



Town of Casco

Planning Board Meeting Agenda

September 28, 2026 at 6:30 PM

Casco Community Center

First Order of Business

1. Call Meeting to Order
2. Determine a Quorum
3. Review and Approval of the Meeting Agenda
4. Approval of August 24th Meeting Minutes
5. Public Participation for Non-Agenda Items

Old Business

6. 960 Meadow Road Holdings, LLC. Country Village Assisted Living - Site Plan Review
– Submission in response to public comments - 960 Meadow Road, Casco ME 04015
Map/Lot 42-19

New Business

7. Scott Lavoie, Landowner - Minor Subdivision Review - Represented by Northeast Civil Solutions Inc. 46 Pine Hill Road, Casco ME 04015 Map 9 – Lot 15-3

Adjournment

Reminders to the Attending Public: Planning Board meetings are open to the public, but the public may not speak unless recognized by the Board Chair or Vice Chair in their absence. Except during a public hearing, comment time is limited to 2 minutes per speaker during public participation or on agenda items. Matters related to personnel will not be heard.

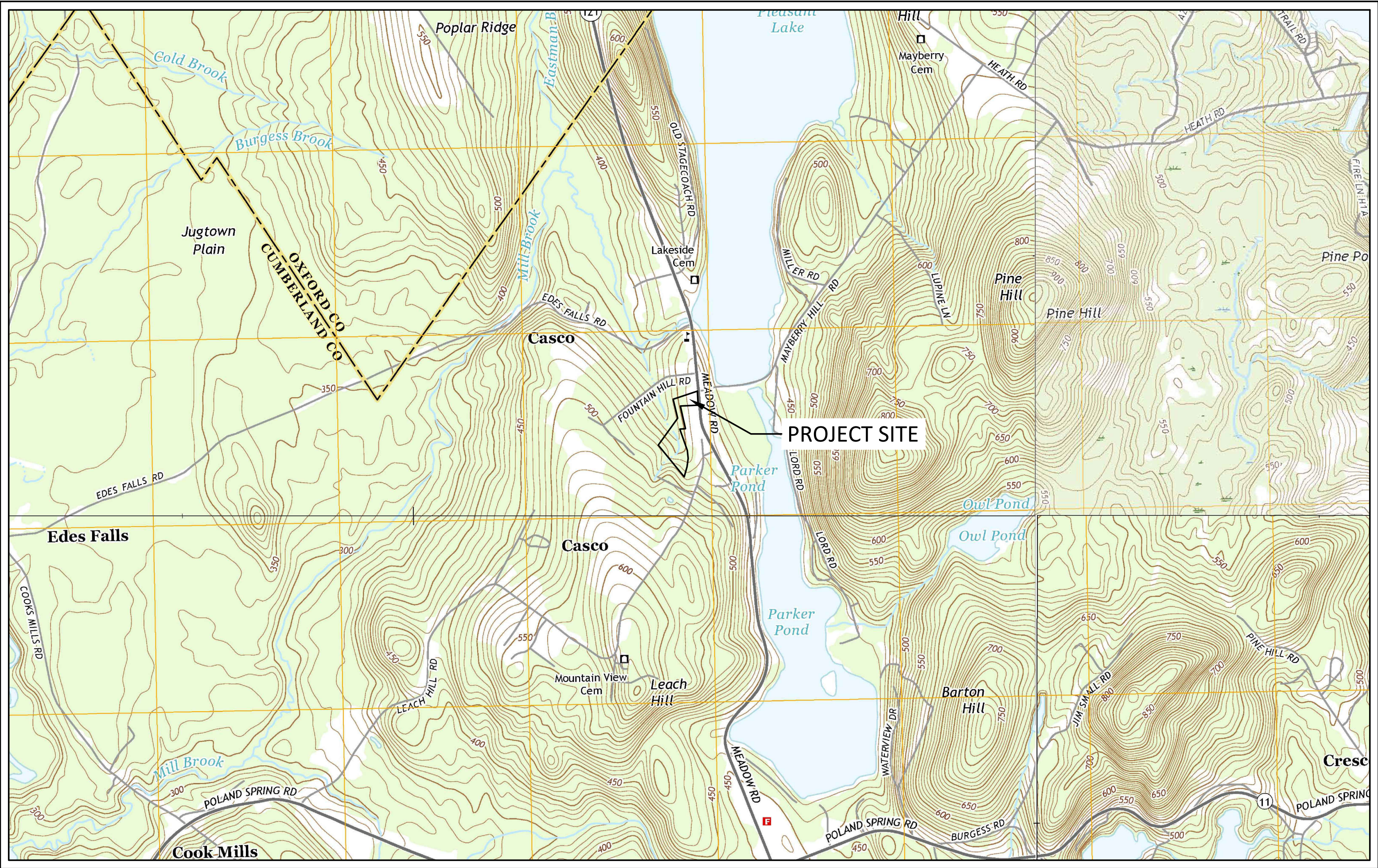
Future meeting dates (subject to change)

October 26, 2026 at 6:30 PM Regular Meeting

COUNTRY VILLAGE ASSISTED LIVING FACILITY EXPANSION

960 MEADOW ROAD
CASCO, MAINE

CONSULTANTS	
CIVIL ENGINEER	DM ROMA CONSULTING ENGINEERS
LAND SURVEYOR	SURVEY, INC.
GEOLOGIST & SITE EVALUATOR	MAIN-LAND DEVELOPMENT CONSULTANTS, INC.
WETLAND SCIENTIST	ALBERT FRICK ASSOCIATES, INC.
BUILDING DESIGNER	WOODHULL ARCHITECTS AND BUILDERS



PROJECT VICINITY MAP

REVISED PER TOWN REVIEW - NOT FOR CONSTRUCTION
SEPTEMBER 2, 2026

PREPARED BY:

DM ROMA

CONSULTING ENGINEERS
P.O. BOX 1116
WINDHAM, ME 04062
(207) 310 - 0506

APPLICANT:
960 MEADOW ROAD HOLDING, LLC
960 MEADOW ROAD
CASCO, MAINE 04015

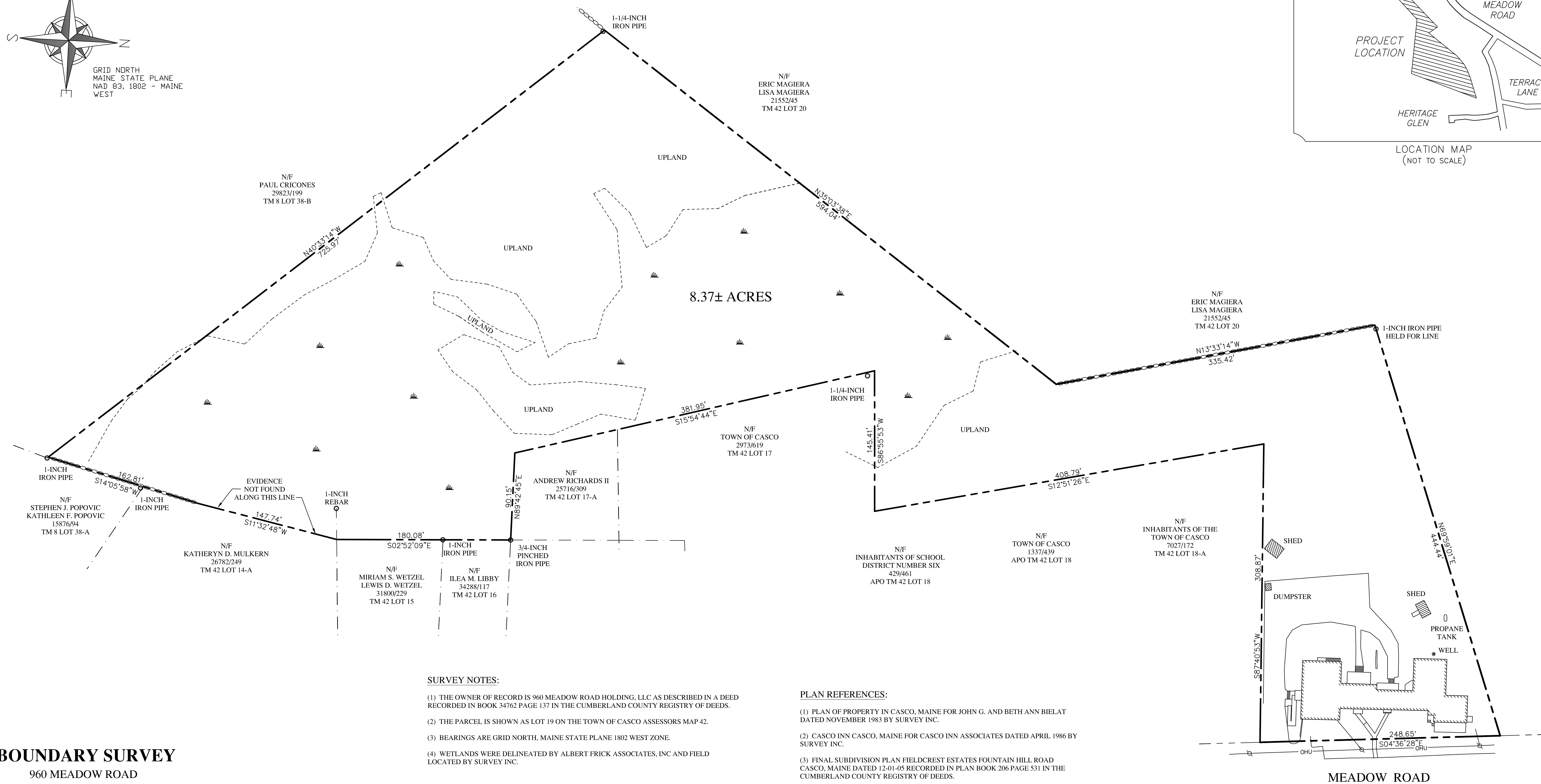
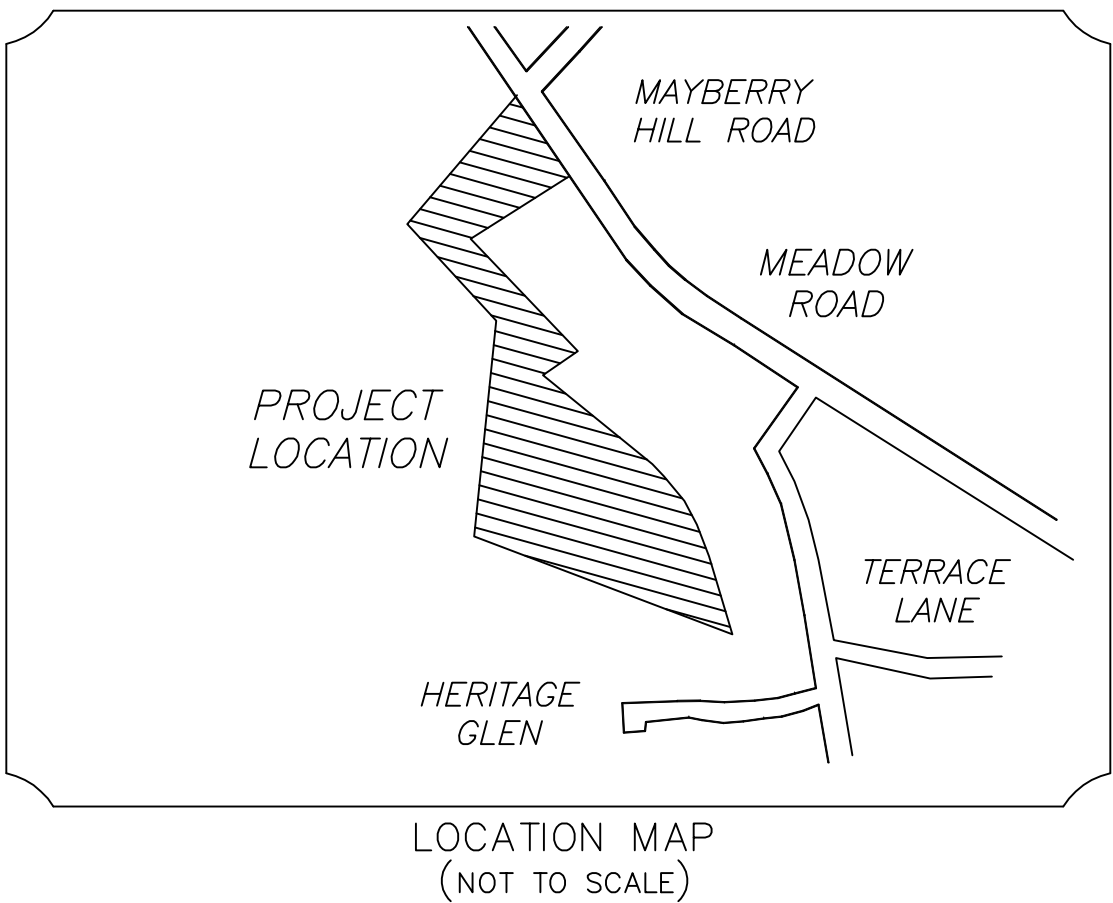
COUNTRY VILLAGE ASSISTED LIVING FACILITY EXPANSION

DRAWING SHEET INDEX

PAGE NO.	DESCRIPTION
1	TITLE SHEET
2	BOUNDARY SURVEY
3	OVERALL SITE PLAN
4	SITE PLAN
5	GRADING AND UTILITY PLAN
6	DETAILS
7	DETAILS
8	DETAILS

PERMITTING PLAN ATTACHMENTS

PHOTOMETRIC PLAN
ENGINEERED WASTEWATER DISPOSAL PLAN
PRE-DEVELOPMENT WATERSHED MAP
POST DEVELOPMENT WATERSHED MAP
STORMWATER REDEVELOPMENT PLAN



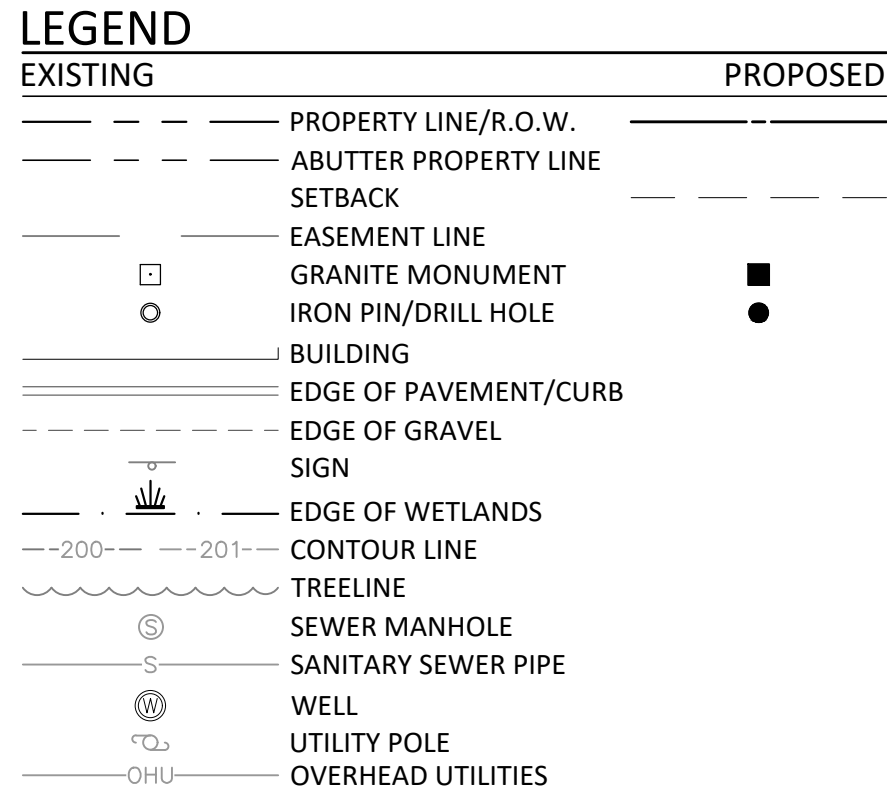
- (1) PLAN OF PROPERTY IN CASCO, MAINE FOR JOHN G. AND BETH ANN BIELAT DATED NOVEMBER 1983 BY SURVEY INC.
- (2) CASCO INN CASCO, MAINE FOR CASCO INN ASSOCIATES DATED APRIL 1986 BY SURVEY INC.
- (3) FINAL SUBDIVISION PLAN FIELDCREST ESTATES FOUNTAIN HILL ROAD CASCO, MAINE DATED 12-10-85 RECORDED IN PLAN BOOK 206 PAGE 531 IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS.
- (4) PLAN OF THE TOWN OF CASCO, MAINE FORMED FROM THE NORTHERLY PORTION OF RAYMOND IN 1841 RECORDED IN PLAN BOOK 24 PAGE 4 IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS.
- (5) PLAN OF RAYMOND IN THE COUNTY OF CUMBERLAND RECORDED IN PLAN BOOK 24 PAGE 11 IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS.
- (6) PLAN OF PROPERTY IN CASCO, MAINE FOR RICHARD A. CRAM DATED FEBRUARY 1979 BY SURVEY INC RECORDED IN PLAN BOOK 123 PAGE 8 IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS.

A circular professional seal for a land surveyor. The outer ring contains the text "STATE OF MAINE" at the top and "LAND SURVEYOR" at the bottom, separated by two stars. The inner circle contains the name "WILLIAM C. SHIPPEN" and the number "2118" below it. The word "PROFESSIONAL" is written in a smaller font along the bottom inner edge of the seal.

DWN: WCS CHK: DRR
DATE: FEBRUARY 2020 JOB NO. 20-021
REV: ACREAGE, BOUNDARY ALONG MAGIERA AND MEADOW ROAD
REV: FEB.2, 2026 BEARINGS ALONG MAGIERA, DIST. ALONG POPOVIC

50 0 25 50 100

GRAPHIC SCALE
1"=50'



1. THE OWNER OF RECORD OF THE PROPERTY IS 960 MEADOW ROAD HOLDING, LLC BY DEED RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS BOOK 34762 PAGE 137.
2. TOTAL AREA OF THE PARCEL IS APPROXIMATELY 8.39 ACRES.
3. PARCEL TAX MAP REFERENCE: TOWN OF CASCO ASSESSORS MAP 42, LOT 19.
4. PLAN REFERENCES:
 - A) BOUNDARY SURVEY OF 960 MEADOW ROAD, CASCO, MAINE FOR 960 MEADOW ROAD HOLDING, LLC AS PREPARED BY SURVEY, INC. DATED FEBRUARY 2020 AND REVISED THROUGH OCTOBER 2023.
5. HORIZONTAL DATUM: MAINE STATE PLANE, WEST ZONE, NAD83, 5.0 FEET.
6. VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAV88)
7. BOUNDARY SHOWN HEREON IS BASED ON PLAN REFERENCE 4A.
8. TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED ON PLAN REFERENCE 4A AND SUPPLEMENTED WITH 2 FOOT CONTOURS OBTAINED FROM THE MAINE OFFICE OF GIS.
9. THE PROPERTY IS LOCATED IN THE VILLAGE DISTRICT AND STREAM PROTECTION DISTRICT.
10. SPACE AND BULK REQUIREMENTS: V DISTRICT

MIN LOT SIZE:	60.00 SF
MAX BUILDING COVERAGE:	20%
MIN STREET FRONTAGE:	150 FT
MIN FRONT YARD:	40 FT
MIN SIDE/REAR YARD:	15 FT
MAX BUILDING HEIGHT:	35 FT
11. WETLAND DELINEATION PERFORMED BY ALBERT FRICK ASSOCIATES, INC. IN FEBRUARY 2020 AND FIELD LOCATED BY SURVEY, INC.
12. PARKING SUMMARY

NUMBER OF TOTAL BEDS = 45 BEDS
AVERAGE EMPLOYEE OCCUPANCY=8 EMPLOYEES
REQUIRED NUMBER OF SPACES FOR NURSING HOME USE = 1 SPACE/3 BEDS AND 1 SPACE PER EMPLOYEE BASED ON EXPECTED AVERAGE EMPLOYEE OCCUPANCY.
REQUIRED NUMBER OF SPACES = 1/3 SPACE X 45 BEDS + 1 SPACE X 8 EMPLOYEES = 23 SPACES
PROPOSED NUMBER OF SPACES = <u>25 SPACES</u>
13. THE PROJECT IS SUBJECT TO AN APPROVED VARIANCE FROM THE TOWN OF CASCO ZONING BOARD OF APPEALS FOR THE EXPANSION OF THE NONCONFORMITY RELATED TO THE REQUIRED NET RESIDENTIAL AREA FOR THE PROPOSED NUMBER OF BEDS WITHIN THE FACILITY. THE VARIANCE WAS APPROVED ON APRIL 21, 2026 AND RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS BOOK 42215 PAGE 18.

GROSS LAND AREA:	365,277 S.F. (8.39 ACRES ±)
DEDUCTIONS:	
1. STEEP SLOPES (>25%)	12,809 S.F.
2. ISOLATED LAND	0 S.F.
3. WATERBODIES OR WETLANDS	165,820 S.F.
4. FLOODPLAIN OR FLOODWAY	0 S.F.
5. REMOVED TOPSOIL	0 S.F.
6. RESOURCE PROTECTION	0 S.F.
7. CREATED LAND	0 S.F.
8. RIGHT OF WAYS	0 S.F.
9. UNCLAIMED GRAVEL PITS	0 S.F.
10. CLEAR CUT LAND	0 S.F.
11. VERY POORLY DRAINED SOILS	0 S.F.
SUBTOTAL	186,648 S.F.
C. 15% OF REMAINING AREA FOR PARKING	27,997 S.F.
TOTAL NET RESIDENTIAL AREA:	<u>158,651 S.F. (3.64 ACRES)</u>
REQUIRED NET RESIDENTIAL AREA FOR PROPOSED EXPANSION	45 BEDS
PROPOSED NUMBER OF BEDS:	285,000 S.F. (6.54 ACRES)
REQUIRED NET RESIDENTIAL AREA FOR 45 BEDS:	(60,000 S.F. + 45 BEDS x 5,000 S.F.)
	*SEE GENERAL NOTE 13 FOR APPROVED VARIANCE INFORMATION

MIN LOT SIZE: 60,00 SF
MAX BUILDING COVERAGE: 20%
MIN STREET FRONTAGE: 150 FT
MIN FRONT YARD: 40 FT
MIN SIDE/REAR YARD: 15 FT
MAX BUILDING HEIGHT: 35 FT

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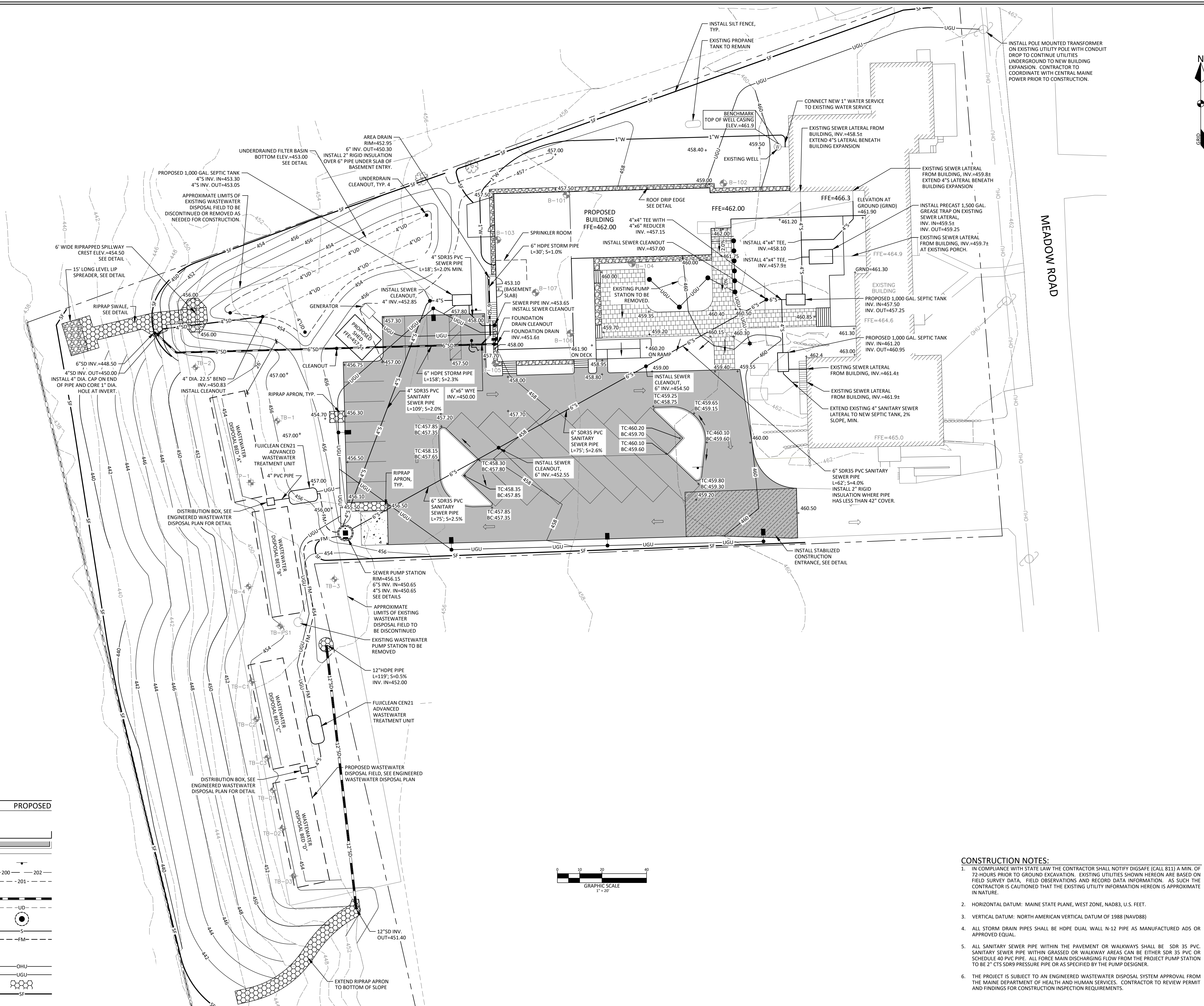
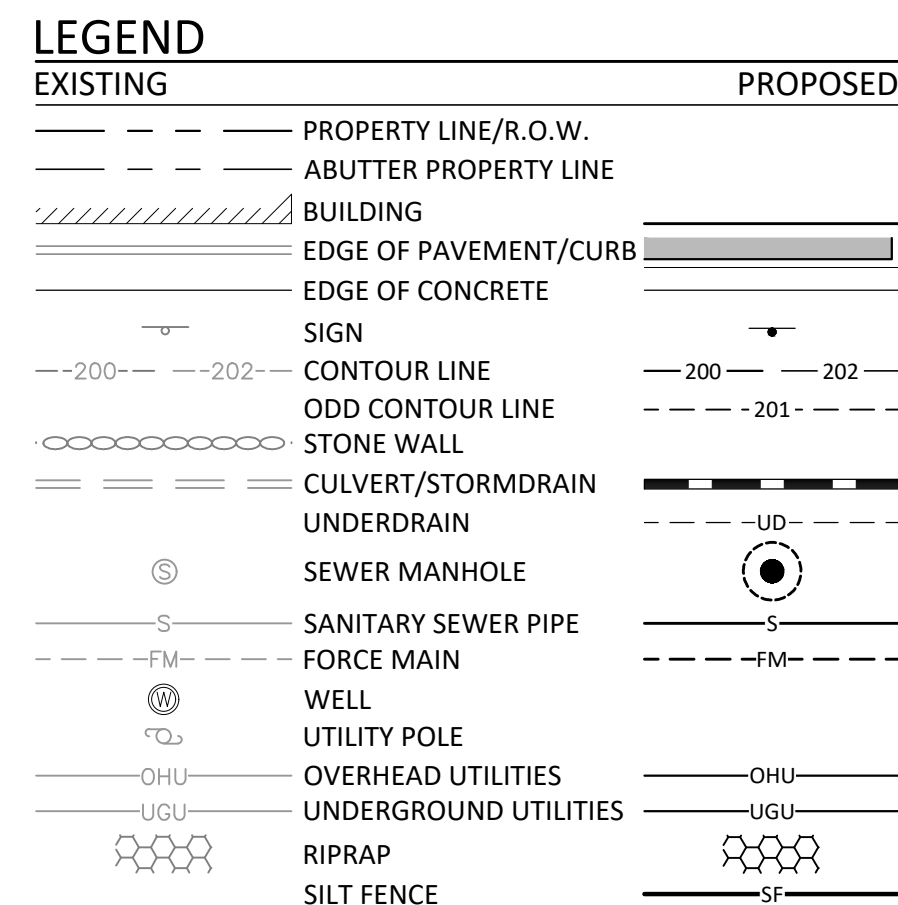
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REV	DATE	BY	DESCRIPTION
A	5/26/26	JRH	ISSUED FOR PERMITTING
B	6-12-26	JRH	CONSULTANT COORDINATION SET
C	6-25-26	JRH	CONSULTANT COORDINATION SET
D	9-2-26	JRH	REVISED PER TOWN REVIEW

960 MEADOW ROAD
CASCO, MAINE 04015

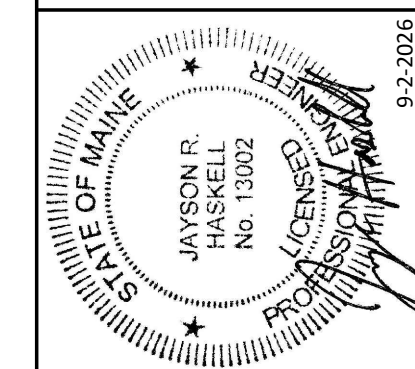
OS-1



CONSTRUCTION NOTES:

1. IN COMPLIANCE WITH STATE LAW THE CONTRACTOR SHALL NOTIFY DIGSAFE (CALL 811) A MIN. OF 72-HOURS PRIOR TO GROUND EXCAVATION. EXISTING UTILITIES SHOWN HEREON ARE BASED ON FIELD SURVEY DATA, FIELD OBSERVATIONS AND RECORD DATA INFORMATION. AS SUCH THE CONTRACTOR IS CAUTIONED THAT THE EXISTING UTILITY INFORMATION HEREON IS APPROXIMATE IN NATURE.
2. HORIZONTAL DATUM: MAINE STATE PLANE, WEST ZONE, NAD83, U.S. FEET.
3. VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVOD88)
4. ALL STORM DRAIN PIPES SHALL BE HDPE DUAL WALL N-12 PIPE AS MANUFACTURED ADS OR APPROVED EQUAL.
5. ALL SANITARY SEWER PIPE WITHIN THE PAVEMENT OR WALKWAYS SHALL BE SDR 35 PVC. SANITARY SEWER PIPE WITHIN GRASSED OR WALKWAY AREAS CAN BE EITHER SDR 35 PVC OR SCHEDULE 40 PIP. ALL FORCE MAIN DISCHARGING FLOW FROM THE PROJECT PUMP STATION TO BE 2" CTS DIPS PRESSURE PIPE OR AS SPECIFIED BY THE PUMP DESIGNER.
6. THE PROJECT IS SUBJECT TO AN ENGINEERED WASTEWATER DISPOSAL SYSTEM APPROVAL FROM THE MAINE DEPARTMENT OF HEALTH AND HUMAN SERVICES. CONTRACTOR TO REVIEW PERMIT

NOT FOR
CONSTRUCTION



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REV	DATE	BY	DESCRIPTION
A	5-26-26	JRH	ISSUED FOR PERMITTING
B	6-12-26	JRH	CONSULTANT COORDINATION SET
C	6-25-26	JRH	CONSULTANT COORDINATION SET
D	8-19-26	JRH	REVISED SAN. SEWER LAYOUT
E	9-2-26	JRH	REVISED PER TOWN REVIEW

GRADING AND UTILITY PLAN

COUNTRY VILLAGE ASSISTED LIVING FACILITY

960 MEADOW ROAD
CASCO, MAINE

FOR:

960 MEADOW ROAD HOLDING, LLC

960 MEADOW ROAD
CASCO, MAINE 04015

19063 JOB NUMBER:
1" = 20' SCALE:
9-2-2026 DATE:
SHEET 5 OF 8
GU-1

EROSION AND SEDIMENTATION CONTROL NOTES:

EXCAVATION AND EARTHWORK SHALL BE COMPLETED SUCH THAT NO MORE THAN 1 ACRE OF THE SITE IS WITHOUT STABILIZATION AT ANY ONE TIME. LIMIT THE EXPOSED AREA TO THOSE AREAS IN WHICH WORK IS TO OCCUR DURING THE FOLLOWING 15 DAYS AND THAT CAN BE MULCHED IN ONE DAY.

IN ORDER TO EFFECTIVELY PREVENT AND CONTROL EROSION RELATED TO SOIL DISTURBANCE, THE FOLLOWING BEST MANAGEMENT PRACTICES (BMPs) SHALL BE EMPLOYED:

1. POLLUTION PREVENTION

MINIMIZE DISTURBED AREAS AND PROTECT NATURAL DOWNGRADIENT BUFFER AREAS TO THE EXTENT PRACTICABLE. CONTROL STORMWATER VOLUME AND VELOCITY WITHIN THE SITE TO MINIMIZE SOIL EROSION. MINIMIZE THE DISTURBANCE OF STEEP SLOPES. CONTROL STORMWATER DISCHARGES, INCLUDING BOTH PEAK FLOW RATES AND VOLUME, TO MINIMIZE EROSION AT OUTLETS. THE DISCHARGE MAY NOT RESULT IN EROSION OF ANY OPEN DRAINAGE CHANNELS, SWALES, STREAM CHANNELS OR STREAM BANKS, UPLAND, OR COASTAL OR FRESHWATER WETLANDS OF THE PROJECT SITE.

WHENEVER PRACTICABLE, NO DISTURBANCE ACTIVITIES SHOULD TAKE PLACE WITHIN 50 FEET OF ANY PROTECTED NATURAL RESOURCE. IF DISTURBANCE ACTIVITIES TAKE PLACE BETWEEN 30 FEET AND 50 FEET OF ANY PROTECTED NATURAL RESOURCE, AND STORMWATER DISCHARGES THROUGH THE DISTURBED AREAS TOWARD THE PROTECTED NATURAL RESOURCE, PERIMETER EROSION CONTROLS MUST BE DOUBLED. IF DISTURBANCE ACTIVITIES TAKE PLACE LESS THAN 30 FEET FROM ANY PROTECTED NATURAL RESOURCE, AND STORMWATER DISCHARGES THROUGH THE DISTURBED AREAS TOWARD THE NATURAL RESOURCE, PERIMETER EROSION CONTROLS MUST BE DOUBLED AND DISTURBED AREAS MUST BE TEMPORARILY OR PERMANENTLY STABILIZED WITHIN 7 DAYS.

2. TEMPORARY SOIL STABILIZATION BMPs

TEMPORARY MULCHING SHALL BE APPLIED IMMEDIATELY TO ANY AREAS THAT HAVE BEEN TEMPORARILY OR PERMANENTLY SEEDED. ANY DISTURBED SOIL WITHIN 75' OF A STREAM, WATER BODY OR WETLAND MUST RECEIVE TEMPORARY MULCH WITHIN 48 HOURS FOLLOWING DISTURBANCE AND BEFORE ANY STORM EVENT. ALL OTHER AREAS SHALL RECEIVE TEMPORARY MULCH WITHIN 7 DAYS OF DISTURBANCE. AREAS WHICH CANNOT BE SEEDED DURING THE GROWING SEASON SHALL BE MULCHED FOR OVER-WINTER PROTECTION. THE FOLLOWING ARE ACCEPTABLE TEMPORARY MULCHING METHODS:

HAY OR STRAW MULCHES NEED TO BE AIR-DRIED, FREE OF UNDESIRABLE SEEDS AND COARSE MATERIALS. APPLICATION RATE MUST BE 2 BALES (70-90 POUNDS) PER 1000 SQ FT OR 1.5 TO 2 TONS (90-100 BALES) PER ACRE TO COVER 75-90% OF THE GROUND SURFACE. HAY OR STRAW CAN BE DRIVEN INTO THE GROUND WITH TRACKED EQUIPMENT IF SLOPES ARE LESS THAN 3%, OR CAN BE ANCHORED WITH JUTE, WOOD FIBER OR PLASTIC NETTING ON STEEPER SLOPES.

EROSION CONTROL MIX MUST CONSIST PRIMARILY OF ORGANIC MATERIAL AND WILL INCLUDE ANY OF THE FOLLOWING: SHREDDED BARK, STUMP GRINDINGS, COMPOSTED BARK OR OTHER ACCEPTABLE PRODUCTS BASED ON A SIMILAR RAW SOURCE. WOOD OR BARK CHIPS, GROUND CONSTRUCTION DEBRIS OR REPROCESSED WOOD PRODUCTS ARE NOT ACCEPTABLE. EROSION CONTROL MIX CAN BE USED AS A STAND-ALONE REINFORCEMENT ON SLOPES OF 2 HORIZONTAL TO 1 VERTICAL OR LESS AND DRAINING IN SHEET FLOW. IT CAN BE PLACED WITH A HYDRAULIC BUCKET, WITH A PNEUMATIC BLOWER OR BY HAND, AND MUST PROVIDE 100% SOIL COVERAGE.

EROSION CONTROL MIX SHALL MEET THE FOLLOWING SPECIFICATIONS:

- ORGANIC MATTER CONTENT SHALL BE BETWEEN 80-100%, DRY WEIGHT BASIS.
- PARTICLE SIZE BY WEIGHT SHALL BE 100% PASSING A 6 IN. SCREEN AND BETWEEN 70-85% PASSING 0.75 IN. SCREEN
- ORGANIC PORTION NEEDS TO BE FIBROUS AND ELONGATED
- LARGE PORTIONS OF SILTS, CLAYS OR FINE SANDS ARE NOT ACCEPTABLE IN THE MIX

WHEN USED AS MULCH, THE THICKNESS OF THE EROSION CONTROL MIX IS BASED UPON THE FOLLOWING:

LENGTH OF SLOPE	3:1 SLOPE OR LESS	BETWEEN 2:1 AND 3:1 SLOPE
LESS THAN 20 FT	2.0 IN.	4.0 IN.
BETWEEN 20 - 60 FT	3.0 IN.	5.0 IN.
BETWEEN 60 - 100 FT	4.0 IN.	6.0 IN.

CHEMICAL MULCHES AND SOIL BINDERS MAY BE USED AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL CONSULT WITH THE MANUFACTURER TO DETERMINE ADEQUATE APPLICATION RATES AND METHODS.

TEMPORARY MULCH SHALL BE INSPECTED FOLLOWING ANY SIGNIFICANT RAINFALL EVENT. IF LESS THAN 90% OF THE SOIL SURFACE IS COVERED BY MULCH, ADDITIONAL MULCH SHALL BE IMMEDIATELY APPLIED. EROSION CONTROL MATS AND MULCH ANCHORING MUST BE INSPECTED AFTER RAINFALL EVENTS FOR DISLOCATION OR FAILURE, AND REPAIRED IMMEDIATELY. INSPECTIONS SHALL TAKE PLACE UNTIL 95% OF THE SOIL SURFACE IS COVERED BY PERMANENT VEGETATION. WHEN MULCH IS USED WITH ORNAMENTAL PLANTINGS, INSPECT PERIODICALLY THROUGHOUT THE YEAR TO DETERMINE IF MULCH IS MAINTAINING COVERAGE OF THE SOIL SURFACE, AND REPAIR AS NEEDED.

TEMPORARY VEGETATION SHALL BE ESTABLISHED ON SOILS THAT WILL NOT BE BROUGHT TO FINAL GRADE FOR A PERIOD OF MORE THAN 30 DAYS. IF TEMPORARY MULCH IS ESTABLISHED PRIOR TO OCTOBER 15, TEMPORARY MULCH SHALL BE APPLIED THROUGH THE WINTER AND TEMPORARY VEGETATION SHALL BE PLANTED AT THE BEGINNING OF THE GROWING SEASON OF THE FOLLOWING YEAR. TO PREPARE THE SEEDED AREA, THE CONTRACTOR SHALL APPLY FERTILIZER AT A RATE OF 600 POUNDS PER ACRE OF 10-10-10 (N-P205-K20) OR EQUIVALENT AND LIMESTONE AT A RATE OF 3 TONS PER ACRE, IF NECESSARY. LOOSEN SOIL TO A DEPTH OF 2 INCHES IN AREAS THAT HAVE BEEN COMPACTED BY CONSTRUCTION ACTIVITIES. GRASS SEED SHALL BE SELECTED BASED UPON THE TIME OF YEAR THE PLANTING WILL TAKE PLACE AS SUMMARIZED IN THE FOLLOWING TABLE:

SEED	LB. PER ACRE	RECOMMENDED SEEDING DATES
WINTER RYE	112	8/15 - 10/1
OATS	40	4/1 - 7/1 8/15 - 9/15
ANNUAL REYGRASS	80	4/1 - 7/1

TEMPORARY SEEDING SHALL BE PERIODICALLY INSPECTED TO MAINTAIN AT LEAST 95% VEGETATIVE COVER OF SOIL SURFACE. IF ANY EVIDENCE OF EROSION OR SEDIMENTATION IS APPARENT, REPAIRS SHALL BE MADE AND OTHER TEMPORARY MEASURES SHALL BE USED IN THE INTERIM SUCH AS TEMPORARY MULCH, FILTER BARRIERS, ETC.

3. SEDIMENT BARRIER BMPs

PRIOR TO CONSTRUCTION TEMPORARY SEDIMENT BARRIERS SHALL BE INSTALLED AT THE DOWNGRADIENT EDGE OF ANY AREA TO BE DISTURBED AND ADJACENT TO ANY DRAINAGE CHANNELS WITHIN THE DISTURBED AREA. SEDIMENT BARRIERS INCLUDE ANY OF THE FOLLOWING:

FILTER BARRIER FENCE, ALSO CALLED SILT FENCE, SHALL BE INSTALLED WHERE SHOWN ON THE PLANS AND IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. THE FILTER FABRIC SHALL BE A PREVIOUS SHEET OF PROPYLENE, NYLON, POLYESTER OR ETHYLENE YARN AND SHALL PROVIDE A MINIMUM OF 6 MONTHS USABLE CONSTRUCTION LIFE INCLUDING PROTECTION AGAINST ULTRA-VIOLET LIGHT. THE HEIGHT OF THE FENCE SHALL NOT EXCEED 36 INCHES INSTALLED AND POST SPACING SHALL NOT EXCEED 6 FEET. JOINTS IN THE FENCE SHALL BE AVOIDED TO THE EXTENT POSSIBLE, AND IF NECESSARY SHALL BE SPLICED USING POST WITH A MINIMUM 6 INCH OVERLAP. A TRENCH SHALL BE EXCAVATED APPROXIMATELY 6 INCHES WIDE AND 6 INCHES DEEP, AND THE BOTTOM 6-8 INCHES OF FABRIC SHALL BE "TOED-IN" TO THE TRENCH AND COMPACTED. THE TRENCH SHOULD BE UPHILL OF THE FABRIC PRIOR TO BURIAL.

EROSION CONTROL MIX BERMS ARE LINEAR BARRIERS COMPOSED OF EROSION CONTROL MIX AS SPECIFIED ABOVE. THE BERM MUST BE A MINIMUM OF 12 INCHES TALL AND 24 INCHES WIDE AT THE BASE IF UPHILL SLOPES ARE LESS THAN 5%. STEEPER SLOPES OR SLOPES GREATER THAN 20 FEET LONG MAY REQUIRE A LARGER WIDTH BERM. EROSION CONTROL MIX BERMS SHALL BE PROHIBITED AT THE BASE OF A LONG OR STEEP SLOPE (8% OR GREATER) WITHOUT THE ADDITIONAL SUPPORT OF A FILTER FENCE INSTALLED ON THE DOWNHILL SIDE OF THE BERM.

SEDIMENT BARRIERS SHOULD BE INSTALLED DOWNGRADIENT OF SOIL OR SEDIMENT STOCKPILES AND STORMWATER PREVENTED RUNNING ONTO THE STOCKPILE. SEDIMENT BARRIERS SHALL BE INSPECTED AFTER ANY SIGNIFICANT RAINFALL EVENT AND REPAIRED IMMEDIATELY IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THE BARRIERS. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR EDGES OF THE BARRIER, OR IF LARGE VOLUMES OF WATER ARE IMPOUNDED BEHIND THE BARRIER, IT WILL BE NECESSARY TO INSTALL A SEDIMENT BASIN UPGRADEMENT OF THE SEDIMENT BARRIER. SEDIMENT SHALL BE REMOVED ONCE IT REACHES HALF THE BARRIER HEIGHT. AFTER THE BARRIER IS REMOVED, ANY REMAINING SILT SHALL EITHER BE REMOVED OR GRADED TO CONFORM WITH THE EXISTING TOPOGRAPHY AND VEGETATED.

TEMPORARY EROSION CONTROL MEASURES ARE REMOVED ONCE THE SITE IS PERMANENTLY STABILIZED AND CONSTRUCTION ACTIVITY HAS BEEN COMPLETED.

4. STORM DRAIN INLET PROTECTION

STORM DRAIN INLETS THAT ARE MADE OPERATIONAL BEFORE THEIR DRAINAGE AREA IS STABILIZED SHALL BE PROTECTED WITH A FILTER UNTIL THE DRAINAGE AREA IS EITHER PAVED OR STABILIZED WITH 95% VEGETATIVE GROWTH. THE FOLLOWING ARE ACCEPTABLE BMPs ASSOCIATED WITH STORM DRAIN INLET PROTECTION:

MANUFACTURED SEDIMENT FILTERS ARE THE PREFERRED METHOD FOR PROTECTING CATCH BASIN INLETS IN PAVED OR GRAVEL ROADWAYS. THE FILTERS TYPICALLY CONSIST OF A FABRIC OR OTHER PERVIOUS MATERIAL THAT IS PLACED ABOVE OR BELOW THE GRATE THAT TRAPS SEDIMENT ON THE SURFACE AND ALLOWS WATER TO FLOW THROUGH THE GRATE. CONSIDERATIONS SUCH AS WEATHER CONDITIONS, SLOPES, TRIBUTARY WATERSHED AREA AND EXPECTED SEDIMENT ACCUMULATION SHOULD BE FACTORED INTO MAKING A DECISION ON WHICH TYPE OF PARTIALLY PRODUCT, AND THE MANUFACTURER'S RECOMMENDATIONS ON INSTALLATION AND MAINTENANCE SHALL BE STRICTLY ADHERED TO.

5. STABILIZED CONSTRUCTION ENTRANCE/EXIT

TO REDUCE THE TRACKING OF SEDIMENT ONTO ROADWAYS, A STABILIZED CONSTRUCTION EXIT SHALL BE INSTALLED AT ALL POINTS OF EGRESS WHERE VEHICLES MAY TRAVEL FROM THE PROJECT SITE TO A PUBLIC ROAD OR OTHER PAVED AREA. THE STONE PAD SHALL CONSIST OF A MINIMUM 6-INCH DEPTH 2:1 SLOPE GRAVEL OR STONE, AND SHALL BE PLACED ON A GEOTEXTILE FABRIC. THE PAD SHALL EXTEND AT LEAST 50 FEET INTO THE PROJECT SITE AND BE A MINIMUM OF 10 FEET WIDE. THE EXIT SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY, AND THE CONTRACTOR SHALL SWEEP PAVEMENT AT EXITS THAT HAVE EXPERIENCED ANY MUD-TRACKING PRIOR TO THE NEXT STORM EVENT. MAINTAIN THE PAD UNTIL ALL DISTURBED AREAS ARE STABILIZED.

6. DUST CONTROL

THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING DUST ON THE PROJECT SITE AND ON ADJACENT ROADWAYS. EXPOSED SOIL SURFACES SHALL BE MOISTENED PERIODICALLY WITH ADEQUATE WATER TO CONTROL DUST. GRAVEL SURFACES SHALL EITHER BE TREATED WITH AN APPLICATION OF CALCIUM CHLORIDE OR COVERED WITH CRUSHED STONE IF DUST CONTROL BECOMES DIFFICULT WITH NORMAL WATER APPLICATIONS.

7. LAND GRADING AND SLOPE PREPARATION

GRADING SHALL BE PLANNED SO AS TO MINIMIZE THE LENGTH OF TIME BETWEEN INITIAL SOIL EXPOSURE AND FINAL GRADING. ON LARGE PROJECTS THIS SHOULD BE ACCOMPLISHED BY PHASING THE OPERATION AND COMPLETING THE FIRST PHASE UP TO FINAL GRADING AND SEEDING BEFORE STARTING THE NEXT PHASE. ANY EXPOSED AREA THAT WILL NOT BE FINISH GRADED WITHIN 7 DAYS SHALL BE TREATED WITH MULCH OR PLANTED WITH TEMPORARY VEGETATION. PROVISIONS SHALL BE MADE TO SAFELY CONVEY SURFACE RUNOFF TO STORM DRAINS, PROTECTED OUTLETS OR TO STABLE WATER COURSES TO ENSURE THAT SURFACE RUNOFF WILL NOT DAMAGE SLOPES OR OTHER GRADED AREAS. CUT AND FILL SLOPES THAT ARE TO BE STABILIZED WITH GRASS SHALL NOT BE STEEPER THAN 2:1. AREAS TO BE FILLED SHALL BE CLEARED, RUBBED AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS OR OTHER OBJECTIONABLE MATERIALS. AREAS SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 INCHES PRIOR TO PLACEMENT OF TOPSOIL. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES AND CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES. ALL FILLS SHALL BE PLACED AND COMPACTED IN LAYERS NOT TO EXCEED 8 INCHES IN THICKNESS. FILL MATERIAL SHALL BE FREE OF STUMPS, BUILDING DEBRIS AND OTHER OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS. FROZEN MATERIAL OR SOFT, MUCKY OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILL SLOPES OR STRUCTURAL FILLS. FILL SHALL NOT BE PLACED ON A FROZEN FOUNDATION. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED APPROPRIATELY. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY FOLLOWING FINISHED GRADING.

8. TOPSOIL

IF POSSIBLE, TOPSOIL SHALL BE STOCKPILED ON THE PROJECT SITE AND REUSED. HIGH QUALITY TOPSOIL SHALL BE FRIABLE AND LOAMY (LOAM, SANDY LOAM, SILT LOAM, SANDY CLAY LOAM, CLAY LOAM), AND SHALL BE FREE OF DEBRIS, TRASH, STUMPS, ROCKS, ROOTS AND NOXIOUS WEEDS. AFTER THE AREAS TO BE TOPSOILED HAVE BEEN BROUGHT TO GRADE, AND IMMEDIATELY PRIOR TO SPREADING THE TOPSOIL, THE SUBGRADE SHALL BE LOOSENEED BY SCARIFYING TO A DEPTH OF AT LEAST 2 INCHES TO ENSURE BONDING WITH SUBSOIL. THE TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED TO A MINIMUM COMPACTED DEPTH OF 4 INCHES. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS SHALL BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS. IT IS NECESSARY TO COMPACT THE TOPSOIL ENOUGH TO ENSURE GOOD CONTACT WITH THE UNDERLYING SOIL, BUT UNDUE COMPACTION IS TO BE AVOIDED.

