

ADULT USE MARIJUANA ESTABLISHMENT  
SPECIAL PERMIT RENEWAL - SITE PLAN REVIEW  
SANCTUARY MEDICINALS, INC.

234 Taylor Street, Littleton, Massachusetts  
Prepared for Sanctuary Medicinals, Inc.

Littleton Planning Board

DATE OF APPROVAL:	
DATE OF ENDORSEMENT:	

APPLICANT:  
SANCTUARY MEDICINALS, INC.  
234 TAYLOR STREET  
LITTLETON, MA 01460

OWNER:  
  
PREMIER HEALTHCARE GROUP, LLC  
234 TAYLOR STREET  
LITTLETON, MA 01460

PLANNER, LANDSCAPE ARCHITECT,  
CIVIL ENGINEER & SURVEYOR:  
Places Associates, Inc.  
256 Great Road, Suite 4  
Littleton, MA 01460

LITTLETON ASSESSORS DATA  
Map: R9 Parcel: 34

REFERENCES  
Middlesex District Registry of Deeds  
Bk. 47439 Pg. 359  
Plan 1219 of 1979

ZONING  
I-A Industrial A



LOCUS  
SCALE: 1" = 500'

Zoning Conformance Chart  
ZONE: I-A Industrial PROPOSED USE: Industrial  
WR-Water Resource Protection District

CRITERIA	REQUIRED	Pre-EXISTING	AS-BUILT	PROPOSED
LOT AREA	--	6.34± AC	6.34± AC	6.34± AC
FRONTAGE	--	486.5±	486.5±	486.5±
MIN. FRONT SETBACK	80 FEET	147.7±	147.7±	147.7±
MIN. SIDE SETBACK	50 FEET	76.8±	76.8±	50.0±
MIN. REAR SETBACK	50 FEET	223.1±	223.1±	223.1±
MAX. BUILDING HT.	40 FEET	<40'	<40'	<40'
COV. BY STRUCTURES	30% MAX	12.5%	12.5%	17.7%
COV. BY IMPERVIOUS	80% MAX	25.0%	27.0%	33.0%
PARKING SPACES		44	44	67

NOTES:  
1. Water Resource Overlay District limits impervious cover to no more than 50%.  
2. Parking Lease Agreement with Concord Associates Foster Street Trust for 30 additional spaces

PARKING  
Existing spaces = 44 (2 handicapped spaces)  
Proposed spaces = 67 (3 handicapped spaces)  
Total Available parking spaces= 97  
Zoning Requirement: 1 space/1.25 employees on largest shift. (110 employees=88 spaces required)  
Trip generation  
110 employees x 3 trips (1.5 round trips to reflect carpooling)= 330 employee trips (existing)  
Delivery Services= 2 round trips (based on current frequency)  
Total Trips=332 daily trip ends(existing)

EX BLDG AREA=34362 S.F. (SINGLE LEVEL)  
PROP. BUILDING=14,446 S.F. (SINGLE LEVEL)  
TOTAL BUILDING AREA=48,761 S.F.

SHEET INDEX

- SHEET C-1 ..... Existing Conditions and Demolition Plan  
SHEET C-2 ..... Layout and Materials Plan  
SHEET C-3 ..... Proposed Building Expansion Site Plan  
SHEET C-4..... Notes and Legend

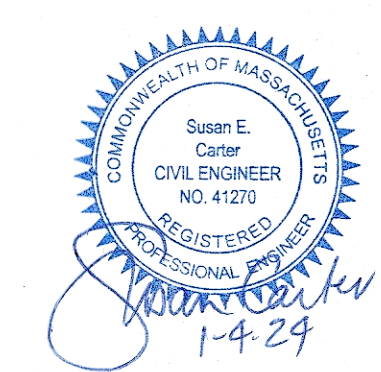
PERMIT SET  
NOT FOR CONSTRUCTION

SANCTUARY  
MEDICINALS, INC.  
COVER

LOCATION: 234 TAYLOR STREET  
TOWN: LITTLETON, MASSACHUSETTS  
PREPARED FOR:  
SANCTUARY  
MEDICINALS, INC.  
SCALE: AS NOTED DATE: JULY 2023

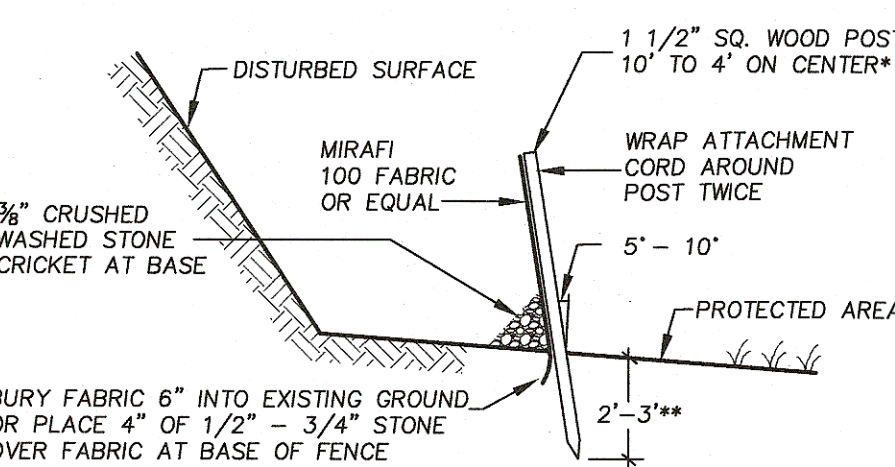
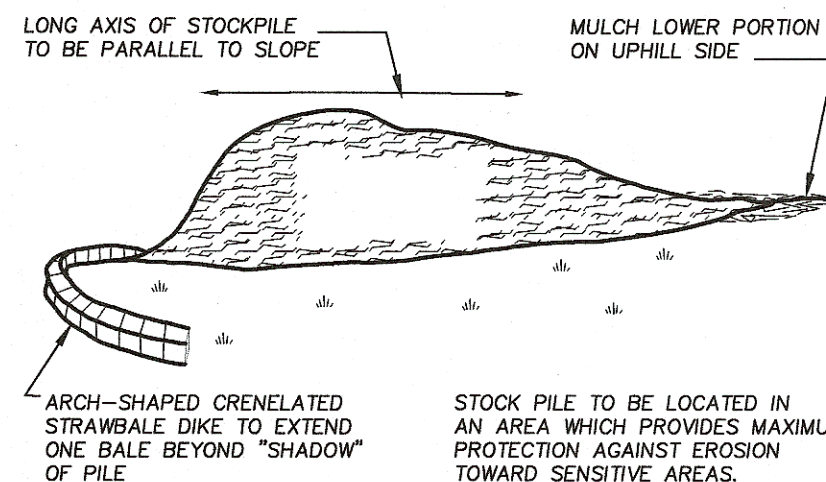
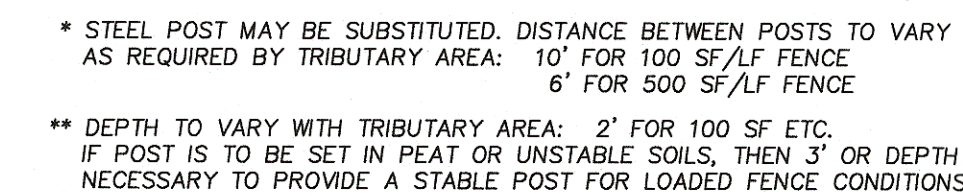
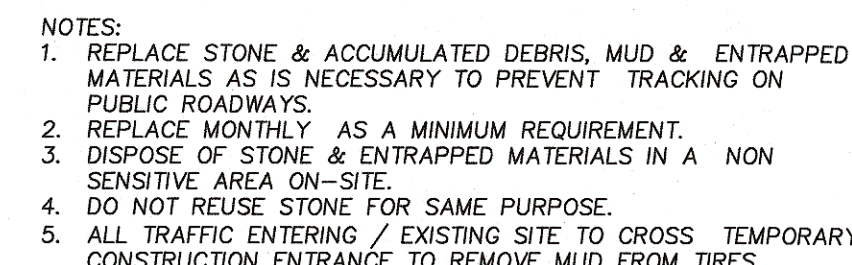
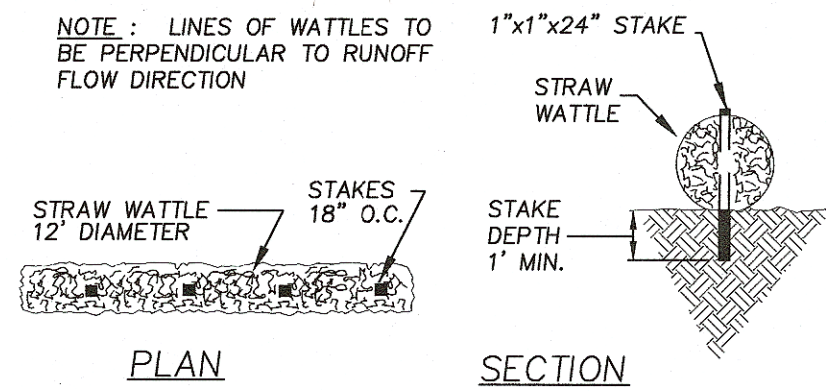
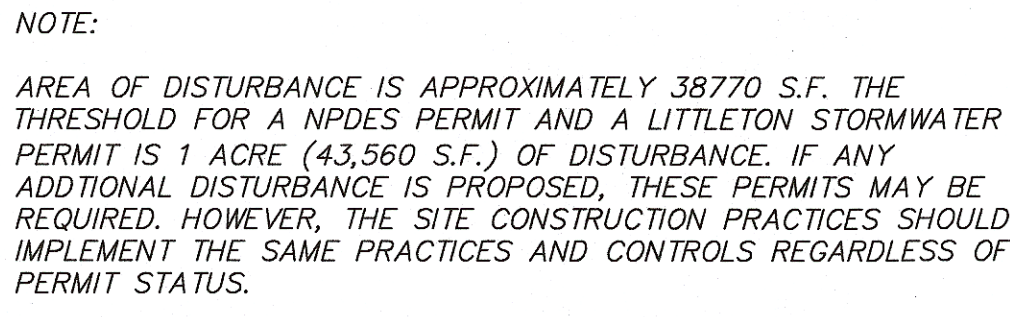
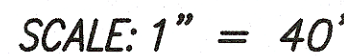
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REVISIONS:  
1-4-24 PER PEER REVIEW





SILT FENCE TO BE USED AT THE TOE OF STEEP SLOPES OR LARGE TRIBUTARY AREAS

- GENERAL:

1. THIS PLAN IS PART OF A SET OF DOCUMENTS THAT ARE TO BE VIEWED AND REVIEWED IN THEIR ENTIRETY. SUCH DOCUMENTS INCLUDE THE CONSTRUCTION SPECIFICATIONS, CONSTRUCTION PLANS AND ANY PERMITS ISSUED BY THE TOWN OR OTHER REGULATORY AGENCIES.
2. THIS IS A PERFORMANCE SPECIFICATION WHICH THE CONTRACTOR SHALL APPLY APPROPRIATE MEANS AND METHODS TO ACHIEVE.
3. EROSION CONTROL MEASURES DESCRIBED HEREIN SHALL ALSO BE APPLICABLE TO INDIVIDUAL LOT DEVELOPMENT.

EROSION CONTROL MEASURES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT EROSION AND SEDIMENTATION ARE CONTROLLED. THIS PLAN SHALL BE ADAPTED TO FIT THE CONTRACTOR'S EQUIPMENT, WEATHER CONDITIONS, AND ANY ORDERS OF CONDITIONS ISSUED BY THE TOWN OR ANY OTHER REGULATORY AGENCY.
2. THE MOST IMPORTANT ASPECTS OF CONTROLLING EROSION AND SEDIMENTATION ARE LIMITING THE EXTENT OF DISTURBANCE, MAINTAINING THE STABILITY OF EXISTING EROSION CONTROL STRUCTURES, AND ENSURING EROSION CONTROL IS THE LIMITING THE SIZE AND LENGTH OF THE TRIBUTARY DRAINAGE AREA WITHIN THE WORK SITE AND DRAINAGE STRUCTURES. THESE FUNDAMENTAL PRINCIPLES SHALL BE THE KEY FACTOR IN THE CONTRACTOR'S CONTROL OF EROSION ON THE SITE.
3. WHILE THE EXISTING CONDITIONS ARE LIMITED TO MINIMAL RUNOFF, THE CONTRACTOR SHALL PLAN FOR AVOIDING CONDITIONS INCLUDING INTENSE RUNOFF OR RUNOFF ON PARTIALLY FROZEN GROUND.
4. THE CONTRACTOR SHALL CONSTRUCT TEMPORARY DIVERSION SWALES AND SETTLING BASINS IN AREAS OF FUTURE CONSTRUCTION. NO CONSTRUCTION IS PERMITTED BEYOND THE LIMIT OF DISTURBANCE DUE TO EXISTING CONSERVATION RESTRICTIONS. THE LIMIT OF DISTURBANCE LINE SHALL BE THE EROSION CONTROL BARRIERS.
5. ALL DISTURBED SURFACES SHALL BE STABILIZED A MINIMUM OF 14 DAYS AFTER CONSTRUCTION IN ANY PORTION OF THE SITE HAS CEASED OR IS TEMPORARILY HALTED UNLESS ADDITIONAL CONSTRUCTION IS REQUIRED TO BE INITIATED.
6. THE CONTRACTOR IS RESPONSIBLE FOR THE MAINTENANCE AND REPAIR OF ALL EROSION CONTROL DEVICES ON-SITE. ALL EROSION CONTROL DEVICES SHALL BE REGULARLY INSPECTED. ANY SEDIMENTS REMOVED FROM THE CONTROL DEVICES SHALL BE DISPOSED OF OUTSIDE OF THE 100' WETLANDS BUFFER ZONE.
7. AT NO TIME SHALL SELF-LOADED WATER BE ALLOWED TO ENTER SENSITIVE AREAS (WETLANDS). EXCESS WATER MAINTAINED WITHIN THE BUFFER ZONE SHALL BE DIVERTED THROUGH SETTLING BASINS AND EROSION CONTROL BARRIERS PRIOR TO ENTERING ANY SENSITIVE AREAS.

PRELIMINARY SITE WORK:

1. MATERIAL REMOVED SHOULD BE STOCKPILED, SEPARATING THE TOPSOIL FOR FUTURE USE ON THE SITE. EROSION CONTROLS SHALL BE UTILIZED ALONG THE DOWNSLOPE SIDE OF THE PILES IF THE PILES ARE TO REMAIN MORE THAN THREE WEEKS OR SUBJECT TO EROSION CONDITIONS SUCH AS INTENSE RAIN, WIND OR OTHER EXPOSURE.
2. STOCKPILES SHALL BE LOCATED AS SPECIFIED HEREIN AND AS REQUIRED, SHOULD ADDITIONAL AREAS BE NEEDED THEY SHALL BE LOCATED WITHIN THE LIMITS OF DISTURBANCE, IN AREAS OF MINIMAL IMPACT. IF A STOCKPILE IS LOCATED ON A SLOPE, THE RUNOFF SHALL BE DIRECTED AWAY FROM THE PILE.
3. IF INTENSE RAINFALL IS ANTICIPATED, THE INSTALLATION OF SUPPLEMENTAL STRAW BALE DICKS, SILT FENCES, OR ARMORED DICKS SHALL BE UTILIZED.

4. IF THE SITE CONSTRUCTION OCCURS AT ANY TIME OTHER THAN THE MAY - NOVEMBER CONSTRUCTION SEASON, TEMPORARY SETTLING BASINS SHALL BE UTILIZED WITH TEMPORARY STABILIZATION UNTIL THE PERMANENT DRAINAGE STRUCTURES CAN BE INSTALLED.

