STATE OF NEW HAMPSHIRE

Department of Administrative Services

DIVISION OF PUBLIC WORKS DESIGN & CONSTRUCTION

ARPA-CAMPGROUND EXPANSION PROJECTS

A FEDERAL AID PROJECT

PAWTUCKAWAY STATE PARK: TOILET BUILDING REPLACEMENT Park Office-7 Pawtuckaway Road, Nottingham, NH DPW Project #81205R Contract B Department of Natural &

Cultural Resources

Horizons Engineering 34 School St. Littleton, NH 03561 p. 603-444-4111

e. wdavis@horizonsengineering.com

CIVIL

CPB & Associates 500 Depot St. Rumney, NH 03266 p. 603-786-9992

ELECTRICAL

e. chuck6x6@yahoo.com.com

ARCHITECT

Samyn D'Elia Architects 6 Central House Rd. Holderness, NH 03245 p. 603-968-7133

e. ward@sdarchitects.com

LANDSCAPE ARCHITECT

SE GROUP 1 Chase Mill, Suite 190 Burlington, VT 05401 p. 802-862-0098

e. polstad@segroup.com



Hazen Drive PO Box 483 Room 250
 Concord, New Hampshire 03302
 603-271-3516 f 603-271-3515

Ommissioner-department of administrative services

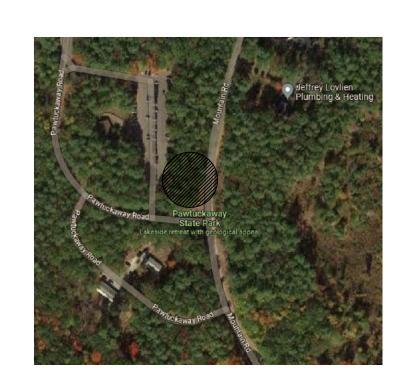
DIRECTOR-DIVISION OF PURITO WORKS

IGNATURE [

COMMISSIONER-DEPARTMENT OF NATURAL & CULTURAL RESOURCES

NATURE DA

LOCUS MAP



REVISIONS DATE	SYMBOL
DESCRIPTION	
DATE	SYMBOL
DESCRIPTION	
DATE	SYMBOL
DESCRIPTION	

PROJECT NAME
ARPA-Campground
Expansion Projects

PROJECT NUMBER 81205R-B

12/01/2023

SHEET NUMBER

T-1

PAWTUCKAWAY STATE PARK

TOILET BUILDING RENOVATIONS - 80% DESIGN

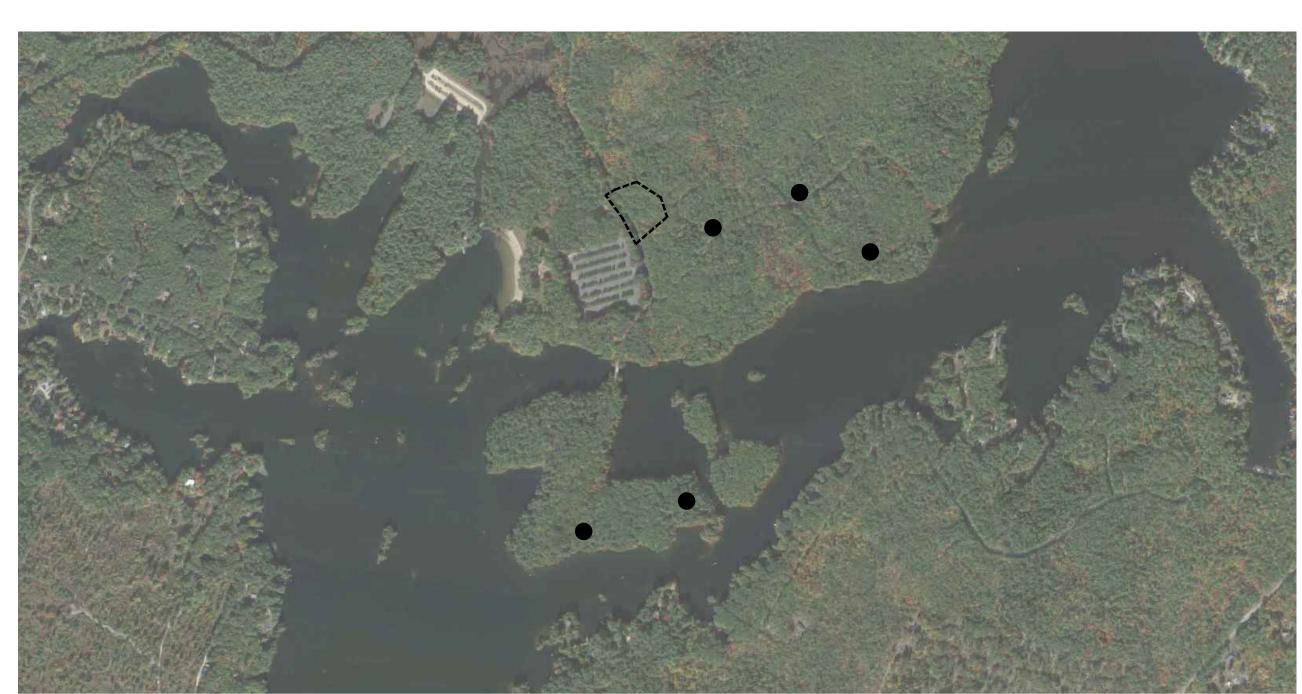
7 Pawtuckaway Road Nottingham, NH 03590

SHEET LIST

SHEET NO.	SHEET TITLE
G0.00	COVER SHEET
C1.00	OVERALL PLAN
C1.10	BIG ISLAND ROAD EXISTING CONDITIONS
C1.20	DUMP STATION EXISTING CONDITIONS
C1.30	BATHHOUSE 7 EXISTING CONDITIONS
C1.40	BATHHOUSE 8 EXISTING CONDITIONS
C1.50	BATHHOUSE 9 EXISTING CONDITIONS
C1.60	BATHHOUSE 5 EXISTING CONDITIONS
C1.70	BATHHOUSE 6 EXISTING CONDITIONS
C2.20	DUMP STATION DEMOLITION PLAN
C2.30	BATHHOUSE 7 DEMOLITION PLAN
C2.40	BATHHOUSE 8 DEMOLITION PLAN
C2.50	BATHHOUSE 9 DEMOLITION PLAN
C2.60	BATHHOUSE 5 DEMOLITION PLAN
C2.70	BATHHOUSE 6 DEMOLITION PLAN
C3.20	DUMP STATION GRADING AND UTILITY PLAN
C3.30	BATHHOUSE 7 SITE PLAN
C3.40	BATHHOUSE 8 SITE PLAN
C3.50	BATHHOUSE 9 SITE PLAN
C3.60	BATHHOUSE 5 SITE PLAN
C3.70	BATHHOUSE 6 SITE PLAN
C3.80	WATER SYSTEM SITE PLAN & NOTES
C4.20	DUMP STATION SEPTIC PLAN
C4.30	BATHHOUSE 7 SEPTIC PLAN
C4.40	BATHHOUSE 8 SEPTIC PLAN
C4.50	BATHHOUSE 9 SEPTIC PLAN
C4.60	BATHHOUSE 5 SEPTIC PLAN
C4.70	BATHHOUSE 6 SEPTIC PLAN
C5.00	DETAILS - EROSION CONTROL
C5.10	DETAILS - MISCELLANEOUS
C5.20	DETAILS - MISCELLANEOUS
A0.01	ARCHITECTURAL GENERAL NOTES, ABBREVIATIONS,
	ANNOTATIONS, LEGENDS & WALL TYPES
A1.01	MAIN FLOOR PLAN
A1.02	REFLECTED CEILING PLAN AND ROOF PLAN
A2.01	EXTERIOR ELEVATIONS

SHEET NO.	SHEET TITLE
A3.01	BUILDING & WALL SECTIONS
A4.01	INTERIOR ELEVATIONS
A5.01	SCHEDULES
S1.01	FOUNDATION PLAN AND DETAILS
S2.01	ROOF FRAMING PLAN & FRAMING SECTION
S3.01	TRUSS DIAGRAMS & DETAILS
M1.01P	MECHANICAL PLAN AND DETAILS
E1.01P	ELECTRICAL PLAN AND DETAILS
E1.02P	ELECTRICAL RISERS
P1.01P	PLUMBING PLAN AND DETAILS
P1.02P	PLUMBING PLAN AND DETAILS

SITE





LANDSCAPE ARCHITECT SE GROUP 1 MILL STREET, SUITE 190 BURLINGTON, VT 05401

CIVIL ENGINEER
HORIZONS ENGINEERING
8836 POMFRET ROAD, SUITE 2A
NORTH POMFRET, VT 05053

ARCHITECT
SAMYN-D'ELIA ARCHITECTS, P.A.
6 CENTRAL HOUSE ROAD
HOLDERNESS, NH 03245

ELECTRICAL
CPB & ASSOCIATES
500 DEPOT STREET
RUMNEY, NH 03266

Landscape Architects and Planners 1 Mill Street, Suite 190 Burlington, VT 05401 tel: 802.862.0098 fax: 802.865.2440 www.segroup.com

NH STATE PARKS

Campground Expansion Project PII Pawtuckaway State Park 7 Pawtuckaway Road Nottingham, NH 03290

60% DESIGN

Graphic Scale

N1 - ...41-

0 1

Date: December 1, 2023

Drawn By: BD & KS

Checked By: PO

ISSU	es.	
No.	Description	Date
1	Name	00/00/00

Title

COVER SHEET

Sheet Numbe

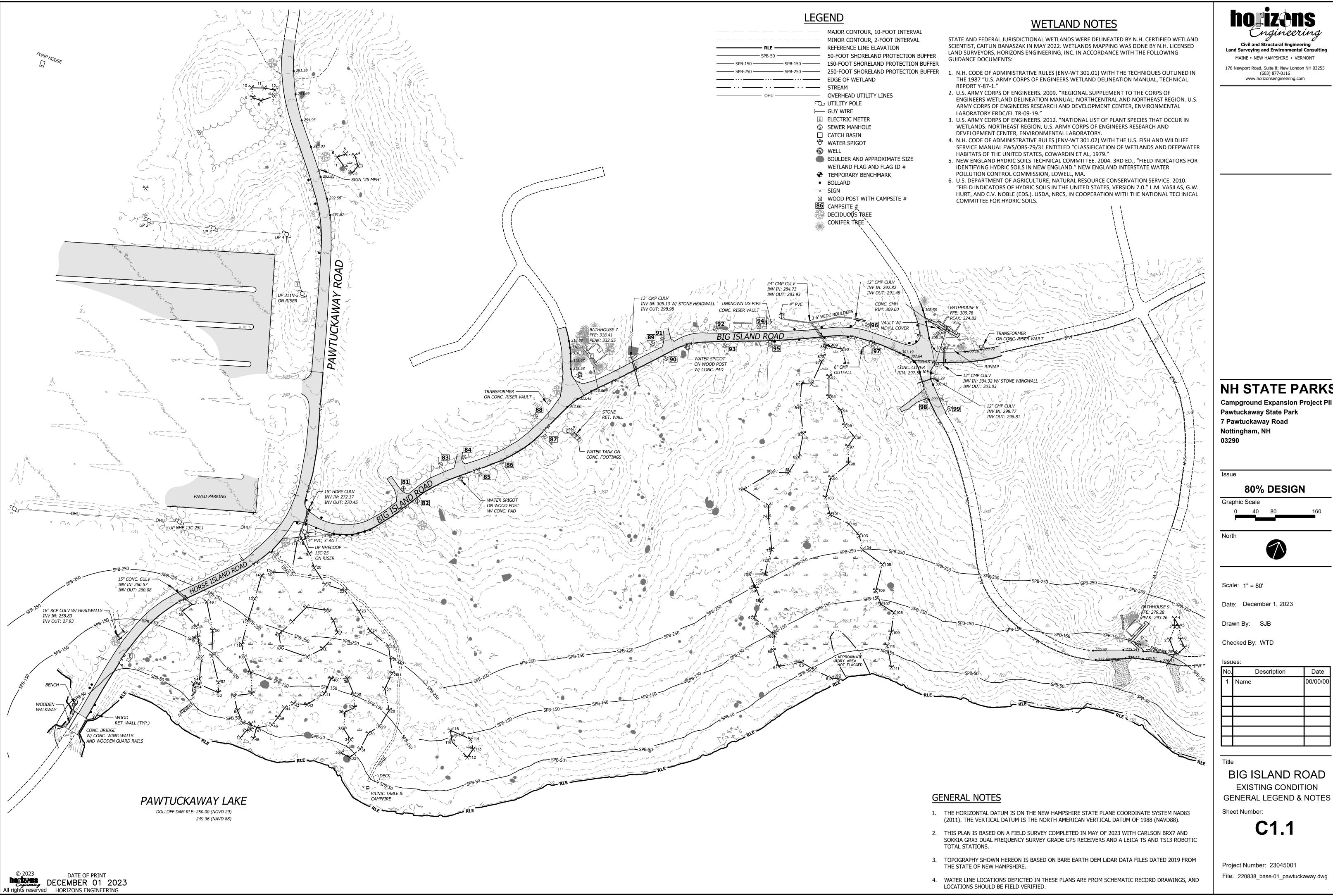
G0.00

Project Number: 23045001
File: I0.00-cover sheet.dwg



1334		_
No.	Description	Date
1	Name	00/00/00

File: 220838_base-01_pawtuckaway.dwg



MAINE • NEW HAMPSHIRE • VERMONT

176 Newport Road, Suite 8; New London NH 03255 (603) 877-0116 www.horizonsengineering.com

NH STATE PARKS

Pawtuckaway State Park

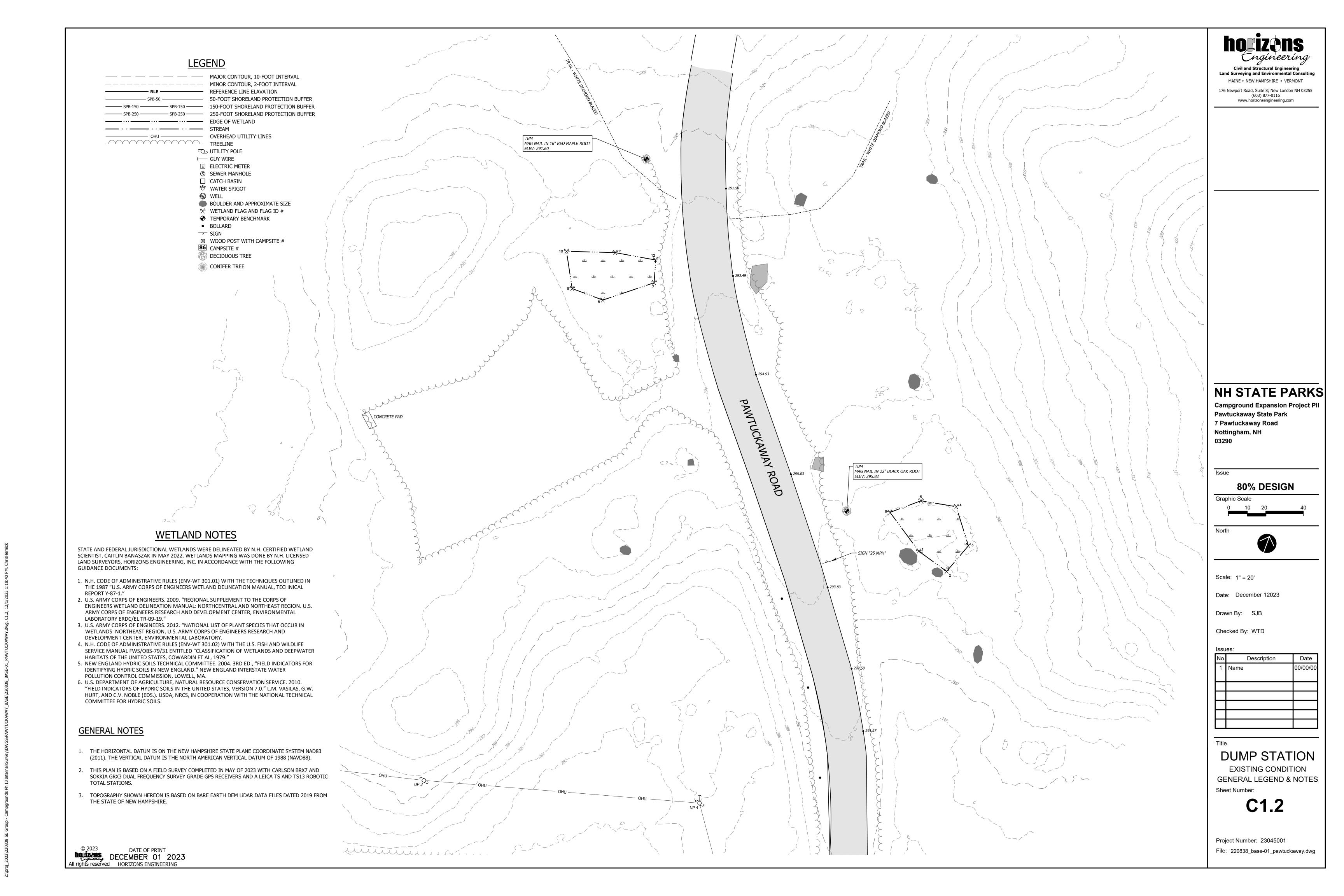
80% DESIGN

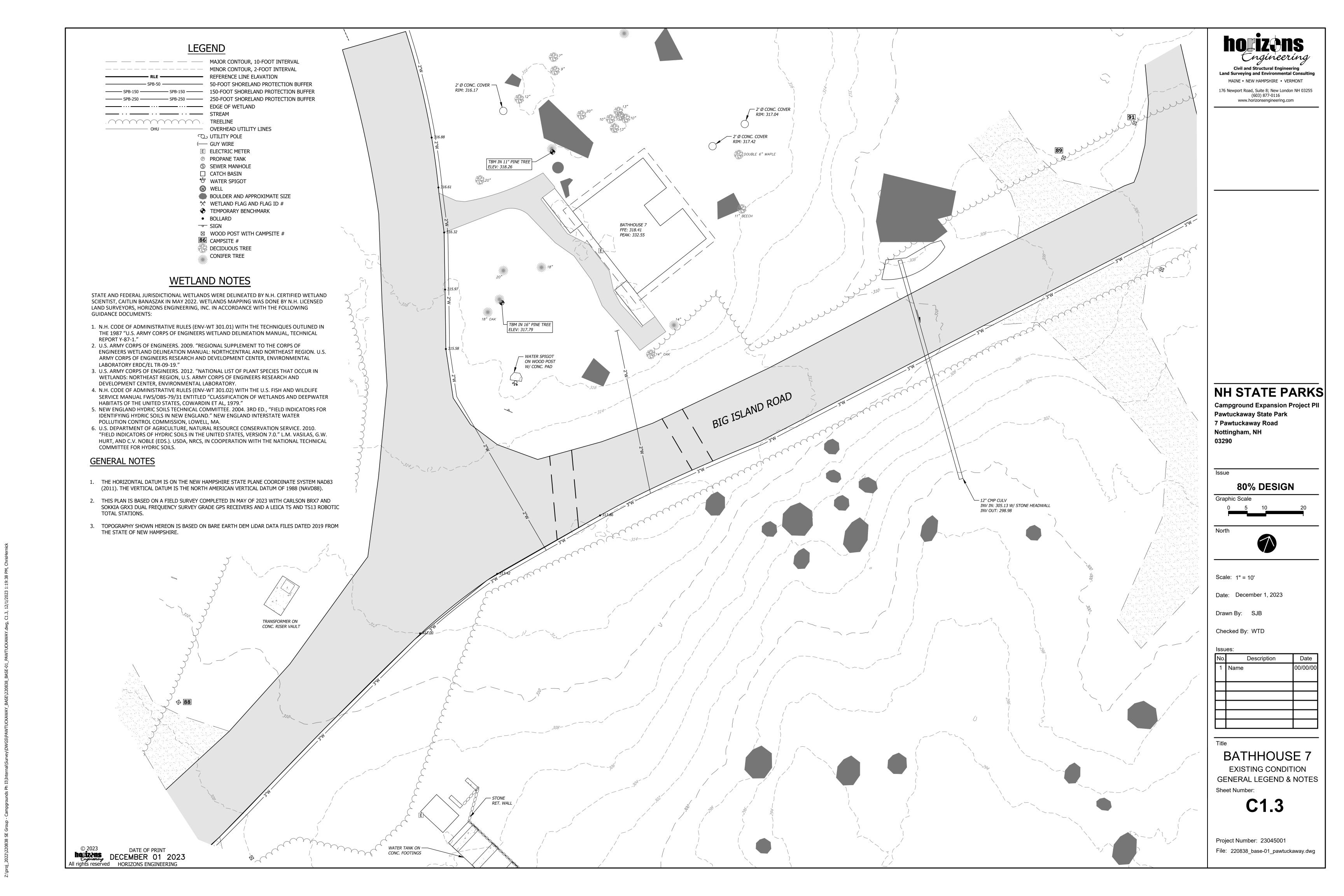


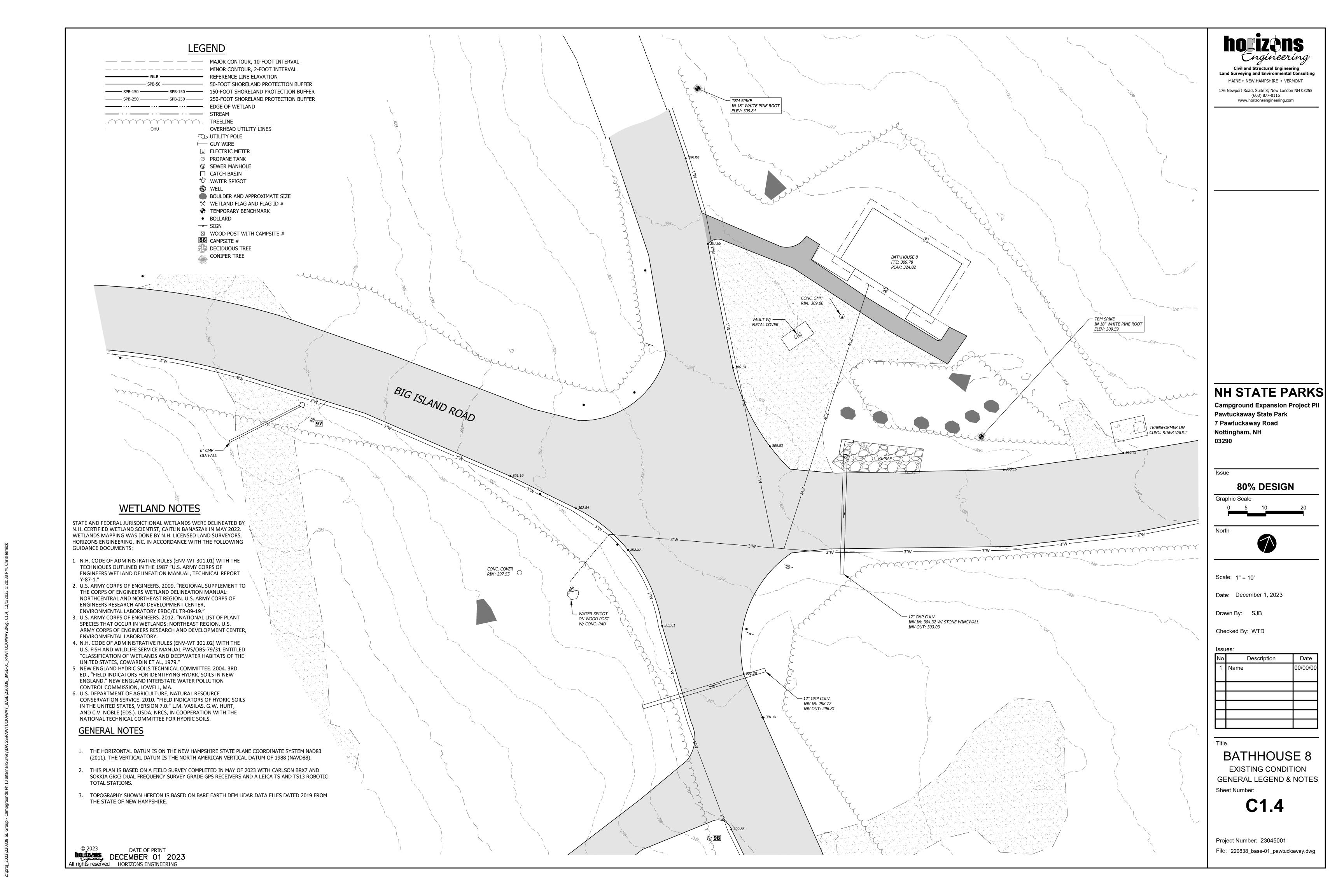
	No.	Description	Date
	1	Name	00/00/00
_			

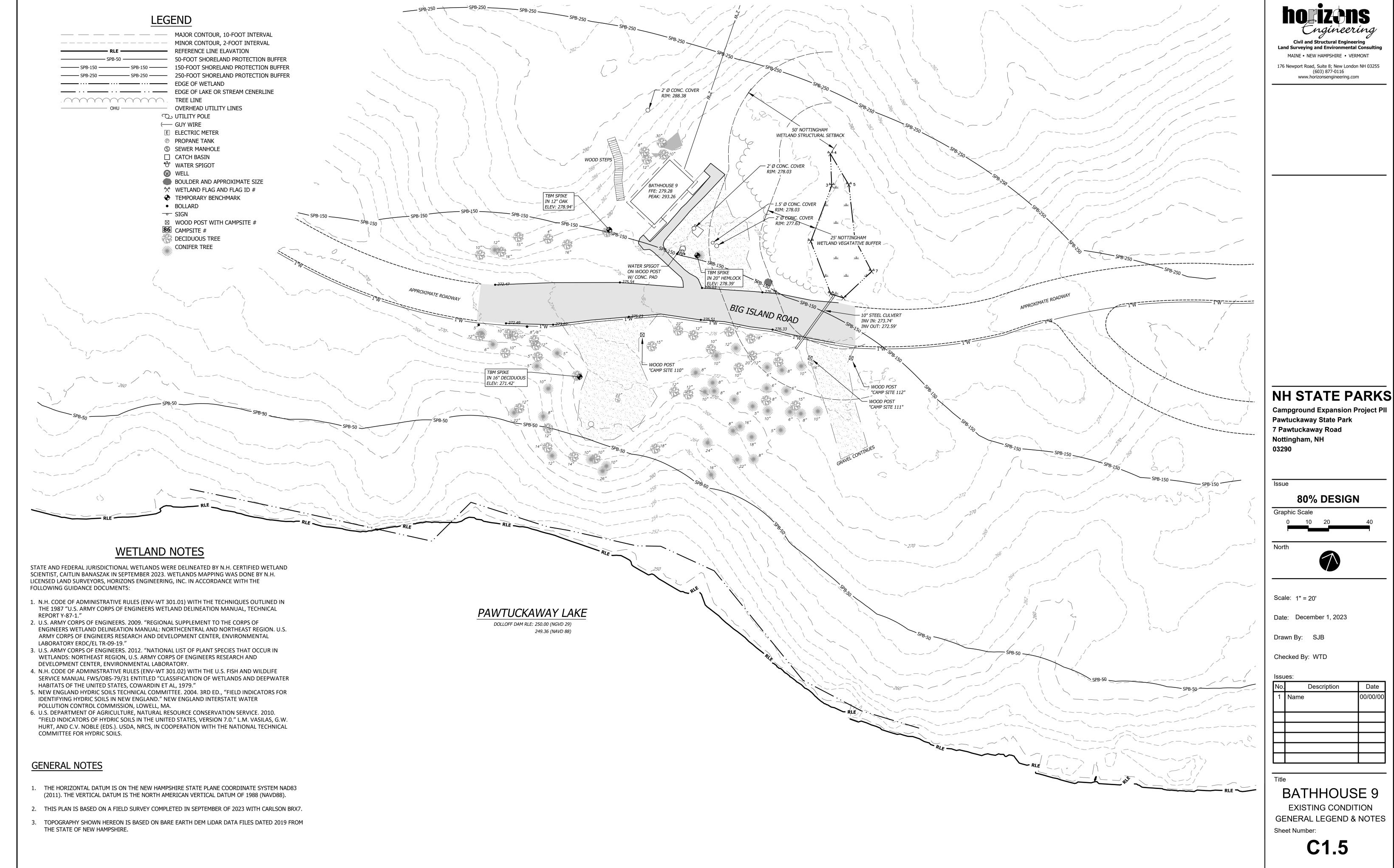
BIG ISLAND ROAD EXISTING CONDITION

Project Number: 23045001









DATE OF PRINT

DATE OF PRINT

DATE OF PRINT

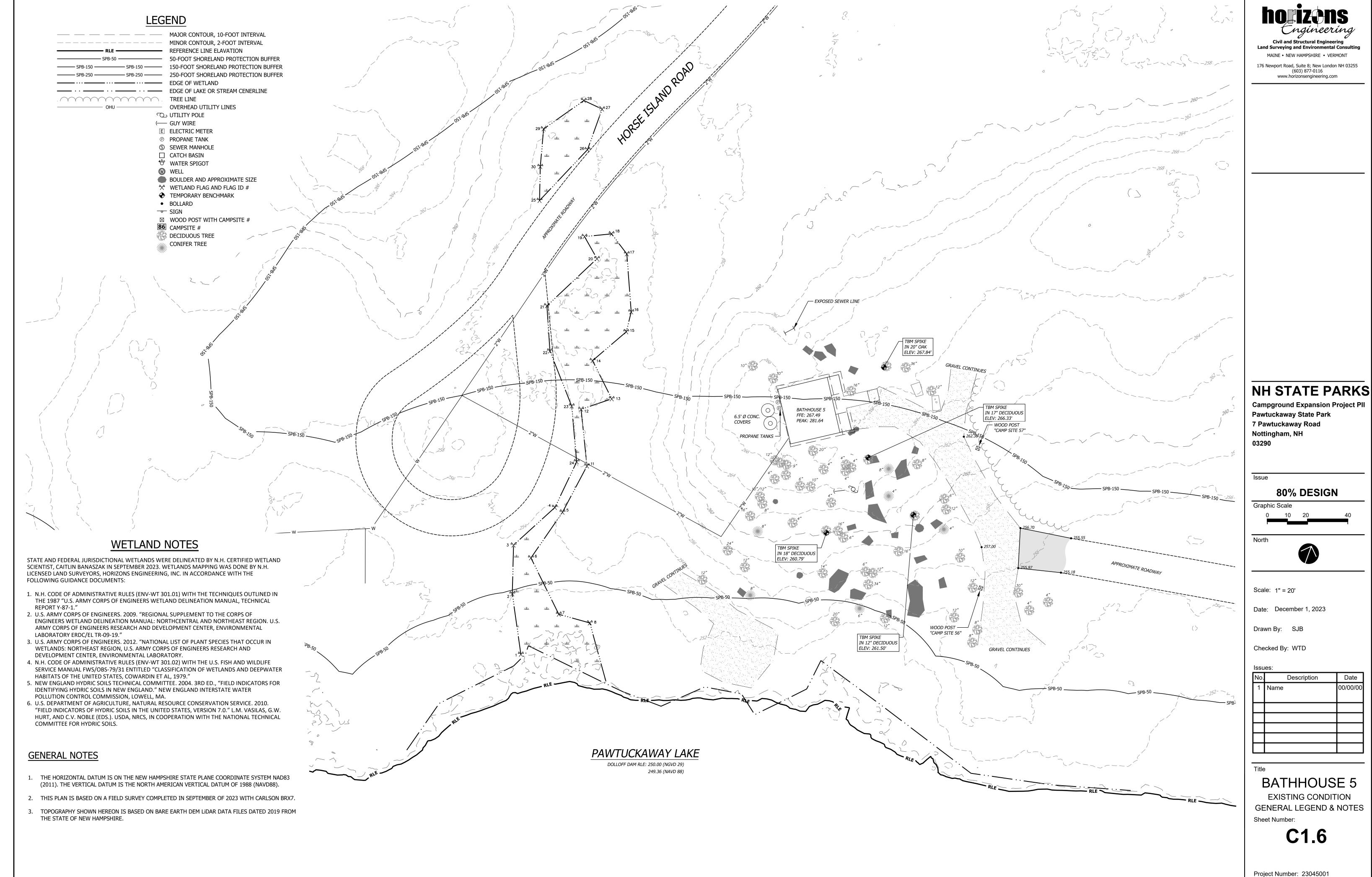
DATE OF PRINT

A place of PRINT

A p

No.	Description	Date
1	Name	00/00/00

Project Number: 23045001 File: 220838_base-01_pawtuckaway.dwg

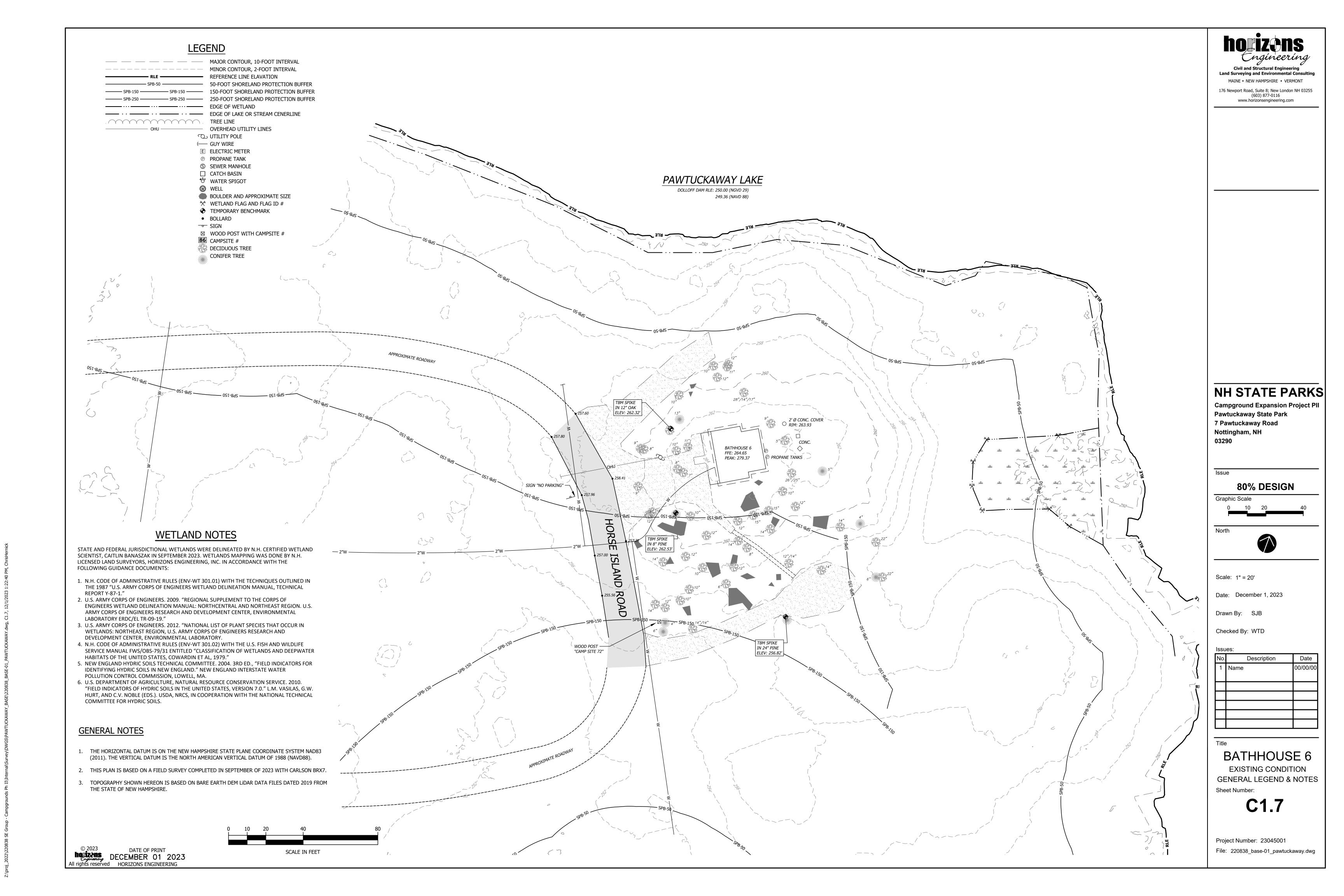


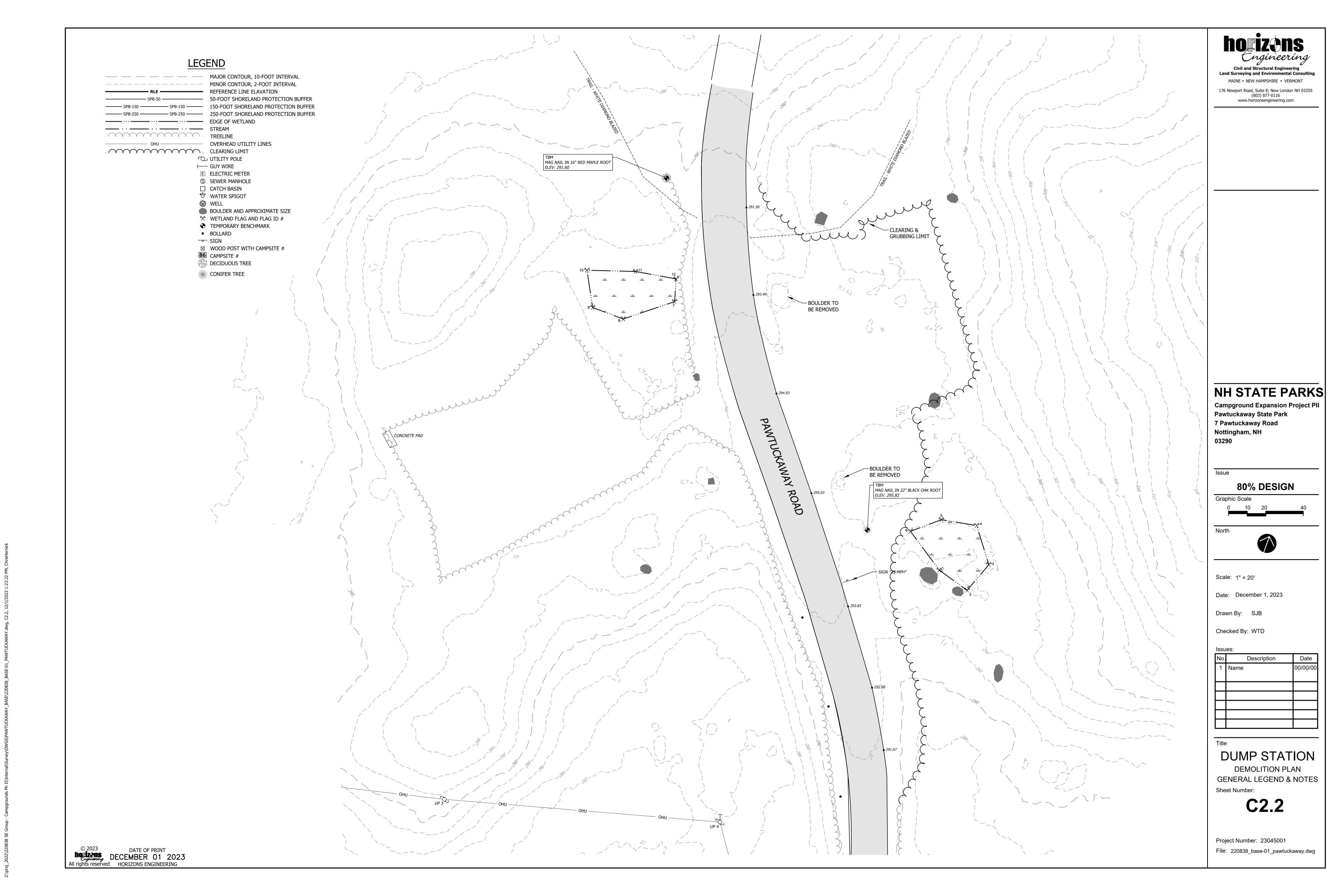
DATE OF PRINT

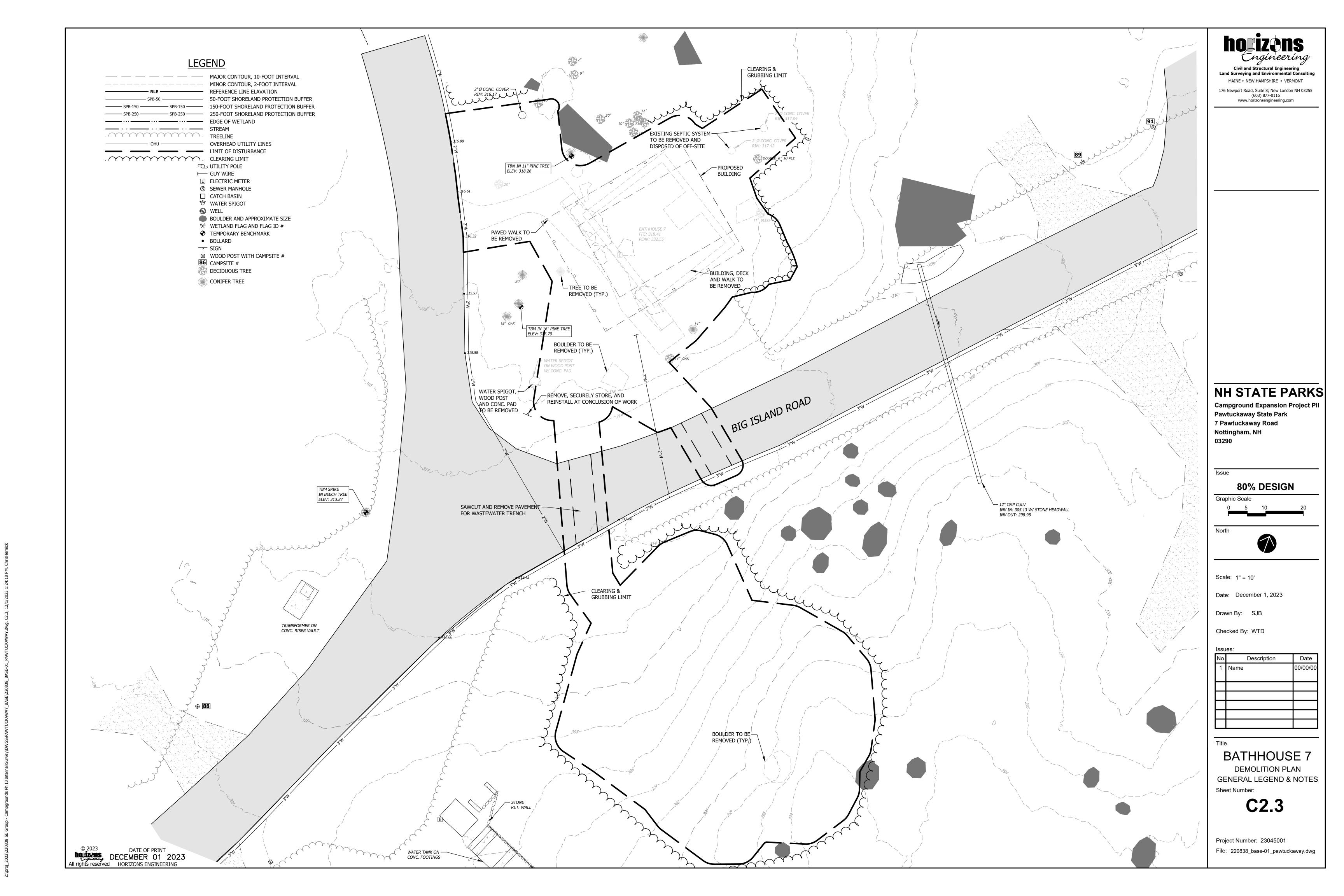
horizons DECEMBER 01 2023
All rights reserved HORIZONS ENGINEERING

