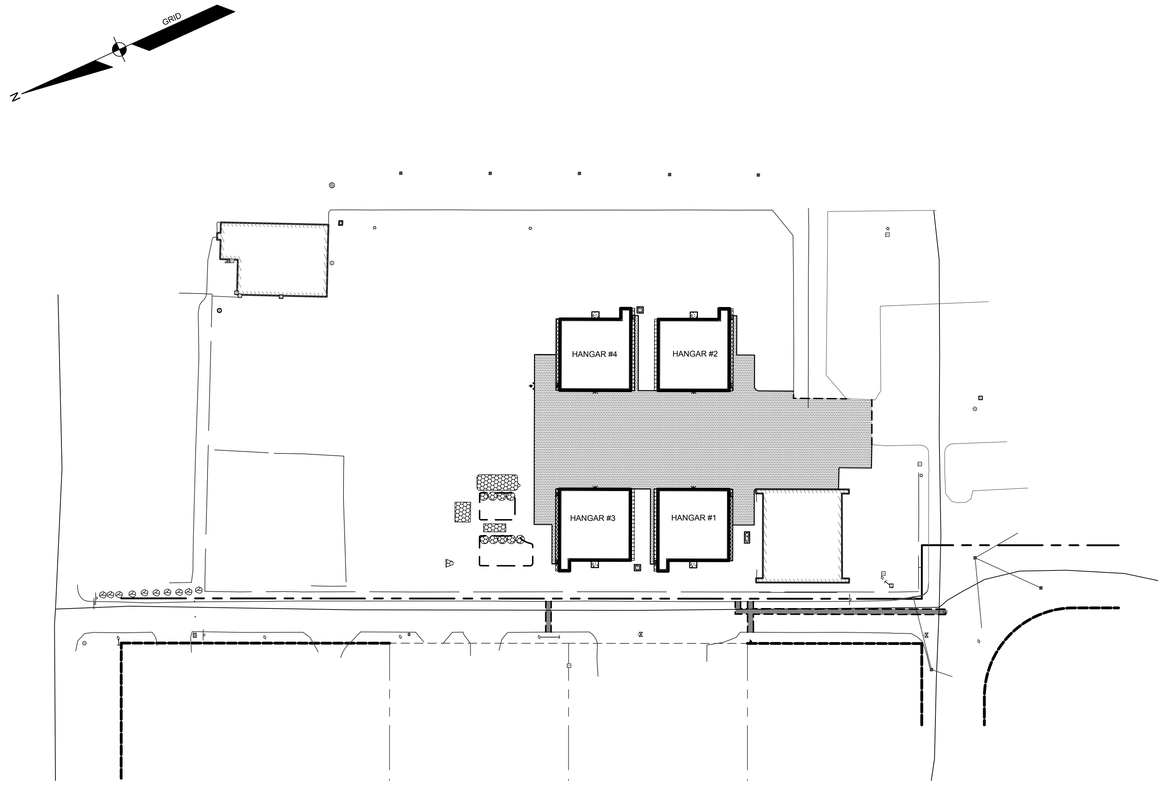
AUBURN-LEWISTON MUNICIPAL AIRPORT HANGARS

80 WHITE HANGAR DRIVE
AUBURN, ME 04210

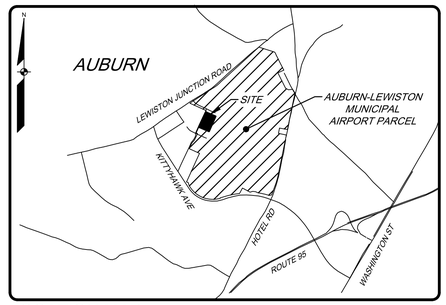
APPLICANT:
FIELDING
PROPERTIES, LLC
PO BOX 6951
SCARBOROUGH, ME 04074

ENGINEER/SURVEYOR/
LANDSCAPE ARCHITECT:

SEBAGO TECHNICS
WWW.SEBAGOTECHNICS.COM
75 John Roberts Rd.
Suite 4A
South Portland, ME 04106
Tel. 207-200-2100



GRAPHIC SCALE
80 0 40 80 160
(IN FEET)
1 INCH = 80 FT.



LOCATION MAP NTS

SHEET INDEX

SHEET NO.	SHEET TITLE
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2	NOTES & LEGEND
3	DEMO PLAN
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ROBERT A. MCSORLEY, PE # 8588
STATE OF MAINE — ROBERT A. MCSORLEY — 8588 — LICENSED PROFESSIONAL ENGINEER — 08/09/2024

REV.	BY:	DATE:	STATUS
B	RAM	08/06/2024	PLANS ISSUED FOR INTERNAL REVIEW
A	JLG	07/02/2024	PRELIMINARY PLANS ISSUED TO CLIENT FOR REVIEW

SEBAGO TECHNICS
SEBAGOTECHNICS.COM
75 John Roberts Rd. Suite 4A
South Portland, ME 04106
207-200-2100
South Portland, Bridgton, Sanford and Bath

COVER
OF:
AUBURN-LEWISTON MUNICIPAL AIRPORT HANGARS
80 WHITE HANGAR DRIVE
AUBURN, ME 04210
FOR:
FIELDING PROPERTIES, LLC
PO BOX 6951
SCARBOROUGH, ME 04074

DESIGNED	JSH
DRAWN	RGL
CHECKED	RAM
DATE	04-22-2024
SCALE	1" = 80'
PROJECT	230887

SHEET 1 OF10

F:\Projects\230001-230987\DWG\Design\230887 C.dwg, 8/8/2024 4:28 PM, SHELLY STACEY

230887 C.dwg, TAB:COVER

LEGEND

EXISTING	PROPOSED	
		PROPERTY LINE/R.O.W.
		ABUTTER LINE/R.O.W.
		DEED LINE/R.O.W.
		TIE LINE
		SETBACK
		EASEMENT
		BUFFER
		FLOODPLAIN
		FLOODWAY
		CENTERLINE
⊡	■	MONUMENT
◎	●	IRON PIPE/ROD
◎	◉	DRILL HOLE
C1/L1		DEED CALL
C1/L1	C1/L1	CURVE/LINE NO.
		SOILS
		ZONE LINE
		ZONE LINE ON PL
BENCHMARK DESCRIPTION WITH ELEVATION		BENCHMARK
△		SURVEY CONTROL
TP-1		TEST PIT
MW-1		MONITORING WELL
B-1		BORING
		BUILDING
		DECK/STEPS/ OVERHANG
		EDGE WETLAND
		WETLANDS
		UPLANDS
		STREAM
		LEDGE
		EDGE PAVEMENT
		PAVEMENT SAWCUT
		EDGE CONCRETE
		PAVEMENT PAINT
		EDGE GRAVEL
		CURB LINE
		EDGE OF WATER
		TREELINE
120 118	120	CONTOURS
×120.00	+120.00	SPOT GRADE
		CHAIN LINK FENCE
		BARB WIRE FENCE
		STOCKADE FENCE
		GUARD RAIL
		STONE WALL
		RETAINING WALL
	X	DECIDUOUS TREE
	X	CONIFEROUS TREE
		MULCH LINE
		BOLLARD
		SIGN
		RAILROAD
G	G	GAS
		GAS GATE VALVE
GM		GAS METER
G		GAS MANHOLE
W	W	WATER
		WATER GATE VALVE
		WATER SHUT OFF
		HYDRANT
W		WATER MANHOLE
W		WELL
S	S	SANITARY SEWER
FM	FM	FORCE MAIN
S		SANITARY MANHOLE
SD	SD	STORM DRAIN
UD	UD	UNDER DRAIN
D		DRAINAGE MANHOLE
		CATCH BASIN
OHU	OHU	OVERHEAD UTILITY
UGU	UGU	UNDERGROUND UTILITY
T	T	TRANSFORMER PAD
E	E	ELECTRICAL MANHOLE
EM		ELECTRIC METER
H		HVAC UNIT
T		TELEPHONE MANHOLE
		LIGHT POLE
		UTILITY POLE
		GUY WIRE
		DRAINAGE DITCH
		EROSION CONTROL BLANKET
	FB	FILTER BARRIER
		RIPRAP
		CHECK DAM
		INLET PROTECTION
		BOULDER

GENERAL NOTES

1. THE RECORD OWNERS OF THE PARCEL ARE THE CITY OF AUBURN AND THE CITY OF LEWISTON BY DEED DATED DECEMBER 1, 1947 AND RECORDED AT THE ANDROSCOGGIN COUNTY REGISTRY OF DEEDS (ACRD) IN BOOK 611, PAGE 459.
2. THE PROPERTY IS SHOWN AS LOT 007 ON THE CITY OF AUBURN TAX MAP 143 AND IS LOCATED IN THE INDUSTRIAL DISTRICT (ID).
3. BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON FIELD WORK PERFORMED BY SEBAGO TECHNICS, INC. IN NOVEMBER 2008 AND APRIL OF 2024.
4. PLAN REFERENCES:
   A. FINAL PLAN OF THE AUBURN-LEWISTON AIRPARK, AUBURN-LEWISTON MUNICIPAL AIRPORT, FOR THE AUBURN-LEWISTON MUNICIPAL AIRPORT COMMITTEE, DATED NOVEMBER 25, 1981 AND RECORDED AT THE ACRD IN PLAN BOOK 31, PAGE 33.
   B. FINAL PLAN OF THE AUBURN-LEWISTON AIRPARK, AUBURN-LEWISTON MUNICIPAL AIRPORT, FOR THE AUBURN-LEWISTON MUNICIPAL AIRPORT COMMITTEE, DATED SEPTEMBER 19, 1987 AND RECORDED AT THE ACRD IN PLAN BOOK 33, PAGE 96.
6. BASIS OF BEARING IS GRID NORTH, MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE 1802-NAD83 (2011), GEOID18 IN U.S. SURVEY FEET, ELEVATIONS DEPICTED HEREON ARE NAVD88, BASED ON DUAL FREQUENCY GPS OBSERVATIONS.
7. BENCHMARK:
   BM-1 NAIL IN UTILITY POLE ELEVATION: 257.39 (NAVD88)
8. UTILITY INFORMATION DEPICTED HEREON, UNLESS OTHERWISE NOTED, IS OF QUALITY LEVEL D PER AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) STANDARD CI/ASCE 38-02. UTILITIES DEPICTED HEREON MAY NOT NECESSARILY REPRESENT ALL EXISTING UTILITIES. CONTRACTORS AND/OR DESIGNERS NEED TO CONTACT DIG-SAFE SYSTEMS, INC. (1-888-DIG-SAFE) AND FIELD VERIFY EXISTING UTILITIES WITHIN THE PROJECT AREA PRIOR TO CONSTRUCTION AND/OR EXCAVATION. PROMARK UTILITY LOCATING, LLC MARKED THE UNDERGROUND UTILITIES SHOWN HEREON IN APRIL OF 2024, AND THEY WERE FIELD LOCATED BY SEBAGO TECHNICS, INC.
9. THE LOCUS PROPERTY AS DEPICTED HEREON DOES NOT FALL WITHIN A SPECIAL FLOOD HAZARD AREA AS DELINEATED ON THE FLOOD INSURANCE RATE MAP FOR AUBURN, MAINE, ANDROSCOGGIN COUNTY, PANEL NUMBER 23001C0316E, HAVING AN EFFECTIVE DATE OF JULY 8, 2013. THE LOCUS FALLS WITHIN AN AREA IDENTIFIED AS ZONE X, AREAS OF AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.
10. SPACE AND BULK CRITERIA FOR THE INDUSTRIAL DISTRICT (ID) ARE AS FOLLOWS:

MINIMUM STREET FRONTAGE:	150 FEET
MINIMUM FRONT YARD:	35 FEET OR 15% OF LOT DEPTH
MINIMUM SIDE YARD:	5 FEET PLUS 1 FOOT FOR EVERY 3 FEET OF FRONTAGE OVER 60 FEET. 35 FEET MAXIMUM
MINIMUM REAR YARD:	50 FEET OR 20% OF LOT DEPTH
MAXIMUM BUILDING HEIGHT:	75 FEET SEE FAA REQUIREMENTS
MAXIMUM BUILDING COVERAGE:	60%

* SEE ORDINANCE FOR MORE PARTICULAR INFORMATION.

11. ALL WORK SHALL CONFORM TO THE APPLICABLE CODES AND ORDINANCES.
12. CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE HIM OR HERSELF WITH ALL CONDITIONS AFFECTING THE PROPOSED WORK AND SHALL MAKE PROVISIONS AS TO THE COST THEREOF. CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIM OR HERSELF WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.
13. CONTRACTOR SHALL NOTIFY ENGINEER OF ALL PRODUCTS OR ITEMS NOTED AS "EXISTING" WHICH ARE NOT FOUND IN THE FIELD.
14. PROVIDE ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND OWNER'S REQUIREMENTS UNLESS SPECIFICALLY OTHERWISE INDICATED OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE.
15. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO FABRICATION AND ERECTION OF ANY MATERIAL. ANY UNUSUAL CONDITIONS SHALL BE REPORTED TO THE ATTENTION OF THE ENGINEER.
16. CONTRACTOR SHALL CLEAN AND REMOVE DEBRIS AND SEDIMENT DEPOSITED ON PUBLIC STREETS, SIDEWALKS, ADJACENT AREAS, OR OTHER PUBLIC WAYS DUE TO CONSTRUCTION.
17. CONTRACTOR SHALL INCORPORATE PROVISIONS AS NECESSARY IN CONSTRUCTION TO PROTECT EXISTING STRUCTURES, PHYSICAL FEATURES, AND MAINTAIN SITE STABILITY DURING CONSTRUCTION. CONTRACTOR SHALL RESTORE ALL AREAS TO ORIGINAL CONDITION AND AS DIRECTED BY DESIGN DRAWINGS.
18. SITE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS PRIOR TO CONSTRUCTION.
19. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH "MAINE EROSION AND SEDIMENT CONTROL BMPS" PUBLISHED BY THE BUREAU OF LAND AND WATER QUALITY OF THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, OCTOBER 2016 OR LATEST EDITION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO POSSESS A COPY OF THE EROSION CONTROL PLAN AT ALL TIMES.
20. THE CONTRACTOR IS HEREBY CAUTIONED THAT ALL SITE FEATURES SHOWN HEREON ARE BASED ON FIELD OBSERVATIONS BY THE SURVEYOR AND BY INFORMATION PROVIDED BY UTILITY COMPANIES. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR SHALL CONTACT DIG SAFE (811) AT LEAST THREE (3) BUT NOT MORE THAN THIRTY (30) DAYS PRIOR TO COMMENCEMENT OF EXCAVATION OR DEMOLITION TO VERIFY HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES.
21. CONTRACTOR SHALL BE AWARE THAT DIG SAFE ONLY NOTIFIES ITS "MEMBER" UTILITIES ABOUT THE DIG. WHEN NOTIFIED, DIG SAFE WILL ADVISE CONTRACTOR OF MEMBER UTILITIES IN THE AREA. CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING AND CONTACTING NON-MEMBER UTILITIES DIRECTLY. NON-MEMBER UTILITIES MAY INCLUDE TOWN OR CITY WATER AND SEWER DISTRICTS AND SMALL LOCAL UTILITIES, AS WELL AS USG PUBLIC WORKS SYSTEMS.
22. CONTRACTORS SHALL BE RESPONSIBLE FOR COMPLIANCE WITH THE REQUIREMENTS OF 23 MRSA 3360-A. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE APPROPRIATE UTILITIES TO OBTAIN AUTHORIZATION PRIOR TO RELOCATION OF ANY EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THESE PLANS. IF A UTILITY CONFLICT ARISES, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER, THE MUNICIPALITY AND APPROPRIATE UTILITY COMPANY PRIOR TO PROCEEDING WITH ANY RELOCATION.
23. ALL PAVEMENT MARKINGS AND DIRECTIONAL SIGNAGE SHOWN ON THE PLAN SHALL CONFORM TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) STANDARDS.
24. ALL PAVEMENT JOINTS SHALL BE SAWCUT PRIOR TO PAVING TO PROVIDE A DURABLE AND UNIFORM JOINT.
25. NO HOLES, TRENCHES OR STRUCTURES SHALL BE LEFT OPEN OVERNIGHT IN ANY EXCAVATION ACCESSIBLE TO THE PUBLIC OR IN PUBLIC RIGHTS-OF-WAY.
26. IMMEDIATELY UPON COMPLETION OF CUTS/FILLS, THE CONTRACTOR SHALL STABILIZE DISTURBED AREAS IN ACCORDANCE WITH EROSION CONTROL NOTES AND AS SPECIFIED ON PLANS.
27. THE CONTRACTOR SHALL BE FULLY AND SOLELY RESPONSIBLE FOR THE REMOVAL, REPLACEMENT AND RECTIFICATION OF ALL DAMAGED AND DEFECTIVE MATERIAL AND WORKMANSHIP IN CONNECTION WITH THE CONTRACT WORK. THE CONTRACTOR SHALL REPLACE OR REPAIR AS DIRECTED BY THE OWNER ALL SUCH DAMAGED OR DEFECTIVE MATERIALS WHICH APPEAR WITHIN A PERIOD OF ONE YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION.
28. ALL WORK PERFORMED BY THE GENERAL CONTRACTOR AND/OR TRADE SUBCONTRACTOR SHALL CONFORM TO THE REQUIREMENTS OF LOCAL, STATE OR FEDERAL LAWS, AS WELL AS ANY OTHER GOVERNING REQUIREMENTS, WHETHER OR NOT SPECIFIED ON THE DRAWINGS.
29. WHERE THE TERMS "APPROVED EQUAL", "OTHER APPROVED", "EQUAL TO", "ACCEPTABLE" OR OTHER GENERAL QUALIFYING TERMS ARE USED IN THESE NOTES, IT SHALL BE UNDERSTOOD THAT REFERENCE IS MADE TO THE RULING AND JUDGEMENT OF SEBAGO TECHNICS, INC.
30. THE GENERAL CONTRACTOR SHALL PROVIDE ALL NECESSARY PROTECTION FOR THE WORK UNTIL TURNED OVER TO THE OWNER.
31. THE GENERAL CONTRACTOR SHALL MAINTAIN A CURRENT AND COMPLETE SET OF CONSTRUCTION DRAWINGS ON SITE DURING ALL PHASES OF CONSTRUCTION FOR USE OF ALL TRADES.
32. THE CONTRACTOR SHALL TAKE FULL RESPONSIBILITY FOR ANY CHANGES AND DEVIATION OF APPROVED PLANS NOT AUTHORIZED BY THE ARCHITECT/ENGINEER AND/OR CLIENT/OWNER.
33. DETAILS ARE INTENDED TO SHOW END RESULT OF DESIGN. ANY MODIFICATION TO SUIT FIELD DIMENSION AND CONDITION SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO ANY WORK.
34. BEFORE THE FINAL ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL REMOVE ALL EQUIPMENT AND MATERIALS, REPAIR OR REPLACE PRIVATE OR PUBLIC PROPERTY WHICH MAY HAVE BEEN DAMAGED OR DESTROYED DURING CONSTRUCTION, CLEAN THE AREAS WITHIN AND ADJACENT TO THE PROJECT WHICH HAVE BEEN OBSTRUCTED BY HIS/HER OPERATIONS, AND LEAVE THE PROJECT AREA NEAT AND PRESENTABLE.
35. ALL GRAVITY CONDUIT PIPES SHALL BE INSTALLED USING A PIPE LASER AND TARGET SYSTEM THROUGH THE PIPE. ON PIPE RUNS 50 FEET OR LESS, THE THE CONTRACTOR SHALL REQUEST ENGINEER'S APPROVAL TO USE A GROUND LASER.
36. SIDESLOPES SHALL NOT BE STEEPER THAN 3:1 (H:V) EXCEPT AS OTHERWISE IDENTIFIED ON THIS PLAN. ALL SIDESLOPES STEEPER THAN 3:1 (H: V) SHALL BE LINED WITH EROSION CONTROL BLANKET.
37. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING FLOW THROUGH THE EXISTING CLOSED STORM DRAINAGE SYSTEM DURING CONSTRUCTION AND SHALL SUBMIT A WORK PLAN FOR APPROVAL BY THE DESIGN ENGINEER.

