# CLEAR CREEK AVENUE SANITARY SEWER EXTENSION

CARSON CITY, NEVADA **PROJECT** 5.0023

# BOARD OF SUPERVISORS

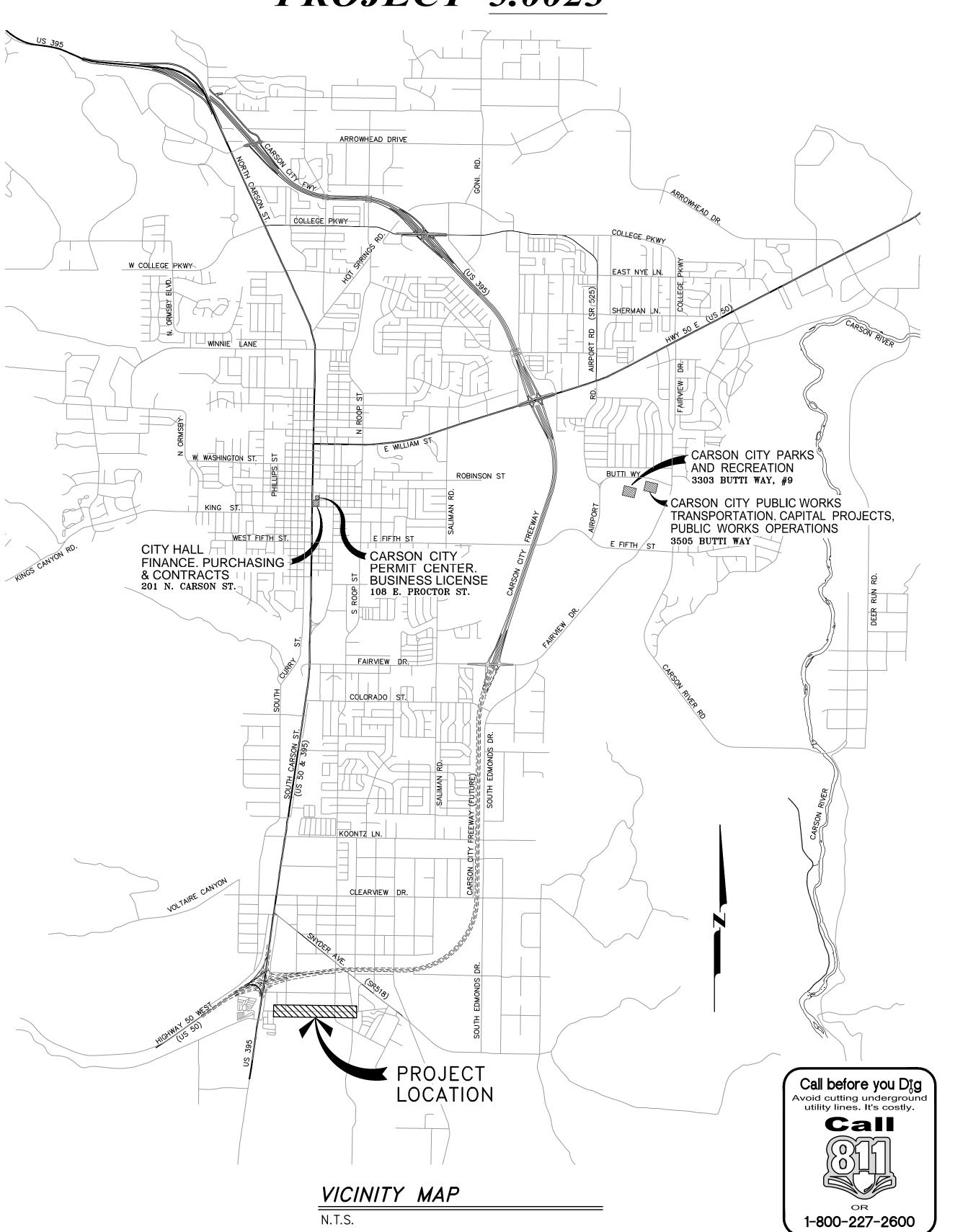
Bob Crowell Mayor Karen Abowd Supervisor Brad Bonkowski Supervisor Supervisor Lori Bagwell Jim Shirk Supervisor Sue Merriwether City Clerk

### DESIGNED FOR:

CARSON CITY PUBLIC WORKS DEPARTMENT OPERATIONS DIVISION 3505 BUTTI WAY CARSON CITY, NV 89701 775-887-2355

### **GENERAL NOTES:**

- ALL WORK SHALL CONFORM TO THE AMERICAN WATER WORKS ASSOCIATION (AWWA) STANDARDS PER NAC 445A.67145 DÉTAILS FOR PUBLIC WORKS CONSTRUCTION" (SDPWC) AS ADOPTED BY CARSON CITY. THE CONTRACTOR SHALL OBTAIN A PERMIT FOR PUBLIC WORKS CONSTRUCTION FROM THE CARSON CITY PERMIT CENTER PRIOR TO THE START
- 2. ALL TRAFFIC CONTROL AND BARRICADING WITHIN THE CARSON CITY RIGHT-OF-WAY SHALL CONFORM TO SECTION 100.33, 332.04 AND 332.05 OF THE STANDARD SPECIFICATIONS, PART VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION, AND THE UNR T2 CENTER, TEMPORARY TRAFFIC CONTROL GUIDELINES LATEST EDITION. A TRAFFIC CONTROL PLAN MUST BE SUBMITTED AND APPROVED BY THE CARSON CITY ENGINEERING DIVISION PRIOR TO ANY STREET CLOSURES.
- THE CONTRACTOR SHALL CALL UNDERGROUND SERVICE ALERT "CALL BEFORE YOU DIG" (811) OR (1-800-227-2600) AT LEAST TWO (2) WORKING DAYS PRIOR TO START OF CONSTRUCTION AND COMPLY WITH THE REQUIREMENTS OF NRS AND NAC 455 THROUGHOUT THE COURSE OF THE WORK, SEWER SERVICE LATERALS ARE NOT OWNED OR MARKED BY
- THE CONTRACTOR SHALL CALL THE CARSON CITY ENGINEERING DIVISION (887–2300) TWO (2) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL CALL ONE (1) WORKING DAY PRIOR TO REQUIRED INSPECTIONS AND TESTING. THE REQUIRED INSPECTIONS AND TESTING ARE LISTED ON THE INSPECTION RECORD ISSUED WITH EACH PERMIT. THE CONTRACTOR MUST HAVE THE PERMIT NUMBER AND THE DESCRIPTION LISTED ON THE INSPECTION RECORD TO SCHEDULE REQUIRED INSPECTIONS AND TESTING. FOR CITY CONTRACTED PROJECTS, THE CONTRACTOR SHALL SCHEDULE INSPECTIONS PER THE CONTRACT DOCUMENTS.
- FINAL INSPECTIONS WILL BE PERFORMED BY CARSON CITY ENGINEERING DIVISION ACCORDING TO THE CARSON CITY INSPECTIONS AND TESTING PROCEDURES. NOTE: THESE PROCEDURES REQUIRE SUBMITTAL OF RECORD DRAWING PRINTS BY THE CONTRACTOR AND 10 WORKING DAYS TO PREPARE A FINAL PUNCH LIST. ALL CONDITIONS OF THE FINAL INSPECTION MUST BE COMPLETED PRIOR TO FINAL ACCEPTANCE OR ANY APPROVAL OF A CERTIFICATE OF OCCUPANCY BY THE CARSON CITY ENGINEERING DIVISION.
- MODIFICATIONS TO THE APPROVED PLANS REQUIRES REVIEW AND APPROVAL BY THE CARSON CITY ENGINEERING DIVISION. WORK PERFORMED WITHOUT WRITTEN APPROVAL BY CARSON CITY ENGINEERING WILL REQUIRE REMOVAL AT
- THE APPROVED PLAN, PERMIT AND INSPECTION RECORD MUST BE ON THE JOB SITE AT ALL TIMES.
- 8. PLAN APPROVAL FOR SEWER AND WATER CONSTRUCTION SHALL EXPIRE ONE YEAR FROM DATE OF APPROVAL UNLESS CONSTRUCTION HAS BEEN INITIATED. (CCMC 12.06.180F, 12.01.140D)
- 9. THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR ACQUIRING A STORMWATER DISCHARGE PERMIT FROM THE NEVADA DIVISION OF ENVIRONMENTAL PROTECTION (NDEP) INCLUDING DEVELOPING, SUBMITTING AND IMPLEMENTING A STORM WATER POLLUTION PREVENTION PLAN (SWPPP). THE CONTRACTOR SHALL DEVELOP. PLACE AND MAINTAIN STORM WATER PROTECTION DEVICES IN COMPLIANCE WITH THE NEVADA CONTRACTORS FIELD GUIDE FOR CONSTRUCTION SITE BEST MANAGEMENT PRACTICES
- 10. THE LOCATION OF EXISTING UTILITIES SHOWN ON THESE DRAWINGS IS BASED ON THE BEST INFORMATION AVAILABLE TO THE ENGINEER. IT SHALL BE THE CONTRACTORS' RESPONSIBILITY TO VERIFY THESE LOCATIONS AT THE PROPOSED POINTS OF CONNECTIONS AND IN AREAS OF POSSIBLE CONFLICT WITH NEW UTILITY INSTALLATION, PRIOR TO BEGINNING CONSTRUCTION. POTHOLING IS REQUIRED. SHOULD THE CONTRACTOR FIND ANY DISCREPANCIES BETWEEN THE CONDITIONS EXISTING IN THE FIELD AND THE INFORMATION SHOWN ON THESE DRAWNGS, HE SHALL NOTIFY THE ENGINEER BEFORE PROCEEDING WITH CONSTRUCTION.
- THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR THE CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND CONSTRUCTION OF PROPER SHORING OF TRENCHES IN ACCORDANCE WITH OCCUPATIONAL SAFETY LAWS. THE DUTIES OF THE ENGINEER DO NOT INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY IN, ON, OR NEAR THE CONSTRUCTION SITE.
- SHOULD IT APPEAR THAT THE WORK TO BE DONE, OR ANY MATTER RELATIVE THERETO, IS NOT SUFFICIENTLY DETAILED OR EXPLAINED ON THESE PLANS, THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR SUCH FURTHER EXPLANATIONS AS MAY BE NECESSARY.
- ALL PVC WATER PIPELINES SHALL BE PRESSURE TESTED IN ACCORDANCE WITH AWWA STANDARD C605 PER NAC 445A.67145 (7)(b) PRIOR TO BEING FLUSHED, DISINFECTED OR SAMPLED FOR AN ANALYSIS OF WATER QUALITY. ALL PVC WATER PIPELINES ARE TO BE DISINFECTED ACCORDING TO AWWA STANDARD C651 PER NAC 445A.67145



