TO ESTIMATE THE QUANTITY OF EMBANKMENT MATERIAL:

THE VOLUME OF EMBANKMENT MATERIAL, IN CUBIC METERS, IS DETERMINED BY THE FOLLOWING FORMULA:

\[ V = \frac{A}{N} (H) (W + N) (H) \]

WHERE \( V \) IS THE VOLUME IN CUBIC METERS, \( A \) IS THE AREA IN SQUARE METERS, \( H \) IS THE DIFFERENCE IN ELEVATIONS OF THE HIGH WATER AND AVERAGE GROUND LEVEL, \( W \) IS THE BERM WIDTH., AND \( N \) IS THE DIKE SLOPE.

TO ESTIMATE THE QUANTITY OF RIP RAP:

1. FIND THE MEAN LENGTH AT MID-HEIGHT OF THE RIP RAP SECTION (\( L \)) WITH A SLOPE OF 1:2.
2. MULTIPLY THE DIFFERENCE IN ELEVATIONS OF HIGH WATER AND AVERAGE GROUND LEVEL BY \( M \) WHERE \( M = 2.236: \) FOR 1:3 AND \( M = 1.15: \) FOR 1:2.
3. FIND THE SLANT HEIGHT ON SLOPE.
4. AREA OF RIP RAP ON SLOPE = \( \frac{1}{2} \) SLANT HEIGHT (SLANT HEIGHT) IN SQUARE METERS.
5. DEPTH ALONG HORIZONTAL = \( \frac{1}{2} \) SLANT HEIGHT.
6. CALCULATE TOTAL RIP RAP AREA (\( \text{GLA} \) AREA) + \( \text{TDC} \) AREA).
7. TOTAL RIP RAP AREA, THE QUANTITY OF LOOSE RIP RAP MAY BE ESTIMATED AT 1385 kg/m² OF DEPTH.

TO ESTIMATE THE QUANTITY OF JENSEN MATERIAL:

THE VOLUME OF JENSEN MATERIAL, IN CUBIC METERS, IS DETERMINED BY THE FOLLOWING FORMULA:

\[ V = \frac{A}{N} (H) (W + N) (H) \]

WHERE \( V \) IS THE VOLUME IN CUBIC METERS, \( A \) IS THE AREA IN SQUARE METERS, \( H \) IS THE DIFFERENCE IN ELEVATIONS OF THE HIGH WATER AND AVERAGE GROUND LEVEL, \( W \) IS THE BERM WIDTH., AND \( N \) IS THE DIKE SLOPE.

TO ESTIMATE THE QUANTITY OF SODDING:

THE VOLUME OF SODDING MATERIAL, IN CUBIC METERS, IS DETERMINED BY THE FOLLOWING FORMULA:

\[ V = \frac{A}{N} (H) (W + N) (H) \]

WHERE \( V \) IS THE VOLUME IN CUBIC METERS, \( A \) IS THE AREA IN SQUARE METERS, \( H \) IS THE DIFFERENCE IN ELEVATIONS OF THE HIGH WATER AND AVERAGE GROUND LEVEL, \( W \) IS THE BERM WIDTH., AND \( N \) IS THE DIKE SLOPE.


THE EMBANKMENT MATERIAL, UNLESS SPECIFIED OTHERWISE ON THE BRIDGE SHEET, SHALL BE REQUIRED ON ALL DIKE ENDS AS SHOWN HEREON.

SPUR DIKE: EARTH

SECTION A-A

ALL DIMENSIONS ARE IN MILLIMETERS (IN) EXCEPT WHERE NOTED.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

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