DRAINAGE SYSTEM:

1. THE DRAINAGE SYSTEM SHALL BE INSTALLED FROM THE DOWNSTREAM END UP.
2. A SILT FENCE SHALL BE INSTALLED AT THE OUTFALL OF ALL TEMPORARY BASINS AND SWALES. IT SHALL REMAIN IN PLACE UNTIL ALL TRIBUTARY AREAS ARE STABILIZED.
3. ALL STABILIZED SURFACES, STABILIZED SURFACES, SILT FENCE SHALL BE MONITORED, CLEANED & REPLACED AS NEEDED ON A REGULAR BASIS, TRENCH EXCAVATIONS SHALL BE LIMITED TO THE MINIMUM LENGTH REQUIRED FOR DAILY PIPE INSTALLATION, ALL TRENCHES SHALL BE BACKFILLED AS SOON AS POSSIBLE WITH CLEAN FILL.
4. IF UNSTABLE AREAS ARE ENCOUNTERED DUE TO NATURAL SPRINGS OR GROUNDWATER BREAKOUT, INTERCEPTOR DRAINS SHALL BE INSTALLED TO DIRECT THE RUNOFF INTO THE DRAINAGE SYSTEM. SEE DETAILS.
5. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED AS SOON AS POSSIBLE TO PROTECT THE PARCEL LOT AND ACCESS ROADS AS SOON AS FEASIBLE. THESE AREAS WILL FUNCTION AS A CONDUIT FOR RUNOFF.

INTENSE WEATHER PREPARATIONS:

1. THIS SECTION SPECIFICALLY APPLIES TO ANY RAINFALL EVENTS PREDICTED TO PRODUCE 2" OR MORE OF RAINFALL IN A 24 HOUR PERIOD OR MULTIPLE HIGH INTENSITY BACK TO BACK STORMS OR THE ISSUANCE OF A FLASH FLOOD WATCH.
2. CATCHBASINS SHALL HAVE ADDITIONAL EROSION CONTROL BARRIERS, STONE AND SAND BAGS OR SIMILAR MATERIALS TO CONTAIN AND DIRECT HIGH VELOCITY RAINFALL.
3. WHEN INTENSE RAINFALL IS PREDICTED, THE INLET SEDIMENT DEVICES (SILT-SACK OR SIMILAR), SHALL BE REMOVED AND CONTRACTOR SHALL BE REQUIRED TO REMOVE TO DIRECT RUNOFF TO THE APPROPRIATE STORMWATER BASIN. CLEAN INLET SEDIMENT DEVICES SHALL BE RE-INSTALLED IN THE CATCHBASINS AT THE END OF THE STORM EVENT AFTER ANY SEDIMENT HAS BEEN REMOVED FROM THE ROADWAY.
4. SAND BAGS OR EQUIVALENT SHALL BE INSTALLED IN AN ARC SHAPE, ADJACENT TO CATCHBASINS ON THE DOWN-GRADIENT SIDE TO CONTAIN RUNOFF AND MINIMIZE BYPASS FLOWS. ADDITIONAL SAND BAGS SHALL BE AVAILABLE ON SITE TO ALLOW MODIFICATIONS AS NEEDED DURING THE STORM EVENT TO CONTROL AND CONTAIN RUNOFF.
5. CONSIDERATION SHALL BE GIVEN TO THE INSTALLATION OF CHECK DAMS ALONG SWALES OR DRIVEWAYS TO MINIMIZE EROSION.
6. IF EXPOSED SOILS ARE DIRECTLY ADJACENT TO PAVEMENT ON STEEP SLOPES, A 3' WIDE 3/8"STONE STRIP SHALL BE INSTALLED ON THE SHOULDERS TO MINIMIZE EROSION POTENTIAL OF THE SLOPES, WHERE THE EXPOSED SOILS ARE ADJACENT TO THE SAND BAGS SHALL BE INSTALLED TO CONTAIN RUNOFF WITHIN THE ROADWAY AND DIRECT IT TO CATCHBASINS.
7. IF RILLS OR GULLIES HAVE OCCURRED DURING PREVIOUS RAINFALL EVENTS, CONSIDERATION SHALL BE GIVEN TO EROSION CONTROL MEASURES TO PREVENT FURTHER EROSION.
8. ALL STORMWATER BASINS SHALL BE EVALUATED FOR STABILITY AND VOLUME. IF THE PRE-STORM VOLUME OF WATER IN THE BASIN EXCEEDS ONE-HALF THE TOTAL DEPTH OF THE POND, THE WATER LEVEL SHALL BE REDUCED TO MINIMIZE THE RISK OF FAILURE. IF THE BASIN IS NOT FULLY CONTROLLED, THE CONTRACTOR SHALL CONTROL AREA, PREFERABLY PAVED AREA FLOWING TO A CATCHBASIN WHICH IS NOT TRIBUTARY TO THE BASIN.
9. HIGH INTENSITY RAINFALL EVENT MAY REQUIRE THE CONTRACTOR TO BE PRESENT THROUGHOUT THE STORM TO ADJUST AND CONTROL ANY UNCONTROLLED EROSION TO MINIMIZE ANY BREAKTHROUGH FLOW.

### INSTALLATION OF UTILITIES:

1. CARE SHALL BE TAKEN TO ASSURE THAT THE UTILITY TRENCHES DO NOT CHANNELIZE RUNOFF TOWARDS EXISTING STREETS OR OTHER OFF-SITE AREAS.
2. THE INSTALLATION OF SUBSURFACE UTILITIES AND APPURTENANCES SHALL BE IN ACCORDANCE WITH THE APPLICABLE UTILITY COMPANY SPECIFICATIONS.
3. TRENCH EXCAVATIONS SHALL BE LIMITED TO THE MINIMUM LENGTH REQUIRED FOR DAILY UTILITY INSTALLATION. ALL TRENCHES SHALL BE BACKFILLED AS SOON AS POSSIBLE.

LANDSCAPING:

4. LANDSCAPING SHALL OCCUR AS SOON AS POSSIBLE TO PROVIDE PERMANENT STABILIZATION OF DISTURBED SURFACES.
5. CONTRACTOR SHALL UTILIZE A VARIETY OF SLOPE STABILIZATION METHODS AND MATERIALS WHICH SHALL BE ADJUSTED TO THE SITE CONDITIONS. EROSION CONTROL BLANKETS OR MIRAFI MIRAMAT (OR SIMILAR PRODUCTS) SHALL BE AVAILABLE ON SITE, AND USED ON ANY SLOPES 3:1 OR STEEPER.
6. IF THE SEASON OR ADVERSE WEATHER CONDITIONS DO NOT ALLOW THE ESTABLISHMENT OF VEGETATION, EROSION CONTROL BLANKETS OR MIRAFI MIRAMAT AND CHISEL MULCH SHALL BE PROVIDED.
7. A MINIMUM OF 6" TOPSOIL SHALL BE PLACED AND ITS SURFACE SMOOTHED TO THE SPECIFIED GRADES.
8. SEED APPLICATIONS SHALL BE IN ACCORDANCE WITH THE GRASS AND SLOPE COVER SPECIFICATIONS.

PRE-CONSTRUCTION:

1. AN EROSION CONTROL BARRIER SHALL BE INSTALLED AS DEPICTED ON THE SITE PLAN, BETWEEN THE AREAS TO BE DISTURBED AND WETLAND AREAS. THIS BARRIER SHALL REMAIN IN PLACE UNTIL ALL TRIBUTARY SURFACES HAVE BEEN FULLY STABILIZED. THE EROSION CONTROL BARRIERS AS SHOWN ON THE SITE PLAN ARE THE MINIMUM REQUIRED TO MAINTAIN THE STABILITY OF THE WETLANDS.
2. PHOTOGRAPHS AND/OR VIDEO IMAGES OF THE PRE-CONSTRUCTION CONDITION OF THE SITE AND SURROUNDING AREAS, ESPECIALLY THE ADJACENT STREETS SHALL BE TAKEN, DEVELOPED AND DATED. A COPY OF THESE MATERIALS SHALL BE SUBMITTED TO THE PERMIT GRANTING AUTHORITY AND OWNER FOR THEIR FILES. THESE MATERIALS SHALL BE KEPT ON THE SITE UNTIL THE PROJECT IS COMPLETED. THE PHOTOGRAPHS SHALL BE MARKED TO ENABLE RECOGNITION OF THE AREA BEING PHOTOGRAPHED, AND SHALL REPRESENT A COMPREHENSIVE VIEW OF THE SITE PRIOR TO DEVELOPMENT.
3. MATERIALS SHALL BE STOCKPILED IN A STAGING AREA ON A PORTION OF THE AREA TO BE DISTURBED FOR THE OVERNIGHT STORAGE OF EQUIPMENT AND STOCKPILING OF MATERIALS. THE STAGING AREA SHALL BE OUTSIDE OF THE 100' WETLANDS BUFFER ZONE.
4. IN THE STAGING AREA, THE CONTRACTOR SHALL HAVE A STOCKPILE OF MATERIALS REQUIRED TO CONTROL EROSION. EROSION CONTROL SUPPLEMENT OR REPAIR EROSION CONTROL DEVICES. THESE MATERIALS SHALL INCLUDE, BUT ARE NOT LIMITED TO: STRAWBALES, SILT FENCE AND CRUSHED STONE.
5. A TEMPORARY STONE CONSTRUCTION ENTRANCE IS REQUIRED TO PREVENT TRACKING OF SILT, MUD, ETC. ONTO ADJACENT ROADWAYS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STONE ENTRANCE AS WHEN THE STONE IS SILT LADEN EQUIPMENT IS OBSERVED TO BE TRACKING SILT ONTO THE ROADWAYS.
6. THE CONTRACTOR IS RESPONSIBLE FOR EROSION CONTROL ON SITE AND SHALL UTILIZE EROSION CONTROL DEVICES WHERE APPROPRIATE. MEASURES REGARDLESS OF WHETHER THE MEASURES ARE SPECIFIED HEREIN, ON THE PLAN OR IN ANY ORDER OF CONDITIONS.

GENERAL CONSTRUCTION REQUIREMENTS:

1. ANY REFUELING OF CONSTRUCTION VEHICLES AND EQUIPMENT SHALL TAKE PLACE OUTSIDE OF THE 100 FOOT BUFFER ZONE TO THE ENTRANCE TO THE DRAINAGE SYSTEM AND SHALL NOT BE CONDUCTED IN ORDER TO STORE FUEL IN THE BUFFER ZONE.
2. NO ON-SITE DISPOSAL OF SOLID WASTE, INCLUDING BUILDING MATERIALS IS ALLOWED IN THE 100 FOOT BUFFER ZONE. THE BURIAL OF STUMPS, CONSTRUCTION DEBRIS OR OTHER MATERIALS SHALL NOT BE ALLOWED IN ANYWHERE.
3. NO MATERIALS SHALL BE DISPOSED OF INTO THE WETLANDS OR EXISTING OR PROPOSED DRAINAGE SYSTEMS. ALL CONTRACTORS INCLUDING: CONCRETE SUPPLIERS, PAINTERS AND PLASTERERS, SHALL BE INFORMED THAT THE MATERIALS ARE PROHIBITED IN AREAS WHERE THE WATER-MATERIAL WASH-DRAIN DIRECTLY TO THE SITE DRAINAGE SYSTEMS.
4. CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL WHICH SHALL INCLUDE STREET SWEEPING OF ALL PAVED AREAS, AND CONSTRUCTION AND OFF-SITE AREAS THAT ARE IMPACTED BY SITE CONSTRUCTION ON A REGULAR BASIS, AS NEEDED.
5. ALL SUB-CONTRACTORS SHALL BE NOTIFIED THAT CLEANING OF EQUIPMENT WITHIN THE 100' WETLAND BUFFER ZONE IS NOT PERMITTED. THIS INCLUDES BUT IS NOT LIMITED TO: CONCRETE TRUCKS, PAINTERS, PLASTERERS, ETC.
6. LAND DISTURBANCE OF ONE ACRE OR MORE REQUIRES BOTH A STORMWATER PERMIT FROM THE TOWN OF LITTLETON AND A NPDES GPP FROM THE EPA.

## EXISTING CONDITIONS AND DEMOLITION PLAN

LOCATION: 234 TAYLOR STREET

CITY/TOWN: LITTLETON. MA

PREPARED FOR:

**SANCTUARY MEDICINALS**

SCALE: 1"=40'

