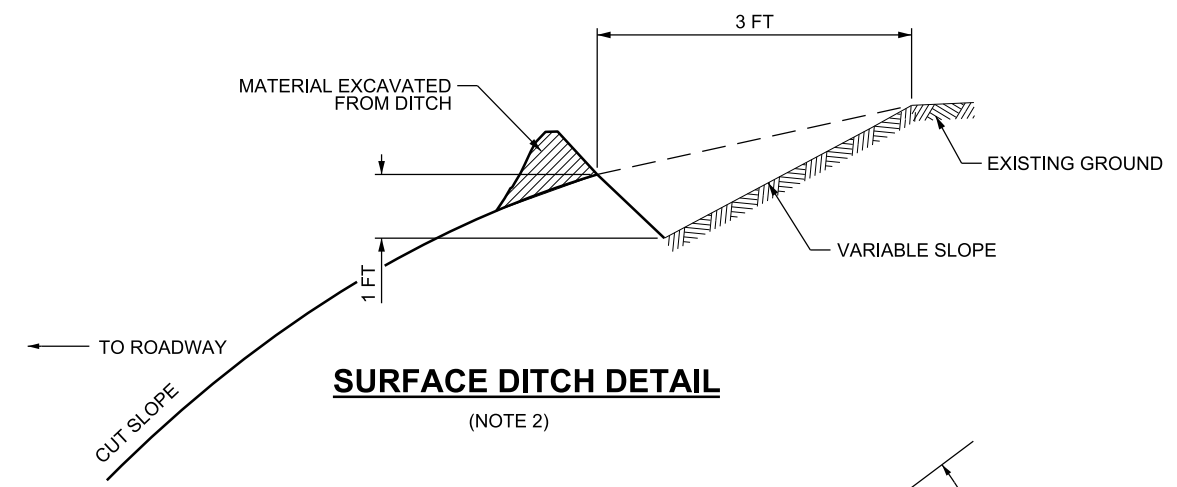


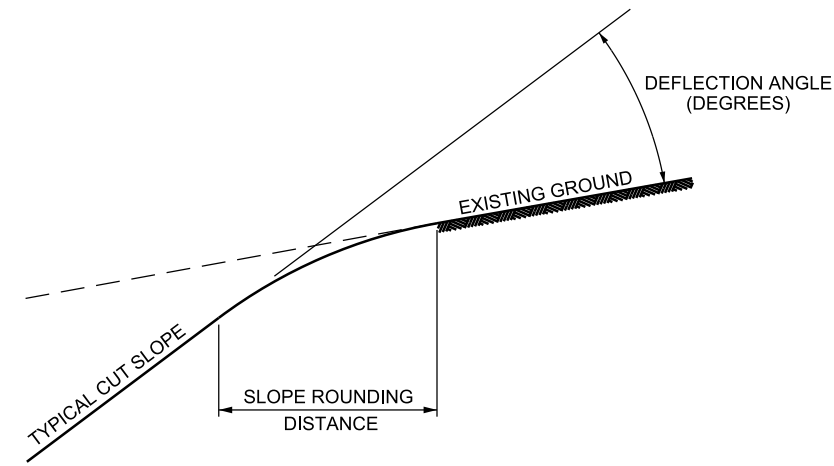
BENCHED SLOPE DETAIL

(NOTE 3)



SURFACE DITCH DETAIL

(NOTE 2)

