Preliminary Estimate of Quantities — Detail Sheet

UNCLASSIFIED EXCAVATION	11,050 CY
CLASS “A” ROCK EXCAVATION	550 CY
BRIDGE EXCAVATION	280 CY
CLASS “B” TRENCH EXCAVATION	890 CY
CLASS “B” ROCK EXCAVATION	260 CY
GRAVEL BORROW	12,110 CY
ORDINARY BORROW	51,250 CY
SPECIAL BORROW	10,250 CY
GRAVEL BORROW FOR BACKFILLING STRUCTURES AND PIPES	250 CY
GRAVEL BORROW TYPE C	4,050 CY

PROPOSED FULL DEPTH PAVEMENT **AREA = 23,615 SY**

②	SURFACE:	2"	SUPERPAVE SURFACE COURSE - 12.5 POLYMER (SSC-12.5-P)
	INTERMEDIATE:	2"	SUPERPAVE INTERMEDIATE COURSE - 12.5 (SIC-12.5)
	BASE COURSE:	3 1/2 "	SUPERPAVE INTERMEDIATE COURSE - 19.0 (SIC-19.0)
	SUBBASE:	4" 8"	DENSE GRADED CRUSHED STONE FOR SUB-BASE OVER GRAVEL BORROW (TYPE b) OR RECLAIMED PAVEMENT BORROW
	SUBGRADE	24"	SPECIAL BORROW * *WHERE REQUIRED IN AREAS OF FILL

PROPOSED FULL DEPTH PAVEMENT (LESS THAN 4.0 FEET WIDE) **AREA = 34 SY**

②	SURFACE:	2"	SUPERPAVE SURFACE COURSE - 12.5 POLYMER (SSC-12.5-P)
	INTERMEDIATE:	2"	SUPERPAVE INTERMEDIATE COURSE - 12.5 (SIC-12.5)
	BASE COURSE:	7 1/2"	HIGH EARLY STRENGTH CEMENT CONCRETE BASE COURSE
	SUBBASE:	8"	GRAVEL BORROW (TYPE b) OR RECLAIMED PAVEMENT BORROW

Preliminary Estimate of Quantities — Detail Sheet

PROPOSED PAVEMENT MICROMILLING & OVERLAY **AREA = 5,704 SY**

② SURFACE: 2" SUPERPAVE SURFACE COURSE - 12.5 POLYMER (SSC-12.5-P)

LEVELING: VARIABLE DEPTH SUPERPAVE LEVELING COURSE - 4.75 (SIC-4.75)

MILLING: 2" PAVEMENT MICROMILLING

PROPOSED MICROMILL & OVERLAY AT BRIDGE **AREA = 2,250 SY**

② SURFACE: 1 1/2 " SUPERPAVE BRIDGE SURFACE COURSE - 9.5 POLYMER (SSC-B-9.5-P)

MILLING: 1" PAVEMENT MICROMILLING

PROPOSED CEMENT CONCRETE SIDEWALK **AREA = 2,947 SY**

SURFACE: 4" CEMENT CONCRETE
AIR ENTRAINED 4000 PSI, 3/4", 610

SUBBASE: 8" GRAVEL BORROW (TYPE b) OR RECLAIMED PAVEMENT BORROW

PROPOSED CEMENT CONCRETE WHEELCHAIR RAMP **AREA = 866 SY**

SURFACE: 4" CEMENT CONCRETE
AIR ENTRAINED 4000 PSI, 3/4", 610

SUBBASE: 8" GRAVEL BORROW (TYPE b) OR RECLAIMED PAVEMENT BORROW

PROPOSED CEMENT CONCRETE DRIVEWAY **AREA = 90 SY**

SURFACE: 6" CEMENT CONCRETE
AIR ENTRAINED 4000 PSI, 3/4", 610

SUBBASE: 8" GRAVEL BORROW (TYPE b) OR RECLAIMED PAVEMENT BORROW

PROPOSED HOT MIX ASPHALT DRIVEWAY **AREA = 93 SY**

SURFACE: 1 1/2" SUPERPAVE SURFACE COURSE - 9.5 (SSC-9.5)

