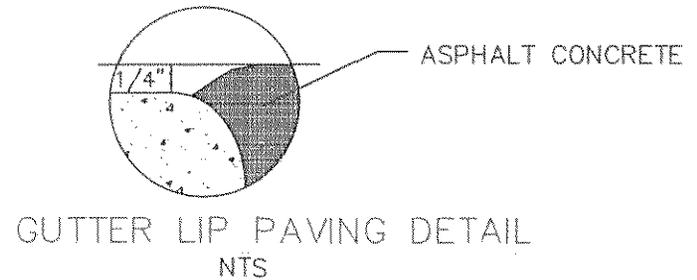
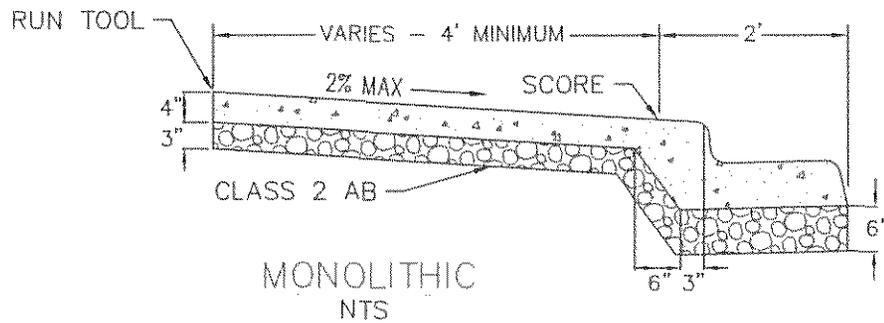
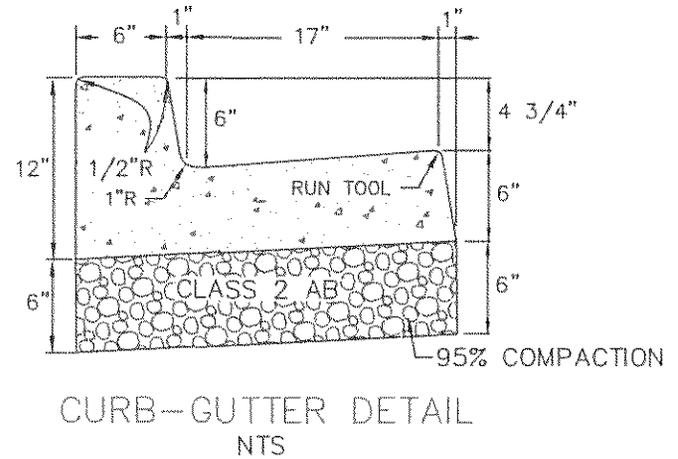


SEE CURB-GUTTER DETAIL  
FOR DIMENSIONS



NOTES:

SEE DETAIL C-9 GENERAL NOTES FOR CURB, GUTTER AND SIDEWALK.



CITY OF SAN RAMON

DETAIL C-1

DRAWN BY: ELR

CHECKED BY: ENGINEERING

DATE: December 2017

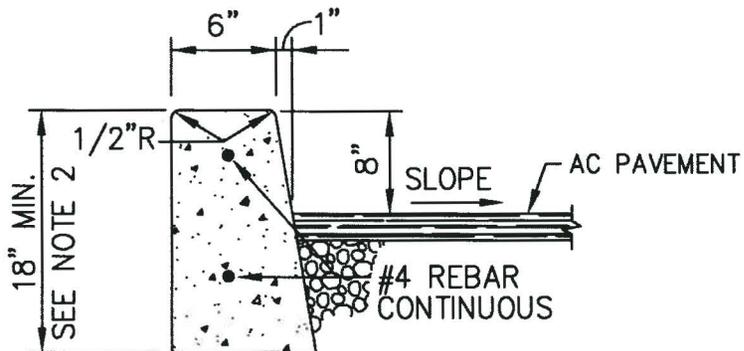
STANDARD DETAIL

CURB, GUTTER & SIDEWALK

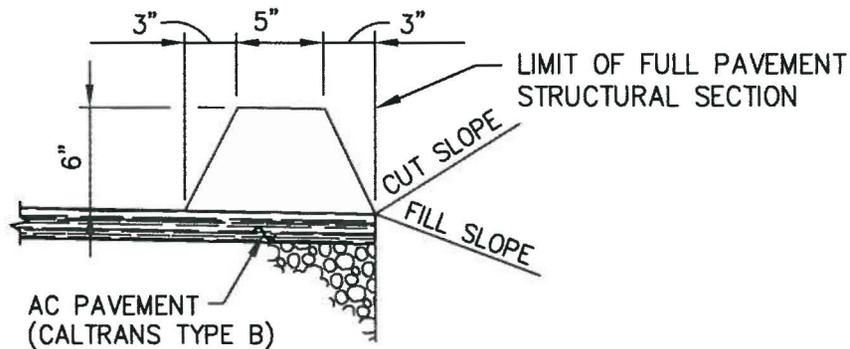
APPROVED BY: DATE: 12-18-17

*Bair R. Brantner*  
CITY ENGINEER

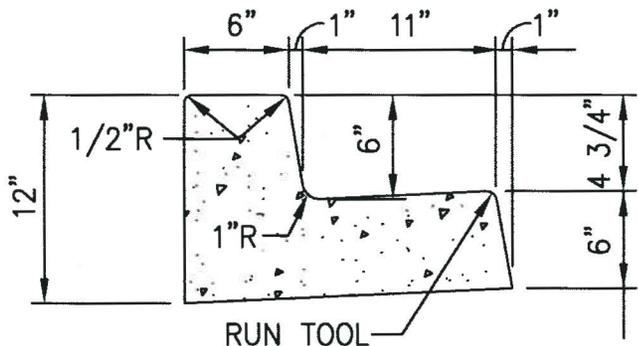
SHT 1 of 1



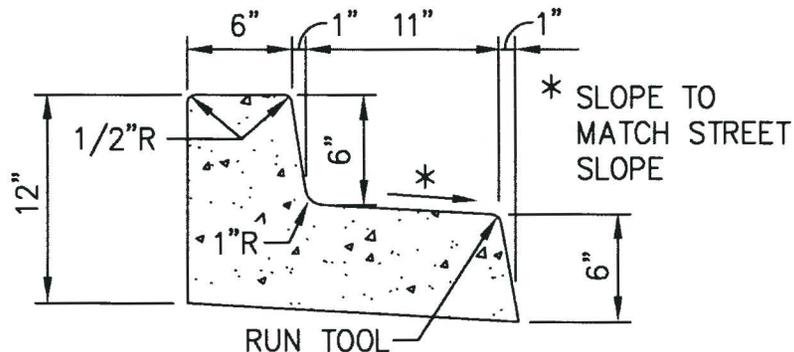
TYPE C-1  
NTS



AC DIKE  
NTS



TYPE C-3 CATCH  
NTS



TYPE C-3 SPILL  
NTS

NOTES:

1. SEE DETAIL C-9 GENERAL NOTES FOR CURB, GUTTER AND SIDEWALK.
2. TYPE C-1 CURB TO EXTEND 3" BELOW BOTTOM OF ROADWAY STRUCTURAL SECTION.



