PROPOSED RETAIL MOTOR FUEL OUTLET
SITE REDEVELOPMENT PLANS

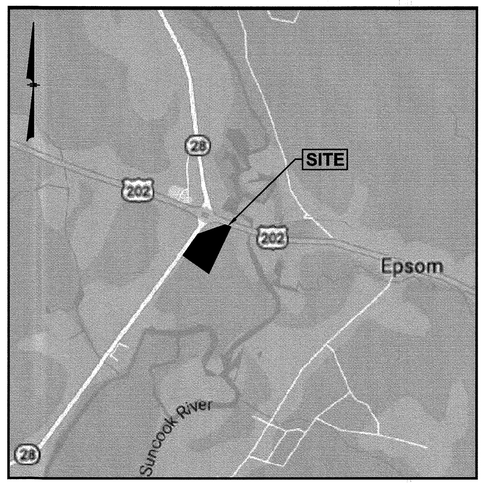
for

ASSESSORS MAP U5 LOT 13
910 SUNCOOK VALLEY HIGHWAY
EPSOM, NEW HAMPSHIRE

Prepared for:

GRANITE STATE CONVENIENCE, LLC

25 SPRINGER ROAD
HOOKSETT, NH 03106



LOCATION MAP
(NOT TO SCALE)

INDEX TO DRAWINGS

1. TITLE SHEET
2. EXISTING CONDITIONS PLAN
3. DEMOLITION PLAN
4. SITE PLAN
5. GRADING & DRAINAGE PLAN
6. UTILITY PLAN
7. EROSION & SEDIMENTATION CONTROL PLAN
8. LANDSCAPE PLAN
9. DETAIL SHEET
10. DETAIL SHEET
11. DETAIL SHEET
12. DETAIL SHEET
13. DETAIL SHEET
14. DETAIL SHEET
15. SIGN & GRAPHICS PLAN

1 OF 5. SUBSURFACE SEWAGE DISPOSAL SYSTEM
2 OF 5. SUBSURFACE SEWAGE DISPOSAL SYSTEM DETAILS
3 OF 5. SUBSURFACE SEWAGE DISPOSAL SYSTEM DETAILS
4 OF 5. SUBSURFACE SEWAGE DISPOSAL SYSTEM DETAILS
5 OF 5. SUBSURFACE SEWAGE DISPOSAL SYSTEM DETAILS
1 OF 1. TRUCK TURN PLAN
1 OF 2. LIGHTING PLAN (RL-7405-S1)
2 OF 2. LIGHTING DETAILS (RL-7405-S1)
1 OF 3. EXTERIOR ELEVATIONS (A201)
2 OF 3. EXTERIOR ELEVATIONS (A202)
3 OF 3. PERSPECTIVE VIEWS (A801)
1 OF 1. CANOPY ELEVATIONS (A2.2)

APPROVED BY THE EPSOM PLANNING BOARD
ON _____, 2021

CERTIFIED BY: _____
CHAIR PERSON

_____
SECRETARY

GPI Engineering Design Planning Construction Management
603.893.0720 GPINET.COM
Greenman-Pedersen, Inc.
44 Stiles Road, Suite One
Salem, NH 03079

PREPARED FOR
GRANITE STATE CONVENIENCE, LLC
25 SPRINGER ROAD
HOOKSETT, NH 03106

PROPOSED RETAIL MOTOR FUEL OUTLET
ASSESSORS MAP U5 LOT 13
910 SUNCOOK VALLEY HWY
EPSOM, NEW HAMPSHIRE

STATE OF NEW HAMPSHIRE
DAVID R. JORDAN
No. 7778
LICENSED
PROFESSIONAL ENGINEER
7/22/21

REVISIONS

NO.	REVISION	DATE
2	ADD SHEET 14, REV. SHEETS 2, 4-9, 11	7/30/21
1	REVISE SHEET 4	7/22/21

JUNE 18, 2021

DRAWN/DESIGN BY	CHECKED BY
JD/NID	FCM

TITLE SHEET

SCALE: NOT TO SCALE

PROJECT NO. NEX-2020033

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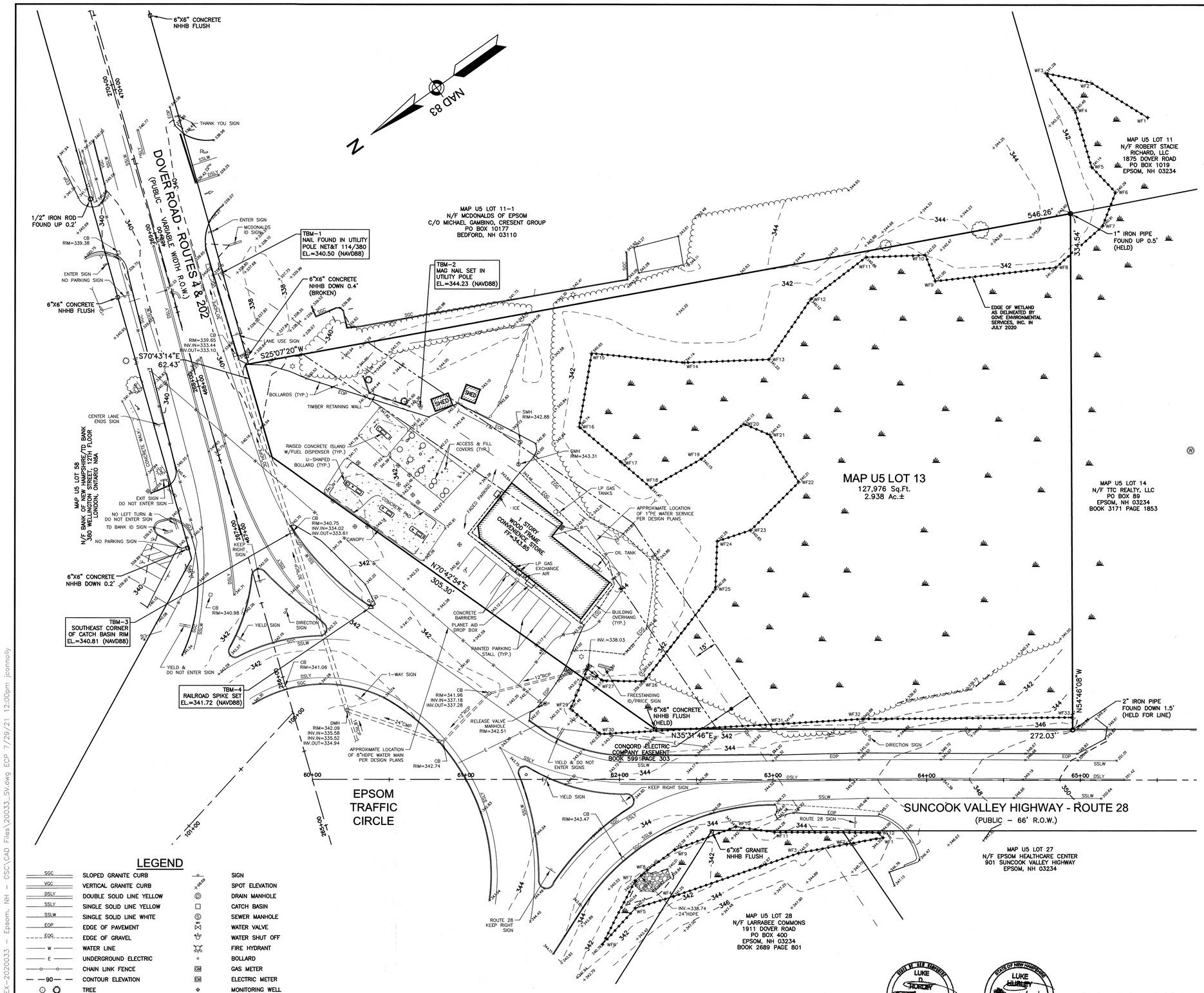
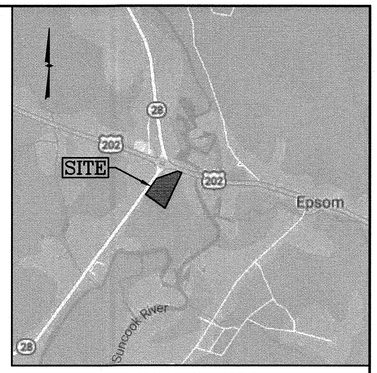


LEGEND

SGC	SLOPED GRANITE CURB		SIGN
VGC	VERTICAL GRANITE CURB	218.68	SPOT ELEVATION
DSLY	DOUBLE SOLID LINE YELLOW		DRAIN MANHOLE
SSLY	SINGLE SOLID LINE YELLOW		CATCH BASIN
SSLW	SINGLE SOLID LINE WHITE		SEWER MANHOLE
EOP	EDGE OF PAVEMENT		WATER VALVE
EOG	EDGE OF GRAVEL		WATER SHUT OFF
W	WATER LINE		FIRE HYDRANT
E	UNDERGROUND ELECTRIC		BOLLARD
	CHAIN LINK FENCE	GM	GAS METER
90	CONTOUR ELEVATION	EM	ELECTRIC METER
	TREE		MONITORING WELL
	UTILITY POLE		LIGHT POLE
	GUY WIRE		WETLAND LINE
	OVERHEAD WIRE		TREELINE



LOCATION MAP
(NOT TO SCALE)

NOTES:

1) ZONE: RESIDENTIAL-COMMERCIAL (R/C)
   MIN. LOT SIZE: 2 Ac.
   MIN. LOT FRONTAGE: 200 Ft.
   SETBACKS:
   FRONT 50 Ft.
   SIDE 15 Ft.
   REAR 20 Ft.
   REFER TO THE TOWN OF EPSOM ZONING ORDINANCE FOR VERIFICATION, ADDITIONAL RESTRICTIONS AND PERMITTED USES.
2) THIS PLAN IS THE RESULT OF AN ON-THE-GROUND FIELD SURVEY PERFORMED BY THIS OFFICE IN JULY 2020.
3) BEARINGS SHOWN HEREON ARE BASED ON NAD83 PER GPS OBSERVATIONS PERFORMED BY THIS OFFICE ON JULY 17, 2020.
4) ELEVATIONS SHOWN HEREON ARE BASED ON NAVD88 PER GPS OBSERVATIONS PERFORMED BY THIS OFFICE ON JULY 17, 2020.
5) WETLANDS SHOWN HEREON WERE DELINEATED BY GOVE ENVIRONMENTAL SERVICES, INC. IN JULY 2020 AND LOCATED BY THIS OFFICE.
6) LOCATION OF UNDERGROUND UTILITIES IS APPROXIMATE ONLY. ADDITIONAL UNDERGROUND UTILITIES OTHER THAN THOSE SHOWN MAY BE ENCOUNTERED. INVERTS ARE LISTED IN A CLOCKWISE DIRECTION ENDING WITH THE INVERT OUT (UNLESS OTHERWISE NOTED).
7) THE SURVEY TRACT IS NOT LOCATED IN A SPECIAL FLOOD HAZARD AREA (100 YEAR FLOOD) PER FLOOD INSURANCE RATE MAP NUMBER 33013C0576E, WITH AN EFFECTIVE DATE OF APRIL 19, 2010. THE BASE FLOOD ELEVATION (BFE) AT THE UPSTREAM EDGE OF THE SITE = 338.8' (NAVD88) PER FIS PROFILE 74P.

PLAN REFERENCES:

1) FEDERAL AID PROJECT NO. SN-FAP 210-B(3).
2) FEDERAL AID PROJECT NO. SN-FAP 210-C(2).
3) T.L.R. PROJECT 14176; N.H. PROJECT NO. P-1998.
4) SURFACE TRANSPORTATION PROJECT STP-BRF-F-T-012-1(23); N.H. PROJECT NO. 11141.
5) MERRIMACK COUNTY REGISTRY OF DEEDS (M.C.R.D.) PLAN 834.
6) M.C.R.D. PLAN 4225.
7) M.C.R.D. PLAN 10340.

CERTIFICATION:

I CERTIFY THAT THIS SURVEY AND PLAN WAS PREPARED BY ME OR THOSE UNDER MY DIRECT SUPERVISION AND THAT THIS PLAN IS THE RESULT OF AN ACTUAL SURVEY PERFORMED ON THE GROUND IN JULY 2020 WITH A LEICA TS12 ROBOTIC TOTAL STATION. THE PROPERTY LINES BORDERING THE SUBJECT PARCEL AS DEPICTED HEREON WERE ESTABLISHED FROM A RANDOM TRAVERSE WITH AN ERROR OF CLOSURE OF NOT MORE THAN ONE PART IN TEN THOUSAND.

STATE OF NEW HAMPSHIRE LICENSED LAND SURVEYOR NO. 997 JOEL A. CONNOLLY

7/29/2021

JOEL A. CONNOLLY, LLS 997 — DATE

STATE OF NEW HAMPSHIRE LUKE D. HUBLEY No. 095 PROFESSIONAL SOIL SCIENTIST 6/18/21

STATE OF NEW HAMPSHIRE LUKE HUBLEY 6/18/21 No. 232 CERTIFIED WETLAND SCIENTIST

OWNER OF RECORD:

AOUDE, INC.
25 ESTHER DRIVE
BEDFORD, NH 03110
BOOK 3489 PAGE 641

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PREPARED FOR
GRANITE STATE CONVENIENCE, LLC
25 SPRINGER ROAD
HOOKSETT, NH 03106

PROPOSED RETAIL MOTOR FUEL OUTLET
ASSESSORS MAP U5 LOT 13
910 SUNCOOK VALLEY HWY
EPSOM, NEW HAMPSHIRE

REVISIONS		
1	OWNERS ADDRESS AND CERTIFICATION	7/29/21
NO.	REVISION	DATE

JUNE 18, 2021

DRAWN/DESIGN BY	CHECKED BY
JAC	JAC

EXISTING CONDITIONS PLAN

SCALE: 1"=30'

PROJECT NO. NEX-2020033

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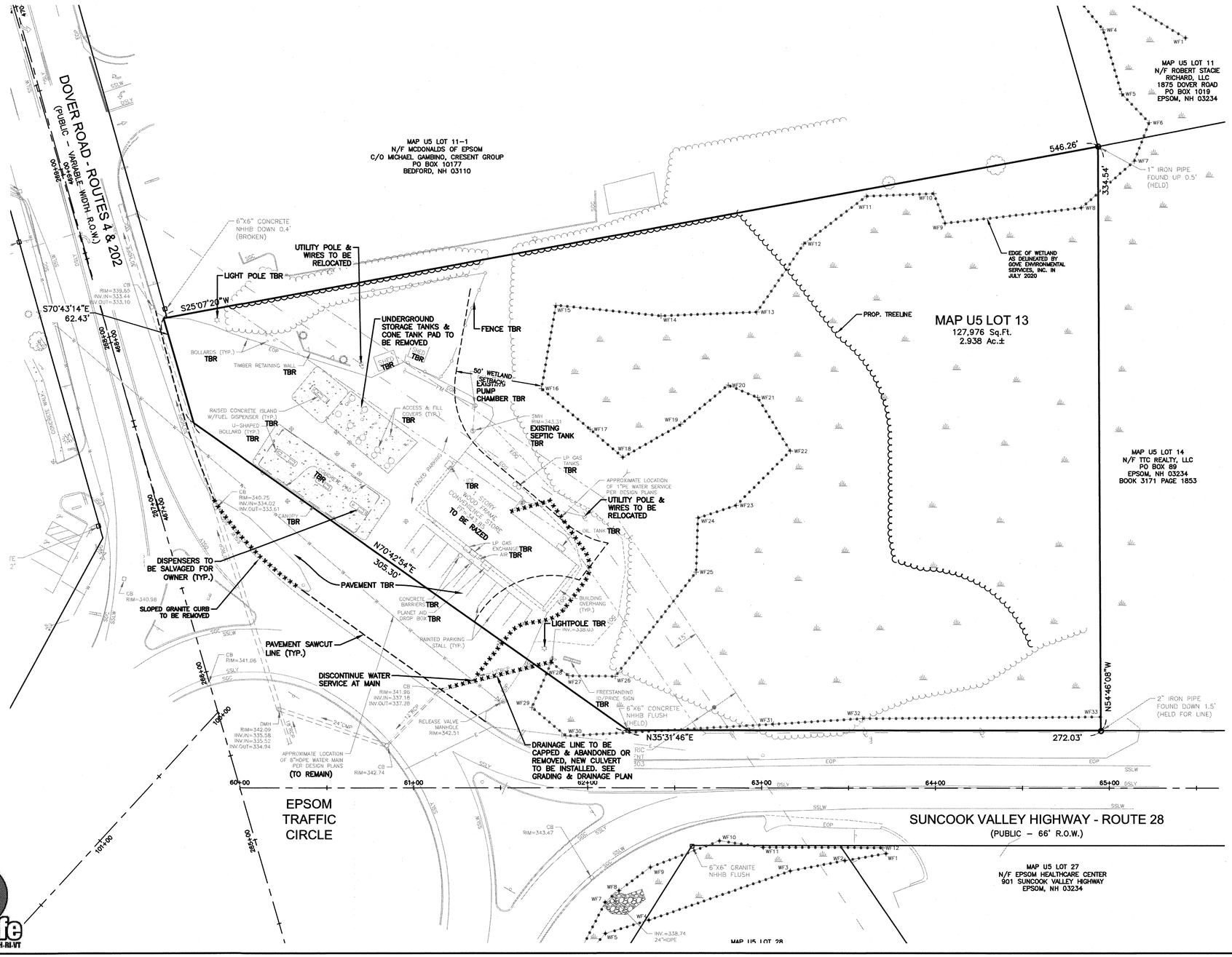
LEGEND

SGC	SLOPED GRANITE CURB		SIGN
VGC	VERTICAL GRANITE CURB	X=456.789	SPOT ELEVATION
DSLY	DOUBLE SOLID LINE YELLOW		DRAIN MANHOLE
SSLY	SINGLE SOLID LINE YELLOW		CATCH BASIN
SSLW	SINGLE SOLID LINE WHITE		SEWER MANHOLE
EOP	EDGE OF PAVEMENT		WATER VALVE
EOG	EDGE OF GRAVEL		WATER SHUT OFF
W	WATER LINE		FIRE HYDRANT
E	UNDERGROUND ELECTRIC		BOLLARD
	CHAIN LINK FENCE	GM	GAS METER
90	CONTOUR ELEVATION	EM	ELECTRIC METER
	TREE		MONITORING WELL
	UTILITY POLE		LIGHT POLE
	GUY WIRE		WETLAND LINE
	OVERHEAD WIRE		TREELINE
		TBR	TO BE REMOVED
		K K K K K K	TO BE REMOVED

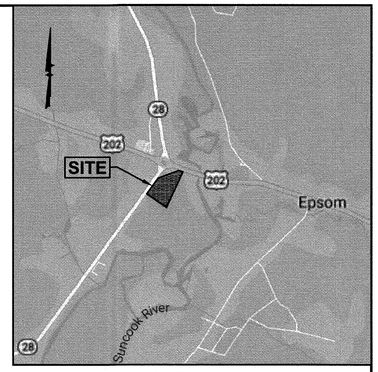
N NAD 83

SEE DETAIL SHEETS FOR CONSTRUCTION SEQUENCE AND TEMPORARY EROSION CONTROL MEASURES. SEE GRADING PLAN FOR LOCATION OF EROSION CONTROL DEVICES. SEE LANDSCAPE PLAN FOR LIMITS OF CLEARING.



LOCATION MAP

(NOT TO SCALE)



NOTES:

1) A DEMOLITION PERMIT MUST BE OBTAINED FROM THE TOWN OF EPSOM PRIOR TO COMMENCEMENT OF WORK. ALL EXISTING UTILITY DISCONNECTIONS MUST BE COORDINATED WITH RESPECTIVE UTILITY COMPANIES.

2) ALL DEMOLITION ACTIVITIES ARE TO BE PERFORMED IN STRICT ADHERENCE TO ALL FEDERAL, STATE AND LOCAL REGULATIONS. CONTRACTOR TO INSTALL EROSION CONTROL DEVICES IN ACCORDANCE WITH GRADING & DRAINAGE PLAN PRIOR TO BEGINNING DEMOLITION ACTIVITIES.

3) PROCEED WITH DEMOLITION IN A SYSTEMATIC MANNER, FROM THE TOP OF THE STRUCTURE(S) TO THE GROUND.

4) DEMOLISH CONCRETE IN ALL SECTIONS

5) BREAK UP CONCRETE SLABS-ON-GRADE, UNLESS OTHERWISE DIRECTED BY THE CONSTRUCTION MANAGER.

6) CONDUCT ALL DEMOLITION OPERATIONS IN A MANNER THAT WILL PREVENT INJURY, DAMAGE TO STRUCTURES, ADJACENT BUILDINGS AND ALL PERSONS.

7) REFRAIN FROM USING EXPLOSIVES WITHOUT PRIOR WRITTEN CONSENT OF THE DEVELOPER AND APPLICABLE GOVERNMENTAL AUTHORITIES.

8) CONDUCT DEMOLITION SERVICES IN SUCH A MANNER TO INSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, WALKS AND OTHER ADJACENT FACILITIES. DO NOT CLOSE OR OBSTRUCT STREETS, WALKS OR OTHER OCCUPIED FACILITIES WITHOUT PRIOR WRITTEN PERMISSION OF THE DEVELOPER AND APPLICABLE GOVERNMENTAL AUTHORITIES. PROVIDE ALTERNATIVE ROUTES AROUND CLOSED OR OBSTRUCTED TRAFFIC WAYS IF REQUIRED BY APPLICABLE GOVERNMENTAL REGULATIONS.

9) USE WATERING, TEMPORARY ENCLOSURES AND OTHER SUITABLE METHODS, AS NECESSARY TO LIMIT THE AMOUNT OF DUST AND DIRT RISING AND SCATTERING IN THE AIR. CLEAN ADJACENT STRUCTURE AND IMPROVEMENTS OF ALL DUST AND DEBRIS CAUSED BY THE DEMOLITION OPERATIONS. RETURN ALL ADJACENT AREAS TO THE CONDITIONS EXISTING PRIOR TO THE START OF WORK.

10) ACCOMPLISH AND PERFORM THE DEMOLITION IN SUCH A MANNER AS TO PREVENT THE UNAUTHORIZED ENTRY OF PERSONS AT ANY TIME.

11) COMPLETELY FILL BELOW GRADE AREAS AND VOIDS RESULTING FROM THE DEMOLITION OF STRUCTURES AND FOUNDATIONS WITH SOIL MATERIALS CONSISTING OF STONE, GRAVEL AND SAND, FREE FROM DEBRIS, TRASH, FROZEN MATERIALS, ROOTS AND OTHER ORGANIC MATTER. STONES USED WILL NOT BE LARGER THAT 6 INCHES IN DIMENSION. MATERIAL FROM DEMOLITION MAY NOT BE USED AS FILL. PRIOR TO PLACEMENT OF FILL MATERIALS, UNDERTAKE ALL NECESSARY ACTION IN ORDER TO INSURE THAT AREAS TO BE FILLED ARE FREE OF STANDING WATER, FROZEN MATERIAL, TRASH, DEBRIS. PLACE FILL MATERIALS LAYERS NOT EXCEEDING 6 INCHES IN LOOSE DEPTH AND COMPACT EACH LAYER AT PLACEMENT TO 95% OPTIMUM DENSITY, GRADE SURFACE TO MEET ADJACENT CONTOURS AND TO PROVIDE SURFACE DRAINAGE.

12) REMOVE FROM THE DESIGNATED SITE, AT THE EARLIEST POSSIBLE TIME, ALL DEBRIS RUBBISH, SALVAGEABLE ITEMS, HAZARDOUS AND COMBUSTIBLE SERVICES. REMOVED MATERIALS MAY NOT BE STORED, SOLD OR BURNED ON SITE. REMOVAL OF HAZARDOUS AND COMBUSTIBLE MATERIALS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE PROCEDURES AS AUTHORIZED BY THE FIRE DEPARTMENT OR OTHER APPROPRIATE REGULATORY AGENCIES AND DEPARTMENTS.

13) DISCONNECT, SHUT OFF AND SEAL ALL UTILITIES SERVING THE STRUCTURE(S) TO BE DEMOLISHED BEFORE THE COMMENCEMENT OF THE DESIGNATED DEMOLITION. MARK FOR POSITION ALL UTILITY DRAINAGE AND SANITARY LINES AND PROTECT ALL ACTIVE LINES. CLEARLY IDENTIFY BEFORE THE COMMENCEMENT OF DEMOLITION SERVICES THE REQUIRED INTERRUPTION OF ACTIVE SYSTEMS THAT MAY AFFECT OTHER PARTIES, AND NOTIFY ALL APPLICABLE UTILITY COMPANIES TO INSURE THE CONTINUATION OF SERVICE.

14) PROTECT EXISTING DRAINAGE SYSTEM(S) AS NECESSARY TO PREVENT SEDIMENT FROM ENTERING DURING CONSTRUCTION. SEE DETAIL SHEETS FOR EROSION CONTROL DEVICES.

15) ALL WORK WITHIN ROADWAY RIGHT-OF-WAYS TO CONFORM TO TOWN STANDARDS.

16) THE LIMITS OF WORK SHALL BE CLEARLY MARKED IN THE FIELD PRIOR TO THE START OF CONSTRUCTION OR SITE CLEARING.

17) IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO NOTIFY DIG SAFE (DIAL 811) 72 HOURS PRIOR TO ANY EXCAVATION ON THIS SITE. CONTRACTOR SHALL ALSO NOTIFY LOCAL WATER DEPARTMENT TO MARK OUT THEIR UTILITIES.

18) NOTES ON THIS PLAN THAT READ "TBR" REPRESENT FEATURES TO BE REMOVED. ANY FEATURES NOT LABELED "TBR" OR "TO BE REMOVED" SHALL BE CONSIDERED EXISTING TO REMAIN.

19) SEE LANDSCAPE PLAN FOR LIMITS OF CLEARING AND GRUBBING. AFTER CLEARING, STRIP AND STOCKPILE TOP SOIL PER LANDSCAPE PLAN, IF APPLICABLE.

OWNER OF RECORD:

AOUDE, INC.
25 ESTHER DRIVE
BEDFORD, NH 03110
BOOK 3489 PAGE 641

0 30 60 100
SCALE: 1" = 30'

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PREPARED FOR
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25 SPRINGER ROAD
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PROPOSED RETAIL MOTOR FUEL OUTLET
ASSESSORS MAP U5 LOT 13
910 SUNCOOK VALLEY HWY
EPSOM, NEW HAMPSHIRE

STATE OF NEW HAMPSHIRE
DAVID R. JORDAN
No. 7778
PROFESSIONAL ENGINEER
7/29/21

REVISIONS		
NO.	REVISION	DATE

JUNE 18, 2021

DRAWN/DESIGN BY	CHECKED BY
JD/NID	FCM

DEMOLITION PLAN

SCALE: 1"=30'

PROJECT NO. NEX-2020033

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LEGEND

SGC	SLOPED GRANITE CURB		SIGN
VGC	VERTICAL GRANITE CURB	x 148.63	SPOT ELEVATION
DSLY	DOUBLE SOLID LINE YELLOW		DRAIN MANHOLE
SSLY	SINGLE SOLID LINE YELLOW		CATCH BASIN
SSLW	SINGLE SOLID LINE WHITE		SEWER MANHOLE
EOP	EDGE OF PAVEMENT		WATER VALVE
EOG	EDGE OF GRAVEL		WATER SHUT OFF
W	WATER LINE		FIRE HYDRANT
E	UNDERGROUND ELECTRIC		BOLLARD
	CHAIN LINK FENCE	GM	GAS METER
90	CONTOUR ELEVATION	EM	ELECTRIC METER
	TREE		MONITORING WELL
	UTILITY POLE		LIGHT POLE
	GUY WIRE		WETLAND LINE
	OVERHEAD WIRE		TREELINE
		1	NUMBER OF PARKING SPACES

N
NAD 83

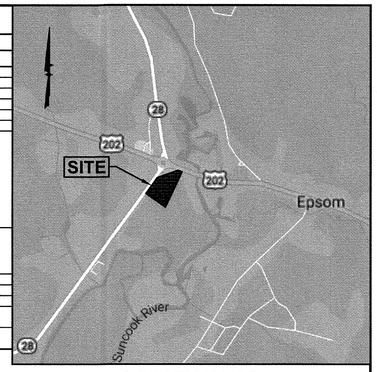
SIGN KEY

SIGN I.D. NUMBER	TEXT/COLOR	SIZE/REMARKS
R1-1	STOP R/W	30" x 30" NEW SIGN WITH POST
R5-1	DO NOT ENTER R/W	30" x 30" NEW SIGN WITH POST
R7-8	RESERVED PARKING G/B/W	12" x 18" NEW SIGN WITH POST
R7-8P	VAN ACCESSIBLE B/W	12" x 6" NEW SIGN WITH POST

TABLE OF ZONING REGULATIONS - EPSOM, NH

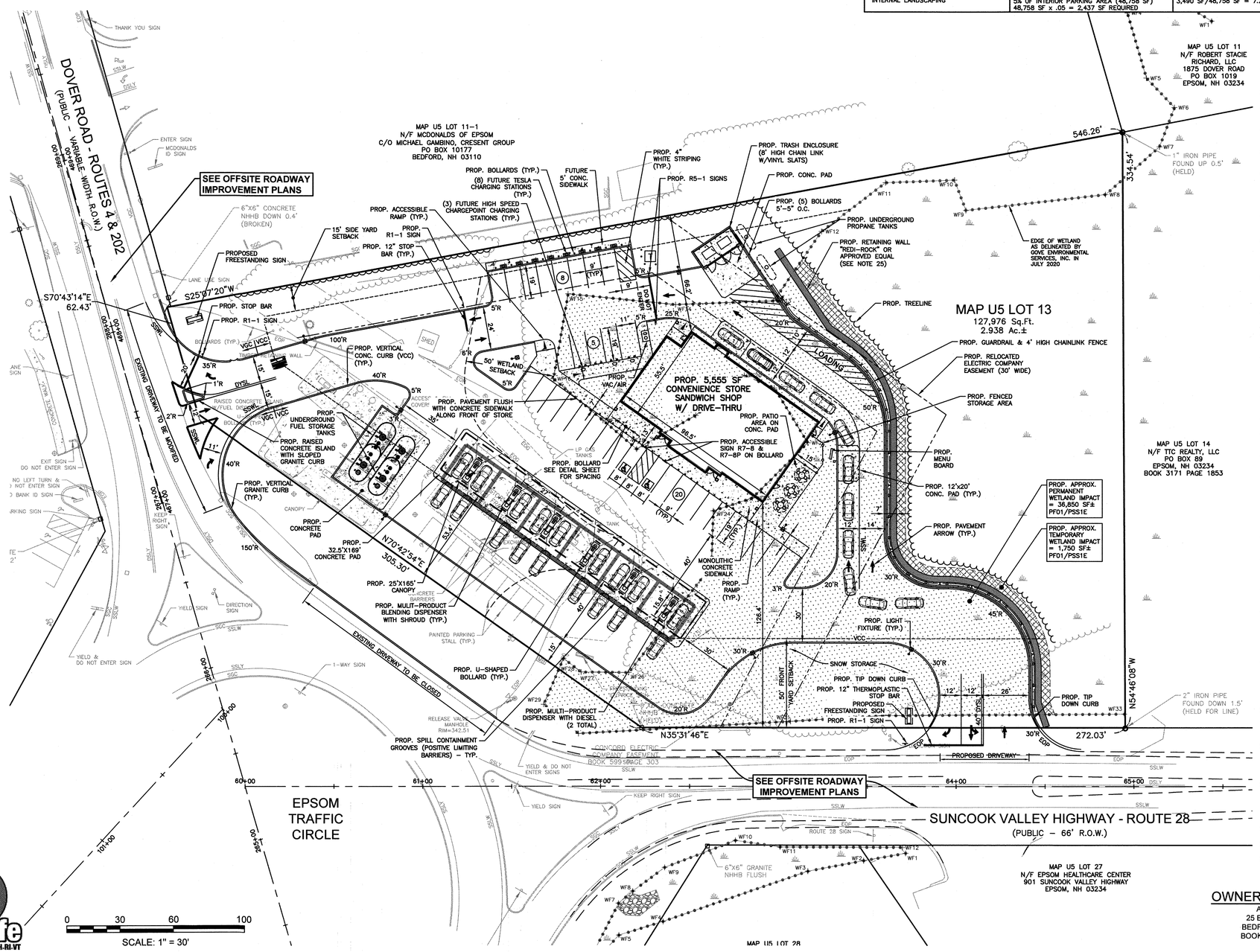
ZONE: RESIDENTIAL - COMMERCIAL (R/C)

DESCRIPTION	REQUIRED	PROVIDED
MINIMUM LOT AREA Sq. Ft.	2 AC.	2.938 AC.±
MINIMUM LOT FRONTAGE	200'	639.76'
MINIMUM FRONT YARD BUILDING SETBACK	50'	53.4'
MINIMUM SIDE YARD BUILDING SETBACK	15'	66.2'
MINIMUM REAR YARD BUILDING SETBACK	20'	N/A
PARKING SPACE DIMENSIONS	9' X 19'	9' X 19'
MINIMUM NUMBER OF PARKING SPACES	RETAIL: 1 SPACE PER 250 SF GFA 4,555 SF x 1 SP/250 SF = 18.2 SPACES RESTAURANT: 1 SPACE PER 75 SF GFA 1,000 SF x 1SP/75 SF = 13.3 SPACES GAS STATION: 1 SPACE PER/ 25 SF 0 SF = 0 SPACES TOTAL REQUIRED SPACES = 32 SPACES	33 SPACES
MINIMUM NUMBER OF STACKING SPACES	1.5 STACKING SPACES PER FUEL DISPENSING STATION 11 STACKING SPACES FOR DRIVE-THRU 12 STATIONS X 1.5 = 18 STACKING	DRIVE-THRU = 11 SPACES FUEL DISPENSING STATION = 24 SPACES
MINIMUM OPEN SPACE	20%	42.6%
MAXIMUM BUILDING HEIGHT	2.5 STORIES	< 2.5 STORIES
FREESTANDING SIGN HEIGHT, AREA	16' HEIGHT, 80 SF AREA	20' HIGH, 106.1 SF PER SIGN, 2 SIGNS
WALL SIGN AREA	36 SF AREA, NO MORE THAN 2 SIGNS OF ANY TYPE NOT MORE THAN 50 SF	395.7 SF
INTERNAL LANDSCAPING	5% OF INTERIOR PARKING AREA (48,758 SF) 48,758 SF x .05 = 2,437 SF REQUIRED	3,490 SF/48,758 SF = 7.2%



LOCATION MAP

(NOT TO SCALE)



NOTES:

1) TAX MAP U5 LOTS 13
2) ZONING DISTRICT: RESIDENTIAL–COMMERCIAL (R/C)
3) LOT AREA = 127,976 Sq.Ft.
   = 2.938 Ac.±
4) THE PURPOSE OF THIS PLAN IS TO SHOW THE REDEVELOPMENT OF A RETAIL MOTOR FUEL OUTLET.
5) EXISTING BOUNDARY AND PLANIMETRIC INFORMATION AS SHOWN IS THE RESULT OF AN ACTUAL FIELD SURVEY BY THIS OFFICE.
6) EXISTING USE: RETAIL MOTOR FUEL OUTLET WITH A 3,830 SF CONVENIENCE STORE AND 4 FUEL DISPENSER ISLANDS.
   PROPOSED USE: RETAIL MOTOR FUEL OUTLET WITH A 5,555 SF CONVENIENCE STORE/SANDWICH SHOP WITH DRIVE–THRU AND 6 FUEL DISPENSER ISLANDS WITH OVERHEAD CANOPY.
7) ALL BUILDINGS AND SITE CONSTRUCTION SHALL COMPLY WITH THE RULES AND REGULATIONS OF THE AMERICANS WITH DISABILITIES ACT (ADA) AS REVISED IN 2010.
8) THE LOCATIONS OF EXISTING SUBSURFACE UTILITIES SHOWN ON THIS PLAN WERE COMPILED FROM AVAILABLE RECORD DRAWINGS AND ARE NOT WARRANTED TO BE CORRECT. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING SUBSURFACE UTILITIES PRIOR TO PERFORMING ANY WORK.
9) WRITTEN DIMENSIONS ON THIS PLAN TAKE PRECEDENCE OVER SCALED DIMENSIONS. THE CONTRACTOR SHALL USE CAUTION WHEN SCALING REPRODUCED PLANS. IN THE EVENT OF A CONFLICT BETWEEN THIS PLAN SET AND ANY OTHER DRAWINGS AND/OR SPECIFICATIONS, THE ENGINEER SHALL BE NOTIFIED BY THE CONTRACTOR.
10) THE CONTRACTOR SHALL CALL AND COORDINATE WITH DIGSAFE 811 PRIOR TO ANY EXCAVATION.
11) ALL CONSTRUCTION SHALL CONFORM TO THE APPLICABLE REGULATIONS AND STANDARDS OF THE TOWN OF EPSOM AND THE STATE OF NEW HAMPSHIRE.
10) THE SURVEY TRACT IS NOT LOCATED IN A SPECIAL FLOOD HAZARD AREA (100 YEAR FLOOD) PER FLOOD INSURANCE RATE MAP NUMBER 33013C0576E, WITH AN EFFECTIVE DATE OF APRIL 19, 2010. THE BASE FLOOD ELEVATION (BFE) AT THE UPSTREAM EDGE OF THE SITE = 338.8' (NAVD88) PER FIS PROFILE 74P.
11) ALL CONSTRUCTION SHALL CONFORM TO THESE PLANS AND THE STANDARD CONSTRUCTION DRAWINGS AS SUPPLIED BY THE DEVELOPER.
12) SIGN PERMITS SHALL BE OBTAINED PRIOR TO INSTALLATION.
13) PROPOSED SNOW STORAGE AREAS AS SHOWN. ANY EXCESS SNOW TO BE TRUCKED OFF–SITE.
14) THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION AND FOR CONDITIONS AT THE SITE. THESE PLANS, PREPARED BY GREENMAN–PEDERSEN, INC., DO NOT EXTEND TO OR INCLUDE SYSTEMS PERTAINING TO THE SAFETY OF THE CONSTRUCTION CONTRACTOR OR THEIR EMPLOYEES, AGENTS OR REPRESENTATIVES IN THE PERFORMANCE OF THE WORK. THE SEAL OF THE SURVEYOR AND/OR ENGINEER AS INCLUDED IN THE PLAN SET DOES NOT EXTEND TO ANY SUCH SAFETY SYSTEMS THAT MAY NOW OR HEREAFTER BE INCORPORATED INTO THESE PLANS. THE CONSTRUCTION CONTRACTOR SHALL PREPARE AND/OR OBTAIN THE APPROPRIATE SAFETY SYSTEMS WHICH MAY BE REQUIRED BY THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) AND/OR LOCAL REGULATIONS.
15) ALL UNDERGROUND STORAGE TANKS, PRODUCT PIPING AND VENT LINES SHALL COMPLY WITH CURRENT STATE AND E.P.A. REGULATIONS.
16) SELF–SERVICE APPROVAL IS REQUIRED FROM THE OFFICE OF THE STATE FIRE MARSHAL. SEE APPROVED FIRE SUPPRESSION PLAN FOR LAYOUT OF SPILL CONTAINMENT GROOVES (POSITIVE LIMING BARRIER).
17) A SPECIAL PERMIT WAS GRANTED BY THE ZONING BOARD OF ADJUSTMENTS TO ALLOW A DRIVE–IN EATING ESTABLISHMENT WITH A DRIVE–THRU ON MAY 19, 2021.
18) THE FOLLOWING VARIANCES WERE GRANTED BY THE ZONING BOARD OF ADJUSTMENTS ON MAY 19, 2021:
   – TO ALLOW 2 FREESTANDING SIGNS WITH LED CHANGEABLE UNIT PRICING SIGNS
   – TO ALLOW 2 FREESTANDING SIGNS WITH A TOTAL SIGN AREA OF 212.2 SF
   – TO ALLOW A FREESTANDING SIGN HEIGHT OF 20 FT
   – TO ALLOW WALL AND ADVERTISING DISPLAY SIGNS TOTALING AN AREA OF 395.7 SF
19) THE FOLLOWING WAIVERS ARE REQUESTED FROM THE PLANNING BOARD:
   – TO ALLOW A DRIVEWAY GREATER THAN 35FT IN WIDTH (SECTION 4.2.10)
   – TO ALLOW 2 DRIVEWAYS WITH 440FT SEPARATION ON A LOT WITH 639.76FT OF FRONTAGE (SECTION 4.2.11).
   – TO ALLOW A REDUCTION IN THE REQUIRED INTERNAL LANDSCAPING (4.4.15).
20) APPROPRIATE EROSION CONTROL MEASURES (HAY BALES, SILT FENCE) SHALL BE INSTALLED PRIOR TO INITIATION OF ANY SITE WORK & SHALL BE MAINTAINED BY THE DEVELOPER UNTIL ADEQUATE VEGETATIVE COVER IS ESTABLISHED ON ALL GRADED AREAS. SEE EROSION & SEDIMENT CONTROL PLAN.
21) ALL OBSERVATIONS OF THREATENED OR ENDANGERED SPECIES SHALL BE REPORTED TO NEW HAMPSHIRE FISH AND GAME VIA EMAIL RAMPS@WILDLIFE.NH.GOV AND MELISSA.DOPERALSKI@WILDLIFE.NH.GOV. EMAIL SUBJECT LINE: "PROJECT NAME AND NHB NUMBER." PHOTOGRAPHS SHALL BE PROVIDED FOR VERIFICATION AS FEASIBLE.
22) IF ANY THREATENED OR ENDANGERED SPECIES ARE OBSERVED WITHIN THE DISTURBANCE AREA AND ARE IN HARM'S WAY, IF IT SAFE TO DO SO, MOVE TO THE CLOSEST LOCATION IN THE DIRECTION THEY WERE HEADING AND IMMEDIATELY CONTACT NHFG AT 603–271–2461 OR NHFG WILDLIFE BIOLOGIST MELISSA DOPERALSKI TEXT OR PHONE AT 603–479–1129. INCLUDE PHOTOGRAPHS IF FEASIBLE.
23) NHFG SHALL HAVE ACCESS TO THE PROPERTY DURING THE TERM OF THE PERMIT.
24) ELECTRIC CONDUIT TO BE INSTALLED FOR FUTURE CHARGING STATIONS.
25) A RETAINING WALL DESIGN PREPARED BY A NH LICENSED PROFESSIONAL ENGINEER SHALL BE SUBMITTED TO THE TOWN FOR APPROVAL PRIOR TO WALL CONSTRUCTION.

OWNER OF RECORD:

AOUDE, INC.
25 ESTHER DRIVE
BEDFORD, NH 03110
BOOK 3489 PAGE 641

APPROVED BY THE EPSOM PLANNING BOARD ON _____, 2021

CERTIFIED BY: _____
CHAIR PERSON

_____
SECRETARY

GPI Engineering Design Planning Construction Management
603.893.0720 GPINET.COM
Greenman-Pedersen, Inc.
44 Stiles Road, Suite One
Salem, NH 03079

PREPARED FOR
GRANITE STATE CONVENIENCE, LLC
25 SPRINGER ROAD
HOOKSETT, NH 03106

PROPOSED RETAIL MOTOR FUEL OUTLET
ASSESSORS MAP U5 LOT 13
910 SUNCOOK VALLEY HWY
EPSOM, NEW HAMPSHIRE

STATE OF NEW HAMPSHIRE
DAVID R. JORDAN
No. 7778
LICENSED
PROFESSIONAL ENGINEER
7/29/21

REVISIONS

NO.	REVISION	DATE
2	REV. PER TOWN COMMENTS	7/30/21
1	ADDED WETLAND CLASSIFICATIONS	7/22/21

JUNE 18, 2021

DRAWN/DESIGN BY	CHECKED BY
JD/NID	FCM

SITE PLAN

SCALE: 1"=30'

PROJECT NO. NEX-2020033

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LEGEND

SGC	SLOPED GRANITE CURB		SIGN
VGC	VERTICAL GRANITE CURB		SPOT ELEVATION
DSLY	DOUBLE SOLID LINE YELLOW		DRAIN MANHOLE
SSLY	SINGLE SOLID LINE YELLOW		CATCH BASIN
SSLW	SINGLE SOLID LINE WHITE		SEWER MANHOLE
EOP	EDGE OF PAVEMENT		WATER VALVE
EOG	EDGE OF GRAVEL		WATER SHUT OFF
W	WATER LINE		FIRE HYDRANT
E	UNDERGROUND ELECTRIC		BOLLARD
	CHAIN LINK FENCE	GM	GAS METER
90	CONTOUR ELEVATION	EM	ELECTRIC METER
	TREE		MONITORING WELL
	UTILITY POLE		LIGHT POLE
	GUY WIRE		WETLAND LINE
	OVERHEAD WIRE		TREELINE
C.O.	PROP. CLEANOUT	MEG	MEET EXISTING GRADE
CB-1	PROP. CATCH BASIN	341.15	PROP. SPOT ELEVATION
DMH-1	PROP. DRAIN MANHOLE	342	PROP. CONTOUR ELEVATION
		TW=	TOP OF WALL ELEV.
		BW=	BOTTOM OF WALL ELEV.

