NOTES:

1. OWNER: OS ENTERPRISES LLC
18 HUNNEWELL ROAD
SCARBOROUGH, MAINE 04074

2. ENGINEER: AUSTIN G. FAGAN PE#16523
BH2M
380B MAIN STREET
GORHAM, MAINE 04038

3. SURVEYOR: ROBERT C. LIBBY, JR., PLS #2190
BH2M

4. WETLANDS: COPPI ENVIRONMENTAL, LLC
19 CLAIRE DUNNE LANE
HOLLIS, MAINE 04042

5. TAX MAP REFERENCE: MAP R37, LOT 60

6. PARCEL DEED REFERENCE: BOOK 31702, PAGE 2

7. ZONING: RUNNING HILL MIXED USE (RH)

8. AREA OF PARCEL: 2.954 ACRES

9. MINIMUM REQUIREMENTS: MINIMUM LOT SIZE: 40,000 S.F. WITH SEPTIC
MINIMUM LOT FRONTAGE: 50 FEET
SETBACKS: FRONT 10 FEET, SIDE 15 FEET & REAR 15 FEET.

10. COORDINATES/BEARINGS: BEARINGS AND NORTH ORIENTATION SHOWN ARE BASED ON THE MAINE STATE COORDINATE SYSTEM WEST ZONE (NAD 83), OBTAINED USING A CARLSON BRX7 ROVER.

11. EXISTING USE: SINGLE FAMILY HOUSE LOT

12. PROPOSED USE: TWO CONSTRUCTION SERVICE BUSINESS UNITS

13. SEWER SERVICE: SUBSURFACE DISPOSAL SYSTEM

14. WATER SERVICE: DRILLED WELL

15. ELECTRIC/TELEPHONE: UNDERGROUND FROM CUMMINGS ROAD

16. ON SITE DEVELOPMENT: EXISTING IMPERVIOUS - 3,257 S.F.
PROPOSED VEGETATED AREA - 16,046 S.F.
PROPOSED IMPERVIOUS - 25,847 S.F.
AREA OF PROPOSED DEVELOPMENT - 41,893 S.F.

17. ALL CONSTRUCTION AND SITE ALTERATIONS SHALL BE DONE IN ACCORDANCE WITH THE MAINE EROSION AND SEDIMENTATION CONTROL, BMP'S, LATEST REVISION.

18. ON SITE PARKING: BUSINESS SERVICES - 4/1,000 S.F. OF GLA
FLOOR AREA - 6,800 SF
PARKING REQUIRED - 27.20 SPACES
PARKING PROVIDED - 28 (2 ADA SPACE) IN LOT
5% EV READY - 1.4 SPACES REQUIRED - 2 PROVIDED (EVR)
20% EV CAPABLE - 5.6 REQUIRED - 6 PROVIDED (EVC)

19. PLAN REFERENCES:
A. BOUNDARY SURVEY ON CUMMINGS ROAD IN SCARBOROUGH MAINE, DATED AUGUST 28, 2018, BY BOUNDARY ENGINEERING SURVEY TECHNOLOGY AND RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS IN PLAN BOOK 218, PAGE 515.
B. PROPERTY PLAN, SPRING STREET, MAINE TURNPIKE AUTHORITY, MAINE TURNPIKE SECTION 2, PORTLAND TO AUGUSTA, DATED AUGUST 1954 AND RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS, PLAN BOOK 42, PAGE 14.
C. STATE OF MAINE DEPARTMENT OF TRANSPORTATION RIGHT OF WAY MAP, LAND OF NEPTUNE PROPERTIES, INC., SOUTH PORTLAND - SCARBOROUGH, CUMBERLAND COUNTRY, DATED JAN. 2002, D.O.T. D.O.T. FILE NO. 3-477 AND RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS IN PLAN BOOK 207, PAGE 692.

20. TOPOGRAPHY: ON GROUND TOPOGRAPHIC SURVEY BY BH2M

21. WETLAND IMPACTS: W.I.1 - 3,779 SF
W.I.2 - 4,748 SF
TOTAL - 8,527 SF

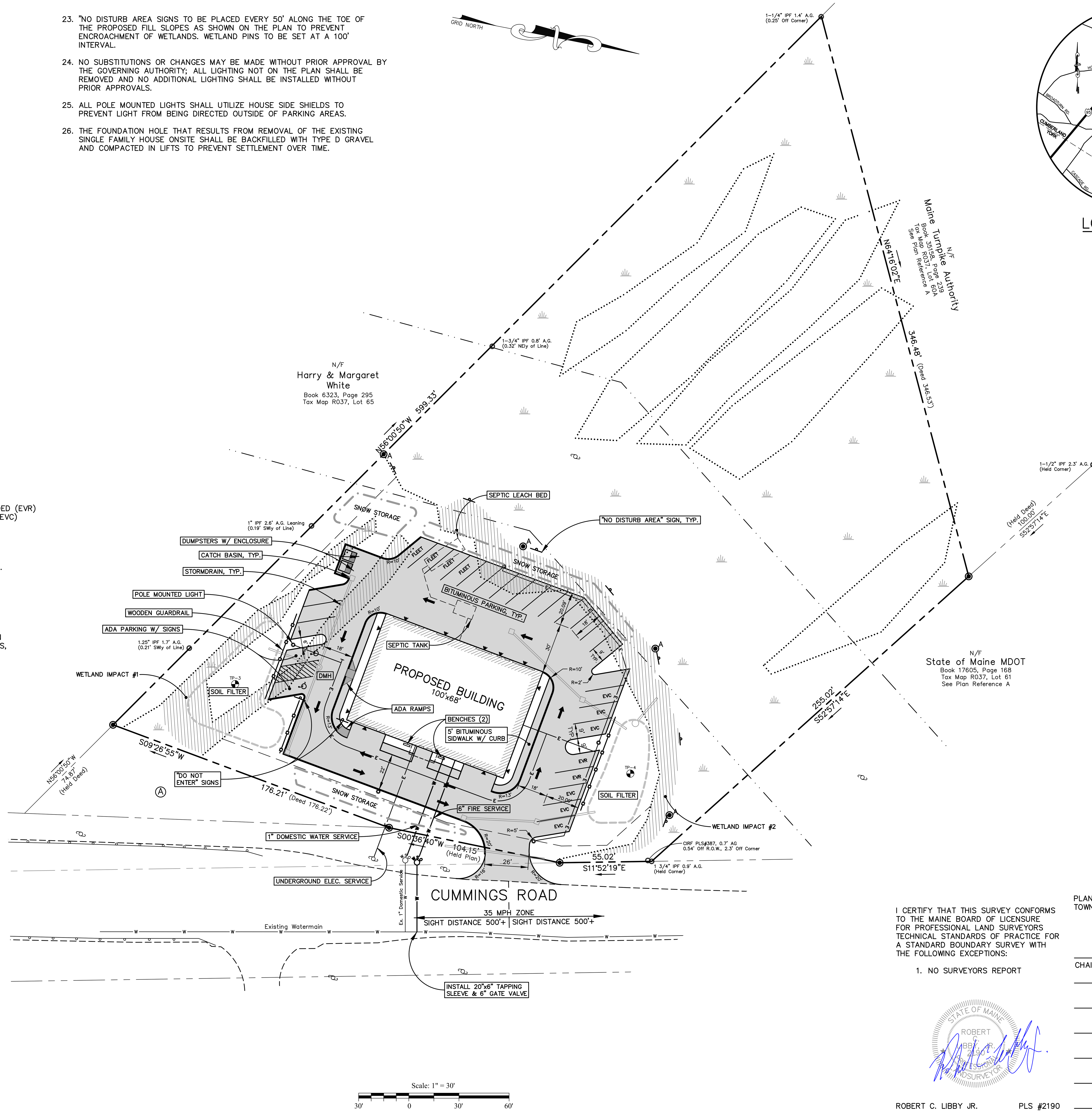
22. EXISTING PUBLIC AND PRIVATE UTILITY AND UNDERGROUND LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE, AND ALL UTILITIES AND PIPES ARE NOT NECESSARILY SHOWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING IN FIELD THE LOCATIONS OF UTILITIES SHOWN, AND FOR INVESTIGATING AND IDENTIFYING THE EXISTENCE AND LOCATIONS OF ANY ADDITIONAL PUBLIC AND PRIVATE UTILITIES NOT SHOWN ON THE PLANS, BEFORE COMMENCING ANY EXCAVATIONS, AND SHALL BE RESPONSIBLE FOR REPAIRING ALL UTILITIES AND PIPES, BOTH PUBLIC AND PRIVATE, WHETHER SHOWN ON PLANS OR NOT, THAT ARE DISTURBED DURING CONSTRUCTION. ALL COSTS INCURRED IN INVESTIGATING AND REPAIRING SAID UTILITIES SHALL BE BORNE BY THE CONTRACTOR, AND SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE WORK PAID FOR UNDER THE APPLICABLE LUMP SUM AND UNIT PRICES IN THE CONTRACT. UTILITIES INCLUDED BUT ARE NOT LIMITED TO ELECTRIC, TELEPHONE, NATURAL GAS, WATER, SEWER AND STORM DRAINAGE. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING DIG SAFE.

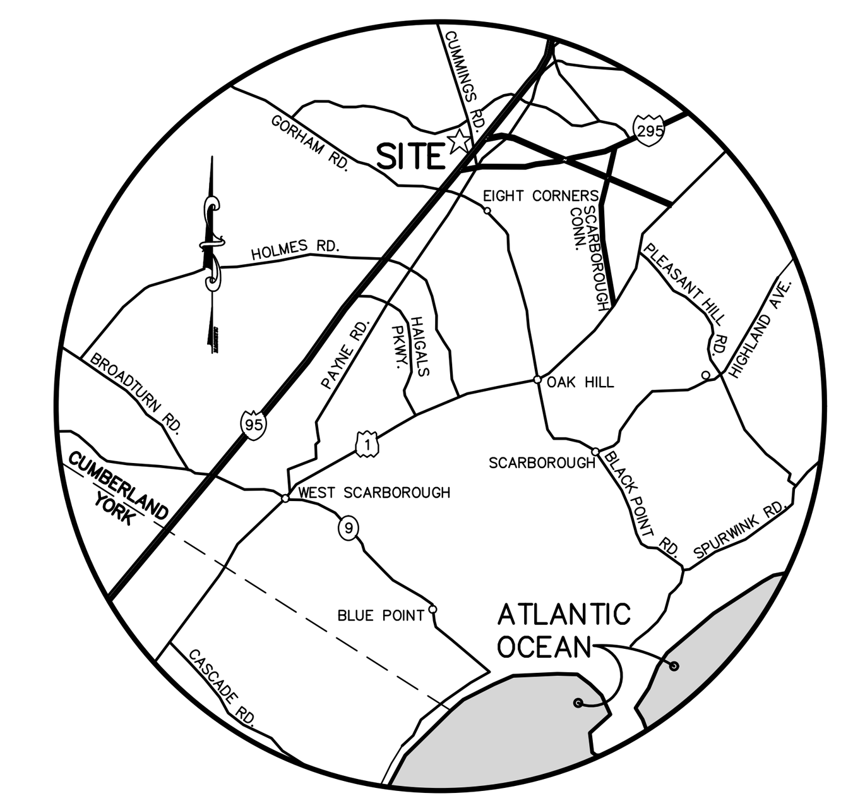
23. "NO DISTURB AREA SIGNS TO BE PLACED EVERY 50' ALONG THE TOE OF THE PROPOSED FILL SLOPES AS SHOWN ON THE PLAN TO PREVENT ENCROACHMENT OF WETLANDS. WETLAND PINS TO BE SET AT A 100' INTERVAL.

24. NO SUBSTITUTIONS OR CHANGES MAY BE MADE WITHOUT PRIOR APPROVAL BY THE GOVERNING AUTHORITY; ALL LIGHTING NOT ON THE PLAN SHALL BE REMOVED AND NO ADDITIONAL LIGHTING SHALL BE INSTALLED WITHOUT PRIOR APPROVALS.

25. ALL POLE MOUNTED LIGHTS SHALL UTILIZE HOUSE SIDE SHIELDS TO PREVENT LIGHT FROM BEING DIRECTED OUTSIDE OF PARKING AREAS.

26. THE FOUNDATION HOLE THAT RESULTS FROM REMOVAL OF THE EXISTING SINGLE FAMILY HOUSE ONSITE SHALL BE BACKFILLED WITH TYPE D GRAVEL AND COMPACTED IN LIFTS TO PREVENT SETTLEMENT OVER TIME.





LOCATION MAP
SCALE: 1" = 2 MILES

LEGEND

SYMBOL	DESCRIPTION
	EXISTING WELL
GMF	GRANITE MONUMENT FOUND
IPF/IRF	IRON PIPE/IRON ROD FOUND
CIRF	CAPPED IRON ROD FOUND
IRS	5/8" IRON ROD W/ CAP TO BE SET
A	"NO DISTURBANCE" WETLAND PIN
	UTILITY POLE
	DECIDUOUS TREE
	CONIFERIOUS TREE
EVR	ELECTRIC VEHICLE READY PARKING
EVC	ELECTRIC VEHICLE CAPABLE PARKING
	EDGE OF PAVEMENT
	PROPERTY LINE
	FORESTED WETLAND
A.G.	ABOVE GROUND
N/F	NOW OR FORMERLY

I CERTIFY THAT THIS SURVEY CONFORMS TO THE MAINE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS TECHNICAL STANDARDS OF PRACTICE FOR A STANDARD BOUNDARY SURVEY WITH THE FOLLOWING EXCEPTIONS:

1. NO SURVEYORS REPORT

ROBERT C. LIBBY JR. PLS #2190

PLAN REVIEWED AND APPROVED BY THE TOWN OF SCARBOROUGH PLANNING BOARD

DATE

CHAIR

NO.	DATE	REVISION DESCRIPTION
1	7/21/23	Submitted To Town for Pre Application Review
2	9/12/23	Submitted Sketch Plan For Planning Board Review
3	2/20/24	Submitted Site Plan For Planning Board Review
4	6/12/24	Revised Per PWD Comments
5	8/5/24	Revised Per PWD, Town, & DEP Comments
6	8/21/24	Revised Per Town, & DEP Comments
7	12/16/24	Submitted to Town for Review

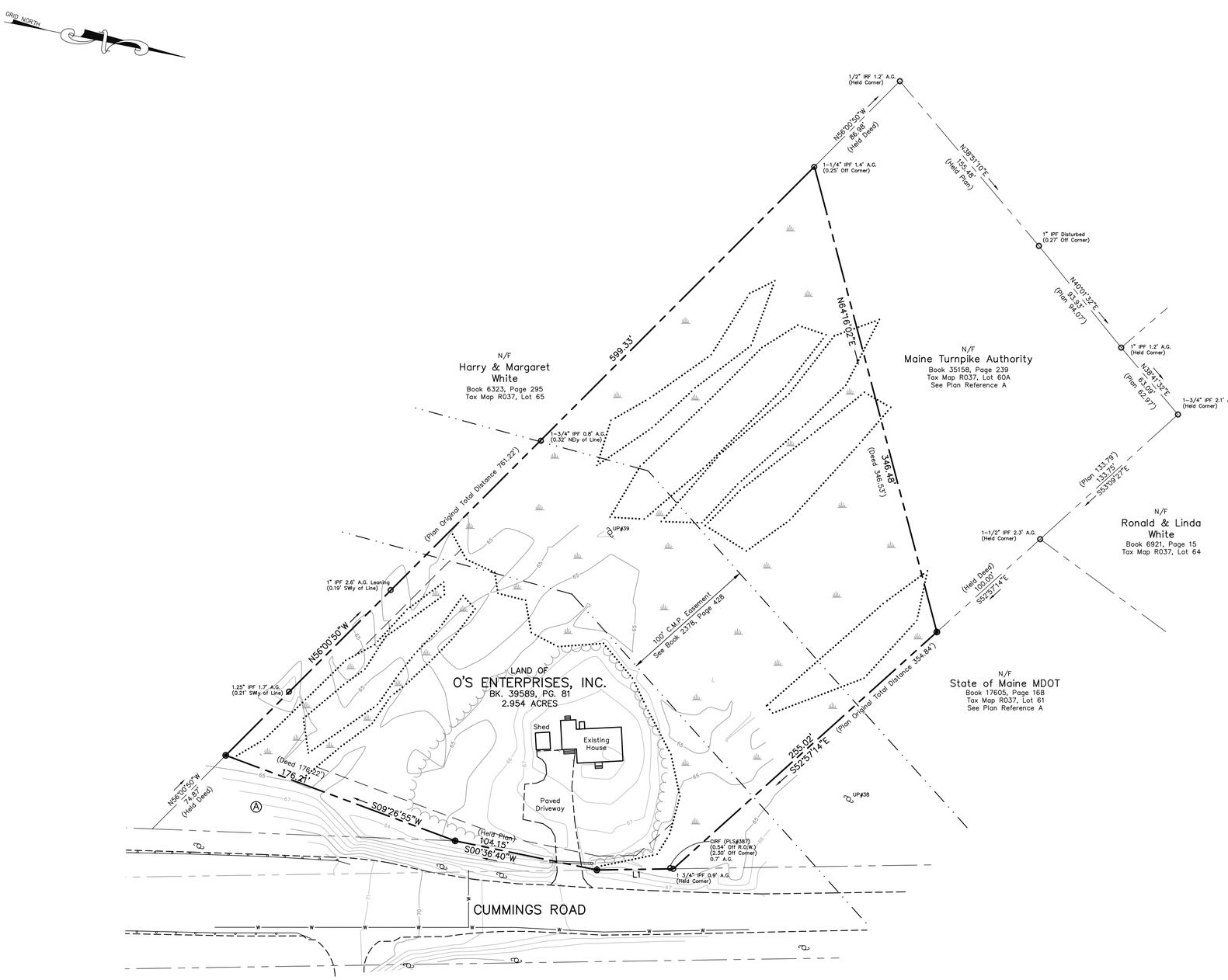
BH2M
Berry, Huff, McDonald, Milligan Inc.
Engineers, Surveyors
380B Main Street
Gorham, Maine 04038
Tel. (207) 839-2771
www.bh2m.com

FOR
Owen Baxter
18 Hunnewell Road
Scarborough, Maine 04074

SITE PLAN
CONSTRUCTION SERVICES
6 CUMMINGS ROAD
SCARBOROUGH, MAINE

DESIGNED	DATE
W. Pelkey	May 2023
DRAWN	SCALE
Dept.	1" = 40'
CHECKED	JOB. NO.
A. Fagan	23055

SHEET
1



LOCATION MAP
SCALE: 1" = 2 MILES

NOTES:

1. OWNER: OS ENTERPRISES LLC
18 HUNNEWELL ROAD
SCARBOROUGH, MAINE 04074
2. SURVEYOR: ROBERT C. LIBBY, JR., PLS #2190
BH2M
380B MAIN STREET
GORHAM, MAINE 04038
3. WETLANDS: COPPI ENVIRONMENTAL, LLC
19 CLAIRE DUNNE LANE
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4. TAX MAP REFERENCE: MAP R37, LOT 60
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6. ZONING: RUNNING HILL MIXED USE (RH)
7. AREA OF PARCEL: 2.954 ACRES
8. MINIMUM REQUIREMENTS: MINIMUM LOT SIZE: 40,000 S.F. WITH SEPTIC
MINIMUM LOT FRONTAGE: 50 FEET
SETBACKS: FRONT 10 FEET, SIDE 15 FEET
& REAR 15 FEET.
9. COORDINATES/BEARINGS: BEARINGS AND NORTH ORIENTATION SHOWN ARE BASED ON THE MAINE STATE COORDINATE SYSTEM WEST ZONE (NAD 83), OBTAINED USING A CARLSON BRX7 ROVER.
10. PLAN REFERENCES:
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I CERTIFY THAT THIS SURVEY CONFORMS TO THE MAINE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS TECHNICAL STANDARDS OF PRACTICE FOR A STANDARD BOUNDARY SURVEY WITH THE FOLLOWING EXCEPTIONS:

1. NO SURVEYORS REPORT

STATE OF MAINE
ROBERT C. LIBBY JR. 2190
REGISTERED PROFESSIONAL LAND SURVEYOR

ABUTTER DATA

A - MAINE TURNPIKE AUTHORITY
BK. 35158, PG. 239
SEE PLAN REFERENCE A

LINE DATA

L1 - S11°52'19"E, 55.02' (Held Deed)

ROBERT C. LIBBY JR. PLS #2190

LEGEND

SYMBOL	DESCRIPTION
WV	WATER SHUTOFF
GMF	GRANITE MONUMENT FOUND
IPF/IRF	IRON PIPE/IRON ROD FOUND
CIRF	CAPPED IRON ROD FOUND
IRS	5/8" IRON ROD W/ CAP TO BE SET
UP	UTILITY POLE
	EXISTING EASEMENT
	EDGE OF PAVEMENT
	PROPERTY LINE
	WETLAND
A.G./B.G.	ABOVE GROUND/BELOW GROUND
N/F	NOW OR FORMERLY

NO.	DATE	REVISION DESCRIPTION
1	7/21/23	Submitted To Town for Pre Application Review
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FOR
Owen Baxter
18 Hunnewell Road
Scarborough, Maine 04074

STANDARD BOUNDARY SURVEY

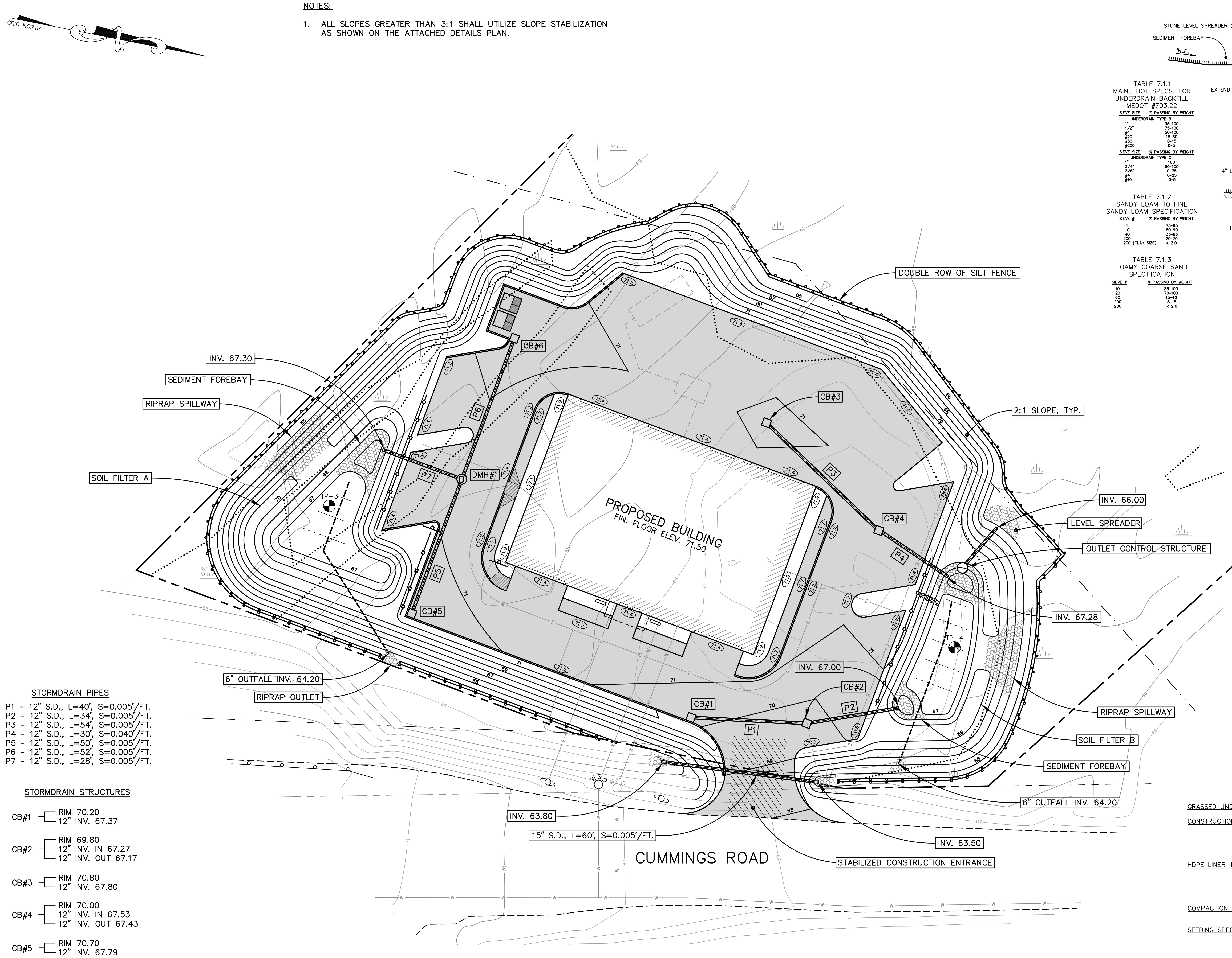
LAND OF
O'S ENTERPRISES, LLC
6 CUMMINGS ROAD
SCARBOROUGH, MAINE

DESIGNED	DATE
R. Libby, Jr.	June 2023
DRAWN	SCALE
R. Libby, Jr.	1" = 40'
CHECKED	JOB. NO.
A. Fagan	23055

SHEET
2

NOTES:

1. ALL SLOPES GREATER THAN 3:1 SHALL UTILIZE SLOPE STABILIZATION AS SHOWN ON THE ATTACHED DETAILS PLAN.



STORMDRAIN PIPES

P1 - 12" S.D., L=40', S=0.005'/FT.
P2 - 12" S.D., L=34', S=0.005'/FT.
P3 - 12" S.D., L=54', S=0.005'/FT.
P4 - 12" S.D., L=30', S=0.040'/FT.
P5 - 12" S.D., L=50', S=0.005'/FT.
P6 - 12" S.D., L=52', S=0.005'/FT.
P7 - 12" S.D., L=28', S=0.005'/FT.

