



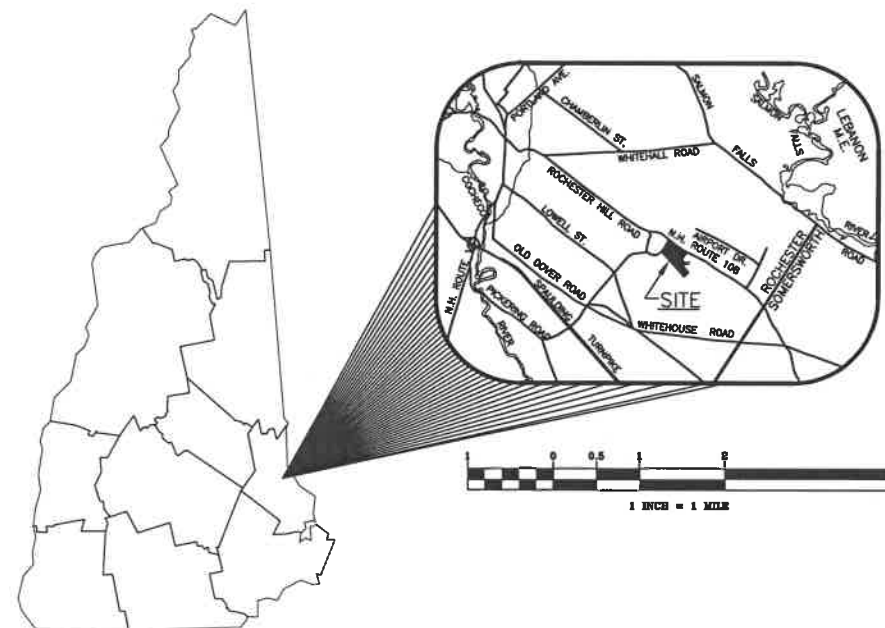
CHAMPLIN PLACE

215 ROCHESTER HILL ROAD

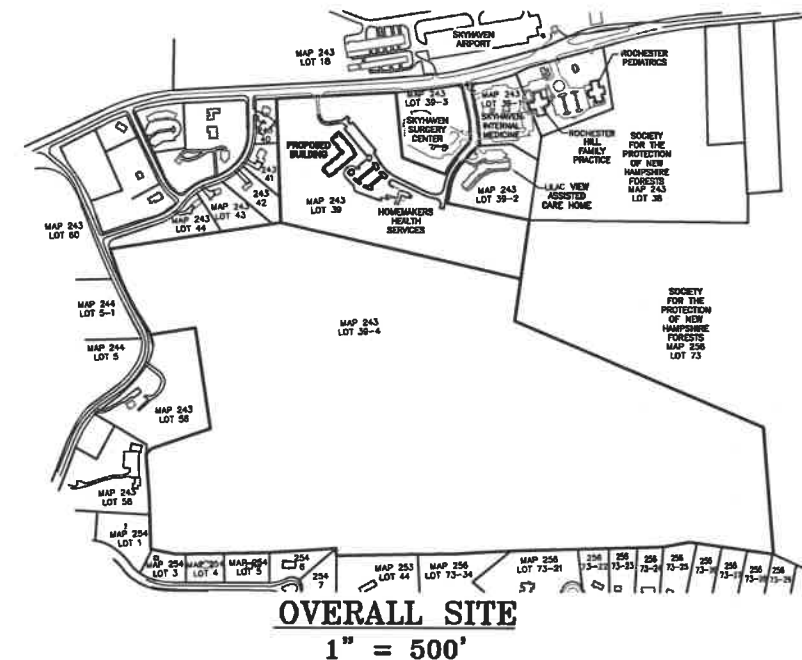
PREPARED FOR

EASTER SEALS NH, INC.

MARCH 11, 2022



NEW HAMPSHIRE FISH AND GAME AOT PERMIT CONDITIONS RELATED TO THREATENED AND ENDANGERED SPECIES:
 IF CONSTRUCTION IS NOT COMPLETED BY APRIL 15TH OF 2022, THE PROJECT SITE SHALL BE KEPT MOWED DURING CONSTRUCTION ACTIVITIES UNTIL SEPTEMBER 1ST TO DETER BREEDING BIRD ACTIVITY. MIGRATORY BIRD NESTS ARE PROTECTED UNDER NH AND FEDERAL LAWS.
 ALL MANUFACTURED EROSION AND SEDIMENT CONTROL PRODUCTS, EXCEPT FOR SILT FENCE INSTALLED IN ACCORDANCE WITH ENW-WQ 1508.04, UTILIZED FOR, BUT NOT LIMITED TO, SLOPE PROTECTION, RUNOFF DIVERSION, SLOPE INTERRUPTION, PERIMETER CONTROL, INLET PROTECTION, CHECK DAMS, AND SEDIMENT TRAPS SHALL NOT CONTAIN WELDED PLASTIC, PLASTIC, OR MULTI-FILAMENT OR MONOFILAMENT POLYPROPYLENE NETTING OR MESH. SEE PLAN SHEET(S) C-11 FOR SPECS.
 ALL OBSERVATIONS OF THREATENED OR ENDANGERED SPECIES SHALL BE REPORTED IMMEDIATELY TO THE NEW HAMPSHIRE FISH AND GAME DEPARTMENT NONGAME AND ENDANGERED WILDLIFE ENVIRONMENTAL REVIEW PROGRAM BY PHONE AT 603-271-2461 AND BY EMAIL AT NHFORVIEW@WILDLIFE.NH.GOV. EMAIL SUBJECT LINE: NHB21-0110, CHAMPLIN PLACE, WILDLIFE SPECIES OBSERVATION. PHOTOGRAPHS SHALL BE PROVIDED FOR VERIFICATION AS FEASIBLE.
 THE NEW HAMPSHIRE FISH AND GAME DEPARTMENT SHALL HAVE ACCESS TO THE PROPERTY DURING THE TERM OF THE PERMIT.



CIVIL ENGINEERS

NORWAY PLAINS ASSOCIATES, INC.
 2 CONTINENTAL BOULEVARD
 ROCHESTER, NEW HAMPSHIRE 03867
 (603) 335-3948

ARCHITECTS

MARKET SQUARE ARCHITECTS, PLLC
 104 CONGRESS STREET, SUITE 203
 PORTSMOUTH, NEW HAMPSHIRE 03801
 (603) 501-0202

LANDSCAPING ARCHITECTS

TIGHE & BOND
 177 CORPORATION DRIVE
 PORTSMOUTH, NEW HAMPSHIRE 03801
 (603) 294-9234

OWNER OF RECORD

TAX MAP 243, LOT 39
 OWNER OF RECORD:
 EASTER SEALS NEW HAMPSHIRE, INC.
 555 AUBURN STREET
 MANCHESTER, NH 03103
 SCRD BOOK 4801, PAGE 784

APPLICANT

EASTER SEALS NEW HAMPSHIRE, INC.
 555 AUBURN STREET
 MANCHESTER, NH 03103

STATE AND FEDERAL PERMITS:

STATE OF NEW HAMPSHIRE PERMIT NUMBERS:

AOT-2089
 NHDES ALTERATION OF TERRAIN: NOT REQUIRED
 NHDES WETLANDS PERMIT: NOT REQUIRED
 NHDES DAM PERMIT: NOT REQUIRED
 NHDES SUBDIVISION PERMIT: NOT REQUIRED
 NHDES SUBSURFACE SYSTEMS PERMIT: D2022-0108
 NHDES WASTEWATER PERMIT: NOT REQUIRED
 NHDOT DRIVEWAY/ENTRANCE PERMIT: 06-389-849

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES):

NPDES PERMITS ARE ONLY REQUIRED FOR PROJECTS MEETING THE DISTURBED AREA CRITERIA BELOW AND HAVING A POINT SOURCE STORMWATER DISCHARGE FROM THE SITE TO AN ADJACENT WETLAND OR WATER BODY (I.E. CULVERT, SWALE, ETC. OUTLETING TO A WETLAND, CREEK, STREAM OR RIVER).

NPDES PERMIT: REQUIRED

NPDES PERMITS CONSIST OF A NOTICE OF INTENT (NOI) FILED WITH THE ENVIRONMENTAL PROTECTION AGENCY AT LEAST 14 DAYS PRIOR TO CONSTRUCTION COMMENCING AND A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) BEING PREPARED, KEPT ON SITE AND FOLLOWED BY THE CONTRACTOR.

FOR STATUS OF THIS PERMIT, CONTACT THE PROJECT GENERAL CONTRACTOR.

FINAL APPROVAL BY
 ROCHESTER PLANNING BOARD

CERTIFIED BY: *[Signature]* DATE: 4/15/22
 APPROVED: 7/7/21

SHEET INDEX

	COVER	
SHEET S-1	SUBDIVISION PLAN	1" = 200'
SHEET S-2	SUBDIVISION TOPOGRAPHY PLAN	1" = 200'
SHEET E-1	EXISTING FEATURES	1" = 50'
SHEET E-2	DEMOLITION PLAN	1" = 50'
SHEET C-1	OVERALL SITE PLAN	1" = 100'
SHEET C-2	SITE LAYOUT PLAN	1" = 30'
SHEET C-3	GRADING AND DRAINAGE PLAN	1" = 50'
SHEET C-4	EROSION AND SEDIMENTATION CONTROL PLAN	1" = 50'
SHEET C-5	UTILITY PLAN	1" = 50'
SHEET C-6	PARKING AND SIDEWALK DETAILS	AS SHOWN
SHEET C-7	CONSTRUCTION DETAILS	AS SHOWN
SHEET C-8	DRAINAGE DETAILS	AS SHOWN
SHEET C-9	INFILTRATION BASIN #1 DETAILS	AS SHOWN
SHEET C-10	INFILTRATION BASIN #2 DETAILS	AS SHOWN
SHEET C-11	TEMPORARY EROSION AND SEDIMENTATION CONTROL DETAILS	AS SHOWN
SHEET C-12	PERMANENT EROSION AND SEDIMENTATION CONTROL DETAILS	AS SHOWN
SHEET C-13	SEWER GRAVITY PROFILE	AS SHOWN
SHEET C-14	SEWER DETAILS	AS SHOWN
SHEET C-15	PUMP STATION DETAILS	AS SHOWN
SHEET C-16	SEWER FORCE MAIN DETAILS	AS SHOWN
SHEET C-17	UTILITY DETAIL	AS SHOWN
SHEET C-18	GUARDRAIL DETAIL	AS SHOWN
SHEET L-1	LIGHTING PLAN AND DETAILS	1" = 50'
SHEET L-101	SITE LANDSCAPING PLAN	1" = 50'
SHEET L-501	SITE LANDSCAPING DETAILS	AS SHOWN

FILE NO. 102
 PLAN NO. C-3154
 DWG. NO. 19249 SP-1
 F.B. NO.

31 Mooney Street, Alton, N.H. 603-875-3948

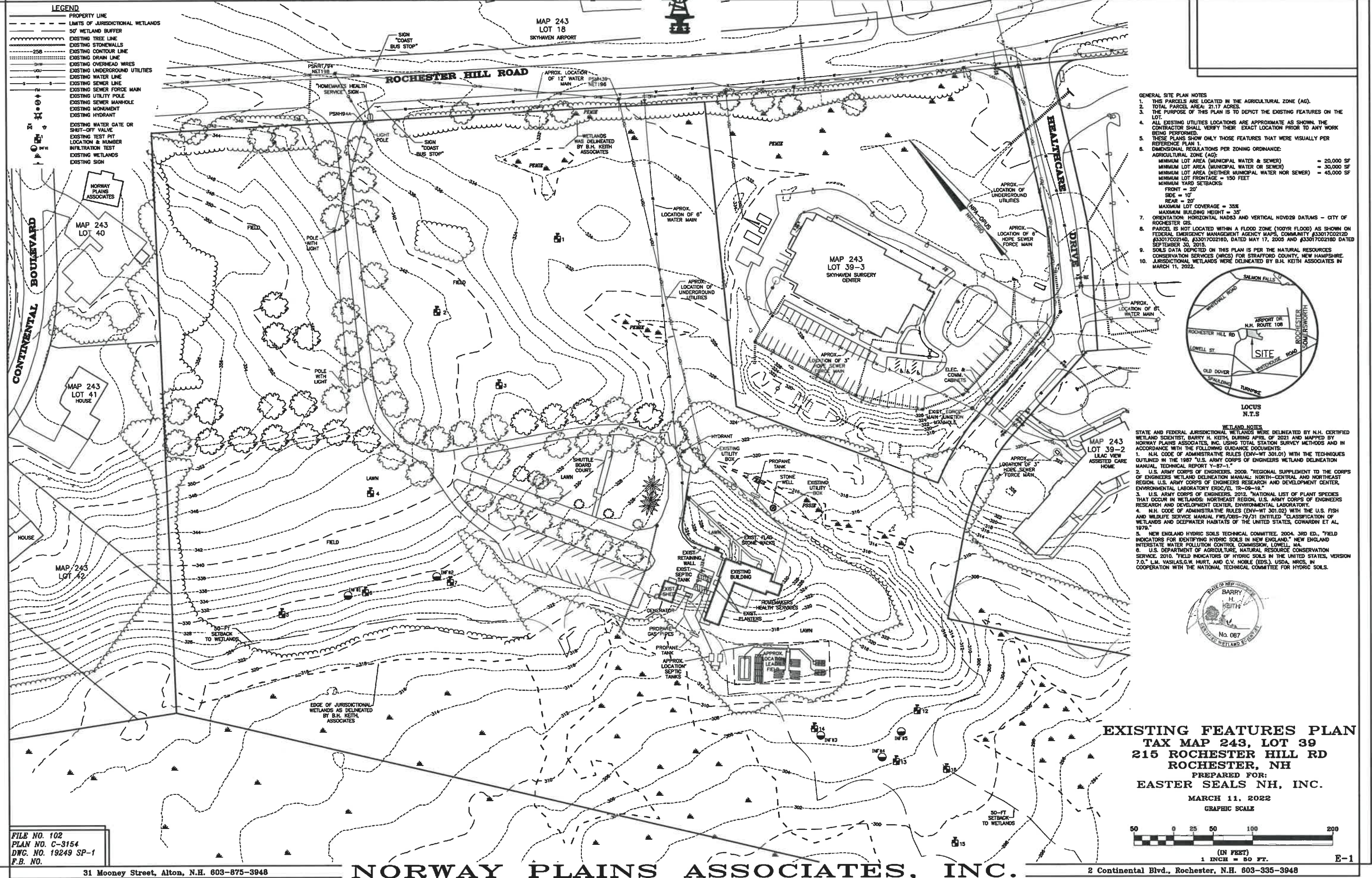
NORWAY PLAINS ASSOCIATES, INC.

2 Continental Blvd., Rochester, N.H. 603-335-3948

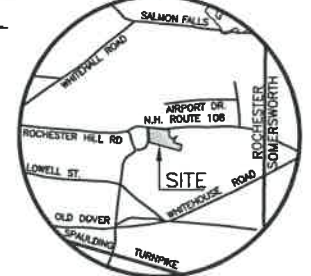
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LAND SURVEYORS

CIVIL ENGINEERS



- GENERAL SITE PLAN NOTES
1. THIS PARCELS ARE LOCATED IN THE AGRICULTURAL ZONE (AG).
 2. TOTAL PARCEL AREA: 21.17 ACRES.
 3. THE PURPOSE OF THIS PLAN IS TO DEPICT THE EXISTING FEATURES ON THE LOT.
 4. ALL EXISTING UTILITIES LOCATIONS ARE APPROXIMATE AS SHOWN. THE CONTRACTOR SHALL VERIFY THEIR EXACT LOCATION PRIOR TO ANY WORK BEING PERFORMED.
 5. THESE PLANS SHOW ONLY THOSE FEATURES THAT WERE USUALLY PER REFERENCE PLAN 1.
 6. DIMENSIONAL REGULATIONS PER ZONING ORDINANCE:
AGRICULTURAL ZONE (AG):
MINIMUM LOT AREA (MUNICIPAL WATER & SEWER) = 20,000 SF
MINIMUM LOT AREA (MUNICIPAL WATER OR SEWER) = 30,000 SF
MINIMUM LOT AREA (NEITHER MUNICIPAL WATER NOR SEWER) = 45,000 SF
MINIMUM LOT FRONTAGE = 150 FEET
MINIMUM YARD SETBACKS:
FRONT = 20'
SIDE = 10'
REAR = 20'
MAXIMUM LOT COVERAGE = 35%
MAXIMUM BUILDING HEIGHT = 35'
 7. ORIENTATION: HORIZONTAL NAD83 AND VERTICAL NGVD29 DATUMS - CITY OF ROCHESTER GIS.
 8. PARCEL IS NOT LOCATED WITHIN A FLOOD ZONE (100YR FLOOD) AS SHOWN ON FEDERAL EMERGENCY MANAGEMENT AGENCY MAPS, COMMUNITY #33017002120 #33017002140, #33017002160, DATED MAY 17, 2005 AND #33017002180 DATED SEPTEMBER 30, 2015.
 9. SOILS DATA DEPICTED ON THIS PLAN IS PER THE NATURAL RESOURCES CONSERVATION SERVICES (NRCS) FOR STRAFFORD COUNTY, NEW HAMPSHIRE. JURISDICTIONAL WETLANDS WERE DELINEATED BY B.H. KEITH ASSOCIATES IN MARCH 11, 2022.

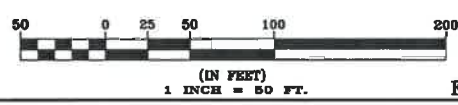


LOCUS
N.T.S.

- WETLAND NOTES
- STATE AND FEDERAL JURISDICTIONAL WETLANDS WERE DELINEATED BY N.H. CERTIFIED WETLAND SCIENTIST, BARRY H. KEITH, DURING APRIL OF 2021 AND MAPPED BY NORWAY PLAINS ASSOCIATES, INC. USING TOTAL STATION SURVEY METHODS AND IN ACCORDANCE WITH THE FOLLOWING GUIDANCE DOCUMENTS:
1. N.H. CODE OF ADMINISTRATIVE RULES (COM-INT 301.01) WITH THE TECHNIQUES OUTLINED IN THE 1987 "U.S. ARMY CORPS OF ENGINEERS WETLAND DELINEATION MANUAL, TECHNICAL REPORT Y-87-1."
 2. U.S. ARMY CORPS OF ENGINEERS, 2008, "REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTH-CENTRAL AND NORTHEAST REGION, U.S. ARMY CORPS OF ENGINEERS RESEARCH AND DEVELOPMENT CENTER, ENVIRONMENTAL LABORATORY ERDC/EL TR-09-18."
 3. U.S. ARMY CORPS OF ENGINEERS, 2012, "NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: NORTHEAST REGION, U.S. ARMY CORPS OF ENGINEERS RESEARCH AND DEVELOPMENT CENTER, ENVIRONMENTAL LABORATORY."
 4. N.H. CODE OF ADMINISTRATIVE RULES (COM-INT 301.02) WITH THE U.S. FISH AND WILDLIFE SERVICE MANUAL, FW/OBS-79/01 ENTITLED "CLASSIFICATION OF WETLANDS AND DEEPWATER HABITATS OF THE UNITED STATES, COWARDIN ET AL, 1979."
 5. NEW ENGLAND HYDRIC SOILS TECHNICAL COMMITTEE, 2004, 3RD ED., "FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND," NEW ENGLAND INTERSTATE WATER POLLUTION CONTROL COMMISSION, LOWELL, MA.
 6. U.S. DEPARTMENT OF AGRICULTURE, NATURAL RESOURCE CONSERVATION SERVICE, 2010, "FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, VERSION 7.0," L.M. VASILAS, G.W. HURT, AND C.V. NOBLE (EDS.), USDA, NRCS, IN COOPERATION WITH THE NATIONAL TECHNICAL COMMITTEE FOR HYDRIC SOILS.



EXISTING FEATURES PLAN
TAX MAP 243, LOT 39
215 ROCHESTER HILL RD
ROCHESTER, NH
PREPARED FOR:
EASTER SEALS NH, INC.
MARCH 11, 2022
GRAPHIC SCALE



E-1

FILE NO. 102
PLAN NO. C-3154
DWG. NO. 19249 SP-1
P.B. NO.

31 Mooney Street, Alton, N.H. 603-875-3948

NORWAY PLAINS ASSOCIATES, INC.

2 Continental Blvd., Rochester, N.H. 803-335-3948

Drawing Location: N:\2019\19249\DWG\SP-1.dwg
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LAND SURVEYORS

CIVIL ENGINEERS

MAP 243
LOT 18
SKYHAVEN AIRPORT

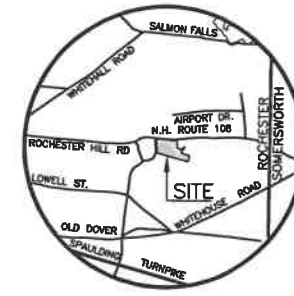


ROCHESTER HILL ROAD

HEALTHCARE DRIVE

CONTINENTAL BOULEVARD

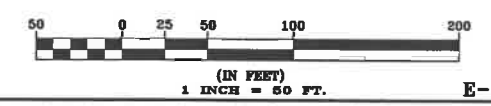
- GENERAL NOTES
1. THE PURPOSE OF THIS PLAN IS TO DEPICT THE AREAS THAT WILL BE DEMOLISHED.
 2. ALL EXISTING UTILITIES LOCATIONS ARE APPROXIMATE AS SHOWN. THE CONTRACTOR SHALL VERIFY THEIR EXACT LOCATION PRIOR TO ANY WORK BEING PERFORMED.
 3. INSTALL ALL EROSION AND SEDIMENTATION CONTROLS PRIOR TO THE START OF DEMOLITION. SEE EROSION AND SEDIMENTATION PLAN SHEET C-4.
 4. ORIENTATION: HORIZONTAL NAD83 AND VERTICAL NGVD29 DATUMS.



LOCUS
N.T.S.

- LEGEND
- PROPERTY LINE
 - LIMITS OF JURISDICTIONAL WETLANDS
 - EXISTING TREE LINE
 - EXISTING STONEWALLS
 - EXISTING RAILROAD TRACKS
 - EXISTING CONTOUR LINE
 - EXISTING DRAIN LINE
 - EXISTING OVERHEAD WIRES
 - EXISTING WATER LINE
 - EXISTING SEWER LINE
 - EXISTING UTILITY POLE
 - EXISTING SEWER MANHOLE
 - EXISTING MONUMENT
 - EXISTING HYDRANT
 - EXISTING WATER GATE OR SHUT-OFF VALVE
 - EXISTING TEST PIT LOCATION & NUMBER
 - EXISTING WETLANDS
 - EXISTING SIGN

DEMOLITION PLAN
TAX MAP 243, LOT 39
215 ROCHESTER HILL RD
ROCHESTER, NH
PREPARED FOR:
EASTER SEALS NH, INC.
MARCH 11, 2022
GRAPHIC SCALE



FILE NO. 102
PLAN NO. C-3154
DWG. NO. 19249 SP-1
F.B. NO.

31 Mooney Street, Alton, N.H. 603-875-3948

NORWAY PLAINS ASSOCIATES, INC.

2 Continental Blvd., Rochester, N.H. 603-335-3948

E-2

LEGEND

- PROPERTY LINE
- - - JURISDICTIONAL WETLANDS
- EXISTING TREE LINE
- EXISTING OVERHEAD WIRES
- EXISTING HYDRANT
- EXISTING UTILITY POLE
- EXISTING SEWER MAN HOLE
- EXISTING CATCH BASIN
- EXISTING LIGHT POLES
- PROPOSED BUILDING
- PROPOSED PAVEMENT
- PROPOSED PAVEMENT WITH CURBING
- PROPOSED TREE LINE

CAREFULLY REVIEW ALL SHEETS OF THIS PACKAGE TO INSURE PROPER CONSTRUCTION. SPECIFIC SITE CONDITIONS SHOULD BE EXPLORED PRIOR TO CONSTRUCTION. CONTACT BOTH THE DESIGN ENGINEER AND THE PROJECT OWNER FOR ANY AVAILABLE GEOTECHNICAL OR HYDROGEOLOGICAL INFORMATION AVAILABLE BUT NOT CONTAINED WITHIN THE PLAN SET. IF THERE ARE ANY QUESTIONS WITH THE DESIGN PRESENTED IN THIS PLAN SET PLEASE CONTACT THE ENGINEERING STAFF AT NORWAY PLAINS ASSOCIATES, INC. (603)-335-3948.



- GENERAL SITE PLAN NOTES
- THIS PARCELS ARE LOCATED IN THE AGRICULTURAL ZONE (AG).
 - TOTAL PARCEL AREA: 21.17 ACRES.
 - THE PURPOSE OF THIS PLAN IS TO DEPICT THE PROPOSED FEATURES ON THE LOT.
 - ALL EXISTING UTILITIES LOCATIONS ARE APPROXIMATE AS SHOWN. THE CONTRACTOR SHALL VERIFY THEIR EXACT LOCATION PRIOR TO ANY WORK BEING PERFORMED.
 - THESE PLANS SHOW ONLY THOSE FEATURES THAT WERE VISUALLY PER REFERENCE PLAN 1.
 - DIMENSIONAL REGULATIONS PER ZONING ORDINANCE:
- AGRICULTURAL ZONE (AG):
- | | |
|--|-------------|
| MINIMUM LOT AREA (MUNICIPAL WATER & SEWER) | = 20,000 SF |
| MINIMUM LOT AREA (MUNICIPAL WATER OR SEWER) | = 30,000 SF |
| MINIMUM LOT AREA (NEITHER MUNICIPAL WATER NOR SEWER) | = 45,000 SF |
| MINIMUM LOT FRONTAGE | = 150' |
| MINIMUM YARD SETBACKS: | |
| FRONT | = 20' |
| SIDE | = 10' |
| REAR | = 20' |
| MAXIMUM LOT COVERAGE | = 35% |
| MAXIMUM BUILDING HEIGHT | = 35' |
- ORIENTATION: HORIZONTAL NAD83 AND VERTICAL NAVD83 DATUMS - CITY OF ROCHESTER GIS.
- PARCEL IS NOT LOCATED WITHIN A FLOOD ZONE (100YR FLOOD) AS SHOWN ON FEDERAL EMERGENCY MANAGEMENT AGENCY MAPS, COMMUNITY #33017002120, #33017002140, #33017002160, DATED MAY 17, 2005 AND #33017002180 DATED SEPTEMBER 30, 2015.
 - THE SITE-SPECIFIC SOIL MAP WAS COMPLETED BY JOSEPH W. NOEL, NH CSS#017 ON MARCH 2021.
 - JURISDICTIONAL WETLANDS WERE DELINEATED BY B.H. KEITH ASSOCIATES IN MARCH 11, 2022.
 - REQUIRED PARKING CALCULATIONS:

REQUIRED PARKING PER ROCHESTER SITE REVIEW REGULATIONS (SECTION 10)

RESIDENTIAL: 2 SPACES PER DWELLING UNIT	= 130 SPACES
2 SPACE PER DWELLING UNITS X 65 UNITS	= 130 SPACES
OFFICE USE: 3 SPACES PER 1,000 SQUARE FEET OF GROSS FLOOR AREA	
9,400 SF OFFICE USE X 3 SPACES/1,000 SF	= 28 SPACES
	158 SPACES

PROPOSED PARKING CALCULATIONS:

RESIDENTIAL PARKING:

1 SPACE PER ONE-BEDROOM UNITS AND 2 SPACES PER TWO-BEDROOM UNITS	
59 ONE-BEDROOM UNITS X 1 SPACE / UNIT	= 59 SPACES
6 TWO-BEDROOM UNITS X 2 SPACES / UNIT	= 12 SPACES
TOTAL PROPOSED RESIDENTIAL PARKING SPACES	= 71 SPACES

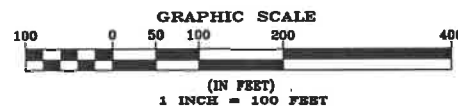
OFFICE PARKING:

9,400 SF OFFICE USE X 3 SPACES/1,000 SF	= 28 SPACES
TOTAL NUMBER OF REQUIRED SPACES	= 99 SPACES
TOTAL NUMBER OF PROPOSED SPACE PROVIDED	= 109 SPACES

- THIS DEVELOPMENT MUST BE IN COMPLIANCE WITH ALL APPLICABLE LAW - INCLUDING ALL PERTINENT PROVISIONS OF THE CITY OF ROCHESTER SITE PLAN REGULATIONS - UNLESS OTHERWISE WAIVED.
- THE APPLICANT SHALL OBTAIN A STORMWATER MANAGEMENT PERMIT FROM THE PUBLIC WORKS DEPARTMENT (UNLESS DETERMINED TO BE UNNECESSARY BY THE CITY ENGINEER) AND FOLLOW THE REQUIREMENTS OF THE CITY ORDINANCE CHAPTER 21B. THE PERMITTEE SHALL PREPARE A WRITTEN PLAN FOR MANAGING EXISTING WATER THAT ENTERS THE CONSTRUCTION SITE AND SHALL PRESENT IT TO THE INSPECTION ENGINEER AT THE PRE-CONSTRUCTION MEETING. THE PERMITTEE SHALL FOLLOW BEST MANAGEMENT PRACTICES TO PREVENT EROSION IN AREAS WHERE SOIL HAS BEEN DISTURBED.
- ACCESS INTO THE SITE FROM FIRE DEPARTMENT AT ALL TIMES DURING THE CONSTRUCTION PROCESS. THIS IS THE SOLE RESPONSIBILITY OF THE APPLICANT/DEVELOPER TO MAINTAIN THIS ACCESS. PLEASE CONTACT THE FIRE DEPARTMENT AT 330-7182 WITH ANY QUESTIONS ABOUT ACCESS REQUIREMENTS.
- SNOW SHALL NOT BE PILED IN SUCH A MANNER AS TO BLOCK THE VISIBILITY OF THE VEHICLES ON NH ROUTE 108 AND HEALTHCARE DRIVE.
- ALL OUTSIDE CONSTRUCTION ACTIVITY RELATED TO THE DEVELOPMENT OF THIS SITE IS RESTRICTED TO THE HOURS OF 7:00 A.M. TO 6:00 P.M. MONDAY THROUGH FRIDAY AND 8:00 A.M. TO 5:00 P.M. SATURDAY.
- ALL UTILITIES MUST BE UNDERGROUND, INCLUDING UTILITIES EXTENDED ONTO THE SITE FROM EXISTING POLES NEAR THE SITE. HOWEVER, IF THE ONLY POLE NEARBY IS ACROSS THE STREET, ONE ADDITIONAL POLE MAY BE PLACED ON/NEAR THE PROPERTY TO ALLOW FOR OVERHEAD EXTENSION OF WIRES ACROSS THE STREET. UTILITIES EXTENDING FROM ANY SUCH NEW POLE MUST BE UNDERGROUND. THE APPLICANT MAY WORK WITH THE CITY STAFF AS APPROPRIATE TO ADDRESS THIS REQUIREMENT.
- THE CODE ENFORCEMENT OFFICER ADMINISTERS THE CITY OF ROCHESTER SIGN ORDINANCE. SIGNAGE SUBMITTED AS PART OF THIS SITE PLAN PACKAGE IS STILL SUBJECT TO HIS REVIEW TO ENSURE COMPLIANCE WITH THAT ORDINANCE AND OTHER APPLICABLE CODES, INDEPENDENT FROM THIS SITE PLAN REVIEW. IN ADDITION, IF ANY SIGNIFICANT CHANGE OR EXPANSION IS PROPOSED TO THE DESIGN OF THE APPROVED FREESTANDING SIGN OR TO THE OVERALL ADVERTISING SIGNAGE FOR THE SITE (NOT INCLUDING ACCESSORY SIGNAGE, SUCH AS HANDICAP PARKING SIGNS), THE PROPOSED SIGN DESIGNS MUST BE PRESENTED TO THE PLANNING BOARD FOR REVIEW PRIOR TO ISSUANCE OF THOSE SIGN PERMITS. A SIGN PERMIT MUST BE OBTAINED PRIOR TO INSTALLATION OF ANY SIGNS ON SITE.
- ALL ELEMENTS SHOWN ON THE APPROVED SITE PLAN MUST BE PROPERLY COMPLETED PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY, UNLESS APPROPRIATE SURETY IS PLACED WITH THE PLANNING DEPARTMENT.
- NOTE THAT THIS APPROVAL IS FOR THE SITE PLAN ONLY. LIFE SAFETY CODE AND BUILDING CODE REVIEW WILL BE REQUIRED AS PART OF THE BUILDING PERMIT PROCESS WHEN THE CONSTRUCTION PLANS ARE SUBMITTED. VARIOUS REQUIREMENTS REGARDING THE BUILDING DESIGN POSSIBLY INCLUDING A SPRINKLER SYSTEM - MAY BE SPECIFIED AT THAT TIME.
- THE SEWER IMPACT CONTRIBUTION MUST BE PAID IN FULL TO THE CODE ENFORCEMENT DEPARTMENT, PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY. THE SEWER IMPACT IS A ONE TIME PAYMENT OF \$2.00 PER GALLON FOR AVERAGE DAILY FLOW.
- THIS PROJECT PROPOSED TO DISTURB OVER ONE ACRE OF EXISTING GROUND COVER AND MEETS OTHER SPECIFIC REQUIREMENTS RELATED TO PERMIT CRITERIA FOR EPA NPDES COMPLIANCE. THE CONTRACTOR IS RESPONSIBLE FOR DEVELOPMENT AND IMPLEMENTATION OF A STORM WATER POLLUTION PREVENTION PLAN (SWPPP). SUBMISSION OF A NOTICE OF INTENT (NOI) TO EPA, INSPECTIONS AND MAINTENANCE OF SEDIMENTATION MEASURES, DOCUMENTATION OF MAINTENANCE ACTIVITIES, AND SUBMISSION OF A NOTICE OF TERMINATION (NOT) TO EPA. THE CONTRACTOR IS ALSO RESPONSIBLE TO COMPLY WITH ANY OR ALL OTHER ASPECTS OF THE CURRENT FEDERAL, STATE AND LOCAL STORM WATER OR NPDES REGULATIONS OR REQUIREMENTS.
- A SIGN PERMIT APPLICATION TO THE CITY OF ROCHESTER WILL BE REQUIRED PRIOR TO ERECTION OF A SIGN.
- THE PROPOSED SENIOR HOUSING FACILITY WILL NEED TO HAVE PERMITTED FIRE SERVICE AND DOMESTIC SERVICE BACKFLOW PREVENTION DEVICES. DEPARTMENT OF PUBLIC WORKS WILL DETERMINE THE HAZARD CLASS (LOW OR HIGH) OF BOTH BACKFLOW PREVENTION DEVICES BASED UPON PROPOSED USE, BUILDING PLANS, SPECIFICATIONS, AND SCHEMATICS OF THE DOMESTIC/FIRE SERVICES. A CERTIFICATE OF OCCUPANCY WILL NOT BE APPROVED FOR THE FACILITY UNTIL THE DOMESTIC AND FIRE SERVICE BACKFLOW DEVICES ARE FULLY PERMITTED WHICH REQUIRES A PASSING TEST ON BOTH DEVICES BY A CERTIFIED BACKFLOW PREVENTION DEVICE TESTING FIRM.

OVERALL SITE PLAN
TAX MAP 243, LOT 39
215 ROCHESTER HILL RD
ROCHESTER, NH

PREPARED FOR:
EASTER SEALS NH, INC.
MARCH 11, 2022

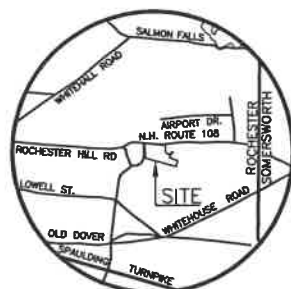


FINAL APPROVAL BY
ROCHESTER PLANNING BOARD

CERTIFIED BY: _____ DATE: _____

SITE REVIEW APPROVAL

WHETHER OR NOT OTHERWISE EXPRESSLY RECITED ON THIS SITE REVIEW PLAN, THE SITE REVIEW APPROVAL GRANTED IS CONDITIONED ON FAITHFUL AND DILIGENT ADHERENCE BY THE OWNER/DEVELOPER TO ALL WRITTEN AND VERBAL REPRESENTATIONS MADE REGARDING SUCH MATTERS AS USE, NUMBER OF EMPLOYEES, DRAINAGE, CONSTRUCTION, ETC. AS WELL AS ALL OTHER TERMS, CONDITIONS, PROVISIONS, REQUIREMENTS AND SPECIFICATIONS OF THE SITE PLAN REVIEW REGULATIONS OF THE CITY OF ROCHESTER, N.H., AS AMENDED, IN EFFECT ON THE DATE OF APPROVAL. ANY VARIATION FROM THE PROPOSAL AS APPROVED MAY ALSO REQUIRE THE SUBMISSION AND APPROVAL OF A NEW SITE REVIEW APPLICATION.



