

MONUNMENT FOUND **EXISTING TREELINE** EXISTING GRADE CONTOUR LINES (5 FOOT INTERVALS) EXISTING GRADE CONTOUR LINES (1 FOOT INTERVALS)

IRON PIPE / CONCRETE

APPROXIMATE PROPERTY LINES **EXISTING WOODEN FENCE**

LINE/MANHOLE **EXISTING SEWER** FORCEMAIN EXISTING STORM LINE/MANHOLE/BASIN **EXISTING OVERHEAD ELECTRIC LINE/POWER POLE**

EXISTING UNDERGROUND POWER EXISTING UNDERGROUND

GAS SYSTEMS EXISTING UNDERGROUND COMMUNICATIONS

NOTES:

- 1. ASPECTS OF PLAN ARE APPROXIMATE AND DERIVED FROM AERIAL PHOTOGRAPHY.
- 2. THE HORIZONTAL COORDINATE SYSTEM IS BASED ON NAD83 VERMONT STATE PLANE 4400 (US SURVEY FEET). ELEVATIONS ARE BASED ON THE NAVD88 (US SURVEY FEET).

CANADA

- 3. EXISTING GROUND CONTOUR ELEVATIONS ARE BASED 2014 STATE OF VERMONT LIDAR AND FIELD SURVEY BY KREBS AND LANSING IN THE FALL OF 2022. KREBS AND LANSING SURVEYED ONLY AREA AROUND THE PROPOSED
- 4. UTILITIES ARE NOT WARRANTED TO BE COMPLETE OR ACCURATE, CONTRACTOR SHALL CONTACT DIG SAFE BEFORE BEGINNING ANY EXCAVATION.
- 5. THIS PLAN IS NOT A BOUNDARY SURVEY. THE PROPERTY LINES SHOWN ARE BASED ON TAX MAPPING AND ARE CONSIDERED APPROXIMATE. PROPERTY LINES HAVE BEEN ADJUSTED BASE ON MONUMENTATION FOUND IN THE FIELD AND EVIDENCE IN AERIAL PHOTOGRAPHY. PROJECT PARCEL IS ALSO SHOWN BASED ON AN EXISTING BOUNDARY SURVEY TITLED "BOUNDARY PLAT OF PEARL STREET VENTURES, LLC" DATED NOVEMBER 7, 2022 BY O'LEARY BURKE CIVIL ASSOCIATES, PLC.

CALCULATIONS:

NOTE: ALL EXISTING DEVELOPMENT IS WITHIN THE CITY OF ESSEX JUNCTION. THESE VALUES ARE SHOWN BASED ONLY ON THE AREA WITHIN THE CITY OF ESSEX JUNCTION. LAND IN ESSEX TOWN IS NOT INCLUDED IN THESE CALCULATIONS.

EXISTING CONDITIONS:

- PROPERTY AREA IN THE CITY OF ESSEX JCT. = ±41,800 S.F. (0.96 ACRES)
- BUILDING COVERAGE: ±3,950 S.F. (0.09 ACRES) (9.5%) • OVERALL IMPERVIOUS: ±11,100 S.F. (0.26 ACRES) (26.6%)

WATER AND WASTEWATER DESIGN FLOW

EXISTING WASTEWATER DESIGN FLOW:

SEVEN (7) 2-BEDROOM APARTMENT DWELLING UNITS (DU)

• 7 2-BEDROOM DU * 210 GPD/DU = 1,470 GPD

EXISTING WATER DESIGN FLOW:

SEVEN (7) 2-BEDROOM APARTMENT DWELLING UNITS (DU)

7 2-BEDROOM DU * 280 GPD/DU = 1,960 GPD

SUNDERLAND **APARTMENTS**

229 Pearl Street City of Essex Junction, Vermont



ISSUED FOR PERMIT REVIEW NOT FOR CONSTRUCTION

OWNER:

227 Pearl Street LLC c/o Brett Grabowski 32 Seymour Street #101 Williston, Vermont 05495

APPLICANT:

Handy Hotels & Rentals LLC 241 Pearl Street Essex Junction, Vermont 05495

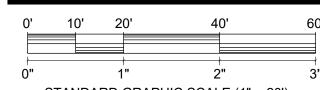
PROPERTY INFORMATION:

CITY OF ESSEX JUNCTION: Address: 227 Pearl Street Parcel ID: 1040042000 SPAN: 207-066-10350 Area: 0.96 Acres (±41,800 s.f.) Zoning: Multi-Family/Mixed Use 1 Setbacks: Front: 20' Rear: 10' Side: 10'

Total Lot Coverage: 65% (80% with waiver)

Max. Building Height: 58'

Parcel ID: 2040042000 SPAN: 207-067-42238 Area: 0.11 Acres (±4,800 s.f.) Zoning: Mixed Use



STANDARD GRAPHIC SCALE (1" = 20') VALID WHEN PLOTTED ON 24" BY 36" MEDIA

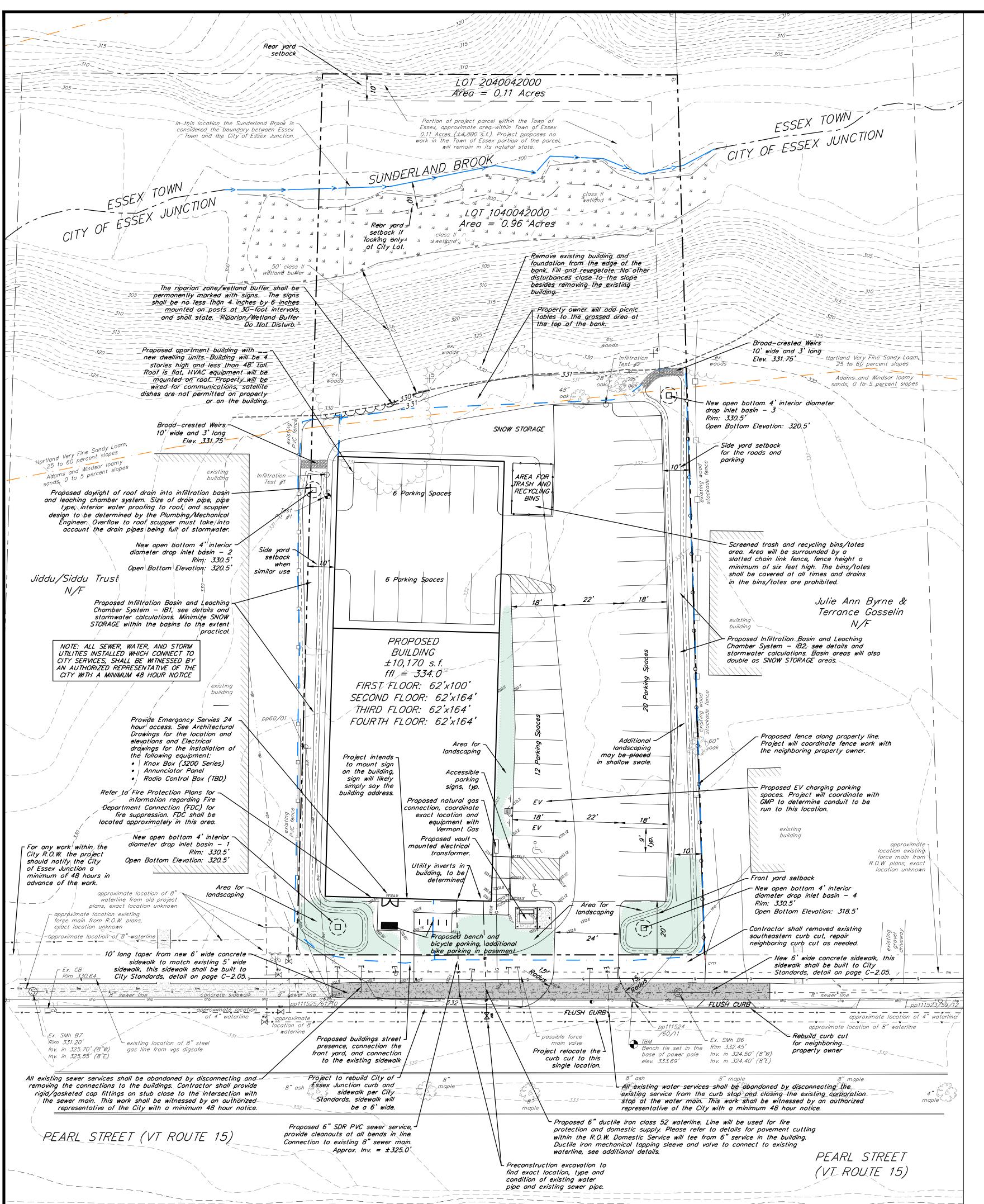
REV. NO.	REVISIONS/COMMENTS	DATE
	TITLE	

DRAWING TITLE:

OVERALL PROPERTY PLAN **EXISTING CONDITIONS**

DATE ISSUED: 02/28/24 DRAWN BY: GTD CHECKED BY: GTD PROJECT NO.: 23288 SCALE: 1" = 20'REV. NO.:

C-0.00



LEGEND

ip◎ /mon⊡

IRON PIPE / CONCRETE MONUNMENT FOUND

EXISTING TREELINE EXISTING GRADE CONTOUR LINES (5 FOOT INTERVALS) EXISTING GRADE CONTOUR

LINES (1 FOOT INTERVALS)

APPROXIMATE PROPERTY LINES **EXISTING WOODEN FENCE**

EXISTING SEWER LINE/MANHOLE **EXISTING SEWER FORCEMAIN**

EXISTING STORM LINE/MANHOLE/BASIN **EXISTING OVERHEAD ELECTRIC LINE/POWER POLE**

