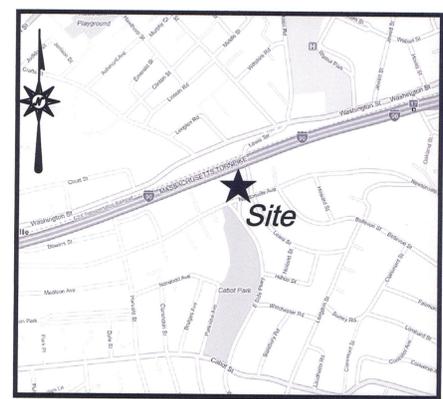
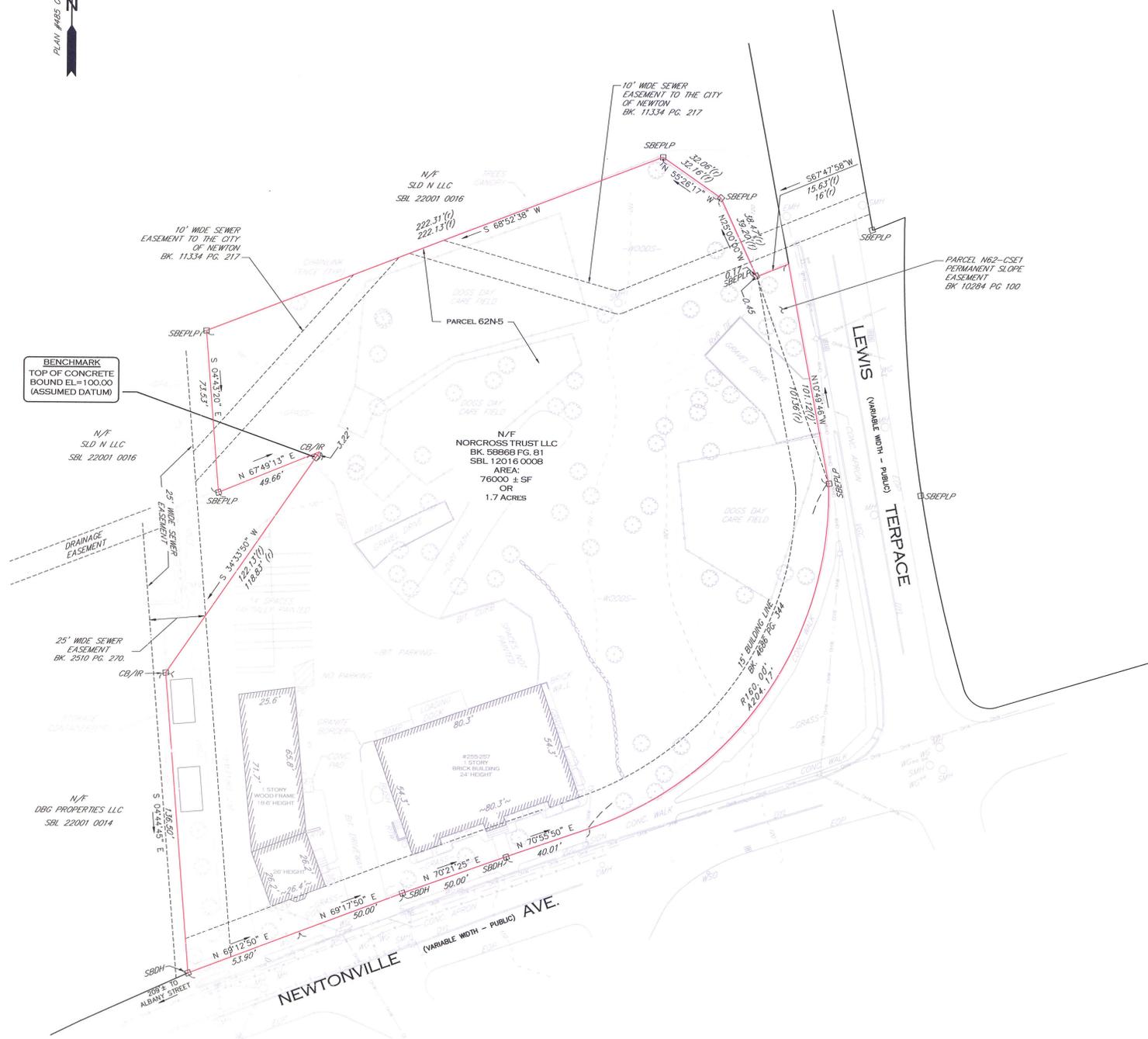


PLAN #485 OF 1946



LOCATION MAP
NOT TO SCALE

LEGEND

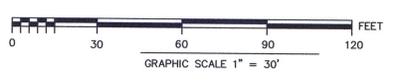
- HYDRANT
- WATER GATE
- DRAIN MANHOLE
- ELECTRIC MANHOLE
- CATCH BASIN
- SEWER MANHOLE
- STORM SEWER & DRAIN LINE
- UTILITY POLE
- UNDERGROUND ELECTRIC LINE
- SIGN POST
- TREE LARGE >6"
- RECORD (r)
- FIELD MEASURED (f)

PLAN REFERENCES

- (PLAN #485 OF 1946)
- (PLAN #359 OF 1951)
- (PLAN #892 OF 1951)
- (PLAN #1944 OF 1953)
- (PLAN #479 OF 1962)
- (PLAN #1534 OF 1966)
- (PLAN #300 OF 1967)
- (PLAN #639 OF 1967)
- (PLAN #1336 OF 1998)
- (PLAN #1336 OF 1998)

NOTES

1. THE ENTIRE SITE IS LOCATED IN FLOOD ZONE X AS SHOWN ON FEMA FLOOD MAP 25017C0552E, WITH AN EFFECTIVE DATE OF JUN 4, 2010.
2. THE UTILITIES AS SHOWN ON THIS DRAWING WERE DEVELOPED FROM THE INFORMATION AVAILABLE. THIS IS NOT IMPLIED NOR INTENDED TO BE THE COMPLETE INVENTORY OF UTILITIES IN THIS AREA. IT IS THE CLIENT'S RESPONSIBILITY TO VERIFY THE LOCATION OF ALL UTILITIES (WHETHER SHOWN OR NOT) AND PROTECT SAID UTILITIES FROM ANY DAMAGE.



ARCHITECTURE
ENGINEERING
ENVIRONMENTAL
LAND SURVEYING

355 Research Parkway
Meriden, CT 06450
(203) 630-1400
(203) 630-2615 Fax

EXISTING CONDITIONS SURVEY
255-257 NEWTONVILLE AVE
NEWTON, MIDDLESEX, MA

REVISIONS	No.	Date	Desc.
Surveyed	JDP, DTT		
Drawn	JDP		
Checked	TRB		
Approved	TRB		
Scale	1"=30'		
Project No.	BLC0-2287		
Date	2015/05/15		
Field Book	#85		
CAD File:	BLC0-2287.dwg		

EXISTING CONDITIONS SURVEY

Sheet No.



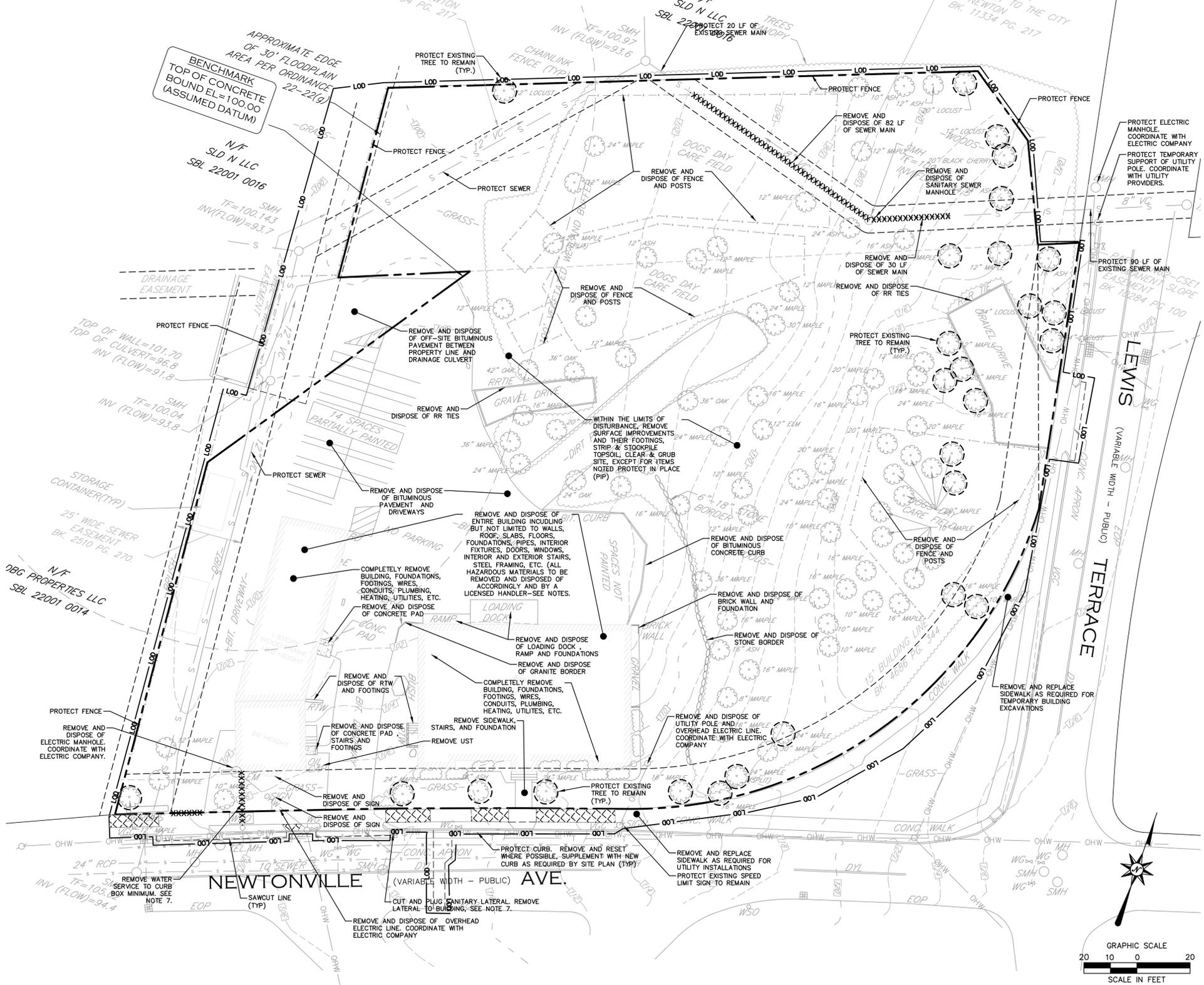
Green Seal Environmental, Inc.
114 State Road, Building B
Sagamore Beach, MA 02562
Tel: (508) 888-6034
Fax: (508) 888-1506
www.gseenv.com

DEMOLITION NOTES

- DEMOLITION NOTES
- ALL BUILDINGS, INCLUDING FOUNDATION WALLS AND FOOTINGS AND BASEMENT SLABS INDICATED ON THIS PLAN ARE TO BE REMOVED FROM SITE. CONTRACTOR SHALL SECURE ANY PERMITS, PAY ALL FEES AND PERFORM CLEARING AND GRUBBING AND DEBRIS REMOVAL PRIOR TO COMMENCEMENT OF GRADING OPERATIONS.
 - SEDIMENT AND EROSION CONTROLS AS SHOWN ON THE SEDIMENT AND EROSION CONTROL PLAN AND/OR DEMOLITION PLAN SHALL BE INSTALLED BY THE DEMOLITION CONTRACTOR PRIOR TO START OF DEMOLITION AND CLEARING AND GRUBBING OPERATIONS.
 - REMOVE AND DISPOSE OF ANY SIDEWALKS, FENCES, STAIRS, WALLS, DEBRIS AND RUBBISH REQUIRING REMOVAL FROM THE WORK AREA IN AN APPROVED OFF SITE LANDFILL, BY AN APPROVED HAULER. HAULER SHALL COMPLY WITH ALL REGULATORY REQUIREMENTS.
 - THE CONTRACTOR SHALL SECURE ALL PERMITS FOR HIS DEMOLITION AND DISPOSAL OF HIS DEMOLITION MATERIAL TO BE REMOVED FROM THE SITE. THE CONTRACTOR SHALL POST BONDS AND PAY PERMIT FEES AS REQUIRED. BUILDING DEMOLITION CONTRACTOR SHALL BE RESPONSIBLE FOR PERMITS AND DISPOSAL OF ALL BUILDING DEMOLITION DEBRIS IN AN APPROVED OFF-SITE LANDFILL.
 - ASBESTOS OR HAZARDOUS MATERIAL, IF FOUND ON SITE, SHALL BE REMOVED BY A LICENSED HAZARDOUS MATERIAL CONTRACTOR.
 - THE CONTRACTOR SHALL PREPARE ALL MANIFEST DOCUMENTS AS REQUIRED PRIOR TO COMMENCEMENT OF DEMOLITION.
 - THE CONTRACTOR SHALL CUT AND PLUG, OR ARRANGE FOR THE APPROPRIATE UTILITY PROVIDER TO CUT AND PLUG ALL SERVICE PIPING AT THE STREET LINE OR AT THE MAIN, AS REQUIRED BY THE UTILITY PROVIDER, OR AS OTHERWISE NOTED OR SHOWN ON THE CONTRACT DRAWINGS. ALL SERVICES MAY NOT BE SHOWN ON THIS PLAN. THE CONTRACTOR SHALL INVESTIGATE THE SITE PRIOR TO BIDDING TO DETERMINE THE EXTENT OF SERVICE PIPING TO BE REMOVED, CUT OR PLUGGED. THE CONTRACTOR SHALL PAY ALL UTILITY PROVIDER FEES FOR ABANDONMENTS AND REMOVALS.
 - THE CONTRACTOR SHALL PROTECT ALL IRON PINS, MONUMENTS AND PROPERTY CORNERS DURING DEMOLITION ACTIVITIES. ANY CONTRACTOR DISTURBED PINS, MONUMENTS, AND OR PROPERTY CORNERS, ETC. SHALL BE RESET BY A LICENSED LAND SURVEYOR AT THE EXPENSE OF THE CONTRACTOR.
 - THE DEMOLITION CONTRACTOR SHALL STABILIZE THE SITE AND KEEP EROSION CONTROL MEASURES IN PLACE UNTIL THE COMPLETION OF HIS WORK OR UNTIL THE COMMENCEMENT OF WORK BY THE SITE CONTRACTOR, WHICHEVER OCCURS FIRST, AS REQUIRED OR DEEMED NECESSARY BY THE ENGINEER OR OWNER'S REPRESENTATIVE. THE SITE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR THE MAINTENANCE OF EXISTING EROSION AND SEDIMENTATION CONTROLS AND FOR INSTALLATION OF ANY NEW EROSION AND SEDIMENTATION CONTROLS AS PER THE SEDIMENT AND EROSION CONTROL PLAN, AT THAT TIME.
 - THE CONTRACTOR SHALL PUMP OUT BUILDING FUEL AND WASTE OIL TANKS (IF ANY ARE ENCOUNTERED) AND REMOVE FUEL TO AN APPROVED DISPOSAL AREA BY A LICENSED WASTE OIL HANDLING CONTRACTOR IN STRICT ACCORDANCE WITH STATE REQUIREMENTS.
 - IF IMPACTED OR CONTAMINATED SOIL IS ENCOUNTERED BY THE CONTRACTOR, THE CONTRACTOR SHALL SUSPEND EXCAVATION WORK OF IMPACTED SOIL AND NOTIFY THE OWNER AND/OR OWNER'S ENVIRONMENTAL CONSULTANT PRIOR TO PROCEEDING WITH FURTHER WORK IN THE IMPACTED SOIL LOCATION UNTIL FURTHER INSTRUCTED BY THE OWNER AND/OR OWNER'S ENVIRONMENTAL CONSULTANT.
 - THE CONTRACTOR SHALL ADHERE TO ALL OSHA FEDERAL STATE AND LOCAL REGULATIONS WHEN OPERATING CRANES, BOOMS, HOISTS, ETC. IN PROXIMITY OF OVERHEAD ELECTRIC LINES. IF CONTRACTOR MUST OPERATE EQUIPMENT CLOSE TO ELECTRIC LINES CONTRACTOR SHALL MAKE ARRANGEMENTS FOR PROPER SAFEGUARDS. ANY UTILITY PROVIDER FEES SHALL BE PAID BY THE CONTRACTOR.
 - CONTRACTOR SHALL PROVIDE AND MAINTAIN TRAFFIC DEVICES FOR PROTECTION OF VEHICLES AND PEDESTRIANS CONSISTING OF BARRIERS, SIGNS, LIGHTS, FENCES AND UNIFORMED TRAFFIC CONTROLLERS AS REQUIRED OR AS ORDERED BY THE ENGINEER OR AS REQUIRED BY THE LOCAL GOVERNING AUTHORITIES, OR AS REQUIRED BY PERMIT STIPULATIONS OR AS REQUIRED BY THE OWNER. CONTRACTOR SHALL MAINTAIN ALL TRAFFIC LANES AND PEDESTRIAN WALKWAYS AT ALL TIMES UNLESS WRITTEN APPROVAL FROM THE APPROPRIATE GOVERNING AGENCY IS GRANTED.
 - INFORMATION ON EXISTING UTILITIES AND STORM DRAINAGE HAS BEEN COMPILED FROM AVAILABLE INFORMATION INCLUDING UTILITY PROVIDER AND MUNICIPAL RECORD MAPS AND/OR FIELD SURVEY AND IS NOT GUARANTEED CORRECT OR COMPLETE. UTILITIES AND STORM DRAINAGE SYSTEMS ARE SHOWN TO ALERT THE CONTRACTOR TO THEIR PRESENCE AND THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DETERMINING ACTUAL LOCATIONS AND ELEVATIONS OF ALL UTILITIES INCLUDING SERVICES AND STORM DRAINAGE SYSTEMS. PRIOR TO DEMOLITION OR CONSTRUCTION THE CONTRACTOR SHALL CONTACT "DIG SAFE" 72 HOURS BEFORE COMMENCEMENT OF WORK AT 888-344-7233 AND VERIFY ALL UTILITY AND STORM DRAINAGE SYSTEM LOCATIONS.
 - EXISTING WATER SERVICES SHALL BE DISCONNECTED AND CAPPED AT MAIN IN ACCORDANCE WITH THE REQUIREMENTS OF THE NEWTON WATER AND SEWER DEPARTMENT. REMOVE EXISTING ON-SITE WATER PIPING TO BE ABANDONED TO R.O.W. LINE UNLESS OTHERWISE SHOWN ON DEMOLITION PLANS OR AS REQUIRED BY THE NEWTON WATER AND SEWER DEPARTMENT TO BE REMOVED TO MAIN.
 - EXISTING SANITARY LATERAL SHALL BE PLUGGED WITH NON-SHRINK GROUT AT CURB LINE OR AT MAIN CONNECTION IN ACCORDANCE WITH THE NEWTON WATER AND SEWER DEPARTMENT REQUIREMENTS. REMOVE EXISTING LATERAL PIPING FROM SITE UNLESS OTHERWISE SHOWN ON DEMOLITION PLANS OR AS REQUIRED BY THE NEWTON WATER AND SEWER DEPARTMENT.
 - DOMESTIC GAS SERVICES SHALL BE CAPPED AND SERVICE LINES PURGED OF RESIDUAL GAS IN ACCORDANCE WITH THE NATIONAL GRID GAS COMPANY REQUIREMENTS. WORK TO BE COORDINATED BY AND PAID FOR BY THE CONTRACTOR. REMOVE EXISTING SERVICE PIPING ON SITE. ANY PROPANE TANKS SHALL BE PURGED OF RESIDUAL GAS BY PROPANE SUPPLIER. CONTRACTOR SHALL COORDINATE THIS WORK AND PAY NECESSARY FEES.
 - THE CONTRACTOR SHALL PROVIDE DISCONNECT NOTIFICATION TO THE CITY OF NEWTON ENGINEERING DEPARTMENT, TELEPHONE CO., CABLE COMPANY, NATIONAL GRID GAS COMPANY, EVERSOURCE ELECTRIC COMPANY, AND THE NEWTON WATER AND SEWER DEPARTMENT AT LEAST THREE WEEKS PRIOR TO BEGINNING DEMOLITION.
 - THE CONTRACTOR IS RESPONSIBLE FOR SECURING A DEMOLITION PERMIT FROM THE CITY OF NEWTON BUILDING DEPARTMENT AND MUST FURNISH THE REQUIRED APPLICATION MATERIAL AND PAY ALL FEES.
 - BACK FILL DEPRESSIONS, FOUNDATION HOLES AND REMOVED DRIVEWAY AREAS IN LOCATIONS NOT SUBJECT TO FURTHER EXCAVATION WITH SOIL MATERIAL APPROVED BY THE OWNER'S GEOTECHNICAL ENGINEER AND COMPACT, FERTILIZE, SEED AND MULCH DISTURBED AREAS NOT SUBJECT TO FURTHER SITE CONSTRUCTION. BUILDING FOUNDATION AREA TO BE BACK FILLED IN 12" THICK LIFTS WITH GRAVEL FILL OR MATERIAL SPECIFIED IN THE PROJECT GEOTECHNICAL REPORT. COMPACT TO 95% MAX. DRY DENSITY PER ASTM D1557 AT 2% OF OPTIMUM MOISTURE CONTENT. EMPLOY WATERING EQUIPMENT FOR DUST CONTROL.
 - THE CONTRACTOR SHALL REPAIR PAVEMENTS BY INSTALLING TEMPORARY AND PERMANENT PAVEMENTS IN PUBLIC RIGHTS OF WAYS AS REQUIRED BY LOCAL GOVERNING AUTHORITIES AND THE COMMONWEALTH AND PER PERMIT REQUIREMENTS DUE TO DEMOLITION AND PIPE REMOVAL ACTIVITIES.
 - THE CONTRACTOR SHALL RESTORE ANY UTILITY STRUCTURE, PIPE, UTILITY, PAVEMENT, CURBS, SIDEWALKS, DRAINAGE STRUCTURE, SWALE, PAVEMENT MARKING OR LANDSCAPED AREAS DISTURBED DURING DEMOLITION TO THEIR ORIGINAL CONDITION OR BETTER TO THE SATISFACTION OF THE OWNER, TOWN OF NEWTON, AND MASSACHUSETTS DEPARTMENT OF TRANSPORTATION.
 - THE CONTRACTOR SHALL CUT AND REMOVE AT LUMINARE AND SIGN LOCATIONS ANY PROTRUDING CONDUITS TO 24" BELOW GRADE. THE CONTRACTOR SHALL REMOVE ALL CABLE AND CONDUCTORS FROM REMAINING LIGHTING AND SIGNING CONDUITS TO BE ABANDONED. ANY REMAINING LIGHTING TO REMAIN IN PLACE SHALL BE RE-CIRCUITED OR REWIRED AS NECESSARY TO REMAIN IN OPERATION.
 - NO WORK ON THIS SITE SHALL BE INITIATED BY THE CONTRACTOR UNTIL A PRE-CONSTRUCTION MEETING WITH OWNER AND THE CIVIL ENGINEER IS PERFORMED. THE CONTRACTOR SHOULD BE AWARE OF ANY SITE INFORMATION AVAILABLE SUCH AS GEOTECHNICAL AND ENVIRONMENTAL REPORTS. THE CONTRACTOR SHALL HAVE "DIG SAFE" MARK OUTS OF EXISTING UTILITIES COMPLETED PRIOR TO MEETING.
 - THE CONTRACTOR SHALL ARRANGE FOR AND INSTALL TEMPORARY OR PERMANENT UTILITY CONNECTIONS WHERE INDICATED ON PLAN OR AS REQUIRED. MAINTAIN UTILITY SERVICES TO BUILDINGS TO REMAIN. CONTRACTOR TO COORDINATE WITH UTILITY PROVIDERS FOR INSTALLATION AND PAY UTILITY PROVIDER FEES.
 - THE CONTRACTOR SHALL NOT COMMENCE DEMOLITION OR UTILITY DISCONNECTIONS UNTIL AUTHORIZED TO DO SO BY THE OWNER.
 - THE CONTRACTOR OR DEMOLITION CONTRACTOR SHALL INSTALL TEMPORARY SHEETING OR SHORING AS NECESSARY TO PROTECT EXISTING AND NEW BUILDINGS AND UTILITIES DURING CONSTRUCTION AND DEMOLITION. SHEETING OR SHORING SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER, LICENSED IN THIS STATE AND EVIDENCE OF SUCH SUBMITTED TO THE OWNER PRIOR TO INSTALLATION.
 - NO SALVAGE SHALL BE PERMITTED UNLESS PAID TO THE OWNER AS A CREDIT.
 - ANY EXISTING POTABLE WELL AND ANY EXISTING SEPTIC TANKS/ABSORPTION AREAS SHALL BE ABANDONED AND REMOVED PER THE MASSACHUSETTS DEPARTMENT OF PUBLIC HEALTH AND HEALTH CODE REQUIREMENTS.
 - ARCHITECT OR ENGINEER IS NOT RESPONSIBLE FOR SITE SAFETY MEASURES TO BE EMPLOYED DURING CONSTRUCTION. THE ARCHITECT AND ENGINEER HAS NO CONTRACTUAL DUTY TO CONTROL THE SAFEST METHODS OR MEANS OF THE WORK, JOBSITE RESPONSIBILITIES, SUPERVISION OR TO SUPERVISE SAFETY, AND DOES NOT VOLUNTARILY ASSUME ANY SUCH DUTY OR RESPONSIBILITY.
 - THE CONTRACTOR SHALL COMPLY WITH CFR29 PART 1926 FOR EXCAVATION, TRENCHING, AND TRENCH PROTECTION REQUIREMENTS.

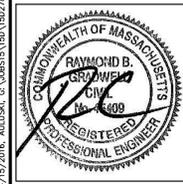
LEGEND

- PROTECT IN PLACE CONCRETE PAVEMENT
- CONSTRUCTION LIMIT LINE
- SAWCUT LINE
- REMOVE AND DISPOSE OF LIGHT POLE, SIGN, PIPING, UTILITY STRUCTURE, APPURTENANCE, FIXTURE, TREE, OR TREE STUMP ETC.
- PROTECT EXISTING TREE TO REMAIN



REFER TO SHEET GN-1 FOR GENERAL NOTES AND DEMOLITION NOTES

FOR PERMITTING PURPOSES ONLY
NOT RELEASED FOR CONSTRUCTION



ARCHITECTURE
ENGINEERING
ENVIRONMENTAL
LAND SURVEYING

355 Research Parkway
Meriden, CT 06450
(203) 630-1406
(203) 630-2615 Fax

PROPOSED SELF STORAGE FACILITY
255-257 NEWTONVILLE AVENUE
NEWTON, MASSACHUSETTS

REVISIONS	Date	Description	Comments
1.	2/19/2016	CONSERVATION	COMMISSION COMMENTS
2.	2/22/2016	ENGINEERING	COMMENTS
3.	2/29/2016	CONSERVATION	COMMISSION COMMENTS
4.	4/15/2016	LAND USE	HEARING COMMENTS

Designed: A.B.U.
Drawn: A.B.U.
Checked:
Approved:
Scale: 1"=20'
Project No: 1502781
Date: 2/5/2016
CAD File: DM150278101

Title: DEMOLITION PLAN

Sheet No.

DM-1

Xref (b) : B0150278101 ; X2150278101 ; X150278102 ; X150278103

REVISIONS

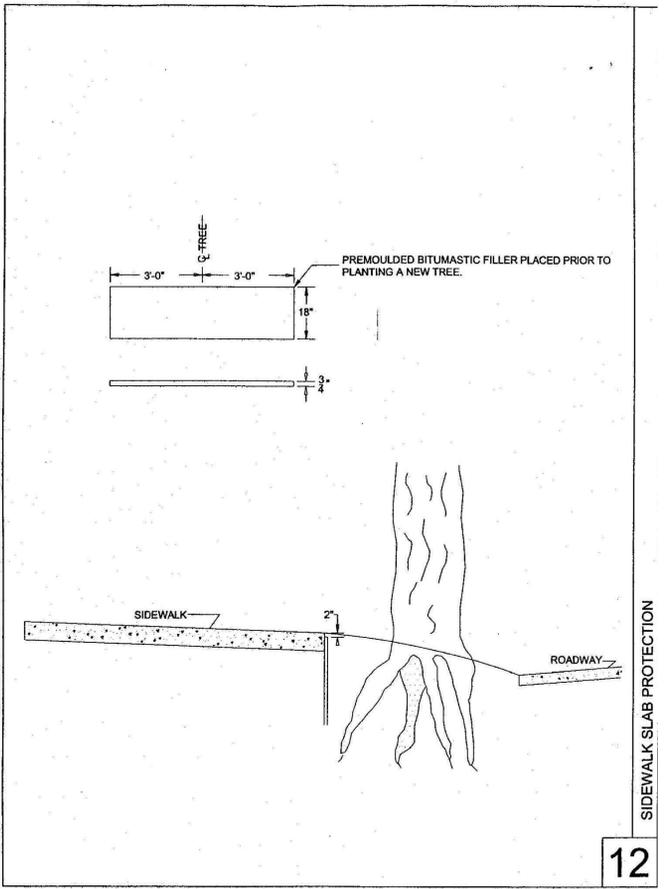
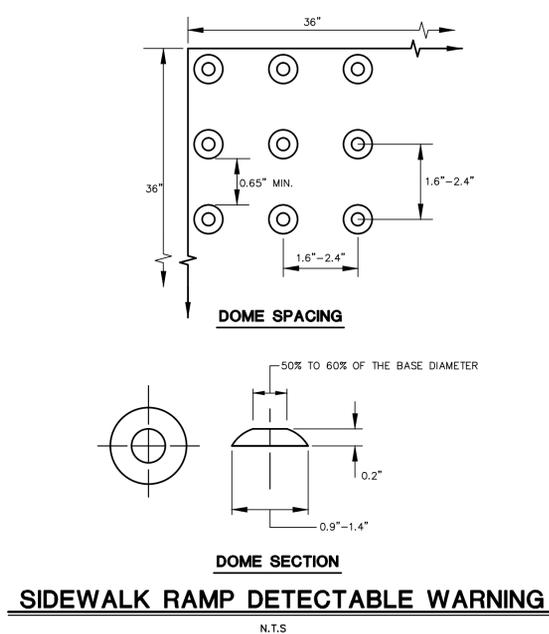
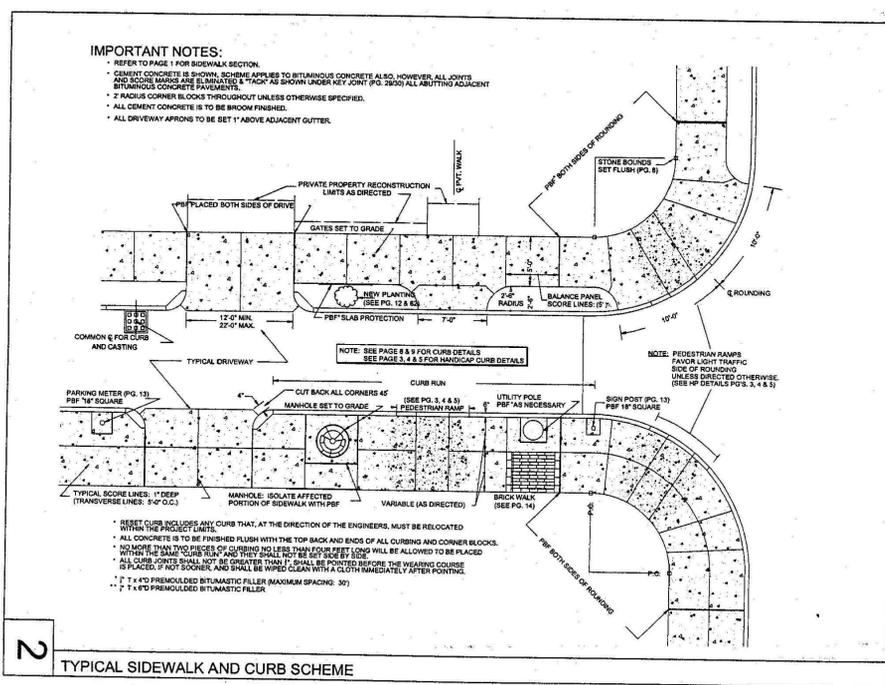
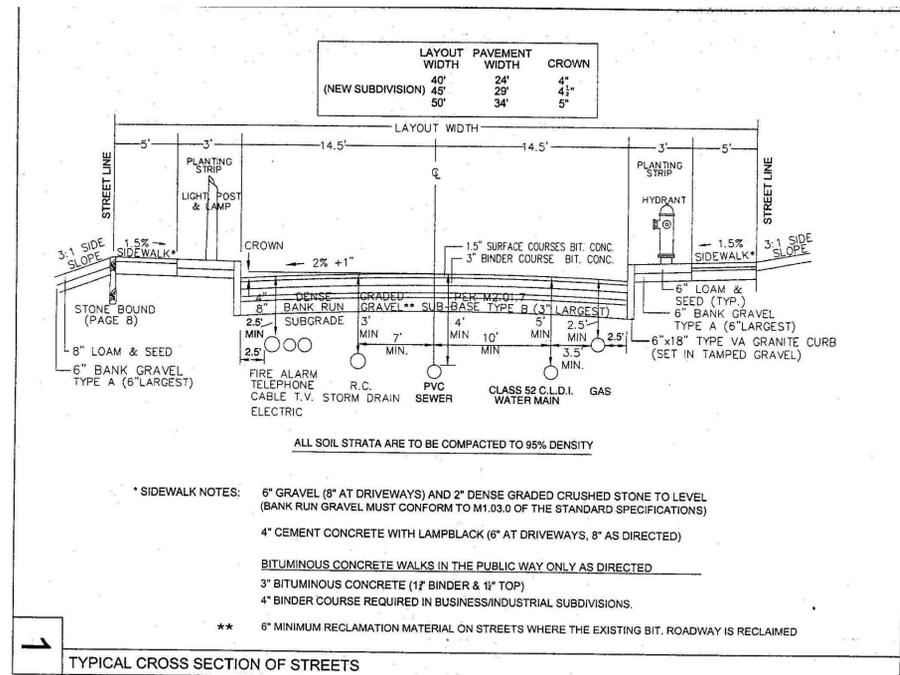
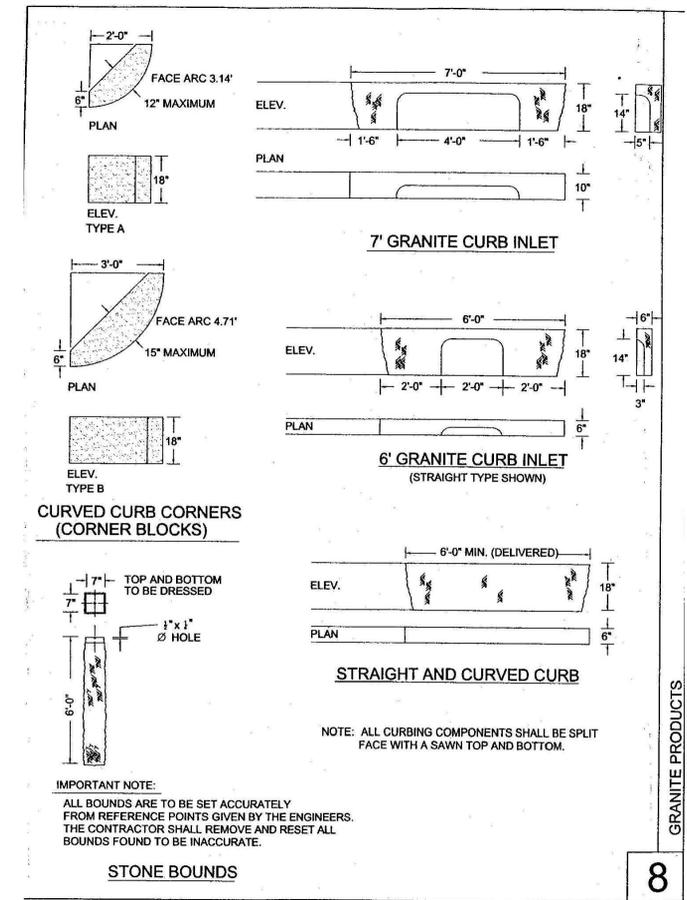
No.	Date	Description	Commission	Comments
1.	2/19/2016	CONSERVATION	COMMISSION	COMMENTS
2.	2/22/2016	ENGINEERING	COMMENTS	COMMENTS
3.	2/25/2016	CONSERVATION	COMMISSION	COMMENTS
4.	4/15/2016	LAND USE	HEARING	COMMENTS

Designed A.B.U.
Drawn A.B.U.
Checked
Approved
Scale NTS
Project No. 1502781
Date 2/5/2016
CAD File: DN150278101

Title
DETAILS

Sheet No.