SHEET INDEX	
G1	TITLE SHEET
<i>G2</i>	NOTES, LEGEND & ABBREVIATIONS
<i>G3</i>	CONSTRUCTION NOTES
<i>G4</i>	HORIZONTAL CONTROL PLAN & SHEET INDEX
C1	SEWER PLAN & PROFILE STA 24+00 to STA 30+50
<i>C2</i>	SEWER PLAN & PROFILE STA 30+50 to STA 38+00
<i>C3</i>	SEWER PLAN & PROFILE STA 38+00 to STA 45+50
C4	SEWER PLAN & PROFILE STA 45+50 to STA 48+00
C5	STREET PLAN - TYPICAL ROADWAY SECTIONS
<i>C6</i>	STREET PLAN & PROFILE STA 20+00 to STA 27+00
<i>C7</i>	STREET PLAN & PROFILE STA 27+00 to STA 34+00
<i>C8</i>	STREET PLAN & PROFILE STA 34+00 to STA 41+50
<i>C9</i>	STREET PLAN & PROFILE STA 41+50 to STA 48+00
C10	ENLARGED PLANS
C11	STORM DRAIN PROFILES
C12	CONSTRUCTION DETAILS
C13	CONSTRUCTION DETAILS
C14	CONSTRUCTION DETAILS
C15	STORM DRAIN DETAILS
C16	PAVING DETAILS
C17	PAVING DETAILS
C18	SIGNING & STRIPING PLAN
C19	SIGNING & STRIPING PLAN

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APPLICATION NO. \_\_\_\_\_

LEGEND		
EXISTING	PROPOSED	
<u>^</u>		BENCH MARK
<u>~</u> 		PROPERTY LINE
L		RIGHT OF WAY LINE
		EASEMENT LINE
wv [><1	wv	WATER VALVE
8"W =====		WATER LINE
		WATER METER
	₩ <b>~</b>	FIRE HYDRANT
<b>₹</b>	<b>₹</b>	AIR RELEASE VALVE
8" <u></u>	8" SS	SEWER LINE
(Ŝ)	<u> </u>	SANITARY SEWER MANHOLE
	18"SD	STORM DRAIN CULVERT
(D)	D	STORM DRAIN MANHOLE
[CB]	СВ	CATCH BASIN (SQUARE)
(2%)	<del>∠2%</del>	DIRECTION OF DRAINAGE FLOW
MB		MAILBOX
-0-	<del>-0-</del>	TRAFFIC SIGN
		DRAINAGE SWALE
— g —— g —		GAS LINE
⟨G⟩ gv [><1		GAS METER
		GAS VALVE
— — OHP — —		OVERHEAD POWER
رگ		UTILITY POLE
(E)		ELECTRIC MANHOLE
— т—		TELEPHONE LINE
3221		CONTOUR LINES
<u>(4750.0)</u>	4750.00	GRADING ELEVATIONS
(4750.0)	4750.00	PROFILE CENTERLINE ELEVATIONS
'		SAWCUT LINE
		PCC CURB & GUTTER TYPE 1
_///		AC PAVEMENT
		PCC PAVEMENT
xx		FENCE LINE
		AREAS OF SPECIAL CONSTRUCTION INSTALL RESTRAINING GLANDS ON ALL WATER PIPE JOINTS
		··· <del>-</del>

## **ABBREVIATIONS**

AD 400	ACCRECATE DACE	MII	MANUEL
AB, AGG	AGGREGATE BASE	MH	MANHOLE
AC	ASPHALTIC CONCRETE	MJ	MECHANICAL JOINT
APN	ASSESSORS PARCEL NUMBER	MIN	MINIMUM
APPROX	APPROXIMATE	N	NORTH
ARV	AIR RELEASE VALVE	NTS	NOT TO SCALE
ASTM	AMERICAN SOCIETY FOR TESTING MATERIALS	OHE	OVERHEAD ELECTRIC
CATV	CABLE TV	PCC	PORTLAND CEMENT CONCRETE
CB	CATCH BASIN	PE	POLYETHYLENE
CL	CENTER LINE, CLASS	PL	PROPERTY LINE
CMP	CORRUGATED METAL PIPE	PP	POWER POLE
CONST	CONSTRUCT	PUE	PUBLIC UTILITY EASEMENT
CONC	CONCRETE	PVC	POLYVINYLCHLORIDE
DI	DROP INLET	PVMT	PAVEMENT
DTL	DETAIL	R	RADIUS
DIA, Ø	DIAMETER	RCP	REINFORCED CONCRETE PIPE
DWY	DRIVEWAY	ROW, RW	RIGHT OF WAY
EXIST		ROW, RW RT	RIGHT
	EXISTING	KI S	
E	EAST		SLOPE, SOUTH
EA ELEV	EACH	SD	STORM DRAIN
EL, ELEV	ELEVATION	SDMH	STORM DRAIN MANHOLE
EP	EDGE OF PAVEMENT	SDWK	SIDEWALK
EQ	EQUAL	SF	SQUARE FEET
FES	FLARED END SECTION	SHT	SHEET
FL	FLOWLINE	SS	SANITARY SEWER
FLG	FLANGE	SSCO	SANITARY SEWER CLEANOUT
FT	FEET	SSMH	SANITARY SEWER MANHOLE
G	GAS	ST	STREET
GB	GRADE BREAK	STA	STATION
GV	GAS VALVE/GATE VALVE	STD	STANDARD
HDPE	HIGH DENSITY POLYETHYLENE	STL	STEEL
HORIZ	HORIZONTAL	TBC	TOP BACK OF CURB
HP	HIGH POINT	TC	TOP OF CURB
HV	HORIZONTAL/VERTICAL	T, TELE	TELEPHONE
HYD	HYDRANT	TOG	TOP OF GRATE
IE, INV	INVERT ELEVATION	TOP	TOP OF PIPE
L	LENGTH	TYP	TYPICAL
LAT	LATERAL	U/G	UNDERGROUND
LF		W	WEST, WATER
Lr LT	LINEAL FEET LEFT	WM	WATER METER
MAT'L	MATERIAL	W/	WITH
MAX	MAXIMUM	w/o	WITHOUT
		WV	WATER VALVE
		X'ING	CROSSING

# CONSTRUCTION NOTES: (MASTER LIST)

- 1) INSTALL 8" PVC C900, DR-18, BELL & SPIGOT WATER MAIN PER STD DRAWING C-1.2.1
- 2 INSTALL 8"x8" TAPPING SLEEVE PER STD DRAWING C-3.1.3 WITH GATE VALVE PER STD DRAWING C-3.1.4.
- (3) INSTALL 8" GATE VALVE PER STD DRAWING C-3.1.4.
- (4) INSTALL 3/4" WATER SERVICE PER STD DRAWING C-3.2.1.
- 5) INSTALL 3/4" POTABLE WATER AIR RELEASE VALVE PER STD DRAWING C-3.1.10.
- (6) WATER MAIN CROSSING EXISTING UTILITY PER STD DRAWINGS C-3.1.8 & C3.1.9
- PROVIDE "SPECIAL CONSTRUCTION" MITIGATION TO AFFECTED LINES AS REQUIRED, PER "WATER/ SEWER SEPARATION GUIDELINES". INSTALL MECHANICAL JOINT RESTRAINTS TO LIMITS SHOWN ON PLANS, PER MANUFACTURER'S RECOMMENDATIONS. JOINTLESS WELDED OR FUSIBLE PIPE MAY BE USED IN LIEU OF RESTRAINED JOINTS.
- 8 INSTALL JOINT RESTRAINTS FOR USE ON C-900 PVC PIPE TO LIMITS SHOWN ON PLANS
- 9) POTHOLE TO VERIFY EXACT DEPTH AND/OR MATERIAL TYPE.
- 10) ADJUST EXISTING WATER VALVE BOX & COVER TO NEW FINISH GRADE, PER STD. DRAWING C-3.1.4.
- INSTALL LINE LOCATION BOX & LID, PER STD. DRAWING C-1.2.2. WITH LINE LOCATION RISER, PER STD. DRAWING C-1.2.3 AT ALL HORIZONTAL BEND LOCATIONS.
- (12) INSTALL FIRE HYDRANT ASSEMBLY PER STD. DRAWING C-3.1.7.
- install 48" diameter sewer manhole type 1, per STD drawing C-2.1.3, adjust RIM to New Finish grade per STD drawing C-2.1.5.
- (21) CONSTRUCT SEWER MAIN TRANSITION TO NEW SEWER MANHOLE PER STD DRAWING C-2.1.6.
- 22) MODIFY EXISTING SEWER MANHOLE TO INSIDE DROP MANHOLE PER STD DRAWING C-2.1.4.