INTERMEDIATE: 2" SUPERPAVE INTERMEDIATE COURSE - 12.5 (SIC-12.5)

SUBBASE: 8" GRAVEL BORROW (TYPE b) OR RECLAIMED PAVEMENT BORROW

PROPOSED HOT MIX ASPHALT BIKE LANE **AREA = 1,266 SY**

SURFACE: 1 1/2" SUPERPAVE SURFACE COURSE - 9.5 (SSC-9.5)

INTERMEDIATE: 2 1/2" SUPERPAVE INTERMEDIATE COURSE - 12.5 (SIC-12.5)

SUBBASE: 8" GRAVEL BORROW (TYPE b) OR RECLAIMED PAVEMENT BORROW

Preliminary Estimate of Quantities — Detail Sheet

PROPOSED CEMENT CONCRETE MEDIAN **AREA = 328 SY**

SURFACE: 4"	CEMENT CONCRETE AIR ENTRAINED 4000 PSI, 3/4", 610	
SUBBASE: 8"	GRAVEL BORROW (TYPE b) OR RECLAIMED PAVEMENT BORROW	

PROPOSED SCORED CEMENT CONCRETE **AREA = 44 SY**

SURFACE:	7” CEMENT CONCRETE AIR ENTRAINED 5000 PSI, 3/8”, 710
FOUNDATION:	8” GRAVEL BORROW, TYPE b

TEMPORARY FULL DEPTH PAVEMENT **AREA = 4891 SY**

INTERMEDIATE:	2.75” SUPERPAVE INTERMEDIATE COURSE – 12.5 (SIC-12.5) OVER
BASE COURSE:	4” SUPERPAVE INTERMEDIATE COURSE – 19.0 (SIC-19.0)
SUBBASE:	12” GRAVEL BORROW, TYPE b OR RECLAIMED PAVEMENT BORROW

PROPOSED CEMENT CONCRETE WALK AT TREEWAY **AREA = 129 SY**

SURFACE:	6"	CEMENT CONCRETE AIR ENTRAINED, 400O PSI, 3/4", 610 WITH 6x6 W1.4 x W1.4 WWM REINFORCEMENT
BASE COURSE:	6"	CRUSHED COURSE
SUBBASE:	18"	STRUCTURAL SOIL

HMA BIKE LANE AT TREEWAY **AREA = 125 SY**

SURFACE:	1 1/2"	SUPERPAVE SURFACE COURSE - 9.5 (SSC-9.5)
INTERMEDIATE:	6"	CEMENT CONCRETE AIR ENTRAINED, 400O PSI, 3/4", 610 WITH 6x6 W1.4 x W1.4 WWM REINFORCEMENT
BASE COURSE:	6	"CRUSHED COURSE
SUBBASE:	18"	STRUCTURAL SOIL

Preliminary Estimate of Quantities — Detail Sheet

BRICK WALK **AREA = 26 SY**

SURFACE:		BRICK PAVERS
INTERMEDIATE:	3/4"	HMA SETTING BED
BASE COURSE:	4"	CEMENT CONCRETE AIR ENTRAINED, 4000 PSI, 3/4", 610 WITH 6x6 W1.4 x W1.4 WWM REINFORCEMENT
SUBBASE:	8"	GRAVEL BORROW (TYPE b) OR RECLAIMED PAVEMENT BORROW