9. PERMANENT SOIL STABILIZATION

IF THE AREA WILL NOT BE WORKED FOR MORE THAN ONE YEAR OR HAS BEEN BROUGHT TO FINAL GRADE, THEN PERMANENTLY STABILIZE THE AREA WITHIN 7 DAYS BY PLANTING VEGETATION, SEEDING, SOD, OR THROUGH THE USE OF PERMANENT MULCH, OR RIPRAP, OR ROAD SUB-BASE. IF USING VEGETATION FOR STABILIZATION, SELECT THE PROPER VEGETATION FOR THE LIGHT, MOISTURE, AND SOIL CONDITIONS; AVOID AREAS OF DISTURBED SUBSOILS WITH TOPSOIL, COMPOST, OR FERTILIZERS; PROTECT SEEDED AREAS WITH MULCH OR, IF NECESSARY, EROSION CONTROL BLANKETS; AND SCHEDULE SODDING, PLANTING, AND SEEDING SO TO AVOID DIE-OFF FROM SUMMER DROUGHT AND FALL FROSTS. NEWLY SEEDED OR SODDED AREAS MUST BE PROTECTED FROM VEHICLE TRAFFIC, EXCESSIVE PEDESTRIAN TRAFFIC, AND CONCENTRATED RUNOFF UNTIL THE VEGETATION IS WELL-ESTABLISHED WITH 90% COVER BY HEALTHY VEGETATION. IF NECESSARY, AREAS MUST BE REWORKED AND RE-STABILIZED IF GERMINATION IS SPARSE, PLANT COVERAGE IS SPOTTY, OR TOPSOIL EROSION IS EVIDENT. ONE OR MORE OF THE FOLLOWING MAY APPLY TO A PARTICULAR SITE.

SEEDED AREAS: TO PREPARE THE SEEDED, APPLY 10-20-20 FERTILIZER AT A RATE OF 800 POUNDS PER ACRE AND GROUND LIMESTONE AT A RATE OF 3 TONS PER ACRE. WORK THE FERTILIZER AND LIMESTONE INTO THE TOPSOIL TO A DEPTH OF 4 INCHES AND REMOVE ANY STONES, ROOTS OR OTHER VISIBLE DEBRIS. SELECT A SEED MIXTURE THAT IS APPROPRIATE FOR THE SOIL TYPE AND MOISTURE CONTENT AS FOUND AT THE SITE, AND FOR THE AMOUNT OF SUN EXPOSURE AND FOR LEVEL OF USE. REFER TO THE USDA SOIL CONSERVATION SERVICE OR THE LOCAL SOIL AND WATER CONSERVATION DISTRICT FOR APPROPRIATE SEED MIXTURES. APPLY SEED UNIFORMLY IN ACCORDANCE WITH SUPPLIER RECOMMENDATIONS AND IMMEDIATELY COVER WITH MULCH AS DESCRIBED IN THE TEMPORARY MULCHING SECTION OF THIS PLAN.

HYDROSEEDING SHALL BE DONE IN ACCORDANCE WITH SUPPLIERS RECOMMENDATIONS. FOR SEEDED AREAS TO BE PERMANENTLY STABILIZED, 90% OF THE DISTURBED SOIL SHALL BE COVERED WITH MATURE HEALTHY PLANTS WITH NO EVIDENCE OF WASHING OR RILLING OF THE TOPSOIL.

SOD STRIPS SHALL BE LAID AT RIGHT ANGLES TO DIRECTION OF SLOPE OR FLOW OF WATER STARTING AT LOWEST ELEVATION. JOINTS SHALL BE STAGGERED, AND ALL STRIPS SHALL BE ROLLED OR TAMPED INTO PLACE. ON SLOPES, SOD SHALL BE ANCHORED WITH STAPLES, WIRE OR PINS. IRRIGATE SODDED AREA IMMEDIATELY AFTER INSTALLATION. FOR SODDED AREAS TO BE PERMANENTLY STABILIZED, THE ROOTS OF THE SOD MUST BE COMPLETELY UNDO TO THE UNDERLYING SOIL WITH NO SLUMPING OF THE SOD OR DIE-OFF.

PERMANENT MULCH IS A LONG TERM COVER THAT PROVIDES A GOOD BUFFER AROUND DISTURBED AREAS. THE EROSION CONTROL MIX SHALL CONSIST PRIMARILY OF ORGANIC MATERIAL AND MAY INCLUDE SHREDDED BARK, STUMP GRINDINGS OR COMPOSTED BARK. WOOD CHIPS, GROUND CONSTRUCTION DEBRIS, REPROCESSED WOOD PRODUCTS OR BARK CHIPS ARE NOT ACCEPTABLE. THE EROSION CONTROL MIX SHALL CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES AND MAY CONTAIN ROCKS LESS THAN 4 INCHES IN DIAMETER. EROSION CONTROL MIX MUST BE FREE OF REFUSE, PHYSICAL CONTAMINANTS AND MATERIAL TOXIC TO PLANT GROWTH.

RIRAPR STONE SHALL CONSIST OF SUB-ANGULAR FIELD STONE OR ROUGH UNEVEN QUARRY STONE OF APPROXIMATELY RECTANGULAR SHAPE. THE DEPTH OF STONE SHALL BE A MINIMUM OF 2.2 TIMES THE MAXIMUM STONE DIAMETER. A GRAVEL OR GEOTEXTILE FILTER BLANKET SHALL BE PLACED BETWEEN THE RIPRAP AND UNDERLYING SOIL SURFACE. GRAVEL FILTER BLANKETS SHALL MEET MUD TYPE-C UNDERLAIN MATERIAL SPECIFICATIONS AND BE AT LEAST 6 INCHES THICK. GEOTEXTILE FILTER BLANKETS SHALL BE SPECIFIED BASED ON SITE CONDITIONS. RIPRAP SLOPES SHALL BE TIED INTO THE BASE OF THE EMBANKMENT BY EXCAVATING A TRENCH AT THE BOTTOM OF THE SLOPE AND INSTALLING A STABLE BASE OF RIPRAP TO GRADE.

DITCHES, CHANNELS AND SWALES ARE CONSIDERED PERMANENTLY STABILIZED WHEN THE CHANNEL HAS 90% COVER OF HEALTHY VEGETATION WITH A WELL-GRADED RIPRAP LININGS, EROSION CONTROL BLANKET, OR WITH ANOTHER NON-EROSIVE LINING SUCH AS CONCRETE OR ASPHALT PAVEMENT. THERE MUST BE NO EVIDENCE OF SLUMPING OF THE CHANNEL LINING, UNDERCUTTING OF THE BANKS, OR DOWNCUTTING OF THE CHANNEL.

10. STORMWATER CHANNELS

EACH CHANNEL SHOULD BE CONSTRUCTED IN SECTIONS SO THAT THE SECTION'S GRADING, SHAPING, AND INSTALLATION OF THE PERMANENT LINING CAN BE COMPLETED THE SAME DAY. IF A CHANNEL'S FINAL GRADING OR LINING INSTALLATION MUST BE DELAYED, THEN DIVERSION BERMS MUST BE USED TO DIVERT STORMWATER AWAY FROM THE CHANNEL. PROPERLY PLACED CHECK DAMS MUST BE INSTALLED IN THE CHANNEL TO SLOW THE WATER VELOCITY, AND A TEMPORARY LINING INSTALLED ALONG THE CHANNEL TO PREVENT SCOURING.

INSPECTION & MAINTENANCE NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE ALL CONSTRUCTION OPERATIONS COMPLY WITH THE INSPECTION AND MAINTENANCE PROCEDURES FOR THE PROJECT, INCLUDING, BUT NOT LIMITED TO THOSE INCLUDED IN THIS PLAN SET, THE "INSPECTION, MAINTENANCE, AND HOUSEKEEPING PLAN," AND THE "LAND EROSION AND SEDIMENTATION CONTROL PRACTICES FIELD GUIDE FOR CONTRACTORS". INSPECTION SHALL OCCUR ON ALL DISTURBED AND IMPERVIOUS AREAS, EROSION CONTROL MEASURES, MATERIAL STORAGE AREAS THAT ARE EXPOSED TO PRECIPITATION, AND LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE. THESE AREAS SHALL BE ONCE A WEEK AT LEAST ONCE A WEEK AS WELL AS 24 HOURS BEFORE AND AFTER A STORM EVENT GENERATING MORE THAN 0.5 INCH OF RAINFALL OVER A 24-HOUR PERIOD AND PRIOR TO COMPLETING PERMANENT STABILIZATION MEASURES. A PERSON WITH KNOWLEDGE OF EROSION AND STORMWATER CONTROL, INCLUDING THE STANDARDS AND CONDITIONS IN THE PERMIT, SHALL CONDUCT THE INSPECTIONS.

2. EROSION CONTROLS SHALL BE MAINTAINED IN EFFECTIVE OPERATING CONDITION UNTIL AREAS ARE PERMANENTLY STABILIZED. IF BEST MANAGEMENT PRACTICES (BMPs) NEED TO BE REPAIRED, THE REPAIR WORK SHOULD BE INITIATED UPON DISCOVERY OF THE PROBLEM BUT NO LATER THAN THE END OF THE NEXT WORKDAY. IF BMPs NEED TO BE MAINTAINED OR MODIFIED, ADDITIONAL BMPs ARE NECESSARY, OR OTHER CORRECTIVE ACTION IS NEEDED, IMPLEMENTATION MUST BE COMPLETED WITHIN SEVEN CALENDAR DAYS AND PRIOR TO ANY RAINFALL EVENT.

3. A REPORT SUMMARIZING THE INSPECTIONS AND ANY CORRECTIVE ACTION TAKEN MUST BE MAINTAINED ON SITE. THE LOG MUST INCLUDE THE NAME(S) AND QUALIFICATIONS OF THE PERSON MAKING THE INSPECTIONS; THE DATE(S) OF THE INSPECTIONS; AND THE MAJOR OBSERVATIONS ABOUT THE OPERATION AND MAINTENANCE OF EROSION AND SEDIMENTATION CONTROLS, MATERIALS STORAGE AREAS, AND VEHICLE ACCESS POINTS TO THE PARCEL. MAJOR OBSERVATIONS MUST INCLUDE BMPs THAT NEED MAINTENANCE, BMPs THAT FAILED TO OPERATE AS DESIGNED OR PROVED INADEQUATE FOR A PARTICULAR LOCATION, AND LOCATION(S) WHERE ADDITIONAL BMPs ARE NEEDED. FOR EACH BMP REQUIRING REPLACEMENT, AND LOCATION NEEDING ADDITIONAL BMPs, NOTE IN THE LOG THE CORRECTIVE ACTION TAKEN AND WHEN IT WAS TAKEN. THE LOG MUST BE MADE ACCESSIBLE TO MDEP AND TOWN STAFF, AND A COPY MUST BE PROVIDED UPON REQUEST. THE OWNER SHALL RETAIN A COPY OF THE LOG FOR A PERIOD OF AT LEAST THREE YEARS FROM THE COMPLETION OF PERMANENT STABILIZATION.

WINTER EROSION AND SEDIMENTATION CONTROL NOTES:

THE WINTER CONSTRUCTION PERIOD TYPICALLY BEGINS IN EARLY NOVEMBER AND ENDS IN MID APRIL. IF A CONSTRUCTION SITE IS NOT STABILIZED WITH PAVEMENT, A ROAD GRAVEL BASE OR RIPRAP BY NOVEMBER 15 THEN THE SITE NEEDS TO BE PROTECTED WITH OVER-WINTER STABILIZATION. WINTER EXCAVATION AND EARTHWORK SHALL BE COMPLETED SUCH THAT NO MORE THAN 1 ACRE OF THE SITE IS WITHOUT STABILIZATION AT ANY ONE TIME. LIMIT THE EXPOSED AREA TO THOSE AREAS IN WHICH WORK IS TO OCCUR DURING THE FOLLOWING 15 DAYS AND THAT CAN BE MULCHED IN ONE DAY PRIOR TO ANY SNOW EVENT. AN AREA SHALL BE CONSIDERED DENIED UNTIL THE SUBBASE GRAVEL IS INSTALLED IN THE ROADWAY AREAS OR THE AREAS OF FUTURE LOAM AND SEED HAVE BEEN LOADED, SEEDED AND MULCHED. A COVER OF EROSION CONTROL MIX IS THE PREFERRED TEMPORARY MULCH DURING WINTER CONDITIONS.

1. NATURAL RESOURCE PROTECTION

ANY AREAS WITHIN 75 FEET FROM ANY REGULATED NATURAL RESOURCES SHALL BE MULCHED BY DECEMBER 1 AND ANCHORED WITH PLASTIC NETTING OR PROTECTED WITH AN EROSION CONTROL COVER. DURING WINTER CONSTRUCTION, A DOUBLE ROW OF SEDIMENT BARRIERS (FOR EXAMPLE, SILT FENCE BACKED WITH HAY BALES OR EROSION CONTROL MIX) WILL BE PLACED BETWEEN ANY REGULATED NATURAL RESOURCE AND THE DISTURBED AREA. PROJECTS CROSSING THE REGULATED NATURAL RESOURCE SHALL BE PROTECTED A MINIMUM DISTANCE OF 100 FEET ON EITHER SIDE FROM THE RESOURCE. EXISTING PROJECTS NOT STABILIZED BY DECEMBER 1 SHALL BE PROTECTED WITH THE SECOND LINE OF SEDIMENT BARRIER TO ENSURE FUNCTIONALITY DURING THE SPRING THAW AND RAINS.

2. SEDIMENT BARRIERS

DURING FROZEN CONDITIONS, SEDIMENT BARRIERS MAY CONSIST OF EROSION CONTROL MIX BERMS OR ANY OTHER RECOGNIZED SEDIMENT BARRIERS AS FROZEN SOIL PREVENTS THE PROPER INSTALLATION OF HAY BALES OR SILT FENCES.

3. MULCHING

ALL AREAS SHALL BE CONSIDERED TO BE DENIED UNTIL SEEDED AND MULCHED. HAY AND STRAW MULCH SHALL BE APPLIED AT A RATE OF 3 TONS PER ACRE (TWICE THE NORMAL APPLICATION RATE) AND SHALL BE PROPERLY ANCHORED. EROSION CONTROL MIX MUST BE APPLIED WITH A MINIMUM 4 INCHES THICKNESS. MULCH SHALL NOT BE SPREAD ON TOP OF SNOW. SNOW MUST BE REMOVED DOWN TO A ONE-INCH DEPTH PRIOR TO APPLICATION. AFTER EACH DAY OF FINAL GRADING, THE AREA WILL BE PROPERLY STABILIZED WITH ANCHORED HAY OR STRAW OR EROSION CONTROL MATTING. AN AREA SHALL BE CONSIDERED TO HAVE BEEN STABILIZED WHEN EXPOSED SURFACES HAVE BEEN EITHER MULCHED OR ADEQUATELY ANCHORED SO THAT GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH. BETWEEN THE DATES OF NOVEMBER 1 AND APRIL 15, ALL MULCH SHALL BE ANCHORED BY EITHER MULCH NETTING, TRACKING OR WOOD CELLULOSE FIBER. THE COVER WILL BE CONSIDERED SUFFICIENT WITH THE GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH. AFTER NOVEMBER 15T, MULCH AND ANCHORING OF ALL EXPOSED SOIL SHALL OCCUR AT THE END OF EACH FINAL GRADING WORKDAY.

4. SOIL STOCKPIILING

STOCKPILES OF SOIL OR SUBSOIL WILL BE MULCHED FOR OVER WINTER PROTECTION WITH HAY OR STRAW AT TWICE THE NORMAL RATE FOR WITH A FOUR-INCH LAYER OF EROSION CONTROL MIX. THIS WILL BE DONE WITHIN 24 HOURS OF STACKING AND RE-ESTABLISHED PRIOR TO ANY RAINFALL OR SNOWFALL. ANY SOIL STOCKPILE WILL NOT BE PLACED WITHIN 100 FEET FROM ANY REGULATED NATURAL RESOURCE.

5. SEEDING

BETWEEN THE DATES OF OCTOBER 15 AND APRIL 1, LOAM OR SEED WILL NOT BE REQUIRED. DURING PERIODS OF ABOVE FREEZING TEMPERATURES FINISHED AREAS SHALL BE FINE GRADED AND EITHER PROTECTED MULCH OR TEMPORARILY SEEDED AND MULCHED UNTIL SUCH TIME AS THE FINAL TREATMENT CAN BE APPLIED. IF THE DATE IS AFTER NOVEMBER 1 AND IF THE EXPOSED AREA HAS BEEN LOOSED, FINAL GRADED WITH A UNIFORM SURFACE, THEN THE AREA MAY BE DORMANT SEEDED AT A RATE OF 3 TIMES HIGHER THAN SPECIFIED FOR PERMANENT SEED AND THEN MULCHED. IF DORMANT SEEDING IS USED, ALL DISTURBED AREAS SHALL RECEIVE 4 INCHES OF LOAM AND SEED AT AN APPLICATION RATE OF 5 LBS PER 1,000 S.F. ALL AREAS INSUFFICIENTLY VEGETATED (LESS THAN 75%) IN THE SPRING SHALL BE REVEGETATED.

6. OVER-WINTER STABILIZATION OF DITCHES AND CHANNELS

ALL STONE-LINED DITCHES AND CHANNELS MUST BE CONSTRUCTED BY NOVEMBER 1. ALL GRASS-LINED DITCHES AND CHANNELS MUST BE CONSTRUCTED AND STABILIZED BY SEPTEMBER 1. IF A GRASS-LINE IS STABILIZED BY SEPTEMBER 1, THEN EITHER A SOD LINING SHALL BE INSTALLED PRIOR TO OCTOBER 1 OR THE DITCH MUST BE LINED WITH STONE RIPRAP BACKED BY AN APPROPRIATE GRAVEL BED OR GEOTEXTILE PRIOR TO NOVEMBER 1.

7. OVER-WINTER STABILIZATION OF DISTURBED SLOPES

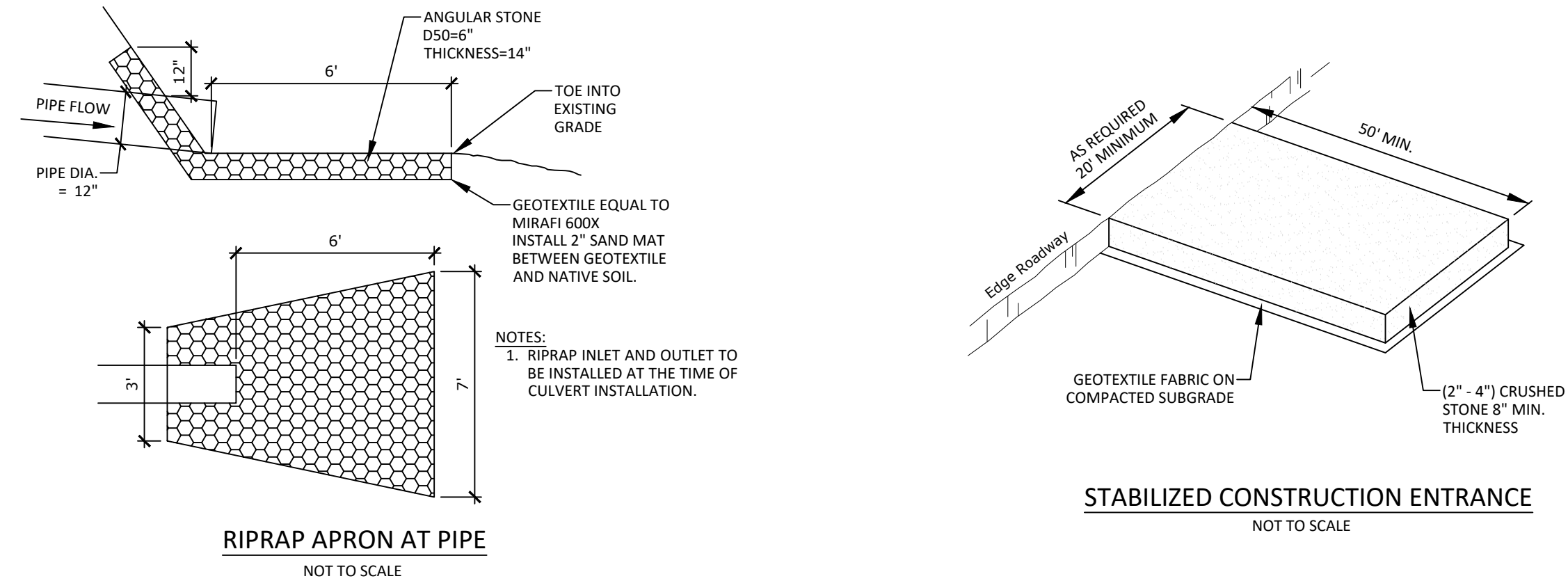
ALL STONE-COVERED SLOPES MUST BE CONSTRUCTED AND STABILIZED BY NOVEMBER 15. ALL SLOPES TO BE VEGETATED MUST BE SEEDED AND MULCHED BY SEPTEMBER 1. ALL AREAS HAVING A GRADE STEEPER THAN 8% SHALL BE CONSIDERED A SLOPE. IF A SLOPE TO BE VEGETATED IS NOT STABILIZED BY SEPTEMBER 1, THEN THE SLOPE SHALL EITHER BE STABILIZED WITH TEMPORARY VEGETATION AND EROSION CONTROL MATS BY OCTOBER 1, SOD BY OCTOBER 1, EROSION CONTROL MIX BY NOVEMBER 1 OR STONE RIPRAP BY NOVEMBER 15. SEE APPLICABLE SECTIONS UNDER EROSION AND SEDIMENTATION CONTROL NOTES FOR PROPER INSTALLATION METHODS.

8. OVER-WINTER STABILIZATION OF DISTURBED SOILS

BY SEPTEMBER 15, ALL DISTURBED SOILS ON AREAS HAVING A SLOPE LESS THAN 15% MUST BE SEEDED AND MULCHED. IF THE DISTURBED AREAS ARE NOT STABILIZED BY THIS DATE, THEN THE AREA SHALL EITHER BE STABILIZED WITH TEMPORARY VEGETATION BY OCTOBER 1, SOD BY OCTOBER 1, OR MULCH BY NOVEMBER 15. SEE APPLICABLE SECTIONS UNDER EROSION AND SEDIMENTATION CONTROL NOTES FOR PROPER INSTALLATION METHODS.

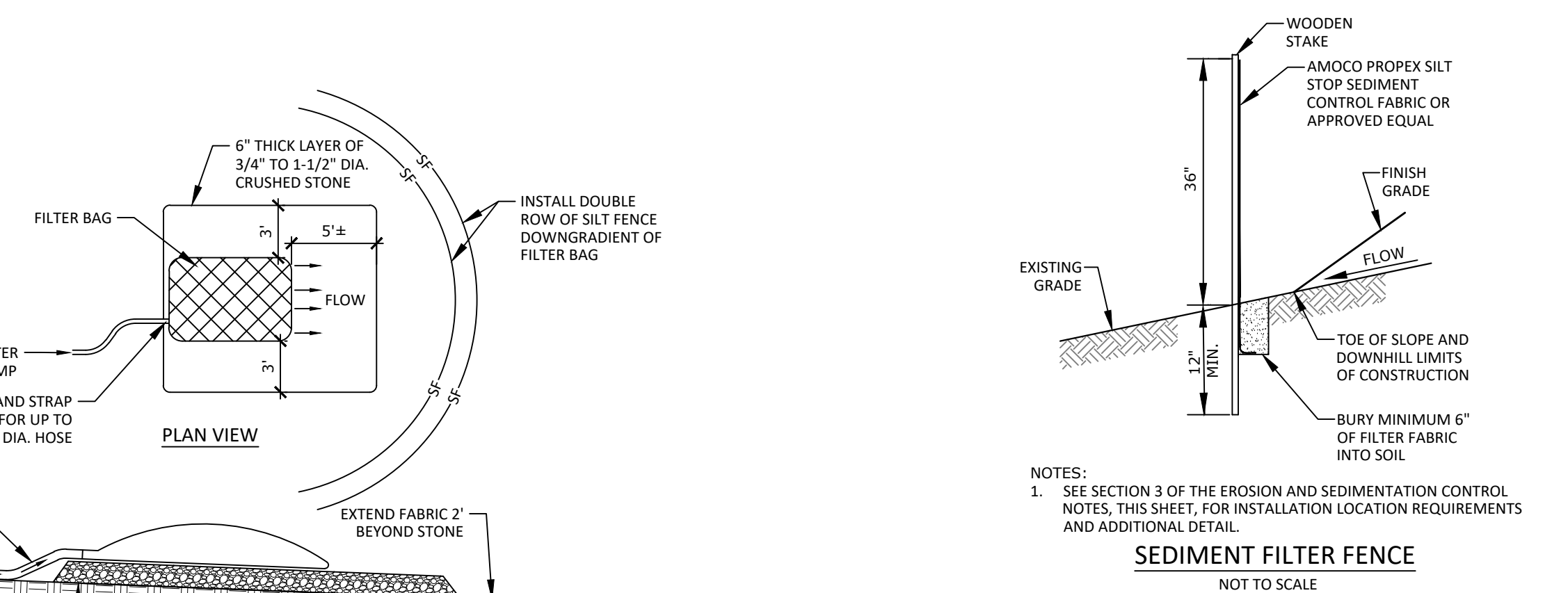
9. MAINTENANCE

MAINTENANCE MEASURES SHALL BE APPLIED AS NEEDED DURING THE ENTIRE CONSTRUCTION SEASON. AFTER EACH RAINFALL, SNOW STORM, PERIOD OF THAWING AND RUNOFF AND AT LAST ONCE A WEEK, THE SITE CONTRACTOR SHALL PERFORM A VISUAL INSPECTION OF ALL INSTALLED EROSION CONTROL MEASURES AND PERFORM REPAIRS AS NEEDED TO INSURE THEIR CONTINUOUS FUNCTION. FOLLOWING THE WINTERIZATION AND/OR FINAL SEEDING AND MULCHING, THE CONTRACTOR SHALL, IN THE SPRING, INSPECT AND REPAIR ANY DAMAGES AND/OR BARE SPOTS. AN ESTABLISHED VEGETATIVE COVER MEANS A MINIMUM OF 90% OF AREAS VEGETATED WITH VIGOROUS GROWTH.



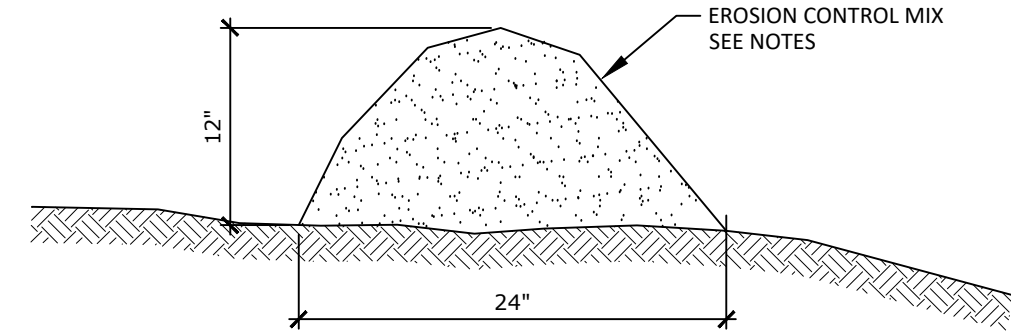
STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE



SEDIMENT FILTER FENCE

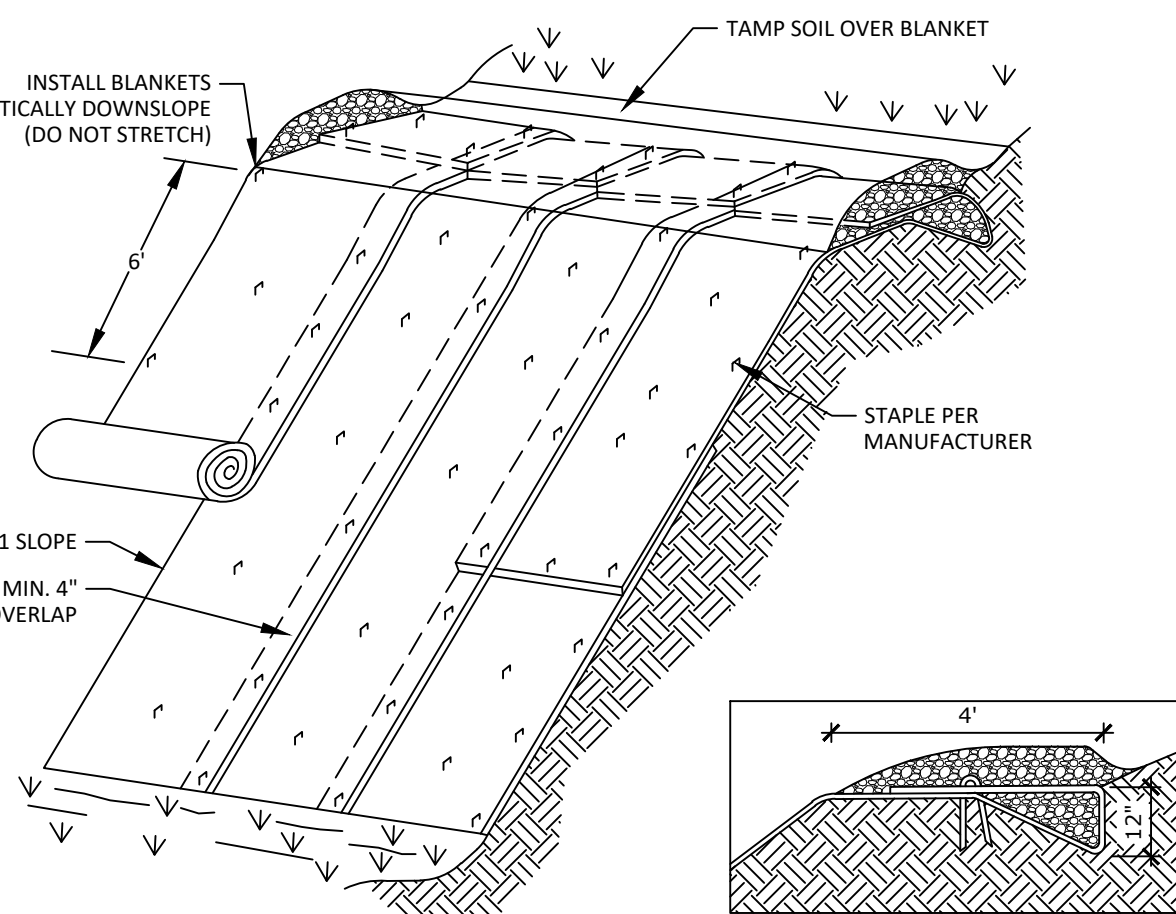
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- NOTES:
1. EROSION CONTROL MIX BERM INSTALLED 12" HIGH AND 24" WIDE CONSISTING OF STUMP GRINDINGS WITH NO ROCKS GREATER THAN 4 INCHES OR LARGE AMOUNTS OF FINES.
 2. SEE SECTION 3 OF THE EROSION AND SEDIMENTATION CONTROL NOTES, THIS SHEET, FOR INSTALLATION LOCATION REQUIREMENTS AND ADDITIONAL DETAIL.

EROSION CONTROL MIX BERM

NOT TO SCALE



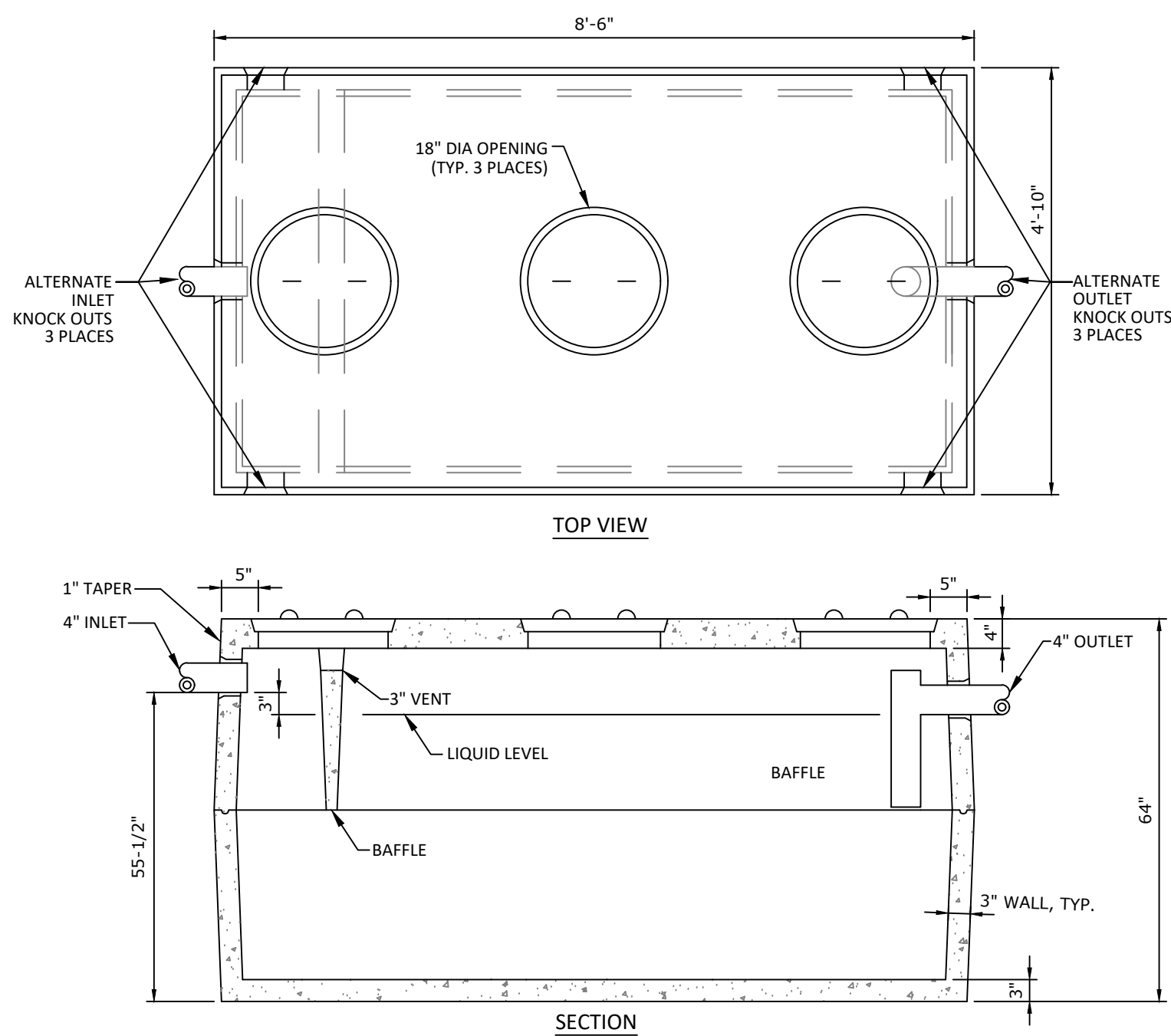
EROSION CONTROL BLANKET

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HOUSEKEEPING NOTES

1. SPILL PREVENTION: CONTROLS MUST BE USED TO PREVENT POLLUTANTS FROM CONSTRUCTION AND WASTE MATERIALS ON SITE TO ENTER STORMWATER, WHICH INCLUDES STORAGE PRACTICES TO MINIMIZE EXPOSURE OF THE MATERIALS TO STORMWATER. THE SITE ENTER CONTRACTOR OR OPERATOR MUST DEVELOP, AND IMPLEMENT AS NECESSARY, APPROPRIATE SPILL PREVENTION, CONTAINMENT, AND RESPONSE PLANNING MEASURES.
2. GROUNDWATER PROTECTION: DURING CONSTRUCTION, LIQUID PETROLEUM PRODUCTS AND OTHER HAZARDOUS MATERIALS WITH THE POTENTIAL TO CONTAMINATE GROUNDWATER MAY NOT BE STORED OR HANDLED IN AREAS OF THE SITE DRAINING TO AN INFILTRATION AREA. AN "INFILTRATION AREA" IS ANY AREA OF THE SITE THAT BY DESIGN OR AS A RESULT OF SOILS, TOPOGRAPHY AND OTHER RELEVANT FACTORS ACCUMULATES RUNOFF THAT INFILTRATES INTO THE SOIL. DIKES, BERMS, SUMPS, AND OTHER FORMS OF SECONDARY CONTAINMENT THAT PREVENT DISCHARGE TO GROUNDWATER MAY BE USED TO ISOLATE PORTIONS OF THE SITE FOR THE PURPOSES OF STORAGE AND HANDLING OF THESE MATERIALS. ANY PROJECT PROPOSING INFILTRATION OF STORMWATER MUST PROVIDE ADEQUATE PRE-TREATMENT OF STORMWATER PRIOR TO DISCHARGE OF STORMWATER TO THE INFILTRATION AREA, OR PROVIDE FOR TREATMENT WITHIN THE INFILTRATION AREA, IN ORDER TO PREVENT THE ACCUMULATION OF FINES, REDUCTION IN INFILTRATION RATE, AND CONSEQUENT FLOODING AND DESTABILIZATION.
3. FUGITIVE SEDIMENT AND DUST: ACTIONS MUST BE TAKEN TO ENSURE THAT ACTIVITIES DO NOT RESULT IN NOTICEABLE EROSION OF SOILS OR FUGITIVE DUST EMISSIONS DURING OR AFTER CONSTRUCTION. OIL MAY NOT BE USED FOR DUST CONTROL, BUT OTHER WATER ADDITIVES MAY BE USED AS NECESSARY. A STABILIZED CONSTRUCTION ENTRANCE (SEE) SHOULD BE INCLUDED TO MINIMIZE TRACKING OF MUD AND SEDIMENT. IF OFF-SITE TRACKING OCCURS, PUBLIC ROADS SHOULD BE SWEEP IMMEDIATELY AND NO LESS THAN ONCE A WEEK AND PRIOR TO SIGNIFICANT STORM EVENTS. OPERATIONS DURING DRY MONTHS, THAT EXPERIENCE FUGITIVE DUST PROBLEMS, SHOULD WET DOWN UNPAVED ACCESS ROADS ONCE A WEEK OR MORE FREQUENTLY AS NEEDED WITH A WATER ADDITIVE TO SUPPRESS FUGITIVE SEDIMENT AND DUST.
4. DEBRIS AND OTHER MATERIALS: MINIMIZE THE EXPOSURE OF CONSTRUCTION DEBRIS, BUILDING AND LANDSCAPING MATERIALS, TRASH, FERTILIZERS, PESTICIDES, HERBICIDES, DETERGENTS, SANITARY WASTE AND OTHER MATERIALS TO PRECIPITATION AND STORMWATER RUNOFF. THESE MATERIALS MUST BE PREVENTED FROM BECOMING A POLLUTANT SOURCE.
5. EXCAVATION DE-WATERING: EXCAVATION DE-WATERING IS THE REMOVAL OF WATER FROM TRENCHES, FOUNDATIONS, COFFER DAMS, PONDS, AND OTHER AREAS WITHIN THE CONSTRUCTION AREA THAT RETAIN WATER AFTER EXCAVATION. IN MOST CASES THE COLLECTED WATER IS HEAVILY SILTED AND HINDERS CORRECT AND SAFE CONSTRUCTION PRACTICES. THE COLLECTED WATER REMOVED FROM THE PONDED AREA, EITHER THROUGH GRAVITY OR PUMPING, MUST BE SPREAD THROUGH NATURAL WOODED BUFFERS OR REMOVED TO AREAS THAT ARE SPECIFICALLY DESIGNED TO COLLECT THE MAXIMUM AMOUNT OF SEDIMENT POSSIBLE, LIKE A COFFERDAM SEDIMENTATION BASIN. AVOID ALLOWING THE WATER TO FLOW OVER DISTURBED AREAS OF THE SITE. EQUIVALENT MEASURES MAY BE TAKEN IF APPROVED BY THE DEPARTMENT.
6. CONTRACTOR'S NON-STORMWATER DISCHARGES: IDENTIFY AND PREVENT CONTAMINATION BY NON-STORMWATER DISCHARGES, WHERE ALLOWED NON-STORMWATER DISCHARGES EX

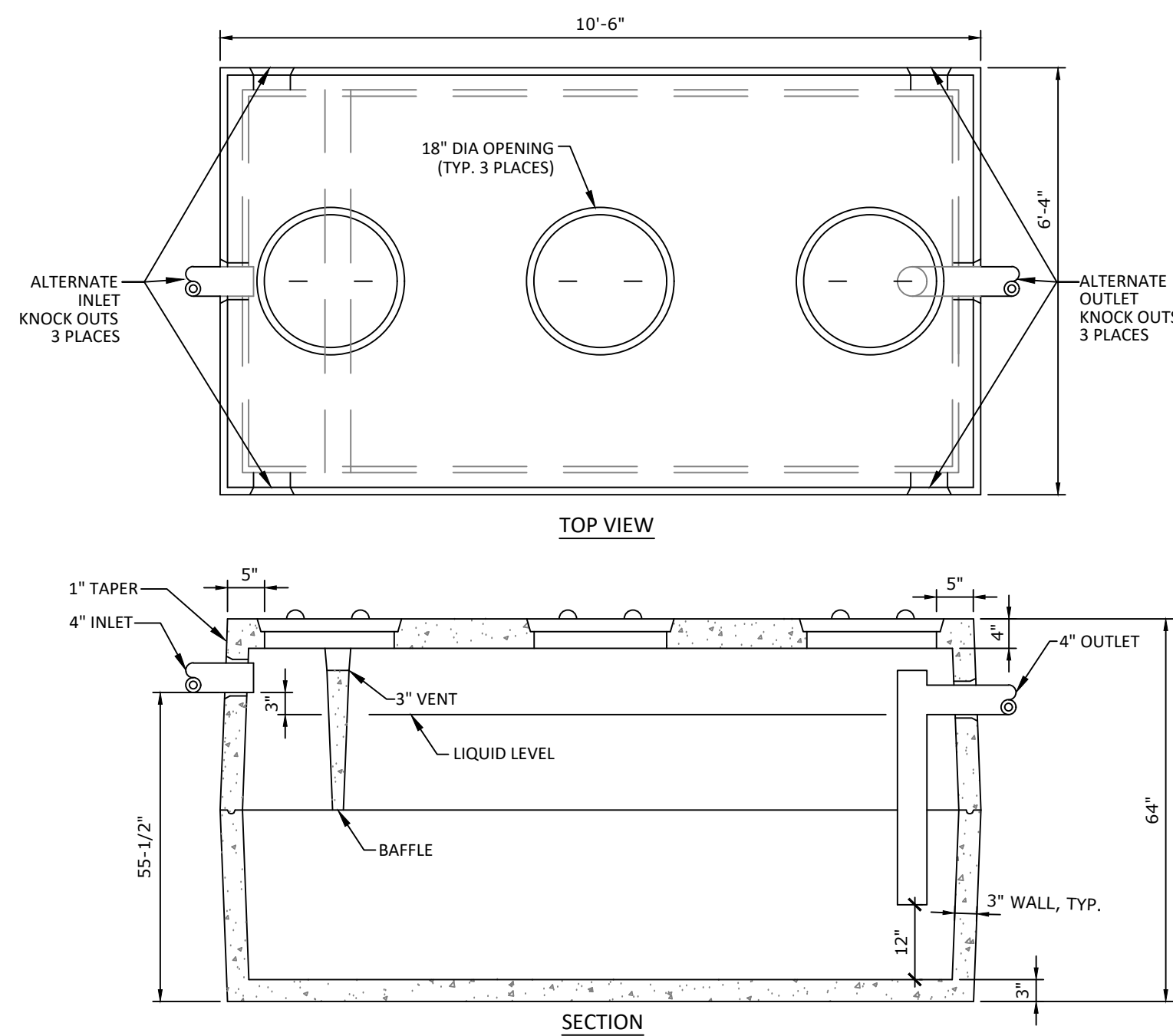
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TANK NOTES:

1. CONCRETE TO BE 4,000 PSI AT 28 DAYS.
2. THE INLET BAFFLE IS PRECAST AS ONE UNIT WITH THE TOP SECTION.
3. TANKS REINFORCED WITH 6X6X10 G.A. WIRE.
4. KEYED JOINTS SEALED WITH ASPHALT SEALANT.
5. TANKS IN PAVED AREAS TO BE REINFORCED WITH 1/2" REBAR SPACED 6" O.C. EACH WAY.
6. TANK TO BE A 1,000 GALLON RESIDENTIAL SEPTIC TANK AS MANUFACTURED BY PRECAST CONCRETE PRODUCTS OF MAINE, INC. OR APPROVED EQUAL

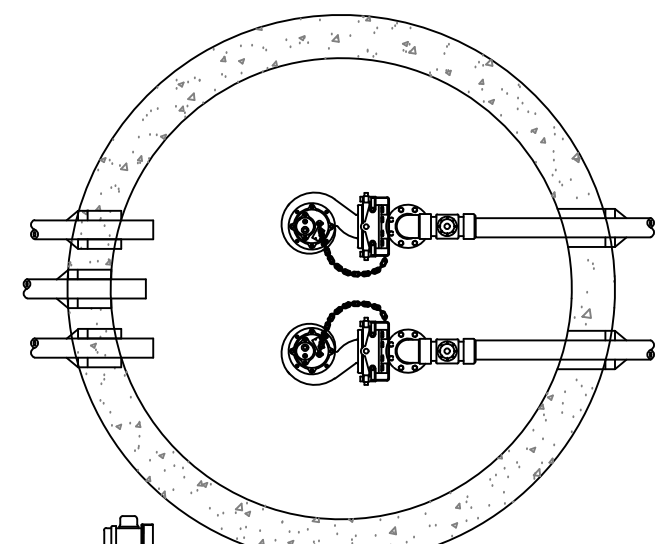
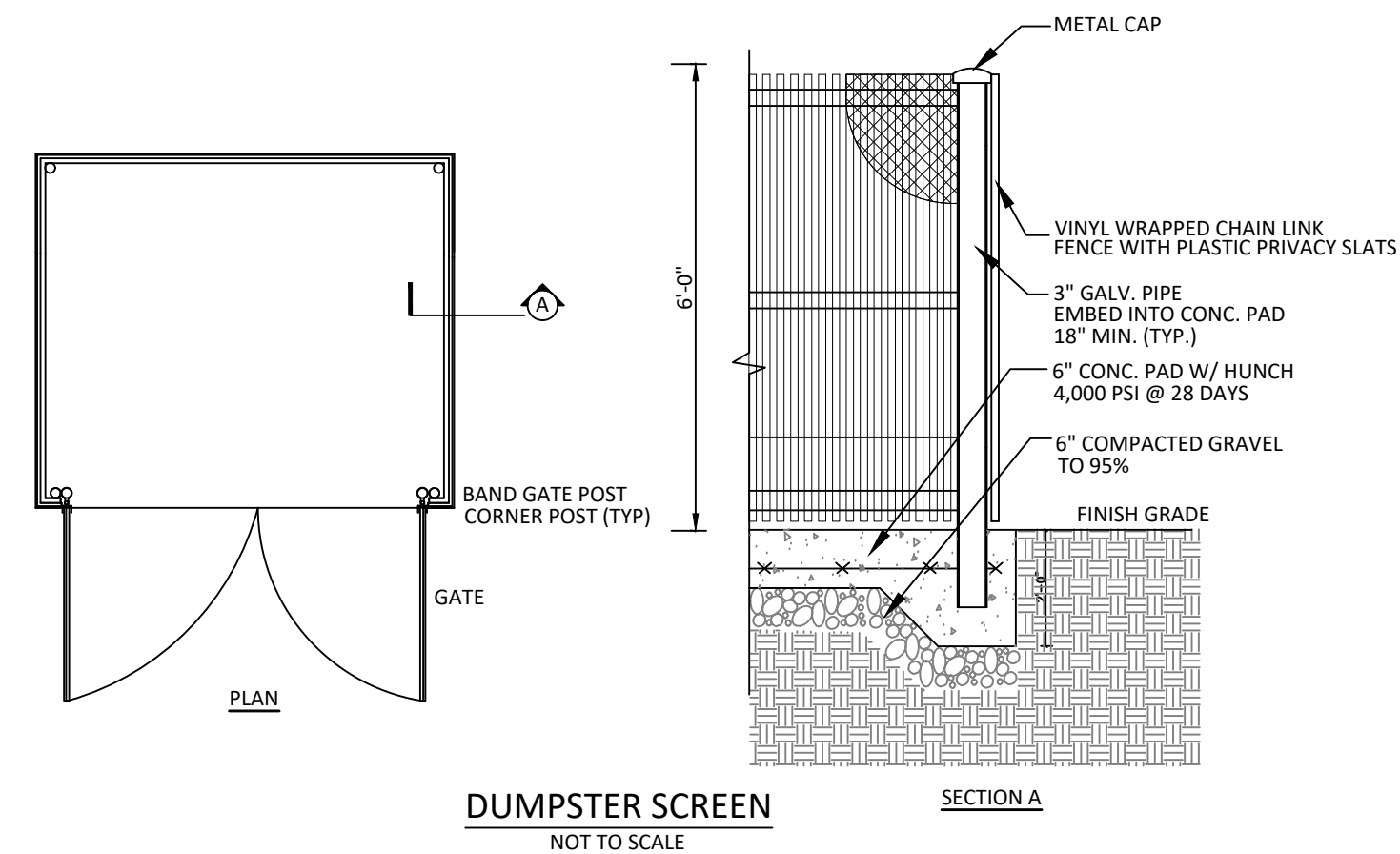
1,000 GAL. RESIDENTIAL SEPTIC TANK
NOT TO SCALE



TANK NOTES:

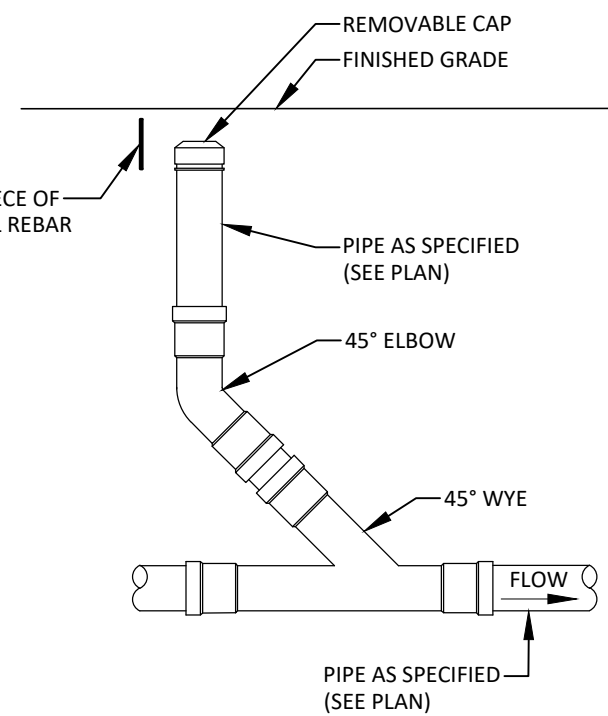
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NOT TO SCALE



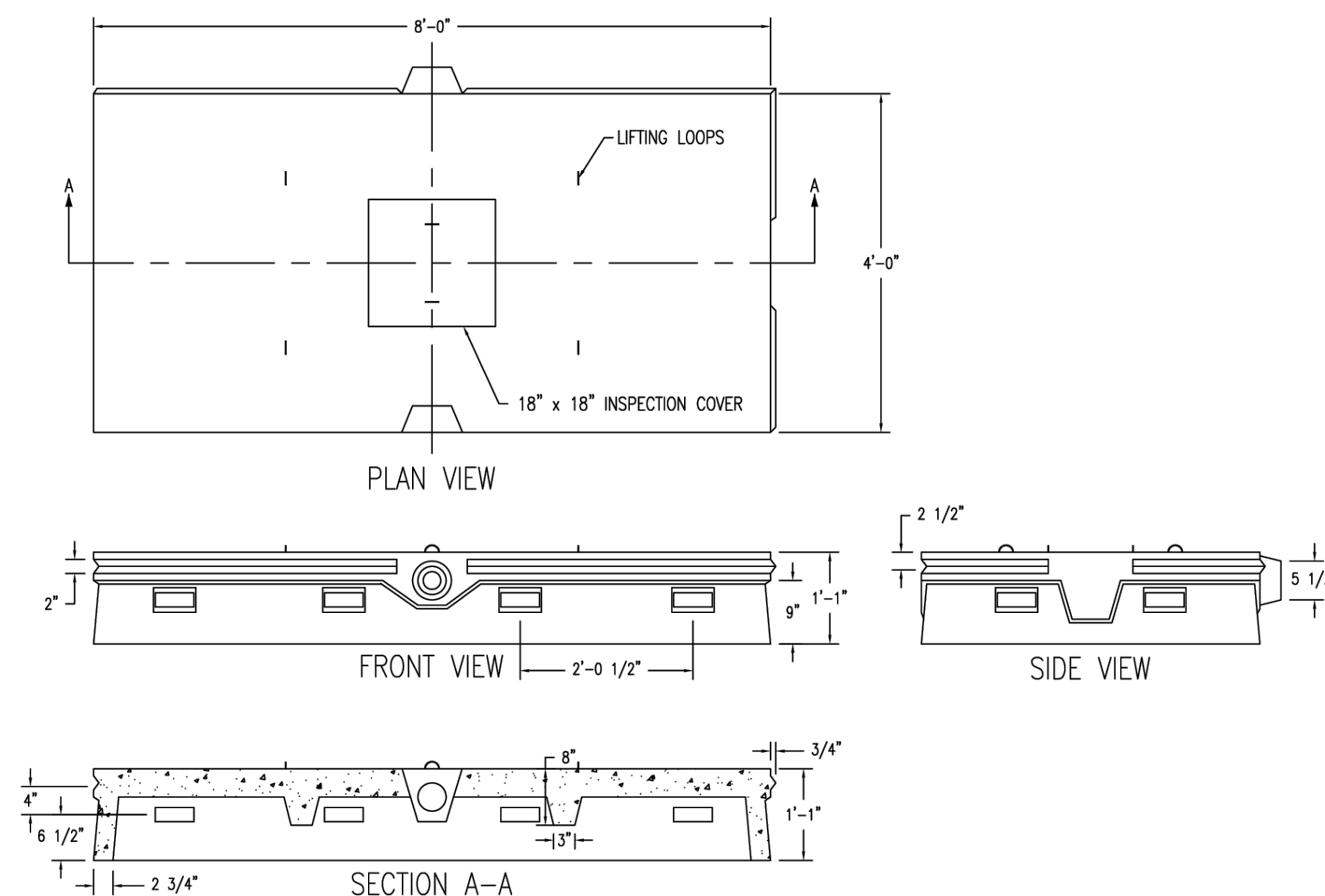
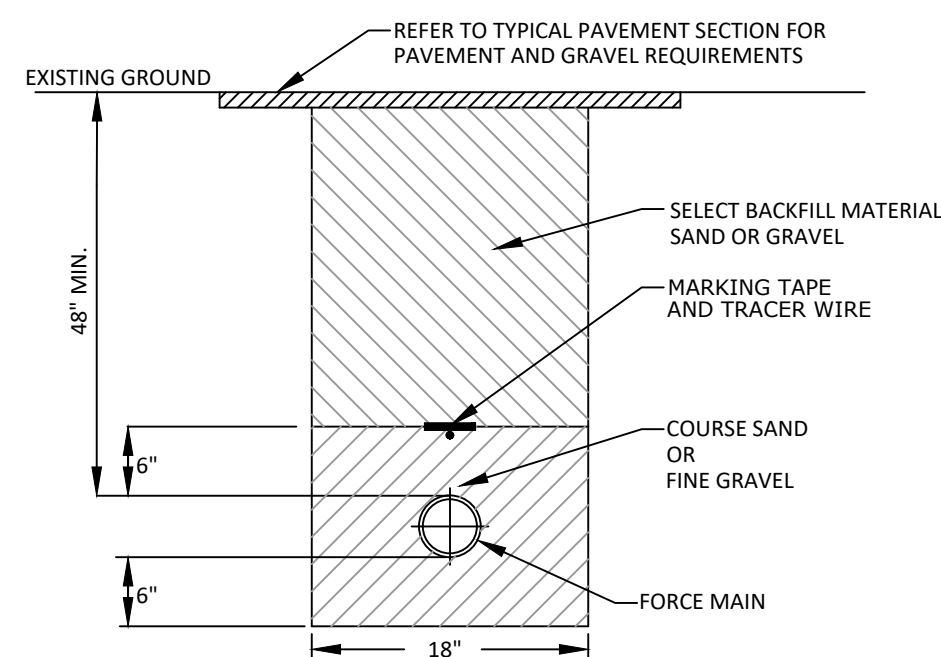
NOTES:

1. PUMP STATION DETAIL IS FOR PRICING ONLY. FINAL DESIGN TO BE PROVIDED BY DESIGN ENGINEER PRIOR TO ISSUANCE OF DRAWINGS FOR CONSTRUCTION.