DATE: JULY 2023

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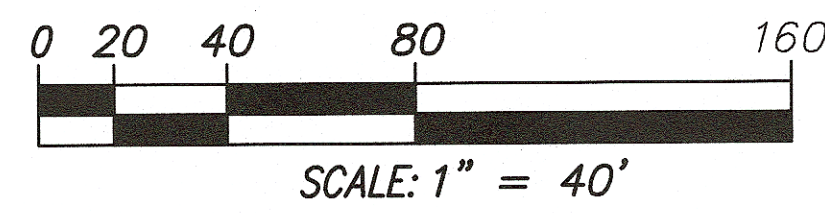
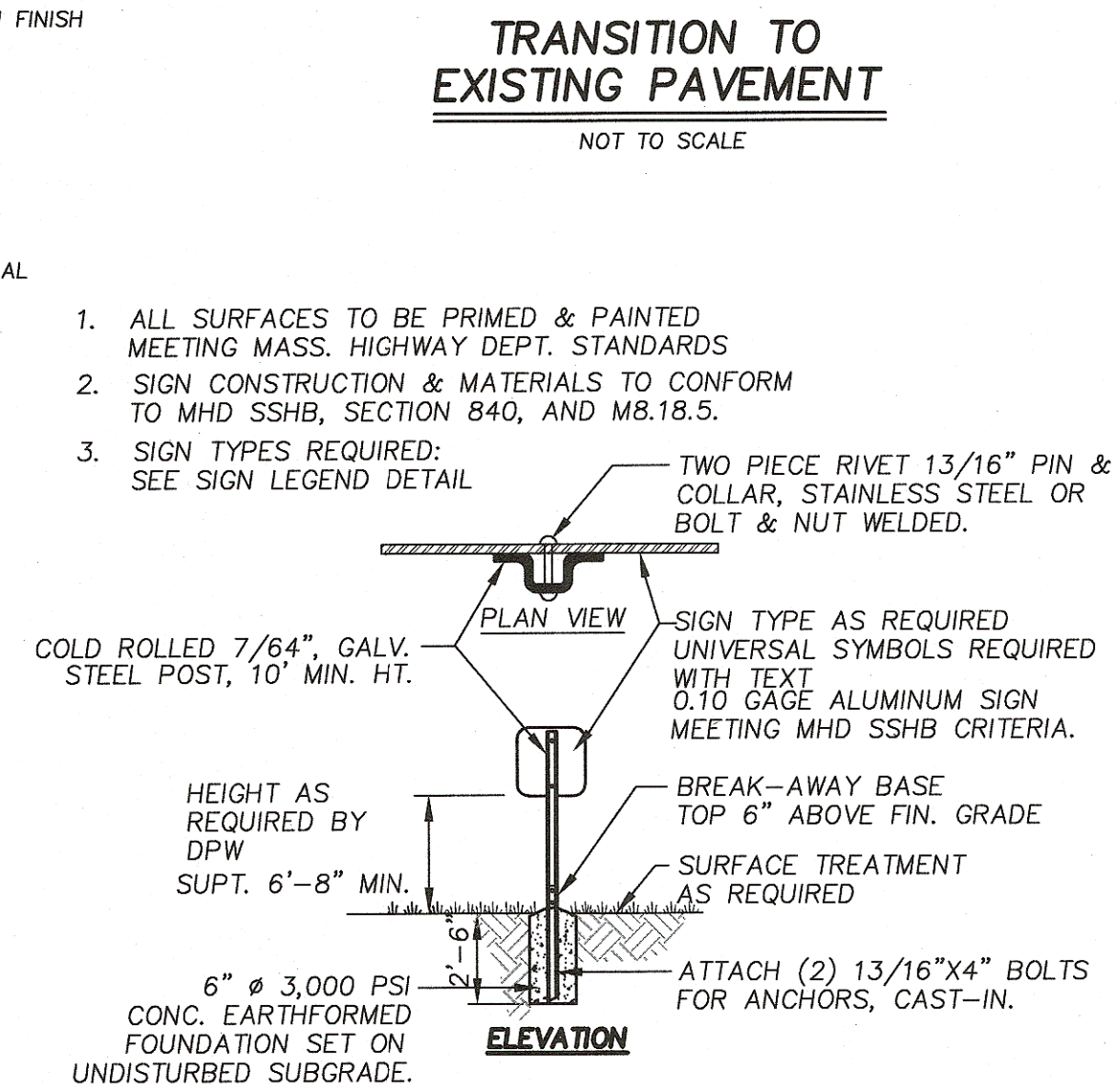
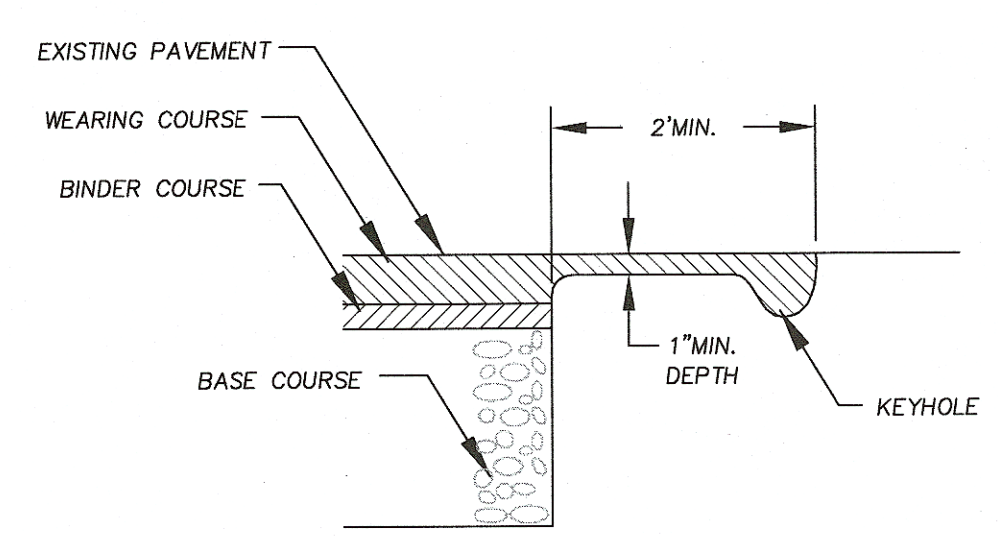
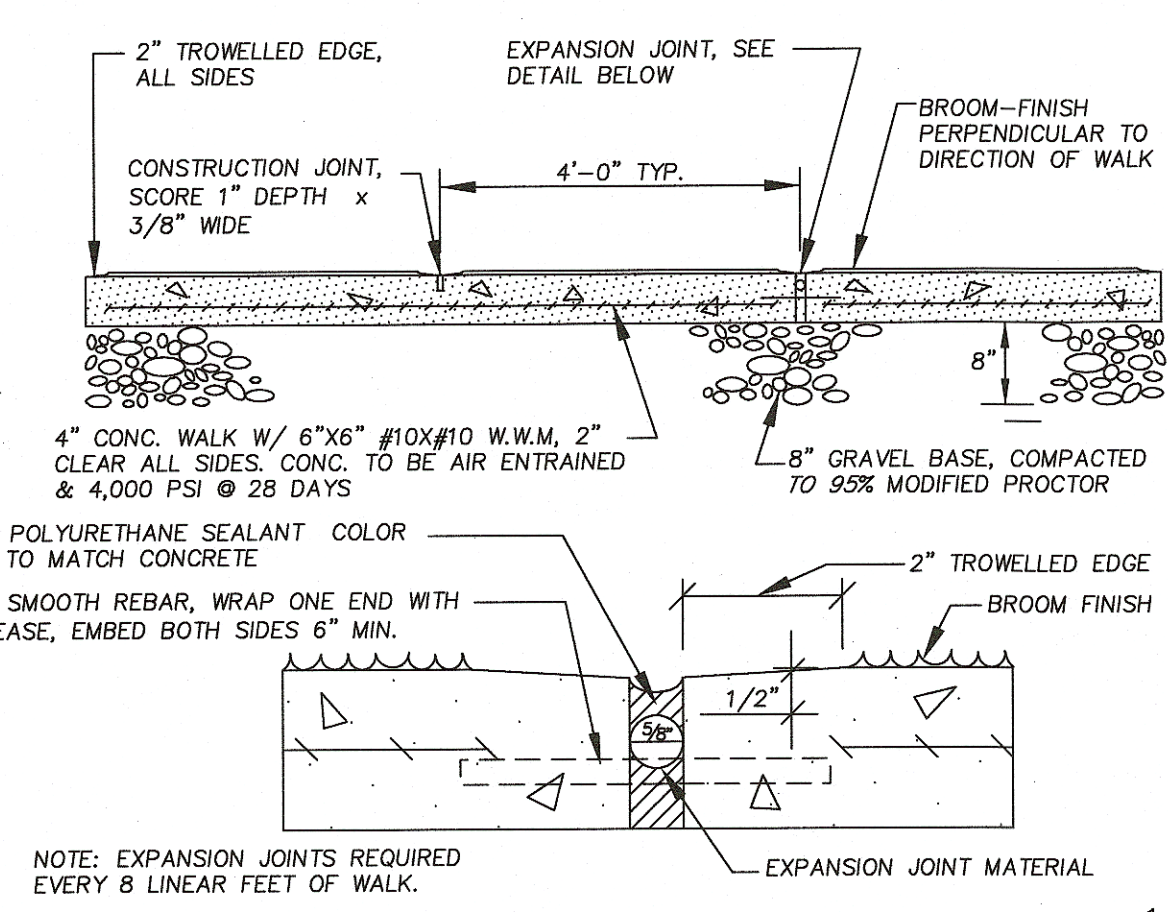
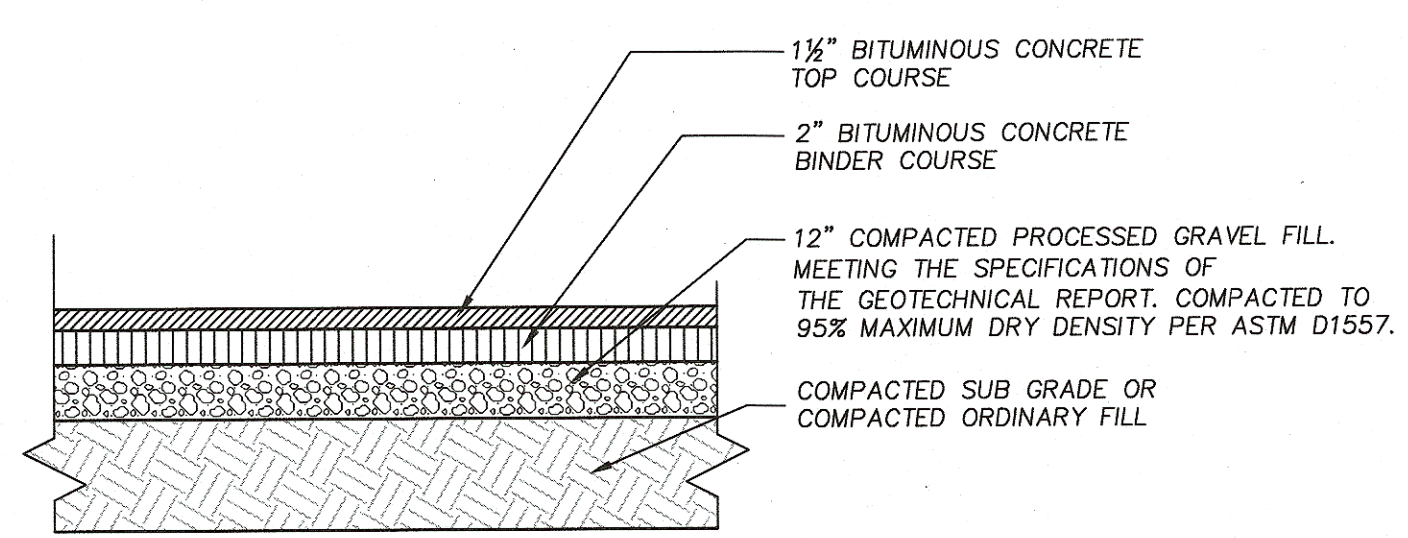
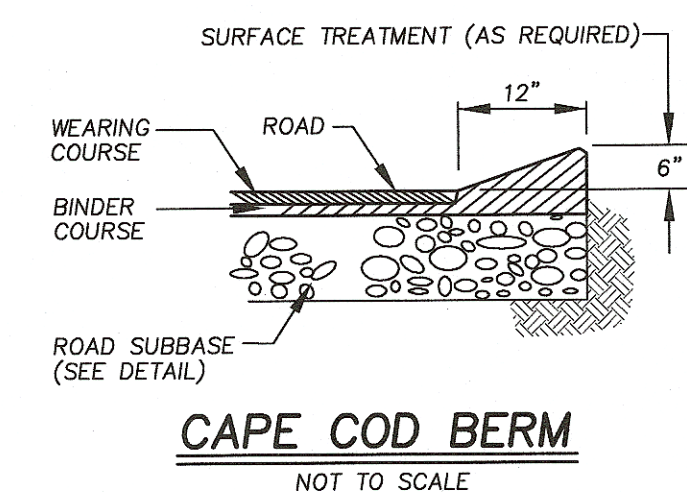
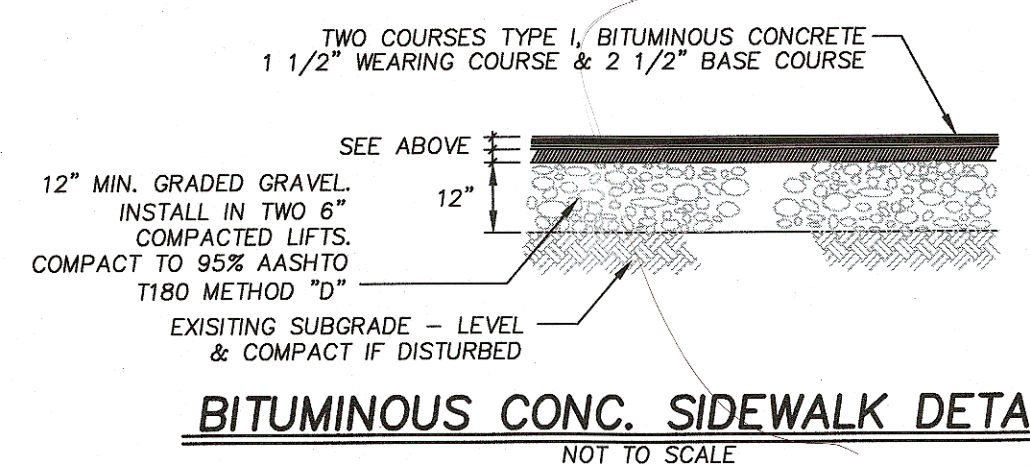
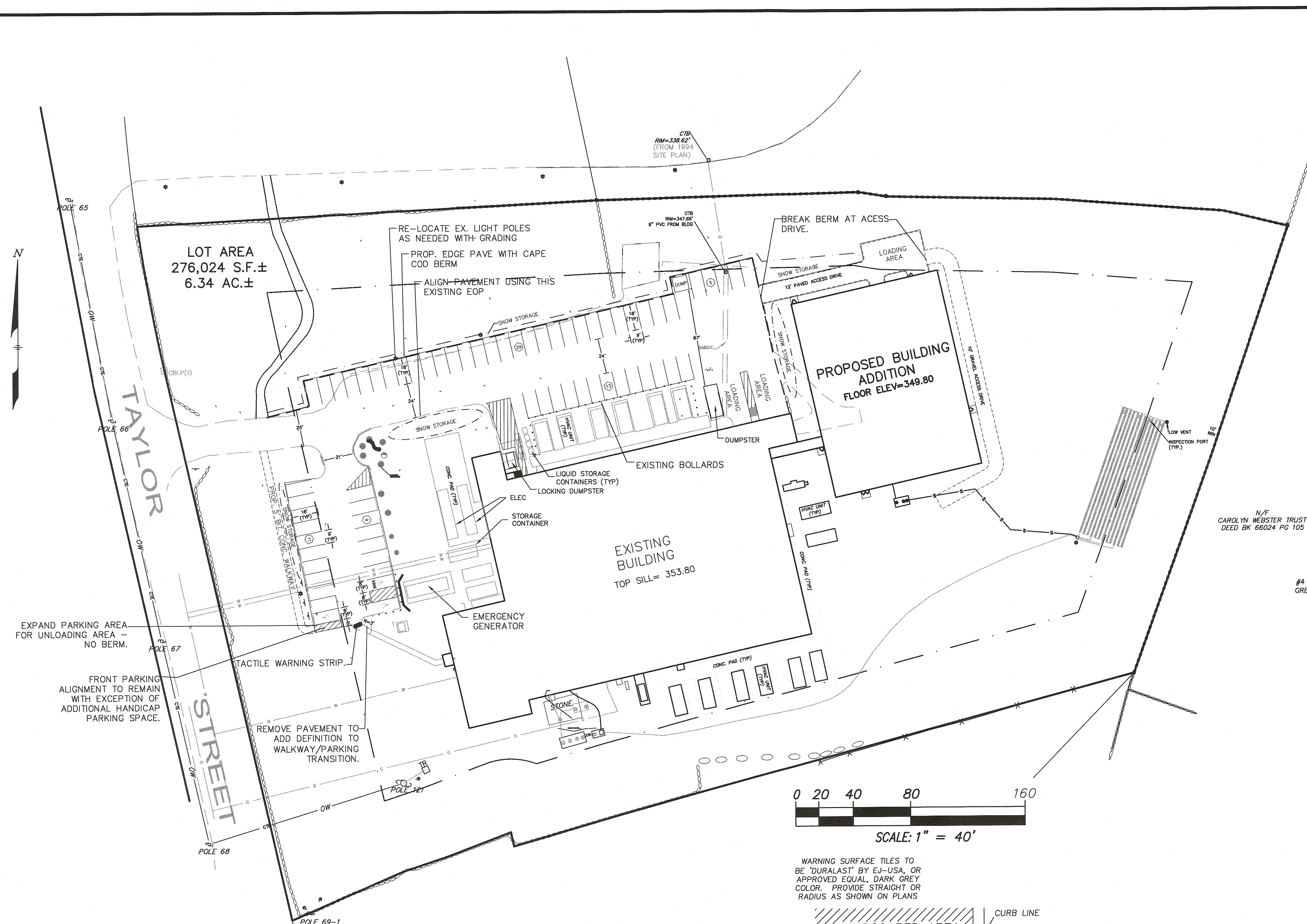

