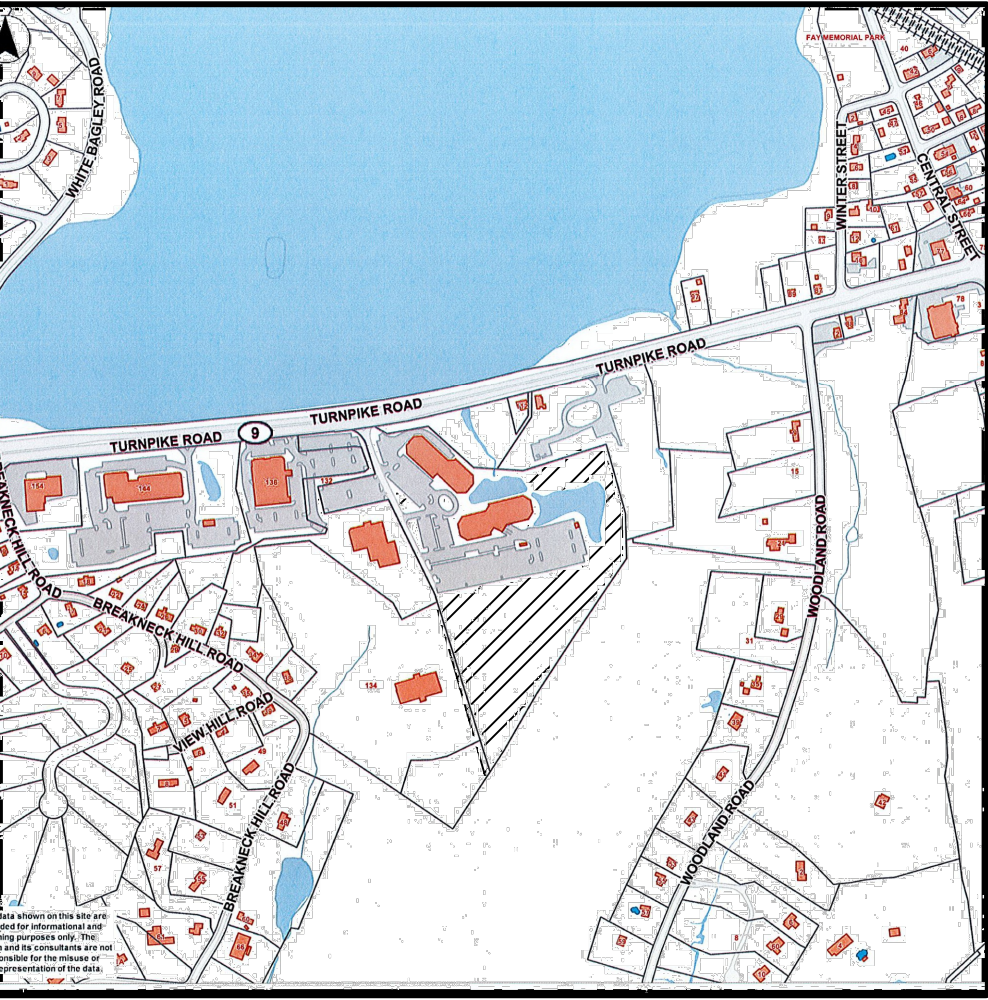


SITE PLAN OF LAND AT 120 TURNPIKE ROAD

IN
SOUTHBOROUGH, MASSACHUSETTS



LOCUS MAP

1" = 1,000'

ZONING COMPLIANCE TABLE

THE SITE IS LOCATED IN THE HIGHWAY BUSINESS AND RESIDENCE A ZONING DISTRICTS. THE PROPOSED BUILDING WILL BE LOCATED IN THE HIGHWAY BUSINESS ZONING DISTRICT. THE FOLLOWING TABLE COMPARES THE HIGHWAY BUSINESS ZONING REQUIREMENTS AND DIMENSIONS PROPOSED AT THIS SITE:

DIMENSION	REQUIREMENT	PROPOSED
MIN. LOT AREA	43,560	154,111 S.F.
MIN. FRONTAGE	200'	0'
MIN. FRONT YARD	75'	861'
MIN. SIDE YARD	50'	58'
MIN. REAR YARD	50'	94'
MAX. FLOOR AREA RATIO	0.60	0.53
MAX. BUILDING HEIGHT	45'	55'

PROPOSED SCOPE:

RESIDENTIAL:	
ONE BEDROOM FLATS:	37
TWO BEDROOM FLATS:	17
THREE BEDROOM FLATS:	6
TOTAL UNITS:	60
TOTAL BEDROOMS:	89

OFF-STREET PARKING:	
PARKING SPACES PROVIDED - RESIDENTIAL	102
PARKING SPACES PROVIDED	
GARAGES	20
SURFACE SPACES	82
TOTAL:	102

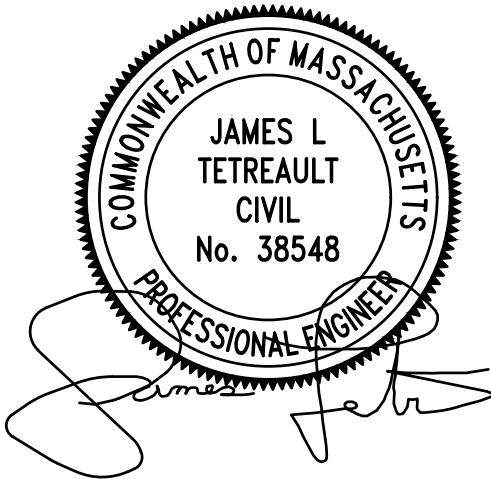
HC SPACES REQUIRED:	5
HC SPACES PROVIDED:	5(ALL VAN ACCESSIBLE)

UNIT SUMMARY						
STYLE	BEDROOMS	BATHROOMS	AREA(S.F.)	DISTRIBUTION BY AREA	NUMBER	DISTRIBUTION BY TYPE
UNIT A	1	1	915	53.1%	37	61.7%
UNIT B	2	2	1,178	5.5%	3	5.0%
UNIT C	2	2	1,273	16.0%	8	13.3%
UNIT D	2	2	1,292	6.1%	3	5.0%
UNIT E	2	2	1,346	6.3%	3	5.0%
UNIT F	3	2	1,355	6.4%	3	5.0%
UNIT G	3	2	1,386	6.5%	3	5.0%
TOTAL	89	83	63,710	--	60	--

CLIENT NUMBER: 502
JOB NUMBER: 245-502
DRAWING : 250TURNPIKECURRENT.dwg

PREPARED BY
EXPEDITED ENGINEERING, LLC
118 TURNPIKE ROAD, SUITE 300
SOUTHBOROUGH, MASSACHUSETTS 01772
TELEPHONE (508) 399-9993
EMAIL: james@expeditedengineers.com

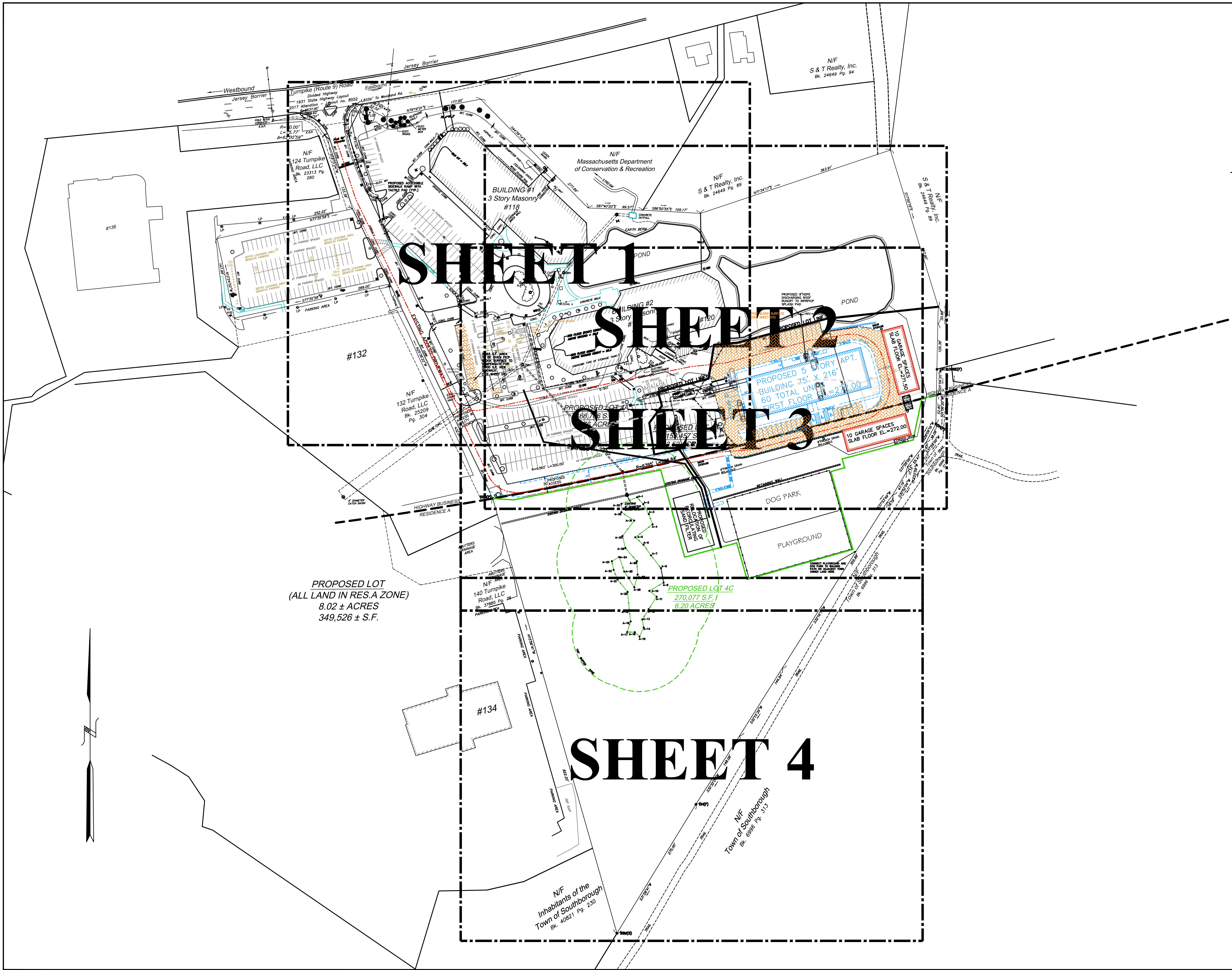
DATE:
OCTOBER 25, 2023
REVISED JANUARY 24, 2024
REVISED JULY 24, 2024



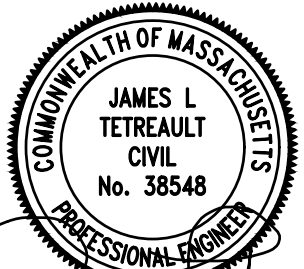
COMPREHENSIVE PERMIT PLAN APPROVED BY
THE SOUTHBOROUGH ZONING BOARD OF
APPEALS ON _____

SHEET DIRECTORY

TITLE SHEET	(THIS SHEET)
KEY SHEET	
EXISTING CONDITIONS PLANS	E1 - E4
SITE LAYOUT PLANS	S1 - S4
GRADING & DRAINAGE PLANS	G1 - G4
UTILITY PLANS	U1 - U4
EROSION & SEDIMENTATION CONTROL PLANS	ESC1 - ESC4
PRELIMINARY PLAN OF 120 TURNPIKE 40B	PP1 - PP4
PLAN AND PROFILE OF DRIVEWAY	P1
LANDSCAPING & LIGHTING PLANS	LS1 - LS2
DETAIL SHEETS	D1 - D4



COMPREHENSIVE PERMIT PLAN APPROVED BY
THE SOUTHBOROUGH ZONING BOARD OF
APPEALS ON _____



EXPEDITED ENGINEERING, LLC
Professional Engineers & Erosion Control Specialists
118 Turnpike Road, Suite 300, Southborough, MA 01772
Telephone (508)-399-9993 james@expeditedengineers.com

CLT. NO.	504	JOB NO.	290-504
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DATE:	OCTOBER 25, 2023	DWG NO.	120TURNPIKECURRENT
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REVISIONS	
DATE:	DESCRIPTION
1/24/24	TOWN REVIEW
7/24/24	TOWN REVIEW

SCALE: 1 INCH = 80 FEET

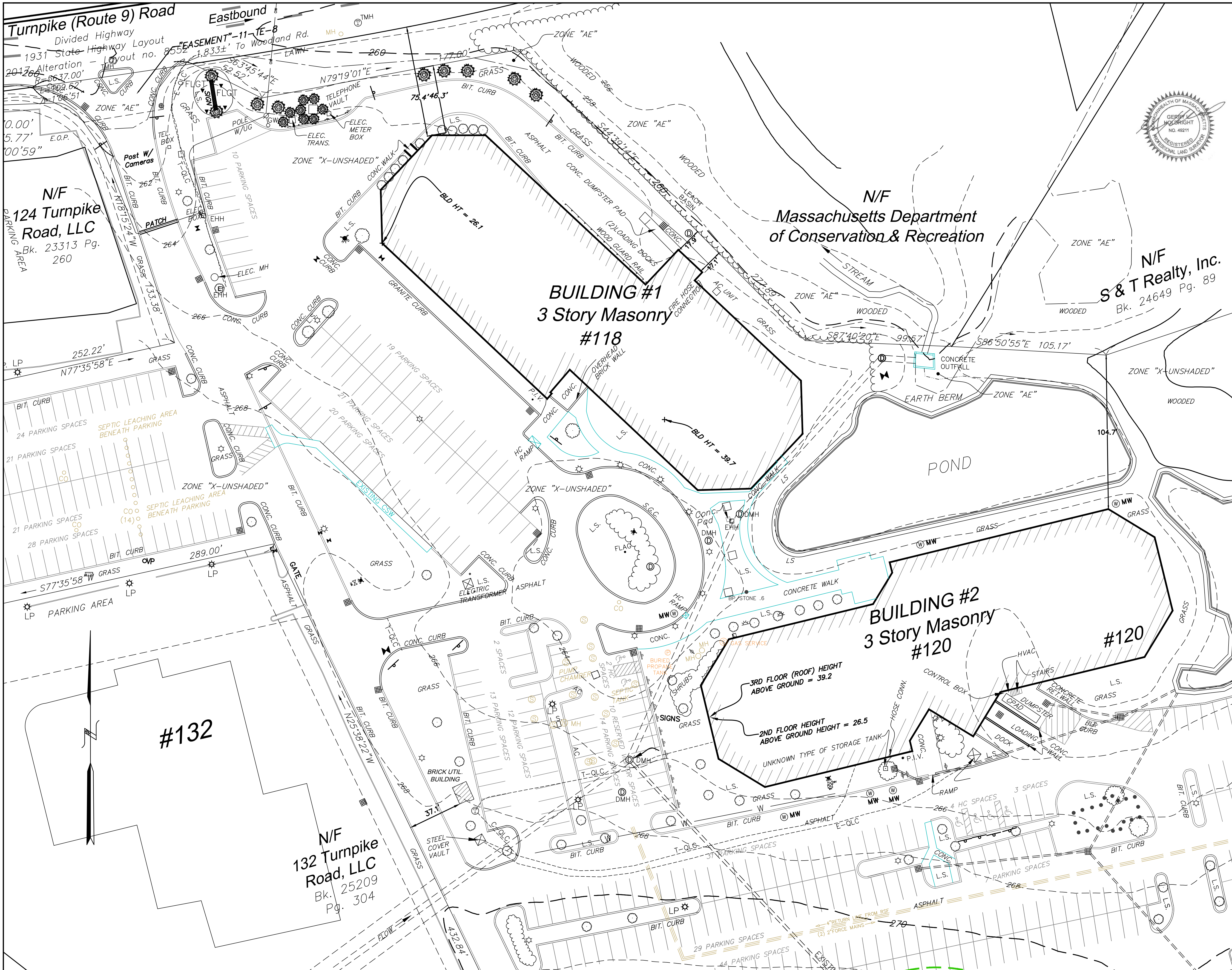


SITE PLAN OF LAND

AT 120 TURNPIKE ROAD
IN
SOUTHBOROUGH, MASS.

OWNER & APPLICANT:
FD 120 TURNPIKE, LLC
118 TURNPIKE ROAD, SUITE 300
SOUTHBOROUGH, MA 01772

KEY SHEET



KEY

- EXISTING 2' ELEVATION CONTOUR
- EXISTING EDGE OF PAVEMENT
- UTILITY POLE
- OVERHEAD WIRES
- WETLAND EDGE
- 100' BUFFER ZONE EDGE
- STONE WALL
- EXISTING TREE LINE
- OFFICIAL DEEP OBSERVATION HOLE
- OFFICIAL PERCOLATION TEST

COMPREHENSIVE PERMIT PLAN APPROVED BY THE SOUTHBOROUGH ZONING BOARD OF APPEALS ON _____

NOTES:

- 1) THE APPLICANT'S DEED TO THIS PROPERTY CAN BE FOUND AT THE WORCESTER DISTRICT REGISTRY OF DEEDS AT BOOK 63088 PAGE 248. THAT DEED REFERENCES THE PLAN RECORDED AT PLAN BOOK 517 PLAN 120 FOR PROPERTY BOUNDARIES. THIS SITE IS SHOWN AS LOT 120 PARCEL 4 ON SOUTHBOROUGH ASSESSOR'S MAP 37.
- 2) OVERALL SITE AREA IS 20.48 ACRES AND THE PROPERTY IS LOCATED IN BOTH THE HIGHWAY BUSINESS AND RESIDENCE A ZONING DISTRICTS.
- 3) THE SUBJECT OF THIS SITE PLAN IS THE CREATION OF SEPARATE LOT AT THE SOUTH END OF THIS PROPERTY WITH THE NEW BOUNDARY BEING THE ZONING DISTRICT BOUNDARY AND THE CONSTRUCTION OF AN APARTMENT BUILDING WITH APPURTENANT PARKING AND UTILITIES ON THAT NEW LOT.
- 4) THE WETLAND RESOURCE AREA SHOWN SOUTH OF THE EXISTING PARKING AREA WAS DELINEATED BY GODDARD CONSULTING, LLC.

EXPEDITED ENGINEERING, LLC

Professional Engineers & Erosion Control Specialists
118 Turnpike Road, Suite 300, Southborough, MA 01772
Telephone (508)-399-9993 james@expeditedengineers.com

CLT. NO.	504	JOB NO.	290-504
DATE:	OCTOBER 25, 2023	DWG NO.	120TURNPIKECURRENT
REVISIONS			
DATE:	DESCRIPTION		
1/24/24	TOWN REVIEW		
7/24/24	TOWN REVIEW		

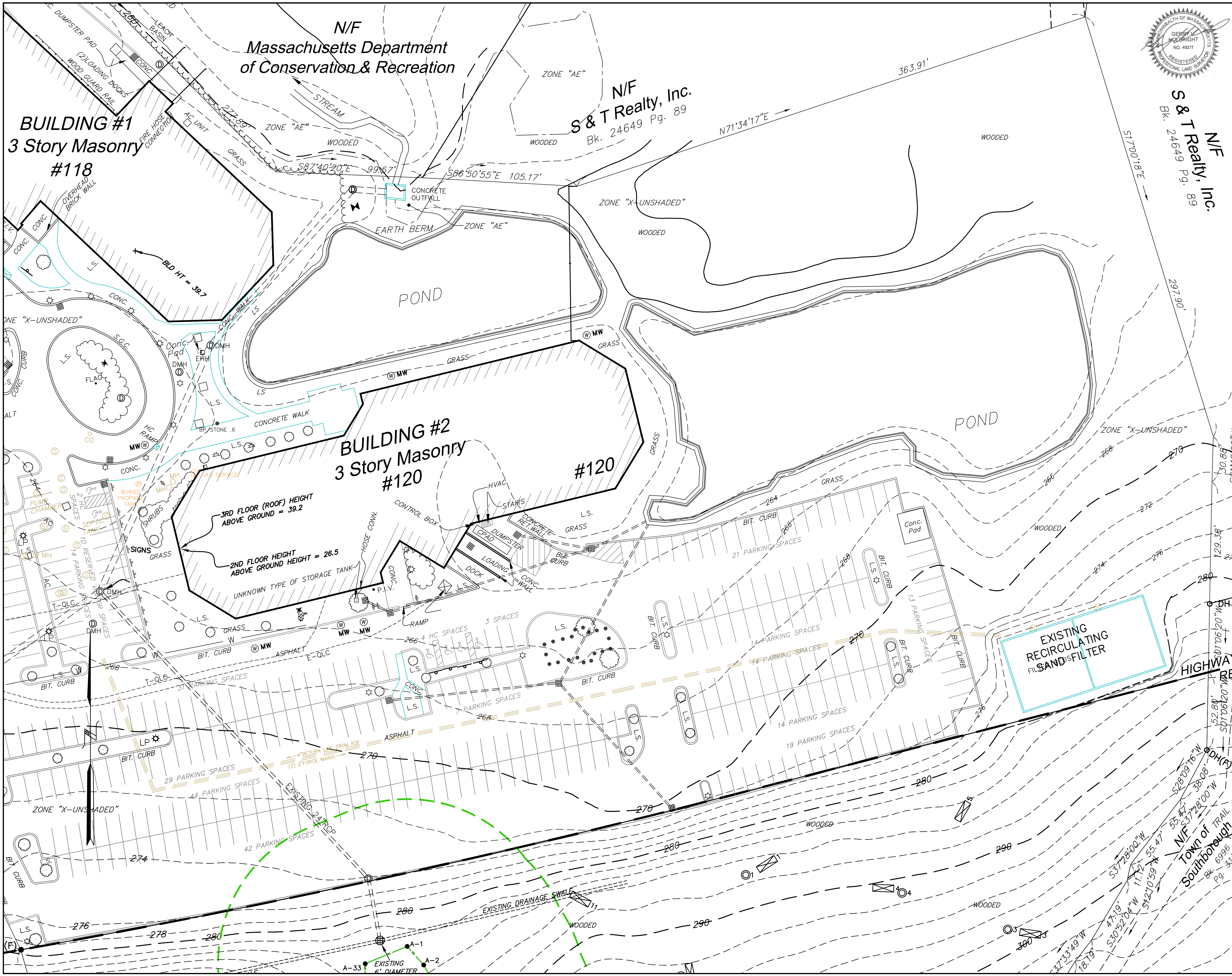
SCALE: 1 INCH = 30 FEET

0 15 30 60 90
FEET

0 15 30
METERS

SITE PLAN OF LAND
AT 120 TURNPIKE ROAD
IN
SOUTHBOROUGH, MASS.
OWNER & APPLICANT:
FD 120 TURNPIKE, LLC
118 TURNPIKE ROAD, SUITE 300
SOUTHBOROUGH, MA 01772

EXISTING CONDITIONS PLAN E1



S & T Realty, Inc.
Bk. 24649 Pg. 89

KEY

- EXISTING 2' ELEVATION CONTOUR
- EXISTING EDGE OF PAVEMENT
- o- UTILITY POLE
- OHW
- WETLAND EDGE
- 100' BUFFER ZONE EDGE
- STONE WALL
- EXISTING TREE LINE
- ⊗ 4 OFFICIAL DEEP OBSERVATION HOLE
- ⊗ 4 OFFICIAL PERCOLATION TEST

COMPREHENSIVE PERMIT PLAN APPROVED BY THE SOUTHBOROUGH ZONING BOARD OF APPEALS ON _____

- NOTES:**
- 1) THE APPLICANT'S DEED TO THIS PROPERTY CAN BE FOUND AT THE WORCESTER DISTRICT REGISTRY OF DEEDS AT BOOK 63088 PAGE 248. THAT DEED REFERENCES THE PLAN RECORDED AT PLAN BOOK 517 PLAN 120 FOR PROPERTY BOUNDARIES. THIS SITE IS SHOWN AS LOT 120 PARCEL 4 ON SOUTHBOROUGH ASSESSOR'S MAP 37.
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EXPEDITED ENGINEERING, LLC
Professional Engineers & Erosion Control Specialists
118 Turnpike Road, Suite 300, Southborough, MA 01772
Telephone (508)-399-9993 james@expeditedengineers.com

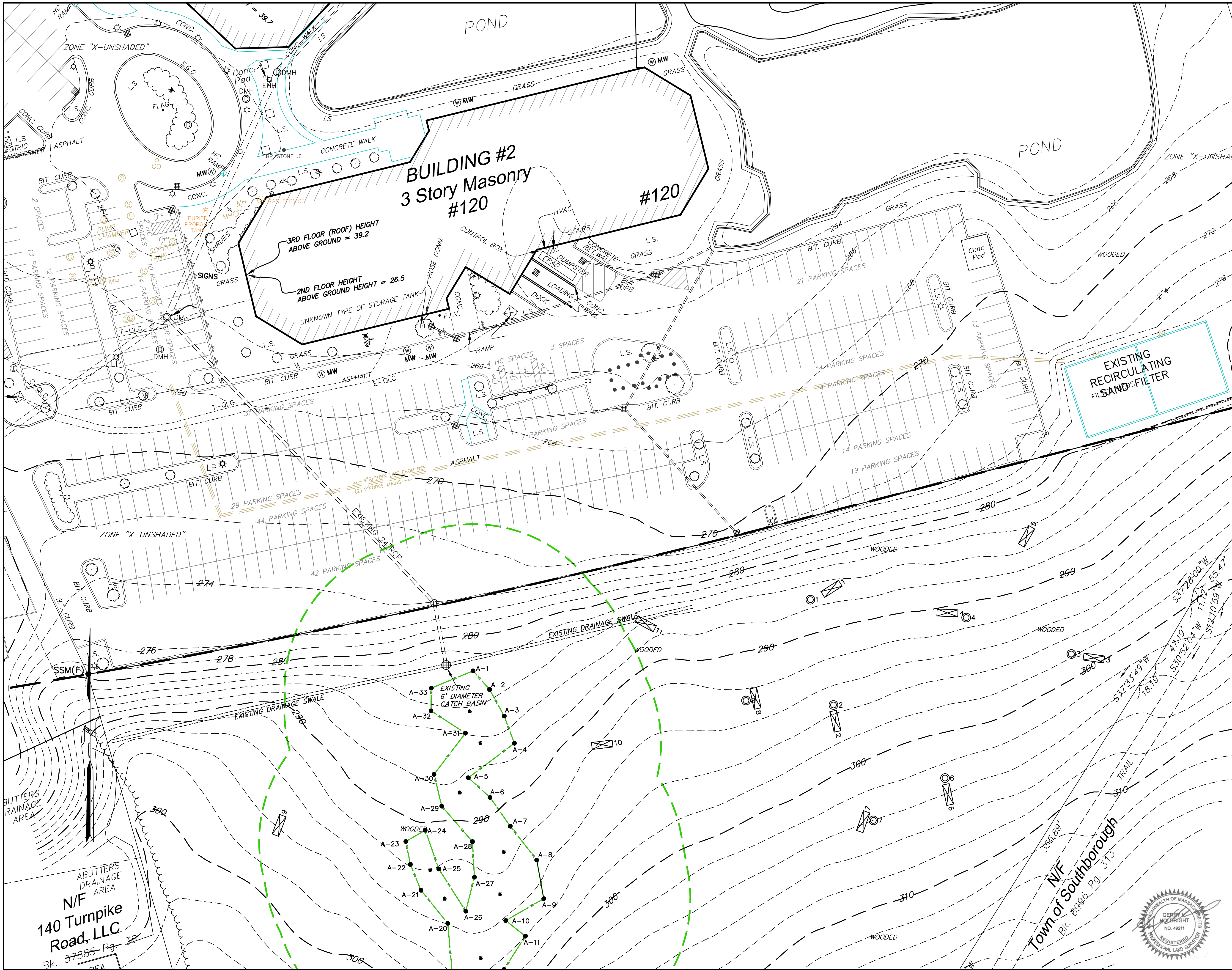
CLT. NO.	504	JOB NO.	290-504
DATE:	OCTOBER 25, 2023	DWG NO.	120TURNPIKECURRENT
REVISIONS			
DATE:	DESCRIPTION		
1/24/24	TOWN REVIEW		
7/24/24	TOWN REVIEW		

SCALE: 1 INCH = 30 FEET

0 15 30 60 90
FEET

0 15 30
METERS

SITE PLAN OF LAND
AT 120 TURNPIKE ROAD
IN
SOUTHBOROUGH, MASS.
OWNER & APPLICANT:
FD 120 TURNPIKE, LLC
118 TURNPIKE ROAD, SUITE 300
SOUTHBOROUGH, MA 01772
EXISTING CONDITIONS PLAN E2



KEY

- EXISTING 2' ELEVATION CONTOUR
- EXISTING EDGE OF PAVEMENT
- UTILITY POLE
- OHW
- OVERHEAD WIRES
- WETLAND EDGE
- 100' BUFFER ZONE EDGE
- STONE WALL
- EXISTING TREE LINE
- OFFICIAL DEEP OBSERVATION HOLE
- OFFICIAL PERCOLATION TEST

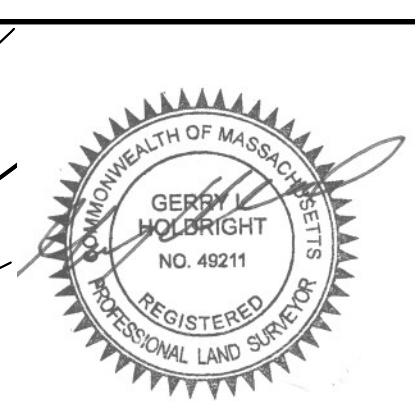
COMPREHENSIVE PERMIT PLAN APPROVED BY THE SOUTHBOROUGH ZONING BOARD OF APPEALS ON _____

- NOTES:**
- 1) THE APPLICANT'S DEED TO THIS PROPERTY CAN BE FOUND AT THE WORCESTER DISTRICT REGISTRY OF DEEDS AT BOOK 63088 PAGE 248. THAT DEED REFERENCES THE PLAN RECORDED AT PLAN BOOK 517 PLAN 120 FOR PROPERTY BOUNDARIES. THIS SITE IS SHOWN AS LOT 120 PARCEL 4 ON SOUTHBOROUGH ASSESSOR'S MAP 37.
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 - 4) THE WETLAND RESOURCE AREA SHOWN SOUTH OF THE EXISTING PARKING AREA WAS DELINEATED BY GODDARD CONSULTING, LLC.

