



TerraCalc Site Report

File: Wilson Stream

TOTAL WORK AREA

Feb 6, 2020

4:32 pm

Start layer: Existing

End layer: Proposed Final

COMPREHENSIVE QUANTITIES FOR JOB

Site Adjustments

Existing grades adjusted down by stripping:

TOTAL WORK AREA (Less any Excluded Areas)

10.00 in

Stripping Volume (bank)

1797 yd³

Total Strip Volume (Expanded @ 30%)

2337 yd³

Proposed grades adjusted down by subgrade areas:

STONE BED 1-(40x40)	<u>30.00 in</u>
BANK ARMOUR	<u>18.00 in</u>
STONE BED 2-(12x20)	<u>24.00 in</u>
STONE BED 3-(12x20)	<u>24.00 in</u>
STONE BED 4-(12x20)	<u>24.00 in</u>
STONE BED 5-(12x20)	<u>24.00 in</u>
STONE BED 6-(16x20)	<u>24.00 in</u>
GRAVEL ROAD	<u>12.00 in</u>
BOAT RAMP	<u>24.00 in</u>
BANK ARMOUR	<u>18.00 in</u>
RIP RAP	<u>12.00 in</u>
ASPHALT PAVING	<u>3.50 in</u>

Basic Site Info

Area

Acres

Total Work Area	56406 ft ²	1.29 acres
Existing Surface Area	58237 ft ²	1.34 acres
Proposed Surface Area	61796 ft ²	1.42 acres
Plan View Area Cut	20168 ft ²	0.46 acres
Plan View Area Fill	36044 ft ²	0.83 acres
Perimeter	2537 ft	

ALL CUT/FILL CALCULATIONS REFLECT THE ABOVE - QUANTITIES FIGURED FROM STRIP TO SUBGRADE

Summary of Job - TOTAL WORK AREA

Bank Site Cut:	1581 yd³
Bank Site Fill:	2231 yd³
Export:	0 yd³
Import Required (Bank):	737 yd³
Import Required (Estimated):	983 yd³
Average Haul Distance:	53 ft
Imported Materials:	1341 yd³

Over Excavation :
 Side Cut : 0 yd³
 Fill Volume : 0 yd³

Cut/Fill Breakdown: TOTAL WORK AREA

SITE CUTS

Total Bank Cut	<u>1581 yd³</u>	Expand (%)	<u>26.00</u>	Expanded Cut	<u>1992 yd³</u>
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SITE FILLS

Total Bank Fill	<u>2231 yd³</u>	Site Compaction (%)	<u>25.00</u>	Total Compact Fill	<u>2975 yd³</u>
Borrow Required (Bank)	<u>737 yd³</u>	Estimated Borrow Required		<u>983 yd³</u>	

IMPORTED MATERIALS

Total Imported Materials	1341 yd³	2559 tons
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<u>Comprised of:</u>	<u>Volume</u>	<u>Tons</u>
CRUSHED GRAVEL	834 yd ³	1542 tons
RIP RAP-(d50=12)	128 yd ³	255 tons
1 1/2" STONE	26 yd ³	38 tons
RIP RAP-(d50=9")	39 yd ³	78 tons
PRECAST CONCRETE	18 yd ³	36 tons
EROSION STONE (4-8)	95 yd ³	204 tons
RIP RAP-(d50=12")	148 yd ³	297 tons
BCP: Wearing	23 yd ³	46 tons
BCP: Binder	31 yd ³	62 tons

TerraCalc Region Reports

File: Wilson Stream TOTAL WORK AREA Feb 6, 2020 4:32 pm

Start layer: Existing End layer: Proposed Final

Subtotals for Region: STONE BED 1-(40x40)

Region Adjustments

Downward for Subgrade materials: 30.00 in

<u>Basic Region Info</u>	<u>Area</u>	<u>Acres</u>
Region Area	1372 ft ²	0.03 acres
Existing Surface Area	1397 ft ²	0.03 acres
Proposed Surface Area	1448 ft ²	0.03 acres
Plan View Area Cut	854 ft ²	0.02 acres
Plan View Area Fill	517 ft ²	0.01 acres
 Perimeter	 150 ft	

ALL CUT/FILL CALCULATIONS REFLECT THE ABOVE - QUANTITIES FIGURED FROM STRIP TO SUBGRADE

Summary of STONE BED 1-(40x40)