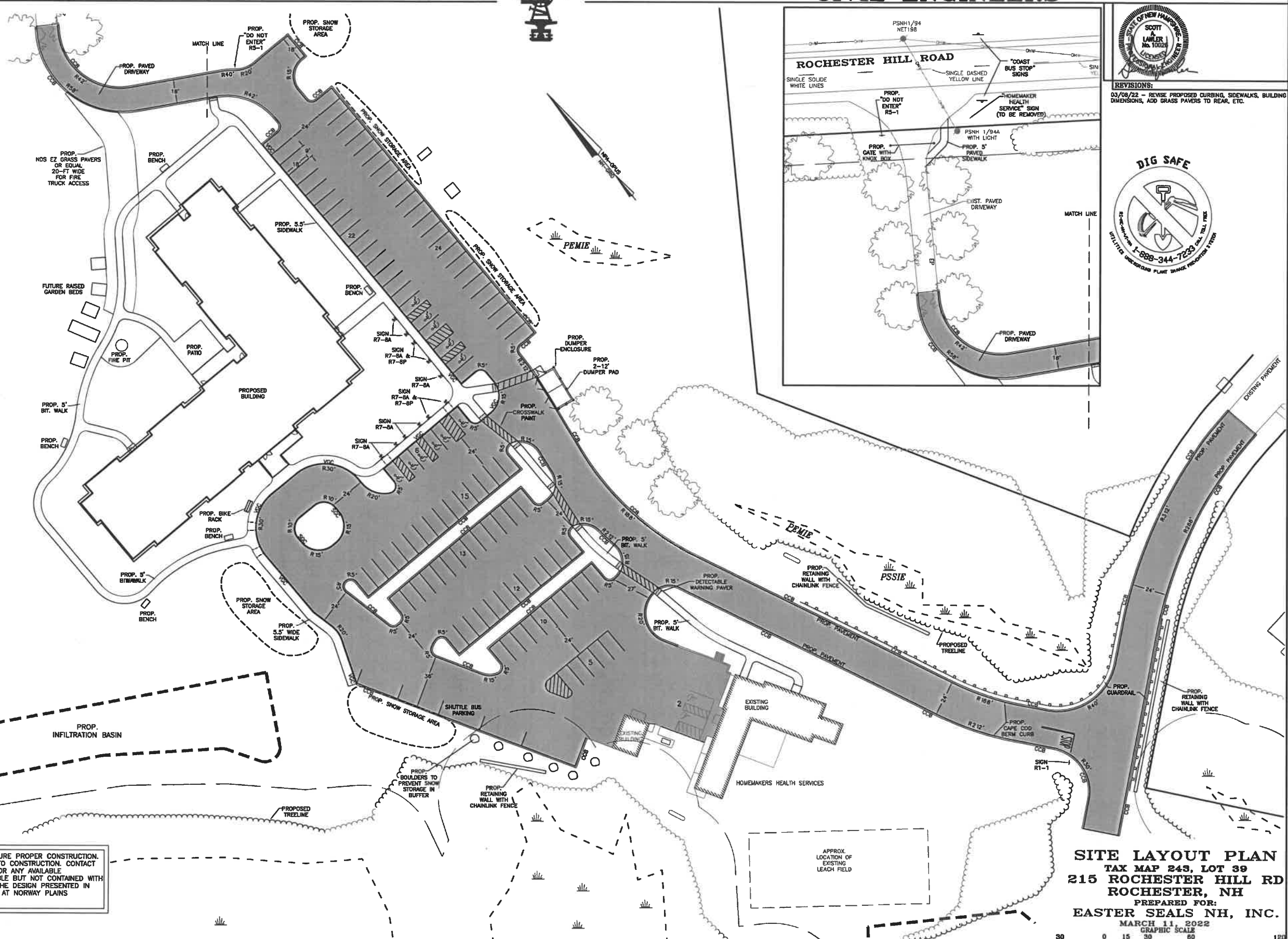
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31 Mooney Street, Alton, N.H. 603-875-3948

NORWAY PLAINS ASSOCIATES, INC.

2 Continental Blvd., Rochester, N.H. 603-335-3948



2 Continental Blvd., Rochester, N.H. 603-335-3948

MARCH 11, 2022
GRAPHIC SCALE
30 0 15 30 60 120
1 INCH = 30 FEET
C-2

CAREFULLY REVIEW ALL SHEETS OF THIS PACKAGE TO INSURE PROPER CONSTRUCTION. SPECIFIC SITE CONDITIONS SHOULD BE EXPLORED PRIOR TO CONSTRUCTION. CONTACT BOTH THE DESIGN ENGINEER AND THE PROJECT OWNER FOR ANY AVAILABLE GEOTECHNICAL OR HYDROGEOLOGICAL INFORMATION AVAILABLE. IF THERE ARE ANY QUESTIONS WITH THE DESIGN PRESENTED IN THIS PLAN SET PLEASE CONTACT THE ENGINEERING STAFF AT NORWAY PLAINS ASSOCIATES, INC. (603)-335-3948.



REVISIONS:

03/06/22 - REVISE PROPOSED CURBING, SIDEWALKS, BUILDING AND WALKWAY LOCATIONS.

NOTE: RUNOFF MUST BE DIRECTED TO TEMPORARY PRACTICES UNTIL STORMWATER DAMPS ARE STABILIZED

PROPOSED AREA DRAINS

AD1 RM = 336.90' INV. IN = 334.75' (DRIP EDGE) INV. OUT = 334.75' (AD2) L = 30' 12"CPP	AD5 RM = 336.75' INV. IN = 334.50' (DRIP EDGE) INV. OUT = 334.50' (CB1B) L = 30' 12"CPP	AD8 RM = 336.75' INV. IN = 334.75' INV. OUT = 334.00' (AD9) L = 50' 12"CPP
AD2 RM = 336.90' INV. OUT = 335.00' (AD1) L = 50' 12"CPP	AD6 (DELETED)	AD9 RM = 336.50' INV. IN = 333.50' INV. OUT = 333.00' (FES3) L = 70' 12"CPP
AD3 RM = 336.90' INV. IN = 335.00' (DRIP EDGE) INV. OUT = 335.00' (AD4) L = 47' 12"CPP	AD7 RM = 335.50' INV. OUT = 333.00' (CB2B) L = 10' 12"CPP	
AD4 RM = 336.75' INV. IN = 334.75' (AD3) INV. OUT = 334.50' (CB1A) L = 30' 12"CPP		

PROPOSED DRAINAGE PIPES

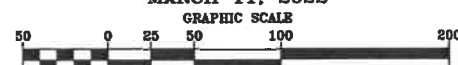
1A-PROP. PIPE 1A 12" CPP L = 18.0'	1B-PROP. PIPE 1B 12" CPP L = 27.0'	1C-PROP. PIPE 1C 12" CPP L = 15.0'
2A-PROP. PIPE 2A 12" CPP L = 15.3'	2B-PROP. PIPE 2B 12" CPP L = 22.3'	2C-PROP. PIPE 2C 12" CPP L = 40.0'
3A-PROP. PIPE 3A 12" CPP L = 103.0'	3B-PROP. PIPE 3B 12" CPP L = 35.6'	3C-PROP. PIPE 3C 15" CPP L = 58.1'
4A-PROP. PIPE 4A 12" CPP L = 14.8'	4B-PROP. PIPE 4B 12" CPP L = 40.0'	4C-PROP. PIPE 4C 15" CPP L = 35.2'
5A-PROP. PIPE 5A 15" CPP L = 19.0'		
6A-PROP. PIPE 6A 18" CPP L = 75.0'		
7A-PROP. PIPE 7A 18" CPP L = 60.0'		
8A-PROP. PIPE 8A 12" CPP L = 19.0'		
9A-PROP. PIPE 9A 12" CPP L = 22.5'		
10A-PROP. PIPE 10A 24" CPP L = 27.0'		
11A-PROP. PIPE 11A 24" CPP L = 35.0'		
12A-PROP. PIPE 12A 24" CPP L = 182.6'		
13A-PROP. PIPE 13A 24" CPP L = 78.5'		
14A-PROP. PIPE 14A 30" CPP L = 38.3'		
15A-PROP. PIPE 15A 24" CPP L = 20.0'		
16A-PROP. PIPE 16A 30" CPP L = 38.0'		
17A-PROP. PIPE 17A 30" CPP L = 50.0'		
18A-PROP. PIPE 18A 30" CPP L = 312.00' (HEADWALL)		
19A-PROP. PIPE 19A 30" CPP L = 65'		

PROPOSED DRAINAGE STRUCTURES

CB1A RM = 335.25' INV. IN = 332.00' (AD1) INV. OUT = 331.25' (CB2A) L = 18' 12"CPP	CB4A RM = 335.50' INV. IN = 328.85' (CB3A) INV. OUT = 329.58' (CB5A) L = 14.8' 12"CPP	CB8A RM = 334.15' INV. OUT = 330.00' (CB7A) L = 19.0' 12"CPP	CB12A RM = 327.57' INV. IN = 319.00' (CB11A) INV. IN = 318.70' (CB4C) INV. OUT = 318.40' (CB13A) L = 182.6' 24"CPP	CB16A 5-FT DIA. RM = 318.60' INV. IN = 313.60' (CB14A) INV. IN = 313.50' (CB15A) INV. OUT = 313.40' (CB17A) L = 38.0' 30"CPP	CB18 RM = 335.35' INV. IN = 332.50' (AD5) INV. OUT = 332.00' (CB2B) L = 27.0' 12"CPP	CB1C RM = 331.80' INV. OUT = 328.00' (CB2C) L = 150.0' 12"CPP	F.E.S. 1 RM = 331.00' F.E.S. 2 INV. = 322.00'
CB2A RM = 336.34' INV. IN = 331.10' (CB1A) INV. OUT = 330.82' (CB3A) L = 15.3' 12"CPP	CB5A RM = 335.82' INV. IN = 329.50' (CB4A) INV. OUT = 329.40' (CB7A) L = 19.0' 12"CPP	CB9A RM = 328.50' INV. OUT = 325.50' (CB10A) L = 19.0' 12"CPP	CB13A RM = 323.61' INV. IN = 317.40' (CB12A) INV. OUT = 317.30' (CB15A) L = 78.5' 18"CPP	CB17A 5-FT DIA. RM = 318.00' INV. IN = 313.00' (CB16A) INV. OUT = 312.90' (F.E.S.1) L = 50.0' 30"CPP	CB2B RM = 335.35' INV. IN = 332.00' (AD7) INV. IN = 331.87' (CB1B) INV. OUT = 331.77' (CB3B) L = 22.3' 12"CPP	CB2C RM = 322.50' INV. IN = 319.70' (CB1C) INV. OUT = 319.60' (CB3C) L = 40.0' 12"CPP	F.E.S. 3 INV. = 312.00'
CB3A RM = 335.50' INV. IN = 331.10' (CB2A) INV. OUT = 330.82' (CB4A) L = 103' 12"CPP	CB6A RM = 336.00' INV. IN = 329.30' (CB5A) INV. IN = 331.00' (AD4) INV. OUT = 329.20' (CB7A) L = 75.0' 18"CPP	CB10A RM = 327.50' INV. IN = 323.50' (CB9A) INV. OUT = 323.40' (CB11A) L = 27.0' 12"CPP	CB14A RM = 318.70' INV. OUT = 313.80' (CB16A) L = 38.3' 30"CPP	DMHIA (5' DIA.) RM = 318.13' INV. IN = 311.50' (HEADWALL) INV. OUT = 311.40' (F.E.S.5) L = 65' 30"CPP	CB3B RM = 335.45' INV. IN = 331.60' (CB2B) INV. OUT = 331.50' (CB4B) L = 35.6' 12"CPP	CB3C RM = 322.50' INV. IN = 319.40' (CB2C) INV. OUT = 319.30' (CB4C) L = 58.1' 15"CPP	F.E.S. 4 INV. = 301.00'
	CB7A RM = 331.67' INV. IN = 327.00' (CB6A) INV. IN = 327.00' (CB8A) INV. OUT = 326.90' (CB10A) L = 65.0' 18"CPP	CB11A RM = 327.15' INV. IN = 323.00' (CB10A) INV. OUT = 322.90' (CB12A) L = 38.0' 18"CPP	CB15A RM = 319.75' INV. IN = 315.50' (CB13A) INV. OUT = 315.40' (CB16A) L = 20.6' 24"CPP	CB4B RM = 334.60' INV. IN = 331.30' (CB3B) INV. OUT = 331.20' (F.E.S.1) L = 40.0' 12"CPP	CB4C RM = 323.40' INV. IN = 319.00' (CB3C) INV. OUT = 318.90' (CB12A) L = 35.2' 15"CPP	CB4D RM = 323.40' INV. IN = 319.00' (CB3C) INV. OUT = 318.90' (CB12A) L = 35.2' 15"CPP	O.S.1 RM = 309.50' INV. OUT = 308.00' L = 40' 12"CPP



GRADING & DRAINAGE PLAN
CHAMPLIN PLACE
TAX MAP 243, LOT 39
ROCHESTER HILL ROAD &
HEALTHCARE DRIVE
ROCHESTER, NH
PREPARED FOR:
EASTER SEALS NH, INC.
MARCH 11, 2022



1 INCH = 50 FEET

FILE NO. 102
PLAN NO. C-3154
DWG. NO. 19249 SP-1
F.B. NO.

LAND SURVEYORS



CIVIL ENGINEERS

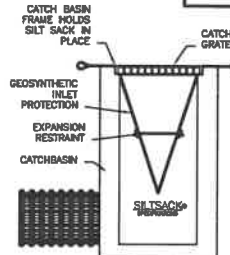


CAREFULLY REVIEW ALL SHEETS OF THIS PACKAGE TO INSURE PROPER CONSTRUCTION. SPECIFIC SITE CONDITIONS SHOULD BE EXPLORED PRIOR TO CONSTRUCTION. CONTACT BOTH THE DESIGN ENGINEER AND THE PROJECT OWNER FOR ANY AVAILABLE GEOTECHNICAL OR HYDROGEOLOGICAL INFORMATION AVAILABLE BUT NOT CONTAINED WITHIN THE PLAN SET. IF THERE ARE ANY QUESTIONS WITH THE DESIGN PRESENTED IN THIS PLAN SET PLEASE CONTACT THE ENGINEERING STAFF AT NORWAY PLAINS ASSOCIATES, INC. (603)-335-3948.

LEGEND

- PROPERTY LINE
- JURISDICTIONAL WETLANDS
- EXISTING TREE LINE
- EXISTING DRAIN LINE
- EXISTING CONTOUR LINE
- EXISTING CATCH BASIN
- PROPOSED TREE LINE
- PROPOSED DRAIN LINE
- PROPOSED CONTOUR LINE
- PROPOSED SILTATION FENCE
- PROPOSED BIOSOXX SILTATION SOCK
- PROPOSED CATCH BASIN
- PROPOSED DRAIN MANHOLE
- PROPOSED FLARED END SECTION (FES)
- PROPOSED TEMPORARY CATCH BASIN FILTERS
- PROPOSED TEMPORARY STABILIZED CONSTRUCTION EXIT
- PROPOSED TEMPORARY STONE CHECK DAMS

NOTE: RUNOFF MUST BE DIRECTED TO TEMPORARY PRACTICES UNTIL STORMWATER BMPs ARE STABILIZED



REGULAR FLOW SILTSACK®

(FOR AREAS OF LOW TO MODERATE PRECIPITATION AND RUN-OFF)

PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4832	300 LBS
GRAB TENSILE ELONGATION	ASTM D-4832	20 %
PUNCTURE	ASTM D-4833	120 LBS
MULLEN BURST	ASTM D-3788	800 PSI
TRAPEZOID TEAR	ASTM D-4833	120 LBS
UV RESISTANCE	ASTM D-4355	80 %
APPROXIMATE OPENING SIZE	ASTM D-4751	40 US SEIVE
LOW RATE	ASTM D-4481	
PERMITTIVITY	ASTM D-4481	0.55 SEC -1

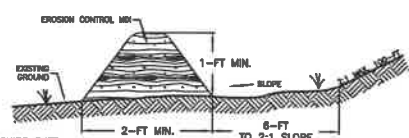
NOTES:

- GEOSYNTHETIC SEDIMENT FILTER TRAP SHALL BE "REGULAR FLOW SILTSACK®" OR APPROVED EQUAL. SPECIFICATIONS FOR SILTSACK® ARE DETAILED.
- FILTER TRAPS SHALL BE INSPECTED AFTER EVERY RAIN EVENT OF 0.25" OR GREATER AND SEDIMENTS SHALL BE REMOVED FROM TRAP WHEN SEDIMENT HAS REACHED TWO THIRDS OF THE DEPTH OF THE TRAP, OR IF PONDING OF WATER AT SURFACE BEGINS TO OCCUR. DO NOT PUNCTURE FILTER TRAP TO MITIGATE PONDING.
- INSTALL SILT SACKS IN CATCH BASIN UPON INSTALLATION OF STRUCTURE.

CATCH BASIN

GEOSYNTHETIC SEDIMENT TRAP

NOT TO SCALE



MAINTENANCE REQUIREMENTS:

- EROSION CONTROL MIX BERM SHOULD BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL.
- EROSION CONTROL MIX BERM SHOULD BE REPAIRED IMMEDIATELY IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THEM.
- IF THERE ARE SIGNS OF BREACHING OF THE BARRIER, OR IMPONDING OF LARGE VOLUMES OF WATER BEHIND THEM, THE EROSION CONTROL MIX BERM SHOULD BE REPLACED WITH OTHER MEASURES TO INTERCEPT AND TRAP SEDIMENT (SUCH AS A DIVERSION BERM DIRECTING RUNOFF TO A SEDIMENT TRAP OR BASIN).
- SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT.
- SEDIMENT DEPOSITS MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE THIRD (1/3) OF THE HEIGHT OF THE BARRIER.
- EROSION CONTROL MIX BERM SHOULD BE REPAIRED OR REPLACED AS NEEDED.
- ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE BARRIER IS NO LONGER REQUIRED SHOULD BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEED.

CONSTRUCTION SPECIFICATIONS:

- EROSION CONTROL MIX CAN BE MANUFACTURED ON OR OFF OF THE PROJECT SITE.
- EROSION CONTROL MIX MUST CONSIST PRIMARILY OF ORGANIC MATERIAL, SEPARATED AT THE POINT OF GENERATION, AND MAY INCLUDE SHREDDED BARK, STUMP GRINDINGS, COMPOSTED BARK, OR ACCEPTABLE MANUFACTURED PRODUCTS.
- WOOD AND BARK CHIPS, GROUND CONSTRUCTION DEBRIS OR REPROCESSED WOOD PRODUCTS WILL NOT BE ACCEPTABLE AS THE ORGANIC COMPONENT OF THE MIX.

COMPOSITION OF THE EROSION CONTROL MIX SHOULD BE AS FOLLOWS:

- EROSION CONTROL MIX SHALL BE A WELL GRADED MIXTURE OF PARTICLE SIZES FREE OF REFUSE, PHYSICAL CONTAMINANTS, MATERIAL TOXIC TO PLANT GROWTH AND MAY NOT CONTAIN ROCKS LESS THAN 4-INCHES IN DIAMETER.
 - ORGANIC MATTER = 25-60% DRY WEIGHT BASIS
 - PARTICLES PASSING BY WEIGHT:
 - 3-INCH 100%
 - 1-INCH 90-100%
 - 3/4-INCH 70-100%
 - 1/4-INCH 30-70%
 - THE ORGANIC PORTION NEEDS TO BE FIBROUS AND ELONGATED.
 - THE MIX SHOULD CONTAIN NO SILTS, CLAYS OR FINE SANDS.
 - SOLUBLE SALTS CONTENT < 4.0 mmhos/cm
 - 4% OF THE MIX SHOULD BE BETWEEN 5.0 AND 8.0
- THE BARRIER MUST BE PLACED ALONG A RELATIVELY LEVEL CONTOUR.
 - IT MAY BE NECESSARY TO CUT TALL GRASSES AND WOODY VEGETATION TO AVOID CREATING VOIDS AND BRIDGES IN THE BARRIER THAT WOULD ENABLE FINES TO WASH UNDER THE BARRIER THROUGH THE GRASS BLADES OR PLANT STEMS.
 - THE BARRIER MUST BE A MINIMUM OF 12-INCHES TALL AS MEASURED ON THE UPHILL SIDE OF THE BARRIER.
 - THE BARRIER MUST BE A MINIMUM OF 2-FT WIDE.

EROSION CONTROL MIX BERM DETAIL

NOT TO SCALE

EROSION & SEDIMENTATION CONTROL PLAN CHAMPLIN PLACE TAX MAP 243, LOT 39 ROCHESTER HILL ROAD & HEALTHCARE DRIVE ROCHESTER, NH

PREPARED FOR:
EASTER SEALS NH, INC.

MARCH 11, 2022

50 0 25 50 100 200

1 INCH = 50 FEET

C-4



FILE NO. 102
PLAN NO. C-3154
DWC NO. 19249 SP-1
F.B. NO.

31 Mooney Street, Alton, N.H. 603-875-3948

NORWAY PLAINS ASSOCIATES, INC.

2 Continental Blvd., Rochester, N.H. 603-335-3948

LAND SURVEYORS

CIVIL ENGINEERS

LEGEND

---	PROPERTY LINE
---	JURISDICTIONAL WETLANDS
OHW	EXISTING OVERHEAD WIRES
W	EXISTING WATER MAIN
S	EXISTING GRAVITY SEWER MAIN
FM	EXISTING SEWER FORCE MAIN
---	EXISTING UNDERGROUND ELECTRIC WIRES
---	EXISTING UNDERGROUND UTILITY WIRES
---	EXISTING GAS PIPE
---	EXISTING DRAIN LINE
---	EXISTING HYDRANT
---	EXISTING WATER GATE OR SHUT-OFF VALVE
---	EXISTING UTILITY POLE
---	EXISTING SEWER MANHOLE
---	EXISTING CATCH BASIN
---	EXISTING LIGHT POLES
---	PROPOSED DRAIN LINE
---	PROPOSED WATER SERVICE
---	PROPOSED SEWER LINE
---	PROPOSED SEWER FORCE MAIN PIPE HOPE SDR 11
---	PROPOSED PROPANE GAS LINE
---	PROPOSED UNDERGROUND UTILITY WIRES
---	PROPOSED UNDERGROUND ELECTRIC WIRES
---	PROPOSED HYDRANT
---	PROPOSED WATER GATE VALVE
---	PROPOSED WATER SHUT-OFF VALVE
---	PROPOSED SEWER SHUT-OFF VALVE
---	PROPOSED UTILITY POLE
---	PROPOSED SEWER MANHOLE
---	PROPOSED DRAIN MANHOLE
---	PROPOSED CATCH BASIN
---	PROPOSED LIGHT POLES
---	PROPOSED BUILDING LIGHT FIXTURES
T.O.P.	TOP OF PIPE
B.O.P.	BOTTOM OF PIPE

- NOTES:
- CONSTRUCTION WILL CONFORM TO THE FOLLOWING UTILITIES STANDARDS AND SPECIFICATIONS:
 - SANITARY SEWER DISPOSAL - CITY OF ROCHESTER
 - ELECTRIC DISTRIBUTION - EVERSOURCE
 - TELEPHONE - FAIRPOINT SEWER
 - CABLE - CONSOLIDATED COMMUNICATIONS
 - WATER - CITY OF ROCHESTER
 - ALL PROPOSED ON-SITE UTILITIES SHALL BE INSTALLED UNDERGROUND.

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REVISIONS:

- 01/25/22 - ADD ALTERNATIVE WATERLINES TO EXISTING HOMEMAKER HEALTH SERVICE BUILDING.
 03/08/22 - REVISE LOCATION AND INVERT OF SEWER CONNECTION TO THE BUILDING.
 03/28/22 - REVISE GENERATOR LOCATION AND SIZE.

PROPOSED ELECTRICAL SYSTEM

- PROP. CONCRETE 3 PHASE PAD MOUNTED TRANSFORMER (SIZE AND EXACT LOCATION TO BE DETERMINED BY EVERSOURCE)
- DIESEL 200kW BACK-UP GENERATOR ON A CONCRETE PAD (SEE ELECTRICAL SITE PLANS FOR DIMENSIONS AND SPECIFICATIONS)
- PRIMEX PUMP CONTROL PANEL AND PEDISTAL (MIN. 5' FROM PUMP STATION)

PROPOSED SEWER SYSTEM

- PROP. 8" SDR 35 PVC INV. AT BLD = 332.00'
- PROP. 8" SDR 35 PVC CLEAN OUT
- PROP. 8" SDR 35 PVC L = 71' S = 4.2%
- PROP. SMH #2 RM = 326.50' IN = 329.00' OUT = 328.90'
- PROP. 8" SDR 35 PVC L = 120' S = 4.6%
- PROP. SMH #2 RM = 334.10' IN = 324.00' OUT = 323.90'
- PROP. 8" SDR 35 PVC L = 128.3' S = 6.2%
- PROP. SEWER PUMP STATION RM = 328.50' IN = 318.00' OUT = 318.00'
- PROP. 4" SDR35 PUMP STATION VENT
- PROP. VALVE PIT RM = 328.00' IN & OUT = 320.00' DRAIN BACK = 319.00'
- PROP. 3" SDR 17 HOPE FORCE MAIN L = 280.4'
- 3" PLUG VALVE MECHANICAL JOINT OPENS LEFT RESILIENT SEAT W/ VALVE BOX
- PROP. SEWER CLEAN OUT MANHOLE #3 RM = 318.40' IN = 309.80'
- PROP. 3" SDR 17 HOPE FORCE MAIN L = 248.0'
- CORE EXISTING FORCE MAIN JUNCTION SMH FOR NEW 3" FORCE MAIN, REPLACE TEE WITH CROSS FITTING FOR NEW FORCE MAIN (SEE DETAIL ON SHEET C-10)
- PROP. SMH #4 RM = 324.45' IN = 322.0' OUT = 317.50'
- PROP. 8" SDR 35 PVC L = 70.0' S = 1.0%
- PROP. SMH #5 RM = 324.45' IN = 318.80' OUT = 318.70'
- PROP. 6" SDR 35 PVC L = 70.0' S = 1.0%

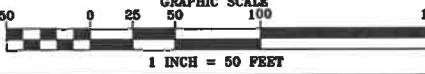
PROPOSED WATER SYSTEM

- PROP. 8" X 12" STAINLESS STEEL TAP AND SLEEVE WITH 8" GATE VALVE AND MECHANICAL JOINT RESTRAINT
- PROP. 4" X 12" STAINLESS STEEL TAP AND SLEEVE WITH 4" GATE VALVE AND MECHANICAL JOINT RESTRAINT
- PROP. 8" D.I. CLASS 52 WATER MAIN (POLY WRAPPED)
- PROP. 4" D.I. CLASS 52 WATER MAIN (POLY WRAPPED)
- PROP. 8" 45° BEND WITH THRUST BLOCK OR MECHANICAL JOINT RESTRAINT
- PROP. 4" 45° BEND WITH THRUST BLOCK OR MECHANICAL JOINT RESTRAINT
- PROP. 8" X 8" TEE WITH THRUST BLOCK OR MECHANICAL JOINT RESTRAINT
- PROP. 8" X 6" REDUCER WITH THRUST BLOCK OR MECHANICAL JOINT RESTRAINT
- PROP. 8" X 6" TEE WITH THRUST BLOCK OR MECHANICAL JOINT RESTRAINT
- PROP. 8" GATE VALVE WITH CAP AND MECHANICAL JOINT RESTRAINT
- PROP. 4" X 4" TEE WITH THRUST BLOCK OR MECHANICAL JOINT RESTRAINT
- PROP. 4" X 2" REDUCER WITH THRUST BLOCK OR MECHANICAL JOINT RESTRAINT
- PROP. 2" SHUT OFF VALVE AND MECHANICAL JOINT RESTRAINT
- PROP. 8" POST INDICATOR VALVE WITH MECHANICAL JOINT RESTRAINT
- PROP. 4" WATER SHUT-OFF VALVE WITH THRUST BLOCK OR MECHANICAL JOINT RESTRAINT
- PROP. 4" STORZ FIRE DEPARTMENT CONNECTION, ELECTRIC BELL & TEST HEADER WITH SIGN ATTACHED TO BUILDING "TDC"
- PROP. 8" D.I. CLASS 52 WATER MAIN

SEPARATE BID PROPOSED WATER SYSTEM

- PROP. 6" D.I. CLASS 52 WATER MAIN
- PROP. 8" 45° BEND WITH THRUST BLOCK OR MECHANICAL JOINT RESTRAINT
- PROP. 8" X 6" TEE WITH THRUST BLOCK OR MECHANICAL JOINT RESTRAINT
- PROP. 8" GATE VALVE WITH THRUST BLOCK OR MECHANICAL JOINT RESTRAINT
- PROP. 2" CTS 200PSI WATER MAIN
- PROP. 2" SHUT OFF VALVE AND MECHANICAL JOINT RESTRAINT

UTILITY PLAN
TAX MAP 243, LOT 39
215 ROCHESTER HILL RD
ROCHESTER, NH
 PREPARED FOR:
EASTER SEALS NH, INC.
 MARCH 11, 2022



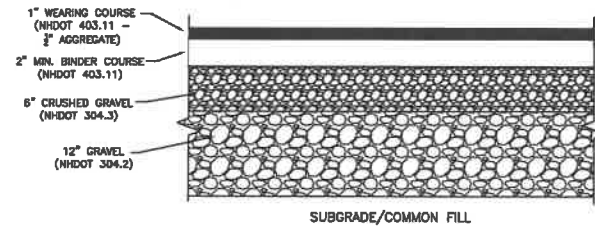
FILE NO. 102
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 DWG. NO. 19249 SP-1
 F.B. NO.

31 Mooney Street, Alton, N.H. 603-875-3948

NORWAY PLAINS ASSOCIATES, INC.

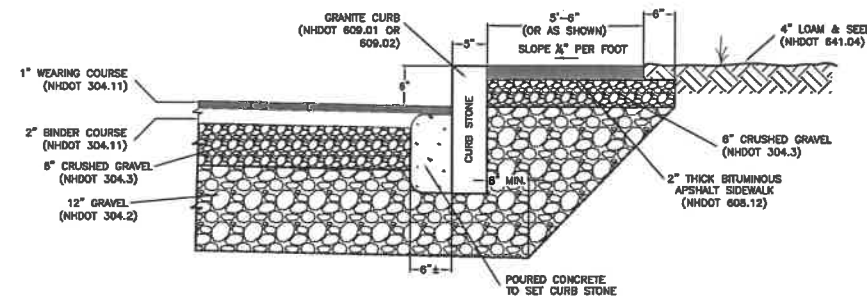
2 Continental Blvd., Rochester, N.H. 603-335-3948

LAND SURVEYORS

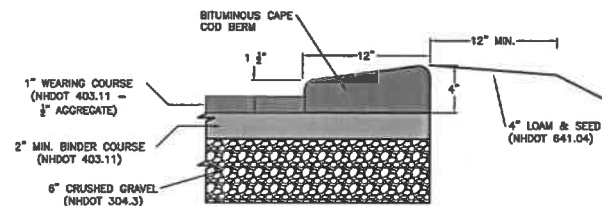


PARKING LOT CROSS-SECTIONS
NOT TO SCALE

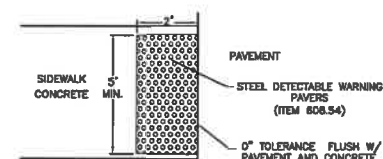
- PAVEMENT NOTES:**
1. PLACE COMMON FILL IN 12 INCH LIFTS. COMPACT COMMON FILL TO 95% MAXIMUM PROCTOR DENSITY.
 2. PLACE GRAVEL IN MAXIMUM 8 INCH LIFTS. COMPACT TO 95% MAXIMUM PROCTOR DENSITY.
 3. PLACE CRUSHED GRAVEL IN MAXIMUM 8 INCH LIFTS. COMPACT TO 95% MAXIMUM PROCTOR DENSITY.
 4. PAVEMENT MUST BE INSTALLED IN TWO COURSES, A BINDER COURSE AND A WEARING COURSE.



PAVED SIDEWALK WITH GRANITE CURB DETAIL
NOT TO SCALE

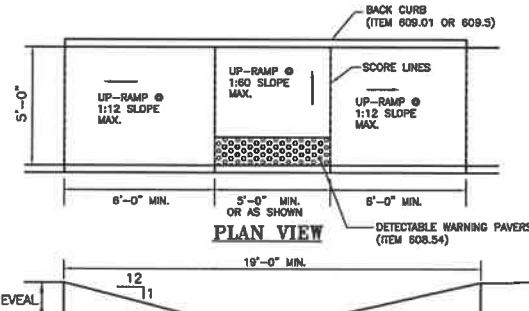


BITUMINOUS CAPE COD BERM DETAIL



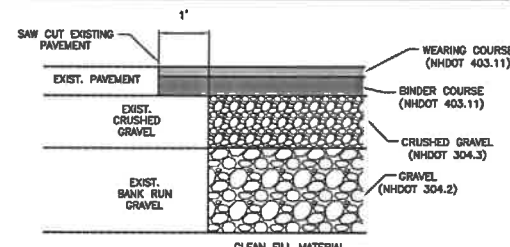
DETECTABLE WARNING PAVER DETAIL
NOT TO SCALE

- DETECTABLE WARNING PAVER NOTES:**
1. THE MAXIMUM CROSS OF CONCRETE WALKWAY SHALL NOT EXCEED 2% IN ANY DIRECTION.
 2. TRANSITIONS SHALL BE FLUSH AND FREE OF ABRUPT CHANGES.
 3. DETECTABLE WARNING PAVERS (ITEM 608.54) SHALL BE USED ON CONCRETE RAMPS AS SHOWN. EACH TACTICAL WARNING STRIP PANEL SHALL A TRUNCATED DOME SURFACE AT LEAST 2'-0" IN WIDTH, MEASURED FROM THE BACK OF THE CURB TIP DOWN, AND 5'-0" IN LENGTH MEASURED PERPENDICULAR TO THE DIRECTION OF PEDESTRIAN TRAVEL.
 4. ALL DETECTABLE WARNING PAVERS SHALL BE CAST IN PLACE ARMOR-TILE TACTILE SYSTEM, YELLOW IN COLOR, OR APPROVED EQUAL.



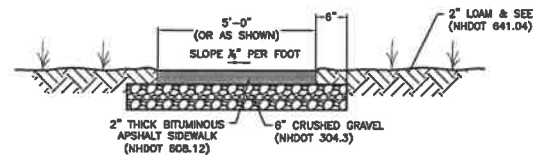
HANDICAP RAMP DETAIL "A"
NOT TO SCALE

- GENERAL SIDEWALK NOTES:**
1. THE MAXIMUM RAMPING SLOPE OF ANY SIDEWALK CURB IS 1:21. THE MAXIMUM CROSS SLOPE IS 2%. THE SLOPE OF THE LANDING SHALL NOT EXCEED 2% IN ANY DIRECTION.
 2. TRANSITIONS SHALL BE FLUSH AND FREE OF ABRUPT CHANGES.
 3. DETECTABLE WARNING PAVERS (ITEM 608.54) SHALL BE USED ON CONCRETE RAMPS AS SHOWN. EACH TACTICAL WARNING STRIP PANEL SHALL A TRUNCATED DOME SURFACE AT LEAST 2'-0" IN WIDTH, MEASURED FROM THE BACK OF THE CURB TIP DOWN, AND 5'-0" IN LENGTH MEASURED PERPENDICULAR TO THE DIRECTION OF PEDESTRIAN TRAVEL.

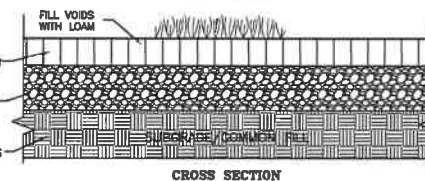
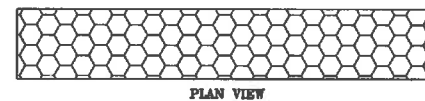


TYPICAL PAVEMENT SAWCUT DETAIL
NOT TO SCALE

1. SAWCUT THROUGH DEPTH OF PAVEMENT AT LEAST 1 FT. FROM EDGE OR GREATER IF REQUIRED.
2. INSTALL AND COMPACT CRUSHED GRAVEL TO GRADE.
3. PLACE BINDER COURSE.
4. GRIND OR SAWCUT EXISTING PAVEMENT 1 FT. WIDE TO A DEPTH NECESSARY TO PROPERLY MATCH NEW WEARING COURSE PAVEMENT.
5. TACK COAT ALL EXISTING PAVEMENT SURFACES WITH EMULSIFIED ASPHALT (MS-1) PRIOR TO PLACING NEW PAVEMENT.

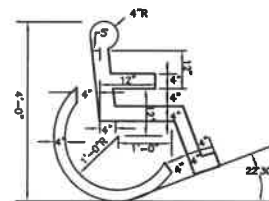


PAVED SIDEWALK DETAIL
NOT TO SCALE

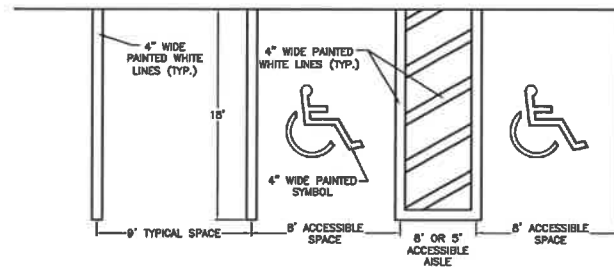


GRASS PAVER DRIVE DETAIL
NOT TO SCALE

- NOTES:**
1. GRASS PAVERS TO BE EZ ROLL - TUFFTRACK GRASS PAVERS BY NDS, INC. FOR HEAVY DUTY LOADING, OR APPROVED EQUAL.
 2. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.



