

ESTIMATE OF QUANTITIES – DETAIL SHEETS

TOWN/CITY: BILLERICA YEAR: 2021
STA.: 103+75.00 TO 145+94.69 ROAD: BOSTON ROAD (ROUTE 3A)

Earth Excavation	<u>19,000 CY</u>	Gravel Sub-base	<u>4740 CY</u>
Class A Trench	<u>130 CY</u>	Gravel for Driveways	<u>970 CY</u>
Class B Rock Excavation.	<u>180 CY</u>	Gravel for Sidewalks	<u>1470 CY</u>
Class B Trench	<u>40 CY</u>		

PROPOSED FULL DEPTH CONSTRUCTION AND BOX WIDENING >4'

Area = 190,000 SF

SURFACE COURSE: 1-3/4" Superpave Surface Course 12.5 Polymer (SSC-12.5-P) over

INTERMEDIATE COURSE: 2-1/4" Superpave Intermediate Course 19.0 (SIC-19.0) over

BASE COURSE: 4-1/2" Superpave Base Course 37.5 (SBC-37.5) over

SUB-BASE: 4" Dense Graded Crushed Stone over
8" Gravel Borrow, Type B

PROPOSED FULL DEPTH CONSTRUCTION ≤ 4' WIDE

Area = 1,800 SF

SURFACE COURSE: 1-3/4" Superpave Surface Course 12.5 Polymer (SSC-12.5-P) over

INTERMEDIATE COURSE: 2-1/4" Superpave Intermediate Course 19.0 (SIC-19.0) over

BASE COURSE: 6" Cement Concrete Base Course over

SUB BASE: 8" Gravel Borrow, Type B

Plan No.'s _____
Profile No.'s _____

Estimated by KL
Reviewed by DJ

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TOWN/CITY: HOLBROOK

YEAR: 2020

STA.: 103+75.00 TO 145+94.69

ROAD: UNION STREET (ROUTE 139)

Calculation Book No.'s _____

Submitted by BETA Group, Inc.

PROPOSED PAVEMENT MILLING AND OVERLAY (Boston Road & Heritage Road) Area = 54,900 SF

SURFACE COURSE: 1-3/4" Superpave Surface Course 12.5 Polymer (SSC-12.5-P) over

PAVEMENT MILLING: Variable Depth Standard Pavement Milling 0.5"-4" Max.

INTERMEDIATE COURSE: 2-1/4" Superpave Intermediate Course 19.0 (SIC-19.0) over

PROPOSED PAVEMENT MILLING AND OVERLAY (Good Street & Side Streets) Area = 14,500 SF

SURFACE COURSE: 1-3/4" Superpave Surface Course 12.5 Polymer (SSC-12.5-P) over

PAVEMENT MILLING: 1-3/4" Variable Depth Standard Pavement Milling

CEMENT CONCRETE SIDEWALKS, WHEELCHAIR RAMPS AND SHARED USE PATHS Area = 59,400 SF

SURFACE: 6" Cement Concrete Walk Surface
4000 psi, 3/4", 610 Air Entrained over

FOUNDATION: 8" Gravel Borrow, Type B

CEMENT CONCRETE SIDEWALKS AT DRIVEWAYS AND SHARED USE PATH WHEELCHAIR RAMPS

Area = 21,900 SF

SURFACE: 6" Cement Concrete Walk Surface
4000 psi, 3/4", 610 Air Entrained over

FOUNDATION: 8" Gravel Borrow, Type B

HMA SIDEWALKS

Area = 100 SF

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ROAD: UNION STREET (ROUTE 139)

