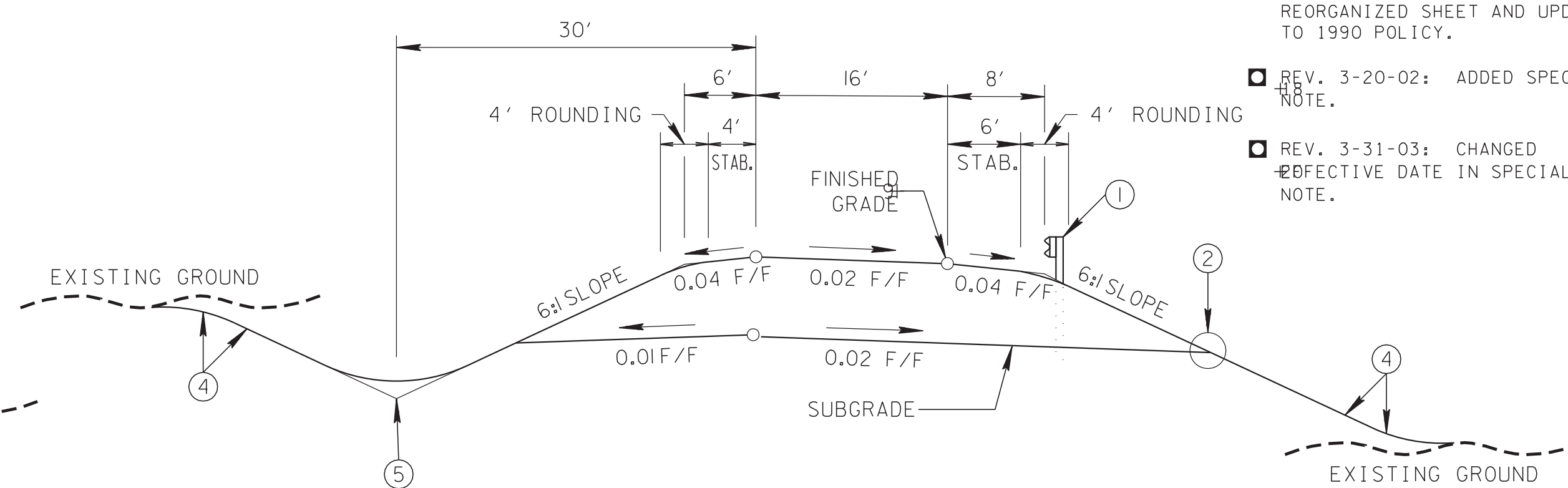
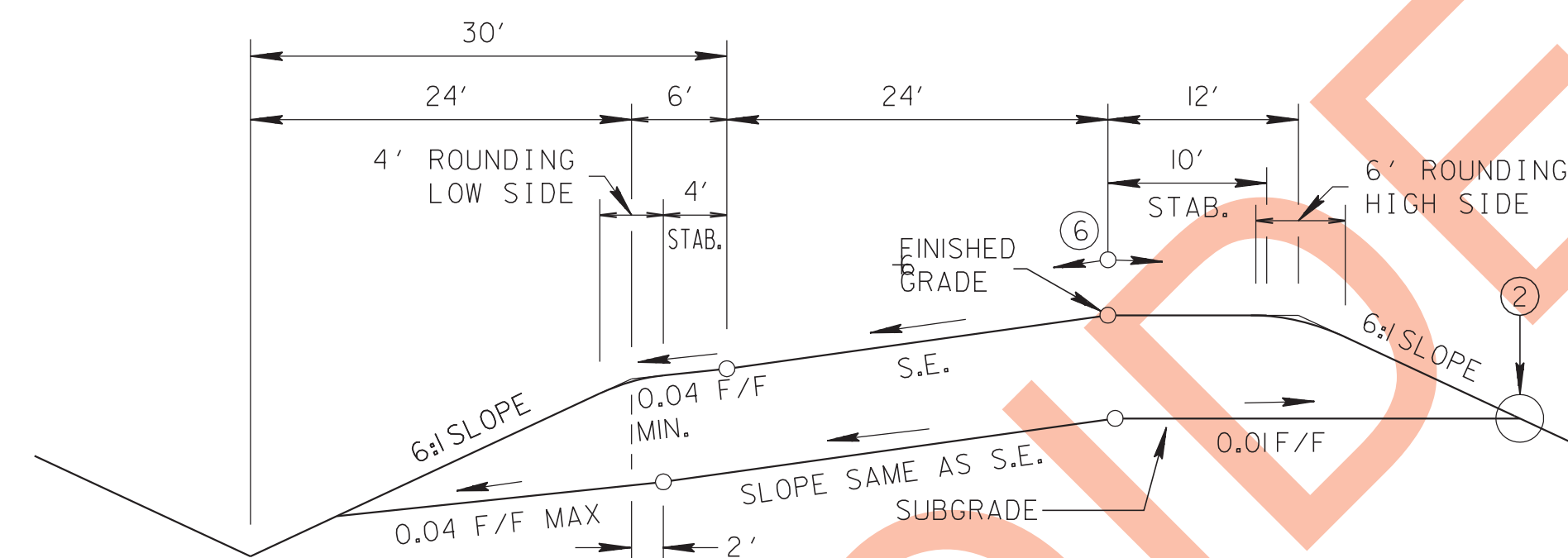


