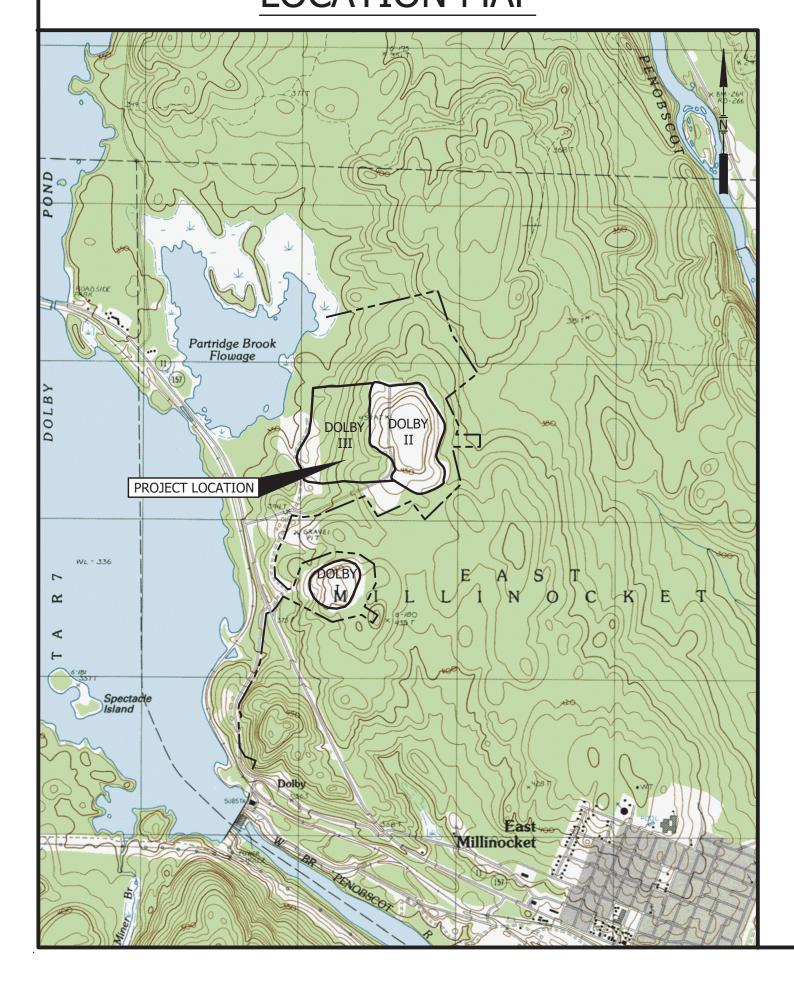
MAINE DEPARTMENT OF ADMINISTRATIVE AND FINANCIAL SERVICES DOLBY LANDFILL COVER UPGRADE PHASE 4 EAST MILLINOCKET, MAINE BGS PROJECT 3754

LOCATION MAP



TITLE	DWG NO
COVER SHEET	
SYMBOLS & ABBREVIATIONS	C-100
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SECTIONS AND DETAILS	C-304



ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE

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SYMBOLS

EXISTING	PROPOSED		EXISTING	PROPOSED		EXISTING	PROPOSED	
──		NORTH ARROW (TRUE)			DRAINAGE COURSE (WITH DIRECTION)	G	——	UNDERGROUND GAS MAIN
DATE		NORTH ARROW (MAGNETIC)			EDGE OF WATER	т ——	—— UT——	UNDERGROUND TELEPHONE LINE
N		NORTH ARROW (PLAN NORTH)			WATER ELEVATION (GROUND OR SURFACE)	Е		UNDERGROUND ELECTRICAL LINE
25	25	CONTOUR LINES		• • •	FENCE LINE (WOOD)	OE	OE	OVERHEAD ELECTRICAL LINE
	INV 25.56	SPOT ELEVATION (INVERT ELEVATION)	xx	xx	FENCE LINE (WIRE)	OT	OT	OVERHEAD TELEPHONE LINE
		EXISTING GROUND			STONE WALL	12" SS	——12" SS ——	SANITARY SEWER
		SURVEY BASELINE WITH TRIANGULATION OR INTERSECTION PT.			RETAINING WALL	8" FM	——8" FM	FORCE MAIN
		PROPERTY LINE OR R.O.W.			GUARD RAIL	8" W ———	8" W	WATER MAIN
N35°-10'-10"W 251.17'	N35°-10'-10"W 251.17'	PROPERTY LINE W/ BEARING AND DISTANCE			BUILDING AND STRUCTURES	12" SD	——12" SD ——▶	STORM DRAIN
	0+00 1+00	CONSTRUCTION BASELINE		1 OR 2:1	SLOPE RATIO (HORIZONTAL TO VERTICAL)	8" UD	8" UD	UNDERDRAIN
		BOUNDARY LINE (State, County, Municipality)	TOP OF SLOPE	TOP OF SLOPE	SLOPES (WITH SLOPE RATIO)	6' PD	—6" PD —→	PERIMETER DRAIN
	•	SURVEY MONUMENT			EDGE OF ROAD	6" LT	—6" LT —→	LEACHATE TRANSPORT
A		SURVEY CONTROL		C o F o	CUT OR FILL LINE	6" LC —	—6" LC —	LEACHATE COLLECTION
0	•	PROPERTY PIN, DRILL HOLE, PK, OR STAKE			BITUMINOUS PAVEMENT	LD-	—6" LD —	LEAK DETECTION
~~~		WOODS OR BRUSH LINE		4 4 4	CONCRETE	GC	<b>—</b> 6" G →	GAS COLLECTION
8		INDIVIDUAL TREE	B-12 MW-12 P-12	B-12 MW-12 P-12	TEST BORING, MONITORING WELL, OR PIEZOMETER AND NUMBER	$\triangleright$	<b>•</b>	REDUCER
علاد علاد علاد		MAPPED WETLAND	TP-12	TP-12	TEST PIT AND NUMBER	E	<b>├</b> ──	MECHANICAL CAP OR PLUG
Ф	•	GAS VENT	SW-12	<b>▲</b> SW-12	SURFACE WATER SAMPLE LOCATION -		_=_	COUPLING
•		GAS VENT (CAPPED)			GAS EXTRACTION WELL	T _I	Ц	BEND
0	0	CLEAN OUT STRUCTURE	0	•	MANHOLE	———	, <u>T</u> ,	TEE
<b>≻</b> ≺		CULVERT	0	•	CATCH BASIN		***************************************	PIPE TO BE ABANDONED
+++++++		RAILROAD	->>-		WATER OR GAS VALVE			RISER PIPE & INLET GRATE
\times \( \times \)	<b>©</b>	SLOPE INCLINOMETER	7	~	HYDRANT			STORM GRATE
×	×	VIBRATING WIRE SETTLEMENT CELL		<u> </u>	AIR RELEASE VALVE		0	DRAINAGE INLET STRUCTURE
⊗	<b>∞</b>	VERTICAL/HORIZONTAL DISPLACEMENT MONUMENT		<u> </u>	SURGE RELEASE VALVE			UNDERDRAIN SUMP
⊳	<b>&gt;</b>	VERTICAL DISPLACEMENT MONUMENT	Ø	ø	UTILITY POLE		SF	SILTATION FENCE
⊗	₩	LIQUID SETTLEMENT GAGE	菜	*	LIGHT POLE		CLL	CLEARING OR CONSTRUCTION LIMIT LINE
ACP ASBEST AC ACRE AGG AGGREG ALUM ALUMIN APPD APPRON APPROX APPRON	EGATE INUM DVED DXIMATE ELEASE MANHOLE STOS ALT MATIC	D DEGREE OF CURVE DBL DOUBLE DEG OR ° DEGREE DEPT DEPARTMENT DI DUCTILE IRON DIA OR Ø DIAMETER DIM DIMENSION DIST DISTANCE DN DOWN DR DRAIN DWG DRAWING	HDPE HORIZ HP HYD  ID IN OR " INV INV EL  LB LC	HIGH DENSITY POLYETHYLEN HORIZONTAL HORSEPOWER HYDRANT  INSIDE DIAMETER INCHES INVERT INVERT ELEVATION  POUND LEACHATE COLLECTION	PERF PERFORATED PP POWER POLE PSI POUNDS PER SQUARE INCH PVC POLYVINYL CHLORIDE PVMT PAVEMENT  QTY QUANTITY  RCP REINFORCED CONCRETE PIL ROW RIGHT OF WAY RAD RADIUS REQD REQUIRED		VIEW	MARKERS & IDENTIFICATION  DETAIL TITLE  MANHOLE  SEE DWG C-300

REQD

VA TEE

LEACHATE TRANSPORT

MECHANICAL JOINT

MANUFACTURE

MISCELLANEOUS

NOT TO SCALE

NUMBER

ON CENTER

NOW OR FORMERLY

OUTSIDE DIAMETER

POINT OF CURVE

PERIMETER DRAIN

POINT OF INTERSECTION

POST INDICATOR VALVE

POINT OF TANGENT

NOT IN THIS CONTRACT

MONUMENT

LEAK DETECTION

LINEAR FEET

LOCATION

MANHOLE

MINIMUM

MISC

MON

NTS

NO OR #

RIGHT

ROUTE

SLOPE

SCHEDULE

STREET

STATION

TANGENT

TEMPORARY

UNDERDRAIN

TYPICAL

VERTICAL

WITHOUT

WITH

YARD

WATER GATE

SQUARE YARD

SQUARE FEET

SANITARY MANHOLE

TOTAL DYNAMIC HEAD

VALVE ANCHORING TEE

BCCMP

BLDG

CEM LIN

CONC CONST CONTR

CTR

BITUMINOUS

BUILDING

BOTTOM

BEARING

BALL VALVE

CATCH BASIN

CEMENT LINED

CLEAN OUT

CUBIC FEET

CAST IRON

CONCRETE

CONSTRUCTION

CONTRACTOR

CURB STOP

CUBIC YARD

CENTER

COPPER

BITUMINOUS COATED CMP

CORRUGATED METAL PIPE

CUBIC FEET PER SECOND

**AVENUE** 

**ELEVATION** 

EQUIPMENT

ESTIMATED

EXCAVATE

EXISTING

FINISH GRADE

**FIBERGLASS** 

**FOUNDATION** 

FEET PER SECOND

FLEXIBLE

FOOTING

**GAUGE** 

GALLON

GALVANIZED

GALLONS PER DAY

GALLONS PER MINUTE

**FLANGE** 

FLOOR

EDGE OF PAVEMENT

**ELBOW** 

EOP EQUIP EST

EXIST

FBRGL FDN FLEX FLG FLR

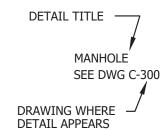
FT OR '

FTG

GAL

GALV GPD GPM

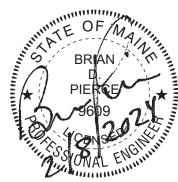
EXISTING GROUND OR GRADE



### **GENERAL NOTES**

- 1. THE CONTRACTOR SHALL COMPLY FULLY WITH CONDITIONS OF THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION (MEDEP) OPERATING PERMIT, BOARD ORDER, MEDEP "MAINE EROSION AND SEDIMENT CONTROL HANDBOOK FOR CONSTRUCTION: BEST MANAGEMENT PRACTICES", AND MAINE DEPARTMENT OF TRANSPORTATION (MDOT) ENTRANCE PERMIT REQUIREMENTS, AS APPLICABLE.