Bank Region Cut:	56 yd ³
Bank Region Fill:	16 yd ³
Region Export:	49 yd ³
Region Borrow Required (Bank):	0 yd ³
Region Borrow Required (Estimated):	0 yd ³
Average Haul Distance:	23 ft
Imported Materials:	134 yd ³

Cut/Fill Breakdown: STONE BED 1-(40x40)

REGION CUTS

Region Bank Cut	<u>56 yd³</u>	Expand (%)	<u>26.00</u>	Expanded Cut	<u>71 yd³</u>
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REGION FILLS

Region Bank Fill	<u>16 yd³</u>	Compaction (%)	<u>25.00</u>	Region Compacted Fill	<u>22 yd³</u>
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IMPORTED MATERIALS

Region Imported Materials	134 yd ³	260 tons
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<u>Comprised of:</u>	<u>Volume</u>	<u>Tons</u>
CRUSHED GRAVEL	54 yd ³	99 tons
RIP RAP-(d50=12)	80 yd ³	161 tons

Subtotals for Region: BANK ARMOUR

Region Adjustments

Downward for Subgrade materials: 18.00 in

<u>Basic Region Info</u>	<u>Area</u>	<u>Acres</u>
Region Area	815 ft ²	0.02 acres
Existing Surface Area	833 ft ²	0.02 acres
Proposed Surface Area	850 ft ²	0.02 acres
Plan View Area Cut	554 ft ²	0.01 acres
Plan View Area Fill	257 ft ²	0.01 acres
 Perimeter	 114 ft	

ALL CUT/FILL CALCULATIONS REFLECT THE ABOVE - QUANTITIES FIGURED FROM STRIP TO SUBGRADE

Summary of BANK ARMOUR

Bank Region Cut:	11 yd³
Bank Region Fill:	3.08 yd³
Region Export:	9.34 yd³
Region Borrow Required (Bank):	0 yd³
Region Borrow Required (Estimated):	0 yd³
Average Haul Distance:	15 ft
Imported Materials:	47 yd³

Cut/Fill Breakdown: BANK ARMOUR

REGION CUTS

Region Bank Cut	<u>11 yd³</u>	Expand (%)	<u>26.00</u>	Expanded Cut	<u>13 yd³</u>
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REGION FILLS

Region Bank Fill	<u>3.08 yd³</u>	Compaction (%)	<u>25.00</u>	Region Compacted Fill	<u>4.11 yd³</u>
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IMPORTED MATERIALS

Region Imported Materials	47 yd³		94 tons
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Comprised of: RIP RAP-(d50=12)	<u>Volume</u> 47 yd ³	<u>Tons</u> 94 tons
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Subtotals for Region: STONE BED 2-(12x20)

Region Adjustments

Downward for Subgrade materials: 24.00 in

<u>Basic Region Info</u>	<u>Area</u>	<u>Acres</u>
Region Area	202 ft ²	0.00 acres
Existing Surface Area	206 ft ²	0.00 acres
Proposed Surface Area	213 ft ²	0.00 acres
Plan View Area Cut	74 ft ²	0.00 acres
Plan View Area Fill	127 ft ²	0.00 acres
 Perimeter	 58 ft	

ALL CUT/FILL CALCULATIONS REFLECT THE ABOVE - QUANTITIES FIGURED FROM STRIP TO SUBGRADE

Summary of STONE BED 2-(12x20)

Bank Region Cut:	1.50 yd ³
Bank Region Fill:	3.16 yd ³
Region Export:	0 yd ³
Region Borrow Required (Bank):	1.75 yd ³
Region Borrow Required (Estimated):	2.33 yd ³
Average Haul Distance:	11 ft
Imported Materials:	16 yd ³

Cut/Fill Breakdown: STONE BED 2-(12x20)

REGION CUTS

Region Bank Cut	<u>1.50 yd³</u>	Expand (%)	<u>26.00</u>	Expanded Cut	<u>1.88 yd³</u>
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REGION FILLS

Region Bank Fill	<u>3.16 yd³</u>	Compaction (%)	<u>25.00</u>	Region Compacted Fill	<u>4.21 yd³</u>
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Borrow Required (Bank)	<u>1.75 yd³</u>	Estimated Borrow Required	<u>2.33 yd³</u>
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IMPORTED MATERIALS

