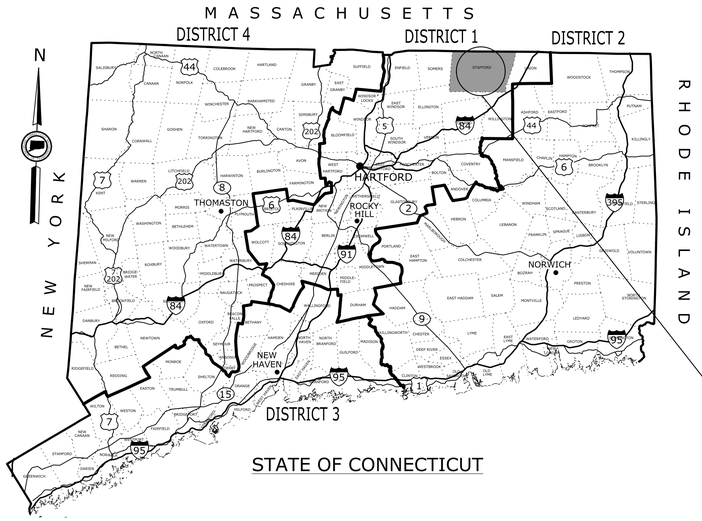
CONNECTICUT DEPARTMENT OF TRANSPORTATION

Plans For

MODERN ROUNDABOUT AT ROUTE 190 AND ROUTE 319

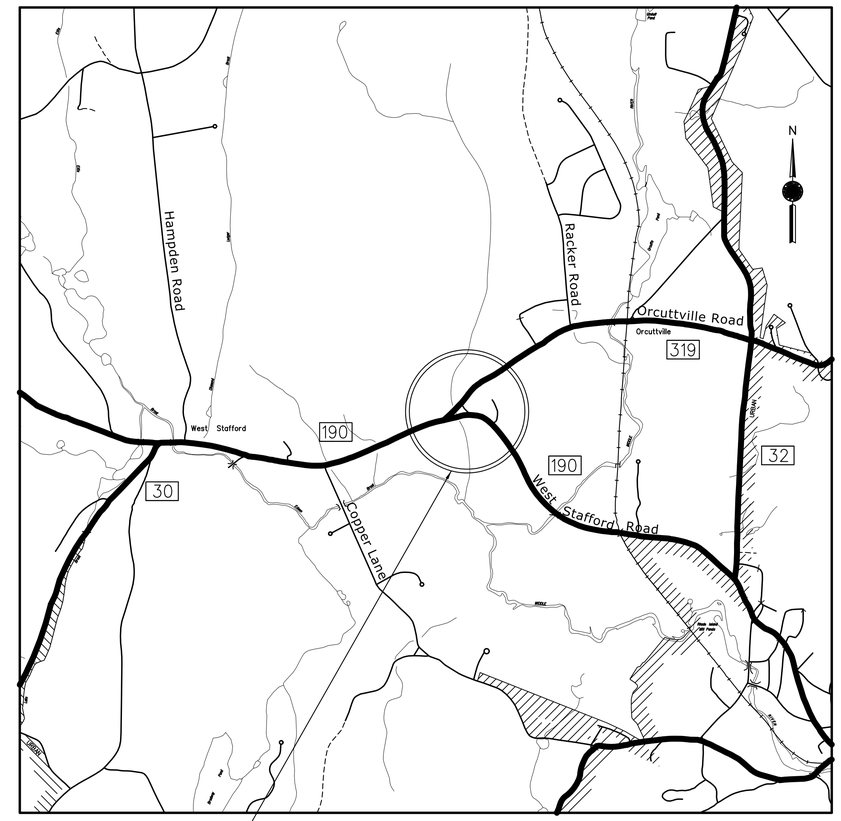
Town of

STAFFORD



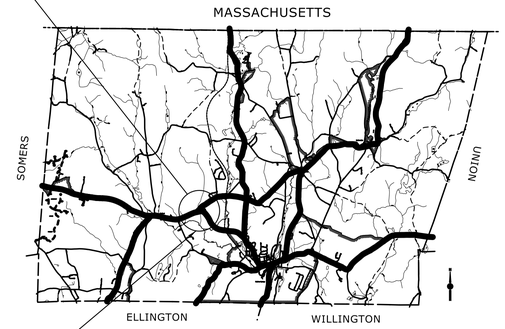
STATE OF CONNECTICUT

ROAD	MAINTENANCE RESPONSIBILITY	LENGTH
ROUTE 190	STATE	1200 FEET
ROUTE 319	STATE	1000 FEET



LOCATION PLAN
NOT TO SCALE

PROJECT LOCATION



PROJECT LOCATION

GENERAL NOTES:

1. FEDERAL AID PROJECT NO. (CN) 1134(107)
2. CONSTRUCTION SPECIFICATIONS:
   Connecticut Department of Transportation, Standard Specifications for Roads, Bridges and Incidental Construction, Form 817, dated July 2018; Supplemental Specifications, and Special Provisions
3. 400 FOOT GRID BASED ON CONNECTICUT COORDINATE SYSTEM N.A.D. 1983
4. VERTICAL DATUM BASED ON NAVD 1988
5. SURVEYED BY DISTRICT 1

LIST OF SUBSETS

SUBSET NO.	SUBSET TITLE	*SUBSET SHEET COUNT
01	GENERAL	3
02	REVISIONS	1
03	HIGHWAYS	92
04	STRUCTURES	16
05	TRAFFIC	6
06	ILLUMINATION	6
07	ENVIRONMENTAL	4
08	FRONTIER/EVERSOURCE FIO	2
	HIGHWAY STANDARD SHEETS	16
	TRAFFIC STANDARD SHEETS	8

*THE INITIAL SUBSET SHEET COUNT DOES NOT INCLUDE ADDENDUM AND CHANGE ORDERS

LIST OF DRAWINGS
SUBSET 01 - GENERAL

DRAWING TITLE	DRAWING NO.
TITLE SHEET	G-01
DETAIL ESTIMATE SHEET	EST-01
DETAIL ESTIMATE SHEET	EST-02

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THE DESIGN APPEARS TO CONFORM TO APPLICABLE CRITERIA. APPROVAL IS NOT TO BE CONSTRUED TO MEAN THAT ALL ASPECTS OF THE DESIGN HAVE BEEN PERSONALLY CHECKED BY THE UNDERSIGNED.

Matthew R. Vail, P.E.
2019.08.20 09:06:04-04'00'

SUBMITTED BY: TRANSPORTATION PRINCIPAL ENGINEER - MATTHEW R. VAIL, P.E.

Gregory M. Dorosh, P.E.
2019.08.20 15:09:52-04'00'

APPROVAL RECOMMENDED BY: MANAGER OF HIGHWAY DESIGN - GREGORY M. DOROSH, P.E.

Scott Hill, P.E.
2019.08.21 15:17:39-04'00'

APPROVED BY: TRANSPORTATION ENGINEERING ADMINISTRATOR

Plans For
MODERN ROUNDABOUT AT ROUTE 190 AND ROUTE 319

Town of
STAFFORD

STATE PROJECT NO.
0134-0147

DRAWING NO.
G-01

SHEET NO.
01.01

HIGHWAY ITEMS

ITEM NUMBER	0201001	0975004	0980001	0204151	0107090	0202000	0202100	0202351	0202329	0207000	0208000	0209001	0213100	0216011	0219001	0286001.10
	P	P	P	A P	A P	P	P	P	P	P	P	P	P	A P	P	P
ITEM	CLEARING AND GRUBBING	MOBILIZATION AND PROJECT CLOSEOUT	CONSTRUCTION STAKING	HANDLING WATER	CTDOT BOUNDARY MARKER - (SURVEY MONUMENT)	EARTH EXCAVATION	ROCK EXCAVATION	UNSUITABLE MATERIAL EXCAVATION	CUT BITUMINOUS CONCRETE PAVEMENT	BORROW	FREE-DRAIN MATERIAL	FORMATION OF SUBGRADE	GRANULAR FILL	FLOWABLE FILL	SEDIMENTATION CONTROL SYSTEM	ROCK IN DRAINAGE TRENCH EXCAVATION 0'-10' DEEP
UNIT	LS	LS	LS	LS	ea.	c.y.	c.y.	c.y.	l.f.	c.y.	c.y.	s.y.	c.y.	c.y.	l.f.	c.y.
ROUTE 190 WEST						1155			30			2357	1			
ROUTE 190 EAST						1136			30			2002				
ROUTE 319						3962	198		30			4086	2			
ROUNDABOUT								466			1527	1603		77		
CUT THROUGH																
PROJECT WIDE	LS	LS	LS	LS	9		103			4450					2721	19
SUBTOTAL	LS	LS	LS	LS	9	6253	301	466	90	4450	1527	10048	3	77	2721	19
UNASSIGNED	-	-	-	-	0	313	15	23	5	328	76	502	0	4	136	1
TOTAL	LS	LS	LS	LS	9	6566	316	489	95	4778	1603	10550	3	81	2857	20