BOSTON ROAD	15+85.26	LT	EX-CB
	17+43.82	LT	EX-CB
	18+25.16	LT	EX-CB
	20+57.43	LT	EX-CB
	21+61.83	RT	EX-CB
	25+16.73	LT	EX-DMH
	25+58.15	RT	EX-CB
	25+79.24	LT	EX-DMH
	26+35.80	LT	EX-CB
	26+77.02	LT	EX-CB
	26+85.38	LT	EX-CB
	28+76.60	RT	EX-CB
	28+53.63	LT	EX-DMH
	28+67.39	LT	EX-CB
	29+84.85	RT	EX-CB
	31+46.99	LT	EX-DMH
	31+59.13	LT	EX-CB
	34+66.76	LT	EX-DMH
	34+87.69	LT	EX-CB
	35+72.61	LT	EX-DMH
	35+83.06	LT	EX-CB
	36+21.33	RT	EX-DMH
	36+45.54	RT	EX-CB
	37+45.33	LT	EX-DMH
	37+61.68	RT	EX-CB
	37+94.29	LT	EX-CB
	40+20.24	LT	EX-DMH
	40+53.78	LT	EX-CB
	42+25.39	RT	EX-CB
	42+17.77	LT	EX-DMH
	42+66.78	RT	EX-CB
	45+97.28	LT	EX-DMH
	46+49.26	RT	EX-CB
HERITAGE ROAD	56+50.25	LT	EX-CB
	58+38.56	RT	EX-CB

184.1 DISPOSAL OF TREATED WOOD PRODUCTS

<u>LOCATION</u>	<u>STA. TO</u>	<u>STA.</u>	<u>LT/RT</u>
HERITAGE RD	50+50	52+50	LT

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ROAD: UNION STREET (ROUTE 139)

220.8 SANITARY STRUCTURE REMODELED

<u>LOCATION</u>	<u>STA</u>	<u>LT/RT</u>	<u>TYPE</u>
BOSTON ROAD	29+34.00	LT	SMH
	34+77.00	LT	SMH
	35+39.00	LT	SMH
	37+81.81	LT	SMH

302.06 6 INCH DUCTILE IRON WATER PIPE (RUBBER GASKET)

<u>LOCATION</u>	<u>STA</u>	<u>LT/RT</u>
BOSTON ROAD	23+87	RT
	39+08	RT
	44+25	RT
HERITAGE ROAD	56+43	LT

347.1 1 INCH COPPER TUBING K

All services that are old iron need to be replaced with copper. There are very old services that may break during construction. Replace all services from main to curb stop.

347.2 2 INCH COPPER TUBING K

All services that are old iron need to be replaced with copper. There are very old services that may break during construction. Replace all services from main to curb stop.

350.06 6 INCH GATE AND GATE BOX

<u>LOCATION</u>	<u>STA</u>	<u>LT/RT</u>
BOSTON ROAD	16+60	LT
	23+87	RT
	34+72	RT
	39+08	RT
	44+25	RT
	49+30	RT
HERITAGE ROAD	56+43	LT

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ROAD: UNION STREET (ROUTE 139)

504.3. GRANITE CURB TYPE VA4 – SLOPED EDGE

<u>LOCATION</u>	<u>STATION</u>	<u>LT/RT</u>
BOSTON ROAD	26+24	LT
	27+15	LT
	27+92	LT
	28+91	LT
	30+14	LT
	31+23	LT
	32+99	LT
	33+56	LT
	35+08	LT
	36+38	LT
	37+71	LT
	38+27	LT
	38+92	LT
	39+51	LT
	40+07	LT
	40+12	RT
	41+20	RT
	42+85	RT
	44+56	RT
	45+63	RT
46+62	RT	
47+10	RT	
47+74	RT	

509.3. GRANITE TRANSITION CURB – SLOPED EDGE

<u>LOCATION</u>	<u>STATION</u>	<u>LT/RT</u>
BOSTON ROAD	26+24	LT
	27+15	LT
	27+92	LT
	28+91	LT
	30+14	LT
	31+23	LT
	32+99	LT
	33+56	LT
	35+08	LT
	36+38	LT
37+71	LT	

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STA.: 103+75.00 TO 145+94.69

ROAD: UNION STREET (ROUTE 139)