DN-3



12

DEPTH (IN.)	S.Y./TON
1.00	18.2
1.25	14.6
1.50	12.1
1.75	10.4
2.50	7.3
3.00	6.1

1 TON x L' x W' = TONS REQUIRED
(TABLE) S.Y. x 9

PAVING RESTRICTIONS

NO PAVING WHEN THE TEMPERATURE IN THE SHADE IS BELOW 40 F.
APPLICATION TEMPERATURE: 225 - 325 F.
NO PAVING OVER A WET SURFACE.
ROLLER WHEEL NO LESS THAN 24" WIDE.
ROLLER REQ. 10-13 TONS

16

FOR PERMITTING PURPOSES ONLY
NOT RELEASED FOR CONSTRUCTION



REVISIONS

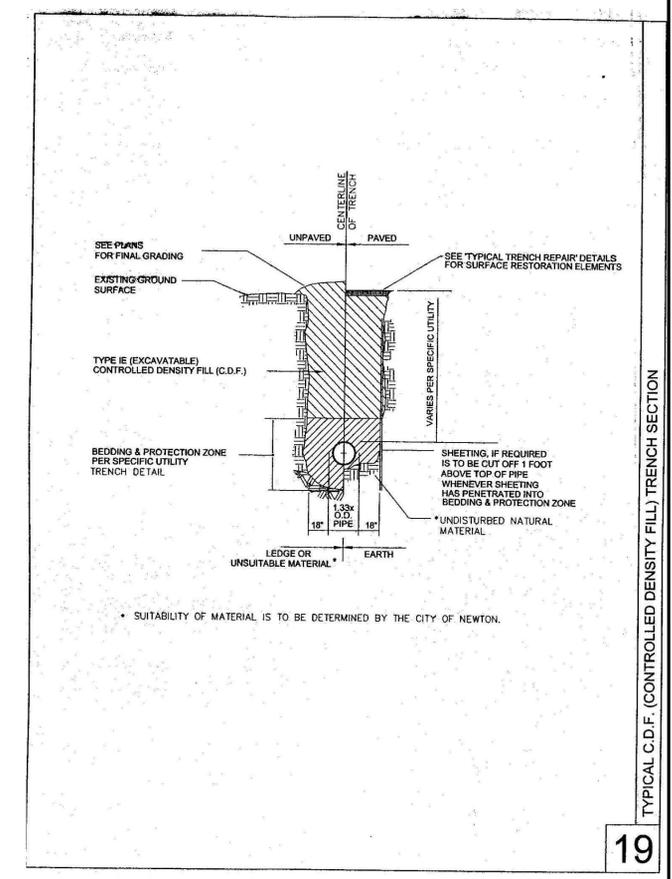
No.	Date	Description
1.	2/19/2016	CONSERVATION COMMISSION COMMENTS
2.	2/22/2016	ENGINEERING COMMENTS
3.	2/29/2016	CONSERVATION COMMISSION COMMENTS
4.	4/15/2016	LAND USE HEARING COMMENTS

Designed: A.B.U.
 Drawn: A.B.U.
 Checked:
 Approved:
 Scale: NTS
 Project No: 1502781
 Date: 2/5/2016
 CAD File: DN150278101

Title: DETAILS

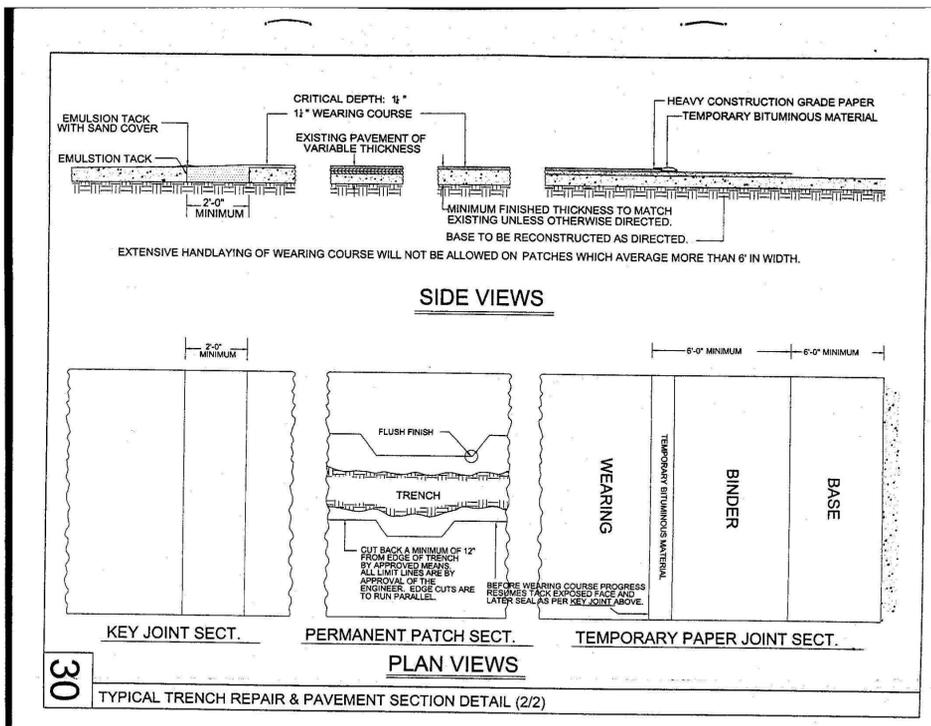
Sheet No.

DN-4



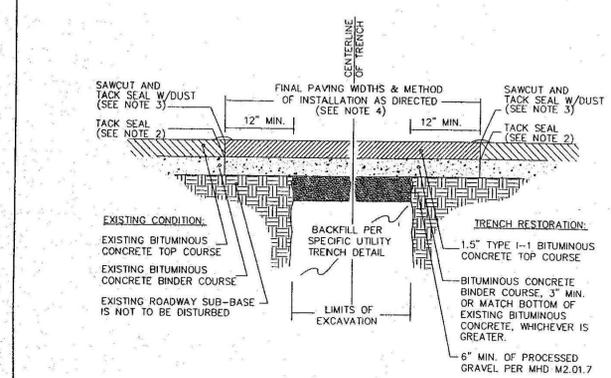
TYPICAL C.D.F. (CONTROLLED DENSITY FILL) TRENCH SECTION

19



SIDE VIEWS
 PLAN VIEWS
 TYPICAL TRENCH REPAIR & PAVEMENT SECTION DETAIL (1/2)

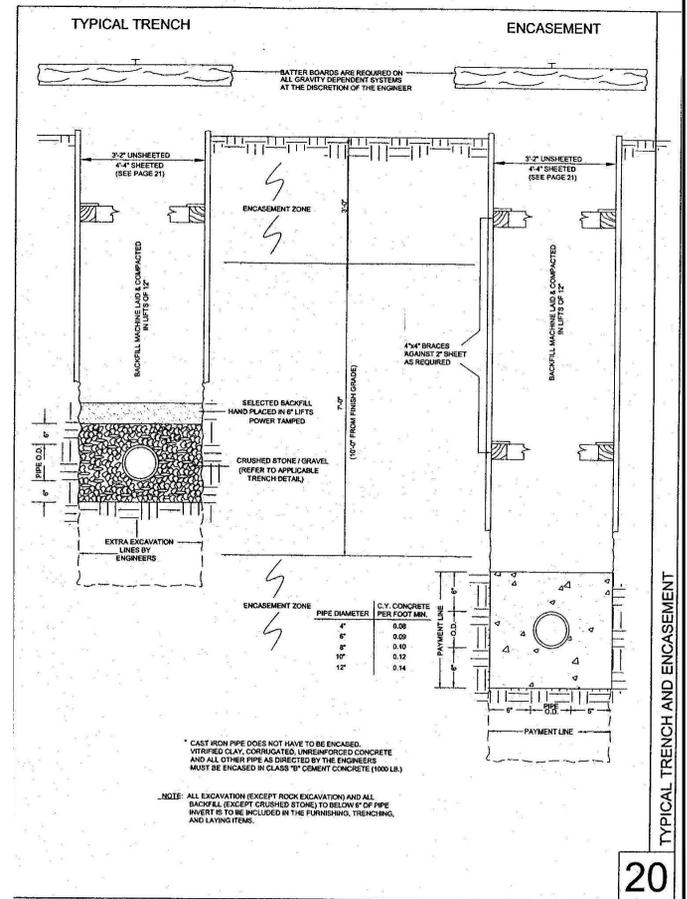
30



1. ALL INSTALLATION AND MATERIAL SPECIFICATIONS PER MASS. HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, 1988 AS AMENDED.
2. ALL EXPOSED BITUMINOUS CONCRETE IS TO BE TACKED PER MHD PRIOR TO NEW BITUMINOUS CONCRETE INSTALLATION.
3. ALL EXPOSED JOINTS ARE TO BE SEALED WITH TACK AND STONE DUST.
4. ANY TOP COURSE APPLIED AT A WIDTH OF 6' WIDE OR GREATER IS TO BE PLACED BY MACHINE/BOX SPREADER WHEN & AS DIRECTED BY THE CITY OF NEWTON.

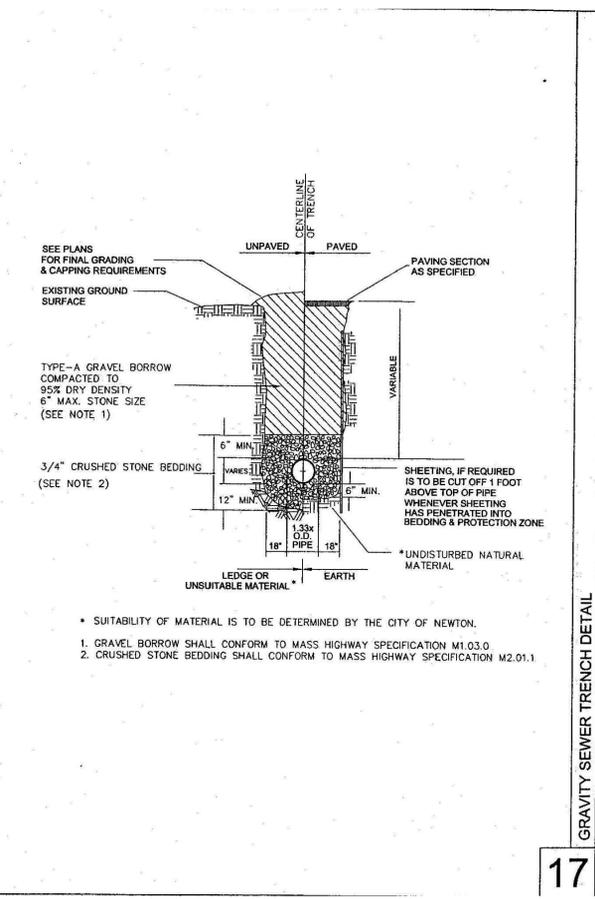
TYPICAL TRENCH REPAIR & PAVEMENT SECTION DETAIL (1/2)

29



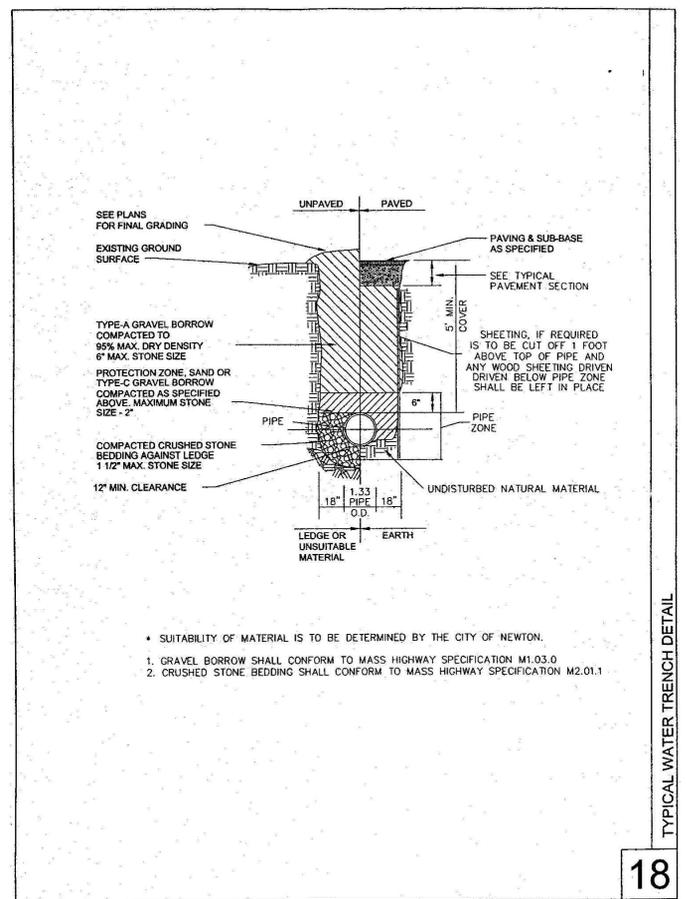
TYPICAL TRENCH AND ENCASEMENT

20



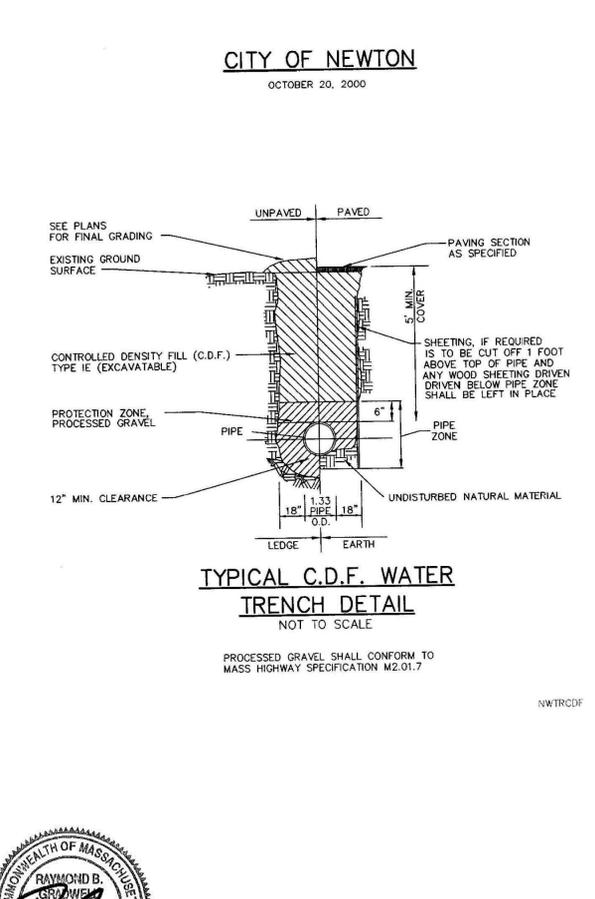
GRAVITY SEWER TRENCH DETAIL

17



TYPICAL WATER TRENCH DETAIL

18



TYPICAL C.D.F. WATER TRENCH DETAIL
 NOT TO SCALE

PROCESSED GRAVEL SHALL CONFORM TO MASS HIGHWAY SPECIFICATION M2.01.7

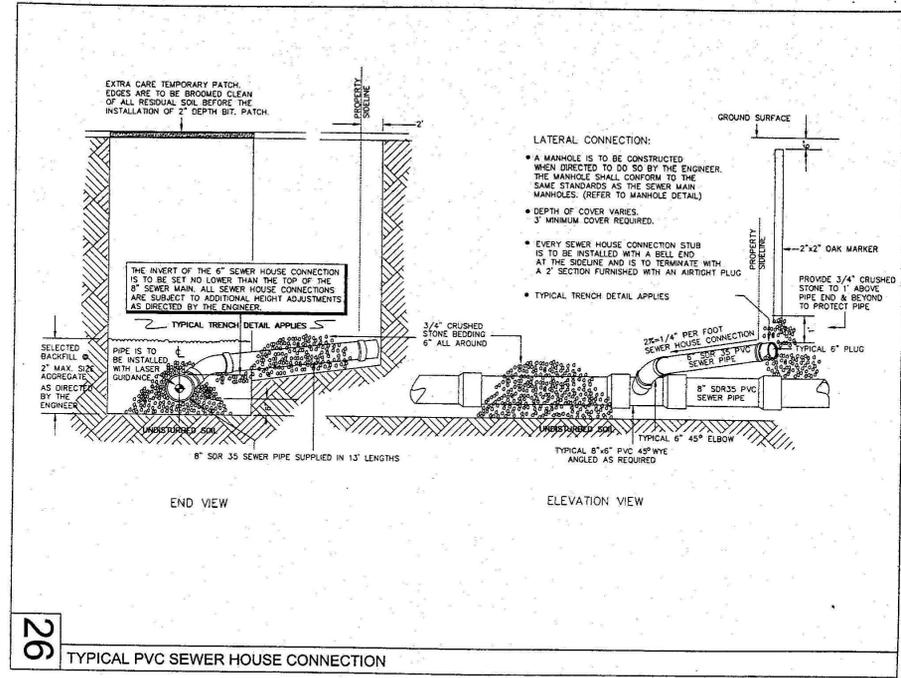
NWTRCDF



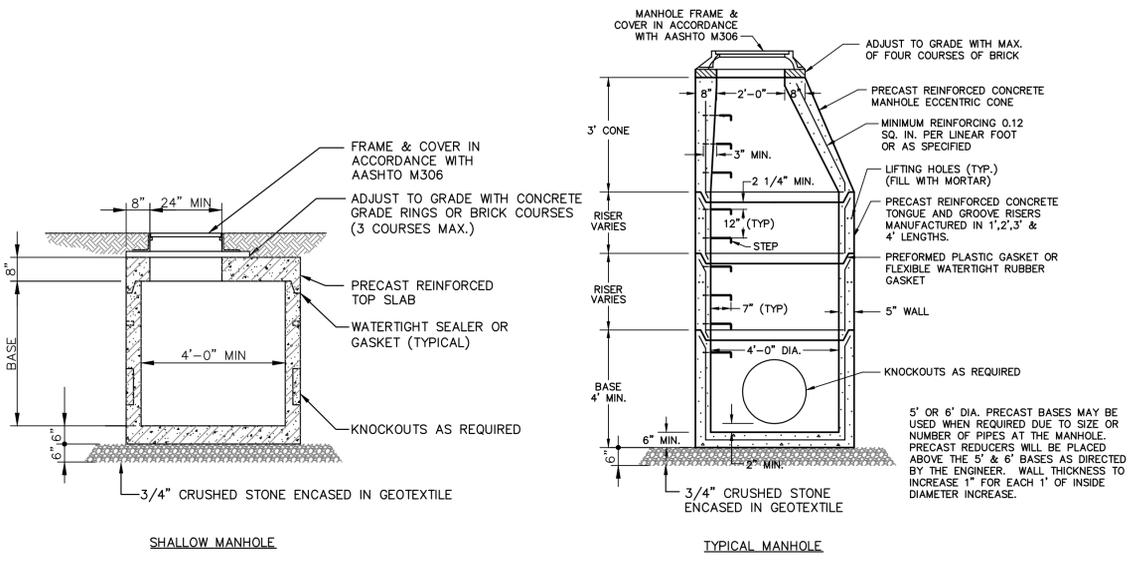
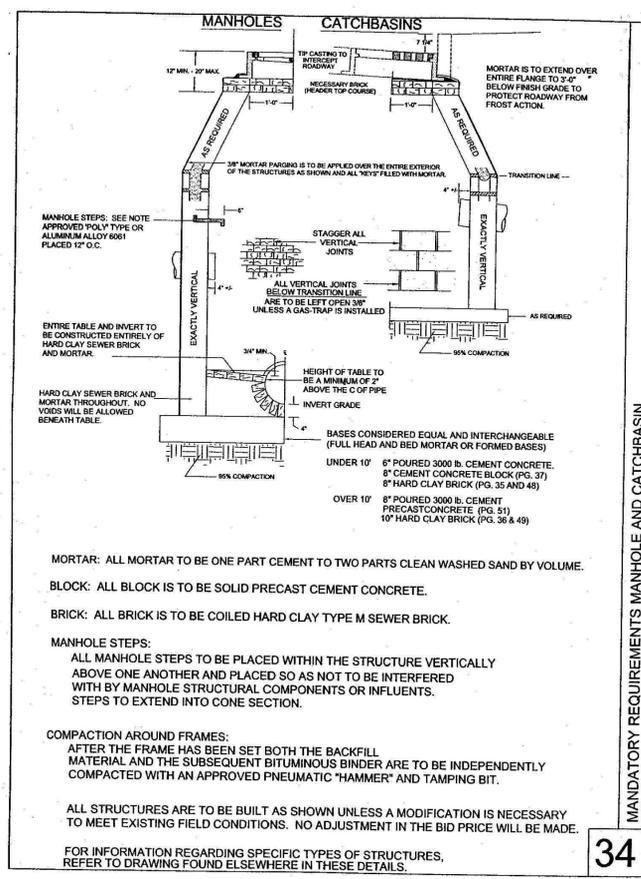
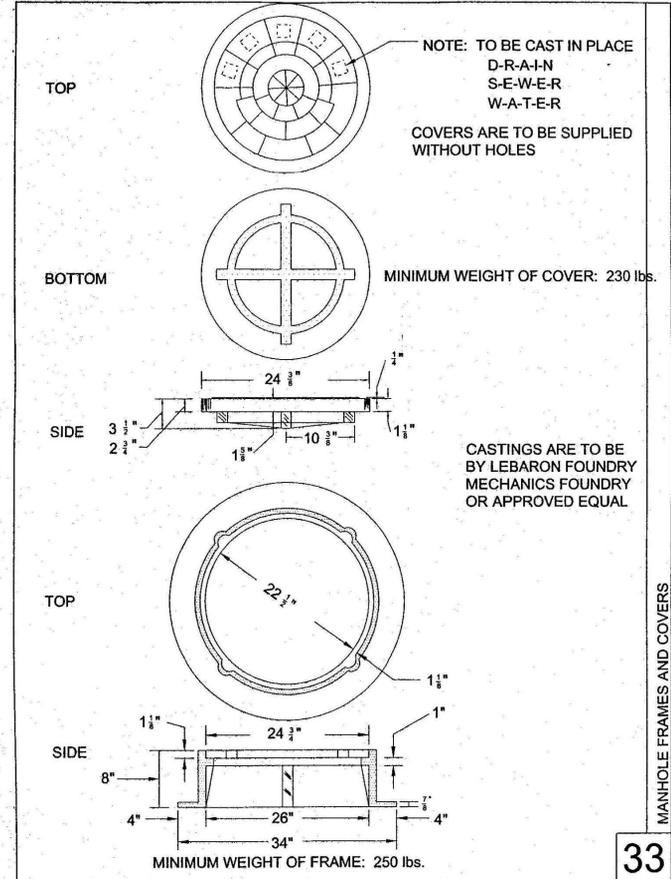
REV.	DATE	DESCRIPTION	COMMISSION	COMMENTS
1	2/19/2016	CONSERVATION		
2	2/22/2016	ENGINEERING		
3	2/25/2016	CONSERVATION		
4	4/15/2016	LAND USE		HEARING COMMENTS

Designed	A.B.U.
Drawn	A.B.U.
Checked	
Approved	
Scale	NTS
Project No.	1502781
Date	2/5/2016
CAD File:	DN150278101

Title
DETAILS
Sheet No.

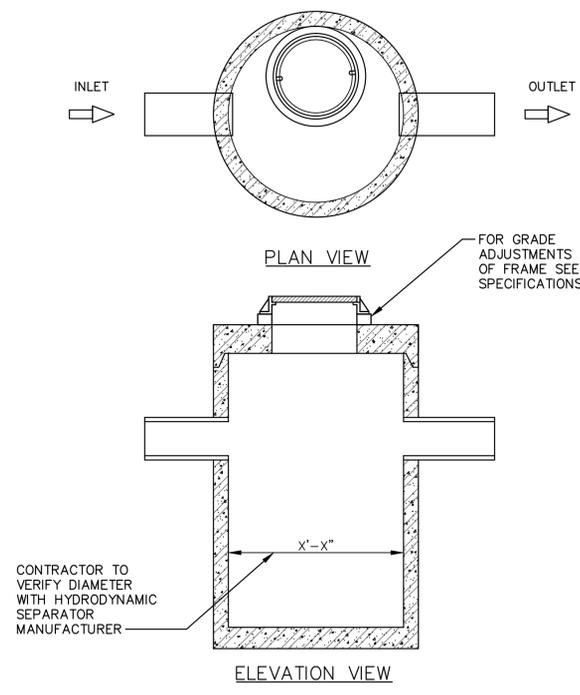


26 TYPICAL PVC SEWER HOUSE CONNECTION



- NOTES:**
- LARGER DIAMETER PRECAST BASES MAY BE USED WHEN REQUIRED DUE TO THE SIZE OR NUMBER OF PIPES AT THE MANHOLE. PRECAST REDUCERS WILL BE PLACED ABOVE THE LARGER BASES AS DIRECTED BY THE ENGINEER.
 - PRECAST MANUFACTURER SHALL ADJUST WALL THICKNESS AS NECESSARY FOR STRUCTURES OVER 10' IN DEPTH.
 - PROVIDE HS20 QUALIFIED TOP SLAB FOR SHALLOW MANHOLES.

3 TYPICAL STORM DRAIN MANHOLE NOT TO SCALE



8 HYDRODYNAMIC SEPARATOR DETAIL- MANHOLE UNIT NOT TO SCALE

FOR PERMITTING PURPOSES ONLY
NOT RELEASED FOR CONSTRUCTION

REVISIONS	No.	Date	Description	Comments
	1.	2/19/2016	CONSERVATION	COMMISSION COMMENTS
	2.	2/22/2016	ENGINEERING	COMMISSION COMMENTS
	3.	2/25/2016	CONSERVATION	COMMISSION COMMENTS
	4.	4/15/2016	LAND USE	HEARING COMMENTS

