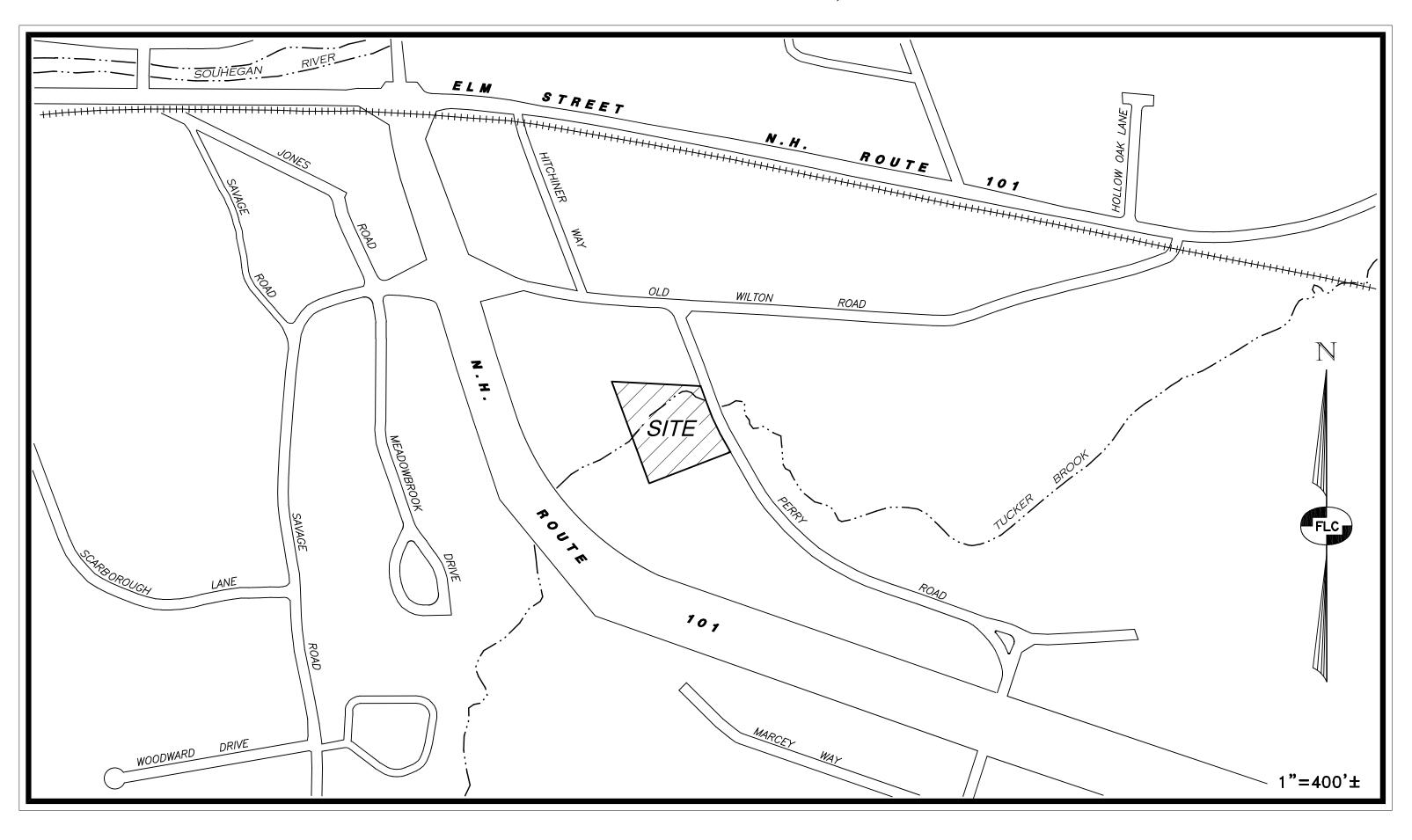
NON-RESIDENTIAL SITE PLAN SET

SELF-STORAGE DEVELOPMENT & BUILDING ADDITION

TAX MAP PARCEL 7-25 - 19 PERRY ROAD

MILFORD, NEW HAMPSHIRE

APRIL 30, 2019 LAST REVISED: MAY 2, 2019



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Signature:

PREPARED FOR AND LAND OF: WILLIAM T. MAHAR

19 PERRY ROAD MILFORD, NH 03055-4308





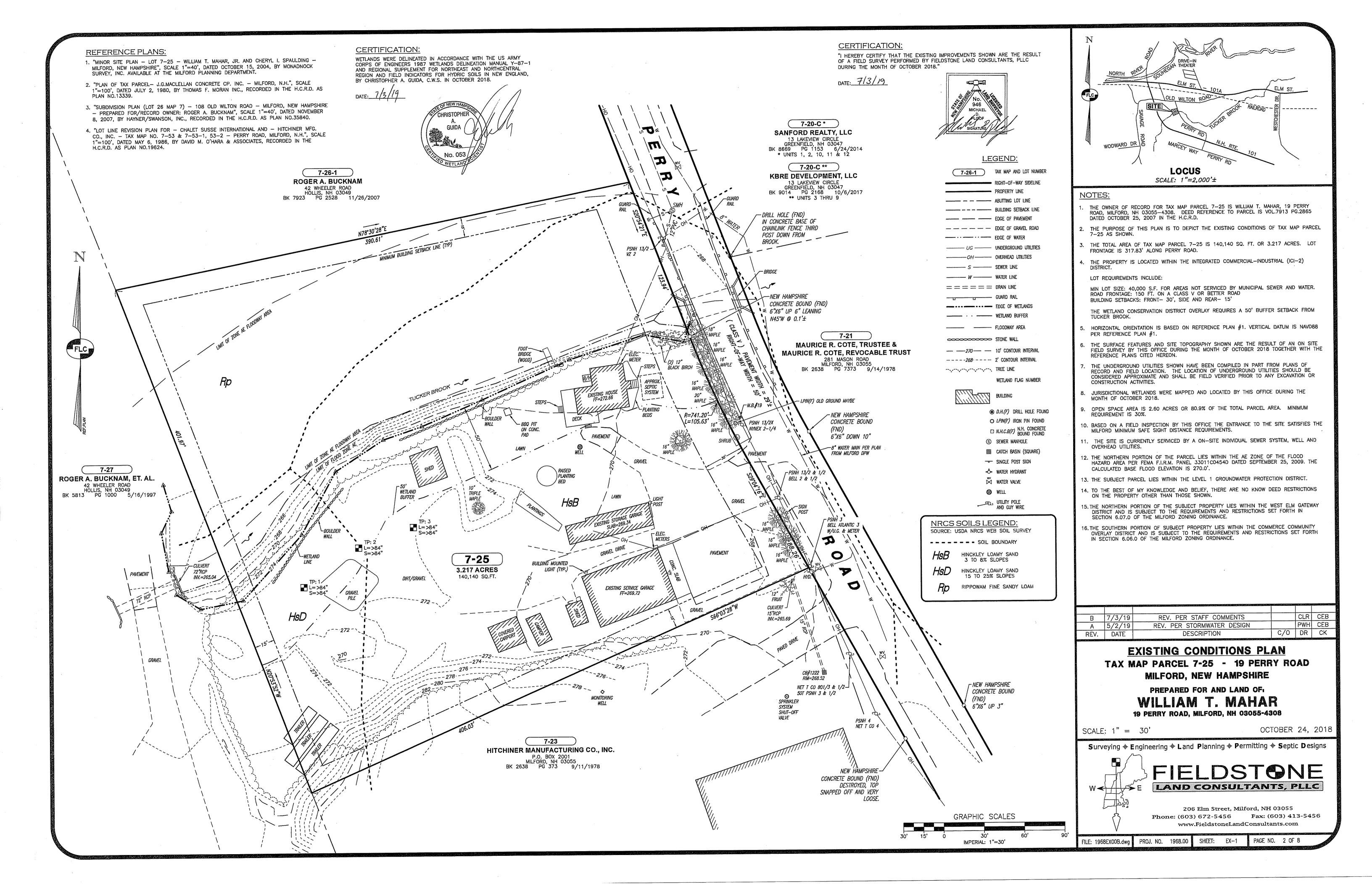
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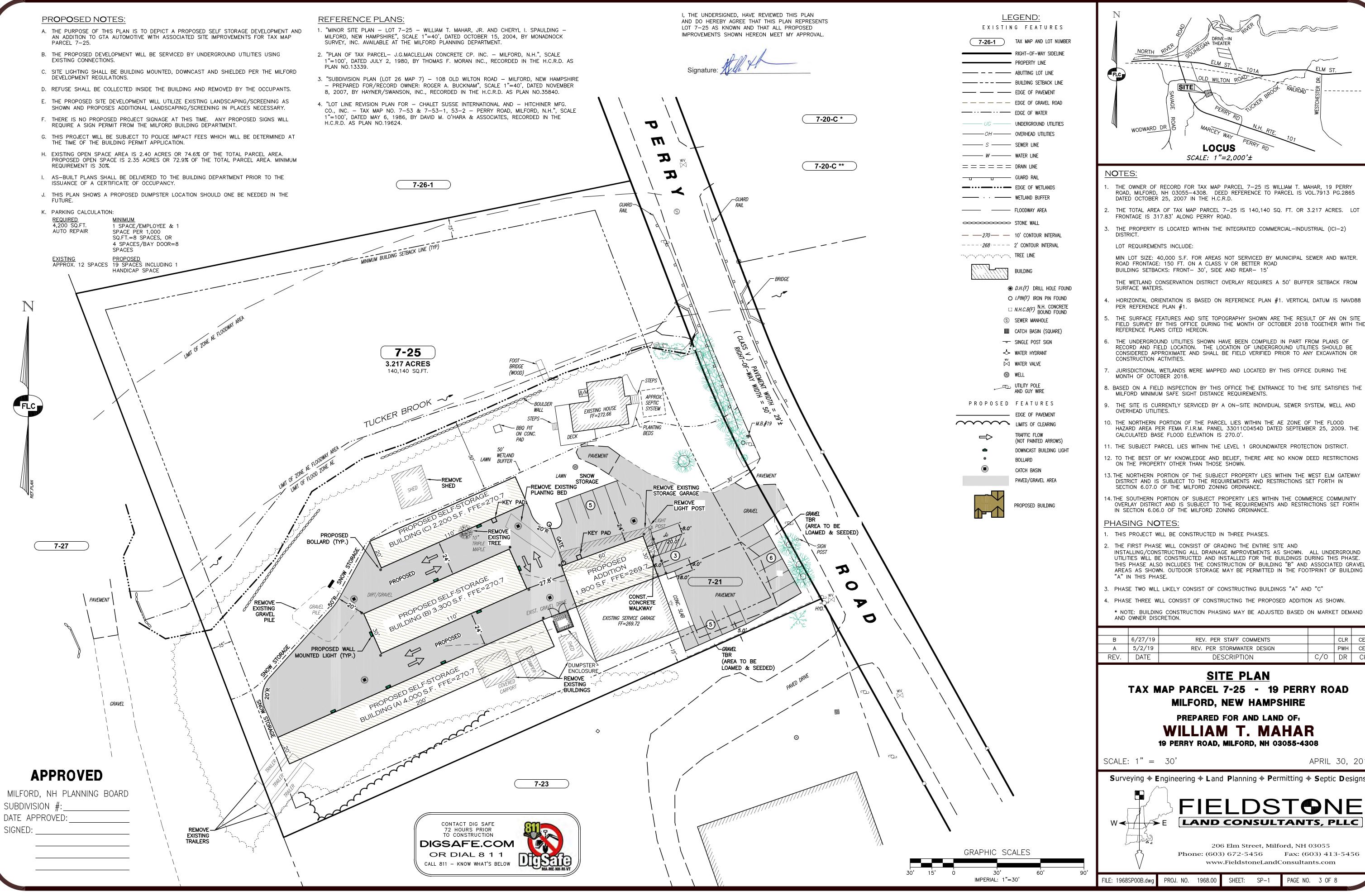
MILFORD, NH PLANNING BOARD
SUBDIVISION #:____

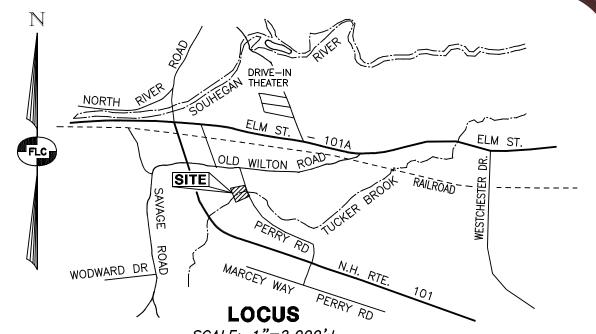
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SIGNED:____

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Α	5/2/19	REV. PER ST	REV. PER STORMWATER DESIGN								
REV.	DATE	DES	DESCRIPTION								
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- THE OWNER OF RECORD FOR TAX MAP PARCEL 7-25 IS WILLIAM T. MAHAR, 19 PERRY ROAD, MILFORD, NH 03055-4308. DEED REFERENCE TO PARCEL IS VOL.7913 PG.2865
- THE TOTAL AREA OF TAX MAP PARCEL 7-25 IS 140,140 SQ. FT. OR 3.217 ACRES. LOT
- THE PROPERTY IS LOCATED WITHIN THE INTEGRATED COMMERCIAL-INDUSTRIAL (ICI-2)
- MIN LOT SIZE: 40,000 S.F. FOR AREAS NOT SERVICED BY MUNICIPAL SEWER AND WATER. ROAD FRONTAGE: 150 FT. ON A CLASS V OR BETTER ROAD BUILDING SETBACKS: FRONT- 30', SIDE AND REAR- 15'
- THE WETLAND CONSERVATION DISTRICT OVERLAY REQUIRES A 50' BUFFER SETBACK FROM
- HORIZONTAL ORIENTATION IS BASED ON REFERENCE PLAN #1. VERTICAL DATUM IS NAVD88
- FIELD SURVEY BY THIS OFFICE DURING THE MONTH OF OCTOBER 2018 TOGETHER WITH THE
- RECORD AND FIELD LOCATION. THE LOCATION OF UNDERGROUND UTILITIES SHOULD BE CONSIDERED APPROXIMATE AND SHALL BE FIELD VERIFIED PRIOR TO ANY EXCAVATION OR
- JURISDICTIONAL WETLANDS WERE MAPPED AND LOCATED BY THIS OFFICE DURING THE
- 8. BASED ON A FIELD INSPECTION BY THIS OFFICE THE ENTRANCE TO THE SITE SATISFIES THE
- 10. THE NORTHERN PORTION OF THE PARCEL LIES WITHIN THE AE ZONE OF THE FLOOD HAZARD AREA PER FEMA F.I.R.M. PANEL 33011C0454D DATED SEPTEMBER 25, 2009. THE CALCULATED BASE FLOOD ELEVATION IS 270.0'.
- 11. THE SUBJECT PARCEL LIES WITHIN THE LEVEL 1 GROUNDWATER PROTECTION DISTRICT.
- ON THE PROPERTY OTHER THAN THOSE SHOWN.
- 13. THE NORTHERN PORTION OF THE SUBJECT PROPERTY LIES WITHIN THE WEST ELM GATEWAY DISTRICT AND IS SUBJECT TO THE REQUIREMENTS AND RESTRICTIONS SET FORTH IN SECTION 6.07.0 OF THE MILFORD ZONING ORDINANCE.
- 14. THE SOUTHERN PORTION OF SUBJECT PROPERTY LIES WITHIN THE COMMERCE COMMUNITY OVERLAY DISTRICT AND IS SUBJECT TO THE REQUIREMENTS AND RESTRICTIONS SET FORTH
- . THIS PROJECT WILL BE CONSTRUCTED IN THREE PHASES.
- THE FIRST PHASE WILL CONSIST OF GRADING THE ENTIRE SITE AND INSTALLING/CONSTRUCTING ALL DRAINAGE IMPROVEMENTS AS SHOWN. ALL UNDERGROUND UTILITIES WILL BE CONSTRUCTED AND INSTALLED FOR THE BUILDINGS DURING THIS PHASE. THIS PHASE ALSO INCLUDES THE CONSTRUCTION OF BUILDING "B" AND ASSOCIATED GRAVEL AREAS AS SHOWN. OUTDOOR STORAGE MAY BE PERMITTED IN THE FOOTPRINT OF BUILDING
- 3. PHASE TWO WILL LIKELY CONSIST OF CONSTRUCTING BUILDINGS "A" AND "C"
- 4. PHASE THREE WILL CONSIST OF CONSTRUCTING THE PROPOSED ADDITION AS SHOWN.
- * NOTE: BUILDING CONSTRUCTION PHASING MAY BE ADJUSTED BASED ON MARKET DEMAND