Region Imported Materials	16 yd ³	26 tons
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<u>Comprised of:</u>	<u>Volume</u>	<u>Tons</u>
CRUSHED GRAVEL	7.90 yd ³	15 tons
1 1/2" STONE	7.90 yd ³	12 tons

Subtotals for Region: STONE BED 3-(12x20)

Region Adjustments

Downward for Subgrade materials: 24.00 in

<u>Basic Region Info</u>	<u>Area</u>	<u>Acres</u>
Region Area	186 ft ²	0.00 acres
Existing Surface Area	191 ft ²	0.00 acres
Proposed Surface Area	191 ft ²	0.00 acres
Plan View Area Cut	162 ft ²	0.00 acres
Plan View Area Fill	25 ft ²	0.00 acres
Perimeter	55 ft	

ALL CUT/FILL CALCULATIONS REFLECT THE ABOVE - QUANTITIES FIGURED FROM STRIP TO SUBGRADE

Summary of STONE BED 3-(12x20)

Bank Region Cut:	7.01 yd ³
Bank Region Fill:	0.16 yd ³
Region Export:	8.62 yd ³
Region Borrow Required (Bank):	0 yd ³
Region Borrow Required (Estimated):	0 yd ³
Average Haul Distance:	9.73 ft
Imported Materials:	14 yd ³

Cut/Fill Breakdown: STONE BED 3-(12x20)

REGION CUTS

Region Bank Cut	<u>7.01 yd³</u>	Expand (%)	<u>26.00</u>	Expanded Cut	<u>8.83 yd³</u>
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REGION FILLS

Region Bank Fill	<u>0.16 yd³</u>	Compaction (%)	<u>25.00</u>	Region Compacted Fill	<u>0.21 yd³</u>
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IMPORTED MATERIALS

Region Imported Materials	14 yd ³		27 tons
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<u>Comprised of:</u>	<u>Volume</u>	<u>Tons</u>
CRUSHED GRAVEL	7.06 yd ³	13 tons
RIP RAP-(d50=9")	7.06 yd ³	14 tons

Subtotals for Region: STONE BED 4-(12x20)

Region Adjustments

Downward for Subgrade materials: 24.00 in

<u>Basic Region Info</u>	<u>Area</u>	<u>Acres</u>
Region Area	200 ft ²	0.00 acres
Existing Surface Area	203 ft ²	0.00 acres
Proposed Surface Area	220 ft ²	0.01 acres
Plan View Area Cut	44 ft ²	0.00 acres
Plan View Area Fill	155 ft ²	0.00 acres
Perimeter	57 ft	

ALL CUT/FILL CALCULATIONS REFLECT THE ABOVE - QUANTITIES FIGURED FROM STRIP TO SUBGRADE

Summary of STONE BED 4-(12x20)

Bank Region Cut:	0.82 yd ³
Bank Region Fill:	4.38 yd ³
Region Export:	0 yd ³
Region Borrow Required (Bank):	3.61 yd ³
Region Borrow Required (Estimated):	4.81 yd ³
Average Haul Distance:	10 ft
Imported Materials:	16 yd ³

Cut/Fill Breakdown: STONE BED 4-(12x20)

REGION CUTS

Region Bank Cut	<u>0.82 yd³</u>	Expand (%)	<u>26.00</u>	Expanded Cut	<u>1.04 yd³</u>
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REGION FILLS

Region Bank Fill	<u>4.38 yd³</u>	Compaction (%)	<u>25.00</u>	Region Compacted Fill	<u>5.84 yd³</u>
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Borrow Required (Bank)	<u>3.61 yd³</u>	Estimated Borrow Required	<u>4.81 yd³</u>
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IMPORTED MATERIALS

Region Imported Materials	16 yd ³	31 tons
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<u>Comprised of:</u>	<u>Volume</u>	<u>Tons</u>
CRUSHED GRAVEL	8.14 yd ³	15 tons
RIP RAP-(d50=9")	8.14 yd ³	16 tons

Subtotals for Region: STONE BED 5-(12x20)

Region Adjustments

Downward for Subgrade materials: 24.00 in

<u>Basic Region Info</u>	<u>Area</u>	<u>Acres</u>
Region Area	202 ft ²	0.00 acres
Existing Surface Area	206 ft ²	0.00 acres
Proposed Surface Area	210 ft ²	0.00 acres
Plan View Area Cut	179 ft ²	0.00 acres
Plan View Area Fill	15 ft ²	0.00 acres
Perimeter	58 ft	

