

ECHO LAKE INVESTMENTS, LLC

ECHO LAKE SUBDIVISION

PHASE 1

CARROLL, NEW HAMPSHIRE

MAY 2019

REVISED: NOVEMBER 2023/FEBRUARY 2024

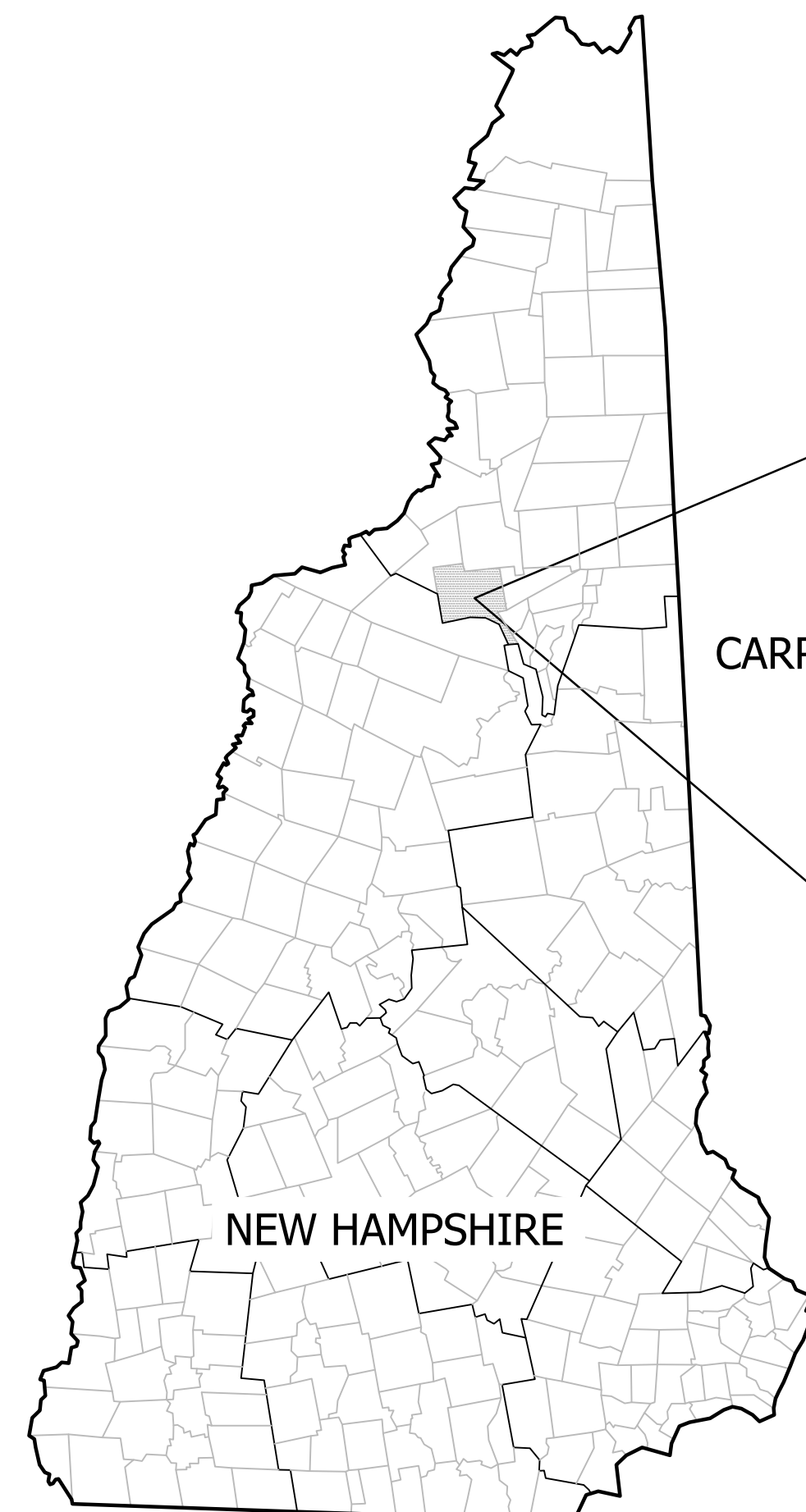
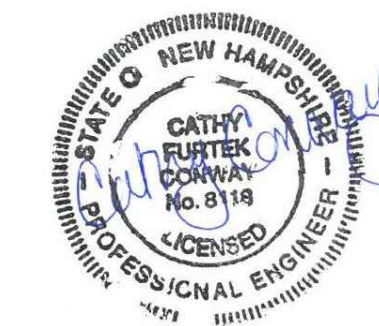
OWNER:

ECHO LAKE INVESTMENTS, LLC
PO BOX 640
LEXINGTON, MA 02420

ENGINEER & SURVEYOR:

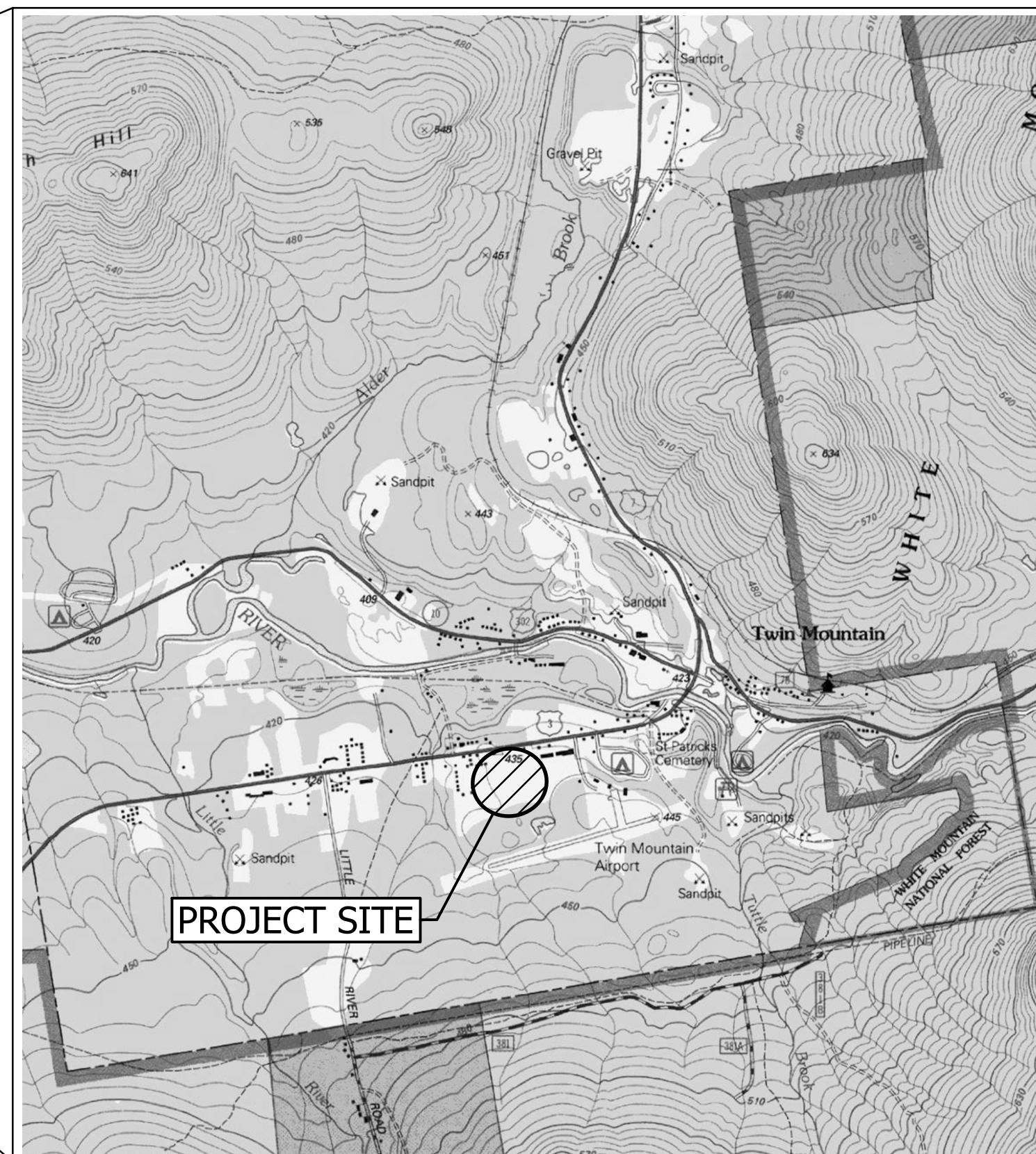
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34 SCHOOL STREET
LITTLETON, NH 03561
(603) 444-4111



CARROLL

NEW HAMPSHIRE



PROJECT SITE

LOCATION PLAN

SCALE: 1" = 2000'

PERMIT APPROVALS

THIS PROJECT SHALL COMPLY WITH ALL CONDITIONS OF ALL PERMITS FOR THE PROJECT. IT IS THE OWNER'S RESPONSIBILITY TO ENSURE ALL PERMITS ARE IN PLACE PRIOR TO THE START OF CONSTRUCTION. COPIES OF THESE PERMITS MAY BE REQUESTED FROM THE TOWN OF CARROLL.