В	6/27/19	REV. PER STAFF COMMENTS		CLR	CEB
Α	5/2/19	REV. PER STORMWATER DESIGN		PWH	CEB
REV.	DATE	DESCRIPTION	C/0	DR	CK

SITE PLAN

TAX MAP PARCEL 7-25 - 19 PERRY ROAD MILFORD, NEW HAMPSHIRE

> PREPARED FOR AND LAND OF: **WILLIAM T. MAHAR**

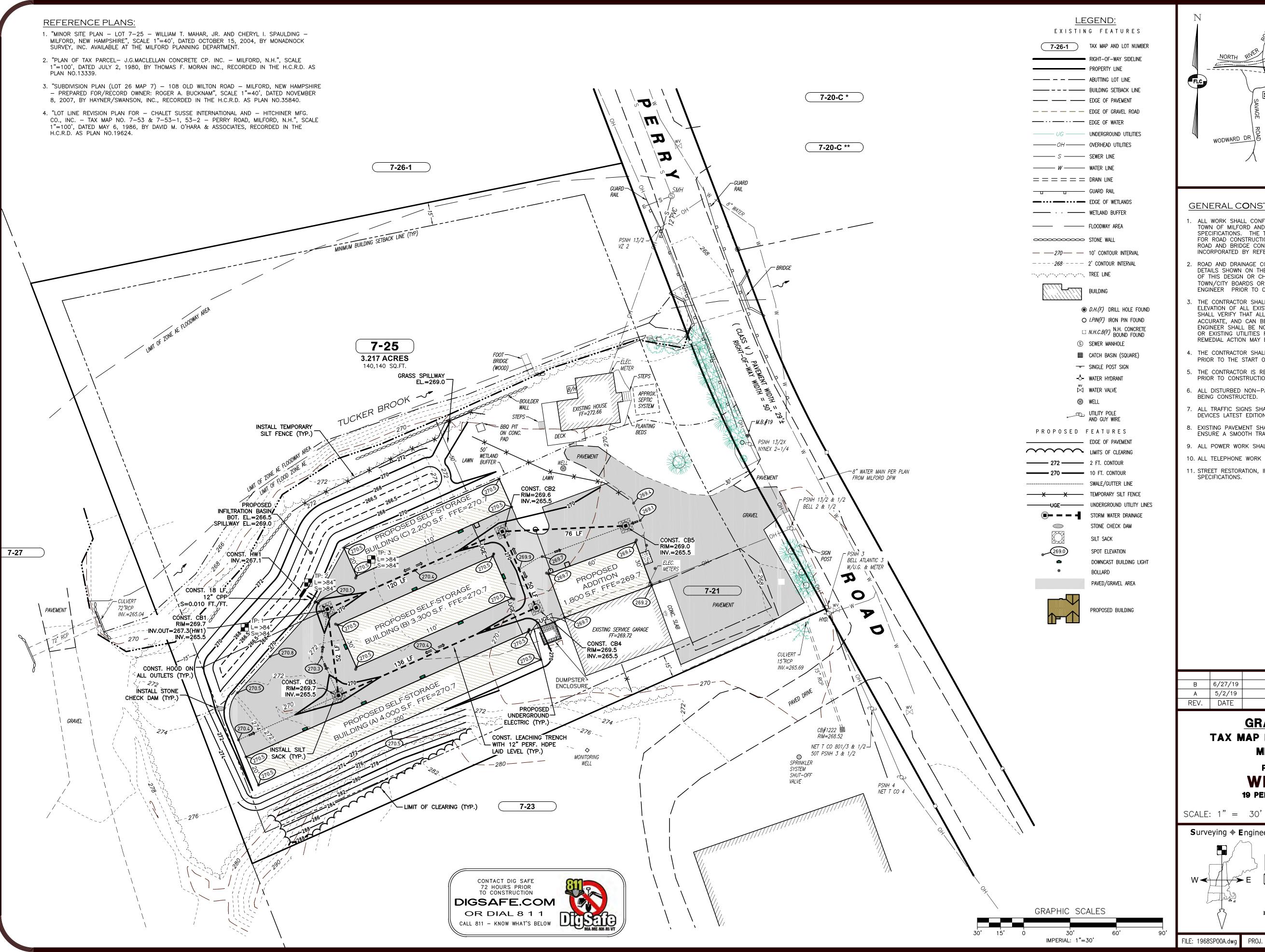
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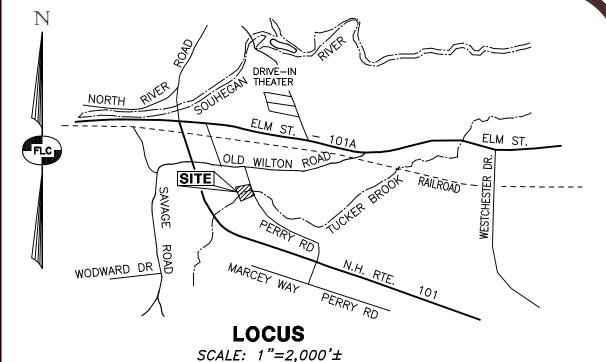
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PAGE NO. 3 OF 8





GENERAL CONSTRUCTION NOTES:

- . ALL WORK SHALL CONFORM TO THE APPLICABLE REGULATIONS AND STANDARDS OF THE TOWN OF MILFORD AND SHALL BE BUILT IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. THE TOWN OF MILFORD DEPARTMENT OF PUBLIC WORKS SPECIFICATIONS FOR ROAD CONSTRUCTION AND SEWERS AND DRAINS AND THE NHDOT STANDARDS FOR ROAD AND BRIDGE CONSTRUCTION APPROVED AND ADOPTED 2010 ARE HEREBY INCORPORATED BY REFERENCE.
- ROAD AND DRAINAGE CONSTRUCTION SHALL CONFORM TO THE TYPICAL SECTIONS AND DETAILS SHOWN ON THE PLANS AND THE SPECIFICATIONS NOTED ABOVE. ANY ALTERATION OF THIS DESIGN OR CHANGE DURING CONSTRUCTION MAY REQUIRE APPROVAL OF VARIOUS TOWN/CITY BOARDS OR AGENCIES AND SHALL BE DISCUSSED WITH THE OWNER AND ENGINEER PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, SIZE, AND ELEVATION OF ALL EXISTING UTILITIES SHOWN OR NOT SHOWN ON THESE PLANS AND SHALL VERIFY THAT ALL THE INFORMATION SHOWN HEREON IS CONSISTENT, COMPLETE, ACCURATE, AND CAN BE CONSTRUCTED PRIOR TO AND/OR DURING CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY DISCREPANCIES, ERRORS, OMISSIONS, OR EXISTING UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION SO THAT REMEDIAL ACTION MAY BE TAKEN BEFORE PROCEEDING WITH THE WORK.
- 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACT "DIGSAFE" AT LEAST 72 HOURS PRIOR TO THE START OF CONSTRUCTION (DIAL 811).
- 5. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE APPROPRIATE CITY DEPARTMENTS PRIOR TO CONSTRUCTION TO ARRANGE FOR NECESSARY INSPECTIONS.
- 6. ALL DISTURBED NON-PAVED AREAS SHALL BE LOAMED AND SEEDED IMMEDIATELY UPON BEING CONSTRUCTED.
- 7. ALL TRAFFIC SIGNS SHALL CONFORM TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES LATEST EDITION.
- 8. EXISTING PAVEMENT SHALL BE SAW—CUT AS NECESSARY. THE CONTRACTOR SHALL ENSURE A SMOOTH TRANSITION BETWEEN EXISTING AND NEW PAVEMENT.
- 9. ALL POWER WORK SHALL CONFORM TO EVERSOURCE STANDARDS.
- 10. ALL TELEPHONE WORK SHALL CONFORM TO FAIRPOINT COMMUNICATIONS SPECIFICATIONS.
- 11. STREET RESTORATION, IF ANY, SHALL BE IN ACCORDANCE WITH TOWN OF MILFORD SPECIFICATIONS.

В	6/27/19	REV. PER STAFF COMMENTS		CLR	CEB
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REV.	DATE	DESCRIPTION	C/0	DR	CK

GRADING & UTILITY PLAN

TAX MAP PARCEL 7-25 - 19 PERRY ROAD

MILFORD, NEW HAMPSHIRE

PREPARED FOR AND LAND OF:

WILLIAM T. MAHAR
19 PERRY ROAD, MILFORD, NH 03055-4308

Surveying + Engineering + Land Planning + Permitting + Septic Designs



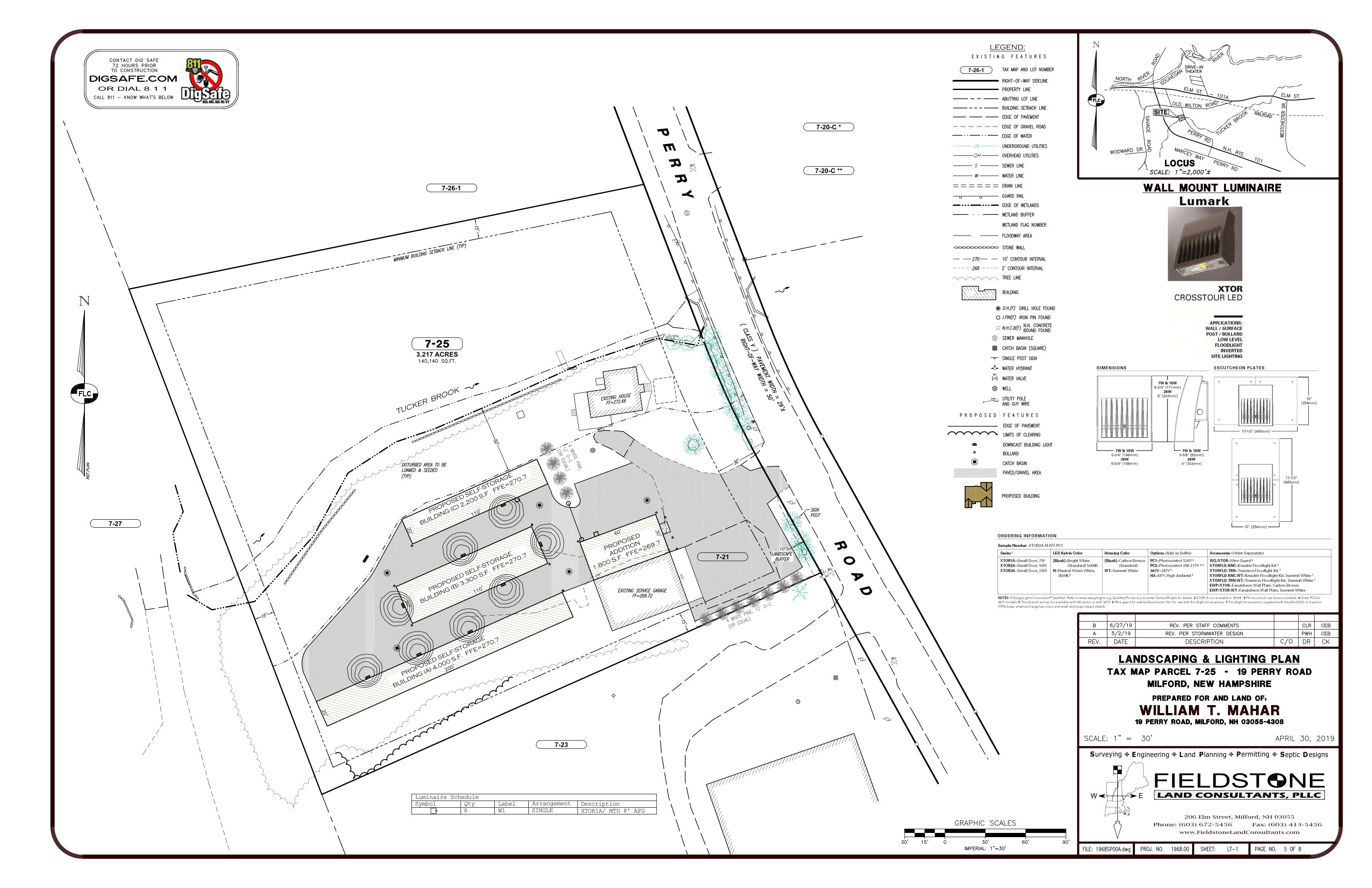
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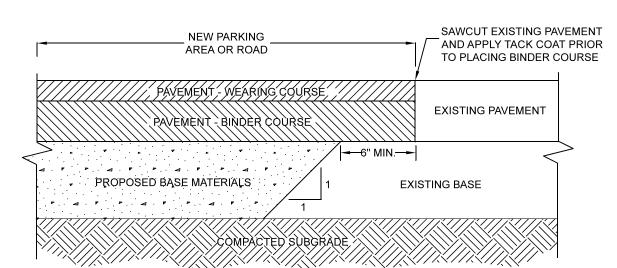
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- 1. ALL CONSTRUCTION SHALL CONFORM TO THE APPLICABLE REQUIREMENTS AND SPECIFICATIONS OF THE TOWN OF MILFORD.
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, SIZE, AND ELEVATION OF ALL EXISTING UTILITIES SHOWN OR NOT SHOWN ON THESE PLANS AND SHALL VERIFY THAT ALL THE INFORMATION SHOWN HEREON IS CONSISTENT, COMPLETE, ACCURATE, AND CAN BE CONSTRUCTED PRIOR TO AND/OR DURING CONSTRUCTION. FIELDSTONE LAND CONSULTANTS, PLLC, AS THE DESIGN ENGINEER, SHALL BE NOTIFIED IN WRITING OF ANY DISCREPANCIES, ERRORS, OMISSIONS, OR EXISTING UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION SO THAT REMEDIAL ACTION MAY BE TAKEN BEFORE PROCEEDING WITH THE WORK.
- 3. THE CONTRACTOR SHALL CONTACT "DIGSAFE" 72 HOURS PRIOR TO THE START OF CONSTRUCTION (1-800-255-4977 IN NH, 1-888-344-7233 IN MA).
- 4. COMPLIANCE WITH ALL APPLICABLE REGULATIONS AND SPECIAL CONDITIONS OF TOWN/CITY AGENCIES, SUCH AS THE PLANNING BOARD, ZONING BOARD, CONSERVATION COMMISSION, AND OTHERS, IS MANDATORY AND IS THE RESPONSIBILITY OF THE OWNER.
- 5. ANY ALTERATION OF THIS DESIGN OR CHANGE DURING CONSTRUCTION MAY REQUIRE APPROVAL OF VARIOUS TOWN/CITY BOARDS OR AGENCIES AND SHALL BE DISCUSSED WITH THE OWNER AND FIELDSTONE LAND CONSULTANTS, PLLC PRIOR TO CONSTRUCTION.
- 6. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE APPROPRIATE TOWN DEPARTMENTS PRIOR TO CONSTRUCTION TO ARRANGE FOR NECESSARY INSPECTIONS.
- 7. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ACCURATE AS-BUILT INFORMATION OF ALL WORK, ESPECIALLY UNDERGROUND CONSTRUCTION OF UTILITY LINES, SERVICES, CONNECTIONS, ETC. AND APPROPRIATE TIES TO ABOVE GROUND PERMANENT STRUCTURES, FIELD SURVEY COORDINATES, OR SOME OTHER METHOD OF ESTABLISHING THE AS-BUILT CONDITION OF ALL CONSTRUCTION.

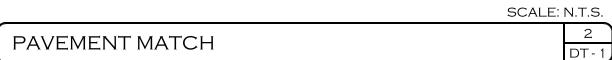


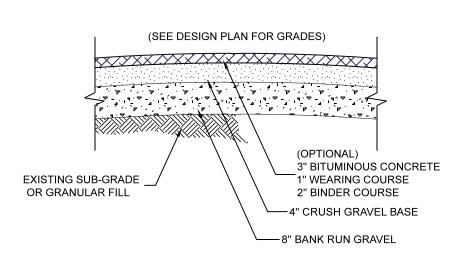


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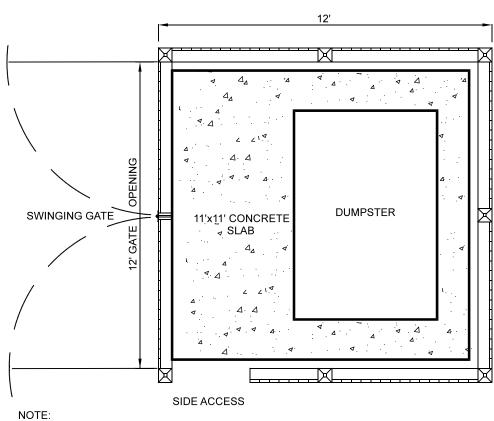
1. SEE ROADWAY OR PARKING LOT SECTION FOR MATERIALS AND ASSOCIATED DEPTHS.

2. INFRARED JOINT AFTER PLACING PAVEMENT.





PAVED AREAS/INTERIOR AISLE SECTION



PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF THE SCREEN FENCE TO THE ENGINEER FOR APPROVAL.

