

FEDERAL NO. _____
 STATE NO. _____

CONCEPT ESTIMATE - MULTI-LANE HYBRID ALTERNATIVE

Units
 Metric
 Imperial

CITY/TOWN: KEENE
 COUNTY: CHESHIRE COUNTY
 ROAD: MAIN STREET
 TYPE: ROADWAY RECONSTRUCTION

DATE: 2/22/2024
 LENGTH: - MILES
 PAVEMENT: - FT WIDE
 SHOULDERS: - FT WIDE
 Done By: TJG 2/22/2024
 Checked By: DEM 2/25/2024

NOTE: This estimate assumes rough calculated quantities to develop prelim estimate.

Structural Section: 8" Sand, 8" Stone (F), 8" Stone (C), 6" HBP (QC-QA) (Tier 1)

Note 1: All red items are required (if available, depending on project) to be calculated and included.
 Note 2: Verify all unit prices in IPD based on the type of project you are working on.
 Note 3: See Designer Notes below

ITEM NO.	ITEM	UNIT	ROUNDED	UNIT PRICE	COST
ROADWAY					
EXCAVATION					
203.1	COMMON EXCAVATION	CY	24,100	\$ 14.00	\$ 337,400
203.2	ROCK EXCAVATION	CY	1,205	\$ 50.00	\$ 60,250
EMBANKMENT					
203.6	EMBANKMENT IN PLACE (F)	CY	0	\$ 15.00	\$ -
	SUB-TOTAL (EXCAVATION AND EMBANKMENT):				\$ 397,650
	MISC EARTHWORK ITEMS				\$ 39,765
	TOTAL EXCAVATION AND EMBANKMENT:				\$ 437,415
SELECTS (includes Fine Grading) (see Designer Notes, Note #1)					
214	FINE GRADING	U	1	\$ 65,000.00	\$ 65,000
304.1	SAND (8" DEEP)	CY	7,100	\$ 33.00	\$ 234,300
304.4	CRUSHED STONE (FINE) (8" DEEP)	CY	7,100	\$ 36.00	\$ 255,600
304.5	CRUSHED STONE (COARSE) (8" DEEP)	CY	7,100	\$ 39.00	\$ 276,900
	SUB-TOTAL (SELECTS):				\$ 831,800
	MISC SELECT MATERIAL ITEMS				\$ 66,544
	TOTAL SELECT MATERIALS:				\$ 898,344
PAVEMENT (See Designer Notes, Note #2)					
403.11002	HOT BITUMINOUS PAVEMENT, M. M. (QC/QA)(TIER 2) (6" deep)	TON	9,000	\$ 90.00	\$ 810,000
403.4	MATERIAL TRANSFER VEHICLE	TON	9,000	\$ 6.00	\$ 54,000
410.22	ASPHALT EMULSION FOR TACK COAT	GAL	2,100	\$ 4.00	\$ 8,400
	SUB-TOTAL (PAVEMENT):				\$ 872,400
	MISC PAVEMENT ITEMS				\$ 87,240
	TOTAL PAVEMENT:				\$ 959,640
PROJECT SUB-TOTAL (THROUGH PAVEMENT):					
					\$ 2,295,399
MISC. A - (CURBING, SIDEWALK, AND GUARDRAIL) (See Designer Notes, Note #3)					
202.6	CURB REMOVAL FOR STORAGE	LF	12,500	\$ 6.00	\$ 75,000
209.1	GRANULAR BACKFILL	CY	2,600	\$ 50.00	\$ 130,000
608.24	4" CONCRETE SIDEWALK	SY	15,300	\$ 60.00	\$ 918,000
608.28	8" CONCRETE SIDEWALK	SY	1,500	\$ 80.00	\$ 120,000
609.01	STRAIGHT GRANITE CURB	LF	4,400	\$ 30.00	\$ 132,000
609.02	CURVED GRANITE CURB	LF	600	\$ 45.00	\$ 27,000
609.5	RESET GRANITE CURB	LF	6,000	\$ 20.00	\$ 120,000
	TOTAL CURBING AND GUARDRAIL:				\$ 1,522,000
	PROJECT SUB-TOTAL (THROUGH MISC A):				\$ 3,817,399
MISC. B - (PAVEMENT MARKING, SIGNS, DELINEATORS, FENCING)					
	MISC PAVEMENT MARKING AND SIGNING ITEMS				\$ 152,700
	PROJECT SUB-TOTAL (THROUGH MISC B):				\$ 3,970,099
LANDSCAPING (See Designer Notes, Note #4)					
201.1	CLEARING AND GRUBBING (F)	A	0	\$ 30,000.00	\$ -
641	LOAM	CY	0	\$ 33.00	\$ -
646.3	TURF EST WITH MULCH AND TACKIFIER	A	0	\$ 2,800.00	\$ -
647.1	HUMUS	CY	0	\$ -	\$ -
	SUB-TOTAL (LANDSCAPING):				\$ -
	MISC LANDSCAPE ITEMS				\$ 2,620,000
	TOTAL LANDSCAPING:				\$ 2,620,000
	PROJECT SUB-TOTAL (THROUGH LANDSCAPING):				\$ 6,590,099
DRAINAGE AND WATER QUALITY (See Designer Notes, Note #5)					
	MISC DRAINAGE ITEMS (pipes, structures, underdrain, stone fill, geotextile, video inspection, etc...)				\$ 1,645,686
	CONSTRUCTION OF BMPS				\$ 250,000
	TOTAL DRAINAGE AND WATER QUALITY:				\$ 1,895,686
UTILITIES					
	WATER AND SEWER				\$ 3,400,000
	TOTAL WATER AND SEWER:	EXCLUDED (NON PAR)			\$ -
	PROJECT SUB-TOTAL (THROUGH DRAINAGE AND WATER QUALITY):				\$ 8,485,785

