

# CALCULATIONS FOR CHANNEL CROSS-SECTIONS

## ITEM 203 - EXCAVATION

STA. 9+978.000 TO STA. 9+980.000  
 ACTUAL CHANNEL LENGTH = 2.000m  
 STA. 9+978.000 AH END AREA = 0.0 sq m  
 STA. 9+980.000 BK END AREA = 0.6 sq m  
 VOLUME =  $0.5 \times (0.0 + 0.6) \text{ sq m} \times 2.000 \text{ m}$   
 VOLUME = 0.6 cu m

USE 1 cu m

STA. 9+980.000 TO STA. 9+990.000  
 ACTUAL CHANNEL LENGTH = 12.777m  
 STA. 9+980.000 AH END AREA = 4.7 sq m  
 STA. 9+990.000 BK END AREA = 8.5 sq m  
 VOLUME =  $0.5 \times (4.7 + 8.5) \text{ sq m} \times 12.777 \text{ m}$   
 VOLUME = 84.3 cu m

USE 84 cu m

STA. 9+990.000 TO STA. 10+010.000  
 ACTUAL CHANNEL LENGTH = 21.739m  
 STA. 9+990.000 AH END AREA = 4.8 sq m  
 STA. 10+010.000 BK END AREA = 5.4 sq m  
 VOLUME =  $0.5 \times (4.8 + 5.4) \text{ sq m} \times 21.739 \text{ m}$   
 VOLUME = 110.9 cu m

USE 111 cu m

STA. 10+010.000 TO STA. 10+020.000  
 ACTUAL CHANNEL LENGTH = 8.986m  
 STA. 10+010.000 AH END AREA = 9.5 sq m  
 STA. 10+020.000 BK END AREA = 4.8 sq m  
 VOLUME =  $0.5 \times (9.5 + 4.8) \text{ sq m} \times 8.986 \text{ m}$   
 VOLUME = 64.2 cu m

USE 64 cu m

STA. 10+020.000 TO STA. 10+027.500  
 ACTUAL CHANNEL LENGTH = 2.535m  
 STA. 10+020.000 AH END AREA = 0.6 sq m  
 STA. 10+027.500 BK END AREA = 0.0 sq m  
 VOLUME =  $0.5 \times (0.6 + 0.0) \text{ sq m} \times 2.535 \text{ m}$   
 VOLUME = 0.8 cu m

USE 1 cu m  
 TOTAL = 261 cu m

## ITEM 659 - SEEDING

STA. 9+978.000 TO STA. 9+980.000  
 ACTUAL CHANNEL LENGTH = 2.000m  
 STA. 9+978.000 AH END WIDTH = 0.0 m  
 STA. 9+980.000 BK END WIDTH = 2.0 m  
 AREA =  $0.5 \times (0.0 + 2.0) \text{ m} \times 2.000 \text{ m}$   
 AREA = 2.0 sq m

USE 2 sq m

STA. 9+980.000 TO STA. 9+990.000  
 ACTUAL CHANNEL LENGTH = 12.777m  
 STA. 9+980.000 AH END WIDTH = 2.0 m  
 STA. 9+990.000 BK END WIDTH = 2.0 m  
 AREA =  $0.5 \times (2.0 + 2.0) \text{ m} \times 12.777 \text{ m}$   
 AREA = 25.6 sq m

USE 26 sq m

STA. 9+990.000 TO STA. 10+010.000  
 ACTUAL CHANNEL LENGTH = 21.739m  
 STA. 9+990.000 AH END WIDTH = 0.0 m  
 STA. 10+010.000 BK END WIDTH = 0.0 m  
 AREA =  $0.5 \times (0.0 + 0.0) \text{ m} \times 21.739 \text{ m}$   
 AREA = 0.0 sq m

USE 0 sq m

STA. 10+010.000 TO STA. 10+020.000  
 ACTUAL CHANNEL LENGTH = 8.986m  
 STA. 10+010.000 AH END WIDTH = 2.0 m  
 STA. 10+020.000 BK END WIDTH = 2.0 m  
 AREA =  $0.5 \times (2.0 + 2.0) \text{ m} \times 8.986 \text{ m}$   
 AREA = 18.0 sq m

USE 18 sq m

STA. 10+020.000 TO STA. 10+027.500  
 ACTUAL CHANNEL LENGTH = 2.535m  
 STA. 10+020.000 AH END AREA = 2.0 m  
 STA. 10+027.500 BK END AREA = 0.0 m  
 AREA =  $0.5 \times (2.0 + 0.0) \text{ m} \times 2.535 \text{ m}$   
 AREA = 2.5 sq m

USE 3 sq m  
 TOTAL = 49 sq m

## ITEM 601 - ROCK CHANNEL PROTECTION

STA. 9+978.000 TO STA. 9+980.000  
 ACTUAL CHANNEL LENGTH = 2.000m  
 STA. 9+978.000 AH END WIDTH = 0.0 m  
 STA. 9+980.000 BK END WIDTH = 0.0 m  
 VOLUME =  $0.5 \times (0.0 + 0.0) \text{ m} \times 2.000 \text{ m} \times 0.75 \text{ m}$   
 VOLUME = 0.0 cu m

USE 0 cu m

STA. 9+980.000 TO STA. 9+990.000  
 ACTUAL CHANNEL LENGTH = 12.777m  
 STA. 9+980.000 AH END WIDTH = 5.5 m  
 STA. 9+990.000 BK END WIDTH = 9.2 m  
 VOLUME =  $0.5 \times (5.5 + 9.2) \text{ m} \times 12.777 \text{ m} \times 0.75 \text{ m}$   
 VOLUME = 70.4 cu m

USE 70 cu m

STA. 9+990.000 TO STA. 10+010.000  
 ACTUAL CHANNEL LENGTH = 21.739m  
 STA. 9+990.000 AH END WIDTH = 5.0 m  
 STA. 10+010.000 BK END WIDTH = 5.0 m  
 VOLUME =  $0.5 \times (5.0 + 5.0) \text{ m} \times 21.739 \text{ m} \times 0.75 \text{ m}$   
 VOLUME = 81.5 cu m

USE 82 cu m

STA. 10+010.000 TO STA. 10+020.000  
 ACTUAL CHANNEL LENGTH = 8.986m  
 STA. 10+010.000 AH END WIDTH = 9.8 m  
 STA. 10+020.000 BK END WIDTH = 5.6 m  
 VOLUME =  $0.5 \times (9.8 + 5.6) \text{ m} \times 8.986 \text{ m} \times 0.75 \text{ m}$   
 VOLUME = 51.9 cu m

USE 52 cu m

STA. 10+020.000 TO STA. 10+027.500  
 ACTUAL CHANNEL LENGTH = 2.535m  
 STA. 10+020.000 AH END WIDTH = 0.0 m  
 STA. 10+027.500 BK END WIDTH = 0.0 m  
 VOLUME =  $0.5 \times (0.6 + 0.0) \text{ m} \times 2.535 \text{ m} \times 0.75 \text{ m}$   
 VOLUME = 0.0 cu m

USE 0 cu m  
 TOTAL = 204 cu m

NOTE: ALL STATIONS REFER TO CHANNEL BASE

CALCULATED  
JC  
CHECKED  
NT

SUPPLEMENTAL CHANNEL CALCULATIONS

LAK-528-8.095