PAVEMENT / GRAVEL

SEED SECTION

OVERLAP

NONWOVEN GEOTEXTILE -

1½" CLEAN STONE

(SEE DESIGN PLANS)

LAID LEVEL

LEACHING TRENCH

FABRIC (MIRAFI 140N OR

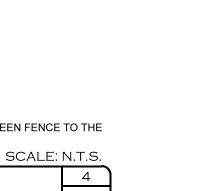
EQUAL)

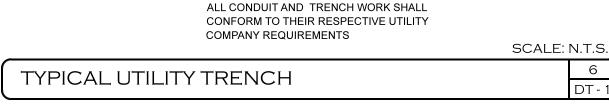
12" PERFORATED HDPE PIPE.

SECTION OR LOAM AND

VARIES (12" MIN.)

DUMPSTER ENCLOSURE





SUITABLE MATERIAL—

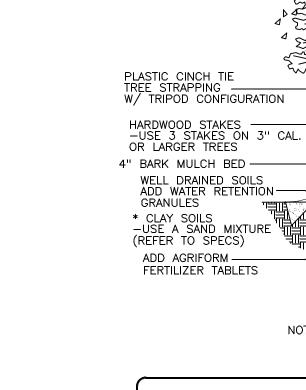
4-4" PVC SCH 40

CONDUIT

6" MIN

2-5" PVC SCH 40

ELECTRIC CONDUIT



STIC CINCH TIE
E STRAPPING
TRIPOD CONFIGURATION

ANY OF THE PLANT MATERIAL.

BE 3 STAKES ON 3" CAL.

LARGER TREES

ARK MULCH BED

ARK MULCH BED

ARK MULCH BED

BO NOT FILL SOIL OVER TOP OF ROOT BALL

CUT WIRE BASKET & REMOVE BURLAP
FROM TOP 1/3 OF BALL

G' MIN. DIA. PLANT SAUCER

WELL DRAINED SOILS

DD WATER RETENTION

TO DEFINE AND HOLD THE BARK MULCH

CLAY SOILS

SE A SAND MIXTURE

TO DEFINE AND HOLD THE BARK MULCH

IN SANDY SOILS USE 50% PEAT MOSS
& NATIVE SOIL MIX (REFER TO SPECS)

ADD AGRIFORM

TERTILIZER TABLETS

2 TO 3 TIMES ROOT BALL

2 TO 3 TIMES ROOT BALL

NOTE: ALL PYRAMIDAL EVERGREENS & DECIDUOUS TREES SHALL BE PLANTED W/ ROOTS HORMONE ENHANCER.

DECIDUOUS TREE PLANTING DETAIL

7

DE 1



- 1. TEMPORARY PROTECTION OF DISTURBED AREAS SHALL BE IMPLEMENTED WHERE A TEMPRORARY STAND OF GRASS OR SMALL GRAINS WILL NORMALLY PRODUCE SUFFICIENT COVER TO RETARD EROSION AND REDUCE SEDIMENT.
- 2. USE OF TEMPORARY SEEDING SHALL BE IMPLEMENTED WHEN A DISTURBED AREA OR MATERIAL STOCKPILE WILL BE INACTIVE FOR A PROLONGED PERIOD OF TIME
- 3. ALL ESSENTIAL GRADING SUCH AS DIVERSIONS. DAMS, DITCHES, AND DRAINS NEEDED TO PREVENT GULLYING AND REDUCE SILTATION SHALL BE COMPLETED PRIOR TO SEEDING.
- 4. PREPARE SEEDBED BY REMOVEING ALL STONES, TRASH AND STUMPING DEBRIS THAT WILL INTERFERE WITH SEEDING AREA. WHERE FEASIBLE, TILL THE SOIL TO A DEPTH OF ABOUT 3 INCHES TO PREPARE SEEDBED AND MIX FERTILIZER INTO THE SOIL. THE SEEDBED SHOULD BE LEFT IN A FIRM AND SMOOTH CONDITION. THE LAST TILLAGE OPERATIONS SHOULD BE PERFORMED ACROSS THE SLOPE.
- 5. A MINIMUM OF 300 POUNDS PER ACRE (7 LBS. PER 1,000 SQ.FT.) OF 10-10-10 FERTILIZER, OR ITS EQUIVALENT, SHALL BE UNIFORMLY SPREAD OVER THE AREA PRIOR TO BEING INCORPORATED INTO THE SOIL.
- 6. THE SEED SHALL BE SPREAD UNIFORMLY OVER THE AREA. AFTER SEEDING, THE SOIL SHOULD BE FIRMED BY ROLLING OR PACKING. WHERE ROLLING OR PACKING IS NOT FEASIBLE, THE SEED SHALL BE COVERED LIGHTLY BY RAKING, DISKING, OR DRAGGING.
- 7. HAY OR STRAW MULCH MAY BE NECCESSARY TO PROMOTE SEED GERMINATION IN DRY AND/OR INFERTILE CONDITIONS.
- 8. PLANT SELECTION AND APPLICATION RATES:

SPECIES RATE 1 RATE 2 REMARKS (LBS/AC.) (LBS/1,000 S.F.) WINTER RYE 112 FALL, 8/15 TO 9/15 PLANT 1.0 INCH DEEP 2.0 SPRING PRIOR TO 5/15PLANT 1.0 INCH DEEP QUICK, SHORT DURATION ANNUAL GOOD APPEARANCEEARLY SPRING RYEGRASS & FALLPLANT 0.25 INCH DEEP PERENNIAL LASTS LONGER THAN ANNUAL LATE SPRING & FALL MULCHING RYEGRASS

SEEDING FOR TEMPORARY PROTECTION OF DISTURBED AREAS

B 6/27/19 REV. PER STAFF COMMENTS CLR CEB
REV. DATE DESCRIPTION C/O DR CK

WILL ALLOW USE ALL SEASONPLANT 0.5 INCH DEEP

CONSTRUCTION DETAILS

TAX MAP PARCEL 7-25 - 19 PERRY ROAD

MILFORD, NEW HAMPSHIRE

PREPARED FOR AND LAND OF:

PREPARED FOR AND LAND OF:
WILLIAM T. MAHAR
19 PERRY ROAD, MILFORD, NH 03055-4308

SCALE: AS SHOWN

WN APRIL 30, 2019

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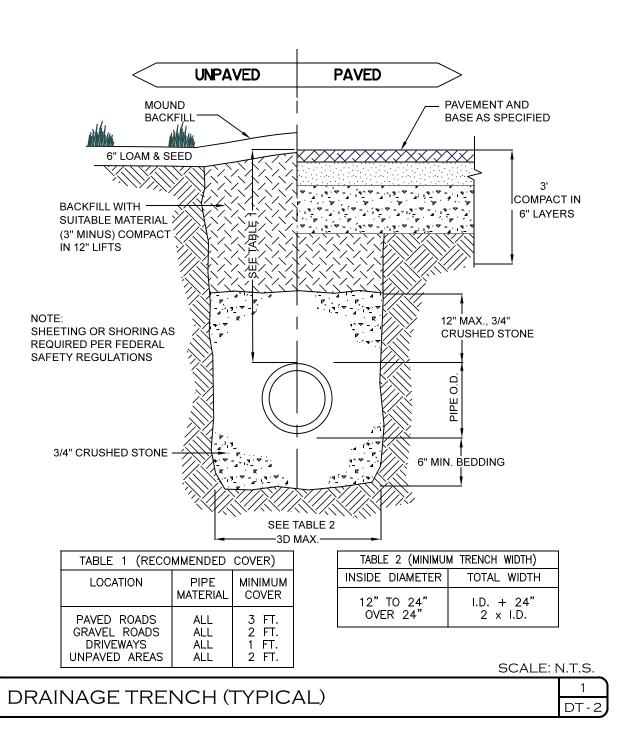
FIELDSTONE

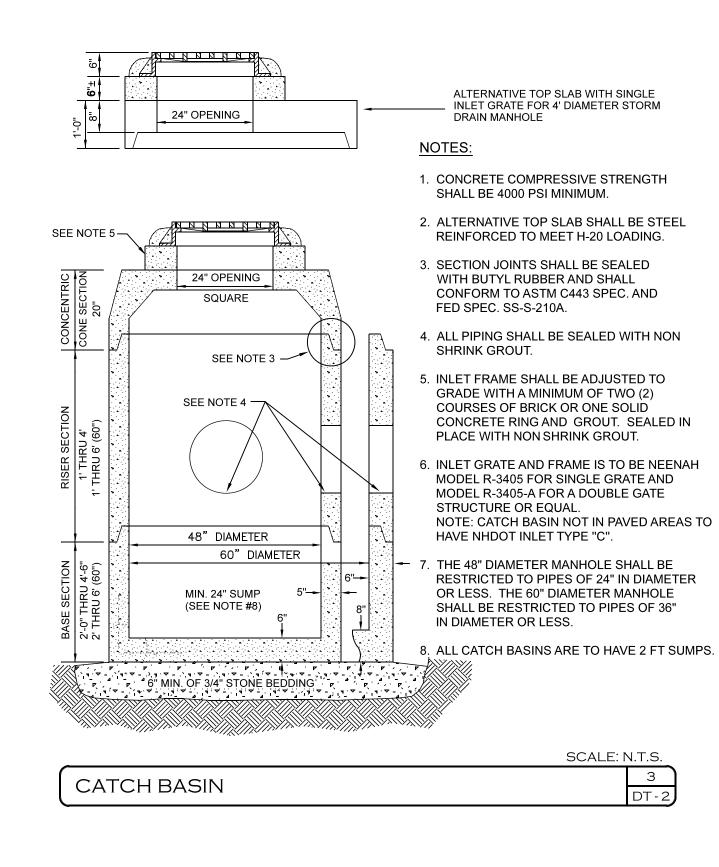


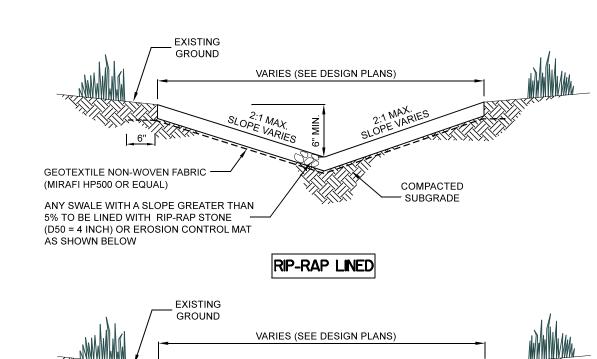
LAND CONSULTANTS, PLLC
206 Elm Street, Milford, NH 03055

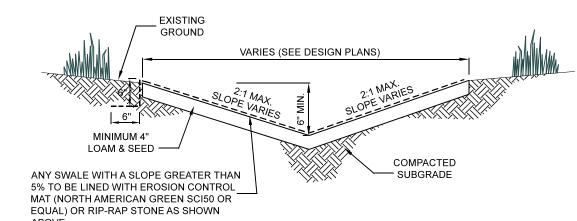
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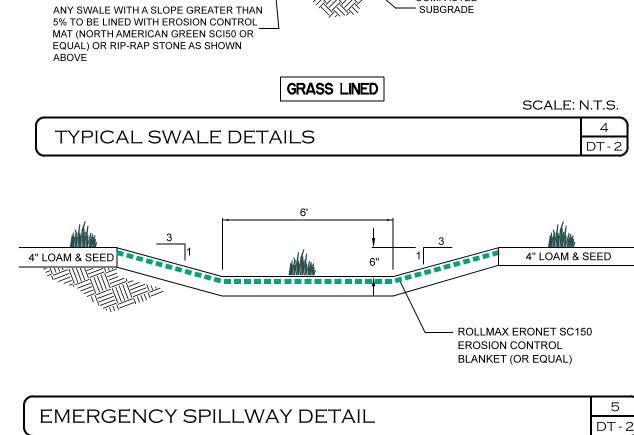
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REMOVE ALL ORGANIC MATERIAL FROM AREA BELOW PROPOSED INFILTRATION BASINS AND TO EXPOSE UNDERLYING SOILS.

DO NOT TRAFFIC EXPOSED SOIL SURFACE WITH CONSTRUCTION EQUIPMENT. IF FEASIBLE, PERFORM EXCAVATIONS WITH

FILL BELOW THE BASIN AND/OR LEACHING TRENCHES SHALL CONFORM TO THE SPECIFICATIONS FOR NHDOT ITEM 209.1,

THE BASIN FLOOR OF THE INFILTRATION BASINS SHALL BE PREPARED USING ONE OF THE FOLLOWING METHODS

ONCE EXCAVATED AND PRIOR TO FILLING, THE UNDERLYING SOILS SHALL BE DEEPLY TILLED WITH A ROTARY TILLER OR DISC

1) A FILTER MEDIA 36" DEEP CONSISTING 50% TO 55% BY VOLUME SAND ALSO IDENTIFIED AS ASTM C-33 CONCRETE SAND, 20%

TO 30% BY VOLUME OF LOAMY SAND TOPSOIL WITH 15% TO 25% FINES PASSING THE NUMBER 200 SIEVE, AND 20% TO 30% BY

VOLUME MODERATELY FINE SHREDDED BARK OR WOOD FIBER MULCH WITH LESS THAN 5% PASSING THE NUMBER 200 SIEVE.

- FILTER MEDIA SHALL BE TESTED BY THE ENGINEER PRIOR TO USE FOR THE BASIN BOTTOM TO ENSURE A MAX. EXFILTRATION

2) A FILTER MEDIA 36" DEEP CONSISTING 20% TO 30% BY VOLUME OF MODERATELY FINE SHREDDED BARK OR WOOD FIBER MULCH THAT HAS NO MORE THAN 5% FINES PASSING THE NUMBER 200 SIEVE, WITH 70 TO 80% BY VOLUME LOAMY COARSE

CARE SHALL BE TAKEN TO PROTECT THE UNDERLYING SOILS FROM CONSTRUCTION TRAFFIC AND THE DISCHARGE OF

EQUIPMENT POSITIONED OUTSIDE THE LIMITS OF THE INFILTRATION SYSTEM.

HARROW TO RESTORE INFILTRATION RATES, FOLLOWED BY A PASS WITH LEVELING DRAG.

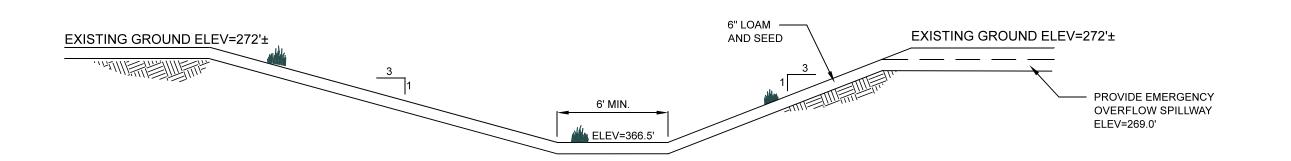
SAND USED IN THE MIXTURE MEETING THE FOLLOWING SIEVE ANALYSIS SPECIFICATION: - FROM 85 TO 100 PERCENT BY WEIGHT SHALL PASS THE NUMBER 10 SIEVE; - FROM 70 TO 100 PERCENT BY WEIGHT SHALL PASS THE NUMBER 20 SIEVE; - FROM 15 TO 40 PERCENT BY WEIGHT SHALL PASS THE NUMBER 60 SIEVE; AND

- FROM 8 TO 15 PERCENT BY WEIGHT SHALL PASS THE NUMBER 200 SIEVE:

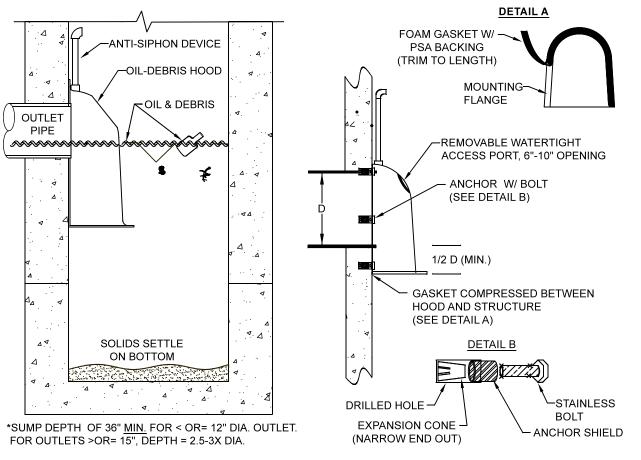
- FILTER SHALL NOT BE COVERED BY GRASS.

SEDIMENT LADEN RUNOFF





INFILTRATION BASIN DETAIL



STRUCTURE OUTLET HOLE SIZE HOOD SIZE 11.9" O.D. OR LESS 12 F or R 12.0"-17.9" O.D. 18 F or R 18.0"-23.9" O.D. 24 F or R 24.0"-29.9" O.D. 30 F or R 30.0"-47.9" O.D. 48 F 48.0"-95.9" O.D.

INSTALLATION DETAIL)

HOODS OR EQUAL, TO BE INSTALLED ON ALL CATCH BASINS.

<u>ISTALLATION NOTE:</u>
OSITION HOOD SUCH THAT BOTTOM FLANGE IS A

DISTANCE OF 1/2 OUTLET PIPE DIAMETER (MIN.)