NAD 83

N

DRAINAGE STRUCTURES

CB-1(FD)
RIM=344.50
INV.IN=339.75(CB-3)
INV.OUT=339.75

* CB-2
RIM=343.70
INV.OUT=341.00

CB-3
RIM=344.35
INV.IN=340.55(CB-7)
INV.IN=340.55(CB-2)
INV.IN=340.55(CB-4)
INV.OUT=340.30

* CB-4
RIM=343.95
INV.IN=341.45(CB-5)
INV.OUT=341.35

* CB-5
RIM=344.18
INV.OUT=341.68

* CB-6(FD)
RIM=343.40
INV.OUT=340.70

* CB-7
RIM=343.85
INV.OUT=341.25

DMH-1
RIM=345.45
INV.IN=341.00(OCS-1)
INV.OUT=340.90

DMH-2(JF)
RIM=343.80
INV.IN=340.55(CB-6(FD))
INV.IN=340.55(DMH-3)
INV.OUT=340.45

DMH-3
RIM=345.90
INV.OUT=341.25

DMH-4(JF)
RIM=344.80
INV.IN=339.35(OCS-2)
INV.OUT=339.35

DMH-5
RIM=344.25
INV.IN=339.20(DMH-4(JF))
INV.OUT=339.10

RG-1
RIM=340.15

HW-1
INV.=340.80

HW-2
INV.=340.20

HW-3

HW-4
INV.=339.00

HW-5
INV.=339.00

PROPOSED UNDERGROUND INFILTRATION SYSTEM #1 (UGS-1)
(337) ACF ENVIRONMENTAL R-TANK UD CHAMBERS (SIZE 1)
INV.IN=340.40(DMH-2(JF))
INV.OUT=340.40
BOT.STONE=340.00
(SEE DETAIL)

PROPOSED UNDERGROUND LINED DETENTION SYSTEM #2 (UGS-2)
(164) ACF ENVIRONMENTAL R-TANK UD CHAMBERS (SIZE 3)
INV.IN=339.45(CB-1(FD))
INV.OUT=339.45
BOT.STONE=339.20
(SEE DETAIL)

OUTLET CONTROL STRUCTURE (OCS-1)
RIM=344.20
INV.IN=340.40
INV.OUT=341.45
(SEE DETAIL)

OUTLET CONTROL STRUCTURE (OCS-2)
RIM=344.95
INV.IN=339.45
INV.OUT=339.45
(SEE DETAIL)

(FD) DENOTES FIRST DEFENSE UNIT. SEE DETAIL

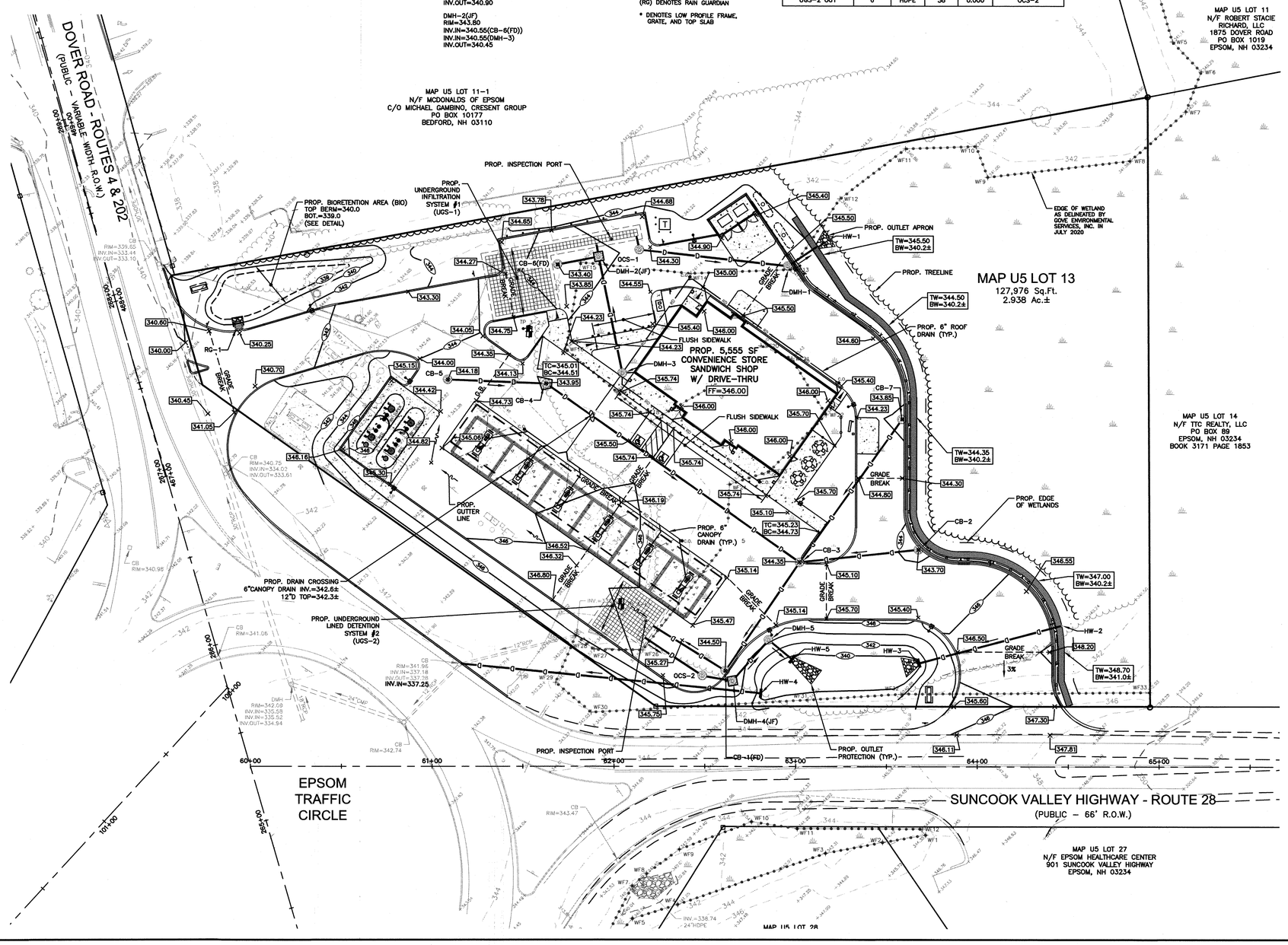
(JF) DENOTES JELLYFISH FILTER TREATMNET UNIT. SEE DETAIL

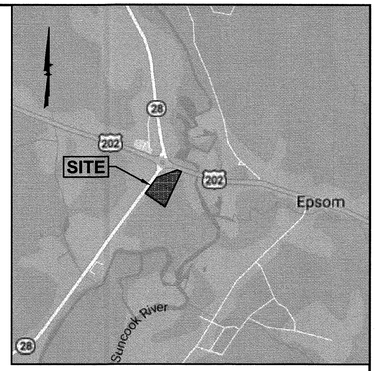
(RG) DENOTES RAIN GUARDIAN

* DENOTES LOW PROFILE FRAME, GRATE, AND TOP SLAB

DRAINAGE PIPE SCHEDULE

FROM: STRUCTURE NUMBER	PIPE SIZE (INCHES)	TYPE OF PIPE	APPROX. PIPE LENGTH (FEET)	SLOPE OF PIPE (FT./FT.)	TO: STRUCTURE NUMBER
CB-1(FD)	15	HDPE	47	0.006	UGS-2 IN
CB-2	12	HDPE	66	0.007	CB-3
CB-3	15	HDPE	72	0.008	CB-1(FD)
CB-4	12	HDPE	171	0.005	CB-3
CB-5	12	HDPE	54	0.004	CB-4
CB-6(FD)	12	HDPE	23	0.007	DMH-2(JF)
CB-7	12	HDPE	97	0.007	CB-3
DMH-1	12	HDPE	20	0.005	HW-1
DMH-2(JF)	12	HDPE	7	0.007	UGS-1
DMH-3	12	HDPE	65	0.011	DMH-2(JF)
DMH-4(JF)	12	HDPE	30	0.005	DMH-5
DMH-5	12	HDPE	17	0.006	HW-5
HW-2	12	HDPE	81	0.009	
HW-4	12	HDPE	166	0.011	EX. CB
OCS-1	12	HDPE	82	0.005	DMH-1
OCS-2	12	HDPE	17	0.006	DMH-4(JF)
UGS-1 OUT	12	HDPE	8	0.000	OCS-1
UGS-2 OUT	6	HDPE	38	0.000	OCS-2





LOCATION MAP
(NOT TO SCALE)

NOTES:

1) ALL SITE DRAINAGE PIPE SHALL BE CORRUGATED HIGH-DENSITY POLYETHYLENE PIPE WITH STANDARD JOINTS, DUAL-WALL, SMOOTH INTERIOR AS MANUFACTURED BY ADS, INC., OR APPROVED EQUAL, UNLESS OTHERWISE NOTED ON PLAN.

2) ALL ROOF AND CANOPY DRAIN PIPE SHALL BE 6" PVC(SDR-35), MIN. SLOPE=2.0%.

3) ALL SANITARY SEWER PIPE SHALL BE PVC (SDR-35), UNLESS OTHERWISE NOTED.

4) ALL WATER PIPE SHALL BE COPPER, UNLESS OTHERWISE NOTED.

5) ELEVATIONS ARE BASED ON NAVD 88 DATUM.

6) ALL PROPOSED ELEVATIONS AS SHOWN ARE BOTTOM OF CURB ELEVATIONS, UNLESS OTHERWISE NOTED.

7) ANY UTILITY FIELD ADJUSTMENTS SHALL BE APPROVED BY THE LOCAL AUTHORITIES AND THE DEVELOPER PRIOR TO INSTALLATION.

8) THE LOCATIONS OF UNDERGROUND UTILITIES ARE APPROXIMATE ONLY. THE CONTRACTOR IS TO VERIFY EXACT LOCATION PRIOR TO CONSTRUCTION. THE CONTRACTOR IS TO NOTIFY THE DESIGN ENGINEER OF ANY DISCREPANCIES. CONSTRUCTION SHALL COMMENCE BEGINNING AT THE LOWEST INVERT (POINT OF CONNECTION) AND PROGRESS UP GRADIENT. PROPOSED INTERFACE POINTS (CROSSINGS) WITH EXISTING UNDERGROUND INSTALLATIONS SHALL BE FIELD VERIFIED BY TEST PIT PRIOR TO COMMENCEMENT OF CONSTRUCTION.

9) ALL CONSTRUCTION SHALL CONFORM TO MUNICIPAL DPW AND ALL APPLICABLE STATE AND FEDERAL STANDARDS.

10) THE CONTRACTOR SHALL CALL AND COORDINATE WITH DIG-SAFE (DIAL 811) PRIOR TO COMMENCING ANY EXCAVATION.

11) ALL WATER AND SEWER CONSTRUCTION SHALL CONFORM TO DEPARTMENT OF PUBLIC WORKS SPECIFICATIONS.

12) ALL ELECTRIC, TELEPHONE AND CABLE TV LINES ARE TO BE UNDERGROUND AND INSTALLED IN CONFORMANCE WITH APPLICABLE UTILITY CO. SPECIFICATIONS.

13) THIS SITE WILL REQUIRE A USEPA NPDES PERMIT FOR STORMWATER DISCHARGE FOR THE SITE CONSTRUCTION IF THE DISTURBANCE EXCEEDS ONE ACRE (ACTUAL DISTURBANCE = 107,000 SF). THE CONSTRUCTION SITE OPERATOR SHALL DEVELOP AND IMPLEMENT A CONSTRUCTION STORM WATER POLLUTION PREVENTION PLAN (SWPPP), WHICH SHALL REMAIN ON SITE AND MADE ACCESSIBLE TO THE PUBLIC. A COMPLETED NOTICE OF TERMINATION (NOT) SHALL BE SUBMITTED TO NPDES PERMITTING AUTHORITY WITHIN 30 DAYS AFTER EITHER OF THE FOLLOWING CONDITIONS HAVE BEEN MET: FINAL STABILIZATION HAS BEEN ACHIEVED ON ALL PORTIONS OF THE SITE FOR WHICH THE PERMITTEE IS RESPONSIBLE; OR ANOTHER OPERATOR/PERMITTEE HAS ASSUMED CONTROL OVER ALL AREAS OF THE SITE THAT HAVE NOT BEEN FINALLY STABILIZED.

14) THE CONTRACTOR IS TO COORDINATE WITH THE MUNICIPAL DPW REGARDING WATER PRESSURE AT SERVICE. THE CONTRACTOR IS TO VERIFY IF PRESSURE REDUCING VALVE IS REQUIRED.

15) ANY UTILITIES TO BE TAKEN OUT OF SERVICE SHALL BE DISCONNECTED AS DIRECTED BY UTILITY COMPANY AND LOCAL DPW.

16) PROPOSED SEPTIC SYSTEM TO BE APPROVED BY NHDES PRIOR TO CONSTRUCTION. SEE APPROVED PLANS.

17) ALL TRAFFIC CONTROL AND TEMPORARY CONSTRUCTION SIGNAGE ARRANGEMENTS, ACCEPTABLE TO NHDOT AND TOWN/CITY DEPARTMENT OF PUBLIC WORKS, SHALL BE EMPLOYED DURING OPERATIONS WITHIN THE PUBLIC RIGHT-OF-WAY.

18) ALL ADA ACCESSIBLE WALKWAYS CANNOT EXCEED 5% RUNNING SLOPE AND 2% CROSS SLOPE, RAMPS CANNOT EXCEED 8.33% RUNNING SLOPE AND 2% CROSS SLOPE, AND HC PARKING STALLS AND ACCESS AISLES CANNOT EXCEED 2% SLOPE IN ANY DIRECTION. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES.

OWNER OF RECORD:
AOUDE, INC.
25 ESTHER DRIVE
BEDFORD, NH 03110
BOOK 3489 PAGE 641

0 30 60 100
SCALE: 1" = 30'

GPI Engineering Design Planning Construction Management
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PREPARED FOR
GRANITE STATE CONVENIENCE, LLC
25 SPRINGER ROAD
HOOKSETT, NH 03106

PROPOSED RETAIL MOTOR FUEL OUTLET
ASSESSORS MAP U5 LOT 13
910 SUNCOOK VALLEY HWY
EPSOM, NEW HAMPSHIRE

STATE OF NEW HAMPSHIRE
DAVID R. JORDAN
No. 7778
LICENSED
PROFESSIONAL ENGINEER
7/29/21

REVISIONS		
1	REV. PER TOWN COMMENTS	7/30/21
NO.	REVISION	DATE

JUNE 18, 2021

DRAWN/DESIGN BY	CHECKED BY
JD/NID	FCM

GRADING & DRAINAGE PLAN

SCALE: 1"=30'

PROJECT NO. NEX-2020033

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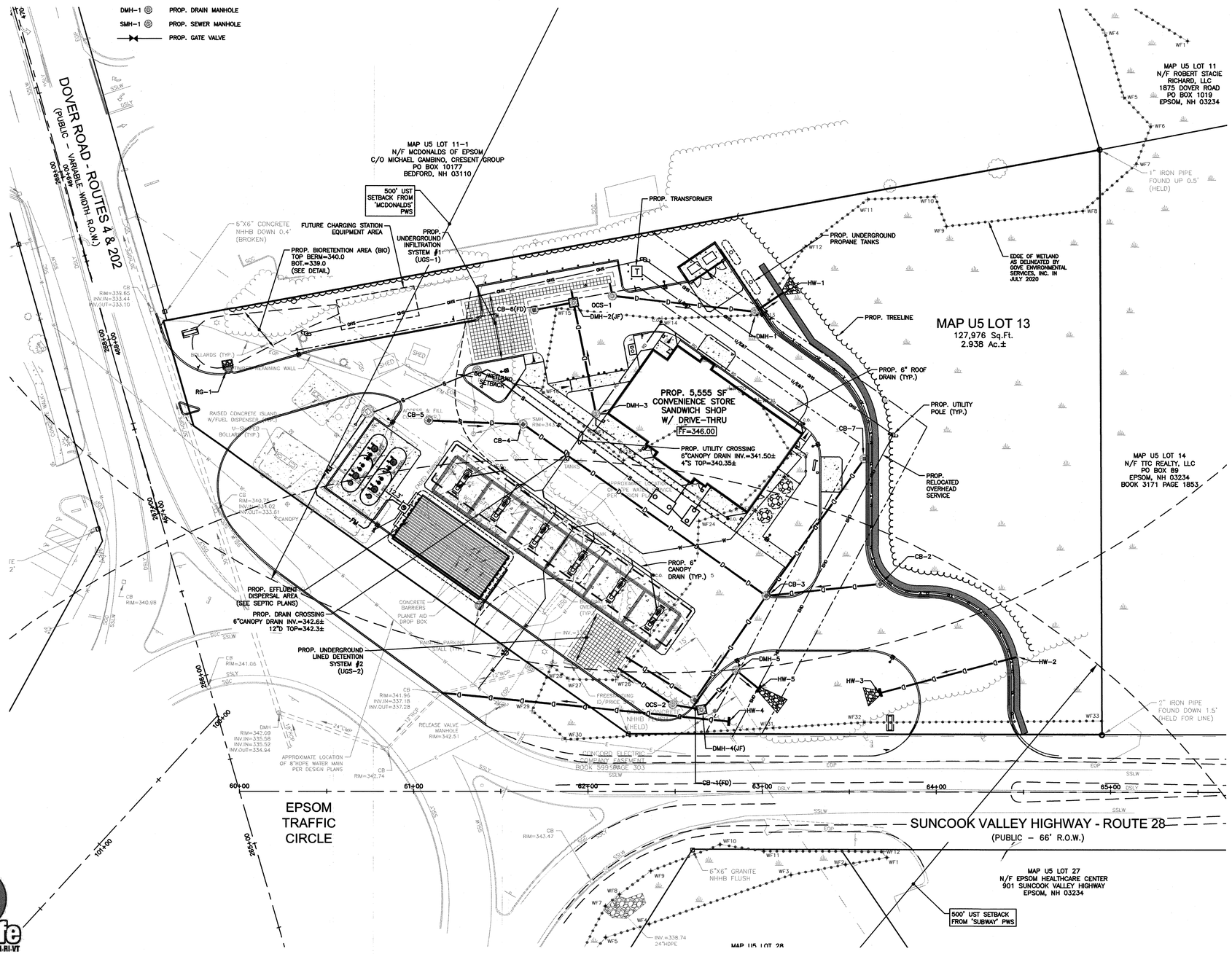
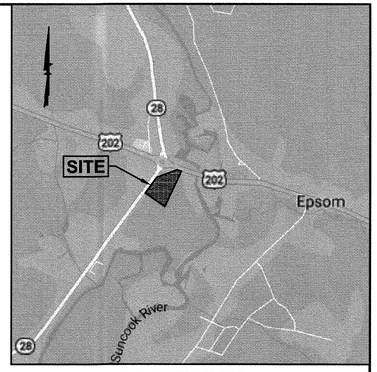
DigSafe MA-ME-NH-RI-VT

LEGEND

SGC	SLOPED GRANITE CURB
VGC	VERTICAL GRANITE CURB
DSLY	DOUBLE SOLID LINE YELLOW
SSLY	SINGLE SOLID LINE YELLOW
SSLW	SINGLE SOLID LINE WHITE
EOP	EDGE OF PAVEMENT
EOG	EDGE OF GRAVEL
W	WATER LINE
E	UNDERGROUND ELECTRIC
	CHAIN LINK FENCE
90	CONTOUR ELEVATION
	TREE
	UTILITY POLE
	GUY WIRE
	OVERHEAD WIRE
P	SIGN
X 68.69	SPOT ELEVATION
D	DRAIN MANHOLE
	CATCH BASIN
S	SEWER MANHOLE
W	WATER VALVE
	WATER SHUT OFF
	FIRE HYDRANT
	BOLLARD
GM	GAS METER
EM	ELECTRIC METER
	MONITORING WELL
	LIGHT POLE
	WETLAND LINE
	TREELINE
C.O.	PROP. CLEANOUT
CB-1	PROP. CATCH BASIN
DMH-1	PROP. DRAIN MANHOLE
SMH-1	PROP. SEWER MANHOLE
	PROP. GATE VALVE





LOCATION MAP
(NOT TO SCALE)

NOTES:

1) ALL SANITARY SEWER PIPE SHALL BE PVC (SDR-35), UNLESS OTHERWISE NOTED.
2) ALL WATER PIPE SHALL BE COPPER (TYPE K), UNLESS OTHERWISE NOTED.
3) ANY UTILITY FIELD ADJUSTMENTS SHALL BE APPROVED BY THE LOCAL AUTHORITIES AND THE DEVELOPER PRIOR TO INSTALLATION.
4) THE LOCATIONS OF UNDERGROUND UTILITIES ARE APPROXIMATE ONLY. THE CONTRACTOR IS TO VERIFY EXACT LOCATION PRIOR TO CONSTRUCTION. THE CONTRACTOR IS TO NOTIFY THE DESIGN ENGINEER OF ANY DISCREPANCIES.
5) ALL CONSTRUCTION SHALL CONFORM TO APPLICABLE CITY, STATE AND FEDERAL STANDARDS.
6) THE CONTRACTOR SHALL CALL AND COORDINATE WITH DIG-SAFE (1-888-344-7233) PRIOR TO COMMENCING ANY EXCAVATION.
7) ANY WATER SERVICE CONSTRUCTION SHALL CONFORM WITH EPSOM VILLAGE WATER DISTRICT SPECIFICATIONS.
8) ALL ELECTRIC, TELEPHONE AND CABLE TV LINES ARE TO BE UNDERGROUND AND INSTALLED IN CONFORMANCE WITH UTILITY COMPANY.
9) ALL TRAFFIC CONTROL AND TEMPORARY CONSTRUCTION SIGNAGE ARRANGEMENTS, ACCEPTABLE TO THE TOWN OF EPSOM, SHALL BE EMPLOYED DURING OPERATIONS WITHIN THE PUBLIC RIGHT-OF-WAY.
10) SEE GRADING & DRAINAGE PLAN FOR DETAILED DRAINAGE INFORMATION.
11) ELECTRICAL CONDUIT TO BE PROVIDED FOR FUTURE CHARGING STATIONS.

OWNER OF RECORD:
AOUDE, INC.
25 ESTHER DRIVE
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BOOK 3489 PAGE 641

0 30 60 100
SCALE: 1" = 30'

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PROPOSED RETAIL MOTOR FUEL OUTLET
ASSESSORS MAP U5 LOT 13
910 SUNCOOK VALLEY HWY
EPSOM, NEW HAMPSHIRE

STATE OF NEW HAMPSHIRE
DAVID R. JORDAN
No. 7779
PROFESSIONAL ENGINEER
7/28/21

REVISIONS

NO.	REVISION	DATE
1	REV. PER TOWN COMMENTS	7/30/21

JUNE 18, 2021

DRAWN/DESIGN BY	CHECKED BY
JD/NID	FCM

UTILITY PLAN

SCALE: 1"=30'

PROJECT NO. NEX-2020033

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811 DigSafe MA.ME.NH.RI.VT

LEGEND

SGC	SLOPED GRANITE CURB		SIGN
VGC	VERTICAL GRANITE CURB	98.65	SPOT ELEVATION
DSLY	DOUBLE SOLID LINE YELLOW		DRAIN MANHOLE
SSLY	SINGLE SOLID LINE YELLOW		CATCH BASIN
SSLW	SINGLE SOLID LINE WHITE		SEWER MANHOLE
EOP	EDGE OF PAVEMENT		WATER VALVE
EOG	EDGE OF GRAVEL		WATER SHUT OFF
W	WATER LINE		FIRE HYDRANT
E	UNDERGROUND ELECTRIC		BOLLARD
	CHAIN LINK FENCE	GM	GAS METER
90	CONTOUR ELEVATION	EM	ELECTRIC METER
	TREE		MONITORING WELL
	UTILITY POLE		LIGHT POLE
	GUY WIRE		WETLAND LINE
	OVERHEAD WIRE		TREELINE
98	PROP. CONTOUR ELEVATION	C.O.	PROP. CLEANOUT
	PROP. SILT FENCE	CB-1	PROP. CATCH BASIN
		DMH-1	PROP. DRAIN MANHOLE

NAD 83

CONSTRUCTION SEQUENCE NOTES:

1. SEDIMENT AND EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY ON-SITE CONSTRUCTION AS SHOWN. ADDITIONAL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE INSTALLED AS SOON AS PRACTICAL.
2. CONSTRUCT TEMPORARY STABILIZED CONSTRUCTION ENTRANCE AS SHOWN ON THIS SHEET.
3. CUT AND STUMP AREAS OF PROPOSED CONSTRUCTION.
4. REMOVE AND STOCKPILE TOPSOIL. STOCKPILE SHALL BE SEEDED TO PREVENT EROSION.
5. CONSTRUCT PONDS, SWALES & LEVEL SPREADERS & STABILIZE PRIOR TO DIRECTING ANY RUNOFF TO THEM.
6. CONSTRUCT ROADWAYS AND PERFORM SITE GRADING, PLACING HAY BALES AND SILTATION FENCES AS REQUIRED TO CONTROL SOIL EROSION, STABILIZE ROADS, PARKING LOTS AND CUT/FILL SLOPES WITHIN 72-HOURS OF ACHIEVING FINISH GRADES.
7. CONSTRUCT RELOCATED DRAINAGE LINE PRIOR TO REMOVING THE EXISTING DRAINAGE LINE AS SHOWN ON DEMOLITION PLAN AND CONNECT RELOCATED DRAINAGE LINE.
8. INSTALL UNDERGROUND UTILITIES AND DRAINAGE SYSTEM.
9. BEGIN TEMPORARY AND PERMANENT SEEDING AND MULCHING. ALL CUT AND FILL SLOPES SHALL BE SEEDED OR MULCHED WITHIN 72-HOURS OF ACHIEVING FINISHED GRADES.
10. DAILY, OR AS REQUIRED, CONSTRUCT, INSPECT, AND IF NECESSARY, RECONSTRUCT TEMPORARY BERMS, DRAINS, DITCHES, SILT FENCES AND SEDIMENT TRAPS INCLUDING MULCHING AND SEEDING. AT A MINIMUM, INSPECT EROSION CONTROLS WEEKLY AND AFTER EVERY 1/2" OF RAINFALL.
11. BEGIN EXCAVATION FOR CONSTRUCTION OF BUILDINGS.
12. FINISH PAVING ALL ROADWAYS AND DRIVEWAYS.
13. COMPLETE PERMANENT SEEDING AND LANDSCAPING.
14. AFTER GRASS HAS BEEN FULLY GERMINATED IN ALL SEEDED AREAS, REMOVE ALL TEMPORARY EROSION CONTROL MEASURES.
15. APPLICATION OF GRASS SEED, FERTILIZERS AND MULCH SHALL BE ACCOMPLISHED BY BROADCAST SEEDING OR HYDROSEEDING AT THE RATES OUTLINED BELOW:

Limestone: 138 lbs./1,000 square feet.
Fertilizer: 13.8 lbs./1,000 SF
Mulch: straw mulch approximately 3 tons/acre unless erosion control matting is used.

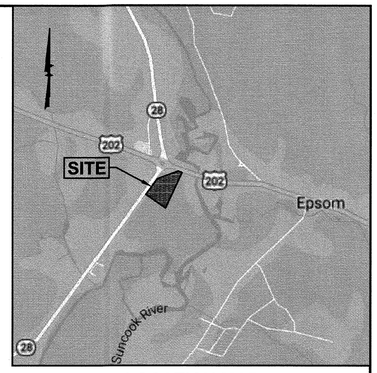
Permanent Seed Mix	lbs./acre
Creeping Red Fescue	20
Tall Fescue	20
Redtop	2
TOTAL	42

Temporary Seed Mix:	lbs./acre
Winter Rye (Aug. 15-Sept. 15)	112
Oats (No later than May 15)	80

16. NEWLY GRADED AREAS REQUIRING SLOPE PROTECTION OUTSIDE OF NORMAL SEEDING SEASON SHALL RECEIVE HAY MULCH AT THE APPROXIMATE RATE OF NO MORE THAN 2 TONS PER ACRE.
17. THE CONTRACTOR AND DEVELOPER MUST MANAGE THE PROJECT TO MEET THE REQUIREMENTS AND INTENT OF RSA 430:53 AND AGR 3800 RELATIVE TO INVASIVE SPECIES.
18. FUGITIVE DUST MUST BE CONTROLLED IN ACCORDANCE WITH ENV-A 1000.

EROSION CONTROL NOTES:

1. THE EROSION CONTROL PROCEDURES SHALL CONFORM TO THE NH STORMWATER MANUAL, VOLUME 3, EROSION & SEDIMENT CONTROLS DURING CONSTRUCTION, DECEMBER 2008.
2. DURING CONSTRUCTION AND THEREAFTER, EROSION CONTROL MEASURES ARE TO BE IMPLEMENTED AS NOTED. THE SMALLEST PRACTICAL AREA OF LAND SHOULD BE EXPOSED AT ANY ONE TIME DURING DEVELOPMENT. WHEN LAND IS EXPOSED DURING DEVELOPMENT, THE EXPOSURE SHOULD BE KEPT TO THE SHORTEST PRACTICAL PERIOD OF TIME AS APPROVED BY THE ENGINEER. LAND SHOULD NOT BE LEFT EXPOSED DURING THE WINTER MONTHS.
3. LIMIT OF MAXIMUM AREA OF EXPOSED SOIL AT ANY ONE TIME TO LESS THAN 5 ACRES. THE EXPOSED AREA THAT IS BEING ACTIVELY WORKED DURING WINTER IS TO BE LESS THAN 3 ACRES DURING THE WINTER SEASON.
4. ALL PERMANENT STORM WATER STRUCTURES SHALL BE STABILIZED PRIOR TO DIRECTING FLOW INTO THEM. 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 PERCENT VEGETATED GROWTH HAS BEEN ESTABLISHED.
   C) A MINIMUM OF 3 INCHES OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIP-RAP HAS BEEN INSTALLED.
   D) OR, EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
5. SILT FENCE SHALL BE INSTALLED AND MAINTAINED DURING AND AFTER DEVELOPMENT TO REMOVE SEDIMENT FROM RUNOFF WATER AND FROM LAND UNDERGOING DEVELOPMENT. WHERE POSSIBLE, NATURAL DRAINAGE WAYS SHOULD BE UTILIZED AND LEFT OPEN TO REMOVE EXCESS SURFACE WATER. SILT FENCE TO BE MAINTAINED AND CLEANED UNTIL ALL SLOPES HAVE A HEALTHY STAND OF GRASS.
6. ALL DISTURBED AREAS AND SIDE SLOPES WHICH ARE FINISHED GRADED, WITH NO FURTHER CONSTRUCTION TO TAKE PLACE, SHALL BE LOAMED AND SEEDED WITHIN 72 HOURS AFTER FINAL GRADING. A MINIMUM OF 4" OF LOAM SHALL BE INSTALLED WITH NOT LESS THAN ONE POUND OF SEED PER 50 SQUARE YARDS OF AREA. THE SEED MIX SHALL BE AS DESIGNATED BELOW.
7. ANY DISTURBED AREAS WHICH ARE TO BE LEFT TEMPORARILY, AND WHICH WILL BE REGRADED LATER DURING CONSTRUCTION SHALL BE MACHINE HAY MULCHED AND SEEDED WITH RYE GRASS TO PREVENT EROSION. THE MAXIMUM LENGTH OF TIME FOR THE EXPOSURE OF DISTURBED SOILS SHALL BE 45 DAYS. HAY OR STRAW MULCH SHALL BE APPLIED TO ALL FRESHLY SEEDED AREAS AT THE RATE OF 2 TONS PER ACRE. BALES SHALL BE UNSPOILED, AIR DRIED, AND FREE FROM WEED, SEEDS AND ANY COARSE MATERIAL.
8. DURING GRADING OPERATIONS INSTALL HAY BALE BARRIERS ALONG TOE OF SLOPE OF FILL AREAS WHERE SHOWN. BARRIERS ARE TO BE MAINTAINED UNTIL DISTURBED AREAS ARE PAVED OR GRASSED.
9. THE FILL MATERIAL SHALL BE OF APPROVED SOIL TYPE FREE FROM STUMPS, ROOTS, WOOD, ETC. TO BE PLACED IN 12" LIFTS OR AS SPECIFIED. BULLDOZERS, TRUCKS, TRACTORS, OR ROLLERS MAY BE USED FOR COMPACTION BY ROUTING THE EQUIPMENT TO ALL AREAS OR EACH LAYER.
10. AVOID THE USE OF FUTURE OPEN SPACES (LOAM & SEED) WHEREVER POSSIBLE DURING CONSTRUCTION. CONSTRUCTION TRAFFIC SHALL USE THE ROADBEDS OF FUTURE ROADS.



LOCATION MAP
(NOT TO SCALE)

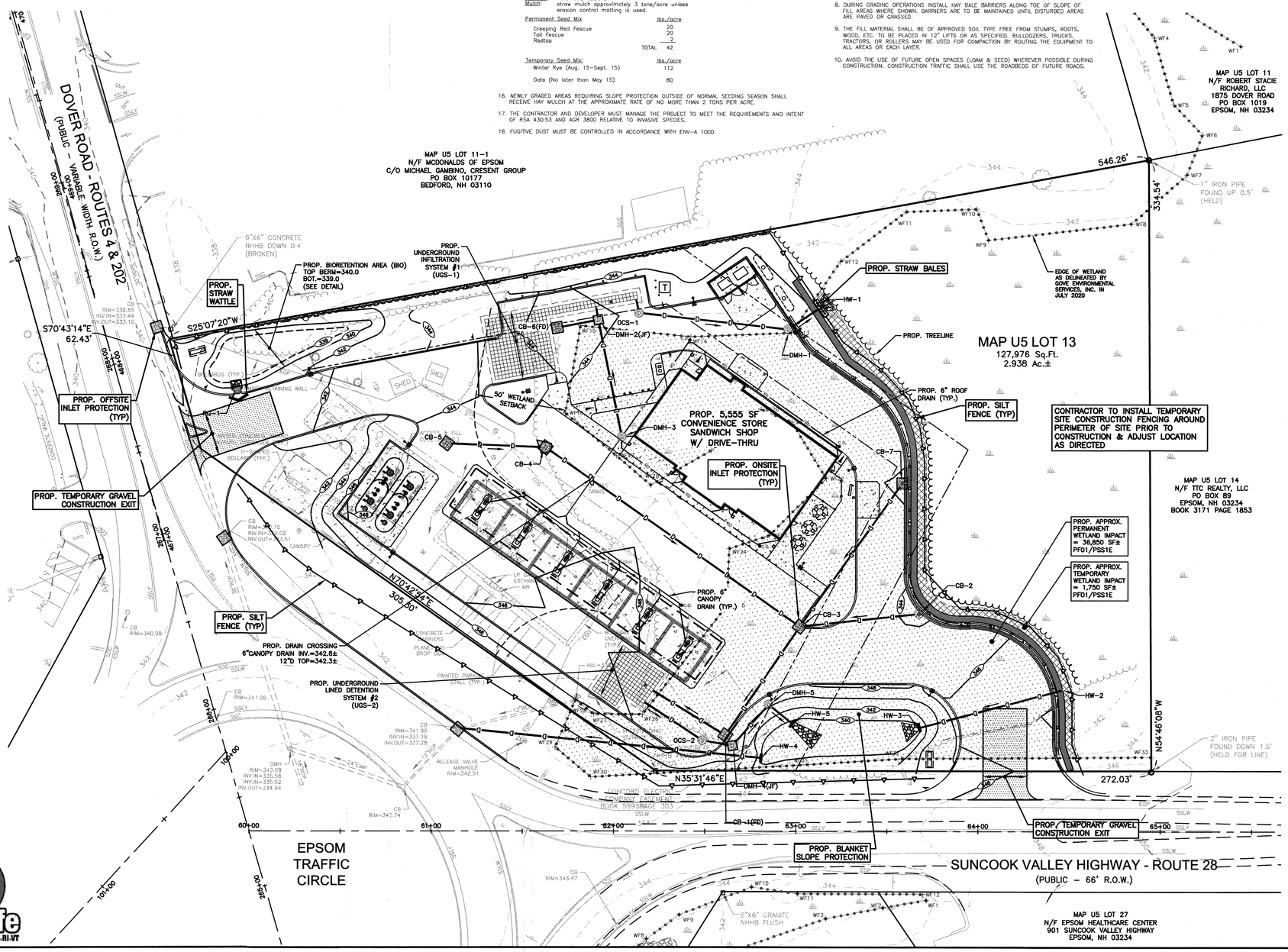
TEMPORARY EROSION CONTROL MEASURES:

1. THE SMALLEST PRACTICAL AREA OF LAND SHALL BE EXPOSED AT ANY ONE TIME. ALL AREAS SHALL BE STABILIZED WITHIN 45 DAYS OF INITIAL DISTURBANCE.
2. HAY BALE BARRIERS AND SEDIMENT TRAPS SHALL BE INSTALLED AS REQUIRED. BARRIERS AND TRAPS ARE TO BE MAINTAINED AND CLEANED UNTIL ALL SLOPES HAVE A HEALTHY STAND OF GRASS.
3. BALED HAY AND MULCH SHALL BE MOWINGS OF ACCEPTABLE HERBACEOUS GROWTH, FREE FROM NOXIOUS WEEDS OR WOODY STEMS, AND SHALL BE DRY. NO SALT HAY SHALL BE USED.
4. FILL MATERIAL SHALL BE FREE FROM STUMPS, WOOD, ROOTS, ETC.
5. STOCKPILED MATERIALS SHALL BE PLACED ONLY IN AREAS SHOWN ON THE PLANS. STOCKPILES SHALL BE PROTECTED BY SILTATION FENCE AND SEEDED TO PREVENT EROSION. THESE MEASURES SHALL REMAIN UNTIL ALL MATERIAL HAS BEEN PLACED OR DISPOSED OFF SITE.
6. ALL DISTURBED AREAS SHALL BE LOAMED AND SEEDED. A MINIMUM OF 4 INCHES OF LOAM SHALL BE INSTALLED AND SEEDING AS SPECIFIED.
7. AFTER ALL DISTURBED AREAS HAVE BEEN STABILIZED THE TEMPORARY EROSION CONTROL MEASURES ARE TO BE REMOVED.
8. PAVED ROADWAYS MUST BE KEPT CLEAN AT ALL TIMES.
9. ALL CATCH BASIN INLETS WILL BE PROTECTED WITH LOW POINT SEDIMENTATION BARRIER.
10. ALL STORM DRAINAGE OUTLETS WILL BE STABILIZED AND CLEANED AS REQUIRED, BEFORE THE DISCHARGE POINTS BECOME OPERATIONAL.
11. ALL DEWATERING OPERATIONS MUST DISCHARGE DIRECTLY INTO A SEDIMENT FILTER AREA.
12. JUTE MATTING OR APPROVED EQUIVALENT SHALL BE PROVIDED ON ALL SLOPES GREATER THAN 3:1.

WINTER STABILIZATION NOTES:

MAINTENANCE REQUIREMENTS:
MAINTENANCE MEASURES SHOULD CONTINUE AS NEEDED THROUGHOUT CONSTRUCTION, INCLUDING THE OVER-WINTER PERIOD. AFTER EACH RAINFALL, SNOWSTORM, OR PERIOD OF THAWING AND RUNOFF, THE SITE CONTRACTOR SHOULD CONDUCT AN INSPECTION OF ALL INSTALLED EROSION CONTROL MEASURES AND PERFORM REPAIRS AS NEEDED TO INSURE THEIR CONTINUING FUNCTION.
FOR ANY AREA STABILIZED BY TEMPORARY OR PERMANENT SEEDING PRIOR TO THE ONSET OF THE WINTER SEASON, THE CONTRACTOR SHOULD CONDUCT AN INSPECTION IN THE SPRING TO ASCERTAIN THE CONDITION OF VEGETATION COVER, AND REPAIR ANY DAMAGE AREAS OR BARE SPOTS AND RESEED AS REQUIRED TO ACHIEVE AN ESTABLISHED VEGETATIVE COVER (AT LEAST 85% OF AREA VEGETATED WITH HEALTHY, VIGOROUS GROWTH).
SPECIFICATIONS:
TO ADEQUATELY PROTECT WATER QUALITY DURING COLD WEATHER AND DURING SPRING RUNOFF, THE FOLLOWING STABILIZATION TECHNIQUES SHOULD BE EMPLOYED DURING THE PERIOD FROM OCTOBER 15TH THROUGH MAY 15TH.

1. THE AREA OF EXPOSED, UNSTABILIZED SOIL SHOULD BE LIMITED TO ONE ACRE AND SHOULD BE PROTECTED AGAINST EROSION BY THE METHODS DESCRIBED IN THIS SECTION PRIOR TO ANY THAW OR SPRING MELT EVENT. SUBJECT TO APPLICABLE REGULATIONS, THE ALLOWABLE AREA OF EXPOSED SOIL MAY BE INCREASED IF ACTIVITIES ARE CONDUCTED ACCORDING TO A WINTER CONSTRUCTION PLAN, DEVELOPED BY A PROFESSIONAL ENGINEER LICENSED TO PRACTICE IN THE STATE OF NEW HAMPSHIRE OR A CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL AS CERTIFIED BY THE CSPESC COUNCIL OF ENVIROCERT INTERNATIONAL, INC.
2. STABILIZATION AS FOLLOWS SHOULD BE COMPLETED WITHIN A DAY OF ESTABLISHING THE GRADE THAT IS FINAL OR THAT OTHERWISE WILL EXIST FOR MORE THAN 5 DAYS:
   A. ALL PROPOSED VEGETATED AREAS HAVING A SLOPE OF LESS THAN 15% WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHOULD BE SEEDED AND COVERED WITH 3 TO 4 TONS OF HAY OR STRAW MULCH PER ACRE SECURED WITH ANCHORED NETTING, OR 2 INCHES OF EROSION CONTROL MIX (SEE DESCRIPTION OF EROSION CONTROL MIX BERMS FOR MATERIAL SPECIFICATION).
   B. ALL PROPOSED VEGETATED AREAS HAVING A SLOPE OF GREATER THAN 15% WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHOULD BE SEEDED AND COVERED WITH A PROPERLY INSTALLED AND ANCHORED EROSION CONTROL BLANKET OR WITH A MINIMUM 4 INCH THICKNESS OF EROSION CONTROL MIX, UNLESS OTHERWISE SPECIFIED BY THE MANUFACTURER. NOTE THAT COMPOST BLANKETS SHOULD NOT EXCEED 2 INCHES IN THICKNESS OR THEY MAY OVERHEAT.
3. ALL STONE-COVERED SLOPES MUST BE CONSTRUCTED AND STABILIZED BY OCTOBER 15.
4. INSTALLATION OF ANCHORED HAY MULCH OR EROSION CONTROL MIX SHOULD NOT OCCUR OVER SNOW OF GREATER THAN ONE INCH IN DEPTH.
5. ALL MULCH APPLIED DURING WINTER SHOULD BE ANCHORED (E.G., BY NETTING, TRACKING, WOOD CELLULOSE FIBER).
6. STOCKPILES OF SOIL MATERIALS SHOULD BE MULCHED FOR OVER WINTER PROTECTION WITH HAY OR STRAW AT TWICE THE NORMAL RATE OR WITH A FOUR-INCH LAYER OF EROSION CONTROL MIX. MULCHING SHOULD BE DONE WITHIN 24 HOURS OF STOCKING, AND RE-ESTABLISHED PRIOR TO ANY RAINFALL OR SNOWFALL. NO SOIL STOCKPILE SHOULD BE PLACED (EVEN COVERED WITH MULCH) WITHIN 100 FEET FROM ANY WETLAND OR OTHER WATER RESOURCE AREA.
7. FROZEN MATERIALS, (E.G., FROST LAYER THAT IS REMOVED DURING WINTER CONSTRUCTION), SHOULD BE STOCKPILED SEPARATELY AND IN A LOCATION THAT IS AWAY FROM ANY AREA NEEDING TO BE PROTECTED. STOCKPILES OF FROZEN MATERIAL CAN MELT IN THE SPRING AND BECOME UNWORKABLE AND DIFFICULT TO TRANSPORT DUE TO THE HIGH MOISTURE CONTENT IN THE SOIL.
8. INSTALLATION OF EROSION CONTROL BLANKETS SHOULD NOT OCCUR OVER SNOW OF GREATER THAN ONE INCH IN DEPTH OR ON FROZEN GROUND.
9. ALL GRASS-LINED DITCHES AND CHANNELS SHOULD BE CONSTRUCTED AND STABILIZED BY SEPTEMBER 1. ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHOULD BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS, AS DETERMINED BY A QUALIFIED PROFESSIONAL ENGINEER OR A CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL AS CERTIFIED BY THE CSPESC COUNCIL OF ENVIROCERT INTERNATIONAL, INC. IF A STONE LINING IS NECESSARY, THE CONTRACTOR MAY NEED TO RE-GRADE THE DITCH AS REQUIRED TO PROVIDE ADEQUATE CROSS-SECTION AFTER ALLOWING FOR PLACEMENT OF THE STONE.
10. ALL STONE-LINED DITCHES AND CHANNELS MUST BE CONSTRUCTED AND STABILIZED BY OCTOBER 15.
11. AFTER NOVEMBER 15, INCOMPLETE ROAD OR PARKING SURFACES, WHERE WORK HAS STOPPED FOR THE WINTER SEASON, SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF CRUSHED GRAVEL PER NHDOT ITEM 304.3.
12. SEDIMENT BARRIERS THAT ARE INSTALLED DURING FROZEN CONDITIONS SHOULD CONSIST OF EROSION CONTROL MIX BERMS, OR CONTINUOUS CONTAINED BERMS. SILT FENCES AND HAY BALES SHOULD NOT BE INSTALLED WHEN FROZEN CONDITIONS PREVENT PROPER EMBEDMENT OF THESE BARRIERS.