STORMDRAIN STRUCTURES

CB#1	RIM 70.20 12" INV. 67.37
CB#2	RIM 69.80 12" INV. IN 67.27 12" INV. OUT 67.17
CB#3	RIM 70.80 12" INV. 67.80
CB#4	RIM 70.00 12" INV. IN 67.53 12" INV. OUT 67.43
CB#5	RIM 70.70 12" INV. 67.79
CB#6	RIM 70.60 12" INV. 67.80
DMH#1	RIM 71.20 12" INVS. IN 67.54 12" INV. OUT 67.44

LEGEND

SYMBOL	DESCRIPTION
	LIMIT OF WETLANDS
	PROPERTY LINE
	EXISTING CONTOUR
	PROPOSED CONTOUR
	SILT FENCE
(109.2)	SPOT GRADE
	UTILITY POLE
	SEWER LINE
E	UNDERGROUND ELECTRIC
☐CB	PROPOSED CATCH BASIN
W	WATER SERVICE

Scale: 1" = 20'
20' 0 20' 40'

TABLE 7.1.1
MAINE DOT SPECS. FOR UNDERDRAIN BACKFILL
MEDOT #703.22

SIEVE SIZE	% PASSING BY WEIGHT
UNDERDRAIN TYPE B	
1"	95-100
1/2"	75-100
#4	50-100
#20	15-80
#50	0-15
#200	0-5
SIEVE SIZE	**% PASSING BY WEIGHT**
UNDERDRAIN TYPE C	
1"	100
3/4"	90-100
3/8"	0-75
#4	0-25
#10	0-5

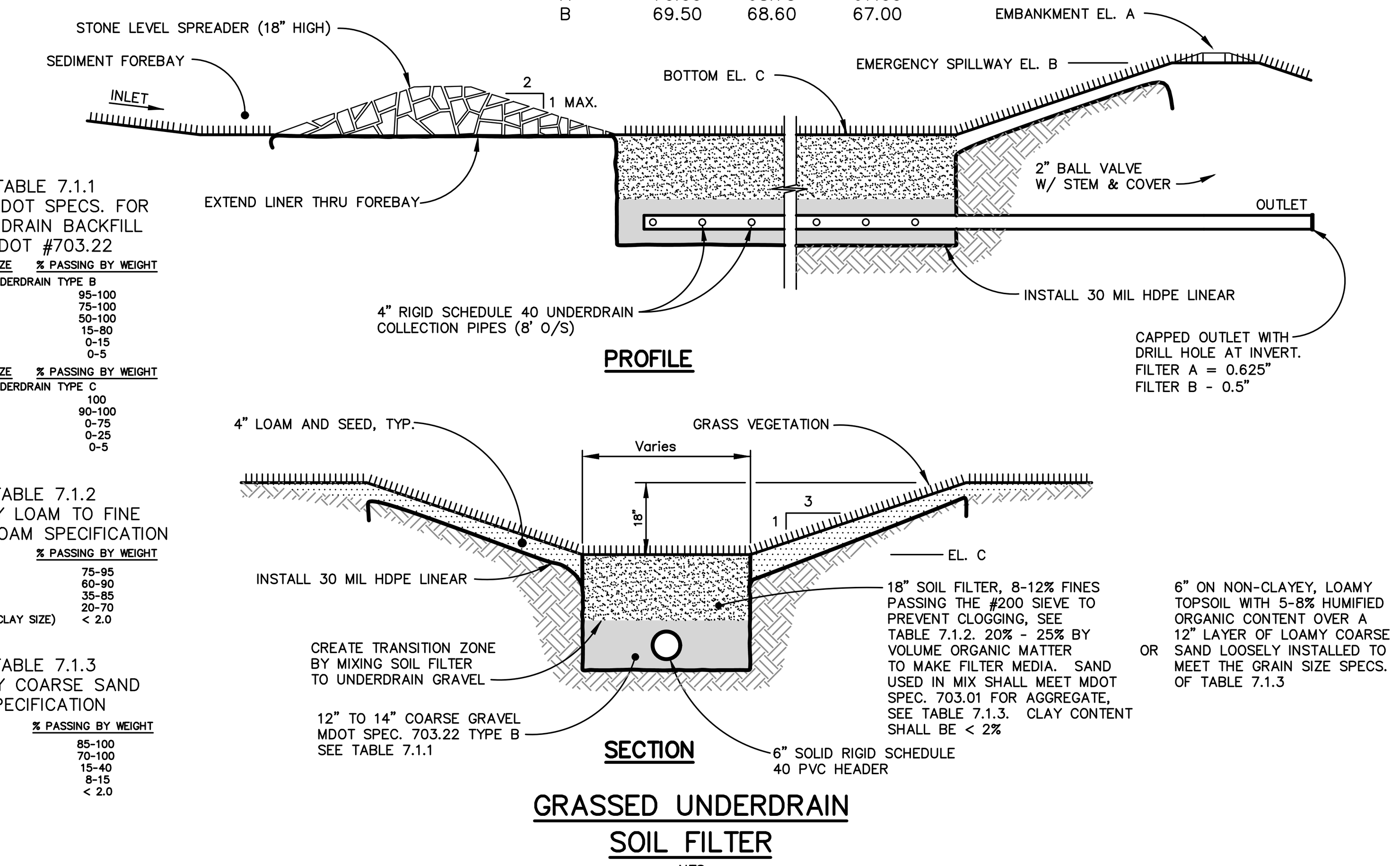
TABLE 7.1.2
SANDY LOAM TO FINE SANDY LOAM SPECIFICATION

SIEVE #	% PASSING BY WEIGHT
4	75-95
10	60-90
40	35-85
200	20-70
200 (CLAY SIZE)	< 2.0

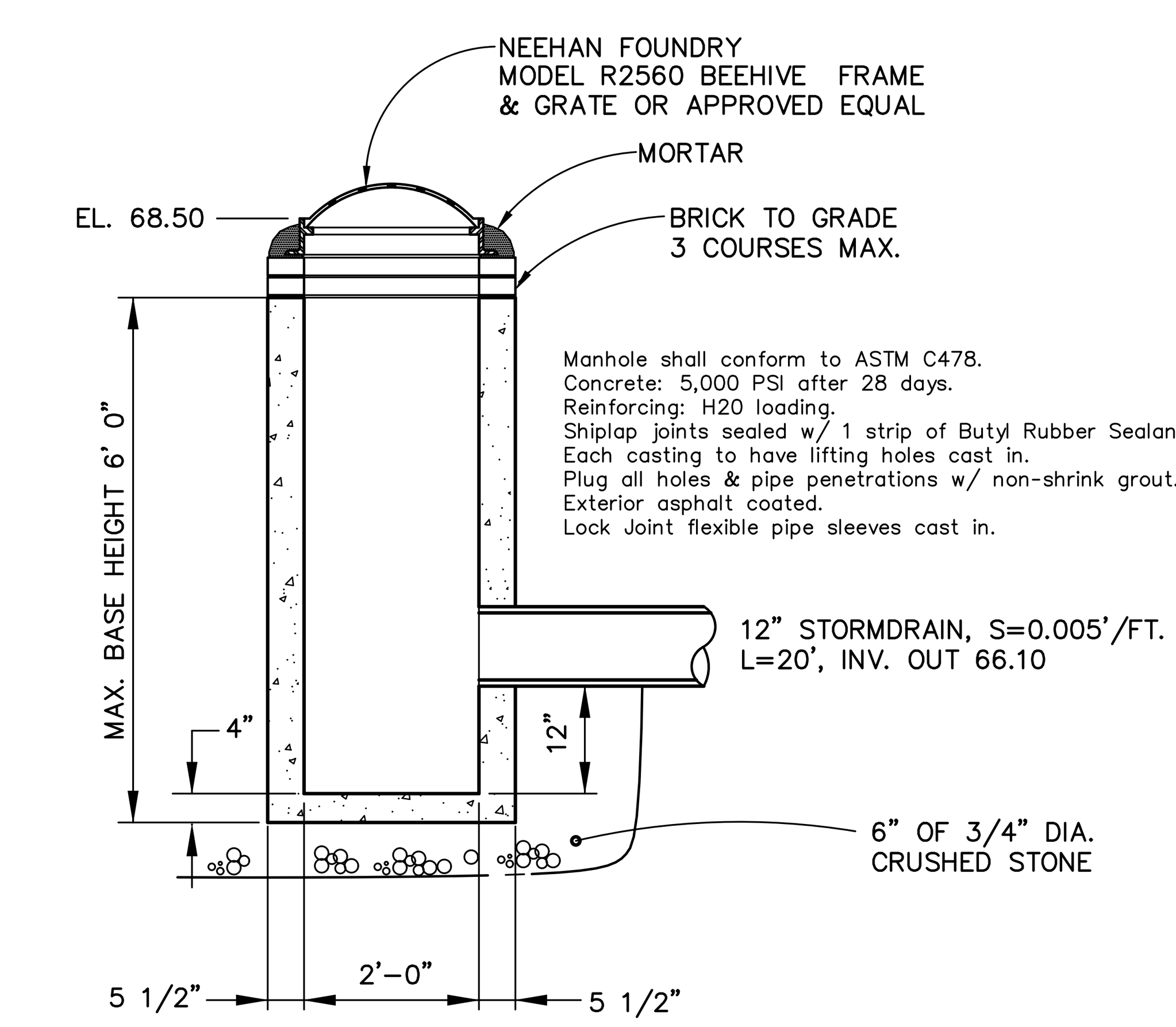
TABLE 7.1.3
LOAMY COARSE SAND SPECIFICATION

SIEVE #	% PASSING BY WEIGHT
10	85-100
20	70-100
60	15-40
200	8-15
200	< 2.0

SOIL FILTER	ELEV. A	ELEV. B	ELEV. C
A	70.00	68.75	67.00
B	69.50	68.60	67.00



GRASSED UNDERDRAIN SOIL FILTER
NTS



OUTLET CONTROL STRUCTURE
N.T.S.

GRASSED UNDERDRAINED SOIL FILTER

CONSTRUCTIONS SEQUENCE: THE SOIL FILTER MEDIA AND VEGETATION MUST NOT BE INSTALLED UNTIL THE AREA THAT DRAINS TO THE FILTER HAS BEEN PERMANENTLY STABILIZED WITH PAVEMENT OR OTHER STRUCTURE, 90% VEGETATION COVER, OR OTHER PERMANENT STABILIZATION UNLESS THE RUNOFF FROM THE CONTRIBUTING DRAINAGE AREA IS DIVERTED AROUND THE FILTER UNTIL STABILIZATION IS COMPLETED.

HDPE LINER INSTALLATION: THE LINER MUST SEAMLESSLY EXTEND UP THE SIDES OF THE BASIN AND BE ANCHORED INTO THE EXISTING SUBGRADE AT THE SAME ELEVATION AS THE EMERGENCY SPILLWAY. A BOOT, CLAMPS, AND OTHER MEASURES APPROVED BY THE MANUFACTURER OF THE LINER MUST BE USED TO SEAL THE LINER TO PIPES AT PENETRATIONS. ALL SEAMS, TEARS, JOINTS, OR OTHER LINER PENETRATIONS MUST BE SEALED PER MANUFACTURER SPECS.

COMPACTION OF SOIL FILTER: FILTER SOIL MEDIA AND UNDERDRAIN BEDDING MATERIAL MUST BE COMPACTED BY SATURATION ONLY.

SEEDING SPECIFICATIONS THE SOIL FILTER SURFACE SHOULD BE PLANTED WITH A GRASS SPECIES THAT IS TOLERANT OF FREQUENT INUNDATION AND WELL DRAINED SOILS. UPON SEEDING, THE SOIL FILTER SHOULD BE MULCHED WITH HAY OR AN EROSION CONTROL MIXTURE. A CONSERVATION TYPE SEED MIXTURE IS APPROPRIATE (OR A 48 LBS/ACRE MIXTURE CONTAINING 20 LBS/ACRE OF CREEPING RED FESCUE AND TALL FESCUE EACH PLUS 8 LBS/ACRE OF BIRDSFOOT TREFOIL).

CONSTRUCTION OVERSIGHT: INSPECTION BY A PROFESSIONAL ENGINEER WILL OCCUR AT A MINIMUM:

* AFTER THE PRELIMINARY CONSTRUCTION OF THE FILTER GRADES AND ONCE THE UNDERDRAIN PIPES ARE INSTALLED BUT NOT BACKFILLED,
* AFTER THE DRAINAGE LAYER IS CONSTRUCTED AND PRIOR TO THE INSTALLATION OF THE FILTER MEDIA,
* AFTER THE FILTER MEDIA HAS BEEN INSTALLED AND SEEDED.
* AFTER ONE YEAR TO INSPECT HEALTH OF THE VEGETATION AND MAKE CORRECTIONS, AND
* ALL THE MATERIAL USED FOR THE CONSTRUCTION OF THE FILTER BASIN MUST BE CONFIRMED AS SUITABLE BY THE DESIGN ENGINEER. TESTING MUST BE DONE BY A CERTIFIED LABORATORY TO SHOW THAT THEY ARE PASSING DEP SPECIFICATIONS.

TESTING AND SUBMITTALS: THE CONTRACTOR SHALL IDENTIFY THE LOCATION OF THE SOURCE OF EACH COMPONENT OF THE FILTER MEDIA. ALL RESULTS OF FIELD AND LABORATORY TESTING SHALL BE SUBMITTED TO THE PROJECT ENGINEER FOR CONFIRMATION. THE CONTRACTOR SHALL:

* SELECT SAMPLES FOR SAMPLING OF EACH TYPE OF MATERIAL TO BE BLENDED FOR THE MIXED FILTER MEDIA AND SAMPLES OF THE UNDERDRAIN BEDDING MATERIAL. SAMPLES MUST BE COMPOSITE OF THREE DIFFERENT LOCATION (GRABS) FROM THE STOCKPILE OR PIT FACE. SAMPLE SIZE REQUIRED WILL BE DETERMINED BY THE TESTING LABORATORY.
* PERFORM A SIEVE ANALYSIS CONFORMING TO ASTM C136 (STANDARD TEST METHOD FOR SIEVE ANALYSIS OF FINE AND COURSE AGGREGATES 1996A) ON EACH TYPE OF THE SAMPLE MATERIAL. THE RESULTING SOIL FILTER MEDIA MIXTURE MUST HAVE 8% TO 12% BY WEIGHT PASSING THE #200 SIEVE, A CLAY CONTENT OF LESS THAN 2% (DETERMINED HYDROMETER GRAIN SIZE ANALYSIS) AND HAVE 10% DRY WEIGHT OF ORGANIC MATTER.
* PERFORM A PERMEABILITY TEST ON THE SOIL FILTER MEDIA MIXTURE CONFORMING TO ASTM D2434 WITH THE MIXTURE COMPACTED TO 90-92% OF MAXIMUM DRY DENSITY BASED ON ASTM D698.

REVISION

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STATE OF MAINE — AUSTIN G. FAGAN — No. 16523 — LICENSED PROFESSIONAL ENGINEER

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FOR
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18 Hunnewell Road
Scarborough, Maine 04074

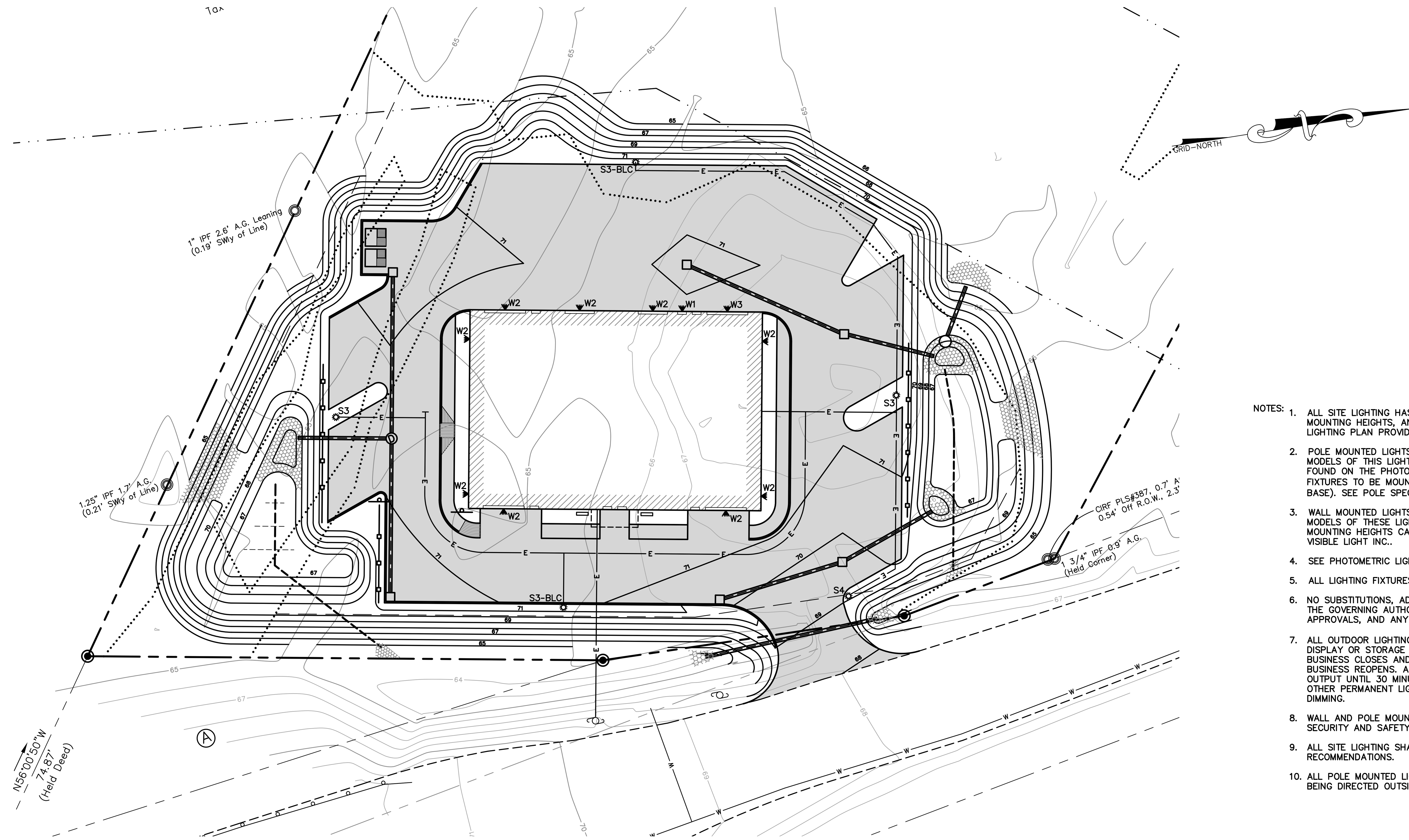
SITE GRADING

CONSTRUCTION SERVICES
6 CUMMINGS ROAD
SCARBOROUGH, MAINE

DESIGNED	DATE
W. Pelkey	May 2023
DRAWN	SCALE
Dept.	1" = 30'
CHECKED	JOB. NO.
A. Fagan	23055