ALL CUT/FILL CALCULATIONS REFLECT THE ABOVE - QUANTITIES FIGURED FROM STRIP TO SUBGRADE

Summary of STONE BED 5-(12x20)

Bank Region Cut:	3.02 yd³
Bank Region Fill:	0.19 yd³
Region Export:	3.55 yd³
Region Borrow Required (Bank):	0 yd³
Region Borrow Required (Estimated):	0 yd³
Average Haul Distance:	9.30 ft
Imported Materials:	16 yd³

Cut/Fill Breakdown: STONE BED 5-(12x20)

REGION CUTS

Region Bank Cut	<u>3.02 yd³</u>	Expand (%)	<u>26.00</u>	Expanded Cut	<u>3.80 yd³</u>
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REGION FILLS

Region Bank Fill	<u>0.19 yd³</u>	Compaction (%)	<u>25.00</u>	Region Compacted Fill	<u>0.25 yd³</u>
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IMPORTED MATERIALS

Region Imported Materials	16 yd³		30 tons	
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<u>Comprised of:</u>	<u>Volume</u>	<u>Tons</u>
CRUSHED GRAVEL	7.79 yd ³	14 tons
RIP RAP-(d50=9")	7.79 yd ³	16 tons

Subtotals for Region: STONE BED 6-(16x20)

Region Adjustments

Downward for Subgrade materials: 24.00 in

<u>Basic Region Info</u>	<u>Area</u>	<u>Acres</u>
Region Area	409 ft ²	0.01 acres
Existing Surface Area	415 ft ²	0.01 acres
Proposed Surface Area	428 ft ²	0.01 acres
Plan View Area Cut	1.69 ft ²	0.00 acres
Plan View Area Fill	409 ft ²	0.01 acres
Perimeter	82 ft	

ALL CUT/FILL CALCULATIONS REFLECT THE ABOVE - QUANTITIES FIGURED FROM STRIP TO SUBGRADE

Summary of STONE BED 6-(16x20)

Bank Region Cut:	0.00 yd ³
Bank Region Fill:	38 yd ³
Region Export:	0 yd ³
Region Borrow Required (Bank):	38 yd ³
Region Borrow Required (Estimated):	50 yd ³
Average Haul Distance:	15 ft
Imported Materials:	32 yd ³

Cut/Fill Breakdown: STONE BED 6-(16x20)

REGION CUTS

Region Bank Cut	<u>0.00 yd³</u>	Expand (%)	<u>26.00</u>	Expanded Cut	<u>0.00 yd³</u>
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REGION FILLS

Region Bank Fill	<u>38 yd³</u>	Compaction (%)	<u>25.00</u>	Region Compacted Fill	<u>50 yd³</u>
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Borrow Required (Bank)	<u>38 yd³</u>	Estimated Borrow Required	<u>50 yd³</u>
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IMPORTED MATERIALS

Region Imported Materials	<u>32 yd³</u>	<u>61 tons</u>
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<u>Comprised of:</u>	<u>Volume</u>	<u>Tons</u>
CRUSHED GRAVEL	16 yd ³	29 tons
RIP RAP-(d50=9")	16 yd ³	32 tons

Subtotals for Region: GRAVEL ROAD

Region Adjustments

Downward for Subgrade materials: 12.00 in

<u>Basic Region Info</u>	<u>Area</u>	<u>Acres</u>
Region Area	19736 ft ²	0.45 acres
Existing Surface Area	20219 ft ²	0.46 acres
Proposed Surface Area	19802 ft ²	0.45 acres
Plan View Area Cut	6466 ft ²	0.15 acres
Plan View Area Fill	13271 ft ²	0.30 acres
Perimeter	2629 ft	

ALL CUT/FILL CALCULATIONS REFLECT THE ABOVE - QUANTITIES FIGURED FROM STRIP TO SUBGRADE

Summary of GRAVEL ROAD

Bank Region Cut:	601 yd³
Bank Region Fill:	864 yd³
Region Export:	0 yd³
Region Borrow Required (Bank):	296 yd³
Region Borrow Required (Estimated):	394 yd³
Average Haul Distance:	93 ft
Imported Materials:	733 yd³