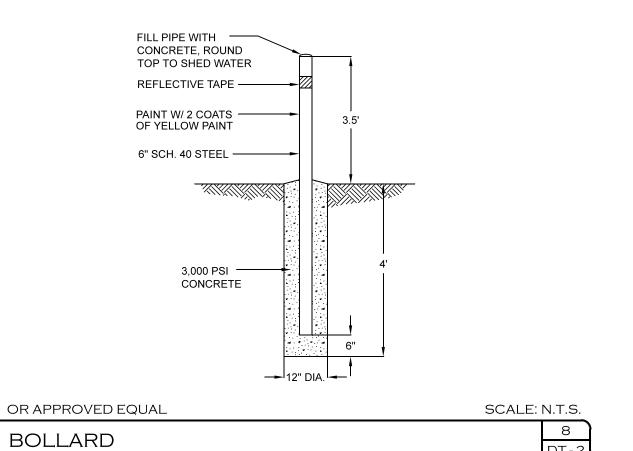
BELOW THE PIPE INVERT. MINUMUM DISTANCE

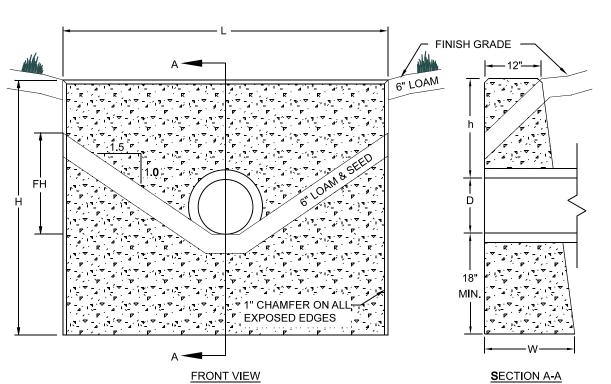
FOR PIPES <12" I.D. IS 6".

F: FLAT WALL STRUCTURE R: ROUND WALL STRUCTURE

- 1. ALL HOODS SHALL BE EQUIPPED WITH A WATERTIGHT ACCESS PORT, A MOUNTING FLANGE, AND AN ANTI-SIPHON VENT AS DRAWN. (SEE CONFIGURATION DETAIL)
- 2. THE SIZE AND POSITION OF THE HOOD SHALL BE DETERMINED BY OUTLET PIPE SIZE AS PER MANUFACTURER'S RECOMMENDATION.
- 3. THE BOTTOM OF THE HOOD SHALL EXTEND DOWNWARD A DISTANCE EQUAL TO 1/2 THE OUTLET PIPE DIAMETER WITH A MINIMUM DISTANCE OF 6" FOR PIPES <12" I.D.
- 4. THE ANTI-SIPHON VENT SHALL EXTEND ABOVE HOOD BY MINIMUM OF 3" AND A MAXIMUM OF 12" ACCORDING TO STRUCTURE CONFIGURATION.
- 5. THE SURFACE OF THE STRUCTURE WHERE THE HOOD IS MOUNTED SHALL BE FINISHED SMOOTH AND FREE OF LOOSE MATERIAL AND THE PIPE SHALL BE TRIMMED FLUSH TO WALL.
- 6. THE HOOD SHALL BE SECURELY ATTACHED TO STRUCTURE WALL WITH 3/8' STAINLESS STEEL BOLTS AND OIL-RESISTANT GASKET AS SUPPLIED BY MANUFACTURER. (SEE
- 7. ALL HOODS AND TRAPS FOR CATCH BASINS AND WATER QUALITY STRUCTURES SHALL BE AS MANUFACTURED BY BEST MANAGEMENT PRODUCTS, INC., LYME, CT OR EQUAL.







HEADWALL HEADWALL FILL CULVERT TOP HEADWALL DIAM. HEIGHT HEIGHT HEIGHT BOTTOM LENGTH WIDTH W INCHE**S** FEET & INCHES 1'-7" 6'-0" 1'-**6**" 2'-**0**.75" 4'-3" 7'-0" 4'**-6**" 1'-1**0**" 2'-1.5**0**" 1'-**6**" 2'-3**.00**" 3**0** 11'-**0**" 2'-1**0**" 1'-6" 2'-4.5**0**" 13'-**0**" 6'-0" 3'-4" 1'-6" 2'-6.00" 3**6** 2'-**9**.75" 1'-**9**"

HEADWALL SHALL BE STEEL REINFORCED AND CONFORM TO NHDOT STANDARD PLAN HW-2, LAST REVISED JUNE 16, 2010.

HEADWALL - PRECAST CONCRETE



CONSTRUCTION DETAILS TAX MAP PARCEL 7-25 - 19 PERRY ROAD MILFORD, NEW HAMPSHIRE

PREPARED FOR AND LAND OF: **WILLIAM T. MAHAR** 19 PERRY ROAD, MILFORD, NH 03055-4308

SCALE: AS SHOWN

APRIL 30, 2019

SCALE: N.T.S.

Surveying ϕ Engineering ϕ Land Planning ϕ Permitting ϕ Septic Designs



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- INSTALL STONE CHECK DAMS AND SILTATION CONTROL FENCES IN LOCATIONS SHOWN ON PLANS. <u>EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO</u> ANY EARTH MOVING OPERATION.
- 2. INSTALL STABILIZED CONSTRUCTION ENTRANCE(S).
- 3. CUT AND CLEAR TREES; DISPOSE OF DEBRIS. STUMPS ARE TO BE BURIED ON SITE AT THE LOCATIONS SHOWN. STUMPS SHALL BE COMPACTED AND ALL VOIDS FILLED WITH SUITABLE MATERIAL. COVER WITH 4" OF LOAM AND SEED PER THE EROSION CONTROL NOTES.
- 4. REMOVE TOPSOIL AND STOCKPILE AWAY FROM ANY WETLAND. STABILIZE STOCKPILE IMMEDIATELY BY SEEDING. PLACE SILT FENCE AROUND THE DOWN SLOPE SIDE OF EARTH
- 5. ROUGH GRADE SITE CONSTRUCT DRAINAGE BASINS, CATCH BASINS AND DRAINAGE SWALES DURING INITIAL PORTION OF CONSTRUCTION. STABILIZE IMMEDIATELY PER THE CONSTRUCTION AND EROSION CONTROL DETAILS. DO NOT DIRECT STORM WATER RUNOFF TO THESE STRUCTURES UNTIL A HEALTHY VEGETATIVE COVER IS ESTABLISHED.
- 6. CONSTRUCT STORAGE BUILDINGS, PAVED AREAS AND ASSOCIATED SITE IMPROVEMENTS AS SHOWN. ALL CUT AND FILL SLOPES SHALL BE STABILIZED UPON COMPLETION OF ROUGH GRADING PER THE THE EROSION CONTROL NOTES.
- PLACE STONE CHECK DAMS AROUND INLETS AROUND ALL STRUCTURES UNTIL AREAS ARE STABLE AND ALL NON-PAVED DISTURBED AREAS HAVE A HEALTHY VEGETATIVE COVER. SILT SACKS MAY BE UTILIZED IN PLACE OF STONE CHECK DAMS ON CATCH BASINS.
- 8. INSPECT AND MAINTAIN EROSION CONTROL MEASURES ON A WEEKLY BASIS AND AFTER EVERY 0.25" OR GREATER RAINFALL.
- 9. DAILY, OR AS REQUIRED, CONSTRUCT TEMPORARY BERMS, CULVERTS, DITCHES, SILTATION FENCES, SEDIMENT TRAPS, ETC. MULCH AND SEED AS REQUIRED.
- 10. FINISH GRADING AND PREPARE FOR LOAMING. ALL DISTURBED AREAS SHALL BE STABILIZED WITHIN 72 HOURS AFTER FINAL GRADING.
- 11. FINISH CONSTRUCTING STORAGE BUILDINGS AND PAVED AREAS. PERMANENT SEEDING SHALL BE PERFORMED UPON COMPLETION OF DRIVE AND PARKING AREA PAVING (SEE EROSION
- 12. COMPLETE PERMANENT SEEDING AND LANDSCAPING.
- 13. TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED WHEN ALL DISTURBED AREAS HAVE BEEN STABILIZED.
- 14. STORMWATER FLOWS ARE NOT TO BE DIRECTED INTO THE STORMWATER BASINS UNTIL THE CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.
- 15. ALL STRUCTURES SHALL BE CLEANED OF SEDIMENTS ONCE CONSTRUCTION IS COMPLETE.

CONSTRUCTION SEQUENCE NOTES

EROSION CONTROL (GENERAL CONSTRUCTION)

- 1. PRIOR TO STARTING ANY WORK ON THE SITE THE CONTRACTOR SHALL NOTIFY APPROPRIATE
- EROSION CONTROL MEASURES SHALL BE INSTALLED PER PLANS AND DETAILS. PERIMETER CONTROLS SHALL BE IN PLACE PRIOR TO COMMENCEMENT OF EARTH DISTURBING ACTIVITIES
- 3. EXISTING VEGETATION IS TO REMAIN UNDISTURBED WHEN POSSIBLE
- 4. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE KEPT CLEAN DURING CONSTRUCTION. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSPECTED AT LEAST ONCE A WEEK AND AFTER EVERY 0.25-INCH OR GREATER RAINFALL. SEDIMENTS SHALL BE DISPOSED OF IN AN UPLAND AREA THAT WILL NOT CONTRIBUTE TO SEDIMENT OFF-SITE AND BE PERMANENTLY
- 5. THE SMALLEST PRACTICAL AREA SHALL BE DISTURBED DURING CONSTRUCTION.
- THE LAND AREA EXPOSED SHALL BE KEPT TO THE SHORTEST PRACTICAL PERIOD OF TIME. ALL NON-ACTIVE DISTURBED AREAS SHALL BE STABILIZED WITHIN 30 DAYS OF THE DISTURBANCE. ALL DISTURBED AREAS SHALL BE STABILIZED WITHIN 72 HOURS OF FINAL GRADING.
- 7. DITCHES, SWALES AND DRAINAGE BASINS SHALL BE CONSTRUCTED DURING THE INITIAL PHASE OF CONSTRUCTION AND STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
- 8. AN AREA SHALL BE CONSIDERED STABILIZED IF ONE OF THE FOLLOWING HAS OCCURED:
 - BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED:
 - . A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED; A MINIMUM OF 3-INCHES OF NON-EROSIVE MATERIAL, SUCH AS STONE OR RIPRAP, HAS BEEN INSTALLED: OR
 - D. EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
- EROSION CONTROL BLANKETS SHALL BE INSTALLED ON ALL SLOPES THAT ARE STEEPER THAN 3:1 (HORIZONTAL / VERTICAL). UNLESS OTHERWISE SPECIFIED THE CONTRACTOR SHALL USE NORTH AMERICAN GREEN SC150, OR APPROVED EQUAL
- 10. ALL AREAS RECIEVING EROSION CONTROL STONE OR RIPRAP SHALL HAVE A GEOTEXTILE MATERIAL INSTALLED BELOW THE STONE (SEE APPROPRIATE DETAILS).
- 11. ALL DISTURBED AREAS TO TURF FINSHED SHALL BE COVERED WITH A MINIMUM THICKNESS OF 4 INCHES OF COMPACTED LOAM. LOAM SHALL BE COVERED WITH THE APPROPRIATE SEED MIXTURE AS INDICATED BELOW:

PERMANENT SEED (LAWN AREAS)

POUNDS / 1,000 SQUARE FEET

CREEPING RED FESCUE 0.92 LBS PERENNIAL RYEGRASS 1.15 LBS KENTUCKY BLUEGRASS 0.58 LBS 0.12 LBS

APPLICATION RATE TOTALS 2.8 LBS PER 1,000 SF

12. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS. IF SOIL TESTING IS NOT FEASIBLE (CRITICAL TIME FRAMES OR VARIABLE SITES) THEN APPLY FERTILIZER AT A RATE OF 11 POUNDS PER 1,000 SF AND LIMESTONE AT A RATE OF 90 POUNDS PER 1,000 SF. FERTILIZER SHALL BE LOW PHOSPHATE (LESS THAN 2% PHOSPHORUS).

CAUTION SHOULD BE TAKE WHEN THE PROPERTY IS LOCATED WITHIN 250 FEET OF A WATER BODY. IN THIS CASE ALL FERTILIZERS SHALL BE RESTRICTED TO A LOW PHOSPHATE, SLOW RELEASE NITROGEN FERTILIZER. SLOW RELEASE FERTILIZERS MUST BE AT LEAST 50% SLOW RELEASE NITROGEN COMPONENT. NO FERTILIZER EXCEPT LIMESTONE SHALL BE APPLIED WITHIN 25 FEET OF THE SURFACE WATER. THESE ARE REGULATED LIMITATIONS.

- 13. PERMANENT OR TEMPORARY COVER MUST BE IN PLACE BEFORE THE GROWING SEASON ENDS (SEE WINTER CONSTRUCTION NOTES). NO DISTURBED AREAS SHALL BE LEFT EXPOSED DURING THE
- 14. A VIGOROUS DUST CONTROL PROGRAM SHALL BE APPLIED BY THE SITE CONTRACTOR. DUST SHALL BE MANAGED THROUGH THE USE OF WATER AND/OR CALCIUM CHLORIDE.
- 15. IN NO WAY ARE THE MEASURES INDICATED ON THE PLANS OR IN THESE NOTES TO BE CONSIDERED ALL INCLUSIVE. THE CONTRACTOR SHALL USE JUDGEMENT TO INSTALL ADDITIONAL EROSION CONTROL MEASURES AS SITE CONDITIONS, WEATHER OR CONSTRUCTION METHODS WARRANT.
- 16. FOLLOWING PERMANENT STABILIZATION, TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED AND ACCUMULATED SEDIMENTATION IS TO BE DISPOSED OF IN AN APPROVED LOCATION, OUTSIDE OF JURISDICTIONAL WETLANDS.

EROSION CONTROL (WINTER CONSTRUCTION)

EROSION CONTROL NOTES

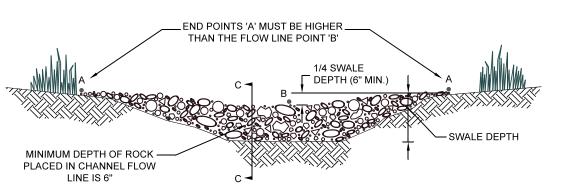
- ALL PROPOSED VEGETATED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATED GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED. STABILIZATION METHODS SHALL INCLUDE SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING, ELSEWHERE. THE INSTALLATION OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS.
- ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATED GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS
- AFTER NOVEMBER 15TH, INCOMPLETE ROAD OR PARKING SURFACES, WHERE WORK HAS STOPPED FOR THE WINTER SEASON. SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF CRUSHED GRAVEL OR PROPERLY INSTALLED EROSION CONTROL BLANKETS COVERED WITH HAY OTHER STABILIZATION OPTIONS ARE TO BE APPROVED BY THE APPROPRIATE AGENCIES AND THE DESIGN ENGINEER. IF CONSTRUCTION IS TO CONTINUE THROUGH THE WINTER MONTHS THEN THE ROAD SHOULD BE CLEARED OF ACCUMULATED SNOW AFTER EACH STORM EVENT



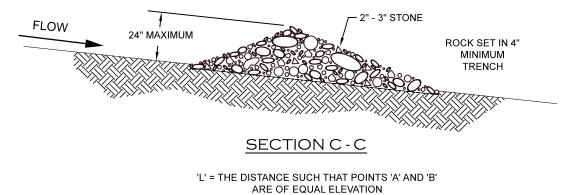
1. SILT FENCES SHOULD NOT BE USED ACROSS STREAMS, CHANNELS, SWALES, DITCHES OR OTHER DRAINAGE WAYS.

- SILT FENCE SHOULD BE INSTALLED FOLLOWING THE CONTOUR OF THE LAND AS CLOSELY AS POSSIBLE AND THE ENDS OF THE SILT FENCE SHOULD BE FLARED UPSLOPE.
- 3. IF THE SITE CONDITIONS INCLUDE FROZEN GROUND, LEDGE OR THE PRESENCE OF HEAVY ROOTS THE BASE OF THE FABRIC SHOULD BE EMBEDDED WITH A MINIMUM THICKNESS OF 8 INCHES OF 3/4-INCH
- TO ALLOW SPACE FOR SHALLOW PONDING AND ACCESS FOR MAINTENANCE.
- THE FENCE SHOULD BE 100 FEET.
- OFF-SITE AND CAN BE PERMANENTLY STABILIZED.