- 2. THE CONTRACTOR AND ITS SUBCONTRACTORS SHALL ABIDE BY ALL SAFETY REQUIREMENTS ASSOCIATED WITH WORKING AT AN ACTIVE SOLID WASTE LANDFILL FACILITY (i.e., RISK OF WORKER EXPOSURE TO LANDFILL GASES, LEACHATE, SOLID WASTE) INCLUDING THE FOLLOWING:
- COMPLY WITH ALL OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS;
- INCLUDING, BUT NOT LIMITED TO, USE OF HARD HATS, SAFETY GLASSES, AND FLUORESCENT SAFETY VESTS AT ALL
- FOLLOW ALL APPLICABLE OSHA RULES, INCLUDING, BUT NOT LIMITED TO, THOSE RELATED TO MANHOLES, CATCH BASINS, PUMP STATIONS, TEST PITS, TRENCHES, ETC.
- 3. THE CONTRACTOR SHALL TAKE EVERY PRECAUTION TO ENSURE THAT NO SILTATION OF STORMWATER DRAINAGE COURSES OCCURS AS A RESULT OF SOIL DISTURBANCE ASSOCIATED WITH THE CONTRACT SCOPE OF WORK.
- 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING COMPLETE PROTECTION OF THE PROJECT DURING CONSTRUCTION FROM ANY ACTS OF NATURE OR MAN, SUCH AS, BUT NOT LIMITED TO, FLOODS, WIND DAMAGE, EARTH SLIDES, AND SLOPE FAILURES. DAMAGE TO THE PROJECT CAUSED BY SUCH ACTS WILL NOT BE SUFFICIENT CAUSE TO INCREASE CONTRACT COSTS TO THE OWNER.