Cut/Fill Breakdown: GRAVEL ROAD

REGION CUTS

Region Bank Cut	<u>601 yd³</u>	Expand (%)	<u>26.00</u>	Expanded Cut	<u>757 yd³</u>
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REGION FILLS

Region Bank Fill	<u>864 yd³</u>	Compaction (%)	<u>25.00</u>	Region Compacted Fill	<u>1152 yd³</u>
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Borrow Required (Bank)	<u>296 yd³</u>	Estimated Borrow Required	<u>394 yd³</u>
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IMPORTED MATERIALS

Region Imported Materials	733 yd³	1357 tons
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Comprised of:	<u>Volume</u>	<u>Tons</u>
CRUSHED GRAVEL	733 yd ³	1357 tons

Subtotals for Region: BOAT RAMP

Region Adjustments

Downward for Subgrade materials: 24.00 in

<u>Basic Region Info</u>	<u>Area</u>	<u>Acres</u>
Region Area	952 ft ²	0.02 acres
Existing Surface Area	987 ft ²	0.02 acres
Proposed Surface Area	965 ft ²	0.02 acres
Plan View Area Cut	230 ft ²	0.01 acres
Plan View Area Fill	716 ft ²	0.02 acres

Perimeter 177 ft

ALL CUT/FILL CALCULATIONS REFLECT THE ABOVE - QUANTITIES FIGURED FROM STRIP TO SUBGRADE

Summary of BOAT RAMP

Bank Region Cut:	9.05 yd³
Bank Region Fill:	78 yd³
Region Export:	0 yd³
Region Borrow Required (Bank):	69 yd³
Region Borrow Required (Estimated):	92 yd³
Average Haul Distance:	42 ft
Imported Materials:	71 yd³

Cut/Fill Breakdown: BOAT RAMP

REGION CUTS

Region Bank Cut	<u>9.05 yd³</u>	Expand (%)	<u>26.00</u>	Expanded Cut	<u>11 yd³</u>
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REGION FILLS

Region Bank Fill	<u>78 yd³</u>	Compaction (%)	<u>25.00</u>	Region Compacted Fill	<u>104 yd³</u>
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Borrow Required (Bank)	<u>69 yd³</u>	Estimated Borrow Required			<u>92 yd³</u>
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IMPORTED MATERIALS

Region Imported Materials	71 yd³		139 tons		
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Comprised of:

	<u>Volume</u>		<u>Tons</u>
PRECAST CONCRETE	18 yd ³		36 tons
1 1/2" STONE	18 yd ³		26 tons
EROSION STONE (4-8)	36 yd ³		77 tons

Subtotals for Region: BANK ARMOUR

Region Adjustments

Downward for Subgrade materials: 18.00 in

<u>Basic Region Info</u>	<u>Area</u>	<u>Acres</u>
Region Area	2410 ft ²	0.06 acres
Existing Surface Area	2528 ft ²	0.06 acres
Proposed Surface Area	2672 ft ²	0.06 acres
Plan View Area Cut	1020 ft ²	0.02 acres
Plan View Area Fill	1391 ft ²	0.03 acres
 Perimeter	 880 ft	

ALL CUT/FILL CALCULATIONS REFLECT THE ABOVE - QUANTITIES FIGURED FROM STRIP TO SUBGRADE

Summary of BANK ARMOUR

Bank Region Cut:	65 yd³
Bank Region Fill:	112 yd³
Region Export:	0 yd³
Region Borrow Required (Bank):	51 yd³
Region Borrow Required (Estimated):	67 yd³
Average Haul Distance:	69 ft
Imported Materials:	148 yd³

Cut/Fill Breakdown: BANK ARMOUR

REGION CUTS

Region Bank Cut	<u>65 yd³</u>	Expand (%)	<u>26.00</u>	Expanded Cut	<u>82 yd³</u>
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REGION FILLS

Region Bank Fill	<u>112 yd³</u>	Compaction (%)	<u>25.00</u>	Region Compacted Fill	<u>149 yd³</u>
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Borrow Required (Bank)	<u>51 yd³</u>	Estimated Borrow Required			<u>67 yd³</u>
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IMPORTED MATERIALS

Region Imported Materials	148 yd³		297 tons
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Comprised of:			<u>Volume</u>		<u>Tons</u>
RIP RAP-(d50=12")	<u>148 yd³</u>				<u>297 tons</u>

