, AND LEGALLY DISPOSED OF OFFSITE BY CONTRACTOR.
- UTILITY PIPES DESIGNATED TO BE ABANDONED IN PLACE SHALL BE PLUGGED AT THEIR ENDS WITH WATERTIGHT BRICK MASONRY OR CEMENT MORTAR WITH A MINIMUM THICKNESS OF 8 INCHES.
- UTILITY PIPES DESIGNATED TO BE REMOVED SHALL CONSIST OF THE COMPLETE REMOVAL AND DISPOSAL OF THE ENTIRE LENGTH OF PIPE AND BACKFILL AND 95% COMPACTION OF THE VOID WITH ORDINARY BORROW. WHEN THE VOID IS WITHIN THE FOOTPRINT OF THE NEW BUILDING, GRAVEL BORROW SHALL BE USED TO BACKFILL THE VOID.
- UTILITY STRUCTURES DESIGNATED TO BE ABANDONED IN PLACE SHALL HAVE THEIR CAST IRON CASTINGS REMOVED AND DISPOSED, INLET AND OUTLET PIPES PLUGGED, THE BOTTOM OF THE STRUCTURES SHALL BE BROKEN, THE VOID OF THE STRUCTURES SHALL BE BACKFILLED AND COMPACTED TO 95% WITH ORDINARY BORROW OR FLOWABLE FILL. AND THE TOP OF THE STRUCTURE SHALL BE REMOVED SO THAT IT IS AT LEAST 36 INCHES BELOW FINISH GRADE.
- UTILITY STRUCTURES DESIGNATED TO BE REMOVED SHALL CONSIST OF THE REMOVAL AND DISPOSAL OF CAST IRON CASTINGS, PLUGGING OF INLET AND OUTLET PIPES, REMOVAL OF THE STRUCTURE, AND BACKFILL AND 95% COMPACTION OF THE VOID WITH ORDINARY BORROW. WHEN HE VOID IS WITHIN THE FOOTPRINT OF THE NEW BUILDING, GRAVEL BORROW SHALL BE USED TO BACKFILL THE VOID.
- ALL DEBRIS GENERATED DURING SITE PREPARATION ACTIVITIES SHALL BE LEGALLY DISPOSED OF
- AT ALL LOCATIONS WHERE EXISTING CURBING, CONCRETE PAVEMENT OR BITUMINOUS CONCRETE ROADWAY ABUTS NEW CONSTRUCTION, THE EDGE OF THE EXISTING CURB OR PAVEMENT SHALL BE SAW CUT TO A CLEAN, SMOOTH EDGE.
- EXTEND DESIGNATED LIMIT OF WORK AS NECESSARY TO ACCOMPLISH ROUGH GRADING, EROSION CONTROL, TREE PROTECTION, AND SITE WORK AS REQUIRED BY THESE DRAWINGS AND SPECIFICATIONS.
- THE CONTRACTOR SHALL REMOVE FROM THE SITE ALL RUBBISH AND DEBRIS FOUND THEREON. STORAGE OF SUCH MATERIALS ON THE PROJECT SITE WILL NOT BE PERMITTED. THE CONTRACTOR SHALL LEAVE THE SITE IN SAFE, CLEAN, AND LEVEL CONDITION UPON COMPLETION OF THE SITE DEMOLITION WORK.
- REMOVE AND STOCKPILE ALL EXISTING SITE LIGHTS, BENCHES, TRASH RECEPTACLES, TRAFFIC SIGNS, GRANITE CURB, AND OTHER SITE IMPROVEMENTS WITHIN LIMIT OF WORK LINE UNLESS OTHERWISE
- ALL EXISTING TREES AND SHRUBS TO REMAIN SHALL BE PROTECTED AND MAINTAINED THROUGHOUT THE TIME OF CONSTRUCTION, AS SPECIFIED AND DIRECTED BY THE LANDSCAPE ARCHITECT
- BEFORE ANY TREES OR SHRUBS ARE REMOVED, THE CONTRACTOR SHALL ARRANGE A CONFERENCE ON THE SITE WITH THE OWNER OR OWNER'S REPRESENTATIVE TO IDENTIFY TREES AND SHRUBS THAT ARE TO BE REMOVED. AS WELL AS THOSE WHICH ARE TO BE PROTECTED. DO NOT COMMENCE CLEARING OPERATIONS WITHOUT A CLEAR UNDERSTANDING OF EXISTING CONDITIONS TO BE PRESERVED.
- THE CONTRACTOR SHALL REMOVE FROM THE AREA OF CONSTRUCTION PAVEMENT. CONCRETE. CURBING. POLES AND FOUNDATIONS, ISLANDS, TREE BERMS AND OTHER FEATURES WITHIN THE LIMITS OF CONSTRUCTION AS REQUIRED TO ACCOMMODATE NEW CONSTRUCTION WHETHER SPECIFIED ON THE DRAWINGS OR NOT.

EROSION AND SEDIMENT CONTROL NOTES:

- ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE LATEST EDITION OF THE "MASSACHUSETTS EROSION AND SEDIMENT CONTROL GUIDELINES FOR URBAN AND SUBURBAN AREAS" PREPARED BY DEPARTMENT OF ENVIRONMENTAL PROTECTION, BUREAU OF RESOURCE PROTECTION. AND THE CURRENT NPDES GENERAL PERMIT FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES.
- 2. MEANS OF EROSION AND SEDIMENT PROTECTION AS NOTED ON THE DRAWINGS INDICATE MINIMUM RECOMMENDED PROVISIONS. THE CONTRACTOR IS RESPONSIBLE FOR FINAL SELECTION AND PLACEMENT OF EROSION AND SEDIMENTATION CONTROLS BASED ON ACTUAL SITE CONDITIONS AND CONSTRUCTION CONDITIONS. ADDITIONAL MEANS OF PROTECTION SHALL BE PROVIDED BY THE CONTRACTOR AS REQUIRED FOR CONTINUED OR UNFORESEEN EROSION PROBLEMS, OR AS DIRECTED BY CONTROLLING MUNICIPAL AUTHORITIES. AT NO ADDITIONAL EXPENSE TO THE OWNER.
- AN EROSION CONTROL BARRIER SHALL BE INSTALLED ALONG THE EDGE OF PROPOSED DEVELOPMENT AS INDICATED IN THE PLAN PRIOR TO COMMENCEMENT OF DEMOLITION OR CONSTRUCTION OPERATIONS.
- SEDIMENT CONTROL MEASURES SHALL BE ADJUSTED TO MEET FIELD CONDITIONS AT THE TIME OF AND DURING ALL PHASES OF CONSTRUCTION AND BE CONSTRUCTED PRIOR TO AND IMMEDIATELY AFTER ANY GRADING OR DISTURBANCE OF EXISTING SURFACE MATERIAL ON THE SITE.
- AFTER ANY SIGNIFICANT RAINFALL (GREATER THAN 0.25 INCHES OF RAINFALL WITHIN 24 HOURS). SEDIMENT CONTROL STRUCTURES SHALL BE INSPECTED FOR INTEGRITY. ANY DAMAGE SHALL BE CORRECTED IMMEDIATELY.
- 6. PERIODIC INSPECTION AND MAINTENANCE OF ALL SEDIMENT CONTROL STRUCTURES SHALL BE PROVIDED TO ENSURE THAT THE INTENDED PURPOSE IS ACCOMPLISHED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SEDIMENT LEAVING THE LIMIT OF WORK. SEDIMENT CONTROL MEASURES SHALL BE IN WORKING CONDITION AT THE END OF EACH WORKING DAY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREVENTING SEDIMENT FROM ENTERING ANY STORM DRAINAGE SYSTEM AND FROM BEING CONVEYED TO ANY WETI AND RESOURCE AREA, PUBLIC WAYS, ABUTTING PROPERTY, OR OUTSIDE OF THE PROJECT
- THE CONTRACTOR SHALL PROTECT ALL DRAINAGE SWALES AND GROUND SURFACES WITHIN THE LIMIT OF WORK FROM EROSIVE CONDITIONS. STRAW BALE, CRUSHED STONE OR EQUIVALENT CHECK DAMS ARE TO BE PROVIDED AT A MAXIMUM OF TWO HUNDRED (200) FOOT SPACING, OR LESS AS SITE-SPECIFIC CONDITIONS WARRANT, WITHIN ALL DRAINAGE SWALES AND DITCHES AND AT UPSTREAM SIDES OF ALL DRAINAGE INLETS.
- ALL STOCK PILES SHALL BE PROTECTED AND LOCATED A MINIMUM OF 100' FROM EXISTING WETLAND RESOURCE AREAS & WITHIN THE LIMIT OF WORK.
- 10. ANY SEDIMENT TRACKED ONTO PAVED AREAS SHALL BE SWEPT AT THE END OF EACH WORKING DAY.
- 11. ALL SEDIMENT RETAINED BY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE LEGALLY DISPOSED OF OFFSITE.
- 12. TEMPORARY DIVERSION DITCHES. PERMANENT DITCHES. CHANNELS. EMBANKMENTS. AND ANY DENUDED SURFACE THAT WILL BE EXPOSED FOR A PERIOD OF 14 CALENDAR DAYS OR MORE SHALL BE CONSIDERED CRITICAL VEGETATION AREAS. THESE AREAS SHALL BE STABILIZED/PROTECTED WITH APPROPRIATE EROSION CONTROL MATTING OR OTHER 12. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE ESTABLISHMENT AND USE OF ALL EROSION CONTROL METHODS.
- 13. DUST SHALL BE CONTROLLED BY WATERING OR OTHER APPROVED METHODS AS 13. ELEVATIONS REFER TO N.G.V.D. 1929. DIRECTED BY THE PERMITTING AUTHORITY OR OWNER.
- THE CONTRACTOR SHALL USE TEMPORARY SEEDING, MULCHING, OR OTHER APPROVED STABILIZATION MEASURES TO PROTECT EXPOSED AREAS DURING PROLONGED CONSTRUCTION OR OTHER LAND DISTURBANCE. STOCKPILES THAT WILL BE EXPOSED FOR LONGER THAN 14 DAYS SHALL BE STABILIZED.
- 15. THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ALL EROSION AND SEDIMENT CONTROLS AT THE COMPLETION OF SITE CONSTRUCTION, BUT ONLY WHEN DIRECTED BY THE TOWN OF BOXFORD CONSERVATION AGENT. STABILIZE OR SEED BARE AREAS LEFT AFTER EROSION CONTROL REMOVAL.

EARTH MOVING AND GRADING NOTES:

- 1. ALL TOPSOIL ENCOUNTERED WITHIN THE WORK AREA SHALL BE STRIPPED TO ITS FULL DEPTH AND STOCKPILED FOR REUSE. EXCESS TOPSOIL SHALL BE REMOVED FROM THE SITE UNLESS OTHERWISE DIRECTED BY THE OWNER. TOPSOIL PILES SHALL REMAIN SEGREGATED FROM EXCAVATED SUBSURFACE SOIL MATERIALS.
- 2. GRADES WITHIN HANDICAP PARKING SPACES AND ACCESS AISLES SHALL NOT EXCEED 1.5% IN ANY DIRECTION.
- 3. CROSS SLOPES OF ALL PEDESTRIAN WALKS SHALL NOT EXCEED 1.5%.
- 4. RUNNING SLOPE OF ALL PEDESTRIAN WALKS SHALL NOT EXCEED 4.5%, UNLESS OTHERWISE NOTED.
- 5. THE CONTRACTOR SHALL EXERCISE CAUTION IN ALL EXCAVATION ACTIVITY DUE TO POSSIBLE EXISTENCE OF UNRECORDED UTILITY LINES.
- 6. ALL PAVED AREAS MUST PITCH TO DRAIN AT A MINIMUM OF 1% UNLESS OTHERWISE
- 7. PROVIDE POSITIVE DRAINAGE AWAY FROM FACE OF BUILDINGS AT ALL LOCATIONS.
- 8. PITCH EVENLY BETWEEN CONTOUR LINES AND BETWEEN SPOT GRADES. SPOT GRADE ELEVATIONS TAKE PRECEDENCE OVER CONTOUR LINES.
- 9. ALL PROPOSED TOP OF CURB ELEVATIONS ARE SIX INCHES (6") ABOVE BOTTOM OF CURB ELEVATIONS UNLESS OTHERWISE NOTED. ALL PROPOSED TOP OF CAPE COD BERM ELEVATIONS ARE FOUR INCHES (4") ABOVE BOTTOM OF CURB ELEVATION UNLESS OTHERWISE NOTED.
- 10. THE CONTRACTOR SHALL BLEND NEW GRADING SMOOTHLY INTO EXISTING GRADING AT LIMITS OF GRADING.
- 11. WHERE NEW PAVING MEETS EXISTING PAVING, MEET LINE AND GRADE OF EXISTING PAVING WITH SMOOTH TRANSITION BETWEEN EXISTING AND NEW SURFACES.
- 12. THE CONTRACTOR SHALL VERIFY EXISTING GRADES IN THE FIELD AND REPORT ANY DISCREPANCIES IMMEDIATELY TO THE ARCHITECT OR OWNER'S REPRESENTATIVE PRIOR TO STARTING WORK.
- 13. PITCH TOPS OF ALL WALLS AT ONE-EIGHTH INCH (1/8") PER FOOT FROM BACK OF WALL TO FACE OF WALL.
- 14. SURPLUS MATERIALS SHALL BE REMOVED FROM THE SITE UNLESS DIRECTED BY THE OWNER OR OWNER'S REPRESENTATIVE. REFER TO EARTHWORK SPECIFICATIONS.
- 15. ANY AREAS OUTSIDE OF THE LIMIT OF WORK THAT ARE DISTURBED SHALL BE RESTORED BY THE CONTRACTOR TO THE PRE-CONSTRUCTION CONDITION/GRADE AT NO COST TO THE OWNER.
- 16. EXCAVATION REQUIRED WITHIN 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 ADDITIONAL COST TO OWNER.

GENERAL NOTES:

- 1. TOPOGRAPHIC DATA, PROPERTY LINE INFORMATION, AND EXISTING SITE FEATURES WERE OBTAINED FROM A PLAN ENTITLED "EXISTING CONDITIONS SITE PLAN". PREPARED BY DONOHOE SURVEY, INC., DATED JULY 8, 2020.
- 2. FLOODPLAIN INFORMATION WAS OBTAINED FROM THE FLOOD INSURANCE RATE MAP (FIRM) NO. 25009C0261F. THE SITE IS IN ZONE X.
- 3. THE CONTRACTOR SHALL COMPLY WITH MASSACHUSETTS GENERAL LAWS CHAPTER 82. SECTION 40, AS AMENDED, WHICH STATES THAT NO ONE MAY EXCAVATE IN THE COMMONWEALTH OF MASSACHUSETTS EXCEPT IN AN EMERGENCY WITHOUT 72 HOURS NOTICE. EXCLUSIVE OF SATURDAYS, SUNDAYS, AND LEGAL HOLIDAYS, TO NATURAL GAS PIPELINE COMPANIES. AND MUNICIPAL UTILITY DEPARTMENTS THAT SUPPLY GAS. ELECTRICITY, TELEPHONE, OR CABLE TELEVISION SERVICE IN OR TO THE CITY OR TOWN WHERE THE EXCAVATION IS TO BE MADE. THE CONTRACTOR SHALL CALL "DIG SAFE" AT 1-888-DIG-SAFE.
- 4. THE CONTRACTOR SHALL COMPLY WITH MASSACHUSETTS GENERAL LAWS CHAPTER 82A, ALSO REFERRED TO AS JACKIE'S LAW, AS DETAILED IN SECTION 520 CMR 14.00 OF THE CODE OF MASSACHUSETTS REGULATIONS.
- 5. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS, RULES, REGULATIONS AND SAFETY CODES IN THE CONSTRUCTION OF ALL
- 6. THE LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES ARE APPROXIMATE AND ALL UTILITIES MAY NOT BE SHOWN. PRESENCE AND LOCATIONS OF ALL UTILITIES WITHIN THE LIMIT OF WORK MUST BE DETERMINED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING AND CONTACTING THE CONTROLLING AUTHORITIES AND/OR UTILITY COMPANIES RELATIVE TO THE LOCATIONS AND ELEVATIONS OF THEIR LINE'S. THE CONTRACTOR SHALL KEEP A RECORD OF ANY DISCREPANCIES OR CHANGES IN THE LOCATIONS OF ANY UTILITIES SHOWN OR ENCOUNTERED DURING CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED TO THE OWNER AND NITSCH ENGINEERING. ANY DAMAGE RESULTING FROM THE FAILURE OF THE CONTRACTOR TO MAKE THESE DETERMINATIONS AND CONTACTS SHALL BE BORNE BY THE CONTRACTOR.
- 7. THE CONTRACTOR SHALL, THROUGHOUT CONSTRUCTION, TAKE ADEQUATE PRECAUTIONS TO PROTECT ALL WALKS, GRADING, SIDEWALKS AND SITE DETAILS OUTSIDE OF THE LIMIT OF WORK AS DEFINED ON THE DRAWINGS AND SHALL REPAIR AND REPLACE OR OTHERWISE MAKE GOOD AS DIRECTED BY THE ENGINEER OR OWNER'S DESIGNATED REPRESENTATIVE ANY SUCH OR OTHER DAMAGE SO CAUSED.
- 8. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR JOB SITE SAFETY AND ALL CONSTRUCTION MEANS AND METHODS.
- 9. PRIOR TO BEGINNING CONSTRUCTION. THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE SITE AND CONSTRUCTION DOCUMENTS TO DEVELOP A THOROUGH UNDERSTANDING OF THE PROJECT, INCLUDING ANY SPECIAL CONDITIONS AND CONSTRAINTS.

10. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BECOME FAMILIAR WITH THE PROJECT SITE

- AND TO VERIFY ALL CONDITIONS IN THE FIELD AND REPORT DISCREPANCIES BETWEEN PLANS AND ACTUAL CONDITIONS TO THE OWNER OR OWNER'S REPRESENTATION IMMEDIATELY.
- 11. THE CONTRACTOR SHALL CONDUCT ALL NECESSARY CONSTRUCTION NOTIFICATIONS AND APPLY FOR AND OBTAIN ALL NECESSARY CONSTRUCTION PERMITS.
- VERTICAL AND HORIZONTAL CONSTRUCTION CONTROLS.
- 14. FOR SOIL INFORMATION REFER TO GEOTECHNICAL REPORT

UTILITY NOTES:

- 1. ALL UTILITY CONNECTIONS ARE SUBJECT TO THE APPROVAL OF, AND GRANTING OF PERMITS BY, THE LOCAL MUNICIPALITY, IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ALL PERMITS AND APPROVALS RELATED TO UTILITY WORK PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- 2. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR OBTAINING ALL PERMISSIONS FOR, AND FOR CONDUCTING ALL PREPARATIONS RELATED TO, WORK AFFECTING ANY UTILITIES WITHIN THE JURISDICTION OF ANY NON-MUNICIPAL UTILITY COMPANY. INCLUDING BUT NOT LIMITED TO ELECTRIC. TELEPHONE. AND/OR GAS. THE CONTRACTOR SHALL NOTIFY ALL APPROPRIATE AGENCIES, DEPARTMENTS, AND UTILITY COMPANIES, IN WRITING, AT LEAST 7 DAYS (OR PER UTILITY COMPANY REQUIREMENT) AND NOT MORE THAN 30 DAYS PRIOR TO ANY CONSTRUCTION.
- 3. THE CONTRACTOR SHALL MAINTAIN UTILITIES SERVICING BUILDINGS AND FACILITIES WITHIN OR OUTSIDE THE PROJECT LIMIT UNLESS THE INTERRUPTION OF SERVICE IS COORDINATED WITH THE OWNER.
- 4. ALL WATER, SEWER, AND DRAIN WORK SHALL BE PERFORMED ACCORDING TO THE REQUIREMENTS AND STANDARD SPECIFICATIONS OF THE LOCAL MUNICIPALITY.
- 5. GAS, TELECOMMUNICATIONS AND ELECTRIC SERVICES ARE TO BE DESIGNED BY EACH UTILITY COMPANY IN COORDINATION WITH THE MECHANICAL, ELECTRIC, AND PLUMBING CONSULTANTS.
- 6. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES OF NEW UTILITIES WITH GAS, TELECOMMUNICATION AND ELECTRICAL SERVICES.
- 7. INSTALL WATER LINES WITH A MINIMUM OF FIVE FEET OF COVER AND A MAXIMUM OF SEVEN FEET COVER FROM THE FINAL DESIGN GRADES.
- 8. MAINTAIN 10 FEET HORIZONTAL SEPARATION AND 18 INCHES VERTICAL SEPARATION (WATER OVER SEWER) BETWEEN SEWER AND WATER LINES. WHEREVER THERE IS LESS THAN 10 FEET OF HORIZONTAL SEPARATION AND 18 INCHES OF VERTICAL SEPARATION BETWEEN A PROPOSED OR EXISTING SEWER LINE TO REMAIN AND A PROPOSED OR EXISTING WATER LINE TO REMAIN BOTH WATER MAIN AND SEWER MAIN SHALL BE CONSTRUCTED OF MECHANICAL JOINT CEMENT LINED DUCTILE IRON PIPE FOR A DISTANCE OF 10-FEET ON EITHER SIDE OF THE CROSSING. ONE (1) FULL LENGTH OF WATER PIPE SHALL BE CENTERED OVER THE SEWER AT THE CROSSING.
- 9. THE CONTRACTOR SHALL MAINTAIN ALL EXISTING UTILITIES EXCEPT THOSE NOTED TO BE ABANDONED AND/OR REMOVED & DISPOSED.
- 10. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR TRENCHING, BACKFILLING, AND SURFACE RESTORATION FOR GAS UTILITY SYSTEMS.
- 11. ALL ONSITE UTILITIES SHALL BE INSTALLED UNDERGROUND UNLESS OTHERWISE NOTED.
- 12. ALL EXISTING AND PROPOSED MANHOLE FRAMES, COVERS, VALVES, CLEANOUTS, CASTINGS, ETC. SHALL BE RAISED TO FINISHED GRADE PRIOR TO FINAL GRADING AND PAVING CONSTRUCTION.
- 13. ALL GRATES IN WALKWAYS SHALL BE ADA COMPLIANT

PROPOSED LEGEND

EXISTING UTILITY TO BE ABANDONED. REMOVED AND DISPOSED IF IN CONFLICT WITH NEW SITE IMPROVEMENTS. OR AS INDICATED ON DRAWINGS

— x — — x — CONSTRUCTION FENCE ——— W ——— DOMESTIC WATER PIPE

FP FIRE PROTECTION PIPE SANITARY SEWER PIPE _____D ____ STORM DRAIN PIPE GAS PIPE ELECTRIC DUCTBANK

T/C TELECOM DUCTBANK -----CW----- CHILLED WATER PIPE

HOT WATER PIPE/RETURN -----RW----- REUSE WATER PIPE GREY WATER PIPE FUTURE UTILITY, SHOWN FOR INFORMATION ONLY INLET PROTECTION