- 5. THE CONTRACTOR SHALL PROTECT EXISTING ON-SITE STRUCTURES FROM DAMAGE DURING CONSTRUCTION, INCLUDING: MONITORING WELLS, POWER LINES, MAINTENANCE FACILITIES, EXISTING LEACHATE COLLECTION, LINER AND TRANSPORT SYSTEMS, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REPAIRS REQUIRED TO CORRECT DAMAGE MADE TO EXISTING ON-SITE STRUCTURES DESCRIBED ABOVE RESULTING FROM ANY CONSTRUCTION ACTIVITY.
- 6. THE DESIGN INTENT, AS DETERMINED BY THE ENGINEER, WILL GOVERN IN THE CASE OF DISCREPANCY IN OR BETWEEN THE DRAWINGS AND SPECIFICATIONS. THE SPECIFICATIONS ARE INTENDED TO SUPPLEMENT AND CLARIFY THE WORK SHOWN IN THE DRAWINGS, AS SOMETIMES WORK IS CALLED FOR IN THE SPECIFICATIONS THAT IS NOT SHOWN ON THE DRAWINGS AND SOMETIMES THE DRAWINGS INDICATE WORK THAT IS NOT MENTIONED IN THE SPECIFICATIONS. BOTH DRAWINGS AND SPECIFICATIONS MUST BE COMPLIED WITH IN ORDER TO FULFILL THE CONTRACT REQUIREMENTS, AND ANY WORK CALLED FOR BY EITHER IS AS BINDING AS THOUGH IT WERE CALLED FOR BY BOTH. THE CONTRACTOR SHALL TAKE NO ADVANTAGE OF ANY ERROR OR OMISSION IN THE DRAWINGS OR OF ANY DISCREPANCY BETWEEN THE DRAWINGS AND SPECIFICATIONS. IN ALL CASES OF DOUBT AS TO THE TRUE MEANING OF THE DRAWINGS AND SPECIFICATIONS, THE DECISION OF THE ENGINEER WILL BE FINAL AND CONCLUSIVE.

	BDP	2/2024	ISSUED FOR BID AND MEDEP REVIEW