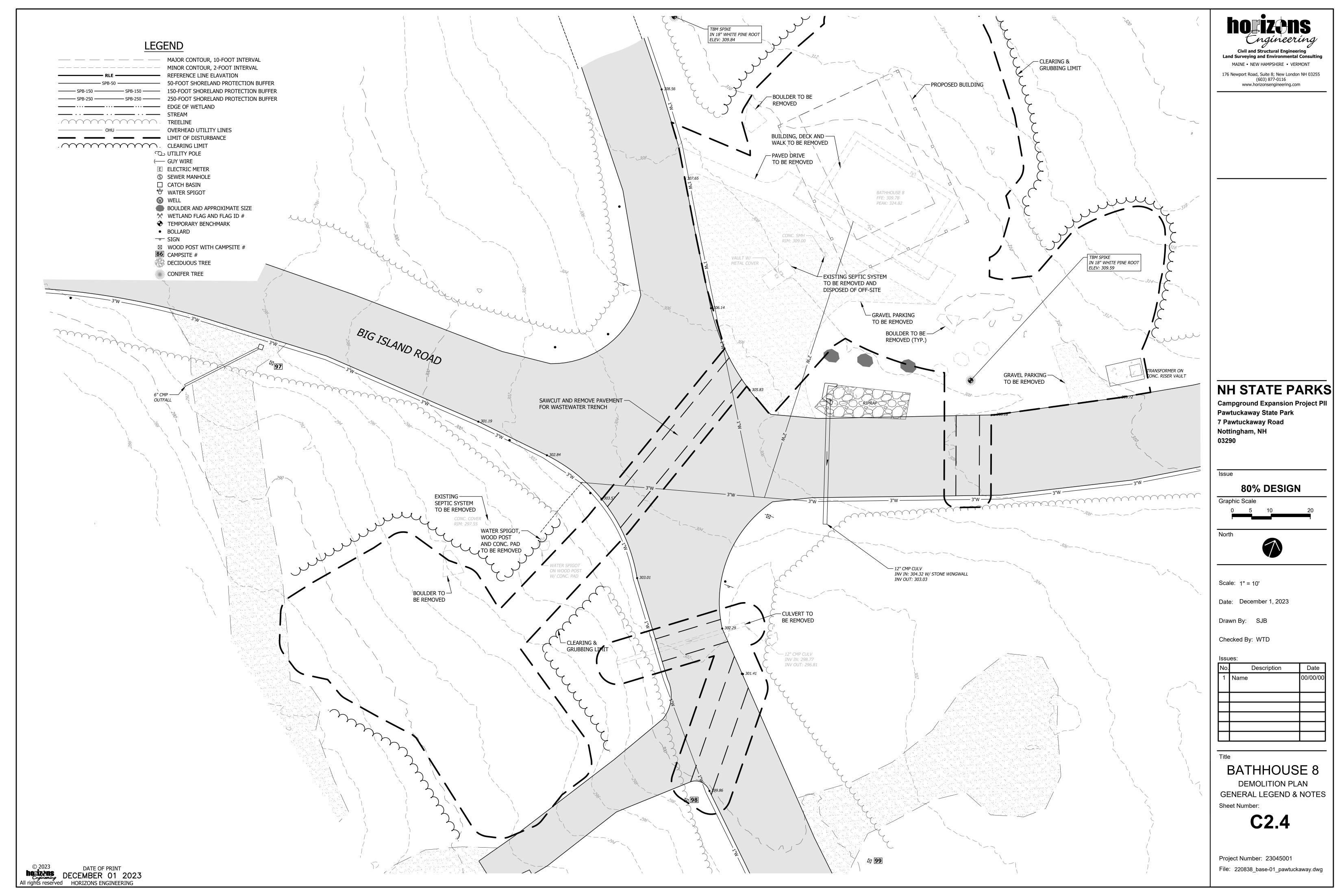
	1	Name	00/00/00
ľ			
ŀ			
ŀ			
٠			

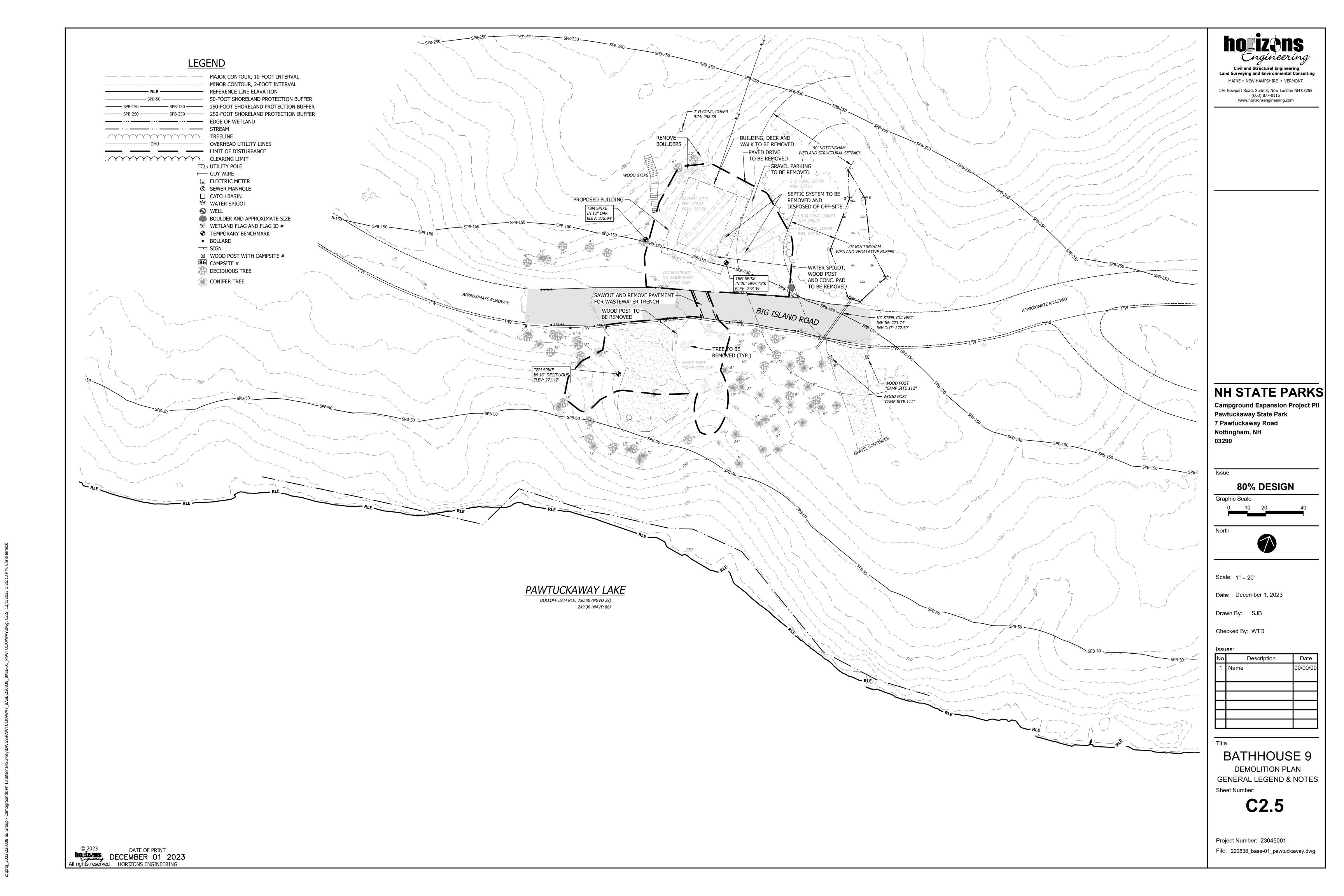
File: 220838_base-01_pawtuckaway.dwg

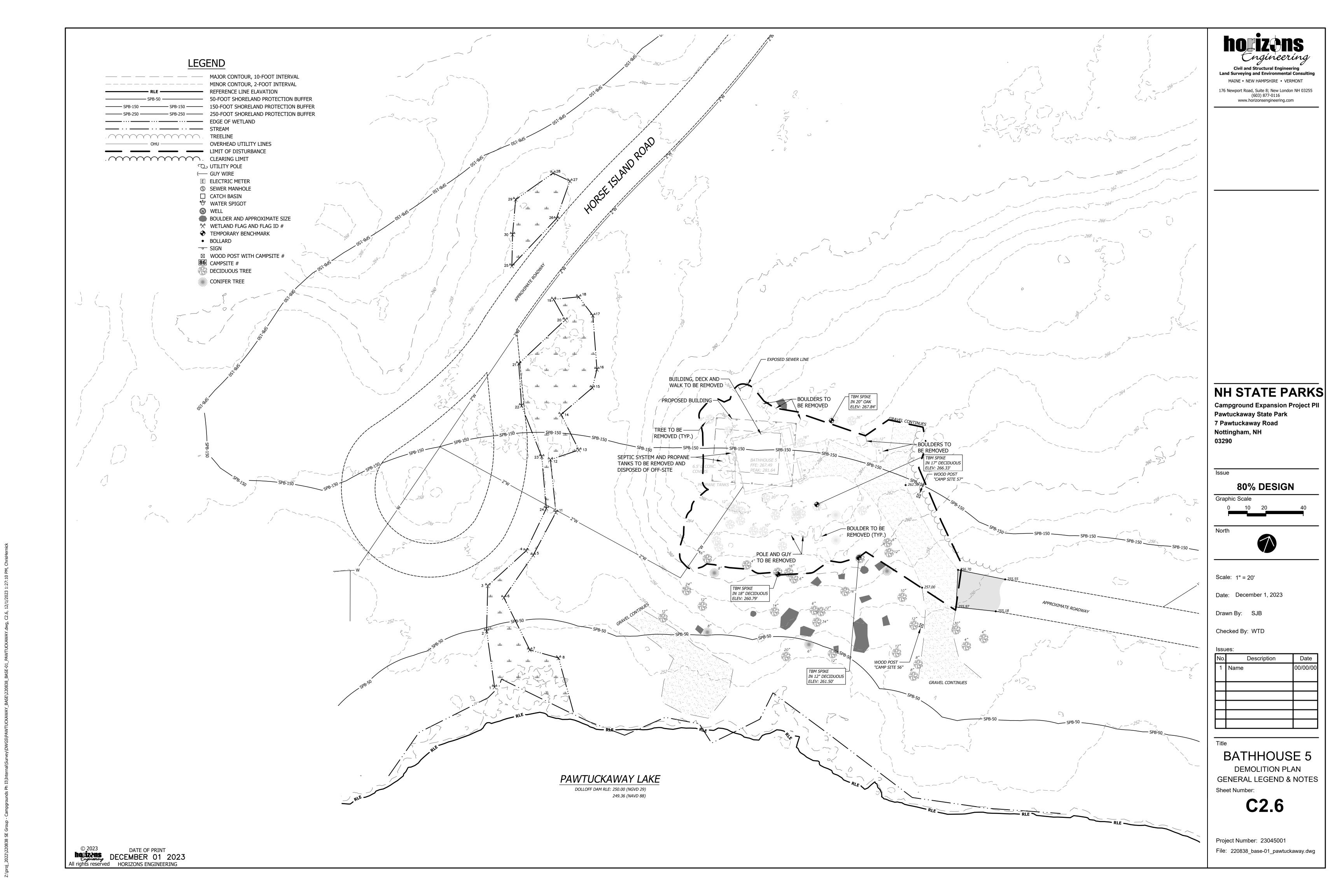


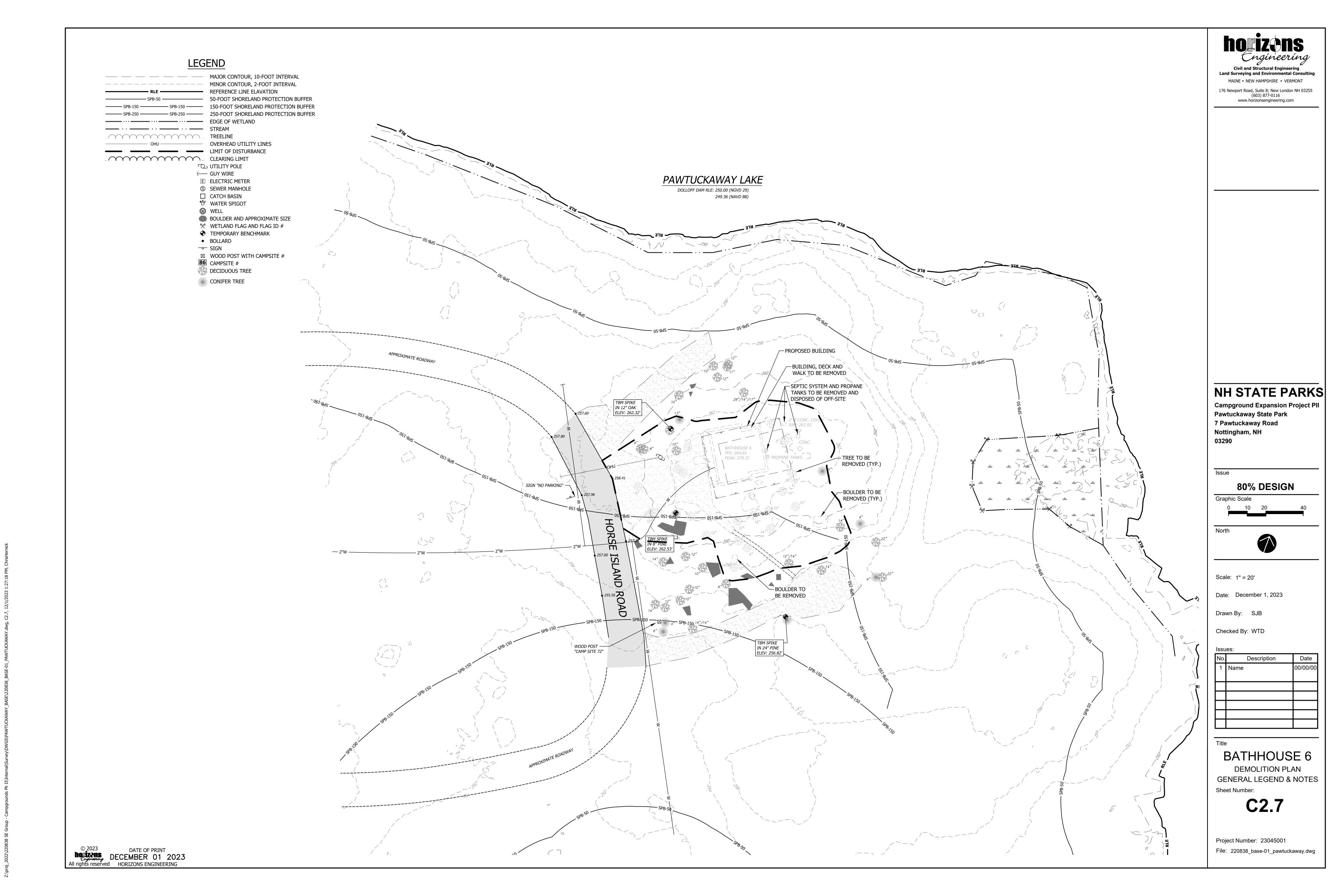


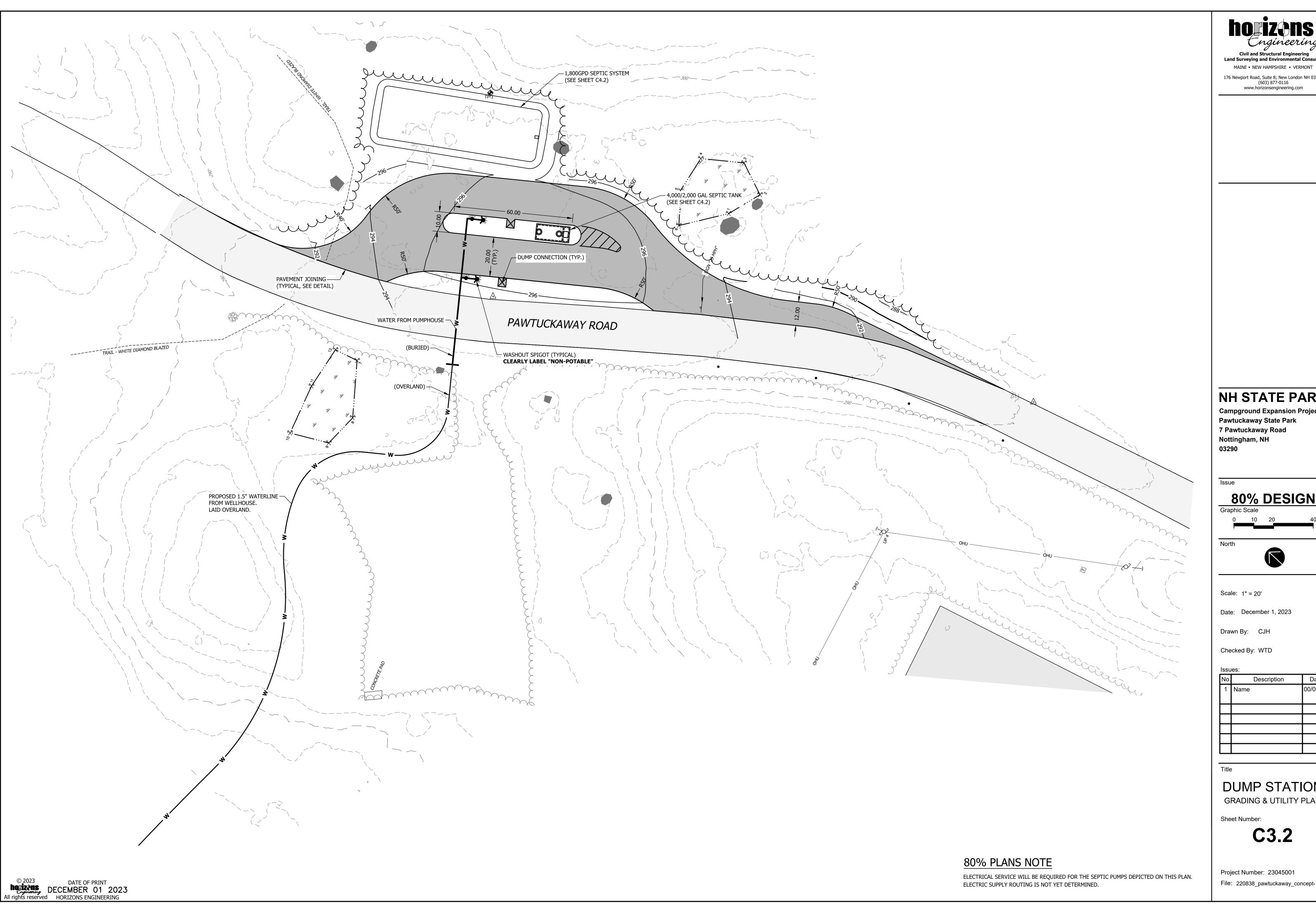












hojizens engineering

Civil and Structural Engineering

Land Surveying and Environmental Consulting

176 Newport Road, Suite 8; New London NH 03255 (603) 877-0116 www.horizonsengineering.com

NH STATE PARKS

Campground Expansion Project PII Pawtuckaway State Park 7 Pawtuckaway Road Nottingham, NH

80% DESIGN



Date: December 1, 2023

Drawn By: CJH

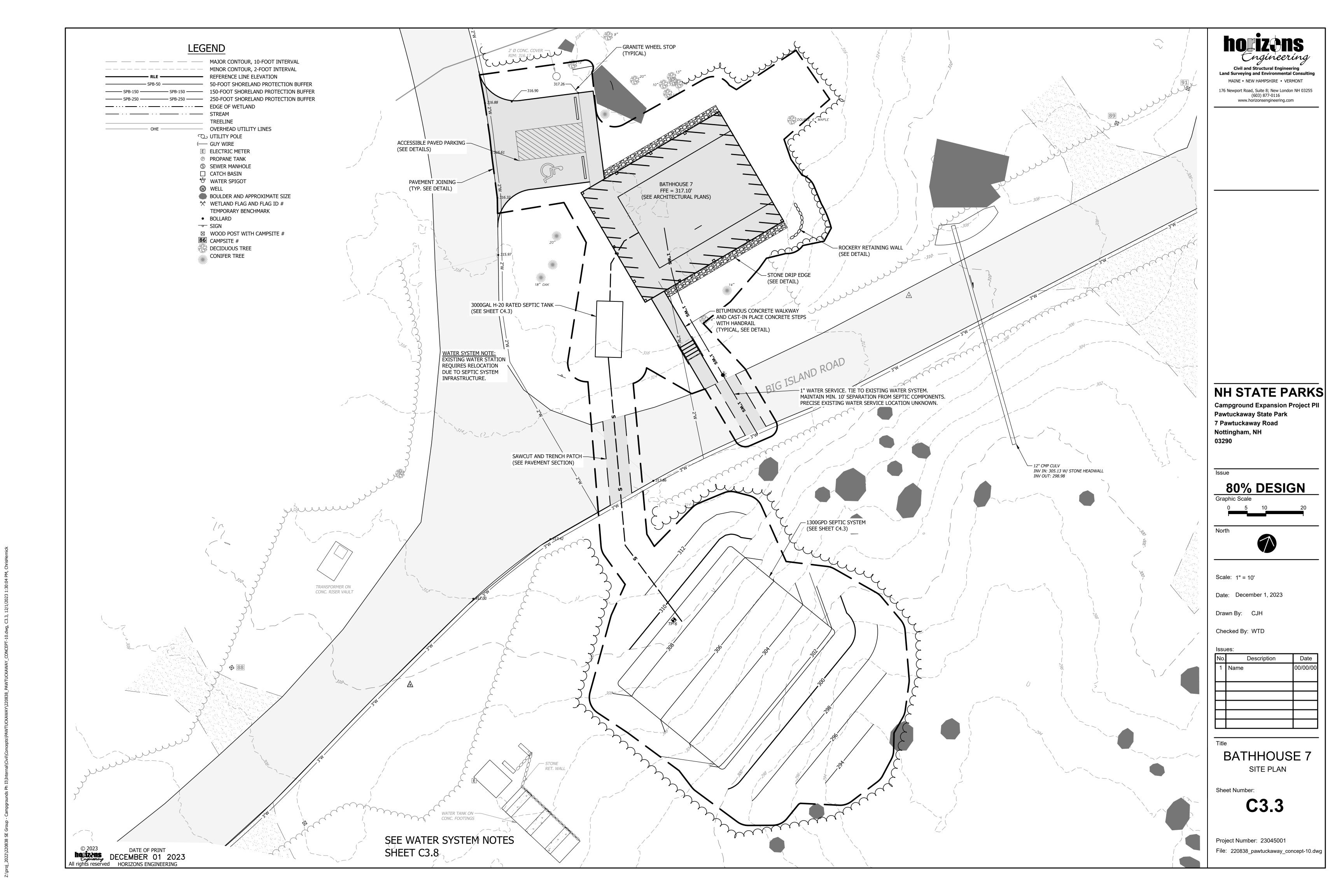
Checked By: WTD

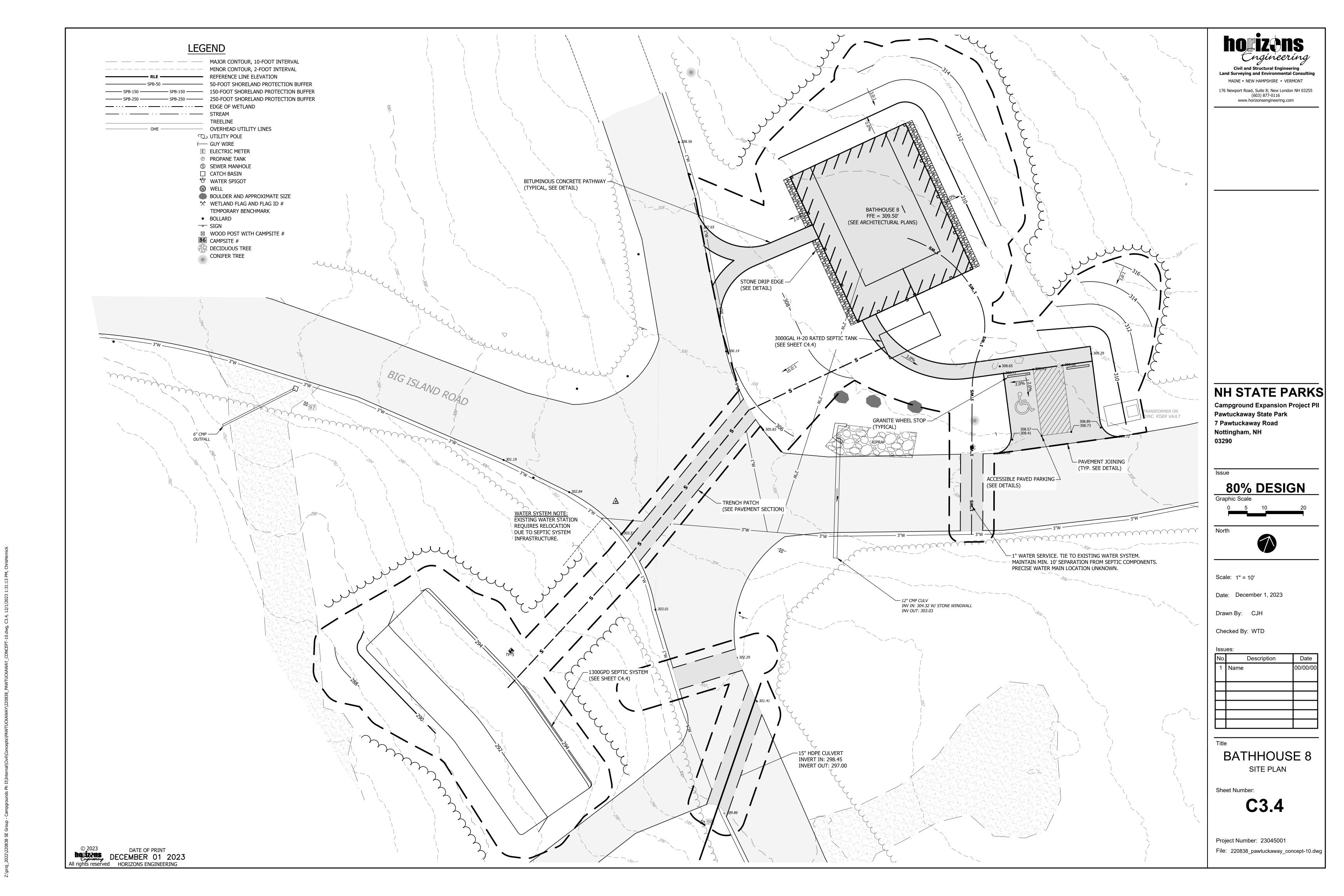
ISSU	CS.	
No.	Description	Date
1	Name	00/00/00

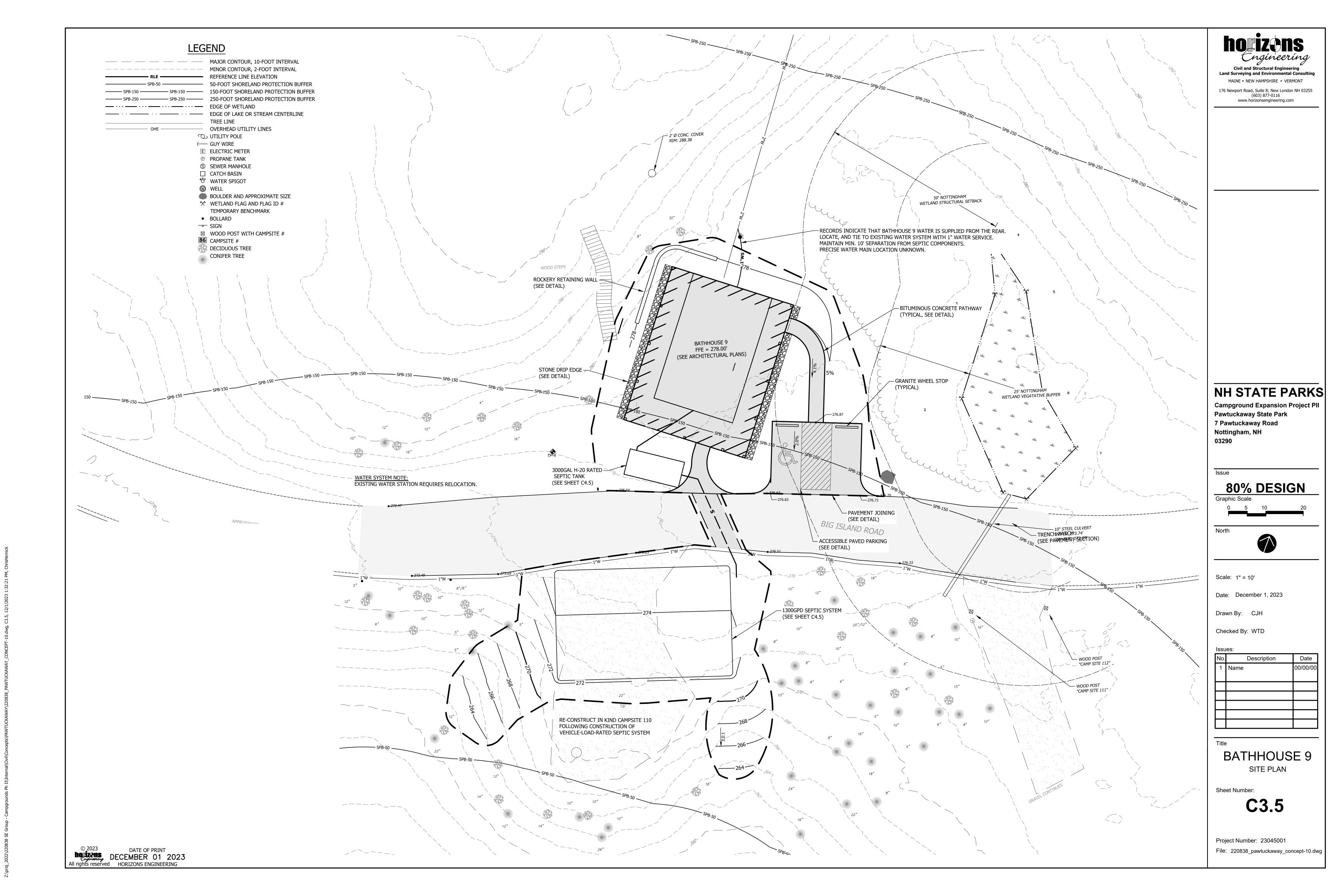
DUMP STATION GRADING & UTILITY PLAN

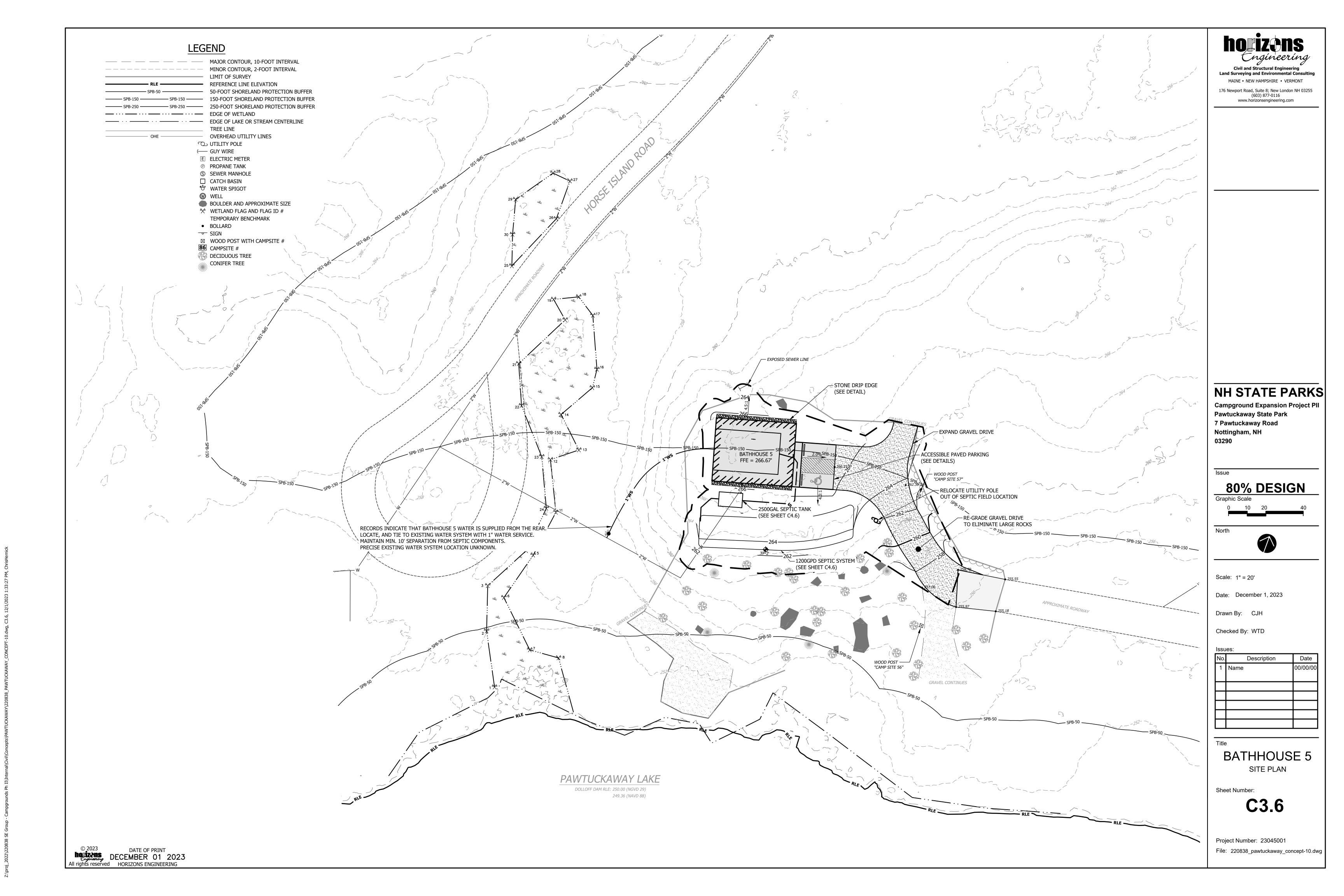
C3.2

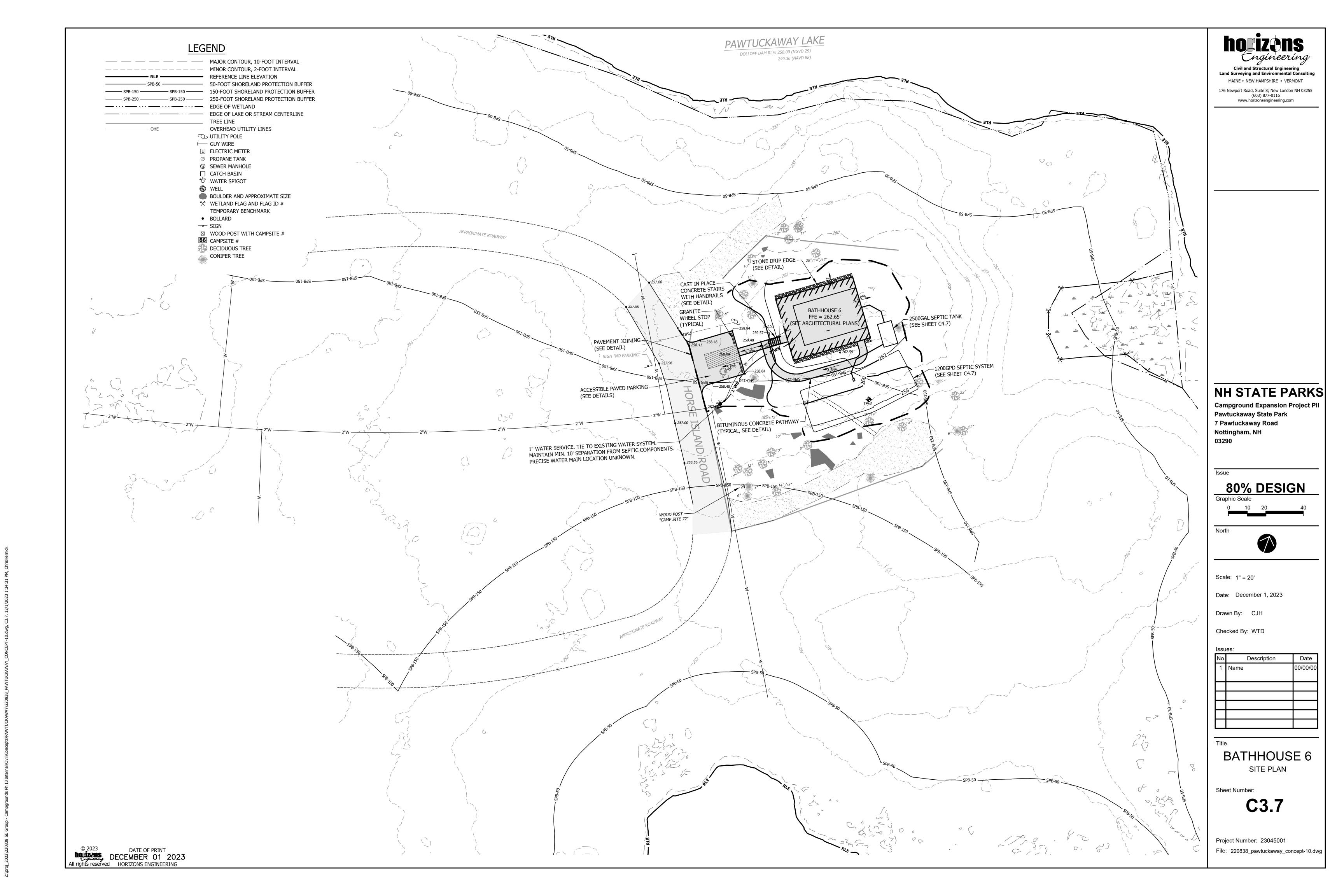
Project Number: 23045001 File: 220838_pawtuckaway_concept-10.dwg

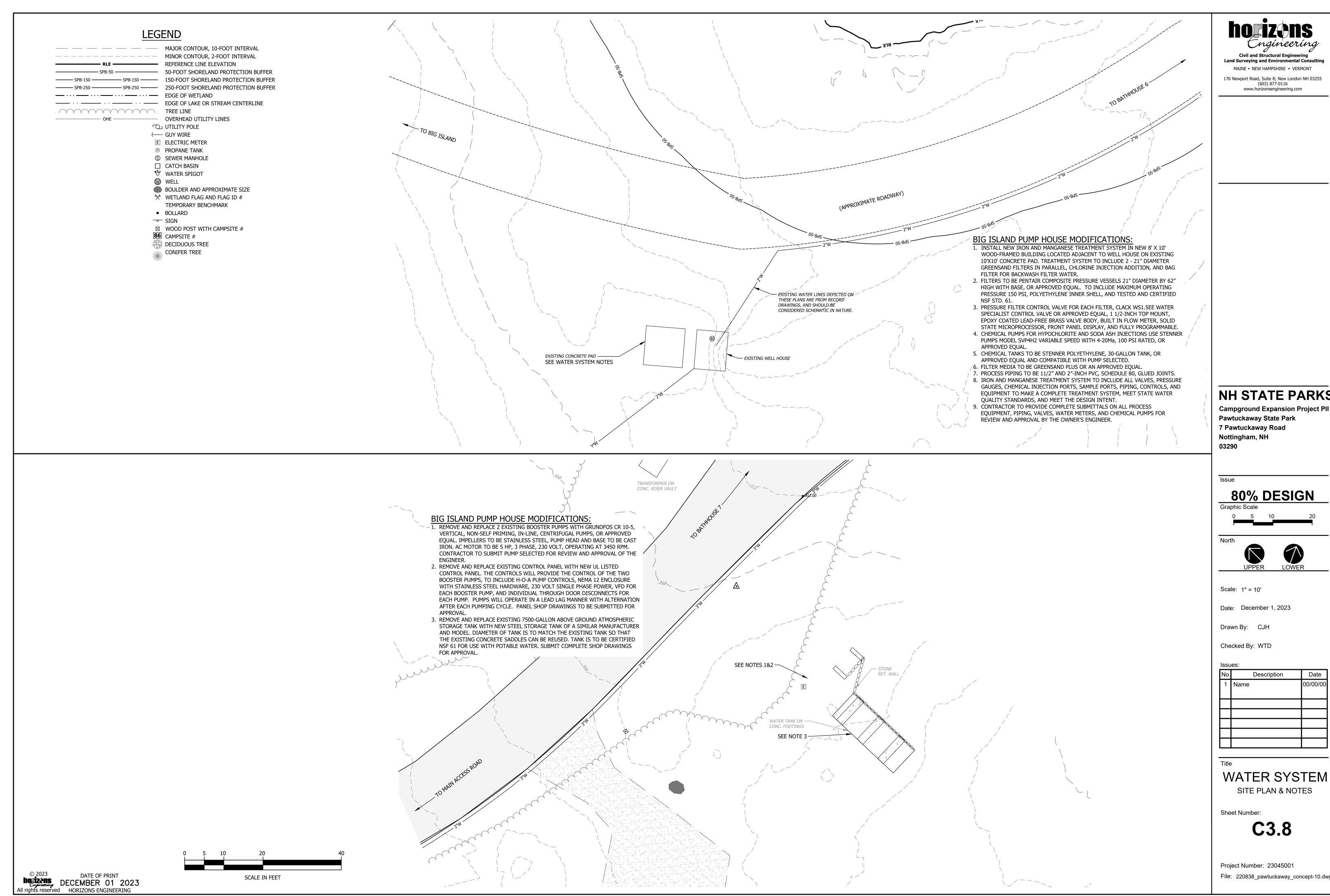












Civil and Structural Engineering

Land Surveying and Environmental Consulting

176 Newport Road, Suite 8; New London NH 03255

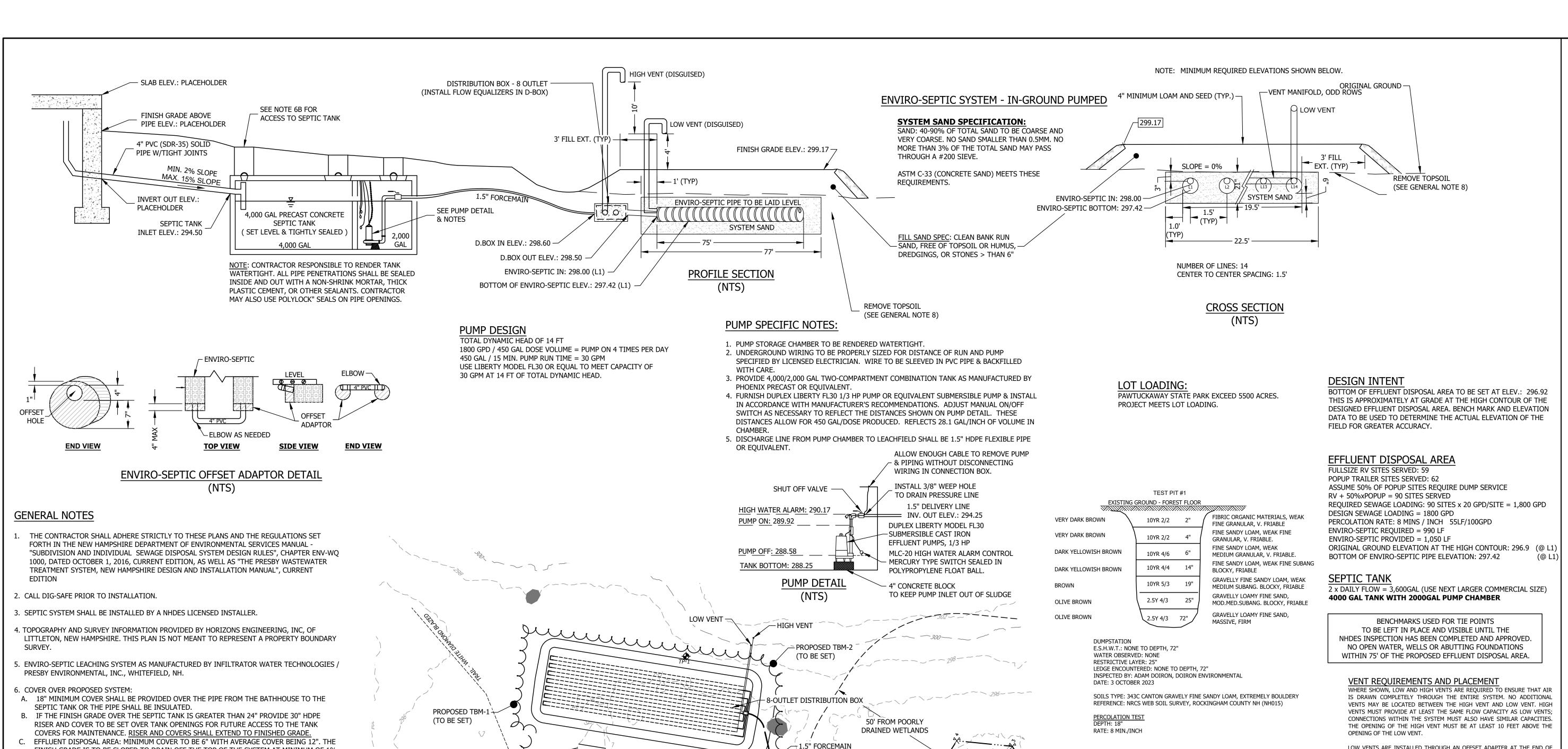
NH STATE PARKS

Pawtuckaway State Park

80% DESIGN

Date

WATER SYSTEM



EFFLUENT DISPOSAL AREA: MINIMUM COVER TO BE 6" WITH AVERAGE COVER BEING 12". THE FINISH GRADE IS TO BE SLOPED TO DRAIN OFF THE TOP OF THE SYSTEM AT MINIMUM OF 1%.

MAINTAIN 2' OF COVER OVER THE PIPE FROM THE SEPTIC TANK TO THE ENVIRO-SEPTIC PIPE OR THE PIPE SHALL BE INSULATED.

7. IF THE CONTRACTOR DETERMINES THAT EXISTING FIELD CONDITIONS ARE OTHER THAN SHOWN ON THESE PLANS, HE SHALL STOP WORK IMMEDIATELY AND NOTIFY THE OWNER AND DESIGNER FOR DIRECTIONS. IF CONTRACTOR ENCOUNTERS EXISTING SEPTIC TANK OR MATERIALS, HE SHALL REMOVE THEM OFF SITE WITH RESPECT TO CURRENT LOCAL AND STATE REGULATIONS.

8. ALL TREES, ROOTS, LOAM AND OTHER ORGANIC MATTER SHALL BE REMOVED FROM UNDER LEACHFIELD AND SLOPE EXTENSIONS PRIOR TO PLACING FILL. PLACE FILL IN 16" LIFTS, CONSOLIDATE AND RAKE BACKFILL. SCARIFY SUBGRADE SOIL.

9. FILL USED TO RAISE THE EFFLUENT DISPOSAL AREA SHALL BE CLEAN BANK RUN SAND, FREE FROM TOPSOIL, HUMUS, DREDGINGS, OR STONES OR MATERIAL MORE THAN 6" IN DIAMETER.

10. ALL DISTURBED AREA SHALL BE LOAMED, SEEDED, FERTILIZED AND MULCHED (GRADE LOAM TO DRAIN 1% MIN SLOPE ON TOP OF LEACHFIELD).

11. RECOMMENDED OPERATING PROCEDURES:

A. PUMP SEPTIC TANKS ONCE EVERY TWO YEARS. B. USE BIODEGRADABLE DETERGENTS.

C. PAPER PRODUCTS ONLY TO BE FLUSHED. FLUSHABLE BATHROOM PRODUCTS CAN CLOG THE SEPTIC SYSTEM. D. WATER SAVING DEVICES AND PROCEDURES ARE RECOMMENDED.

E. ANY FUTURE REPLACEMENT SYSTEM, IF NEEDED, SHALL BE LOCATED IN THE SAME LOCATION AS THIS DESIGN UNLESS CONDITIONS AT THE TIME OF REPLACEMENT DICTATE OTHERWISE. F. THE TANK SIZE SHALL BE INCREASED BY 50% IF A GARBAGE GRINDER IS TO BE INSTALLED.

12. PIPES AND CONNECTIONS OUTSIDE OF THE LEACHING AREA SHALL BE WATER TIGHT. THE CONNECTIONS SHALL BE SEALED WITH NON-SHRINK HYDRAULIC CEMENT.

13. THE DISTRIBUTION BOX SHALL HAVE S.S.I. INC. FLOW EQUALIZERS INSTALLED IN THE OUTLET

14. THIS SYSTEM HAS NOT BEEN DESIGNED FOR VEHICULAR TRAFFIC. THEREFORE, THE SYSTEM SHOULD BE PROTECTED FROM ANY WHEEL VEHICLES.

15. THE SITE IS NOT LOCATED WITHIN THE NHDES PROTECTIVE SHORELAND.

16. THIS SYSTEM HAS NOT BEEN DESIGNED FOR VEHICULAR TRAFFIC. THEREFORE, THE SYSTEM SHOULD BE PROTECTED FROM ANY WHEEL VEHICLES.

17. THERE ARE NO JURISDICTIONAL WETLANDS ON WITHIN 75' OF THE SYSTEM.

18. THERE ARE NO KNOWN BURIAL SITES, BURIAL GROUNDS, OR CEMETERIES WITHIN 25' OF THE SYSTEM OR ON THE PROPERTY.

DATE OF PRINT **hogizens** DECEMBER 01 2023 All rights reserved HORIZONS ENGINEERING

ALL TREES WITHIN 10 FEET OF PROPOSED EDA TO BE REMOVED AND DISPOSED OF OFF SITE BY THE INSTALLER/CONTRACTOR.

ITIES LOCATED NEAR THE EDA FIELD MUST BE RELOCATED BY THE INSTALLER/CONTRACTOR PRIOR TO INSTALLATION. CONTRACTOR IS RESPONSIBLE TO VERIFY ALL UTILITY LOCATIONS PRIOR TO DEMOLITION AND CONSTRUCTION

TIE TABLE

DUMP STATION PIPE END В Α Α TBM-1 (TO BE SET) 12.7 87.6 24.6 90.1 TBM-2 (TO BE SET) 90.8 32.1 86.3 15.1

GRAVITY COLLECTION

PAWTUCKAWAY ROAD

BOTH TBMs TO BE SET. CONTACT DESIGNER FOR UPDATED DIMENSIONS FOLLOWING TBM INSTALLATION

MAG NAIL IN 22" BLACK OAK ROOT

4,000 / 2,000 GALLON

DUPLEX SEPTIC PUMPS

TWO COMPARTMENT SEPTIC TANK

ELEV: 295.82

LOW VENTS ARE INSTALLED THROUGH AN OFFSET ADAPTER AT THE END OF FACH SERIAL SYSTEM OR BED.

VENT LOCATIONS SHOWN ARE APPROXIMATE AND CAN BE RELOCATED SO LONG AS THEY ARE LAID LEVEL OR PITCHED BACK TO THE EDA. VENTS SHOULD BE PLACED IN LOCATIONS WHERE AESTHETIC IMPACT IS MINIMAL. AS NECESSARY, ADD SHRUBS OR OTHER VEGETATION TO SCREEN VENTS. "CANDY CANE" STYLE VENT COVERS ARE NOT PREFERRED; USE "MUSHROOM" STYLE VENT COVERS OR VENT COVERS THAT CAMOUFLAGE THE EDA VENT.