TEMPORARY HOT MIX ASPHALT WALK **AREA = 2,316 SY**

SURFACE:	2"	SUPERPAVE SURFACE COURSE - 9.5 (SSC-9.5)
BASE COURSE:	8"	GRAVEL BORROW (TYPE b) OR RECLAIMED PAVEMENT BORROW

TEMPORARY HOT MIX ASPHALT WCR **AREA = 162 SY**

SURFACE:	2"	SUPERPAVE SURFACE COURSE - 9.5 (SSC-9.5)
BASE COURSE:	8"	GRAVEL BORROW (TYPE b) OR RECLAIMED PAVEMENT BORROW

PROPOSED BRIDGE WEARING SURFACE **AREA = 246 SY**

② SURFACE:	1 1/2"	SUPERPAVE BRIDGE SURFACE COURSE - 9.5 POLYMER (SSC-B-9.5-P)
PROTECTIVE:	1 1/2"	SUPERPAVE BRIDGE PROTECTIVE COURSE - 9.5 (SPC-B-9.5)

Preliminary Estimate of Quantities — Detail Sheet

NOTES:

1. ALL HOT MIX ASPHALT PAVEMENT SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 450 QUALITY ASSURANCE FOR HMA.

2. ALL HOT MIX ASPHALT PAVEMENT SHALL BE PRODUCED IN ACCORDANCE WITH SECTION 455 SUPERPAVE HMA SPECIFICATIONS.

3. ASPHALT EMULSION FOR TACK COAT (ITEM 452.) SHALL BE SPRAY APPLIED FOR DOUBLE OVERLAP COVERAGE AT 0.07 GAL/SY OVER MILLED SURFACES AND 0.05 GAL/SY OVER SMOOTH SURFACES.

4. HMA JOINT SEALANT (ITEM 453.) SHALL BE APPLIED IN SURFACE COURSE AT ALL VERTICAL COLD JOINTS PRIOR TO HMA PAVING.

5. ALL HOT MIX ASPHALT BIKE LANE AND HOT MIX ASPHALT BIKE LANE AT TREEWAY SHALL BE ESTIMATED AND PAID FOR UNDER ITEM 702 OF STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES AND SHALL NOT BE SUBJECT TO SUPERPAVE QUALITY REQUIREMENTS.

6. ALL HOT MIX ASPHALT DRIVEWAYS SHALL BE ESTIMATED AND PAID FOR UNDER ITEM 703 OF STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES AND SHALL NOT BE SUBJECT TO SUPERPAVE QUALITY REQUIREMENTS.

7. ALL TEMPORARY FULL DEPTH PAVEMENT AND TEMPORARY HOT MIX ASPHALT WALK SHALL ESTIMATED AND PAID FOR UNDER ITEM 472 FOR HIGHWAYS AND BRIDGES AND SHALL NOT BE SUBJECT TO SUPERPAVE QUALITY REQUIREMENTS.

8. ALL TEMPORARY HOT MIX ASPHALT WHEELCHAIR RAMP SHALL BE ESTIMATED AND PAID FOR UNDER ITEM 472.1 AND SHALL NOT BE SUBJECT TO SUPERPAVE QUALITY REQUIREMENTS.

② 9. ALL SUPERPAVE HOT MIX ASPHALT SHALL BE PRODUCED WITH A WARM MIX ASPHALT TECHNOLOGY. ALL ROADWAY SUPERPAVE SURFACE COURSE SHALL BE POLYMER MODIFIED ASPHALT.

Preliminary Estimate of Quantities — Detail Sheet

ITEM 201. **CATCH BASIN**

THORNDIKE STREET

Structure No.	Station	Type	Offset	
2	213+63	CBCI	7.7'	RT
3	212+84	CBCI	41.2'	RT
25	215+65	CBCI	62.6'	LT
27	216+00	CBCI	12.0'	LT
30	216+81	CBCI	75.0'	LT
32	217+37	CB	12.0'	LT
② 33	216+43	CBCI	32.4'	RT
36	218+46	CBCI	72.1'	LT
37	218+83	CBCI	11.9'	LT
38	218+70	CBCI	26.0'	RT
44	219+90	CB	72.0'	LT
50	220+69	CBCI	12.0'	LT
52	220+66	CBCI	26.0'	RT
54	220+60	CBCI	73.8'	LT
57	221+92	CBCI	12.0'	LT
59	221+92	CBCI	26.0'	RT
60	221+94	CBCI	72.0'	LT
71	223+12	CBCI	12.0'	LT
72	223+13	CBCI	71.5'	LT
72A	224+13	CBCI	68.7'	LT
74	223+21	CBCI	33.3'	RT
79	226+38	CBCI	11.8'	LT
80	226+40	CBCI	35.1'	RT
84	227+38	CBCI	35.7'	LT
85	227+83	CBCI	35.1'	RT
87	228+58	CBCI	30.9'	LT
89	228+80	CBCI	43.9'	RT
91	228+92	CBCI	29.6'	LT
92	229+00	CBCI	44.0'	RT
96	229+21	CBCI	44.0'	RT
97	229+23	CBCI	28.3'	LT
99	229+71	CBCI	44.0'	RT