CARROLL SITE PLAN REVIEW
CARROLL SUBDIVISION
NHDOT DRIVEWAY PERMIT

PB APPROVAL DATE: SEPTEMBER 3, 2020
PB APPROVAL DATE: 2005
01-075-5886-P, ISSUED 11/16/2020

SHEET LIST

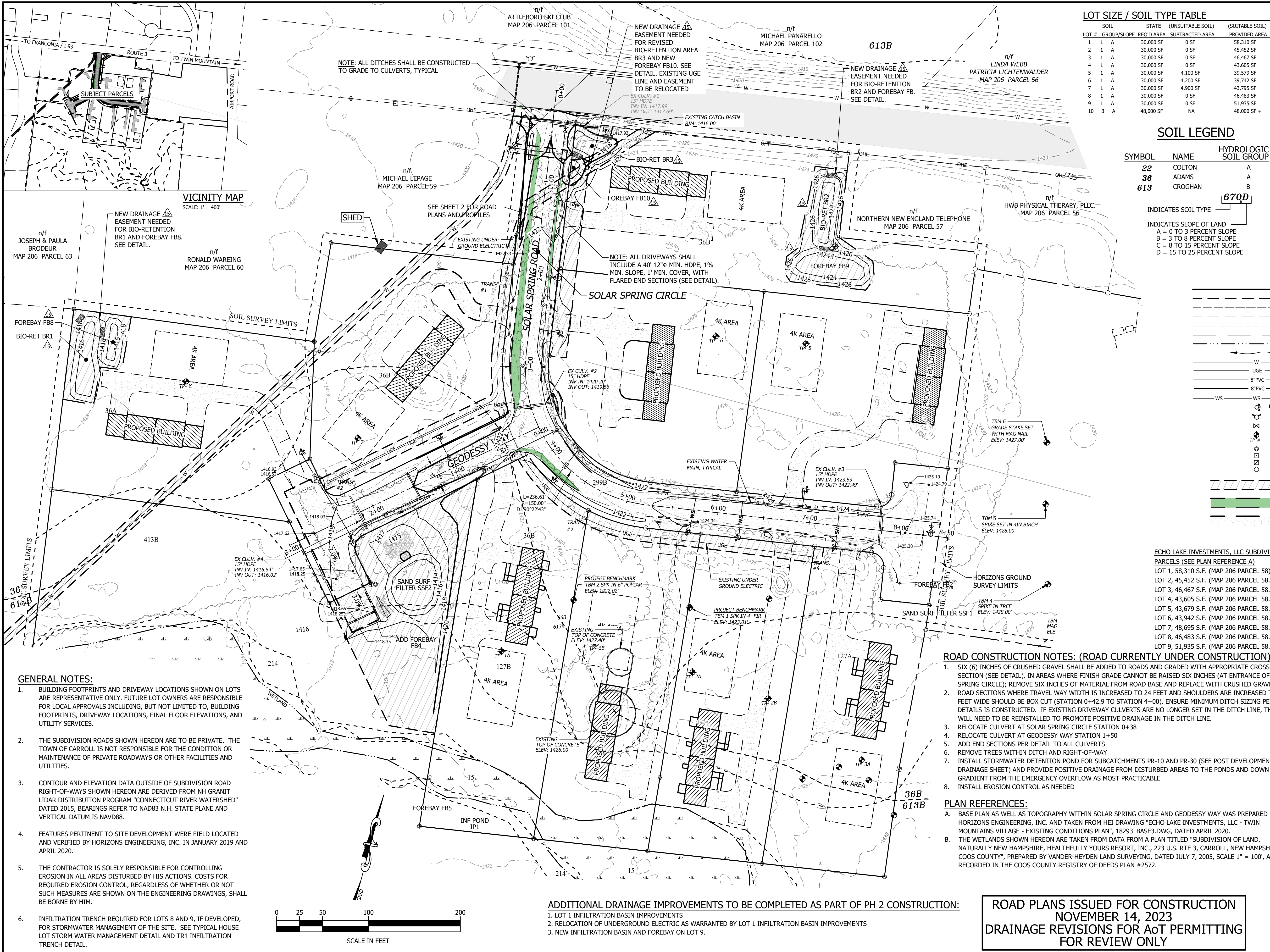
COVER	EXISTING CONDITIONS
EX COND	SITE PLAN
SHEET 1	ROAD PLANS & PROFILES
SHEET 2	UTILITY PLAN
SHEET 3	STANDARD WATER SYSTEM
SHEET 4	DETAILS AND NOTES
SHEET 5	WATER SYSTEM SPECIFICATIONS
SHEET 6	WATER SYSTEM SPECIFICATIONS
SHEET 7	TRAFFIC CONTROL PLAN & LANE CLOSURE DETAIL
SHEET 8	CONSTRUCTION SEQUENCE, EROSION CONTROL NOTES AND DETAILS
SHEET 9	DETAILS
SHEET 10	DETAILS

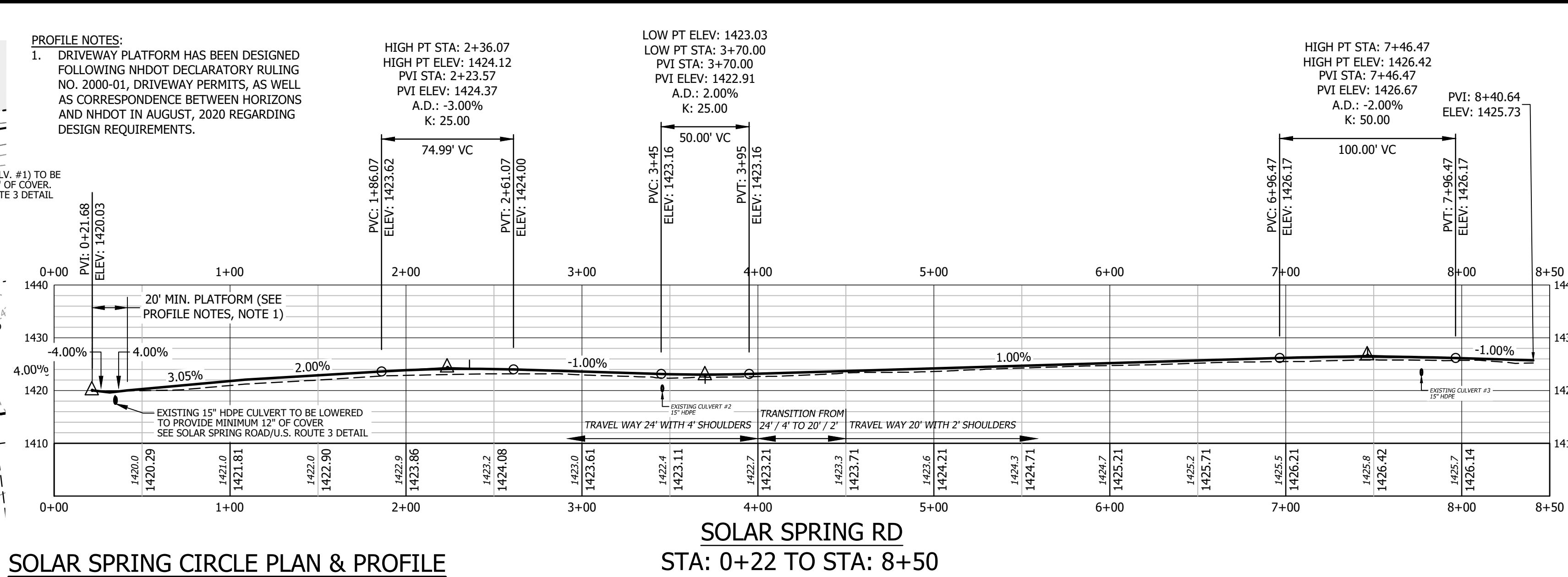
REV. 10
SHEETS REMOVED
WATER MAIN IS EXISTING

ROAD PLANS ISSUED FOR CONSTRUCTION
NOVEMBER 14, 2023
DRAINAGE REVISIONS FOR AOT PERMITTING
FOR REVIEW ONLY

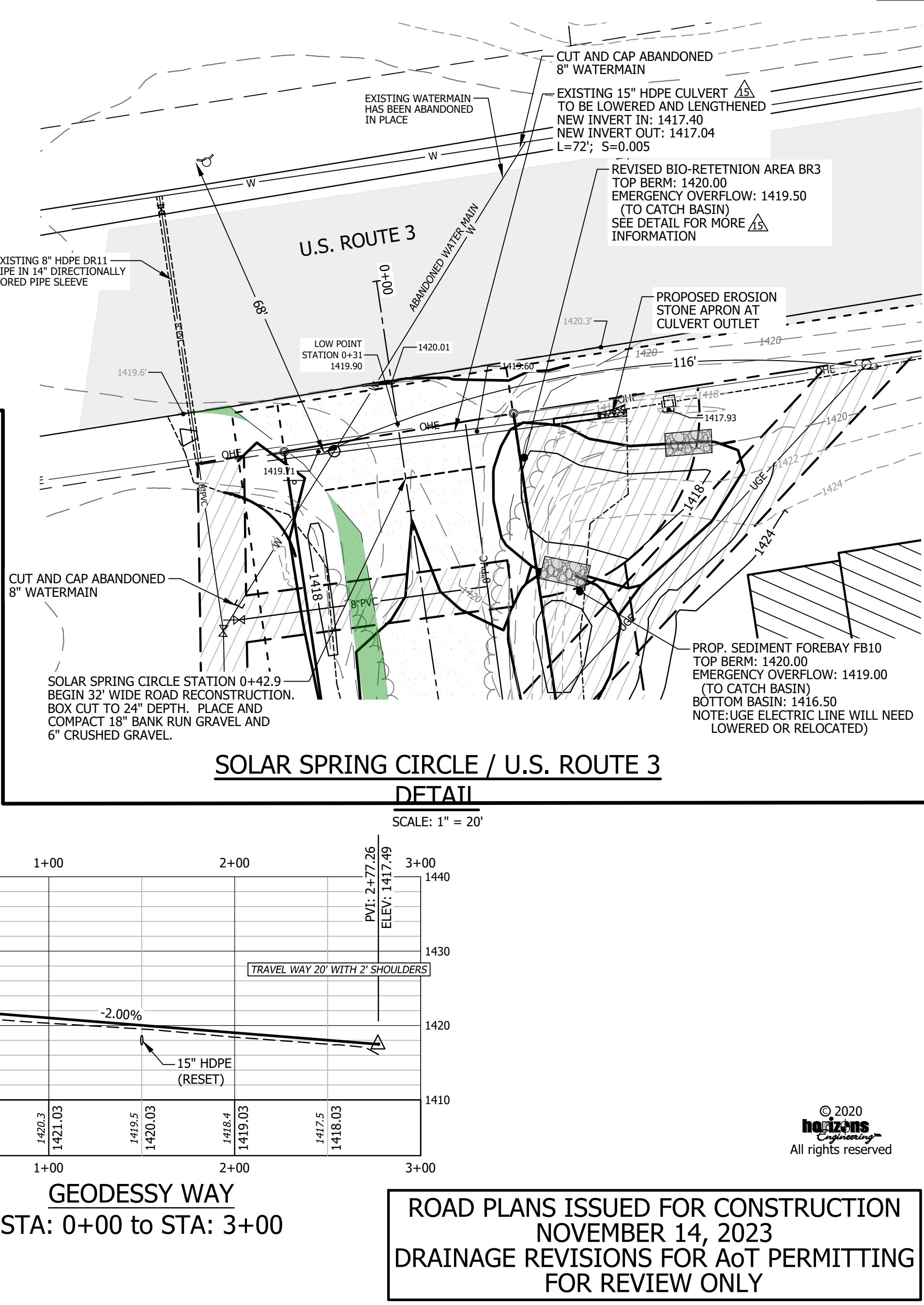
DATE OF PRINT
FEBRUARY 28 2024
HORIZONS ENGINEERING