NOTES:

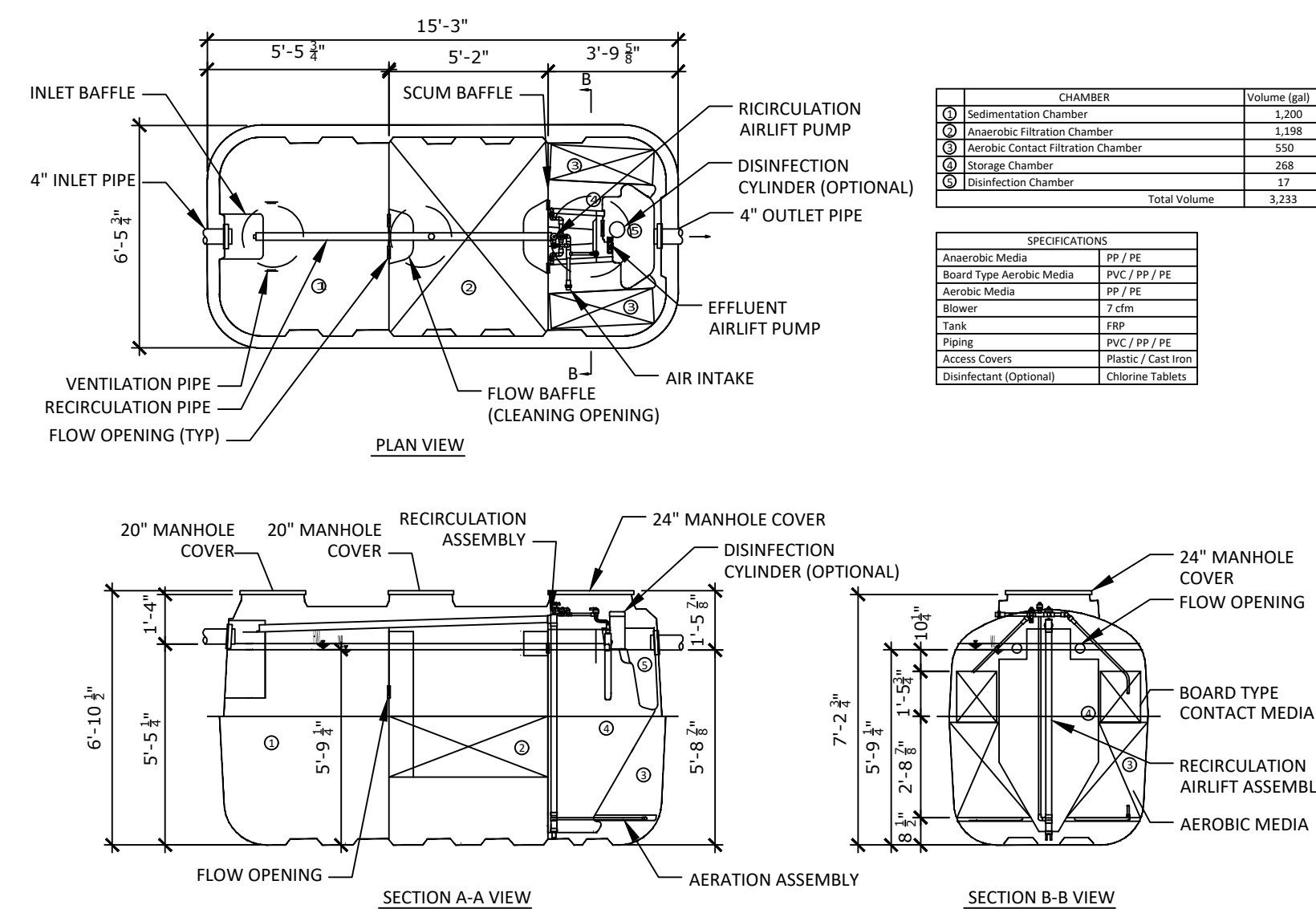
1. IF CLEANOUT IS LOCATED IN PAVEMENT, INSTALL CLEANOUT BOX ASSEMBLY OVER CLEANOUT AND SET AT FINISHED PAVEMENT GRADE. BOX ASSEMBLY TO BE PRODUCT NO. 00156452W01 AS MANUFACTURED BY EAST JORDAN IRON WORKS, INC. OR APPROVED EQUAL.



NOTES:

1. CONCRETE TO BE 4,000 PSI AT 28 DAYS.
2. LEACHING CHAMBERS SHALL BE FLOODPUSOR LEACHING CHAMBERS AS MANUFACTURED BY PRECAST CONCRETE PRODUCTS OF MAINE, INC. OR APPROVED EQUAL.

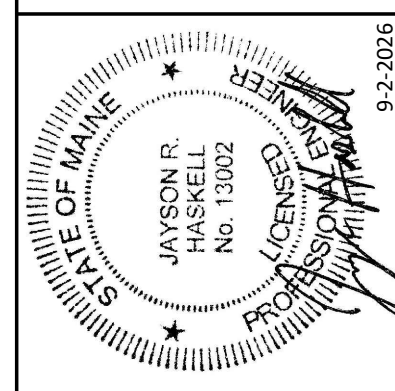
PRECAST CONCRETE LEACHING CHAMBER
NOT TO SCALE



FujiClean USA™
Toward Clean Water...

FUJI CLEAN CEN21 TREATMENT DEVICE
NOT TO SCALE

NOT FOR CONSTRUCTION



DM ROMA
CONSULTING ENGINEERS
P.O. BOX 1116
WINDHAM, ME 04062
(207) 591-5055

REV	DATE	BY	DESCRIPTION
A	5/26/26	JRH	ISSUED FOR PERMITTING
B	6-12-26	JRH	CONSULTANT COORDINATION SET
C	6-25-26	JRH	CONSULTANT COORDINATION SET
D	9-2-26	JRH	REVISED PER TOWN REVIEW

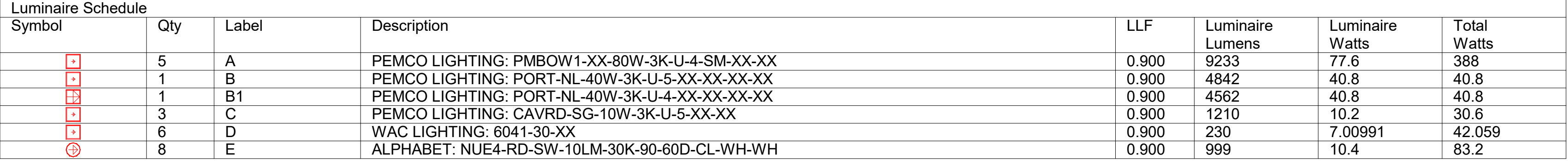
DETAILS

COUNTRY VILLAGE ASSISTED LIVING FACILITY EXPANSION

960 MEADOW ROAD
CASCO, MAINE

FOR: **960 MEADOW ROAD HOLDING, LLC**
960 MEADOW ROAD
CASCO, MAINE 04015

19063 JOB NUMBER:
AS NOTED SCALE:
9-2-2026 DATE:
SHEET 8 OF 8
D-3



COUNTRY VILLAGE ASSISTED LIVING 960 MEADOW ROAD CASCO, MAINE	Drawn By: RAID Date: 7/6/2026	www.reflexlighting.com	REFLEX Boston, MA Rocky Hill, CT Hooksett, NH Item 6.##
	Specifier: Salesperson: Scale: Not to Scale	DISCLAIMER: CALCULATIONS SHOULD BE USED AS A GUIDE ONLY. LIGHT LEVELS ARE SUBJECT TO CONDITIONS IN THE FIELD.	
		specifications@reflexlighting.com	



1000

COUNTRY VILLAGE ASSISTED LIVING
960 MEADOW RD
CASCO, ME, 04015

APPENDIX 1

960 MEADOW RD
CASCO, ME, 04015

MADE FOR

960 MEADOW RD
CASCO, ME, 04015

[illegible]

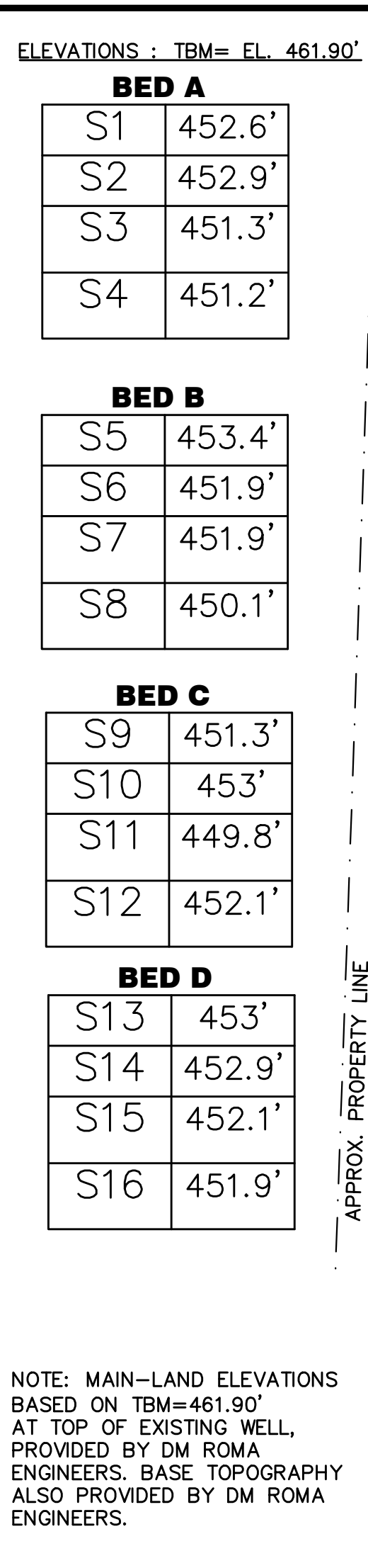
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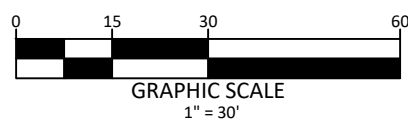
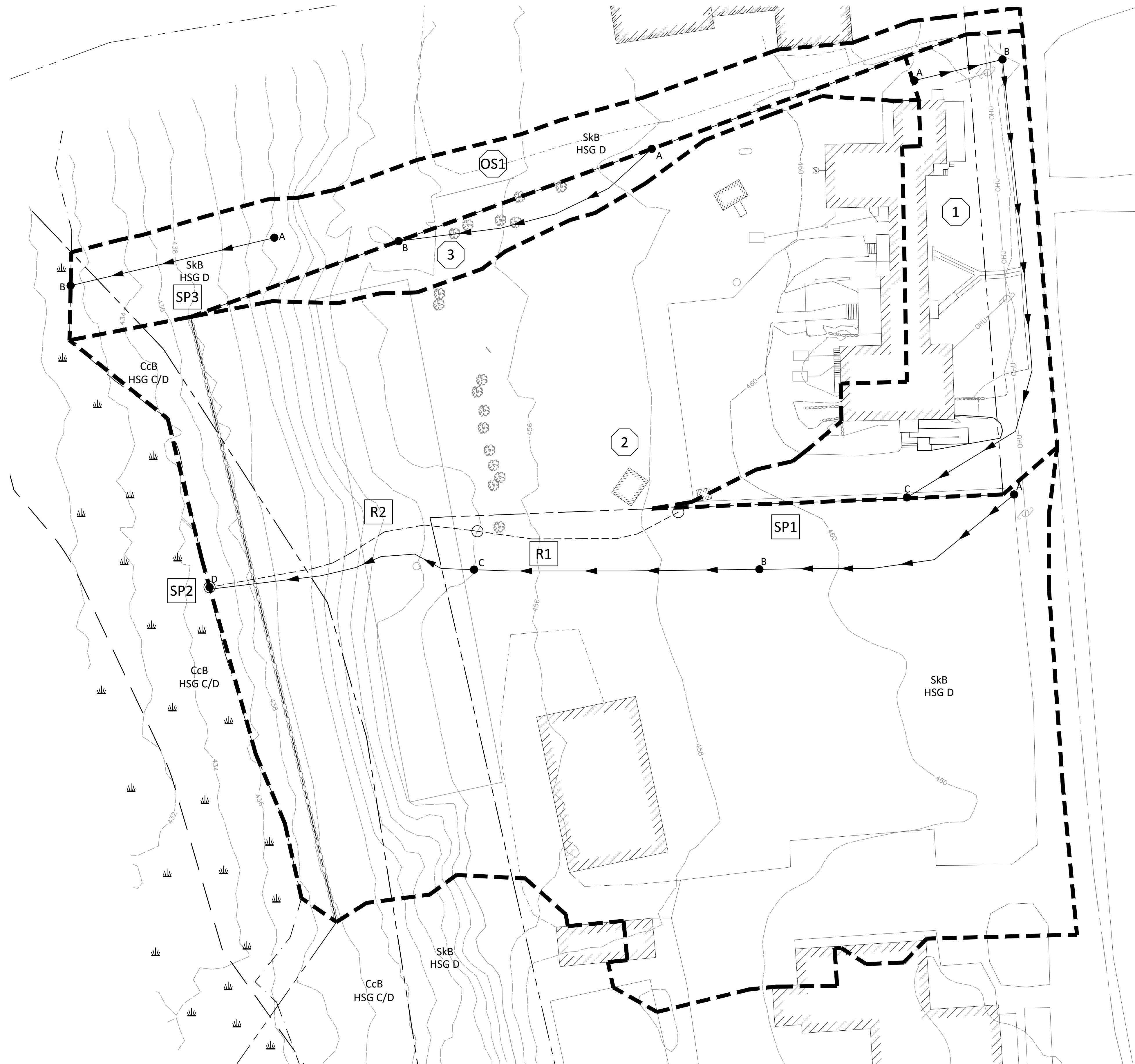
SEAL:

SCOTT R. DIXON MF PF #9236

DRAWING NO. **111**

MLDC NO. 26-037 1 OF 1

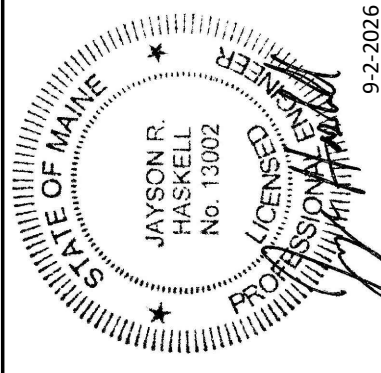




WATERSHED MAP LEGEND

- WATERSHED NO.
- REACH/STUDY POINT
- POND
- WATERSHED BOUNDARY
- TIME OF CONCENTRATION
- REACH PATH
- SOIL BOUNDARY

NOT FOR
CONSTRUCTION

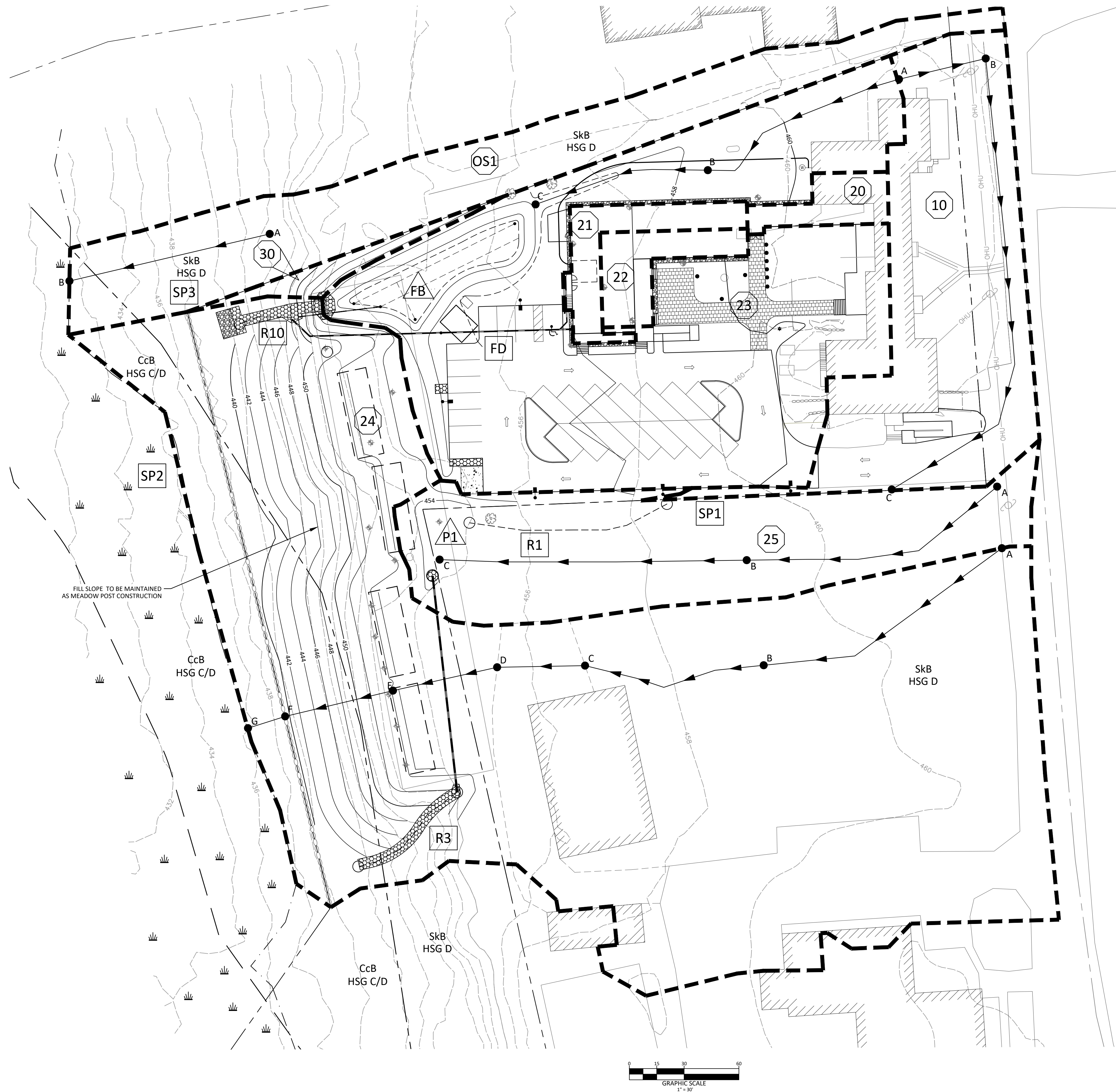


DM ROMA
CONSULTING ENGINEERS
P.O. BOX 1116
WINDHAM, ME 04062
(207) 591-5055

REV	DATE	BY	DESCRIPTION	
			ISSUED FOR PERMITTING	REVISED PER TOWN REVIEW
A	5-26-26	JRH		
B	9-2-26	JRH		

PRE-DEVELOPMENT WATERSHED MAP
COUNTRY VILLAGE ASSISTED LIVING FACILITY EXPANSION
960 MEADOW ROAD
CASCO, MAINE
FOR:
960 MEADOW ROAD HOLDING, LLC
960 MEADOW ROAD
CASCO, MAINE 04015

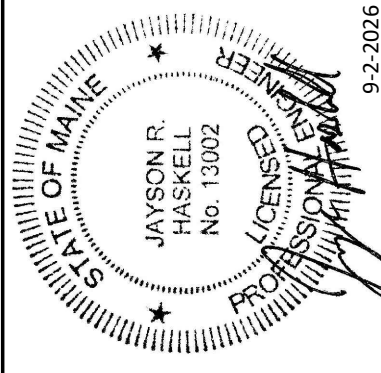
19063 JOB NUMBER:
1" = 30' SCALE:
9-2-2026 DATE:
SHEET 1 OF 2
SWP-1



WATERSHED MAP LEGEND

- WATERSHED NO.
- REACH/STUDY POINT
- POND
- WATERSHED BOUNDARY
- TIME OF CONCENTRATION
- REACH PATH
- SOIL BOUNDARY

NOT FOR
CONSTRUCTION



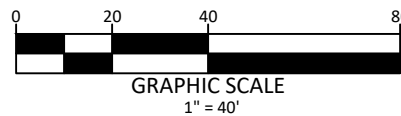
DM ROMA
CONSULTING ENGINEERS
P.O. BOX 1116
WINDHAM, ME 04062
(207) 591-5055

REV	DATE	BY	DESCRIPTION
A	5-26-26	JRH	ISSUED FOR PERMITTING
B	9-2-26	JRH	REVISED PER TOWN REVIEW

POST DEVELOPMENT WATERSHED MAP
COUNTRY VILLAGE ASSISTED LIVING FACILITY EXPANSION
960 MEADOW ROAD
CASCO, MAINE
FOR: 960 MEADOW ROAD HOLDING, LLC
960 MEADOW ROAD
CASCO, MAINE 04015

19063 JOB NUMBER:
1" = 30' SCALE:
9-2-2026 DATE:
SHEET 2 OF 2
SWP-2

-  POLLUTANT RANK 5
HIGH USE PARKING LOTS AND ROADS
-  POLLUTANT RANK 4
OTHER ROAD & MEDIUM USE PARKING LOTS
-  POLLUTANT RANK 3
OTHER PARKING LOTS, DRIVEWAYS & FLAT ROOFS
-  POLLUTANT RANK 2
OTHER ROOF, BIKEWAYS, WALKWAYS, LAWN
-  POLLUTANT RANK 1
NON GRASS LANDSCAPE & STORMWATER SYSTEM
-  POLLUTANT RANK 0
UNDEVELOPED FOREST OR MEADOW

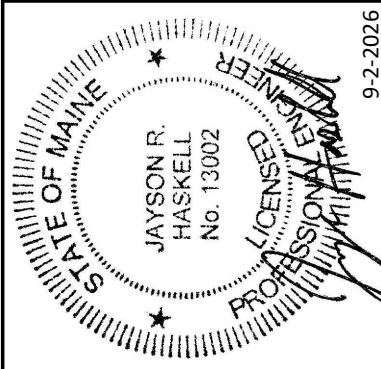


PRE-DEVELOPMENT CONDITION

POST-DEVELOPMENT CONDITION



NOT FOR
CONSTRUCTION



DM ROMA
CONSULTING ENGINEERS

P.O. BOX 1116
WINDHAM, ME 04062
(207) 591-5055

STORMWATER REDEVELOPMENT PLAN

COUNTRY VILLAGE ASSISTED LIVING FACILITY EXPANSION

960 MEADOW ROAD
CASCO, MAINE

FOR: 960 MEADOW ROAD HOLDING, LLC
960 MEADOW ROAD
CASCO, MAINE 04015

19063
JOB NUMBER:

1" = 40'
SCALE:

9-2-2026
DATE:

SHEET 1 OF 1

RED-1

September 2, 2026

John Wiesemann, Code Enforcement Officer
Town of Casco
635 Meadow Road
Casco, Maine 04015

**Re: Response to Review Comments
Country Village Assisted Living Expansion
960 Meadow Road
960 Meadow Road Holdings, LLC - Applicant**

Dear Mr. Wiesemann and Planning Board Members:

On behalf of 960 Meadow Road Holdings, LLC, applicant, we have prepared the enclosed revised design plans and documents addressing review comments for the proposed expansion of the existing Country Village Assisted Living Facility on Meadow Road. We were provided comments within a memorandum from the Town's Acting Planner, Doug Webster dated July 22, 2026, and an engineering peer review memorandum, provided by the Town's peer review engineer Sebago Technics, Inc., dated August 13, 2026. Below are our responses to the comments.

PLANNING COMMENTS

Procedural Matters

- *Right Title or Interest*
 - To prove right, title or interest for Craig Alaimo to act as an authorized representative for the property owner during Town meetings, we provided a copy of the Annual Report for the corporation indicating that he is the manager and registered agent for 960 Meadow Road Holdings, LLC. In addition, the Planning Board was provided a letter utilized in the previous Zoning Board of Appeals submission, but was omitted from the Planning Board application submission. Both documents have been included in this submission.
- *Public Notifications*
 - The Planning Board public meeting notifications for the July 27, 2026 meeting were certified mailed to each abutter within 500 feet of the project site. The receipt cards were provided to the Town prior to the initial Planning Board meeting.

Stormwater Comments

Comment a - There appears to be relatively extensive re-grading of the area to the west (downgradient) of the four proposed SSWD fields that come quite close to the Magiera property line running generally north-south.

Comment b - The termination of the rip-rap swale and associated level lip spreader is also quite close to the Magiera property line/corner on the northwest corner of the subject property

Comment c - The proposed stormwater settling area with the underdrain is in very close proximity (re-grading proposed up to the line) to the Magiera property line running generally west-east (perpendicular to Meadow Rd./Rt. 121). I believe that they have an existing parking area in this vicinity which is used in conjunction with their training business. Perhaps consideration should be given to the implications of existing pre-development conditions compared to proposed post-development conditions by extending both pre and post development contours over/onto the Magiera property line to better understand the likely outcome. The purpose of this is to enable the Board and stakeholders to make informed decisions

Additional Planning Board Discussion - It was also discussed at the Planning Board meeting to have the areas of proposed land disturbance be field surveyed as an alternative to the aerial contours to ensure construction remains on the project site and not expanding onto the abutter's property.

Response – We have worked with Survey, Inc., surveyor who prepared the boundary survey, to perform the on-the-ground topographic survey in the areas around the limits of the property with additional areas of the abutting property to the north. The results of this survey have been incorporated into the design plans.

Utilizing the new survey data, we further examined the drainage conditions from the abutting property to determine the limits of the watersheds and drainage directions. A third study point was created to analyze the peak rates of runoff generated by the project site crossing the northern property boundary. The results of the analysis indicate a reduction in peak rates of runoff at this location as the majority of the original land area that was draining to the north, is now directed away from the property and into the underdrained filter basin for stormwater treatment and detention. In addition, a portion of the existing development to the abutting property to the north was also added to the stormwater model to better understand the amount of flow draining from the abutters parking lot to the base of the steeper slope and into the forested wetlands.

As a result of the stormwater infrastructure, the peak rates of runoff at all study points have been reduced from the existing conditions. An updated stormwater management report has been included in this submission.

Comment d - Based on the proposed contour lines and the spot grades, it appears that the drainage from courtyard area (with pavers) drains to the proposed parking lot. Such relatively gentle grades with water sheet flow can be problematic with regards to winter storms (with rapidly falling temperatures) causing icing. This situation also increases the volume of sheet-flow water across the parking lot which is discharged upgradient of proposed disposal fields "A" and "B".

Response d – We did examine the ability to install a closed drainage system, which would address the concerns. The problem with a catch basin system is the need for the pipes to be underground

with adequate cover for frost protection, making the drainage system 4 to 5 feet lower than the surface grades. Due to the constraints of the property line, the proposed building and wastewater disposal bed “A”, there is limited space to provide the required underdrained filter basin’s treatment storage, and more importantly, its filter surface area, we could not make the basin any deeper than it is currently designed. The facility manager is aware of the project expansion and constraints and will take precautions for any potential icing.

Comment e - The two proposed rip-rap aprons apparently designed to address the stormwater sheet-flow from parking lot discharge just above proposed disposal fields “A” and “B”. Local Plumbing Inspectors are trained to attempt to avoid introducing water upgradient of disposal fields. Perhaps consideration be given to adding additional stormwater measures to minimize introducing water upgradient of the disposal fields.

Response e – A drainage swale between the pavement and the disposal fields was the intent of the design, but may not have been detailed appropriately. Additional spot grades have been added to the plan to indicate flow direction and depth of the swale. The riprap apron is intended to extend to the bottom of the swale and not extending toward the wastewater disposal beds.

Comment f - Given the parent soils together with the relatively large roof area, are the designed roof drip edge drainage sufficient to handle the anticipated volume? It is also noteworthy that some of the courtyard area has roof drip edge drainage that adds to the volume of water from the courtyard.

Response f – The design of the roof drip edges includes the use of the foundation drain below the stone section. With the use of the foundation drain, the amount of backfill sand and the crushed stone reservoir, the system has sufficient storage volume to detain the 25-year storm event and larger. To demonstrate the storage volume and its effectiveness during the rain storm event, the available stormwater storage has been incorporated into the stormwater model.

Buffering Comments

- The proposed buffering was discussed during the Planning Board meeting. Based on our understanding, the Planning Board and the abutting property owners agreed that the proposed buffering was adequate for the site.

PEER REVIEW ENGINEER COMMENTS

Comment 1 - Per Maine state plumbing regulations such a stormwater underdrained filtration measure shall be 25 feet from a subsurface wastewater system when the system is lined with a PVC membrane. Based on our measurements the treatment area is 22 feet measured from the proposed chamber corner to the spillway crest elevation. The pond should be shifted slightly to NW with the spillway relocated to the greatest practical extent possible.

Response 1 – The underdrained filter basin grading has been adjusted to provide 26 feet of separation between Wastewater Disposal Bed A and the pond side of the top of berm.

Comment 2 - The spillway orientation spills flooding overflow directly at the end of the proposed Wastewater bed “A” before turning westerly. The distance from the runoff in a flood condition is 11-

12 feet from the center of the floodway channel, and 8 ft from the riprap channel edge. This orientation places the septic system in direct line with approximately 4 inches of flood water 8 feet across at the wastewater system. We would suggest different alignments to avoid direct aim at the wastewater system.

Response 2 – To address the concerns, we have relocated the riprap spillway and swale closer to the north, further away from Wastewater Disposal Bed A.

Comment 3 - The parking lot sheet flows all runoff to the western back edge of the lot, where it appears there should be a swale to convey into the treatment filter swale. However, there is a riprap apron which tends to direct runoff over the wastewater area. There may be room for a thin swale or ditching but we have concerns that during winter months the area will become frozen and blocked by snow piles/ice and excessive melt or runoff will back up or flow into or over the wastewater system.

Response 3 – The drainage swale was the intent of the design, but may not have been detailed appropriately. Additional spot grades have been added to the plan to indicate flow direction and depth of the swale. The riprap apron is intended to extend to the bottom of the swale and not extending toward the wastewater disposal beds.

The grade between the wastewater disposal bed and the drainage swale to the underdrained filter basin has been raised an additional foot with the grade break located more to the west than originally designed in an attempt to avoid significant snow melt from draining over the wastewater disposal beds and directing more runoff to the new swale.

Comment 4 - Snow storage will be a concern for winter periods as it appears the snow piles from the parking areas will end up near the front edge of the wastewater systems and septic treatment unit.

Response 4 – See Response 3 above for revisions to the design. The concern with snow storage over the advanced wastewater treatment unit is warranted and will be conveyed to the owner and facilities manager to avoid piling snow above the unit. This will allow for access in the winter months if necessary.

Comment 5 - The underdrained soil filter shall identify the seasonal groundwater elevation within the pond. Even though the measure is lined with a PVC liner it would be important to know if the site needs to be dewatered to install or the.

Response 5 – Test pits and test borings were performed through the site by SW Cole and, as part of the design of the wastewater disposal system, by Main-Land Development Consultants. The results indicated groundwater around 24" to 30" from the surface. As the underdrained filter basin section will require approximately 42" to 66" of excavation, it is anticipated a portion of the excavation will be within groundwater. A Dewatering Geotextile Filter Bag detail has been included on Detail Sheet D-1 for any necessary site dewatering.

Comment 6 - Environmental Considerations- We have concerns with old septic system location and new expansion. We foresee a few issues in that the plan provided shows the old bed to be removed

and it transects the proposed septic system “a” and the proposed underdrained soil filter. It may be plausible to construct a clay or silt dam barrier between the two measures to avoid and possibility of one or the other cross contaminating. We would suggest a small dam a few feet wide in the trench for the foundation drain along the side of the filter system where the original septic bed was sitting. The applicant shall provide details as to how the old bed is to be removed and what protection will be implemented to prevent any transmission of groundwater underneath the filter bed to or from the new septic system.

Response 6 – Based on discussions with the geologist from Main-Land Development Consultants who performed the engineered wastewater system design, “it is anticipated that within three to four weeks of abandoning the existing leachfields in question, the harmful pathogens present during the online status of the leachfield will die-off due to lack of nutrients. Therefore, after that approximate period of time, that leachfield should basically be reverting back to inert mineral soil materials. This “abandon-in-place” approach is often used to de-commission existing leachfields as it has been found to be safe and saving of the extra work needed to remove it.”

Comment 7 - The turning radius for vehicles around the rear island is tight and the lane narrows to 16 feet due to the angular parking. A turning template should be shown to see what the largest vehicle is that can manipulate the turn. Teh concern is larger trucks might not be able to maneuver if cars are parked there.

Response 7 – Included in this submission are turning movement exhibits for the different vehicles that would typically be onsite.

As we have progressed with the design team for the project, there have been adjustments made to the design.

- **Building Foundation Revisions**
 - SW Cole was contracted with to provide geotechnical engineering services for the new building expansion. As part of the investigation, SW Cole performed test borings in the location of the proposed expansion. The results indicate there is relatively shallow bedrock in the majority of the footprint, especially where the original full basement section of the building was designed. To reduce rock excavation, the full basement area was moved from the northern side of the building to the southwestern corner, where the bedrock abruptly drops.

As a result, the exterior stairs to the basement were relocated to the western side of the building. To provide the space for the new staircase, the parking lot pavement had to shift to the west approximately 2 feet.

Adjustments to the utilities were also revised to enter the building at the full basement including the water lateral serving the new expansion’s domestic and sprinkler system and sewer service lateral leaving the building into a new septic tank.

- Fire Department Connection
 - The exterior fire department connection has been identified on the plan at the southwestern corner of the building, closest to the parking lot and in the area of the full basement for any internal maintenance.
- Sewer Layout Revisions
 - The configuration of the wastewater disposal fields and advanced treatment units remains the same as previously submitted, but the design removes the need for the combination septic tank and pump structures by draining the sewer flow by gravity to the pump station behind the dumpster pad. The invert elevations where the new sewer infrastructure connects to the existing sewer system were based on a field investigation into the size and inverts of the sewer laterals leaving the building.
- Lighting Plan
 - It is the intent of the applicant to install security and pedestrian lighting throughout the site, which was not included in the original design plan set. We have been working with a lighting company on the layout and is reflected on the updated design plans. In addition, the lighting representative performed a photometrics plan to ensure adequate lighting levels for the different uses of the site. The photometrics plan has been included as part of the design plan set and the specifications of the proposed light fixtures are included with this document for reference.
- Stormwater Management Design
 - With the revisions to the design indicated through this letter, the original stormwater management design was reviewed to ensure the system still provides the required stormwater treatment and flooding control. The system as currently proposed still meets the requirements and the updated Stormwater Management Report and calculations have been included in this submission for review.

We hope that we have addressed Town staff and the Town's peer review engineer comments and questions about the project and have included the updated design plans and supporting documentation as part of the submission. Upon review of the submittal, please let us know if you or the review engineers have any follow up comments. We look forward to discussing the project with the Planning Board.

Sincerely,

DM ROMA CONSULTING ENGINEERS



Jayson R. Haskell, P.E.
Southern Maine Regional Manager

enc.

TABLE OF CONTENTS

TOWN OF CASCO

SITE PLAN REVIEW APPLICATION – RESPONSE TO COMMENTS

COUNTRY VILLAGE ASSISTED LIVING FACILITY EXPANSION

960 MEADOW ROAD, CASCO, MAINE

ATTACHMENT 1	ADDITIONAL RIGHT, TITLE OR INTEREST DOCUMENTS
ATTACHMENT 2	STORMWATER MANAGEMENT REPORT
ATTACHMENT 3	TEST PITS AND BORINGS LOGS
ATTACHMENT 4	TURNING MOVEMENT EXHIBITS
ATTACHMENT 5	LIGHTING FIXTURES
ATTACHMENT 6	REVISED ARCHITECTURAL PLANS

SECTION 1

ADDITIONAL RIGHT, TITLE OR INTEREST DOCUMENTS

Filing Fee:
\$85.00

STATE OF MAINE 2026 ANNUAL REPORT

Filing by April 1, 2026 will allow
us to provide better service. The
legal filing deadline is still July
1, 2026. A \$50 late filing fee
be assessed if the report is late.

Item 6.#

Make check payable to:
Secretary of State

FOR LIMITED LIABILITY COMPANIES ON FILE AS OF
DECEMBER 31, 2025

Please file by
April 1, 2026

Pursuant to 31 MRSA §1665.2, the information on the
report must be current as of the date signed.

Charter Number:
20182459DC

Jurisdiction:
ME

960 MEADOW ROAD HOLDING, LLC
CRAIG ALAIMO, REGISTERED AGENT
960 MEADOW ROAD
CASCO, ME 04015

Principal Home Office Address:

960 MEADOW ROAD
CASCO, ME 04015 US

1. A brief statement of the character of the business in which the limited liability company is actually engaged in the State of Maine; if none, so indicate: (31 MRSA §1665.1.D)

REAL ESTATE HOLDINGS

2. Name and physical address of at least one member, manager, or authorized person (31 MRSA §1665.1.E)

CRAIG ALAIMO	MANAGER	960 MEADOW ROAD CASCO ME 04015
Type or Print Name	Member, Manager, or Authorized Person	Physical Street Address, City, State, and Zip (PO Box Not Allowed)
Type or Print Name	Member, Manager, or Authorized Person	Physical Street Address, City, State, and Zip (PO Box Not Allowed)
Type or Print Name	Member, Manager, or Authorized Person	Physical Street Address, City, State, and Zip (PO Box Not Allowed)
Type or Print Name	Member, Manager, or Authorized Person	Physical Street Address, City, State, and Zip (PO Box Not Allowed)

Electronically Filed On: 05/29/2026

CRAIG ALAIMO	CRAIG ALAIMO	OWNER
(AUTHORIZED SIGNATURE)	(TYPE OR PRINT NAME)	(CAPACITY/TITLE)
(Execution - 31 MRSA §1676.1.B. Penalty for untrue or omitted material facts - 31MRSA §1678)		

For questions related to this completed annual report, please contact 207-624-7752 or e-mail cec.corporations@maine.gov

May 26, 2026

**Re: Country Village Assisted Living Expansion
960 Meadow Road, Casco, Maine
Agent Authorization**

In my capacity as owner of the Country Village Assisted Living facility and sole member of 960 Meadow Road, LLC, record owner of property on Meadow Road in Casco, Maine identified as Lot 19 on the Town of Casco Tax Map 42, I have retained the services of DM Roma Consulting Engineers to act as authorized agent to apply for land use permits associated with the expansion of the existing Country Village Assisted Living facility.

Sincerely,



Craig Alaimo
Owner

SECTION 2

STORMWATER MANAGEMENT REPORT

STORMWATER MANAGEMENT REPORT

COUNTRY VILLAGE ASSISTED LIVING FACILITY EXPANSION CASCO, MAINE (REVISED SEPTEMBER 2, 2026)

A. Narrative

960 Meadow Road Holdings, LLC, the applicant and landowner, is proposing to expand an existing assisted living facility on Meadow Road in Casco, Maine. The approximately 8.39-acre parcel is better identified as Block 9 Lot 1 on the Town of Casco Assessor's Map 211.

The applicant is proposing a 5,115 square foot expansion to accommodate additional resident beds and amenities. The development will also include improving the existing substandard parking lot for the building expansion. The building expansion will be served by the existing private well, a replacement subsurface wastewater disposal field.

B. Existing Conditions

The project site consists of the existing facility building, paved parking and driveway and landscaping. The property contains approximately 18,550 square feet (0.42 acres) of impervious surface and approximately 58,400 square feet (1.34 acres) of lawn and landscaping for a total existing developed area of approximately 76,950 square feet (1.77 acres). This is a small portion of the overall lot, which is primarily comprised of undeveloped woodland.

The area of the facility expansion is relatively flat (1% to 5%) with steeper areas to the west exceeding 3H:1V slope. The soils on the property were determined utilizing the Medium Intensity Soils Map for Cumberland County, Maine published by the Natural Resource Conservation Service. The soils boundaries with associated Hydrologic Soils Groups (HSG) designations are shown on the watershed maps and a Soils Map has been included as Attachment 1 of this report.

In general, the developed portion of the property drains from east to west. The flow that leaves the property is collected in an unnamed stream that continues northerly and crosses Fountain Hill Road. The stream continues beneath Edes Falls Road, eventually combining with Eastman Brook as Mill Brook. Mill Brook continues southerly and enters Crooked River. The river continues southerly through the Songo River to Sebago Lake. The streams are not identified by the Maine Department of Environmental Protection (MDEP) as Urban Impaired Streams, but Sebago Lake is considered a lake most at risk from new development as identified in Chapter 502.

C. Alterations to Land Cover

Based on the proposed redevelopment of the property, approximately 16,195 square feet (0.37 acre) of the existing impervious areas will remain or be maintained as part of the construction and approximately 2,355 square feet (0.05 acre) will be removed. In addition, there will be approximately 17,495 square feet (0.40 acre) of new impervious surface.

Since the fill slope on the downhill side of the new subsurface wastewater disposal field will be maintained as meadow, there will only be an increase in landscaped/lawn area of 2,040 square feet (0.05 acres) when compared to the existing land development. As a result of the project, the site will contain a total of 33,690 square feet (0.77 acres) of impervious surfaces, approximately 43,340 square feet (0.99 acres) of lawn and landscaping for a total site developed area of approximately 77,030 square feet (1.77 acres).

There project will generate approximately 74,940 square feet of land disturbance.

Since the existing impervious and developed area pre-dated 2005 and the revisions to Chapter 500, this area is considered “existing impervious area” and not included in determining thresholds for MDEP stormwater permitting. Since the project will create approximately 17,495 square feet of impervious surface and approximately 2,040 square feet of increased developed area, the project is not required to obtain an individual Stormwater Permit. A Stormwater Permit by Rule is required due to the proposed land disturbance being over one (1) acre. This permit has been acquired.

The project is subject to the Town of Casco Site Plan review process. Since the property contains a perennial stream, the project is subject to the Performance Standards in Section 215-5.31 Stormwater quality and phosphorous control related to stormwater treatment. In addition, as identified in Section 215-7.4 Submission requirements, the proposed development is required to submit a stormwater drainage plan which includes standards for quantity control of runoff leaving the property. These standards will be addressed in this report.

D. Methodology and Modeling Assumptions

The proposed stormwater management system has been designed utilizing Best Management Practices to maintain existing drainage patterns while providing stormwater quality improvement measures. The goal of the storm drainage system design is to remove potential stormwater pollutants from runoff generated by the development while providing attenuation of the peak rates of runoff leaving the site. The method utilized to predict the surface water runoff rates in this analysis is a computer program entitled HydroCAD, which is based on the same methods that were originally developed by the U.S. Department of Agriculture (USDA), Natural Resources Conservation Service, and utilized in the TR-20 modeling program. Peak rates of runoff are forecasted based upon land use, hydrologic soil conditions, vegetative cover, contributing watershed area, time of concentration, rainfall data, storage volumes of detention basins and the hydraulic capacity of structures. The computer model predicts the amount of runoff as a function of time, with the ability to include the attenuation effect due to dams, lakes, large wetlands, floodplains, and constructed stormwater management basins. The input data for rainfalls with statistical recurrence frequencies of 10 years and 25 years was obtained from Appendix H of the MDEP, Chapter 500 Stormwater Management, last revised in 2015. The National Weather Service

developed four synthetic storm types to simulate rainfall patterns around the country. For analysis in Cumberland County, Maine, the type III rainfall pattern with a 24-hour duration is appropriate.

E. Erosion and Sedimentation Control

The project is required by the Town and MDEP to provide permanent and temporary Erosion Control Best Management Practices. These methods are outlined in detail in the plan set.

F. Section 215-5.31 Stormwater quality and phosphorous control

This section of the Town of Casco zoning ordinance requires that any project site subject to Site Plan review and that contains a perennial stream is required to provide a stormwater plan addressing runoff treatment. To demonstrate adherence to this standard, we are proposing to utilize the standards included in MDEP Chapter 500 Stormwater Management. As the project is classified as a redevelopment project under the General Standards, the site's treatment requirement was determined utilizing the pollutant impact ranking system outlined in Chapter 500, Section 4.C.(2).(d). Table 2.

In the existing condition, the site consists of primarily vehicular driveways and parking utilized for parked vehicles for an extend period of time (over 2 hours). Based on Chapter 500, these land features are classified under Pollutant Rank 4. The pitched rooftop and remaining sidewalks and lawn areas are classified under Pollutant Rank 2. In the developed condition, the expanded parking will remain as Pollutant Rank 4 and expanded areas of Pollutant Rank 2 consisting of the majority of the building expansion and walkways. A portion of the expanded roof is essentially flat, which has a higher Pollutant Rank of 3. There will also be areas set aside for non-lawn landscaped areas in addition to a proposed stormwater treatment device, classified as Pollutant Rank 1.

When the pollutant ranks are applied to the associated areas, the existing pollutant impact ranking was determined to be 1.69 and the post developed condition pollutant impact ranking was determined to be 1.84, resulting in a "Ranked Impact Change Due to Redevelopment" of 0.15. Since the change is greater than 0 but less than 1, based on Chapter 500, Section 4.C.(2).(d). Table 3, 60% of the developed area is to be treated.

To meet the treatment standard, the stormwater infrastructure will incorporate a grassed underdrained filter basin and roof drip edges installed along the perimeter of the new building expansion. As a result of the proposed stormwater devices, treatment will be provided for 78% of the redeveloped portion of the site's developed area. The Stormwater Redevelopment Map is included in the plan set and the redevelopment calculations are included as Attachment 2 of this report.

Included as Attachment 3 of this report are the sizing calculations for the proposed underdrained filter basin. These calculations include:

- Storage Volume and Basin Floor surface area meeting *Chapter 7.1 Grassed Underdrained Soil Filter BMP* sizing criteria included in Volume III. BMP Technical Design Manual prepared by the MDEP.
- Spillway sizing calculations demonstrating one foot of freeboard to the top of berm during the 25-year storm event assuming failure of the other discharge devices.

- Hydrograph tables demonstrating the outlet controls to release the stormwater from the basin between 24 and 48 hours.
- Sizing calculations for the level spreaders located at the outfall of the discharge pipe from the basins meeting the sizing standards identified in *Section G(4) Level Spreaders* in Maine Erosion and Sediment Control Best Management Practices Manual for Designers and Engineers prepared by the MDEP.

The locations and construction detail of the proposed roof drip edges have been included within the construction details sheets and the sizing calculations to meet *Chapter 7.5 Roof Dripline Filters* sizing criteria included in Volume III. BMP Technical Design Manual prepared by the MDEP have been included as Attachment 4 of this report.

G. Flooding Standard

The project is required to meet the Town of Casco's Site Plan review criteria and standard for Surface water drainage requiring the project to maintain or reduce the peak rate of runoff leaving the property during the 25-year storm frequency. To maintain the existing flow rates, the site design will include a grassed underdrained filter basins integrated into the project's stormwater infrastructure. To demonstrate compliance with the Flooding Standard, three (3) study points were analyzed.