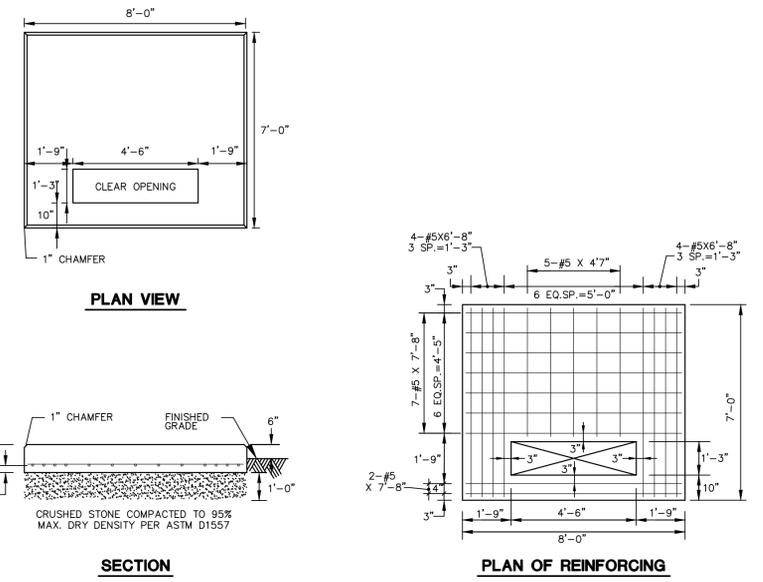
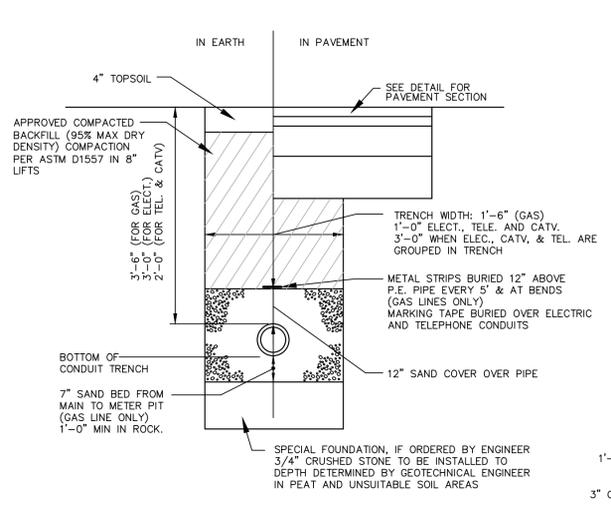
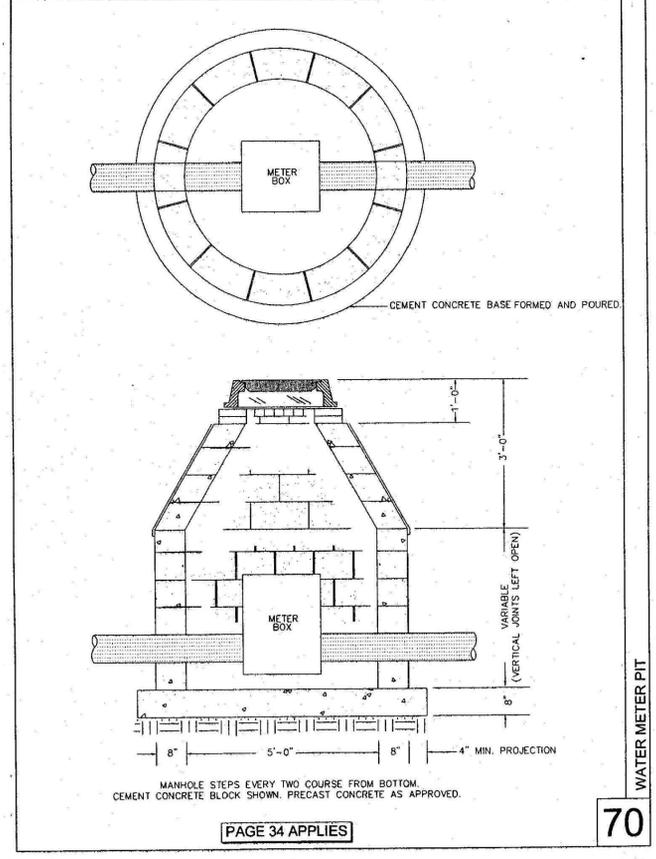
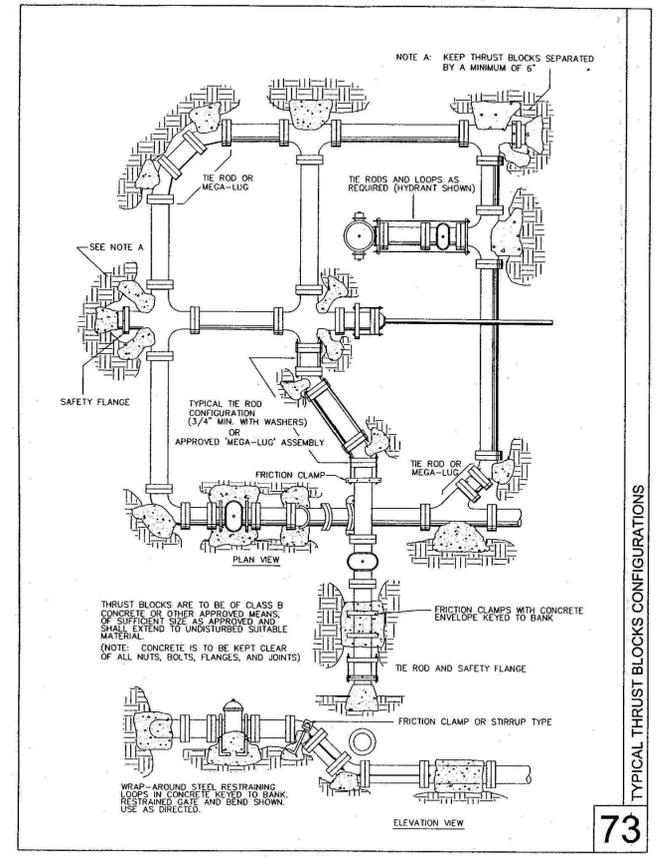
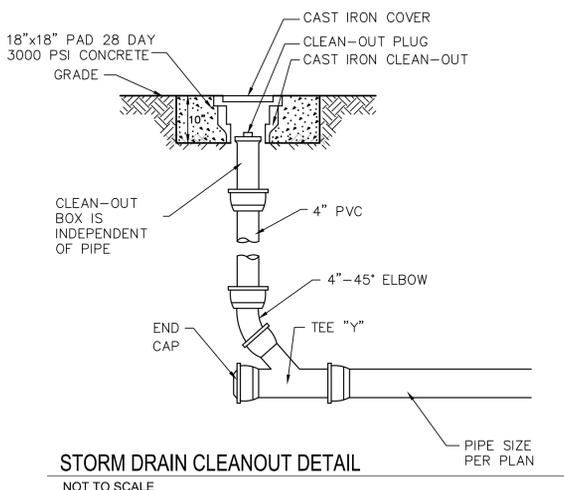
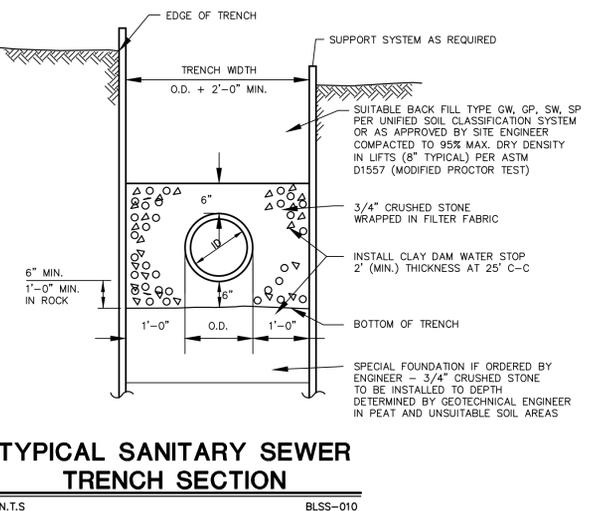
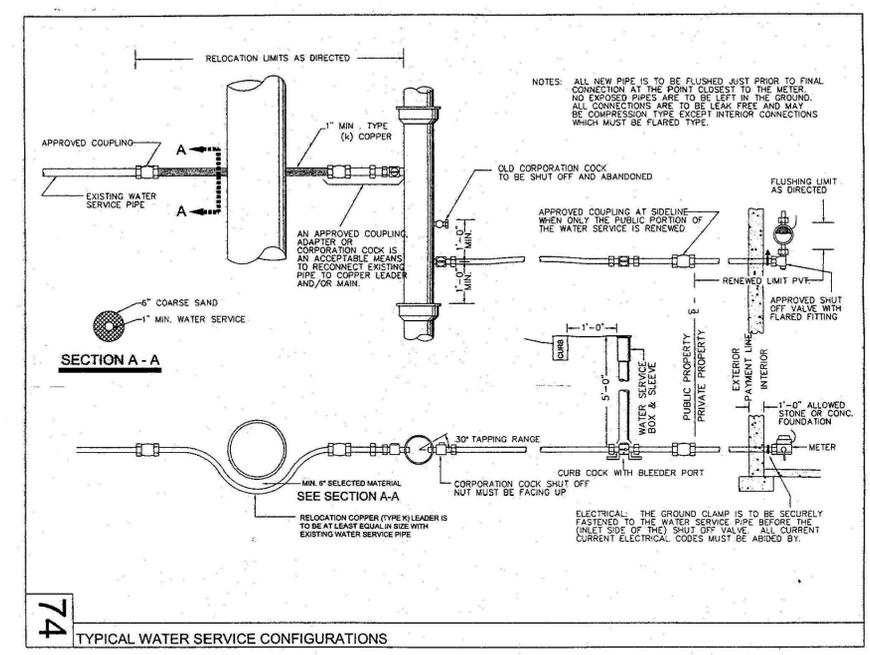
Designed: A.B.U.
Drawn: A.B.U.
Checked:
Approved:
Scale: NTS
Project No: 1502781
Date: 2/5/2016
CAD File: DN150278101

Title: DETAILS

Sheet No.

DN-6

**FOR PERMITTING PURPOSES ONLY
NOT RELEASED FOR CONSTRUCTION**



Revisions	Date	Description	Commission	Comments
1.	2/19/2016	CONSERVATION	COMMISSION	COMMENTS
2.	2/22/2016	ENGINEERING	COMMENTS	COMMENTS
3.	2/25/2016	CONSERVATION	COMMISSION	COMMENTS
4.	4/15/2016	LAND USE	HEARING	COMMENTS

Designed: A.B.U.
Drawn: A.B.U.
Checked:
Approved:
Scale: NTS
Project No: 1502781
Date: 2/5/2016
CAD File: DN150278101

Title: DETAILS

Sheet No.

DN-7

Xref (G): : B0150278101

CULTEC RECHARGER 330XLHD PRODUCT SPECIFICATIONS

GENERAL
CULTEC RECHARGER 330XLHD CHAMBERS ARE DESIGNED FOR UNDERGROUND STORMWATER MANAGEMENT. THE CHAMBERS MAY BE USED FOR RETENTION, RECHARGING, DETENTION OR CONTROLLING THE FLOW OF ON-SITE STORMWATER RUNOFF.

CHAMBER PARAMETERS

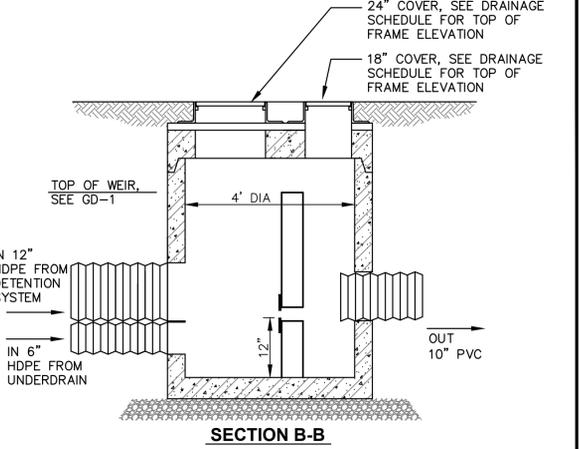
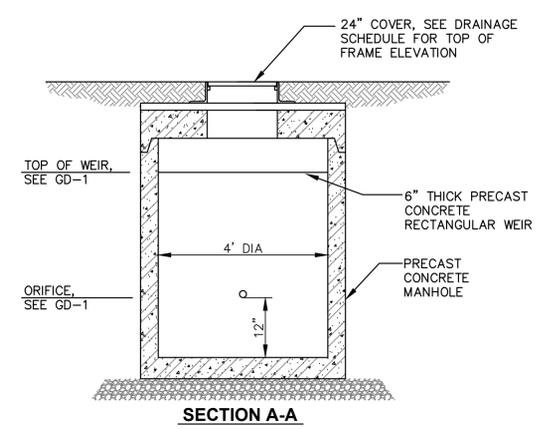
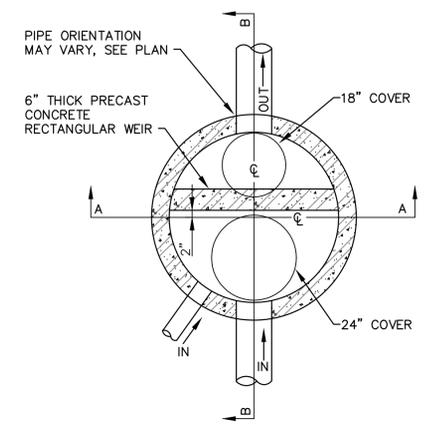
1. THE CHAMBERS WILL BE MANUFACTURED BY CULTEC, INC. OF BROOKFIELD, CT (203-775-4416 OR 1-800-428-5832).
2. THE CHAMBER WILL BE VACUUM THERMOFORMED OF BLACK HIGH MOLECULAR WEIGHT POLYETHYLENE (#9490PE).
3. THE CHAMBER WILL BE ARCHED IN SHAPE.
4. THE CHAMBER WILL BE OPEN-BOTTOMED.
5. THE CHAMBER WILL BE JOINED USING AN INTERLOCKING OVERLAPPING RIB METHOD. CONNECTIONS MUST BE FULLY SHOULDERS OVERLAPPING RIBS, HAVING NO SEPARATE COUPLINGS OR SEPARATE END WALLS.
6. THE NOMINAL CHAMBER DIMENSIONS OF THE CULTEC RECHARGER 330XLHD SHALL BE 30.5 INCHES (775 mm) TALL, 52 INCHES (1330 mm) WIDE AND 8.5 FEET (2.59 m) LONG. THE INSTALLED LENGTH OF A JOINED RECHARGER 330XLHD SHALL BE 7 FEET (2.13 m).
7. MAXIMUM INLET OPENING ON THE CHAMBER END WALL IS 24 INCHES (600 mm).
8. THE CHAMBER WILL HAVE TWO SIDE PORTALS TO ACCEPT CULTEC HVLV FC-24 FEED CONNECTORS TO CREATE AN INTERNAL MANFOLD. THE NOMINAL DIMENSIONS OF EACH SIDE PORTAL WILL BE 10.5 INCHES (267 mm) HIGH BY 11.5 INCHES (293 mm) WIDE. MAXIMUM ALLOWABLE OUTER DIAMETER (O.D.) PIPE SIZE IN THE SIDE PORTAL IS 11.75 INCHES (298 mm).
9. THE NOMINAL CHAMBER DIMENSIONS OF THE CULTEC HVLV FC-24 FEED CONNECTOR SHALL BE 12 INCHES (305 mm) TALL, 18 INCHES (457 mm) WIDE AND 24.2 INCHES (614 mm) LONG.
10. THE NOMINAL STORAGE VOLUME OF THE RECHARGER 330XLHD CHAMBER WILL BE 7.459 FT³/UNIT (0.693 m³/UNIT). WITHOUT STONE. THE NOMINAL STORAGE VOLUME OF A JOINED RECHARGER 330XLHD SHALL BE 52.213 FT³/UNIT (1.478 m³/UNIT). WITHOUT STONE.
11. THE NOMINAL STORAGE VOLUME OF THE HVLV FC-24 FEED CONNECTOR WILL BE 0.913 FT³/UNIT (0.085 m³/UNIT). WITHOUT STONE.
12. THE RECHARGER 330XLHD CHAMBER WILL HAVE FIFTY-SIX DISCHARGE HOLES BORED INTO THE SIDEWALLS OF THE UNITS CORE TO PROMOTE LATERAL CONVEYANCE OF WATER.
13. THE RECHARGER 330XLHD CHAMBER SHALL HAVE 16 CORRUGATIONS.
14. THE END WALL OF THE CHAMBER, WHEN PRESENT, WILL BE AN INTEGRAL PART OF THE CONTINUOUSLY FORMED UNIT. SEPARATE END PLATES CANNOT BE USED WITH THIS UNIT.
15. THE RECHARGER 330XLHD STAND ALONE UNIT MUST BE FORMED AS A WHOLE CHAMBER HAVING TWO FULLY FORMED INTEGRAL END WALLS AND HAVING NO SEPARATE END PLATES OR SEPARATE END WALLS.
16. THE RECHARGER 330XLHD STARTER UNIT MUST BE FORMED AS A WHOLE CHAMBER HAVING ONE FULLY FORMED INTEGRAL END WALL AND ONE PARTIALLY FORMED INTEGRAL END WALL WITH A LOWER TRANSFER OPENING OF 14 INCHES (356 mm) HIGH X 34.5 INCHES (876 mm) WIDE.
17. THE RECHARGER 330XLHD INTERMEDIATE UNIT MUST BE FORMED AS A WHOLE CHAMBER HAVING ONE FULLY OPEN END WALL AND ONE PARTIALLY FORMED INTEGRAL END WALL WITH A LOWER TRANSFER OPENING OF 14 INCHES (356 mm) HIGH X 34.5 INCHES (876 mm) WIDE.
18. THE RECHARGER 330XLHD END UNIT MUST BE FORMED AS A WHOLE CHAMBER HAVING ONE FULLY FORMED INTEGRAL END WALL AND ONE FULLY OPEN END WALL AND HAVING NO SEPARATE END PLATES OR END WALLS.
19. THE HVLV FC-24 FEED CONNECTOR MUST BE FORMED AS A WHOLE CHAMBER HAVING TWO OPEN END WALLS AND HAVING NO SEPARATE END PLATES OR SEPARATE END WALLS. THE UNIT WILL FIT INTO THE SIDE PORTALS OF THE RECHARGER 330XLHD AND ACT AS CROSS FEED CONNECTIONS CREATING AN INTERNAL MANFOLD.
20. CHAMBERS MUST HAVE HORIZONTAL STIFFENING FLEX REDUCTION STEPS BETWEEN THE RIBS.
21. HEAVY DUTY UNITS ARE DESIGNATED BY A COLORED STRIPE FORMED INTO THE PART ALONG THE LENGTH OF THE CHAMBER.
22. THE CHAMBER WILL HAVE A 6 INCH (152 mm) DIAMETER RAISED INTEGRAL CAP LOCATED ON TOP OF THE ARCH IN THE CENTER OF EACH UNIT TO BE USED AS AN OPTIONAL INSPECTION PORT OR CLEAN OUT.
23. THE UNITS MAY BE TRIMMED TO CUSTOM LENGTHS BY CUTTING BACK TO ANY CORRUGATION.
24. THE CHAMBER SHALL BE MANUFACTURED IN AN ISO 9001:2008 CERTIFIED FACILITY.
25. MAXIMUM ALLOWED COVER OVER TOP OF UNIT SHALL BE 12 FEET (3.66 m).
26. THE CHAMBER WILL BE DESIGNED TO WITHSTAND TRAFFIC LOADS WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS.

CULTEC HVLV FC-24 FEED CONNECTOR PRODUCT SPECIFICATIONS

GENERAL
CULTEC HVLV FC-24 FEED CONNECTORS ARE DESIGNED TO CREATE AN INTERNAL MANFOLD FOR CULTEC RECHARGER MODEL 330XLHD STORMWATER CHAMBERS.

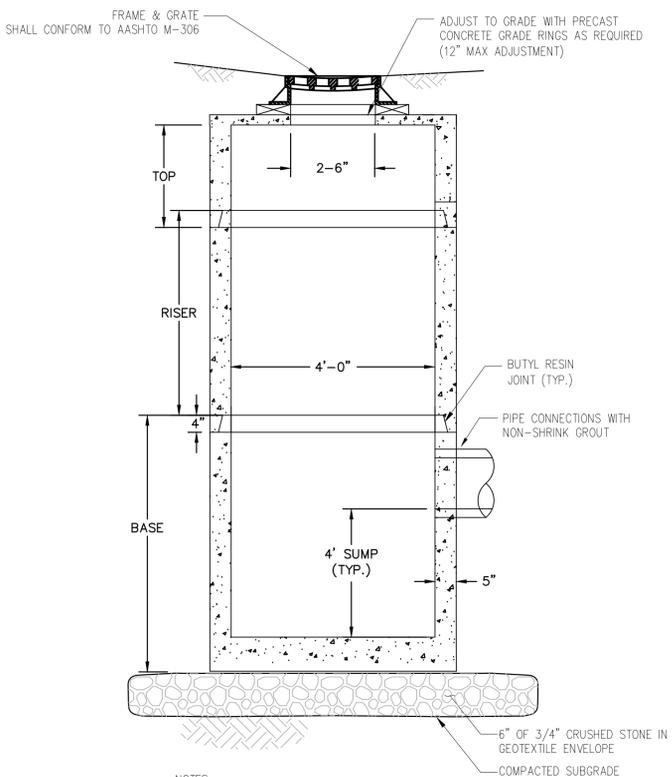
CHAMBER PARAMETERS

1. THE CHAMBERS WILL BE MANUFACTURED BY CULTEC, INC. OF BROOKFIELD, CT (203-775-4416 OR 1-800-428-5832).
2. THE CHAMBER WILL BE VACUUM THERMOFORMED OF BLACK HIGH MOLECULAR WEIGHT POLYETHYLENE (#9490PE).
3. THE CHAMBER WILL BE ARCHED IN SHAPE.
4. THE CHAMBER WILL BE OPEN-BOTTOMED.
5. THE NOMINAL CHAMBER DIMENSIONS OF THE CULTEC HVLV FC-24 FEED CONNECTOR SHALL BE 12 INCHES (305 mm) TALL, 18 INCHES (457 mm) WIDE AND 24.2 INCHES (614 mm) LONG.
6. THE NOMINAL STORAGE VOLUME OF THE HVLV FC-24 FEED CONNECTOR WILL BE 0.913 FT³/UNIT (0.085 m³/UNIT). WITHOUT STONE.
7. THE HVLV FC-24 FEED CONNECTOR CHAMBER SHALL HAVE 2 CORRUGATIONS.
8. THE HVLV FC-24 FEED CONNECTOR MUST BE FORMED AS A WHOLE CHAMBER HAVING TWO OPEN END WALLS AND HAVING NO SEPARATE END PLATES OR SEPARATE END WALLS. THE UNIT WILL FIT INTO THE SIDE PORTALS OF THE CULTEC RECHARGER STORMWATER CHAMBER AND ACT AS CROSS FEED CONNECTIONS CREATING AN INTERNAL MANFOLD.
9. THE CHAMBER WILL BE DESIGNED TO WITHSTAND TRAFFIC LOADS WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS.
10. THE CHAMBER SHALL BE MANUFACTURED IN AN ISO 9001:2008 CERTIFIED FACILITY.



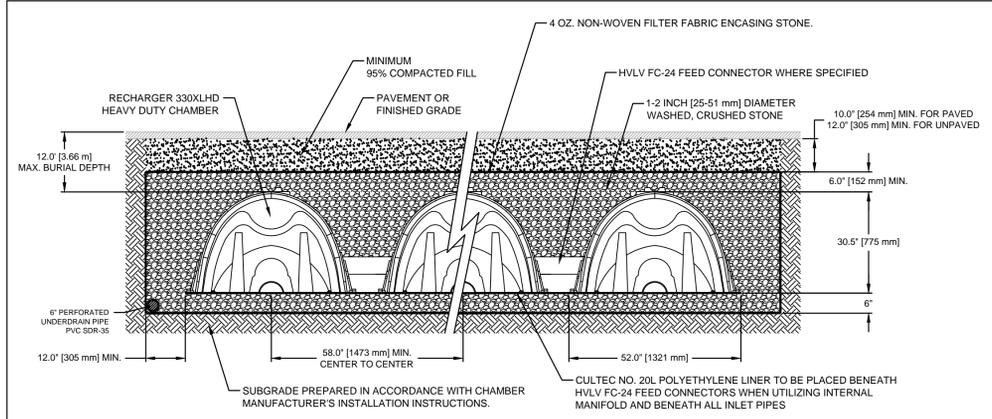
PRECAST CONCRETE OUTLET CONTROL STRUCTURE
NOT TO SCALE

CULTEC 330XLHD GENERAL NOTES



- NOTES**
1. CONCRETE: 5,000 PSI MINIMUM AFTER 28 DAYS.
 2. REINFORCED STEEL SHALL CONFORM TO LATEST ASTM A185 SPEC.
 3. STRUCTURE PRECAST REINFORCED CONCRETE SHALL BE DESIGNED FOR H-20 LOADING PER AASHTO HS-20-44, AND IN ACCORDANCE WITH ASTM C478 SPEC FOR "PRECAST REINFORCED CONCRETE MANHOLE SECTIONS."
 4. INCREASE BASE DIAMETER AS REQUIRED DUE TO INTERSECTING PIPE SIZE OR SKEW. PRECAST REDUCERS WILL BE PLACED ABOVE THE BASES AS DIRECTED BY THE ENGINEER. WALL THICKNESS TO INCREASE 1" FOR EACH 1' OF INSIDE DIAMETER INCREASE.
 5. PROVIDE HOODED OUTLET: ELIMINATOR CATCH BASIN TRAP MANUFACTURED BY GROUND WATER RESCUE, INC. QUINCY, MA 617-773-1128

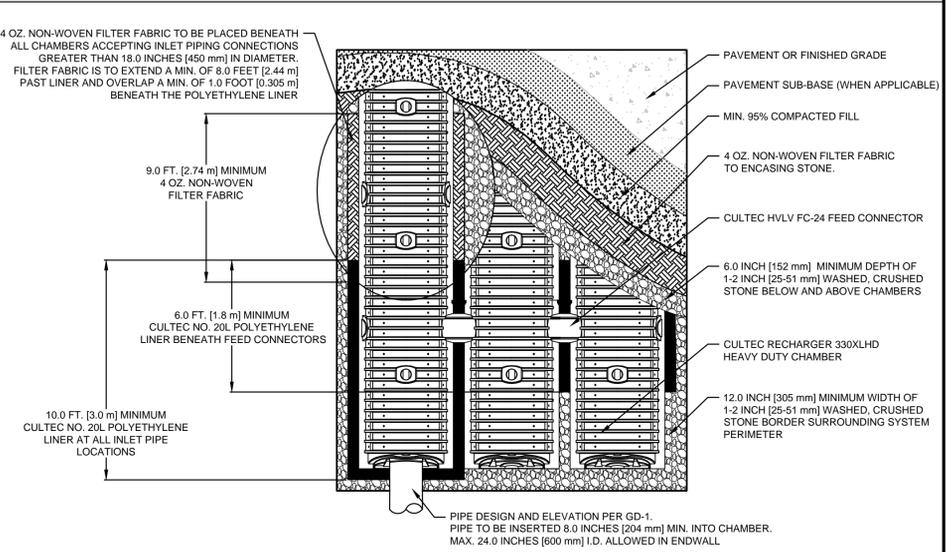
CATCH BASIN DETAIL (ON-SITE)
NOT TO SCALE



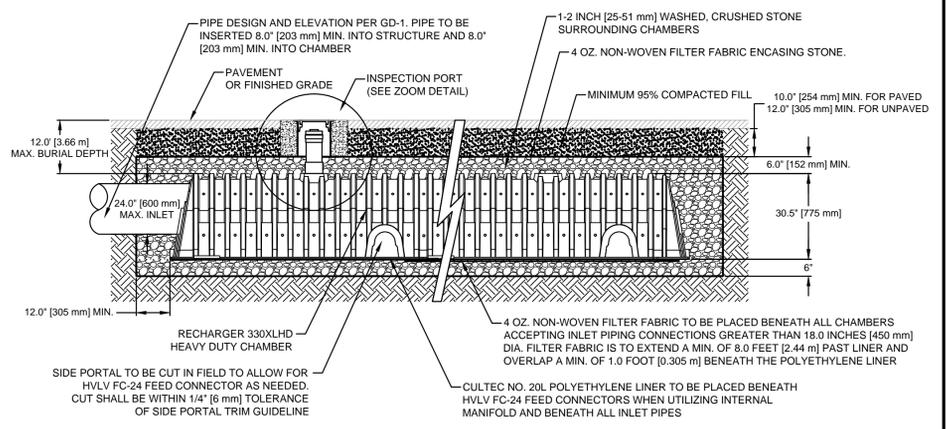
GENERAL NOTES
RECHARGER 330XLHD BY CULTEC, INC. OF BROOKFIELD, CT. STORAGE PROVIDED = 11.32 CF/FT (1.05 m³/m) PER DESIGN UNIT. REFER TO CULTEC, INC.'S CURRENT RECOMMENDED INSTALLATION GUIDELINES. THE CHAMBER WILL BE DESIGNED TO WITHSTAND TRAFFIC LOADS WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS.

ALL RECHARGER 330XLHD HEAVY DUTY UNITS ARE MARKED WITH A COLOR STRIPE FORMED INTO THE PART ALONG THE LENGTH OF THE CHAMBER. ALL RECHARGER 330XLHD CHAMBERS MUST BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.

CULTEC RECHARGER 330XLHD HEAVY DUTY TYPICAL CROSS SECTION



CULTEC RECHARGER 330XLHD HEAVY DUTY PLAN VIEW



CULTEC INTERNAL MANFOLD- INSPECTION PORT DETAIL

FOR PERMITTING PURPOSES ONLY
NOT RELEASED FOR CONSTRUCTION



GENERAL NOTES

1. THE CONTRACTOR SHALL VERIFY ALL SITE AND BUILDING CONDITIONS IN THE FIELD AND CONTACT THE SITE ENGINEER AND ARCHITECT IF THERE ARE ANY QUESTIONS OR CONFLICTS REGARDING THE CONSTRUCTION DOCUMENTS AND/OR FIELD CONDITIONS.
2. DO NOT INTERRUPT EXISTING UTILITIES SERVICING FACILITIES OCCUPIED AND USED BY THE OWNER OR OTHERS DURING OCCUPIED HOURS EXCEPT WHEN SUCH INTERRUPTIONS HAVE BEEN AUTHORIZED IN WRITING BY THE OWNER AND THE LOCAL MUNICIPALITIES. INTERRUPTIONS SHALL ONLY OCCUR AFTER ACCEPTABLE TEMPORARY SERVICE HAS BEEN PROVIDED.
3. THE CONTRACTOR SHALL ABIDE BY ALL OSHA FEDERAL STATE AND LOCAL REGULATIONS WHEN OPERATING CRANES, BOOMS, HOISTS, ETC. IN CLOSE PROXIMITY TO OVERHEAD ELECTRIC LINES. IF CONTRACTOR MUST OPERATE EQUIPMENT CLOSE TO ELECTRIC LINES, CONTACT POWER COMPANY TO MAKE ARRANGEMENTS FOR PROPER SAFEGUARDS. ANY UTILITY COMPANY FEES SHALL BE PAID FOR BY THE CONTRACTOR.
4. THE CONTRACTOR SHALL PROVIDE RECORD DRAWINGS OF ALL CONSTRUCTION (INCLUDING UNDERGROUND UTILITIES) TO THE OWNER AT THE END OF CONSTRUCTION.
5. THE ARCHITECT OR ENGINEER IS NOT RESPONSIBLE FOR SITE SAFETY MEASURES TO BE EMPLOYED DURING CONSTRUCTION. THE ARCHITECT AND ENGINEER HAVE NO CONTRACTUAL DUTY TO CONTROL THE SAFEST METHODS OR MEANS OF THE WORK, JOB SITE RESPONSIBILITIES, SUPERVISION OR TO SUPERVISE SAFETY AND DOES NOT VOLUNTARILY ASSUME ANY SUCH DUTY OR RESPONSIBILITY.
6. INFORMATION ON EXISTING UTILITIES AND STORM DRAINAGE SYSTEMS HAS BEEN COMPILED FROM AVAILABLE INFORMATION INCLUDING UTILITY COMPANY AND MUNICIPAL RECORD MAPS AND/OR FIELD SURVEY AND IS NOT GUARANTEED CORRECT OR COMPLETE. UTILITIES AND STORM DRAINAGE SYSTEMS ARE SHOWN TO ALERT THE CONTRACTOR TO THEIR PRESENCE AND THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DETERMINING ACTUAL LOCATIONS AND ELEVATIONS OF ALL UTILITIES AND STORM DRAINAGE SYSTEMS INCLUDING SERVICES. PRIOR TO DEMOLITION OR CONSTRUCTION, THE CONTRACTOR SHALL CONTACT "DIG SAFE" 72 HOURS BEFORE COMMENCEMENT OF WORK AT 888-344-7233 AND VERIFY ALL UTILITY AND STORM DRAINAGE SYSTEM LOCATIONS.
7. DO NOT SCALE DRAWINGS. DIMENSIONS GOVERN OVER SCALED DIMENSIONS.
8. IF PLANS AND OR SPECIFICATIONS ARE IN CONFLICT, THE MOST COSTLY SHALL APPLY.
9. ALL CONTRACTORS AND SUBCONTRACTORS SHALL OBTAIN COMPLETE DRAWING PLAN SETS FOR BIDDING AND CONSTRUCTION. PLAN SETS SHALL NOT BE DISASSEMBLED INTO PARTIAL PLAN SETS FOR USE BY CONTRACTORS AND SUBCONTRACTORS OF INDIVIDUAL TRADES. IT SHALL BE THE CONTRACTOR'S AND SUBCONTRACTOR'S RESPONSIBILITY TO OBTAIN COMPLETE PLAN SETS FOR USE IN BIDDING AND CONSTRUCTION.
10. ALL NOTES AND DIMENSIONS DESIGNATED "TYPICAL" APPLY TO ALL LIKE OR SIMILAR CONDITIONS THROUGHOUT THE PROJECT.
11. CONTRACTOR(S) TO TAKE AND VERIFY ALL DIMENSIONS AND CONDITIONS OF THE WORK AND BE RESPONSIBLE FOR COORDINATION OF SAME. FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO START OF WORK.
12. THESE PLANS ARE FOR PERMITTING PURPOSES ONLY AND ARE NOT FOR CONSTRUCTION. NO CONSTRUCTION OR DEMOLITION SHALL BEGIN UNTIL APPROVAL OF THE FINAL PLANS IS GRANTED BY ALL GOVERNING AND REGULATORY AGENCIES.
13. EXISTING BOUNDARY AND TOPOGRAPHY IS BASED ON DRAWING TITLED "EXISTING CONDITIONS SURVEY" PREPARED FOR STORAGE DEVELOPMENT PARTNERS, LLC, 30665 NORTHWESTERN HIGHWAY, SUITE 100, FARMINGTON HILLS, MICHIGAN, SCALE 1" = 30' DATED: 5/15/2015 BY GREENSAL ENVIRONMENTAL, INC.
14. ALL CONSTRUCTION SHALL COMPLY WITH THE ABOVE PLANS, CITY OF NEWTON, MASSACHUSETTS DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS AND COMMONWEALTH OF MASSACHUSETTS BUILDING CODE IN THE SITE REFERENCED INCREASING HIERARCHY. IF SPECIFICATIONS ARE IN CONFLICT, THE MORE STRINGENT SPECIFICATION SHALL APPLY.
15. REFER TO OTHER PLANS AND DETAILS FOR ADDITIONAL INFORMATION. THE CONTRACTOR SHALL VERIFY ALL SITE AND BUILDING CONDITIONS IN THE FIELD AND CONTACT THE SITE ENGINEER AND ARCHITECT IF THERE ARE ANY QUESTIONS OR CONFLICTS REGARDING THE CONSTRUCTION DOCUMENTS AND/OR FIELD CONDITIONS SO THAT APPROPRIATE REVISIONS CAN BE MADE PRIOR TO BIDDING. ANY CONFLICT BETWEEN THE DRAWINGS AND SPECIFICATIONS SHALL BE CONFIRMED WITH THE LOCAL CONSTRUCTION MANAGER PRIOR TO BIDDING.
16. THE CONTRACTOR SHALL COMPLY WITH CFR 29 PART 1926 FOR EXCAVATION TRENCHING AND TRENCH PROTECTION REQUIREMENTS.
17. BL WILL PREPARE FINAL CONSTRUCTION DOCUMENTS SUITABLE FOR BIDDING AND CONSTRUCTION. PROGRESS SETS OF THESE DOCUMENTS ARE NOT SUITABLE FOR THOSE PURPOSES. IF CLIENT ELECTS TO SOLICIT BIDS OR ENTER INTO CONSTRUCTION CONTRACTS UTILIZING CONSTRUCTION DOCUMENTS THAT ARE NOT YET FINAL, CONSULTANT SHALL NOT BE RESPONSIBLE FOR ANY COSTS OR DELAYS ARISING AS A RESULT.

CITY OF NEWTON NOTES:

18. PRIOR TO DEMOLITION AND CONSTRUCTION, THE CONTRACTOR SHALL HAVE THE CULVERT INSPECTED VIA A CLOSED CIRCUIT TELEVISION INSPECTION (CCTV). THE NEWTON ENGINEERING AND UTILITIES DIVISION SHALL BE GIVEN 48-HOURS PRIOR NOTICE TO THE DATE OF THE CCTV INSPECTION TO ARRANGE AN INSPECTOR TO WITNESS THE INSPECTION.
19. THE BUILDING PERMIT WILL BE APPLIED FOR WITH THE NEWTON INSPECTIONAL SERVICES DEPARTMENT.
20. THE CONTRACTOR SHALL APPLY WITH THE NEWTON DEPARTMENT OF PUBLIC WORKS FOR UTILITIES CONNECTION PERMITS. NOTE THAT THE WINDER MORATORIUM IS IN EFFECT ON DECEMBER 15TH. NO EXCAVATIONS WILL BE ALLOWED WITHIN THE PUBLIC RIGHT-OF-WAY UNTIL APRIL 15TH.
21. THE CONTRACTOR NEEDS TO NOTIFY THE NEWTON ENGINEERING DEPARTMENT 48-HOURS IN ADVANCE AND SCHEDULE AN APPOINTMENT TO HAVE THE DRAINAGE SYSTEM AND ALL UTILITIES INSPECTED. THE SYSTEM AND UTILITY MUST BE FULLY EXPOSED FOR THE INSPECTOR.
22. ALL SILTATION CONTROL SYSTEMS SHALL BE INSTALLED AND INSPECTED BY THE CONSERVATION COMMISSION AGENT(S) PRIOR TO ANY CONSTRUCTION.
23. PRIOR TO A REQUEST FOR A CERTIFICATE OF COMPLIANCE, AN AS-BUILT PLAN SHALL BE SUBMITTED TO THE NEWTON ENGINEERING DEPARTMENT IN BOTH DIGITAL FORMAT AND IN HARD COPY. THE PLAN SHOULD SHOW ALL UTILITIES AND FINAL GRADES, ANY EASEMENTS AND FINAL GRADING, IMPROVEMENTS AND LIMITS OF RESTORATION WORK.
24. ALL SITE WORK MUST BE COMPLETED BEFORE REQUESTING A CERTIFICATE OF OCCUPANCY.