EXPEDITED ENGINEERING, LLC
Professional Engineers & Erosion Control Specialists
118 Turnpike Road, Suite 300, Southborough, MA 01772
Telephone (508)-399-9993 james@expeditedengineers.com

CLT. NO.		JOB NO.	
504		290-504	
DATE:		DWG NO.	
OCTOBER 25, 2023		120TURNPIKECURRENT	
REVISIONS			
DATE:		DESCRIPTION	
1/24/24	TOWN REVIEW		
7/24/24	TOWN REVIEW		
SCALE: 1 INCH = 30 FEET			
FEET			
			
METERS			
			

SITE PLAN OF LAND
AT 120 TURNPIKE ROAD
IN
SOUTHBOROUGH, MASS.
OWNER & APPLICANT:
FD 120 TURNPIKE, LLC
118 TURNPIKE ROAD, SUITE 300
SOUTHBOROUGH, MA 01772
EXISTING CONDITIONS PLAN E3



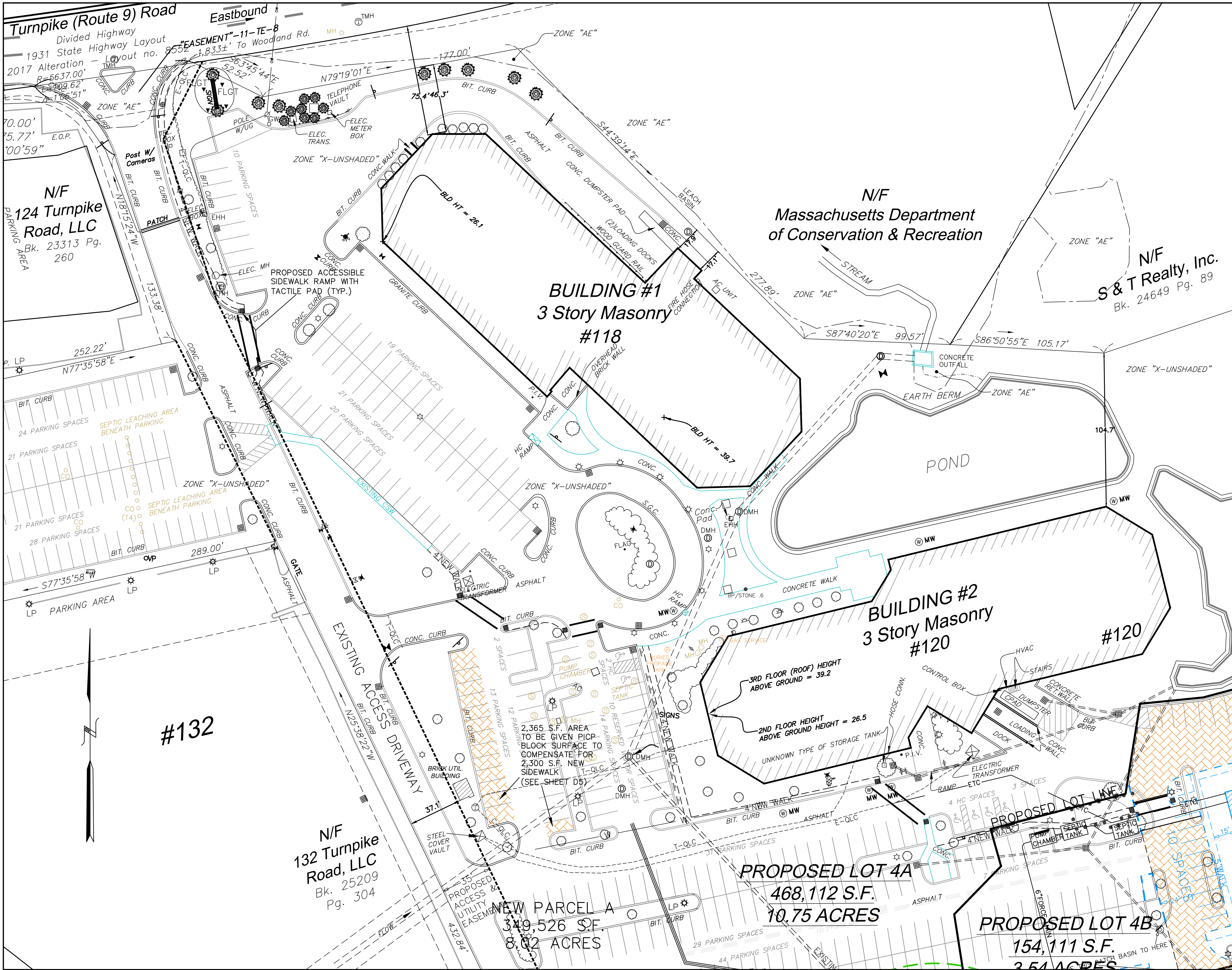
- COMPREHENSIVE PERMIT PLAN APPROVED BY
THE SOUTHBOROUGH ZONING BOARD OF
APPEALS ON _____.

- 1) THE APPLICANT'S DEED TO THIS PROPERTY CAN BE FOUND AT THE WORCESTER DISTRICT REGISTRY OF DEEDS AT BOOK 63088 PAGE 248. THAT DEED REFERENCES THE PLAN RECORDED AT PLAN BOOK 517 PLAN 120 FOR PROPERTY BOUNDARIES. THIS SITE IS SHOWN AS LOT 120 PARCEL 4 ON SOUTHBOROUGH ASSESSOR'S MAP 37.
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CLT. NO. 504	JOB NO. 290-504
DATE: OCTOBER 25, 2023	DWG NO. 120TURNPIKECURRENT

REVISIONS	
DATE:	DESCRIPTION
1/24/24	TOWN REVIEW
7/24/24	TOWN REVIEW





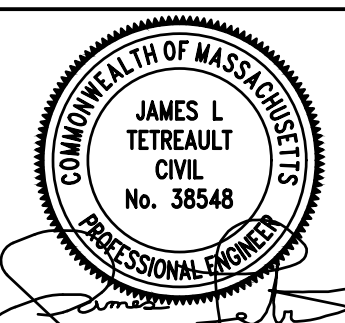
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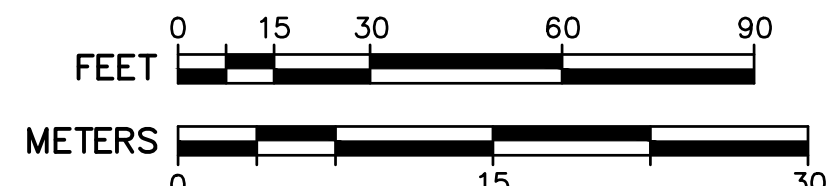
- EXISTING EDGE OF PAVEMENT
- WFL
- WETLAND EDGE
- 100' BUFFER ZONE EDGE
- STONE WALL
- EXISTING GRADE CONTOUR
- OFFICIAL DEEP OBSERVATION HOLE
- OFFICIAL PERCOLATION TEST
- PROPOSED CURB
- PROPOSED RETAINING WALL
- PROPOSED GUARD RAIL
- PROPOSED POLE LIGHT
- PROPOSED PERMEABLE INTERLOCKING CONCRETE PAVING BLOCK SURFACE

COMPREHENSIVE PERMIT PLAN APPROVED BY THE SOUTHBOROUGH ZONING BOARD OF APPEALS ON _____

NOTES:

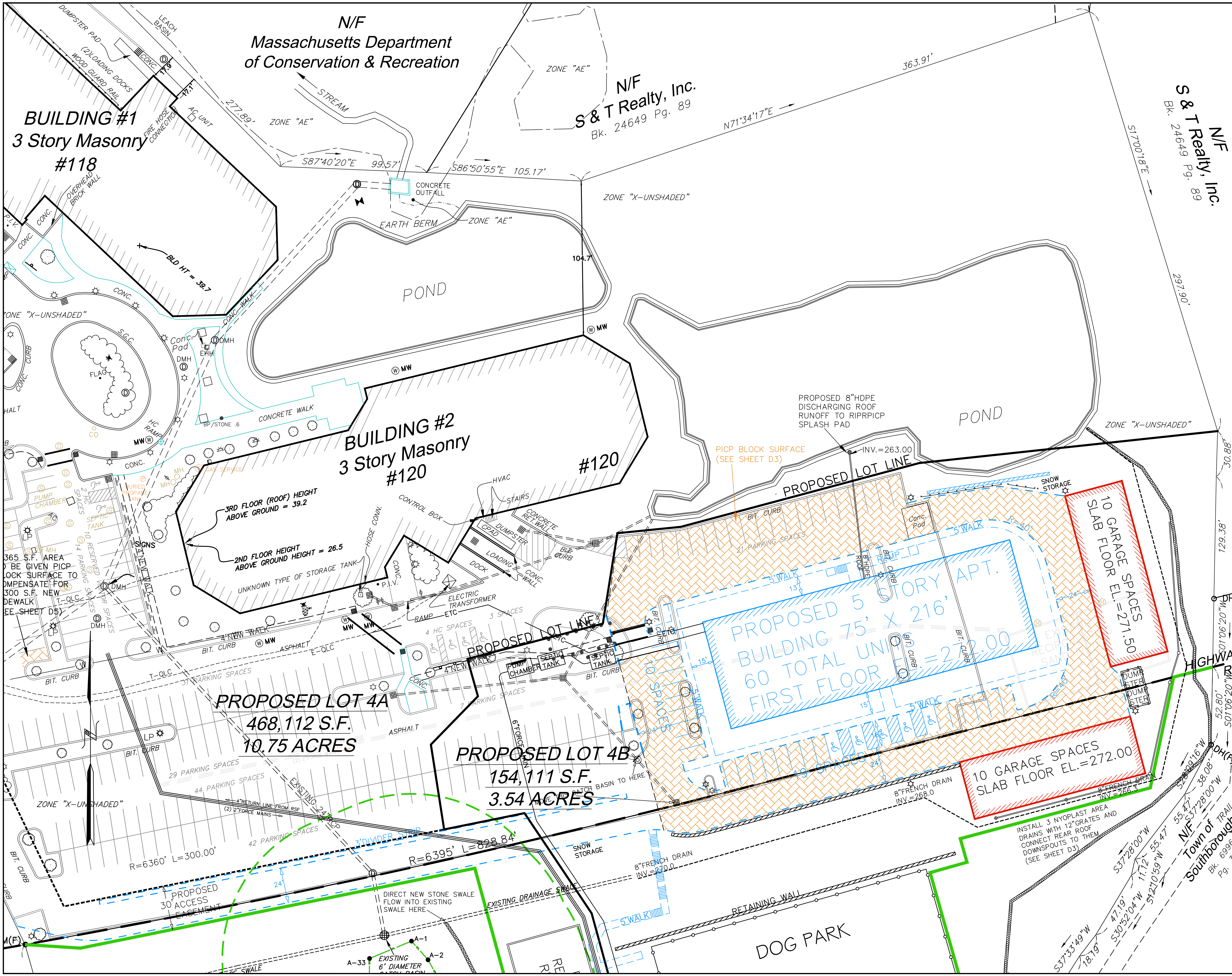
- 88 EXISTING PARKING SPACES ON SITE WILL BE LOST IN THE COURSE OF CONSTRUCTION AND 49 NEW PARKING SPACES CREATED, OF WHICH, 20 WILL BE IN PARKING GARAGES.
- IN ORDER TO CONNECT PEDESTRIANS FROM THE NEW RESIDENTIAL USE TO SIDEWALKS ALONG BOSTON TURNPIKE, ADDITIONAL SIDEWALKS WILL BE CREATED ON SITE. THESE SIDEWALKS WILL CREATE A TOTAL OF 2,300 S.F. OF IMPERVIOUS SURFACE THAT HAD BEEN GRASSED OR LANDSCAPED. IN COMPENSATION, 2,365 S.F. OF EXISTING PARKING SPACE SURFACE WILL BE GIVEN PERMEABLE INTERLOCKING CONCRETE PAVING BLOCK SURFACE WHICH WILL ALLOW RUNOFF ONTO THOSE SURFACES TO INFILTRATE.


EXPEDITED ENGINEERING, LLC
Professional Engineers & Erosion Control Specialists
118 Turnpike Road, Suite 300, Southborough, MA 01772
Telephone (508)-399-9993 james@expeditedengineers.com

CLT. NO.	504	JOB NO.	290-504
DATE:	OCTOBER 25, 2023	DWG NO.	120TURNPIKECURRENT
REVISIONS			
DATE:	DESCRIPTION		
1/24/24	TOWN REVIEW		
7/24/24	TOWN REVIEW		
SCALE: 1 INCH = 30 FEET			
			

SITE PLAN OF LAND
AT 120 TURNPIKE ROAD
IN
SOUTHBOROUGH, MASS.
OWNER & APPLICANT:
FD 120 TURNPIKE, LLC
118 TURNPIKE ROAD, SUITE 300
SOUTHBOROUGH, MA 01772

SITE LAYOUT PLAN S1



KEY

- EXISTING EDGE OF PAVEMENT
- WETLAND EDGE
- 100' BUFFER ZONE EDGE
- STONE WALL
- EXISTING GRADE CONTOUR
- OFFICIAL DEEP OBSERVATION HOLE
- OFFICIAL PERCOLATION TEST
- PROPOSED CURB
- PROPOSED RETAINING WALL
- PROPOSED GUARD RAIL
- PROPOSED POLE LIGHT
- PROPOSED PERMEABLE INTERLOCKING CONCRETE PAVING BLOCK SURFACE

COMPREHENSIVE PERMIT PLAN APPROVED BY THE SOUTHBOROUGH ZONING BOARD OF APPEALS ON _____

NOTES:

1) 88 EXISTING PARKING SPACES ON SITE WILL BE LOST IN THE COURSE OF CONSTRUCTION AND 49 NEW PARKING SPACES CREATED, OF WHICH, 20 WILL BE IN PARKING GARAGES.

2) IN ORDER TO CONNECT PEDESTRIANS FROM THE NEW RESIDENTIAL USE TO SIDEWALKS ALONG BOSTON TURNPIKE, ADDITIONAL SIDEWALKS WILL BE CREATED ON SITE. THESE SIDEWALKS WILL CREATE A TOTAL OF 2,300 S.F. OF IMPERVIOUS SURFACE THAT HAD BEEN GRASSED OR LANDSCAPED. IN COMPENSATION, 2,365 S.F. OF EXISTING PARKING SPACE SURFACE WILL BE GIVEN PERMEABLE INTERLOCKING CONCRETE PAVING BLOCK SURFACE WHICH WILL ALLOW RUNOFF ONTO THOSE SURFACES TO INFILTRATE.

EXPEDITED ENGINEERING, LLC
Professional Engineers & Erosion Control Specialists
118 Turnpike Road, Suite 300, Southborough, MA 01772
Telephone (508)-399-9993 james@expeditedengineers.com

CLT. NO.	504	JOB NO.	290-504
DATE:	OCTOBER 25, 2023	DWG NO.	120TURNPIKECURRENT
REVISIONS			
DATE:	DESCRIPTION		
1/24/24	TOWN REVIEW		
7/24/24	TOWN REVIEW		

SCALE: 1 INCH = 30 FEET

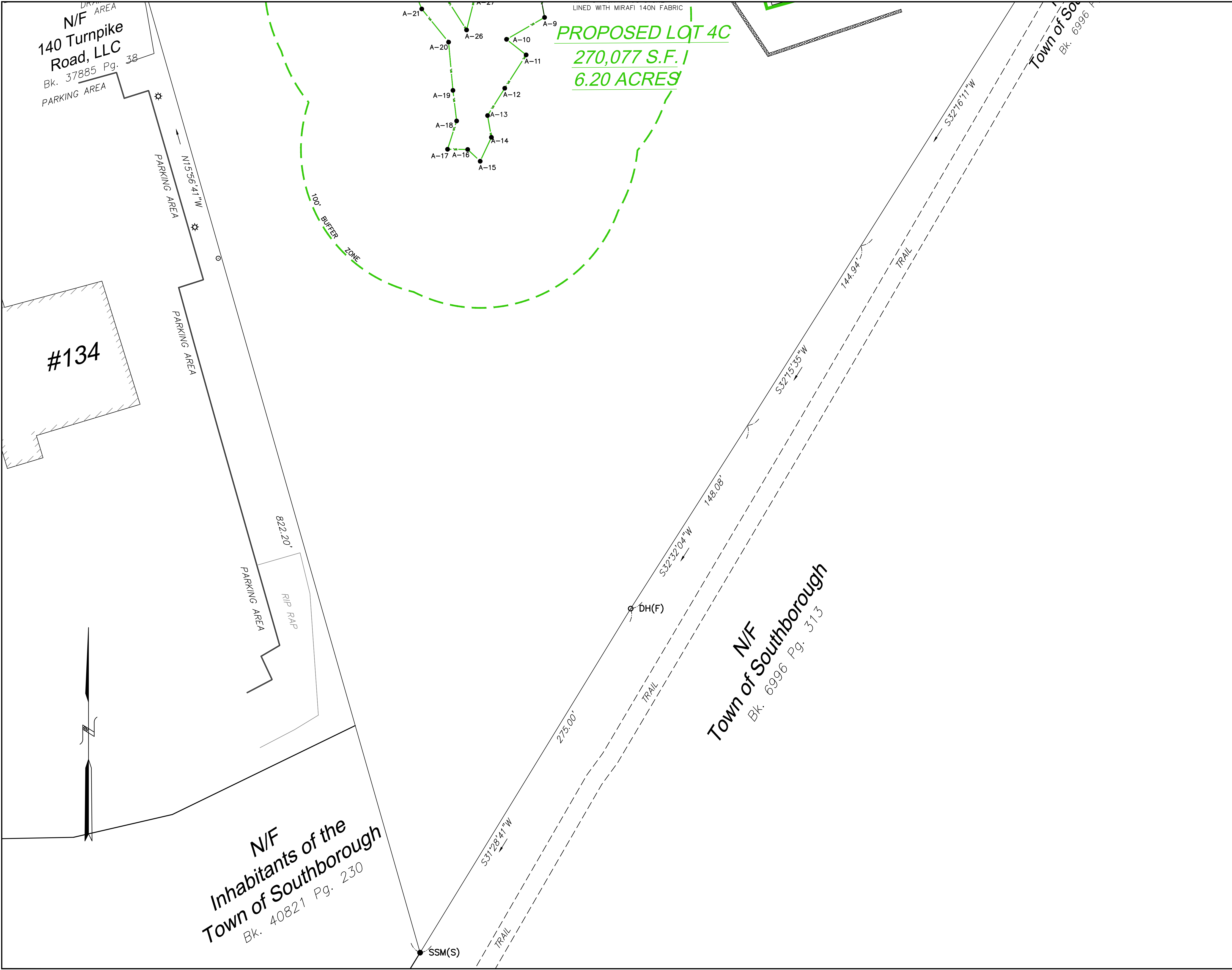
0 15 30 60 90
FEET

0 15 30
METERS

SITE PLAN OF LAND
AT 120 TURNPIKE ROAD
IN
SOUTHBOROUGH, MASS.
OWNER & APPLICANT:
FD 120 TURNPIKE, LLC
118 TURNPIKE ROAD, SUITE 300
SOUTHBOROUGH, MA 01772

SITE LAYOUT PLAN

S2



KEY

- EXISTING EDGE OF PAVEMENT
- WETLAND EDGE
- 100' BUFFER ZONE EDGE
- STONE WALL
- EXISTING GRADE CONTOUR
- OFFICIAL DEEP OBSERVATION HOLE
- OFFICIAL PERCOLATION TEST
- PROPOSED CURB
- PROPOSED RETAINING WALL
- PROPOSED GUARD RAIL
- PROPOSED POLE LIGHT

COMPREHENSIVE PERMIT PLAN APPROVED BY THE SOUTHBOROUGH ZONING BOARD OF APPEALS ON _____

NOTES:

1) 88 EXISTING PARKING SPACES ON SITE WILL BE LOST IN THE COURSE OF CONSTRUCTION AND 49 NEW PARKING SPACES CREATED, OF WHICH, 20 WILL BE IN PARKING GARAGES.

2) IN ORDER TO CONNECT PEDESTRIANS FROM THE NEW RESIDENTIAL USE TO SIDEWALKS ALONG BOSTON TURNPIKE, ADDITIONAL SIDEWALKS WILL BE CREATED ON SITE. THESE SIDEWALKS WILL CREATE A TOTAL OF 2,300 S.F. OF IMPERVIOUS SURFACE THAT HAD BEEN GRASSED OR LANDSCAPED. IN COMPENSATION, 2,365 S.F. OF EXISTING PARKING SPACE SURFACE WILL BE GIVEN PERMEABLE INTERLOCKING CONCRETE PAVING BLOCK SURFACE WHICH WILL ALLOW RUNOFF ONTO THOSE SURFACES TO INFILTRATE.

EXPEDITED ENGINEERING, LLC

Professional Engineers & Erosion Control Specialists
118 Turnpike Road, Suite 300, Southborough, MA 01772
Telephone (508)-399-9993 james@expeditedengineers.com

CLT. NO.	504	JOB NO.	290-504
DATE:	OCTOBER 25, 2023	DWG NO.	120TURNPIKECURRENT
REVISIONS			
DATE:	DESCRIPTION		
1/24/24	TOWN REVIEW		
7/24/24	TOWN REVIEW		

SCALE: 1 INCH = 30 FEET

0 15 30 60 90
FEET

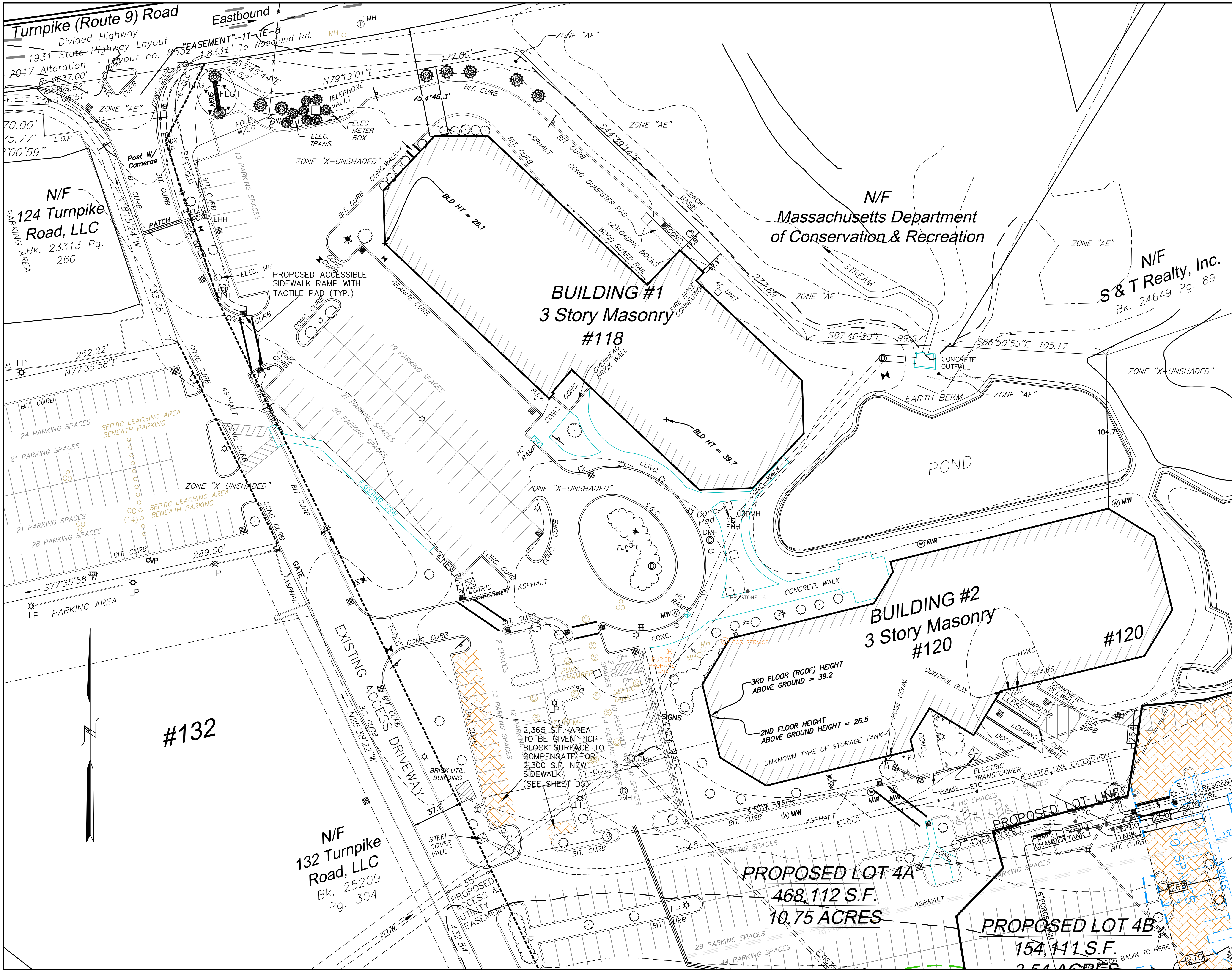
0 15 30
METERS

SITE PLAN OF LAND

AT 120 TURNPIKE ROAD
IN
SOUTHBOROUGH, MASS.

OWNER & APPLICANT:
FD 120 TURNPIKE, LLC
118 TURNPIKE ROAD, SUITE 300
SOUTHBOROUGH, MA 01772

SITE LAYOUT PLAN S4



KEY

---	EXISTING EDGE OF PAVEMENT
---	WETLAND EDGE
---	100' BUFFER ZONE EDGE
---	STONE WALL
---	EXISTING GRADE CONTOUR
---	OFFICIAL DEEP OBSERVATION HOLE
---	OFFICIAL PERCOLATION TEST
---	PROPOSED CURB
---	PROPOSED RETAINING WALL
---	PROPOSED GUARD RAIL
---	PROPOSED DRAIN MANHOLE
---	PROPOSED CATCH BASIN
---	PROPOSED SEWER MANHOLE
---	PROPOSED WATER LINE
---	PROPOSED HYDRANT
---	PROPOSED POLE LIGHT
---	PROPOSED ELEVATION CONTOUR
---	PROPOSED SPOT GRADE
---	PROPOSED PERMEABLE INTERLOCKING CONCRETE PAVING BLOCK SURFACE

COMPREHENSIVE PERMIT PLAN APPROVED BY THE SOUTHBOROUGH ZONING BOARD OF APPEALS ON _____

NOTES:

- 1) THE MAXIMUM GRADE OF THE PROPOSED ACCESS DRIVEWAY SOUTH OF THE NEW DIVIDER STRIP WILL BE 3%.
- 2) THE MAXIMUM GRADES OF THE DRIVING AISLE AROUND THE BUILDING SHALL BE 4%.
- 3) GRADES IN THE AREA OF THE HANDICAPPED ACCESSIBLE PARKING SPACES WILL NOT EXCEED 2%.
- 4) ALL PROPOSED RETAINING WALLS SHALL BE CONIGLIARO BLOCK (OR APPROVED EQUAL) AND WHERE OVER 4 FEET A STAMPED DESIGN SHALL BE SUBMITTED TO THE BUILDING DEPARTMENT.

EXPEDITED ENGINEERING, LLC
Professional Engineers & Erosion Control Specialists
118 Turnpike Road, Suite 300, Southborough, MA 01772
Telephone (508)-399-9993 james@expeditedengineers.com

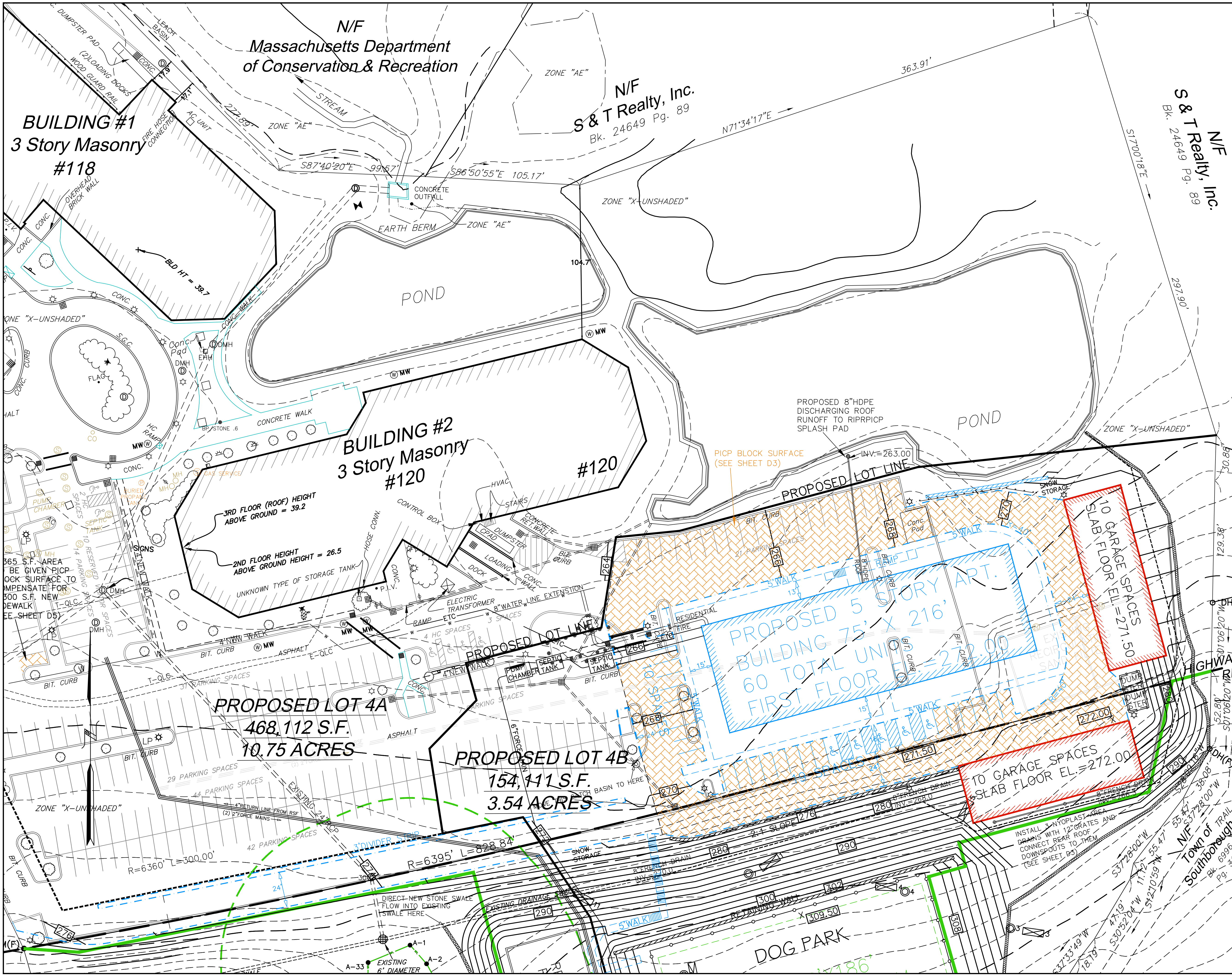
CLT. NO.	504	JOB NO.	290-504
DATE:	OCTOBER 25, 2023	DWG. NO.	120TURNPIKECURRENT
REVISIONS			
DATE:	DESCRIPTION		
1/24/24	TOWN REVIEW		
7/24/24	TOWN REVIEW		

SCALE: 1 INCH = 30 FEET

0 15 30 60 90
FEET

0 15 30
METERS

SITE PLAN OF LAND
AT 120 TURNPIKE ROAD
IN
SOUTHBOROUGH, MASS.
OWNER & APPLICANT:
FD 120 TURNPIKE, LLC
118 TURNPIKE ROAD, SUITE 300
SOUTHBOROUGH, MA 01772
GRADING & DRAINAGE PLAN G1



KEY

- EXISTING EDGE OF PAVEMENT
- WETLAND EDGE
- 100' BUFFER ZONE EDGE
- STONE WALL
- EXISTING GRADE CONTOUR
- OFFICIAL DEEP OBSERVATION HOLE
- OFFICIAL PERCOLATION TEST
- PROPOSED CURB
- PROPOSED RETAINING WALL
- PROPOSED GUARD RAIL
- PROPOSED DRAIN MANHOLE
- PROPOSED CATCH BASIN
- PROPOSED SEWER MANHOLE
- PROPOSED WATER LINE
- PROPOSED HYDRANT
- PROPOSED POLE LIGHT
- PROPOSED ELEVATION CONTOUR
- PROPOSED SPOT GRADE
- PROPOSED PERMEABLE INTERLOCKING CONCRETE PAVING BLOCK SURFACE

COMPREHENSIVE PERMIT PLAN APPROVED BY THE SOUTHBOROUGH ZONING BOARD OF APPEALS ON _____

NOTES:

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118 Turnpike Road, Suite 300, Southborough, MA 01772
Telephone (508)-399-9993 james@expeditedengineers.com

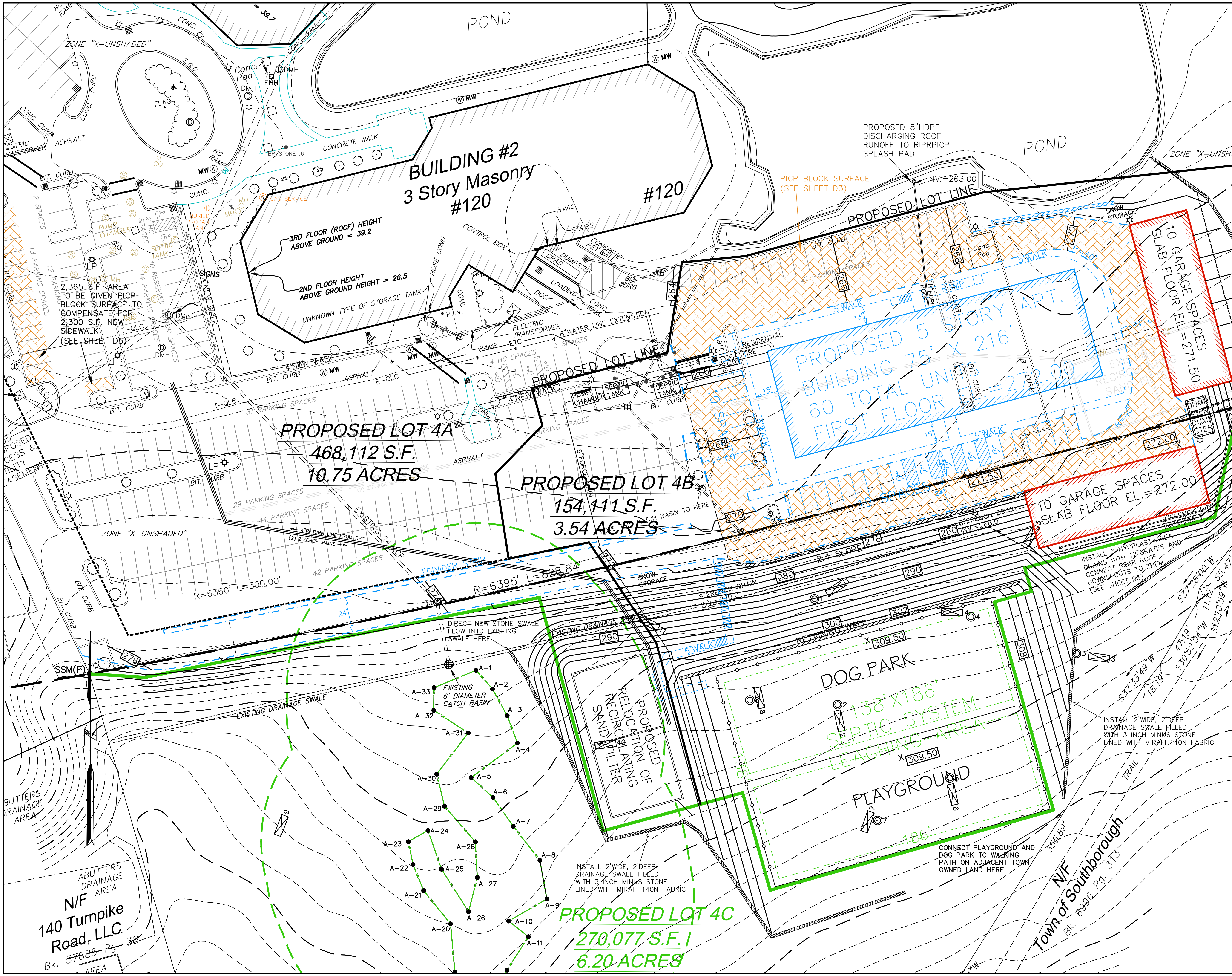
CLT. NO.	504	JOB NO.	290-504
DATE:	OCTOBER 25, 2023	DWG. NO.	120TURNPIKECURRENT
REVISIONS			
DATE:	DESCRIPTION		
1/24/24	TOWN REVIEW		
7/24/24	TOWN REVIEW		

SCALE: 1 INCH = 30 FEET

0 15 30 60 90
FEET

0 15 30
METERS

SITE PLAN OF LAND
AT 120 TURNPIKE ROAD
IN
SOUTHBOROUGH, MASS.
OWNER & APPLICANT:
FD 120 TURNPIKE, LLC
118 TURNPIKE ROAD, SUITE 300
SOUTHBOROUGH, MA 01772
GRADING & DRAINAGE PLAN G2



KEY

	EXISTING EDGE OF PAVEMENT
	WETLAND EDGE
	100' BUFFER ZONE EDGE
	STONE WALL
	EXISTING GRADE CONTOUR
	OFFICIAL DEEP OBSERVATION HOLE
	OFFICIAL PERCOLATION TEST
	PROPOSED CURB
	PROPOSED RETAINING WALL
	PROPOSED GUARD RAIL
	PROPOSED DRAIN MANHOLE
	PROPOSED CATCH BASIN
	PROPOSED SEWER MANHOLE
	PROPOSED WATER LINE
	PROPOSED HYDRANT
	PROPOSED POLE LIGHT
	PROPOSED ELEVATION CONTOUR
	PROPOSED SPOT GRADE
	PROPOSED PERMEABLE INTERLOCKING CONCRETE PAVING BLOCK SURFACE

COMPREHENSIVE PERMIT PLAN APPROVED BY THE SOUTHBOROUGH ZONING BOARD OF APPEALS ON _____

NOTES:

- 1) THE MAXIMUM GRADE OF THE PROPOSED ACCESS DRIVEWAY SOUTH OF THE NEW DIVIDER STRIP WILL BE 3%.
- 2) THE MAXIMUM GRADES OF THE DRIVING AISLE AROUND THE BUILDING SHALL BE 4%.
- 3) GRADES IN THE AREA OF THE HANDICAPPED ACCESSIBLE PARKING SPACES WILL NOT EXCEED 2%.
- 4) ALL PROPOSED RETAINING WALLS SHALL BE CONIGLIARO BLOCK (OR APPROVED EQUAL) AND WHERE OVER 4 FEET A STAMPED DESIGN SHALL BE SUBMITTED TO THE BUILDING DEPARTMENT.

EXPEDITED ENGINEERING, LLC
Professional Engineers & Erosion Control Specialists
118 Turnpike Road, Suite 300, Southborough, MA 01772
Telephone (508)-399-9993 james@expeditedengineers.com

CLT. NO.	504	JOB NO.	290-504
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REVISIONS			
DATE:	DESCRIPTION		
1/24/24	TOWN REVIEW		
7/24/24	TOWN REVIEW		

SCALE: 1 INCH = 30 FEET

0 15 30 60 90

FEET

0 15 30

METERS

SITE PLAN OF LAND

AT 120 TURNPIKE ROAD

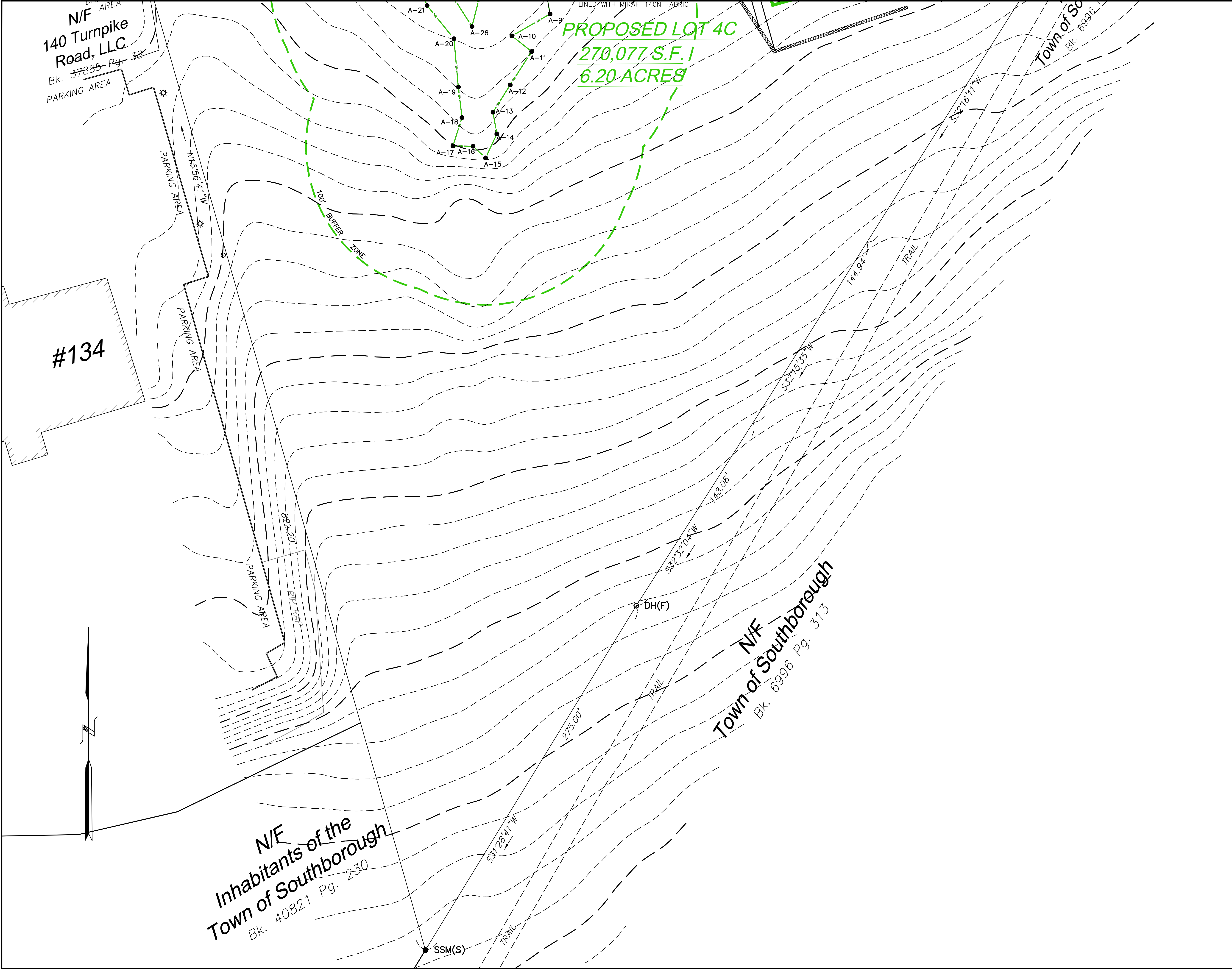
IN

SOUTHBOROUGH, MASS.

OWNER & APPLICANT:

FD 120 TURNPIKE, LLC
118 TURNPIKE ROAD, SUITE 300
SOUTHBOROUGH, MA 01772

GRADING & DRAINAGE PLAN G3



WFL

100' BUFFER ZONE EDGE

STONE WALL

EXISTING GRADE CONTOUR

OFFICIAL DEEP OBSERVATION HOLE

OFFICIAL PERCOLATION TEST

PROPOSED CURB

PROPOSED RETAINING WALL

PROPOSED GUARD RAIL

PROPOSED DRAIN MANHOLE

PROPOSED CATCH BASIN

PROPOSED SEWER MANHOLE

PROPOSED WATER LINE

PROPOSED HYDRANT

PROPOSED POLE LIGHT

PROPOSED ELEVATION CONTOUR

PROPOSED SPOT GRADE

PROPOSED PERMEABLE INTERLOCKING CONCRETE PAVING BLOCK SURFACE

4

A

W

W

314

315.25

X

COMPREHENSIVE PERMIT PLAN APPROVED BY THE SOUTHBOROUGH ZONING BOARD OF APPEALS ON _____

COMPREHENSIVE PERMIT PLAN APPROVED BY THE SOUTHBOROUGH ZONING BOARD OF APPEALS ON _____

NOTES:

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COMMONWEALTH OF MASSACHUSETTS

JAMES L. TETREAU

CIVIL

No. 38548

PROFESSIONAL ENGINEER

EXPEDITED ENGINEERING, LLC

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118 Turnpike Road, Suite 300, Southborough, MA 01772
Telephone (508) 399-9993 james@expeditedengineers.com

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REVISIONS			
DATE:	DESCRIPTION		
1/24/24	TOWN REVIEW		
7/24/24	TOWN REVIEW		

SCALE: 1 INCH = 30 FEET

0 15 30 60 90

FEET

0 15 30

METERS

SITE PLAN OF LAND

AT 120 TURNPIKE ROAD

IN

SOUTHBOROUGH, MASS.

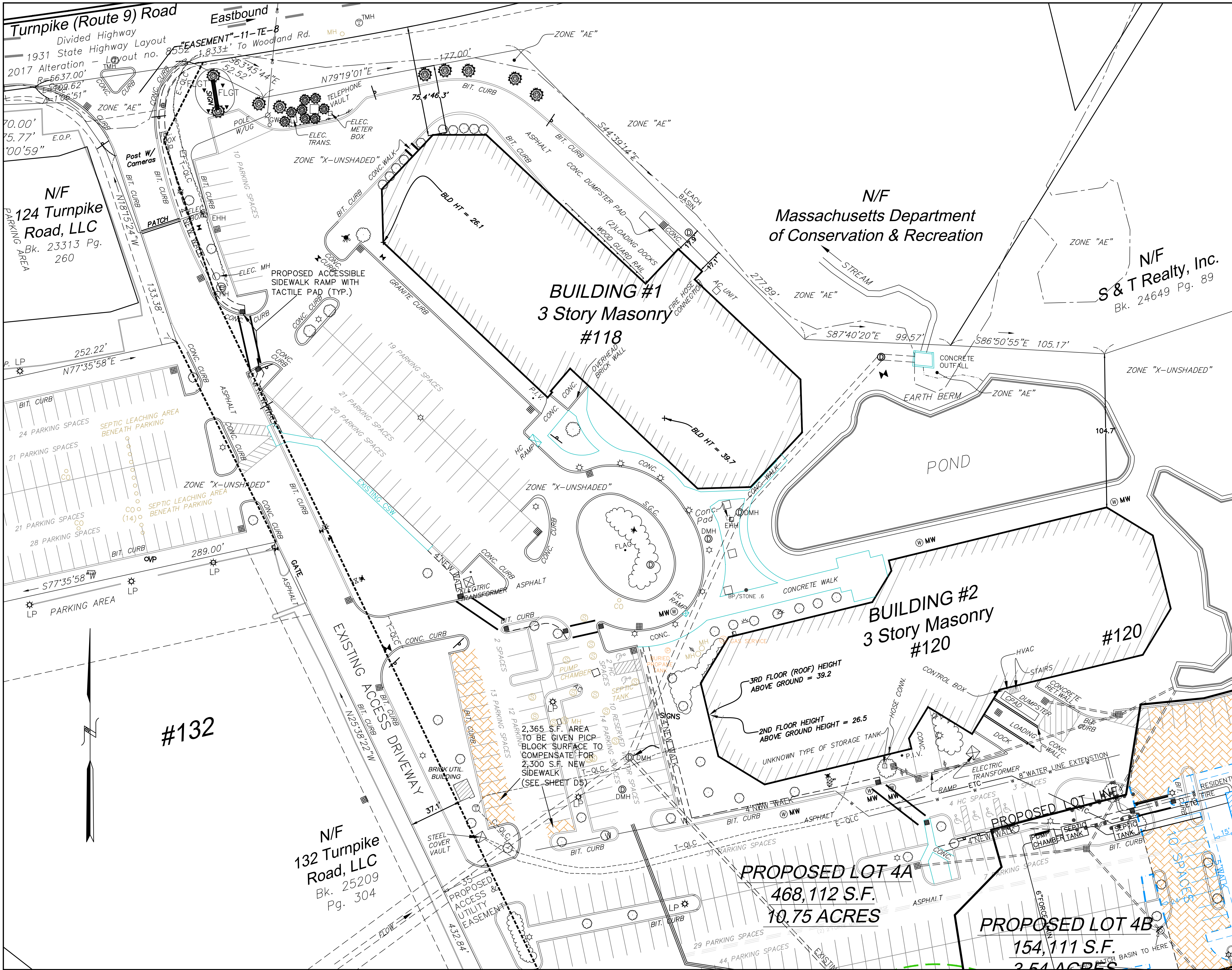
OWNER & APPLICANT:

FD 120 TURNPIKE, LLC

118 TURNPIKE ROAD, SUITE 300

SOUTHBOROUGH, MA 01772

GRADING & DRAINAGE PLAN G4



KEY	
	EXISTING EDGE OF PAVEMENT
	WETLAND EDGE
	100' BUFFER ZONE EDGE
	STONE WALL
	PROPOSED CURB
	PROPOSED RETAINING WALL
	PROPOSED GUARD RAIL
	PROPOSED DRAIN MANHOLE
	PROPOSED CATCH BASIN
	PROPOSED SEWER MANHOLE
	PROPOSED WATER LINE
	PROPOSED HYDRANT
	PROPOSED POLE LIGHT
	PROPOSED ELECTRIC CONDUIT

COMPREHENSIVE PERMIT PLAN APPROVED BY
THE SOUTHBOROUGH ZONING BOARD OF
APPEALS ON _____

CLT. NO. 504 JOB NO. 290-504

DATE: OCTOBER 25, 2023 DWG NO. 120TURNPIKECURRENT

DATE:	REVISIONS
	DESCRIPTION
1/24/24	TOWN REVIEW
7/24/24	TOWN REVIEW

SCALE: 1 INCH = 30 FEET

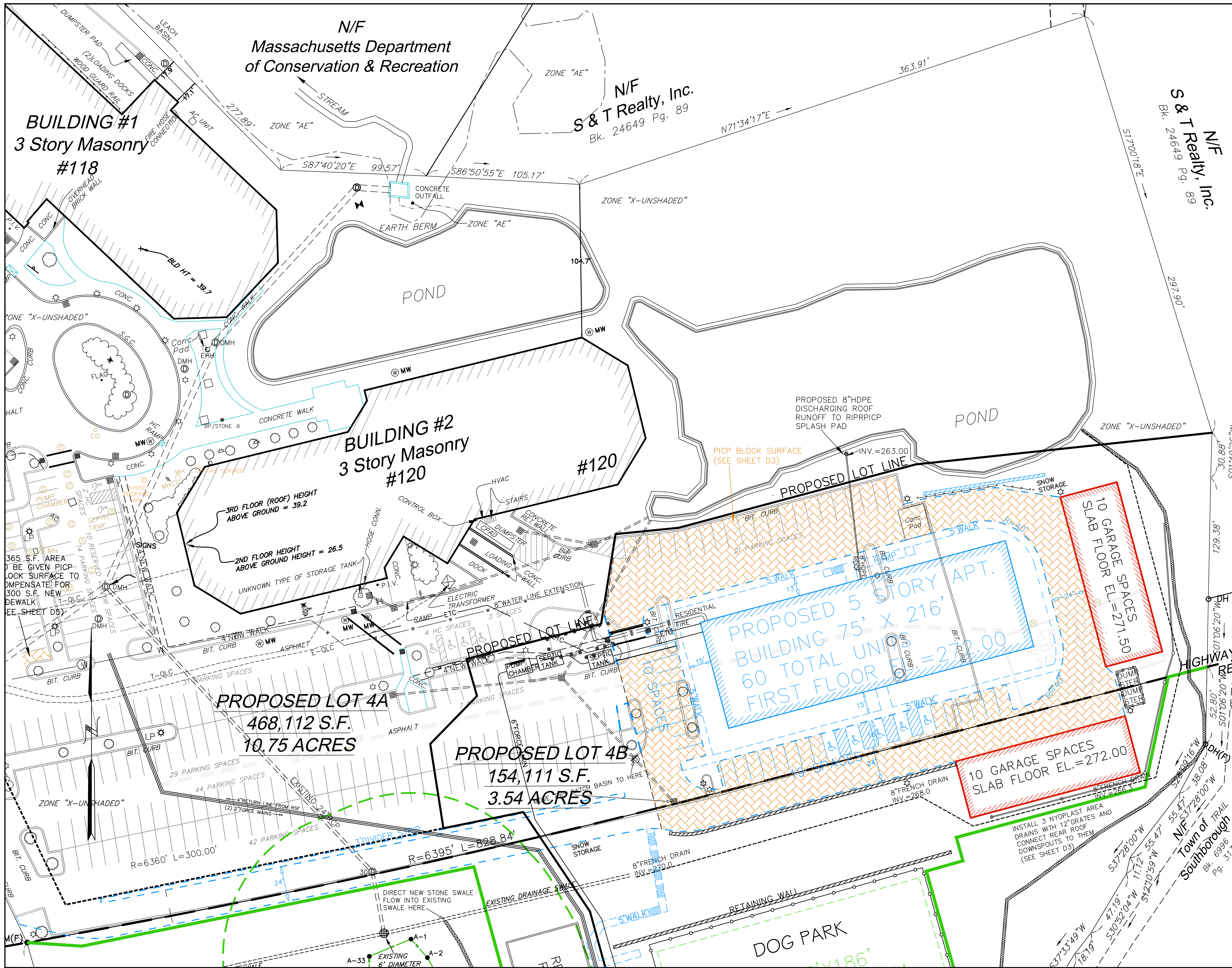
0 15 30 60 90
FEET

0 15 30
METERS

EXPEDITED ENGINEERING, LLC
Professional Engineers & Erosion Control Specialists
118 Turnpike Road, Suite 300, Southborough, MA 01772
Telephone (508)-399-9993 james@expeditedengineers.com

SITE PLAN OF LAND
AT 120 TURNPIKE ROAD
IN
SOUTHBOROUGH, MASS.
OWNER & APPLICANT:
FD 120 TURNPIKE, LLC
118 TURNPIKE ROAD, SUITE 300
SOUTHBOROUGH, MA 01772

UTILITY PLAN U1



KEY	
	EXISTING EDGE OF PAVEMENT
	WETLAND EDGE
	100' BUFFER ZONE EDGE
	STONE WALL
	PROPOSED CURB
	PROPOSED RETAINING WALL
	PROPOSED GUARD RAIL
	PROPOSED DRAIN MANHOLE
	PROPOSED CATCH BASIN
	PROPOSED SEWER MANHOLE
	PROPOSED WATER LINE
	PROPOSED HYDRANT
	PROPOSED POLE LIGHT
	PROPOSED ELECTRIC CONDUIT

COMPREHENSIVE PERMIT PLAN APPROVED BY
THE SOUTHBOROUGH ZONING BOARD OF
APPEALS ON _____

EXPEDITED ENGINEERING, LLC

Professional Engineers & Erosion Control Specialists
118 Turnpike Road, Suite 300, Southborough, MA 01772
Telephone (508)-399-9993 james@expeditedengineers.com

CLT. NO.		504		JOB NO.		290-504	
DATE:				DWG NO.			
OCTOBER 25, 2023				120TURNPIKECURRENT			
REVISIONS							
DATE:		DESCRIPTION					
1/24/24		TOWN REVIEW					
7/24/24		TOWN REVIEW					
SCALE: 1 INCH = 30 FEET							
015306090 FEET							
01530 METERS							

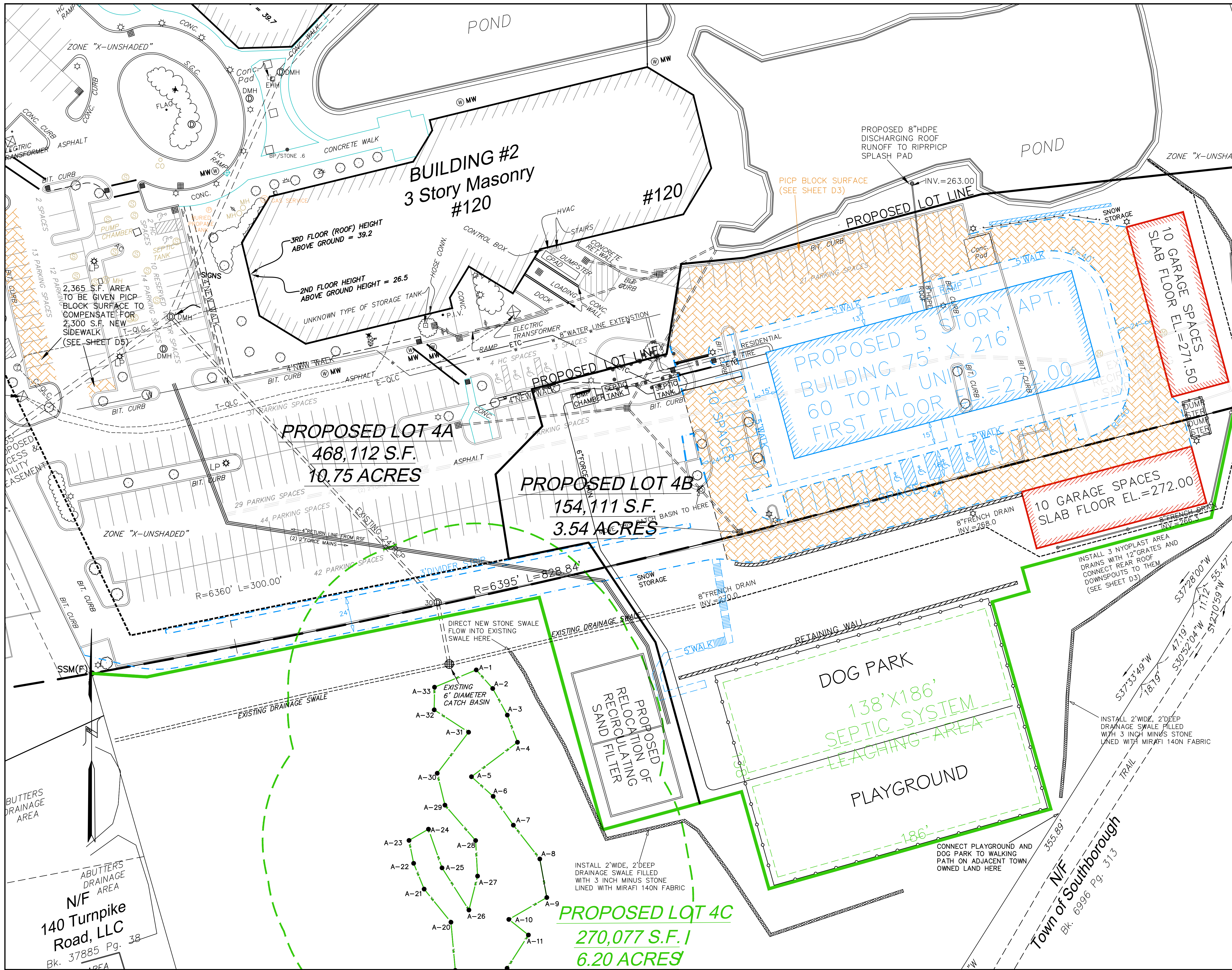
SITE PLAN OF LAND

AT 120 TURNPIKE ROAD
IN
SOUTHBOROUGH, MASS.