38+27	LT
38+92	LT
39+51	LT
40+07	LT
40+12	RT
41+20	RT
42+85	RT
44+56	RT
45+63	RT
46+62	RT
47+10	RT
47+74	RT

570.2 HOT MIX ASPHALT CURB TYPE 2

<u>LOCATION</u>	<u>STATION</u>	<u>LT/RT</u>
BOSTON ROAD	STA 24+00	RT
	STA 26+70	LT
	STA 30+70	LT
FARMERS LANE	STA 1+50	LT
GOOD STREET	STA 71+70	LT
	STA 73+80	LT

580. CURB REMOVED AND RESET

<u>LOCATION</u>	<u>STATION</u>	<u>LT/RT</u>
BOSTON ROAD	STA 15+80	LT
	STA 13+00	RT
	STA 14+00	LT
	STA 29+50	LT
	STA 30+00	LT
TOM GLAVINE WAY	STA 94+00	RT
GOOD STREET	STA 75+00	LT

620.12 GUARDRAIL, TL-2 (SINGLE FACED)

<u>LOCATION</u>	<u>STATION</u>	<u>TO STATION</u>	<u>LT/RT</u>
HERITAGE ROAD	52+06.9	52+82.9	RT
FARMERS LANE	3+18.6	3+59	RT

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691. BALANCE STONE WALL REMOVED AND REBUILT

<u>LOCATION</u>	<u>STATION</u>	<u>TO STATION</u>	<u>LT/RT</u>
BOSTON ROAD	20+30	21+00	RT
	34+52	35+75	RT

705.1 FLAGSTONE WALK REMOVED AND RESET

<u>LOCATION</u>	<u>STATION</u>	<u>LT/RT</u>
BOSTON ROAD	49+90	RT

706.1 BRICK WALK REMOVED AND RELAID

<u>LOCATION</u>	<u>STATION</u>	<u>LT/RT</u>
BOSTON ROAD	38+25	LT
	46+30	LT

707.31 TREE GRATE (36" X 72")

<u>LOCATION</u>	<u>STATION</u>	<u>LT/RT</u>
BOSTON ROAD	34+25	RT
	34+77	RT
	37+58	RT
	38+30	RT
	45+31	RT
	45+32	RT
	45+98	RT
	47+28	LT
	47+86	LT
	48+43	LT

710.4 BOUND – PLAIN GRANITE

<u>LOCATION</u>	<u>STATION</u>	<u>LT/RT</u>
BOSTON ROAD	34+69	RT
	36+51	RT
	37+57	RT
	38+79	RT
	40+33	RT

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ROAD: UNION STREET (ROUTE 139)

	40+82	RT
GOOD STREET	70+46	LT
	70+78	RT
	71+63	RT
	72+74	LT
	72+90	RT
LASALLETTE ROAD	4+61	RT

711. BOUND REMOVED AND RESET

<u>LOCATION</u>	<u>STATION</u>	<u>LT/RT</u>
BOSTON ROAD	13+96	LT
	32+11	RT
	39+69	LT
HERITAGE ROAD	50+60	RT
LASALLETTE ROAD	4+55	RT
	4+29	LT

715. RURAL MAIL BOX REMOVED AND RESET

<u>LOCATION</u>	<u>STATION</u>	<u>LT/RT</u>
BOSTON ROAD	20+23	LT
	20+75	LT
	36+80	RT
	40+24	LT
	41+08	LT
	42+31	LT
	44+19	LT
	45+04	RT
GOOD STREET	71+22	LT
	71+24	RT
	73+50	RT
	75+41	RT
HERITAGE ROAD	55+00	LT
	55+62	LT
	56+27	RT
	56+95	LT
	57+83	LT

ESTIMATE OF QUANTITIES – DETAIL SHEETSTOWN/CITY: HOLBROOKYEAR: 2020STA.: 103+75.00 TO 145+94.69ROAD: UNION STREET (ROUTE 139)**767.121 SEDIMENT CONTROL BARRIER**