ACCESSIBLE SYMBOL



STALL STRIPING DETAIL
NOT TO SCALE

- NOTE:**
1. HANDICAP GRAPHIC SYMBOL (PAINTED WHITE) TO BE CENTERED IN SPACE. SYMBOL TO BE PAINTED ON ASPHALT AS PER DETAIL.
 2. 8' ACCESSIBLE AISLE TO BE USED ADJACENT TO A VAN ACCESSIBLE PARKING SPACE.

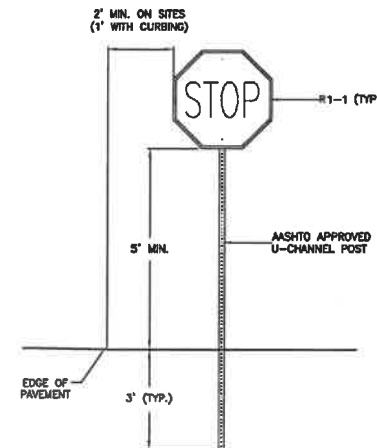
CIVIL ENGINEERS

CAREFULLY REVIEW ALL SHEETS OF THIS PACKAGE TO INSURE PROPER CONSTRUCTION. SPECIFIC SITE CONDITIONS SHOULD BE EXPLORED PRIOR TO CONSTRUCTION. CONTACT BOTH THE DESIGN ENGINEER AND THE PROJECT OWNER FOR ANY AVAILABLE GEOTECHNICAL OR HYDROGEOLOGICAL INFORMATION AVAILABLE BUT NOT CONTAINED WITHIN THE PLAN SET. IF THERE ARE ANY QUESTIONS WITH THE DESIGN PRESENTED IN THIS PLAN SET PLEASE CONTACT THE ENGINEERING STAFF AT NORWAY PLAINS ASSOCIATES, INC. (603)-335-3948.



REVISIONS:

03/09/22 - REVISE CURBING DETAILS AND GRASS PAVER DETAIL.



- NOTES:**
1. SIGN POST SHALL BE ASHTO APPROVED U-CHANNEL OR OTHER PER ASHTO "SPECIFICATIONS FOR STRUCTURAL SUPPORT OF HIGHWAY SIGNS, LUMINAIRES AND SIGNALS", LATEST EDITION.
 2. SIGNS SHALL BE MOUNTED 5 FT FROM GROUND TO BOTTOM EDGE WHERE PARKING AND PARKING LOT MOVEMENTS TAKE PLACE.
 3. SIGNS SHALL BE PLACED SO THAT NEAREST EDGE IS 2 FT. FROM EDGE OF PAVEMENT UNLESS CURBED.

TYPICAL TRAFFIC SIGN
NOT TO SCALE

ITEM NO.	SIGN SIZE		TEXT	NO. SIGNS REQ'D
	HEIGHT	WIDTH		
R1-1	30"	30"	STOP	1
R7-8 R7-8A	18"	12"	Handicap Symbol	11
R7-8P	6"	18"	VAN ACCESSIBLE	4
NHE-9455	7"	10"	FDC	1
R5-1	30"	30"	DO NOT ENTER	2

- NOTES:**
1. ALL SIGNS SHALL BE PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", LATEST EDITION.

SIGN SCHEDULE
NOT TO SCALE

PARKING AND SIDEWALK DETAILS
TAX MAP 243, LOT 39
215 ROCHESTER HILL RD
ROCHESTER, NH
PREPARED FOR:
EASTER SEALS NH, INC.
MARCH 11, 2022

FILE NO. 102
PLAN NO. C-3154
DWG. NO. 19249 SP-1
F.B. NO.

31 Mooney Street, Alton, N.H. 603-875-3948

NORWAY PLAINS ASSOCIATES, INC.

2 Continental Blvd., Rochester, N.H. 603-335-3948

C-6



SCALE: 1/2"=1'

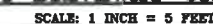
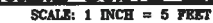


- NOTES:**
1. DESIGN OF RETAINING WALLS TO BE PROVIDED BY MANUFACTURE AND INSTALLED PER THE MANUFACTURES REQUIREMENTS.
 2. SHOP DRAWINGS SHALL BE SUBMITTED PRIOR TO ORDERING AND APPROVED BY NORWAY PLAINS ASSOCIATES, INC.
 3. CHAINLINK FENCE SHALL BE INSTALLED ON TOP OF WALL WHERE THE VERTICAL DROP IS GREATER THAN 2 FEET OR AS REQUIRED BY CODES.



REVISIONS:

03/08/22 - REVISE TYPICAL CROSS SECTIONS AND CURBING



DRIVEWAY CONSTRUCTION:

1. PLACE COMMON FILL IN 12 INCH LIFTS. COMPACT COMMON FILL TO 95% MAXIMUM PROCTOR DENSITY.
2. PLACE GRAVEL IN MAXIMUM 8 INCH LIFTS. COMPACT TO 95% MAXIMUM PROCTOR DENSITY.
3. PLACE CRUSHED GRAVEL IN MAXIMUM 8 INCH LIFTS. COMPACT TO 95% MAXIMUM PROCTOR DENSITY.
4. PAVEMENT MUST BE INSTALLED IN TWO COURSES, A BINDER COURSE AND A WEARING COURSE.



- NOTES:
1. PIPE SHALL BE HDPE CORRUGATED TUBING (SEE PLAN FOR SIZE) COMPLYING WITH AASHTO M252 W/ CLASS 2 PERFORATIONS (NHDOT SECTION 805.2.4.1).
 2. UNLESS NOTED OTHERWISE, ALL SOIL AND AGGREGATE MATERIALS (EXCEPT LOAM) TO BE COMPACTED TO 95% BASED ON ITS OPTIMUM DENSITY PER AASHTO T-99.

NOT TO SCALE

31 Mooney Street, Alton, N.H. 603-875-3948

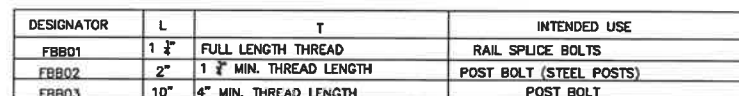
NORWAY PLAINS ASSOCIATES, INC.

C-7

2 Continental Blvd., Rochester, N.H. 603-335-3948



SECTION THRU RAIL ELEMENT
[RWM02a (12'-6") OR RWM22a (25'-0")]



LINE POST ELEVATION
VIEW AT BEAM SPLICE



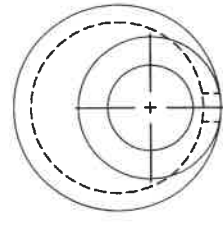
TERMINAL SECTION



1. LENGTH OF NEED IS THE TOTAL LENGTH OF A LONGITUDINAL BARRIER NEEDED TO SHIELD AN AREA OF CONCERN. TO DETERMINE THE LENGTH OF NEED, REFER TO THE "ROADSIDE - LATEST APPROVED VERSION, DESIGN GUIDE"
2. DESIGNATIONS PROVIDED IN BRACKETS () REFERENCE "A GUIDE TO STANDARDIZED STANDARD AND ELEVATION DETAILS" LATEST APPROVED VERSION, HIGHWAY BARRIER HARDWARE" AASHTO--ACQ--ARBITA JOINT COOPERATIVE COMMITTEE.
3. THE RECTANGULAR PLATE WASHER [FWRO3] IS USED ONLY FOR 37"-8" OF STANDARD SECTION UPSTREAM OF A TERMINAL UNIT Curb G-2 (SEE STANDARD NO. GR-10).
4. USE 12" LENGTH RAIL ELEVATION DETAIL FOR ALL ADAPTED VERSIONS.
5. WHEN GUARDRAIL IS INSTALLED BEHIND CURB, EITHER 6"-0" BEHIND SLOPE OR A CURED RAMP OR AT THE BACK OF SIDEWALK WITH BARRIER CURB, THE RAIL HEIGHT SHALL BE SET FIVE FEET ABOVE THE GRADE OF THE SIDEWALK OR RAMP.
6. POSTS SHORTER THAN THE 7'-0" INDICATED ON THE DETAIL, BUT NOT LESS THAN 5'-0", MAY ONLY BE USED WHEN:
 - a) THE SLOPE BEHIND THE GUARDRAIL IS NO STEEPER THAN 4:1
 - b) WHERE THE DISTANCE FROM THE BACK OF THE POST TO THE BREAK OF THE SLOPE IS A MINIMUM OF 2'-0"
 - c) AND THEN ONLY AS APPROVED OR SPECIFICALLY SHOWN ON THE PLANS.
7. TO INSTALL THE 7'-0" POSTS IN ROCK FILL AREAS AND IN AREAS OF OTHER DIFFICULT SITE CONDITIONS, THE FOLLOWING SPECIAL CONSIDERATIONS MUST BE OBSERVED:
 - a) UNUSUAL METHODS MAY BE REQUIRED FOR INSTALLING POSTS. THOSE CONDITIONS AND THE REQUIREMENT FOR UNUSUAL METHODS OF POST INSTALLATION ARE NOT COVERED. JUSTIFICATION FOR DEVIATING FROM THE USUAL MINIMUM DEPTH OF THE POSTS AND WILL NOT BE APPROVED AS SUCH.
 - b) THE FHWA ADMINISTRATION HAS APPROVED THE USE OF OFFSET BLOCKS WITH SIDE PLATES THAT HAVE VARIOUS NOMINAL DIMENSIONS. IN ORDER TO PROPOSE THE USE OF ANY OFFSET BLOCKS THAT HAVE OTHER THAN THE NOMINAL DIMENSIONS SHOWN ON THE DETAILS, THE FOLLOWING CONDITIONS MUST BE APPROVED:
 - a) THE OFFSET BLOCKS BE SHOWN TO BE APPROVED BY THE FHWA ADMINISTRATION AS MEETING THE TL-3 CRITERIA AS DESCRIBED IN THE NCHRP 350 TESTING.
 - b) THE FACE OF THE BLOCK MUST BE LOCATED AT THE END OF THE PAYMENT OR AT THE INDICATED OFFSET, PER THE DESIGN PLANS, AND
 - c) THERE MUST NOT BE A DECREASE IN THE DISTANCE FROM THE BACK OF THE POST TO THE BREAK IN THE SLOPE AS SHOWN ON THE DESIGN PLANS, OR AN INCREASE IN THE DISTANCE FROM THE BACK OF THE POST TO THE BREAK IN THE SLOPE IS ACCEPTABLE.
 - d) ALL OTHER REQUIREMENTS OF THE PERTINENT SPECIFICATIONS AND DETAILS REMAIN IN EFFECT.

1. DETAILS FOR GUARDRAIL SHOWN ON THIS PAGE EXCERPTED FROM AND SPECIFIED TO MATCH NHDOT STANDARD PLANS, STANDARD NO. GR-2 AND GR-10; BEAM GUARDRAIL STANDARD SECTION - STEEL POST & HARDWARE DETAILS.

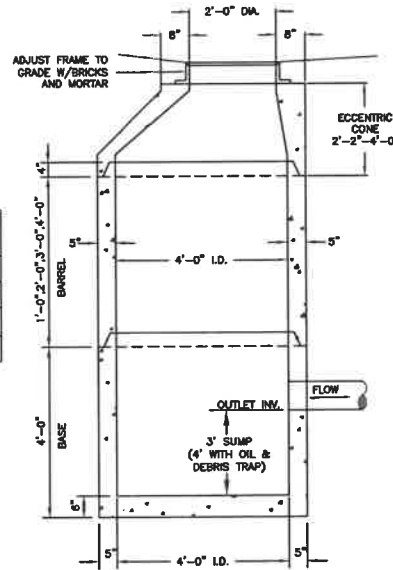
C-18



PLAN VIEW

DRAIN LINE DIAMETER	SUM OF DRAIN LINE DIAMETER	CATCH BASIN DIAMETER
15" TO 18"	LESS THAN 54"	4'
21" TO 27"	LESS THAN 72"	5'
30" TO 33"	LESS THAN 90"	6'
36" & LARGER	GREATER THAN 90"	REFER TO THE STANDARD

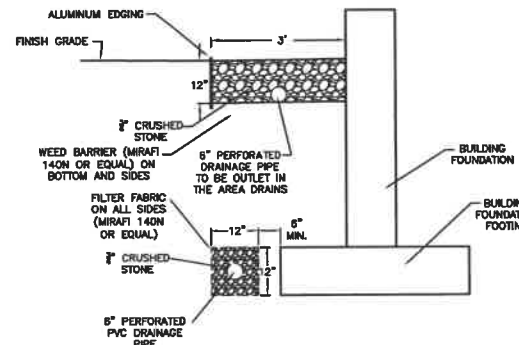
- NOTES:
1. CONCRETE: 4,000 PSI AFTER 28 DAYS.
 2. REINFORCING: SHALL BE PROVIDED FOR H-20 LOADING.
 3. SHUT-UP JOINTS SEALED WITH 1 STRIP OF BUTYL RUBBER SEALANT.
 4. PIPE OPENINGS CAST IN AS REQUIRED.
 5. RISER HEIGHT VARIES 1', 2', 3' OR 4' TO REACH DESIRED DEPTH.
 6. PIPE CONNECTIONS SHALL BE MORTARED.
 7. PRECAST SECTIONS SHALL CONFORM TO ASTM C-478.
 8. SEE SLAB TOP DETAIL FOR STRUCTURES REQUIRING SLAB TOPS, I.E. DOUBLE GRATE AND FRAME STRUCTURES.



SECTION VIEW

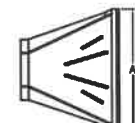
PRE-CAST REINFORCED CATCH BASIN

NOT TO SCALE

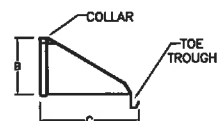


FOUNDATION AND DRIP EDGE DRAIN DETAIL

NOT TO SCALE



TOP VIEW



SIDE VIEW



FRONT VIEW

FLAIED END SECTION DETAIL

NOT TO SCALE

PIPE DIAMETERS	A	B	C	D
10" / 12"	42	14.5	33	6
15"	41	18	34	6
18"	49	22	43	6
24"	59.5	28	48	6
30"	68	36	63.5	6
36"	88	43	88.5	6

- INSTALLATION NOTES:
1. ANTI-SEEP COLLARS SHALL BE MADE PLASTIC IF BEING USED WITH PLASTIC PIPE. ANTI-SEEP COLLARS SHALL BE GALVANIZED SHEET STEEL IF BEING USED WITH CORRUGATED METAL PIPE AND SHALL BE POURED CONCRETE IF BEING USED WITH REINFORCED CONCRETE PIPE.
 2. ANTI-SEEP COLLAR SHALL BE WATERPROOF AND HAVE A WATERPROOF CONNECTION TO THE OUTLET PIPE.
 3. A NUMBER OF ANTI-SEEP COLLARS SHALL BE PLACED ALONG THE PIPE IN A SPACING THAT INCREASES THE PIPE LENGTH BY 15%.

SOURCES FOR PLASTIC ANTI-SEEP COLLARS FOR USE WITH PLASTIC PIPE:

1. THE FOLLOWING ARE A FEW MANUFACTURER'S OF PLASTIC ANTI-SEEP COLLARS. COLLARS FROM THESE MANUFACTURER'S MAY BE USED WITH BOTH SMOOTH WALLED AND CORRUGATED OUTSIDE WALLED PIPE.

MACIP MANUFACTURING
18 MESERVE ROAD
DURHAM, NH 03824
PHONE: (603) 868-5176
FAX: (603) 868-2074
E-MAIL: info@trenchdom.com

SCHIEB DRAINAGE PRODUCTS
203 SOUTH MONROE STREET
OREGON, MO 64473
PHONE: (660)-446-2343

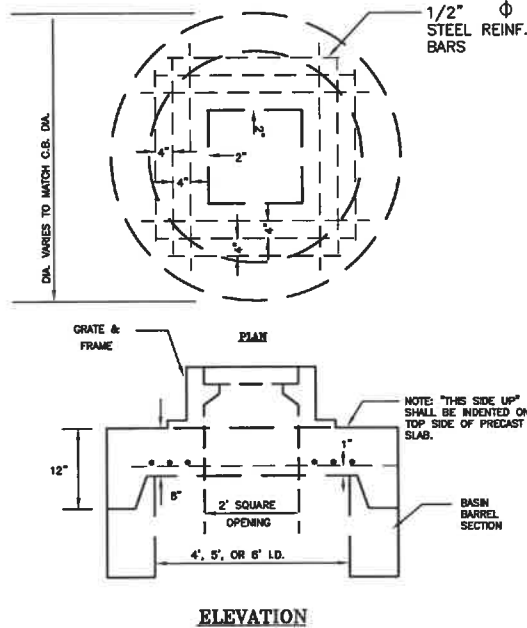
2. IT IS ALSO SUGGESTED THAT LOCAL SUPPLIERS BE CONTACTED TO ENQUIRE ABOUT SUITABLE ANTI-SEEP COLLAR PRODUCTS. IF A POSSIBLE ALTERNATIVE IS FOUND CONTACT THE DESIGN ENGINEER TO ENSURE ITS APPROPRIATENESS AND TO GET APPROVAL FOR ITS USE.

COLLAR DIMENSION TABLE

D	W	H
12	10"	6"
18	10.25"	6"
24	12"	7.5"
30	12"	7.5"

ANTI-SEEP COLLAR DETAIL

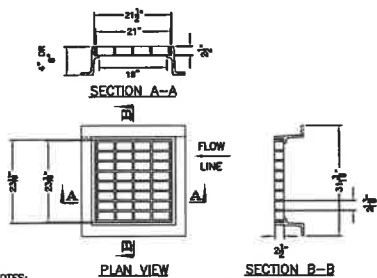
NOT TO SCALE



ELEVATION

REINFORCED CONCRETE SLAB COVER

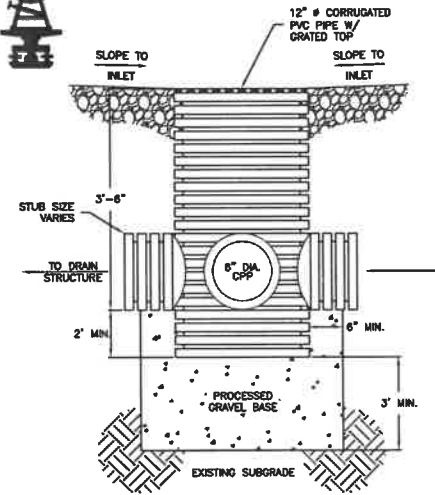
NOT TO SCALE



- NOTES:
1. FRAME AND GRATE SHALL BE CAST IRON.
 2. FRAME AVAILABLE IN 4" OR 8" HEIGHTS.
 3. USE 3 FLANGE FRAME IF INSTALLED ADJACENT TO GRANITE CURB.
 4. ALL DIMENSIONS ARE NOMINAL.

CATCH BASIN TYPE 'B' GRATE DETAIL

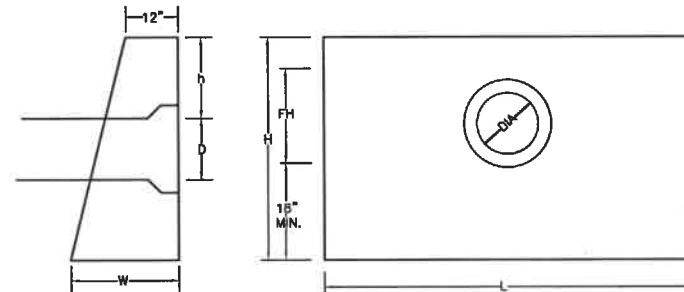
NOT TO SCALE



- NOTES:
1. AREA DRAINS TO BE ADS PIPE TEE & RISER SECTIONS WITH GRATES, OR EQUAL.
 2. AREA DRAINS SHALL BE SET ON 3 FT. OF PROCESSED GRAVEL BASE, COMPACTED TO BASE PROCTOR DENSITY.
 3. USE EITHER CLEAN GRANULAR FILL OR MIDDOT CRUSHED GRAVEL FOR THE PROCESSED GRAVEL BASE (SEE C6).

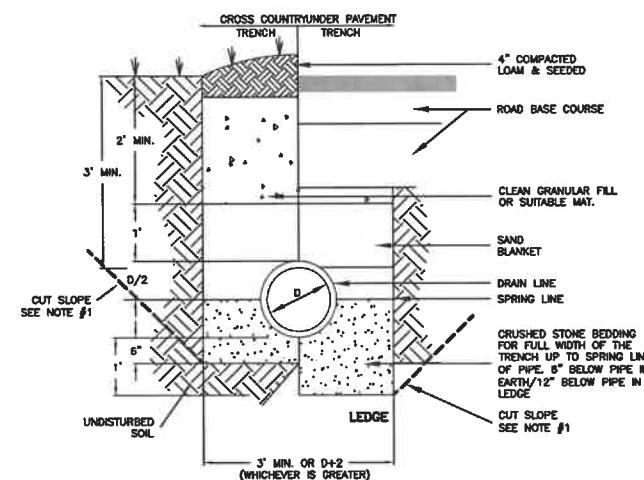
AREA DRAIN DETAIL

NOT TO SCALE



DIA. D	HEADWALL HEIGHT L	HEADWALL HEIGHT H	FILL HEIGHT FH	PIPE COVER H	HEADWALL BTM HEIGHT W
12"	4'3"	3'9"	1'1"	1'3"	2"
15"	6"	4'5"	1'7"	1'8"	2'1"
18"	7"	4'8"	1'10"	1'8"	2'2"
24"	9"	5"	2'4"	1'8"	2'3"
30"	11"	5'8"	2'10"	1'8"	2'3"
36"	13"	6"	3'4"	1'8"	2'3"
42"	15'9"	6'9"	4'1"	1'8"	2'9"
48"	17'9"	7'3"	4'7"	1'8"	2'10"

PRE-CAST HEADWALL



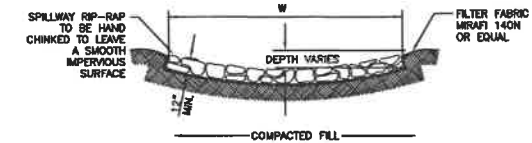
- NOTES:
1. PIPES MAY BE INSTALLED BY EXCAVATING AN OPEN TRENCH WITH SIDE SLOPES OF 1:1 MAXIMUM TO A DEPTH OF 4-FT. INSTALLATIONS DEEPER THAN 4-FT REQUIRE THE USE OF A TRENCH BOX.
 2. PIPE MATERIALS SHALL BE AS SPECIFIED ON THE DESIGN PLAN.
 3. SAND BLANKET MAY BE OMITTED FOR REINFORCED CONCRETE PIPE.

DRAINAGE PIPE TRENCH INSTALLATION DETAIL

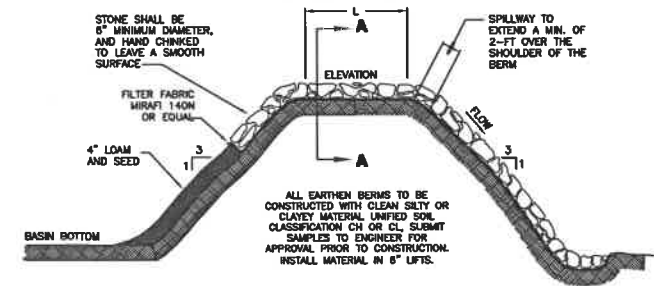
NOT TO SCALE



CAREFULLY REVIEW ALL SHEETS OF THIS PACKAGE TO INSURE PROPER CONSTRUCTION. SPECIFIC SITE CONDITIONS SHOULD BE EXPLORED PRIOR TO CONSTRUCTION. CONTACT BOTH THE DESIGN ENGINEER AND THE PROJECT OWNER FOR ANY AVAILABLE GEOTECHNICAL OR HYDROGEOLOGICAL INFORMATION AVAILABLE BUT NOT CONTAINED WITHIN THE PLAN SET. IF THERE ARE ANY QUESTIONS WITH THE DESIGN PRESENTED IN THIS PLAN SET PLEASE CONTACT THE ENGINEERING STAFF AT NORWAY PLAINS ASSOCIATES, INC. (603)-335-3948.



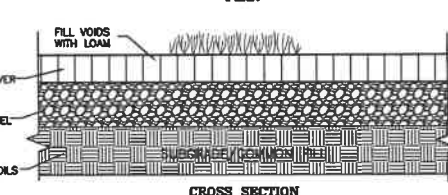
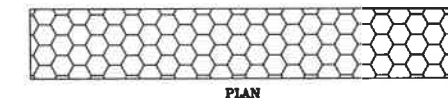
SECTION "A"



SPILLWAY #	LOCATION	LENGTH	WIDTH	ELEVATION
1	FB 1	11'	17'	331.0'
2	IB 1	11'	8'	331.0'
3	FB 2	17'	17'	309.0'
4	IB 2	11'	8'	311.0'

SPILLWAY DETAIL

NOT TO SCALE



CROSS SECTION

PARKING LOT CROSS-SECTIONS

NOT TO SCALE

- NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
 2. DO NOT SCALE DRAWING.
 3. THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS, CONSULTANTS AND DESIGN PROFESSIONALS FOR PLANNING PURPOSES ONLY.
 4. ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE.

DRAINAGE DETAILS
TAX MAP 243, LOT 39
ROCHESTER HILL ROAD & HEALTHCARE DRIVE
ROCHESTER, NH

PREPARED FOR:
EASTER SEALS NH, INC.
MARCH 11, 2022

C-8

FILE NO. 102
PLAN NO. C-3154
DWG. NO. 19249 SP-1
F.B. NO.

31 Mooney Street, Alton, N.H. 603-875-3948

NORWAY PLAINS ASSOCIATES, INC.

2 Continental Blvd., Rochester, N.H. 603-335-3948

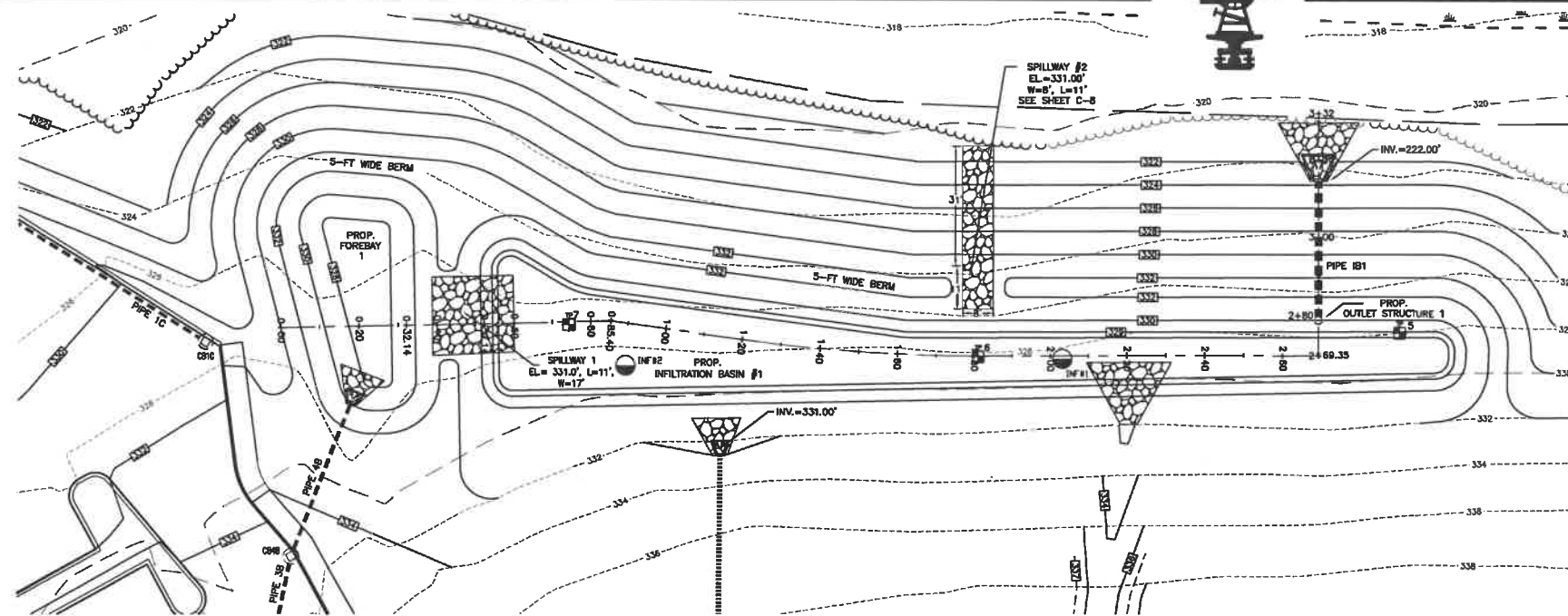
LAND SURVEYORS

CIVIL ENGINEERS

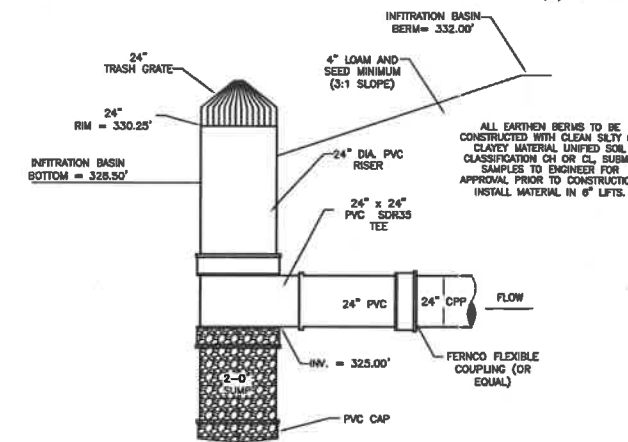
CAREFULLY REVIEW ALL SHEETS OF THIS PACKAGE TO INSURE PROPER CONSTRUCTION. SPECIFIC SITE CONDITIONS SHOULD BE EXPLORED PRIOR TO CONSTRUCTION. CONTACT BOTH THE DESIGN ENGINEER AND THE PROJECT OWNER FOR ANY AVAILABLE GEOTECHNICAL OR HYDROGEOLOGICAL INFORMATION AVAILABLE BUT NOT CONTAINED WITHIN THE PLAN SET. IF THERE ARE ANY QUESTIONS WITH THE DESIGN PRESENTED IN THIS PLAN SET PLEASE CONTACT THE ENGINEERING STAFF AT NORWAY PLAINS ASSOCIATES, INC. (603)-335-3948.



REVISION:
2/9/22 - ADD DIMENSION TO SPILLWAY



INFILTRATION BASIN #1
1" = 20'



**INFILTRATION BASIN #1
OUTLET STANDPIPE DETAIL**
NOT TO SCALE

- SPECIFICATIONS:**
- DO NOT DISCHARGE SEDIMENT-LADEN WATERS FROM CONSTRUCTION ACTIVITIES (RUNOFF, WATER FROM EXCAVATIONS) TO THE INFILTRATION BASIN.
 - DO NOT TRAFFIC EXPOSED SOIL SURFACE WITH CONSTRUCTION EQUIPMENT. IF FEASIBLE, PERFORM EXCAVATIONS WITH EQUIPMENT POSITIONED OUTSIDE THE LIMITS OF THE INFILTRATION BASIN.
 - AFTER THE BASIN IS EXCAVATED TO THE FINAL DESIGN ELEVATION, THE FLOOR SHALL BE DEEPLY TILLED WITH A ROTARY TILLER OR DISC HARROW TO RESTORE INFILTRATION RATES, FOLLOWED BY A PASS WITH A LEVELING DRAG.
 - VEGETATION SHALL BE ESTABLISHED IMMEDIATELY AFTER FINAL GRADING IS COMPLETED.
 - CONSTRUCT THE INFILTRATION BASIN TO THE GRADES DEPICTED ON THE PLAN AND CROSS-SECTION.
 - LOAM AND SEED ONLY THE SLOPES OF THE INFILTRATION BASIN AS PRESCRIBED IN THE "PERMANENT VEGETATION" NOTES FOUND ON SHEET C-12. SEED MIXTURE = A
 - DO NOT PLACE INFILTRATION SYSTEMS INTO SERVICE UNTIL THE CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.
- MAINTENANCE REQUIREMENTS:**
- INSPECT PRETREATMENT MEASURES (I.E. SEDIMENT FOREBAY(S), HOODED CATCH BASINS, ETC.) AT LEAST TWICE A YEAR AND AFTER EVERY STORM GREATER THAN 2.5 INCHES OF RAIN OVER A 24-HOUR PERIOD.
 - INSPECT INFILTRATION SURFACE BI-ANNUALLY. ONCE IN THE SPRING PRIOR TO MAY 15 AND ONCE IN THE FALL PRIOR TO OCTOBER 15.
 - INSPECT INFILTRATION SURFACE AFTER ANY RAINFALL EVENT OF 2.5-INCHES OR GREATER IN A 24-HOUR PERIOD.
 - REMOVE AND DISPOSE OF ACCUMULATED SEDIMENT BASED ON INSPECTION. REPAIR AREA OF REMOVAL AS NECESSARY TO RESTORE INFILTRATION CAPACITY.
 - PERFORM MAINTENANCE AND REHABILITATION BASED ON INSPECTIONS.
 - REMOVE DEBRIS (IF ANY) FROM INFILTRATION BASIN INLET BASED ON INSPECTION.
 - CONDUCT PERIODIC MOWING OF THE INFILTRATION BASIN SLOPES AND EMBANKMENTS (MINIMUM TWICE A YEAR) TO ELIMINATE WOODY GROWTH FROM THE EMBANKMENTS AND BOTTOM. MOWING THE INFILTRATION BASIN EMBANKMENTS WHEN MOWING THE REST OF THE SITE IS RECOMMENDED.
 - IF THE INFILTRATION SYSTEM DOES NOT DRAIN WITHIN 72-HOURS FOLLOWING A RAINFALL EVENT, THEN A QUALIFIED PROFESSIONAL (I.E. PROFESSIONAL ENGINEER, CERTIFIED SOILS SCIENTIST, ETC.) SHALL ASSESS THE CONDITION OF THE FACILITY TO DETERMINE MEASURES REQUIRED TO RESTORE INFILTRATION FUNCTION, INCLUDING BUT NOT LIMITED TO REMOVAL OF ACCUMULATED SEDIMENTS OR RECONSTRUCTION OF THE INFILTRATION SURFACE.

INFILTRATION BASIN

- SPECIFICATIONS:**
- CONSTRUCT THE SEDIMENT FOREBAY TO THE GRADES DEPICTED ON THE PLAN AND CROSS-SECTION.
 - LOAM AND SEED THE SLOPES AND BOTTOM OF THE SEDIMENT FOREBAY AS PRESCRIBED IN THE "PERMANENT VEGETATION" NOTES FOUND ON SHEET C-12. SEED MIXTURE = A
- MAINTENANCE REQUIREMENTS:**
- INSPECT SEDIMENT FOREBAY BI-ANNUALLY. ONCE IN THE SPRING PRIOR TO MAY 15 AND ONCE IN THE FALL PRIOR TO OCTOBER 15.
 - CONDUCT PERIODIC MOWING OF THE SEDIMENT FOREBAY SLOPES AND EMBANKMENTS (MINIMUM TWICE A YEAR) TO ELIMINATE WOODY GROWTH FROM THE EMBANKMENTS AND BOTTOM. MOWING THE SEDIMENT FOREBAY EMBANKMENTS WHEN MOWING THE REST OF THE SITE IS RECOMMENDED.
 - REMOVE DEBRIS FROM THE OUTLET STRUCTURE OF THE SEDIMENT FOREBAY (I.E. STONE CHECK DAM) AT LEAST ONCE ANNUALLY.
 - REMOVE AND DISPOSE OF ACCUMULATED SEDIMENT BASED ON INSPECTION. WHEN SEDIMENT HAS REACHED THE RED MARK ON THE SEDIMENT STAFF GAGE INSTALLED IN THE FOREBAY, REMOVE SEDIMENT AND DISPOSE OF IT OFF-SITE IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS. ELEVATION OF RED CLEANOUT MARK ON STAFF GAGE = 228.5'
- NOTES:**
- STAFF GAGE TO BE SCHEDULE 40 WHITE PVC DRIVEN OR PLACED IN GROUND A MINIMUM 3-FT.
 - CLEANOUT MARK ON STAFF TO BE GRAY PVC COUPLING SET 6-INCHES FROM BOTTOM OF BASIN.

**SEDIMENT FOREBAY
GAUGE DETAIL**
NOT TO SCALE

SEDIMENT FOREBAY

**INFILTRATION BASIN 1 DETAIL
CHAMPLIN PLACE
TAX MAP 243, LOT 39
ROCHESTER HILL ROAD &
HEALTHCARE DRIVE
ROCHESTER, NH
PREPARED FOR:
EASTER SEALS NH, INC.
MARCH 11, 2022**

NORWAY PLAINS ASSOCIATES, INC.