REV.	BY	DATE	STATUS
			·



MAINE BUREAU OF GENERAL SERVICES DOLBY LANDFILL COVER UPGRADE PHASE 4 EAST MILLINOCKET, MAINE **BGS PROJECT 3754** 

# SYMBOLS AND ABBREVIATIONS

SME _ SEVEE & MAHER ENGINEERS ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE

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JOB NO. 231265.00 DWG FILE SYMSHT

CTB: SME-STD C-100

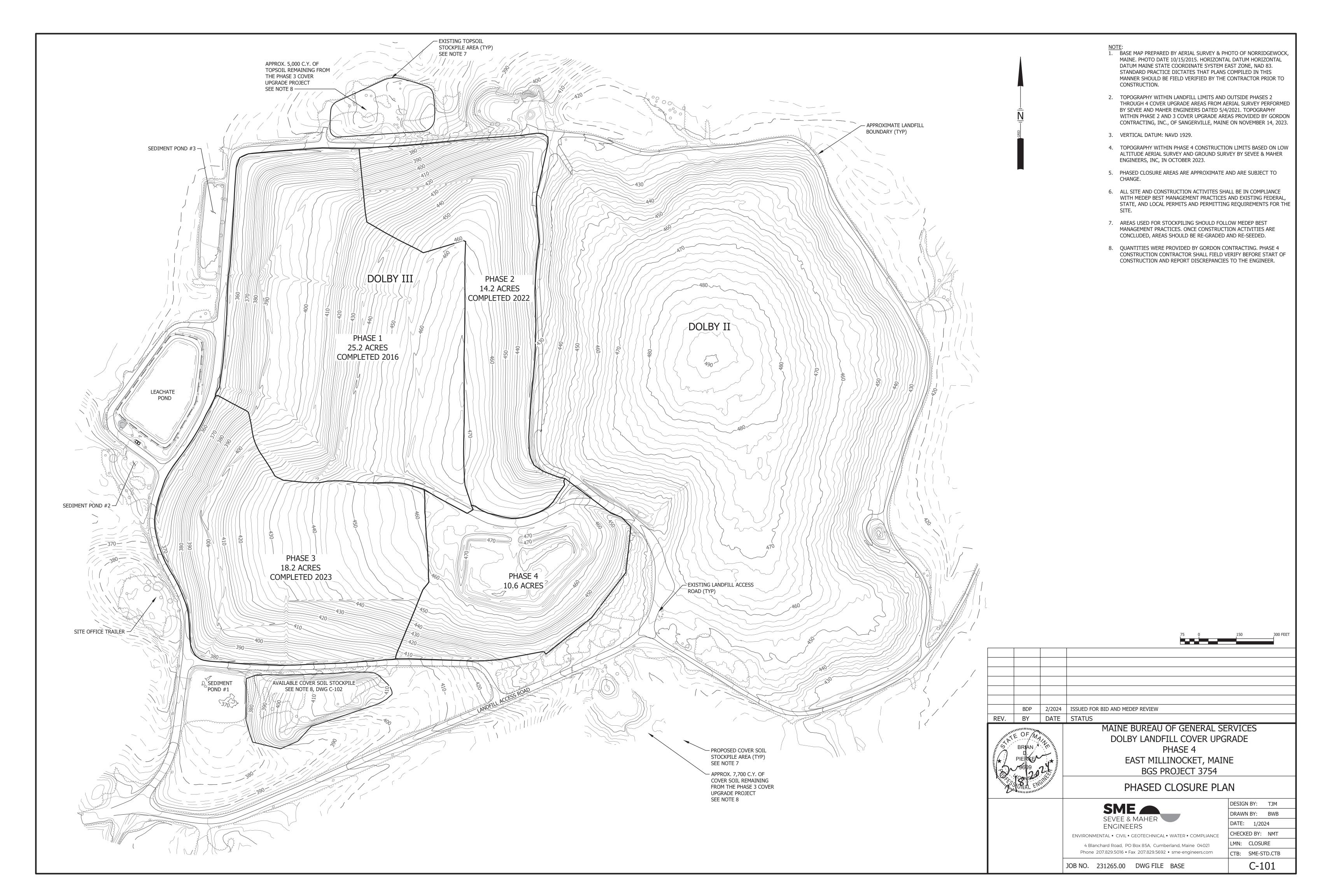
DESIGN BY: TJM

DRAWN BY: BWB

CHECKED BY: BDP

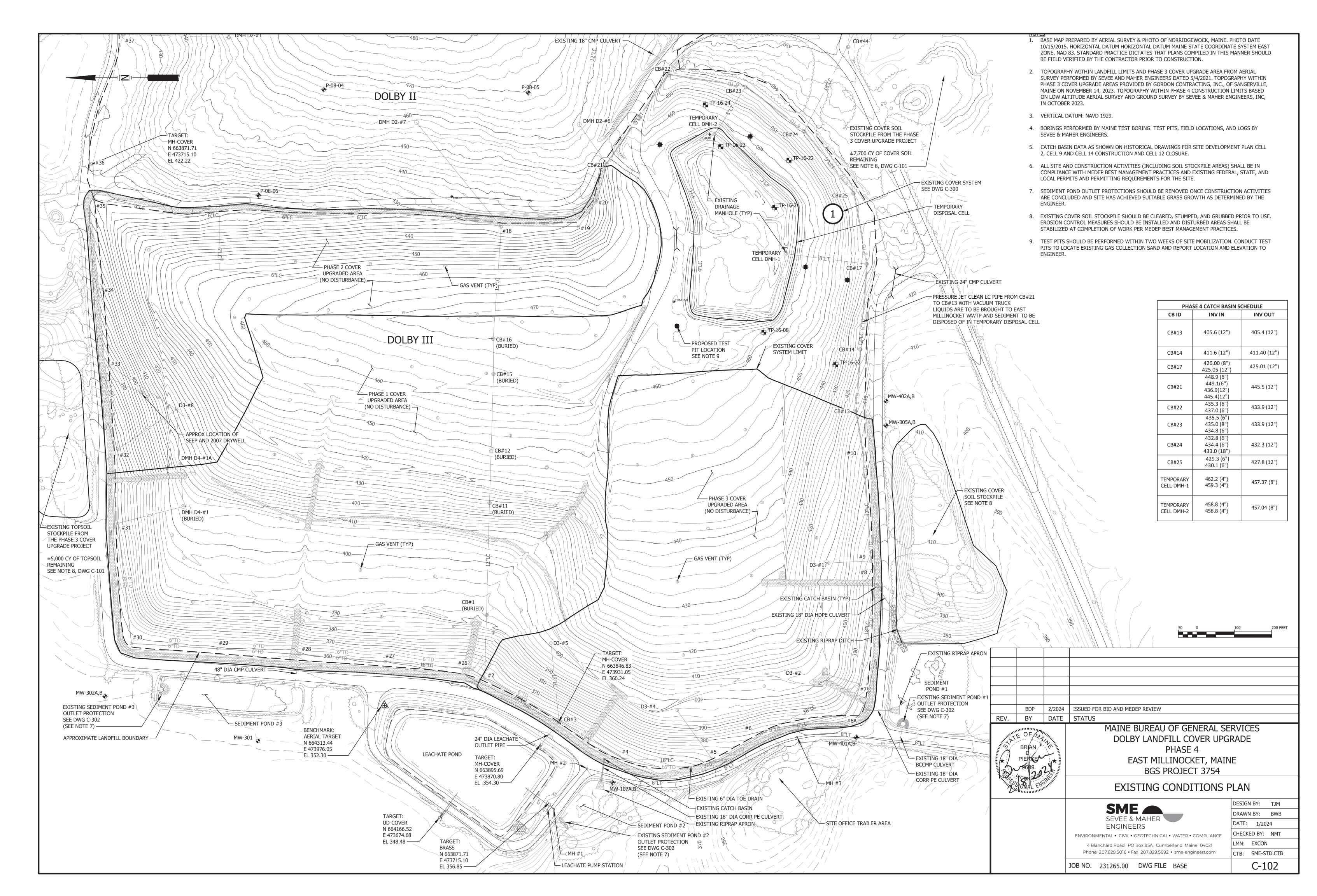
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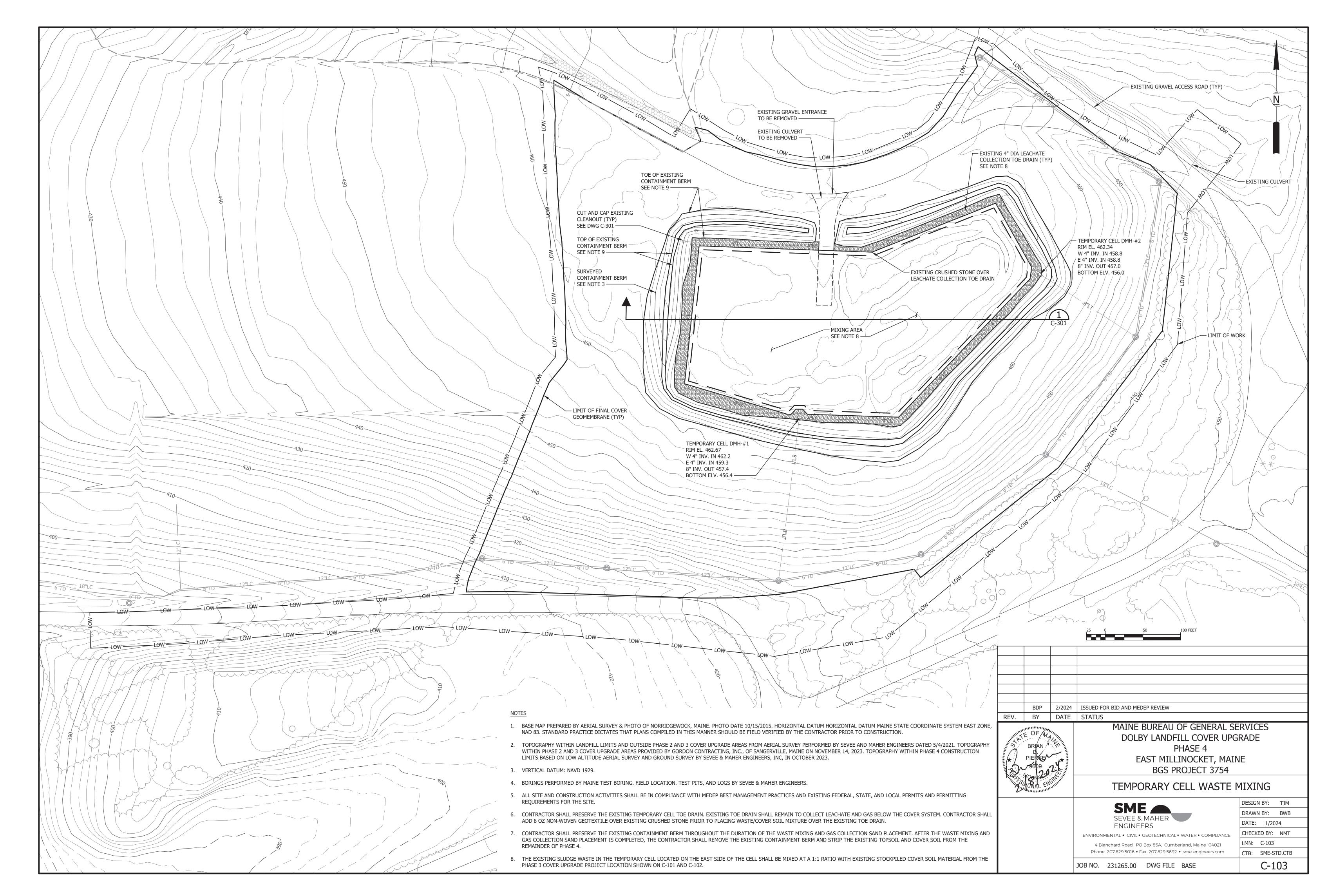


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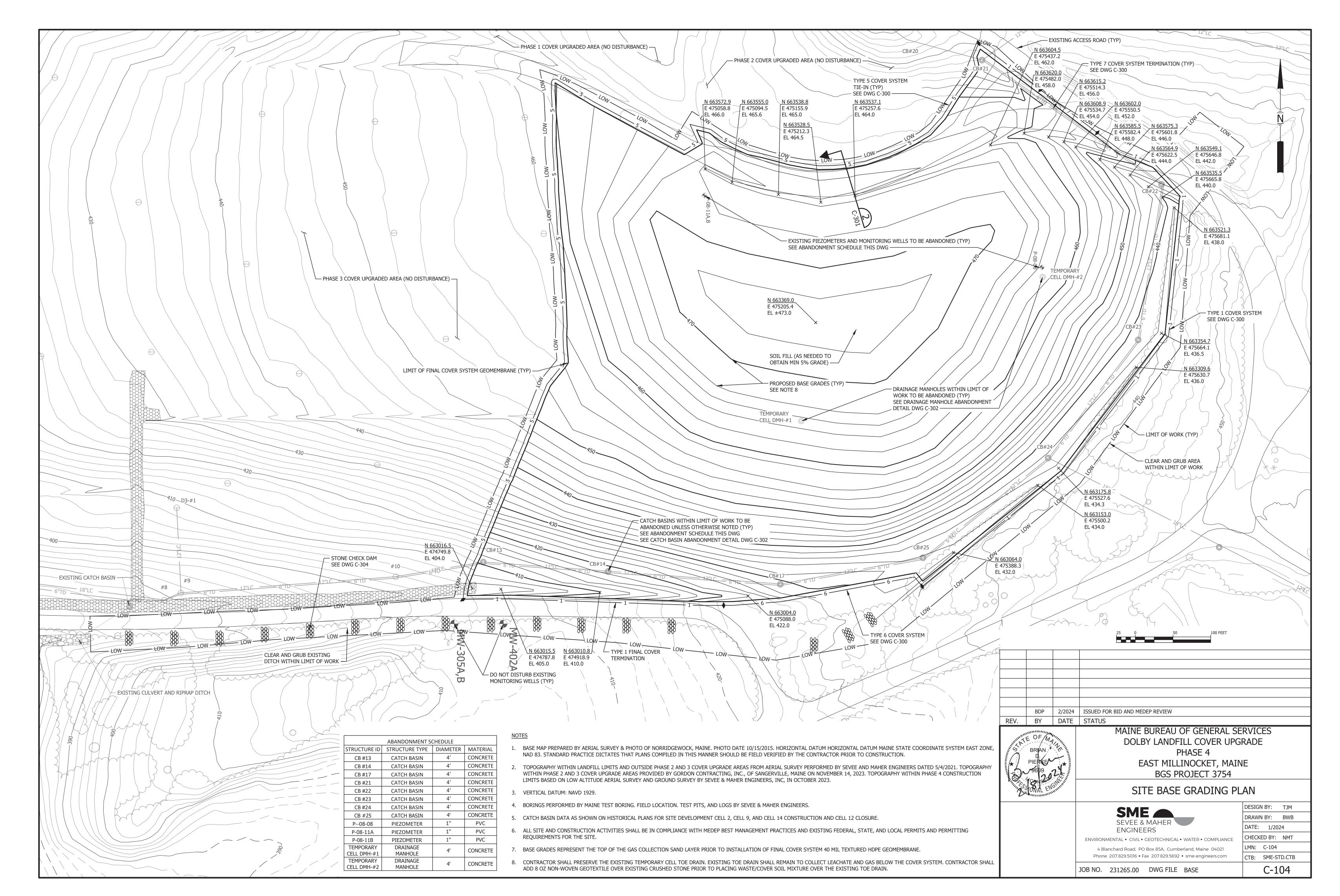
źskpc∖Do∖lCOVER UPGRADE∖Phase 4∖Acad∖Plans∖BASE.dwg, C-1



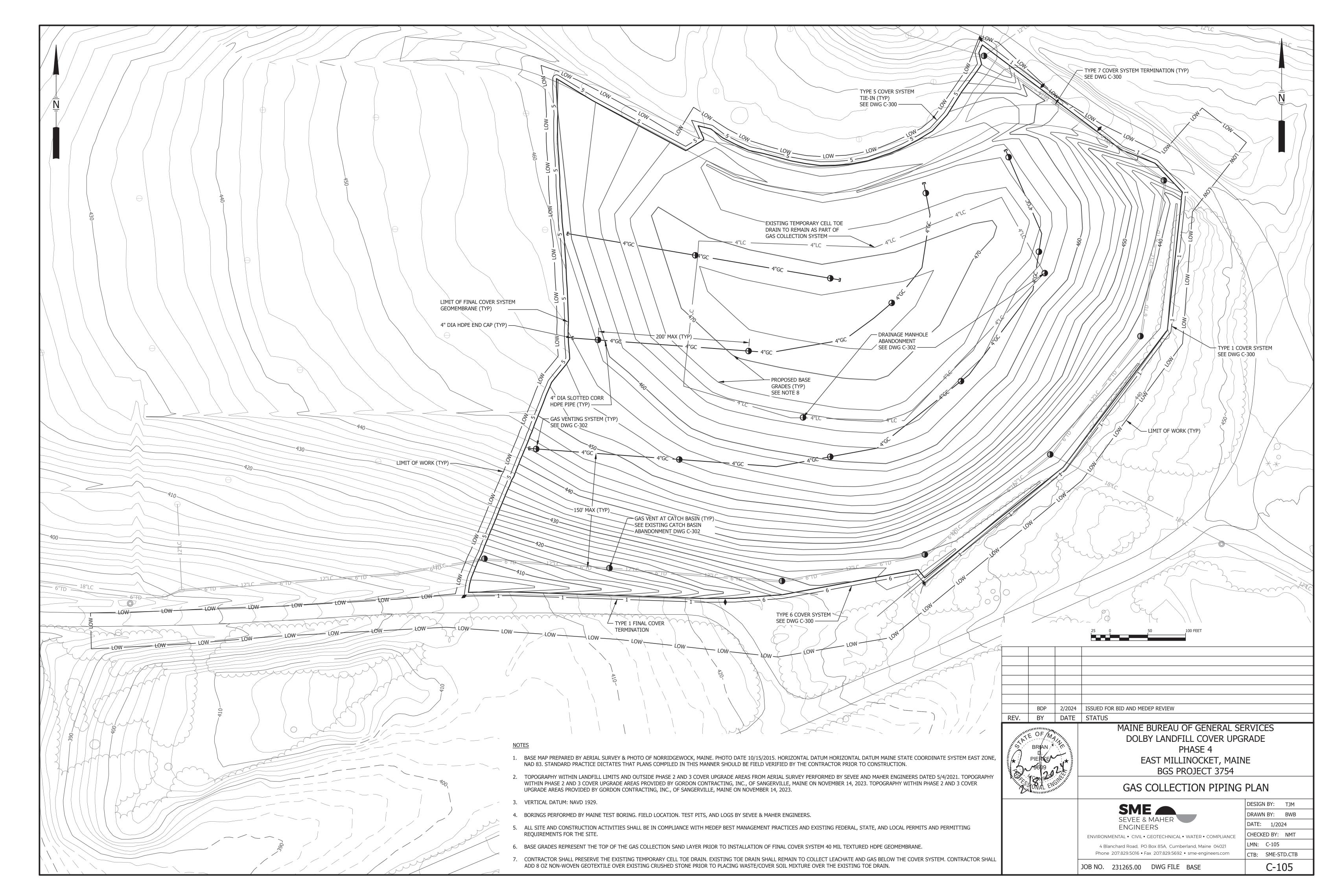
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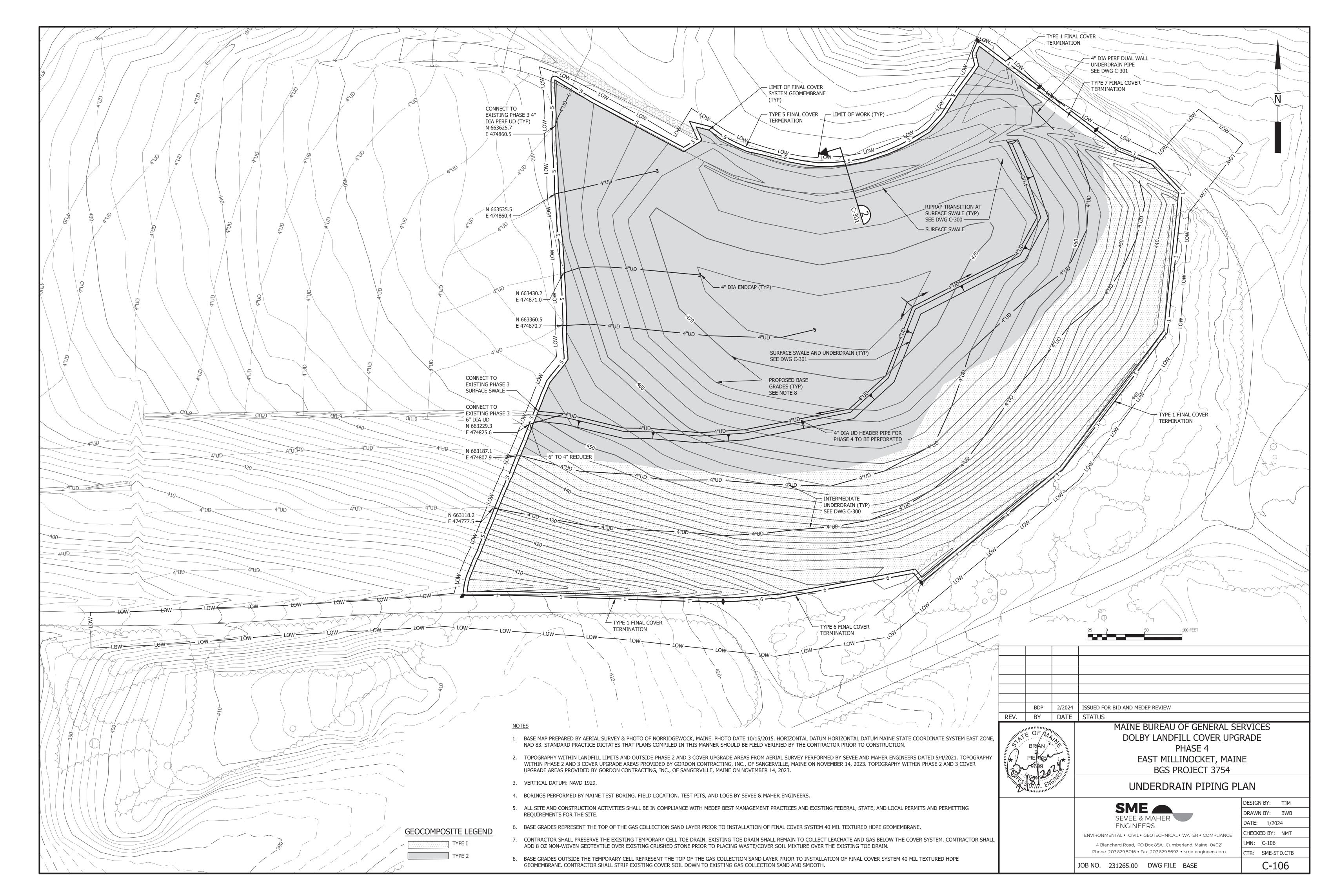
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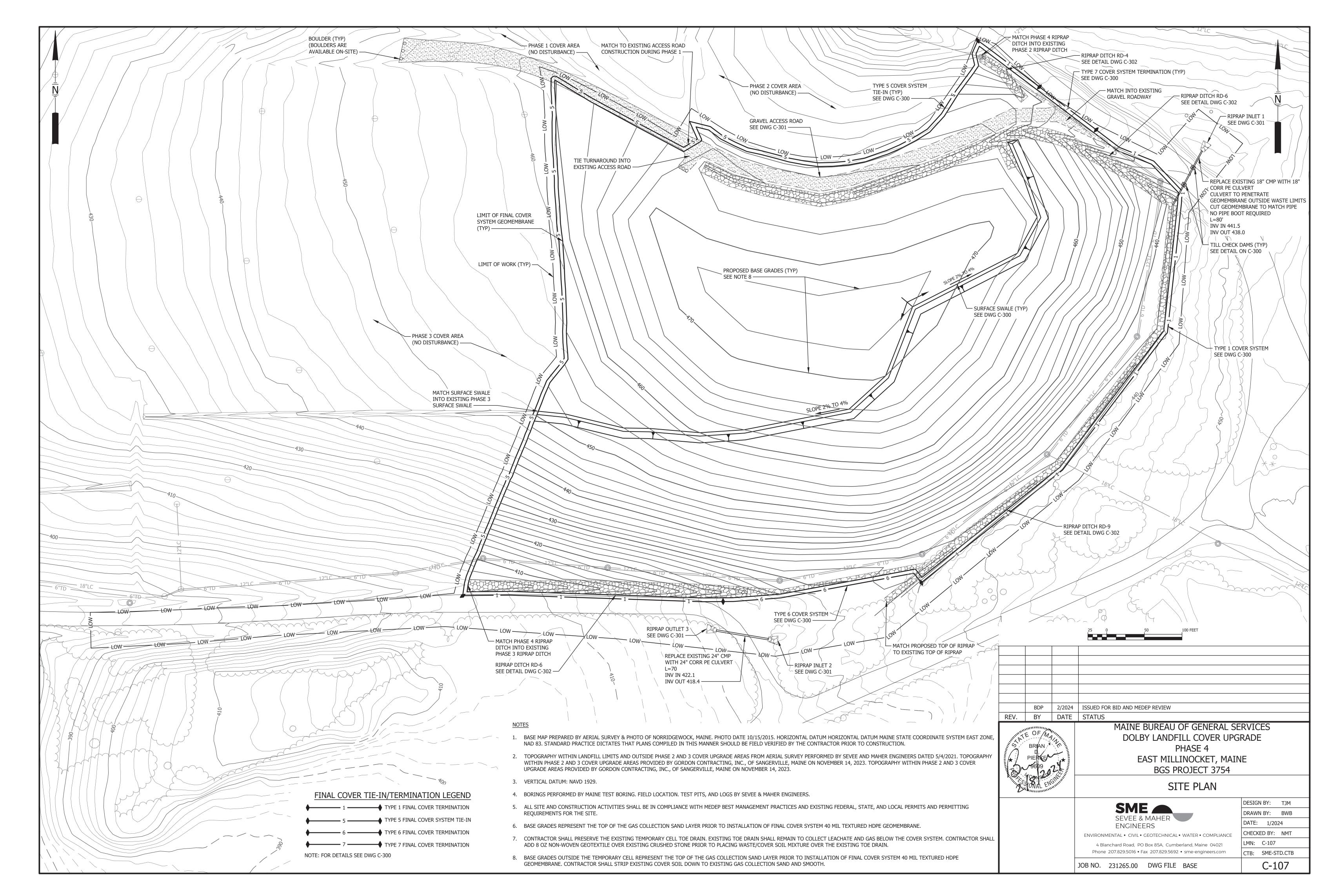
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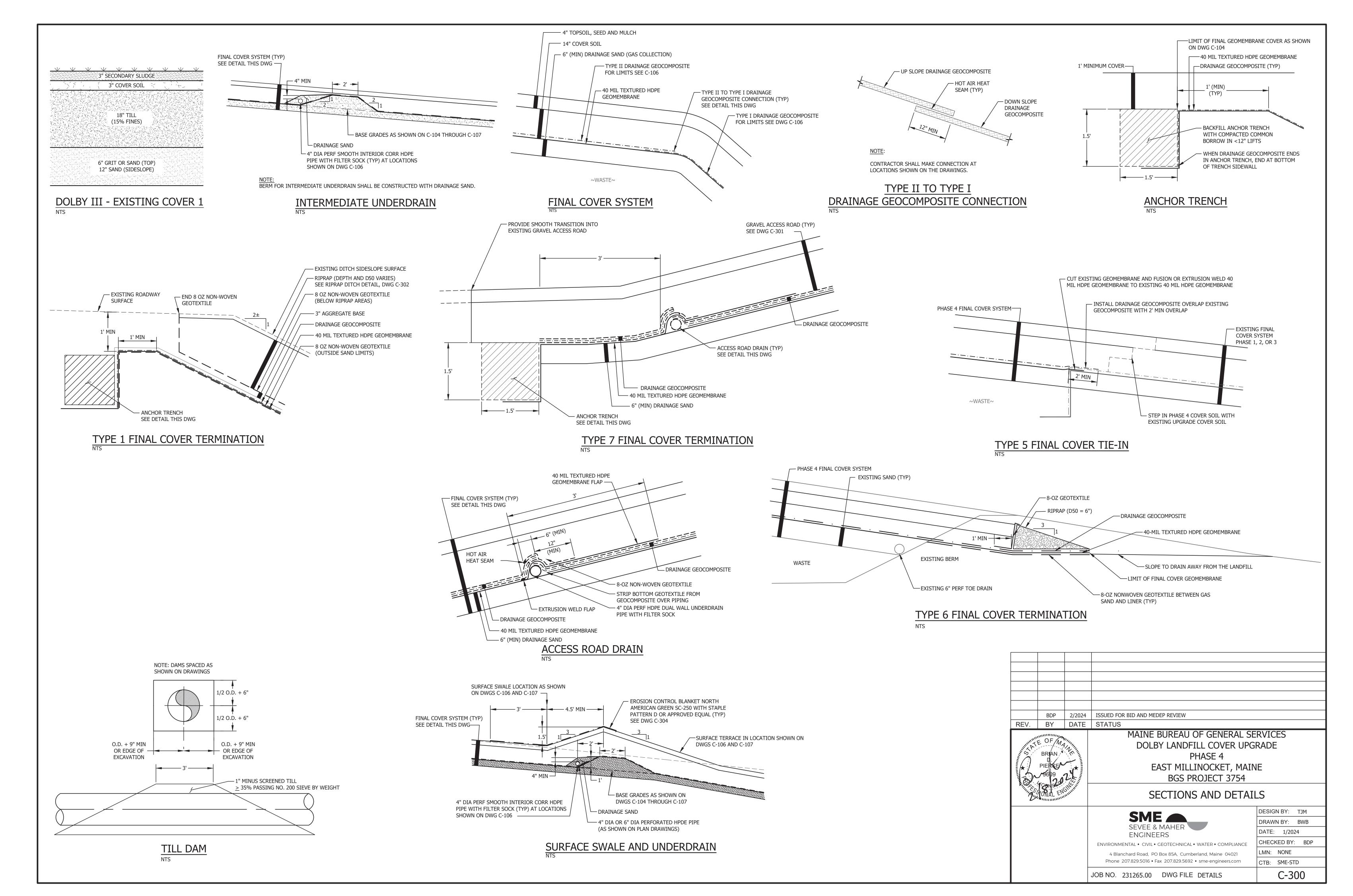
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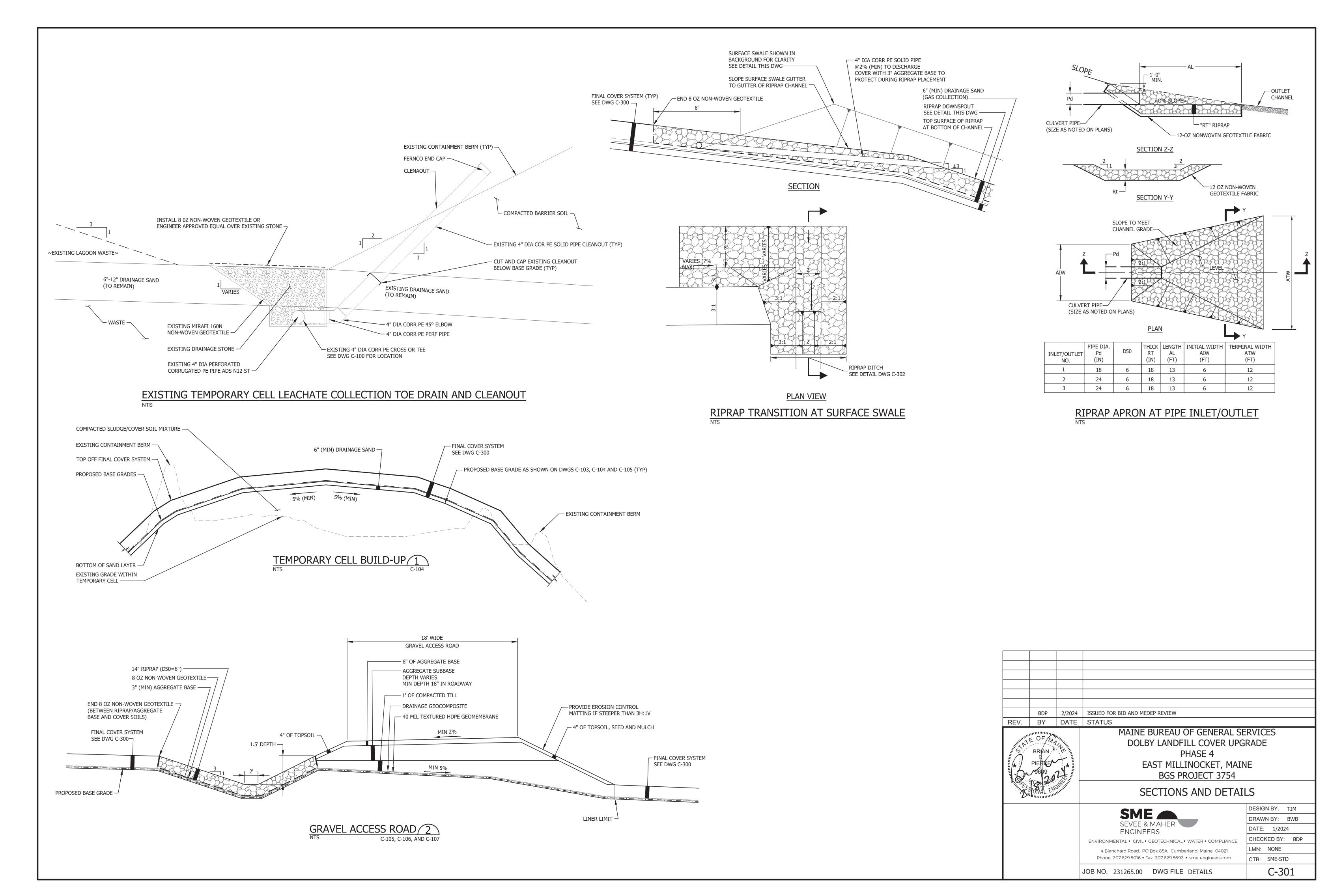