FLETCHER STREET

Structure No.	Station	Type	Offset	
9	52+14	CB	22.8'	LT
10	51+58	CBCI	19.9'	RT
13	52+43	CB	23.0'	LT
13A	52+92	CBCI	24.0'	LT
14	52+70	CBCI	33.1'	RT
18	52+51	CBCI	32.0'	RT

JACKSON STREET

Structure No.	Station	Type	Offset	
22	56+38	CB	23.1'	LT
22A	55+81	CB	63.1'	RT

Preliminary Estimate of Quantities — Detail Sheet

MIDDLESEX STREET

Structure No.	Station	Type	Offset	
41	61+80	CBCI	17.9’	LT
45	64+66	CBCI	20.2	LT

APPLETON/CHELMSFORD STREET

Structure No.	Station	Type	Offset	
61	75+86	CBCI	23.0’	LT
63	73+70	CBCI	47.8’	LT
68	73+16	CBCI	28.0'	LT
73	73+34	CBCI	26.0'	RT
76	73+27	CBCI	64.9'	RT
76A	72+71	CBCI	29.0'	RT
77	73+59	CBCI	95.4'	RT

SUMMER STREET

Structure No.	Station	Type	Offset	
81	80+74	CBCI	17.8’	LT
81A	81+12	CBCI	16.3’	LT
83	80+79	CB	21.3'	RT

And at various locations as directed.

Preliminary Estimate of Quantities — Detail Sheet

ITEM 202. **MANHOLE**

THORNDIKE STREET

Structure No.	Station	Offset	
24	215+39	3.7'	RT
26	215+84	40.6'	LT
29	216+77	65.2'	LT
② 31	217+34	3.8'	LT
② 31A	216+30	7.8'	LT
35	218+42	65.7'	LT
48	220+74	21.5	RT
49	220+65	6.3'	RT
53	220+77	65.5'	LT
56	221+88	6.0'	RT
58	221+92	65.6'	LT
69	223+06	5.7'	RT
69A	223+91	2.2'	RT
78	226+26	6.4'	RT
86	228+05	11.6'	LT
88	228+78	23.8'	LT
90	228+81	34.7'	LT
93	229+01	51.7'	RT
98	229+44	51.1'	RT

FLETCHER STREET/JACKSON STREET

Structure No.	Station	Offset	
15	52+36	25.7'	RT
20	52+95	5.1'	RT

MIDDLESEX STREET

Structure No.	Station	Offset

CHELMSFORD STREET/APPLETON STREET

Structure No.	Station	Offset	
62	73+53	49.2'	LT
75	73+47	51.7'	RT

CHELMSFORD STREET/APPLETON STREET

Structure No.	Station	Offset	
82	80+60	7.7'	LT

And at various locations as directed.

Preliminary Estimate of Quantities — Detail Sheet

ITEM 202.5 **MANHOLE – 5 FOOT DIAMETER**

THORNDIKE STREET

② Structure 31 Deleted

Structure No.	Station	Offset	
28	215+79	71.0'	LT
39	218+80	6.0'	RT
42	219+93	65.2'	LT

CHELMSFORD STREET/APPLETON STREET

Structure No.	Station	Offset	
70	73+53	18.6'	RT

And at various locations as directed.