UTILITY DEMOLITION NOTES

1. PROTECT EXISTING BOUNDARY LINE MONUMENTATION. IF DISTURBED, EXISTING MONUMENTATION TO BE RESET BY A PROFESSIONAL LAND SURVEYOR.
2. UTILITY DEMOLITION SHALL BE COMPLETED IN COORDINATION WITH NEW INFRASTRUCTURE. CONTRACTOR SHALL ENSURE EXISTING SURFACE DRAINAGE IS MAINTAINED DURING CONSTRUCTION.
3. EXISTING SEWER AND STORM DRAINAGE INFRASTRUCTURE TO REMAIN ACTIVE DURING CONSTRUCTION AND UPON COMPLETION OF PROJECT. DEMOLITION/CONSTRUCTION ACTIVITIES SHALL NOT INTERFERE OR IMPEDE EXISTING FLOWS. CONTRACTOR SHALL PROVIDE BYPASS PUMPING AS REQUIRED DURING SEWER AND STORM DEMOLITION AND NEW CONSTRUCTION. DAMAGE TO EXISTING SEWER INFRASTRUCTURE SHALL BE REPAIRED BY CONTRACTOR AT THEIR EXPENSE.
4. DEMOLITION SHOWN IS FOR MAJOR SITE ELEMENTS TO BE DEMOLISHED. OTHER MINOR DEMOLITION MAY BE REQUIRED AS PART OF CONSTRUCTION AND SHALL BE CONSIDERED INCIDENTAL TO THE COST OF CONSTRUCTION. COORDINATE ALL DEMOLITION WORK WITH SITE AND BUILDING DRAWINGS.
5. PRIOR TO ANY DEMOLITION, THE CONTRACTOR SHALL SUBMIT A SEQUENCE OF DEMOLITION PLANS TO THE OWNER. THIS PLAN SHALL DEPICT LOCATIONS OF PROPOSED TERMINATIONS AND ANY TEMPORARY SERVICES THAT WILL BE NEEDED.
6. CONTRACTOR REQUIRED TO CONFIRM/MAINTAIN BENCHMARKS. IF IMPACTED CONTRACTOR IS RESPONSIBLE FOR NOTIFICATION/RELOCATION AND COORDINATION WITH PROJECT TEAM.

GRADING & EROSION NOTES

1. SIDESLOPES SHALL NOT BE STEEPER THAN 3:1 (H:V) EXCEPT AS OTHERWISE IDENTIFIED ON THIS PLAN. ALL SIDESLOPES STEEPER THAN 3:1 (H: V) SHALL BE LINED WITH EROSION CONTROL BLANKET, OR ADDITIONAL MEASURES AS INDICATED.
2. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH "MAINE EROSION AND SEDIMENT CONTROL BMPS" MANUAL PUBLISHED BY BUREAU OF LAND AND WATER QUALITY MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, LATEST EDITION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO POSSESS A COPY OF THE EROSION CONTROL PLAN AT ALL TIMES.
3. ALL AREAS DISTURBED DURING CONSTRUCTION AND NOT RESTORED WITH IMPERVIOUS SURFACES (BUILDINGS, PAVEMENTS, WALKS, ETC.) SHALL RECEIVE LOAM AND SEED PER DETAIL.
4. SEE UTILITY DRAWINGS FOR PIPE AND STRUCTURE DATA TABLES.

CONSTRUCTION PLAN

1. PROVIDE EROSION CONTROL MEASURES PRIOR TO SITE DISTURBANCE.
2. GRADING AND CLEARING LIMITS SHALL NOT ENCROACH ON ADJACENT PROPERTIES UNLESS NOTED OTHERWISE ON THE PLANS.
3. OPEN AREAS SHALL BE LIMITED TO AREAS BEING WORKED IN. THE AREA STRIPPED OF EXISTING VEGETATION AT ANY GIVEN TIME SHALL BE MINIMIZED AND BE PHASED WHERE PRACTICAL SO THAT AREAS ARE REVEGETATED AND PERMANENTLY STABILIZED BEFORE ADDITIONAL AREAS ARE STRIPPED OF EXISTING VEGETATION. STABILIZE CONSTRUCTION AREAS BY USE OF RIPRAP, SEED, MULCH, OR OTHER GROUND COVER WITHIN ONE WEEK FROM THE TIME IT WAS ACTIVELY WORKED. SURFACES SHALL BE STABILIZED PRIOR TO DIRECTING STORMWATER RUNOFF TOWARD STORMWATER BMPS. PLEASE REFER TO STORMWATER PLANS FOR WATERSHED AREAS.

UTILITY NOTES

1. UTILITY INFORMATION DEPICTED HEREON IS COMPILED USING PHYSICAL EVIDENCE LOCATED IN THE FIELD. UTILITIES DEPICTED HEREON MAY NOT NECESSARILY REPRESENT ALL EXISTING UTILITIES. CONTRACTORS NEED TO CONTACT DIG-SAFE SYSTEMS, INC. (1-888-DIG-SAFE) AND FIELD VERIFY EXISTING UTILITIES PRIOR TO CONSTRUCTION AND/OR EXCAVATION. PROTECT EXISTING ONSITE SEWER PIPE AND ADJUST MANHOLE RIMS TO GRADE WHERE APPLICABLE.
2. ALL GRAVITY CONDUIT PIPES SHALL BE INSTALLED USING A PIPE LASER AND TARGET SYSTEM THROUGH THE PIPE. ON PIPE RUNS 50 FEET OR LESS, THE CONTRACTOR SHALL REQUEST ENGINEER'S APPROVAL TO USE OR NOT USE A GROUND LASER.
3. MAINTAIN MINIMUM 5'-6" OF COVER ABOVE TOP OF WATER SERVICE PIPE.
4. MAINTAIN MINIMUM 10 FEET HORIZONTAL SEPARATION BETWEEN WATER SERVICES AND OTHER UTILITIES. MAINTAIN MINIMUM 12 INCHES VERTICAL SEPARATION BETWEEN WATER SERVICES AND OTHER UTILITIES.
5. LOWER OR RAISE WATER SERVICES AS REQUIRED TO MAINTAIN MINIMUM 12 INCH VERTICAL SEPARATION FROM OTHER UTILITIES. WATER SERVICES CROSSING SEWERS SHALL BE PROVIDE 12 INCH MINIMUM SEPARATION BETWEEN THE BOTTOM OF WATER LINE AND TOP OF SEWER UNLESS NOTED OTHERWISE ON THE PLANS.
6. PIPE:
   - SEWER PIPE SHALL BE SDR 35 PVC OR APPROVED EQUAL.
   - STORMDRAIN SHALL BE ADS N-12 DUAL WALL HDPE PIPE WITH SMOOTH-WALLED INTERIOR OR APPROVED EQUAL UNLESS NOTED OTHERWISE ON THE UTILITY PLANS.
   - WATER PIPE AND FITTINGS SHALL CONFORM TO AUBURN WATER DISTRICT WATER PIPING SPECIFICATIONS. MAIN WATER SERVICE PIPE SHALL BE DUCTILE IRON, CLASS 52 PUSH-ON PIPE MEETING THE REQUIREMENTS OF AWWA/ANSI C-111/A21.11 (LATEST REVISION). PIPE SHALL BE CEMENT-LINED AWWA/ANSI C104/A21.4 WITH LINING TWICE THE THICKNESS SPECIFIED, AND COATED TWICE WITH A BITUMINOUS SEAL COATING. PROVIDE THRUST BLOCKS AT ALL WATER SERVICE BENDS.
7. COORDINATE FOUNDATION UNDERDRAIN LOCATIONS WITH ARCHITECTURAL AND STRUCTURAL DRAWINGS.
8. COORDINATE UTILITY INVERTS AT BUILDING WITH ARCHITECTURAL, STRUCTURAL AND PLUMBING DRAWINGS.
9. COORDINATE LOCATION OF SEWER, WATER, GAS, FOUNDATION DRAINS AND ROOF DRAIN INVERTS AT THE BUILDING WITH ARCHITECTURAL DRAWINGS.
10. WATER SERVICE ENTRANCE DESIGNS TO INCLUDE METERS AND BACKFLOW PREVENTERS TO MEET ALL STANDARDS AND REQUIREMENTS OF THE AUBURN WATER DISTRICT.
11. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY GRADE CHANGES THAT WILL IMPACT STORM DRAINAGE INFRASTRUCTURE OR OTHER UTILITIES.
12. UTILITIES WITHIN 5 FEET FROM FACE OF BUILDING ARE COORDINATED ON RELEVANT M.E.P. DRAWINGS. CONTRACTOR SHALL COORDINATE INVERTS, CONNECTIONS AND MATERIALS WITH ALL DRAWINGS.
13. CONTRACTOR SHALL FURNISH AND INSTALL TRENCHING, MATERIALS AND BACKFILL FOR ALL UTILITIES. ELECTRICAL AND TELECOM/DATA PROVIDERS WILL PULL PRIMARY SERVICE TO TRANSFORMER AND PANEL. CONTRACTOR RESPONSIBLE FOR TIMING AND COORDINATION WITH UTILITIES AND DRAWINGS. COORDINATE WITH ELECTRICAL DRAWINGS FOR CONDUIT SCHEDULE, TYPE AND SIZES.
14. COORDINATE ALL WATER RELATED WORK WITH AUBURN WATER DISTRICT.
15. UTILITY CONTACTS:
    ELECTRIC:
    CENTRAL MAINE POWER (CMP)
    CRAIG BATE, DISTRIBUTION CONSTRUCTION MANAGER
    (207)578-2062
    WATER & SEWER:
    AUBURN WATER & SEWER DISTRICT
    MICHAEL BROADBENT, SUPERINTENDENT
    (207)784-6469
    GAS:
    UNITIL CORP.
    DERICK GIROUX, PROJECT LEADER
    (207)536-5663

ABBREVIATIONS

AC	ACRE
AFG	ABOVE FINISH GRADE
APPROX.	APPROXIMATELY
BC	BOTTOM OF CURB
BCC	BITUMINOUS CONCRETE CURB
BIT	BITUMINOUS
BLDG	BUILDING
BW	BOTTOM OF WALL
CB	CATCH BASIN
CONC	CONCRETE
CONT	CONTINUOUS
DI	DUCTILE IRON
DIA	DIAMETER
DMH	DRAIN MANHOLE
E.W.	EACH WAY
EL	ELEVATION
ELEV	ELEVATION
FFE	FINISH FLOOR ELEVATION
FIN. GR.	FINISH GRADE
FTG	FOOTING
HDPE	HIGH DENSITY POLYETHYLENE
HGT	HEIGHT
HMA	HOT MIX ASPHALT
INV	INVERT
LF	LINEAR FEET
OC	ON CENTER
PVC	POLYVINYL CHLORIDE
PWD	PORTLAND WATER DISTRICT
R	RADIUS
R.O.W.	RIGHT OF WAY
S.F.	SQUARE FEET
SCH	SCHEDULE
SCSC	SLIPFORM CONCRETE SLOPED CURB
SCVC	SLIPFORM CONCRETE VERTICAL CURB
SD	STORM DRAIN
SGC	SLOPED GRANITE CURB
SMH	SEWER MANHOLE SPECS SPECIFICATIONS
SS	SANITARY SEWER
SSGC	SALVAGED SLOPED GRANITE CURB
SVGC	SALVAGED VERTICAL GRANITE CURB
TC	TOP OF CURB
TW	TOP OF WALL
TYP	TYPICAL
VGC	VERTICAL GRANITE CURB
VIF	VERIFY IN FIELD

ROBERT A. MCSORLEY, PE # 8588

REV.	BY	DATE:	STATUS
A	JLG	07/02/2024	PRELIMINARY PLANS ISSUED TO CLIENT FOR REVIEW
B	RAM	08/06/2024	PLANS ISSUED FOR INTERNAL REVIEW

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICS, INC. ANY ALTERATIONS TO THIS PLAN SHALL BE DONE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.

