
**CITY OF ROSEVILLE
CONSTRUCTION STANDARDS - CST
January 2025**

Abbreviations.....AB 1

Section 11: Purpose and Definitions

11-1PurposePD 1
11-2Construction PracticePD 1
11-3DefinitionsPD 1
 A. Applicant.....PD 1
 B. Approved Plans.....PD 1
 C. City.....PD 1
 D. City Construction Inspector.....PD 2
 E. City EngineerPD 2
 F. Construction Standards Details.....PD 2
 G. Consulting EngineerPD 2
 H. Contractor.....PD 2
 I. Development of Services DepartmentPD 2
 J. Department of Public WorksPD 2
 K. DeveloperPD 2
 L. Development.....PD 2
 M. Electrical Utilities Director.....PD 2
 N. Environmental Utilities Director.....PD 2
 O. Geotechnical Engineer.....PD 3
 P. Improvements.....PD 3
 Q. Laboratory.....PD 3
 R. Notice of CompletionPD 3
 S. Parks and Recreation DirectorPD 3
 T. Planning Manager.....PD 3
 U. DirectorPD 3
 V. Relative Compaction.....PD 3
 W. Soils Report.....PD 3
 X. StatePD 3
 Y. State Highway Design Manual.....PD 4
 Z. State Standard SpecificationsPD 4
 AA. State Traffic ManualPD 4
 BB. Subdivision Ordinance.....PD 4
 CC. Zoning OrdinancePD 4