SITE PLAN NOTES

SITE PLAN NOTES

1. ALL CONSTRUCTION SHALL COMPLY WITH PROJECT SPECIFICATION MANUAL, CITY OF NEWTON STANDARDS, MASSACHUSETTS DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS AND COMMONWEALTH OF MASSACHUSETTS BUILDING CODE IN THE ABOVE REFERENCED INCREASING HIERARCHY. IF SPECIFICATIONS ARE IN CONFLICT, THE MORE STRINGENT SPECIFICATION SHALL APPLY. ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE OSHA, FEDERAL, STATE AND LOCAL REGULATIONS.
2. THE OWNER IS RESPONSIBLE FOR OBTAINING ALL NECESSARY ZONING PERMITS REQUIRED BY GOVERNMENT AGENCIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL OBTAIN ALL COUNTY AND CITY CONSTRUCTION PERMITS, INCLUDING TRENCH PERMITS, ROAD OPENING PERMITS, MASSACHUSETTS DOT PERMITS, AND SEWER AND WATER CONNECTION PERMITS. THE CONTRACTOR SHALL POST ALL BONDS, PAY ALL FEES, PROVIDE PROOF OF INSURANCE AND PROVIDE TRAFFIC CONTROL NECESSARY FOR THIS WORK.
3. REFER TO PLANS BY BL COMPANIES, DETAILS, AND PROJECT MANUAL FOR ADDITIONAL INFORMATION. THE CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS IN THE FIELD AND CONTACT THE CIVIL ENGINEER IF THERE ARE ANY QUESTIONS OR CONFLICTS REGARDING THE CONSTRUCTION DOCUMENTS AND/OR FIELD CONDITIONS SO THAT APPROPRIATE REVISIONS CAN BE MADE PRIOR TO BIDDING. ANY CONFLICT BETWEEN THE DRAWINGS AND SPECIFICATIONS SHALL BE CONFIRMED WITH THE OWNER'S CONSTRUCTION MANAGER PRIOR TO BIDDING.
4. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL PRODUCTS, AND MATERIALS PER PLANS AND SPECIFICATIONS TO THE OWNER AND CIVIL ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION OR DELIVERY TO THE SITE. ALLOW A MINIMUM OF 14 WORKING DAYS FOR REVIEW.
5. THE CONTRACTOR SHALL FOLLOW THE SEQUENCE OF CONSTRUCTION NOTES PROVIDED ON THE SEDIMENT AND EROSION CONTROL PLAN.
6. THE CONTRACTOR SHALL REFERENCE ARCHITECTURAL PLANS FOR EXACT DIMENSIONS AND CONSTRUCTION DETAILS OF BUILDING, LOADING AREA, AND THE RAISED CONCRETE SIDEWALKS AND RAMPS.
7. SHOULD ANY UNCHARTED OR INCORRECTLY CHARTED, EXISTING PIPING OR OTHER UTILITY BE UNCOVERED DURING EXCAVATION, CONSULT THE CIVIL ENGINEER IMMEDIATELY FOR DIRECTIONS BEFORE PROCEEDING FURTHER WITH WORK IN THIS AREA.
8. DO NOT INTERRUPT EXISTING UTILITIES SERVICING FACILITIES OCCUPIED AND USED BY THE OWNER OR OTHERS DURING OCCUPIED HOURS EXCEPT WHEN SUCH INTERRUPTIONS HAVE BEEN AUTHORIZED IN WRITING BY THE OWNER AND THE LOCAL MUNICIPALITIES. INTERRUPTIONS SHALL ONLY OCCUR AFTER ACCEPTABLE TEMPORARY SERVICE HAS BEEN PROVIDED.
9. ALL SITE DIMENSIONS ARE REFERENCED TO THE FACE OF CURBS OR EDGE OF PAVING AS APPLICABLE UNLESS OTHERWISE NOTED. ALL BUILDING DIMENSIONS ARE REFERENCED TO THE OUTSIDE FACE OF THE STRUCTURE.
10. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TRAFFIC DEVICES FOR PROTECTION OF VEHICLES AND PEDESTRIANS CONSISTING OF DRUMS, BARRIERS, SIGNS, LIGHTS, FENCES, TRAFFIC CONTROLLERS AND UNIFORMED TRAFFIC OFFICERS AS REQUIRED OR AS ORDERED BY THE ENGINEER OR AS REQUIRED BY THE LOCAL GOVERNING AUTHORITIES OR AS REQUIRED BY PERMIT STIPULATIONS OR AS REQUIRED BY THE OWNER.
11. REFER TO DETAIL SHEETS FOR PAVEMENT, CURBING, AND SIDEWALK INFORMATION.
12. TRAFFIC CONTROL SIGNAGE SHALL CONFORM TO THE STATE DOT STANDARD DETAIL SHEETS AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. SIGNS SHALL BE INSTALLED PLUMB WITH THE EDGE OF THE SIGN 2' OFF THE FACE OF THE CURB, AND WITH 7' VERTICAL CLEARANCE UNLESS OTHERWISE DETAILED OR NOTED.
13. THE CONTRACT LIMIT IS THE PROPERTY LINE UNLESS OTHERWISE SPECIFIED OR SHOWN ON THE CONTRACT DRAWINGS.
14. THE CONTRACTOR SHALL ABIDE BY ALL OSHA FEDERAL STATE AND LOCAL REGULATIONS WHEN OPERATING CRANES, BOOMS, HOISTS, ETC. IN CLOSE PROXIMITY TO OVERHEAD ELECTRIC LINES. IF CONTRACTOR MUST OPERATE EQUIPMENT CLOSE TO ELECTRIC LINES, CONTACT POWER COMPANY TO MAKE ARRANGEMENTS FOR PROPER SAFEGUARDS. ANY UTILITY COMPANY FEES SHALL BE PAID FOR BY THE CONTRACTOR.
15. THE CONTRACTOR SHALL SUBMIT A SHOP DRAWING OF THE PAVEMENT MARKING PAINT MIXTURE PRIOR TO STRIPING.
16. PAVEMENT MARKING KEY:
 - 4" SYDL 4' SOLID YELLOW DOUBLE LINE
 - 4" SYL 4' SOLID YELLOW LINE
 - 4" SWL 4' SOLID WHITE LINE
 - 12" SWSB 12' SOLID WHITE STOP BAR
 - 4" BWL 4" BROKEN WHITE LINE 10' STRIPE 30'SPACE
17. PARKING SPACES SHALL BE STRIPED WITH 4" SWL AT A 45' ANGLE. 2' ON CENTER. HATCHING, SYMBOLS, AND STRIPING FOR HANDICAPPED SPACES SHALL BE PAINTED YELLOW. OTHER MARKINGS SHALL BE PAINTED WHITE OR AS NOTED.
18. THE CONTRACTOR SHALL RESTORE ANY DRAINAGE STRUCTURE, PIPE, UTILITY, PAVEMENT, CURBS, SIDEWALKS, LANDSCAPED AREAS, PAVEMENT MARKINGS, OR SIGNAGE DISTURBED DURING CONSTRUCTION TO THEIR ORIGINAL CONDITION OR BETTER, AS APPROVED BY THE CIVIL ENGINEER.
19. THE CONTRACTOR SHALL PROVIDE AS-BUILT RECORDS OF ALL CONSTRUCTION (INCLUDING UNDERGROUND STORM WATER SYSTEM AND UTILITIES) TO THE OWNER AT THE END OF CONSTRUCTION.
20. THE ARCHITECT AND ENGINEER ARE NOT RESPONSIBLE FOR SITE SAFETY MEASURES TO BE EMPLOYED DURING CONSTRUCTION. THE ARCHITECT AND ENGINEER HAVE NO CONTRACTUAL DUTY TO CONTROL THE SAFEST METHODS OR MEANS OF THE WORK, JOB SITE RESPONSIBILITIES, SUPERVISION OR TO SUPERVISE SAFETY AND DOES NOT VOLUNTARILY ASSUME ANY SUCH DUTY OR RESPONSIBILITY.
21. THE CONTRACTOR SHALL COMPLY WITH CFR 29 PART 1926 FOR EXCAVATION TRENCHING AND TRENCH PROTECTION REQUIREMENTS.
22. ALTERNATIVE METHODS AND PRODUCTS OTHER THAN THOSE SPECIFIED MAY BE USED IF REVIEWED AND APPROVED BY THE OWNER, CIVIL ENGINEER, AND APPROPRIATE REGULATORY AGENCY PRIOR TO INSTALLATION DURING THE BIDDING PROCESS.
23. PAVEMENT MARKINGS SHALL BE HOT APPLIED TYPE IN ACCORDANCE WITH MASSACHUSETTS DOT SPECIFICATIONS, UNLESS WHERE EPOXY RESIN PAVEMENT MARKINGS ARE INDICATED.
24. A DEMOLITION PERMIT IS REQUIRED FOR EXISTING BUILDINGS.
25. THE SITE IS CURRENTLY SERVICED BY PUBLIC WATER
26. NO PART OF THE PROJECT PARCEL IS LOCATED WITHIN ANY FEMA DESIGNATED FLOOD HAZARD AREAS.
27. FIRE LANES SHALL BE ESTABLISHED AND PROPERLY DESIGNATED IN ACCORDANCE WITH THE REQUIREMENTS OF THE FIRE DISTRICT FIRE MARSHAL.
28. THE CONTRACTOR SHALL REMOVE CONFLICTING PAVEMENT MARKINGS IN THE PUBLIC RIGHT OF WAY BY METHOD APPROVED BY CITY OF NEWTON PUBLIC WORKS.
29. THESE PLANS ARE FOR PERMITTING PURPOSES ONLY AND ARE NOT FOR CONSTRUCTION.

GRADING AND DRAINAGE NOTES

GRADING AND DRAINAGE NOTES

1. THE GD-1 DRAWING IS INTENDED TO DESCRIBE GRADING AND DRAINAGE ONLY. REFER TO SITE PLAN FOR GENERAL INFORMATION, AND DETAIL SHEETS FOR DETAILS. SEE MEP DRAWINGS FOR BUILDING CONNECTION LOCATIONS AND DETAILS.
2. THE CONTRACTOR SHALL PRESERVE EXISTING VEGETATION WHERE POSSIBLE AND/OR AS NOTED ON DRAWINGS. REFER TO SEDIMENT AND EROSION CONTROL PLAN FOR LIMIT OF DISTURBANCE AND EROSION CONTROL NOTES.
3. TOPSOIL SHALL BE STRIPPED AND STOCKPILED ON SITE FOR USE IN FINAL LANDSCAPING.
4. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY CONSTRUCTION PERMITS REQUIRED BY GOVERNMENT AND LOCAL AGENCIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY CONSTRUCTION PERMITS FROM THE CITY OF NEWTON REQUIRED TO PERFORM ALL REQUIRED WORK, INCLUDING FOR STREET CUTS AND CONNECTIONS TO EXISTING UTILITIES. THE CONTRACTOR SHALL POST ALL BONDS, PAY ALL FEES, PROVIDE PROOF OF INSURANCE AND PROVIDE TRAFFIC CONTROL NECESSARY FOR THIS WORK.
5. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TRAFFIC DEVICES FOR PROTECTION OF VEHICLES AND PEDESTRIANS CONSISTING OF DRUMS, BARRIERS, SIGNS, LIGHTS, FENCES, TEMPORARY WALKWAYS AND UNIFORMED TRAFFIC CONTROLLERS AS REQUIRED, ORDERED BY THE ENGINEER OR REQUIRED BY THE STATE AND LOCAL GOVERNING AUTHORITIES.
7. FILL WITHIN FORMER BUILDING FOUNDATION SHALL BE CHECKED BY TEST PIT AND PROOF-ROLLING AND SHALL BE OBSERVED BY THE OWNER'S GEOTECHNICAL ENGINEER. SUBGRADE SHALL BE FORMED WITH REMOVAL AND REPLACEMENT OF FILL AND REMOVAL AND REPLACEMENT OF SOFT SUBGRADE MATERIAL AS ORDERED BY THE GEOTECHNICAL ENGINEER. SEE GEOTECHNICAL REPORT AND EARTHWORK SPECIFICATIONS FOR FURTHER DESCRIPTION.
8. THE CONTRACTOR SHALL COMPACT FILL IN 12 INCH MAXIMUM LIFTS UNDER ALL PARKING, BUILDING, AND DRIVE AREAS TO 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D1557 (MODIFIED PROCTOR TEST), OR AS DIRECTED BY THE GEOTECHNICAL ENGINEER.
9. UNDERDRAINS SHALL BE ADDED, IF DETERMINED NECESSARY IN THE FIELD BY THE OWNER/GEOTECHNICAL ENGINEER, AFTER SUBGRADE IS ROUGH GRADED.
10. VERTICAL DATUM IS ASSUMED. SEE EXISTING CONDITIONS SURVEY FOR LOCATION AND ELEVATION OF BENCHMARK.
11. CLEARING LIMITS SHALL BE PHYSICALLY MARKED IN THE FIELD AND APPROVED BY THE CONSERVATION COMMISSION AGENT PRIOR TO THE START OF WORK ON THE SITE.
12. PROPER CONSTRUCTION PROCEDURES SHALL BE FOLLOWED ON ALL IMPROVEMENTS WITHIN THIS PARCEL SO AS TO PREVENT THE SILTING OF ANY WATERCOURSE OR WETLANDS IN ACCORDANCE WITH THE MASSACHUSETTS EROSION AND SEDIMENT CONTROL GUIDELINES FOR URBAN AND SUBURBAN AREAS. LATEST ADDITION, IN ADDITION, THE CONTRACTOR SHALL STRICTLY ADHERE TO THE "SEDIMENT AND EROSION CONTROL PLAN" CONTAINED HEREIN. THE CONTRACTOR SHALL BE RESPONSIBLE TO POST ALL BONDS AS REQUIRED BY THE LOCAL MUNICIPALITIES, SOIL CONSERVATION DISTRICT, OR CONSERVATION COMMISSION WHICH WOULD GUARANTEE THE PROPER IMPLEMENTATION OF THE PLAN.
13. ALL SITE WORK, MATERIALS OR CONSTRUCTION, AND CONSTRUCTION METHODS FOR EARTHWORK AND STORM DRAINAGE WORK SHALL CONFORM TO THE SPECIFICATIONS AND DETAILS AND APPLICABLE SECTIONS OF THE PROJECT SPECIFICATIONS MANUAL. OTHERWISE THIS WORK SHALL CONFORM TO THE COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF TRANSPORTATION AND PROJECT GEOTECHNICAL REPORT IF THERE IS NO PROJECT SPECIFICATIONS MANUAL. ALL FILL MATERIAL UNDER STRUCTURES AND PAVED AREAS SHALL BE PER THE ABOVE STATED APPLICABLE SPECIFICATIONS, AND/OR PROJECT GEOTECHNICAL REPORT, AND SHALL BE PLACED IN ACCORDANCE WITH THE APPLICABLE SPECIFICATIONS UNDER THE SUPERVISION OF A QUALIFIED PROFESSIONAL ENGINEER. MATERIAL SHALL BE COMPACTED IN 12 INCH LIFTS TO 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D 1557 AT 2 PERCENT OF OPTIMUM MOISTURE CONTENT.
14. ALL DISTURBANCE INCURRED TO CITY, COUNTY, OR COMMONWEALTH PROPERTY DUE TO CONSTRUCTION SHALL BE RESTORED TO ITS PREVIOUS CONDITION OR BETTER, TO THE SATISFACTION OF THE CITY OF NEWTON OR MHD.
15. ALL CONSTRUCTION SHALL COMPLY WITH THE PROJECT SPECIFICATIONS MANUAL AND THE LOCAL MUNICIPALITY'S STANDARDS AND COMMONWEALTH DOT SPECIFICATIONS AS APPLICABLE FOR THE LOCATION OF THE WORK. ALL CONSTRUCTION WITHIN A CITY OF NEWTON RIGHT OF WAY SHALL COMPLY WITH THE APPROPRIATE STANDARDS. WHERE SPECIFICATIONS OR STANDARDS ARE IN CONFLICT, THE MORE STRINGENT SPECIFICATION OR STANDARD SHALL BE SUPERIOR.
16. IF IMPACTED OR CONTAMINATED SOIL IS ENCOUNTERED BY THE CONTRACTOR, THE CONTRACTOR SHALL SUSPEND EXCAVATION WORK OF IMPACTED SOIL AND NOTIFY THE OWNER AND/OR OWNER'S ENVIRONMENTAL CONSULTANT PRIOR TO PROCEEDING WITH FURTHER WORK IN THE IMPACTED SOIL LOCATION UNTIL FURTHER INSTRUCTED BY THE OWNER AND/OR OWNER'S ENVIRONMENTAL CONSULTANT.

PRODUCT NOTES:

1. SHOP DRAWINGS: THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF MATERIALS AND STRUCTURES FOR REVIEW AND APPROVAL PRIOR TO DELIVERY TO THE SITE. ALLOW 14 WORKING DAYS FOR REVIEW.
2. POLY VINYL CHLORIDE PIPE (PVC) FOR STORM AND SANITARY PIPING SHALL HAVE BUILT-IN RUBBER GASKET JOINTS. PVC SHALL CONFORM TO ASTM D-3034 (SDR35) WITH COMPRESSION JOINTS AND MOLDED FITTINGS. PVC SHALL BE INSTALLED IN ACCORDANCE WITH THE DETAILS; ASTM-D2321 AND MANUFACTURERS RECOMMENDED PROCEDURE.
3. MANHOLE SECTIONS AND CONSTRUCTION SHALL CONFORM TO ASTM C-478.
4. HIGH DENSITY POLYETHYLENE (HDPE) STORM SEWER SHALL BE H-Q SURE-LOK 10.8 PIPE AS MANUFACTURED BY HANCOCK INC. OR APPROVED EQUAL. HDPE PIPE SHALL HAVE SMOOTH INTERIOR AND CORRUGATED EXTERIOR AND SHALL MEET THE REQUIREMENTS OF AASHTO M294, TYPE S. PIPE SECTIONS SHALL BE JOINED WITH BELL-AND-SPIGOT JOINT MEETING THE REQUIREMENTS OF AASHTO M294. THE BELL SHALL BE AN INTEGRAL PART OF THE PIPE AND PROVIDE A MINIMUM FULL-APART STRENGTH OF 400 POUNDS. THE JOINT SHALL BE WATERTIGHT ACCORDING TO THE REQUIREMENTS OF ASTM D3212. GASKETS SHALL BE MADE OF POLYISOPRENE MEETING THE REQUIREMENTS OF ASTM F477. ALTERNATIVE HDPE PIPE MAY BE USED IF APPROVED BY THE ENGINEER AND OWNER'S CONSTRUCTION MANAGER PRIOR TO ORDERING.
25. ALL WATER LINES TO HAVE A MINIMUM COVER OF 5 FEET. ALL LINES SHALL BE BEDDED IN 6" SAND AND INITIALLY BACKFILLED WITH 12" SAND.
26. ALL WATER MAINS, WATER SERVICES AND SANITARY SEWER LATERAL SHALL CONFORM TO THE DEPARTMENT OF ENVIRONMENTAL PROTECTION, APPLICABLE WATER & SEWER UTILITY PROVIDER SPECIFICATIONS, AS WELL AS TO OTHER APPLICABLE INDUSTRY CODES AND PROJECT SPECIFICATIONS FOR POTABLE WATER SYSTEMS.
27. ALTERNATIVE METHODS AND PRODUCTS OTHER THAN THOSE SPECIFIED MAY BE USED IF REVIEWED AND APPROVED BY THE OWNER, ENGINEER, AND APPROPRIATE REGULATORY AGENCIES PRIOR TO INSTALLATION.
28. THE CONTRACTOR SHALL MAINTAIN ALL FLOWS AND UTILITY CONNECTIONS TO EXISTING BUILDINGS WITHOUT INTERRUPTION UNLESS/UNTIL AUTHORIZED TO DISCONNECT BY THE OWNERS, THE CIVIL ENGINEER, UTILITY PROVIDERS AND GOVERNING AUTHORITIES.
29. ANY EXISTING POTABLE WELL AND ANY SEPTIC TANKS/ABSORPTION AREAS SHALL BE ABANDONED AND REMOVED PER MADEP AND HEALTH CODE REQUIREMENTS.
30. DUCTILE IRON PIPE SHALL CONFORM TO AWWA C151 FOR CLASS 52 WITH CEMENT LINING IN ACCORDANCE WITH ANSI A 21.4. FOR WATER MAINS AND SERVICES 3" ID AND LARGER, JOINTS SHALL BE MADE WITH CONCRETE THRUST BLOCKS OR WITH MEGALUG RETAINER GLANDS OR WITH RODDING IN ACCORDANCE WITH PROJECT MANUAL SPECIFICATIONS AND IN ACCORDANCE WITH WATER UTILITY PROVIDER REQUIREMENTS TO EXTEND A MINIMUM OF 2 PIPE LENGTHS IN EITHER DIRECTION FROM FITTINGS AND ELBOWS (40 FT MINIMUM). ALL OTHER JOINTS SHALL BE PUSH ON WITH RUBBER GASKETS (TYTON). USE OF OTHER TYPES OF RETAINER GLANDS SHALL REQUIRE USE WITH CLASS 53 OR GREATER DUCTILE IRON PIPE. DI STORM PIPE SHALL BE PUSH ON JOINT WITH RUBBER GASKET.
31. COPPER PIPE SHALL BE TYPE K TUBING WITH COMPRESSION FITTINGS.
32. GAS PIPE MATERIAL SHALL BE PER GAS COMPANY REQUIREMENTS.
33. POLY VINYL CHLORIDE PIPE (PVC) FOR STORM AND SANITARY PIPING SHALL HAVE BUILT-IN RUBBER GASKET JOINTS. PVC SHALL CONFORM TO ASTM D-3034 (SDR35) WITH COMPRESSION JOINTS AND MOLDED FITTINGS. PVC SHALL BE INSTALLED IN ACCORDANCE WITH THE DETAILS; ASTM-D2321 AND MANUFACTURERS RECOMMENDED PROCEDURE.

UTILITIES CONSTRUCTION NOTES

UTILITY CONSTRUCTION NOTES

1. CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE CITY OF NEWTON TO SECURE CONSTRUCTION PERMITS AND FOR PAYMENT OF FEES FOR STREET CUTS AND CONNECTIONS TO EXISTING UTILITIES.
2. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TRAFFIC DEVICES FOR PROTECTION OF VEHICLES AND PEDESTRIANS CONSISTING OF DRUMS, BARRIERS, SIGNS, LIGHTS, FENCES, TEMPORARY WALKWAYS AND UNIFORMED TRAFFIC CONTROLLERS AND UNIFORMED TRAFFIC OFFICERS AS REQUIRED, OR AS ORDERED BY THE ENGINEER OR AS REQUIRED BY THE LOCAL GOVERNING AUTHORITIES OR AS REQUIRED BY PERMIT STIPULATIONS.
3. THE SU-1 DRAWING DETAILS SITE INSTALLED PIPES UP TO 5' FROM THE BUILDING FACE. REFER TO DRAWINGS BY BL COMPANIES FOR BUILDING CONNECTIONS. SITE CONTRACTOR SHALL SUPPLY AND INSTALL PIPE ADAPTERS AS NECESSARY AT BUILDING CONNECTION POINT OR AT EXISTING UTILITY OR PIPE CONNECTION POINT.
4. THE CONTRACTOR SHALL VISIT THE SITE AND VERIFY THE ELEVATION AND LOCATION OF ALL UTILITIES BY VARIOUS METHODS PRIOR TO BEGINNING ANY EXCAVATION. TEST PITS SHALL BE DIG AT ALL LOCATIONS WHERE PROPOSED SANITARY SEWERS AND WHERE PROPOSED STORM PIPING WILL CROSS EXISTING UTILITIES, AND THE HORIZONTAL AND VERTICAL LOCATIONS OF THE UTILITIES SHALL BE DETERMINED. THE CONTRACTOR SHALL CONTACT THE CIVIL ENGINEER IN THE EVENT OF ANY DISCOVERED OR UNFORESEEN CONFLICTS BETWEEN EXISTING AND PROPOSED SANITARY SEWERS, STORM PIPING AND UTILITIES SO THAT AN APPROPRIATE MODIFICATION MAY BE MADE.
5. UTILITY CONNECTION DESIGN AS REFLECTED ON THE PLAN MAY CHANGE SUBJECT TO UTILITY PROVIDER AND GOVERNING AUTHORITY STAFF REVIEW.
6. THE CONTRACTOR SHALL ENSURE THAT ALL UTILITY PROVIDERS AND GOVERNING AUTHORITY STANDARDS FOR MATERIALS AND CONSTRUCTION METHODS ARE MET. THE CONTRACTOR SHALL PERFORM PROPER COORDINATION WITH THE RESPECTIVE UTILITY PROVIDER.
7. THE CONTRACTOR SHALL ARRANGE FOR AND COORDINATE WITH THE RESPECTIVE UTILITY PROVIDERS FOR SERVICE INSTALLATIONS AND CONNECTIONS. THE CONTRACTOR SHALL COORDINATE WORK TO BE PERFORMED BY THE VARIOUS UTILITY PROVIDERS AND SHALL PAY ALL FEES FOR CONNECTIONS, DISCONNECTIONS, RELOCATIONS, INSPECTIONS, AND DEMOLITION UNLESS OTHERWISE STATED IN THE PROJECT SPECIFICATIONS MANUAL AND/OR GENERAL CONDITIONS OF THE CONTRACT.
8. ALL EXISTING PAVEMENT WHERE UTILITY PIPING IS TO BE INSTALLED SHALL BE SAW CUT. AFTER UTILITY INSTALLATION IS COMPLETE, THE CONTRACTOR SHALL INSTALL TEMPORARY AND/OR PERMANENT PAVEMENT REPAIR AS DETAILED ON THE DRAWINGS OR AS REQUIRED BY THE OWNER HAVING JURISDICTION.
9. ALL PIPES SHALL BE LAID ON STRAIGHT ALIGNMENTS AND EVEN GRADES USING A PIPE LASER OR OTHER ACCURATE METHOD.
10. SANITARY LATERAL SHALL MAINTAIN (10' MIN. HORIZONTAL 1.5' VERTICAL MIN.) SEPARATION DISTANCE FROM WATER LINES, OR ADDITIONAL PROTECTION MEASURES WILL BE REQUIRED WHERE PERMITTED, WHICH SHALL INCLUDE CONCRETE ENCASEMENT OF PIPING UNLESS OTHERWISE DIRECTED BY THE UTILITY PROVIDERS AND CIVIL ENGINEER.
11. RELOCATION OF UTILITY PROVIDER FACILITIES SUCH AS POLES, SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE UTILITY PROVIDER.
12. THE CONTRACTOR SHALL COMPACT THE PIPE BACKFILL IN 8" LIFTS ACCORDING TO THE PIPE BEDDING DETAILS. TRENCH BOTTOM SHALL BE STABLE IN HIGH GROUNDWATER AREAS. A PIPE FOUNDATION SHALL BE USED PER THE TRENCH DETAILS AND IN AREAS OF ROCK EXCAVATION.
13. CONTRACTOR TO PROVIDE STEEL SLEEVES AND ANNULAR SPACE SAND FILL FOR UTILITY PIPE AND CONDUIT CONNECTIONS UNDER FOOTINGS.
14. BUILDING UTILITY PENETRATIONS AND LOCATIONS ARE SHOWN FOR THE CONTRACTOR'S INFORMATION AND SHALL BE VERIFIED WITH THE BUILDING MEP DRAWINGS AND WITH THE OWNER'S CONSTRUCTION MANAGER.
15. ALL UTILITY CONSTRUCTION IS SUBJECT TO INSPECTION FOR APPROVAL PRIOR TO BACKFILLING, IN ACCORDANCE WITH THE APPROPRIATE UTILITY PROVIDER REQUIREMENTS.
16. A ONE-FOOT MINIMUM VERTICAL CLEARANCE BETWEEN WATER, GAS, ELECTRICAL, AND TELEPHONE LINES AND STORM PIPING SHALL BE PROVIDED. A SIX-INCH MINIMUM CLEARANCE SHALL BE MAINTAINED BETWEEN STORM PIPING AND SANITARY SEWER WITH A CONCRETE ENCASEMENT, AN 18-INCH TO 6-INCH VERTICAL CLEARANCE BETWEEN SANITARY SEWER PIPING AND STORM PIPING SHALL REQUIRE CONCRETE ENCASEMENT OF THE PROPOSED PIPING.
17. SITE CONTRACTOR SHALL PROVIDE ALL BENDS, FITTINGS, ADAPTERS, ETC., AS REQUIRED FOR PIPE CONNECTIONS TO BUILDING STUB OUTS, INCLUDING ROOF/FOOTING DRAIN CONNECTIONS TO ROOF LEADERS AND TO STORM DRAINAGE SYSTEM.
18. MANHOLE RIMS AND CATCH BASIN GRATES SHALL BE SET TO ELEVATIONS SHOWN. SET ALL EXISTING MANHOLE RIMS AND VALVE COVERS TO BE RAISED OR LOWERED FLUSH WITH FINAL GRADE AS NECESSARY.
19. SITE CONTRACTOR SHALL COORDINATE INSTALLATION OF CONDUIT AND CABLES FOR SITE LIGHTING WITH THE BUILDING ELECTRICAL CONTRACTOR.
20. CONTRACTOR SHALL COORDINATE INSTALLATION FOR ELECTRICAL SERVICES TO SITE LIGHTING WITH THE BUILDING ELECTRICAL CONTRACTOR.
21. THE CONTRACTOR SHALL RESTORE ANY UTILITY STRUCTURE, PIPE, UTILITY, PAVEMENT, CURBS, SIDEWALKS, DRAINAGE STRUCTURE, SWALE PAVEMENT MARKINGS OR LANDSCAPED AREAS DISTURBED DURING CONSTRUCTION, TO THEIR ORIGINAL CONDITION OR BETTER TO THE SATISFACTION OF THE OWNER, CITY OF NEWTON, AND MHD.
22. INFORMATION ON EXISTING UTILITIES AND STORM DRAINAGE HAS BEEN COMPILED FROM AVAILABLE INFORMATION INCLUDING UTILITY PROVIDER AND MUNICIPAL RECORD MAPS AND/OR FIELD SURVEY AND IS NOT GUARANTEED CORRECT OR COMPLETE. UTILITIES AND STORM DRAINAGE ARE SHOWN TO ALERT THE CONTRACTOR TO THEIR PRESENCE. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DETERMINING ACTUAL LOCATIONS AND ELEVATIONS OF ALL UTILITIES AND STORM DRAINAGE INCLUDING SERVICES. CONTACT "DIG SAFE" AT 888-344-7233 72 HOURS PRIOR TO CONSTRUCTION TO VERIFY UNDERGROUND AND OVERHEAD UTILITY AND STORM DRAINAGE LOCATIONS. THE CONTRACTOR SHALL EMPLOY THE USE OF A UTILITY LOCATING COMPANY TO PROVIDE SUBSURFACE UTILITY ENGINEERING CONSISTING OF DESIGNATING UTILITIES AND STORM PIPING ON PRIVATE PROPERTY WITHIN THE CONTRACT LIMIT AND CONSISTING OF DESIGNATING AND LOCATING WHERE PROPOSED UTILITIES AND STORM PIPING CROSS EXISTING UTILITIES AND STORM PIPING WITHIN THE CONTRACT LIMITS.
23. THE CONTRACTOR SHALL ARRANGE AND COORDINATE WITH UTILITY PROVIDERS FOR WORK TO BE PERFORMED BY UTILITY PROVIDERS. THE CONTRACTOR SHALL PAY ALL UTILITY FEES UNLESS OTHERWISE STATED IN THE PROJECT SPECIFICATION MANUAL AND GENERAL CONDITIONS, AND REPAIR PAVEMENTS AS NECESSARY.
24. ELECTRIC AND TELEPHONE SERVICES SHALL BE INSTALLED UNDERGROUND FROM EXISTING UTILITY POLES. THE CONTRACTOR SHALL PROVIDE AND INSTALL AND BACKFILL 2-5" PVC CONDUITS FOR TELEPHONE SERVICE, 2-5" PVC CONDUITS FOR ELECTRIC SERVICE PRIMARY, PVC CONDUITS FOR ELECTRICAL SECONDARY PER BUILDING ELECTRICAL PLANS. (SCHEDULE 80). SERVICES MAY BE INSTALLED IN A COMMON TRENCH WITH 12" CLEAR SPACE BETWEEN. MINIMUM COVER IS 36" ON ELECTRIC CONDUITS, AND 24" ON TELEPHONE CONDUITS. SERVICES SHALL BE MARKED WITH MAGNETIC LOCATOR TAPE AND SHALL BE BEDDED, INSTALLED, AND BACKFILLED IN ACCORDANCE WITH ELECTRIC UTILITY PROVIDER, AND PHONE COMPANY STANDARDS. GALVANIZED STEEL ELECTRICAL CONDUIT SHALL BE USED AT POLE AND TRANSFORMER LOCATIONS. INSTALL HANDHOLES AS REQUIRED TO FACILITATE INSTALLATION AND AS REQUIRED BY UTILITY PROVIDER. INSTALL CONCRETE ENCASEMENT ON PRIMARY ELECTRIC CONDUITS IF REQUIRED BY ELECTRIC PROVIDER.
25. ALL WATER LINES TO HAVE A MINIMUM COVER OF 5 FEET. ALL LINES SHALL BE BEDDED IN 6" SAND AND INITIALLY BACKFILLED WITH 12" SAND.
26. ALL WATER MAINS, WATER SERVICES AND SANITARY SEWER LATERAL SHALL CONFORM TO THE DEPARTMENT OF ENVIRONMENTAL PROTECTION, APPLICABLE WATER & SEWER UTILITY PROVIDER SPECIFICATIONS, AS WELL AS TO OTHER APPLICABLE INDUSTRY CODES AND PROJECT SPECIFICATIONS FOR POTABLE WATER SYSTEMS.
27. ALTERNATIVE METHODS AND PRODUCTS OTHER THAN THOSE SPECIFIED MAY BE USED IF REVIEWED AND APPROVED BY THE OWNER, ENGINEER, AND APPROPRIATE REGULATORY AGENCIES PRIOR TO INSTALLATION.
28. THE CONTRACTOR SHALL MAINTAIN ALL FLOWS AND UTILITY CONNECTIONS TO EXISTING BUILDINGS WITHOUT INTERRUPTION UNLESS/UNTIL AUTHORIZED TO DISCONNECT BY THE OWNERS, THE CIVIL ENGINEER, UTILITY PROVIDERS AND GOVERNING AUTHORITIES.
29. ANY EXISTING POTABLE WELL AND ANY SEPTIC TANKS/ABSORPTION AREAS SHALL BE ABANDONED AND REMOVED PER MADEP AND HEALTH CODE REQUIREMENTS.
30. DUCTILE IRON PIPE SHALL CONFORM TO AWWA C151 FOR CLASS 52 WITH CEMENT LINING IN ACCORDANCE WITH ANSI A 21.4. FOR WATER MAINS AND SERVICES 3" ID AND LARGER, JOINTS SHALL BE MADE WITH CONCRETE THRUST BLOCKS OR WITH MEGALUG RETAINER GLANDS OR WITH RODDING IN ACCORDANCE WITH PROJECT MANUAL SPECIFICATIONS AND IN ACCORDANCE WITH WATER UTILITY PROVIDER REQUIREMENTS TO EXTEND A MINIMUM OF 2 PIPE LENGTHS IN EITHER DIRECTION FROM FITTINGS AND ELBOWS (40 FT MINIMUM). ALL OTHER JOINTS SHALL BE PUSH ON WITH RUBBER GASKETS (TYTON). USE OF OTHER TYPES OF RETAINER GLANDS SHALL REQUIRE USE WITH CLASS 53 OR GREATER DUCTILE IRON PIPE. DI STORM PIPE SHALL BE PUSH ON JOINT WITH RUBBER GASKET.
31. COPPER PIPE SHALL BE TYPE K TUBING WITH COMPRESSION FITTINGS.
32. GAS PIPE MATERIAL SHALL BE PER GAS COMPANY REQUIREMENTS.
33. POLY VINYL CHLORIDE PIPE (PVC) FOR STORM AND SANITARY PIPING SHALL HAVE BUILT-IN RUBBER GASKET JOINTS. PVC SHALL CONFORM TO ASTM D-3034 (SDR35) WITH COMPRESSION JOINTS AND MOLDED FITTINGS. PVC SHALL BE INSTALLED IN ACCORDANCE WITH THE DETAILS; ASTM-D2321 AND MANUFACTURERS RECOMMENDED PROCEDURE.