SEBAGO TECHNICS
SEBAGOTECHNICS.COM
75 John Roberts Road, Suite 4A
South Portland, ME 04106
207-200-2100
South Portland, Bridgton, Sanford and Bath

NOTES & LEGEND
OF:
AUBURN-LEWISTON MUNICIPAL AIRPORT HANGARS
80 WHITE HANGAR DRIVE
AUBURN, ME 04210
FOR:
FIELDING PROPERTIES, LLC
PO BOX 6951
SCARBOROUGH, ME 04074

DESIGNED	JSH
DRAWN	RGL
CHECKED	RAM
DATE	04-22-2024
SCALE	NTS
PROJECT	230887

SHEET 2 OF10

F:\Projects\23000\230887\DWG\Design\230887 NL.dwg, 8/8/2024 4:29 PM, SHELLY STACEY

230887 NL.dwg, TAB-NOTES & LEGEND

CB 1354
RIM=255.33'
PRECAST CONCRETE
NO VISIBLE PIPES
SUMP = 246.53'

GRID

VED

CB 1172
RIM=256.53'
INV. OUT 18" HDPE @ 7=250.80'
SUMP =247.73'

CB 1688
RIM=257.96'
INV. IN 18" HDPE @ 1 =250.21'
INV. IN 18" HDPE @ 4 =249.56'
INV. IN 24" HDPE @ 7 =251.16'
INV. OUT 30" HDPE @ 10 =249.75'
SUMP = 247.76'

CB 1166
RIM=258.44
INV. IN 24" HDPE @ 7 =251.69'
INV. OUT 24" HDPE @ 1 =251.59'
SUMP = 248.89'

CB 1683
RIM=258.96
INV. IN 18" HDPE @ 7 =253.36'
INV. OUT 24" HDPE @ 1 =252.76'
SUMP = 249.91'

CB 1680
RIM=259.43'
INV. IN 12" HDPE @ 7=253.9'
INV. OUT 18" HDPE @ 1= 253.88'
SUMP = 250.73'

AIRCRAFT TIE
DOWN AREA

PAVED

SD

UGE

30" HDPE
INV. =249.25'

FFE=256.84'

HANGER

MH 1180
RIM=255.95'

W

USED OIL TANK UNDERGROUND

EXISTING FIRE HYDRANT TO BE RELOCATED.
SEE UTILITY PLAN FOR MORE INFORMATION

DEMO AND RE-ROUTE PORTION OF THE
EXISTING WATER MAIN. SEE UTILITY
PLAN FOR MORE INFORMATION.

SUSPECTED UNDERDRAIN PIPE

UD

PAVED

GRASSED

SMH 1772
RIM=254.57'

JERSEY BARRIERS

GRAVEL
PARKING AREA

REMOVE SECTIONS OF STORM DRAIN PIPE. FILL ANY
SECTION REMAINING UNDER BUILDING WITH FLOWABLE FILL

CB 1148
RIM=252.38'
INV. OUT 6" ASBESTOS @10= 249.86'
UNKNOWN DESTINATION
SUMP =249.60' (NO STRUCTURE)

PIPE BURIED
6" RCP DAMAGED
UNKNOWN ORIGIN

SIGNAL IN WATER
PIPE NOT FOUND

FFE=252.89

HANGAR

GRASSED

GATE MOTOR

GATE KEYPAD

OHU

CB-1723
RIM=249.72'

UP CMP 11

CB 1002
RIM=248.51'
INV. OUT=245.57'

18" PIPE
UNKNOWN TYPE
INV.=245.26'

N 24°29'45" E

FLIGHT LINE DRIVE
50' WIDE PER PLAN REF. 4A

UP CMP 502

UP CMP 503

UP CMP 504

UP CMP1

5/8" IRON ROD FOUND
AT GRADE

18" PIPE
UNKNOWN TYPE
IN POOR CONDITION
INV.=244.50'

5/8" IRON ROD FOUND
1" BELOW GRADE

CB 1727
RIM=247.90'
INV. IN=244.69'

SMH 1004
RIM =248.94'
INV. IN 4" @S=245.15'
INV. IN 8" @3=242.28'
INV. OUT 8" @10=240.96'
SHELF =242.12'

AVENUE

N/F
E.S. CHAPMAN PROPERTIES, LLC
10153 / 78
TAX MAP 143, LOT 9

(LOT E-8)

(LOT E-7)

N/F
OMNI ASSOCIATES, I
2107 / 177
2288 / 146
TAX MAP 143, LOT 8

(LOT E-6)

(LOT E-5)

GRAPHIC SCALE
30 0 15 30 60
(IN FEET)
1 INCH = 30 FT.

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ROBERT A. MCSORLEY, PE # 8588

STATE OF MAINE
ROBERT A. MCSORLEY
LICENSED
PROFESSIONAL
ENGINEER
08/06/2024

REV.	BY	DATE:	STATUS
B	RAM	08/06/2024	PLANS ISSUED FOR INTERNAL REVIEW
A	JLG	07/02/2024	PRELIMINARY PLANS ISSUED TO CLIENT FOR REVIEW

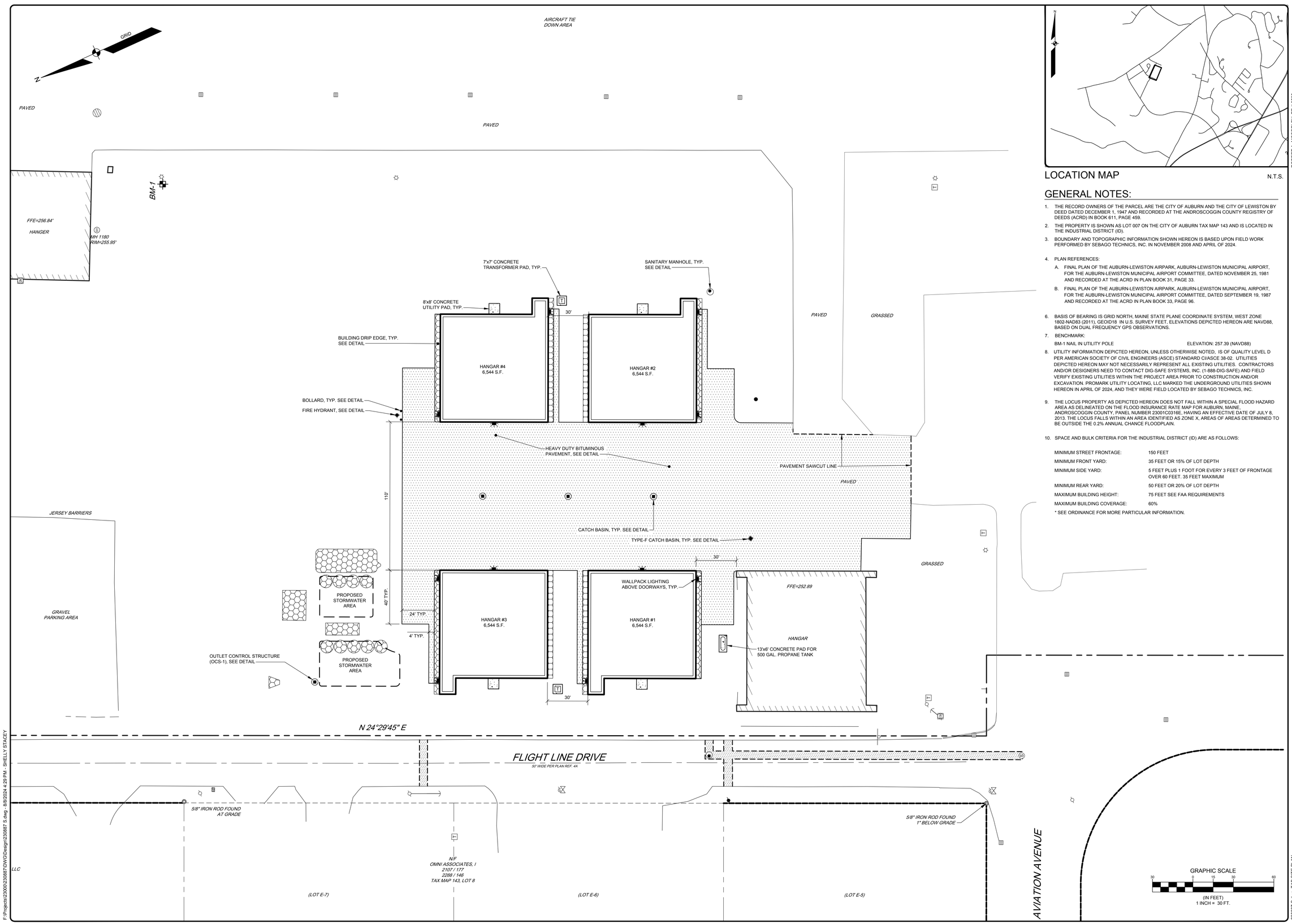
SEBAGO TECHNICS
SEBAGOTECHNICS.COM
75 John Roberts Road, Suite 4A
South Portland, ME 04106
207-200-2100
South Portland, Bridgton, Sanford and Bath

DEMO PLAN
OF:
AUBURN-LEWISTON MUNICIPAL AIRPORT HANGARS
80 WHITE HANGAR DRIVE
AUBURN, ME 04210
FOR:
FIELDING PROPERTIES, LLC
PO BOX 6951
SCARBOROUGH, ME 04074

DESIGNED	JSH
DRAWN	RGL
CHECKED	RAM
DATE	04-22-2024
SCALE	1" = 30'
PROJECT	230887

230887 DEMO.dwg, T-AB DEMO PLAN

SHEET 3 OF10



LOCATION MAP N.T.S.

GENERAL NOTES:

1. THE RECORD OWNERS OF THE PARCEL ARE THE CITY OF AUBURN AND THE CITY OF LEWISTON BY DEED DATED DECEMBER 1, 1947 AND RECORDED AT THE ANDROSCOGGIN COUNTY REGISTRY OF DEEDS (ACRD) IN BOOK 611, PAGE 459.
2. THE PROPERTY IS SHOWN AS LOT 007 ON THE CITY OF AUBURN TAX MAP 143 AND IS LOCATED IN THE INDUSTRIAL DISTRICT (ID).
3. BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON FIELD WORK PERFORMED BY SEBAGO TECHNICS, INC. IN NOVEMBER 2008 AND APRIL OF 2024.
4. PLAN REFERENCES:
   A. FINAL PLAN OF THE AUBURN-LEWISTON AIRPARK, AUBURN-LEWISTON MUNICIPAL AIRPORT, FOR THE AUBURN-LEWISTON MUNICIPAL AIRPORT COMMITTEE, DATED NOVEMBER 25, 1981 AND RECORDED AT THE ACRD IN PLAN BOOK 31, PAGE 33.
   B. FINAL PLAN OF THE AUBURN-LEWISTON AIRPARK, AUBURN-LEWISTON MUNICIPAL AIRPORT, FOR THE AUBURN-LEWISTON MUNICIPAL AIRPORT COMMITTEE, DATED SEPTEMBER 19, 1987 AND RECORDED AT THE ACRD IN PLAN BOOK 33, PAGE 96.
6. BASIS OF BEARING IS GRID NORTH, MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE 1802-NAD83 (2011), GEOID18 IN U.S. SURVEY FEET, ELEVATIONS DEPICTED HEREON ARE NAVD88, BASED ON DUAL FREQUENCY GPS OBSERVATIONS.
7. BENCHMARK:
   BM-1 NAIL IN UTILITY POLE ELEVATION: 257.39 (NAVD88)
8. UTILITY INFORMATION DEPICTED HEREON, UNLESS OTHERWISE NOTED, IS OF QUALITY LEVEL D PER AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) STANDARD CI/ASCE 38-02. UTILITIES DEPICTED HEREON MAY NOT NECESSARILY REPRESENT ALL EXISTING UTILITIES. CONTRACTORS AND/OR DESIGNERS NEED TO CONTACT DIG-SAFE SYSTEMS, INC. (1-888-DIG-SAFE) AND FIELD VERIFY EXISTING UTILITIES WITHIN THE PROJECT AREA PRIOR TO CONSTRUCTION AND/OR EXCAVATION. PROMARK UTILITY LOCATING, LLC MARKED THE UNDERGROUND UTILITIES SHOWN HEREON IN APRIL OF 2024, AND THEY WERE FIELD LOCATED BY SEBAGO TECHNICS, INC.
9. THE LOCUS PROPERTY AS DEPICTED HEREON DOES NOT FALL WITHIN A SPECIAL FLOOD HAZARD AREA AS DELINEATED ON THE FLOOD INSURANCE RATE MAP FOR AUBURN, MAINE, ANDROSCOGGIN COUNTY, PANEL NUMBER 2300103116E, HAVING AN EFFECTIVE DATE OF JULY 8, 2013. THE LOCUS FALLS WITHIN AN AREA IDENTIFIED AS ZONE X, AREAS OF AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.
10. SPACE AND BULK CRITERIA FOR THE INDUSTRIAL DISTRICT (ID) ARE AS FOLLOWS:

MINIMUM STREET FRONTAGE:	150 FEET
MINIMUM FRONT YARD:	35 FEET OR 15% OF LOT DEPTH
MINIMUM SIDE YARD:	5 FEET PLUS 1 FOOT FOR EVERY 3 FEET OF FRONTAGE OVER 60 FEET. 35 FEET MAXIMUM
MINIMUM REAR YARD:	50 FEET OR 20% OF LOT DEPTH
MAXIMUM BUILDING HEIGHT:	75 FEET SEE FAA REQUIREMENTS
MAXIMUM BUILDING COVERAGE:	60%

* SEE ORDINANCE FOR MORE PARTICULAR INFORMATION.

GRAPHIC SCALE
30 0 15 30 60
(IN FEET)
1 INCH = 30 FT.

ROBERT A. MCSCORLEY, PE # 8588
STATE OF MAINE · REGISTERED PROFESSIONAL ENGINEER · ROBERT A. MCSCORLEY · 08/06/2024

REV.	BY	DATE:	STATUS
A	JLG	07/02/2024	PRELIMINARY PLANS ISSUED TO CLIENT FOR REVIEW
B	RAM	08/06/2024	PLANS ISSUED FOR INTERNAL REVIEW

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICS, INC. ANY ALTERATIONS; AS PLANNED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.