  23) INSTALL SDR35 PVC SEWER MAIN PER STD DRAWING C-1.2.1. (SIZE PER PLAN)
- (24) INSTALL 4" PVC SDR35 SEWER LATERAL PER STD DRAWING C-2.2.1.
- RECONSTRUCT EXISTING SANITARY SEWER MANHOLE, PER STD. DRAWING C-2.1.3. RETAIN EXISTING BASE.
- 30 CONSTRUCT 48" SQUARE CATCH BASIN, PER DETAIL 1, SHEET C15.
- 31) CONSTRUCT CATCH BASIN TYPE 4R, PER STD. DRAWING C-4.1.5.
- 32 CONSTRUCT 48" DIAMETER FLAT TOP STORMDRAIN MANHOLE, PER DETAIL 2, SHEET C15.
- 33) INSTALL STORMDRAIN PIPE (SIZE & MATERIAL PER PLAN), PER STD. DRAWING C-1.2.1.
- (34) INSTALL PERFORATED (HDPE) STORMDRAIN PIPE, PER DETAIL 3. SHEET C15.
- (35) REMOVE & SALVAGE EXISTING STORMDRAIN PIPE, DELIVER TO CARSON CITY CORPORATE YARD.
- (36) ADJUST EXISTING MANHOLE FRAME & COVER TO NEW FINISH GRADE, PER STD. DRAWING C-2.1.5.
- (37) INSTALL REINFORCED CONCRETE PIPE FLARED END SECTION, SIZE TO MATCH PIPE.
- (40) PROTECT-IN-PLACE
- LIMITS OF FULL DEPTH SAWCUT, REMOVAL AND REPLACEMENT OF EXISTING AC PAVEMENT PER STD DRAWING C-5.1.6. AND TYPICAL ROADWAY SECTIONS.
- (42) CONSTRUCT PCC CURB & GUTTER TYPE 1, PER STD. DRAWING C-5.1.3.
- (43) CONSTRUCT 5' WIDE TYPE "A" PCC SIDEWALK, PER STD. DRAWING C-5.2.2
- (44) CONSTRUCT PCC RETAINING CURB, PER STD. DRAWING C-5.3.10.
- (45) CONSTRUCT 6' WIDE PCC VALLEY GUTTER, PER DETAIL 1, SHEET C17.
- (46) CONSTRUCT PCC DRIVEWAY APRON TYPE 1, PER STD. DRAWING C-5.2.3
- (47) CONSTRUCT AC DRIVEWAY APRON FOR RURAL ROADS, PER STD. DRAWING C-5.2.5.
- (48) CONSTRUCT PCC DRIVEWAY APRON FOR RURAL ROADS, PER STD. DRAWING C-5.2.5.
- (49) CONSTRUCT PARALLEL CURB RAMP APEX, PER STD. DRAWING C-5.3.5.
  (50) CONSTRUCT LINEAR CURB RAMP SINGLE ADJACENT, PER STD. DRAWING C-5.3.8.
- (51) CONSTRUCT MID BLOCK CURB RAMP, PER STD. DRAWING C-5.3.9.
- (60) PAINT 24" WIDE SOLID WHITE STOP BAR PER STD. DRAWING C-5.4.3
- 61) PAINT 6" WIDE SOLID WHITE LANE LINE
- (62) PAINT 6" WIDE WHITE DOTTED LINE (2' STRIPE, 6' SPACE)
- 63) PAINT 4" WIDE SOLID DOUBLE YELLOW CENTERLINE STRIPE
- (64) PAINT 4" WIDE YELLOW CENTERLINE SKIP STRIPE (7' STRIPE, 21' SPACE)
- PAINT SOLID WHITE BICYCLE WITH ARROW LEGEND AS SHOWN
- 66 INSTALL NEW SIGN AND POST PER STD. DRAWING C-5.4.2
- 67) REINSTALL EXISTING TRAFFIC SIGN AND POST PER STD. DRAWING C-5.4.2

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CARSON CITY PUBLIC WORKS DEPARTMENT	3505 BUTTI WAY CARSON CITY, NEVADA 89701
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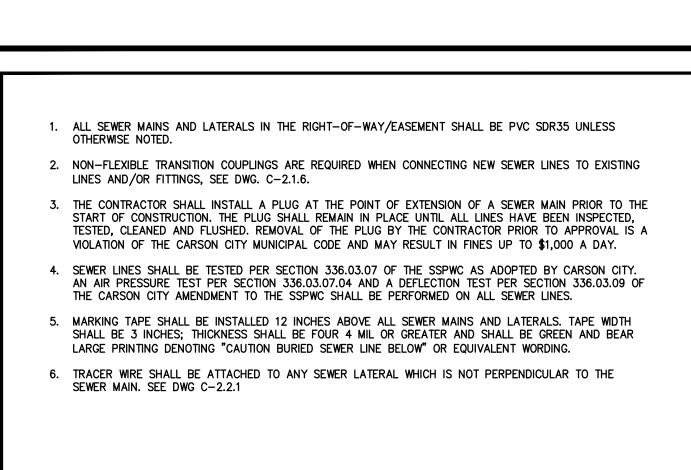
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CLEAR CREEK AVE SANITARY SEWER EXT PROJECT No. 0500

SHEET **G2**- OF------**23** 

NOTES, LEGEND



١٥.	REVISION	DATE	STANDARD DETAIL	L FOR PUBLIC WORKS	CONSTRUCTION	SECTION	NO.	REVISION	DATE	STANDARD [	DETAII	L FOR PUBLI	C WORKS	CONSTRUC	ΓIC
						CARSON CITY	<u>/1\</u>	NOTE 16	6/12						_
			CEMED	GENERAL	NOTES	DRAWING NO. C-2.1.1 (204, 306, 323)				CEWE	.D	MANIE		NOTE	C
			SEWER	GENERAL	MOTES	DATE				2FMF	.K	<b>MANH</b>	ULE	NUIL	-
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CARSON CITY

7/2009

DRAWING NO.

C = 4.1.1

DATE

INCHES: THICKNESS SHALL BE FOUR (4) MIL OR GREATER AND SHALL BE GREEN AND BEAR LARGE PRINTING DENOTING "CAUTION BURIED STORM DRAIN LINE BELOW" OR EQUIVALENT WORDING. 3. PORTLAND CEMENT CONCRETE (P.C.C.) SHALL HAVE THE FOLLOWING CHARACTERISTICS: 4000 PSI MIN. COMPRESSIVE STRENGTH @ 28 DAYS, (CURB AND GUTTER TRANSITION ONLY, ALL UNEXPOSED CONCRETE

MANHOLE MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF SECTION 204

MARKING TAPE SHALL BE INSTALLED 12 INCHES ABOVE ALL STORM DRAIN PIPE. TAPE WIDTH SHALL BE 3

- MAY BE 3000 PSI) MIN. 6 SACKS OF CEMENT PER CUBIC YARD WITH A MAX. WATER/CEMENT RATIO OF 0.45, AIR ENTRAINMENT 6% ±1.5%, SLUMP AT 1 TO 4 INCHES. ALL MATERIALS SHALL CONFORM TO SSPWC SECTION 202.
- 4. REINFORCING STEEL SHALL BE GRADE 40 AND HAVE 1.5 INCHES MINIMUM CLEAR COVER.

"MANHOLES AND CATCH BASINS" OF THE SSPWC.

THE STORM DRAIN MAIN.

APPROVED BY:

7/09

- 5. EACH CATCH BASIN SHALL HAVE A 4 INCH ALUMINUM BLUE DISK WITH FISH IMAGE AND THE WORDS "NO DUMPING! DRAINS TO RIVER" (ALMETEK SD-4 OR APPROVED EQUAL) INSTALLED ON THE TOP OF
- 6. FRAMES AND GRATES SHALL BE MATCHED TO ACHIEVE A CLOSE TOLERANCE FIT, WITH MINIMAL GAPS, AS APPROVED BY THE CARSON CITY ENGINEER OR PUBLIC WORKS DIRECTOR.
- 7. STORM DRAINAGE IMPROVEMENTS SHALL INCORPORATE WATER QUALITY AND EROSION CONTROLS IN ACCORDANCE WITH THE NEVADA "HANDBOOK OF BEST MANAGEMENT PRACTICES".
- 8. PRECAST MANHOLES SECTIONS, OTHER THAN GRADE RINGS, SHALL BE JOINED WITH FLEXIBLE PLASTIC
- GASKET MATERIAL SUCH AS RAM-NEK OR APPROVED EQUAL PER MANUFACTURERS RECOMMENDATIONS. 9. TRACER WIRE SHALL BE ATTACHED TO ANY STORM DRAIN LATERAL WHICH IS NOT PERPENDICULAR TO
- 10. MANHOLES LOCATED OUTSIDE PAVED AREAS SHALL REQUIRE ALL WEATHER ACCESS ROADWAY CONSISTING OF 6 INCHES TYPE 2, CLASS B AGGREGATE BASE (CONFORMING TO THE SSPWC SECTION 200.01.02) AND STORM DRAIN MANHOLE MARKERS BE INSTALLED. STORM DRAIN MANHOLE MARKERS SHALL BE GREEN CARSONITE UTILITY MARKER (CUM 375), 5 FEET-2 INCHES (5'-2") WITH DECAL READING "STORM DRAIN MANHOLE". PLACE MARKERS ON EASEMENT LINE NEAREST TO MANHOLE OR AS DIRECTED BY THE CARSON CITY ENGINEER OR PUBLIC WORKS DIRECTOR.
- 11. MANHOLE CONCRETE COLLARS SHALL BE LEFT 2 1/2 INCHES TO 3 INCHES BELOW FINISHED ASPHALT SURFACE. APPLY AN APPROVED TACK COAT (CONFORMING TO THE SSPWC SECTION 316) AND FILL VOID BETWEEN ADJACENT PAVEMENT AND FRAME WITH TYPE 3 AC 20 PAVING (CONFORMING TO THE SSPWC SECTION 320). APPLY FOG SEAL (CONFORMING TO SSPWC SECTION 317) TO THE ASPHALT SURFACE. ALL CUTS IN PAVING SHALL BE STRAIGHT AND EVEN. EXCEPTION: WHEN STRUCTURE NOT LOCATED IN ASPHALT PAVEMENT OR LOCATED IN AN UNPAVED AREA, EXTEND CONCRETE TO FINISH GRADE.
- 12. GRATES SHALL BE PLACED OUTSIDE OF THE PEDESTRIAN TRAVELED WAY. GRATE OPENINGS SHALL NOT EXCEED 0.5 INCHES IN WIDTH OR 4 INCHES IN LENGTH. GRATES SHALL BE TRAFFIC RATED AND ADA

NO. REVISION DATE STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION SECTION

STORM DRAIN

**GENERAL NOTES** 

	NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION
					CARSON CITY
				SIDEWALK AND DRIVEWAY	DRAWING NO. C-5.2.1
				GENERAL NOTES	DATE
	APPROV	ED BY:	7/09	GENERAL NOTES	7/2009

PLANS. NO PLUGGING OR FIELD MODIFYING ALLOWED.