FOR PERMITTING PURPOSES ONLY
NOT RELEASED FOR CONSTRUCTION



PROPOSED SELF STORAGE FACILITY
255-257 NEWTONVILLE AVENUE
NEWTON, MASSACHUSETTS

Revisions	Date	Desc.	Conservation Commission	Comments
1.	2/19/2016			
2.	2/22/2016			
3.	2/29/2016			
4.	4/15/2016			

Designed A.B.U.
Drawn A.B.U.
Checked
Approved
Scale NTS
Project No. 1502781
Date 2/5/2016
CAD File: GN150278101
Title

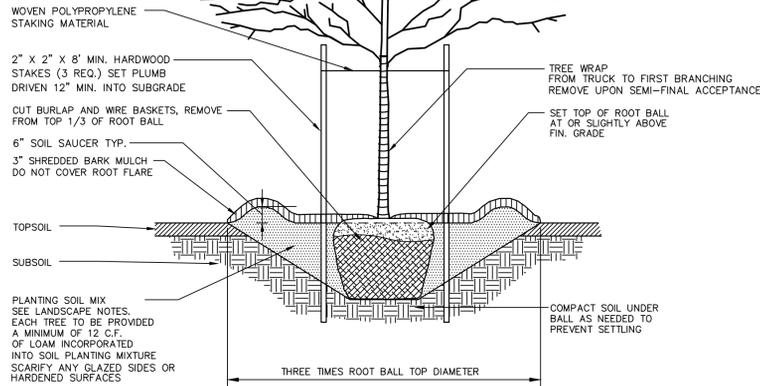
GENERAL NOTES

Sheet No.

GN-1

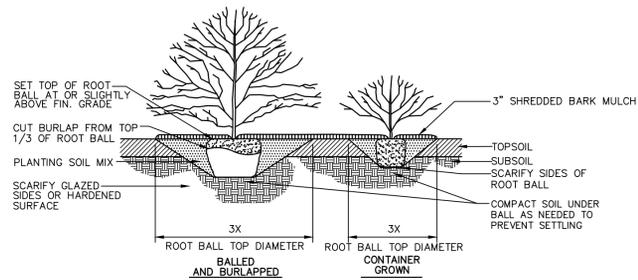
NOTES:

1. WOVEN POLYPROPYLENE STAKING MATERIAL SHALL BE DEEPROOT ARBORITE (GREEN) OR APPROVED EQUIVALENT. INSTALL SPECIFIED MATERIAL IN ACCORDANCE WITH MANUFACTURER'S DIRECTIONS.
2. PRUNE ONLY BROKEN AND DAMAGED LIMBS.
3. TREAT MULCH WITH TUPERSAN 5G (SIDURON) PREEMERGENT HERBICIDE. APPLY ACCORDING TO LABEL DIRECTIONS.



DECIDUOUS TREE PLANTING

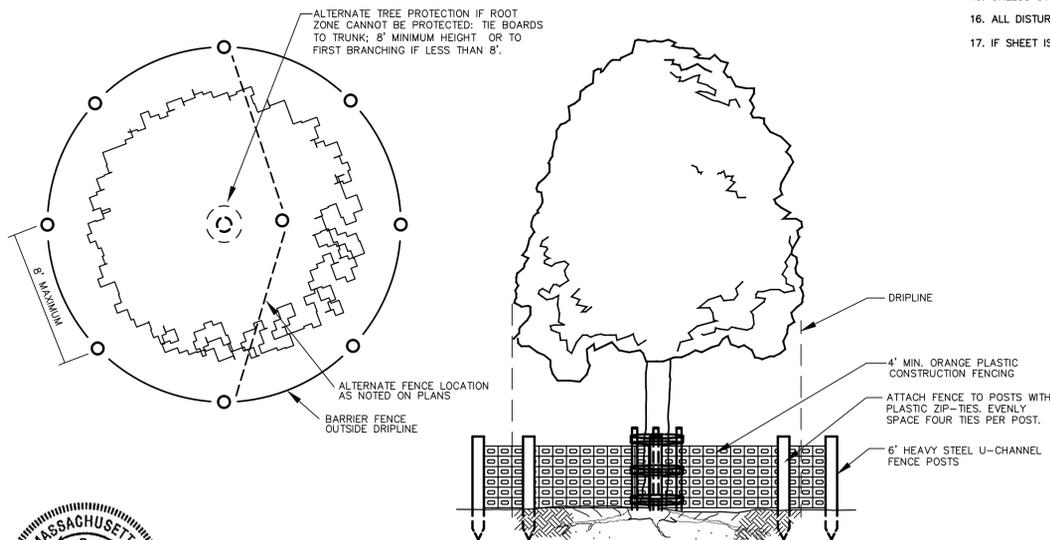
N.T.S.



NOTE: * IN AREAS OF MASS PLANTING, CONTINUOUSLY EXCAVATE AND MULCH ENTIRE BED.

SHRUB PLANTING

N.T.S.



TREE PROTECTION

N.T.S.

BLDD-001

LANDSCAPE NOTES

1. THE LANDSCAPE PLAN AND DETAIL SHEET ARE FOR LANDSCAPING INFORMATION ONLY. REFER TO THE SITE LAYOUT PLAN, LIGHTING PLAN, GRADING PLAN AND UTILITIES PLAN FOR ALL OTHER INFORMATION.
2. PLANTING LOCATIONS ARE APPROXIMATE AND ARE SUBJECT TO FIELD ADJUSTMENT DUE TO UTILITY LOCATIONS AND SITE CONDITIONS. CONTRACTOR SHALL LAY OUT THE WORK FOR THE REVIEW, ADJUSTMENT, AND APPROVAL OF OWNER OR LANDSCAPE ARCHITECT PRIOR TO PLANTING.
3. UTILITY LOCATIONS SHOWN IN THE DRAWINGS ARE APPROXIMATE. EXERCISE CARE WHEN DIGGING IN AREAS OF POTENTIAL CONFLICT WITH UNDERGROUND OR OVERHEAD UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE DUE TO CONTRACTOR'S NEGLIGENCE AND SHALL REPLACE OR REPAIR ANY DAMAGE AT CONTRACTOR'S EXPENSE.
4. NO PLANT SHALL BE PLACED IN THE GROUND BEFORE ROUGH GRADING HAS BEEN COMPLETED.
5. TOPSOIL SHALL BE INSTALLED AT A MINIMUM DEPTH OF 4". CONTRACTOR SHALL SUBMIT SAMPLES FROM EACH PROPOSED TOPSOIL SOURCE TO A CERTIFIED TESTING LABORATORY TO DETERMINE pH, FERTILITY, ORGANIC CONTENT AND MECHANICAL COMPOSITION. CONTRACTOR SHALL SUBMIT THE TEST RESULTS TO OWNER OR LANDSCAPE ARCHITECT FOR REVIEW. CONTRACTOR SHALL INCORPORATE AMENDMENTS FOR PROPER SOIL pH AND PLANT GROWTH AS RECOMMENDED BY TEST REPORTS AT NO INCREASE IN CONTRACT PRICE.
6. THE CONTRACTOR SHALL SUPPLY ALL LABOR, PLANTS, AND MATERIALS IN QUANTITIES SUFFICIENT TO COMPLETE THE WORK SHOWN ON THE DRAWINGS AND LISTED IN THE PLANT SCHEDULE. WHEN QUANTITIES LISTED IN THE PLANT SCHEDULE DIFFER FROM THOSE REQUIRED BY THE DRAWINGS, THE LARGER QUANTITY SHALL BE USED.
7. PLANTS SHALL HAVE TAGS THAT IDENTIFY PLANT GENUS, SPECIES AND CULTIVAR, PLANT COMMON NAME, NAME OF SOURCE NURSERY AND SIZE OF PLANT FOR REVIEW OF OWNER OR LANDSCAPE ARCHITECT.
8. LANDSCAPE PLANTING PITS MUST BE FREE DRAINING. PAVEMENT, COMPACTED SOIL, AND BASTED ROCK SHALL BE REMOVED FROM PLANTING PITS AND LANDSCAPE ISLANDS TO A DEPTH OF 2' OR TO A GREATER DEPTH IF REQUIRED BY PLANTING DETAILS OR SPECIFICATIONS. REPLACE SOIL WITHIN ISLANDS WITH LOAM OR SANDY LOAM FREE OF STONES AND DEBRIS 1" OR GREATER IN DIAMETER AND ALL OTHER MATERIAL HARMFUL TO PLANT DEVELOPMENT.
9. PLANT REQUIREMENTS: ALL PLANTS SHALL CONFORM IN SIZE AND GRADE TO THE AMERICAN STANDARD FOR NURSERY STOCK, ANSI Z60.1 (LATEST EDITION). ALL PLANTS SHALL MEET THE ADDITIONAL REQUIREMENTS SET FORTH BELOW AND IN WRITTEN SPECIFICATIONS AS APPLICABLE. ALL TREES AND SHRUBS SHALL HAVE BEEN GROWN AT A COMMERCIAL NURSERY WITHIN 250 MILES OF THE PROJECT SITE UNLESS OTHERWISE APPROVED BY OWNER OR LANDSCAPE ARCHITECT. THEY SHALL BE FREE OF BARK INJURY, DISEASE, AND INSECT PESTS. ALL TREES SHALL HAVE A STRAIGHT TRUNK WITH A SINGLE MAIN LEADER UNLESS OTHERWISE CHARACTERISTIC OF THE SPECIES OR VARIETY. THE HEALTHY OR LANDSCAPE ARCHITECT WILL ALLOW SUBSTITUTIONS ONLY UPON WRITTEN APPROVAL. SIZES SHALL CONFORM TO THE MEASUREMENT SPECIFIED ON THE DRAWINGS. PLANTS LARGER THAN SPECIFIED MAY BE USED IF APPROVED. THE USE OF SUCH PLANTS SHALL NOT INCREASE THE CONTRACT PRICE. ALL OVERSTORY TREES PLANTED ALONG PARKING AREAS, SIDEWALKS AND PEDESTRIAN ACCESSES SHALL NOT BRANCH BELOW 7' FEET IF THE TREE CALIPER IS 2 1/2" INCHES OR GREATER. ALL PLANT MATERIALS ARE SUBJECT TO INSPECTION AND ACCEPTANCE BY THE OWNER OR LANDSCAPE ARCHITECT AT THE NURSERY SOURCE. THE CONTRACTOR SHALL COORDINATE SOURCE VISITS WITH THE LANDSCAPE ARCHITECT AND SHALL ACCOMPANY THE OWNER AND/OR LANDSCAPE ARCHITECT FOR ALL INSPECTIONS. CERTIFICATES OF COMPLIANCE WITH SPECIFICATIONS ARE REQUIRED FOR ALL PLANTS.
10. ALL SHRUB BEDS SHALL BE MULCHED TO A DEPTH OF 3". ANNUAL AND PERENNIAL BEDS SHALL BE MULCHED TO A DEPTH OF 2". USE UNCOLORED, SHREDDED BARK MULCH AGED AT LEAST SIX MONTHS FOR ALL BEDS.
11. GUARANTEE: GUARANTEE ALL PLANTS AND LAWN FOR A MINIMUM OF 1 YEAR TO BE ALIVE AND IN VIGOROUS GROWING CONDITION AT THE END OF THE GUARANTEE PERIOD. THE GUARANTEE PERIOD FOR ALL PLANTS SHALL BEGIN UPON APPROVAL AS SPECIFIED UNDER SEMI-FINAL ACCEPTANCE. PLANT MATERIALS AND LAWN APPROVED IN THE SPRING SHALL BE ALIVE AND IN SATISFACTORY GROWTH ON JUNE 1 OF THE FOLLOWING YEAR. PLANTING DONE IN LATE FALL (AFTER NOVEMBER 1ST) SHALL BE MAINTAINED AND GUARANTEED UNTIL THE SECOND SPRING'S LEAFING. REPLACEMENTS: ALL PLANTS SHALL BE FREE OF DEAD OR DYING BRANCHES AND BRANCH TIPS, AND SHALL BEAR FOLIAGE OF A NORMAL DENSITY, SIZE AND COLOR. PROMPTLY REMOVE DEAD, UNSIGHTLY, UNHEALTHY, OR EXCESSIVELY PRUNED PLANTS. THESE AND ANY PLANTS MISSING DUE TO THE CONTRACTOR'S NEGLIGENCE, SHALL BE REPLACED OR ADDED WITH THE SAME KIND AND SIZE AS ORIGINALLY SPECIFIED AS SOON AS CONDITIONS PERMIT. METHOD OF REPLACEMENT SHALL BE THE SAME AS SPECIFIED FOR THE ORIGINAL PLANTING WITH REPLACEMENTS MATCHING ADJACENT SPECIMENS OF THE SAME SPECIES. REPLACEMENTS SHALL BE MADE AS MANY TIMES AS NECESSARY TO ENSURE HEALTHY PLANTS AND THEY SHALL BE MAINTAINED AND GUARANTEED. REPLACEMENTS SHALL BE MADE AT THE CONTRACTOR'S EXPENSE AND SHALL BE GUARANTEED FOR ONE FULL YEAR FROM TIME OF REPLACEMENT.

PLANTING SOIL:

- A. NOT TO CONTAIN MATERIALS HARMFUL TO PLANT LIFE, TO BE CLEAN, FERTILE, FRIABLE, WELL DRAINING, NATURAL SANDY LOAM. ALL PLANTING SOIL TO BE FREE OF ANY SUBSOIL, EARTH CLODS, SODS, STONES OVER 2" IN ANY DIMENSION, STICKS, ROOTS, WEEDS, LITTER AND OTHER DELETERIOUS MATERIAL. PLANTING SOIL SHALL BE UNIFORM IN QUALITY AND TEXTURE AND CONTAIN ORGANIC MATTER AND MINERAL ELEMENTS NECESSARY FOR SUSTAINING HEALTHY PLANT GROWTH.
- B. PLANTING SOIL SHALL HAVE THE FOLLOWING OPTIMUM RANGES UNLESS OTHERWISE APPROVED BY THE OWNER OR LANDSCAPE ARCHITECT.

ORGANIC CONTENT	6.0 - 20%
(BY LOSS OF IGNITION AT 375 C METHOD OF TESTING)	
PH	6.0 - 8.0
- C. NUTRIENT LEVELS SHALL BE ACHIEVED BY THE CONTRACTOR'S ADDITION OF AMENDMENTS TO THE PLANTING SOIL TO MEET THE OPTIMUM NUTRIENT LEVELS SPECIFIED IN THE TESTING LABORATORY REPORT FOR EACH OF CROP/PLANT TO BE INSTALLED.
- D. PROPOSED TOPSOIL SHALL MEET THE USDA SOILS TEXTURAL CLASSIFICATION PERCENTAGES OF SAND, SILT, AND CLAY FOR 'SANDY LOAM' OR 'LOAM' CLASSIFICATION.
- E. PLANTING SOIL SHALL BE COMPLETELY FREE OF ANY TOXIC CHEMICAL, HAZARDOUS WASTE AND ANY MATERIAL OR CONDITION THAT WOULD PREVENT THE ESTABLISHMENT OF A SUITABLE LAWN.

EXISTING TOPSOIL (IF APPLICABLE):

- A. PROPOSED FOR REUSE SHALL CONFORM TO ALL REQUIREMENTS OF PLANTING SOIL AND SHALL BE SCREENED UNLESS OTHERWISE APPROVED BY THE OWNER OR LANDSCAPE ARCHITECT.

13. PLANTING SEASONS (UNLESS OTHERWISE APPROVED BY THE OWNER OR LANDSCAPE ARCHITECT)

	SPRING	FALL
EVERGREEN TREES AND SHRUBS	APRIL 1 TO JUNE 15	SEPTEMBER 1 TO OCTOBER 15
DECIDUOUS TREES AND SHRUBS	APRIL 1 TO JUNE 15	OCTOBER 15 TO NOVEMBER 15
GROUNDCOVERS	APRIL 1 TO JUNE 15	SEPTEMBER 1 TO OCTOBER 15
PERENNIALS	MAY 15 TO JUNE 15	SEPTEMBER 1 TO OCTOBER 15
BULBS	NA	SEPTEMBER 15 TO NOVEMBER 15
SEED MIXES	APRIL 1 TO JUNE 15	AUGUST 15 TO OCTOBER 15

14. ALL SLOPES STEEPER THAN 3:1 RECEIVING A GRASS SEEDING MIXTURE SHALL BE COVERED WITH AN EROSION CONTROL BLANKET OF STRAW FIBER AND BIODEGRADABLE OR PHOTODEGRADABLE NETTING.
15. UNLESS OTHERWISE NOTED IN DRAWING SET, NEW TREE LINES SHALL EQUAL CLEARING AND GRUBBING LIMITS.
16. ALL DISTURBED AREAS NOT OTHERWISE DEVELOPED SHALL BE SEEDED WITH THE LAWN SEEDING MIXTURE.
17. IF SHEET IS LESS THAN 24" X 36" IT IS A REDUCED PRINT AND SHOULD BE SCALED ACCORDINGLY.

EVERGREEN TREE PLANTING WITHOUT GUY WIRES

N.T.S.

INVASIVE SPECIES MANAGEMENT NOTES

GOALS:

1. PRESERVE NATIVE PLANT MATERIAL ALONG BEAVER BROOK.
2. REMOVAL OF INVASIVE SPECIES WITHIN "HABITAT ENHANCEMENT AREAS" IDENTIFIED ON PLAN.
3. CONTROL FUTURE GROWTH OF INVASIVE SPECIES THROUGH CONTINUED MAINTENANCE AND THE ESTABLISHMENT OF APPROPRIATE NATIVE VEGETATION.

ASSESSMENT

- 1) THE CONTRACTOR SHALL DELINEATE ALL AREAS DESIGNATED FOR INVASIVE SPECIES REMOVAL. THE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTAINING THIS DELINEATION THROUGHOUT THE LIFE OF THE CONTRACT. THE CONTRACTOR SHALL ALSO HAVE A QUALIFIED PROFESSIONAL IDENTIFY THE TARGETED SPECIES DESCRIBED IN THE CONTRACT DRAWINGS AND ANY OTHER SPECIES OF INVASIVE PLANTS PRESENT WITHIN THE DELINEATED AREAS. CONTRACTOR SHALL HAVE NATIVE PLANTS WITHIN THE HABITAT ENHANCEMENT AREAS IDENTIFIED FOR PROTECTION.
- 2) LIMIT OF INVASIVE SPECIES REMOVAL MAY BE DIFFERENT THAN AREA SHOWN ON PLAN. LIMIT OF WORK TO BE REVIEWED IN FIELD BY LANDSCAPE ARCHITECT, WETLAND BIOLOGIST AND/OR CITY OF NEWTON REPRESENTATIVE BEFORE WORK IS TO BE COMPLETED.
- 3) THE CONTRACTOR SHALL CONFIRM INVASIVE SPECIES IDENTIFIED WITH MASSACHUSETTS INVASIVE PLANT ADVISORY GROUP (MIPAG) "INVASIVE, LIKELY INVASIVE AND POTENTIALLY INVASIVE PLANTS IN MASSACHUSETTS" LISTS.

REMOVAL OF INVASIVE PLANTS:

- 1) REMOVAL OF INVASIVE PLANTS SHALL INVOLVE THE PHYSICAL RELOCATION OF VEGETATION FROM THE SITE AND LEGAL DISPOSAL.
- 2) SEASONAL ACTIVITY:
 - A. PERFORM MECHANICAL REMOVALS IN THE SPRING. DO NOT PERFORM MECHANICAL REMOVALS WHEN PLANTS HAVE PRODUCED SEEDS.
 - B. PERFORM CHEMICAL TREATMENTS IN LATE SUMMER AND AS RECOMMENDED BY THE MANUFACTURER. ANY HERBICIDE USED FOR INVASIVE ERADICATION OR CONTROL SHALL BE APPROVED BY PROJECT WETLAND SCIENTIST AND APPLIED BY A LICENSED PROFESSIONAL.
- 4) EQUIPMENT:
 - A. MECHANICAL REMOVAL SHALL CONSIST OF EITHER MANUAL LABOR, UTILIZING A WEED WRENCH OR OTHER APPROVED MACHINE, OR SOME OTHER APPROVED METHOD THAT WILL ENABLE REMOVAL OF ALL ROOT PIECES AND OTHER PARTS OF THE TARGET SPECIES WHILE MINIMIZING SOIL DISTURBANCE AND AVOIDING ANY SPREAD OF INVASIVE PLANT MATERIAL. WHERE LARGE INFESTATIONS OF INVASIVE UNWANTED VEGETATION ARE PRESENT, REMOVAL VIA OVER-EXCAVATION OF SUCH VEGETATION AND THE UNDERLYING SOILS MAY BE REQUIRED.
- 5) HERBICIDES:
 - A. ALL HERBICIDES SHALL BE REGISTERED FOR THE SPECIES BEING TREATED AND SHALL BE FORMULATED AS APPLICABLE FOR TARGET-SPECIES FOLIAR TREATMENT, CUT SURFACE, OR INJECTION APPLICATIONS. WHERE WORK IN OR IMMEDIATELY ADJACENT TO WETLANDS IS NECESSARY, THE PRODUCT LABEL(S) FOR ANY CHEMICAL/ADJUVANT FORMULATION APPLIED MUST INDICATE THAT THE FORMULATION IS APPROVED FOR AQUATIC ENVIRONMENTS.
 - B. TARGET SPECIES APPLICATIONS: APPLY HERBICIDE PRODUCT TO THE TARGETED INVASIVE PLANT SPECIES:
 1. GLYPHOSATE, RODEO OR APPROVED EQUAL.
 2. TRICLOPYR, CROSSBOW OR APPROVED EQUAL.
- 6) FLUSH CUT BRUSH AND TREES SHALL NOT BE MORE THAN 2 INCHES ABOVE THE GROUND LINE. FLUSH CUTTING SHALL BE PERFORMED IN A CONTROLLED MANNER THAT WILL PREVENT THE SPREAD OF PARTS OR SEEDS OF INVASIVE SPECIES. BRUSH HOGGING OR ANY OTHER CLEARING METHOD THAT MAY PROMOTE THE SPREAD OF INVASIVE PLANT MATERIAL IS NOT PERMISSIBLE.
- 7) REMOVE ALL TWINING VINES IN TREETOPS TO THE GREATEST EXTENT POSSIBLE WITHOUT DAMAGING THE BRANCHES OF THE SUPPORTING DESIRED VEGETATION. CUT AND REMOVE VINES OVERTOPPING TREE CANOPIES. CLIMBING SPIKES WILL NOT BE PERMITTED FOR AERIAL WORK.
- 8) PRUNE OUT ANY BRANCHES ON NON-TREATMENT PLANTS THAT ARE DAMAGED DURING REMOVAL OF VEGETATION. ALL CORRECTIVE PRUNING SHALL CONFORM TO THE NATIONAL ARBORISTS ASSOCIATION PRUNING STANDARDS.
- 9) THE SITE MUST BE MONITORED BY THE CONTRACTOR AND ANY NEW OR REGROWTH TREATED PRIOR TO BEGINNING INSTALLATION OF ANY LANDSCAPE PLANTINGS.
- 10) PROCESSING AND DISPOSAL OF UNWANTED VEGETATION SHALL BE DONE IN A CONTROLLED MANNER SO AS NOT TO SPREAD INVASIVE SEED OR PLANT PARTS WITHIN THE SURROUNDING AREAS. ALL CUT INVASIVE VEGETATION SHALL BE SEPARATED FROM CLEARING AND GRUBBING OPERATIONS AND ANY OTHER CLEARED MATERIAL. INVASIVE PLANT MATERIALS MAY NOT BE BURIED ON SITE.
- 11) NO EQUIPMENT OR VEHICLES OTHER THAN THAT REQUIRED TO COMPLETE THE WORK WILL BE PERMITTED IN THE AREAS DESIGNATED FOR INVASIVE VEGETATION REMOVAL. ANY EQUIPMENT USED TO PROCESS INVASIVE MATERIALS, SUCH AS CHIPPERS AND TRANSPORT VEHICLES, MUST BE CLEANED PRIOR TO FURTHER USE. PROCESSING EQUIPMENT MUST ALSO BE CLEANED PRIOR TO FURTHER TRANSPORT.
- 12) BROADCAST OR UNCONTROLLED SPRAY APPLICATION WILL NOT BE PERMITTED, AND CARE MUST BE TAKEN TO AVOID CONTACTING NATIVE SPECIES AND/OR DETERRING THE RECOLONIZATION OF NATIVE SPECIES FOLLOWING APPLICATION.
- 13) WHEREVER REMOVAL OPERATIONS RESULT IN EXPOSED SOILS, DISTURBED AREAS MUST BE VEGETATIVELY STABILIZED WITH THE APPROPRIATE SEED MIX AND PROTECTED WITH HAY OR STRAW MATTING. THE APPLICATION RATE FOR HAY OR STRAW MATTING SHALL BE 3500 LBS PER ACRE.

TARGET SPECIES:

- JAPANESE KNOTWEED (*POLYGONUM CUSPIDATUM*)
REMOVE BY HAND, PULL THE PLANT AND MAJOR RHIZOMES UP BY THE ROOT CROWN TO REMOVE AS MUCH OF THE ROOT AS POSSIBLE. ADDITIONAL REMOVALS/TREATMENTS ARE LIKELY TO BE NECESSARY. NEW SPROUTS SHOULD BE UPROOTED AND MAY LIKELY APPEAR WITHIN WEEKS OF INITIAL REMOVAL.
- MULTIFLORA ROSE (*ROSA MULTIFLORA*)
CUT STEMS TO GROUND AND APPLY AN HERBICIDE (GLYPHOSATE, TRICLOPYR, OR APPROVED EQUAL) AFTER RESPROUT. PROTECT NATIVE SPECIES FROM SPRAY DRIFT.
- ORIENTAL BITTERSWEET (*CELASTRUS ORBICULATUS*)
CUT VINES GROWING UP TREES WITHIN BUFFER ENHANCEMENT AREA.
- WINGED EUONYMUS (*EUONYMUS ALATUS*)
CUT STEMS TO GROUND AND APPLY AN HERBICIDE (GLYPHOSATE, TRICLOPYR, OR APPROVED EQUAL) AFTER RESPROUT. PROTECT NATIVE SPECIES FROM SPRAY DRIFT.
- JAPANESE HONEYSUCKLE (*LONICERA JAPONICA*)
CUT AND REMOVE VINES ALONG EXISTING FENCE LINE WITHIN BUFFER ENHANCEMENT AREA.

ADDITIONAL SPECIES
THE WETLAND BIOLOGIST OR OTHER QUALIFIED INDIVIDUAL MAY IDENTIFY ADDITIONAL PLANT SPECIES FOR REMOVAL IF SO, THE QUALIFIED INDIVIDUAL SHALL ASSIST CONTRACTOR IN DEVELOPING REMOVAL RECOMMENDATIONS AND PREVENTATIVE RECOMMENDATIONS APPROPRIATE FOR THOSE SPECIES.

PREVENT FUTURE GROWTH OF INVASIVE SPECIES:

1. OWNER IS RESPONSIBLE FOR THREE (3) YEARS OF MONITORING, MAINTENANCE AND TREATMENT TO BUFFER ENHANCEMENT AREAS FOLLOWING DATE OF FIRST TREATMENT. MONITORING SHALL INCLUDE ANNUAL REPORTS INCLUDING PHOTOS AND RECOMMENDATIONS FOR CONTINUED GROWTH OF NATIVE PLANT MATERIAL. MAINTENANCE SHALL INCLUDE ADDITIONAL PLANTINGS, INVASIVE SPECIES REMOVALS, HERBICIDE APPLICATIONS IN ACCORDANCE WITH SPECIFICATIONS AND STATE REGULATIONS, AS IS NECESSARY.
2. MONITORING, REPORTING AND RECOMMENDATIONS SHALL BE COMPLETED BY WETLAND BIOLOGIST OR OTHER QUALIFIED PROFESSIONAL.

DURATION

- 1) THE TREATMENT PERIOD SHALL LAST THREE (3) YEARS FOLLOWING THE DATE OF THE FIRST TREATMENT FOR EACH DESIGNATED AREA.
- 2) IT IS ANTICIPATED THAT MANY SPECIES WILL REQUIRE MULTIPLE SEASONS TO OBTAIN COMPLETE ERADICATION. THE TREATMENT PERIOD MUST TAKE INTO CONSIDERATION THOSE SPECIES THAT WILL REQUIRE FOLLOW UP TREATMENTS AND MORE THAN ONE SEASON FOR COMPLETE ERADICATION.
- 3) THE CONTRACTOR SHALL BE RESPONSIBLE FOR EXECUTING TREATMENTS WHILE CONSTRUCTION OPERATIONS OCCUR ELSEWHERE ON-SITE. UPON COMPLETION OF CONSTRUCTION OPERATIONS, CONTRACTOR SHALL TURN OVER TREATMENT RESPONSIBILITIES TO THE OWNER/OWNER'S MAINTENANCE SERVICE.
- 4) UPON COMPLETION OF THE TREATMENT PERIOD, THE CONTRACTOR OR OWNER SHALL NOTIFY THE OWNERS ENGINEER AND LANDSCAPE ARCHITECT IN WRITING OF THE STATUS OF ERADICATION. IF THE ERADICATION HAS NOT BEEN SUCCESSFUL, THE CONTRACTOR SHALL ALSO SUBMIT ADDITIONAL TREATMENT PLANS. IF THE CONTRACTOR BELIEVES THAT ERADICATION HAS BEEN ACHIEVED, THE CONTRACTOR SHALL REQUEST A SITE INSPECTION BY THE ENGINEER/WETLAND SCIENTIST FOR CONCURRENCE. IF THE OWNERS ENGINEER AND LANDSCAPE ARCHITECT CONCURS THAT ERADICATION HAS BEEN ACHIEVED, THE AREA WILL BE SUBJECT TO A ONE (1) YEAR WARRANTY STARTING ON THE FIRST DAY FOLLOWING THE INSPECTION BY THE OWNERS ENGINEER AND LANDSCAPE ARCHITECT. DURING THIS PERIOD THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY FURTHER OCCURRENCES OF THE INVASIVE SPECIES INSIDE THE DELINEATED AREA.

