STORM SYSTEM NARRATIVE

NARRATIVE:

THE PROPOSED PROJECT SITE IS APPROXIMATELY 4.86 ACRES AND IS LOCATED ON LOT #15 IN THE HINESBURG COMMERCIAL PARK - JUST EAST OF THE COMMERCE STREET/VT ROUTE 116 INTERSECTION. THE PARCEL IS CURRENTLY UNDEVELOPED AND RUN-OFF FROM THE SITE FLOWS DOWN A DRAINAGE DITCH, UNDER COMMERCE STREET, AND INTO PATRICK BROOK. IN ADDITION, THE PARCEL RECEIVES SOME UPLAND AREA FLOW FROM ADJOINING PARCELS.

THE CURRENT PROPOSAL IS FOR A 36,325 +/- SQ. FT. SUPERMARKET WITH ASSOCIATED INFRASTRUCTURE. TOTAL SITE IMPERVIOUS AREA WILL BE 2.84-ACRES AND HAVE A COMBINED DRAINAGE AREA OF 2.86-ACRES. THE IMPERVIOUS COVERAGE IS 58.5% (2.84/4.85).

THE STORMWATER GOAL FOR THE PROPOSED PROJECT IS TO UTILIZE AN ADS WATER QUALITY UNITS TO PRETREAT THE WATER AND UNDERGROUND STORAGE CHAMBERS TO PROVIDE STORAGE DURING THE 1-YR AND 10-YR STORM EVENTS. OUTLET STRUCTURES HAVE BEEN SIZED TO RELEASE THE STORMWATER AT A RATE LESS THAN PRE-DEVELOPMENT CONDITIONS. OFF-SITE RUN-OFF HAS BEEN DIVERTED AROUND THE PROJECT TO MIMIC THE CURRENT CONDITIONS

Soil Types

Le	LIMERICK SILT LOAM
Lf	LIMERICK SILT LOAM, VERY WET
MyB	MUNSON AND RAYNHAM SILT LOAMS, 2 TO 6 PERCENT SLOPES
Wo	WINOOSKI VERY FINE SANDY LOAM

Storm System Information

CB #1
RIM ELEV. - 342.50'
(2) 12" INV. IN - 338.30'
12" INV. OUT - 338.30'

CB #2
RIM ELEV. - 342.50'
12" INV. OUT - 338.55'

CB #3
RIM ELEV. - 342.50'
12" INV. OUT - 339.35'

CB #4
RIM ELEV. - 343.75'
(2) 12" INV. IN - 338.65'
12" INV. OUT - 338.65'

CB #5
RIM ELEV. - 343.75'
12" INV. OUT - 339.00'

CB #6
RIM ELEV. - 343.75'
12" INV. IN - 339.00'
12" INV. OUT - 339.00'

CB #7
RIM ELEV. - 342.00'
12" INV. IN - 339.40'
12" INV. OUT - 339.40'

CB #8
RIM ELEV. - 344.00'
6" INV. IN - 340.20'
12" INV. OUT - 340.20'

CB #9
RIM ELEV. - 341.00'
6" INV. IN - 337.25'
12" INV. IN - 337.75
12" INV. OUT - 337.75'

CB #10
RIM ELEV. - 341.00'
12" INV. OUT - 338.10'

CB #11
RIM ELEV. - 341.00'
12" INV. OUT - 338.50'

CB #12
RIM ELEV. - 342.90'
12" INV. IN - 336.85'
12" INV. OUT - 336.85'

CB #13
RIM ELEV. -342.90'
(2) 12" INV. IN - 336.75'
18" INV. OUT - 336.75'

CB #14 W/ SOLID COVER
RIM ELEV. - 341.50'
18" INV. IN - 336.00'
18" INV. OUT - 336.00'

CB #15 W/ SOLID COVER
RIM ELEV. - 338.00'
18" INV. IN - 334.95'
18" INV. OUT - 334.85'

OUTLET STRUCTURE #1
RIM ELEV. - 343.20'
3" ORIFICE - 337.25'
7" ORIFICE - 338.25'
12" INV. OUT - 337.25'