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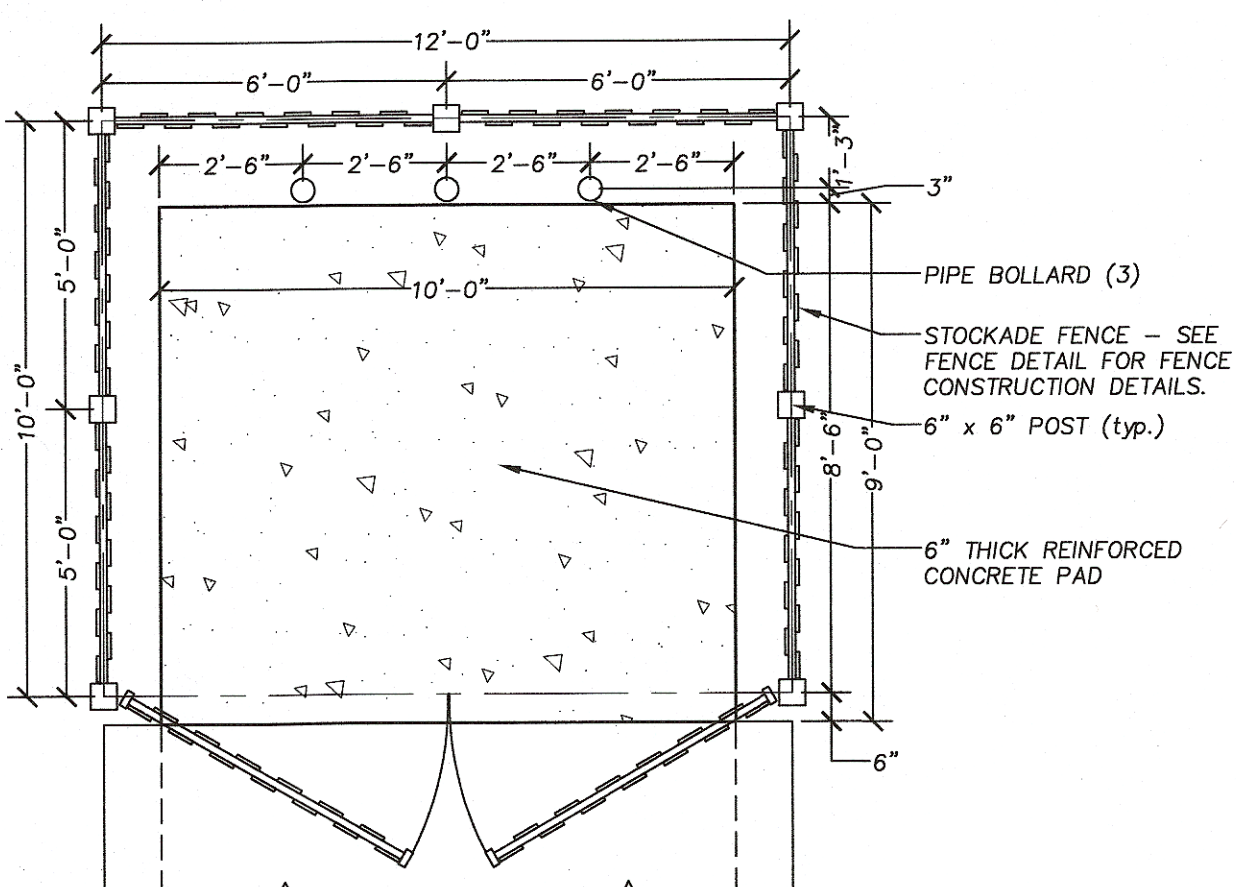
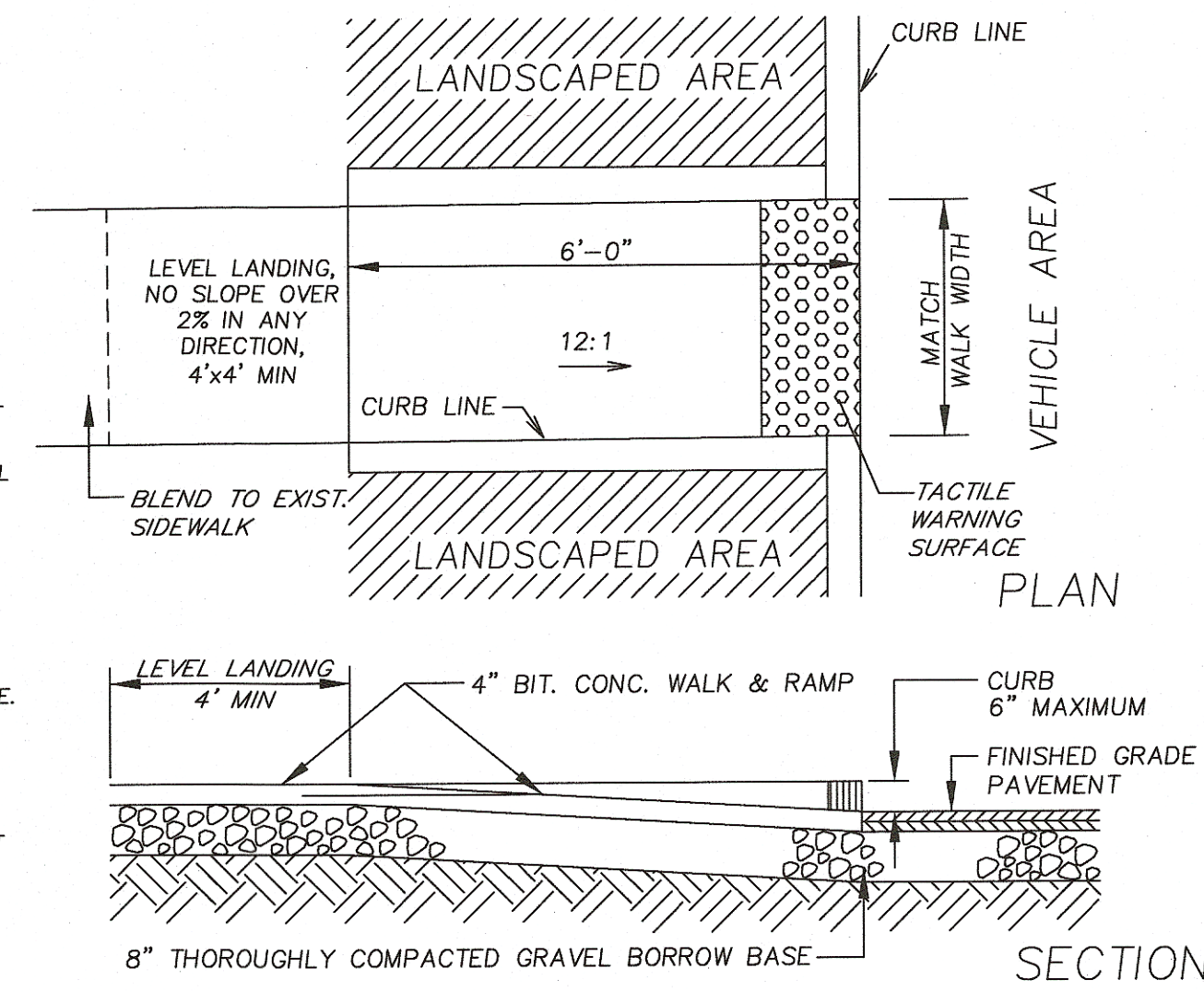
PROJECT No.: 5243

PLAN No.: 5243 C-1





WARNING SURFACE TILES TO BE "DURALAST" BY EJ-USA, OR APPROVED EQUAL, DARK GREY COLOR. PROVIDE STRAIGHT OR RADIUS AS SHOWN ON PLANS



# LAYOUT AND MATERIALS PLAN

LOCATION: 234 TAYLOR STREET  
CITY/TOWN: LITTLETON, MA  
PREPARED FOR:  
**SANCTUARY MEDICINALS**

SCALE: 1"=40' DATE: JULY 2023

**PLACES Associates, Inc.**

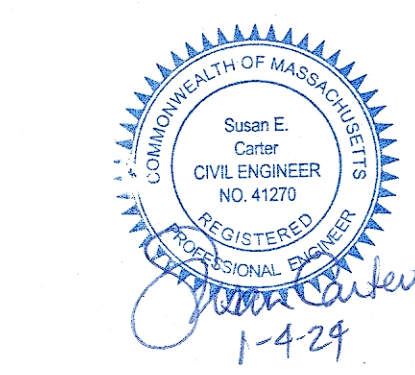
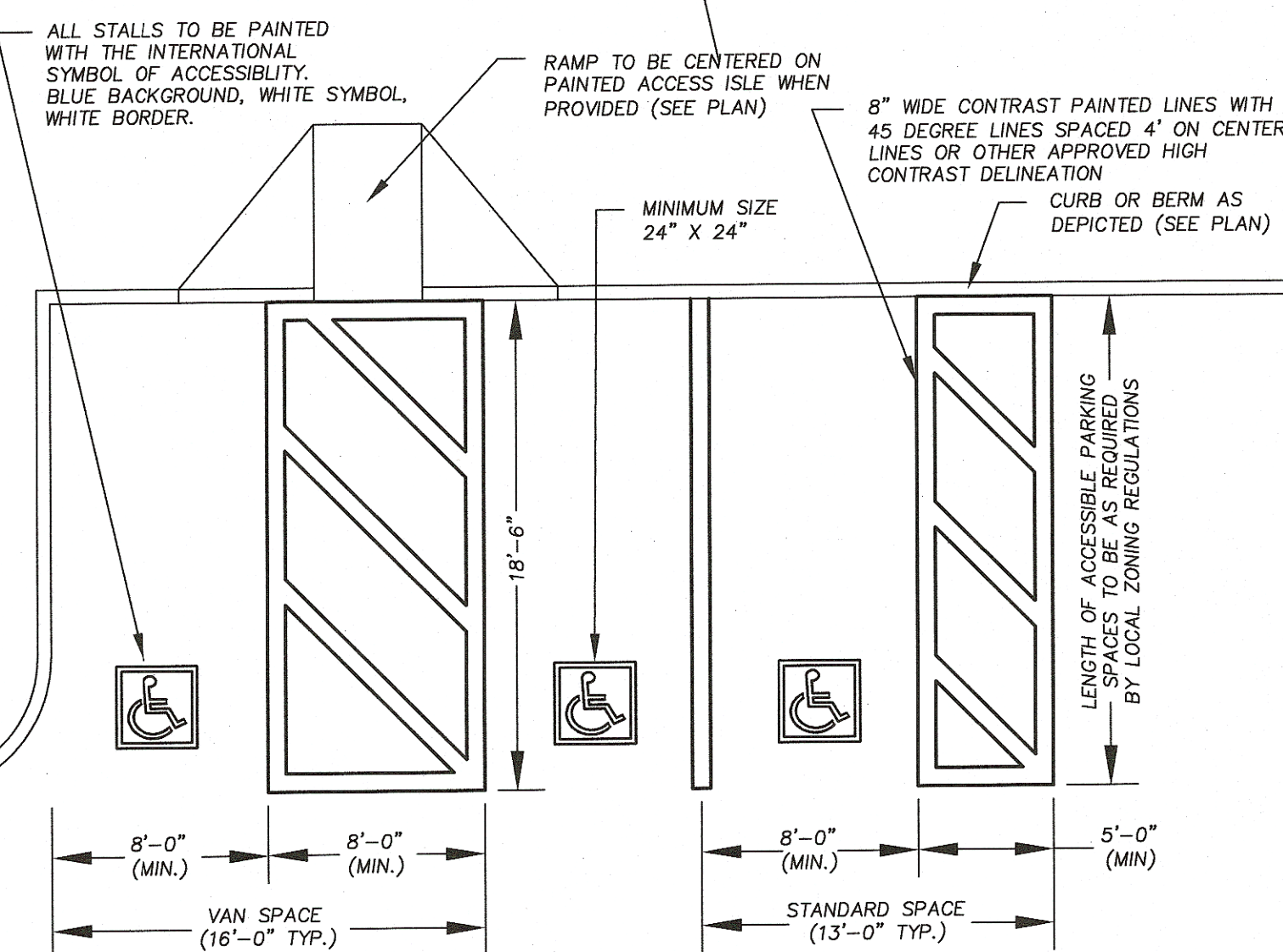
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PROJECT No.: 5243 PLAN No.: 5243 C-2

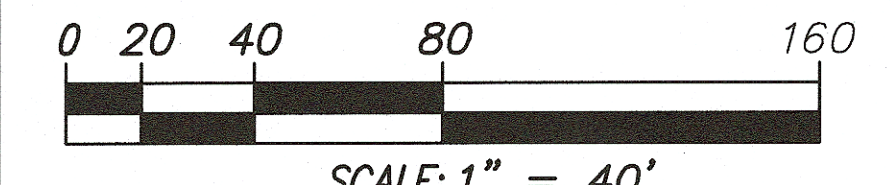
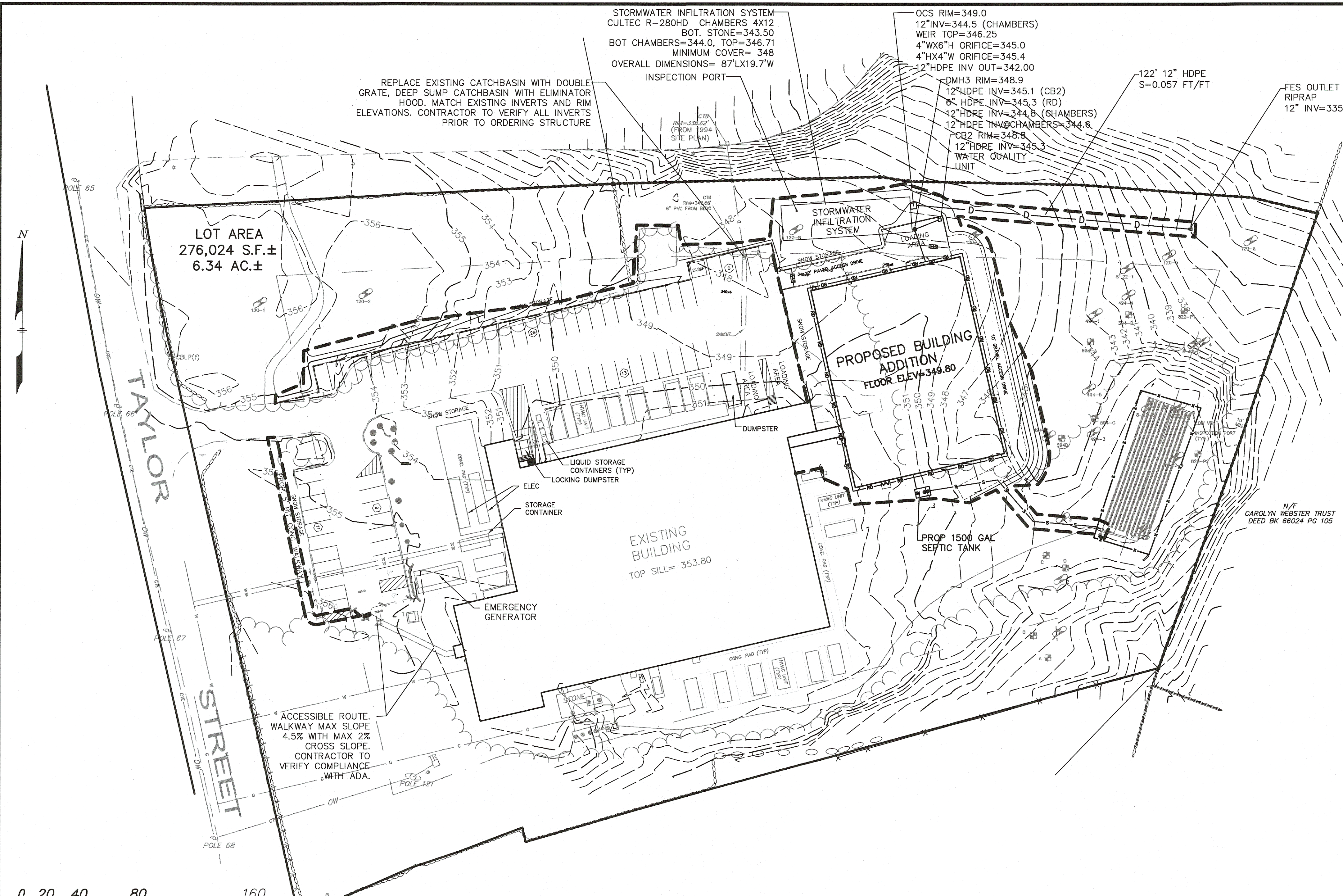
- NOTES:
- 1) PARKING SPACES SHALL MEET THE REQUIREMENTS OF THE CODE OF MASSACHUSETTS REGULATIONS ARCHITECTURAL ACCESS BOARD - 521CMR.
  - 2) PARKING SPACES AND ACCESS ISLES SHALL BE LEVEL WITH SURFACE SLOPES NOT EXCEEDING 1:50 (2%) IN ALL DIRECTIONS.
  - 3) ACCESS ISLES ADJACENT TO ACCESSIBLE PARKING SPACES SHALL BE 5'-0" WIDE MINIMUM, EXCEPT ADJACENT VAN ACCESSIBLE SPACES. THE ACCESS ISLE SHALL BE A MINIMUM 8'-0" WIDE MINIMUM. A MINIMUM OF ONE VAN SPACE SHALL BE PROVIDED PER SITE.
  - 4) TWO ACCESSIBLE SPACES MAY SHARE A COMMON ACCESS ISLE.
  - 5) A SIGN, IDENTIFYING ACCESSIBLE PARKING SPACES AS RESERVED, SHALL BE LOCATED AT THE HEAD OF EACH SPACE AND NO MORE THAN 10'-0" AWAY. THE SIGN SHALL BE AS SPECIFIED BY THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), R28-31 OR APPROVED EQUAL.
  - 6) SIGNS AT THE HEAD OF VAN ACCESSIBLE SPACES SHALL INCLUDE THE WORDS: VAN ACCESSIBLE.