_____ **ELEVATION CONTOURS** —— -- MATCH LINE CENTERLINE

> CO • CLEANOUT AREA DRAIN ACCESS BASIN • • DRAIN MANHOLE

> > WATER QUALITY STRUCTURE

WATER QUALITY INLET

CATCH BASIN DOUBLE CATCH BASIN

SEWER MANHOLE STMH | STEAM MANHOLE

TELECOM MANHOLE

EMH | • | **ELECTRIC MANHOLE** CHILLED WATER VALVE

WATER VALVE FIRE HYDRANT

> TREE PROTECTION NUMBER OF

> > PARKING SPOTS

THE CENTER AT 10 ELM

COMMUNITY **STREET**

SENIOR CENTER

EHH ELECTRIC HANDHOLE EJ EXPANSION JOINT EMH ELECTRIC MANHOLE FD FOUNDATION DRAIN FFE FINISHED FLOOR ELEVATION

HP HIGH POINT HYD FIRE HYDRANT INV INVERT ELEVATION

ABBREVIATIONS

BC BOTTOM OF CURB ELEVATION

CPP CORRUGATED POLYETHYLENE PIPE

DI DUCTILE IRON PIPE CEMENT LINED

AB ACCESS BASIN

AD AREA DRAIN

CB CATCH BASIN

CCB CAPE COD BERM

CJ CONTROL JOINT

COP CENTER OF PIPE

CP CARRIER PIPE

DMH DRAIN MANHOLE

DCB DOUBLE CATCH BASIN

CL CENTER LINE

CO CLEANOUT

CI CAST IRON

LF LINEAR FEET LOW LIMIT OF WORK LP LOW POINT LW LAB WASTE

M&P MAINTAIN AND PROTECT NIC NOT IN CONTRACT OC ON CENTER

PD PERIMETER DRAIN PERF PERFORATED PVC POLYVINYL CHLORIDE PIPE

OCS OUTLET CONTROL STRUCTURE

R&D REMOVE AND DISPOSE OF R&S REMOVE AND STOCKPILE RD ROOF DRAIN

RIM RIM ELEVATION

SMH SEWER MANHOLE SS SEWER SERVICE

TOP OF CURB FLEVATION THH TELECOM HANDHOLE

TMH TELECOM MANHOLE TOP TOP OF PIPE TOD TOP OF DUCT BANK

USD UNDERSLAB DRAIN VGC VERTICAL GRANITE CURB

TYP TYPICAL

WQI WATER QUALITY INLET WQS WATER QUALITY STRUCTURE

WV WATER VALVE

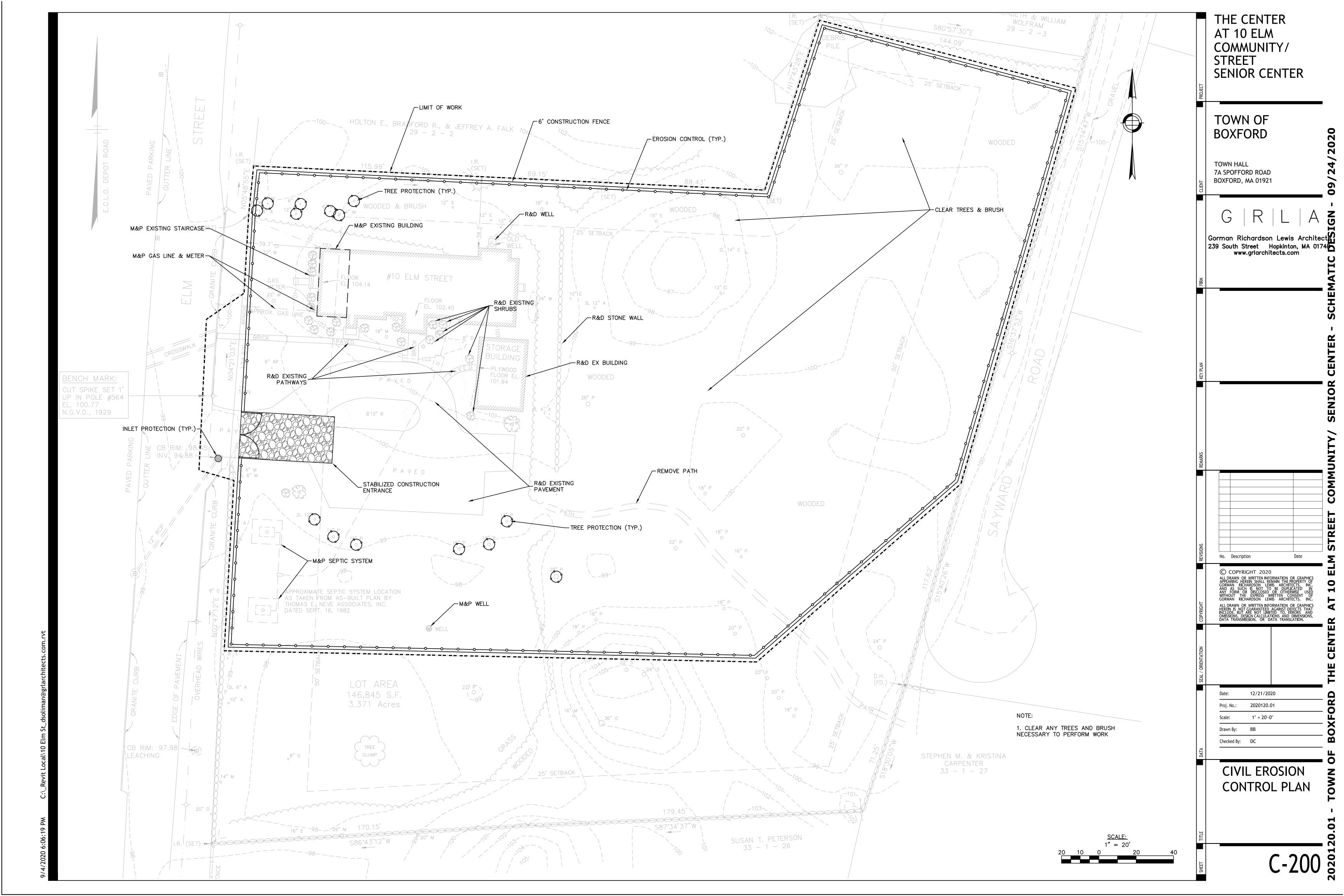
TOWN OF **BOXFORD** TOWN HALL 7A SPOFFORD ROAD BOXFORD, MA 01921

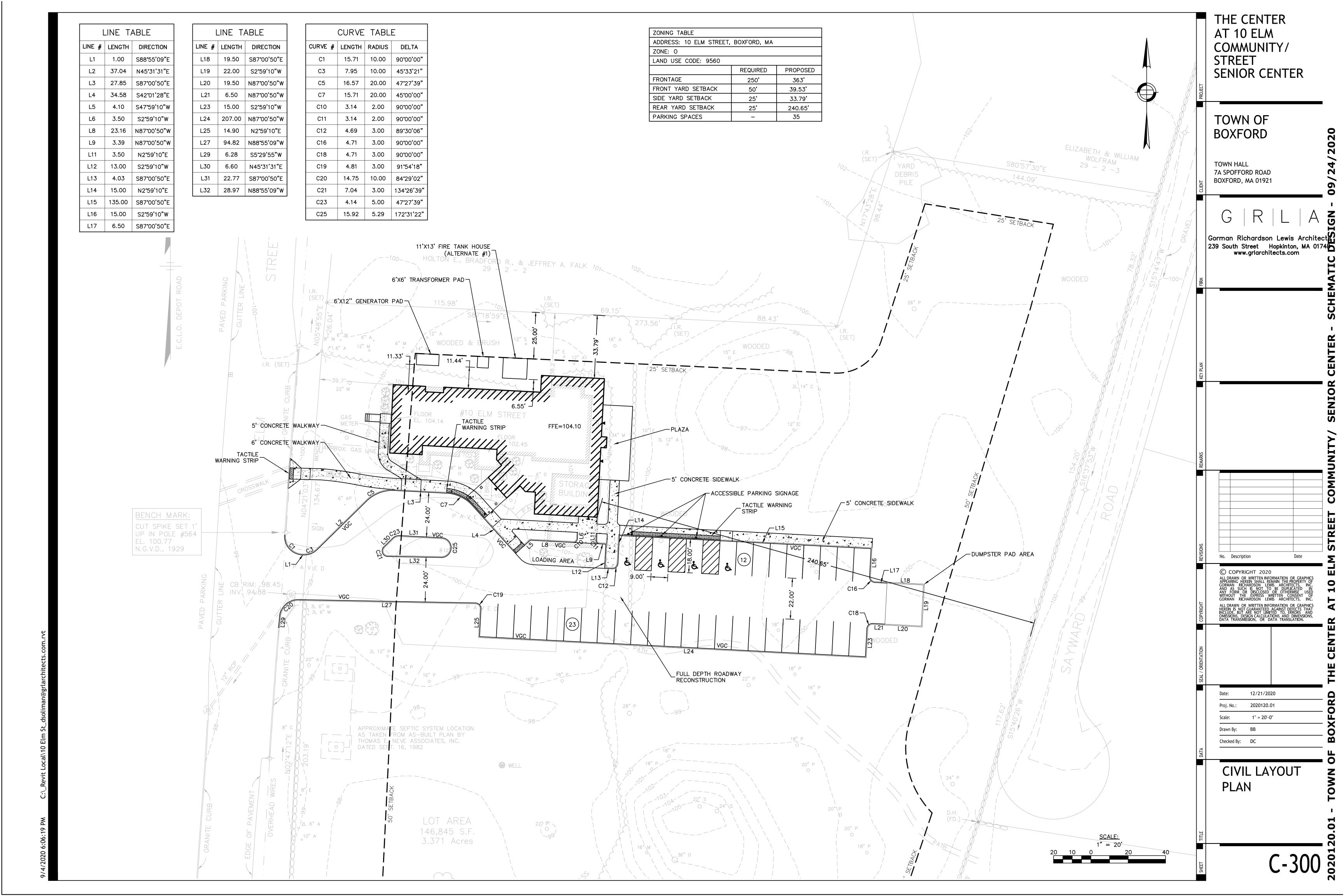
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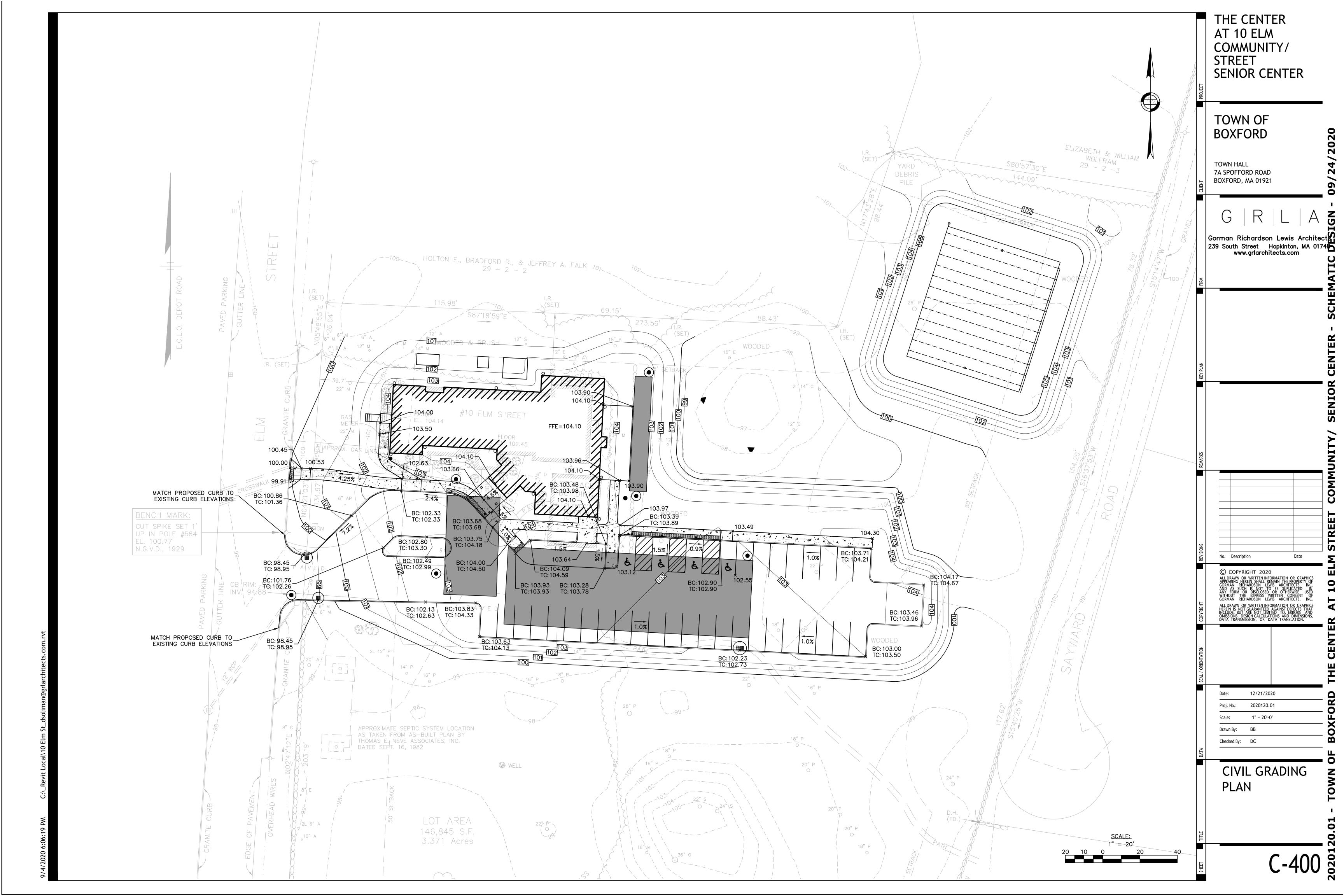
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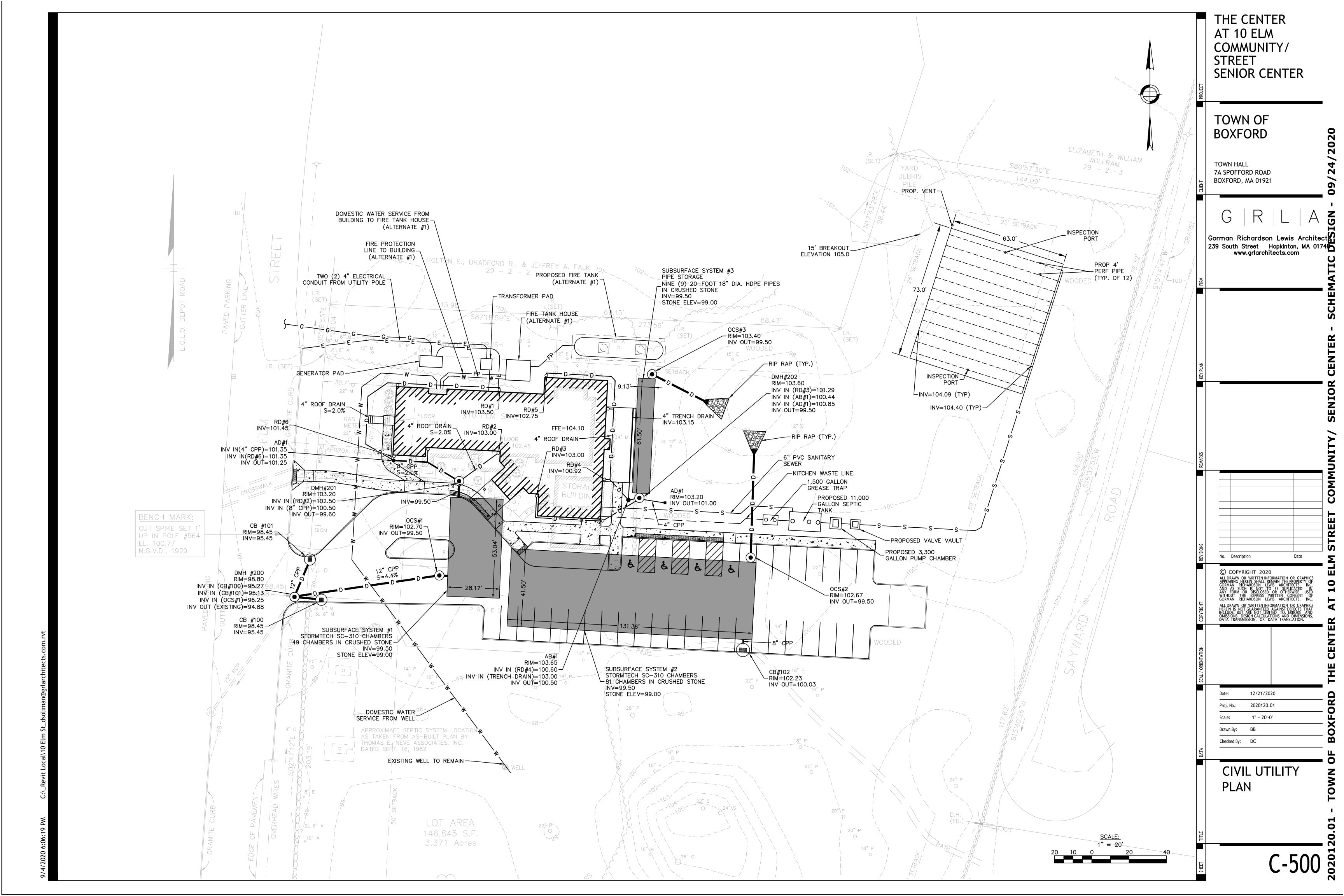
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CIVIL NOTES & **ABBREVIATIONS**

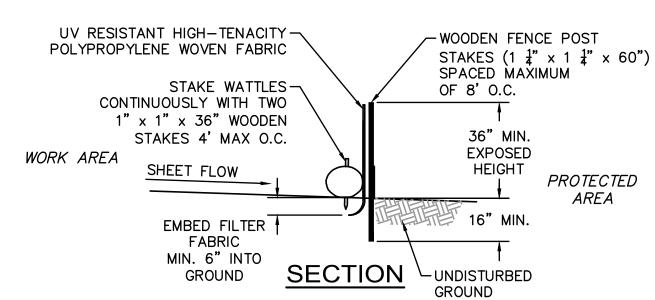








-UV RESISTANT HIGH-TENACITY POLYPROPYLENE WOVEN FABRIC -WOODEN FENCE POST STAKES $(1 \frac{1}{4}$ " x 1 $\frac{1}{4}$ " x 60") SPACED MAXIMUM OF 8' O.C. (MAX.) 9" DIA. STAKED SHEET FLOW WATTLES **PROTECTED** 36" MIN. AREA **EXPOSED** HEIGHT MAINTAIN 5' SEDIMENTATION -STORAGE ZONE FOR SLOPES WORK GREATER THAN 4:1 AREA TOP OF GROUND NOTE: NOT FOR CONCENTRATED FLOWS 16"MIN. TYPES OF WATTLES EMBED FILTER COIR (COCONUT FIBER) FABRIC COMPÔST MIN. 6" INTO STRAW GROUND PERSPECTIVE VIEW



PERIMETER PROTECTION BARRIER (B) SILT FENCE DETAIL WITH WATTLES

NOT TO SCALE

CENTER GUY WIRE

ELEVATION

RECOMMENDATIONS SLOPE INSTALLATION

NOTES:

** PER MANUFACTURER'S

- PREPARE SOIL BEFORE INSTALLING EROSION CONTROL BLANKETS (ECB's), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
- BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE ECB'S IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING PORTION OF ECB'S BACK OVER SEED AND COMPACTED SOIL. SECURE ECB's OVER COMPACTED SOIL WITH A ROW OF STAKES/STAPLES SPACED ACCORDANCE TO THE MANUFACTURER'S RECOMMENDATIONS ACROSS THE WIDTH OF THE ECB's.
- 3. ROLL THE ECB's DOWN (A) OR HORIZONTALLY (B) ACROSS THE SLOPE. ECB's WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE ALL ECB'S MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAKES/STAPLES IN APPROPRIATE LOCATIONS AS SHOWN ON THE STAKE/STAPLE PATTERN GUIDE.
- 4. THE EDGES OF PARALLEL ECB'S MUST BE STAKED/STAPLED WITH OVERLAP DEPENDING ON ECB's TYPE. SEE THE MANUFACTURER'S RECOMMENDATIONS.
- 5. CONSECUTIVE ECB's SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN OVERLAP (SEE THE MANUFACTURER'S RECOMMENDATIONS). STAKE/STAPLE THROUGH OVERLAPPED AREA, ACROSS ENTIRE ECB's WIDTH PER MANUFACTURER'S RECOMMENDATIONS.
- 6. IN LOOSE SOIL CONDITIONS, THE USE OF STAKE OR STAPLE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE ECB's.
- 7. THE CONTRACTOR SHALL FOLLOW ALL INSTALLATION INSTRUCTIONS AS RECOMMENDED BY THE MANUFACTURER.

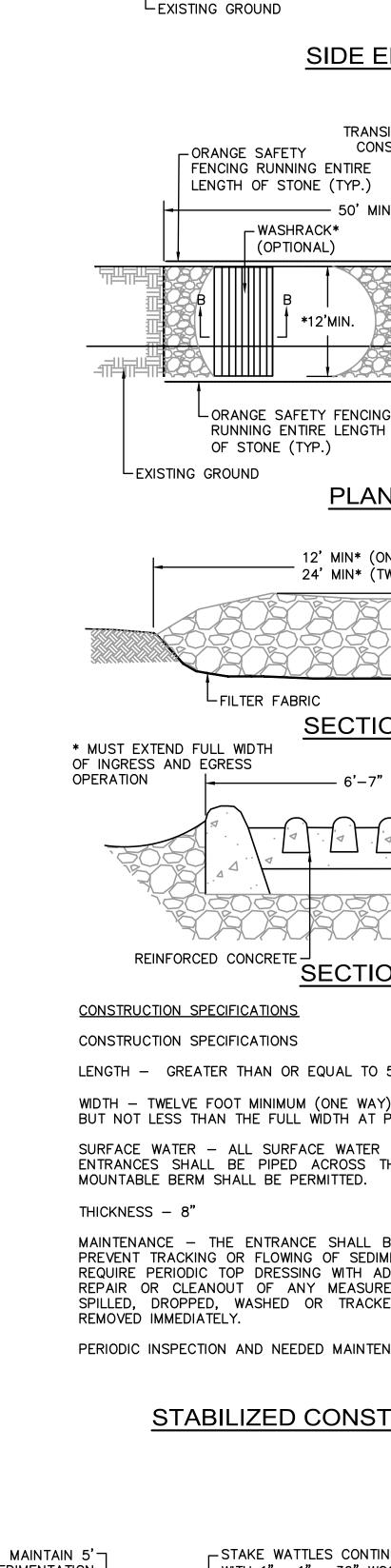
TEMPORARY EROSION CONTROL **BLANKET FOR STEEP SLOPES DETAIL** NOT TO SCALE

CONSTRUCTION FENCE AND GATE NOTES

- 1. FABRIC SHALL BE 0.148" WOVEN APPROXIMATELY 2" DIAMOND
- 2. THE FENCE FABRIC SHALL BE ZINC COATED STEEL OR ALUMINUM COATED STEEL.
- 3. FENCE POSTS SHALL RECEIVE THE SAME COATING AND TREATMENT AS THE FENCE FABRIC (DESCRIBED ABOVE).
- 4. THE CONTRACTOR SHALL ADD A GREEN WIND SCREEN
- 5. LINE POSTS SHALL BE 21/2" O.D. END OR CORNER POSTS SHALL BE 3" O.D.
- 6. THE CONTRACTOR IS RESPONSIBLE FOR SURFACE RESTORATION ONCE THE FENCE IS REMOVED.
- 7. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF THE TEMPORARY CONSTRUCTION FENCE AT THE CONCLUSION OF THE PROJECT.

SECTION A-A

CHAIN LINK CONSTRUCTION FENCE NOT TO SCALE



CONSTRUCTION SPECIFICATIONS

CONSTRUCTION SPECIFICATIONS

LENGTH - GREATER THAN OR EQUAL TO 50 FEET

WIDTH - TWELVE FOOT MINIMUM (ONE WAY), TWENTY FOUR FOOT MINIMUM (TWO WAY), BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.

SIDE ELEVATION

-FILTER FABRIC

TRANSITION BETWEEN STABILIZED

CONSTRUCTION ENTRANCE AND

PROVIDE APPROPRIATE -

PUBLIC RIGHT-OF-WAY

POSITIVE DRAINAGE TO

SEDIMENT TRAPPING DEVICE ON SITE.