Section 12: Construction Area Traffic Control Devices

12-1.01Description.....TC 1
 Traffic Control Plans.....TC 2

Section 21: Contractor’s and Developer’s Responsibilities

21-1General.....CD 1

21-2Contractor’s Responsibility.....CD 1

 A. Plans.....CD 1

 B. NotificationCD 1

 C. U.S.A. Marking.....CD 2

 D. Testing.....CD 2

 E. Cultural Resources.....CD 2

 F. Hazardous or Toxic Materials and Contaminated SoilsCD 2

 G. Working HoursCD 3

 H. Emergency Contact Person.....CD 3

 I. Traffic Control.....CD 3

 J. Preservation of Property.....CD 6

 K. PersonnelCD 6

 L. Weather.....CD 6

 M. Trenching SafetyCD 6

 N. Trailer and Material Storage.....CD 7

 O. Street Cleaning.....CD 7

 P. Interruption of Parking Areas.....CD 7

 Q. Contractor Employee Vehicle Parking.....CD 7

 R. Construction Safety.....CD 8

 S. Blasting and Explosive RequirementsCD 8

 T. Pavement Milling RequirementsCD 8

 U. Discharge Fluid from Boring OperationsCD 8

 V. Concrete Truck Washout Area.....CD 8

21-3.....Developer’s Responsibility.....CD 9

 A. Record Drawings.....CD 9

21-4Minimum Requirements for Model Home Building Permits.....CD 9

21-5.....Minimum Requirement for Production Home Building PermitsCD 10

21-6Minimum Requirement for Construction within the Floodplain.....CD 12

21-7.....Requirements for Subdivision Notice of Completion (N.O.C)CD 13

21-8Residential Occupancies During Residential Building.....CD 13

21-9Guarantee and WarrantyCD 14

 A. Subdivision Improvements.....CD 15

 B. Encroachment Permit ImprovementsCD 15

 C. Underground Warranty Work Within City Street Right-of-WayCD 16

 D. EUD’s Policy on Warranty Repairs on Sewer Stub and Services.....CD 16

21-10.....MaterialsCD 17

 A. Approved EqualCD 17

 B. Unapproved MaterialsCD 17

Section 31: Trench Backfill

31-1General.....TB 1

31-2.....Trench Backfill.....TB 1

 A. Existing StreetsTB 1

B. Jetting	TB 2
C. Material.....	TB 2
D. Placement of Material.....	TB 3
E. Typical compaction Equipment and Maximum Lift Depths Achieved By Proper Compaction.....	TB 3
F. Pipe Bedding References	TB 3
 Section 56: Signs	
56-1.01.....General.....	SN 1
Overhead Sign Structures (Signal Mounted).....	SN 3
56-1.02Material.....	SN 3
56-1.06Sign Panels and Fastening Hardware.....	SN 3
Roadside Signs.....	SN 4
56-2.02.....Material.....	SN 4
56-2.02AMetal Pole	SN 4
56-2.02D.....Sign Panel Fastening Hardware	SN 5
56-2.04.....Sign Panel Installation.....	SN 5
 Section 71: Streets	
71-1General.....	ST 1
71-2.....Connection to Existing Improvements.....	ST 1
A. Existing Stub Street Connection.....	ST 1
B. Street Widening	ST 1
C. Sawcutting	ST 1
71-3.....Construction Staking	ST 1
71-4.....Installation.....	ST 2
A. Subgrade	ST 2
B. Aggregate Base and Subbase	ST 3
C. Minor Concrete.....	ST 5
D. Asphalt Concrete Paving.....	ST 10
E. Portland Cement Concrete Paving.....	ST 17
F. Roller Compacted Concrete Paving	ST 23
G. Groove and Grind Pavement.....	ST 28
H. Sound and Retaining Walls	ST 29
I. Survey Monuments.....	ST 29
J. Street Barricades.....	ST 29
K. Pavement Removal	ST 29
L. Utility Boxes.....	ST 30
M. Slurry Seal Follow-up	ST 30
N. Detector Loop Related Paving	ST 30
71-5.....Materials	ST 30
A. Aggregate Base and Subbase	ST 30
B. Minor Concrete.....	ST 30
C. Asphalt Concrete.....	ST 31
D. Portland Cement Concrete Pavement.....	ST 31

E. Lime/Fly Ash or Cement Treated Subbase.....	ST 33
F-. Truncated Domes.....	ST 33
G. Graffiti Coating.....	ST 34
H. Epoxies, Patching Material.....	ST 34
I. Reinforcement Bar.....	ST 34
J. Concrete Curing Compound.....	ST 34
K. Slurry Seal.....	ST 34
L. Slurry Cement Backfill.....	ST 34
M. Clean Crushed Rock.....	ST 35

Section 81: Domestic Water Supply System Construction

81-1.....	General.....	W 1
81-2.....	Connection to Existing Facilities.....	W 1
81-3.....	Construction Staking.....	W 2
81-4.....	Earthwork.....	W 2
	A. Excavations.....	W 2
	B. Trench Width.....	W 2
	C. Compaction.....	W 3
	D. Weather.....	W 3
	E. Existing Roadways.....	W 3
	F. Excess Material.....	W 3
81-5.....	Dewatering.....	W 3
81-6.....	Pipe Bedding.....	W 3
81-7.....	Concrete Cradles, Arches, Encasements and Trench Dams.....	W 3
81-8.....	Pipe Zone Backfill.....	W 4
81-9.....	Pipe Installation.....	W 4
	A. Polyvinyl Chloride (PVC) Pressure Pipe Installation.....	W 6
	B. Ductile Iron Pipe (DIP).....	W 6
	C. Ductile Iron Pipe Fittings.....	W 7
	D. Boring.....	W 7
	E. Vertical Elevation Change.....	W 9
	F. Bridges and Casings.....	W 9
81-10.....	Service Installation.....	W 9
81-11.....	Abandonment of Services and Mains.....	W 10
81-12.....	Appurtenances Installation.....	W 10
81-13.....	Testing Procedures.....	W 11
	A. Hydrostatic Test.....	W 11
	B. Topside Improvements.....	W 12
	C. Chlorine Disinfection.....	W 13
	D. Water Quality Testing.....	W 14
	E. Trying onto the City System.....	W 14
	F. Continuity Testing.....	W 15
	G. Corrosion Protection System Testing.....	W 15
81-14.....	Repairing Installed Improvements.....	W 15
81-15.....	Punchlist Process.....	W 16