OWNER & APPLICANT:
FD 120 TURNPIKE, LLC
118 TURNPIKE ROAD, SUITE 300
SOUTHBOROUGH, MA 01772

UTILITY PLAN

U2

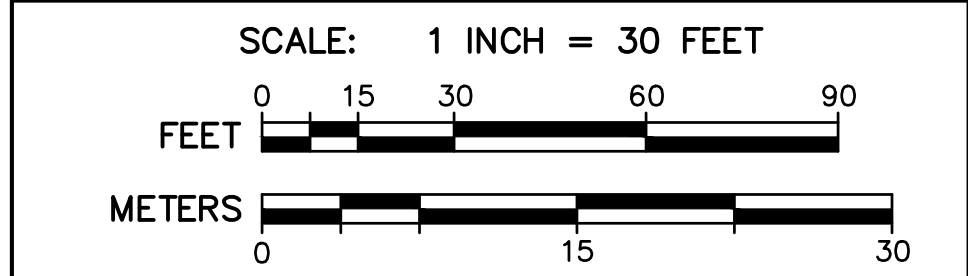


KEY	
	EXISTING EDGE OF PAVEMENT
	WETLAND EDGE
	100' BUFFER ZONE EDGE
	STONE WALL
	PROPOSED CURB
	PROPOSED RETAINING WALL
	PROPOSED GUARD RAIL
	PROPOSED DRAIN MANHOLE
	PROPOSED CATCH BASIN
	PROPOSED SEWER MANHOLE
	PROPOSED WATER LINE
	PROPOSED HYDRANT
	PROPOSED POLE LIGHT
	PROPOSED ELECTRIC CONDUIT

COMPREHENSIVE PERMIT PLAN APPROVED BY
THE SOUTHBOROUGH ZONING BOARD OF
APPEALS ON _____

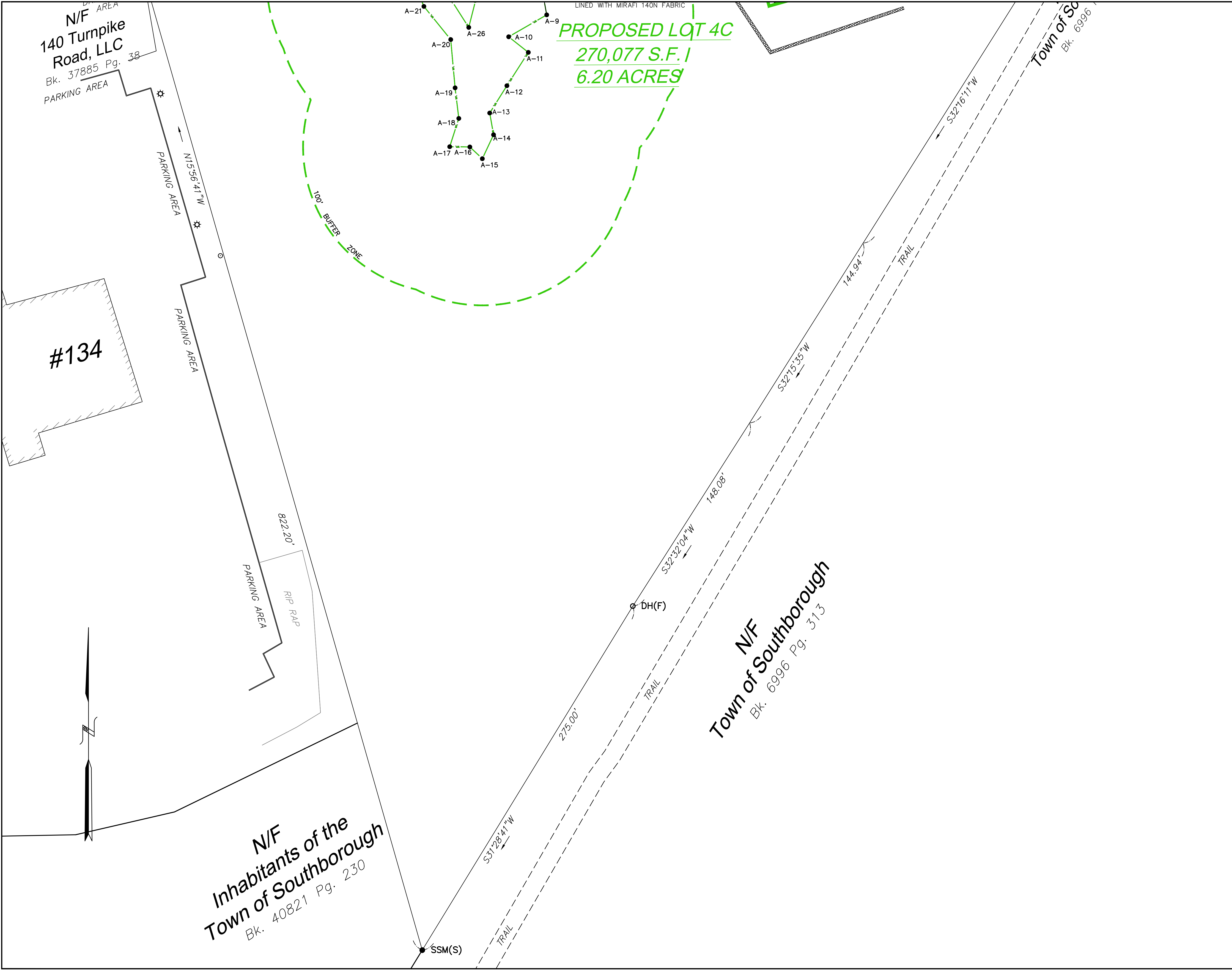
EXPEDITED ENGINEERING, LLC
Professional Engineers & Erosion Control Specialists
118 Turnpike Road, Suite 300, Southborough, MA 01772
Telephone (508)-399-9993 james@expeditedengineering.com

CLT. NO.	504	JOB NO.	290-504
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REVISIONS			
DATE:	DESCRIPTION		
1/24/24	TOWN REVIEW		
7/24/24	TOWN REVIEW		



SITE PLAN OF LAND
AT 120 TURNPIKE ROAD
IN
SOUTHBOROUGH, MASS.
OWNER & APPLICANT:
FD 120 TURNPIKE, LLC
118 TURNPIKE ROAD, SUITE 300
SOUTHBOROUGH, MA 01772

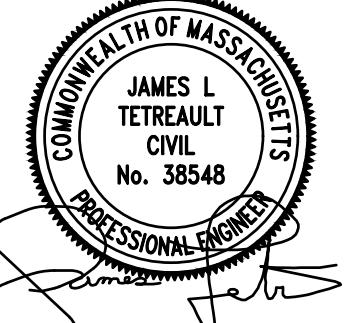
UTILITY PLAN U3



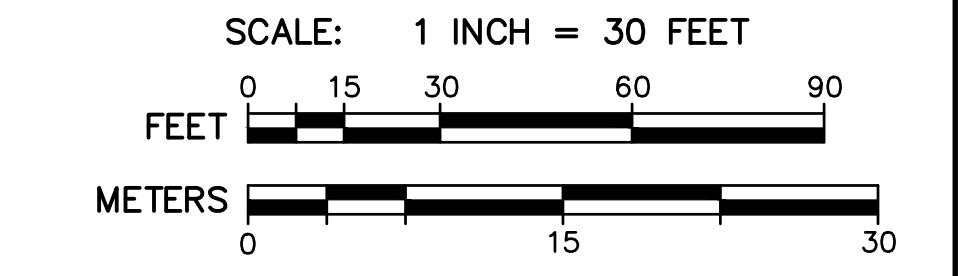
KEY

---	EXISTING EDGE OF PAVEMENT
---	WETLAND EDGE
---	100' BUFFER ZONE EDGE
---	STONE WALL
---	PROPOSED CURB
---	PROPOSED RETAINING WALL
---	PROPOSED GUARD RAIL
⊙	PROPOSED DRAIN MANHOLE
⊙	PROPOSED CATCH BASIN
⊙	PROPOSED SEWER MANHOLE
W	PROPOSED WATER LINE
⊙	PROPOSED HYDRANT
⊙	PROPOSED POLE LIGHT
---	PROPOSED ELECTRIC CONDUIT

COMPREHENSIVE PERMIT PLAN APPROVED BY
THE SOUTHBOROUGH ZONING BOARD OF
APPEALS ON _____

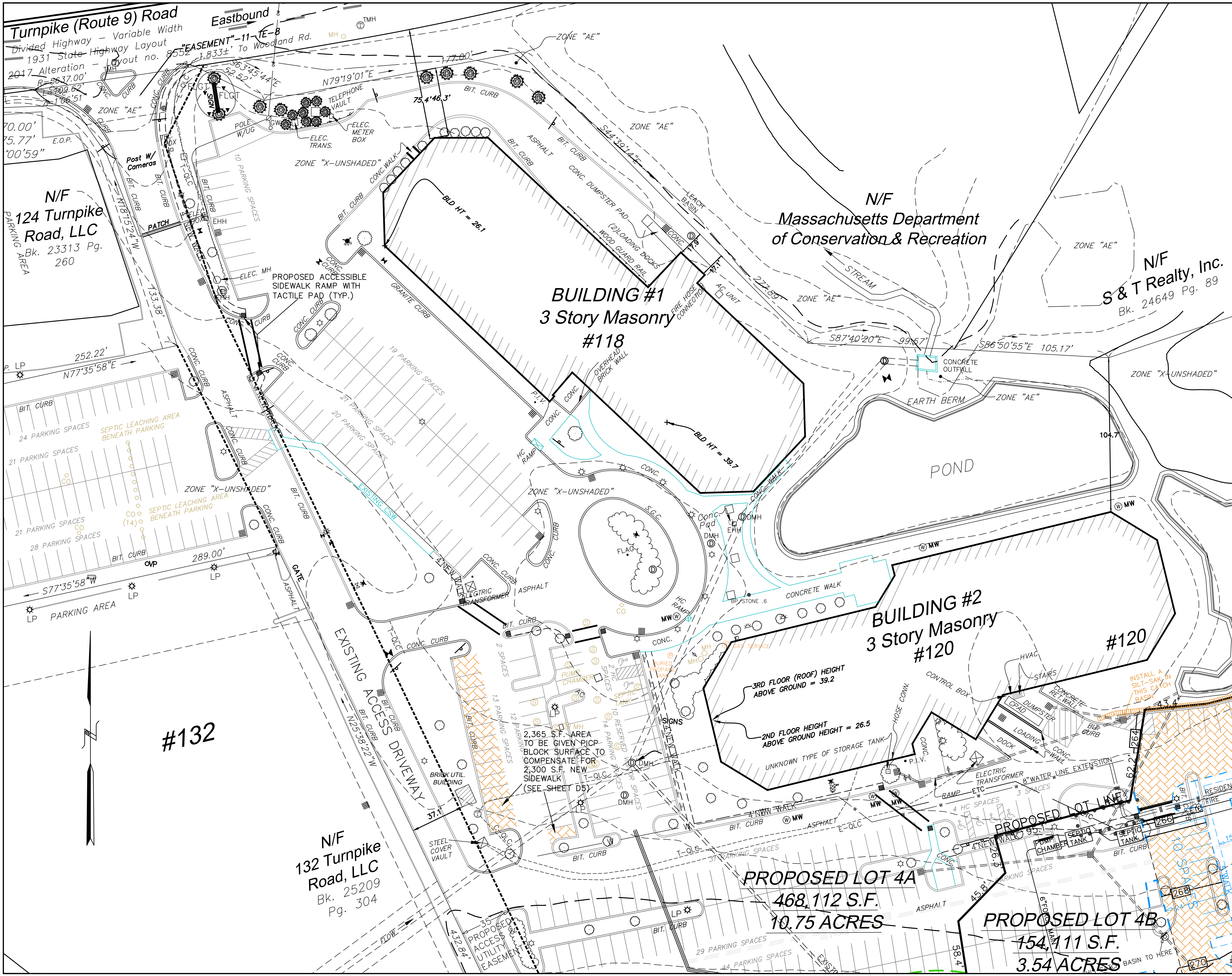

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Telephone (508)-399-9993 james@expeditedengineers.com

CLT. NO.	504	JOB NO.	290-504
DATE:	OCTOBER 25, 2023	DWG NO.	120TURNPIKECURRENT
REVISIONS			
DATE:	DESCRIPTION		
1/24/24	TOWN REVIEW		
7/24/24	TOWN REVIEW		



SITE PLAN OF LAND
AT 120 TURNPIKE ROAD
IN
SOUTHBOROUGH, MASS.
OWNER & APPLICANT:
FD 120 TURNPIKE, LLC
118 TURNPIKE ROAD, SUITE 300
SOUTHBOROUGH, MA 01772

UTILITY PLAN U4



KEY

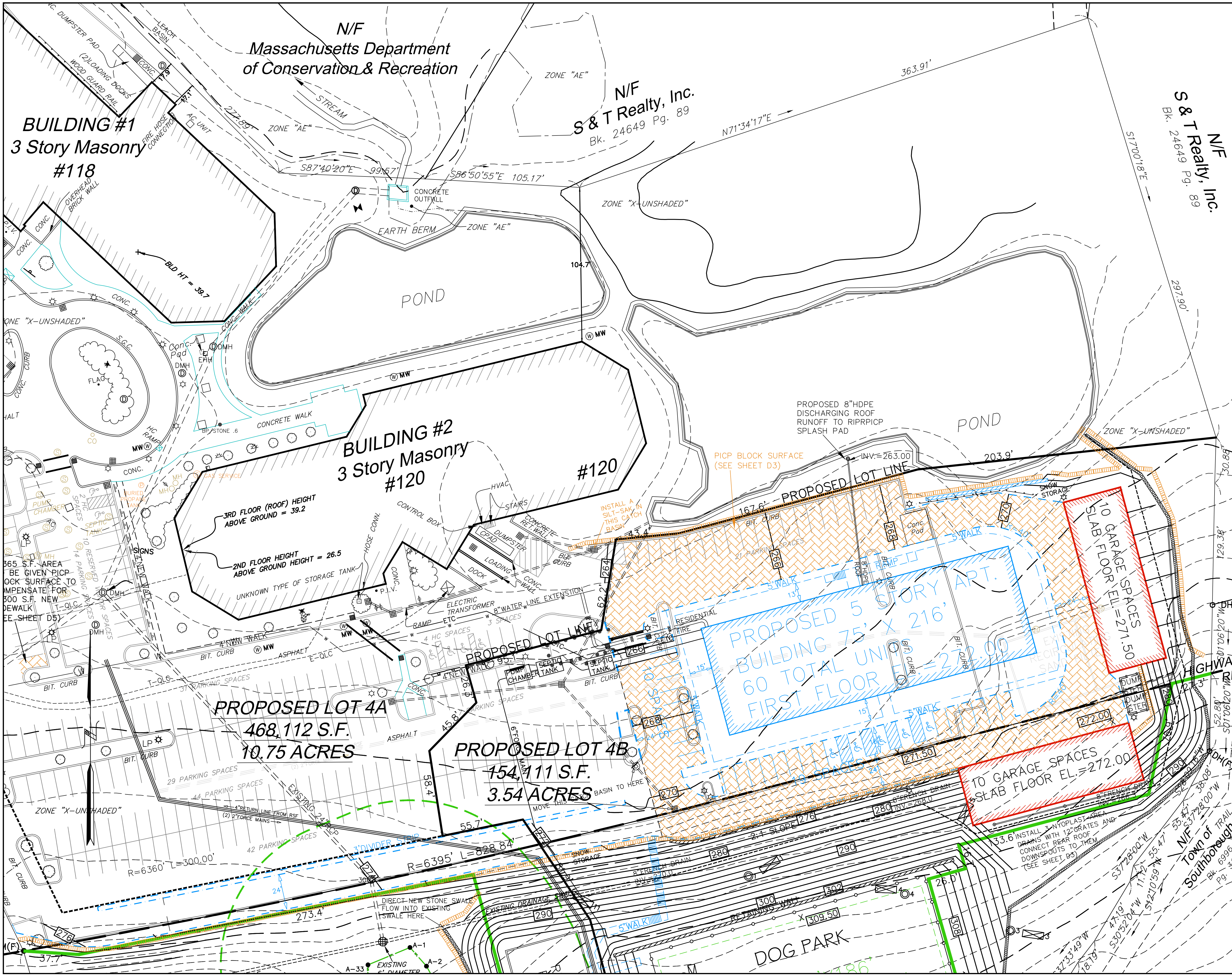
- EXISTING EDGE OF PAVEMENT
- WETLAND EDGE
- 100' BUFFER ZONE EDGE
- STONE WALL
- EXISTING GRADE CONTOUR
- OFFICIAL DEEP OBSERVATION HOLE
- OFFICIAL PERCOLATION TEST
- PROPOSED CURB
- PROPOSED RETAINING WALL
- PROPOSED GUARD RAIL
- PROPOSED DRAIN MANHOLE
- PROPOSED CATCH BASIN
- PROPOSED SEWER MANHOLE
- PROPOSED WATER LINE
- PROPOSED HYDRANT
- PROPOSED POLE LIGHT
- PROPOSED ELEVATION CONTOUR
- PROPOSED SPOT GRADE
- PROPOSED SEDIMENT CONTROL BARRIER
- PROPOSED PERMEABLE INTERLOCKING CONCRETE PAVING BLOCK SURFACE

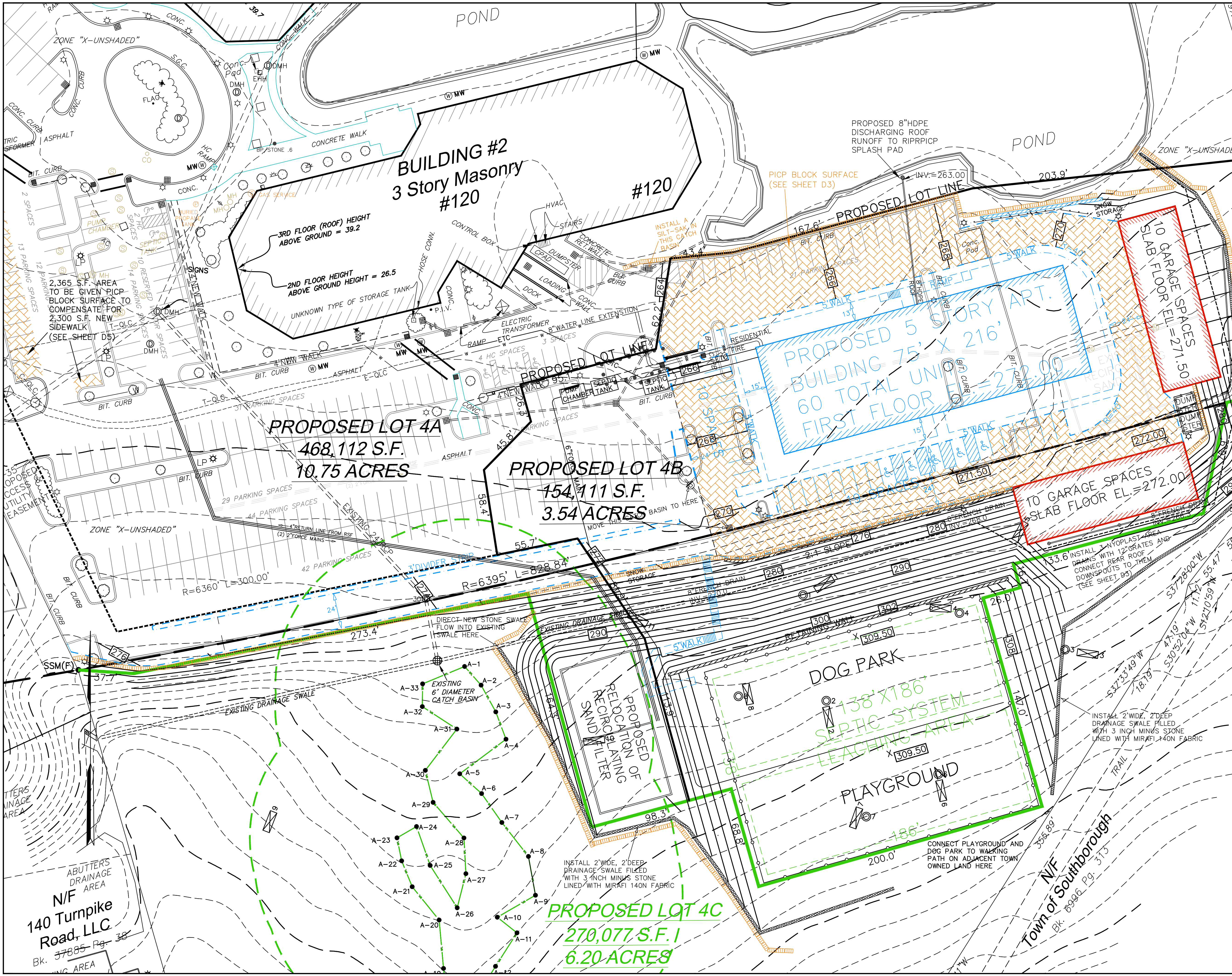
COMPREHENSIVE PERMIT PLAN APPROVED BY THE SOUTHBOROUGH ZONING BOARD OF APPEALS ON _____

EXPEDITED ENGINEERING, LLC
Professional Engineers & Erosion Control Specialists
118 Turnpike Road, Suite 300, Southborough, MA 01772
Telephone (508)-399-9993 james@expeditedengineers.com

CLT. NO.		JOB NO.	
504		290-504	
DATE:		DWG NO.	
OCTOBER 25, 2023		120TURNPIKECURRENT	
REVISIONS			
DATE:		DESCRIPTION	
1/24/24		TOWN REVIEW	
7/24/24		TOWN REVIEW	
SCALE: 1 INCH = 30 FEET			
FEET			
			
METERS			
			

SITE PLAN OF LAND
AT 120 TURNPIKE ROAD
IN
SOUTHBOROUGH, MASS.
OWNER & APPLICANT:
FD 120 TURNPIKE, LLC
118 TURNPIKE ROAD, SUITE 300
SOUTHBOROUGH, MA 01772
EROSION & SEDIMENTATION
CONTROL PLAN





KEY

- EXISTING EDGE OF PAVEMENT
- WETLAND EDGE
- 100' BUFFER ZONE EDGE
- STONE WALL
- EXISTING GRADE CONTOUR
- OFFICIAL DEEP OBSERVATION HOLE
- OFFICIAL PERCOLATION TEST
- PROPOSED CURB
- PROPOSED RETAINING WALL
- PROPOSED GUARD RAIL
- PROPOSED DRAIN MANHOLE
- PROPOSED CATCH BASIN
- PROPOSED SEWER MANHOLE
- PROPOSED WATER LINE
- PROPOSED HYDRANT
- PROPOSED POLE LIGHT
- PROPOSED ELEVATION CONTOUR
- PROPOSED SPOT GRADE
- PROPOSED SEDIMENT CONTROL BARRIER
- PROPOSED PERMEABLE INTERLOCKING CONCRETE PAVING BLOCK SURFACE

COMPREHENSIVE PERMIT PLAN APPROVED BY THE SOUTHBOROUGH ZONING BOARD OF APPEALS ON _____

EXPEDITED ENGINEERING, LLC
Professional Engineers & Erosion Control Specialists
118 Turnpike Road, Suite 300, Southborough, MA 01772
Telephone (508)-399-9993 james@expeditedengineers.com

CLT. NO.	504	JOB NO.	290-504
DATE:	OCTOBER 25, 2023	DWG NO.	120TURNPIKECURRENT
REVISIONS			
DATE:	DESCRIPTION		
1/24/24	TOWN REVIEW		
7/24/24	TOWN REVIEW		

SCALE: 1 INCH = 30 FEET

0 15 30 60 90

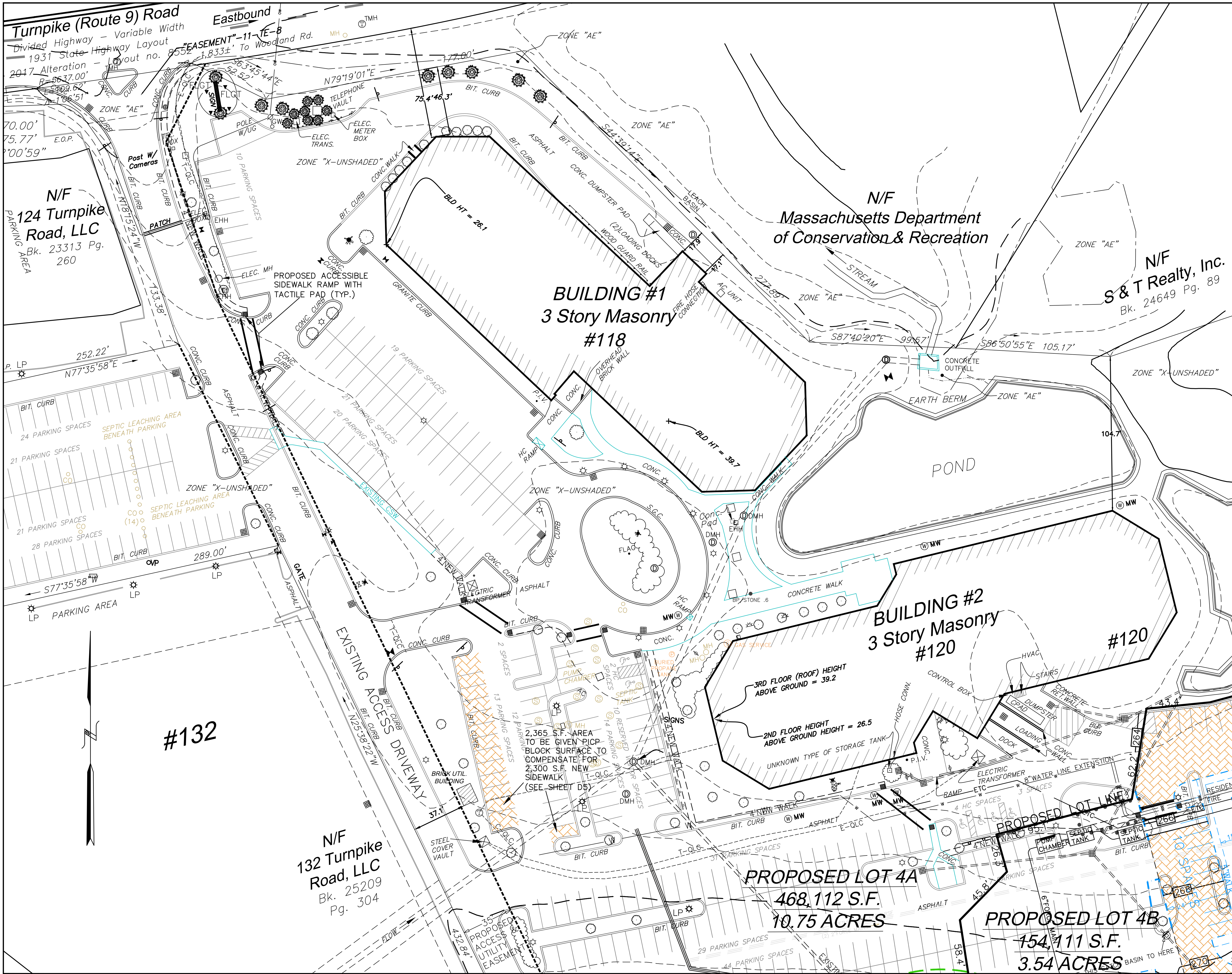
FEET

0 15 30

METERS

SITE PLAN OF LAND
AT 120 TURNPIKE ROAD
IN
SOUTHBOROUGH, MASS.
OWNER & APPLICANT:
FD 120 TURNPIKE, LLC
118 TURNPIKE ROAD, SUITE 300
SOUTHBOROUGH, MA 01772
EROSION & SEDIMENTATION
CONTROL PLAN

ESC3



KEY

---	EXISTING EDGE OF PAVEMENT
---	WETLAND EDGE
---	100' BUFFER ZONE EDGE
---	STONE WALL
---	EXISTING GRADE CONTOUR
---	OFFICIAL DEEP OBSERVATION HOLE
---	OFFICIAL PERCOLATION TEST
---	PROPOSED CURB
---	PROPOSED RETAINING WALL
---	PROPOSED GUARD RAIL
---	PROPOSED DRAIN MANHOLE
---	PROPOSED CATCH BASIN
---	PROPOSED SEWER MANHOLE
---	PROPOSED WATER LINE
---	PROPOSED HYDRANT
---	PROPOSED POLE LIGHT
---	PROPOSED ELEVATION CONTOUR
---	PROPOSED SPOT GRADE
---	PROPOSED PERMEABLE INTERLOCKING CONCRETE PAVING BLOCK SURFACE

COMPREHENSIVE PERMIT PLAN APPROVED BY THE SOUTHBOROUGH ZONING BOARD OF APPEALS ON _____

NOTES:

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Professional Engineers & Erosion Control Specialists
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Telephone (508)-399-9993 james@expeditedengineers.com

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DATE:	OCTOBER 25, 2023	DWG. NO.	120TURNPIKECURRENT
REVISIONS			
DATE:	DESCRIPTION		
1/24/24	TOWN REVIEW		
7/24/24	TOWN REVIEW		

SCALE: 1 INCH = 30 FEET

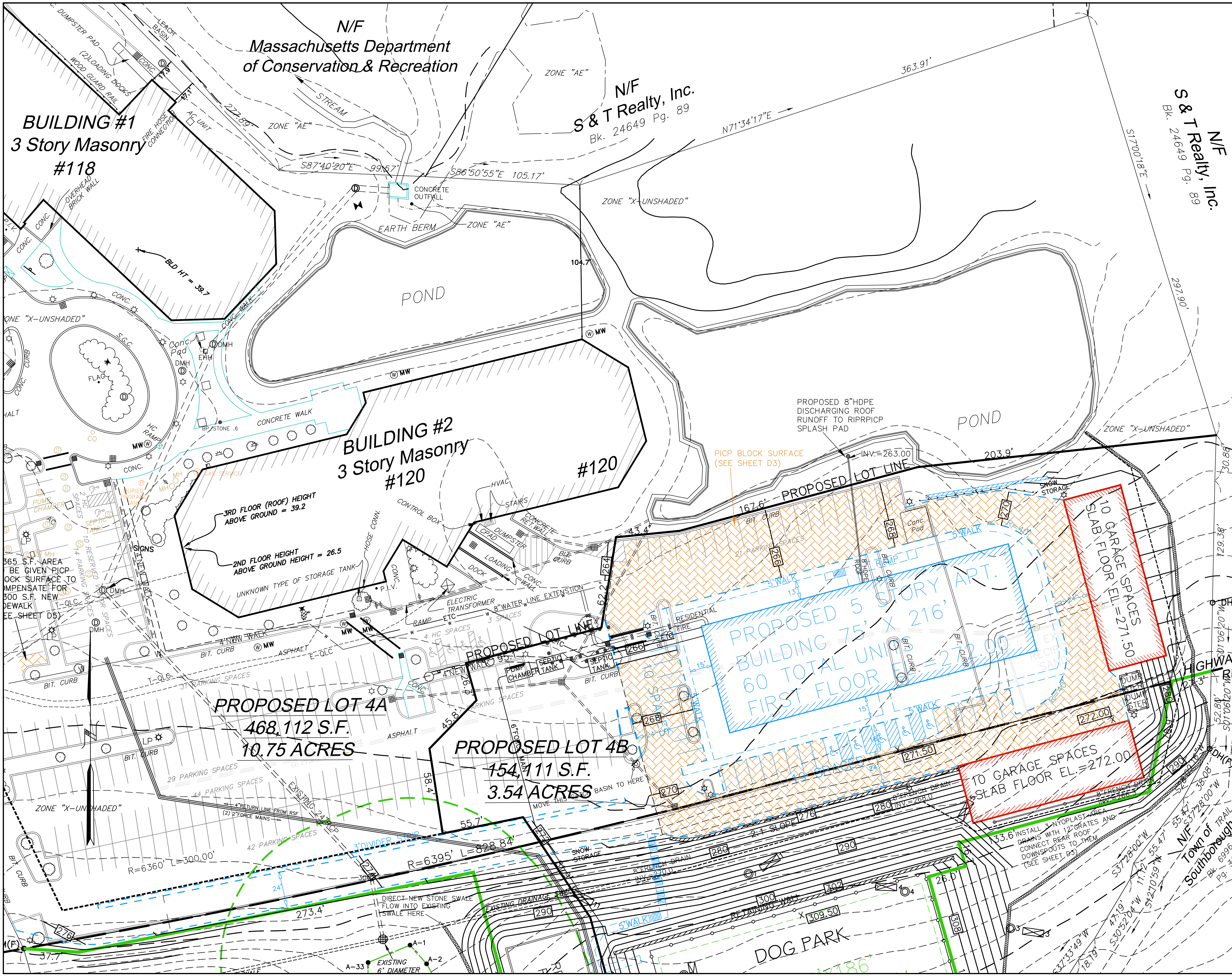
0 15 30 60 90
FEET

0 15 30
METERS

PRELIMINARY PLAN OF 120 TURNPIKE 40B
AT 120 TURNPIKE ROAD
IN
SOUTHBOROUGH, MASS.

OWNER & APPLICANT:
FD 120 TURNPIKE, LLC
118 TURNPIKE ROAD, SUITE 300
SOUTHBOROUGH, MA 01772

PRELIMINARY PLAN PP1



KEY

	EXISTING EDGE OF PAVEMENT
	WETLAND EDGE
	100' BUFFER ZONE EDGE
	STONE WALL
	EXISTING GRADE CONTOUR
	OFFICIAL DEEP OBSERVATION HOLE
	OFFICIAL PERCOLATION TEST
	PROPOSED CURB
	PROPOSED RETAINING WALL
	PROPOSED GUARD RAIL
	PROPOSED DRAIN MANHOLE
	PROPOSED CATCH BASIN
	PROPOSED SEWER MANHOLE
	PROPOSED WATER LINE
	PROPOSED HYDRANT
	PROPOSED POLE LIGHT
	PROPOSED ELEVATION CONTOUR
	PROPOSED SPOT GRADE
	PROPOSED PERMEABLE INTERLOCKING CONCRETE PAVING BLOCK SURFACE

COMPREHENSIVE PERMIT PLAN APPROVED BY THE SOUTHBOROUGH ZONING BOARD OF APPEALS ON _____

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EXPEDITED ENGINEERING, LLC
Professional Engineers & Erosion Control Specialists
118 Turnpike Road, Suite 300, Southborough, MA 01772
Telephone (508)-399-9993 james@expeditedengineers.com

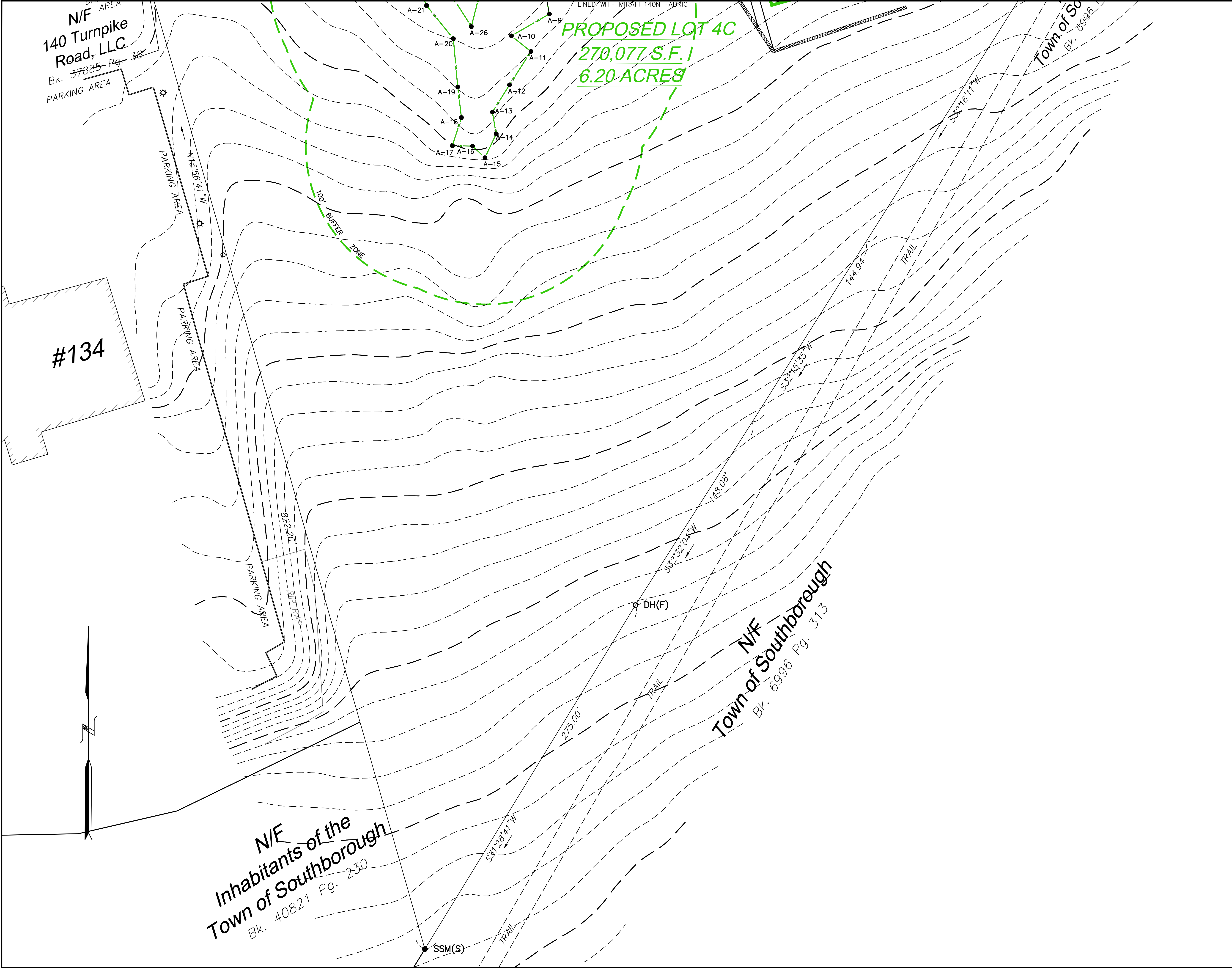
CLT. NO.	504	JOB NO.	290-504
DATE:	OCTOBER 25, 2023	DWG NO.	120TURNPIKECURRENT
REVISIONS			
DATE:	DESCRIPTION		
1/24/24	TOWN REVIEW		
7/24/24	TOWN REVIEW		

SCALE: 1 INCH = 30 FEET

PRELIMINARY PLAN OF 120 TURNPIKE 40B
AT 120 TURNPIKE ROAD
IN
SOUTHBOROUGH, MASS.