TO ENSURE PROPER VENTILATION OF THE SYSTEM, NO EFFLUENT FILTER SHALL BE INSTALLED IN THE SYSTEM. PRIOR TO BACKFILLING THE SYSTEM ONTRACTOR SHALL PERFORM A SMOKE TEST AT THE D-BOX AND LOW VEN <u>O ENSURE THAT AIR CAN CIRCULATE THROUGH THE EDA, SEPTIC TANK AND</u> HOUSE VENT. IF NO CLEAR SIGNS OF AIR FLOW ARE OBSERVED, CONTRACTO SHALL CONTACT DESIGNER OR SYSTEM MANUFACTURER BEFORE BACKFILLING

NH STATE PARKS

Civil and Structural Engineering

Land Surveying and Environmental Consulting

MAINE • NEW HAMPSHIRE • VERMONT

176 Newport Road, Suite 8; New London NH 03255

(603) 877-0116

www.horizonsengineering.com

Campground Expansion Project PII Pawtuckaway State Park 7 Pawtuckaway Road Nottingham, NH 03290

80% DESIGN Graphic Scale

North



Scale: 1" = 20'

Date: December 1, 2023

Drawn By: CJH

Checked By: WTD

Issues:

No.	Description	Date
1	Name	00/00/00

ENVIRO-SEPTIC SYSTEM SLOPED, IN-GROUND BED CAMPGROUND DESIGN (1,300 GPD)

NEW HAMPSHIRE DPMT OF NATURAL & CULTURAL RESOURCES 172 PEMBROKE ROAD CONCORD, NH 03301

PREVIOUS APPROVAL #: NONE

LOCATION MAP

DIRECTIONS: FROM NH-101 EXIT 5, NORTH ON NH-107. AFTER 0.6MI,

LEFT TO REMAIN ON NH-107. AFTER 0.1MI, RIGHT ONTO NH-156N.

AFTER 2.0MI, LEFT ON MOUNTAIN ROAD. AFTER 2.0MI LEFT ON

PAWTUCKAWAY ROAD. APPROX 2.1MI TO SITE ON THE LEFT.

BIG ISLAND CAMPGROUND ROAD NOTTINGHAM, NEW HAMPSHIRE

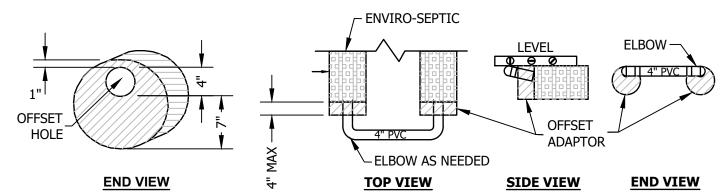
TAX MAP: 76 PARCEL: 2 COUNTY: ROCKINGHAM SUBDIVISION NAME: n/a SUBDIVISION APPROVAL: EXCEPT >5AC

DUMP STATION SEPTIC PLAN

Sheet Number:

C4.2

Project Number: 23045001



ENVIRO-SEPTIC OFFSET ADAPTOR DETAIL (NTS)

GENERAL NOTES

- THE CONTRACTOR SHALL ADHERE STRICTLY TO THESE PLANS AND THE REGULATIONS SET FORTH IN THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES MANUAL "SUBDIVISION AND INDIVIDUAL SEWAGE DISPOSAL SYSTEM DESIGN RULES", CHAPTER ENV-WQ 1000, DATED OCTOBER 1, 2016, CURRENT EDITION, AS WELL AS "THE PRESBY WASTEWATER TREATMENT SYSTEM, NEW HAMPSHIRE DESIGN AND INSTALLATION MANUAL", CURRENT EDITION
- 2. CALL DIG-SAFE PRIOR TO INSTALLATION.
- 3. SEPTIC SYSTEM SHALL BE INSTALLED BY A NHDES LICENSED INSTALLER.
- 4. TOPOGRAPHY AND SURVEY INFORMATION PROVIDED BY HORIZONS ENGINEERING, INC, OF LITTLETON, NEW HAMPSHIRE. THIS PLAN IS NOT MEANT TO REPRESENT A PROPERTY BOUNDARY
- 5. ENVIRO-SEPTIC LEACHING SYSTEM AS MANUFACTURED BY INFILTRATOR WATER TECHNOLOGIES / PRESBY ENVIRONMENTAL, INC., WHITEFIELD, NH.

6. COVER OVER PROPOSED SYSTEM:

- A. 18" MINIMUM COVER SHALL BE PROVIDED OVER THE PIPE FROM THE BATHHOUSE TO THE SEPTIC TANK OR THE PIPE SHALL BE INSULATED.
- B. IF THE FINISH GRADE OVER THE SEPTIC TANK IS GREATER THAN 24" PROVIDE 30" HDPE
- RISER AND COVER TO BE SET OVER TANK OPENINGS FOR FUTURE ACCESS TO THE TANK COVERS FOR MAINTENANCE. RISER AND COVERS SHALL EXTEND TO FINISHED GRADE.
- EFFLUENT DISPOSAL AREA: MINIMUM COVER TO BE 6" WITH AVERAGE COVER BEING 12". THE FINISH GRADE IS TO BE SLOPED TO DRAIN OFF THE TOP OF THE SYSTEM AT MINIMUM OF 1%.
- MAINTAIN 2' OF COVER OVER THE PIPE FROM THE SEPTIC TANK TO THE ENVIRO-SEPTIC PIPE OR THE PIPE SHALL BE INSULATED.
- 7. IF THE CONTRACTOR DETERMINES THAT EXISTING FIELD CONDITIONS ARE OTHER THAN SHOWN ON THESE PLANS, HE SHALL STOP WORK IMMEDIATELY AND NOTIFY THE OWNER AND DESIGNER FOR DIRECTIONS. IF CONTRACTOR ENCOUNTERS EXISTING SEPTIC TANK OR MATERIALS, HE SHALL REMOVE THEM OFF SITE WITH RESPECT TO CURRENT LOCAL AND STATE REGULATIONS.
- 8. ALL TREES, ROOTS, LOAM AND OTHER ORGANIC MATTER SHALL BE REMOVED FROM UNDER LEACHFIELD AND SLOPE EXTENSIONS PRIOR TO PLACING FILL. PLACE FILL IN 16" LIFTS, CONSOLIDATE AND RAKE BACKFILL. SCARIFY SUBGRADE SOIL.
- 9. FILL USED TO RAISE THE EFFLUENT DISPOSAL AREA SHALL BE CLEAN BANK RUN SAND, FREE FROM TOPSOIL, HUMUS, DREDGINGS, OR STONES OR MATERIAL MORE THAN 6" IN DIAMETER.
- 10. ALL DISTURBED AREA SHALL BE LOAMED, SEEDED, FERTILIZED AND MULCHED (GRADE LOAM TO DRAIN 1% MIN SLOPE ON TOP OF LEACHFIELD).
- 11. RECOMMENDED OPERATING PROCEDURES:
- A. PUMP SEPTIC TANKS ONCE EVERY TWO YEARS.
- B. USE BIODEGRADABLE DETERGENTS.
- C. PAPER PRODUCTS ONLY TO BE FLUSHED. FLUSHABLE BATHROOM PRODUCTS CAN CLOG THE SEPTIC SYSTEM. D. WATER SAVING DEVICES AND PROCEDURES ARE RECOMMENDED.
- E. ANY FUTURE REPLACEMENT SYSTEM, IF NEEDED, SHALL BE LOCATED IN THE SAME LOCATION AS THIS DESIGN UNLESS CONDITIONS AT THE TIME OF REPLACEMENT DICTATE OTHERWISE. F. THE TANK SIZE SHALL BE INCREASED BY 50% IF A GARBAGE GRINDER IS TO BE INSTALLED.
- 12. PIPES AND CONNECTIONS OUTSIDE OF THE LEACHING AREA SHALL BE WATER TIGHT. THE CONNECTIONS SHALL BE SEALED WITH NON-SHRINK HYDRAULIC CEMENT.
- 13. THE DISTRIBUTION BOX SHALL HAVE S.S.I. INC. FLOW EQUALIZERS INSTALLED IN THE OUTLET
- 14. THIS SYSTEM HAS NOT BEEN DESIGNED FOR VEHICULAR TRAFFIC. THEREFORE, THE SYSTEM SHOULD BE PROTECTED FROM ANY WHEEL VEHICLES.
- 15. THE SITE IS NOT LOCATED WITHIN THE NHDES PROTECTIVE SHORELAND.
- 16. THIS SYSTEM HAS NOT BEEN DESIGNED FOR VEHICULAR TRAFFIC. THEREFORE, THE SYSTEM SHOULD BE PROTECTED FROM ANY WHEEL VEHICLES.
- 17. THERE ARE NO JURISDICTIONAL WETLANDS ON WITHIN 75' OF THE SYSTEM.
- 18. THERE ARE NO KNOWN BURIAL SITES, BURIAL GROUNDS, OR CEMETERIES WITHIN 25' OF THE SYSTEM OR ON THE PROPERTY.

DATE OF PRINT **hogizens** DECEMBER 01 2023 All rights reserved HORIZONS ENGINEERING

ALL TREES WITHIN 10 FEET OF PROPOSED EDA TO BE REMOVED AND DISPOSED OF OFF SITE BY THE INSTALLER/CONTRACTOR.

EDA FIELD MUST BE RELOCATED BY THE INSTALLER/CONTRACTOR PRIOR TO INSTALLATION. CONTRACTOR IS RESPONSIBLE TO VERIFY ALL UTILITY LOCATIONS PRIOR TO DEMOLITION

3,000GAL H-20 RATED SEPTIC TANK -

INV. IN: 311.10

INV. OUT: 310.85

TBM-2 (TO BE SET) 66.7 47.8 BATHHOUSE 7 -- FIELD BB PIPE END TBM-1 (TO BE SET) 37.5 57.3 TBM-2 (TO BE SET) 43.6 29.3

BATHHOUSE 7 -- FIELD AA

PIPE END

12.4

TIE TABLE

TBM-1 (TO BE SET)

8-OUTLET D-BOX -

INV. IN: 307.78

INV. OUT: 307.68

LOW VENT

(DISGUISE)

PROPOSED TBM-1

(TO BE SET)

BOTH TBMs TO BE SET. CONTACT DESIGNER FOR UPDATED DIMENSIONS FOLLOWING TBM INSTALLATION

35' FROM APPOX.

 $^{\prime}$ POTENTIAL WATERCOURSE

- ROCKERY RETAINING WALL .

MAINTAIN MIN. 10' SEPARATION FROM SEPTIC COMPONENTS.

- PROPOSED TBM-2

(TO BE SET)

INV IN: 305.13,W/ \$TONE HEADWALL

12" CMP CULV

L18

L18

47

42.4

67.1

Α

37

51.2

36.4

62.3

В

31.9

Ŵ OUT: 298.**9**8 🔏

PRECISE EXISTING WATER SERVICE LOCATION UNKNOWN

(SEE DETAIL)

1" WATER SERVICE. TIE TO EXISTING WATER SYSTEM.

25' FROM ASSUMED

PAWTUCKAWAY STATE PARK EXCEED 5500 ACRES. PROJECT MEETS LOT LOADING.

TEST PIT #6 **EXISTING GROUND - FOREST FLOOR** FIBRIC ORGANIC MATERIALS, WEAK BLACK FINE GRANULAR, V. FRIABLE FINE SANDY LOAM, WEAK FINE VERY DARK BROWN 10YR 2/2 6" GRANULAR, V. FRIABLE. FINE SANDY LOAM, WEAK DARK YELLOWISH BROWN 10YR 3/6 14' FINE GRANULAR, V. FRIABLE. STONY LOAMY FINE SAND, WEAK 10YR 5/4 YELLOWISH BROWN MEDIUM SUBANG BLOCKY, V. FRIABLE STONY LOAMY FINE SAND, MASSIVE, 10YR 4/3 BROWN STONY LOAMY FINE SAND, DARK GRAYISH BROWN MASSIVE, FIRM

LOT LOADING:

BATHHOUSE 7 E.S.H.W.T.: NONE TO DEPTH, 72" WATER OBSERVED: NONE LEDGE ENCOUNTERED: NONE TO DEPTH, 72" INSPECTED BY: ADAM DOIRON, DOIRON ENVIRONMENTAL

DATE: 3 OCTOBER 2023

RATE: 6 MIN./INCH

SOILS TYPE: 343C CANTON GRAVELY FINE SANDY LOAM, EXTREMELY BOULDERY REFERENCE: NRCS WEB SOIL SURVEY, ROCKINGHAM COUNTY NH (NH015)

LOCATION MAP

DIRECTIONS: FROM NH-101 EXIT 5, NORTH ON NH-107, AFTER 0.6MI,

LEFT TO REMAIN ON NH-107. AFTER 0.1MI, RIGHT ONTO NH-156N.

AFTER 2.0MI, LEFT ON MOUNTAIN ROAD. AFTER 2.0MI LEFT ON

PAWTUCKAWAY ROAD. AFTER 2.3MI, LEFT ON BIG ISLAND

CAMPGROUND ROAD. APPROX 0.15MI TO SITE.

DESIGN INTENT

BOTTOM OF EFFLUENT DISPOSAL AREA TO BE SET AT ELEV.: 306.8 THERE IS APPROXIMATELY 3.4 (THREE AND FOUR TENTHS) FEET BELOW ORIGINAL GROUND AT THE HIGH CONTOUR OF THE DESIGNED EFFLUENT DISPOSAL AREA. BENCH MARK AND ELEVATION DATA TO BE USED TO DETERMINE THE ACTUAL ELEVATION OF THE FIELD FOR GREATER ACCURACY.

EFFLUENT DISPOSAL AREA

CAMPSITES SERVED: 28.67

REQUIRED SEWAGE LOADING: 28.67 x 45 GPD = 1,290 GPD DESIGN SEWAGE LOADING = 1300 GPD PERCOLATION RATE: 6 MINS / INCH ENVIRO-SEPTIC REQUIRED = 650 LF ENVIRO-SEPTIC PROVIDED = 720 LF ORIGINAL GROUND ELEVATION AT THE HIGH CONTOUR: 310.16 (@ L1) BOTTOM OF ENVIRO-SEPTIC PIPE ELEVATION: 306.80

SEPTIC TANK

OPENING OF THE LOW VENT.

 $2 \times DAILY FLOW = 2600GAL (USE NEXT LARGER COMMERCIAL SIZE)$ **3000 GAL TANK**

BENCHMARKS USED FOR TIE POINTS TO BE LEFT IN PLACE AND VISIBLE UNTIL THE NHDES INSPECTION HAS BEEN COMPLETED AND APPROVED. NO OPEN WATER, WELLS OR ABUTTING FOUNDATIONS WITHIN 75' OF THE PROPOSED EFFLUENT DISPOSAL AREA.

VENT REQUIREMENTS AND PLACEMENT WHERE SHOWN, LOW AND HIGH VENTS ARE REQUIRED TO ENSURE THAT AIR IS DRAWN COMPLETELY THROUGH THE ENTIRE SYSTEM. NO ADDITIONAL VENTS MAY BE LOCATED BETWEEN THE HIGH VENT AND LOW VENT. HIGH VENTS MUST PROVIDE AT LEAST THE SAME FLOW CAPACITY AS LOW VENTS; CONNECTIONS WITHIN THE SYSTEM MUST ALSO HAVE SIMILAR CAPACITIES. THE OPENING OF THE HIGH VENT MUST BE AT LEAST 10 FEET ABOVE THE

LOW VENTS ARE INSTALLED THROUGH AN OFFSET ADAPTER AT THE END OF EACH SERIAL SYSTEM OR BED.

VENT LOCATIONS SHOWN ARE APPROXIMATE AND CAN BE RELOCATED SO LONG AS THEY ARE LAID LEVEL OR PITCHED BACK TO THE EDA. VENTS SHOULD BE PLACED IN LOCATIONS WHERE AESTHETIC IMPACT IS MINIMAL. AS NECESSARY, ADD SHRUBS OR OTHER VEGETATION TO SCREEN VENTS. "CANDY CANE" STYLE VENT COVERS ARE NOT PREFERRED; USE "MUSHROOM" STYLE VENT COVERS OR VENT COVERS THAT CAMOUFLAGE THE EDA VENT.

TO ENSURE PROPER VENTILATION OF THE SYSTEM, NO EFFLUENT FILTER SHALL BE INSTALLED IN THE SYSTEM. PRIOR TO BACKFILLING THE SYSTEM, ONTRACTOR SHALL PERFORM A SMOKE TEST AT THE D-BOX AND LOW VEN <u>O ENSURE THAT AIR CAN CIRCULATE THROUGH THE EDA, SEPTIC TANK AND</u> <u>HOUSE VENT. IF NO CLEAR SIGNS OF AIR FLOW ARE OBSERVED, CONTRACTO</u> SHALL CONTACT DESIGNER OR SYSTEM MANUFACTURER BEFORE BACKFILLING

NH STATE PARKS

Land Surveying and Environmental Consulting

MAINE • NEW HAMPSHIRE • VERMONT

176 Newport Road, Suite 8; New London NH 03255

(603) 877-0116

www.horizonsengineering.com

Campground Expansion Project PII Pawtuckaway State Park 7 Pawtuckaway Road Nottingham, NH 03290

80% DESIGN Graphic Scale

North



Scale: 1" = 20'

Date: December 1, 2023

Drawn By: CJH

Checked By: WTD

Date Description Name

ENVIRO-SEPTIC SYSTEM SLOPED, IN-GROUND BED CAMPGROUND DESIGN (1,300 GPD)

NEW HAMPSHIRE DPMT OF NATURAL & CULTURAL RESOURCES 172 PEMBROKE ROAD CONCORD, NH 03301

PREVIOUS APPROVAL #: NONE

BIG ISLAND CAMPGROUND ROAD NOTTINGHAM, NEW HAMPSHIRE

TAX MAP: 76 PARCEL: 2 COUNTY: ROCKINGHAM SUBDIVISION NAME: n/a SUBDIVISION APPROVAL: EXCEPT >5AC **BATHHOUSE** 7

SEPTIC PLAN

Sheet Number:

C4.3

Project Number: 23045001

TBM SPIKE

BIG ISLAND ROAD

PROPOSED TBM-1-

(TO BE SET)

LOW VENT

(DISGUISE)

PROPOSED TBM-2

(TO BE SET)

75' FROM VERY

POORLY DRAINED \

WETLANDS

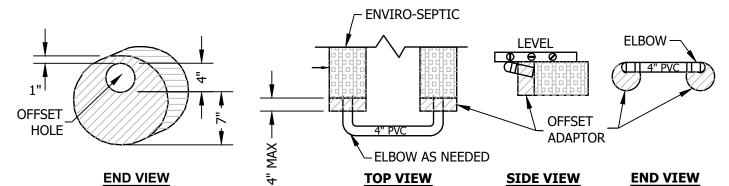
ELEV: 309.84

IN 18" WHITE PINE ROOT

5-OUTLET D-BOX

INV. IN: 292.23

INV. OUT: 292.13



ENVIRO-SEPTIC OFFSET ADAPTOR DETAIL (NTS)

GENERAL NOTES

- THE CONTRACTOR SHALL ADHERE STRICTLY TO THESE PLANS AND THE REGULATIONS SET FORTH IN THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES MANUAL "SUBDIVISION AND INDIVIDUAL SEWAGE DISPOSAL SYSTEM DESIGN RULES", CHAPTER ENV-WQ 1000, DATED OCTOBER 1, 2016, CURRENT EDITION, AS WELL AS "THE PRESBY WASTEWATER TREATMENT SYSTEM, NEW HAMPSHIRE DESIGN AND INSTALLATION MANUAL", CURRENT EDITION
- 2. CALL DIG-SAFE PRIOR TO INSTALLATION.
- 3. SEPTIC SYSTEM SHALL BE INSTALLED BY A NHDES LICENSED INSTALLER.
- 4. TOPOGRAPHY AND SURVEY INFORMATION PROVIDED BY HORIZONS ENGINEERING, INC, OF LITTLETON, NEW HAMPSHIRE. THIS PLAN IS NOT MEANT TO REPRESENT A PROPERTY BOUNDARY
- 5. ENVIRO-SEPTIC LEACHING SYSTEM AS MANUFACTURED BY INFILTRATOR WATER TECHNOLOGIES / PRESBY ENVIRONMENTAL, INC., WHITEFIELD, NH.

6. COVER OVER PROPOSED SYSTEM:

- A. 18" MINIMUM COVER SHALL BE PROVIDED OVER THE PIPE FROM THE BATHHOUSE TO THE SEPTIC TANK OR THE PIPE SHALL BE INSULATED.
- B. IF THE FINISH GRADE OVER THE SEPTIC TANK IS GREATER THAN 24" PROVIDE 30" HDPE RISER AND COVER TO BE SET OVER TANK OPENINGS FOR FUTURE ACCESS TO THE TANK
- COVERS FOR MAINTENANCE. RISER AND COVERS SHALL EXTEND TO FINISHED GRADE. EFFLUENT DISPOSAL AREA: MINIMUM COVER TO BE 6" WITH AVERAGE COVER BEING 12". THE
- FINISH GRADE IS TO BE SLOPED TO DRAIN OFF THE TOP OF THE SYSTEM AT MINIMUM OF 1%. MAINTAIN 2' OF COVER OVER THE PIPE FROM THE SEPTIC TANK TO THE ENVIRO-SEPTIC PIPE
- OR THE PIPE SHALL BE INSULATED.
- 7. IF THE CONTRACTOR DETERMINES THAT EXISTING FIELD CONDITIONS ARE OTHER THAN SHOWN ON THESE PLANS, HE SHALL STOP WORK IMMEDIATELY AND NOTIFY THE OWNER AND DESIGNER FOR DIRECTIONS. IF CONTRACTOR ENCOUNTERS EXISTING SEPTIC TANK OR MATERIALS, HE SHALL REMOVE THEM OFF SITE WITH RESPECT TO CURRENT LOCAL AND STATE REGULATIONS.
- 8. ALL TREES, ROOTS, LOAM AND OTHER ORGANIC MATTER SHALL BE REMOVED FROM UNDER LEACHFIELD AND SLOPE EXTENSIONS PRIOR TO PLACING FILL. PLACE FILL IN 16" LIFTS, CONSOLIDATE AND RAKE BACKFILL. SCARIFY SUBGRADE SOIL.
- 9. FILL USED TO RAISE THE EFFLUENT DISPOSAL AREA SHALL BE CLEAN BANK RUN SAND, FREE FROM TOPSOIL, HUMUS, DREDGINGS, OR STONES OR MATERIAL MORE THAN 6" IN DIAMETER.
- 10. ALL DISTURBED AREA SHALL BE LOAMED, SEEDED, FERTILIZED AND MULCHED (GRADE LOAM TO
- 11. RECOMMENDED OPERATING PROCEDURES:

DRAIN 1% MIN SLOPE ON TOP OF LEACHFIELD).

- A. PUMP SEPTIC TANKS ONCE EVERY TWO YEARS. B. USE BIODEGRADABLE DETERGENTS.
- C. PAPER PRODUCTS ONLY TO BE FLUSHED. FLUSHABLE BATHROOM PRODUCTS CAN CLOG THE SEPTIC SYSTEM.
- D. WATER SAVING DEVICES AND PROCEDURES ARE RECOMMENDED.
- E. ANY FUTURE REPLACEMENT SYSTEM, IF NEEDED, SHALL BE LOCATED IN THE SAME LOCATION AS THIS DESIGN UNLESS CONDITIONS AT THE TIME OF REPLACEMENT DICTATE OTHERWISE. F. THE TANK SIZE SHALL BE INCREASED BY 50% IF A GARBAGE GRINDER IS TO BE INSTALLED.
- 12. PIPES AND CONNECTIONS OUTSIDE OF THE LEACHING AREA SHALL BE WATER TIGHT. THE CONNECTIONS SHALL BE SEALED WITH NON-SHRINK HYDRAULIC CEMENT.
- 13. THE DISTRIBUTION BOX SHALL HAVE S.S.I. INC. FLOW EQUALIZERS INSTALLED IN THE OUTLET
- 14. THIS SYSTEM HAS NOT BEEN DESIGNED FOR VEHICULAR TRAFFIC. THEREFORE, THE SYSTEM SHOULD BE PROTECTED FROM ANY WHEEL VEHICLES.
- 15. THE SITE IS NOT LOCATED WITHIN THE NHDES PROTECTIVE SHORELAND.
- 16. THIS SYSTEM HAS NOT BEEN DESIGNED FOR VEHICULAR TRAFFIC. THEREFORE, THE SYSTEM SHOULD BE PROTECTED FROM ANY WHEEL VEHICLES.
- 17. THERE ARE NO JURISDICTIONAL WETLANDS ON WITHIN 75' OF THE SYSTEM.
- 18. THERE ARE NO KNOWN BURIAL SITES, BURIAL GROUNDS, OR CEMETERIES WITHIN 25' OF THE SYSTEM OR ON THE PROPERTY.

DATE OF PRINT **hogizens** DECEMBER 01 2023 All rights reserved HORIZONS ENGINEERING

ALL TREES WITHIN 10 FEET OF PROPOSED EDA TO BE REMOVED AND DISPOSED OF OFF SITE BY THE INSTALLER/CONTRACTOR.

EDA FIELD MUST BE RELOCATED BY THE INSTALLER/CONTRACTOR PRIOR TO INSTALLATION. CONTRACTOR IS RESPONSIBLE TO VERIFY ALL UTILIT LOCATIONS PRIOR TO DEMOLITION AND CONSTRUCTION

TIE TABLE

BATHHOUSE 8 -- FIELD AA

В Α В PIPE END TBM-1 (TO BE SET) 15.7 33.1 32.2 43.4 TBM-2 (TO BE SET) 62.2 40.2 55.2 28.1 BATHHOUSE 8 -- FIELD BB L12 Α В TBM-1 (TO BE SET) 68.8 39.3 46.4 73 TBM-2 (TO BE SET) 36.5 31.3 24.8 16.3

25' FROM AS UMED

WATERLINE (PRESSURE)

BOTH TBMs TO BE SET. CONTACT DESIGNER FOR UPDATED DIMENSIONS FOLLOWING TBM INSTALLATION

3,000GAL H-20 RATED -

INV. IN: 306.00

INV. OUT: 305.75

SEPTIC TANK

IN 18" WHITE PINE ROOT

L12

ELEV: 309.59

PAWTUCKAWAY STATE PARK EXCEED 5500 ACRES. PROJECT MEETS LOT LOADING.

GREATER ACCURACY. EFFLUENT DISPOSAL AREA

TEST PIT #5 **EXISTING GROUND - FOREST FLOOR** FINE SANDY LOAM, WEAK FINE DARK BROWN GRANULAR, V. FRIABLE FINE SANDY LOAM, WEAK FINE DARK YELLOWISH BROWN 10YR 3/6 13' GRANULAR, V. FRIABLE. GRAVELLY FINE SANDY LOAM, YELLOWISH BROWN 10YR 5/4 24' WEAK FINE GRANULAR, V. FRIABLE GRAVELLY FINE SANDY LOAM, 10YR 4/4 DARK YELLOWISH BROWN MASSIVE, FRIABLE GRAVELLY FINE SANDY LOAM, 2.5Y 4/3 82' OLIVE BROWN MASSIVE, FIRM & FRIABLE

LOT LOADING:

BATHHOUSE 8 F.S.H.W.T.: 68" WATER OBSERVED: NONE LEDGE ENCOUNTERED: NONE TO DEPTH, 82" INSPECTED BY: ADAM DOIRON, DOIRON ENVIRONMENTAL DATE: 2 OCTOBER 2023

SOILS TYPE: 343C CANTON GRAVELY FINE SANDY LOAM, EXTREMELY BOULDERY REFERENCE: NRCS WEB SOIL SURVEY, ROCKINGHAM COUNTY NH (NH015)

LOCATION MAP

DIRECTIONS: FROM NH-101 EXIT 5, NORTH ON NH-107, AFTER 0.6MI,

LEFT TO REMAIN ON NH-107. AFTER 0.1MI, RIGHT ONTO NH-156N.

AFTER 2.0MI, LEFT ON MOUNTAIN ROAD. AFTER 2.0MI LEFT ON

PAWTUCKAWAY ROAD. AFTER 2.3MI, LEFT ON BIG ISLAND

CAMPGROUND ROAD. APPROX 0.25MI TO SITE.

PERCOLATION TEST DEPTH: 20" RATE: 6 MIN./INCH

CAMPSITES SERVED: 28.67

DESIGN INTENT

BOTTOM OF EFFLUENT DISPOSAL AREA TO BE SET AT ELEV.: 290.55 THERE IS APPROXIMATELY 3.5 (THREE AND A HALF) FEET BELOW ORIGINAL GROUND AT THE HIGH CONTOUR OF THE DESIGNED EFFLUENT DISPOSAL AREA. BENCH MARK AND ELEVATION DATA TO BE USED TO DETERMINE THE ACTUAL ELEVATION OF THE FIELD FOR

REQUIRED SEWAGE LOADING: 28.67 x 45 GPD = 1,290 GPD DESIGN SEWAGE LOADING = 1300 GPD PERCOLATION RATE: 6 MINS / INCH ENVIRO-SEPTIC REQUIRED = 650 LF ENVIRO-SEPTIC PROVIDED = 720 LF ORIGINAL GROUND ELEVATION AT THE HIGH CONTOUR: 294.04 (@ L1) BOTTOM OF ENVIRO-SEPTIC PIPE ELEVATION: 291.05

SEPTIC TANK

 $2 \times DAILY FLOW = 2600GAL (USE NEXT LARGER COMMERCIAL SIZE)$ **3000 GAL TANK**

BENCHMARKS USED FOR TIE POINTS TO BE LEFT IN PLACE AND VISIBLE UNTIL THE NHDES INSPECTION HAS BEEN COMPLETED AND APPROVED. NO OPEN WATER, WELLS OR ABUTTING FOUNDATIONS WITHIN 75' OF THE PROPOSED EFFLUENT DISPOSAL AREA.

VENT REQUIREMENTS AND PLACEMENT

WHERE SHOWN, LOW AND HIGH VENTS ARE REQUIRED TO ENSURE THAT AIR IS DRAWN COMPLETELY THROUGH THE ENTIRE SYSTEM. NO ADDITIONAL VENTS MAY BE LOCATED BETWEEN THE HIGH VENT AND LOW VENT. HIGH VENTS MUST PROVIDE AT LEAST THE SAME FLOW CAPACITY AS LOW VENTS; CONNECTIONS WITHIN THE SYSTEM MUST ALSO HAVE SIMILAR CAPACITIES. THE OPENING OF THE HIGH VENT MUST BE AT LEAST 10 FEET ABOVE THE OPENING OF THE LOW VENT.

LOW VENTS ARE INSTALLED THROUGH AN OFFSET ADAPTER AT THE END OF EACH SERIAL SYSTEM OR BED.

VENT LOCATIONS SHOWN ARE APPROXIMATE AND CAN BE RELOCATED SO LONG AS THEY ARE LAID LEVEL OR PITCHED BACK TO THE EDA. VENTS SHOULD BE PLACED IN LOCATIONS WHERE AESTHETIC IMPACT IS MINIMAL. AS NECESSARY, ADD SHRUBS OR OTHER VEGETATION TO SCREEN VENTS. "CANDY CANE" STYLE VENT COVERS ARE NOT PREFERRED; USE "MUSHROOM" STYLE VENT COVERS OR VENT COVERS THAT CAMOUFLAGE THE EDA VENT.

TO ENSURE PROPER VENTILATION OF THE SYSTEM, NO EFFLUENT FILTER SHALL BE INSTALLED IN THE SYSTEM. PRIOR TO BACKFILLING THE SYSTEM, ONTRACTOR SHALL PERFORM A SMOKE TEST AT THE D-BOX AND LOW VEN <u>O ENSURE THAT AIR CAN CIRCULATE THROUGH THE EDA, SEPTIC TANK AND</u> <u>HOUSE VENT. IF NO CLEAR SIGNS OF AIR FLOW ARE OBSERVED, CONTRACTO</u> SHALL CONTACT DESIGNER OR SYSTEM MANUFACTURER BEFORE BACKFILLING

NH STATE PARKS

Land Surveying and Environmental Consulting

MAINE • NEW HAMPSHIRE • VERMONT

176 Newport Road, Suite 8; New London NH 03255

(603) 877-0116

www.horizonsengineering.com

Campground Expansion Project PII Pawtuckaway State Park 7 Pawtuckaway Road Nottingham, NH 03290

80% DESIGN Graphic Scale

North



Scale: 1" = 20'

Date: December 1, 2023

Drawn By: CJH

Checked By: WTD

No.	Description	Date
1	Name	00/00/00

ENVIRO-SEPTIC SYSTEM SLOPED, IN-GROUND BED

CAMPGROUND DESIGN (1,300 GPD) NEW HAMPSHIRE DPMT OF NATURAL & CULTURAL RESOURCES 172 PEMBROKE ROAD

> CONCORD, NH 03301 PREVIOUS APPROVAL #: NONE

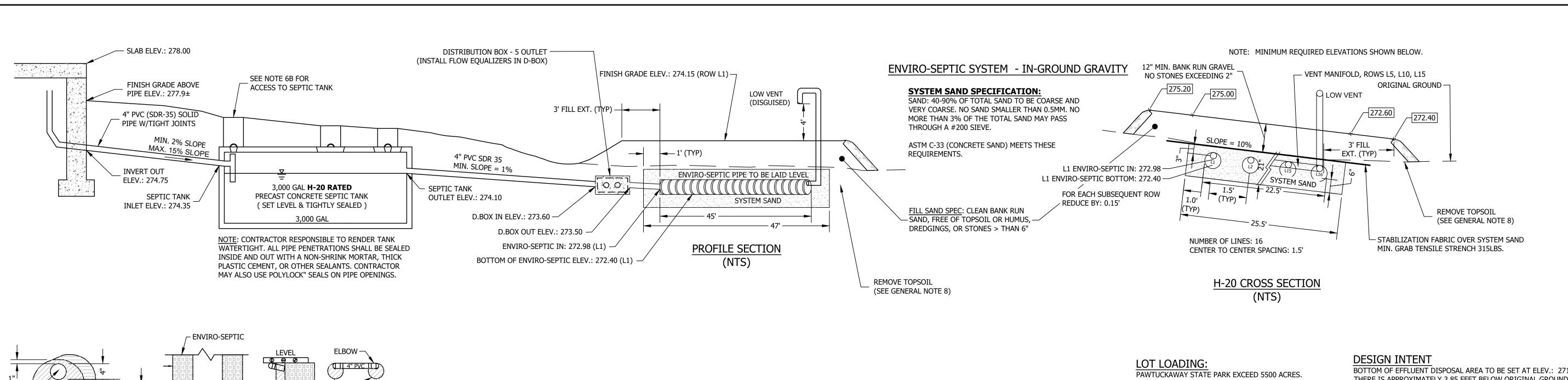
BIG ISLAND CAMPGROUND ROAD NOTTINGHAM, NEW HAMPSHIRE TAX MAP: 76 PARCEL: 2

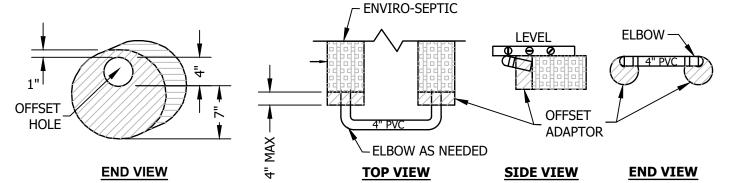
COUNTY: ROCKINGHAM SUBDIVISION NAME: n/a SUBDIVISION APPROVAL: EXCEPT >5AC **BATHHOUSE 8** SEPTIC PLAN

Sheet Number:

C4.4

Project Number: 23045001 File: 220838_pawtuckaway_concept-10.dwg





ENVIRO-SEPTIC OFFSET ADAPTOR DETAIL (NTS)

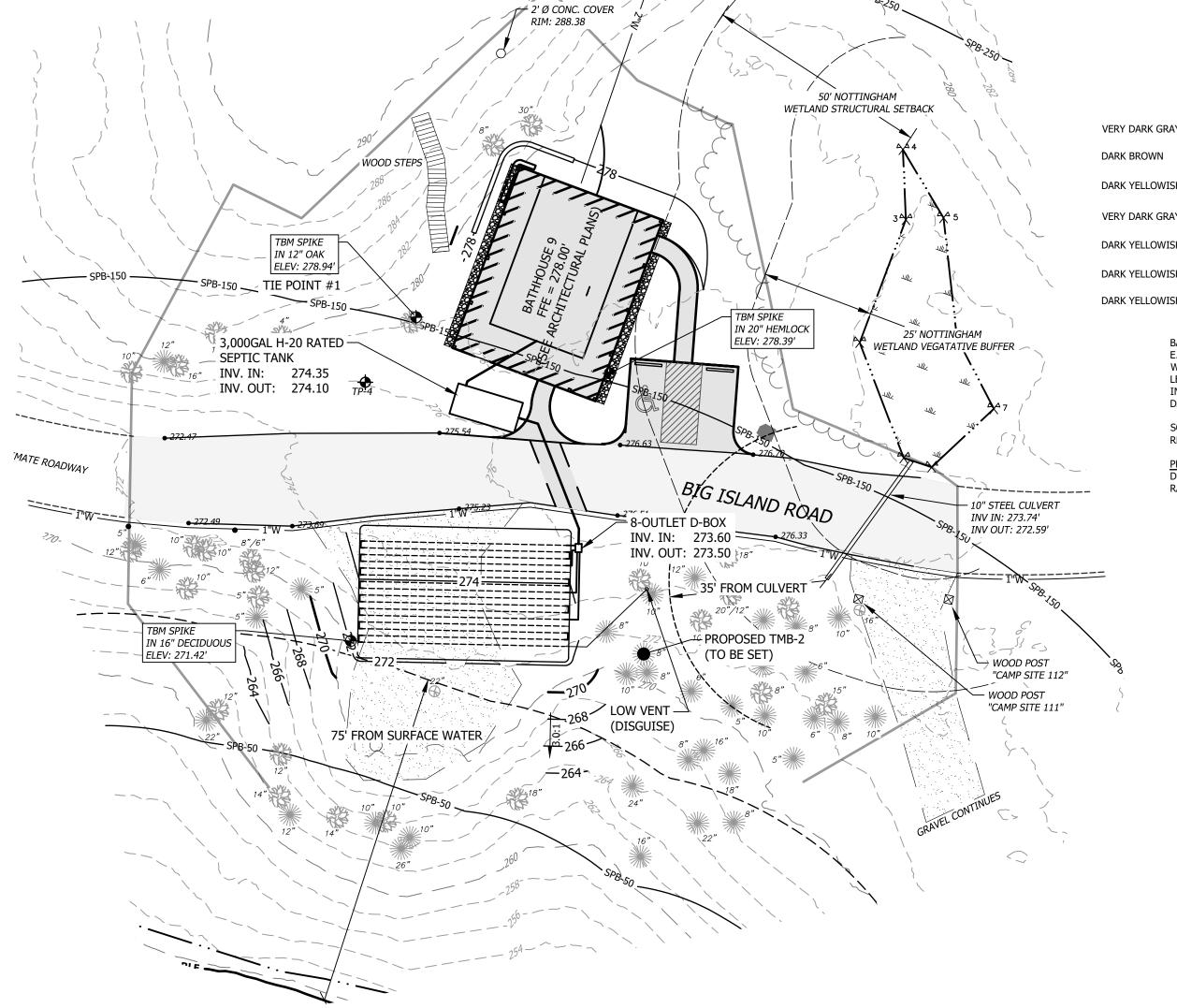
GENERAL NOTES

- THE CONTRACTOR SHALL ADHERE STRICTLY TO THESE PLANS AND THE REGULATIONS SET FORTH IN THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES MANUAL "SUBDIVISION AND INDIVIDUAL SEWAGE DISPOSAL SYSTEM DESIGN RULES", CHAPTER ENV-WQ 1000, DATED OCTOBER 1, 2016, CURRENT EDITION, AS WELL AS "THE PRESBY WASTEWATER TREATMENT SYSTEM, NEW HAMPSHIRE DESIGN AND INSTALLATION MANUAL", CURRENT **EDITION**
- 2. CALL DIG-SAFE PRIOR TO INSTALLATION.
- 3. SEPTIC SYSTEM SHALL BE INSTALLED BY A NHDES LICENSED INSTALLER.
- 4. TOPOGRAPHY AND SURVEY INFORMATION PROVIDED BY HORIZONS ENGINEERING, INC, OF LITTLETON, NEW HAMPSHIRE. THIS PLAN IS NOT MEANT TO REPRESENT A PROPERTY BOUNDARY SURVEY.
- 5. ENVIRO-SEPTIC LEACHING SYSTEM AS MANUFACTURED BY INFILTRATOR WATER TECHNOLOGIES / PRESBY ENVIRONMENTAL, INC., WHITEFIELD, NH.
- 6. COVER OVER PROPOSED SYSTEM:
- A. 18" MINIMUM COVER SHALL BE PROVIDED OVER THE PIPE FROM THE BATHHOUSE TO THE
- SEPTIC TANK OR THE PIPE SHALL BE INSULATED.
- B. IF THE FINISH GRADE OVER THE SEPTIC TANK IS GREATER THAN 24" PROVIDE 30" HDPE RISER AND COVER TO BE SET OVER TANK OPENINGS FOR FUTURE ACCESS TO THE TANK COVERS FOR MAINTENANCE. RISER AND COVERS SHALL EXTEND TO FINISHED GRADE.
- EFFLUENT DISPOSAL AREA: MINIMUM COVER TO BE 6" WITH AVERAGE COVER BEING 12". THE FINISH GRADE IS TO BE SLOPED TO DRAIN OFF THE TOP OF THE SYSTEM AT MINIMUM OF 1%.
- MAINTAIN 2' OF COVER OVER THE PIPE FROM THE SEPTIC TANK TO THE ENVIRO-SEPTIC PIPE OR THE PIPE SHALL BE INSULATED.
- 7. IF THE CONTRACTOR DETERMINES THAT EXISTING FIELD CONDITIONS ARE OTHER THAN SHOWN ON THESE PLANS, HE SHALL STOP WORK IMMEDIATELY AND NOTIFY THE OWNER AND DESIGNER FOR DIRECTIONS. IF CONTRACTOR ENCOUNTERS EXISTING SEPTIC TANK OR MATERIALS, HE SHALL REMOVE THEM OFF SITE WITH RESPECT TO CURRENT LOCAL AND STATE REGULATIONS.
- 8. ALL TREES, ROOTS, LOAM AND OTHER ORGANIC MATTER SHALL BE REMOVED FROM UNDER LEACHFIELD AND SLOPE EXTENSIONS PRIOR TO PLACING FILL. PLACE FILL IN 16" LIFTS, CONSOLIDATE AND RAKE BACKFILL. SCARIFY SUBGRADE SOIL.
- 9. FILL USED TO RAISE THE EFFLUENT DISPOSAL AREA SHALL BE CLEAN BANK RUN SAND, FREE FROM TOPSOIL, HUMUS, DREDGINGS, OR STONES OR MATERIAL MORE THAN 6" IN DIAMETER.
- 10. ALL DISTURBED AREA SHALL BE LOAMED, SEEDED, FERTILIZED AND MULCHED (GRADE LOAM TO DRAIN 1% MIN SLOPE ON TOP OF LEACHFIELD).
- 11. RECOMMENDED OPERATING PROCEDURES:
- A. PUMP SEPTIC TANKS ONCE EVERY TWO YEARS.
- B. USE BIODEGRADABLE DETERGENTS. C. PAPER PRODUCTS ONLY TO BE FLUSHED. FLUSHABLE BATHROOM PRODUCTS CAN CLOG THE
- SEPTIC SYSTEM.
- D. WATER SAVING DEVICES AND PROCEDURES ARE RECOMMENDED. E. ANY FUTURE REPLACEMENT SYSTEM, IF NEEDED, SHALL BE LOCATED IN THE SAME LOCATION AS THIS DESIGN UNLESS CONDITIONS AT THE TIME OF REPLACEMENT DICTATE OTHERWISE.

F. THE TANK SIZE SHALL BE INCREASED BY 50% IF A GARBAGE GRINDER IS TO BE INSTALLED.

- 12. PIPES AND CONNECTIONS OUTSIDE OF THE LEACHING AREA SHALL BE WATER TIGHT. THE CONNECTIONS SHALL BE SEALED WITH NON-SHRINK HYDRAULIC CEMENT.
- 13. THE DISTRIBUTION BOX SHALL HAVE S.S.I. INC. FLOW EQUALIZERS INSTALLED IN THE OUTLET
- 14. THIS SYSTEM HAS NOT BEEN DESIGNED FOR VEHICULAR TRAFFIC. THEREFORE, THE SYSTEM SHOULD BE PROTECTED FROM ANY WHEEL VEHICLES.
- 15. THE SITE <u>IS LOCATED</u> WITHIN THE NHDES PROTECTIVE SHORELAND.
- 16. THIS SYSTEM HAS NOT BEEN DESIGNED FOR VEHICULAR TRAFFIC. THEREFORE, THE SYSTEM SHOULD BE PROTECTED FROM ANY WHEEL VEHICLES.
- 17. THERE ARE NO JURISDICTIONAL WETLANDS ON WITHIN 75' OF THE SYSTEM.
- 18. THERE ARE NO KNOWN BURIAL SITES, BURIAL GROUNDS, OR CEMETERIES WITHIN 25' OF THE SYSTEM OR ON THE PROPERTY.

DATE OF PRINT horizons DECEMBER 01 2023 All rights reserved HORIZONS ENGINEERING



TIE TABLE

BATHHOUSE 9	L1		L8	
PIPE END	А	В	А	В
TBM-1 (SPIKE IN 12" OAK)	51.2	60.8	73.3	80.4
TBM-2 (TO BE SET)	67.1	29.7	62.7	17.8

EDA FIELD MUST BE RELOCATED BY THE INSTALLER/CONTRACTOR PRIOR TO INSTALLATION. CONTRACTOR IS RESPONSIBLE TO VERIFY ALL UTILITY LOCATIONS PRIOR TO DEMOLITION ALL TREES WITHIN 10 FEET OF PROPOSED EDA TO BE REMOVED AND DISPOSED OF OFF SITE BY THE INSTALLER/CONTRACTOR.

<-- TBM TO BE SET. CONTACT DESIGNER FOR UPDATED DIMENSIONS FOLLOWING TBM INSTALLATION PROJECT MEETS LOT LOADING.

TEST PIT #4 **EXISTING GROUND - FOREST FLOOR** FIBRIC ORGANIC MATERIALS, WEAK VERY DARK GRAYISH BROWN FINE GRANULAR, V. FRIABLE (FILL) GRAVELLY LOAMY SAND, MASSIVE, 10YR 3/3 V.FRIABLE (FILL) GRAVELLY LOAMY SAND,

DARK YELLOWISH BROWN 10YR 3/4 26 SINGLE GRAIN, LOOSE (FILL) GRAVELLY FINE SANDY LOAM, WEAK 10YR 3/2 VERY DARK GRAYISH BROWN FINE GRANULAR, V.FRIABLE (MIXING) GRAVELLY FINE SANDY LOAM, 10YR 4/6 35 DARK YELLOWISH BROWN MOD.MED.SUBANG.BLOCKY, FRIABLE LOAMY FINE SAND, MOD.MED.SUBANG DARK YELLOWISH BROWN 10YR 4/4 BLOCKY, FRIABLE FINE SANDY LOAM, MASSIVE, DARK YELLOWISH BROWN

> E.S.H.W.T.: NONE TO DEPTH, 72" WATER OBSERVED: NONE LEDGE ENCOUNTERED: NONE TO DEPTH, 72" INSPECTED BY: ADAM DOIRON, DOIRON ENVIRONMENTAL DATE: 2 OCTOBER 2023

SOILS TYPE: 343D CANTON GRAVELY FINE SANDY LOAM, EXTREMELY BOULDERY REFERENCE: NRCS WEB SOIL SURVEY, ROCKINGHAM COUNTY NH (NH015)

LOCATION MAP

DIRECTIONS: FROM NH-101 EXIT 5, NORTH ON NH-107, AFTER 0.6MI, LEFT

TO REMAIN ON NH-107. AFTER 0.1MI, RIGHT ONTO NH-156N. AFTER 2.0MI,

LEFT ON MOUNTAIN ROAD. AFTER 2.0MI LEFT ON PAWTUCKAWAY ROAD.