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AOUDE, INC.
25 ESTHER DRIVE
BEDFORD, NH 03110
BOOK 3489 PAGE 641

0 30 60 100
SCALE: 1" = 30'

GPI Engineering Design Planning Construction Management
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44 Stiles Road, Suite One
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PREPARED FOR
GRANITE STATE CONVENIENCE, LLC
25 SPRINGER ROAD
HOOKSETT, NH 03106

PROPOSED RETAIL MOTOR FUEL OUTLET
ASSESSORS MAP U5 LOT 13
910 SUNCOOK VALLEY HWY
EPSOM, NEW HAMPSHIRE

STATE OF NEW HAMPSHIRE
DAVID R. JORDAN
No. 7788
LICENSED
PROFESSIONAL ENGINEER
7/28/21

REVISIONS		
1	REV. PER TOWN COMMENTS	7/30/21
NO.	REVISION	DATE

JUNE 18, 2021

DRAWN/DESIGN BY	CHECKED BY
JD/NID	FCM

EROSION & SEDIMENTATION CONTROL PLAN

SCALE: 1"=30'

PROJECT NO. NEX-2020033

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LEGEND

SGC	SLOPED GRANITE CURB		SIGN
VGC	VERTICAL GRANITE CURB	+98.69	SPOT ELEVATION
DSLY	DOUBLE SOLID LINE YELLOW		DRAIN MANHOLE
SSLY	SINGLE SOLID LINE YELLOW		CATCH BASIN
SSLW	SINGLE SOLID LINE WHITE		SEWER MANHOLE
EOP	EDGE OF PAVEMENT		WATER VALVE
EOG	EDGE OF GRAVEL		WATER SHUT OFF
W	WATER LINE		FIRE HYDRANT
E	UNDERGROUND ELECTRIC		BOLLARD
	CHAIN LINK FENCE	GM	GAS METER
90	CONTOUR ELEVATION	EM	ELECTRIC METER
	TREE		MONITORING WELL
	UTILITY POLE		LIGHT POLE
	GUY WIRE		WETLAND LINE
	OVERHEAD WIRE		TREELINE

N
NAD 83

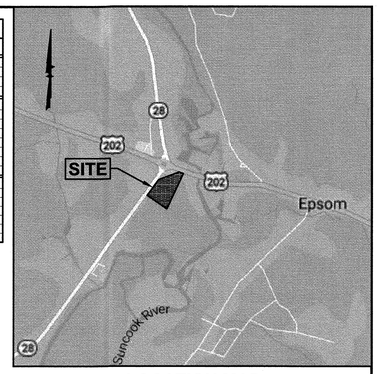
PLANTING SCHEDULE

PLANT	QNTY	BOTANICAL NAME	COMMON NAME	MIN. INSTALL SIZE	MATURE SIZE/REMARKS
TREES					
AR	1	ACER RUBRUM 'KARPICK'	KARPICK RED MAPLE	2 1/2"– 3" CAL.	–/SHADE–NARROW–STREET
BN	2	BETULA NIGRA 'HERITAGE'	HERITAGE RIVER BIRCH	8' – 10' HT.	–/SHADE–MULTI–STEM
MG	1	MALUS 'SPRING SNOW'	SPRING SNOW CRABAPPLE	2"– 2 1/2" CAL.	20' HT. MAX./WHITE FLOWERS–AVOID FRUIT
SHRUBS					
CA	18	CLETHRA ALNIFOLIA 'HUMMINGBIRD'	HUMMINGBIRD SUMMERSWEET	18"–24"HT, 3 GAL.	3'–4' HT. MAX./WHITE FLOWERS
CS	44	CORNUS SERICEA 'ARCTIC FIRE'	ARCTIC REDTWIG DOGWOOD	3 GAL 18"–24"HT.	3–4' HT. MAX./RED TWIG/COMPACT FORM
IG	61	ILEX GLABRA 'SHAMROCK'	SHAMROCK INKBERRY	2"–2 1/2' HT.	5' HT. MAX./BERRIES
JC	11	JUNIPERUS CHINENSIS 'SARGENTII'	SARGENT JUNIPER	18"–24" SPR.	2' HT. MAX./BLUE GREEN
JB	7	JUNIPERUS HORIZONTALIS 'BAR HARBOR'	BAR HARBOR JUNIPER	18"–24" SPR.	1' HT. MAX/GROUNDCOVER/BLUE GREEN–SALT TOLERANT
TE	3	TAXUS X MEDIA 'EVER–LOW	EVER–LOW YEW	18"–24" HT.	1'–2' HT. MAX./SPREADING
TO	10	THUJA OCCIDENTALIS 'SMARAGD'	EMERALD GREEN ARBORVITAE	5'–6' HT.	3'–4' SPR.MAX./TIGHT COLUMNAR
PERENNIALS & GRASSES					
EC	15	ECHINACEA 'PURPUREA'	PURPLE CONEFLOWER	1 GAL.	PINK–PURPLE DAISY–LIKE FLOWERS
HD	50	HEMEROCALLIS 'STELLA DE ORO'	DWARF YELLOW DAYLILY	1 GAL.	YELLOW FLOWERS/CONTINUOUS BLOOMS
RG	42	RUDBECKIA 'GOLDSTURM'	GOLDSTURM BLACK–EYED SUSAN	1 GAL.	GOLDEN YELLOW FLOWERS WITH BROWN CENTER
PL	20	PENNISETUM ALOPECUROIDES 'LITTLE BUNNY'	LITTLE BUNNY FOUNTAIN GRASS	1 GAL.	A COMPACT FOUNTAIN GRASS WITH BUFF COLORED BLOOMS
PH	12	PENNISETUM ALOPECUROIDES 'HAMELN'	DWARF FOUNTAIN GRASS	1 GAL.	BUFF COLORED PLUMES WITH GOLDEN FOLIAGE IN FALL
IVC	40	IRIS VERSI COLOR	BLUE FLAG IRIS (PURPLE–JULY)	1 GAL.	

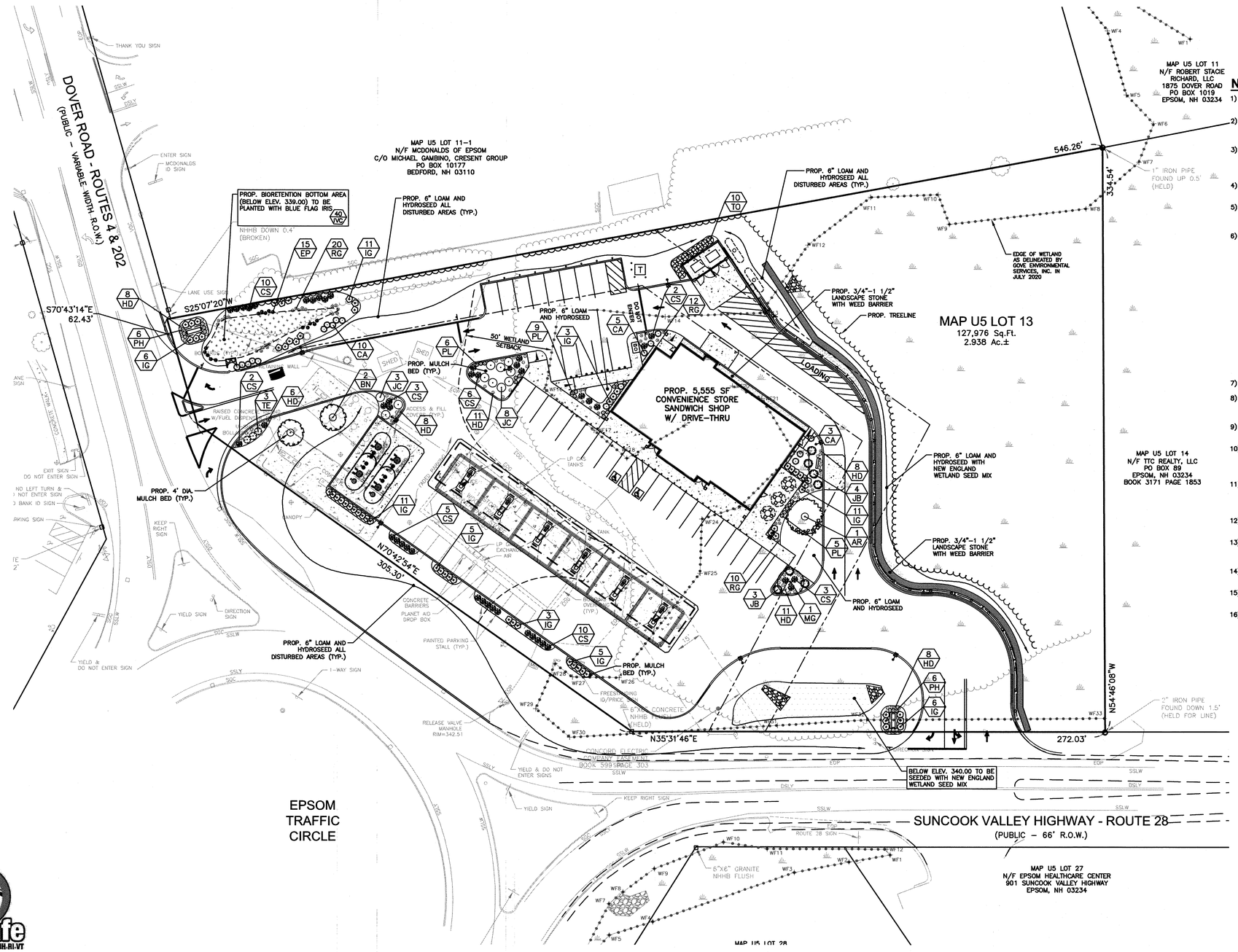
1 / XX — PLANT QUANTITY / PLANT DESIGNATION

3/4"–1 1/2" LANDSCAPE STONE

NEW ENGLAND WETLAND SEED MIX



LOCATION MAP
(NOT TO SCALE)



NOTES:

1) ALL PLANT STOCK SHALL CONFORM TO ANSI Z260.1 – NURSERY STOCK, LATEST EDITION (AMERICAN ASSOCIATION OF NURSERYMEN, INC.).

2) 4" AGED PINEBARK MULCH AND A WEED BARRIER (TY–PAR FABRIC OR APPROVED EQUAL) SHALL BE APPLIED TO ALL SHRUB AND GROUNDCOVER BEDS. INSTALL WEED BARRIER AS PER MANUFACTURERS RECOMMENDATIONS.

3) PLANT PIT BACKFILL SHALL BE MIXED AT A RATE OF 7 PARTS OF TOPSOIL TO 2 PART OF DEHYDRATED COW MANURE. SLOW RELEASE FERTILIZER SHALL BE APPLIED AS PER MANUFACTURERS RECOMMENDATIONS. USE EXISTING ON–SITE TOPSOIL AS PART OF BACKFILL WHEN AVAILABLE.

4) ALL LANDSCAPED AREAS NOT PLANTED WITH TREES, SHRUBS OR GROUNDCOVER SHALL BE RESTORED WITH SEED OR SOD AS INDICATED ON PLANS.

5) ALL SOD, SEED, SHRUB AND TREE AREAS SHALL RECEIVE 6" PH CORRECTED TOPSOIL. AFTER TOPSOIL IS SPREAD EVENLY OVER ENTIRE AREA, ALL CLODS, LUMPS, STONES AND OTHER DELETERIOUS MATERIAL SHALL BE RAKED UP AND REMOVED.

6) APPLICATION OF GRASS SEED, FERTILIZERS AND MULCH SHALL BE ACCOMPLISHED BY BROADCAST SEEDING OR HYDROSEEDING AT THE RATES OUTLINED BELOW:

LIMESTONE: 100 LBS./1,000 SQUARE FEET.
FERTILIZER: 500 LBS/ACRE OF 10–20–20 OR 1000 LBS/ACRE OF 5–10–10.
MULCH: HAY MULCH APPROXIMATELY 3 TONS/ACRE

SEED MIX (SLOPES LESS THAN 4:1)	LBS/ACRE
CREEPING RED FESCUE	20
TALL FESCUE	15
PERENNIAL RYEGRASS	5
REDTOP	2
	42

SLOPE MIX (SLOPES GREATER THAN 4:1)	LBS/ACRE
CREEPING RED FESCUE	20
TALL FESCUE	20
BIRDSFOOT TREEFOIL	8
	48

7) FOR TEMPORARY EROSION CONTROL NOTES, SEE DETAIL SHEET.

8) NEWLY GRADED AREAS REQUIRING SLOPE PROTECTION OUTSIDE OF NORMAL SEEDING SEASON SHALL RECEIVE STRAW MULCH AT THE APPROXIMATE RATE OF NO MORE THAN 3 TONS PER ACRE.

9) ANY CHANGES IN PLANT LOCATIONS OR TYPES SHALL BE APPROVED BY THE DEVELOPER, LANDOWNER AND TOWN PRIOR TO INSTALLATION.

10) CLEAR AND GRUB (TO LIMITS REQUIRED ON GRADING PLAN) TO REMOVE VEGETATION, TREES, ROCKS, DEBRIS, ROOTS, ETC. STUMPS SHALL BE REMOVED AND DISPOSED OF OFF SITE IN ACCORDANCE WITH STATE REGULATIONS. AFTER CLEARING, ROTOTILL, STRIP AND STOCKPILE ALL ON–SITE TOPSOIL FOR REUSE TO THE MAXIMUM EXTENT POSSIBLE.

11) FOR SEED (& SOD) AREAS USE EXISTING TOPSOIL, IF AVAILABLE, FOR A 4" DEPTH AND TOP DRESS WITH 2" OF SCREENED TOPSOIL, UNLESS OTHERWISE NOTED ON PLAN. ALL LOAM OR TOPSOIL IMPORTED OR RE–UTILIZED FROM ON SITE SHALL BE TESTED AND AMENDED AS DIRECTED BY DEVELOPER TO MEET MINIMUM REQUIREMENTS,

12) PLANTINGS SHALL BE GUARANTEED BY THE CONTRACTOR FOR ONE YEAR AFTER WRITTEN ACCEPTANCE OF THE DEVELOPER.

13) SLOPES GREATER THAN 3:1 SHALL RECEIVE JUTE MESH OR WOOD EXCELSIOR MATTING NO MORE THAN 24 HOURS AFTER SEEDING. MATTING SHALL BE INSTALLED AS PER MANUFACTURERS RECOMMENDATIONS.

14) EXPOSED SOILS SHALL BE SEEDED OR HAY MULCHED WITHIN 72 HOURS OF FINAL GRADING.

15) ALL WORK SHALL BE COORDINATED WITH APPLICABLE EPA NPDES/SWPPP PERMIT WORK AS REQUIRED.

16) THE CONTRACTOR SHALL INSTALL AN IRRIGATION SYSTEM TO PROVIDE COMPLETE COVERAGE OF ALL SEED AREAS AND SHRUB BEDS WITHIN THE LEASE AREA. THE SYSTEM SHALL INCLUDE A TIMER AND SHALL BE INSTALLED IN ACCORDANCE WITH LOCAL CODES.

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0 30 60 100
SCALE: 1" = 30'

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PROPOSED RETAIL MOTOR FUEL OUTLET
ASSESSORS MAP U5 LOT 13
910 SUNCOOK VALLEY HWY
EPSOM, NEW HAMPSHIRE

LICENSED LANDSCAPE ARCHITECT
ROBERT A. WHITE
083
STATE OF NEW HAMPSHIRE

REVISIONS		
1	REV. PER TOWN COMMENTS	7/30/21
NO.	REVISION	DATE

JUNE 18, 2021

DRAWN/DESIGN BY	CHECKED BY
JD/NID	FCM

LANDSCAPE PLAN

SCALE: 1"=30'

PROJECT NO. NEX-2020033

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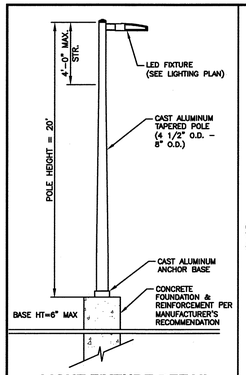

LIGHT FIXTURE DETAIL
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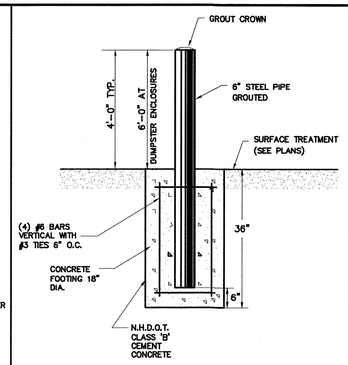

BOLLARD DETAIL
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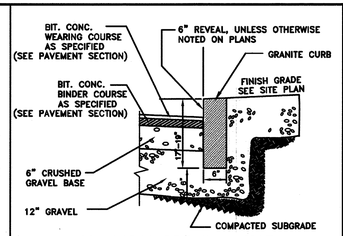
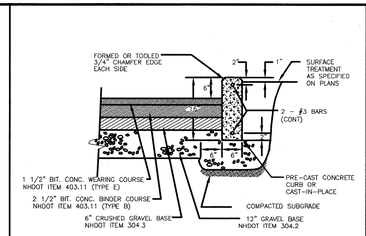


VERTICAL GRANITE CURB
NOT TO SCALE

NOTE: SAWCUT 1' OFF FACE OF CURB WHERE INSTALLED IN EXISTING PAVEMENT. PATCH PAVEMENT TO MATCH EXISTING THICKNESS.



PAVEMENT AND CONCRETE CURB SECTION ON-SITE
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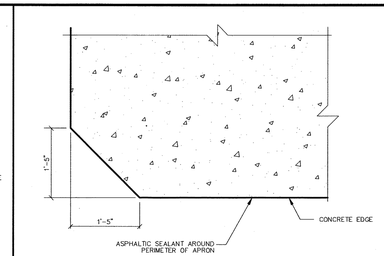

DISPENSER APRON CHAMFER DETAIL
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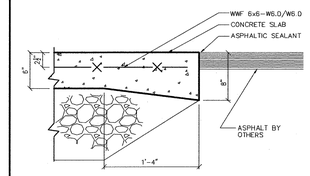

DISPENSER APRON EDGE DETAIL
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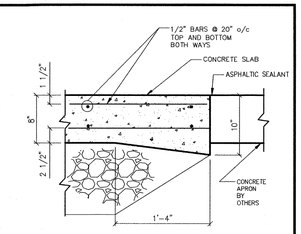

TANK APRON EDGE DETAIL
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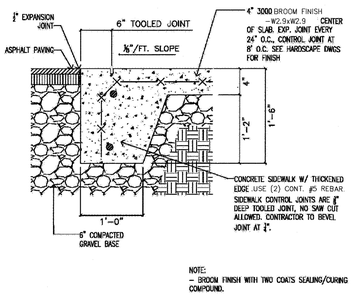

FLUSH CONC. SIDEWALK/PARKING DETAIL
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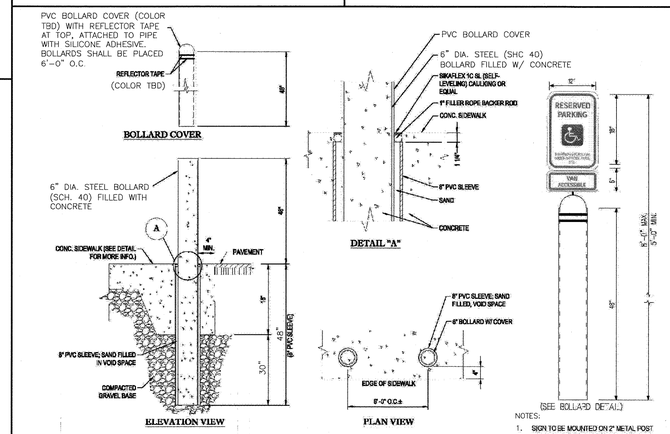
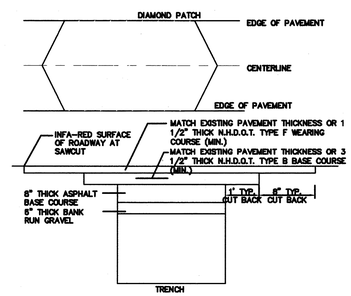


BOLLARD SET IN CONCRETE WALK
NOT TO SCALE

NOTES:
1. SIGN TO BE MOUNTED ON 2" METAL POST CENTERED ON 4" CONCRETE BOLLARD. USE CAULKING @ THE CONNECTION POINT
2. ONE SIGN PER HANDICAPPED SPACE

ACCESSIBLE SIGN DETAIL
NOT TO SCALE



TYPICAL PAVEMENT REPAIR DETAIL
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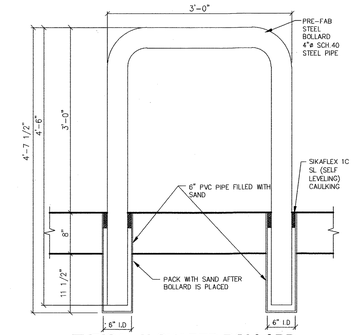
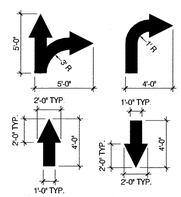
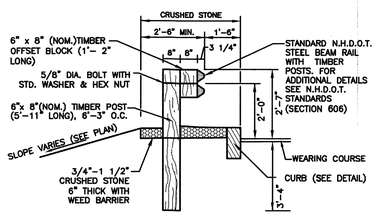


TYPICAL U-SHAPED BOLLARD
NOT TO SCALE

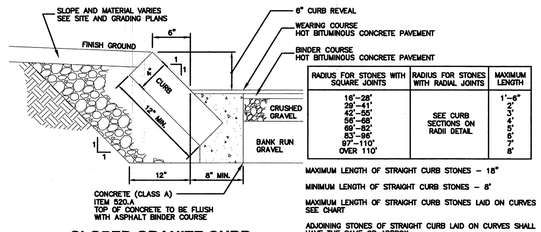


ALL PAVEMENT MARKINGS TO BE WHITE PAVEMENT PAINT, UNLESS STATED OTHERWISE.

ON-SITE PAVEMENT MARKING DETAILS
NOT TO SCALE



GUARD RAIL DETAIL
NOT TO SCALE



RADIUS FOR STONES WITH SQUARE JOINTS	RADIUS FOR STONES WITH RADIAL JOINTS	MAXIMUM LENGTH
16'–28'	SEE CURB SECTIONS ON RADII DETAIL	1'–6"
29'–41'		2'
42'–55'		3'
56'–68'		4'
69'–82'		5'
83'–96'		6'
97'–110'		7'
OVER 110'		8'

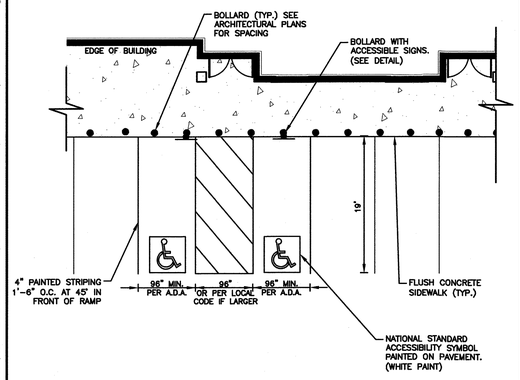
MAXIMUM LENGTH OF STRAIGHT CURB STONES – 18"

MINIMUM LENGTH OF STRAIGHT CURB STONES – 8'

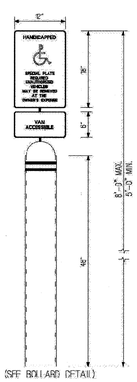
MAXIMUM LENGTH OF STRAIGHT CURB STONES LAID ON CURVES SEE CHART

ADJOINING STONES OF STRAIGHT CURB LAID ON CURVES SHALL HAVE THE SAME OR APPROX–IMATELY THE SAME LENGTH.

SLOPED GRANITE CURB
NOT TO SCALE

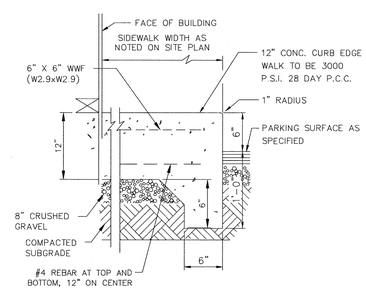


ACCESSIBLE PARKING STALLS
NOT TO SCALE



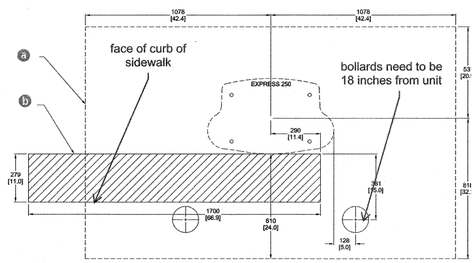
NOTES:
1. REFLECTIVE BLUE BACKGROUND WHITE LETTERING AND SYMBOL LETTERING MINIMUM 1" HEIGHT
2. SIGN TO BE MOUNTED ON 2" METAL POST CENTERED ON 4" CONCRETE BOLLARD. USE CAULKING @ THE CONNECTION POINT
3. ONE SIGN PER HANDICAPPED SPACE.

ACCESSIBLE SIGN DETAIL
NOT TO SCALE



CHARGING STATION SIDEWALK DETAIL
NOT TO SCALE

Head-in or back-in space bollard installation:



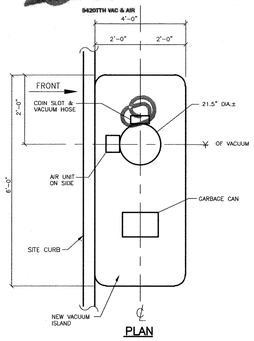
Pairing Previously Installed Charging Stations

If all site construction for paired charging is completed in advance, Express 250 stations can be initially installed as Standalone and paired at a later date. In that case, follow these additional steps:

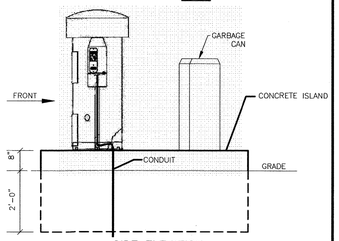
- During initial site construction, install DC and communication conduit or ducting (as applicable by region) in advance.
- Extend side clearance at both DC conduit stub-up locations to 1.2 m (4 ft) to allow space for cable pulling equipment.
- Run a pull rope through the larger DC conduit before landing the charging stations. Do not pull DC cable in advance, as it is too thick to hide inside the cover panels without risking damage or unwanted electrical contact.
- Install a fishing tape in the smaller communication conduit to assist with routing the Ethernet cable later. If Ethernet is pulled in advance, leave 317.5 cm (125 in) of wire above grade at each end.
- Use duct seal compound to seal the ends of the DC and communications conduit stub-ups. Seal the ends of the fishing tape to hang outside the conduit.
- Install the cover panels and extrusions on the Express 250 stations over the stub-ups as normal.

By only connecting AC wiring (and shunt trip if applicable), each Express 250 can perform as a Standalone station until the station owner is ready to pair them. At a later time, the stations can be paired by installing DC conductors, connecting Ethernet communication, and performing a firmware update if required. Refer to the *Express 250 Installation Guide* for further details.

Once two Express 250s are correctly paired, operation of both stations is inhibited if Ethernet



PLAN



SIDE ELEVATION

VACUUM/AIR ISLAND DETAIL
NOT TO SCALE

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44 Stiles Road, Suite One
Salem, NH 03079

PREPARED FOR
GRANITE STATE CONVENIENCE, LLC
25 SPRINGER ROAD
HOOKSETT, NH 03106

PROPOSED RETAIL MOTOR FUEL OUTLET
ASSESSORS MAP U5 LOT 13
910 SUNCOOK VALLEY HWY
EPSOM, NEW HAMPSHIRE

STATE OF NEW HAMPSHIRE
DAVID R. JORDAN
No. 7778
LICENSED PROFESSIONAL ENGINEER
7/29/21

REVISIONS

NO.	REVISION	DATE
1	REV. PER TOWN COMMENTS	7/30/21

JUNE 18, 2021

DRAWN/DESIGN BY	CHECKED BY
JD/NID	FCM

DETAIL SHEET

SCALE: NOT TO SCALE

PROJECT NO. NEX-2020033

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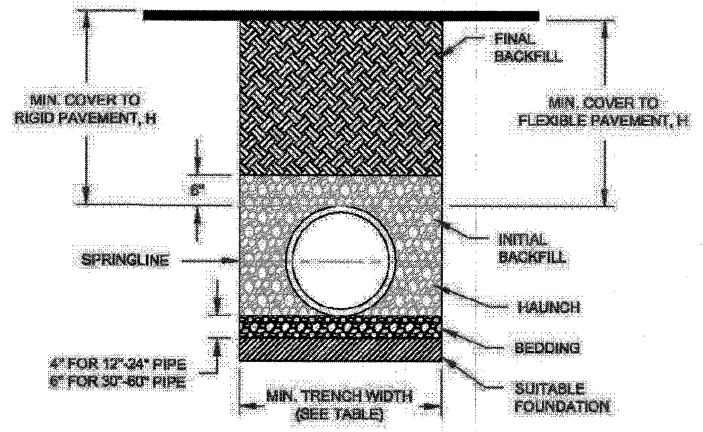

RECOMMENDED MINIMUM TRENCH WIDTHS

PIPE DIAM.	MIN. TRENCH WIDTH
4"	21"
6"	23"
8"	26"
10"	28"
12"	30"
15"	34"
18"	39"
24"	48"
30"	56"
36"	64"
42"	72"
48"	80"
54"	88"
60"	96"

MINIMUM RECOMMENDED COVER BASED ON VECHICLE LOADING CONDITIONS

PIPE DIAM.	SURFACE LIVE LOADING CONDITION H-25	HEAVY CONSTRUCTION (75T AXLE LOAD) *
12" - 48"	12"	48"
54" - 60"	24"	60"

* VEHICLES IN EXCESS OF 75T MAY REQUIRE ADDITIONAL COVER

MINIMUM RECOMMENDED COVER BASED ON RAILWAY LOADING CONDITIONS

PIPE DIAM.	COOPER E-80**
UP TO 24"	24"
30"-36"	36"
42"-60"	48"

** COVER IS MEASURED FROM TOP OF PIPE TO BOTTOM OF RAILWAY TIE.
*** E-80 COVER REQUIREMENTS, ARE ONLY APPLICABLE TO ASTM F 2306 PIPE.

NOTES:

1. ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST ADDITION

2. MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.

3. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.

4. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I, II OR III. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 4"-24" (100mm-600mm); 6" (150mm) FOR 30"-60" (750mm-900mm).

5. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I, II OR III IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.

6. MINIMUM COVER: MINIMUM COVER, H, IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM THE TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER, H, IS 12" UP TO 48" DIAMETER PIPE AND 24" OF COVER FOR 54"-60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.

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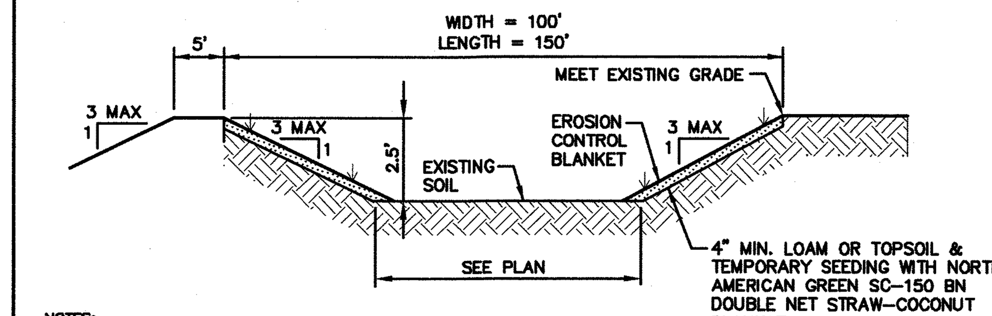
REV.	DESCRIPTION	BY	MM/DD/YY	CHK'D
2	ADDED E-80 INFORMATION	TJR	08/20/07	

ADVANCED DRAINAGE SYSTEMS, INC. ("ADS") HAS PREPARED THIS DETAIL BASED ON INFORMATION PROVIDED TO ADS. THIS DRAWING IS INTENDED TO DEPICT THE COMPONENTS AS REQUESTED. ADS HAS NOT PERFORMED ANY ENGINEERING OR DESIGN SERVICES FOR THIS PROJECT, NOR HAS ADS INDEPENDENTLY VERIFIED THE INFORMATION SUPPLIED. THE INSTALLATION DETAILS PROVIDED HEREIN ARE GENERAL RECOMMENDATIONS AND ARE NOT SPECIFIC FOR THIS PROJECT. THE DESIGN ENGINEER SHALL REVIEW THESE DETAILS PRIOR TO CONSTRUCTION. IT IS THE DESIGN ENGINEERS RESPONSIBILITY TO ENSURE THE DETAILS PROVIDED HEREIN MEETS OR EXCEEDS THE APPLICABLE NATIONAL, STATE, OR LOCAL REQUIREMENTS AND TO ENSURE THAT THE DETAILS PROVIDED HEREIN ARE ACCEPTABLE FOR THIS PROJECT.

TYPICAL TRENCH DETAIL
DRAWING NUMBER: STD-101
ADS — ADVANCED DRAINAGE SYSTEMS, INC. 4640 TRUEMAN BLVD HILLIARD, OHIO 43026
CKS 10/18/06 NTS 1 OF 1

HDPE PIPE TRENCH
NOT TO SCALE

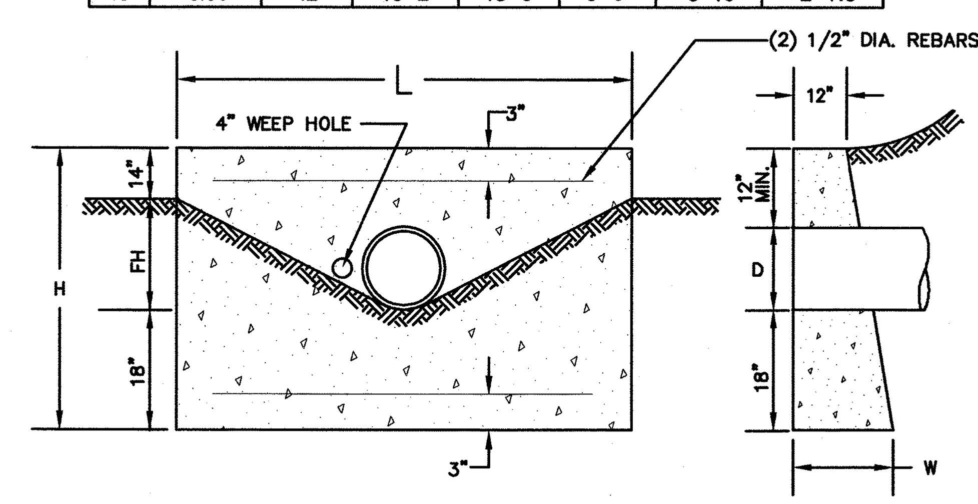


NOTES:

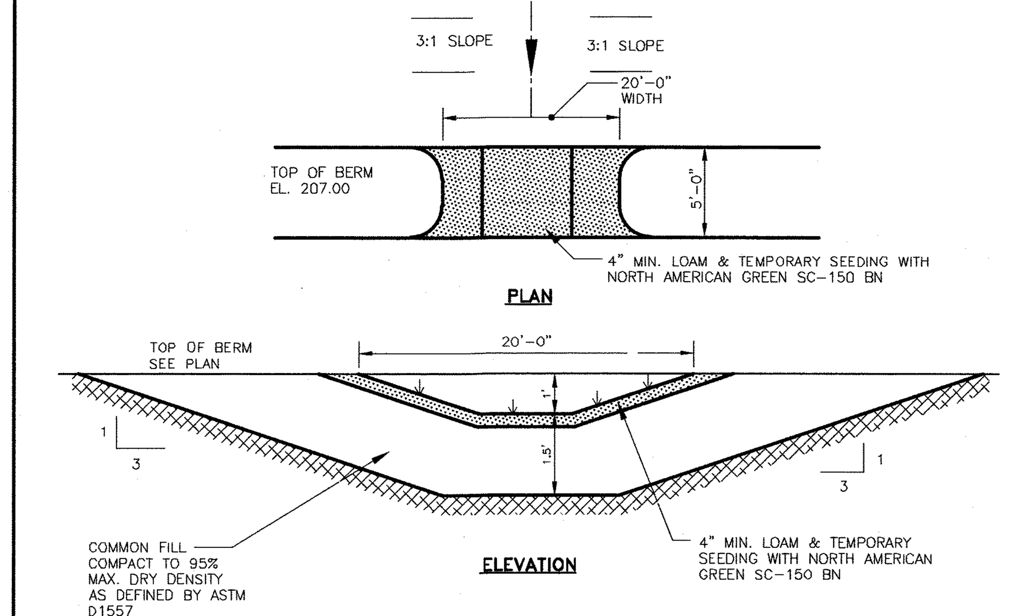
1. SIDE SLOPES OF THE TRAP SHALL BE 3:1 OR FLATTER, AND SHALL BE STABILIZED IMMEDIATELY AFTER CONSTRUCTION.
2. THE SPILLWAY ON THE TRAP SHOULD BE A MINIMUM OF 1 FOOT BELOW THE CREST OF THE TRAP AND SHALL DISCHARGE TO A STABILIZED AREA.
3. THE TRAP SHALL BE CLEANED WHEN 50% OF THE ORIGINAL VOLUME IS FILLED. MATERIALS REMOVED FROM THE TRAP SHALL BE PROPERLY DISPOSED OF AND STABILIZED.

TEMPORARY SEDIMENT TRAP TYPICAL CROSS SECTION
NOT TO SCALE

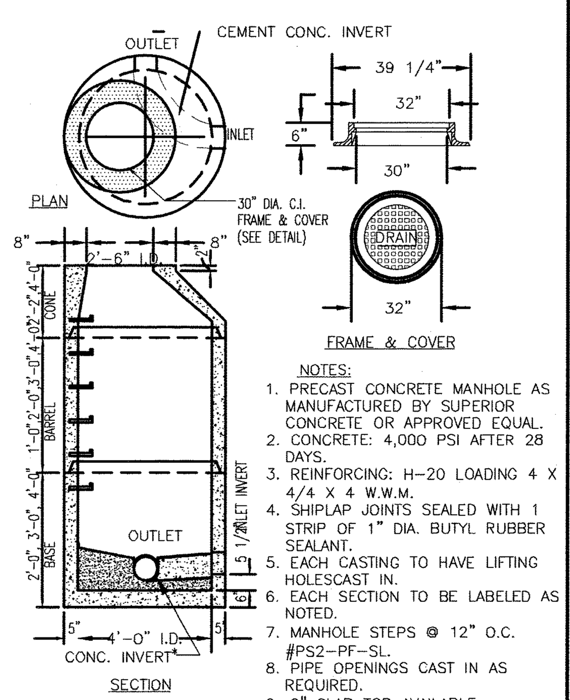
D	MAS.PER STD.HDR. CU.YD.	STEEL PER STD. HDR.LB.	LENGTH OF BARS	L	H	FH	W
12	.61	9	3'-2"	3'-6"	0'-10"	0'-10"	1'-10.5"
15	.85	11	3-10	4-6	3-9	1-1	1.25
18	1.13	14	5-2	5-6	4-0	1-4	2-0
24	1.78	20	7-2	7-6	4-6	1-10	2-1.5
30	2.58	25	9-2	9-6	5-0	2-4	2-3
36	3.53	31	11-2	11-6	5-6	2-10	2-4.5
42	4.65	36	13-2	13-6	6-0	3-4	2-6
48	5.95	42	15-2	15-6	6-6	3-10	2-7.5



CONCRETE HEADWALL
NOT TO SCALE
(SINGLE PIPE SYSTEM)

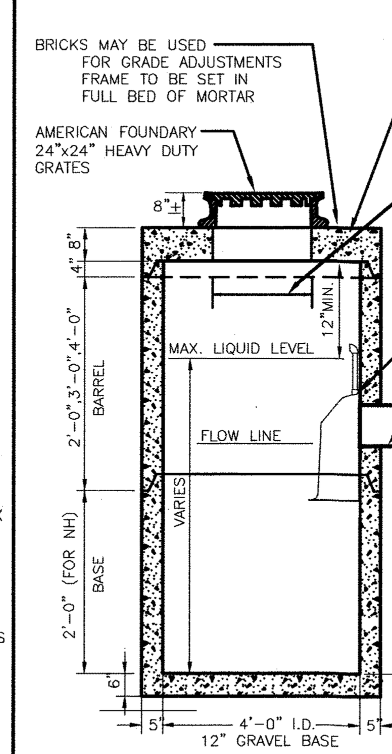


SEDIMENT TRAP SPILLWAY DETAIL
NOT TO SCALE



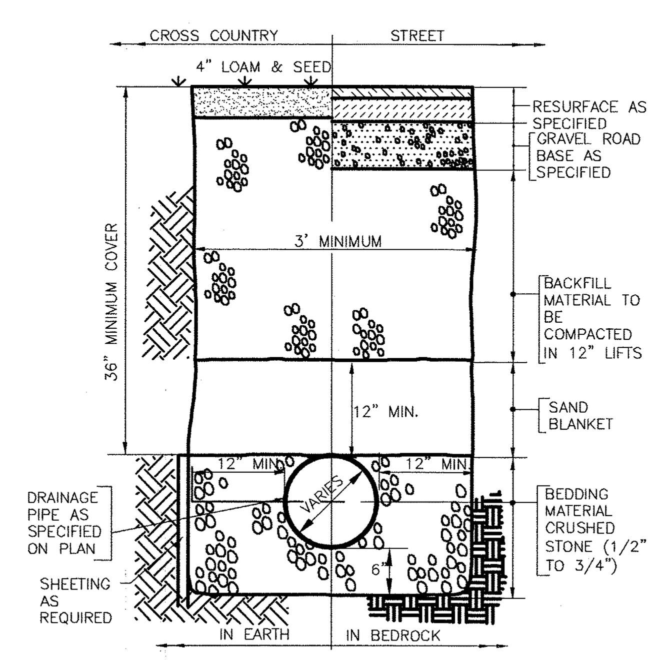
NOTES:
1. PRECAST CONCRETE MANHOLE AS MANUFACTURED BY SUPERIOR CONCRETE OR APPROVED EQUAL.
2. CONCRETE: 4,000 PSI AFTER 28 DAYS.
3. REINFORCING: H-20 LOADING 4 X 4/4 X 4 W.W.M.
4. SHIPLAP JOINTS SEALED WITH 1 STRIP OF 1" DIA. BUTYL RUBBER SEALANT.
5. EACH CASTING TO HAVE LIFTING HOLESCAST IN.
6. EACH SECTION TO BE LABELED AS NOTED.
7. MANHOLE STEPS @ 12" O.C. #PS2-PF-SL.
8. PIPE OPENINGS CAST IN AS REQUIRED.
9. 8" SLAB TOP AVAILABLE.