SEBAGO TECHNICS
SEBAGOTECHNICS.COM
75 JOHN ROBERTS ROAD, SUITE A
South Portland, ME 04106
207-200-2100
South Portland, Bridgton, Sanford and Bath

SITE PLAN
OF:
AUBURN-LEWISTON MUNICIPAL AIRPORT HANGARS
80 WHITE HANGAR DRIVE
AUBURN, ME 04210
FOR:
FIELDING PROPERTIES, LLC
PO BOX 6951
SCARBOROUGH, ME 04074

DESIGNED	JSH
DRAWN	RGL
CHECKED	RAM
DATE	04-22-2024
SCALE	1" = 30'
PROJECT	230887

SHEET 4 OF10

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230887 S.dwg 1"AB:SITE PLAN

STORM DRAIN STRUCTURE DATA

STRUCTURE	RIM	INV. IN	INV. OUT:	DIAM.
CB-1	252.40	248.10 (SD-2)	248.10 (SD-1)	CB-ST-48
CB-2	252.40	248.40 (SD-3) 248.50 (SD-7)	248.40 (SD-2)	CB-ST-48
CB-3	252.40	248.75 (SD-4) 248.75 (SD-6)	248.75 (SD-3)	CB-ST-48
FI-1	252.35		249.20 (SD-4)	24" F-Basin
NP-1	252.45		249.40 (SD-6)	24" NYLOPLAST
OCS-1	250.00		245.80 (SD-5)	CB-ST-48

STORM DRAIN PIPE DATA

NAME	SIZE	LENGTH	SLOPE
SD-1	12"	88'	0.69%
SD-2	12"	59'	0.51%
SD-3	12"	59'	0.59%
SD-4	12"	75'	0.60%
SD-5	12"	25'	1.22%
SD-6	12"	102'	0.64%
SD-7	6"	49'	1.84%

CB 1354
RIM=255.33'
PRECAST CONCRETE
NO VISIBLE PIPES
SUMP = 246.53'

CB 1172
RIM=256.53'
INV. OUT 18" HDPE @ 7=250.80'
SUMP =247.73'

CB 1688
RIM=257.96'
INV. IN 18" HDPE @ 1 =250.21'
INV. IN 18" HDPE @ 4 =249.56'
INV. IN 24" HDPE @ 7 =251.16'
INV. OUT 30" HDPE @ 10 =249.75'
SUMP = 247.76'

CB 1166
RIM=258.44
INV. IN 24" HDPE @ 7 =251.69'
INV. OUT 24" HDPE @ 1 =251.59'
SUMP = 248.89'

CB 1683
RIM=258.96
INV. IN 18" HDPE @ 7 =253.36'
INV. OUT 24" HDPE @ 1 =252.76'
SUMP = 249.91'

CB 1680
RIM=259.43'
INV. IN 12" HDPE @ 7=253.9'
INV. OUT 18" HDPE @ 1= 253.88'
SUMP = 250.73'

AIRCRAFT TIE DOWN AREA

PAVED

GRASSED

FFE=256.84'
HANGER

MH 1180
RIM=255.95'

30" HDPE
INV.=249.25'

BUILDING DRIP EDGE, TYP., SEE DETAIL

HANGAR #4
FFE = 253.35

HANGAR #2
FFE = 253.35

HANGAR #3
FFE = 253.35

HANGAR #1
FFE = 253.35

4" UNDERDRAIN
INV.=250.90

CONNECT DRIP EDGE
4" UNDERDRAIN INTO
6" HEADER PIPE AT
INV.=250.20

CONNECT DRIP EDGE
4" UNDERDRAIN INTO
6" HEADER PIPE AT
INV.=250.15

6" HEADER PIPE
INV.=249.40

6" HEADER PIPE
INV.=248.75

6" HEADER PIPE
L=239'
S=0.77%

6" PERFORATED
RISER PIPE

INSTALL INLET PROTECTION IN
CATCH BASINS DURING
CONSTRUCTION, TYP. SEE DETAIL

DAYLIGHT FOUNDATION
DRAINS, TYP

INSTALL FILTER BARRIER DOWNGRADIENT
OF SITE DISTURBANCE

GRAVEL WETLAND
BOTTOM ELEV. 246.50'
SEE DETAIL

INSTALL RIP RAP EMERGENCY
SPILLWAY AT ELEV. 249.35
SEE DETAIL

INSTALL EROSION CONTROL
BLANKET ON 2(H):1(V) SLOPE
AS SHOWN

12" SD
INV=247.50

12" SD
INV=245.50

18" PIPE
UNKNOWN TYPE
INV.=245.26'

OCS-1

6" UD

JERSEY BARRIERS

GRAVEL
PARKING AREA

INSTALL 4" FOUNDATION
DRAIN, DAYLIGHT
TOWARDS DEPRESSED
AREA TO THE NORTH, TYP.

PROVIDE DRAIN CLEAN OUT,
TYP. SEE DETAIL

INSTALL 2" RIGID FOAM INSULATION
ABOVE DRAINAGE WITH LESS THAN
4 FEET TO PIPE INVERT

NP-1
RIM=252.45

FI-1
RIM=252.35

HP
252.65

PROPOSED PAVEMENT SAWCUT
LINE, MATCH EXISTING GRADE

INSTALL STABILIZED CONSTRUCTION
ENTRANCE/EXIT

INSTALL FILTER BARRIER DOWNGRADIENT
OF PROPOSED SITE DISTURBANCE

FFE=252.89

CB-1
Rim=252.40

CB-2
RIM=252.40

CB-3
RIM=252.40

CB-1723
RIM=248.72'

CB 1725
RIM=249.

CB 1002
RIM=248.51'
INV. OUT=245.57'

UP CMP 11

UP CMP1

UP CMP 502

UP CMP 503

UP CMP 504

18" PIPE
UNKNOWN TYPE
IN POOR CONDITION
INV.=244.50'

CB 1727
RIM=247.90'
INV. IN=244.69'

FLIGHT LINE DRIVE
50' WIDE PER PLAN REF. 4A

AVIATION AVENUE

GRAPHIC SCALE
30 0 15 30 60
(IN FEET)
1 INCH = 30 FT.

ROBERT A. MCSORLEY, PE # 8588

STATE OF MAINE
ROBERT A. MCSORLEY
LICENSED PROFESSIONAL ENGINEER
08/06/2024

REV	BY	DATE:	STATUS
B	RAM	08/06/2024	PLANS ISSUED FOR INTERNAL REVIEW
A	JLG	07/02/2024	PRELIMINARY PLANS ISSUED TO CLIENT FOR REVIEW

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SEBAGO TECHNICS
SEBAGOTECHNICS.COM
75 John Roberts Road, Suite 4A
South Portland, ME 04106
207-200-2100
South Portland, Bridgton, Sanford and Bath

GRADING AND DRAINAGE PLAN
OF:
AUBURN-LEWISTON MUNICIPAL AIRPORT HANGARS
80 WHITE HANGAR DRIVE
AUBURN, ME 04210
FOR:
FIELDING PROPERTIES, LLC
PO BOX 6951
SCARBOROUGH, ME 04074

DESIGNED	JSH
DRAWN	RGL
CHECKED	RAM
DATE	04-22-2024
SCALE	1" = 30'
PROJECT	230887

SHEET 5 OF10

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230887 G.dwg TAB GRADING AND DRAINAGE PLAN

STORM DRAIN STRUCTURE DATA

STRUCTURE	RIM	INV. IN	INV. OUT:	DIAM.
CB-1	252.40	248.10 (SD-2)	248.10 (SD-1)	CB-ST-48
CB-2	252.40	248.40 (SD-3) 248.50 (SD-7)	248.40 (SD-2)	CB-ST-48
CB-3	252.40	248.75 (SD-4) 248.75 (SD-6)	248.75 (SD-3)	CB-ST-48
FI-1	252.35		249.20 (SD-4)	24" F-Basin
NP-1	252.45		249.40 (SD-6)	24" NYLOPLAST
OCS-1	250.00		245.80 (SD-5)	CB-ST-48

STORM DRAIN PIPE DATA

NAME	SIZE	LENGTH	SLOPE
SD-1	12"	88'	0.69%
SD-2	12"	59'	0.51%
SD-3	12"	59'	0.59%
SD-4	12"	75'	0.60%
SD-5	12"	25'	1.22%
SD-6	12"	102'	0.64%
SD-7	6"	49'	1.84%

SANITARY SEWER STRUCTURE DATA

STRUCTURE	RIM	INV. IN	INV. OUT:	DIAM.
SMH-1	250.75	244.70 (S-2)	244.60 (S-1)	48"
SMH-2	251.72	247.10 (S-3)	247.00 (S-2)	48"

SANITARY SEWER PIPE DATA

NAME	SIZE	LENGTH	SLOPE
S-1	8"	228'	1.01%
S-2	8"	342'	0.67%
S-3	6"	136'	0.59%
S-4	6"	172'	1.03%

NOTES:

1. CONTRACTOR SHALL TEST PIT EXISTING WATER MAIN TO DETERMINE THE SIZE AND MATERIAL BEFORE ORDERING ANY MATERIALS
2. WATER SERVICE TAPS SHALL HAVE A MINIMUM 18" SEPARATION OR 18" FROM ANY FITTING, STAGGERED ON EITHER SIDE OF MAIN AND NOT DRILLED IN A STRAIGHT LINE ON THE MAIN.
3. WATER SERVICE AND FIRE LINES SHALL BE INSTALLED WITH APPROVED BACKFLOW PREVENTION DEVICES ON EACH LINE.
4. FIRE LINES ARE SUBJECT TO FIRE DEPARTMENT REGULATION AND TESTING REQUIREMENTS.
5. ALL GRAVITY SEWER LINE TO BE SDR-35, PVC UNLESS OTHERWISE NOTED.

ROBERT A. MCSORLEY, PE # 8588
STATE OF MAINE — REGISTERED PROFESSIONAL ENGINEER — ROBERT A. MCSORLEY — 08/06/2024

REV	BY	DATE:	STATUS:
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UTILITY PLAN
OF:
AUBURN-LEWISTON MUNICIPAL AIRPORT HANGARS
80 WHITE HANGAR DRIVE
AUBURN, ME 04210
FOR:
FIELDING PROPERTIES, LLC
PO BOX 6951
SCARBOROUGH, ME 04074

DESIGNED	JSH
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SHEET 6 OF10

GRAPHIC SCALE
30 0 15 30 60
(IN FEET)
1 INCH = 30 FT.

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230887 U.dwg T-AB UTILITY PLAN

EROSION CONTROL MEASURES

PRE-CONSTRUCTION PHASE

PRIOR TO THE BEGINNING OF ANY CONSTRUCTION, SEDIMENT BARRIERS (SILT FENCE) WILL BE STAKED/INSTALLED ACROSS THE SLOPE(S), ON THE CONTOUR AT OR JUST BELOW THE LIMITS OF CLEARING OR GRUBBING, AND/OR JUST ABOVE ANY ADJACENT PROPERTY LINE OR WATERCOURSE TO PROTECT AGAINST CONSTRUCTION RELATED EROSION. THE PLACEMENT OF SEDIMENT BARRIERS SHALL BE COMPLETED IN ACCORDANCE WITH GUIDELINES ESTABLISHED IN BEST MANAGEMENT PRACTICES AND IN ACCORDANCE WITH THIS EROSION CONTROL PLAN AND DETAILS IN THIS PLAN SET. THIS NETWORK IS TO BE MAINTAINED BY THE CONTRACTOR UNTIL ALL EXPOSED SLOPES HAVE AT LEAST 90% VIGOROUS PERENNIAL VEGETATIVE COVER TO PREVENT EROSION. TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER PERMANENT STABILIZATION IS ATTAINED.

PRIOR TO ANY CLEARING OR GRUBBING, A CONSTRUCTION ENTRANCE/EXIT SHALL BE CONSTRUCTED AT THE INTERSECTION OF THE PROPOSED ENTRANCES AND EXISTING ROADWAY TO AVOID TRACKING OF MUD, DUST AND DEBRIS FROM THE SITE.

PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL PREPARE A DETAILED SCHEDULE AND MARKED UP PLAN INDICATING AREAS AND COMPONENTS OF THE WORK AND KEY DATES SHOWING DATE OF DISTURBANCE AND COMPLETION OF THE WORK. THE CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE MUNICIPAL STAFF. THREE COPIES OF THE SCHEDULE AND MARKED UP PLAN SHALL BE PROVIDED TO THE MUNICIPALITY THREE DAYS PRIOR TO THE SCHEDULED PRE-CONSTRUCTION MEETING. SPECIAL ATTENTION SHALL BE GIVEN TO THE 14 DAY LIMIT OF DISTURBANCE IN THE SCHEDULE ADDRESSING TEMPORARY AND PERMANENT VEGETATION MEASURES.

CONSTRUCTION AND POST-CONSTRUCTION PHASE

AREAS UNDERGOING ACTUAL CONSTRUCTION SHALL ONLY EXPOSE THAT AMOUNT OF MINERAL SOIL NECESSARY FOR PROGRESSIVE AND EFFICIENT CONSTRUCTION. AN AREA CONSIDERED OPEN IS ANY AREA NOT STABILIZED WITH PAVEMENT, VEGETATION, MULCHING, EROSION CONTROL MATS, RIPRAP OR GRAVEL BASE ON A ROAD, SUCH AS ACTIVE EXCAVATION AND ACTIVE GRADING. LIMIT THE EXPOSED AREA TO THOSE AREAS IN WHICH WORK IS ACTIVELY OCCURRING OR CAN BE BACKFILLED IN THE SAME DAY. OPEN AREAS SHALL BE ANCHORED WITH TEMPORARY EROSION CONTROL AS SHOWN ON THE DESIGN PLANS AND AS DESCRIBED WITHIN THIS EROSION CONTROL PLAN WITHIN SEVEN (7) DAYS OF DISTURBANCE. AREAS LOCATED WITHIN 100 FEET OF STREAMS SHALL BE ANCHORED WITH TEMPORARY EROSION CONTROL WITHIN SEVEN (7) DAYS. REFER TO WINTER EROSION CONTROL NOTES FOR THE TREATMENT OF OPEN AREAS AFTER OCTOBER 1ST OF THE CONSTRUCTION YEAR.

THE CONTRACTOR MUST INSTALL ANY ADDED MEASURES WHICH MAY BE NECESSARY TO CONTROL EROSION/SEDIMENTATION FROM THE SITE DEPENDENT UPON THE ACTUAL SITE AND WEATHER CONDITIONS. CONTINUATION OF EARTHWORK OPERATIONS ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE EXPOSED SOIL SURFACE ON THE AREA BEING WORKED HAS BEEN STABILIZED, IN ORDER TO MINIMIZE AREAS WITHOUT EROSION CONTROL PROTECTION.

EROSION CONTROL APPLICATIONS & MEASURES
THE PLACEMENT OF EROSION CONTROL MEASURES SHALL BE COMPLETED IN ACCORDANCE WITH GUIDELINES ESTABLISHED IN BEST MANAGEMENT PRACTICES AND IN ACCORDANCE WITH THE EROSION CONTROL PLAN AND DETAILS IN THE PLAN SET.

1. TEMPORARY MULCHING:

ALL DISTURBED AREAS SHALL BE MULCHED WITH MATERIALS SPECIFIED BELOW PRIOR TO ANY STORM EVENT. ALL DISTURBED AREAS NOT FINAL GRADED WITHIN 14 DAYS SHALL BE MULCHED. DISTURBED AREAS ADJACENT TO NATURAL RESOURCES THAT ARE NOT GRADED WITHIN SEVEN (7) DAYS SHALL BE MULCHED. ALSO, AREAS, WHICH HAVE BEEN TEMPORARILY OR PERMANENTLY SEEDED, SHALL BE MULCHED IMMEDIATELY FOLLOWING SEEDING. EROSION CONTROL BLANKETS ARE RECOMMENDED TO BE USED AT THE BASE OF GRASSED WATERWAYS AND ON SLOPES GREATER THAN 33%. MULCH ANCHORING SHOULD BE USED ON SLOPES GREATER THAN 5% AFTER SEPTEMBER 15TH OF THE CONSTRUCTION YEAR (SEE WINTER EROSION CONTROL NOTES).
TYPES OF MULCH:

HAY OR STRAW: SHALL BE APPLIED AT A RATE OF 75 LBS/1,000 S.F. (1.5 TONS PER ACRE).

EROSION CONTROL MIX: SHALL BE PLACED EVENLY AND MUST PROVIDE 100% SOIL COVERAGE. EROSION CONTROL MIX SHALL BE APPLIED SUCH THAT THE THICKNESS ON SLOPES 3:1 OR LESS IS 2 INCHES PLUS 1/2 INCH PER 20 FEET OF SLOPE UP TO 100 FEET. THE THICKNESS ON SLOPES BETWEEN 3:1 AND 2:1 SHALL BE 4 INCHES PLUS 1/2 INCH PER 20 FEET OF SLOPE UP TO 100 FEET. THIS SHALL NOT BE USED ON SLOPES GREATER THAN 2:1.

EROSION CONTROL BLANKET: SHALL BE INSTALLED SUCH THAT CONTINUOUS CONTACT BETWEEN THE MAT AND THE SOIL IS OBTAINED. INSTALL BLANKETS AND STAPLE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

2. SOIL STOCKPILES:

STOCKPILES OF SOIL OR SUBSOIL SHALL BE MULCHED WITH HAY OR STRAW AT A RATE OF 75 LBS/1,000 S.F. (1.5 TONS PER ACRE) OR WITH A FOUR-INCH LAYER OF WOOD WASTE EROSION CONTROL MIX. THIS WILL BE DONE WITHIN 24 HOURS OF STOCKING AND RE-ESTABLISHED PRIOR TO ANY RAINFALL. ANY SOIL STOCKPILE WILL NOT BE PLACED (EVEN COVERED WITH HAY OR STRAW) WITHIN 100 FEET FROM ANY NATURAL RESOURCES. SEDIMENT BARRIERS SHALL BE INSTALLED DOWNGRADIENT OF STOCKPILES, AND STORMWATER SHALL BE PREVENTED FROM RUNNING ONTO THE STOCKPILE.

3. NATURAL RESOURCES PROTECTION:

ANY AREAS WITHIN 100 FEET FROM ANY NATURAL RESOURCES SHALL BE MULCHED USING TEMPORARY MULCHING (AS DESCRIBED IN PART 1 OF THIS SECTION) WITHIN 7 DAYS OF EXPOSURE OR PRIOR TO ANY STORM EVENT. SEDIMENT BARRIERS (AS DESCRIBED IN PART 4 OF THIS SECTION) SHALL BE PLACED BETWEEN ANY NATURAL RESOURCE AND THE DISTURBED AREA. PROJECTS CROSSING THE NATURAL RESOURCE SHALL BE PROTECTED A MINIMUM DISTANCE OF 100 FEET ON EITHER SIDE FROM THE RESOURCE.