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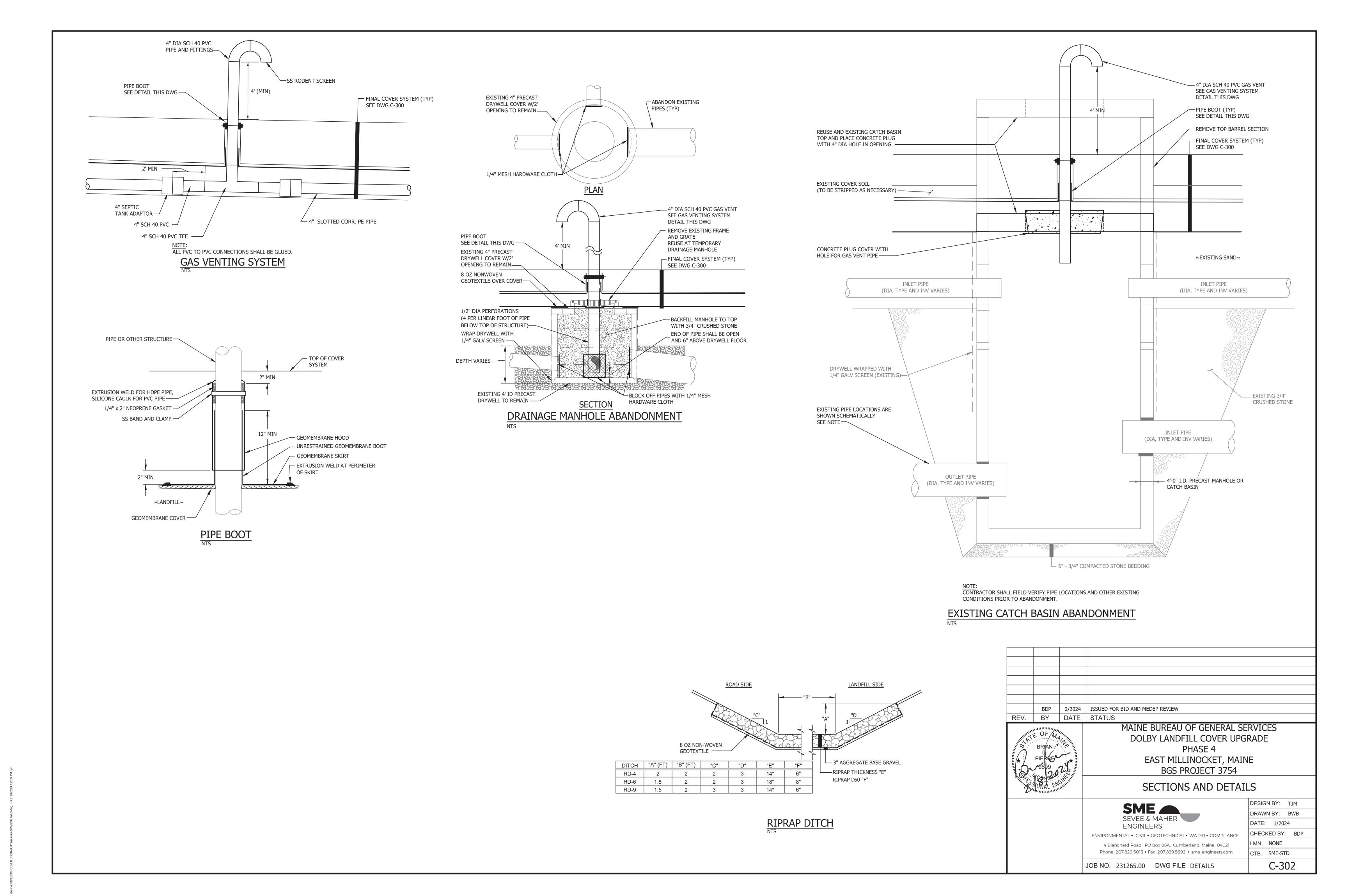
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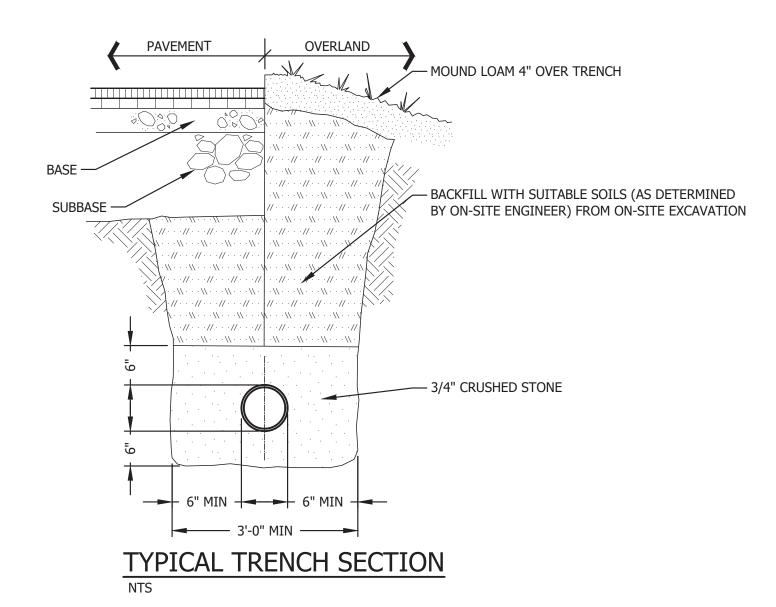


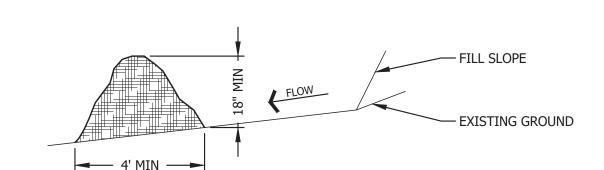
rveňdsíKpciDoliCOVER UPGRADE\Phase 4/AcadiPlans\DETAILS.chug, C-300, 2/8/2024 1;22:11 PM, sjm



Winserverlofs/KpclDol/COVER UPGRADE/Phase 4/AcadiPlans/DETAILS.chug. C-301, 2/8/2024 1;22:17 PM, sjm







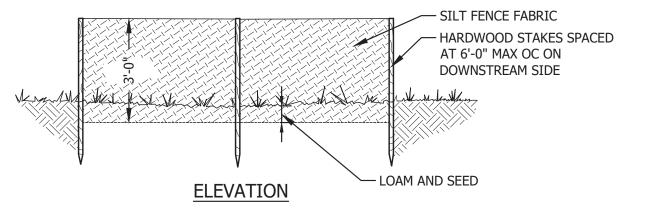
### EROSION CONTROL MIX SEDIMENT BARRIER

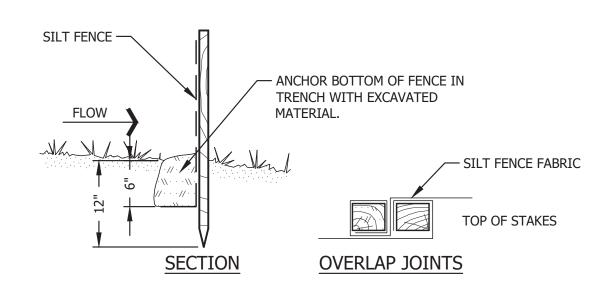
### NOTES:

- 1. EROSION CONTROL MIX CAN BE MANUFACTURED ON OR OFF THE SITE. IT MUST CONSIST PRIMARILY OF ORGANIC MATERIAL SEPARATED AT THE POINT OF GENERATION, AND MAY INCLUDE: SHREDDED BARK, STUMP GRINDINGS, COMPOSTED BARK, OR FLUME GRIT AND FRAGMENTED WOOD GENERATED FROM WATER-FLUME LOG HANDLING SYSTEMS. WOOD CHIPS, GROUND CONSTRUCTION DEBRIS, REPROCESSED WOOD PRODUCTS OR BARK CHIPS WILL NOT BE ACCEPTABLE AS THE ORGANIC COMPONENT OF THE MIX. EROSION CONTROL MIX SHALL CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES AND MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER. EROSION CONTROL MIX MUST BE FREE OF REFUSE, PHYSICAL CONTAMINANTS, AND MATERIAL TOXIC TO PLANT GROWTH.