EXISTING UNDERGROUND POWER **EXISTING WATER** LINE/HYDRANT/VALVE/SHUTOFF

> GAS SYSTEMS EXISTING UNDERGROUND COMMUNICATIONS PROPOSED GAS LINE/VALVE

EXISTING UNDERGROUND

LINE/MANHOLE

PROPOSED WATER LINE/HYDRANT/VALVE/SHUTOFF PROPOSED GRADE CONTOUR LINES (5 FOOT INTERVALS) PROPOSED GRADE CONTOUR

LINES (1 FOOT INTERVALS)

INFILTRATION/PERMEABILITY TESTS:

• PT#1 = 119.0 in/hr • PT#2 = 117.7 in/hr

AVERAGE = 118.4 in/hr FOR MODELING PURPOSES THE INFILTRATION RATE USED WAS APPROXIMATELY 1/3 THAT VALUE = 40.0 in/hr

INFILTRATION/PERCOLATION RATES:

SOIL TEST PIT:

NOVEMBER 15. 2022 WEATHER: 35° F. SUNNY PRESENT: CAMERON GOODRICH, KREBS & LANSING

HSWT = HIGH SEASONAL WATER TABLE

NWTD = NO WATER TO DEPTH

CONSULTING ENGINEERS, INC. NLTD = NO LEDGE TO DEPTH

10YR 4/3 BROWN, SANDY LOAM, STRUCTURELESS, SINGLE GRAIN, DRY, LOOSE, ROOT MATS, WORMS 5" - 20" 2.5Y 4/4 OLIVE BROWN, LOAMY SAND,

STRUCTURELESS, SINGLE GRAIN, CLEAN, LOOSE, DRY, ROOTS 20" - 54" 10YR 4/4 DARK YELLOWISH BROWN, LOAMY SAND, STRUCTURELESS, SINGLE GRAIN, LOOSE, DRY, CLEAN, ROOTS TO DEPTH OF LAYER

NLTD, NWTD, NO EVIDENCE OF HSWT

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THE PROPOSED PROJECT.