PLAN VIEW

12' MIN* (ONE WAY)

24' MIN* (TWO WAY)

SECTION A-A

6'-7" (MIN.)

SECTION B-B

8"min. -

- WASHRACK*

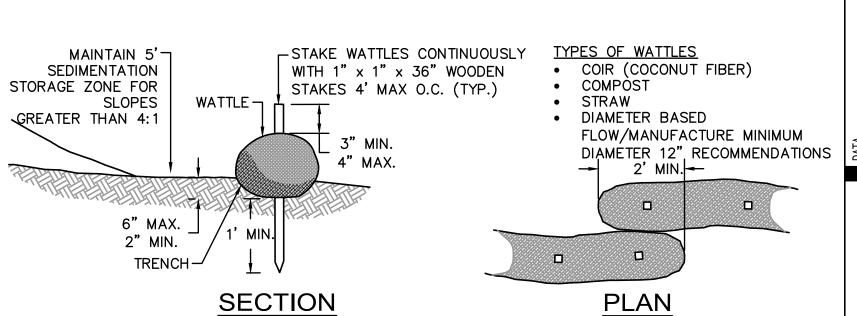
(OPTIONAL)

SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A

MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH SHALL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE

PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED.

STABILIZED CONSTRUCTION ENTRANCE



WATTLES - SLOPE PROTECTION FOR SLOPES LESS THAN 10:1 NOT TO SCALE

THE CENTER AT 10 ELM COMMUNITY/ **STREET** SENIOR CENTER

EXISTING PUBLIC RIGHT-OF-WAY

-MOUNTABLE BERM

_EXISTING

10'MIN.

4"MIN.

-2" TO 3" STONE COURSE

AGGREGATE (TYP.)

LDRAIN SPACE

PAVEMENT

(OPTIONAL)

TOWN OF BOXFORD

TOWN HALL 7A SPOFFORD ROAD BOXFORD, MA 01921

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Drawn By: BB

CIVIL DETAILS I

INLET PROTECTION (2) CATCH BASIN W/ SILTATION SACK NOT TO SCALE

CONTRACTOR SHALL EXPECT PONDING DURING HIGH FLOW EVENTS.

THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE THE INLET

DRAINS SHEET, OVERLAND OR CONCENTRATED FLOWS (NOT GREATER

INLET CAPACITY WILL BE DECREASED WITH THIS METHOD AND THE

THAN 1 CFS). THE METHOD CAN DRAIN FLAT AREA TO STEEP SLOPES.

INCLUDE OVERFLOW

OR APPROVED EQUAL

(REBAR NOT INCLUDED)

DUMP LOOPS -

SILT-SAC, HYDRO-FLOGARD +

PLUS CATCH BASIN INSERT,

ULTRA-DRAINGUARD INSERT

- TYP. FENCE HEIGHT TOP GUY WIRE -TO BE 8'-0" UNLESS OTHERWISE SPECIFIED. FENCE FABRIC -**GUY WIRE** CORNER, END OR-LINE POSTS GREEN WIND-SCREEN' FIN. GRD. → DRIVEN POST MIN 3' DEPTH.

EXISTING GRATE

TO BE REUSED

SIDE VIEW

INSTALLED

EXPANSION-

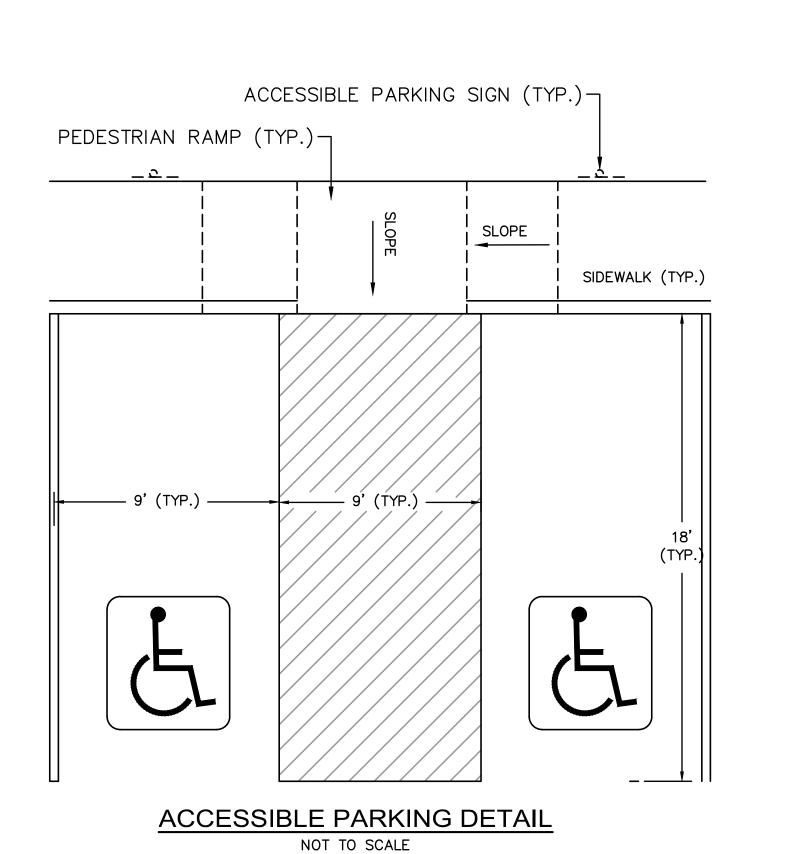
RESTRAINT

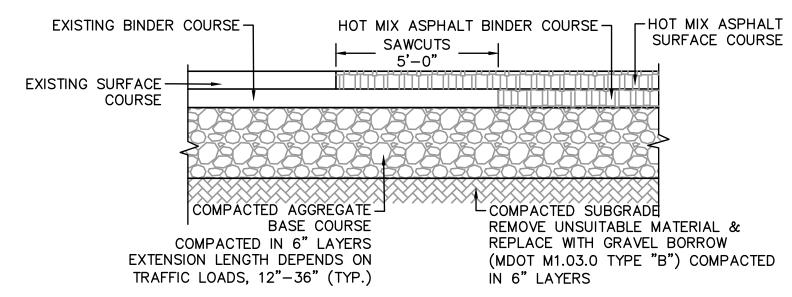
-EXISTING CATCHBASIN-

TOP GUY WIRE

HOT MIX ASPHALT PAVING (TWO COURSES) DETAIL

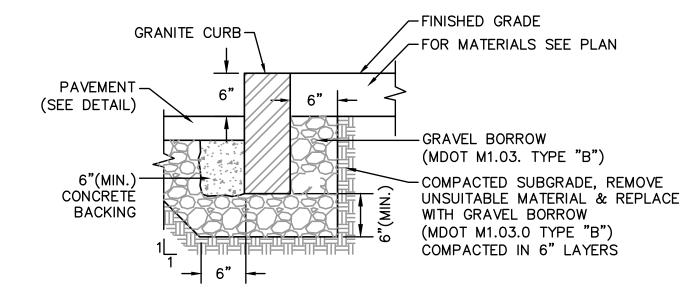
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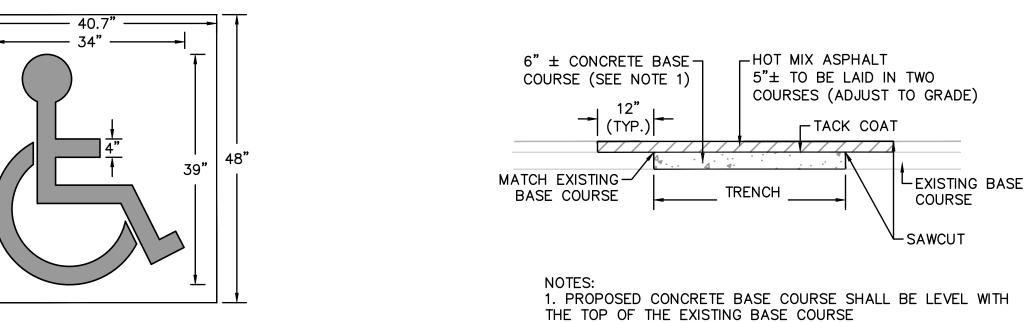
PAVEMENT MATCHING DETAIL

NOT TO SCALE



VERTICAL GRANITE CURB SETTING DETAIL

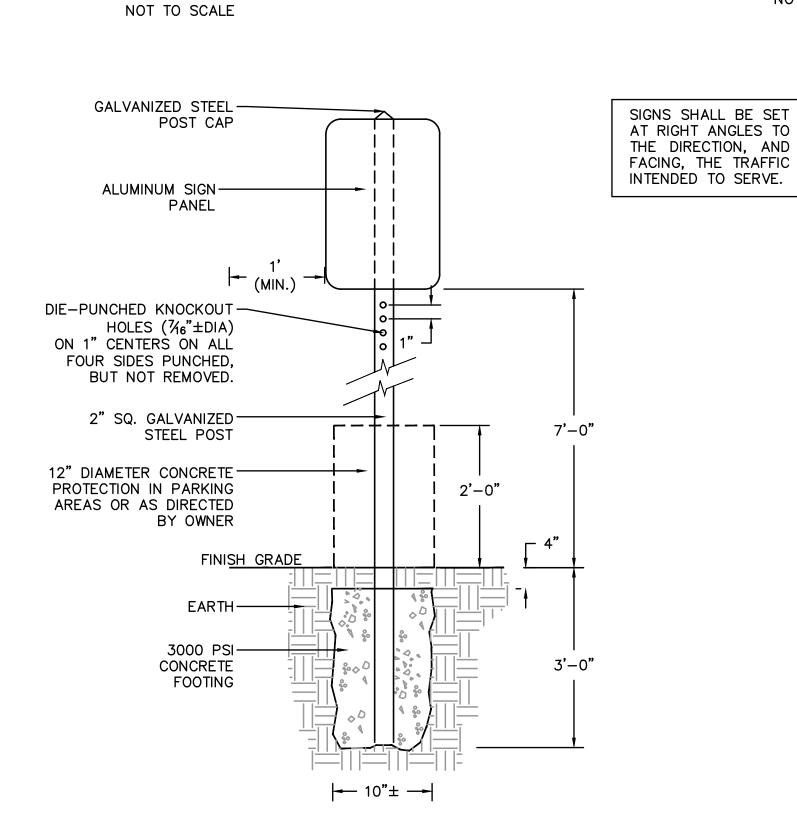
NOT TO SCALE



ACCESSIBLE PARKING STENCIL DETAIL

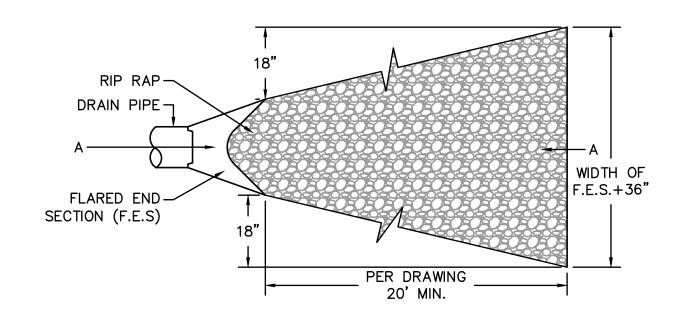
PAVEMENT RESTORATION OVER TRENCH DETAIL

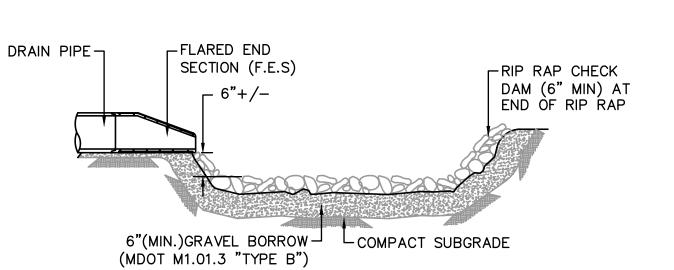
NOT TO SCALE



SIGN POST SETTING DETAIL

NOT TO SCALE (SIGN PANEL UNDER 10 SF IN AREA)





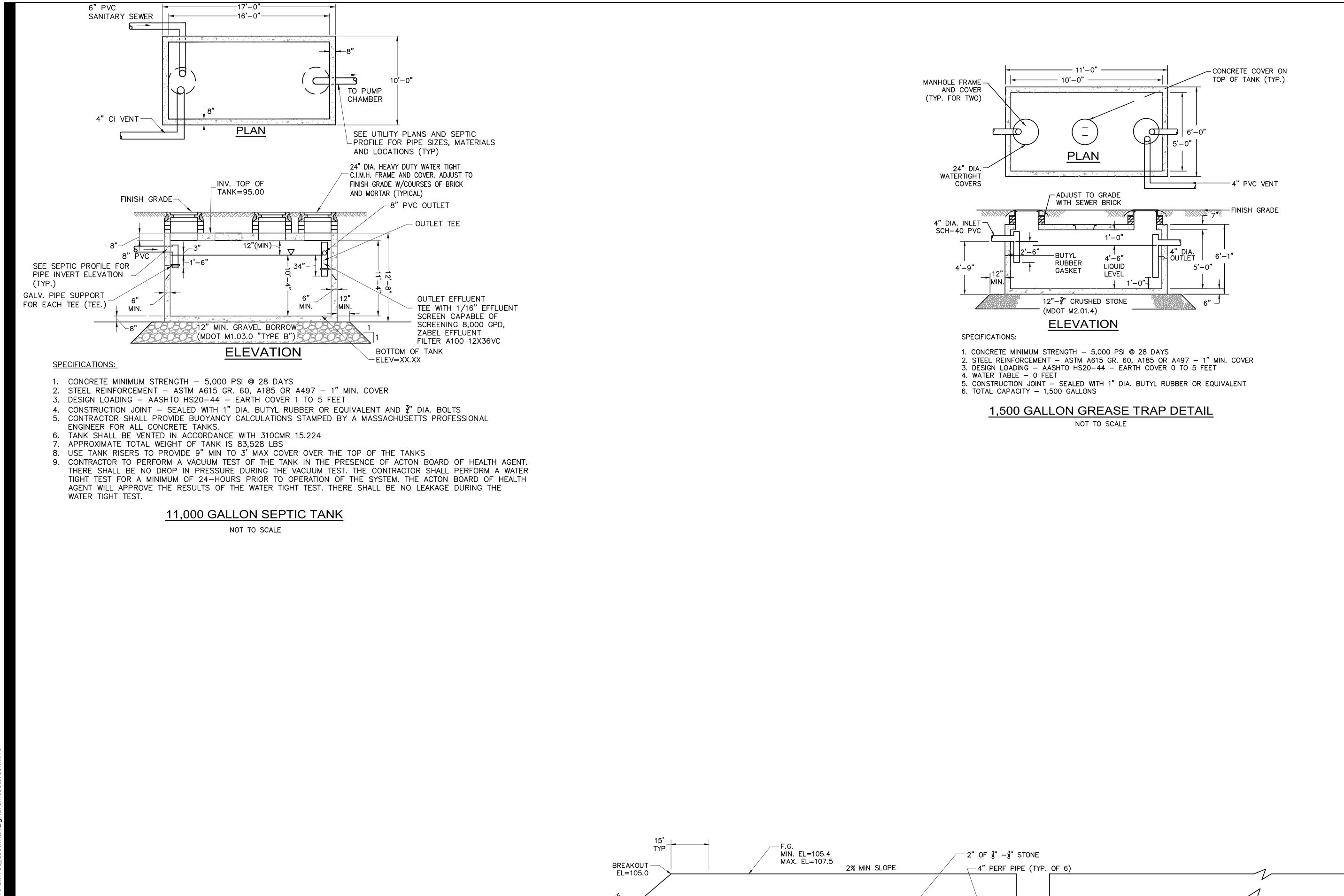
SECTION A-A

NOTE:
RIP RAP SHALL BE DUMPED AND MACHINE
GRADED (HAND GRADE AS NEEDED)