SILT FENCE

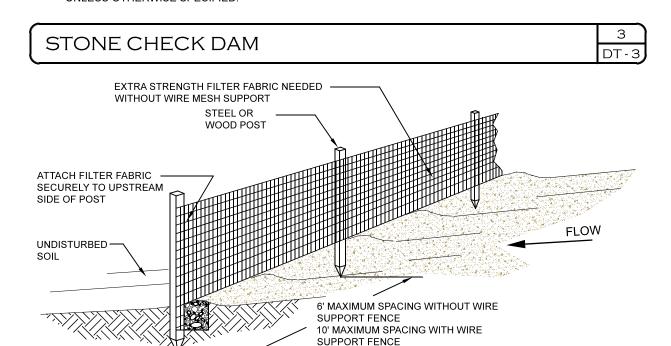


VIEW LOOKING UPSTREAM

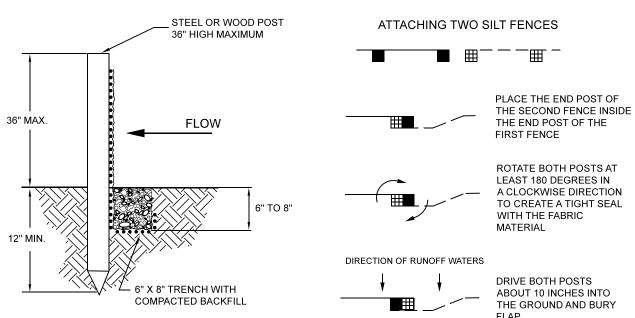


PROFILE - CHECK DAM SPACING

- 1. STONE CHECK DAMS SHOULD BE INSTALLED BEFORE RUNOFF IS DIRECTED TO THE SWALE OR
- 2. THE MAXIMUM CONTRIBUTING DRAINAGE AREA TO THE CHECK DAM SHOULD BE LESS THAN ONE ACRE.
- 3. STONE CHECK DAMS SHOULD NOT BE USED IN A FLOWING STREAM.
- 4. STONE CHECK DAMS SHOULD BE CONSTRUCTED OF WELL-GRADED ANGULAR 2 TO 3 INCH STONE. THE INSTALLATION OF 3/4-INCH STONE ON THE UPGRADIENT FACE IS RECOMMENDED FOR BETTER
- WHEN INSTALLING STONE CHECK DAMS THE CONTRACTOR SHALL KEY THE STONE INTO THE CHANNEL BANKS AND EXTEND THE STONE BEYOND THE ABUTMENTS A MINIMUM OF 18-INCHES TO PREVENT
- 6. STONE CHECK DAMS SHOULD BE REMOVED ONCE THE SWALE OR DITCH HAS BEEN STABILIZED UNLESS OTHERWISE SPECIFIED.

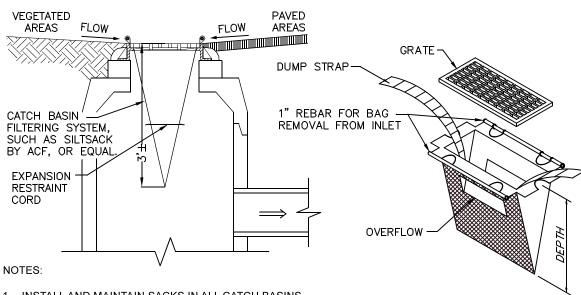


PERSPECTIVE VIEW



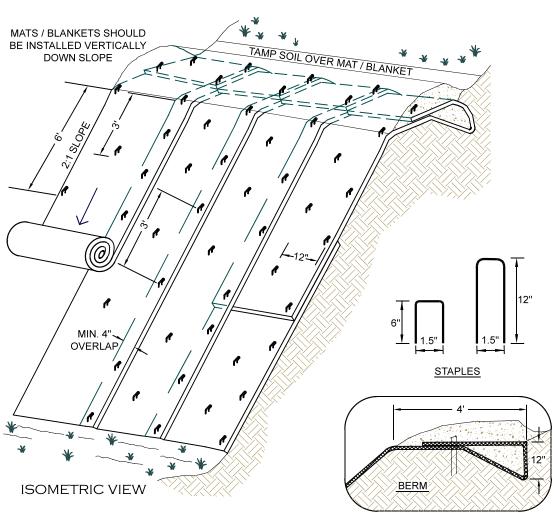
SECTION VIEW ATTACHING TWO SILT FENCES

- 4. SILT FENCES PLACED AT THE TOE OF SLOPES SHOULD BE INSTALLED AT LEAST 6 FEET FROM THE TOE
- THE MAXIMUM SLOPE ABOVE THE FENCE SHOULD BE 2:1 AND THE MAXIMUM LENGTH OF SLOPE ABOVE
- REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE TO SEDIMENT
- 7. SILT FENCES SHOULD BE REMOVED WHEN THE UPSLOPE AREAS HAVE BEEN PERMANENTLY



- 1. INSTALL AND MAINTAIN SACKS IN ALL CATCH BASINS.
- 2. TO INSTALL SACK, REMOVE CATCH BASIN GRATE AND PLACE SACK IN OPENING. HOLD OUT APPROXIMATELY SIX INCHES OF THE SACK OUTSIDE THE FRAME FOR THE LIFTING STRAPS. REPLACE THE GRATE TO HOLD THE
- 3. THE SACK SHOULD BE INSPECTED AFTER EVERY STORM, OR ONCE EVERY TWO WEEKS, WHICH EVER OCCURS FIRST
- 4. THE RESTRAINT CORD SHOULD BE VISIBLE AT ALL TIMES. IF THE CORD IS COVERED WITH SEDIMENT, THE SACK SHOULD BE EMPTIED. EMPTY THE SACK AWAY FROM THE CATCH BASIN TO PREVENT SEDIMENT FROM RE-ENTERING THE CATCH BASIN. EMPTY THE SACK PER THE MANUFACTURES RECOMMENDATIONS.
- 5. REPLACE THE SACK IN THE CATCH BASIN AFTER THE SACK HAS BEEN EMPTIED. ONCE CONSTRUCTION IS COMPLETE AND ALL DISTURBED AREAS HAVE BEEN STABILIZED BY PAVING OR A HEALTHY VEGETATIVE COVER, REMOVE THE SACK FROM THE CATCH BASINS.

SCALE: N.T.S. SILT SACK SEDIMENT FILTER



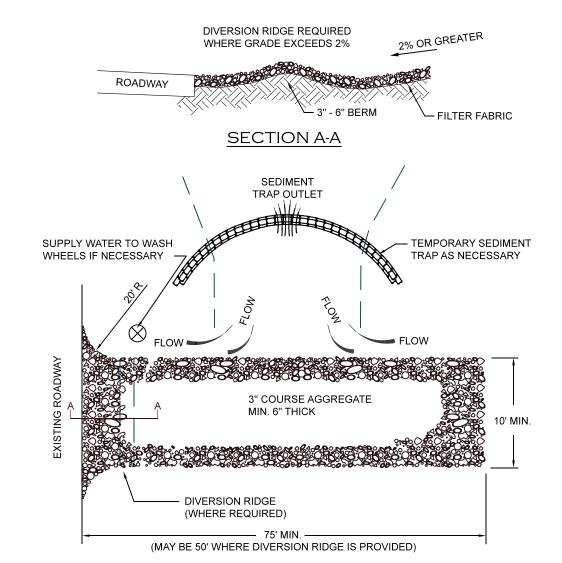
NOTES

- 1. DIMENSIONS GIVEN IN THIS DETAIL ARE EXAMPLES: DEVICE SHOULD BE INSTALLED PER MANUFACTURER'S
- 2. INSTALL STRAW/COCONUT FIBER EROSION CONTROL MAT SUCH AS NORTH AMERICAN GREEN SC150 OR EQUAL ON ALL SLOPES EXCEEDING 3' HORZ: 1' VERT.
- 3. THE EROSION CONTROL MATERIAL(S) SHALL BE ANCHORED WITH "U" SHAPED 11 GAUGE WIRE STAPLES OR WOODEN STAKES WITH A MINIMUM TOP WIDTH OF 1 INCH AND LENGTH OF 7 INCH.
- 4. SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS AND GRASS. MATS / BLANKETS SHALL HAVE GOOD SOIL CONTACT.
- 5. APPLY LIME, FERTILIZER AND PERMANENT SEEDING BEFORE PLACING BLANKETS.
- 6. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET AS SHOWN. ROLL THE BLANKETS DOWN THE SLOPE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES OR STAKES IN APPROPRIATE LOCATIONS. <u>REFER TO MANUFACTURERS STAPLE GUIDE FOR CORRECT STAPLE</u>
- 7. LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT
- 8. IN LOOSE SOIL CONDITIONS THE USE OF STAPLES OR STAKE LENGTHS GREATER THAN 6 INCHES MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.
- 9. THE CONTRACTOR SHALL MAINTAIN THE BLANKET UNTIL ALL WORK ON THE CONTRACT HAS BEEN COMPLETED AND ACCEPTED. MAINTENANCE SHALL CONSIST OF THE REPAIR OF AREAS WHERE DAMAGED BY ANY CAUSE. ALL DAMAGED AREAS SHALL BE REPAIRED TO REESTABLISH THE CONDITIONS AND GRADE OF THE SOIL PRIOR TO APPLICATION OF THE COVERING AND SHALL BE REFERTILIZED, RESEEDED AND REMULCHED AS DIRECTED

SCALE: N.T.S.

EROSION BLANKETS - SLOPE INSTALLATION





PLAN VIEW

- 1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO
- 2. THE MINIMUM STONE USED SHOULD BE 3-INCH CRUSHED STONE.
- 3. THE MINIMUM LENGTH OF THE PAD SHOULD BE 75 FEET, EXCEPT THAT THE MINIMUM LENTH MAY BE REDUCED TO 50 FEET IF A 3-INCH TO 6-INCH HIGH BERM IS INSTALLED AT THE ENTRANCE OF THE PROJCT SITE.
- 4. THE PAD SHOULD EXTEND THE FULL WIDTH OF THE CONSTRUCTION ACCESS ROAD OR 10 FEET, WHICHEVER IS GREATER.
- 5. THE PAD SHOULD SLOPE AWAY FROM THE EXISTING ROADWAY.
- 6. THE PAD SHOULD BE AT LEAST 6-INCHES THICK.

THE EARTH SURFACE BELOW THE PAD.

- 7. THE GEOTEXTILE FILTER FABRIC SHOULD BE PLACED BETWEEN THE STONE PAD AND
- 8. THE PAD SHALL BE MAINTAINED OR REPLACED WHEN MUD AND SOIL PARTICLES CLOG THE VOIDS IN THE STONE SUCH THAT MUD AND SOIL PARTICLES ARE TRACKED OFF-SITE
- 9. NATURAL DRAINAGE THAT CROSSES THE LOCATION OF THE STONE PAD SHOULD BE INTERCEPTED AND PIPED BENEATH THE PAD, AS NECESSARY, WITH SUITABLE OUTLET
- 10. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC
- 11. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT

GRAVEL CONSTRUCTION EXIT



SCALE: N.T.S.

APRIL 30, 2019

REV. PER STAFF COMMENTS CEB REV. DATE DESCRIPTION

EROSION CONTROL DETAILS TAX MAP PARCEL 7-25 - 19 PERRY ROAD MILFORD, NEW HAMPSHIRE

PREPARED FOR AND LAND OF: **WILLIAM T. MAHAR** 19 PERRY ROAD, MILFORD, NH 03055-4308

Surveying ϕ Engineering ϕ Land Planning ϕ Permitting ϕ Septic Designs



SCALE: AS SHOWN

206 Elm Street, Milford, NH 03055 Phone: (603) 672-5456 Fax: (603) 413-5456 www. Fields to ne Land Consultants. com

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TOWN OF MILFORD, NH OFFICEOFCOMMUNITYDEVELOPMENT

1 UNION SQUARE, MILFORD, NH 03055

TEL: (603)249-0620

WEB: WWW.MILFORD.NH.GOV

Date: July 7, 2019

To: **Planning Board**

From: Lincoln Daley, Community Development Director

Subject: William T. Mahar, Tax Map 7 Lot 25, 19 Perry Road. Conditional Use Permit Application

pursuant to Section 7.13 of the Zoning Ordinance and Major Site Plan Application to construct three (3) self-storage buildings totaling 9,500 sf and a 1,800 square foot building addition, and related parking, landscaping, and drainage improvements within the Integrated Commercial - Industrial 2 Zoning District and the Commerce Community Overlay District. In addition, Conditional Use Permit application pursuant to Section 6.06.6.F seeking relief from Section 6.06.6 Administration the

administrative process and application requirements for submitting a Master Regulating Plan.

BACKGROUND/PROPOSAL:

The applicant is before the Planning Board for two Conditional Use Permit Applications to construct three self-storage facility buildings totaling 9,500 square feet (1 x 2,200 s.f., 1x 3,300 s.f., and, 1 x 4,000 s.f.), a 1,800 building addition for the automotive repair business, drainage and stormwater management improvements, and lighting and landscape design plan. The project also entails the restoration plan for the previously disturbed areas within the wetland buffer area and the removal/razing of storage trailers and accessory structures.

This application is for a Conditional Use Permit to permit the self-storage facility buildings within the Integrated Commercial Industrial 2 Zoning District pursuant to the recently adopted Section 7.13 Self Storage Facilities and Section 7.14 Conditional Use Permits. The site plan review will be completed as a separate process pursuant to Section 6.06 Commerce Community Overlay District. In addition, the applicant is requesting a Conditional Use Permit seeking relief from Section 6.06.6.F seeking relief from Section 6.06.6 Administration the administrative process and application requirements for submitting a Master Regulating Plan.

This will be the first public hearing for the two Conditional Use Permit Applications.

PLANNING BOARD REVIEW:

The Board shall review this application based on Sections 6.06.6.F, 7.13.3 and 7.14.3 of the Milford Zoning Ordinance. For your convenience, the pertinent standards and conditions from each section are listed below.

COMMERCE AND COMMUNITY OVERLAY, Section 6.06.6.F Conditional Use Permits, Subsection 3.C

- 3. Conditional Use Permit, for relief from the requirements of this Ordinance, may be granted by the Planning Board after proper public notice and public hearing provided the Planning Board finds that the application complies with standards 3.c.i and 3.c.ii below.
 - i. Consistent with the Commerce and Community District Purpose and Intent, as well as but not limited to:
 - 1. Both public and private buildings and landscaping shall contribute to the physical definition of streetscapes and public spaces; and
 - 2. Development shall adequately accommodate motor vehicles and emergency service vehicles, while respecting the pedestrian, bicyclist and the spatial form of public spaces; and
 - 3. Architecture and landscape design shall complement climate, topography, community character, and building practice; and

- 4. Open space and public gathering places shall be provided as locations that reinforce the identity and activity of the District and the community; and
- 5. Does not negatively impact adjacent properties and uses in the District.
- ii. Improves public safety within the District and/or in adjacent zoning districts; or provides environmental and natural resource protection; or provides a measureable public benefit (such as increased public space, open space or public amenities).

SELF STORAGE FACILITY, SECTION 7.13.3 CONDITIONAL USE PERMIT

In addition to the standards and conditions stated in Section 7.14.0 of the Milford Zoning Ordinance, the following criteria must be met for a Conditional Use Permit to be issued by the Planning Board.

- A. Granting of the application would meet some public need or convenience.
- B. The property in question is reasonably suited for the use requested.
- C. There must be appropriate provision for access facilities adequate for the estimated traffic from public streets and sidewalks, so as to assure public safety and to avoid traffic congestion.
- D. The building design and layout is compatible with the surrounding properties.
- E. Landscaping and screening shall provide adequate visual mitigation to abutting properties.

CONDITONAL USE PERMITS, SECTION 7.14.3 STANDARDS APPLICABLE TO ALL CONDITIONAL USE PERMITS

- A. That the property in question is in conformance with the dimensional requirements of the zone or is determined to be legally non-conforming and that the proposed use is consistent with the Milford Master Plan.
- B. That the proposal meets the purposes of the Ordinance under which the application is proposed.
- C. That there will be no significant adverse impacts resulting from the proposed use upon the public health, safety and general welfare of the neighborhood and the Town of Milford.
- D. That the proposed use will not be more objectionable to nearby properties by reason of noise, fumes, vibration, or inappropriate lighting than any use of the property permitted under the existing Zoning District Ordinances.
- E. That the proposed use will not adversely affect the ground water resource of Milford, in particular the Groundwater Protection District areas as defined in Section 6.01.0 of this Ordinance.

EXISTING USE/CONDITIONS:

The proposed parcel, Tax Map 7, Lot 25 consists of approximately 3.27 acres (142,441sq.ft.) with 315 linear feet of frontage on the Class V portion of Perry Road. The property is laterally bisected by Tucker Brook along the northern half of the property. Said area is undeveloped due to the proximity of the brook and associated wetland resource areas. The topography for the property slopes upward from north to south with a grade differential of 18-20 feet. The developed areas consist of an existing automotive repair operation (GTA Automotive Service) and a separate single-family residence. The rear portions of the property are used to store material, vehicles, and storage containers. The subject property is located adjacent to the Hitchner Manufacturing storage building to the south, undeveloped open fields to the north and east, and the Hollis Machine Line Industrial property to the west.

LOT AREA:

Tax Map7, Lot $25 = \pm 3.27$ acres (142,441 sq.ft.)

APPLICATION STATUS:

The application is complete and ready to be accepted.

NOTICES:

Notices were sent to all property abutters on June 14, 2019.

REGIONAL IMPACT:

The Board will need to determine if the application would result in Regional Impact.