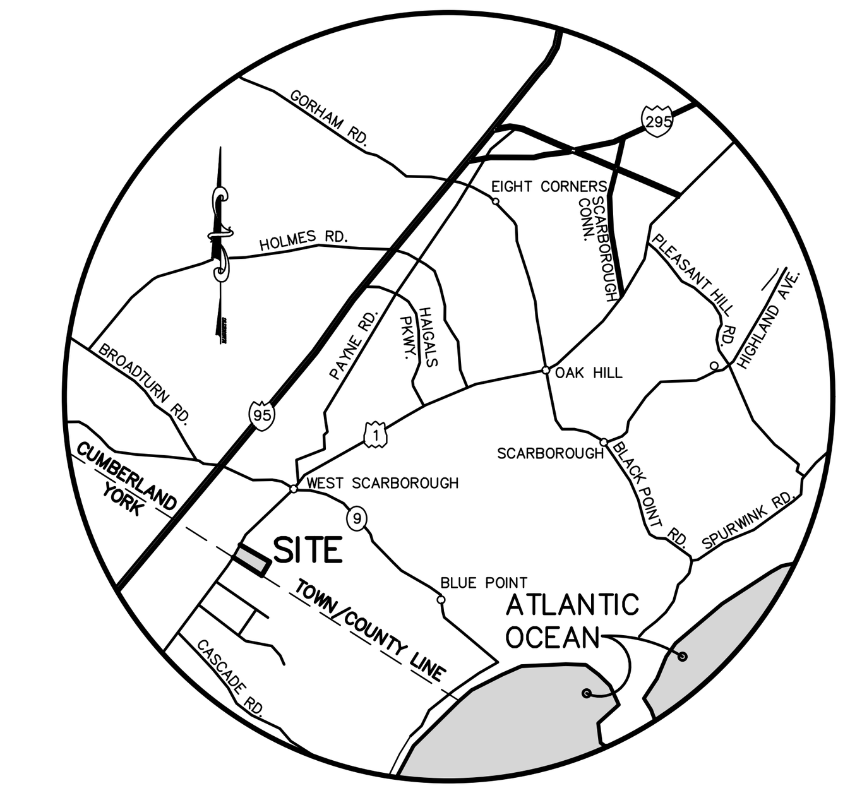
SHEET
3

SYMBOL	LEGEND DESCRIPTION
IRF/IPF	IRON PIPE/IRON ROD FOUND
	5/8" IRON ROD TO BE SET
	UTILITY POLE
HYD	EXISTING HYDRANT
W	WALL PACK LIGHT
S	POLE MOUNTED LIGHT
A.G./B.G.	ABOVE GROUND/BELOW GROUND
	EXISTING EDGE OF PAVEMENT
	PROPERTY LINE
	ABUTTERS PROPERTY LINE
	SETBACKS
	PROPOSED STORM DRAIN
W	EXISTING WATERLINE
E	PROPOSED UNDERGROUND ELECTRIC
90	EXISTING CONTOUR
90	PROPOSED CONTOUR
94.1	PROPOSED SPOT GRADE
N/F	NOW OR FORMERLY



Scale: 1" = 25'

25' 0 25' 50'



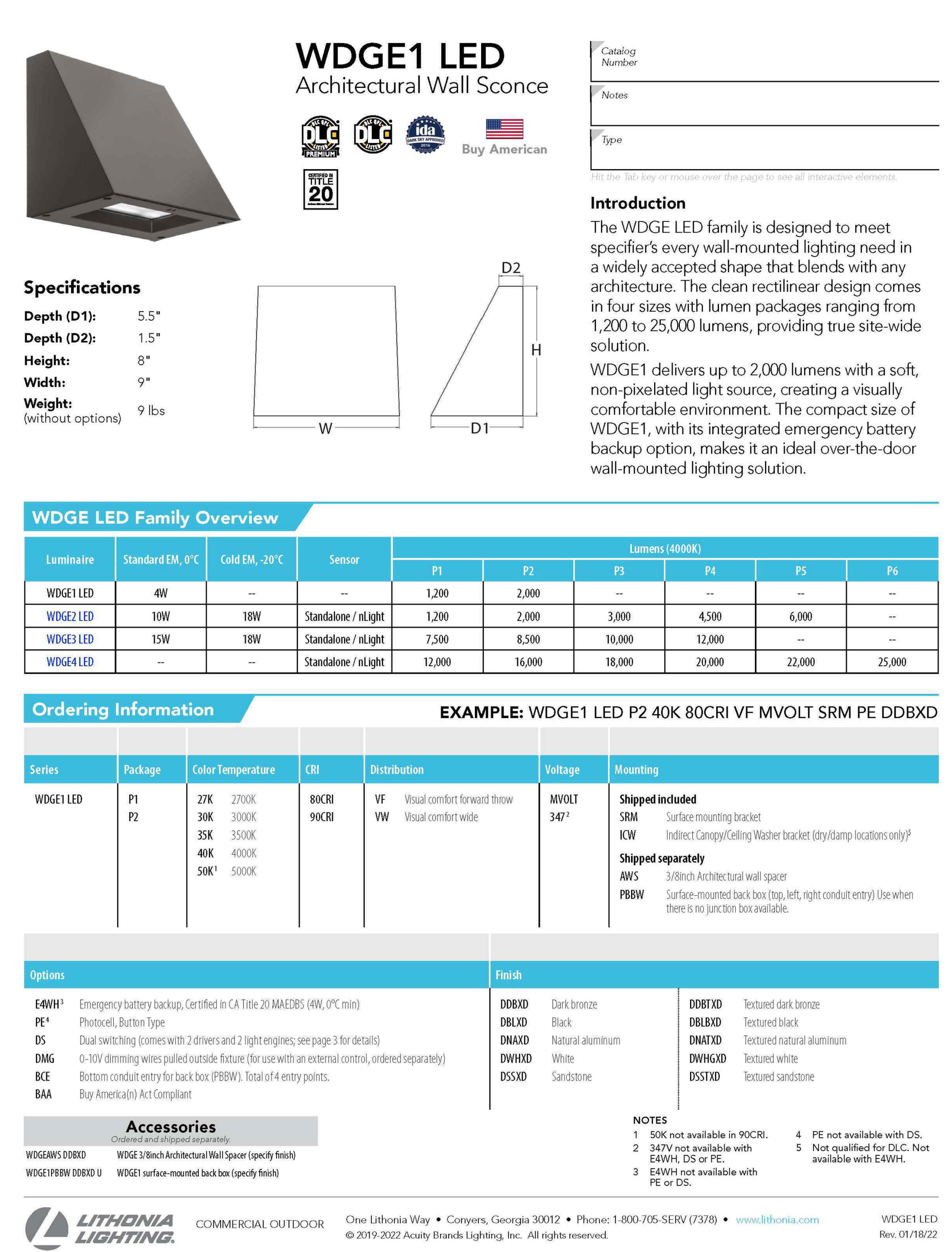
LOCATION MAP

SCALE: 1" = 2 MILES

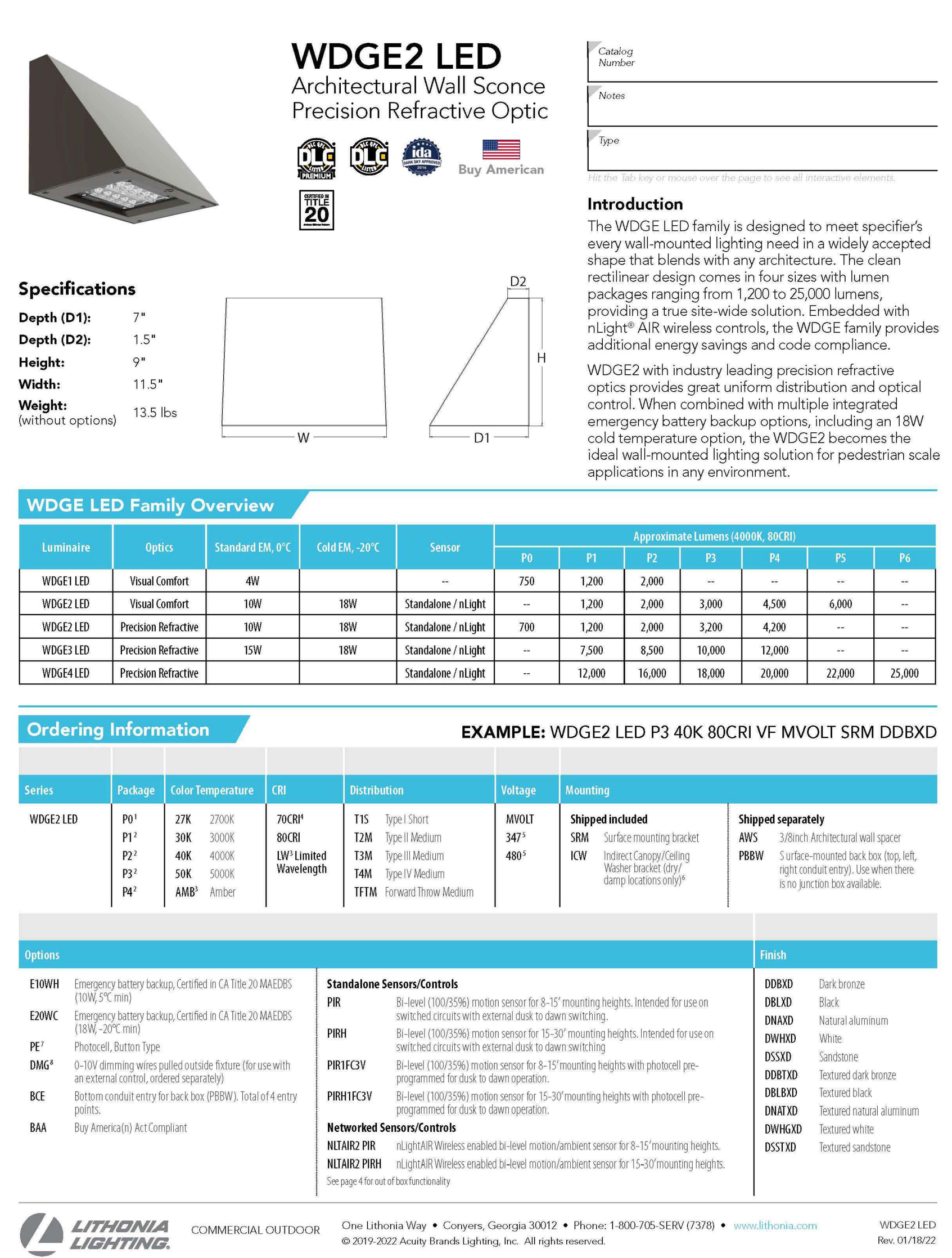
NOTES:

1. ALL SITE LIGHTING HAS BEEN DESIGNED BY VISUAL LIGHT, INC.. MODEL SPECIFICATIONS, MOUNTING HEIGHTS, AND OTHER TECHNICAL DATA CAN BE FOUND ON THE PHOTOMETRIC LIGHTING PLAN PROVIDED BY VISIBLE LIGHT, INC..
2. POLE MOUNTED LIGHTS TO BE D-SERIES SIZE 0 BY LITHONIA LIGHTING. THREE DIFFERENT MODELS OF THIS LIGHT ARE PROPOSED FOR THE SITE. MODEL SPECIFICATIONS CAN BE FOUND ON THE PHOTOMETRIC LIGHTING PLAN PROVIDED BY VISIBLE LIGHT INC.. LIGHTING FIXTURES TO BE MOUNTED 16' ABOVE THE PROPOSED GROUND SURFACE(14' POLE WITH 2' BASE). SEE POLE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
3. WALL MOUNTED LIGHTS TO BE WEDGE 1 OR 2 BY LITHONIA LIGHTING. THREE DIFFERENT MODELS OF THESE LIGHTS ARE PROPOSED FOR THE SITE. MODEL SPECIFICATIONS AND MOUNTING HEIGHTS CAN BE FOUND ON THE PHOTOMETRIC LIGHTING PLAN PROVIDED BY VISIBLE LIGHT INC..
4. SEE PHOTOMETRIC LIGHTING PLAN BY VISIBLE LIGHT INC. FOR LIGHT INTENSITY INFORMATION.
5. ALL LIGHTING FIXTURES TO TO HAVE A COLOR TEMPERATURE OF 3000K.
6. NO SUBSTITUTIONS, ADDITIONS, OR CHANGES MAY BE MADE WITHOUT PRIOR APPROVAL BY THE GOVERNING AUTHORITY. NO ADDITIONAL LIGHTING SHALL BE INSTALLED WITHOUT PRIOR APPROVALS, AND ANY LIGHTING THAT NOT SHOWN ON THIS PLAN SHALL BE REMOVED.
7. ALL OUTDOOR LIGHTING LOCATED MORE THAN 30' FROM ANY BUILDING OR OUTDOOR PRODUCT DISPLAY OR STORAGE AREA SHALL BE TURNED OFF NO LATER THAN 30 MINUTES AFTER THE BUSINESS CLOSES AND REMAIN OFF FOR THE REMAINDER OF THE NIGHT OR UNTIL THE BUSINESS REOPENS. ALL EXTERIOR LIGHTS MUST BE DIMMED TO 50% OF THEIR TOTAL LUMEN OUTPUT UNTIL 30 MINUTES BEFORE BUSINESS REOPENS. AN ASTRONOMIC TIME SWITCH OR OTHER PERMANENT LIGHTING CONTROL DEVICE MUST BE PROVIDED TO FACILITATE CONTROLLED DIMMING.
8. WALL AND POLE MOUNTED LIGHTING SHALL BE EQUIPPED WITH MOTION SENSORS TO PROVIDE SECURITY AND SAFETY IN THE EVENT THAT THE SITE IS ACCESSED AFTER BUSINESS HOURS.
9. ALL SITE LIGHTING SHALL BE INSTALLED AND MAINTAINED PER MANUFACTURER RECOMMENDATIONS.
10. ALL POLE MOUNTED LIGHTS SHALL UTILIZE HOUSE SIDE SHIELDS TO PREVENT LIGHT FROM BEING DIRECTED OUTSIDE OF PARKING AREAS.

WALL LIGHT 1 (W1)

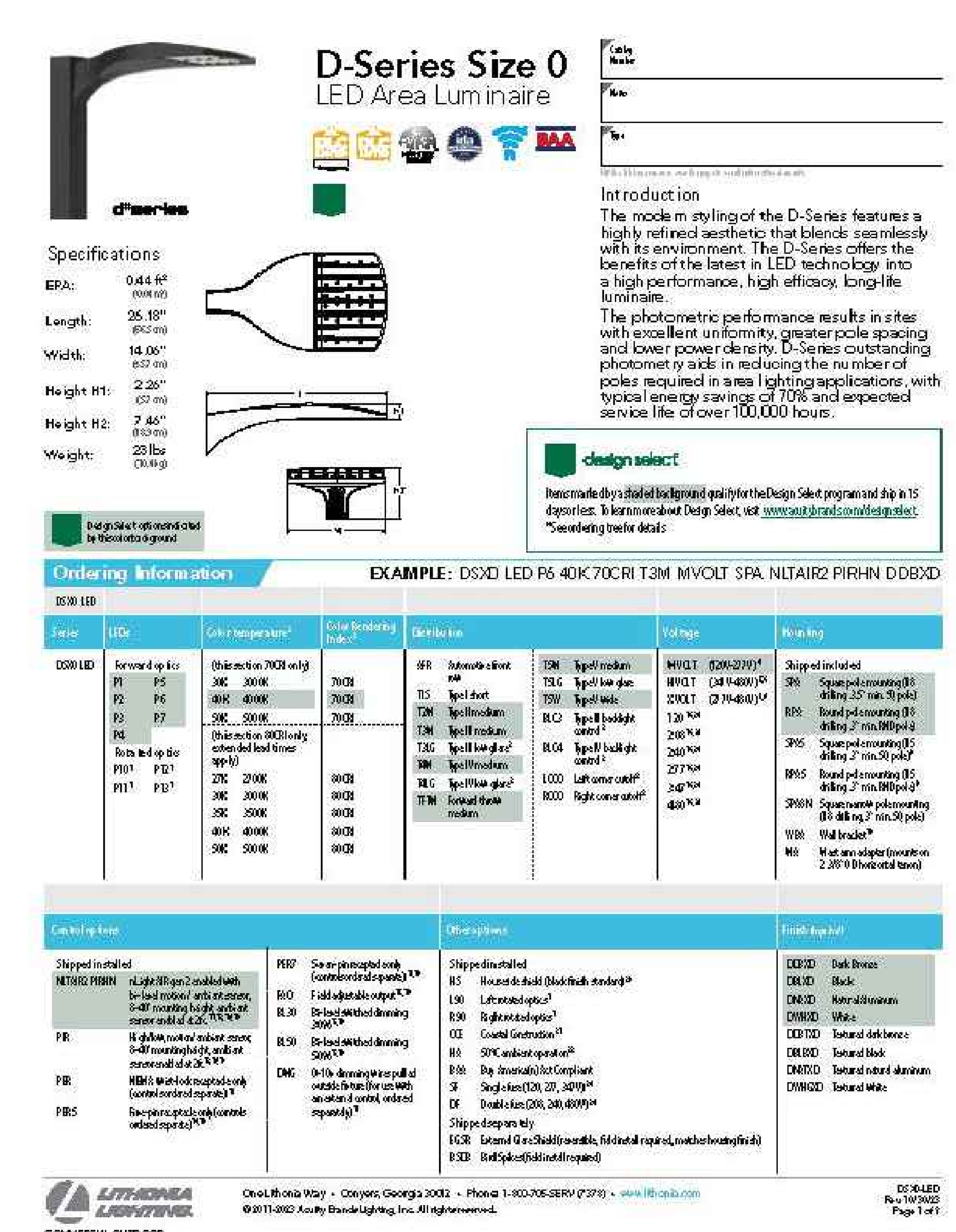


WALL LIGHT 2 (W2 & W3)

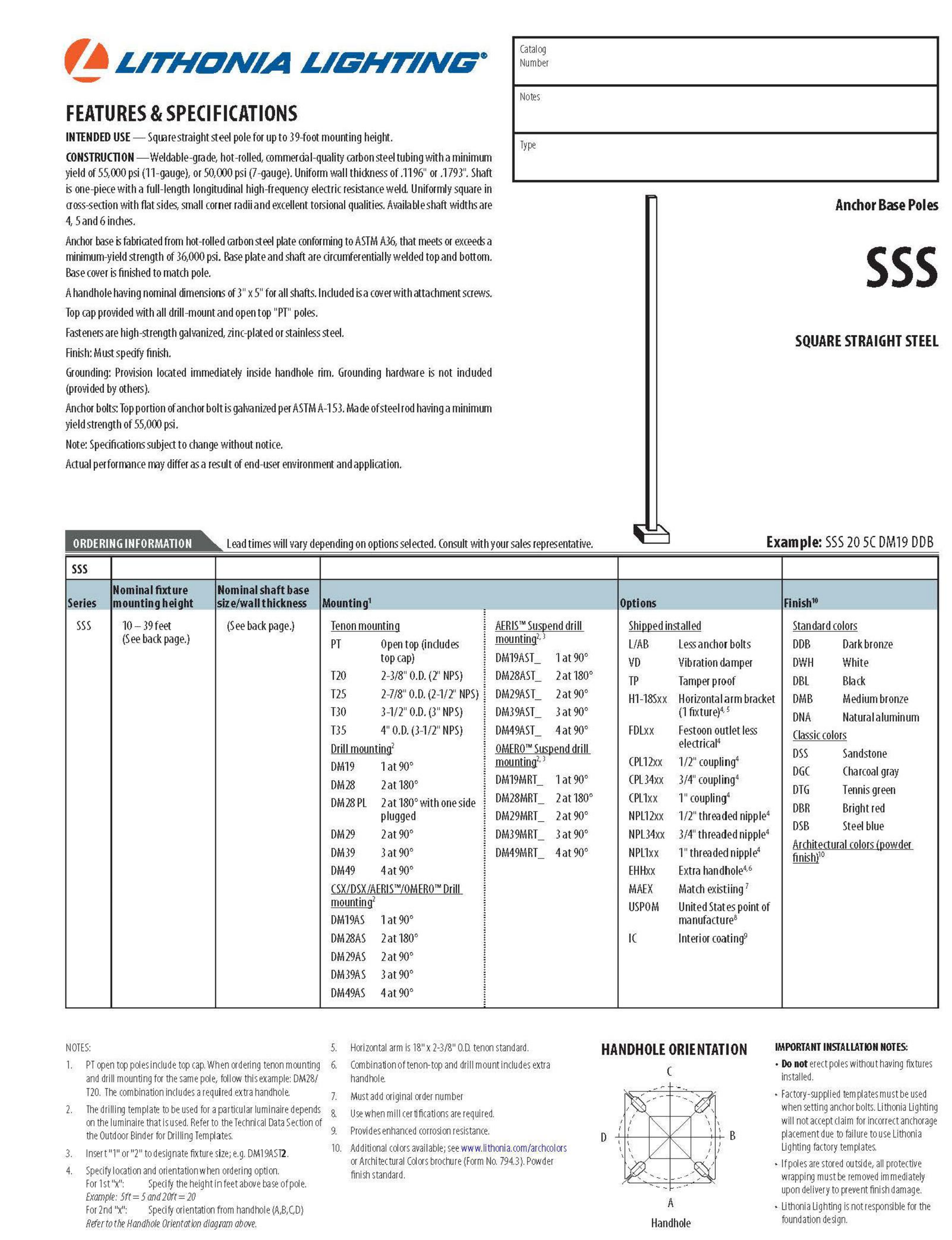


ENTRANCE CANOPY LIGHTS (D)

POLE MOUNTED LIGHT (S3, S3-BLC, S4)



LIGHT POLE



NO.	DATE	REVISION DESCRIPTION
1	7/21/23	Submitted To Town for Pre Application Review
2	9/12/23	Submitted Sketch Plan For Planning Board Review
3	2/20/24	Submitted Site Plan For Planning Board Review
4	6/12/24	Revised Per PWD Comments
5	8/5/24	Revised Per PWD, Town, & DEP Comments
6	8/21/24	Revised Per Town, & DEP Comments
7	12/16/24	Submitted to Town for Review

STATE OF MAINE
AUSTIN G. FAGAN
LICENSED PROFESSIONAL ENGINEER

BH2M
Berry, Huff, McDonald, Milligan Inc.
Engineers, Surveyors
380B Main Street
Gorham, Maine 04038
Tel. (207) 839-2771
www.bh2m.com

