GENERAL SURFACE IMPROVEMENTS

.

		_ <u>SUF</u>	PLEN		O REGIONAL STANDARD DRAWING ("G"	<u>SERIES</u>)
		G	i–12, (DRA' G–13, G	WINGS G–1, G–2, G–3, G–4, G–6, G–7, G–11, –14A, G–14B, G–14C, G–14D, G–28, G–29, G–30), & G-31
NOTES		Al	ll Histo nall be	orical St prese	amps/impressions (Street name, Contractor nai rved per Standard Drawing SDG-115.	me, and⁄or date)
			(DF <u>G–14C,</u>	RAWINGS G–3, G–7, G–11, G–14A, G–14B, G–14D, G–26, G–27, G–28, G–29, G–30, & G–3	31
NOTES		E C	or des olor, te	signated exture)	d urbanized communities, sidewalk design (so to be in conformance with historic design of	coring pattern, n adjacent properties.
				DI <u>G</u> –14	RAWINGS G–3, G–7, G–11, G–14A, G–14B, C, G–14D, G–27, G–28, G–29, G–30, & G–31	
NOTES		S	idewa	lk cros	s slope shall be 1.5%	
NOTES			Ame	end No	<u>DRAWING G-1</u> te 3 to read: "Sidewalk cross slope shall be	1.5%"
NOTES	į		Ame	nd Not	<u>DRAWING G-2</u> e 3 to read: "Cross slope shall be 1.5%"	
			Add:	4.	On the high side of superelevated curves the shall be sloped to match cross-section gradient (see SDDS 105.)	ne gutter de of the
			Add:	5.	Place expansion joints at curb returns, adjac structures and at no greater than forty-five t intervals.	cent to foot(45')
			Add:	6.	Place weekened plane joints at driveways a (15') foot intervals from P. C. R. 's.	nd at fifteen
			r			SHT. 1 OF 3
ORIGINAL	By	Approved N. Y. Rollinger	Date 5-20-92	CITY	OF SAN DIEGO - STANDARD DRAWING	CITY OF SAN DIEGO
NOTES NOTES	SM	G. Parkinson Oskoui	2-07-95 12-09-03		SUPPLEMENTAL TO REGIONAL	Chairperson RCE 64572 Date
					STANDARD DRAWING ("G" SERIES)	DRAWING SDG-100

SUPPLEN	MENT TO REGIONAL STANDARD DRAWING ("G" SERIES) cont.
	DRAWING G-4
NOTES	Add: 4. Sidewalk under drains shall not be allowed.
	DRAWING G-7
NOTES	Add: 3. Sidewalk shall have a minimum clear width of four feet
	(4) from any obstruction.
	DRAWING G-9
NOTES For d	esignated urbanized communities, sidewalk scoring (grooves)
patto	the beam companies with historie design on adjacent properties.
	DRAWING G-12
SECTION A-A	Delete notation, "Base material as shown on plans."
-	DRAWING G-13
CROSS SECTION	Delete notation, "Base material as shown on plans."
	DRAWINGS G-14A, G-14B
PLAN	Add notation at property line, "Place one-quarter inch (1/4")
	Expantion Joint Filler Material."
NOTES	Amend note 4 to read: "Driveway shall be a continuous pour from back of Curb to Property Line."
	Add: 6 Meter boxes shall not be located within driveway - see W-15.
	Add: 7 Driveway in excess of 150 feet in length from curb face shall require minimum of 7 inch P.C.C.
	SHT. 2 OF 3
ORIGINAL M. V. Rollinger 5-2	CITY OF SAN DIEGO - STANDARD DRAWING
NOTES C.Parkinson 2-0	7-95 SUPPLEMENTAL TO REGIONAL
USKUUL KU	

SUPPLEMENT TO REGIONAL STANDARD DRAWING ("G" SERIES) cont. DRAWINGS G-14C, G-14D Meter boxes shall not be located within driveway - see W-15. NOTES Add: 6 DRAWING G-17 NOTES Add: 6. Construction of Alley Apron includes the adjacent sixinch (6") curb. Refer to G-31 for pedestrian ramps. Add: 7. DRAWING G-31 Add: 3. NOTES Where curb height affected by constuction varies, the ramp length (Y) shall be governed by the highest curb height (X). The side slope (Z) shall be governed by the curb height on the respective side. DRAWING G-32 NOTES Add: 7. For Federally funded projects (new constructions and alterations), the lower endof the 48-inch width of the ramp shall be flush and free of abrupt changes between the bottom of the ramp and the street pavement. DRAWINGS G-27, G-28, G-29, G-30, & G-31 Do NOT use tables. NOTES SHT. 3 OF 3 CITY OF SAN DIEGO Revision By Approved Date CITY OF SAN DIEGO - STANDARD DRAWING M. V. Rollinger 5-20-92 ORIGINAL 2-9-03 NOTES G. Porkinson 2-07-95 Chairperson Dote SUPPLEMENTAL TO REGIONAL NOTES SM Oskoui 2.09.03 DRAWING STANDARD DRAWING ("G" SERIES) **SDG-100** NUMBER