**FOR PERMITTING PURPOSES ONLY
NOT RELEASED FOR CONSTRUCTION**



ARCHITECTURE
ENGINEERING
ENVIRONMENTAL
LAND SURVEYING

355 Research Parkway
Meriden, CT 06450
(203) 630-1406
(203) 630-2615 Fax

PROPOSED SELF STORAGE FACILITY
255-257 NEWTONVILLE AVENUE
NEWTON, MASSACHUSETTS

REVISIONS

No.	Date	CONSERVATION COMMISSION COMMENTS	ENGINEERING COMMENTS	CONSERVATION COMMISSION COMMENTS	LAND USE HEARING COMMENTS
1.	2/19/2016				
2.	2/22/2016				
3.	2/29/2016				
4.	4/15/2016				

Designed W.E.V.
Drawn W.E.V.
Checked
Approved
Scale NTS
Project No. 1502781
Date 2/5/2016
CAD File: LL150278101

Title
**LANDSCAPE
DETAILS**

Sheet No.

LL-2



HABITAT ENHANCEMENT AREAS PLANT SCHEDULE

ZONE A - 6,530 SF

QTY	BOTANICAL NAME	COMMON NAME	SIZE	TYPE
75	<i>Ceanothus americanus</i>	NEW JERSEY TEA	2'-3'	SHRUB
75	<i>Comptonia peregrina</i>	SWEETFERN	2'-3'	SHRUB
8	<i>Abies balsamea</i>	BALSAM FIR	3'-4'	TREE
150	<i>Vaccinium angustifolium</i>	LOWBUSH BLUEBERRY	12"-18"	SHRUB
8	<i>Nyssa sylvatica</i>	BLACK OAK	4'-6'	TREE
8	<i>Prunus virginiana</i>	CHOCHECHERRY	4'-6'	TREE
8	<i>Quercus rubra</i>	NORTHERN RED OAK	4'-6'	TREE
75	<i>Viburnum lentago</i>	NANNYBERRY	3'-4'	SHRUB

GROUND COVER: CONSERVATION/WILDLIFE MIX

ZONE B - 10,325 SF

QTY	BOTANICAL NAME	COMMON NAME	SIZE	TYPE
75	<i>Ceanothus americanus</i>	NEW JERSEY TEA	2'-3'	SHRUB
75	<i>Comptonia peregrina</i>	SWEETFERN	2'-3'	SHRUB
25	<i>Cornus florida</i>	FLOWERING DOGWOOD	4'-6'	TREE
75	<i>Cornus racemosa</i>	GRAY DOGWOOD	3'-4'	SHRUB
75	<i>Cornus americana</i>	AMERICAN HAZELNUT	3'-4'	SHRUB
75	<i>Hamamelis virginiana</i>	COMMON WITCHHAZEL	3'-4'	SHRUB
75	<i>Kalmia latifolia</i>	MOUNTAIN LAUREL	3'-4'	SHRUB
25	<i>Ostrya virginiana</i>	EASTERN HOPHORNBEAM	4'-6'	TREE
75	<i>Viburnum acerifolium</i>	MAPLE LEAF VIBURNUM	3'-4'	SHRUB

GROUND COVER: CONSERVATION/WILDLIFE MIX

ZONE C - 2,699 SF

QTY	BOTANICAL NAME	COMMON NAME	SIZE	TYPE
40	<i>Cornus racemosa</i>	GRAY DOGWOOD	3'-4'	SHRUB
40	<i>Hamamelis virginiana</i>	COMMON WITCHHAZEL	3'-4'	SHRUB
20	<i>Juniperus virginiana</i>	EASTERN RED CEDAR	4'-6'	TREE (1)
40	<i>Morale pensylvanica</i>	BAYBERRY	3'-4'	SHRUB
40	<i>Rhus typhina</i>	STAGHORN SUMAC	3'-4'	SHRUB

GROUND COVER: ROADSIDE SEED MIX

ZONE D - 2,693 SF

QTY	BOTANICAL NAME	COMMON NAME	SIZE	TYPE
125	<i>Vaccinium angustifolium</i>	LOWBUSH BLUEBERRY	12"-18"	SHRUB
50	<i>Morale pensylvanica</i>	BAYBERRY	3'-4'	SHRUB
50	<i>Viburnum dentatum</i>	ARROWWOOD VIBURNUM	3'-4'	SHRUB

GROUND COVER: CONSERVATION/WILDLIFE MIX

HABITAT ENHANCEMENT AREA NOTES

- HABITAT ENHANCEMENT AREAS SHALL BE AMENDED WITH AT LEAST 4" OF PLANTING SOIL. REFER TO GENERAL LANDSCAPE NOTES ON SHEET LL-2 FOR INFORMATION REGARDING PLANTING SOIL.
- PLANTS SHALL BE NATIVE SPECIES FROM NEW ENGLAND SOURCES TO THE EXTENT FEASIBLE. CULTIVARS OR HYBRIDS ARE NOT ACCEPTABLE.
- AVERAGE DENSITY OF TREES SHALL BE 15-20 FEET O.C.
- AVERAGE DENSITY OF SHRUBS SHALL BE IN GROUPINGS 4-6 FEET O.C.
- SHRUB SPECIES SHALL BE CLUSTERED IN GROUPS OF 5-7. CLUSTERS SHALL BE ALLOCATED IN NATURAL ARRANGEMENT WITHIN HABITAT ENHANCEMENT AREAS.
- FINAL PLANT & SEED MIX LOCATIONS SHALL BE DETERMINED IN THE FIELD BY LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE.
- SUBSTITUTIONS SHALL BE REVIEWED AND APPROVED BY LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE.
- PLANTINGS SHALL BE MONITORED BY LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE FOR 3 YEARS. REMEDIAL MEASURES MAY BE REQUIRED AND SHALL BE IMPLEMENTED AS DIRECTED BY LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE.

SEED MIXES

- LAWN SEEDING MIXTURE:
 - 15% PERENNIAL RYEGRASS (BLEND OF 3 IMPROVED HYBRIDS)
 - 25% FINE LEAF OR CREEPING FESCUE (BLEND OF 3 IMPROVED HYBRIDS)
 - 60% KENTUCKY BLUEGRASS (BLEND OF 3 IMPROVED HYBRIDS)
 - SEEDING RATE: 5 LBS/1,000 S.F.
- CONSERVATION/WILDLIFE MIX
 - NEW ENGLAND WETLAND PLANTS (NEWP)
 - SEEDING RATE: 25 LBS/ACRE OR 1 LB/1,750 S.F.
 - SPECIES: VIRGINIA WILD RYE, (ELYMUS VIRGINICUS), LITTLE BLUESTEM, (SCHIZACHYRIUM SCOPARIUM), BIG BLUESTEM, (ANDROPOGON GERARDI), CREEPING RED FESCUE, (FESTUCA RUBRA), SWITCH GRASS, (PANICUM VIRGATUM), PARTRIDGE PEA, (CHAMAECRISTA FASCICULATA), DEER TONGUE, (PANICUM CLANDESTINUM), INDIAN GRASS, (SORGHASTRUM NUTANS), OX EYE SUNFLOWER, (HELIOPSIS HELIANTHOIDES), COMMON MILKWEED, (ASCLEPIAS SYRIACA), SPOTTED JOE PYE WEED, (EUPATORIUM MACULATUM), GRASS LEAVED GOLDENROD, (EUTHAMIA GRAMINIFOLIA), BLUE VERVAIN, (VERBENA HASTATA), NEW ENGLAND ASTER, (ASTER NOVAE-ANGLIAE), EARLY GOLDENROD, (SOLIDAGO JUNCEA).
- ROADSIDE SEED MIX (NEW ENGLAND ROADSIDE MATRIX UPLAND SEED MIX)
 - NEW ENGLAND WETLAND PLANTS (NEWP)
 - SEEDING RATE: 35 LBS/ACRE OR 1 LB/1,250 S.F.
 - SPECIES:
 - GRASSES: VIRGINIA WILD RYE (ELYMUS VIRGINICUS), LITTLE BLUESTEM (SCHIZACHYRIUM SCOPARIUM), CREEPING RED FESCUE (FESTUCA RUBRA), BIG BLUESTEM (ANDROPOGON GERARDI), INDIAN GRASS (SORGHASTRUM NUTANS), SWITCH GRASS (PANICUM VIRGATUM)
 - WILDFLOWERS: PARTRIDGE PEA (CHAMAECRISTA FASCICULATA), BUTTERFLY MILKWEED (ASCLEPIAS TUBEROSA), GOLDEN ALEXANDERS (ZIZIA AUREA), SMOOTH BLUE ASTER (ASTER LAEVIS), BUSH CLOVER (LESPEDEZA CAPITATA), PURPLE JOE PYE WEED (EUPATORIUM PURPUREUM), WILD BERGAMOT (MONARDA FISTULOSA), GREEN HEADED CONEFLOWER (RUDBECKIA LACINIATA), GRASS LEAVED GOLDENROD (EUTHAMIA GRAMINIFOLIA), NEW ENGLAND ASTER (ASTER NOVAE-ANGLIAE), EARLY GOLDENROD (SOLIDAGO JUNCEA)
 - SHRUBS: RED-OSIERDOGWOOD (CORNUS SERICEA), STAGHORN SUMAC (RHUS TYPHINA), WITCH HAZEL (HAMAMELIS VIRGINIANA), BLACK CHERRY (PRUNUS SEROTINA)

LANDSCAPE PLANT SCHEDULE

TREES

KEY	QUANTITY	BOTANICAL NAME	COMMON NAME	ROOT	SIZE	COMMENTS
AR	2	<i>Acer rubrum</i> 'Red Sunset'	RED SUNSET RED MAPLE	B&B	3'-3 1/2" CAL.	UNIFORM, WELL DEV. 7" MIN. BRANCHING HT.
PG	5	<i>Picea glauca</i>	WHITE SPRUCE	B&B	8'-10' HT.	UNIFORM, WELL DEV.
PS	3	<i>Prunus serotina</i> 'Columaria'	COLUMNAR SARGENT CHERRY	B&B	2'-2 1/2" CAL.	UNIFORM, WELL DEV.
QR	2	<i>Quercus rubra</i>	RED OAK	B&B	3'-3 1/2" CAL.	UNIFORM, WELL DEV. 7" MIN. BRANCHING HT.

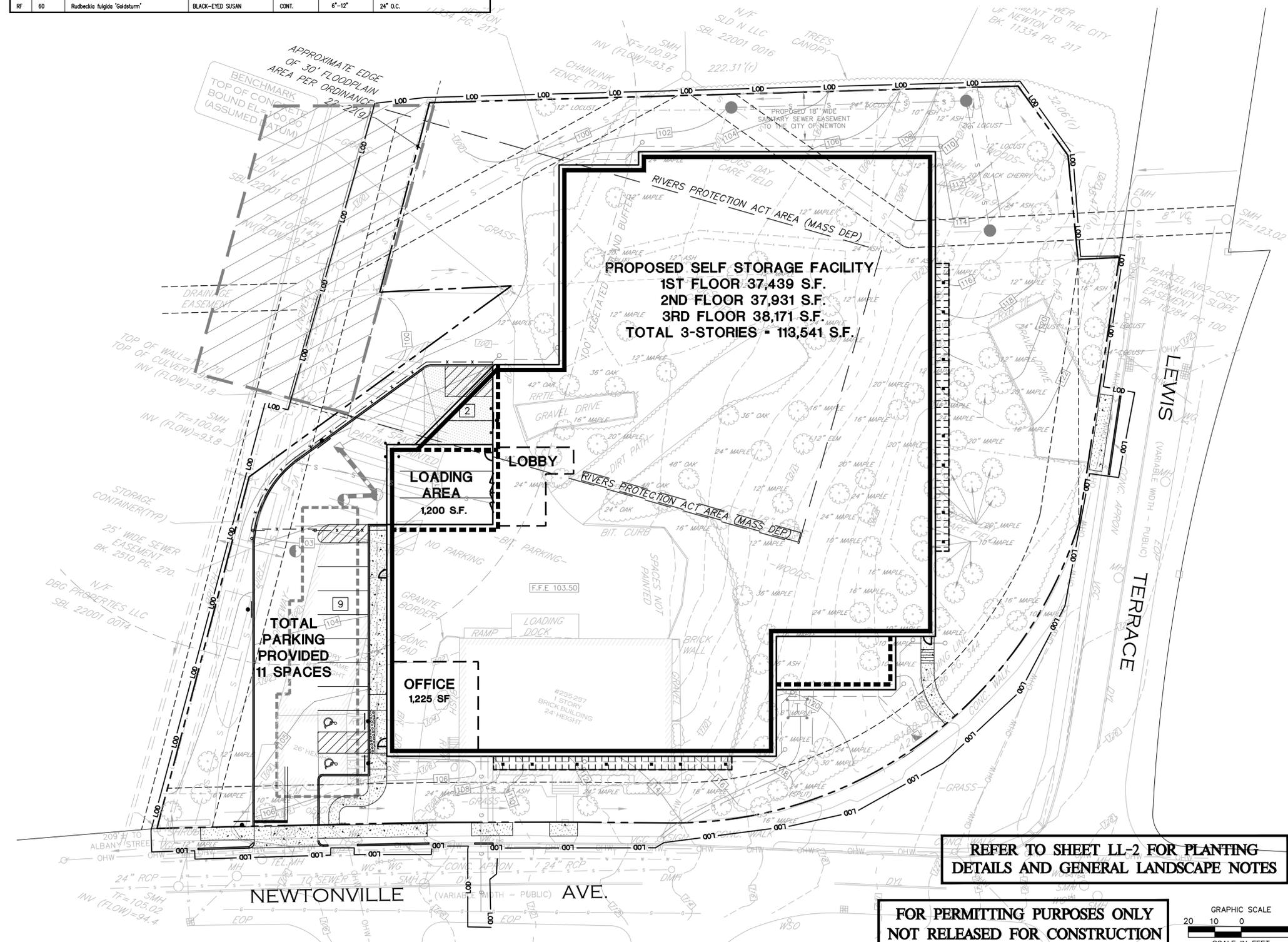
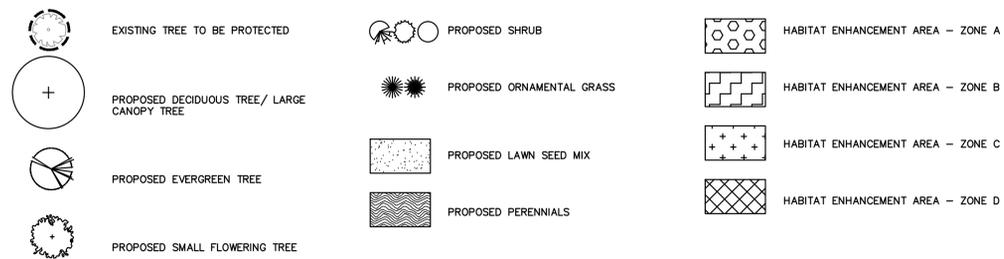
SHRUBS

KEY	QUANTITY	BOTANICAL NAME	COMMON NAME	ROOT	SIZE	COMMENTS
CD	XX	<i>Cornus alba</i> 'Bohale'	IVORY HALL DOGWOOD	CONT.	24"-30"	UNIFORM, WELL DEV. 4' O.C.
IC	20	<i>Ilex crenata</i> 'Hetzl'	HETZLI JAPANESE HOLLY	CONT.	42"-48"	UNIFORM, WELL DEV. 5' O.C.
IG	9	<i>Ilex glabra</i> 'Shamrock'	SHAMROCK INKBERRY	CONT.	24"-30"	UNIFORM, WELL DEV. 4' O.C.
JH	12	<i>Juniperus horizontalis</i> 'Bar Barba'	BAR HARBOR JUNIPER	CONT.	18"-24"	UNIFORM, WELL DEV. 4' O.C.
KL	12	<i>Kalmia latifolia</i>	MOUNTAIN LAUREL	CONT.	18"-24"	UNIFORM, WELL DEV. 4' O.C.
VD	12	<i>Viburnum dentatum</i>	ARROWWOOD VIBURNUM	CONT.	42"-48"	UNIFORM, WELL DEV. 5' O.C.

PERENNIALS AND ORNAMENTAL GRASSES

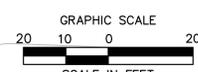
KEY	QUANTITY	BOTANICAL NAME	COMMON NAME	ROOT	SIZE	COMMENTS
PE	40	<i>Perovskia atriplicifolia</i> 'Little Spire'	RUSSIAN SAGE	CONT.	6"-12"	24" O.C.
PV	34	<i>Panicum virgatum</i> 'Heavy Metal'	SWITCHGRASS	CONT.	6"-12"	36" O.C.
RF	60	<i>Rudbeckia fulgida</i> 'Goldsturm'	BLACK-EYED SUSAN	CONT.	6"-12"	24" O.C.

LANDSCAPE KEY



REFER TO SHEET LL-2 FOR PLANTING
DETAILS AND GENERAL LANDSCAPE NOTES

FOR PERMITTING PURPOSES ONLY
NOT RELEASED FOR CONSTRUCTION



ARCHITECTURE
ENGINEERING
ENVIRONMENTAL
LAND SURVEYING

355 Research Parkway
Meriden, CT 06450
(203) 630-1406
(203) 630-2615 Fax

PROPOSED SELF STORAGE FACILITY
255-257 NEWTONVILLE AVENUE
NEWTON, MASSACHUSETTS

REVISIONS

No.	Date	DESCRIPTION	COMMISSION COMMENTS
1.	2/19/2016	CONSERVATION	COMMISSION COMMENTS
2.	2/22/2016	ENGINEERING	COMMISSION COMMENTS
3.	2/25/2016	CONSERVATION	COMMISSION COMMENTS
4.	4/15/2016	LAND USE HEARING	COMMISSION COMMENTS

Designed	W.E.V.
Drawn	W.E.V.
Checked	
Approved	
Scale	1"=20'
Project No.	1502781
Date	2/5/2016
CAD File:	LL150278101

Title
LANDSCAPE
PLAN

Sheet No.

LL-1

4/12/2016, ALLUSO, C. V08515105150278101.DWG, LL-1, 24X36, 2026.

©2016 BL COMPANIES, INC. THESE DRAWINGS SHALL NOT BE UTILIZED BY ANY PERSON, FIRM OR CORPORATION WITHOUT THE SPECIFIC WRITTEN PERMISSION OF BL COMPANIES.

PROPOSED SELF STORAGE FACILITY
255-257 NEWTONVILLE AVENUE
NEWTON, MASSACHUSETTS

REVISIONS

No.	Date	Description	Comments
1.	2/19/2016	CONSERVATION	COMMISSION COMMENTS
2.	2/23/2016	ENGINEERING	COMMENTS
3.	2/25/2016	CONSERVATION	COMMISSION COMMENTS
4.	4/15/2016	LAND USE	HEARING COMMENTS

Designed: A.B.U.
Drawn: B.W.M.
Checked:
Approved:
Scale: 1"=120'
Project No.: 1502781
Date: 2/5/2016
CAD File: MA150278101

Title: MASSING MODEL PLAN

Sheet No.: MA-1

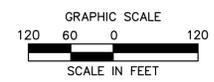


EXAMPLE MAP/BLOCK/LOT LABEL

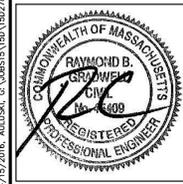
14023 0011
MAP No. BLOCK No. LOT No.

MAP/BLOCK/LOT	MAP/BLOCK/LOT
A	14023 0011
B	14023 0011A
C	22008 0004
D	22009 0009
E	22007 0017
F	22007 0016
G	22007 0015
H	22007 0014
I	23018 0004
J	23019 0023
K	14024 0013A
L	22007 0047
M	22007 0042

FOR PERMITTING PURPOSES ONLY
NOT RELEASED FOR CONSTRUCTION



NOTE: PROPERTY LINES, PROPERTY INFORMATION, BUILDING FOOTPRINTS, AND STREET NAMES IMPORTED FROM CITY OF NEWTON GIS WEBSITE ON 9/18/2015.



EROSION CONTROL NOTES

SEDIMENT & EROSION CONTROL NARRATIVE
THE SEDIMENT AND EROSION CONTROL PLAN WAS DEVELOPED TO PROTECT THE EXISTING ROADWAY AND STORM DRAINAGE SYSTEMS, ADJACENT PROPERTIES, AND ANY ADJACENT WETLAND AREA AND ANY ADJACENT WATER COURSE FROM SEDIMENT LADEN SURFACE RUNOFF AND EROSION. A CONSTRUCTION SEQUENCE IS PROVIDED TO PROVIDE SURFACE RUNOFF EROSION CONTROLS PRIOR TO THE BEGINNING OF PROJECT DEMOLITION AND/OR CONSTRUCTION.

CONSTRUCTION SCHEDULE
THE ANTICIPATED STARTING DATE FOR CONSTRUCTION IS SUMMER 2016 WITH COMPLETION ANTICIPATED THE SUMMER OF 2017. APPROPRIATE EROSION CONTROL MEASURES AS DESCRIBED HEREIN, SHALL BE INSTALLED BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF ALL DEMOLITION OR CONSTRUCTION ACTIVITY. SCHEDULE WORK TO MINIMIZE THE LENGTH OF TIME THAT BARE SOIL WILL BE EXPOSED.

CONTINGENCY EROSION PLAN
THE CONTRACTOR SHALL INSTALL ALL SPECIFIED EROSION CONTROL MEASURES AND WILL BE REQUIRED TO MAINTAIN THEM IN THEIR INTENDED FUNCTIONING CONDITION. THE AGENTS OF THE CONSERVATION COMMISSION AND/OR CIVIL ENGINEER SHALL HAVE THE AUTHORITY TO REQUIRE SUPPLEMENTAL MAINTENANCE OR ADDITIONAL MEASURES IF FIELD CONDITIONS ARE ENCOUNTERED BEYOND WHAT WOULD NORMALLY BE ANTICIPATED. A DETAILED CONSTRUCTION PHASING PLAN SHALL BE PROVIDED TO THE JENINER STEEL OF THE CONSERVATION COMMISSION ONCE MEANS AND METHODS OF CONSTRUCTION ARE ESTABLISHED BY THE SITE CONTRACTOR.

CONSTRUCTION SEQUENCE
THE FOLLOWING CONSTRUCTION SEQUENCE IS RECOMMENDED:
1. CONTACT CONSERVATION COMMISSION AGENT AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO COMMENCEMENT OF ANY DEMOLITION, CONSTRUCTION OR REGULATED ACTIVITY ON THIS PROJECT.

2. CLEARING LIMITS SHALL BE PHYSICALLY MARKED IN THE FIELD AND APPROVED BY THE CONSERVATION COMMISSION AGENT PRIOR TO THE START OF WORK ON THE SITE. INSTALL TREE PROTECTION AND PERIMETER SILT FENCE.

3. CONSTRUCT STONE CONSTRUCTION ANTI-TRACKING PADS AT CONSTRUCTION ENTRANCE/EXIT AND WRAP FILTER FABRIC AROUND GRATES OF CATCH BASINS OR INSTALL SILT SACKS ON CATCH BASIN INLETS ON OFF-SITE ROADS. INSTALL SILT FENCE AND OTHER EROSION CONTROL DEVICES INDICATED ON THESE PLANS AT PERIMETER OF PROPOSED SITE DISTURBANCE AND INSTALL ALL EROSION CONTROL MEASURES AND TREE PROTECTION INDICATED ON THESE PLANS. INSTALL SEDIMENT TRAPS IF REQUIRED AT LOW AREAS OF SITE OR AS ORDERED BY THE ENGINEER OR AS SHOWN ON THESE PLANS.

4. DEMOLISH BUILDINGS AND LEGALLY DISPOSE OFF-SITE.
5. CLEAR AND GRUB SITE. STOCKPILE CHIPS. STOCKPILE TOPSOIL. INSTALL EROSION CONTROLS AT STOCKPILES.

6. SITE DEMOLITION AND REMOVAL. PAVEMENT REMOVAL.

7. INSTALL SILT FENCE, CONSTRUCT DIVERSION SWALES AND SEDIMENT BASINS IF REQUIRED, AND SEDIMENT TRAPS INCLUDING TRAPS SHOWN ON THE PLAN.

8. INSTALL SHEETING FOR SANITARY SEWER MAIN RELOCATION AND RELOCATE SEWER MAIN.

9. INSTALL SHEETING FOR BUILDING FOUNDATION EXCAVATION AND PREPARE SITE FOR EARTHWORK.

10. COMMENCE EARTHWORK AND ROCK EXCAVATION. INSTALL ADDITIONAL EROSION CONTROLS INCLUDING ANY ADDITIONAL SEDIMENT TRAPS AS WORK PROGRESSES AND COMMENCE STORM DRAINAGE SYSTEM CONSTRUCTION, TOPSOIL AND SEED SLOPES WHICH HAVE ACHIEVED FINAL SITE GRADING.

11. CONSTRUCTION STAKING OF ALL BUILDING CORNERS, UTILITIES, ACCESS DRIVES, AND PARKING AREAS.

12. CONTINUE ROUGH GRADING AND FILLING OF SUBGRADES AND SLOPES.

13. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO ELIMINATE THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION.

14. BEFORE DISPOSING OF SOIL OR RECEIVING BORROW FOR THE SITE, THE CONTRACTOR MUST PROVIDE EVIDENCE THAT EACH SPOIL OR BORROW AREA HAS AN EROSION AND SEDIMENT CONTROL PLAN APPROVED BY THE LOCAL CONSERVATION COMMISSION AND WHICH IS BEING IMPLEMENTED AND MAINTAINED. THE CONTRACTOR SHALL ALSO NOTIFY THE CONSERVATION COMMISSION IN WRITING OF ALL RECEIVING SPOIL AND BORROW AREAS WHEN THEY HAVE BEEN IDENTIFIED.

15. CONTINUE INSTALLATION OF STORM DRAINAGE AS SUBGRADE ELEVATIONS ARE ACHIEVED.

16. BUILDING FOUNDATION SUBGRADE AND PAD SUBGRADE PREPARATION.

17. BUILDING FOUNDATION CONSTRUCTION. BEGIN BUILDING SUPERSTRUCTURE.

18. THROUGHOUT CONSTRUCTION SEQUENCE, REMOVE SEDIMENT FROM BEHIND SILT FENCES, HAY BALES AND OTHER EROSION CONTROL DEVICES, AND FROM SEDIMENTATION BASINS AND SEDIMENT TRAPS AS REQUIRED. REMOVAL SHALL BE ON A PERIODIC BASIS (EVERY SIGNIFICANT RAINFALL OF 0.25 INCH OR GREATER). INSPECTION OF EROSION CONTROL MEASURES SHALL BE ON A WEEKLY BASIS AND AFTER EACH RAINFALL OF 0.25 INCHES OR GREATER. SEDIMENT COLLECTED SHALL BE DEPOSITED AND SPREAD EVENLY UPLAND ON SLOPES DURING CONSTRUCTION.

19. INSTALL SANITARY LATERAL AND UTILITIES. COMPLETE STORM DRAINAGE SYSTEM.

20. COMPLETE GRADING TO SUBGRADES AND CONSTRUCT PARKING AREA SUBGRADE.

21. CONSTRUCT CURBS, PAVEMENT STRUCTURE AND SIDEWALKS

22. CONDUCT FINE GRADING.

23. PAVING OF PARKING AREAS AND DRIVEWAYS

24. FINAL FINE GRADING OF SLOPE AND NON-PAVED AREAS.

25. PLACE 4" TOPSOIL ON SLOPES AFTER FINAL GRADING IS COMPLETED. FERTILIZE SEED AND MULCH. SEED TO REMAIN TO BE INSTALLED AUGUST THROUGH OCTOBER. USE EROSION CONTROL BLANKETS AS REQUIRED ON ORDERED FOR SLOPES GREATER THAN 3:1 AND AS SHOWN ON LANDSCAPE PLANS OR EROSION CONTROL PLANS. FOR TEMPORARY STABILIZATION BEYOND SEEDING DATE USE ANNUAL RYE AT 4.0 LBS/1,000 S.F. FERTILIZE WITH 10-10-10 AT 1.0 LBS. OF NITROGEN PER 1,000 S.F. AND LIME AT 100 LBS/1,000 S.F. (MAX.).

26. LANDSCAPE ISLANDS INTERIOR NON-PAVED AREA AND PERIMETER AREAS.

27. INSTALL SIGNING AND PAVEMENT MARKINGS

28. CLEAN STORM DRAINAGE PIPE STRUCTURES, DETENTION SYSTEMS AND WATER QUALITY DEVICES OF DEBRIS AND SEDIMENT.

29. UPON DIRECTION OF THE TOWN OF NEWTON CONSERVATION COMMISSION AGENT, EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED FOLLOWING STABILIZATION OF THE SITE.

OPERATION REQUIREMENTS
CLEARING AND GRUBBING OPERATIONS

1. ALL SEDIMENTATION AND EROSION CONTROL MEASURES, INCLUDING THE CONSTRUCTION OF TEMPORARY SEDIMENTATION BASINS AND SEDIMENT TRAPS AND STONE CONSTRUCTION ENTRANCE ANTI-TRACKING PADS, WILL BE INSTALLED PRIOR TO THE START OF CLEARING AND GRUBBING AND DEMOLITION OPERATIONS.

2. FOLLOWING INSTALLATION OF ALL SEDIMENTATION AND EROSION CONTROL MEASURES, THE CONTRACTOR SHALL NOT PROCEED WITH GRADING, FILLING OR OTHER CONSTRUCTION OPERATIONS UNTIL THE ENGINEER HAS INSPECTED AND APPROVED ALL INSTALLATIONS.

3. THE CONTRACTOR SHALL TAKE EXTREME CARE DURING CLEARING AND GRUBBING OPERATIONS SO AS NOT TO DISTURB UNPROTECTED WETLAND AREAS OR SEDIMENTATION AND EROSION CONTROL DEVICES.

4. FOLLOWING THE COMPLETION OF CLEARING AND GRUBBING OPERATIONS, ALL AREAS SHALL BE STABILIZED WITH TOPSOIL AND SEEDING OR PROCESSED AGGREGATE STONE AS SOON AS PRACTICAL.

ROUGH GRADING OPERATIONS

1. DURING THE REMOVAL AND/OR PLACEMENT OF EARTH AS INDICATED ON THE GRADING PLAN, TOPSOIL SHALL BE STRIPPED AND APPROPRIATELY STOCKPILED FOR REUSE.

2. ALL STOCKPILED TOPSOIL SHALL BE SEED, MULCHED WITH HAY, AND ENCLOSED BY A SILTATION FENCE.

FILLING OPERATIONS

1. PRIOR TO FILLING, ALL SEDIMENTATION AND EROSION CONTROL DEVICES SHALL BE PROPERLY IMPLEMENTED, MAINTAINED AND FULLY INSTALLED, AS DIRECTED BY THE ENGINEER AND AS SHOWN ON THIS PLAN.

2. ALL FILL MATERIAL ADJACENT TO ANY WETLAND AREAS, IF APPLICABLE TO THIS PROJECT, SHALL BE GOOD QUALITY, WITH LESS THAN 5% FINES PASSING THROUGH A #200 SIEVE (BANK RUN), SHALL BE PLACED IN LIFT THICKNESSES NOT GREATER THAN THAT SPECIFIED IN PROJECT SPECIFICATIONS AND/OR THE PROJECT GEOTECHNICAL REPORT. LIFTS SHALL BE COMPACTED TO 95% MAX. DRY DENSITY MODIFIED PROCTOR OR AS SPECIFIED IN THE CONTRACT SPECIFICATIONS OR IN THE GEOTECHNICAL REPORT.

3. AS GENERAL GRADING OPERATIONS PROGRESS, ANY TEMPORARY DIVERSION DITCHES SHALL BE RAISED OR LOWERED, AS NECESSARY, TO DIVERT SURFACE RUNOFF TO THE SEDIMENT BASINS OR SEDIMENT TRAPS.

PLACEMENT OF DRAINAGE STRUCTURES, UTILITIES, AND BUILDING CONSTRUCTION OPERATIONS.

1. SILT FENCES SHALL BE INSTALLED AT THE DOWNHILL SIDES OF BUILDING EXCAVATIONS, MUD PUMP DISCHARGES, AND UTILITY TRENCH MATERIAL STOCKPILES. HAY BALES MAY BE USED IF SHOWN ON THE EROSION CONTROL PLANS OR IF DIRECTED BY THE CIVIL ENGINEER.

FINAL GRADING AND PAVING OPERATIONS

1. ALL INLET AND OUTLET PROTECTION SHALL BE PLACED AND MAINTAINED AS SHOWN ON EROSION CONTROL PLANS AND DETAILS, AND AS DESCRIBED IN SPECIFICATIONS AND AS DESCRIBED HEREIN.

2. NO CUT OR FILL SLOPES SHALL EXCEED 2:1 EXCEPT WHERE STABILIZED BY ROCK FACED EMBANKMENTS OR EROSION CONTROL BLANKETS, JUTE MESH AND VEGETATION. ALL SLOPES SHALL BE SEED, AND ANY ROAD OR DRIVEWAY SHOULDER AND BANKS SHALL BE STABILIZED IMMEDIATELY UPON COMPLETION OF FINAL GRADING UNTIL TURF IS ESTABLISHED.

3. PAVEMENT SUB-BASE AND BASE COURSES SHALL BE INSTALLED OVER AREAS TO BE PAVED AS SOON AS FINAL SUB-GRADES ARE ESTABLISHED AND UNDERGROUND UTILITIES AND STORM DRAINAGE SYSTEMS HAVE BEEN INSTALLED.