2 Continental Blvd., Rochester, N.H. 603-335-3948

C-9

TEST PITS CONDUCTED: MARCH 29, 2021
BY: JOSEPH W. NOEL
NEW HAMPSHIRE CERTIFIED SOIL SCIENTIST #017
PURPOSE: STORMWATER PLANNING & SITE-SPECIFIC SOIL MAPPING

TEST PIT 5

1-0 INCHES PARTIALLY DECOMPOSED GRASSES
0-10 INCHES DARK BROWN (10YR 3/3) FINE SANDY LOAM, FRAGILE, GRANULAR
10-33 INCHES YELLOWISH BROWN (10YR 5/6) FINE SANDY LOAM, FRAGILE, BLOCKY
33-60 INCHES LIGHT OLIVE BROWN (2.5Y 5/4) SANDY LOAM, FIRM, MASSIVE, COMMON DISTINCT REDOX FEATURES
SEASONAL HIGH WATER TABLE @ 33"
OBSERVED WATER TABLE NONE TO 60"
RESTRICTIVE HORIZON @ 33"
BEDROCK NONE TO 80"

TEST PIT 6

1-0 INCHES PARTIALLY DECOMPOSED GRASSES
0-12 INCHES VERY DARK GRAYISH BROWN (10YR 3/2) SANDY LOAM, FRAGILE, GRANULAR
12-27 INCHES DARK YELLOWISH BROWN (10YR 4/6) LOAMY SAND, VERY FRAGILE, MASSIVE
27-42 INCHES LIGHT OLIVE BROWN (2.5Y 5/4) LOAMY SAND TO SAND, FRAGILE, MASSIVE, COMMON DISTINCT REDOX FEATURES
42-60 INCHES OLIVE GRAY (5Y 5/2) LOAMY VERY FINE SAND, FRAGILE TO FIRM, MASSIVE, COMMON PROMINENT REDOX FEATURES
SEASONAL HIGH WATER TABLE @ 27"
OBSERVED WATER TABLE @ 40"
RESTRICTIVE HORIZON @ 42"
BEDROCK NONE TO 80"

TEST PIT 7

1-0 INCHES PARTIALLY DECOMPOSED GRASSES
0-7 INCHES DARK BROWN (10YR 3/3) SANDY LOAM, FRAGILE, GRANULAR
7-35 INCHES YELLOWISH BROWN (10YR 5/6) SANDY LOAM, FRAGILE, BLOCKY
35-60 INCHES OLIVE (5Y 5/3) SANDY LOAM TO LOAMY SAND, FIRM, MASSIVE, COMMON PROMINENT REDOX FEATURES
SEASONAL HIGH WATER TABLE @ 35"
OBSERVED WATER TABLE NONE TO 60"
RESTRICTIVE HORIZON @ 35"
BEDROCK NONE TO 80"

INFILTRATION TEST CONDUCTED: SEPTEMBER 30, 2021
BY: S.W. COLE ENGINEERING, INC.
TEST TYPE: GUELPH PERMEAMETER

INF #1
Ksat = 1.6 IN/HR
INF #2
Ksat = 1.9 IN/HR

FILE NO. 154
PLAN NO. C-
DWG. NO. 17233/SP-1
F.B. NO.

31 Mooney Street, Alton, N.H. 603-875-3948

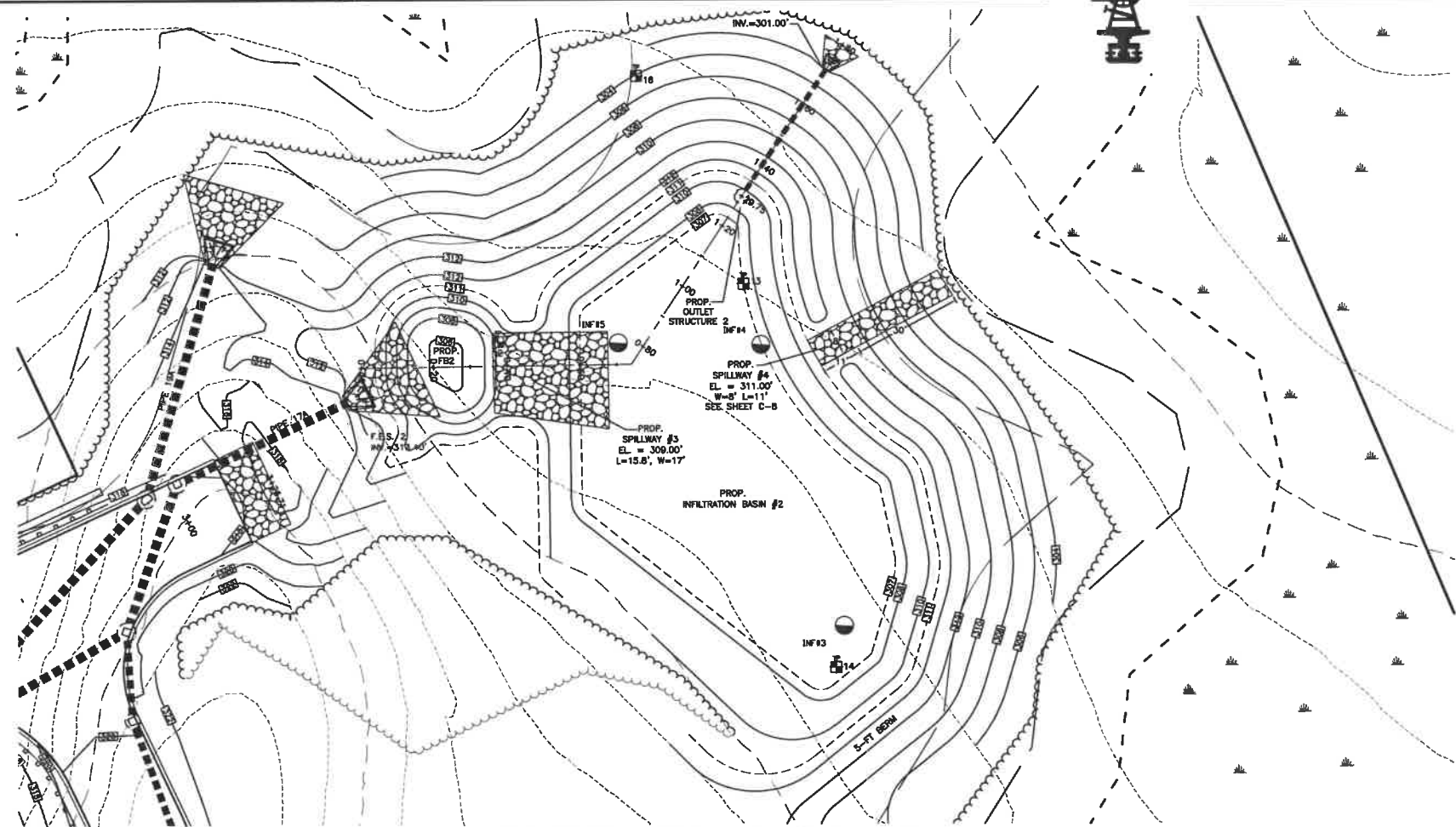
LAND SURVEYORS

CIVIL ENGINEERS



REVISION: 2/9/22 - ADD DIMENSION TO SPILLWAY

CAREFULLY REVIEW ALL SHEETS OF THIS PACKAGE TO INSURE PROPER CONSTRUCTION. SPECIFIC SITE CONDITIONS SHOULD BE EXPLORED PRIOR TO CONSTRUCTION. CONTACT BOTH THE DESIGN ENGINEER AND THE PROJECT OWNER FOR ANY AVAILABLE GEOTECHNICAL OR HYDROGEOLOGICAL INFORMATION AVAILABLE BUT NOT CONTAINED WITHIN THE PLAN SET. IF THERE ARE ANY QUESTIONS WITH THE DESIGN PRESENTED IN THIS PLAN SET PLEASE CONTACT THE ENGINEERING STAFF AT NORWAY PLAINS ASSOCIATES, INC. (603)-335-3948.



INFILTRATION BASIN #2

1" = 20'

INFILTRATION TEST CONDUCTED: SEPTEMBER 30, 2021
BY: S.W. COLE ENGINEERING, INC.
TEST TYPE: GUELPH PERMEAMETER

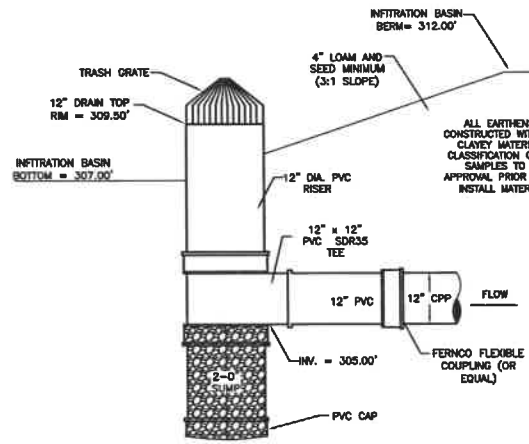
INF #3
Ksat = 0.7 IN/HR
INF #4
Ksat = 0.4 IN/HR
INF #5
Ksat = 0.8 IN/HR

TEST PITS CONDUCTED: MARCH 29, 2021
BY: JOSEPH W. NOEL
NEW HAMPSHIRE CERTIFIED SOIL SCIENTIST #017
PURPOSE: STORMWATER PLANNING & SITE-SPECIFIC SOIL MAPPING

TEST PIT 12
1-0 INCHES PARTIALLY DECOMPOSED ORGANIC MATTER
0-8 INCHES DARK BROWN (10YR 3/3) SANDY LOAM, FRIABLE, GRANULAR
8-28 INCHES YELLOWISH BROWN (10YR 5/6) SANDY LOAM, FRIABLE, BLOCKY
28-60 INCHES LIGHT OLIVE BROWN (2.5Y 5/4) SANDY LOAM, FIRM, MASSIVE, COMMON DISTINCT REDOX FEATURES
SEASONAL HIGH WATER TABLE @ 29"
OBSERVED WATER TABLE NONE TO 60"
RESTRICTIVE HORIZON @ 29"
BEDROCK NONE TO 60"

TEST PIT 13
1-0 INCHES PARTIALLY DECOMPOSED ORGANIC MATTER
0-8 INCHES DARK BROWN (10YR 3/3) SANDY LOAM, FRIABLE, GRANULAR
8-18 INCHES DARK YELLOWISH BROWN (10YR 4/6) SANDY LOAM TO LOAMY SAND, FRIABLE, BLOCKY
18-48 INCHES LIGHT OLIVE BROWN (2.5Y 5/4) FINE SANDY LOAM, FIRM, MASSIVE, COMMON DISTINCT REDOX FEATURES
SEASONAL HIGH WATER TABLE @ 18"
OBSERVED WATER TABLE NONE TO 48"
RESTRICTIVE HORIZON @ 18"
BEDROCK NONE TO 48"

TEST PIT 14
1-0 INCHES PARTIALLY DECOMPOSED ORGANIC MATTER
0-8 INCHES DARK BROWN (10YR 3/3) SANDY LOAM, FRIABLE, GRANULAR
8-24 INCHES DARK YELLOWISH BROWN (10YR 4/6) SANDY LOAM, FRIABLE, BLOCKY
24-60 INCHES LIGHT OLIVE BROWN (2.5Y 5/4) SANDY LOAM WITH SOME LAYERS OF LOAMY SAND, FIRM, MASSIVE, COMMON DISTINCT REDOX FEATURES
SEASONAL HIGH WATER TABLE @ 24"
OBSERVED WATER TABLE @ 30"
RESTRICTIVE HORIZON @ 24"
BEDROCK NONE TO 60"



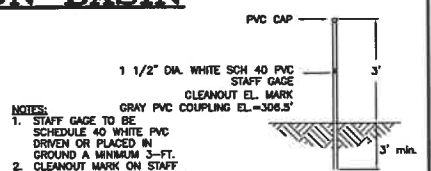
INFILTRATION BASIN #2 OUTLET STANDPIPE DETAIL NOT TO SCALE

- SPECIFICATIONS:**
- DO NOT DISCHARGE SEDIMENT-LADEN WATERS FROM CONSTRUCTION ACTIVITIES (RUNOFF, WATER FROM EXCAVATIONS) TO THE INFILTRATION BASIN.
 - DO NOT TRAFFIC EXPOSED SOIL SURFACE WITH CONSTRUCTION EQUIPMENT. IF FEASIBLE, PERFORM EXCAVATIONS WITH EQUIPMENT POSITIONED OUTSIDE THE LIMITS OF THE INFILTRATION BASIN.
 - AFTER THE BASIN IS EXCAVATED TO THE FINAL DESIGN ELEVATION, THE FLOOR SHALL BE DEEPLY TILLED WITH A ROTARY TILLER OR DISC HARROW TO RESTORE INFILTRATION RATES, FOLLOWED BY A PASS WITH A LEVELING DRAG.
 - VEGETATION SHALL BE ESTABLISHED IMMEDIATELY AFTER FINAL GRADING IS COMPLETED.
 - CONSTRUCT THE INFILTRATION BASIN TO THE GRADES DEPICTED ON THE PLAN AND CROSS-SECTION.
 - LOAM AND SEED ONLY THE SLOPES OF THE INFILTRATION BASIN AS PRESCRIBED IN THE "PERMANENT VEGETATION" NOTES FOUND ON SHEET C-12. SEED MIXTURE = A
 - DO NOT PLACE INFILTRATION SYSTEMS INTO SERVICE UNTIL THE CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.

- MAINTENANCE REQUIREMENTS:**
- INSPECT PRETREATMENT MEASURES (I.E. SEDIMENT FOREBAY(S), HOODED CATCH BASINS, ETC.) AT LEAST TWICE A YEAR AND AFTER EVERY STORM GREATER THAN 2.5 INCHES OF RAIN OVER A 24-HOUR PERIOD.
 - INSPECT INFILTRATION SURFACE BI-ANNUALLY, ONCE IN THE SPRING PRIOR TO MAY 15 AND ONCE IN THE FALL PRIOR TO OCTOBER 15.
 - INSPECT INFILTRATION SURFACE AFTER ANY RAINFALL EVENT OF 2.5-INCHES OR GREATER IN A 24-HOUR PERIOD.
 - REMOVE AND DISPOSE OF ACCUMULATED SEDIMENT BASED ON INSPECTION. REPAIR AREA OF REMOVAL AS NECESSARY TO RESTORE INFILTRATION CAPACITY.
 - PERFORM MAINTENANCE AND REHABILITATION BASED ON INSPECTIONS.
 - REMOVE DEBRIS (IF ANY) FROM INFILTRATION BASIN INLET BASED ON INSPECTION.
 - CONDUCT PERIODIC MOWING OF THE INFILTRATION BASIN SLOPES AND EMBANKMENTS (MINIMUM TWICE A YEAR) TO ELIMINATE WOODY GROWTH FROM THE EMBANKMENTS AND BOTTOM. MOWING THE INFILTRATION BASIN EMBANKMENTS WHEN MOWING THE REST OF THE SITE IS RECOMMENDED.
 - IF THE INFILTRATION SYSTEM DOES NOT DRAIN WITHIN 72-HOURS FOLLOWING A RAINFALL EVENT, THEN A QUALIFIED PROFESSIONAL (I.E. PROFESSIONAL ENGINEER, CERTIFIED SOILS SCIENTIST, ETC.) SHALL ASSESS THE CONDITION OF THE FACILITY TO DETERMINE MEASURES REQUIRED TO RESTORE INFILTRATION FUNCTION, INCLUDING BUT NOT LIMITED TO REMOVAL OF ACCUMULATED SEDIMENTS OR RECONSTRUCTION OF THE INFILTRATION SURFACE.

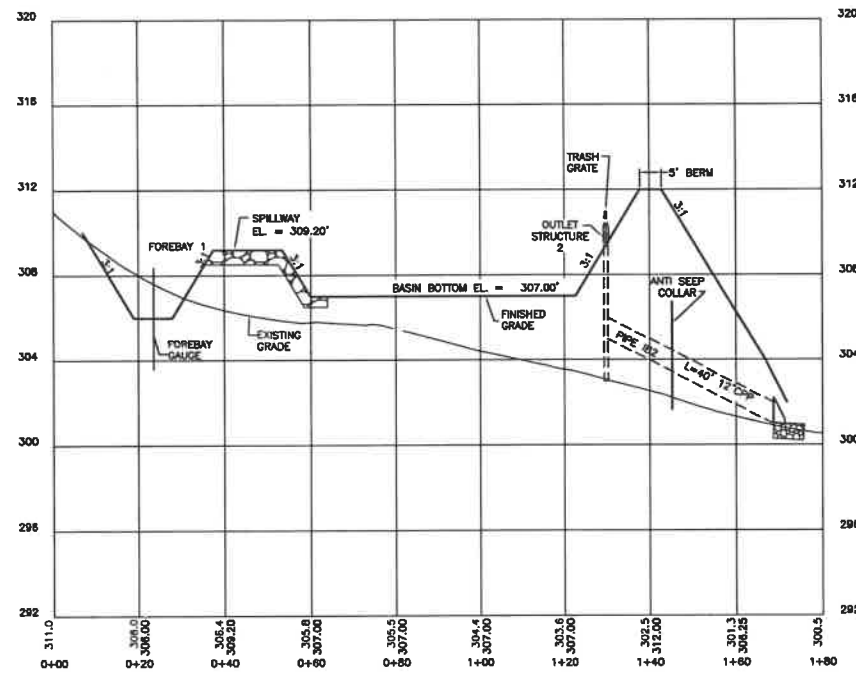
INFILTRATION BASIN

- SPECIFICATIONS:**
- CONSTRUCT THE SEDIMENT FOREBAY TO THE GRADES DEPICTED ON THE PLAN AND CROSS-SECTION.
 - LOAM AND SEED THE SLOPES AND BOTTOM OF THE SEDIMENT FOREBAY AS PRESCRIBED IN THE "PERMANENT VEGETATION" NOTES FOUND ON SHEET C-12.
- SEED MIXTURE = A**
- MAINTENANCE REQUIREMENTS:**
- INSPECT SEDIMENT FOREBAY BI-ANNUALLY, ONCE IN THE SPRING PRIOR TO MAY 15 AND ONCE IN THE FALL PRIOR TO OCTOBER 15.
 - CONDUCT PERIODIC MOWING OF THE SEDIMENT FOREBAY SLOPES AND EMBANKMENTS (MINIMUM TWICE A YEAR) TO ELIMINATE WOODY GROWTH FROM THE EMBANKMENTS AND BOTTOM. MOWING THE SEDIMENT FOREBAY EMBANKMENTS WHEN MOWING THE REST OF THE SITE IS RECOMMENDED.
 - REMOVE DEBRIS FROM THE OUTLET STRUCTURE OF THE SEDIMENT FOREBAY (I.E. STONE CHECK DAM) AT LEAST ONCE ANNUALLY.
 - REMOVE AND DISPOSE OF ACCUMULATED SEDIMENT BASED ON INSPECTION. WHEN SEDIMENT HAS REACHED THE RED MARK ON THE SEDIMENT STAFF GAGE INSTALLED IN THE FOREBAY, REMOVE SEDIMENT AND DISPOSE OF IT OFF-SITE IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS. ELEVATION OF RED CLEANOUT MARK ON STAFF GAUGE = 306.5'



SEDIMENT FOREBAY GAUGE DETAIL NOT TO SCALE

SEDIMENT FOREBAY



INFILTRATION BASIN #2 CROSS SECTION

1" = 20' (HORZ.) & 1" = 4' (VERT.)

INFILTRATION BASIN 2 DETAIL
CHAMPLIN PLACE
TAX MAP 243, LOT 39
ROCHESTER HILL ROAD &
HEALTHCARE DRIVE
ROCHESTER, NH
PREPARED FOR:
EASTER SEALS NH, INC.
MARCH 11, 2022

C-10

FILE NO. 154
PLAN NO. C-
DWG. NO. 17233/SP-1
F.B. NO.

31 Mooney Street, Alton, N.H. 603-875-3948

NORWAY PLAINS ASSOCIATES, INC.

2 Continental Blvd., Rochester, N.H. 603-335-3948



CAREFULLY REVIEW ALL SHEETS OF THIS PACKAGE TO INSURE PROPER CONSTRUCTION. SPECIFIC SITE CONDITIONS SHOULD BE EXPLORED PRIOR TO CONSTRUCTION. CONTACT BOTH THE DESIGN ENGINEER AND THE PROJECT OWNER FOR ANY AVAILABLE GEOTECHNICAL OR HYDROGEOLOGICAL INFORMATION AVAILABLE BUT NOT CONTAINED WITHIN THE PLAN SET. IF THERE ARE ANY QUESTIONS WITH THE DESIGN PRESENTED IN THIS PLAN SET PLEASE CONTACT THE ENGINEERING STAFF AT NORWAY PLAINS ASSOCIATES, INC. (603)-335-3948.

TEMPORARY VEGETATION:

- SPECIFICATIONS:**
1. INSTALL NEEDED EROSION AND SEDIMENT CONTROL MEASURES SUCH AS SILTATION BARRIERS, DIVERSIONS, AND SEDIMENT TRAPS.
 2. GRADE AS NEEDED FOR THE ACCESS OF EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING.
 3. RUNOFF SHALL BE DIVERTED FROM THE SEEDBED AREA.
 4. ON SLOPES 4:1 OR STEEPER, THE PREPARATION SHALL INCLUDE CREATING HORIZONTAL GROOVES PERPENDICULAR TO THE DIRECTION OF THE SLOPE TO CATCH SEED AND REDUCE RUNOFF.
- SEEDING PREPARATION:**
1. STONES AND TRASH SHALL BE REMOVED SO AS NOT TO INTERFERE WITH THE SEEDING AREA.
 2. WHERE THE SOIL HAS BEEN COMPACTED BY CONSTRUCTION OPERATIONS, LOOSEN SOIL TO A DEPTH OF 2 INCHES BEFORE APPLYING FERTILIZER, LIME AND SEED.
 3. IF APPLICABLE, FERTILIZER AND ORGANIC SOIL AMENDMENTS SHALL BE APPLIED DURING THE GROWING SEASON, RESTRICTED TO LIME, WOOD ASH OR LOW PHOSPHATE AND SLOW RELEASE NITROGEN VARIETIES, UNLESS A SOIL TEST WARRANTS OTHERWISE. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL, FERTILIZER AND LIMESTONE MAY BE APPLIED AT THE FOLLOWING RATES:

LIMESTONE APPLICATION RATE = 3 TONS/ACRE (138 LB./1,000-SF)
*EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDE

FERTILIZER APPLICATION RATE = 670 LB./ACRE (20 LB./1,000-SF)
*LOW PHOSPHATE FERTILIZER (6-0-4) OR EQUIVALENT

- SEEDING:**
1. APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL, OUTPACKER TYPE SEEDER OR HYDRO SEEDER (SLURRY INCLUDING SEED AND FERTILIZER). NORMAL SEEDING DEPTH IS FROM 1/4 TO 1/2 INCH. HYDROSEEDING THAT INCLUDES MULCH MAY BE LEFT ON SOIL SURFACE. SEEDING RATES MUST BE INCREASED BY 10% WHEN HYDROSEEDING.
 2. TEMPORARY SEED SHALL TYPICALLY OCCUR PRIOR TO SEPTEMBER 15.
 3. AREAS SEEDING BETWEEN MAY 15 AND AUGUST 15 SHALL BE COVERED WITH HAY OR STRAW MULCH, ACCORDING TO THE "TEMPORARY AND PERMANENT MULCHING" PRACTICE DESCRIBED IN THE NHSSM, VOL. 3.
 4. VEGETATED GROWTH COVERING AT LEAST 85% OF THE DISTURBED AREA SHALL BE ACHIEVED PRIOR TO OCTOBER 15. IF THIS CONDITION IS NOT ACHIEVED, IMPLEMENT OTHER TEMPORARY STABILIZATION MEASURES FOR OVER WINTER PROTECTION.

- MAINTENANCE REQUIREMENTS:**
1. TEMPORARY SEEDING SHALL BE INSPECTED WEEKLY AFTER ANY RAINFALL EXCEEDING 1/2 INCH IN 24 HOURS ON ACTIVE CONSTRUCTION SITES. TEMPORARY SEEDING SHALL BE INSPECTED JUST PRIOR TO SEPTEMBER 15, TO ASCERTAIN WHETHER ADDITIONAL SEEDING IS REQUIRED TO PROVIDE STABILIZATION OVER THE WINTER PERIOD.
 2. BASED ON INSPECTION, AREAS SHALL BE RESEED TO ACHIEVE FULL STABILIZATION OF EXPOSED SOILS. IF IT IS TOO LATE IN THE PLANTING SEASON TO APPLY ADDITIONAL SEED, THEN OTHER TEMPORARY STABILIZATION MEASURES SHALL BE IMPLEMENTED.
 3. IF ANY EVIDENCE OF EROSION OR SEDIMENTATION IS APPARENT, REPAIRS SHALL BE MADE AND AREAS SHALL BE RESEEDING, WITH OTHER TEMPORARY MEASURES (I.E. MULCH, ETC.) USED TO PROVIDE EROSION PROTECTION DURING THE PERIOD OF VEGETATION ESTABLISHMENT.

TEMPORARY CONSTRUCTION EXIT

NOT TO SCALE

- MAINTENANCE REQUIREMENTS:**
1. WHEN THE CONTROL PAD BECOMES INEFFECTIVE, THE STONE SHALL BE REMOVED ALONG WITH THE COLLECTED SOIL MATERIAL, REGRADED ON SITE, AND STABILIZED. THE ENTRANCE SHALL THEN BE RECONSTRUCTED.
 2. THE CONTRACTOR SHALL SWEEP THE PAVEMENT AT EXITS WHENEVER SOIL MATERIALS ARE TRACKED ONTO THE ADJACENT PAVEMENT OR TRAVELED WAY.
 3. WHEN WHEEL WASHING IS REQUIRED, IT SHALL BE CONDUCTED ON AN AREA STABILIZED WITH AGGREGATE, WHICH DRAINS INTO AN APPROVED SEDIMENT-TRAPPING DEVICE. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING STORM DRAINS, DITCHES, OR WATERWAYS.

- CONSTRUCTION SPECIFICATIONS:**
1. THE MINIMUM STONE USED SHALL BE 3-INCH CRUSHED STONE.
 2. THE MINIMUM LENGTH OF THE PAD SHALL BE 75 FEET, EXCEPT THAT THE MINIMUM LENGTH MAY BE REDUCED TO 50 FEET IF A 3-INCH TO 6-INCH BERM IS INSTALLED AT THE ENTRANCE OF THE PROJECT SITE.
 3. THE PAD SHALL BE THE FULL WIDTH OF CONSTRUCTION ACCESS ROAD OR 10 FEET, WHICHEVER IS GREATER.
 4. THE PAD SHALL SLOPE AWAY FROM THE EXISTING ROADWAY.
 5. THE PAD SHALL BE AT LEAST 6 INCHES THICK.
 6. THE GEOTEXTILE FILTER FABRIC SHALL BE PLACED BETWEEN THE STONE PAD AND THE EARTH SURFACE BELOW THE PAD.
 7. THE STONE SHALL BE MAINTAINED OR REPLACED WHEN MUD AND SOIL PARTICLES CLOG THE VOIDS IN THE STONE, SUCH THAT MUD AND SOIL PARTICLES ARE TRACKED OFF-SITE.
 8. NATURAL DRAINAGE THAT CROSSES THE LOCATION OF THE STONE PAD SHALL BE INTERCEPTED AND PIPED BENEATH THE PAD, AS NECESSARY, WITH SUITABLE OUTLET PROTECTION.

TEMPORARY EROSION AND SEDIMENTATION CONTROL

TAX MAP 243, LOT 39
215 ROCHESTER HILL RD
ROCHESTER, NH

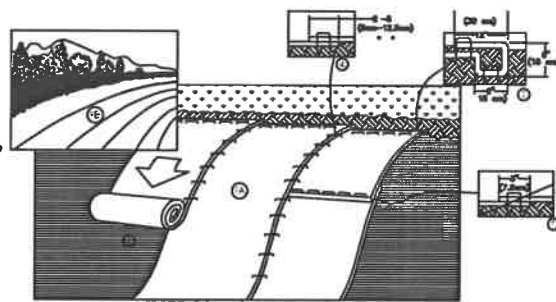
PREPARED FOR:
EASTER SEALS NH, INC.
MARCH 11, 2022

2 Continental Blvd., Rochester, N.H. 603-335-3948

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EROSION CONTROL PRODUCTS
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14040 HIGHWAY 41 NORTH
DUNSMITH, IN 47725
800-775-5040
www.norgreen.com



SLOPE INSTALLATION

- GENERAL NOTES:**
1. AVOID THE USE OF WELDED PLASTIC OR BIODEGRADABLE PLASTIC NETTING OR THREAD (E.G. POLYPROPYLENE) IN EROSION CONTROL MATING. THERE ARE NUMEROUS DOCUMENTED CASES OF SNAKES, TURTLES, WATERFOWL AND OTHER WILDLIFE BEING TRAPPED AND KILLED IN EROSION CONTROL MATING WITH SYNTHETIC NETTING AND THREAD; THEREFORE, THE USE OF BIODEGRADABLE MATING OR THE LIKE IS MANDATORY TO PROTECT THE WILDLIFE IN THE PROJECT AREA.
- MAINTENANCE REQUIREMENTS:**
1. ALL BLANKET AND MATS SHALL BE INSPECTED WEEKLY DURING THE CONSTRUCTION PERIOD, AND AFTER ANY RAINFALL EVENT EXCEEDING 1/2 INCH IN A 24-HOUR PERIOD.
 2. ANY FAILURE SHALL BE REPAIRED IMMEDIATELY. IF WASHOUT OF THE SLOPE, DISPLACEMENT OF THE MAT, OR DAMAGE TO THE MAT OCCURS, THE AFFECTED SLOPE SHALL BE REPAIRED AND RESEED, AND THE AFFECTED AREA OF MAT SHALL BE RE-INSTALLED.

- CONSTRUCTION SPECIFICATIONS:**
1. MANUFACTURER'S INSTALLATION INSTRUCTIONS.
 - A. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP's), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
 - B. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP's IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF RECP'S EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP's WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30 CM) PORTION OF RECP'S BACK OVER SEED AND COMPACTED SOIL. SECURE RECP'S OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30 CM) APART ACROSS THE WIDTH OF THE RECP's.
 - C. ROLL THE RECP's (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE. RECP's WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP's MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM, STAPLES/STAKES SHALL BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
 - D. THE EDGES OF PARALLEL RECP's MUST BE STAPLED WITH APPROXIMATELY 2" - 5" (5 CM - 12.5 CM) OVERLAP DEPENDING ON RECP's TYPE.
 - E. CONSECUTIVE RECP's SPUN DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5 CM) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30 CM) APART ACROSS ENTIRE RECP's WIDTH.

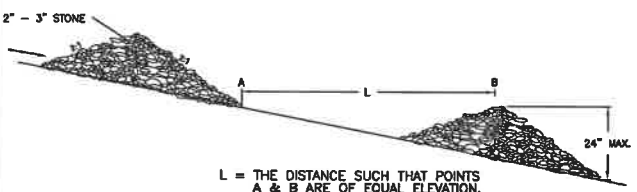
- NOTE: IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY SECURE THE RECP's.
- SITE PREPARATION:**
1. PROPER SITE PREPARATION IS ESSENTIAL TO ENSURE COMPLETE CONTACT OF THE PROTECTION MATING WITH THE SOIL.
 - A. GRADE AND SHAPE AREA IF INSTALLATION.
 - B. REMOVE ALL ROCKS, CLODS, TRASH, VEGETATIVE OR OTHER OBSTRUCTIONS SO THAT THE INSTALLED BLANKETS WILL HAVE DIRECT CONTACT WITH THE SOIL.
 - C. PREPARE SEEDBED BY LOOSING 2-3 INCHES OF TOPSOIL ABOVE FINAL GRADE.
 - D. INCORPORATE AMENDMENTS, SUCH AS LIME AND FERTILIZER, INTO SOIL, ACCORDING TO SOIL TEST AND THE SEEDING PLAN.
- SEEDING:**
1. SEED AREA BEFORE BLANKET INSTALLATION FOR EROSION CONTROL AND RE-VEGETATION. SEEDING AFTER MAT INSTALLATION IS OFTEN SPECIFIED FOR TURF REINFORCEMENT APPLICATIONS, WHEN SEEDING PRIOR TO BLANKET INSTALLATION, ALL CHECK SLOTS AND OTHER AREAS DISTURBED DURING INSTALLATION MUST BE RESEED.
 2. WHEN SOIL FILLING IS SPECIFIED, SEED THE MATING AND THE ENTIRE DISTURBED AREA AFTER INSTALLATION AND PRIOR TO FILLING THE MAT WITH SOIL.
 3. THERE SHALL BE NO PLASTIC, OR MULTI-FILAMENT OR MONOFILAMENT POLYPROPYLENE NETTING OR MESH WITH AN OPENING SIZE OF GREATER THAN 1/8 INCHES MATERIAL UTILIZED. NOT APPLICABLE TO TURF REINFORCEMENT MATS.
 4. TURF REINFORCEMENT MATS SHALL BE COVERED WITH SOIL TO PREVENT EXPOSURE OF THE MATS TO THE SURFACE.

TEMPORARY EROSION CONTROL BioNet SC150BN BIODEGRADABLE DETAIL

NOT TO SCALE

SPACING BETWEEN STAPLES (FT/FT)	LENGTH (FT)
0.020	75
0.030	50
0.040	37
0.050	30
0.060	19
0.100	13
0.120	11
0.150	10

DRAINAGE WAY CROSS-SECTION



L = THE DISTANCE SUCH THAT POINTS A & B ARE OF EQUAL ELEVATION.

SPACING BETWEEN STONE CHECK DAMS

- CONSTRUCTION SPECIFICATIONS:**
1. STRUCTURES SHALL BE INSTALLED ACCORDING TO THE DIMENSIONS SHOWN ON THE PLANS AT THE APPROPRIATE SPACING.
 2. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER SO THAT EROSION, AIR AND WATER POLLUTION WILL BE MINIMIZED.
 3. STRUCTURES SHALL BE REMOVED FROM THE CHANNEL WHEN THEIR USEFUL LIFE HAS BEEN COMPLETED.

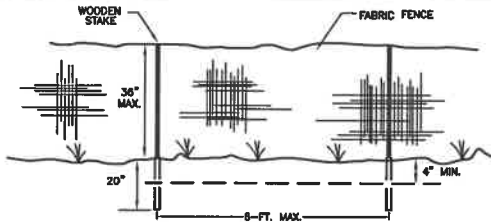
- MAINTENANCE NOTES:**
1. TEMPORARY GRADE STABILIZATION STRUCTURES SHALL BE INSPECTED AFTER EACH STORM AND DAILY DURING PROLONGED STORM EVENTS. ANY DAMAGE TO THE STRUCTURES SHALL BE REPAIRED IMMEDIATELY.
 2. PARTICULAR ATTENTION SHALL BE GIVEN TO END RUN AND EROSION AT THE DOWNSTREAM TOE OF THE STRUCTURE.
 3. WHEN REMOVING THE STRUCTURES, THE DISTURBED AREAS SHALL BE BROUGHT UP TO EXISTING CHANNEL GRADE AND THE AREAS PREPARED, SEED, AND MULCHED.
 4. SEDIMENT SHALL BE REMOVED FROM BEHIND THE STRUCTURES WHEN IT REACHES 1/2 THE ORIGINAL HEIGHT OF THE STRUCTURE.

STONE CHECK DAM INSTALLATION DETAIL

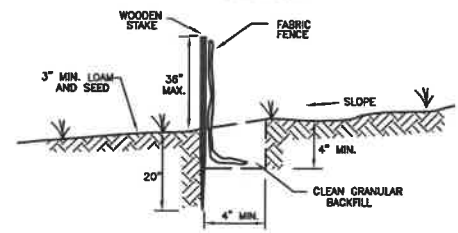
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FILE NO. 102
PLAN NO. C-3154
DWG. NO. 19249 SP-1
F.B. NO.

31 Mooney Street, Alton, N.H. 603-875-3948



PROFILE



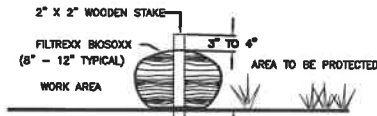
CROSS-SECTION

- MAINTENANCE REQUIREMENTS:**
1. FENCES SHALL BE INSPECTED AND MAINTAINED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALLS.
 2. SEDIMENT DEPOSITION SHALL BE REMOVED, AT A MINIMUM, WHEN DEPOSITION ACCUMULATES TO ONE-HALF THE HEIGHT OF THE FENCE, AND MOVED TO AN APPROPRIATE LOCATION SO THE SEDIMENT IS NOT TRANSPORTED BACK TOWARD THE SILT FENCE.
 3. SILT FENCES SHALL BE REPAIRED IMMEDIATELY IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THEM. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR THE EDGES OF THE BARRIER, OR IMPOUNDING OF LARGE VOLUMES OF WATER BEHIND THEM, SEDIMENT SHALL BE REMOVED AND THE FENCE SHALL BE REPLACED WITH A TEMPORARY CHECK DAM.
 4. SHALL THE FABRIC ON A SILT FENCE DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL IS NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
 5. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE PREPARED AND SEED.
 6. IF THERE IS EVIDENCE OF END FLOW ON PROPERLY INSTALLED BARRIERS, EXTEND BARRIERS UPHILL OR CONSIDER REPLACING THEM WITH OTHER MEASURES, SUCH AS TEMPORARY DIVERSIONS AND SEDIMENT TRAPS.
 7. SILT FENCES HAVE A USEFUL LIFE OF ONE SEASON. ON LONGER CONSTRUCTION PROJECTS, SILT FENCE SHALL BE REPAIRED PERIODICALLY AS REQUIRED TO MAINTAIN EFFECTIVENESS.