Г	الغائلة كالشريب ويتقساهما ف		
		5' MIN 5' MIN 5' MIN 560-C-3250 Concrete (See note 3) 560-C-3250 Concrete (See note 3) 500-C-3250 Concrete (See note 6)	e of ing A.C. Pavement ing base or old crete pavement le elative compaction
	NOTES:		
	1.	Existing A.C. pavement shall be sawcut to a minimum depth of 1–1/2 inches thickness, whichever is greater, except lateral trenches in 2-lane residential streemay be jack-hammerd if approved by the Engineer. In case of an emergence public safety or property, sawcutting is not required.	or 25% of its ets cy endangering
	2.	Prior to placing concrete, paving and base edges shall be trimmed to neat horizontal and vertical lines.	
	3.	Unless otherwise specified, concrete trench cover shall be a minimum of 5–1/2 inches thick for alleys, 7 inches for local through four lane collector streets and 9 inches thick for all major or greater street classifications.	
	4.	Only asphaltic type curing compound shall be used on the concrete trench Pigmentation is not required.	cover.
	5.	A tack coat shall be applied to the existing A.C. pavement and concrete tren to placing the new A.C.	ch cover prior
	6.	Subgrade preparation shall be done in accordance with Section 301-1 of the Standard Specifications for Public Works Construction; latest edition.	
	7.	Any street trench 7 feet in width or greater and longer than 100 feet in overal length shall be reconstructed with the pavement section for the street classification per Schedule "J" (SDG-113). Street trench sections 7 feet in width or greater but less than 100 feet in overall length shall be resurfaced to a thickness of one inch (1") greater than required by note 3 above.	UI
	*	In four-lane major or greater streets, an approved set accelerating admixture such as calcium chloride, shall be used in the concrete.	
R	ORICINAL	Approved Date JPCasey 1-24-89 CITY OF SAN DIEGO - STANDARD DRAWING	CITY OF SAN DIEGO STANDARDS COMMITTEE
F		TRENCH RESURFACING FOR ASPHALT CONCRETE SURFACED STREETS	DRAWING SDG-107
L			

•

•

•

.

•

.

•

(See	* 560-C-3250 Concrete note 3)	sawcut, each side ing concrete pavement relative compaction				
NOTES:						
1.	Removal of the existing concrete pavement for trench excavation shall be done in accordance with Section 300–1.3 of the Standard Specifications for Public Works Construction, latest edition.					
2.	Prior to placing concrete, pavement edges shall be trimmed to neat horizontal and vertical lines.					
3.	Unless otherwise specified, concrete trench cover shall be a minimum of 5–1/2 inches thick for alleys, 7 inches for local through four lane collector streets and 9 inches thick for all major or greater street classifications.					
4.	Subgrade preparation shall be done in accordar the Standard Specifications for Public Works Co	nce with Section 301-1 of Instruction, latest edition.				
5.	Any street trench 7 feet in width or greater and I length shall be reconstructed with the pavement classification per Schedule "J" (SDG-113). Street feet in width or greater but less than 100 feet in be resurfaced to a thickness of one inch (1") gr note 3 above.	onger than 100 feet in section for the street trench sections 7 overall length shall reater than required by				
*	In four-lane major or greater streets, an approved admixture such as calcium chloride, shall be us	d set accelerating ed in the concrete.				
FOR A STREET SURFACED	WITH ASPHALT CONCRETE, SEE STANDARD I	DRAWING SDG-107.				
Revision By Approved Date CITY O	F SAN DIEGO - STANDARD DRAWING	CITY OF SAN DIEGO STANDARDS COMMITTEE				
	TRENCH RESURFACING FOR PCC	COORDINATOR R.C.E. 25902 DATE				
	SURFACED STREETS	DRAWING NUMBER SDG-108				









SCHEDULE "J" PAVEMENT

The following tables are to be used to determine the Schedule "J" pavement design sections for streets, alleys, parking lots for public facilities, driveways, and easements, including public access easements. These designs shall be used in the public right-of-way, or private property in the areas where public easements are granted.

- 1. Resistance values (R-values) will be determined from samples taken in the 12 inches of material located immediately below the first layer of subbase, base or pavement. This 12 inch section shall represent the top 36 inches of uniform soils below the subbase, or pavement. If a lower bearing soil is encountered in this 36-inch section, the R-value will be determined from the lowest bearing soil. Determination of the R-value shall be in accordance with CalTrans test methods 301-F and 301-G.
- 2. Average daily traffic (ADT) is the maximum average annual ADT expected at buildout. Function shall also be considered when determining the minimum Schedule "J" pavement section per the Engineer.
- 3. Rigid Pavements: The design thickness shown in the tables are based on a modified Portland Cement Association (PCA) design. Projects requiring CalTrans review should utilize the design methods prescribed in the CalTrans <u>Highway Design Manual.</u>
- 4. Portland Cement Concrete (PCC) pavement shall be constructed in streets on grades greater than 12.0 percent and in alleys and in alley intersections. The pavement shall be Class 560-B-3250 concrete with a minimum modules of rupture (MOR) of 600.
- 5. New pavement, less than six feet (6') in width, shall be paved with Portland Cement Concrete pavement section noted in Schedule "J" for the street classification plus a 1/8" to 1/4" Class F asphalt concrete cap. An equivalent section of lean concrete shall be substituted for any required CTB subbase.
- 6. Personnel from the City's Engineering Laboratory will designate where a Private Laboratory shall sample for R-values.