4. SEDIMENT BARRIERS:

PRIOR TO THE BEGINNING OF ANY CONSTRUCTION, SEDIMENT BARRIERS SHALL BE STAKED ACROSS THE SLOPE(S), ON THE CONTOUR AT OR JUST BELOW THE LIMITS OF CLEARING OR GRUBBING, AND/OR JUST ABOVE ANY ADJACENT PROPERTY LINE OR WATERCOURSE TO PROTECT AGAINST CONSTRUCTION RELATED EROSION. SEDIMENT BARRIERS SHALL BE MAINTAINED BY THE CONTRACTOR UNTIL ALL EXPOSED SLOPES HAVE AT LEAST 90% VIGOROUS PERENNIAL VEGETATIVE COVER TO PREVENT EROSION.

SILT FENCE: SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. THE EFFECTIVE HEIGHT OF THE FENCE SHALL NOT EXCEED 36 INCHES. IT IS RECOMMENDED THAT SILT FENCE BE REMOVED BY CUTTING THE FENCE MATERIALS AT GROUND LEVEL SO AS TO AVOID ADDITIONAL SOIL DISTURBANCE.

HAY BALES: SHALL NOT BE INSTALLED ADJACENT TO WETLAND. INSTALL PER THE DETAIL ON THE PLANS. BALES SHALL BE WIRE-BOUND OR STRING-TIED AND THESE BINDINGS MUST REMAIN PARALLEL WITH THE GROUND SURFACE DURING INSTALLATION TO PREVENT DETERIORATION OF THE BINDINGS. BALES SHALL BE INSTALLED WITHIN A MINIMUM 4 INCH DEEP TRENCH LINE WITH ENDS OF ADJACENT BALES TIGHTLY ABUTTING ONE ANOTHER.

EROSION CONTROL MIX: SHALL NOT BE USED ADJACENT TO WETLANDS. INSTALL PER THE DETAIL ON THE PLANS. THE MIX SHALL CONSIST PRIMARILY OF ORGANIC MATERIAL AND CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES AND MAY CONTAIN ROCKS LESS THAN 4 INCHES IN DIAMETER. THE MIX COMPOSITION SHALL MEET THE STANDARDS DESCRIBED WITHIN THE MDEP BEST MANAGEMENT PRACTICES. NO TRENCHING IS REQUIRED FOR INSTALLATION OF THIS BARRIER. EROSION CONTROL MIX BERMS SHALL NOT BE USED AT THE BOTTOM OF STEEP SLOPES (>8%) OR SLOPES WITH FLOWING WATER.

CONTINUOUS CONTAINED BERM: SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. THIS SEDIMENT BARRIER IS EROSION CONTROL MIX PLACED WITHIN A SYNTHETIC TUBULAR NETTING AND PERFORMS AS A STURDY SEDIMENT BARRIER THAT WORKS WELL ON HARD GROUND SUCH AS FROZEN CONDITIONS, TRAVELED AREAS OR PAVEMENT. NO TRENCHING IS REQUIRED FOR INSTALLATION OF THIS BARRIER.

5. TEMPORARY CHECK DAMS:

SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. CHECK DAMS ARE TO BE PLACED WITHIN DITCHES/ SWALES AS SPECIFIED ON THE DESIGN PLANS IMMEDIATELY AFTER FINAL GRADING. CHECK DAMS SHALL BE 2 FEET HIGH. TEMPORARY CHECK DAMS MAY BE REMOVED ONLY AFTER THE ROADWAYS ARE PAVED AND THE VEGETATED SWALE ARE ESTABLISHED WITH AT LEAST 90% OF VIGOROUS PERENNIAL GROWTH. THE AREA BENEATH THE CHECK DAM MUST BE SEEDED AND MULCHED IMMEDIATELY AFTER REMOVAL OF THE CHECK DAM.

STONE CHECK DAMS: STONE DAMS SHOULD BE CONSTRUCTED OF 2 TO 3 INCH STONE AND PLACED SUCH THAT COMPLETE COVERAGE OF THE SWALE IS OBTAINED AND THAT THE CENTER OF THE DAM IS 6 INCHES LOWER THAT THE OUTER EDGES.

HAY BALE CHECK DAMS: BALES SHALL BE WIRE-BOUND OR STRING-TIED. BALES SHALL BE INSTALLED WITHIN A MINIMUM 4 INCH DEEP TRENCH LINE WITH ENDS OF ADJACENT BALES TIGHTLY ABUTTING ONE ANOTHER. HAY BALES SHALL BE PLACED SUCH THAT COMPLETE COVERAGE OF THE SWALE IS OBTAINED AND THAT THE CENTER OF THE DAM IS 6 INCHES LOWER THAT THE OUTER EDGES.

MANUFACTURED CHECK DAMS: MANUFACTURED CHECK DAMS, AS SPECIFIED IN THE DETAIL ON THE PLANS, MAY BE USED IF AUTHORIZED BY THE PROPER LOCAL, STATE OR FEDERAL REGULATING AGENCIES. THESE UNITS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURE'S RECOMMENDATIONS.

6. STORMDRAIN INLET PROTECTION:

INLET PROTECTION SHALL BE PLACED AROUND A STORMDRAIN DROP INLET OR CURB INLET PRIOR TO PERMANENT STABILIZATION OF THE IMMEDIATE AND UPSTREAM DISTURBED AREAS. THEY SHALL BE CONSTRUCTED IN A MANNER THAT WILL FACILITATE CLEAN-OUT AND DISPOSAL OF TRAPPED SEDIMENTS AND MINIMIZE INTERFERENCE WITH CONSTRUCTION ACTIVITIES. ANY RESULTANT PONDING OF WATER FROM THE PROTECTION METHOD MUST NOT CAUSE EXCESSIVE INCONVENIENCE OR DAMAGE TO ADJACENT AREAS OR STRUCTURES.

HAY BALE DROP INLET PROTECTION: WE DO NOT RECOMMEND THE USE OF HAY BALES AS INLET PROTECTION.

CONCRETE BLOCK AND STONE INLET SEDIMENT FILTER (DROP OR CURB INLET): SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. THE HEIGHT OF THE CONCRETE BLOCK BARRIER CAN VARY BUT MUST BE BETWEEN 12 AND 24 INCHES TALL. A MINIMUM OF 1 INCH CRUSHED STONE SHALL BE USED.

MANUFACTURED SEDIMENT BARRIERS AND FILTER (DROP OR CURB INLET): MANUFACTURED FILTERS, AS SPECIFIED IN THE DETAIL ON THE PLANS, MAY BE USED IF INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

7. STABILIZED CONSTRUCTION ENTRANCE/EXIT:

PRIOR TO CLEARING AND/OR GRUBBING THE SITE A STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE CONSTRUCTED WHEREVER TRAFFIC WILL EXIT THE CONSTRUCTION SITE ONTO A PAVED ROADWAY IN ORDER TO MINIMIZE THE TRACKING OF SEDIMENT AND DEBRIS FROM THE CONSTRUCTION SITE ONTO PUBLIC ROADWAYS. THE ENTRANCES AND ADJACENT ROADWAY AREAS SHALL BE PERIODICALLY SWEPT TO FURTHER MINIMIZE THE TRACKING OF MUD, DUST OR DEBRIS FROM THE CONSTRUCTION AREA. THE TERM "SWEEP" IS UNDERSTOOD TO MEAN REMOVAL AND RECOVERY OF TRACKED SEDIMENT WITH A STREET SWEEPER, NOT BRUSHING THE MATERIAL INTO SWALES OR STRUCTURES WITH A MECHANICAL BROOM. STABILIZED CONSTRUCTION EXITS SHALL BE CONSTRUCTED IN AREAS SPECIFIED ON THE PLANS AND AS DETAILED ON THE PLANS. THE CONTRACTOR SHALL MAINTAIN THE STABILIZED CONSTRUCTION ENTRANCE UNTIL ALL DISTURBED AREAS ARE STABILIZED.

DUST CONTROL:

DUST CONTROL DURING CONSTRUCTION SHALL BE ACHIEVED BY THE USE OF A WATERING TRUCK TO PERIODICALLY SPRINKLE THE EXPOSED ROADWAY AREAS AS NECESSARY TO REDUCE DUST DURING THE DRY MONTHS. APPLYING OTHER DUST CONTROL PRODUCTS SUCH AS CALCIUM CHLORIDE OR OTHER MANUFACTURED PRODUCTS ARE ALLOWED IF AUTHORIZED BY THE PROPER LOCAL, STATE AND/OR FEDERAL REGULATING AGENCIES. HOWEVER, IT IS THE CONTRACTOR'S ULTIMATE RESPONSIBILITY TO MITIGATE DUST AND SOIL LOSS FROM THE SITE. IF OFFSITE TRACKING OCCURS, PUBLIC ROADS SHOULD BE SWEPT IMMEDIATELY AND NOT LESS THAN ONCE A WEEK AND PRIOR TO SIGNIFICANT STORM EVENTS.

TEMPORARY VEGETATION:

TEMPORARY VEGETATION SHALL BE APPLIED TO DISTURBED AREAS THAT WILL NOT RECEIVE FINAL GRADING FOR PERIODS UP TO 12 MONTHS. THIS PROCEDURE SHOULD BE USED EXTENSIVELY IN AREAS ADJACENT TO NATURAL RESOURCES. SEEDBED PREPARATION AND APPLICATION OF SEED SHALL BE CONDUCTED AS INDICATED IN THE PERMANENT VEGETATION SECTION OF THIS NARRATIVE. SPECIFIC SEEDS (FAST GROWING AND SHORT LIVING) SHALL BE SELECTED FROM THE MAINE EROSION AND SEDIMENT CONTROL BMP MANUALS FOR CONTRACTORS AND ENGINEERS, LATEST REVISION. ALTERNATIVE EROSION CONTROL MEASURES SHOULD BE USED IF SEEDING CAN NOT BE DONE BEFORE SEPTEMBER 15TH OF THE CONSTRUCTION YEAR.

PERMANENT VEGETATION:

REVEGETATION MEASURES SHALL COMMENCE IMMEDIATELY UPON COMPLETION OF FINAL GRADING OF AREAS TO BE LOAMED AND SEEDED. THE APPLICATION OF SEED SHALL BE CONDUCTED BETWEEN APRIL 1ST AND OCTOBER 1ST OF THE CONSTRUCTION YEAR, PLEASE REFER TO THE WINTER EROSION CONTROL NOTES FOR MORE DETAIL. REVEGETATION MEASURES SHALL CONSIST OF THE FOLLOWING:

SEEDBED PREPARATION:

A. FOUR (4) INCHES OF LOAM SHALL BE SPREAD OVER DISTURBED AREAS AND SMOOTHED TO A UNIFORM SURFACE. LOAM SHALL BE FREE OF SUBSOIL, CLAY LUMPS, STONES AND OTHER OBJECTS OVER 2 INCHES OR LARGER IN ANY DIMENSION, AND WITHOUT WEEDS, ROOTS OR OTHER OBJECTIONABLE MATERIAL.

B. SOILS TESTS SHALL BE TAKEN AT THE TIME OF SOIL STRIPPING TO DETERMINE FERTILIZATION REQUIREMENTS. SOILS TESTS SHALL BE TAKEN PROMPTLY AS TO NOT INTERFERE WITH THE 14-DAY LIMIT ON SOIL EXPOSURE. BASED UPON TEST RESULTS, SOIL AMENDMENTS SHALL BE INCORPORATED INTO THE SOIL PRIOR TO FINAL SEEDING. IN LIEU OF SOIL TESTS, SOIL AMENDMENTS MAY BE APPLIED AS FOLLOWS:

ITEM	APPLICATION RATE
10-20-20 FERTILIZER (N-P205-K20 OR EQUAL)	18.4 LBS./1,000 S.F.
GROUND LIMESTONE (50% CALCIUM & MAGNESIUM OXIDE)	138 LBS./1,000 S.F.

C. WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH PROPER EQUIPMENT. ROLL THE AREA TO FIRM THE SEEDBED EXCEPT ON CLAY OR SILTY SOILS OR COARSE SAND.

APPLICATION OF SEED:

A. SEEDING: SHALL BE CONDUCTED BETWEEN APRIL 1ST AND OCTOBER 1ST OF THE CONSTRUCTION YEAR. GENERALLY A SEED MIXTURE MAY BE APPLIED AS FOLLOWS:
(CONSERVATION MIX)

SEED TYPE	APPLICATION RATE
FESCUE, FAWN	0.34 LBS/1,000 S.F. (15 LBS/ACRE)
BIRD'S FOOT TREFOIL, VARIETY NOT STATED	0.28 LBS/1,000 S.F. (12 LBS/ACRE)
ANNUAL RYEGRASS	0.18 LBS/1,000 S.F. (8 LBS/ACRE)
TIMOTHY, CLIMAX	0.18 LBS/1,000 S.F. (8 LBS/ACRE)
ALSIKE CLOVER	0.11 LBS/1,000 S.F. (5 LBS/ACRE)
REDTOP	0.05 LBS/1,000 S.F. (2 LBS/ACRE)
TOTAL	1.14 LBS/1,000 S.F. (50 LBS/ACRE)

NOTE: A SPECIFIC SEED MIXTURE SHOULD BE CHOSEN TO MATCH THE SOILS CONDITION OF THE SITE. VARIOUS AGENCIES CAN RECOMMEND SEED MIXTURES. MDEP RECOMMENDED SEED MIXTURES ARE IN THE EROSION AND SEDIMENT CONTROL BMP MANUAL DATED 2016 OR LATEST REVISION.

B. HYDROSEEDING: SHALL BE CONDUCTED ON PREPARED AREAS WITH SLOPES LESS THAN 2:1. LIME AND FERTILIZER MAY BE APPLIED SIMULTANEOUSLY WITH THE SEED. RECOMMENDED SEEDING RATES MUST BE INCREASED BY 10% WHEN HYDROSEEDING.

C. MULCHING: SHALL COMMENCE IMMEDIATELY AFTER SEED IS APPLIED. REFER TO THE TEMPORARY MULCHING SECTION OF THIS NARRATIVE FOR DETAILS.

SODDING:
FOLLOWING SEEDBED PREPARATION, SOD CAN BE APPLIED IN LIEU OF SEEDING IN AREAS WHERE IMMEDIATE VEGETATION IS MOST BENEFICIAL SUCH AS DITCHES, AROUND STORMWATER DROP INLETS AND AREAS OF AESTHETIC VALUE. SOD SHOULD BE LAID AT RIGHT ANGLES TO THE DIRECTION OF FLOW, STARTING AT THE LOWEST ELEVATION. SOD SHOULD BE ROLLED OR TAMPED DOWN TO EVEN OUT THE JOINTS ONCE LAID DOWN. WHERE FLOW IS PREVALENT THE SOD MUST BE PROPERLY ANCHORED DOWN. IRRIGATE THE SOD IMMEDIATELY AFTER INSTALLATION. IN MOST CASES, SOD CAN BE ESTABLISHED BETWEEN APRIL 1ST AND NOVEMBER 15TH OF THE CONSTRUCTION YEAR, HOWEVER, REFER TO THE WINTER EROSION CONTROL NOTES FOR ANY ACTIVITIES AFTER OCTOBER 1ST.

STANDARDS FOR TIMELY STABILIZATION:

STANDARD FOR THE TIMELY STABILIZATION OF DISTURBED SLOPES – THE CONTRACTOR WILL CONSTRUCT AND STABILIZE STONE-COVERED SLOPES BY NOVEMBER 15. THE CONTRACTOR WILL SEED AND MULCH ALL SLOPES TO BE VEGETATED BY SEPTEMBER 15. THE MDEP WILL CONSIDER ANY AREA HAVING A GRADE GREATER THAN 15% (6.67H:1V) TO BE A SLOPE. IF THE CONTRACTOR FAILS TO STABILIZE ANY SLOPE TO BE VEGETATED BY SEPTEMBER 15, THEN THE CONTRACTOR WILL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE SLOPE FOR LATE FALL AND WINTER.