CITY OF SAN RAMON

DETAIL C-2

DRAWN BY: ELR

CHECKED BY: ENGINEERING

DATE: 05/20/11

STANDARD DETAIL

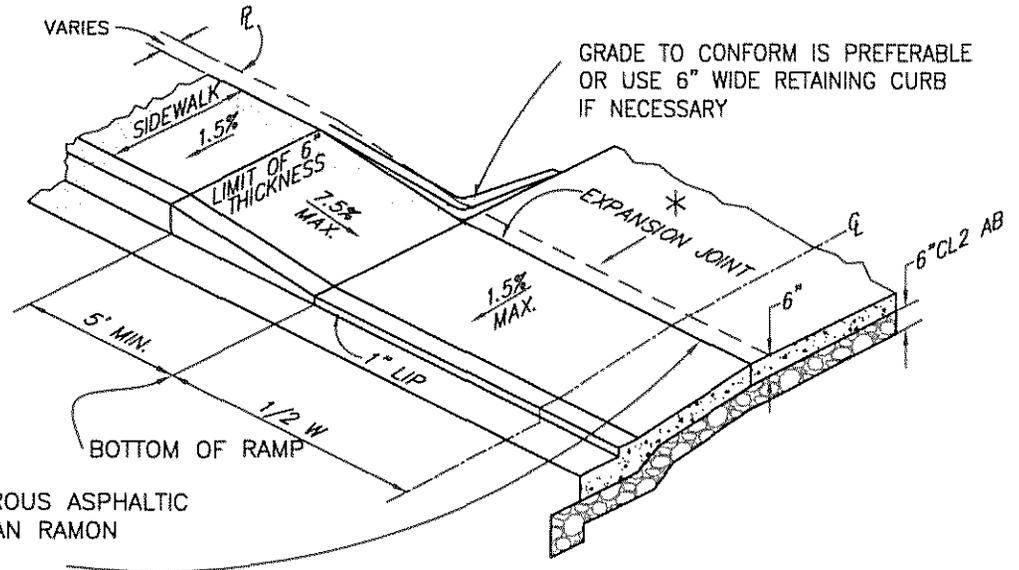
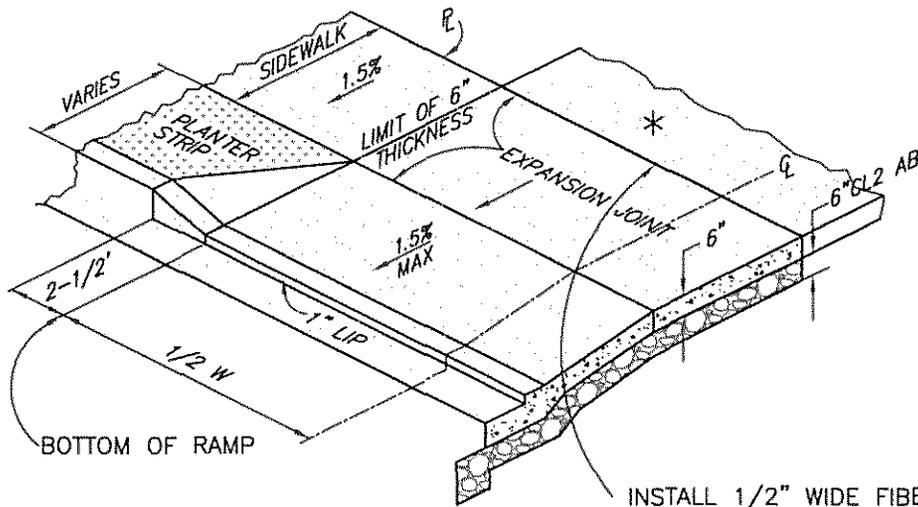
MEDIAN CURBS / AC DIKE

APPROVED BY: DATE: 6/1/11  
*Brian R. Bartsch*  
CITY ENGINEER

SHT 1 of 1

\* = GRADE TO MATCH EXISTING SLOPE OF DRIVEWAY BEHIND SIDEWALK AND SHALL NOT EXCEED 10% WITHOUT APPROVAL BY CITY.

W = 12'-0" MINIMUM  
24'-0" MAXIMUM (SEE NOTE 3)



DRIVEWAY WITH SEPARATE SIDEWALK

DETAIL A - N.T.S.

DRIVEWAY WITH MONOLITHIC SIDEWALK

DETAIL B - N.T.S.

NOTES FOR DETAILS A & B:

1. SEE DETAIL C-9 GENERAL NOTES FOR CURB, GUTTER AND SIDEWALK.
2. ALL DRIVEWAY WIDTHS SUBJECT TO THE APPROVAL OF THE CITY ENGINEER. RESIDENTIAL UNITS SHALL HAVE A MAXIMUM OF WIDTH (W) OF 24 FEET FOR TWO CAR GARAGES 36 FEET FOR THREE CAR GARAGES PER ZONING ORD. D3-37.A.1.d(2).
3. THE TOTAL WIDTH OF ALL DRIVEWAYS (MEASURED AT THE TOP OF CURB BETWEEN OUTSIDE EDGES) SHALL NOT EXCEED 50% OF THE LOT FRONTAGE, UNLESS APPROVED BY THE CITY ENGINEER.
4. EXPANSION JOINTS SHALL BE INSTALLED AT THE CENTER OF ALL DRIVEWAYS WHEN W=20' OR MORE.
5. REINFORCEMENT SHALL BE 6"x6"x10" GA. WELDED WIRE MESH SET ON DOBIE BLOCKS IN LOWER THIRD OF CONCRETE, OR APPROVED EQUAL.
6. SECOND DRIVEWAYS ARE NOT ALLOWED UNLESS APPROVED BY THE PLANNING AND ENGINEERING DEPARTMENTS, WITH THE EXCEPTION OF AN ACCESSORY UNIT PER ZONING ORD. D3-37-A1.c.



