UTILITY ISOLATION AND JOINT LAYOUT GENERAL NOTES:

1. The Contractor is responsible for the final joint layout based on the actual locations of utilities and drainage structures within the pavement and construction area. The Contractor shall ensure that all required joints are installed by the Engineer at least 24 hours before paving begins. The Contractor shall be held responsible for the layout of joints and the layout shall not be revised until the joint layout is approved by the Engineer.

2. JOINT LAYOUT METHODOLOGY:

   A. Locate longitudinal joints.
   B. Locate utilities and drainage structures. Wherever possible, position utilities and/or drainage structures to avoid joints. Where utilities and/or drainage structures are located within 2 feet of a joint, all joints shall be located on a straight line. If the structures are not on a straight line, they may be placed on an arc. Matrix figures 6 and 7 on standard sheet 502-02 illustrate placement of utilities and drainage structures.
   C. Locate transverse and jointed longitudinal crack joints near utilities and drainage structures.
   D. Design and layout the longitudinal joint ties and transverse joint supports.
   E. Select a shear modulus ratio of 0.75 and shear geometry of 10'-0"L x 10'-0"W x 10'-0"W.

3. PCC SLAB ASPECT RATIOS AND SLAB GEOMETRY:

   A. The aspect ratio that is the ratio of slab width to slab length 1.4.
   B. Slabs are designed to transfer traffic, construct slabs meeting the following geometric criteria:

      1. 12'-0"L x 10'-0"W x 10'-0"W
      2. 16'-0"L x 10'-0"W x 10'-0"W
      3. 10'-0"L x 10'-0"W x 10'-0"W

4. GENERAL JOINT LAYOUT METHODOLOGY:

   A. For paver paving, shear keys are extended to create 12'-0" to 16'-0" slab lengths.
   B. For in-place paving, sawcut joints are used to create 12'-0" to 16'-0" slab lengths.
   C. All joints are either tied or untied. Tied joints have dowel bars placed in the joints.
   D. Sawcut joints transverse and longitudinal joints are spaced at least 12'-0" to 16'-0" apart.
   E. Sawcut joints transverse and longitudinal joints are spaced at least 12'-0" to 16'-0" apart.
   F. Sawcut joints transverse and longitudinal joints are spaced at least 12'-0" to 16'-0" apart.

5. UTILITY AND DRAINAGE STRUCTURE ISOLATION:

   A. CONSTRUCTION SEQUENCE AT ISOLATED UTILITIES AND DRAINAGE STRUCTURES
   B. Construction sequence at isolated utilities and drainage structures is illustrated on standard sheets 502-09 through 502-15.
   C. For isolated utilities and drainage structures, use the following sequence:
   D. Sawcut transverse and longitudinal joints, second stage.
   E. Sawcut transverse and longitudinal joints, first stage.
   F. Sawcut transverse and longitudinal joints, second stage.
   G. Sawcut transverse and longitudinal joints, first stage.
   H. Sawcut transverse and longitudinal joints, second stage.
   I. Sawcut transverse and longitudinal joints, first stage.

6. UTILITY AND DRAINAGE STRUCTURE ISOLATION:

   A. Sawcut transverse and longitudinal joints, second stage.
   B. Sawcut transverse and longitudinal joints, first stage.
   C. Sawcut transverse and longitudinal joints, second stage.
   D. Sawcut transverse and longitudinal joints, first stage.
   E. Sawcut transverse and longitudinal joints, second stage.
   F. Sawcut transverse and longitudinal joints, first stage.

7. UTILITY ISOLATION AND JOINT LAYOUT GENERAL NOTES:

   A. The Contractor is responsible for the final joint layout based on the actual locations of utilities and drainage structures within the pavement and construction area. The Contractor shall ensure that all required joints are installed by the Engineer at least 24 hours before paving begins. The Contractor shall be held responsible for the layout of joints and the layout shall not be revised until the joint layout is approved by the Engineer.

   B. JOINT LAYOUT METHODOLOGY:

      A. Locate longitudinal joints.
      B. Locate utilities and drainage structures. Wherever possible, position utilities and/or drainage structures to avoid joints. Where utilities and/or drainage structures are located within 2 feet of a joint, all joints shall be located on a straight line. If the structures are not on a straight line, they may be placed on an arc. Matrix figures 6 and 7 on standard sheet 502-02 illustrate placement of utilities and drainage structures.
      C. Locate transverse and jointed longitudinal crack joints near utilities and drainage structures.
      D. Design and layout the longitudinal joint ties and transverse joint supports.
      E. Select a shear modulus ratio of 0.75 and shear geometry of 10'-0"L x 10'-0"W x 10'-0"W.