## ACCESSIBLE PARKING SPACES

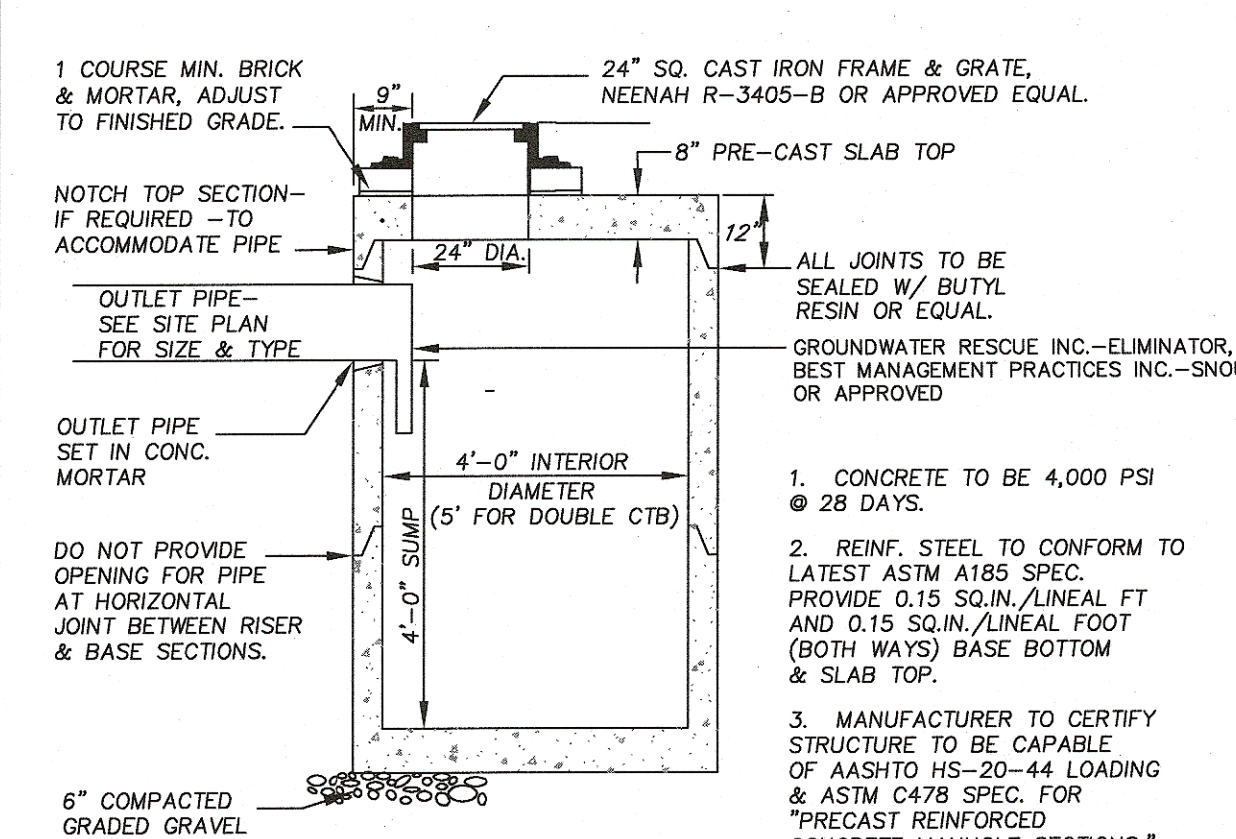


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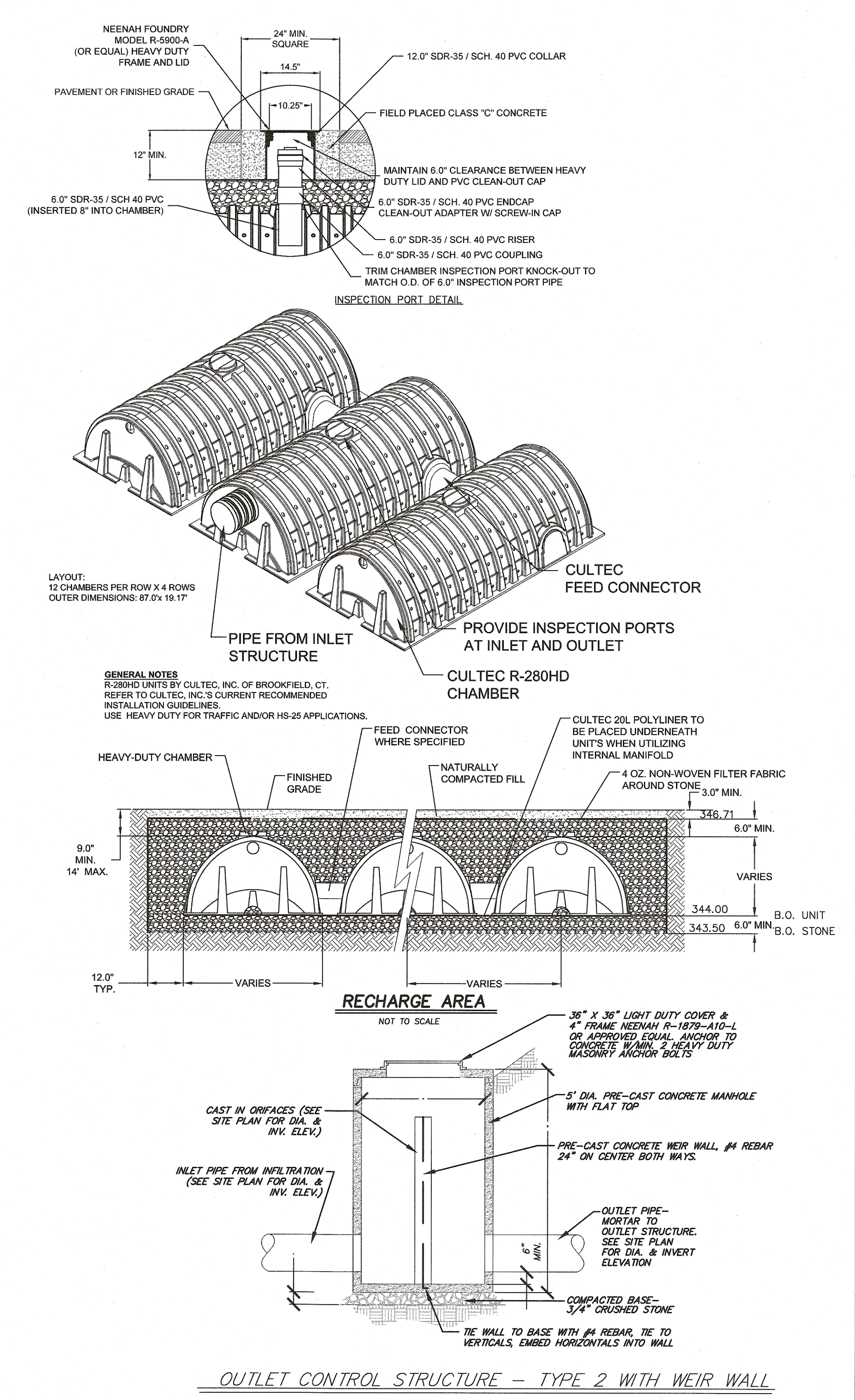
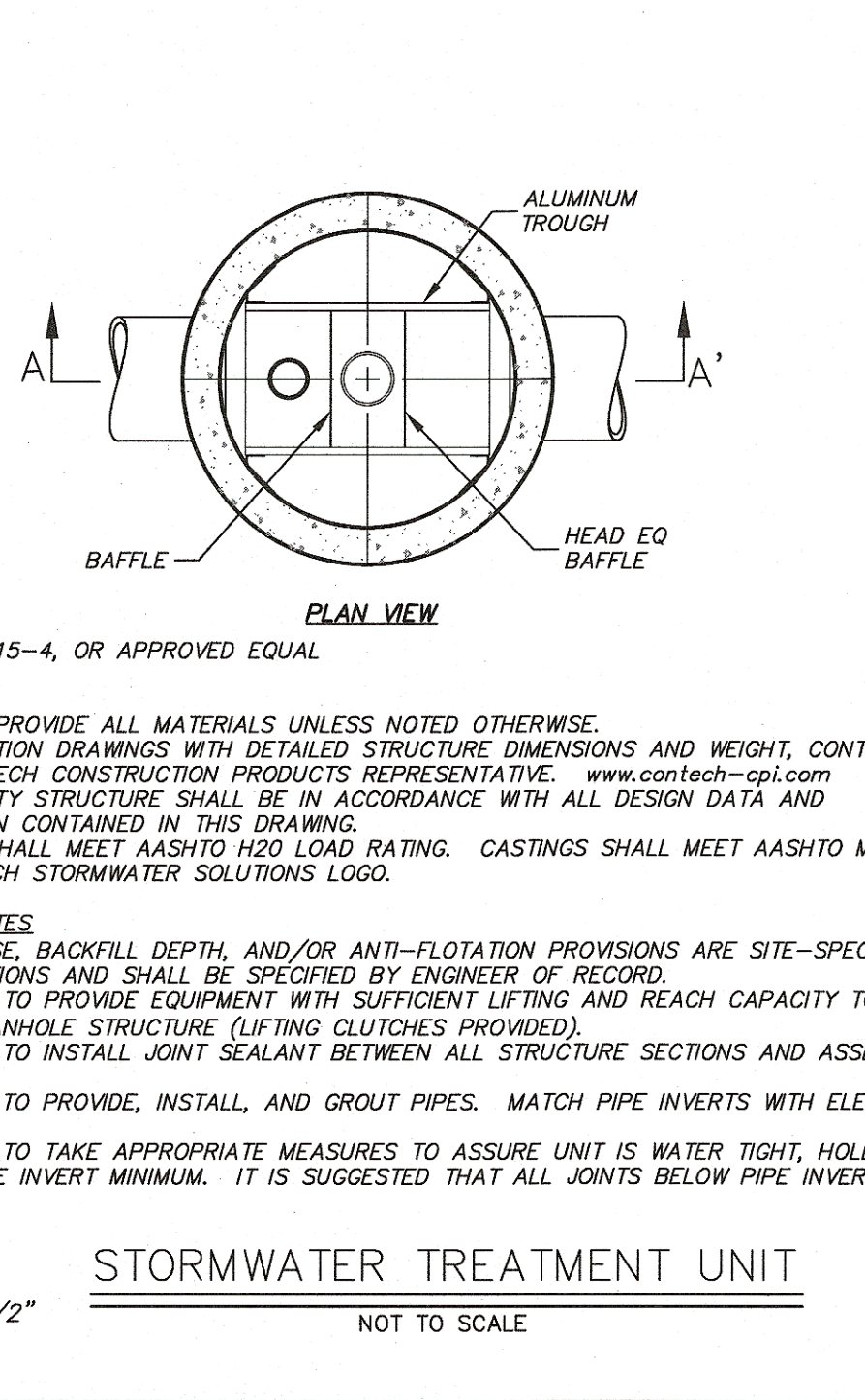
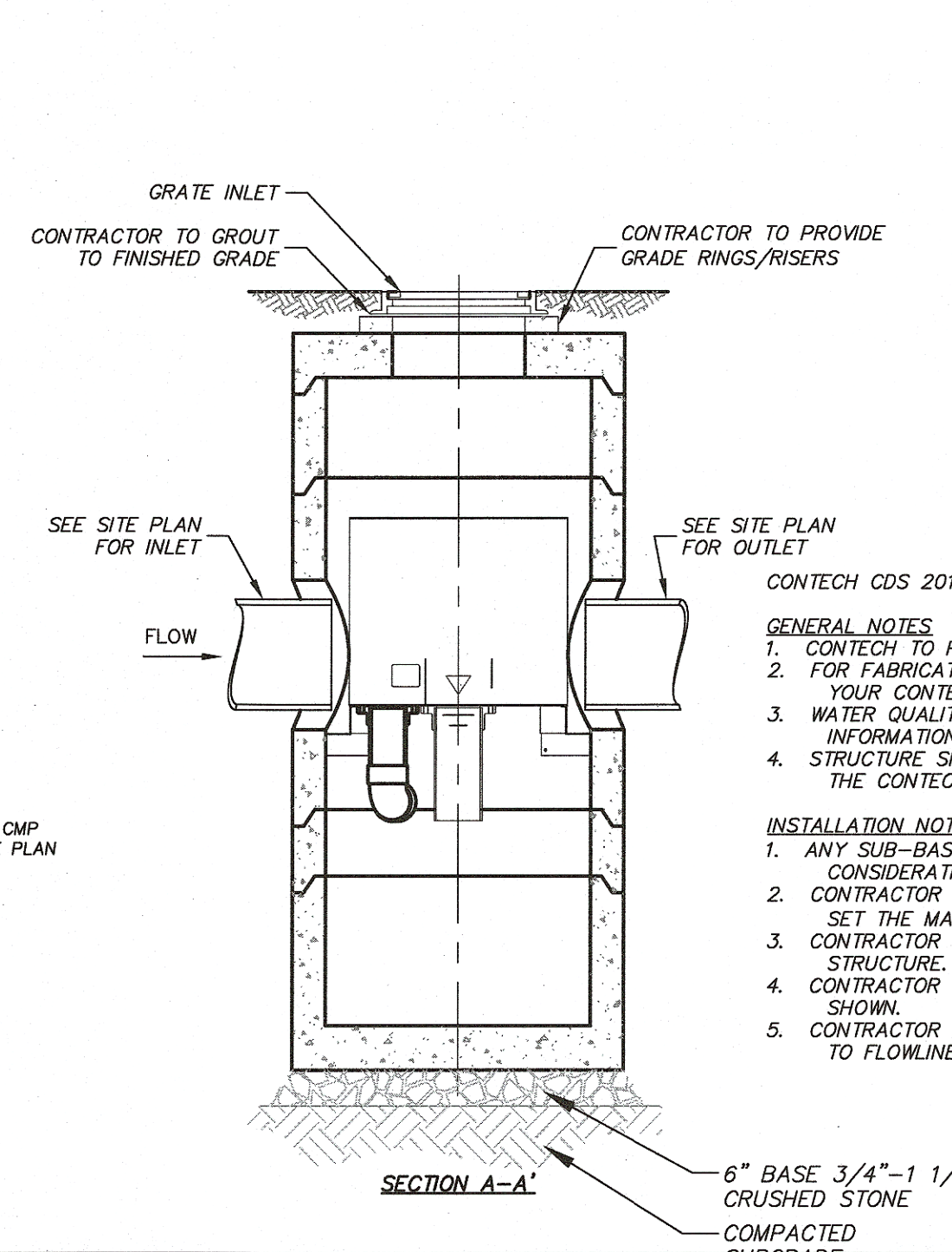
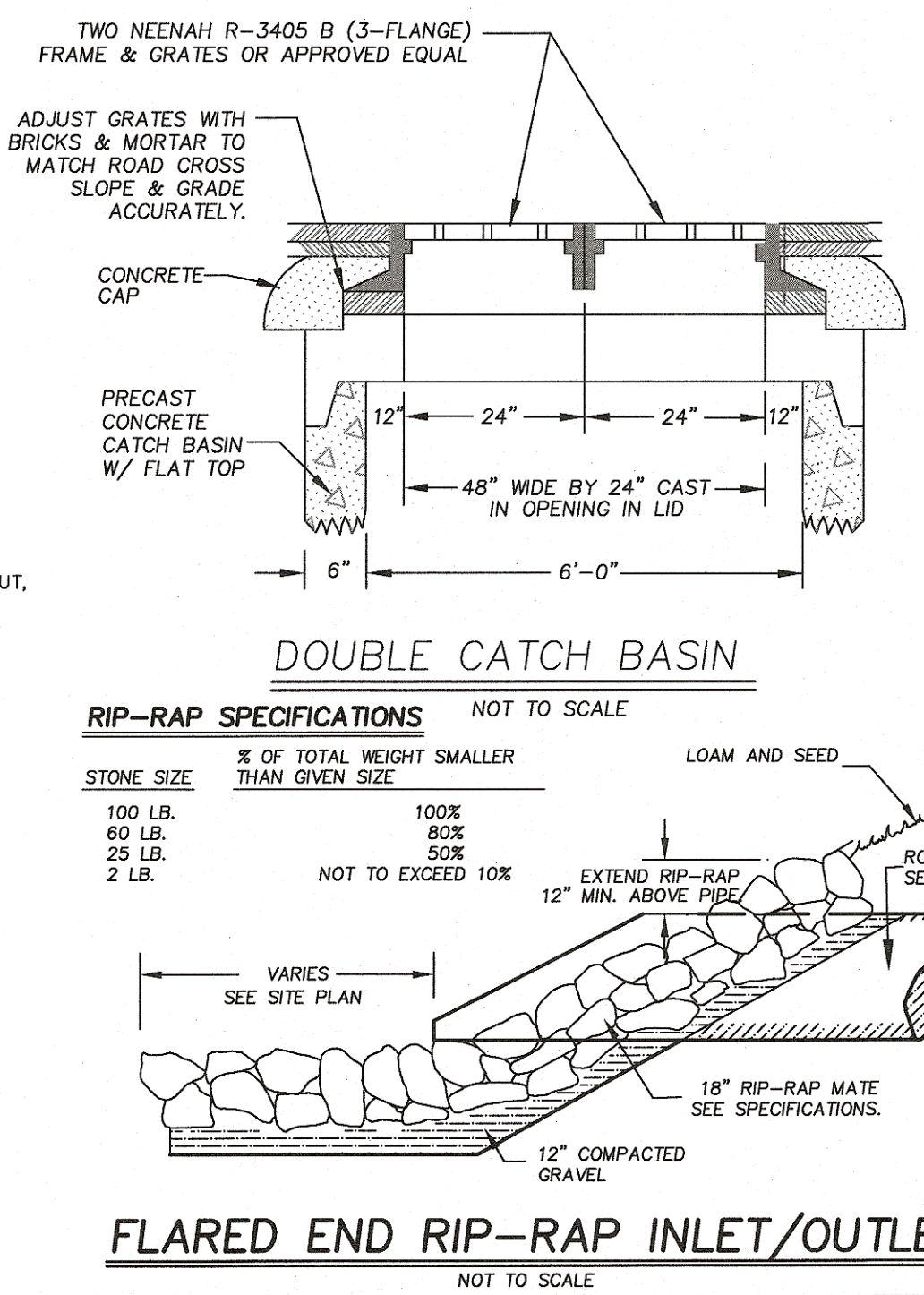