INSIDE WALL AT THE SPRING LINE OF THE PIPE.

CITY ENGINEER OR PUBLIC WORKS DIRECTOR.

AMENDMENT TO THE SSPWC, LATEST EDITION.

CARSON CITY PUBLIC WORKS.

2. PRECAST MANHOLE COMPONENTS SHALL CONFORM TO ASTM C-478.

"MANHOLES AND CATCH BASINS" OF THE STANDARD SPECIFICATIONS.

SECTION 305 OF THE STANDARD SPECIFICATIONS. (SEE C-1.2.1)

HOLES ONLY: SOUTH BAY FOUNDRY 1900 CPH OR APPROVED EQUAL.

PIPE-TO-MANHOLE CONNECTOR OR A LINK-SEAL MODULAR SEAL.

6. PRECAST MANHOLE SECTIONS, OTHER THAN GRADE RINGS, SHALL BE JOINED WITH FLEXIBLE PLASTIC

7. EXCAVATION AND BACKFILL SHALL BE AS SPECIFIED FOR "TRENCH EXCAVATION AND BACKFILL" IN

8. NO SEWER LINE PIPE WITH A DIAMETER OF LESS THAN 8 INCHES SHALL BE CONNECTED TO A

MANHOLE WITHOUT THE APPROVAL OF THE CITY ENGINEER OR PUBLIC WORKS DIRECTOR.

9. MATCH PIPE INVERTS TO MANHOLE INVERTS WHERE PIPES CONNECT TO MANHOLE BASE.

13. NO STEPS, LADDERS OR OTHER CLIMBING DEVICES SHALL BE INSTALLED IN MANHOLES.

GASKET MATERIAL SUCH AS "RAM-NEK" OR EQUAL AS PER MANUFACTURER'S RECOMMENDATIONS.

10. ALL MANHOLES SHALL BE SEALED WATERTIGHT. COVERS SHALL HAVE NO "THRU" HOLES. CLOSED PICK

12. PRIOR TO BACKFILLING, ALL MANHOLES SHALL BE VACUUM TESTED PER THE REQUIREMENTS OF ASTM

14. MANHOLES LOCATED OUTSIDE PAVED AREAS SHALL REQUIRE ALL WEATHER ACCESS ROADWAY CONSISTING OF 6 INCH TYPE 2, CLASS B AGGREGATE BASE (CONFORMING TO THE SSPWC SECTION 200.01.02) AND

15. SEWER MANHOLES SHALL BE VACUUM TESTED PER SECTION 336.03.07.05 OF THE CARSON CITY

DRILLING THE MANHOLE AND CONNECTING THE PIPE PENETRATION WITH AN NPC KOR-N-SEAL

NO CONCRETE SHALL BE PLACED UNTIL FORMS AND SUBGRADE ARE INSPECTED AND APPROVED BY

PORTLAND CEMENT CONCRETE (P.C.C.) SHALL HAVE THE FOLLOWING CHARACTERISTICS: SYNTHETIC

FIBER-REINFORCEMENT (AT A MINIMUM OF 1 POUND PER CUBIC YARD), WITH COARSE AGGREGATE

AND SHALL HAVE A 1 TO 4 INCH SLUMP, AND 4 TO 7 PERCENT ENTRAINED AIR. 4000 PSI MIN

SHALL CONFORM TO SSPWC SECTION 202. OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS

4. IF OBSTRUCTIONS SUCH AS INLETS, UTILITY POLES, FIRE HYDRANTS, ETC. ARE ENCOUNTERED, THE

EXISTING CONCRETE SHALL BE REMOVED TO A NEAT SAWCUT LINE OR NEAREST EXPANSION JOINT.

6. ALL AGGREGATE BASE SHALL BE TYPE 2, CLASS B AND SHALL CONFORM TO SEC.200.01. OF THE

STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC).

7. NEW CONCRETE SHALL HAVE A HEAVY BROOM FINISH PERPENDICULAR TO SIDEWALK.

LOCATION AND DIMENSIONS MAY BE ADJUSTED UPON APPROVAL BY CARSON CITY PUBLIC WORKS. A

MINIMUM SURFACE OF 5 FEET X 5 FEET CLEAR IS REQUIRED WHEN DIRECTION OF TRAVEL MAY CHANGE AND A MINIMUM SURFACE OF 4 FEET CLEAR IS REQUIRED WHERE DIRECTION OF TRAVEL IS NOT EXPECTED

TO CHANGE, UNLESS OTHERWISE APPROVED BY THE CARSON CITY ENGINEER OR PUBLIC WORKS DIRECTOR.

GRADATION CONFORMING TO SIZE No. 67 PER SECTION 200.05.03 OF THE STANDARD SPECIFICATIONS.

COMPRESSIVE STRENGTH @ 28 DAYS. MIN 6 SACKS OF TYPE II CEMENT PER CUBIC YARD WITH A MAX.

WATER/CEMENT RATIO OF 0.45, AIR ENTRAINMENT 6% ±1.5%, SLUMP AT 1 TO 4 INCHES ALL MATERIALS

ALL CONCRETE EDGING AND JOINTING SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. DETAIL C-5.1.1 AND CONFORM TO SEC. 312.09 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

CARSON CITY

C-2.1.2 (204,306,323

7/2009

DRAWING NO.

16. WHEN PIPE CONNECTIONS TO EXISTING MANHOLES ARE ALLOWED, THEY SHALL BE MADE BY CORE

SEWER MANHOLE MARKERS SHALL BE INSTALLED. SEWER MANHOLE MARKERS SHALL BE GREEN CARSONITE

UTILITY MARKER (CUM 375), 5 FEET-2 INCHES (5'-2") WITH MANHOLE DECAL (668-MH) OR APPROVED

EQUAL. PLACE MARKERS ON EASEMENT LINE NEAREST TO MANHOLE OR AS DIRECTED BY THE CARSON

11. COAT OUTSIDE OF SEWER MANHOLE WITH FLEXIBLE RUBBERIZED COATING WHEN GROUNDWATER IS

1. WATER MAIN SHUTDOWNS/INTERRUPTION OF WATER/FIRE SERVICE; OBTAIN TENTATIVE APPROVAL FROM MANHOLE BASE(S) SHALL BE PRECAST UNLESS OTHERWISE APPROVED BY CARSON CITY PUBLIC WORKS. NO FIELD MODIFICATIONS TO PRECAST BASES WILL BE ALLOWED. TROUGHS AND BENCHES TO BE CAST IN CARSON CITY WATER UTILITY PRIOR TO PLANNING A SHUTDOWN. APPROVAL IS REQUIRED ONE WORKING DAY PRIOR TO NOTIFICATION OF CUSTOMERS. COMMERCIAL CUSTOMERS SHALL RECEIVE 2 BASE(S) AT PRECAST FACTORY. BASE CONFIGURATION TO BE INSTALLED AS SHOWN ON THE APPROVED WORKING DAYS WRITTEN AND VERBAL NOTICE OF A SHUTDOWN. SPECIAL ARRANGEMENTS INCLUDING NIGHT TIME SHUTDOWNS MAY BE REQUIRED OF THE CONTRACTOR TO ACCOMMODATE CUSTOMER OPERATIONS. RESIDENTIAL CUSTOMERS SHALL RECEIVE 24 HOURS WRITTEN NOTICE. WHEN WORK IS PERFORMED BY CITY STAFF, THE CITY IS RESPONSIBLE FOR THE NOTIFICATION. THE CONTRACTOR IS 3. ARRANGE MANHOLE SECTION LENGTHS TO FIT DEPTH. ALL SHIMS TO BE REMOVED AND VOIDS GROUTED. RESPONSIBLE IN ALL OTHER CASES. A LIST SHALL BE KEPT BY THE RESPONSIBLE PARTY LISTING THE DATE, TIME AND ADDRESS OF ALL PERSONS NOTIFIED. THE PERSON NOTIFIED SHALL BE INCLUDED ON THE LIST FOR ALL COMMERCIAL CUSTOMERS. CONTACT CARSON CITY WATER UTILITY FOR PHONE PIPES SHALL NOT PROTRUDE MORE THAN 3 INCHES INSIDE MANHOLE SECTION, AS MEASURED FROM THE NUMBERS WHEN COMMERCIAL CUSTOMERS CANNOT BE LOCATED. THE CONTRACTOR WILL BE SUBJECT TO DAMAGE CLAIMS SHOULD THEY FAIL TO NOTIFY CUSTOMERS OR MAINTAIN DOCUMENTATION OF NOTIFICATION OF CUSTOMERS. THE TOTAL TIME OF ANY WATER SERVICE INTERRUPTION IS LIMITED TO 5. MANHOLE MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF SECTION 204 4 HOURS MAXIMUM. THE CONTRACTOR SHALL NOT OPERATE ANY EXISTING WATER VALVES. WATER

ADVANCE OF ANY PLANNED SHUTDOWN.