OWNER & APPLICANT:
FD 120 TURNPIKE, LLC
118 TURNPIKE ROAD, SUITE 300
SOUTHBOROUGH, MA 01772

PRELIMINARY PLAN PP2



KEY

	EXISTING EDGE OF PAVEMENT
	WETLAND EDGE
	100' BUFFER ZONE EDGE
	STONE WALL
	EXISTING GRADE CONTOUR
	OFFICIAL DEEP OBSERVATION HOLE
	OFFICIAL PERCOLATION TEST
	PROPOSED CURB
	PROPOSED RETAINING WALL
	PROPOSED GUARD RAIL
	PROPOSED DRAIN MANHOLE
	PROPOSED CATCH BASIN
	PROPOSED SEWER MANHOLE
	PROPOSED WATER LINE
	PROPOSED HYDRANT
	PROPOSED POLE LIGHT
	PROPOSED ELEVATION CONTOUR
	PROPOSED SPOT GRADE
	PROPOSED PERMEABLE INTERLOCKING CONCRETE PAVING BLOCK SURFACE

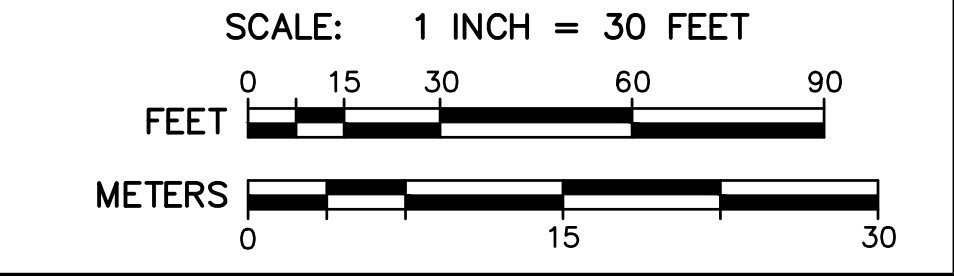
COMPREHENSIVE PERMIT PLAN APPROVED BY THE SOUTHBOROUGH ZONING BOARD OF APPEALS ON _____

- NOTES:**
- 1) THE MAXIMUM GRADE OF THE PROPOSED ACCESS DRIVEWAY SOUTH OF THE NEW DIVIDER STRIP WILL BE 3%.
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EXPEDITED ENGINEERING, LLC

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Telephone (508) 399-9993 james@expeditedengineers.com

CLT. NO.	504	JOB NO.	290-504
DATE:	OCTOBER 25, 2023	DWG NO.	120TURNPIKECURRENT
REVISIONS			
DATE:	DESCRIPTION		
1/24/24	TOWN REVIEW		
7/24/24	TOWN REVIEW		

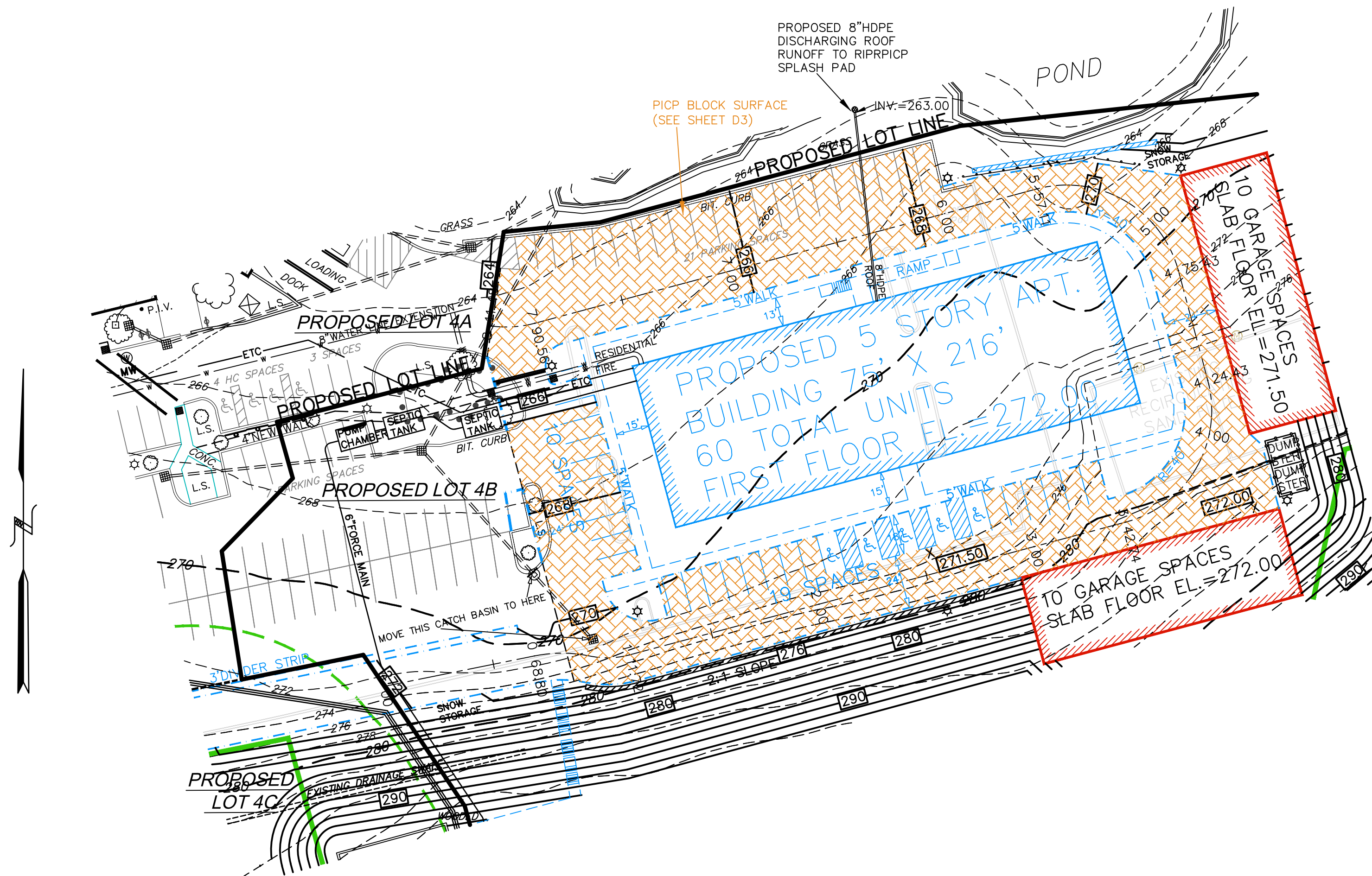


**PRELIMINARY PLAN
OF 120 TURNPIKE 40B**

AT 120 TURNPIKE ROAD
IN
SOUTHBOROUGH, MASS.

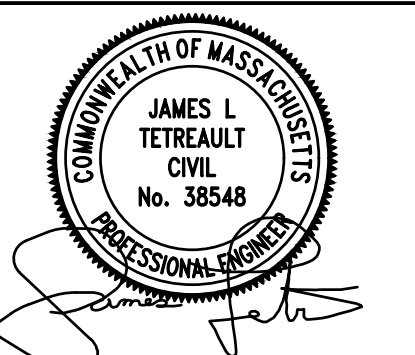
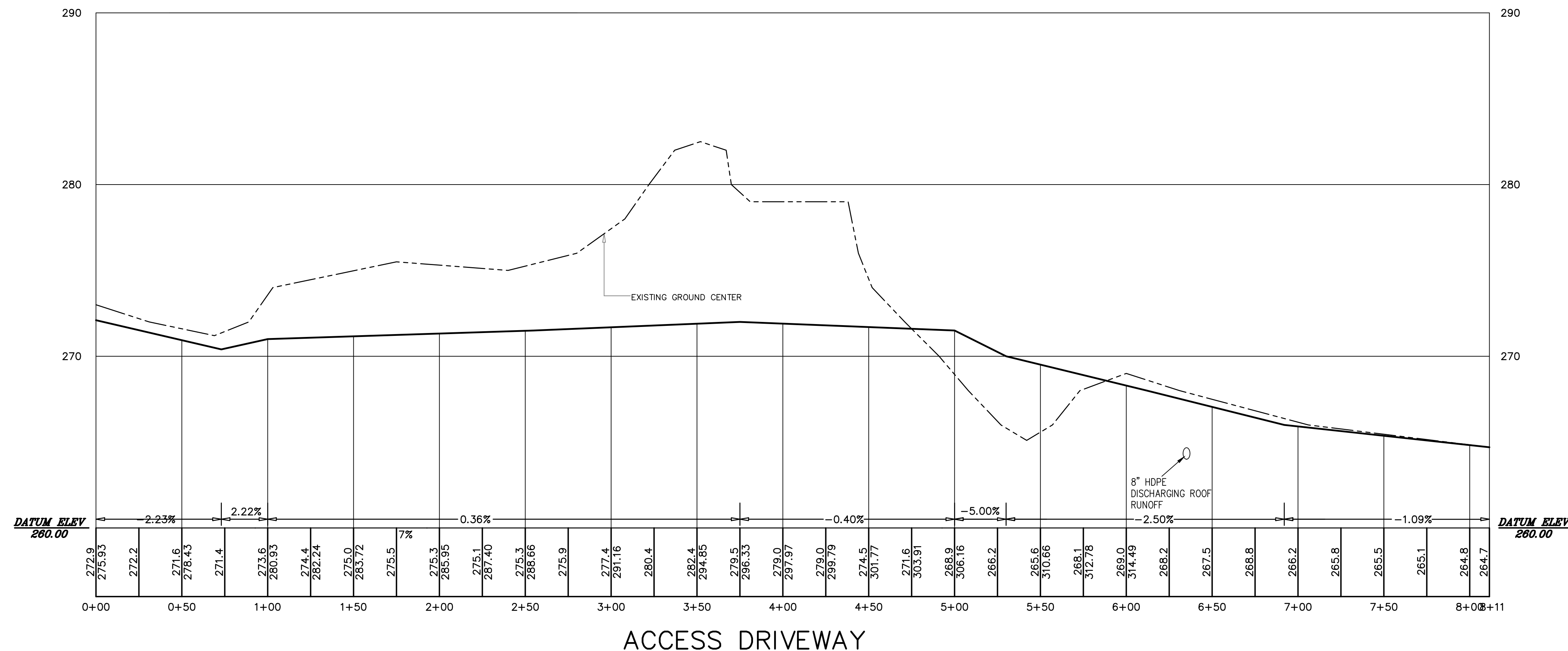
OWNER & APPLICANT:
FD 120 TURNPIKE, LLC
118 TURNPIKE ROAD, SUITE 300
SOUTHBOROUGH, MA 01772

PRELIMINARY PLAN PP4



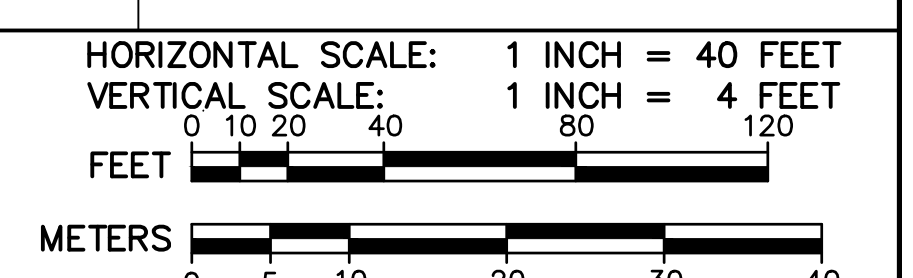
KEY	
	2' CONTOUR
	10' CONTOUR
	EXISTING SPOT GRADE
	PROPOSED CONTOUR
	PROPOSED CURB
	PROPOSED DRAIN MANHOLE
	PROPOSED CATCH BASIN
	PROPOSED SEWER MANHOLE
	EXISTING UTILITY POLE
	PROPOSED POLE WITH LIGHT
	PROPOSED ELECTRIC CONDUIT
	PROPOSED GUARD RAIL
	PROPOSED RETAINING WALL
	STONE WALL

COMPREHENSIVE PERMIT PLAN APPROVED BY
THE SOUTHBOROUGH ZONING BOARD OF
APPEALS ON _____



EXPEDITED ENGINEERING, LLC
Professional Engineers & Erosion Control Specialists
118 Turnpike Road, 300, Southborough, MA 01772
Telephone (508) 399-9993 james@expeditedengineers.com

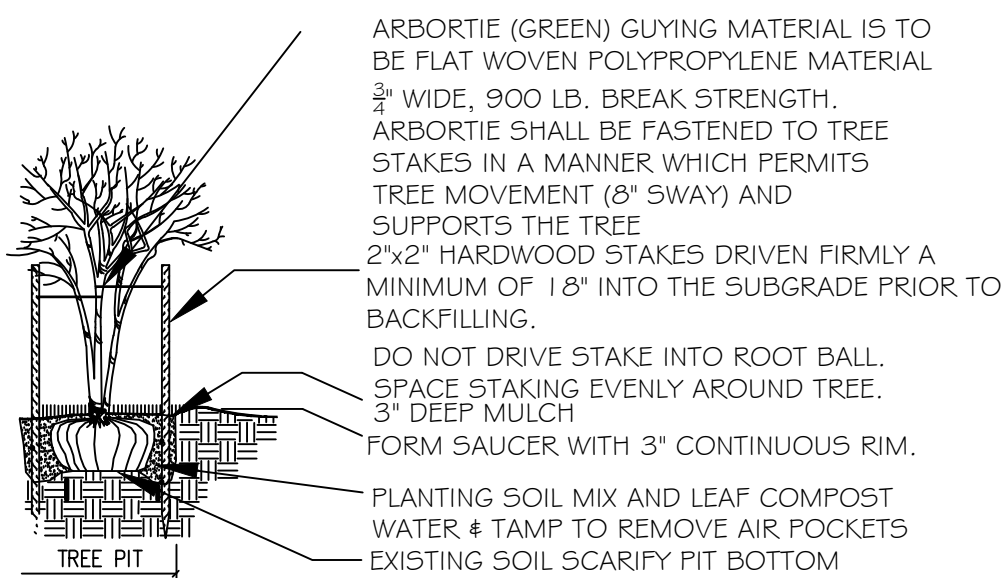
CLT. NO.	JOB NO.
502	245-502
DATE:	DWG NO.
JANUARY 24, 2024	120TURNPIKECURRENT
REVISIONS	
DATE:	DESCRIPTION
7/24/24	TOWN REVIEW



SITE PLAN OF LAND

AT 120 TURNPIKE ROAD
IN
SOUTHBOROUGH, MASS.

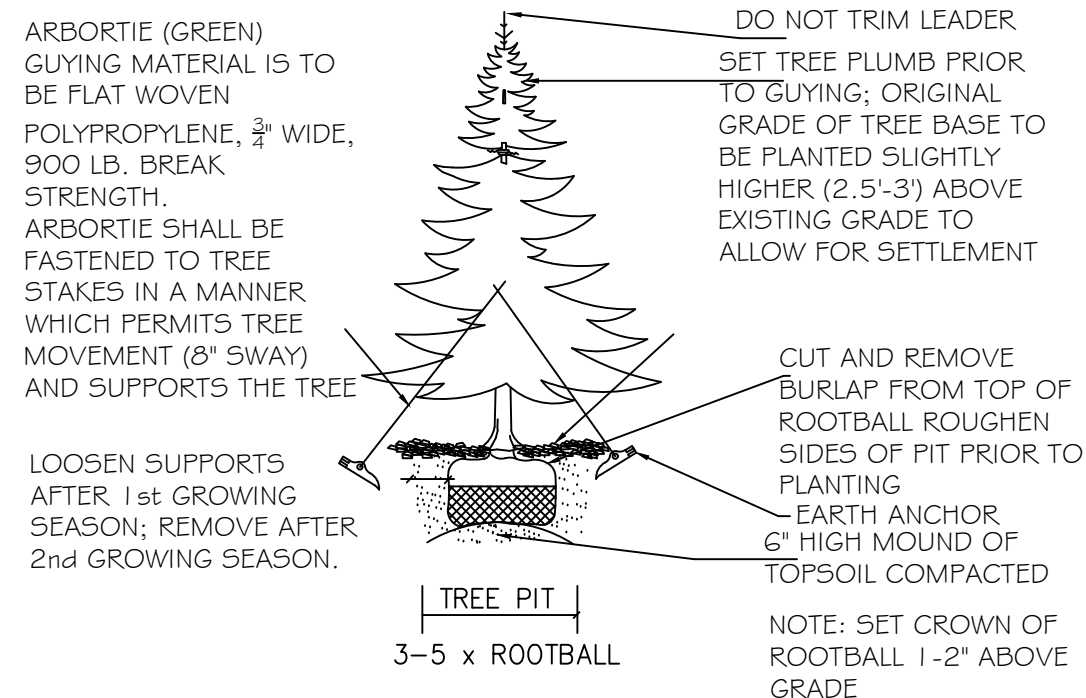
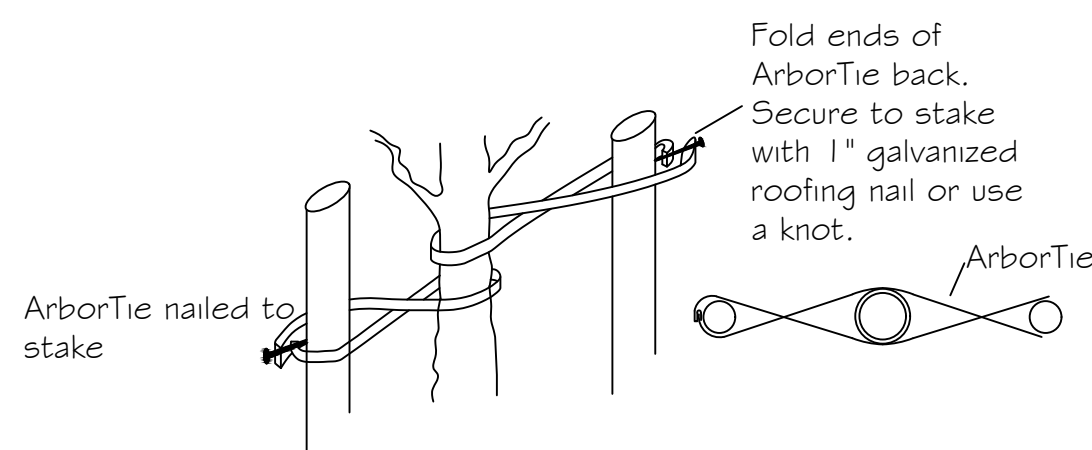
OWNER & APPLICANT:
FD 120 TURNPIKE, LLC
118 TURNPIKE ROAD, SUITE 300
SOUTHBOROUGH, MA 01772
PLAN AND PROFILE OF ACCESS DRIVEWAY
P1



- NOTES:
1. STAKE TO MAIN BRANCHES AS NECESSARY FOR FIRM SUPPORT.
 2. PLANT SO THAT TOP OF ROOT BALL IS EVEN WITH THE FINISHED GRADE.
 3. GUY WIRE SHALL NOT TOUCH OR RUB ADJACENT TRUNKS OR BRANCHES.
 4. REMOVE ALL CONTAINERS AND BASKETS FROM ROOT BALL.
 5. REMOVE BURLAP FROM TOP ONE THIRD OF ROOT BALL.
 6. LOOSEN ROOTBALL PRIOR TO PLANTING.

DECIDUOUS TREE PLANTING

NOT TO SCALE



EVERGREEN TREE PLANTING

NOT TO SCALE

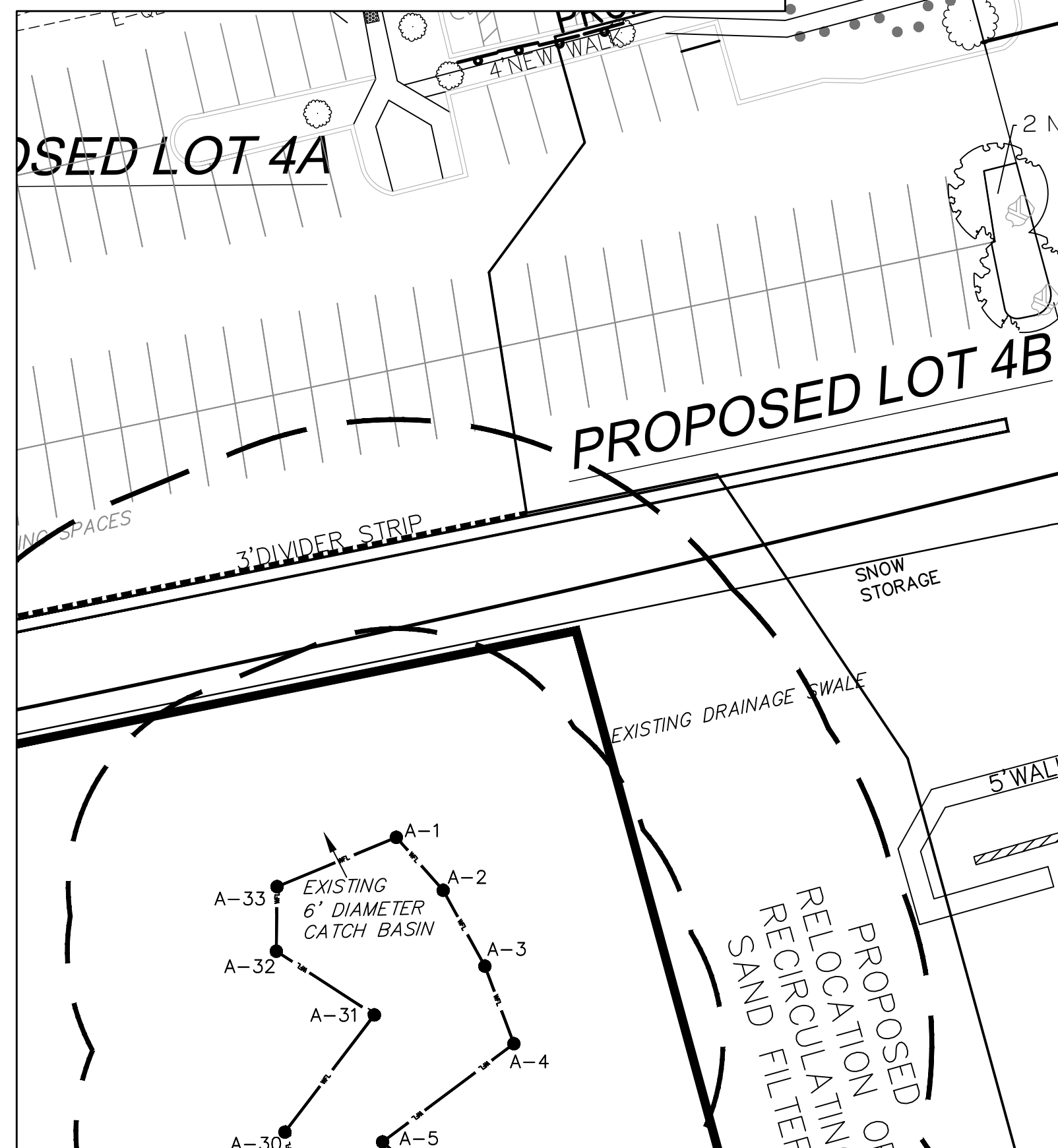
LANDSCAPING NOTES

1. NOTIFY DIG-SAFE AT 1-888-DIG-SAFE AND LOCAL AUTHORITIES PRIOR TO ANY TYPE OF SITE PREPARATION OR CONSTRUCTION.
2. THE CONTRACTOR SHALL SUPPLY ALL PLANT MATERIAL AND MULCH IN SUFFICIENT QUANTITIES TO COMPLETE PLANTING AS SHOWN ON THE DRAWINGS.
3. DRAWING QUANTITIES TAKE PRECEDENCE OVER PLANT LIST QUANTITIES.
4. ALL PLANT MATERIAL SHALL CONFORM TO THE GUIDELINES SET FORTH BY THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION.
5. ALL TREES AND SHRUBS SHALL BE PLANTED WITH THE "BEST FACE" SHOWING. ALL PLANTS SHALL BE BALLED AND BURLAPPED OR CONTAINER GROWN, UNLESS OTHERWISE APPROVED BY THE LANDSCAPE ARCHITECT.
6. ALL CONTAINER GROWN PLANTS SHALL BE HEALTHY, VIGOROUS, WELL ROOTED AND ESTABLISHED IN THE CONTAINER IN WHICH THEY ARE GROWING. THEY SHALL HAVE TOPS OF GOOD QUALITY, NO APPARENT INJURY AND BE IN A HEALTHY GROWING CONDITION. A CONTAINER GROWN PLANT SHALL HAVE A WELL ESTABLISHED ROOT SYSTEM REACHING THE SIDES OF THE CONTAINER TO MAINTAIN A FIRM BALL.
7. THE QUALITY OF ALL TREES & SHRUBS IS TO BE NORMAL FOR THE SPECIES. ALL PLANTS ARE TO HAVE DEVELOPED ROOT SYSTEMS, TO BE FREE OF INSECTS AND DISEASES AS WELL AS MECHANICAL INJURIES, AND IN ALL RESPECTS BE SUITABLE FOR PLANTINGS.
8. ALL CONIFERS SHALL HAVE DORMANT BUDS AND SECONDARY NEEDLES.
9. WHERE SPECIFIED, CALIPER SIZE IS TO BE THE OVERRIDING FACTOR IN TREE SELECTION. CALIPER SIZE SHALL BE MEASURED 1" ABOVE THE ROOTBALL.
10. PLANT SUBSTITUTIONS ARE NOT ALLOWED UNLESS APPROVED BY THE PROJECT LANDSCAPE ARCHITECT.
11. ALL DISTURBED AREAS NOT SHOWN OTHERWISE SHALL BE LOAMED AND SEEDED AND BLENDED INTO EXISTING GRADE AND CONDITIONS.
12. PRIOR TO INSTALLING ANY PLANT MATERIAL, THE CONTRACTOR SHALL SUBMIT A LOAM SOIL SAMPLE FOR A ROUTINE, ORGANIC, SALTS, AND NITRATE SOIL TEST. UPON THE RESULTS OF THIS TEST, THE SITE CONTRACTOR SHALL AMEND THE LOAM AS RECOMMENDED.
13. LAWN SEED MIX SHALL BE THE PREVIOUS YEARS CROP: 35% JEFFERSON KENTUCKY BLUEGRASS, 35% CARMEN CHEWING FESCUE AND 30% STALLION PERENNIAL RYEGRASS, OR APPROVED EQUAL. PLANT AT A RATE OF 1 LB. PER 150 SQUARE FEET.
14. SLOPE SEED MIX SHALL BE THE PREVIOUS YEARS CROP: PLANT AT A RATE OF 1 LB. PER 150 SQUARE FEET. SEED MIX SHALL BE STALLION PERENNIAL RYE 10%, CREEPING RED FESCUE 50%, ANNUAL RYE GRASS 15%, JEFFERSON KENTUCKY BLUE GRASS 10%, RED TOP CLOVER 5%, AND LADINO CLOVER 5%, OR APPROVED EQUAL. PLANT AT A RATE OF 1 LB. PER 150 SF.
15. DETENTION BASIN SEED MIX SHALL BE NEW ENGLAND CONTROL MIX SHALL BE FROM NEW ENGLAND PLANTS INC. PLANT AT A RATE OF 1250 SF/LB.
16. LAWN SEED AREAS SHALL BE NOT BE DEEMED ACCEPTABLE UNTIL IN EXCESS OF 90% OF EACH AREA, INDEPENDENTLY, IS GERMINATED, GROWING AND DISPLAYING HEALTHY, UNIFORM GROWTH AND HAS BEEN CUT TWICE. THE SITE CONTRACTOR IS RESPONSIBLE FOR APPLYING AT A MINIMUM 1" OF WATER A WEEK UNTIL THE SEEDED AREAS HAVE BEEN ACCEPTED. THE WATERING SHALL OCCUR IN SMALL DOSES. THE SITE CONTRACTOR IS RESPONSIBLE FOR REMOVING ANY WEEDS (GRAB GRASS) WITHIN THE SEEDED AREAS UNTIL THE SEEDED AREAS HAVE BEEN ACCEPTED.
17. WILDLIFE SEED MIX SHALL BE THE NEW ENGLAND CONSERVATION SEED MIX FROM NEW ENGLAND WETLAND PLANTS INC. OR AN APPROVED EQUAL.
18. THE HYDRO SEED SLURRY SHALL BE A HP-FGM (HIGH PERFORMANCE FLEXIBLE GROWTH MEDIA- FLEXITERRA). THE APPLICATION RATE SHALL BE 4,000 LB. PER ACRE SPRAYED IN A LEAST TWO DIRECTIONS. DO NOT APPLY HYDRO SEED SLURRY IF RAIN IS EXPECTED WITHIN 12 HOURS, AND WHEN TEMPERATURES ARE BELOW 50 DEGREES.
19. THE ROOTS OF NEWLY PLANTED TREES AND SHRUBS MUST BE KEPT STEADILY MOIST, AS THE DEVELOPING ROOTS ESTABLISH IN THE NEW SOIL. AT PLANTING, WATER THOROUGHLY TO SOAK THE ROOTS AND TO SETTLE THE NEW SOIL AROUND THE ROOT BALL. THE AMOUNT OF SUPPLEMENTAL WATER NEEDED EACH WEEK DURING THE FIRST GROWING SEASON AFTER PLANTING DEPENDS ON RECENT RAINFALL, TEMPERATURE, AND WIND. IF LESS THAN ONE-INCH OF RAIN HAS FALLEN OVER THE PAST FIVE TO SEVEN DAYS, THE NEW PLANTINGS MUST BE WATERED. LAWN, TREES, AND SHRUBS WATERING SHALL OCCUR AT A MINIMUM OF TWO (2) TIMES A DAY FOR THE FIRST TWO (2) MONTHS; ONCE IN THE EARLY MORNING AND THEN THE OTHER IN THE LATE AFTERNOON. IN GENERAL TEN GALLONS OF WATER APPLIED TWICE A WEEK WILL WET A 20'-24' ROOT BALL, AND PROVIDE THE EQUIVALENT OF ONE INCH OF RAIN FALL. NEW LAWN SHALL BE WATERED SO THAT IT RECEIVES AT A MINIMUM ONE INCH (1") OF WATER EVERY WEEK.
20. WITHIN THE LANDSCAPE BEDS ADJACENT TO THE BUILDING FOUNDATIONS, NO (HEMLOCK, PINE, SPRUCE, OR CEDAR) MULCH OR OTHER COMBUSTIBLE LANDSCAPE MATERIALS SHALL BE INSTALLED WITHIN 18" OF THE FOUNDATION.
21. ALL LANDSCAPE BEDS SHALL RECEIVE THIRTY-ONE (31) INCHES OF BARK MULCH.
22. LANDSCAPE AREAS SHALL BE DEEP TILLED TO A DEPTH OF TWELVE INCHES TO FACILITATE DEEP WATER PENETRATION.
23. EXISTING GRAVEL ROADS, TO BE LOOSENED AND SUPPLEMENTED WITH 6" OF LOAM AND SEEDED WITH THE 'WILDLIFE SEED MIX'.
24. DURING CONSTRUCTION COORDINATE WITH PROJECT LANDSCAPE ARCHITECT THE TRANSITION BETWEEN THE WOODS AND MOWING AREA.
25. AREAS DISTURBED OUTSIDE THE DEMARCATED LAWN AREAS TO BE SEEDED WITH THE WILDLIFE SEED MIX.