SCALE: 1" = 40'



PRECAST FLAT TOP CATCH BASIN  
NOT TO SCALE - FOR USE WHERE COVER OVER TOP PIPE IS LESS THAN 2'



**PROPOSED BUILDING EXPANSION SITE PLAN**

LOCATION: 234 TAYLOR STREET  
CITY/TOWN: LITTLETON, MA  
PREPARED FOR: **SANCTUARY MEDICINALS**

SCALE: 1"=40' DATE: JULY 2023

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PROJECT No.: 5243 PLAN No.: 5243 C-3



- PRIOR TO THE PREPARATION OF BIDS AND/OR THE INITIATION OF CONSTRUCTION, THE CONTRACTOR SHALL OBTAIN AND CAREFULLY EXAMINE THIS PLAN SET, RELATED CONSTRUCTION PLAN SETS FROM OTHER PROFESSIONAL DISCIPLINES, CONSTRUCTION SPECIFICATIONS, MANUFACTURERS INFORMATION AND ANY APPLICABLE PERMIT REQUIREMENTS/CONDITIONS OF APPROVAL FOR THE PROJECT.
2. THE EXISTING UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE ONLY. DIG SAFE AND THE APPROPRIATE UTILITY COMPANIES SHALL BE CONTACTED BY THE CONTRACTOR PRIOR TO THE INITIATION OF CONSTRUCTION.
3. NOT ALL UTILITIES WERE ABLE TO BE LOCATED BY RECORD INFORMATION, SITE SURVEYS OR UTILITY LOCATOR SERVICES. THE DESIGN ENGINEER AND BASE PLAN SURVEYOR DO NOT ACCEPT ANY RESPONSIBILITY FOR DAMAGES INCURRED AS A RESULT OF UTILITIES OR SUBSURFACE STRUCTURES WHICH ARE OMITTED OR INACCURATELY SHOWN. PRIOR TO THE INITIATION OF WORK, THE CONTRACTOR SHALL VERIFY THE LOCATION/ELEVATION OF EXISTING UTILITIES SHOWN ON THE PLAN.
4. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY UPON THE DISCOVERY OF ANY DISCREPANCY BETWEEN THE LOCATION/ELEVATION OF ANY EXISTING UTILITIES SHOWN ON THE PLANS AND THAT WHICH IS FOUND IN THE FIELD.
5. THE CONTRACTOR SHALL RETAIN THE SERVICES OF A REGISTERED PROFESSIONAL LAND SURVEYOR TO PROVIDE LAYOUT & CONTROL FOR THE DEVELOPMENT OF THE SITE.
6. ALL CONSTRUCTION UNDER AREAS SUBJECT TO VEHICULAR TRAFFIC SHALL BE CONSTRUCTED TO WITHSTAND A DIRECT H20 DESIGN LOAD. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROTECT ALL UTILITY/SITE IMPROVEMENT AREAS UNDER LANDSCAPED/NON-TRAFFIC BEARING AREAS FROM TEMPORARY CONSTRUCTION LOADS DURING CONSTRUCTION.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL ADJACENT PROPERTY FROM DAMAGE. ALL DAMAGES BY THE CONTRACTOR OR SUBCONTRACTORS SHALL BE REPAIRED AT NO COST TO THE OWNER.
8. THE CONTRACTOR SHALL MAINTAIN AND PROTECT ALL EXISTING SURVEY MONUMENTS (BOUNDS, PINS, PIPES, DRILL HOLES, ETC.) THROUGHOUT ALL PHASES OF CONSTRUCTION. ANY DISTURBED MONUMENTS SHALL BE REPLACED BY A REGISTERED PROFESSIONAL LAND SURVEYOR AT THE EXPENSE OF THE CONTRACTOR.
9. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY UPON THE DISCOVERY OF ANY CONTRADICTION, INCOMPLETE OR MISLABELED INFORMATION SHOWN ON THE PLANS OR PLANS PREPARED BY OTHERS. THE CONTRACTOR SHALL ALLOW FOR ADEQUATE TIME FOR THE ENGINEER TO RESPOND/PROVIDE DIRECTION FOR THE PLAN DISCREPANCY.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING SHOP DRAWINGS OF PRODUCTS/MATERIALS TO THE ENGINEER AND/OR THE LOCAL APPROVING AUTHORITY AS REQUIRED IN THE CONSTRUCTION DOCUMENTS OR IF REQUIRED BY THE LOCAL AUTHORITY HAVING JURISDICTION OVER THE PRODUCT. ADEQUATE TIME SHALL BE ALLOWED FOR THE SHOP DRAWINGS TO BE REVIEWED AND RETURNED TO THE CONTRACTOR PRIOR TO ORDERING THE SPECIFIED PRODUCTS/MATERIALS.
11. NO DEBRIS, JUNK, RUBBISH OR OTHER WASTE MATERIALS SHALL BE BURIED, BURNED OR OTHERWISE DISPOSED OF WITHIN THE LIMITS OF THE PROJECT. ALL WASTE, TRASH AND DEBRIS SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN ACCORDANCE WITH APPLICABLE LAWS.
12. UNLESS OTHERWISE SPECIFIED OR SHOWN, ALL CONSTRUCTION METHODS AND MATERIALS SHALL CONFORM TO THE STANDARDS DESCRIBED IN THE TOWN OF LITTLETON'S SUBDIVISION CONTROL REGULATIONS. IF NOT SPECIFIED THEREIN, SUCH CONSTRUCTION SHALL THEN CONFORM TO THE REQUIREMENTS OF THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION (MDOT, FORMERLY MASSHIGHWAY) STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, LATEST VERSION.

**SITE WORK NOTES:**

1. THE LIMITS OF WORK SHALL BE FIELD ESTABLISHED PRIOR TO INITIATION OF ANY CONSTRUCTION, SITE EXPLORATIONS OR EARTHEN DISTURBANCE.
2. EROSION CONTROLS SHALL BE IMPLEMENTED PRIOR TO SITE CLEARING OR DISTURBANCE. SEE EROSION AND SEDIMENTATION CONTROL PLAN.
3. EXCEPT FOR THE SETUP FOR ENTRY TO THE SITE, NO CONSTRUCTION OR CONTRACTOR'S VEHICLES SHALL BE PARKED ON TAYLOR STREET. UNLESS COORDINATED WITH ADJACENT PROPERTY OWNERS, ALL CONSTRUCTION STAGING, STOCKPILE AND PARKING AREAS SHALL BE ONSITE.
4. LOAM SHALL BE STOCKPILED FOR RE-USE ON THE SITE TO THE EXTENT PRACTICAL, SEE EROSION AND SEDIMENTATION CONTROL PLAN.
5. NO DEBRIS, JUNK, RUBBISH OR OTHER WASTE MATERIALS SHALL BE BURIED, BURNED OR OTHERWISE DISPOSED OF WITHIN THE LIMITS OF THE PROJECT. ALL WASTE, TRASH AND DEBRIS SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN ACCORDANCE WITH APPLICABLE LAWS. THE SITE SHALL BE KEPT IN A NEAT AND ORDERLY FASHION.
6. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TRENCH OPERATIONS PERMIT PURSUANT TO THE REQUIREMENTS OF THE TOWN OF LITTLETON AND 520 CMR 14.00 (AKA "JACKIE'S LAW").

BITUMINOUS CONCRETE PAVEMENT	<p>A. ASPHALTIC CONCRETE SHALL BE A STANDARD PLANT-MIXED, HOT-LAID PAVING MATERIAL FOR ROAD WORK, CONSISTING OF CLEAN, CRUSHED ROCK AGGREGATE, PORTLAND CEMENT, AND ASPHALT CONFORMING TO MDOT SPECIFICATIONS, SECTION M.3.11.03, TABLE A.</p> <p>1. BINDER OR BOTTOM COURSE PAVING MEET THE SPECIFICATIONS FOR "HMA BASE COURSE, SHALL HAVE MAXIMUM AGGREGATE SIZE PASSING 2" IN. SIEVE, AND BITUMEN CONTENT = 4.4 TO 4.6%± 1/2% BY WEIGHT.</p> <p>2. TOP OR WEARING COURSE PAVING FOR SHALL BE "HMA SURFACE STANDARD TOP COURSE" HAVING MAXIMUM AGGREGATE SIZE PASSING 5/8 IN. SIEVE, AND BITUMEN CONTENT = 5.9%± 1/2% BY WEIGHT.</p> <p>3. TOP OR WEARING COURSE FOR CAPE COD BERM PAVING FOR SHALL BE "HMA AND BITUMEN MIX" HAVING MAXIMUM AGGREGATE SIZE PASSING 1/2 IN. SIEVE, AND BITUMEN CONTENT = 7.4-7.6%± 1/2% BY WEIGHT.</p> <p>IF RECLAIMED ASPHALT PAVEMENT (RAP) IS USED IN THE MIXTURE, THE PROPORTION OF AGGREGATE TO ASPHALT SHALL BE LIMITED TO A MAXIMUM OF 40% FOR DRUM MIX PLANTS AND 20% FOR MODIFIED BATCH PLANTS.</p>												
CAST IN PLACE CONCRETE	<p>ALL SITE CAST IN PLACE CONCRETE AND RELATED REINFORCING SHALL MEET THE REQUIREMENTS OF THE MASSACHUSETTS STATE BUILDING CODE, THE AMERICAN CONCRETE INSTITUTE (ACI) AND THE AMERICAN SOCIETY OF TESTING AND MATERIALS (ASTM) FOR PRODUCT MATERIALS, FORM WORK, PLACEMENT AND CURING. ALL SITE CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI UNLESS OTHERWISE REQUIRED IN THE CONSTRUCTION DOCUMENTS.</p>												
CONTROLLED DENSITY FILL (CDF)	<p>CONTROL DENSITY FILL SHALL BE A FLOWABLE, SELF-CONSOLIDATING, RIGID SETTING, LOW DENSITY MATERIAL THAT CAN SUBSTITUTE FOR COMPACTED GRAVELS FOR BACKFILLS, FILLS AND STRUCTURAL FILLS. CDF SHALL BE EXCAVATABLE BY HAND TOOLS AND/OR SMALL EQUIPMENT WHEN PLACED AND CURED. CDF SHALL MEET THE REQUIREMENTS OF SSBH M4.0.08, TYPE 2E, AND SHALL MEET THE FOLLOWING REQUIREMENTS:</p> <p>A. CDF IS TO BE BATCHED AT A READY MIX PLANT AND IS TO BE USED AT A HIGH OF 10" OF SLUMP FROM 10" TO 12". IT SHALL BE FLOWABLE AND REQUIRE NO VIBRATION AFTER IT HAS BEEN PLACED.</p> <p>B. CDF SHALL BE A MIXTURE OF PORTLAND CEMENT, FLYASH, SAND AND WATER DESIGNED TO MEET THE CDF REQUIREMENTS. HIGH AIR ENTRAINMENT MAY BE SUBSTITUTED FOR FLYASH WITH AN ADMIXTURES (25%) ADJUSTMENT IN SAND CONTENT.</p> <p>C. CDF MUST MEET THE FOLLOWING STRENGTH REQUIREMENTS:</p> <ul style="list-style-type: none"> <li>-28 DAY COMPRESSIVE STRENGTH: 30-80 PSI</li> <li>-90 DAY COMPRESSIVE STRENGTH: 100 PSI MAX</li> </ul>												
CRUSHED STONE	<p>CRUSHED STONE SHALL BE THE SIZE AS INDICATED ON THE PLANS. THE STONE SHALL BE FROM A STONE QUARRY THAT PRODUCES HARD, ANGULAR DURABLE WASHED STONE FREE FROM DEBRIS AND ORGANIC MATERIALS. THE STONE SHALL MEET THE REQUIREMENTS OF SSBH M2.01.0</p>												
DENSE GRADED CRUSHED STONE	<p>DENSE GRADED CRUSHED STONE SHALL CONSIST OF THE COMBINATION OF CRUSHER-RUN COARSE AGGREGATES (MEETING SSBH M2.01.0) AND FINE AGGREGATES OF NATURAL SAND OR STONE SCREENING UNIFORMLY PREMIXED WITH A PREDETERMINED QUANTITY OF WATER. COARSE AGGREGATE SHALL CONSIST OF HARD, DURABLE PARTICLES OF FRAGMENTED STONE MATERIALS THAT BREAK UP WHEN ALTERNATELY FROZEN AND THAWED OR WETTED AND DRIED SHALL NOT BE USED. FINE AGGREGATE SHALL CONSIST OF NATURAL OR CRUSHED SAND. THE GRADATION/MATERIAL SHALL COMPLY WITH THE SPECIFICATIONS OF SSBH M2.01.7</p>												
GLACIAL TILL	<p>A. GLACIAL TILL: NATURAL INORGANIC SOIL APPLIED BY THE ENGINEER AND MEETING THE FOLLOWING REQUIREMENTS:</p> <p>A. IT SHALL BE FREE OF ORGANIC OR OTHER WEAK OR COMPRESSIBLE MATERIALS, FROZEN MATERIALS AND STONES GREATER THAN TWO INCHES IN MAXIMUM DIMENSION.</p> <p>B. IT SHALL BE A SILT LOAM AS DEFINED BY THE U.S. DEPARTMENT OF AGRICULTURE SOIL TEXTURAL CLASSIFICATION.</p> <p>C. THE SOIL SHALL CONSIST OF GREATER THAN 50% SILT, 12% TO 27% CLAY, OR 50% TO 80% SILT AND LESS THAN 12% CLAY.</p>												
GRAVEL BORROW	<p>GRAVEL BORROW SHALL CONSIST OF INERT MATERIAL THAT IS HARD, DURABLE AND DURABLE, FREE FROM CLAY, SURFACE COATINGS, ORGANIC AND DELERITARIOUS MATERIAL. GRAVEL BORROW SHALL MEET THE REQUIREMENTS OF SSBH M1.03.0. MAXIMUM STONE SIZE SHALL BE AS FOLLOWS:</p> <p>TYPE A: 6" LARGEST DIMENSION</p> <p>TYPE B: 3" LARGEST DIMENSION</p> <p>TYPE C: 2" LARGEST DIMENSION</p>												
LOAM (BORROW)	<p>LOAM SHALL CONSIST OF NATURAL TOPSOIL, FREE FROM SUB-SOIL, OBTAINED FROM AN AREA WHICH HAS NEVER BEEN STRIPPED. LOAM SHALL BE OF UNIFORM QUALITY, FREE FROM HARD CLODS, STIFF CLAY, HARDBAN, SOD, PARTIALLY DISINTEGRATED STONE, LIME, CEMENT, ASHES, SLAG, CONCRETE, TAR RESIDUE, TARRER PAPER, BOARDS, CHIPS OR ANY OTHER UNDESIRABLE MATERIAL.</p> <p>LOAM SHALL CONTAIN BETWEEN 5.5 AND 7.5 PERCENT ORGANIC MATTER AS DETERMINED BY LOSS ON IGNITION OF A MOISTURE-FREE SAMPLE DRIED IN ACCORDANCE WITH THE CURRENT METHOD OF THE ASSOCIATION OF OFFICIAL AGRICULTURAL CHEMISTS.</p> <p>THE ACIDITY RANGE OF THE LOAM SHALL BE PH 6.5 TO PH 7.5 INCLUSIVE.</p> <p>THE MECHANICAL ANALYSIS OF THE SOIL SHALL BE AS FOLLOWS:</p> <table> <tr> <td>U.S. SIEVE SIZE &amp; NUMBER</td><td>PERCENT PASSING MINIMUM</td><td>MAXIMUM</td></tr> <tr> <td>1/4 INCH</td><td>97%</td><td></td></tr> <tr> <td>NO. 100 (SAND)</td><td>49%</td><td>60%</td></tr> <tr> <td>NO. 100 (SILT &amp; CLAY)</td><td>40%</td><td>60%</td></tr> </table>	U.S. SIEVE SIZE & NUMBER	PERCENT PASSING MINIMUM	MAXIMUM	1/4 INCH	97%		NO. 100 (SAND)	49%	60%	NO. 100 (SILT & CLAY)	40%	60%
U.S. SIEVE SIZE & NUMBER	PERCENT PASSING MINIMUM	MAXIMUM											
1/4 INCH	97%												
NO. 100 (SAND)	49%	60%											
NO. 100 (SILT & CLAY)	40%	60%											