PRECAST CONCRETE DRAIN MANHOLE
MAXIMUM PIPE DIAMETER 30"
NOT TO SCALE

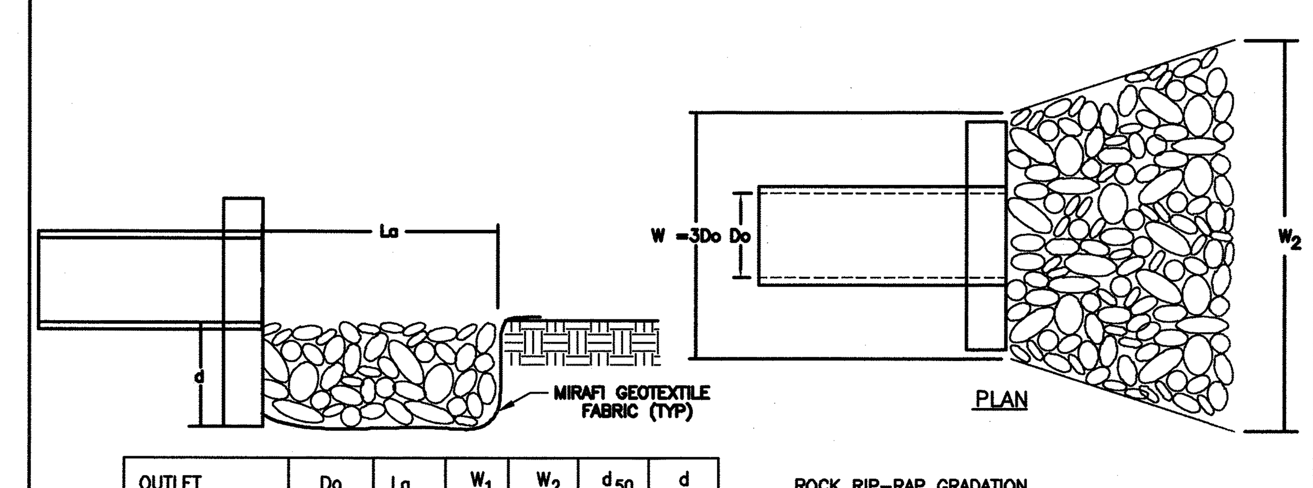


NOTES:
1. PRECAST CONCRETE CATCH BASIN AS MANUFCTURED BY SUPERIOR CONCRETE OR APPROVED EQUAL.
2. CONCRETE: 4,000 PSI AFTER 28 DAYS.
3. REINFORCING: H-20 LOADING, 4 X 4/4 X 4 W.W.M. SLAB TOP -NO. 5'S @ 8" O.C.
4. SHIPLAP JOINTS SEALED WITH 1 STRIP OF1" DIA BUTYL RUBBER SEALANT.
5. EACH CASTING TO HAVE LIFTING HOLES CAST IN.
6. EACH SECTION TO BE LABELED AS NOTED.

PRECAST CONCRETE CATCH BASIN WITH HOOD
NOT TO SCALE



TYPICAL TRENCH SECTION FOR STORM DRAIN
NOT TO SCALE



OUTLET	Do	La	W_1	W_2	d_{50}	d
HW-1	12"	8'	3'	11'	3"	8"
HW-3	12"	15.5'	3'	9'	3"	8"
HW-5	12"	16'	3'	9.5'	3"	8"

ROCK RIP-RAP GRADATION

% OF WEIGHT SMALLER THAN THE GIVEN SIZE	SIZE OF STONE IN INCHES
100	11.0 TO 14.7
85	9.6 TO 13.2
50	7.4 TO 11.0
15	2.2 TO 3.7

FORMULAS USED (REFERENCE NHDES STORMWATER MANUAL, VOL. 2, PAGE 174)

CONSTRUCTION NOTES:
1. THE SUBGRADE FOR THE FILTER MATERIAL, GEOTEXTILE FABRIC, AND RIP-RAP SHALL BE PREPARED TO THE LINES AND GRADES SHOWN ON THE PLANS.
2. THE ROCK OR GRAVEL USED FOR FILTER OR RIP-RAP SHALL CONFORM TO THE SPECIFIED GRADATION.
3. GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING THE PLACEMENT OF THE ROCK RIP-RAP. DAMAGED AREAS IN THE FABRIC SHALL BE REPAIRED BY PLACING A PIECE OF FABIC OVER THE DAMAGED AREA OR BY COMPLETE REPLACE,\MENT OF THE FABRIC. ALL OVERLAPS REQUIRED FOR REPAIRS OR JOINING TWO PIECES OF FABRIC SHALL BE A MINIMUM OF 12 INCHES.
4. STONE FOR THE RIP-RAP MAY BE PLACED BY EQUIPMENT AND SHALL BE CONSTRUCTED TO THE FULL LAYER THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO PREVENT SEGREGATION OF THE STONE SIZES.
5. THE MEDIAN STONE DIAMEMETER FOR THE RIP-RAP APRON IS d50. FIFTY PERCENT BY WEIGHT OF THE RIP-RAP MIXTURE SHALL BE SMALLER THAN THE MEDIAN STONE SIZE. THE LARGEST STONE SIZE IN THE MIXTURE SHALL BE 1.5 d50.

OUTLET PROTECTION-FLAT DETAIL
NOT TO SCALE

GPI — Engineering | Design | Planning | Construction Management

TEST PIT DATA

Client: Granite State Convenience
Project Address: 910 & 1910 Suncook Valley Highway
Town, State: Epsom, NH
Job Number: NEX-2020033
Date: March 17, 2021
Performed by: Diane Pantermoller

Test Pit No. 3-1 — SCS Soil: Urban Land
ESHWT: 60" — Standing Water: 60"
Refusal: >76" — Roots: None

Depth	Horizon	Soil Texture	Color	Consistence	Mottles; Quantity/Contrast
0-60"	Fill	Mixed Soils	Variable		
60-76'	A	Peat/Organic			

Test Pit No. 3-2 — SCS Soil: Urban Land
ESHWT: 60" — Standing Water: 74"
Refusal: >96" — Roots: 49"

Depth	Horizon	Soil Texture	Color	Consistence	Mottles; Quantity/Contrast
0-49"	Fill	Sand Fill			
49-60"	A	Loamy Sand	10yr 3/2		
60-96"	C	Sand	7.5y 4/6	FR	@60" Distinct

NOTES

Test Pit # 3-1 appears to be a filled wetland and with wooden debris.

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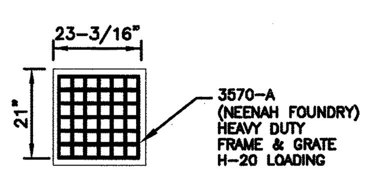
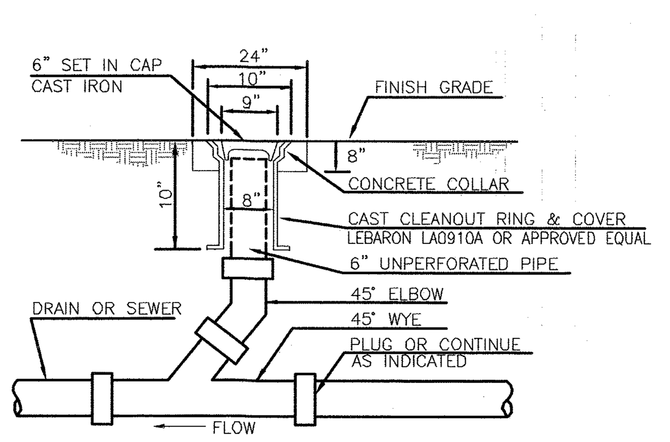
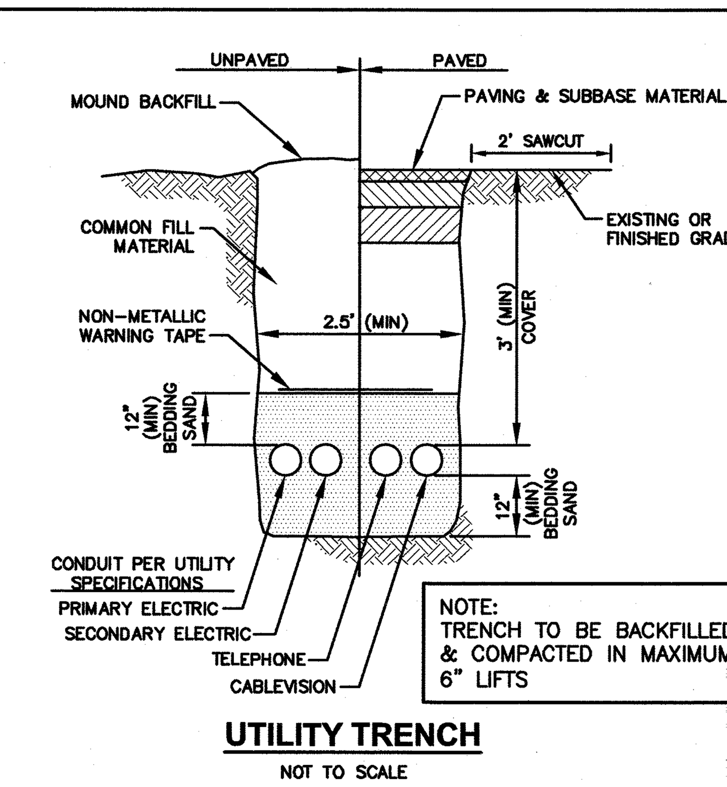


LOW PROFILE GRATE PLAN VIEW
NOT TO SCALE



TYPICAL CLEANOUT
NOT TO SCALE



NOTE:
TRENCH TO BE BACKFILLED & COMPACTED IN MAXIMUM 6" LIFTS

UTILITY TRENCH
NOT TO SCALE

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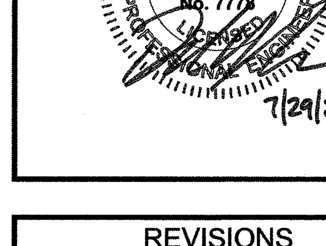
44 Stiles Road, Suite One
Salem, NH 03079

PREPARED FOR
GRANITE STATE CONVENIENCE, LLC
25 SPRINGER ROAD
HOOKSETT, NH 03106

PROPOSED RETAIL MOTOR FUEL OUTLET ASSESSORS MAP U5 LOT 13
910 SUNCOOK VALLEY HWY EPSOM, NEW HAMPSHIRE



NO.	REVISION	DATE

JUNE 18, 2021

DRAWN/DESIGN BY	CHECKED BY
JD/NID	FCM

DETAIL SHEET

SCALE: NOT TO SCALE
PROJECT NO. NEX-2020033

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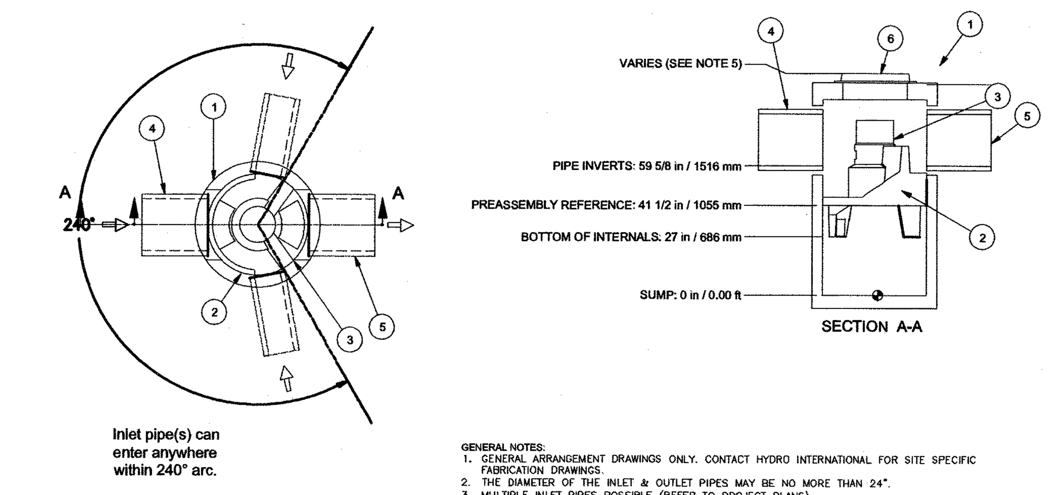


Parts List		
ITEM	SIZE (in)	DESCRIPTION
1	48	I.D. PRECAST MANHOLE
2		LEDGER SUPPORT
3		SEPARATION MODULE
4	12	INLET PIPE (BY OTHERS)
5	15	OUTLET PIPE (BY OTHERS)
6	30	FRAME AND COVER (OR GRATE) (ROUND)

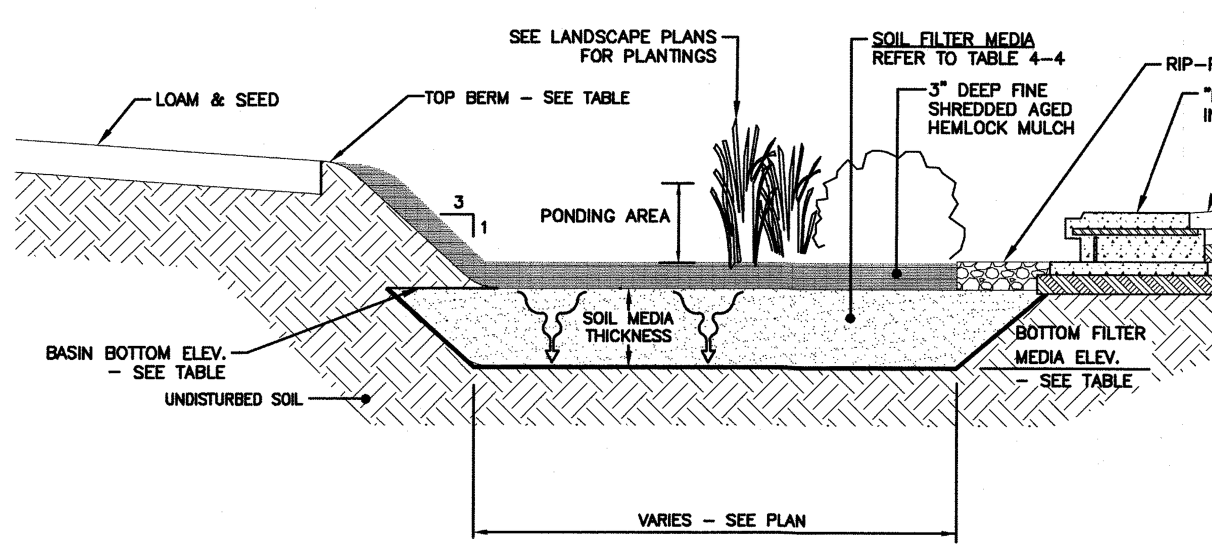
GENERAL NOTES:
1. GENERAL ARRANGEMENT DRAWINGS ONLY. CONTACT HYDRO INTERNATIONAL FOR SITE SPECIFIC FABRICATION DRAWINGS.
2. THE DIAMETER OF THE INLET & OUTLET PIPES MAY BE NO MORE THAN 24".
3. MULTIPLE INLET PIPES POSSIBLE (REFER TO PROJECT PLANS).
4. INLET/OUTLET PIPE ANGLE CAN VARY TO ALIGN WITH DRAINAGE NETWORK (REFER TO PROJECT PLANS).
5. PEAK FLOW RATE AND MINIMUM HEIGHT LIMITED BY AVAILABLE COVER AND PIPE DIAMETER.
6. LARGER SEDIMENT STORAGE CAPACITY MAY BE PROVIDED WITH A DEEPER SUMP DEPTH.

PRODUCT SPECIFICATIONS:
A. THE TREATMENT SYSTEM SHALL USE AN INDUCED VORTEX TO SEPARATE POLLUTANTS FROM STORMWATER RUNOFF.
B. THE TREATMENT SYSTEM SHALL FIT WITHIN THE LIMITS OF EXCAVATION (AREA AND DEPTH) AS SHOWN IN THE PROJECT PLANS AND WILL NOT EXCEED THE DIMENSIONS FOR THE DESIGN FLOW RATES SPECIFIED HEREIN.
C. THE TREATMENT SYSTEM SHALL REMOVE GREATER THAN OR EQUAL TO 80% OF TSS BASED ON THE TARGET PARTICLE SIZE (TPS) OF 106 MICRONS AND/OR 80% OF TSS BASED ON THE TPS OF 230 MICRONS AT 0.7 CFS AND 1.2 CFS, RESPECTIVELY.
D. THE TREATMENT SYSTEM SHALL CONVEY THE PEAK ON-LINE FLOW RATES OF UP TO 18 CFS WITHOUT CAUSING UPSTREAM SURCHARGE CONDITIONS. FULL-SCALE INDEPENDENT LABORATORY SCOUR TESTING SHALL DEMONSTRATE EFFLUENT CONTROL OF LESS THAN OR EQUAL TO 5 MG/L FOR ALL FLOWS UP TO 200% OF MTFR-106.
E. THE TREATMENT SYSTEM SHALL BE CAPABLE OF CAPTURING AND RETAINING FINE SILT AND SAND SIZE PARTICLES. ANALYSIS OF CAPTURED SEDIMENT FROM FULL-SCALE FIELD INSTALLATIONS SHALL DEMONSTRATE PARTICLE SIZES PREDOMINATELY IN THE 20-MICRON RANGE.

"FIRST DEFENSE" UNIT DETAIL - FD-4HC

(OR APPROVED EQUAL)
NOT TO SCALE

NOTE: CONTRACTOR SHOULD CONFIRM SYSTEM PARTS AND OBTAIN SHOP DRAWINGS FROM MANUFACTURER PRIOR TO CONSTRUCTION.



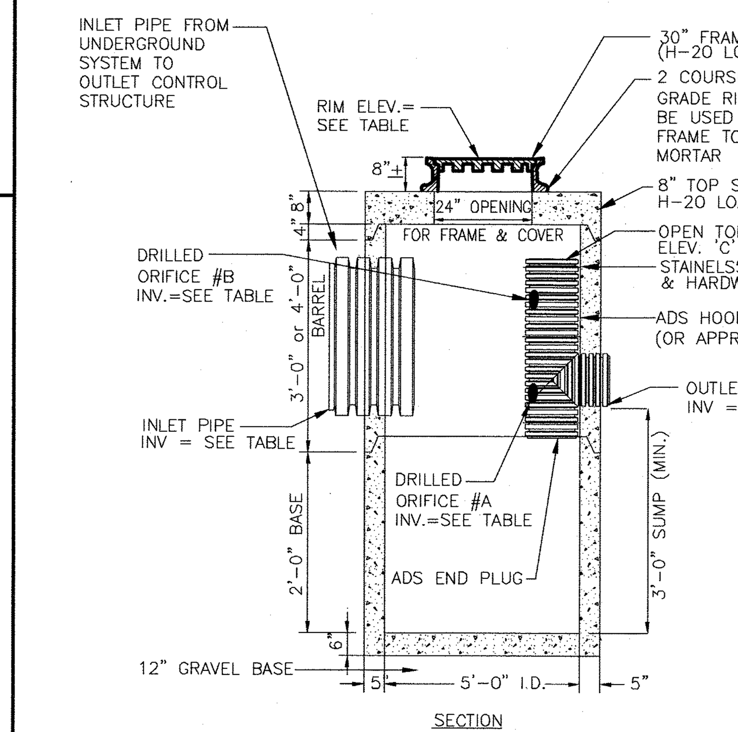
BIORETENTION AREA	TOP BERM ELEVATION	BASIN BOTTOM ELEVATION	SOIL MEDIA THICKNESS	BOTTOM FILTER MEDIA ELEV.	IMPERMEABLE LINER
#1	340.00	339.00	24"	337.00	NO

NOTES:
FOR ADDITIONAL INFORMATION REFER TO THE NEW HAMPSHIRE STORMWATER MANUAL, VOLUME 2, POST-CONSTRUCTION BEST MANAGEMENT PRACTICES, DECEMBER 2008.

Table 4-4. Bioretention Filter Media			
Component Material	Percent of Mixture by Volume	Gradation of Material	
		Sieve No.	Percent by Weight Passing Standard Sieve
Filter Media Option A			
ASTM C-33 concrete sand	50 to 55		
Loamy sand topsoil, with fines as indicated	20 to 30	200	15 to 25
Moderately fine shredded bark or wood fiber mulch, with fines as indicated	20 to 30	200	< 5
Filter Media Option B			
Moderately fine shredded bark or wood fiber mulch, with fines as indicated	20 to 30	200	< 5
Loamy coarse sand	70 to 80	10	85 to 100
		20	70 to 100
		60	15 to 40
		200	8 to 15

BIORETENTION AREA DETAIL

NOT TO SCALE



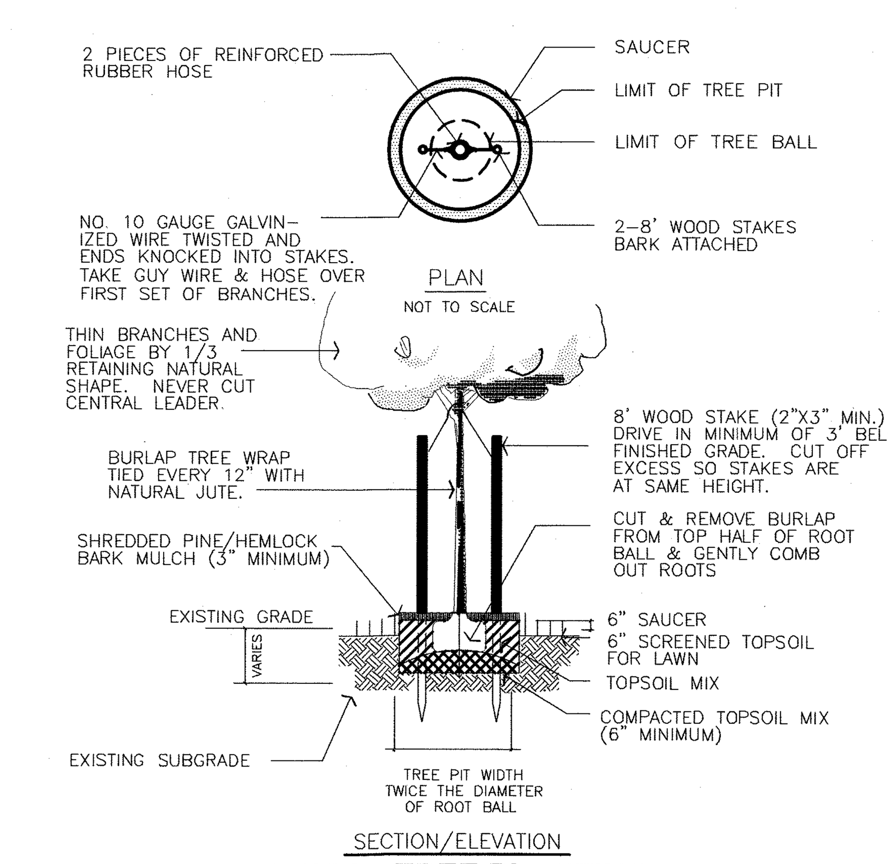
NOTES:
1. PRECAST CONCRETE MAN HOLE AS MANUFCTURED BY SUPERIOR CONCRETE OR APPROVED EQUAL.
2. CONCRETE: 4,000 PSI AFTER 28 DAYS.
3. REINFORCING: H-20 LOADING, 4 X 4/4 X 4 W.W.M. SLAB TOP -NO. 5'S @ 8" O.C.
4. SHIPLAP JOINTS SEALED WITH 1 STRIP OF 1" DIA BUTYL RUBBER SEALANT.
5. EACH CASTING TO HAVE LIFTING HOLES CAST IN.
6. LENGTH AND DIAMETER OF TEE VARIES WITH PIPE.

OUTLET CONTROL STRUCTURE TABLE

OCS	RIM	ORIFICE	SIZE (IN.)	ELEV.	INV.IN (SIZE)	INV.IN (ELEV)	INV.OUT (SIZE)	INV.OUT (ELEV)
#1	344.20	A	5" DIA. x2	341.45	12"	341.40	12"	341.45
		B	–	–				
		C	12" DIA.	342.00				
#2	344.95	A	4" DIA. x2	339.45	12"	339.45	12"	339.45
		B	6" DIA. x2	341.20				
		C	12" DIA.	342.20				

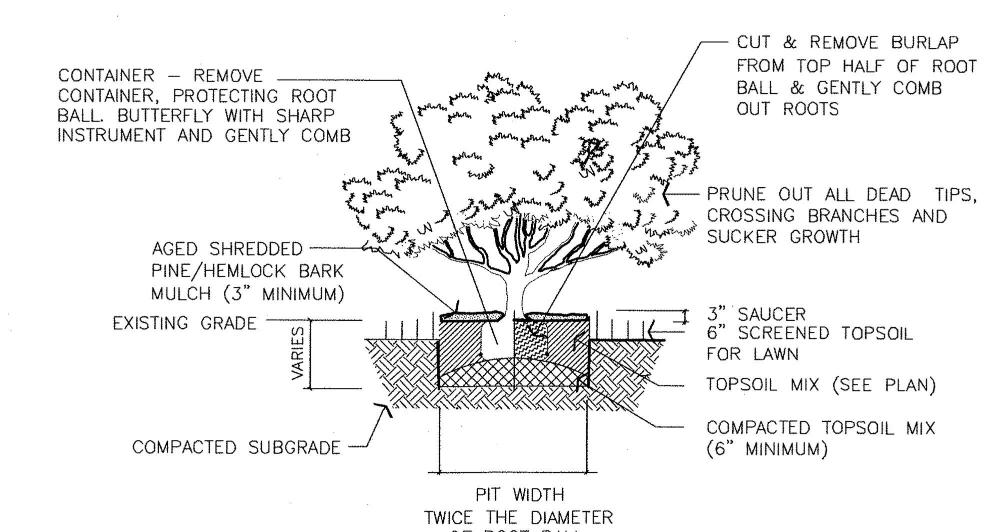
PRECAST CONCRETE OUTLET CONTROL STRUCTURE (OCS) FOR UNDERGROUND SYSTEMS

NOT TO SCALE



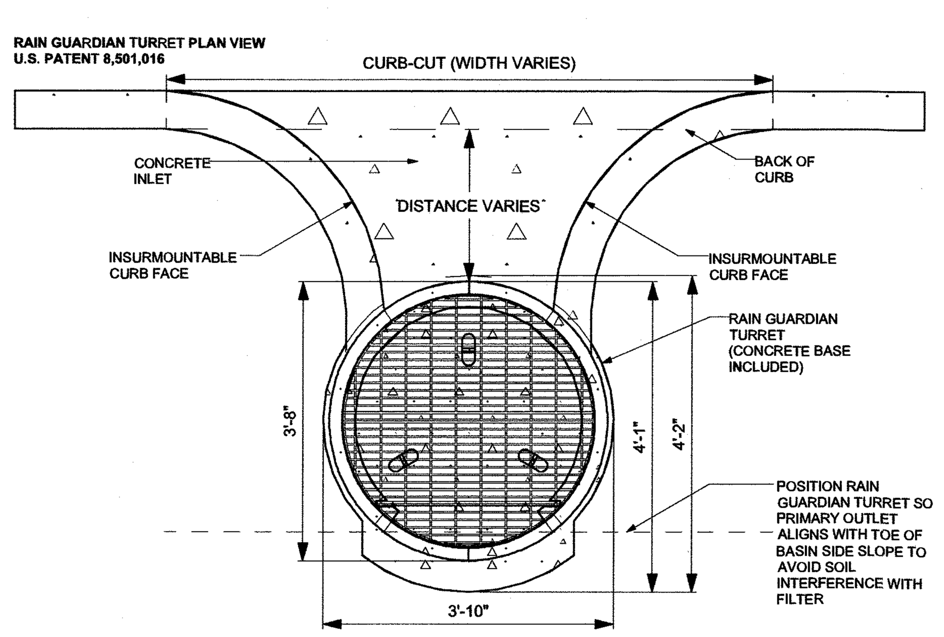
TYPICAL TREE PLANTING

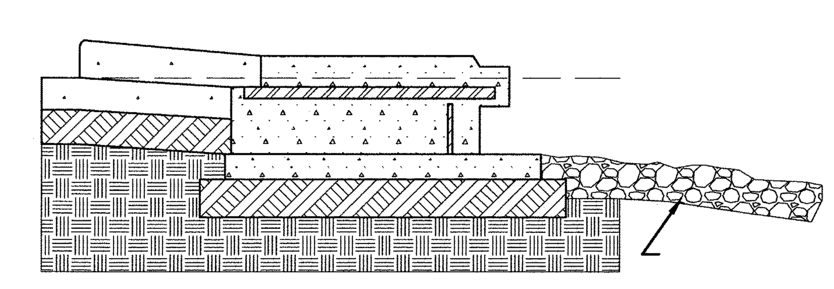
NOT TO SCALE



TYPICAL SHRUB PLANTING

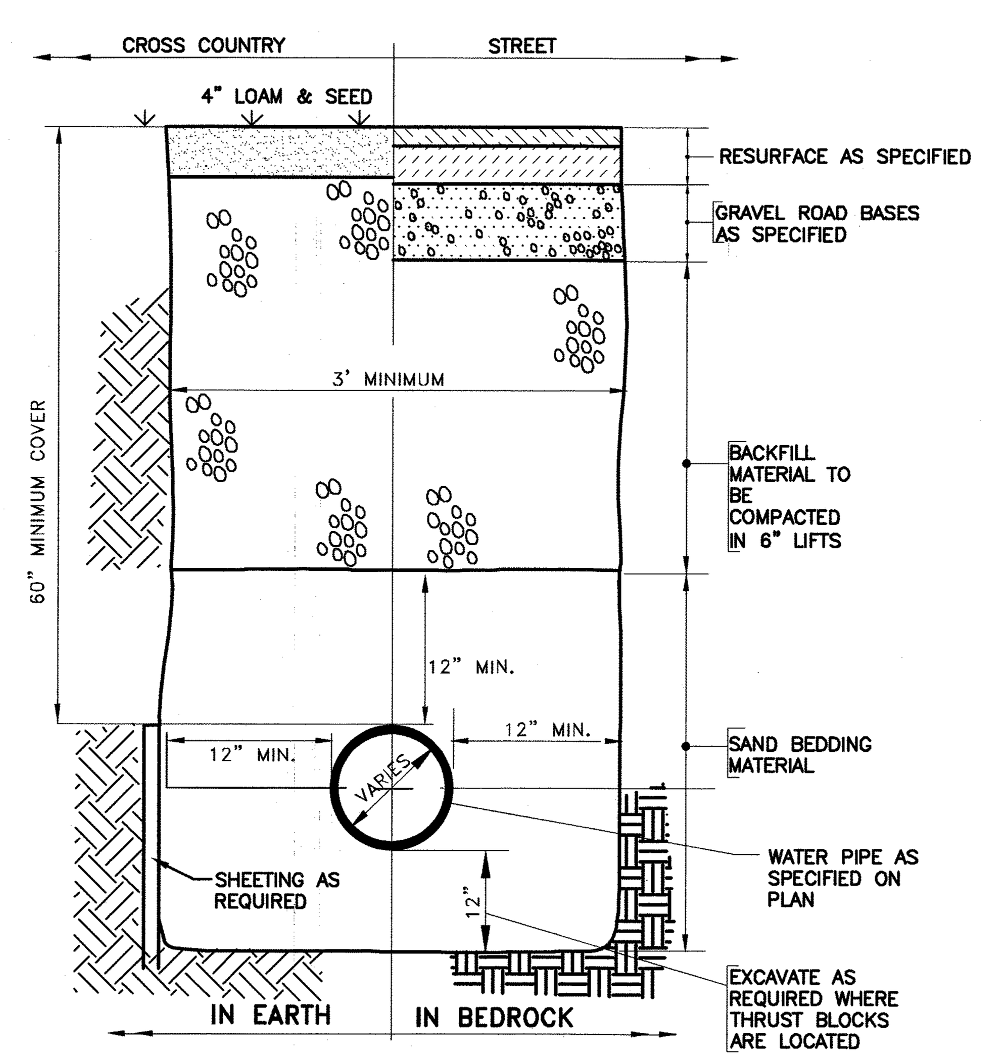
NOT TO SCALE





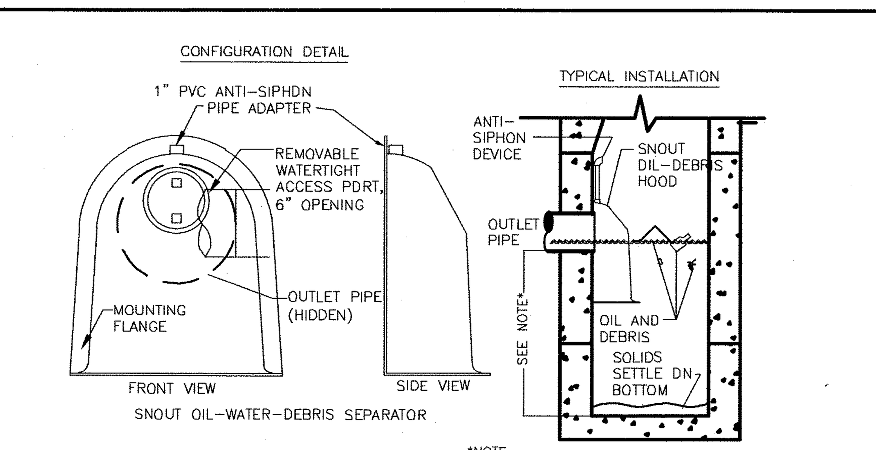
'RAIN GUARDIAN' INLET STRUCTURE

NOT TO SCALE



TYPICAL TRENCH SECTION FOR WATER SERVICE

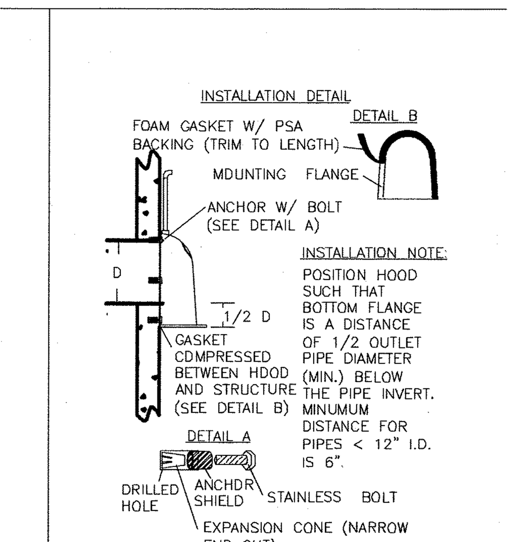
NOT TO SCALE



*NOTE
SUMP DEPTH OF 36" MIN. FOR < OR= 12" DIAM. OUTLET. FOR OUTLETS >OR= 15", DEPTH = 2.5-3X DIAM.

NDTES:
1. ALL HOODS AND TRAPS FOR CATCH BASINS AND WATER QUALITY STRUCTURES SHALL BE AS MANUFACTURED BY: BEST MANAGEMENT PRODUCTS, INC.
53 MT. ARCHER RD., LYME, CT D6371
(86D) 434-D277, (86D) 434-3195 FAX
TOLL FREE: (8DD) 5D4-8DD8
DR (888) 354-7585 WEB SITE: www.bestmp.com
OR PRE-APPROVED EQUAL
2. ALL HDODS SHALL BE CONSTRUCTED DF A GLASS REINFORCED RESIN COMPOSITE WITH ISO GEL COAT EXTERIOR FINISH WITH A MINIMUM 0.125" LAMINATE THICKNESS.
3. ALL HDODS SHALL BE EQUIPPED WITH A WATERTIGHT ACCESS PDRT, A MDUNTING FLANGE, AND AN ANTI-SIPHON VENT AS DRAWN. (SEE CONFIGURATION DETAIL)
4. THE SIZE AND PDSITION OF THE HOOD SHALL BE DETERMINED BY OUTLET PIPE SIZE AS PER MANUFACTURER'S RECOMMENDATION.
5. THE BOTTOM OF THE HOOD SHALL EXTEND DOWNWARD A DISTANCE EQUAL TO 1/2 THE OUTLET PIPE DIAMETER WITH A MINIMUM DISTANCE OF 6" FOR PIPES <12" I.D.
6. THE ANTI-SIPHDN VENT SHALL EXTEND ABOVE HOOD BY MINIMUM OF 3" AND A MAXIMUM OF 24" ACCORDING TO STRUCTURE CONFIGURATION.
7. THE SURFACE DF THE STRUCTURE WHERE THE HODD IS MOUNTED SHALL BE FINISHED SMOOTH AND FREE OF LOOSE MATERIAL.
8. THE HOOD SHALL BE SECURELY ATTACHED TD STRUCTURE WALL WITH 3/8" STAINLESS STEEL BOLTS AND OIL-RESISTANT GASKET AS SUPPLIED BY MANUFACTURER. (SEEINSTALLATION DETAIL)
9. INSTALLATION INSTRUCTIONS SHALL BE FURNISHED WITH MANUFACTURER SUPPLIED INSTALLATION KIT.INSTALLATION KIT SHALL INCLUDE:
A. INSTALLATIDN INSTRUCTIONS
B.PVC ANTI-SIPHON VENT PIPE AND ADAPTER
C. OIL-RESISTANT CRUSHED CELL FOAM GASKET WITH PSA BACKING
D. 3/8" STAINLESS STEEL BOLTS
E. ANCHOR SHIELDS

US Patent # 6126817



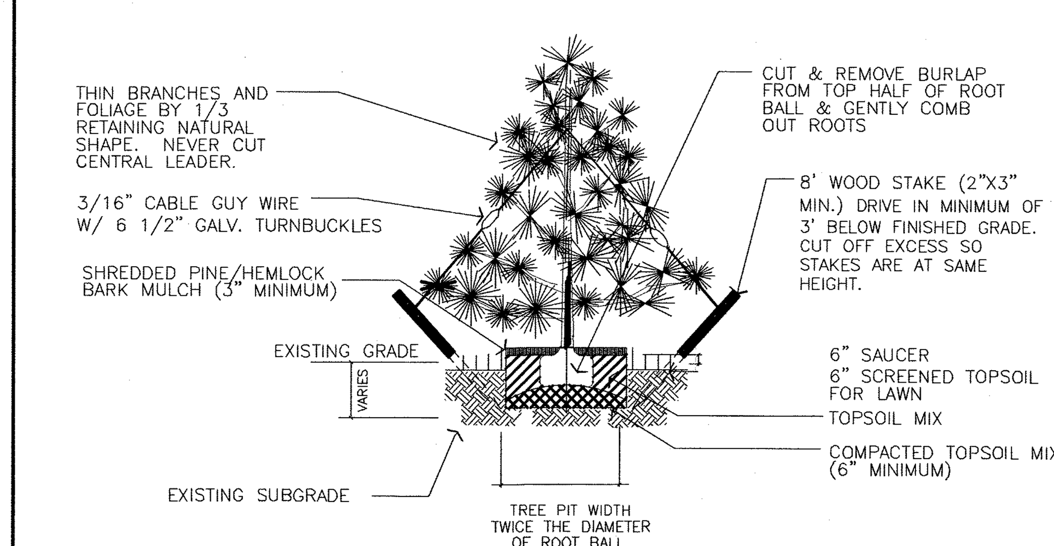
INSTALLATION NOTE:
POSITION HOOD SUCH THAT BOTTOM FLANGE IS A DISTANCE OF 1/2 OUTLET PIPE DIAMETER (MIN.) BELOW THE PIPE INVERT. MINUMUM DISTANCE FOR PIPES < 12" I.D. IS 6".

HODD SPECIFICATION FOR CATCH BASINS AND WATER QUALITY STRUCTURES

DESCRIPTION	DATE	SCALE
OIL- DEBRIS HOOD SPECIFICATION AND INSTALLATION (TYPICAL)	D9/D8/DD	NONE
	DRAWING NUMBER	
	SP-SN	

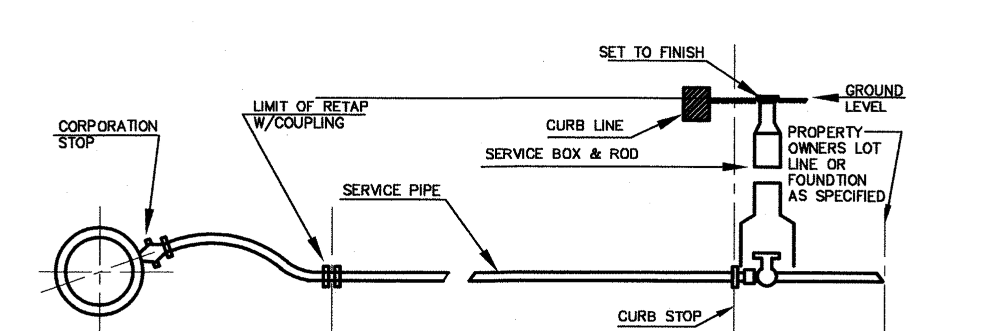
SNOUT - OIL - WATER - DEBRIS SEPARATOR

NOT TO SCALE



TYPICAL EVERGREEN TREE PLANTING

NOT TO SCALE



TYPICAL WATER SERVICE CONNECTION

NOT TO SCALE

GPI Engineering Design Planning Construction Management
603.893.0720 GPINET.COM
Greenman-Pedersen, Inc.
44 Stiles Road, Suite One
Salem, NH 03079

PREPARED FOR
GRANITE STATE CONVENIENCE, LLC
25 SPRINGER ROAD
HOOKSETT, NH 03106

PROPOSED RETAIL MOTOR FUEL OUTLET ASSESSORS MAP U5 LOT 13
910 SUNCOOK VALLEY HWY EPSOM, NEW HAMPSHIRE

STATE OF NEW HAMPSHIRE
DAVID R. JORDAN
No. 7778
LICENSED PROFESSIONAL ENGINEER
7/29/21

REVISIONS		
1	REV. PER TOWN COMMENTS	7/30/21
NO.	REVISION	DATE

JUNE 18, 2021

DRAWN/DESIGN BY	CHECKED BY
JD/NID	FCM

DETAIL SHEET

SCALE: NOT TO SCALE
PROJECT NO. NEX-2020033

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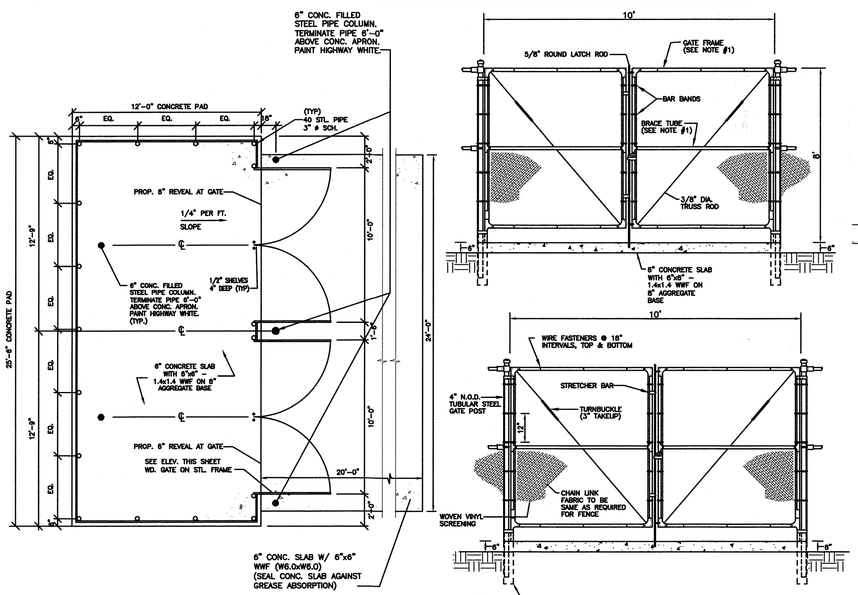


PLAN VIEW

GATE DETAIL

1) NOMINAL OUTSIDE DIAMETER (N.O.D.) OF GATE FRAME AND BRACE TUBE TO BE 1.66" UP TO 6' IN WIDTH, AND 1.90" IF OVER 6' IN WIDTH.