AFTER 2.3MI, LEFT ON BIG ISLAND CAMPGROUND ROAD. AFTER 0.25MI,

PERCOLATION TEST RATE: 8 MIN./INCH

BOTTOM OF EFFLUENT DISPOSAL AREA TO BE SET AT ELEV.: 271.90 THERE IS APPROXIMATELY 3.85 FEET BELOW ORIGINAL GROUND AT THE HIGH CONTOUR OF THE DESIGNED EFFLUENT DISPOSAL AREA. BENCH MARK AND ELEVATION DATA TO BE USED TO DETERMINE THE ACTUAL ELEVATION OF THE FIELD FOR GREATER ACCURACY.

EFFLUENT DISPOSAL AREA CAMPSITES SERVED: 28.67

REQUIRED SEWAGE LOADING: 28.67 x 45 GPD = 1,290 GPD DESIGN SEWAGE LOADING = 1300 GPD PERCOLATION RATE: 8 MINS / INCH ENVIRO-SEPTIC REQUIRED = 715 LF ENVIRO-SEPTIC PROVIDED = 720 LF ORIGINAL GROUND ELEVATION AT THE HIGH CONTOUR: 275.75 (@ L1) BOTTOM OF ENVIRO-SEPTIC PIPE ELEVATION: 272.40

SEPTIC TANK

 $2 \times DAILY FLOW = 2600GAL (USE NEXT LARGER COMMERCIAL SIZE)$ **3000 GAL TANK**

BENCHMARKS USED FOR TIE POINTS TO BE LEFT IN PLACE AND VISIBLE UNTIL THE NHDES INSPECTION HAS BEEN COMPLETED AND APPROVED. NO OPEN WATER, WELLS OR ABUTTING FOUNDATIONS WITHIN 75' OF THE PROPOSED EFFLUENT DISPOSAL AREA.

VENT REQUIREMENTS AND PLACEMENT WHERE SHOWN, LOW AND HIGH VENTS ARE REQUIRED TO ENSURE THAT AIR

IS DRAWN COMPLETELY THROUGH THE ENTIRE SYSTEM. NO ADDITIONAL VENTS MAY BE LOCATED BETWEEN THE HIGH VENT AND LOW VENT. HIGH VENTS MUST PROVIDE AT LEAST THE SAME FLOW CAPACITY AS LOW VENTS; CONNECTIONS WITHIN THE SYSTEM MUST ALSO HAVE SIMILAR CAPACITIES. THE OPENING OF THE HIGH VENT MUST BE AT LEAST 10 FEET ABOVE THE OPENING OF THE LOW VENT.

LOW VENTS ARE INSTALLED THROUGH AN OFFSET ADAPTER AT THE END OF EACH SERIAL SYSTEM OR BED.

VENT LOCATIONS SHOWN ARE APPROXIMATE AND CAN BE RELOCATED SO LONG AS THEY ARE LAID LEVEL OR PITCHED BACK TO THE EDA. VENTS SHOULD BE PLACED IN LOCATIONS WHERE AESTHETIC IMPACT IS MINIMAL. AS NECESSARY, ADD SHRUBS OR OTHER VEGETATION TO SCREEN VENTS. "CANDY CANE" STYLE VENT COVERS ARE NOT PREFERRED; USE "MUSHROOM" STYLE VENT COVERS OR VENT COVERS THAT CAMOUFLAGE THE EDA VENT.

TO ENSURE PROPER VENTILATION OF THE SYSTEM, NO EFFLUENT FILTER SHALL BE INSTALLED IN THE SYSTEM. PRIOR TO BACKFILLING THE SYSTEM, CONTRACTOR SHALL PERFORM A SMOKE TEST AT THE D-BOX AND LOW VEN <u>O ENSURE THAT AIR CAN CIRCULATE THROUGH THE EDA, SEPTIC TANK AND</u> HOUSE VENT. IF NO CLEAR SIGNS OF AIR FLOW ARE OBSERVED, CONTRACTO SHALL CONTACT DESIGNER OR SYSTEM MANUFACTURER BEFORE BACKFILLING

Land Surveying and Environmental Consulting

MAINE • NEW HAMPSHIRE • VERMONT

176 Newport Road, Suite 8; New London NH 03255

(603) 877-0116

www.horizonsengineering.com

NH STATE PARKS Campground Expansion Project PII Pawtuckaway State Park 7 Pawtuckaway Road Nottingham, NH

North

03290

80% DESIGN Graphic Scale

Scale: 1" = 20'

Date: December 1, 2023

Drawn By: CJH

Checked By: WTD

Issues

1000			
No.	Description	Date	
1	Name	00/00/00	

BATHHOUSE 9

SEPTIC PLAN

ENVIRO-SEPTIC SYSTEM SLOPED, IN-GROUND BED CAMPGROUND DESIGN (1,300 GPD)

NEW HAMPSHIRE DPMT OF NATURAL & CULTURAL RESOURCES 172 PEMBROKE ROAD CONCORD, NH 03301

PREVIOUS APPROVAL #: NONE

BIG ISLAND CAMPGROUND LOOP NOTTINGHAM, NEW HAMPSHIRE TAX MAP: 76 PARCEL: 2

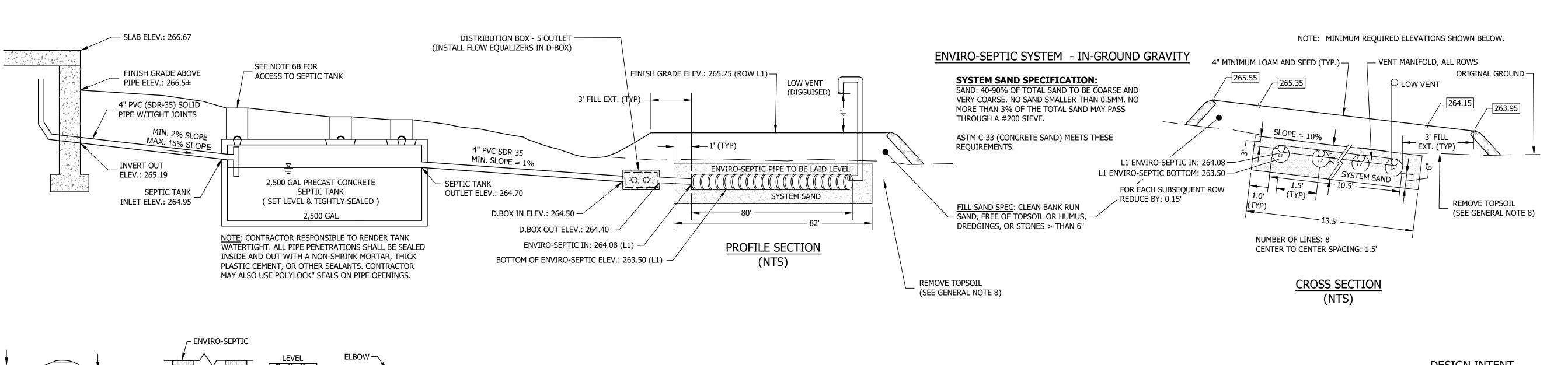
Sheet Number:

C4.5

Project Number: 23045001 File: 220838_pawtuckaway_concept-10.dwg

COUNTY: ROCKINGHAM SUBDIVISION NAME: n/a SUBDIVISION APPROVAL: EXCEPT >5AC

RIGHT ON LOOP ROAD. APPROX 0.15MI TO SITE.



END VIEW ENVIRO-SEPTIC OFFSET ADAPTOR DETAIL

GENERAL NOTES

THE CONTRACTOR SHALL ADHERE STRICTLY TO THESE PLANS AND THE REGULATIONS SET FORTH IN THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES MANUAL -"SUBDIVISION AND INDIVIDUAL SEWAGE DISPOSAL SYSTEM DESIGN RULES", CHAPTER ENV-WQ 1000, DATED OCTOBER 1, 2016, CURRENT EDITION, AS WELL AS "THE PRESBY WASTEWATER TREATMENT SYSTEM, NEW HAMPSHIRE DESIGN AND INSTALLATION MANUAL", CURRENT **EDITION**

TOP VIEW

(NTS)

END VIEW

TIE TABLE

BATHHOUSE 5

TBM-1 (SPIKE IN 18" DECIDUOUS)

TBM-2 (SPIKE IN 12" DECIDUOUS)

PIPE END

EDA FIELD MUST BE RELOCATED BY

В

51.6

48.7

85.3 25.1

Α

44.1

84.2

В

44.6

SIDE VIEW

- 2. CALL DIG-SAFE PRIOR TO INSTALLATION.
- 3. SEPTIC SYSTEM SHALL BE INSTALLED BY A NHDES LICENSED INSTALLER.
- 4. TOPOGRAPHY AND SURVEY INFORMATION PROVIDED BY HORIZONS ENGINEERING, INC, OF LITTLETON, NEW HAMPSHIRE. THIS PLAN IS NOT MEANT TO REPRESENT A PROPERTY BOUNDARY
- 5. ENVIRO-SEPTIC LEACHING SYSTEM AS MANUFACTURED BY INFILTRATOR WATER TECHNOLOGIES / PRESBY ENVIRONMENTAL, INC., WHITEFIELD, NH.

6. COVER OVER PROPOSED SYSTEM:

- A. 18" MINIMUM COVER SHALL BE PROVIDED OVER THE PIPE FROM THE BATHHOUSE TO THE SEPTIC TANK OR THE PIPE SHALL BE INSULATED.
- B. IF THE FINISH GRADE OVER THE SEPTIC TANK IS GREATER THAN 24" PROVIDE 30" HDPE
- RISER AND COVER TO BE SET OVER TANK OPENINGS FOR FUTURE ACCESS TO THE TANK COVERS FOR MAINTENANCE. RISER AND COVERS SHALL EXTEND TO FINISHED GRADE.
- EFFLUENT DISPOSAL AREA: MINIMUM COVER TO BE 6" WITH AVERAGE COVER BEING 12". THE FINISH GRADE IS TO BE SLOPED TO DRAIN OFF THE TOP OF THE SYSTEM AT MINIMUM OF 1%. MAINTAIN 2' OF COVER OVER THE PIPE FROM THE SEPTIC TANK TO THE ENVIRO-SEPTIC PIPE
- 7. IF THE CONTRACTOR DETERMINES THAT EXISTING FIELD CONDITIONS ARE OTHER THAN SHOWN ON THESE PLANS, HE SHALL STOP WORK IMMEDIATELY AND NOTIFY THE OWNER AND DESIGNER FOR DIRECTIONS. IF CONTRACTOR ENCOUNTERS EXISTING SEPTIC TANK OR MATERIALS, HE SHALL REMOVE THEM OFF SITE WITH RESPECT TO CURRENT LOCAL AND STATE REGULATIONS.
- 8. ALL TREES, ROOTS, LOAM AND OTHER ORGANIC MATTER SHALL BE REMOVED FROM UNDER LEACHFIELD AND SLOPE EXTENSIONS PRIOR TO PLACING FILL. PLACE FILL IN 16" LIFTS, CONSOLIDATE AND RAKE BACKFILL. SCARIFY SUBGRADE SOIL.
- 9. FILL USED TO RAISE THE EFFLUENT DISPOSAL AREA SHALL BE CLEAN BANK RUN SAND, FREE FROM TOPSOIL, HUMUS, DREDGINGS, OR STONES OR MATERIAL MORE THAN 6" IN DIAMETER.
- 10. ALL DISTURBED AREA SHALL BE LOAMED, SEEDED, FERTILIZED AND MULCHED (GRADE LOAM TO DRAIN 1% MIN SLOPE ON TOP OF LEACHFIELD).
- 11. RECOMMENDED OPERATING PROCEDURES:

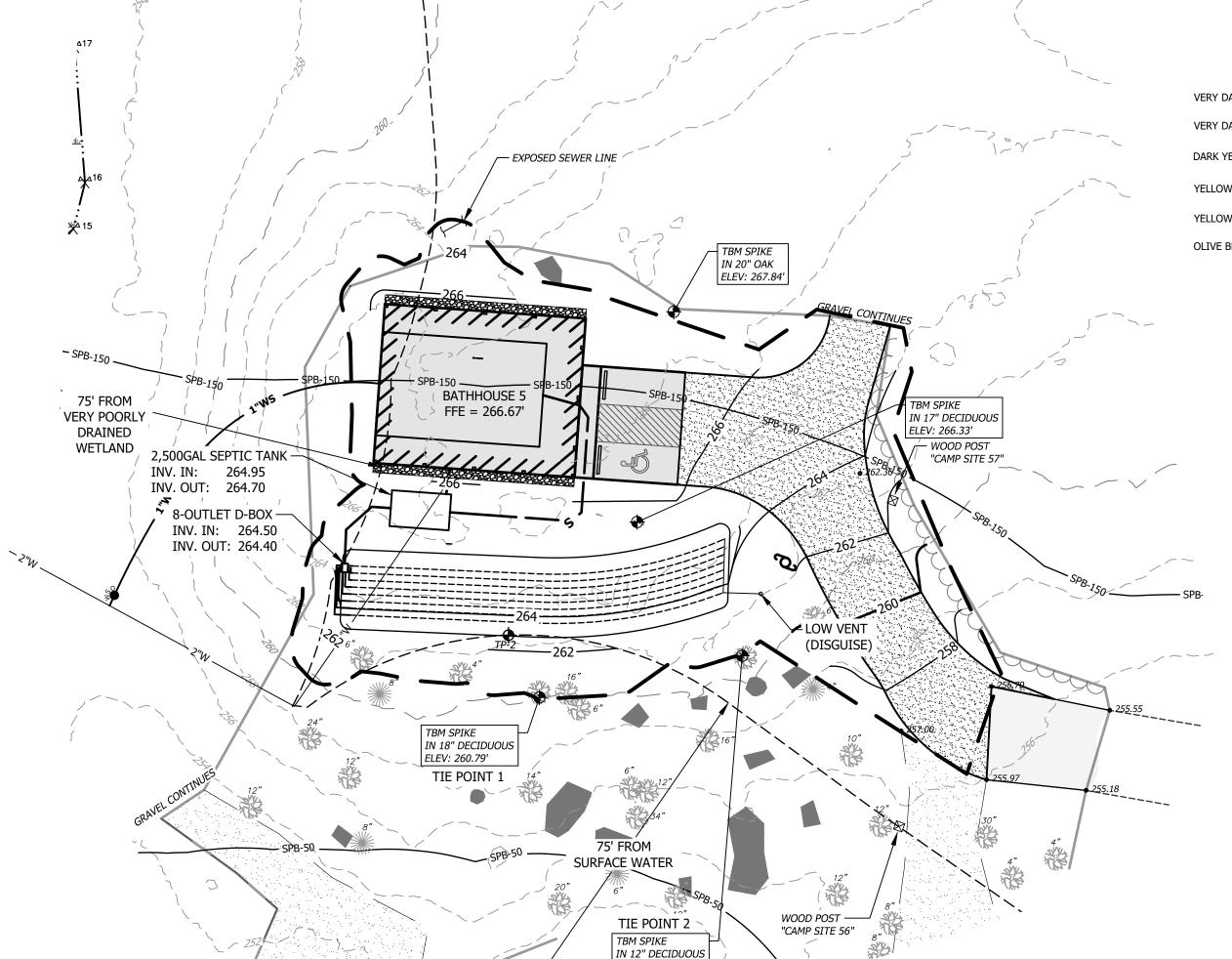
OR THE PIPE SHALL BE INSULATED.

- A. PUMP SEPTIC TANKS ONCE EVERY TWO YEARS.
- B. USE BIODEGRADABLE DETERGENTS. C. PAPER PRODUCTS ONLY TO BE FLUSHED. FLUSHABLE BATHROOM PRODUCTS CAN CLOG THE
- SEPTIC SYSTEM.
- D. WATER SAVING DEVICES AND PROCEDURES ARE RECOMMENDED. E. ANY FUTURE REPLACEMENT SYSTEM, IF NEEDED, SHALL BE LOCATED IN THE SAME LOCATION AS THIS DESIGN UNLESS CONDITIONS AT THE TIME OF REPLACEMENT DICTATE OTHERWISE.

F. THE TANK SIZE SHALL BE INCREASED BY 50% IF A GARBAGE GRINDER IS TO BE INSTALLED.

- 12. PIPES AND CONNECTIONS OUTSIDE OF THE LEACHING AREA SHALL BE WATER TIGHT. THE CONNECTIONS SHALL BE SEALED WITH NON-SHRINK HYDRAULIC CEMENT.
- 13. THE DISTRIBUTION BOX SHALL HAVE S.S.I. INC. FLOW EQUALIZERS INSTALLED IN THE OUTLET
- 14. THIS SYSTEM HAS NOT BEEN DESIGNED FOR VEHICULAR TRAFFIC. THEREFORE, THE SYSTEM SHOULD BE PROTECTED FROM ANY WHEEL VEHICLES.
- 15. THE SITE <u>IS LOCATED</u> WITHIN THE NHDES PROTECTIVE SHORELAND.
- 16. THIS SYSTEM HAS NOT BEEN DESIGNED FOR VEHICULAR TRAFFIC. THEREFORE, THE SYSTEM SHOULD BE PROTECTED FROM ANY WHEEL VEHICLES.
- 17. THERE ARE NO JURISDICTIONAL WETLANDS ON WITHIN 75' OF THE SYSTEM.
- 18. THERE ARE NO KNOWN BURIAL SITES, BURIAL GROUNDS, OR CEMETERIES WITHIN 25' OF THE SYSTEM OR ON THE PROPERTY.

DATE OF PRINT horizons DECEMBER 01 2023 All rights reserved HORIZONS ENGINEERING



ELEV: 261.50'

LOT LOADING: PAWTUCKAWAY STATE PARK EXCEED 5500 ACRES. PROJECT MEETS LOT LOADING.

TEST PIT #2 EXISTING GROUND - FOREST FLOOR FIBRIC ORGANIC MATERIAL, WEAK VERY DARK BROWN FINE GRANULAR, V. FRIABLE FINE SANDY LOAM, WEAK FINE VERY DARK BROWN 10YR 2/2 8" GRANULAR, V. FRIABLE. FINE SANDY LOAM, WEAK DARK YELLOWISH BROWN 10YR 3/6 20 FINE GRANULAR, V. FRIABLE. FINE SANDY LOAM, WEAK MEDIUM 10YR 4/4 YELLOWISH BROWN SUBANG BLOCKY, FRIABLE GRAVELLY LOAMY FINE SAND, MASSIVE, 10YR 4/4 YELLOWISH BROWN GRAVELLY LOAMY FINE SAND, OLIVE BROWN MASSIVE, FIRM & FRIABLE

> BATHHOUSE 5 F.S.H.W.T.: NONE TO DEPTH. 50" WATER OBSERVED: NONE LEDGE ENCOUNTERED: POSSIBLE AT 50" INSPECTED BY: ADAM DOIRON, DOIRON ENVIRONMENTAL DATE: 2 OCTOBER 2023

SOILS TYPE: 343C CANTON GRAVELY FINE SANDY LOAM, EXTREMELY BOULDERY REFERENCE: NRCS WEB SOIL SURVEY, ROCKINGHAM COUNTY NH (NH015)

PERCOLATION TEST DEPTH: 22" RATE: 6 MIN./INCH **DESIGN INTENT**

BOTTOM OF EFFLUENT DISPOSAL AREA TO BE SET AT ELEV.: 263.00 THERE IS APPROXIMATELY 2.1 (TWO AND ONE TENTH) FEET BELOW ORIGINAL GROUND AT THE HIGH CONTOUR OF THE DESIGNED EFFLUENT DISPOSAL AREA. BENCH MARK AND ELEVATION DATA TO BE USED TO DETERMINE THE ACTUAL ELEVATION OF THE FIELD FOR GREATER ACCURACY.

EFFLUENT DISPOSAL AREA

CAMPSITES SERVED: 26.67

REQUIRED SEWAGE LOADING: 26.67 x 45 GPD = 1,200 GPD DESIGN SEWAGE LOADING = 1200 GPD PERCOLATION RATE: 6 MINS / INCH ENVIRO-SEPTIC REQUIRED = 600 LF ENVIRO-SEPTIC PROVIDED = 640 LF ORIGINAL GROUND ELEVATION AT THE HIGH CONTOUR: 265.14 (@ L1) BOTTOM OF ENVIRO-SEPTIC PIPE ELEVATION: 263.50

SEPTIC TANK

2 x DAILY FLOW = 2400GAL (USE NEXT LARGER COMMERCIAL SIZE) **2,500 GAL TANK**

BENCHMARKS USED FOR TIE POINTS TO BE LEFT IN PLACE AND VISIBLE UNTIL THE NHDES INSPECTION HAS BEEN COMPLETED AND APPROVED. NO OPEN WATER, WELLS OR ABUTTING FOUNDATIONS WITHIN 75' OF THE PROPOSED EFFLUENT DISPOSAL AREA.

VENT REQUIREMENTS AND PLACEMENT WHERE SHOWN, LOW AND HIGH VENTS ARE REQUIRED TO ENSURE THAT AIR

IS DRAWN COMPLETELY THROUGH THE ENTIRE SYSTEM. NO ADDITIONAL VENTS MAY BE LOCATED BETWEEN THE HIGH VENT AND LOW VENT. HIGH VENTS MUST PROVIDE AT LEAST THE SAME FLOW CAPACITY AS LOW VENTS; CONNECTIONS WITHIN THE SYSTEM MUST ALSO HAVE SIMILAR CAPACITIES. THE OPENING OF THE HIGH VENT MUST BE AT LEAST 10 FEET ABOVE THE OPENING OF THE LOW VENT.

LOW VENTS ARE INSTALLED THROUGH AN OFFSET ADAPTER AT THE END OF EACH SERIAL SYSTEM OR BED.

VENT LOCATIONS SHOWN ARE APPROXIMATE AND CAN BE RELOCATED SO LONG AS THEY ARE LAID LEVEL OR PITCHED BACK TO THE EDA. VENTS SHOULD BE PLACED IN LOCATIONS WHERE AESTHETIC IMPACT IS MINIMAL. AS NECESSARY, ADD SHRUBS OR OTHER VEGETATION TO SCREEN VENTS. "CANDY CANE" STYLE VENT COVERS ARE NOT PREFERRED; USE "MUSHROOM" STYLE VENT COVERS OR VENT COVERS THAT CAMOUFLAGE THE EDA VENT.

TO ENSURE PROPER VENTILATION OF THE SYSTEM, NO EFFLUENT FILTER SHALL BE INSTALLED IN THE SYSTEM. PRIOR TO BACKFILLING THE SYSTEM, ONTRACTOR SHALL PERFORM A SMOKE TEST AT THE D-BOX AND LOW VEN <u>O ENSURE THAT AIR CAN CIRCULATE THROUGH THE EDA, SEPTIC TANK AND</u> HOUSE VENT. IF NO CLEAR SIGNS OF AIR FLOW ARE OBSERVED, CONTRACTO SHALL CONTACT DESIGNER OR SYSTEM MANUFACTURER BEFORE BACKFILLING

NH STATE PARKS

Land Surveying and Environmental Consulting

MAINE • NEW HAMPSHIRE • VERMONT

176 Newport Road, Suite 8; New London NH 03255

(603) 877-0116

www.horizonsengineering.com

Campground Expansion Project PII Pawtuckaway State Park 7 Pawtuckaway Road Nottingham, NH 03290

80% DESIGN Graphic Scale

North



Scale: 1" = 20'

Date: December 1, 2023

Drawn By: CJH

Checked By: WTD

Issues: Date Description Name

ENVIRO-SEPTIC SYSTEM SLOPED, IN-GROUND BED CAMPGROUND DESIGN (1,200 GPD)

NEW HAMPSHIRE DPMT OF NATURAL & CULTURAL RESOURCES 172 PEMBROKE ROAD CONCORD, NH 03301

HORSE ISLAND CAMPGROUND SPUR NOTTINGHAM, NEW HAMPSHIRE TAX MAP: 76 PARCEL: 2

COUNTY: ROCKINGHAM SUBDIVISION NAME: n/a **BATHHOUSE 5**

Sheet Number:

C4.6

SEPTIC PLAN

Project Number: 23045001 File: 220838_pawtuckaway_concept-10.dwg

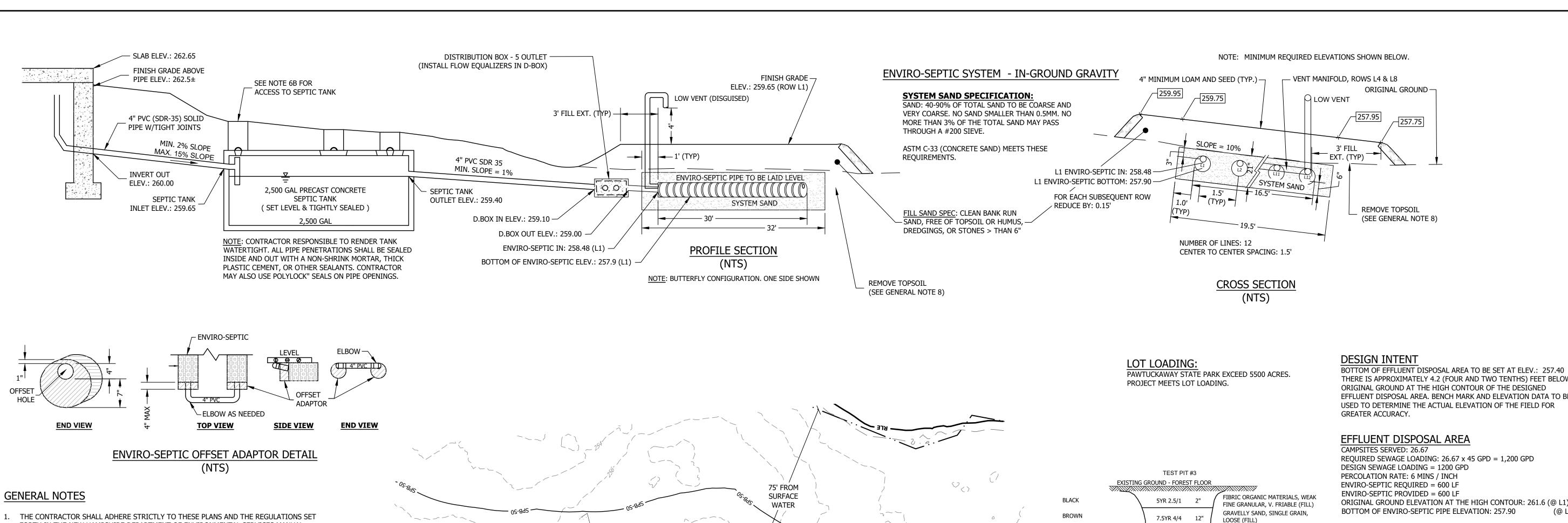


LOCATION MAP

DIRECTIONS: FROM NH-101 EXIT 5, NORTH ON NH-107. AFTER 0.6MI, LEFT TO

PREVIOUS APPROVAL #: NONE

THE INSTALLER/CONTRACTOR PRIOR TO INSTALLATION. CONTRACTOR IS RESPONSIBLE TO VERIFY ALL UTILITY LOCATIONS PRIOR TO DEMOLITION ALL TREES WITHIN 10 FEET OF REMAIN ON NH-107. AFTER 0.1MI, RIGHT ONTO NH-156N. AFTER 2.0MI, LEFT PROPOSED EDA TO BE REMOVED AND DISPOSED OF OFF SITE BY ON MOUNTAIN ROAD. AFTER 2.0MI LEFT ON PAWTUCKAWAY ROAD. AFTER 2.5MI, LEFT ON HORSE ISLAND CAMPGROUND ROAD. AFTER 0.1MI, RIGHT AT SUBDIVISION APPROVAL: EXCEPT >5AC THE INSTALLER/CONTRACTOR. TEE. APPROX 0.05MI TO SITE.



- FORTH IN THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES MANUAL -"SUBDIVISION AND INDIVIDUAL SEWAGE DISPOSAL SYSTEM DESIGN RULES", CHAPTER ENV-WQ 1000, DATED OCTOBER 1, 2016, CURRENT EDITION, AS WELL AS "THE PRESBY WASTEWATER TREATMENT SYSTEM, NEW HAMPSHIRE DESIGN AND INSTALLATION MANUAL", CURRENT EDITION
- 2. CALL DIG-SAFE PRIOR TO INSTALLATION.
- 3. SEPTIC SYSTEM SHALL BE INSTALLED BY A NHDES LICENSED INSTALLER.
- 4. TOPOGRAPHY AND SURVEY INFORMATION PROVIDED BY HORIZONS ENGINEERING, INC, OF LITTLETON, NEW HAMPSHIRE. THIS PLAN IS NOT MEANT TO REPRESENT A PROPERTY BOUNDARY
- 5. ENVIRO-SEPTIC LEACHING SYSTEM AS MANUFACTURED BY INFILTRATOR WATER TECHNOLOGIES / PRESBY ENVIRONMENTAL, INC., WHITEFIELD, NH.

6. COVER OVER PROPOSED SYSTEM:

- A. 18" MINIMUM COVER SHALL BE PROVIDED OVER THE PIPE FROM THE BATHHOUSE TO THE SEPTIC TANK OR THE PIPE SHALL BE INSULATED.
- B. IF THE FINISH GRADE OVER THE SEPTIC TANK IS GREATER THAN 24" PROVIDE 30" HDPE
- RISER AND COVER TO BE SET OVER TANK OPENINGS FOR FUTURE ACCESS TO THE TANK COVERS FOR MAINTENANCE. RISER AND COVERS SHALL EXTEND TO FINISHED GRADE.
- EFFLUENT DISPOSAL AREA: MINIMUM COVER TO BE 6" WITH AVERAGE COVER BEING 12". THE FINISH GRADE IS TO BE SLOPED TO DRAIN OFF THE TOP OF THE SYSTEM AT MINIMUM OF 1%.
- MAINTAIN 2' OF COVER OVER THE PIPE FROM THE SEPTIC TANK TO THE ENVIRO-SEPTIC PIPE OR THE PIPE SHALL BE INSULATED.
- 7. IF THE CONTRACTOR DETERMINES THAT EXISTING FIELD CONDITIONS ARE OTHER THAN SHOWN ON THESE PLANS, HE SHALL STOP WORK IMMEDIATELY AND NOTIFY THE OWNER AND DESIGNER FOR DIRECTIONS. IF CONTRACTOR ENCOUNTERS EXISTING SEPTIC TANK OR MATERIALS, HE SHALL REMOVE THEM OFF SITE WITH RESPECT TO CURRENT LOCAL AND STATE REGULATIONS.
- 8. ALL TREES, ROOTS, LOAM AND OTHER ORGANIC MATTER SHALL BE REMOVED FROM UNDER LEACHFIELD AND SLOPE EXTENSIONS PRIOR TO PLACING FILL. PLACE FILL IN 16" LIFTS, CONSOLIDATE AND RAKE BACKFILL. SCARIFY SUBGRADE SOIL.
- 9. FILL USED TO RAISE THE EFFLUENT DISPOSAL AREA SHALL BE CLEAN BANK RUN SAND, FREE FROM TOPSOIL, HUMUS, DREDGINGS, OR STONES OR MATERIAL MORE THAN 6" IN DIAMETER.
- 10. ALL DISTURBED AREA SHALL BE LOAMED, SEEDED, FERTILIZED AND MULCHED (GRADE LOAM TO DRAIN 1% MIN SLOPE ON TOP OF LEACHFIELD).
- 11. RECOMMENDED OPERATING PROCEDURES:
- A. PUMP SEPTIC TANKS ONCE EVERY TWO YEARS.
- B. USE BIODEGRADABLE DETERGENTS.
- C. PAPER PRODUCTS ONLY TO BE FLUSHED. FLUSHABLE BATHROOM PRODUCTS CAN CLOG THE SEPTIC SYSTEM.
- D. WATER SAVING DEVICES AND PROCEDURES ARE RECOMMENDED.
- E. ANY FUTURE REPLACEMENT SYSTEM, IF NEEDED, SHALL BE LOCATED IN THE SAME LOCATION AS THIS DESIGN UNLESS CONDITIONS AT THE TIME OF REPLACEMENT DICTATE OTHERWISE. F. THE TANK SIZE SHALL BE INCREASED BY 50% IF A GARBAGE GRINDER IS TO BE INSTALLED.
- 12. PIPES AND CONNECTIONS OUTSIDE OF THE LEACHING AREA SHALL BE WATER TIGHT. THE CONNECTIONS SHALL BE SEALED WITH NON-SHRINK HYDRAULIC CEMENT.
- 13. THE DISTRIBUTION BOX SHALL HAVE S.S.I. INC. FLOW EQUALIZERS INSTALLED IN THE OUTLET
- 14. THIS SYSTEM HAS NOT BEEN DESIGNED FOR VEHICULAR TRAFFIC. THEREFORE, THE SYSTEM SHOULD BE PROTECTED FROM ANY WHEEL VEHICLES.
- 15. THE SITE <u>IS LOCATED</u> WITHIN THE NHDES PROTECTIVE SHORELAND.
- 16. THIS SYSTEM HAS NOT BEEN DESIGNED FOR VEHICULAR TRAFFIC. THEREFORE, THE SYSTEM SHOULD BE PROTECTED FROM ANY WHEEL VEHICLES.
- 17. THERE ARE NO JURISDICTIONAL WETLANDS ON WITHIN 75' OF THE SYSTEM.
- 18. THERE ARE NO KNOWN BURIAL SITES, BURIAL GROUNDS, OR CEMETERIES WITHIN 25' OF THE SYSTEM OR ON THE PROPERTY.

DATE OF PRINT **hogizens** DECEMBER 01 2023 All rights reserved HORIZONS ENGINEERING

ALL TREES WITHIN 10 FEET OF PROPOSED EDA TO BE REMOVED AND DISPOSED OF OFF SITE BY THE INSTALLER/CONTRACTOR.

EDA FIELD MUST BE RELOCATED BY THE INSTALLER/CONTRACTOR PRIOR TO INSTALLATION. CONTRACTOR IS RESPONSIBLE TO VERIFY ALL UTILITY LOCATIONS PRIOR TO DEMOLITION

ELEV: 262.53'

TIE POINT #1

TBM SPIKE

| ELEV: 262.32' |

255.56 **ROAD**

BATHHOUSE 6

FFE = 262.65'

TBM SPIKE IN 24" PINE

ELEV: 256.82'

TIE POINT #2

TIE TABLE

(SEE ARCHITECTURAL PLANS

BATHHOUSE 6 -- FIELD AA В Α PIPE END Α В TBM-1 (SPIKE IN 8" PINE) 50.4 41.4 58.5 TBM-2 (SPIKE IN 24" PINE) 54.6 51.4 39.6 35 BATHHOUSE 6 -- FIELD BB L12 PIPE END Α В Α В TBM-1 (SPIKE IN 8" PINE) 85.8 56 78.9 65.4 TRM-2 (SPIKE IN 24" PINE) 52.4 65.7 37.5 54.6

2,500GAL SEPTIC TANK

-LOW VENT

(DISGUISE)

75' FROM WETLAND

INV. IN: 259.65

INV. OUT: 259.40

THERE IS APPROXIMATELY 4.2 (FOUR AND TWO TENTHS) FEET BELOW ORIGINAL GROUND AT THE HIGH CONTOUR OF THE DESIGNED EFFLUENT DISPOSAL AREA. BENCH MARK AND ELEVATION DATA TO BE

> REQUIRED SEWAGE LOADING: 26.67 x 45 GPD = 1,200 GPD ORIGINAL GROUND ELEVATION AT THE HIGH CONTOUR: 261.6 (@ L1)

SEPTIC TANK

FINE SANDY LOAM, WEAK FINE

SUBANG BLOCKY, V. FRIABLE

SUBANG BLOCKY, V. FRIABLE

LOAMY FINE SAND, MOD. MED.

SUBANG. BLOCKY, V.FRIABLE

LOAMY FINE SAND, MASSIVE

LOCATION MAP

DIRECTIONS: FROM NH-101 EXIT 5, NORTH ON NH-107. AFTER 0.6MI, LEFT TO

REMAIN ON NH-107. AFTER 0.1MI, RIGHT ONTO NH-156N. AFTER 2.0MI, LEFT

2.5MI, LEFT ON HORSE ISLAND CAMPGROUND ROAD. AFTER 0.05MI, LEFT ON

ON MOUNTAIN ROAD. AFTER 2.0MI LEFT ON PAWTUCKAWAY ROAD. AFTER

CAMPGROUND LOOP. APPROX 0.05MI TO SITE.

GRANULAR, V. FRIABLE. (MIXING)

FINE SANDY LOAM, WEAK MEDIUM

FINE SANDY LOAM, WEAK MEDIUM

LOAMY FINE SAND, MASSIVE, FRIABLE

10YR 3/2 15'

7.5YR 4/6 24

10YR 4/6 36'

10YR 5/4

2.5Y 4/3

2.5Y 4/3

INSPECTED BY: ADAM DOIRON, DOIRON ENVIRONMENTAL

SOILS TYPE: 43C CANTON FINE SANDY LOAM, VERY STONY

REFERENCE: NRCS WEB SOIL SURVEY, ROCKINGHAM COUNTY NH (NH015)

LEDGE ENCOUNTERED: NONE TO DEPTH, 75"

VERY DARK

YELLOWISH BROWN

YELLOWISH BROWN

OLIVE BROWN

OLIVE BROWN

DARK YELLOWISH BROWN

BATHHOUSE 6

E.S.H.W.T.: NONE TO DEPTH, 75" WATER OBSERVED: NONE

DATE: 2 OCTOBER 2023

PERCOLATION TEST

RATE: 6 MIN./INCH

STRONG BROWN

 $2 \times DAILY FLOW = 2,400GAL (USE NEXT LARGER COMMERCIAL SIZE)$ **2,500 GAL TANK**

BENCHMARKS USED FOR TIE POINTS TO BE LEFT IN PLACE AND VISIBLE UNTIL THE NHDES INSPECTION HAS BEEN COMPLETED AND APPROVED. NO OPEN WATER, WELLS OR ABUTTING FOUNDATIONS WITHIN 75' OF THE PROPOSED EFFLUENT DISPOSAL AREA.

VENT REQUIREMENTS AND PLACEMENT NHERE SHOWN, LOW AND HIGH VENTS ARE REQUIRED TO ENSURE THAT AIR IS DRAWN COMPLETELY THROUGH THE ENTIRE SYSTEM. NO ADDITIONAL

VENTS MAY BE LOCATED BETWEEN THE HIGH VENT AND LOW VENT. HIGH VENTS MUST PROVIDE AT LEAST THE SAME FLOW CAPACITY AS LOW VENTS; CONNECTIONS WITHIN THE SYSTEM MUST ALSO HAVE SIMILAR CAPACITIES. THE OPENING OF THE HIGH VENT MUST BE AT LEAST 10 FEET ABOVE THE OPENING OF THE LOW VENT.

LOW VENTS ARE INSTALLED THROUGH AN OFFSET ADAPTER AT THE END OF EACH SERIAL SYSTEM OR BED.

VENT LOCATIONS SHOWN ARE APPROXIMATE AND CAN BE RELOCATED SO LONG AS THEY ARE LAID LEVEL OR PITCHED BACK TO THE EDA. VENTS SHOULD BE PLACED IN LOCATIONS WHERE AESTHETIC IMPACT IS MINIMAL. AS NECESSARY, ADD SHRUBS OR OTHER VEGETATION TO SCREEN VENTS. "CANDY CANE" STYLE VENT COVERS ARE NOT PREFERRED; USE "MUSHROOM" STYLE VENT COVERS OR VENT COVERS THAT CAMOUFLAGE THE EDA VENT.

TO ENSURE PROPER VENTILATION OF THE SYSTEM, NO EFFLUENT FILTER SHALL BE INSTALLED IN THE SYSTEM. PRIOR TO BACKFILLING THE SYSTEM, ONTRACTOR SHALL PERFORM A SMOKE TEST AT THE D-BOX AND LOW VEN <u>O ENSURE THAT AIR CAN CIRCULATE THROUGH THE EDA, SEPTIC TANK AND</u> <u>HOUSE VENT. IF NO CLEAR SIGNS OF AIR FLOW ARE OBSERVED, CONTRACTO</u> SHALL CONTACT DESIGNER OR SYSTEM MANUFACTURER BEFORE BACKFILLING

NH STATE PARKS

Land Surveying and Environmental Consulting

MAINE • NEW HAMPSHIRE • VERMONT

176 Newport Road, Suite 8; New London NH 03255

(603) 877-0116

www.horizonsengineering.com

Campground Expansion Project PII Pawtuckaway State Park 7 Pawtuckaway Road Nottingham, NH 03290

80% DESIGN

Graphic Scale

North



Scale: 1" = 20'

Date: December 1, 2023

Drawn By: CJH

Checked By: WTD

Issues:

No.	Description	Date
1	Name	00/00/00
·		
·		

ENVIRO-SEPTIC SYSTEM SLOPED, IN-GROUND BED CAMPGROUND DESIGN (1,200 GPD)

NEW HAMPSHIRE DPMT OF NATURAL & CULTURAL RESOURCES 172 PEMBROKE ROAD CONCORD, NH 03301

PREVIOUS APPROVAL #: NONE

HORSE ISLAND CAMPGROUND LOOP NOTTINGHAM, NEW HAMPSHIRE TAX MAP: 76 PARCEL: 2

COUNTY: ROCKINGHAM SUBDIVISION NAME: n/a SUBDIVISION APPROVAL: EXCEPT >5AC

BATHHOUSE 6 SEPTIC PLAN

Sheet Number:

C4.7

Project Number: 23045001

SEEDING RECOMMENDATIONS

1. GRADING AND SHAPING

A. SLOPES SHALL NOT BE STEEPER THAN 2:1; 3:1 SLOPES OR FLATTER ARE PREFERRED. WHERE MOWING WILL BE DONE, 3:1 SLOPES OR FLATTER ARE RECOMMENDED.

2. SEEDBED PREPARATION

- A. SURFACE AND SEEPAGE WATER SHOULD BE DRAINED OR DIVERTED FROM THE SITE TO PREVENT DROWNING OR WINTER KILLING OF THE PLANTS.
- B. STONES LARGER THAN 4 INCHES AND TRASH SHOULD BE REMOVED BECAUSE THEY INTERFERE WITH SEEDING AND FUTURE MAINTENANCE OF THE AREA. WHERE FEASIBLE, THE SOIL SHOULD BE AMENDED WITH ORGANIC MATTER AND TILLED TO A DEPTH OF ABOUT 4 INCHES TO PREPARE A SEEDBED AND MIX FERTILIZER AND LIME THOROUGHLY INTO THE SOIL. THE SEEDBED SHOULD BE LEFT IN A REASONABLY FIRM AND SMOOTH CONDITION. THE LAST TILLAGE OPERATION SHOULD BE PERFORMED ACROSS THE SLOPE WHEREVER

3. ESTABLISHING VEGETATION

A. LIME AND FERTILIZER SHOULD BE APPLIED PRIOR TO OR AT THE TIME OF SEEDING AND INCORPORATED INTO THE SOIL. KINDS AND AMOUNTS OF LIME AND FERTILIZER SHOULD BE BASED ON AN EVALUATION OF SOIL TESTS. WHEN A SOIL TEST IS NOT AVAILABLE, THE FOLLOWING MINIMUM AMOUNTS SHOULD BE APPLIED:

- -AGRICULTURAL LIMESTONE, 2 TONS PER ACRE OR 100 LBS. PER 1,000 SQ. FT.
- -NITROGEN (N), 50 LBS., PER ACRE OR 1.1 LBS. PER 1,000 SQ. FT. -PHOSPHATE (P₂O₅), 100 LBS. PER ACRE OR 2.2 LBS. PER 1,000 SQ. FT.

-POTASH (K₂0), 100 LBS. PER ACRE OR 2.2 LBS. PER 1,000 SQ. FT.

(NOTE: THIS IS THE EQUIVALENT OF 500 LBS. PER ACRE OF 10-20-20 FERTILIZER OR 1,000 LBS. PER ACRE OF

B. SEED SHOULD BE SPREAD UNIFORMLY BY THE METHOD MOST APPROPRIATE FOR THE SITE. METHODS INCLUDE BROADCASTING, DRILLING, AND HYDROSEEDING. WHERE BROADCASTING IS USED, COVER SEED WITH .25 INCH OF SOIL OR LESS, BY CULTIPACKING OR RAKING.

C. SEEDING GUIDE:

C	" SEEDING GOIDE!	ı	1			
		SEEDING		SOIL TYPE		
	uce	MIXTURE		WELL	MOD. WELL	POORLY
	USE	(SEE 3D)	DROUGHTY	DRAINED	DRAINED	DRAINED
	STEEP CUTS AND FILLS,	Α	FAIR	GOOD	GOOD	FAIR
	BORROW AND DISPOSAL AREAS	В	POOR	GOOD	FAIR	FAIR
		С	FAIR	EXCELLENT	EXCELLENT	POOR
	WATERWAYS, EMERGENCY SPILL- WAYS, AND OTHER CHANNELS WITH FLOWING WATER	А	GOOD	GOOD	GOOD	FAIR
	LIGHTLY USED PARKING LOTS, ODD	Α	GOOD	GOOD	GOOD	FAIR
	AREAS, UNUSED LANDS, AND LOW INTENSITY USE RECREATION SITES	В	GOOD	GOOD	FAIR	POOR

D. SEEDING RATES:

	MIXTURE	POUNDS PER ACRE	POUNDS PER 1,000 SQ. FT.
A	TALL FESCUE CREEPING RED FESCUE REDTOP TOTAL:	20 20 2 42	0.45 0.45 0.05 0.95
В	TALL FESCUE CREEPING RED FESCUE CROWN VETCH OR FLATPEA TOTAL:	15 10 15 OR 30 40 OR 55	0.35 0.25 0.35 OR 0.75 0.95 OR 1.35
С	TALL FESCUE FLATPEA	20 30	0.45 0.75
	TOTAL:	50	1.20

E. WHEN SEEDED AREAS ARE MULCHED, PLANTINGS MAY BE MADE FROM EARLY SPRING TO SEPTEMBER 15. WHEN SEEDED AREAS ARE NOT MULCHED, PLANTINGS SHOULD BE MADE FROM EARLY SPRING TO MAY 20 OR FROM AUGUST 10 TO SEPTEMBER 1.