RIP RAP DETAIL NOT TO SCALE

THE CENTER AT 10 ELM COMMUNITY/ STREET SENIOR CENTER TOWN OF **BOXFORD** TOWN HALL 7A SPOFFORD ROAD BOXFORD, MA 01921 Gorman Richardson Lewis Architect 239 South Street Hopkinton, MA 0174 www.grlarchitects.com No. Description © COPYRIGHT 2020 12/21/2020 Proj. No.: 2020120.01 AS NOTED Drawn By: BB Checked By: DC CIVIL DETAILS II

C:_Revit Local\10 Elm St_dsoliman@grlarchitects.com.rv



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6" OF $\frac{3}{4}$ " - $1\frac{1}{2}$ " STONE

LEACH FIELD SECTION

NOT TO SCALE

ESHWT

EL 98.0

-36' RESERVE AREA

THE CENTER

COMMUNITY/

SENIOR CENTER

AT 10 ELM

STREET

TOWN OF

BOXFORD

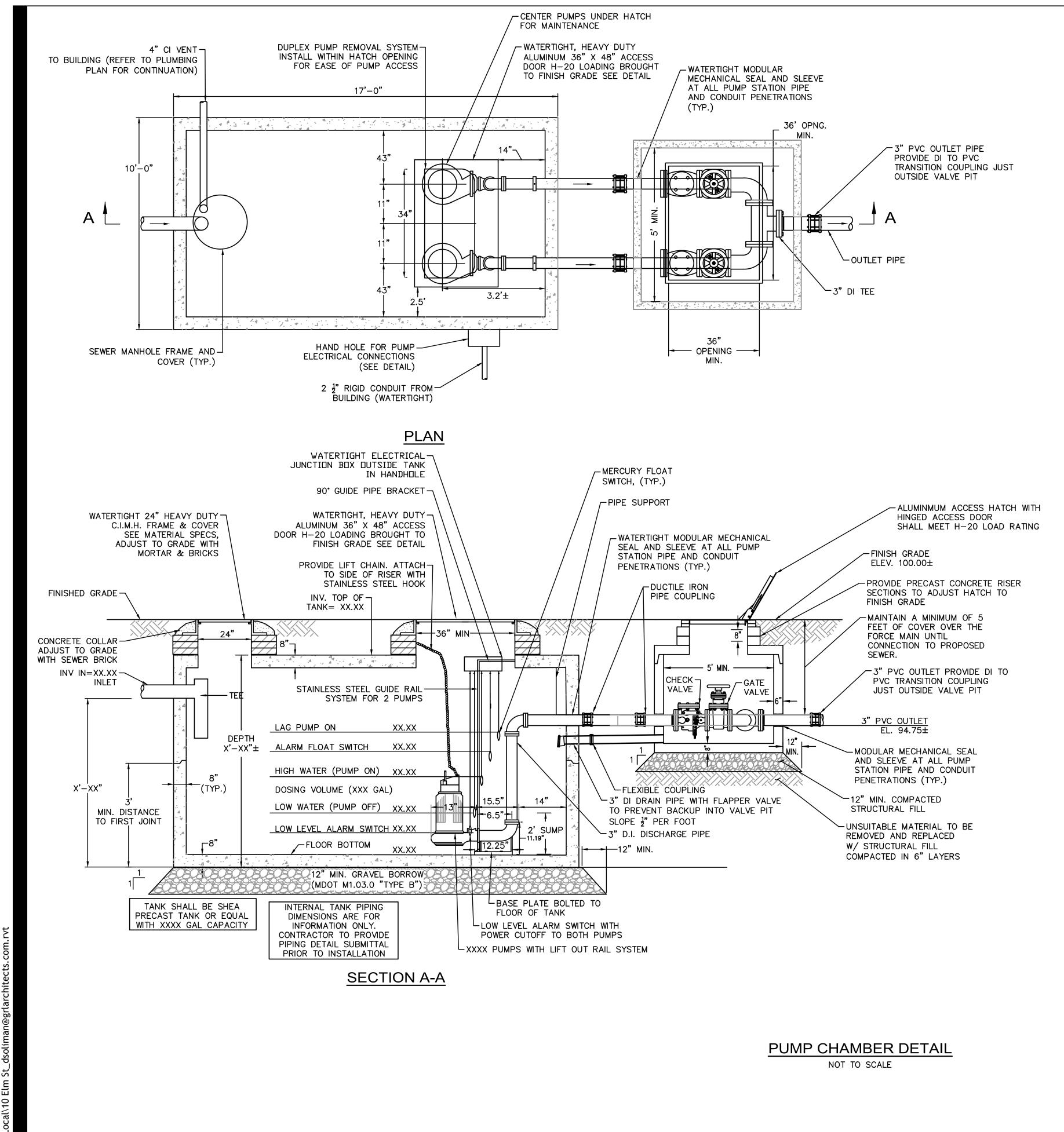
7A SPOFFORD ROAD

BOXFORD, MA 01921

Gorman Richardson Lewis Architect 239 South Street Hopkinton, MA 0174 www.grlarchitects.com

TOWN HALL

G



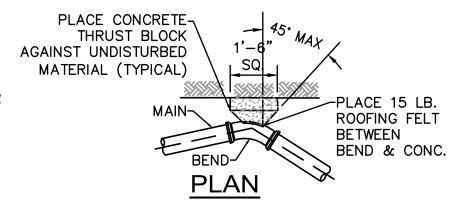
NOTES

- 1. DESIGN LOADING AASHTO HS-20-44 / CONCRETE: 5,000 PSI MINIMUM AFTER 28 DAYS.
- 2. THE CONTRACTOR SHALL SUBMIT BUOYANCY CALCULATIONS FOR SEWER PUMP STATION STRUCTURES. IF BUOYANCY IS AN ISSUE, THE STRUCTURE(S) SHALL BE MODIFIED TO PREVENT UPLIFT. ALL BUOYANCY CALCULATIONS AND SEWER PUMP STATION STRUCTURE DESIGNS SHALL BE PREPARED AND STAMPED BY THE PROFESSIONAL CIVIL ENGINEER LICENSED IN THE STATE OF MASSACHUSETTS. THE BUOYANCY CALCULATIONS SHALL BE PREPARED FOR THE CONDITIONS INDICATED WITHIN SPECIFICATION SECTION 333100, WASTEWATER COLLECTION.
- 3. CONSTRUCTION OF PUMP CHAMBER CONFORMS WITH DEP TITLE 5 REGS, 310 CMR, SECTION 15.226.
- 4. ALL REINFORCEMENT PER ASTM C1227-93.
- 5. JOINT SEALED WITH BUTYL RESIN.
- 6. NLET AND OUTLET PIPE CONNECTIONS SHALL BE MADE USING STEEL WALL SLEEVES AND WATERTIGHT MODULAR, MECHANICAL SEALS CONSISTING OF RUBBER LINKS.
- 7. PUMPS, FLOATS AND PIPE INSTALLED IN CHAMBER.
- 8. PROVIDE RISER AND FRAME WITH COVERS SET TO FINISH GRADE (SEE PROFILE)
- 9. ALL INTERNAL PIPING FOR THE PUMP SYSTEM TO BE SCHEDULE FLANGED DUCTILE IRON WITH MINIMUM CLASS 53 THICKNESS.
- 10. CONTRACTOR SHALL SUPPLY ALL NECESSARY FITTINGS TO TRANSITION FROM DUCTILE IRON PIPING TO PVC PIPING. ALL PIPE CONNECTIONS SHALL BE MADE USING MODULAR MECHANICAL SEALS AND STEEL WALL SLEEVES.
- 11. THE CONTRACTOR SHALL SUBMIT BUOYANCY CALCULATIONS FOR SEWER PUMP STATION STRUCTURES. IF BUOYANCY IS AN ISSUE, THE STRUCTURE(S) SHALL BE MODIFIED TO PREVENT UPLIFT. ALL BUOYANCY CALCULATIONS AND SEWER PUMP STATION STRUCTURE DESIGNS SHALL BE PREPARED AND STAMPED BY THE PROFESSIONAL CIVIL ENGINEER LICENSED IN THE STATE OF MASSACHUSETTS. THE BUOYANCY CALCULATIONS SHALL BE PREPARED FOR THE CONDITIONS INDICATED WITHIN SPECIFICATION SECTION 333100. WASTEWATER COLLECTION.
- 12. THE WET WELL AND VALVE VAULT SHALL EACH RECEIVE TWO HEAVY COATS OF BITUMINOUS DAMPPROOFING ON BOTH THE INSIDE AND OUTSIDE SURFACES OF THE STRUCTURES.
- 13. WET WELL SHALL BE SIZED TO PERMIT EASY REMOVAL OF CHECK VAVLE SPINDLES WITH MINIMUM CLEARANCES AS SHOWN FOR 4" DIAMETER PIPE AND SMALLER. CLEARANCES SHALL INCREASE AS REQUIRED FOR LARGER PIPE SIZES.
- 14. RESILIENT WEDGE GATE VALVES SHALL BE FLANGED, DUCTILE IRON BODY, RESILIENT SEALED TYPE.
- 15. THRUST BLOCKS SHALL BE USED AT ALL EXTERNAL FORCE MAIN BENDS AND FITTINGS AS SHOWN ON THE THRUST BLOCK DETAILS AND AS INDICATED IN THE SPECIFICATIONS. IN THE EVENT THAT THE USE OF THRUST BLOCKS IS NOT PRACTICAL, THE CONTRACTOR SHALL PROVIDE AN ALTERNATE METHOD OF JOINT RESTRAINT, AT NO ADDITIONAL COST, AS APPROVED AND/OR AS DIRECTED BY THE ENGINEER.
- 16. SEE SPECIFICATION SECTION 333100 FOR ALL PUMP STATION REQUIREMENTS.
- 17. PUMPS SHALL BE:

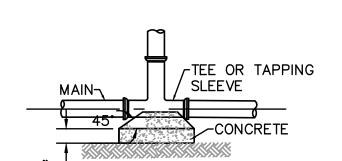
MANUFACTURER/MODEL: _	MYERS OR APPROVED EQUAL
IMPELLER:	6"
SPEED:	1750 RPM
DISCHARGE SIZE:	3"
VOLTAGE:	230
HZ:	60
PHASE:	3-PHASE
HORSEPOWER:	1.5 HP
MAX. SOLID SIZE:	2-1/2"
MAX. SOLID SIZE:	<u> </u>

- 18. OPERATING CONDITIONS SHALL BE 120 GPM AT 22.73 FEET TDH.
- 19. ALL HARDWARE IN WET WELL TO BE STAINLESS STEEL WITH LIFTING CABLE.

THE CENTER AT 10 ELM COMMUNITY/ **STREET** SENIOR CENTER TOWN OF **BOXFORD** TOWN HALL 7A SPOFFORD ROAD BOXFORD, MA 01921 Gorman Richardson Lewis Architect 239 South Street Hopkinton, MA 0174 www.grlarchitects.com No. Description © COPYRIGHT 2020 12/21/2020 Proj. No.: 2020120.01 AS NOTED Drawn By: BB Checked By: DC CIVIL DETAILS III



<u>PLAN</u>



<u>PLAN</u>

NOTES:

1. THRUST BLOCKS TO BE USED ON ALL PRESSURE PIPES AT HORIZONTAL AND VERTICAL BENDS GREATER OR EQUAL TO 45°, TEES AND DEAD ENDS.

2. FOR FITTINGS WITH LESS THAN 45° DEFLECTION USE

BEARING AREAS FOR 45° BEND.

TEE OR TAPPING
SLEEVE

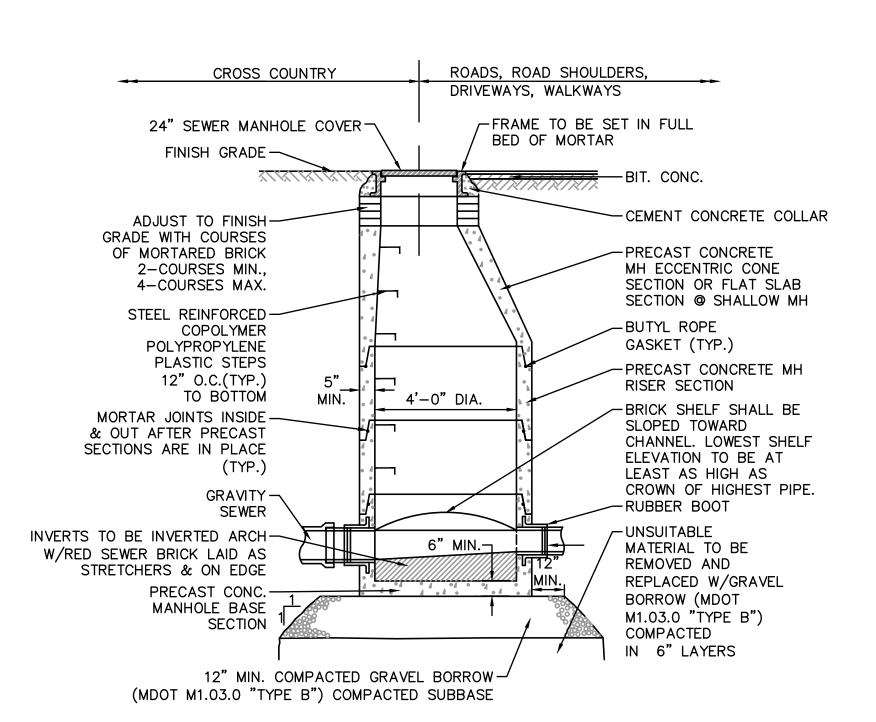
PRESSURE OF 2000 PSF AND A MINIMUM INTERNAL WATER
PRESSURE OF 175 PSIG. JOINTS SHALL NOT BE ENCASED
IN CONCRETE, BEARING AREAS MAY BE DISREGARDED FOR
TRENCHES IN ROCK WHERE THE TOP OF THE ROCK FACE
IS AT OR ABOVE THE CROWN OF THE PIPE. HOWEVER,
CONCRETE BACKING SHALL BE PLACED BETWEEN THE PIPE
AND ROCK FACE.