	and the second sec				
REVISION	BY	APPROVED	DATE	CITY OF SAN DIEGO - STANDARD DRAWINGS	CITY OF SAN DIEGO SEANDARDS COMMITTEE 5-21) COORDENATOR DATE
ORIGINAL		M.ROLLINGER	5-20-92	DAVEMENT DESIGN STANDADDS	DRAWING NUMBER
NOTES		G.PARKINSON	2-7-95		
				SCHEDULE "J"	SDG-113

SHEET 1 OF 4

				STAN		CONC	DETE	EIN 1
CTREET	MAY	MAX	101	SECT	TIONS	M.O.R.	600 MIN	DEPTH
CLASSIFICATION	ADT	INDEX	VALUE	A.C. (IN)	CTB (IN)	PCC (IN)	CTB (IN)	A.C. (IN)
CHI -DE-SAC	200	5.0		3.0	5.0	6.0		4.5
	700	5.5		3.0	5.0	6.5		5.0
LOCAL (RES.)	1200	6.0		3.0	5.0	6.5		5.5
LOCAL (RES.)	2200	6.5		3.0	5.0	6.5		6.0
LOCAL (IND.)	2000	8.5		3.0	7.5	7.5	·	8.5
COLLECTOR (RES.)	3500	7.0		3.0	5.0	7.0		6.5
COLLECTOR (RES.)	5000	7.5	50.0 DR	3.0	5.5	7.0		7.5
COLLECTOR (COMM./(ND)	5000	9.5	GREATER	3.0	8.5	7.5		9.0
COLLECTOR (NO FRT.)	7500	8.0		3.0	6.5	7.0		8.0
COLLECTOR	15000	9.0		3.0	7.5	7.5		8.5
MAJOR (4-LANE)	30000	10.5	·	3.0	10.0	8.0		10.5
MAJOR (6-LANE)	40000	11.0		3.5	10.5	8.0		11.0
PRIMARY ARTERIAL	50000	11.5		3.5	11.5	8.0		11.5
EXPRESSWAY	60000	12.0		3.5	11.5	8.5		12.0
EXPRESSWAY	80000	12.5		4.0	12.0	8.5		12.5
EXPRESSWAY	100000	13.0		4.0	12.5	9.0		13.0

		MAX	101	STANDARD			RETE	FULL
CLASSIFICATION	MAX ADT	INDEX	VALUE	A.C. (IN)	CTB (IN)	PCC (IN)	CTB (IN)	A.C. (IN)
CUL-DE-SAC	200	5.0		3.0	5.0	6.5	·	5.0
LOCAL (L.V.R.)	700	5.5		3.0	5.0	6.5		6.0
LOCAL (RES.)	1200	6.0		3.0	5.5	7.0		6.5
LOCAL (RES.)	2200	6.5		3.0	6.0	7.0		7.0
LOCAL (IND.)	2000	8.5		3.0	9.5	7.5		9.5
COLLECTOR (RES.)	3500	7.0		3.0	6.5	7.0		8.0
COLLECTOR (RES.)	5000	7.5	40 TO	3.0	7.5	7.5		8.5
CDLLECTOR (COMM./IND)	5000	9.5	49.9	3.0	11.0	8.0		11.0
COLLECTOR (NO FRT.)	7500	8.0		3.0	8.5	7.5		9.0
COLLECTOR	15000	9.0		3.0	10.5	8.0		10.0
MAJOR (4-LANE)	30000	10.5		3.5	12.5	8.5		12.0
MAJOR (6-LANE)	40000	11.0		4.0	12.5	8.5		12.5
PRIMARY ARTERIAL	50000	11.5		4.0	13.5	9.0		13.0
EXPRESSWAY	60000	12.0		4.5	13.5	9.0		13.5
EXPRESSWAY	80000	12.5		4.5	14.5	9.5		14-0
EXPRESSWAY	100000	13.0		5.0	15.0	10.0		15.0

					SHEET 2 OF 4
REVISION	BY	APPROVED	DATE	CITY OF SAN DIEGO - STANDARD DRAWINGS	CITY OF SAN DIEGO STANDARDS COMMITTEE 5-2'4) COORDINATOR DATE
ORIGINAL		J.P.CASEY	1-12-84	DAVEMENT DESIGN	DRAWING NUMBER
REVISED		G.PARKINSON	2-7-95		
				STANDARDS SCHEDULE "J"	SDG-113

CTREET	MAY	MAX	*D*	STAN	IDARD	CONC	RETE	FULL
CLASSIFICATION	ADT	INDEX	VALUE	A.C. (IN)	CTB (IN)	PCC (IN)	CTB (IN)	A.C. (IN)
CUL-DE-SAC	200	5.0		3.0	5.0	6.5		6.0
LOCAL (L.V.R.)	700	5.5		3.0	5.5	7.0		6.5
LOCAL (RES.)	1200	6.0		3.0	6.5	7.0		7.0
LOCAL (RES.)	2200	6.5		3.0	7.5	7.0		8.0
LOCAL (IND.)	2000	8.5		3.0	11.5	8.0		10.5
COLLECTOR (RES.)	3500	7.0		3.0	8.5	7.5		8.5
COLLECTOR (RES.)	5000	7.5	30 TO	3.0	9.5	7.5		9.0
COLLECTOR (COMM./IND)	5000	9.5	39.9	3.5	13.0	8.5		12.0
COLLECTOR (NO FRT.)	7500	8.0		3.0	10.5	7.5		10.0
COLLECTOR	15000	9.0		3.5	12.0	8.0		11.0
MAJOR (4-LANE)	30000	10.5		4.0	14.5	8.5		13.5
MAJOR (6-LANE)	40000	11.0		4.5	15.0	9.0		14.0
PRIMARY ARTERIAL	50000	11.5		5.0	15.5	9.0		14.5
EXPRESSWAY	60000	12.0		5.0	16.5	9.5		15.0
EXPRESSWAY	80000	12.5		5.5	17.0	9.5		16.0
EXPRESSWAY	100000	13.0		6.0	17.0	10.0		17.0