WAIVERS:

No waivers are being requested.

ZONING DISTRICTS/INFORMATION:

The parcel lies within the Integrated Commercial – Industrial "ICI" 2 zoning district. The intent of the Integrated Commercial-Industrial District 2 is to provide an area for mixed commercial and industrial development in commercial and industrial park-like settings. The property meets the 40,000 square foot minimum size for lots not serviced by municipal water and sewer and contains at least 150 linear feet of frontage on Perry Road. A self-storage facility is a permitted use in the ICI 2 zoning district through the issuance of Conditional Use Permit and as a permitted use in the Commerce and Community Overlay. The commercial building additional is a permitted use within the ICI zoning district and Commerce and Community Overlay.

The property also falls within the Commerce Community Overlay District. The purpose of this Ordinance

....is to implement the Town of Milford's vision for the future as set forth in the Community Character Chapter of the Master Plan 2007 Update: Goal No. 2: Foster the traditional character of Milford's neighborhoods by encouraging a human scale of development that is similar in setbacks, size and height, and that is comfortable and safe for pedestrians and non-motorized vehicles while allowing for an efficient and safe roadway network. This section was is intended to meet and implement the goals of the Commerce and Community District Vision and the Town of Milford's goals as set forth in the following Chapters of the Master Plan, updated as of 2011, The Brox Properties Chapter's High Priority Actions; the Housing Chapter's Action Program; the Traffic and Transportation Chapter's Action Program and the Economic Development Chapter's Action Items and The Community Character Chapter's Goal No. 2 - Foster the traditional character of Milford's neighborhoods by encouraging a human scale of development that is similar in setbacks, size and height, and that is comfortable and safe for pedestrians and non-motorized vehicles while allowing for an efficient and safe roadway network.

The Site Plan review and approval process is governed by Section 6.06 Commerce Community Overlay District of the Zoning Ordinance which requires as one of the first steps that all projects submit a Master Regulating Plan to the Board for approval. As stated earlier, the applicant is requesting an additional Conditional Use Permit pursuant to Section 6.06.6.F seeking relief from Section 6.06.6 Administration requiring the submission of a Master Regulating Plan.

If the Conditional Use Permit is approved by the Planning Board, the review and approval of the site plan, as detailed in the Section 6.06 of the Ordinance, would be completed by the Expedited Review Committee comprised of Town Staff and Planning Board representative.

The property falls inside of the groundwater protection district, but is outside of the 100-year flood hazard area.

TRAFFIC AND ACCESS MANAGEMENT:

Access and egress to proposed storage facility will be from the existing driveway and curb cut on Perry Road. The internal layout of the storage facility buildings and driveway provide sufficient width/area for emergency and large transport vehicles. The applicant should provide additional information pertaining to the anticipated number of customer trips from the site for the self-storage facilities, vehicle repair operation, and residential use.

PARKING:

The site plan has been revised to show 21 parking spaces for serving the existing auto repair operation and the proposed self-storage facilities. Parking areas associated with the vehicle repair operations are currently located in front of the existing building (unmarked). The applicant will need to update the plan by adding a note and/or chart detailing the parking calculation.

DRAINAGE/STORMWATER MANAGEMENT:

The stormwater and drainage design in being reviewed by the Town Engineering Consultant, KV Partners. The applicant submitted responses to the Town's comments and are currently under review.

UTILITES:

The property is currently serviced by private well and septic. The proposed storage facilities will not be connected to septic or require water. Electricity to the facilities will be installed underground.

INTERDEPARTMENTAL REVIEWS:

Ambulance: No comments. **Assessing:** No comments.

Building Department: No comments.

Code Enforcement/ Health: No comments.

Conservation Commission: See attached memo dated 5/21/09.

Environmental Programs/Stormwater: The stormwater and drainage design are currently being reviewed by the

Town's engineering consultant, KV Partners.

Fire Department: No comments

Heritage Commission: No comments.

Police Department: No comments.

Public Works: No comments.

Water/Sewer Utilities: No comments.

Community Development / Planning:

Conditional Use Permit Questions/Comments (refer to applicant response letter dated July 3, 2019)

1. Zoning Ordinance, Section 6.06.6.F.3.C.i.1. Both public and private buildings and landscaping shall contribute to the physical definition of streetscapes and public spaces; and

What alternative architectural options were considered for the self-storage facilities? In addition, please provide the architectural renderings for the building addition.

2. Zoning Ordinance, Section 6.06.6.F.3.C.i.3. Architecture and landscape design shall complement climate, topography, community character, and building practice; and

The response states that the proposed architecture and landscape design is compatible with the surrounding areas, improves buffering to the surroundings and meets local requirements. Please detail how the proposed architecture and landscape design compliments climate, topography, community character, and building practice.

3. Zoning Ordinance, Section 6.06.6.F.3.C.ii. Improves public safety within the District and/or in adjacent zoning districts; or provides environmental and natural resource protection; or provides a measureable public benefit (such as increased public space, open space or public amenities).

The response stats that this project will improve the stormwater management on-site and significantly improve the wetlands buffer area to Tucker Brook. Further, the applicant states that the buffer area is already impacted as there are structures, material piles and active storage occurring within 50 feet of Tucker Brook. The restoration plan will bring the site back into compliance. The applicant is seeking approval to continue to impact the delineated wetland buffer area. What alternative stormwater designs/locations were considered regarding the proposed infiltration basin within the wetland buffer area?

4. Zoning Ordinance, Section 7.13.3.B. The property in question is reasonably suited for the use requested.

The applicant is seeking approval to locate a drainage structure within the delineated wetland buffer. Please explain what design/building layout alternatives were considered to minimize the impact to wetland buffer and Tucker Brook.

- 5. Zoning Ordinance, Section 7.13.3.D. Please discuss how the design and layout is compatible with surrounding properties.
 - What alternative architectural options were considered for the self-storage facilities? In addition, please provide the architectural renderings for the building addition.
- 6. Zoning Ordinance, Section 7.13.4.A.10. *Please provide the building elevations and materials for the proposed self-storage facility.*
- 7. Zoning Ordinance, Section 7.14.3.A.5. That the proposed use will not adversely affect the ground water resource of Milford, in particular the Groundwater Protection District areas as defined in Section 6.01.0 of this Ordinance.

Please address this Conditional Use Permit Requirement.

Site Plan Comments and Questions. (Refer to applicant response letter dated July 3, 2019)

- 1. Sheet 2, Wetland Buffer. Please revise the plan to show the correct 50' wetland buffer from Tucker Brook to consistent plan notes and following sheets. The plan currently shows a 25' delineated buffer. *Addressed*
- 2. Sheets 2 and 4. In viewing the aerial photographs of the property, it would appear that work and excavation has been completed within the 50' buffer area. Please describe the activities that have occurred are ongoing within the 50' wetland buffer area. *Addressed*
- 3. Sheet 3, Parking Spaces. Please revise the plan to include a table stating the number of existing and proposed parking spaces. Please revise the plan to show the parking areas for employees, customers, and customer vehicles associated with the garage operation and addition. *Partially Addressed. Please add a note or table to the plan detailing the parking calculation/analysis.*
- 4. Sheet 3, Parking Spaces. Please clarify if there will be any outside storage of vehicles, boats, RVs associated with the storage facility? If yes, please update the plan accordingly. *Partially Addressed. Please clarify if the proposal calls for the outside storage of vehicles, boats, and RVs. If yes, please update the plan accordingly.*
- 5. Sheet 3, Designated Snow Storage Areas. A large snow storage area is located within the 50 foot wetland buffer to Tucker Brook and over the proposed detention basin. Please explain the rationale for locating snow storage areas within the buffer zone and what alternatives were considered. The primary concern is the use of chlorides and other deicing agents to manage the impervious surface around the site and long-term impact to Tucker Brook. Partially Addressed. Recommend that a note be added to the plan stating that no salt shall be used to manage the impervious surface associated with the vehicle repair operation and self-storage facilities.
- 6. Sheet 3, Proposed Snow Management Plan. Given the proximity of the project to the Tucker Brook, please discuss the proposed snow maintenance and management plan. *Partially Addressed. See previous comment.*
- 7. Sheet 4, Proposed Drainage Basin. The drainage basin is located within the 50 foot wetland buffer from Tucker Brook. In accordance with Section 6.02.6.B of the Milford Zoning Ordinance, the use would require a Special Exception from the Board of Adjustment. The drainage basin is not a listed permitted use in Section 6.02.5 Accepted Uses, B. Buffer Zones.
- 8. Sheet 5, Landscaping and Lighting Plan. It is staff's understanding that project seeks to utilize the existing landscaping along Perry Road to meet the minimum landscape design standards. Please provide a narrative detailing how the existing landscaping design meets Milford Zoning Ordinance, Section 6.06.9 and the Development Regulations or submit a waiver request seeking relief from the minimum standards for landscaping. *Addressed*.
- 9. Sheet 5, Landscaping and Lighting Plan. No detail is provided to show how the previously disturbed areas within the 50 foot wetland buffer will be restored. Please revise the plan to show the restoration of the previously disturbed areas located north of the proposed Build C and the detention basin. As part of the update, please revise the construction detail sheets to include the planting and maintenance specifications and best management

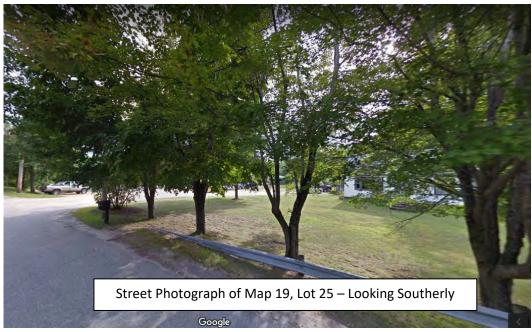
- practices. Preference should be given to using a wetland seed mix and plantings. Addressed.
- 10. Sheets 4 and 5, Detention Basin. Please revise the plan to show the engineering and construction details for the detention basin. Currently, no detail is provided. Please explain why the detention basin could not be designed as a fully function rain garden complete with plantings? Given its current proposed location within the 50' wetland buffer to Tucker Brook, the applicant should make every effort to improve stormwater management/water quality and mitigate impacts to Tucker Brook. *Addressed*.
- 11. Sheet 5, Landscaping and Lighting Plan. Please revise the plans to include additional visual screening along the south eastern portion the property abutting Lot 7-23. The area is currently lacking visual mitigation. *Addressed*.
- 12. Sheet 5, Landscaping and Lighting Plan. Please confirm if the front part of the property contains a minimum of a 10' wide landscaped area. *Addressed*.
- 13. Sheet 5, Landscaping and Lighting Plan. Will the project include a dumpster? If yes, please provide the location and associated engineering, construction details, and landscape design elements on a revised plan. **Addressed.** *Addressed.*
- 14. Sheet 5, Landscaping and Lighting Plan. Please revise the plan to include all existing and proposed signage. Please include the associated engineering and construction details. *Addressed*.
- 15. General Question. Please submit building elevations. Addressed.

STAFF RECOMMENDATIONS:

The applicant should be prepared to address the comments raised by the Planning Board, Conservation Commission, Heritage Commission, Town Consultants, Staff, and public pertaining to both Conditional Use Permits. If the Board finds that there is sufficient evidence/information and that the application satisfies both Sections 6.06.6.F, 7.13.3 and 7.14.3 of the Milford Zoning Ordinance, the Board should approve the Conditional Use Permits. If additional information is needed, the Board should continue the application to the next schedule meeting.

Aerial Photographs of Map 6, Lot 14-1.









Town of Milford CONSERVATION COMMISSION

Town Hall
1 Union Square
Milford, NH 03055-4240
(603) 249-0628
Fax (603) 673-2273
www.milford.nh.gov
conservation@milford.nh.gov



MEMORANDUM

May 21, 2019

To: Milford Planning Board

Re: Interdepartmental Review Map 7 Lot 225 Self-Storage Units at 19 Perry Rd

To the Board,

The Conservation Commission reviewed this plan at their May 9, 2019 meeting. The Commission has some comments.

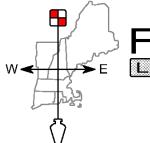
- 1. What will the impact be to the buffer while constructing the units?
- 2. The proposed self-storage units are located in the Groundwater Protection District Level 1 Protection Area. Could the Planning Board put a condition for approval that no hazardous materials may be stored within these units?
- 3. The buffer indicated on Sheet 2 of 8 of the Plan revised May 2, 2019 indicates a 25' buffer rather than the required 50' buffer associated with Tucker Brook.
- 4. Will there be doors on the Tucker Brook side of the northernmost self-storage building? How will access be handled? This unit is right on the edge of the buffer.
- 5. The MCC does not support putting drainage swales or stormwater facilities in the buffer. The intent is to retain undisturbed buffers.

The Commission appreciates the opportunity to review this application. We look forward to seeing a well-designed project that improves the natural resource functionality of the site.

Very Respectfully,

Andy Hughes, Chair Milford Conservation Commission

LETTER OF TRANSMITTAL



FIELDSTONE

Surveying • Engineering
Land Planning • Septic Designs

AND CONSULTANTS, PLLC

206 Elm Street, Milford, NH 03055 - Phone: 603-672-5456 - Fax: 603-413-5456 www.FieldstoneLandConsultants.com

To: Lincoln Daley, Director of Community Development

Town of Milford 1 Union Square Milford, NH 03055

Date: July 3, 2019

Re: Self-Storage Development and Building Addition to GTA Auto Service

Test Pit Data

William T. Mahar - Tax Map Parcel 7-25, 19 Perry Road

L	J Snop drawing	is ■ Prints	■ Plans □	Samples	☐ Specifications								
COPIES	DATE	NO.	DESCRIPTION										
1			Conditional Use Permit Narrat	ive									
1			Response to Staff Comments	sponse to Staff Comments									
1			Response to Engineering Rev	iew									
1			Example Building Photos / Ele	vations									
1			Revised Stormwater Manager	nent Report	Narrative								

WE ARE SENDING YOU ■ Attached □ Under separate cover via _____ the following items:

Revised Full Size Plan Sets
Revised Half Size Plan Set

THESE ARE TRANSMITTED as checked below:

	For approval	Approved as submitted	Resubmit copies for approval
	As requested	Returned for corrections	Return corrected copies
•	For review and comment		<u>.</u>
	FOR BIDS DUE:		PRINTS RETURNED AFTER LOAN TO US

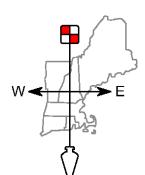
REMARKS:

3

Hi Lincoln, We have enclosed the above listed items to address the outstanding items for this project. Please contact me with any questions.

Thank you,

Chad E. Branon, PE



Surveying • Engineering
Land Planning • Septic Designs

LAND CONSULTANTS, PLLC

206 Elm Street, Milford, NH 03055 - Phone: 603-672-5456 - Fax: 603-413-5456 www.FieldstoneLandConsultants.com

CONDITIONAL USE PERMIT NARRATIVE MAP 7, LOT 25 19 PERRY ROAD - MILFORD, NEW HAMPSHIRE

<u>Prepared for:</u> William T. Mahar

July 3, 2019

I) INTRODUCTION

This project proposes to develop Tax Map Parcel 7-25 with a 9,500 S.F. self-storage facility and a 1,800 S.F. building addition with associated site improvements. The property is located at 19 Perry Road consists of 3.2+/- acres and is currently occupied by GTA Auto Service, a single family residential house and associated site improvement including accessory structures. The property is bordered by a grass field to the north, a commercial development to the north east, old farm land to the east and industrial developments to the south and west.

The subject development will require two Conditional Use Permits. One Conditional Use Permit will be required for the self-storage use under Section 7.13 of the Zoning Ordinance and the other will be required for Section 6.06.6.F as we are seeking relief from Section 6.06.6 Administration to forgo the administrative process and application requirements for submitting a Master Regulating Plan since a portion of this project is located in the Commerce and Community District. We have addressed these Conditional Use Permit requests below.

SELF-STORAGE USE – CONDITIONAL USE PERMIT (SECTION 7.13):

The 2019 Milford Zoning Ordinance addresses Self-Storage Facilities in Section 7.13.10. In the Integrated Commercial-Industrial 2 District Self-Storage Facilities are permitted by the granting of a Conditional Use Permit by the Planning Board.

The ordinances outlines the requirements for a conditional use permit under Section 7.13.3 and the Standards under section 7.13.4. The requirements for these sections are outlined below with responses in bold.

7.13.3 CONDITIONAL USE PERMIT

The following criteria must be met for a Conditional Use Permit to be issued by the Planning Board.

- A. Granting of the application would meet some public need or convenience.

 There is a demand and need for this type of facility as research has shown that local facilities are operating at or near capacity.
- B. The property in question is reasonably suited for the use requested.