CITY OF SAN RAMON

DETAIL C-3

DRAWN BY: ELR

CHECKED BY: ENGINEERING

DATE: December 2017

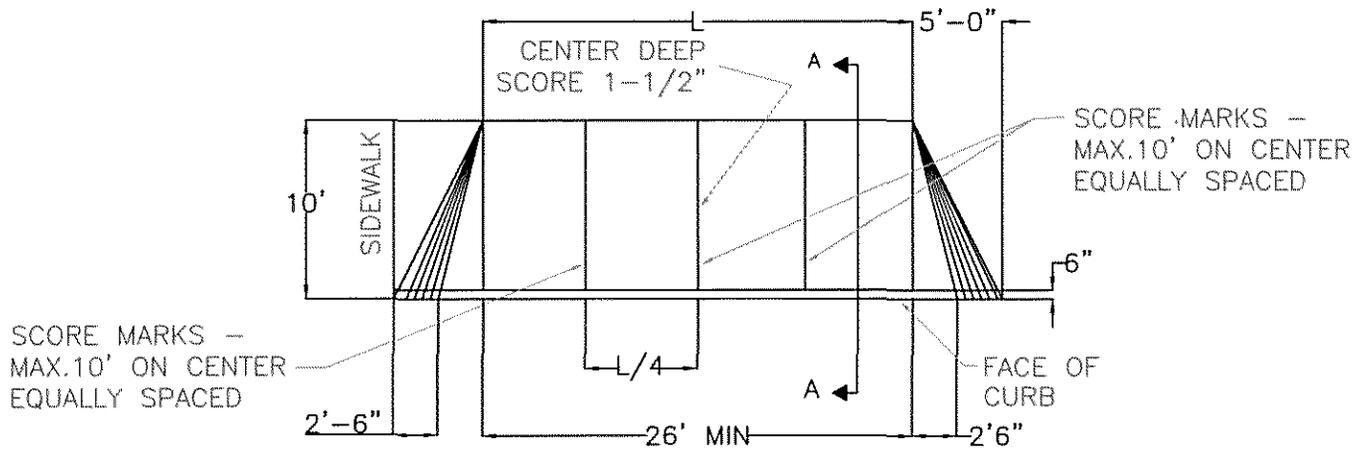
STANDARD DETAIL

NEW RESIDENTIAL  
DRIVEWAY APPROACH

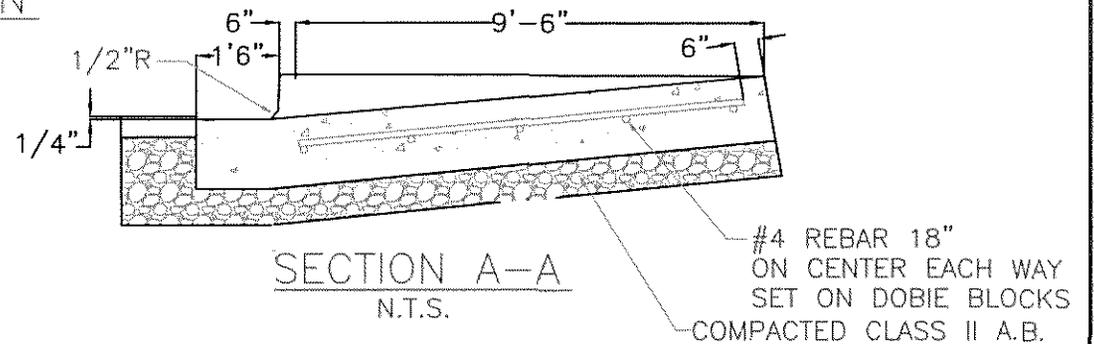
APPROVED BY: DATE: 12-22-17

*R. R. Banta*  
CITY ENGINEER

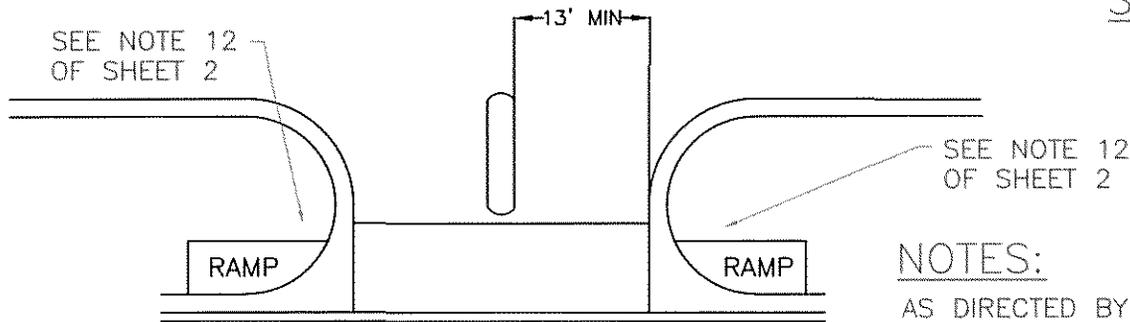
SHT 1 of 1



STANDARD DRIVEWAY PLAN  
N.T.S.



SECTION A-A  
N.T.S.



CURB RETURN DRIVEWAY  
N.T.S.

NOTES:

AS DIRECTED BY THE CITY ENGINEER, IN MANY CASES A CUSTOMIZED DRIVEWAY WILL BE REQUIRED TO ENSURE ADA COMPLIANCE, AND LAND USE COMPATIBILITY OR FIRE DISTRICT ACCESS REQUIREMENTS WITH TYPE OF DRIVEWAY.



CITY OF SAN RAMON

DETAIL C-4a

DRAWN BY: ELR

CHECKED BY: ENGINEERING

DATE: December 2017

STANDARD DETAIL

COMMERCIAL DRIVEWAY

APPROVED BY: DATE: 12-18-17

*Bruce Baunite*  
CITY ENGINEER

SHT 1 of 2

NOTES:

1. SEE DETAIL C-9 GENERAL NOTES FOR CURB, GUTTER AND SIDEWALK.
2. AN ENTRANCE TO A PARKING AREA ACCOMMODATING MORE THAN 25 AUTOMOBILES SHALL INCLUDE A MEDIAN STRIP.
3. DRIVEWAYS SERVING THE SAME PARKING AREA SHALL BE AT LEAST 25 FEET APART FROM NEAREST EDGE TO NEAREST EDGE.
4. DRIVEWAYS SHALL BE 8 INCHES THICK ON 6 INCHES CLASS 2 BASE MATERIAL WITH #4 REBAR, SET ON DOBIE BLOCKS, 18 INCHES ON CENTER EACH WAY.
5. ALL DRIVEWAY WIDTHS SUBJECT TO THE APPROVAL OF THE CITY ENGINEER.
6. L= LENGTH OF DRIVEWAY.
7. THE REQUIRED STRUCTURAL SECTION FOR ANY DRIVEWAY SHALL BE CONTINUOUS FROM THE CURB TO THE BACK OF THE SIDEWALK.
8. THE TOTAL WIDTH OF ALL DRIVEWAYS (MEASURED AT THE TOP OF THE CURB BETWEEN OUTSIDE EDGES) SHALL NOT EXCEED 50% OF THE LOT FRONTAGE, UNLESS APPROVED BY THE CITY ENGINEER.
9. AGGREGATE BASE UNDER DRIVEWAYS SHALL BE COMPACTED TO 95% RELATIVE COMPACTION.
10. IF DRIVEWAY SERVES MORE THAN ONE LOT, MAXIMUM DRIVEWAY GRADE IS 15%, EXCEPT ACCROSS SIDEWALKS WHICH SHALL BE 2% MAXIMUM. ADDITIONAL DRIVEWAY LENGTH MUST BE PROVIDED TO ACCOMMODATE THE EXCESS GRADE BREAK. FOR GRADE BREAK CHART SEE STD C-3.
11. CAR DIMENSIONS WERE OBTAINED FROM THE 1991 EDITION OF "PARKING DIMENSIONS", MOTOR VEHICLE MANUFACTURES ASSOCIATION. THIS DESIGN AND CONSTRUCTION AID IS BASED ON THE MOST UNFAVORABLE DIMENSIONS OF CARS LISTED. FOR UNIQUE OR OVERSIZED CARS, A SPECIAL DESIGN IS REQUIRED.
12. IF PAVEMENT CROSS SLOPE EXCEEDS 2.8% THE MODIFIED DRIVEWAY SHALL BE USED WITH THE SLOPE OF THE DRIVEWAY RAMP REDUCED SO THAT THE DIFFERENCE IN SLOPE OF THE DRIVEWAY RAMP AND THE SLOPE OF A LINE BETWEEN THE GUTTER AND A POINT ON THE ROADWAY 5 FEET FROM GUTTER LINE SHALL NOT EXCEED 15%. REDUCE DRIVEWAY RAMP SLOPE, NOT THE GUTTER SLOPE. OTHER DIMENSIONS SHALL BE MODIFIED AS APPROVED BY THE ENGINEERING DIVISION.
13. FOR ALL CURB RETURN DRIVEWAYS MUST PROVIDE ADA CURB RAMP FOR ACCESSIBILITY PER CITY STANDARDS.