F. TEMPORARY SEEDING RATES:

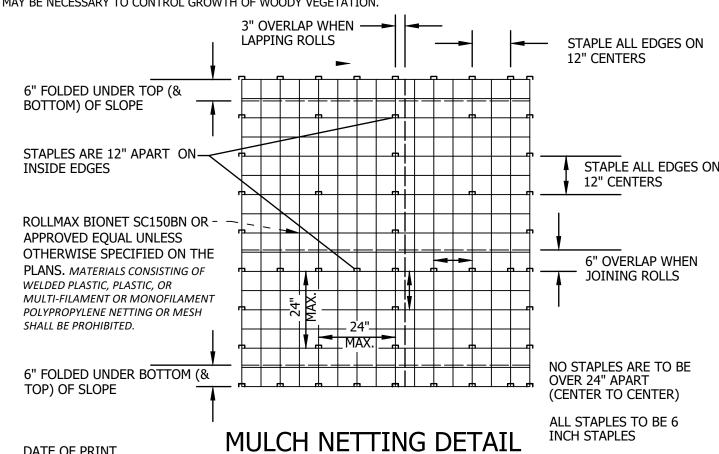
SPECIES	POUNDS PER ACRE	POUNDS PER 1,000 SQ. FT.	REMARKS
WINTER RYE	112	2.5	BEST FOR FALL SEEDING. SEED FROM AUGUST TO SEPTEMBER 5TH FOR BEST COVER. SEED TO A DEPTH OF 1 INCH.
OATS	80	2.0	BEST FOR SPRING SEEDING. SEED NO LATER THAN MAY 15TH FOR SUMMER PROTECTION. SEED TO A DEPTH OF 1 INCH.
ANNUAL RYEGRASS	40	1.0	GROWS QUICKLY, BUT IS OF SHORT DURATION. USE WHERE APPEARANCES ARE NOT IMPORTANT. SEED EARLY SPRING AND/OR BETWEEN AUGUST 15TH AND SEPTEMBER 15TH. COVER SEED WITH NO MORE THAN 0.25 INCH OF SOIL.
PERENNIAL RYEGRASS	30	0.7	GOOD COVER WHICH IS LONGER LASTING THAN ANNUAL RYEGRASS. SEED BETWEEN APRIL 1ST AND JUNE 1ST AND/OR BETWEEN AUGUST 15TH AND SEPTEMBER 15TH. MULCHING WILL ALLOW SEEDING THROUGHOUT THE GROWING SEASON. SEED TO A DEPTH OF APPROXIMATELY 0.5 INCH.

4. MULCH

- A. HAY, STRAW, OR OTHER MULCH, WHEN NEEDED, SHOULD BE APPLIED IMMEDIATELY AFTER SEEDING.
- B. MULCH WILL BE HELD IN PLACE USING APPROPRIATE TECHNIQUES FROM THE BEST MANAGEMENT PRACTICE FOR MULCHING.

5. MAINTENANCE TO ESTABLISH A STAND

- A. PLANTED AREAS SHOULD BE PROTECTED FROM DAMAGE BY FIRE, GRAZING, TRAFFIC, AND DENSE WEED
- B. FERTILIZATION NEEDS SHOULD BE DETERMINED BY ON SITE INSPECTIONS. SUPPLEMENTAL FERTILIZER IS



EROSION CONTROL GENERAL NOTES

A. KEEP SITE MODIFICATION TO A MINIMUM

- 1. CONSIDER FITTING THE BUILDINGS AND STREETS TO THE NATURAL TOPOGRAPHY. THIS REDUCES THE NEED FOR CUTS AND FILLS. AVOID EXTENSIVE GRADING THAT WOULD ALTER DRAINAGE PATTERNS OR CREATE VERY STEEP SLOPES.
- 2. EXPOSE AREAS OF BARE SOIL TO EROSIVE ELEMENTS FOR THE SHORTEST TIME POSSIBLE.
- 3. SAVE AND PROTECT DESIRABLE EXISTING VEGETATION WHERE POSSIBLE. ERECT BARRIERS TO PREVENT DAMAGE FROM CONSTRUCTION EQUIPMENT.
- 4. LIMIT THE GRADES OF SLOPES SO VEGETATION CAN BE EASILY ESTABLISHED AND
- 5. AVOID SUBSTANTIAL INCREASE IN RUNOFF LEAVING THE SITE.

B. MINIMIZE POLLUTION OF WATER DURING CONSTRUCTION ACTIVITIES

- 1. STOCKPILE TOPSOIL REMOVED FROM CONSTRUCTION AREA AND SPREAD OVER ANY DISTURBED AREAS PRIOR TO REVEGETATION. TOPSOIL STOCKPILES MUST BE PROTECTED
- 2. PROTECT BARE SOIL AREAS EXPOSED BY GRADING ACTIVITIES WITH TEMPORARY VEGETATION OR MULCHES.
- 3. USE SEDIMENT BASINS TO TRAP DEBRIS AND SEDIMENT WHICH WILL PREVENT THESE MATERIALS FROM MOVING OFF SITE.
- 4. USE DIVERSIONS TO DIRECT WATER AROUND THE CONSTRUCTION AREA AND AWAY FROM EROSION PRONE AREAS TO POINTS OF SAFE DISPOSAL.
- 5. USE TEMPORARY CULVERTS OR BRIDGES WHEN CROSSING STREAMS WITH EQUIPMENT.
- 6. PLACE CONSTRUCTION FACILITIES, MATERIALS, AND EQUIPMENT STORAGE AND MAINTENANCE AREAS AWAY FROM DRAINAGE WAYS.

C. PROTECT AREA AFTER CONSTRUCTION.

- 1. ESTABLISH GRASS OR OTHER SUITABLE VEGETATION ON ALL DISTURBED AREAS. SELECT SPECIES ADAPTED TO THE SITE CONDITIONS AND THE FUTURE USE OF THE AREA. FINAL GRADES SHALL BE SEEDED WITHIN 72 HOURS. STABILIZATION SHALL BE DEFINED AS 85% VEGETATIVE COVER.
- 2. MAINTAIN VEGETATED AREAS USING PROPER VEGETATIVE 'BEST MANAGEMENT PRACTICES' DURING THE CONSTRUCTION PERIOD.
- 3. MAINTAIN NEEDED STRUCTURAL 'BEST MANAGEMENT PRACTICES' AND REMOVE SEDIMENT FROM DETENTION PONDS AND SEDIMENT BASINS AS NEEDED.
- 4. DETERMINE RESPONSIBILITY FOR LONG TERM MAINTENANCE OF PERMANENT 'BEST MANAGEMENT PRACTICES'.
- 5. IF CONSTRUCTION IS ANTICIPATED DURING WINTER MONTHS, REFER TO 'COLD WEATHER SITE STABILIZATION REQUIREMENTS'.

D. INVASIVE SPECIES AND FUGITIVE DUST

- 1. THE PROJECT SHALL NOT CONTRIBUTE TO THE SPREAD OF INVASIVE SPECIES. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EVALUATE WORK AREAS FOR THE PRESENCE OF INVASIVE SPECIES, AND IF FOUND SHALL TAKE NECESSARY MEASURES TO PREVENT THEIR SPREAD IN ACCORDANCE WITH RSA 430:51-57 AND AGR 3800. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO PREVENT THE INTRODUCTION OF INVASIVE SPECIES BY INSPECTING AND CLEANING ALL EQUIPMENT ARRIVING ON SITE.
- 2. FUGITIVE DUST SHALL BE CONTROLLED IN ACCORDANCE WITH ENV-A 1000.

CONSTRUCTION NOTES

FOR SEDIMENT FENCE

2. FILTER CLOTH TO BE FASTENED

WOVEN WIRE FENCE, IF REOUIRED,

TO BE FASTENED SECURELY TO FENCE

POSTS WITH WIRE TIES OR STAPLES.

SECURELY TO WOVEN WIRE FENCE

WITH TIES SPACED EVERY 24" AT

TOP, MID SECTION, AND BOTTOM.

INCHES, FOLDED AND STAPLED.

5. 12" DIAMETER FILTREXX SILTSOXX

RECOMMENDATIONS.

3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY 6

4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND

SHALL BE CONSIDERED AN ACCEPTABLE EQUAL TO

SEDIMENT FENCE IF INSTALLED PER MANUFACTURER'S

MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SEDIMENT FENCE, OR 50% OF CAPACITY IS USED.

COLD WEATHER SITE STABILIZATION REQUIREMENTS

- TO ADEQUATELY PROTECT WATER QUALITY DURING COLD WEATHER AND DURING SPRING RUNOFF, THE FOLLOWING ADDITIONAL STABILIZATION TECHNIQUES SHALL BE EMPLOYED DURING THE PERIOD FROM OCTOBER 15 THROUGH MAY 1:
- THE AREA OF EXPOSED, UNSTABILIZED SOIL SHALL BE LIMITED TO 1 ACRE AND SHALL BE PROTECTED AGAINST EROSION BY THE METHODS DESCRIBED IN THIS SECTION PRIOR TO ANY THAW OR SPRING MELT EVENT. THE ALLOWABLE AREA OF EXPOSED SOIL MAY BE INCREASED IF A WINTER CONSTRUCTION PLAN, DEVELOPED BY A QUALIFIED ENGINEER OR A CPESC SPECIALIST, IS REVIEWED AND APPROVED BY NHDES.
- 2. ALL PROPOSED VEGETATED AREAS HAVING A SLOPE OF LESS THAN 15% WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE SEEDED AND COVERED WITH 3 TO 4 TONS OF HAY OR STRAW MULCH PER ACRE, SECURED WITH ANCHORED NETTING OR TACKIFIER, OR 2 INCHES OF EROSION CONTROL MIX MEETING THE CRITERIA OF ENV-WQ 1506.05(D) THROUGH (H).
- 3. ALL PROPOSED VEGETATED AREAS HAVING A SLOPE OF GREATER THAN 15% WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE SEEDED AND COVERED WITH PROPERLY INSTALLED AND ANCHORED EROSION CONTROL MATTING OR WITH A MINIMUM 4 INCH THICKNESS OF EROSION CONTROL MIX MEETING THE CRITERIA OF ENV-WQ 1506.05(D) THROUGH (H).
- 4. INSTALLATION OF ANCHORED HAY MULCH OR EROSION CONTROL MIX, MEETING THE CRITERIA OF ENV-WQ 1506.05(D) THROUGH (H), SHALL NOT OCCUR OVER SNOW OF GREATER THAN 1 INCH IN DEPTH.
- 5. INSTALLATION OF EROSION CONTROL MATTING SHALL NOT OCCUR OVER SNOW OF GREATER THAN ONE INCH IN DEPTH OR ON FROZEN GROUND.
- 6. ALL PROPOSED STABILIZATION IN ACCORDANCE WITH NOTES 2 OR 3 ABOVE, SHALL BE COMPLETED WITHIN 1 DAY OF ESTABLISHING THE GRADE THAT IS FINAL OR THAT OTHERWISE WILL EXIST FOR MORE THAN 5 DAYS.
- 7. ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS, AS DETERMINED BY THE OWNER'S ENGINEERING CONSULTANT.
- 3. AFTER OCTOBER 15, INCOMPLETE ROAD OR PARKING AREAS WHERE ACTIVE CONSTRUCTION OF THE ROAD OR PARKING AREA HAS STOPPED FOR THE WINTER SEASON SHALL BE PROTECTED WITH A MINIMUM 3 INCH LAYER OF BASE COURSE GRAVELS MEETING THE GRADATION REQUIREMENTS OF NHDOT STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION, 2016, ITEM NO. 304.1 OR 304.2.

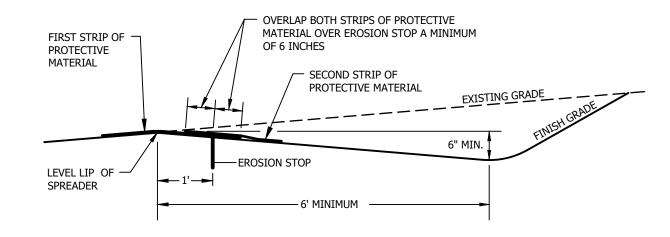
— 36" MIN. FENCE POSTS, DRIVEN

EMBED FILTER CLOTH -

MIN. 8" INTO GROUND

LEVEL LIP SPREADER INSTALLATION

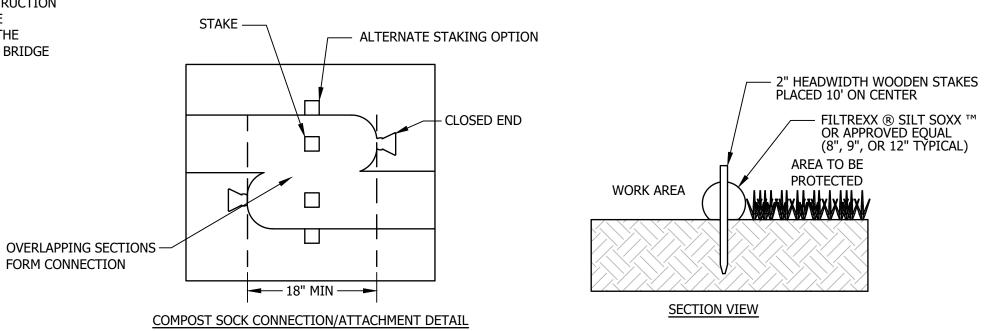
- 1. CONSTRUCT THE LEVEL SPREADER LIP ON A ZERO PERCENT GRADE TO INSURE UNIFORM SPREADING OF RUNOFF.
- 2. LEVEL SPREADER SHALL BE CONSTRUCTED ON UNDISTURBED SOIL AND NOT ON FILL.
- 3. AN EROSION STOP SHALL BE PLACED VERTICALLY A MINIMUM OF SIX INCHES DEEP IN A SLIT TRENCH ONE FOOT BACK OF THE LEVEL LIP AND PARALLEL TO THE LIP. THE EROSION STOP SHALL EXTEND THE ENTIRE LENGTH OF THE LEVEL LIP.
- 4. THE ENTIRE LEVEL LIP AREA SHALL BE PROTECTED BY PLACING TWO STRIPS OF JUTE OR EXCELSIOR MATTING ALONG THE LIP. EACH STRIP SHALL OVERLAP THE EROSION STOP BY AT LEAST SIX INCHES.
- 5. THE ENTRANCE CHANNEL TO THE LEVEL SPREADER SHALL NOT EXCEED A 1 PERCENT GRADE FOR AT LEAST 50 FEET BEFORE ENTERING INTO THE SPREADER.
- 6. THE FLOW FROM THE LEVEL SPREADER SHALL OUTLET ONTO STABILIZED AREAS. WATER SHOULD NOT RE-CONCENTRATE IMMEDIATELY BELOW THE SPREADER.
- 7. PERIODIC INSPECTION AND REQUIRED MAINTENANCE SHALL BE PERFORMED.
- 8. PROTECTIVE MATERIAL AND EROSION STOP SHALL BE NORTH AMERICAN GREEN C125 EROSION CONTROL BLANKET OR APPROVED EQUAL.

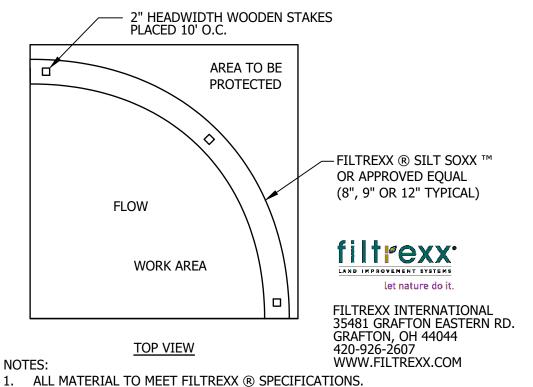


LEVEL SPREADER DETAIL

SOURCE: ROCKINGHAM COUNTY CONSERVATION SERVICE

NO SCALE



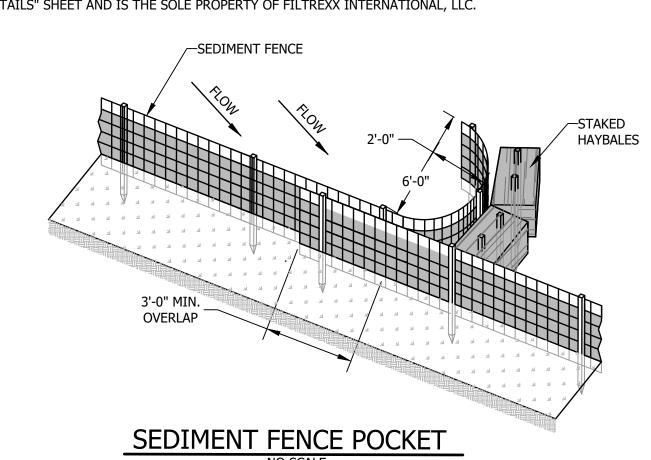


SILT SOXX ™ FILL TO MEET APPLICATION REQUIREMENTS. 3. COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY ENGINEER.

FILTREXX® SILT SOXX™ DETAILS

NOT TO SCALE

SOURCE: https://www.filtrexx.com/en/resources/design-specs-cads/filtrexx-cad-files THIS DETAIL IS ADAPTED FROM "FILTREXX ® SILT SOXX ™ & SEDIMENT TRAPP ™ DETAILS" SHEET AND IS THE SOLE PROPERTY OF FILTREXX INTERNATIONAL, LLC.



NH STATE PARKS

Land Surveying and Environmental Consulting

MAINE • NEW HAMPSHIRE • VERMONT

176 Newport Road, Suite 8; New London NH 03255

(603) 877-0116 www.horizonsengineering.com

Campground Expansion Project Pl **Pawtuckaway State Park** 7 Pawtuckaway Road Nottingham, NH 03290

80% DESIGN

Graphic Scale

North

Scale: Varies

Date: December 1, 2023

Drawn By: SJB

Checked By: WTD

Issues: Date Description

Title

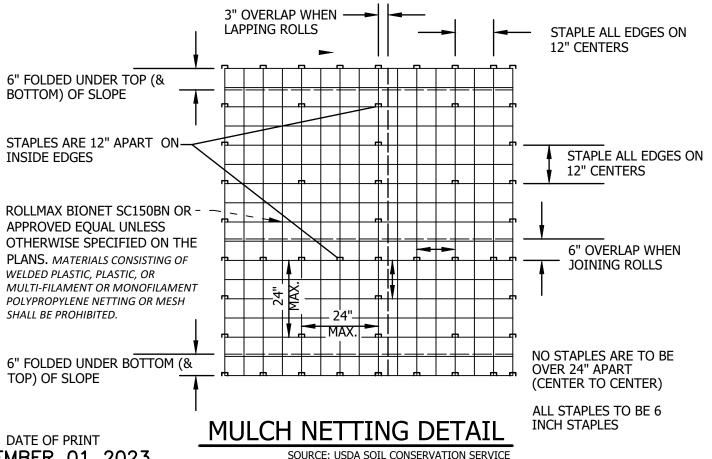
DETAILS EROSION CONTROL

Sheet Number:

C5.0

File: 220838_base-01_pawtuckaway.dwg

- USUALLY THE KEY TO FULLY COMPLETE THE ESTABLISHMENT OF THE STAND BECAUSE MOST PERENNIALS TAKE 2 TO 3 YEARS TO BECOME ESTABLISHED.
- C. IN WATERWAYS, CHANNELS, OR SWALES WHERE UNIFORM FLOW CONDITIONS ARE ANTICIPATED, OCCASIONAL MOWING MAY BE NECESSARY TO CONTROL GROWTH OF WOODY VEGETATION.



— 2"-3" STONE, TYP. **SECTION VIEW**

WOVEN WIRE FENCE -

MAX. 6" MESH SPACING) WITH FILTER CLOTH OVER

<u>+ FLOW+ +</u>

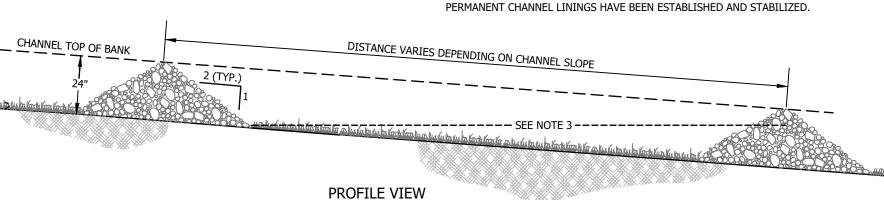
UNDISTURBED GROUND -

SEDIMENT FENCE

NO SCALE

(14-1/2 GA. MIN.,

- 1. CONSTRUCT ROCK CHECK DAMS WHERE INDICATED ON THE PLANS OR AS NECESSARY
- 2. CONSTRUCT SPILLWAY IN CENTER OF ROCK CHECK DAM 6" BELOW TOP OF CHANNEL 3. THE MAXIMUM SPACING BETWEEN THE CHECK DAMS SHOULD BE SUCH THAT THE TOE
- OF THE UPSTREAM CHECK DAM IS AT THE SAME ELEVATION AS THE SPILLWAY ELEVATION OF THE DOWNSTREAM CHECK DAM, THIS WILL VARY DEPENDING ON THE SLOPE OF THE CHANNEL.
- 4. ROCK CHECK DAMS SHALL CONSIST OF A WELL GRADED MIXTURE OF 2" 3" STONE.
- 5. REMOVE ROCK CHECK DAMS AND ANY ACCUMULATED SILT IN CHANNEL ONCE



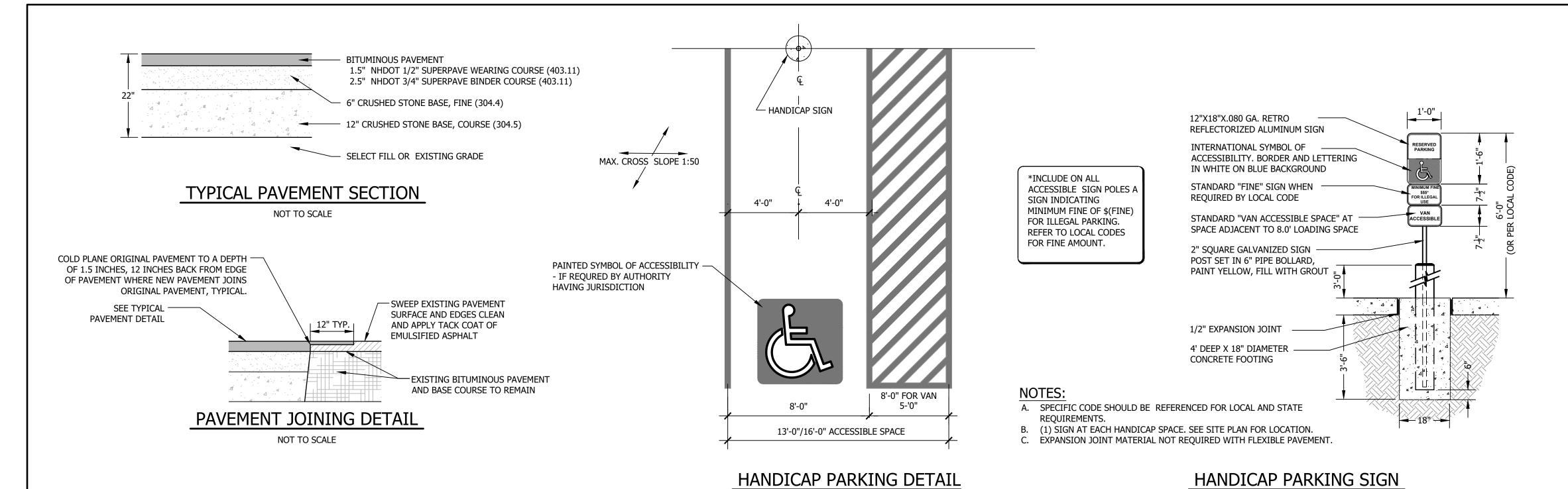
ROCK CHECK DAM DETAIL

DECEMBER 01 2023 All rights reserved HORIZONS ENGINEERING

NO SCALE

NO SCALE

Project Number: 23045001



NOT TO SCALE

ROCKERY WALL NOTES 1. THE WALL DETAIL(S) DEPICTED ON THESE PLANS ARE CONCEPTUAL. SITE SPECIFIC DESIGN SHOULD BE COMPLETED BY 0.3 H A GEOTECHNICAL ENGINEER BASED ON SITE SPECIFIC SOIL AND (MIN. 19") GROUNDWATER CONDITIONS AT THE WALL LOCATIONS. 2. WALL CONSTRUCTION AND INSPECTION SHOULD BE COMPLETED IN ACCORDANCE WITH ROCKERY DESIGN AND CONSTRUCTION GUIDELINES, FHWA-CFL/TD-06-006, NOVEMBER 2006. . EXCAVATIONS SHALL BE EXTENDED TO AT LEAST 2.5 FEET BELOW FINISH GRADE TO ALLOW FOR WALL EMBEDMENT AND LEVELING COURSE. THE BASE OF THE EXCAVATION SHALL BE

INCLINED BACK AWAY FROM THE FACE OF THE ROCKERY, AT 5 4. ROCKS SHOULD BE PLACED IN ROWS SUCH THAT BASE ROCKS CONSIST OF LARGEST DIAMETER AND WEIGHT ROCKS AND EACH SUCCEEDING ROW CONSISTS OF SMALLER DIAMETER ROCKS. BASE ROCKS SHALL BE EQUAL TO ABOUT 1/2 THE WALL HEIGHT AND NOT LESS THAN 4 FEET IN DIAMETER. CAP ROCKS SHALL BE EQUAL TO ABOUT 1/3 THE WALL HEIGHT AND NOT LESS THAN 19 INCHES IN DIAMETER. 5. ROCKS SHALL BE HARD, ANGULAR AND DURABLE. THEY MUST BE ABLE TO RESIST PHYSICAL, CLIMATIC, AND CHEMICAL DECOMPOSITION. ROCKS SHOULD BE ROUGHLY RECTANGULAR,

TABULAR OR CUBIC IN SHAPE. ROUNDED COBBLES OR BOULDERS MUST NOT BE USED. 6. ROCKS SHOULD BE PLACED WITH LONGEST DIMENSION PERPENDICULAR TO ROCKERY FACE. THE ROCKS SHOULD BE PLACED SUCH THAT THEY SLOPE DOWNWARD AT LEAST 5 PERCENT TOWARDS THE BACK OF THE ROCKERY. 7. THE ROCKERY FACE BATTER SHOULD BE 4V:1H OR FLATTER.

o EACH ROCK SHOULD BEAR ON AT LEAST TWO OTHER o EACH ROCK SHOULD HAVE AT LEAST THREE BEARING POINTS - TWO IN FRONT AND ONE IN BACK. o THE FRONT-MOST BEARING POINTS FOR EACH ROCK SHOULD BEWITHIN 150MM (6IN) OF THE AVERAGE FACE OF

THE ROCKERY. o THE REAR OF THE ROCKS SHOULD BE ALIGNED ALONG AN IMAGINARY VERTICAL PLANE. IF ROCKS LARGER THAN THE MINIMUM SPECIFIED BASE WIDTH (B) ARE USED, THEY CAN EXTEND BEYOND THIS IMAGINARY PLANE PROVIDED THEY DO NOT INTERFERE WITH ROCKERY DRAINAGE OR REINFORCED ZONE.

8. THERE SHOULD BE NO VERTICAL COLUMNS OF ROCK OR CONTINUOUS VERTICAL JOINTS BETWEEN MULTIPLE ROWS OF 9. ROCK WIDTH SHALL BE LARGE ENOUGH TO EXTEND FROM THE FRONT FACE TO THE BACK OF THE ROCKERY AT EACH LEVEL. 10. PLACE BASE, FACING AND CAP ROCKS SO THAT THEIR HEIGHT DIMENSION IS NOT GREATER THAN THEIR WIDTH. THE LONGEST DIMENSION OF THE BASE, FACING, AND CAP ROCKS IS

PERPENDICULAR TO FACE OF ROCKERY. 11. VOIDS BETWEEN ROCKS SHOULD BE AVOIDED AS MUCH AS POSSIBLE. HOWEVER, IN AREAS WHERE VOIDS EXIST, THE VOIDS SHALL BE CHINKED. CHINK ROCKS SHOULD CONSIST OF SPALLS FROM THE PARENT (FACING) ROCK. CHINK ROCKS SHOULD NOT BE MOVABLE BY HAND AND SHOULD BE GROUTED IN PLACE WHERE APPROPRIATE, CHINKING ROCKS SHOULD NOT BE USED AS A MEANS OF SUPPORT FOR OVERLYING FACING

THAN THE OTHER FACING ROCKS USED IN THE ROCKERY. CAP ROCKS SHALL HAVE A WEIGHT OF AT LEAST 200 POUNDS. CAP ROCKS SHOULD NOT BE MOVABLE BY HAND. REGARDLESS OF SIZE, CAP ROCKS SHALL BE GROUTED IN PLACE TO REDUCE THE POTENTIAL FOR DISLODGING.

ROCKERIES. CAP ROCKS ARE TYPICALLY SMALLER AND FLATTER

13. CRUSHED ROCK SHOULD CONSIST OF CRUSHED, WASHED, HARD, DURABLE ROCK MEETING THE FOLLOWING GRADATION

12. CAP ROCKS ARE THE TOP ROW OF FACING ROCKS FOR

75MM (NO. 200)

100MM (4 IŃ) 19.0MM (3/4 IN) 0.0 - 154.75MM (NO. 4) 0.0 - 5.0

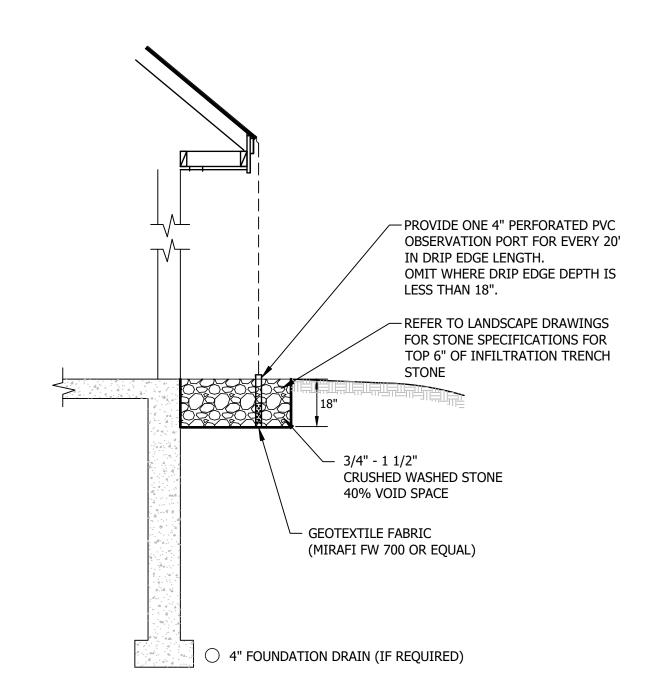
14. WHERE LOOSE, SOFT, OR OTHERWISE UNSUITABLE FOUNDATION SOIL CONDITIONS ARE ENCOUNTERED, CONTACT THE ENGINEER FOR SUPPLEMENTAL RECOMMENDATIONS.

15. DISCHARGE OUTLET PIPES TO A PROTECTED OUTLET OR OTHER PERMANENET DRAINAGE STRUCTURE AT LOW POINTS IN THE ROCKERY. DRAIN OUTLETS SHOULD NOT EMPTY INTO STORM DRAINS THAT ARE DESIGNED TO BACK-UP DURING HEAVY

16. STABILITY OF TEMPORARY CUT SLOPES IS THE RESPONSIBILITY OF THE CONTRACTOR. 17. DO NOT CONSTRUCT ROCKERIES OR SLOPES EXCEEDING THE HEIGHTS SHOWN ON THE PLAN.

CONSTRUCTION SEQUENCE

- 1. PREPARE AN EROSION CONTROL PLAN OR A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REQUIREMENTS.
- 2. INSTALL CONSTRUCTION ENTRANCE, SEE DETAIL.
- 3. CUT AND CLEAR TREES WITHIN THE CLEARING LIMITS.
- 4. INSTALL SEDIMENT FENCES, ROCK CHECK DAMS, AND OTHER APPROPRIATE EROSION CONTROL MEASURES AT LOCATIONS SHOWN ON THE PLANS AND AS NEEDED.
- 5. GRUB SITE WITHIN GRADING LIMITS.
- 6. STRIP AND STOCKPILE TOPSOIL AND INSTALL EROSION CONTROL MEASURES.
- 7. INSTALL/ADJUST SEDIMENT FENCE, CHECK DAMS, AND HAYBALES, AS REQUIRED.
- 8. CONSTRUCT PERMANENT STORMWATER CONTROLS AS SOON AS PRACTICAL. DO NOT DIRECT STORMWATER TOWARD TREATMENT BASINS, PONDS, SWALES, DITCHES AND LEVEL SPREADERS UNTIL THEY HAVE BEEN STABILIZED.
- 9. PROCEED WITH WORK, LIMITING THE DURATION OF DISTURBANCE. THE MAXIMUM OF UNCOVERED DISTURBED EARTH AT ANY ONE TIME IS FIVE ACRES. THE MAXIMUM LENGTH OF TIME THAT DISTURBED EARTH MAY BE LEFT UNSTABILIZED IS 45 DAYS.
- 10. BEGIN SEEDING AND MULCHING IMMEDIATELY AFTER GRADING. ALL DISTURBED AREAS SHALL BE STABILIZED WITH APPROVED METHODS WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
- AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED: A) BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED; B) A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED; C) A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIPRAP HAS BEEN INSTALLED; OR
- D) EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
- 11. INSPECT ALL EROSION CONTROL MEASURES ON A DAILY BASIS AND AFTER EVERY 0.5 INCHES OF PRECIPITATION. MAINTAIN SEDIMENT FENCE, SEDIMENT TRAPS, HAY BALES, ETC., AS NECESSARY.
- 12. PAVE ROADWAYS AND/OR PARKING AREAS.
- 13. PLACE TOPSOIL, SEED AND MULCH.
- 14. COMPLETE ALL REMAINING PERMANENT EROSION CONTROL STRUCTURES.
- 15. MONITOR THE SITE AND MAINTAIN STRUCTURES AS NEEDED UNTIL FULL VEGETATION IS ESTABLISHED.



INFILTRATION STONE DRIP EDGE DETAIL NOT TO SCALE

NH STATE PARKS

Land Surveying and Environmental Consulting

MAINE • NEW HAMPSHIRE • VERMONT

176 Newport Road, Suite 8; New London NH 03255

(603) 877-0116

www.horizonsengineering.com

Campground Expansion Project PII Pawtuckaway State Park 7 Pawtuckaway Road Nottingham, NH 03290

Graphic Scale

North

80% DESIGN

Scale: Varies

Date: December 1, 2023

Drawn By: SJB

Checked By: WTD

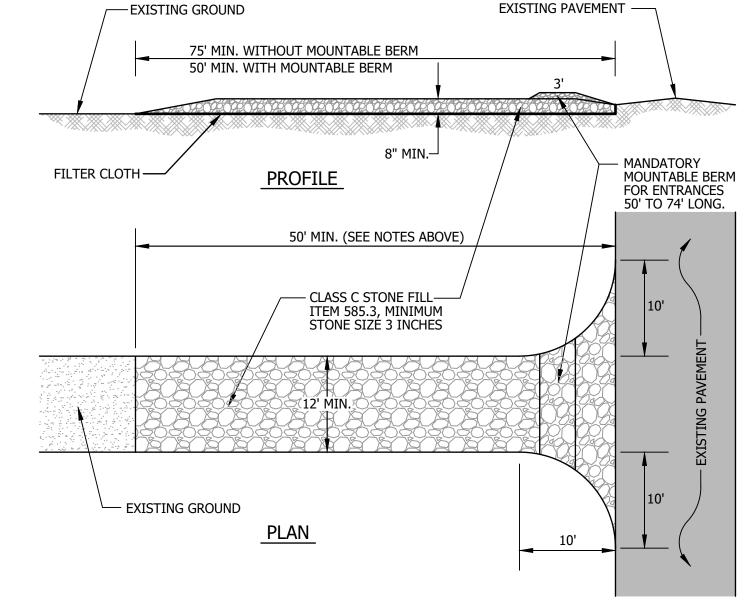
Issues: Date Description 00/00/00 Name

DETAILS MISCELLANEOUS

Sheet Number:

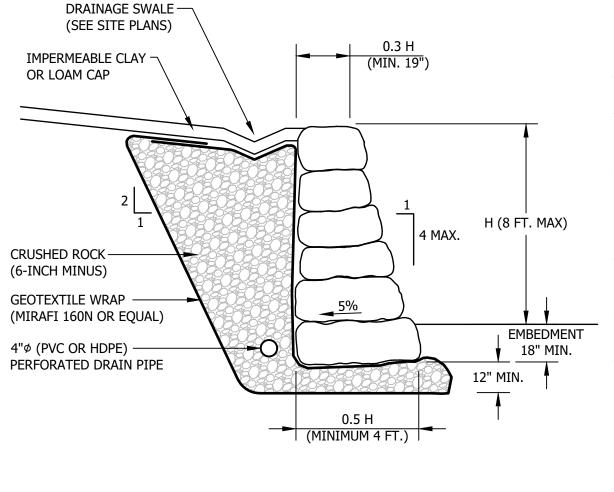
C5.1

Project Number: 23045001 File: 220838_base-01_pawtuckaway.dwg



STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE



NOT TO SCALE

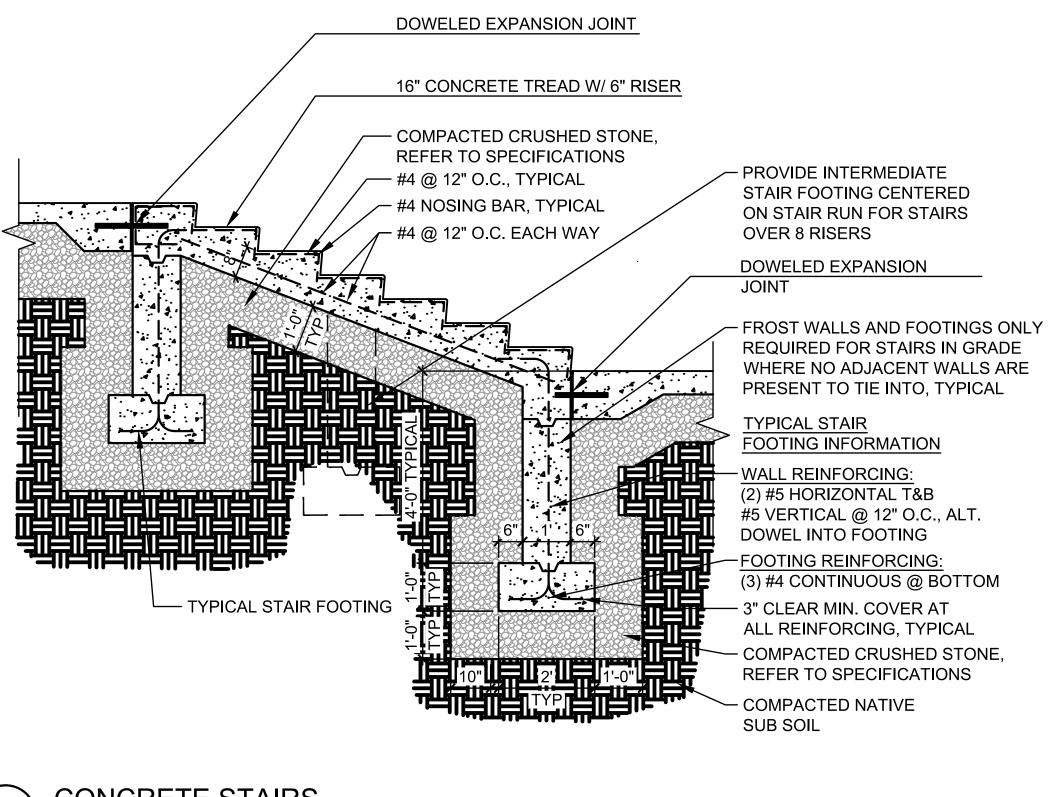
ROCKERY WALL DETAIL

DATE OF PRINT **hogizens** DECEMBER 01 2023 All rights reserved HORIZONS ENGINEERING

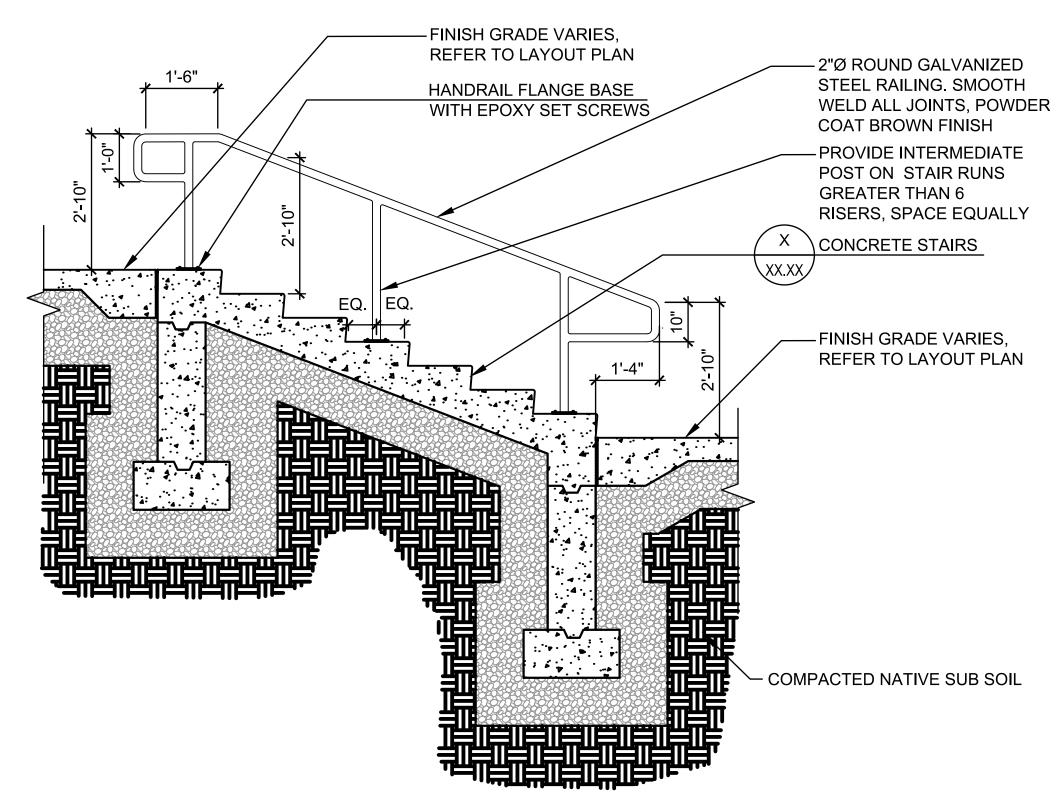
NOTES:

 REFER TO LAYOUT DRAWINGS FOR HORIZONTAL LAYOUT INFORMATION
 CONTRACTOR TO VERIFY NUMBER OF TREADS/RISERS ON LAYOUT AND GRADING PLANS.

3. ALL CONCRETE TO BE 4000PSI MIN.



NOTES:
1. CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR HANDRAILS.