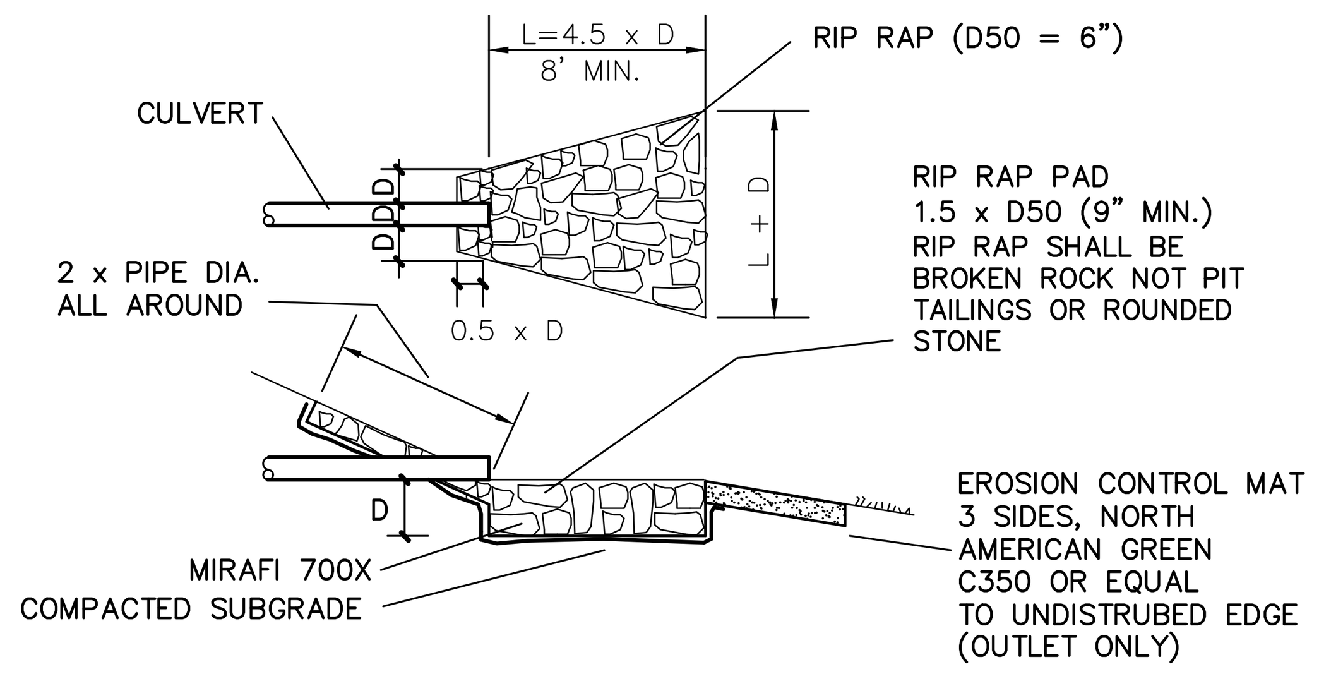
FOR
Owen Baxter
18 Hunnewell Road
Scarborough, Maine 04074

LIGHTING PLAN

LAND OF
O'S ENTERPRISES, LLC
6 CUMMINGS ROAD
SCARBOROUGH, MAINE

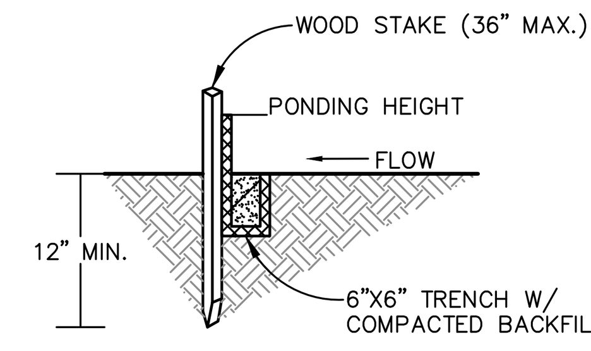
DESIGNED	DATE
A. Fagan	June 2023
DRAWN	SCALE
Dept.	1" = 25'
CHECKED	JOB. NO.
A. Fagan	23055

SHEET
4

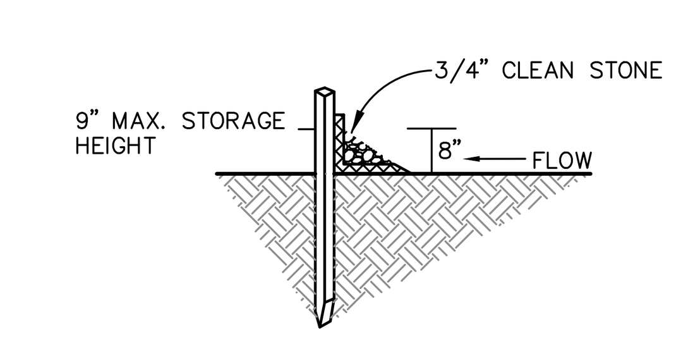


PIPE INLET/OUTLET PROTECTION

N.T.S.



WITH TRENCHING



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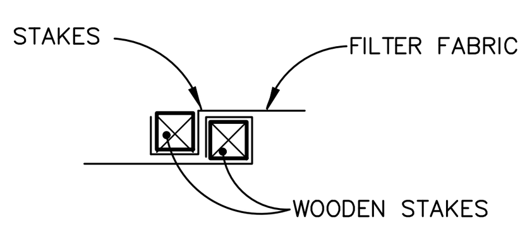
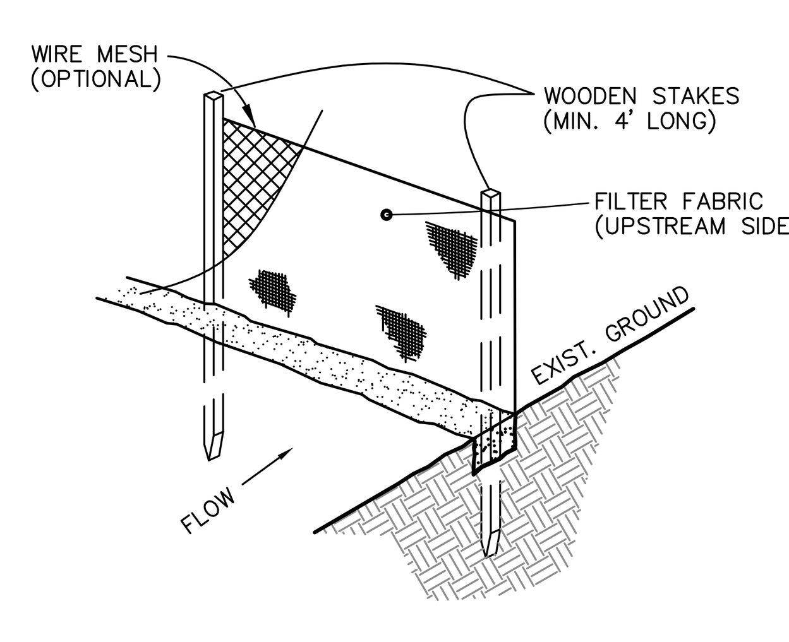


END POST DETAIL

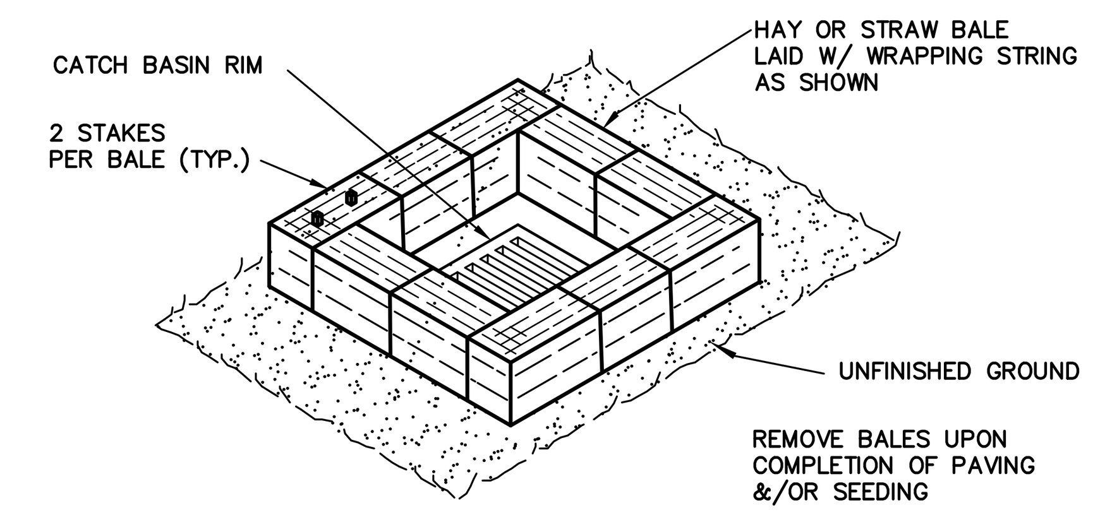
NTS



1. KEY FABRIC IN A 6"X6" TRENCH W/ BACKFILL.
2. SILT FENCE SHALL BE A 3' FENCE OF 120LB/M (W/ REINF. BACK OF 6" WIRE MESH, POSTS 6' O.C. MAX) OR 200LB/M (W/ NO REINF. POSTS 6' O.C. MAX)

SILT FENCE DETAIL

N.T.S.

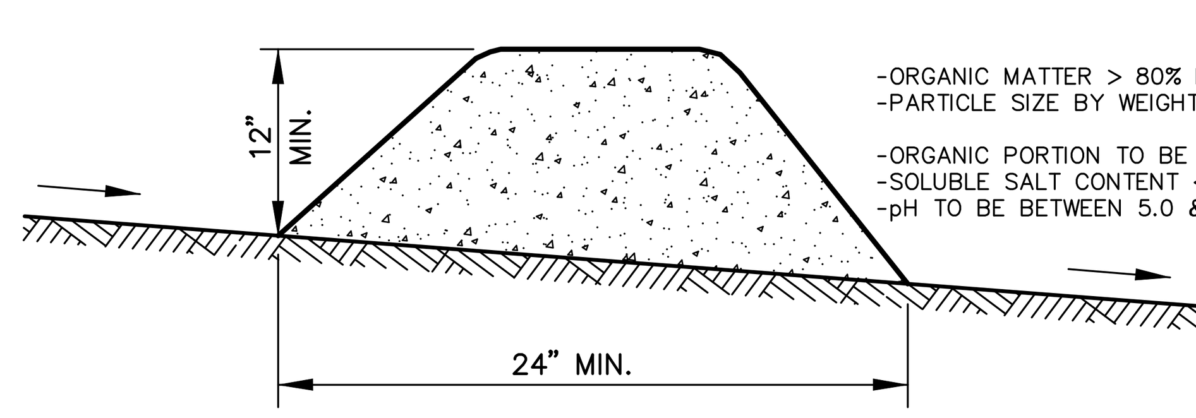


LOW POINT SEDIMENT CONTROL BARRIER

N.T.S.

PLACE BARRIER ALONG RELATIVELY LEVEL CONTOUR.
ECM BERM PROHIBITED AT THE BASE OF SLOPES > 8% OR WHERE THERE IS FLOWING WATER.
SEE MAINE EROSION AND SEDIMENT CONTROL FIELD GUIDE FOR CONTRACTORS FOR INSTALLATION INSTRUCTIONS.

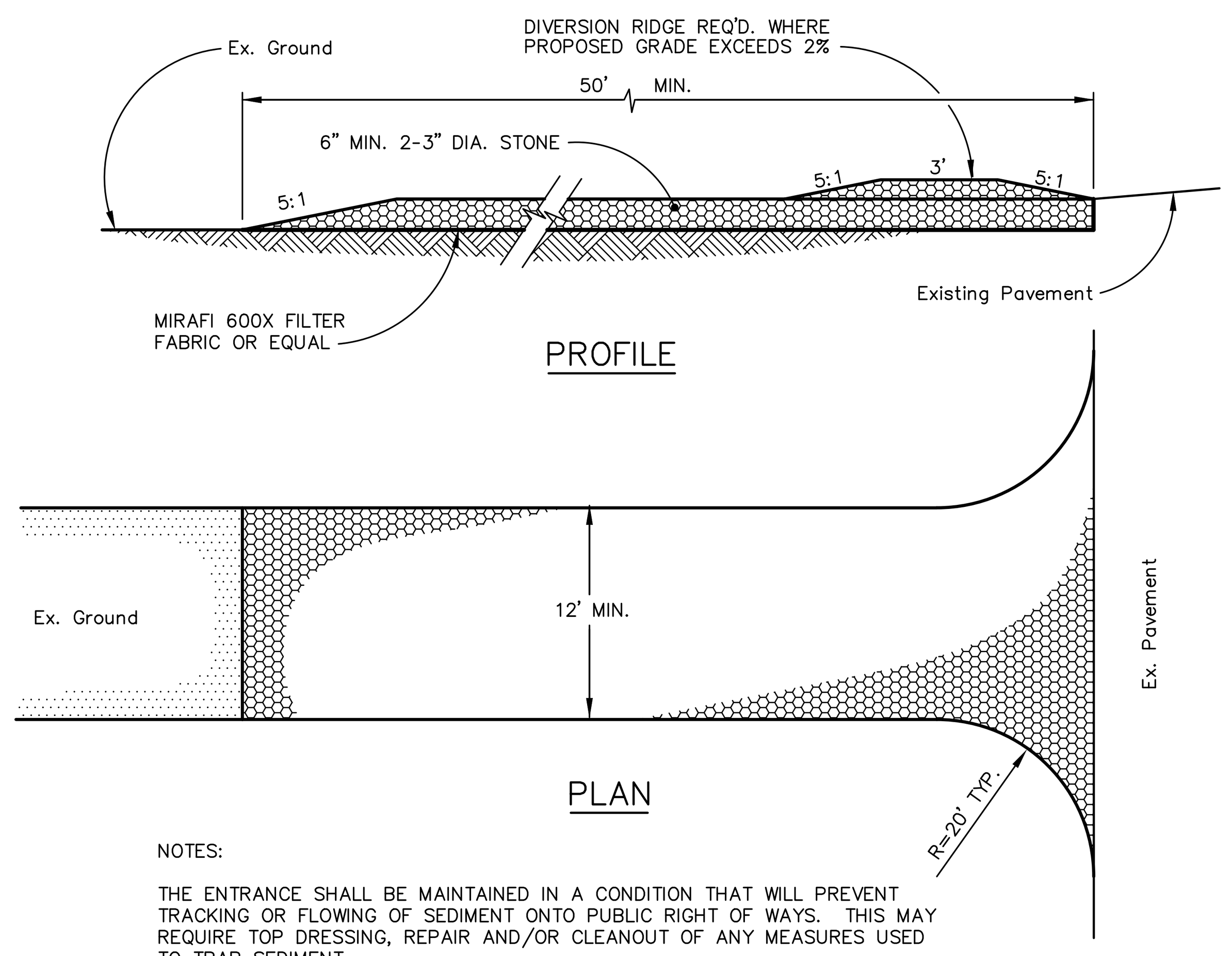
EROSION CONTROL MIX SHOULD CONTAIN A WELL GRADED MIXTURE OF PARTICLE SIZES AND MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER. ECM SHOULD BE FREE OF REFUSE, PHYSICAL CONTAMINATES, AND MATERIAL TOXIC TO PLANT GROWTH.



- ORGANIC MATTER > 80% DRY WEIGHT
- PARTICLE SIZE BY WEIGHT: 100% PASSING 6" SCREEN, 75-85% PASSING 0.75" SCREEN
- ORGANIC PORTION TO BE FIBROUS & ELONGATED
- SOLUBLE SALT CONTENT < 4.0 MMOHS/CM.
- pH TO BE BETWEEN 5.0 & 8.0

EROSION CONTROL MIX BERM

NTS



NOTES:

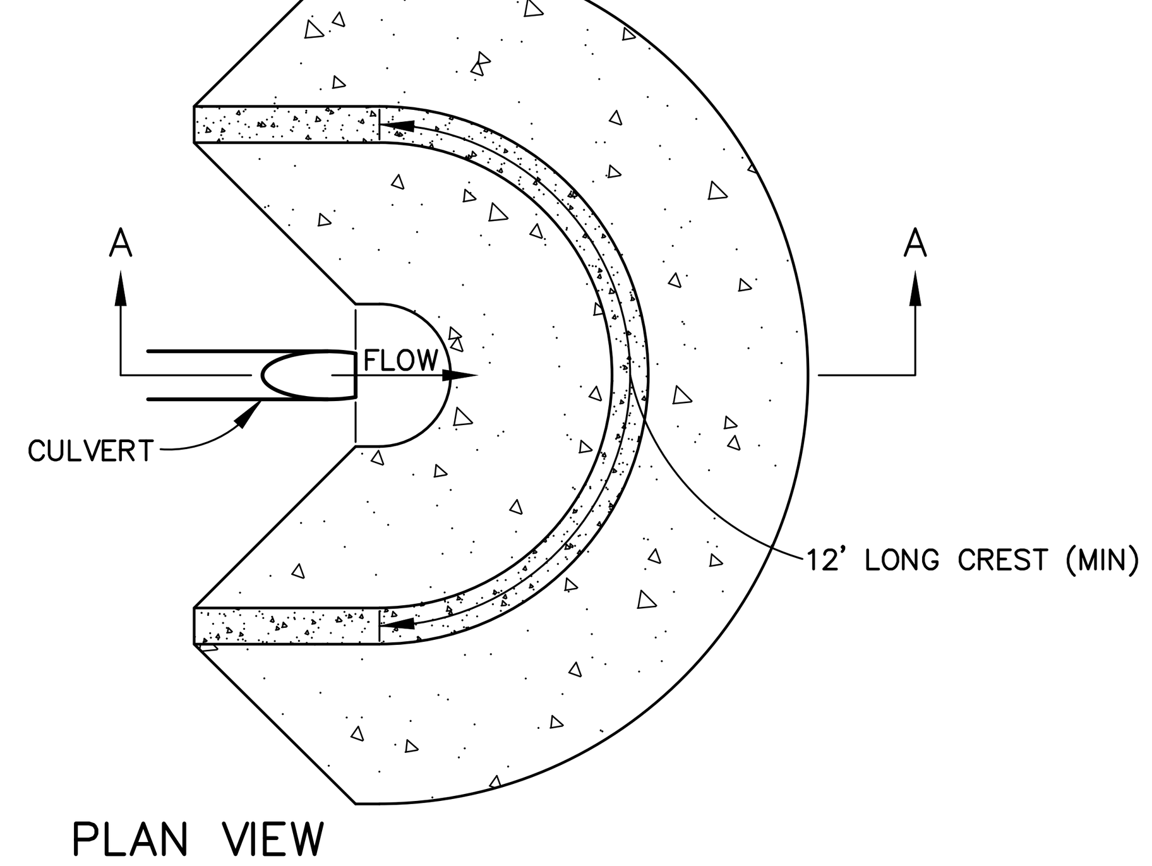
THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT OF WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.

WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT OF WAY.

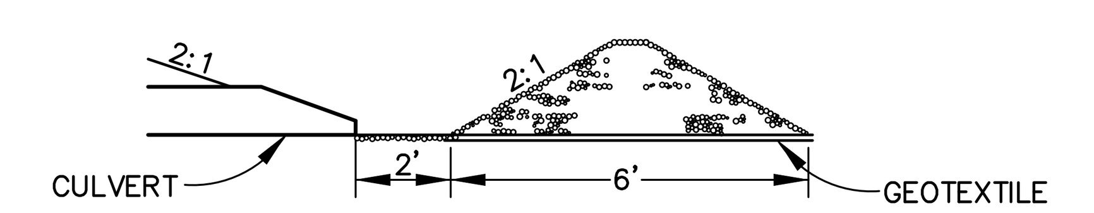
WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

STABILIZED CONSTRUCTION ENTRANCE

NTS



PLAN VIEW



SECTION A-A

1. USE 4" TO 6" STONE.
2. PLACE STONE OVER GEOTEXTILE.

CULVERT OUTLET LEVEL SPREADER

NTS

EROSION AND SEDIMENT CONTROL PLAN

THIS PLAN HAS BEEN DEVELOPED AS A STRATEGY TO CONTROL SOIL EROSION AND SEDIMENTATION DURING AND AFTER CONSTRUCTION. THIS PLAN IS BASED ON THE STANDARDS AND SPECIFICATIONS FOR EROSION PREVENTION IN DEVELOPING AREAS AS CONTAINED IN THE LATEST REVISION OF TO THE 2016 MAINE EROSION AND SEDIMENT CONTROL BMP'S MANUAL FOR DESIGNERS AND ENGINEERS, AND THE LATEST REVISION TO THE 2014 MAINE EROSION AND SEDIMENT CONTROL FIELD GUIDE FOR CONTRACTORS. SEE MANUALS FOR ADDITIONAL INFORMATION AND DETAILS.

DURING CONSTRUCTION THE DEVELOPER/APPLICANT OR THEIR REPRESENTATIVES WILL BE RESPONSIBLE FOR IMPLEMENTING THE EROSION AND SEDIMENT CONTROL BMP'S AS WELL ROUTINE INSPECTIONS AND MAINTENANCE OF THE BMP'S.

THE PROPOSED LOCATIONS OF SILTATION AND EROSION CONTROL STRUCTURES ARE SHOWN ON THE SITE PLAN.

1. ALL CONSTRUCTION INSPECTIONS SHALL BE CONDUCTED BY SOMEONE WITH KNOWLEDGE OF EROSION AND STORMWATER CONTROL, INCLUDING STANDARDS AND PERMIT CONDITIONS. CONSTRUCTION INSPECTIONS SHALL BE PERFORMED AT LEAST ONCE A WEEK, AND PRIOR TO AND 24 HOURS AFTER A WET WEATHER EVENT (1 INCH OR MORE IN A 24 HOUR PERIOD). CONSTRUCTION INSPECTION AND CORRECTIVE ACTION DOCUMENTATION RECORDS SHALL BE MAINTAINED FOR A MINIMUM OF 5 YEARS.

2. THE SCOPE OF CONSTRUCTION INSPECTIONS INCLUDE THE EROSION AND SEDIMENTATION CONTROL MEASURES AS WELL AS DISTURBED AREAS, MATERIAL STORAGE AREAS, AND LOCATIONS WHERE VEHICLES ENTER AND EXIT THE SITE.

3. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE DONE IN ACCORDANCE WITH THE "MAINE EROSION AND SEDIMENT CONTROL BMP'S", DEPARTMENT OF ENVIRONMENTAL PROTECTION, LATEST REVISION.

4. THOSE AREAS UNDERGOING ACTUAL CONSTRUCTION WILL BE LEFT IN AN UNTREATED OR UNVEGETATED CONDITION FOR A MINIMUM TIME. AREAS SHALL BE PERMANENTLY STABILIZED WITHIN 7 DAYS OF FINAL GRADING AND TEMPORARILY STABILIZED WITHIN 7 DAYS OF INITIAL DISTURBANCE OF THE SOIL. IF THE DISTURBANCE IS WITHIN 75 FEET OF A WETLAND OR WATERBODY, THE AREA SHALL BE STABILIZED WITHIN 2 DAYS OR PRIOR TO ANY STORM EVENT, WHICHEVER COMES FIRST.

5. EXCAVATION AND EARTHWORK SHALL BE DONE SUCH THAT NO MORE THAN 1 ACRES OF THE SITE IS WITHOUT STABILIZATION AT ANY ONE TIME.

6. EXPOSED AREA SHOULD BE LIMITED TO THAT WHICH CAN BE MULCHED IN ONE DAY.

7. CONTINUATION OF EARTHWORK OPERATIONS ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE EXPOSED SOIL SURFACE ON THE AREA BEING WORKED HAS BEEN STABILIZED SUCH THAT NO MORE THAN ONE ACRE OF THE SITE IS WITHOUT EROSION CONTROL PROTECTION.