STREET	MAX	MAX TRAFFIC	"R"	STAN SECT	DARD TIONS	CONC M.O.R.	RETE 600 MIN	FULL DEPTH
CLASSIFICATION	ADT	INDEX	VALUE	A.C. (IN)	CTB (IN)	PCC (IN)	CTB (IN)	A.C. (IN)
CUL-DE-SAC	200	5.0		3.0	5.5	7.0		6.5
LOCAL (L.V.R.)	700	5.5		3.0	7.0	7.0		7.5
LOCAL (RES.)	1200	6.0		3.0	8.0	7.0		8.0
LOCAL (RES.)	2200	6.5		3.0	9.0	7.5		8.5
LOCAL (IND.)	2000	8.5		3.5	13.0	8.0		11.5
COLLECTOR (RES.)	3500	7.0		3.0	10.0	7.5		9.0
COLLECTOR (RES.)	5000	7.5	20 TO	3.0	11.5	7.5		10.0
COLLECTOR (COMM./IND)	5000	9.5	29.9	4.0	15.0	8.5		13.0
COLLECTOR (NO FRT.)	7500	8.0	-	3.5	12.0	8.0	·	11.0
COLLECTOR	15000	9.0		4.0	13.5	8.5		12.0
MAJOR (4-LANE)	30000	10.5		5.0	16.0	8.5	5.0	14.5
MAJOR (6-LANE)	40000	11.0		5.0	17.0	8.5	5.0	15.5
PRIMARY ARTERIAL	50000	11.5		5.5	17.5	9.0	5.0	16.0
EXPRESSWAY	60000	12.0		6.0	18.0	9.0	5.0	17.0
EXPRESSWAY	80000	12.5		6.0	19.5	9.5	5.0	17.5
EXPRESSWAY	100000	13.0		6.5	20.0	10.0	5.0	18.5

REVISION	BY	APPROVED	DATE	CITY OF SAN DIEGO - STANDARD DRAWINGS	CITY OF SAN DIEGO STANDARDS COMMITTEE 5-2 432 COORDINATOR DATE
ORIGINAL		J.P.CASEY	1-12-84	DAVEMENT DESIGN	DRAWING NUMBER
REVISED		G.PARKINSON	2-7-95		
				STANDARDS SCHEDULE "J"	SDG-113

SHEET 3 OF 4

		MAX		STANDARD		CONCRETE		FULL
STREET	MAX	TRAFFIC	•R•	SECT	IDNS	M.O.R.	600 MIN	DEPTH
CLASSIFICATION	ADT	INDEX	VALUE	A.C. (IN)	CTB (IN)	PCC (IN)	CTB (IN)	A.C. (IN)
CUL-DE-SAC	200	5.0		3.0	7.0	7.0		7.5
LOCAL (L.V.R.)	700	5.5		3.0	8.0	7.0		8.0
LOCAL (RES.)	1200	6.0		3.0 .	9.0	7.5		8.5
LOCAL (RES.)	2200	6.5		3.0	10.5	7.5		9.0
LOCAL (IND.)	2000	8.5		4.0	14.5	8.0	5.0	12.5
COLLECTOR (RES.)	3500	7.0		3.0	12.0	7.5		10.0
COLLECTOR (RES.)	5000	7.5	10 TO	3.5	12.5	8.0		11.0
COLLECTOR (COMM./IND)	5000	9.5	19.9	4.5	16.5	8.5	5.0	14.0
COLLECTOR (NO FRT.)	7500	8.0		3.5	14.0	8.0		11.5
COLLECTOR	15000	9.0		4.5	15.0	8.0	5.0	13.0
MAJOR (4-LANE)	30000	10.5		5.5	18.0	8.5	6.0	15.5
MAJOR (6-LANE)	40000	11.0		6.0	18.5	9.0	6.0	16.5
PRIMARY ARTERIAL	50000	11.5 ·		6.0	20.0	9.0	6.0	17.5
EXPRESSWAY	60000	12.0		6.5	20.5	9.0	6.0	18.5
EXPRESSWAY	80000	12.5		7.0	21.5	9.5	6.0	19.0
EXPRESSWAY	100000	13.0		7.5	22.5	10.0	6.0	20.0