THE GENERAL FILLING TO THE SPECIFIED SUB-GRADE. THE MATERIAL SHALL MEET THE FOLLOWING REQUIREMENTS:

- A. IT SHALL BE FREE OF ORGANIC OR OTHER WEAK OR COMPRESSIBLE MATERIAL, OF FROZEN MATERIALS AND OF STONES LARGER THAN 6 INCHES IN MAXIMUM DIMENSION.
- B. IT SHALL BE OF SUCH NATURE & CHARACTER THAT IT CAN BE COMPACTED TO THE SPECIFIED DENSITIES IN A REASONABLE AMOUNT OF TIME.
- C. IT SHALL BE FREE OF HIGHLY PLASTIC CLAYS, OF ALL MATERIALS SUBJECT TO DECAY, DECOMPOSITION, AND OF CINDERS OR OTHER MATERIALS WHICH WILL CORRODE PIPING OR OTHER BURIED MATERIALS.
- D. IT SHALL HAVE A MAXIMUM DRY DENSITY OF NOT LESS THAN 100 POUNDS PER CUBIC FOOT AND LESS THAN 40 % OF THE MATERIAL SHALL PASS THE NUMBER 200 SIEVE.
- E. EXCAVATED ROCK & Boulders smaller than one cubic yard in size may be used in fill areas under lawns only, provided they are a minimum of 24 inches below the subgrade, placed and compacted in layers with no voids and all interstices filled.

RIP RAP

RIP RAP STONE SHALL BE SOUND, DURABLE ROCK, ANGULAR IN SHAPE. RIP RAP SHALL BE FREE FROM DEBRIS, ORGANIC OR DELTERIOUS MATERIAL, ROUNDED STONES, BOULDERS, SANDSTONE OR SIMILAR SOFT STONE OR RELATIVELY THIN SLABS WILL NOT BE PERMITTED UNLESS SPECIFICALLY PERMITTED BY THE DESIGNER. ALL RIP RAP MATERIALS SHALL MEET THE REQUIREMENTS OF SSBH 2.02.0.

SAND BORROW

SAND BORROW SHALL CONSIST OF CLEAN INERT, HARD, DURABLE GRAINS OF QUARTZ OR OTHER HARD DURABLE ROCK, FREE FROM LOAM OR CLAY, SURFACE COATINGS AND OTHER WEAK MATERIALS. THE ALLOWABLE AMOUNT OF MATERIAL PASSING A #200 SIEVE AS DETERMINED BY AASHTO T 11 SHALL % MASS. ALL SAND BORROW SHALL MEET THE REQUIREMENTS NOT EXCEED 10% OF SSBH M1.04.0. MAXIMUM STONE SIZE SHALL BE AS DEPICTED IN THE PLANS.

COMPACTION TESTING

ALL EARTHEN MATERIALS SHALL BE COMPACTED TO THE DRY DENSITY INDICATED IN THE CONSTRUCTION DOCUMENTS AND/OR AS IS REQUIRED BY CODE OR REGULATION. MAXIMUM DRY DENSITY SHALL BE DETERMINED FROM A SAMPLE OF THE MATERIAL TO BE USED AND TESTED IN ACCORDANCE WITH THE MODIFIED PROCTOR DRY DENSITY TEST AS DEFINED IN ASTM D1557, METHOD C. AREAS THAT WERE TESTED AND FOUND TO BE INSUFFICIENTLY COMPACTED SHALL BE RE-TESTED AFTER THE ADDITIONAL COMPACTION HAS BEEN COMPLETED.

STRUCTURAL FILL

STRUCTURAL FILL IS FILL OR REPLACEMENT SOIL MATERIALS LOCATED BELOW AND ADJACENT TO ALL STRUCTURAL FOOTINGS, SLABS AND BUILDINGS, (AS DEFINED BY THE MASSACHUSETTS BUILDING CODE) EXTENDING OUT TEN FEET (10'-0") FROM THE EXTERIOR LIMITS OF SUCH STRUCTURES.

STRUCTURAL FILL SHALL MEET THE FOLLOWING REQUIREMENTS - IN THE ORDER OF PRIORITY:

1. A SITE SPECIFIC GEOTECHNETICAL REPORT, SPECIFICATION OR REQUIREMENT PREPARED BY A MASSACHUSETTS REGISTERED PROFESSIONAL ENGINEER.
2. A STRUCTURAL ENGINEERS REPORT, SPECIFICATIONS OR REQUIREMENTS.
3. AN ARCHITECT'S REPORT, SPECIFICATION OR REQUIREMENTS.
4. CRUSHED STONE BEING 3/4" TO 1 1/2" DIAMETER, MEETING SSBH M2.01.0

**ABBREVIATION DEFINITION**

AASHO AMERICAN ASSOCIATION OF STATE HIGHWAY  
AND TRANSPORTATION OFFICIALS

ABBREVIATION

ABR ACCESSIBLE RAMP - TYPE 1

AR-2 ACCESSIBLE RAMP - TYPE 2

AR-3 ACCESSIBLE RAMP - TYPE 3

ASTM AMERICAN SOCIETY FOR TESTING AND  
MATERIALS

B&B BALL & BURLAP

BC BOTTOM CURB ELEVATION

BIT. CONC. BITUMINOUS CONCRETE

BLDG BUILDING

BM BENCHMARK

CBF BOTTOM RAMP ELEVATION

CALCUL. CALCULATION

CR CONCRETE BOUND

CF CUBIC FOOT

CI CAST IRON PIPE

CMP CORRUGATED METAL PIPE

CONC. CONCRETE

CTB CATCH BASIN

CY CUBIC YARD

DH DRILL HOLE

DI DUCTILE IRON PIPE

DIC DUCTILE IRON CEMENT LINED PIPE

DIA DIAMETER

DWM DRAIN MANHOLE

ELEV ELEVATION

EMH ELECTRIC MANHOLE

EX EXISTING

EXT. EXTERIOR

FDN FOUNDATION

FES FLEARED END SECTION

FFS FINISH FLOOR ELEVATION

FG FINISH GRADE

FND FOUND

FSD FIELD STONE BOUND

FT FEET - LINEAR MEASURE

GAL GALLON

GPM GALLONS PER MINUTE

HDPE HIGH DENSITY POLYETHYLENE PIPE

HPF HIGH POINT

HT HEIGHT

I. PIN IRON PIPE

I. PIPE IRON PIPE

ID INSIDE DIAMETER

INV. PIPE INVERT ELEVATION

LP LOW POINT

MAXX MAXIMUM

MHB MASS HIGHWAY BOUND

MIN. MINIMUM

MUNAL. MUNICIPAL

MUTCD MANUAL OF UNIFORM TRAFFIC CONTROL  
DEVICES

OC ON CENTER

OSD OUTSIDE DIAMETER

OSHA OCCUPATIONAL SAFETY AND HEALTH  
ADMINISTRATION

P&P PLUG & PIN

PSI POUNDS PER SQUARE INCH

PVC POLYVINYL CHLORIDE PIPE

RCP RIGID CONCRETE PIPE

R & S REMOVE & STOCKPILE

REQ. REQUIRED

STB STONE BOUND

SMH SEWER MANHOLE

SPR SPREAD

S&S STAKE & STONE

SSH# STANDARD SPECIFICATIONS OF HIGHWAYS &  
BRIDGES, THE COMMONWEALTH OF  
MASSACHUSETTS DEPARTMENT OF PUBLIC  
WORKS

STV SLOPED TO VERTICAL CURB TRANSITION  
SEGMENT

TEM TEMPORARY BENCH MARK

TC TOP OF CURB ELEVATION

TMH TELEPHONE MANHOLE

TOL TOP OF CONCRETE FOUNDATION ELEVATION

TR TOP OF RAMP ELEVATION

TYP TYPICAL FOR ALL ITEMS SHOWN

UTILE UTILITY

VGTS VERTICAL GRANITE CURB TRANSITION SEGMENT

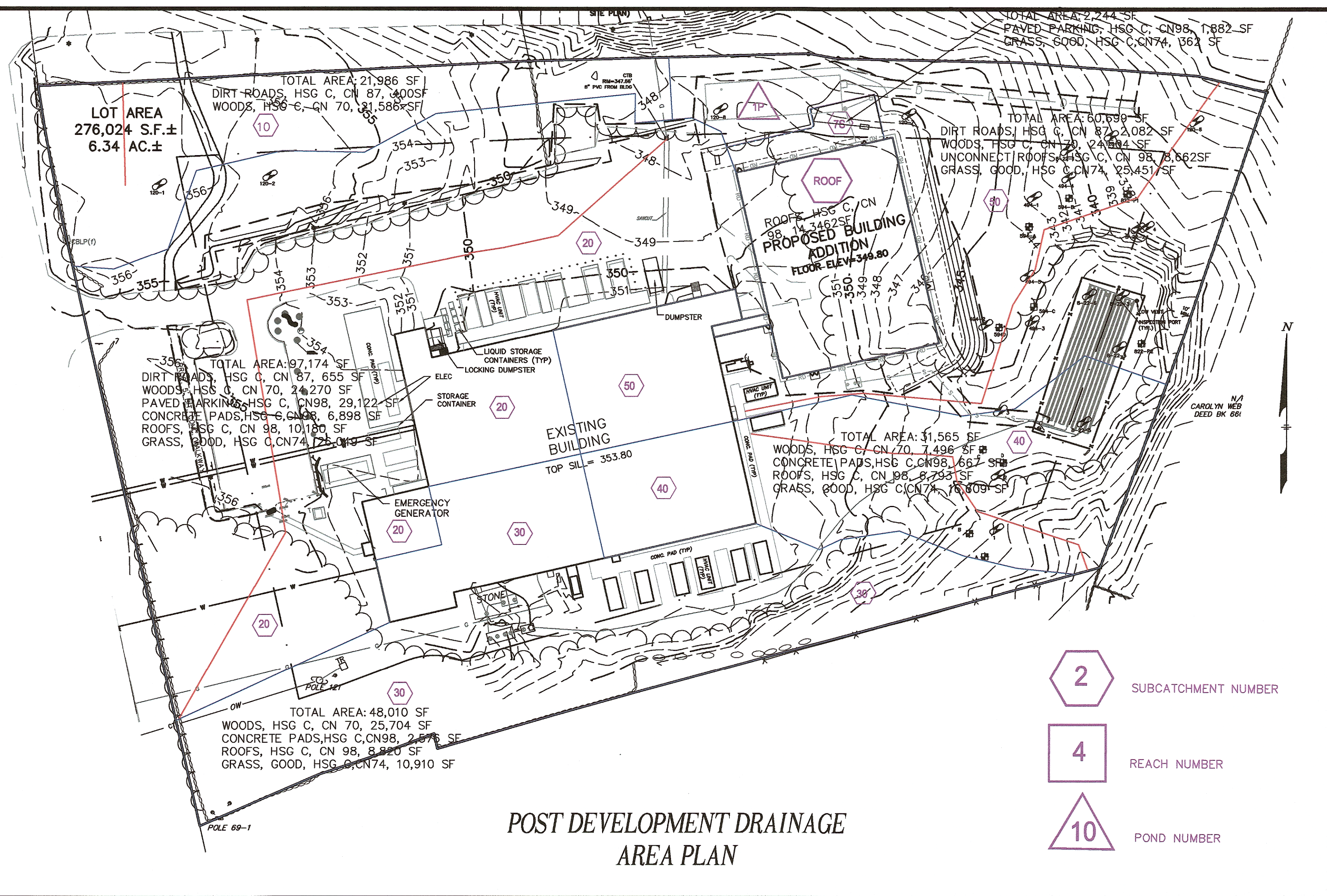
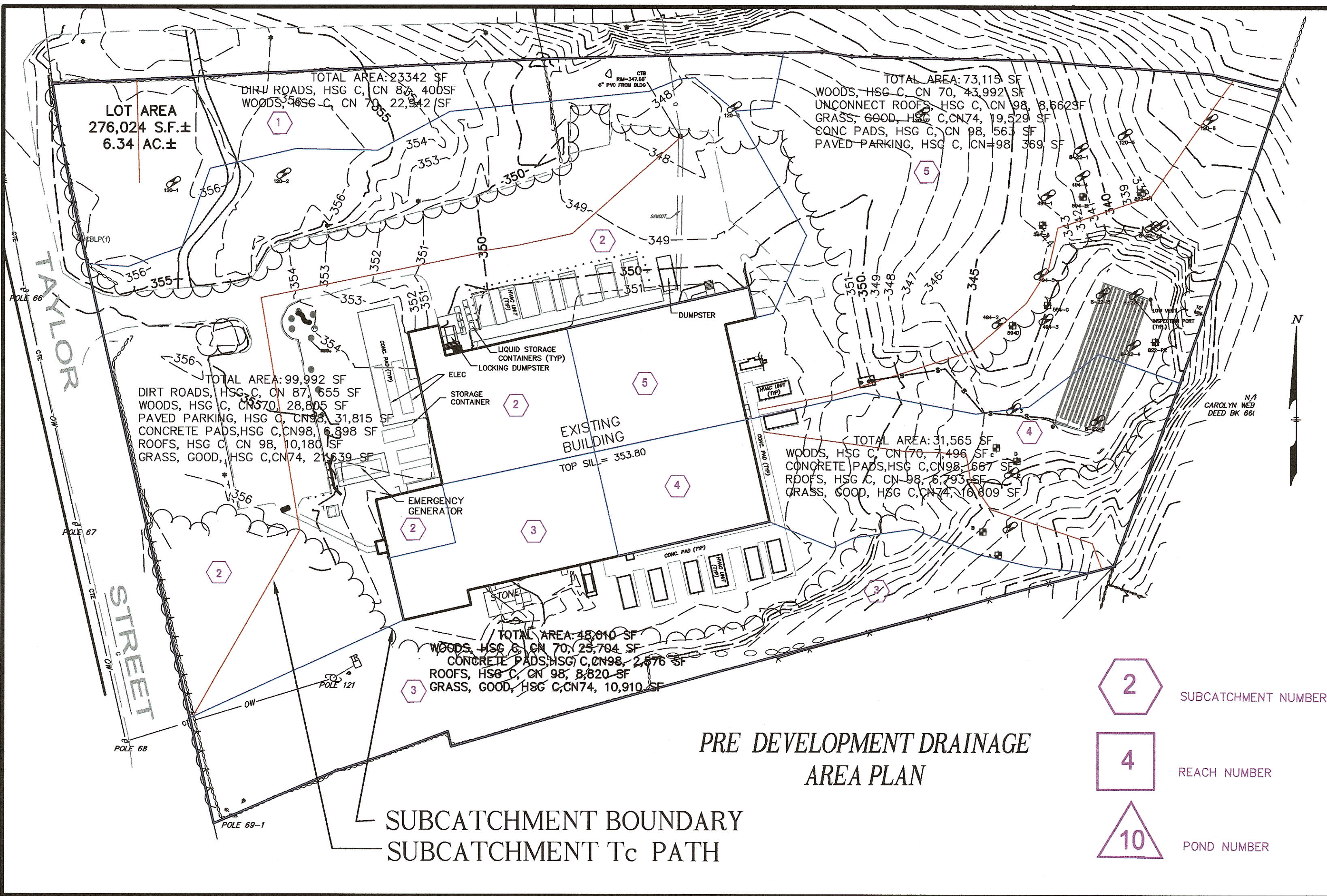
	EXISTING	PROPOSED
INDEX CONTOUR	~100	100
INTERMEDIATE CONTOUR	~99	99
SPOT GRADE	X 100.52	X 100.00
STONE WALL		
EDGE OF WOODS		
EDGE OF WATER BODY		
100 YEAR FLOOD LINE		
EDGE OF WETLAND		
25' BUFFER		
50' BUFFER		
75' BUFFER		
100' BUFFER		
WETLAND		
WETLAND FLAG		WF/CA
RIVERFRONT		
100' RIVER BUFFER		
200' RIVER BUFFER		
SILTATION BARRIER		
BUILDING SETBACK LINE		
WELL		
TREE		
FLAGPOLE		
BOUND		
DRILL HOLE		
IRON PIN		
BENCHMARK		
PERC TEST		
TEST PIT		
SOIL BORING		
EDGE OF GRAVEL		
EDGE OF WALK		
EXPANSION JOINT		
CONSTRUCTION JOINT		
EDGE OF PAVEMENT		
CAPE COD BERM		
BIT CONC. (TYPE 3)		
CONCRETE CURB		
VERT. GRANITE CURB		
SLOPED GRANITE CURB		
STOCKADE FENCE		
CHAIN LINK FENCE		
FENCE - OTHER		
FENCE GATE		
GUARD RAIL		
WOOD GUIDE RAIL		
ROOT BARRIER		RB
SIGN POST		
FOUNDATION DRAIN	FD	FD
ROOF DRAIN	RD	RD
DRAIN LINE	D	D
DRAIN MANHOLE		
CATCHBASIN		
FLARED END IN/OUT		
CLEANOUT	CO	CO
IRRIGATION LINE	IR	IR
FIRE PROTECTION LINE	FP	FP
WATER LINE	WW	WW
WATER VALVE		
FIRE HYDRANT		
WATER SHUTOFF	OWS	OWS
OVERHEAD WIRES	OWH	OWH
UNDERGROUND WIRES	CUE	CUE
GUY POLE		
UTILITY POLE		
GUY ANCHOR		
UTILITY BOX		
STREETLIGHT		
LAMP POST		
ELECTRIC MANHOLE		
TELEPHONE MANHOLE		
SEWER LINE	S	S
SEWER FORCE MAIN	FM	FM
LOW PRESSURE SEWER	LPS	LPS
SEWER MANHOLE		
GAS LINE		
GAS VALVE		