4. AFTER CONSTRUCTION OF PAVEMENT, TOPSOIL, FINAL SEED, MULCH AND LANDSCAPING, REMOVE ALL TEMPORARY EROSION CONTROL DEVICES ONLY AFTER ALL AREAS HAVE BEEN PAVED AND/OR GRASS HAS BEEN WELL ESTABLISHED AND THE SITE HAS BEEN INSPECTED AND APPROVED BY THE CONSERVATION COMMISSION.

INSTALLATION OF SEDIMENTATION AND EROSION CONTROL MEASURES

A. SILTATION FENCE
1. DIG A SIX INCH TRENCH ON THE UPHILL SIDE OF THE DESIGNATED FENCE LINE LOCATION.

B. POSITION THE POST AT THE BACK OF THE TRENCH (DOWNHILL SIDE), AND HAMMER THE POST AT LEAST 1.5 FEET INTO THE GROUND.

C. LAY THE BOTTOM SIX INCHES OF THE FABRIC INTO THE TRENCH TO PREVENT UNDERMINING BY STORM WATER RUN-OFF.

D. BACKFILL THE TRENCH AND COMPACT.

OPERATION AND MAINTENANCE OF SEDIMENTATION AND EROSION CONTROL MEASURES

A. ALL SILTATION FENCES SHALL BE INSPECTED AS A MINIMUM WEEKLY OR AFTER EACH RAINFALL. ALL DETERIORATED FABRIC AND DAMAGED POSTS SHALL BE REPLACED AND PROPERLY REPOSITIONED IN ACCORDANCE WITH THIS PLAN.

B. SEDIMENT DEPOSITS SHALL BE REMOVED FROM BEHIND THE FENCE WHEN THEY EXCEED A HEIGHT OF ONE FOOT.

I. SEDIMENT BASINS/SEDIMENT TRAPS
A. CONTRACTOR TO KEEP WEEKLY CHECKLIST LOGS FOR INSPECTIONS OF ALL SEDIMENT AND EROSION CONTROL DEVICES AND HAVE THEM READILY AVAILABLE ON-SITE AT ALL TIMES FOR INSPECTION BY DEP.

B. ALL SEDIMENT BASINS AND/OR SEDIMENT TRAPS SHALL BE INSPECTED FOLLOWING EACH RAINFALL. REPAIR OF SLOPES SHALL BE PROMPTLY MADE AS NEEDED.

C. SEDIMENT DEPOSITS SHALL BE REMOVED FROM SEDIMENT BASINS AND/OR SEDIMENT TRAPS WHEN THEY EXCEED A HEIGHT OF ONE FOOT UNLESS OTHERWISE INDICATED ON THE EROSION CONTROL PLANS AND DETAILS TO BE AT A SPECIFIC ELEVATION PER CLEAN OUT MARKERS.

D. SEDIMENT SHALL BE DISPOSED OF ON-SITE OR AS DIRECTED BY THE ENGINEER AND LOCAL GOVERNING OFFICIALS. SEE SEDIMENT AND EROSION CONTROL NOTES HEREIN REGARDING DISPOSAL REQUIREMENTS FOR OFF SITE SPOIL DISPOSAL.

EROSION AND SEDIMENT CONTROL PLAN

1. HAY BALE FILTERS WILL BE INSTALLED AT ALL CULVERT OUTLETS IF CULVERT OUTLETS ARE APPLICABLE TO THIS PROJECT AND SILTATION FENCE INSTALLED ALONG THE TOE OF ALL CRITICAL CUT AND FILL SLOPES.

2. CULVERT DISCHARGE AREAS WILL BE PROTECTED WITH RIP RAP CHANNELS; ENERGY DISSIPATORS WILL BE INSTALLED AS SHOWN ON THESE PLANS AND AS NECESSARY.

3. CATCH BASINS WILL BE PROTECTED WITH HAY BALE FILTERS, SILT SACKS, SILTATION FENCE, OR OTHER INLET PROTECTION DEVICES PER DETAILS, THROUGHOUT THE CONSTRUCTION PERIOD AND UNTIL ALL DISTURBED AREAS ARE THOROUGHLY STABILIZED.

4. ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSTALLED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE MASSACHUSETTS GUIDELINES FOR SOIL EROSION AND SEDIMENTATION CONTROL.

5. EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSTALLED PRIOR TO DEMOLITION AND/OR CONSTRUCTION WHENEVER POSSIBLE.

6. ALL CONTROL MEASURES WILL BE MAINTAINED IN EFFECTIVE CONDITION THROUGHOUT THE DEMOLITION AND CONSTRUCTION PERIOD UNTIL THE SITE IS FULLY STABILIZED.

7. ADDITIONAL CONTROL MEASURES WILL BE INSTALLED DURING THE CONSTRUCTION PERIOD, IF NECESSARY OR REQUIRED OR AS DIRECTED BY THE CIVIL ENGINEER OR BY LOCAL GOVERNING OFFICIALS.

8. SEDIMENT REMOVED FROM EROSION CONTROL STRUCTURES WILL BE DISPOSED IN A MANNER WHICH IS CONSISTENT WITH THE INTENT AND REQUIREMENTS OF THE EROSION CONTROL PLANS, NOTES, AND DETAILS.

9. THE OWNERS CONTRACTOR IS ASSIGNED THE RESPONSIBILITY FOR IMPLEMENTING THIS EROSION AND SEDIMENT CONTROL PLAN. THIS RESPONSIBILITY INCLUDES THE INSTALLATION AND MAINTENANCE OF CONTROL MEASURES, INFORMING ALL PARTIES ENGAGED ON THE CONSTRUCTION SITE OF THE REQUIREMENTS AND OBJECTIVES OF THE PLAN, NOTIFICATION OF THE CONSERVATION COMMISSION OF ANY TRANSFER OF THIS RESPONSIBILITY AND FOR CONVEYING A COPY OF THE EROSION AND SEDIMENT CONTROL PLAN IF THE TITLE TO THE LAND IS TRANSFERRED.

10. THE OWNERS CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTING THIS SEDIMENT AND EROSION CONTROL PLAN. THIS RESPONSIBILITY INCLUDES THE PROPER INSTALLATION AND MAINTENANCE OF EROSION CONTROL MEASURES, INFORMING ALL PARTIES ENGAGED WITH CONSTRUCTION ON THE SITE OF THE REQUIREMENTS AND OBJECTIVES OF THIS PLAN, INFORMING THE GOVERNING AUTHORITY OR INLAND WETLANDS AGENCY OF ANY TRANSFER OF THIS RESPONSIBILITY, AND FOR CONVEYING A COPY OF THE SEDIMENT & EROSION CONTROL PLAN IF THE TITLE TO THE LAND IS TRANSFERRED.

11. AN EROSION CONTROL BOND MAY BE REQUIRED TO BE POSTED WITH THE CITY OF NEWTON TO ENSURE IMPLEMENTATION OF THE EROSION CONTROL MEASURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE POSTING OF THIS BOND AND FOR INQUIRIES TO THE CITY OF NEWTON FOR INFORMATION ON THE METHOD, TYPE AND AMOUNT OF THE BOND POSTING UNLESS OTHERWISE DIRECTED BY THE OWNER.

12. VISUAL SITE INSPECTIONS SHALL BE CONDUCTED WEEKLY, AND AFTER EACH MEASURABLE PRECIPITATION EVENT OF 0.25 INCHES OR GREATER BY QUALIFIED PERSONNEL, TRAINED AND EXPERIENCED IN EROSION AND SEDIMENT CONTROL, TO ASCERTAIN THAT THE EROSION AND SEDIMENT CONTROL (E&S) BMPs ARE OPERATIONAL AND EFFECTIVE IN PREVENTING POLLUTION. A WRITTEN REPORT OF EACH INSPECTION SHALL BE KEPT, AND INCLUDE:
A) A SUMMARY OF THE SITE CONDITIONS, E&S BMPs, AND COMPLIANCE; AND
B) THE DATE, TIME, AND THE NAME OF THE PERSON CONDUCTING THE INSPECTION

13. THE CONTRACTOR SHALL CONSTRUCT ALL SEDIMENT AND EROSION CONTROLS IN ACCORDANCE WITH MASSACHUSETTS EROSION AND SEDIMENT CONTROL GUIDELINES FOR URBAN AND SUBURBAN AREAS LATEST EDITION IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, AND AS DIRECTED BY THE CONSERVATION COMMISSION. THE CONTRACTOR SHALL KEEP A COPY OF THE GUIDELINES ON-SITE FOR REFERENCE DURING CONSTRUCTION.

14. ADDITIONAL AND/OR ALTERNATIVE SEDIMENT AND EROSION CONTROL MEASURES MAY BE INSTALLED DURING THE CONSTRUCTION PERIOD IF FOUND NECESSARY BY THE CONTRACTOR, OWNER, SITE ENGINEER, CONSERVATION COMMISSION, OR GOVERNING AGENCIES. THE CONTRACTOR SHALL CONTACT THE OWNER AND APPROPRIATE GOVERNING AGENCIES FOR APPROVAL IF ALTERNATIVE CONTROLS OTHER THAN THOSE SHOWN ON THE PLANS ARE PROPOSED.

15. THE CONTRACTOR SHALL INSPECT ALL SEDIMENT AND EROSION CONTROLS BEFORE AND AFTER EACH STORM (0.25 INCHES OR GREATER RAINFALL), OR AT LEAST WEEKLY, TO VERIFY THAT THE CONTROLS ARE OPERATING PROPERLY AND MAKE REPAIRS WHERE NECESSARY.

16. THE CONTRACTOR SHALL KEEP A SUPPLY OF EROSION CONTROL MATERIAL (HAY BALES, SILT FENCE, JUTE MESH, RIP RAP ETC.) ON-SITE FOR MAINTENANCE AND EMERGENCY REPAIRS.

17. PROTECT EXISTING TREES THAT ARE TO BE SAVED BY FENCING AT THE DRIP LINE OR AS SHOWN WITH SNOW FENCE, ORANGE SAFETY FENCE, OR EQUIVALENT FENCING. ANY LIMB TRIMMING SHOULD BE DONE BEFORE CONSTRUCTION BEGINS IN THAT AREA; FENCING SHALL BE MAINTAINED AND REPAIRED DURING CONSTRUCTION.

18. INSTALL PERIMETER EROSION AND SEDIMENT CONTROLS PRIOR TO CLEARING OR CONSTRUCTION. ALL CONSTRUCTION SHALL BE CONTAINED WITHIN THE LIMIT OF DISTURBANCE, WHICH SHALL BE MARKED WITH SILT FENCE, SAFETY FENCE, HAY BALES, RIBBONS, OR OTHER MEANS PRIOR TO CLEARING. CONSTRUCTION ACTIVITY SHALL REMAIN ON THE UPHILL SIDE OF THE SILT FENCE UNLESS WORK IS SPECIFICALLY CALLED FOR ON THE DOWNHILL SIDE OF THE FENCE.

19. STONE CONSTRUCTION ENTRANCE ANTI-TRACKING PADS SHALL BE INSTALLED AT START OF CONSTRUCTION AND MAINTAINED THROUGHOUT DURATION OF CONSTRUCTION. THE LOCATION OF THE TRACKING PADS MAY CHANGE AS VARIOUS PHASES OF CONSTRUCTION ARE COMPLETED.

20. TOPSOIL SHALL BE STRIPPED AND STOCKPILED FOR USE IN FINAL LANDSCAPING. ALL EARTH STOCKPILES SHALL HAVE HAY BALES OR SILT FENCE AROUND THE LIMIT OF PILE. PILES SHALL BE TEMPORARILY SEED, IF FILE IS TO REMAIN IN PLACE FOR MORE THAN 1 MONTH.

21. SEDIMENTATION BASINS SHALL PROVIDE 67 CUBIC YARDS OF SEDIMENT STORAGE PER DISTURBED ACRE CONTRIBUTING TO THE BASIN. PROVIDE BASIN VOLUMES FOR ALL DISTURBANCE ON SITE.

22. COMPLY WITH REQUIREMENTS OF NPDES GENERAL PERMIT FOR CONSTRUCTION DEWATERINGS ACTIVITY DISCHARGES, FOR STORMWATER DISCHARGE FROM CONSTRUCTION ACTIVITIES AND WITH MASSACHUSETTS DEP RECORD KEEPING AND INSPECTION REQUIREMENTS.

23. STONE CONSTRUCTION ENTRANCE ANTI-TRACKING PADS SHALL BE INSTALLED PRIOR TO ANY ON-SITE EXCAVATION AND SHALL BE MAINTAINED DURING ALL EXCAVATION AND CONSTRUCTION ACTIVITIES.

24. MINIMIZE LAND DISTURBANCES. SEED AND MULCH DISTURBED AREAS WITH TEMPORARY MIX AS SOON AS PRACTICABLE (1 WEEK MAXIMUM UNSTABILIZED PERIOD) USING PERENNIAL RYEGRASS AT 40 LBS PER ACRE, MULCH ALL CUT AND FILL SLOPES AND SWALES WITH LOOSE HAY AT A RATE OF 2 TONS PER ACRE. IF NECESSARY, REPLACE LOOSE HAY ON SLOPES WITH EROSION CONTROL BLANKETS OR JUTE CLOTH, MODERATELY GRADED AREAS, ISLANDS, AND TEMPORARY CONSTRUCTION STAGING AREAS MAY BE HYDROSEEDED WITH TACKIFIER.

25. MAINTAIN EXISTING PAVED AREAS FOR CONSTRUCTION STAGING FOR AS LONG AS POSSIBLE.

26. SILT FENCE AND OTHER SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH CONTRACT DRAWINGS AND MANUFACTURER'S RECOMMENDATIONS PRIOR TO WORK IN ANY UPLAND AREAS.

27. EXCAVATED MATERIAL FROM TEMPORARY SILT TRAPS MUST BE STOCKPILED ON UPHILL SIDE OF SILT FENCE.

28. INSTALL SILT FENCE ACCORDING TO MANUFACTURER'S INSTRUCTION, PARTICULARLY, BURY LOWER EDGE OF FABRIC INTO GROUND. SILT FENCE SHALL BE MIRAFI ENVROFENCE, PROPEX SILT FENCE OR EQUIVALENT APPROVED BY THE CIVIL ENGINEER. FILTER FABRIC USED SHALL BE MIRAFI 100X OR EQUIVALENT. SEE SPECIFICATIONS FOR FURTHER INFORMATION.

29. WHERE INDICATED ON EROSION CONTROL PLANS USE NEW HAY BALES AND REPLACE THEM WHENEVER THEIR CONDITION DETERIORATES BEYOND REASONABLE USABILITY. STAKE HAY BALES SECURELY INTO GROUND AND BUTT TIGHTLY TOGETHER TO PREVENT UNDERCUTTING AND BYPASSING.

30. INSTALL TEMPORARY DIVERSION DITCHES, PLUNGE POOLS, SEDIMENT BASINS, SEDIMENT TRAPS, CONCRETE WASH PITS AND DEWATERING PITS AS SHOWN AND AS NECESSARY DURING VARIOUS PHASES OF CONSTRUCTION TO CONTROL RUNOFF UNTIL UPHILL AREAS ARE STABILIZED. LOCATION OF TEMPORARY SEDIMENT BASINS WILL REQUIRE REVIEW AND APPROVAL BY THE CIVIL ENGINEER AND GOVERNING OFFICIAL.

31. SHOULD DEWATERING BE NECESSARY, A DETAILED PLAN OF ACTION SHALL BE SUBMITTED TO JENINER STEEL OF THE CONSERVATION COMMISSION BY THE SITE CONTRACTOR FOR HER REVIEW PRIOR TO THE INSTALLATION OF ANY DEWATERING MEASURES. DIRECT ALL DEWATERING PUMP DISCHARGE TO A SEDIMENT CONTROL DEVICE SUCH AS TEMPORARY PITS, SEDIMENT TRAP, SEDIMENT BASINS OR GRASS FILTERS WITHIN THE APPROVED LIMIT OF DISTURBANCE. DISCHARGE TO STORM DRAINAGE SYSTEM OR SURFACE WATERS FROM SEDIMENT CONTROLS SHALL BE CLEAR.

32. BLOCK THE OPEN UPSTREAM ENDS OF DETENTION BASIN OUTLET CONTROL ORIFICE UNTIL SITE IS STABILIZED. BLOCK END OF STORM SEWERS IN EXPOSED TRENCHES WITH BOARDS AND SANDBAGS AT THE END OF EACH WORKING DAY WHEN RAIN IS EXPECTED.

33. SWEEP AFFECTED PORTIONS OF OFF-SITE ROADS ONE OR MORE TIMES A DAY (OR LESS FREQUENTLY IF TRACKING IS NOT A PROBLEM) DURING CONSTRUCTION. OTHER DUST CONTROL MEASURES TO BE USED AS NECESSARY INCLUDE WATERING DOWN DISTURBED AREAS, USING CALCIUM CHLORIDE, AND COVERING LOADS ON DUMP TRUCKS.

34. PERIODICALLY CHECK ACCUMULATED SEDIMENT LEVELS IN THE SEDIMENT TRAPS DURING CONSTRUCTION AND CLEAN ACCUMULATED SILT WHEN NECESSARY OR WHEN ONE FOOT OF SEDIMENT HAS ACCUMULATED OR PER SPECIFIC CLEANOUT MARKER ELEVATION. CLEAN ACCUMULATED SEDIMENT FROM CATCH BASIN SUMPS AS NECESSARY AND AS DIRECTED BY THE CIVIL ENGINEER OR OWNER'S CONSTRUCTION REPRESENTATIVE. REMOVE ACCUMULATED SEDIMENT FROM BEHIND HAY BALES AND SILT FENCE WHEN LEVEL REACHES HALF THE HEIGHT OF THE HAY BALE OR ONE FOOT AT SILT FENCE. DISPOSE OF SEDIMENT LEGALLY EITHER ON OR OFF SITE.

35. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO ELIMINATE THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION.

36. ALL PUMPING OF SEDIMENT LADEN WATER SHALL BE THROUGH A SEDIMENT CONTROL BMP, SUCH AS A PUMPED WATER FILTER BAG OR EQUIVALENT SEDIMENT REMOVAL FACILITY, OVER UNDISTURBED VEGETATED AREAS.

37. ALL EXCAVATED MATERIAL SHALL BE PLACED ON THE HIGH SIDE OF UTILITY AND STORM PIPE TRENCHES SO AS TO ALLOW THE TRENCH TO INTERCEPT ALL SILT LADEN RUNOFF.

38. CONTRACTOR SHALL ONLY EXCAVATE AS MUCH UTILITY AND STORM PIPE TRENCH WORK AS CAN BE COMPLETED, BACKFILLED AND STABILIZED IN ONE DAY SO AS TO LIMIT THE AMOUNT OF OPEN, DISTURBED TRENCHING.

39. ANY STOCKPILES OF STRIPPED MATERIALS ARE TO BE PERIODICALLY SPRAYED WITH WATER OR A CRUSTING AGENT TO STABILIZE POTENTIALLY WIND-BLOWN MATERIAL. HAUL ROADS BOTH INTO AND AROUND THE SITE ARE TO BE SPRAYED AS NEEDED TO SUPPRESS DUST. TRUCKS HAULING IMPORT FILL MATERIAL ARE TO BE TARPED TO AID IN THE CONTROL OF AIRBORNE DUST. DURING HIGH WIND EVENTS (20 TO 30 MPH SUSTAINED) CONSTRUCTION ACTIVITY SHALL BE LIMITED OR CEASED IF DUST CANNOT BE CONTROLLED BY WETTING.

40. AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM OF 80% UNIFORM PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO RESIST SLIDING OR OTHER MOVEMENTS.

41. MAINTAIN ALL PERMANENT AND TEMPORARY SEDIMENT CONTROL DEVICES IN EFFECTIVE CONDITION THROUGHOUT THE CONSTRUCTION PERIOD. UPON COMPLETION OF WORK SWEEP PARKING LOT AND REMOVE ALL TEMPORARY SEDIMENT CONTROLS WHEN AUTHORIZED BY LOCAL GOVERNING AUTHORITY. FILE NOT (NOTICE OF TERMINATION) WITH GOVERNING AUTHORITY RESPONSIBLE FOR REGULATING STORM WATER DISCHARGES FROM CONSTRUCTION ACTIVITIES PER NPDES.

CONTRACTOR MUST PREPARE THE SWPPP AND SUBMIT THE EPA NOTICE OF INTENT AND NOTICE OF TERMINATION PRIOR TO AND UPON THE COMPLETION OF THE PROJECT. THE SWPPP MUST BE REVIEWED AND APPROVED BY THE ENGINEER.

POLLUTION PREVENTION PLAN CONTENTS: CONTROLS TO REDUCE POLLUTANTS

A. THE SWPPP MUST INCLUDE A DESCRIPTION OF ALL POLLUTION CONTROL MEASURES (I.E., BMPs) THAT WILL BE IMPLEMENTED AS PART OF THE CONSTRUCTION ACTIVITY TO CONTROL POLLUTANTS IN STORM WATER DISCHARGES. FOR EACH MAJOR ACTIVITY IDENTIFIED IN THE PROJECT DESCRIPTION, THE SWPPP MUST CLEARLY DESCRIBE CONTROL MEASURES NECESSARY TO COMPLY WITH THIS PERMIT AND APPLICABLE LAWS AND REGULATIONS, THE GENERAL SEQUENCE DURING THE CONSTRUCTION PROCESS IN WHICH THE MEASURES WILL BE IMPLEMENTED, AND WHICH OPERATOR IS RESPONSIBLE FOR THE CONTROL MEASURE'S IMPLEMENTATION.

B. THE SWPPP MUST INCLUDE A DESCRIPTION OF INTERIM AND PERMANENT STABILIZATION PRACTICES FOR THE SITE, INCLUDING A SCHEDULE OF WHEN THE PRACTICES WILL BE IMPLEMENTED. THERE SHOULD BE SUFFICIENT VEGETATION PRESERVED WHERE POSSIBLE AND THAT DISTURBED PORTIONS OF THE SITE ARE STABILIZED. USE OF IMPERVIOUS SURFACES FOR STABILIZATION WILL NOT BE PERMITTED.

C. THE FOLLOWING RECORDS MUST BE MAINTAINED AS PART OF THE SWPPP:
1. DATES WHEN MAJOR GRADING ACTIVITIES OCCUR;
2. DATES WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE; AND
3. DATES WHEN STABILIZATION MEASURES ARE INITIATED.

D. THE SWPPP MUST INCLUDE A DESCRIPTION OF STRUCTURAL PRACTICES: TO DIVERT FLOWS FROM EXPOSED SOILS; TO RETAIN/DETAIN FLOWS; OR TO OTHERWISE LIMIT RUNOFF AND THE DISCHARGE OF POLLUTANTS FROM EXPOSED AREAS OF THE SITE. PLACEMENT OF STRUCTURAL PRACTICES MUST BE IN ACCORDANCE WITH APPLICABLE REGULATIONS.

E. THE SWPPP MUST INCLUDE A DESCRIPTION OF ALL POST-CONSTRUCTION STORM WATER MANAGEMENT MEASURES THAT WILL BE INSTALLED DURING THE CONSTRUCTION PROCESS TO CONTROL POLLUTANTS IN STORM WATER DISCHARGES AFTER CONSTRUCTION OPERATIONS HAVE BEEN COMPLETED.

F. THE SWPPP MUST DESCRIBE MEASURES TO PREVENT THE DISCHARGE OF SOLID MATERIALS, INCLUDING BUILDING MATERIALS, TO SURFACE WATERS OF THE UNITED STATES, EXCEPT AS AUTHORIZED BY A PERMIT ISSUED UNDER SECTION 404 OF THE CWA.

G. THE SWPPP MUST DESCRIBE MEASURES TO MINIMIZE, TO THE EXTENT PRACTICABLE AND IF APPLICABLE, OFF-SITE VEHICLE TRACKING OF SEDIMENTS ONTO PAVED SURFACES AND THE GENERATION OF DUST.

H. THE SWPPP MUST INCLUDE A DESCRIPTION OF CONSTRUCTION AND WASTE MATERIALS EXPECTED TO BE STORED ON-SITE WITH UPDATES AS APPROPRIATE. THE SWPPP MUST ALSO INCLUDE A DESCRIPTION OF CONTROLS, INCLUDING STORAGE PRACTICES, TO MINIMIZE EXPOSURE OF THE MATERIALS TO STORM WATER, AND SPILL PREVENTION AND RESPONSE PRACTICES.

I. THE SWPPP MUST INCLUDE A DESCRIPTION OF POLLUTANT SOURCES FROM AREAS OTHER THAN CONSTRUCTION (INCLUDING STORM WATER DISCHARGES FROM DEDICATED ASPHALT PLANTS AND DEDICATED CONCRETE PLANTS), AND A DESCRIPTION OF CONTROLS AND MEASURES THAT WILL BE IMPLEMENTED AT THOSE SITES TO MINIMIZE POLLUTANT DISCHARGES.

INSPECTIONS

A. INSPECTIONS MUST BE CONDUCTED AT LEAST ONCE EVERY 14 CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM EVENT OF 0.1 INCHES OR GREATER.

B. INSPECTION FREQUENCY MAY BE REDUCED TO AT LEAST ONCE EVERY MONTH IF:
1. THE ENTIRE SITE IS TEMPORARILY STABILIZED.
2. INSPECTION IS UNLIKELY DUE TO WINTER CONDITIONS (E.G., SITE IS COVERED WITH SNOW, ICE, OR THE GROUND IS FROZEN), OR
3. CONSTRUCTION IS OCCURRING DURING SEASONAL ARID PERIODS IN ARID AREAS AND SEMI-ARID AREAS.

C. INSPECTIONS MUST BE CONDUCTED BY QUALIFIED PERSONNEL (PROVIDED BY THE CONTRACTOR. "QUALIFIED PERSONNEL" MEANS A PERSON WHO IS EDUCABLE IN THE PRINCIPLES AND PRACTICES OF EROSION AND SEDIMENT CONTROL AND POSSESSES THE SKILLS TO ASSESS CONDITIONS AT THE CONSTRUCTION SITE THAT COULD IMPACT STORM WATER QUALITY AND TO ASSESS THE EFFECTIVENESS OF ANY SEDIMENT AND EROSION CONTROL MEASURES SELECTED TO CONTROL THE QUALITY OF STORM WATER DISCHARGES FROM THE CONSTRUCTION ACTIVITY.

D. INSPECTIONS MUST INCLUDE ALL AREAS OF THE SITE DISTURBED BY CONSTRUCTION ACTIVITY AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION. INSPECTORS MUST LOOK FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE STORM WATER CONVEYANCE SYSTEM. SEDIMENTATION AND EROSION CONTROL MEASURES IDENTIFIED IN THE SWPPP MUST BE OBSERVED TO ENSURE PROPER OPERATION. DISCHARGE LOCATIONS MUST BE INSPECTED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING VIOLATIONS TO EPA WATER QUALITY STANDARDS, WHERE ACCESSIBLE. WHERE DISCHARGE LOCATIONS ARE INACCESSIBLE, NEARBY DOWNSTREAM LOCATIONS MUST BE INSPECTED TO THE EXTENT THAT SUCH INSPECTIONS ARE PRACTICABLE. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE MUST BE INSPECTED FOR EVIDENCE OF OFF-SITE SEDIMENT TRACKING.

E. FOR EACH INSPECTION REQUIRED ABOVE, THE CONTRACTOR MUST COMPLETE AN INSPECTION REPORT. AT A MINIMUM, THE INSPECTION REPORT SHALL INCLUDE:
1. THE INSPECTION DATE;
2. NAMES, TITLES, AND QUALIFICATIONS OF PERSONNEL MAKING THE INSPECTION;
3. THE DATE OF THE PERIOD SINCE THE LAST INSPECTION (OR SINCE COMMENCEMENT OF CONSTRUCTION ACTIVITY IF THE FIRST INSPECTION) INCLUDING A BEST ESTIMATE OF THE BEGINNING OF EACH STORM EVENT, DURATION OF EACH STORM EVENT, APPROXIMATE AMOUNT OF RAINFALL FOR EACH STORM EVENT (IN INCHES), AND WHETHER YOU KNOW IF ANY DISCHARGES OCCURRED;

4. WEATHER INFORMATION AND A DESCRIPTION OF ANY DISCHARGES OCCURRING AT THE TIME OF THE INSPECTION;
5. LOCATION(S) OF DISCHARGES OF SEDIMENT OR OTHER POLLUTANTS FROM THE SITE;
6. LOCATION(S) OF BMPs THAT NEED MAINTENANCE;
7. LOCATION(S) OF BMPs THAT FAILED TO OPERATE AS DESIGNED OR PROVED INADEQUATE FOR A PARTICULAR LOCATION;
8. LOCATION(S) WHERE ADDITIONAL BMPs ARE NEEDED THAT DID NOT EXIST AT THE TIME OF INSPECTION; AND
9. CORRECTIVE ACTION REQUIRED INCLUDING ANY CHANGES TO THE SWPPP NECESSARY AND IMPLEMENTATION DATES.

A RECORD OF EACH INSPECTION AND OF ANY ACTIONS TAKEN IN ACCORDANCE WITH THIS PART MUST BE RETAINED AS PART OF THE SWPPP FOR AT LEAST THREE YEARS FROM THE DATE THAT PERMIT COVERAGE EXPIRES OR IS TERMINATED. THE INSPECTION REPORTS MUST IDENTIFY ANY INCIDENTS OF NON-COMPLIANCE WITH THE PERMIT CONDITIONS. WHERE A REPORT DOES NOT IDENTIFY ANY INCIDENTS OF NON-COMPLIANCE, THE REPORT MUST CONTAIN A CERTIFICATION THAT THE CONSTRUCTION PROJECT OR SITE IS IN COMPLIANCE WITH THE SWPPP AND THIS PERMIT. THE REPORT MUST BE SIGNED IN ACCORDANCE WITH APPENDIX G, SECTION 11 OF THE NPDES GENERAL PERMIT FOR STORM WATER DISCHARGE FROM CONSTRUCTION ACTIVITIES (G.P.).

Maintaining an Updated Plan

A. THE SWPPP, INCLUDING THE SITE MAP, MUST BE AMENDED WHENEVER THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION, OR MAINTENANCE AT THE CONSTRUCTION SITE THAT HAS OR COULD HAVE A SIGNIFICANT EFFECT ON THE DISCHARGE OF POLLUTANTS TO THE WATERS OF THE UNITED STATES THAT HAS NOT BEEN PREVIOUSLY ADDRESSED IN THE SWPPP.

B. THE SWPPP MUST BE AMENDED IF DURING INSPECTIONS OR INVESTIGATIONS BY SITE STAFF, OR BY LOCAL, STATE, TRIBAL OR FEDERAL OFFICIALS, IT IS DETERMINED THAT THE SWPPP IS INEFFECTIVE IN ELIMINATING OR SIGNIFICANTLY MINIMIZING POLLUTANTS IN STORM WATER DISCHARGES FROM THE CONSTRUCTION SITE.