- PROPOSED CONDITIONS: PROPERTY AREA IN THE CITY OF ESSEX JCT. = ±41,800 S.F. (0.96 ACRES)
- BUILDING COVERAGE: ±10,170 S.F. (0.23 ACRES) (24.3%)
- OVERALL IMPERVIOUS: ±21,700 S.F. (0.49 ACRES) (51.9%)
- 44 PARKING SPACES

DETERMINATION OF ORDINARY HIGH SEASONAL WATER (OHSW)

KREBS AND LANSING CONDUCTED A TEST PIT ON SITE TO REVIEW THE SOILS. SOILS WERE FOUND TO BE DEEP STRUCTURLESS, SINGLE GRAIN LOAMY SANDS. NO EVIDENCE OF ORDINARY HIGH SEASONAL WATER TABLE (OHSW) WAS OBSERVED TO THE DEPTH OF THE TEST PIT WHICH WAS 4.5' DEEP. THE TEST PIT WAS EXCAVATED TO A TOTAL DEPTH OF 54" (ELEV. ±325.5'). THE PROJECT IS ALSO IN THE PROCESS OF PERFORMED SOIL TESTING FOR STRUCTURAL INTEGRITY, APRIL OF 2023. THIS WILL INCLUDED MULTIPLE BORINGS TO FAR DEEPER DEPTHS. THE INVESTIGATION INTENDS TO REVIEW GROUND WATER DEPTH AT THAT TIME AS WELL. WE FEEL THE THE WATER TABLE IS FAR LOWER THAN THE TEST PIT DUG BASED ON THE PROXIMITY TO THE SUNDERLAND BROOK WHICH IS AT ELEVATION ±300.0'

WATER AND WASTEWATER DESIGN FLOW

EXISTING WASTEWATER DESIGN FLOW:

 SEVEN (7) 2-BEDROOM APARTMENT DWELLING UNITS (DU) 7 2-BEDROOM DU * 210 GPD/DU = 1,470 GPD

EXISTING WATER DESIGN FLOW:

 SEVEN (7) 2-BEDROOM APARTMENT DWELLING UNITS (DU) • 7 2-BEDROOM DU * 280 GPD/DU = <u>1,960 GPD</u>

PROPOSED SEWER DESIGN FLOW:

- 39 PROPOSED APARTMENT DWELLING UNITS (DU)
- STUDIO AND SINGLE BEDROOM DWELLING UNITS: 19 DU * 140 GPD/DU = 2,660 GPD MULTI-BEDROOM DWELLING UNITS: 20 DU * 210 GPD/DU = 4,200 GPD
- TOTAL PROPOSED SEWER DEMAND = 6,860 GPD

PROPOSED WATER DESIGN FLOW:

- 39 PROPOSED APARTMENT DWELLING UNITS (DU) STUDIO AND SINGLE BEDROOM DWELLING UNITS: 19 DU * 140 GPD/DU = 2,660 GPD
- MULTI-BEDROOM DWELLING UNITS: 20 DU * 280 GPD/DU = 5,600 GPD TOTAL PROPOSED SEWER DEMAND = 8,260 GPD

PROPOSED APARTMENT PROJECT WILL RESULT IN AN INCREASE OF 5,390 GPD FOR SEWER FLOWS AND 6,300 GPD FOR WATER FLOWS FROM THE PREVIOUS USE.

PROJECT TRAFFIC

ALL VALUES CALCULATED BELOW WERE GENERATED USING VALUES PUBLISHED BY THE "INSTITUTE OF TRANSPORTATION ENGINEERS (ITE) TRIP GENERATION MANUAL, 10TH EDITION". VALUES ARE LISTED AS VEHICLE TRIP ENDS (VTE) BASED ON SPECIFIC USES IN THE MANUEL. MANUEL USES USED IN ANALYSIS ARE RESIDENTIAL PLANNED UNIT DEVELOPMENT BASE ON NUMBER OF UNITS (MANUAL #270). BELOW IS THE EVALUATION, WE ROUNDED UP ON ALL VALUES.

EXISTING ANALYSIS 1:TRAFFIC VALUES: 7 UNITS WITHIN DEVELOPMENT

- WEEKDAY AVERAGE VTE = 7 UNITS * 7.38 VTE/PER UNIT = 52 VTE
- WEEKDAY AM PEAK HOUR VTE = 7 UNITS * 0.58 VTE/PER UNIT = 5 VTE
- WEEKDAY PM PEAK HOUR VTE = 7 UNITS * 0.72 VTE/PER UNIT = 6 VTE

PROPOSED TRAFFIC VALUES:

• 39 UNITS WITHIN DEVELOPMENT WEEKDAY AVERAGE VTE = 39 UNITS * 7.38 VTE/PER UNIT = 288 VTE

NOT OUTWEIGH THE POSITIVE AFFECT OF ADDITIONAL HOUSING NEEDS.