Z:\proj_2018\18293 ECHO Lake - Carroll Site Plan\DWG\Site Plan\DWG\Site Plan 18293 Solar Spring SITE-14.dwg, Sheet-01, Size: Mylar, 2/28/2024 8:36:43 AM, Matt Gibson





ROAD CENTERLINE OFFSETS FOR BOX LIMITS				
STATION	LT FULL BOX LIMITS		RT FULL BOX LIMITS	
	END OFFSET	START OFFSET	START OFFSET	END OFFSET
0+42.9	0	0	0	0
0+50	0	0	9	14
0+60	0	0	9	14
0+75	0	0	9	14
1+00	0	0	10.75	16.6
1+10	16.3	13	11.3	15.9
1+20	16	13.9	10.3	15.9
1+40	17	14	10.5	16.4
1+60	15.7	13.5	10.3	15.8
1+80	17.7	13.7	9.8	16
2+00	16	13.3	9.5	15.4
2+20	0	0	8.7	14.3
2+40	0	0	8.7	15.9
2+60	0	0	7.2	15.8
2+80	0	0	7.3	16.4
3+00	0	0	5.2	15.8
3+20	0	0	6.3	17.1
3+40	0	0	9.8	15.9
3+50	0	0	0	0
3+60	0	0	0	0
3+80	0	0	0	0
3+85	0	0	19.2	25.9
4+00	0	0	11.3	17.1
4+20	0	0	7.7	15.6
4+40	0	0	11	16.3
4+50	0	0	0	0



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ECHO LAKE INVESTMENTS, LLC

233 ROUTE 3 SOUTH, CARROLL, NEW HAMPSHIRE

ECHO LAKE SUBDIVISION - PHASE I

ROAD PLANS & PROFILES

NO.	DATE	REVISION DESCRIPTION	ENG	DWG
1	6/14/2019	REVISE HYDRANT AND WATERMAIN TERMINATION	JCD	JCD
2	4/21/2020	REVISIONS PER 3RD PARTY TECHNICAL REVIEW	WAM	WAM
3	7/24/2020	REV. PER 3RD PARTY TECH. REVIEW	WAM	WAM
4	3/3/2021	REV. PER 3RD PARTY TECH. REVIEW	WAM	WAM
5	11/4/2020	REVISIONS PER NHDOT DRIVEWAY APPLICATION COMMENTS	CFC	KRP
6	9/28/22	REVISIONS PER NHDOT DRIVEWAY APPLICATION COMMENTS	CFC	LIM
7	12/02/22	LENGTHEN EXISTING CURB AT ENTRANCE PER NHDOT COMMENTS	CFC	LIM
8	03/13/23	PROPOSED WATERMAIN RELOCATION AT DIRECTIONAL BORE UNDER RTE 3	CFC	LIM
9	04/09/23	WIDEN ROAD FOR PHASE II ADT	CFC	LIM
10	8/21/2023	ROAD WIDTH REVISIONS AS BUILT UPDATES	MSG	KRP
11	10/18/23	HIGHLIGHT ROAD WIDENING AREAS, ADD DETAIL, AND NOTES	CFC	KRP
12	11/1/23	REVISIONS IN RESPONSE TO 3RD PARTY TECHNICAL REVIEW DATED OCTOBER 30, 2023	CFC	KRP
15	02/26/2024	REVISIONS PER AFD RHFI #2	MSG	MSG/KRP

DATE: _____

MAY 2019

ENGINE'D BY: MSG

CHECK'D BY: CFC

PROJECT #: 18293

DRAWN BY: SJB/KRP

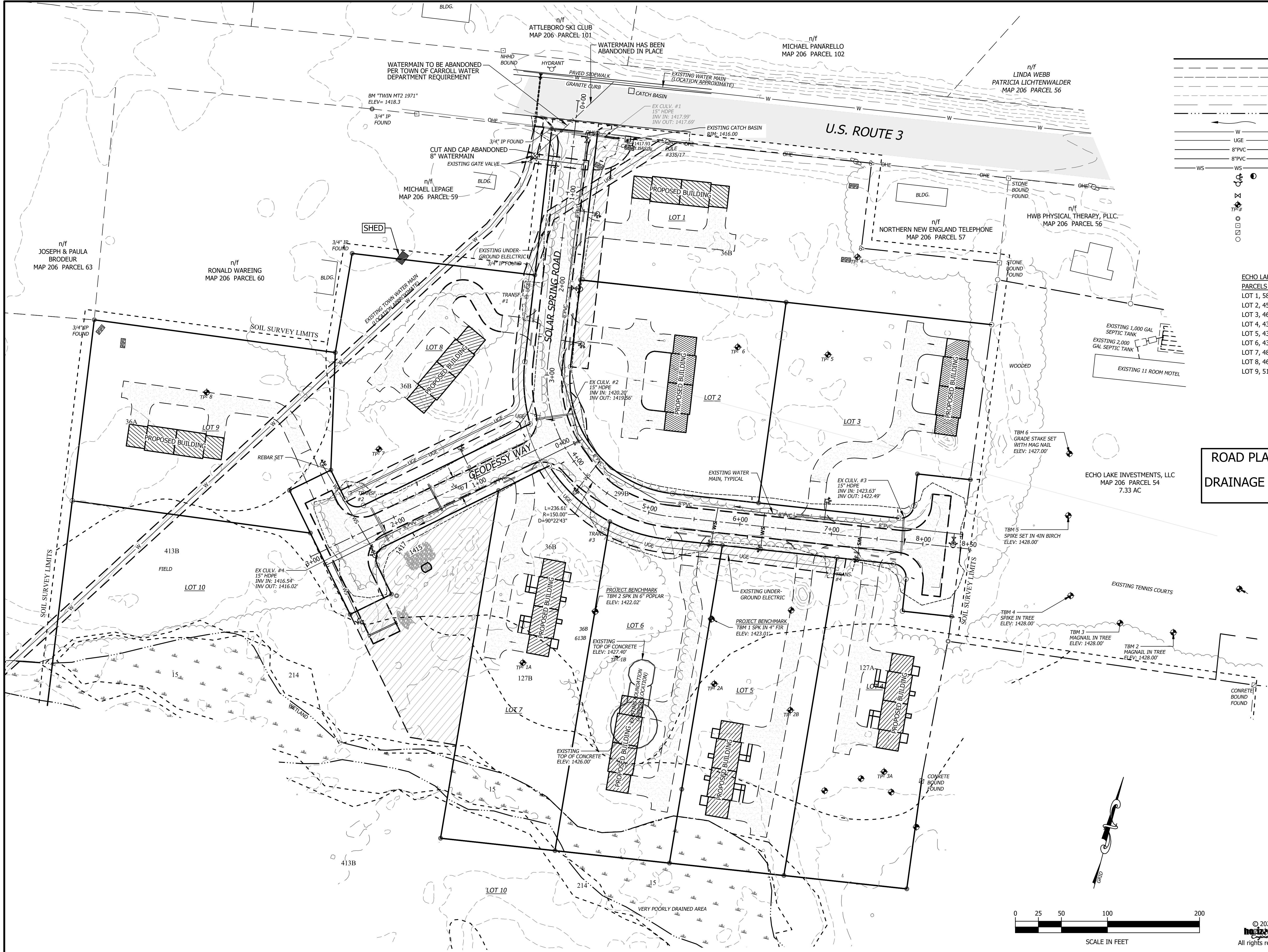
ARCHIVE #: H-5619

STATE OF NEW HAMPSHIRE

CATHY RUTHERFORD
 No. 9118
 PROFESSIONAL ENGINEER

1-457

SHEET 2 OF 9



LEGEND

- BOUNDARY LINE
- ABUTTING BOUNDARY LINE
- ZONING SETBACK LINE (R-B DISTRICT)
- MAJOR CONTOUR (10 FOOT)
- MINOR CONTOUR (2 FOOT)
- EDGE OF GRAVEL
- WETLAND
- DRAINAGE FLOW
- EXISTING WATER MAIN
- EXISTING UNDERGROUND ELECTRIC CONDUIT
- PROPOSED 8" DUCTILE IRON WATER MAIN
- PROPOSED 8" PVC WATER MAIN
- PROPOSED WATER SERVICE
- PROPOSED WATER SHUTOFF
- PROPOSED GATE VALVE
- TEST PIT LOCATION AND NUMBER
- IRON FOUND OR SET PER REF. PLAN
- GRANITE MONUMENT FOUND
- CONCRETE MONUMENT FOUND
- CALCULATED CORNER

ECHO LAKE INVESTMENTS, LLC SUBDIVISION
PARCELS (SEE PLAN REFERENCE A)
LOT 1, 58,310 S.F. (MAP 206 PARCEL 58)
LOT 2, 45,452 S.F. (MAP 206 PARCEL 58.1)
LOT 3, 46,467 S.F. (MAP 206 PARCEL 58.2)
LOT 4, 43,605 S.F. (MAP 206 PARCEL 58.3)
LOT 5, 43,679 S.F. (MAP 206 PARCEL 58.4)
LOT 6, 43,942 S.F. (MAP 206 PARCEL 58.5)
LOT 7, 48,695 S.F. (MAP 206 PARCEL 58.6)
LOT 8, 46,483 S.F. (MAP 206 PARCEL 58.7)
LOT 9, 51,935 S.F. (MAP 206 PARCEL 58.8)

ROAD PLANS ISSUED FOR CONSTRUCTION
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DRAINAGE REVISIONS FOR AOT PERMITTING
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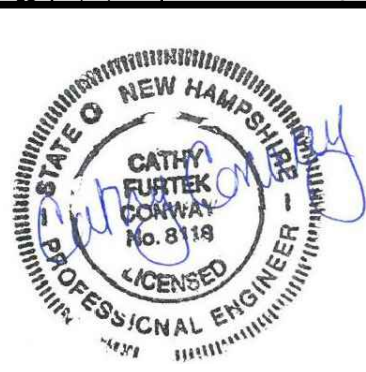
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INVESTMENTS, LLC
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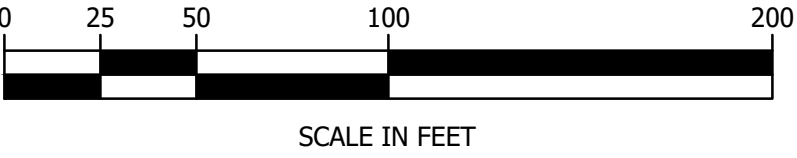
UTILITIES PLAN