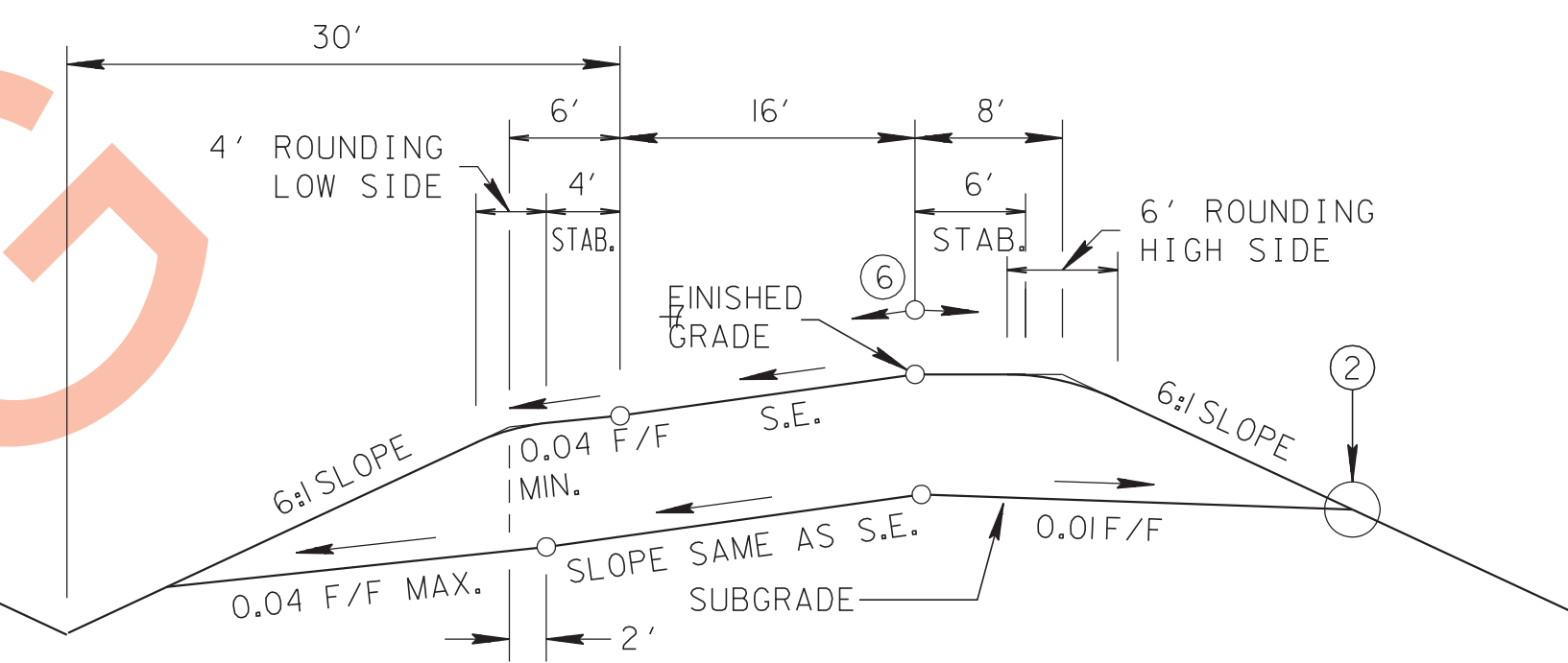
TANGENT SECTION FOR TWO LANE RAMP



TANGENT SECTION FOR ONE LANE RAMP



SUPERELEVATED SECTION FOR TWO LANE RAMP



SUPERELEVATED SECTION FOR ONE LANE RAMP

GUIDE VALUES FOR RAMP DESIGN SPEED AS RELATED TO HIGHWAY DESIGN SPEED (PAGE 960, TABLE X-1)