OUTLET STRUCTURE #2
RIM ELEV. - 342.75'
1" ORIFICE - 337.25'
3" ORIFICE - 338.25'
12" INV. OUT - 337.25'

YD #1
RIM ELEV. - 342.95'
12" INV. IN - 337.25
12" INV. OUT - 337.25'

YD #2
RIM ELEV. - 342.90'
(2) 12" INV. IN - 337.25
12" INV. OUT - 337.25'

YD #3
RIM ELEV. - 342.60'
12" INV. IN - 338.25'
12" INV. OUT - 338.25'
12" INV. OUT - 337.25'

YD #4
RIM ELEV. - 341.90'
12" INV. IN - 337.25'
12" INV. OUT - 337.25'

Coverage Calculations

TOTAL PARCEL COVERAGE

PARCEL AREA (EXISTING) = 198,624 SF (4.56 ACRES)
PARCEL AREA (PROPOSED) = 211,409 SF (4.85 ACRES)
EXISTING COVERAGE (ROAD/SIDEWALK) - 8,038 SF = 3.8%

PROPOSED COVERAGE (SIDEWALK/ROADS/BUILDING) - 115,653 SF = 54.7%
BUILDING - 36,328 SF = 17.2%
SIDEWALK/ROADS/PARKING - 79,325 SF = 37.5%

*TOTAL COVERAGE (SIDEWALK/ROADS/BUILDING) - 123,691 SF = 58.5%
**THE STATE COUNTS SIDEWALKS AS IMPERVIOUS COVERAGE WHILE THE TOWN OF HINESBURG DOES NOT

DRAINAGE AREA '3A'

AREA = 37,377 SF (0.86 ACRES)
PROPOSED COVERAGE (SIDEWALK/ROADS/BUILDING) - 35,429 SF = 94.8%
BUILDING - 7,093 SF = 19.0%
SIDEWALK/ROADS/PARKING - 28,336 SF = 75.8%

DRAINAGE AREA '3B'

AREA = 87,294 SF (2.00 ACRES)
PROPOSED COVERAGE (SIDEWALK/ROADS/BUILDING) - 79,735 SF = 91.3%
BUILDING - 29,237 SF = 33.5%
SIDEWALK/ROADS/PARKING - 50,498 SF = 57.8%

DRAINAGE AREA '3C' (OFFSITE)