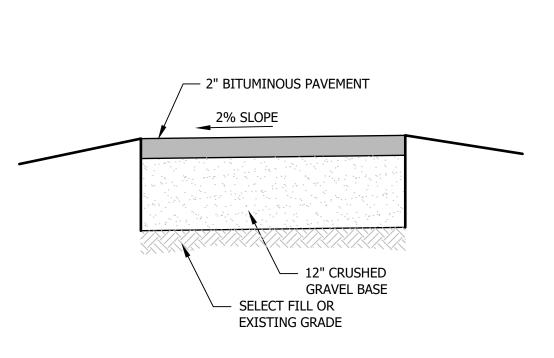
\ HANDRAIL AT STAIRS

SCALE: 1/2" = 1'-0" d-concrete stairs-handrail.dwg

CONCRETE STAIRS

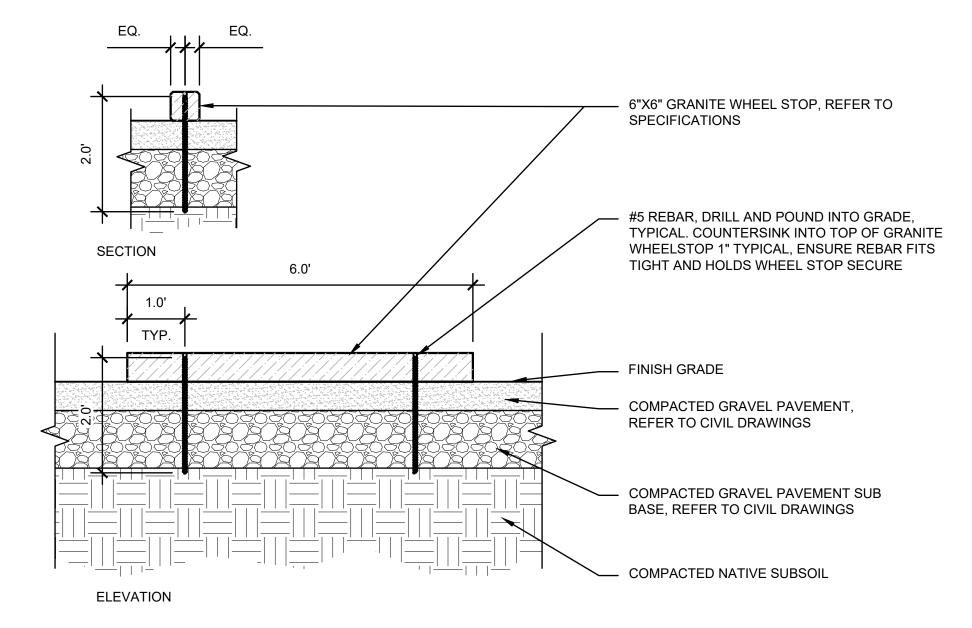
SCALE: 1/2" = 1'-0"

d-concrete stairs.dwg



BITUMINOUS CONCRETE PATHWAY

NOT TO SCALE



GRANITE WHEEL STOP DETAIL

1" = 2.0'

Civil and Structural Engineering

Land Surveying and Environmental Consulting

MAINE • NEW HAMPSHIRE • VERMONT

176 Newport Road, Suite 8; New London NH 03255

(603) 877-0116 www.horizonsengineering.com

NH STATE PARKS

Campground Expansion Project PII
Pawtuckaway State Park
7 Pawtuckaway Road
Nottingham, NH
03290

Iss

80% DESIGN

Graphic Scale

Scale: Varies

Date: December 1, 2023

Drawn By: SJB

Checked By: WTD

Issu	es:	
No.	Description	Date
1	Name	00/00/00
\vdash		
\vdash		

Title

DETAILS MISCELLANEOUS

Sheet Number:

C5.2

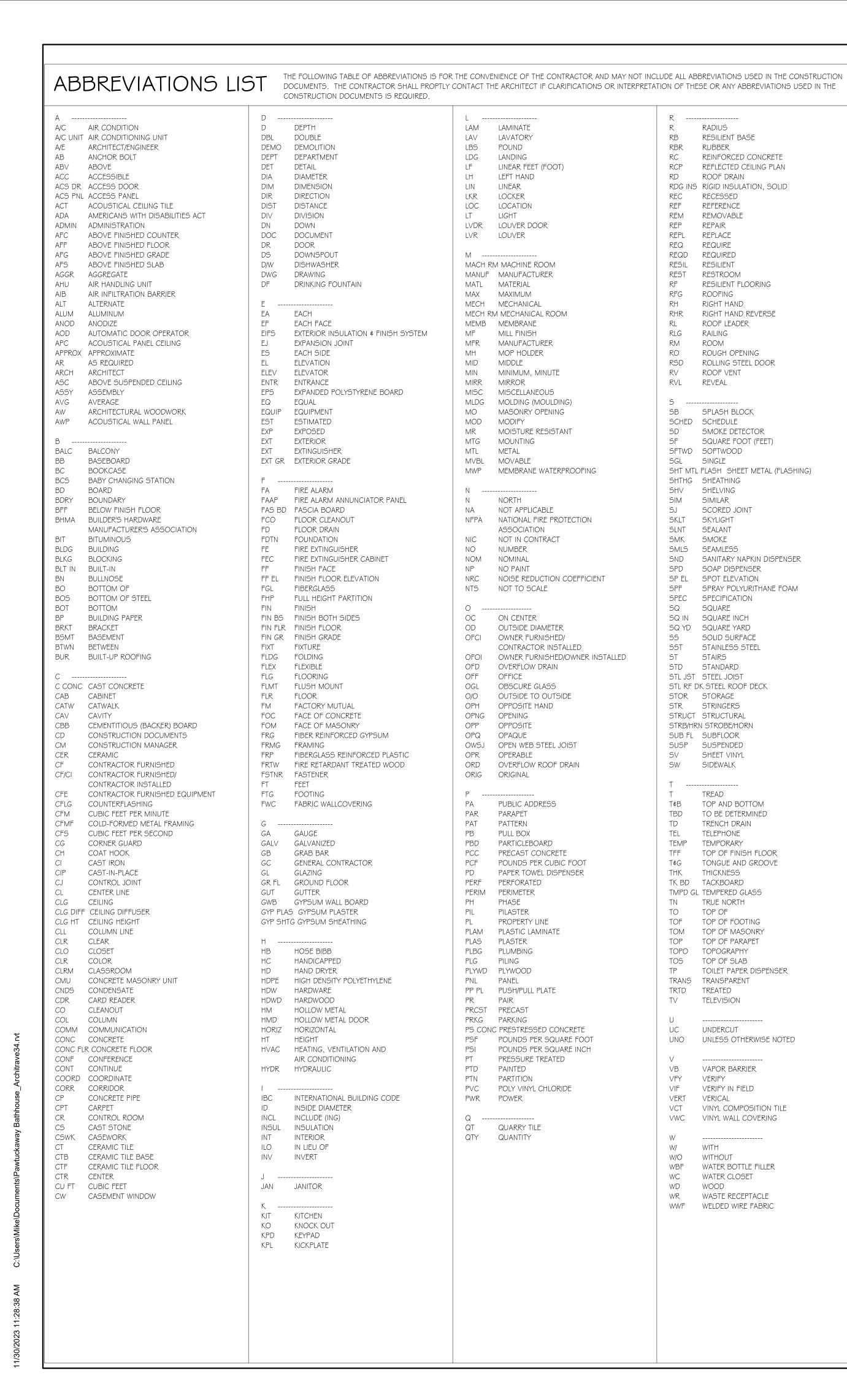
Project Number: 23045001

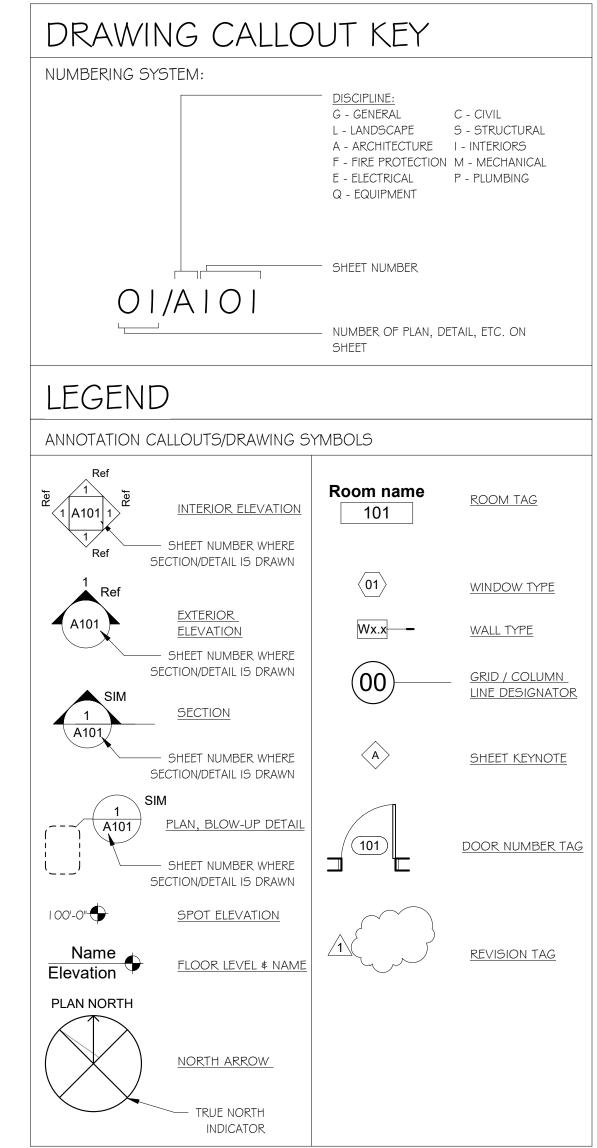
File: 220838_base-01_pawtuckaway.dwg

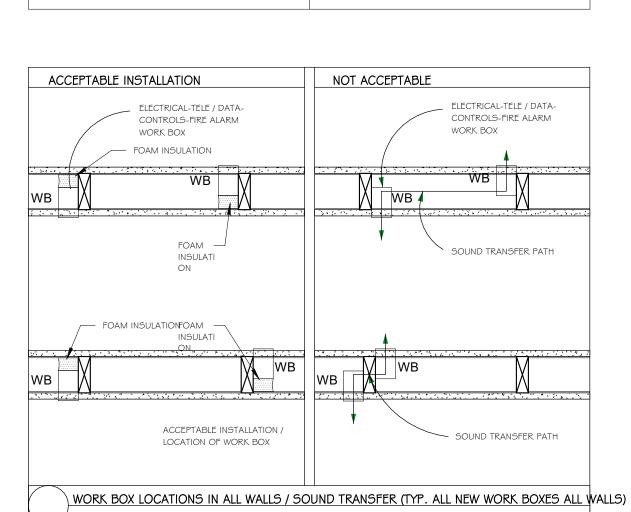
© 2023 DATE OF PRINT

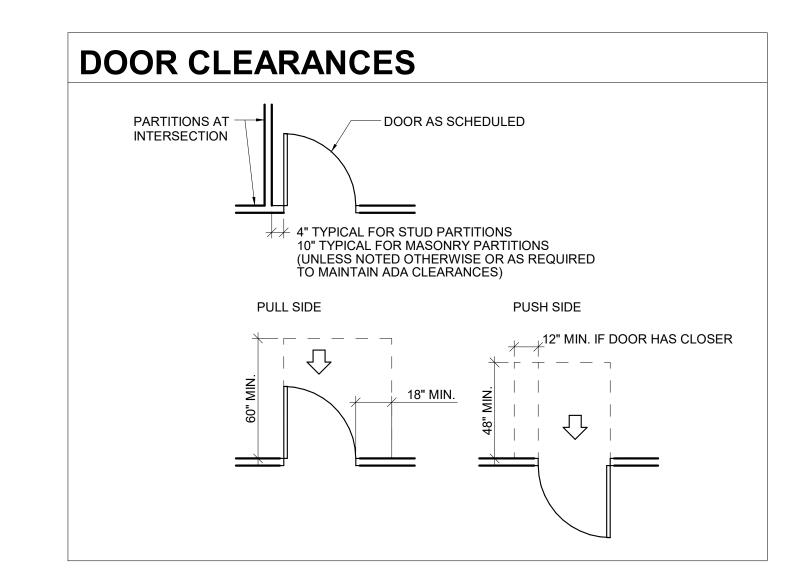
TOPIZOUS DECEMBER 01 2023

All rights reserved HORIZONS ENGINEERING









SAMYN - D'ELIA ARCHITECTS, P.A.

P.O. Box 229 Holderness, NH 03245 tel: (603) 968-7133

HVAC, Elec. & Plumb. Engineer: Charles P. Buckley, P.E. 500 Depot Street Rumney, NH 03266 tel: (603) 786-9992

Structural Engineer:
Fisher Engineering, P.C.
686 Belknap Mountain Road
Gilford, NH 03249
tel: (603) 528-7641

NH STATE PARKS

Campground Expansion Project PII
Pawtuckaway State Park
7 Pawtuckaway Road
Nottingham, NH
03290

900/ DECICAL

80% DESIGN

Graphic Scale

Scale: As indicated

Date: Dec. 1, 2023

Drawn By: MR

Checked By: WD

ISSU	28.	
No.	Description	Date

Title

GENERAL NOTES, ABBREVIATIONS, ANNOTATIONS LEGENDS, & WALL TYPES Sheet Number:

A0.01

Project Number: 2136A

- ~ NH STATE BUILDING CODE RSA 155-A - INTERNATIONAL BUILDING CODE (IBC) - 2018 EDITION, AS AMENDED
- ~ NEW HAMPSHIRE SAF-C 6000 FIRE CODE - NFPA | FIRE CODE - 2018 EDITION
- NFPA 101 LIFE SAFETY CODE 2018 EDITION CHAPTER 36, "NEW MERCANTILE"
- ~ INTERNATIONAL ENERGY CONSERVATION CODE (IECC) 2018 EDITION ~ INTERNATIONAL PLUMBING CODE (IPC) - 2018 EDITION
- ~ INTERNATIONAL MECHANICAL CODE (IMC) 2018 EDITION
- ~ NATIONAL ELECTRIC CODE (NEC) 2020
- ~ APPLICABLE ACCESSIBILITY CODES \$ STANDARDS: - ICC A | | 7. | -2003 - ACCESSIBLE & USABLE BUILDINGS & FACILITIES

PROPOSED FACILITY:

- ~ OVERALL FACILITY FIRE PROTECTION
- SPRINKLER SYSTEM NOT REQUIRED (IBC 903.2.7) - FIRE EXTINGUISHERS COMPLYING WITH IBC 906. I
- ~ OCCUPANCY CLASSIFICATION: IBC BUSINESS (B); LSC CHAPTER 38, "NEW BUSINESS OCCUPANCIES"
- ~ CONSTRUCTION CLASSIFICATION: TYPE VB (COMBUSTIBLE, NO RATING)
- ~ BUILDING STORIES \$ HEIGHT (IBC TABLES 504.3 \$ 504.4)
- ALLOWABLE STORIES: 2 STORIES - PROPOSED STORIES: | STORY = <u>COMPLIES</u>
- ALLOWABLE HEIGHT: 40'-0" (TO AVERAGE HEIGHT OF HIGHEST ROOF PLANE) - PROPOSED HEIGHT: 15'-O" = COMPLIES
- ~ BUILDING AREA (IBC TABLE 506.2)
- ALLOWABLE AREA (IST FLOOR PLAN): 9,000 GSF
- PROPOSED AREA (IST FLOOR PLAN): 1,431 GSF = COMPLIES
- STREET FRONTAGE INCREASE (IBC 506.2) NOT REQUIRED - SPRINKLER INCREASE (IBC 506.3) - NOT REQUIRED
- TOTAL PROPOSED GROSS FLOOR AREAS: 1,431 SF

FIRE RESISTANCE RATINGS REQUIREMENTS:

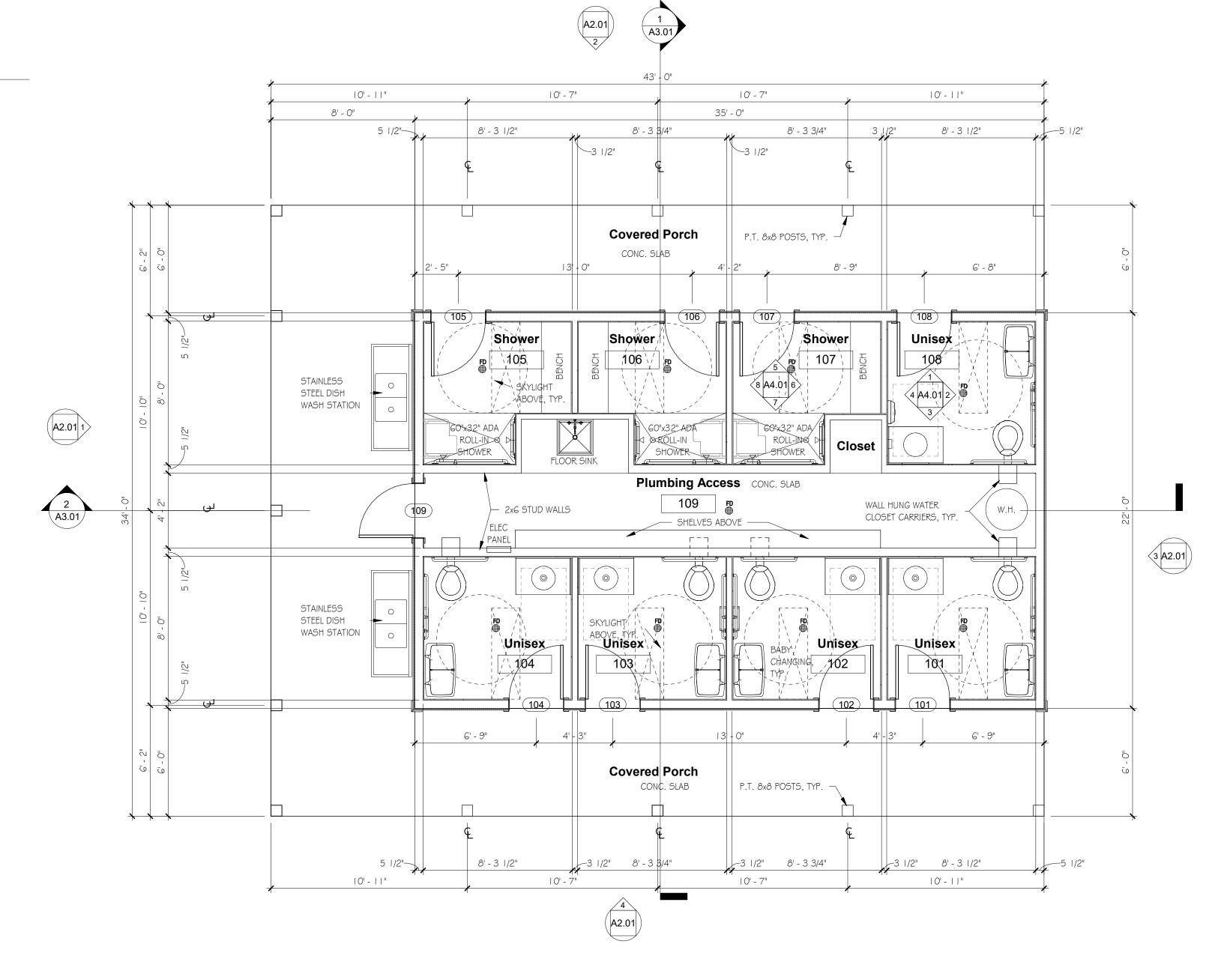
- ~ BUILDING ELEMENTS (TABLE 601) - PRIMARY STRUCTURAL FRAME: O HR - EXTERIOR BEARING WALLS: O HR - INTERIOR BEARING WALLS: O HR - EXTERIOR NON-BEARING WALLS: O HR
- INTERIOR NON-BEARING WALLS: O HR - FLOOR CONSTRUCTION: O HR - ROOF CONSTRUCTION: 0 HR
- MEANS OF EGRESS REQUIREMENTS:
- MAXIMUM TRAVEL DISTANCE: 200 FEET (38.2.6.3) - MAXIMUM DEAD-END CORRIDOR LENGTH: 20 FEET (38.2.5.2) - MAXIMUM COMMON PATH OF TRAVEL: 75 FEET (38.2.5.3.1) - INTERIOR FINISH, FLOORS: NO REQUIREMENTS (38.3.3.3) - INTERIOR FINISH, WALLS AND CEILING: A, B, or C (38.3.3)
- ENERGY CODE MINIMUM THERMAL ENVELOPE REQUIREMENTS:

- BUILDING IS UNWINTERIZED

PLUMBING REQUIREMENTS:

- WATER CLOSETS: I MALE, I FEMALE I MALE, I FEMALE - LAVATORIES: - SHOWERS: - SERVICE SINK:
- ACCESSIBLE TOILET ROOMS: ALL NEW TOILET \$ SHOWER ROOMS ARE REQUIRED TO BE ACCESSIBLE (IBC CHAPTER 11). NH AMENDMENT TO IBC: SINGLE OCCUPANCY TOILETS MAY BE UNISEX PROVIDED THE NUMBER OF WATER CLOSETS COMPLIES WITH TABLE 2902.1.

CODE SUMMARY



Enclosed floor area: 781 sq. ft. Covered porch area: 650 sq. ft. Total building area: 1,431 sq. ft. SAMYN - D'ELIA ARCHITECTS, P.A.

P.O. Box 229 Holderness, NH 03245 tel: (603) 968-7133

HVAC, Elec. & Plumb. Engineer: Charles P. Buckley, P.E. 500 Depot Street Rumney, NH 03266 tel: (603) 786-9992

Structural Engineer:

Fisher Engineering, P.C. 686 Belknap Mountain Road Gilford, NH 03249 tel: (603) 528-7641

NH STATE PARKS

Campground Expansion Project PII Pawtuckaway State Park 7 Pawtuckaway Road Nottingham, NH 03290

80% DESIGN

Graphic Scale

Scale: As indicated

Drawn By: MR

Date: Dec. 1, 2023

Checked By: WD

ISSU	28.	
No.	Description	Date

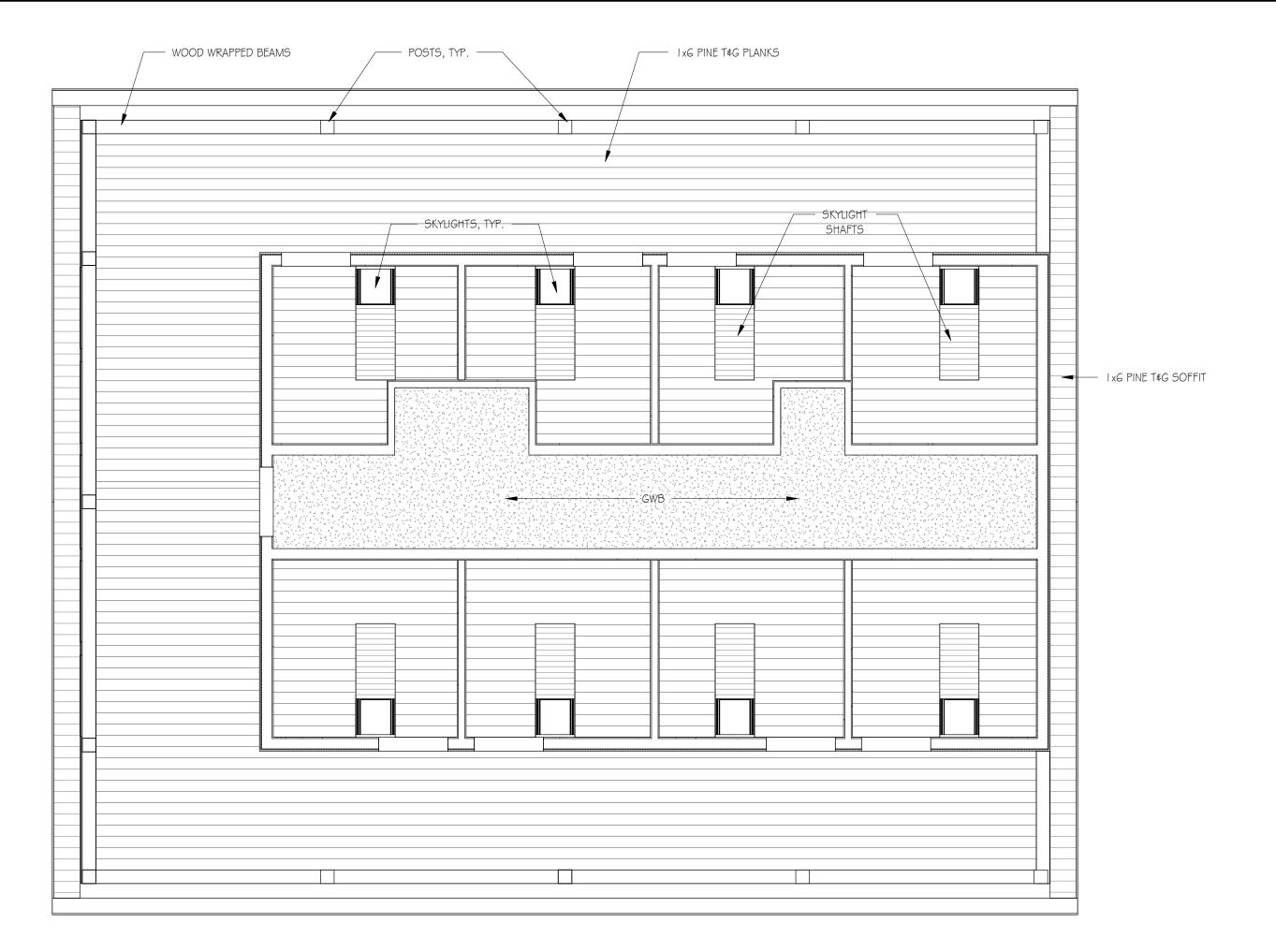
MAIN FLOOR PLAN

Sheet Number:

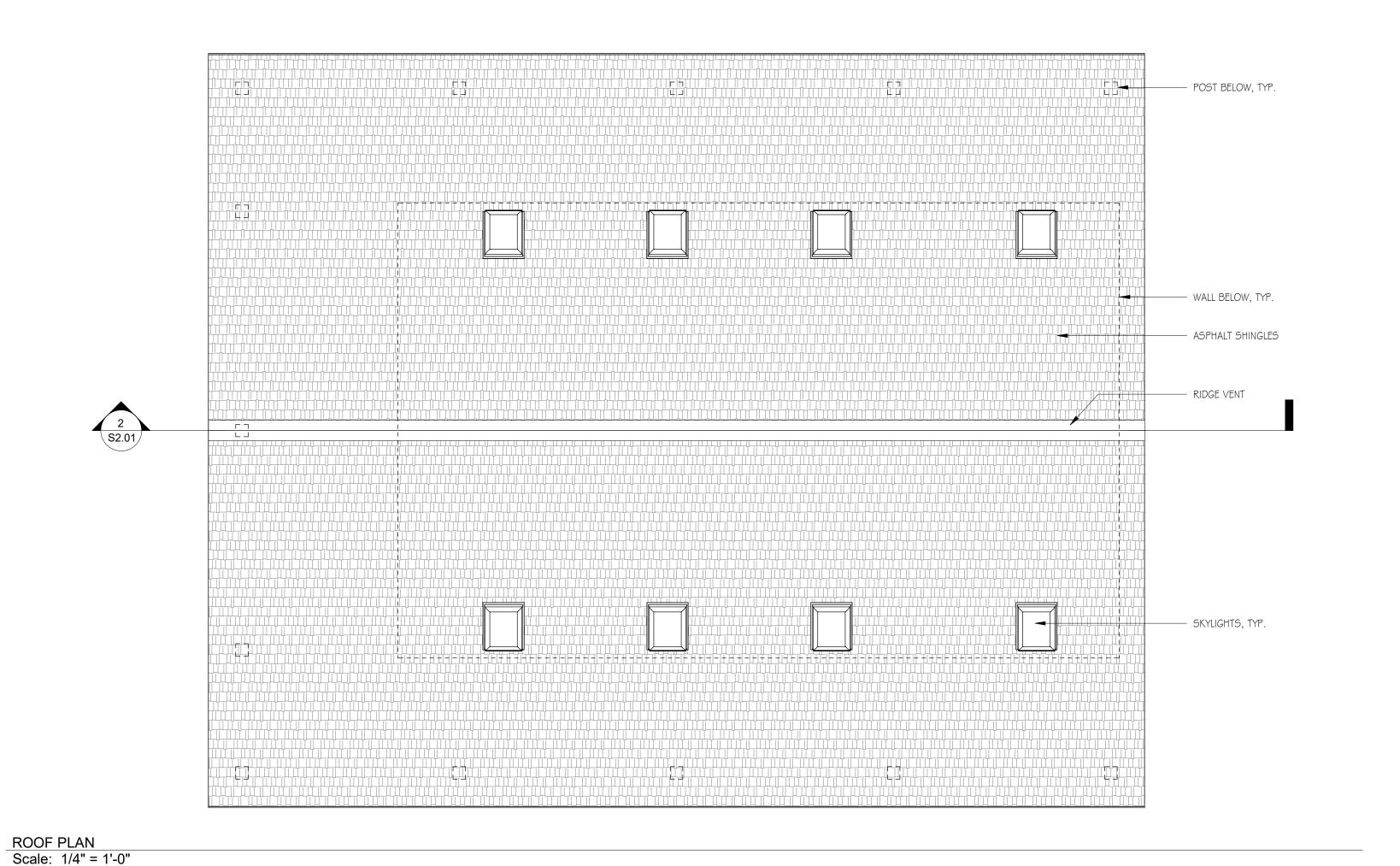
File:

A1.01

Project Number: 2136A



MAIN LEVEL REFLECTED CEILING PLAN
Scale: 1/4" = 1'-0"



SAMYN - D'ELIA ARCHITECTS, P.A.

P.O. Box 229 Holderness, NH 03245 tel: (603) 968-7133

> HVAC, Elec. & Plumb. Engineer: Charles P. Buckley, P.E. 500 Depot Street Rumney, NH 03266 tel: (603) 786-9992

Structural Engineer: Fisher Engineering, P.C. 686 Belknap Mountain Road Gilford, NH 03249 tel: (603) 528-7641

NH STATE PARKS

Campground Expansion Project PII
Pawtuckaway State Park
7 Pawtuckaway Road
Nottingham, NH
03290

Issue

80% DESIGN

Graphic Scale

Scale: 1/4" = 1'-0"

Date: Dec. 1, 2023

Drawn By: MR

Checked By: WD

Issue	es:	
No.	Description	Date
	1	

Title

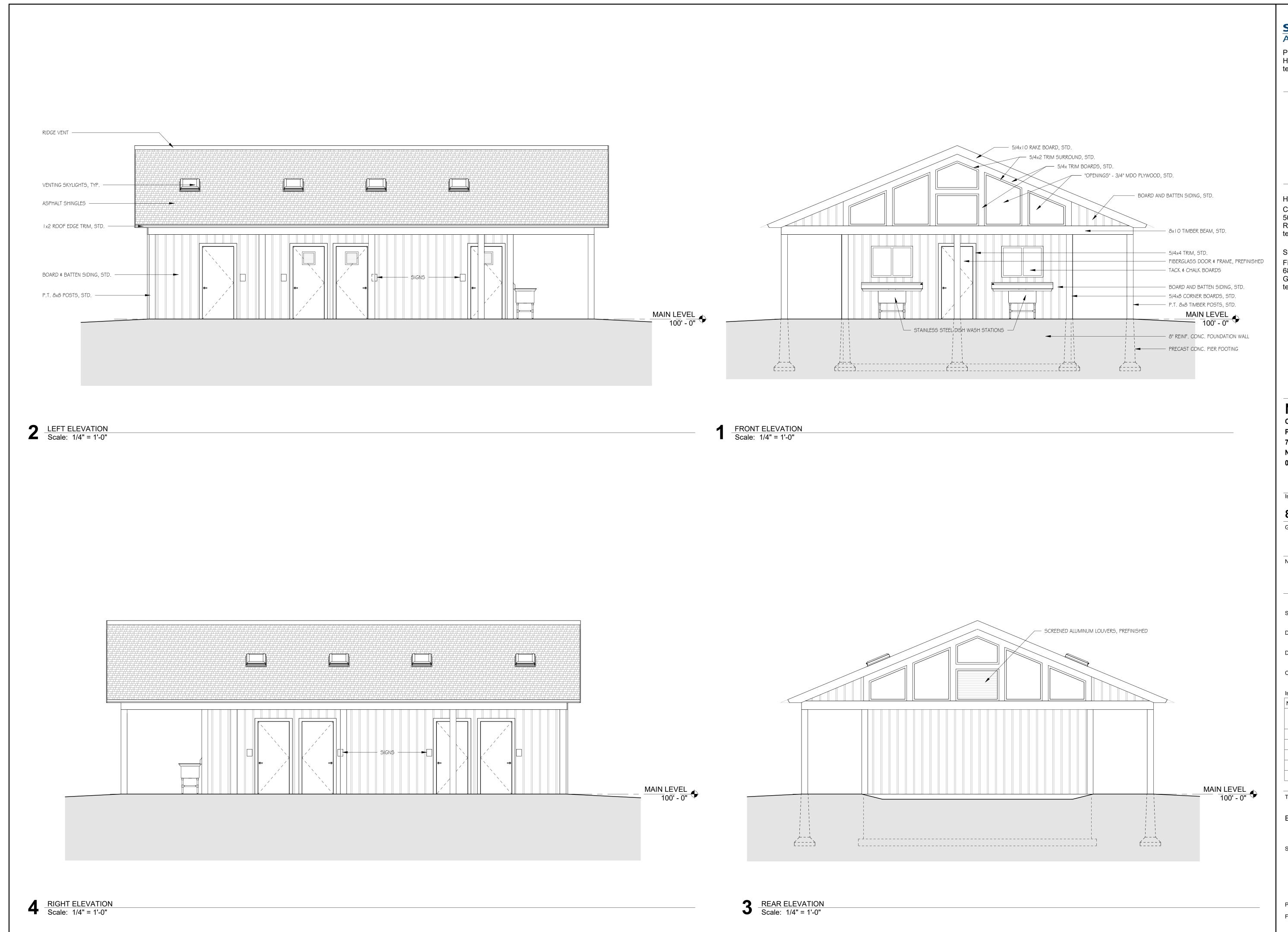
REFLECTED CEILING PLAN & ROOF PLAN

Sheet Number:

A1.02

Project Number: 2136A

e:



SAMYN - D'ELIA ARCHITECTS, P.A.

P.O. Box 229 Holderness, NH 03245 tel: (603) 968-7133

HVAC, Elec. & Plumb. Engineer: Charles P. Buckley, P.E. 500 Depot Street Rumney, NH 03266 tel: (603) 786-9992

Structural Engineer:

Fisher Engineering, P.C. 686 Belknap Mountain Road Gilford, NH 03249 tel: (603) 528-7641

NH STATE PARKS

Campground Expansion Project PII
Pawtuckaway State Park
7 Pawtuckaway Road
Nottingham, NH
03290

Issue

80% DESIGN

Graphic Scale

orth

Scale: 1/4" = 1'-0"

Date: Dec. 1, 2023

Drawn By: MR

Checked By: WD

No. Description Date

itle

EXTERIOR ELEVATIONS

Sheet Number:

A2.01

Project Number: 2136A

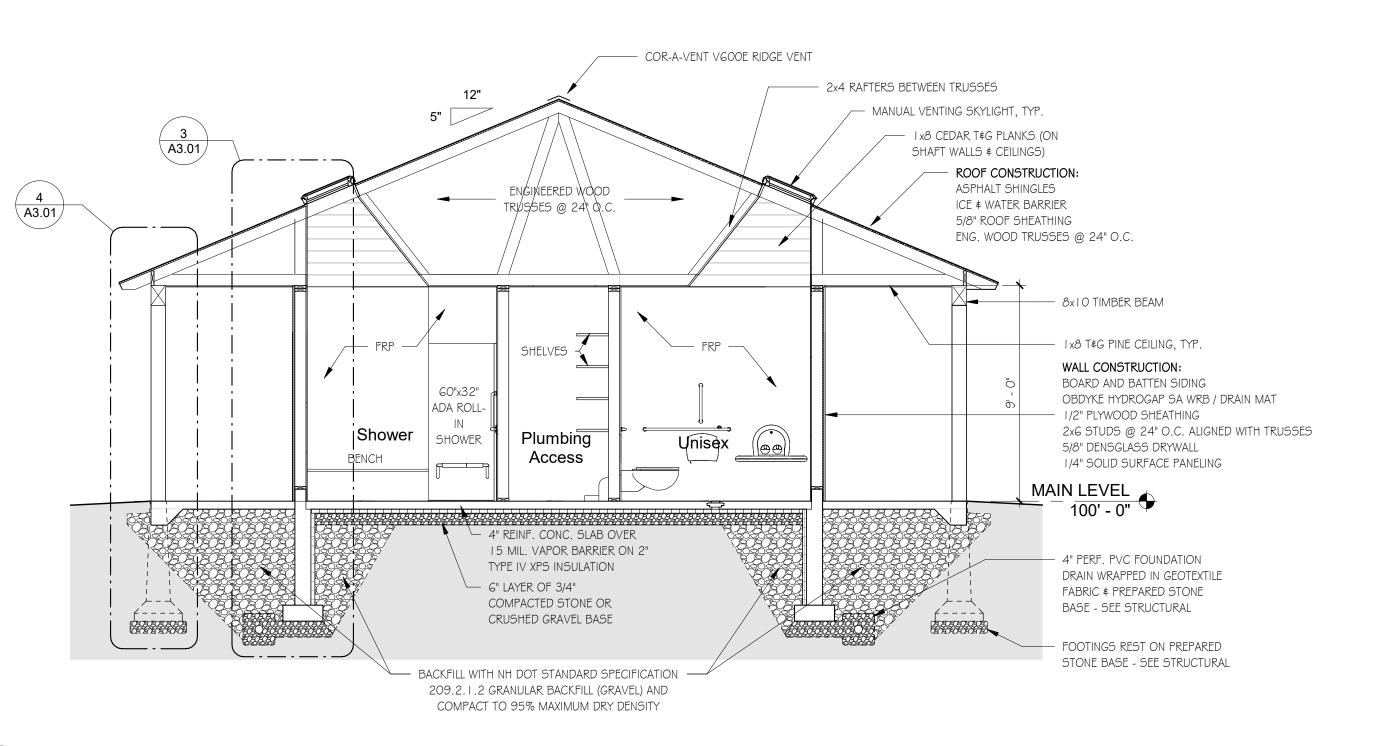
):

3 WALL SECTION 1 Scale: 3/4" = 1'-0"

WALL SECTION 2
Scale: 3/4" = 1'-0"

FACE OF TIMBER BEAM ENGINEERED WOOD TRUSSES @ 24" O.C. + EXHAUST VENT W/ SCREENED LOUVER WALL CONSTRUCTION: (THIS SIDE ONLY) BOARD AND BATTEN SIDING - NO GWB ON STUDS -OBDYKE HYDROGAP SA WRB I 5/32" SHEAR PLYWOOD (THIS WALL ONLY) 2x6 STUDS @ 16" O.C. - MOP SINK W/ STAINLESS INTERIOR FINISH - SEE FIN. SCHED. STEEL SPLASH Plumbing Access Covered Porch MAIN LEVEL 100' - 0" F.D.

BUILDING SECTION B
Scale: 1/4" = 1'-0"



BUILDING SECTION
Scale: 1/4" = 1'-0"

SAMYN - D'ELIA ARCHITECTS, P.A.

P.O. Box 229 Holderness, NH 03245 tel: (603) 968-7133

HVAC, Elec. & Plumb. Engineer: Charles P. Buckley, P.E. 500 Depot Street Rumney, NH 03266

Structural Engineer:

tel: (603) 786-9992

Fisher Engineering, P.C. 686 Belknap Mountain Road Gilford, NH 03249 tel: (603) 528-7641

NH STATE PARKS

Campground Expansion Project PII
Pawtuckaway State Park
7 Pawtuckaway Road
Nottingham, NH
03290

ssue

80% DESIGN

Graphic Scale

North

Scale: As indicated

Date: Dec. 1, 2023

Drawn By: MR

Checked By: WD

No. Description Date

Title

BUILDING & WALL SECTIONS

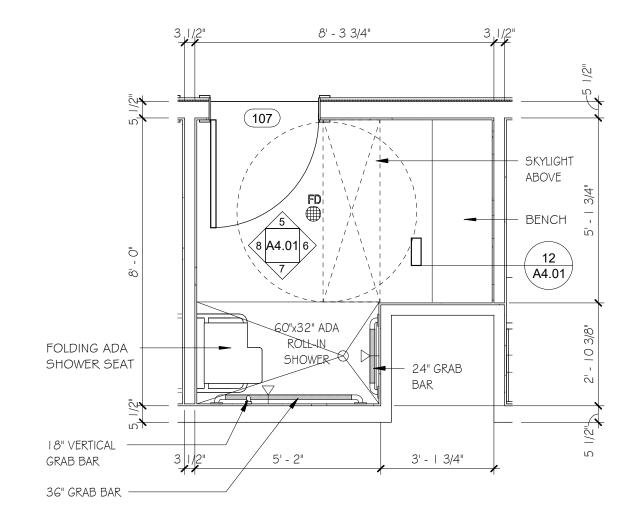
Sheet Number:

A3.01

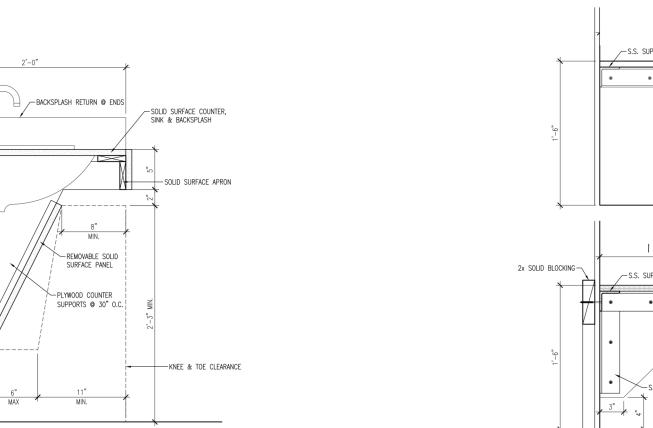
Project Number: 2136A

ile:

9 UNISEX - ENLARGED PLAN Scale: 3/8" = 1'-0"

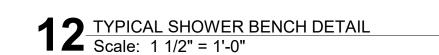


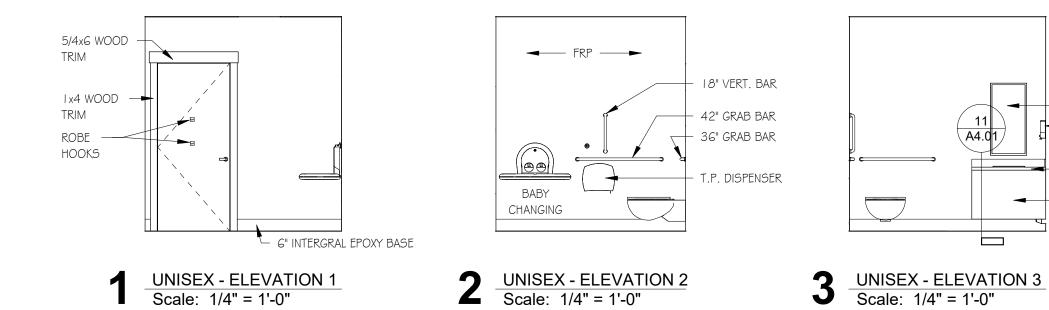
SHOWER - ENLARGED PLAN
Scale: 3/8" = 1'-0"

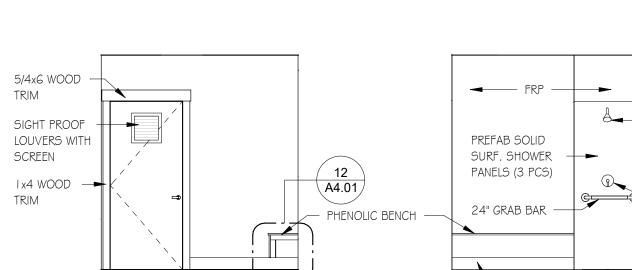


1 1 TYPICAL SINK COUNTER DETAIL Scale: 1" = 1'-0"

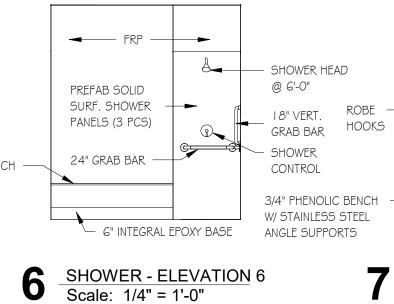
2x BLOCKING —







5 SHOWER - ELEVATION 5 Scale: 1/4" = 1'-0"



(MR1)

MIRROR

10 28 00

LARGE ROLL TOILET

SD3

10 28 00

SOAP DISPENSER

SHOWER - ELEVATION 7
Scale: 1/4" = 1'-0"

GWB, PTD. ──

SHOWER - ELEVATION 8
Scale: 1/4" = 1'-0"

(TB1)

TOWEL BAR

10 28 00

ROBE HOOK

SURFACE MOUNTED | RECESSED MOUNTED | SURFACE MOUNTED

SIDE ELEVATION ELEVATION

GB2

GRAB BAR

. 3' - 0". 6".

(HD2)

HAND DRYER

SS2

DRESSING ROOM /

SHOWER SEAT

SOLID SURFACE PANE

- SHOWER HEAD

- 18"x36" MIRROR

SOLID SURFACE

SOLID SURFACE

(REMOVABLE)

PROTECTION PANEL

COUNTER

SOAP DISP.

@ 4'-0"

— I 8" VERT.

GRAB BAR

SHOWER

CONTROL

FOLDING SEAT

FRP

UNISEX - ELEVATION 4
Scale: 1/4" = 1'-0"

— SOAP DISP.

NH STATE PARKS

Campground Expansion Project PII
Pawtuckaway State Park
7 Pawtuckaway Road
Nottingham, NH
03290

SAMYN - D'ELIA ARCHITECTS, P.A.

HVAC, Elec. & Plumb. Engineer:

Charles P. Buckley, P.E. 500 Depot Street Rumney, NH 03266 tel: (603) 786-9992

Structural Engineer:

Gilford, NH 03249

tel: (603) 528-7641

Fisher Engineering, P.C. 686 Belknap Mountain Road

P.O. Box 229

Holderness, NH 03245

tel: (603) 968-7133

Issue

80% DESIGN

Graphic Scale

Scale: As indicated

Date: Dec. 1, 2023

Drawn By: MR

Checked By: WD

Issue	S:	
No.	Description	Date

Title

INTERIOR ELEVATIONS

Sheet Number:

A4.01

Project Number: 2136A

2x SOLID BLOCKING

S.S. SUPPORT ANGLE

ELEVATION VIEW

S.S. SUPPORT ANGLE

S.S. SUPPORT ANGLE

S.S. SUPPORT ANGLE

SOLID PHENOLIC BENCH

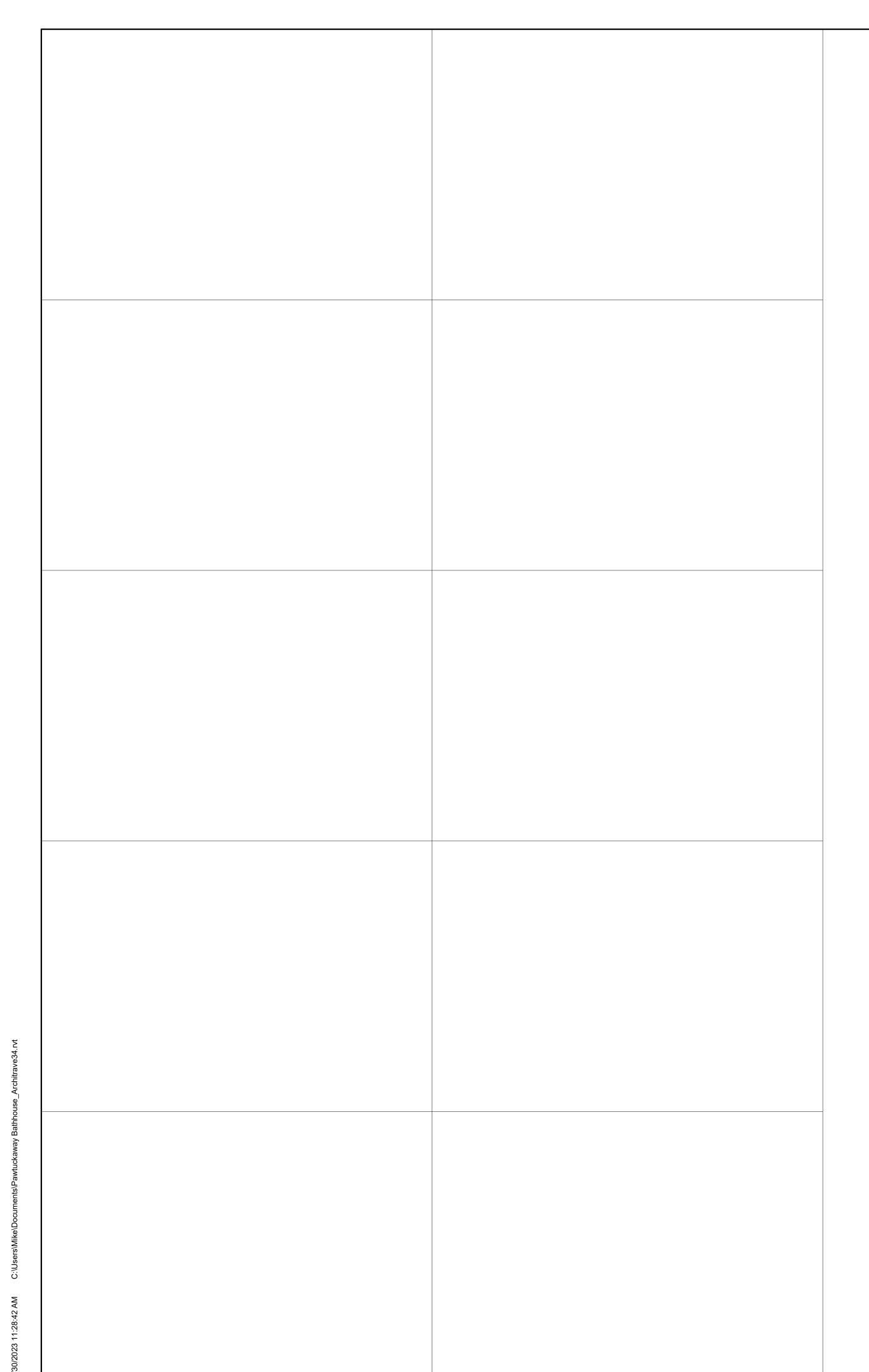
PANEL & WALL (TYP)

SOLID PHENOLIC SIDE PANEL

SECTION VIEW

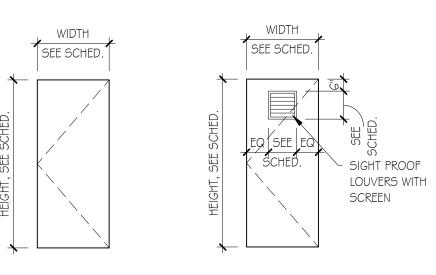
ACCESSORIES - TOILETS & SHOWERS

ELEVATION



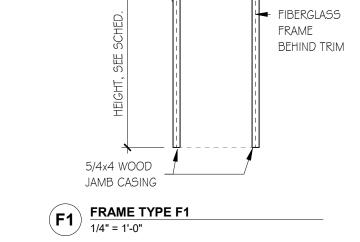
					FINISH SC	HFDIJIF			
					1 1111311 30	TILDULL			
ROOM									
NUMBER	ROOM NAME	FLOOR FINISH	BASE FINISH	NORTH WALL	EAST WALL	SOUTH WALL	WEST WALL	CEILING FINISH	COMMENTS
						_			
101	Unisex	EPOXY	INTEGRAL EPOXY	FRP ON GWB	FRP ON GWB	FRP ON GWB	FRP ON GWB	Ix6 T&G PLANKS	
102	Unisex	EPOXY	INTEGRAL EPOXY	FRP ON GWB	FRP ON GWB	FRP ON GWB	FRP ON GWB	1x6 T#G PLANKS	
103	Unisex	EPOXY	INTEGRAL EPOXY	FRP ON GWB	FRP ON GWB	FRP ON GWB	FRP ON GWB	I x6 T&G PLANKS	
104	Unisex	EPOXY	INTEGRAL EPOXY	FRP ON GWB	FRP ON GWB	FRP ON GWB	FRP ON GWB	1x6 T#G PLANKS	
105	Shower	EPOXY	INTEGRAL EPOXY	FRP ON GWB	FRP ON GWB	FRP ON GWB	FRP ON GWB	1x6 T#G PLANKS	
106	Shower	EPOXY	INTEGRAL EPOXY	FRP ON GWB	FRP ON GWB	FRP ON GWB	FRP ON GWB	1x6 T#G PLANKS	
107	Shower	EPOXY	INTEGRAL EPOXY	FRP ON GWB	FRP ON GWB	FRP ON GWB	FRP ON GWB	1x6 T#G PLANKS	
108	Unisex	EPOXY	INTEGRAL EPOXY	FRP ON GWB	FRP ON GWB	FRP ON GWB	FRP ON GWB	1x6 T&G PLANKS	
109	Plumbing Access	SEALED CONCRETE	-	-	-	-	-	5/8" GWB	NO GWB ON STUDS

	DOOR SCHEDULE									
OPENING	WIDTH	HEIGHT	THICKNESS	DOOR TYPE	MATERIAL	FRAME MATERIAL	COMMENTS			
101	3' - 0"	7' - 0"	1 3/4"	SOLID CORE	FIBERGLASS	FIBERGLASS				
102	3' - 0"	7' - 0"	1 3/4"	SOLID CORE	FIBERGLASS	FIBERGLASS				
103	3' - 0"	7' - 0"	1 3/4"	SOLID CORE	FIBERGLASS	FIBERGLASS				
104	3' - 0"	7' - 0"	1 3/4"	SOLID CORE	FIBERGLASS	FIBERGLASS				
105	3' - 0"	7' - 0"	1 3/4"	SOLID CORE	FIBERGLASS	FIBERGLASS	12" x 12" LOUVERS WITH SCREENS			
106	3' - 0"	7' - 0"	1 3/4"	SOLID CORE	FIBERGLASS	FIBERGLASS	12" x 12" LOUVERS WITH SCREENS			
107	3' - 0"	7' - 0"	1 3/4"	SOLID CORE	FIBERGLASS	FIBERGLASS	12" x 12" LOUVERS WITH SCREENS			
108	3' - 0"	7' - 0"	1 3/4"	SOLID CORE	FIBERGLASS	FIBERGLASS				
109	3' - 0"	7' - 0"	1 3/4"	SOLID CORE	FIBERGLASS	FIBERGLASS				





DOOR TYPES



SEE SCHED.