Study Point 1 ("SP1") represents where flow generated by the eastern portion of the site, including portions of Meadow Road, that drain westerly, crossing the southern property boundary. Flow from this study point is then conveyed back onto the property.

Study Point 2 ("SP2") represents the location where site generated flow enters the abutting forested wetlands located approximately 25 feet west of the western property boundary. These wetlands contain a stream that flows south to north.

Study Point 3 ("SP3") represents the location where site generated flow draining in a northerly direction drains across the northerly property boundary adjacent to the abutter's parking lot. This study point is tributary to the wetlands analyzed at SP2.

The results of the stormwater model incorporating the stormwater detention best management practices are summarized in Table 1:

Table 1 – Peak Rates of Stormwater Runoff		
Study Point	25-Year (cfs)	
	Pre	Post
SP-1	2.46	2.34
SP-2	16.55	15.94
SP-3	0.51	0.12

As illustrated in Table 1, the proposed project's design, including the integration of the proposed BMPs, reduces the peak rates of runoff at all study points during the 25-year storm event.

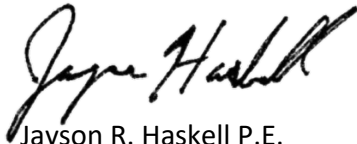
The watershed maps showing pre-development and post-development drainage patterns are included in the plan set and the computations performed with the HydroCAD software program are included as Attachment 5 of this report.

H. Maintenance of common facilities or property

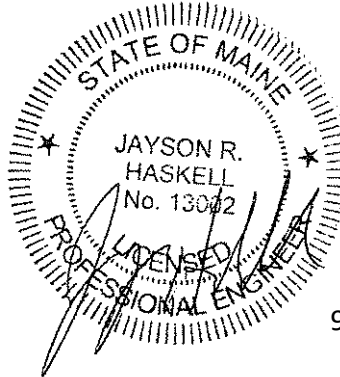
The applicant will be responsible for the maintenance of the stormwater facilities. An Inspection, Maintenance and Housekeeping Plan for the project has been created and has been included as Attachment 6 of this report.

Prepared by:

DM ROMA CONSULTING ENGINEERS



Jayson R. Haskell P.E.
Southern Maine Regional Manager



9-2-2026

ATTACHMENT 1

SOILS MAP

Hydrologic Soil Group—Cumberland County and Part of Oxford County, Maine
(aoi)

Item 6.#



Natural Resources
Conservation Service

Web Soil Survey
National Cooperative Soil Survey

5/4/2026
Page 1 of 4

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

Soil Rating Polygons

 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Lines

 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Points

 A
 A/D
 B
 B/D

 C
 C/D
 D
 Not rated or not available

Water Features

 Streams and Canals

Transportation

 Rails
 Interstate Highways
 US Routes
 Major Roads
 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Cumberland County and Part of Oxford County, Maine
 Survey Area Data: Version 22, Aug 29, 2025

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 19, 2020—Sep 20, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.



Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
CcB	Colonel fine sandy loam, 3 to 8 percent slopes	D	1.0	12.0%
SkB	Skerry fine sandy loam, 3 to 8 percent slopes	C/D	7.0	88.0%
Totals for Area of Interest			8.0	100.0%

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition



ATTACHMENT 2

REDEVELOPMENT STANDARD CALCULATIONS

REDEVELOPMENT STORMWATER TREATMENT CALCULATIONS

Existing Conditions

Land Use	Area (SF)	Area (Ac.)	Pollutant Rank	Existing Impact
High Use Parking Lots and Roads	0	0.00	5	0.00
Other Road and Medium Use Parking Lots	7,360	0.17	4	0.68
Other parking lots & driveways/Flat Roof	0	0.00	3	0.00
Other roof, bikeways, grass, walkways	51,485	1.18	2	2.36
Non-grass landscape/stormwater system	0	0.00	1	0.00
Undeveloped Area	19,560	0.45	0	0.00
Totals	78,405	1.80		3.04

Existing Impact Rating / Redevelopment Area = 1.69

Proposed Conditions

Land Use	Area (SF)		Pollutant Rank	Proposed Impact
High Use Parking Lots and Roads	0	0.00	5	0.00
Other Road and Medium Use Parking Lots	14,310	0.33	4	1.31
Other parking lots & driveways/Flat Roof	850	0.02	3	0.06
Other roof, bikeways, grass, walkways	38,065	0.87	2	1.75
Non-grass landscape/stormwater system	8,085	0.19	1	0.19
Forest/Meadow	17,095	0.39	0	0.00
Totals	78,405	1.80		3.31

Proposed Impact Rating / Redevelopment Area = 1.84

Treatment Requirements

Ranked Impact Change Due to Redevelopment = 0.15

Percentage of Developed Area to be treated (Table 3) = 60%

Total Developed Area = 61,310 sf
(Deduct Forest/Meadow)

Developed Area Treatment

WS-20	845 sf	Roofline Dripedge (Deducted Existing Building from Total WS Area)
WS-21	2,615 sf	Roofline Dripedge
WS-22	2,240 sf	Roofline Dripedge
WS-23	42,260 sf	Underdrained Filter Basin (Deducted Existing Building from Total WS Area)
Total	47,960 sf	

% Redeveloped Area Treated = 78% > Required

ATTACHMENT 3

UNDERDRAINED FILTER BASIN SIZING CALCULATIONS

Underdrained Filter Basin Sizing Calculations

Filter Basin 1

Tributary Impervious Area= 20,170 sf (WS-23 Impervious Area)
Tributary Landscaped Area= 22,090 sf (WS-23 Landscaped Area)

Water Quality Volume (WQV) Calculation

WQV (Required) = 1"xImpervious Area + 0.4"xLandscaped Area

WQV (Required) = 2,417 cf

Stage Storage Volume

Elevation	Area (sf)	Storage (cf)
453	1,700	0
454	2,450	2,075
456	4,670	9,195

Outlet Elevation = 454.50
Storage Volume Provided= 3,439 cf > Required

Filter Bottom Calculation

Filter Area (Required) = 5% x Impervious Area + 2% x Landscaped Area

Filter Area Required = 1,450 sf

Filter Area Provided = 1,700 sf > Required

Level Spreader Sizing

Maine Erosion and Sedimentation Control BMPs - Section G4 Sizing Calculations

Level Spreader Length = 0.25 cfs per foot of level spreader during 10-year storm event

Discharge flow during 10-year storm 2.38 cfs (See HydroCAD output)

Required Level Spreader Length = 10 ft

Proposed Level Spreader Length = 15 ft

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Prepared by DM Roma Consulting Engineers

Printed 9/2/2026

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Page 1

Summary for Pond FB:

Inflow Area = 42,260 sf, 47.73% Impervious, Inflow Depth = 4.54" for 25-Year event
 Inflow = 4.30 cfs @ 12.14 hrs, Volume= 15,995 cf
 Outflow = 3.80 cfs @ 12.20 hrs, Volume= 12,556 cf, Atten= 11%, Lag= 3.7 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
 Secondary = 3.80 cfs @ 12.20 hrs, Volume= 12,556 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Peak Elev= 454.89' @ 12.20 hrs Surf.Area= 3,438 sf Storage= 4,697 cf

Plug-Flow detention time= 136.1 min calculated for 12,543 cf (78% of inflow)
 Center-of-Mass det. time= 58.5 min (851.5 - 793.0)

Volume	Invert	Avail.Storage	Storage Description
#1	453.00'	9,195 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
453.00	1,700	0	0
454.00	2,450	2,075	2,075
456.00	4,670	7,120	9,195

PEAK WS ELEV. = 454.89
 TOP OF BERM = 456.00
 FREEBOARD = 456.00-454.89
 = 1.11' > 1.0' Required

Device	Routing	Invert	Outlet Devices
#1	Primary	450.00'	1.0" Vert. 1" Orifice in Cap X 0.00 C= 0.600
#2	Device 1	450.83'	4.0" Round Culvert L= 45.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 450.83' / 450.00' S= 0.0184 ' S Cc= 0.900 n= 0.013, Flow Area= 0.09 sf
#3	Device 2	453.00'	2.410 in/hr Exfiltration over Surface area
#4	Secondary	454.50'	6.0' long x 11.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.55 2.60 2.70 2.67 2.67 2.67 2.66 2.64

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=453.00' TW=448.50' (Dynamic Tailwater)

1=1" Orifice in Cap (Controls 0.00 cfs)

2=Culvert (Passes 0.00 cfs of 0.40 cfs potential flow)

3=Exfiltration (Passes 0.00 cfs of 0.09 cfs potential flow)

Secondary OutFlow Max=3.80 cfs @ 12.20 hrs HW=454.89' TW=448.83' (Dynamic Tailwater)

4=Broad-Crested Rectangular Weir (Weir Controls 3.80 cfs @ 1.62 fps)

Drain Down Calculation

Item 6.#

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Type III 24-hr WQ Storm Rainfall=2.67"

Printed 9/2/2026

Hydrograph for Pond FB:

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	0	453.00	0.00	0.00	0.00
1.00	0.00	0	453.00	0.00	0.00	0.00
2.00	0.00	0	453.00	0.00	0.00	0.00
3.00	0.00	0	453.00	0.00	0.00	0.00
4.00	0.00	0	453.00	0.00	0.00	0.00
5.00	0.00	0	453.00	0.00	0.00	0.00
6.00	0.00	0	453.00	0.00	0.00	0.00
7.00	0.00	0	453.00	0.00	0.00	0.00
8.00	0.00	0	453.00	0.00	0.00	0.00
9.00	0.02	0	453.00	0.02	0.02	0.00
10.00	0.04	0	453.00	0.04	0.04	0.00
11.00	0.08	39	453.02	0.05	0.05	0.00
12.00	0.78	673	453.37	0.05	0.05	0.00
13.00	0.19	2,882	454.31	0.05	0.05	0.00
14.00	0.12	3,201	454.42	0.05	0.05	0.00
15.00	0.09	3,364	454.48	0.06	0.06	0.00
16.00	0.06	3,436	454.50	0.06	0.06	0.00
17.00	0.05	3,434	454.50	0.06	0.06	0.00
18.00	0.04	3,392	454.48	0.06	0.06	0.00
19.00	0.03	3,321	454.46	0.06	0.06	0.00
20.00	0.03	3,238	454.43	0.06	0.06	0.00
21.00	0.03	3,144	454.40	0.05	0.05	0.00
22.00	0.03	3,043	454.36	0.05	0.05	0.00
23.00	0.02	2,933	454.33	0.05	0.05	0.00
24.00	0.02	2,814	454.28	0.05	0.05	0.00
25.00	0.00	2,631	454.22	0.05	0.05	0.00
26.00	0.00	2,439	454.14	0.05	0.05	0.00
27.00	0.00	2,248	454.07	0.05	0.05	0.00
28.00	0.00	2,060	453.99	0.05	0.05	0.00
29.00	0.00	1,872	453.92	0.05	0.05	0.00
30.00	0.00	1,687	453.84	0.05	0.05	0.00
31.00	0.00	1,504	453.76	0.05	0.05	0.00
32.00	0.00	1,323	453.68	0.05	0.05	0.00
33.00	0.00	1,144	453.59	0.05	0.05	0.00
34.00	0.00	966	453.51	0.05	0.05	0.00
35.00	0.00	791	453.43	0.05	0.05	0.00
36.00	0.00	619	453.34	0.05	0.05	0.00
37.00	0.00	448	453.25	0.05	0.05	0.00
38.00	0.00	280	453.16	0.05	0.05	0.00
39.00	0.00	114	453.07	0.05	0.05	0.00
40.00	0.00	0	453.00	0.00	0.00	0.00
41.00	0.00	0	453.00	0.00	0.00	0.00
42.00	0.00	0	453.00	0.00	0.00	0.00
43.00	0.00	0	453.00	0.00	0.00	0.00
44.00	0.00	0	453.00	0.00	0.00	0.00
45.00	0.00	0	453.00	0.00	0.00	0.00
46.00	0.00	0	453.00	0.00	0.00	0.00
47.00	0.00	0	453.00	0.00	0.00	0.00
48.00	0.00	0	453.00	0.00	0.00	0.00

Rain event to fill to
18" (Channel
Protection Volume
elevation)

POND AT CPV AT 16 HRS
EMPTY AT 40 HRS
DRAWDOWN TIME = 40-16 = 24 HRS

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Level Spreader Sizing

Type III 24-hr 10-Year Rainfall=4.60"

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Page 1

Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment20: Runoff Area=1,645 sf 100.00% Impervious Runoff Depth=4.36"
Tc=6.0 min CN=98 Runoff=0.17 cfs 598 cf

Subcatchment21: Runoff Area=2,615 sf 100.00% Impervious Runoff Depth=4.36"
Tc=6.0 min CN=98 Runoff=0.26 cfs 951 cf

Subcatchment22: Runoff Area=2,240 sf 100.00% Impervious Runoff Depth=4.36"
Tc=6.0 min CN=98 Runoff=0.23 cfs 815 cf

Subcatchment23: Runoff Area=42,260 sf 47.73% Impervious Runoff Depth=3.39"
Flow Length=217' Tc=10.0 min CN=89 Runoff=3.25 cfs 11,939 cf

Reach 1R: Foundation Discharge Pipe Avg. Flow Depth=0.29' Max Vel=4.26 fps Inflow=0.51 cfs 2,364 cf
6.0" Round Pipe n=0.013 L=158.0' S=0.0196 '/' Capacity=0.79 cfs Outflow=0.51 cfs 2,364 cf

Reach R10: Riprap Swale Avg. Flow Depth=0.24' Max Vel=3.70 fps Inflow=2.39 cfs 14,305 cf
n=0.069 L=30.0' S=0.2833 '/' Capacity=40.80 cfs **Outflow=2.38 cfs** 14,305 cf

Pond DE: Drip Edge Peak Elev=455.57' Storage=35 cf Inflow=0.23 cfs 815 cf
Primary=0.20 cfs 815 cf Secondary=0.00 cfs 0 cf Outflow=0.20 cfs 815 cf

Pond DE2: Drip Edge Peak Elev=453.38' Storage=137 cf Inflow=0.43 cfs 1,549 cf
Primary=0.31 cfs 1,549 cf Secondary=0.00 cfs 0 cf Outflow=0.31 cfs 1,549 cf

Pond FB: Peak Elev=454.75' Storage=4,234 cf Inflow=3.25 cfs 11,939 cf
Primary=0.06 cfs 6,567 cf Secondary=1.95 cfs 5,374 cf Outflow=2.01 cfs 11,941 cf

Flow tributary to level spreader in 10-year storm event.
Based on sizing calculations provided within the MDEP
Erosion Control and Sedimentation Control Best
Management Practices Manual, for every 0.25 cubic
feet per second of peak runoff generated during the 10-
year storm event, requires 1 foot of level spreader.

Required Spreader Length=2.38 cfs / 0.25 cfs / per foot
Required Spreader Length=9.5 feet
Proposed Spreader Length=15 feet

ATTACHMENT 4

ROOF DRIP EDGE SIZING CALCULATIONS

Drip Edge Sizing Calculations

WQV (Required) = 1.0"xImpervious Area + 0.4"xLandscaped Area

Void Ratio of Reservoir Layer 40%

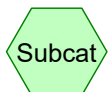
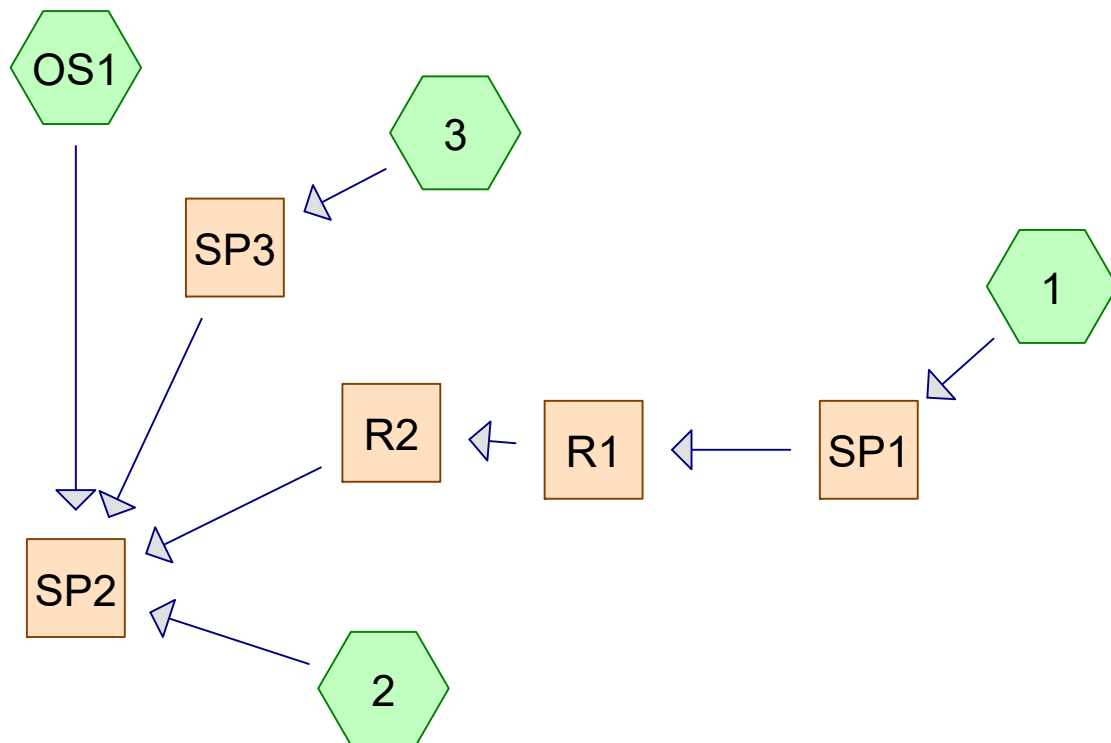
Void Ratio of Filter Layer 30%

SINGLE-FAMILY UNITS:

	Tributary Roof Area (sf)	WQV (Required)	Dripedge Surface Area (sf)	Reservoir Layer Depth (ft)	Filter Layer Depth (ft)	WQV (Provided)
Watershed						
WS-20 & 21	4,260	355.00	482.00	1.75	0.50	409.70
WS-22	2,240	186.67	220.00	1.75	0.50	187.00

ATTACHMENT 5

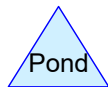
STORMWATER MODEL OUTPUT



Subcat



Reach



Pond



Link

Routing Diagram for 19063-PRE

Prepared by DM Roma Consulting Engineers, Printed 9/2/2026
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19063-PRE

Type III 24-hr 25-Year Rainfall=5.80"

Prepared by DM Roma Consulting Engineers

Printed 9/2/2026

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Page 2

Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1:Runoff Area=21,330 sf 55.72% Impervious Runoff Depth=4.65"
Flow Length=319' Tc=6.6 min CN=90 Runoff=2.46 cfs 8,268 cf**Subcatchment2:**Runoff Area=161,390 sf 18.81% Impervious Runoff Depth=3.91"
Flow Length=450' Tc=14.5 min CN=83 Runoff=12.84 cfs 52,534 cf**Subcatchment3:**Runoff Area=6,360 sf 0.00% Impervious Runoff Depth=3.60"
Flow Length=150' Slope=0.0300 '/' Tc=11.7 min CN=80 Runoff=0.51 cfs 1,909 cf**SubcatchmentOS1:**Runoff Area=17,140 sf 6.62% Impervious Runoff Depth=3.91"
Flow Length=113' Slope=0.1000 '/' Tc=12.6 min CN=83 Runoff=1.43 cfs 5,579 cf**Reach R1:**Avg. Flow Depth=0.06' Max Vel=1.86 fps Inflow=2.46 cfs 8,268 cf
n=0.022 L=112.0' S=0.0402 '/' Capacity=142.93 cfs Outflow=2.44 cfs 8,268 cf**Reach R2:**Avg. Flow Depth=0.09' Max Vel=4.75 fps Inflow=2.44 cfs 8,268 cf
n=0.022 L=150.0' S=0.1267 '/' Capacity=167.21 cfs Outflow=2.43 cfs 8,268 cf**Reach SP1:**Inflow=2.46 cfs 8,268 cf
Outflow=2.46 cfs 8,268 cf**Reach SP2:**Inflow=16.55 cfs 68,290 cf
Outflow=16.55 cfs 68,290 cf**Reach SP3:**Inflow=0.51 cfs 1,909 cf
Outflow=0.51 cfs 1,909 cf

19063-PRE

Type III 24-hr 25-Year Rainfall=5.80"

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Summary for Subcatchment 1:

Runoff = 2.46 cfs @ 12.10 hrs, Volume= 8,268 cf, Depth= 4.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.80"

	Area (sf)	CN	Description
*	4,430	98	Building
*	7,455	98	Pavement
*	9,445	80	Lawn D
	21,330	90	Weighted Average
	9,445		44.28% Pervious Area
	11,885		55.72% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.6	49	0.0200	0.15		Sheet Flow, A to B Grass: Short n= 0.150 P2= 3.10"
1.0	270	0.0100	4.48	27.98	Trap/Vee/Rect Channel Flow, B to C Bot.W=0.00' D=0.50' Z= 50.0 & 0.0 ' Top.W=25.00' n= 0.013 Asphalt, smooth
6.6	319	Total			

Summary for Subcatchment 2:

Runoff = 12.84 cfs @ 12.20 hrs, Volume= 52,534 cf, Depth= 3.91"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.80"

	Area (sf)	CN	Description
*	9,975	98	Building
*	20,375	98	Pavement
*	5,580	96	Gravel
*	97,305	80	Lawn D
*	18,490	77	Woods D
	9,665	78	Meadow, non-grazed, HSG D
	161,390	83	Weighted Average
	131,040		81.19% Pervious Area
	30,350		18.81% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.7	150	0.0300	0.21		Sheet Flow, A to B Grass: Short n= 0.150 P2= 3.10"
1.8	154	0.0400	1.40		Shallow Concentrated Flow, B to C Short Grass Pasture Kv= 7.0 fps
1.0	146	0.1300	2.52		Shallow Concentrated Flow, C to D Short Grass Pasture Kv= 7.0 fps
14.5	450	Total			

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Type III 24-hr 25-Year Rainfall=5.80"

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Summary for Subcatchment 3:

Runoff = 0.51 cfs @ 12.16 hrs, Volume= 1,909 cf, Depth= 3.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.80"

	Area (sf)	CN	Description
*	5,985	80	Lawn D
*	135	77	Woods D
	240	78	Meadow, non-grazed, HSG D
	6,360	80	Weighted Average
	6,360		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.7	150	0.0300	0.21		Sheet Flow, A to B Grass: Short n= 0.150 P2= 3.10"

Summary for Subcatchment OS1:

Runoff = 1.43 cfs @ 12.17 hrs, Volume= 5,579 cf, Depth= 3.91"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.80"

	Area (sf)	CN	Description
*	1,135	98	Pavement
*	3,290	96	Gravel
	6,005	80	>75% Grass cover, Good, HSG D
	1,315	78	Meadow, non-grazed, HSG D
	5,395	77	Woods, Good, HSG D
	17,140	83	Weighted Average
	16,005		93.38% Pervious Area
	1,135		6.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.6	113	0.1000	0.15		Sheet Flow, A to B Woods: Light underbrush n= 0.400 P2= 3.10"

Summary for Reach R1:

Inflow Area = 21,330 sf, 55.72% Impervious, Inflow Depth = 4.65" for 25-Year event
 Inflow = 2.46 cfs @ 12.10 hrs, Volume= 8,268 cf
 Outflow = 2.44 cfs @ 12.11 hrs, Volume= 8,268 cf, Atten= 1%, Lag= 0.7 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
 Max. Velocity= 1.86 fps, Min. Travel Time= 1.0 min
 Avg. Velocity = 0.52 fps, Avg. Travel Time= 3.6 min

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Type III 24-hr 25-Year Rainfall=5.80"

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Peak Storage= 147 cf @ 12.11 hrs

Average Depth at Peak Storage= 0.06'

Bank-Full Depth= 0.50' Flow Area= 22.5 sf, Capacity= 142.93 cfs

20.00' x 0.50' deep channel, n= 0.022 Earth, clean & straight

Side Slope Z-value= 50.0 '/' Top Width= 70.00'

Length= 112.0' Slope= 0.0402 '/'

Inlet Invert= 458.50', Outlet Invert= 454.00'

**Summary for Reach R2:**

Inflow Area = 21,330 sf, 55.72% Impervious, Inflow Depth = 4.65" for 25-Year event

Inflow = 2.44 cfs @ 12.11 hrs, Volume= 8,268 cf

Outflow = 2.43 cfs @ 12.11 hrs, Volume= 8,268 cf, Atten= 0%, Lag= 0.4 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Max. Velocity= 4.75 fps, Min. Travel Time= 0.5 min

Avg. Velocity= 1.36 fps, Avg. Travel Time= 1.8 min

Peak Storage= 77 cf @ 12.11 hrs

Average Depth at Peak Storage= 0.09'

Bank-Full Depth= 1.00' Flow Area= 9.0 sf, Capacity= 167.21 cfs

5.00' x 1.00' deep channel, n= 0.022 Earth, clean & straight

Side Slope Z-value= 4.0 '/' Top Width= 13.00'

Length= 150.0' Slope= 0.1267 '/'

Inlet Invert= 454.00', Outlet Invert= 435.00'

**Summary for Reach SP1:**

Inflow Area = 21,330 sf, 55.72% Impervious, Inflow Depth = 4.65" for 25-Year event

Inflow = 2.46 cfs @ 12.10 hrs, Volume= 8,268 cf

Outflow = 2.46 cfs @ 12.10 hrs, Volume= 8,268 cf, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

19063-PRE*Type III 24-hr 25-Year Rainfall=5.80"*

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Summary for Reach SP2:

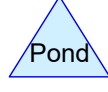
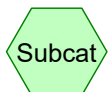
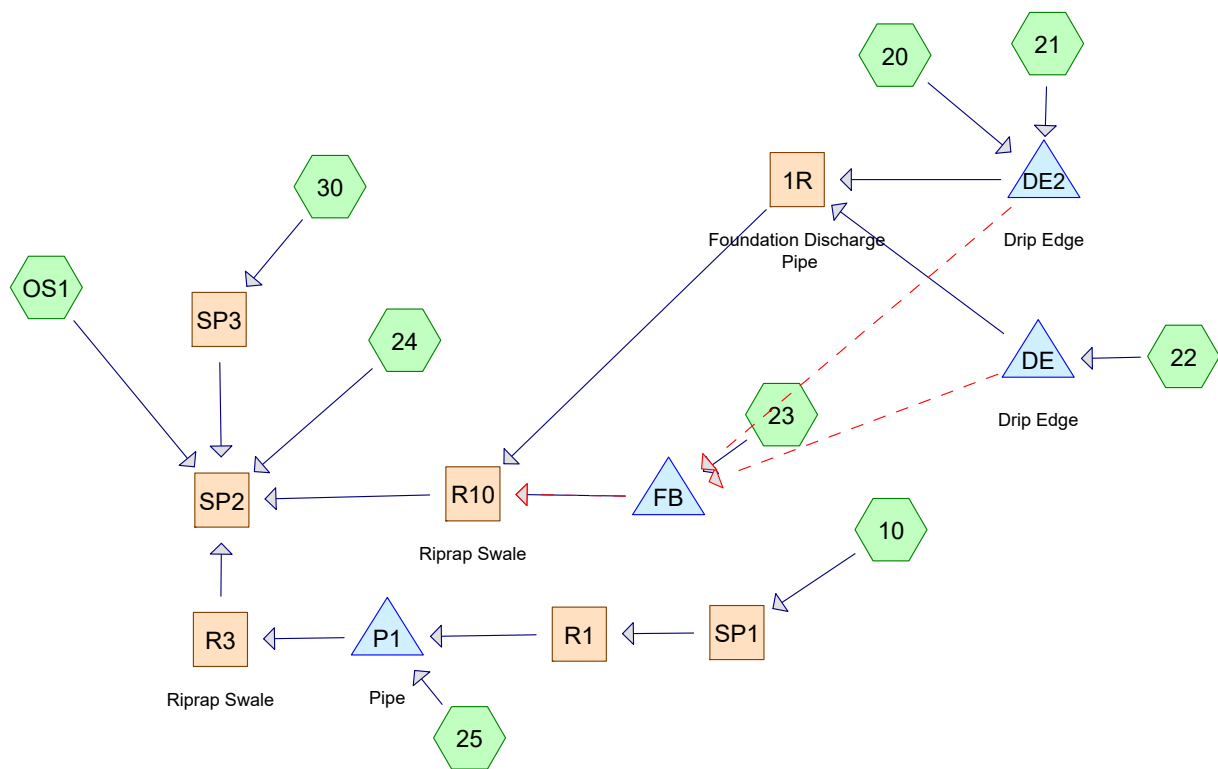
Inflow Area = 206,220 sf, 21.03% Impervious, Inflow Depth = 3.97" for 25-Year event
Inflow = 16.55 cfs @ 12.18 hrs, Volume= 68,290 cf
Outflow = 16.55 cfs @ 12.18 hrs, Volume= 68,290 cf, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Summary for Reach SP3:

Inflow Area = 6,360 sf, 0.00% Impervious, Inflow Depth = 3.60" for 25-Year event
Inflow = 0.51 cfs @ 12.16 hrs, Volume= 1,909 cf
Outflow = 0.51 cfs @ 12.16 hrs, Volume= 1,909 cf, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs



Routing Diagram for 19063-POST

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Type III 24-hr 25-Year Rainfall=5.80"

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Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment10: Runoff Area=20,260 sf 53.38% Impervious Runoff Depth=4.65"
 Flow Length=319' Tc=6.6 min CN=90 Runoff=2.34 cfs 7,853 cf

Subcatchment20: Runoff Area=1,645 sf 100.00% Impervious Runoff Depth=5.56"
 Tc=6.0 min CN=98 Runoff=0.21 cfs 762 cf

Subcatchment21: Runoff Area=2,615 sf 100.00% Impervious Runoff Depth=5.56"
 Tc=6.0 min CN=98 Runoff=0.33 cfs 1,212 cf

Subcatchment22: Runoff Area=2,240 sf 100.00% Impervious Runoff Depth=5.56"
 Tc=6.0 min CN=98 Runoff=0.29 cfs 1,038 cf

Subcatchment23: Runoff Area=42,260 sf 47.73% Impervious Runoff Depth=4.54"
 Flow Length=217' Tc=10.0 min CN=89 Runoff=4.30 cfs 15,995 cf

Subcatchment24: Runoff Area=98,855 sf 19.22% Impervious Runoff Depth=3.91"
 Flow Length=439' Tc=16.8 min CN=83 Runoff=7.42 cfs 32,178 cf

Subcatchment25: Runoff Area=19,890 sf 4.58% Impervious Runoff Depth=3.70"
 Flow Length=318' Slope=0.0300 '/ Tc=14.0 min CN=81 Runoff=1.52 cfs 6,136 cf

Subcatchment30: Runoff Area=1,315 sf 0.00% Impervious Runoff Depth=3.60"
 Tc=6.0 min CN=80 Runoff=0.12 cfs 395 cf

SubcatchmentOS1: Runoff Area=17,140 sf 6.62% Impervious Runoff Depth=3.91"
 Flow Length=113' Slope=0.1000 '/ Tc=12.6 min CN=83 Runoff=1.43 cfs 5,579 cf

Reach 1R: Foundation Discharge Pipe Avg. Flow Depth=0.34' Max Vel=4.44 fps Inflow=0.63 cfs 3,013 cf
 6.0" Round Pipe n=0.013 L=158.0' S=0.0196 '/ Capacity=0.79 cfs Outflow=0.62 cfs 3,013 cf

Reach R1: Avg. Flow Depth=0.06' Max Vel=1.83 fps Inflow=2.34 cfs 7,853 cf
 n=0.022 L=112.0' S=0.0402 '/ Capacity=142.93 cfs Outflow=2.32 cfs 7,853 cf

Reach R10: Riprap Swale Avg. Flow Depth=0.32' Max Vel=4.40 fps Inflow=4.24 cfs 19,009 cf
 n=0.069 L=30.0' S=0.2833 '/ Capacity=40.80 cfs Outflow=4.25 cfs 19,009 cf

Reach R3: Riprap Swale Avg. Flow Depth=0.32' Max Vel=3.02 fps Inflow=2.84 cfs 13,989 cf
 n=0.069 L=69.0' S=0.1362 '/ Capacity=28.29 cfs Outflow=2.85 cfs 13,989 cf

Reach SP1: Inflow=2.34 cfs 7,853 cf
 Outflow=2.34 cfs 7,853 cf

Reach SP2: Inflow=15.94 cfs 71,150 cf
 Outflow=15.94 cfs 71,150 cf

Reach SP3: Inflow=0.12 cfs 395 cf
 Outflow=0.12 cfs 395 cf

19063-POST*Type III 24-hr 25-Year Rainfall=5.80"*

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Pond DE: Drip Edge

Peak Elev=455.69' Storage=46 cf Inflow=0.29 cfs 1,038 cf
Primary=0.25 cfs 1,038 cf Secondary=0.00 cfs 0 cf Outflow=0.25 cfs 1,038 cf

Pond DE2: Drip Edge

Peak Elev=453.66' Storage=183 cf Inflow=0.54 cfs 1,975 cf
Primary=0.38 cfs 1,974 cf Secondary=0.00 cfs 0 cf Outflow=0.38 cfs 1,974 cf

Pond FB:

Peak Elev=454.88' Storage=4,647 cf Inflow=4.30 cfs 15,995 cf
Primary=0.06 cfs 6,865 cf Secondary=3.59 cfs 9,131 cf Outflow=3.65 cfs 15,996 cf

Pond P1: Pipe

Peak Elev=453.55' Storage=737 cf Inflow=3.57 cfs 13,989 cf
12.0" Round Culvert n=0.013 L=119.0' S=0.0050 '/' Outflow=2.84 cfs 13,989 cf

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Type III 24-hr 25-Year Rainfall=5.80"

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Summary for Subcatchment 10:

Runoff = 2.34 cfs @ 12.10 hrs, Volume= 7,853 cf, Depth= 4.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.80"

	Area (sf)	CN	Description
*	4,430	98	Building
*	6,385	98	Pavement
*	9,445	80	Lawn D
	20,260	90	Weighted Average
	9,445		46.62% Pervious Area
	10,815		53.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.6	49	0.0200	0.15		Sheet Flow, A to B Grass: Short n= 0.150 P2= 3.10"
1.0	270	0.0100	4.48	27.98	Trap/Vee/Rect Channel Flow, B to C Bot.W=0.00' D=0.50' Z= 50.0 & 0.0 ' Top.W=25.00' n= 0.013 Asphalt, smooth
6.6	319	Total			

Summary for Subcatchment 20:

Runoff = 0.21 cfs @ 12.09 hrs, Volume= 762 cf, Depth= 5.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.80"

	Area (sf)	CN	Description
*	845	98	New Building
*	800	98	Existing Building
	1,645	98	Weighted Average
	1,645		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Subcatchment 21:

Runoff = 0.33 cfs @ 12.09 hrs, Volume= 1,212 cf, Depth= 5.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.80"

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Type III 24-hr 25-Year Rainfall=5.80"

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	Area (sf)	CN	Description
*	2,615	98	Building
	2,615		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Subcatchment 22:

Runoff = 0.29 cfs @ 12.09 hrs, Volume= 1,038 cf, Depth= 5.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.80"

	Area (sf)	CN	Description
*	2,240	98	Building
	2,240		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Subcatchment 23:

Runoff = 4.30 cfs @ 12.14 hrs, Volume= 15,995 cf, Depth= 4.54"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.80"

	Area (sf)	CN	Description
*	3,910	98	Building
*	16,260	98	Pavement
*	22,090	80	Lawn D
	42,260	89	Weighted Average
	22,090		52.27% Pervious Area
	20,170		47.73% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.8	120	0.0300	0.20		Sheet Flow, A to B
					Grass: Short n= 0.150 P2= 3.10"
0.2	97	0.0200	6.80	34.00	Trap/Vee/Rect Channel Flow, B to C
					Bot.W=2.00' D=1.00' Z= 3.0 ' /' Top.W=8.00'
					n= 0.022 Earth, clean & straight
10.0	217	Total			

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Type III 24-hr 25-Year Rainfall=5.80"

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Summary for Subcatchment 24:

Runoff = 7.42 cfs @ 12.23 hrs, Volume= 32,178 cf, Depth= 3.91"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.80"

	Area (sf)	CN	Description
*	13,210	98	Pavement
*	5,785	98	Building
*	5,555	96	Gravel
*	47,575	80	Lawn D
	10,285	77	Woods, Good, HSG D
	16,445	71	Meadow, non-grazed, HSG C
	98,855	83	Weighted Average
	79,860		80.78% Pervious Area
	18,995		19.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.8	150	0.0200	0.18		Sheet Flow, A to B Grass: Short n= 0.150 P2= 3.10"
1.4	101	0.0280	1.17		Shallow Concentrated Flow, B to C Short Grass Pasture Kv= 7.0 fps
0.3	48	0.0250	2.55		Shallow Concentrated Flow, C to D Unpaved Kv= 16.1 fps
0.8	58	0.0300	1.21		Shallow Concentrated Flow, D to E Short Grass Pasture Kv= 7.0 fps
0.3	60	0.2500	3.50		Shallow Concentrated Flow, E to F Short Grass Pasture Kv= 7.0 fps
0.2	22	0.0900	1.50		Shallow Concentrated Flow, F to G Woodland Kv= 5.0 fps
16.8	439	Total			

Summary for Subcatchment 25:

Runoff = 1.52 cfs @ 12.19 hrs, Volume= 6,136 cf, Depth= 3.70"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.80"

	Area (sf)	CN	Description
*	18,980	80	Lawn D
*	910	98	Pavement
	19,890	81	Weighted Average
	18,980		95.42% Pervious Area
	910		4.58% Impervious Area

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Type III 24-hr 25-Year Rainfall=5.80"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.7	150	0.0300	0.21		Sheet Flow, A to B Grass: Short n= 0.150 P2= 3.10"
2.3	168	0.0300	1.21		Shallow Concentrated Flow, B to C Short Grass Pasture Kv= 7.0 fps
14.0	318	Total			

Summary for Subcatchment 30:

Runoff = 0.12 cfs @ 12.09 hrs, Volume= 395 cf, Depth= 3.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.80"

Area (sf)	CN	Description
* 1,315	80	Grass A
1,315		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, 6 Minute Min. Tc

Summary for Subcatchment OS1:

Runoff = 1.43 cfs @ 12.17 hrs, Volume= 5,579 cf, Depth= 3.91"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.80"

Area (sf)	CN	Description
* 1,135	98	Pavement
* 3,290	96	Gravel
6,005	80	>75% Grass cover, Good, HSG D
1,315	78	Meadow, non-grazed, HSG D
5,395	77	Woods, Good, HSG D
17,140	83	Weighted Average
16,005		93.38% Pervious Area
1,135		6.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.6	113	0.1000	0.15		Sheet Flow, A to B Woods: Light underbrush n= 0.400 P2= 3.10"

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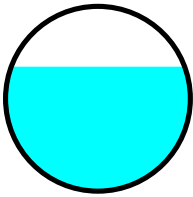
Summary for Reach 1R: Foundation Discharge Pipe

Inflow Area = 6,500 sf, 100.00% Impervious, Inflow Depth = 5.56" for 25-Year event
 Inflow = 0.63 cfs @ 12.15 hrs, Volume= 3,013 cf
 Outflow = 0.62 cfs @ 12.16 hrs, Volume= 3,013 cf, Atten= 0%, Lag= 0.5 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
 Max. Velocity= 4.44 fps, Min. Travel Time= 0.6 min
 Avg. Velocity = 1.47 fps, Avg. Travel Time= 1.8 min

Peak Storage= 22 cf @ 12.16 hrs
 Average Depth at Peak Storage= 0.34'
 Bank-Full Depth= 0.50' Flow Area= 0.2 sf, Capacity= 0.79 cfs

6.0" Round Pipe
 n= 0.013
 Length= 158.0' Slope= 0.0196 '/
 Inlet Invert= 451.60', Outlet Invert= 448.50'

**Summary for Reach R1:**

Inflow Area = 20,260 sf, 53.38% Impervious, Inflow Depth = 4.65" for 25-Year event
 Inflow = 2.34 cfs @ 12.10 hrs, Volume= 7,853 cf
 Outflow = 2.32 cfs @ 12.11 hrs, Volume= 7,853 cf, Atten= 1%, Lag= 0.7 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
 Max. Velocity= 1.83 fps, Min. Travel Time= 1.0 min
 Avg. Velocity = 0.51 fps, Avg. Travel Time= 3.7 min

Peak Storage= 142 cf @ 12.11 hrs
 Average Depth at Peak Storage= 0.06'
 Bank-Full Depth= 0.50' Flow Area= 22.5 sf, Capacity= 142.93 cfs

20.00' x 0.50' deep channel, n= 0.022 Earth, clean & straight
 Side Slope Z-value= 50.0 '/ Top Width= 70.00'
 Length= 112.0' Slope= 0.0402 '/
 Inlet Invert= 458.50', Outlet Invert= 454.00'



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Type III 24-hr 25-Year Rainfall=5.80"

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Summary for Reach R10: Riprap Swale

Inflow Area = 48,760 sf, 54.70% Impervious, Inflow Depth = 4.68" for 25-Year event
 Inflow = 4.24 cfs @ 12.21 hrs, Volume= 19,009 cf
 Outflow = 4.25 cfs @ 12.21 hrs, Volume= 19,009 cf, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
 Max. Velocity= 4.40 fps, Min. Travel Time= 0.1 min
 Avg. Velocity = 1.13 fps, Avg. Travel Time= 0.4 min

Peak Storage= 29 cf @ 12.21 hrs
 Average Depth at Peak Storage= 0.32'
 Bank-Full Depth= 1.00' Flow Area= 5.0 sf, Capacity= 40.80 cfs

2.00' x 1.00' deep channel, n= 0.069 Riprap, 6-inch
 Side Slope Z-value= 3.0 '/' Top Width= 8.00'
 Length= 30.0' Slope= 0.2833 '/'
 Inlet Invert= 448.50', Outlet Invert= 440.00'

**Summary for Reach R3: Riprap Swale**

Inflow Area = 40,150 sf, 29.20% Impervious, Inflow Depth = 4.18" for 25-Year event
 Inflow = 2.84 cfs @ 12.23 hrs, Volume= 13,989 cf
 Outflow = 2.85 cfs @ 12.24 hrs, Volume= 13,989 cf, Atten= 0%, Lag= 0.7 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
 Max. Velocity= 3.02 fps, Min. Travel Time= 0.4 min
 Avg. Velocity = 0.97 fps, Avg. Travel Time= 1.2 min

Peak Storage= 65 cf @ 12.24 hrs
 Average Depth at Peak Storage= 0.32'
 Bank-Full Depth= 1.00' Flow Area= 5.0 sf, Capacity= 28.29 cfs

2.00' x 1.00' deep channel, n= 0.069 Riprap, 6-inch
 Side Slope Z-value= 3.0 '/' Top Width= 8.00'
 Length= 69.0' Slope= 0.1362 '/'
 Inlet Invert= 451.40', Outlet Invert= 442.00'



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Summary for Reach SP1:

Inflow Area = 20,260 sf, 53.38% Impervious, Inflow Depth = 4.65" for 25-Year event
 Inflow = 2.34 cfs @ 12.10 hrs, Volume= 7,853 cf
 Outflow = 2.34 cfs @ 12.10 hrs, Volume= 7,853 cf, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Summary for Reach SP2:

Inflow Area = 206,220 sf, 28.38% Impervious, Inflow Depth = 4.14" for 25-Year event
 Inflow = 15.94 cfs @ 12.22 hrs, Volume= 71,150 cf
 Outflow = 15.94 cfs @ 12.22 hrs, Volume= 71,150 cf, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Summary for Reach SP3:

Inflow Area = 1,315 sf, 0.00% Impervious, Inflow Depth = 3.60" for 25-Year event
 Inflow = 0.12 cfs @ 12.09 hrs, Volume= 395 cf
 Outflow = 0.12 cfs @ 12.09 hrs, Volume= 395 cf, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Summary for Pond DE: Drip Edge

Inflow Area = 2,240 sf, 100.00% Impervious, Inflow Depth = 5.56" for 25-Year event
 Inflow = 0.29 cfs @ 12.09 hrs, Volume= 1,038 cf
 Outflow = 0.25 cfs @ 12.13 hrs, Volume= 1,038 cf, Atten= 12%, Lag= 2.7 min
 Primary = 0.25 cfs @ 12.13 hrs, Volume= 1,038 cf
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Peak Elev= 455.69' @ 12.13 hrs Surf.Area= 220 sf Storage= 46 cf

Plug-Flow detention time= 7.0 min calculated for 1,037 cf (100% of inflow)

Center-of-Mass det. time= 7.2 min (752.8 - 745.7)

Volume	Invert	Avail.Storage	Storage Description
#1	455.17'	587 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
455.17	220	0.0	0	0
456.00	220	40.0	73	73
458.25	220	30.0	149	222
460.00	220	40.0	154	376
460.10	4,000	100.0	211	587

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Device	Routing	Invert	Outlet Devices
#1	Primary	455.17'	4.0" Vert. Orifice/Grate C= 0.600
#2	Secondary	456.00'	75.0' long x 2.0' breadth Broad-Crested Rectangular Weir
Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00			
2.50 3.00 3.50			
Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88			
2.85 3.07 3.20 3.32			

Primary OutFlow Max=0.25 cfs @ 12.13 hrs HW=455.68' TW=451.93' (Dynamic Tailwater)↑**1=Orifice/Grate** (Orifice Controls 0.25 cfs @ 2.82 fps)**Secondary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=455.17' TW=453.00' (Dynamic Tailwater)↑**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)**Summary for Pond DE2: Drip Edge**

Inflow Area = 4,260 sf, 100.00% Impervious, Inflow Depth = 5.56" for 25-Year event
 Inflow = 0.54 cfs @ 12.09 hrs, Volume= 1,975 cf
 Outflow = 0.38 cfs @ 12.17 hrs, Volume= 1,974 cf, Atten= 30%, Lag= 5.1 min
 Primary = 0.38 cfs @ 12.17 hrs, Volume= 1,974 cf
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Peak Elev= 453.66' @ 12.17 hrs Surf.Area= 482 sf Storage= 183 cf

Plug-Flow detention time= 12.2 min calculated for 1,972 cf (100% of inflow)

Center-of-Mass det. time= 12.4 min (758.0 - 745.7)

Volume	Invert	Avail.Storage	Storage Description	
#1	452.67'	1,047 cf	Custom Stage Data (Prismatic) Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
452.67	482	0.0	0	0
453.50	482	40.0	160	160
455.75	482	30.0	325	485
457.50	482	40.0	337	823
457.60	4,000	100.0	224	1,047

Device	Routing	Invert	Outlet Devices
#1	Primary	452.67'	4.0" Vert. Orifice/Grate C= 0.600
#2	Secondary	457.50'	200.0' long x 2.0' breadth Broad-Crested Rectangular Weir
Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00			
2.50 3.00 3.50			
Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88			
2.85 3.07 3.20 3.32			

Primary OutFlow Max=0.38 cfs @ 12.17 hrs HW=453.64' TW=451.93' (Dynamic Tailwater)↑**1=Orifice/Grate** (Orifice Controls 0.38 cfs @ 4.31 fps)**Secondary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=452.67' TW=453.00' (Dynamic Tailwater)↑**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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Summary for Pond FB:

Inflow Area = 42,260 sf, 47.73% Impervious, Inflow Depth = 4.54" for 25-Year event
 Inflow = 4.30 cfs @ 12.14 hrs, Volume= 15,995 cf
 Outflow = 3.65 cfs @ 12.21 hrs, Volume= 15,996 cf, Atten= 15%, Lag= 4.4 min
 Primary = 0.06 cfs @ 12.21 hrs, Volume= 6,865 cf
 Secondary = 3.59 cfs @ 12.21 hrs, Volume= 9,131 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
 Peak Elev= 454.88' @ 12.21 hrs Surf.Area= 3,422 sf Storage= 4,647 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 289.9 min (1,083.0 - 793.0)

Volume	Invert	Avail.Storage	Storage Description
#1	453.00'	9,195 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
453.00	1,700	0	0
454.00	2,450	2,075	2,075
456.00	4,670	7,120	9,195

Device	Routing	Invert	Outlet Devices
#1	Primary	450.00'	1.0" Vert. 1" Orifice in Cap C= 0.600
#2	Device 1	450.83'	4.0" Round Culvert L= 45.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 450.83' / 450.00' S= 0.0184 ' S= 0.0184 ' Cc= 0.900 n= 0.013, Flow Area= 0.09 sf
#3	Device 2	453.00'	2.410 in/hr Exfiltration over Surface area
#4	Secondary	454.50'	6.0' long x 11.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.55 2.60 2.70 2.67 2.67 2.67 2.66 2.64

Primary OutFlow Max=0.06 cfs @ 12.21 hrs HW=454.87' TW=448.82' (Dynamic Tailwater)

↑ **1=1" Orifice in Cap** (Orifice Controls 0.06 cfs @ 10.58 fps)

↑ **2=Culvert** (Passes 0.06 cfs of 0.53 cfs potential flow)

↑ **3=Exfiltration** (Passes 0.06 cfs of 0.19 cfs potential flow)

Secondary OutFlow Max=3.53 cfs @ 12.21 hrs HW=454.87' TW=448.82' (Dynamic Tailwater)

↑ **4=Broad-Crested Rectangular Weir** (Weir Controls 3.53 cfs @ 1.58 fps)

Summary for Pond P1: Pipe

Inflow Area = 40,150 sf, 29.20% Impervious, Inflow Depth = 4.18" for 25-Year event
 Inflow = 3.57 cfs @ 12.13 hrs, Volume= 13,989 cf
 Outflow = 2.84 cfs @ 12.23 hrs, Volume= 13,989 cf, Atten= 20%, Lag= 6.2 min
 Primary = 2.84 cfs @ 12.23 hrs, Volume= 13,989 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

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Peak Elev= 453.55' @ 12.23 hrs Surf.Area= 933 sf Storage= 737 cf

Plug-Flow detention time= 3.3 min calculated for 13,989 cf (100% of inflow)

Center-of-Mass det. time= 2.6 min (805.2 - 802.7)

Volume	Invert	Avail.Storage	Storage Description
#1	452.00'	1,220 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
452.00	20	0	0
454.00	1,200	1,220	1,220

Device	Routing	Invert	Outlet Devices
#1	Primary	452.00'	12.0" Round Culvert L= 119.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 452.00' / 451.40' S= 0.0050 ' / ' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=2.83 cfs @ 12.23 hrs HW=453.54' TW=451.72' (Dynamic Tailwater)↑**1=Culvert** (Barrel Controls 2.83 cfs @ 3.61 fps)

ATTACHMENT 6

INSPECTION, MAINTENANCE AND HOUSEKEEPING PLAN

INSPECTION, MAINTENANCE, AND HOUSEKEEPING PLAN

COUNTRY VILLAGE ASSISTED LIVING FACILITY EXPANSION CASCO, MAINE

Responsible Party

Owner: 960 Meadow Road Holdings, LLC
960 Meadow Road
Casco, ME 04015

Prepared by

Engineer: **DM Roma Consulting Engineers**
Designer: *Jayson Haskell, PE #13002*
DEP Erosion Control Certification #4769

The owner/applicant is responsible for the maintenance of all stormwater management structures and related site components and the keeping of a maintenance log book with service records.