A. STABILIZE THE SOIL WITH TEMPORARY VEGETATION AND EROSION CONTROL MATS – BY OCTOBER 1 THE CONTRACTOR WILL SEED THE DISTURBED SLOPE WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1,000 SQUARE FEET AND APPLY EROSION CONTROL MATS OVER THE MULCHED SLOPE. THE CONTRACTOR WILL MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR COVER AT LEAST 75% OF THE DISTURBED SLOPE BY NOVEMBER 1, THEN THE CONTRACTOR WILL COVER THE SLOPE WITH A LAYER OF WOOD WASTE COMPOST AS DESCRIBED IN ITEM 2(C.) OF THIS STANDARD OR WITH STONE RIPRAP AS DESCRIBED IN ITEM 2(D.) OF THIS STANDARD.
B. STABILIZE THE SLOPE WITH SOD – THE CONTRACTOR WILL STABILIZE THE DISTURBED SLOPE WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES THE CONTRACTOR PINNING THE SOD ONTO THE SLOPE WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL. THE CONTRACTOR WILL NOT USE LATE-SEASON SOD INSTALLATION TO STABILIZE SLOPES HAVING A GRADE GREATER THAN 33% (3H:1V).
C. STABILIZE THE SLOPE WITH WOOD WASTE COMPOST – THE CONTRACTOR WILL PLACE A SIX-INCH LAYER OF WOOD WASTE COMPOST ON THE SLOPE BY NOVEMBER 15. PRIOR TO PLACING THE WOOD WASTE COMPOST, THE CONTRACTOR WILL REMOVE ANY SNOW ACCUMULATION ON THE DISTURBED SLOPE. THE CONTRACTOR WILL NOT USE WOOD WASTE COMPOST TO STABILIZE SLOPES HAVING GRADES GREATER THAN 50% (2H:1V) OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE.
D. STABILIZE THE SLOPE WITH STONE RIPRAP – THE CONTRACTOR WILL PLACE A LAYER OF STONE RIPRAP ON THE SLOPE BY NOVEMBER 15. THE CONTRACTOR WILL HIRE A REGISTERED PROFESSIONAL ENGINEER TO DETERMINE THE STONE SIZE NEEDED FOR STABILITY AND TO DESIGN A FILTER LAYER FOR UNDERNEATH THE RIPRAP.

STANDARD FOR THE TIMELY STABILIZATION OF DISTURBED SOILS – BY SEPTEMBER 15 THE CONTRACTOR WILL SEED AND MULCH ALL DISTURBED SOILS ON AREAS HAVING A SLOPE LESS THAN 15%. IF THE CONTRACTOR FAILS TO STABILIZE THESE SOILS BY THIS DATE, THEN THE CONTRACTOR WILL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE SOIL FOR LATE FALL AND WINTER.

A. STABILIZE THE SOIL WITH TEMPORARY VEGETATION – BY OCTOBER 1 THE CONTRACTOR WILL SEED THE DISTURBED SOIL WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET, LIGHTLY MULCH THE SEEDED SOIL WITH HAY OR STRAW AT 75 POUNDS PER 1000 SQUARE FEET, AND ANCHOR THE MULCH WITH PLASTIC NETTING. THE CONTRACTOR WILL MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR COVER AT LEAST 75% OF THE DISTURBED SOIL BEFORE NOVEMBER 15, THEN THE CONTRACTOR WILL MULCH THE AREA FOR OVER-WINTER PROTECTION AS DESCRIBED IN ITEM 3(C.) OF THIS STANDARD.
B. STABILIZE THE SOIL WITH SOD – THE CONTRACTOR WILL STABILIZE THE DISTURBED SOIL WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES THE CONTRACTOR PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL.
C. STABILIZE THE SOIL WITH MULCH – BY NOVEMBER 15 THE CONTRACTOR WILL MULCH THE DISTURBED SOIL BY SPREADING HAY OR STRAW AT A RATE OF AT LEAST 150 POUNDS PER 1000 SQUARE FEET ON THE AREA SO THAT NO SOIL IS VISIBLE THROUGH THE MULCH. PRIOR TO APPLYING THE MULCH, THE CONTRACTOR WILL REMOVE ANY SNOW ACCUMULATION ON THE DISTURBED AREA. IMMEDIATELY AFTER APPLYING THE MULCH, THE CONTRACTOR WILL ANCHOR THE MULCH WITH PLASTIC NETTING TO PREVENT WIND FROM MOVING THE MULCH OFF THE DISTURBED SOIL.

1. MAINTENANCE MEASURES SHALL BE APPLIED AS NEEDED DURING THE ENTIRE CONSTRUCTION CYCLE. AFTER EACH RAINFALL, SNOW STORM OR PERIOD OF THAWING AND RUNOFF, AND AT LEAST EVERY SEVEN (7) DAYS, THE CONTRACTOR SHALL PERFORM A VISUAL INSPECTION OF ALL INSTALLED EROSION CONTROL MEASURES. THE CONTRACTOR SHALL PERFORM REPAIRS NO LATER THAN THE END OF THE NEXT WORKDAY, TO ALLOW CONTINUED PROPER FUNCTIONING OF THE EROSION CONTROL MEASURE. THE CONTRACTOR SHALL PROVIDE THE NECESSARY REGULATING AGENCIES WITH WRITTEN DOCUMENTATION DESCRIBING DATES OF INSPECTIONS AND NECESSARY FOLLOW-UP WORK TO MAINTAIN EROSION CONTROL MEASURES MEETING THE REQUIREMENTS OF THIS PLAN WITHIN SEVEN (7) DAYS.

2. FOLLOWING THE TEMPORARY AND/OR FINAL SEEDINGS, THE CONTRACTOR SHALL INSPECT THE WORK AREA SEMIMONTHLY UNTIL THE SEEDINGS HAVE BEEN ESTABLISHED. ESTABLISHED MEANS A MINIMUM OF 90% OF AREAS VEGETATED WITH VIGOROUS GROWTH. RESEEDING SHALL BE CARRIED OUT BY THE CONTRACTOR WITH FOLLOW-UP INSPECTIONS IN THE EVENT OF ANY FAILURES UNTIL VEGETATION IS ADEQUATELY ESTABLISHED.

HOUSEKEEPING:

1. SPILL PREVENTION. CONTROLS MUST BE USED TO PREVENT POLLUTANTS FROM CONSTRUCTION AND WASTE MATERIALS STORED 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.

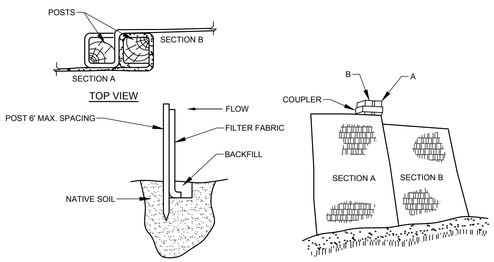
2. GROUNDWATER PROTECTION. DURING CONSTRUCTION, LIQUID PETROLEUM PRODUCTS AND OTHER HAZARDOUS MATERIALS WITH THE POTENTIAL TO CONTAMINATE GROUNDWATER MAY NOT BE STORED OR HANDLED IN AREAS OF THE SITE DRAINING TO AN INFILTRATION AREA. AN "INFILTRATION AREA" IS ANY AREA OF THE SITE THAT BY DESIGN OR AS 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.

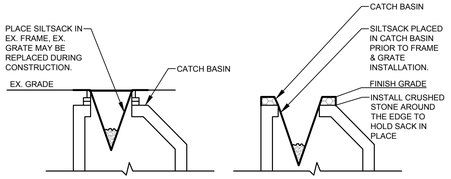
6. AUTHORIZED NON-STORMWATER DISCHARGES. IDENTIFY AND PREVENT CONTAMINATION BY NON-STORMWATER DISCHARGES. WHERE ALLOWED NON-STORMWATER DISCHARGES EXIST, THEY MUST BE IDENTIFIED AND STEPS SHOULD BE TAKEN TO ENSURE THE IMPLEMENTATION OF APPROPRIATE POLLUTION PREVENTION MEASURES FOR THE NON-STORMWATER COMPONENT(S) 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 (ENG

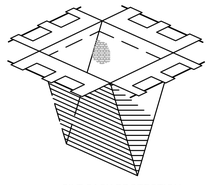


INSTALLATION:

1. EXCAVATE A 6"x 6" TRENCH ALONG THE LINE OF PLACEMENT FOR THE FILTER BARRIER.
2. UNROLL A SECTION AT A TIME AND POSITION THE POSTS AGAINST THE BACK (DOWNSTREAM) WALL OF THE TRENCH.
3. DRIVE POSTS INTO THE GROUND UNTIL APPROXIMATELY 2" OF FABRIC IS LYING ON THE TRENCH BOTTOM.
4. LAY THE TOE-IN FLAP OF FABRIC ONTO THE UNDISTURBED BOTTOM OF THE TRENCH, BACKFILL THE TRENCH AND TAMP THE SOIL. TOE-IN CAN ALSO BE ACCOMPLISHED BY LAYING THE FABRIC FLAP ON UNDISTURBED GROUND AND PILING AND TAMPING FILL AT THE BASE, BUT MUST BE ACCOMPANIED BY AN INTERCEPTION DITCH.
5. JOIN SECTION AS SHOWN ABOVE.
6. BARRIER SHALL BE MIRAFI SILT FENCE OR EQUAL.

FILTER BARRIER
NOT TO SCALE

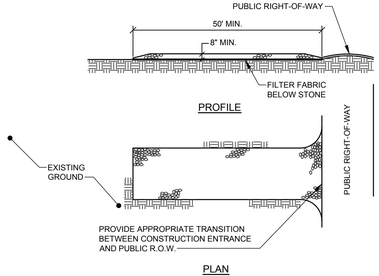




SILT SACK PROTECTION

NOTES:
PRIOR TO FINAL GRADING AND PAVING OPERATIONS BEGIN A CATCH BASIN INSERT (SUCH AS A SILT SACK OR A DANDY BAG II) MUST BE INSTALLED IN EACH BASIN PER MANUFACTURES INSTRUCTIONS. HAY BALES SHOULD BE REMOVED ONCE INSERTS ARE INSTALLED.

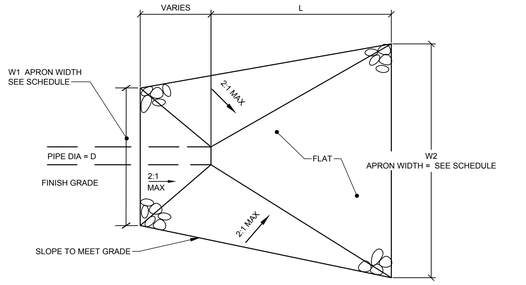
CATCH BASIN PROTECTION DETAIL
NOT TO SCALE



NOTES:

1. STONE SIZE- AASHTO DESIGNATION M43, SIZE NO. 2 (2 1/2" TO 1 1/2"). USE CRUSHED STONE.
2. LENGTH- AS SHOWN ON PLANS, MIN. 50 FEET.
3. THICKNESS- NOT LESS THAN EIGHT (8) INCHES.
4. WIDTH- NOT LESS THAN FULL WIDTH OF ALL POINT OF INGRESS OR EGRESS.
5. MAINTENANCE- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED IMMEDIATELY.

STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE



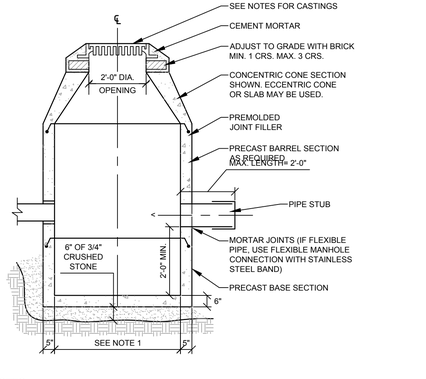
TYPICAL RIPRAP APRON SCHEDULE

CULVERT DIAMETER - D (IN.)	APRON LENGTH - L (FT.)	WIDTH -W1 (FT)	WIDTH -W2 (FT)	RIPRAP D50 (IN.)	RIPRAP THICKNESS (IN.)
12	8	3	9	6	14

NOTES:

1. RIPRAP TO BE PROCESSED ANGULAR ROCK.
2. RIPRAP GRADIATION SHALL BE A WELL GRADED MIX FROM ABOUT 1.5 TIMES D SIZE TO 25 PERCENT OF THE D SIZE.
3. THE RIPRAP STONES SHALL BE CAREFULLY PLACED FROM THE TOE OF THE SLOPE UPWARD.
4. STONES SHALL BE LOWERED TO THE SLOPE AND NOT BE ALLOWED TO DROP MORE THAN 12" ONTO THE GEOTEXTILE.
5. THE FINISHED SURFACE SHALL BE A RELATIVELY SMOOTH, UNIFORMLY SLOPED SURFACE.

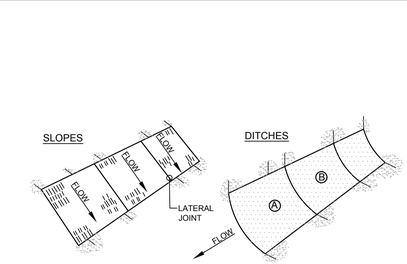
RIPRAP APRON
NOT TO SCALE



NOTES:

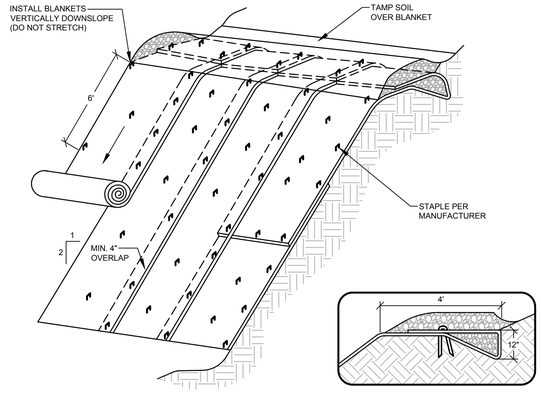
1. 4'-0" I.D. TYPICAL. SOME STRUCTURES MAY REQUIRE LARGER I.D. PROVIDE SHOP DRAWINGS.
2. DRAINAGE STRUCTURES TO BE DESIGNED FOR H-20 LOADING.
3. PIPE SIZES AND INVERTS AS NOTED ON PLANS.
4. CATCH BASIN FRAME AND GRATE TO BE EJ 5520M5, OR APPROVED EQUAL.

CATCH BASIN
NOT TO SCALE



NOTES:

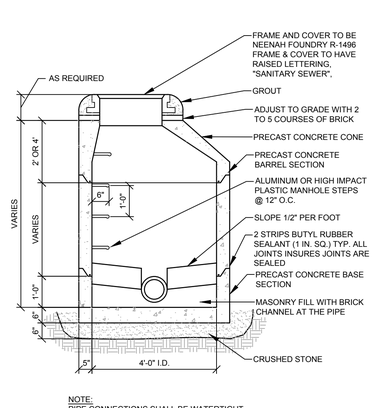
1. BURY THE TOP END OF THE MESH MATERIAL IN A 6" TRENCH AND BACKFILL AND TAMP TRENCHING SECURE END WITH STAPLES AT 6" SPACING, 4" DOWN FROM EXPOSED END.
2. FLOW DIRECTION JOINTS TO HAVE UPPER END OF LOWER STRIP BURIED WITH UPPER LAYERS OVERLAPPED 4" AND STAPLED. OVERLAP B OVER A.
3. LATERAL JOINTS TO HAVE 4" OVERLAP OF STRIPS. STAPLE 18" ON CENTER.
4. STAPLE OUTSIDE LATERAL EDGE 2" ON CENTER.
5. WIRE STAPLES TO BE MIN OF #11 WIRE 6" LONG AND 1-1/2" WIDE.
6. USE NORTH AMERICAN GREEN DS 150 OR APPROVED EQUAL.