5/4x6 WOOD

HEAD CASING,

OVERHANG

JAMB TRIM 1/2"

FRAME TYPES

WINDOW SCHEDULE								
MARK	WIDTH	HEIGHT	TYPE	MODEL	COMMENTS	COUNT		
V1	1' - 9"	2' - 2 7/8"		VS-C01	BASIS-OF-DESIGN: VELUX VS-C01	8		

SAMYN - D'ELIA ARCHITECTS, P.A.

P.O. Box 229 Holderness, NH 03245 tel: (603) 968-7133

HVAC, Elec. & Plumb. Engineer: Charles P. Buckley, P.E. 500 Depot Street Rumney, NH 03266 tel: (603) 786-9992

Structural Engineer: Fisher Engineering, P.C. 686 Belknap Mountain Road Gilford, NH 03249 tel: (603) 528-7641

NH STATE PARKS

Campground Expansion Project PII Pawtuckaway State Park 7 Pawtuckaway Road Nottingham, NH 03290

80% DESIGN

Graphic Scale

Scale: 1/4" = 1'-0"

Date: Dec. 1, 2023

Drawn By: MR

Checked By: WD

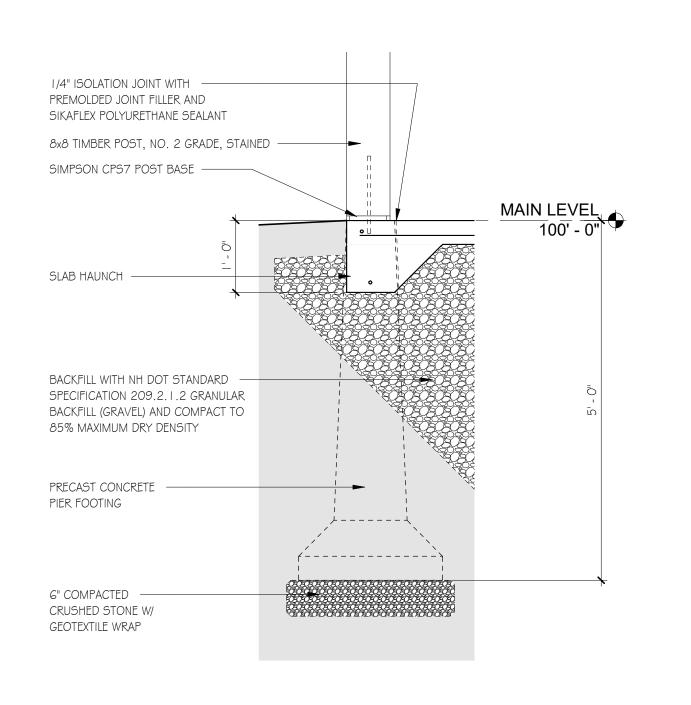
No.	Description	Date	

SCHEDULES

Sheet Number:

A5.01

Project Number: 2136A



_15 MIL MOISTSTOP REINFORCED VAPOR BARRIER OR EQUIVALENT. TA" TYPE IV EXTRUDED POLYSTYRENE INSULATION -6X6-W1.4XW1.4 WWF REINFORCING CENTERED IN SLAB _2" TALL CONTINUOUS HIGH CHAIRS (UPPER TYPE) @ 3' O.C. CONCRETE SLAB-ON-GRADE DETAIL

2'-0" #4 CORNER BARS SPACED TO MATCH HORIZONTAL BARS CORNER REINFORCING DETAIL

10' - 7"

ON GRADE

10' - 7"

SAWCUT 14" X 11" JOINT IN SLAB WITHIN 12 HOURS OF FINISHING: FILL JOINT WITH GRAY POLYURETHANE SEALANT IN AREAS TO BE LEFT EXPOSED.

• FILL JOINT WITH NON-SHRINK GROUT IN AREAS SCHEDULED TO RECEIVE A FLOOR ALLOW SLAB TO CURE AS LONG AS PRACTICAL PRIOR TO FILLING JOINTS. CUT EVERY OTHER WIRE 2" FROM JOINT

SLAB CONTROL JOINT DETAIL DENOTED ON PLAN AS CJ SCALE DRAWING FOR LOCATIONS

SLAB EDGE DETAIL Scale: 3/4" = 1'-0"

CONCRETE SLAB-ON-GRADE DETAIL Scale: N.T.S.

PREMOLDED JOINT FILLER

BACKFILL WITH NH DOT STANDARD PSPSPSPSPSPECIFICATION 209.2.1.2 GRANULAR BACKFILL (GRAVEL) AND COMPACT TO

> ANY STRUCTURAL FILL REQUIRED BENEATH FOOTINGS SHALL BE CRUSHED GRAVEL COMPACTED TO 95% MAXIMUM DRY DENSITY. A MINIMUM OF 12" OF CRUSHED

GRAVEL IS REQUIRED OVER BEDROCK

EXISTING UNDISTURBED GROUND

WRAPPED IN MIRAFI 140N FABRIC

— COMPACT SUBGRADE PRIOR TO

PLACING FILL OR CONCRETE

REMOVE ALL FILL

UNLESS ALL FOOTINGS BEAR ON BEDROCK.

- 6" TO 12" COMPACTED, CRUSHED STONE

95% MAXIMUM DRY DENSITY

4" REINFORCED CONC. SLAB

- 15 MIL. UNDER SLAB VAPOR BARRIER

MAIN LEVEL 100' - 0"

5 CORNER REINFORCING DETAIL Scale: N.T.S.

10' - 11"

NOT TO SCALE

SLAB CONTROL JOINT DETAIL
Scale: N.T.S.

10' - 11"

PRECAST CONCRETE PIERS \S1.01/ - SLAB HAUNCH 4" CONC. SLAB ON GRADE 1'-8" x 10" CONCRETE FOOTING, MIN. 5'-0" BELOW FINISH GRADE 4' - 6" RECESSES FOR SHOWER DRAINS PREFABRICATED SHOWER BASES 8' - 11 1/2" V.I.F. 8' - 6 3/4" V.I.F. β' - 9" V.I.F. 1/2" ISOLATION JOINTS WITH PREMOLDED JOINT FILLER AND \$IKAFLEX POLYURETHANE SEALANT 4" CONC. SLAB 4" CONCRETE SLAB ON GRADE ON GRADE PITCH TO DRAIN 1/4"/FT, TYP. - 8" CONCRETE NOTE: DOOR DROPS ARE FOR FOUNDATION WALL 2" FIBERGLASS DOOR FRAMES

<u>- - |- - i</u>

10' - 7"

10' - 11"

43' - 0"

10' - 7"

35' - 0"

2 TYPICAL FOUNDATION DETAIL Scale: 3/4" = 1'-0"

4" PERF. PVC PIPE - HOLES DOWN.

WRAP NO. 67 STONE W/ ---

MAINTAIN GROUND WATER I' ---

BELOW BOTTOM OF EXCAVATION

TO DAYLIGHT

MIRAFI 140N

DISCHARGE 20' MIN. FROM BLDG

SEE ARCH. FOR WALL -

P.T. (2) 2x6 SILL PLATES -

PREMOLDED JOINT FILLER -

4" CONC. SLAB WITH ----

8" CONCRETE FOUNDATION WALL

SPECIFICATION 209.2.1.2 GRANULAR

BACKFILL (GRAVEL) AND COMPACT TO 🦃 85% MAXIMUM DRY DENSITY

#4 HORIZONTAL @ 16" O.C.)

BACKFILL WITH NH DOT STANDARD

COSCISION 200 2 1 2 CRANIII AR

CONSTRUCTION

SILL SEAL ----

1/8"/FT SLOPE_

FOUNDATION PLAN Scale: 1/4" = 1'-0"

i_|__i

10' - 11"

SAMYN - D'ELIA ARCHITECTS, P.A.

P.O. Box 229 Holderness, NH 03245 tel: (603) 968-7133

HVAC, Elec. & Plumb. Engineer: Charles P. Buckley, P.E. 500 Depot Street Rumney, NH 03266 tel: (603) 786-9992

Structural Engineer: Fisher Engineering, P.C. 686 Belknap Mountain Road Gilford, NH 03249

tel: (603) 528-7641

NH STATE PARKS

Campground Expansion Project PII Pawtuckaway State Park 7 Pawtuckaway Road Nottingham, NH 03290

80% DESIGN

Graphic Scale

North

Scale: As indicated

Date: Dec. 1, 2023

Drawn By: MR

Checked By: WD

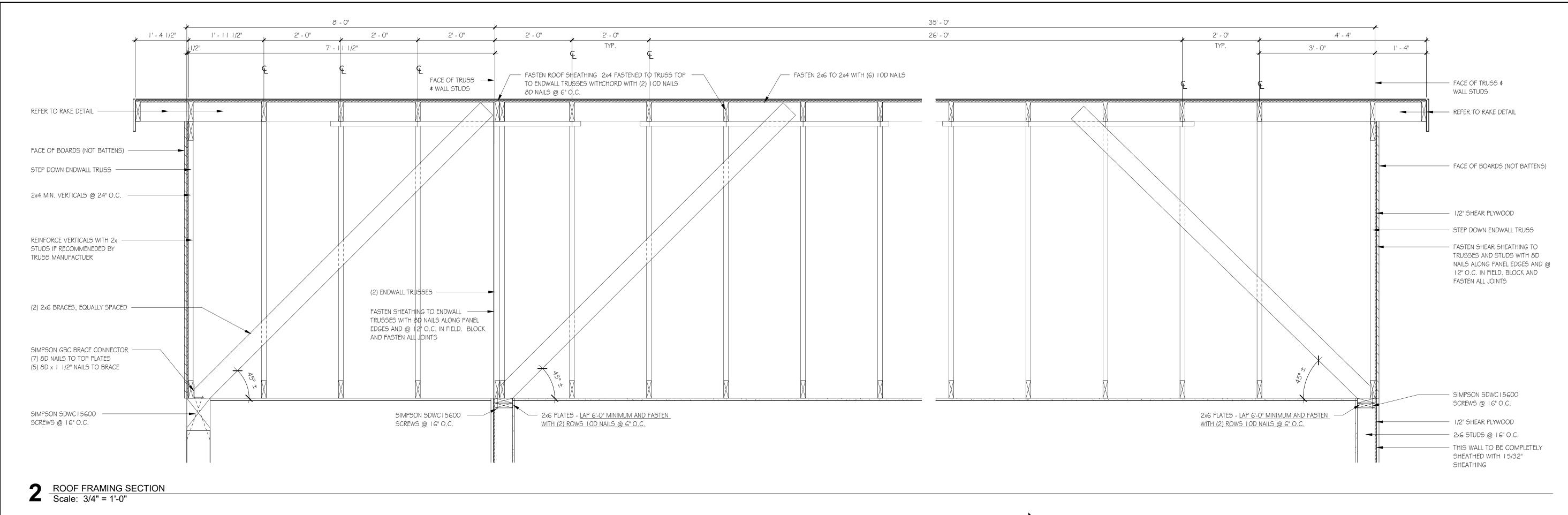
s:	
Description	Date

FOUNDATION PLAN AND **DETAILS**

Sheet Number:

S1.01

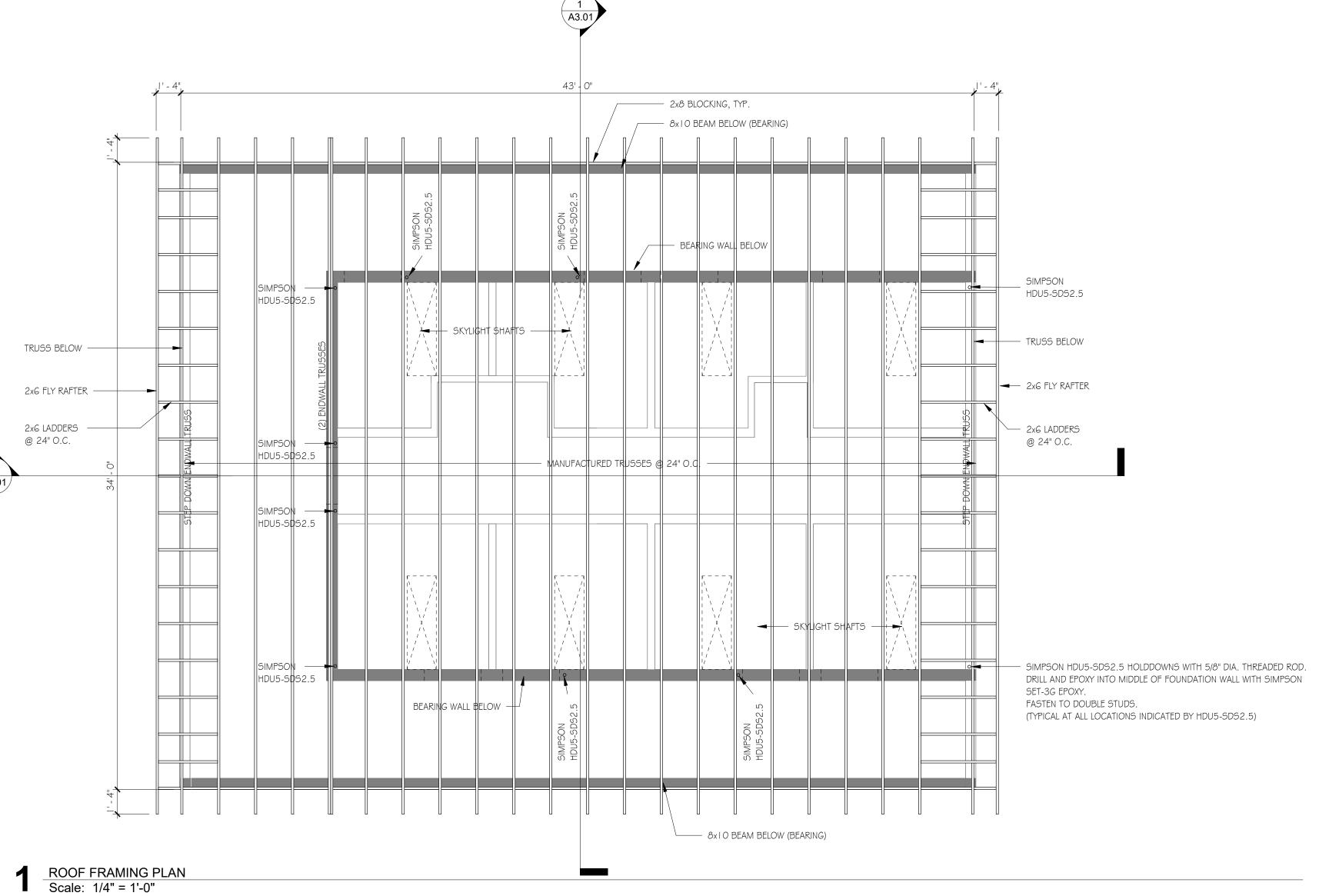
Project Number: 2136A



NH STATE PARKS

Campground Expansion Project PII

Pawtuckaway State Park



SAMYN - D'ELIA ARCHITECTS, P.A.

P.O. Box 229 Holderness, NH 03245 tel: (603) 968-7133

HVAC, Elec. & Plumb. Engineer: Charles P. Buckley, P.E. 500 Depot Street Rumney, NH 03266 tel: (603) 786-9992

Structural Engineer:

Fisher Engineering, P.C. 686 Belknap Mountain Road Gilford, NH 03249 tel: (603) 528-7641

Campground Expansion Project P
Pawtuckaway State Park
7 Pawtuckaway Road
Nottingham, NH
03290

sue

80% DESIGN

Graphic Scale

North

Scale: As indicated

Date: Dec. 1, 2023

Checked By: WD

Drawn By: MR

No. Description Date

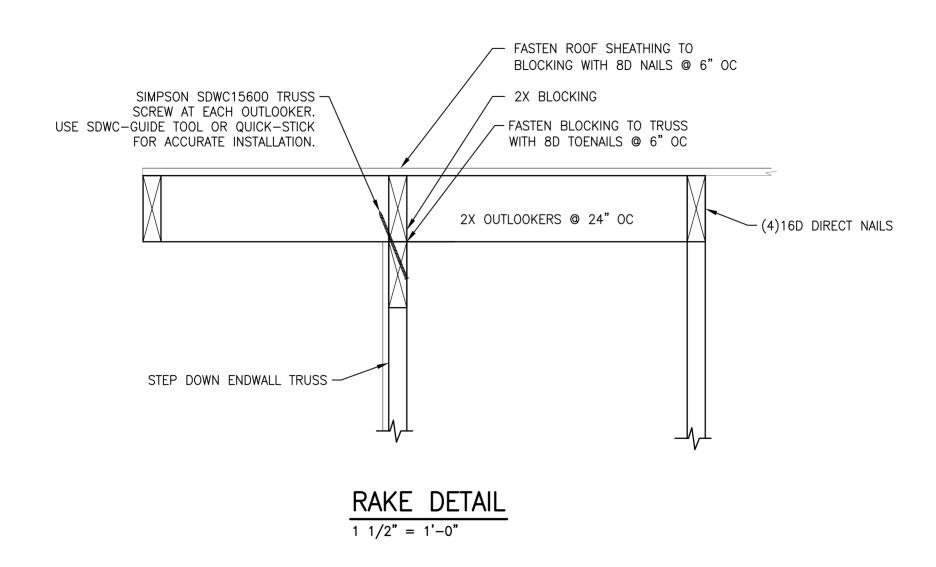
Title

ROOF FRAMING PLAN AND FRAMING SECTION

Sheet Number:

S2.01

Project Number: 2136A



FASTEN PLATES WITH
100 NAILS © 6" OC

MAIL STUD TO EACH PLY OF
HEADER WITH (3)100 NAILS

NAIL STUD TO EACH
PLATE WITH (3)100 NAILS

POLYSTYRENE
INSULATION.

SECTION THROUGH HEADER

(2) 2X8 UNO

FASTEN STUDS TOGETHER WITH
(2) ROWS 10D NAILS © 6" OC

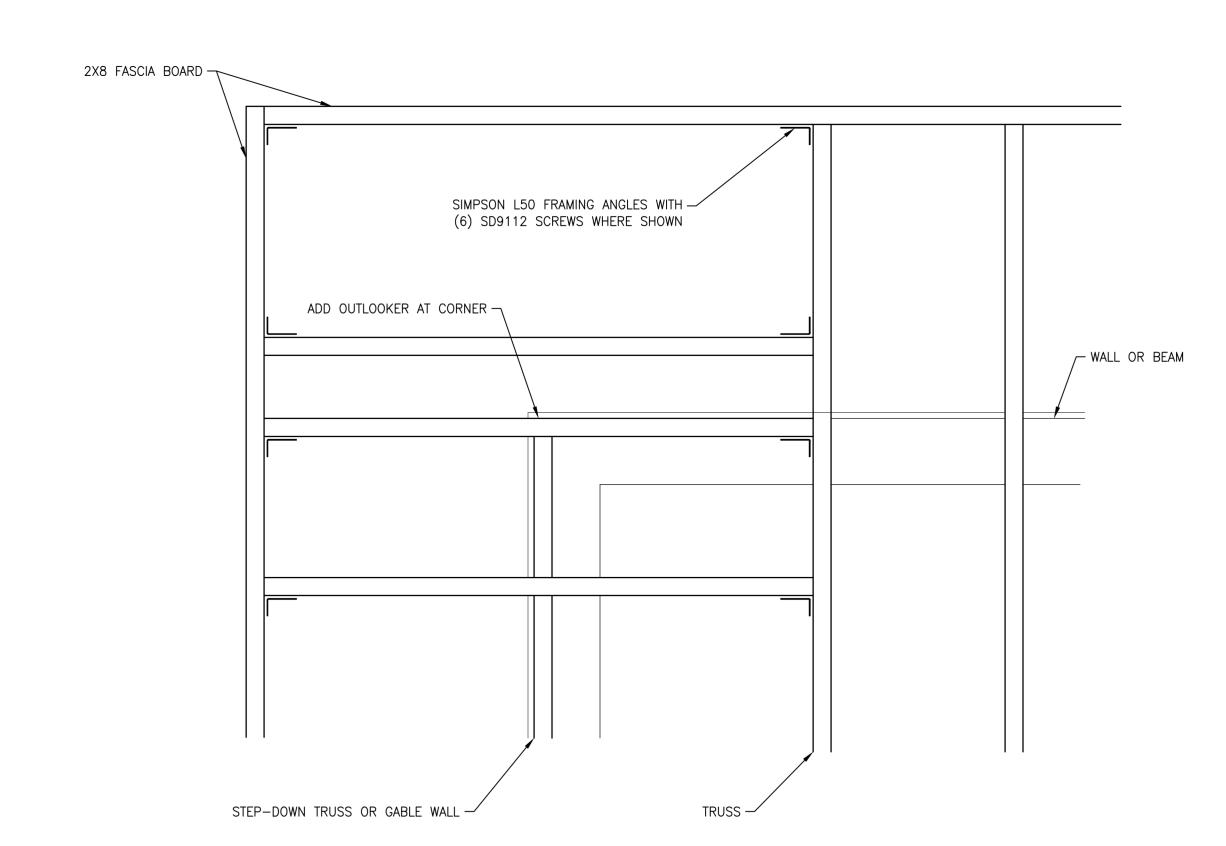
JACK STUD TO BE
CONTINUOUS PAST SILL

SIMPSON LSO FRAMING ANGLE WITH
(6) 10D X 1½" NAILS, OR CRIPPLE STUD

TYPICAL DOOR/WINDOW OPENING/HEADER DETAILS

RAKE DETAIL Scale: N.T.S.

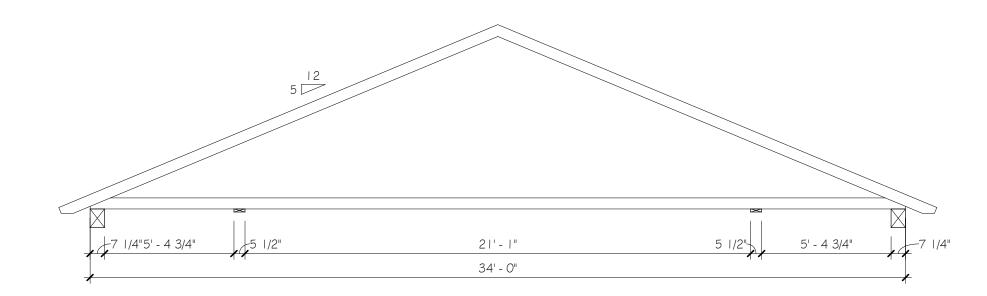
TYPICAL DOOR WINDOW OPENING/HEADER DETAILS Scale: N.T.S.

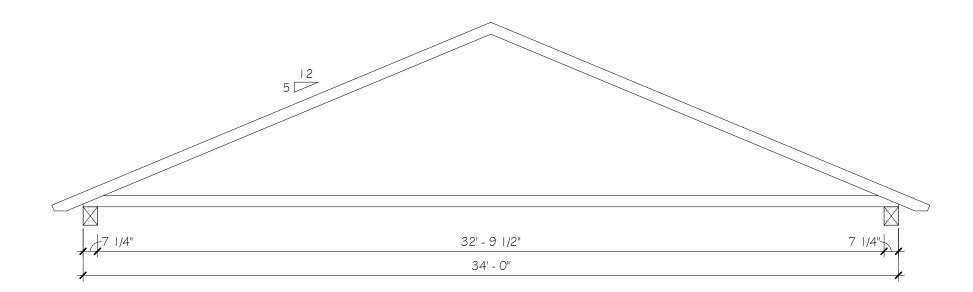


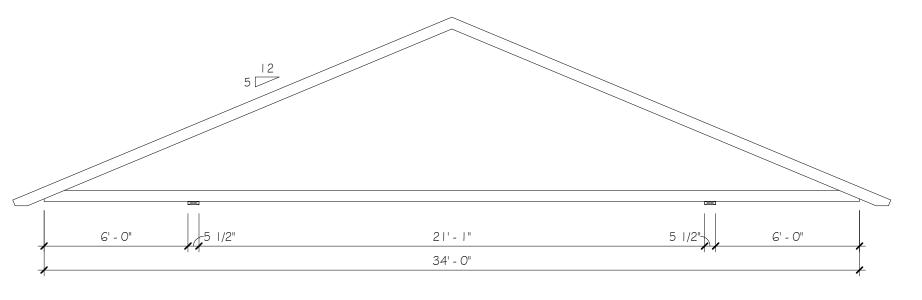
TYPICAL DETAIL AT ROOF CORNERS

1 1/2" = 1'-0"

3 TYPICAL DETAILS AT ROOF CORNERS Scale: N.T.S.







NOTE: TRUSSES ARE TO BE DESIGNED FOR THE WORST CASE OF THE THREE BEARING CONDITIONS SHOWN. SUBMIT TRUSS DESIGNS FOR EACH OF THE THREE BEARING CONDITIONS.

TRUSS DIAGRAMS
Scale: 1/4" = 1'-0"

SAMYN - D'ELIA ARCHITECTS, P.A.

P.O. Box 229 Holderness, NH 03245 tel: (603) 968-7133

HVAC, Elec. & Plumb. Engineer: Charles P. Buckley, P.E. 500 Depot Street Rumney, NH 03266 tel: (603) 786-9992

Structural Engineer:
Fisher Engineering, P.C.

Fisher Engineering, P.C. 686 Belknap Mountain Road Gilford, NH 03249 tel: (603) 528-7641

NH STATE PARKS

Campground Expansion Project PII
Pawtuckaway State Park
7 Pawtuckaway Road
Nottingham, NH
03290

Issue

80% DESIGN

Graphic Scale

North

Scale: 1/4" = 1'-0"

Date: Dec. 1, 2023

Drawn By: MR

Checked By: WD

No.	Description	Date		

Title

TRUSS DIAGRAMS AND DETAILS

Sheet Number:

S3.01

Project Number: 2136A

HVAC NOTES

1. <u>SCOPE OF WORK</u>

- A. THE CONTRACTOR IS RESPONSIBLE FOR ALL WORK, MATERIALS, AND LABOR TO SATISFY A COMPLETE WORKING SYSTEM WHETHER SPECIFIED OR IMPLIED.
- B. ALL WORK IS TO BE PERFORMED IN STRICT COMPLIANCE WITH THE INTERNATIONAL MECHANICAL CODE 2018, ALL LOCAL AND ALL OTHER REGULATION GOVERNING WORK OF THIS NATURE.
- C. THE CONTRACTOR SHALL, BEFORE SUBMITTING ANY PROPOSAL, EXAMINE THE PROPOSED SITE AND SHALL DETERMINE FOR HIMSELF THE CONDITIONS THAT MAY EFFECT THE WORK. NO ALLOWANCE SHALL BE MADE IF THE CONTRACTOR FAILS TO MAKE SUCH EXAMINATIONS.
- D. ALL EQUIPMENT AND MATERIALS SHALL BE AS SPECIFIED OR "APPROVED EQUAL" BY THE ENGINEER OR ARCHITECT.

2. <u>PERMITS</u>

A. THE CONTRACTOR SHALL SECURE ALL PERMITS OR APPLICA—
TIONS AND PAY ANY AND ALL FEES.

3. SHOP DRAWINGS

A. SUBMIT MATERIAL LIST AND SHOP DRAWINGS FOR MAJOR EQUIPMENT TO THE ACHITECT/ENGINEER FOR APPROVAL. THE CONTRACTOR SHALL SUBMIT FIVE SETS OF SHOP DRAWINGS AND THEY SHALL BE CLEARLY LABELED.

4. <u>DUCTWORK</u>

- A. THE DUCTWORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE "SMACNA" APPLICABLE MANUALS. ALL DUCTWORK SHALL BE THE LOW VELOCITY TYPE, UNLESS SPECIFIED OTHERWISE.
- B. CONTRACTOR SHALL PROVIDE AND INSTALL APPROVED FIRE DAMPERS AND ACCESS PANELS IN ANY AND ALL DUCTWORK WHICH PENETRATES A HORIZONTAL OR VERTICAL FIRE PARTITION, OR AS OTHERWISE SHOWN ON DRAWINGS.
- C. ALL BRANCH DUCTS TO HAVE VOLUME DAMPERS.
- D. SMOOTH TURN RADIUS DUCTWORK OR TURNING VANES SHALL BE USED THROUGHOUT WHERE FLOW EXCEEDS 150 CFM.
- E. ALL DUCT JOINTS TO BE SEALED IN ACCORDANCE WITH "SMACNA" STANDARDS AND ACCEPTED GOOD PRACTICE.
- F. ALL DUCT DIMENSIONS SHOWN ARE NET INSIDE VALUES.
 DIMENSIONS MAY BE CHANGED SO LONG AS THE NET FREE
 FACE AREA IS MAINTAINED.

5. <u>HVAC CONTROLS</u>

A. CONTRACTOR TO SUPPLY AND INSTALL ALL CONTROL WIRING AND THERMOSTATS AS REQUIRED.

6. <u>ELECTRICAL</u>

A. CONTRACTOR TO COORDINATE WITH ELECTRICAL CONTRACTOR FOR LOCATION OF WIRING FOR EACH HVAC UNIT.

7. <u>MISCELLANEOUS</u>

- A. ALL EXTERIOR OPENINGS TO BE PROPERLY CAULKED AND SEALED WITH A SEALANT OF HIGH QUALITY AND LONG LIFE, TO PREVENT INFILTRATION OF OUTSIDE AIR INTO CONDITIONED SPACE.
- B. DO NOT SCALE THIS DRAWING FOR EXACT DIMENSIONS.

 VERIFY ALL FIGURES, CONDITIONS, AND DIMENSIONS

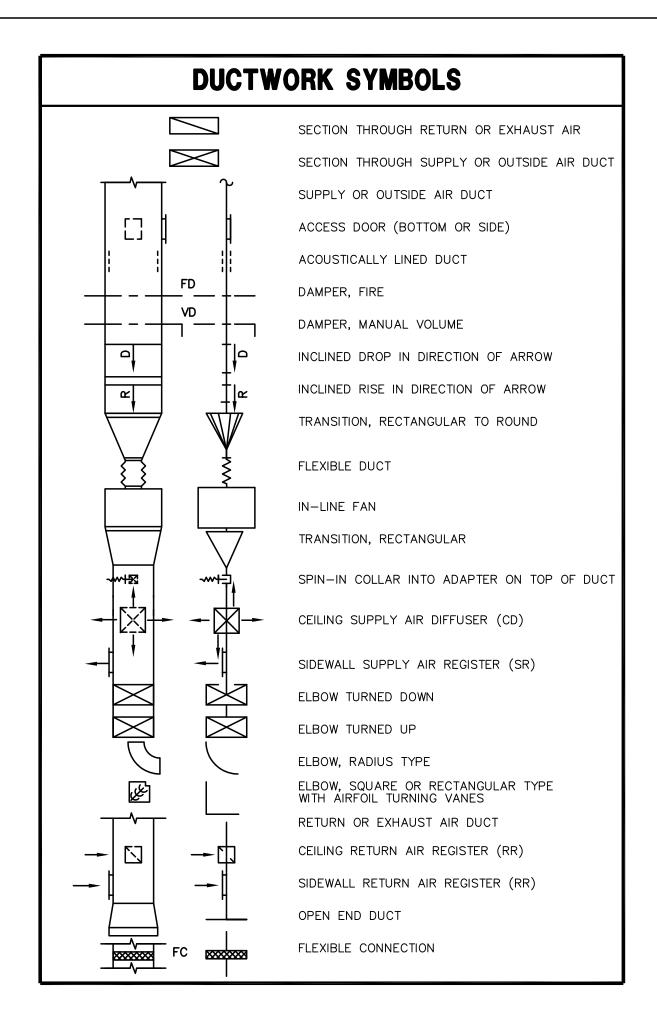
 AT THE JOB SITE.
- C. THE MECHANICAL PLANS ARE INTENDED TO BE DIAGRAM—MATIC AND ARE BASED ON ONE MANUFACTURE'S EQUIP—MENT. THEY ARE NOT INTENDED TO SHOW EVERY ITEM IN ITS EXACT LOCATION, THE EXACT DIMENSIONS, OR ALL THE DETAILS OF THE EQUIPMENT. THE CONTRACTOR SHALL VERIFY THE ACTUAL DIMENSIONS OF THE EQUIP—MENT PROPOSED TO ENSURE THAT THE EQUIPMENT WILL FIT IN THE AVAILABLE SPACE.

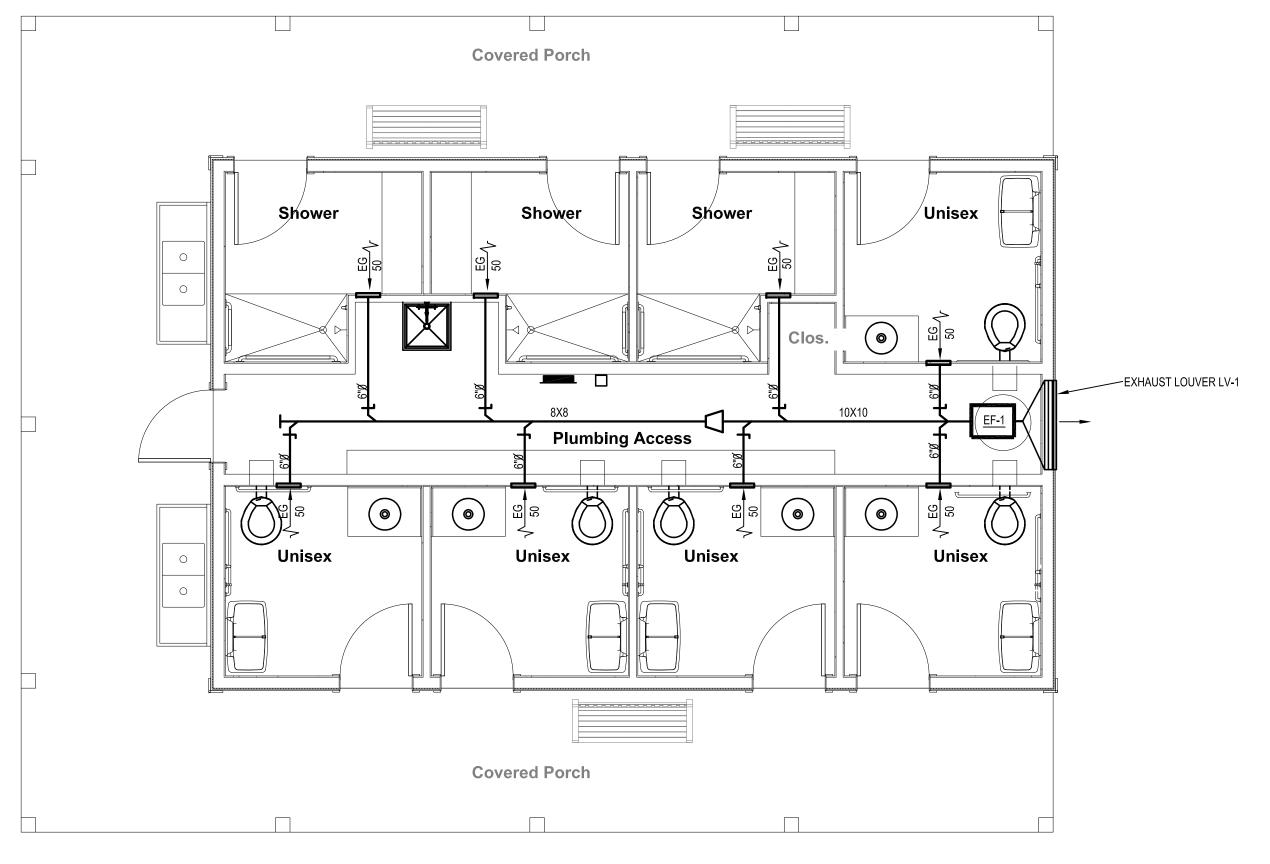
8. <u>TESTING AND BALANCING</u>

A. THE HVAC SYSTEM SHALL BE TESTED AND AND BALANC— ED BY AN INDEPENDENT AGENCY, UNDER THE SUPER— VISION OF A LICENSED PROFESSIONAL ENGINEER. A SEALED TYPE WRITTEN REPORT SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER FOR REVIEW AND APPROVAL.

9. <u>GUARANTEE</u>

- A. MATERIALS, EQUIPMENT AND INSTALLATION SHALL BE GUARANTEED FOR A PERIOD OF ONE(1) YEAR FROM DATE OF ACCEPTANCE. DEFECTS WHICH APPEAR DURING THAT PERIOD SHALL BE CORRECTED AT THIS CONTRACTOR'S EXPENSE.
- B. FOR THE SAME PERIOD, THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO PREMISES CAUSED BY DEFECTS IN WORKMANSHIP OR IN THE WORK OR EQUIPMENT FURNISHED AND/OR INSTALLED BY HIM.





MECHANICAL PLAN

 $\overline{\mathsf{LV}}$ LOUVER SCHEDULE WIDTH HEIGHT THICKNESS MATERIAL **EQUIPMENT** SERVICE SCREEN MANUFACTURER & MODEL OPTIONS-ACCESSORIES OF WALL FIXED ALUMINUM LOUVER 12" 7-3/8" ALUMINUM INSECT GREENHECK MODEL ESD, OR EQUAL. BATH HOUSE COLOR TO BE SELECTED BY ARCHITECT NOTES:

FAN SCHEDULE											
MARK	SERVICE	LOCATION	CFM	STATIC PRESS. MOTOR		MOTOR		MOTOR		MANUFACTURE & MODEL	NOTES
				(IN. W.G.)	HP	RPM	VOLT-PHASE				
		CHASE	400	0.75	1/4	1800	115–1	GREENHECK SQ-98-VG			

CHARLES P. BUCKLEY PROFESSIONAL ENGINEER 500 DEPOT ST. RUMNEY, N.H. 03266 TEL.(603)786-9992 FAX.(603)786-2365

N.H. LIC. NO. 09198

HVAC, Elec. & Plumb. Engineer: Charles P. Buckley, P.E. 500 Depot Street Rumney, NH 03266 tel: (603) 786-9992

Structural Engineer: Fisher Engineering, P.C. 686 Belknap Mountain Road Gilford, NH 03249 tel: (603) 528-7641

NH STATE PARKS

Campground Expansion Project PII
Pawtuckaway State Park
7 Pawtuckaway Road
Nottingham, NH
03290

Issue

80% DESIGN

Graphic Scale

Scale: As indicated

Date: DEC. 1, 2023

Drawn By: CPB

Checked By: CPB

No.	Description	Date

Title

MECHANICAL PLAN AND DETAILS

Sheet Number:

M1.01P

Project Number: 2136

ELECTRICAL NOTES

1. SCOPE OF WORK:

- A. CONTRACTOR SHALL VISIT SITE PRIOR TO BIDDING. BIDS SHALL SERVE AS EVIDENCE OF KNOWLEDGE OF EXISTING CONDITIONS. FIELD VERIFY ALL ELECTRICAL EQUIPMENT.
- B. FURNISH ALL LABOR, MATERIALS, EQUIPMENT AND TOOLS TO PERFORM ELECTRICAL WORK SHOWN, NOTED OR SCHEDULED FOR A COMPLETE AND FINISHED INSTALLATION.
- MATERIALS, PRODUCTS AND EQUIPMENT, INCLUDING ALL COMPONENTS THEREOF, SHALL BE NEW AND SUCH AS APPEAR ON THE UNDERWRITERS LABORATORIES LIST OF APPROVED ITEMS AND SHALL BE SIZED IN CONFORMITY WITH REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE AND OTHER APPLICABLE CODES, WHICHEVER ARE MORE STRINGENT
- C. ALL WORK TO BE IN ACCORDANCE WITH 2020 NEC AND ALL APPLICABLE FEDERAL, STATE

2. <u>PERMITS:</u>

A. SECURE AND PAY FOR ALL REQUIRED PERMITS AND INSPECTION CERTIFICATES.

3. SHOP DRAWINGS:

A. SUBMIT MATERIAL LIST AND SHOP DRAWINGS FOR MAJOR EQUIPMENT TO THE ARCHITECT FOR APPROVAL. SUBMITTALS SHALL BE IN ACCORDANCE WITH GENERAL CONDITIONS AND SHALL BEAR STAMP OF THE GENERAL CONTRACTOR SHOWING THAT HE HAS REVIEWED AND APPROVED THEM. LACK OF SUCH CONTRACTOR'S APPROVAL WILL BE CAUSE FOR REJECTION WITHOUT REVIEW BY THE ARCHITECT OR ENGINEER.

4. <u>CONDUITS:</u>

A. THE TYPE OF CONDUIT SHALL BE AS FOLLOWS FOR ALL FEEDERS AND DISTRIBUTION CIRCUITS, UNLESS OTHERWISE SPECIFIED.

APPLICATION
OUTDOORS
GALV. RIG
BRANCH CIRCUITS (EXPOSED)
BRANCH CIRCUITS (CONCEALED)
SUPPLY TO DISTRIBUTION PANEL

TYPE OF
GALV. RIG
MC
EMT

UNDERGROUND SERVICE ENTRANCE

TYPE OF CONDUIT

GALV. RIGID STEEL OR EMT W/ W.P. FITTINGS
FMT

PVC - SCHEDULE 40

EMT
MC

. WIRE:

- A. WIRE SHALL BE SINGLE CONDUCTOR COPPER WITH 600 VOLT INSULATION. MINIMUM WIRE SIZE SHALL BE #12 EXCEPT #14 MAY BE USED FOR CONTROL. ALL WIRE AND CABLE SHALL BE NEW AND SHALL BE BROUGHT TO THE SITE IN UNBROKEN PACKAGES.
- GENERAL WIRING SHALL BE THW OR THHN (ALUMINUM CONDUCTORS ARE NOT PERMITTED).
- B. WIRE CONNECTORS SHALL BE EQUAL BY SCOTCHLOCK FOR #6 AND SMALLER AND T & B "LOCK-LITE" FOR #6 AND LARGER.

6. <u>LIGHTING:</u>

A. LIGHTING FIXTURES AND LAMPS (UNLESS NOTED OTHERWISE) SHALL BE FURNISHED BY THE ELECTRICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL INSTALL ALL FIXTURES AND LAMPS.

7. <u>WIRE DEVICES:</u>

- A. RECEPTACLES SHALL BE 20 AMP, 3-WIRE GROUNDING TYPE EQUAL TO HUBBELL 5362 (MOUNTING @ 18"A.F.F.).
- B. SWITCHES SHALL BE STANDARD GRADE RATED 20 AMP AT 120 VOLT (MOUNTING @48"A.F.F.)
- C. SPECIAL DEVICES SHALL BE A SPECIFICATION GRADE.

8. <u>SAFETY SWITCHES:</u>

A. PROVIDE SAFETY AND DISCONNECT SWITCHES, FUSED OR NONFUSED, AS CALLED FOR ON DRAWINGS AND AS REQUIRED BY CODE. SWITCHES SHALL BE HEAVY DUTY, LOAD AND HORSEPOWER RATED AS MANUFACTURED BY SQUARE D, GOULD, ITE OR EQUAL.

BOXES:

- A. OUTLET BOXES AND COVERS SHALL BE GALVANIZED, ONE-PIECE PRESSED STEEL KNOCKOUT.
- B. JUNCTION, PULL BOXES AND COVERS SHALL BE GALVANIZED STEEL, CODE GAUGE SIZE.

10. <u>INSTALLATION:</u>

- A. ALL ELECTRICAL WORK SHALL BE INSTALLED SO AS TO BE READILY ACCESSIBLE FOR OPERATING, SERVICING, MAINTAINING AND REPAIRING. HANGERS SHALL INCLUDE ALL MISCELLANEOUS STEEL SUCH AS CHANNELS, RODS, ETC., NECESSARY FOR THE INSTALLATION OF WORK AND SHALL BE FASTENED TO STEEL, CONCRETE OR WOOD, BUT NOT TO PIPING. ALL CONDUIT SHALL BE CONCEALED WHEREVER POSSIBLE. EXPOSED CONDUIT SHALL BE IN STRAIGHT LINES PARALLEL WITH OR AT RIGHT ANGLES TO COLUMN LINES OR BEAMS AND SEPARATED AT LEAST 3 INCHES FROM WATER LINES WHEREVER THEY RUN ALONG SIDE OR ACROSS SUCH LINES. CONDUCTORS SHALL BE IN CONDUIT, DUCTS OR APPROVED RACEWAYS.
- B. THE CONTRACTOR SHALL DO ALL CUTTING, CHASING OR CHANNELING AND PATCHING REQUIRED FOR ANY WORK UNDER THIS DIVISION. SLEEVES SHALL EXTEND AT LEAST TWO (2") INCHES ABOVE FINISHED FLOOR AND ALL SLEEVES, OPENINGS, ETC., THROUGH FIRE RATED WALLS AND FLOORS SHALL BE SEALED AFTER CONDUIT INSTALLATION TO RETAIN THEIR FIRE RATING.
- C. THE FOLLOWING EQUIPMENT SHALL BE IDENTIFIED WITH ENGRAVED BAKELITE NAMEPLATES AS TO NAME AND/OR FUNCTION; DISTRIBUTION PANELS AND DISCONNECT SWITCHES.
- D. THE LOCATION OF OUTLETS AND EQUIPMENT SHOWN ON THE DRAWINGS ARE APPROXIMATE AND THE ARCHITECT SHALL HAVE THE RIGHT TO RELOCATE ANY OUTLETS OR FIXTURES BEFORE THEY ARE INSTALLED WITHOUT ADDITIONAL COST..
- E. ELECTRICAL CONTRACTOR SHALL RECORD ALL FIELD CHANGES IN HIS WORK AS THE JOB PROGRESSES.

11. <u>GUARANTEE:</u>

- A. MATERIALS, EQUIPMENT AND INSTALLATION SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR FROM DATE OF ACCEPTANCE. DEFECTS WHICH APPEAR DURING THAT PERIOD SHALL BE CORRECTED AT THIS CONTRACTOR'S EXPENSE.
- B. FOR THE SAME PERIOD, THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO PREMISES CAUSED BY DEFECTS IN WORKMANSHIP OR IN THE WORK OR EQUIPMENT FURNISHED AND/OR INSTALLED BY HIM.