WATER MAINS (6 INCH THRU 12 INCH) SHALL BE PVC C900, DR 18 (MINIMUM WALL THICKNESS) UNLESS HIGHER PRESSURE IS SPECIFIED ON THE PLANS. WATER SERVICES 2 INCHES OR LESS SHALL BE CTS, C901 PE TUBING, MINIMUM 200 PSI; WATER SERVICES 3 INCHES OR GREATER SHALL BE 4 INCH MINIMUM DIAMETER PVC C900, DR 18 OR AS SPECIFIED ON THE PLANS.

MAIN SHUTDOWNS WILL ONLY BE SCHEDULED FOR TUESDAYS, WEDNESDAYS, OR THURSDAYS, EXCLUDING THE WORKING DAYS BEFORE AND AFTER A HOLIDAY. CONTRACTOR SHALL MAKE A

WRITTEN REQUEST, TO THE WATER OPERATIONS CHIEF, A MINIMUM OF 10 CALENDAR DAYS IN

- 3. MAINTAIN 18 INCHES VERTICAL AND 5 FEET HORIZONTAL SEPARATION BETWEEN ALL UNDERGROUND UTILITY LINES AND WATER LINES. IF WATER LINE IS BELOW POWER LINE OR IS WITHIN 18 INCH VERTICAL SEPARATION OF POWER LINE, POWER/TELEPHONE LINE SHALL BE ENCASED WITH 4 INCHES MINIMUM OF CONCRETE EXTENDING 5 FEET EACH SIDE OF CROSSING. (SEE NV ENERGY SPECS.) CONCRETE ENCASEMENT OF WATER LINES IS NOT ALLOWED.
- ALL HOT TAPS, GREATER THAN 2 INCHES AND LESS THAN 12 INCHES, ARE TO BE PERFORMED BY CARSON CITY WATER UTILITY. THE CONTRACTOR SHALL CONTACT THE WATER OPERATIONS CHIEF AT LEAST 2 WORKING DAYS PRIOR TO SCHEDULING HOT TAP DATE AND TIME (HOT TAPS ARE PERFORMED TUESDAY THRU THURSDAY EXCLUDING THE WORKING DAYS BEFORE AND AFTER A HOLIDAY). PRIOR TO HOT TAPPING. THE SADDLE SHALL BE HYDROSTATICALLY PRESSURE TESTED TO 150 PSI MINIMUM OR THE DESIGN OF PIPE SYSTEM FOR A MINIMUM OF 5 MINUTES. THE TEST SHALL BE PERFORMED IN THE PRESENCE OF THE WATER UTILITY PERSONNEL PRIOR TO PERFORMING THE TAP. ALL TAPPING EQUIPMENT SHALL BE DISINFECTED AND INSPECTED BY CITY FORCES PRIOR TO TAPPING A CITY MAIN.
- 5. WATER VALVE MARKERS SHALL BE BLUE CARSONITE UTILITY MARKER (CUM-375), 5 FEET-2 INCHES (5'-2") WITH CARSON CITY WATER VALVE DECAL (CWV-116) OR APPROVED EQUAL. PLACE MARKER NO MORE THAN 5 FEET FROM THE VALVE OR AS DIRECTED BY THE CARSON CITY INSPECTOR.
- REDUCED PRESSURE PRINCIPLE AND DOUBLE CHECK VALVE BACKFLOW ASSEMBLIES SHALL BE APPROVED BY THE CARSON CITY INSPECTOR, AND TESTED BY A CERTIFIED BACKFLOW ASSEMBLY TESTER, AND TEST RESULTS SHALL BE APPROVED BY CARSON CITY WATER UTILITY. FOR NEW WATER METER SETS. THE REQUIRED BACKFLOW PREVENTION ASSEMBLY SHALL BE INSTALLED, INSPECTED. APPROVED AND CERTIFIED TEST RESULTS PROVIDED TO THE CARSON CITY INSPECTOR WITHIN 5 DAYS OF METER SET, UNLESS THE CARSON CITY ENGINEER OR PUBLIC WORKS DIRECTOR APPROVES OTHERWISE. THE SERVICE WILL BE LOCKED OFF IF INSPECTIONS AND CERTIFICATIONS ARE NOT COMPLETED AS SPECIFIED ABOVE. A 25 DOLLAR FEE WILL BE ASSESSED AT TIME OF TURN-ON WHEN LOCK IS REMOVED DURING NORMAL WORKING HOURS. THE FEE WILL BE ASSESSED ON THE BUILDING PERMIT FOR THE INSTALLATION OF THE BACKFLOW DEVICE.
- 7. ALL WATER MAIN, WATER/FIRE SERVICE, AND BACKFLOW PREVENTION INSPECTIONS AND TESTING MUST BE APPROVED PRIOR TO APPROVAL OF ANY CERTIFICATE OF OCCUPANCY.
- 8. DISINFECTION TABLETS SHALL BE PLACED USING TITEBOND MULTI-PURPOSE CLEAR 100% SILICONE OR APPROVED EQUAL FOOD GRADE SILICONE

NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	
<i>7</i> 1\	NOTE 4	05/14		CARSON CITY
<b>Ź</b>	Added C901	7/14	WATER GENERAL	DRAWING NO. C-3.1.1 (307)
			NOTES (MODIFIED)	DATE
APPROV	/ED BY:	05/14	HOTES (MODITIED)	5/2014

NO CONCRETE SHALL BE PLACED UNTIL FORMS AND SUBGRADE ARE INSPECTED BY CARSON CITY

ENGINEERING DIVISION.

APPROVED BY:

- 2. PORTLAND CEMENT CONCRETE (P.C.C.) SHALL HAVE THE FOLLOWING CHARACTERISTICS: SYNTHETIC FIBER-REINFORCEMENT (AT A MINIMUM OF 1 POUND PER CUBIC YARD), 4000 PSI MIN COMPRESSIVE STRENGTH @ 28 DAYS, MIN 6 SACKS OF CEMENT PER CUBIC YARDS WITH A MAX. WATER/CEMENT RATIO OF 0.45, AIR ENTRAINMENT 6% ±1.5%, SLUMP AT 1 TO 4 INCHES ALL MATERIALS SHALL CONFORM TO SSPWC SECTION 202. OF THE STANDARD SPECIFICATIONS FOR
- 3. ALL CONCRETE EDGING AND JOINTING SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. DETAIL C-5.1.1 AND CONFORM TO SEC. 312.09 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS
- 4. IF OBSTRUCTIONS SUCH AS INLETS, UTILITY POLES, FIRE HYDRANTS, ETC. ARE ENCOUNTERED, THE LOCATION AND DIMENSIONS MAY BE ADJUSTED UPON APPROVAL BY CARSON CITY ENGINEER OR PUBLIC WORKS DIRECTOR. A MINIMUM LANDING OF 5 FEET X 5 FEET CLEAR IS REQUIRED WHEN DIRECTION OF TRAVEL MAY CHANGE. A MINIMUM OF 4 FEET CLEAR IS MAY BE USED UPON APPROVAL OF THE CARSON CITY ENGINEER OR PUBLIC WORKS DIRECTOR WHERE DIRECTION OF TRAVEL IS NOT EXPECTED TO CHANGE.
- 5. WHEN A CROSSWALK IS SERVICED BY RAMP, LANDINGS SHALL BE CONTAINED WITHIN THE CROSSWALK AREA.
- 6. EXISTING CONCRETE SHALL BE REMOVED TO A NEAT SAWCUT LINE OR NEAREST EXPANSION JOINT.
- 7. PLANTMIX BITUMINOUS SURFACE SHALL BE FLUSH WITH THE EDGE OF THE GUTTER PAN IN THE AREA OF THE CURB RAMP. GUTTER SHALL MAINTAIN POSITIVE DRAINAGE TO PREVENT PONDING.
- 8. ALL AGGREGATE BASE SHALL BE TYPE 2, CLASS B AND SHALL CONFORM TO SEC.200.01. OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC).
- 9. NEW CONCRETE SHALL HAVE A HEAVY BROOM FINISH PERPENDICULAR TO SIDEWALK.
- 10. DETECTABLE WARNINGS SHALL BE EAST JORDAN IRON WORKS 7005 SERIES CAST IRON DETECTABLE WARNING PLATES OR APPROVED EQUAL. INSTALLED PER MANUFACTURERS INSTALLATION GUIDELINES AND CONFORM TO ADAAG (4.29) "DETECTABLE WARNINGS". COLOR: ASPHALT DIPPED UNLESS OTHERWISE APPROVED BY CARSON CITY ENGINEER OR PUBLIC WORKS DIRECTOR. RADIAL DETECTABLE WARNINGS SHALL BE USED WHEN REQUIRED TO MAINTAIN MINIMUM CLEARANCE OF INCHES AND MAXIMUM CLEARANCE OF 8 INCHES FROM DETECTABLE WARNINGS TO BACK FACE OF
- CURB. RADIAL DETECTABLE WARNINGS SHALL HAVE A RADIUS WITHIN 5 FEET OF BACK FACE OF CURB RADIUS.
- 11. AC PAVEMENT EDGE SHALL BE 1/4 INCH TO 1/2 INCH ABOVE THE LIP OF GUTTER. EXCEPTION: AC PAVEMENT EDGE SHALL BE FLUSH TO 1/4 INCH ABOVE THE LIP OF GUTTER WHEN LOCATED ADJACENT TO A PEDESTRIAN RAMP OR WITHIN AN ACCESSIBLE ROUTE.