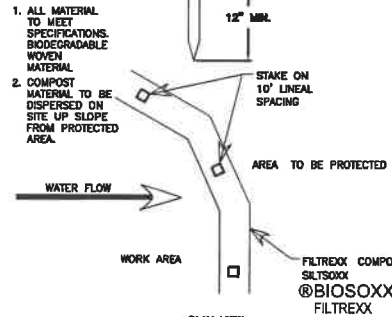
- CONSTRUCTION SPECIFICATIONS:**
1. FENCES SHALL BE USED IN AREAS WHERE EROSION WILL OCCUR ONLY IN THE FORM OF SHEET EROSION AND THERE IS NO CONCENTRATION OF WATER IN A CHANNEL OR DRAINAGE WAY ABOVE THE FENCE. SEDIMENT BARRIERS SHALL BE INSTALLED PRIOR TO ANY SOIL DISTURBANCE OF THE CONTRIBUTING DRAINAGE AREA ABOVE THEM.
 2. THE MAXIMUM CONTRIBUTING DRAINAGE AREA ABOVE THE FENCE SHALL BE LESS THAN 1 ACRE PER 100 LINEAR FEET OF FENCE.
 3. THE MAXIMUM LENGTH OF SLOPE ABOVE THE FENCE SHALL BE 100 FEET.
 4. THE MAXIMUM SLOPE ABOVE THE FENCE SHALL BE 2:1.
 5. FENCES SHALL BE INSTALLED FOLLOWING THE CONTOUR OF THE LAND AS CLOSELY AS POSSIBLE, AND
 - A. THE ENDS OF THE FENCE SHALL BE FLARED UPSLOPE.
 - B. THE FABRIC SHALL BE EMBEDDED A MINIMUM OF 4 INCHES IN DEPTH AND INCHES IN WIDTH IN A TRENCH EXCAVATED INTO THE GROUND, OR IF SITE CONDITIONS INCLUDE FROZEN GROUND, LEDGE, OR THE PRESENCE OF HEAVY ROOTS, THE BASE OF THE FABRIC SHALL BE EMBEDDED WITH A MINIMUM THICKNESS OF 8 INCHES OF 3/4-INCH STONE.
 - C. THE SOIL SHALL BE COMPACTED OVER THE EMBEDDED FABRIC.
 - D. SUPPORT POSTS SHALL BE SIZED AND ANCHORED ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS WITH MAXIMUM POST SPACING OF 8 FEET.
 - E. ADJOINING SECTIONS OF THE FENCE SHALL BE OVERLAPPED BY A MINIMUM OF 8 INCHES (24 INCHES IS PREFERRED), FOLDED AND STAPLED TO A SUPPORT POST. IF METAL POSTS ARE USED, FABRIC SHALL BE WIRE-TIED DIRECTLY TO THE POSTS WITH THREE DIAGONAL TIES.
 6. SILT FENCING SHALL NOT BE STAPLED OR NAILED TO TREES.
 7. THE FILTER FABRIC SHALL BE A PERVIOUS SHEET OF POLYPROPYLENE, NYLON, POLYESTER OR ETHYLENE YARN AND SHALL BE CERTIFIED BY THE MANUFACTURER OR SUPPLIER.
 8. THE FILTER FABRIC SHALL CONTAIN ULTRAVIOLET RAY INHIBITORS AND STABILIZERS TO PROVIDE A MINIMUM OF 6 MONTHS OF EXPECTED USABLE CONSTRUCTION LIFE AT A TEMPERATURE RANGE OF 0 DEGREES FAHRENHEIT TO 120 DEGREES FAHRENHEIT.
 9. POSTS FOR SILT FENCES SHALL BE EITHER 4-INCH DIAMETER WOOD OR 1.33 POUNDS PER LINEAR FOOT STEEL WITH A MINIMUM LENGTH OF 5 FEET. STEEL POSTS SHALL HAVE PROJECTIONS FOR FASTENING WIRE TO THEM. POSTS SHALL BE PLACED ON THE DOWN SLOPE SIDE OF THE FABRIC.
 10. THE HEIGHT OF A SILT FENCE SHALL NOT EXCEED 36 INCHES AS HIGHER FENCES MAY IMPOUND VOLUMES OF WATER SUFFICIENT TO CAUSE FAILURE OF THE STRUCTURE.
 11. THE FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHALL BE SPLICED TOGETHER ONLY AT SUPPORT POST, WITH A MINIMUM 6-INCH OVERLAP, AND SECURELY SEALED.
 12. A MANUFACTURED SILT FENCE SYSTEM WITH INTEGRAL POSTS MAY BE USED.
 13. POST SPACING SHALL NOT EXCEED 8 FEET.
 14. A TRENCH SHALL BE EXCAVATED APPROXIMATELY 4 INCHES WIDE AND 4 INCHES DEEP ALONG THE LINE OF POSTS AND UP GRADIENT FROM THE BARRIER.
 15. THE STANDARD STRENGTH OF FILTER FABRIC SHALL BE STAPLED OR WIRE TO THE POST, AND 8 INCHES OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH. THE FABRIC SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE.
 16. THE TRENCH SHALL BE BACKFILLED AND THE SOIL COMPACTED OVER THE FILTER FABRIC.
 17. SILT FENCE MAY BE INSTALLED BY "SLICING" USING MECHANICAL EQUIPMENT SPECIFICALLY DESIGNED FOR THIS PROCEDURE. THE SLICING METHOD USES AN IMPLEMENT TOWED BEHIND A TRACTOR TO "PLOW" OR SLICE THE SILT FENCE MATERIAL INTO THE SOIL. THE SLICING METHOD MINIMALLY DISRUPTS THE SOIL UPWARD AND SLIGHTLY DISPLACES THE SOIL, MAINTAINING THE SOIL'S PROFILE AND CREATING AN OPTIMAL CONDITION FOR SUBSEQUENT MECHANICAL COMPACTION.
 18. SILT FENCES SHALL BE INSTALLED WITH "SMILES" OR "J-HOOKS" TO REDUCE THE DRAINAGE AREA THAT ANY SEDIMENT WILL IMPOUND.
 19. THE ENDS OF FENCE SHALL BE TURNED UPHILL.
 20. SILT FENCES PLACED AT THE TOE OF A SLOPE SHALL BE SET AT LEAST 6 FEET FROM THE TOE TO ALLOW SPACE FOR SHALLOW PONDING AND TO ALLOW FOR MAINTENANCE ACCESS WITHOUT DISTURBING THE SLOPE.
 21. SILT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREAS HAVE BEEN PERMANENTLY STABILIZED.

SILTATION CONTROL FENCE DETAIL

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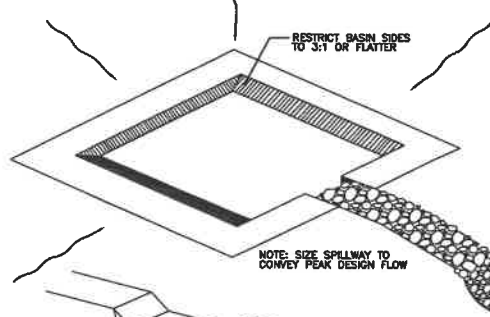


PLAN VIEW

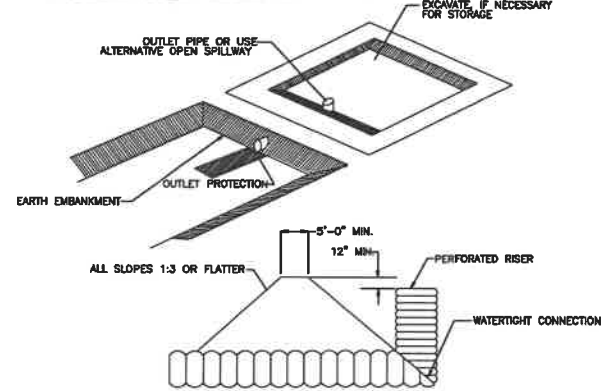


BIOSEX DETAIL

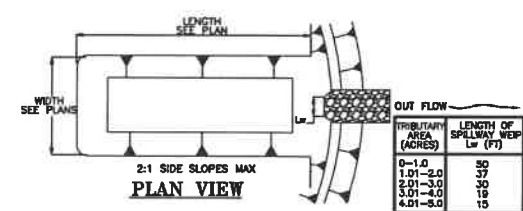
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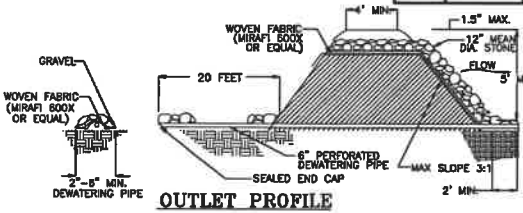
TYPICAL OPEN SPILLWAY



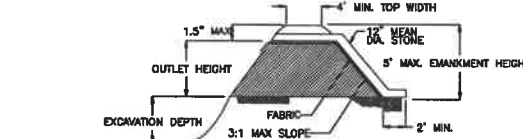
EMBANKMENT SECTION THRU RISER



PLAN VIEW



OUTLET PROFILE



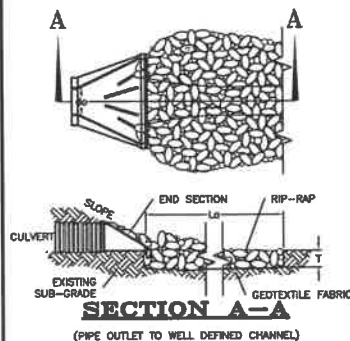
ALTERNATE OUTLET PROFILE

SEDIMENT TRAP



CAREFULLY REVIEW ALL SHEETS OF THIS PACKAGE TO INSURE PROPER CONSTRUCTION. SPECIFIC SITE CONDITIONS SHOULD BE EXPLORED PRIOR TO CONSTRUCTION. CONTACT BOTH THE DESIGN ENGINEER AND THE PROJECT OWNER FOR ANY AVAILABLE GEOTECHNICAL OR HYDROGEOLOGICAL INFORMATION AVAILABLE BUT NOT CONTAINED WITHIN THE PLAN SET. IF THERE ARE ANY QUESTIONS WITH THE DESIGN PRESENTED IN THIS PLAN SET PLEASE CONTACT THE ENGINEERING STAFF AT NORWAY PLAINS ASSOCIATES, INC. (603)-335-3948.

RIP-RAP GRADATION



% OF WEIGHT SMALLER THAN THE GIVEN SIZE	SIZE OF STONE (INCHES)
100	5 10 6
85	4 10 5
50	3 10 4
15	1 10 2

% OF WEIGHT SMALLER THAN THE GIVEN SIZE	SIZE OF STONE (INCHES)
100	6 10 8
85	5 10 7
50	4 10 6
15	1 10 2

% OF WEIGHT SMALLER THAN THE GIVEN SIZE	SIZE OF STONE (INCHES)
100	9 10 12
85	7 8 10 10.8
50	6 10 9
15	1.8 10 3

% OF WEIGHT SMALLER THAN THE GIVEN SIZE	SIZE OF STONE (INCHES)
100	13.5 10 18
85	11.7 10 16.2
50	9 10 13.5
15	2.7 10 4.5

APRON DIMENSION TABLE

OUTLET PROT. #	PIPE OUTLET	W	H	L	T	d50
1	12" CPP	3'	12"	9"	0"	3"
2	24" CPP	6'	22"	16"	0"	3"
3	30" CPP	8'	29"	22"	18"	6"
4	12" CPP	3'	12"	9"	0"	3"
5	30" CPP	8'	29"	22"	0"	3"

NOTES:

- ALL PIPE CULVERTS SHALL HAVE END SECTIONS OR HEADWALLS. END SECTION MATERIAL AND MANUFACTURER SHALL MATCH THAT OF THE PIPE CULVERT.
- THE LARGEST RIP-RAP SIZE DETERMINED DURING HYDROLOGIC ANALYSIS HAS BEEN USED FOR ALL OUTLETS FOR ECONOMY AND SIMPLICITY.
- APRON LENGTHS, WIDTHS AND THICKNESSES HAVE BEEN ROUNDED UP TO WHOLE NUMBERS FOR EASE OF CONSTRUCTION.

CONSTRUCTION SPECIFICATIONS:

- PREPARE THE SUB-GRADE FOR THE FILTER MATERIAL, GEOTEXTILE FABRIC, AND RIP-RAP TO THE GRADES SHOWN ON THE PLANS.
- MINIMUM 6" SAND/GRAVEL BEDDING OR GEOTEXTILE FABRIC REQUIRED UNDER ALL ROCK RIP-RAP. THE ROCK OR GRAVEL USED FOR FILTER OR RIP-RAP SHALL CONFORM TO THE SPECIFIED GRADATION.
- GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING THE PLACEMENT OF ROCK RIP-RAP. DAMAGED AREAS IN THE FABRIC SHALL BE REPAIRED BY PLACING A PIECE OF FABRIC OVER THE DAMAGED AREA OR BY COMPLETE REPLACEMENT OF THE FABRIC. ALL OVERLAPS REQUIRED FOR REPAIRS OR JOINING TWO (2) PIECES OF FABRIC SHALL BE A MINIMUM OF 12 INCHES.
- STONE FOR THE RIP-RAP MAY BE PLACED BY EQUIPMENT AND SHALL BE CONSTRUCTED TO THE FULL LAYER THICKNESS IN ONE LIFT AND IN SUCH A MANNER AS TO PREVENT SEGREGATION OF THE STONE SIZE.
- RIP-RAP SIZE CHOSEN FOR THE WORST CASE OF ALL OUTLETS. ALL RIP-RAP USED FOR PIPE OUTLET PROTECTION WILL HAVE THE SAME GRADATION AND THICKNESS.

MAINTENANCE NOTES:

- OUTLETS SHALL BE INSPECTED AND CLEANED ANNUALLY AND AFTER ANY MAJOR STORM EVENT. ANY EROSION OR DAMAGE TO THE RIP-RAP SHALL BE REPAIRED IMMEDIATELY.
- THE CHANNEL IMMEDIATELY DOWNSTREAM FROM THE OUTLET SHOULD BE CHECKED TO SEE THAT NO EROSION IS OCCURRING.
- THE DOWNSTREAM CHANNEL SHOULD BE KEPT CLEAR OF OBSTRUCTIONS SUCH AS FALLEN TREES, DEBRIS, AND SEDIMENT THAT COULD CHANGE FLOW PATTERNS AND/OR TAILWATER DEPTHS ON THE PIPES. REPAIRS MUST BE CARRIED OUT IMMEDIATELY TO AVOID ADDITIONAL DAMAGE TO THE OUTLET PROTECTION APRON.

PIPE OUTLET PROTECTION DETAIL

DUST CONTROL PRACTICES:

- APPLY DUST CONTROL MEASURES AS NECESSARY TO MAINTAIN CONTROL OF DUST ON SITE.
- WATER APPLICATION:
 - WETTEST EXPOSED SOIL SURFACES PERIODICALLY WITH ADEQUATE WATER TO CONTROL DUST.
 - AVOID EXCESSIVE APPLICATION OF WATER THAT WOULD RESULT IN MOBILIZING SEDIMENT AND SUBSEQUENT DEPOSITION IN NATURAL WATERBODIES.
- STONE APPLICATION:
 - COVER SURFACE WITH CRUSHED OR COARSE GRAVEL.
 - IN AREAS NEAR WATERWAYS USE ONLY CHEMICALLY STABILIZED OR WASHED AGGREGATE.
- REFER TO "NEW HAMPSHIRE STORMWATER MANAGEMENT MANUAL, VOLUME 3 CONSTRUCTION PHASE EROSION AND SEDIMENT CONTROLS, DECEMBER 2008" FOR OTHER ALLOWABLE DUST CONTROL PRACTICES (I.E. COMMERCIAL TACHOMERS OR CHEMICAL TREATMENTS SUCH AS CALCIUM CHLORIDE, ETC.)

STOCKPILE PRACTICES:

- LOCATE STOCKPILES A MINIMUM OF 50-FT. AWAY FROM CONCENTRATED FLOWS OF STORMWATER, DRAINAGE COURSES OR INLETS.
- PROTECT ALL STOCKPILES FROM STORMWATER RUN-ON USING TEMPORARY PERIMETER MEASURES SUCH AS DIVERSIONS, BERMES, SANDBAGS OR OTHER APPROVED PRACTICES.
- STOCKPILES SHALL BE SURROUNDED BY SEDIMENT BARRIERS AS DESCRIBED ON THE PLANS AND IN NHSM VOL. 3, TO PREVENT MIGRATION OF MATERIAL BEYOND THE IMMEDIATE CONTAINMENT OF THE STOCKPILE.
- IMPLEMENT WIND EROSION CONTROL PRACTICES AS APPROPRIATE ON ALL STOCKPILED MATERIAL.
- PLACE BAGGED MATERIALS ON PALLETS OR UNDERCOVER.

PROTECTION OF INACTIVE STOCKPILES:

- INACTIVE SOIL STOCKPILES SHALL BE COVERED WITH ANCHORED TARPS OR PROTECTED WITH SOIL STABILIZATION MEASURES (TEMPORARY SEED AND MULCH OR OTHER TEMPORARY STABILIZATION PRACTICES) AND TEMPORARY PERIMETER SEDIMENT BARRIERS (I.E. SILT FENCE, ETC.) AT ALL TIMES.
- INACTIVE STOCKPILES OF CONCRETE RUBBLE, ASPHALT CONCRETE RUBBLE, AGGREGATE MATERIALS, AND SIMILAR MATERIALS SHALL BE PROTECTED WITH TEMPORARY SEDIMENT PERIMETER BARRIERS (I.E. SILT FENCE, ETC.) AT ALL TIMES. IF THE MATERIALS ARE A SOURCE OF DUST, THEY SHALL ALSO BE COVERED.

PROTECTION OF ACTIVE STOCKPILES:

- ALL STOCKPILES SHALL BE SURROUNDED WITH TEMPORARY LINEAR SEDIMENT BARRIERS (I.E. SILT FENCE, ETC.) PRIOR TO THE ONSET OF PRECIPITATION. PERIMETER BARRIERS SHALL BE MAINTAINED AT ALL TIMES, AND ADJUSTED AS NEEDED TO ACCOMMODATE THE DELIVERY AND REMOVAL OF MATERIAL FROM THE STOCKPILE. THE INTEGRITY OF THE BARRIER SHALL BE INSPECTED AT THE END OF EACH WORKING DAY.
- WHEN A STORM IS PREDICTED, STOCKPILES SHALL BE PROTECTED WITH AN ANCHORED PROTECTIVE COVERING.

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PERMANENT VEGETATION:

SPECIFICATIONS:

- INSTALL NEEDED EROSION AND SEDIMENT CONTROL MEASURES SUCH AS SILTATION BARRIERS, DIVERSIONS, AND SEDIMENT TRAPS.
- GRADE AS NEEDED FOR THE ACCESS OF EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING.
- RUNOFF SHALL BE DIVERTED FROM THE SEEDBED AREA.
- ON SLOPES 4:1 OR STEEPER, THE FINAL PREPARATION SHALL INCLUDE CREATING HORIZONTAL GROOVES PERPENDICULAR TO THE DIRECTION OF THE SLOPE TO CATCH SEED AND REDUCE RUNOFF.

SEEDBED PREPARATION:

- WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING TOOTH HARROW OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OPERATION SHALL BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM, FINE SEEDBED IS PREPARED. ALL BUT CLAY AND SILT SOILS SHALL BE ROLLED TO FIRM THE SEEDBED WHEREVER FEASIBLE.
- REMOVE FROM THE SURFACE ALL STONES, ZINCOS, OR LARGER IN ANY DIMENSION. REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, CABLE, TREE ROOTS, CONCRETE CLOS, LUMPS, TRASH OR OTHER UNSUITABLE MATERIAL.
- INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE TILLED AND FIRMED AS ABOVE.
- WHERE THE SOIL HAS BEEN COMPACTED BY CONSTRUCTION OPERATIONS, LOOSEN SOIL TO A DEPTH OF 2 INCHES BEFORE APPLYING FERTILIZER, LIME AND SEED.
- IF APPLICABLE, FERTILIZER AND ORGANIC SOIL AMENDMENTS SHALL BE APPLIED DURING THE GROWING SEASON.
- APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS. FERTILIZER SHALL BE RESTRICTED TO LIME, WOOD ASH OR LOW PHOSPHATE AND SLOW RELEASE NITROGEN VARIETIES, UNLESS A SOIL TEST WARRANTS OTHERWISE. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL, FERTILIZER AND LIMESTONE MAY BE APPLIED AT THE FOLLOWING RATES:

LIMESTONE APPLICATION RATE = 3 TONS/ACRE (138 LB./1,000-SF)*

*EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDE

FERTILIZER APPLICATION RATE = 670 LB./ACRE (20 LB./1,000-SF)*

*LOW PHOSPHATE FERTILIZER (8-0-4) OR EQUIVALENT

SEEDING:

- INOCULATE ALL LEGUME SEED WITH THE CORRECT TYPE OF INOCULANT.
- APPLY SEED UNIFORMLY BY HAND, CYCLOP SEEDER, DRILL, CULPACKER TYPE SEEDER OR HYDROSEEDER (SLURRY INCLUDING SEED AND FERTILIZER). NORMAL SEEDING DEPTH IS FROM 1/4 TO 1/2 INCH. HYDROSEEDING THAT INCLUDES MULCH MAY BE LEFT ON SOIL SURFACE.
- WHERE FEASIBLE EXCEPT WHERE EITHER CULPACKER TYPE SEEDER OR HYDROSEEDER IS USED, THE SEEDBED SHALL BE FIRMED FOLLOWING SEEDING OPERATIONS WITH A ROLLER, OR LIGHT DRAG.
- SPRING SEEDING USUALLY GIVES THE BEST RESULTS FOR ALL SEED MIXES OR WITH LEGUMES. PERMANENT SEEDING SHALL BE COMPLETED 45 DAYS PRIOR TO FIRST KILLING FROST. WHEN CROWN VETCH IS SEEDING IN LATE SUMMER AT LEAST 35% OF THE SEED SHALL BE HARD SEED (UNSHARDED). IF SEEDING CANNOT BE COMPLETED THE SPECIFIED SEEDING DATES, MULCH ACCORDING TO THE "TEMPORARY AND PERMANENT MULCHING" PRACTICE DESCRIBED IN THE NHSM, VOL. 3, AND DELAY SEEDING UNTIL THE NEXT RECOMMENDED SEEDING PERIOD.
- AREAS SEEDING BETWEEN MAY 15 AND AUGUST 15 SHALL BE COVERED WITH HAY OR STRAW MULCH, ACCORDING TO THE "TEMPORARY AND PERMANENT MULCHING" PRACTICE DESCRIBED IN THE NHSM, VOL. 3.
- VEGETATED GROUND COVERING AT LEAST 85% OF THE DISTURBED AREA SHALL BE ACHIEVED PRIOR TO OCTOBER 15. IF THIS CONDITION IS NOT ACHIEVED, IMPLEMENT OTHER TEMPORARY STABILIZATION MEASURES FOR OVER WINTER PROTECTION.

HYDROSEEDING:

- WHEN HYDROSEEDING (HYDRAULIC APPLICATION), PREPARE THE SEEDBED AS SPECIFIED ABOVE OR BY HAND RAKING TO LOOSEN AND SMOOTH THE SOIL AND REMOVE SURFACE STONES LARGER THAN 2 INCHES IN DIAMETER.
- SLOPES MUST BE NO STEEPER THAN 2:1 (2 FEET HORIZONTALLY BY 1 FOOT VERTICALLY).
- LIME AND FERTILIZER MAY BE APPLIED SIMULTANEOUSLY WITH THE SEED. THE USE OF FIBER MULCH ON CRITICAL AREAS IS NOT RECOMMENDED (UNLESS IT IS USED TO HOLD STRAW OR HAY). BETTER PROTECTION IS GAINED BY USING STRAW MULCH AND HOLDING IT WITH ADHESIVE MATERIALS OR 500 POUNDS PER ACRE OF WOOD FIBER MULCH.
- SEEDING RATES MUST BE INCREASED BY 10% WHEN HYDROSEEDING.

MAINTENANCE REQUIREMENTS:

- PERMANENT SEEDING AREAS SHALL BE INSPECTED AT LEAST MONTHLY DURING THE COURSE OF CONSTRUCTION. INSPECTION, MAINTENANCE AND CORRECTIVE ACTIONS SHALL CONTINUE UNTIL THE OWNER ASSUMES PERMANENT OPERATION OF THE SITE.
- SEEDING AREAS SHALL BE MOVED AS REQUIRED TO MAINTAIN A HEALTHY STAND OF VEGETATION. MOWING HEIGHT AND FREQUENCY DEPEND ON TYPE OF GRASS COVER.
- BASED ON INSPECTION, AREAS SHALL BE RESEED TO ACHIEVE FULL STABILIZATION OF EXPOSED SOILS.
- AT A MINIMUM 85% OF THE SOIL SURFACE SHALL BE COVERED BY VEGETATION.
- IF ANY EVIDENCE OF EROSION OR SEDIMENTATION IS APPARENT, REPAIRS SHALL BE MADE AND AREAS SHALL BE RESEED, WITH OTHER TEMPORARY MEASURES (I.E. MULCH, ETC.) USED TO PROVIDE EROSION PROTECTION DURING THE PERIOD OF VEGETATION ESTABLISHMENT.

PERMANENT VEGETATION SEEDING RECOMMENDATIONS

USE	MIXTURE	SPECIES	LB./ACRE	LB./1,000-SF
STEPP CUTS AND FILLS, BORROW AND DISPOSAL AREAS	A	TALL FESCUE	20	0.45
		CREeping RED FESCUE	20	0.45
		TOTAL	42	0.95
WATERWAYS, EMERGENCY SPILLWAYS, AND OTHER CHANNELS WITH FLOWING WATER	A	TALL FESCUE	20	0.45
		CREeping RED FESCUE	20	0.45
		TOTAL	42	0.95
LIGHTLY USED PARKING LOTS, ODD AREAS, UNUSED LANES, AND LOW INTENSITY RECREATION SITES	A	TALL FESCUE	20	0.45
		CREeping RED FESCUE	20	0.45
		TOTAL	42	0.95
PLAY AREAS AND ATHLETIC FIELDS (TOPSOIL ESSENTIAL FOR GOOD TURF)	F	CREeping RED FESCUE	50	1.15
		KENTUCKY BLUEGRASS	50	1.15
		TOTAL	100	2.30

SOURCES:

- NEW HAMPSHIRE STORMWATER MANAGEMENT MANUAL, VOLUME 3, TABLES 4-2 AND 4-3
- MINNICK, E.L. AND H.T. MARSHALL, (AUGUST 1992)

GENERAL CONSTRUCTION PHASING:

1. STABILIZATION:

A SITE IS DEEMED STABILIZED WHEN IT IS IN A CONDITION IN WHICH THE SOIL ON SITE WILL NOT EXPERIENCE ACCELERATED OR UNNATURAL EROSION UNDER THE CONDITIONS OF A 10-YEAR STORM EVENT, SUCH AS BUT NOT LIMITED TO:

A) AREAS THAT WILL NOT BE PAVED.

- A MINIMUM OF 85% VEGETATIVE COVER HAS BEEN ESTABLISHED;
- A MINIMUM OF 3-INCHES OF NON-EROSIVE MATERIAL, SUCH AS STONE OR A CERTIFIED COMPOST BLANKET HAS BEEN INSTALLED; OR
- EROSION CONTROL BLANKETS HAVE BEEN INSTALLED.

B) AREAS TO BE PAVED:

A) BASE COURSE GRAVELS HAVE BEEN INSTALLED.

2. TEMPORARY STABILIZATION:

ALL AREAS OF EXPOSED OR DISTURBED SOIL SHALL BE TEMPORARILY STABILIZED AS SOON AS PRACTICABLE BUT NO LATER THAN 3 DAYS FOLLOWING FINAL GRADING. DISTURBANCE, UNLESS A SHORTER TIME IS SPECIFIED BY LOCAL AUTHORITIES, THE CONSTRUCTION SEQUENCE APPROVED AS PART OF THE ISSUED PERMIT OR AN INDEPENDENT MONITOR.

3. PERMANENT STABILIZATION:

ALL AREAS OF EXPOSED OR DISTURBED SOIL SHALL BE PERMANENTLY STABILIZED AS SOON AS PRACTICABLE BUT NO LATER THAN 3 DAYS FOLLOWING FINAL GRADING. MAXIMUM AREA OF DISTURBANCE:

A) FLAG OR OTHERWISE DELINEATE AREAS NOT TO BE DISTURBED.

B) EXCLUDE VEHICLES AND CONSTRUCTION EQUIPMENT FROM THESE AREAS TO PRESERVE NATURAL VEGETATION.

ALL GRADDED OR DISTURBED AREAS INCLUDING SLOPES SHALL BE PROTECTED DURING CLEARING AND CONSTRUCTION IN ACCORDANCE WITH THE APPROVED GRADING AND DRAINAGE PLAN DEPICTED ON SHEET C-3.

ALL EROSION AND SEDIMENT CONTROL PRACTICES AND MEASURES SHALL BE CONSTRUCTED, APPLIED AND MAINTAINED IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENT CONTROL PLAN DEPICTED ON SHEET C-3.

TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED IN THE AMOUNT NECESSARY TO COMPLETE FINISHED GRADING AND BE PROTECTED FROM EROSION.

STOCKPILES, BORROW AREAS AND SPOILS SHALL BE STABILIZED AS DESCRIBED UNDER "SOIL STOCKPILE PRACTICES".

AREAS SHALL NOT BE CREATED SO CLOSE TO PROPERTY LINES AS TO ENDANGER ADJOINING PROPERTIES WITHOUT ADEQUATE PROTECTION AGAINST SEDIMENTATION, EROSION, SUPPRA-SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS.

AREAS TO BE FILLED SHALL BE CLEARED, GRUBBED AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS AND/OR OTHER OBSTRUCTIONABLE MATERIALS.

AREAS SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3-INCHES PRIOR TO PLACEMENT OF TOPSOIL. TOPSOIL SHALL BE PLACED WITHOUT SIGNIFICANT COMPACTION TO PROVIDE A LOOSE BEDDING FOR PLACEMENT OF SEED.

ALL FILLS SHALL BE COMPACTED IN ACCORDANCE WITH PROJECT SPECIFICATIONS TO REDUCE EROSION, SUPPRA-SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES, SITE UTILITIES, CONDUITS AND OTHER FACILITIES, SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.

IN GENERAL, FILLS SHALL BE COMPACTED IN LAYERS RANGING FROM 8 TO 24 INCHES IN THICKNESS. THE CONTRACTOR SHALL REVIEW THE PROJECT GEOTECHNICAL REPORT AND/OR THE "PERMANENT VEGETATION PRACTICES" FOR SPECIFIC GUIDANCE.

ANY AND ALL FILL MATERIAL SHALL BE FREE OF BRUSH, RUBBISH, ROCKS (LARGER THAN 3/4 THE DEPTH OF THE LIFT BEING INSTALLED), LOGS, STUMPS, BUILDING DEBRIS, FROZEN MATERIAL AND OTHER OBSTRUCTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.

FROZEN MATERIAL OR SOFT, MOIST OR HIGHLY COMPRESSIBLE (I.E. CLAY, SILT) MATERIALS ARE SUSCEPTIBLE TO ACCELERATED SETTLEMENT AND POTENTIAL ACCELERATED EROSION. WORK IN AREAS OF THESE MATERIALS SHALL BE PERFORMED UNDER THE DIRECTION OF A PROFESSIONAL ENGINEER.

THE OUTER FACE OF THE FILL SLOPE SHALL BE ALLOWED TO STAY LOOSE, NOT ROLLED OR COMPACTED, OR BLADE SMOOTHED. A BULLDOZER MAY RUN UP AND DOWN THE FILL SLOPE SO THE DOZER TRACKS (CLEAT TRACKS) CREATE GROOVES PERPENDICULAR TO THE SLOPE. IF THE SOIL IS NOT TOO MOIST, EXCESSIVE COMPACTION WILL NOT OCCUR. SEE "SURFACE ROUGHENING" IN THE NHSM, VOL. 3.

ROUGHEN THE SURFACE OF ALL SLOPES DURING THE CONSTRUCTION OPERATION TO RETAIN WATER, INCREASE INFILTRATION AND FACILITATE VEGETATION ESTABLISHMENT.

USE SLOPE BREAKS, SUCH AS DIVERSIONS, BENCHES, OR CONTOUR FURROWS AS APPROPRIATE TO REDUCE THE LENGTH OF CUT-FILL SLOPES TO LIMIT SHEET AND RILL EROSION AND PREVENT GULLY EROSION. ALL BENCHES SHALL BE KEPT FREE OF SEDIMENT DURING ALL PHASES OF CONSTRUCTION.

SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE EVALUATED BY A PROFESSIONAL ENGINEER (PREFERABLY THE DESIGN ENGINEER) TO DETERMINE IF THE PROPOSED DESIGN SHALL BE REVISED TO PROPERLY MANAGE THE CONDITION.

STABILIZE ALL GRADDED AREAS (AS ABOVE) WITH VEGETATION, CRUSHED STONE, COMPOST BLANKET, OR OTHER GROUND COVER AS SOON AS GRADING IS COMPLETE OR IF WORK IS INTERRUPTED FOR 21 WORKING DAYS OR MORE. USE MULCH OR OTHER APPROVED METHODS TO STABILIZE AREAS TEMPORARILY WHERE FINAL GRADING MUST BE DELAYED.

ALL GRADDED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY FOLLOWING FINISHED GRADING.

THE PROJECT SHALL BE CONSTRUCTED TO MEET ALL REQUIREMENTS AND INTENT OF RSA 430:53 AND CHAPTER ARG 3800 RELATIVE TO INVASIVE SPECIES.

ABOVE NOTES EXCERPTED, ADAPTED AND REFERENCED FROM "NEW HAMPSHIRE STORMWATER MANAGEMENT MANUAL, VOLUME 3 CONSTRUCTION PHASE EROSION AND SEDIMENT CONTROLS, DECEMBER 2008" (NHSM, VOL. 3)

PROJECT SPECIFIC CONSTRUCTION PHASING:

1. REFER TO THE "GENERAL CONSTRUCTION PHASING" NOTES PRIOR TO COMMENCING CONSTRUCTION IN ACCORDANCE WITH THE FOLLOWING PHASING. THE "GENERAL CONSTRUCTION PHASING" NOTES APPLY TO THE OVERALL CONSTRUCTION AND SHALL BE ADHERED TO.

2. INSTALL ALL TEMPORARY SEDIMENT CONTROL BARRIERS (I.E. SILT FENCE, EROSION CONTROL MIX BERM, STONE CHECK DAMS, ETC.) AROUND THE OUTER PERIMETER OF THE CONSTRUCTION SITE AS DEPICTED ON SHEET C-4 PRIOR TO EARTH MOVEMENT OPERATIONS.

3. INSTALL ORANGE SNOW FENCE AROUND THE PERIMETER OF THE INFILTRATION BASIN AND THE FENCE SHALL REMAIN IN PLACE UNTIL CONSTRUCTION OF THE BASINS HAS STARTED.

4. CLEAR GRUB AND STRIP THE SITE. STUMPS, BRUSH AND OTHER ORGANIC WASTE SHALL BE DISPOSED OF OFF-SITE IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS.

5. INSTALL A TEMPORARY CONSTRUCTION EXIT AT THE LOCATION OF THE PROPOSED HEALTH CARE DRIVE EXTENSION AND THE OLD EASTER SEASIDE DRIVEWAY. MAINTAIN AS DIRECTED BY THE TEMPORARY CONSTRUCTION EXIT DETAIL.

6. STOCKPILE STRIPPED TOPSOIL AND CUT MATERIAL TO BE REUSED ON SITE IN AN APPROPRIATE LOCATION IN ACCORDANCE WITH THE "SOIL STOCKPILE PRACTICES".

7. PERFORM THE NECESSARY CUTS AND FILLS TO CONSTRUCT THE INFILTRATION BASINS AS DEPICTED ON SHEET C-3 AND IN ACCORDANCE WITH THE INFILTRATION BASIN DETAILS SHOWN ON SHEET C-3 & C-10.

8. PERFORM THE NECESSARY CUTS AND FILLS TO CONSTRUCT THE INFILTRATION BASIN AS DEPICTED ON SHEET C-3 AND IN ACCORDANCE WITH THE INFILTRATION BASIN DETAILS SHOWN ON SHEET C-3 & C-10.

9. CONSTRUCT THE INFILTRATION BASIN, SEDIMENT FOREBAY AND OUTLET PROTECTION. LOAM SEED AND MULCH THE SIDE SLOPES OF THE BASIN AS DIRECTED IN THE INFILTRATION BASIN DETAILS.