		MAX		STAN	IDARD	CONC	RETE	FULL
STREET	MAX	TRAFFIC	•R•	SECT	TIONS	M.O.R.	600 MIN	DEPTH
CLASSIFICATION	ADT	INDEX	VALUE	A.C. (IN)	CTB (IN)	PCC (IN)	CTB (IN)	A.C. (IN)
CUL-DE-SAC	200	5.0		3.0	8.0	7.0		8.5
LOCAL (L.V.R.)	700	5.5	}	3.0	9.5	7.5		9.0
LOCAL (RES.)	1200	6.0		3.0	10.5	7.5		9.5
LOCAL (RES.)	2200	6.5		3.0	12.5	7.5		10.5
LOCAL (IND.)	2000	8.5		4.5	16.0	8.0	5.0	14.0
COLLECTOR (RES.)	3500	7.0		3.5	13.0	7.5		11.5
COLLECTOR (RES.)	5000	7.5	о то	3.5	14.5	8.0		12.5
COLLECTOR (COMM./IND)	5000	9.5	9.9	5.0	18.5	8.5	6.0	15.5
COLLECTOR (NO FRT.)	7500	8.0		4.0	15.5	8.0	5.0	13.0
COLLECTOR	15000	9.0		5.0	17.0	8.5	5.0	14.5
MAJOR (4-LANE)	30000	10.5	.	6.0	20.0	9.0	6.0	17.5
MAJOR (6-LANE)	40000	11.0		6.5	21.0	9.0	6.0	18.5
PRIMARY ARTERIAL	50000	11.5		7.0	22.0	9.0	6.0	19.5
EXPRESSWAY	60000	12.0	(·)	7.0	23.0	9.5	6.0	20.5
EXPRESSWAY	80000	12.5		7.5	24.0	10.0	6.0	21.5
EXPRESSWAY	100000	13.0		8.0	25.0	10.5	6.0	22.0

					SHEET 4 OF 4
REVISION	BY	APPROVED	DATE	CITY OF SAN DIEGO - STANDARD DRAWINGS	CITY OF SAN DIEGO STANDARDS COMMUTTEE CONTINUE COORDINATOR DATE
ORIGINAL		J.P.CASEY	1-12-84	DAVEMENT DESIGN	DRAWING NUMBER
REVISED		G.PARKINSON	2-7-95	FAVENIENT DESIGN	
				STANDARDS SCHEDULE "J"	SDG-113







1. Concrete encasement or sond cement slurry backfill shall have a minimum slump of 4 inches.

- 2. Concrete encasement and sand cement slurry backfill shall be thoroughly consolidated to encase conduits. Tampers or vibrators shall be used.
- 3. Concrete shall be screeded off to match pavement grade and floated to assure proper edge match.
- 4. A tack coat shall be applied to the concrete and existing asphalt pavement prior to placing the new asphalt pavement wearing surface.
- 5. Existing A.C. povement will not require sow cutting when using rockwheel for excovation.
- 6. Concrete trench cover shall be a minimum 5-1/2 inches thick in alleys or local residential streets, and 7 inches thick in all other streets.
- 7. Allow concrete backfill or concrete trench cover 7 calendar days minimum, but no longer than 30 calendar days to cure and dry before applying the asphalt concrete wearing surface.
- 8. In major or prime arterial streets, an approved set accelerating admixture, such as calcium chloride, may be used only with prior approval of the agency's Engineer.
- 9. Only Type A shall be permitted for supply cables of 750 volts or less. See California Public Utility Commission General Order No. 128, Rule 33.4 D.(1)(b).
- 10. Selected material with minimum sand equivalent of 50 shall be backfilled to 3 inches minimum above the conduit. Sand cement slurry backfill (100-E-100) may be substituted for select material.

Revision Original	By	Approved Bahmanian	Date 04/86	CITY OF SAN DIEGO - STANDARD DRAWING	CITY STAND	OF SAN DIEGO ARDS COMMITTEE	
		A.Oskoui	12/03		U.U.	cch: 12/16/6	
Title Block		A.Oskoui	12/06	NARROW TRENCHING TYPES A & B	COORDINATOR R.C.E 65271 Date		
				BACKFILL & RESURFACING	DRAWING	SDC 116	
					NUMBER	303-110	



- 1. Cement Slurry Backfill:
 - a. Cement slurry backfill shall have a maximum slump of 4 inches.
 - b. Cement slurry backfill shall be thoroughly consolidated to encase conduits. Tampers or vibrators shall be used.
 - c. Cement slurry backfill shall be as follows: Alleys and local residential streets Class (190-E-400) All other streets Class (380-E-800)
- 2. A tack coat shall be applied to the cement slurry backfill and existing asphalt pavement prior to placing the new asphalt surface.
- 3. Asphaltic Concrete Resurfacing:

Type C

- a. Allow cement slurry backfill 48 hours minimum to cure before resurfacing, unless approved by the Engineer.
- b. Thickness shall match the existing A.C. with a minimum of 2 inches.
- c. A.C. shall be hot mix.

Type D

- a. Allow cement slurry backfill seven days minimum to cure before planing.
- b. Plane existing asphalt pavement and slurry backfill, one half thickness of existing A.C., (1 inch minimum not to exceed 2 inches).
- c. A.C. shall be hot mix.
- 4. A.C. resurfacing shall be sealed or chip sealed when required by the agency's Engineer.
- 5. Existing A.C. pavement will not require sawcutting when using rockwheel for excavation.