	TEMPORARY WORK ROADWAY (See Designer Notes, Note #6)						
670.0450X	CONSTRUCT/REMOVE TEMP DIVERSION	U	0	\$ -	\$ -		
403.99	TEMPORARY PAVEMENT	TON	4,500	\$ 85.00	\$ 382,500		
	TOTAL (TEMP WORK ROADWAY):				\$ 382,500		
	PROJECT SUB-TOTAL THROUGH TEMP WORK ROADWAY:				\$ 8,868,285		
	EROSION CONTROL						
	MISC EROSION CONTROL ITEMS (Incl. swppp work , silt fence, BFM, MATTING, compost sock, 699)				\$ 177,366		
	PROJECT SUB-TOTAL (THROUGH EROSION CONTROL):				\$ 9,045,651		
	TRAFFIC CONTROL ITEMS (TCP) (See Designer Notes: Note #7)						
618.61	UNIFORMED OFFICERS	\$	1	\$ 345,600.00	\$ 345,600		
618.7	FLAGGERS	HR	14,400	\$ 45.00	\$ 648,000		
619.1	MAINTENANCE OF TRAFFIC	U	1	\$ 271,400.00	\$ 271,400		
	SUB-TOTAL (TRAFFIC CONTROL)				\$ 1,265,000		
	MISC TCP ITEMS (PCMS, TMA,SPEED LIMIT SIGNS, ETC...)				\$ 63,250		
	TOTAL (TRAFFIC CONTROL):				\$ 1,328,250		
	PROJECT SUB-TOTAL (TRAFFIC CONTROL):				\$ 10,373,901		
	TRAFFIC SIGNALS						
	CENTRAL SQUARE SIGNAL REPLACEMENT				\$450,000		
	SOLAR CANOPY						
	SOLAR CANOPY				\$1,150,000		
	ROADWAY CONTINGENCIES						
990.01	INCLUDE 15% OF THE ROADWAY TOTAL THROUGH PPS&E stage				\$ 1,796,085		
	PROJECT SUB-TOTAL THROUGH CONTINGENCIES:				\$ 13,769,986		
	MOBILIZATION (See Designer Notes, Note #8)						
692	MOBILIZATION (ROADWAY) (8%)				\$ 1,100,000		
	PROJECT SUB-TOTAL THROUGH MOBILIZATION:				\$ 14,869,986		
	CONSTRUCTION ENGINEERING (CE)						
1020.	Construction/Consultant Inspection Items (OHSS steel, fiber optic, concrete, etc...)				\$ -		
1030.	CONSTRUCTION ENGINEERING (ROADWAY)				\$ 1,040,900		
	CONSTRUCTION ENGINEERING BID ITEMS (CBI) (See Designer Notes, Note #9)						
698.13	FIELD OFFICE TYPE C	MON	36	\$ 1,750.00	\$ 63,000		
698.2	PHYSICAL TESTING LAB	MON	24	\$ 925.00	\$ 22,200		
1010.15	FUEL ADJUSTMENT	\$	1	\$ 100,000.00	\$ 100,000		
1010.2	ASPHALT CEMENT ADJUSTMENT	\$	1	\$ 25,000.00	\$ 25,000		
1010.3	QC-QA ASPHALT	\$	1	\$ 41,000.00	\$ 41,000		
	TOTAL CBI ITEMS:				\$ 251,200		
	ROADWAY CONSTRUCTION TOTAL:				\$ 16,162,000		
						PROJECT TOTALS	
							RAISE GRANT
							LOCAL FUNDS
	FINAL DESIGN:				\$ 1,000,000		
	PARTICIPATING SUBTOTAL :				\$ 17,162,000		
	PARTICIPATING - LOCAL MATCH SUBTOTAL (20%):						\$ 3,432,400
	PARTICIPATING - RAISE GRANT FUNDS (80%):					\$ 13,729,600	
	WATER AND SEWER (NON-PARTICIPATING, 100% LOCAL):				\$ 3,400,000		\$ 3,400,000
	WATER AND SEWER DESIGN (NON-PARTICIPATING, 100% LOCAL):				\$ 340,000		\$ 340,000
	PROJECT TOTALS:				\$ 20,902,000	\$ 13,729,600	\$ 7,172,400