10. ALL INCHES/SWALLES AND BASINS SHALL BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.

11. PERFORM THE NECESSARY CUTS AND FILLS TO SUBGRADE IN THE BUILDING AND PARKING LOT AREAS.

12. INSTALL REQUIRED FILLS IN MAXIMUM 8-INCH LIFTS AND COMPACT LOAM SEED AND MULCH THE SIDE SLOPES OF THE BASIN AS DIRECTED IN THE INFILTRATION BASIN DETAILS AND TEMPORARY SEDIMENT CONTROL BARRIER DEPICTED ON SHEET C-3 & C-10.

13. ALL CUT AND FILL SLOPES AND LAWN AREAS NOT TO BE PAVED SHALL BE LOAMED AND SEED FOR PERMANENT VEGETATION AND STABILIZATION AS DESCRIBED UNDER THE "PERMANENT VEGETATION PRACTICES" WITHIN 3 DAYS OF ACHIEVING FINAL GRADE.

14. INSTALL ALL GRAVEL BASE AND CRUSHED GRAVEL MATERIALS FOR THE PARKING AREA AS SPECIFIED IN THE CORRESPONDING DETAILS.

15. THE PARKING AREAS SHALL BE STABILIZED (CONSTRUCTED TO GRAVEL BASE COURSE) WITHIN 3 DAYS OF ACHIEVING FINISHED SUBGRADE ELEVATIONS.

16. INSTALL PAVEMENT SURFACES AS SOON AS POSSIBLE AFTER THE INSTALLATION OF THE GRAVEL BASE AND CRUSHED GRAVEL, IN ORDER TO LIMIT THE SOIL EROSION AND POLLUTION OF THE GRAVEL MATERIALS WITH ORGANIC MATERIALS. IN NO CASE SHALL AREAS TO BE PAVED BE LEFT UNPROTECTED THROUGHOUT THE WINTER MONTHS.

17. ALL DISTURBED AREAS SHALL BE STABILIZED AS SOON AS POSSIBLE. IN NO CASE SHALL ANY DISTURBED AREA BE LEFT UN-STABILIZED FOR LONGER THAN 21 DAYS. IF NECESSARY TEMPORARY STABILIZATION MEASURES AS DISCUSSED IN THE "GENERAL CONSTRUCTION PHASING NOTES" AND NHSM, VOL. 3 SHOULD BE EMPLOYED.

18. MAINTENANCE AND INSPECTION:

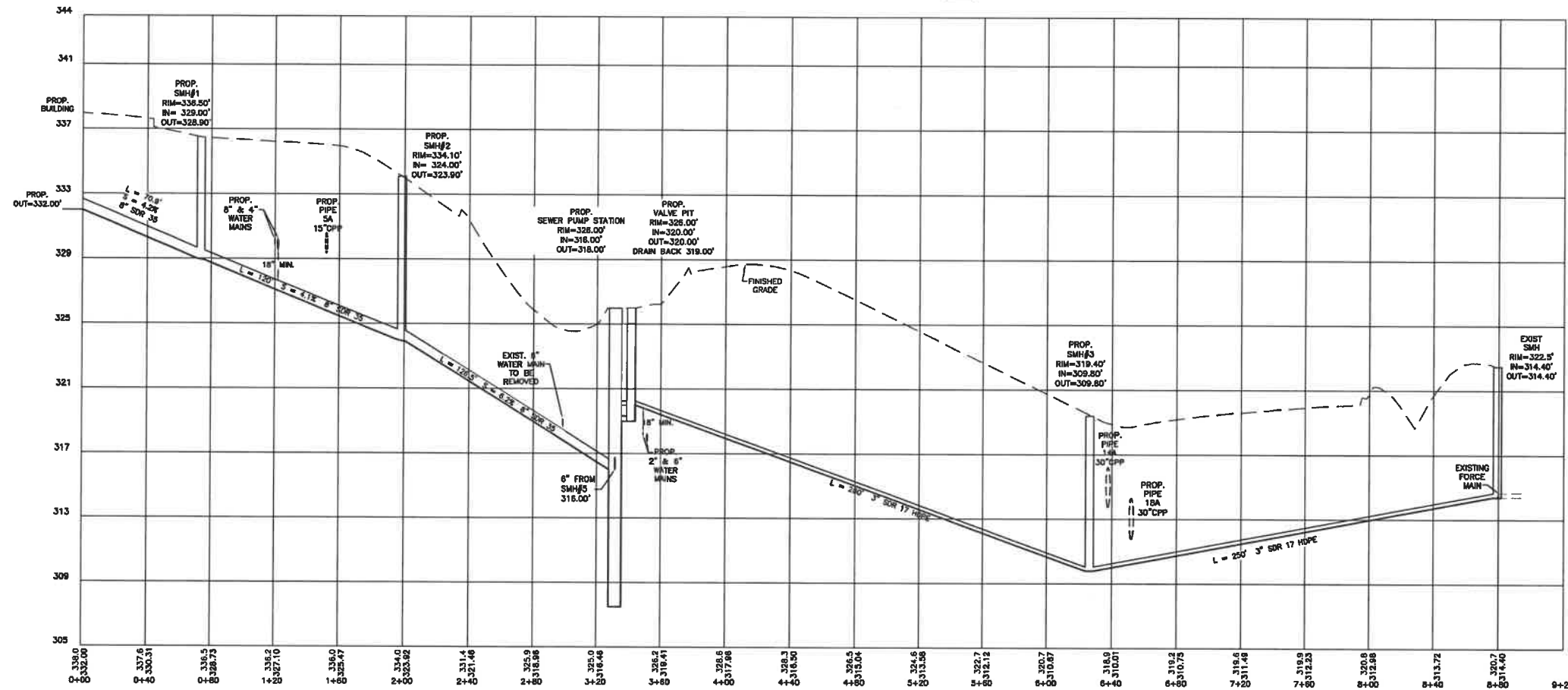
1. DURING CONSTRUCTION ALL TEMPORARY AND PERMANENT SEDIMENT, EROSION CONTROL, AND STORMWATER MANAGEMENT PRACTICES SHOULD BE INSPECTED WEEKLY, AFTER EVERY 1/2 INCH OF RAINFALL, AND ANNUALLY.

2. EXCESS SEDIMENT SHOULD BE REMOVED FROM TEMPORARY SEDIMENT, EROSION CONTROL, AND STORMWATER MANAGEMENT PRACTICES WHEN IT REACHES PRESCRIBED THRESHOLDS DISCUSSED IN THE DETAILS FOR EACH PRACTICE.

3. ALL DAMAGED TEMPORARY AND PERMANENT SEDIMENT, EROSION CONTROL AND STORMWATER MANAGEMENT PRACTICES SHOULD BE REPAIRED OR REPLACED IMMEDIATELY UPON NOTICE.

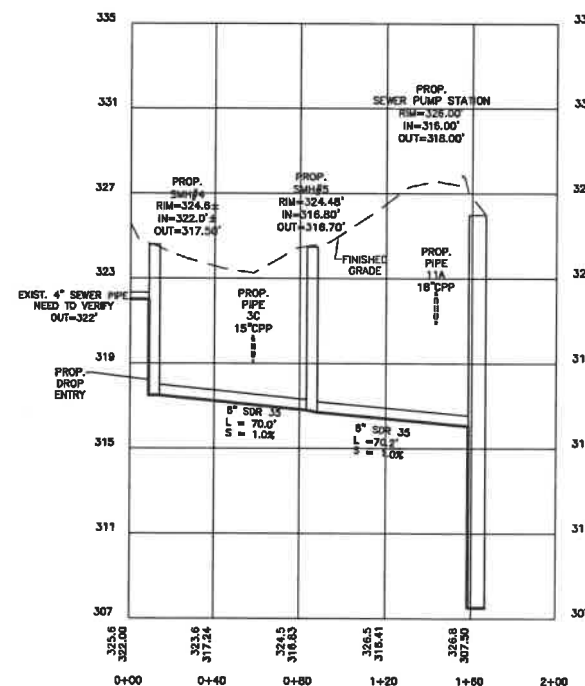


REVISIONS:
01/25/22 - ADD WATERLINE PIPES IN PROFILE, REVISE PER
NIDES COMMENTS.
03/09/22 - REVISE INVERT ELEVATION AT PROPOSED
BUILDING FOUNDATION.



GRAVITY AND PRESSURE SEWER PROFILE

SCALE: 1" = 40' (HORZ.)
1" = 4' (VERT.)



GRAVITY SEWER PROFILE

SCALE: 1" = 40' (HORZ.)
1" = 4' (VERT.)

CAREFULLY REVIEW ALL SHEETS OF THIS PACKAGE TO INSURE PROPER CONSTRUCTION. SPECIFIC SITE CONDITIONS SHOULD BE EXPLORED PRIOR TO CONSTRUCTION. CONTACT BOTH THE DESIGN ENGINEER AND THE PROJECT OWNER FOR ANY AVAILABLE GEOTECHNICAL OR HYDROGEOLOGICAL INFORMATION AVAILABLE BUT NOT CONTAINED WITHIN THE PLAN SET. IF THERE ARE ANY QUESTIONS WITH THE DESIGN PRESENTED IN THIS PLAN SET PLEASE CONTACT THE ENGINEERING STAFF AT NORWAY PLAINS ASSOCIATES, INC. (603)-335-3948.

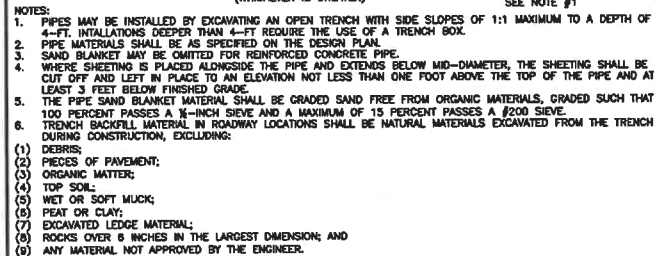
SEWER PROFILES
TAX MAP 243, LOT 39
215 ROCHESTER HILL RD
ROCHESTER, NH
PREPARED FOR:
EASTER SEALS NH, INC.
MARCH 11, 2022

FILE NO. 104
PLAN NO. C-2780
DWG. NO. 15225/SP-1
F.B. NO.

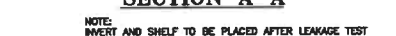
31 Mooney Street, Alton, N.H. 603-875-3948

NORWAY PLAINS ASSOCIATES, INC.

2 Continental Blvd., Rochester, N.H. 603-335-3948



CAREFULLY REVIEW ALL SHEETS OF THIS PACKAGE TO INSURE PROPER CONSTRUCTION. SPECIFIC SITE CONDITIONS SHOULD BE EXPLORED PRIOR TO CONSTRUCTION. CONTACT BOTH THE DESIGN ENGINEER AND THE PROJECT OWNER FOR ANY AVAILABLE GEOTECHNICAL OR HYDROGEOLOGICAL INFORMATION AVAILABLE BUT NOT CONTAINED WITHIN THE PLAN SET. IF THERE ARE ANY QUESTIONS WITH THE DESIGN PRESENTED IN THIS PLAN SET PLEASE CONTACT THE ENGINEERING STAFF AT NORWAY PLAINS ASSOCIATES, INC. (603)-335-3948.



31 Mooney Street, Alton, N.H. 603-875-3948

NOTES

- IT IS INTENTION OF THE CITY OF ROCHESTER PUBLIC WORKS DEPARTMENT THAT THE MANHOLE, INCLUDING ALL COMPONENT PARTS, HAVE ADEQUATE SPACE, STRENGTH AND LEAK PROOF QUALITIES CONSIDERED NECESSARY BY THE PUBLIC WORKS DEPARTMENT FOR THE INTENDED SERVICE. SPACE REQUIREMENTS AND CONFIGURATIONS, SHALL BE AS SHOWN ON THE DRAWING. MANHOLES SHALL BE CONSTRUCTED WITH CAST IRON OR PRECAST CONCRETE, WITH OR WITHOUT REINFORCEMENT, IN ANY APPROVED MANHOLE, THE COMPLETE STRUCTURE SHALL BE OF SUCH MATERIAL AND QUALITY AS TO WITHSTAND LOADS OF 8 TONS (16-20 TONS) WITHOUT FAILURE AND PREVENT CRACKING IN EXCESS OF ONE DAY PER YEAR OF USE.
- MANHOLES SHALL BE DESIGNED FOR A MINIMUM LIFE OF THE STRUCTURE. A PERIOD GENERALLY IN EXCESS OF 25 YEARS IS TO BE UNDERSTOOD IN BOTH CASES.
- BARRELS AND CONE SECTIONS SHALL BE PRECAST REINFORCED CONCRETE, OR POURED IN PLACE REINFORCED CONCRETE. PRECAST MANHOLES SHALL BE CAST WITH SIZES SHOWN ON DRAWING TO ASTM C478. PRECAST SECTIONS AND BASSES SHALL HAVE THE DATE OF MANUFACTURE AND THE NAME OR TRADEMARK OF THE MANUFACTURER IMPRESSED OR INDICIBLY MARKED ON THE INSIDE WALL.
- VACUUM LEAKAGE TESTING TO ASTM C1753 SHALL BE PERFORMED FOR ALL MANHOLES, LOW-PRESSURE AIR TESTING (ASTM F1147) AND DEFLECTION TESTING USING A "DO/NO GO" MANIFOLD FOR ALL SANITARY SEWERS, IN ACCORDANCE WITH THE NEW YORK SEWER REGULATIONS AND THE CITY OF ROCHESTER DEPARTMENT OF PUBLIC WORKS REQUIREMENTS.
- INVERTS AND SHELVES: MANHOLES SHALL HAVE A BRICK PAVED SHELF AND INVERT, CONSTRUCTED TO CONFORM TO THE DESIGN OF THE PIPE AND FLAT TO ANCHOR IN DIRECTION. THE INVERTS SHALL BE LAID OUT IN CURVE OF THE LONGEST RADIOUS POSSIBLE TANGENT TO THE CENTER LINE OF THE SEWER PIPES. SHELVES SHALL BE CONSTRUCTED TO THE ELEVATION OF THE HIGHEST PIPE DRAIN AND SLOPE TO DRAIN TOWARD THE FLOWING THROUGH CHANNEL. UNDERLAYMENT SHALL BE 1/2" SAND AND SHALL BE COMPACTED TO THE SPECIFIED MASONRY COURSE WITH ASTM C32. INVERTS AND SHELVES SHALL NOT BE INSTALLED UNTIL AFTER SUCCESSFUL TESTING IS COMPLETED.
- FRAMES AND COVERS: MANHOLE FRAMES AND COVERS SHALL BE OF HEAVY DUTY DESIGN AND PROVIDE A 30-INCH CLEAR OPENING. FRAME AND COVER SHALL BE CAST IN PLACE CONCRETE. THE "SEWER" FOR SEWERS OR "DRAIN" FOR DRAINS SHALL BE PLAINLY CAST INTO THE CENTER OF EACH FRAME AND COVER.
- SEWER MANHOLE FRAME AND COVER: PAIRED 3"x3" O.I. MANHOLE FRAME AND COVER SEWER - E.J.PRESSCOTT PRODUCT# 62113-33-8 IMMEDIATELY FOLLOWING COMPLETION OF THE LEAKAGE TEST. THE FRAME AND COVER SHALL BE PLACED ON THE TOP OF THE JOINT AND SHALL BE SECURED TO THE FRAME BY TWO BOLTS. UNLESS OTHERWISE AUTHORIZED BY THE COMMISSIONER, CHILDREN, OR ANIMALS, UNTIL THE CONTRACTOR IS READY TO MAKE FINAL ADJUSTMENT TO GRADE.
- BEDDING: MIN. 6" OF 3/4" CRUSHED STONE (12" IN LEDGE) FREE FROM CLAY, LOAM, ORGANIC MATTER AND MEETING ASTM C33.6
- 100K PASSING 1" INCH SCREEN
90-100 PASSING 3/4" INCH SCREEN
20-55K PASSING 3/8" INCH SCREEN
0-10K PASSING #4 SEIVE
0-3% PASSING #60 SEIVE
- WHERE ORDERED BY THE ENGINEER TO STABILIZE THE BASE, CRUSHED STONE MIN. 3/4" SHALL BE USED.
- CONCRETE FOR DROP SUPPORT SHALL CONFORM TO THE REQUIREMENT FOR CLASS A (3000PSI) CONCRETE OF THE NEW HAMPSHIRE DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS STANDARD SPECIFICATIONS AS FOLLOWS:
- WATER: 5.75 GALLONS PER BAG OF CEMENT
CEMENT: 8.0 BAGS PER CYCUBIC YARD
MAXIMUM SIZE OF AGGREGATE: 1/2"
- FLEXIBLE JOINT A FLEXIBLE JOINT SHALL BE PROVIDED WITHIN THE FOLLOWING DISTANCES:
- R/C AC CI PIPE - ALL SIZES - 48"
AC & VC PIPE - UP THROUGH 12" DIA. - 38" SEE NOTE D.1.
AC & VC PIPE - LARGER THAN 12" DIA. - 15'
CI PIPE - NONE REQUIRED
PVC (ASTM F304) - UP THROUGH 15" DIA. - NONE REQUIRED
PVC (ASTM F 679) - LARGER THAN 15" DIA. - 48" TO 60"
PVC (ASTM F 798) - 48" TO 60"
UNDER SEVERE CONDITIONS WHEN DIFFERENTIAL SETTING CANNOT BE CONTROLLED WITH NORMAL LIMITS, VARIATIONS IN THE STUB LENGTH MAY BE NECESSARY. OTHER PLASTIC PIPES SHALL BE REVIEWED ON A CASE BY CASE BASIS.
- SHALL BE MAINTAINED: IN LIEU OF A CONC SECTION, WHEN MANHOLE DEPTH IS LESS THAN 6 FEET, A REINFORCED CONCRETE SLAB COVER MAY BE USED HAVING AN ECCENTRIC ENTRANCE OPENING AND CAPABLE OF SUPPORTING 16-20 LOADS.
- MANHOLE STEPS SHALL BE PROVIDED WITHIN THE MANHOLES AS DIRECTED BY THE CITY OF ROCHESTER.
- MANHOLE JOINTS SHALL BE MADE BY THE FOLLOWING METHODS:
- P.V.C. PIPE AND JOINT MATERIALS P.V.C. (POLY VINYL CHLORIDE) PIPE: ALL P.V.C. PIPE AND FITTINGS SHALL CONFORM TO THE CURRENT REQUIREMENTS OF ASTM SPECIFICATIONS FOR TYPE PSV POLY VINYL CHLORIDE (P.V.C.) SWEATER PIPE AND FITTINGS. DESIGN D-3032 SHALL APPLY TO ALL TYPES OF JOINTS FOR SEWER PIPE. JOINTS USING ELASTOMERIC SEALS, DESIGNATION D-3015. MANUFACTURER'S CERTIFICATE OF COMPLIANCE SHALL BE FURNISHED TO THE ENGINEER, PRIOR TO INSTALLATION METHODS OF SHIPPING AND STORAGE ON SITE SHALL BE SUCH AS TO AVOID INJURY TO THE PIPE. DAMAGED PIPE SHALL BE REJECTED AND REMOVED FROM THE JOB. MINIMUM JOINT STIFFNESS (T/Y) AT 5' DEFLECTION SHALL BE 45 PSI FOR SIZE WHEN TESTED IN ACCORDANCE WITH ASTM METHOD OF TEST D-3015. EXTERNAL LEAKING PROPERTIES OF PLASTIC PIPE BY PARALLEL - PLATE LOADING. ALL P.V.C. PIPE SHALL BE TYPE SDR-33 (A MEASURE OF THICKNESS AND RIGIDITY) AND SHALL HAVE ELASTOMERIC GASKET JOINTS. SOLVENT CEMENT JOINT SHALL NOT BE ALLOWED. P.V.C. USED FOR FORCE MAINS SHALL CONFORM TO ASTM D-3032. D-1772 SHALL BE USED FOR PRESSURE MAINS. A FACTOR OF 2.5 SHALL BE USED FOR PRESSURE RATING. DETERMINATION WITH A STANDARD DIMENSION RATIO (SDR) NO HIGHER THAN 26.
- DAMAGED PIPE SHALL BE REJECTED AND REMOVED FROM THE JOB SITE.
- THESE JOINTS SHALL BE REINFORCED WITH WIRE OR STEEL BAR AND GASKET FOR WATER TIGHTNESS. ALL JOINTS SHALL BE PROPERLY MATCHED WITH THE PIPE MATERIAL USED. WHERE DIFFERING MATERIALS ARE TO BE CONNECTED, AS AT THE STREET SEWER WYE OR AT THE FOUNDATION WALL, APPROPRIATE MANUFACTURED ADAPTERS SHALL BE USED.
- THESE JOINTS SHALL BE MADE BY THE FOLLOWING METHODS:
- FOR ALL STREET SEWERS, AN APPROPRIATE CONNECTION SHALL BE MADE, FOLLOWING MANUFACTURER'S INSTRUCTIONS USING A BOLTED, CLAMPED, OR EPoxy-CEMENTED SADDLE TAPPED INTO A SMOOTHLY DRILLED OR SAWN OPENING IN THE SEWER. THE PRACTICE OF BREAKING AN OPENING WITH A SLEDGE HAMMER, STUFFING CEMENT OR OTHER SUBSTANCES INTO THE JOINT, OR USING A PORTLAND CEMENT MORTAR TO HOLD THE CONNECTION AND ANY OTHER SIMILAR CRUDE PRACTICES OR INEPT OR HASTY IMPROVISATIONS WILL NOT BE PERMITTED. THE CONNECTION SHALL BE CEEMENT ENCASED AS SHOWN IN THE DETAIL UP TO AND INCLUDING 15" DIAMETER. DOES (NOT APPLY TO INSTALLATIONS WHERE TEES & WYES ARE USED).
- PIPE INSTALLATION: THE PIPE SHALL BE HANDLED, PLACED, AND JOINED IN ACCORDANCE WITH INSTALLATION GUIDES OF THE APPROPRIATE MANUFACTURER IT SHALL BE CAREFULLY BEDDED ON A 4 INCH LAYER OF CRUSHED STONE AS SPECIFIED IN NOTE 10. THE END OF THE RE-TOE FOR A MINIMUM OF 12 INCHES ABOVE THE CRUSHED STONE. THE PIPE SHALL BE KEPT STRAIGHT AND TAPERED BY HAND OR WITH THE APPROPRIATE MECHANICAL DEVICES. THE PIPE SHALL BE LAID AT A CONTINUOUS AND CONSTANT GRADE FROM THE STREET SEWER CONNECTION TO THE HOUSE FOUNDATION AT A GRADE OF NOT LESS THAN 1/8 INCH PER FOOT. PIPE JOINTS MUST BE MADE UNDER DRY CONDITIONS. IF WATER IS PRESENT, ALL NECESSARY STEPS SHALL BE TAKEN TO DRAINER THE TRENCH.
- TESTING: THE COMPLETED HOUSE SEWER SHALL BE SUBJECT TO A LEAKAGE TEST IN ANY OF THE FOLLOWING MANNERS (PRIOR TO BACKFILLING).
- A. DEFLECTION TEST SHALL BE INSTALLED AS SHOWN AND, WHEN READY FOR TESTING, AN INFLATABLE BLADDER OR PNEUMATIC SEAL SHALL BE INSERTED JUST UPSTREAM FROM THE OPENING IN THE TEE AFTER INSTALLATION. WATER SHALL BE INTRODUCED INTO THE SYSTEM ABOVE THE TEE TO A POINT ABOUT 12 INCHES ABOVE THE TEE. WATER SHALL BE KEPT IN THE TEE FOR 15 MINUTES. THE TEE SHALL BE FULLY OPENED AND LIBERALLY HOSED WITH WATER, TO SATURATE, AS NEARLY AS POSSIBLE, WET TRENCCH CONDITIONS OR, IF THE TRENCH IS WET, THE GROUND WATER SHALL BE PERMITTED TO RISE IN THE TRENCH OVER THE TEE FOR 15 MINUTES.
- B. DEFLECTION TEST SHALL BE PERMITTED TO RISE IN THE TRENCH OVER THE TEE FOR 15 MINUTES.
- C. DRY FLUORESCENCE DYE SHALL BE SPRINKLED INTO THE TRENCH OVER THE PIPE. IF THE TRENCH IS DRY, THE PIPE SHALL BE LIBERALLY HOSED WITH WATER, OR IF THE TRENCH IS WET, GROUND WATER SHALL BE PERMITTED TO RISE IN THE TRENCH OVER THE PIPE FOR 15 MINUTES. THE TRENCH SHALL BE KEPT OPEN FOR 15 MINUTES. THE TRENCH SHALL BE OBSERVED IN ANY OF THE ABOVE ALTERNATE TESTS SHALL BE CAUSE FOR NON-COMPLIANCE AND THE PIPE SHALL BE DUG-UP IF NECESSARY AND RE-LAD SO AS TO ASSURE WATER-TIGHTNESS.
- ILLEGAL DISPOSAL: NO HOUSE SEWER SHALL BE ALLOWED TO RUN INTO THE HOUSE TOILETS, SINKS, LAUNDRY ETCL. SHALL BE PERMITTED. ROOF LEADERS, FOOTING DRAINS OR SUMP PUMPS OR ANY OTHER SIMILAR CONNECTION CARRYING RAIN WATER, DRAINAGE, OR GROUND WATER, SHALL NOT BE PERMITTED.
- LOCATING: THE LOCATION OF THE HOUSE SEWER SHALL BE LOCATED BY THE CITY OF ROCHESTER SEWER SERVICE, BUT WHEN NECESSARY, SHALL BE PLACED ABOVE AND TO THE SIDE OF THE HOUSE SEWER AS SHOWN.
- BEDDING: MIN. 3/4" CRUSHED STONE FREE FROM GLAY, LOAM, ORGANIC MATTER AND MEETING ASTM C33.6
- 100K PASSING 1" INCH SCREEN
90-100 PASSING 3/4" INCH SCREEN
20-55K PASSING 3/8" INCH SCREEN
0-10K PASSING #4 SEIVE
0-3% PASSING #60 SEIVE
- WHERE ORDERED BY THE ENGINEER TO STABILIZE THE TRENCH BASE, MIN. 3/4" CRUSHED STONE SHALL BE USED.
- LOCATION: THE LOCATION OF THE TEE OR WYE SHALL BE RECORDED AND FILED IN THE MUNICIPAL RECORDS. IN ADDITION, A DETAIL OF THE DETAIL OF THE TEE OR WYE SHALL BE RECORDED AND FILED IN THE MUNICIPAL RECORDS. IN ADDITION, A DETAIL TO LOCATING THE BURIED PIPE WITH A DIP NEEDLE OR PENNYPIPER.
- CONCRETE: CONCRETE SHALL CONFORM TO THE REQUIREMENTS FOR CLASS A (3000 PSI) CONCRETE OF THE NEW HAMPSHIRE DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS STANDARD SPECIFICATIONS AS FOLLOWS:
- WATER: 5.75 GALLONS/BAG OF CEMENT
CEMENT: 8.0 BAGS/CY.
AGGREGATE: 1 1/2" MAX
- CHIMNEYS: IF VERTICAL DRAIN INTO SEWER IS GREATER THAN 4", A CHIMNEY SHALL BE CONSTRUCTED FOR THE HOUSE CONNECTION 25'- ALL DRAINAGE AND SEWER STRUCTURES INCLUDING FRAMES AND GRASSES SHALL BE 16-20 LOADS. 28'- ALL SEWER CONSTRUCTION SHALL BE CONSTRUCTED TO MATCHES AND THE CITY OF ROCHESTER STANDARDS & SPECIFICATIONS.
- JOINTS: JOINTS SHALL BE MADE BY THE FOLLOWING METHODS:
- FOR ALL STREET SEWERS, AN APPROPRIATE CONNECTION SHALL BE MADE, FOLLOWING MANUFACTURER'S INSTRUCTIONS USING A BOLTED, CLAMPED, OR EPoxy-CEMENTED SADDLE TAPPED INTO A SMOOTHLY DRILLED OR SAWN OPENING IN THE SEWER. THE PRACTICE OF BREAKING AN OPENING WITH A SLEDGE HAMMER, STUFFING CEMENT OR OTHER SUBSTANCES INTO THE JOINT, OR USING A PORTLAND CEMENT MORTAR TO HOLD THE CONNECTION AND ANY OTHER SIMILAR CRUDE PRACTICES OR INEPT OR HASTY IMPROVISATIONS WILL NOT BE PERMITTED. THE CONNECTION SHALL BE CEEMENT ENCASED AS SHOWN IN THE DETAIL UP TO AND INCLUDING 15" DIAMETER. DOES (NOT APPLY TO INSTALLATIONS WHERE TEES & WYES ARE USED).
- FOR BTIMATIC TYPE JOINTS: THE AMOUNT OF SEALANT SHALL BE SUFFICIENT TO FILF AT LEAST 75% OF THE JOINT CAVITY WITH AN APPROVED BITIMATIC SEALANTS. RM-MIXE KENT SEAL N/A.
- APPROVED BITIMATIC SEALANTS SHALL BE USED PRIOR TO CONSTRUCTION.

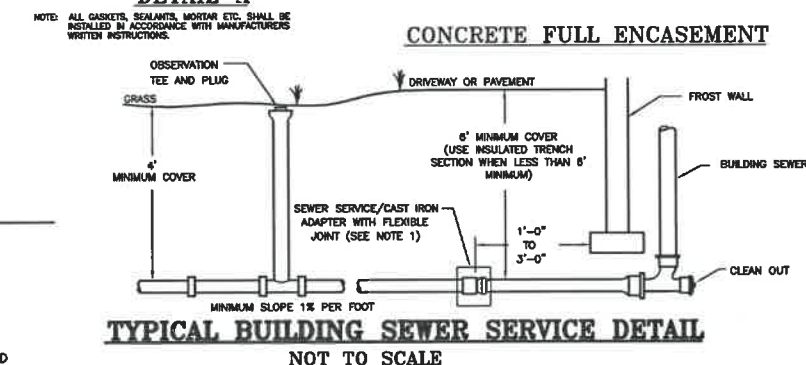
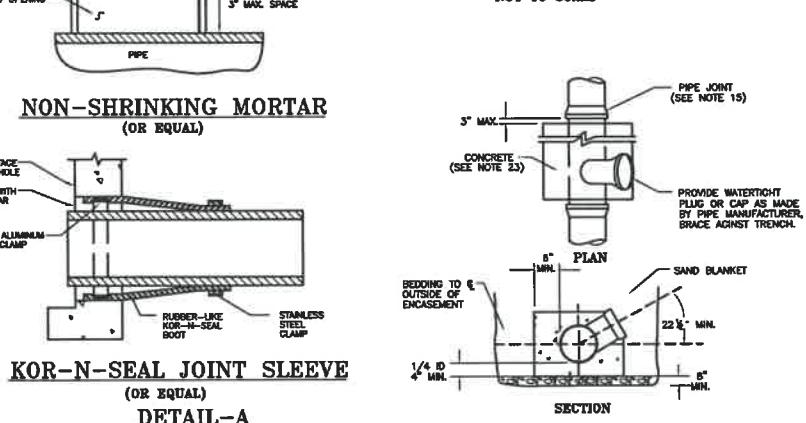
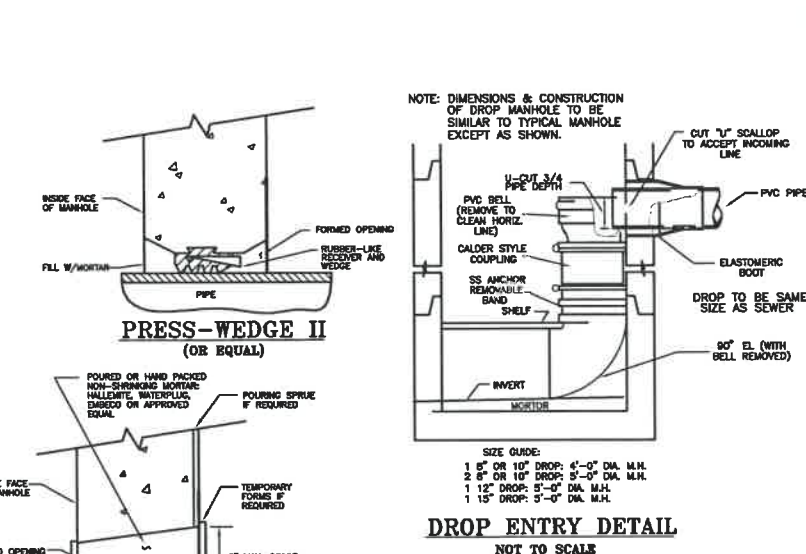
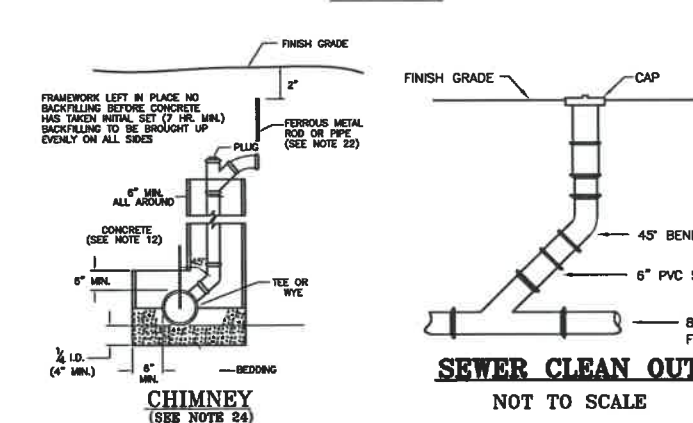
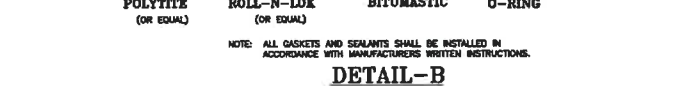
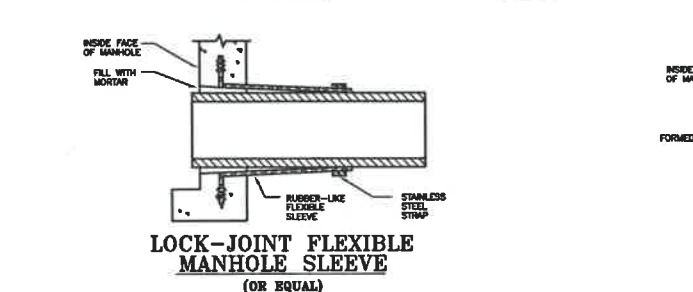
MORTAR USED IN MANHOLE CONSTRUCTION SHALL COMPLY WITH THE FOLLOWING:
MORTAR SHALL BE COMPOSED OF TYPE II PORTLAND CEMENT AND SAND WITH OR WITHOUT HYDRATED LIME ADDITION.
PROPORTIONS IN MORTAR OF PARTS BY VOLUMES SHALL BE AS SHOWN BELOW:

HYDRATED LIME	SAND	TYPE II PORTLAND CEMENT
NONE	4.5 PARTS	1.5 PARTS
0.5 PARTS	4.5 PARTS	1. PART

CEMENT SHALL BE TYPE I PORTLAND CEMENT THAT IS CERTIFIED BY ITS MANUFACTURER AS CONFORMING TO THE ASTM C150/C150M STANDARD IN EFFECT AT THE TIME THE CEMENT WAS MANUFACTURED.
HYDRATED LIME SHALL BE TYPE S THAT IS CERTIFIED BY ITS MANUFACTURER AS CONFORMING TO THE ASTM C207 STANDARD IN EFFECT AT THE TIME THE HYDRATED LIME WAS PROCESSED.
SAND SHALL CONSIST OF INERT NATURAL SAND THAT IS CERTIFIED BY ITS SUPPLIER AS CONFORMING TO THE ASTM C33 STANDARD IN EFFECT AT THE TIME THE SAND IS PROCESSED BY STANDARD SPECIFICATIONS FOR CONCRETE AGGREGATES.

REVISIONS:

01/25/22 - ADD DROP ENTRY DETAIL. REVISE NOTE #11 AND #13.



SANITARY SEWER DETAILS
TAX MAP 243, LOT 39
215 ROCHESTER HILL RD
ROCHESTER, NH
PREPARED FOR:
EASTER SEALS NH, INC.
MARCH 11, 2022

C-14

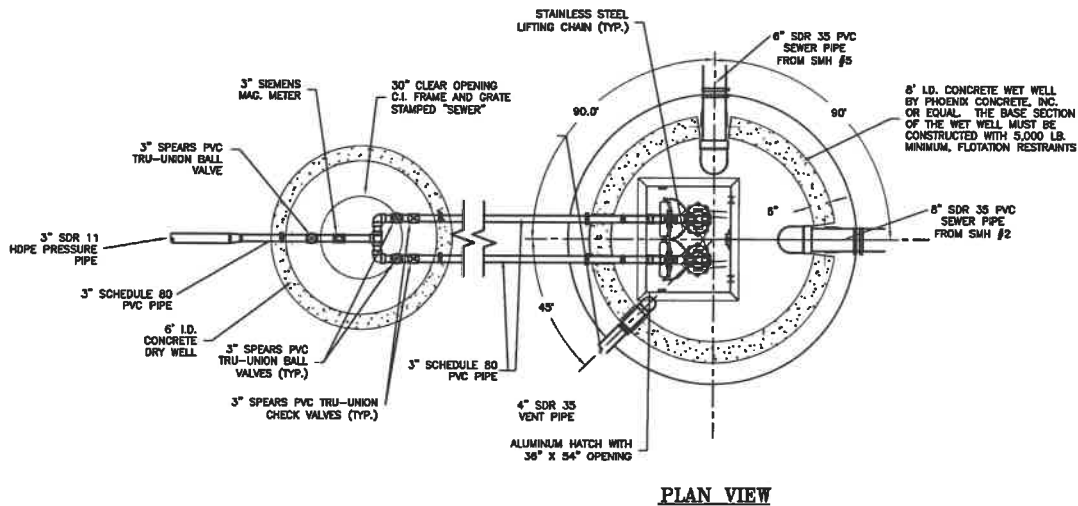
NORWAY PLAINS ASSOCIATES, INC.