Records of all inspections and maintenance work performed must be kept on file with the owner and retained for a minimum of five years. The maintenance log will be made available to the Town upon request. At a minimum, the maintenance of stormwater management systems will be performed on the prescribed schedule.

The procedures outlined in this plan are provided as a general overview of the anticipated practices to be utilized on this site. In some instances, additional measures may be required due to unexpected conditions. *The Maine Erosion and Sedimentation Control BMP and Stormwater Management for Maine: Best Management Practices* Manuals published by the Maine Department of Environmental Protection (MDEP) should be referenced for additional information.

During Construction

- 1. Inspection and Corrective Action:** It is the contractor's responsibility to comply with the inspection and maintenance procedures outlined in this section. Inspection shall occur on all disturbed and impervious areas, erosion control measures, material storage areas that are exposed to precipitation, and locations where vehicles enter or exit the site. These areas shall be inspected, including winter work, at least once a week as well as 24 hours before and after a storm event generating more than 0.5 inch of rainfall over a 24-hour period and prior to completing permanent stabilization measures. A person with

knowledge of erosion and stormwater control, including the standards and conditions in the permit, shall conduct the inspections.

2. **Maintenance:** Erosion controls shall be maintained in effective operating condition until areas are permanently stabilized. If best management practices (BMPs) need to be repaired, the repair work should be initiated upon discovery of the problem but no later than the end of the next workday. If BMPs need to be maintained or modified, additional BMPs are necessary, or other corrective action is needed, implementation must be completed within seven calendar days and prior to any rainfall event.
3. **Construction vehicles and equipment:** Construction vehicles and equipment shall not be driven or stored within any proposed stormwater treatment ponds.
4. **Documentation:** A report summarizing the inspections and any corrective action taken must be maintained on site. The log must include the name(s) and qualifications of the person making the inspections; the date(s) of the inspections; and the major observations about the operation and maintenance of erosion and sedimentation controls, materials storage areas, and vehicle access points to the parcel. Major observations must include BMPs that need maintenance, BMPs that failed to operate as designed or proved inadequate for a particular location, and location(s) where additional BMPs are needed. For each BMP requiring maintenance, BMP needing replacement, and location needing additional BMPs, note in the log the corrective action taken and when it was taken. The log must be made accessible to Town staff, and a copy must be provided upon request. The owner shall retain a copy of the log for a period of at least three years from the completion of permanent stabilization.

Housekeeping

1. **Spill prevention:** Controls must be used to prevent pollutants from construction and waste materials on site to enter stormwater, which includes storage practices to minimize exposure of the materials to stormwater. The site contractor or operator must develop, and implement as necessary, appropriate spill prevention, containment, and response planning measures.
2. **Groundwater protection:** During construction, liquid petroleum products and other hazardous materials with the potential to contaminate groundwater may not be stored or handled in areas of the site draining to an infiltration area. An "infiltration area" is any area of the site that by design or as a result of soils, topography and other relevant factors accumulates runoff that infiltrates into the soil. Dikes, berms, sumps, and other forms of secondary containment that prevent discharge to groundwater may be used to isolate portions of the site for the purposes of storage and handling of these materials. Any project proposing infiltration of stormwater must provide adequate pre-treatment of stormwater prior to discharge of stormwater to the infiltration area, or provide for

treatment within the infiltration area, in order to prevent the accumulation of fines, reduction in infiltration rate, and consequent flooding and destabilization.

3. **Fugitive sediment and dust:** Actions must be taken to ensure that activities do not result in noticeable erosion of soils or fugitive dust emissions during or after construction. Oil may not be used for dust control, but other water additives may be considered as needed. A stabilized construction entrance (SCE) should be included to minimize tracking of mud and sediment. If off-site tracking occurs, public roads should be swept immediately and no less than once a week and prior to significant storm events. Operations during dry months, that experience fugitive dust problems, should wet down unpaved access roads once a week or more frequently as needed with a water additive to suppress fugitive sediment and dust.
4. **Debris and other materials:** Minimize the exposure of construction debris, building and landscaping materials, trash, fertilizers, pesticides, herbicides, detergents, sanitary waste and other materials to precipitation and stormwater runoff. These materials must be prevented from becoming a pollutant source.
5. **Excavation de-watering:** Excavation de-watering is the removal of water from trenches, foundations, coffer dams, ponds, and other areas within the construction area that retain water after excavation. In most cases the collected water is heavily silted and hinders correct and safe construction practices. The collected water removed from the ponded area, either through gravity or pumping, must be spread through natural wooded buffers or removed to areas that are specifically designed to collect the maximum amount of sediment possible, like a cofferdam sedimentation basin. Avoid allowing the water to flow over disturbed areas of the site. Equivalent measures may be taken if approved by the Department.
6. **Authorized Non-stormwater discharges:** It is the contractor's responsibility to identify and prevent contamination by non-stormwater discharges. Where allowed non-stormwater discharges exist, they must be identified and steps should be taken to ensure the implementation of appropriate pollution prevention measures for the non-stormwater component(s) of the discharge. Authorized non-stormwater discharges are:
 - (a) Discharges from firefighting activity;
 - (b) Fire hydrant flushings;
 - (c) Vehicle washwater if detergents are not used and washing is limited to the exterior of vehicles (engine, undercarriage and transmission washing is prohibited);
 - (d) Dust control runoff in accordance with permit conditions and Appendix (C)(3);
 - (e) Routine external building washdown, not including surface paint removal, that does not involve detergents;
 - (f) Pavement washwater (where spills/leaks of toxic or hazardous materials have not occurred, unless all spilled material had been removed) if detergents are not used;
 - (g) Uncontaminated air conditioning or compressor condensate;

- (h) Uncontaminated groundwater or spring water;
- (i) Foundation or footer drain-water where flows are not contaminated;
- (j) Uncontaminated excavation dewatering (see requirements in Appendix C(5));
- (k) Potable water sources including waterline flushings; and
- (l) Landscape irrigation.

- 7. Unauthorized non-stormwater discharges:** Approval from the Town does not authorize a discharge that is mixed with a source of non-stormwater, other than those discharges in compliance with Section 6 above. Specifically, the Town's approval does not authorize discharges of the following:
- (a) Wastewater from the washout or cleanout of concrete, stucco, paint, form release oils, curing compounds or other construction materials;
 - (b) Fuels, oils or other pollutants used in vehicle and equipment operation and maintenance;
 - (c) Soaps, solvents, or detergents used in vehicle and equipment washing; and
 - (d) Toxic or hazardous substances from a spill or other release.

Post construction

- 1. Inspection and Corrective Action:** All measures must be maintained by the owner in effective operating condition. An inspector hired by the owner shall at least annually inspect the stormwater management facilities. This person should have knowledge of erosion and stormwater control, including the standards and conditions of the site's approvals. The following areas, facilities, and measures must be inspected, and identified deficiencies must be corrected. Areas, facilities, and measures other than those listed below may also require inspection on a specific site.
- A. Vegetated Areas:** Inspect vegetated areas, particularly slopes and embankments, early in the growing season or after heavy rains to identify active or potential erosion problems. Replant bare areas or areas with sparse growth. Where rill is evident, armor the area with an appropriate lining or divert the erosive flows to on-site areas able to withstand the concentrated flows.
 - B. Ditches, Swales, and Open Channels:** Inspect ditches, swales, and other open channels after heavy rains to remove any obstructions to flow, remove accumulated sediments and debris, control vegetative growth that could obstruct flow, and repair any erosion of the ditch lining. Vegetated ditches must be mowed at least annually or otherwise maintained to control the growth of woody vegetation and maintain flow capacity. Grass to be mowed to a minimum height of six inches. Any woody vegetation growing through riprap linings must also be removed. Repair any slumping side slopes as soon as practicable. The channel must receive adequate routine maintenance to maintain capacity and prevent or correct any erosion of the channel's bottom or side slopes.

- C. Culverts:** Inspect culverts in the spring, late fall, and after heavy rains to remove any obstructions to flow; remove accumulated sediments and debris at the riprap inlet, at the riprap outlet, and within the conduit; and to repair any erosion damage at the culvert's inlet and outlet.
- D. Underdrained Filter Basin:** The filter basins are not intended to function as snow storage areas. Inspector to verify that winter plowing operations are not dumping or pushing snow into the basins. The basins shall also not be used for vehicle or heavy equipment storage. Basins should be inspected after several major storm events (0.5 inches rainfall over 24 hours) to determine drawdown time during the first year. The basins to be inspected every six months thereafter with at least one inspection after a major storm event.

The basins should drain dry within 24 to 48 hours following a one-inch storm. If ponding exceeds 48 hours, the top of the filter bed must be rototilled to reestablish the soil's filtration capacity. If water ponds on the surface of the bed for more than 72 hours, the top several inches of the filter shall be replaced with fresh material. Inspect for debris and sediment build up in the forebays and basins and remove as needed. Mowing of the basins can only occur semi-annually to a height of no less than 6 inches utilizing a hand-held string trimmer or push-mower. Any bare areas or erosion rills shall be repaired with new filter media or sandy loam then seeded and mulched. The basins should also be inspected annually for destabilization of side slopes, embankment settling and other signs of structural failure.

- E. Level Spreader:** Level spreader should be inspected semi-annually and following major storm events for the first year and every six months thereafter to remove any obstructions to flow. Stormwater runoff should discharge from the level spreader as sheet flow, and any observed channelization of flows or erosion should be corrected immediately. Any woody vegetation growing through riprap must be removed. Replace riprap on areas where any underlying soil or sediment buildup is showing through the stone or where stones have been dislodged.
- F. Emergency Spillway:** Spillways should be inspected semi-annually and following major storm events for the first year and every six months thereafter to remove any obstructions to flow. Any woody vegetation growing through riprap lining must be removed. Replace riprap on areas where any underlying filter fabric is showing through the stone or where stones have been dislodged.
- G. Roofline Drip edges:** The drip edges should be inspected semi-annually and following major storm events for the first year and every six months thereafter. The reservoir crushed stone should drain within 24 to 48 hours following a major storm event. If ponding exceeds 48 hours, the stone reservoir course shall be removed and the filter bed be rototilled to reestablish the soil's filtration capacity. If water ponds in the reservoir course for more than 72 hours, the top several inches of the filter shall be

replaced with fresh material. Inspect for debris and sediment build up at surface and remove as needed. The drip edges are part of the stormwater management plan and cannot be paved over or altered in anyway.

- H. Regular Maintenance:** Clear accumulations of winter sand along roadway once a year, preferably in the spring. Accumulations on pavement may be removed by pavement sweeping. Accumulations of sand along pavement shoulders may be removed by grading excess sand to the pavement edge and removing it manually or by a front-end loader.
- I. Documentation:** Keep a log (report) summarizing inspections, maintenance, and any corrective actions taken. The log must include the date on which each inspection or maintenance task was performed, a description of the inspection findings or maintenance completed, and the name of the inspector or maintenance personnel performing the task. If a maintenance task requires the clean-out of any sediments or debris, indicate where the sediment and debris was disposed after removal. The log must be made accessible to Town staff upon request. The permittee shall retain a copy of the log for a period of at least five years from the completion of permanent stabilization. Attached is a sample log.

Duration of Maintenance

The “Responsible Party” shall perform maintenance as described.

MAINTENANCE LOG
COUNTRY VILLAGE ASSISTED LIVING FACILITY EXPANSION
CASCO, MAINE

(GENERAL INSPECTION FORM PAGE 1 OF 2)

The following stormwater management and erosion control items shall be inspected and maintained as prescribed in the Maintenance Plan with recommended frequencies as identified below. The owner is responsible for keeping this maintenance log on file for a minimum of five years and shall provide a copy to the Town upon request. Inspections are to be performed by a qualified third-party inspector and all corrective actions shall be performed by personnel familiar with stormwater management systems and erosion controls.

Maintenance Item	Maintenance Event	Date Performed	Responsible Personnel	Comments
Vegetated Areas	Inspect slopes and embankments early in Spring.			
Drainage Swales	Inspect after major rainfall event			
	Inspect for erosion or slumping & repair			
	Mowed at least annually.			
	Inspect and remove obstructions as necessary.			
	Remove woody vegetation.			
	Replace riprap as necessary.			
Culverts	Inspect semiannually and after major rainfall.			
	Repair erosion at inlet or outlet of pipe.			
	Repair displaced riprap within inlet and outlet aprons.			
	Clean accumulated sediment in culverts when >20% full.			

MAINTENANCE LOG
COUNTRY VILLAGE ASSISTED LIVING FACILITY EXPANSION
CASCO, MAINE

(GENERAL INSPECTION FORM PAGE 2 OF 2)

The following stormwater management and erosion control items shall be inspected and maintained as prescribed in the Maintenance Plan with recommended frequencies as identified below. The owner is responsible for keeping this maintenance log on file for a minimum of five years and shall provide a copy to the Town upon request. Inspections are to be performed by a qualified third-party inspector and all corrective actions shall be performed by personnel familiar with stormwater management systems and erosion controls.

Maintenance Item	Maintenance Event	Date Performed	Responsible Personnel	Comments
Roofline Dripedges	Check after each rainfall event to ensure that the stone reservoir drains within 24-48 hours.			
	Replace top several inches of filter if reservoir does not drain within 72 hours.			
	Inspect and remove sediment or debris build up on the surface of the stone			
	Inspect semi-annually for erosion or sediment accumulation and repair as necessary.			
Regular Maintenance	Clear accumulation of winter sand in paved areas annually.			

MAINTENANCE LOG

COUNTRY VILLAGE ASSISTED LIVING FACILITY EXPANSION CASCO, MAINE

(UNDERDRAINED FILTER BASIN)

Maintenance Item	Maintenance Event	Date Performed	Responsible Personnel	Comments
Underdrained Filter Basin	Check after each rainfall event to ensure that pond drains within 24-48 hours.			
	Replace top several inches of filter if pond does not drain within 72 hours.			
	Mow grass no more than twice a year to no less than 6 inches in height.			
	Inspect semi-annually for erosion or sediment accumulation and repair as necessary.			
	Inspector to verify basin not utilized for snow storage			
	Inspector to verify basin not utilized for vehicle or heavy equipment storage.			
Emergency Spillway	Inspect and remove obstructions as necessary.			
	Remove woody vegetation.			
	Replace riprap as necessary.			
Level Lip Spreaders	Inspect for sand accumulation and remove when pool volume is reduced by 25%.			
	Remove leaf litter, branches and tree growth from spreader.			
	Inspect to verify spreader is not utilized for snow storage.			

SECTION 3

TEST PITS AND BORING LOGS



BORING LOG

BORING NO.: **B-** Item 6.#
SHEET: 1 of 1
PROJECT NO. 26-0162
DATE START: 3/13/2026
DATE FINISH: 3/13/2026

CLIENT: Woodhull
PROJECT: Proposed Building Addition
LOCATION: 960 Meadow Road, Casco, Maine

Drilling Information

LOCATION: See Exploration Location Plan ELEVATION (FT): 458' +/- TOTAL DEPTH (FT): 5.0 LOGGED BY: Kyle Kaserman
DRILLING CO.: Seaboard Drilling, LLC DRILLER: Jeremy Adams DRILLING METHOD: Hollow Stem Auger
RIG TYPE: Track Mounted Diedrich D-50 AUGER ID/OD: 2 1/4 in / 5 5/8 in SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic HAMMER WEIGHT (lbs): 140 CASING ID/OD: N/A / N/A CORE BARREL: N/A
HAMMER CORRECTION FACTOR: HAMMER DROP (inch): 30
WATER LEVEL DEPTHS (ft): 2 ft Soils Saturated Below 2' +/-

GENERAL NOTES:

KEY TO NOTES AND SYMBOLS: Water Level
▽ At time of Drilling D = Split Spoon Sample Pen. = Penetration Length WOR = Weight of Rods S_v = Field Vane Shear Strength, kips/sq.ft.
▽ At Completion of Drilling U = Thin Walled Tube Sample Rec. = Recovery Length WOH = Weight of Hammer q_u = Unconfined Compressive Strength, kips/sq.ft.
▽ After Drilling R = Rock Core Sample bpf = Blows per Foot RQD = Rock Quality Designation Ø = Friction Angle (Estimated)
V = Field Vane Shear mpf = Minute per Foot PID = Photoionization Detector N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
455			1D		0-2	24/3	1-2-1-4	0.2	Vegetation / Topsoil		
									Medium dense, brown, silty SAND, trace gravel (Till)		
			2D		2-4	24/24	13-14-14-20	3.0	Medium dense, gray-brown, silty gravelly SAND (Till)	▽	
								4.7	Probable Weathered Bedrock		
5								///	Refusal at 5.0 feet Probable Bedrock		

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: **B-101**



BORING LOG

BORING NO.: **B-** *Item 6.#*
SHEET: 1 of 1
PROJECT NO. 26-0162
DATE START: 3/13/2026
DATE FINISH: 3/13/2026

CLIENT: Woodhull
PROJECT: Proposed Building Addition
LOCATION: 960 Meadow Road, Casco, Maine

Drilling Information

LOCATION: See Exploration Location Plan ELEVATION (FT): 459' +/- TOTAL DEPTH (FT): 2.7 LOGGED BY: Kyle Kaserman
DRILLING CO.: Seaboard Drilling, LLC DRILLER: Jeremy Adams DRILLING METHOD: Hollow Stem Auger
RIG TYPE: Track Mounted Diedrich D-50 AUGER ID/OD: 2 1/4 in / 5 5/8 in SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic HAMMER WEIGHT (lbs): 140 CASING ID/OD: N/A / N/A CORE BARREL: N/A
HAMMER CORRECTION FACTOR: HAMMER DROP (inch): 30
WATER LEVEL DEPTHS (ft): 0 ft Soils Wet to Saturated From Surface

GENERAL NOTES:

KEY TO NOTES AND SYMBOLS: Water Level
▽ At time of Drilling D = Split Spoon Sample Pen. = Penetration Length WOR = Weight of Rods S_v = Field Vane Shear Strength, kips/sq.ft.
▽ At Completion of Drilling U = Thin Walled Tube Sample Rec. = Recovery Length WOH = Weight of Hammer q_u = Unconfined Compressive Strength, kips/sq.ft.
▽ After Drilling R = Rock Core Sample bpf = Blows per Foot RQD = Rock Quality Designation Ø = Friction Angle (Estimated)
V = Field Vane Shear mpf = Minute per Foot PID = Photoionization Detector N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
			1D		0-2	24/12	1-1-1-5		0.3 Vegetation / Topsoil Very dense, gray, silty gravelly SAND (Till)		
			2D		2-2.4	5/4	50/5"		2.4 Probable Weathered Bedrock or Boulder		

Refusal at 2.7 feet
Probable Bedrock

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: **B-102**



BORING LOG

BORING NO.: **B-** *Item 6.#*
SHEET: 1 of 1
PROJECT NO. 26-0162
DATE START: 3/13/2026
DATE FINISH: 3/13/2026

CLIENT: Woodhull
PROJECT: Proposed Building Addition
LOCATION: 960 Meadow Road, Casco, Maine

Drilling Information

LOCATION: See Exploration Location Plan ELEVATION (FT): 457' +/- TOTAL DEPTH (FT): 2.6 LOGGED BY: Kyle Kaserman
DRILLING CO.: Seaboard Drilling, LLC DRILLER: Jeremy Adams DRILLING METHOD: Hollow Stem Auger
RIG TYPE: Track Mounted Diedrich D-50 AUGER ID/OD: 2 1/4 in / 5 5/8 in SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic HAMMER WEIGHT (lbs): 140 CASING ID/OD: N/A / N/A CORE BARREL: N/A
HAMMER CORRECTION FACTOR: HAMMER DROP (inch): 30
WATER LEVEL DEPTHS (ft): Soils Wet From Surface

GENERAL NOTES:

KEY TO NOTES AND SYMBOLS: Water Level
▽ At time of Drilling D = Split Spoon Sample Pen. = Penetration Length WOR = Weight of Rods S_v = Field Vane Shear Strength, kips/sq.ft.
▽ At Completion of Drilling U = Thin Walled Tube Sample Rec. = Recovery Length WOH = Weight of Hammer q_u = Unconfined Compressive Strength, kips/sq.ft.
▽ After Drilling R = Rock Core Sample bpf = Blows per Foot RQD = Rock Quality Designation Ø = Friction Angle (Estimated)
V = Field Vane Shear mpf = Minute per Foot PID = Photoionization Detector N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
455			1D		0-2	24/20	1-1-1-8		Topsoil / Dark brown silty SAND, with organics (FILL)		
									1.4 Medium dense, gray-brown, silty gravelly SAND (Till)		
			2D		2-2.1	1/4	50/1"		2.1 Probable Weathered Bedrock		
Refusal at 2.6 feet Probable Bedrock											

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: **B-103**



BORING LOG

BORING NO.: **B-** Item 6.#
SHEET: 1 of 1
PROJECT NO. 26-0162
DATE START: 3/13/2026
DATE FINISH: 3/13/2026

CLIENT: Woodhull
PROJECT: Proposed Building Addition
LOCATION: 960 Meadow Road, Casco, Maine

Drilling Information

LOCATION: See Exploration Location Plan ELEVATION (FT): 459' +/- TOTAL DEPTH (FT): 4.5 LOGGED BY: Kyle Kaserman
DRILLING CO.: Seaboard Drilling, LLC DRILLER: Jeremy Adams DRILLING METHOD: Hollow Stem Auger
RIG TYPE: Track Mounted Diedrich D-50 AUGER ID/OD: 2 1/4 in / 5 5/8 in SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic HAMMER WEIGHT (lbs): 140 CASING ID/OD: N/A / N/A CORE BARREL: N/A
HAMMER CORRECTION FACTOR: HAMMER DROP (inch): 30
WATER LEVEL DEPTHS (ft): 0 ft Soils Wet From Surface

GENERAL NOTES:

KEY TO NOTES AND SYMBOLS: Water Level
▽ At time of Drilling D = Split Spoon Sample Pen. = Penetration Length WOR = Weight of Rods S_v = Field Vane Shear Strength, kips/sq.ft.
▽ At Completion of Drilling U = Thin Walled Tube Sample Rec. = Recovery Length WOH = Weight of Hammer q_u = Unconfined Compressive Strength, kips/sq.ft.
▽ After Drilling R = Rock Core Sample bpf = Blows per Foot RQD = Rock Quality Designation Ø = Friction Angle (Estimated)
V = Field Vane Shear mpf = Minute per Foot PID = Photoionization Detector N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
455			1D		0-2	24/20	1-1-2-1		Vegetation / Topsoil		
									0.8 Loose, light brown, silty gravelly SAND (Till)		
			2D		2-3.7	20/24	6-13- 18- 50/2"		2.0 Medium dense to dense, gray-brown, silty gravelly SAND (Till)		

Refusal at 4.5 feet
Probable Bedrock

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: **B-104**

BORING LOG

BORING NO.:	B-	<i>Item 6.#</i>
SHEET:	1 of 1	
PROJECT NO.	26-0162	
DATE START:	3/13/2026	
DATE FINISH:	3/13/2026	

CLIENT: Woodhull
PROJECT: Proposed Building Addition
LOCATION: 960 Meadow Road, Casco, Maine

Drilling Information

LOCATION: <u>See Exploration Location Plan</u>	ELEVATION (FT): <u>457' +/-</u>	TOTAL DEPTH (FT): <u>15.2</u>	LOGGED BY: <u>Kyle Kaserman</u>
DRILLING CO.: <u>Seaboard Drilling, LLC</u>	DRILLER: <u>Jeremy Adams</u>	DRILLING METHOD: <u>Hollow Stem Auger</u>	
RIG TYPE: <u>Track Mounted Diedrich D-50</u>	AUGER ID/OD: <u>2 1/4 in / 5 5/8 in</u>	SAMPLER: <u>Standard Split-Spoon</u>	
HAMMER TYPE: <u>Automatic</u>	HAMMER WEIGHT (lbs): <u>140</u>	CASING ID/OD: <u>N/A /N/A</u>	CORE BARREL: <u>N/A</u>
HAMMER CORRECTION FACTOR: _____	HAMMER DROP (inch): <u>30</u>		
WATER LEVEL DEPTHS (ft): <u>≥ 5 ft Soils Saturated Below 5' +/-</u>			

KEY TO NOTES AND SYMBOLS:	<u>Water Level</u>	D = Split Spoon Sample	Pen. = Penetration Length	WOR = Weight of Rods	S _v = Field Vane Shear Strength, kips/sq.ft.
	▽ At time of Drilling	U = Thin Walled Tube Sample	Rec. = Recovery Length	WOH = Weight of Hammer	q _u = Unconfined Compressive Strength, kips/sq.ft.
	▼ At Completion of Drilling	R = Rock Core Sample	bpf = Blows per Foot	RQD = Rock Quality Designation	Ø = Friction Angle (Estimated)
	▽ After Drilling	V = Field Vane Shear	mpf = Minute per Foot	PID = Photoionization Detector	N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
455 											

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: **B-105**



BORING LOG

BORING NO.: **B-** Item 6.#
SHEET: 1 of 1
PROJECT NO. 26-0162
DATE START: 3/13/2026
DATE FINISH: 3/13/2026

CLIENT: Woodhull
PROJECT: Proposed Building Addition
LOCATION: 960 Meadow Road, Casco, Maine

Drilling Information

LOCATION: See Exploration Location Plan ELEVATION (FT): 458' +/- TOTAL DEPTH (FT): 3.2 LOGGED BY: Kyle Kaserman
DRILLING CO.: Seaboard Drilling, LLC DRILLER: Jeremy Adams DRILLING METHOD: Hollow Stem Auger
RIG TYPE: Track Mounted Diedrich D-50 AUGER ID/OD: 2 1/4 in / 5 5/8 in SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic HAMMER WEIGHT (lbs): 140 CASING ID/OD: N/A / N/A CORE BARREL: N/A
HAMMER CORRECTION FACTOR: HAMMER DROP (inch): 30
WATER LEVEL DEPTHS (ft): ∇ 2 ft Soils Saturated below 2' +/-

GENERAL NOTES:

KEY TO NOTES AND SYMBOLS: ∇ Water Level
 ∇ At time of Drilling
 ∇ At Completion of Drilling
 ∇ After Drilling
D = Split Spoon Sample
U = Thin Walled Tube Sample
R = Rock Core Sample
V = Field Vane Shear
Pen. = Penetration Length
Rec. = Recovery Length
bpf = Blows per Foot
mpf = Minute per Foot
WOR = Weight of Rods
WOH = Weight of Hammer
RQD = Rock Quality Designation
PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.
q_u = Unconfined Compressive Strength, kips/sq.ft.
Ø = Friction Angle (Estimated)
N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
455			1D		0-2	24/10	1-1-2-3		Vegetation / Topsoil		
									0.7 Loose, light brown, silty SAND, some gravel (Till)		
			2D		2-2.9	11/11	18-50/5"		2.0 Dense, gray, silty gravelly SAND (Till)	∇	
									2.9 Probable Weathered Bedrock		

Refusal at 3.2 feet
Probable Bedrock

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: **B-106**



BORING LOG

BORING NO.: **B-** Item 6.#
SHEET: 1 of 1
PROJECT NO. 26-0162
DATE START: 3/13/2026
DATE FINISH: 3/13/2026

CLIENT: Woodhull
PROJECT: Proposed Building Addition
LOCATION: 960 Meadow Road, Casco, Maine

Drilling Information

LOCATION: See Exploration Location Plan ELEVATION (FT): 457.5' +/- TOTAL DEPTH (FT): 3.2 LOGGED BY: Kyle Kaserman
DRILLING CO.: Seaboard Drilling, LLC DRILLER: Jeremy Adams DRILLING METHOD: Hollow Stem Auger
RIG TYPE: Track Mounted Diedrich D-50 AUGER ID/OD: 2 1/4 in / 5 5/8 in SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic HAMMER WEIGHT (lbs): 140 CASING ID/OD: N/A / N/A CORE BARREL: N/A
HAMMER CORRECTION FACTOR: HAMMER DROP (inch): 30
WATER LEVEL DEPTHS (ft): ∇ 2.5 ft Freewater Observed at 2.5' +/-

GENERAL NOTES:

KEY TO NOTES AND SYMBOLS: ∇ Water Level
 ∇ At time of Drilling
 ∇ At Completion of Drilling
 ∇ After Drilling
D = Split Spoon Sample
U = Thin Walled Tube Sample
R = Rock Core Sample
V = Field Vane Shear
Pen. = Penetration Length
Rec. = Recovery Length
bpf = Blows per Foot
mpf = Minute per Foot
WOR = Weight of Rods
WOH = Weight of Hammer
RQD = Rock Quality Designation
PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.
q_u = Unconfined Compressive Strength, kips/sq.ft.
Ø = Friction Angle (Estimated)
N/A = Not Applicable

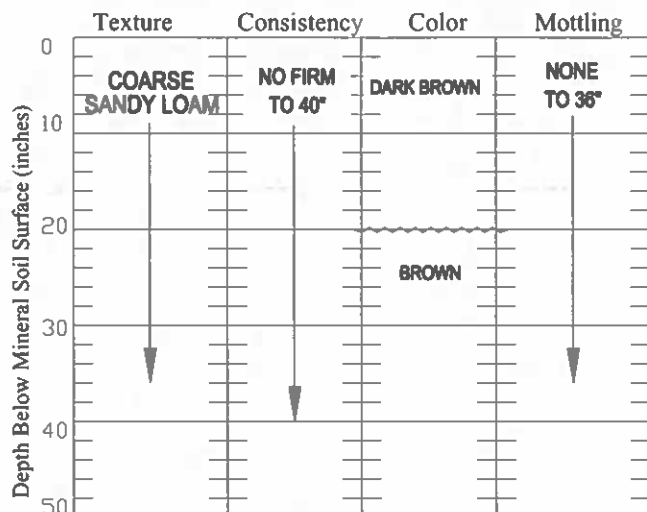
Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
455			1D		0-2	24/20	2-2-3-16		Topsoil / Dark brown silty SAND, with organics (FILL)		
									1.0 Medium dense, gray-brown, silty gravelly SAND (Till)		
			2D		2-2.2	2/2	50/2"		2.2 Probable Weathered Bedrock	∇	

Refusal at 3.2 feet
Probable Bedrock

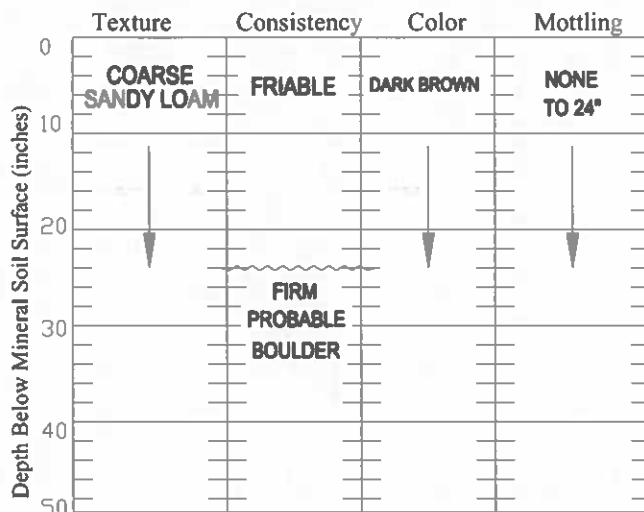
Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: **B-107**

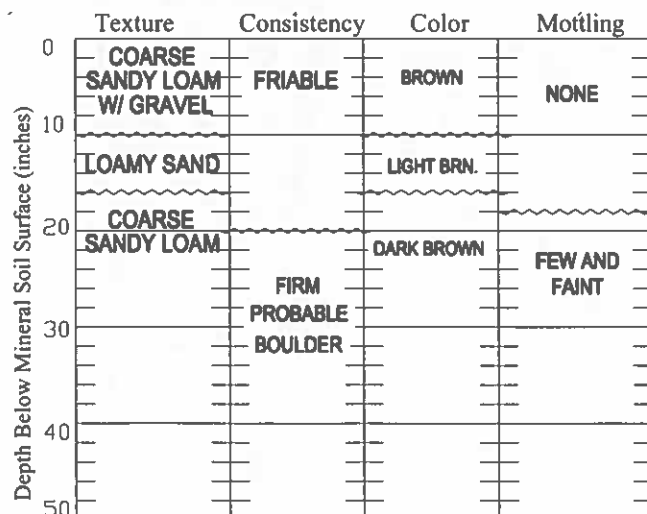
SOIL PROFILE/CLASSIFICATION INFORMATION

DETAILED DESCRIPTION OF
SUBSURFACE CONDITIONS AT PROJECT SITESProject Name:
COUNTRY VILLAGE ASSISTED LIVINGApplicant Name:
COUNTRY VILLAGE ASSISTED LIVINGProject Location (municipality):
960 MEADOW RD. CASCO, ME.Exploration Symbol # TB-1 Test Pit ☒ Boring Probe
4 " Organic horizon thickness Ground surface elev. _____
40 " Depth of exploration or to refusal

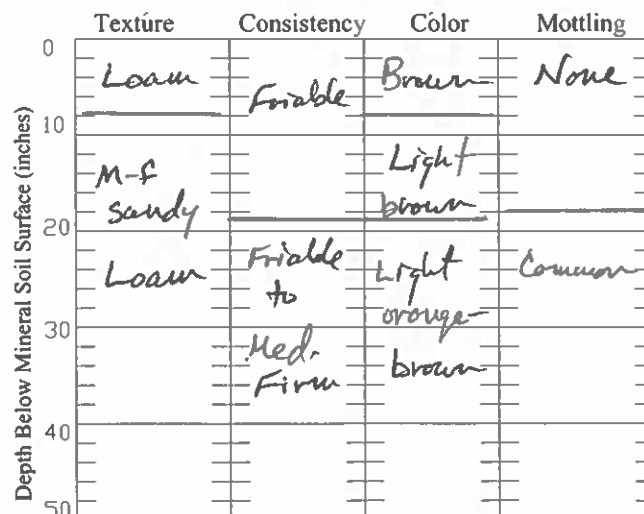
Soil Details by S.E. 3 Soil Classification C Slope _____ Limiting Factor >36 " Groundwater _____
 S.S. Profile Condition Percent Depth Restrictive Layer _____
 Soil Series/Phase Name: _____ Hydric _____ Hydrologic _____
 Non-hydric _____ Soil Group _____

Exploration Symbol # TB-2 Test Pit ☒ Boring Probe
4 " Organic horizon thickness Ground surface elev. _____
24 " Depth of exploration or to refusal

Soil Details by S.E. 3 Soil Classification C Slope _____ Limiting Factor 24 " Groundwater _____
 S.S. Profile Condition Percent Depth Restrictive Layer _____
 Soil Series/Phase Name: _____ Hydric _____ Hydrologic _____
 Non-hydric _____ Soil Group _____

Exploration Symbol # TB-3 Test Pit ☒ Boring Probe
1 " Organic horizon thickness Ground surface elev. _____
20 " Depth of exploration or to refusal

Soil Details by S.E. 3 Soil Classification C Slope _____ Limiting Factor 18 " Groundwater _____
 S.S. Profile Condition Percent Depth Restrictive Layer _____
 Soil Series/Phase Name: _____ Hydric _____ Hydrologic _____
 Non-hydric _____ Soil Group _____

Exploration Symbol # TB-4 Test Pit ☒ Boring Probe
3 " Organic horizon thickness Ground surface elev. _____
40 " Depth of exploration or to refusal

Soil Details by S.E. 3 Soil Classification C Slope 14 Limiting Factor 18 " Groundwater ☒
 S.S. Profile Condition Percent Depth Restrictive Layer _____
 Soil Series/Phase Name: _____ Hydric _____ Hydrologic _____
 Non-hydric _____ Soil Group _____

INVESTIGATOR INFORMATION AND SIGNATURE

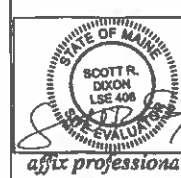
Signature 

Name Printed SCOTT R. DIXON

Title ☒ Licensed Site Evaluator☐ Certified Soil Scientist☐ Certified Geologist☐ Professional Engineer

Date 3/18/28

Cert/Lic/Reg. # SE #406



affix professional seal

SOIL PROFILE/CLASSIFICATION INFORMATION

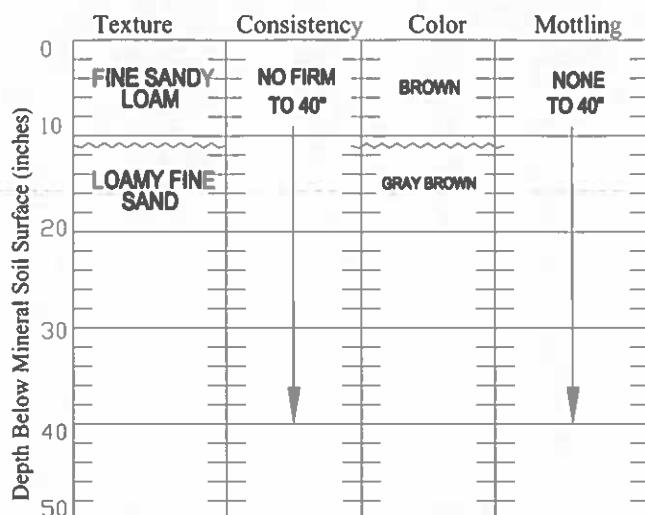
DETAILED DESCRIPTION OF SUBSURFACE CONDITIONS AT PROJECT SITES

Project Name:
COUNTRY VILLAGE ASSISTED LIVING

Applicant Name: **COUNTRY VILLAGE ASSISTED LIVING**

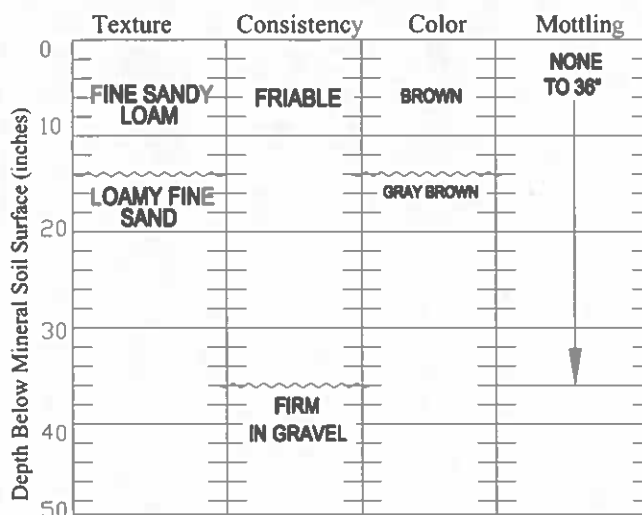
Project Location (municipality):
980 MEADOW RD. CASCO, ME.

Exploration Symbol # TB-C1 Test Pit ☒ Boring ☐ Probe
1 " Organic horizon thickness Ground surface elev. _____
40 " Depth of exploration or to refusal



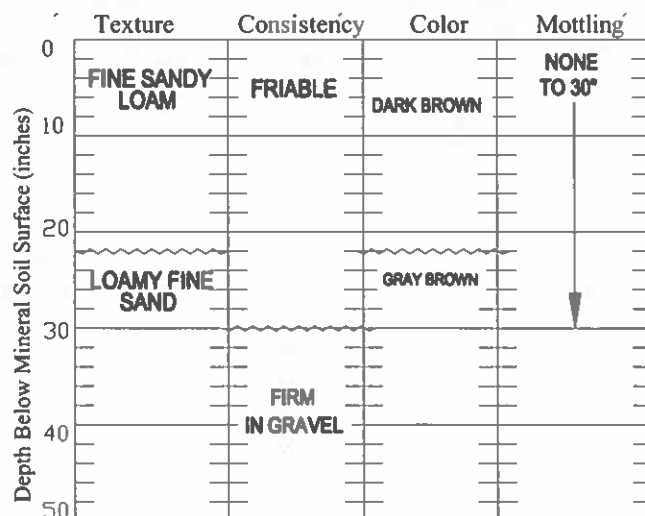
Soil Details by ▶▶	Soil Classification		Slope	Limiting Factor	Groundwater Restrictive Layer Bedrock
	4	C	Percent	>40 Depth	
Soil Series ▶▶	Soil Series/Phase Name:			☐ Hydric ☒ Non-hydric	Hydrologic -- Soil Group
	-				

Exploration Symbol # TB-C2 Test Pit ☒ Boring ☐ Probe
2 " Organic horizon thickness Ground surface elev. _____
36 " Depth of exploration or to refusal



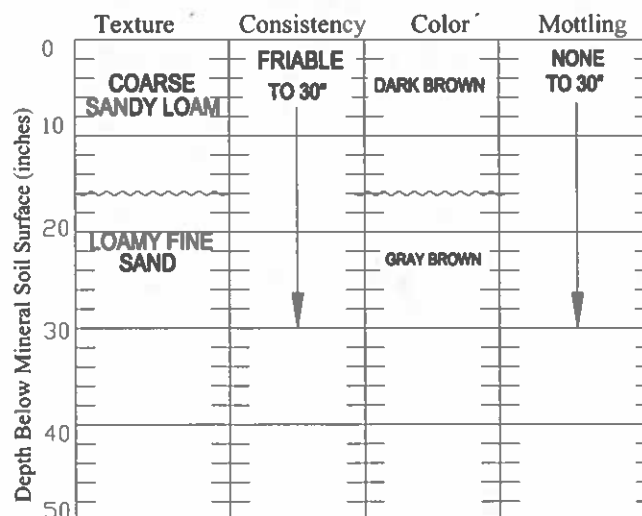
Soil Details by S.E. ▶▶ S.S. ▶▶	Soil Classification		Slope	Limiting Factor	Groundwater
	3	C		36	■
	Profile	Condition	Percent	Depth	■ Reactive Layer ■ Bedrock
	Soil Series/Phase Name:				Hydric
	-				Non-hydric
					Hydrologic
					-
					Soil Group
					-

Exploration Symbol # TB-C3 Test Pit ☒ Boring _____ Probe _____
1 " Organic horizon thickness Ground surface elev. _____
30 " Depth of exploration or to refusal



Soil Details by	S.E.	Soil Classification		Slope	Limiting Factor		Groundwater
	▶▶	<u>3</u>	<u>C</u>		<u>30</u>	"	■ <u>Restrictive Layer</u>
		Profile	Condition	Percent	Depth		Bedrock
S.S.		Soil Series/Phase Name:					Hydrologic
▶▶		-					-
							Soil Group

Exploration Symbol # TB-D1 Test Pit Boring Probe
 1 " Organic horizon thickness Ground surface elev.
 30 " Depth of exploration or to refusal



Soil Details by	S.E.	Soil Classification		Slope	Limiting Factor	Groundwater Restrictive Layer Bedrock
	»	3	C		>30	
		Profile	Condition	Percent	Depth	
S.S.		Soil Series/Phase Name:				Hydrologic
»		- -				- -
		☐ Hydric ☒ Non-hydric				Soil Group

INVESTIGATOR INFORMATION AND SIGNATURE

Signature 
Name Printed SCOTT R. DIXON

Name Printed SCOTT R. DIXON

Title ☐ Licensed Site Evaluator ☐ Certified Soil Scientist ☐ Certified Geologist ☐ Professional Engineer

Date 3 11 01 28

Cert/Lic/Reg. # SE #408



SOIL PROFILE/CLASSIFICATION INFORMATION		DETAILED DESCRIPTION OF SUBSURFACE CONDITIONS AT PROJECT SITES	
Project Name: COUNTRY VILLAGE ASSISTED LIVING	Applicant Name: COUNTRY VILLAGE ASSISTED LIVING	Project Location (municipality): 960 MEADOW RD. CASCO, ME.	

Exploration Symbol # TB-D2 Test Pit ☒ Boring Probe
 1 " Organic horizon thickness Ground surface elev. _____
 24 " Depth of exploration or to refusal

Texture	Consistency	Color	Mottling
SANDY LOAM	FRIABLE	DARK BROWN	NONE
LOAMY FINE SAND		GRAY BROWN	
	FIRM		FEW AND FAINT

Depth Below Mineral Soil Surface (inches)

Soil Details by	S.E.	Soil Classification		Slope	Limiting Factor	Groundwater	Restrictive Layer	Bedrock
	3	C						
	Profile	Condition						
S.S.	Soil Series/Phase Name:							
	--							

Exploration Symbol # TB-D3 Test Pit ☒ Boring Probe
 1 " Organic horizon thickness Ground surface elev. _____
 30 " Depth of exploration or to refusal

Texture	Consistency	Color	Mottling
SANDY LOAM		DARK BROWN	NONE
	FRIABLE		
SANDY LOAM		GRAY BROWN	
		GRAY	FEW AND FAINT
	FIRM		

Depth Below Mineral Soil Surface (inches)

Soil Details by	S.E.	Soil Classification		Slope	Limiting Factor	Groundwater	Restrictive Layer	Bedrock
	3	C						
	Profile	Condition						
S.S.	Soil Series/Phase Name:							
	--							

Exploration Symbol # TB-PS1 Test Pit ☒ Boring Probe
 1 " Organic horizon thickness Ground surface elev. _____
 30 " Depth of exploration or to refusal

Texture	Consistency	Color	Mottling
COARSE SANDY LOAM	FRIABLE	DARK BROWN	NONE
		GRAY BROWN	
			FEW AND FAINT
	FIRM		

Depth Below Mineral Soil Surface (inches)

Soil Details by	S.E.	Soil Classification		Slope	Limiting Factor	Groundwater	Restrictive Layer	Bedrock
	3	C						
	Profile	Condition						
S.S.	Soil Series/Phase Name:							
	--							

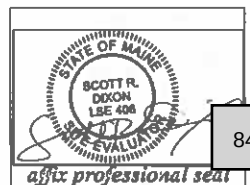
Exploration Symbol # TP-1 Test Pit ☒ Boring Probe
 3 " Organic horizon thickness Ground surface elev. _____
 32 " Depth of exploration or to refusal

Texture	Consistency	Color	Mottling
Loam (FILL)	Friable	Brown	None
Crushed stone (FILL)	Coarse	Brown gray	
Sandy	Friable	Brown	
Loam (native 3)			to bottom of pit

Depth Below Mineral Soil Surface (inches)

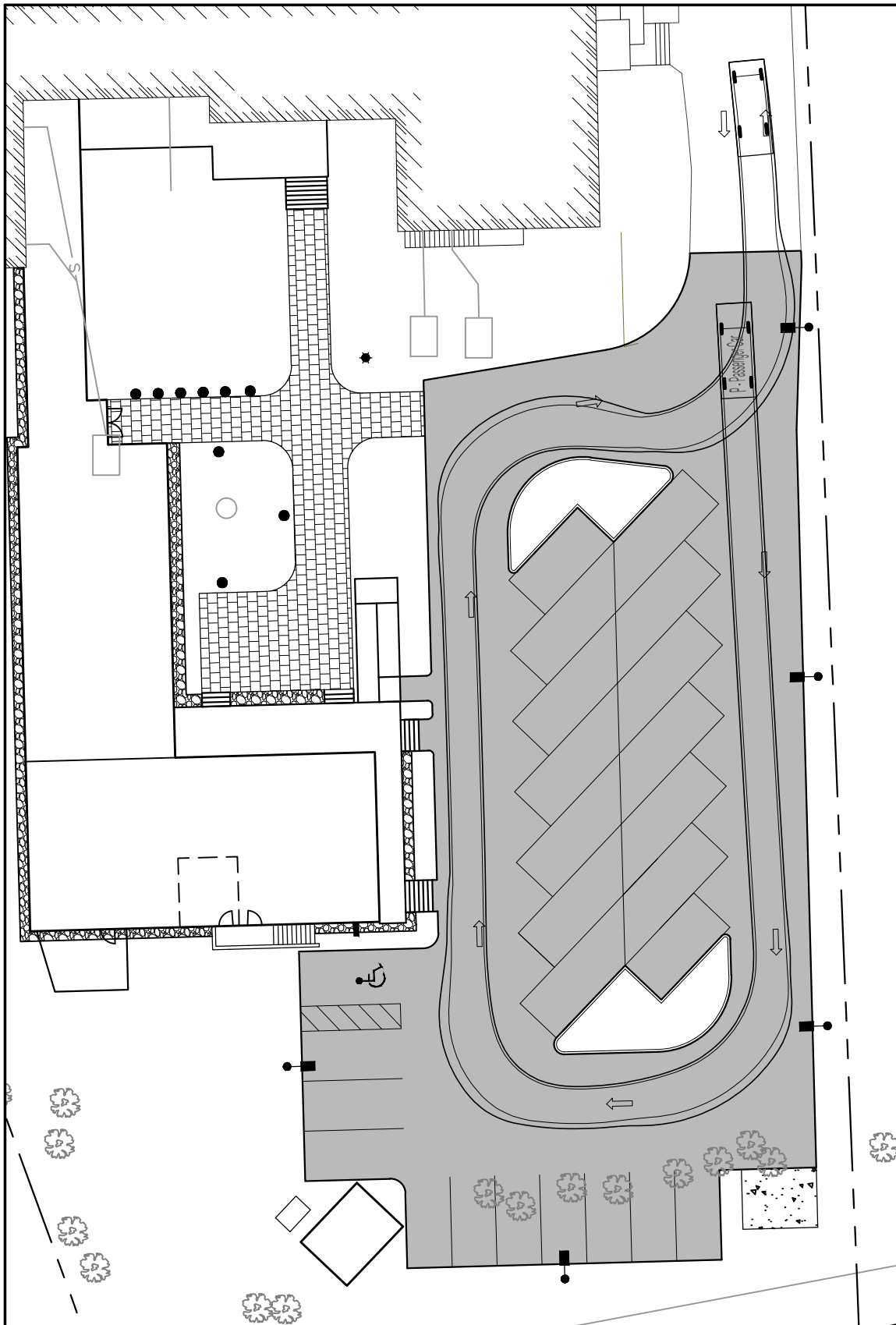
Soil Details by	S.E.	Soil Classification		Slope	Limiting Factor	Groundwater	Restrictive Layer	Bedrock
	3	C						
	Profile	Condition						
S.S.	Soil Series/Phase Name:							
	--							

INVESTIGATOR INFORMATION AND SIGNATURE			
Signature	Date <u>3/16/26</u> Cert/Lic/Reg. # <u>SE #406</u>		
Name Printed			
SCOTT R. DIXON			
Title	☒ Licensed Site Evaluator ☒ Certified Soil Scientist ☒ Certified Geologist ☒ Professional Engineer		