NO. REVISION DATE STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION SECTION

**CURB RAMP** 

GENERAL NOTES

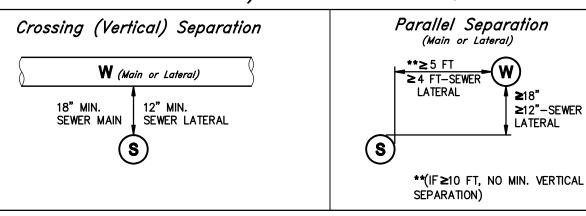
CARSON CITY

6/2012

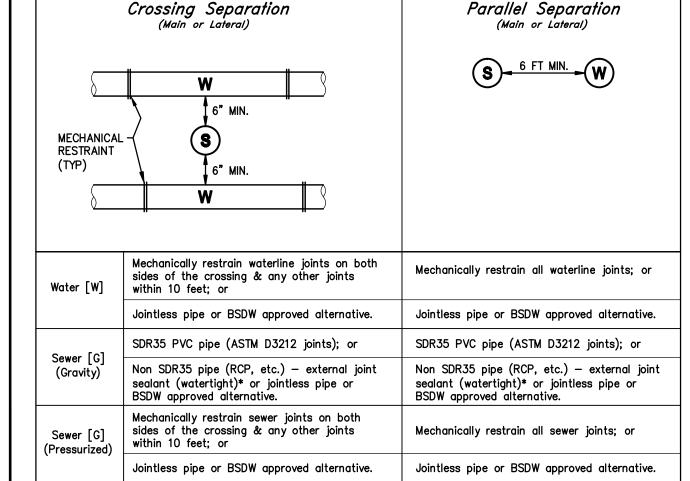
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## WATER/SEWER SEPARATION GUIDELINES

### PREFERRED DESIGN/NO MITIGATION REQUIRED



### MITIGATED DESIGN/CONSTRUCTION CONFIGURATION



Sewer — (e.g. sanitary sewer mains and laterals, storm drains, and reclaimed wastewater mains and laterals.) Mechanical Restraint — a mechanical coupling to restrict joint movement and separation.

Jointless Pipe - Welded HDPE (AWWA C901/C906), Fusible PVC (Fusible AWWA C900/C905), etc.

\*<u>NPC External Joint Seals, Aquawrap, Infi-Shield Gator Wrap</u>, ASTM C877-08, or approved equal.

### SPECIAL CONSTRUCTION / VERTICAL CROSSING CONFLICTS NOTES:

- "SPECIAL CONSTRUCTION" IS REQUIRED WHENEVER SEWER/STORM DRAIN/IRRIGATION, RECLAIMED/NON-POTABLE CROSSES ABOVE WATER, REGARDLESS OF VERTICAL SEPARATION.
- 2. "SPECIAL CONSTRUCTION" IS REQUIRED IF WATER MAIN DOES NOT CROSS AT LEAST 18 INCHES ABOVE SEWER/STORM DRAIN/ IRRIGATION/RECLAIMED/NON-POTABLE MAIN.
- 3. AT CROSSINGS REQUIRING "SPECIAL CONSTRUCTION", MITIGATION MUST BE PROVIDE BOTH AFFECTED LINES. IN ADDITION TO CENTERING AND RESTRAINING THE WATER THE EXISTING SEWER/STORM DRAIN/IRRIGATION/RECLAIMED/NON-POTABLE MAIN, MUST ALSO BE PROTECTED PER THE "WATER/SEWER SEPARATION GUIDELINES" LIS

### STORMWATER PROTECTION NOTES:

ROADWAY SHALL BE REMOVED IMMEDIATELY.

- 1. CARSON CITY AS DETERMINED THAT DUST CONTROL AND SEDIMENT TRACKING ARE THE MOST IMPORTANT ELEMENTS TO BE MITIGATED DURING THIS CONSTRUCTION PROJECT.
- 2. PRIOR TO ANY CONSTRUCTION ACTIVITY, THE CONTRACTOR SHALL INSTALL AND MAINTAIN ALL STORM WATER PROTECTION DEVICES IN ACCORDANCE WITH THE "NEVADA CONTRACTORS FIELD GUIDE FOR CONSTRUCTION SITE BEST MANAGEMENT PRACTICES".
- ALL INSTALLED PROTECTION DEVICES SHALL BE INSPECTED AND APPROVED BY THE CARSON CITY CONSTRUCTION INSPECTOR PRIOR TO ANY CONSTRUCTION ACTIVITY.
  - ALL BMPs MUST BE INSPECTED WEEKLY, PRIOR TO FORECASTED RAIN EVENTS, AND WITHIN 24 HOURS AFTER ANY EVENT THAT CREATES RUNOFF AT THE SITE.
- 5. ACCUMULATED SEDIMENT MUST BE REMOVED FROM BMPs WHEN THE DESIGN CAPACITY HAS BEEN REDUCED BY 50 PERCENT OR MORE. SEDIMENT MUST ALSO BE REMOVED WITHIN SEVEN DAYS AFTER A RUNOFF EVENT OR PRIOR TO THE NEXT FORECASTED RAIN EVENT WHICHEVER IS EARLIER.
- 6. IF THE ENTRANCE STABILIZATION IS NOT PREVENTING SEDIMENT FROM BEING TRACKED ONTO PAVEMENT. ALTERNATIVE MEASURES TO KEEP THE STREETS FREE OF SEDIMENT SHALL BE USED. THIS MAY INCLUDE STREET SWEEPING, AN INCREASE IN THE DIMENSIONS OF THE ENTRANCE, OR THE INSTALLATION OF A WHEEL WASH. 7. ANY ROCK THAT IS LOOSENED FROM THE ENTRANCE STABILIZATION PAD, WHICH END UP ON THE PAVED
- 8. CONTRACTOR SHALL INSPECT LOCAL ROADS ADJACENT TO THE SITE DAILY, SWEEP OR VACUUM TO REMOVE ANY
- 9. ANY SEDIMENT THAT IS TRACKED ONTO PAVEMENT SHALL BE REMOVED BY SHOVELING, STREET SWEEPING OR VACUUMING. THE SEDIMENT COLLECTED BY SWEEPING SHALL BE REMOVED OR STABILIZED ON SITE. THE PAVEMENT SHALL NOT BE CLEANED BY WASHING DOWN THE STREET, EXCEPT WHEN SWEEPING IS INEFFECTIVE AND THERE IS A THREAT TO PUBLIC SAFETY. IF IT IS NECESSARY TO WASH THE STREETS, THE CONSTRUCTION OF A SMALL SUMP SHALL BE CONSIDERED. THE SEDIMENT WOULD THEN BE WASHED INTO THE SUMP WHERE IT CAN BE CONTROLLED
- 10. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING DUST CONTROL WITHIN THE CONSTRUCTION LIMITS AT
- THE CONTRACTOR OR HIS QUALIFIED AGENT IS REQUIRED TO ROUTINELY INSPECT ALL AREAS OF DISTURBED AND BARE SOIL, AREAS USED FOR STORAGE OF MATERIALS AND EQUIPMENT THAT ARE EXPOSED TO PRECIPITATION, ONSITE VEHICLE ENTRANCE AND EXIT LOCATIONS AND ALL ONSITE EROSION AND SEDIMENT CONTROL BMPS.