Project Number: 179450535
 KEENE

COMPUTED BY: TJG
DATE: 02/22/24
CHECKED BY: DEM
DATE: 02/25/24

EXISTING ALTERNATIVE

Volume quantities generated from measured areas

Item 203.1 -	22,952	CY
Item 203.6 -		CY
Item 304.1 -	6,694	CY
Item 304.4 -	6,694	CY
Item 304.5 -	6,694	CY

Areas measured in CAD

Roadway Pavement Area:	221,420	SF	Added up in AutoCAD
Sidewalk Area:	130,400	SF	Added up in AutoCAD
Concrete Island Area:	-	SF	Added up in AutoCAD
Landscaped Area:	16,670	SF	Added up in AutoCAD
Stamped Concrete:	-	SF	Added up in AutoCAD

Lengths measured in CAD

Total Curb Length:	10,590	LF	Added up in AutoCAD
Straight Granite Curb Length:	10,061	LF	Assumed 95% of Total
Curved Straight Granite Curb Length:	530	LF	Assumed 5% of Total
Curb Removal Length:	11,860	LF	Added up in AutoCAD

ITEM 202.6 - CURB REMOVAL FOR STORAGE

11,860 LF = **12,500 LF**

ITEM 203.1 - COMMON EXCAVATION

22,952 CY
22,952 CY = **24,100 CY**

ITEM 203.6 - EMBANKMENT-IN-PLACE (F)

- CY
- CY
- CY = **- CY**

ITEM 209.1 - GRANULAR BACKFILL

Sidewalk & Concrete Area: 130,400 SF
 130,400 SF
 Depth of Backfill: 0.5 FT
 65,200 CF
 2,415 CY = **2,600 CY**

ITEM 214 - FINE GRADING

Main St Area: 221,420 SF
 221,420 SF

	24,602 SY		
x	2.5 \$/SY		
	61,506 \$		65,000 \$

ITEM 304.1 - SAND

	6,694 CY		
	6,694 CY	=	7,100 CY

ITEM 304.4 - CRUSHED STONE (FINE GRADATION) (F)

	6,694 CY		
	6,694 CY	=	7,100 CY

ITEM 304.5 - CRUSHED STONE (COARSE GRADATION) (F)

	6,694 CY		
	6,694 CY	=	7,100 CY

ITEM 403.11XXX - HBP - MACHINE METHOD, QC/QA TIER 1

Phase 1 Area:	221,420 SF		
	221,420 SF		
	24,602 SY		
Depth of Pavement:	x 6.0 IN		
	147,613 SY*IN		
	x 0.058 TON/SY*IN		
	8,562 TON		9,000 TON

ITEM 410.22 - ASPHALT EMULSION TACK COAT

Phase 1 Area:	221,420 SF		
	221,420 SF		
	24,602 SY		
Layers of Tack Coat:	x 2		
	49,204 SY		
	x 0.04 GAL/SY		
	1,968 GAL		2,100 GAL

ITEM 608.24 - 4" CONCRETE SIDEWALK (F)

Sidewalk Area:	130,400 SF		
	130,400 SF		
	14,489 SY		15,300 SY

ITEM 608.28 - 8" CONCRETE SIDEWALK (F)

Islands & Stamped Concrete Area:	- SF		
	- SF		
	- SY		- SY

ITEM 609.01 - STRAIGHT GRANITE CURB

	10,061 LF		
Minus Reset (Item 609.5):	5,930 LF		
	4,131 LF		4,400 LF

ITEM 609.02 - CURVED STRAIGHT GRANITE CURB

	530 LF		600 LF
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ITEM 609.5 - RESET GRANITE CURB

Assume 50% of Exist. Curb is Reset:

5,930 LF

6,000 LF

ITEM 641. - LOAM

- CY

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- CY