ITEM 204. **GUTTER INLET**

THORNDIKE STREET

Structure No.	Station	Offset	
77A	224+95	69.7'	RT

ITEM 204.11 **GUTTER INLET - SPECIAL**

THORNDIKE STREET

Structure No.	Station	Offset	
8	213+26	39.4'	LT

ITEM 209.6 **OUTLET CONTROL STRUCTURE**

THORNDIKE STREET

Structure No.	Station	Offset	
51	220+53	108.4'	RT

ITEM 210.15 **DROP OVER SEWER MANHOLE**

THORNDIKE STREET

Station	Offset
217+64	3.2' RT

Preliminary Estimate of Quantities — Detail Sheet

ITEM 252.112 **12 INCH CORRUGATED PLASTIC PIPE FLARED END**

THORNDIKE STREET

Structure No.	Station	Offset
55	221+73	117.3' RT

And at various locations as directed.

ITEM 252.12 **12 INCH CORRUGATED PLASTIC (POLYETHYLENE) PIPE**

THORNDIKE STREET

Structure No.		Structure No.
2	to	4
3	to	4
22	to	28
22A	to	28
24A	to	24
25	to	28
27	to	26
28	to	26
30	to	29
32	to	31
② 33	to	31A
36	to	35
37	to	39
38	to	39
40	to	39
41	to	40
44	to	42
48	to	49
50	to	49
51	to	48
52	to	48
53	to	42
54	to	53
57	to	56
58	to	53
59	to	56
60	to	58
71	to	69
72	to	58
72A	to	69A
74	to	75
77A	to	82A
79	to	78
80	to	78
81	to	82
81A	to	82B

82	to	82A
83	to	82B
84	to	86
85	to	86
86	to	88
87	to	90
88	to	90
89	to	93
90A	to	90
91	to	90
92	to	93
93	to	94
96	to	98
97	to	88
98	to	94
99	to	98

FLETCHER STREET

Structure No.		Structure No.
9	to	11
10	to	12
13	to	15
13A	to	20
14	to	15
15	to	20
18	to	15
18A	to	20
20	to	OULET

MIDDLESEX STREET

Structure No.		Structure No.
41	to	40
45	to	42

CHELMSFORD STREET/APPLETON STREET

Structure No.		Structure No.
77	to	75
76	to	75
75	to	70
73	to	70
68	to	62
70	to	62
63	to	62
62	to	55
61	to	EX SMH
76A	to	75

Preliminary Estimate of Quantities — Detail Sheet

SUMMER STREET

Structure No.		Structure No.
81	to	82
81A	to	82B
83	to	82

And at various locations as directed.

ITEM 252.15 **15 INCH CORRUGATED PLASTIC (POLYETHYLENE) PIPE**

THORNDIKE STREET

Structure No.		Structure No.
29	to	26
35	to	29
42	to	35
49	to	39
56	to	49
69	to	56
69A	to	69
82A	to	69A
78	to	82A

ITEM 252.18 **18 INCH CORRUGATED PLASTIC (POLYETHYLENE) PIPE**

THORNDIKE STREET

Structure No.		Structure No.
24	to	23
26	to	23
② 31	to	31A
② 31A	to	24
39	to	31

ITEM 258. **STONE FOR PIPE ENDS**

To be used at Bioretention basins and stone overflow weirs

ITEM 302.04 **4 INCH DUCTILE IRON WATER PIPE (RUBBER GASKET)**

SUMMER STREET
Sta. 80+91 to Sta. 80+91 RT/LT

ITEM 302.06 **6 INCH DUCTILE IRON WATER PIPE (RUBBER GASKET)**

THORNDIKE STREET

For Hydrant	Sta. 215+26 to Sta. 215+35 LT
For Hydrant	Sta. 221+01 to Sta. 221+02 LT
For Hydrant	Sta. 228+03 to Sta. 228+03 RT