ITEM NUMBER	0304002	0406159	0406160	0406236	0406600	0506001	0586001.10	0586005.10	0586500.10	0586702	0601020	0602000	0602053	0686000.15	0686000.18	0703012
	P	P	P	P	P	P	P	P	P	P	A P	P	P	P	P	P
ITEM	PROCESSED AGGREGATE BASE	PMA S0.5	PMA S1	MATERIAL FOR TACK COAT	MATERIAL TRANSFER VEHICLE	CONCRETE FOR STEPS AND COPINGS	TYPE 'C' CATCH BASIN - 0' - 10' DEEP	TYPE 'C' CATCH BASIN DOUBLE GRATE TYPE 2 - 0' - 10' DEEP	MANHOLE - 0' - 10' DEEP	CONVERT CATCH BASIN TO TYPE 'C-G' CATCH BASIN	STAMPED CONCRETE	DEFORMED STEEL BARS	WELDED WIRE FABRIC	15" R.C. PIPE - 0' - 10' DEEP	18" R.C. PIPE - 0' - 10' DEEP	MODIFIED RIPRAP
UNIT	c.y.	ton	ton	gal	ton	c.y.	ea.	ea.	ea.	ea.	s.f.	lb.	lb.	l.f.	l.f.	c.y.
ROUTE 190 WEST	786	566	566	493	283		6				489	557	337	336		2
ROUTE 190 EAST	667	481	481	412	241		5	1	1	1	789	890	513	638		
ROUTE 319	1589	1472		823	491		2	2			1798	1451	1175	92	68	3
ROUNDABOUT	506	263	263	239	132						3735					
CUT THROUGH	768	415														
PROJECT WIDE						4										
SUBTOTAL	4316	3197	1310	1967	1147	4	13	3	1	1	6811	2898	2025	1066	68	5
UNASSIGNED	216	160	66	98	57	0	0	0	0	0	341	144	101	53	3	0
TOTAL	4532	3357	1376	2065	1204	4	13	3	1	1	7152	3042	2126	1119	71	5

ITEM NUMBER	0711711	0811001	0813021	0813031	0815001	0910023	0910300	0910323	0911923	0912503	0921001	0921005	0921039	0922500	0922501	0942001	0943001	0944000	0950019	0950060	0969062
	P	P	A P	A P	P	P	P	P	P	P	P	A P	P	P	P	P	P	P	A P	P	A P
ITEM	6" UNDERDRAIN	CONCRETE CURBING	6" GRANITE STONE CURBING	6" GRANITE CURVED STONE CURBING	BITUMINOUS CONCRETE UP CURBING	R-B TERMINAL SECTION	METAL BEAM RAIL (R-B MASH)	METAL BEAM RAIL SPAN SECTION TYPE III	R-B END ANCHORAGE-TYPE I	REMOVE METAL BEAM RAIL	CONCRETE SIDEWALK	CONCRETE SIDEWALK RAMP	DETECTABLE WARNING STRIP	BITUMINOUS CONCRETE DRIVEWAY (COMMERCIAL)	BITUMINOUS CONCRETE DRIVEWAY	CALCIUM CHLORIDE FOR DUST CONTROL	WATER FOR DUST CONTROL	FURNISHING AND PLACING TOPSOIL	TURF ESTABLISHMENT - LAWN	EROSION CONTROL MATTING TYPE B	CONSTRUCTION FIELD OFFICE, MEDIUM
UNIT	l.f.	l.f.	l.f.	l.f.	l.f.	ea.	l.f.	ea.	ea.	l.f.	s.f.	s.f.	ea.	s.y.	s.y.	ton	m.gal	s.y.	s.y.	s.y.	mo.
ROUTE 190 WEST			133	16	801				1					591	177						
ROUTE 190 EAST			177	47	634				1					1306	71						
ROUTE 319			356	50	1307				1						265						
ROUNDABOUT				406							1996	595	12								
CUT THROUGH																					
PROJECT WIDE		1662				1	451	1		507						5	703	12805	12805	4972	18
SUBTOTAL	1154	1662	666	519	2742	1	451	1	3	507	1996	595	12	1897	513	5	703	12805	12805	4972	18
UNASSIGNED	58	83	33	26	137	0	23	0	0	25	100	30	0	89	26	0	35	0	0	249	0
TOTAL	1212	1745	699	545	2879	1	474	1	3	532	2096	625	12	1986	539	5	738	12805	12805	5221	18