8. SEDIMENT BARRIERS (EROSION CONTROL MIX, STONE CHECK DAMS, STABILIZED CONSTRUCTION ENTRANCE, ETC.) SHOULD BE INSTALLED PRIOR TO ANY SOIL DISTURBANCE OF THE CONTRIBUTING DRAINAGE AREA ABOVE THEM. THE CONTRACTOR SHALL MAINTAIN THE STABILIZED CONSTRUCTION ENTRANCE UNTIL ALL DISTURBED AREAS ARE STABILIZED.

9. INSTALL EROSION CONTROL MIX AT TOE OF SLOPES TO FILTER SILT FROM RUNOFF. SEE E.C. MIX DETAIL FOR PROPER INSTALLATION. EROSION CONTROL MIX WILL REMAIN IN PLACE PER NOTE #7. THE USE OF AN EROSION CONTROL MIX BERM IS PROHIBITED AT THE BASE OF SLOPES STEEPER THAN 8% OR WHERE THERE IS FLOWING WATER.

10. ALL ERSOION CONTROL STRUCTURES WILL BE INSPECTED, REPLACED, AND/OR REPAIRED EVERY 7 DAYS AND IMMEDIATELY BEFORE AND FOLLOWING ANY SIGNIFICANT RAINFALL (0.5 INCH OR MORE IN A 24-HOUR PERIOD) OR SNOW MELT OR WHEN NO LONGER SERVICEABLE DUE TO SEDIMENT ACCUMULATION OR DECOMPOSURE. IF AN INSPECTION DETERMINES THAT A CORRECTIVE ACTION IS REQUIRED, THE ACTION OR REPAIR SHALL BE STARTED BY THE END OF THE NEXT WORKDAY AND COMPLETED WITHIN SEVEN DAYS OR BEFORE THE NEXT STORM EVENT. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE HALF THE HEIGHT OF THE BARRIER. SEDIMENT CONTROL DEVICES SHALL REMAIN IN PLACE AND BE MAINTAINED BY THE CONTRACTOR UNTIL AREAS UPSLOPE ARE STABILIZED BY TURF. EROSION CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS OF PERMANENT STABILIZATION. PERMANENT STABILIZATION IS 90% GRASS CATCH IN VEGETATED AREAS.

11. NO SLOPES, EITHER PERMANENT OR TEMPORARY, SHALL BE STEEPER THAN ONE AND ONE HALF TO ONE (1.5 TO 1).

12. IF FINAL SEEDING OF THE DISTURBED AREAS IS NOT COMPLETED 45 DAYS PRIOR TO THE FIRST KILLING FROST, USE TEMPORARY MULCHING (DORMANT SEEDING MAY BE ATTEMPTED AS WELL) TO PROTECT THE SITE AND DELAY SEEDING UNTIL THE NEXT RECOMMENDED SEEDING PERIOD.

13. TEMPORARY SEEDING OF DISTURBED AREAS THAT HAVE NOT BEEN FINAL GRADED SHALL BE COMPLETED BY AUG. 15 OR 45 DAYS PRIOR TO THE FIRST KILLING FROST (OCT. 1) TO PROTECT FROM SPRING RUNOFF PROBLEMS.

14. DURING THE CONSTRUCTION PHASE, INTERCEPTED SEDIMENT WILL BE RETURNED TO THE SITE AND REGRADED ONTO OPEN AREAS. POST SEEDING SEDIMENT, IF ANY WILL BE DISPOSED OF IN AN ACCEPTABLE MANNER.

15. REVEGETATION MEASURES WILL COMMENCE UPON COMPLETION OF CONSTRUCTION EXCEPT AS NOTED ABOVE. ALL DISTURBED AREAS NOT OTHERWISE STABILIZED WILL BE GRADED, SMOOTHED, AND PREPARED FOR FINAL SEEDING AS FOLLOWS:

    a. FOUR INCHES OF LOAM WILL BE SPREAD OVER DISTURBED AREAS AND SMOOTHED TO A UNIFORM SURFACE.

    b. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL, FERTILIZER MAY BE APPLIED AT THE RATE OF 800 POUNDS PER ACRE OR 18.4 POUNDS PER 1,000 SQUARE FEET USING 10-20-20 (N-P205-K20) OR EQUIVALENT. APPLY GROUND LIMESTONE (EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDE) AT A RATE OF 3 TONS PER ACRE (138 LB PER 1,000 SQ. FT.).

    c. FOLLOWING SEED BED PREPARATION, DITCHES AND BACK SLOPES WILL BE SEEDED TO A MIXTURE OF 47% CREEPING RED FESCUE, 5% REDTOP, AND 48% TALL FESCUE. THE LAWN AREAS WILL BE SEEDED TO A PREMIUM TURF MIXTURE OF 44% KENTUCKY BLUEGRASS, 44% CREEPING RED FESCUE, AND 12% PERENNIAL RYEGRASS: SEEDING RATE IS 1.03 LBS PER 1000 SQ. FT. LAWN QUALITY SOD MAY BE SUBSTITUTED FOR SEED. SEED MIX SHALL CONTAIN 10% ANNUAL RYE GRASS.

    d. HAY MULCH AT THE RATE OF 70-90 LBS PER 1000 SQUARE FEET FOR OVER 75% COVERAGE. FOR UNPROTECTED OR WINDY AREAS, ANCHOR MULCH WITH PEG AND TWINE (1 SQ. YD./BLOCK). HYDRAULIC MULCHES MAY ALSO BE USED, APPLIED AT A RATE OF 5 LBS PER 1000 SQUARE FEET FOR PAPER MULCH OR 40 LBS PER 1000 SQUARE FEET OR AS DIRECTED BY THE MANUFACTURER. ON SLOPES GREATER THAN 3:1 EROSION CONTROL MIX MAY BE USED, SEE EROSION CONTROL MIX NOTES BELOW.

    e. FOR DISTURBED AREAS TO BE MAINTAINED IN POST-CONSTRUCTION AS A MEADOW BUFFER, APPLY NEW ENGLAND CONSERVATION WILDLIFE MIX BY NEW ENGLAND WETLAND PLANTS, INC., OF AMHERST, MASSACHUSETTS OR APPROVED EQUAL.

14. ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS ONCE THE SITE IS STABILIZED WITH 90% GRASS CATCH IN VEGETATED AREAS. TEMPORARY EROSION AND SEDIMENT CONTROL BLANKET SHALL BE USED IN ALL DITCHES AND SWALES AS SHOWN IN DETAILS.

15. WETLANDS WILL BE PROTECTED WITH EROSION CONTROL MIX OR SILT FENCE INSTALLED AT THE EDGE FOR THE WETLAND OR THE BOUNDARY OF WETLAND DISTURBANCE. ALL AREAS WITHIN 75 FEET OF A PROTECTED NATURAL RESOURCE MUST BE PROTECTED WITH A DOUBLE ROW OF SEDIMENT BARRIERS DURING WINTER CONSTRUCTION.

16. ALL STORMWATER WILL BE PREVENTED FROM RUNNING ONTO STOCKPILES. SEDIMENT BARRIERS WILL BE INSTALLED DOWNGRADIENT OF ALL STOCKPILES.

17. PERMANENT POST-CONSTRUCTION BMP'S (VEGETATED SWALES, WET PONDS, ETC.) WILL NOT BE USED TO MANAGE FLOWS DURING CONSTRUCTION WITHOUT SPECIAL PROTECTION AND/OR RESTORATION.

ADDITIONAL TEMPORARY SEED MIXTURE (FOR PERIODS LESS THAN 12 MONTHS):

SEASON	SEED	RATE
SUMMER (5/15 - 8/15)	SUDANGRASS	40 LBS/ACRE
	OATS	80 LBS/ACRE
LATE SUMMER/EARLY FALL (8/15 - 9/15)	PERENNIAL RYEGRASS	40 LBS/ACRE
FALL (9/15 - 11/1)	WINTER RYE	112 LBS/ACRE
WINTER (11/1 - 4/1)	MULCH W/ DORMANT SEED	80 LBS/ACRE**
SPRING (4/1 - 7/1)	OATS	80 LBS/ACRE
	ANNUAL RYEGRASS	40 LBS/ACRE

**SEED RATE ONLY

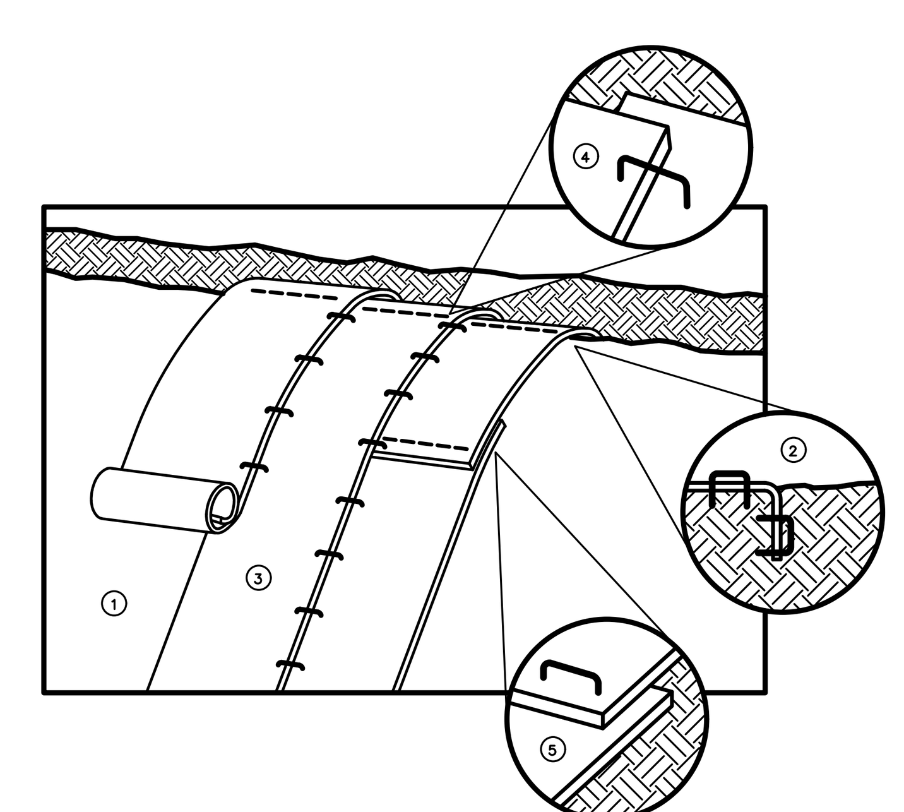
EROSION CONTROL MIX

EROSION CONTROL MIX (ECM) SHALL MEET THE REQUIREMENTS PROVIDED IN THE LATEST REVISION OF MAINE DEP'S EROSION AND SEDIMENTATION CONTROL BMP MANUAL. ECM IS ACCEPTABLE FOR USE ON SLOPES OF GREATER THAN 3:1 BUT LESS THAN 2:1. ECM SHALL CONSIST OF WELL-GRADED ORGANIC COMPONENT 50 - 100% OF DRY WEIGHT, AND COMPRISED OF FIBROUS AND ELONGATED FRAGMENTS. ECM SHALL BE FREE FROM REFUSE, MATERIAL TOXIC TO PLANT GROWTH OR CONSTRUCTION DEBRIS. ECM SHALL BE EVENLY DISTRIBUTED AND APPLIED AT A THICKNESS OF 2" ON 3:1 SLOPES, WITH AN ADDITIONAL 1/2" PER 20' OF SLOPE FOR A MAXIMUM OF 100' IN LENGTH. SLOPES GREATER THAN 3:1, ECM SHALL BE APPLIED AT THICKNESS OF 4" OR 5" FOR SLOPES GREATER THAN 60' IN LENGTH.

NO SLOPES, EITHER PERMANENT OR TEMPORARY, SHALL BE STEEPER THAN ONE AND ONE HALF TO ONE (1.5:1). EROSION CONTROL MIX IS AN ACCEPTABLE STABILIZATION MEASURE FOR SLOPES UP TO 3:1, WITH LIMITS THAT ARE COVERED BY NOTES ON THIS SHEET. SLOPES BETWEEN 3:1 AND 2:1 SHALL BE STABILIZED WITH EROSION CONTROL BLANKETS, AND ALL SLOPES GREATER THAN 2:1 SHALL BE STABILIZED WITH RIPRAP. SEE SLOPE STABILIZATION DETAIL FOR ADDITIONAL INFORMATION.

1. Prepare soil before installing blankets, including lime, fertilzer & seed.
2. Begin at top of slope by anchoring blanket in 6" x 6" trench. Backfill & compact trench after stapling.
3. Roll blankets down or horizontally across slope.
4. The edges of parallel blankets must be stapled with approx. 2" overlap.
5. When blankets must be spliced down the slope, place blankets end over end (shingle style) with approx. 4" overlap. Staple through overlapped area, approx. 12" apart.

Slope Stabilization:
Erosion Control Blanket shall be in accordance with M.D.O.T. standard specifications, Section 6.13, Temporary Erosion Control Blankets and Extended Use Erosion Control Blankets.



Slope Stabilization Detail

N.T.S.

EROSION CONTROL DURING CONSTRUCTION

WINTER CONSTRUCTION

1. WINTER CONSTRUCTION PERIOD: NOVEMBER 1 THROUGH APRIL 15

2. OVERWINTER STABILIZATION OF DITCHES AND CHANNELS:
ALL STONE-LINED DITCHES AND CHANNELS MUST BE CONSTRUCTED AND STABILIZED BY NOVEMBER 15. ALL GRASS LINED DITCHES AND CHANNELS MUST BE CONSTRUCTED AND STABILIZED BY SEPTEMBER 1. IF A DITCH OR CHANNEL IS NOT GRASS-LINED BY SEPTEMBER 1, THEN ONE OF THE FOLLOWING ACTIONS MUST BE TAKEN TO STABILIZE THE DITCH FOR LATE FALL AND WINTER.

    A. INSTALL A SOD LINING IN THE DITCH:
    A DITCH MUST BE LINED WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES: PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL, AND ANCHORING SOD AT THE BASE OF THE DITCH WITH JUTE OR PLASTIC MESH TO PREVENT THE SOD FROM SLOUGHING DURING FLOW CONDITIONS. SEE THE PERMANENT VEGETATION BMP SECTION.

    B. INSTALL A STONE LINING IN THE DITCH:
    A DITCH MUST BE LINED WITH STONE RIPRAP BY NOVEMBER 15. A REGISTERED PROFESSIONAL ENGINEER MUST BE HIRED TO DETERMINE THE STONE SIZE AND LINING THICKNESS NEEDED TO WITHSTAND THE ANTICIPATED FLOW VELOCITIES AND FLOW DEPTHS WITHIN THE DITCH. IF NECESSARY, THE CONTRACTOR WILL REGRADE THE DITCH PRIOR TO PLACING THE STONE LINING SO TO PREVENT THE STONE LINING FROM REDUCING THE DITCH'S CROSS-SECTIONAL AREA.

3. OVERWINTER STABILIZATION OF DISTURBED SLOPES:
ALL STONE-COVERED SLOPES MUST BE CONSTRUCTED AND STABILIZED BY NOVEMBER 15. ALL SLOPES TO BE VEGETATED MUST BE SEEDED AND MULCHED BY SEPTEMBER 1. THE DEPARTMENT WILL CONSIDER ANY AREA HAVING A GRADE GREATER THAN 15% TO BE A SLOPE. IF A SLOPE TO BE VEGETATED IS NOT STABILIZED BY SEPTEMBER 1, THEN ONE OF THE FOLLOWING ACTIONS MUST BE TAKEN TO STABILIZE THE SLOPE FOR LATE FALL AND WINTER. STABILIZE THE SOIL WITH TEMPORARY VEGETATION AND EROSION CONTROL MATS. BY OCTOBER 1 THE DISTURBED SLOPE MUST BE SEEDED WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET AND THEN INSTALL EROSION CONTROL MATS OR ANCHORED MULCH OVER THE SEEDING. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR FAILS TO COVER AT LEAST 75% OF THE SLOPE BY NOVEMBER 1, THEN THE CONTRACTOR WILL COVER THE SLOPE WITH A LAYER OF EROSION CONTROL MIX OR WITH STONE RIPRAP AS DESCRIBED IN THE FOLLOWING STANDARDS.

    A. STABILIZE THE SOIL WITH SOD:
    THE DISTURBED SLOPE MUST BE STABILIZED 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) OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE.

    B. STABILIZE THE SOIL WITH EROSION CONTROL MIX:
    EROSION CONTROL MIX MUST BE PROPERLY INSTALLED BY NOVEMBER 15. THE CONTRACTOR WILL NOT USE EROSION CONTROL MIX TO STABILIZE SLOPES HAVING GREATER THAN 50% (2H:1V) OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE. SEE THE EROSION CONTROL MIX NOTES FOR ADDITIONAL CRITERIA.

    C. STABILIZE THE SOIL WITH STONE RIPRAP:
    PLACE A LAYER OF STONE RIPRAP ON THE SLOPE BY NOVEMBER 15. THE DEVELOPMENT'S OWNER WILL HIRE A REGISTERED PROFESSIONAL ENGINEER TO DETERMINE THE STONE SIZE NEEDED FOR STABILITY ON THE SLOPE AND TO DESIGN A FILTER LAYER FOR UNDERNEATH THE RIPRAP.

4. OVERWINTER STABILIZATION OF DISTURBED SOILS:
BY SEPTEMBER 15, ALL DISTURBED SOILS ON AREAS HAVING A SLOPE LESS THAN 15% MUST BE SEEDED AND MULCHED. IF THE DISTURBED AREAS ARE NOT STABILIZED BY THIS DATE, THEN ONE OF THE FOLLOWING ACTIONS MUST BE TAKEN TO STABILIZE THE SOIL FOR LATE FALL AND WINTER.

    A. STABILIZE THE SOIL WITH TEMPORARY VEGETATION:
    BY OCTOBER 1, 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. MONITOR GROWTH OF THE RYE. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR FAILS TO COVER AT LEAST 90% OF THE DISTURBED SOIL BEFORE NOVEMBER 1, THEN MULCH THE AREA FOR OVER-WINTER PROTECTION AS DESCRIBED BELOW.

    B. STABILIZE THE SOIL WITH SOD:
    STABILIZE THE DISTURBED SOIL WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLINIG 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, 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. IMMEDIATELY AFTER APPLYING THE MULCH, ANCHOR THE MULCH WITH PLASTIC NETTING TO PREVENT WIND FROM MOVING THE MULCH OFF THE DISTURBED SOIL. PROVIDE NETTING ON ALL SLOPES GREATER THAN 8%.

5. MAINTENANCE:
IF AN INSPECTION DETERMINES THAT A CORRECTIVE ACTION IS REQUIRED, THE ACTION OR REPAIR SHALL BE STARTED BY THE END OF THE NEXT WORKDAY AND COMPLETED WITHIN SEVEN DAYS OR BEFORE THE NEXT STORM EVENT. MAINTENANCE MEASURES SHALL BE APPLIED AS NEEDED DURING THE ENTIRE CONSTRUCTION SEASON. ONCE A WEEK AND BEFORE AND AFTER EACH RAINFALL, SNOW STORM OR PERIOD OF THAWING AND RUNOFF, THE SITE CONTRACTOR SHALL PERFORM A VISUAL INSPECTION OF ALL INSTALLED EROSION CONTROL MEASURES AND PERFORM REPAIRS AS NEEDED TO INSURE THEIR CONTINUOUS FUNCTION. FOLLOWING THE TEMPORARY AND/OR FINAL SEEDING AND MULCHING, THE CONTRACTOR SHALL, IN THE SPRING, INSPECT AND REPAIR ANY DAMAGES AND/OR BARE SPOTS. AN ESTABLISHED VEGETATIVE COVER MEANS A MINIMUM OF 85 TO 90% OF AREAS VEGETATED WITH VIGOROUS GROWTH.

STABILIZATION SCHEDULE BEFORE WINTER:

SEPTEMBER 15	ALL DISTURBED AREAS MUST BE SEEDED AND MULCHED. ALL SLOPES MUST BE STABILIZED, SEEDED AND MULCHED. ALL GRASS LINED DITCHES AND CHANNELS MUST BE STABILIZED WITH MULCH OR AN EROSION CONTROL BLANKET
OCTOBER 1	IF THE SLOPE IS STABILIZED WITH AN EROSION CONTROL BLANKET AND SEEDED. ALL DISTURBED AREAS TO BE PROTECTED WITH AN ANNUAL GRASS MUST BE SEEDED AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET AND MULCHED.
NOVEMBER 15	ALL STONE LINED DITCHES AND CHANNELS MUST BE CONSTRUCTED AND STABILIZED. SLOPES THAT ARE COVERED WITH RIPRAP MUST BE CONSTRUCTED BY THAT DATE.

6. DURING WINTER CONSTRUCTION PERIOD ALL SNOW SHALL BE REMOVED FROM AREAS OF SEEDING AND MULCHING PRIOR TO PLACEMENT.

7. AREAS WITHIN 75 FEET OF STREAMS, WETLANDS, AND OTHER PROTECTED NATURAL RESOURCES THAT ARE NOT STABILIZED WITH VEGETATION BY DEC. 1 SHALL BE MULCHED AND ANCHORED WITH NETTING. IF WORK CONTINUES IN THIS AREA DURING THE WINTER, A DOUBLE LINE OF SEDIMENT BARRIERS MUST BE USED.

HOUSEKEEPING

1. SPILL PREVENTION: CONTROLS MUST BE USED TO PREVENT POLLUTANTS FROM BEING DISCHARGED FROM MATERIALS 1. ON SITE, INCLUDING STORAGE PRACTICES TO MINIMIZE EXPOSURE OF THE MATERIALS TO STORMWATER, AND APPROPRIATE SPILL PREVENTION, CONTAINMENT, AND RESPONSE PLANNING AND IMPLEMENTATION.

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.

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 MY NOT BE USED FOR DUST CONTROL. ANY OFFSITE TRACKING OF MUD OR SEDIMENT SHALL BE VACUUMED IMMEDIATELY AND PRIOR TO THE NEXT SIGNIFICANT STORM EVENT.