SECTION 4

TURNING MOVEMENT EXHIBITS



TURNING MOVEMENT EXHIBIT - PASSENGER CAR

COUNTRY VILLAGE ASSISTED LIVING FACILITY EXPANSION
CASCO, MAINE

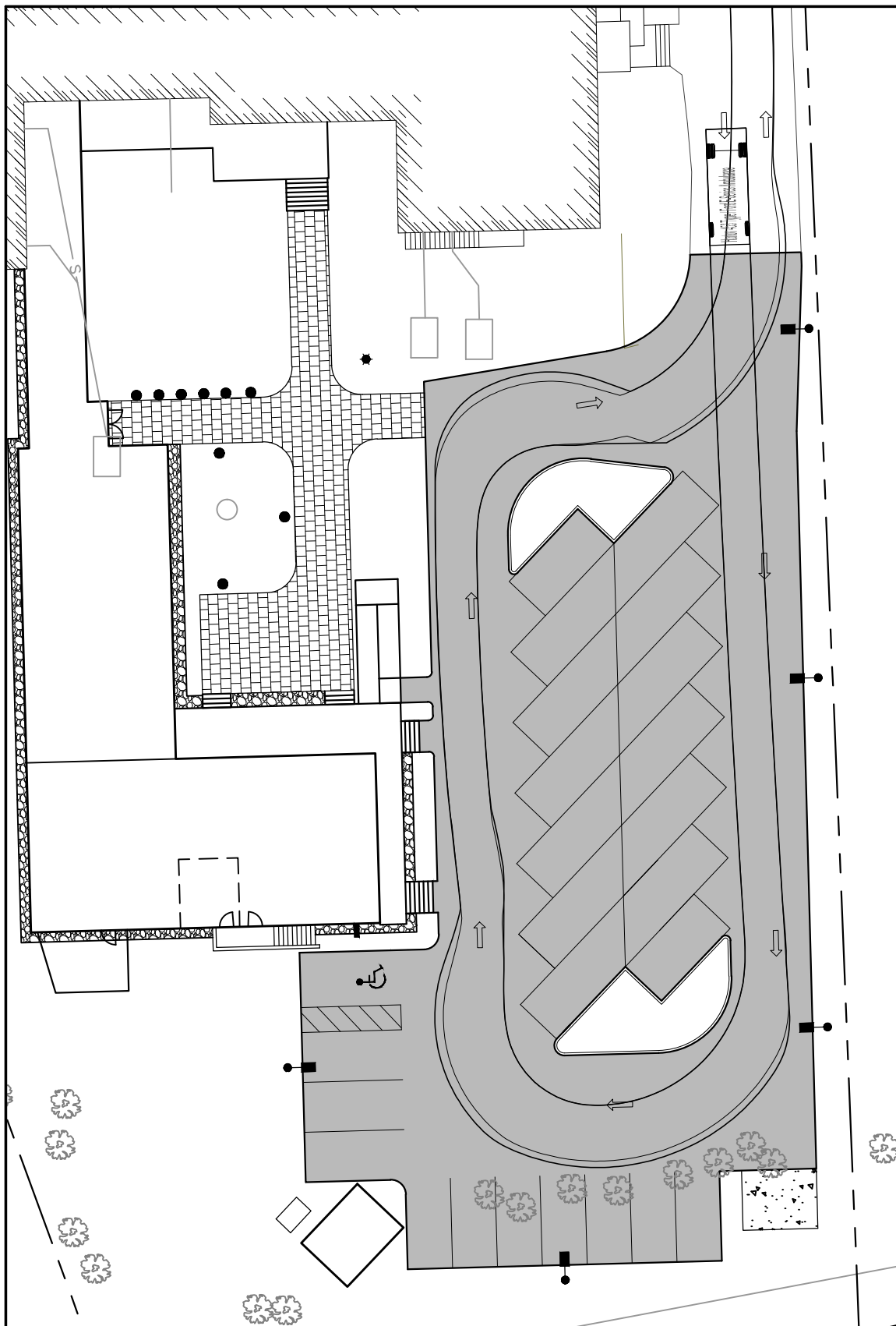
FOR RECORD OWNER:
960 MEADOW ROAD HOLDINGS, LLC
960 MEADOW ROAD
CASCO, MAINE 04015

*TURNING MOVEMENT
BASED ON AASHTO
PASSENGER CAR TEMPLATE

SCALE: 1"=30'
DATE: 9-1-2026
JOB NUMBER: 19063

DM ROMA
CONSULTING ENGINEERS

P.O. BOX 1116
WINDHAM, ME 04062
(207) 591-5055



TURNING MOVEMENT EXHIBIT - AMBULANCE

COUNTRY VILLAGE ASSISTED LIVING FACILITY EXPANSION
CASCO, MAINE

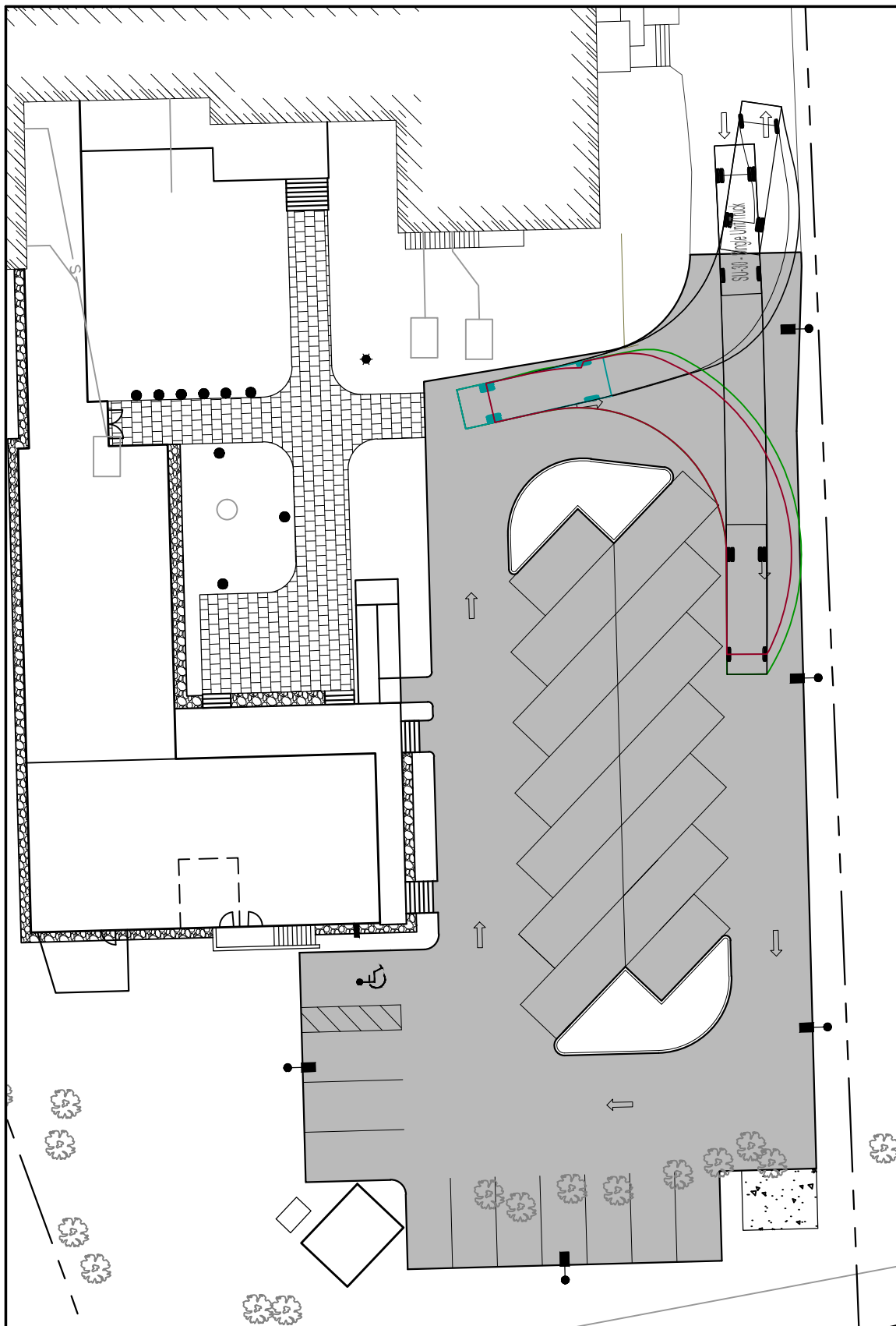
FOR RECORD OWNER:
960 MEADOW ROAD HOLDINGS, LLC
960 MEADOW ROAD
CASCO, MAINE 04015

*TURNING MOVEMENT
BASED ON A HORTON TYPE I
AMBULANCE

SCALE: 1"=30'
DATE: 9-1-2026
JOB NUMBER: 19063

DM ROMA
CONSULTING ENGINEERS

P.O. BOX 1116
WINDHAM, ME 04062
(207) 591-5055



TURNING MOVEMENT EXHIBIT - LARGE DELIVERY TRUCK

COUNTRY VILLAGE ASSISTED LIVING FACILITY EXPANSION
CASCO, MAINE

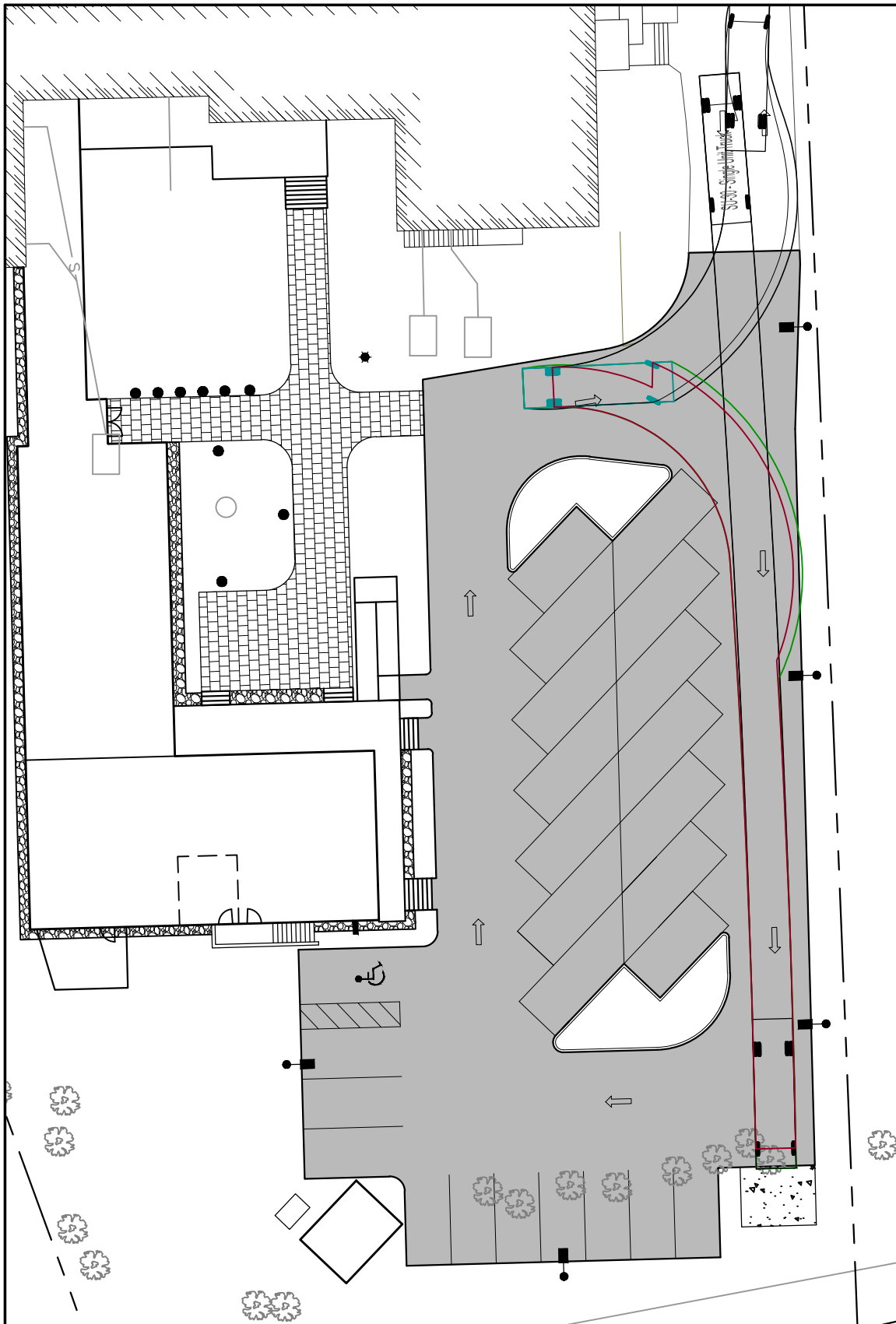
FOR RECORD OWNER:
960 MEADOW ROAD HOLDINGS, LLC
960 MEADOW ROAD
CASCO, MAINE 04015

*TURNING MOVEMENT
BASED ON AASHTO SU-30
TURNING TEMPLATE

SCALE: 1"=30'
DATE: 9-1-2026
JOB NUMBER: 19063

DM ROMA
CONSULTING ENGINEERS

P.O. BOX 1116
WINDHAM, ME 04062
(207) 591-5055



TURNING MOVEMENT EXHIBIT - TRASH HAULER

COUNTRY VILLAGE ASSISTED LIVING FACILITY EXPANSION
CASCO, MAINE

FOR RECORD OWNER:
960 MEADOW ROAD HOLDINGS, LLC
960 MEADOW ROAD
CASCO, MAINE 04015

*TURNING MOVEMENT
BASED ON AASHTO SU-30
TURNING TEMPLATE

SCALE: 1"=30'
DATE: 9-1-2026
JOB NUMBER: 19063

DM ROMA
CONSULTING ENGINEERS

P.O. BOX 1116
WINDHAM, ME 04062
(207) 591-5055

SECTION 5

LIGHTING FIXTURES

LED STREET & AREA LIGHTING



Shown with Pole Side Mount

Specifications and Features:

Radiant™ LED

- Conformal Coating LED light engine
- CCT: Standard-3000K, 4000K, & 5000K
- 2700K, Amber, LPS (1800K) Offered for Some Wattages - Consult Factory
- Static Colors Available - Contact Factory

Distribution

- Types I* II, III, IV, V (Type I Available in 70w & Higher Only)
- Full Cutoff

Electrical

- Electronic Driver, 120-277V, 50/60Hz or 347/480V, 50/60Hz
- 0-10v Dimmable Driver
- Standard Surge Protection Included; Surge Protection Device Meets IEEE C62.41 2002 C High 10kA

Controls (Optional)

- Button Eye Photo Control (PC)
- 3-Pin Twist-Lock Receptacle (PCR3)
- 7-Pin Twist-Lock Receptacle (PCR7)
- House Side Shield (H)

Housing

- Consists of a Molded Aluminum Rim and a Spun Aluminum Canopy that Combine for a Sleek and Compact Appearance
- Side Mount on a horizontal tenon

Finish

- Super Durable Polyester Powder Coat Finish. Custom Finishes Available, Including Patinas and All RAL Colors.

Listings & Ratings

- ETL Listed to UL 1598 Standard for Wet Location.
- LED is IP66 Rated

Warranty

- 5 Year Limited Warranty

EPA: 1.6
Weight: 32 lbs (Max.)



Order Information Example:

PMBOW1NL70W4KU5SMNBK

PMBOW1		SM						
Model	Globe/Lens	Wattage	CCT	Voltage	Optics	Mounting	Options	Finish
PMBOW1=Bowery 1 Radiant™ Side Mount	NL=No Secondary Lens L=SoftLED LumaLens Opal UV-Stabilized Polycarbonate Array Lens* *105W & Above Only	10W=10w 15W=15w 20W=20w 30W=30w 40W=40w 50W=50w 60W=60w 70W=70w 80W=80w 90W=90w 105W=105w 120W=120w 135W=135w 155W=155w	3K=3000K 4K=4000K 5K=5000K	U=120-277V H=347/480V	1=Type I* 2=Type II 3=Type III 4=Type IV 5=Type V *70W & Above Only	SM=Side Mount	N=None FS=Fuse, Single PC=Button Eye Photo Control PCR3=3-Pin Twist-Lock Receptacle PCR7=7-Pin Twist-Lock Receptacle H=House Side Shield	STANDARD FINISHES BK=Black BZ=Bronze DBZ=Dark Bronze WH=White GR=Green SM=Silver Metallic GY=Light Gray TBK=Textured Black CC=Custom Color (Consult Factory)

LED STREET & AREA LIGHTING

Lumen Output



13" Radiant™



12" Radiant™



8" Radiant™



6" Radiant™

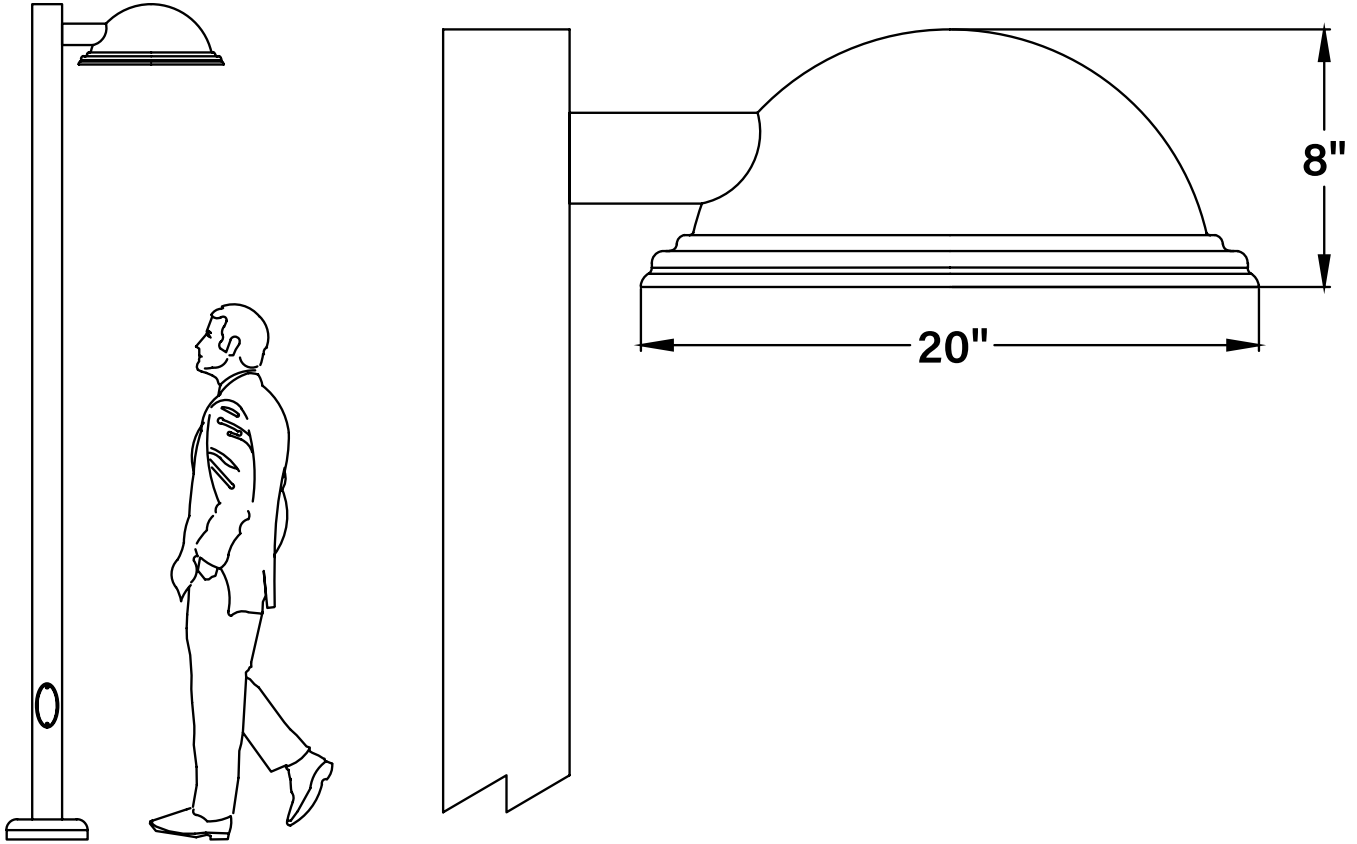
RADIANT™ LED LIGHT ENGINE SPECIFICATIONS:

Lumen Output for Bowery 1														
Wattage (Catalog Logic)	10w (10W)	15w (15W)	20w (20W)	30w (30W)	40w (40W)	50w (50W)	60w (60W)	70w (70W)	80w (80W)	90w (90W)	105w (105W)	120w (120W)	135w (135W)	155w (155W)
Radiant Size (DIA.)	6"	6"	6"	6"	6"	8"	8"	12"	12"	12"	13"	13"	13"	13"
Input Watts	10.2	14.6	20.4	30.6	40.8	51.0	56.6	67.9	77.6	87.3	101.9	116.5	131.0	152.9
Optic	CCT	Delivered Lumens												
1 = Type I Clear PC Lens	3K	NOT AVAILABLE						8,156	9,319	10,485	12,260	14,012	15,763	18,390
	4K							8,486	9,698	10,910	12,757	14,580	16,403	19,136
	5K							8,817	10,075	11,335	13,255	15,149	17,041	19,882
	BUG Rating							B3-U0-G2	B3-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3	B4-U0-G3	Bx-U0-Gx
2 = Type II Clear PC Lens	3K	1,314	1,877	2,628	3,941	5,110	6,595	7,328	8,819	10,078	11,338	13,259	15,152	17,047
	4K	1,367	1,953	2,735	4,102	5,086	6,863	7,625	9,176	10,487	11,798	13,796	15,767	17,739
	5K	1,420	2,029	2,841	4,261	5,524	7,130	7,922	9,533	10,896	12,257	14,333	16,380	18,428
	BUG Rating	B1-U0-G0	B1-U0-G0	B1-U0-G1	B1-U0-G1	B1-U0-G1	B2-U0-G1	B2-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G2	B3-U0-G2
3 = Type III Clear PC Lens	3K	1,319	1,884	2,638	3,957	5,130	6,621	7,357	8,854	10,119	11,383	13,312	15,213	17,115
	4K	1,372	1,961	2,746	4,118	5,106	6,891	7,656	9,213	10,530	11,846	13,852	15,831	17,810
	5K	1,425	2,037	2,853	4,278	5,546	7,159	7,954	9,571	10,939	12,307	14,391	16,446	18,502
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3
4 = Type IV Clear PC Lens	3K	1,203	1,719	2,407	3,611	4,659	6,042	6,714	8,079	9,233	10,388	12,147	13,882	15,617
	4K	1,252	1,790	2,505	3,757	4,848	6,288	6,986	8,407	9,608	10,809	12,640	14,445	16,251
	5K	1,301	1,859	2,603	3,904	5,037	6,531	7,258	8,734	9,982	11,229	13,132	15,007	16,883
	BUG Rating	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B3-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3	B3-U0-G3
5 = Type V Clear PC Lens	3K	1,320	1,886	2,640	3,960	5,134	6,626	7,362	8,860	10,125	11,391	13,321	15,223	17,126
	4K	1,373	1,962	2,748	4,121	5,109	6,895	7,661	9,219	10,536	11,853	12,861	15,841	17,822
	5K	1,426	2,038	2,854	4,281	5,550	7,163	7,959	9,578	10,946	12,315	14,400	16,457	18,514
	BUG Rating	B1-U0-G0	B1-U0-G0	B2-U0-G1	B2-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2	B3-U0-G2	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G3
5 = Type V with LumaLens	3K	NOT AVAILABLE									8,077	9,231	10,385	12,115
	4K										8,404	9,604	10,805	12,606
	5K										8,732	9,978	11,225	13,097
	BUG Rating										B3-U3-G2	B3-U3-G3	B3-U3-G3	B3-U3-G3

Please refer to the fixture's IES file for detailed information. Subject to change.

LED STREET & AREA LIGHTING

Dimensions



LED POST TOP LUMINAIRES



Portsmouth with Lens



Portsmouth with No Lens

← Fitter section slips over 3" or 2 1/2" pole or tenon

Specifications and Features:

Radiant™ LED

- Conformal Coating LED light engine
- CCT: Standard-3000K, 4000K, & 5000K
- 2700K, Amber, LPS (1800K) Offered for Some Wattages - Consult Factory
- Static Colors Available - Contact Factory

Distribution

- Types I* II, III, IV, V (Type I Available in 70w & Higher Only)
- Full Cutoff (No Lens Option Only)

Electrical

- Electronic Driver, 120-277V, 50/60Hz or 347/480V, 50/60Hz
- 0-10V Dimmable Driver
- Standard Surge Protection Included (6kV Line-Line; 10kV Line-Earth)

Controls (Optional)

- Button Eye Photo Control (PC)

Housing

- Cast Aluminum Cage, Roof and 3" Slip Fitter

Finish

- Super Durable Polyester Powder Coat Finish. Custom Finishes Available, Including Patinas and All RAL Colors.

Listings & Ratings

- ETL Listed to UL 1598 Standard for Wet Location and IP66.
- LED is IP66 Rated

Warranty

- 5 Year Limited Warranty



EPA: 1.7
Weight: 38 lbs (Max.)

Order Information Example: PORTNL60W4KU3JNNBK

PORT									
Model	Globe/Lens	Wattage	CCT	Voltage	Optics	Finial	Mounting	Options	Finish
PORT=Portsmouth	NL=No Secondary Lens CA=Clear Acrylic CP=Clear Polycarbonate FA=Frosted Acrylic FP=Frosted Polycarbonate WA=Opal White Acrylic PA=Pattern Acrylic DA=Seeded Acrylic	40W=40w 50W=50w 60W=60w 70W=70w 80W=80w 90W=90w	3K=3000K 4K=4000K 5K=5000K	U=120-277V H=347/480V	1=Type I* 2=Type II 3=Type III 4=Type IV 5=Type V *70W & Above Only	D=GF4 (Standard) B=GF2 C=GF3 F=GF6 H=GF8 I=GF9 J=GF10 K=GF12 O=GF17 P=GF18 V=GF24 N=None	N=None* PEN=Pendant Mount *Standard Post Mount	N=None PC=Button Eye Photo Control	STANDARD FINISHES BK=Black BZ=Bronze DBZ=Dark Bronze WH=White GR=Green SM=Silver Metallic GY=Light Gray TBK=Textured Black CC=Custom Color (Consult Factory)

LED POST TOP LUMINAIRES

Photometric Data

For Lensed Fixtures



12" Radiant™



8" Radiant™

RADIANT™ LED LIGHT ENGINE SPECIFICATIONS:

Lumen Output for Portsmouth							
Wattage (Catalog Logic)		40w (40W)	50w (50W)	60w (60W)	70w (70W)	80w (80W)	90w (90W)
Radiant Size (DIA.)		8"	8"	8"	12"	12"	12"
Input Watts		40.8	51.0	56.6	67.9	77.6	87.3
Optic	CCT	Delivered Lumens					
1 = Type I Clear, Frosted, Prismatic or Seedy	3K	NOT AVAILABLE			8,165	9,331	10,498
	4K				8,335	9,525	10,716
	5K				8,461	9,670	10,879
	BUG Rating				B3-U3-G2	B3-U3-G2	B3-U3-G2
2 = Type II Clear, Frosted, Prismatic or Seedy	3K	4,703	5,878	7,055	8,230	9,405	10,582
	4K	4,800	6,001	7,200	8,401	9,600	10,801
	5K	4,874	6,091	7,310	8,528	9,747	10,965
	BUG Rating	B1-U3-G1	B1-U3-G1	B2-U3-G2	B2-U3-G2	B3-U3-G2	B2-U3-G2
3 = Type III Clear, Frosted, Prismatic or Seedy	3K	4,695	5,869	7,043	8,217	9,390	10,564
	4K	4,792	5,991	7,188	8,387	9,584	10,783
	5K	4,866	6,081	7,298	8,514	9,731	10,947
	BUG Rating	B2-U3-G2	B2-U3-G2	B2-U3-G2	B2-U3-G2	B3-U3-G3	B3-U3-G3
4 = Type IV Clear, Frosted, Prismatic or Seedy	3K	4,591	5,739	6,887	8,034	9,182	10,330
	4K	4,686	5,858	7,029	8,201	9,372	10,544
	5K	4,758	5,947	7,136	8,326	9,515	10,705
	BUG Rating	B1-U3-G2	B2-U3-G2	B2-U3-G2	B2-U3-G2	B2-U3-G3	B3-U3-G3
5 = Type V Clear, Frosted, Prismatic or Seedy	3K	4,804	6,005	7,207	8,407	9,608	10,809
	4K	4,903	6,130	7,355	8,582	9,807	11,033
	5K	4,979	6,222	7,467	8,712	9,956	11,201
	BUG Rating	B3-U3-G1	B3-U3-G1	B3-U3-G2	B3-U3-G2	B3-U3-G2	B4-U3-G2
5 = Type V with White-Opal Lens	3K	3,857	4,821	5,785	6,750	7,714	8,679
	4K	3,937	4,921	5,906	6,890	7,874	8,858
	5K	3,997	4,997	5,996	6,995	7,994	8,993
	BUG Rating	B1-U4-G2	B2-U4-G3	B2-U5-G3	B2-U5-G3	B2-U5-G3	B3-U5-G4

Please refer to the fixture's IES file for detailed information. Subject to change.

LED POST TOP LUMINAIRES

Photometric Data For Open Full Cutoff Fixtures



12" Radiant™



8" Radiant™

RADIANT™ LED LIGHT ENGINE SPECIFICATIONS:

Lumen Output for Portsmouth with No Secondary Lens							
Wattage (Catalog Logic)		40w (40W)	50w (50W)	60w (60W)	70w (70W)	80w (80W)	90w (90W)
Radiant Size (DIA.)		8"	8"	8"	12"	12"	12"
Input Watts		40.8	51.0	56.6	67.9	77.6	87.3
Optic	CCT	Delivered Lumens					
1 = Type I Clear PC Lens	3K	NOT AVAILABLE			7,291	8,332	9,374
	4K				7,442	8,505	9,568
	5K				7,555	8,634	9,714
	BUG Rating				B2-U0-G2	B2-U0-G2	B3-U0-G3
2 = Type II Clear PC Lens	3K	4,358	5,447	6,537	7,626	8,716	9,805
	4K	4,448	5,560	6,672	7,785	8,896	10,008
	5K	4,516	5,644	6,774	7,903	9,032	10,161
	BUG Rating	B1-U0-G1	B1-U0-G1	B2-U0-G1	B2-U0-G1	B2-U0-G1	B2-U0-G2
3 = Type III Clear PC Lens	3K	4,569	5,711	6,853	7,996	9,138	10,280
	4K	4,664	5,829	6,996	8,161	9,327	10,493
	5K	4,734	5,919	7,102	8,285	9,469	10,652
	BUG Rating	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3
4 = Type IV Clear PC Lens	3K	4,562	5,703	6,843	7,985	9,125	10,265
	4K	4,657	5,821	6,986	8,150	9,314	10,478
	5K	4,728	5,910	7,092	8,274	9,456	10,638
	BUG Rating	B1-U0-G2	B1-U0-G3	B1-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3
5 = Type V Clear PC Lens	3K	4,842	6,052	7,262	8,473	9,683	10,983
	4K	4,942	6,177	7,413	8,648	9,884	11,119
	5K	5,017	6,272	7,526	8,780	10,034	11,289
	BUG Rating	B3-U0-G1	B3-U0-G1	B3-U0-G2	B3-U0-G2	B3-U0-G2	B4-U0-G2

Please refer to the fixture's IES file for detailed information. Subject to change.

LED POST TOP LUMINAIRES

Style Options



**Pendant Mount:
No Lens, No Bottom**



**Pendant Mount:
Lens, No Bottom**



**Pendant Mount:
Lens, Bottom**



**Pendant Mount:
No Lens, No Bottom with Stem**



**Pendant Mount:
Lens, No Bottom with Stem**



**Pendant Mount:
Lens, Bottom with Stem**

LED POST TOP LUMINAIRES

Fixture Finials



GF2 - 6"



GF3 - 6"



GF4 - 6"



GF5 (Plastic)
GF6 (Cast) - 4"



GF8 - 4"



GF9 - 4.25"



GF10 - 3.5"



GF12 - 2.75"



GF17 - 4"



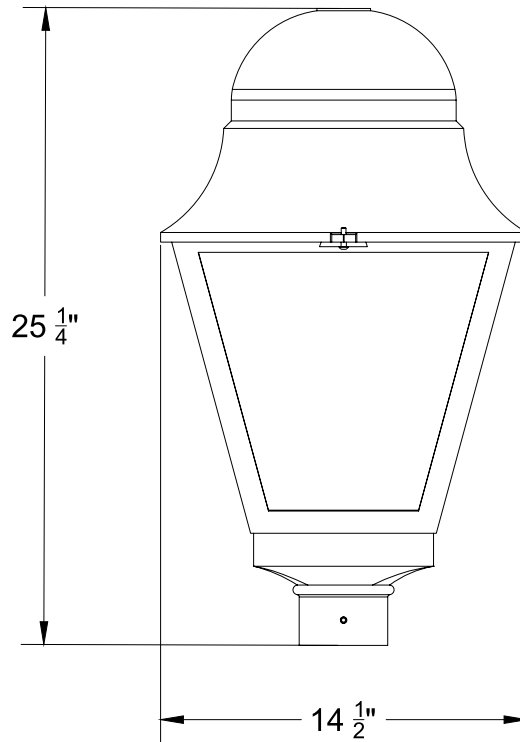
GF18 - 2.75"



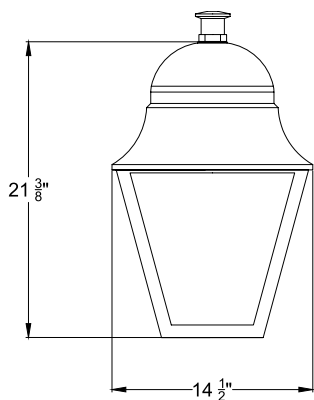
GF24 - 4.75"

LED POST TOP LUMINAIRES

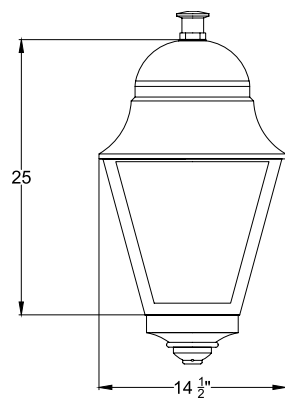
Dimensions



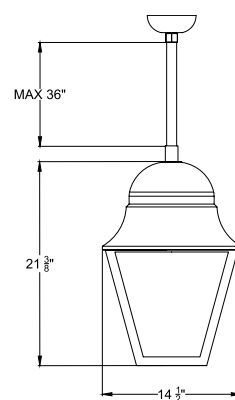
Post Top Mount



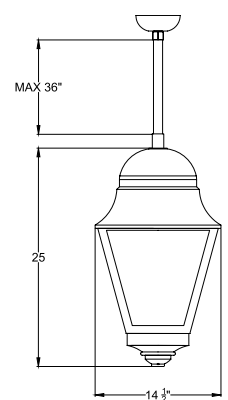
Pendant Mount



**Pendant Mount
with Bottom**



**Pendant Mount
with Stem**



**Pendant Mount
with Stem & Bottom**

ROUND BOLLARD LIGHTING



CAVRD
Round Head

CAVAG
Angled Head

CAVSQ
Square Head

Specifications and Features:

Radiant™ LED

- Conformal Coating LED light engine
- CCT: Standard-3000K, 4000K, & 5000K
- 2700K, Amber, LPS (1800K) Offered for Some Wattages - Consult Factory
- Static Colors Available - Contact Factory

Distribution

- Types II, III, IV, V

Electrical

- Electronic Driver, 120-277V, 50/60Hz or 347/480V, 50/60Hz
- 0-10v Dimmable Driver
- Standard Surge Protection Included (6kV Line-Line; 10k-V Line-Earth)

Controls (Optional)

- Button Eye Photo Control (PC)
- House Side Shield (H)

Housing

- Aluminum Head with Extruded Aluminum Body.

Finish

- Super Durable Polyester Powder Coat Finish. Custom Finishes Available, Including Patinas and All RAL Colors.

Listings & Ratings

- ETL Listed to UL 1598 Standard for Wet Location and IP66.
- LED is IP66 Rate

Warranty

- 5 Year Limited Warranty



Double Head
2 Heads @ 180°

Double Head
3 Heads @ 120°



ROUND BOLLARD LIGHTING

Order Information Example:		CAVRDSG20W3KU2NSM					
Model	Number of Heads	Wattage Per Head	CCT	Voltage	Optics	Options	Finish
CAVRD=Round CAV Bollard CAVSQ=Square CAV Bollard CAVAG=Angled CAV Bollard	SG=Single (1x) DB=Double (2x @ 180°) TR=Triple (3x @ 120°)	10W=10w 15W=15w 20W=20w 30W=30w	3K=3000K 4K=4000K 5K=5000K	U=120-277V H=347/480V	2=Type II 3=Type III 4=Type IV 5=Type V	N=None PC=Button Eye Photo Control H=House Side Shield USB=Dual USB Port* GFIC=GFI In-Use Cover, Cast Aluminum* GFIP=GFI In-Use Cover, Plastic* *Indicate location	STANDARD FINISHES BK=Black BZ=Bronze DBZ=Dark Bronze WH=White GR=Green SM=Silver Metallic GY=Light Gray TBK=Textured Black CC=Custom Color (Consult Factory)

Photometric Data



6" Radiant™

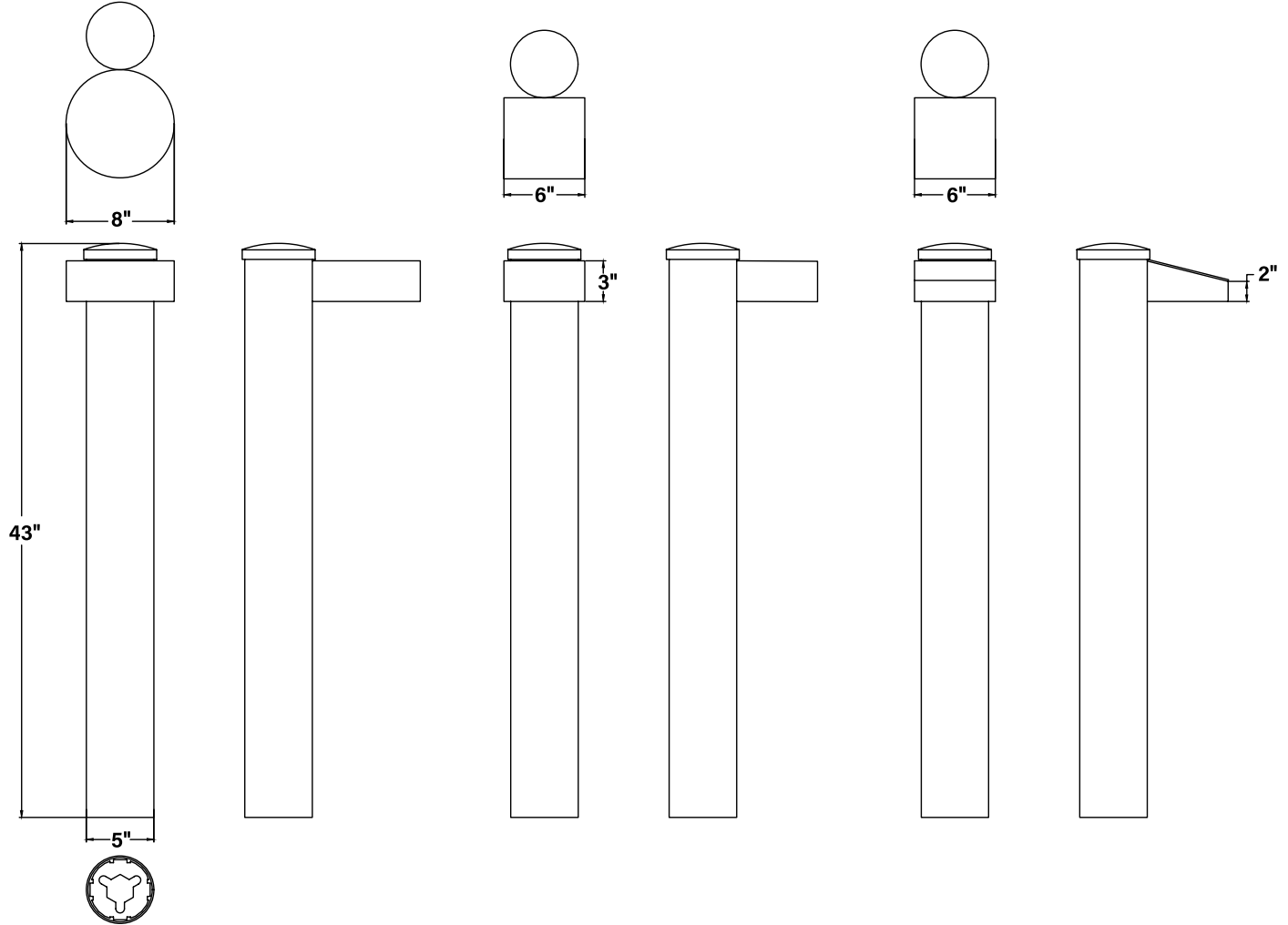
RADIANT™ LED LIGHT ENGINE SPECIFICATIONS:

Lumen Output for Cavalier RD-SQ-AG (Open Bollard)					
Wattage (Catalog Logic)		10 Watts (10W)	15 Watts (15W)	20 Watts (20W)	30 Watts (30W)
Radiant Size (DIA.)		6"	6"	6"	6"
Input Watts		10.2	14.6	20.4	30.6
Optic	CCT	Delivered Lumens			
2 = Type II Clear PC Lens	3K	1,099	1,634	2,179	3,268
	4K	1,112	1,668	2,224	3,366
	5K	1,129	1,634	2,258	3,387
	BUG Rating	B0-U0-G0	B1-U0-G0	B1-U0-G1	B1-U0-G1
3 = Type III Clear PC Lens	3K	1,142	1,713	2,284	3,427
	4K	1,165	1,749	2,332	3,497
	5K	1,183	1,776	2,367	3,550
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1
4 = Type IV Clear PC Lens	3K	1,140	1,711	2,281	3,422
	4K	1,164	1,747	2,329	3,492
	5K	1,182	1,773	2,364	3,546
	BUG Rating	B0-U0-G0	B1-U0-G1	B1-U0-G1	B1-U0-G2
5 = Type V Clear PC Lens	3K	1,210	1,815	2,420	3,632
	4K	1,235	1,854	2,471	3,706
	5K	1,254	1,882	2,508	3,762
	BUG Rating	B1-U0-G0	B1-U0-G1	B2-U0-G1	B2-U0-G1

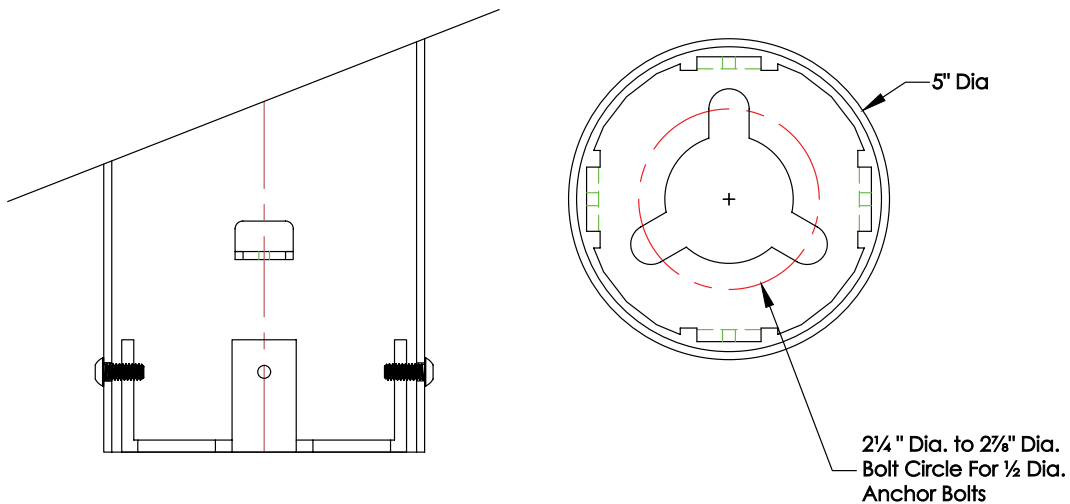
Please refer to the fixture's IES file for detailed information. Subject to change.

ROUND BOLLARD LIGHTING

Dimensions



Anchor Base Details



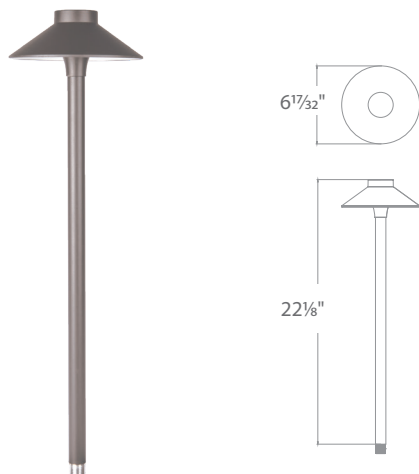
TIKKI LED AREA LIGHT

6041

WAC

Item 6.#

LANDSCAPE LIGHTING



Fixture Type:

Catalog Number:

Project:

Location:

PRODUCT DESCRIPTION

Sturdy side mount design works well in applications where directional illumination is desired

FEATURES

- IP66 rated, Protected against powerful water jets
- Factory sealed water tight fixtures
- Solid diecast corrosion resistant aluminum alloy
- Recommended spacing for installation: Residential: 7 to 9ft; Commercial: 5 to 7ft
- Mounting stake, 6 foot lead wire, and direct burial gel filled wire nuts are included
- Maintains constant lumen output against voltage drop
- UL & cUL 1838 Listed

SPECIFICATIONS

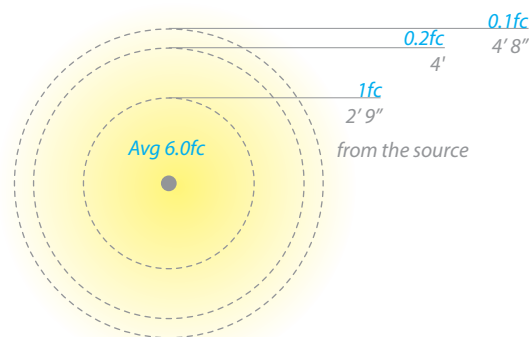
Input: 9-15VAC (Transformer is required)
Power: 6.5W / 9.5VA (Use VA value for sizing the transformer and calculate voltage drop.)
Brightness: 225 lm
CRI: 90+
Rated Life: 60,000 hours

ORDERING NUMBER

Color Temp		Finish
6041	Tiki	27 2700K Warm White
		30 3000K Pure White
		BBR Bronze on Brass BZ Bronze on Aluminum BK Black on Aluminum

6041-____BK

Example: 6041-30BK



wacighting.com
 Phone (800) 526.2588
 Fax (800) 526.2585

Headquarters, East Manufacturing Facility
 44 Harbor Park Drive
 Port Washington, NY 11050

South East Manufacturing Facility
 1600 Distribution Ct
 Lithia Springs, GA 30122

Central Manufacturing Facility
 1700 South J Elmer Freeway, Ste 100
 Cedar Hill, TX 75104

West Manufacturing Facility
 1750 S Archibald Ave
 Ontario, CA 91761

TIKKI LED AREA LIGHT 6041

WAC LANDSCAPE LIGHTING

Item 6.#

Surface Mount Flange/Stake



Includes three 7 inch threaded stainless steel stabilizing pins for ground mounting or surface mounts with four screws or over a junction box

5000-SCP-BZ
Bronze on Aluminum

Additional
Mounting Stake



9000-ST9-BZ
Durable PVC stake



Guardian Mount

*Heavy duty stainless steel spike to position fixture.
Formed from a single piece of metal*

9000-SP9-BZ
Stainless Steel

Magnetic Transformers

*Stainless Steel, 12-15V output, IP65 rated, UL 1838 listed
See transformer spec sheet for details and its accessories*

9075-TRN-SS
75W Max

9150-TRN-SS
150W Max

9300-TRN-SS
300W Max

9600-TRN-SS
600W Max



PROJECT INFORMATION			
JOB NAME		TYPE	
ORDERING CODE			Item 6.#

NU essentials

4" Round & Square Downlight Standard White



30° - 60° BEAM		
(Note: Specifications are subject to change without notice)		
9mm COB PERFORMANCE DATA		
LED LIGHT ENGINE	NOMINAL DELIVERED LUMENS	SYSTEM WATTAGE
10LM	1070LM @30K/90CRI	11W
13LM	1360LM @30K/90CRI	14W
15LM	1560LM @30K/90CRI	16W
20LM	2000LM @30K/90CRI	21W
Notes	Delivered lumens based on 40D optic with np lens, (see page 2)	



14° - 25° BEAM		
(Note: Specifications are subject to change without notice)		
6mm COB PERFORMANCE DATA		
LED LIGHT ENGINE	NOMINAL DELIVERED LUMENS	SYSTEM WATTAGE
10LM	970LM @30K/90CRI	11W
15LM	1450LM @30K/90CRI	18W
Notes	Delivered lumens based on 25D optic with no lens, (see page 2)	

FEATURES

- Economical choice for budget projects
- Thermally optimized for LED longevity
- Fully casted assembly
- 14° - 80° optical beam control
- Packaging material consists of 60-80% post-consumer recycled fiber

DIMMING AND CONTROLS

- eldoLED 0-10V, 0.1% and 1%
- Leading & trailing edge (Triac/ELV), dim to 1%

CONSTRUCTION

- Aluminum trim and bezel
- Electrocoated 16-gauge cold-rolled steel construction
- Accommodates ceiling thickness from 1/4" to 1"

LED

- 90 CRI: SDCM = 2-step MacAdam Ellipse, Lumen Maintenance: L₇₀ > 66,000 hrs

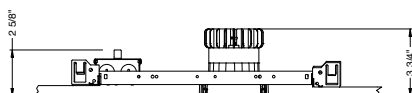
LISTING

- ULus Listed to UL1598; cUL Listed to CSA C22.2 #250.0
- NSF/ANSI-2 with lens (Non-Food and Splash Zones)
- IP44 with lens - suitable for wet location with lens - suitable damp location without lens
- 5 Year Limited warranty

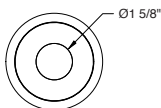
ELECTRICAL

- 120V-277V, 120 only Triac / ELV
- Power factor ≥ 0.9
- 2kV driver input surge protection
- 7W and 10W (T20 CEC) EM 90min battery
- Max. ambient installation temperature 104°F (40°C)

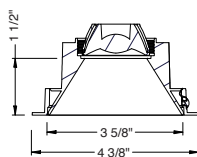
FIXTURE HEIGHT



ROUND

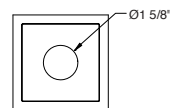


ceiling cutout
4" diameter
ceiling thickness
1/4" to 1"

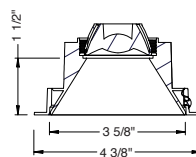


aperture dimensions

SQUARE



ceiling cutout
4" x 4" square
ceiling thickness
1/4" to 1"



aperture dimensions

PROJECT INFORMATION			
JOB NAME		TYPE	
ORDERING CODE	Item 6.#		

15°- 80° BEAM ORDERING CODE							
SERIES	NUE4	NUE					
TYPE	RD	round downlight					
	QD	square downlight					
	RDT	round downlight trimless					
	QDT	square downlight trimless					
LED	SW	standard white					
DELIVERED LUMENS	10LM	1070 lm					
	13LM	1360 lm					
	15LM	1560 lm					
	20LM	2000 lm					
		Standard Configuration: 3000K 90CRI 40D NL					
		Calculated Delivered Lumens = [Delivered Lumen Value] x [CCT Multiplier] x [Reflector Multiplier]					
CCT	27K	2700K	CCT	2700K	3000K	3500K	4000K
	30K	3000K	CRI	90+	90+	90+	90+
	35K	3500K	CCT MULTIPLIER FOR LUMEN OUTPUT	0.96	1	1.03	1.06
	40K	4000K					
CRI	90	90 CRI					
OPTIC & LM MULTIPLIER SEE PAGE 3	14D ¹	14 degrees					(0.90)
	25D ¹	25 degrees					(1.00)
	30D	30 degrees					(0.95)
	40D	40 degrees					(1.00)
	60D	60 degrees					(1.00)
		For 80° choose '60D' + 'DL' lens.					
LENS	NL ²	no lens					(1.00)
	CL ³	clear lens					(0.95)
	DL ³	diffused lens					(0.76)
	HET ³	high efficiency textured lens, similar to Solite™					(0.92)
	HCL ⁴	honeycomb louver					(0.64)
TRIM COLOR	BK	black					
	WH	white					
	MC	matte chrome					
		Not applicable to trimless option. Do not include in trimless ordering code.					
BEZEL COLOR	BK	black					(0.95)
	WH	white					(1.00)
	MC	matte chrome					(0.99)

15°- 80° BEAM ORDERING CODE		
MOUNTING OPTIONS SEE PAGE 4, 7	NC	new construction plate
	IC	insulation contact housing
	ICAT	insulation contact/airtight housing
	CP	chicago plenum housing
	RET	retrofit, no ceiling plate
	NCIC ⁵	new construction with ceiling fitting plate, insulation contact rated (no housing required)
	RETIC ⁵	retrofit, no ceiling fitting plate, insulation contact rated (no housing required)
VOLTAGE	I20	120V
	UNV	120V-277V
DIMMING	DIM10	eldoLED flicker free 0-10V dim to 1%
	ELVI ⁶	leading edge & trailing edge (Triac/ELV) dim to 1%
ELECTRICAL OPTIONS	EM7	remote emergency battery, 90 min at 7W
	EM10CA20	emergency battery backup, 90 minutes at 10W to LED, CA title 20

ADDITIONAL MOUNTING INFO	
New Construction Bar Hangers (included)	Mounting Length: 14-3/4" to 26"
Extension Kit p/n: K20266 (ordered separately, 1 per fixture)	Extends a pair of Bar Hangers Total Mounting Length: 29" to 48"

YOUR COMPLETED ORDERING CODE
Follow the steps to specify your fixture, example:
NUE4 - RD - SW - 20LM - 30K - 90 - 30D - NL - WH - WH - NC - UNV - DIM10

NOTES

1. 14D/25D available in 10LM/15LM. Not available with DL lens.
2. NL lens option does not meet requirements for WET/NSF listings.
3. CL/DL/HET lens options with IC or ICAT housing are JA8 compliant.
4. HCL cannot be used with lens (max 1 media).
5. NCIC/RETIC are available in 10LM/13LM rated for insulation contact (IC), no "IC-Housing" required.
6. ELVI available in 120V.