81-16.....	Materials	W 16
	A. Approved Equal	W 16
	B. Conditionally Approved Material	W 17
	C. Material Defects and Failures	W 17
	D. Unapproved Materials	W 17
	E. Water Main	W 17
	F. Services	W 18
	G. Appurtenances	W 20
	H. Conditionally Approved.....	W 29

Section 82: Markers and Delineators

82-1.01.....	Description.....	MD 1
82-1.02F.....	Reflectors	MD 1

Section 84: Traffic Stripes and Pavement Markings

84-1.01.....	Description.....	TM 1
84-1.03.....	Tolerances and Appearances	TM 1
84-2.03.....	Thermoplastic Traffic Stripes and Pavement Markings.....	TM 3
	A. Application.....	TM 3

Section 85: Pavement Markers

85-1.01.....	Description.....	PM 1
85-1.04.....	Non-reflective Pavement Markers.....	PM 1
85-1.05.....	Retroreflective Pavement Markers.....	PM 1
85-1.06.....	Placement.....	PM 1

Section 86: Traffic Signals, Lighting and Electrical Systems

86-1.01.....	General.....	SG 1
86-1.04.1.....	Equipment List and Drawings	SG 1
86-1.06.....	Maintaining Existing & Temporary Electrical Systems.....	SG 2
86-2.03.....	Foundations	SG 2
86-2.04.....	Standard, Steel Pedestal and Post	SG 3
86-2.05A.....	Conduit Material.....	SG 3
86-2.05B.....	Conduit Use	SG 3
86-2.05C.....	Conduit Installation.....	SG 3
86-2.06.....	Pull Boxes.....	SG 5
86-2.06B.....	Cover Marking	SG 6
86-2.08.....	Conductors.....	SG 6
86-2.08A.....	Conductor Identification	SG 7
86-2.08B.....	Multiple Circuit Conductors	SG 8
86-2.08E.....	Signal Interconnect Cable.....	SG 8
86-2.09.....	Wiring	SG 14
86-2.09B.....	Wiring Installation.....	SG 14
86-2.09C.....	Connectors and Terminals.....	SG 14
86-2.09D.....	Splicing	SG 14

86-2.09E.....Splice Insulation	SG 14
86-2.09F.....Fused Splice Connectors.....	SG 14
86-2.10.....Bonding and Grounding.....	SG 14
86-2.11.....Service.....	SG 15
86-2.14.....Testing.....	SG 15
86-2.14B(2)....Ground.....	SG 15
86-2.14C.....Functional Testing.....	SG 15
86-2.15.....Signal Activation.....	SG 16
86-3.01.....Controller Cabinet Assembly.....	SG 16
86-3.08.....Emergency Vehicle Preemption Equipment.....	SG 16
86-4.01.....Vehicle Signal Faces.....	SG 17
86-4.01B.....Signal Sections.....	SG 19
86-4.02.....Light Emitting Diode Signal and Pedestrian Module.....	SG 19
86-4.04.....Backplates.....	SG 19
86-4.05.....Programmed Visibility Vehicle Signal Faces (PV Display).....	SG 19
86-4.05B.....Front Screen.....	SG 19
86-4.06.....Pedestrian Signal Faces.....	SG 19
86-4.08.....Signal Mounting Assemblies.....	SG 19
86-5.01A(4)....Vehicle Detectors Construction Materials.....	SG 20
86-5.01A(5)....Vehicle Detectors Installation Details.....	SG 24
86-5.01E.....Detector Loop Circuitry.....	SG 24
86-5.02.....Pedestrian Push Button Assemblies.....	SG 24
86-6.01.....High Pressure Sodium Luminaires.....	SG 24
86-6.065.....Internally Illuminated Street Name Signs.....	SG 24
86-6.07.....Photoelectric Controls.....	SG 25
86-6.07B(4)....Wiring.....	SG 25
86-7.01.....Removing Electrical Equipment.....	SG 25