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 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 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:

    - DISCHARGES FROM FIREFIGHTING ACTIVITY;
    - FIRE HYDRANT FLUSHINGS;
    - VEHICLE WASHWATER IF DETERGENTS ARE NOT USED AND WASHING IS LIMITED TO THE EXTERIOR OF VEHICLES (ENGINE, UNDERCARRIAGE AND TRANSMISSION WASHING IS PROHIBITED);
    - DUST CONTROL RUNOFF IN ACCORDANCE WITH PERMIT CONDITIONS AND APPENDIX (C)(3) OF MAINE DEP 06-096 CHAPTER 500;
    - ROUTINE EXTERNAL BUILDING WASHDOWN, NOT INCLUDING SURFACE PAINT REMOVAL, THAT DOES NOT INVOLVE DETERGENTS;
    - PAVEMENT WASHWATER (WHERE SPILLS/LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE NOT OCCURRED, UNLESS ALL SPILLED MATERIAL HAD BEEN REMOVED) IF DETERGENTS ARE NOT USED;
    - UNCONTAMINATED AIR CONDITIONING OR COMPRESSOR CONDENSATE;
    - UNCONTAMINATED GROUNDWATER OR SPRING WATER;
    - FOUNDATION OR FOOTER DRAIN-WATER WHERE FLOWS ARE NOT CONTAMINATED;
    - UNCONTAMINATED EXCAVATION DEWATERING (SEE REQUIREMENTS IN APPENDIX C(5) MAINE DEP 06-096 CHAPTER 500);
    - POTABLE WATER SOURCES INCLUDING WATERLINE FLUSHINGS; AND
    - LANDSCAPE IRRIGATION.

7. UNAUTHORIZED NON-STORMWATER DISCHARGES: THE DEPARTMENT'S APPROVAL UNDER THIS CHAPTER DOES NOT AUTHORIZE A DISCHARGE THAT IS MIXED WITH A SOURCE OF NON STORMWATER, OTHER THAN THOSE DISCHARGES IN COMPLIANCE WITH APPENDIX C(6) MAINE DEP 06-096 CHAPTER 500. SPECIFICALLY, THE DEPARTMENT'S APPROVAL DOES NOT AUTHORIZE DISCHARGES OF THE FOLLOWING:

    - WASTEWATER FROM THE WASHOUT OR CLEANOUT OF CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS OR OTHER CONSTRUCTION MATERIALS;
    - FUELS, OILS OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE;
    - SOAPS, SOLVENTS, OR DETERGENTS USED IN VEHICLE AND EQUIPMENT WASHING; AND
    - TOXIC OR HAZARDOUS SUBSTANCES FROM A SPILL OR OTHER RELEASE.

8. ADDITIONAL REQUIREMENTS: ADDITIONAL REQUIREMENTS MAY BE APPLIED ON A SITE-SPECIFIC BASIS.

REVISION

NO.	DATE	DESCRIPTION
1	7/21/23	Submitted To Town for Pre Application Review
2	9/12/23	Submitted Sketch Plan For Planning Board Review
3	2/20/24	Submitted Site Plan For Planning Board Review
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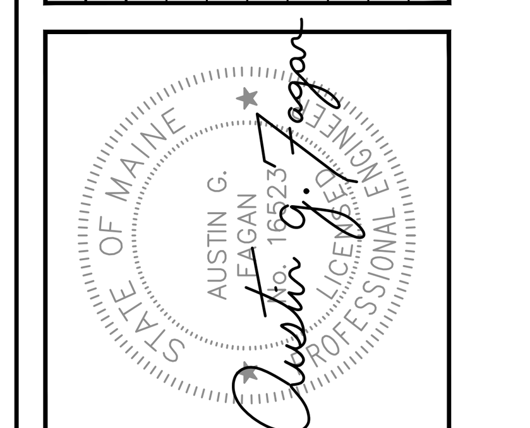


BH2M
Berry, Huff, McDonald, Milligan Inc.
Engineers, Surveyors
380B Main Street
Gorham, Maine 04038
Tel. (207) 839-2771
www.bh2m.com

FOR
Owen Baxter
18 Hunnewell Road
Scarborough, Maine 04074

EROSION CONTROL DETAILS

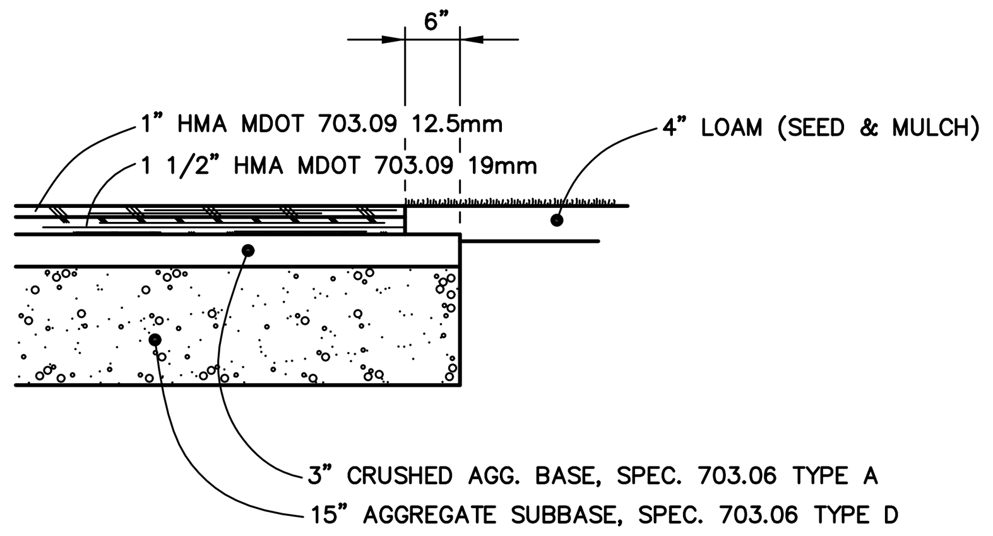
CONSTRUCTION SERVICES

6 CUMMINGS ROAD
SCARBOROUGH, MAINE

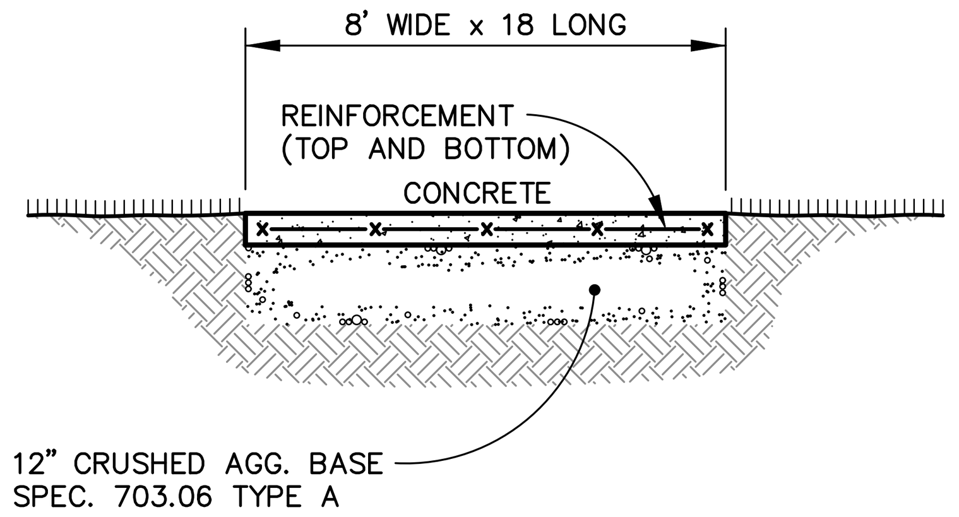
DESIGNED	DATE
A. Fagan	June 2023
DRAWN	SCALE
Dept.	As Shown
CHECKED	JOB. NO.
A. Fagan	23055

SHEET

5

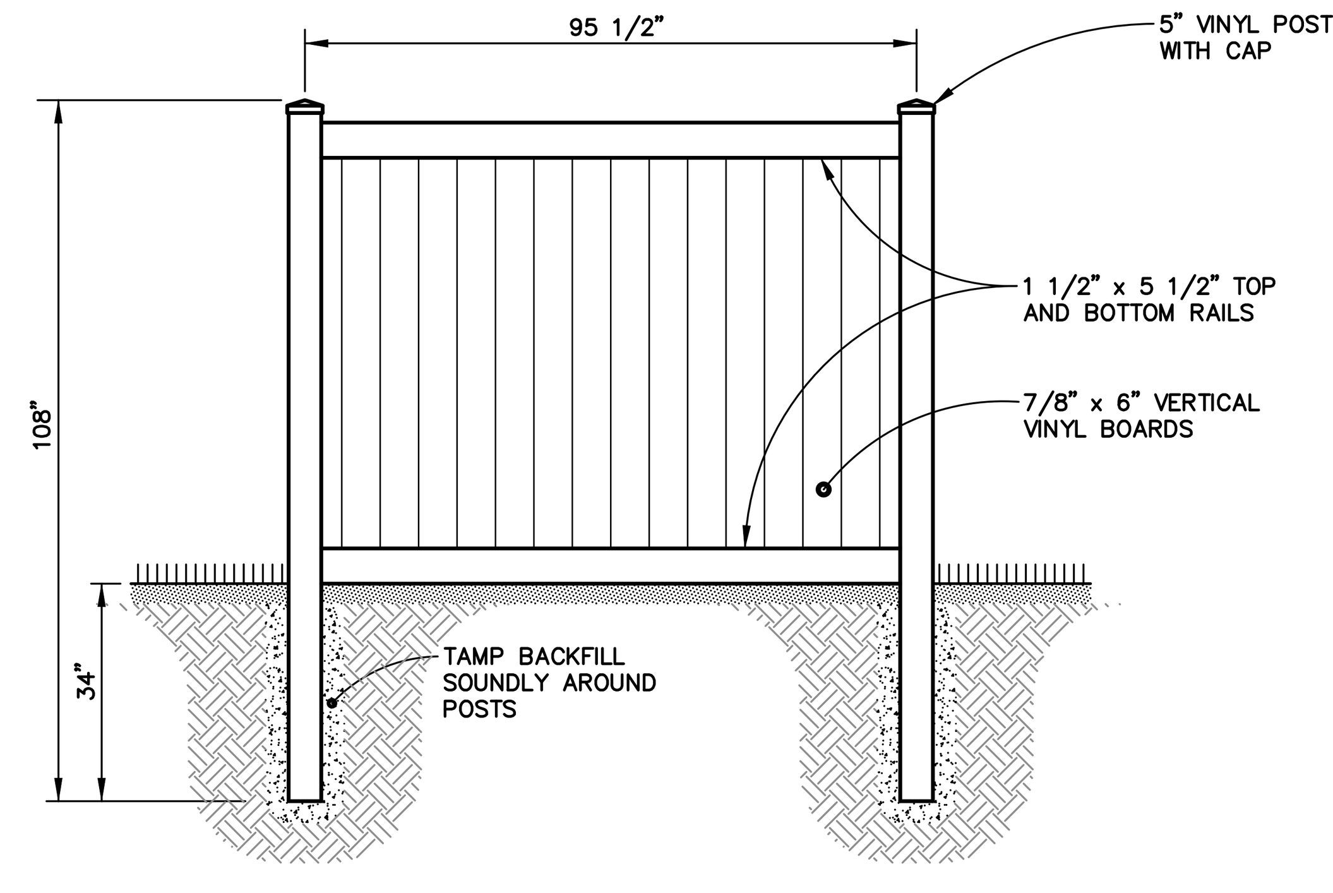


PARKING PAVEMENT DETAIL
NTS



CONCRETE	-	8" THICK 4,000 PSI @ 28 DAYS, 3/4" MAX. AGGRIGATE, 3-5% AIR ENTRAINMENT, 4" MAX. SLUMP
REINFORCEMENT	-	#4 BARS AT 12" O.C. EACH WAY, TOP AND BOTTOM
FINISH	-	SCREED AND BULL FLOAT, BROOM FINISH PERPENDICULAR TO TRAVEL DIRECTION
JOINTS	-	SAWCUT TO 1/3 DEPTH AT 5'-6" O.C.
SEALING	-	APPLY POLY SULFIDE LIQUID SEALANT, GRAY PER MANUFACTURER'S SPEC'S.

DUMPSTER PAD
NTS



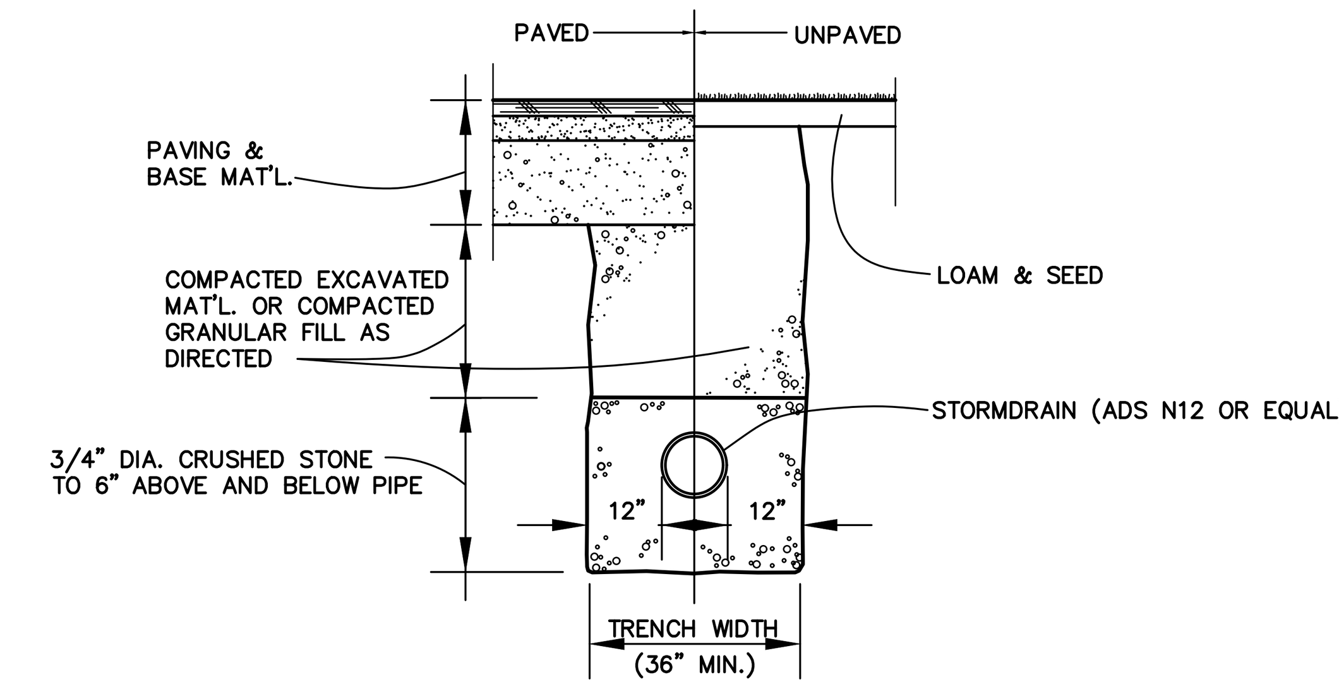
(ILLUSIONS VINYL FENCE OR APPROVED EQUAL)

DUMPSTER ENCLOSURE
NTS

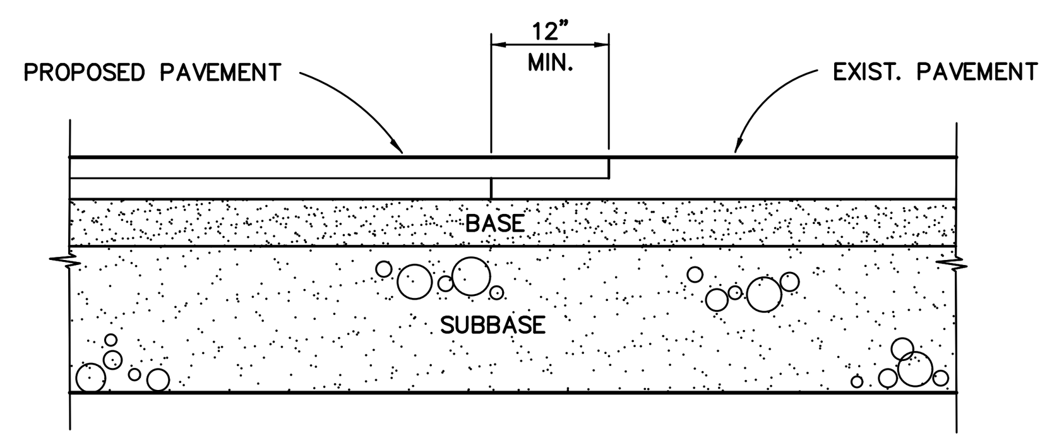
1. 12" x 18" LIGHTWEIGHT ALUMINUM SIGN.
2. SIGN USES 3M ENGINEER GRADE, REFLECTIVE FILM.
3. SIGN SHALL BE PRINTED USING ENAMEL INKS.
4. SIGN SHALL BE PREDRILLED FOR BUILDING, FENCE OR U-CHANNEL POST MOUNTING.

ADA HANDICAPPED SIGN DETAIL
NTS

NOTES:
1. Trench width shown is payment width for rockexcavation & replacement of unsuitable material.
2. Do not mechanically compact directly over flexible pipe (e.g. PVC, Polyethylene)
3. Concrete pipe shall have sand bedding.



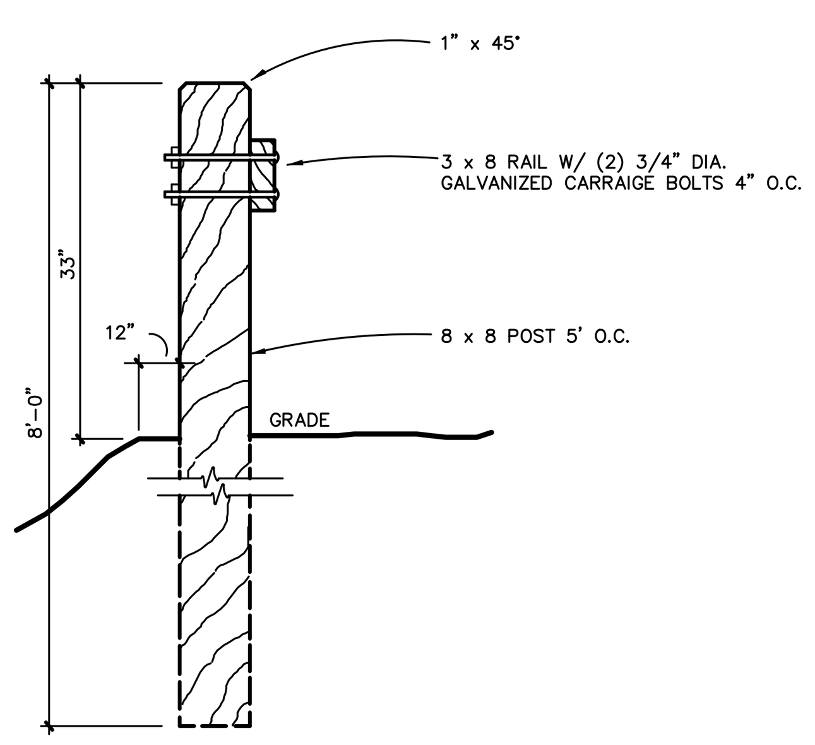
STORMDRAIN TRENCH DETAIL
NTS



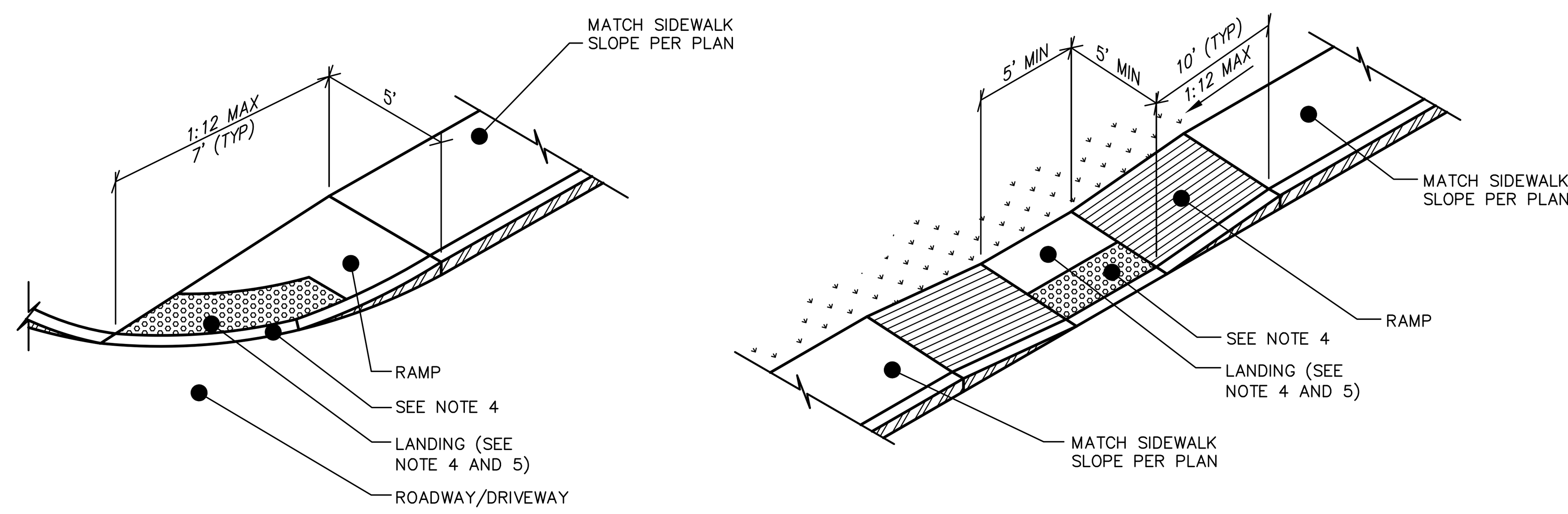
SAWCUT EXIST. PAVEMENT ALONG A SMOOTH LINE TO A NEAT EVEN VERTICAL JOINT, APPLY TACK PRIOR TO PROPOSED PAVING (AS REQ'D)

PAVEMENT JOINT DETAIL
N.T.S.