Subtotals for Region: RIP RAP

Region Adjustments

Downward for Subgrade materials: 12.00 in

<u>Basic Region Info</u>	<u>Area</u>	<u>Acres</u>
Region Area	1480 ft ²	0.03 acres
Existing Surface Area	1518 ft ²	0.03 acres
Proposed Surface Area	1595 ft ²	0.04 acres
Plan View Area Cut	736 ft ²	0.02 acres
Plan View Area Fill	735 ft ²	0.02 acres
Perimeter	627 ft	

ALL CUT/FILL CALCULATIONS REFLECT THE ABOVE - QUANTITIES FIGURED FROM STRIP TO SUBGRADE

Summary of RIP RAP

Bank Region Cut:	50 yd³
Bank Region Fill:	30 yd³
Region Export:	22 yd³
Region Borrow Required (Bank):	0 yd³
Region Borrow Required (Estimated):	0 yd³
Average Haul Distance:	608 ft
Imported Materials:	59 yd³

Cut/Fill Breakdown: RIP RAP

REGION CUTS

Region Bank Cut	<u>50 yd³</u>	Expand (%)	<u>26.00</u>	Expanded Cut	<u>63 yd³</u>
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REGION FILLS

Region Bank Fill	<u>30 yd³</u>	Compaction (%)	<u>25.00</u>	Region Compacted Fill	<u>40 yd³</u>
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IMPORTED MATERIALS

Region Imported Materials	59 yd³	127 tons
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Comprised of:	<u>Volume</u>	<u>Tons</u>
EROSION STONE (4-8)	59 yd ³	127 tons

Subtotals for Region: ASPHALT PAVING

Region Adjustments

Downward for Subgrade materials: 3.50 in

<u>Basic Region Info</u>	<u>Area</u>	<u>Acres</u>
Region Area	4929 ft ²	0.11 acres
Existing Surface Area	5115 ft ²	0.12 acres
Proposed Surface Area	4990 ft ²	0.11 acres
Plan View Area Cut	1388 ft ²	0.03 acres
Plan View Area Fill	3519 ft ²	0.08 acres

Perimeter 561 ft

ALL CUT/FILL CALCULATIONS REFLECT THE ABOVE - QUANTITIES FIGURED FROM STRIP TO SUBGRADE

Summary of ASPHALT PAVING

Bank Region Cut:	159 yd³
Bank Region Fill:	270 yd³
Region Export:	0 yd³
Region Borrow Required (Bank):	120 yd³
Region Borrow Required (Estimated):	160 yd³
Average Haul Distance:	206 ft
Imported Materials:	54 yd³

Cut/Fill Breakdown: ASPHALT PAVING

REGION CUTS

Region Bank Cut	<u>159 yd³</u>	Expand (%)	<u>26.00</u>	Expanded Cut	<u>200 yd³</u>
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REGION FILLS

Region Bank Fill	<u>270 yd³</u>	Compaction (%)	<u>25.00</u>	Region Compacted Fill	<u>360 yd³</u>
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Borrow Required (Bank)	<u>120 yd³</u>	Estimated Borrow Required	<u>160 yd³</u>
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IMPORTED MATERIALS

Region Imported Materials	54 yd³	108 tons
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Comprised of:

	<u>Volume</u>	<u>Tons</u>
BCP: Wearing	23 yd ³	46 tons
BCP: Binder	31 yd ³	62 tons