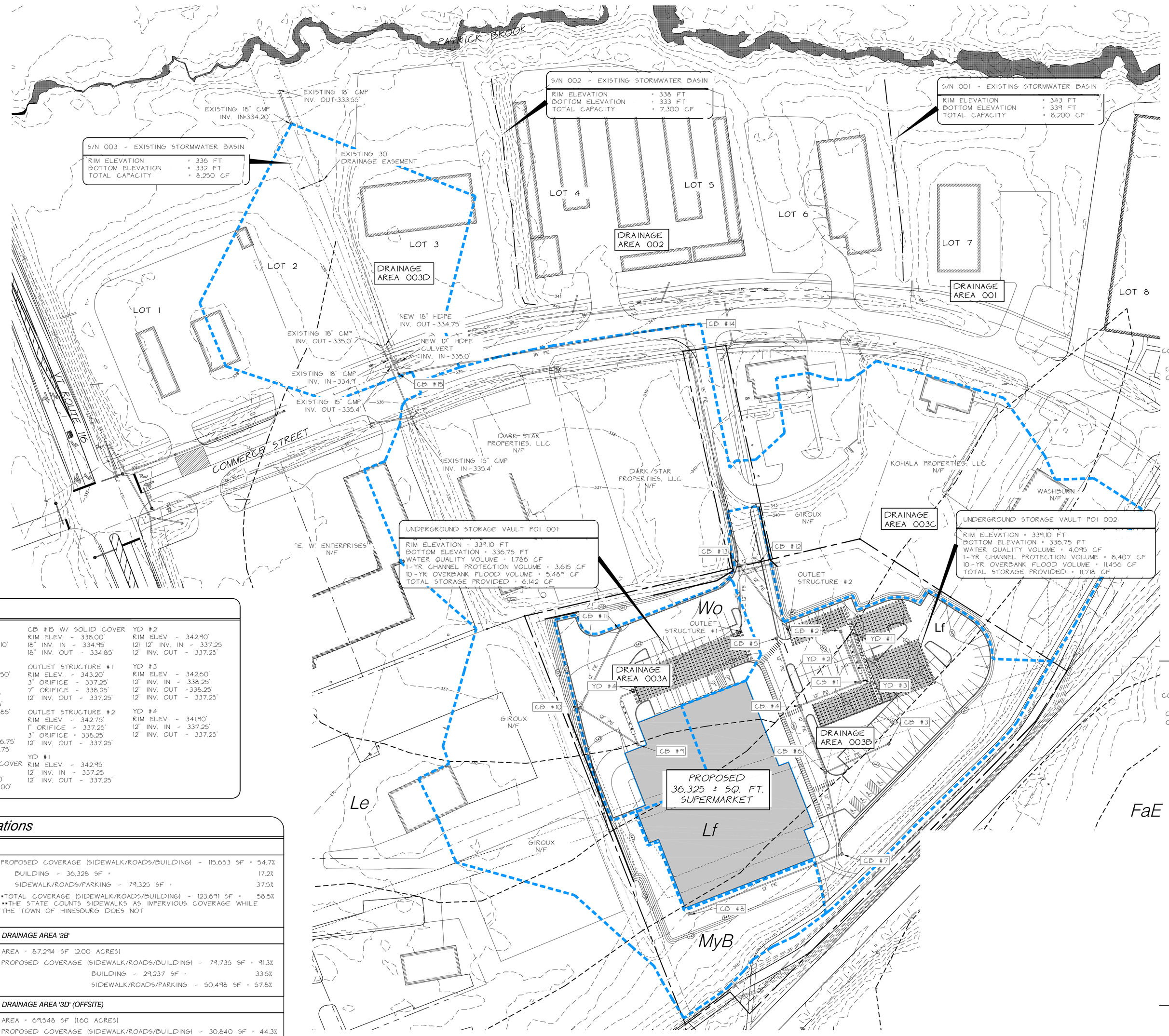
AREA = 218,047 SF (5.01 ACRES)
PROPOSED COVERAGE (SIDEWALK/ROADS/BUILDING) - 85,175 SF = 39.1%
BUILDING - 17,681 SF = 8.1%
SIDEWALK/ROADS/PARKING - 67,494 SF = 31.0%

DRAINAGE AREA '3D' (OFFSITE)

AREA = 69,548 SF (1.60 ACRES)
PROPOSED COVERAGE (SIDEWALK/ROADS/BUILDING) - 30,840 SF = 44.3%
BUILDING - 2,133 SF = 3.1%
SIDEWALK/ROADS/PARKING - 28,707 SF = 41.3%

*TOTAL COVERAGE IS CALCULATED FOR STORMWATER BY USING THE SIDEWALK/ROADS/BUILDING FOR THE STATE. HINESBURG DOES NOT CONSIDER SIDEWALK AS IMPERIOUS COVERAGE.