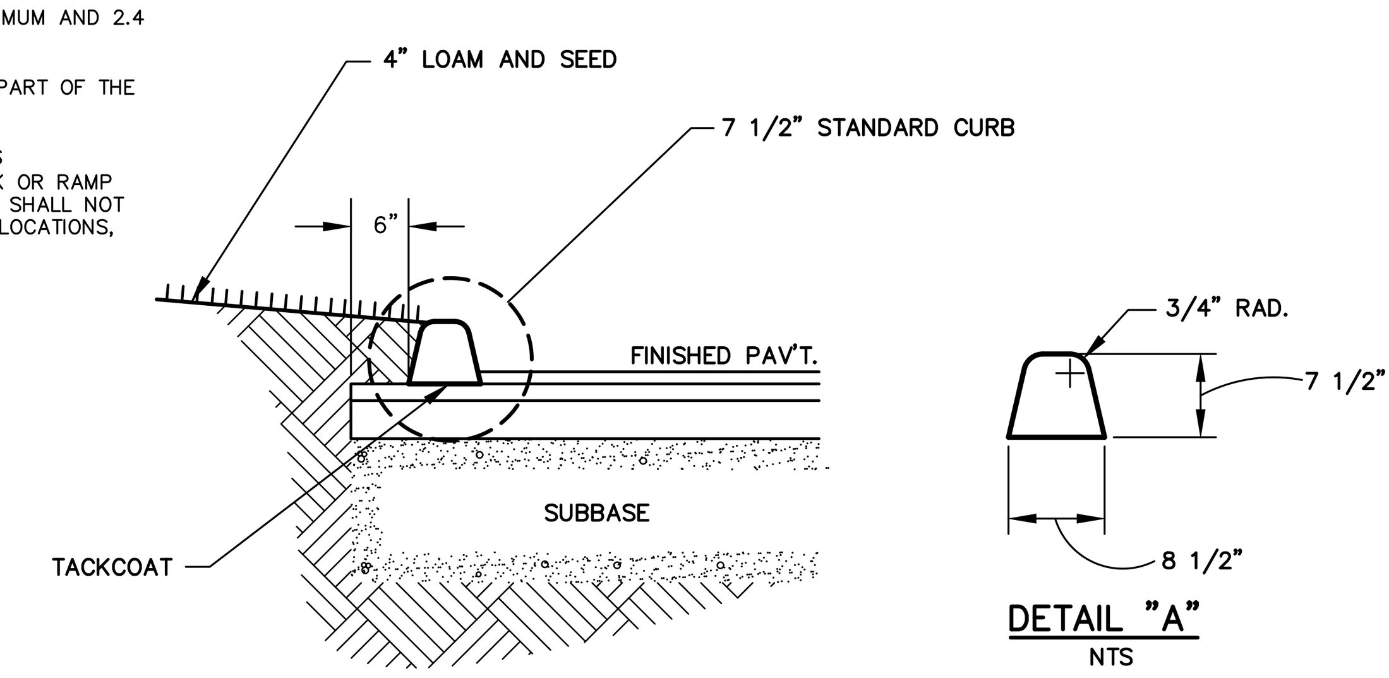
NOTE:
1. CURB RAMP LENGTHS ARE BASED ON SIX (6) INCH CURB REVEAL HEIGHT AND NO RUNNING SLOPE. RAMP LENGTHS SHALL BE ADJUSTED AS NECESSARY TO ACCOMMODATE VARYING CURB REVEAL HEIGHTS AND TO MATCH RUNNING SLOPES OF ADJACENT ROADWAY AND SIDEWALK SLOPES TO MAINTAIN A RAMP THAT DOES NOT EXCEED THE MAXIMUM RAMP SLOPE OF 1:12.
2. DETECTABLE WARNINGS SHALL CONSIST OF RAISED TRUNCATED DOMES AND SHALL HAVE A BASE DIAMETER OF 0.9 INCHES (23 mm) MINIMUM AND 1.4 INCHES (36 mm) MAXIMUM; A TOP DIAMETER OF 50 PERCENT OF THE BASE DIAMETER MINIMUM TO 65 PERCENT OF THE BASE DIAMETER MAXIMUM AND A HEIGHT OF 0.2 INCHES (5.1 mm), A CENTER-TO-CENTER SPACING OF 1.6 INCHES (41mm) MINIMUM AND 2.4 INCHES (61mm) MAXIMUM; AND A BASE-TO-BASE SPACING OF 0.65 INCHES (17mm) MINIMUM, MEASURED BETWEEN THE MOST ADJACENT DOMES ON A SQUARE GRID.
3. DETECTABLE WARNINGS SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT. THE MATERIAL USED TO PROVIDE CONTRAST SHALL BE AN INTEGRAL PART OF THE WALKING SURFACE. DETECTABLE WARNINGS USED ON INTERIOR SURFACES SHALL DIFFER FROM ADJOINING WALKING SURFACES IN RESILIENCY OR SOUND-ON-CANE CONTACT.
4. ALL ACCESSIBLE ROUTE SIDEWALKS INTERSECTING ROADWAYS OR OTHER VEHICULAR CROSSINGS REQUIRE DETECTABLE WARNINGS. DETECTABLE WARNING ZONES SHALL BE INSTALLED SIX (6) INCHES (OR THE HORIZONTAL THICKNESS OF THE ADJACENT CURB) FROM THE FLOW LINE OF THE CURB, EXTEND INTO THE SIDEWALK FOR A 24" DEPTH, AND COVER THE COMPLETE WIDTH OF THE SIDEWALK OR RAMP AREA. DETECTABLE WARNING ZONES SHALL CONFORM TO THE SLOPE REQUIREMENTS OF THE RAMP, LANDING, OR ACCESSIBLE ROUTE AS DEFINED IN THE SPECIFIED DETAIL. DETECTABLE WARNINGS SHALL NOT BE INSTALLED IN FLARED SIDES, IF THE RAMP INCLUDES FLARED SIDES. TRUNCATED DOME PANELS (WET SET, REPLACEABLE), PART #24RADREP AT RADIUS LOCATIONS AND #2460REP AT STRAIGHT LOCATIONS, AS MANUFACTURED BY ADA SOLUTIONS, INC., BILLERICA, MA, SHALL BE INSTALLED. SHOP DRAWINGS FOR TRUNCATED DOME AND CONCRETE SLAB REQUIRED.
5. ALL LANDING AREAS SHALL BE 4 FEET WIDE BY 4 FEET LONG (MINIMUM DIMENSIONS). THE SLOPE OF THE LANDING AREA SHALL NOT EXCEED A 1:48 IN ANY DIRECTION.
6. ALL ACCESSIBLE ROUTE SLOPES ADJOINING THE LANDING AREA, EXCLUDING THE CURB RAMP, SHALL NOT EXCEED A SLOPE OF 1:20 UNLESS OTHERWISE NOTED.
7. THE WET-SET TRUNCATED DOME PANEL SHALL BE INSTALLED IN A 5" THICK, 4,000 PSI, FIBER REINFORCED CONCRETE SLAB. THE SLAB SHALL BE WIDER THAN THE PANEL BY 6".



TYPICAL GUARD RAIL
N.T.S.



HANDICAP RAMP
N.T.S.



DETAIL "A"
NTS

1 LB. FIBER MESH SHALL BE ADDED TO EVERY CUBIC YARD OF CONCRETE. THE CONCRETE WILL CONTAIN THE MAXIMUM AMOUNT OF WATER TO BE OF A CONSISTENCY THAT THE CONCRETE WILL MAINTAIN THE SHAPE OF THE CURB SECTION WITHOUT SUPPORT. THIS MIX ALSO MEETS THE READY MIX REQUIREMENTS OF ASTM C94 AND WILL MEET OR EXCEED 4,000 PSI IN 28 DAYS.

THE PAVEMENT SHALL BE THOROUGHLY CLEANED TO REMOVE DUST, DIRT AND OIL BEFORE APPROVED ADHESIVE IS APPLIED PER MANUFACTURERS SPECIFICATIONS.

THE FIBER REINFORCED MIX SHALL BE FED INTO THE VIBRATING HOPPER WHERE IT IS COMPACTED INTO THE DESIRED MOLD PROFILE.

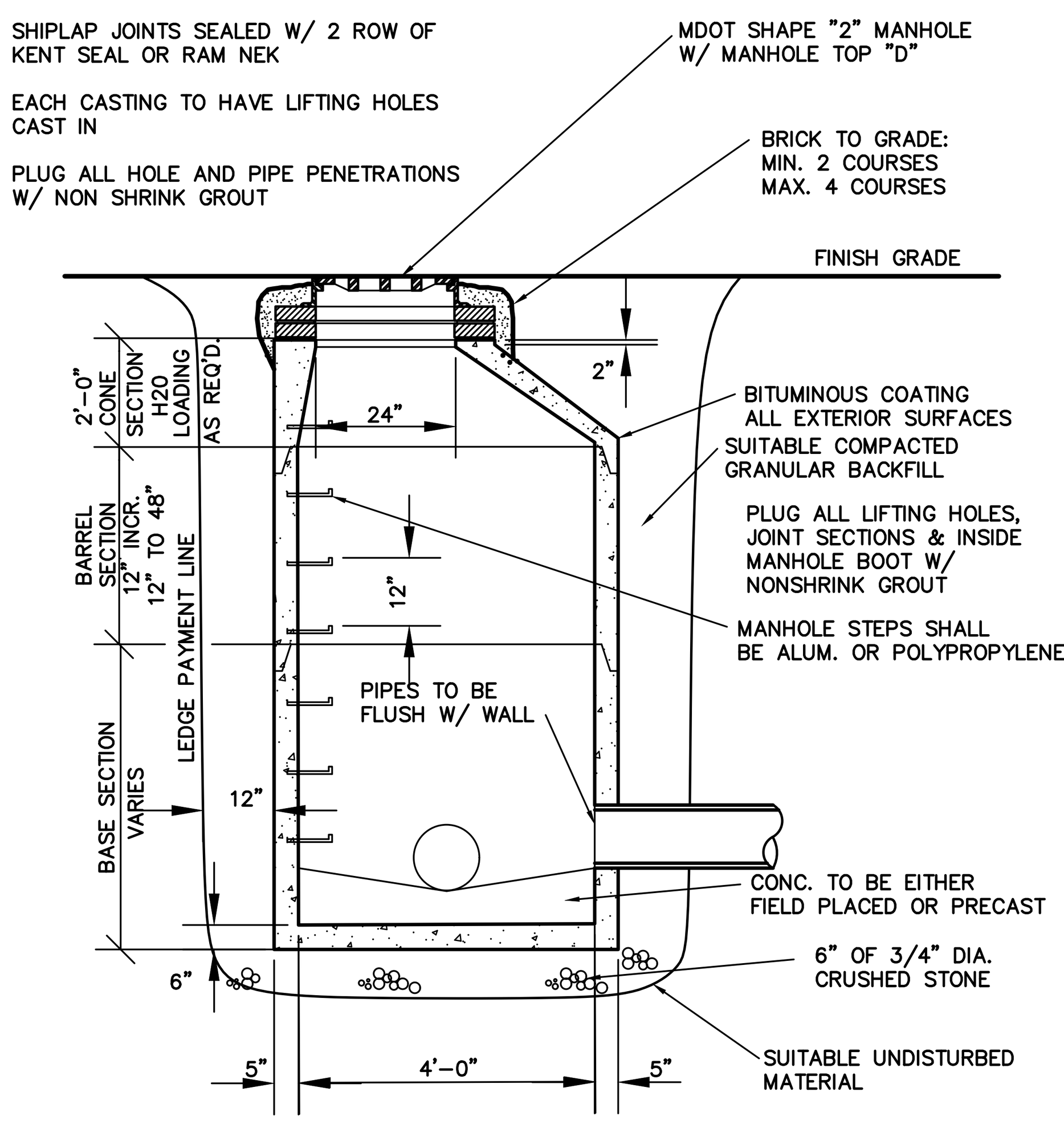
FRESHLY EXTRUDED CURB SHALL BE LIGHTLY TOUCHED UP WITH A STEEL HAND TROWEL. CONTROL JOINTS SHALL BE TOOLED AS SOON AS POSSIBLE AT 9' INTERVALS. ADDITIONAL CONTROL JOINTS ADDED ON RADIUS AS NECESSARY.

THE FINISHED CURB WILL BE COATED WITH AN APPROVED CURING COMPOUND.

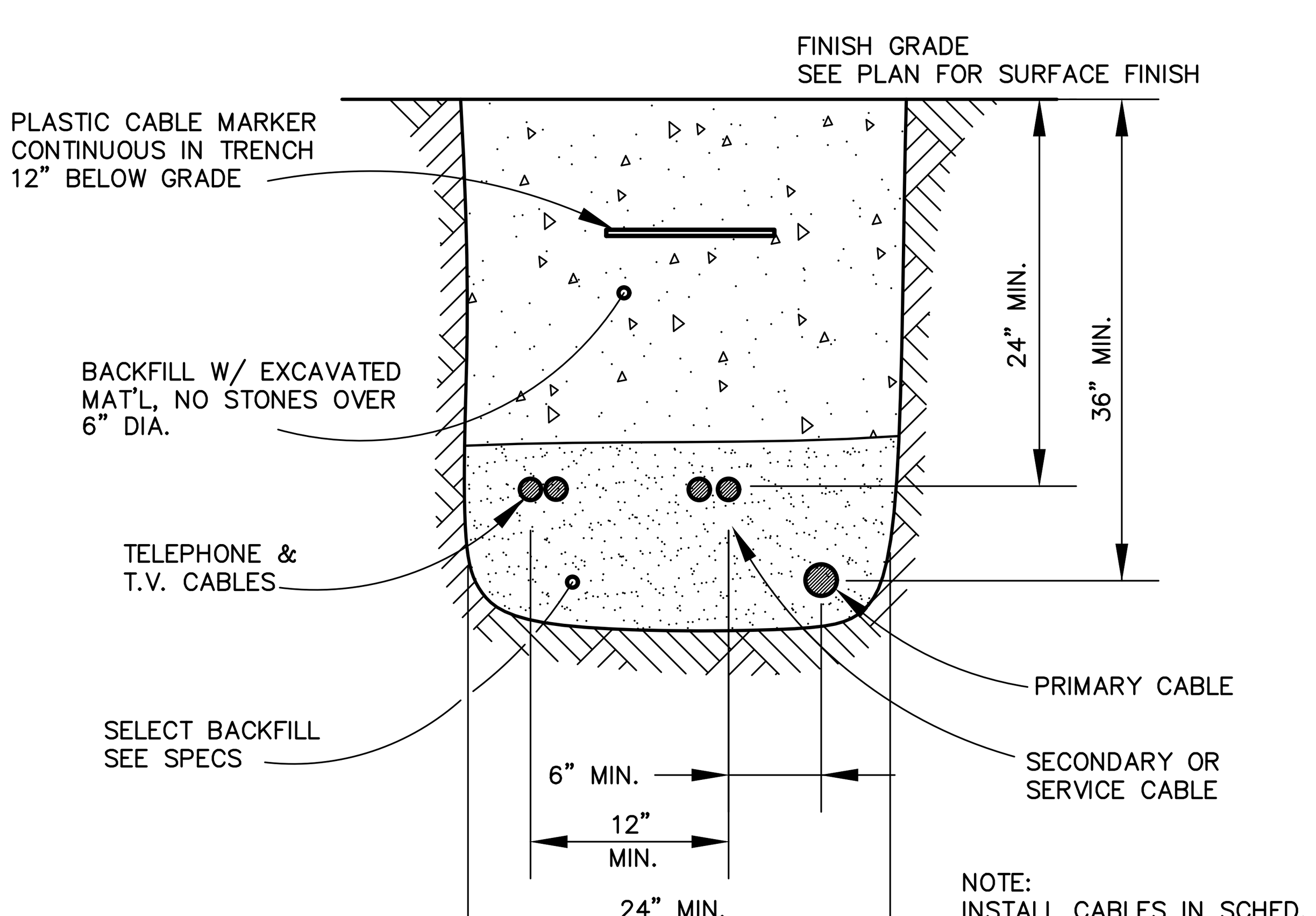
FOLLOW MANUFACTURERS INSTALLATION INSTRUCTIONS AND TEMPERATURE RESTRICTIONS.

EXTRUDED CONCRETE CURB
NTS

NOTES:
CONCRETE: 4000 PSI AFTER 28 DAYS
REINFORCING: H-20 LOADING
SHIPLAP JOINTS SEALED W/ 2 ROW OF KENT SEAL OR RAM NEK
EACH CASTING TO HAVE LIFTING HOLES CAST IN
PLUG ALL HOLE AND PIPE PENETRATIONS W/ NON SHRINK GROUT

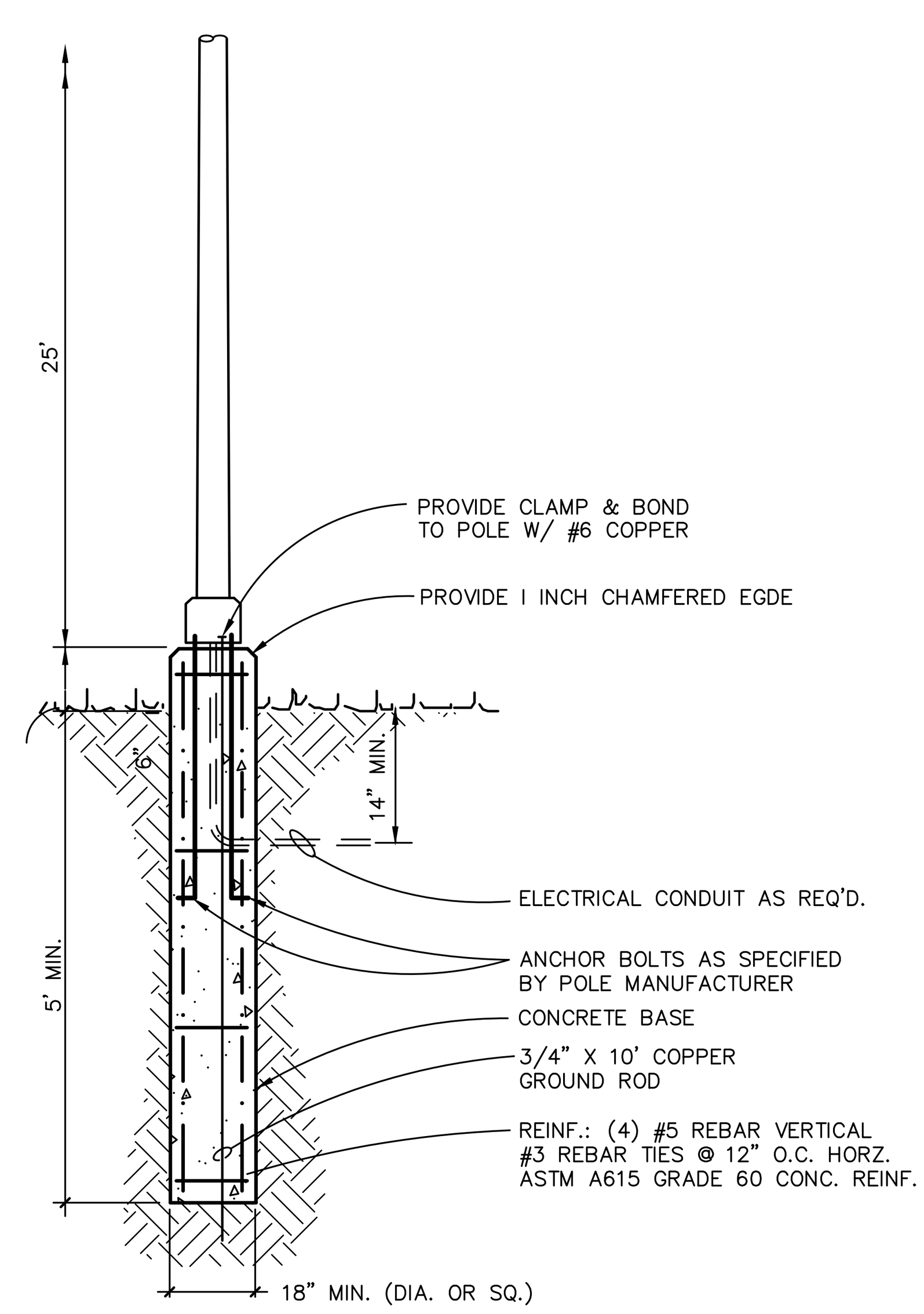


PRECAST CONCRETE DRAIN MANHOLE
N.T.S.

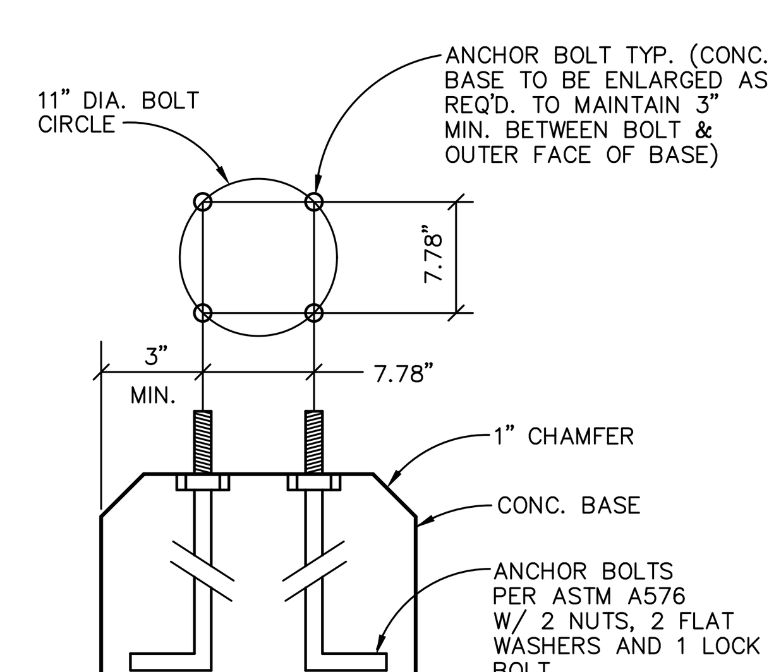


NOTE:
INSTALL CABLES IN SCHED. 40 CONDUIT UNDER ALL PAVED AREAS.

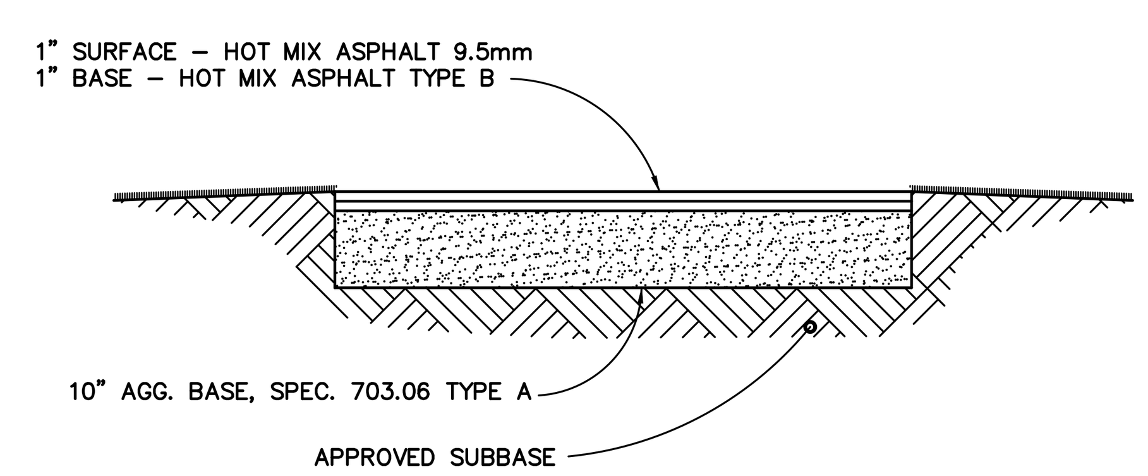
UNDERGROUND CABLE TRENCH
NTS



LIGHT POLE DETAIL
N.T.S.