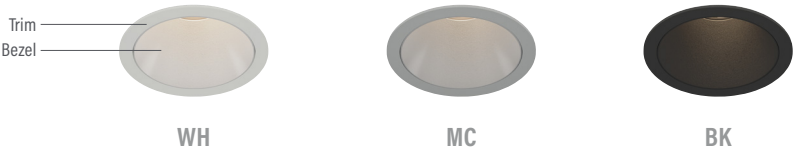
alphabet

PROJECT INFORMATION		
JOB NAME		TYPE
ORDERING CODE		

Item 6.#

TRIM OPTIONS

TRIM/BEZEL COLORS



OPTICAL OPTIONS

- UGR calculation based on CIE 117-1995; room size: 4H X 8H, reflectance: 70/50/20;
- UGR calculation based on 15LM fixtures, unless otherwise noted.

HCL

Honeycomb Louver



OPTIC	BEAM ANGLE	UGR
14D	13	≤5
25D	24	≤5
30D	30	8.5
40D	37	7.7
60D	47	13.9

NL

No Lens



OPTIC	BEAM ANGLE	UGR
14D	14	6.1
25D	25	≤5
30D	31	14
40D	41	11
60D	58	17.9

CL

Clear Lens



OPTIC	BEAM ANGLE	UGR
14D	14	6.5
25D	26	≤5
30D	32	13.4
40D	42	11.9
60D	58	17.9

DL

Diffused Lens



OPTIC	BEAM ANGLE	UGR
30D	65	21.2
40D	70	22.3
60D	80	23.2

HET

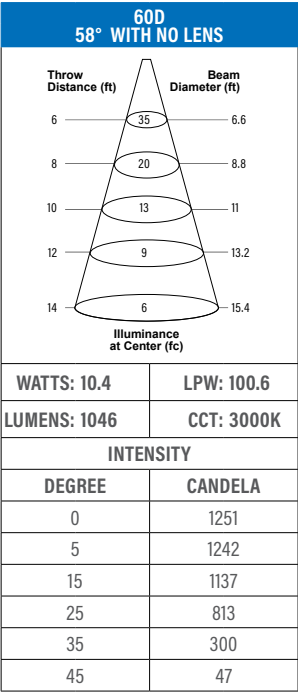
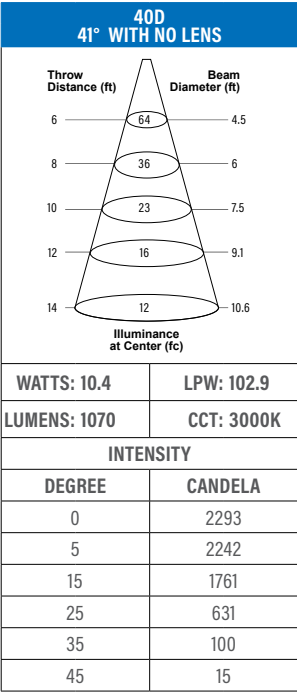
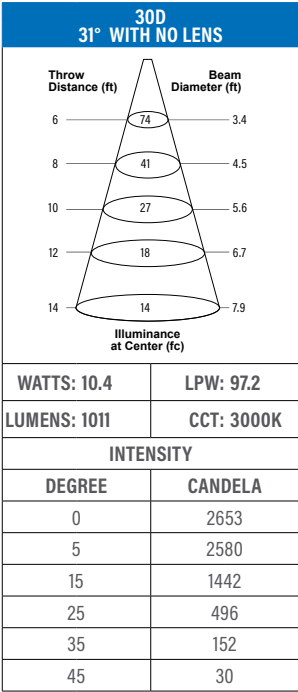
High Efficiency Textured Lens



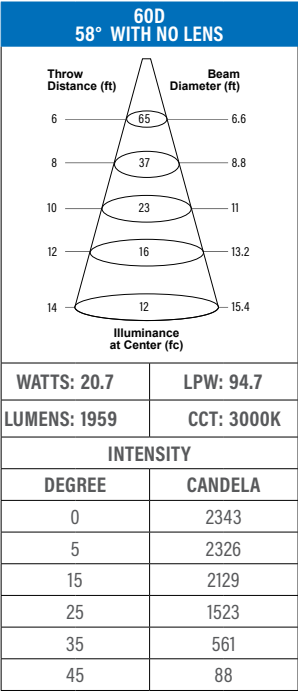
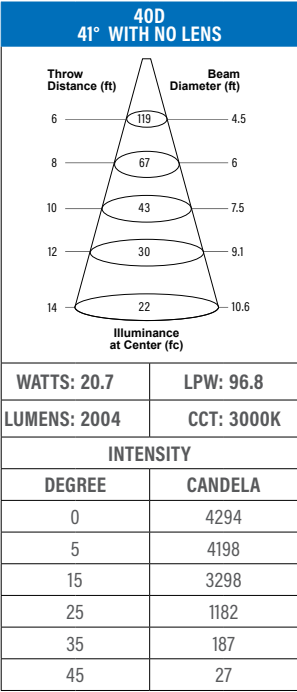
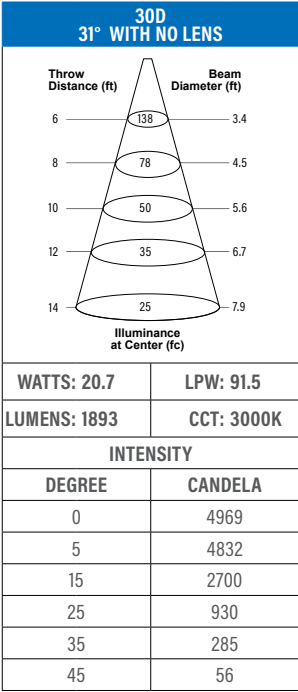
OPTIC	BEAM ANGLE	UGR
14D	18	7.8
25D	27	≤5
30D	34	13.5
40D	41	13.9
60D	56	18.8

PHOTOMETRIC DATA

10LM	
	90CRI
2700K	0.96
3000K	1
3500K	1.03
4000K	1.06
FC Formula = CBCP / Distance ²	



20LM	
	90CRI
2700K	0.96
3000K	1
3500K	1.03
4000K	1.06
FC Formula = CBCP / Distance ²	



PHOTOMETRIC DATA

10LM	
	90CRI
2700K	0.96
3000K	1
3500K	1.03
4000K	1.06
FC Formula = CBCP / Distance²	

14D 13.7° WITH NO LENS	
Throw Distance (ft)	Beam Diameter (ft)
6	307
8	173
10	110
12	77
14	56
Illuminance at Center (fc)	
WATTS: 11.1	LPW: 78.4
LUMENS: 870	CCT: 3000K
INTENSITY	
DEGREE	CANDELA
0	11050
5	8165
15	579
25	164
35	55
45	12

25D 25° WITH NO LENS	
Throw Distance (ft)	Beam Diameter (ft)
6	140
8	78
10	50
12	35
14	26
Illuminance at Center (fc)	
WATTS: 11.1	LPW: 87.5
LUMENS: 972	CCT: 3000K
INTENSITY	
DEGREE	CANDELA
0	5024
5	4701
15	1724
25	116
35	25
45	5

15LM	
	90CRI
2700K	0.96
3000K	1
3500K	1.03
4000K	1.06
FC Formula = CBCP / Distance²	

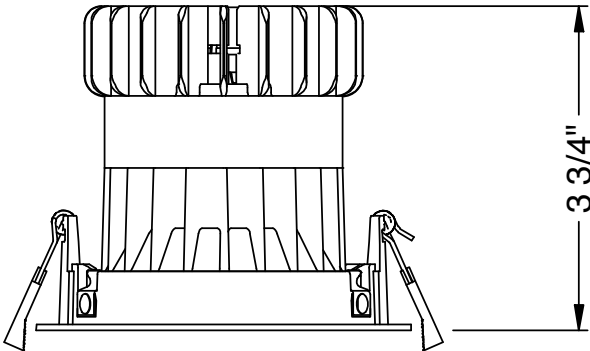
14D 13.7° WITH NO LENS	
Throw Distance (ft)	Beam Diameter (ft)
6	459
8	258
10	165
12	115
14	84
Illuminance at Center (fc)	
WATTS: 18.1	LPW: 71.9
LUMENS: 1301	CCT: 3000K
INTENSITY	
DEGREE	CANDELA
0	16518
5	12205
15	865
25	245
35	82
45	18

25D 25° WITH NO LENS	
Throw Distance (ft)	Beam Diameter (ft)
6	209
8	117
10	75
12	52
14	38
Illuminance at Center (fc)	
WATTS: 18.1	LPW: 80.3
LUMENS: 1453	CCT: 3000K
INTENSITY	
DEGREE	CANDELA
0	7509
5	7028
15	2578
25	173
35	37
45	8

PROJECT INFORMATION			
JOB NAME		TYPE	
ORDERING CODE			Item 6.#

MOUNTING OPTIONS

FIXTURE HEIGHT

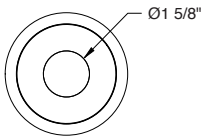
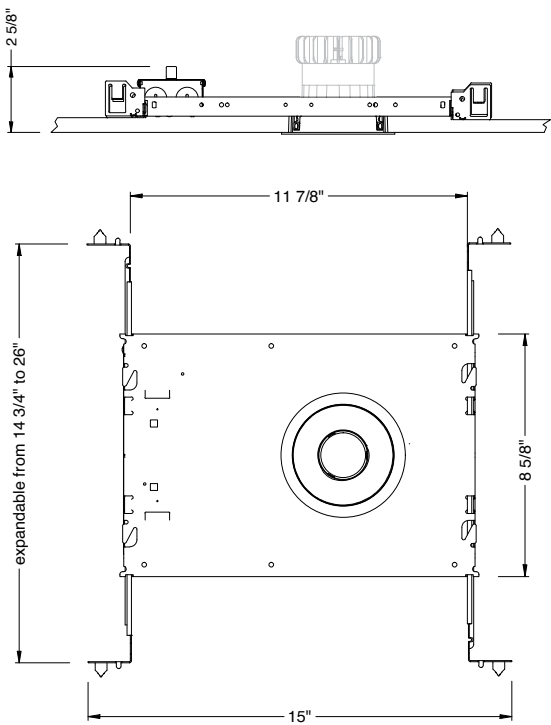


NC - NEW CONSTRUCTION

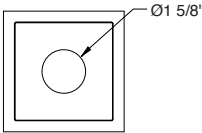
TRIM

ROUND

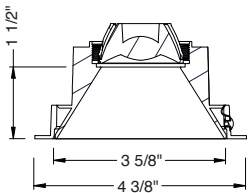
SQUARE



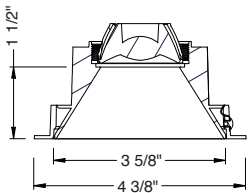
ceiling cutout
4" diameter
ceiling thickness
1/4" to 1"



ceiling cutout
4" x 4" square
ceiling thickness
1/4" to 1"



aperture dimensions

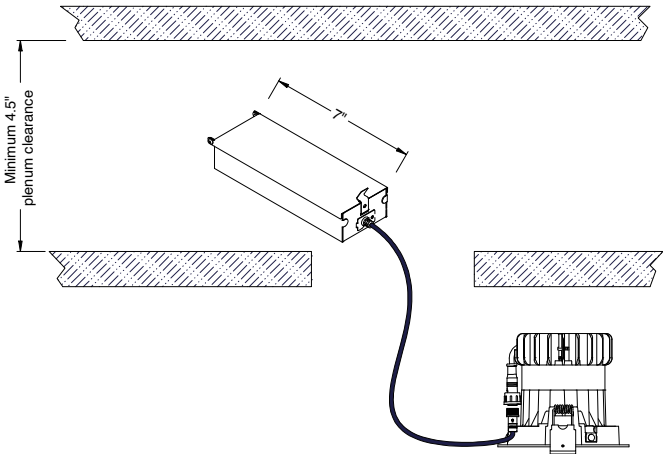


aperture dimensions

PROJECT INFORMATION			
JOB NAME		TYPE	
ORDERING CODE			Item 6.#

MOUNTING OPTIONS (CONTINUED)

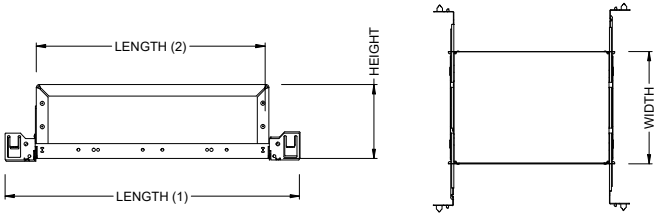
NC - RET - NCIC - RETIC



RATINGS / CERTIFICATIONS	NC	RET	IC	ICAT	CP	NCIC	RETIC
TYPE NON-IC	✓	✓					
TYPE IC			✓	✓		✓	✓
CHICAGO PLENUM (CCEA)					✓		
SUITABLE FOR AIR HANDLING PLENUMS	✓	✓	✓	✓	✓	✓	✓

CEILING THICKNESS	
FIXTURE TYPE	MOUNTING TYPE
	NC, IC, ICAT, CP, RET, NCIC, RETIC
	STANDARD CEILING THICKNESS
TRIM	1/4" to 1"
TRIMLESS	1/4" to 1"

IC - INSULATION CONTACT HOUSING
ICAT - INSULATION CONTACT / AIR TIGHT
CP - CHICAGO PLENUM



BOX SIZE	L 1	L 2	W	H
A	15 - 7/16"	11 - 3/4"	8 - 1/2"	6 - 3/4"

BOX TYPE / LUMEN OUTPUT - STANDARD BEAMS (30° - 80)			
LUMEN OUTPUT	BOX - A		
	IC	ICAT	CP
10LM	✓	✓	✓
15LM	✓	✓	✓
20LM	✓	✓	✓

BATTERY OPTIONS

EMERGENCY BATTERY

IOTA's ILB Battery Backups are UL Listed LED emergency drivers that allow the same LED fixture to be used for both normal and emergency operation. In the event of a power failure, the ILB switches to the emergency mode and operates the existing fixture for 90 minutes. The unit contains a battery, charger, and converter circuit in a single can. The Constant Power design of the ILB maintains the output wattage to the LED array even as the system voltage diminishes. UL 924 Listed for U.S. and Canada. UL 1310 Certified, Output Class 2 Compliant. Includes single-piece TBTS test switch and charge indicator accessory kit. For use with switched and unswitched fixtures, and includes Two-wire universal AC input. Meets or exceeds all National Electric Code and Life Safety Code Emergency Lighting Requirements. Rated for use in Plenum, Damp Location, Recessed Type IC, and Enclosed and Gasketed Luminaires.

REMOTE TEST SWITCH

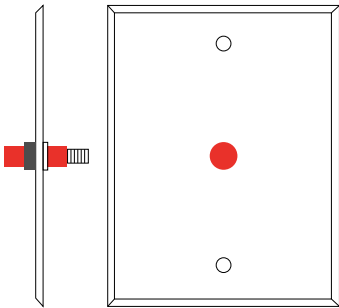
The Remote Test Switch may be mounted adjacent to the LED Fixture by others.

EMERGENCY BATTERY ACCESS

Above ceiling access is required.

REMOTE LOCATION

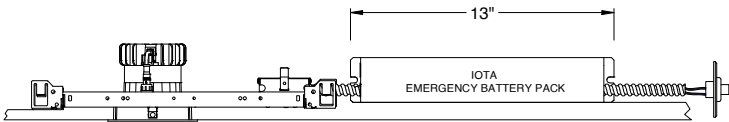
Maximum remote mounting distance of the emergency driver shall be 50 feet. Remote location wiring provided by others. Follow all Local and National Electric/ Building Codes.



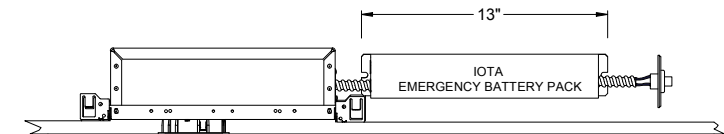
Remote Test Switch

EM MODE OUTPUT (DELIVERED LUMENS)		
LUMEN ORDERING CODE	EM7	EM10
ALL OPTIONS (10LM TO 20LM)	750LM	1070LM
Notes: Based on 30K, 90CRI		

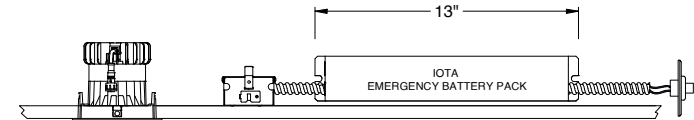
NC - NEW CONSTRUCTION
WITH EM BATTERY (REMOTE TEST SWITCH)



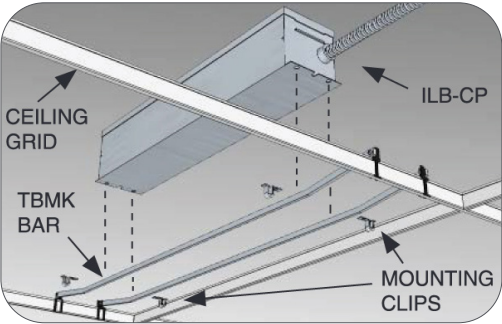
IC / ICAT / CP - INSULATION CONTACT HOUSING
WITH EM BATTERY (REMOTE TEST SWITCH)



RET - RETROFIT
WITH EM BATTERY (REMOTE TEST SWITCH)



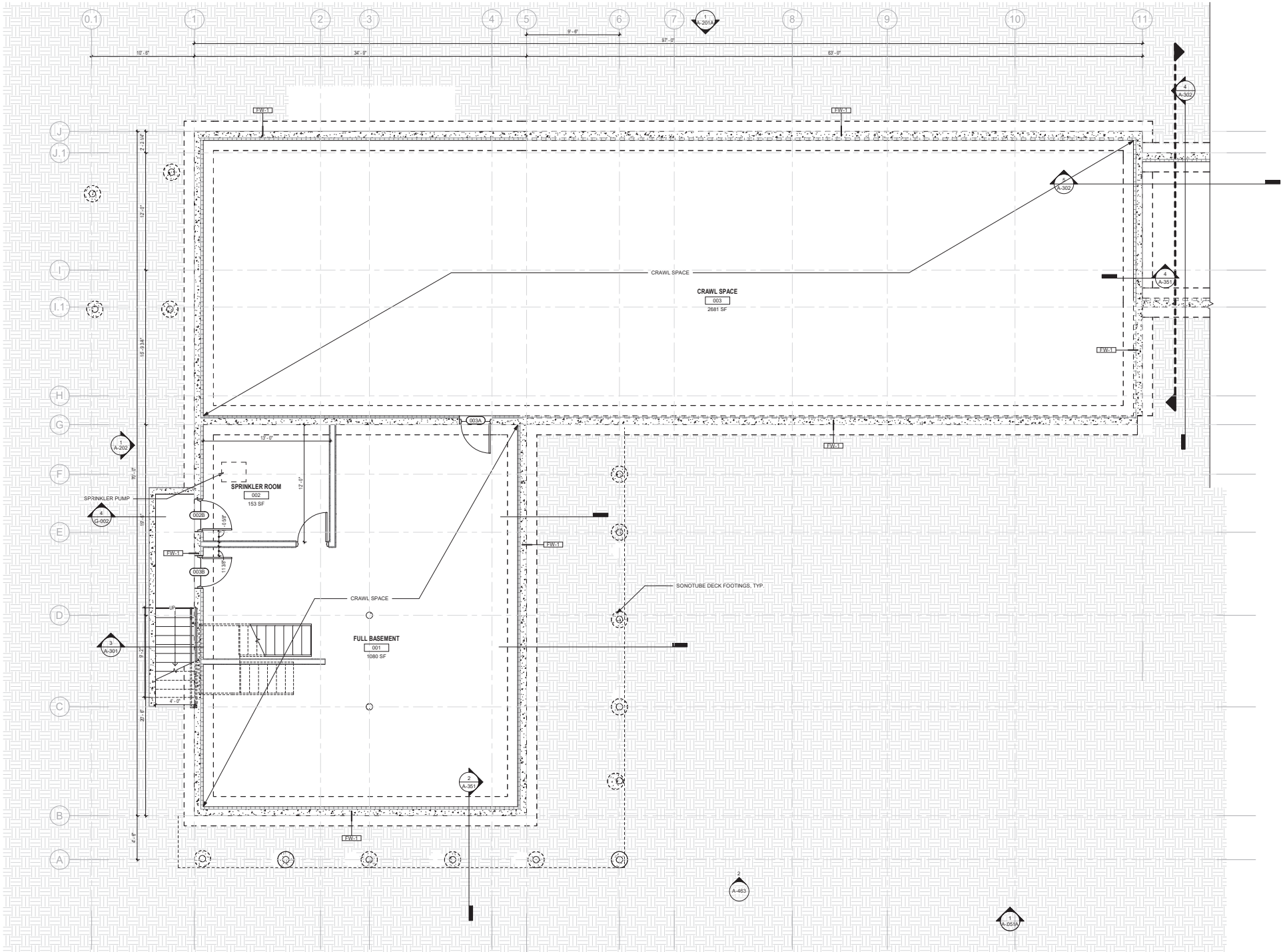
Accessory
76066 Optional T-Grid Mounting Kit¹



1. Can be used with any of the Emergency Battery Backups. Must be ordered as a separate line item.

SECTION 6

REVISED ARCHITECTURAL PLANS



GENERAL NOTES - FLOOR PLAN

- This is a SD Issuance released for review. Additional information, dimensions, clarifications, and specifications to be requested from the Architect and/or Owner as required to perform the Work.
- Dimensions are from face of core structure material or to grid, UNO.
- Specifications: Forthcoming.
- Assemblies: Refer to Sheet A-400 for Wall, Floor, Roof, Foundation and Ceiling assemblies.
- Doors and Windows: Refer to Sheet A-410 for Window and door types.
- MEP: Mechanical, Electrical and Plumbing work is in progress. Refer to MEP sheets for preliminary design. The Architect has made basic assumptions for size and space requirements and locations for incoming service. Contractor is to review and bring to the Architect's attention if additional information is required.
- Refer to G-001 for additional Document Use Guidelines.
- Finishes:
 - Ceiling: painted GWB, color TBD
 - Flooring:
 - A. Units: Low-gloss 2x2 Carpet Tile
 - B. Unit Bathrooms: non-slip porcelain tile
 - C. Common areas: non-slip LVT/Marmoleum
- Millwork:
 - A. Units: Wall-mounted casework with veneer finish as shown on A-705(A-702, cont. solid wood counter to match casework.
 - B. Kitchenette: Upper and lower cabinets in communal room per plan, painted finish and solid surface countertop

KEY NOTES

PRELIMINARY
NOT FOR
CONSTRUCTION

900 Meadow Road
Casco, ME 04015

Country Village
Assisted Living

CONSTRUCTION
DOCUMENTS-
PROGRESS
SET

COUNTRY VILLAGE
ASSISTED LIVING
ADDITION

ISSUANCES:

REV	DATE	DESCRIPTION
1	2020-03-13	100% SCHEMATIC DESIGN
2	2020-06-28	50% CONSTRUCTION DOCUMENTS

PROJECT LEAD:
AP

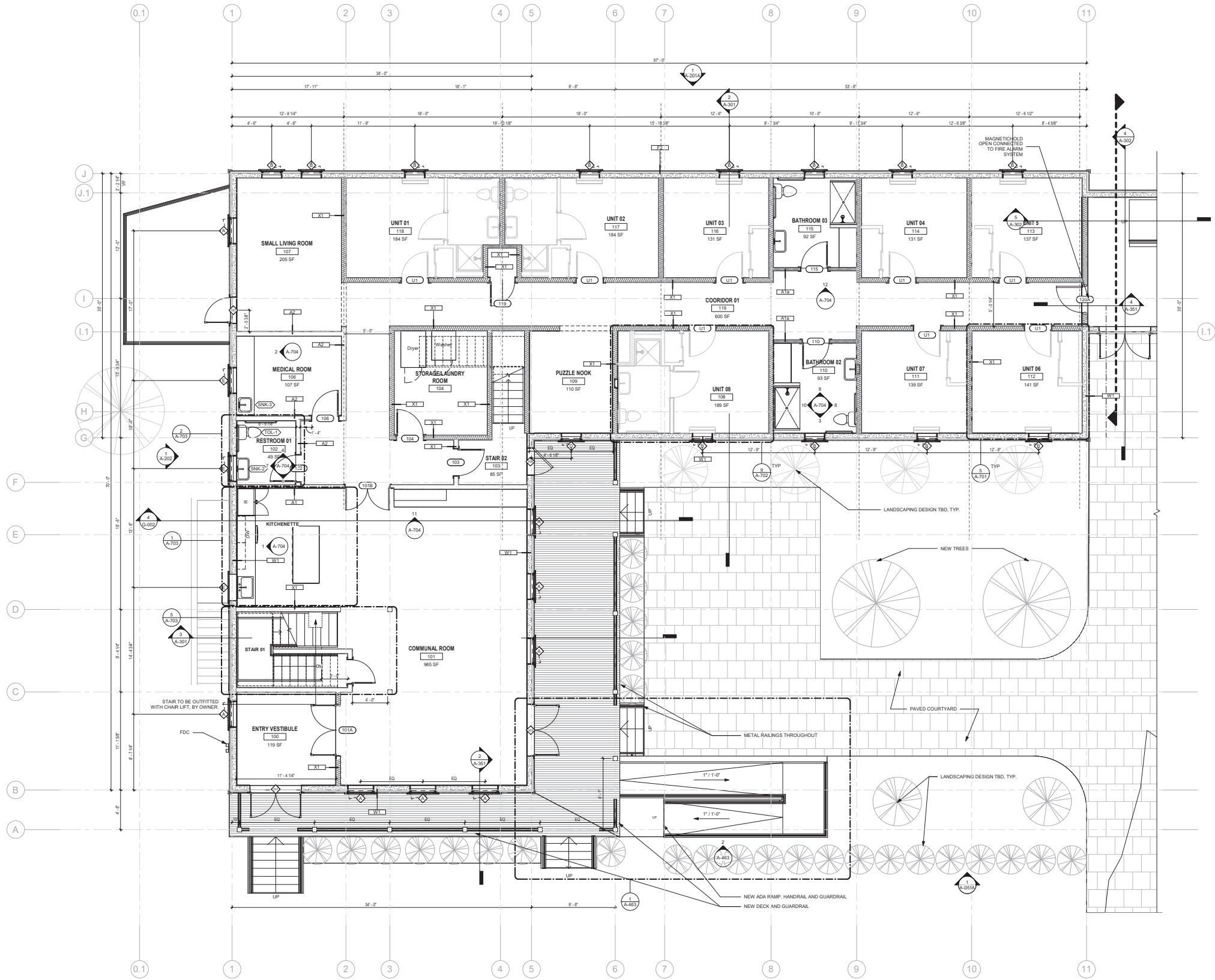
REVIEWED BY:
PB

BASEMENT PLAN

A-100A

WOODHULL
90 High Street
Portland, ME 04101
(207) 263-3777
woodhullmaine.com

6/19/2026 4:55:06 PM



1 NEW ADDITION 1ST FLOOR
1/4" = 1'-0"

- GENERAL NOTES - FLOOR PLAN**
- This is a 5D issuance released for review. Additional information, dimensions, clarifications, and specifications to be requested from the Architect and/or Owner as required to perform the Work.
 - Dimensions are from face of core structure material or to grid, UNO.
 - Specifications: Finishing: Assemblies: Refer to Sheet A-400 for Wall, Floor, Roof, Foundation and Ceiling assemblies. Doors and Windows: Refer to Sheet A-410 for Window and door types.
 - MEP: Mechanical, Electrical and Plumbing work is in progress. Refer to MEP sheets for preliminary design. The Architect has made basic assumptions for size and space requirements and locations for incoming service. Contractor is to review and bring to the Architect's attention if additional information is required.
 - Refer to G-001 for additional Document Use Guidelines.
 - Finishes:
 - A. Ceiling: painted GWB, color TBD
 - B. Flooring:
 - A. Units: Low pile 2nd Carpet Tile
 - B. Unit Bathrooms: non-slip porcelain tile
 - C. Common areas: non-slip LVT/Marbleum
 - C. Millwork:
 - A. Units: Wall-mounted casework with veneer finish as shown on A-701/A-702, cont. solid wood counter to match casework
 - B. Kitchenette: Upper and lower cabinets in communal room per plan, painted finish and solid surface countertop
- KEY NOTES**

PRELIMINARY
NOT FOR
CONSTRUCTION

900 Meadow Road
Canaan, ME 04415

Country Village
Assisted Living

CONSTRUCTION
DOCUMENTS-
PROGRESS
SET

COUNTRY VILLAGE ASSISTED LIVING ADDITION

ISSUANCES:

REV	DATE	DESCRIPTION
1	2026 03 13	100% SCHEMATIC DESIGN
2	2026 06 28	50% CONSTRUCTION DOCUMENTS

PROJECT LEAD:

AP

REVIEWED BY:

PB

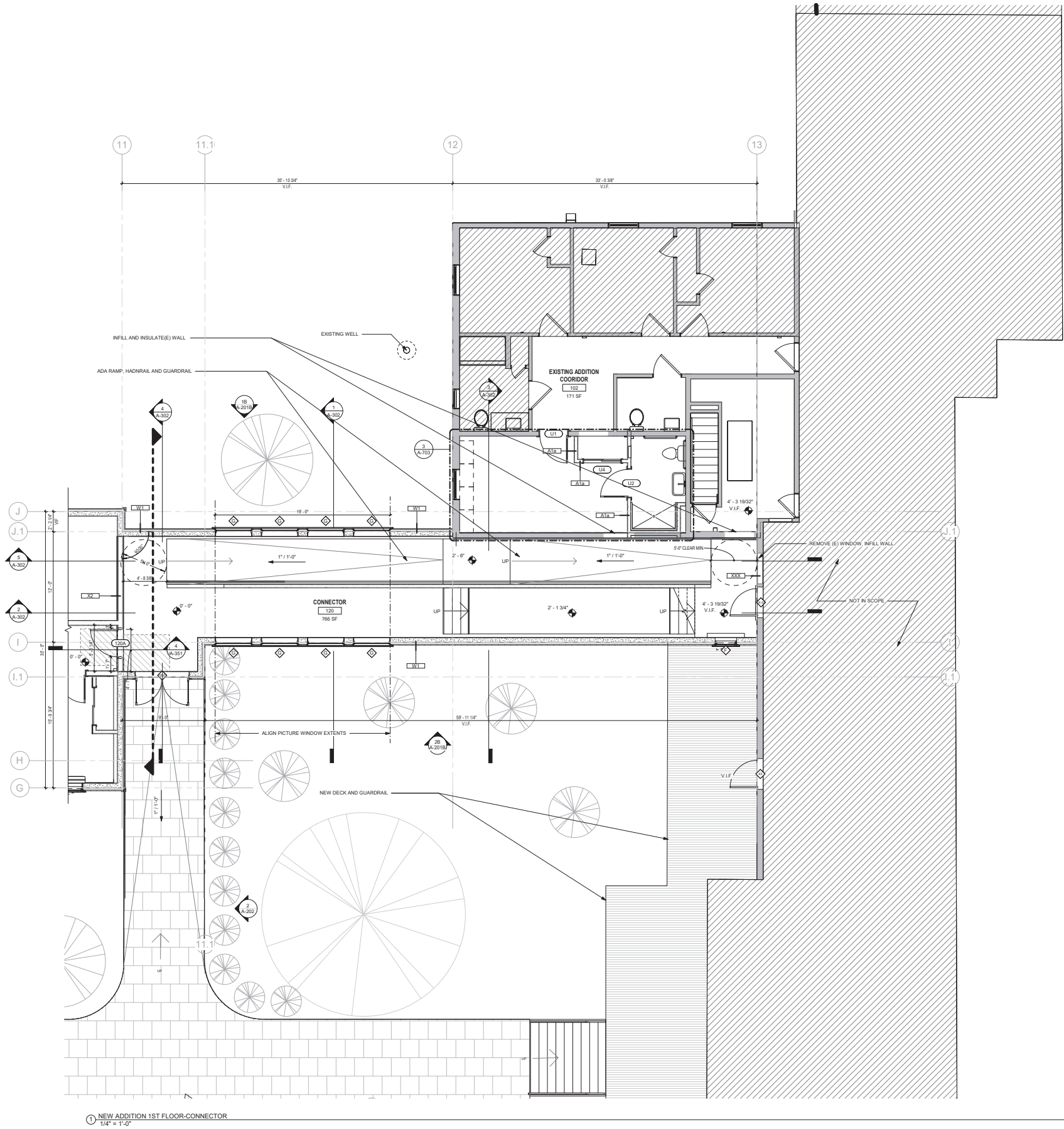
FIRST FLOOR PLAN

A-101A

WOODHULL
90 High Street
Portland, ME 04101
(207) 263-3777
woodhullmaine.com

Item 6.#

6/19/2026 4:55:12 PM



NEW ADDITION 1ST FLOOR-CONNECTOR
1/4" = 1'-0"

- GENERAL NOTES - FLOOR PLAN**
- This is a 3D issuance released for review. Additional information, dimensions, clarifications, and specifications to be requested from the Architect and/or Owner as required to perform the Work.
 - Dimensions are from face of core structure material or to grid, UNO.
 - Specifications: Finishes: Refer to Sheet A-400 for Wall, Floor, Roof, Foundation and Ceiling assemblies. Doors and Windows: Refer to Sheet A-410 for Window and door types.
 - MEP: Mechanical, Electrical and Plumbing work is in progress. Refer to MEP sheets for preliminary design. The Architect has made basic assumptions for size and space requirements and locations for incoming service. Contractor is to review and bring to the Architect's attention if additional information is required.
 - Refer to G-001 for additional Document Use Guidelines.
 - Finishes:
 - A. Units: Low pile 2nd Carpet Tile
 - B. Unit Bathrooms: non-slip porcelain tile
 - C. Common areas: non-slip LVT/Marmoleum
 - Millwork:
 - A. Units: Wall-mounted casework with veneer finish as shown on A-701/A-702, cont. solid wood counter to match casework.
 - B. Kitchenette: Upper and lower cabinets in communal room per plan, painted finish and solid surface countertop.

KEY NOTES

PRELIMINARY
NOT FOR
CONSTRUCTION

900 Meadow Road
Canaan, ME 04015

Country Village
Assisted Living

CONSTRUCTION
DOCUMENTS:
PROGRESS
SET

COUNTRY VILLAGE ASSISTED LIVING ADDITION

ISSUANCES:

REV	DATE	DESCRIPTION
1	2025 03 13	100% SCHEMATIC DESIGN
2	2025 06 26	50% CONSTRUCTION DOCUMENTS

PROJECT LEAD:
AP
REVIEWED BY:
PB

FIRST FLOOR
PLAN-CONNECTOR

A-101B

WOODHULL
900 Meadow Road
Canaan, ME 04015
(207) 263-3777
woodhullmaine.com

Item 6.#

PRELIMINARY
NOT FOR
CONSTRUCTION

900 Meadow Road
Casco, ME 04015

Country Village
Assisted Living

CONSTRUCTION
DOCUMENTS
PROGRESS
SET

COUNTRY VILLAGE
ASSISTED LIVING
ADDITION

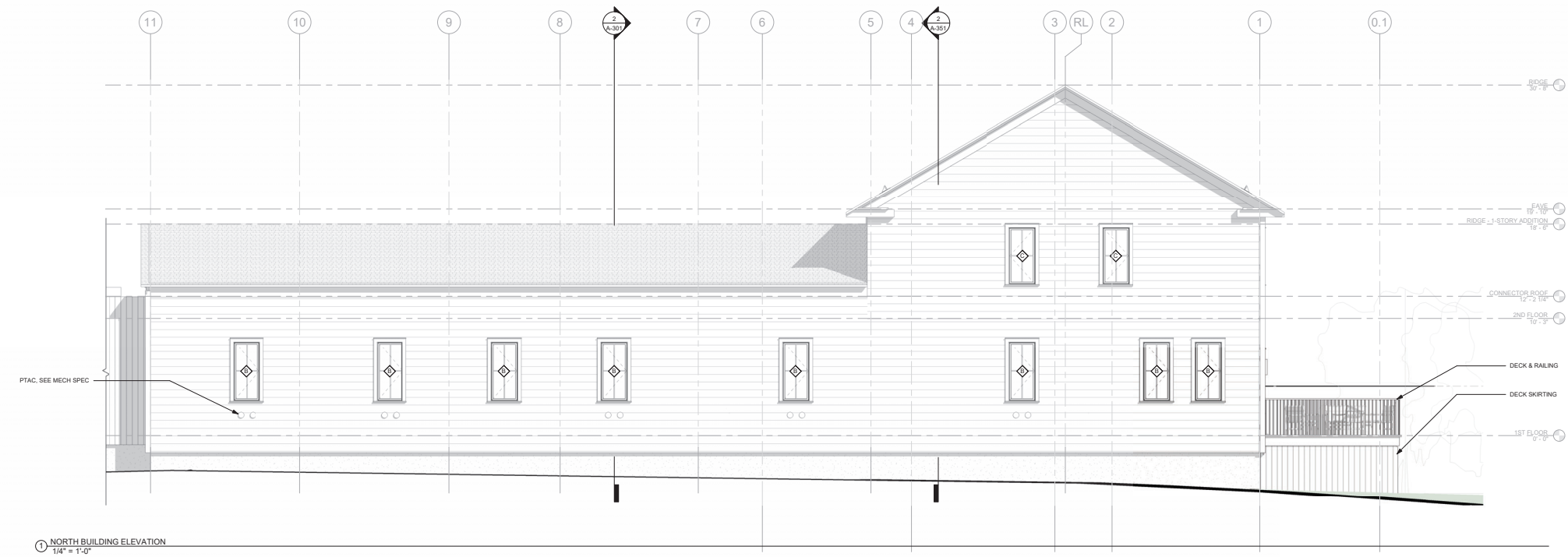
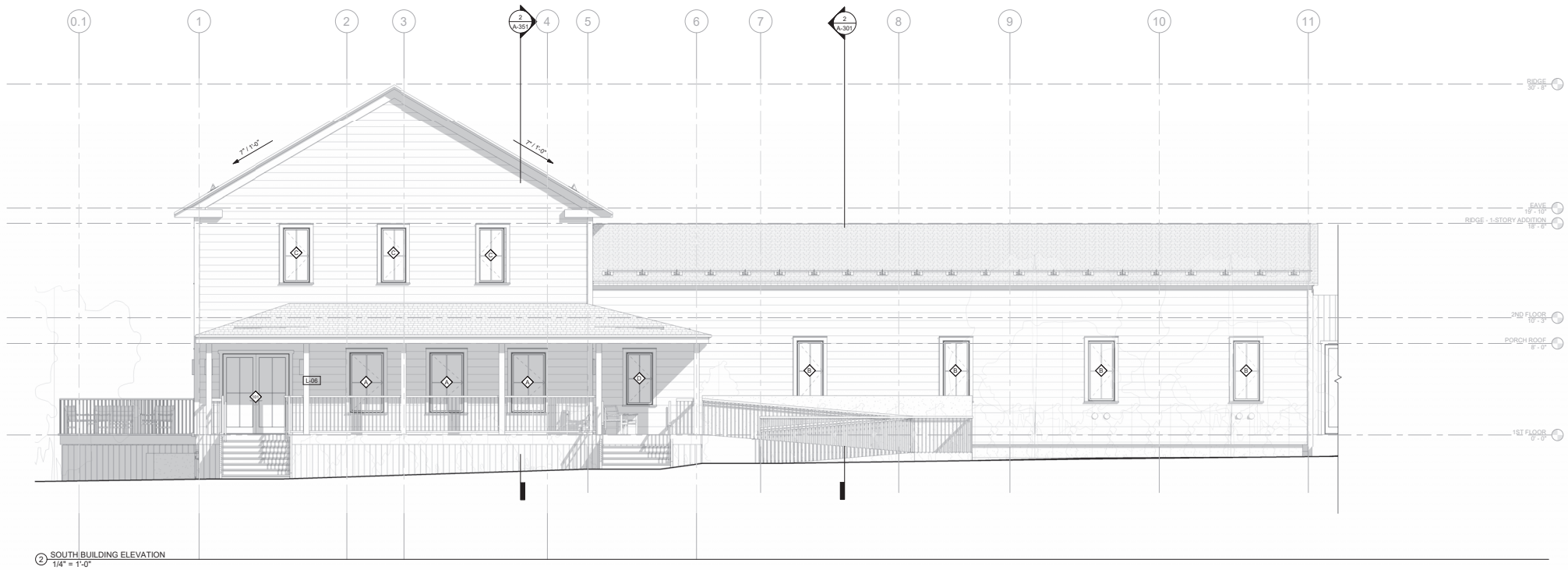
ISSUANCES:

REV	DATE	DESCRIPTION
1	2020 03 13	100% SCHEMATIC DESIGN
2	2020 06 28	50% CONSTRUCTION DOCUMENTS

PROJECT LEAD:
AP
REVIEWED BY:
PB

EXTERIOR ELEVATIONS

Item 6.#



PRELIMINARY
NOT FOR
CONSTRUCTION

800 Meadow Road
Casco, ME 04015

Country Village
Assisted Living

CONSTRUCTION
DOCUMENTS-
PROGRESS
SET

COUNTRY VILLAGE
ASSISTED LIVING
ADDITION

ISSUANCES:

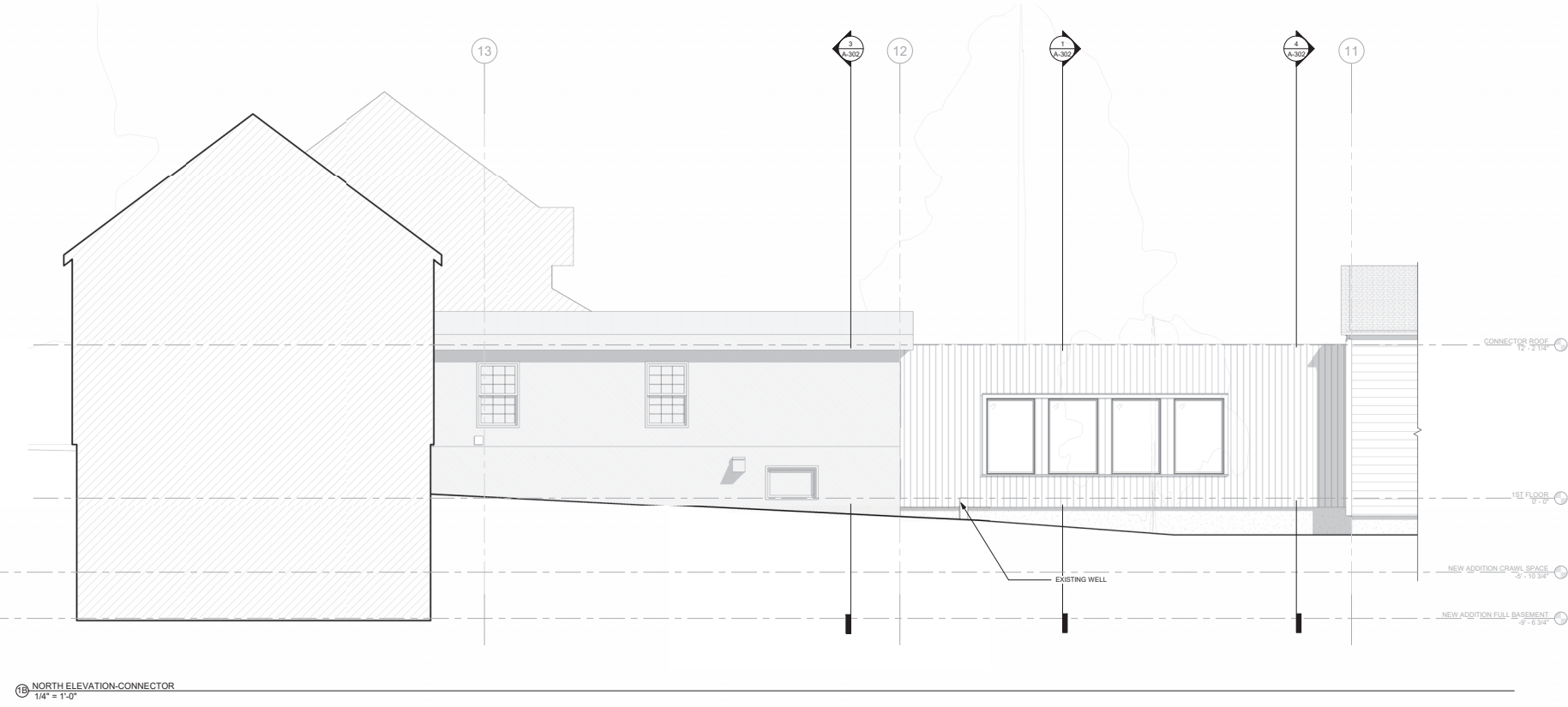
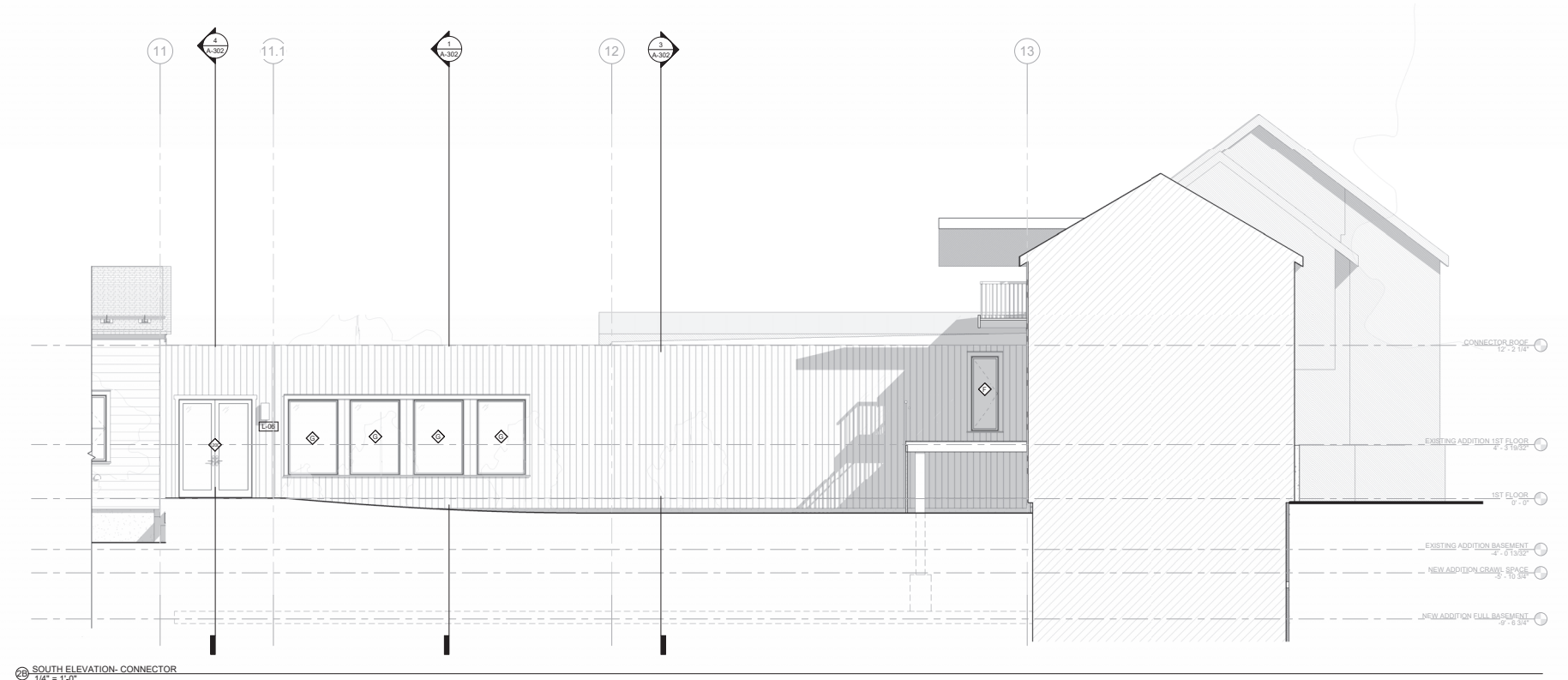
REV	DATE	DESCRIPTION
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2	2020 06 28	50% CONSTRUCTION DOCUMENTS