NO.	DATE	REVISION DESCRIPTION	ENG	DWG
2	4/21/2020	REVISIONS PER 3RD PARTY TECHNICAL REVIEW	WAM	WAM
3	7/24/2020	REV. PER 3RD PARTY TECH. REVIEW	WAM	WAM
10	8/21/2023	ROAD WIDTH REVISIONS, AS BUILT UPDATES	MSG	KRP
12	11/1/23	REVISIONS IN RESPONSE TO 3RD PARTY TECHNICAL REVIEW DATED OCTOBER 30, 2023	CFC	KRP
13	11/13/2023	WATERMAIN ABANDON NOTE, SLOPE EASE	CFC	KRP

DATE: MAY 2019	PROJECT #: 18293
ENG'N'D BY: MSG	DRAWN BY: SJB/KRP
CHECK'D BY: CFC	ARCHIVE #: H-5619



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SCALE IN FEET

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SEEDING RECOMMENDATIONS

- GRADING AND SHAPING**
 - SLOPES SHALL NOT BE STEEPER THAN 2:1; 3:1 SLOPES OR FLATTER ARE PREFERRED. WHERE MOWING WILL BE DONE, 3:1 SLOPES OR FLATTER ARE RECOMMENDED.
- SEEDBED PREPARATION**
 - SURFACE AND SEEPAGE WATER SHOULD BE DRAINED OR DIVERTED FROM THE SITE TO PREVENT DROWNING OR WINTER KILLING OF THE PLANTS.
 - STONES LARGER THAN 4 INCHES AND TRASH SHOULD BE REMOVED BECAUSE THEY INTERFERE WITH SEEDING AND FUTURE MAINTENANCE OF THE AREA. WHERE FEASIBLE, THE SOIL SHOULD BE AMENDED WITH ORGANIC MATTER AND TILLED TO A DEPTH OF ABOUT 4 INCHES TO PREPARE A SEEDBED AND MIX FERTILIZER AND LIME THOROUGHLY INTO THE SOIL. THE SEEDBED SHOULD BE LEFT IN A REASONABLY FIRM AND SMOOTH CONDITION. THE LAST TILLAGE OPERATION SHOULD BE PERFORMED ACROSS THE SLOPE WHEREVER PRACTICAL.
- ESTABLISHING VEGETATION**
 - LIME AND FERTILIZER SHOULD BE APPLIED PRIOR TO OR AT THE TIME OF SEEDING AND INCORPORATED INTO THE SOIL. KINDS AND AMOUNTS OF LIME AND FERTILIZER SHOULD BE BASED ON AN EVALUATION OF SOIL TESTS. WHEN A SOIL TEST IS NOT AVAILABLE, THE FOLLOWING MINIMUM AMOUNTS SHOULD BE APPLIED:

-AGRICULTURAL LIMESTONE, 2 TONS PER ACRE OR 100 LBS. PER 1,000 SQ. FT.
-NITROGEN (N), 50 LBS., PER ACRE OR 1.1 LBS. PER 1,000 SQ. FT.
-PHOSPHATE (P₂O₅), 100 LBS. PER ACRE OR 2.2 LBS. PER 1,000 SQ. FT.
-POTASH (K₂O), 100 LBS. PER ACRE OR 2.2 LBS. PER 1,000 SQ. FT.

(NOTE: THIS IS THE EQUIVALENT OF 500 LBS. PER ACRE OF 10-20-20 FERTILIZER OR 1,000 LBS. PER ACRE OF 5-10-10).
 - SEED SHOULD BE SPREAD UNIFORMLY BY THE METHOD MOST APPROPRIATE FOR THE SITE. METHODS INCLUDE BROADCASTING, DRILLING, AND HYDROSEEDING. WHERE BROADCASTING IS USED, COVER SEED WITH .25 INCH OF SOIL OR LESS, BY CULTIPACKING OR RAKING.

USE	SEEDING MIXTURE (SEE 3D)	SOIL TYPE			
		DROUGHTY	WELL DRAINED	MOD. WELL DRAINED	POORLY DRAINED
STEEP CUTS AND FILLS, BORROW AND DISPOSAL AREAS	A	FAIR	GOOD	GOOD	FAIR
	B	POOR	GOOD	FAIR	FAIR
	C	FAIR	EXCELLENT	EXCELLENT	POOR
WATERWAYS, EMERGENCY SPILLWAYS, AND OTHER CHANNELS WITH FLOWING WATER	A	GOOD	GOOD	GOOD	FAIR
	B	GOOD	GOOD	GOOD	FAIR
LIGHTLY USED PARKING LOTS, ODD AREAS, UNUSED LANDS, AND LOW INTENSITY USE RECREATION SITES	A	GOOD	GOOD	GOOD	FAIR
	B	GOOD	GOOD	GOOD	FAIR

D. SEEDING RATES:		POUNDS PER ACRE	POUNDS PER 1,000 SQ. FT.
MIXTURE			
A TALL FESCUE	20	0.45	
CREeping RED FESCUE	20	0.45	
REDTOP	2	0.05	
TOTAL:	42	0.95	
B TALL FESCUE	15	0.35	
CREeping RED FESCUE	10	0.25	
CROWN VETCH OR	15 OR	0.35 OR	
FLATPEA	30	0.75	
TOTAL:	40 OR 55	0.95 OR 1.35	
C TALL FESCUE	20	0.45	
FLATPEA	30	0.75	
TOTAL:	50	1.20	

- WHEN SEEDING AREAS ARE MULCHED, PLANTINGS MAY BE MADE FROM EARLY SPRING TO SEPTEMBER 15. WHEN SEEDING AREAS ARE NOT MULCHED, PLANTINGS SHOULD BE MADE FROM EARLY SPRING TO MAY 20 OR FROM AUGUST 10 TO SEPTEMBER 1.

F. TEMPORARY SEEDING RATES:

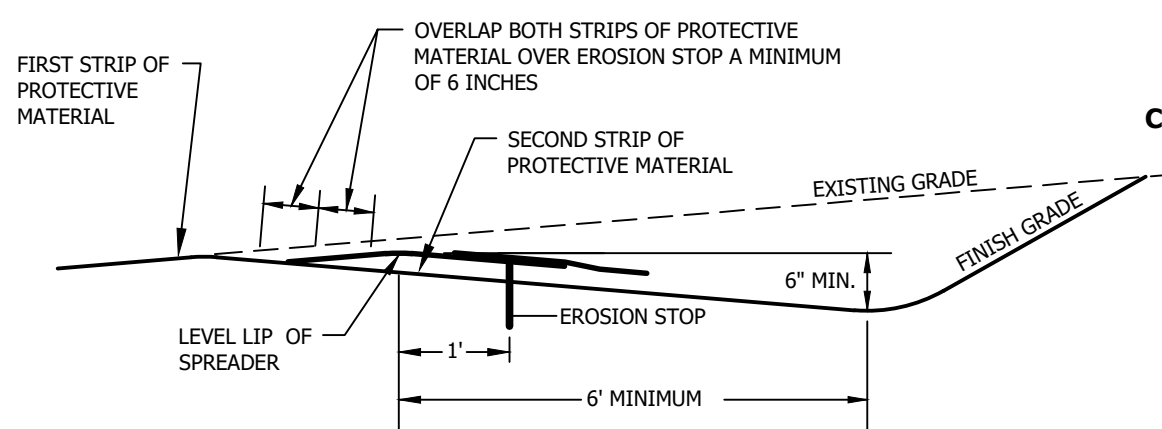
SPECIES	POUNDS PER ACRE	POUNDS PER 1,000 SQ. FT.	REMARKS
WINTER RYE	112	2.5	BEST FOR FALL SEEDING. SEED FROM AUGUST TO SEPTEMBER 5TH FOR BEST COVER. SEED TO A DEPTH OF 1 INCH.
OATS	80	2.0	BEST FOR SPRING SEEDING. SEED NO LATER THAN MAY 15TH FOR SUMMER PROTECTION. SEED TO A DEPTH OF 1 INCH.
ANNUAL RYEGRASS	40	1.0	GROWS QUICKLY, BUT IS OF SHORT DURATION. USE WHERE APPEARANCES ARE NOT IMPORTANT. SEED EARLY SPRING AND/OR BETWEEN AUGUST 15TH AND SEPTEMBER 15TH. COVER SEED WITH NO MORE THAN 0.25 INCH OF SOIL.
PERENNIAL RYEGRASS	30	0.7	GOOD COVER WHICH IS LONGER LASTING THAN ANNUAL RYEGRASS. SEED BETWEEN APRIL 1ST AND JUNE 1ST AND/OR BETWEEN AUGUST 15TH AND SEPTEMBER 15TH. MULCHING WILL ALLOW SEEDING THROUGHOUT THE GROWING SEASON. SEED TO A DEPTH OF APPROXIMATELY 0.5 INCH.

4. MULCH

- HAY, STRAW, OR OTHER MULCH, WHEN NEEDED, SHOULD BE APPLIED IMMEDIATELY AFTER SEEDING.
 - MULCH WILL BE HELD IN PLACE USING APPROPRIATE TECHNIQUES FROM THE BEST MANAGEMENT PRACTICE FOR MULCHING.
- 5. MAINTENANCE TO ESTABLISH A STAND**
- PLANTED AREAS SHOULD BE PROTECTED FROM DAMAGE BY FIRE, GRAZING, TRAFFIC, AND DENSE WEEED GROWTH.
 - FERTILIZATION NEEDS SHOULD BE DETERMINED BY ON SITE INSPECTIONS. SUPPLEMENTAL FERTILIZER IS USUALLY THE KEY TO FULLY COMPLETE THE ESTABLISHMENT OF THE STAND BECAUSE MOST PERENNIALS TAKE 2 TO 3 YEARS TO BECOME ESTABLISHED.
 - IN WATERWAYS, CHANNELS, OR SWALES WHERE UNIFORM FLOW CONDITIONS ARE ANTICIPATED, OCCASIONAL MOWING MAY BE NECESSARY TO CONTROL GROWTH OF WOODY VEGETATION.