C. BASED ON THE RESULTS OF AN INSPECTION, THE SWPPP MUST BE MODIFIED AS NECESSARY

EROSION CONTROL LEGEND

CONTROL MEASURE	ILLUSTRATION
INLET PROTECTION	
SILT FENCE/ SYNTHETIC FILTER BARRIER	
ROCK CONSTRUCTION ENTRANCE	
CONTRACT LIMIT LINE EQUALS LIMIT OF DISTURBANCE	
STOCKPILE AREA	
TREE PROTECTION	

SOIL TYPES

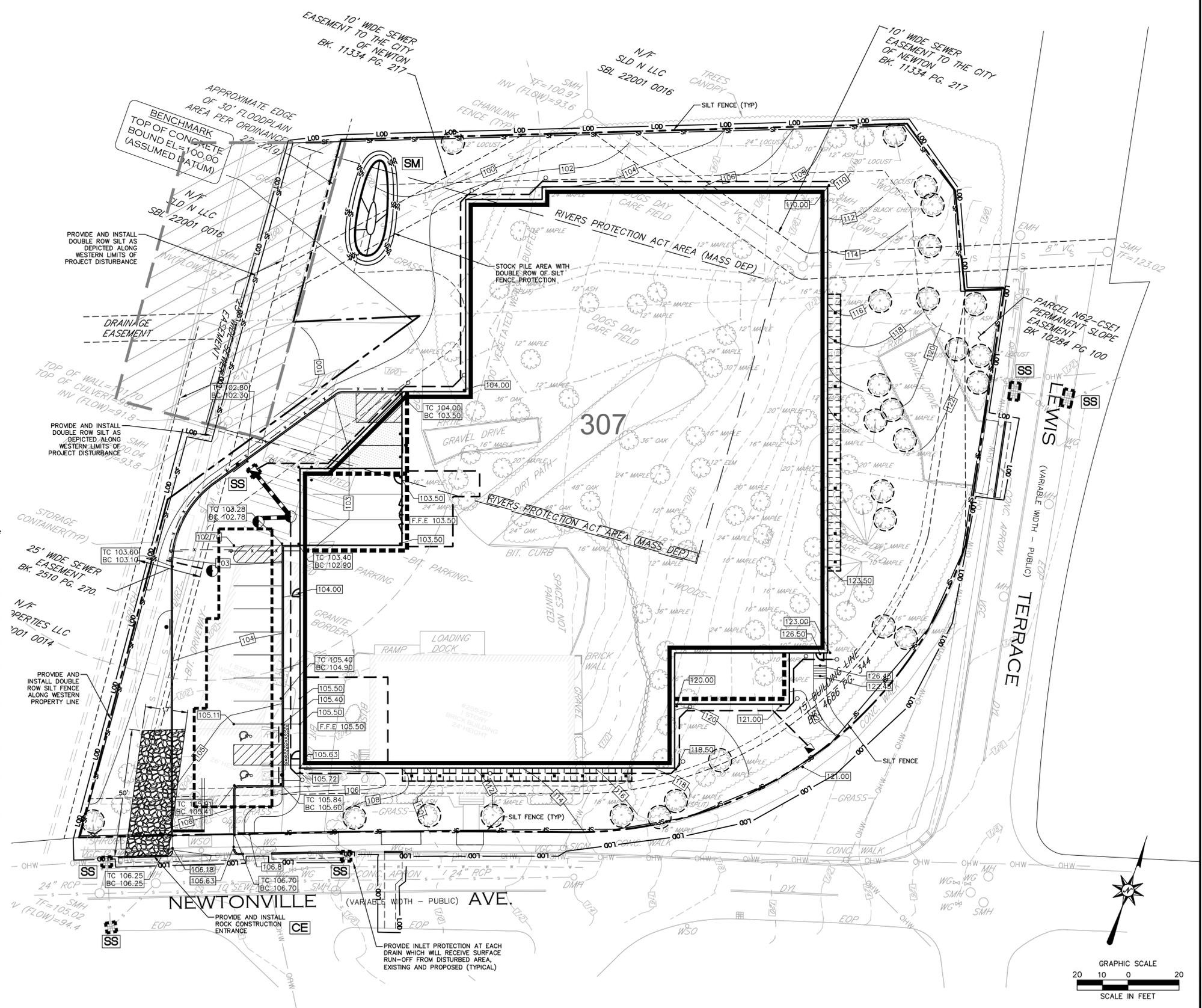
URBAN LAND
SOIL CLASS "D"

307

- OPERATION AND MAINTENANCE OF SEDIMENTATION AND EROSION CONTROL MEASURES
- SILTATION FENCE
 - ALL SILTATION FENCES SHALL BE INSPECTED AS A MINIMUM WEEKLY OR AFTER EACH RAINFALL. ALL DETERIORATED FABRIC AND DAMAGED POSTS SHALL BE REPLACED AND PROPERLY REPOSITIONED IN ACCORDANCE WITH THIS PLAN.
 - SEDIMENT DEPOSITS SHALL BE REMOVED FROM BEHIND THE FENCE WHEN THEY EXCEED A HEIGHT OF ONE FOOT.
 - EROSION AND SEDIMENT CONTROL PLAN
 - HAY BALE FILTERS WILL BE INSTALLED AT ALL CULVERT OUTLETS IF CULVERT OUTLETS ARE APPLICABLE TO THIS PROJECT AND SILTATION FENCE INSTALLED ALONG THE TOE OF ALL CRITICAL CUT AND FILL SLOPES.
 - CULVERT DISCHARGE AREAS WILL BE PROTECTED WITH RIP RAP CHANNELS; ENERGY DISSIPATORS WILL BE INSTALLED AS SHOWN ON THESE PLANS AND AS NECESSARY.
 - CATCH BASINS WILL BE PROTECTED WITH HAY BALE FILTERS, SILT SACKS, SILTATION FENCE, OR OTHER INLET PROTECTION DEVICES PER DETAILS, THROUGHOUT THE CONSTRUCTION PERIOD AND UNTIL ALL DISTURBED AREAS ARE THOROUGHLY STABILIZED.
 - ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSTALLED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE MASSACHUSETTS EROSION AND SEDIMENT CONTROL GUIDELINES FOR URBAN AND SUBURBAN AREAS.
 - EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSTALLED PRIOR TO DEMOLITION AND/OR CONSTRUCTION WHENEVER POSSIBLE.
 - ALL CONTROL MEASURES WILL BE MAINTAINED IN EFFECTIVE CONDITION THROUGHOUT THE DEMOLITION AND CONSTRUCTION PERIOD.
 - ADDITIONAL CONTROL MEASURES WILL BE INSTALLED DURING THE CONSTRUCTION PERIOD, IF NECESSARY OR REQUIRED OR AS DIRECTED BY THE CIVIL ENGINEER OR BY LOCAL GOVERNING OFFICIALS.
 - SEDIMENT REMOVED FROM EROSION CONTROL STRUCTURES WILL BE DISPOSED IN A MANNER WHICH IS CONSISTENT WITH THE INTENT AND REQUIREMENTS OF THE EROSION CONTROL PLANS, NOTES, AND DETAILS.
 - THE OWNERS CONTRACTOR IS ASSIGNED THE RESPONSIBILITY FOR IMPLEMENTING THIS SEDIMENTATION AND EROSION CONTROL PLAN. THIS RESPONSIBILITY INCLUDES THE INSTALLATION AND MAINTENANCE OF CONTROL MEASURES, INFORMING ALL PARTIES ENGAGED ON THE CONSTRUCTION SITE OF THE REQUIREMENTS AND OBJECTIVES OF THE PLAN, NOTIFICATION OF THE CONSERVATION COMMISSION OF ANY TRANSFER OF THIS RESPONSIBILITY AND FOR CONVEYING A COPY OF THE SEDIMENTATION AND EROSION CONTROL PLAN IF THE TITLE TO THE LAND IS TRANSFERRED.

CONTRACTOR INSPECTION SCHEDULE

INSPECTION TYPE	INSPECTION DATE	CONTRACTOR INITIALS	TOWN INSPECTOR INITIALS
INITIAL INSPECTION PRIOR TO PLAN APPROVAL			
EROSION CONTROL INSPECTION AFTER SITE CLEARING			
EROSION CONTROL INSPECTION AFTER ROUGH GRADING			
EROSION CONTROL INSPECTION AFTER FINAL GRADING			
BURY INSPECTION PRIOR TO BACKFILLING UNDERGROUND DRAINAGE OR STORMWATER CONVEYANCE STRUCTURES			
FINAL INSPECTION WHEN ALL WORK, INCLUDING CONSTRUCTION OF STORMWATER MANAGEMENT FACILITIES AND LANDSCAPING HAVE BEEN COMPLETED			



REFER TO SHEET GN-1 FOR GENERAL NOTES AND TO SHEET EC.2 FOR SEDIMENTATION AND EROSION CONTROL NOTES

FOR PERMITTING PURPOSES ONLY
NOT RELEASED FOR CONSTRUCTION



EROSION CONTROL LEGEND

CONTROL MEASURE	ILLUSTRATION
INLET PROTECTION	
SILT FENCE / SYNTHETIC FILTER BARRIER	
ROCK CONSTRUCTION ENTRANCE	
CONTRACT LIMIT LINE EQUALS LIMIT OF DISTURBANCE	
MATERIAL STOCKPILE AREA	
APPROXIMATE LIMITS OF SLOPE TO BE CUT	
APPROXIMATE LIMITS OF SHEETING AND SHORING	
DIVERSION SWALE	
MATting BLANKET	
TREE PROTECTION	
STONE RIPRAP	

SOIL TYPES

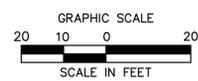
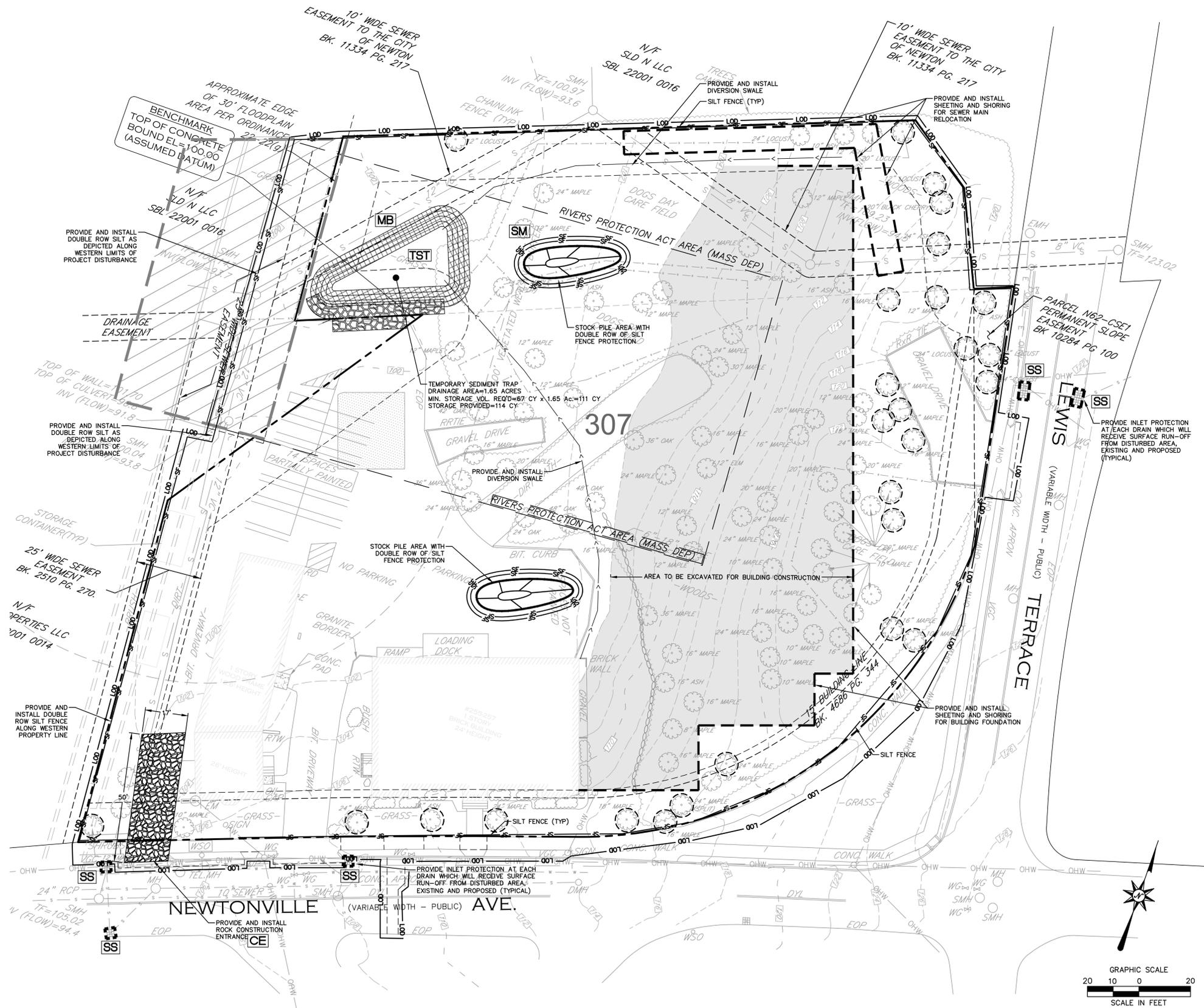
URBAN LAND
SOIL CLASS "D"

307

- OPERATION AND MAINTENANCE OF SEDIMENTATION AND EROSION CONTROL MEASURES
- SILTATION FENCE
 - ALL SILTATION FENCES SHALL BE INSPECTED AS A MINIMUM WEEKLY OR AFTER EACH RAINFALL. ALL DETERIORATED FABRIC AND DAMAGED POSTS SHALL BE REPLACED AND PROPERLY REPOSITIONED IN ACCORDANCE WITH THIS PLAN.
 - SEDIMENT DEPOSITS SHALL BE REMOVED FROM BEHIND THE FENCE WHEN THEY EXCEED A HEIGHT OF ONE FOOT.
 - EROSION AND SEDIMENT CONTROL PLAN
 - HAY BALE FILTERS WILL BE INSTALLED AT ALL CULVERT OUTLETS IF CULVERT OUTLETS ARE APPLICABLE TO THIS PROJECT AND SILTATION FENCE INSTALLED ALONG THE TOE OF ALL CRITICAL CUT AND FILL SLOPES.
 - CULVERT DISCHARGE AREAS WILL BE PROTECTED WITH RIP RAP CHANNELS; ENERGY DISSIPATORS WILL BE INSTALLED AS SHOWN ON THESE PLANS AND AS NECESSARY.
 - CATCH BASINS WILL BE PROTECTED WITH HAY BALE FILTERS, SILT SACKS, SILTATION FENCE, OR OTHER INLET PROTECTION DEVICES PER DETAILS, THROUGHOUT THE CONSTRUCTION PERIOD AND UNTIL ALL DISTURBED AREAS ARE THOROUGHLY STABILIZED.
 - ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSTALLED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE MASSACHUSETTS EROSION AND SEDIMENT CONTROL GUIDELINES FOR URBAN AND SUBURBAN AREAS.
 - EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSTALLED PRIOR TO DEMOLITION AND/OR CONSTRUCTION WHENEVER POSSIBLE.
 - ALL CONTROL MEASURES WILL BE MAINTAINED IN EFFECTIVE CONDITION THROUGHOUT THE DEMOLITION AND CONSTRUCTION PERIOD.
 - ADDITIONAL CONTROL MEASURES WILL BE INSTALLED DURING THE CONSTRUCTION PERIOD, IF NECESSARY OR REQUIRED OR AS DIRECTED BY THE CIVIL ENGINEER OR BY LOCAL GOVERNING OFFICIALS.
 - SEDIMENT REMOVED FROM EROSION CONTROL STRUCTURES WILL BE DISPOSED IN A MANNER WHICH IS CONSISTENT WITH THE INTENT AND REQUIREMENTS OF THE EROSION CONTROL PLANS, NOTES, AND DETAILS.
 - THE OWNERS CONTRACTOR IS ASSIGNED THE RESPONSIBILITY FOR IMPLEMENTING THIS SEDIMENTATION AND EROSION CONTROL PLAN. THIS RESPONSIBILITY INCLUDES THE INSTALLATION AND MAINTENANCE OF CONTROL MEASURES, INFORMING ALL PARTIES ENGAGED ON THE CONSTRUCTION SITE OF THE REQUIREMENTS AND OBJECTIVES OF THE PLAN, NOTIFICATION OF THE CONSERVATION COMMISSION OF ANY TRANSFER OF THIS RESPONSIBILITY AND FOR CONVEYING A COPY OF THE SEDIMENTATION AND EROSION CONTROL PLAN IF THE TITLE TO THE LAND IS TRANSFERRED.

CONTRACTOR INSPECTION SCHEDULE

INSPECTION TYPE	INSPECTION DATE	CONTRACTOR INITIALS	TOWN INSPECTOR INITIALS
INITIAL INSPECTION PRIOR TO PLAN APPROVAL			
EROSION CONTROL INSPECTION AFTER SITE CLEARING			
EROSION CONTROL INSPECTION AFTER ROUGH GRADING			
EROSION CONTROL INSPECTION AFTER FINAL GRADING			
BURY INSPECTION PRIOR TO BACKFILLING UNDERGROUND DRAINAGE OR STORMWATER CONVEYANCE STRUCTURES			
FINAL INSPECTION WHEN ALL WORK, INCLUDING CONSTRUCTION OF STORMWATER MANAGEMENT FACILITIES AND LANDSCAPING HAVE BEEN COMPLETED			



REFER TO SHEET GN-1 FOR GENERAL NOTES AND TO SHEET EC.2 FOR SEDIMENTATION AND EROSION CONTROL NOTES

FOR PERMITTING PURPOSES ONLY
NOT RELEASED FOR CONSTRUCTION



Luminaire Schedule

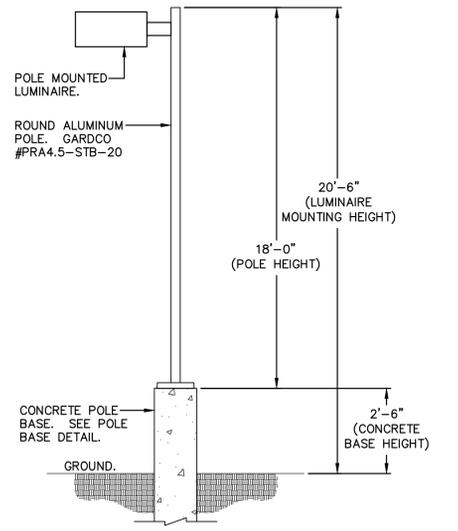
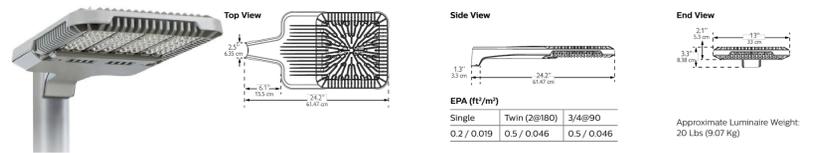
Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Filename	Lumens Per Lamp	Light Loss Factor	Wattage
□	A1	2	PHILIPS GARDCO	EGF-3-215LA-641A-NW-IS	ECOFORM	(1) LIGHT ARRAY OF 80 LEDS DRIVEN AT 1050mA	1	EGF-3-215LA-641A-NW-IS.lis	15270.06	0.85	210.9

Statistics

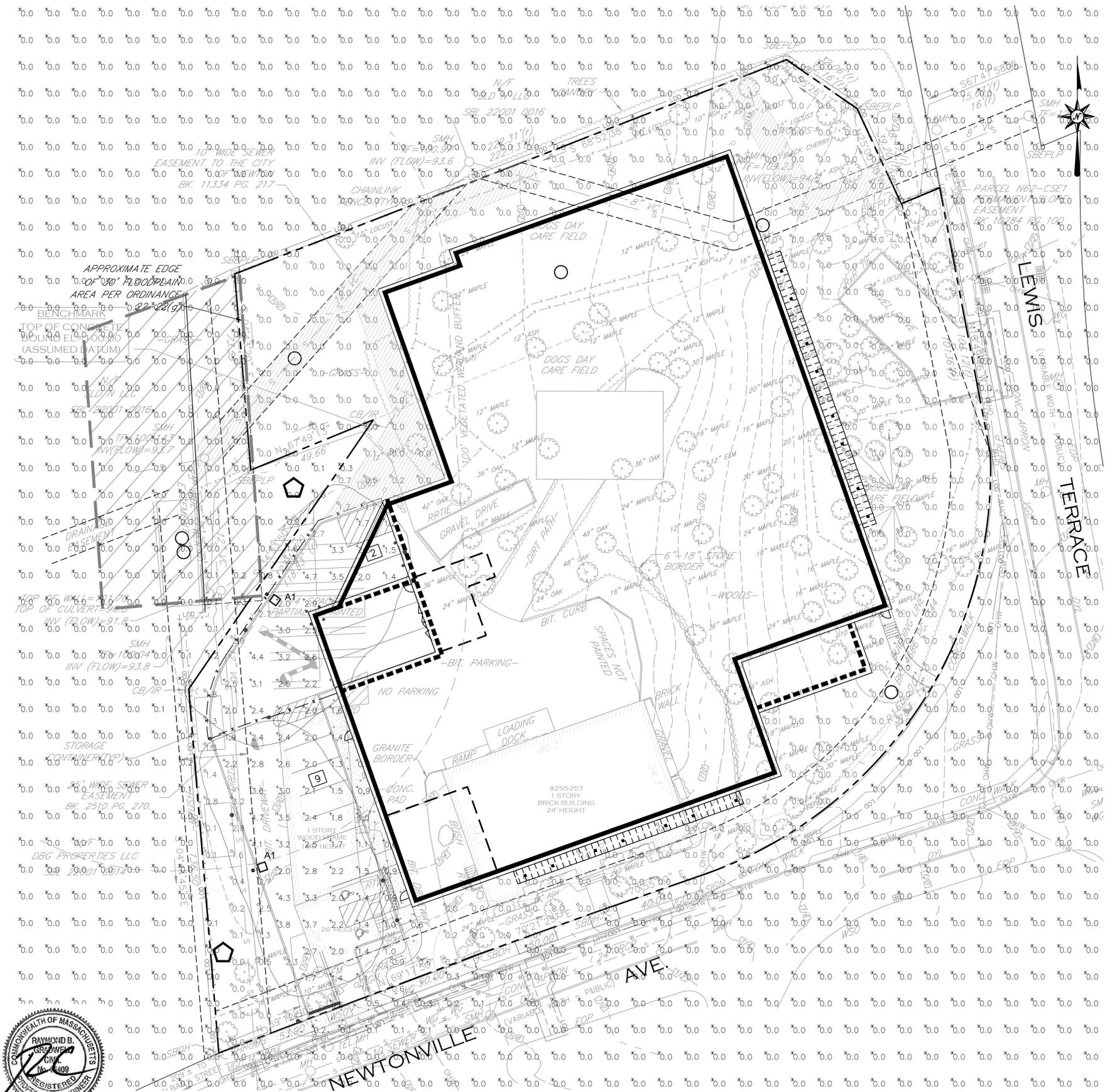
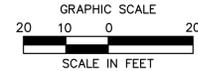
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min	Avg/Max
Parking Area	+	2.2 fc	4.7 fc	0.6 fc	7.8:1	3.7:1	0.5:1
Spill Area Landscape	◇	0.2 fc	3.2 fc	0.0 fc	N/A	N/A	0.1:1
Spill Area	x	0.0 fc	1.6 fc	0.0 fc	N/A	N/A	0.0:1

LIGHTING NOTES:

- ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH ALL REQUIREMENTS OF ANY LOCAL APPLICABLE CODES OR ORDINANCES, PUBLIC UTILITY COMPANY REGULATIONS, STATE CODE, AND NATIONAL ELECTRICAL CODE WITH INTERIM AMENDMENTS THERETO.
- ALL MATERIALS SHALL CONFORM TO THE LATEST ISSUE OF ALL APPLICABLE STANDARDS AS ESTABLISHED BY EEL, NEMA, ASTM, IPCEA, NATIONAL BOARD OF FIRE UNDERWRITERS, AND UNDERWRITERS LABORATORIES INC.
- THE CONTRACTOR SHALL TEST THE LIGHTING AFTER INSTALLATION WITH THE DEVELOPER/OWNER, AND PROVIDE TO DEVELOPER/OWNER WARRANTY AND MAINTENANCE INFORMATION. THE CONTRACTOR SHALL MAKE ADJUSTMENTS AND/OR MODIFICATIONS AS REQUIRED BY THE DEVELOPER/OWNER TO OBTAIN EVEN LIGHT DISTRIBUTION.
- CONTRACTOR SHALL LEAVE ENTIRE ELECTRICAL SYSTEM INSTALLED BY THE CONTRACTOR IN PROPER WORKING CONDITION AND REPLACE WITHOUT ADDITIONAL CHARGE ALL WORK OR MATERIALS WHICH MAY DEVELOP DEFECTS WITHIN A PERIOD OF ONE (1) YEAR FROM DATE OF FINAL ACCEPTANCE BY THE ENGINEER.
- THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL PRODUCTS, BASES AND CONDUITS TO SITE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO DELIVERY OF MATERIAL TO SITE. ALLOW A MINIMUM OF 14 WORKING DAYS FOR REVIEW. IF ALTERNATIVE LIGHTING IS PROPOSED SUBMIT A PHOTOMETRIC FOOT-CANDLE LAYOUT ALONG WITH ANNUAL MAINTENANCE REQUIREMENTS AND ANTICIPATED COSTS.
- LIGHTS ARE DESIGNED TO PROVIDE EVEN LEVELS OF ILLUMINATION AND AVOID GLARE ONTO NEIGHBORING PROPERTIES. FINAL DESIGN MAY VARY PENDING MANUFACTURER'S RECOMMENDATIONS.
- ALL LIGHTING CONTROLS, PANELS, CIRCUIT BREAKERS ETC. ARE TO BE PROVIDED UNDER A SEPARATE CONTRACT BY BUILDING CONTRACTOR. CAREFUL COORDINATION IS REQUIRED BETWEEN SITE CONTRACTOR AND BUILDING CONTRACTOR TO PROVIDE A COMPLETE INSTALLATION FOR SITE LIGHTING.
- THE CONTRACTOR WILL PROVIDE AND INSTALL ALL MATERIAL NECESSARY TO COMPLETE THE SITE LIGHTING SYSTEM INCLUDING BUT NOT LIMITED TO CONDUIT, BASES, ANCHOR BOLTS, POLES SITE LIGHTS AND LAMPS. THE CONTRACTOR WILL COORDINATE WIRING AND POWERING OF LIGHTS WITH OWNER, ARCHITECT, AND BUILDING CONTRACTOR IF DIFFERENT FROM THE SITE CONTRACTOR.
- ALL LIGHTS TO BE AS LISTED IN SCHEDULE OR APPROVED EQUIVALENT. LIGHTS SHALL BE MOUNTED ON SQUARE STRAIGHT STEEL POLES ATOP 36" HIGH CONCRETE BASES THAT ARE SET 2" (CLEAR) BEHIND CURBS. ILLUMINATION ANALYSIS MODELED USING LIGHTING FIXTURES LISTED IN SCHEDULE.
- LIGHT POLES, AND BRACKETS TO BE AS SHOWN ON DETAILS OR APPROVED EQUIVALENT.
- WIRE AND CABLE SHALL BE COPPER AND CONFORM TO THE FOLLOWING NEC TYPE THHN/THWN SOLID FOR NO. 12 AND NO. 10. NEC TYPE THHN/THWN STRANDED FOR NO. 8 AND LARGER. RIGID STEEL CONDUIT SHALL BE GALVANIZED. FITTINGS SHALL BE CAST FERROUS MATERIAL WITH A CADMIUM OR ZINC PLATED FINISH.
- ALL EQUIPMENT SHALL BE GROUNDED AND BONDED IN ACCORDANCE TO NEC.



FOR PERMITTING PURPOSES ONLY
NOT RELEASED FOR CONSTRUCTION



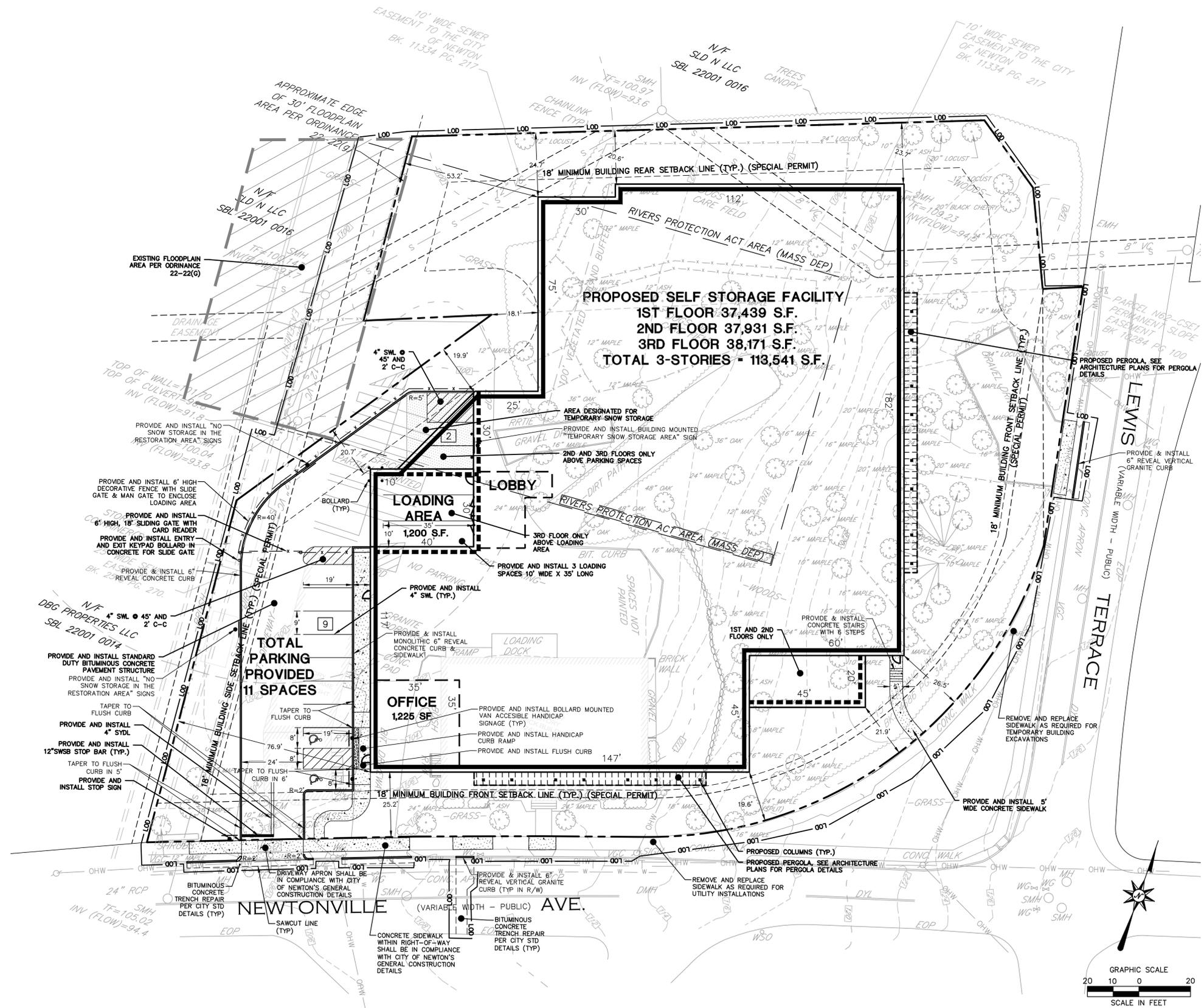
ZONING INFORMATION

LOCATION: NEWTON, MIDDLESEX COUNTY, MASSACHUSETTS				
ZONE: MANUFACTURING				
USE: (PERMITTED USE) STORAGE WAREHOUSE				
ITEM #	ITEM	REQUIREMENTS	PROPOSED	VARIANCE
1	MINIMUM LOT AREA	10,000 SF	76,000 S.F. 1.74 ACRES	NO
2	MINIMUM FRONT SETBACK	18 FEET (1) * (1/2 BUILDING HEIGHT)	19.6 FEET	NO
3	MINIMUM SIDE SETBACK	18 FEET (1) ** (1/2 BUILDING HEIGHT)	18.1 FEET	NO
4	MINIMUM REAR SETBACK	18 FEET (1) ** (1/2 BUILDING HEIGHT)	20.6 FEET	NO
5	MAXIMUM BUILDING HEIGHT	36 FEET/3 FLOORS (1)	35'-4"/3 FLOORS	NO
6	MAXIMUM BUILDING COVERAGE	NO MAXIMUM	51.41 PERCENT	NO
7	MAXIMUM FLOOR AREA RATIO	1.5	1.49	NO

(1) BY SPECIAL PERMIT
 * FRONT SETBACK SHALL BE 15 FEET OR 1/2 BUILDING HEIGHT OR THE AVERAGE SETBACK OF ADJOINING PROPERTIES, WHICHEVER IS GREATER.
 ** SIDE AND REAR SETBACKS SHALL BE 1/2 BUILDING HEIGHT, EXCEPT, WHEN ABUTTING A RESIDENTIAL OR PUBLIC USE ZONE, THE SETBACK SHALL BE 1/2 BUILDING HEIGHT OR 20 FEET, WHICHEVER IS GREATER.

PARKING INFORMATION

ITEM #	ITEM	REQUIREMENTS	PROPOSED	VARIANCE
1	BUILDING SIZE	NONE REQUIRED	39,071 S.F. FOOTPRINT (113,541 S.F. TOTAL)	NO
2	PARKING REQUIRED BY TOWNSHIP	1 SPACE PER FOUR (4) EMPLOYEES AND 1 SPACE PER 2,500 S.F. (4 EMPLOYEES PROPOSED/ 4 EMPLOYEES=1 SPACES 113,541 S.F./2,500 S.F.= 45 SPACES TOTAL SPACES REQ.= 46 SPACES)	11 SPACES (V)	YES
3	MINIMUM PARKING DIMENSIONS	9 FEET WIDE/19 FEET LONG (90° PARKING)	9 FEET WIDE/ 19 FEET LONG	NO
4	MINIMUM AISLE WIDTH	24 FEET MIN.	24 FEET	NO
5	MINIMUM/MAXIMUM ENTRANCE AND EXIT DRIVEWAY WIDTH	20 FEET MINIMUM (2-WAY) AND 25 FEET MAXIMUM	24 FEET	NO
6	MINIMUM FRONT SETBACK	5 FEET	18.0 FEET	NO
7	MINIMUM SIDE SETBACK	5 FEET	5.3 FEET	NO
8	MINIMUM REAR SETBACK	NONE REQUIRED	N/A	NO
9	LOADING SPACES REQUIRED	3 SPACES	3 SPACES	NO
10	MINIMUM LOADING SPACE DIMENSIONS	10 FEET WIDE X 35 FEET LONG X 12 FEET HIGH	10 FEET X 35 FEET	NO
11	MINIMUM INTERIOR LANDSCAPING	5% OF PARKING AREA SHALL BE LANDSCAPED AND 1 TREE (3" CAL. MIN.) PER 10 PARKING SPACES	5% 2 TREES	NO



REFER TO SHEET GN-1 FOR GENERAL NOTES AND SITE PLAN NOTES

**FOR PERMITTING PURPOSES ONLY
 NOT RELEASED FOR CONSTRUCTION**



ARCHITECTURE
 ENGINEERING
 ENVIRONMENTAL
 LAND SURVEYING

355 Research Parkway
 Meriden, CT 06450
 (203) 630-1406
 (203) 630-2615 Fax

PROPOSED SELF STORAGE FACILITY
 255-257 NEWTONVILLE AVENUE
 NEWTON, MASSACHUSETTS

REVISIONS

No.	Date	Description
1.	2/19/2016	CONSERVATION COMMISSION COMMENTS
2.	2/22/2016	ENGINEERING COMMENTS
3.	2/29/2016	CONSERVATION COMMISSION COMMENTS
4.	4/15/2016	LAND USE HEARING COMMENTS

Designed: A.B.U.
 Drawn: A.B.U.
 Checked: A.B.U.
 Approved: A.B.U.
 Scale: 1"=20'
 Project No: 1502781
 Date: 2/5/2016
 CAD File: SP150278101

Title: **SITE PLAN**

Sheet No.

SP-1

4/15/2016, ALLIUS, C:\WORK\1502781\DWG\SP150278101.DWG, SP-1, 205C, 24236.

