1. Show road and stream on plan view. Indicating changes in alignment and special features.

2. Show both the existing and proposed longitudinal profile. Current water surface elevation, specific culvert invert, bed elevation, and degree of regarding expected length of the culvert. Of profile should be at least 4 times the bankfull width plus the length of the culvert.


4. Show road drainage plan, including cross culverts, ditch lining, sediment ponds, etc.

5. Show 100-year floodplain surface and top of bank on profile.

6. Show details concerning stream channel characteristics, for instance pool-riffle geometry.

7. Provide a site map with contours and stream layout details.

8. Indicate bankfull width and approximate locations of measurements.

Scale: ------- = -------

NOTE: Provide OWHL. Approx. 20 W CH (MIN. 200 F.T.)

Survey D/S profile

Survey U/S profile

Provide culvert size and length.

Provide culvert name in plan view.

Stream name in plan view.

Elevation

CrossDrains

Show
EXAMPLE DRAWING S-2

REACH ASSESSMENT:

- Show reach assessment plan and mitigation measures.
- Show existing large wood jams.
- Show clearance above 100-year flood water surface with consideration for debris.
- Show expected lateral migration during bridge life span.
- Show expected lateral migration during bridge design.
- Show bridge abutments, foundations, piers, and floodplain fill.
- Show basic channel and floodplain geometry.
- Assess length min 20 channel widths. Longer for larger rivers.

REACH ASSESSMENT:

- Minimum 20 channel widths.
- channel change.
- potential for floodplain.
- extent of flow.
- extent of flow, on plan view.
- provide ohv, roadway.
- bankfull width.
- flow, floodplain fill.
BRIDGE CROSS SECTION IN CONFINED CHANNEL

EXAMPLE DRAWING S-3

PROPOSED BRIDGE

BRIDGE CROSS SECTION IN CONFINED CHANNEL (FLOODPLAIN WIDTH > 3 X BFW).
BRIDGE CROSS SECTION - IN UNCONFINED CHANNEL

EXAMPLE DRAWING S-4

PROPOSED BRIDGE

FLOODPLAIN

MAIN CHANNEL

CHANNEL (V1) > VELOCITY IN THE MAIN NATURAL CHANNEL (V2)

ACCEPTABLE SPAN DOES NOT SIGNIFICANTLY INCREASE VELOCITY IN THE MAIN BRIDGE

FLOODPLAIN WIDTH > 3 X BW
Bank erosion detail - plan view

Example drawing S-6A

NOT TO SCALE

Plan view - example

Flow

Provide ordinary high water line.

Provide dimensions of the
Bank erosion or dimensions of the
Length of bank erosion.

Provide dimensions of the
Type and location of existing vegetation.

Wetted channel width.

Previous channel location.

Ft.
Not to Scale

Plan View - Example

Flow

Water Bar or Drivable Dip as Needed.

Apron

Ditch

Drainage

Roadside

Fill voids with streamed gravel.

Armor Stream Bed with course rock.

Apron of Spalls, Ballast, Gravel.

Water Bar or Drivable Dip as Needed.

Countersunk / Buried Large Boulder. Porous weir on boulder. Focus weir on boulder. Porous weir on Countersunk / Buried Large Boulder.

Provide Ohw.

Provide Ohw.

On Plan View.

On Plan View.

Flow

ON PLAN VIEW.