③ HIGHWAY DESIGN SPEEDS, MPH	30	40	50	60	65	70
RAMP DESIGN SPEED, MPH						
UPPER RANGE (85%)	25	35	45	50	55	60
MIDDLE RANGE (70%)	20 ⑦	30	35	45	45	50
LOWER RANGE (50%)	15 ⑦	20 ⑦	25	30	30	35
CORRESPONDING MINIMUM RADIUS	SEE STANDARD DRAWINGS RD-SE-2 & RD-SE-3					

⑨ STOPPING SIGHT DISTANCE FOR RAMPS (PAGE 770, TABLES IX-10 & IX-11)

DESIGN SPEEDS, MPH	15	20	25	30	35	40	45	50	55	60	65	70
MINIMUM, FEET	75	125	150	200	225	275	325	400	450	525	550	625
DESIRABLE, FEET	75	125	150	200	250	325	400	475	550	650	725	850

- GENERAL NOTES**
- (A) FOR SPECIFIC CONDITIONS NOT COVERED ON THIS SHEET, REFERENCE SHOULD BE MADE TO "A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS" 1990.
 - (B) PAGE NUMBERS REFERRED TO ON THIS DRAWING ARE FROM THE ABOVE REFERENCE.
 - (C) REFERENCE SHOULD ALSO BE MADE TO THE AASHTO "ROADSIDE DESIGN GUIDE".

- FOOTNOTES**
- ① SEE GUARDRAIL STANDARD DRAWINGS FOR TYPICAL GUARDRAIL PLACEMENT.
 - ② SEE DETAIL A, B, C, OR D ON THIS SHEET FOR ROUNDING.
 - ③ THE HIGHER HIGHWAY DESIGN SPEED SHOULD BE THE CONTROL.
 - ④ SEE STANDARD DRAWING RD-S-11 FOR FILL AND CUT SLOPE TABLES, ROUNDING ON TOP OF CUT SLOPES AND TOE OF FILL SLOPES, AND SPECIAL ROCK CUT TREATMENT.
 - ⑤ SEE STANDARD DRAWING RD-S-11A FOR ROUNDING OF ROADSIDE DITCH SLOPES.
 - ⑥ THE SLOPES OF THE SHOULDER AND ROADWAY PAVEMENT SHALL NOT EXCEED AN ALGEBRAIC DIFFERENCE OF 0.07 FOOT PER FOOT.
 - ⑦ LOOP DESIGN SPEED SHOULD NOT BE LESS THAN 25 MILES PER HOUR (150 FOOT RADIUS).
 - ⑧ DOES NOT PERTAIN TO THE RAMP TERMINALS WHICH SHOULD BE PROPERLY TRANSITIONED AND PROVIDED WITH SPEED CHANGE FACILITIES ADEQUATE FOR THE HIGHWAY SPEED INVOLVED.
 - ⑨ THE SIGHT DISTANCE ON A FREEWAY PRECEDING THE APPROACH NOSE OF AN EXIT RAMP SHOULD EXCEED THE MINIMUM FOR THE THROUGH TRAFFIC DESIGN SPEED DESIRABLY BY 25 PERCENT OR MORE.

SPECIAL NOTE
THIS DRAWING IS NOT TO BE UTILIZED FOR NEW DESIGN PROJECTS BEGUN AFTER OCTOBER 1, 2002.

LENGTHS OF CIRCULAR ARC FOR COMPOUND CURVES ON RAMPS WHEN FOLLOWED BY A CURVE OF ONE-HALF THE RADIUS OR PRECEDED BY A CURVE OF DOUBLE THE RADIUS (PAGE 201, TABLE III-19)

RADIUS, FEET	100	150	200	250	300	400	500 OR MORE
LENGTH OF CIRCULAR ARC							
MINIMUM, FEET	40	50	60	80	100	120	140
DESIRABLE, FEET	60	70	90	120	140	180	200

MINOR REVISION -- FHWA APPROVAL NOT REQUIRED.