TABLE OF BEARING AREAS IN SQUARE FEET AGAINST UNDISTURBED MATERIAL FOR FITTING. *

SIZE OF MAIN (INCHES)	90° BEND (S.F.)	45° BEND (S.F.)	DEAD END (S.F.)						
4	2.3	1.3	1.6						
6	4.7	2.5	3.3						
8	8.0	4.5	6.0						
12	17.0	9.5	12.0						

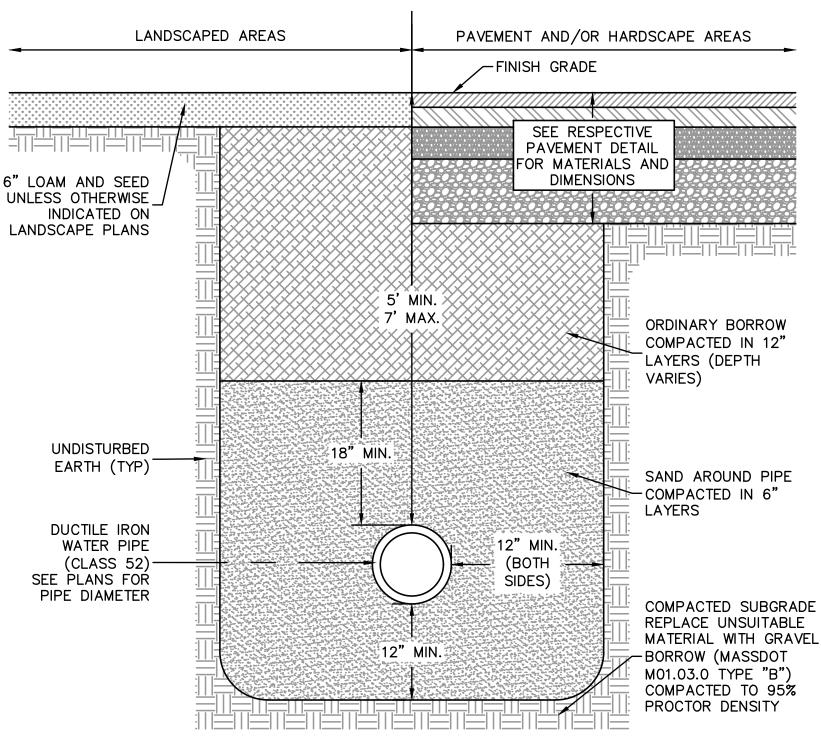
THRUST BLOCK DETAILS

NOT TO SCALE



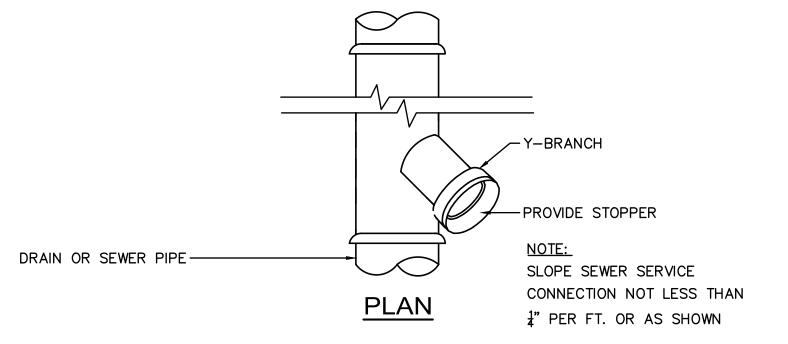
TYPICAL SEWER MANHOLE DETAIL

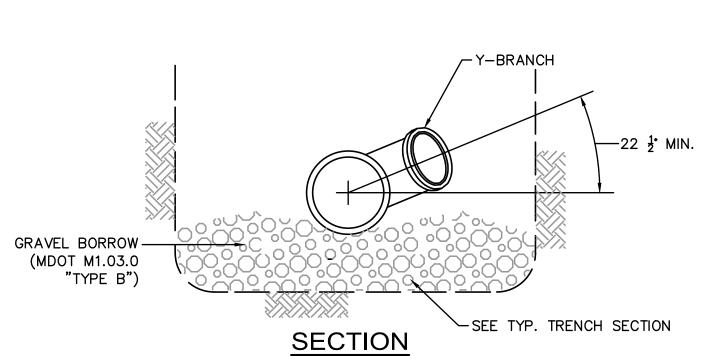
NOT TO SCALE



WATER TRENCH DETAIL

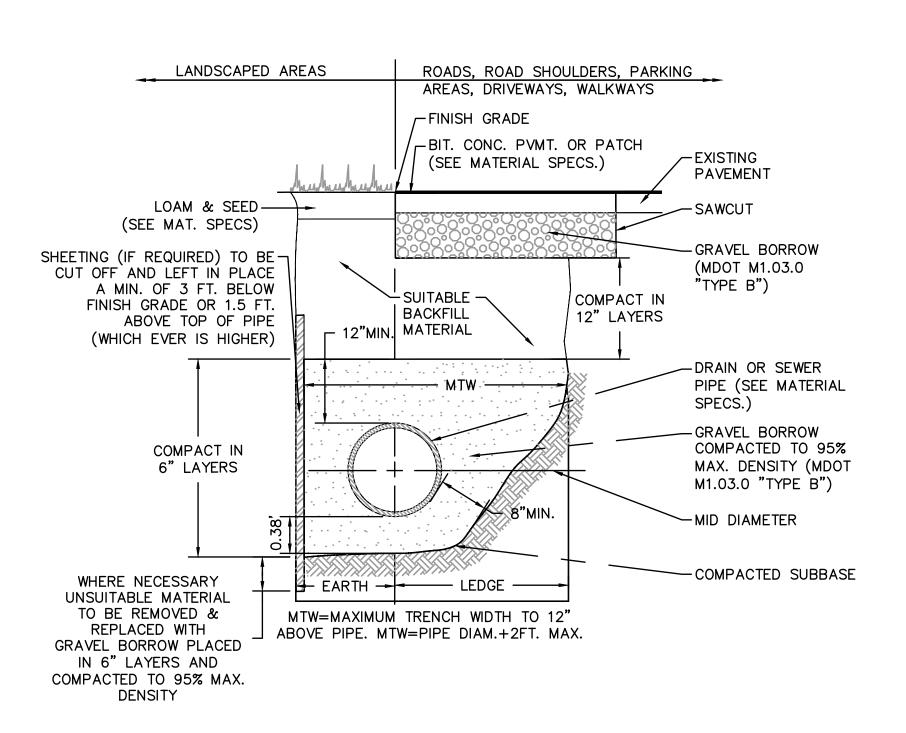
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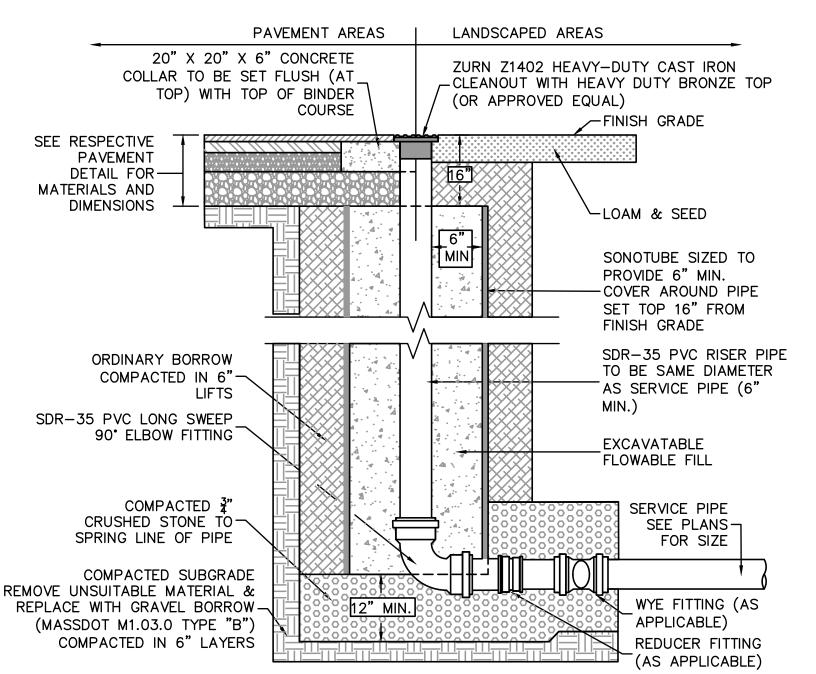
WYE BRANCH FOR PIPE SERVICE CONNECTION DETAIL

NOT TO SCALE



STANDARD TRENCH DETAIL FOR UTILITY PIPE

NOT TO SCALE

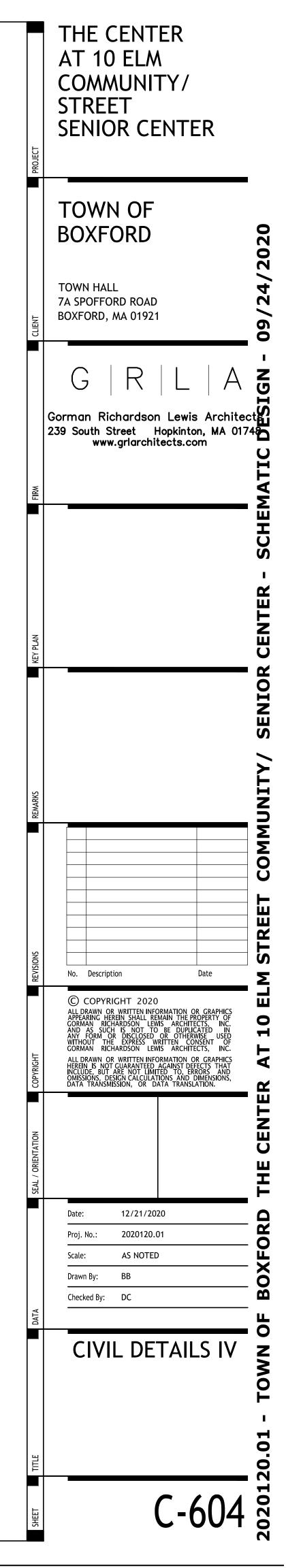


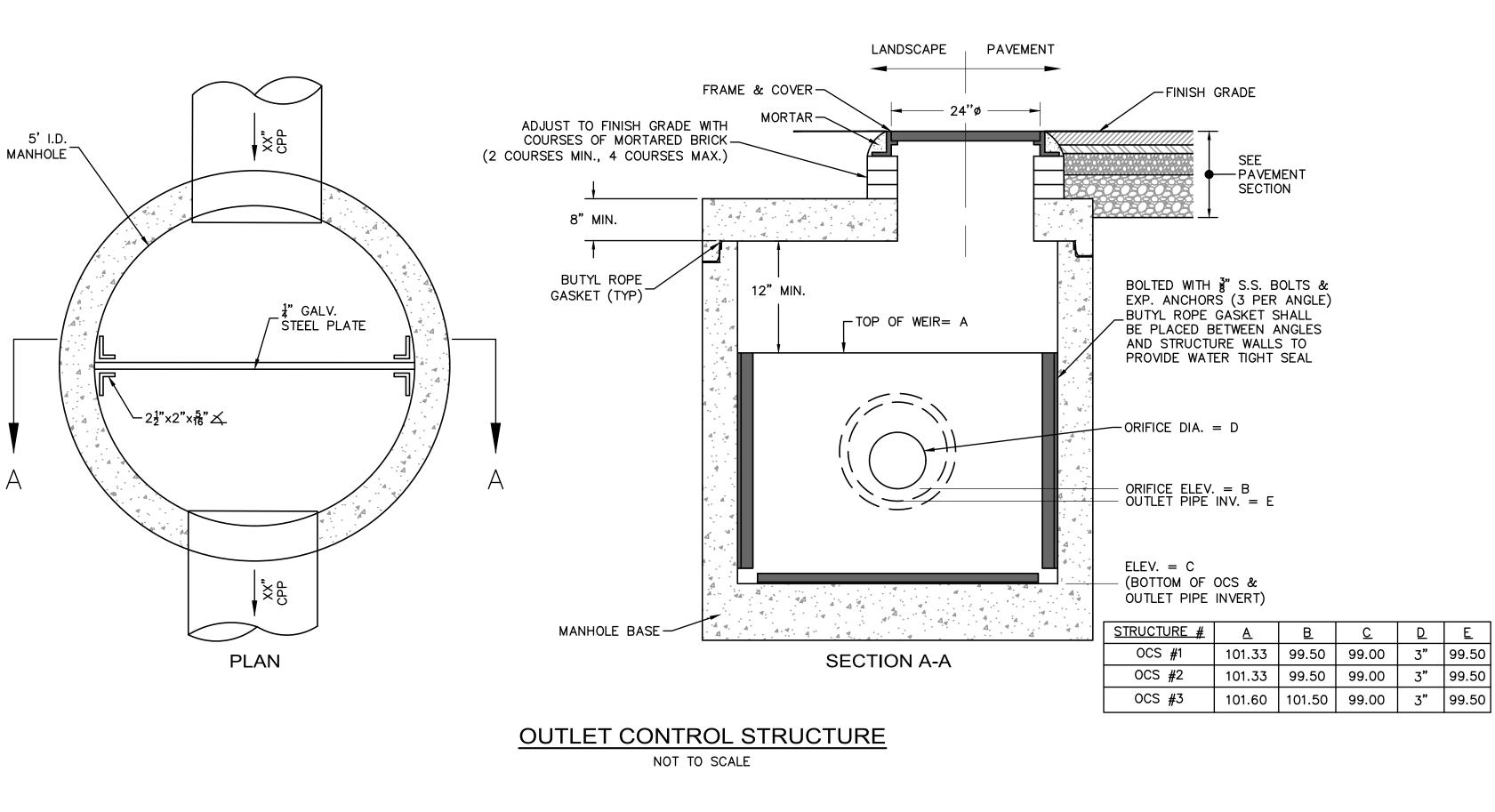
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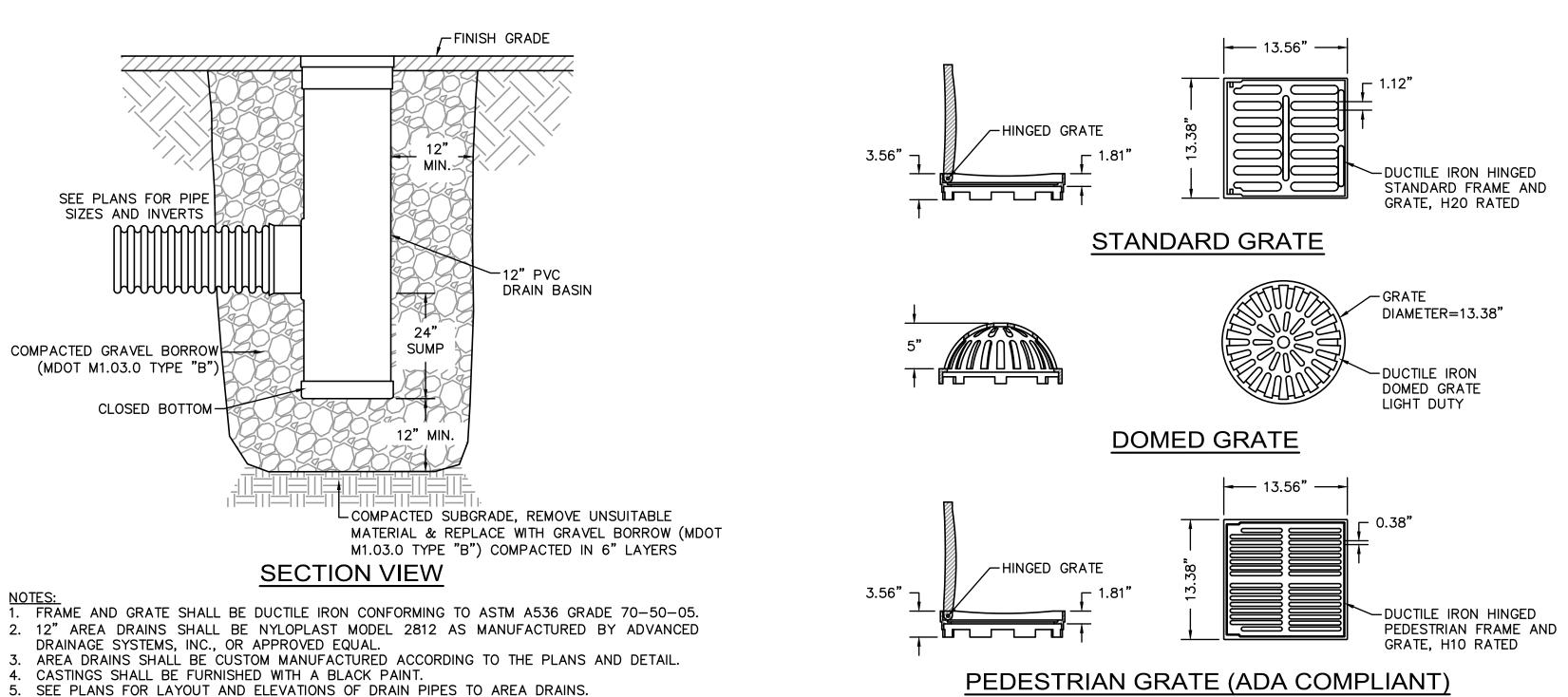
1. REFER TO THE PAVEMENT SECTION DETAIL AND/OR LANDSCAPE SECTION DETAIL FOR SURFACE MATERIALS AND DIMENSIONS