<u>LOCATION</u>	<u>STATION</u>	<u>TO STATION</u>	<u>LT/RT</u>
BOSTON ROAD	35+51.30	36+48.05	LT
	37+46.53	38+20.33	LT
FARMERS LANE	2+24.82	3+43.02	RT
HERITAGE ROAD	51+35.83	55+32.68	RT

767.6 AGED PINE BARK MULCH

<u>LOCATION</u>	<u>STATION</u>	<u>LT/RT</u>
BOSTON ROAD	15+75	LT
	26+50	RT
	26+50	LT
	29+80	LT
	36+75	LT
FARMERS LANE	1+75	LT
HERITAGE ROAD	55+30	LT
	56+50	LT
	58+90	LT

811.91 HANDHOLE TYPE A (STREETLIGHT)

<u>LOCATION</u>	<u>STRC.</u>	<u>STATION</u>	<u>LT/RT</u>
BOSTON ROAD	A-1	25+91.8	RT
	A-2	26+28.2	LT
	A-3	26+71.7	RT
	A-4	26+93.6	LT
	A-5	28+05.3	RT
	A-6	28+05.2	LT
	A-7	29+30.5	RT
	A-8	29+32.7	LT
	A-9	30+33.9	RT
	A-10	30+33.8	LT
	A-11	31+42.2	RT
	A-12	31+42.4	LT
	A-13	32+73.6	RT
	A-14	32+73.8	LT
	A-15	33+97.3	RT

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	D-5	49+77.5	RT
TOM GLAVINE WAY	D-6	94+17.5	LT

811.96 ELECTRICAL HANDHOLE TYPE E

<u>LOCATION</u>	<u>STRC.</u>	<u>STATION</u>	<u>LT/RT</u>
BOSTON ROAD	E-1	28+98.1	RT
	E-2	34+04.2	RT
	E-3	44+24.4	RT
	E-4	45+66.0	RT
	E-5	46+64.6	RT
	E-6	48+56.9	RT

823.72 LIGHT POST REMOVED AND RESET

<u>LOCATION</u>	<u>STATION</u>	<u>LT/RT</u>
TOM GLAVINE WAY	92+75	LT
GOOD STREET	73+60	LT

823.73 COBRA HEAD LIGHT REMOVED AND RESET

<u>LOCATION</u>	<u>POLE #</u>	<u>STATION</u>	<u>LT/RT</u>
BOSTON ROAD	UP#124	15+50	LT
	UP#125	16+70	LT
	UP#126	17+90	LT
	UP# 128	19+70	LT
	UP#130	21+80	LT
	UP#132	24+00	LT
	MULBERRY LANE	UP#154	6+60
HERITAGE ROAD	UP#2	52+00	RT
	UP#3	53+50	RT
	UP#4	54+40	RT
	UP#4-50	55+30	RT
	UP#5	56+30	RT
	UP#6	57+65	RT
	UP#6-50	58+50	RT
	UP#7	59+00	LT
	UP#8	59+65	LT

823.82 FLAG POLE REMOVED AND RESET

<u>LOCATION</u>	<u>STATION</u>	<u>LT/RT</u>
BOSTON ROAD	26+75	RT

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901. 4000 PSI, 1.5 IN., 565 CEMENT CONCRETE

Headwalls for Heritage Road (STA 52+26) and Farmers Lane (STA 3+25)

903. 3000 PSI, 1.5 IN., 470 CEMENT CONCRETE

Thrust block for new hydrant and removed and reset hydrants

910.1 STEEL REINFORCEMENT FOR STRUCTURES – EPOXY COATED

Headwalls for Heritage Road (STA 52+26) and Farmers Lane (STA 3+25)

970. BITUMINOUS DAMP-PROOFING

Headwalls for Heritage Road (STA 52+26) and Farmers Lane (STA 3+25)

988.01 SEDIMENT FOREBAY PAVING

For sediment forebay at Heritage Road