- THE MIX COMPOSITION SHALL MEET THE FOLLOWING STANDARDS: A. ORGANIC MATERIAL: BETWEEN 20% - 100% (DRY WEIGHT BASIS)
  B. PARTICLE SIZE: BY WEIGHT, 100% PASSING 6" SCREEN, 70-85% PASSING 0.75" SCREEN C. THE ORGANIC PORTION NEEDS TO BE FIBROUS AND ELONGATED. D. LARGE PORTIONS OF SILTS, CLAYS OR FINE SANDS ARE NOT ACCEPTABLE IN THE MIX. E. SOLUBLE SALTS CONTENT SHALL BE LESS THAN 4.0 MMHOS/CM.
- 2. ON SLOPES LESS THAN 5% OR AT THE BOTTOM OF SLOPES 2:1 OR LESS UP TO 20 FEET LONG, THE BARRIER MUST CONFORM TO THE ABOVE DIMENSIONS. ON THE LONGER OR STEEPER SLOPES, THE BARRIER SHOULD BE WIDER TO ACCOMMODATE THE ADDITIONAL FLOW.
- 3. THE BARRIER MUST BE PLACED ALONG A RELATIVELY LEVEL ELEVATION. IT MAY BE NECESSARY TO CUT TALL GRASSES OR WOODY VEGETATION TO AVOID CREATING VOIDS AND BRIDGES THAT WOULD ENABLE FINES TO WASH UNDER THE BARRIER THROUGH THE GRASS BLADES OR PLANT STEMS.
- 4. LOCATIONS WHERE OTHER BMP'S SHOULD BE USED:

F. PH: 5.0 - 8.0

- A. AT LOW POINTS OF CONCENTRATED FLOW B. BELOW CULVERT OUTLET APRONS
- C. WHERE A PREVIOUS STAND-ALONE EROSION CONTROL MIX APPLICATION HAS FAILED D. AT THE BOTTOM OF STEEP PERIMETER SLOPES THAT ARE MORE THAN 50 FEET FROM TOP TO BOTTOM (LARGE UPGRADIENT WATERSHED)
- E. AROUND CATCH BASINS AND CLOSED STORM DRAIN SYSTEMS
- 5. THE EROSION CONTROL MIX BARRIERS SHOULD BE INSPECTED REGULARLY AND AFTER EACH LARGE RAINFALL. REPAIR ALL DAMAGED SECTIONS OF BERM IMMEDIATELY BY REPLACING OR ADDING ADDITIONAL MATERIAL PLACED ON THE BERM TO THE DESIRED HEIGHT AND WIDTH.
- 6. IT MAY BE NECESSARY TO REINFORCE THE BARRIER WITH SILT FENCE OR STONE CHECK DAMS IF THERE ARE SIGNS OF UNDERCUTTING OR THE IMPOUNDMENT OF LARGE VOLUMES OF WATER.
- 7. SEDIMENT DEPOSITS SHOULD BE REMOVED WHEN THEY REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
- 8. REPLACE SECTIONS OF BERM THAT DECOMPOSE, BECOME CLOGGED WITH SEDIMENT OR OTHERWISE BECOME INEFFECTIVE. THE BARRIER SHOULD BE RESHAPED AS NEEDED.
- 9. EROSION CONTROL MIX BARRIERS CAN BE LEFT IN PLACE AFTER CONSTRUCTION. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER BARRIER IS NO LONGER REQUIRED SHOULD BE SPREAD TO CONFORM TO THE EXISTING GRADE AND BE SEEDED AND MULCHED.
- 10. IF TEMPORARY BERMS ARE USED AS SILT BARRIERS, THEY ARE PROHIBITED AT THE BASE OF SLOPES STEEPER THAN 8% OR WHERE THERE IS FLOWING WATER WITHOUT THE SUPPORT OF ADDITIONAL MEASURES SUCH AS SILT FENCE.

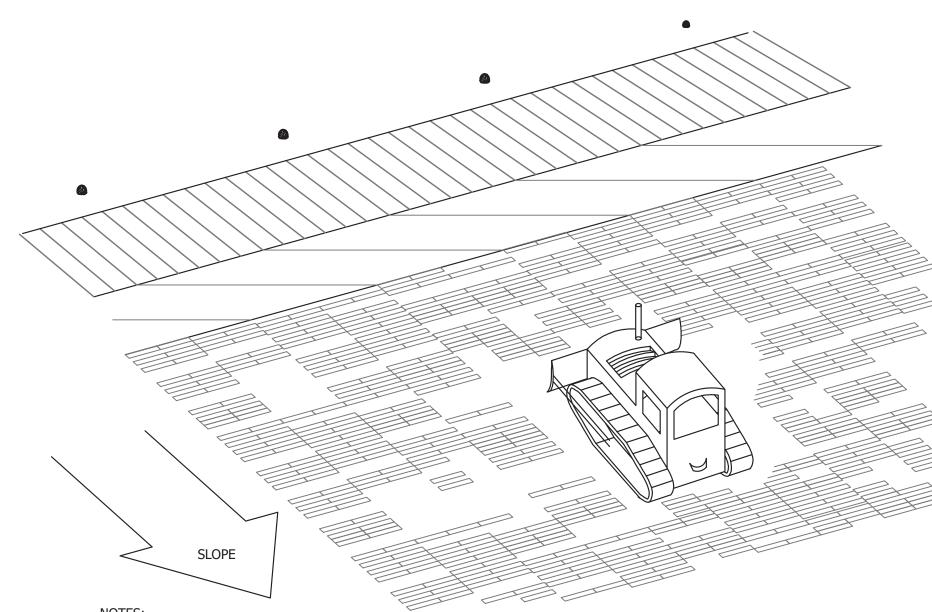




SILT FENCE

CONTRACTORS OPTION TO USE SEDIMENT BARRIER OR SILT FENCE FOR SLOPE PROTECTION.

# SURFACE DRAINAGE SEDIMENT CONTROL

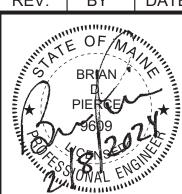


1. SLOPE TRACKING SHALL BE PERFORMED BY CONTRACTOR ON ALL FINISHED AREAS TO BE SEEDED.

2. TRACKING SHALL BE PERFORMED BY RUNNING LOW GROUND PRESSURE TRACKED MACHINERY UP AND DOWN SLOPES LEAVING TREAD MARKS PARALLEL TO THE CONTOUR.