CHAINLINK TRASH ENCLOSURE

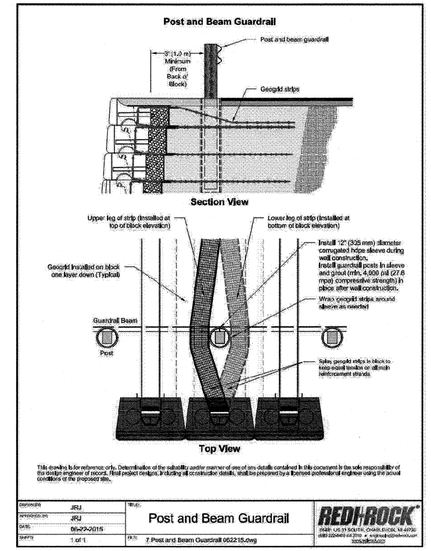
NOT TO SCALE

TRASH ENCLOSURE FENCE DETAIL

NOT TO SCALE

FENCE NOTES:

1) FENCE FABRIC SHALL BE STANDARD 2" CHAIN LINK GALVANIZED MESH WITH PRIVACY SLATS (FOREST GREEN).
2) ALL POSTS SHALL BE GALVANIZED SCHEDULE 40 STEEL PIPE
3) ALL LINE POSTS TO BE 2.375" O.D. PIPE. MAXIMUM SPACING TO BE 10' ON CENTER.
4) ALL END AND CORNER POSTS TO BE 2.875" O.D. PIPE.
5) ALL TOP AND MIDDLE RAILS TO BE 1.66" O.D. PIPE.
6) ALL FITTINGS AND ACCESSORIES SHALL BE GALVANIZED.



*NOTE
(ADDITIONAL SETBACKS FROM FACE OF WALL MAY BE REQUIRED UPON FINAL ENGINEERED STRUCTURAL WALL DRAWINGS.)

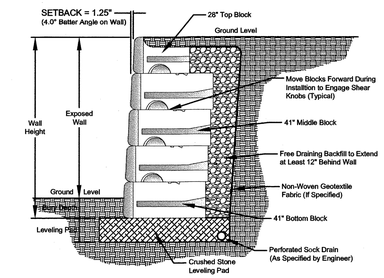
THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR APPROVAL, PRIOR TO START OF CONSTRUCTION, A RETAINING WALL DESIGN UTILIZING THE "REDI-ROCK" WALL (OR APPROVED EQUAL), PREPARED BY AND CERTIFIED BY A LICENSED PROFESSIONAL ENGINEER CONFORMING TO LOCAL, STATE AND FEDERAL REQUIREMENTS.

See Redi-Rock.com for Detailed Section Drawings of Each Condition Shown in the Design Charts

Note: Load Condition A Shown (No Backslope - No Surcharge)

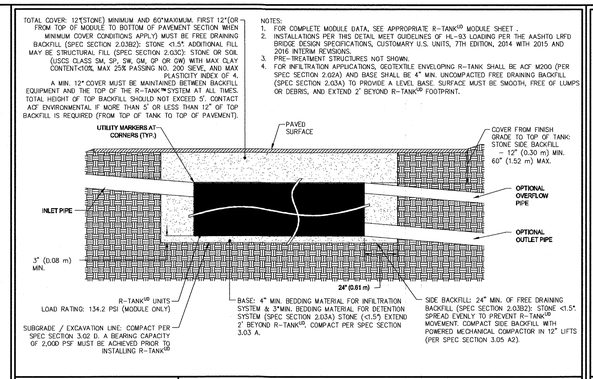
Typical Gravity Wall with 41" Blocks

No Scale

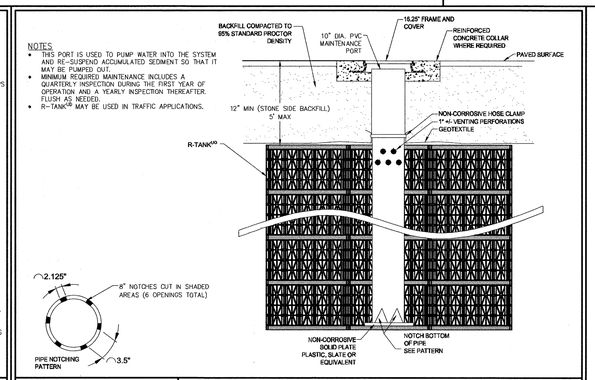


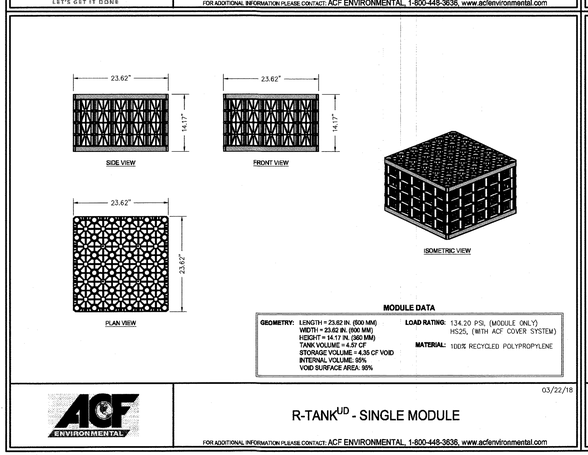
TYPICAL "REDI-ROCK" RETAINING WALL SECTION

NOT TO SCALE



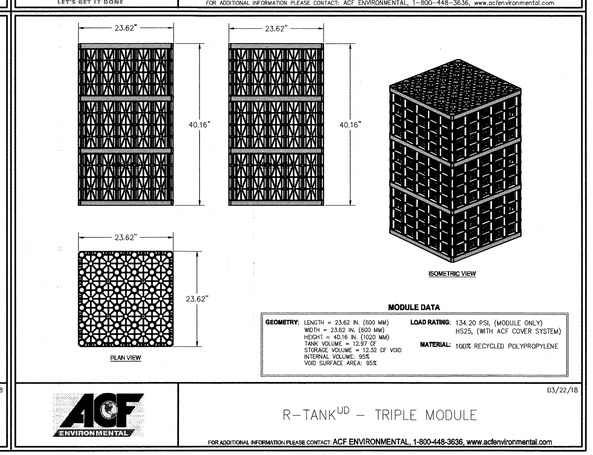
NOTES:
1. FOR COMPLETE MODULE DATA, SEE APPROPRIATE R-TANK^UD MODULE SHEET .
2. INSTALLATIONS PER THIS DETAIL MEET GUIDELINES OF HL-93 LOADING PER THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, CUSTOMARY U.S. UNITS, 7TH EDITION, 2014 WITH 2015 AND 2016 INTERIM REVISIONS.
3. PRE-TREATMENT STRUCTURES NOT SHOWN.
4. FOR INFILTRATION APPLICATIONS, GEOTEXTILE ENVELOPING R-TANK SHALL BE ACF M200 (PER SPEC SECTION 2.02A) AND BASE SHALL BE 4" MIN. UNCOMPACTED FREE DRAINING BACKFILL (SPEC SECTION 2.03A) TO PROVIDE A LEVEL BASE. SURFACE MUST BE SMOOTH, FREE OF LUMPS OR DEBRIS, AND EXTEND 2' BEYOND R-TANK^UD FOOTPRINT.





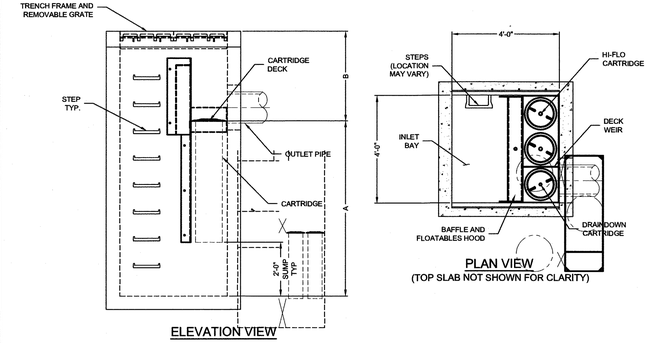
UNDERGROUND DETENTION SYSTEM #1 (UGS-1)

NOT TO SCALE



UNDERGROUND DETENTION SYSTEM #2 (UGS-2)

NOT TO SCALE



GENERAL NOTES:
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS REPRESENTATIVE. www.ContechES.com
3. JELLYFISH WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
4. STRUCTURE SHALL MEET AASHTO HS-20 OR PER APPROVING JURISDICTION REQUIREMENTS, WHICHEVER IS MORE STRINGENT, ASSUMING EARTH COVER OF 0', AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 LOAD RATING AND BE CAST WITH THE CONTECH LOGO.
5. STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-857, ASTM C-918, AND AASHTO LOAD FACTOR DESIGN METHOD.
6. OUTLET PIPE INVERT IS EQUAL TO THE CARTRIDGE DECK ELEVATION.
7. THE OUTLET PIPE DIAMETER FOR NEW INSTALLATIONS IS RECOMMENDED TO BE ONE PIPE SIZE LARGER THAN THE INLET PIPE (WHERE APPLICABLE) AT EQUAL OR GREATER SLOPE.
8. NO PRODUCT SUBSTITUTIONS SHALL BE ACCEPTED UNLESS SUBMITTED 10 DAYS PRIOR TO PROJECT BID DATE, OR AS DIRECTED BY THE ENGINEER OF RECORD.

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STRUCTURE.
C. CONTRACTOR WILL INSTALL AND LEVEL THE STRUCTURE, SEALING THE JOINTS, LINE ENTRY AND EXIT POINTS (NON-SHRINK GROUT WITH APPROVED WATERSTOP OR FLEXIBLE BOOT).
D. CARTRIDGE INSTALLATION, BY CONTECH, SHALL OCCUR ONLY AFTER SITE HAS BEEN STABILIZED AND THE JELLYFISH UNIT IS CLEAN AND FREE OF DEBRIS. CONTACT CONTECH TO COORDINATE CARTRIDGE INSTALLATION WITH SITE STABILIZATION.

Jellyfish Filter
THIS PRODUCT MAY BE PROTECTED BY ONE OR MORE OF THE FOLLOWING: U.S. PATENT NO. 8,287,730; 8,221,616; US 8,133,005; OTHER INTERNATIONAL PATENTS PENDING

CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

JELLYFISH JFSI0404
STANDARD DETAIL
SURFACE INLET CONFIGURATION

JELLYFISH TREATMENT UNIT

NOT TO SCALE

GPI Engineering Design Planning Construction Management
603.893.0720 GPINET.COM
Greenman-Pedersen, Inc.
44 Stiles Road, Suite One
Salem, NH 03079

PREPARED FOR
GRANITE STATE CONVENIENCE, LLC
25 SPRINGER ROAD
HOOKSETT, NH 03106

PROPOSED RETAIL MOTOR FUEL OUTLET
ASSESSORS MAP U5 LOT 13
910 SUNCOOK VALLEY HWY
EPSOM, NEW HAMPSHIRE

STATE OF NEW HAMPSHIRE
DAVID R. JORDAN
No. 7778
LICENSED PROFESSIONAL ENGINEER
7/29/21

REVISIONS

NO.	REVISION	DATE

JUNE 18, 2021

DRAWN/DESIGN BY	CHECKED BY
JD/NID	FCM

DETAIL SHEET

SCALE: NOT TO SCALE

PROJECT NO. NEX-2020033

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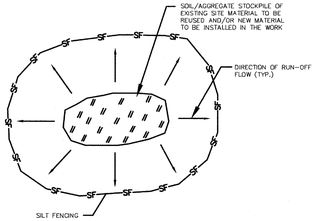


NOTES:
1. ALL EXISTING EXCAVATED MATERIAL THAT IS NOT TO BE REUSED IN THE WORK IS TO BE IMMEDIATELY REMOVED FROM THE SITE AND PROPERLY DISPOSED OF.

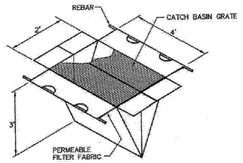
2. SOIL/AGGREGATE STOCKPILE SITES TO BE WHERE SHOWN ON THE DRAWINGS.

3. RESTORE STOCKPILE SITES TO PRE-EXISTING PROJECT CONDITION AND RESEED AS REQUIRED.

4. STOCKPILE HEIGHTS MUST NOT EXCEED 35'. STOCKPILE SLOPES MUST BE 2:1 OR FLATTER.

MATERIALS STOCKPILE DETAIL

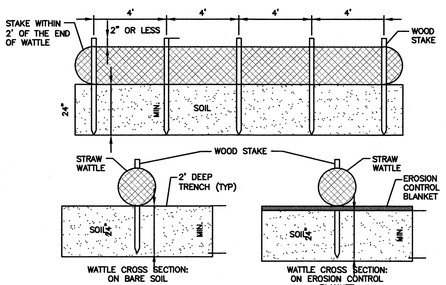
NOT TO SCALE



SILTATION BAG
NOT TO SCALE
USE "SILTSACK" AS MANUFACTURED BY ATLANTIC CONSTRUCTION FABRICS, INC. OR EQUIVALENT

INLET PROTECTION DETAIL - CATCH BASIN WITH GRATE

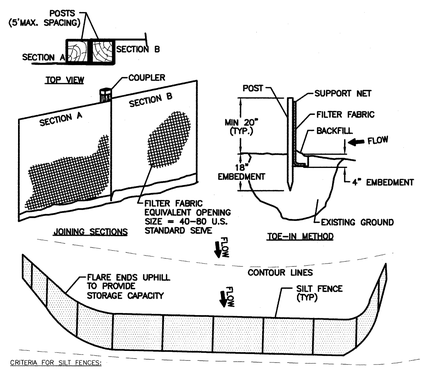
NOT TO SCALE



NOTES:
1. ENDS OF WATTLES SHALL BE TURNED SLIGHTLY UP.
2. RECOMMENDED STAKES ARE 1 1/8" WIDE x 1 1/8" THICK x 30" LONG. STAKES SHALL NOT EXCEED ABOVE THE STRAW WATTLE MORE THAN 2".

STRAW WATTLE DETAIL

NOT TO SCALE



CRITERIA FOR SILT FENCES:

1) SILT FENCE FILTER CLOTH: THE FABRIC FOR THE SILT FENCE SHALL MEET THE FOLLOWING SPECIFICATIONS:

FABRIC PROPERTIES:	MINIMUM ACCEPTABLE VALUES	TEST METHOD
GRAB TENSILE STRENGTH (lbs)	90	ASTM D1682
ELONGATION AT FAILURE (%)	50	ASTM D1682
MULLEN BURST STRENGTH (PSI)	190	ASTM D3786
PUNCTURE STRENGTH (lbs)	40	ASTM D751
EQUIVELANT OPENING SIZE	40-80	US STD SIEVE

2) FENCE POSTS (FOR FABRICATED UNITS) – THE POSTS SHALL BE A MINIMUM OF 36 INCHES LONG. WOOD POSTS WILL BE OF SOUND QUALITY HARDWOOD WITH A MINIMUM CROSS SECTIONAL AREA OF 3.0 SQUARE INCHES. STEEL POSTS WILL BE STANDARD T OR U SECTIONS WEIGHING NOT LESS THAN 1 POUND PER LINEAR FOOT. MAXIMUM SPACING SHALL BE 6 LINEAR FEET.

3) WIRE FENCE (FOR FABRICATED UNITS) – WIRE FENCING SHALL BE A MINIMUM 14.5 GUAGE WITH A MAXIMUM 6 INCH MESH OPENING.

4) PREFABRICATED UNITS – PREFABRICATED UNITS MAY BE USED IN LIEU OF THE ABOVE METHOD PROVIDING: (1) THE FILTER CLOTH AND FENCE POSTS MEET THE ABOVE CRITERIA; AND (2) THE UNIT IS INTALLED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

MAINTENANCE:

1) SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REPAIRS THAT ARE REQUIRED SHALL BE MADE IMMEDIATELY.

2) IF THE FABRIC ON A SILT FENCE SHOULD DECOMPOSE OR BECOME INEFFECTIVE DURING THE EXPECTED LIFE OF THE FENCE, THE FABRIC SHALL BE REPLACED PROMPTLY.

3) SEDIMENT DEPOSITS SHOULD BE INSPECTED AFTER EVERY STORM EVENT. THE DEPOSITS SHOULD BE REMOVED WHEN THEY REACH APPROXIMTELY ONE-HALF THE HEIGHT OF THE BARRIER.

4) SEDIMENT DEPOSITS THAT ARE REMOVED OR LEFT IN PLACE AFTER THE FABRIC HAS BEEN REMOVED SHALL BE GRADED TO CONFORM WITH THE EXISTING TOPOGRAPHY AND VEGETATED.

CONSTRUCTION SPECIFICATIONS:

1) THE GEOTEXTILE FABRIC SHALL MEET THE DESIGN CRITERIA FOR SILT FENCES.

2) THE FABRIC SHALL BE EMBEDDED A MINIMUM OF 8 INCHES INTO THE GROUND (4" DEEP & 4" WIDE) AND THE SOIL COMPACTED OVER THE EMBEDDED FABRIC.

3) WOVEN WIRE FENCE SHALL BE FASTENED SECURELY TO THE FENCE POSTS WITH WIRE TIES OR STAPLES.

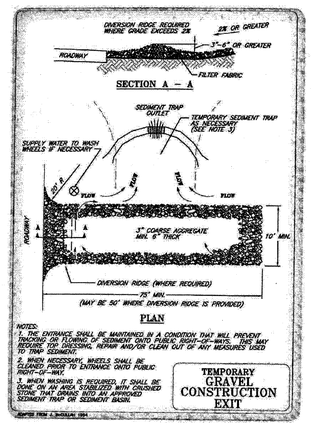
4) FILTER CLOTH SHALL BE FASTENED SECURELY TO THE WOVEN WIRE FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP, MID-SECTION AND BOTTOM.

5) WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EAC OTHER, THEY SHALL BE OVERLAPPED BY 6 INCHES (24" IS PREFERRED), FOLDED, AND STAPLED.

6) POSTS TO BE SPACED AT A MAXIMUM OF 6' ON CENTER.

SEDIMENT CONTROL FENCE

NOT TO SCALE



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

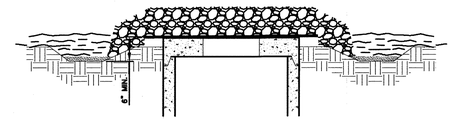
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.

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

ADAPTED FROM A.M.SINGAL 1994

GRAVEL CONSTRUCTION EXIT

NOT TO SCALE

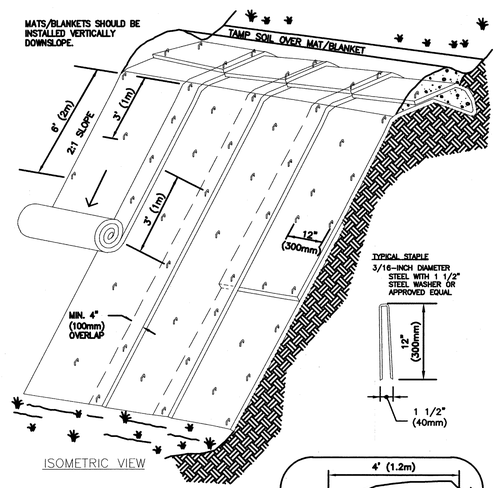


MAINTENANCE

1. ALL STRUCTURES SHOULD BE INSPECTED AFTER EVERY RAIN STORM AND REPAIRS MADE AS NECESSARY.
2. SEDIMENT SHOULD BE REMOVED FROM THE TRAPPING DEVICES AFTER THE SEDIMENT HAS REACHED A MAXIMUM OF ONE HALF OF THE DEPTH OF THE TRAP. THE SEDIMENT SHOULD BE DISPOSED OF IN A SUITABLE AREA AND PROTECTED FROM EROSION BY EITHER STRUCTURAL OR VEGETATIVE MEANS.
3. THE TEMPORARY TRAPS SHOULD BE REMOVED AND THE AREA REPAIRED AS SOON AS THE CONTRIBUTING DRAINAGE AREA TO THE INLET HAS BEEN COMPLETELY STABILIZED.
4. ALL STRUCTURES WITH INLET PROTECTION MUST BE CLEANED AT THE END OF CONSTRUCTION AND WHEN THE SITE IS FULLY STABILIZED.

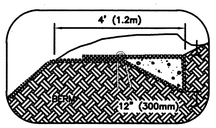
INLET PROTECTION DETAIL - CATCH BASIN WITHOUT GRATE

NOT TO SCALE



ISOMETRIC VIEW

TYPICAL SLOPE SOIL STABILIZATION



TYPICAL INSTALLATION OF EROSION CONTROL BLANKETS FOR SLOPES

NOT TO SCALE

NOTES:
1. BEGIN AT THE TOP OF BLANKET INSTALLATION AREA BY ANCHORING BLANKET IN A 6" DEEP TRENCH. BACKFILL AND COMPACT TRENCH AFTER STAPLING.
2. ROLL THE BLANKET DOWN THE SWALE IN THE DIRECTION OF THE WATER FLOW. LAY BLANKETS LOOSELY & MAINTAIN DIRECT CONTACT WITH SOIL – DO NOT STRETCH.
3. THE EDGES OF BLANKETS MUST BE STAPLED WITH APPROX. 4 INCH OVERLAP WHERE 2 OR MORE STRIP WIDTHS ARE REQUIRED.
4. WHEN BLANKETS MUST BE SPLICED DOWN THE SWALE, PLACE BLANKET END OVER END WITH 6 INCH (MIN.) OVERLAP AND ANCHOR DOWN SLOPE BLANKET IN A 6 INCH DEEP TRENCH.
5. BLANKETS SHALL BE STAPLED ENOUGH TO ANCHOR BLANKET WHILE MAINTAINING CONTACT WITH SOIL. STAPLES SHALL BE PLACED DOWN THE CENTER & STAGGERED WITH THE STAPLES PLACED ALONG EDGES. PATTERN & AMOUNT OF STAPLES VARIES BY MANUFACTURER, SO FOLLOW MANUFACTURER'S RECOMMENDATIONS.
6. BLANKET SHALL BE NORTH AMERICAN GREEN SC-150 OR APPROVED EQUAL.

MAINTENANCE & MATS

1. BLANKETS SHALL BE INSPECTED WEEKLY DURING CONSTRUCTION & AFTER A RAINFALL IN EXCESS OF 1/2" IN A 24-HOUR PERIOD.

2. FAILURES SHALL BE REPAIRED IMMEDIATELY. IF ANY OF THE FOLLOWING OCCUR: SLOPE WASHOUT, MAT DISPLACEMENT, DAMAGE TO MAT, THE AFFECTED AREA SHALL BE REPAIRED & RESEEDED & MAT SHALL BE REPLACED OR RE-INSTALLED.

NOTE: DO NOT USE PRODUCTS THAT CONTAIN WELDED PLASTIC OR THAT ARE "PHOTODEGRADABLE". USE PRODUCTS WITH BIODEGRADABLE NETTING AND NATURAL FIBER MATERIAL (I.E. STRAW OR COCONUT FIBER).

BLANKET SLOPE PROTECTION FOR EROSION CONTROL

GPI Engineering Design Planning Construction Management
603.893.0720 GPINET.COM
Greenman-Pedersen, Inc.
44 Stiles Road, Suite One
Salem, NH 03079

PREPARED FOR
GRANITE STATE CONVENIENCE, LLC
25 SPRINGER ROAD
HOOKSETT, NH 03106

PROPOSED RETAIL MOTOR FUEL OUTLET
ASSESSORS MAP U5 LOT 13
910 SUNCOOK VALLEY HWY
EPSOM, NEW HAMPSHIRE

STATE OF NEW HAMPSHIRE
DAVID R. JORDAN
No. 7778
LICENSED PROFESSIONAL ENGINEER
7/29/21

REVISIONS

NO.	REVISION	DATE

JUNE 18, 2021

DRAWN/DESIGN BY	CHECKED BY
JD/NID	FCM

DETAIL SHEET

SCALE: NOT TO SCALE

PROJECT NO. NEX-2020033

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R-TANK SPECIFICATIONS

Section 33 46 23 MODULEAR STORMWATER STORAGE UNITS

PART 1 – GENERAL

1.01 RELATED DOCUMENTS
A. Drawings, technical specification and general provisions of the Contract as modified herein apply to this section.

1.02 DESCRIPTION OF WORK INCLUDED
A. Provide excavation and base preparation per geotechnical engineer's recommendations and/or as shown on the design drawings, to provide adequate support for project design loads and safety from excavation sidewall collapse. Excavations shall be in accordance with the owner's and OSHA requirements.
B. Provide and install R-Tank^{LD}, R-Tank^{HD}, R-Tank^{SD}, or R-Tank^{UD} system (hereafter called R-Tank) and all related products including fill materials, geotextiles, geogrids, inlet and outlet pipe with connections per the manufacturer's installation guidelines provided in this section.
C. Provide and construct the cover of the R-Tank system including; stone backfill, structural fill cover, and pavement section as specified.
D. Protect R-Tank system from construction traffic after installation until completion of all construction activity in the installation area.

1.03 QUALITY CONTROL
A. All materials shall be manufactured in ISO certified facilities.
B. Installation Contractor shall demonstrate the following experience:
1. A minimum of three R-Tank or equivalent projects completed within 2 years; and,
2. A minimum of 25,000 cubic feet of storage volume completed within 2 years.
3. Contractor experience requirement may be waived if the manufacturer's representative provides on-site training and review during construction.
C. Installation Personnel: Performed only by skilled workers with satisfactory record of performance on bulk earthworks, pipe, chamber, or pond/landfill construction projects of comparable size and quality.
D. Contractor must have manufacturer's representative available for site review if requested by Owner.

1.04 SUBMITTALS
A. Submit proposed R-Tank layout drawings. Drawings shall include typical section details as well as the required base elevation of stone and tanks, minimum cover requirements and tank configuration.
B. Submit manufacturer's product data, including compressive strength and unit weight.
C. Submit manufacturer's installation instructions.
D. Submit R-Tank sample for review. Reviewed and accepted samples will be returned to the Contractor.
E. Submit material certificates for geotextile, geogrid, base course and backfill materials.
F. Submit required experience and personnel requirements as specified in Section 1.03.
G. Any proposed equal alternative product substitution to this specification must be submitted for review and approved prior to bid opening. Review package should include third party reviewed performance data that meets or exceeds criteria in Table 2.01 B.

1.05 DELIVERY, STORAGE, AND HANDLING
A. Protect R-Tank and other materials from damage during delivery, and store UV sensitive materials under tarp to protect from sunlight when time from delivery to installation exceeds two weeks. Storage of materials should be on smooth surfaces, free from dirt, mud and debris.
B. Handling is to be performed with equipment appropriate to the materials and site conditions, and may include hand, handcart, forklifts, extension lifts, etc.
C. Cold weather:
1. Care must be taken when handling plastics when air temperature is 40 degrees or below as plastic becomes brittle.
2. Do not use frozen materials or materials mixed or coated with ice or frost.
3. Do not build on frozen ground or wet, saturated or muddy subgrade.

1.06 PREINSTALLATION CONFERENCE.
A. Prior to the start of the installation, a preinstallation conference shall occur with the representatives from the design team, the general contractor, the excavation contractor, the R-Tank installation contractor, and the manufacturer's representative.

1.07 PROJECT CONDITIONS
A. Coordinate installation for the R-Tank system with other on-site activities to eliminate all non-installation related construction traffic over the completed R-Tank system. No loads heavier than the design loads shall be allowed over the system, and in no case shall loads higher than a standard AASHTO HS20 (or HS25, depending on design criteria) load be allowed on the system at any time.
B. Protect adjacent work from damage during R-Tank system installation.
C. All pre-treatment systems to remove debris and heavy sediments must be in place and functional prior to operation of the R-Tank system. Additional pretreatment measures may be needed if unit is operational during construction due to increased sediment loads.
D. Contractor is responsible for any damage to the system during construction.

PART 2 – PRODUCTS

2.01 R-TANK UNITS
A. R-Tank - Injection molded plastic tank plates assembled to form a 95% void modular structure of predesigned height (custom for each project).
B. R-Tank units shall meet the following Physical & Chemical Characteristics:

PROPERTY	DESCRIPTION	R-Tank^{LD} VALUE	R-Tank^{HD} VALUE	R-Tank^{SD} VALUE	R-Tank^{UD} VALUE
Void Area	Volume available for water storage	95%	95%	95%	95%
Surface Void Area	Percentage of exterior available for infiltration	90%	90%	90%	90%
Vertical Compressive Strength	ASTM D 2412 / ASTM F 2418	30.0 psi	33.4 psi	42.9 psi	134.2 psi
Lateral Compressive Strength	ASTM D 2412 / ASTM F 2418	20.0 psi	22.4 psi	28.9 psi	N/A
HS-20 Minimum Cover	Cover required to support HS-20 loads	N/A	20"	18"	12" (Stone Backfill)
HS-25 Minimum Cover	Cover required to support HS-25 loads	N/A	24"	19"	15" (Stone Backfill)
Maximum Cover	Maximum allowable cover depth	3 feet	< 7 feet	< 10 feet	5 feet
Unit Weight	Weight of plastic per cubic foot of tank	3.29 lbs / cf	3.62 lbs/cf	3.96 lbs / cf	4.33 lbs / cf
Rib Thickness	Thickness of load-bearing members	0.18 inches	0.18 inches	0.18 inches	N/A
Service Temperature	Safe temperature range for use	-14 – 167° F	-14 – 167° F	-14 – 167° F	-14 – 167° F

C. Supplier: ACF Environmental 2831 Cardwell Road Richmond, VA 23234
(T): 800-448-3636; (F): 804-743-7779 www.acfenvironmental.com

2.02 GEOSYNTHETICS
A. Geotextile. A geotextile envelope is required to prevent backfill material from entering the R-Tank modules.
1. **Standard Application**: The standard geotextile shall be an 8 oz per square yard nonwoven geotextile (ACF N080 or equivalent).
2. **Infiltration Applications**: When water must infiltrate/exfiltrate through the geotextile as a function of the system design, a woven monofilament (ACF M200 or equivalent) shall be used.
B. Geogrid. For installations subject to traffic loads and/or when required by project plans, install geogrid (ACF BX12 or equivalent) to reinforce backfill above the R-Tank system. Geogrid is not always required for R-Tank^{UD} installations, and is often not required for non-traffic load applications.

2.03 BACKFILL & COVER MATERIALS
A. **Bedding Materials:** Stone (angular and smaller than 1.5" in diameter) or soil (GW, GP, SW, or SP as classified by the Unified Soil Classification System) shall be used below the R-Tank system (3" minimum). Material must be free from lumps, debris, and any sharp objects that could cut the geotextile. Material shall be within 3 percent of the optimum moisture content as determined by ASTM D698 at the time of installation. For infiltration applications bedding material shall be free draining.
B. **Side and Top Backfill**: Material must be free from lumps, debris and any sharp objects that could cut the geotextile. Material shall be within 3 percent of the optimum moisture content as determined by ASTM D698 at the time of Installation.
1. Traffic Applications - Free draining material shall be used adjacent to (24" minimum) and above (for the first 12") the R-Tank system.
a. For HD, and SD modules, backfill materials shall be free draining stone (angular and smaller than 1.5" in diameter) or soil (GW, GP, SW, or SP as classified by the Unified Soil Classification System).
b. For UD modules with less than 14" of top cover, backfill materials shall be free draining stone (angular and smaller than 1.5" in diameter). The use of soil backfill on the sides and top of the UD module is not permitted unless the modules are installed outside of traffic areas or with cover depths of 14" or more. Top backfill material (from top of module to bottom of pavement base or 12" maximum) must be consistent with side backfill.
2. Non-Traffic / Green Space Applications - For all R-Tank modules installed in green spaces and not subjected to vehicular loads, backfill materials may either follow the guidelines for Traffic Applications above, or the top backfill layer (12" minimum) may consist of AASHTO #57 stone blended with 30-40% (by volume) topsoil to aid in establishing vegetation.
C. **Additional Cover Materials**: Structural Fill shall consist of granular materials meeting the gradational requirements of SM, SP, SW, GM, GP or GW as classified by the Unified Soil Classification System. Structural fill shall have a maximum of 25 percent passing the No. 200 sieve, shall have a maximum clay content of 10 percent and a maximum Plasticity Index of 4. Material shall be within 3 percent of the optimum moisture content as determined by ASTM D698 at the time of Installation.

2.04 OTHER MATERIALS
A. Utility Marker: Install metallic tape at corners of R-Tank system to mark the area for future utility detection.

PART 3 – EXECUTION

3.01 ASSEMBLY OF R-TANK UNITS
A. Assembly of modules shall be performed in accordance with the R-Tank Installation Manual, Section 2.

3.02 LAYOUT AND EXCAVATION
A. Installer shall stake out, excavate, and prepare the subgrade area to the required plan grades and dimensions, ensuring that the excavation is at least 2 feet greater than R-Tank dimensions in each direction allowing for installation of geotextile filter fabric, R-Tank modules, and free draining backfill materials.
B. All excavations must be prepared with OSHA approved excavated sides and sufficient working space.
C. Protect partially completed installation against damage from other construction traffic by establishing a perimeter with high visibility construction tape, fencing, barricades, or other means until construction is complete.
D. Base of the excavation shall be uniform, level, and free of lumps or debris and soft or yielding subgrade areas. A minimum 2,000 pounds per square foot bearing capacity is required.
1. **Standard Applications**: Compact subgrade to a minimum of 95% of Standard Proctor (ASTM D698) density or as required by the Owner's engineer.
2. **Infiltration Applications**: Subgrade shall be prepared in accordance with the contract documents. Compaction of subgrade should not be performed in infiltration applications.
E. **Unsuitable Soils or Conditions**: All questions about the base of the excavation shall be directed to the owner's engineer, who will approve the subgrade conditions prior to placement of stone. The owner's engineer shall determine the required bearing capacity of the R-Tank subgrade; however in no case shall a bearing capacity of less than 2,000 pounds per square foot be provided.
1. If unsuitable soils are encountered at the subgrade, or if the subgrade is pumping or appears excessively soft, repair the area in accordance with contract documents and/or as directed by the owner's engineer.
2. If indications of the water table are observed during excavation, the engineer shall be contacted to provide recommendations.
3. Do not start installation of the R-Tank system until unsatisfactory subgrade conditions are corrected and the subgrade conditions are accepted by the owner's engineer.

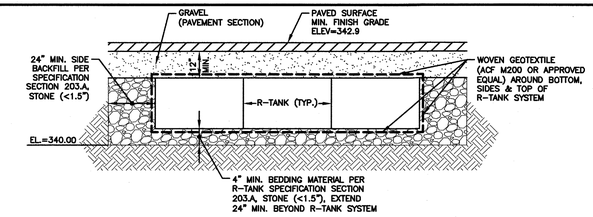
3.03 PREPARATION OF BASE
A. Place a thin layer (3" unless otherwise specified) of bedding material (Section 2.03 A), over the subgrade to establish a level working platform for the R-Tank modules. Level to within ½" (+/- ½") or as shown on the plans. Native subgrade soils or other materials may be used if determined to meet the requirements of 2.03 A and are accepted by the owner's engineer.
1. **Standard Applications**: Static roll or otherwise compact bedding materials until they are firm and unyielding.
2. **Infiltration Applications**: Bedding materials shall be prepared in accordance with the contract documents.
B. Outline the footprint of the R-Tank system on the excavation floor using spray paint or chalk line to ensure a 2' perimeter is available around the R-Tank system for proper installation and compaction of backfill.

3.04 INSTALLATION OF THE R-TANKS
A. Where a geotextile wrap is specified on the stone base, cut strips to length and install in excavation, removing wrinkles so material lays flat. Overlap geotextile a minimum 12" or as recommended by manufacturer. Use tape, special adhesives, sandbags or other ballast to secure overlaps. As geotextiles can be damaged by extreme heat, smoking is not permissible on/near the geotextile, and tools using a flame to tack the overlaps, such as propane torches, are prohibited.
B. Where an impervious liner (for containment) is specified, install the liner per manufacturer's recommendations and the contract documents. The R-Tank units shall be separated from impervious liner by a non-woven geotextile fabric installed accordance with Section 3.04A.
C. Install R-Tank modules by placing side by side, in accordance with the design drawings. No lateral connections are required. It is advisable to use a string line to form square corners and straight edges along the perimeter of the R-Tank system. The modules are to be oriented as per the design drawing with required depth as shown on plans.
1. For LD, HD, and SD installations, the large side plate of the tank should be placed on the perimeter of the system. This will typically require that the two ends of the tank area will have a row of tanks placed perpendicular to all other tanks. If this is not shown in the construction drawings, it is a simple field adjustment that will have minimal effect on the overall system footprint. Refer to R-Tank Installation Guide for more details
2. For UD installations, there is no perpendicular end row required.
D. Wrap the R-Tank top and sides in specified geotextile. Cut strips of geotextile so that it will cover the sides and top, encapsulating the entire system to prevent backfill entry into the system. Overlap geotextile 12" or as recommended by manufacturer. Take great care to avoid damage to geotextile (and, if specified, impervious liner) during placement.
E. Identify locations of inlet, outlet and any other penetrations of the geotextile (and optional liner). These connections should be installed flush (butted up to the R-Tank) and the geotextile fabric shall be cut to enable hydraulic continuity between the connections and the R-Tank units. These connections shall be secured using pipe boots with stainless steel pipe clamps. Support pipe in trenches during backfill operations to prevent pipe from settling and damaging the geotextile, impervious liner (if specified) or pipe. Connecting pipes at 90 degree angles facilitates construction, unless otherwise specified. Ensure end of pipe is installed snug against R-Tank system.
F. Install Inspection and Maintenance Ports in locations noted on plans. At a minimum one maintenance port shall be installed within 10' of each inlet & outlet connection, and with a maximum spacing of one maintenance port for every 2,500 square feet. Install all ports as noted in the R-Tank Installation Guide.
G. If required, install ventilation pipes and vents as specified on drawings to provide ventilation for proper hydraulic performance. The number of pipes and vents will depend on the size of the system. Vents are often installed using a 90 degree elbow with PVC pipe into a landscaped area with "U" bend or venting bollard to inhibit the ingress of debris. A ground level concrete or steel cover can be used.

3.05 BACKFILLING OF THE R-TANK UNITS
A. Backfill and fill with recommended materials as follows:
1. Place freely draining backfill materials (Section 2.03 B) around the perimeter in lifts with a maximum thickness of 12". Each lift shall be placed around the entire perimeter such that each lift is no more than 24" higher than the side backfill along any other location on the perimeter of the R-Tank system. No fill shall be placed over top of tanks until the side backfill has been completed.
2. Each lift shall be compacted at the specified moisture content to a minimum of 95% of the Standard Proctor Density until no further densification is observed (for self-compacting stone materials). The side lifts must be compacted with walk behind compaction equipment. Even when "self-compacting" backfill materials are selected, a walk behind vibratory compactor must be used.
3. Take care to ensure that the compaction process does not allow the machinery to come into contact with the modules due to the potential for damage to the geotextile and R-Tank units.
4. No compaction equipment is permissible to operate directly on the R-Tank modules.
5. Top Backfill: Only low pressure track vehicles shall be operated over the R-Tank system during construction. Dump Trucks and Pans shall not be operated within the R-Tank system footprint at any time. Heavy equipment should unload in an area adjacent to the R-Tank system and the material should be moved over the system using tracked equipment with an operating weight of less than 10 tons.
a. Typical Applications: Install a 12" (or as shown on plans) lift of freely draining material (Section 2.03 B) over the R-Tank Units, maintaining 12" between equipment tracks and R-Tank System. Lightly compacted using a walk-behind trench roller. Alternately, a roller (maximum gross vehicle weight of 6 tons) may be used. Roller must remain in static mode until a minimum of 24" of cover has been placed over the modules. Sheep foot rollers should not be used.
b. Shallow Applications (< 18" total cover): Install top backfill in accordance with plans.
6. If required, install a geogrid as shown on plans. Geogrid shall extend a minimum of 3 feet beyond the limits of the excavation wall.
7. Following placement and compaction of the initial cover, subsequent lifts of structural fill (Section 2.03 C) shall be placed at the specified moisture content and compacted to a minimum of 95% of the Standard Proctor Density and shall cover the entire footprint of the R-Tank system. During placement of fill above the system, unless otherwise specified, a uniform elevation of fill shall be maintained to within 12" across the footprint of the R-Tank system. Do not exceed maximum cover depths listed in Table 2.01 B.
8. Place additional layers of geotextile and/or geogrid at elevations as specified in the design details. Each layer of geosynthetic reinforcement placed above the R-Tank system shall extend a minimum of 3 feet beyond the limits of the excavation wall.
B. Ensure that all unrelated construction traffic is kept away from the limits of excavation until the project is complete and final surface materials are in place. No non-installation related loading should be allowed over the R-Tank system until the final design section has been constructed (including pavement).
C. Place surfacing materials, such as groundcovers (no large trees), or paving materials over the structure with care to avoid displacement of cover fill and damage to surrounding areas.
D. Backfill depth over R-Tank system must be within the limitations shown in the table in Section 2.01 B. If the total backfill depth does not comply with this table, contact engineer or manufacturer's representative for assistance.

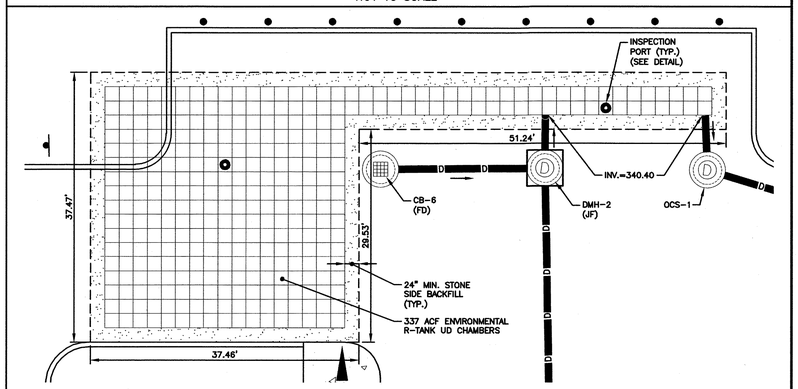
3.06 MAINTENANCE REQUIREMENTS
A. A routine maintenance effort is required to ensure proper performance of the R-Tank system. The Maintenance program should be focused on pretreatment systems. Ensuring these structures are clean and functioning properly will reduce the risk of contamination of the R-Tank system and stormwater released from the site. Pre-treatment systems shall be inspected yearly, or as directed by the regulatory agency and by the manufacturer (for proprietary systems). Maintain as needed using acceptable practices or following manufacturer's guidelines (for proprietary systems).
B. All inlet pipes and Inspection and/or Maintenance Ports in the R-Tank system will need to be inspected for accumulation of sediments at least quarterly through the first year of operation and at least yearly thereafter.
C. If sediment has accumulated to the level noted in the R-Tank Maintenance Guide or beyond a level acceptable to the Owner's engineer, the R-Tank system should be flushed.
D. All inspection and maintenance activities should be performed in accordance with the R-Tank Operation, Inspection & Maintenance Manual.