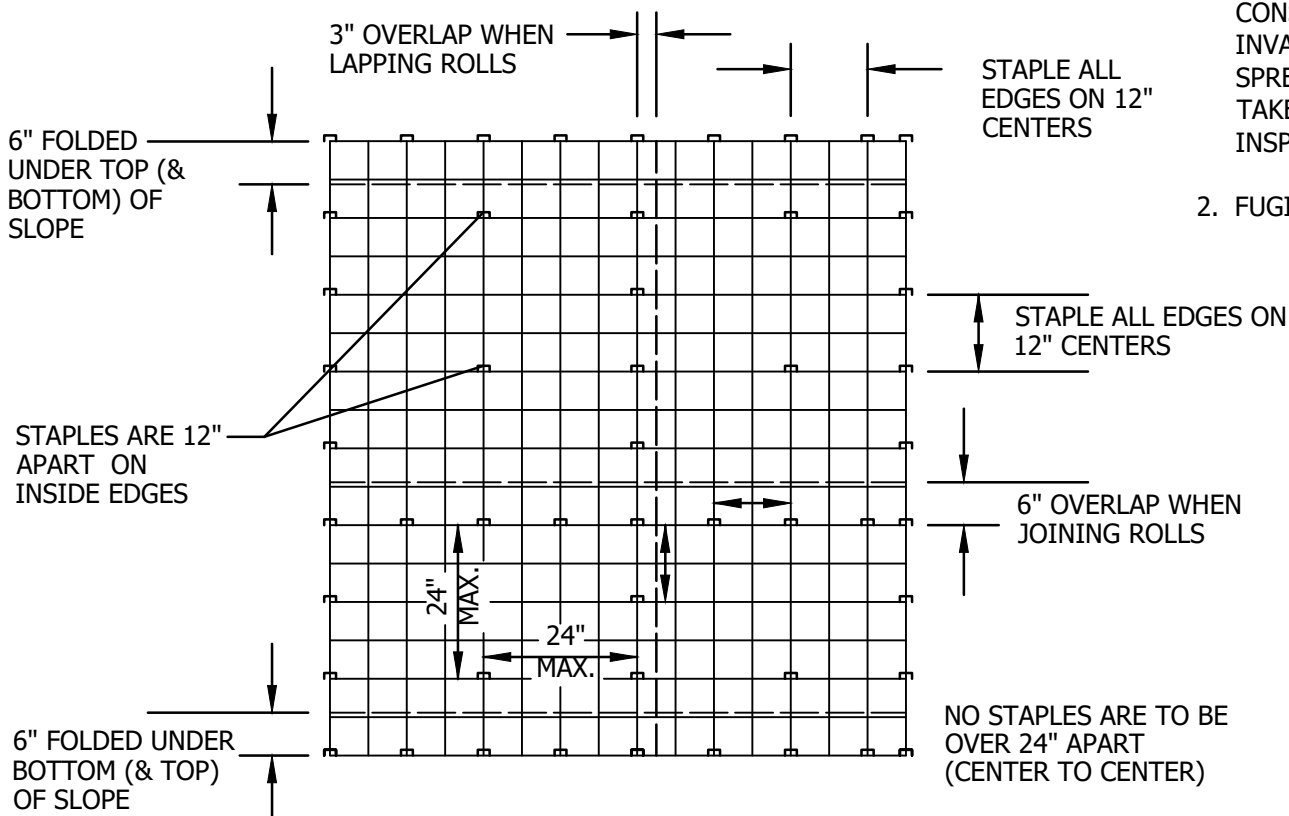
LEVEL LIP SPREADER INSTALLATION

- CONSTRUCT THE LEVEL SPREADER LIP ON A ZERO PERCENT GRADE TO INSURE UNIFORM SPREADING OF RUNOFF.
- LEVEL SPREADER SHALL BE CONSTRUCTED ON UNDISTURBED SOIL AND NOT ON FILL.
- AN EROSION STOP SHALL BE PLACED VERTICALLY A MINIMUM OF SIX INCHES DEEP IN A SLIT TRENCH ONE FOOT BACK OF THE LEVEL LIP AND PARALLEL TO THE LIP. THE EROSION STOP SHALL EXTEND THE ENTIRE LENGTH OF THE LEVEL LIP.
- THE ENTIRE LEVEL LIP AREA SHALL BE PROTECTED BY PLACING TWO STRIPS OF JUTE OR EXCELSIOR MATTING ALONG THE LIP. EACH STRIP SHALL OVERLAP THE EROSION STOP BY AT LEAST SIX INCHES.
- THE ENTRANCE CHANNEL TO THE LEVEL SPREADER SHALL NOT EXCEED A 1 PERCENT GRADE FOR AT LEAST 50 FEET BEFORE ENTERING INTO THE SPREADER.
- THE FLOW FROM THE LEVEL SPREADER SHALL OUTLET ONTO STABILIZED AREAS. WATER SHOULD NOT RE-CONCENTRATE IMMEDIATELY BELOW THE SPREADER.
- PERIODIC INSPECTION AND REQUIRED MAINTENANCE SHALL BE PERFORMED.
- PROTECTIVE MATERIAL AND EROSION STOP SHALL BE NORTH AMERICAN GREEN C125 EROSION CONTROL BLANKET OR APPROVED EQUAL.



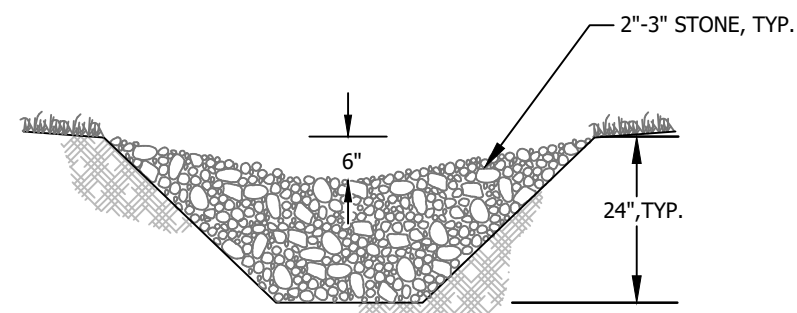
LEVEL SPREADER DETAIL

NO SCALE
SOURCE: ROCKINGHAM COUNTY CONSERVATION SERVICE

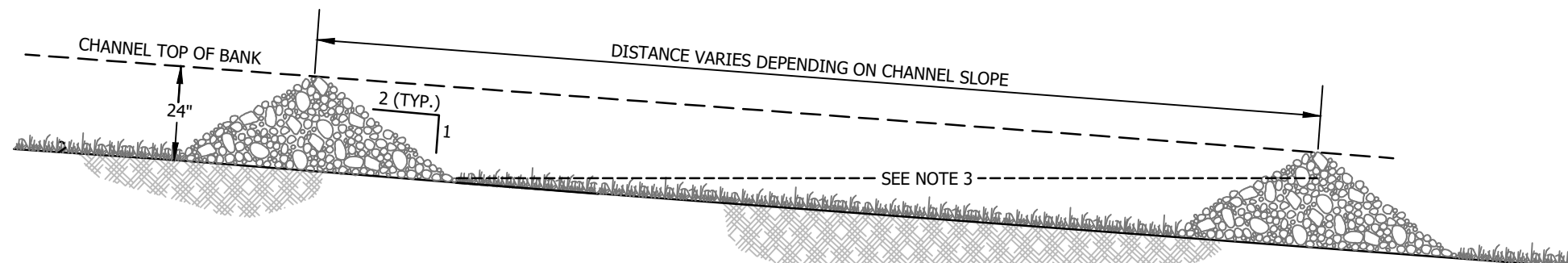


MULCH NETTING DETAIL

NO SCALE
SOURCE: USDA SOIL CONSERVATION SERVICE



SECTION VIEW



PROFILE VIEW

ROCK CHECK DAM DETAIL

NO SCALE

EROSION CONTROL GENERAL NOTES

A. KEEP SITE MODIFICATION TO A MINIMUM

- CONSIDER FITTING THE BUILDINGS AND STREETS TO THE NATURAL TOPOGRAPHY. THIS REDUCES THE NEED FOR CUTS AND FILLS. AVOID EXTENSIVE GRADING THAT WOULD ALTER DRAINAGE PATTERNS OR CREATE VERY STEEP SLOPES.
- EXPPOSE AREAS OF BARE SOIL TO EROSION ELEMENTS FOR THE SHORTEST TIME POSSIBLE.
- SAVE AND PROTECT DESIRABLE EXISTING VEGETATION WHERE POSSIBLE. ERECT BARRIERS TO PREVENT DAMAGE FROM CONSTRUCTION EQUIPMENT.
- LIMIT THE GRADES OF SLOPES SO VEGETATION CAN BE EASILY ESTABLISHED AND MAINTAINED.
- AVOID SUBSTANTIAL INCREASE IN RUNOFF LEAVING THE SITE.

B. MINIMIZE POLLUTION OF WATER DURING CONSTRUCTION ACTIVITIES

- STOCKPILE TOPSOIL REMOVED FROM CONSTRUCTION AREA AND SPREAD OVER ANY DISTURBED AREAS PRIOR TO REVEGETATION. TOPSOIL STOCKPILES MUST BE PROTECTED FROM EROSION.
- PROTECT BARE SOIL AREAS EXPOSED BY GRADING ACTIVITIES WITH TEMPORARY VEGETATION OR MULCHES.
- USE SEDIMENT BASINS TO TRAP DEBRIS AND SEDIMENT WHICH WILL PREVENT THESE MATERIALS FROM MOVING OFF SITE.
- USE DIVERSIONS TO DIRECT WATER AROUND THE CONSTRUCTION AREA AND AWAY FROM EROSION PRONE AREAS TO POINTS OF SAFE DISPOSAL.
- USE TEMPORARY CULVERTS OR BRIDGES WHEN CROSSING STREAMS WITH EQUIPMENT.
- PLACE CONSTRUCTION FACILITIES, MATERIALS, AND EQUIPMENT STORAGE AND MAINTENANCE AREAS AWAY FROM DRAINAGE WAYS.