 WEEKDAY AM PEAK HOUR VTE = 39 UNITS * 0.58 VTE/PER UNIT = 23 VTE WEEKDAY PM PEAK HOUR VTE = 39 UNITS * 0.72 VTE/PER UNIT = 28 VTE

PROPOSED TRAFFIC INCREASES

- WEEKDAY AVERAGE VTE = 236 VTE
- WEEKDAY AM PEAK HOUR VTE = 18 VTE WEEKDAY PM PEAK HOUR VTE = 22 VTE
- THERE WILL CLEARLY BE AN EFFECT ON TRAFFIC WITH THE INCREASE IN DWELLING UNITS ON THE PROJECT SITE. HOWEVER, THIS PROJECT WILL ONLY BE ABLE TO ENTER AND EXIT USING THE NORTHBOUND LANE OF PEARL STREET ALSO KNOWN AS VERMONT ROUTE 15. THIS AREA IS ALSO HAS TRAFFIC SIGNALS ON EITHER SIDE OF THE EGRESS, ALLOWING TIMING WINDOWS TO ENTER AND EXIT THE PARCEL. THIS IS A BUSY SECTION OF ROADWAY, HOWEVER THIS SMALL INCREASE TO TRAFFIC DOES

THE PROJECT ALSO FEELS THERE ARE MANY TRANSPORTATION DEMAND MANAGEMENT (TDM) STRATEGIES THIS PARCEL HAS THE OPPORTUNITY TO TAKE ADVANTAGE OF. THE PROJECT IS CENTRALLY LOCATED BETWEEN ESSEX & WINOOSKI, AS WELL AS BEING CLOSE TO BURLINGTON & WILLISTON. THIS PROVIDES SHORT COMMUTES TO WORK AND LEISURE ACTIVITIES. IT IS ON LOCAL BUSING ROUTES WITH A BUS STOP APPROXIMATELY 350' NORTHWEST OF THE PARCEL. THE SITE IS ALSO LOCATED ON BIKING PATHS WITH A NEW BIKE PATH RECENTLY INSTALLED ALONG ROUTE 15. WHICH CONNECTS TO SUSIE WILSON ROAD. AND EXTENDS TO THE SIDEWALK THAT RUNS ALONG PEARL STREET. THAT SIDEWALK ALSO CONNECTS ALL THE WAY TO THE CENTER OF ESSEX JUNCTION. ALL THESE CONNECTIONS WILL ALLOW FOR A SHORT BIKE/WALK TO MANY ESSENTIAL SERVICES.

FURTHER THE PROJECT REVIEWED HISTORICAL TRAFFIC DATA PROVIDED BY VTRANS, FOR THIS STRETCH OF ROADWAY THERE HAVE BEEN NUMEROUS TRAFFIC COUNTS AND EVALUATIONS FOR ANNUAL AVERAGE DAILY TRAFFIC (AADT). WE FOUND AND AVERAGED FOURTEEN YEARS OF AADT DATA, FOR THIS AREA WE FOUND AN AVERAGE OF 10,189 AADT. FROM THE CALCULATION ABOVE THIS PROJECT WILL RESULT IN 236 WEEKDAY VTEs THIS WOULD ONLY INCREASE THE AADT BY 2.32%.

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STAMP:

0'	10'	20'	40'	60'
\vdash		+	-	-

STANDARD GRAPHIC SCALE (1" = 20') VALID WHEN PLOTTED ON 24" BY 36" MEDIA

REV. NO.	REVISIONS/COMMENTS	DATE		
DRAWING	G TITLE:			
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PROPOSED SITE PLAN

DATE ISSUED: 03/14/24 DRAWN BY: GTD CHECKED BY: GTD

SCALE: 1" = 20

REV. NO.:

ROJECT NO.: 23288