CLEANOUT DETAIL

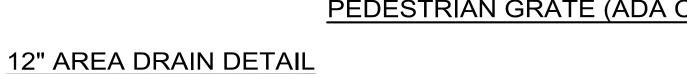
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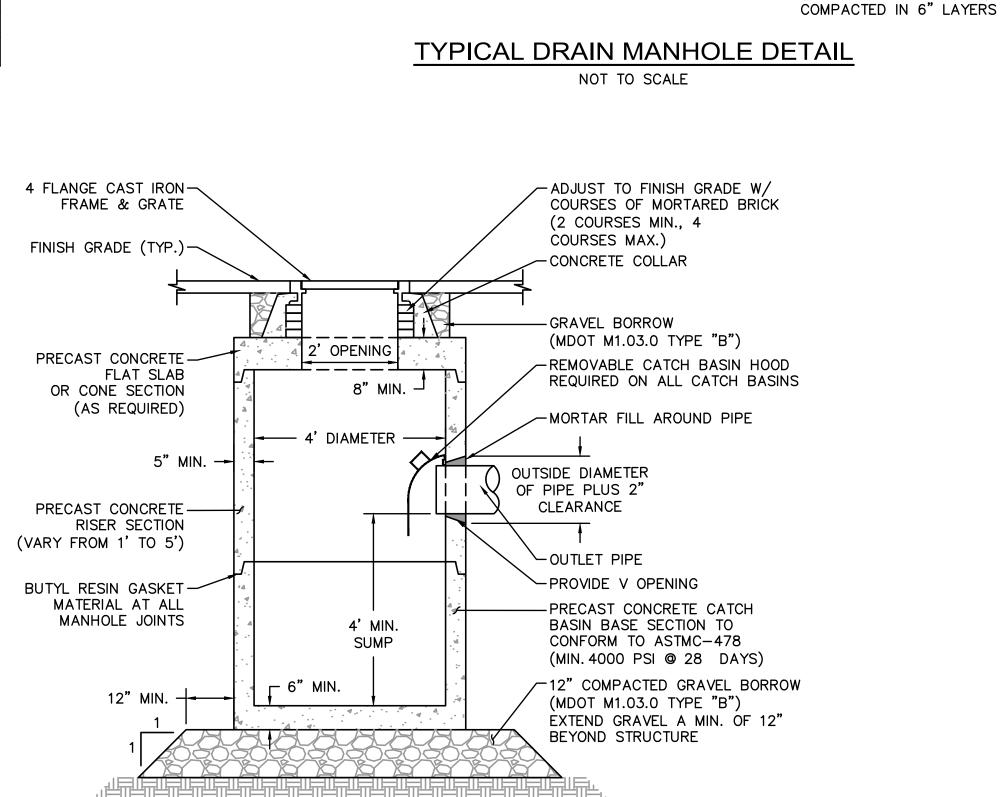






NOT TO SCALE





CROSS COUNTRY

FINISH GRADE -

MORTAR (TYP.)—

BUTYL ROPE -

1' TO 4'

OF PIPE

MORTAR (TYP.)-

PROVIDE "V"

OPENING

PRECAST CONCRETE -

BASE SECTION

GASKET (TYP.)

PRECAST CONCRETE -

RISER SECTION (TYP.)

SECTIONS VARY FROM

FACE OF PIPE FLUSH-

OR NOT PROJECT MORE

THAN 4" FROM FACE OF WALL ALONG CENTERLINE

OUTSIDE DIA. OF_

PIPE +2" CLEARANCE

24" DRAIN MANHOLE COVER 7

TYPICAL CATCH BASIN DETAIL NOT TO SCALE

COMPACTED SUBGRADE, REMOVE UNSUITABLE

MATERIAL & REPLACE WITH GRAVEL BORROW

(MDOT M1.03.0 TYPE "B") COMPACTED IN 6" LAYERS

AT 10 ELM COMMUNITY/ **STREET** SENIOR CENTER TOWN OF **BOXFORD** TOWN HALL 7A SPOFFORD ROAD BOXFORD, MA 01921 G Gorman Richardson Lewis Architect 239 South Street Hopkinton, MA 0174 www.grlarchitects.com -UNSUITABLE MATERIAL TO BE No. Description © COPYRIGHT 2020 12/21/2020 Proj. No.: 2020120.01 AS NOTED Drawn By: BB Checked By: DC CIVIL DETAILS V

THE CENTER

ROADS, ROAD SHOULDERS, DRIVEWAYS

FRAME TO BE SET IN FULL CEMENT MORTAR BED

-SURFACE COURSE BIT. CONC.

-BASE COURSE BIT. CONC.

GRADE W/ COURSES OF

-PRECAST CONCRETE FLAT

SLAB OR CONCENTRIC

SHOWN OR REQUIRED

MORTARED BRICK (2

- ADJUST TO FINISH

COURSES MIN., 4

COURSES MAX.)

CONE SECTION

48" INSIDE DIA.

-MANHOLE STEPS

-DRAINPIPE

-OR LARGER WHERE

-12" MIN. COMPACTED

(MDOT M1.03.0 TYPE "B")

REMOVED AND REPLACED

(MDOT M1.03.0 TYPE "B")

W/ GRAVEL BORROW

GRAVEL BORROW

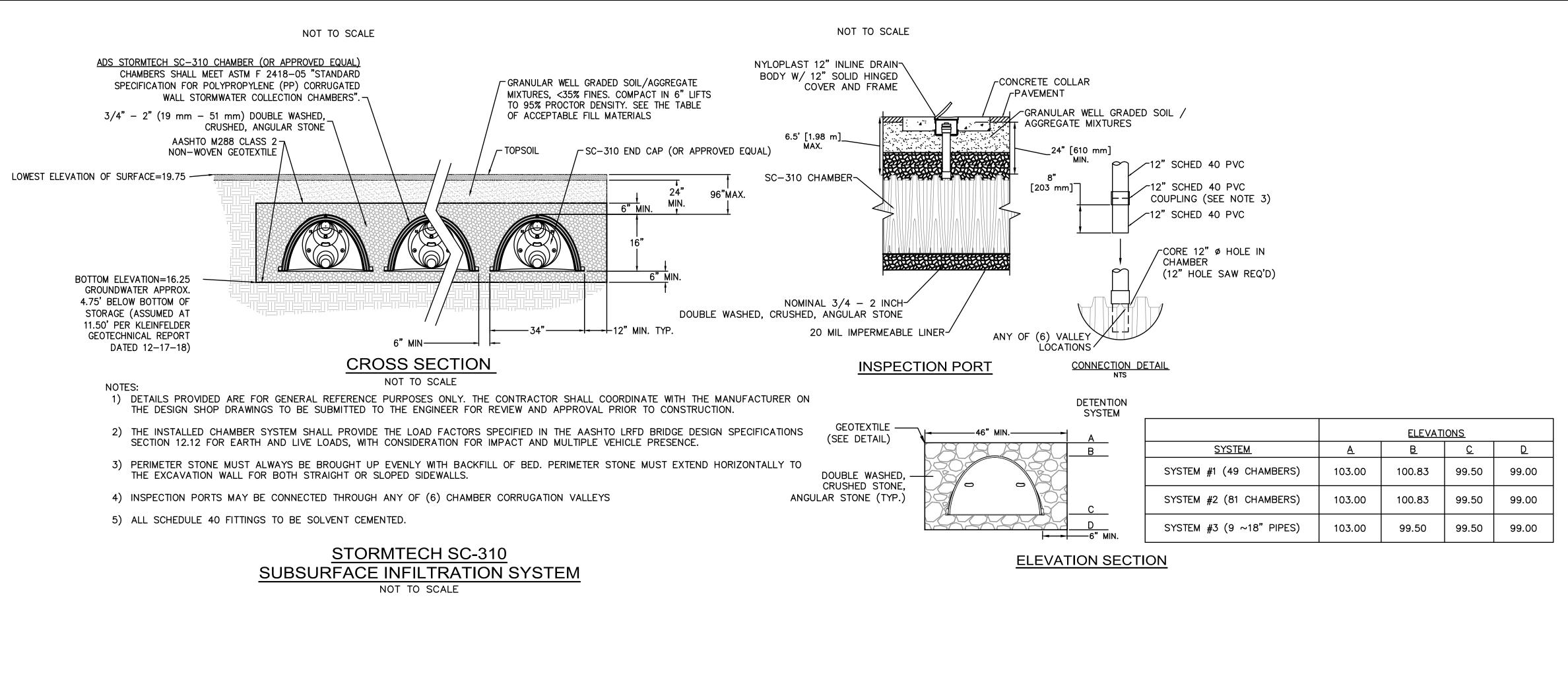
AND WALKS

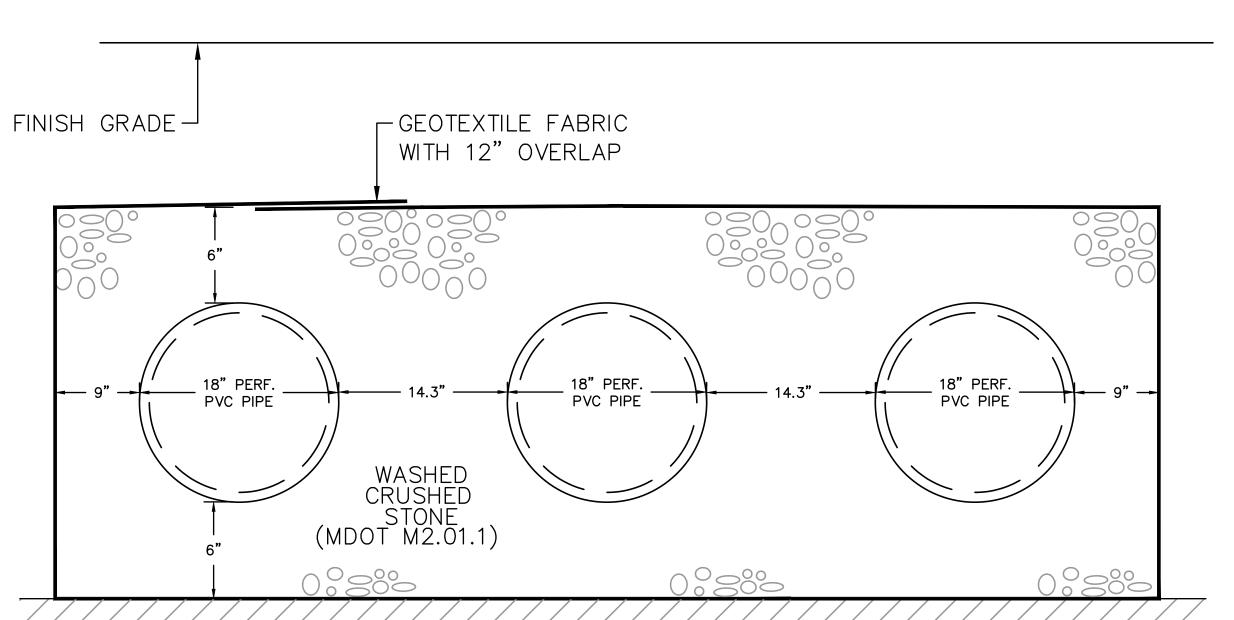
124" OPENING

₹|5" MIN. -|

CONCRETE

INVERT

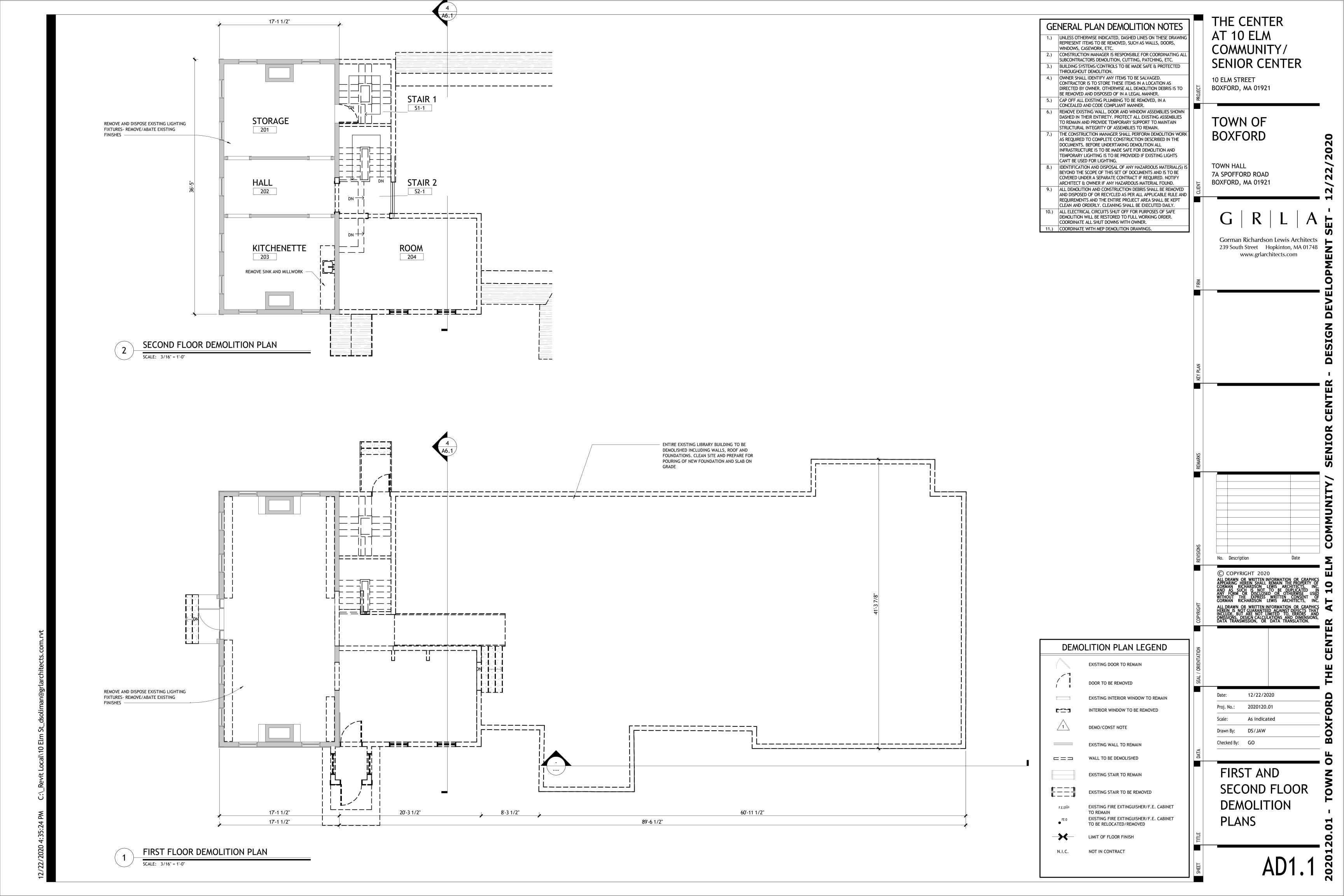




PIPE & STONE STORAGE DETAIL

NOT TO SCALE

THE CENTER AT 10 ELM COMMUNITY/ **STREET** SENIOR CENTER TOWN OF **BOXFORD** TOWN HALL 7A SPOFFORD ROAD BOXFORD, MA 01921 Gorman Richardson Lewis Architect 239 South Street Hopkinton, MA 0174 www.grlarchitects.com No. Description © COPYRIGHT 2020 12/21/2020 Proj. No.: 2020120.01 AS NOTED Drawn By: BB Checked By: DC CIVIL DETAILS VII C-606 8



113'-1 1/2"

52'-0"