30 TTEE		
(M. March 12/16/6		
271 Date		
447		
-11/		



- 1. Concrete slurry backfill shall have a maximum slump of 4 inches.
- Cement slurry backfill shall be thoroughly consolidated to encase conduits. Tampers or vibrators shall be used.
- 3. Concrete shall be screeded off to match existing pavement grade and floated to assure proper edge match.
- 4. Concrete trench cover shall be a minimum of 5 1/2 inches thick in alley or local residential streets and 7 inches thick in all other streets.
- 5. Existing concrete pavement will require sawcutting when using rockwheel for excavation.
- 6. In major or prime arterial streets, an approved set accelerating admixture, such as Calcium Chloride, may be used only with prior approval of the agency's engineer.
- 7. Only Type E shall be permitted for supply cables of 750 volts or less. See California Public Utility Commission General Order No. 128, Rule 33.4 (1)(b).
- Select material with a minimum sand equivalent of 50 shall be backfilled to 3" min. above the conduit. Sand cement slurry backfill (100-E-100) may be substituted for select material.

Revision	Ву	Approved	Date	CITY OF SAN DIEGO - STANDARD DRAWING	CITY C STANDAF	F SAN DIEGO RDS COMMITTEE	
Original		A.Oskoui	12/03	NARROW TRENCHING TYPES F & F	COORDINATOR R.C.E 65271 Date		
Title Block		A.Uskoui	12/06	BACKFILL & RESURFACING	DRAWING NUMBER	SDG-118	







- 1. Type C1 curb ramp shall only be used to mitigate existing conditions where inadequate right of way exists to use Standard Drawing SDG-132. **Type C1 shall be used when X<7'.** X = distance from face of curb to property line.
- 2. See SDG-130 for Detectable/Tactile Warning Tile (Truncated Domes) details.
- 3. See SDG-137 for additional curb ramp details and information.
- 4. The top landing of the curb ramp shall be 4'-0" min. in length and the cross & running slope shall be 1.5%.
- Remove and replace existing sidewalk as necessary to achieve the required top landing size & slope requirements. 5. CT - Curb Transition slope shall not exceed 8.33% running slope and 1.5% cross slope.
- 6. The bottom landing cross slope shall be 1.5%.
- 7. Tooled Joint 1/4" deep groove with 1/4" radius edges.
- 8. The depth of the bottom landing shall be a minimum of 4'-0" or up to the property line whichever is greater.9. If the condition of the street and sidewalk is such that the existing slopes do not allow the installation of the required curb ramp slope then the Contractor shall extend the construction of the slope up to
- a maximum length of 15'-0" (linear feet) to catch the required slope even if the required slope is not achieved. Coordination with Resident Engineer is required at these conditions prior to any demolition or construction.

Revision	By	Approved	Date	CITY OF SAN DIEGO STANDARD DRAWING	CITY OF SAN DIEGO
Original	SS	A. Oskoui	12/03	CITT OF SAN DIEGO - STANDARD DRAWING	STANDARDS COMMITTEE
Update	FC	A. Oskoui	12/06		A. Hnal: 2/16/6
				CURB RAMP - TYPE C1	COORDINATOR R.C.E 65271 - Date
				(For Existing Sidewalk)	DRAWING SDC 124
				(* ····································	NUMBER SDG-134



- Type C2 curb ramp shall only be used to mitigate existing conditions where inadequate right of way exists to use Standard Drawing SDG-132. Type C2 shall be used when X=7' or 7' < X < 10'.
 X = distance from face of curb to property line.
- 2. See SDG-130 for Detectable/Tactile Warning Tile (Truncated Domes) details.
- 3. See SDG-137 for additional curb ramp details and information.
- 4. The top landing of the curb ramp shall be 4'-0" min. in length and the cross & running slope shall be 1.5%. Remove and replace existing sidewalk as necessary to achieve the required top landing size and slope requirements.
- 5. CT Curb Transition slope shall not exceed 8.33% running slope and 1.5% cross slope.
- 6. The bottom landing cross slope shall be 1.5%.
- 7. Tooled Joint 1/4" deep groove with 1/4" radius edges.
- 8. If the condition of the street and sidewalk is such that the existing slopes do not allow the installation of the required curb ramp and side/flare slopes then the Contractor shall extend the construction of the slope up to a maximum length of 15'-0" (linear feet) to catch the required slope even if the required slope is not achieved. Coordination with Resident Engineer is required at these conditions prior to any demolition or construction.
 9. Z Flare Slopes shall not exceed 10%.

Revision	By	Approved	Date	CITY OF SAN DIEGO - STANDARD DRAWING	CITY OF SAN DIEGO
Original	SS	A. Oskoui	12/03	OTT OF OAN DEGO - OTANDAND DIVANING	STANDARDS COMMITTEE
Update	FC	A. Oskoui	12/06		M. Hal: 12/14/6
				CURB RAMP - TYPE C2	COORDINATOR R.C.E 65271 - Date
				(For Existing Sidewalk)	DRAWING SDG 135
					NUMBER SDG-135





SUPPLEMENTAL NOTES TO SDG-137, SHEET 1 OF 3:

- 1. As site conditions dictate, Case A through Case E (including SDG-134 and SDG-135) curb ramps may be used for corner installations similar to those shown in Detail A and Detail B below. The Contractor must obtain approval from the designated Resident Engineer prior to the application of any of these cases.
- 2. If distance from curb to back of sidewalk is too short to accommodate a Type A or B curb ramp and a 4'-0" landing as shown in SDG-132, the sidewalk may be depressed longitudinally as shown in Case A, Case E, SDG-134, and SDG-135 or, may be widened as shown in Case B if within right-of-way.
- 3. When a curb ramp is located in the center of a curb return, crosswalk configuration must be similar to that shown for Detail B as shown below.
- 4. Side slope or flare slopes may vary uniformly up to a maximum of 10.0% at curb to conform with the longitudinal sidewalk slope adjacent to top of the ramp, except for Case A, D, E, SDG-134, and SDG-135.
- 5. The curb ramp shall be outlined with a 12" wide border, with 1/4" grooves approximately 3/4" on center. See Detail A, Sheet 3 of 3.
- 6. Transitions from ramps to walks, gutters, or streets shall be flush and free of abrupt changes. On existing street conditions, the built-up asphalt at the bottom of the curb ramp between the gutter and the street must be milled away to achieve the required flush transition.
- 7. Maximum slopes of adjoining gutters, the road surface immediately adjacent to the curb ramp, and continuous passage to the curb ramp shall not exceed 5.0% within 4'-0" of the bottom of the curb ramp.
- 8. Curb ramps shall have a detectable warning surface (truncated domes) that extends the full width and min 2'-0" depth of the ramp. Detectable/Tactile warning tile design, color, and materials must conform with the City of San Diego Supplement Amendments Sections 216 and 303 and SDG-130.
- 9. The edge of the detectable warning surface nearest the street shall be between 6" and 8" from the gutter flowline.
- 10. If the condition of the street and sidewalk is such that the existing slopes do not allow the installation of the required curb ramp and side/flare slopes then the Contractor may extend the construction of the slope up to a maximum length of 15'-0" (linear feet) to catch the required slope even if the required slope is not achieved. Close coordination with the designated Resident Engineer is required at these conditions prior to any demolition of the street and sidewalk and prior to the installation of the curb ramp(s).





1. The removal of existing concrete curb, gutter, sidewalk, and pavement (or curb ramp) for a new curb ramp shall comply with G-11. The removal of additional sidewalk panels may be required to meet existing grade and to comply with the accessibility regulations.

2. Curb ramp surfaces (flares and ramp) shall have a medium to heavy broom textured finish, perpendicular to the axis of travel.

3. Curb ramps shall be of concrete class 520-C-2500.

4. If obstructions such as inlets, light poles, fire hydrants, etc., are encountered, the curb ramp location(s) may be adjusted only upon the evaluation & approval of the designated Resident Engineer.

5. The cross slope of the ramp shall be 1.5%.

6. The landing slope shall be 1.5% in both directions.

7. All projections (new construction & alteration), the lower end of 48" width ramp shall be flush and free of abrupt changes between the bottom of the ramp and the street pavement surface.

8. Install 1/4" expansion joint filler material between a new curb ramp and the existing sidewalks.

Revision Original	By SS	Approved A. Oskoui	Date 12/03	CITY OF SAN DIEGO - STANDARD DRAWING	CITY OF SAN DIEGO STANDARDS COMMITTEE
Update	FC	A. Oskoui	12/06	CENEDAL NOTES for CUDD DAMDS	COORDINATOR R.C.E 65271 - Date
				GENERAL NOTES IOI CURB RAMPS	DRAWING NUMBER SDG-137

Sheet 3 of 3





NOTE:

- 1. Sidewalk, ramp and passageway thickness "T", shall be 4' min. See section B-B
- Minimum width of the passageway through raised islands shall be 4', except for locations where right of way restrictions, natural barriers, or other existing conditions create an unreasonable hardship, the min clear width of the passageway may be reduced to 3'.
- 3. Details of grooving, see SDG-137.
- 4. Details of Detectable/Tactile warning tile, see SDG-130.
- 5. Where an island passage way length is less than 6'-0", the Detectable/Tactile warning tile shall extend the full width and full length of the passage way length. Where an island passage way length is greater than or equal to 6'-0", but less than 8'-0", a Detectable/Tactile warning tile shall extend the full width and 2'-0" depth of the passage way length. Where an island passage way length is greater than or equal to 8'-0", a Detectable/Tactile warning tile shall extend the full width and 2'-0" depth of the passage way length. Where an island passage way length is greater than or equal to 8'-0", a Detectable/Tactile warning tile shall extend the full width and 3'-0" depth of the passage way length.
- 6. The Detectable/Tactile warning tiles at flush refuge or passage way shall be in line with median edge.
- 7. Transitions from ramps to walks, gutters or streets shall be flush and free of abrupt changes.
- 8. Maximum slopes of adjoining gutters, the road surface immediately adjacent to the cur ramp and continuous passage to the curb ramp shall not exceed 5% within 4'-0" of the top or bottom of the curb ramp.
- 9. Utility pull boxes, manholes, vaults and all other utility facilities within the boundaries of the curb ramp are to be relocated or adjusted to grade prior to, or in conjunction with the curb ramp construction. Coordinate relocation or adjustment with Resident Engineer.
- 10. See SDG-137 for additional curb ramp details and information.
- 11. Cross slope at passage way on refuge shall be 1.5%.

Revision	By	Approved	Date	CITY OF SAN DIEGO STANDARD DRAWING	CITY OF SAN DIEGO
Original	SS	A. Oskoui	12/03	CITTOF SAN DIEGO - STANDARD DRAWING	STANDARDS COMMITTEE
Update	FC	A. Oskoui	12/06		Hittace: 2/16/6
				ISLAND REFUGE /	COORDINATOR R.C.E 65271 - Date
				PASSAGEWAY DETAILS	DRAWING CDC 429
					NUMBER SDG-136







TYPE	W	*AREA
G	610mm (24")	0.124sq. m (1.34sq ft.) -
Н	762mm (30")	0.150sq. m (1.61sq ft.)