CONSTRUCTION SPECIFICATIONS

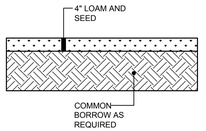
1. THE SOIL SURFACE SHOULD BE FINELY GRADED AND SMOOTH FOR THE BLANKET TO HAVE DIRECT CONTACT WITH THE SOIL AND TO PREVENT UNDERMINING. EROSION CONTROL BLANKETS PERFORM BEST ON LOAMY SOILS AND SHOULD NOT BE USED ON ROCKY SITES OR SHALLOW SOILS.
2. SEED SHOULD BE SOWN BEFORE INSTALLING THE EROSION CONTROL BLANKET.
3. ALWAYS UNROLL THE BLANKET DOWNHILL WITHOUT STRETCHING AND ANCHOR THE UPSLOPE EDGE IN A 12 INCH DEEP TRENCH THAT IS BACKFILLED AND TAMPED.
4. OVERLAP SHINGLE STYLE A MINIMUM OF 12 INCHES AT THE TOP OF EACH ROW AND 4 INCHES AT THE EDGES OF PARALLEL ROWS. ANCHOR ALONG THE OVERLAP WITH A MAXIMUM SPACING OF 3 FEET OR AS REQUIRED BY THE MANUFACTURER.

EROSION CONTROL BLANKET
NOT TO SCALE

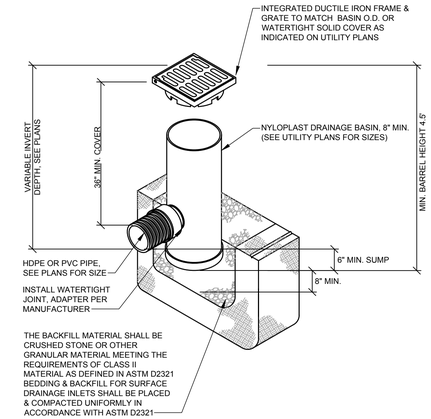


NOTE:
PIPE CONNECTIONS SHALL BE WATERTIGHT FLEXIBLE BOOT CONNECTORS PROVIDES LEAKPROOF CONNECTION

PRECAST MANHOLE
NOT TO SCALE



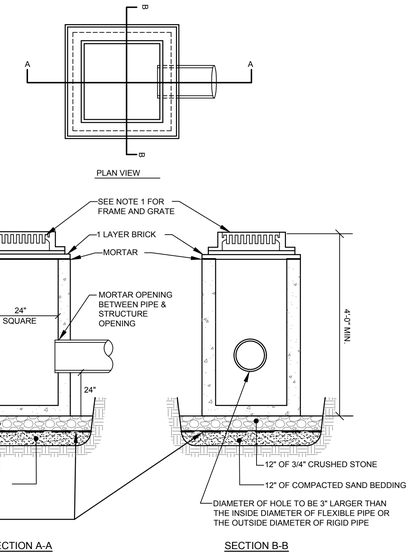
LOAM & SEED SECTION
NOT TO SCALE



NOTES:

1. INSTALL BASIN IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
2. INSTALL DOME GRATE IN PLANT BED AREAS.

TYP. NYLOPLAST FIELD INLET
NOT TO SCALE



NOTES:

1. FRAME SHALL BE FOR 24" SQUARE GRATE- LEBARON TYPE "F" SQUARE FRAME (LF 245) 4 FLANGE EAST JORDAN M5520 OR APPROVED EQUAL.
2. ENTIRE CATCH BASIN WITH EXCEPTION OF LEVELING BRICK FRAME AND GRATE TO BE PRECAST AS SINGLE PORTLAND CEMENT CONCRETE UNIT.

TYPE "F" CATCH BASIN
NOT TO SCALE

ROBERT A. MCSORLEY, PE # 8588
STATE OF MAINE — REGISTERED PROFESSIONAL ENGINEER — ROBERT A. MCSORLEY — 08/06/2024

REV	BY	DATE	STATUS
A	JLG	07/02/2024	PRELIMINARY PLANS ISSUED TO CLIENT FOR REVIEW
B	RAM	08/06/2024	PLANS ISSUED FOR INTERNAL REVIEW

SEBAGO TECHNICS
SEBAGOTECHNICS.COM
75 John Roberts Rd., Suite 4A
South Portland, ME 04106
207-200-2100
South Portland, Bridgton, Sanford and Bath

DETAILS 1
OF:
AUBURN-LEWISTON MUNICIPAL AIRPORT HANGARS
80 WHITE HANGAR DRIVE
AUBURN, ME 04210
FOR:
FIELDING PROPERTIES, LLC
PO BOX 6951
SCARBOROUGH, ME 04074

DESIGNED	JSH
DRAWN	RGL
CHECKED	RAM
DATE	04-22-2024
SCALE	NTS
PROJECT	230887

SHEET 8 OF10

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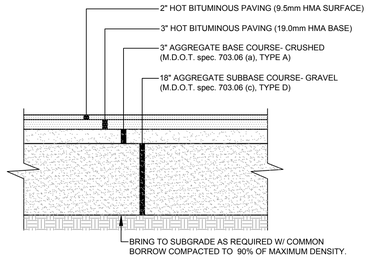
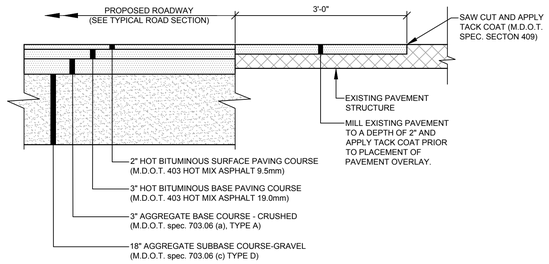
230887 D.dwg, TAB:DETAILS

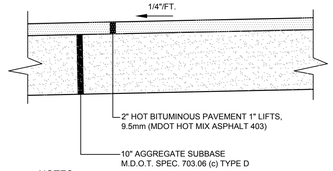


NOTES:
1. COMPACT GRAVEL SUBBASE, BASE COURSE TO 95% OF MAXIMUM DENSITY USING HEAVY ROLLER COMPACTION.
2. CONTRACTOR SHALL SET GRADE STAKES MARKING SUBBASE AND FINISH GRADE ELEVATIONS FOR CONSTRUCTION REFERENCE.

HEAVY DUTY BITUMINOUS PAVEMENT
NOT TO SCALE

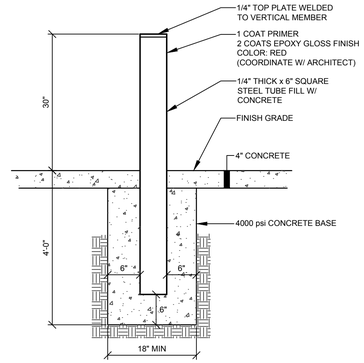


PAVEMENT JOINT
NOT TO SCALE

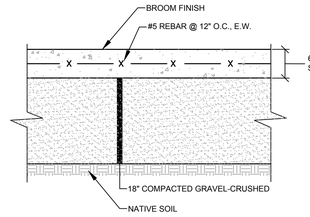


NOTES:
1. COMPACT GRAVEL SUBBASE, BASE COURSE TO 95% OF MAXIMUM DENSITY USING HEAVY ROLLER COMPACTION.
2. CONTRACTOR SHALL SET GRADE STAKES MARKING SUBBASE AND FINISH GRADE ELEVATIONS FOR CONSTRUCTION REFERENCE.

BITUMINOUS SIDEWALK
NOT TO SCALE

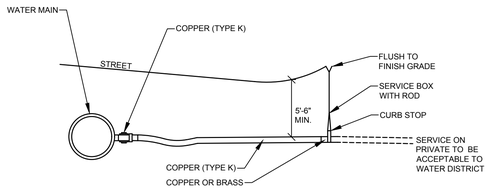


METAL TOP PLATE BOLLARD
NOT TO SCALE



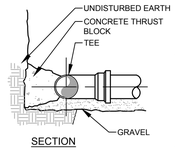
NOTE:
1. PROVIDE CONTRACTION CONTROL JOINTS AS NOTED ON PLANS, IF NECESSARY

CONCRETE SLAB
NOT TO SCALE



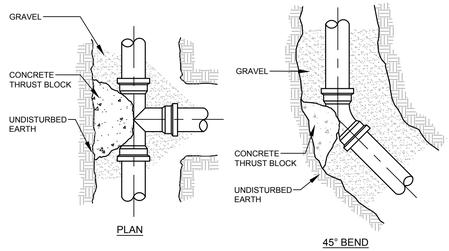
WATER SERVICE CONNECTION
NOT TO SCALE

NOTE:
1. ALL WATER SERVICES TO HAVE BACKFLOW PREVENTATIVE DEVICES APPROVED BY THE AUBURN WATER DISTRICT

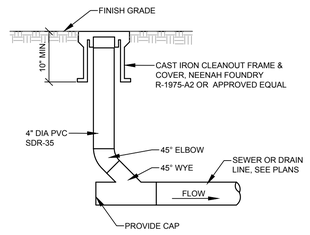


SECTION

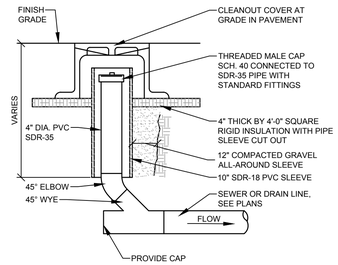
CONCRETE THRUST BLOCK SIZE REQUIREMENTS				
		SQ. FT. OF BEARING ON UNDISTURBED SOIL		
FITTINGS		90° BENDS	45° BENDS	TEES AND PLUGS
PIPE SIZE	6"	4.0	2.0	3.0
	8"	8.0	4.0	6.0
	12"	15	10	10



TEE & BEND DETAIL
NOT TO SCALE



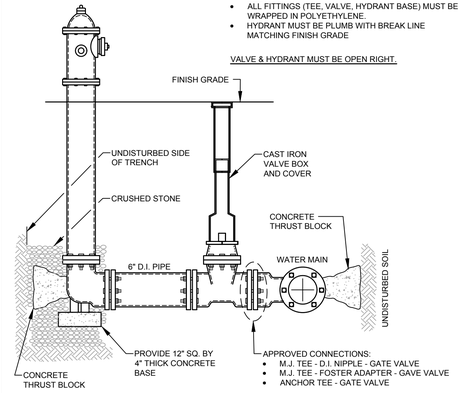
SEWER/DRAIN CLEANOUT IN LANDSCAPE AREAS
NOT TO SCALE



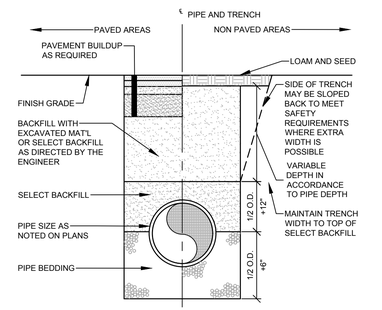
SEWER/DRAIN CLEANOUT IN PAVEMENT AREAS
NOT TO SCALE

NOTES:
- ALL MATERIALS MUST MEET KKW SPECIFICATIONS.
- ALL M.J. CONNECTIONS MUST UTILIZE JOINT RESTRAINT.
- ALL FITTINGS (TEE, VALVE, HYDRANT BASE) MUST BE WRAPPED IN POLYETHYLENE.
- HYDRANT MUST BE PLUMB WITH BREAK LINE MATCHING FINISH GRADE

VALVE & HYDRANT MUST BE OPEN RIGHT.



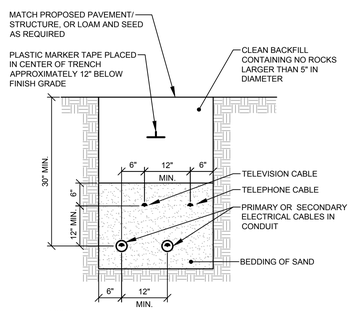
HYDRANT INSTALLATION
NOT TO SCALE



TRENCH BACKFILL SCHEDULE		
PIPE TYPE	PIPE BEDDING MATERIAL	SELECT BACKFILL
CORRUGATED METAL DUCTILE IRON REINFORCED CONCRETE	MDOT 703.22 TYPE B UD BACKFILL	MDOT 703.22 TYPE B UD BACKFILL
PVC-SDR 35 HDPE PVC-C900	MDOT 703.13 3/4" CRUSHED STONE	MDOT 703.22 TYPE B UD BACKFILL, OR MDOT 703.13 3/4" CRUSHED STONE
PERFORATED PVC-SDR 35 HDPE	MDOT 703.13 3/4" CRUSHED STONE	MDOT 703.22 TYPE B UD BACKFILL, OR MDOT 703.13 3/4" CRUSHED STONE

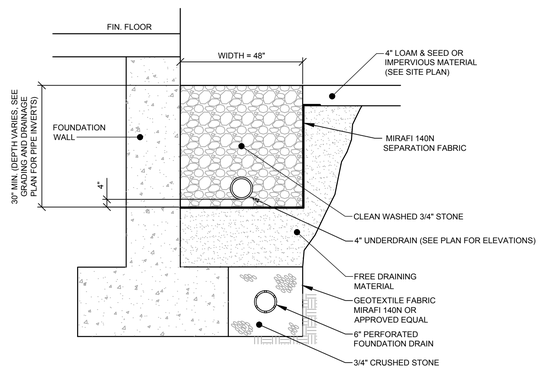
NOTE:
ALL BRACING AND SHEETING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL MEET ALL STATE AND O.S.H.A. SAFETY STANDARDS.

TRENCH SECTION
NOT TO SCALE

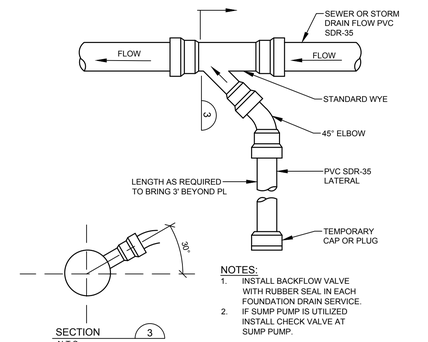


NOTES:
CABLES TO BE ENCASED IN SCHEDULE 40 PVC CONDUIT.

UNDERGROUND CABLE INSTALLATION
NOT TO SCALE



DRIP EDGE / FOUNDATION DRAIN SECTION
NOT TO SCALE



NOTES:
1. INSTALL BACKFLOW VALVE WITH RUBBER SEAL IN EACH FOUNDATION DRAIN SERVICE.
2. IF SUMP PUMP IS UTILIZED INSTALL CHECK VALVE AT SUMP PUMP.

SEWER / FOUNDATION DRAIN SERVICE CONNECTION
NOT TO SCALE

ROBERT A. MCSORLEY, PE # 8588
STATE OF MAINE — REGISTERED PROFESSIONAL ENGINEER — ROBERT A. MCSORLEY — 08/06/2024

REV.	BY	DATE:	STATUS:
B	RAM	08/06/2024	PLANS ISSUED FOR INTERNAL REVIEW
A	JLG	07/02/2024	PRELIMINARY PLANS ISSUED TO CLIENT FOR REVIEW

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICS, INC. ANY ALTERATIONS, AS PROVIDED BY OTHERS, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.