TerraCalc Material Report

File: Wilson Stream

TOTAL WORK AREA

Feb 6, 2020

4:32 pm

Start layer: Existing

End layer: Proposed Final

Material Totals for Job

	<u>Volume</u>	<u>Tons</u>
CRUSHED GRAVEL	834 yd³	1542 tons
STONE BED 1-(40x40)	54 yd ³	99 tons
STONE BED 2-(12x20)	7.90 yd ³	15 tons
STONE BED 3-(12x20)	7.06 yd ³	13 tons
STONE BED 4-(12x20)	8.14 yd ³	15 tons
STONE BED 5-(12x20)	7.79 yd ³	14 tons
STONE BED 6-(16x20)	16 yd ³	29 tons
GRAVEL ROAD	733 yd ³	1357 tons
RIP RAP-(d50=12)	128 yd³	255 tons
STONE BED 1-(40x40)	80 yd ³	161 tons
BANK ARMOUR	47 yd ³	94 tons
1 1/2" STONE	26 yd³	38 tons
STONE BED 2-(12x20)	7.90 yd ³	12 tons
BOAT RAMP	18 yd ³	26 tons
RIP RAP-(d50=9")	39 yd³	78 tons
STONE BED 3-(12x20)	7.06 yd ³	14 tons
STONE BED 4-(12x20)	8.14 yd ³	16 tons
STONE BED 5-(12x20)	7.79 yd ³	16 tons
STONE BED 6-(16x20)	16 yd ³	32 tons
PRECAST CONCRETE	18 yd³	36 tons
BOAT RAMP	18 yd ³	36 tons
EROSION STONE (4-8)	95 yd³	204 tons
BOAT RAMP	36 yd ³	77 tons
RIP RAP	59 yd ³	127 tons
RIP RAP-(d50=12")	148 yd³	297 tons
BANK ARMOUR	148 yd ³	297 tons

BCP: Wearing
ASPHALT PAVING

23 yd³
23 yd³

46 tons
46 tons

BCP: Binder
ASPHALT PAVING

31 yd³
31 yd³

62 tons
62 tons

TerraCalc Trench Report

File: Wilson Stream

TOTAL WORK AREA

Feb 6, 2020

4:32 pm

Start layer: Proposed Final

End layer: Proposed Final

Trench Run Description

CULVERT 1-HDPE-24"

Trench Name

(STORM-24")

Pipe/Trench Length 40 ft **Cut Volume** 12 yd³ **Side Surface Area** 483 ft²

<u>Fill Material</u>	<u>Fill Volume</u>	<u>Tons</u>
Native	0 yd ³	0 tons
CLEAN SAND	2.02 yd ³	3.74 tons
3/4 STONE	16 yd ³	24 tons
Total Fill	18 yd ³	28 tons

Pipe/Trench Volume 6.37 yd³

Trench Run Description

CULVERT 2-HDPE-15"

Trench Name

(STORM-15")

Pipe/Trench Length 51 ft **Cut Volume** 12 yd³ **Side Surface Area** 515 ft²

<u>Fill Material</u>	<u>Fill Volume</u>	<u>Tons</u>
Native	0.43 yd ³	0.69 tons
NHDOT: 304.1 (sand)	6.62 yd ³	12 tons
3/4 STONE	9.90 yd ³	18 tons
Total Fill	17 yd ³	31 tons

Pipe/Trench Volume 3.34 yd³

Trench Run Description

CULVERT 3-HDPE-15"

Trench Name

(STORM-15")

Pipe/Trench Length 34 ft **Cut Volume** 12 yd³ **Side Surface Area** 350 ft²

<u>Fill Material</u>	<u>Fill Volume</u>	<u>Tons</u>
Native	2.60 yd ³	4.21 tons
NHDOT: 304.1 (sand)	4.35 yd ³	8.04 tons
3/4 STONE	6.50 yd ³	12 tons
Total Fill	13 yd ³	24 tons

Pipe/Trench Volume 2.19 yd³

Trench Run Description

UNDERDRAIN (4")

Trench Name

(UNDERDRAIN-4")

Pipe/Trench Length 223 ft **Cut Volume** 1.49 yd³ **Side Surface Area** 1791 ft²

<u>Fill Material</u>	<u>Fill Volume</u>	<u>Tons</u>
Native	0.09 yd ³	0.15 tons
3/4 STONE	10 yd ³	19 tons
3/4 STONE	8.48 yd ³	16 tons
Total Fill	19 yd ³	35 tons

Pipe/Trench Volume 0.94 yd³

TerraCalc Trench Report (Totals)

File: Wilson Stream TOTAL WORK AREA Feb 6, 2020 4:32 pm

Start layer: Existing End layer: Proposed Final

Total Pipe/Trench Length 348 ft **Total Cut Volume** 38 yd³ **Total Side Surface**
3138 ft²

<u>Fill Material</u>	<u>Fill Volume</u>	<u>Tons</u>
CLEAN SAND	2.02 yd ³	3.74 tons
3/4 STONE	41 yd ³	70 tons
Native	3.12 yd ³	5.05 tons
NHDOT: 304.1 (sand)	11 yd ³	20 tons
3/4 STONE	10 yd ³	19 tons

Total Pipe/Trench Volume 13 yd³