END OF SECTION

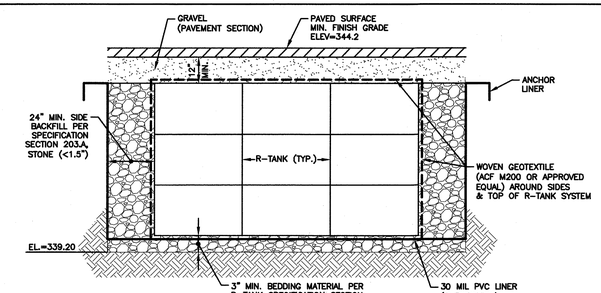


NOTES:
1) R-TANK-UD SHALL BE INSTALLED PER MODULAR STORMWATER STORAGE UNITS SPECIFICATIONS SECTION 33 46 23.
2) DO NOT PLACE SYSTEM INTO SERVICE UNTIL ALL CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.
3) DO NOT DISCHARGE SEDIMENT-LADEN WATERS FROM CONSTRUCTION ACTIVITIES (RUNOFF, DEWATERING) TO THE INFILTRATION SYSTEM DURING ANY STAGE OF CONSTRUCTION.

UNDERGROUND INFILTRATION SYSTEM #1 (UGS-1)
CROSS SECTION
NOT TO SCALE

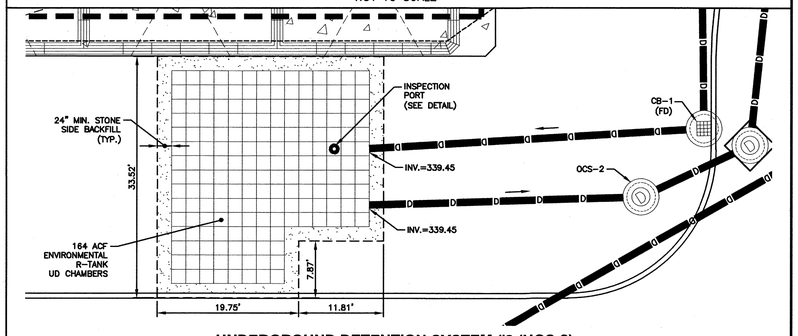


UNDERGROUND INFILTRATION SYSTEM #1 (UGS-1)
PLAN VIEW
SCALE: 1"=10'



NOTES:
1) R-TANK-UD SHALL BE INSTALLED PER MODULAR STORMWATER STORAGE UNITS SPECIFICATIONS SECTION 33 46 23.
2) A 30 MIL LINER (SOILMAX 230-1000 OR APPROVED EQUAL) SHALL BE INSTALLED UNDER THE R-TANK BEDDING IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS. SEAMS SHALL BE HEAT WELDED. EXTRA CARE SHOULD BE TAKEN TO PREVENT AGAINST PUNCTURING DURING INSTALLATION. A MIN. 8-OUNCE NON-WOVEN FABRIC UNDERLAYMENT AND OVERLAYMENT SHOULD BE PLACED TO PROTECT LINER.
3) DO NOT PLACE SYSTEM INTO SERVICE UNTIL ALL CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.
4) DO NOT DISCHARGE SEDIMENT-LADEN WATERS FROM CONSTRUCTION ACTIVITIES (RUNOFF, DEWATERING) TO THE DETENTION SYSTEM DURING ANY STAGE OF CONSTRUCTION.

UNDERGROUND DETENTION SYSTEM #2 (UGS-2)
CROSS SECTION
NOT TO SCALE



UNDERGROUND DETENTION SYSTEM #2 (UGS-2)
PLAN VIEW
SCALE: 1"=10'

GPI Engineering Design Planning Construction Management
603.883.0720 GPINET.COM
Greenman-Pedersen, Inc.
44 Stiles Road, Suite One
Salem, NH 03079

PREPARED FOR
GRANITE STATE CONVENIENCE, LLC
25 SPRINGER ROAD
HOOKSETT, NH 03106

PROPOSED RETAIL MOTOR FUEL OUTLET
ASSESSORS MAP U5 LOT 13
910 SUNCOOK VALLEY HWY
EPSOM, NEW HAMPSHIRE

STATE OF NEW HAMPSHIRE
DAVID R. JORDAN
No. 7779
LICENSED PROFESSIONAL ENGINEER
7/29/21

REVISIONS		
NO.	REVISION	DATE

JULY 30, 2021

DRAWN/DESIGN BY	CHECKED BY
JD/NID	FCM

DETAIL SHEET

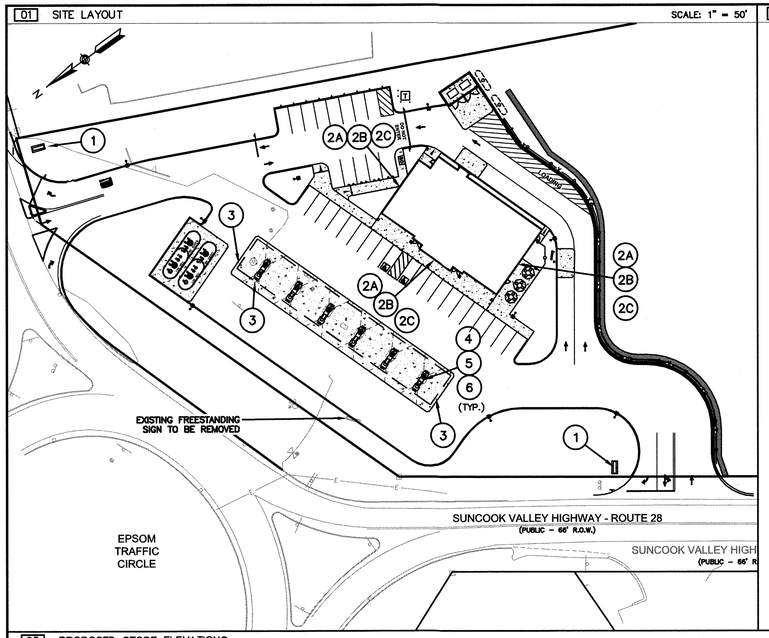
SCALE: AS SHOWN

PROJECT NO. NEX-2020033

F:\Projects\NEX-2020033 - Epsom, NH - GSC\CAD Files\20033_DET.dwg DET 06 7/29/21 12:48pm ccall

01 SITE LAYOUT

SCALE: 1" = 50'

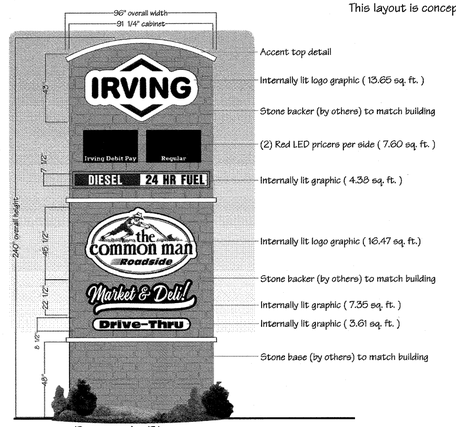


02 PROPOSED FREESTANDING SIGN ELEVATION

NOT TO SCALE

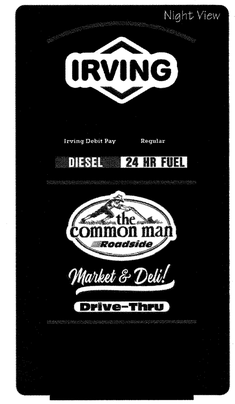
Common Man Roadside - Irving Epsom, NH Pylon ID Sign CONCEPTUAL — SHEET 01

This layout is conceptual only, all details to be verified and subject to change



Proposed - P1

Option 1.5a



Total area of signage: 53.06 sq. ft.

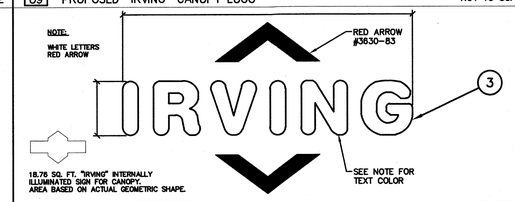
DATE: 04-26-21	JOB NAME: Common Man Roadside - Irving - Epsom, NH
REP: J.S.	JOB LOCATION: Epsom Traffic Circle, Epsom, NH
CONTACT: Brad Parnaw (617) 821-5604	
AUTHORIZED SIGNATURE REQUIRED TO BEGIN PRODUCTION	

SOUSA Signs — 225 East Industrial Park Dr. Manchester, NH 03109 — 603-622-5067 FAX 603-624-6188

The information on this sheet is the property of SOUSA SIGNS, llc and cannot be duplicated or used without the expressed written consent of SOUSA SIGNS, llc.

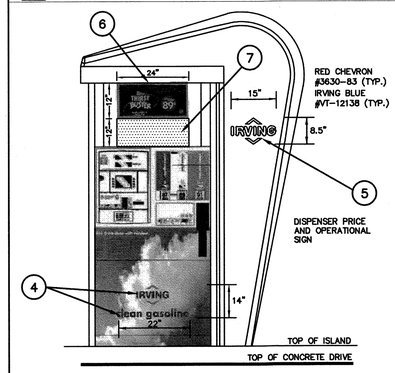
09 PROPOSED "IRVING" CANOPY LOGO

NOT TO SCALE



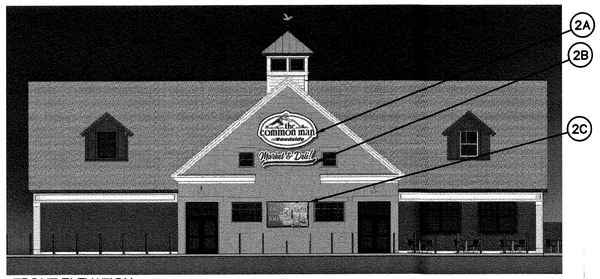
10 PROPOSED MULTI-PRODUCT DISPENSER

NOT TO SCALE



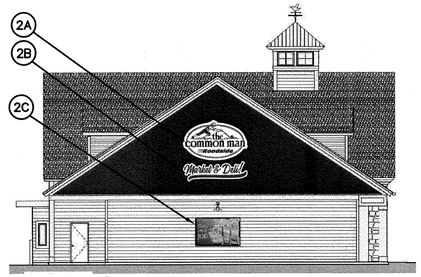
05 PROPOSED STORE ELEVATIONS

NOT TO SCALE



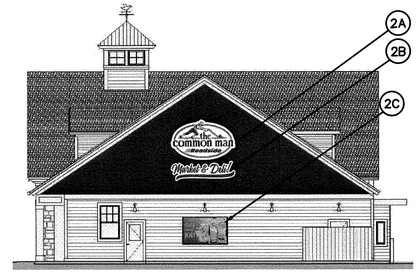
FRONT ELEVATION

N.T.S.



EAST ELEVATION

N.T.S.



WEST ELEVATION

N.T.S.

06 PROPOSED SIGN SCHEDULE

NOT TO SCALE

PROPOSED SIGN SCHEDULE

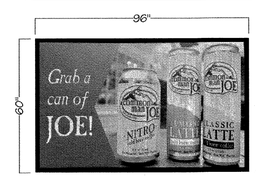
MARK	DESCRIPTION	SIZE	AREA	QTY.	TOTAL SF	ILLUM'D.
1	FREESTANDING SIGN	SEE DETAIL 2	106.1	2	212.2	YES (INTERNAL)
2A	C-STORE WALL SIGN	SEE LOGO DETAIL 4	63.5	3	190.5	YES (INTERNAL)
2B	C-STORE WALL SIGN	SEE LOGO DETAIL 4	28.4	3	85.2	YES (INTERNAL)
2C	C-STORE WALL SIGN	SEE LOGO DETAIL 5	40.0	3	120.0	YES (INTERNAL)
3	"IRVING" CANOPY – LOGO SIGN	SEE LOGO DETAIL 9	18.76	3	56.28	YES (INTERNAL)
4	"IRVING" MPD DOOR GRAPHIC	SEE DISPENSER DETAIL 10	2.14	12	25.68	NO
5	"IRVING" DISPENSER SHROUD LOGO	SEE DISPENSER DETAIL 10	0.89	12	10.68	NO
6	"IRVING" DISPENSER ADVERTISING SIGN	SEE DISPENSER DETAIL 10	2.0	12	24.0	NO
7	DISPENSER PRICE SIGN	SEE DISPENSER DETAIL 10	2.0	12	24.0	NO

04 C-STORE BUILDING WALL SIGN

NOT TO SCALE

05 C-STORE BUILDING WALL SIGN

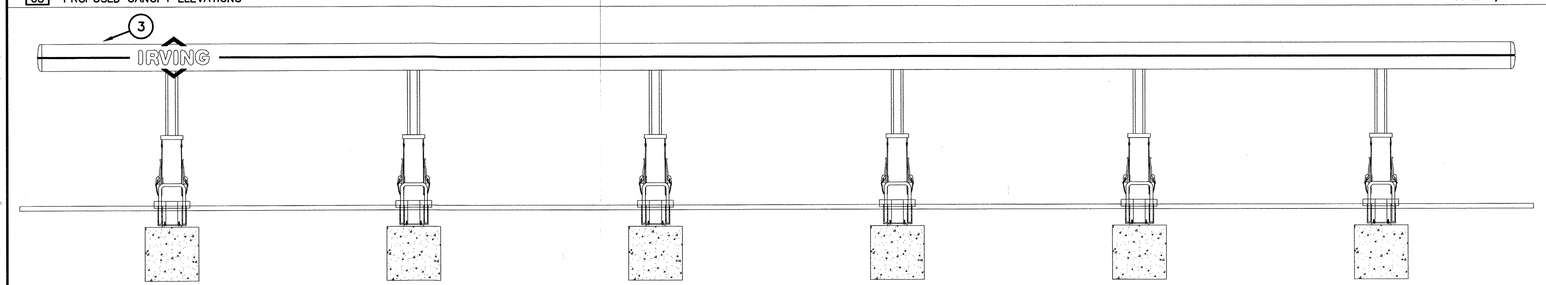
NOT TO SCALE



AREA: 40 Sq. Ft.

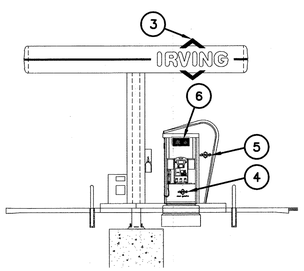
08 PROPOSED CANOPY ELEVATIONS

SCALE: 1/8"=1'-0"



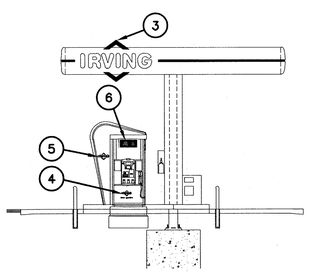
AUTO FUELING CANOPY- NORTH ELEVATION

1/8" = 1'-0"



AUTO FUELING CANOPY - EAST ELEVATION

1/8" = 1'-0"



AUTO FUELING CANOPY - WEST ELEVATION

1/8" = 1'-0"

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Greenman-Pedersen, Inc.
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Salem, NH 03079

PREPARED FOR
GRANITE STATE CONVENIENCE, LLC
25 SPRINGER ROAD
HOOKSETT, NH 03106

PROPOSED RETAIL MOTOR FUEL OUTLET
ASSESSORS MAP U5 LOT 13
910 SUNCOOK VALLEY HWY
EPSOM, NEW HAMPSHIRE

STATE OF NEW HAMPSHIRE — DAVID R. JORDAN No. 7778 — PROFESSIONAL ENGINEER — 7/29/21

REVISIONS

NO.	REVISION	DATE

APRIL 30, 2021

DRAWN/DESIGN BY	CHECKED BY
JD/NID	FCM

SIGN & GRAPHICS PLAN

SCALE: AS SHOWN

PROJECT NO. NEX-2020033

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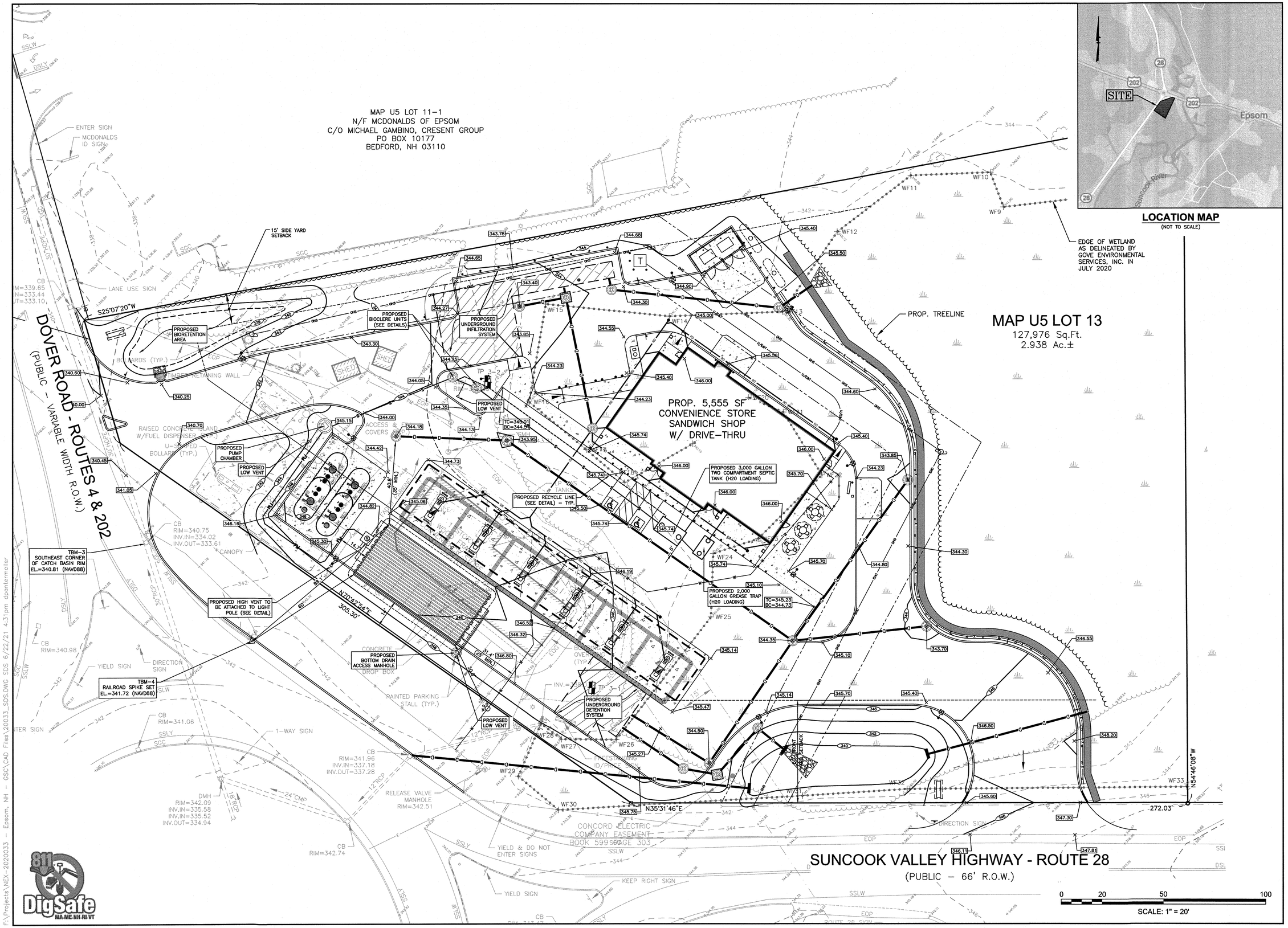

LOCATION MAP
(NOT TO SCALE)

GPI Engineering Design Planning Construction Management
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Greenman-Pedersen, Inc.
44 Stiles Road, Suite One
Salem, NH 03079

PREPARED FOR
GRANITE STATE CONVENIENCE, LLC
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HOOKSETT, NH 03106

PROPOSED RETAIL MOTOR FUEL OUTLET
ASSESSORS MAP U5 LOT 13
910 SUNCOOK VALLEY HWY
EPSOM, NEW HAMPSHIRE
SUBDIVISION APPROVAL # PRE-1967

NEW HAMPSHIRE
Designer of Subsurface Disposal Systems
Diane M. Pantermoller
No. 1665
Department of Environmental Services
DESIGNER STAMP
NHDES PERMIT # 1665

REVISIONS		
NO.	REVISION	DATE

JUNE 18, 2021

DRAWN/DESIGN BY	CHECKED BY
DMP/DMP	NID/DRJ

SUBSURFACE SEWAGE DISPOSAL SYSTEM PLAN

SCALE: 1"=20'

PROJECT NO. NEX-2020033

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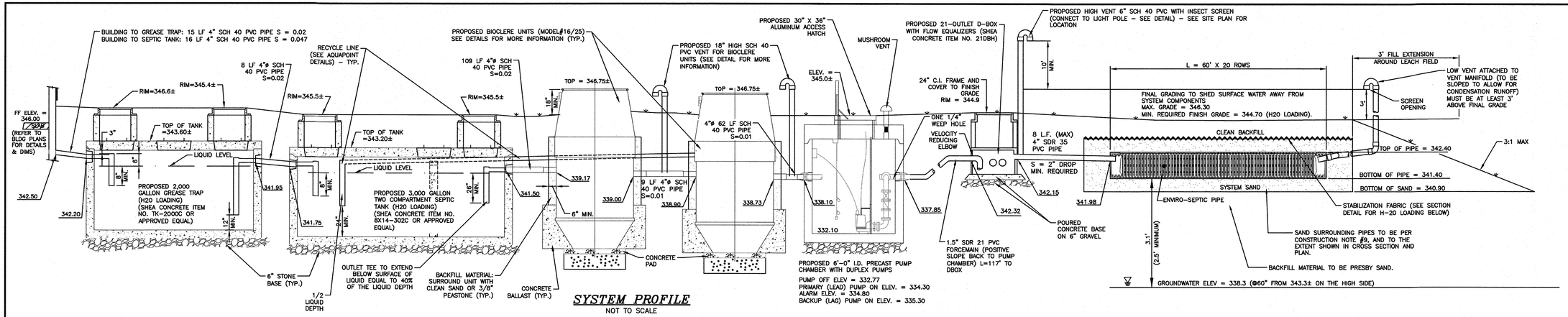
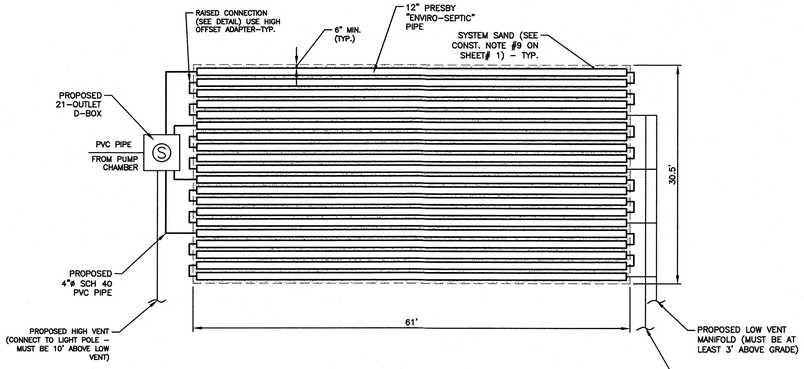


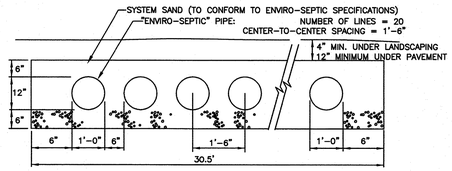
SYSTEM PROFILE

NOT TO SCALE



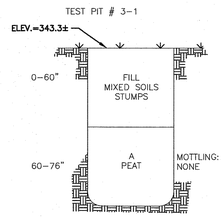
SCHEMATIC PIPING DETAIL

NOT TO SCALE

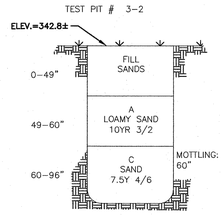


LEACH FIELD CROSS SECTION UNDER PAVEMENT

NOT TO SCALE

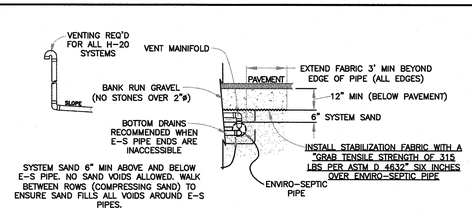


DATE: 3/17/2021
NRCS SOIL CLASSIFICATION: URBAN LAND
SEASONAL HIGH WATER TABLE: 60"
OBSERVED WATER: 60"
OBSERVED LEDGE: NONE
PERFORMED BY: DIANE PANTERMOLLER



DATE: 3/17/2021
NRCS SOIL CLASSIFICATION: URBAN LAND
SEASONAL HIGH WATER TABLE: 60"
OBSERVED WATER: 74"
OBSERVED LEDGE: NONE
PERFORMED BY: DIANE PANTERMOLLER
PERCOLATION RATE: 2MPI

TEST PIT LOGS

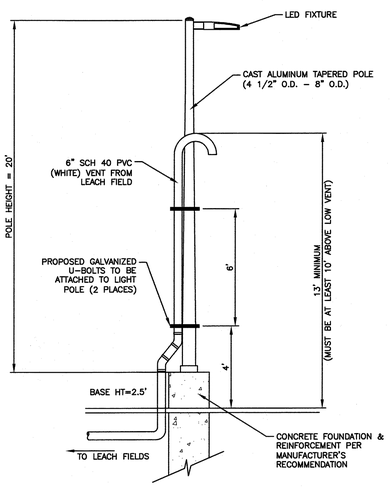


ALL ROWS NOT SHOWN

NOTE:
THE ONLY SOIL COMPACTION THAT SHOULD TAKE PLACE IS AT THE POINT OF PREPARATION FOR PAVEMENT.

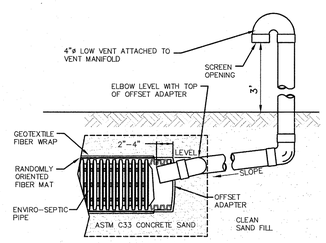
SECTION DETAIL FOR H-20 WHEEL LOADING

NOT TO SCALE



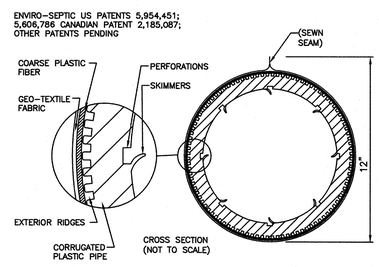
HIGH VENT RISER DETAIL AT LIGHT POLE

NOT TO SCALE



LOW VENT DETAIL

NOT TO SCALE



ENVIRO-SEPTIC LEACHING SYSTEM

CROSS SECTION – NOT TO SCALE

DESIGN NOTES:

1) DESIGN INTENT: BOTTOM OF "ENVIRO-SEPTIC" PIPE TO BE NO MORE THAN 1.9 BELOW EXISTING GRADE ON THE HIGH SIDE. EXISTING GRADE ON THE HIGH SIDE AT ELEVATION 343.30.

2) SEWAGE LOADING:

RESTAURANT:	8 SEATS X 20 GPD/SEAT	=	160 GPD
	5 EMPLOYEES X 20 GPD/EMPLOYEE	=	100 GPD
RETAIL:	4,555 SF X 5 GPD/100 SF	=	227.75 GPD
	3 EMPLOYEES X 10 GPD/EMPLOYEE	=	30 GPD
GAS STATION:	6 ISLANDS X 75 GPD/ISLAND	=	450 GPD
TOTAL DESIGN FLOW		=	967.75 GPD

3) DESIGN PERCOLATION RATE: 2 MPI

4) LEACHING AREA:
REQUIRED LENGTH OF ENVIRO-SEPTIC PIPE:
(FROM ENVIRO-SEPTIC TABLE) = 968 X 47 LF/100 GPD = 455 LF
PROVIDED: 20 ROWS @ 60'/ROWS = 1,200 LF

5) SEPTIC TANK REQUIRED: 2 X DAILY FLOW = 968 X 2 = 1,936 GALLONS
PROVIDED: 1-3,000 GALLON TANK

6) GREASE TRAP REQUIRED: 3 GPD/MEAL + 20 GPD/EMPLOYEE X 36 HOUR DETENTION TIME
3 GPD/MEAL X 5 MEALS/SEAT X 8 SEATS + 20 GPD/EMPLOYEE X 5 EMPLOYEES X 1.5 = 330 GALLONS
PROVIDED: 1-1,500 GALLON GREASE TRAP

7) DISTRIBUTION BOX: 21 OUTLET (MIN.) WITH FLOW EQUALIZERS

8) WATER SUPPLY: COMMUNITY WATER SYSTEM (EPA# 0771010)

9) LEACH FIELD PROXIMITY TO ABUTTING FEATURES:

NEAREST SURFACE WATER:	>75 FT.
NEAREST FOUNDATION:	>20 FT.
NEAREST WELL:	>100 FT.
POORLY DRAINED SOILS:	>50 FT.
VERY POORLY DRAINED SOILS:	>75 FT.

10) FOUNDATION DRAINS: YES

11) IN ACCORDANCE WTIH ENV-WQ 1003.13(b), THERE ARE NO CEMETERIES WITHIN 100' OF ANY COMPONENT OF THE PROPOSED SEPTIC SYSTEM.

12) ENVIRO-SEPTIC WASTEWATER TREATMENT SYSTEMS ARE APPROVED BY NHDES AS ITA IN ACCORDANCE WITH PART ENV-WS 1024. THE SYSTEM IS DESIGNED IN ACCORDANCE WITH THE ENVIRO-SEPTIC & SIMPLE SEPTIC LEACHING SYSTEMS DESIGN AND INSTALLATION MANUAL AND THE ENVIRO-SEPTIC WASTEWATER TREATMENT SYSTEMS DESIGN AND INSTALLATION MANUAL NEW HAMPSHIRE STATE ATTACHMENT. ITA # 2010-07-01

CONSTRUCTION NOTES:

1) THIS PLAN IS FOR THE DESIGN AND CONSTRUCTION OF THE SEPTIC SYSTEM, BLDG. AND APPURTENANCES. IT IS NOT TO BE USED FOR THE DETERMINATION OF BOUNDARIES, THE ERECTION OF FENCES, POOLS, OUTBUILDINGS, OR ANY OTHER USE FOR WHICH IT IS NOT INTENDED.

2) CONTRACTOR TO VERIFY LOCATION, ELEVATION AND SETBACK DISTANCES PRIOR TO CONSTRUCTION. ANY DISCREPANCY BETWEEN THIS PLAN AND THE APPARENT FIELD CONDITIONS SHOULD BE REPORTED TO DESIGNER PRIOR TO CONSTRUCTION.

3) INSTALLER SHALL CONTACT DIG SAFE PRIOR TO CONSTRUCTION.

4) FUTURE REPLACEMENT SYSTEM LOCATION TO BE THE SAME AS THE PROPOSED DESIGN LOCATION UNLESS OTHERWISE INDICATED ON THE PLAN.

5) DO NOT INSTALL SYSTEM ON FROZEN GROUND OR LEAVE SYSTEM UNCOVERED FOR EXTENDED PERIODS OF TIME.

6) ALL CONCRETE PRODUCTS TO BE MANUFACTURED BY SHEA CONCRETE PRODUCTS 1-800-696-7432 OR APPROVED EQUAL.

7) CONCRETE STRUCTURES TO BE WATER TIGHT. ALL PIPE CONNECTIONS SHALL BE SEALED WITH A WATERTIGHT, FLEXIBLE JOINT CONNECTOR THAT WILL ACCOMMODATE NORMAL MOVEMENT OF ALL CONCRETE STRUCTURES.

8) ENVIRO-SEPTIC SYSTEM TO BE INSTALLED IN ACCORDANCE WITH ENVIRO-SEPTIC PRODUCT DESIGN AND INSTALLATION MANUAL, STATE AND LOCAL REGULATIONS. FOR PRODUCT INFORMATION OR THE NEAREST DEALER CONTACT PRESBY ENVIRONMENTAL, INC. 1-800-473-5298.

9) MINIMUM OF 6" OF MEDIUM TO COARSE SAND WITH LESS THAN 2 % PASSING A # 200 SIEVE REQUIRED AROUND CIRCUMFERENCE OF ENVIRO-SEPTIC PIPES. (SEE DESIGN AND INSTALLATION MANUAL FOR COMPLETE SAND AND FILL SPECIFICTIONS.) CONCRETE SAND MEETING ASTM C-33 MAY BE USED.

10) ENVIRO-SEPTIC PIPE TO BE LAID LEVEL.

11) SYSTEM TO BE INSPECTED AND APPROVED BY NHDES PRIOR TO BACKFILLING.

OPERATING NOTES:

1) NO DRAINS, HOT TUBS, SAUNAS, GARBAGE DISPOSALS, ETC. SHALL BE INCORPORATED INTO THIS SYSTEM.

2) THE SEPTIC TANK SHALL BE INSPECTED FOR ACCUMULATION OF SLUDGE AND SCUM AT LEAST ONCE EVERY YEAR. WHEN THE COMBINED THICKNESS OF THE SLUDGE AND SURFACE SCUM EQUAL 1/3 OR MORE OF THE TANK DEPTH, THE TANK SHALL BE PUMPED BY A LICENSED SEPTIC TANK PUMPER.

3) TO PREVENT OBSTRUCTION OF THE DISTRIBUTION LINES AND LEACH FIELD, GREASE AND BULKY WASTES SHALL NOT BE FLUSHED OR INTRODUCED INTO THE SEPTIC SYSTEM.

4) TOXIC AND HAZARDOUS MATERIALS SHALL NOT BE INTRODUCED INTO THE SEPTIC SYSTEM.

5) DO NOT ALLOW VEHICULAR TRAFFIC OVER ANY COMPONENT OF THE SYSTEM UNLESS THAT STRUCTURE IS DESIGNED TO WITH-STAND AN H-20 WHEEL LOAD.

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25 SPRINGER ROAD
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PROPOSED RETAIL MOTOR FUEL OUTLET
ASSESSORS MAP U5 LOT 13
910 SUNCOOK VALLEY HWY
EPSOM, NEW HAMPSHIRE
SUBDIVISION APPROVAL # PRE-1967

NEW HAMPSHIRE Designer of Subsurface Disposal Systems
Diane M. Pantermoller
No. 1685
Department of Environmental Services
DESIGNER STAMP
NHDES PERMIT # 1665

REVISIONS		
NO.	REVISION	DATE

JUNE 18, 2021

DRAWN/DESIGN BY	CHECKED BY
DMP/DMP	NID/DRJ

SUBSURFACE SEWAGE DISPOSAL SYSTEM DETAILS

SCALE: NOT TO SCALE

PROJECT NO. NEX-2020033

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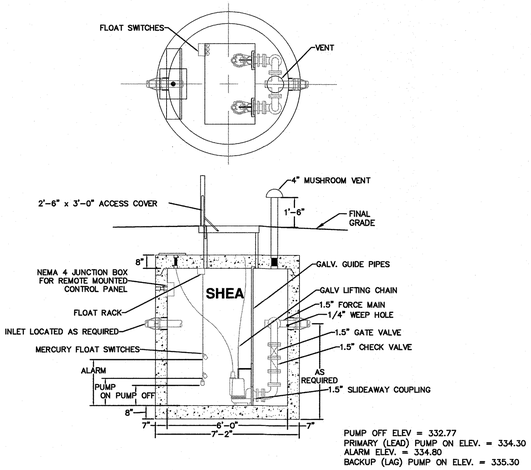


PUMP SPECIFICATIONS

1. PUMP CHAMBER: SHEA CONCRETE PUMP STATION DUPLEX PUMP PACKAGE
2. PUMP DESIGN:
   a) ELEVATION HEAD = 9.55 Ft.
      FRICTION HEAD = 11.45 Ft.
      TOTAL HEAD = 21 Ft.
   b) PUMP MODEL: BARNES MODEL EHV12 WITH ALARM AND FLOAT CONTROLS
   c) PUMP CAPACITY: 38 GPM
   d) DOSE FREQUENCY = 3 DOSES PER DAY
   e) DOSE VOLUME = 968 GPD/3 DOSES PER DAY = 322.67 GAL. PER CYCLE
   f) 1" DRAWDOWN = 17.55 GAL.
   g) PUMP TIME ON = 8.49 MINUTES PER CYCLE WITH SPECIFIED PUMP (RUNNING TIME NO LESS THAN 2 MINUTES AND NOT TO EXCEED 10 MINUTES)
   h) NEMA 3R OR APPROVED EQUAL CONTROL PANEL TO BE LOCATED EXTERIOR WALL OF BUILDING PER OWNER. PANEL TO BE CONFIGURED TO ALTERNATE PUMPS, AUDIBLE ALARM TO BE ACTIVATED UPON ANY AUTOMATIC INITATION OF PUMP OVERIDE (FAILURE OF FIRST PUMP). ALARM AND PUMPS SHALL BE ON SEPARATE CIRCUITS.

NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. CONSTRUCTION OF PUMP CHAMBER CONFORMS WITH NHDES ENV-WQ 1000.
3. ALL REINFORCED STEEL CONFORMS TO LATEST ASTM A185.
4. BUTYL RESIN SECTION JOINT CONFORMS TO LATEST ASTM C990 SPECIFICATION.
5. DESIGNED FOR H-20 LOADING.
6. PUMPS, FLOATS AND PIPE INSTALLED IN CHAMBER. FLOAT ELEVATIONS SET UPON REQUEST.
7. SUPPLIED WITH PUMP CONTROL PANEL W/ALARM.
8. LAG & ALARM FLOATS CAN BE SWAPPED OR COMBINED INTO ONE FLOAT.
9. PROVIDE SLIDE RAILS AND LIFTING CHAINS FOR DUPLEX PUMPS.
10. PROVIDE RUN TIME METERS ON CONTROL PANEL.

PUMP CHAMBER

NOT TO SCALE

BARNES®

www.cranepumps.com

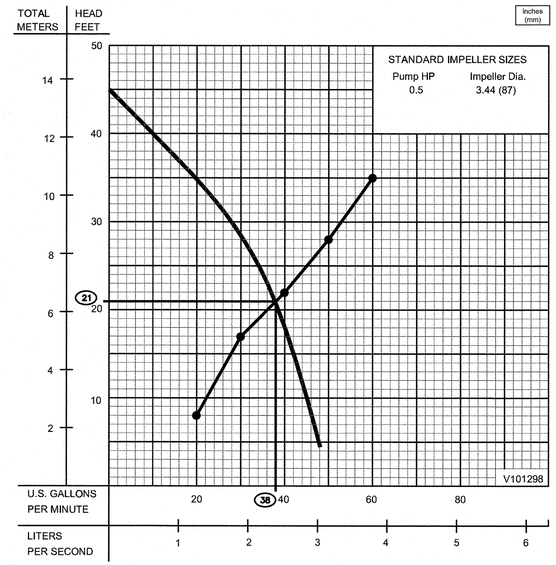
Series EHV

Performance Curve

.5HP, 3450RPM, 60Hz

I&O Manual

Submersible Effluent Pumps



Testing is performed with water, specific gravity 1.0 @ 68° **F @ (20°C), other fluids may vary performance**

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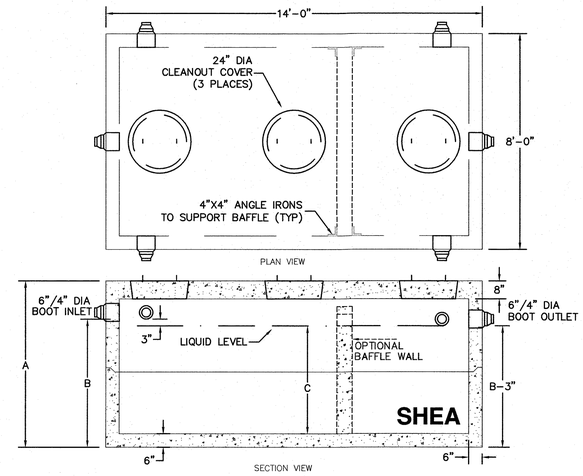
SECTION	3A
PAGE	9
DATE	6/04

PUMP CURVE



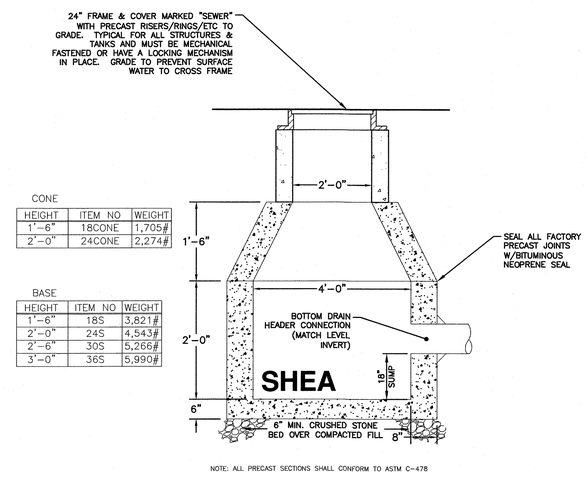
NOTES:

1. CONCRETE: 5,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGN CONFORMS WITH 310 CMR 15.00, DEP TITLE 5 REGS, FOR SEPTIC TANKS
3. ALL REINFORCEMENT PER ASTM C1227.
4. DESIGNED FOR AASHTO HS-20 LOADING, 1 TO 5 FT COVER.
5. TONGUE & GROOVE JOINT SEALED WITH BUTYL RESIN
6. TEES AND BAFFLES SOLD SEPARATELY
7. OPTIONAL BAFFLE WALL HELD IN PLACE WITH ANGLE BRACKETS

TWO COMPARTMENT TANK										
GALLONS	A (HEIGHT)	B (INLET) 6" BOOT	B (INLET) 4" BOOT	C (LIQUID)	WEIGHT (LBS)	ITEM NO.	SIZE TOP	WEIGHT TOP	SIZE BOTTOM	WEIGHT BOTTOM
3,000	83"	66"	67"	57"	39,670	8X14-302C	42"	20,890	42"	18,780
3,500	93"	77"	78"	68"	42,630	8X14-352C	42"	20,890	42"	21,740
4,000	103"	86"	87"	77"	45,295	8X14-402C	52"	23,555	52"	21,740

PROPOSED 3,000 GALLON 2-COMPARTMENT SEPTIC TANK (H20 LOADING)

CROSS SECTION - NOT TO SCALE



CONE

HEIGHT	ITEM NO	WEIGHT
1'-6"	18CONE	1,705#
2'-0"	24CONE	2,274#

BASE

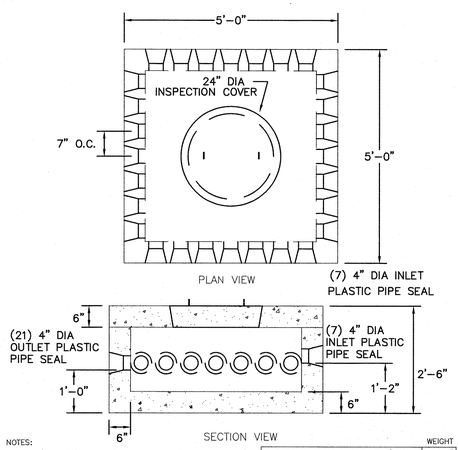
HEIGHT	ITEM NO	WEIGHT
1'-6"	18S	3,821#
2'-0"	24S	4,543#
2'-6"	30S	5,266#
3'-0"	36S	5,990#

NOTE: ALL PRECAST SECTIONS SHALL CONFORM TO ASTM C-478

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. ECCENTRIC CONE 18" HIGH ALSO AVAILABLE.
3. FLAT TOP AVAILABLE WITH CENTER, OFFSET OR DOUBLE HOLE.
4. BARREL BLOCK ALSO AVAILABLE FOR ANY SECTION.
5. MANHOLE DESIGN CONFORMS TO ASTM C478 SPEC FOR "PRECAST REINFORCED CONCRETE MANHOLES".

BOTTOM DRAIN MANHOLE

NOT TO SCALE



NOTES:

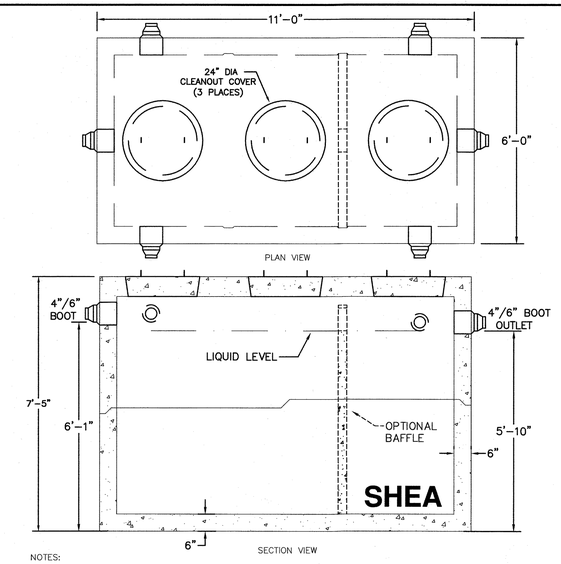
1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGN CONFORMS WITH NHDES ENV-WQ 1000 FOR DISTRIBUTION BOXES.
3. DESIGNED FOR H-20 LOADING.