CITY OF SAN RAMON

DETAIL C-4b

DRAWN BY: ELR

CHECKED BY: ENGINEERING

DATE: December 2017

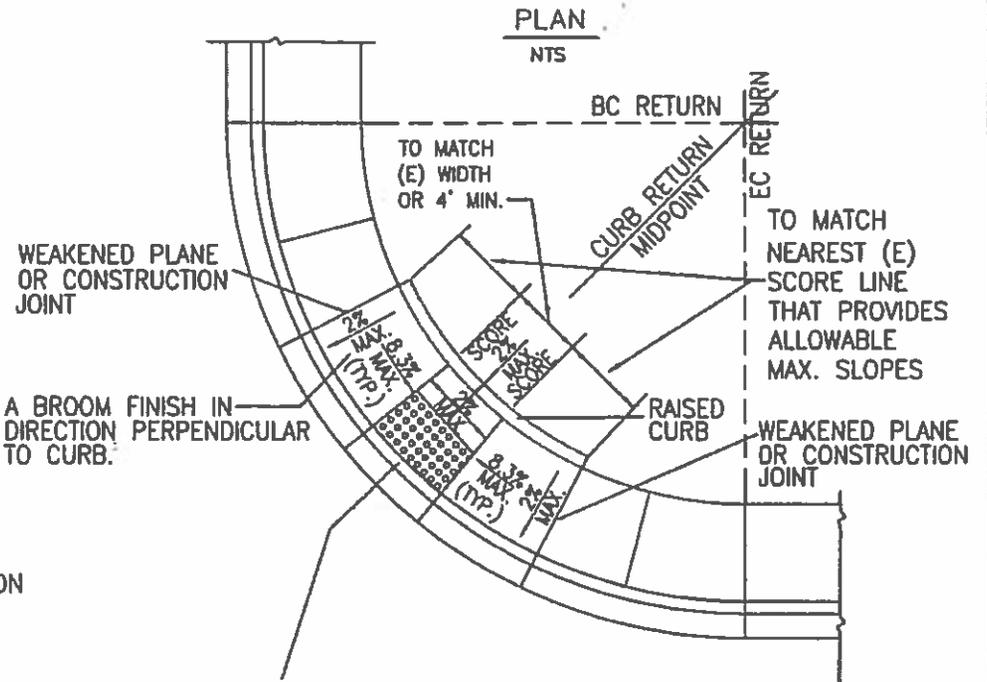
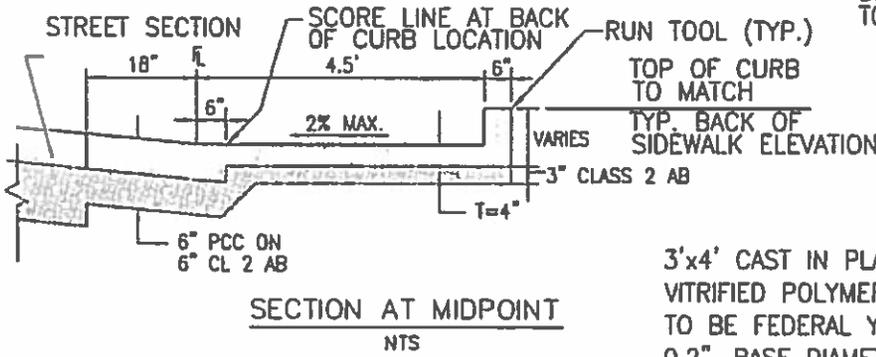
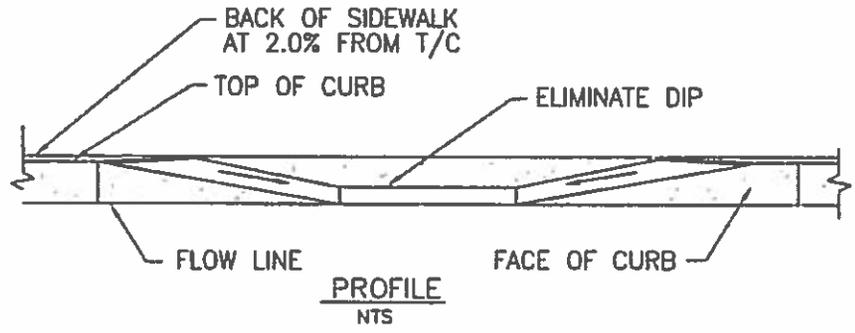
STANDARD DETAIL

COMMERCIAL DRIVEWAY

APPROVED BY: DATE: 12-18-17

*B. R. Barate*  
CITY ENGINEER

SHT 2 of 2

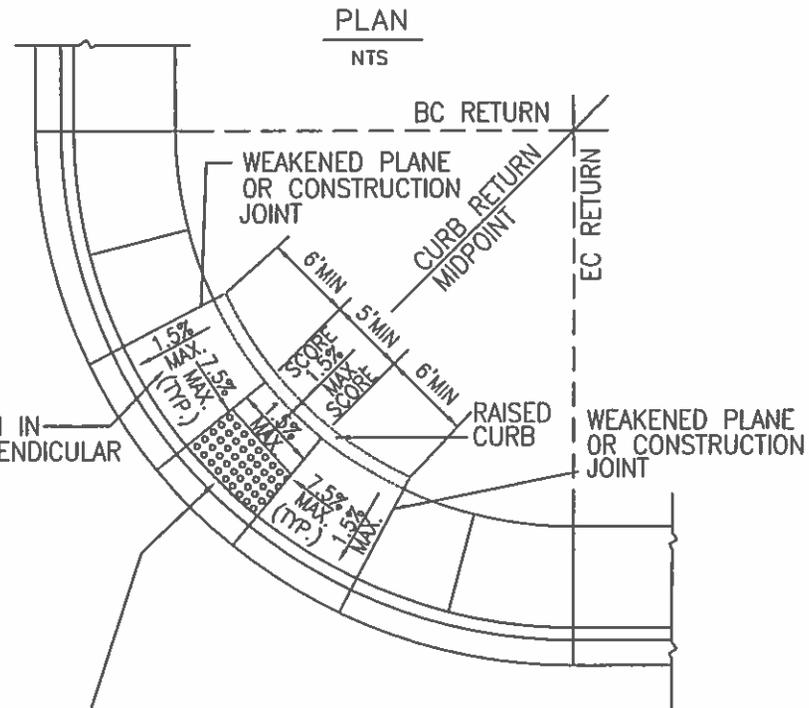
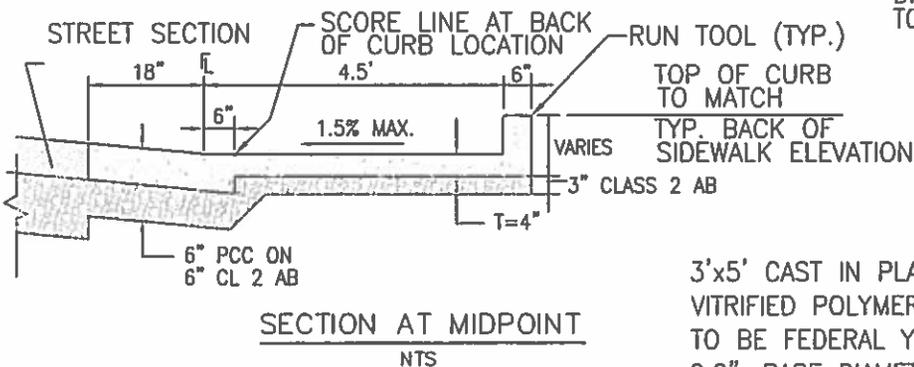
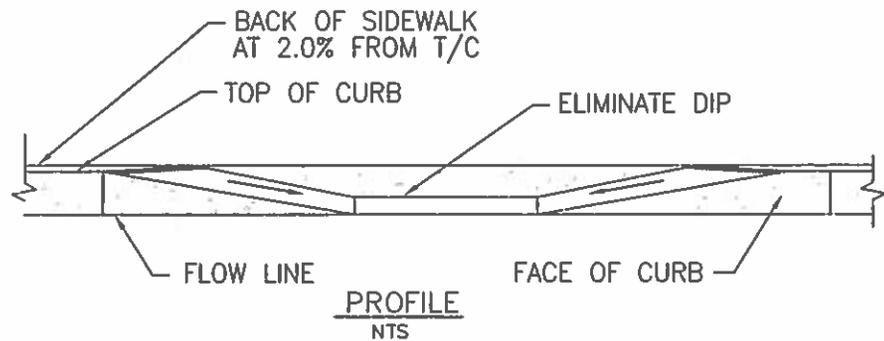


3'x4' CAST IN PLACE PREFABRICATED DETECTABLE WARNING SURFACE, COMPOSED OF A VITRIFIED POLYMER INCLUDING ALUMINUM OXIDE ("ARMOR-TILE" OR APPROVED EQUAL) COLOR TO BE FEDERAL YELLOW. DOMES TO BE 'IN-LINE' PARALLEL TO CURBING, WITH A HEIGHT OF 0.2", BASE DIAMETER OF 0.9" AND TOP DIAMETER OF 0.45", SPACED 1.66" O.C. (2.35" O.C. ON THE DIAGONAL). FIELD SURFACE AND TOP DOMES TO HAVE A DOTTED TEXTURE FOR SLIP RESISTANCE. DENSITY OF DOTS IN FIELD AREA TO BE 30 PER SQUARE INCH MINIMUM. FOR MORE DETAIL, SEE SHEET 3 OF DETAIL C-5c.