# SLOPE TRACKING

BDP	2/2024	ISSUED FOR BID AND MEDEP REVIEW		
BY	DATE	STATUS		
THE OF MANAGER		MAINE BUREAU OF GENERAL SERVICES		
		DOLBY LANDFILL COVER UPGRADE		
BRIAN I		PHASE 4		
		BY DATE  OF MAINTING		



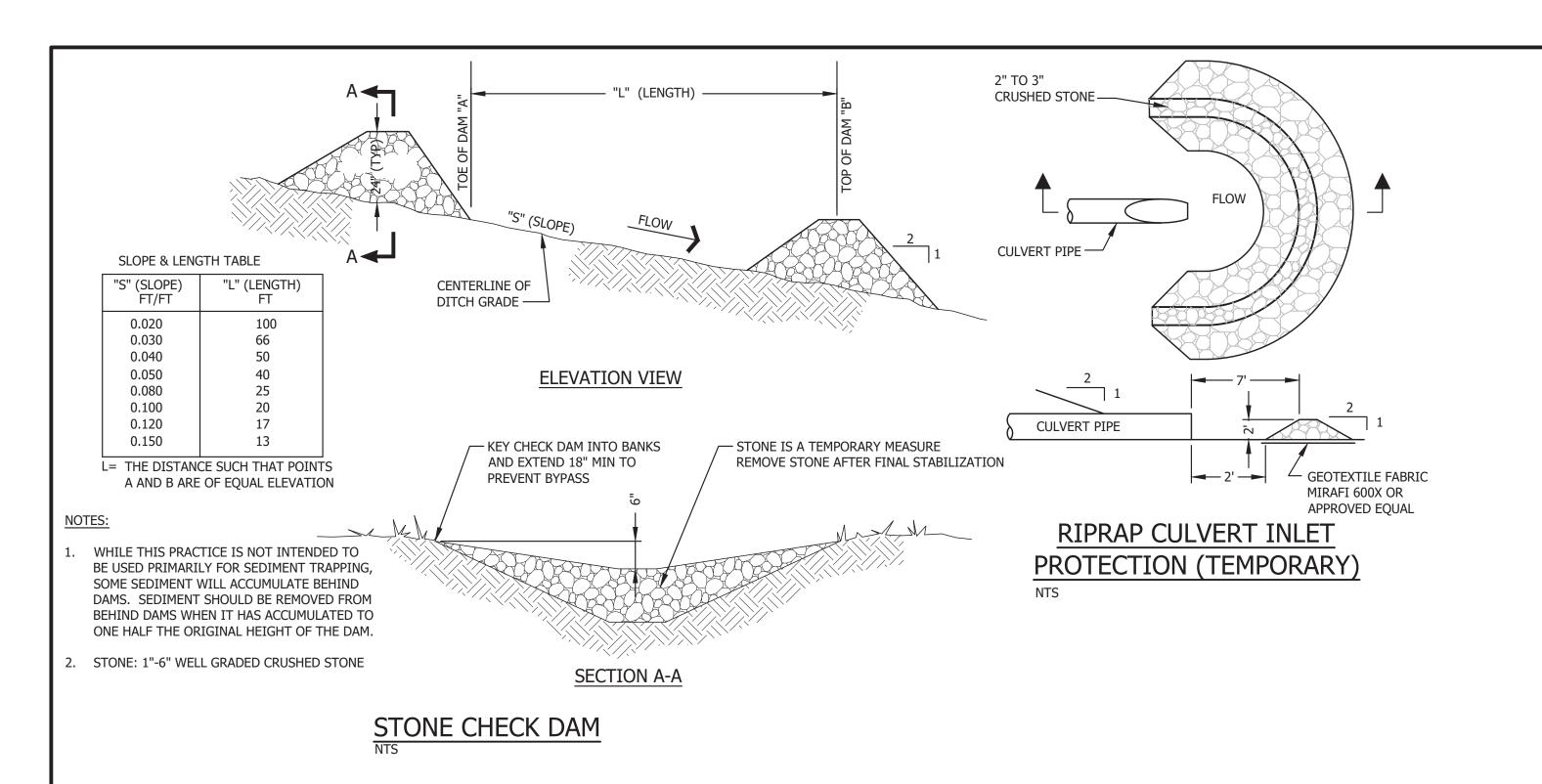
EAST MILLINOCKET, MAINE **BGS PROJECT 3754** 

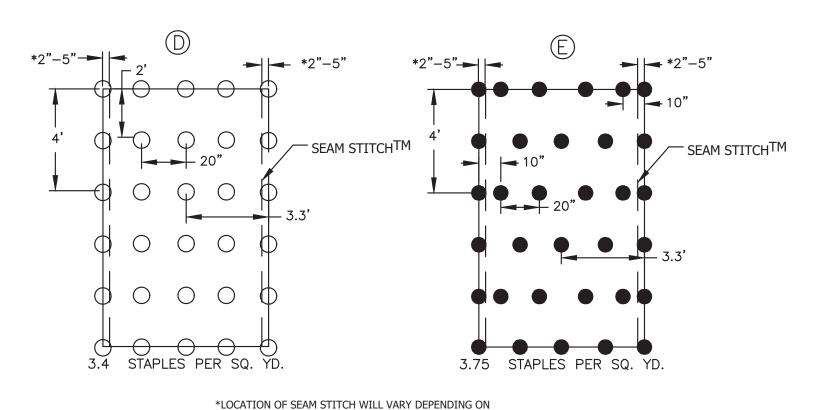
## SECTIONS AND DETAILS

C-303

CME _	DESIGN BY: TJM
SME SEVEE & MAHER	DRAWN BY: BWB
ENGINEERS	DATE: 1/2024
ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE	CHECKED BY: BDP
4 Blanchard Road, PO Box 85A, Cumberland, Maine 04021	LMN: NONE
Phone 207.829.5016 • Fax 207.829.5692 • sme-engineers.com	CTB: SME-STD

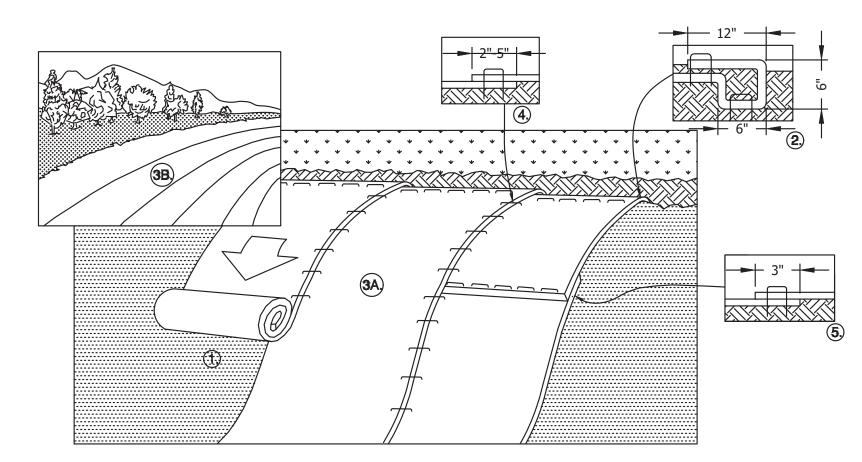
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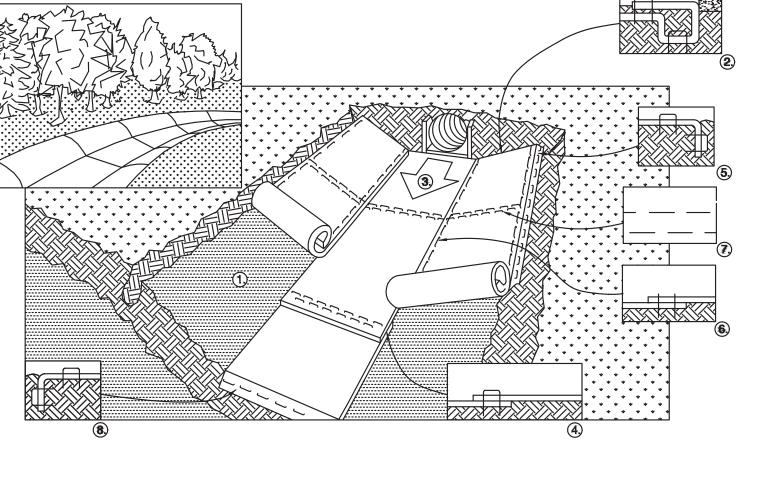
NORTH AMERICAN GREEN PRODUCT TYPE FOR BLANKETS WITH THE NORTH AMERICAN GREEN DOT SYSTEMTM PLACE

ECB STAPLE PATTERN GUIDE

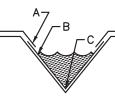


- PREPARE BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP'S). INCLUDING ANY NECESSARY APPLICATION OF LIME,
- BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP'S IN A 6"DEEPx6"WIDE TRENCH WITH APPROXIMATELY 12" OF RECP'S EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP'S WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF RECP'S BACK OVER SEED AND COMPACTED SOIL. SECURE RECP'S OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE RECP'S.
- 3. ROLL THE RECP'S (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. RECP'S WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP'S MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM TM , STAPLES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
- 4. THE EDGES OF PARALLEL RECP'S MUST BE STAPLED WITH APPROXIMATELY 2"-5" OVERLAP DEPENDING ON RECP'S TYPE.
- 5. CONSECUTIVE RECP'S SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE RECP'S WIDTH.

*IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE



- 1. PREPARE BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP'S). INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER
- 2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP'S IN A 6"DEEpx6"WIDE TRENCH WITH APPROXIMATELY 12" OF RECP'S EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP'S WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF RECP'S BACK OVER SEED AND COMPACTED SOIL. SECURE RECP'S OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE RECP'S.
- 3. ROLL CENTER RECP'S IN THE DIRECTION OF WATER FLOW IN BOTTOM OF CHANNEL. RECP'S WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP'S MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEMTM, STAPLES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS
- 4. PLACE CONSECUTIVE RECP'S END OVER END (SHINGLE STYLE) WITH A 4" TO 6" OVERLAP. USE A DOUBLE ROW OF STAPLES STAGGERED 4" APART AND 4" ON CENTER TO SECURE RECP'S.
- 5. FULL LENGTH EDGE OF RECP'S AT OF SIDE SLOPES MUST BE ANCHORED WITH A ROW OF STAPLES APPROXIMATELY 12" APART IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
- 6. ADJACENT RECP'S MUST BE OVERLAPPED APPROXIMATELY 2" TO 5" (DEPENDING ON RECP'S TYPE) AND STAPLED.
- 7. IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30 TO 40 FOOT INTERVALS. USE A DOUBLE ROW OF STAPLES STAGGERED 4" APART AND 4" ON CENTER OVER ENTIRE WIDTH OF THE CHANNEL.
- 8. THE TERMINAL END OF THE RECP'S MUST BE ANCHORED WITH A ROW OF STAPLES APPROXIMATELY 12" APART IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
- *IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE RECP'S.



* HORIZONTAL STAPLE SPACING SHOULD BE ALTERED IF NECESSARY TO ALLOW STAPLES TO SECURE THE CRITICAL POINTS ALONG THE CHANNEL SURFACE.

# CHANNEL INSTALLATION

TEMPORARY AND PERMANENT **EROSION AND SEDIMENTATION CONTROL** 

A. GENERAL

- 1. All soil erosion and sediment control will be done in accordance with the Maine Erosion and Sediment Control Best Management Practices, Maine Department of Environmental Protection, October 2016, and as currently revised.
- 2. The contractor will be responsible for the repair/replacement/ maintenance of all erosion control measures until all disturbed areas are stabilized. Contractor shall be responsible for plan preparation, documentation and inspection.
- 3. Disturbed areas will be permanently stabilized within 7 days of final grading. Disturbed areas not to be worked upon within 14 days of disturbance, shall be temporarily stabilized within 7 days of the
- 4. In all areas, removal of trees, bushes and other vegetation, as well as disturbance of topsoil will be kept to a minimum while allowing proper site operations.
- 5. Any suitable topsoil or cover soil will be stripped and stockpiled for reuse in final grading. Soil will be stockpiled in a manner such that natural drainage is not obstructed and no off-site sediment damage will result. If a stockpile is necessary, the side slopes of the stockpile will not exceed 2:1. Silt fence will be installed around the perimeter of all stockpiles. Stockpiles will be surrounded with siltation fencing and will be temporarily seeded with aroostook rye, annual or perennial ryegrass, within 7 days of formation, or temporarily mulched if seeding cannot be done within the recommended seeding dates. Recommended seeding dates and application rates are as follows:

Aroostook Rye: Recommended Seeding Dates: 4/15 - 8/15 Application Rate: 112 lbs/acre

Perennial Ryegrass: Recommended Seeding Dates: 4/15 - 8/15 Application Rate: 85 lbs/acre

Mulch: o Hay or Straw Application Rate: 2 - 3 tons/acre.

Anchor with tack or 300 lbs/acre fiber mulch o Wood Fiber Cellulose (4/15 - 7/15) Temporary mulch only Application Rate: 4,000 lbs/acre.

### B. TEMPORARY MEASURES

Silt Fence

(a) Silt fence will be installed prior to and downgradient of all construction activity where soil disturbance may result in erosion.

(b) The height of a silt fence will not exceed 36 inches.

Anchoring not required

(c) The filter fabric will be purchased in a continuous roll cut to the length of the barrier to avoid the use of joints. When joints are necessary, filter cloth will be spliced together only at a support post, with a minimum 6-inch overlap, and securely sealed.

(d) Posts will be spaced a maximum of 10 feet apart at the barrier location and driven securely into the ground (minimum of 12 inches). When extra strength fabric is used without the wire support fence, post spacing will not exceed 6 feet.

(e) A trench will be excavated approximately 6 inches wide and 6 inches deep along the line of posts and upgradient from the barrier.