Section 91: Sanitary Sewer System Construction

91-1.....General.....	SS 1
91-2.....Connection to Existing Facilities.....	SS 1
A. Existing Sewer Stubs.....	SS 1
B. Sewer System Outfalls.....	SS 1
91-3.....Construction Staking.....	SS 2
91-4.....Earthwork.....	SS 2
A. Excavations.....	SS 2
B. Trench Width.....	SS 2
C. Compaction.....	SS 2
D. Weather.....	SS 2
E. Existing Roadways.....	SS 2
F. Excess Material.....	SS 2
91-5.....Dewatering.....	SS 2
91-6.....Pipe Bedding.....	SS 2
91-7.....Concrete Cradles, Arches and Encasements and Trench Dams.....	SS 3
91-8.....Pipe Zone Backfill.....	SS 4

91-9	Pipe Installation	SS 4
	A. Vitrified Clay Pipe (VCP) Installation	SS 5
	B. Gravity Ductile Iron pipe (DIP) Installation	SS 5
	C. Transitions between VCP and DIP	SS 6
	D. Boring	SS 6
91-10	Manhole Installation	SS 8
	A. Adjusting Manholes	SS 10
	B. Frame and Lid	SS 10
	C. Manholes Coatings	SS 10
91-11	Service Installation	SS 13
91-12	Testing of Installed Improvements	SS 13
	A. Sewer Mains and Services	SS 14
	B. Air Pressure Test	SS 14
	C. TV Inspection	SS 14
	D. Inspection Criteria for Coated Ductile Iron Pipe	SS 15
	E. Manholes	SS 15
	F. Topside Improvements	SS 15
	G. Trying Into the City System	SS 15
91-13	Punchlist Process	SS 16
91-14	Repairing Installed Improvements	SS 17
	Repairing Vitrified Clay Pipe	SS 17
91-15	Abandoning Sewer Stubs and Services	SS 17
91-16	Materials	SS 17
	Approved Equal	SS 17
	Conditionally Approved Material	SS 17
	Unapproved Materials	SS 18
	Sewer Main and Services	SS 18
	Manholes	SS 18
	Appurtenances	SS 19
91-17	Illegal Use of Sewer System	SS 21
91-18	Conditionally Approved	SS 21

Section 101: Drainage

101-1	General	DR 1
101-2	Construction Staking	DR 1
101-3	Drop Inlet Installation	DR 1
101-4	Manhole Installation	DR 2
	A. Bases	DR 2
	B. Cones	DR 3
	C. Joints	DR 3
	D. Connections	DR 4
	E. Grade Rings	DR 4
	F. Frames and Covers	DR 4
	G. Adjusting Existing Manhole Frames	DR 4
	H. Compaction	DR 4

101-5.....	Junction Boxes/Vaults.....	DR 5
101-6.....	Pipe Installation.....	DR 5
	A. Excavation.....	DR 5
	B. Trench Width.....	DR 5
	C. Pipe Bedding.....	DR 5
	D. Laying Pipe.....	DR 5
	E. Non Rigid (PVC/HDPE) Pipe Testing.....	DR 6
	F. Pipe Laying Tolerances.....	DR 7
	G. Trench Backfill.....	DR 7
	H. Cast-in Place Concrete Pipe.....	DR 7
	I. Pavement Cutting and Repaving.....	DR 7
	J. Cleaning of Storm Drain System.....	DR 7
101-7.....	Channel Lining Installations.....	DR 8
	A. Surface Preparation.....	DR 8
	B. Reinforcement.....	DR 8
	C. Joints.....	DR 8
	D. Weep Holes.....	DR 8
	E. Cutoff Walls.....	DR 9
	F. Geotextile Linings.....	DR 9
101-8.....	Material.....	DR 9
	A. Backfill Material.....	DR 9
	B. Drop Inlets.....	DR 9
	C. Manholes.....	DR 9
	D. Storm Drain Pipe.....	DR 10
	E. Stormwater Treatment Devices.....	DR 11
	F. Outlet and Inlet Structures.....	DR 11
	G. Slurry Cement Backfill.....	DR 11
	H. Lined Channels.....	DR 12
	I. Metal Storm Drain Marker.....	DR 12
101-8A.....	Abandoning Storm Drains.....	DR 12