**NOTES:**

1. THE SURFACE OF EACH CURB RAMP AND ITS FLARED SIDES SHALL BE SLIP RESISTANT AND SHALL BE OF A CONTRASTING FINISH FROM THAT OF THE ADJACENT SIDEWALK.
2. SEE NOTES 8, 9, AND 11 IN DETAIL C-9 GENERAL NOTES FOR CURB GUTTER AND SIDEWALK.
3. CURB INLET GUTTER DEPRESSION SHALL NOT ENCROACH UPON RAMP DEPRESSION AND SHALL BE LOCATED UPSTREAM OF THE CURB RAMP WHERE POSSIBLE.

	CITY OF SAN RAMON	DRAWN BY: ELR	<b>STANDARD DETAIL</b> CURB RAMP DETAIL FOR EXISTING STREETS (CURB RAMP RETROFIT)	APPROVED BY: DATE: 12-10-19
	DETAIL C-5a	CHECKED BY: ENGINEERING		 CITY ENGINEER
		DATE: December 2019		SHT 1 of 3



A BROOM FINISH IN DIRECTION PERPENDICULAR TO CURB.

3'x5' CAST IN PLACE PREFABRICATED DETECTABLE WARNING SURFACE, COMPOSED OF A VITRIFIED POLYMER INCLUDING ALUMINUM OXIDE ("ARMOR-TILE" OR APPROVED EQUAL) COLOR TO BE FEDERAL YELLOW. DOMES TO BE 'IN-LINE' PARALLEL TO CURBING, WITH A HEIGHT OF 0.2", BASE DIAMETER OF 0.9" AND TOP DIAMETER OF 0.45", SPACED 1.66" O.C. (2.35" O.C. ON THE DIAGONAL). FIELD SURFACE AND TOP DOMES TO HAVE A DOTTED TEXTURE FOR SLIP RESISTANCE. DENSITY OF DOTS IN FIELD AREA TO BE 30 PER SQUARE INCH MINIMUM. FOR MORE DETAIL, SEE SHEET 3 OF DETAIL C-5c.

NOTES:

1. THE SURFACE OF EACH CURB RAMP AND ITS FLARED SIDES SHALL BE SLIP RESISTANT AND SHALL BE OF A CONTRASTING FINISH FROM THAT OF THE ADJACENT SIDEWALK.
2. SEE NOTES 8, 9, AND 11 IN DETAIL C-9 GENERAL NOTES FOR CURB GUTTER AND SIDEWALK.
3. CURB INLET GUTTER DEPRESSION SHALL NOT ENCROACH UPON RAMP DEPRESSION AND SHALL BE LOCATED UPSTREAM OF THE CURB RAMP WHERE POSSIBLE.
4. THIS DETAIL ALSO APPLIES TO NEW DEVELOPMENT ON AN EXISTING STREET; UNLESS APPROVED OTHERWISE BY CITY ENGINEER.
5. IF CONFLICT WITH THIS DETAIL, STATE SPECIFICATION SHALL GOVERN AND MUST COMPLY WITH THE MOST CURRENT CALTRANS STANDARD DETAILS.



CITY OF SAN RAMON

DETAIL C-5b

DRAWN BY: ELR

CHECKED BY: ENGINEERING

DATE: December 2019

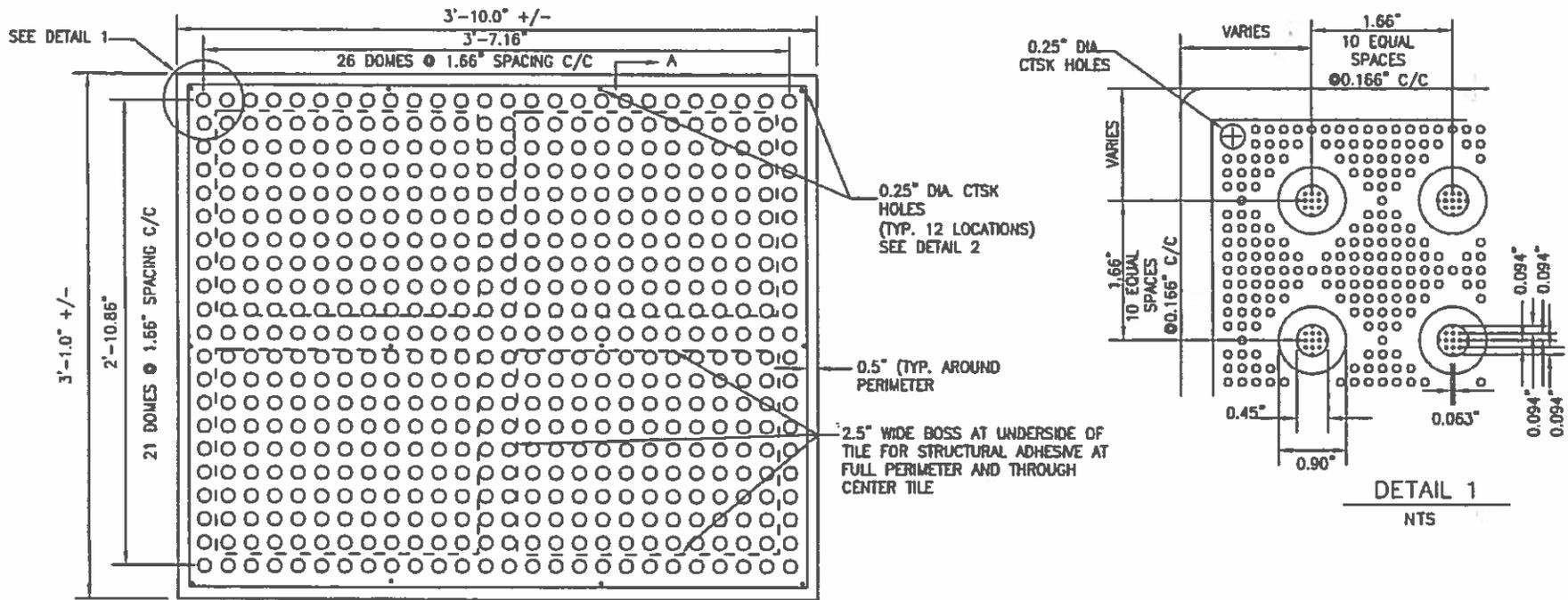
STANDARD DETAIL

CURB RAMP DETAIL  
FOR NEW STREETS

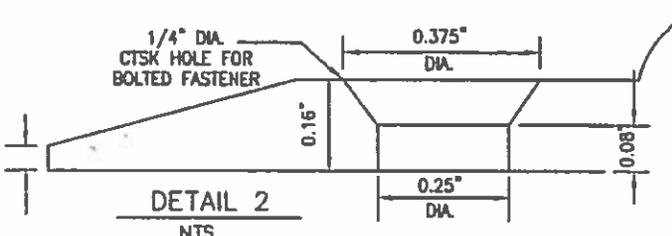
APPROVED BY: DATE: 12-10-19

*Brian Banta*  
CITY ENGINEER

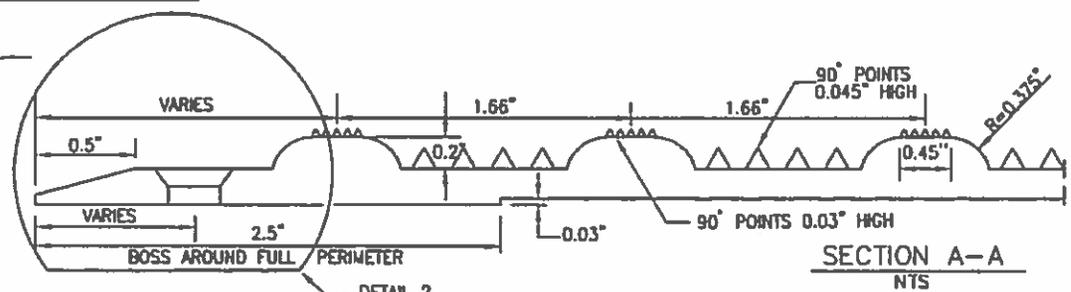
SHT 2 of 3



PLAN - TILE  
NTS



DETAIL 2  
NTS



SECTION A-A  
NTS

NOTES:

1. SURFACE MOUNTED TILE DETAILS SHOWN. DETAILS ARE APPLICABLE TO TILE SURFACE SECTION ONLY. CAST-IN-PLACE TILE UNIT DESIGN AND DETAILS TO BE APPROVED BY THE CITY ENGINEER. TILE MATERIAL, FASTENERS, AND ADHESIVE TO BE APPROVED BY THE CITY ENGINEER.
2. FOR RETROFIT APPLICATIONS ONLY, OR WHERE PERMITTED BY THE CITY ENGINEER, SURFACE APPLIED TILES ARE PERMITTED. PRODUCT TO BE AS MANUFACTURED BY ENGINEERED PLASTICS INC./ARMOR-TILE OR EQUAL (SEE DETAILS). TILE MATERIAL, FASTENERS AND ADHESIVE TO BE APPROVED BY THE CITY ENGINEER.
3. THE DETECTABLE WARNING TILES SHALL BE THE FOLLOWING COLOR: USE FEDERAL YELLOW COLOR.