Preliminary Estimate of Quantities — Detail Sheet

FLETCHER STREET

For Hydrant Sta. 51+87 to Sta. 51+87 LT

APPLETON STREET
For Hydrant Sta. 75+95 to Sta. 75+95 LT

SUMMER STREET
Sta. 80+00 to Sta. 80+98 RT

ITEM 302.08 **8 INCH DUCTILE IRON WATER PIPE (RUBBER GASKET)**

THORNDIKE STREET
Sta. 215+99, 22.7 RT to Sta. 215+19, 120.9' LT

ITEM 302.12 **12 INCH DUCTILE IRON WATER PIPE (RUBBER GASKET)**

THORNDIKE STREET
Sta. 215+58, 33.3 RT to Sta. 222+27, 4.8' LT
Sta. 219+75, 3.9 LT to Sta. 219+75, 127.2' LT
Sta. 219+97, 4.0 LT to Sta. 219+88, 105.2' RT

ITEM 302.16 **16 INCH DUCTILE IRON WATER PIPE (RUBBER GASKET)**

THORNDIKE STREET
Sta. 222+27, 4.8' LT to Sta. 229+82, 0.0' RT

CHELMSFORD STREET/APPLETON STREET
Sta. 73+98, 31.3' LT to Sta. 76.04, 17.4' LT

ITEM 309. **DUCTILE IRON FITTINGS FOR WATER PIPE**
To be used for water line installation.

ITEM 345.66 **TEMPORARY WATER BYPASS**
For temporary service connections on Appleton Street and Thorndike Street at the Gallagher Terminal.

ITEM 347.2 **2 INCH COPPER TUBING TYPE K**

APPLETON STREET
Sta. 75+80 to 75+82 LT

ITEM 350.04 **4 INCH GATE AND GATE BOX**

SUMMER STREET
Sta. 80+91 – 1' RT

ITEM 350.06 **6 INCH GATE AND GATE BOX**

THORNDIKE STREET
Sta. 215+29 – 62' LT
Sta. 221+01 – 7' LT
Sta. 228+03 – 12' RT

Preliminary Estimate of Quantities — Detail Sheet

CHELMSFORD STREET/APPLETON STREET
Sta. 75+95 – 23' LT

SUMMER STREET
Sta. 80+78 – 4' RT

ITEM 350.12 **12 INCH GATE AND GATE BOX**

THORNDIKE STREET
Sta. 215+61 – 32' RT
Sta. 219+74 – 123' LT
Sta. 219+88 – 4' LT
Sta. 219+88 – 102' RT
Sta. 222+24 – 5' LT

ITEM 350.16 **16 INCH GATE AND GATE BOX**

THORNDIKE STREET
Sta. 222+34 – 5' LT
Sta. 222+42 – 73' RT
Sta. 222+33 – 125' LT

ITEM 357.06 **6 INCH GATE BOX**

For use to replace existing gate boxes to be adjusted that are broken or damaged and will need to be replaced, and as directed.

ITEM 357.12 **12 INCH GATE BOX**

For use to replace existing gate boxes to be adjusted that are broken or damaged and will need to be replaced, and as directed.

ITEM 357.16 **16 INCH GATE BOX**

For use to replace existing gate boxes to be adjusted that are broken or damaged and will need to be replaced, and as directed.

ITEM 358. **GATE BOX ADJUSTED**

THORNDIKE STREET
Sta. 211+55 – 13' RT – 16"
Sta. 211+72 – 13' RT – 16"
Sta. 220+98 – 90' LT – 12"
Sta. 227+62 – 44' RT – 12"

FLETCHER STREET
Sta. 51+10 – 11' LT – 16"
Sta. 52+08 – 19' LT –
Sta. 52+38 – 3' LT – 16"
Sta. 52+43 – 3' LT – 16"
Sta. 52+57 – 1' LT – 16"
Sta. 53+28 – 27' RT – 16"

CHELMSFORD STREET
Sta. 73+26 – 37' LT – 6"

And at various locations as directed.