   C. PCC SLAB ASPECT RATIOS AND SLAB GEOMETRY:

      A. The aspect ratio that is the ratio of slab width to slab length 1.4.
      B. Slabs are designed to transfer traffic, construct slabs meeting the following geometric criteria:

         1. 12'-0"L x 10'-0"W x 10'-0"W
         2. 16'-0"L x 10'-0"W x 10'-0"W
         3. 10'-0"L x 10'-0"W x 10'-0"W

   D. GENERAL JOINT LAYOUT METHODOLOGY:

      A. For paver paving, shear keys are extended to create 12'-0" to 16'-0" slab lengths.
      B. For in-place paving, sawcut joints are used to create 12'-0" to 16'-0" slab lengths.
      C. All joints are either tied or untied. Tied joints have dowel bars placed in the joints.
      D. Sawcut joints transverse and longitudinal joints are spaced at least 12'-0" to 16'-0" apart.
      E. Sawcut joints transverse and longitudinal joints are spaced at least 12'-0" to 16'-0" apart.
      F. Sawcut joints transverse and longitudinal joints are spaced at least 12'-0" to 16'-0" apart.
      G. Sawcut joints transverse and longitudinal joints are spaced at least 12'-0" to 16'-0" apart.
      H. Sawcut joints transverse and longitudinal joints are spaced at least 12'-0" to 16'-0" apart.
      I. Sawcut joints transverse and longitudinal joints are spaced at least 12'-0" to 16'-0" apart.

   E. UTILITY AND DRAINAGE STRUCTURE ISOLATION:

      A. Sawcut transverse and longitudinal joints, second stage.
      B. Sawcut transverse and longitudinal joints, first stage.
      C. Sawcut transverse and longitudinal joints, second stage.
      D. Sawcut transverse and longitudinal joints, first stage.
      E. Sawcut transverse and longitudinal joints, second stage.
      F. Sawcut transverse and longitudinal joints, first stage.

   F. UTILITY ISOLATION AND JOINT LAYOUT GENERAL NOTES:

      A. The Contractor is responsible for the final joint layout based on the actual locations of utilities and drainage structures within the pavement and construction area. The Contractor shall ensure that all required joints are installed by the Engineer at least 24 hours before paving begins. The Contractor shall be held responsible for the layout of joints and the layout shall not be revised until the joint layout is approved by the Engineer.

      B. JOINT LAYOUT METHODOLOGY:

         A. Locate longitudinal joints.
         B. Locate utilities and drainage structures. Wherever possible, position utilities and/or drainage structures to avoid joints. Where utilities and/or drainage structures are located within 2 feet of a joint, all joints shall be located on a straight line. If the structures are not on a straight line, they may be placed on an arc. Matrix figures 6 and 7 on standard sheet 502-02 illustrate placement of utilities and drainage structures.
         C. Locate transverse and jointed longitudinal crack joints near utilities and drainage structures.
         D. Design and layout the longitudinal joint ties and transverse joint supports.
         E. Select a shear modulus ratio of 0.75 and shear geometry of 10'-0"L x 10'-0"W x 10'-0"W.

     C. PCC SLAB ASPECT RATIOS AND SLAB GEOMETRY:

         A. The aspect ratio that is the ratio of slab width to slab length 1.4.
         B. Slabs are designed to transfer traffic, construct slabs meeting the following geometric criteria:

            1. 12'-0"L x 10'-0"W x 10'-0"W
            2. 16'-0"L x 10'-0"W x 10'-0"W
            3. 10'-0"L x 10'-0"W x 10'-0"W

     D. GENERAL JOINT LAYOUT METHODOLOGY:

         A. For paver paving, shear keys are extended to create 12'-0" to 16'-0" slab lengths.
         B. For in-place paving, sawcut joints are used to create 12'-0" to 16'-0" slab lengths.
         C. All joints are either tied or untied. Tied joints have dowel bars placed in the joints.
         D. Sawcut joints transverse and longitudinal joints are spaced at least 12'-0" to 16'-0" apart.
         E. Sawcut joints transverse and longitudinal joints are spaced at least 12'-0" to 16'-0" apart.
         F. Sawcut joints transverse and longitudinal joints are spaced at least 12'-0" to 16'-0" apart.
         G. Sawcut joints transverse and longitudinal joints are spaced at least 12'-0" to 16'-0" apart.
         H. Sawcut joints transverse and longitudinal joints are spaced at least 12'-0" to 16'-0" apart.
         I. Sawcut joints transverse and longitudinal joints are spaced at least 12'-0" to 16'-0" apart.

     E. UTILITY AND DRAINAGE STRUCTURE ISOLATION:

         A. Sawcut transverse and longitudinal joints, second stage.
         B. Sawcut transverse and longitudinal joints, first stage.
         C. Sawcut transverse and longitudinal joints, second stage.
         D. Sawcut transverse and longitudinal joints, first stage.
         E. Sawcut transverse and longitudinal joints, second stage.