CITY OF SAN RAMON

DETAIL C-5c

DRAWN BY: ELR

CHECKED BY: ENGINEERING

DATE: December 2019

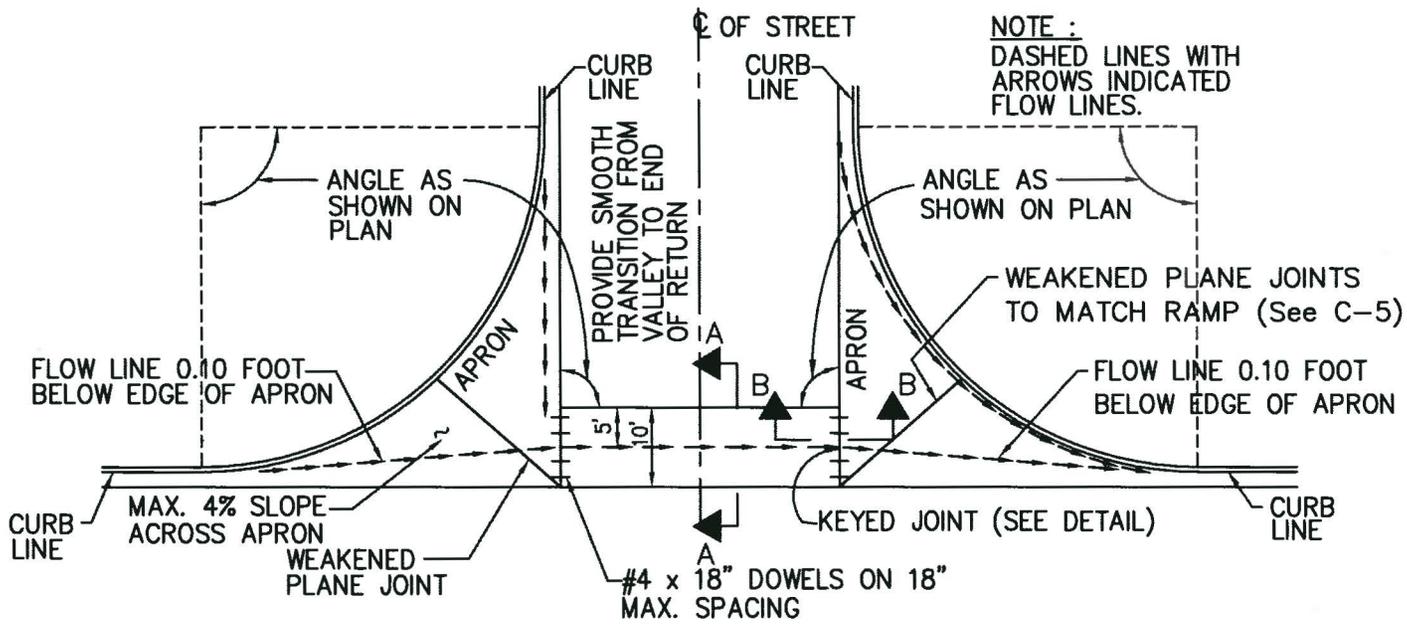
STANDARD DETAIL

CURB RAMP  
(CURB RETURN)

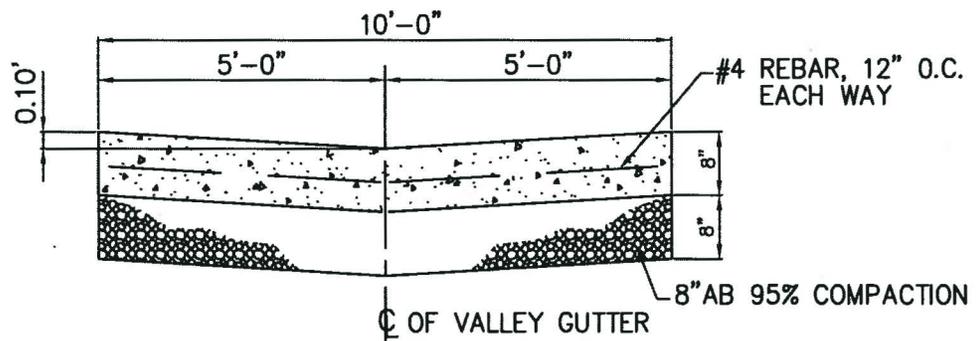
APPROVED BY: DATE: 12-10-19

*Ben R. Bortz*  
CITY ENGINEER

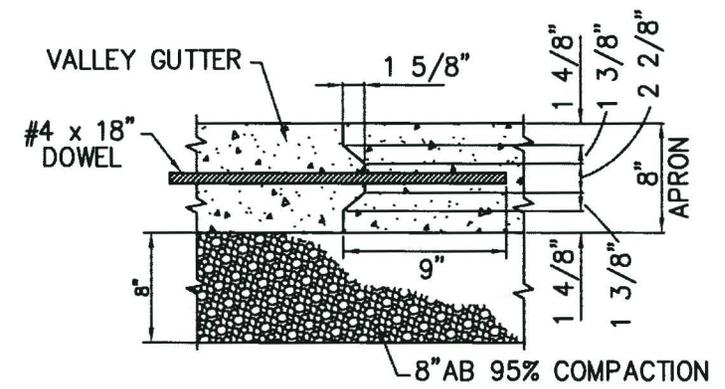
SHT 3 of 3



PLAN VIEW OF VALLEY GUTTER AND APRON  
N.T.S.



SECTION A-A  
N.T.S.



SECTION B-B  
N.T.S.

NOTE:

1. VALLEY GUTTER AND APRON TO BE CONSTRUCTED ON A MINIMUM OF 8" OF CLASS 2 AGGREGATE BASE ROCK, COMPACTED TO 95% RELATIVE COMPACTION.