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**Exp:** 6/30/1

MELLOWS

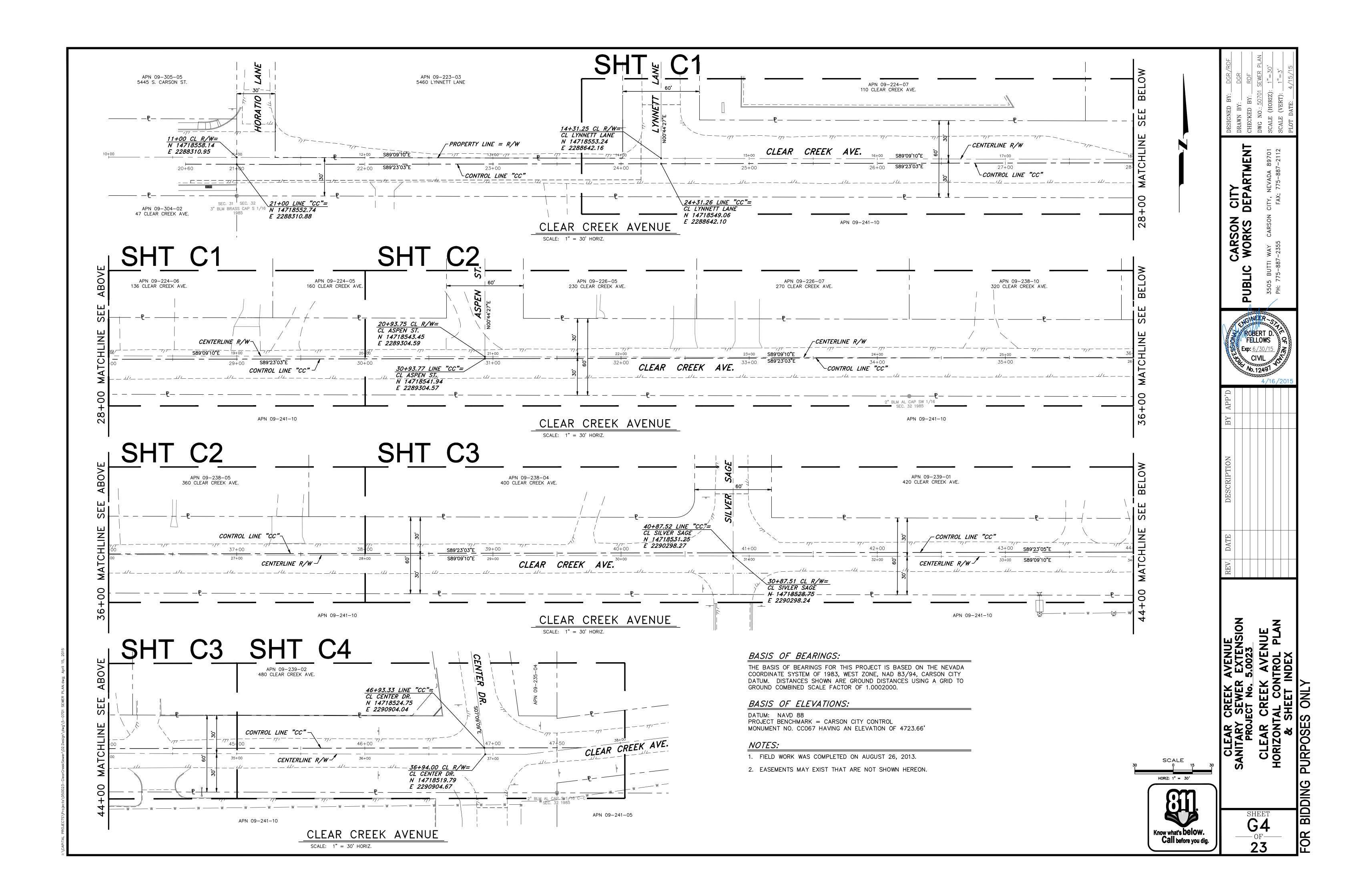
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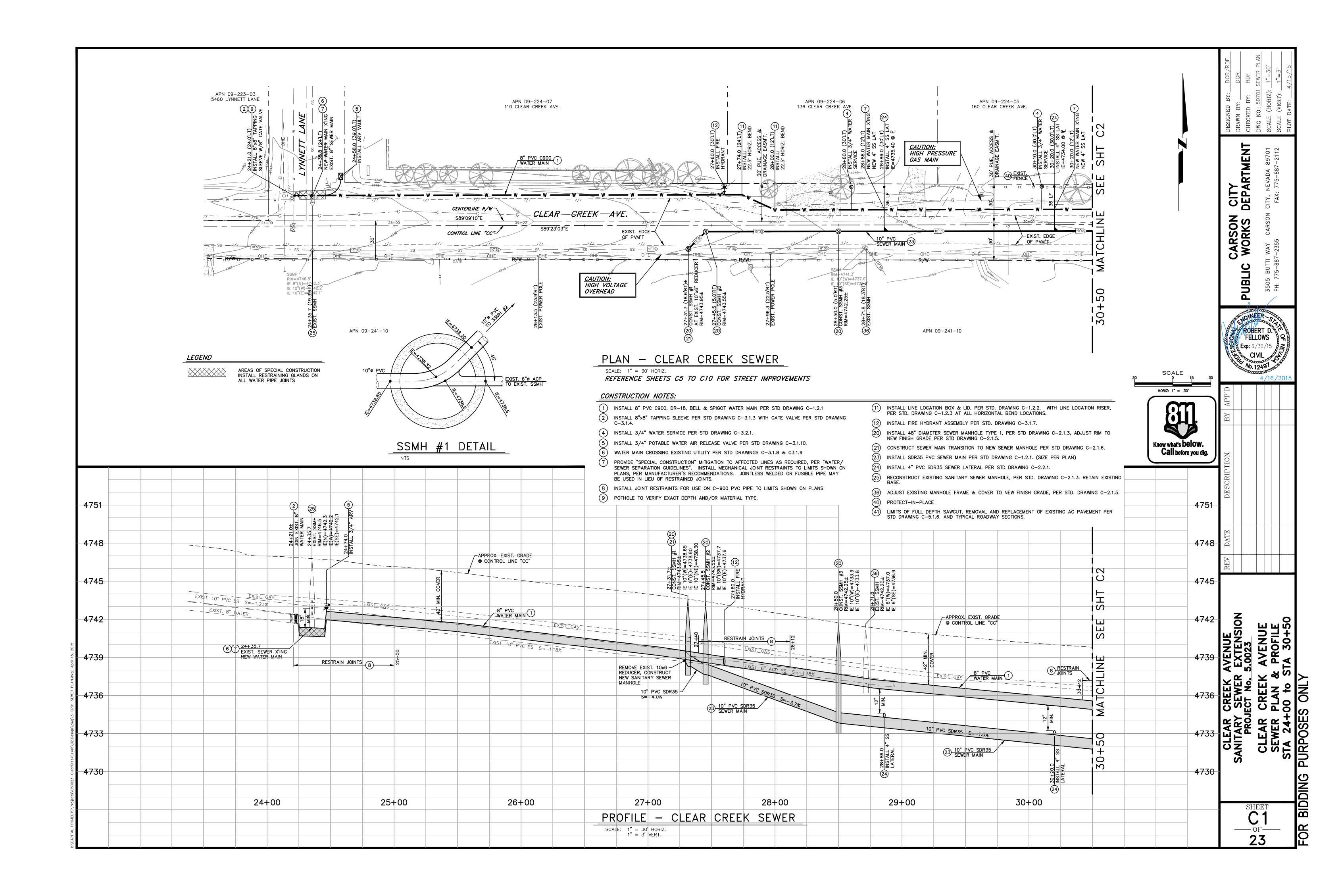
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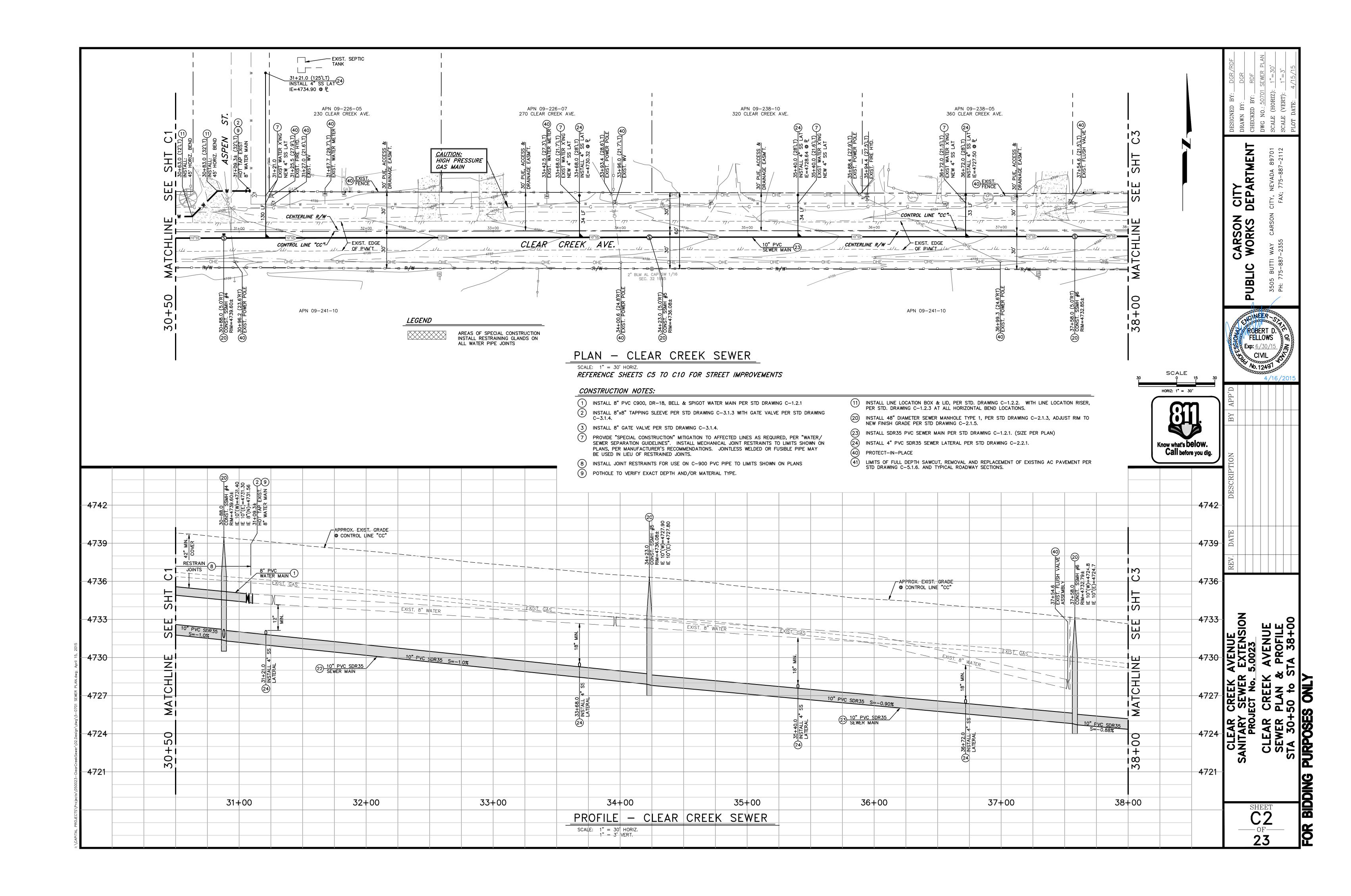