(f) The standard strength of filter fabric will be stapled or wired to the fence, and 8 inches of the fabric will be extended into the trench. The fabric will not extend more than 36 inches above the original ground surface. Filter fabric will not be stapled to existing trees.

(g) When extra strength filter fabric and closer post spacing are used, the wire mesh support fence may be eliminated. In such a case, the filter fabric will be stapled or wired directly to the posts with all other

(h) The trench will be backfilled and the soil compacted over the filter fabric.

(i) Silt fences will be removed when they have served their useful purpose, but not before the upgradient areas have been permanently stabilized.

(j) Silt fences will be inspected immediately after each rainfall and at least daily during prolonged rainfall. They will be inspected if there are any signs of erosion or sedimentation below them. Any required repairs will be made immediately. If there are signs of undercutting at the center or the edges or impounding of large volumes of water behind them, they will be replaced with a temporary crushed stone check dam

(k) Should the fabric on a silt fence decompose or become ineffective prior to the end of the expected usable life, and the barrier still be necessary, the fabric will be replaced promptly.

(I) Sediment deposits should be removed after each storm event if significant buildup has occurred or if deposits exceed half the height of the fence 2. Stone Check Dams

(a) Stone check dams should be constructed of 2 to 3-inch crushed stone. The stone should be placed according to the configuration shown on the drawing. Hand or mechanical placement will be necessary to achieve complete coverage of the ditch or swale and to ensure that the center of the dam is lower than the edges.

(b) Check dams should be installed as the swale is being constructed.

(c) Sediment will be removed from behind the check dams when it has accumulated to one half of the original height of the dam.

(d) Check dams will be removed when the grass has matured sufficiently to protect the ditch or swale. The area beneath the check dams will be seeded and mulched immediately after they are

(e) Regular inspections will be made to ensure that the center of the dam is lower than the edges. Erosion caused by high flows around the edges of the dam will be corrected. If evidence of siltation in the water is apparent downstream from the check dam, the check dam will be inspected and adjusted. Check dams will be checked for sediment accumulation after each significant rainfall.

3. Erosion control mix and sediment barrier

(a) The filter berm shall consist of an approved wood waste compost/bark mulch mix or recycled composted bark flume grit and fragmented wood generated from water-flume log handling systems or small shredding of stumpage (6 inches long x 1/2" dia.). The mixture needs to be a well-graded blend of organic and mineral substance. The composition is usually manufactured on or off site and by blending it with a well graded sand and gravel. The objective is a tight, heavy, non-erodible mixture that is not composed of one uniform material, i.e. just bark mulch will not suffice. Comparable composted mixes can be used upon approval of the Department of Environmental Protection, Bureau of Land and Water Quality.

(b) The mix shall conform to standards shown on the detail:

(c) Installation and Size of Berm: The dimensions of the berm are more a function of the strength of the material than the flows (forces) it will encounter. At a minimum the berm shall be 4 feet wide and 18 inches high. The berm shall be placed, uncompacted along a relatively level contour. Wherever possible the existing surface must be scoured and the mixture keyed in like any other sediment control measure.

(d) Maintenance: All deficiencies shall be immediately corrected with additional material place on top of the berm to reach the desired height. When the berm is decomposed, clogged with sediment, eroded, or becomes ineffective, it shall be replaced.

(e) Clean up and Retrieval: At the end of the job, an erosion control berm shall be removed or spread out so that the native earth can be seen below.

B. TEMPORARY MEASURES (Cont)

4. Erosion Control Mats

(a) During the growing season (April 15 to August 15) use mats indicated on drawings on channel bottoms and steep slopes >3H:1V.

(b) During the fall and winter (August 15 to April 15) use heavy grade mats as recommended by the engineer on all channel bottoms and slopes >4h:1V.

(c) Install mats in accordance with the manufacturer's recommendations.

5. <u>Erosion Control Measures</u>

(a) The smallest practical area of land shall be exposed to construction at any one time.

(b) The temporary erosion control measures shall be maintained until the permanent erosion control measures are present.

(c) All areas disturbed by construction shall have available loam placed before seeding (or an acceptable alternative).

(d) After construction is terminated, all temporary erosion control measures shall be removed and accumulated sediment disposed of in a secure location.

(e) Mulch shall be mowings of acceptable herbaceous growth, free from noxious weeds or woody stems, and shall be dry.

C. Permanent Measures

1. Riprapped Ditches, Aprons and Plunge Pools

(a) Construct riprapped ditches, aprons and plunge pools in accordance with the details shown on the Drawings.

(b) Stone for riprap will consist of sub-angular field stone or rough unhewn quarry stone. The stone will be hard and of such quality that it will not disintegrate on exposure to water or weathering, be chemically stable and suitable in all other respects for the purpose intended. The bulk specific gravity (saturated surface-dry basis) of the individual stones will be at least 2.5.

(c) The riprap should be placed so that it produces a dense well-graded mass of stone with a minimum of voids. The desired distribution of stones throughout the mass may be obtained by selective loading at the quarry, controlled clumping of successive loads during final placing, or by combination of these methods. The riprap should be placed to its full thickness on one operation. The riprap should not be placed in layers. The riprap should not be placed by dumping into chutes or similar methods which are likely to cause segregation of the various stone sizes. Care should be taken not to dislodge the underlying material when placing the stones.

The finished slope should be free of pockets of small stone or clusters of large stones. Hand placing may be necessary to achieve the required grades and a good distribution of stone sizes. Final thickness of the riprap blanket should be within plus or minus 1/4 of the specified thickness.

(d) Riprap will be inspected periodically to determine if high flows have caused scour beneath the riprap or dislodged any of the stone. If repairs are needed, they should be accomplished immediately

2. Topsoil, Seed, Mulch

Birdsfoot Trefoil

Kentucky Bluegrass

(a) Topsoil: Use stockpiled materials spread to the depths shown on the plans, if available.

(b) Seeding should be completed by August 15 of each year. Areas not seeded or which do not obtain satisfactory growth by August 1, will be seeded with Aroostook Rye or mulched at rates previously specified herein. After October 1, or the first killing frost, disturbed areas should be treated as indicated in C below:

	SEEDING SPECIFICATIONS	
Seed	Permanent Seeding (180 lbs/acre)	Temporary Seed (112 lbs/acre)
Red Fescue Red Top White Cover Annual Ryegrass	50% by weight 2% by weight 5% by weight 25% by weight	Winter Rye 100% by weight

3% by weight 15% by weight

Fertilizer: Apply 2 pounds per unit (87 lbs/acre) of nitrogen, phosphoric acid, and potash,

or 413 lbs/acre of 19-19-19 fertilizer. Lime: Apply liquid limestone at a rate of 3 tons per acre (138 lbs/1,000 sq ft).

Mulch: Mulch with weed-free hay or straw at 2-3 tons per acre with engineer approved

tack or fiber mulch to completely cover hay/straw mulch. (c) If permanent vegetated stabilization cannot be established due to the season of the year, all exposed and disturbed areas not to undergo further disturbance are to have dormant seeding applied and be temporarily mulched to protect the site. The following methods may be used to perform a dormant seeding:

(1) Prepare the seedbed, add the required amounts of lime and fertilizer, then mulch and anchor. After the first killing frost and before snow fall, broadcast or hydroseed the selected seed mixture. Double the regular seeding rates for this type seeding.

(2) When soil conditions permit, between the first killing frost and before snow fall, prepare the seedbed, lime and fertilize, apply the selected seed mixture, and mulch and anchor. Double the regular seeding rates for this type of seeding.

Dormant seedings need to be anchored extremely well on slopes, ditch bases and areas of concentrated flows.

Dormant seeding requires inspection and reseeding as needed in the spring. All areas where cover is inadequate must be immediately reseeded and mulched as soon as possible.

(a) Install mats as indicated on drawings and in accordance with manufacturers' recommendations

### D. MAINTENANCE PLAN

1. Routine Maintenance Inspection shall be performed annually by a qualified person during wet weather to ensure that the facility performs as intended. Inspection priorities shall include checking erosion controls for accumulation of sediments.

Grassed Areas

(a) Lime according to a soil test or at a minimum of every five years using a rate of 2 tons per acre (100 pounds per 1,000 sq ft)

(b) Topdress with fertilizer in the early spring (before May 15) one year after planting with a balanced fertilizer, applying 50 pounds of nitrogen/acre (500 pounds of 10-20-20 per acre). Thereafter, fertilize according to a soil test or broadcast biennially, 300 pounds of

10-10-10 or equivalent per acre (7.5 pounds per 1,000 sq ft).

### E. INSPECTIONS

1. Inspections will be undertaken by qualified personnel to ensure that temporary and permanent erosion and sedimentation controls are properly installed and correctly functioning, and that additional erosion control measures are installed if needed. Such inspections will occur weekly and before and after each significant rainfall event (1 inch or more within a 24 hour period) during construction until permanent erosion control measures have been properly installed and the site is stabilized.

2. A log (report) must be kept summarizing the scope of the inspection, name(s) and qualifications of the personnel making the inspection, the date(s) of the inspection, and the major observations relating to the operation of erosion and sedimentation controls and pollution prevention measures. Major observations must include: BMP's that need to be maintained; location(s) of BMP's that failed to operate as designed or proved inadequate for a particular location; and location(s) of where additional BMP's area needed that did not exist at the time of inspection. Follow-up to correct deficiencies or enhance controls must also be indicated in the log and dated, including what action was taken and when.

### F. HOUSEKEEPING

1. Spill prevention. Controls must be used to prevent pollutants from being discharged from materials on site, including storage practices to minimize exposure of the materials to stormwater, and appropriate spill prevention, containment, and response planning and implementation.

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.

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.

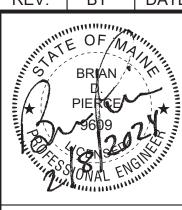
4. Debris and other materials. Litter, construction debris, and chemicals exposed to stormwater must be prevented from becoming a pollutant source.

5. Trench or foundation de-watering. Trench 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 must be removed from the ponded area, either through gravity or pumping, and 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. Non-stormwater discharges. Identify and prevent contamination by non-stormwater

Additional requirements. Additional requirements may be applied on a site-specific

BDP | 2/2024 | ISSUED FOR BID AND MEDEP REVIEW REV. BY DATE STATUS



MAINE BUREAU OF GENERAL SERVICES DOLBY LANDFILL COVER UPGRADE PHASE 4 EAST MILLINOCKET, MAINE **BGS PROJECT 3754** 

# SECTIONS AND DETAILS

DESIGN BY: TJM

DRAWN BY: BWB

C-304

**ENGINEERS** 

DATE: 1/2024 CHECKED BY: BDP ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE _MN: NONE 4 Blanchard Road, PO Box 85A, Cumberland, Maine 04021 Phone 207.829.5016 • Fax 207.829.5692 • sme-engineers.com CTB: SME-STD

JOB NO. 231265.00 DWG FILE DETAILS

**SLOPE INSTALLATION** 

CRITICAL POINTS OVERLAPS AND SEAMS PROJECTED WATER LINE CHANNEL BOTTOM/SIDE SLOPE VERTICES