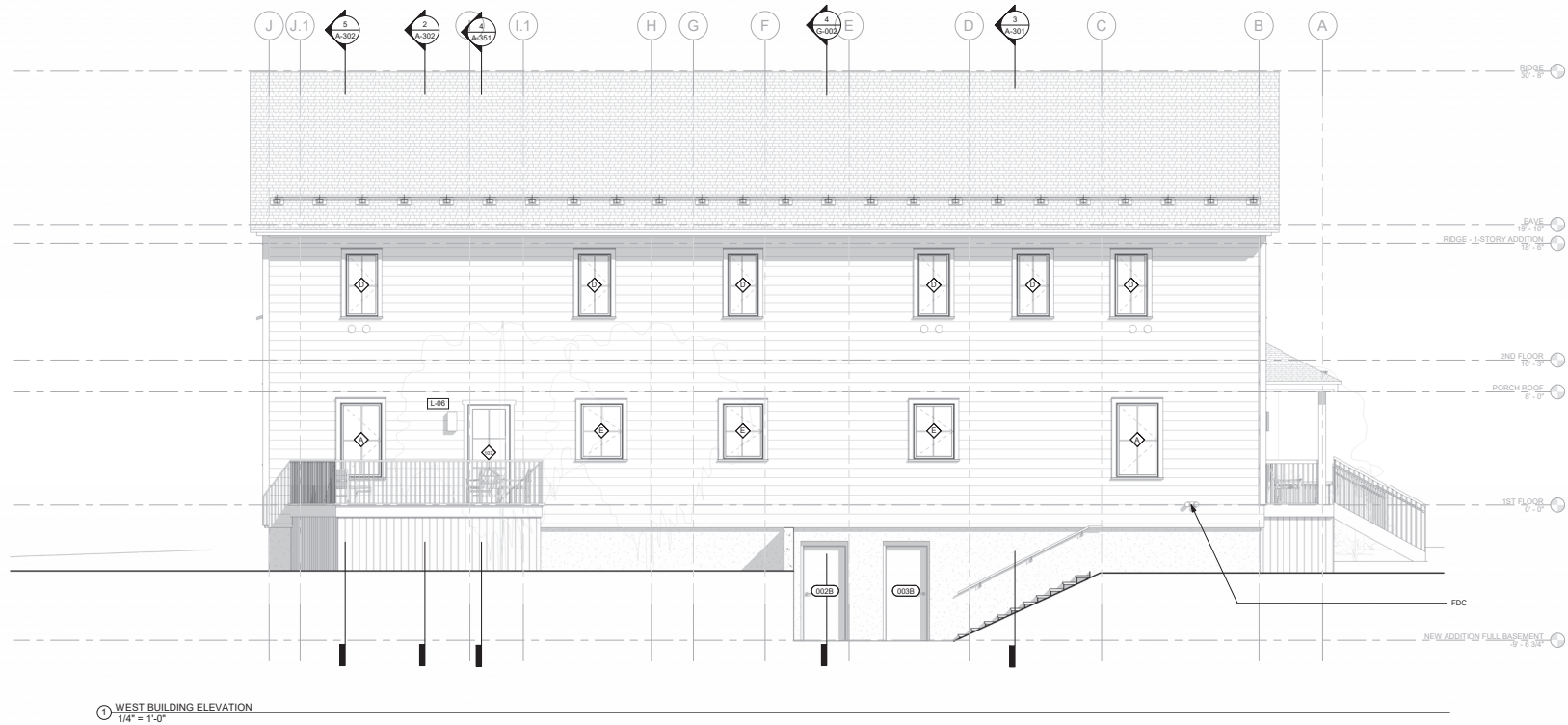
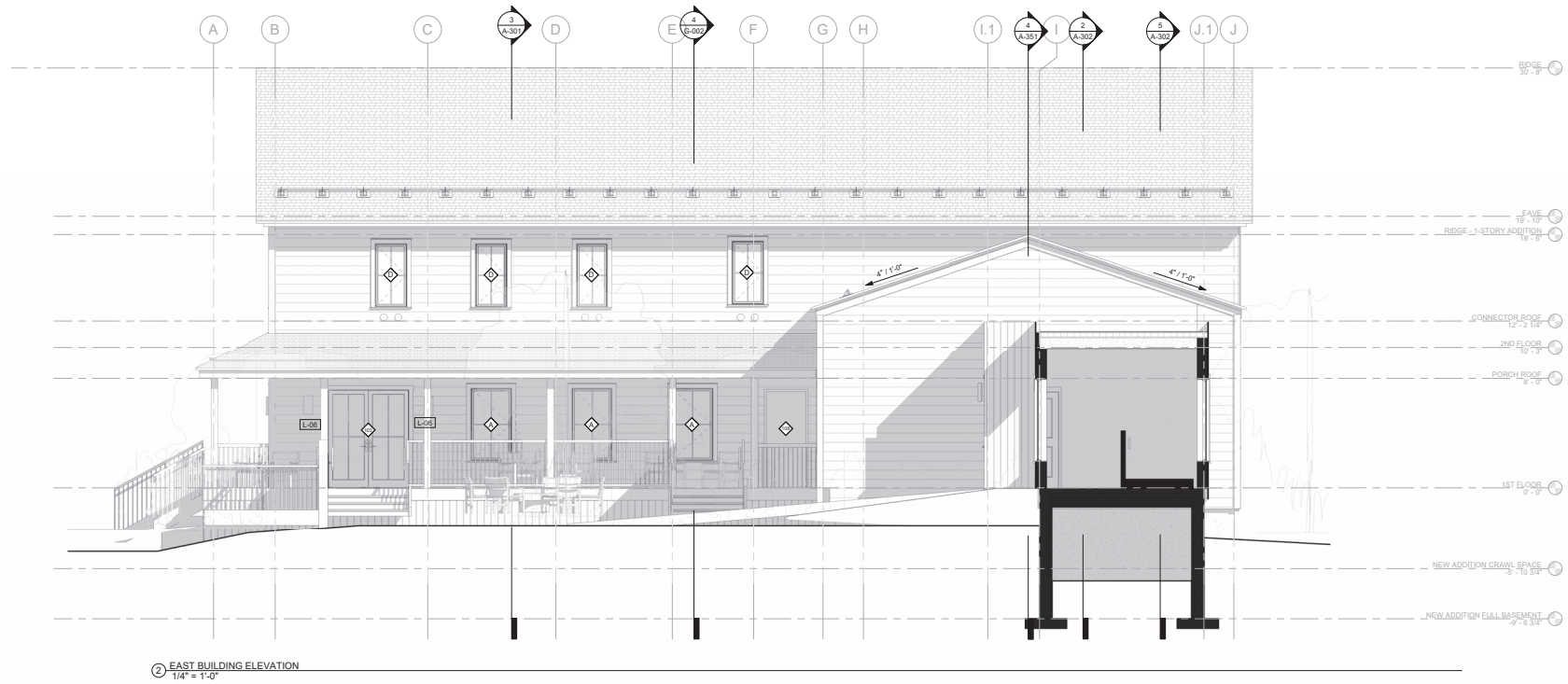
PROJECT LEAD:
AP
REVIEWED BY:
PB

EXTERIOR
ELEVATIONS-CONNECTOR

A-201B

Item 6.#





COUNTRY VILLAGE
ASSISTED LIVING
ADDITION

ISSUANCES:

REV	DATE	DESCRIPTION
1	2026 03 13	100% SCHEMATIC DESIGN
2	2026 06 26	50% CONSTRUCTION DOCUMENTS

PROJECT LEAD:

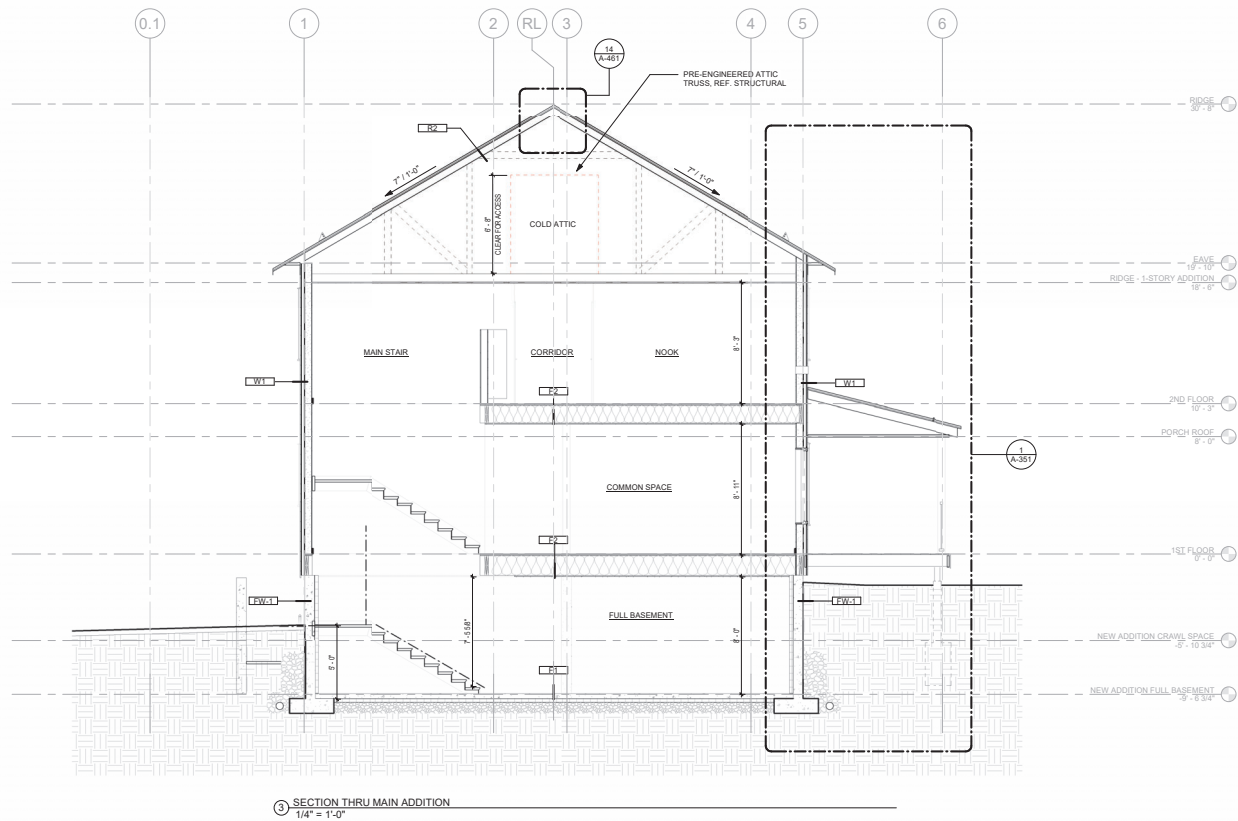
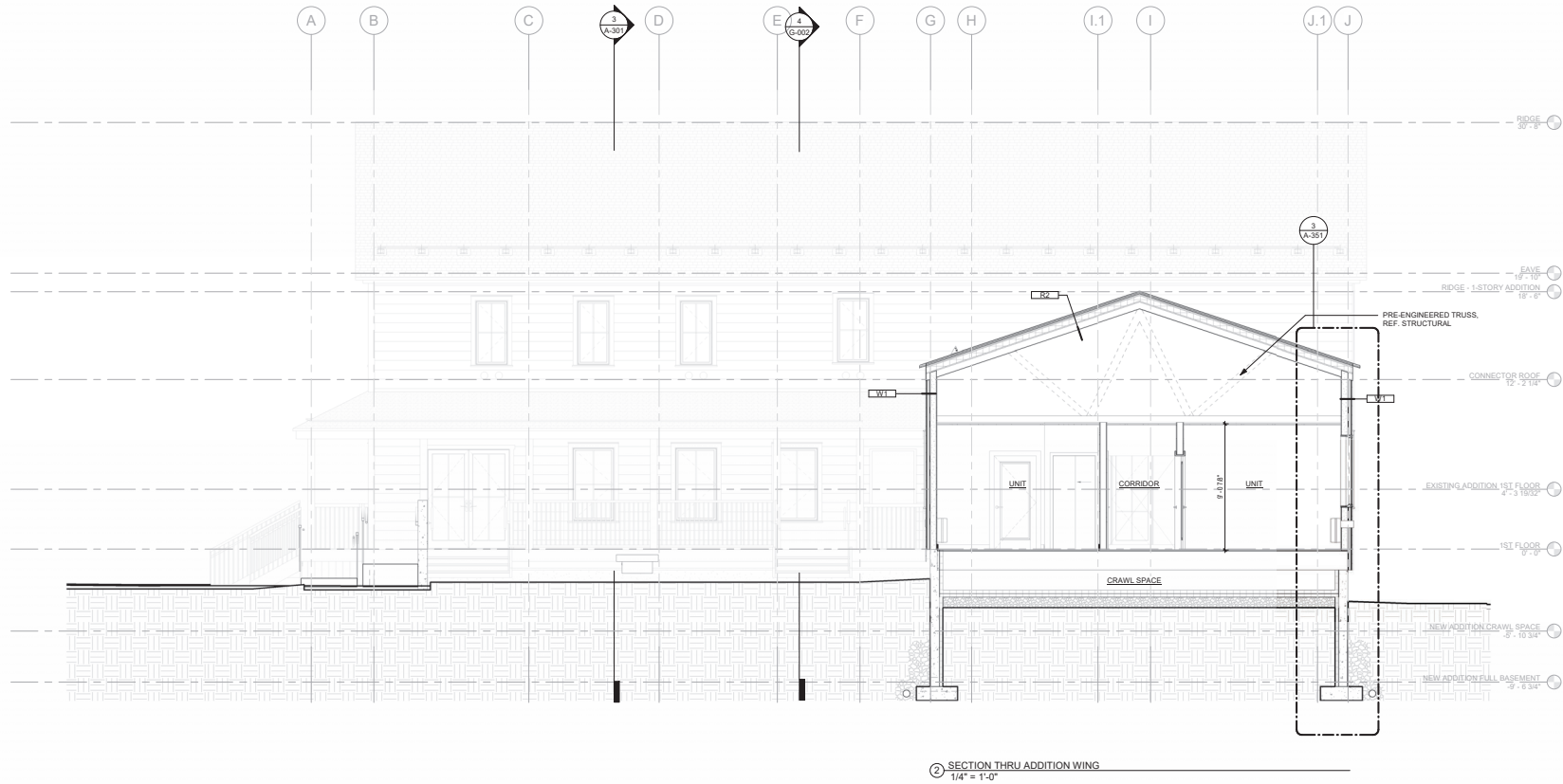
AP

REVIEWED BY:

PB

EXTERIOR ELEVATIONS

A-202



PRELIMINARY
NOT FOR
CONSTRUCTION

900 Meadow Road
Casco, ME 04015

Country Village
Assisted Living

CONSTRUCTION
DOCUMENTS
PROGRESS
SET

COUNTRY VILLAGE ASSISTED LIVING ADDITION

ISSUANCES:

REV	DATE	DESCRIPTION
1	2025 03 13	100% SCHEMATIC DESIGN
2	2025 06 26	50% CONSTRUCTION DOCUMENTS

PROJECT LEAD:

AP

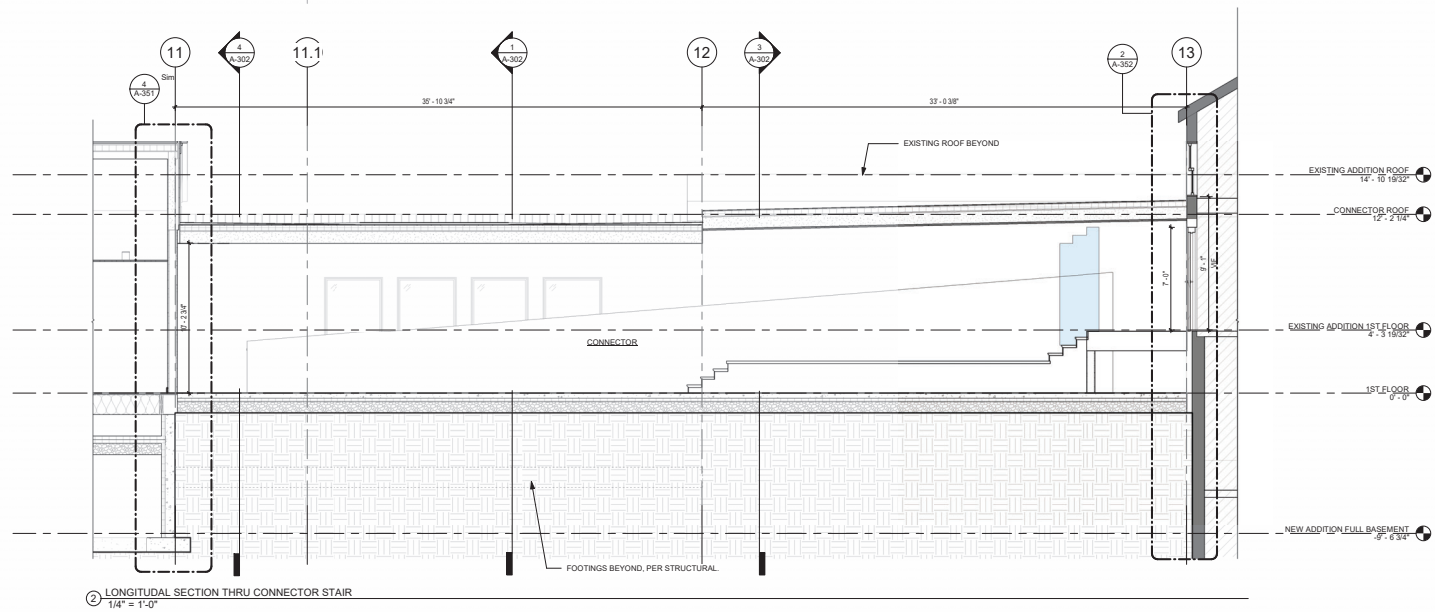
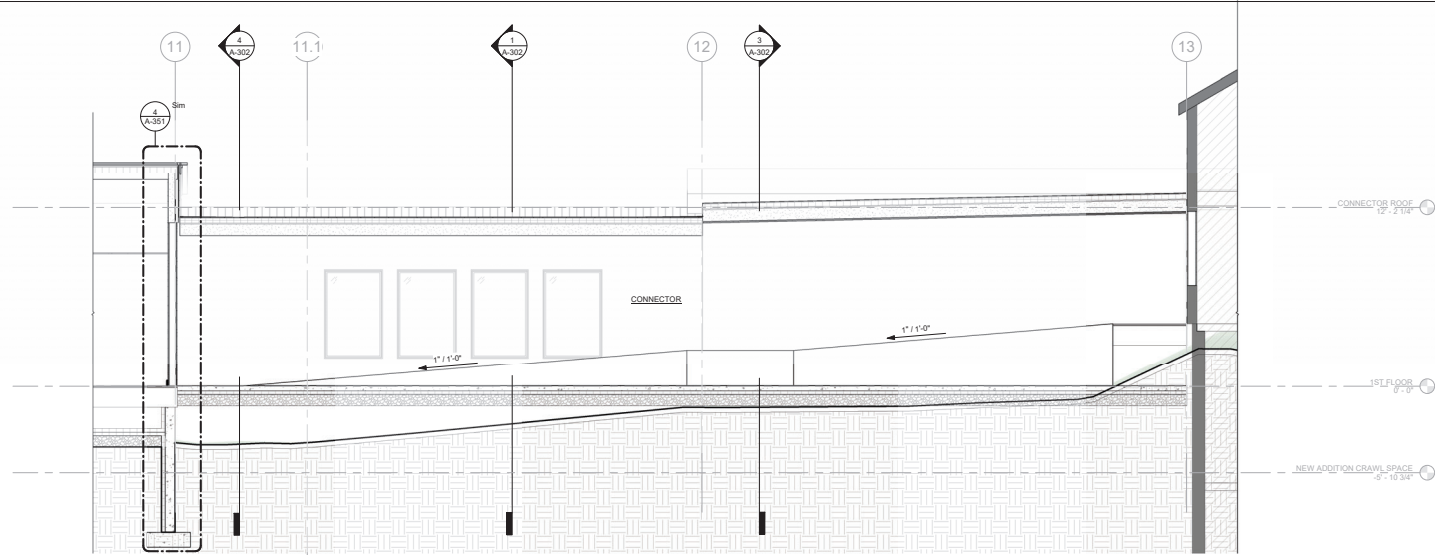
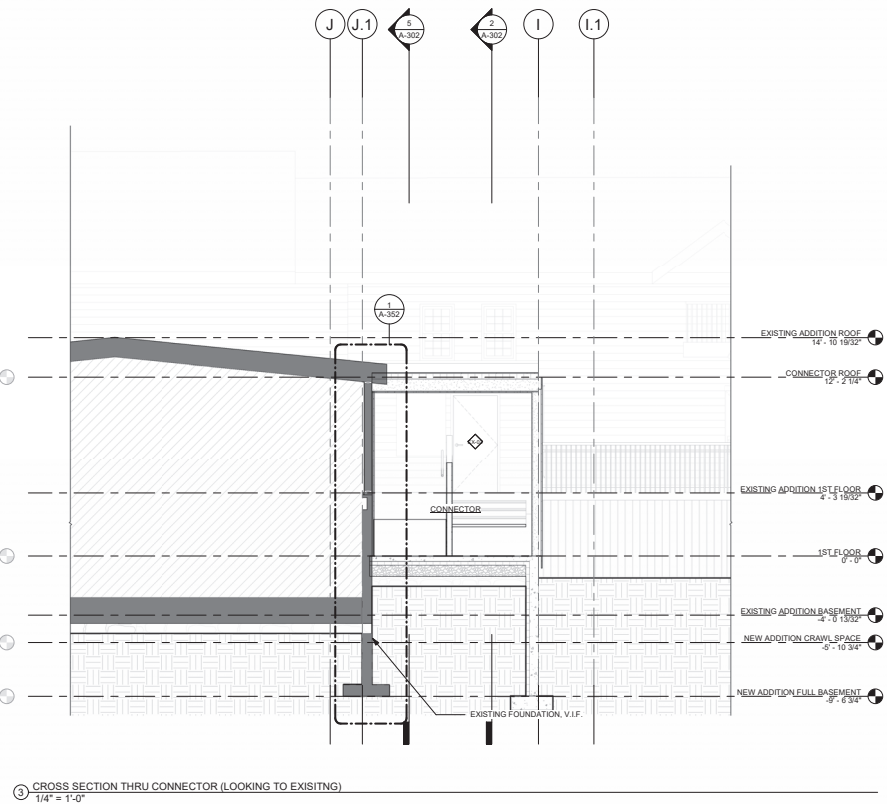
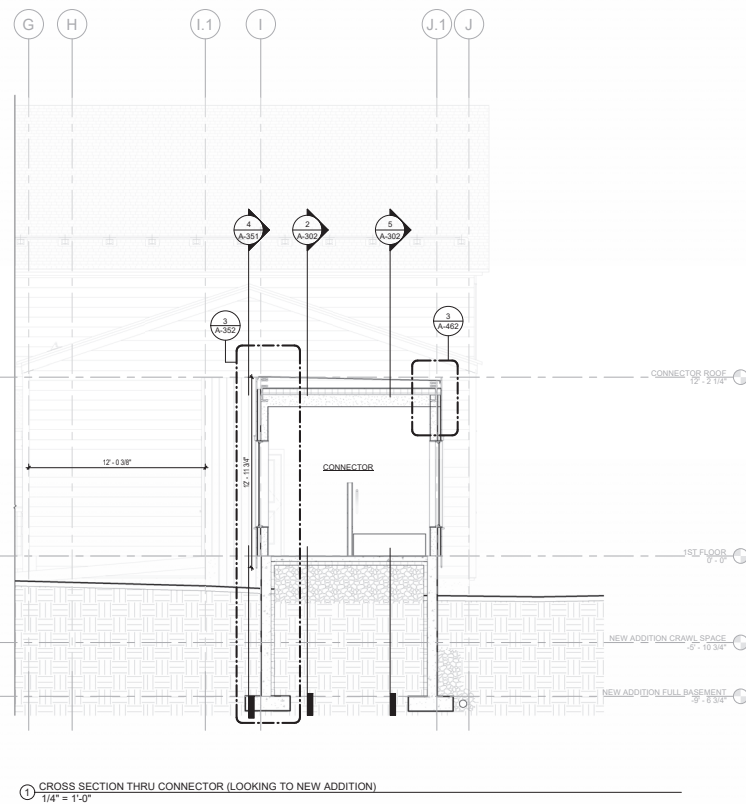
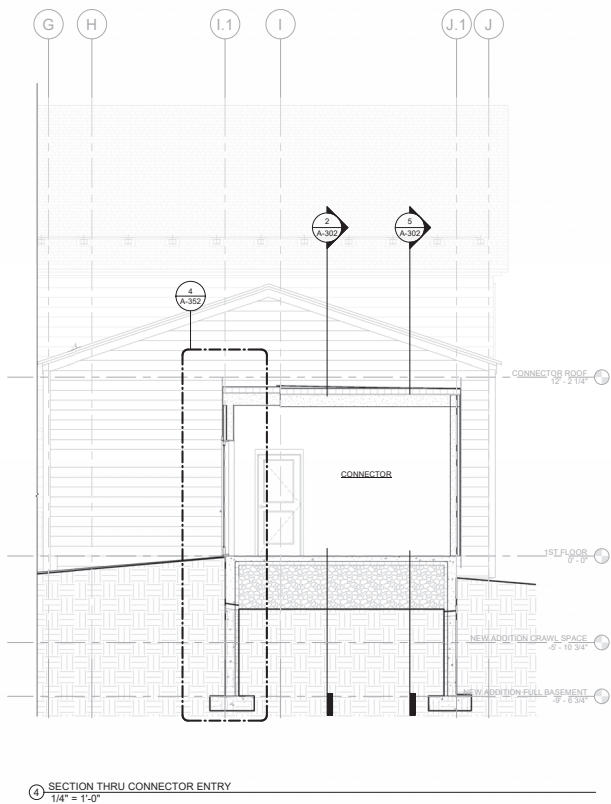
REVIEWED BY:

PB

BUILDING SECTIONS

A-301

6/19/2024 4:56:45 PM



ISSUANCES:		
REV	DATE	DESCRIPTION
1	2024 06 28	ISSUE CONSTRUCTION DOCUMENTS

PROJECT LEAD:
AP
REVIEWED BY:
PB
BUILDING
SECTIONS-CONNECTOR

A-302

COUNTRY VILLAGE
ASSISTED LIVING
ADDITION

CONSTRUCTION
DOCUMENTS-
PROGRESS
SET

Country Village
Assisted Living

900 Meadow Road
Casco, ME 04015

PRELIMINARY
NOT FOR
CONSTRUCTION

WOODHULL
90 High Street
Portland, ME 04101
(207) 283-3777
woodhullmaine.com



N43292.000
September 4, 2026

Planning Board
Town of Casco
635 Meadow Road
Casco, ME 04015

RE: Request for Preapplication Conference – 44 Pine Hill Road for Lavoie Building & Remodeling, Inc.

Dear Planning Board Members,

Northeast Civil Solutions, on behalf of Lavoie Building & Remodeling, Inc., is requesting a pre-application conference for subdivision review for the property located at 46 Pine Hill Road. Initially the project was understood to be a simple lot split exempt from subdivision due to the homestead exemption rule. We have recently found out that the former owner sold her primary residence prior to conveying the property to the applicant and have been informed that a lot split of 46 Pine Hill Road will require planning board review and approval.

46 Pine Hill Road is an outsale from 66 Pine Hill Road and is a portion of the property identified on Tax Map 9, shown as Lot 15, and located within the Residential (R) Zoning District. The overall parcel is 4.51 acres in size, and we are proposing to divide the lot into two parcels with proposed Lot containing 1.98 acres and proposed Lot 2 containing 2.53 acres. Both lots exceed the minimum lot size of 80,000 square feet. Proposed Lot 1 will have road frontage and driveway access off Pine Hill Road. Lot 2 will front on Pine Hill Road but use a proposed back-lot right-of-way to obtain driveway access.

We look forward to discussing this project with the planning board at your next meeting. If you have any questions, or require additional information, please do not hesitate to email me at tmcdonald@nobis-group.com or contact me at 207-329-0370.

Respectfully,
NORTHEAST CIVIL SOLUTIONS

Troy F. McDonald, PLS
Director of Survey - ME

CC: Lavoie Building & Remodeling, Inc. - Applicant
File



SURVEYING ENGINEERING LAND PLANNING

Northeast Civil Solutions

A DIVISION OF NOBIS

www.nobis-group.com

N43292.000

September 2, 2026

Whom It May Concern:

I, Scott Lavoie, of Lavoie Building & Remodeling, Inc., authorize Northeast Civil Solutions to sign any and all applications, permit requests, and other paperwork in conjunction with the submission of municipal, federal, and/or state applications, as applicable, for the project located at 46 Pine Hill Road, Casco, ME. This authorization is not a contract for any work to be performed. Contracts and/or other correspondence are separate documents.


Signature

09/03/2026

Date

10.17.2025
LOCUS

(DLN): 3322290

WARRANTY DEED

Rosetta A. Andrews-Symonds of Steep Falls, Cumberland County, Maine, for consideration paid, grants to **Lavoie Building & Remodeling, Inc.**, a Maine Corporation of Sebago, Cumberland County, Maine (whose mailing address is 25 Rocky Road, Sebago, ME 04029) with Warranty Covenants, the following described real estate:

See "Exhibit A" Attached

For grantor's source of title, reference may be had to a portion of a deed from Timothy H. Symonds to Rosetta A. Andrews-Symonds & Timothy H. Symonds, dated October 19, 2007, and recorded in the Cumberland County Registry of Deeds, in Book 25600, Page 250. Timothy H. Symonds died October 31, 2022 leaving Rosetta A. Andrews-Symonds as the surviving joint tenant.

Any and all other rights, easements, privileges and appurtenance belonging to the granted estate are hereby conveyed.

This conveyance is made subject to the property taxes assessed against the premises, which said taxes are to be prorated between the parties hereto as of the date of delivery of this deed in accordance with 36 M.R.S.A., sec. 558.

Witness my hand and seal this 17th day of October, 2025.

WITNESS:

Rosetta A. Andrews-Symonds

STATE OF MAINE
Cumberland, ss

October 17, 2025

Then personally appeared the above named Rosetta A. Andrews-Symonds and acknowledged the foregoing instrument to be his/her/their free act and deed.

Before me,

Megan Bingman
Notary Public, State of Maine
My Commission Expires September 2, 2032

Print Name: _____
Notary Public/Attorney at Law
Commission Expiration: _____

File No.: 2025-4261

File No: 2025-4261

"Exhibit A"

A certain lot or parcel of land, together with any improvements thereon, situated on the southwesterly side of Pine Hill Road, so-called, in the Town of Casco, County of Cumberland, and State of Maine, being more particularly bounded and described as follows:

Beginning at a point, being a found 5/8" iron rod with a red plastic cap marked "RLS 1284", at a stonewall corner, on the assumed southwesterly sideline of Pine Hill Road, so-called, said point being at the northwesterly most corner of the land now or formerly of George J. Sleeper, Trustee of the George J. Sleeper Revocable Real Estate Trust, as described in the deed recorded in the Cumberland County Registry of Deeds in Book 35958, Page 263;

Thence N 34° 50' 25" W, along said Pine Hill Road, so-called, being along a stonewall, 146.55 feet, to a set nail and washer in a stone wall;

Thence N 31° 14' 34" W, along said Pine Hill Road, so-called, being partially along a stonewall, 53.57 feet, to a found 5/8" iron rod, and the land now or formerly of Cynthia Jean Langley, as described in the deed recorded in the said Registry in Book 39068, Page 224;

Thence S 36° 37' 15" W, along said Langley, 215.88 feet, to a point;

Thence S 53° 22' 45" E, along said Langley, 11.22 feet, to a point;

Thence S 36° 37' 15" W, along said Langley, 4.00 feet, to a found 5/8" iron rod;

Thence N 53° 22' 45" W, along said Langley, 11.22 feet, to a point;

Thence S 36° 37' 15" W, along said Langley, 180.11 feet, to a set iron rod and cap;

Thence N 33° 54' 47" W, along said Langley, 195.12 feet, to a point at a stone wall, and the "66 Pine Hill Road Parcel" as shown on the Boundary Survey Map, referenced below, said point being S 33° 54' 47" E, along the boundary line between said Langley and said 66 Pine Hill Road Parcel, 4.90 feet, from a found 5/8" iron rod with cap marked "SURVEY INC PLS 586", at the westerly most corner of said Langley;

Thence S 36° 44' 36" W, along said 66 Pine Hill Road Parcel, being along a stone wall, 389.00 feet, to a set 3/8" iron rod and cap at a stone wall intersection, and the land now or formerly of David W. Dowling and Joyce L. Dowling, as described in the deed recorded in the said Registry in Book 15693, Page 67;

Thence S 52° 13' 45" E, along said Dowling, and the land now or formerly of Bruce Murley, as described in the deed recorded in the said Registry in Book 2753, Page 78, being along a stonewall, 372.96 feet, to a found 3/4" iron rod with cap with illegible markings, and said Sleeper;

Thence N 36° 29' 58" E, along said Sleeper, being along a stonewall, 236.52 feet, to a set iron rod and cap;

DOC :43083 BK:41802 PG:246

RECEIVED - RECORDED, CUMBERLAND COUNTY REGISTER OF DEEDS

10/20/2025, 08:12:23A

Register of Deeds Jessica M. Spaulding E-RECORDED

Thence N 36° 45' 06" E, along said Sleeper, being along a stonewall, 428.16 feet, to the point of beginning.

Containing 4.51 Acres, more or less.

SUBJECT TO the "Standard Easement Guying Only" from Timothy Symonds and Rosetta A. Andres-Symonds to Central Maine Power Company, dated July 19, 2012, and recorded in the said Registry in Book 29856, Page 330.

The Basis of Bearing for this description is GRID NORTH based on the Maine State Coordinate System West Zone, NAD 83 (Cors96) Epoch 2002, using an Altus APS-3 RTK GPS (Global Positioning System) receiver correcting using the Maine Technical Source RTK Network. The found iron rod and cap at the point of beginning is at a coordinate of NORTH 421275.2129, EAST 2870638.5332. The 2017 magnetic Meridian determined by hand compass was found to be 15°30' +/- West of GRID NORTH.

All said "set iron rod and cap"(s) are 5/8" rebar with a 2" diameter aluminum cap marked "SET BY ROBERT A YARUMIAN PLS 1303 LAND SURVEY MONUMENT".

All said "set 3/8 iron rod and cap"(s) are 3/8" rebar with a 1" diameter plastic cap marked "SET BY PLS 1303 - 2502".

All said "set nail and washer"(s) are a 1/4" diameter nail in a drill hole with a 2" diameter aluminum washer marked "SET BY ROBERT A YARUMIAN PLS 1303 LAND SURVEY MONUMENT".

This description is based on the "Boundary Survey Map for Rosetta A. Andrews-Symonds," dated May 29, 2025, prepared by Daniel T. Yarumian, PLS 2502, & Robert A. Yarumian II, PLS 1303 of Maine Boundary Consultants, LLC, Moderation Center, 8 River Road, P.O. Box 67, Buxton, Maine, 04093, and conforms to the Maine Board of Licensure for Professional Land Surveyors, Rules, of April 2001, Chapter 90, Standards of Practice.

46 PINE HILL RD

Item 7. #

*Not yet added to Tax Map 9

Location 46 PINE HILL RD

Acct# 3093

Mblu 0009/ / 0015/ 3/

Owner LAVOIE BUILDING & REMODELING, INC

Total Market Va... \$285,200

PID 6469

Building Count 1

Current Value

Assessment			
Valuation Year	Improvements	Land	Total
2026	\$228,200	\$57,000	\$285,200

Owner of Record

Owner LAVOIE BUILDING & REMODELING, INC

Co-Owner

Address 25 ROCKY RD
SEBAGO, ME 04029

Sale Price \$133,250

Certificate

Book & Page41802/244

Sale Date 10/16/2025

Instrument 1I

Ownership History

Ownership History					
Owner	Sale Price	Certificate	Book & Page	Instrument	Sale Date
LAVOIE BUILDING & REMODELING, INC	\$133,250		41802/244	1I	10/16/2025
SYMONDS, TIMOTHY H	\$0		25600/0254		10/19/2007
SYMONDS, TIMOTHY H	\$0		25600/0250	1N	

Building Information

Building 1 : Section 1

Year Built: 2026
Living Area: 1,296
Replacement Cost: \$374,090
Building Percent Good: 61
Replacement Cost Less Depreciation: \$228,200

Building Attributes	
Field	Description
Style:	Ranch

Model	Residential
Grade:	Average +20
Stories:	1
Occupancy	1
Exterior Wall 1	Vinyl Siding
Exterior Wall 2	
Roof Structure:	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Drywall/Sheet
Interior Wall 2	
Interior Flr 1	Laminate
Interior Flr 2	Ceram Clay Til
Heat Fuel	Gas
Heat Type:	Hot Water
AC Type:	
Total Bedrooms:	2 Bedrooms
Total Bthrms:	2
Total Half Baths:	
Total Xtra Fixtrs:	
Total Rooms:	3
Bath Style:	Average
Kitchen Style:	Average
MHP	
BSM Gar	
FBM Area	

Building Photo

Item 7. #



(/photos/CascoMEPhotos//\0012\9-15-3_12145.jpg)

Building Layout

(ParcelSketch.ashx?pid=6469&bid=4843)

Building Sub-Areas (sq ft)			Legend
Code	Description	Gross Area	Living Area
BAS	First Floor	1,296	1,296
FGR	Garage, Framed	330	0
FOP	Porch, Open, Framed	168	0
UBM	Basement, Unfinished	1,296	0
UST	Utility, Storage, Unfinished	48	0
WDK	Deck, Wood	240	0
		3,378	1,296

Extra Features

Extra Features	Legend
No Data for Extra Features	

Land

Land Use

Use Code 1010
 Description SINGLE FAMILY
 Zone
 Neighborhood 50
 Alt Land Appr No

Land Line Valuation

Size (Acres) 4.51
 Frontage
 Depth
 Total Market Land \$57,000

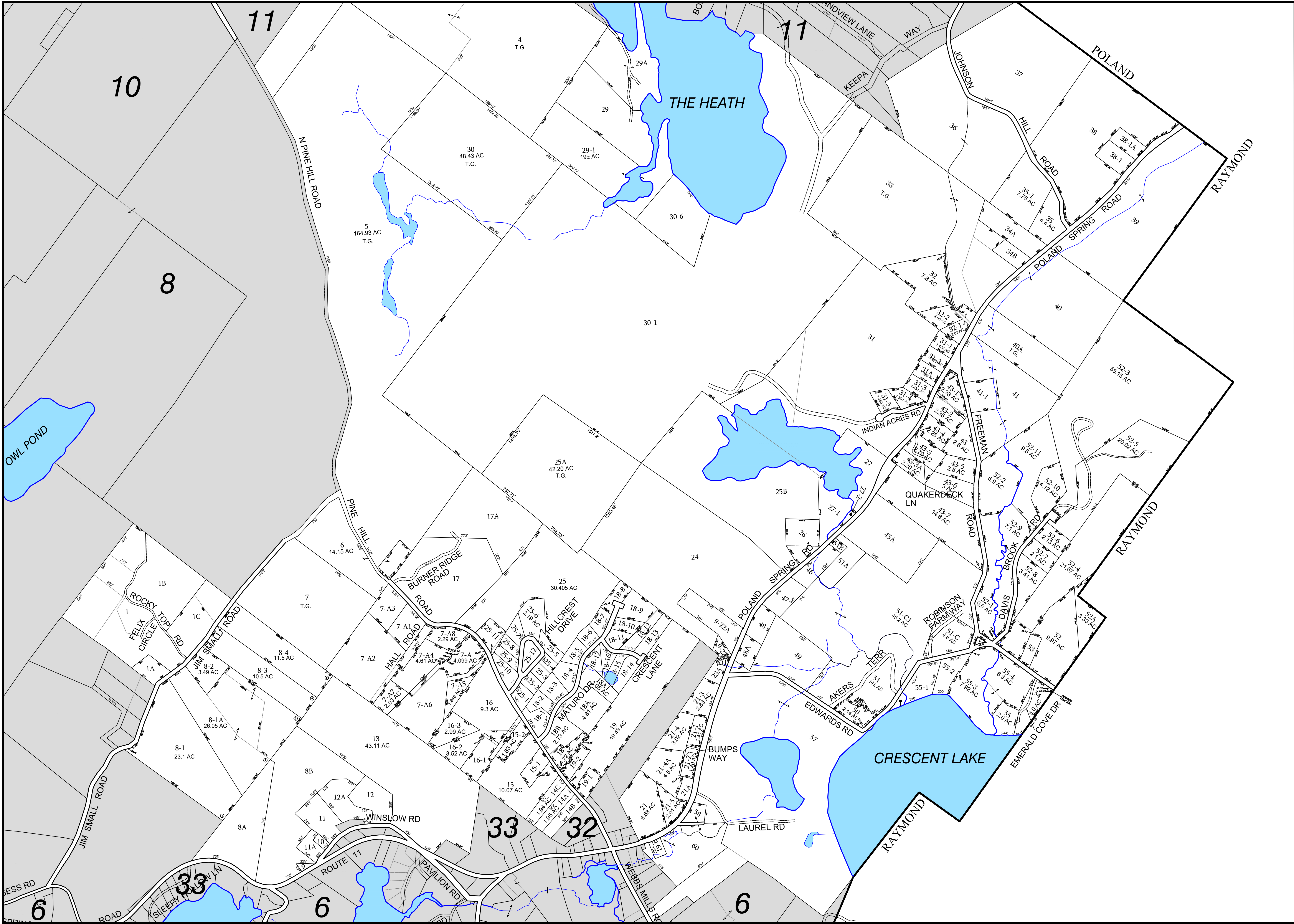
Outbuildings

Outbuildings	Legend
No Data for Outbuildings	

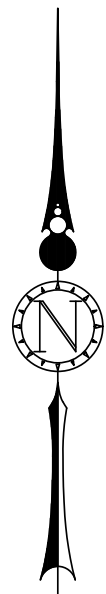
Valuation History

Assessment			
Valuation Year	Improvements	Land	Total
2026	\$228,200	\$57,000	\$285,200

(c) 2026 Vision Government Solutions, Inc. All rights reserved.



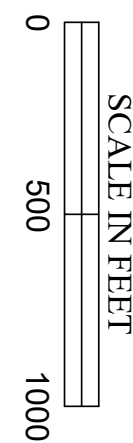
PROPERTY MAP
CASCO
MAINE



MAP LEGEND

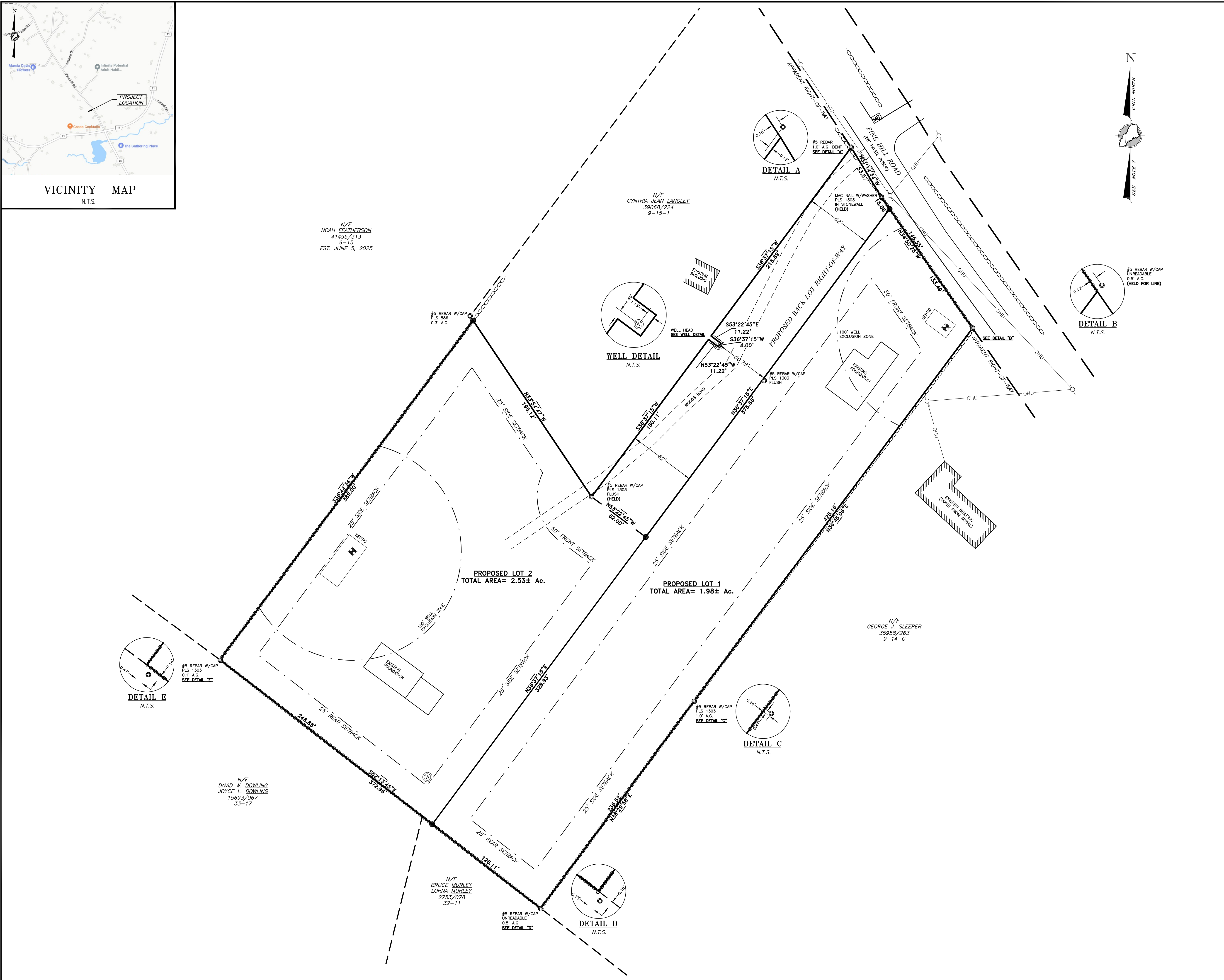
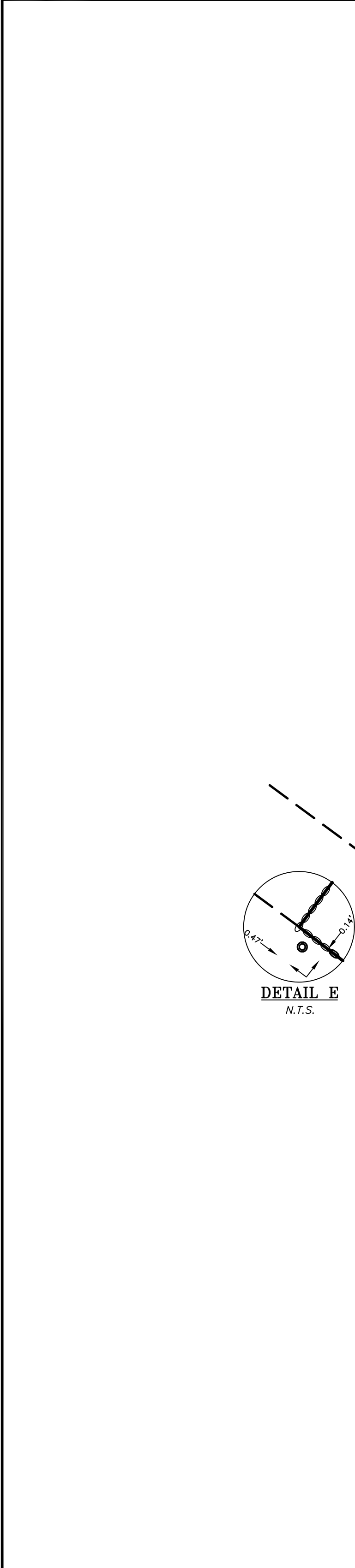
ADJUTING MAP NO.	11	LOT DIMENSION	146.6' x 46.5'
PARCEL NUMBER	3-1	PROPERTY HOOKS	↘
SUBDIVISION LOT NO.	④	RIGHT OF WAY	—
ROADS	—	EASEMENT	—

REVISED TO APRIL 1, 2023
FOR ASSESSMENT PURPOSES ONLY.
THIS MAP IS NOT INTENDED FOR THE PURPOSE
OF PROVIDING A LEGAL DESCRIPTION.



REVISED & REPRINTED BY

9



NOTES

1. RECORD OWNER OF THE PARCEL SURVEYED IS LAVOIE BUILDING & REMODELING, INC. AS DESCRIBED IN A DEED FROM ROSETTA A. ANDREWS-SYMONDS, DATED OCTOBER 17, 2025 AND RECORDED IN BOOK 41802, PAGE 244 IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS.
TOTAL LOT AREA FOR PROPOSED LOT 1 IS: 1.98± Ac.
TOTAL LOT AREA FOR PROPOSED LOT 2 IS: 2.53± Ac.
2. THE PARCEL SURVEYED IS IDENTIFIED ON THE TOWN OF CASCO TAX ASSESSOR'S MAP 9, LOT 15-3. (AS SHOWN ON PLAN REFERENCE 4.a.)
3. THE BEARINGS SHOWN ON THIS PLAN ARE BASED ON MAINE COORDINATE SYSTEM OF 1983, WEST ZONE, GRID NORTH.
4. PLAN REFERENCES:
 - a. "BOUNDARY SURVEY MAP FOR ROSETTA A. ANDREWS-SYMONDS OF 4.51 ACRE PARCEL AND THE PROPOSED 66 PINE HILL ROAD PARCEL LOCATED ALONG PINE HILL ROAD" PREPARED BY MAINE BOUNDARY CONSULTANTS, LLC, DATED MAY 29, 2025 AND RECORDED IN PLAN BOOK 225, PAGE 211 IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS.
 - b. "SUBDIVISION PLAN SURRISSA'S WOODS PINE HILL ROAD TOWN OF CASCO, CUMBERLAND COUNTY, MAINE" FOR BRUCE E. LEWIS AND ANITA P. LEWIS, PREPARED BY LEWIS & WASINA, INC., DATED MARCH 20, 1997 AND RECORDED IN PLAN BOOK 197, PAGE 138 IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS.
 - c. "MOUNTAIN VIEW ACRES CASCO, MAINE" FOR MERTON G. SYMONDS AND SONS, PREPARED BY HOMES UNLIMITED, INC., DATED JULY 10, 1975 AND RECORDED IN PLAN BOOK 109, PAGE 1 IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS.
5. THE WIDTH OF PINE HILL ROAD IS 66' BASED ON PLAN REFERENCES 4.b. AND 4.c. THE LAYOUT OF THE RIGHT-OF-WAY LIMITS IS BASED ON PLAN REFERENCE 4.a. AND MONUMENTATION FOUND.
6. AS OF THE ORIGINAL DATE OF THIS PLAN, THE PARCEL SURVEYED IS LOCATED IN THE RESIDENTIAL DISTRICT. PORTIONS OF BULK & SPACE REQUIREMENTS ARE AS FOLLOWS:
MINIMUM LOT AREA = 80,000 S.F.
MINIMUM FRONTAGE = 200'
SETBACKS:
FRONT = 50'
SIDE = 25'
REAR = 25'
OTHER MUNICIPAL AND STATE OVERLAY ZONES MAY EXIST AND APPLY, BEFORE PROCEEDING ON ANY PROJECT WE RECOMMEND VERIFYING CURRENT ZONE AND ALL APPLICABLE SETBACKS AND RESTRICTIONS WITH THE APPROPRIATE AGENCIES.
7. THE UTILITIES SHOWN ON THIS PLAN WERE FROM FIELD OBSERVATION ONLY. THERE MAY BE OTHER UTILITIES EXISTING THAT ARE NOT SHOWN. CONTACT DIG-SAFE AT (811) PRIOR TO ANY EXCAVATION WORK.
8. THE SURVEYED PARCEL LIES IN FLOOD ZONE X, AND IS SHOWN ON FEMA FLOOD INSURANCE RATE MAP (FIRM) PANEL NO. 0251F, COMMUNITY PANEL NO. 230044, WITH AN EFFECTIVE DATE OF JUNE 20, 2024.



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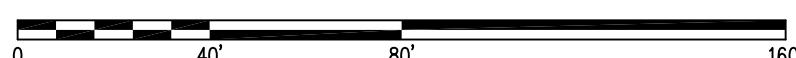
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STAMP AND SIGNATURE

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TROY F. McDONALD
MAINE PROFESSIONAL LAND SURVEYOR NO. 2080

9/14/2016

DATE