Section 111: Grading

111-1.....	General.....	GR 1
111-2.....	Construction Staking.....	GR 1
	A. Channels.....	GR 1
	B. Erosion Control Measures.....	GR 1
	C. Pads.....	GR 1
	D. Retaining Walls.....	GR 2
	E. Roadways.....	GR 2
111-3.....	Installation.....	GR 2
	A. Channels.....	GR 2
	B. Erosion Control Measures.....	GR 2
	C. Pads.....	GR 5
	D. Retaining Walls.....	GR 5
	E. Roadways.....	GR 6

	F. Tree Grading	GR 6
	G. Grading Adjacent to Wetlands.....	GR 7
111-4	Materials	GR 8
	A. Retaining Walls.....	GR 8
	B. Tree Fencing	GR 8
	C. Wetland Preserve Fencing	GR 8
111-5	Soil Testing Procedures and Frequencies.....	GR 9
	A. Field Testing	GR 9
	B. Minimum Reporting Requirements	GR 10
	C. Mass Grading Testing Frequencies.....	GR 10
	D. Trench Backfill Testing Frequencies	GR 10

Section 141: Recycled Water System Construction

141-1	General.....	RW 1
141-2.....	Connection to Existing Facilities	RW 1
141-3.....	Construction Staking	RW 2
141-4.....	Earthwork	RW 2
	A. Excavations.....	RW 2
	B. Trench Width.....	RW 2
	C. Compaction.....	RW 2
	D. Weather.....	RW 2
	E. Existing Roadways.....	RW 2
	F. Excess Material.....	RW 3
141-5.....	Dewatering.....	RW 3
141-6.....	Pipe Bedding.....	RW 3
141-7.....	Concrete Cradles, Arches and Encasements and Trench Dams	RW 3
141-8.....	Pipe Zone Backfill	RW 4
141-9.....	Pipe Installation.....	RW 4
	A. Pipe Identification	RW 6
	B. Polyvinyl Chloride (PVC) Pressure Pipe Installation	RW 6
	C. Concrete Cylinder Pipe	RW 7
	D. Ductile Iron Pipe (DIP).....	RW 7
	E. Borings.....	RW 7
141-10	Service Installation	RW 7
	Meter Installation and Address	RW 8
141-11.....	Appurtenances Installation	RW 8
141-12	On-Site Recycled Water Facilities	RW 9
	A. Inspections.....	RW 9
	B. Coverage Test for On-site Irrigation Systems.....	RW 9
	C. Controller Charts	RW 10
	D. Conversion from a Potable System to Recycled Water Supply.....	RW 10
	E. Conversion from Recycled Water to Potable Water Supply	RW 10
	F. On-Site Pipe Identification	RW 11
	G. Quick Coupling Valves	RW 11
	H. Sprinklers.....	RW 12

	I. Warning Labels.....	RW 12
	J. Valve Boxes and Tags.....	RW 12
	K. Strainers.....	RW 13
	L. On-Site Recycled Water Piping.....	RW 13
	M. On-Site Potable Water Piping.....	RW 15
141-13	Testing Procedures	RW 15
	A. Public System (Offsite)	RW 15
	B. Private System (Onsite)	RW 16
141-14	Repairing Installed Improvements.....	RW 17
	A. PVC	RW 17
	B. Concrete Cylinder Pipe Repairs	RW 17
141-15	Punchlist Process	RW 17
141-16	Materials	RW 17
	A. Approved Equal	RW 17
	B. Conditionally Approved Material	RW 18
	C. Unapproved Materials	RW 18
	D. Recycled Water Main	RW 18
	E. Services	RW 19
	F. Appurtenances	RW 19

Section 151: Solid Waste Construction

151-1	General.....	SW 1
151-2	Approved Plans.....	SW 1
151-3	Inspection	SW 1
151-4	Punchlist Process	SW 1
151-5	Materials	SW 1