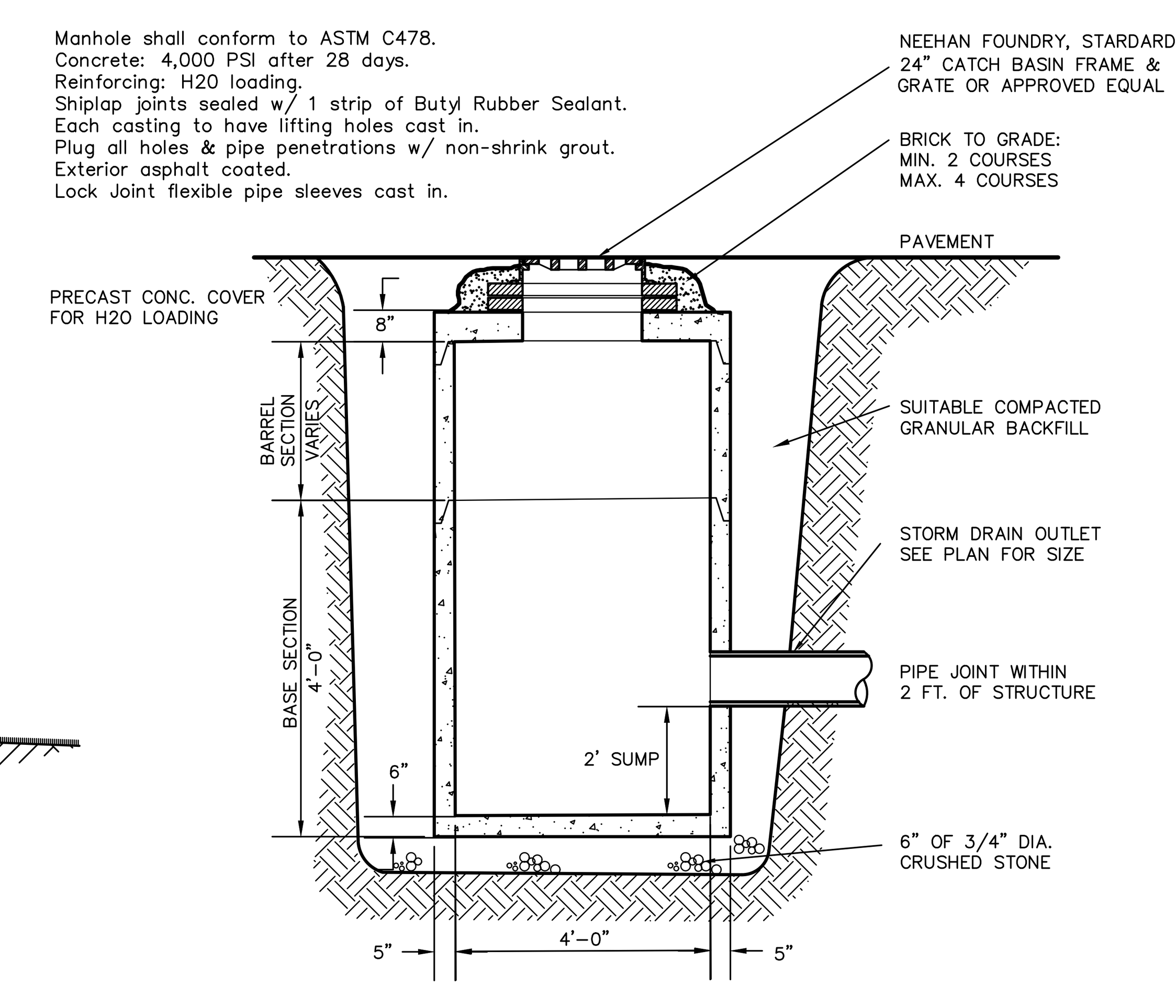


BOLT LAYOUT & MATERIALS



TYPICAL SIDEWALK SECTION
NTS

Manhole shall conform to ASTM C478.
Concrete: 4,000 PSI after 28 days.
Reinforcing: H20 loading.
Shiplap joints sealed w/ 1 strip of Butyl Rubber Sealant.
Each casting to have lifting holes cast in.
Plug all holes & pipe penetrations w/ non-shrink grout.
Exterior asphalt coated.
Lock Joint flexible pipe sleeves cast in.



PRECAST CONCRETE CATCH BASIN DETAIL
N.T.S.

REVISION

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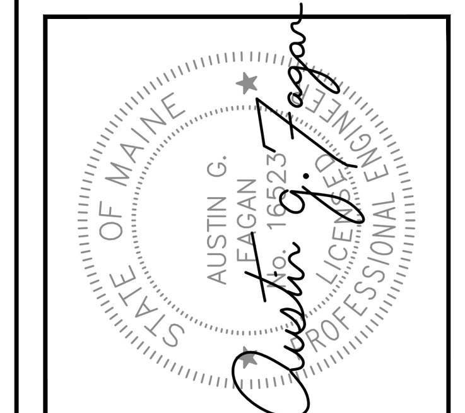


BH2M
Berry, Huff, McDonald, Milligan Inc.
Engineers, Surveyors
380B Main Street
Gorham, Maine 04038
Tel. (207) 839-2771
www.bh2m.com

FOR
Owen Baxter
18 Hunnewell Road
Scarborough, Maine 04074

PROJECT DETAILS
CONSTRUCTION SERVICES
6 CUMMINGS ROAD
SCARBOROUGH, MAINE

DESIGNED	DATE
A. Fagan	June 2023
DRAWN	SCALE
Dept.	As Noted
CHECKED	JOB. NO.
A. Fagan	23055

SHEET
6

NOTES:

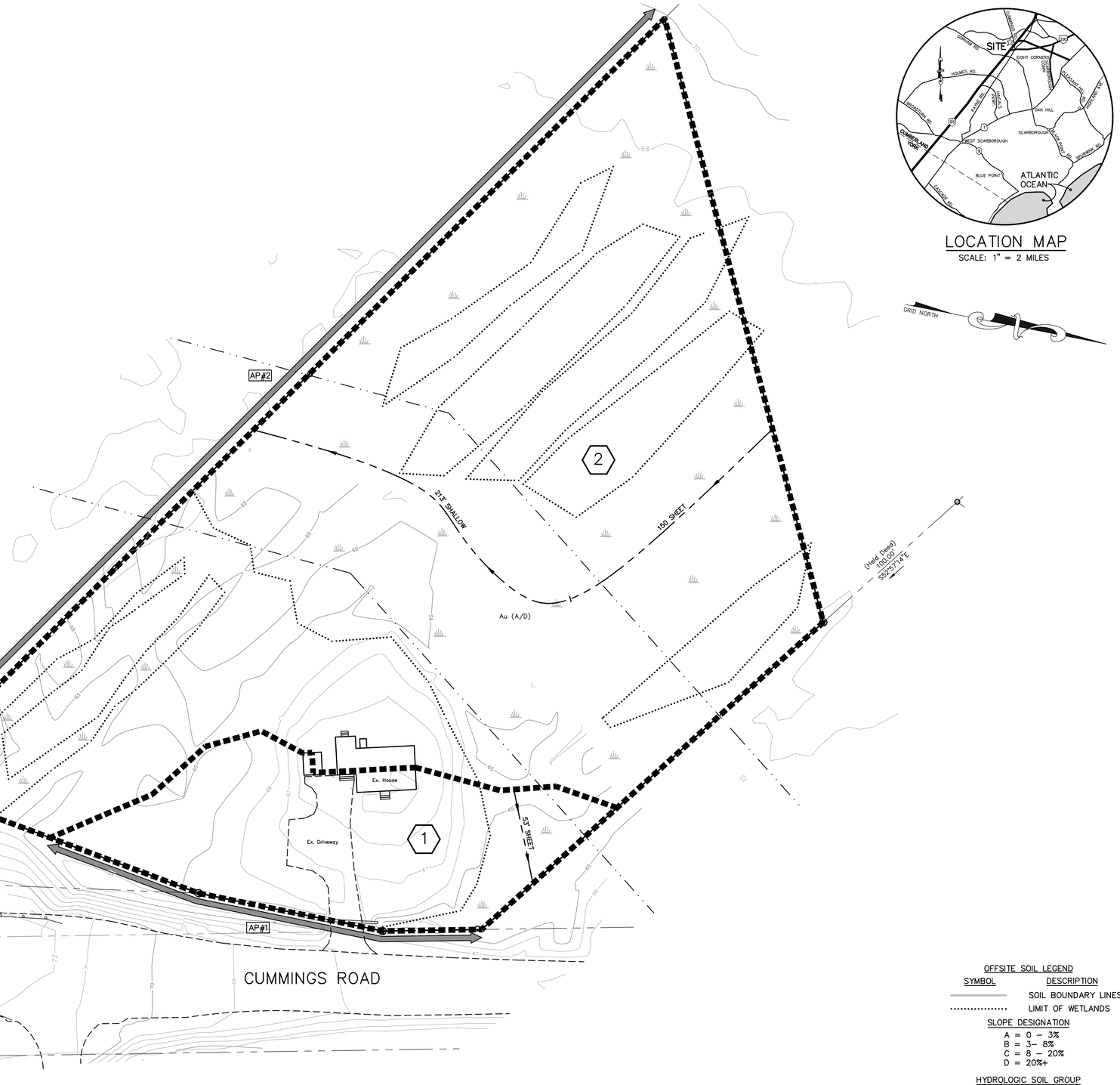
1. SOILS MAPPING: CUMBERLAND COUNTY MEDIUM INTENSITY SOILS MAPS

2. TEST PITS: MARK HAMPTON ASSOCIATES PORTLAND, MAINE

3. SEE STORMWATER MANAGEMENT REPORT FOR ADDITIONAL INFORMATION.

PRE-DEVELOPMENT FLOWS

ANALYSIS POINT	2 YR. STORM	10 YR. STORM	25 YR. STORM
AP-1	0.55 CFS	1.04 CFS	1.44 CFS
AP-2	1.41 CFS	2.92 CFS	4.23 CFS



LOCATION MAP
SCALE: 1" = 2 MILES

LEGEND

SYMBOL	DESCRIPTION
/12	POND
12	DRAINAGE SUB AREA
R12	REACH
	DRAINAGE AREA BOUNDARY
	TIME OF CONCENTRATION ROUTE
	LIMIT OF WETLANDS
64	EXISTING CONTOUR
64	PROPOSED CONTOUR

Scale: 1" = 30'
30' 0 30' 60'

OFFSITE SOIL LEGEND

SYMBOL	DESCRIPTION
	SOIL BOUNDARY LINES
	LIMIT OF WETLANDS

SLOPE DESIGNATION
A = 0 – 3%
B = 3– 8%
C = 8 – 20%
D = 20%+

HYDROLOGIC SOIL GROUP

SOIL	GROUP
Au	A/D*

* ASSUME C SOIL FOR UPLANDS BASED ON TEST PIT.

SOIL DESIGNATION
AdB(A)
SLOPE DESIGNATION
HYDROLOGIC SOIL GROUP
HYDROLOGIC SOIL

REVISION NO.	DATE	DESCRIPTION
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STATE OF MAINE AUSTIN G. FAGAN LICENSED PROFESSIONAL ENGINEER
Austin G. Fagan

BH2M
Berry, Huff, McDonald, Milligan Inc.
Engineers, Surveyors
380B Main Street Tel. (207) 839-2771
Gorham, Maine 04038 www.bh2m.com

FOR
Owen Baxter
18 Hunnewell Road
Scarborough, Maine 04074

PRE DEVELOPMENT WATERSHED

OWEN BAXTER

6 CUMMINGS ROAD
SCARBOROUGH, MAINE

DESIGNED	DATE
W. Pelkey	May 2023
DRAWN	SCALE
Dept.	1" = 40'
CHECKED	JOB. NO.
A. Fagan	23055

SHEET
A

Subcatchment ID	Proposed Impervious Area (sq. ft.)	Proposed Lawn Area (sq. ft.)	Proposed Developed Area (sq. ft.)	Existing Impervious Area (sq.ft.)	Existing Vegetated Area (sq.ft.)	Treated Linear Impervious Area (sq. ft.)	Treated Linear Developed Area (sq. ft.)	BMP ID
1	1,458	4,180	5,638	0	3,072	0	0	None
2	0	4,287	4,287	0	83,695	0	0	None
2A	0	3,713	3,713	0	0	0	3,713	Filter A
2B	6,646	307	6,953	0	0	6,646	6,953	Filter A
2C	4,877	278	5,155	0	0	4,877	5,155	Filter A
2D	0	2,438	2,438	0	0	0	2,438	Filter B
2E	4,166	71	4,237	0	0	4,166	4,237	Filter B
2F	3,616	432	4,048	0	0	3,616	4,048	Filter B
2G	1,336	100	1,436	0	0	1,336	1,436	Filter B
2H	3,748	240	3,988	0	0	3,748	3,988	Filter B
			0			0	0	
Total	**25,847**	**16,046**	**41,893**	**0**	**86,767**	**24,389**	**31,968**	

Treatment Summary	
Proposed Linear Impervious Area (sq. ft.)=	25,847
Proposed Linear Developed Area (sq. ft.)=	41,893
Treated Linear Impervious Area (sq. ft.)=	24,389
Treated Linear Developed Area (sq. ft.)=	36,157
Impervious Area Treatment % =	**94.36%**
Developed Area Treatment % =	**86.31%**

NOTES:

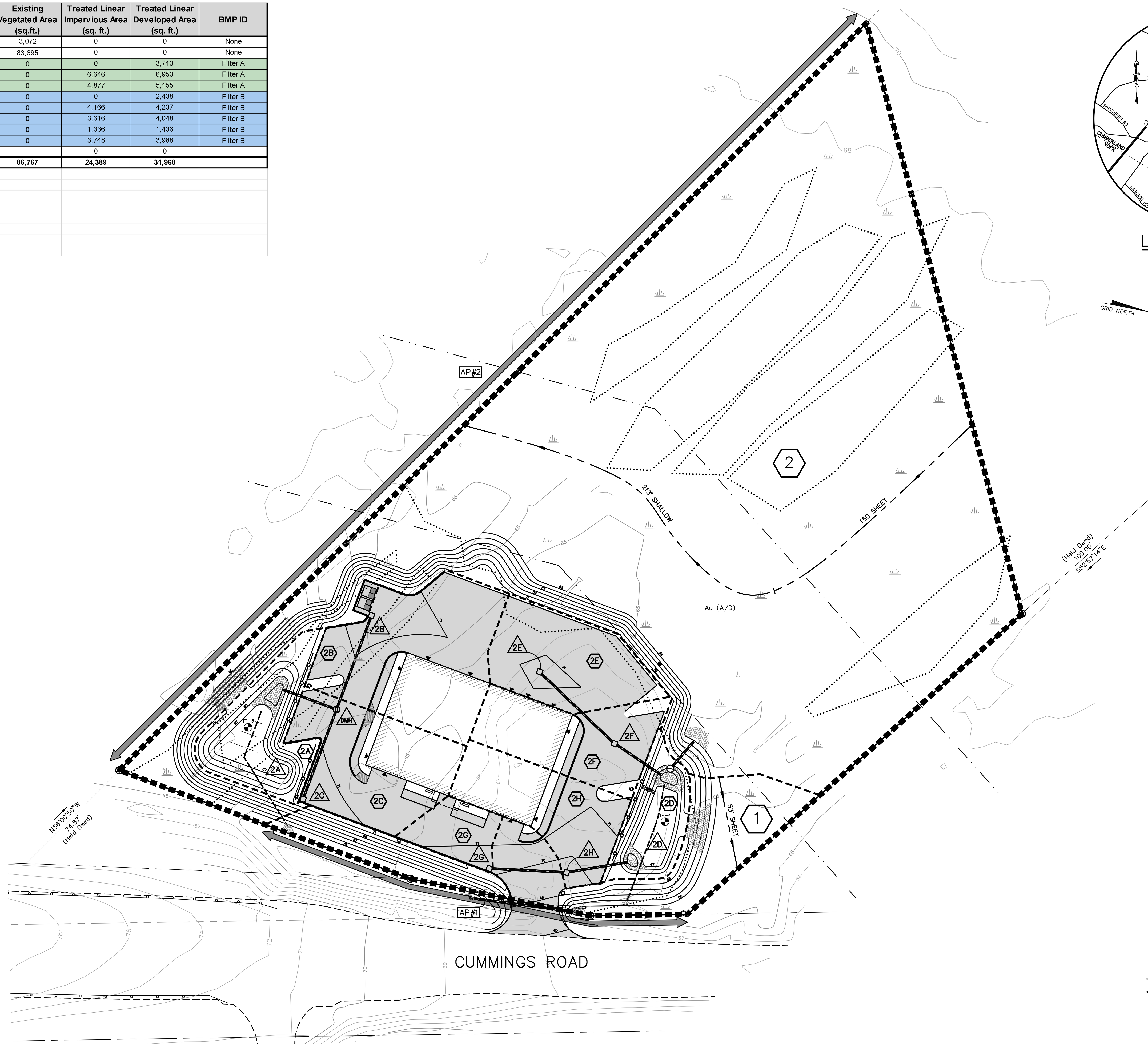
1. SOILS MAPPING: CUMBERLAND COUNTY MEDIUM INTENSITY SOILS MAPS
2. TEST PITS: MARK HAMPTON ASSOCIATES PORTLAND, MAINE
3. SEE STORMWATER MANAGEMENT REPORT FOR ADDITIONAL INFORMATION.

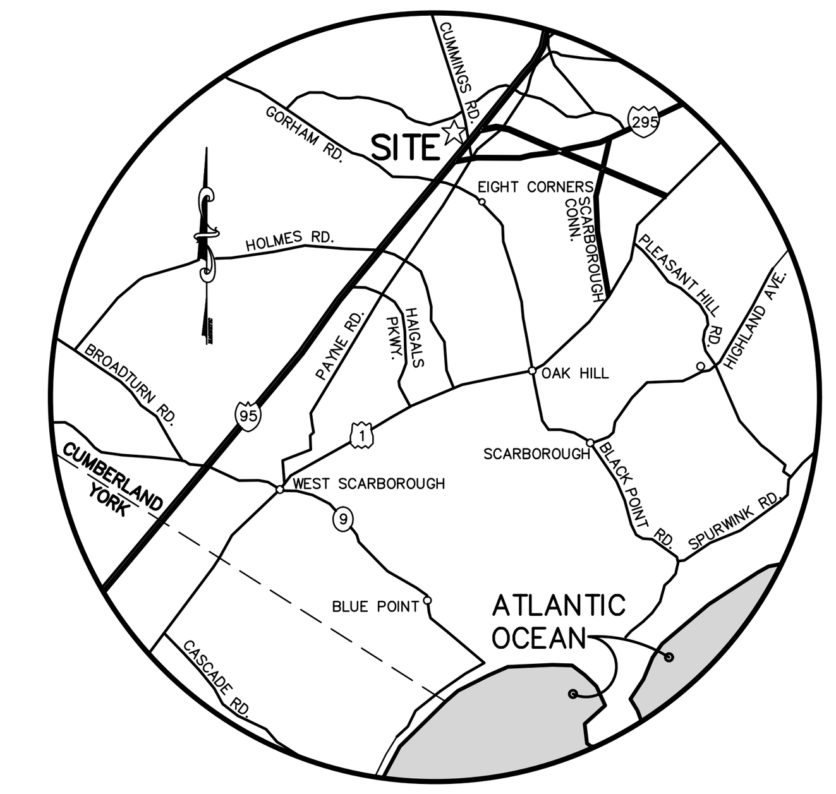
POST DEVELOPMENT FLOWS
FLOW RATE = POST (PRE)

ANALYSIS POINT	2 YR. STORM	10 YR. STORM	25 YR. STORM
AP-1	0.27 (0.55) CFS	0.65 (1.04) CFS	0.96 (1.44) CFS
AP-2	1.26 (1.41) CFS	2.80 (2.92) CFS	3.99 (4.23) CFS

Tc SUMMARY
(FOR THOSE NOT LABELED ON THE PLAN)

SUBCATCHMENT	Tc ROUTE
SA-2A	6 MIN. DIRECT ENTRY
SA-2B	6 MIN. DIRECT ENTRY
SA-2C	6 MIN. DIRECT ENTRY
SA-2D	6 MIN. DIRECT ENTRY
SA-2E	6 MIN. DIRECT ENTRY
SA-2F	6 MIN. DIRECT ENTRY
SA-2G	6 MIN. DIRECT ENTRY
SA-2H	6 MIN. DIRECT ENTRY





LOCATION MAP
SCALE: 1" = 2 MILES

LEGEND

SYMBOL	DESCRIPTION
12	POND
12	DRAINAGE SUB AREA
R12	REACH
	DRAINAGE AREA BOUNDARY
	TIME OF CONCENTRATION ROUTE
	LIMIT OF WETLANDS
64	EXISTING CONTOUR
64	PROPOSED CONTOUR

OFFSITE SOIL LEGEND

SYMBOL	DESCRIPTION
	SOIL BOUNDARY LINES
	LIMIT OF WETLANDS

SLOPE DESIGNATION
A = 0 – 3%
B = 3– 8%
C = 8 – 20%
D = 20%+

HYDROLOGIC SOIL GROUP

SOIL	GROUP
Au	A/D*

* ASSUME C SOIL FOR UPLANDS BASED ON TEST PIT.

SOIL DESIGNATION
AdB(A): SLOPE DESIGNATION; HYDROLOGIC SOIL GROUP; HYDROLOGIC SOIL

NO.	DATE	REVISION DESCRIPTION
1	7/21/23	Submitted To Town for Pre Application Review
2	9/12/23	Submitted Sketch Plan For Planning Board Review
3	2/20/24	Submitted Site Plan For Planning Board Review
4	6/12/24	Revised Per PWD Comments
5	8/5/24	Revised Per PWD, Town, & DEP Comments
6	8/21/24	Revised Per Town, & DEP Comments

STATE OF MAINE
AUSTIN G. FAGAN
No. 16523
LICENSED PROFESSIONAL ENGINEER

BH2M
Berry, Huff, McDonald, Milligan Inc.
Engineers, Surveyors
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Gorham, Maine 04038
Tel. (207) 839-2771
www.bh2m.com

FOR
Owen Baxter
18 Hunnewell Road
Scarborough, Maine 04074

POST DEVELOPMENT WATERSHED

OWEN BAXTER

6 CUMMINGS ROAD
SCARBOROUGH, MAINE

DESIGNED	DATE
W. Pelkey	May 2023
DRAWN	SCALE
Dept.	1" = 40'
CHECKED	JOB. NO.
A. Fagan	23055

SHEET
B