CITY OF SAN RAMON

DETAIL C-6

DRAWN BY: ELR

CHECKED BY: ENGINEERING

DATE: 05/20/11

STANDARD DETAIL

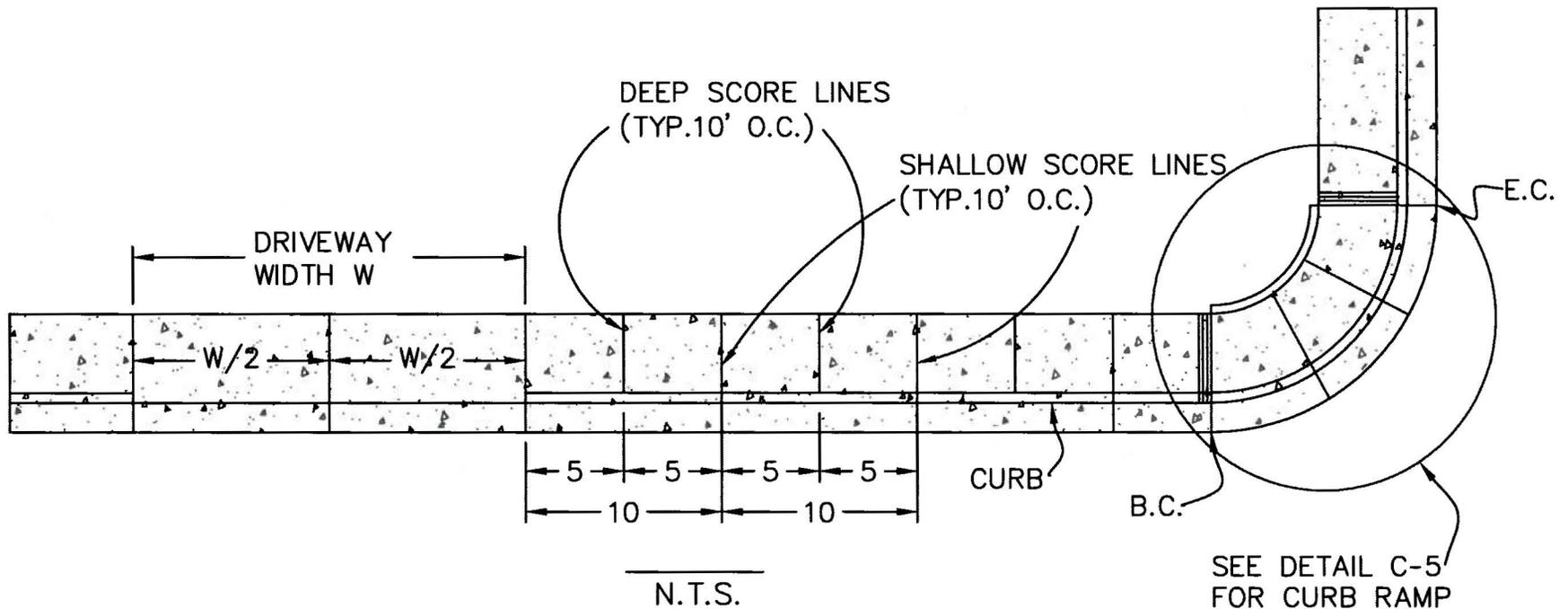
VALLEY GUTTER AND APRON

APPROVED BY: DATE: 6/1/11

*Brian R. Boudreau*

CITY ENGINEER

SHT 1 of 1



NOTES:

1. WEAKENED PLANE JOINTS SHALL BE EVERY 10 FEET AND SHALL EXTEND THROUGH SIDEWALK AND CURB & GUTTER. WIDTH SHALL BE 1/4" AND DEPTH SHALL BE 1" MINIMUM.
2. DEEP TOOL SCORE LINES 1" MIN. EVERY 10'. SIDEWALK SHALL HAVE A 1/4" X 1/4" SHALLOW SCORE MARK 5' O.C. FROM THE DEEP SCORE MARK, EXCEPT WHEN ADJACENT TO EXISTING DRIVEWAY OR SIDEWALK, IN WHICH CASE THEY SHALL CORRESPOND TO THE EXISTING LINES. LONGITUDINAL SCORE LINES WILL BE REQUIRED IN SIDEWALK 9 FEET OR MORE IN WIDTH, AT THE CENTER OF WALK, OR MATCH EXISTING.



CITY OF SAN RAMON

DETAIL C-7

DRAWN BY: ELR

CHECKED BY: ENGINEERING

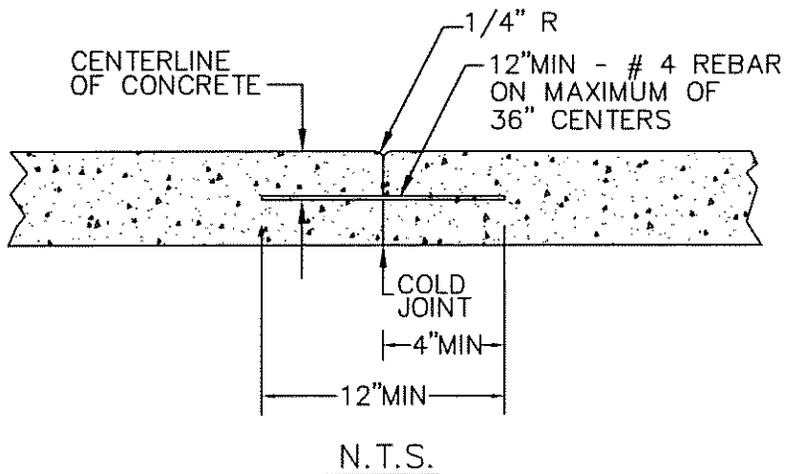
DATE: 05/20/11

STANDARD DETAIL

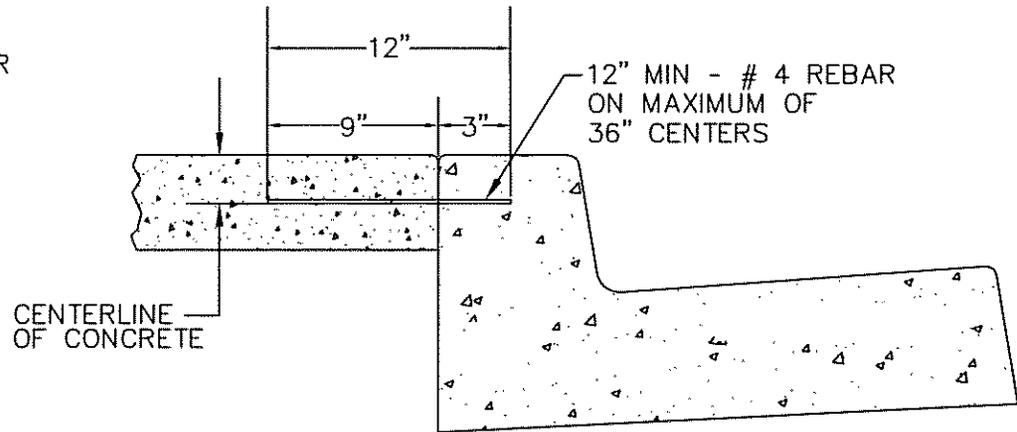
WEAKENED PLANE JOINTS  
AND SCORE LINES

APPROVED BY: DATE: 6/1/11  
*Primo R. Bernstein*  
CITY ENGINEER

SHT 1 of 1



N.T.S.



N.T.S.

### NEW TO EXISTING CONCRETE CONSTRUCTION JOINTS

#### NOTES:

1. SEE DETAIL C-9 FOR GENERAL NOTES FOR CURB, GUTTER AND SIDEWALK.
2. ALL CONCRETE DEMOLITION SHALL OCCUR AT WEAKENED PLANE JOINTS, WHICH SHALL BE SAWCUT TO A MINIMUM DEPTH OF 3", ADJACENT TO UNDAMAGED SIDEWALK OR CURB AND GUTTER.
3. TIE BARS SHALL BE REQUIRED WHENEVER NEW CONCRETE IS Poured AGAINST EXISTING CONCRETE EXCEPT THAT PRIVATELY-OWNED CONCRETE WORK (e.g., DRIVEWAY) SHALL NOT BE TIED INTO PUBLIC-OWNED CONCRETE (e.g., SIDEWALK).
4. ALL CONSTRUCTION JOINTS SHALL HAVE A MINIMUM OF 2 TIE BARS.