SHRUB PLANTING

NOT TO SCALE



PROPOSED LOT 4C
270,077 S.F.
6.20 ACRES

Planting Schedule				
Qty	Key	Common Name	Botanical Name	Size
TREES				
12	BP	River Birch	<i>Betula nigra</i>	3" Cal.
19	CK	Flowering Dogwood	<i>Cornus florida</i>	3" Cal.
3	CV	Hawthorn	<i>Crataegus viridis</i>	3" Cal.
14	NS	Black tupelo	<i>Nyssa sylvatica</i>	3" Cal.
3	TS	Eastern Hemlock	<i>Tsuga canadensis</i>	8' Ht.
SHRUBS				
9	AL	Shadbush	<i>Amelanchier laevis</i>	8' Ht.
30	CA	Sugartina Cryst. Summersweet	<i>Clethra alnifolia 'Crystalina'</i>	#7 Pot
12	CS	Red Twig Dogwood	<i>Cornus sericea</i>	#7 Pot
24	DI	Copper Bush Honeysuckle	<i>Diervilla lonicera 'Copper'</i>	#3 Pot
60	DN	Nightglow Diervilla	<i>Diervilla splendens 'El Madrigal'</i>	#3 Pot
18	FG	Fothergilla	<i>Fothergilla gadenii</i>	24"Ht.
18	HP	Golden St. John's Wort	<i>Hypericum prolificum</i>	#3 Pot
15	IO	American Holly	<i>Ilex opaca</i>	#3 Pot
18	IV	Sweetspice	<i>Itea virginica</i>	#3 Pot
4	JV	Eastern Red Cedar	<i>Juniperus virginiana</i>	60" Ht.
48	KL	Tiddlywinks Mtn Laurel	<i>Kalmia latifolia 'Tiddlywinks'</i>	24"Ht.
3	LB	Spice Bush	<i>Lindera benzoin</i>	#3 Pot
9	PF	Mountain piers	<i>Pieris floribunda</i>	#3 Pot
6	PO	Eastern ninebark	<i>Physocarpus opulifolius</i>	#15 Pot
9	ST	Steeplebush	<i>Spiraea tomentosa</i>	#3 Pot

KEY	
	EXISTING EDGE OF PAVEMENT
	WETLAND EDGE
	100' BUFFER ZONE EDGE
	STONE WALL
	EXISTING GRADE CONTOUR
	OFFICIAL DEEP OBSERVATION HOLE
	OFFICIAL PERCOLATION TEST
	PROPOSED CURB
	PROPOSED RETAINING WALL
	PROPOSED GUARD RAIL
	PROPOSED POLE LIGHT

COMPREHENSIVE PERMIT PLAN APPROVED BY
THE SOUTHBOROUGH ZONING BOARD OF
APPEALS ON _____



EXPEDITED ENGINEERING, LLC

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Telephone (508) 399-9993 james@expeditedengineers.com

CLT. NO.	504	JOB NO.	290-504
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DATE:	OCTOBER 25, 2023	DWG. NO.	120TURNPIKECURRENT
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REVISIONS	
DATE:	DESCRIPTION
1/24/24	TOWN REVIEW
7/24/24	TOWN REVIEW

SCALE: 1 INCH = 30 FEET

0 15 30 60 90

FEET

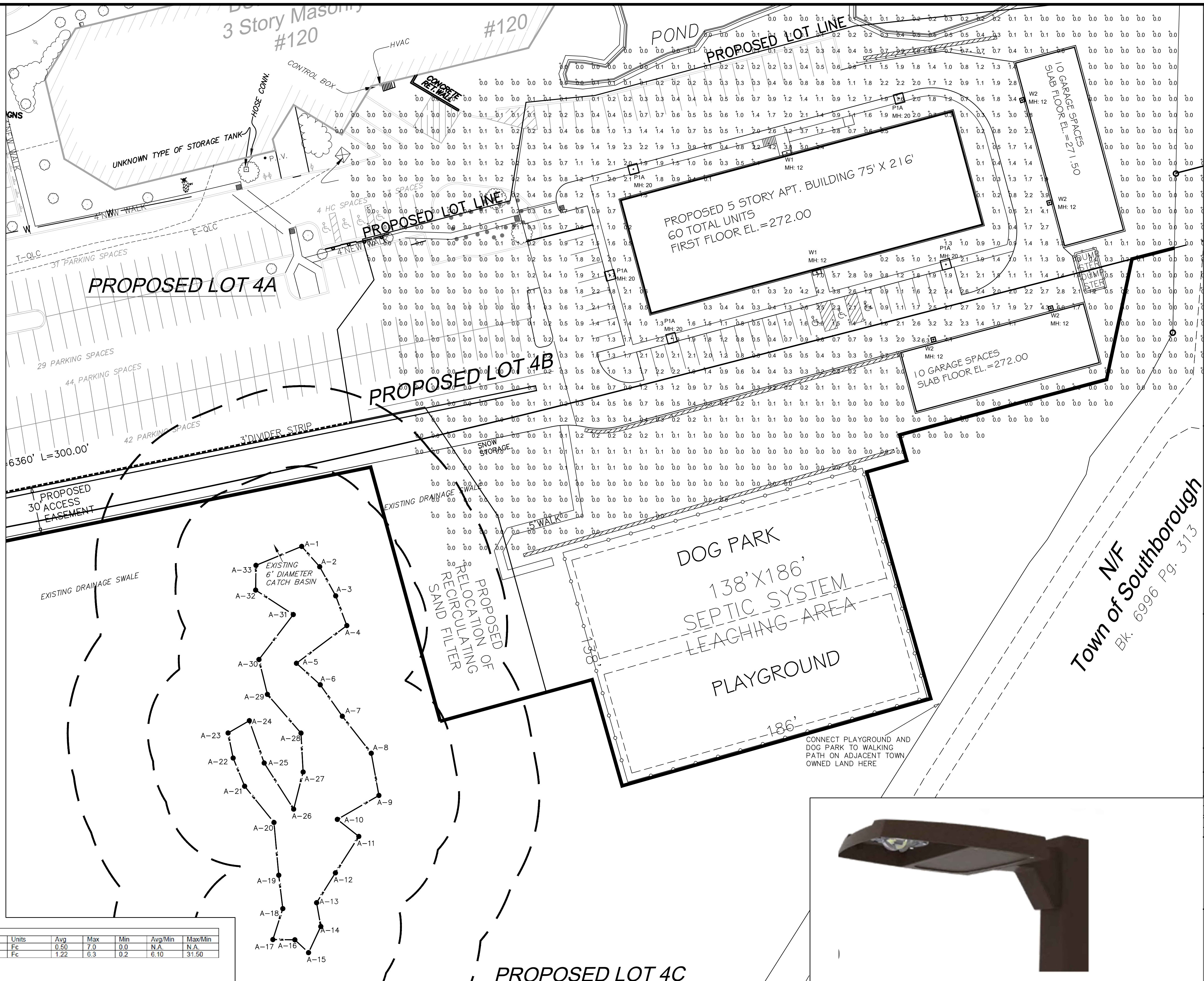
0 15 30

METERS

SITE PLAN OF LAND

AT 120 TURNPIKE ROAD
IN
SOUTHBOROUGH, MASS.

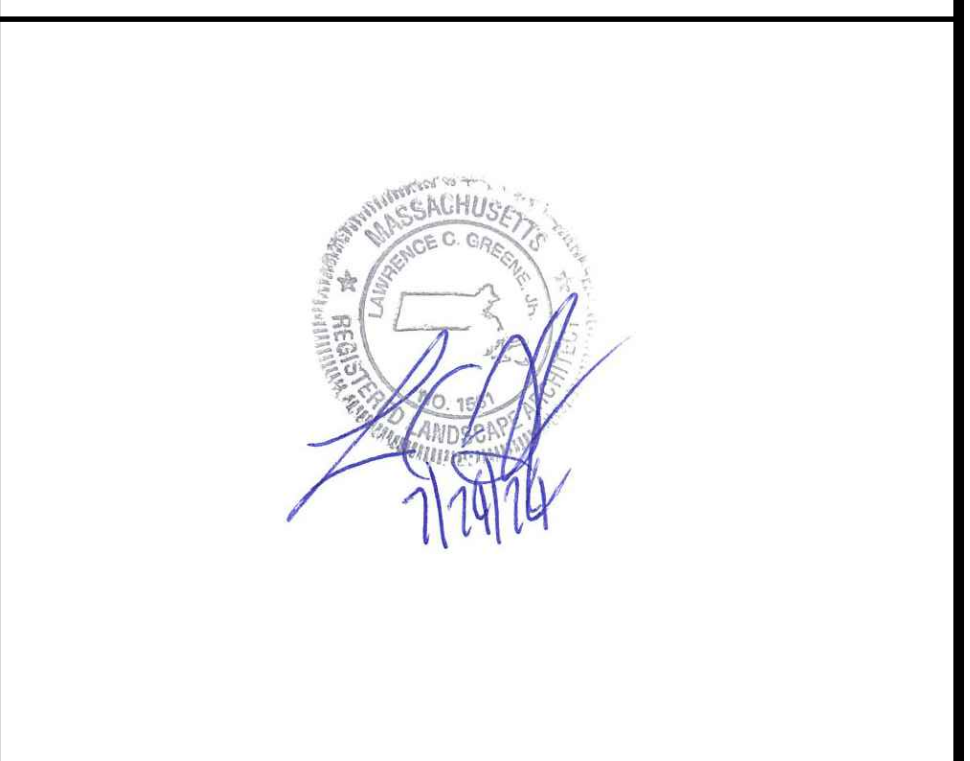
OWNER & APPLICANT:
FD 120 TURNPIKE, LLC
118 TURNPIKE ROAD, SUITE 300
SOUTHBOROUGH, MA 01772



KEY

- EXISTING EDGE OF PAVEMENT
- WETLAND EDGE
- 100' BUFFER ZONE EDGE
- STONE WALL
- EXISTING GRADE CONTOUR
- OFFICIAL DEEP OBSERVATION HOLE
- OFFICIAL PERCOLATION TEST
- PROPOSED CURB
- PROPOSED RETAINING WALL
- PROPOSED GUARD RAIL
- PROPOSED POLE LIGHT

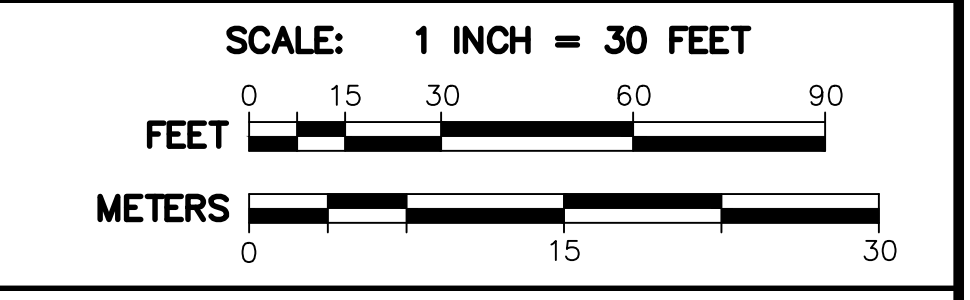
COMPREHENSIVE PERMIT PLAN APPROVED BY THE SOUTHBOROUGH ZONING BOARD OF APPEALS ON _____



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CLT. NO.	504	JOB NO.	290-504
DATE:	OCTOBER 25, 2023	DWG NO.	120TURNPIKECURRENT

REVISIONS	
DATE:	DESCRIPTION
1/24/24	TOWN REVIEW
7/24/24	TOWN REVIEW



SITE PLAN OF LAND
AT 120 TURNPIKE ROAD
IN
SOUTHBOROUGH, MASS.
OWNER & APPLICANT:
FD 120 TURNPIKE, LLC
118 TURNPIKE ROAD, SUITE 300
SOUTHBOROUGH, MA 01772

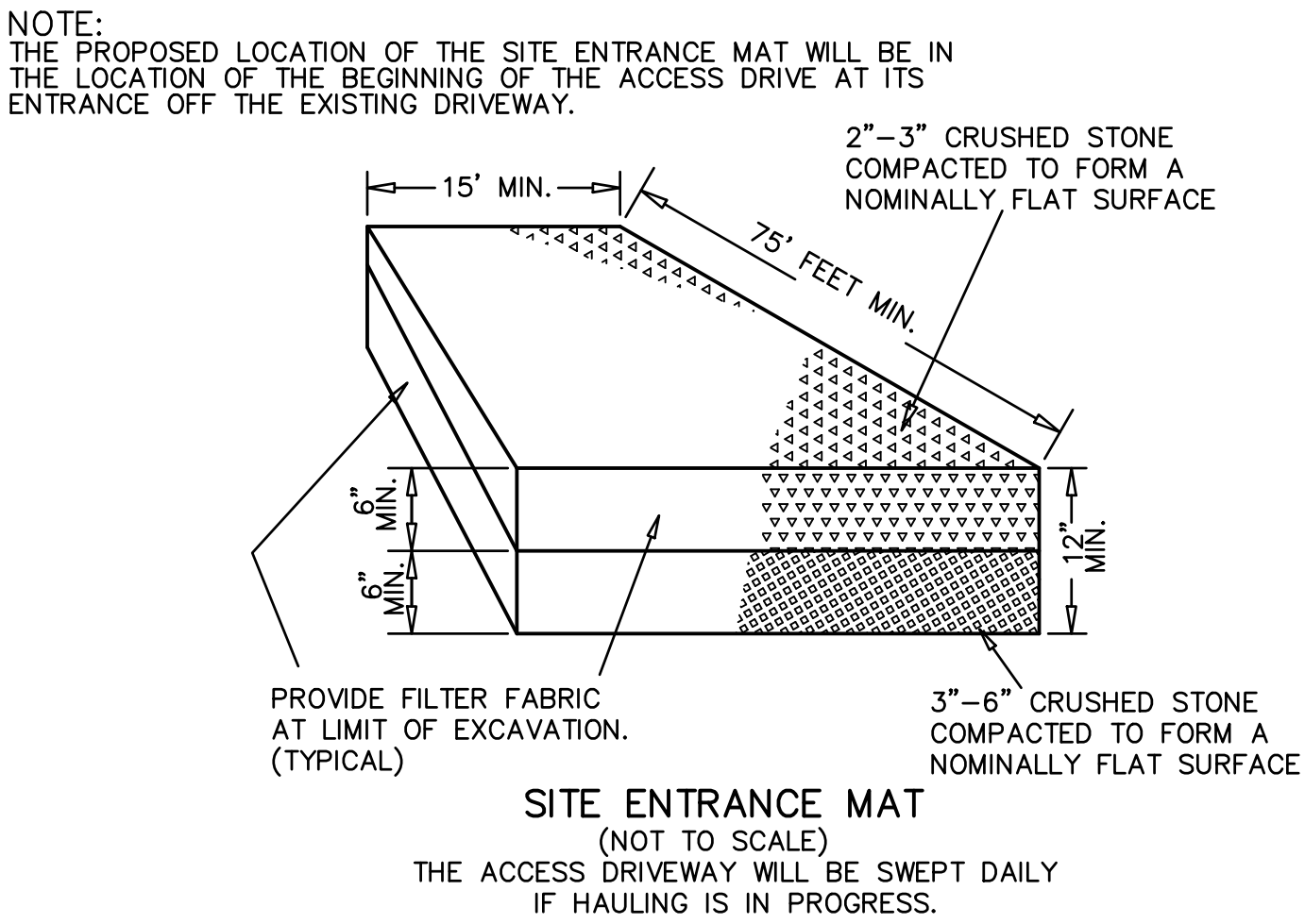
Calculation Summary						
Label	Units	Avg	Max	Min	Avg/Min	Max/Min
SITE	Fc	0.50	7.0	0.0	N.A.	N.A.
PARKING & DRIVE	Fc	1.22	6.3	0.2	6.10	31.50

Luminaire Schedule							
Symbol	Qty	Label	Description	LLF	Luminaire Lumens	Luminaire Watts	Mounting Height
■	5	P1A	LUMARK: PRV-P-PA1B-730-U-T3	0.900	8977	74	20
■	2	W1	MCGRAW-EDISON: GWC-SA2A-730-U-T4FT-HSS	0.900	6289	66	12
■	4	W2	MCGRAW-EDISON: GWC-SA1A-730-U-SL3	0.900	4531	34	12

PROPOSED LOT 4C
270,077 S.F.
6.20 ACRES

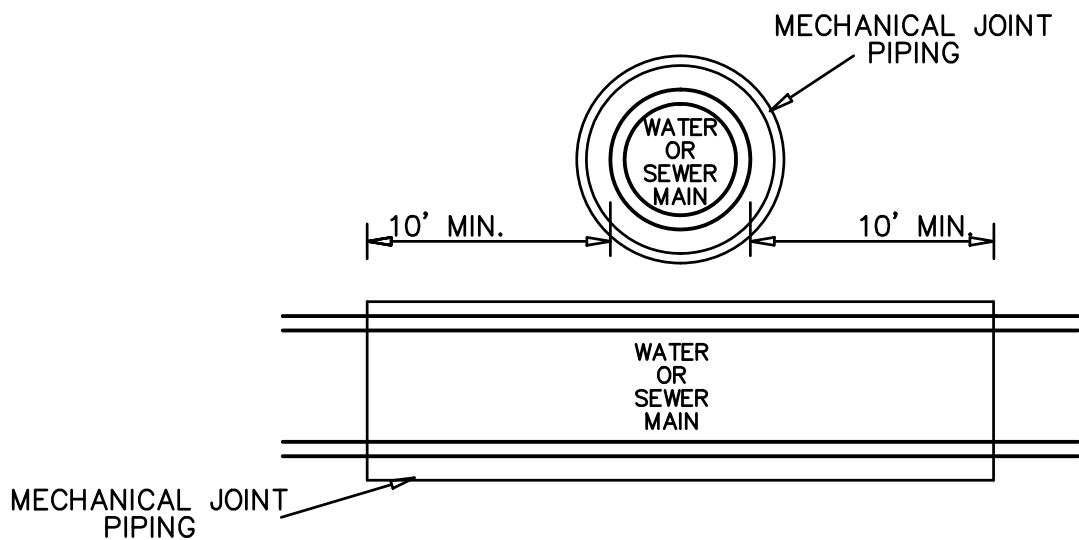


POLE MOUNTED FIXTURE



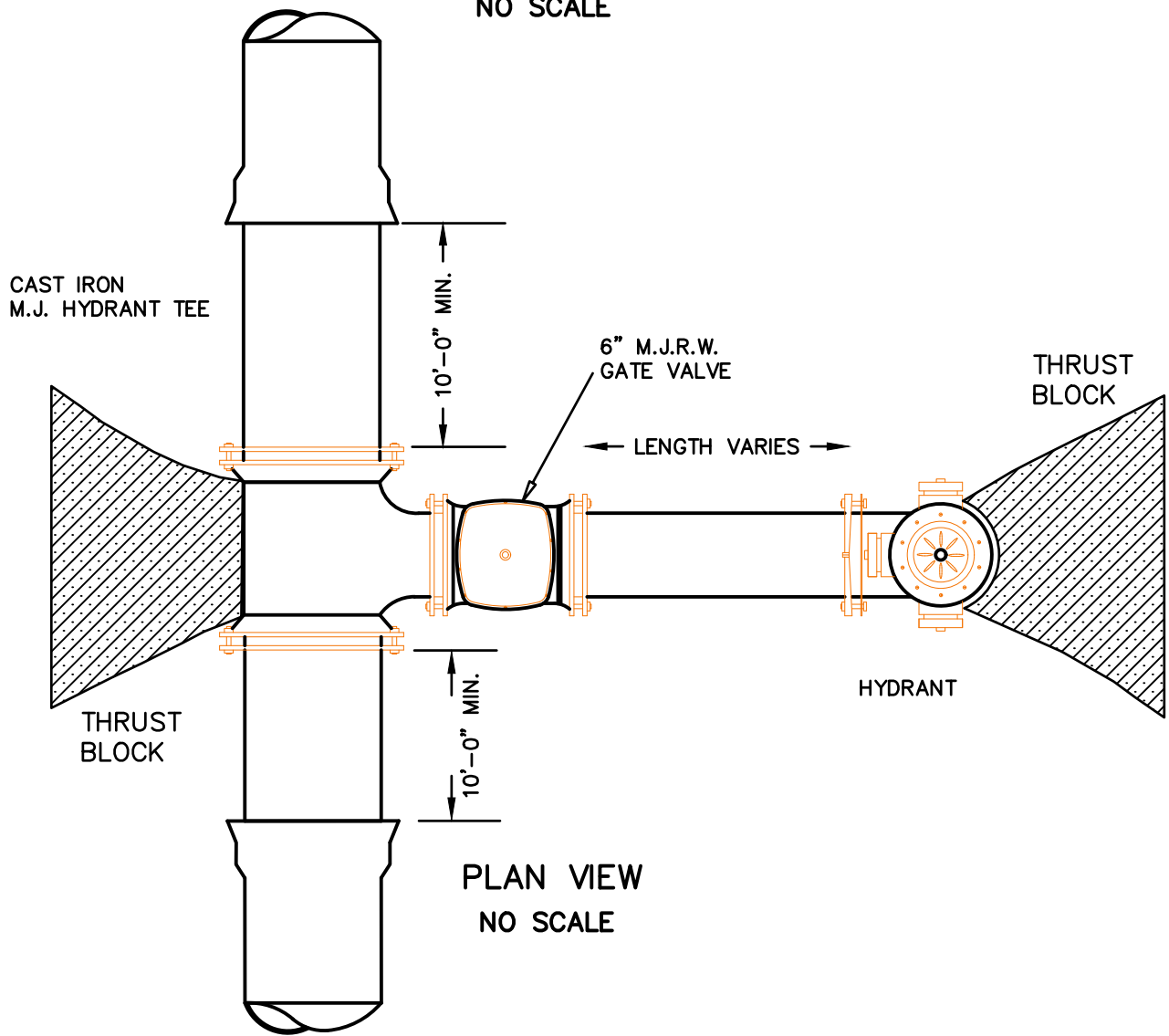
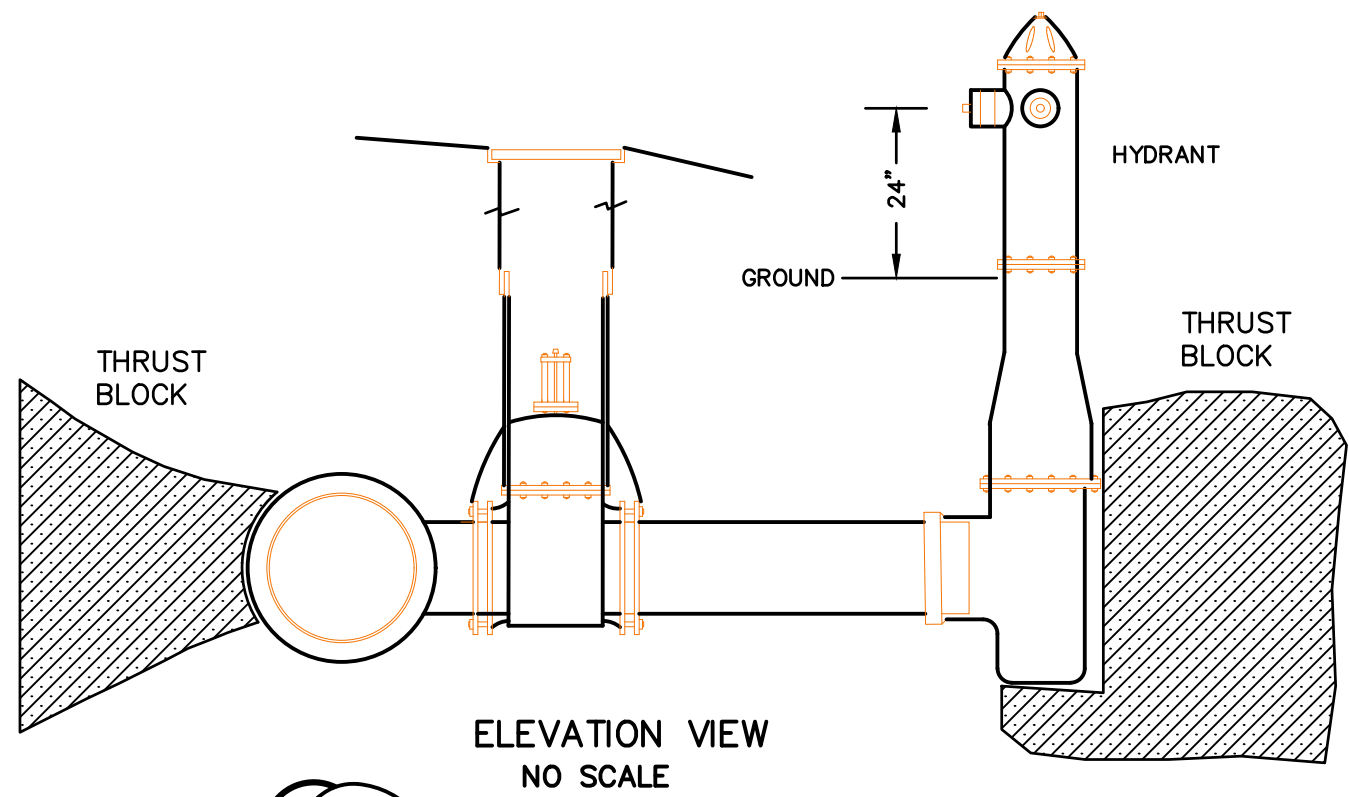
NOTE:
SANITARY SEWER SHALL BE INSTALLED WITH A MINIMUM HORIZONTAL SEPARATION OF 10 FEET TO ALL WATER SUPPLY LINES. WHEN A 10 FOOT HORIZONTAL SEPARATION BETWEEN THE SEWER AND WATER CANNOT BE MAINTAINED, THE WATER MAIN SHALL BE INSTALLED IN A SEPARATE TRENCH ABOVE THE SEWER WITH AN 18 INCH VERTICAL SEPARATION BETWEEN THE CROWN OF THE SEWER AND THE INVERT OF THE WATER MAIN.

HOWEVER, WHEN THE ELEVATION OF THE SEWER CANNOT BE VARIED TO MEET THIS REQUIREMENT, THE WATER MAIN SHOULD BE RELOCATED TO PROVIDE THIS SEPARATION OR CONSTRUCTED WITH MECHANICAL-JOINT PIPE FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE SEWER. ONE FULL LENGTH OF WATER MAIN SHOULD BE CENTERED OVER THE SEWER SO THAT BOTH JOINTS WILL BE AS FAR FROM THE SEWER AS POSSIBLE. SEE DETAIL.



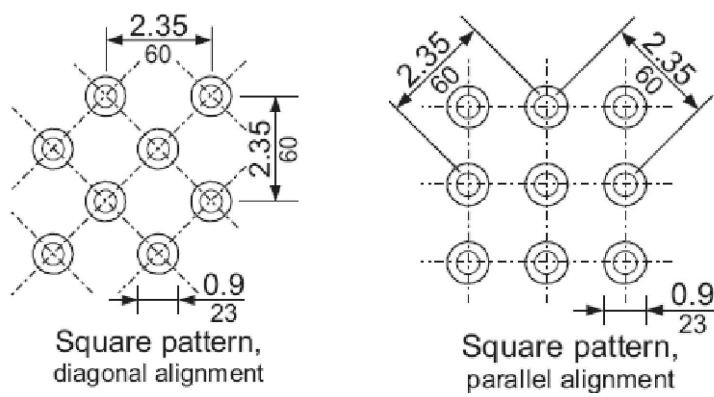
MECHANICAL JOINT PIPING OF BOTH WATER AND SEWER SHALL EXTEND FOR 10 FEET FROM THE INTERSECTION OF THE MAINS AND ALONG EACH MAIN. CENTER ONE FULL PIPE LENGTH OF BOTH WATER AND SEWER OVER THE INTERSECTION.