LANDSCAPE ITEMS

ITEM NUMBER	0352905	0755009	0949023	0949064	0949076	0949086	0949095	0949113	0949130	0949185	0949195	0949227	0949274	0949298	0949324	0949463
	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P
ITEM	WASHED STONE	GEOTEXTILE	CORNUS SERICEA, RED OSIER DOGWOOD 24" - 36" HT. CONT.	POTENTILLA FRUTICOSA SPP., POTENTILLA 18" - 24" HT. CONTAINER	IRIS VERSICOLOR, BLUE FLAG IRIS, 2" PEAT POT	CLETHRA ALNIFOLIA SUMMERSWEET 2'-3' HT. B.B.	CORNUS ALBA SIBERICA SIBERIAN DOGWOOD 2'-3' HT. B.B.	CORNUS RACEMOSA GRAY DOGWOOD 2'-3' HT. B.B.	LOBELIA CARDINALIS, CARDINAL FLOWER 1 GALLON CONTAINER	ROSA MEIDILAND (WHITE), MEIDILAND WHITE ROSE, 18" - 24" SPR.B.B.	FORSYTHIA INTERMEDIA BORDER FORSYTHIA 2'-3' HT. B.R.	ILEX VERTICILLATA COMMON WINTERBERRY 2'-3' HT. B.B.	SYRINGA PATULA "MISS KIM", MISS KIM LILAC, 18" - 24" HT. CONTAINER	FOTHERGILLA GARDENI FOTHERGILLA 2'-3' HT. B.B.	LINDERA BENZOIN, COMMON SPICEBUSH 18" - 24" HT. B.B.	ULMUS AMERICANA "PRINCETON", PRINCETON AMERICAN ELM 2.5" - 3" CAL. B.B.
UNIT	s.y.	s.y.	ea.	ea.	ea.	ea.	ea.	ea.	ea.	ea.	ea.	ea.	ea.	ea.	ea.	ea.
ROUTE 190 WEST																
ROUTE 190 EAST																
ROUTE 319																
ROUNDABOUT																
CUT THROUGH																
PROJECT WIDE	30	30	19	20	50	30	50	65	30	20	25	7	14	50	30	8
SUBTOTAL	30	30	19	20	50	30	50	65	30	20	25	7	14	50	30	8
UNASSIGNED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	30	30	19	20	50	30	50	65	30	20	25	7	14	50	30	8