C. PROTECT AREA AFTER CONSTRUCTION.

- ESTABLISH GRASS OR OTHER SUITABLE VEGETATION ON ALL DISTURBED AREAS. SELECT SPECIES ADAPTED TO THE SITE CONDITIONS AND THE FUTURE USE OF THE AREA. FINAL GRADES SHALL BE SEEDED WITHIN 72 HOURS. STABILIZATION SHALL BE DEFINED AS 85% VEGETATIVE COVER.
- MAINTAIN VEGETATED AREAS USING PROPER VEGETATIVE 'BEST MANAGEMENT PRACTICES' DURING THE CONSTRUCTION PERIOD.
- MAINTAIN NEEDED STRUCTURAL 'BEST MANAGEMENT PRACTICES' AND REMOVE SEDIMENT FROM DETENTION PONDS AND SEDIMENT BASINS AS NEEDED.
- DETERMINE RESPONSIBILITY FOR LONG TERM MAINTENANCE OF PERMANENT 'BEST MANAGEMENT PRACTICES'.
- IF CONSTRUCTION IS ANTICIPATED DURING WINTER MONTHS, REFER TO 'COLD WEATHER SITE STABILIZATION REQUIREMENTS'.

D. INVASIVE SPECIES AND FUGITIVE DUST

- THE PROJECT SHALL NOT CONTRIBUTE TO THE SPREAD OF INVASIVE SPECIES. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EVALUATE WORK AREAS FOR THE PRESENCE OF INVASIVE SPECIES, AND IF FOUND SHALL TAKE NECESSARY MEASURES TO PREVENT THEIR SPREAD IN ACCORDANCE WITH RSA 430:51-57 AND AGR 3800. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO PREVENT THE INTRODUCTION OF INVASIVE SPECIES BY INSPECTING AND CLEANING ALL EQUIPMENT ARRIVING ON SITE.
- FUGITIVE DUST SHALL BE CONTROLLED IN ACCORDANCE WITH ENV-A 1000.

CONSTRUCTION NOTES FOR SEDIMENT FENCE

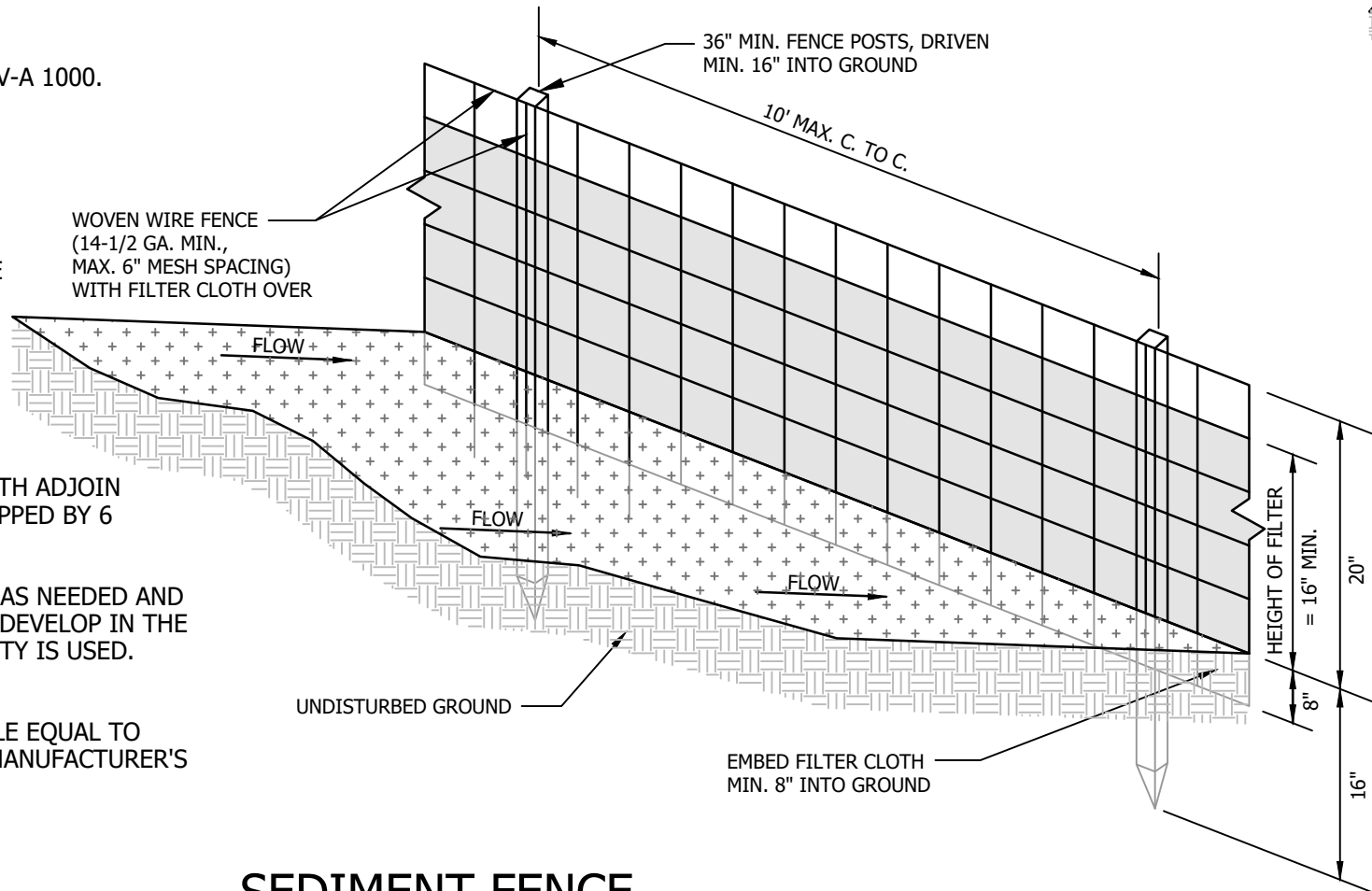
- WOVEN WIRE FENCE, IF REQUIRED, TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
- FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP, MID SECTION, AND BOTTOM.
- WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY 6 INCHES, FOLDED AND STAPLED.
- MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SEDIMENT FENCE, OR 50% OF CAPACITY IS USED.
- 12" DIAMETER FILTREXX SILTSOXX SHALL BE CONSIDERED AN ACCEPTABLE EQUAL TO SEDIMENT FENCE IF INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

NOTES

- CONSTRUCT ROCK CHECK DAMS WHERE INDICATED ON THE PLANS OR AS NECESSARY.
- CONSTRUCT SPILLWAY IN CENTER OF ROCK CHECK DAM 6" BELOW TOP OF CHANNEL.
- THE MAXIMUM SPACING BETWEEN THE CHECK DAMS SHOULD BE SUCH THAT THE TOE OF THE UPSTREAM CHECK DAM IS AT THE SAME ELEVATION AS THE SPILLWAY ELEVATION OF THE DOWNSTREAM CHECK DAM, THIS WILL VARY DEPENDING ON THE SLOPE OF THE CHANNEL.
- ROCK CHECK DAMS SHALL CONSIST OF A WELL GRADED MIXTURE OF 2" - 3" STONE.
- REMOVE ROCK CHECK DAMS AND ANY ACCUMULATED SILT IN CHANNEL ONCE PERMANENT CHANNEL LININGS HAVE BEEN ESTABLISHED AND STABILIZED.

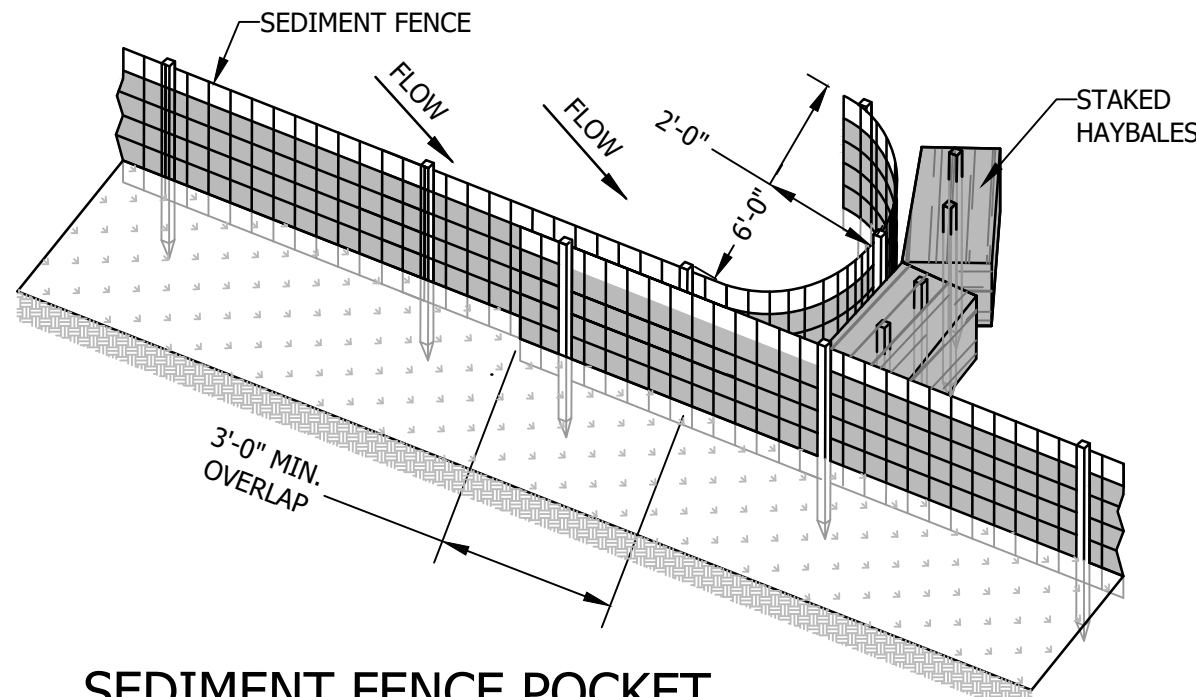
SEDIMENT FENCE

NO SCALE



SEDIMENT FENCE POCKET

NO SCALE



COLD WEATHER SITE STABILIZATION REQUIREMENTS

TO ADEQUATELY PROTECT WATER QUALITY DURING COLD WEATHER AND DURING SPRING RUNOFF, THE FOLLOWING ADDITIONAL STABILIZATION TECHNIQUES SHALL BE EMPLOYED DURING THE PERIOD FROM OCTOBER 15 THROUGH MAY 1:

- THE AREA OF EXPOSED, UNSTABILIZED SOIL SHALL BE LIMITED TO 1 ACRE AND SHALL BE PROTECTED AGAINST EROSION BY THE METHODS DESCRIBED IN THIS SECTION PRIOR TO ANY THAW OR SPRING MELT EVENT. THE ALLOWABLE AREA OF EXPOSED SOIL MAY BE INCREASED IF A WINTER CONSTRUCTION PLAN, DEVELOPED BY A QUALIFIED ENGINEER OR A CPESC SPECIALIST, IS REVIEWED AND APPROVED BY NHDES.
- ALL PROPOSED VEGETATED AREAS HAVING A SLOPE OF LESS THAN 15% WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE SEEDED AND COVERED WITH 3 TO 4 TONS OF HAY OR STRAW MULCH PER ACRE, SECURED WITH ANCHORED NETTING OR TACKIFIER, OR 2 INCHES OF EROSION CONTROL MIX MEETING THE CRITERIA OF ENV-WQ 1506.05(D) THROUGH (H).
- ALL PROPOSED VEGETATED AREAS HAVING A SLOPE OF GREATER THAN 15% WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE SEEDED AND COVERED WITH PROPERLY INSTALLED AND ANCHORED EROSION CONTROL MATTING OR WITH A MINIMUM 4 INCH THICKNESS OF EROSION CONTROL MIX MEETING THE CRITERIA OF ENV-WQ 1506.05(D) THROUGH (H).
- INSTALLATION OF ANCHORED HAY MULCH OR EROSION CONTROL MIX, MEETING THE CRITERIA OF ENV-WQ 1506.05(D) THROUGH (H), SHALL NOT OCCUR OVER SNOW OF GREATER THAN 1 INCH IN DEPTH.
- INSTALLATION OF EROSION CONTROL MATTING SHALL NOT OCCUR OVER SNOW OF GREATER THAN ONE INCH IN DEPTH OR ON FROZEN GROUND.
- ALL PROPOSED STABILIZATION IN ACCORDANCE WITH NOTES 2 OR 3 ABOVE, SHALL BE COMPLETED WITHIN 1 DAY OF ESTABLISHING THE GRADE THAT IS FINAL OR THAT OTHERWISE WILL EXIST FOR MORE THAN 5 DAYS.
- ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS, AS DETERMINED BY THE OWNER'S ENGINEERING CONSULTANT.
- AFTER OCTOBER 15, INCOMPLETE ROAD OR PARKING AREAS WHERE ACTIVE CONSTRUCTION OF THE ROAD OR PARKING AREA HAS STOPPED FOR THE WINTER SEASON SHALL BE PROTECTED WITH A MINIMUM 3 INCH LAYER OF BASE COURSE GRAVELS MEETING THE GRADATION REQUIREMENTS OF NHDOT STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION, 2016, ITEM NO. 304.1 OR 304.2.

CONSTRUCTION SEQUENCE

- PREPARE AN EROSION CONTROL PLAN OR A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REQUIREMENTS.
- INSTALL CONSTRUCTION ENTRANCE, SEE DETAIL.
- CUT AND CLEAR TREES WITHIN THE CLEARING LIMITS.
- INSTALL SEDIMENT FENCES, ROCK CHECK DAMS, AND OTHER APPROPRIATE EROSION CONTROL MEASURES AT LOCATIONS SHOWN ON THE PLANS AND AS NEEDED.
- GRUB SITE WITHIN GRADING LIMITS.
- STRIP AND STOCKPILE TOPSOIL AND INSTALL EROSION CONTROL MEASURES.
- INSTALL/ADJUST SEDIMENT FENCE, CHECK DAMS, AND HAYBALES, AS REQUIRED.
- CONSTRUCT PERMANENT STORMWATER CONTROLS AS SOON AS PRACTICAL. DO NOT DIRECT STORMWATER TOWARD TREATMENT BASINS, PONDS, SWALES, DITCHES AND LEVEL SPREADERS UNTIL THEY HAVE BEEN STABILIZED.
- PROCEED WITH WORK, LIMITING THE DURATION OF DISTURBANCE. THE MAXIMUM OF UNCOVERED DISTURBED EARTH AT ANY ONE TIME IS FIVE ACRES. THE MAXIMUM LENGTH OF TIME THAT DISTURBED EARTH MAY BE LEFT UNSTABILIZED IS 45 DAYS.

AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
A) BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED;
B) A MINIMUM OF 70% VEGETATED GROWTH HAS BEEN ESTABLISHED;
C) A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIPRAP HAS BEEN INSTALLED; OR
D) EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
- INSPECT ALL EROSION CONTROL MEASURES ON A DAILY BASIS AND AFTER EVERY 0.5 INCHES OF PRECIPITATION. MAINTAIN SEDIMENT FENCE, SEDIMENT TRAPS, HAY BALES, ETC., AS NECESSARY.
- PLACE TOPSOIL, SEED AND MULCH.
- COMPLETE ALL REMAINING PERMANENT EROSION CONTROL STRUCTURES.
- MONITOR THE SITE AND MAINTAIN STRUCTURES AS NEEDED UNTIL FULL VEGETATION IS ESTABLISHED.

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CONSTRUCTION SEQUENCE, EROSION CONTROL NOTES AND DETAILS

NO.	DATE	REVISION DESCRIPTION	ENG	DWG
2	4/21/2020	REVISIONS PER 3RD PARTY TECHNICAL REVIEW	WAM	WAM
3	7/24/2020	REV. PER 3RD PARTY TECH. REVIEW	WAM	WAM

	DATE:	PROJECT #:
	MAY 2019	18293
	ENGINE'D BY:	DRAWN BY:
	CFC	SJB
CHECK'D BY:	ARCHIVE #:	
	MPD	H-5619

SHEET 8 OF 9

DATE OF PRINT
FEBRUARY 28 2024
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ROAD PLANS ISSUED FOR CONSTRUCTION
NOVEMBER 14, 2023
DRAINAGE REVISIONS FOR AOT PERMITTING
FOR REVIEW ONLY



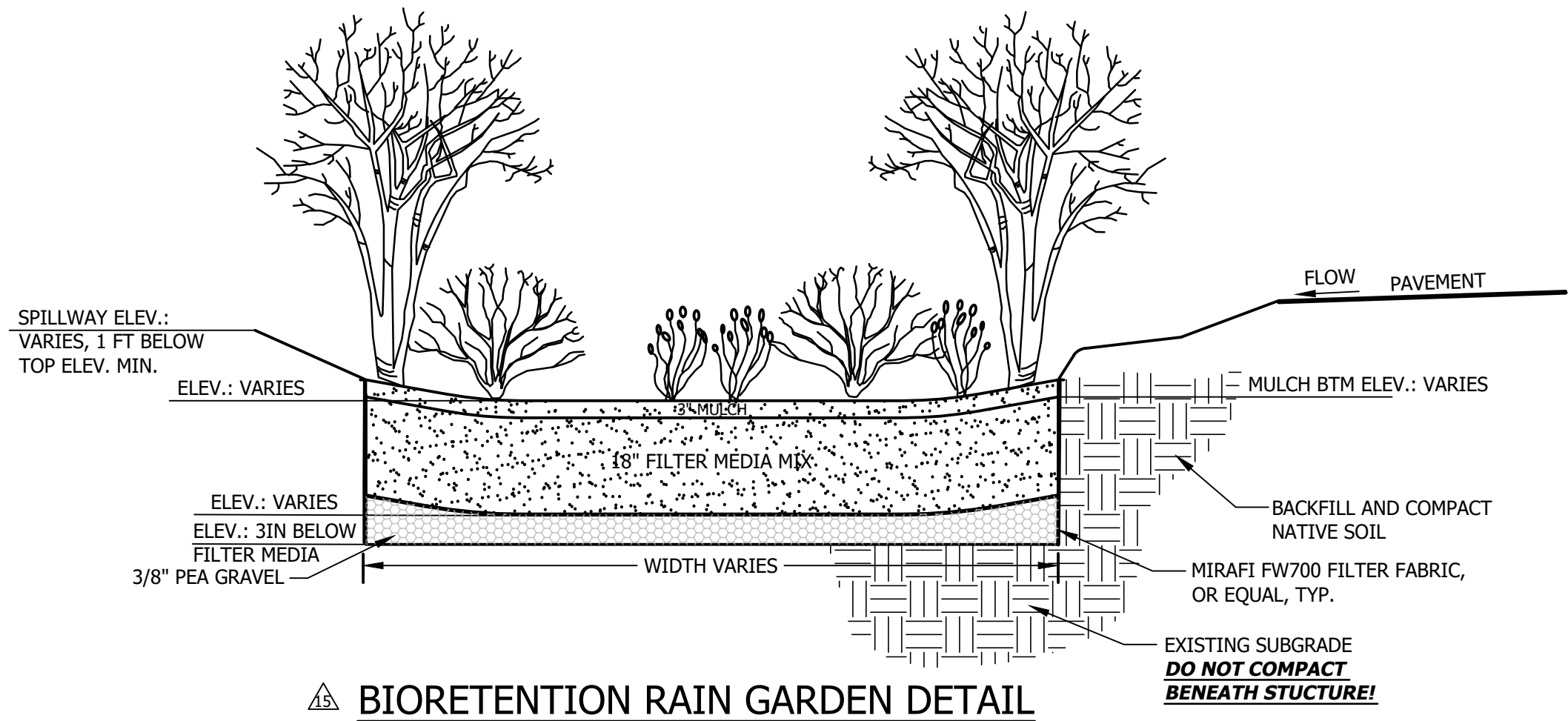
ROAD PLANS ISSUED FOR CONSTRUCTION
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DETAILS				
NO.	DATE	REVISION DESCRIPTION	ENG	DWG
2	4/21/2020	REVISIONS PER 3RD PARTY TECHNICAL REVIEW	WAM	WAM
3	7/24/2020	REV. PER 3RD PARTY TECH. REVIEW	WAM	WAM
4	4/09/2023	WIDEN ROAD FOR Phase II ADT	CFC	LJM
10	8/21/2023	ROAD WIDTH REVISIONS, AS BUILT UPDATES	MSG	KRP
15	02/26/2024	REVISIONS PER ADT RPMI #2	MSG	MSG/KRP