 This property is suited well for the use proposed. The use is compatible with the existing uses on the property and storage of the goods is already done on site with campers,



Page 2

- boats, cars and equipment being stored out behind the existing automotive garage. This project will provide restoration of existing buffer areas and the self-storage site will be situated to the rear of the site where it will be buffered adequately from Perry Road.
- C. There must be appropriate provision for access facilities adequate for the estimated traffic from public streets and sidewalks, so as to assure public safety and to avoid traffic congestion.
 - The layout and design of the facility accommodates appropriate access to the public street and will provide safe access to the site by emergency response vehicles and the general public. This site has been designed to address public safety and to avoid traffic congestion.
- D. The building design and layout is compatible with the surrounding properties.

 The proposed buildings (self-storage buildings) will be compatible with the surrounding properties and the existing buildings on-site. GTA Auto Service's building is a metal building and properties along Perry Road adjacent to the site are also occupied by metal buildings.
- E. Landscaping and screening shall provide adequate visual mitigation to abutting properties. This project will improve buffering to neighboring properties. This will consist of installing additional landscaping as depicted on the plans. This also includes restoring the wetlands buffer area on-site which is currently occupied by structures, material piles and misc. storage.

7.13.4 STANDARDS

- A. The Planning Board shall evaluate the application for compliance with the following standards:
 - 1. The use of the premises shall be limited to storage only, and shall not be used to manufacture, fabricate, or process goods; service or repair vehicles or boats, trailers, small engines or electrical equipment, or to conduct similar repair activities.
 - The self-storage portion of the site will be located to the rear of the existing automotive shop. There will be no businesses run out of the self-storage site and the self-storage buildings will be limited to storage only and will thereby meet this requirement.
 - 2. No auctions, garage sales or retail sales of any kind, with the exception of the property owner liquidating abandoned contents of a storage unit, shall be allowed on site.
 - This project will comply with this requirement.
 - 3. No commercial or industrial activity other than that which pertains to the operation and maintenance of the facility shall be allowed on the site.
 - The self-storage facility will be located to the rear of the site and will be operated separately from the existing GTA Auto Service business and will therefore comply with this section as reviewed with Town Staff. There will be no businesses allowed to operate out of the self-storage facility.
 - 4. An individual self-service storage unit or private postal boxes within a self-service storage facility shall not be considered premises for the purpose of assigning a legal or business address.
 - This project will comply with this requirement.



Page 3

- 5. Electrical service to storage units shall be for lighting and climate control only. No electrical outlets are permitted inside individual storage units. Lighting fixtures and switches shall be of a secure design that will not allow tapping the fixtures for other purposes.
 This project will comply with this requirement.
- 6. Exterior light fixtures shall comply with Section 6.06 of the Milford Development Regulations. This project will comply with this requirement. The lighting for this project has been designed to meet the local requirements.
- 7. If the facility abuts residentially zoned property, the facility loading bays, docks or doors shall have appropriate permanent visual mitigation to as to not be visible from the residential property or from public rights-of-way.
 This project does not abutter residentially zoned property but the layout and design of the
 - This project does not abutter residentially zoned property but the layout and design of the site does have the doors positioned to face internally with exception of the middle building which will have doors facing Perry Road. This building is situated far back from Perry Road behind the proposed addition to GTA Auto Service. This building will therefore not impact the visual appearance along Perry Road.
- 8. In order to promote visual compatibility with commercial development allowed in commercial and industrial zones, Self-Storage Facility buildings shall incorporate appropriate landscaping/screening and architectural design features, such as: massing; proportion; façade modulation; exterior building materials and detailing; varied roofline; pedestrian scale; etc.
 - The proposed self-storage facility is situated to the back of the site a good distance from Perry Road. The location of the use along with the existing landscaping will provide visual compatibility to what exists in the neighborhood. This project will actually consist of removing existing structures on-site that are not compatible so the proposed development will be an improvement to the site and surroundings.
- 9. All outdoor storage of merchandise or commodities (including motor vehicles) shall be screened from any lot which is in a residence district by a strip at least four (4) feet wide, densely planted with shrubs or trees which are of a type that may be expected to form a year-round dense screen at least six (6) feet high within three (3) years, or by an opaque wall, barrier or uniform fence at least six (6) feet high above finished grade. Such screening shall be maintained in good condition at all times. Such screening or barrier may be interrupted by normal entrances or exits, and shall have no signs hung or attached thereto other than those permitted in the district. As a part of the Site Plan approval, the Planning Board may require additional screening beyond that set forth in Section 6.08 of the Milford Development Regulations if it determines that additional Screening is necessary or appropriate.

The subject property currently provides outdoor storage behind GTA Auto Services. The development of the site as a self-storage complex will eventually eliminate the outdoor storage use. This is addressed on the site plan in the Phasing Notes. The intent of the plan is to Construct Building B in Phase 1 and to allow outdoor storage where Building A will be constructed. This area is currently utilized for outdoor storage and will be screened from



Page 4

Perry Road as it is situated behind the existing automotive shop. This location will also be buffered from neighboring properties thereby complying with this section.

10. Self-storage facilities shall utilize building materials and architectural features which fit into the context of the surrounding properties.

The design of this site and the proposed buildings is compatible with surrounding properties. The neighboring properties that are developed are all occupied by metal buildings of similar design.

- 11. Except as provided herein, all property stored on the premises shall be entirely within an enclosed building. Open storage of recreation vehicles, boats and storage pods is permitted, subject to the following:
 - a. Storage shall occur only in a designated area which is clearly delineated for open storage.

This is detailed in the plan notes (specific location).

b. Such areas shall not exceed 10 percent of the lot or parcel area.

The area of the site where we are proposing outdoor storage is less than 10 percent of the parcel area.

c. Such areas shall be screened from view from property zoned for detached single family residential use and public property, including the public right-of-way.

The proposed location is adequately screened and thereby complies with this section.

d. Storage shall not occur in required parking spaces, drives, parking lanes nor within required building setback areas.

The layout and design of the site meets this requirement.

e. No vehicle maintenance, washing or repair shall be permitted.

This project will comply with this requirement.

12. Vehicle and trailer rental may be permitted on the premises as an accessory use by the Self Storage Facility owner, subject to review and approval as part of Site Plan Approval. Rental vehicles shall not be parked in required parking spaces, drives or parking lanes.

This project does not propose vehicle or trailer rentals at this time.

COMMERCE AND COMMUNITY OVERLAY DISTRICT – CONDITIONAL USE PERMIT (SECTION 6.06.6.F):

The Commerce and Community Overlay District appears to have been intended to incorporate the Brox Properties located off from Perry Road. In reviewing this ordinance the objectives state that this ordinance is intended to provide "An innovative, environmentally sensitive commercial, industrial, and mixed-use overlay district that is consistent with Milford's community vision by integrating cost-effective, diverse transportation options and progressive economic development opportunities through comprehensive land use planning".

The framework of this ordinance is clearly intended to address a larger project where master planning, phasing and a collaborative process is desired and required. This ordinance requires the preparation of a Mater Regulating Plan which is to include an illustrative Plan, Mater Regulating Plan, a Project Report, a Traffic Impact Report, a Stormwater Management and Erosion Control



William T. Mahar

Map 7, Lot 25 – Conditional Use Permit Narrative July 3, 2019

Page 5

Assessment Report and a detailed Phasing Plan. This ordinance also addresses the review process that is required which includes submitting an application for a Master Regulating Plan and a review process with the Expedited Review Committee and the Planning Board. All of the details of this ordinance clearly are intended to address a review of a much larger more complex development.

Although the zoning map shows this district partially overlapping the subject property we do not believe that this ordinance was intended to address a development proposal similar to what is being presented.

To best address this we are seeking a Conditional Use Permit pursuant to Section 6.06.6.F as we are seeking relief from Section 6.06.6 Administration to forgo the administrative process and application requirements for submitting a Master Regulating Plan. The ordinance outlines the requirements for a conditional use permit under Section 6.06.6.F. The requirements for this Conditional Use Permit request are outlined below with responses in bold.

6.06.6.F. Conditional Use Permit

1. Purpose and Intent

The purpose and intent of this section is to provide a mechanism to allow for modifications to the Ordinance, with the intent of providing relief where the application of a standard creates practical difficulties in allowing development to proceed.

- 2. Application Requirements
 - a. An application to deviate from the requirements of this Ordinance, within the intent of the Conditional Use Permit, shall be submitted to the Planning Board or its designated agent and shall include:
 - i. An application in accordance with the Minor Site Plan Regulations
 - We have submitted a Conditional Use Permit Application.
 - ii. A narrative description of the deviation from this ordinance
 - A narrative has been provided above.
 - iii. Any other documents and/or material required by the Planning Board to determine consistency with this Ordinance.

We have submitted all requested material by Town Staff.

- 3. Review Process and Appeals
 - c. A Conditional Use Permit, for relief from the requirements of this Ordinance, may be granted by the Planning Board after proper public notice and public hearing provided the Planning Board finds that the application complies with standards 3.c.i and 3.c.ii below.
 - i. Consistent with the Commerce and Community District Purpose and Intent, as well as but not limited to:
 - 1. Both public and private buildings and landscaping shall contribute to the physical definition of streetscapes and public spaces; and



Page 6

The design of this project meets all applicable building and landscaping design standards and the streetscape along Perry Road is maintained.

2. Development shall adequately accommodate motor vehicles and emergency service vehicles, while respecting the pedestrian, bicyclist and the spatial form of public spaces; and

The layout and design adequately accommodates motor vehicles and emergency response vehicles. Safe pedestrian travel is also provided to the existing automotive service shop from the proposed parking areas.

3. Architecture and landscape design shall complement climate, topography, community character, and building practice; and

The proposed architecture and landscape design is compatible with the surrounding areas, improves buffering to the surroundings and meets local requirements. This site will consist of making significant drainage improvements as well and the restoration of the wetlands buffer onsite.

- 4. Open space and public gathering places shall be provided as locations that reinforce the identity and activity of the District and the community; and This requirement is not really applicable to this site and proposed development.
- 5. Does not negatively impact adjacent properties and uses in the District. This proposal will not negatively impact adjacent properties or uses in the district. All of the improvements to the property should have positive impacts on the neighboring properties.
- ii. Improves public safety within the District and/or in adjacent zoning districts; or provides environmental and natural resource protection; or provides a measureable public benefit (such as increased public space, open space or public amenities).

This project will improve the stormwater management on-site and significantly improve the wetlands buffer area to Tucker Brook. Currently the buffer area is impacted as there are structures, material piles and active storage occurring within 50 feet of Tucker Brook. This project restore this area as depicted on the plans with the removal of these uses and the construction of an infiltration basin with associated landscaping. This will result in an environmental improvement and an improvement to the natural resource.

Thank you for your consideration.

Prepared By:

Chad E. Branon, Project Engineer

RESPONSES TO STAFF REVIEW COMMENTS RECIEVED VIA EMAIL

Hi Lincoln,

Please see our responses to your review comments in red below.

Below please find the preliminary list of questions from Staff for your review and response.

Site Plan and Conditional Use Permit

- Sheet 1, Owner Signature Block. Please revise the plan to show an owner signature block and have the owner sign the plan. The application will be deemed incomplete until the Community Development Office has received a plan that the owner, engineer, surveyor have all signed. A signature block has been added to Sheet 1 and the owner has signed the applicable sheets.
- 2. Sheet 2, Wetland Buffer. Please revise the plan to show the correct 50' wetland buffer from Tucker Brook to consistent plan notes and following sheets. The plan currently shows a 25' delineated buffer. The plan has been revised as requested.
- 3. Sheets 2 and 4. In viewing the aerial photographs of the property, it would appear that work and excavation has been completed within the 50' buffer area. Please describe the activities that have occurred are ongoing within the 50' wetland buffer area. The back portion of this site has been used for storage of equipment, cars, campers, etc. for years. This portion of the site has been actively used up to the existing tree lines which is evident from looking at the existing house, structures and vegetation on-site.
- 4. Sheet 3, Parking Spaces. Please revise the plan to include a table stating the number of existing and proposed parking spaces. Please revise the plan to show the parking areas for employees, customers, and customer vehicles associated with the garage operation and addition. This has been added to the plans as requested.
- 5. Sheet 3, Parking Spaces. Please clarify if there will be any outside storage of vehicles, boats, RVs associated with the storage facility? If yes, please update the plan accordingly. The outdoor storage of vehicles has been addressed in Note #2 on Sheet 3. There is no long term plans for outdoor storage once the site construction is completed.
- 6. Sheet 3, Designated Snow Storage Areas. A large snow storage area is located within the 50 foot wetland buffer to Tucker Brook and over the proposed detention basin. Please explain the rationale for locating snow storage areas within the buffer zone and what alternatives were considered. The primary concern is the use of chlorides and other deicing agents to manage the impervious surface around the site and long-term impact to Tucker Brook. This plan really consists of restoring the buffer area. All of the existing disturbances of the buffer area, in the project area, will be removed and the area will be restored through the construction of our infiltration basin. This basin has been designed to handle extreme precipitation storm events and any snow melt will make its way into this basin and be infiltrated and treated through the soils. There will be no direct discharges into the adjacent jurisdictional area. Currently there is no stormwater mitigation on-site so all snow would melt and run into the wetlands. Given this we believe this design will be an improvement over the existing conditions. Also self storage sites are very low volume facilities so ice treatment is less critical and is most often treated with the application of sand.
- 7. Sheet 3, Proposed Snow Management Plan. Given the proximity of the project to the Tucker Brook, please discuss the proposed snow maintenance and management plan. The owner plans to handle the snow maintenance and management himself which would consist of plowing the site as needed and applying sand to the surface as needed. Salt use would

be restricted to use only when conditions warrant and cannot be adequately treated with sand.

- 8. Sheet 4, Proposed Drainage Basin. The drainage basin is located within the 50 foot wetland buffer from Tucker Brook. In accordance with Section 6.02.6.B of the Milford Zoning Ordinance, the use would require a Special Exception from the Board of Adjustment. The drainage basin is not a listed permitted use in Section 6.02.5 Accepted Uses, B. Buffer Zones. As discussed this project does not propose an additional impacts to the wetlands buffer area. In fact this project is really proposes to restore the existing historical impacts to the buffer area. This will included the removal of structures, materials, storage, etc. in these areas and the restoration of this buffer area through the construction of a vegetated infiltration basin, loaming and seeding and landscaping the area as depicted on the attached plan set. When you consider this the project will actually make the site more compliant.
- 9. Sheet 5, Landscaping and Lighting Plan. No detail is provided to show how the previously disturbed areas within the 50 foot wetland buffer will be restored. Please revise the plan to show the restoration of the previously disturbed areas located north of the proposed Build C and the detention basin. As part of the update, please revise the construction detail sheets to include the planting and maintenance specifications and best management practices. Preference should be given to using a wetland seedmix. The plans have been revised to incorporate restoration and landscaping details. As discussed this plan really is a restoration plan for the buffer areas. Structures, storage of materials, etc. will no longer be located in the buffer area and the area will be graded and re-established with vegetation as depicted on the plans. The appropriate seed mixtures have been selected for the soil conditions.
- 10. Sheets 4 and 5, Detention Basin. Please revise the plan to show the engineering and construction details for the detention basin. Currently, no detail is provided. Please explain why the detention basin could not be designed as a fully function rain garden complete with plantings? Given its current proposed location within the 50' wetland buffer to Tucker Brook, the applicant should make every effort to improve stormwater management/water quality and mitigate impacts to Tucker Brook. The plans have been revised to incorporate the suggested construction details. As previously discussed this plan will restore the buffer areas and all stormwater will be collected and infiltrated through the closed drainage system and proposed infiltration basin. This design will improve stormwater management and quality on-site and will certainly mitigate the proposed development and will not have adverse impacts to Tucker Brook.
- 11. Sheet 5, Landscaping and Lighting Plan. Please revise the plans to include additional visual screening along the south eastern portion the property abutting Lot 7-23. **The plans have been revised as requested.**
- 12. Sheet 5, Landscaping and Lighting Plan. Please confirm if the front part of the property contains a minimum of a 10' wide landscaped area. The front part of the property does contain a minimum of a 10 foot wide landscaped area.
- 13. Sheet 5, Landscaping and Lighting Plan. Will the project include a dumpster? If yes, please provide the location and associated engineering, construction, and landscape design elements on a revised plan. The project is not anticipating the use of a dumpster as noted but we have included a dumpster location to the rear of the existing auto garage in case the owner decides to add one to the site in the future.
- 14. Sheet 5, Landscaping and Lighting Plan. Please revise the plan to include all existing and proposed signage. Please include the associated engineering and construction details. The site plan and details incorporate any proposed signage. The sign for the site is currently a building mounted wall sign so there are no free standing signs on-site.
- 15. General Question. Please submit building elevations. Please see the attached photos which represent typical self-storage facilities.
- 16. Please amend the Conditional Use Application to include a brief narrative articulated

compliance with the requirements stipulated in Section 7.13.0 Self Storage Facilities. **Please** see the attached narrative addressing the requested Conditional Use Permits.

Thank you, Chad

Chad E. Branon, P.E.