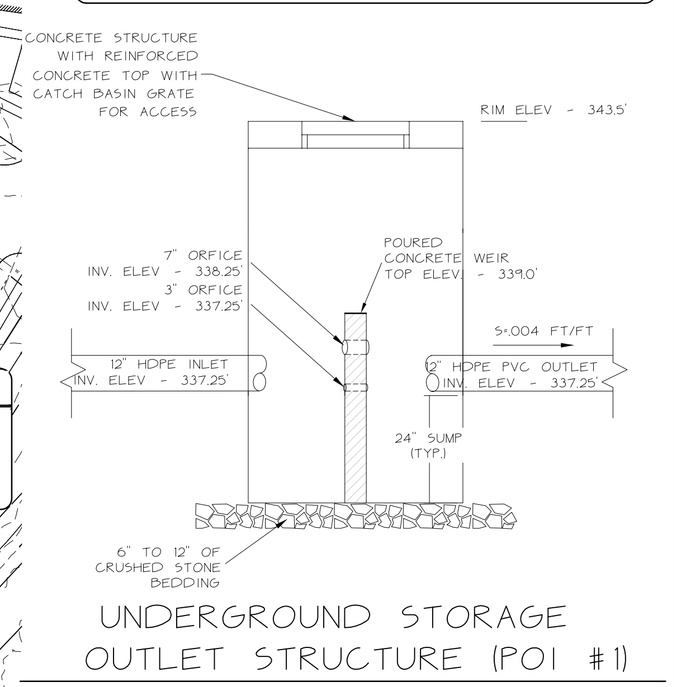
GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
1 inch = 50 ft.



Legend

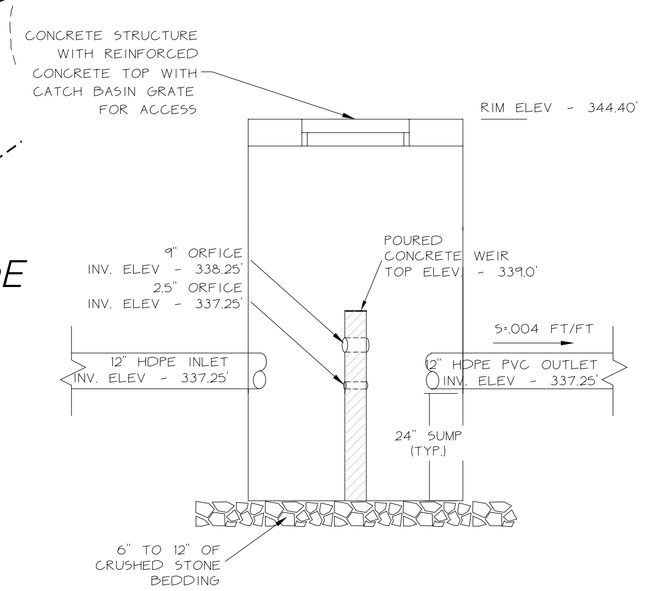
- PROPERTY BOUNDARY
- OTHER PROPERTY LINE
- SIDELINE OF EASEMENT
- CONTOUR LINE (USGS & DATUM) (344)
- PROPOSED FINISH GRADE CONTOUR (340)
- EDGE OF WOODED AREA
- EDGE OF WETLAND (CLASS III)
- EXISTING IRON PIPE
- EXISTING CONCRETE MONUMENT
- IRON PIPE (TO BE SET)
- PROPERTY BOUNDARY
- CHAIN LINK FENCE
- EXISTING ELECTRIC/TV/TELEPHONE LINE (ETC)
- EXISTING SEWERLINE (S)
- EXISTING STORMLINE
- EXISTING WATERLINE (W)
- EXISTING/PROPOSED HYDRANT
- SOIL TYPE & BOUNDARY (AdD)

(NOTE: PROPOSED UTILITIES ARE SHOWN AS A SOLID LINE)



UNDERGROUND STORAGE OUTLET STRUCTURE (POI #1)

NTS



UNDERGROUND STORAGE OUTLET STRUCTURE (POI #2)

NTS

11-18-11	REVISED DRAINAGE AREAS AND DISCHARGE PIPE LOCATION	BJB
DATE 6-13-11	REVISION PLAN CHANGES PER HINESBURG COMMENTS	BY RHP

SURVEY: OTHERS
DESIGN: BJB
DRAWN: BJB
CHECKED: DWB
SCALE: 1"=50'

☐ RECORD DRAWING ■ PRELIMINARY
☐ FINAL ☐ SKETCH/CONCEPT

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Hannaford Supermarket & Pharmacy
Commerce Street — Hinesburg, VT

Stormwater Plan

DATE 11-09-10
JOB# 9066
FILE CURRENT
PLAN SHEET # C6