SEBAGO TECHNICS
SEBAGOTECHNICS.COM
75 John Roberts Road, Suite 4A
South Portland, ME 04106
207-200-2100
South Portland, Bridgton, Sanford and Bath

DETAILS 2
OF:
AUBURN-LEWISTON MUNICIPAL AIRPORT HANGARS
80 WHITE HANGAR DRIVE
AUBURN, ME 04210
FOR:
FIELDING PROPERTIES, LLC
PO BOX 6951
SCARBOROUGH, ME 04074

DESIGNED	JSH
DRAWN	RGL
CHECKED	RAM
DATE	04-22-2024
SCALE	NTS
PROJECT	230887

SHEET 9 OF10

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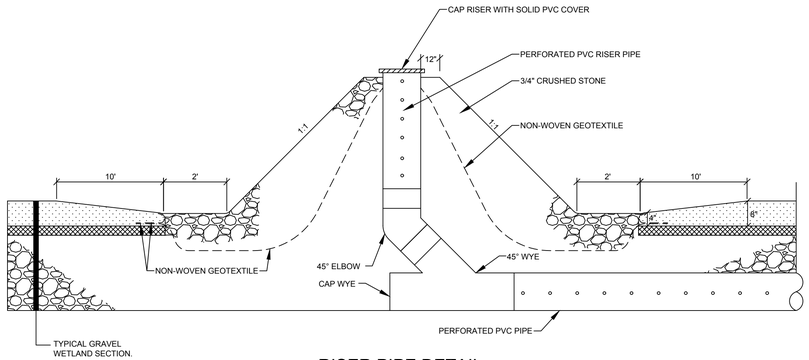
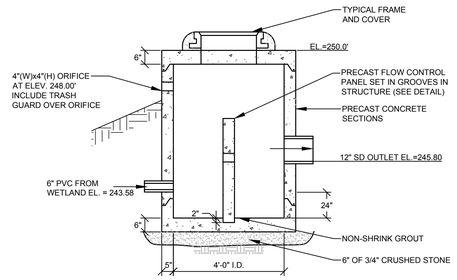
230887 D.dwg TAB DETAILS 2



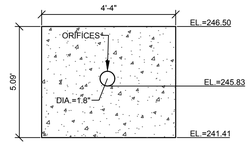
RISER PIPE DETAIL

NOT TO SCALE



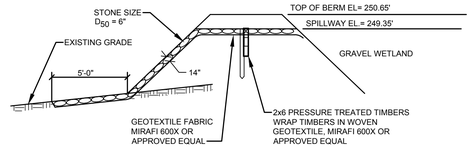
OUTLET STRUCTURE DETAIL (OCS-1)

NOT TO SCALE



PRECAST FLOW CONTROL PANEL

NOT TO SCALE

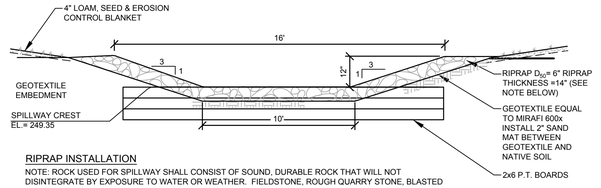


EMBANKMENT CONSTRUCTION

1. CONSTRUCTION OF COMMON BORROW MATERIAL MEETING M.D.O.T. SPECIFICATION.
2. PLACE BORROW MATERIAL IN 12" LIFTS COMPACTED TO 95% OF MAXIMUM DRY DENSITY.
3. INSTALL RIPRAP AND EROSION CONTROL MESH WHERE SPECIFIED ON PLANS.
4. LOAM, SEED, AND STABILIZE IN ACCORDANCE WITH SEDIMENTATION AND EROSION CONTROL PLAN.

EMERGENCY SPILLWAY SECTION

NOT TO SCALE



RIPRAP INSTALLATION

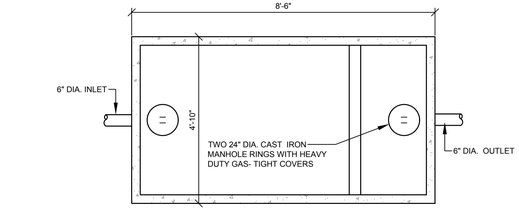
NOTE: ROCK USED FOR SPILLWAY SHALL CONSIST OF SOUND, DURABLE ROCK THAT WILL NOT DISINTEGRATE BY EXPOSURE TO WATER OR WEATHER. FIELDSTONE, ROUGH QUARRY STONE, BLASTED LEDGE ROCK OR TAILINGS MAY BE USED. THE ROCK SHALL BE GRADED WITHIN THE FOLLOWING LIMITS OR AS OTHERWISE APPROVED.

SIEVE DESIGNATION US CUSTOMARY	PERCENTAGE BY WEIGHT PASSING SQUARE MESH SIEVES
12"	90-100
4"	0-15

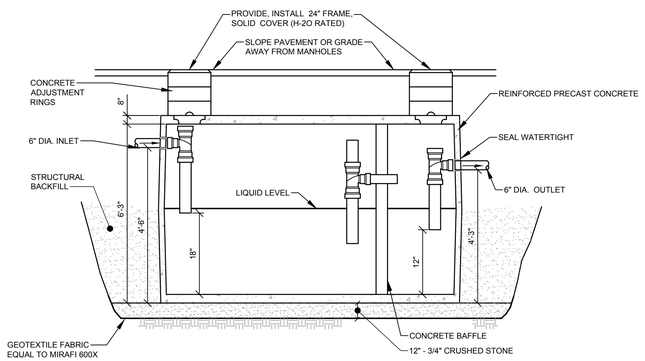
EXPOSED STONES SHALL BE ANGULAR AND AS NEARLY RECTUANGULAR IN CROSS-SECTION AS PRACTICABLE. ROUNDED BOULDERS AND COBBLES WILL NOT BE PERMITTED.

EMERGENCY SPILLWAY CROSS-SECTION

NOT TO SCALE



PLAN VIEW



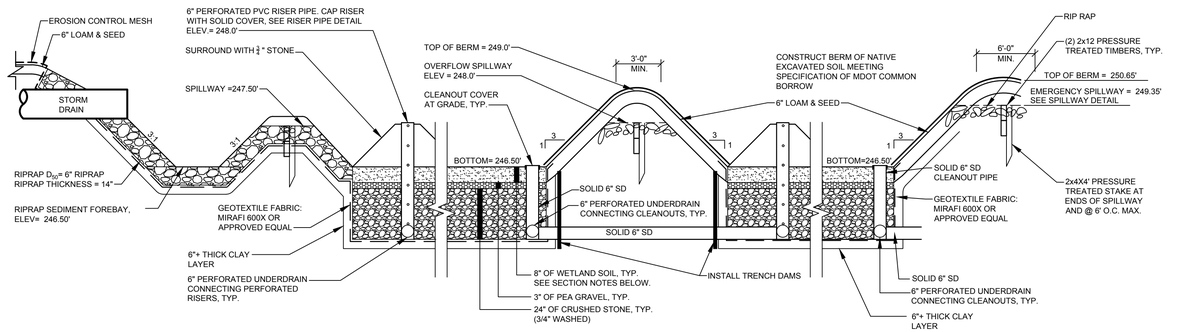
CAPACITY	LENGTH	WIDTH	HEIGHT	INLET	OUTLET	ITEM#	ITEM#	WGT.
1,000 REG.	8'-6"	4'-10"	5'-4"	4'-6"	4'-3"	2014	2014A	7,080 lbs.

NOTES

1. COAT INTERIOR OF TANK WITH EPOXY SEALER
2. ALL CONCRETE HAS A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI @ 28 DAYS.
3. SHALL BE DESIGNED FOR H-20 LOADINGS AND DEPTH OF COVER.
4. THE TONGUE AND GROOVE CENTER SEAM IS SEALED WITH A BUTYL SEALANT.
5. THE PVC TEE BAFFLES FOR THIS TANK CAN BE MOVED TO ANY OF THE (3) INLETS OR OUTLETS.
6. POLYLOK PIPE SEALS STANDARD AT ALL PIPE PENETRATIONS.
7. DETAIL SHOWS GENERAL SCHEMATIC REQUIREMENTS. CONTRACTOR SHALL SUBMIT PROPOSED OIL/WATER SEPARATOR INSTALLATION PLANS AND SPECIFICATIONS TO LOCAL AUTHORITIES FOR THEIR APPROVAL BEFORE ACQUISITION OF SEPARATOR. PROVIDE SEPARATOR WITH ADEQUATE STRUCTURAL STRENGTH TO ACCOMMODATE VEHICULAR TRAFFIC AT INSTALLATION LOCATION.
8. COAT EXTERIOR OF CONCRETE WITH BITUMASTIC SEALANT.
9. PRECAST SUPPLIER TO CONFIRM CAPACITY. ADJUST DIMENSIONS AS NEEDED FOR SPECIFIED TANK CAPACITY.
10. ALL BAFFLES AND WEIRS TO BE PRECAST CONCRETE.
11. CONTRACTOR TO: SUPPLY AND INSTALL ALL PIPING & SAMPLING TEES GROUT IN ALL PIPES FILL WITH CLEAN WATER PRIOR TO "START-UP" OF SYSTEM VERIFY ALL BLOCKOUT SIZES AND LOCATIONS. PUMP BY OTHERS.

OIL/WATER SEPARATOR

NOT TO SCALE



CONSTRUCTION SEQUENCE NOTES:

1. THE CONTRACTOR SHALL CONSTRUCT A TEMPORARY SEDIMENT CONTAINMENT BASIN AT THE PROPOSED LOCATION OF THE GRAVEL WETLAND PRIOR TO CONSTRUCTION. THE TEMPORARY SEDIMENT CONTAINMENT BASIN SHALL BE STABILIZED PRIOR TO RECEIVING STORMWATER RUNOFF.
2. THE CONTRACTOR SHALL CONSTRUCT THE TEMPORARY SEDIMENT CONTAINMENT BASIN TO UTILIZE THE PROPOSED BERM AND EMERGENCY OVERFLOW SPILLWAY FOR THE GRAVEL WETLAND TO CONTROL RUNOFF FROM LARGER STORMS DURING CONSTRUCTION.
3. THE CONTRACTOR SHALL INSTALL A TEMPORARY SEDIMENT RISER PIPE (SEE DETAIL) FOR OUTLET CONTROL WITHIN THE TEMPORARY SEDIMENT CONTAINMENT BASIN.
4. THE FILTER MEDIA AND VEGETATION FOR THE GRAVEL WETLAND SHALL NOT BE INSTALLED UNTIL THE AREA THAT DRAINS TO THE GRAVEL WETLAND HAS BEEN PERMANENTLY STABILIZED WITH PAVEMENT OR OTHER STRUCTURES, 90% VEGETATION COVER, OR OTHER PERMANENT STABILIZATION.

EMBANKMENT CONSTRUCTION NOTES:

1. FILL MATERIAL MUST BE FREE OF FROZEN SOIL, ROCKS OVER 6", SOD, STUMPS, WOOD, OR OTHER PERISHABLE MATERIALS. EMBANKMENT FILLS MUST BE COMPACTED USING METHODS THAT WOULD REASONABLY GUARANTEE A FILL DENSITY OF AT LEAST 90% OF THE MAXIMUM DENSITY AS DETERMINED BY STANDARD PROCTOR (ASTM-698).
2. INSTALL RIP RAP AND EROSION CONTROL MESH WHERE SPECIFIED ON PLANS.
3. LOAM, SEED, AND STABILIZE IN ACCORDANCE WITH SEDIMENTATION AND EROSION CONTROL.

SECTION NOTES:

1. WETLAND SOIL TO BE MANUFACTURED USING COMPOST, SAND AND SOME FINE SOILS TO BLEND TO A HIGH ORGANIC CONTENT (15% OR MORE ORGANIC MATTER) WITH A LOW CLAY CONTENT (2% OR LESS). ORGANIC MATERIAL SHALL BE NON-AGRICULTURAL IN ORIGIN. WETLAND SOIL TO HAVE A PERMEABILITY OF 0.1 TO 0.01 FT/DAY. CONTRACTOR TO SUBMIT GRADATION FOR ENGINEER REVIEW.

MAINTENANCE NOTES:

1. PLANT BIOMASS SHALL BE HARVESTED ANNUALLY, AND ACCUMULATED SEDIMENT REMOVED AT INTERVALS OF 5-10 YEARS PER CHAPTER 7.4 WETLANDS OF THE MDEP STORMWATER BMP MANUAL.

SUBSURFACE GRAVEL WETLAND CONSTRUCTION OVERSIGHT NOTES:

1. THE SITE WORK CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL MATERIALS AND CONSTRUCTION PROCEDURES UTILIZED IN THE CONSTRUCTION OF THE GRAVEL WETLAND CELLS, AND FOR THE MAINTENANCE AND PROTECTION OF THE CONSTRUCTED GRAVEL WETLAND CELLS UNTIL OWNERSHIP HAS BEEN TRANSFERRED.
2. CONSTRUCTION OVERSIGHT. A THIRD PARTY INSPECTOR HIRED BY THE APPLICANT AND APPROVED BY MDEP SHOULD BE NOTIFIED DURING THE FOLLOWING PHASES OF CONSTRUCTION FOR ON-SITE INSPECTION:
   A. AFTER PRELIMINARY CONSTRUCTION OF THE WETLAND GRADES AND ONCE THE UNDERDRAIN PIPES ARE INSTALLED BUT NOT BACKFILLED.
   B. AFTER THE CRUSHED STONE LAYER IS CONSTRUCTED AND PRIOR TO INSTALLATION OF THE WETLAND MEDIA.
   C. AFTER THE WETLAND MEDIA HAS BEEN INSTALLED AND SEEDED/LANDSCAPED.
3. TESTING AND SUBMITTALS: THE CONTRACTOR SHALL IDENTIFY THE LOCATION OF THE SOURCE OF EACH COMPONENT OF THE WETLAND MEDIA. ALL RESULTS OF FIELD AND LABORATORY TESTING SHALL BE SUBMITTED TO THE PROJECT ENGINEER FOR CONFIRMATION. ALL MATERIAL USED FOR THE CONSTRUCTION OF THE GRAVEL WETLAND WILL BE APPROVED BY THE DESIGN ENGINEER, AFTER TESTING BY A CERTIFIED LABORATORY INDICATES THE SAMPLES HAVE PASSED MDEP SPECIFICATIONS. THE CONTRACTOR SHALL:
   A. SUBMIT SAMPLES OF EACH TYPE OF MATERIAL TO BE BLENDED FOR THE WETLAND MEDIA, AND SAMPLES OF THE PEA GRAVEL AND CRUSHED STONE MATERIAL. SAMPLES MUST BE COMPOSITE OF THREE DIFFERENT LOCATIONS (GRABS) FROM THE STOCKPILE OR PIT FACE. SAMPLE SIZE REQUIRED WILL BE DETERMINED BY THE TESTING LABORATORY.
   B. PERFORM A SIEVE ANALYSIS CONFORMING TO ASTM C136 (STANDARD TEST METHOD FOR SIEVE ANALYSIS OF FINE AND COARSE AGGREGATES; 1996A) ON EACH TYPE OF THE SAMPLE MATERIAL. THE RESULTING WETLAND MEDIA MIXTURE MUST BE MANUFACTURED USING COMPOST, SAND AND SOME FINE SOILS TO BLEND TO A HIGH ORGANIC CONTENT (15% OR MORE ORGANIC MATTER) WITH A LOW CLAY CONTENT (2% OR LESS)
   C. PERFORM PERMEABILITY TEST ON THE WETLAND MEDIA MIXTURE CONFORMING TO ASTM D2434 WITH THE MIXTURE COMPACTED TO 90-92% OF MAXIMUM DRY DENSITY BASED ON ASTM D698. THE WETLAND MEDIA IS TO HAVE A PERMEABILITY OF 0.1 TO 0.01 FT/DAY.

SEEDING NOTES:

1. SEED THE GRAVEL WETLAND BOTTOM AND EMBANKMENTS UP TO ONE FOOT ABOVE BOTTOM ELEVATION WITH "NEW ENGLAND WET MIX" FROM NEW ENGLAND WETLAND PLANTS. APPLICATION RATE 1LB/2500 SQ. FT. (18 LBS/ACRE).
2. SEED THE REMAINDER OF THE EMBANKMENTS WITH "NEW ENGLAND CONSERVATION/WILDLIFE MIX FROM NEW ENGLAND WETLAND PLANTS. APPLICATION RATE 1LB/1750 SQ. FT. (25LBS/ACRE)

SUBSURFACE GRAVEL WETLAND SECTION

NOT TO SCALE

ROBERT A. MCSORLEY, PE # 8588

STATE OF MAINE — ROBERT A. MCSORLEY — 8588 — REGISTERED PROFESSIONAL ENGINEER — 08/06/2024

REV	BY:	DATE:	STATUS
B	RAM	08/06/2024	PLANS ISSUED FOR INTERNAL REVIEW
A	JLC	07/02/2024	PRELIMINARY PLANS ISSUED TO CLIENT FOR REVIEW

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South Portland, Bridgton, Sanford and Bath

DETAILS 3

OF:

AUBURN-LEWISTON MUNICIPAL AIRPORT HANGARS
80 WHITE HANGAR DRIVE
AUBURN, ME 04210

FOR:

FIELDING PROPERTIES, LLC
PO BOX 6951
SCARBOROUGH, ME 04074

DESIGNED	JSH
DRAWN	RGL
CHECKED	RAM
DATE	04-22-2024
SCALE	NTS
PROJECT	230887

SHEET10 OF10

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