12. <u>FINALLY:</u>

A. IT IS THE INTENT THAT THE FOREGOING WORK SHALL BE COMPLETE IN EVERY RESPECT AND THAT ANY MATERIAL OR WORK NOT SPECIFICALLY MENTIONED OR SHOWN ON THE DRAWINGS, BUT NECESSARY TO FULLY COMPLETE THE WORK SHALL BE FURNISHED.

ELECTRICAL SYMBOLS

ABBREVIATIONS

ABOVE COUNTER ABOVE FINISHED FLOOR. CB CIRCUIT BREAKER. EXPLOSION PROOF. GROUND FAULT CIRCUIT INTERRUPTER. GFI GROUND. HORSEPOWER. LIGHTING PANEL. MOTOR CONTROL CENTER. МН MOUNTING HEIGHT, MANHOLE. NEC NATIONAL ELECTRICAL CODE. NATIONAL ELECTRICAL MANUFACTURERS ASSOC. NOT IN CONTRACT. NIGHT LIGHT. PHOTOELECTRIC SWITCH POWER PANEL RECEPTACLE PANEL UNDERGROUND. UNLESS OTHERWISE NOTED. UON WEATHER PROOF.

<u> WIRING</u>



WIRING CONCEALED IN CEILING OR WALLS; SLASH MARKS INDICATE NUMBER OF CONDUCTORS EXCLUDING GROUNDS; CONDUCTOR SIZE AS MARKED; #12 AWG UON.

UNDERGROUND CABLE OR DUCT; TYPE, SIZE, CONDUCTORS, AND ARRANGEMENT BY NOTATION OR SCHEDULE.

WIRING RUN EXPOSED.

SWITCHES

SWITCH OUTLET; MOUNTED 48" AFF UON; SINGLE POLE UON; LOWER CASE LETTER, WHEN PRESENT, INDICATES OUTLETS CONTROLLED.

- * ABBREVIATIONS FOR SWITCH OUTLETS
- 2 DOUBLE POLE SWITCH4 4-WAY SWITCH
- K KEY OPERATED SWITCH
- NET OF ENATED 3
- D DOOR SWITCH

DIMMER SWITCH; MOUNTED 48" AFF UON; LOWER CASE LETTER, WHEN PRESENT, INDICATES OUTLETS CONTROLLED.

LIGHTING



FLUORESCENT LIGHT FIXTURE — RECESSED, SURFACE, OR PENDENT MOUNTED



RECESSED MOUNTED CEILING FIXTURE



SURFACE MOUNTED CEILING FIXTURE



INCANDESCENT FIXTURE, WALL



SURFACE OR PENDANT MOUNT EXIT SIGN FIXTURE; ARROWS INDICATE REQUIRED SIGN ARROWS.



BATTERY POWERED EMERGENCY LIGHTING FIXTURE



COMBINATION EMERGENCY LIGHTING FIXTURE ANG EXIT SIGN



INDICATES FIXTURE TYPE; SEE SCHEDULE.

RECEPTACLES



GROUNDED DUPLEX RECEPTACLE (NEMA 5-20R); MOUNTED 18" AFF UON; NUMBER INDICATES CIRCUIT.



GROUNDED QUADRUPLEX RECEPTACLE (NEMA 5-20R); MOUNTED 18" AFF UON.



SPECIAL PURPOSE RECEPTACLE; LETTER INDICATES TYPE; TYPE DEFINED BY NOTATION OR SCHEDULE; MOUNTED 18" AFF UON.

PANELS AND MISC.

FUSED SAFETY (DISCONNECT) SWITCH

□ L_{NFSS}

LIGHT OR POWER PANEL

FSS

NON-FUSED SAFETY (DISCONNECT) SWITCH

J

MOTOR

JUNCTION BOX

A

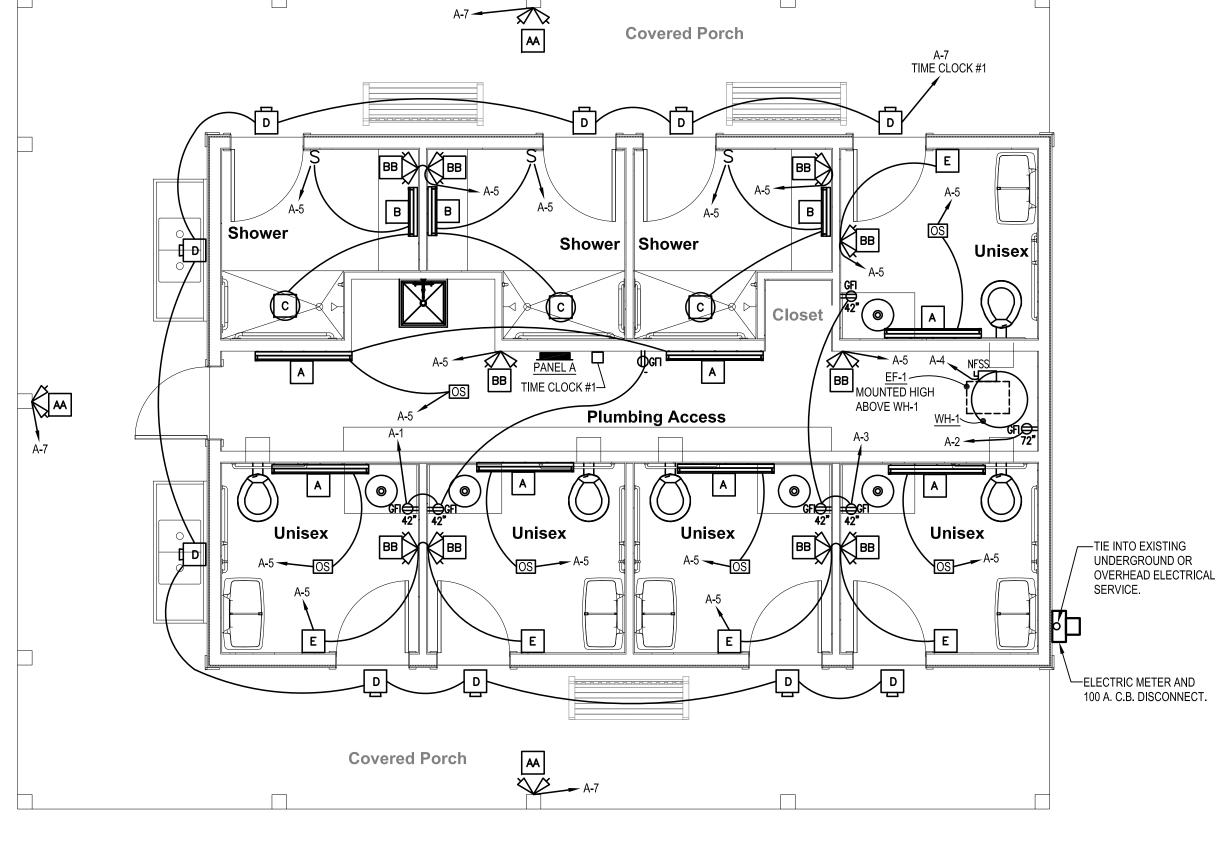
TELEPHONE OUTLET — WALL — MOUNTED 18" AFF, UON PROVIDE 4X4 OUTLET BOX IN WALL WITH 3/4" CONDUIT TO ABOVE CEILING WITH PULL WIRE. WIRING BY OTHERS.

 \triangle

COMPUTER OUTLET — WALL — MOUNTED 18" AFF UON.
PROVIDE 4X4 OUTLET BOX IN WALL WITH 3/4" CONDUIT
TO ABOVE CEILING WITH PULL WIRE. WIRING BY OTHERS.

ELECTRICAL NOTES

- VERIFY CONDITION AND CAPACITY OF EXISTING ELECTRICAL SERVICE
 (MINIMUM 100 AMP SERVICE). REMOVE AND REPLACE AS
 REQUIRED. PROVIDE NEW LIGHTING, POWER AND CONTROL
 CIRCUITING AS REQUIRED
- 2. ALL WORK TO BE PERFORMED IN ACCORDANCE WITH ALL CURRENT ELECTRICAL CODES.
- EXTERIOR LIGHTING TO BE CONTROLLED BY TIMECLOCK. INTERMATIC MODEL T101 OR APPROVED EQUAL
- 4. PROVIDE LOW VOLTAGE CEILING MOUNTED ULTRASONIC MOTION DETECTOR. GREENGATE MODEL OAC-U-1000-R+SP20-MV OR APPROVED EQUAL. OS

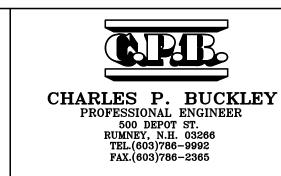


ELECTRICAL PLAN

SCALE: 1/4" = 1'-0"

LIGHTIN	NG FIXTURE SCHE	EDULE		
MARK	MANUFACTURER	FIXTURE MAKE/MODEL	LAMPING	MOUNTING
A	METALUX	4-BCLED-LD4-28SL-F-UNV-L830-CD-1	32W LED	WALL MOUNTED @ 8'-0" AFF
В	METALUX	2-BCLED-LD4-16SL-F-UNV-L830-CD-1	18W LED	WALL MOUNTED @ 8'-0" AFF
С	HALO	SLD606-8-30-WH	12.5W LED	CEILING MOUNTED
D	RAB	BRISKS17L-730	14W LED	ABOVE DOOR/BEHIND BEAM/POST
E	LEGRAND	TMHWLECC	1/4W LED	MOUNT 24" AFF
AA	DUAL-LITE	DYN 6	2-3W. LED	MOUNT TOP 6" T.O. WALL
BB	DUAL-LITE	LZ25DI (25 WATT BATTERY)	2-5W/MR16	MOUNT TOP 6" BELOW CEILING

VOLTS: 120/240	WIRE: 3	KA RMS:	10 KAIC	NEUTRAL B	AR: YES		BRA	ANCH CE	B: BOLT-ON	NEMA TYPE: 1	MF'R: SQUARE "D", (G.E., SIEMENS (OR EQUAL
PHASE: 1	AMP: 100	MAIN CB	AMP: 100	GROUND BA	R: YES		KEY	LOCK:	YES	MOUNTING: SU	RFACE		
VOLT-AMPS(V-A) A B	CIRCUIT DES	SCRIPTION	CONDUCTOR	POLES	C.B.	CK'	'T#	C.B.	POLES	CONDUCTOR	CIRCUIT DESCRIPTION	VOLT—AM A	PS(V-7 B
1000	RECEPT.		2#12+#12G.	1	20	1	2	20	1	2#12+#12G.	RECEPT WH-1	1000	>><
1000	RECEPT.		2#12+#12G.	1	20	3	4	20	1	2#12+#12G.	EF-1	>	600
400	LIGHTING		2#12+#12G.	1	20	5	6				SPACE		>
200	LIGHTING		2#12+#12G.	1	20	7	8				SPACE	\searrow	
	SPACE					9	10				SPACE		>>
	SPACE					11	12				SPACE	>	
	SPACE					13	14				SPACE		>>
	SPACE					15	16				SPACE	> <	
	SPACE					17	18				SPACE		>
	SPACE					19	20				SPACE		
1400 1200	→ TOTAL			TOTAL	CONNEC			L 4200 V	<u>I </u>		TOTAL -	1000	



N.H. LIC. NO. 09198

HVAC, Elec. & Plumb. Engineer: Charles P. Buckley, P.E. 500 Depot Street Rumney, NH 03266 tel: (603) 786-9992

Structural Engineer: Fisher Engineering, P.C. 686 Belknap Mountain Road Gilford, NH 03249 tel: (603) 528-7641

NH STATE PARKS

Campground Expansion Project PII
Pawtuckaway State Park
7 Pawtuckaway Road
Nottingham, NH
03290

ssue

80% DESIGN

Graphic Scale

N1 - .01

Date: DEC.1, 2023

Scale: As indicated

Drawn By: CPB

Checked By: CPB

No.	Description	Date

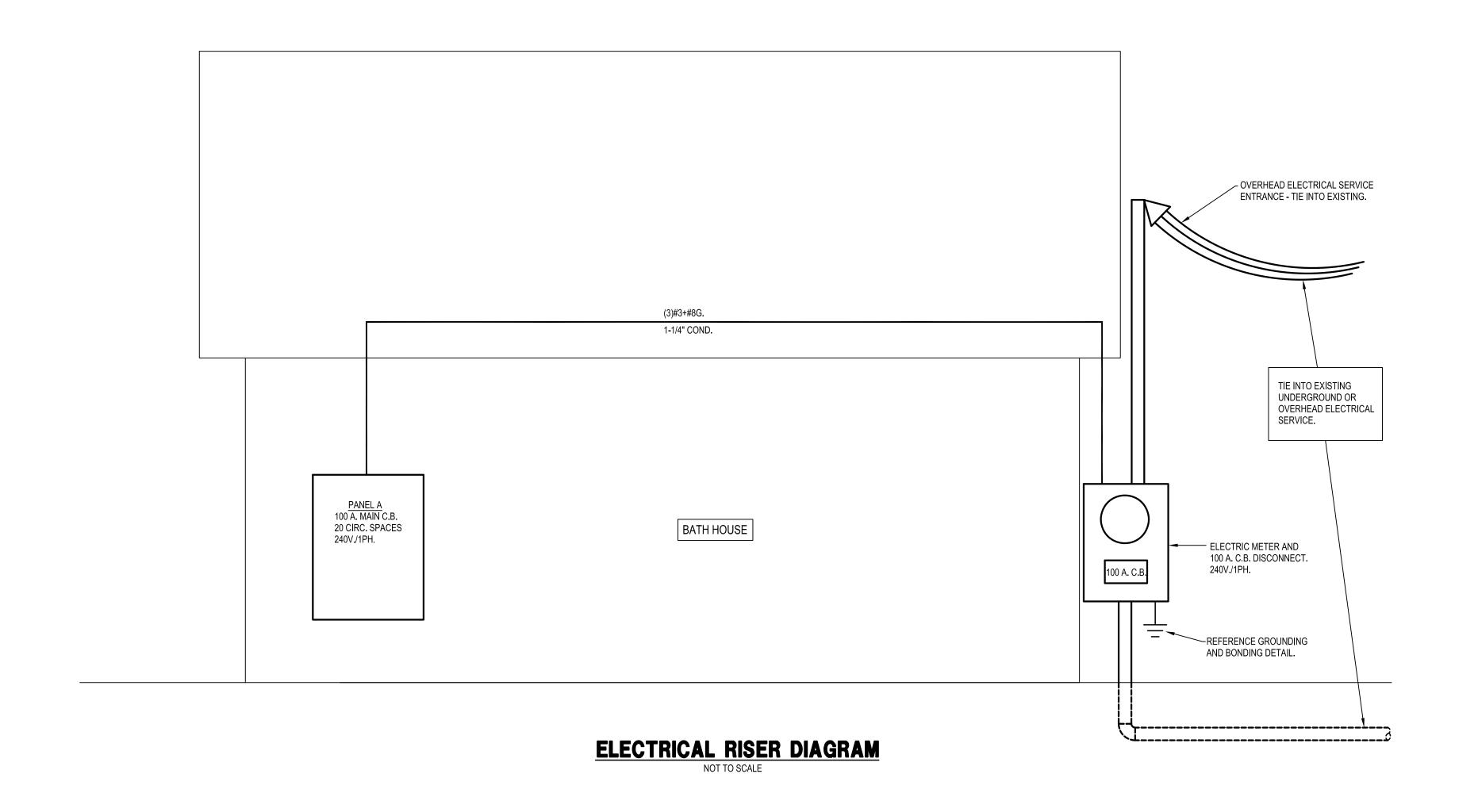
Title

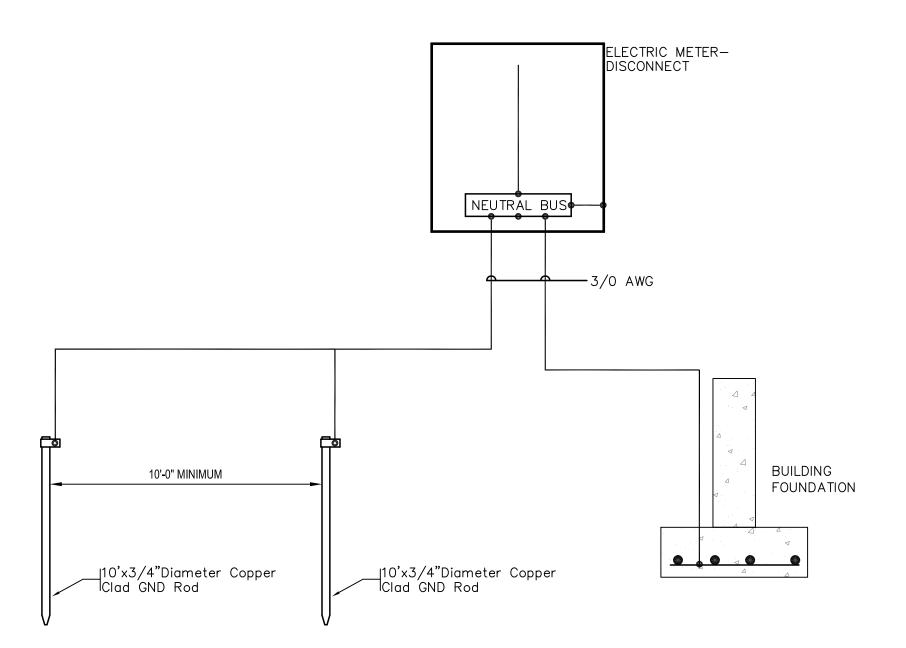
ELECTRICAL PLAN AND DETAILS

Sheet Number:

E1.01F

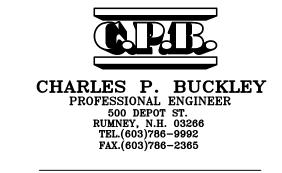
Project Number: 2136





GROUNDING & BONDING DETAIL

NOT TO SCALE



N.H. LIC. NO. 09198

HVAC, Elec. & Plumb. Engineer: Charles P. Buckley, P.E. 500 Depot Street Rumney, NH 03266 tel: (603) 786-9992

Structural Engineer: Fisher Engineering, P.C. 686 Belknap Mountain Road Gilford, NH 03249 tel: (603) 528-7641

NH STATE PARKS

Campground Expansion Project PII
Pawtuckaway State Park
7 Pawtuckaway Road
Nottingham, NH
03290

Issu

80% DESIGN

Graphic Scale

North

Scale: As indicated

Date: DEC. 1, 2023

Drawn By: CPB

Checked By: CPB

No.	Description	Date

Title

ELECTRICAL RISERS

Sheet Number:

E1.02P

Project Number: 2136

	WATER HEATER SCHEDULE									
MARK	CAPACITY	RECOVERY ©	BTU PER HR.	GAS	WATER	ELECTRIC		MANUFACTURE	REMARKS	
		100 DEG. F. RISE		CONN.	CONN.	AMPS	VOLT-PHASE	& MODEL		
WH-1	100 GAL.	235 GAL.	199,000	3/4"	1-1/4"	10.0	120-1	A.O. SMITH MODEL BTH-199	-PROPANE FIRED -POWER VENTED -4" VENT & COMB. AIR PIPES -140 DEG F. DISCHARGE TEMP.	

PLUMBING NOTES

- TIE NEW WATER AND SEWER TO EXISTING SERVICE ENTRANCES.
 PROVIDE CONNECTIONS APPROPRIATE TO TYPE AND MATERIALS OF EXISTING SYSTEMS TO REMAIN.

 2. LANGUET WATER LINES TO DITCH TO DRAIN VALVES TO FACILITATE.
- LAYOUT WATER LINES TO PITCH TO DRAIN VALVES TO FACILITATE SEASONAL DRAIN DOWN.
- 3. REMOVE ALL EXISTING PLUMBING FIXTURES AND INSTALL NEW AS SHOWN

CHARLES P. BUCKLEY PROFESSIONAL ENGINEER 500 DEPOT ST. RUMNEY, N.H. 03266 TEL.(603)786-9992 FAX.(603)786-2365

N.H. LIC. NO. 09198

HVAC, Elec. & Plumb. Engineer: Charles P. Buckley, P.E. 500 Depot Street Rumney, NH 03266 tel: (603) 786-9992

Structural Engineer:
Fisher Engineering, P.C.
686 Belknap Mountain Road
Gilford, NH 03249
tel: (603) 528-7641

NH STATE PARKS

Campground Expansion Project PII
Pawtuckaway State Park
7 Pawtuckaway Road
Nottingham, NH
03290

Issue

80% DESIGN

Graphic Scale

North

Scale: As indicated

Date: DEC. 1, 2023

Drawn By: CPB

Checked By: CPB

sues:

o. Description Date

Title

PLUMBING PLAN AND DETAILS

Sheet Number:

P1.01P

Project Number: 2136
File:

PLUMBING NOTES

SCOPE OF WORK

- 1. A. THE CONTRACTOR IS RESPONSIBLE FOR ALL WORK, MATERIALS, AND LABOR TO SATISFY A COMPLETE WORKING SYSTEM WHETHER SPECIFIED OR IMPLIED.
- B. ALL WORK IS TO BE PERFORMED IN STRICT COMPLIANCE WITH THE INTERNATIONAL PLUMBING CODE (2018).
- C. THE CONTRACTOR SHALL, BEFORE SUBMITTING ANY PROPOSAL, EXAMINE THE PROPOSED SITE AND SHALL DETERMINE FOR HIMSELF THE CONDITIONS THAT MAY EFFECT THE WORK. NO ALLOWANCE SHALL BE MADE IF THE CONTRACTOR FAILS TO MAKE SUCH EXAMINATIONS.
- D. ALL EQUIPMENT AND MATERIALS SHALL BE AS SPECIFIED OR "APPROVED EQUAL" BY ENGINEER OR ARCHITECT.

SHOP DRAWINGS

- A. SUBMIT MATERIAL LIST AND SHOP DRAWINGS FOR MAJOR EQUIPMENT/FIXTURES TO THE ARCHITECT OR ENGINEER FOR APPROVAL. THE SHOP DRAWINGS SHALL BE CLEARLY TAGGED AND HIGHLIGHTED.
- 3. DOMESTIC WATER SUPPLY PIPING
 - A. ABOVE GROUND: MAINS AND BRANCHES COPPER PIPE WITH SOLDER JOINTS.

 BRANCHES PEX WITH PEX FITTINGS.
 - B. ALL HOT WATER PIPING TO BE INSULATED WITH 1" FIBERGLASS INSULATION.
 - C. ALL COLD WATER PIPING TO BE INSULATED WITH 1/2" FOAM INSULATION.
 - D. PROVIDE DOMESTIC WATER SHUT-OFFS AT EACH PLUMBING FIXTURE.

4. SANITARY/STORM DRAINAGE AND VENT PIPING

A. ABOVE GRADE:

OR FLOORS.

- -2" AND BELOW: SCH. 40 PVC WITH SOLVENT JOINTS.-3" AND ABOVE: SCH. 40 PVC WITH SOLVENT JOINTS.
- J AND ADOVE. Som. TO 1 VO WITH SOLVEN COMM.
- B. BELOW GRADE: SCH. 40 PVC WITH SOLVENT JOINTS.C. PVC PIPING SHALL NOT BE USED IN AIR PLENUM CEILINGS AND SHALL NOT CROSS FIRE RATED WALLS, CEILINGS,
- D. DRAINAGE PIPING SHALL BE RUN AS STRAIGHT AS POSSIBLE AND SHALL HAVE LONG TURN FITTINGS.
- E. DRAINAGE PIPING 3" SIZE AND SMALLER SHALL RUN AT A UNIFORM GRADE OF AT LEAST 1/4" PER FOOT, AND PIPING LARGER THAN 3" SHALL BE RUN AT A GRADE OF NO LESS THAN 1/8" PER FOOT.
- F. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER FLASHING OF THE VENT PIPING RUN THROUGH THE ROOF.
- 5. ALL STUB-INS AND/OR SLAB OR WALL PENETRATION TO BE PER INTERNATIONAL PLUMBING CODE. ALL PIPING PENETRATIONS OF BUILDING FOUNDATIONS, FOOTINGS AND WALLS SHALL BE SLEEVED.
- 6. <u>PIPE SUPPORTS</u>

PLUMBING CODE.

A. ABOVE GRADE

ALL PIPE SHALL BE SUPPORTED FROM THE BUILDING

STRUCTURE IN A NEAT AND WORKMANLIKE MANNER.

THE USE OF WIRE AND PERFORMED METAL TO SUPPORT

PIPES WILL NOT BE PERMITTED. SPACING OF PIPE SUPPORTS

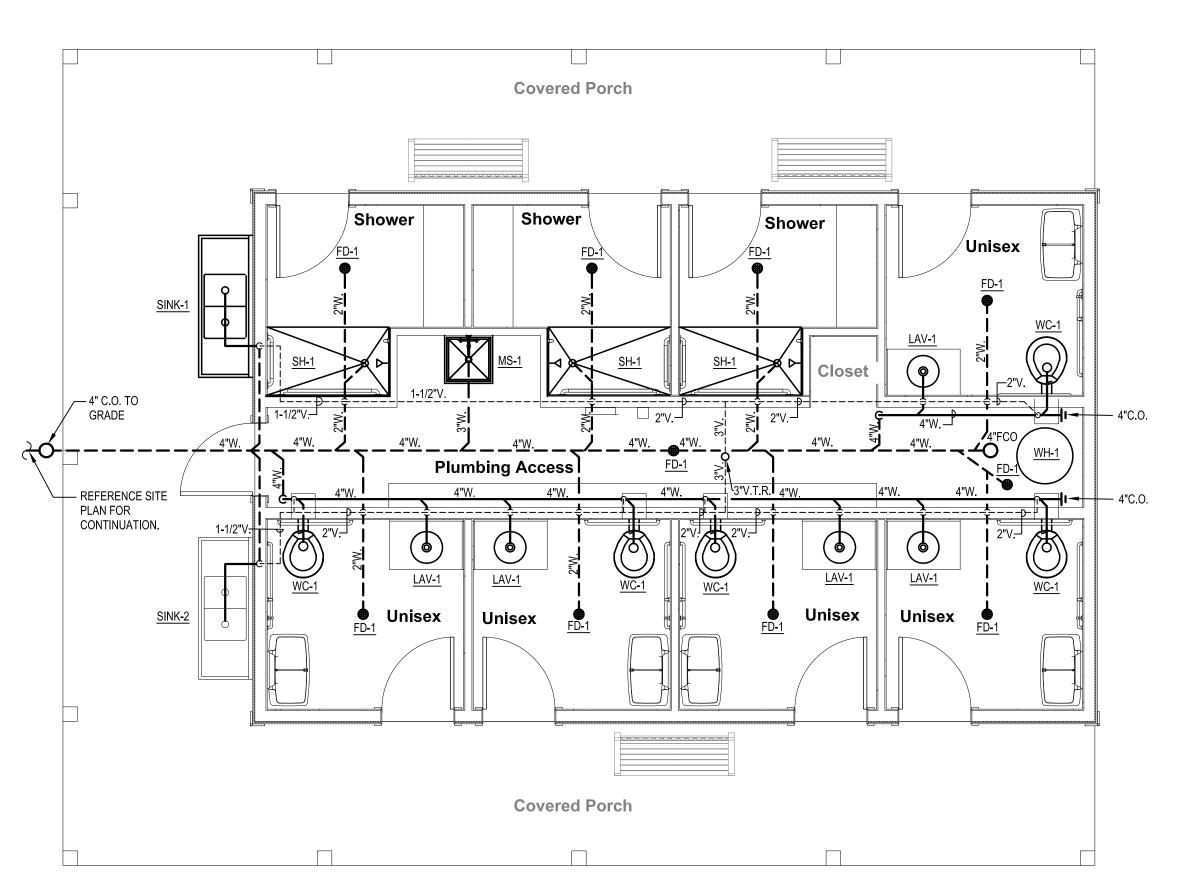
SHALL BE AS SPECIFIED IN THE INTERNATIONAL

7. MISCELLANEOUS

- A. COORDINATE INSTALLATION OF ALL ROOF FLASHING AT ROOF PENETRATION.
- B. DO NOT SCALE THIS DRAWING FOR EXACT DIMENSIONS.
 VERIFY ALL FIGURES, CONDITIONS, AND DIMENSIONS
 AT THE JOB SITE.
- C. THE PLUMBING PLANS ARE INTENDED TO BE DIAGRAMATIC AND ARE BASED ON ONE MANUFACTURE'S EQUIP—
 MENT. THEY ARE NOT INTENDED TO SHOW EVERY ITEM IN ITS EXACT LOCATION, THE EXACT DIMENSIONS, OR ALL THE DETAILS OF THE EQUIPMENT. THE CONTRACTOR SHALL VERIFY THE ACTUAL DIMENSIONS OF THE EQUIP—
 MENT PROPOSED TO ENSURE THAT THE EQUIPMENT WILL FIT IN THE AVAILABLE SPACE.
- D. SEAL AND FLASH ALL WALL PENETRATIONS AIR AND WEATHER—TIGHT.

8. <u>TESTING AND DISINFECTION</u>

A. PLUMBING SYSTEMS SHALL BE FLOW AND PRESSURE TESTED & DISINFECTED IN ACCORDANCE WITH STANDARD PRACTICE AND THE INTERNATIONAL PLUMBING CODE.

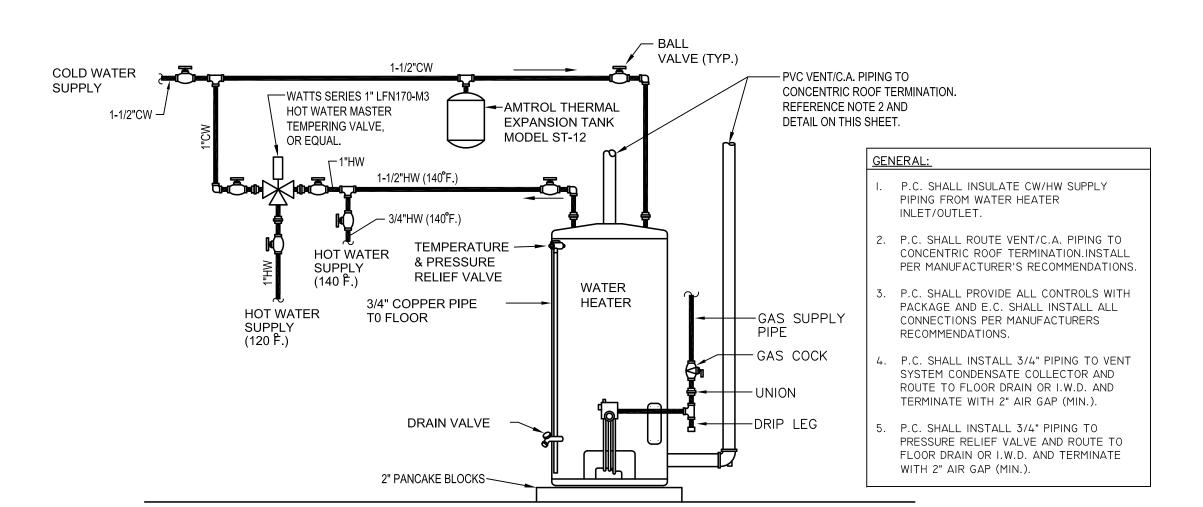


PLUMBING PLAN - WASTE & VENT

	PLUMBING S	<u>YMBOLS</u>	
<u>SYMBOL</u>	<u>DESCRIPTION</u>	SYMBOL	<u>DESCRIPTION</u>
	SOIL OR WASTE PIPE (BELOW GROUND)	<u></u>	VACUUM BREAKER
	SOIL OR WASTE PIPE (ABOVE GROUND)	\bigcirc	PRESSURE GAGE
	VENT PIPE (V)	ģ	TEMPERATURE GAGE
	COLD WATER PIPE (CW)		PRESSURE REDUCING VALVE
	HOT WATER PIPE (HW)	→	GAS COCK
	HOT WATER RETURN (HWR)	VTR	VENT THROUGH ROOF
G	GAS PIPE	LAV	LAVATORY
	- STORM DRAIN	WC	WATER CLOSET
— O FD	FLOOR DRAIN	URN	URINAL
<u> </u>	CLEAN-OUT(FLOOR)	•	COLD WATER CONNECTION
<u> </u>	CLEAN-OUT(WALL OR ABOVE CLG.)	∢ (120^F)	HOT WATER CONNECTION
WH	HOT WATER HEATER	◁ (140^F)	HOT WATER CONNECTION
$\longrightarrow\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!$	GATE VALVE	◁	HOT WATER RETURN CONNECTION
-1 7 -	CHECK VALVE		GAS CONNECTION
- - -	TEMP./PRESS. RELIEF VALVE	C.S.	IN CRAWL SPACE
 ∳-	FIXTURE ISOLATION VALVE	GV	ELECTRIC GAS VALVE FOR PIPING UNDER HOODS —
- √ -	BALL VALVE		TIE INTO ANSUL SYSTEM

MARK	DESCRIPTION	MANUFACTURER - MODEL #	ACCESSORIES & NOTES	PIPING CONNECTIONS					COLOR & FINISH	
				TRAP	S/W	VENT	C.W.	H.W.		NOTES
WC-1	ACCESSIBLE TOILET	AMERICAN STANDARD: AFWALL MILLENIUM FLOWISE 1.28 GPF FLUSHOMETER MODEL: 2856.128	FLUSH VALVE: AMERICAN STANDARD MODEL 6047.121.002 TOILET SEAT: AMERICAN STANDARD MODEL #5901.100 (COLOR: BLACK) CARRIER: JAY R. SMITH, OR EQUAL.	INTEGRAL	4"	2"	1"		WHITE	
LAV-1	COUNTER SINK	CORIAN: ADA—COMPLIANT MODEL #810	FAUCET: SYMMONS SYMMETRIX S-20-2-0.5, TRAP: CHROME PLATED, MIXING VALVE: SYMMONS MAXLINE 7-210-CK-W, PIPE COVERS: TRUEBRO LAV GUARD 2 E-Z SERIES	1-1/2"	1-1/2"	1-1/2"	1/2"	1/2"	AS SELECTED BY ARCHITECT	
SH-1	ACCESSIBLE SHOWER	CUSTOM	SHOWER PAN: SWAN FBF-3060L/R VERITEK BARRIER-FREE SHOWER PAN WITH FIT-FLO DRAIN. DRAIN: WATTS FD-1100-A-2-NH-A5-7, HEAD: SYMMONS SAFETYMIX 4-151 (2 HEADS @ ADA), CONTROLS: SYMMONS SAFETYMIX 4-500-BX-VP, DIVERTER VALVE: SYMMONS MODEL 2DIV.	2"	2"	1-1/2"	1/2"	1/2"	AS SELECTED BY ARCHITECT	
FD-1	FLOOR DRAIN	ZURN: MODEL FD2-TSP-VP	TRAP SEAL: ZURN Z1072 ZSHIELD BARRIER TRAP SEAL DEVICE	2"	2"	1-1/2"				
MS-1	MOP SINK	FIAT MODEL MSB2424	● FAUCET: FIAT MODEL 830AA ● MOP HANGER: FIAT MODEL889CC ● FIAT STAINLESS BUMPER GUARD	3"	3"	1-1/2"	1/2"	1/2"		
SINK-1	DISH WASHING SINK	ADVANCE TABCO MODEL VKCT-246 WITH TA-11A-2 BOWLS AND ADJUSTABLE LEGS MOUNTED AT ACCESSIBLE HEIGHT (MOUNTING AT BARRIER-FREE HEIGHT).	 FAUCET: ADVANCE TABCO HEAVY DUTY MODEL K-1118 SPASH MOUNTED FAUCETS, 8" CTRS., SWING NOZZLE, 12" SPOUT. STAINLESS STEEL STRAINER AND DRAIN BODY. PROVIDE 1 FAUCET PER EACH BOWL. 	2"	2"	1-1/2"	1/2"	1/2"		14" DEEP BOWL
SINK-2	DISH WASHING SINK	ADVANCE TABCO MODEL VKCT-246 WITH TA-11B-2 BOWLS AND ADJUSTABLE LEGS.	• FAUCET: ADVANCE TABCO HEAVY DUTY MODEL K-1118 SPASH MOUNTED FAUCETS, 8" CTRS., SWING NOZZLE, 12" SPOUT. • STAINLESS STEEL STRAINER AND DRAIN BODY. • PROVIDE 1 FAUCET PER EACH BOWL.	2"	2"	1-1/2"	1/2"	1/2"		12" DEEP BOWL

	WATER HEATER SCHEDULE											
MARK	CAPACITY	RECOVERY © 100 DEG. F. RISE	BTU PER HR.	GAS CONN.	WATER CONN.	ELECTRIC		MANUFACTURE	REMARKS			
						AMPS	VOLT-PHASE	& MODEL				
WH-1	100 GAL.	178 GAL./HR.	150,000	3/4"	1-1/4"	10.0	120-1	A.O. SMITH MODEL BTH 150	-PROPANE FIRED -POWER VENTED -4" VENT & COMB. AIR PIPES -140 DEG F. DISCHARGE TEMPMIXING VALVE			



WATER HEATER WITH MIXING VALVE DETAIL

NOT TO SCALE

12" MINIMUM
ABOVE AVERAGE
SNOW ACCUMLATION

CLAMP

FLUE EXHAUST PIPE

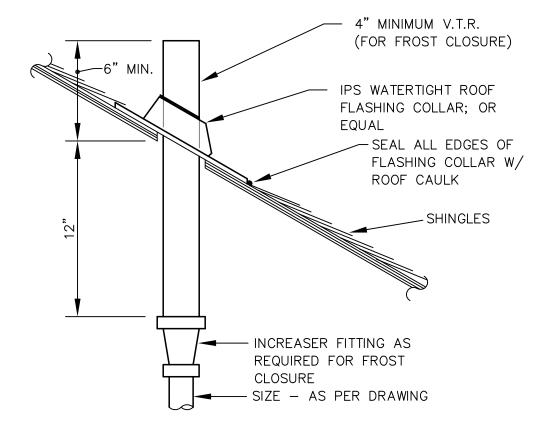
FLOSING

PITCHED
ROOF

SHEET METAL STRAP

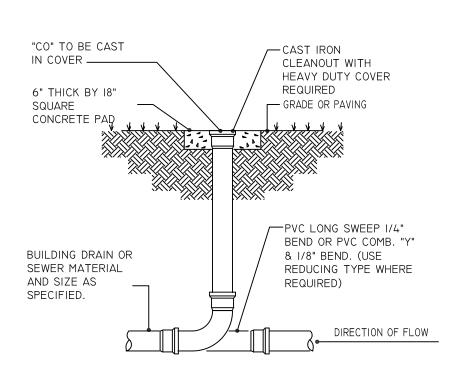
COMBUSTION AIR PIPE

CONCENTRIC FLUE PIPING DETAIL
FOR HIGH EFFICIENCY WATER HEATER
NOT TO SCALE



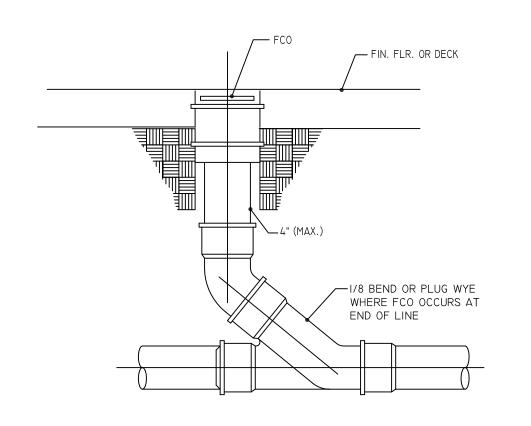
VENT THRU ROOF DETAIL

NOT TO SCALE



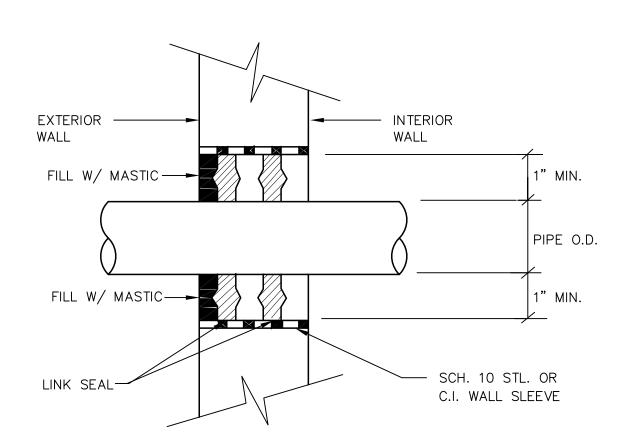
GRADE CLEANOUT DETAIL

NOT TO SCALE



FLOOR CLEANOUT DETAIL

NOT TO SCALE

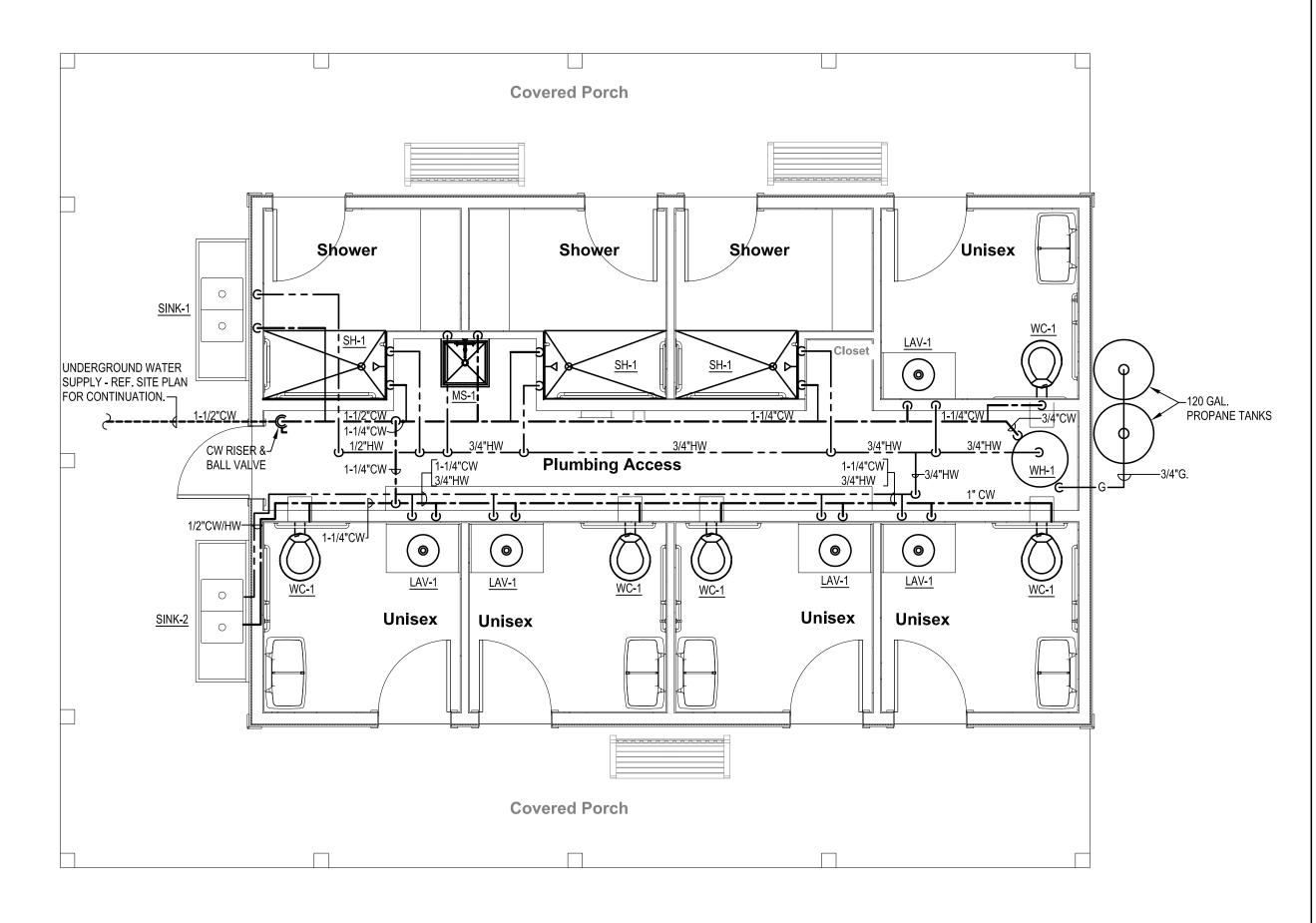


EXTERIOR WALL SLEEVE DETAIL

NOT TO SCALE

SHEET NOTES

PROVIDE DRAIN BACK VALVES (BOILER DRAIN COCKS) AT CW AND HW FEEDS TO EACH SINK AND LAVATORY.

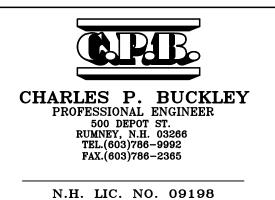


<u>PLUMBING PLAN - DOMESTIC WATER AND GAS</u>

CALE: 1/4" = 1'-0"

GENERAL LP PIPING NOTES

- 1. GAS PIPING HAS BEEN DESIGNED AND SHALL BE INSTALLED IN ACCORDANCE WITH INTERNATIONAL FUEL GAS CODE 2018 AND NFPA 58 STANDARD FOR THE STORAGE AND HANDLING OF LIQUIFIED PETROLEUM GASES (LATEST EDITION).
- 2. GAS PIPING INSTALLED ON THE EXTERIOR OF THE BUILDING AND ABOVE GRADE SHALL BE SCHEDULE 40 BLACK STEEL PIPE (ASTM A53,A106) AND HAVE THREADED JOINTS (ASME B1.20.1). THE BLACK STEEL PIPE SHALL BE COVERED WITH 2 COATS OF A WATERPROOF ASPHALTIC COATING (OR EQUAL) TO PREVENT CORROSION OF THE PIPE.
- 3. GAS PIPING INSTALLED ON THE INTERIOR OF THE BUILDING SHALL BE SCHEDULE 40 BLACK STEEL PIPE (ASTM A53, A106) AND HAVE THREADED JOINTS (ASME B1.20.1).
- 4. JOINTS BETWEEN DIFFERENT PIPING MATERIALS SHALL BE MADE WITH APPROVED ADAPTER FITTINGS.
- 5. ALL PENETRATIONS OF GAS PIPING THROUGH SLABS AND FOUNDATION WALLS SHALL BE SLEEVED WITH A PIPE SLEEVE.
- 6. PROPANE GAS SUPPLIER SHALL PROVIDE ALL NECESSARY REGULATORS, PRESSURE GAUGES, VALVES AND LEVEL GAUGES AT PROPANE TANKS.
- 7. GAS SUPPLY PRESSURE = 11 INCHES WATER GAUGE.
- 8. GAS PIPE SIZING IS BASED ON TABLE 402.4(24) IN THE INTERNATIONAL FUEL GAS CODE 2018. A MAXIMUM PIPE LENGTH OF 40 FT. HAS BEEN USED FOR THIS DESIGN.



HVAC, Elec. & Plumb. Engineer: Charles P. Buckley, P.E. 500 Depot Street Rumney, NH 03266 tel: (603) 786-9992

Structural Engineer:
Fisher Engineering, P.C.
686 Belknap Mountain Road
Gilford, NH 03249
tel: (603) 528-7641

NH STATE PARKS

Campground Expansion Project PII
Pawtuckaway State Park
7 Pawtuckaway Road
Nottingham, NH
03290

Issue

80% DESIGN

Graphic Scale

North

Scale: As indicated

Date: DEC. 1, 2023

Drawn By: CPB

Checked By: CPB

No. Description Date

Title

PLUMBING PLAN AND DETAILS

Sheet Number:

P1.02P

Project Number: 2136