PLAN No.: 5243 C-4

REVISIONS:  
1-4-24 PER PEER REVIEW

REVISIONS:  
1-4-24 PER PEER REVIEW





SOIL TESTING

SOIL PROBE TEST RESULTS 1-14-2020  
PERFORMED BY SUSAN E. CARTER, PE S.E. 341

120-1 (near Taylor Rd)  
0-8" Ap SL 10yr 3/4  
8-24" Bw SL 10yr 5/8  
24-128" C FSL 2.5 y 6/4 friable, 10% cobbles  
93" mottles 7yr 5/8  
No Refusal, NGWO, ESHWT@ 93"

120-2 (near Taylor Rd)  
0-8" Ap SL 10yr 3/4  
8-24" Bw SL 10yr 5/8  
24-128" C FSL 2.5 y 6/4 friable, 10-25% cobbles  
83" mottles 7yr 5/8  
No Refusal, NGWO, ESHWT@ 83"

120-3 (behind 1979 leaching area)  
0-8" Ap SL 10yr 3/4  
8-24" Bw SL 10yr 5/8  
24-135" C SL 2.5 y 6/4 friable, 10-25% cobbles, soils more friable below 60"  
100" possible mottles  
No Refusal, NGWO, ESHWT@ 100"

120-4 (behind 1994 leaching area)  
0-8" Ap SL 10yr 3/4  
8-24" Bw10 SL 10yr 5/8  
24-84" C1 SL 2.5 y 6/4 friable, 50% stone  
84-132" C2 SL 10yr 3/4  
Mottling inconsistent following soil seams between stone  
No Refusal, NGWO

120-5 (behind 1994 leaching area)  
0-8" Ap SL 10yr 3/4  
8-24" Bw10 SL 10yr 5/8  
24-55" C1 SL 2.5 y 6/4 friable  
55-99" C2 SL 2.5 y 6/4 Firm with inconsistent mottling  
99-148" C3 SL 2.5 y 6/4 friable, 20% stone  
GWO@ 129" (seepage) No Refusal, ESHWT @ 99+"

120-6 (near corner of walls at low point of property)  
0-8" Ap SL 10yr 3/4  
8-24" Bw10 SL 10yr 5/8  
24-114" C La 2.5 y 6/4 friable, 10% gravel  
Mottling @ 39" measured in lower side of test hole  
No Refusal, NGWO, ESHWT 39"

120-7 (40' from northerly property line)  
0-8" Ap SL 10yr 3/4  
8-24" Bw10 SL 10yr 5/8  
24-127" C La 2.5 y 6/4  
Mottling @ 72" high and low chrome  
No Refusal, NGWO, ESHWT 72"

120-8 (40' from northerly property line)  
0-8" Ap SL 10yr 3/4  
8-24" Bw10 SL 10yr 5/8  
24-112" C compact SL 2.5 y 6/4  
Possible refusal @ 112" large angular rock, NGWO  
This hole is similar to 120-1 AND 120-2

SOIL TESTING (2022)

PERFORMED BY: WILLIAM E. MURRAY, S.E. 1723  
PLACES ASSOCIATES, INC.  
WITNESSED BY: JAMES GAREFI, R.S. NABOH

Testhole # 822-1 DATE: 8-12-2022 Elevation: 340.6

Depth from Surface (Inches)	Soil Horizon	Soil texture (USDA)	Soil Color (Munsell)	Soil Mottling	Other
0"-12"	Ap	FSL	10YR 3/3		MASSIVE, DRY FRIABLE WITH ROOTS
12"-30"	B	FSL	10YR 5/6		MASSIVE, DRY FRIABLE, GRAD. BORDER
30"-100"	C	FSL	10YR 7/2	48"	MASSIVE, DRY FRIABLE, DRY SWEAT

Groundwater Observed: NONE Refusal @ NONE  
Estimated Seasonal High Groundwater: 48"  
Elevation: 336.6

Testhole # 822-2 DATE: 8-12-2022 Elevation: 339.2

Depth from Surface (Inches)	Soil Horizon	Soil texture (USDA)	Soil Color (Munsell)	Soil Mottling	Other
0"-10"	Ap	FSL	10YR 3/3	NONE	MASSIVE, DRY FRIABLE BORDER CLEAR
10"-24"	B	FSL	10YR 5/6	NONE	MASSIVE, DRY FRIABLE, GRAD. BORDER
24"-106"	C	FSL	10YR 6/3	10YR 5/3	MASSIVE, DRY MOTTLES FINE SAND

Groundwater Observed: NONE Refusal @ NONE  
Estimated Seasonal High Groundwater: 48"  
Elevation: 335.2

PERC P-1 22 MPI @47"

Testhole # 822-3 DATE: 8-12-2022 Elevation: 342.5

Depth from Surface (Inches)	Soil Horizon	Soil texture (USDA)	Soil Color (Munsell)	Soil Mottling	Other
0"-9"	Ap	FSL	10YR 4/2		MASSIVE, DRY FRIABLE BORDER CLEAR
9"-23"	B	FSL	10YR 6/6		MASSIVE, DRY FRIABLE, GRAD. BORDER
23"-120"	C	FSL	10YR 6/3	48"	MASSIVE, DRY

Groundwater Observed: NONE Refusal @ NONE  
Estimated Seasonal High Groundwater: 48"  
Elevation: 337.4

Testhole # 822-4 DATE: 8-12-2022 Elevation: 344.2

Depth from Surface (Inches)	Soil Horizon	Soil texture (USDA)	Soil Color (Munsell)	Soil Mottling	Other
0"-10"	Ap	FSL	10YR 3/3		MASSIVE, DRY FRIABLE BORDER CLEAR
10"-24"	B	FSL	10YR 5/6		MASSIVE, DRY FRIABLE, GRAD. BORDER
24"-84"	C1	FSL	10YR 6/3		MASSIVE, DRY FRACTURE STONE & SOILS
84"-106"	C2	FSL	10YR 6/3		MASSIVE, DRY FRACTURE STONE & SOILS

Groundwater Observed: NONE Refusal @ NONE  
Estimated Seasonal High Groundwater: 50"  
Elevation: 340.0

PERC P-2 28 MPI @44"

Testhole # 822-5 DATE: 8-12-2022 Elevation: 344.5

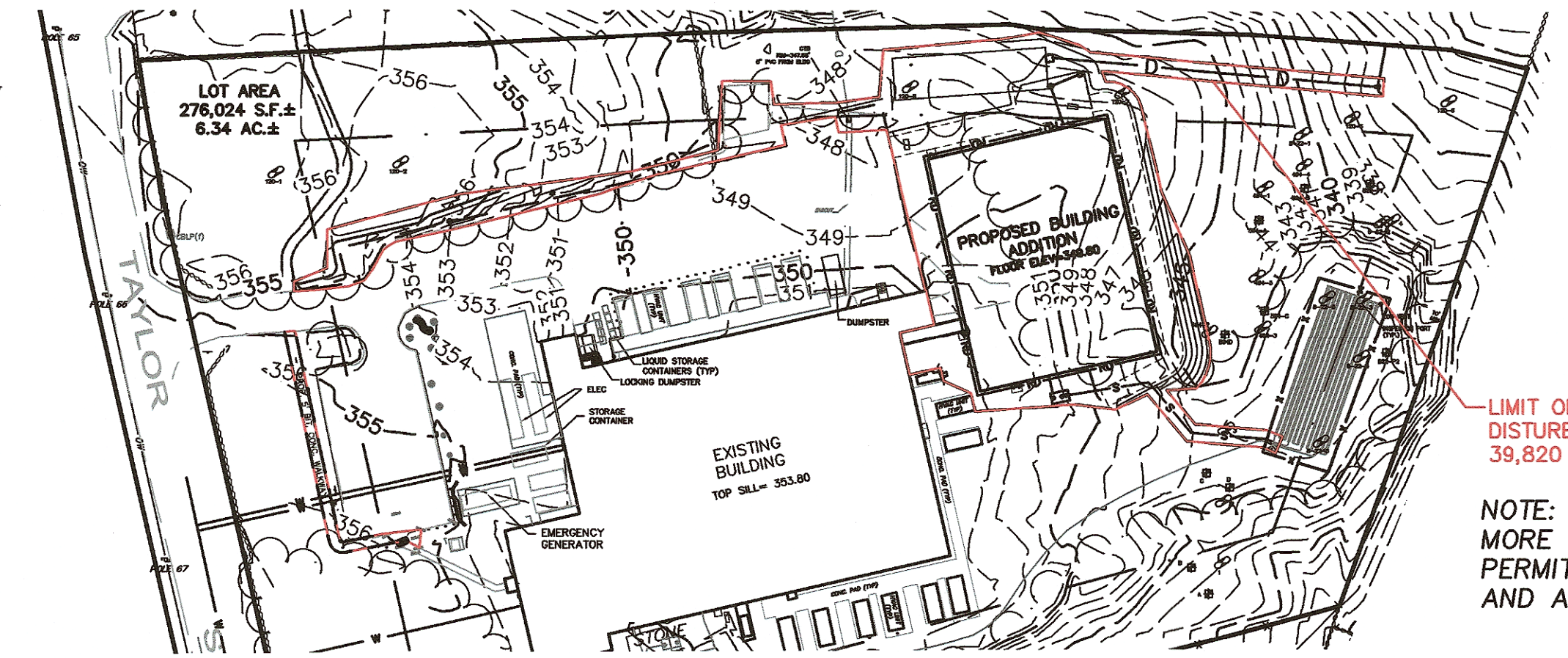
Depth from Surface (Inches)	Soil Horizon	Soil texture (USDA)	Soil Color (Munsell)	Soil Mottling	Other
0"-12"	Ap	FSL	10YR 3/3		MASSIVE, DRY FRIABLE BORDER CLEAR
12"-24"	B	FSL	10YR 5/6		MASSIVE, DRY FRIABLE, GRAD. BORDER
24"-120"	C	FSL	10YR 6/3	48"	MASSIVE, DRY FRIABLE

Groundwater Observed: NONE Refusal @ NONE  
Estimated Seasonal High Groundwater: 48"  
Elevation: 340.5

Testhole # 822-6 DATE: 8-12-2022 Elevation: 342.5

Depth from Surface (Inches)	Soil Horizon	Soil texture (USDA)	Soil Color (Munsell)	Soil Mottling	Other
0"-5"	Ap	FSL	10YR 5/2	NONE	MASSIVE, DRY FRIABLE BORDER CLEAR
5"-26"	B	FSL	10YR 6/4	NONE	MASSIVE, DRY FRIABLE, GRAD. BORDER
26"-93"	C	FSL	10YR 5/3	50"	MASSIVE, DRY FRIABLE

Groundwater Observed: NONE Refusal @ NONE  
Estimated Seasonal High Groundwater: 50"  
Elevation: 338.5



NOTE: LAND DISTURBANCE OF 1 ACRE OR MORE REQUIRES BOTH A STORMWATER PERMIT FROM THE TOWN OF LITTLETON AND A NPDES CGP FROM THE EPA.

PRE AND POST DEVELOPMENT DRAINAGE AREA PLAN

LOCATION: 234 TAYLOR STREET

CITY/TOWN: LITTLETON, MA

PREPARED FOR:

SANCTUARY MEDICINALS

SCALE: 1"=50'

DATE: JULY 2023

PLACES Associates, Inc.

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PROJECT No.: 5243

PLAN No.: 5243 DRAIN

REVISIONS:  
1-4-24 PER PEER REVIEW