WATER MAIN/SEWER MAIN CROSSING
WHERE 18" VERTICAL CLEARANCE IS NOT PROVIDED
(NOT TO SCALE)



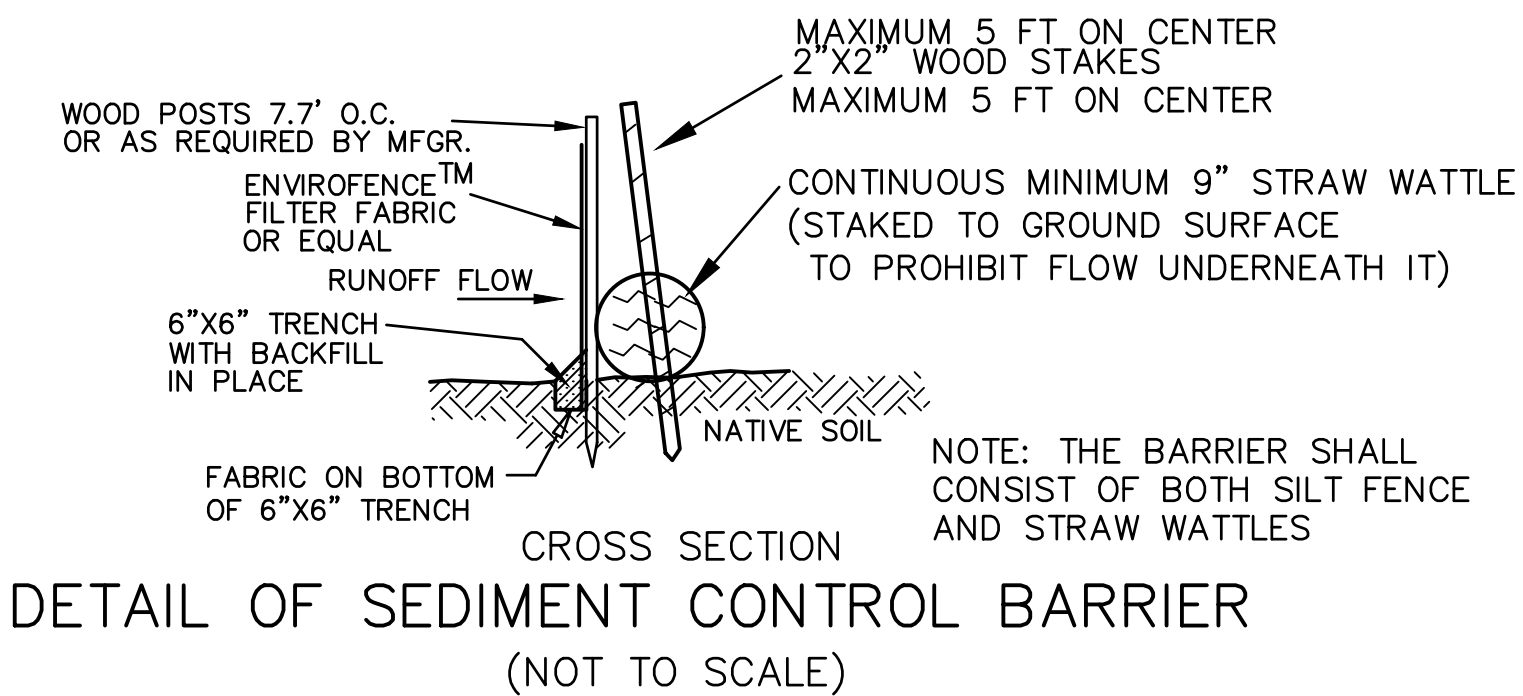
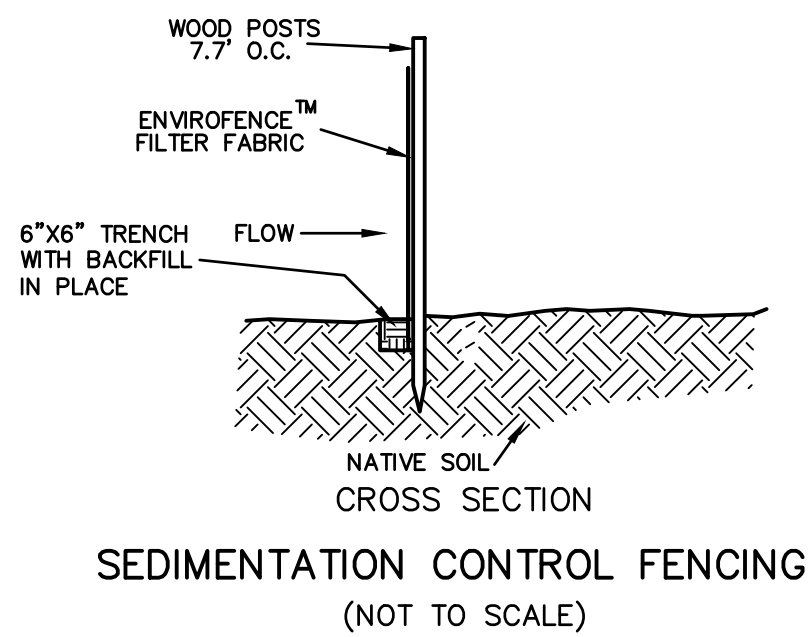
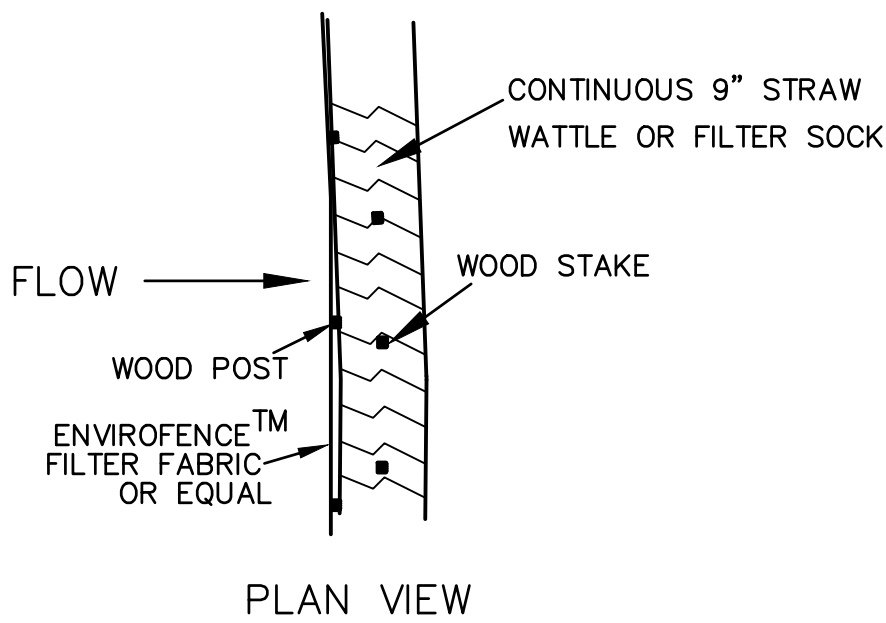
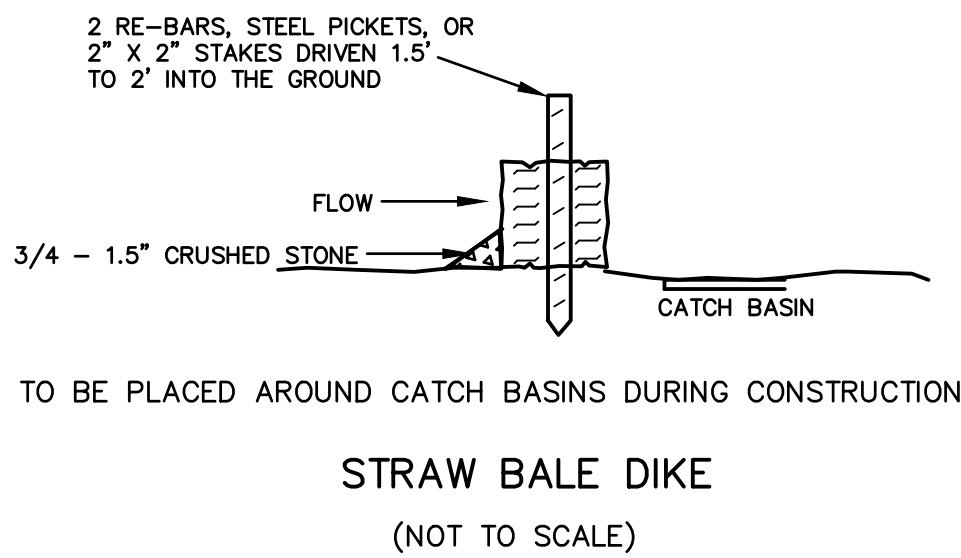
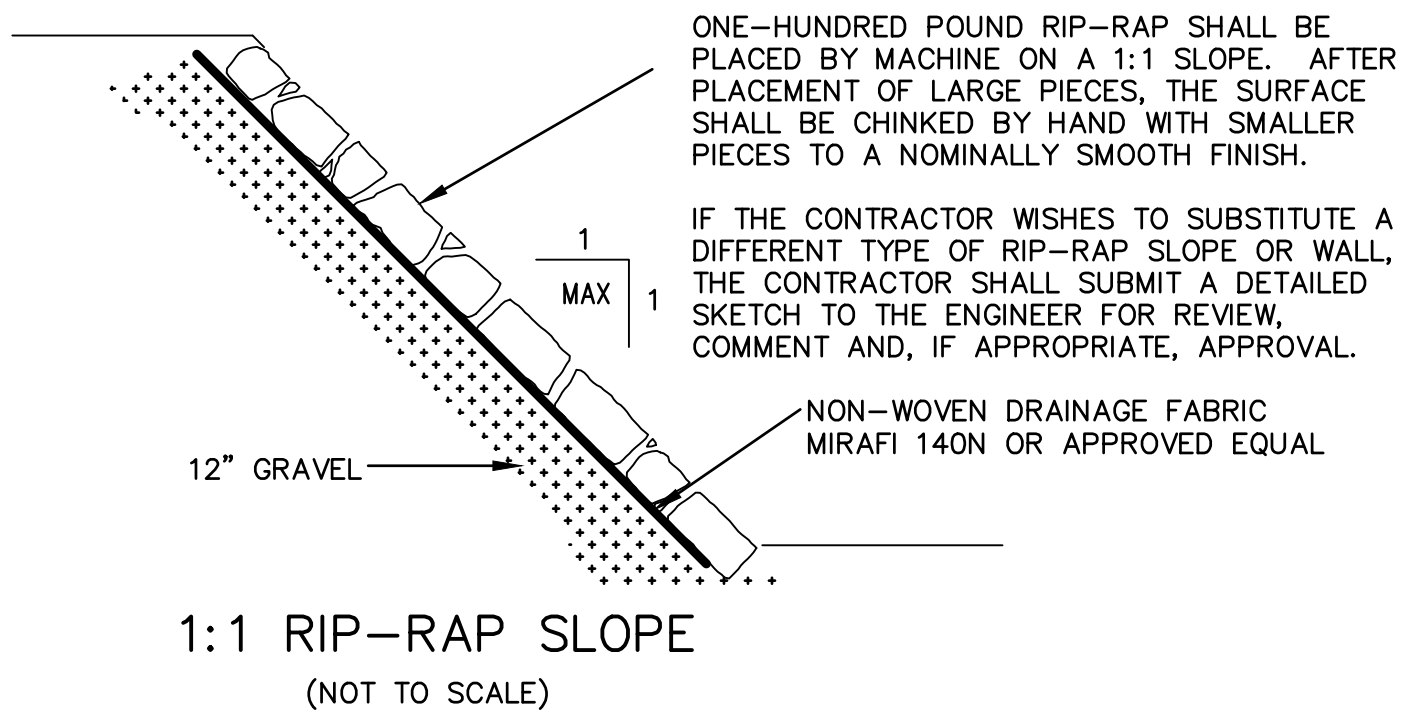
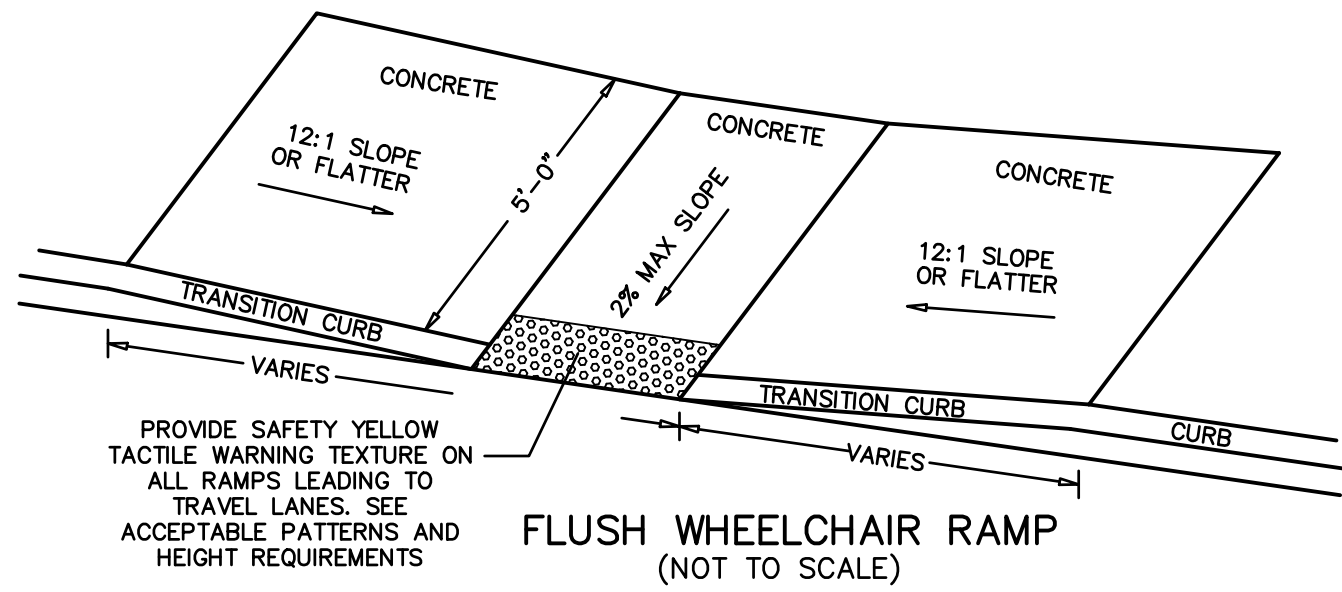
TYPICAL HYDRANT W/GATE

(NOT TO SCALE)

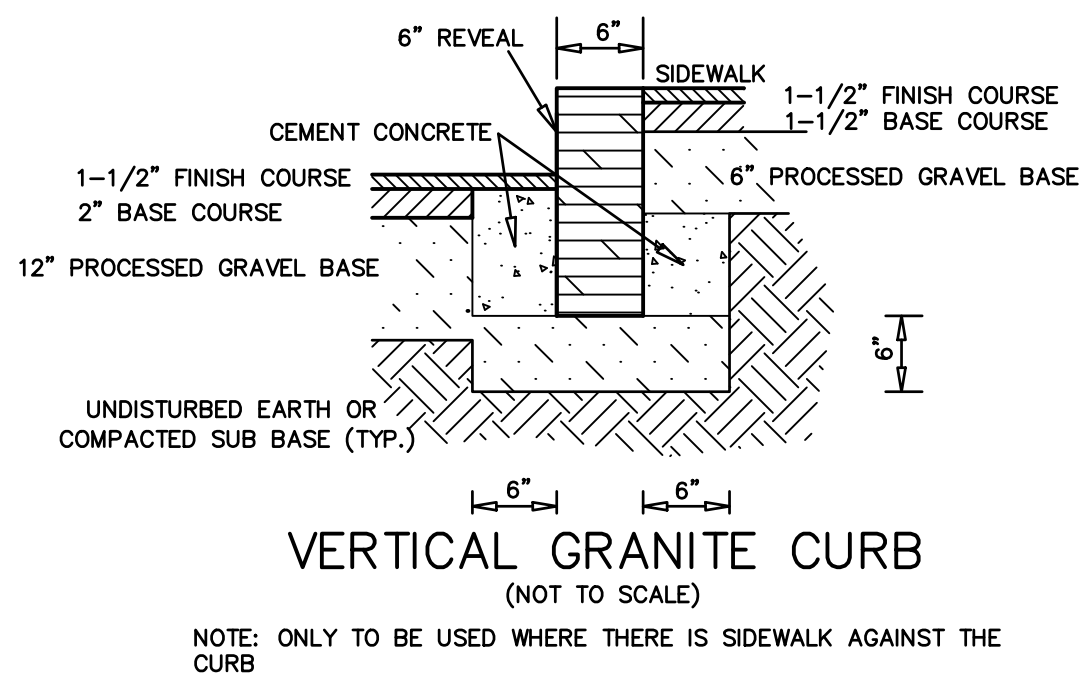
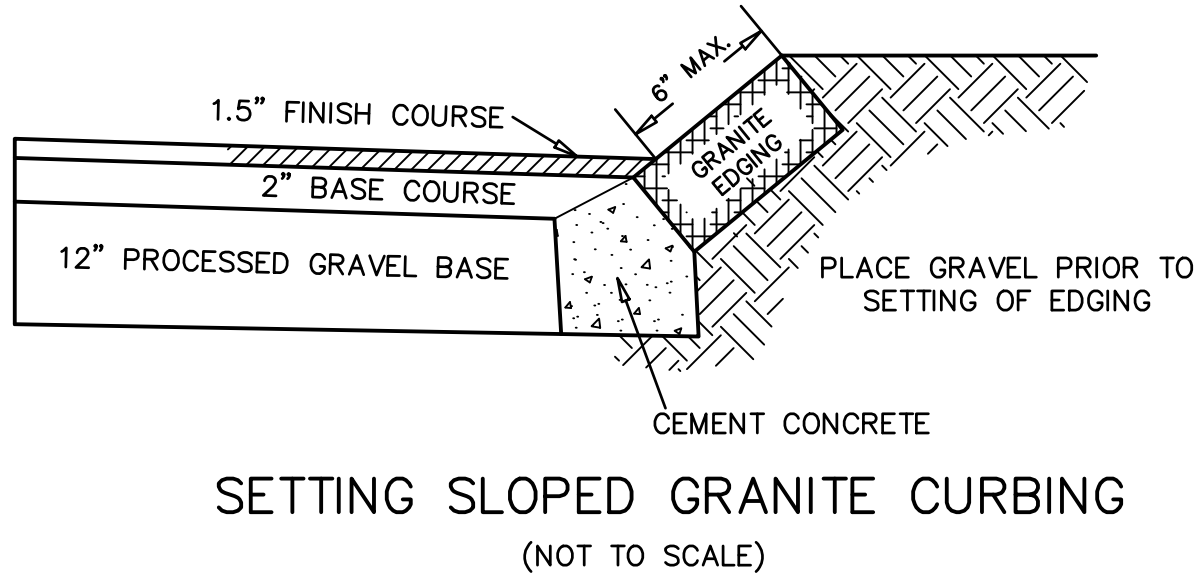


Detectable warnings shall consist of raised truncated domes with a diameter of nominal 0.9 in (23 mm), a height of nominal 0.2 in (5 mm) and a center-to-center spacing of nominal 2.35 in (60 mm) and shall contrast visually with adjoining surfaces, either light-on-dark or dark-on-light.

The material used to provide contrast shall be an integral part of the walking surface. Detectable warnings used on interior surfaces shall differ from adjoining walking surfaces in resiliency or sound-on-cane contact. ADAAG 4.29.2



NOTE: THE BARRIER SHALL CONSIST OF BOTH SILT FENCE AND STRAW WATTLES



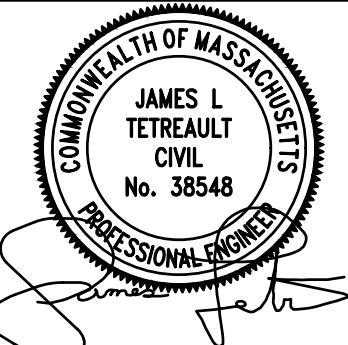
COMPREHENSIVE PERMIT PLAN APPROVED BY
THE SOUTHBOROUGH ZONING BOARD OF
APPEALS ON _____.

GENERAL NOTES:

- 1) THERE ARE NO FEMA FLOOD ZONES ON THE NEW 8 ACRE PARCEL.
- 2) ACCORDING TO THE MASSMAPPER WEB SITE, THERE ARE NO ENDANGERED SPECIES HABITATS AND NO VERNAL POOLS ON OR ADJACENT TO THIS SITE.
- 3) THE PROJECT SITE IS SHOWN AS PARCEL 120-4 ON ASSESSOR MAP 37.
- 4) TOTAL SITE ALTERATION IS EXPECTED TO BE 4.1 ACRES.
- 5) TOPSOIL WILL BE STOCKPILED IN THE AREA OF ONE OR BOTH PROPOSED GARAGES.

DIG SAFE:

EXCEPT FOR VISIBLE STRUCTURES (MANHOLES, GATES, POLES, ETC.) LOCATED BY THE PROJECT SURVEYOR, ALL UNDERGROUND UTILITIES SHOWN WERE COMPILED ACCORDING TO AVAILABLE RECORD PLANS FROM THE VARIOUS UTILITY COMPANIES AND PUBLIC AGENCIES AND ARE APPROXIMATE ONLY. ACTUAL LOCATIONS MUST BE DETERMINED IN THE FIELD BEFORE DESIGNING, EXCAVATING, BLASTING OR INSTALLING, BACKFILLING, GRADING, PAVEMENT RESTORATION, OR REPAIRING. ALL UTILITY COMPANIES, PUBLIC & PRIVATE, MUST BE CONTACTED, INCLUDING THOSE IN CONTROL OF UTILITIES NOT SHOWN ON THIS PLAN. AZIMUTH LAND DESIGN, LLC ASSUMES NO RESPONSIBILITY FOR DAMAGES INCURRED AS A RESULT OF UTILITIES OMITTED OR INACCURATELY SHOWN. CALL "DIG SAFE" AT 811 or 1-888-DIG-SAFE.



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Telephone (508)-399-9993 james@expeditedengineers.com

CLT. NO.	504	JOB NO.	290-504
DATE:	OCTOBER 25, 2023	DWG NO.	120TURNPIKECURRENT
REVISIONS			
DESCRIPTION			
DATE:	1/24/24	TOWN REVIEW	
DATE:	7/24/24	TOWN REVIEW	

SCALE: AS NOTED

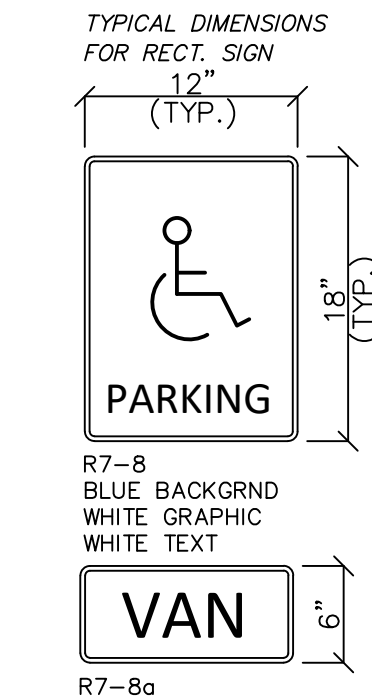
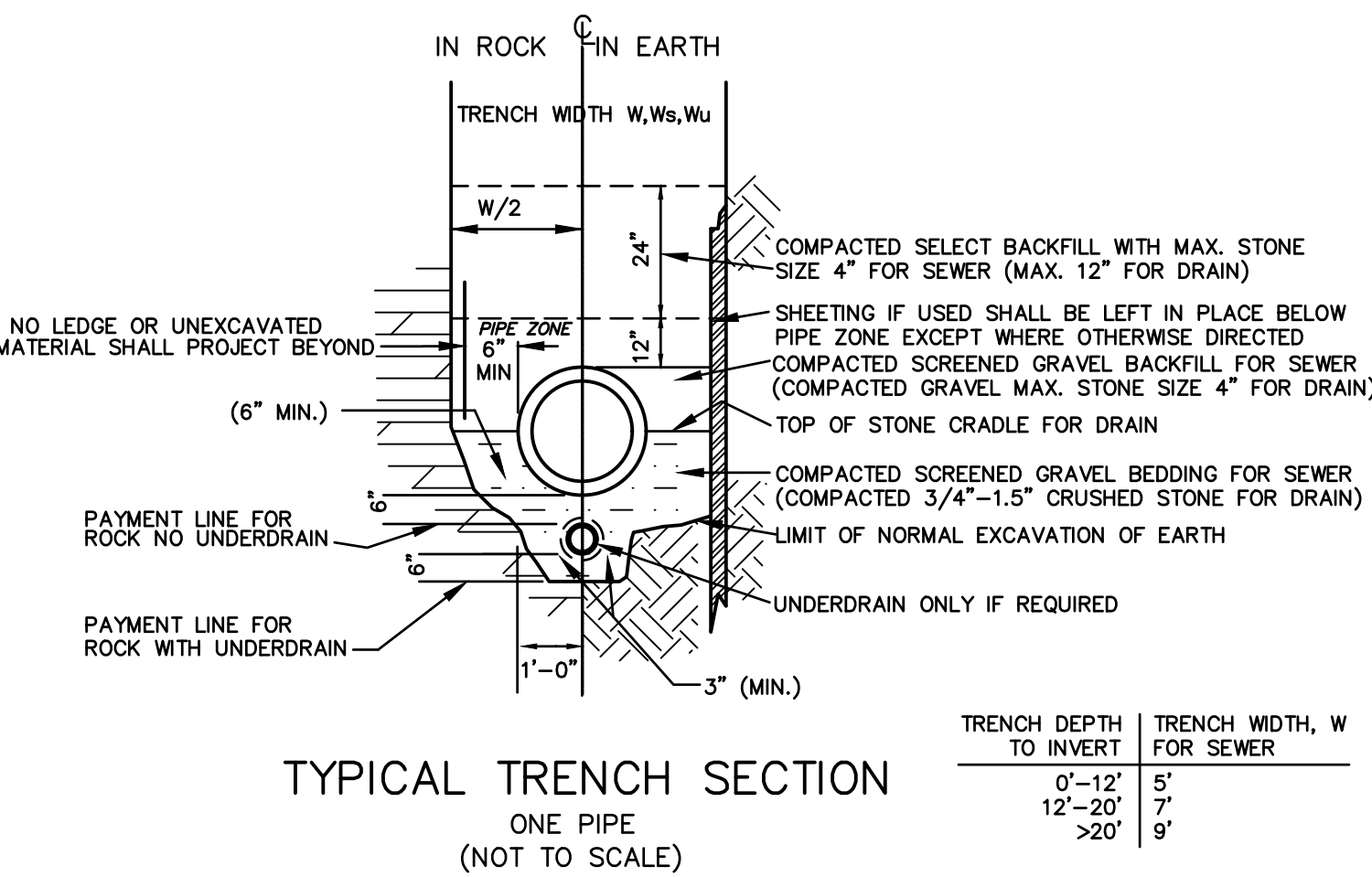
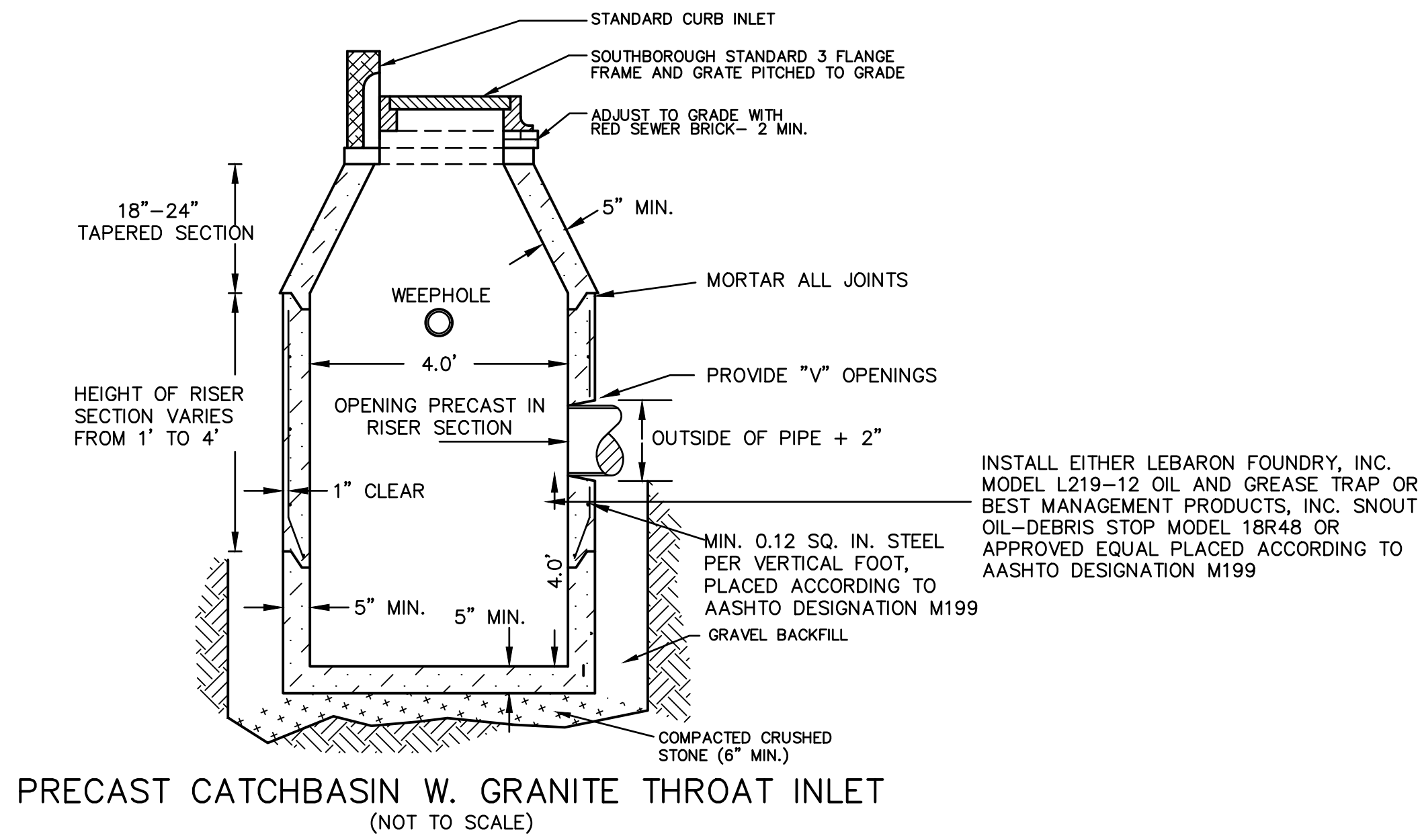
SITE PLAN OF LAND

AT 120 TURNPIKE ROAD
IN
SOUTHBOROUGH, MASS.