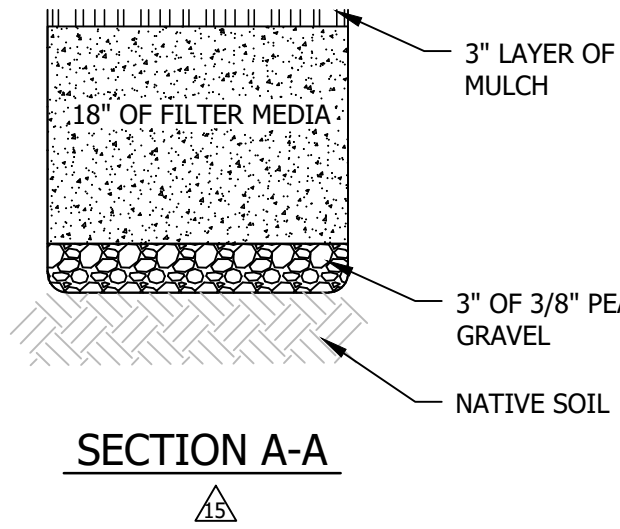


DATE: MAY 2019	PROJECT #: 18293
ENGIN'D BY: CFC	DRAWN BY: SJB
CHECK'D BY: MPD	ARCHIVE #: H-5619

SHEET 9 OF 9

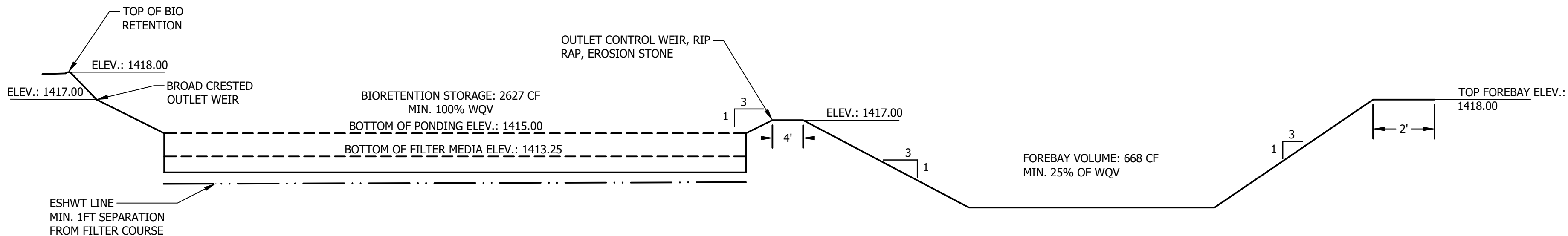


Component Material	Percent of Mixture by Volume	Gradation of Material	
		Sieve No.	Percent by Weight Passing Standard Sieve
ASTM C-33 Concrete Sand	50 to 55		
Loamy sand topsoil, with fines as indicated	20 to 30	200	15 to 25
Moderately fine shredded bark or wood fiber mulch, with fines as indicated	20 to 30	200	< 5

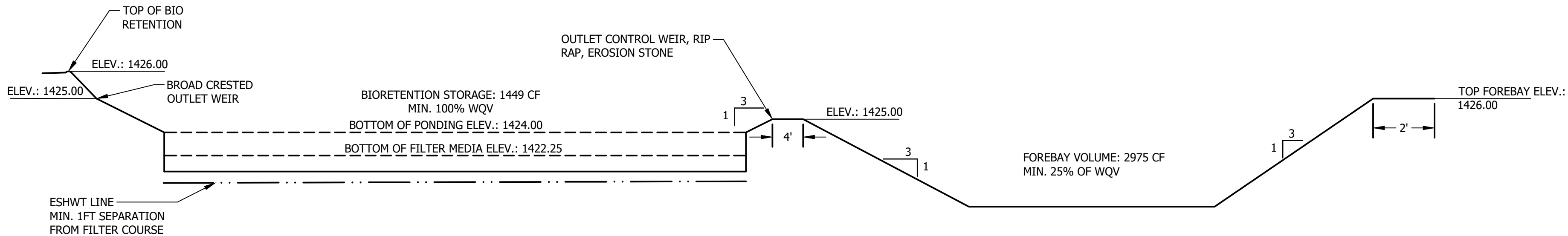


BIO-RETENTION NOTES

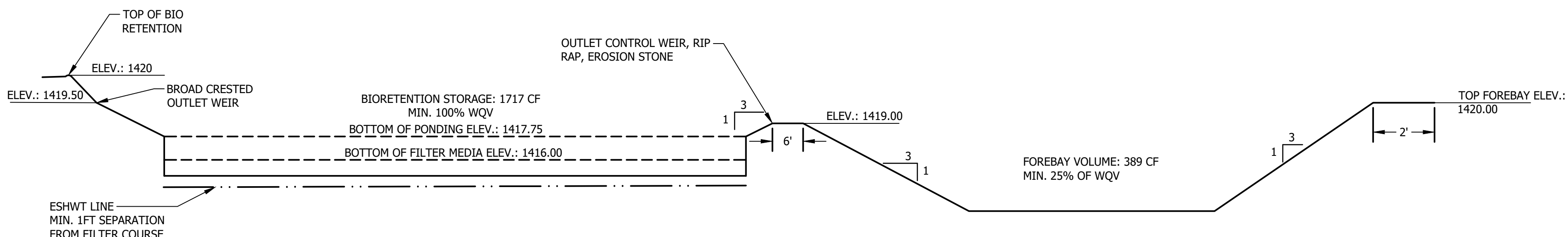
- PLANT SPECIES SHALL BE RANDOMLY PLANTED IN THE BIO RETENTION SYSTEMS. SELECTED PLANTINGS AND THEIR SPACING SHALL FOLLOW THE REQUIREMENTS PER NHDES.
- FILTER MEDIA AREA SHALL ONLY BE GRASSED/MULCHED. FLEXIBLE PLANTINGS MAY BE USED WITHIN THE STORAGE AREA ABOVE THE FILTER MEDIA.



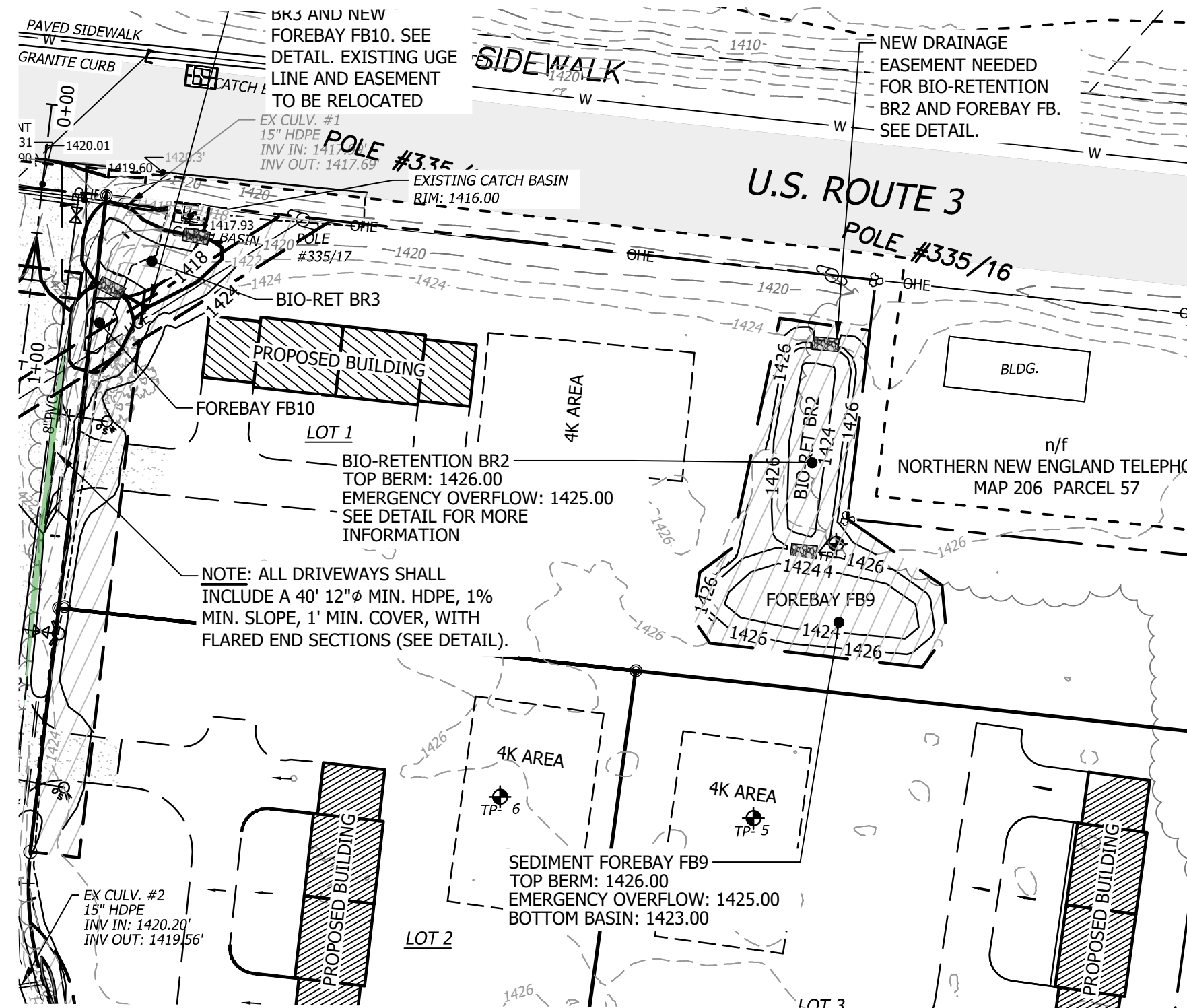
BIORETENTION RAIN GARDEN BR1 AND FOREBAY FB8 CROSS SECTION DETAIL



BIORETENTION RAIN GARDEN BR2 AND FOREBAY FB9 CROSS SECTION DETAIL



BIORETENTION RAIN GARDEN BR3 AND FOREBAY FB10 CROSS SECTION DETAIL



BIORETENTION RAIN GARDEN BR2 AND FOREBAY FB9 PLAN VIEW

SCALE: 1" = 50'

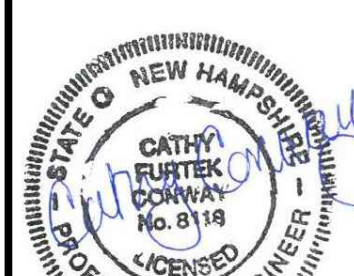
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BIORETENTION RAIN GARDEN DETAILS AND CROSS SECTIONS

NO.	DATE	REVISION DESCRIPTION	ENG	DWG
15	02/26/2024	REVISIONS PER AOT RPHI #2	MSG	MSG/KP

DATE: MAY 2019	PROJECT #: 18293
ENGINE'D BY: CFC	DRAWN BY: SJB
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