* with 152mm (6") Curb Face

NOTES:

- 1. Concrete shall be $308 \text{kg/M}^3 \text{C} 17 \text{MPa}$ (520-C-2500). 2. See Standard Drawings G-9 and G-10 for joint details. 3. Slope top of curb 6.35mm (1/4") per foot toward street.

Revision	By	Approved	Date	SAN DIEGO REGIONAL STANDARD DRAWING	RECOMMENDED BY THE SAN DIEGO REGIONAL STANDARDS COMMITTEE
ORIGINAL		Kercheval	12/75	OAN DIEGO NEGIONAE OTANDAND DNAMING	Must De
Add Metric		T. Stanton	03/03		Hanlow 3/01/2003
Reformatted		T. Stanton	04/06	CURB AND GUTTER - COMBINED	Chairperson R.C.E. 19246 Date
					DRAWING G-2

SEE SDG-100

LEGEND ON PLANS









SEE SDG-100























REQUIREMENT 1

No portion of any curb opening shall be permitted within 6' of the intersection of the prolonged property lines and the curb as shown by arc A.

REQUIREMENT 2

No portion of any curb opening shall be permitted in the curb return where the radius of curb is 7.62m (25') or less, as shown by arc B.

REQUIREMENT 3

On all curb returns where the radius is more than 25', curb openings may encroach upon each end of the return a distance equal to $12 \ 1/2\%$ or .125 (1/8) of the total length of the arc on the curb return, thus leaving at least 75% of the length of arc on the return face free from driveway encroachment, provided Requirement 1 is met.

REQUIREMENT 4

No portion of any curb opening shall be permitted in the curb return where a separate turning movement is provided, as shown by arc C.

Revision	By	Approved	Date	SAN DIEGO DEGIONAL STANDARD DRAWING	RECOMMENDED BY THE SAN DIEGO
ORIGINAL		Kercheval	12/75	SAN DIEGO REGIONAL STANDARD DRAWING	htat A
Add Metric		T. Stanton	03/03		Hanlow 3/01/2003
Reviewed		T. Stanton	04/06	DRIVEWAY LOCATION - ADJACENT TO	Chairperson R.C.E. 19246 Date
				CURB RETURNS AND STREET LINES	DRAWING C 15
					NUMBER G-15



















- Trench edges to be cut a minimum of 152mm (6") wider than trench for 914mm (3') wide or less, and 305mm (12") wider for trenches over 914mm (3') wide.
- Existing A.C. shall be cut and removed in such a manner so as not to tear, bulge or displace adjacent pavement. Edges shall be clean and vertical. All cuts shall be parallel or perpendicular to street centerline, when practical.
- 3. Base material shall be replaced to depth of existing base. A.C. may be substituted for base material.
- 4. A tack coat of asphaltic emulsion or paving asphalt shall be applied to existing A.C. or P.C.C. contact surfaces, prior to resurfacing.
- 5. Asphalt Concrete Resurfacing:
 - a) Minimum total thickness shall be one inch greater than existing A.C.
 - b) A.C. shall be hot plant mix.
 - c) Finish course for Type B resurfacing shall be laid down using a spreader box.
- 6. All A.C. resurfacing shall be seal coated with an emulsified asphalt and covered with sand. Chip sealing shall be applied as required by Agency.
- 7. Type B shall not be used on lateral crossings.
- 8. Sloughing of trench under pavement shall be cause for requiring additional pavement and base.

Revision	By	Approved	Date	SAN DIEGO REGIONAL STANDARD DRAWING	RECOMMENDED BY THE SAN DIEGO
ORIGINAL		Parkinson	2/95	SAN DIEGO REGIONAL STANDARD DRAWING	MAN D
Add Metric		T. Stanton	03/03		Henton 3/01/2003
Reviewed		T. Stanton	04/06	I RENCH RESURFACING	Chairperson R.C.E. 19246 Date
				TYPES A & B	DRAWING NUMBER G-24
	1				

USE SDG-107, SDG-108



USE SDG-107, SDG-108



USE SDG-11	4
------------	---





SEE SDG-100 & USE SDG-133





1

SEE SDG-100 & USE SDG-134





USE SDG-137





TYPE C

NOTES:

- 1. Concrete shall be screeded off to match existing pavement grade and floated to assure proper edge match.
- Concrete trench cover shall be a minimum of 140mm (5 1/2") thick in alley or local residential streets and 178mm (7") thick in all other streets.
- 3. Existing concrete pavement will require sowcutting when using rockwheel for excavation.
- In major or prime arterial streets, an approved set accelerating admixture, such as Calcium Chloride, may be used only with prior approval of the Agency's engineer.

Revision	By	Approved	Date	SAN DIEGO REGIONAL STANDARD DRAWING	RECOMMENDED BY THE SAN DIEGO
ORIGINAL	нн	T. Stanton	11/02	SAN DIEGO REGIONAL STANDARD DRAWING	MINT D
Add Metric		T. Stanton	03/03		Henton 3101/2003
Reviewed		T. Stanton	04/06	NARROW TRENCHES	Chairperson R.C.E. 19246 Date
				TRENCHING & BACKEILLING	DRAWING C 22
					NUMBER G-33

USE SDG-116, SDG-117 & SDG-118