OWNER & APPLICANT:

FD 120 TURNPIKE, LLC
118 TURNPIKE ROAD, SUITE 300
SOUTHBOROUGH, MA 01772

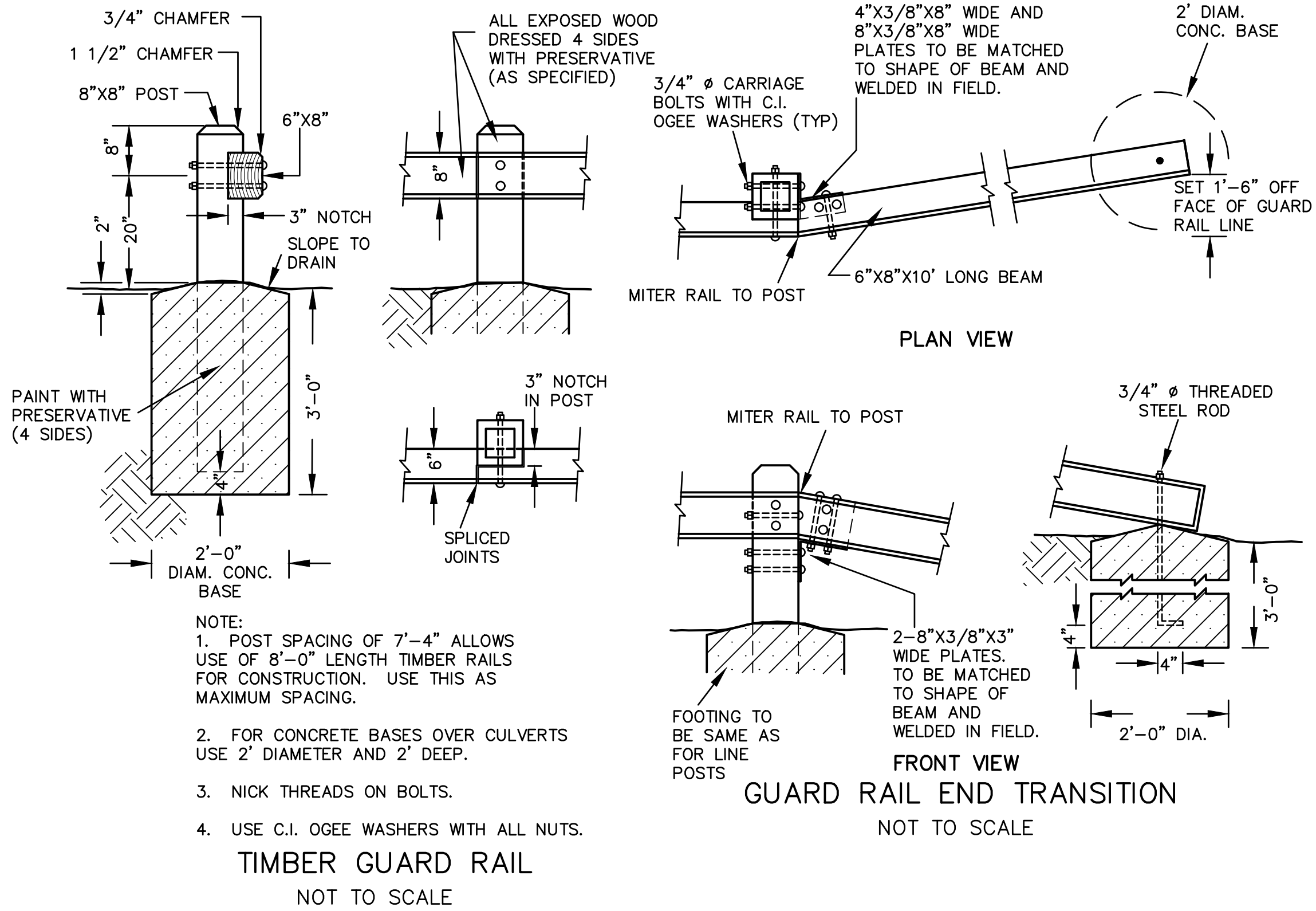
COMPREHENSIVE PERMIT PLAN APPROVED BY
THE SOUTHBOROUGH ZONING BOARD OF
APPEALS ON _____



NOTES:
THE SIGN SHALL BE PERMANENTLY LOCATED AT A HEIGHT OF NOT LESS THAN FIVE FEET NOR MORE THAN EIGHT FEET TO THE TOP OF THE SIGN.

THE SIGN SHALL BE LOCATED AT THE HEAD OF THE SPACE AND NO MORE THAN TEN FEET AWAY FROM THE SPACE. THE SIGN SHALL BE MOUNTED ON A NOMINAL 2"x2" GALVANIZED STEEL POST.

THE PROPOSED ACCESS AISLE NEXT TO THE SPACE SHALL BE 8 FEET WIDE.



Professional Engineer Seal for James L. Tetreault, Civil Engineer, No. 38548, State of Massachusetts.

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CLT. NO.	504	JOB NO.	290-504
DATE:	OCTOBER 25, 2023	DWG NO.	120TURNPIKECURRENT
REVISIONS			
DATE:	DESCRIPTION		
1/24/24	TOWN REVIEW		
7/24/24	TOWN REVIEW		

SCALE: AS NOTED

SITE PLAN OF LAND

AT 120 TURNPIKE ROAD

IN

SOUTHBOROUGH, MASS.

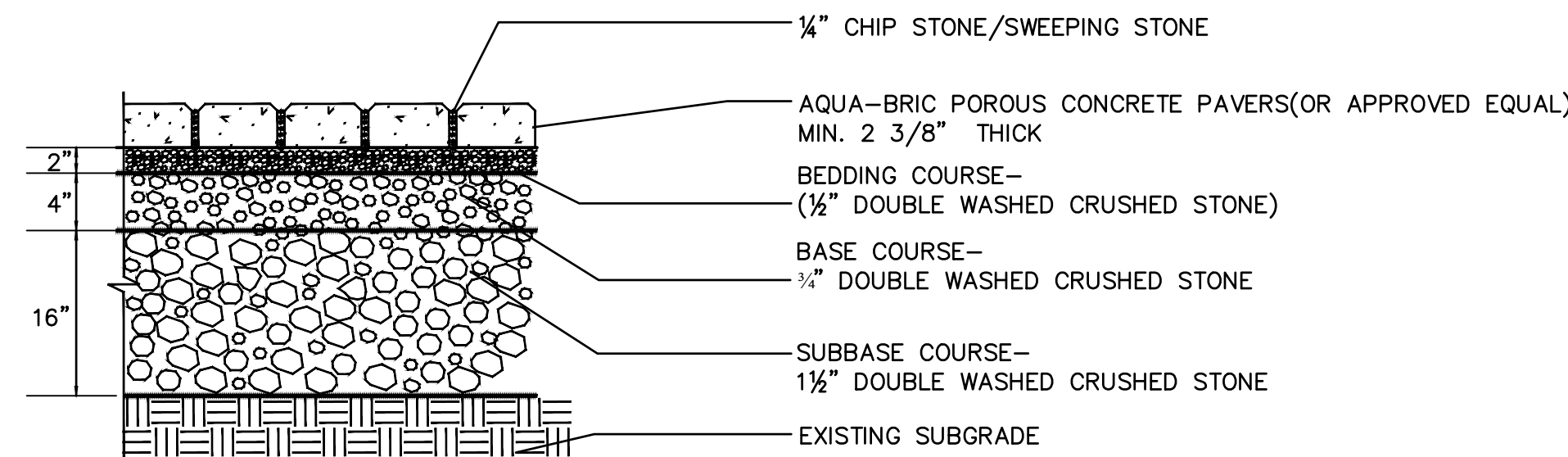
OWNER & APPLICANT:

FD 120 TURNPIKE, LLC

118 TURNPIKE ROAD, SUITE 300

SOUTHBOROUGH, MA 01772

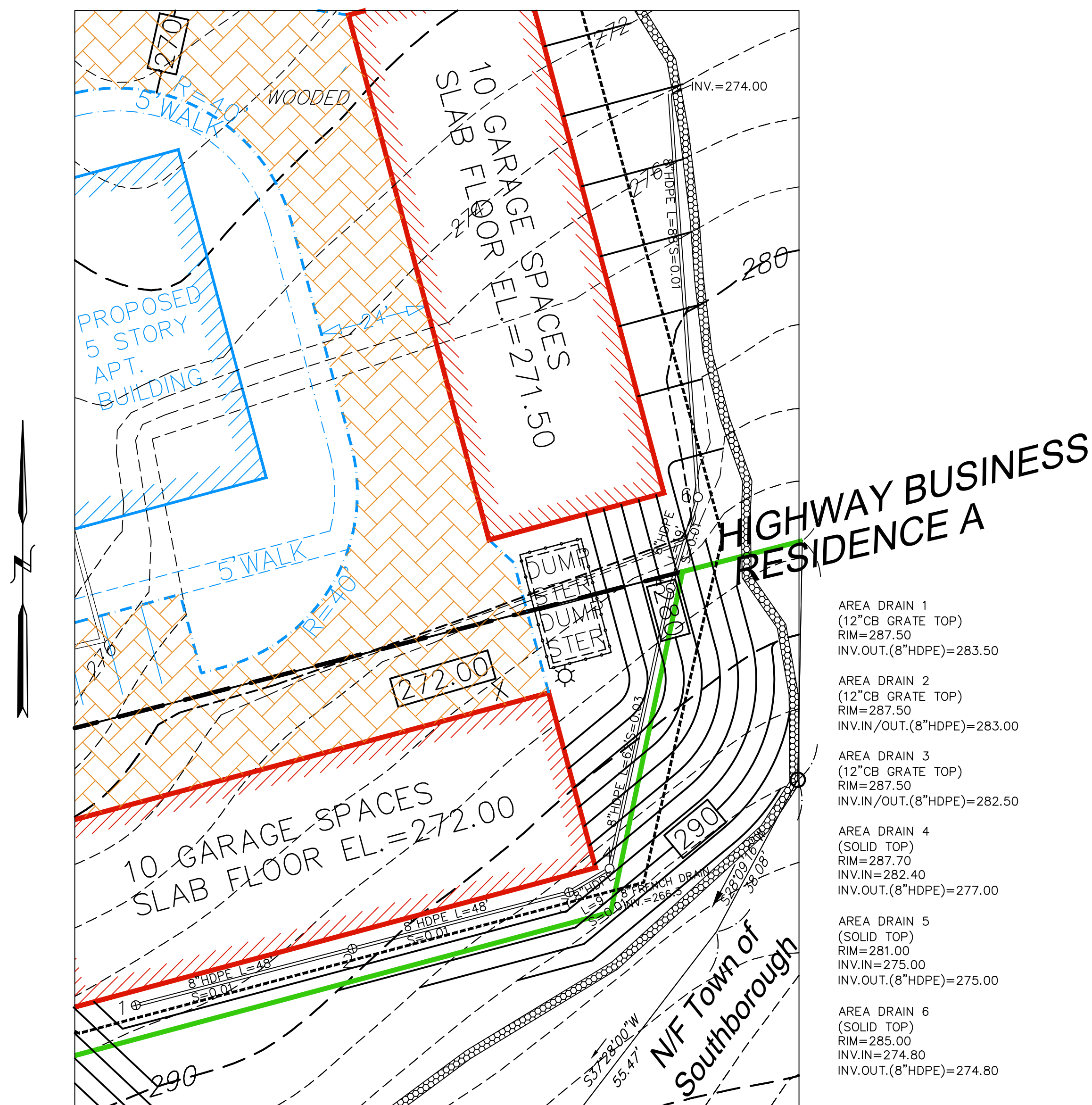
AS MITIGATION FOR THIS CONVERSION OF LANDSCAPED SURFACE TO IMPERVIOUS SURFACE WE PROPOSE TO CONVERT A SLIGHTLY LARGER AREA, 2,365 SQUARE FEET OF PARKING SPACE IMPERVIOUS SURFACE TO PERMEABLE INTERLOCKING CONCRETE PAVING(PICP) BLOCK SURFACE WITH 21 INCHES OF STONE BASE BENEATH IT, PER THE DETAIL TO THE LEFT.



1. PAVERS TO INSTALLED IN A BASKET WEAVE PATTERN
2. JOINT BETWEEN THE PAVERS SHALL BE BETWEEN 1/4"-3/16" JOINT

NOT TO SCALE

- 1) THE PARKING AND DRIVING AISLE AREAS SURROUNDING THE PROPOSED APARTMENT BUILDING WILL BE GIVEN A PICP BLOCK SURFACE TO INFILTRATE RUNOFF.
- 2) RUNOFF FROM THE GRASSED AND LANDSCAPED AREAS SURROUNDING THE BUILDING WILL BE ALLOWED TO FLOW ONTO THE PICP BLOCK SURFACE. ROOF RUNOFF FROM THE BUILDING WILL NOT. IT WILL BE DISCHARGED VIA AN 8"HDPE PIPE TO THE POND TO THE NORTH OF THE BUILDING.
- 3) THE FRONT HALVES OF THE ROOFS OF BOTH GARAGES WILL BE ALLOWED TO DRAIN ONTO THE PICP BLOCK SURFACE. THE BACK HALF OF THE MORE SOUTHERLY GARAGE WILL CONNECT TO AREA DRAINS BEHIND THAT GARAGE. THE BACK HALF OF THE MORE NORTHERLY GARAGE WILL DISCHARGE TO THE STONE SWALE BEHIND THAT GARAGE.
- 4) WITH A 22 INCH DEPTH OF STONE BELOW THE BLOCKS AND ASSUMING A 40% VOID RATIO, THERE IS STORAGE FOR 8.8 INCHES OF RAINFALL ONTO THE PICP SURFACE. THIS IS GREATER THAN THE 8.01 INCH 100 YEAR RETURN FREQUENCY STORM EVENT RAINFALL BEING USED IN DRAINAGE CALCULATIONS FOR THIS SITE. WITH EVEN MINIMAL INFILTRATION INTO SOILS BELOW THE SUBBASE COURSE, RUNOFF FROM ADDITIONAL AREAS IS ACCOMMODATED.



- 1)THE DOWNSPOUTS FROM THE REAR HALF OF THE ROOF OF THE MORE SOUTHERLY GARAGE SHOULD BE CONNECTED TO AREA DRAINS #'S 1 AND 3.
- 2)DOWNSPOUTS FROM THE REAR HALF OF THE MORE NORTHERLY GARAGE CAN DISCHARGE TO DAYLIGHT TOWARD THE STONE SWALE.
- 3)ALL SIX INLINE DRAIN STRUCTURES SHALL BE NYOPLAST 24 INCH DIAMETER WITH 1 FOOT SUMPS.

THE APPLICANT IS REQUESTING SEVERAL WAIVERS FROM THE ZONING BYLAW FOR THE CONSTRUCTION OF THIS PROJECT. THEY ARE AS FOLLOWS:

- 1) SECTION 174-8.2.B(9) ALLOWING MULTIFAMILY HOUSING ONLY WITH A SPECIAL PERMIT AS PART OF A MAJOR RESIDENTIAL DEVELOPMENT.
THIS COMPREHENSIVE PERMIT PROJECT WOULD NOT BE POSSIBLE UNDER THAT REGULATION.
- 2) SECTION 174-8.2.D(2) REQUIRING 200' FRONTAGE IN THE HIGHWAY BUSINESS DISTRICT.
THIS LOT HAS NO FRONTAGE AND THE PROJECT WOULD NOT BE POSSIBLE UNDER THAT REGULATION.
- 3) SECTION 174-8.2.D(4) REQUIRING BUILDING HEIGHTS NO MORE THAN 35 FEET OR 2.5 STORIES
THE PROPOSED BUILDING IS 5 STORIES TALL TO MINIMIZE ITS FOOTPRINT AND FIT WITH PARKING AND UTILITIES ON THIS SITE.
- 4) SECTION 174-12.C(2) REQUIRING THAT PARKING SPACES MEASURE 9.5'WIDE AND 18'DEEP.
THE PROPOSED SPACES ARE 9 FEET WIDE. THIS IS A COMMON STANDARD WHICH SAVES SOME SPACE WITHOUT COMPROMISING SAFETY OR CONVENIENCE.
- 5) SECTION 174-12.E(1) REQUIRING 2 PARKING SPACES FOR EACH 1 OR 2 BR UNIT AND 3 FOR EACH 3 BR UNIT.

THE PROJECT WILL PROVIDE PARKING SPACES AT A RATIO OF 1.70 PER UNIT AND THIS HAS PROVED ADEQUATE ON OTHER DEVELOPMENTS ALLOWING US TO MINIMIZE THE DEVELOPMENT'S FOOTPRINT.

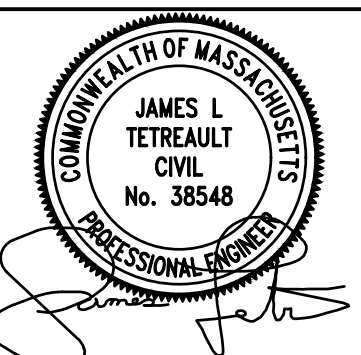
- 6) SECTION 174-13 LANDSCAPING STANDARDS
THE PROJECT'S LANDSCAPE ARCHITECT HAS PREPARED A DETAILED LANDSCAPING PLAN THAT HE BELIEVES IS APPROPRIATE TO THIS SITE THOUGH IT DEVIATES IN SOME WAYS FROM THOSE STANDARDS.

THE APPLICANT IS REQUESTING A WAIVER FROM THE SOUTHBOROUGH WETLANDS BYLAW STANDARDS FOR THE CONSTRUCTION OF THIS PROJECT AS FOLLOWS:

- 1) SECTION 170 OF THE SOUTHBOROUGH ADMINISTRATIVE CODE, THE SOUTHBOROUGH WETLANDS BYLAW AND ITS VARIOUS REQUIREMENTS INCLUDING A 20 FOOT NO DISTURB ZONE OUTSIDE OF WETLAND RESOURCE AREAS.

THE APPLICANT WILL NOT ALTER ANY WETLAND RESOURCE AREAS, WILL MEET DEP'S STORMWATER MANAGEMENT STANDARDS AND OTHER REQUIREMENTS WHICH PROVIDE ADEQUATE PROTECTION.

COMPREHENSIVE PERMIT PLAN APPROVED BY
THE SOUTHBOROUGH ZONING BOARD OF
APPEALS ON _____.



Professional Engineers & Erosion Control Specialists
118 Turnpike Road, 300, Southborough, MA 01772
Telephone (508)-399-9993 james@expeditedengineers.com

CLT. NO.		504		JOB NO.		290-504	
DATE:				DWG NO.			
OCTOBER 25, 2023				120TURNPIKECURRENT			
REVISIONS							
DATE:		DESCRIPTION					
1/24/24		TOWN REVIEW					
7/24/24		TOWN REVIEW					

SCALE: AS NOTED

OWNER & APPLICANT:

FD 120 TURNPIKE, LLC
118 TURNPIKE ROAD, SUITE 300
SOUTHBOROUGH, MA 01772

POLLUTION PREVENTION PLAN
FOR
120 TURNPIKE ROAD, SOUTHBOROUGH, MA

PROJECT DESCRIPTION

This is a proposal to develop this site and construct an apartment building having 60 units along with associated parking and driving aisles and necessary utility infrastructure on this 20.49 acre site.

Construction will take place in a single phase and is expected to last from the fall of 2024 into the fall of 2026. Total site alteration will be approximately 4.1 acres.

Construction Process
Before construction begins, erosion control barriers consisting of silt fencing attached to posts and backed by staked straw wattles will be placed at the limit of work as shown on the Erosion & Sediment Control Plans, Sheets ESC1–ESC4.

The first step of the construction process will be the cutting of trees within the limits of proposed development to the east and south of the proposed building . After this has been accomplished in the demarcated areas, clearing and grubbing will take place and loam will be stockpiled in the area of the two proposed garages. Stumps will be ground on site to use the grindings as temporary stabilization. Temporary settling basins will be installed downgradient of work to the north of the more easterly garage.

The time of construction requiring the most attention and care occurs between the stripping of natural overburden and the stabilization of construction areas. Cut and fill areas create additional risk by increasing the possibility of stormwater runoff causing erosion.

The contractor will, to the extent possible, leave natural cover untouched at the edges of the property and surrounding the wetland. The contractor will limit to the shortest time possible the time that areas are exposed. The landscaping will be completed as early as weather and building construction allow. During the times between clearing and landscaping, soils will be stabilized with a combination of stump grindings, wood chips, hay/straw mulch, temporary grass seeding and other measures as necessary to prevent any significant erosion of soils.

Soil stockpile areas will be kept as far from wetlands and ponds as possible on site. Soil stockpiles shall be surrounded by staked silt fence placed at least 5 foot off the toe of slope of the stockpile. One suitable stockpile location is in the area of the more easterly of the two garages.

In conjunction with the site grading process, a number of sedimentation control procedures will be followed. The object of the procedures is to prevent the erosion of soils and the transport of sediments to adjacent properties and eventually to wetland resource areas off site.

Stabilization
Temporary and permanent stabilization of disturbed surfaces is the most reliable method of preventing the erosion and transport of site soils. Toward that end, the areas that are disturbed will be provided temporary stabilization within two weeks after the last disturbance when:
– Work is not complete in that area.
– Work will remain incomplete for a period of three weeks or more, and
– The planting season has not been reached in areas which will be re–vegetated.
Permanent stabilization will take place when:
– Work is complete in that area and
– The planting season has been reached and areas can be revegetated.

Best Management Practices Employed
To guard against the transport of soils offsite several Best Management Practices (BMP’s) may be employed. Sediment control barriers, sediment sumps, temporary settling basins, straw bale check dikes, swales, a site entrance mat, flocculants in both crystal and block forms, and organic media for capture of silt below flocculants may be used on this site as appropriate. All of these measures are temporary. The site’s permanent protection against erosion and the deposition of sediment off site at resource areas is the permanent stabilization of formerly exposed surfaces with pavement, lawn and other landscaping.

Soils
According to the MassMapper web site the soils underlying this site are Paxton and Woodbridge series soils which are categorized as hydrologic soil group C soils.

Resource Areas
There is a bordering vegetated wetland associated with an intermittent stream southwest of the proposed building and a pond immediately to the north of it.

SITE PLAN DEVELOPMENT
As part of the Site Plans submitted to the Town of Southborough, Azimuth Land Design, LLC has prepared this erosion and sediment control plan calling for permanent and temporary erosion control measures. The site has an existing drainage system at the northerly end of it collection drainage flowing to the north and conveying it to the drainage system under the parking area on the developed portion of 120 Turnpike Road.

PHASING
Construction of the project will take place in one phase. Total site alteration will be approximately 4.1 acres.

POLLUTION PREVENTION SITE PLAN
The Site Plans prepared by Expedited Engineering, LLC contain Erosion & Sediment Control Plans. Various Best Management Practices (BMP’s) are described herein and/or shown on the Erosion & Sediment Control Plans or the Detail Sheets and will be used to prevent or to mitigate erosion and pollution.

INSPECTION AND MAINTENANCE OF EROSION CONTROLS
1. At all times, siltation fabric fencing, straw wattles or straw bales and stakes sufficient to construct an erosion control barrier a minimum 25 feet long will be stockpiled on the site in order to repair established barriers which may have been damaged or breached.
2. The Developer will designate as Inspector a person or entity other than the site supervisor. The Inspector must be accessible seven days a week and be responsible for inspecting and coordinating the maintenance and repair of all erosion control systems on the site.
3. An inspection of all erosion control measures shall be conducted by the Inspector at least once each week until the completion of construction of the subdivision. The Contractor shall inspect all erosion control systems daily and shall notify the Inspector of any breaches or failures. In case of any noted breach or failure, the Contractor shall immediately make appropriate repairs.
4. The Inspector shall inspect all erosion control systems on the site before, during and after any storm event reaching one of the following thresholds:
a. Any storm in which rain is predicted to last for 12 consecutive hours or more.
b. Any storm for which a flash flood watch or warning is issued.
c. Any single storm predicted to have a cumulative rainfall greater than 1/2 inch.
d. Any storm event not meeting the previous three thresholds but which would mark the third consecutive day of measurable rainfall.
5. The Inspector shall inspect erosion control measures at times of significant increase in runoff due to rapid thawing when the risk of failure of those measures is significant.
6. In such instances as remedial action is necessary, the Inspector shall cause to be repaired within seven days, any and all significant deficiencies in erosion control measures.
7. The Southborough Conservation Commission shall be notified of any significant failure of erosion control measures and shall be notified of any release of pollutants.

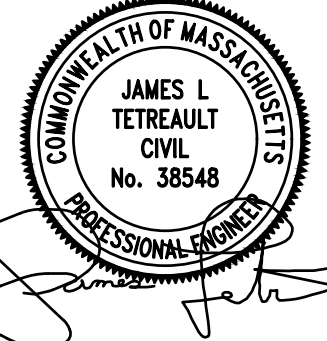
SEPTIC SYSTEM DESIGN:

- 1) THE 60 PROPOSED UNITS WILL HAVE A TOTAL OF 89 BEDROOMS. UNDER TITLE 5, THIS CREATES A SEWAGE FLOW GENERATION OF 89X110=9,790 GALLONS PER DAY.
- 2) PERCOLATION TESTS #’S 2, 4, 6, 7 AND 8 IN THE PROPOSED SOIL ABSORPTION SYSTEM AREA, HAD OFFICIALLY OBSERVED PERCOLATION RATES OF 3, 15, 5, 7, 3 AND 4 MINUTES PER INCH. THE SYSTEM DESIGN WILL BE BASED ON A 15 MINUTE PER INCH PERCOLATION RATE WHICH, ACCORDING TO THE TABLE AT 310CMR 15.242(1) GIVES A LONG TERM ACCEPTANCE RATE OF 0.56 GPD/S.F. TO THE PROPOSED SOIL ABSORPTION SYSTEM.
- 3) 9,790 GPD REQUIRES A SYSTEM SURFACE AREA OF 9,790/0.56 =17,482 S.F. USING 2’ WIDE AND 2’ DEEP TRENCHES, EACH 1’ LENGTH OF TRENCH HAS 6 S.F. OF SURFACE AREA. SO 17,482/6=2,914 FEET OF TRENCH THAT IS REQUIRED.
- 4) SO, OUR DESIGN WILL PROPOSE 46 TRENCHES EACH 65 FEET LONG, SPLIT HALF NORTH AND HALF SOUTH OF A CENTRAL MANIFOLD THAT WILL BE FED FROM A PUMP CHAMBER. WITH RESERVE TRENCHES IN BETWEEN, 23 TRENCHES REQUIRES A WIDTH OF 186 FEET. WITH A SPACE OF 8 FEET IN BETWEEN EACH GROUP OF TRENCHES, NORTH AND SOUTH, THE REQUIRED AREA FOR THE SOIL ABSORPTION SYSTEM IS 138’X186’.

EROSION CONTROL DEVICES OR PROCESSES

1. Sediment Control Barrier
The sediment control barrier will consist of an approved siltation fabric fencing installed on posts according to the manufacturer’s instructions and backed by staked straw wattles. The barriers will be placed in a manner that prevents the passage of soil materials under, around or over it. Sediment will be removed from against the barrier when the accumulated sediment has reached one third of the original installed height of the barrier.
 2. Straw Bale Diversion Dike
Straw bales will be placed in other locations on the site in order to further prevent the flow of sediment from the site or reduce the velocity of runoff crossing open land or running off stockpile or fill areas. Straw bale diversion dikes will also be placed within developing rills to reduce surface runoff velocities and to shift the path of the water flow. The locations where straw bale diversion dikes are installed will be determined in the field at the Inspector’s discretion.
 3. Slope Stabilization
Slopes or surfaces that are created due to excavation or filling along the edge of the parking or loading areas will be temporarily stabilized with one or more of the following:
– Hay or straw mulch with tackifier
– Soft wood and hard wood chips or stump grindings.
Permanent stabilization of slopes and surfaces will employ one or more of the following:
– 6 inches of loam and grass
– Sod
– Riprap
– Erosion control blankets such as Tensar North American Green SC150BN or approved equal and vegetation
– Mulch and landscaping plantings
– A combination of grasses, riprap and/or plants and shrubbery
– In areas that will be steeper than 2:1, after construction, the slope will be stabilized by the placement of heavy riprap or by the installation of erosion control matting specifically rated by the manufacturer for use on a 1:1 slope. The riprap slope will be formed by placing heavy stone on a one foot thick layer of gravel that is covered by an approved filter fabric.
 4. Diversion Swale
Runoff diversion swales may be provided in order to intercept sheet and concentrated flows above areas of cut, above abutting properties or Rice Road. The swales will direct runoff to sediment sumps or temporary settling basins. The swales will be approximately 5 feet wide and one foot deep. Straw bale diversion dikes may be installed on the downhill side of the swales to assist in containing the water flow.
 5. Sediment Sumps
Sediment sumps are excavated depressions of 10 foot diameter and 2 foot depth. The sumps will collect runoff from unfinished drives and slopes and will allow sediment to settle out before flow continues to a detention area or siltation control barrier. Sediment sumps will be cleaned whenever the accumulated sediment has reached one half of the original depth of the sump.
 6. Temporary Settling Basins
Temporary settling basins (TSB’s) are larger excavations made at locations that will receive significant stormwater runoff flow. They are used to capture and detain stormwater in the construction phase to settle out some eroded material and to lessen the rate of flow of stormwater from construction phase work areas. Temporary settling basins are larger than sediment sumps and shall have silt fence or straw bale dikes at their entrance and exit to control flow. They shall be sized according to the DEP Stormwater management standards which requires that they have sufficient capacity to hold 1 inch of runoff from the watershed contributing flow to them. For example, a TSB receiving flow from 1 acre of land should have a volume capacity of at least 3,630 square feet. TSB’s should have flocculant blocks and at least three layers of jute mesh matting at their outlet. TSB’s should be cleaned out whenever the accumulated sediment has reached more than 6 inches deep. No TSB shall be located where the proposed infiltration structures are proposed.
 7. Flocculants
If the capture of flows in sediment sumps and temporary settling basins does not sufficiently reduce the turbidity of runoff before it leaves the site, flocculant blocks shall be installed at the outlet of any sediment sump, TSB or swale discharge flow to the site’s drainage system. Immediately downstream of the flocculant blocks, a suitable organic media such as jute mesh matting shall be installed over stone for runoff that has contacted the flocculant blocks to flow. This will allow capture of silts.
- In addition, crystal flocculants may be used to reduce turbidity of captured runoff in sediment sumps and temporary settling basins.
- SEQUENCE OF INSTALLATION AND CONSTRUCTION
- The following is a sequence for the construction of the project. The actual schedule may vary somewhat from that stated if site or weather conditions require.
- An example of a logical change to the schedule would be deviating from the sequence below to allow the laying of berms prior to a freeze in order to better control the site drainage.
1. The Developer will hold a preconstruction meeting with representatives of the Town of Southborough in order to review permits, procedures and construction methods.
 2. The Developer will hold a preconstruction meeting with the Engineer, Contractor’s employees and the Inspector in order to review permits, procedures and construction methods.
 3. Establish the construction entrance to the site at the southwest corner of Lot 4B.
 4. Install the site entrance mat in that location and install sediment control barriers at the limit of work as shown on the Erosion & Sediment Control Plans.
 5. Cut trees as necessary for the proposed development but no further. Chip wood and then remove existing pavement and dispose of it at an appropriate facility. Then, clear and grub where trees were cut. Grind stumps for use of the grindings as a temporary stabilization cover.
 6. Stockpile and compact excavated loam in an area surrounded by staked straw bales or siltation fencing. The suggested location is that of the more easterly proposed garage. Place the straw bales or fencing at least five feet from the base of the loam pile.
 7. Install the proposed french drain south and east of the building and garages and begin earthwork to bring grades in the location of the building to the necessary grades.
 8. Begin construction of the apartment building and install the utility connections to the proposed apartment building.
 9. Install the new septic system and move the existing catch basin southwest of the proposed building to the new proposed location.
 10. Continue construction of the apartment building and begin construction of both garages.
 11. Permanently stabilize exposed slopes with 6 inches of loam and grass, erosion control matting, other vegetation and landscaping.
 12. Finish interior construction of the proposed building and garages and only then install the stone layers and PICP surface in the driving aisles and parking spaces around the building. Install new sidewalks connecting pedestrians to Route 9 and the compensatory PICP surface over spaces on Lot 4A.
 13. Remove accumulated sediment and temporary erosion control measures after all slopes have been permanently stabilized and the risk of erosion has passed.
 14. Prepare and submit an as–built survey of the work to the Town of Southborough.

COMPREHENSIVE PERMIT PLAN APPROVED BY
THE SOUTHBOROUGH ZONING BOARD OF
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CLT. NO. 504	JOB NO. 290–504
DATE: OCTOBER 25, 2023	DWG NO. 120TURNPIKECURRENT
REVISIONS	
DATE:	DESCRIPTION
1/24/24	TOWN REVIEW
7/24/24	TOWN REVIEW
SCALE: AS NOTED	

SITE PLAN OF LAND
AT 120 TURNPIKE ROAD
IN
SOUTHBOROUGH, MASS.
OWNER & APPLICANT:
FD 120 TURNPIKE, LLC
118 TURNPIKE ROAD, SUITE 300
SOUTHBOROUGH, MA 01772

DETAIL SHEET D4