CITY OF SAN RAMON

DETAIL C-8a

DRAWN BY: ELR

CHECKED BY: ENGINEERING

DATE: December 2017

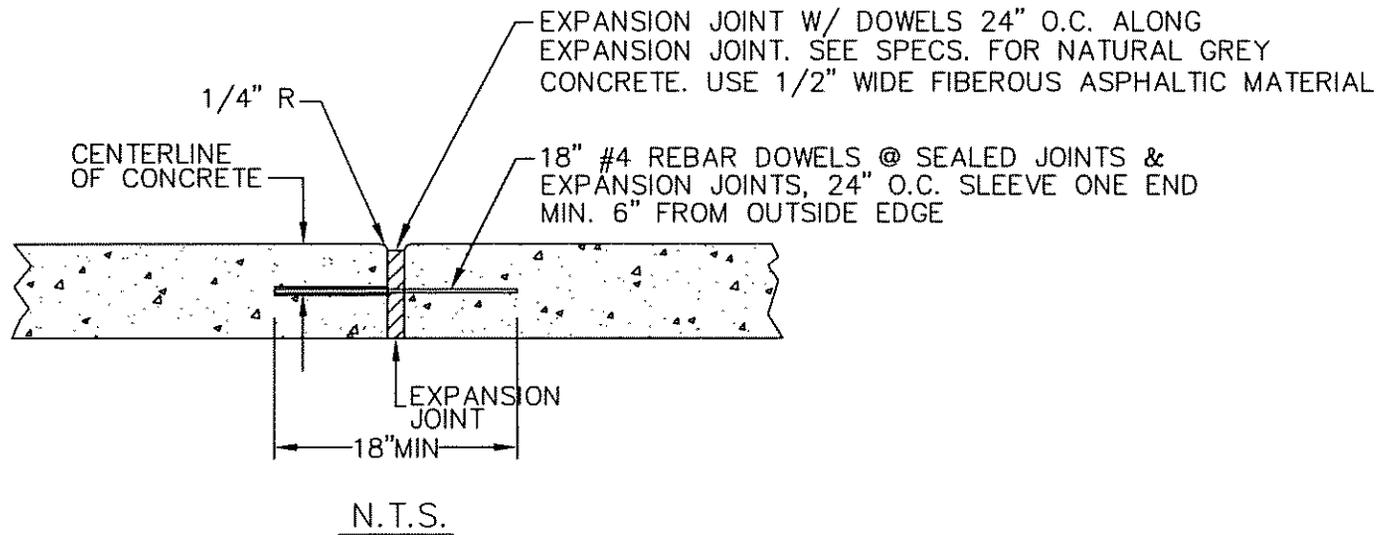
STANDARD DETAIL

CONSTRUCTION JOINTS

APPROVED BY: DATE: 12-18-17

*Ben R. Banta*  
CITY ENGINEER

SHT 1 of 2



NOTES:

1. SEE DETAIL C-9 FOR GENERAL NOTES FOR CURB, GUTTER AND SIDEWALK.
2. ALL CONCRETE DEMOLITION SHALL OCCUR AT WEAKENED PLANE JOINTS, WHICH SHALL BE SAWCUT TO A MINIMUM DEPTH OF 3", ADJACENT TO UNDAMAGED SIDEWALK OR CURB AND GUTTER.
3. TIE DOWELS SHALL BE REQUIRED WHENEVER NEW CONCRETE IS Poured AGAINST EXISTING CONCRETE EXCEPT THAT PRIVATELY-OWNED CONCRETE WORK (e.g., DRIVEWAY) SHALL NOT BE TIED INTO PUBLIC-OWNED CONCRETE (e.g., SIDEWALK).
4. ALL CONSTRUCTION JOINTS SHALL HAVE A MINIMUM OF 2 DOWELS.



CITY OF SAN RAMON

DETAIL C-8b

DRAWN BY: ELR

CHECKED BY: ENGINEERING

DATE: December 2017

STANDARD DETAIL

EXPANSION JOINTS

APPROVED BY: DATE: 12-18-17

*B. N. Burt*  
CITY ENGINEER

SHT 2 of 2

1. Concrete shall be CSR 6-sack concrete mix and shall conform to the requirements of current Caltrans Standard Specifications. Aggregate base (AB) shall be Crushed AB per Caltrans.
2. Subgrade and Crushed Aggregate Base shall be compacted to not less than 90% relative compaction, as tested by a City approved lab at contractor's expense, except under valley gutter and driveway approaches, which shall be compacted to 95% RC per ASTM D1557. For replacement of existing curb, gutter and sidewalk AB thickness shall match existing.
3. Expansion joints shall be constructed at the EC and BC of curb returns, at each side of driveways and at 20' nominal intervals. 1/2" bituminous impregnated felt, ASTM 994 shall be installed vertically, shall extend through the full depth and width of the work and be installed perpendicular to the work. Weakened-plane joints, 2" deep for sidewalks, 3" deep for 6" thick driveways, and 4" deep for 8" thick driveways, shall be spaced at 10' nominal intervals, and at each side of curb ramps, mid-points of driveways with curb cuts exceeding 20' and as directed by the City Engineer. All joints shall extend through the curb and gutter.
4. Exposed surfaces of sidewalk, driveway, curb and gutter shall be steel troweled followed by a medium broom finish.
5. Except as shown, all exposed edges, including at expansion joints and weakened-plane joints, shall be tooled to 1/2" radius. Decorative finish see note 18.
6. Sidewalk shall be score marked at per detail nominal intervals each way or to match existing score marks. Monolithic curb, sidewalk and driveway shall have a continuous score mark 6" from curb face.
7. All concrete shall be cured by keeping continuously moist for three days after pouring either by sprinkling, covering with a waterproof membrane, or applying TYPE I concrete curing compound. Decorative finish see note 18.
8. Extruded curb or gutter requires PRIOR approval by the City Engineer. Extruded sidewalks or driveways are prohibited.
9. For existing AC overlaid gutter, flow line of new concrete gutter shall match existing concrete gutter flow line. Curb lip at driveways shall be increased to 1/2" higher than AC overlay. AC overlay shall be reinstated to establish flow line.
10. All gutter lips, sidewalk, curb ramp or driveway edges, or curbing's constructed adjacent to AC, shall be formed, finished and tooled. A 24" wide full depth AC street structural section shall be constructed adjacent to the concrete improvement. The AC shall be saw cut and the AC section shall be a minimum of 6" deep on minor streets, parking lots, pathways, etc., 9" deep on collector streets and 12" on arterial streets. All AC 95% RC SS-1h Tack Coat (paint binder) all hard surfaces (AC, Conc., etc.).
11. All concrete improvements shall be doweled to adjacent concrete improvements using 12" long 10M (#4) rebar dowels (2 dowels min. each side) at 36" OC max. 4" min. embedment, except for expansion joints (see Detail C-8b). Drill for drive tight fit or epoxy in place. Decorative finish see note 18.
12. Dowels shall be installed per Note 11 when planter strips are filled with concrete or when sidewalk is added to the back of the existing walk. Street tree wells shall be provided in accordance with City requirements.
13. All concrete improvements to be removed shall be saw cut along existing scorelines to a minimum depth of 1/2 the thickness of the concrete improvement. No section to be replaced shall be smaller than 4' in either length or width. If the saw cut in sidewalk or driveway would fall within 4' of a construction joint, expansion joint, cold joint, or edge, the concrete shall be removed to the joint or edge, including AB. All saw cut residue shall be vacuumed concurrently with sawing operation.
14. New imported full depth AB shall be placed under all new or replacement curb, gutter, sidewalk and driveway, except as to match existing conditions or as allowed by the City Engineer.
15. The typical City standard curb height is 6" and the typical City gutter width is 18". However, existing curb heights 3" to 9" and gutter widths 12" to 24" shall be matched in kind when directed by the City Engineer.
16. Any acts of vandalism or deformation to finish of the concrete shall be repaired within the first 24 hrs. after placement. Repairs made after 24 hrs. of placement shall consist of complete removal and replacement of the affected area.
17. Suitable native soil backfill shall be flushed with adjacent concrete finish grade along all form voids and planter strips. Reseed as appropriate.
18. Decorative Finish Concrete Paving shall be colored and finished as shown on plans. Existing decorative finishes shall be matched in kind. Expansion joints shall be constructed and sealed as shown. Curing compound/color hardener/wax sealer matching decorative finish shall be used.



CITY OF SAN RAMON

DETAIL C-9

DRAWN BY: ELR

CHECKED BY: ENGINEERING

DATE: December 2017

STANDARD DETAIL

GENERAL CURB, GUTTER  
AND SIDEWALK NOTES

APPROVED BY: DATE: 12-18-17

*[Signature]*  
CITY ENGINEER

SHT 1 of 1