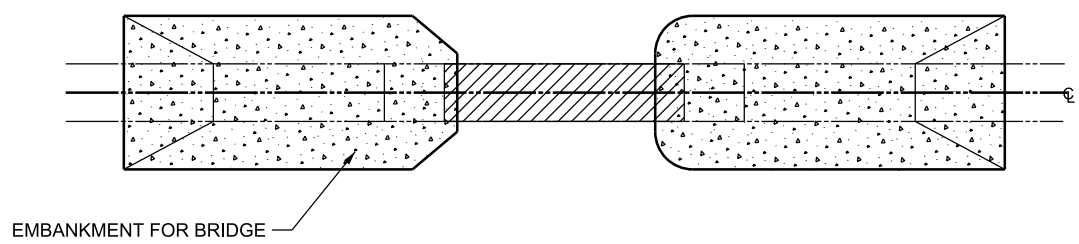


CUT SLOPE ROUNDING DETAIL

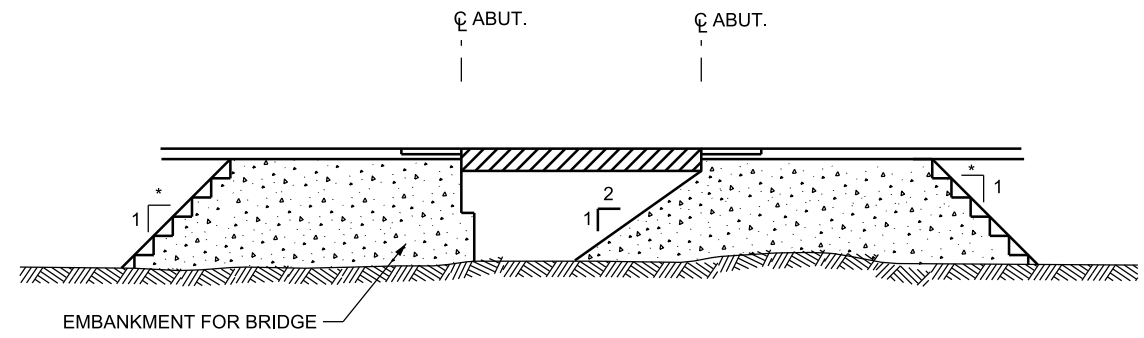
(NOTE 4)

PROPOSED SLOPE	H:V	% SLOPE	EXISTING SLOPE									
			DEG									
			1:1.5	1:1	2:1	3:1	4:1	5:1	6:1	8:1	10:1	20:1
1:2	200%	63	7	18	37	45	49	52	54	56	58	61
1:1.5	150%	56	-	11	30	38	42	45	47	49	51	53
1:1	100%	45	-	-	18	27	31	34	36	38	39	42
2:1	50%	27	-	-	-	8	13	15	17	19	21	24
3:1	33%	18	-	-	-	-	4	7	9	11	13	16
4:1	25%	14	-	-	-	-	-	3	5	7	8	11

DEFLECTION ANGLE	SLOPE HEIGHT (FT) (NOTE 5)			
	5-10	>10-15	>15-20	>20
	<10°	NO SLOPE ROUNDING NEEDED		
10°-20°	2	4	5	6
20°-30°	4	8	10	12
30°-40°	6	12	15	18
40°+	8	16	20	24



PLAN VIEW APPROACH EMBANKMENTS



CL PROFILE VIEW APPROACH EMBANKMENTS

* THEORETICAL SLOPE MAXIMUM OF 1:1 TO TRANSITION BETWEEN EMBANKMENT MATERIALS.

NOTES:

- TRANSITION FROM FLAT TO STEEPER CUT AND FILL SLOPES IN SUFFICIENT DISTANCE TO PROVIDE A NATURAL PLEASING APPEARANCE.
- INSTALL SURFACE DITCH (OPTIONAL) WHEN SHEET FLOW DRAINAGE IS CONCENTRATED TOWARDS AND HAS POTENTIAL TO ERODE THE CUT SLOPE OR CREATE OTHER HAZARDS. DRAIN SURFACE DITCH TO NATURAL DRAINAGE OR ROADSIDE DITCH. PROVIDE OTHER MEASURES TO PROTECT CUT SLOPES AND PREVENT OTHER HAZARDS IF SURFACE DITCH IS OMITTED.
- BENCH EXISTING SLOPE PER CENTRAL GEOTECHNICAL RECOMMENDATIONS.
- FIND THE COMMON DEFLECTION ANGLE IN TABLE 1 AND THEN USE TABLE 2 TO FIND THE SLOPE ROUNDING DISTANCE FOR CUT SLOPE ROUNDING DETAIL. THE GREATER NUMBER OF MULTIPLE DISTANCES MAY BE USED TO AVOID FREQUENT ROUNDING DISTANCE CHANGES.
- THE CUT SLOPE HEIGHT IS FROM THE BOTTOM TO THE TOP OF THE CUT BEFORE ROUNDING.
- DO NOT EXCEED 2H:1V OR STEEPER SLOPES WITHOUT APPROVAL FROM THE ENGINEER.

SUPPLEMENTAL DRAWING

NO.	DATE	APPR.	REMARKS

UTAH DEPARTMENT OF TRANSPORTATION
STANDARD DRAWINGS FOR ROAD AND BRIDGE CONSTRUCTION
SALT LAKE CITY, UTAH

RECOMMENDED FOR APPROVAL
CHAIRMAN STANDARDS COMMITTEE
APPROVED
DEPUTY DIRECTOR

AUG 30, 2018
DATE

AUG 30, 2018
DATE

SURFACE DITCH, BENCHED SLOPE AND EMBANKMENT FOR BRIDGE PLACEMENT DETAILS

STANDARD DRAWING TITLE

STD. DWG. NO.

GW 8