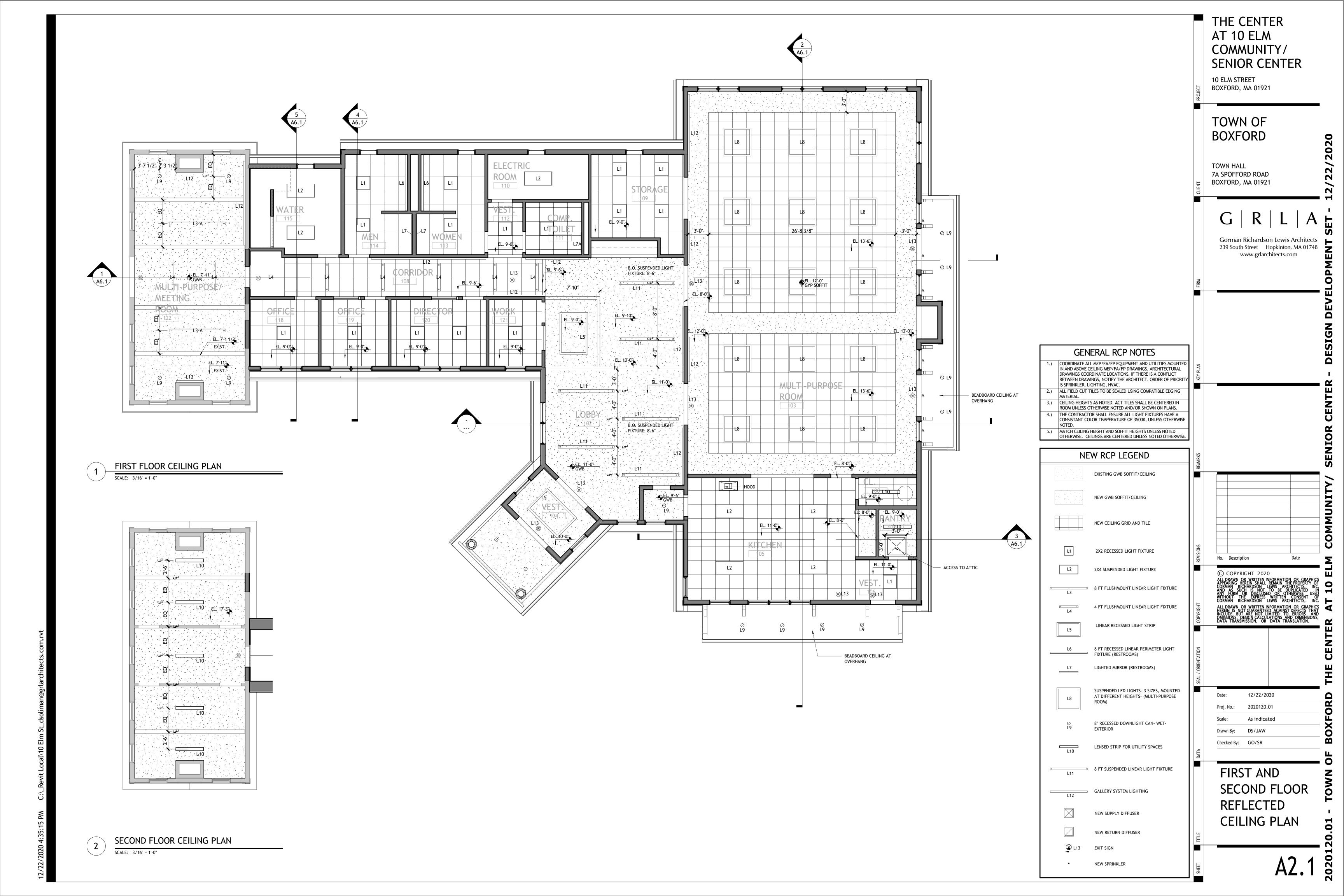
96'-0"

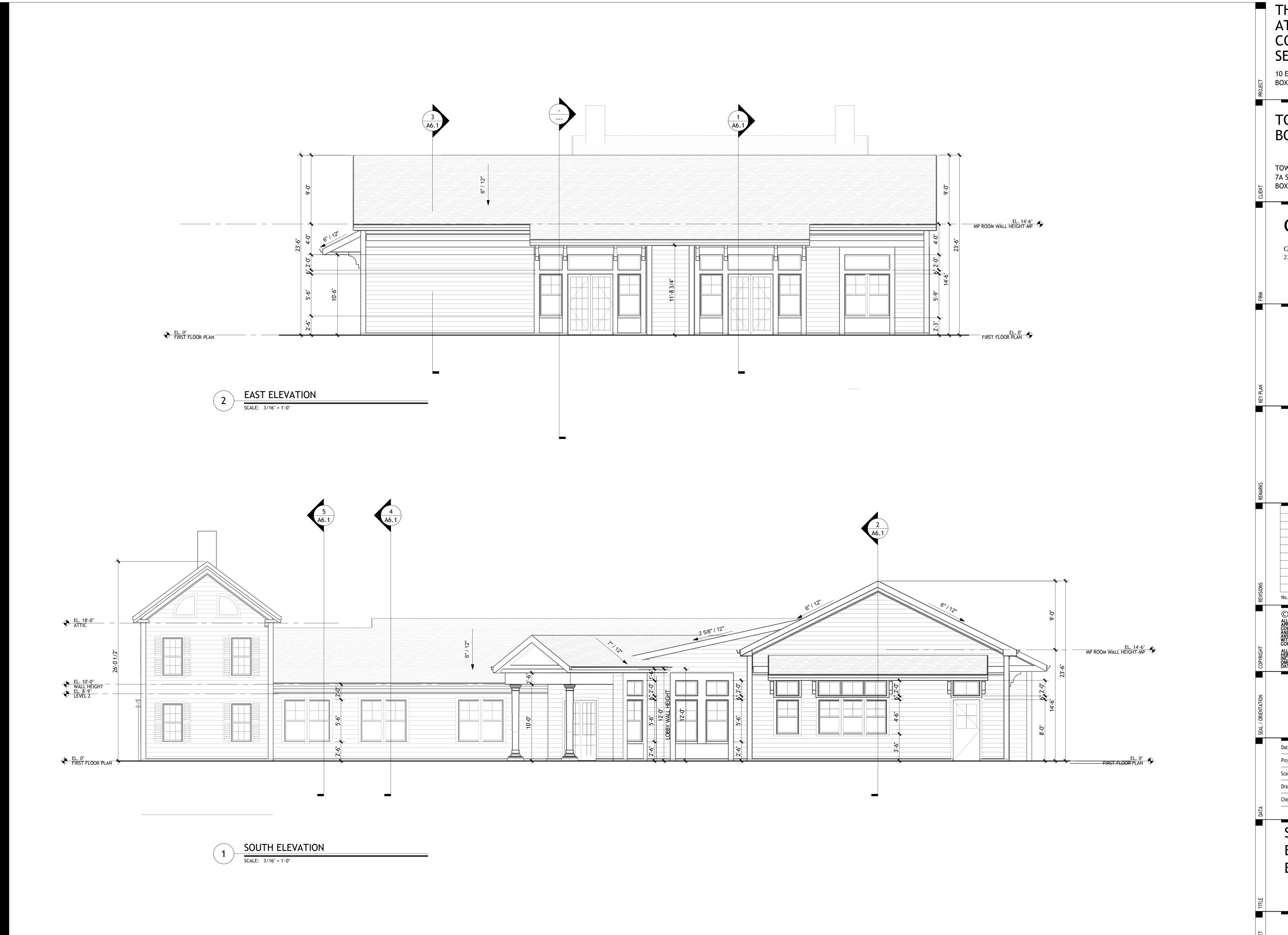
17'-1 1/2"

17'-1 1/2" EXISTING HOUSE

10'-0"

THE CENTER
AT 10 ELM
COMMUNITY/
SENIOR CENTER 10 ELM STREET BOXFORD, MA 01921 TOWN OF **BOXFORD** TOWN HALL 7A SPOFFORD ROAD





THE CENTER AT 10 ELM COMMUNITY/ SENIOR CENTER 10 ELM STREET BOXFORD, MA 01921

TOWN OF **BOXFORD**

TOWN HALL

7A SPOFFORD ROAD BOXFORD, MA 01921

Gorman Richardson Lewis Architects 239 South Street Hopkinton, MA 01748 www.grlarchitects.com

2/22/2020

SENIOR CENTER

No. Description

12/22/2020 Proj. No.: 2020120.01

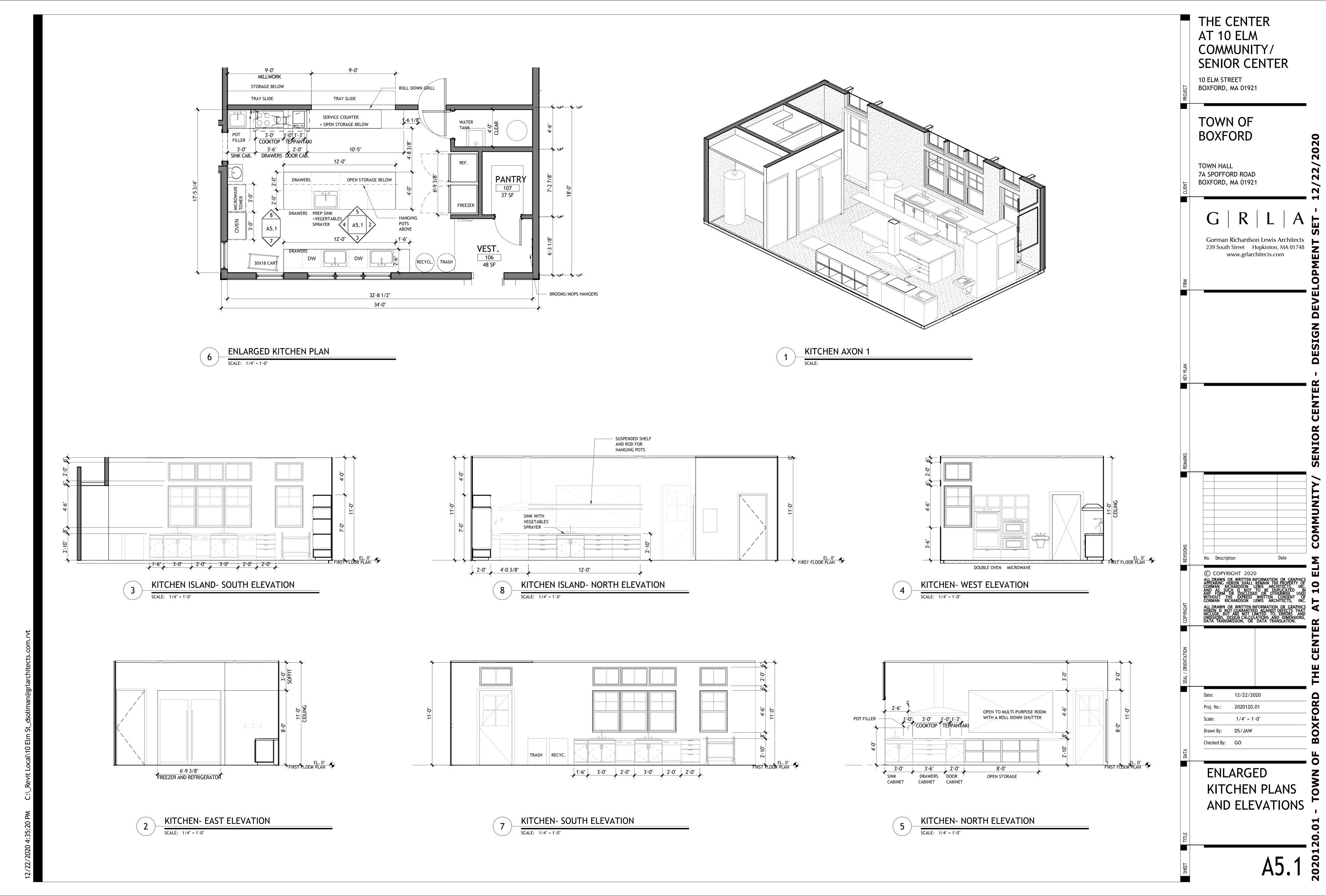
3/16" = 1'-0" Checked By: GO/SR

SOUTH AND **EAST ELEVATIONS**

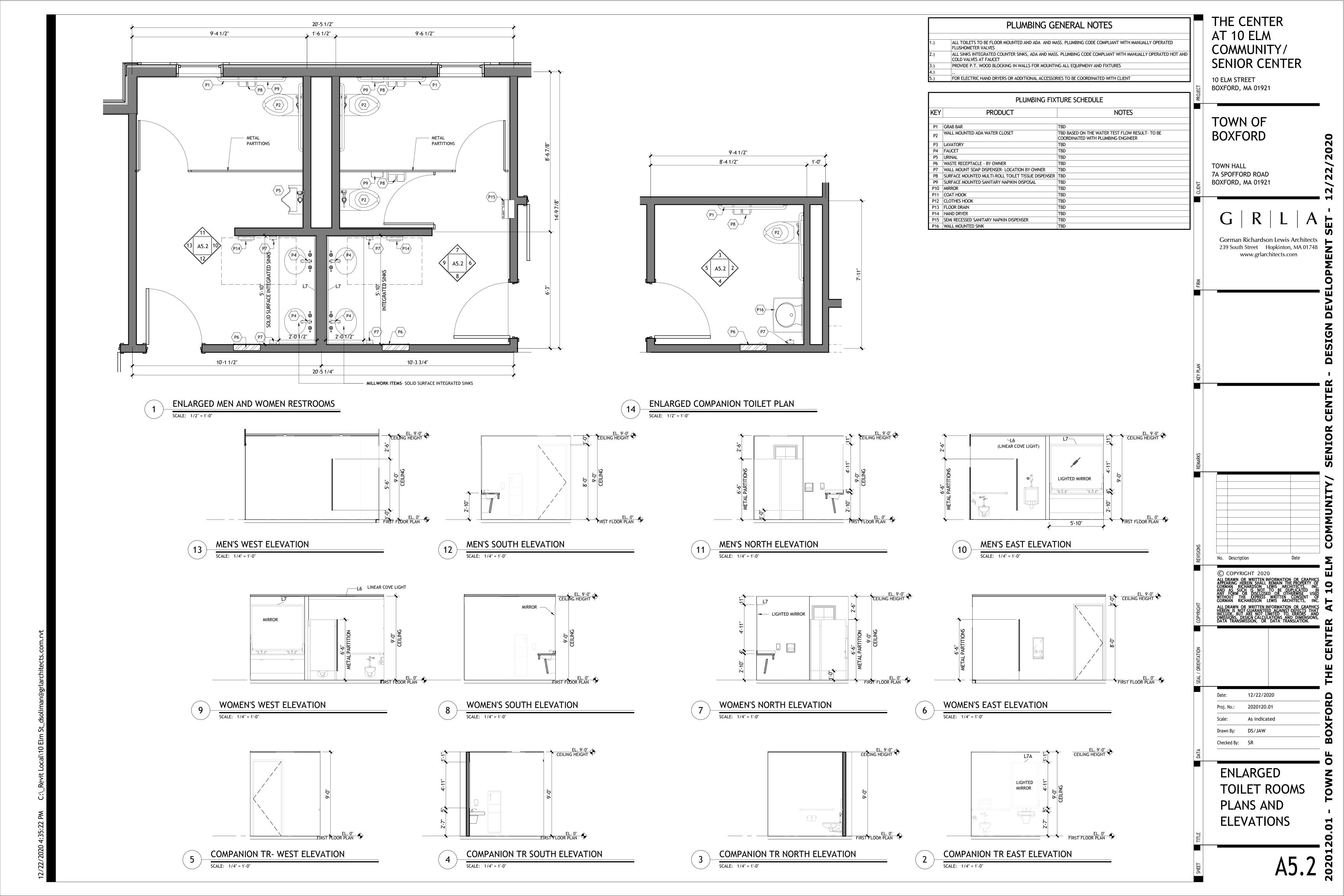
2/22/2020

DESIGN DEVELOPMENT

SENIOR CENTER



SENIOR CENTER



113'-1 1/2"

96'-0"

THE CENTER AT 10 ELM COMMUNITY/ SENIOR CENTER 10 ELM STREET BOXFORD, MA 01921 TOWN OF Gorman Richardson Lewis Architects 239 South Street Hopkinton, MA 01748 FIRST FLOOR
FURNITURE PLAN