2 Continental Blvd., Rochester, N.H. 603-335-3948

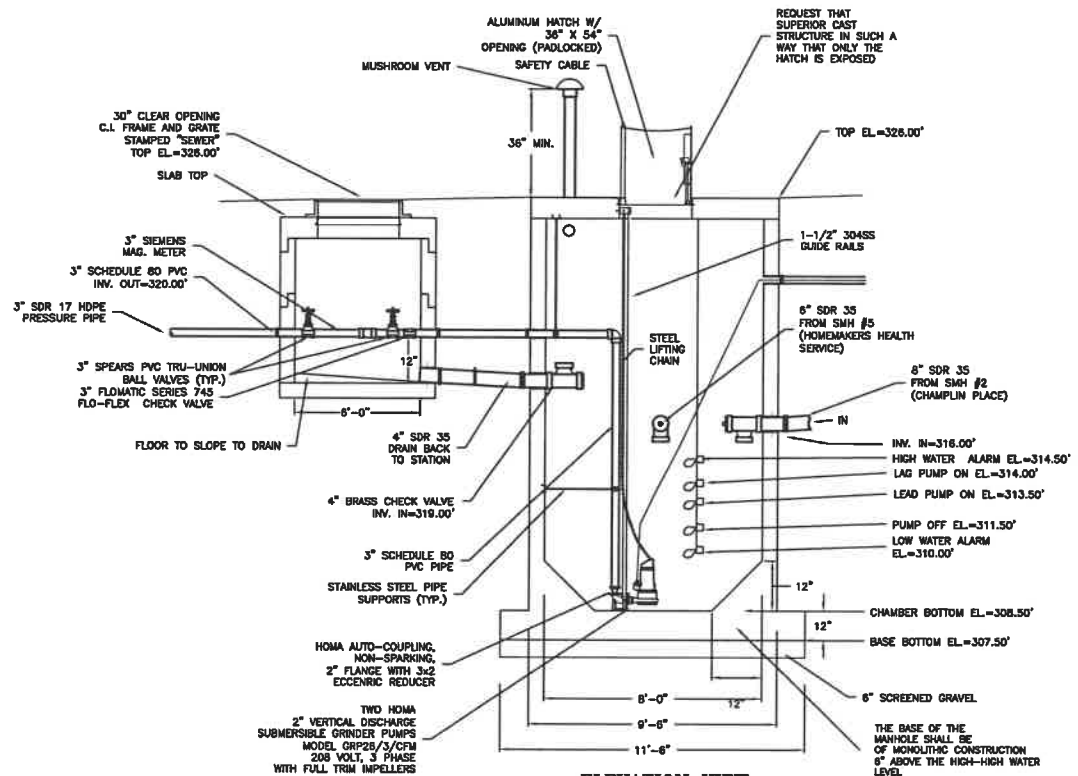


CAREFULLY REVIEW ALL SHEETS OF THIS PACKAGE TO INSURE PROPER CONSTRUCTION. SPECIFIC SITE CONDITIONS SHOULD BE EXPLORED PRIOR TO CONSTRUCTION. CONTACT BOTH THE DESIGN ENGINEER AND THE PROJECT OWNER FOR ANY AVAILABLE GEOTECHNICAL OR HYDROGEOLOGICAL INFORMATION AVAILABLE BUT NOT CONTAINED WITHIN THE PLAN SET. IF THERE ARE ANY QUESTIONS WITH THE DESIGN PRESENTED IN THIS PLAN SET PLEASE CONTACT THE ENGINEERING STAFF AT NORWAY PLAINS ASSOCIATES, INC. (603)-335-3948.

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF PUMP CHAMBER, PUMP, AND CONTROL PANEL TO NORWAY PLAINS, ASSOCIATES, INC. PRIOR TO ORDERING AND DELIVERY. ENGINEER APPROVAL REQUIRED PRIOR TO ORDERING.



PLAN VIEW



ELEVATION VIEW

PUMP STATION DETAIL

NOT TO SCALE

- PUMP STATION INSTALLATION NOTES:**
- THE PUMP STATION IS BEING INSTALLED IN AN AREA WITH POTENTIAL SEASONAL HIGH WATER TABLE EFFECTS. THE CONCRETE CHAMBER SHALL HAVE AN INTEGRAL FOOTING RING THAT ADDS SOIL LOAD TO THE STRUCTURE TO FIGHT THE EFFECTS OF BUOYANCY.
 - DURING INITIAL CONSTRUCTION, DEWATERING WILL BE NECESSARY IN THE HOLE FOR THE PUMP STATION. ONCE BACKFILLED, THERE SHOULD BE NO THREAT OF FLOTATION.
 - THE PUMP STATION WET WELL SHALL BE CONSIDERED CLASS I, GROUP D, DIVISION 2 AND THE DRY WELL SHALL BE CONSIDERED CLASS I, GROUP D, UNCLASSIFIED PURSUANT TO THE 2012 NFPA TABLE 4.2 UNLESS OTHERWISE CLASSIFIED BY AUTHORITY HAVING JURISDICTION (AHJ).
 - ALL ELECTRICAL COMPONENTS SHALL MEET ALL REQUIREMENTS OF THE NATIONAL ELECTRICAL CODES.
 - (a) SUBMERSIBLE PUMPS FOR SEWAGE PUMPING STATIONS SHALL CONFORM TO THE NEC REQUIREMENTS ADOPTED BY REFERENCE IN THE STATE BUILDING CODE PURSUANT TO RSA 155-A:1, IV, FOR INSTALLATION IN AREAS CLASSIFIED BY THE NEC AS CLASS I, DIVISION 1.
 - (b) ELECTRICAL SYSTEMS AND COMPONENTS, INCLUDING MOTORS, LIGHTS, CABLE, CONDUITS, SWITCH BOXES, AND CONTROL CIRCUITS SHALL BE PROTECTED FROM FLOODING IN ACCORDANCE WITH ENF-WQ 705.01.
 - (c) ELECTRICAL SYSTEMS AND COMPONENTS INCLUDING MOTORS, LIGHTS, CABLE, CONDUITS, SWITCH BOXES AND CONTROL CIRCUITS IN ENCLOSED OR PARTIALLY ENCLOSED SPACES WHERE FLAMMABLE MIXTURES OCCASIONALLY MAY BE PRESENT, INCLUDING RAW SEWAGE WET WELLS, SHALL BE CERTIFIED BY THEIR MANUFACTURER AS:
 - COMPLYING WITH THE NEC REQUIREMENTS ADOPTED BY REFERENCE IN THE STATE BUILDING CODE PURSUANT TO RSA 155-A:1, IV, FOR CLASS I, DIVISION 1 LOCATIONS; OR
 - BEING RATED FOR CLASS I DIVISION 2 REQUIREMENTS WHERE MECHANICAL VENTILATION IS PROVIDED IN ACCORDANCE WITH THE NFPA AS ADOPTED BY REFERENCE IN THE STATE FIRE CODE IN SAF-C 8000.
 - (d) ALL ELECTRICAL EQUIPMENT AND WORK SHALL COMPLY WITH THE REQUIREMENTS OF NEC AS ADOPTED BY REFERENCE IN THE STATE BUILDING CODE PURSUANT TO RSA 155-A:1, IV, AND NFPA AS ADOPTED BY REFERENCE IN THE STATE FIRE CODE IN SAF-C 8000 IN EFFECT AT THE TIME OF INSTALLATION.
 - OWNERS SHALL SUBMIT PUMP STATION OPERATIONS AND MAINTENANCE MANUAL TO NHDES WASTEWATER ENGINEERING BUREAU WITHIN 60 DAYS FOLLOWING COMPLETION OF PUMP STATION CONSTRUCTION. O&M MANUAL SHALL PROVIDE INFORMATION AND GUIDANCE FOR PUMP STATION OPERATION AND MAINTENANCE TO INCLUDE OWNERS AND OPERATOR CONTACT INFORMATION INCLUDING EMAIL ADDRESSES.

PUMP STATION DESIGN CALCULATIONS:

DAILY FLOW:

EXISTING HOMEOWNERS HEALTH SERVICE BUILDING:
AVERAGED METERED WATER RECORDS FOR MORE THAN 6 CONSECUTIVE MONTHS WITH A MINIMUM PEAKING FACTOR OF 2 FOR COMMERCIAL LIGHT FLOWS (Enf-Wq, 1008.05(4)).

AVERAGE DAILY FLOW FROM 12/04/2018 TO 06/01/2020: 312 GPD
DESIGN FLOW RATE 312 GPD X 2 = 624 GPD

PROPOSED SENIOR HOUSING BUILDING:
DAILY FLOW BASED ON 77 GALLONS PER DAY PER CAPITA FOR ONE BEDROOM APARTMENT UNITS: (Enf-Wq, 706.03 Table 3-2) AND ASSUMES MAXIMUM OF 2 PERSONS PER UNIT.

AND
DAILY FLOW BASED ON 150 GALLONS PER DAY PER BEDROOM FOR 2 BEDROOM UNITS: (Enf-Wq, 1008.03 Table 1008-1).

59 ONE BEDROOM UNITS X 77 GPD/CAPITA X 2 PERSON = 9,086 GPD
8 TWO BEDROOMS X 150 GPD/BEDROOM X 2 BEDROOMS = 1,600 GPD
DESIGN FLOW RATE: 10,686 GPD

GRAVITY SEWER LINE:
INFILTRATION: 300 GAL/INCH DIA/MILE/DAY
145 FEET OF 8" DIA PVC SEWER PIPE
330 FEET OF 8" DIA PVC SEWER PIPE

INFILTRATION OF GRAVITY LINES = 200 GPD

TOTAL DAILY DESIGN FLOW = 11,710 GPD

WET WELL AND PUMP OPERATION NOTES:

WET WELL INVERTS:

INV. IN = 318.00'	
HIGH WATER ALARM = 314.50'	
LAG PUMP ON = 314.00'	
LEAD PUMP ON = 313.50'	
DOSE DEPTH = 2.00 FT.	
LEAD PUMP ON EL=313.50'	
PUMP OFF = 311.50'	
DEPTH OF PUMP = 3.00 FT	
CHAMBER BOTTOM = 308.50'	

PUMP HEAD CALCULATIONS:

STATIC HEAD =	PROPOSED ROCHESTER HILL SEWER INV. IN = 334.40'
STATIC HEAD =	PUMP OFF ELEV. = 311.50'
	22.90'

HEAD CREATED BY PIPE AND FITTINGS LOSS:
HEAD FROM PIPE & FITTINGS = 20.50 FT. @ 75 GPM

TOTAL DYNAMIC HEAD = STATIC HEAD + HEAD FROM PIPE/FITTINGS
TOTAL DYNAMIC HEAD = 43.50 FT

PUMP INFORMATION: PUMP TWO HOMA 2" VERTICAL DISCHARGE SUBMERSIBLE GRINDER PUMPS
MODEL GRP28/3/CFM208 VOLT, 3 PHASE WITH FULL TRIM IMPELLERS
PUMP OPERATIONAL = 73.5 GPM
CAPACITY
RUN TIME = 10.2 MIN.

PUMP STATION NOTES:

- THE 100-YEAR FLOOD ELEVATION FOR THIS PARCEL IS APPROXIMATELY ELEVATION 198.0'.
- ALL COMPONENTS WITHIN THE PUMP STATION AND ASSOCIATED CRITICAL ACCESSORIES (CONTROL PANEL, GENERATOR) ARE LOCATED AT LEAST 10 FEET ABOVE THE 100-YEAR FLOOD ELEVATION.
- HORIZONTAL JOINTS BETWEEN SECTIONS OF PRECAST CONCRETE BARRELS SHALL BE OF AN OVERLAPPING TYPE SEALED FOR WATER-TIGHTNESS USING A DOUBLE ROW OF AN ELASTOMERIC OR MASTIC-LIKE SEALANT.
- PIPE TO MANHOLE JOINTS SHALL BE AS FOLLOWS:
 - ELASTOMERIC RUBBER SLEEVE WITH WATERTIGHT JOINTS AT THE MANHOLE OPENING AND PIPE SURFACES.
 - CAST INTO THE WALL OR SECURED WITH STAINLESS STEEL CLAMPS.
 - ELASTOMERIC SEALING RING CAST IN THE MANHOLE OPENING WITH SEAL FORMED ON THE SURFACE OF THE PIPE BY COMPRESSION OF THE RING; AND
 - NON-SHRINK GROUTED JOINTS WHERE WATERTIGHT BONDING TO THE MANHOLE AND PIPE CAN BE OBTAINED.
- ALL PRECAST SECTIONS AND BASES SHALL BE COATED ON THE EXTERIOR WITH A BITUMINOUS DAMP-PROOFING COATING.
- PRECAST BASES SHALL BE PLACED ON A 6-INCH LAYER OF COMPACTED BEDDING MATERIAL THAT CONFORMS TO THE ASTM C33/C33M NO. 67 STONE STANDARD IN EFFECT WHEN THE STONE IS PROCESSED BY THE MANUFACTURER, AVAILABLE AS NOTED IN APPENDIX D. THE EXCAVATION SHALL BE DEWATERED WHILE PLACING BEDDING MATERIAL AND SETTING THE BASE OR POURING CONCRETE.
- CONCRETE FOR MANHOLES AND CONCRETE GRADE RINGS SHALL CONFORM TO THE REQUIREMENTS FOR CLASS AA CONCRETE IN THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
- REINFORCING FOR CONCRETE MANHOLES AND CONCRETE GRADE RINGS SHALL BE STEEL OR STRUCTURAL FIBERS THAT CONFORM TO THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
- PRECAST CONCRETE BARREL SECTIONS, CONES, AND BASES SHALL BE CERTIFIED BY THEIR MANUFACTURER(S) AS CONFORMING TO THE ASTM C478 STANDARD IN EFFECT AT THE TIME THE BARREL SECTIONS, CONES, AND BASES ARE MANUFACTURED.
- PRIMEK KWIKSWITCH 4-FLOAT LEVEL CONTROL SYSTEM.
- PANEL TO BE NEHA 4X 55" DEAD FRONT WITH INNER DOOR.
- CONTROLLER WILL BE PRIMEK LEVEL VIEW (OR EQUAL).
- LEVEL VIEW CONTROLLER TO BE MODIFIED FROM STOCK PROGRAMMING TO PROVIDE INPUT AND DISPLAY FROM FLOW METER, WITH 4-20MA GPS AND PULSE FOR TOTALIZATION;
 - ONE PULSE PER 100 GALLONS PUMPED;
 - ALL OPERATOR CONTROLS/LIGHTS/SWITCHES TO BE MOUNTED ON INNER DOOR;
 - PANEL TO HAVE BATTERY BACK-UP FOR LEVEL CONTROLS AND AUXILIARY ALARMS;
 - TEMP SENSOR TO DIGITAL CONTACT OF DIALER FOR ALARMING.
- ALARM SIGNAL SHALL BE ACHIEVED IN ANY ONE OF THE FOLLOWING:
 - HIGH WATER FLOAT ALARM;
 - HIGH WATER TRANSDUCER ALARM;
 - PUMP 1 FAIL;
 - PUMP 2 FAIL;
 - PUMP 1 SEAL FAIL;
 - PUMP 2 SEAL FAIL;
 - PANEL TEMP ALARM;
 - LOW WATER LEVEL;
 - LOSS OF POWER (FROM LINE OR GENERATOR);
- HIGH WATER AND LOW WATER ALARM TRIGGERS SHALL BE SEPARATE DEVICES, INDEPENDENT OF PUMP WET WELL LEVEL CONTROL SYSTEMS.
- FOR THE POWER SOURCE FOR THE ALARM SYSTEM SHALL BE THE MAIN LINE POWER WITH A BACKUP BATTERY SYSTEM, WHICH SHALL BE CONNECTED AUTOMATICALLY SHOULD MAIN POWER FAILURE.
- BACK-UP POWER SUPPLY FROM ON-SITE GENERATOR.
- INSTALL A FLOW METER THAT RECORDS CONTINUOUS FLOW AND HAS THE CAPABILITY TO TOTALIZE.
- INSTALL A WARNING SIGN ON THE ACCESS DOOR STATING THE BELOW:
- PUMPS AND LEVEL CONTROLS TO BE SUPPLIED WITH A MINIMUM OF SOFT CABLES TO ALLOW FOR NO JUNCTION BOXES FOR PUMP CABLES OR FLOAT CABLES.
- PRIMEK KWIKSWITCH 4-FLOAT LEVEL CONTROL SYSTEM.
- PANEL TO BE NEHA 4X 55" DEAD FRONT WITH INNER DOOR.
- CONTROLLER WILL BE PRIMEK LEVEL VIEW (OR EQUAL).
- LEVEL VIEW CONTROLLER TO BE MODIFIED FROM STOCK PROGRAMMING TO PROVIDE INPUT AND DISPLAY FROM FLOW METER, WITH 4-20MA GPS AND PULSE FOR TOTALIZATION;
 - ONE PULSE PER 100 GALLONS PUMPED;
 - ALL OPERATOR CONTROLS/LIGHTS/SWITCHES TO BE MOUNTED ON INNER DOOR;
 - PANEL TO HAVE BATTERY BACK-UP FOR LEVEL CONTROLS AND AUXILIARY ALARMS;
 - TEMP SENSOR TO DIGITAL CONTACT OF DIALER FOR ALARMING.

WARNING
THIS IS A CONFINED SPACE.
ENTER ONLY WITH
PROPER EQUIPMENT.
FOLLOWING OSHA CONFINED
SPACE ACCESS REGULATIONS.

BACK UP GENERATOR NOTES:

- AN INDEPENDENT ENGINE-GENERATOR TYPE SOURCE OF ELECTRIC POWER SHALL BE PROVIDED FOR ELECTRICALLY-DRIVEN PUMPS. THIS SOURCE SHALL BE AUTOMATICALLY ACTIVATED BY FAILURE OF ANY PHASE OF POWER SUPPLY OR UPON ANY FLUCTUATION IN VOLTAGE, THE AMOUNT OR DURATION OF WHICH WOULD CAUSE DAMAGE TO THE MOTORS. INSTALLATIONS SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF THE NEC AND THE STATE FIRE CODE IN SAF-C 8000.
- THE EMERGENCY POWER GENERATOR SHALL BE PERMANENTLY SECURED IN PLACE, WITH PROVISIONS FOR REMOVAL TO FACILITATE GENERATOR REPAIR OR REPLACEMENT.
- PROVISIONS SHALL BE MADE FOR AUTOMATIC AND MANUAL START-UP AND SHUT-DOWN. THE CONTROLS SHALL BE SUCH THAT UPON AUTOMATIC START-UP UNDER EMERGENCY CONDITIONS, SHUT-DOWN SHALL BE ACCOMPLISHED AUTOMATICALLY ON RESTORATION OF UTILITY POWER WITH CONTROLLED SHUT-DOWN OF UNIT. MANUAL SHUT DOWN SHALL ALSO BE PROVIDED. PROVISION SHALL BE MADE TO ALLOW PUMPS TO RUN DOWN BEFORE RE-ENERGIZING ON TRANSFER OF POWER.
- THE EMERGENCY POWER GENERATOR SHALL BE SIZED TO SEQUENTIALLY START AND OPERATE ALL PUMPS NEEDED TO HANDLE DESIGN MAXIMUM WASTE FLOWS, PLUS LIGHTING, VENTILATION, CONTROLS, SCREENING, AND, IF APPLICABLE, GRINDING.
- THE EMERGENCY POWER GENERATOR SHALL BE LOCATED ABOVE GRADE WITH VENTILATION OF EXHAUST GASES.
- ALL EMERGENCY POWER GENERATION EQUIPMENT SHALL BE PROVIDED WITH INSTRUCTIONS FOR ROUTINE EXERCISING, LOAD TESTING, AND MAINTENANCE.
- THE GENERATOR ENGINE CONTROLS SHALL BE EQUIPPED WITH AN AUTOMATIC EXERCISER WHICH CAN BE SET ON ANY SELECTED SCHEDULE TO START THE GENERATOR, RUN THE GENERATOR UNDER NO-LOAD OR LOAD CONDITIONS BY SELECTION, AND SHUT THE GENERATOR OFF WITHOUT ACTUATING THE ALARM SYSTEM.
- SUBJECT TO (1), BELOW, THE OWNER SHALL PROVIDE EACH EMERGENCY GENERATOR WITH ENOUGH FUEL FOR THE GENERATOR TO RUN UNDER FULL LOAD OR PEAK STATION FLOW FOR AT LEAST 48 HOURS OR UNDER NORMAL OPERATING CONDITIONS FOR AT LEAST 96 HOURS, WHICHEVER REQUIRES THE GREATER AMOUNT OF FUEL.
- FOR SEWAGE PUMPING STATIONS WITH DUPLEX PUMPS, A STANDBY ENGINE DRIVE SYSTEM WHICH AUTOMATICALLY STARTS ON POWER LOSS TO DRIVE ONE PUMP MAY BE FURNISHED AS AN ALTERNATIVE TO A PERMANENT GENERATOR.

SEWER PUMP STATION
DETAILS
TAX MAP 243, LOT 39
215 ROCHESTER HILL RD
ROCHESTER, NH
PREPARED FOR:
EASTER SEALS NH, INC.

MARCH 11, 2022

C-15

FILE NO. 102
PLAN NO. C-3154
DWG. NO. 19249 SP-1
F.B. NO.

31 Mooney Street, Alton, N.H. 603-875-3948

NORWAY PLAINS ASSOCIATES, INC.

2 Continental Blvd., Rochester, N.H. 603-335-3948

LAND SURVEYORS

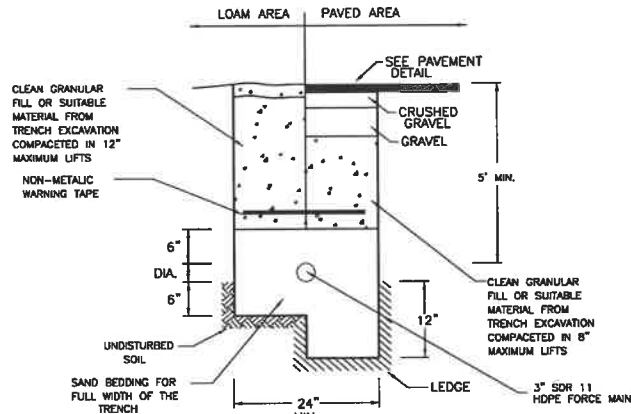


CIVIL ENGINEERS

CAREFULLY REVIEW ALL SHEETS OF THIS PACKAGE TO INSURE PROPER CONSTRUCTION. SPECIFIC SITE CONDITIONS SHOULD BE EXPLORED PRIOR TO CONSTRUCTION. CONTACT BOTH THE DESIGN ENGINEER AND THE PROJECT OWNER FOR ANY AVAILABLE GEOTECHNICAL OR HYDROGEOLOGICAL INFORMATION AVAILABLE BUT NOT CONTAINED WITHIN THE PLAN SET. IF THERE ARE ANY QUESTIONS WITH THE DESIGN PRESENTED IN THIS PLAN SET PLEASE CONTACT THE ENGINEERING STAFF AT NORWAY PLAINS ASSOCIATES, INC. (603)-335-3948.

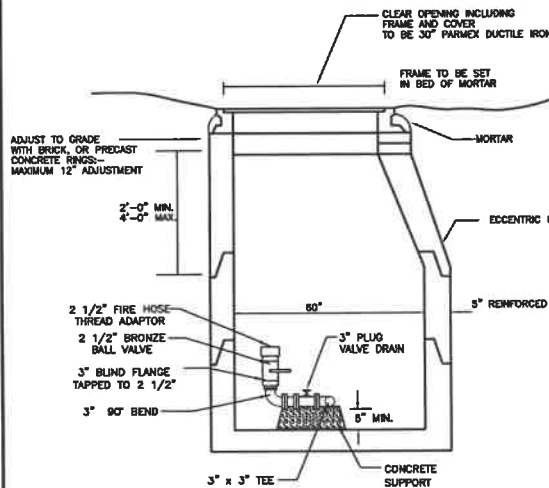


REVISIONS:
01/25/22 - REVISE NOTE #13.



- NOTES:
- PIPES MAY BE INSTALLED BY EXCAVATING AN OPEN TRENCH WITH SIDE SLOPES OF 1:1 MAXIMUM TO A DEPTH OF 4-FT. INSTALLATIONS DEEPER THAN 4-FT REQUIRE THE USE OF A TRENCH BOX.
 - PIPE MATERIALS SHALL BE AS SPECIFIED ON THE DESIGN PLAN.
 - TRENCHES FOR SEWER PIPES WITH SLOPES OVER 0.08 FEET PER FOOT SHALL HAVE IMPERVIOUS TRENCH DAMS CONSTRUCTED EVERY 300 FEET TO PREVENT POTENTIAL DISTURBANCE TO PIPE BEDDING AND BLANKET MATERIALS.
 - WHERE SHEETING IS PLACED ALONGSIDE THE PIPE AND EXTENDS BELOW MID-DIAMETER, THE SHEETING SHALL BE CUT OFF AND LEFT IN PLACE TO AN ELEVATION NOT LESS THAN ONE FOOT ABOVE THE TOP OF THE PIPE AND AT LEAST 3 FEET BELOW FINISHED GRADE.
 - THE PIPE SAND BLANKET MATERIAL SHALL BE GRADED SAND FREE FROM ORGANIC MATERIALS, GRADED SUCH THAT 100 PERCENT PASSES A 1/2-INCH SIEVE AND A MAXIMUM OF 15 PERCENT PASSES A #200 SIEVE.

TRENCH DETAIL FOR SEWER FORCE MAIN NOT TO SCALE



ELEVATION VIEW

CLEANOUT MANHOLE DETAIL NOT TO SCALE

MORTAR USED IN MANHOLE CONSTRUCTION SHALL COMPLY WITH THE FOLLOWING: MORTAR SHALL BE COMPOSED OF TYPE I PORTLAND CEMENT AND SAND WITH OR WITHOUT HYDRATED LIME ADDITION. PROPORTIONS IN MORTAR OF PARTS BY VOLUMES SHALL BE AS SHOWN BELOW:

HYDRATED LIME	SAND	TYPE I PORTLAND CEMENT
NONE	4.5 PARTS	1.5 PARTS
0.5 PARTS	4.5 PARTS	1 PART

CEMENT SHALL BE TYPE I PORTLAND CEMENT THAT IS CERTIFIED BY ITS MANUFACTURER AS CONFORMING TO THE ASTM C150/C150M STANDARD IN EFFECT AT THE TIME THE CEMENT WAS MANUFACTURED. C207 STANDARD IN EFFECT AT THE TIME THE CEMENT WAS MANUFACTURED. SAND SHALL BE INERT NATURAL SAND THAT IS CERTIFIED BY ITS SUPPLIER AS CONFORMING TO THE ASTM C33 STANDARD IN EFFECT AT THE TIME THE SAND IS PROCESSED BY STANDARD SPECIFICATIONS FOR CONCRETE. THE AGGREGATE.

PLAN VIEW

PLAN VIEW

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

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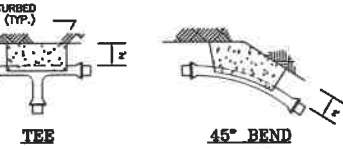
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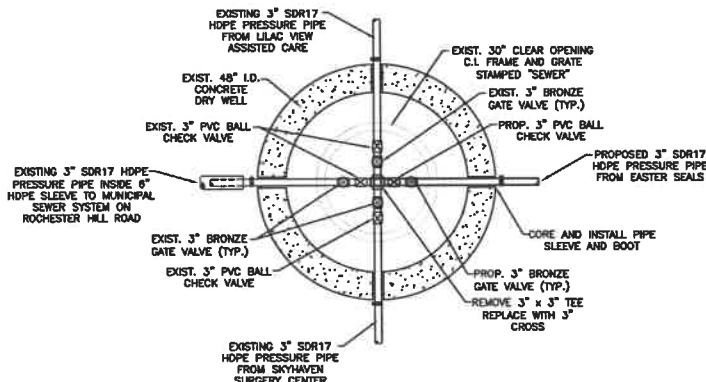
MINIMUM THRUST BLOCK BEARING AREA (SQ. FT.)			AGAINST UNDISTURBED MATERIAL (SQ. FT.)		
PIPE SIZE	90 BEND	TEE	PLUG	45 BEND	22 1/2" & SMALLER
3"	5	4	3	2	2

NOTE: SIZE OF THRUST BLOCKS MAY BE INCREASED BY THE ENGINEER TO MEET SOIL CONDITIONS FOUND DURING CONSTRUCTION.

SEWER MAIN THRUST BLOCK DETAILS NOT TO SCALE

FORCE MAIN JUNCTION MANHOLE DETAIL

NOT TO SCALE



FORCE MAIN JUNCTION MANHOLE DETAIL

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

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NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

- NOTES:
- IT IS INTENTION OF THE CITY OF ROCHESTER PUBLIC WORKS DEPARTMENT THAT THE MANHOLE, INCLUDING ALL COMPONENT PARTS, HAVE ADEQUATE SPACE, STRENGTH AND LEAK PROOF QUALITIES CONSIDERED NECESSARY BY THE PUBLIC WORKS DEPARTMENT FOR THE KITCHED SERVICE, SPACE REQUIREMENTS AND CONFIGURATIONS SHALL BE AS SHOWN ON THE DRAWING. MANHOLES MAY BE AN ASSEMBLY OF PRECAST SECTIONS, WITH OR WITHOUT STEEL REINFORCEMENT, WITH ADEQUATE JOINTING, OR CONCRETE CAST MONOLITHICALLY IN PLACE WITH OR WITHOUT REINFORCEMENT. IN ANY APPROVED MANHOLE, THE COMPLETE STRUCTURE SHALL BE OF SUCH MATERIAL AND QUALITY AS TO WITHSTAND LOADS OF 8 TONS (H-20 LOADING) WITHOUT FAILURE AND PREVENT LEAKAGE IN EXCESS OF ONE GALLON PER DAY PER VERTICAL FOOT OF MANHOLE CONTINUOUSLY FOR THE LIFE OF THE STRUCTURE. A PERIOD GENERALLY IN EXCESS OF 25 YEARS IS TO BE UNDERSTOOD IN BOTH CASES.
 - BARRELS AND CONE SECTIONS SHALL BE PRECAST REINFORCED CONCRETE, OR POURED IN PLACE REINFORCED CONCRETE.
 - PRECAST CONCRETE BARREL SECTIONS, CONES AND BASES SHALL CONFORM TO ASTM C478. ALL PRECAST SECTIONS AND BASES SHALL HAVE THE DATE OF MANUFACTURE AND THE NAME OR TRADEMARK OF THE MANUFACTURER IMPRESSED OR INDULBY MARKED ON THE INSIDE WALL.
 - VACUUM LEAKAGE TESTING (ASTM C1244) SHALL BE PERFORMED FOR ALL MANHOLES, LOW-PRESSURE AIR TESTING (ASTM F1417) AND DEFLECTION TESTING (USDA 12-100 AD) MANHOLE FOR ALL SANITARY SEWERS, IN ACCORDANCE WITH THE HANES SEWER REGULATIONS AND THE CITY OF ROCHESTER DEPARTMENT OF PUBLIC WORKS REQUIREMENTS.
 - INVERTS AND SHELVES: MANHOLES SHALL HAVE A BROCK PAVED SHELVE AND INVERT, CONSTRUCTED TO CONFORM TO THE SIZE OF PIPE AND FLOW. AT CURVES, INVERTS SHALL BE LAID OUT IN CURVES OF THE LONGEST RADIUS POSSIBLE. TANGENT TO THE CENTER LINE OF THE SEWER PIPES. SHELVES SHALL BE CONSTRUCTED TO THE ELEVATION OF THE HIGHEST PIPE. CROWN AND SLOPE TO DRAIN TOWARD THE FLOWING THROUGH CHANNEL. UNDERLAYMENT OF INVERT AND SHELVE SHALL CONSIST OF BRICK MASONRY, BRICK MASONRY CONFORM WITH ASTM C32. INVERTS AND SHELVES SHALL NOT BE INSTALLED UNTIL AFTER SUCCESSFUL TESTING IS COMPLETED.
 - FRAMES AND COVERS: MANHOLE FRAMES AND COVERS SHALL BE OF HEAVY DUTY DESIGN AND PROVIDE A 30-INCH CLEAR OPENING. A 3-INCH (MINIMUM HEIGHT) LETTER "SEWER" FOR SEWERS OR "DRAIN" FOR DRAINS SHALL BE PLAINLY CAST INTO THE CENTER OF EACH COVER. SEWER MANHOLE FRAME AND COVER: PAMREX 36\"/>

SEWER FORCE MAIN
DETAILS
TAX MAP 243, LOT 39
215 ROCHESTER HILL RD
ROCHESTER, NH
PREPARED FOR:
EASTER SEALS NH, INC.
MARCH 11, 2022

FILE NO. 102
PLAN NO. C-3154
DWG. NO. 19249 SP-1
F.B. NO.

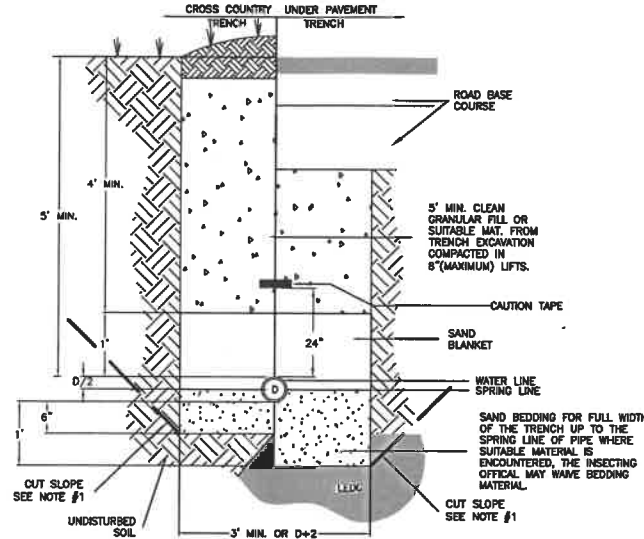
31 Mooney Street, Alton, N.H. 603-875-3948

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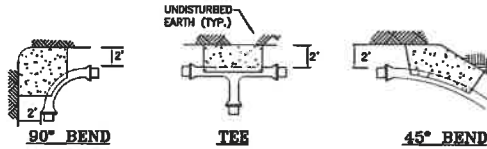
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- NOTES:
1. PIPES MAY BE INSTALLED BY EXCAVATING AN OPEN TRENCH WITH SIDE SLOPES OF 1:1 MAXIMUM TO A DEPTH OF 4-FT.
2. PIPE MATERIALS SHALL BE AS SPECIFIED ON THE DESIGN PLAN.
3. SAND BEDDING MAY BE OMITTED FOR REINFORCED CONCRETE PIPE.

WATER PIPE TRENCH INSTALLATION DETAIL

NOT TO SCALE



PIPE SIZE	90° BEND	TEE	PLUG	45° BEND	22 1/2" R
2"	3	4	3	2	2
4"	10	8	6	6	3
6"	24	18	6	12	8

NOTE: SIZE OF THRUST BLOCKS MAY BE INCREASED BY THE ENGINEER TO MEET SOIL CONDITIONS FOUND DURING CONSTRUCTION.