ITEM NO.		WEIGHT
B-21DBH	H-20 W/COVER	5,562#
B-21DBC	COVER ONLY	1,850#

DISTRIBUTION BOX
21 OUTLET H-20

PROPOSED 21-OUTLET D-BOX (H20 LOADING)

CROSS SECTION - NOT TO SCALE



NOTES:

1. CONCRETE: 5,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGN CONFORMS WITH ENV-WQ 1000 FOR SEPTIC TANKS.
3. ALL REINFORCEMENT PER ASTM C1227
4. DESIGNED FOR AASHTO HS-20 LOADING, COVER 1-5 FT
5. TONGUE & GROOVE JOINT SEALED WITH BUTYL RESIN.
6. TEES AND BAFFLES SOLD SEPARATELY.

	WEIGHT	TOP	BOT
ITEM NO. TK-2000C	25,600#	13,655#	11,945#
TK-2000C2C	27,340#	14,515#	12,825#

PROPOSED 2,000 GALLON GREASE TRAP (H20 LOADING)

CROSS SECTION - NOT TO SCALE

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Greenman-Pedersen, Inc.
44 Stiles Road, Suite One
Salem, NH 03079

PREPARED FOR
GRANITE STATE CONVENIENCE, LLC
25 SPRINGER ROAD
HOOKSETT, NH 03106

PROPOSED RETAIL MOTOR FUEL OUTLET
ASSESSORS MAP U5 LOT 13
910 SUNCOOK VALLEY HWY
EPSOM, NEW HAMPSHIRE
SUBDIVISION APPROVAL # PRE-1967

NEW HAMPSHIRE Designer of Subsurface Disposal Systems ★★★ Diane M. Pantermoller No. 1665 Department of Environmental Services

6/24/21

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NHDES PERMIT # 1665

REVISIONS

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JUNE 18, 2021

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DMP/DMP	NID/DRJ

SUBSURFACE SEWAGE DISPOSAL SYSTEM DETAILS

SCALE: NOT TO SCALE

PROJECT NO. NEX-2020033

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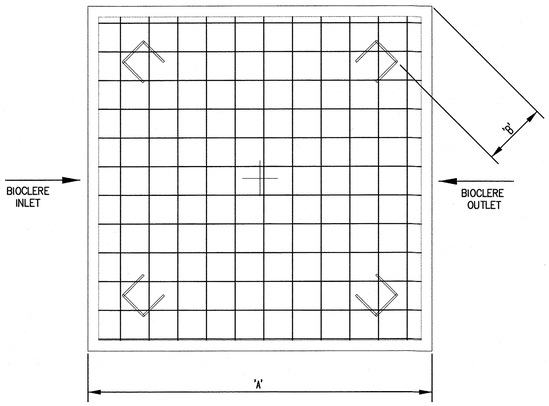
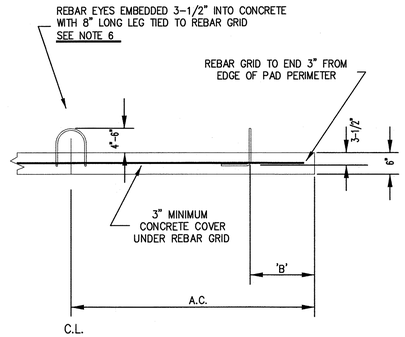
PLAN ON SQUARE PAD
(SEE NOTE 5)



PAD ELEVATION
(ACROSS CORNERS)



NOTES: UNLESS OTHERWISE SPECIFIED:

1. CONCRETE MINIMUM STRENGTH: 4,000PSI @ 28 DAYS.
2. DEFORMED REINFORCING BARS TO BE 60,000 PSI YIELD STRENGTH.
3. EYES (4): 1/2" DIAMETER REBAR CAST IN PLACE AS SHOWN.
4. PAD TO BE SUPPLIED AND INSTALLED BY CONTRACTOR.
5. REBAR EYES ARE NOT DESIGNED FOR LIFTING THE CONCRETE PAD.
6. ANCHORING CHAINS (4) 3/16".

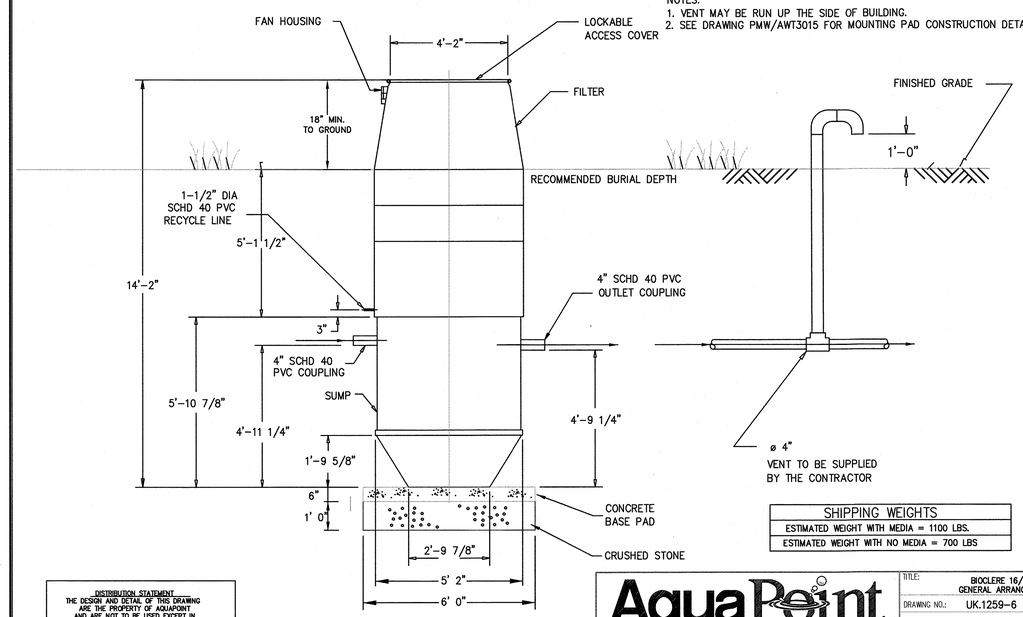
BIOCLERE MODEL	'A'	'B'	STEEL REINFORCEMENT GRID	APPROX PAD WEIGHT
16/22 16/25	6'	9"	#3 REBAR @ 8" O.C.	3,600 lbs

Bioclere Base Pad 16.dwg

AquaPoint
Performance Based Wastewater Treatment Systems
39 TARKILN PLACE
NEW BEDFORD, MA 02745
(508) 985-9050 FAX (508) 985-9072

TITLE:	PRECAST MOUNTING PAD FOR 16 SERIES BIOCLERES
DRAWING NO.:	1244-9
REVISION:	A
DATE:	JUNE 18, 2013
DWN BY:	JSL
SCALE:	(1 : 20) SIZE: B (A3)
SHEET #:	

NOTES:
1. VENT MAY BE RUN UP THE SIDE OF BUILDING.
2. SEE DRAWING PMW/AWT3015 FOR MOUNTING PAD CONSTRUCTION DETAILS.



BIOCLERE MODEL 16/25

SHIPPING WEIGHTS
ESTIMATED WEIGHT WITH MEDIA = 1100 LBS.
ESTIMATED WEIGHT WITH NO MEDIA = 700 LBS

16-25 std GA.dwg

DISTRIBUTION STATEMENT
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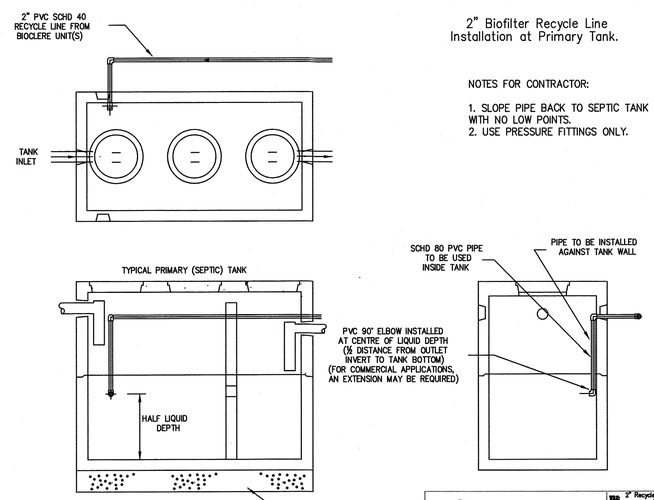
Performance Based Wastewater Treatment Systems
39 TARKILN PLACE
NEW BEDFORD, MA 02745
(508) 985-9050 FAX (508) 985-9072

TITLE:	BIOCLERE 16/25 GENERAL ARRANGEMENT
DRAWING NO.:	UK.1259-6
REVISION:	
DATE:	11/14/08
DWN BY:	P.Willey
SCALE:	1 : 30 SIZE: B
SHEET #:	1 of 1

2" Biofilter Recycle Line Installation at Primary Tank.

NOTES FOR CONTRACTOR:

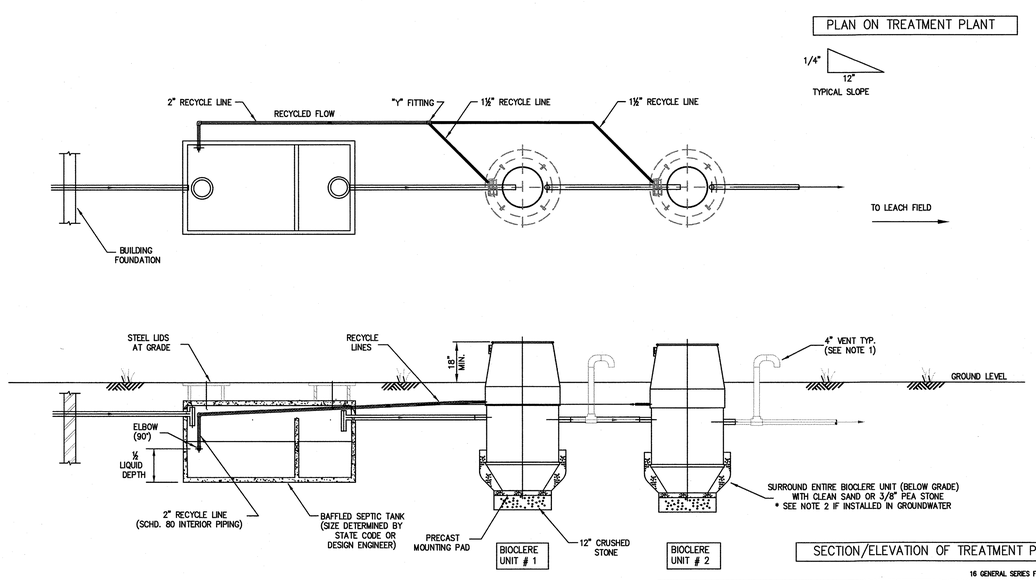
1. SLOPE PIPE BACK TO SEPTIC TANK WITH NO LOW POINTS.
2. USE PRESSURE FITTINGS ONLY.



AWT Aquapoint
39 TARKILN PLACE
NEW BEDFORD, MA 02745
(508) 985-9050 FAX (508) 985-9072

TITLE:	2" Recycle Line Installation. (Primary Tank)
DRAWING NO.:	PMW/1256-7
REVISION:	A
DATE:	01/19/01
DWN BY:	P.WILLEY
SCALE:	1 : 40 SIZE: A / A4
SHEET #:	1 of 1

16- GENERAL SERIES FLOW SCHEMATIC



SECTION/ELEVATION OF TREATMENT PLANT

16 GENERAL SERIES FLOW SCHEMATIC.dwg

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AquaPoint
Performance Based Wastewater Treatment Systems
39 TARKILN PLACE
NEW BEDFORD, MA 02745
(508) 985-9050 FAX (508) 985-9072

TITLE:	TYPICAL GROUND INSTALLATION
DRAWING NO.:	UK.1264-4
REVISION:	–
DATE:	April 7, 2005
DWN BY:	P.WILLEY
SCALE:	1 : 60 SIZE: B / A3
SHEET #:	1 of 1

GPI Engineering Design Planning Construction Management
603.893.0720 GPINET.COM
Greenman-Pedersen, Inc.
44 Stiles Road, Suite One
Salem, NH 03079

PREPARED FOR
GRANITE STATE CONVENIENCE, LLC
25 SPRINGER ROAD
HOOKSETT, NH 03106

PROPOSED RETAIL MOTOR FUEL OUTLET
ASSESSORS MAP U5 LOT 13
910 SUNCOOK VALLEY HWY
EPSOM, NEW HAMPSHIRE
SUBDIVISION APPROVAL # PRE-1967

NEW HAMPSHIRE Designer of Subsurface Disposal Systems ★★★ Diane M. Pantermoller No. 1665 Department of Environmental Services
DESIGNER STAMP
NHDES PERMIT # 1665

REVISIONS		
NO.	REVISION	DATE

JUNE 18, 2021

DRAWN/DESIGN BY	CHECKED BY
DMP/DMP	NID/DRJ

SUBSURFACE SEWAGE DISPOSAL SYSTEM DETAILS

SCALE: AS NOTED

PROJECT NO. NEX-2020033

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BIOCLERE INSTALLATION PROCEDURE:

AQUAPOINT PROVIDES ONSITE SUPERVISION OF THE INSTALLATION, THE FRESH WATER COMMISSIONING OF THE BIOCLERE SYSTEM AND CERTIFICATION THAT THE SYSTEM IS OPERATIONAL. EFFECTIVE EXECUTION OF THESE PROCEDURES REQUIRES COORDINATION WITH THE SITE CONTRACTOR.

A. THE SITE CONTRACTOR SHALL CONTACT AWTE AT 508-998-7577 TO COORDINATE DELIVERY, INSTALLATION SCHEDULE AND FRESHWATER COMMISSIONING OF THE SYSTEM.
B. EXCAVATE TO 18" BELOW CLARIFIER. DE-WATER EXCAVATION IF REQUIRED.
C. ADD 12" (1.00 FT) OF CLEAN 3/8" PEASTONE.
D. INSTALL PRE-CAST MOUNTING PAD APPROXIMATELY CENTER TO BIOCLERE LOCATION (SEE AWT3014 REV. C).
E. CHECK TO ENSURE MOUNTING PAD IS LEVEL AND ELEVATION IS CORRECT.
F. CAREFULLY LOWER BIOCLERE INTO POSITION WITH PROPER RIGGING AND LIFTING TECHNIQUES.
G. ORIENT AND ALIGN BIOCLERE TO INLET AND OUTLET DIRECTIONS. CHECK IF BIOCLERE LEVEL.
H. FILL BIOCLERE WITH CLEAN FRESH WATER TO BOTTOM OF OUTLET PIPE TO STABILIZE UNIT.
I. REFER TO ANCHORING REQUIREMENTS ON SITE PLAN AND POUR CONCRETE BALLAST PER DETAILS.
J. INSTALL INLET, OUTLET, AND VENT/TEST PORT PIPING.
K. INSTALL RECYCLE PIPING FROM BIOCLERE BACK TO INLET END OF PRIMARY (SEPTIC) TANK. THE RECYCLE LINE IS 1-1/2" SCHEDULE 40 PVC FROM THE BIOCLERE TO THE OUTSIDE OF SEPTIC TANK AND SCHEDULE 80 PVC INSIDE THE SEPTIC TANK. SCHEDULE 80 PVC TO BE INSTALLED AGAINST THE INSIDE WALL AND AT THE SEPTIC TANKS LIQUID DEPTH TERMINATING WITH A 90° ELBOW. (SEE BIOCLERE DRAWING AWT1012) REVISION C PROVIDED BY AQUAPOINT)
L. INSTALL WIRING WITH WATER TIGHT CONDUIT FROM CONTROL LOCATION TO BIOCLERE.
M. BACKFILL AROUND BIOCLERE WITH SAND AND/OR PEASTONE TO FINAL GRADE.
N. INSTALL CONTROL BOX IN PROTECTED LOCATION, CONNECT POWER FEED AND BIOCLERE WIRING. (SEE BIOCLERE DRAWING AWT1005 REV. F PROVIDED BY AQUAPOINT)

BIOCLERE TREATMENT SYSTEM SPECIFICATIONS

PART 1 – GENERAL

1.01 SCOPE

A. The work of this section includes furnishing all labor, materials, tools and equipment necessary to furnish and install an AQUAPOINT factory built, Bioclere fixed film aerobic process type treatment system with all necessary equipment and appurtenances for efficient operation as specified herein and as shown on the drawings.
B. The manufacturer of the Bioclere process system shall be AQUAPOINT of New Bedford, MA.

1.02 DESIGN CRITERIA

A. The materials and equipment covered by this specification are intended to be standard materials and equipment of proven ability as manufactured by reputable concerns. Equipment shall be designed and constructed in accordance with the best practice of the industry and shall be installed in accordance with the manufacturer's recommendations and the Contract Documents.
B. The Bioclere system shall be designed to operate under the design criteria detailed in SECTION 2.01 (A).

1.03 PRODUCT HANDLING

A. All materials and equipment shall be shipped, stored, handled and installed in such a manner as not to degrade quality, serviceability or appearance. The Bioclere unit(s) shall be stored outdoors in a secured location according to the manufacturer's recommendations. Loose-shipped items shall be stored in a clean, dry location free from precipitation and excess moisture.

1.04 SUBMITTALS

A. Three complete sets of shop drawings and/or site specific Technical Manuals shall be submitted for all items to be furnished by AQUAPOINT. Submittals shall include all equipment and components, catalogue cuts, wiring diagrams, control schematics and all pertinent installation, operation and maintenance procedures to maintain efficient operation.

PART 2 – MATERIALS

2.04 BIOCLERE TREATMENT SYSTEM

A. General

1. The Bioclere treatment system shall include a trickling filter situated over a final settling tank. The Bioclere treatment system shall be delivered complete from the supplier and shall include: random packed PVC manufactured media, ventilation fan, dosing pump, sludge return pump, internal piping, wiring and controls for a complete operational treatment system. The trickling filter portion of the tank shall have fiberglass inner and outer skins with the cavity between filled with polyvinyl chloride foam insulation. The remainder of the unit shall be constructed of FRP or plastic as recommended by the equipment manufacturer. All internal piping shall be Schedule 40 PVC plastic pipe. The Bioclere unit shall withstand normal pressures from the interior hydrostatic load and from the soil. The flange of the Bioclere unit shall be factory sealed for water tightness. The design criteria are as follows:

Settled Influent Characteristics		Required Effluent
Flow, gpd	=	=
BOD5, mg/l	=	=
CBOD5, mg/l	=	=
COD, mg/l	=	=
TSS, mg/l	=	=
pH, SU	=	=
Ammonium, mg/l	=	=
TKN, mg/l	=	=
Oil & Grease, mg/l	=	=
Nitrate, mg/l	=	=
Total Nitrogen, mg/l	=	=

B. Pre-Cast Mounting Pad

1. The contractor shall be responsible for providing a precast mounting pad upon which to set each Bioclere unit. The mounting pads shall be as shown on the drawings.

C. Filter Media

1. The PVC randomly packed filter media shall have a void ratio of greater than 95 percent. The media shall be resistant to ultraviolet radiation and resistant to a wide range of aqueous solutions, acids, alkalis, oxidizing agents, oils, fats and alcohols.

D. Settling Tank

1. The settling tank shall be cone shaped and have sloped sides to prevent the accumulation of biological and inorganic suspended solids and shall contain the necessary internal baffling to prohibit short-circuiting of the wastewater.

E. Ventilation Fan

1. The CSA and UL approved ventilation fan shall be a 115v/1ph/60hz, painted metal and/or plastic, ball bearing fan with a minimum manufactured rated airflow rate of 58 cubic feet per minute (cfm).

F. Pumps

1. The one CSA and UL approved dosing pump and one recycle pump shall be a 115v/1ph/60hz stainless steel submersible pump. Each pump shall have an internal high temperature shut off switch. Each pump shall be capable of 20 gpm at 15 ft. of head. Each pump shall be rated for intermittent or continuous duty when fully submerged between 0°C-55°C.

G. Float Switches

1. The CSA and UL approved low level 115v/1ph/60hz float switch shall be installed to prevent the recycle pump from operating when water levels are abnormally low in the Bioclere (i.e. during primary tank pumping). The float switch shall be a mechanically activated wide-angle switch.

H. Power Supply

1. Each Bioclere treatment unit shall have a dedicated 20 amp, 115v/1ph/60hz, power supply.

I. Control Panel

1. The UL approved control panel shall be furnished with an audio/visual alarm for pump failure and tripped circuit breaker conditions, an exterior alarm silence button, and an on/off/test power/alarm toggle switch. Within the NEMA 4X enclosed fiberglass panel pump timers, relays, contactors, terminal strip, on/off/test switches, run lights, circuit breakers and current sensors shall be provided. A dry contact shall be installed in each control panel so that a common Bioclere alarm may be wired to a convenient location. The alarm shall sound and the light shall flash continuously until the alarm is reset or shut off.

J. Wiring

1. The electrical contractor shall complete the wiring between the Bioclere control panel and the terminal strip within the Bioclere fan module meeting all local, state, and federal codes. The fan shall be installed in a separate enclosure on the side of the Bioclere unit.
2. All fittings, connections, etc. shall be weatherproof and water tight construction. Ground terminals are provided in both the main panel and the junction box for each unit. Each ground terminal shall be wired to an earth ground.
3. Care shall be taken to match the wires between the control panel and the terminal strip within the Bioclere fan module located on each unit.

K. Warranty

1. All equipment provided shall be warranted against defects in materials and workmanship for a period of one year from the date of installation.

L. Spare Parts

1. A recommended list of spare parts shall be detailed in the site specific Technical Manual that details the Installation, Operation & Maintenance procedures.

M. Services Provided

1. AQUAPOINT or an approved manufacturer's representative shall provide the following services for each project. The general contractor shall install the Bioclere unit(s) and all related components.

   a. Provide onsite technical assistance for the handling and positioning of the Bioclere unit(s) the day of installation.
   b. Return to the site for testing and/or commissioning of the Bioclere unit(s) upon substantial completion of site work by the general contractor (backfill, piping, electrical, grading, etc.). AQUAPOINT shall install the randomly packed PVC media and pumps into the Bioclere unit(s). AQUAPOINT shall be available to train the operator(s) and instruct the owner on Bioclere operation the day of testing/commissioning.
   c. Remain accessible to the owner and/or operator for phone consultation.
   d. Be available on a contract basis for additional site visits or consultation.

PART 3 – EXECUTION

3.01 INSTALLATION

A. All materials and equipment shall be installed in a neat, workmanlike manner.
B. Installation of the Bioclere treatment system and ancillary equipment supplied by AQUAPOINT shall be in accordance with written instructions provided by the manufacturer or approved representative.
C. The Bioclere and all applicable treatment units supplied by AQUAPOINT shall be installed with sufficient ballast to offset buoyant forces due to induced or high groundwater conditions.

3.02 CLEAN UP

A. Prior to start-up and field-testing, all foreign matter shall be removed from the grease trap(s), septic tank(s), pump station(s) and Bioclere unit(s).

3.03 FIELD TESTING

A. The Bioclere treatment system shall be field-tested using clean fresh water prior to acceptance. The system shall be operated to test the efficiency of all components. All systems, controls, and sequences shall be operated and demonstrated as operating as approved. The contractor shall perform all tests and shall be responsible for all necessary temporary connections, testing equipment and utilities and shall provide and dispose (if necessary) of all water used. A factory trained representative shall be present for the testing.

3.04 PROHIBITIONS

A. Organic solvents, fuel oils, paints and thinners, photographic fluids, floor waxes and strippers, solutions containing copper compounds, cleaning agents containing quaternary ammonium chlorides and products containing compounds that are documented to inhibit biological growth should not be discharged to the sewage treatment system.

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Greenman-Pedersen, Inc.
44 Stiles Road, Suite One
Salem, NH 03079

PREPARED FOR
GRANITE STATE CONVENIENCE, LLC
25 SPRINGER ROAD
HOOKSETT, NH 03106

PROPOSED RETAIL MOTOR FUEL OUTLET
ASSESSORS MAP U5 LOT 13
910 SUNCOOK VALLEY HWY
EPSOM, NEW HAMPSHIRE
SUBDIVISION APPROVAL # PRE-1967

NEW HAMPSHIRE Designer of Subsurface Disposal Systems
Diane M. Pantermoller
No. 1665
Department of Environmental Services
6/21/21
DESIGNER STAMP
NHDES PERMIT # 1665

REVISIONS		
NO.	REVISION	DATE

JUNE 18, 2021

DRAWN/DESIGN BY	CHECKED BY
DMP/DMP	NID/DRJ

SUBSURFACE SEWAGE DISPOSAL SYSTEM DETAILS

SCALE: NOT TO SCALE

PROJECT NO. NEX-2020033

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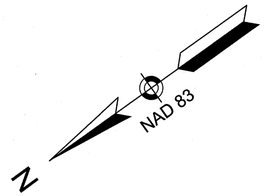
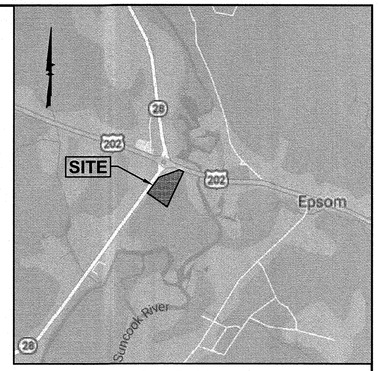
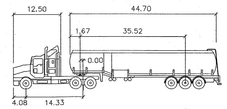
LEGEND

SGC	SLOPED GRANITE CURB		SIGN
VGC	VERTICAL GRANITE CURB	98.69	SPOT ELEVATION
DSLY	DOUBLE SOLID LINE YELLOW		DRAIN MANHOLE
SSLY	SINGLE SOLID LINE YELLOW		CATCH BASIN
SSLW	SINGLE SOLID LINE WHITE		SEWER MANHOLE
EOP	EDGE OF PAVEMENT		WATER VALVE
EOG	EDGE OF GRAVEL		WATER SHUT OFF
W	WATER LINE		FIRE HYDRANT
E	UNDERGROUND ELECTRIC		BOLLARD
	CHAIN LINK FENCE	GM	GAS METER
90	CONTOUR ELEVATION	EM	ELECTRIC METER
	TREE		MONITORING WELL
	UTILITY POLE		LIGHT POLE
	GUY WIRE		WETLAND LINE
	OVERHEAD WIRE		TREELINE



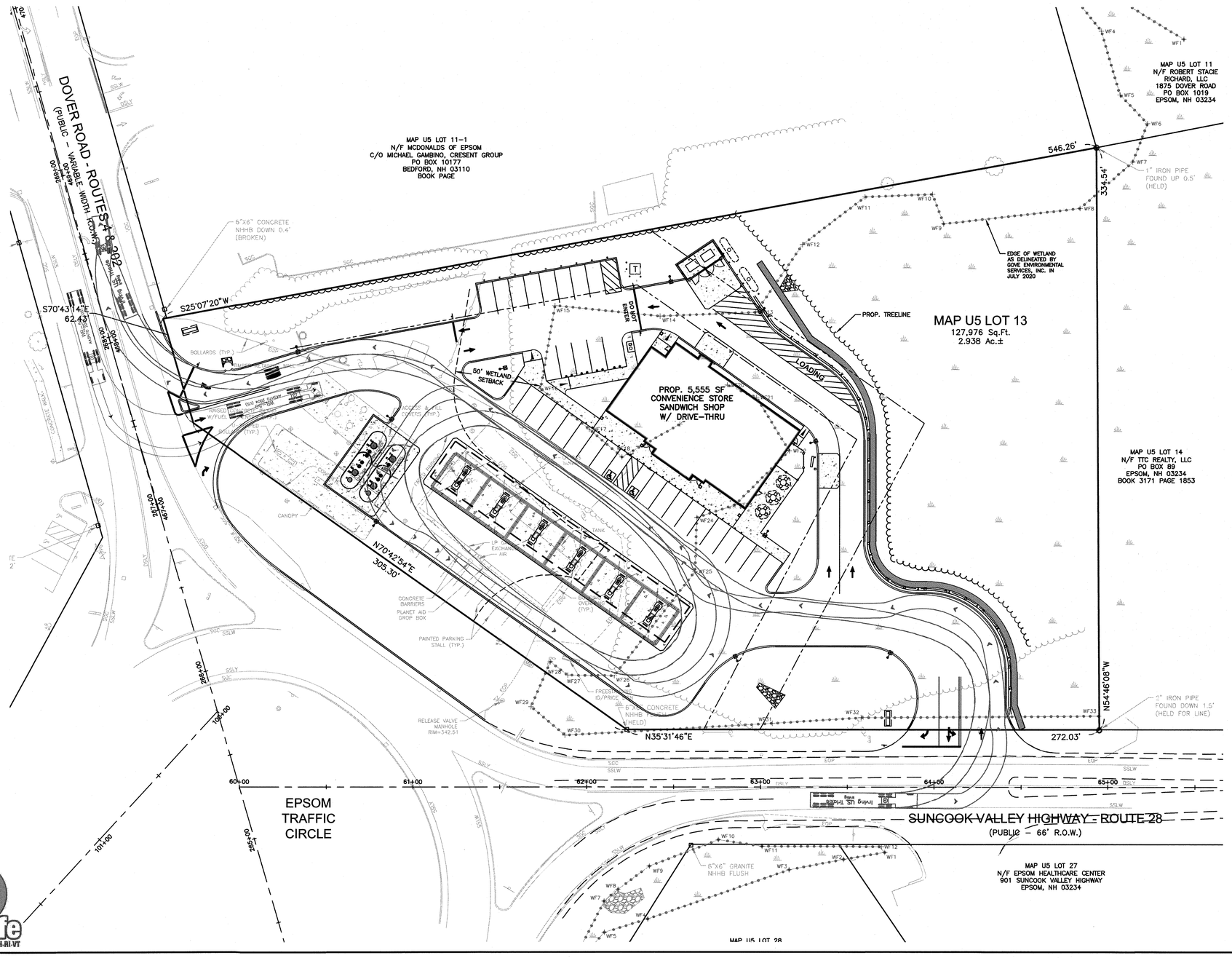


LOCATION MAP
(NOT TO SCALE)



Irving US Triaxle feet

Tractor Width	: 8.50	Lock to Lock Time	: 6.0
Trailer Width	: 8.50	Steering Angle	: 28.4
Tractor Track	: 8.50	Articulating Angle	: 70.0
Trailer Track	: 8.50		



OWNER OF RECORD:
AOUDE, INC.
148 ISLAND POND ROAD
DERRY, NH 03038
BOOK 3489 PAGE 641

0 30 60 100
SCALE: 1" = 30'

GPI Engineering Design Planning Construction Management
603.893.0720 GPINET.COM
Greenman-Pedersen, Inc.
44 Stiles Road, Suite One
Salem, NH 03079

PREPARED FOR
GRANITE STATE CONVENIENCE, LLC
25 SPRINGER ROAD
HOOKSETT, NH 03106

PROPOSED RETAIL MOTOR FUEL OUTLET
ASSESSORS MAP U5 LOT 13

910 SUNCOOK VALLEY HWY
EPSOM, NEW HAMPSHIRE

STATE OF NEW HAMPSHIRE
DAVID R. JORDAN
No. 7778
LICENSED PROFESSIONAL ENGINEER
6/22/21

REVISIONS

NO.	REVISION	DATE

JUNE 18, 2021

DRAWN/DESIGN BY	CHECKED BY
JD/NID	FCM

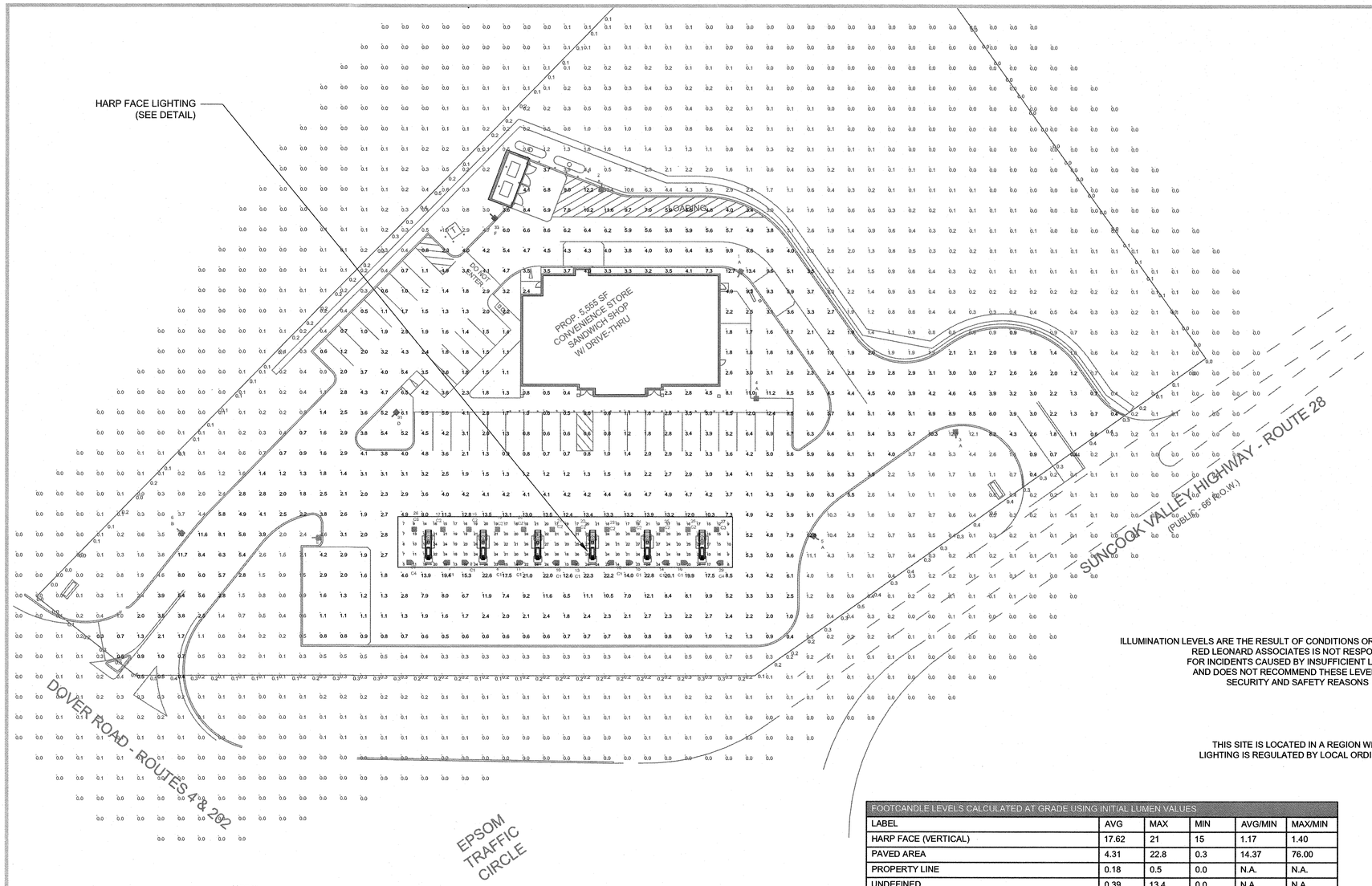
TRUCK TURN PLAN

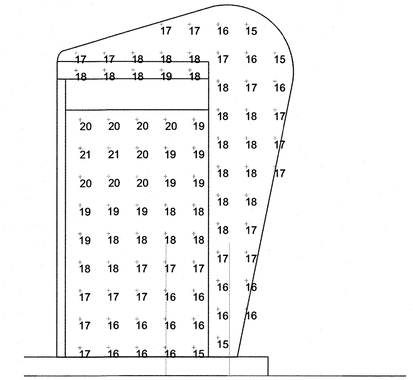
SCALE: 1"=30'

PROJECT NO. NEX-2020033

1 OF 1

F:\Projects\NEX-2020033 - Epsom, NH - GSC\CAD Files\20033_SP.dwg TT 6/18/21 11:20am ccoll





HARP FACE
VERTICAL LIGHTING DETAIL
SCALE: $\frac{1}{2}$" = 1 '

ILLUMINATION LEVELS ARE THE RESULT OF CONDITIONS OR REQUESTS BY OTHERS
RED LEONARD ASSOCIATES IS NOT RESPONSIBLE
FOR INCIDENTS CAUSED BY INSUFFICIENT LIGHTING
AND DOES NOT RECOMMEND THESE LEVELS FOR
SECURITY AND SAFETY REASONS

THIS SITE IS LOCATED IN A REGION WHERE
LIGHTING IS REGULATED BY LOCAL ORDINANCES

FOOTCANDLE LEVELS CALCULATED AT GRADE USING INITIAL LUMEN VALUES					
LABEL	AVG	MAX	MIN	AVG/MIN	MAX/MIN
HARP FACE (VERTICAL)	17.62	21	15	1.17	1.40
PAVED AREA	4.31	22.8	0.3	14.37	76.00
PROPERTY LINE	0.18	0.5	0.0	N.A.	N.A.
UNDEFINED	0.39	13.4	0.0	N.A.	N.A.
UNDER CANOPY	19.25	27	5	3.85	5.40

LUMINAIRE LOCATION SUMMARY		
LUM NO.	LABEL	MTG. HT.
1	A	22.5
2	A	22.5
3	A	22.5
4	A	22.5
5	A	22.5
6	B	22.5
7	C1	14.5
8	C1	14.5
9	C1	14.5
10	C1	14.5
11	C1	14.5
12	C1	14.5
13	C1	14.5
14	C1	14.5
15	C1	14.5
16	C1	14.5
17	C2	14.5
18	C2	14.5
19	C2	14.5
20	C2	14.5
21	C2	14.5
22	C2	14.5
23	C2	14.5
24	C2	14.5
25	C2	14.5
26	C2	14.5
27	C3	14.5
28	C3	14.5
29	C4	14.5
30	C4	14.5
31	D	22.5
32	E	22.5
33	F	22.5

NOTE:
- ALL AREA LIGHTS ON NEW 20 FT. POLE MOUNTED ON 2-1/2 FT. CONCRETE BASE

LUMINAIRE SCHEDULE												
SYMBOL	QTY	LABEL	ARRANGEMENT	LUMENS	LATF	DIMMING LUMEN MULTIPLIER	LLF	BUG RATING	WATTS/LUMINAIRE	TOTAL WATTS	MANUFACTURER	CATALOG LOGIC
	5	A	SINGLE	29100	1.030	1.000	1.030	B3-U0-G4	202	1010	Cree Lighting	OSQ-ML-B-DA-XX + OSQL-B-30L-57K7-3M-UL-NM-XX
	1	B	SINGLE	22998	1.030	1.000	1.030	B3-U0-G3	202	202	Cree Inc	OSA-ML-B-DA-XX + OSQL-B-30L-57K7-3M-UL-NM-XX + OSQ-BLSLF
	10	C1	SINGLE	12862	1.030	0.560	0.577	B2-U1-G1	60.75	607.5	RUUD LIGHTING, INC., A CR	CAN-304-AF-RS-06-E-UL-XX-700-57K-DIM (DIMMING SET TO 3.9 V)
	10	C2	SINGLE	13251	1.030	1.000	0.412	B3-U0-G1	41.9	419	CREE, INC.	CAN-304-SL-RS-06-E-UL-XX-700-57K-DIM (DIMMING SET TO 2.8 V)
	2	C3	SINGLE	13251	1.030	1.000	0.237	B3-U0-G1	24.3	48.6	CREE, INC.	CAN-304-SL-RS-06-E-UL-XX-700-57K-DIM (DIMMING SET TO 1.7 V)
	2	C4	SINGLE	12862	1.030	1.000	0.288	B2-U1-G1	28.4	56.8	RUUD LIGHTING, INC., A CR	CAN-304-AF-RS-06-E-UL-XX-700-57K-DIM (DIMMING SET TO 1.9 V)
	1	D	SINGLE	22098	1.030	1.000	1.030	B3-U0-G3	132	132	Cree Inc	OSQ-ML-B-DA-XX + OSQL-B-22L-57K7-4M-UL-NM-XX
	1	E	SINGLE	9600	1.030	1.000	1.030	B2-U0-G2	72	72	Cree Lighting	OSQ-ML-B-DA-XX + OSQM-B-11L-50K9-3M-UL-NM-XX
	1	F	SINGLE	12349	1.030	1.000	1.030	B2-U0-G2	104	104	Cree Inc	OSQ-ML-B-DA-XX + OSQM-B-16L-57K7-4M-UL-NM-XX + OSQ-BLSMF

REDLEONARD ASSOCIATES
1340 Kemper Meadow Dr, Forest Park, OH 45240
513-574-9500 | redleonard.com

REV.	BY	DATE	DESCRIPTION
R1	JSG	6/4/21	ADJUST AREA LIGHTING LOCATIONS PER MARK UP
R2	JSG	6/14/21	CHANGE AREA LIGHTING TO CREE

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SCALE: 1" = 30'
LAYOUT BY: JSG
DWG SIZE: D
DATE: 5/27/21

PROJECT NAME:
IRVING OIL
GRANITE STATE C-STORE
DRAWING NUMBER:
RL-7405-S1-R2

IRVING

	QTY	LABEL	DESCRIPTION
CANOPY	10	C1	CAN-304-AF-RS-06-E-UL-XX-700-57K-DIM (DIMMING SET TO 3.9 V)
	10	C2	CAN-304-SL-RS-06-E-UL-XX-700-57K-DIM (DIMMING SET TO 2.8 V)
	2	C3	CAN-304-SL-RS-06-E-UL-XX-700-57K-DIM (DIMMING SET TO 1.7 V)
	2	C4	CAN-304-AF-RS-06-E-UL-XX-700-57K-DIM (DIMMING SET TO 1.9 V)

	QTY	LABEL	DESCRIPTION
AREA	5	A	OSQ-ML-B-DA-XX + OSQL-B-30L-57K7-3M-UL-NM-XX
	1	B	OSA-ML-B-DA-XX + OSQL-B-30L-57K7-3M-UL-NM-XX + OSQ-BLSLF
	1	D	OSQ-ML-B-DA-XX + OSQL-B-22L-57K7-4M-UL-NM-XX
	1	E	OSQ-ML-B-DA-XX + OSQM-B-11L-50K9-3M-UL-NM-XX
	1	F	OSQ-ML-B-DA-XX + OSQM-B-16L-57K7-4M-UL-NM-XX + OSQ-BLSMF

304 Series™

LED Recessed Canopy Luminaire

Rev. Date: V1 04/05/2021

Product Description

Luminaire housing is constructed from rugged die cast aluminum components (RS Mount) or die cast and extruded aluminum components (RD Mount). LED driver is mounted in a sealed weathertight center chamber that allows for access from below the fixture. Luminaire mounts directly to the canopy deck and is secured in place with die cast aluminum trim frame. Luminaire housing is provided with factory applied foam gasket that provides a watertight seal between luminaire housing and canopy deck. Suitable for use on single or double skin canopies with 1/2" (406 mm) wide panels. Designed for canopies of 19-22 gauge (maximum 0.040" [1 mm] thickness). **Applications:** Petroleum stations, convenience stores, drive-thru banks and restaurants, retail and grocery

Performance Summary

Patented Nanooptic® Product Technology

Assembled in the U.S.A. of U.S. and imported parts

CRI: Minimum 70 CRI

CCT: 4000K (+/- 300K), 5700K (+/- 500K) standard

Limited Warranty*: 10 years on luminaire/10 years on ColorKast DetailQuard® finish

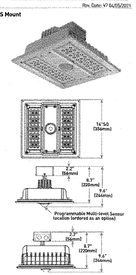
* See http://creelighting.com/warranty for warranty terms

Accessories

Field-Installed

Hand-Held Remote
RA-SENSREM
- For successful implementation of the programmable multi-level option, a minimum of one hand-held remote is required

RS Mount



Weight
22.0 lbs. (9.9kg)

Ordering Information

Example: CAN-304-RM-RS-06-E-UL-DV-700

CAN-304				E			
Product	Optic	Mounting	LED Count (x10)	Series	Voltage	Color Options	Drive Current	Options
CAN-304	DM Direct Medium FO Flood SL Short Large PS Petroleum Symmetric PA Petroleum Sparkle	RS Recessed Single Skin RD Recessed Double Skin	04 04 06 06	E	UL Universal 120-277V UM Universal 347-480V	BK Black BR Bronze BZ Bronze SV Silver WH White	700 700mA 525 525mA 570 570mA 750 750mA	QSM N-TIER Dimming - Compatible with Nexus - Refer to Dimming spec sheet for details - Can't exceed specified drive current F Fuse - Compatible only with 120V, 277V or 347V (phase to neutral) - Consult factory if housing is required for 208V, 240V or 480V (phase to phase) - Refer to PML spec sheet for availability with PML options - Wire in-line diameter holding, one blow delay fuse PML Programmable Multi-Level - Refer to PML spec sheet for details 40K 4000K Color Temperature - Default if not specified - Color temperature per luminaire TRL Amber Turtle Friendly LEDs - Available only with 350mA - Lumen multiplier: Nichia 576(M); 0.32 (350mA) - Amber Nichia 576 LEDs - 400nm dominant wavelength - Additional shielding (by others) may be required for Florida Fish and Wildlife Conservation Commission compliance

* All LED luminaires require a manual opening 48" x 24" x 6" (1,219mm x 610mm x 152mm); 48" (1,219mm); center-to-center of adjacent luminaires, 24" (610mm) luminaire center to sub building minimum. 4" (102mm) of top of luminaire to overhead building member

UL LISTED · DLC · CREE LIGHTING

US: creelighting.com (800) 236-6800
Canada: creelighting-canada.com (800) 473-1234

OSQ Series

DSQ™ LED Area/Flood Luminaire featuring Cree TrueWhite® Technology – Medium & Large

Rev. Date: V4 04/14/2021

Product Description

The OSQ™ Area/Flood luminaire blends extreme optical control, advanced thermal management and modern, clean aesthetics. Built to last, the housing is rugged cast aluminum with an integral, corrosion-free finish. Mounting options are versatile supporting configurations other single luminaire offerings. The slim, low profile design minimizes wind resistance and improves aesthetics when used in multi-site providing even, quality illumination. The 4L lumen package is a suitable upgrade for HID applications up to 250 Watt, and the 11L lumen package is a suitable upgrade for HID applications up to 400 Watt. The 22L lumen package is a suitable upgrade for HID applications up to 750 Watts, and the 30L lumen package is a suitable upgrade for HID applications up to 1000 Watts.
Applications: Parking lots, walkways, campuses, car dealerships, office complexes, tunnels, underpasses, and internal roadways

Performance Summary

Utilizes Cree TrueWhite® Technology on 5000K Luminaires

NanoOptic® Precision Delivery Grid™ optic

Assembled in the U.S.A. of U.S. and imported parts

Initial Delivered Lumens: 4,000 - 30,000

Efficacy: Up to 173 LPW

CRI: Minimum 70 CRI (3000K, 4000K & 5700K), 90 CRI (5000K)

CCT: 3000K, 4000K, 5000K, 5700K

Limited Warranty*: 10 years on luminaire; 10 years on ColorKast DetailGuard® finish, up to 5 years for Synapse® accessories; 1 year on luminaire accessories

* See http://creelighting.com/warranty for warranty terms. For Synapse accessories, consult Synapse spec sheets for details on warranty terms.