ITEM NUMBER	0949468	0949607	0949731	0949814	0949832	0949917	0949919	0950009	0950019	0950040	0950043	9520501
	P	P	P	P	P	P	P	A P	A P	A P	A P	A P
ITEM	VACCINIUM CORYMBOSUM HIGHBUSH BLUEBERRY 15" - 18" HT. B.B.	VIBURNUM DENTATUM ARROWWOOD VIBURNUM 3' - 4' HT. B.B.	PENNISETUM "HAMELN", HAMELN FOUNTAIN GRASS, 1 GALLON CONTAINER	SPIRAEA TOMENTOSA, STEEPLE BUSH, 18" - 24" HT. CONTAINER	TAXUS X MEDIA 'WARDII' - WARDI'S YEW 2'-0"	ALNUS INCANA, SPECKLED ALDER 2' - 3' HT. B.B.	ACER RUBRUM RED MAPLE 2" - 2 1/2" CAL. B.B.	SAMBUCUS CANADENSIS, COMMON ELDERBERRY, 24" - 36" HT. B.B.	PLATANUS ACERIFOLIA LONDON PLANETREE 2" - 2 1/2" CAL. B.B.	BOULDER	TURF ESTABLISHMENT - LAWN	CONSERVATION SEEDING FOR SLOPES	WETLAND GRASS ESTABLISHMENT	CONTROL AND REMOVAL OF INVASIVE VEGETATION
UNIT	ea.	ea.	ea.	ea.	ea.	ea.	ea.	ea.	s.y.	s.y.	s.f.	s.y.
ROUTE 190 WEST												
ROUTE 190 EAST												
ROUTE 319												
ROUNDABOUT												
CUT THROUGH												
PROJECT WIDE	20	15	37	120	6	26	4	25	3	6	275	3300	24300	9000
SUBTOTAL	20	15	37	120	6	26	4	25	3	6	275	3300	24300	9000
UNASSIGNED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	20	15	37	120	6	26	4	25	3	6	275	3300	24300	9000

STRUCTURE ITEMS

ITEM NUMBER	0202216	0203000	0204001	0213100	0216000	0601062	0601064	0601160	0601502	0601183	0602020	0602030	0703011	0703030	0703040	0707001	0708001	0755014
	A	P	P	P	P	P	P	A P	P	A P	P	P	P	A P	A P	P	P	P
ITEM	EXCAVATION AND REUSE OF EXISTING CHANNEL BOTTOM MATERIAL	STRUCTURE EXCAVATION - EARTH (COMPLETE)	COFFERDAM AND DEWATERING	GRANULAR FILL	PERVIOUS STRUCTURAL BACKFILL	FOOTING CONRETE	ABUTMENT AND WALL CONCRETE	16"x 8' PRECAST CONCRETE BOX CULVERT	1/2" PREFORMED EXPANSION JOINT FILLER FOR BRIDGES	PRECAT CONCRTE CUT-OFF WALL	GALVANIZED DOWEL	DEFORMED STEEL BARS - GALVANIZED	INTERMEDIATE RIPRAP	PLACEMENT OF CHANNEL BOULDERS	PLACEMENT OF TOE BOULDERS	MEMBRANE WATERPROOFING (WOVEN GLASS FABRIC)	DAMPPROOFING	GEOTEXTILE (SEPARATION - HIGH SURVIVABILITY)
UNIT	c.y.	c.y.	l.f.	c.y.	c.y.	c.y.	c.y.	l.f.	s.f.	l.f.	ea.	lb.	c.y.	ea.	l.f.	s.y.	s.y.	s.y.
ROUTE 190 WEST																		
ROUTE 190 EAST																		
ROUTE 319																		
ROUNDABOUT																		
CUT THROUGH																		
PROJECT WIDE	286	1746	114	276	956	76	78	172	438	112	288	41827	148	7	126	339	1386	866
SUBTOTAL	286	1746	114	276	956	76	78	172	438	112	288	41827	148	7	126	339	1386	866
UNASSIGNED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	286	1746	114	276	956	76	78	172	438	112	288	41827	148	7	126	339	1386	866

DESIGNER/DRAFTER: JJJ
CHECKED BY: EAJ
Plotted Date: 8/16/2019
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REV.	DATE	REVISION DESCRIPTION
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SIGNATURE/ BLOCK:

OFFICE OF ENGINEERING
2800 BERLIN TURNPIKE
NEWINGTON, CT 06111

APPROVED BY:

Matthew Vail

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

MODERN ROUNDABOUT
AT ROUTE 190 AND ROUTE 319

TOWN OF STAFFORD

PROJECT NO. 0134-0147
DRAWING TITLE: DETAIL ESTIMATE SHEET

DRAWING NO. EST-01
SHEET NO. 01.02

	TRAFFIC ITEMS																			ILLUMINATION ITEMS			ENVIRONMENTAL ITEMS
	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
		A				A			A											A	A	A	A
ITEM NUMBER	0970007	0971001	0976002	0978002	0981100	0981101	1131002	1206013	1208931	1209114	1209124	1209128	1209131	1210101	1210102	1210104	1210105	1210106	1220027	1017038	1019027	1020030	0101000A
ITEM	TRAFFIC/PERSON (UNIFORMED FLAGGER)	MAINTENANCE AND PROTECTION OF TRAFFIC	BARRICADE WARNING LIGHTS - HIGH INTENSITY	TRAFFIC DRUM	42" TRAFFIC CONE	OPPOSING TRAFFIC LANE DIVIDER	REMOTE CONTROL CHANGEABLE MESSAGE SIGN	REMOVAL OF EXISTING SIGNING	SIGN FACE - SHEET ALUMINUM (TYPE IX RETROREFLECTIVE SHEETING)	HOT-APPLIED PAINTED PAVEMENT MARKINGS 4" YELLOW	HOT-APPLIED PAINTED PAVEMENT MARKINGS 4" WHITE	HOT-APPLIED PAINTED PAVEMENT MARKINGS 8" WHITE	HOT-APPLIED PAINTED LEGEND, ARROWS AND MARKINGS	4" WHITE EPOXY RESIN PAVEMENT MARKINGS	4" YELLOW EPOXY RESIN PAVEMENT MARKINGS	8" WHITE EPOXY RESIN PAVEMENT MARKINGS	EPOXY RESIN PAVEMENT MARKINGS, SYMBOLS AND LEGENDS	12" WHITE EPOXY RESIN PAVEMENT MARKINGS	CONSTRUCTION SIGNS	TEMPORARY SERVICE	PREASSEMBLED AERIAL CABLE	TEMPORARY ILLUMINATION UNIT	ENVIRONMENTAL HEALTH & SAFETY
UNIT	hr	LS	day	ea.	ea.	ea.	day	LS	s.f.	l.f.	l.f.	l.f.	s.f.	l.f.	l.f.	l.f.	s.f.	l.f.	s.f.	ea.	l.f.	ea.	LS
ROUTE 190 WEST			480	90	90	30			115	2700	2552	70	250	3902	4050	70	250						
ROUTE 190 EAST				40	40		56		125	2900	1940	90	138	3090	4050	90	138						
ROUTE 319				70	70		56		146	4100	4282	90	138	6082	5900	90	138						
ROUNDABOUT				20	20				14		500												
CUT THROUGH																							
PROJECT WIDE	480						112											100	500	1	500	3	
SUBTOTAL	480	LS	480	220	220	30	224	LS	400	9700	9274	250	526	13074	14000	250	526	100	500	1	500	3	LS
UNASSIGNED	0		0	30	30	0	0		0	0	926	0	174	726	600	0	174	0	0	0	0	0	-
TOTAL	480	LS	480	250	250	30	224	LS	400	9700	10200	250	700	13800	14600	250	700	100	500	1	500	3	LS

ITEM NUMBER	ITEM	UNIT
		ROUTE 190 WEST
		ROUTE 190 EAST
		ROUTE 319
		ROUNDABOUT
		CUT THROUGH
		PROJECT WIDE
		SUBTOTAL
		UNASSIGNED
		TOTAL

DESIGNER/DRAFTER: JJJ
CHECKED BY: EAJ

Plotted Date: 8/13/2019
Filename: pw:\\ctdot.projectwiseonline.com:CTDOT\Documents\01.0 - Projects - Active\0134-0147\330_Design_Data\Highways\TSH_HW_SHEET_0134-0147.dgn

REV.	DATE	REVISION DESCRIPTION
-	-	-

SIGNATURE/ BLOCK:

OFFICE OF ENGINEERING
2800 BERLIN TURNPIKE
NEWINGTON, CT 06111

APPROVED BY:

Matthew Vail

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

MODERN ROUNDABOUT
AT ROUTE 190 AND ROUTE 319

TOWN OF STAFFORD

PROJECT NO. 0134-0147

DRAWING TITLE: DETAIL ESTIMATE SHEET

DRAWING NO. EST-02

SHEET NO. 01.03