WATER MAIN THRUST BLOCK DETAILS
NOT TO SCALE

DUCTILE IRON MECHANICAL RETAINED LENGTH (FEET)																							
PIPE DIAMETER (INCHES)	BENDS																DEAD END						
	11 1/4"				22 1/2"				45"				90"										
	50 psi	100 psi	150 psi	200 psi	50 psi	100 psi	150 psi	200 psi	50 psi	100 psi	150 psi	200 psi	50 psi	100 psi	150 psi	200 psi	50 psi	100 psi	150 psi	200 psi			
2"	0	0	1	1	0	1	1	1	1	1	2	3	2	4	5	7	4	8	12	17			
6"	0	0	1	1	1	1	2	2	1	2	3	4	3	5	8	10	6	12	18	23			
8"	0	1	1	1	1	1	2	3	1	3	4	6	3	7	10	13	8	15	23	31			
10"	0	1	1	2	1	2	2	3	2	3	5	7	4	8	12	16	9	19	28	37			
12"	0	1	1	2	1	2	3	4	2	4	6	8	5	9	14	19	11	22	33	44			
TEE*																REDUCER							
SAME SIZE				ONE SIZE SMALLER				ONE SIZE SMALLER				TWO SIZE SMALLER											
50 psi	100 psi	150 psi	200 psi	50 psi	100 psi	150 psi	200 psi	50 psi	100 psi	150 psi	200 psi	50 psi	100 psi	150 psi	200 psi	50 psi	100 psi	150 psi	200 psi				
2"	1	1	1	1	1	1	1	1	1	3	4	5	-	-	-	-							
6"	1	1	1	4	1	1	1	1	3	6	9	12	4	8	12	16							
8"	1	1	3	11	1	1	1	1	3	6	10	13	6	11	17	22							
10"	1	1	8	17	1	1	1	6	3	6	10	13	6	11	17	23							
12"	1	2	13	24	1	1	4	13	5	11	16	22	6	12	18	23							

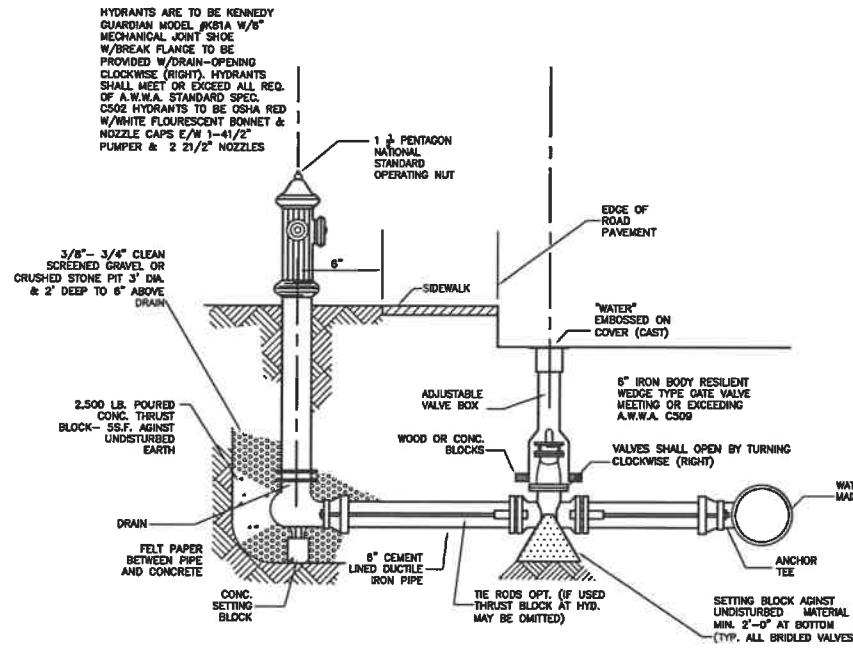
* BASED ON A MINIMUM ATTACHED PIPE ALONG RUN (L_r) = 5 FEET

MECHANICAL RESTRAINED LENGTH SCHEDULE
NOT TO SCALE

- NOTES:
1. PIPE IS BURIED TO A DEPTH OF 6 FEET WITH A MINIMUM OF 4 INCHES OF COMPACTED GRANULAR MATERIAL UNDER THE PIPE TO THE SPRING LINE OF THE PIPE.
2. THE EXISTING SOIL IS POORLY GRADED GRAVEL AND GRAVEL SAND MIXTURE WITH LITTLE TO NO FINES.
3. ALL CALCULATIONS ARE BASED ON A FACTOR OF SAFETY OF 1.5 TO 1.
4. ALL CALCULATIONS ARE BASED ON THE "RESTRAINED LENGTH CALCULATION PROGRAM" BY EDNA IRON, INC., RELEASE 3.1.

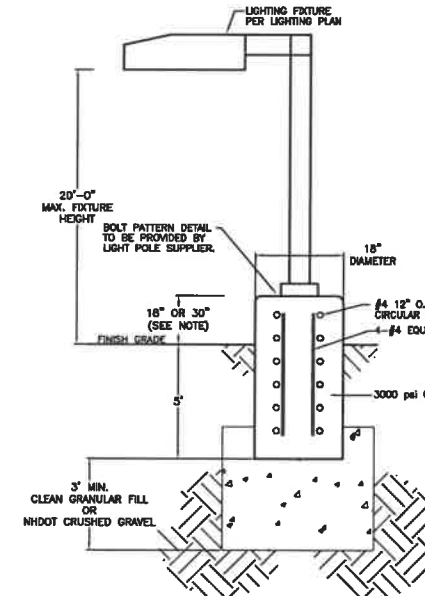
FILE NO. 102
PLAN NO. C-3154
DWC. NO. 19249 SP-1
F.B. NO.

31 Mooney Street, Alton, N.H. 603-875-3948



TYPICAL HYDRANT SECTION

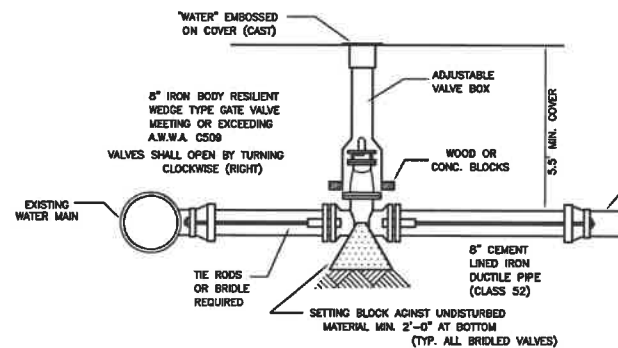
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POLE MOUNTED LIGHT DETAIL

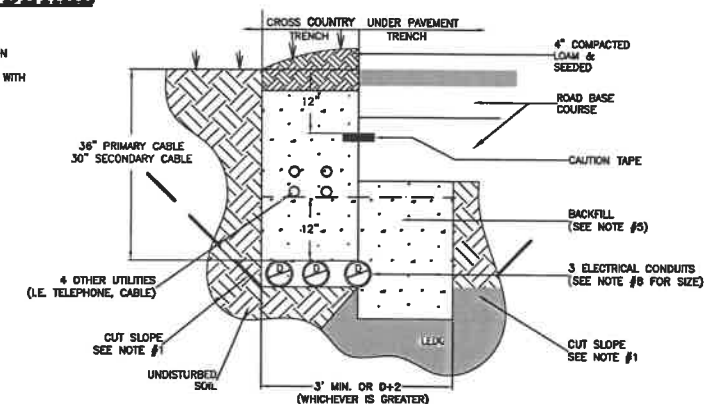
NOT TO SCALE

- NOTE:
1. LIGHT POLE BASE SHALL BE 18" ABOVE FRESH GRADE FOR NON VEHICLE IMPACT AREAS AND 30" FOR VEHICLE IMPACT AREAS.
2. THE LIGHT POLE BASES CAN BE PRECAST, WITH COORDINATION WITH THE LIGHTING FIXTURE MANUFACTURE FOR BOLT PATTERN.



FIRE SERVICE CONNECTION

NOT TO SCALE



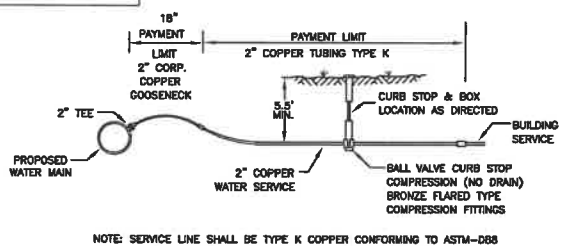
- NOTES:
1. ALL NON-METALLIC CONDUIT AND FITTINGS SHALL BE ELECTRICAL GRADE, SCHEDULE 40 PVC, AND SHALL CONFORM TO THE APPLICABLE SECTIONS OF NEMA 12C-1990 AND BE UL LISTED. ONLY GRAY-COLORED CONDUIT WILL BE ACCEPTED. ANY PVC CONDUIT NOT HAVING THE PROPER NEMA AND UL MARKINGS WILL NOT BE ACCEPTED. ALL STEEL CONDUITS SHALL CONFORM TO ASTM A120 AND BE RIGID GALVANIZED STEEL. ALL PVC JOINTS MUST BE CEMENTED. STEEL FITTINGS SHALL BE SEALED WITH COMPOUND.
2. ALL 90 DEGREE SWEEPS WILL BE MADE USING RIGID GALVANIZED STEEL WITH A MINIMUM RADIUS OF 36 INCHES FOR PRIMARY CABLES AND 24 INCHES FOR SECONDARY CABLES. ALL STEEL SWEEPS WITHIN 18" OF THE SURFACE SHALL BE PROPERLY GROUNDING.
3. A 10-FOOT HORIZONTAL SECTION OF RIGID GALVANIZED STEEL CONDUIT WILL BE REQUIRED AT EACH SWEEP, UNLESS IN THE OPINION OF THE ENGINEER/DESIGNER, THE SWEEP JOINT IS NOT SUBJECT TO FAILURE DURING CABLE PULLING.
4. THE CONDUIT SHALL CROSS PAVED AREAS AT APPROXIMATELY 90 DEGREES.
5. BACKFILL MAY BE MADE WITH EXCAVATED MATERIAL OR COMPARABLE, UNLESS MATERIAL IS DEEMED UNSUITABLE BY EVERSOURCE. BACKFILL SHALL BE FREE OF FROZEN LUMPS, ROCKS, ROOTS, AND RUBBISH. ORGANIC MATERIAL SHALL NOT BE USED AS BACKFILL. BACKFILL SHALL BE THOROUGHLY COMPACTED IN 8-INCH LAYERS.
6. A SUITABLE PULL STRING, COMPARE OF 200 POUNDS OF PULL, MUST BE INSTALLED IN THE CONDUIT BEFORE EVERSOURCE IS NOTIFIED TO INSTALL CABLE. THE STRING SHOULD BE BLOWN INTO THE CONDUIT AFTER THE RUN IS ASSEMBLED TO AVOID BOWING THE STRING TO THE CONDUIT.
7. ROUTING OF THE CONDUIT AND INSPECTION PRIOR TO BACKFILL WILL BE PROVIDED BY EVERSOURCE. INSTALLATION OF THE CONDUIT WILL BE DONE BY THE CONTRACTOR. THE EVERSOURCE SUPERVISOR MUST BE NOTIFIED 2 BUSINESS DAYS PRIOR TO BACKFILLING THE TRENCH. IN THE EVENT THAT A CABLE CANNOT BE SUCCESSFULLY PULLED THROUGH THE COMPLETED CONDUIT SYSTEM DUE TO A CONSTRUCTION ERROR, IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND REPAIR THE INVOLVED CONDUIT. THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL RESULTING EXPENSES.
8. NORMAL CONDUIT SIZES FOR EVERSOURCE ARE 3-INCH FOR SINGLE PHASE PRIMARY AND SECONDARY VOLTAGE CABLES, 4-INCH FOR THREE PHASE SECONDARY, AND 5-INCH FOR THREE PHASE PRIMARY.
9. ALL CONDUIT INSTALLATIONS MUST CONFORM TO THE CURRENT EDITION OF THE NATIONAL ELECTRICAL SAFETY CODE, STATE AND LOCAL CODES AND ORDINANCES, AND WHERE APPLICABLE THE NATIONAL ELECTRIC CODE.
10. CONDUIT MAY BE INSTALLED BY EXCAVATING AN OPEN TRENCH WITH SIDE SLOPES OF 1:1 MAXIMUM TO A DEPTH OF 4-FT. INSTALLATIONS DEEPER THAN 4-FT REQUIRE THE USE OF A TRENCH BOX.

ELECTRICAL & UNDERGROUND UTILITY TRENCH INSTALLATION DETAIL
NOT TO SCALE

UTILITY DETAILS
TAX MAP 243, LOT 39
215 ROCHESTER HILL RD
ROCHESTER, NH
PREPARED FOR:
EASTER SEALS NH, INC.
MARCH 11, 2022

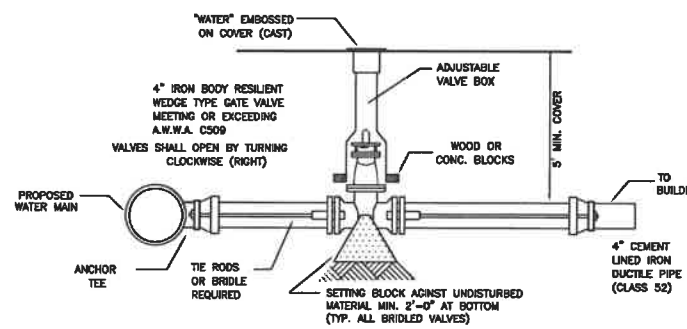
TYPICAL DOMESTIC SERVICE CONNECTION

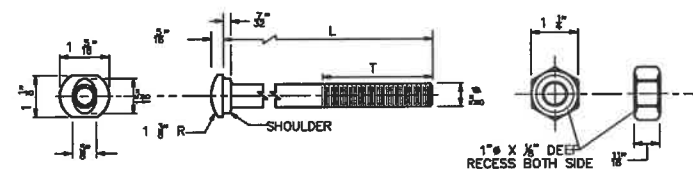
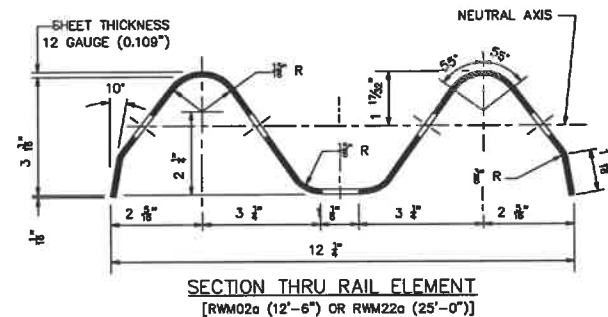
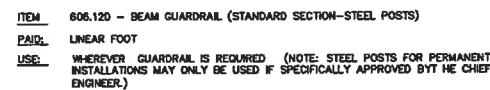
NOT TO SCALE



DOMESTIC SERVICE CONNECTION

NOT TO SCALE



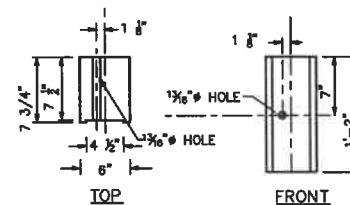


DESIGNATOR	L	T	INTENDED USE
FBR01	1 3/4"	FULL LENGTH THREAD	RAIL SPLICE BOLTS
FBR02	2"	1 1/2" MIN. THREAD LENGTH	POST BOLT (STEEL POSTS)
FBR03	10"	4" MIN. THREAD LENGTH	POST BOLT

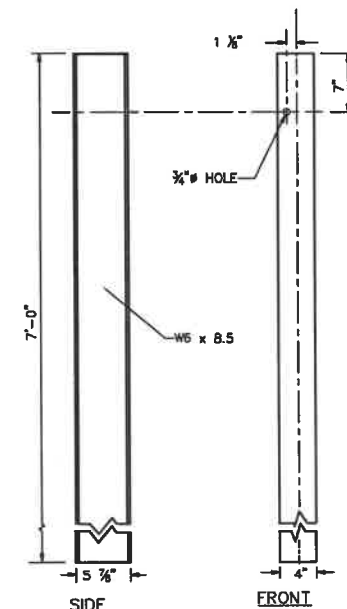
5/8" BUTTON HEAD BOLT AND RECESSED NUT



TERMINAL SECTION



SYNTHETIC OFFSET BLOCK



STRUCTURAL SHAPE STEEL POST



GENERAL NOTES

1. LENGTH OF NEED IS THE TOTAL LENGTH OF A LONGITUDINAL BARRIER NEEDED TO SHIELD AN AREA OF CONCERN. TO DETERMINE THE LENGTH OF NEED, REFER TO THE "ROADSIDE - LATEST APPROVED VERSION. DESIGN GUIDE."
2. DESIGNATIONS PROVIDED IN BRACKETS () AFTER EACH "A" HAVE TO STANDARDIZED STANDARD ELEMENTS. LISTED IN THE LATEST APPROVED VERSION, HIGHWAY BARRIER HARDWARE: AASHTO-AGC-ARTBA JOINT COOPERATIVE COMMITTEE.
3. THE RECTANGULAR PLATE WASHER (PWRSU) IS USED ONLY FOR 37"-6" OF STANDARD SLOPE UPSTAIRS. THE VERMIN RESISTANT CURB (VRC) IS USED ONLY ON GR-10S.
4. USE 12"-6" LENGTH RAIL ELEMENT IN CURVES OF LESS THAN 300' RAIL RADIUS.
5. WHEN QUADRARAIL IS INSTALLED BEHIND CURB, EITHER 6'-0" BEHIND SLOPE CURB ON A CURBED RAMP OR AT THE BACK OF SIDEWALK WITH BARRIER CURBS, THE RAIL HEIGHT MUST BE SET FROM THE GRADE AT THE FACE OF THE CURB.
6. POSTS SHORTER THAN THE 7'-0" INDICATED ON THE DETAIL, BUT NOT LESS THAN 6'-0", MAY ONLY BE USED WHEN:
 - A) THE SLOPE BEHIND THE QUADRARAIL IS NO STEEPER THAN 4:1
 - B) WHERE THE DISTANCE FROM THE BACK OF THE POST TO THE BREAK OF THE SLOPE IS A MINIMUM OF 2'-0"
 - C) AND THEN ONLY AS APPROVED OR SPECIFICALLY SHOWN ON THE PLANS.
7. TO INSTALL THE 7'-0" POSTS IN ROAD LANE AREAS AND IN AREAS OF OTHER DIFFICULT SITUATIONS, SUCH AS AROUND, OR NEAR, EXCAVATING, AND OTHER MORE UNUSUAL METHODS MAY BE REQUIRED FOR INSTALLING POSTS. THOSE CONDITIONS AND THE REQUIREMENT FOR UNUSUAL METHODS OF POST INSTALLATION, INCLUDING THE REQUIRED DISTANCE FROM THE POST TO THE REMAINING DEPTH OF THE POSTS AND WILL NOT BE APPROVED AS SUCH.
8. THE FHWA ADMINISTRATION HAS APPROVED THE USE OF OFFSET BLOCKS WITH DIMENSIONS TO NOT MORE THAN WOULD BE CONSIDERED WITHIN THE NORMAL CONTEXT OF NOMINAL DIMENSIONS. IN ORDER TO PROPOSE THE USE OF ANY OFFSET BLOCKS THAT HAVE OTHER THAN THE NOMINAL DIMENSIONS SHOWN ON THE DETAILS, THE FOLLOWING CRITERIA MUST BE APPLIED:
 - A) THE OFFSET BLOCKS BE SHOWN TO BE APPROVED BY THE FHWA ADMINISTRATION AS MEETING THE TL-3 CRITERIA AS DESCRIBED IN THE MCHRP 350 TESTING.
 - B) THE FACE OF THE BLOCK MUST REMAIN TO THE PAVED OR UNPAVED OR AT THE INDICATED OFFSET, PER THE DESIGN PLANS, AND
 - C) THERE MUST NOT BE A DECREASE IN THE DISTANCE FROM THE BACK OF THE POST TO THE BREAK IN THE SLOPE OF THE SLOPE OF THE SLOPE OF THE SLOPE IN THE DISTANCE FROM THE BACK OF THE POST TO THE BREAK IN THE SLOPE IS ACCEPTABLE.
9. ALL OTHER REQUIREMENTS OF THE PERTINENT SPECIFICATIONS AND DETAILS SHALL BE OBSERVED.

REFERENCE NOTE

1. DETAILS FOR GUARDRAIL SHOWN ON THIS PAGE EXCERPTED FROM AND SPECIFIED TO MATCH NHDOT STANDARD PLANS, STANDARD NO. GR-2 AND GR-10; BEAM GUARDRAIL STANDARD SECTION - STEEL POST & HARDWARE DETAILS.

GUARDRAIL DETAILS
TAX MAP 243, LOT 39
ROCHESTER HILL ROAD &
HEALTHCARE DRIVE
ROCHESTER, NH

PREPARED FOR:
EASTER SEALS NH, INC.

MARCH 11, 2022

C-18

FILE NO. 102
PLAN NO. C-3154
DWG. NO. 19249 SP-1
F.B. NO.

31 Mooney Street, Alton, N.H. 603-875-3948

NORWAY PLAINS ASSOCIATES, INC.

2 Continental Blvd., Rochester, N.H. 603-335-3948

LAND SURVEYORS

CIVIL ENGINEERS

LEGEND

- PROPERTY LINE
- EXISTING LIGHT POLES
- PROPOSED BUILDING
- PROPOSED PAVEMENT
- PROPOSED PAVEMENT WITH CURBING
- PROPOSED LIGHT POLES
- PROPOSED BUILDING LIGHT FIXTURES
- PROPOSED LIGHT FOOTCANDLE
- PROPOSED LIGHT ISOLLLUMINATION LINES

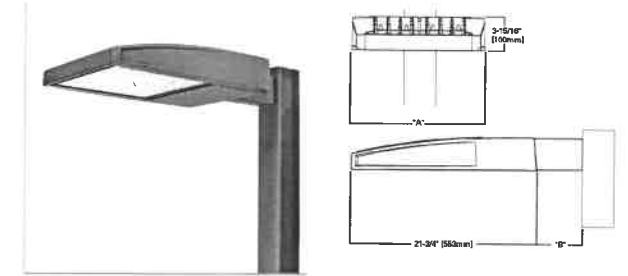
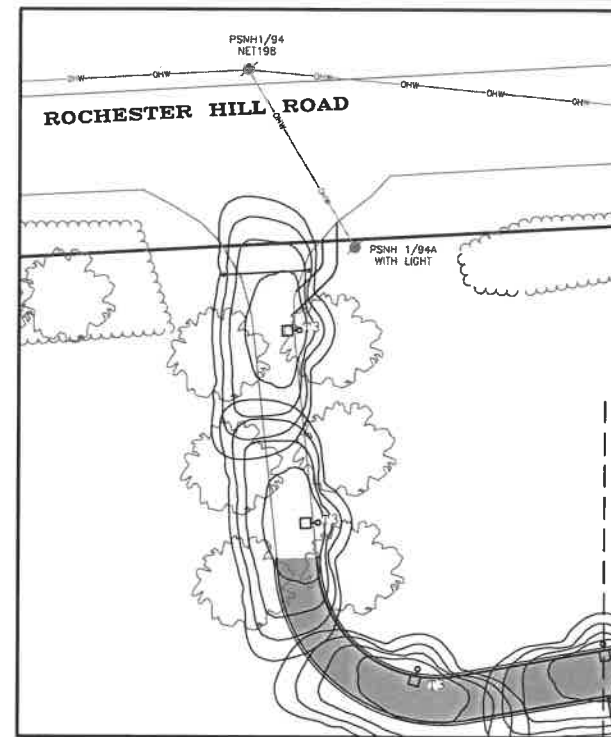
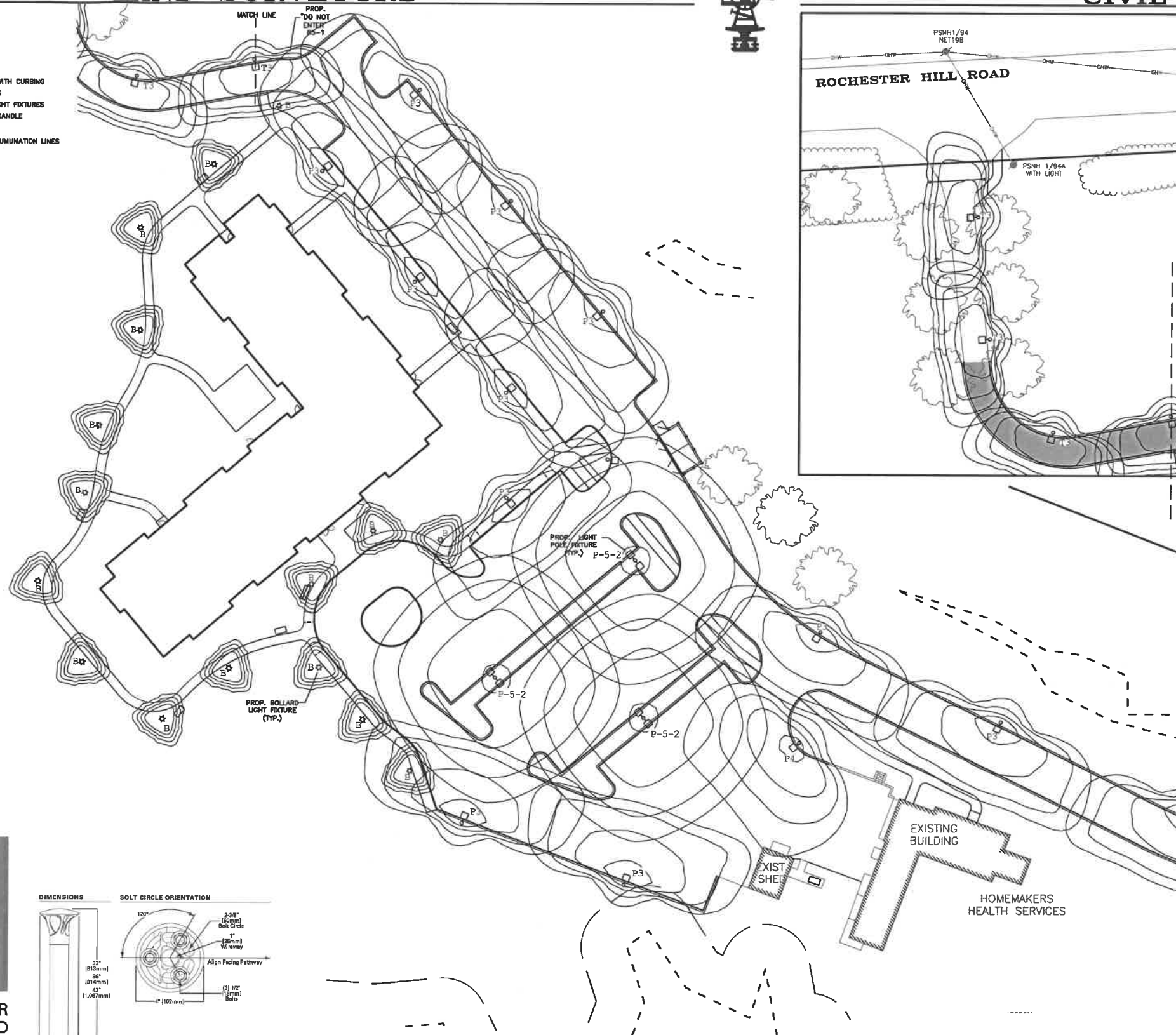
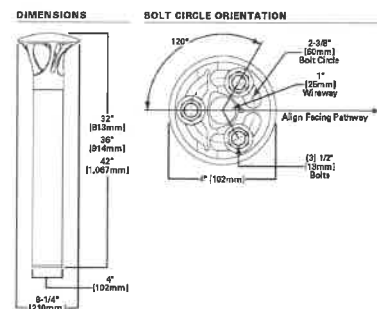


ABB ARBOR BOLLARD

PATHWAY LUMINAIRE

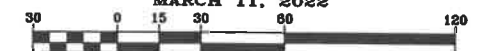


Luminaire Schedule					
Symbol	Qty	Label	Arrangement	Description	Total Watts
○	21	B	SINGLE	ABB-B2-LED-42-D1-S	672
○	17	P3	SINGLE	GLEON-SA1B-740-U-SL3/ SSS4A20SFN1 (20' AFG)	448
○	8	P4	SINGLE	GLEON-SA1B-740-U-SL4/ SSS4A20SFN1 (20' AFG)	352
○	4	P5-2	BACK-BACK	GLEON-SA1B-740-U-SWQ/ SSS4A20SFN2 (20' AFG)	352
○	4	T3	SINGLE	GLEON-SA1A-740-U-SL3/ SSS4A12SFN1 (12' AFG)	136

CAREFULLY REVIEW ALL SHEETS OF THIS PACKAGE TO INSURE PROPER CONSTRUCTION. SPECIFIC SITE CONDITIONS SHOULD BE EXPLORED PRIOR TO CONSTRUCTION. CONTACT BOTH THE DESIGN ENGINEER AND THE PROJECT OWNER FOR ANY AVAILABLE GEOTECHNICAL OR HYDROGEOLOGICAL INFORMATION AVAILABLE BUT NOT CONTAINED WITHIN THE PLAN SET. IF THERE ARE ANY QUESTIONS WITH THE DESIGN PRESENTED IN THIS PLAN SET PLEASE CONTACT THE ENGINEERING STAFF AT NORWAY PLAINS ASSOCIATES, INC. (603)-335-3948.

LIGHTING PLAN AND DETAILS
TAX MAP 243, LOT 39
215 ROCHESTER HILL RD
ROCHESTER, NH

PREPARED FOR:
EASTER SEALS NH, INC.
 MARCH 11, 2022



FILE NO. 102
 PLAN NO. C-3154
 DFC. NO. 19249 SP-1
 F.B. NO.

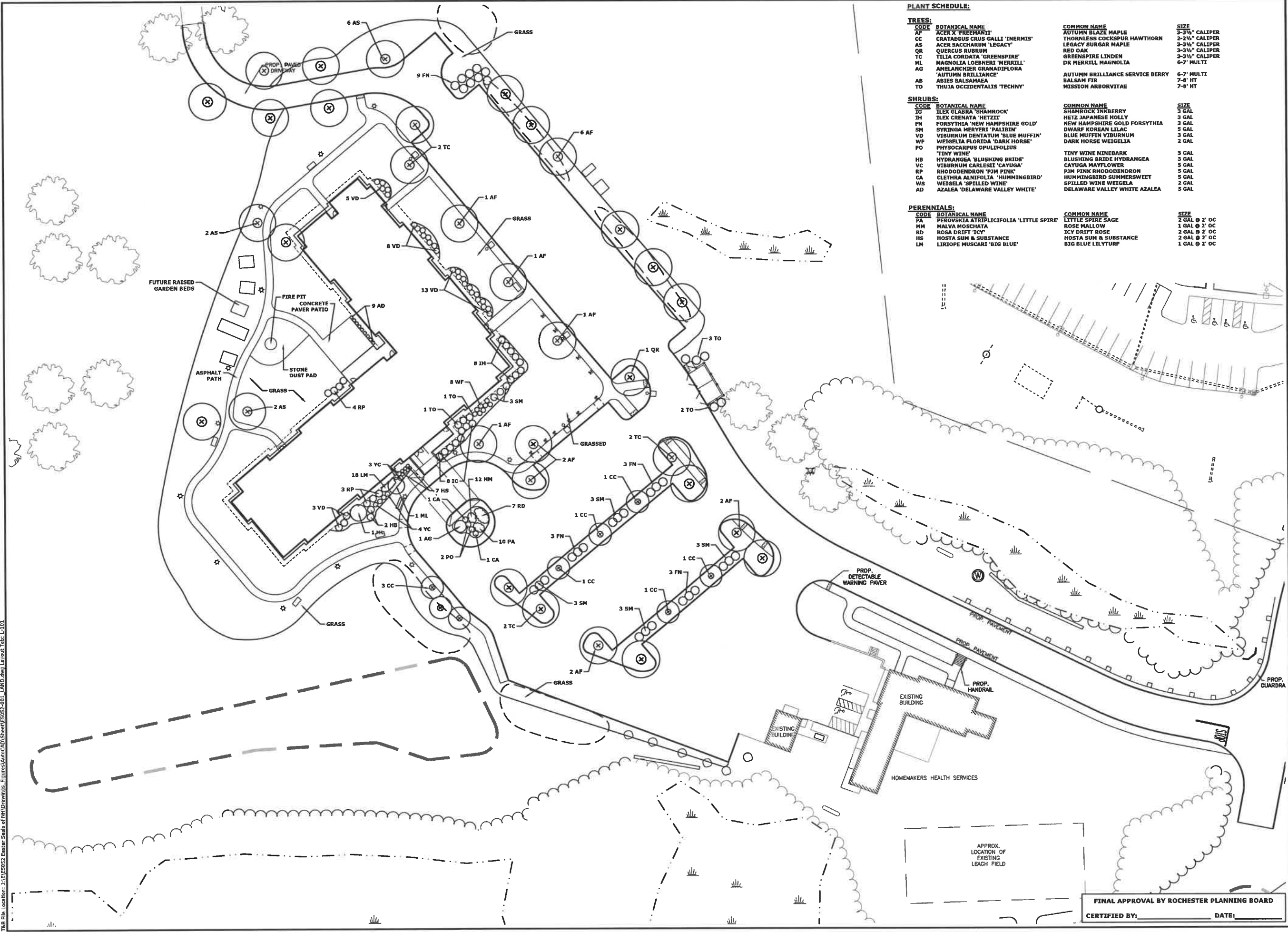
31 Mooney Street, Alton, N.H. 603-875-3948

NORWAY PLAINS ASSOCIATES, INC.

2 Continental Blvd., Rochester, N.H. 603-335-3948

L-1

Last Save Date: March 10, 2022 11:26 AM By: CNL
Plot Date: Thursday, March 10, 2022 Plotted By: Craig N. Langston
T&B File Location: J:\E5052-Easterseals of New Hampshire\Plat\Drawings\Plat\Drawings\AutoCAD\Sheet\E5052-001_LAND.dwg Layout Tab: L-101



PLANT SCHEDULE:

TREES:

CODE	BOTANICAL NAME	COMMON NAME	SIZE
AF	ACER X 'FREEMANT'	AUTUMN BLAZE MAPLE	3-3 1/2" CALIPER
CC	CRATAEGUS CRUS GALLI 'INERMIS'	THORNLESS COCKSPUR HAWTHORN	2-2 1/2" CALIPER
AS	ACER SACCHARUM 'LEGACY'	LEGACY SUGAR MAPLE	3-3 1/2" CALIPER
QR	QUERCUS RUBRUM	RED OAK	3-3 1/2" CALIPER
TC	TILIA CORDATA 'GREENSPIRE'	GREENSPIRE LINDEN	3-3 1/2" CALIPER
ML	MAGNOLIA LOEBNERI 'MERRILL'	DK MERRILL MAGNOLIA	6-7' MULTI
AG	AMELANCHIER GRANADIFLORA 'AUTUMN BRILLIANCE'	AUTUMN BRILLIANCE SERVICE BERRY	6-7' MULTI
AB	ABIES BALSAMEA	BALSAM FIR	7-8' HT
TO	THUJA OCCIDENTALIS 'TECHNY'	MISSION ARBORVITAE	7-8' HT

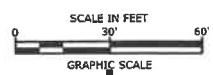
SHRUBS:

CODE	BOTANICAL NAME	COMMON NAME	SIZE
IG	ILEX GLABRA 'SHAMROCK'	SHAMROCK INKBERRY	3 GAL
IH	ILEX CRENATA 'HETZT'	HETZ JAPANESE HOLLY	3 GAL
FN	FORSYTHIA 'NEW HAMPSHIRE GOLD'	NEW HAMPSHIRE GOLD FORSYTHIA	3 GAL
SH	SYRINGA MERYETI 'PALIDIN'	DWARF KOREAN LILAC	3 GAL
VD	VIBURNUM DENTATUM 'BLUE MUFFIN'	BLUE MUFFIN VIBURNUM	3 GAL
WF	WEIGELIA FLORIDA 'DARK HORSE'	DARK HORSE WEIGELIA	2 GAL
PO	PHYTOSCARPUS OPULIFOLIUS 'TINY WINE'	TINY WINE NINEBARK	3 GAL
HB	HYDRANGEA 'BLUSHING BRIDE'	BLUSHING BRIDE HYDRANGEA	3 GAL
VC	VIBURNUM CARLESI 'CAYUGA'	CAYUGA MAYFLOWER	5 GAL
RP	RHOODODENDRON 'PJM PINK'	PJM PINK RHODODENDRON	5 GAL
CA	CLETHRA ALNIFOLIA 'HUMMINGBIRD'	HUMMINGBIRD SUMMERSWEET	5 GAL
WS	WEIGELA 'SPILLED WINE'	SPILLED WINE WEIGELA	2 GAL
AD	AZALEA 'DELAWARE VALLEY WHITE'	DELAWARE VALLEY WHITE AZALEA	5 GAL

PERENNIALS:

CODE	BOTANICAL NAME	COMMON NAME	SIZE
PA	PEROVSKIA ATRIPLICIFOLIA 'LITTLE SPIRE'	LITTLE SPIRE SAGE	2 GAL @ 2" OC
HM	HALVA MOSCHATA	ROSE MALLOW	1 GAL @ 2" OC
RD	ROSA DRIFT 'ICY'	ICY DRIFT ROSE	2 GAL @ 2" OC
HS	HOSTA SUM & SUBSTANCE	HOSTA SUM & SUBSTANCE	2 GAL @ 2" OC
LM	LIRIOPE MUSCARI 'BIG BLUE'	BIG BLUE LILYTURF	1 GAL @ 2" OC

Tighe&Bond



Champlin Place

Easterseals
New Hampshire

Rochester, New
Hampshire

MARK	DATE	DESCRIPTION
B	3/10/2022	Rev. BLDG Layout
A	11/24/2021	Rev. BLDG Layout
PROJECT NO:	E5052-001	
DATE:	5/13/2021	
FILE:	E5052-001_LAND.DWG	
DRAWN BY:	CNL	
CHECKED:	GL	
APPROVED:	BLM	

LANDSCAPE PLAN

SCALE: AS SHOWN

L-101

FINAL APPROVAL BY ROCHESTER PLANNING BOARD

CERTIFIED BY: DATE:

Rochester, New
Hampshire

LANDSCAPE DETAILS

SCALE: AS SHOWN

L-501

- CERTIFIED BY:** _____ **DATE:** _____