Ordering Information

Fully assembled luminaire is composed of two components that must be ordered separately:
Example: **Mount:** OSQ-ML-B-DA-XX + **Luminaire:** OSQM-B-4L-30K7-2M-UL-NM-BK

Mount (Luminaire must be ordered separately)*	
OSQ-	
OSQ-ML-B-AA Adjustable Arm **OSQ-ML-B-DA** Direct Arm **OSQ-ML-B-TSP** Transportation Mount (stainless steel, do not specify color) **OSQ-ML-B-NO** No Mounting	**Color Options:** **BK** Black, **BZ** Bronze, **SV** Silver, **BR** Brown, **WH** White

* Reference OPM and pole configuration suitability data (available on page 10)

Luminaire (Mount must be ordered separately)																	
OSQ																	
Family	Size	Series	Lumen Package	Kelvin	Optic	Voltage	Mount	Color Options	Controls**	Optional	
OSQ	M Medium L Large	B	Medium 4L 4,000 Lumens 6L 6,000 Lumens 9L 9,000 Lumens 11L 11,000 Lumens 15L 15,000 Lumens 22L 22,000 Lumens 30L 30,000 Lumens	Medium 30K 3000K 40K 4000K 50K 5000K 57K 5700K Type V Medium Throw Type V Medium Throw Forward Symmetric SM Type V Symmetric SMF Type V Symmetric Forward FO Forward Throw 4M Forward Throw Medium 4F Forward Throw Forward 5W Type V Wide 5WF Type V Wide Forward 6W Type V Extra Wide 6WF Type V Extra Wide Forward	UL Universal 120-277V UM Universal 347-480V Not available with 4L or 6L lumen package	NM No Mount Mounting is specify mount from table above - Mount ships separately **OSQ/Wall/M** AT 1000lb Arm w/AT 1x25 AWG Cord Grip (Lit) - Includes N option **OSQ/Pole/M** AT 1000lb Arm w/AT 1x25 AWG Cord Grip (Lit) - Includes N option SQ Square Pole Mount - Standard 7" Round bolt spacing - Requires pole adapterplate - Fixed mounted - Includes N option **OSQ/Pole/M/Adjustable Arm** AA Adjustable Arm - Mounts to square pole - Fixed mounted - Includes N option **OSQ/Wall/M/Adjustable Arm** AA Adjustable Arm - Mounts to wall - Fixed mounted - Includes N option **OSQ/Pole/M/Adjustable Arm/Square Pole Mount** AASQ Adjustable Arm w/ Square Pole Mount - Mount select AA, AT, AS, VS, SA, VSA, or SQ - Fixed mounted - Includes N option **OSQ/Pole/M/Adjustable Arm/Square Pole Mount/Wall** AASQW Adjustable Arm w/ Square Pole Mount/Wall - Mount select AA, AT, AS, VS, SA, VSA, or SQ - Fixed mounted - Includes N option **OSQ/Pole/M/Adjustable Arm/Square Pole Mount/Wall/Tilt** AASQWT Adjustable Arm w/ Square Pole Mount/Wall/Tilt - Mount select AA, AT, AS, VS, SA, VSA, or SQ - Fixed mounted - Includes N option **OSQ/Pole/M/Adjustable Arm/Tilt** AAT Adjustable Arm w/ Tilt - Mount select AA, AT, AS, VS, SA, VSA, or SQ - Fixed mounted - Includes N option **OSQ/Pole/M/Adjustable Arm/Tilt/Wall** AATW Adjustable Arm w/ Tilt/Wall - Mount select AA, AT, AS, VS, SA, VSA, or SQ - Fixed mounted - Includes N option **OSQ/Pole/M/Tilt** TM Tilt Mount - Fixed mounted - Includes N option **OSQ/Pole/M/Tilt/Wall** TMW Tilt/Wall Mount - Fixed mounted - Includes N option **OSQ/Pole/M/Wall** WM Wall Mount - Fixed mounted - Includes N option **OSQ/Pole/M/Wall/Tilt** WMT Wall/Tilt - Fixed mounted - Includes N option	BK Black BR Bronze SV Silver WH White	PML Programmable Multi-Level, up to 30' Mounting Height - Refer to PML spec sheet for details - Intended for downlight applications at 0° tilt PMLF Programmable Multi-Level, 10-20' Mounting Height - Refer to PML spec sheet for details - Intended for downlight applications at 0° tilt **U/V/W/X/Y/Z/5A/5B/5D/5E/5F/5H** Field Adjustable Output - Must select U5, U6, U7, U8, V5, V6, V7, V8, Z5, Z6 - Offers full range adjustability - Refer to pages 10-18 for power and lumen values - Not available with PML or PMLF options **U5/U7/V5/V7/Z5/5A/5D/5F/5H** Locked Lumen Output - Must select with U6, U8, V6, V8, Z6, Z8 - Fixed output - Not available with PML or PMLF options **U6/U8/V6/V8/Z6/Z8** Locked Lumen Output - Must select with U5, U7, V5, V7, Z5, Z7 - Fixed output - Not available with PML or PMLF options - Lumen output is permanently locked to the setting selected - Refer to pages 10-18 for power and lumen values	F Fuse - Compatible with 120V, 277V or 347V (phase to neutral) - Consult factory if housing is required for 208V, 240V or 480V (phase to phase) - Refer to PML spec sheet for availability with PML options - Wire in-line diameter holding, one blow delay fuse **DGLU Label and NEMA® 7-Pin Photocell Receptacle** - Included with UA, UB, UC and UD mounts - External wattage label per ANSI/CSA C5 - Not available with Synapse - Intended for downlight applications with maximum 40° tilt - Factory connected 5-15W disc leads - 5-conductor (NM mount), 3-conductor (WALL/Pole mounted), or 9-conductor (SQ/LED mounted) cord sets: luminaire - Requires photocell or shorting cap by others **NEMA® 7-Pin Photocell Receptacle** - 7-pin receptacle per ANSI C136.41 - Intended for downlight applications with maximum 40° tilt - Factory connected 5-15W disc leads - 12" (305mm) seven conductor cord sets: luminaire - Requires photocell or shorting cap by others **ML Solder Lug** - LED and optic are rotated to the left - Refer to DSML configuration diagram on page 19 for optic downloads - Not for use with symmetric optics **MR Mirror Right** - LED and optic are rotated to the right - Refer to DSMR configuration diagram on page 19 for optic downloads - Not for use with symmetric optics

* Available with Backlight Shield indicates colored matte black detailed accessory bow tables allowed
** Luminaire comes standard with 5-15W dimming

UL LISTED · DLC · CREE TRUEWHITE TECHNOLOGY · CREE LIGHTING

US: creelighting.com (800) 236-6800
Canada: creelighting-canada.com (800) 473-1234

LED Dimming Option

For use with Cree Edge™ Series, LEDway® Series, 228 Series™, 304 Series™, OL Series™, XSP Series, XSP-HO Series, CPY Series, OSQ Series, OSQ-HO Series, RSW™ Series and VG Series Luminaires

Description:
Blue 0-10V dimming option provides access to multiple drive currents and provides the flexibility to utilize combinations of these currents to optimize lumen output and energy savings needs. As the product is dimmed all LEDs are operated at the same current for longevity and lumen maintenance.

Unlike traditional source technologies, LED performance improves when dimmed in terms of efficacy, longevity and lumen maintenance. This powerful combination allows for the selection luminaires capable of delivering high levels of sustainable illumination performance when desired, but with the ability to be dimmed to deliver lower levels of illumination when appropriate with even greater energy savings.

If dimming leads remain open factory shipped, luminaire will run at full power.

The 0-10V dimming control interface is compliant with the IEC EN 60929 Annex E which establishes controls for fluorescent products.

Dimming Availability

LEDway® Luminaires – Requires DIM Option		
Drive Current	Voltage	All Mounts
350mA	120-277	26-120 LED
	347-480	26-120 LED
525mA	120-277	26-120 LED
	347-480	26-120 LED
700mA	120-277	26-120 LED
	347-480	26-120 LED

228 Series™ Luminaires – Requires DIM Option					
Drive Current	Voltage	Canopy		Soffit IC Rated	Soffit Non-IC Rated
		Mount	RT Mount	All Mounts	All Mounts
350mA	120-277	98 LED	N/A	N/A	30-60 LED
	347-480	98 LED	N/A	N/A	30-60 LED
525mA	120-277	36-98 LED	30-60 LED	N/A	30-60 LED
	347-480	36-98 LED	30-60 LED	N/A	30-60 LED
700mA	120-277	36-98 LED	30-60 LED	N/A	N/A
	347-480	36-98 LED	30-60 LED	N/A	N/A
900mA	120-277	60 LED	N/A	N/A	N/A
	347-480	60 LED	N/A	N/A	N/A
1000mA	120-277	30 LED	N/A	N/A	N/A
	347-480	30 LED	N/A	N/A	N/A

304 Series™ Luminaires – Requires DIM Option										
Drive Current	Voltage	Parking Structure	Recessed Canopy		Floodlight		Recessed Interior		Recessed Soffit	
		Tenon Mount	All Mounts	Slipfitter & Double Slide Mounts	Upgrade Mounts	Non-IC Mounts	IC Rated Mounts	Non-IC Mounts	IC Rated Mounts
350mA	120-277	40-60 LED	40-60 LED	40-60 LED	40-60 LED	40-60 LED	40-60 LED	40-60 LED	40-60 LED
	347-480	40-60 LED	40-60 LED	40-60 LED	40-60 LED	40-60 LED	40-60 LED	40-60 LED	40-60 LED
525mA	120-277	40-60 LED	40-60 LED	40-60 LED	40-60 LED	40-60 LED	N/A	40-60 LED	N/A
	347-480	40-60 LED	40-60 LED	40-60 LED	40-60 LED	40-60 LED	N/A	40-60 LED	N/A
700mA	120-277	40-60 LED	40-60 LED	40-60 LED	40-60 LED*	N/A	N/A	N/A	N/A
	347-480	40-60 LED	40-60 LED	40-60 LED	40-60 LED*	N/A	N/A	N/A	N/A

* Marked spacing required

Rev. Date: V5 10/13/2017

US: lighting.cree.com T (800) 236-6800 F (262) 504-5435
Canada: www.cree.com/canada T (800) 473-1234 F (800) 890-7507

OSQ™ LED Area/Flood Luminaire featuring Cree TrueWhite® Technology – Medium & Large

Product Specifications

CREE TRUEWHITE® TECHNOLOGY
A revolutionary way to generate high-quality white light, Cree TrueWhite® Technology is optimized specifically for LED lighting applications. Combines the best of LED light quality, characteristics and lifetime color consistency, all while maintaining high lumenes efficacy – a true no compromise solution.

CONSTRUCTION & MATERIALS
- Slim, low profile design minimizes wind load requirements.
- Luminaire housing is rugged die cast aluminum with an integral, weathertight LED driver compartment and high-performance heat sink.
- Mounting adapter is cast aluminum and steel and mounts to 2" (51mm) pipe. Mounting adapter is rugged die cast aluminum and mounts to 2" (51mm) or larger square or round pole, secured by two 5/16-18 UNC bolts spaced on 2" (51mm) centers. Mounting adapter is fixed or adjustable.
- Mounting for the adjustable arm mount adapter is rugged die cast aluminum and mounts to 2" (51mm) IPS 3.25"x 3.25"x 0.25" (82mm x 82mm x 6mm) square, cut and UB mounts are power to QS
- Adjustable arm mount can be adjusted 180° in 2.5° increments. UA and UB mounts be adjusted 90° in 2.5° increments. Arm is constructed of aluminum.
- Transportation mount is constructed of stainless steel and mounts to surface with (4) 3/8" fasteners by others
- The square pole mounting adapter of AASQ and AASQW1 could tilt in adjustable from 0-180° in 22.5° increments. (4) bolted to adjustable from 0-45° in 15° degree increments and is factory power to 45°. Premium mount secures to surface with (3) 3/4" bolt on 3) 120° or 180° bolts
- Luminaires ordered with NM mount include 18" (508mm) 18/5 or 14/5 cord exiting the luminaire housing. Luminaires ordered with WALL mount include 18" (508mm) 18/5 or 14/5 cord exiting the 14A and UB mounts include 8' (2.44m) 14/5 AWG SJOOW black cord exiting the side of the luminaire arm through strain relief fitting. LED or the end of the mounting arm. DBL luminaires with WALL mounts include 8' (2.44m) 14/5 AWG cord exiting the luminaire. SQ mount includes 8' (2.44m) 14/5 cord exiting the luminaire
- Utility mounts SUA, UB, UC, UD include Utility Label per ANSI C136.15 and 7-pin NEMA® photocell receptacle per ANSI C136.41
- Designed for uplight and downlight applications
- Exclusive ColorKast DetailGuard® finish features an E-Coat epoxy primer with an ultra-durable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Gloss, texture, black, and white are available

Weight		
Mount	Housing	
	Medium	Large
OSQ-ML-B-NM	20.6 lbs. (12.7kg)	32.0 lbs. (14.5kg)
OSQ-ML-B-DA	20.9 lbs. (13.1kg)	37.6 lbs. (14.7kg)
OSQ-ML-B-TSP	42.0 lbs. (19.1kg)	44.9 lbs. (20.3kg)
OSQ-ML-B-TM	22.6 lbs. (10.2kg)	36.1 lbs. (16.4kg)
UA	29.5 lbs. (13.4kg)	33.1 lbs. (15.0kg)
UB	29.8 lbs. (13.5kg)	33.1 lbs. (15.0kg)
UC	29.9 lbs. (13.1kg)	33.4 lbs. (16.7kg)
UD	30.6 lbs. (13.9kg)	34.1 lbs. (15.4kg)

ELECTRICAL SYSTEM
- **Input Voltage:** 120-277V or 347-480V, 50/60Hz; Cross 1 drivers
- **Power Factor:** > 0.9 at full load
- **Total Harmonic Distortion:** < 20% at full load
- Integral 10kV surge suppression protection standard
- When solid dielectric boiling, a slow blow fuse or type C/D breaker should be used to avoid nuisance tripping
- Designed with 0-10V dimming capabilities. Controls by others
- Refer to Dimming spec sheet for details
- **Maximum 120V Inrush Current:** 1.0mA
- **Operating Temperature Range:** -40°C - +40°C (-40°F - +104°F)

REGULATORY & VOLUNTARY QUALIFICATIONS
- cULus Listed (UL 1598)
- Suitable for wet locations
- Meets NEMA OS2-77 standards
- Drivers and LEDs are UL Recognized in accordance with UL8750.
- Enclosure rated IP66 per IEC 60529 when ordered without M or P options
- Consult factory for CE Certified products
- Certified to ANSI C136.31-2010, 3G bridge and overpass vibration standards
- ANSI C136.2 1kV surge protection, tested in accordance with IEEE/IEMI C62.41.2
- Meets FCC Part 15, Subpart B, Class A limits for conducted and radiated emissions
- Luminaire and finish construction tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117
- Meets Buy American requirements within ARRA
- RoHS compliant. Consult factory for additional details
- Optics are UV stable polycarbonate material. Housing is UV stable GTE and glass or transparent acrylic only. Please refer to http://www.creelighting.com/our-work/specialty/ultra-violet-stabilized-products for most current information.

CA RESIDENTS WARNING: Cancer and Reproductive Harm – www.p65warnings.ca.gov

Product Specifications

SYNAPSE® SIMPLYSNAP INTELLIGENT CONTROL
The Synapse SimplySNAP platform is a highly intuitive connected lighting solution featuring zone dimming, motion sensing, and daylight harvesting with utility-grade power monitoring and support of DALI ballasts and drivers. Luminaires are shipped with a factory installed wireless node, which pairs with a browser-based interface that runs on smartphones, tablets and PCs. The Twist-Lock Lighting Controller (TLT-302) and Site Controller (DSID-302) take the OSQ Series to a new performance plateau, providing extreme energy productivity, code compliance and a better light experience.

Electrical Data*									
Input Power Designator	Optic	System Watts 120-480V	Utility Watts Mainlogic	Total Current (A)					
				120V	208V	240V	277V	347V	480V
4L**	All	29	30	0.25	0.14	0.12	0.11	N/A	N/A
4L**	Asymmetric	49	50	0.41	0.23	0.20	0.17	N/A	N/A
	Symmetric	51	52	0.43	0.24	0.21	0.18	N/A	N/A
7L	All	49	49	0.41	0.24	0.21	0.18	0.14	0.10
11L	All	72	75	0.62	0.36	0.31	0.27	0.21	0.14
14L	All	104	108	0.89	0.51	0.43	0.39	0.31	0.22
22L	All	132	136	1.12	0.62	0.55	0.47	0.37	0.28
30L	All	192	200	1.73	0.94	0.84	0.72	0.60	0.43

* Electrical data at 25°C (77°F). Allow voltage loss-drop by: a) 10% when operating between 125-139% or 207-264V; b) 15% when operating at 90% voltage

OSQ Series Ambient Adjusted Lumen Maintenance*						
Ambient	Optic	Initial LMF	25K for Reported† LMF	50K for Reported† LMF	100K for Reported† Estimated† LMF	150K for Reported† Estimated† LMF
5°C (41°F)	Asymmetric	1.04	1.03	1.01	0.97*	0.91*
	Symmetric	1.05	1.05	1.05	1.03*	1.01*
10°C (50°F)	Asymmetric	1.03	1.02	1.00	0.96*	0.94*
	Symmetric	1.04	1.03	1.03	1.02*	1.01*
15°C (59°F)	Asymmetric	1.02	1.01	0.99	0.95*	0.95*
	Symmetric	1.02	1.02	1.02	1.02*	1.02*
20°C (68°F)	Asymmetric	1.01	1.00	0.98	0.94*	0.94*
	Symmetric	1.01	1.01	1.01	1.01*	1.01*
25°C (77°F)	Asymmetric	1.00	0.99	0.97	0.93*	0.93*
	Symmetric	1.00	1.00	1.00	1.00*	1.00*

* Lumen maintenance values at 25°C (77°F) are calculated per IES TM-21based on IES LM-80 report data for the LED package used in this luminaire lighting. Luminaire ambient temperature factors (LMF) have been applied to all lumen maintenance values. † Reported = Data Reported by Luminaire; Estimated = Data Estimated by Luminaire; *or extrapolated beyond reported data

Calculations comply with IES TM-21. Reported values are based on data supplied by the LED manufacturer and are in accordance with IES LM-80 requirements.
Estimated values are calculated and represent time durations that exceed the actual duration of the LED.

Accessories

Field-Installed

Backlight Shield (Front Facing Option)
OSQ-BLSF (Medium)
OSQ-BLSLF (Large)
Backlight Shield (Rotated Optics)
OSQ-BLSR (Medium)
OSQ-BLSLR (Large)
Bird Spikes
OSQ-BS (Medium)
OSQ-LS (Large)

Hand-Held Remote
RA-SENSREM
- For successful implementation of the programmable multi-level option, a minimum of one hand-held remote is required

Shorting Cap
SA-SQL1WHT

Synapse Wireless Control Accessories

Twist-Lock Lighting Controller
TLT-302-DIM
- Suitable for 120-277V (UL) voltage only
- Requires NEMA/ANSI C136.41 7-Pin Receptacle (by others)
- Not for use with PML or PML2 options
- Provides On/Off switching, dimming, power metering, daylight sensor input, and status monitoring of luminaire
- Refer to TLT-302 spec sheet for details

Synapse Lighting Controller
SLC-302-DIM
- Suitable for 120-480V (UL) and UNV voltage
- Requires NEMA/ANSI C136.41 7-Pin Dimming Receptacle
- Not for use with PML or PML2 options
- Provides On/Off switching, dimming, power metering, digital sensor input, and status monitoring of luminaire
- Refer to SLC-302 spec sheet for details

SimplySNAP Central Site Station
DSID-302-DIM
- Includes Site Site Controller DSID-302 and 3-Bulkhead outlet
- Indoor and Outdoor rated
- Refer to DSID-302 spec sheet for details

Synapse Wireless Sensor
DSWS-302-DIM
- Motion and light sensor
- Control multiple zones
- Refer to DSWS-302 spec sheet for details

SimplySNAP Site Site Controller
SSID-302
- Indoor rated, IT3-compliant
- Designed for indoor aspirations
- Refer to SSID-302 spec sheet for details

Outdoor Antenna Management System (OMS) Gateway
OMS-GW-DIM
- Required for BACnet integration
- Refer to OMS-302 spec sheet for details

Outdoor Antennas
Extended Range/Increased range, 868 band
ANT-ANTLONG
- All includes antenna, 20' cable and bracket
ANT-ANTLONG
- Kit includes antenna, 20' cable and bracket
ANT-ANTLONG
- Kit includes antenna, 50' cable and bracket
- Refer to Outdoor antenna spec sheet for details

UL LISTED · CREE TRUEWHITE TECHNOLOGY · CREE LIGHTING

US: creelighting.com (800) 236-6800
Canada: creelighting-canada.com (800) 473-1234

REDLEONARD ASSOCIATES
1340 Kemper Meadow Dr, Forest Park, OH 45240
513-574-9500 | redleonard.com

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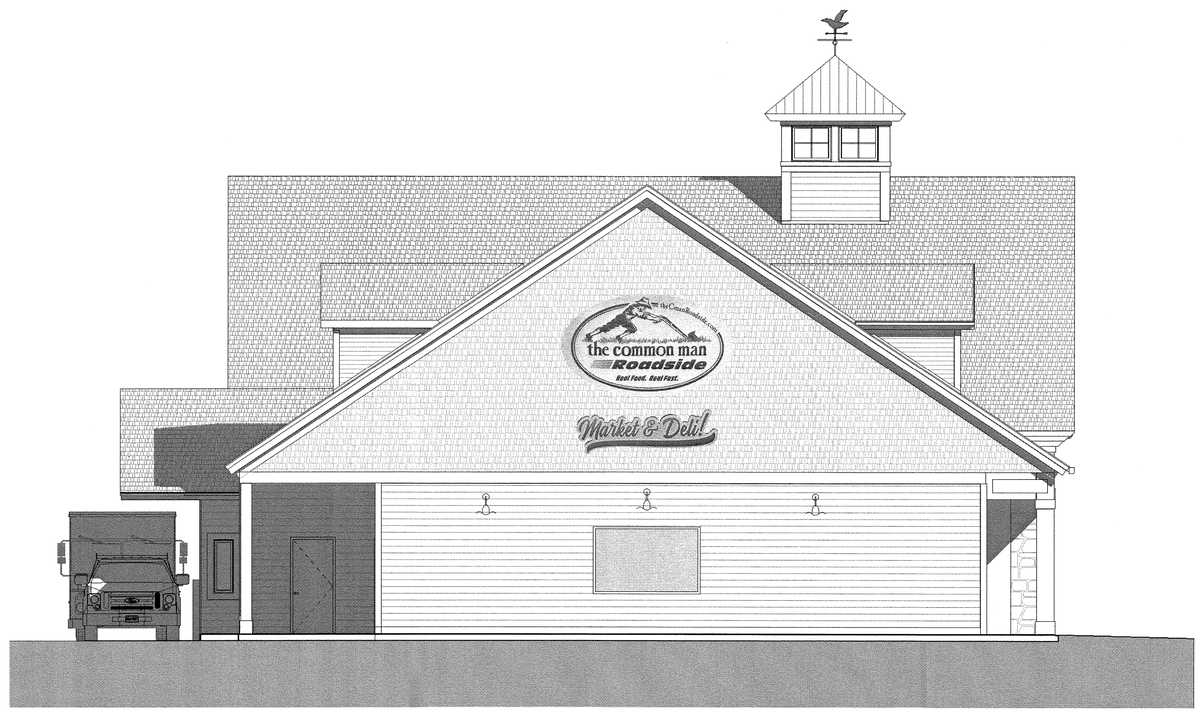
PROJECT NAME:
IRVING OIL
GRANITE STATE C-STORE

DRAWING NUMBER:
RL-7405-S1-R2

IRVING

1 NORTH ELEVATION - COLOR RENDERING
Scale: 3/16" = 1'-0"



2 EAST ELEVATION
Scale: 3/16" = 1'-0"

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SCHEMATIC DESIGN
4/27/2021

KEY PLAN & NORTH ARROW:

DRAWN BY: MR
CHECKED BY: WD

PROJECT:
EPSOM ROADSIDE

EPSOM, NEW HAMPSHIRE

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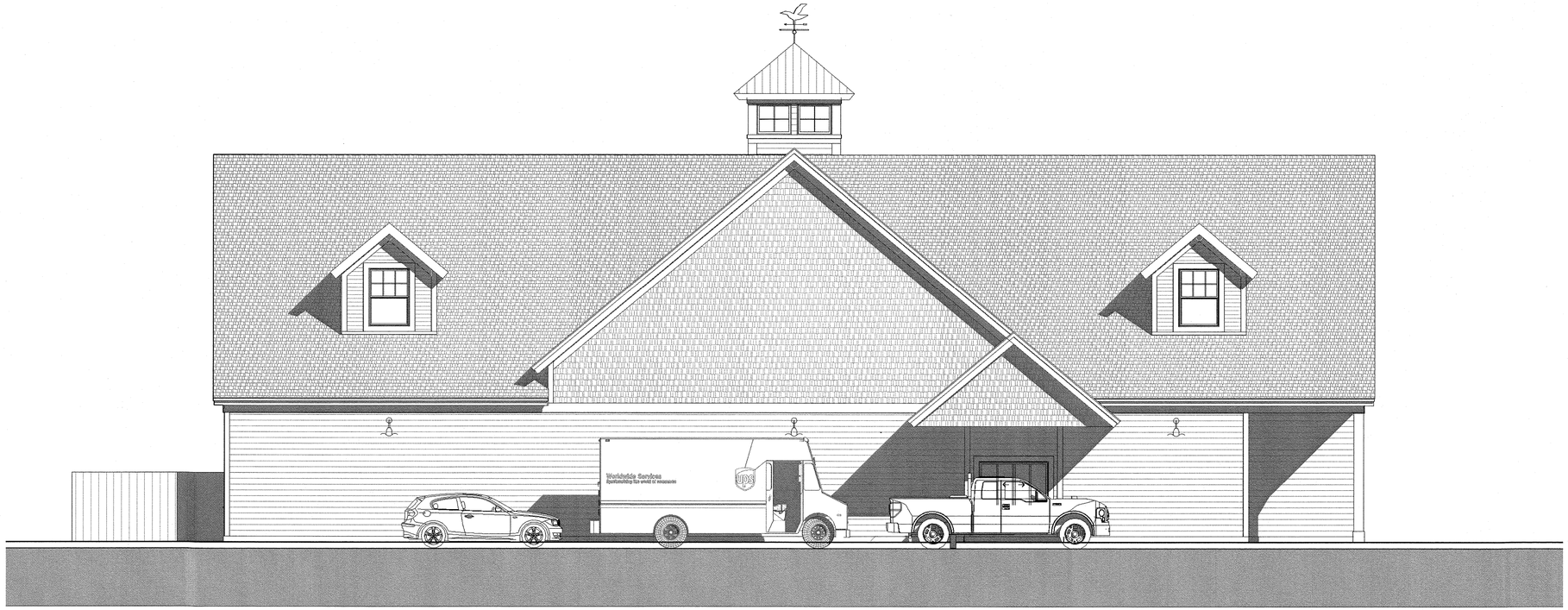
DRAWING TITLE:
EXTERIOR ELEVATIONS

ISSUED:
Schematic Design

PROJECT NO: 2102 DATE: APR. 27, 2021

REVISION	DATE	COMMENTS

SHEET NUMBER:
A201



1 SOUTH ELEVATION
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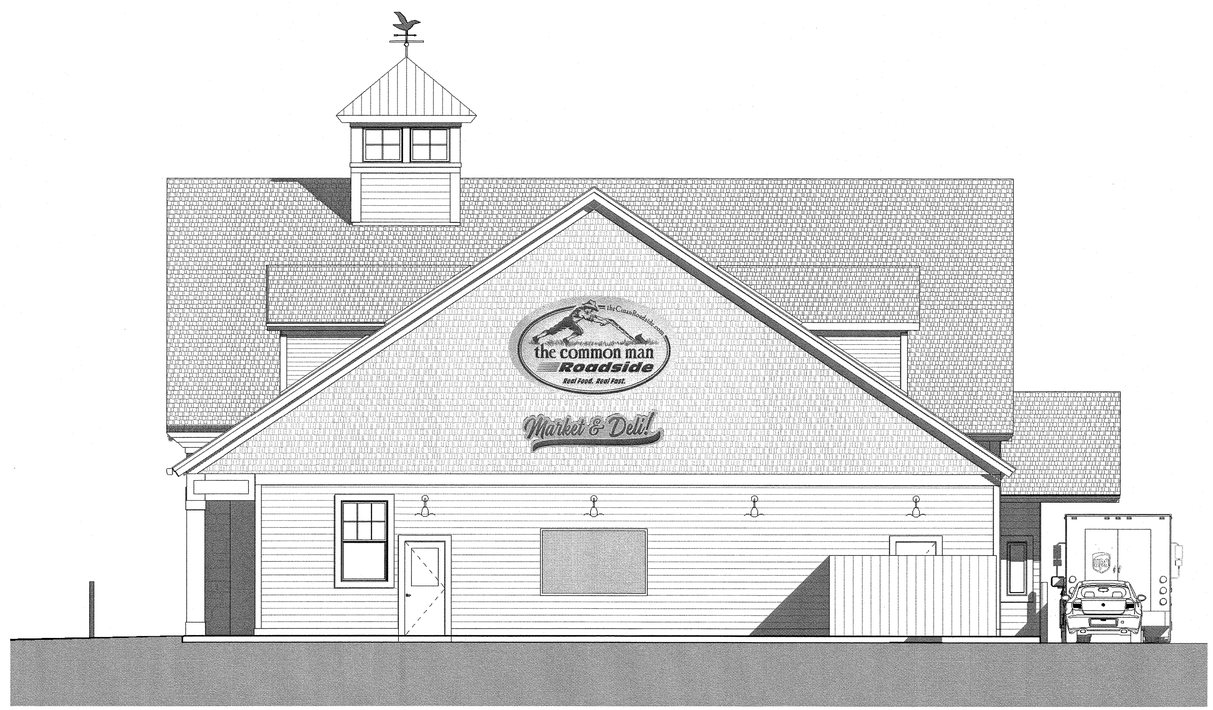

2 WEST ELEVATION
Scale: 3/16" = 1'-0"

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SCHEMATIC DESIGN
4/27/2021

KEY PLAN & NORTH ARROW:

DRAWN BY: MR

CHECKED BY: WD

PROJECT:
EPSOM ROADSIDE

EPSOM, NEW HAMPSHIRE

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DRAWING TITLE:
EXTERIOR ELEVATIONS

ISSUED:
Schematic Design

PROJECT NO: 2102 DATE: APR. 27, 2021

REVISION	DATE	COMMENTS

SHEET NUMBER:
A202

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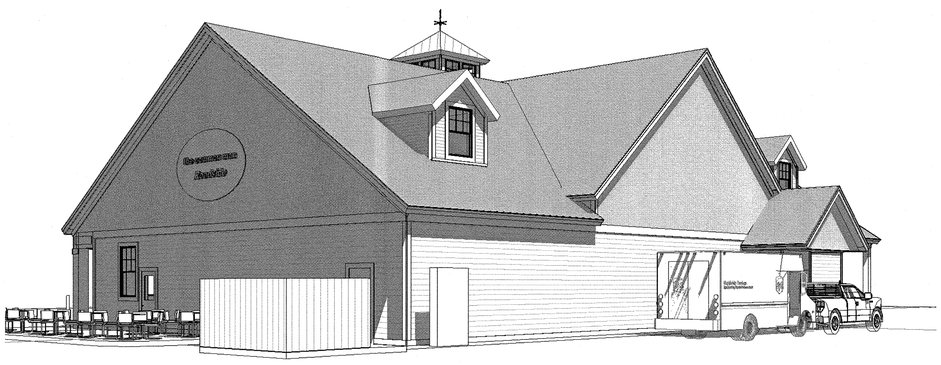
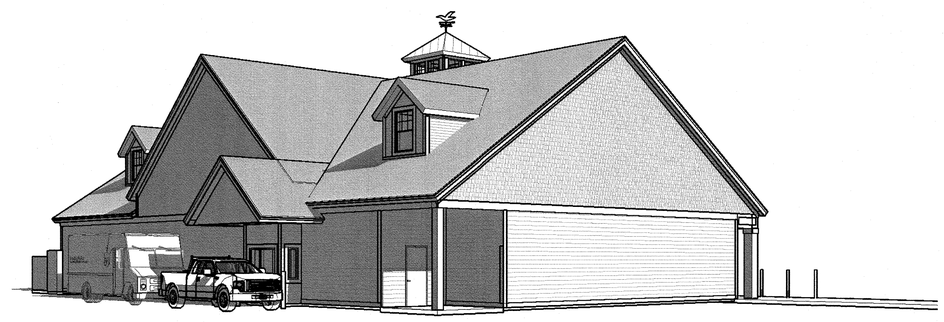
PERSPECTIVE VIEW FROM NORTHEAST

PERSPECTIVE VIEW FROM NORTHWEST



PERSPECTIVE VIEW FROM SOUTHWEST



PERSPECTIVE VIEW FROM SOUTHEAST

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SCHEMATIC DESIGN
4/27/2021

KEY PLAN & NORTH ARROW:

DRAWN BY: MR
CHECKED BY: WD

PROJECT:
EPSOM ROADSIDE

EPSOM, NEW HAMPSHIRE

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DRAWING TITLE:
PERSPECTIVE VIEWS

ISSUED:
Schematic Design

PROJECT NO: 2102
DATE: APR. 27, 2021

REVISION	DATE	COMMENTS

SHEET NUMBER:
A801

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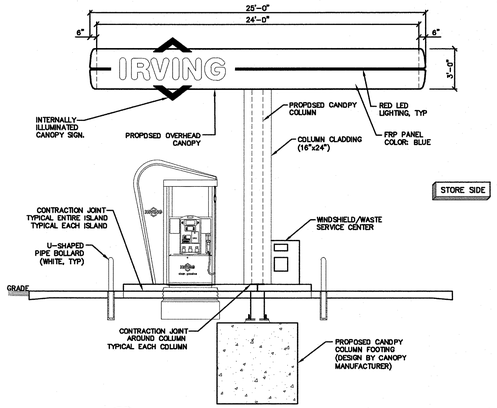
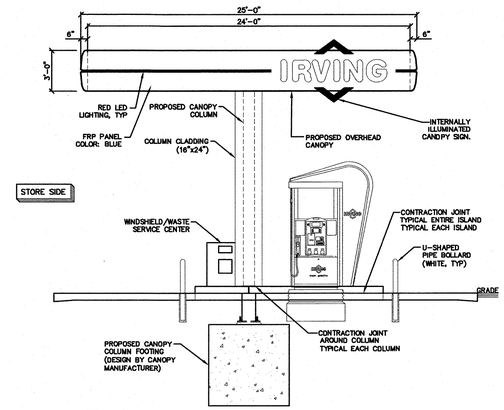


A AUTO FUELING - CANOPY WEST ELEVATION
3/16" = 1'-0"



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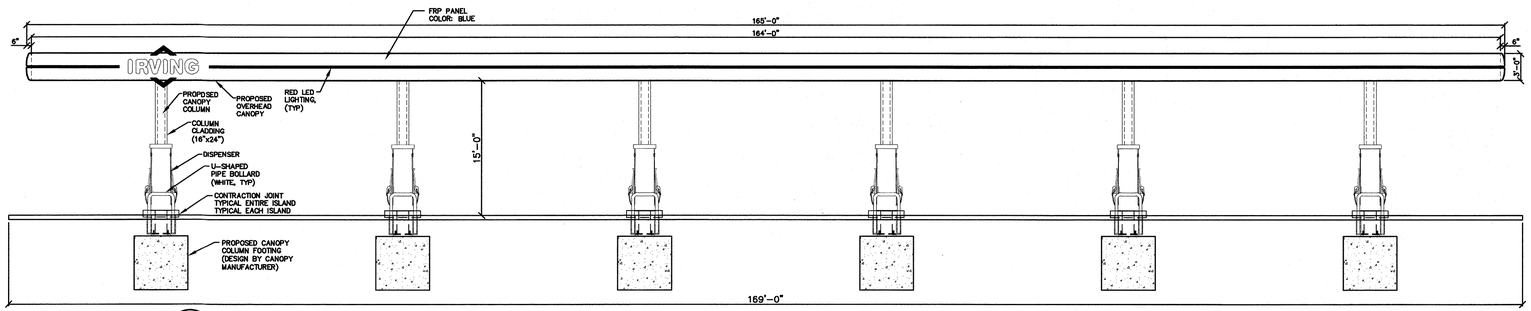
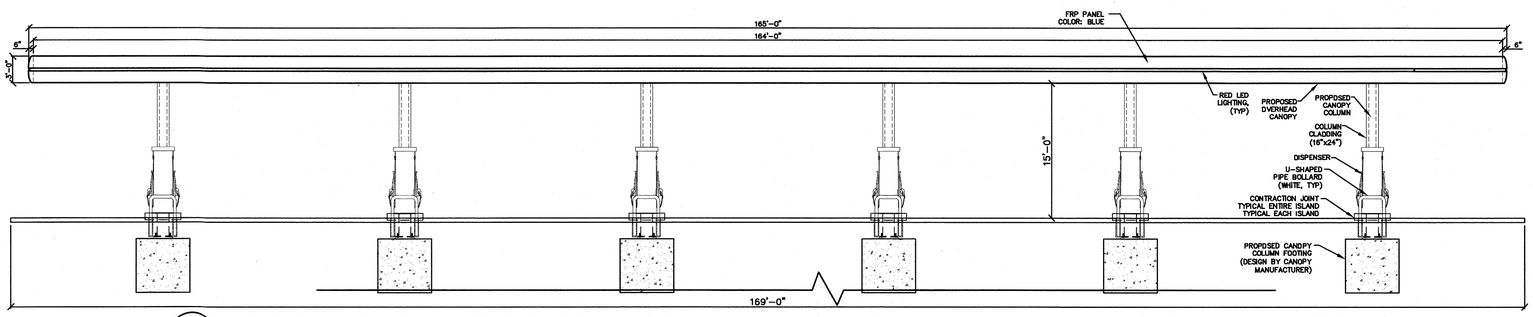
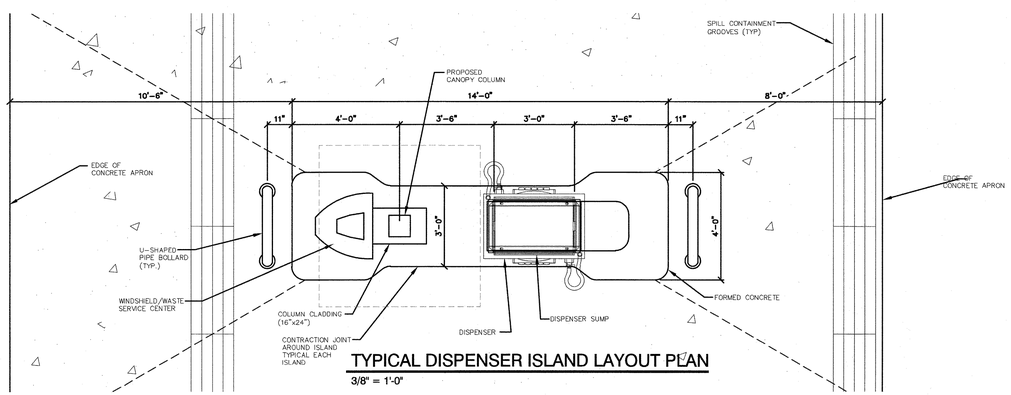
3/16" = 1'-0"



1 AUTO FUELING CANOPY - NORTH ELEVATION
1/8" = 1'-0"



2 AUTO FUELING - CANOPY SOUTH ELEVATION
1/8" = 1'-0"



TYPICAL DISPENSER ISLAND LAYOUT PLAN
3/8" = 1'-0"

GPI Engineering Design Planning Construction Management
603.893.0720 GPINET.COM
Greenman-Pedersen, Inc.
44 Stiles Road, Suite One
Salem, NH 03079

PREPARED FOR
GRANITE STATE CONVENIENCE, LLC
25 SPRINGER ROAD
HOOKSETT, NH 03106

PROPOSED RETAIL MOTOR FUEL OUTLET
ASSESSORS MAP U5 LOT 13
910 SUNCOOK VALLEY HWY
EPSOM, NEW HAMPSHIRE

STATE OF NEW HAMPSHIRE
DAVID R. JORDAN
No. 7778
LICENSED
PROFESSIONAL ENGINEER

REVISIONS

NO.	REVISION	DATE

JUNE 18, 2021

DRAWN/DESIGN BY	CHECKED BY
JD/NID	FCM

PROPOSED CANOPY ELEVATIONS

SCALE: AS SHOWN

PROJECT NO. NEX-2020033

1 OF 1

F:\Projects\NEX-2020033 - Epsom, NH - GSC\CAD Files\20033_CANOPY.dwg ELEVATIONS 6/18/21 11:20am ccall