Civil Engineer / Principal



206 Elm Street – Milford NH 03055 Tel: 603.672.5456 - Fax: 603.413.5456

Cell: 603.499.5799

<u>CEBranon@FieldstoneLandConsultants.com</u>

P.O. Box 432, New Boston, NH 03070

(603) 413-6650

June 23, 2019

PLEASE SEE OUR RESPONSES TO THESE COMMENTS IN RED BELOW EACH COMMENT

Lincoln Daley, Community Development Director Town of Milford 1 Union Square Milford, NH 03055

Re: Self Storage Development, 19 Perry Road, Site Plan (Map 7, Lot 25) – Drainage Review

Dear Mr. Daley:

We reviewed the 8-sheet plan set a revision date of May 2, 2019 and Stormwater Management Report dated May 1, 2019 prepared by Fieldstone Land Consultants in accordance with our agreement with the Town. As requested, our review was limited the drainage system only. Based on that review and a site visit, we offer the following comments:

- 1. The Estimated Seasonal High-Water Table and infiltration rates need to be determined by a test pit/testing in the stormwater basin particularly since infiltration is a critical element of the stormwater mitigation design. Test Pits were completed and the locations have been added to the plans. Soil testing was completed on-site and NRCS rates were used as they were more conservative.
- 2. Hoods on the catch basin outlet pipes are very important to prevent materials from the paved areas from clogging the infiltration system pipes and stone prematurely. Add hoods to all catch basin outlets. Hoods have been added to all catch basin outlets as requested and a construction detail has been added to the plan set.
- 3. Add a construction detail for the pond overflow that depicts shape, slope and surface materials (assume it will be grassed overflow). A construction detail has been added to the plan set as requested.
- 4. In the calculations, rainfall amounts used (NRCS) are lower than the Extreme Precipitation
 Tables from the Northeast Regional Climate Center which is the standard practice in NH.
 Clarify why different precipitation values were used for this analysis. The stormwater management design has been revised to model Extreme Precipitation Rates and a revised summary has been included.

If you have any questions or need any additional information, please feel free to contact me at 603-413-6650 or on my cell phone at 603-731-1562 or by email at MVignale@kvpllc.com.

Sincerely,

KV Partners LLC

Michael S. Vignale, P.E. Principal Engineer



Example Elevation of Self-Storage Building

Surveying • Engineering
Land Planning • Septic Designs

LAND CONSULTANTS, PLLC

206 Elm Street, Milford, NH 03055 - Phone: 603-672-5456 - Fax: 603-413-5456 www.FieldstoneLandConsultants.com

STORMWATER MANAGEMENT REPORT MAP 7, LOT 25 MILFORD, NEW HAMPSHIRE

Prepared for: William T. Mahar

Revised: July 3, 2019

I) INTRODUCTION

The following are stormwater drainage calculations for the proposed self-storage development and building addition at 19 Perry Road in Milford, NH. The subject parcel is 3.2± acres and is bordered by a grass field to the north, a commercial development to the north east, old farm land to the east and industrial developments to the south and west. The applicant is proposing a 9,500 S.F. self-storage facility and an 1,800 S.F. building addition with associated site improvements. The development will be serviced by underground utilities using existing connections. The project is located at 19 Perry Road and is known as Lot 25 on the Town of Milford Assessor's Map 7.

The purpose of this report is to analyze the qualitative and quantitative impacts of the proposed development. The objective of the proposed stormwater management system for this project is to mitigate any increases resulting from the proposed development and to meet the drainage guidelines set forth in the Town of Milford Stormwater Management & Erosion Control Regulations.

II) SITE DESCRIPTION (EXISTING)

The subject property is comprised of 3.2± acres. The parcel is currently developed with a single-family home and an automotive service company (GTA Auto Service). The subject parcel has numerous storage buildings/trailers and a main garage building. There is also a large portion of outdoor storage with associated gravel areas. In the front of the site there is parking for the vehicles being serviced that consists of both gravel and paved parking areas. The site is comprised almost entirely of Hinckley loamy sand which is a Hydrologic Soil Group "A" soil. There is also a portion of Rippowam fine sandy loam on the other side of Tucker Brook which is an HSG "A/D" soil.

The majority of the site drains to a 15" RCP culvert located at the front of the site near the south east corner of the property. The ground cover is primarily gravel storage areas with some open lawn area around the existing house. There is both gravel and paved parking areas in front of the main garage and there are sparse woods around the perimeter of the lot. The subject parcel is also bisected by Tucker Brook which runs west to east through the property. The remainder of the site not draining to the 15" RCP drains to the north discharging directly into Tucker Brook. The site is relatively flat throughout with the exception of the top of bank of Tucker Brook and the abutting property to the south.



William T. Mahar Map 7, Lot 25 – Stormwater Management Report Revised: July 3, 2019

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III) METHODOLOGY

The quantity of runoff and the conveyance of that flow through the site are determined using the software package HydroCAD r 10.0 by HydroCAD Software Solutions, LLC. HydroCAD is a computer aided design program for modeling storm water hydrology based on the Soil Conservation Service (SCS) TR-20 method combined with standard hydraulics calculations used to model detention basins and culverts.

Stormwater management systems and erosion control are designed in accordance with the methodology for the "Best Management Practices" (BMP's), as outlined in the New Hampshire Storm Water Manual, Volume 2.

IV) DRAINAGE DESIGN

Town of Milford Stormwater Management & Erosion Control Regulations requires that there be no increase in the peak rate of runoff for two (2) year frequency storm over pre-development conditions. The regulations also require that drainage infrastructure be designed to convey the twenty-five (25) year frequency storm and that infiltration/retention BMP's be designed to convey the fifty (50) year frequency storm events. This report has been prepared utilizing the Extreme Precipitation Tables from the Northeast Regional Climate Center. These design storms have been analyzed and the results are attached. A comparison of the pre and post-development peak flow rates and volume of runoff for the 2, 10 and 25 year storm events are shown in Tables 1 & 2 below.

Pre-Development Drainage Conditions:

As can be seen on the Pre-Development Drainage Plan, the majority of the site drains to a 15" RCP (OP1) culvert located at the front of the site near the south east corner of the property. This area consists of the majority of runoff from the existing storage buildings/trailers and the main garage with associated gravel/paved parking areas. A small portion of the site (2S) sheet flows directly into Tucker Brook (OP2) which consists of the stormwater runoff from the existing single-family home and adjacent lawn areas.

Post-Development Drainage Conditions:

As can be seen on the drainage plan, this project proposes to construct an infiltration basin and a series of catch basins with leaching trenches to mitigate any increase in the stormwater runoff peak rates and volumes. Subcatchment 103S consists of the stormwater runoff from the entire proposed gravel/paved areas and nearly all of the proposed buildings. This stormwater runoff is captured by a series of catch basins with leaching trenches (P103) and outlets to the proposed infiltration basin (P102). Subcatchment 102S drains to the proposed infiltration basin (P102) and consists primarily of the stormwater runoff from the grassed areas but also includes a portion of roof runoff from the self-storage buildings. The proposed infiltration basin then outlets via a grass spillway to Tucker Brook (OP2). The stormwater runoff not captured by either of the stormwater



William T. Mahar

Map 7, Lot 25 – Stormwater Management Report

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management practices (Subcatchments 101S and 201S) sheet flows directly to each observation point for the site in a similar manner as the pre-development condition. Basin preparation notes have been included on the plans to assure that exfiltration rates are maintained. The slowest default exfiltration (Ksat) rate for Hinckley loamy sand is 6 in./hr. An exfiltration rate of 3 in./hr. was used in the design calculations providing a factor of safety of 2.0.

V) SUMMARY

The intent of the stormwater management system for this project is to address the qualitative and quantitative aspects of the stormwater runoff so that there are no downstream adverse impacts created by the project. To improve the on-site drainage on the subject parcel this project proposes an infiltration basin and a series of catch basins with leaching trenches that will be constructed to current standards. The net result is that new paved (optional)/gravel areas will receive qualitative treatment and the post-development volumes and the peak rates of runoff leaving the site will be maintained.

The following tables are a summary of the attached calculations and show a comparison of the peak flow rates and volumes at the outlet points for the site. The values presented are based on pre- and post-development conditions.

Table 1: Peak Flow Rates (CFS)/Volume (AF) to OP1 – with Post-Development Infiltration

STORM FREQUENCY	PRE-DEV. RUNOFF (CFS/AF)	POST-DEV. RUNOFF (CFS/AF)	CHANGE (CFS/AF)
2-YEAR	0.40/0.064	0.09/0.021	-0.31/-0.043
10-YEAR	1.85/0.203	0.69/0.087	-1.16/-0.116
25-YEAR	3.37/0.344	1.47/0.159	-1.90/-0.185

Table 2: Peak Flow Rates (CFS)/Volume (AF) to OP2 – with Post-Development Infiltration

STORM FREQUENCY	PRE-DEV. RUNOFF (CFS/AF)	POST-DEV. RUNOFF (CFS/AF)	CHANGE (CFS/AF)
2-YEAR	0.00/0.000	0.00/0.000	0.00/0.000
10-YEAR	0.04/0.010	0.02/0.005	-0.02/-0.005
25-YEAR	0.17/0.024	0.09/0.015	-0.08/-0.009

Extreme Precipitation Tables

Northeast Regional Climate Center

Data represents point estimates calculated from partial duration series. All precipitation amounts are displayed in inches.

Smoothing Yes

State New Hampshire

Location

Longitude 71.721 degrees West 42.841 degrees North

Elevation 0 feet

Date/Time Wed, 10 Aug 2016 10:31:03 -0400

Extreme Precipitation Estimates

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.28	0.42	0.53	0.69	0.86	1.08	1yr	0.75	1.01	1.25	1.57	1.97	2.48	2.75	1yr	2.20	2.64	3.04	3.81	4.38	1yr
2yr	0.33	0.51	0.64	0.84	1.06	1.33	2yr	0.91	1.21	1.53	1.91	2.39	2.98	3.34	2yr	2.64	3.21	3.72	4.45	5.07	2yr
5yr	0.39	0.61	0.77	1.03	1.32	1.67	5yr	1.14	1.51	1.94	2.42	3.01	3.73	4.26	5yr	3.31	4.09	4.73	5.58	6.24	5yr
10yr	0.44	0.70	0.88	1.20	1.56	1.99	10yr	1.34	1.79	2.31	2.89	3.59	4.43	5.12	10yr	3.92	4.92	5.67	6.62	7.30	10yr
25yr	0.53	0.83	1.06	1.46	1.94	2.50	25yr	1.67	2.24	2.92	3.66	4.53	5.57	6.55	25yr	4.93	6.30	7.21	8.31	9.00	25yr
50yr	0.59	0.94	1.21	1.70	2.30	2.99	50yr	1.98	2.65	3.50	4.38	5.41	6.62	7.89	50yr	5.86	7.59	8.65	9.87	10.55	50yr
100yr	0.68	1.09	1.41	2.00	2.72	3.56	100yr	2.35	3.14	4.17	5.23	6.45	7.87	9.52	100yr	6.97	9.15	10.38	11.73	12.37	100yr
200yr	0.77	1.25	1.63	2.33	3.22	4.25	200yr	2.78	3.73	4.99	6.25	7.70	9.36	11.49	200yr	8.29	11.05	12.47	13.94	14.52	200yr
500yr	0.92	1.52	1.98	2.88	4.04	5.36	500yr	3.49	4.68	6.30	7.91	9.73	11.79	14.76	500yr	10.44	14.19	15.88	17.54	17.94	500yr

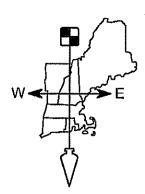
Lower Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.20	0.32	0.38	0.52	0.64	0.77	1yr	0.55	0.75	1.01	1.35	1.68	2.21	2.40	1yr	1.96	2.31	2.52	3.45	3.85	1yr
2yr	0.32	0.49	0.60	0.82	1.01	1.19	2yr	0.87	1.17	1.35	1.75	2.24	2.89	3.24	2yr	2.56	3.12	3.60	4.32	4.93	2yr
5yr	0.36	0.55	0.68	0.93	1.19	1.39	5yr	1.02	1.36	1.62	2.10	2.68	3.46	3.95	5yr	3.06	3.80	4.35	5.16	5.82	5yr
10yr	0.39	0.60	0.74	1.04	1.34	1.56	10yr	1.15	1.53	1.76	2.39	3.04	4.00	4.60	10yr	3.54	4.42	5.02	5.89	6.60	10yr
25yr	0.44	0.67	0.83	1.19	1.56	1.81	25yr	1.35	1.77	2.04	2.84	3.56	4.74	5.64	25yr	4.20	5.42	6.07	7.02	7.79	25yr
50yr	0.47	0.72	0.89	1.28	1.73	2.04	50yr	1.49	1.99	2.29	3.26	4.03	5.45	6.60	50yr	4.82	6.35	7.00	8.01	8.83	50yr
100yr	0.50	0.76	0.95	1.37	1.88	2.29	100yr	1.63	2.24	2.57	3.21	4.57	6.26	7.75	100yr	5.54	7.45	8.10	9.13	10.02	100yr
200yr	0.54	0.81	1.03	1.49	2.08	2.58	200yr	1.79	2.52	2.86	3.58	5.21	7.21	9.12	200yr	6.38	8.77	9.36	10.41	11.36	200yr
500yr	0.59	0.89	1.14	1.65	2.35	3.04	500yr	2.03	2.97	3.35	4.14	6.22	8.69	11.37	500yr	7.69	10.93	11.35	12.37	13.43	500yr

Upper Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.32	0.49	0.59	0.80	0.98	1.17	1yr	0.85	1.14	1.29	1.69	2.10	2.66	2.98	1yr	2.35	2.87	3.34	4.27	4.86	1yr
2yr	0.36	0.56	0.68	0.93	1.14	1.32	2yr	0.99	1.29	1.49	1.91	2.45	3.09	3.46	2yr	2.73	3.33	3.87	4.61	5.23	2yr
5yr	0.44	0.67	0.83	1.14	1.45	1.68	5yr	1.26	1.64	1.86	2.36	2.95	4.03	4.58	5yr	3.57	4.40	5.13	6.01	6.68	5yr
10yr	0.51	0.79	0.98	1.37	1.77	2.06	10yr	1.52	2.01	2.32	2.81	3.48	4.92	5.68	10yr	4.35	5.46	6.36	7.34	8.06	10yr
25yr	0.65	0.99	1.23	1.76	2.32	2.68	25yr	2.00	2.62	3.00	3.53	4.30	6.45	7.52	25yr	5.71	7.23	8.46	9.61	10.32	25yr
50yr	0.78	1.19	1.48	2.12	2.86	3.28	50yr	2.47	3.20	3.66	4.20	5.05	7.91	9.30	50yr	7.00	8.94	10.51	11.80	12.46	50yr
100yr	0.94	1.42	1.78	2.56	3.52	4.02	100yr	3.04	3.93	4.46	5.65	5.93	9.69	11.50	100yr	8.58	11.06	13.04	14.48	15.05	100yr
200yr	1.13	1.70	2.15	3.11	4.34	4.91	200yr	3.74	4.80	5.42	6.86	6.98	11.87	14.22	200yr	10.51	13.67	16.19	17.80	18.20	200yr
500yr	1.45	2.16	2.77	4.03	5.73	6.37	500yr	4.95	6.23	7.04	8.89	8.62	15.51	18.82	500yr	13.73	18.09	21.55	23.38	23.41	500yr





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LAND CONSULTANTS, PLLC

206 Elm Street, Milford, NH 03055 - Phone: 603-672-5456 - Fax: 603-413-5456 www.FieldstoneLandConsultants.com

TEST PIT DATA
WILLIAM T. MAHAR
19 PERRY ROAD
MILFORD, NH

5/9/19

Test Pit #1

0-10"- 10YR 3/3 Dark Brown, gravelly loam, granular friable

10-84" - 2.5Y 6/4 Light Yellowish Brown, gravelly fine-to-coarse sand, single grain, loose (debris/fill)

ESHWT = >84"

Observed Water = None

Ledge/Boulders = >84"

Roots = 48"

Perc Rate = 2 min/in @ 32"

5/9/19

Test Pit #2

0-10"- 10YR 3/3 Dark Brown, loam, granular, friable

10-18"- 2.5Y 6/6 Olive Yellow, very fine sandy loam, granular, friable

18-28" - 10YR 3/3 Dark Brown, loam, weak blocky, friable

28-84" - 2.5Y 6/4 Light Yellowish Brown, fine-to-coarse sand, single grain, loose

ESHWT = >84"

Observed Water = None

Ledge/Boulders = >84"

Roots = 52''

Perc Rate = 2 min/in @ 24"

5/9/19

Test Pit #1

0-1"- 2.5Y 6/4 Light Yellowish Brown, gravelly fine-to-coarse sand, single grain, loose (parking surface)

1-84" - 2.5Y 6/4 Light Yellowish Brown, gravelly coarse-to-fine sand, single grain, loose, few stones

ESHWT = >84"

Observed Water = None

Ledge/Boulders = >84"

Roots = 48"

Perc Rate = 2 min/in @ 32"

Test Pits were logged by:

Kenneth Robinson

NH Licensed Designer #1896

1968.00