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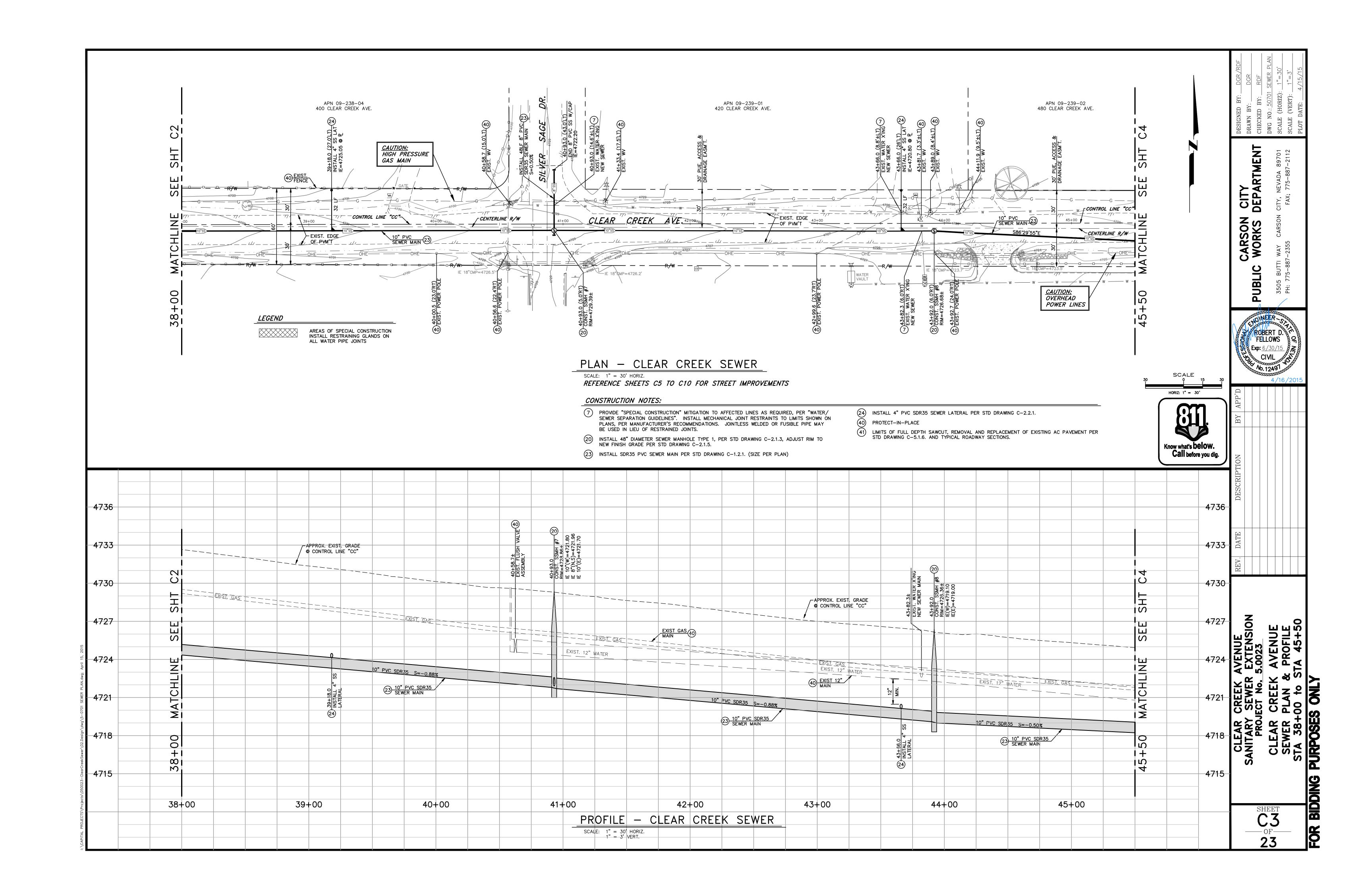
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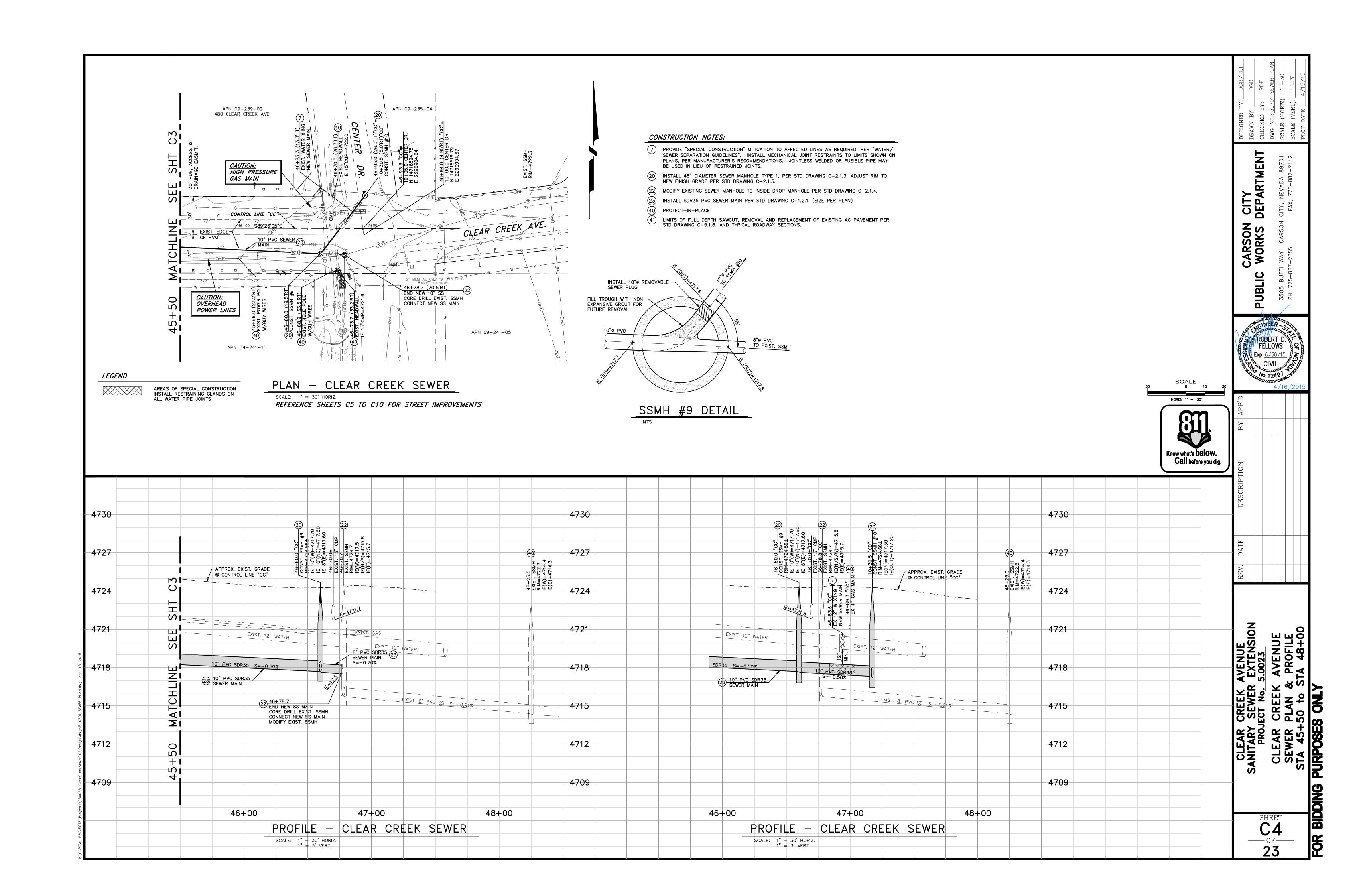
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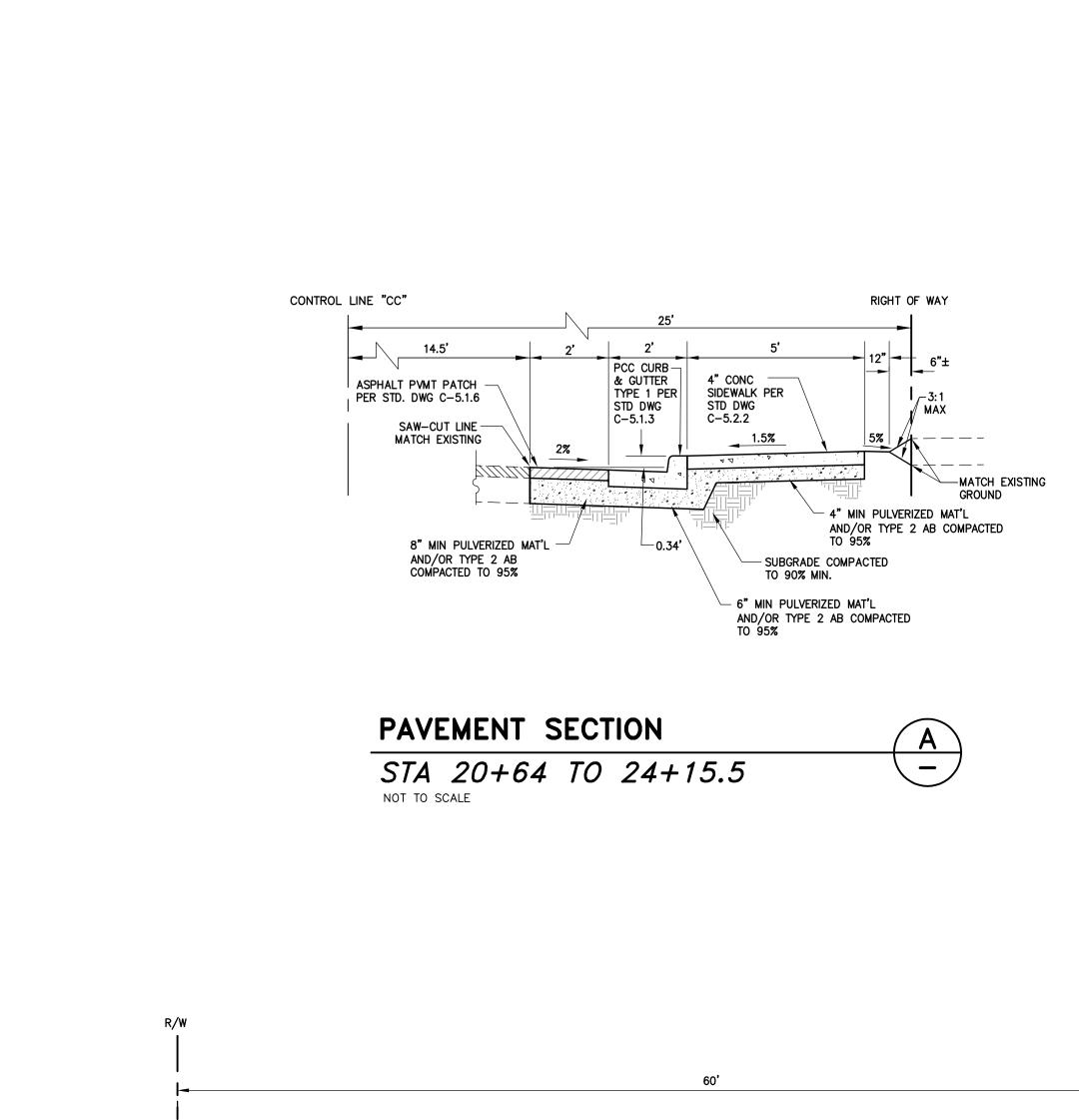


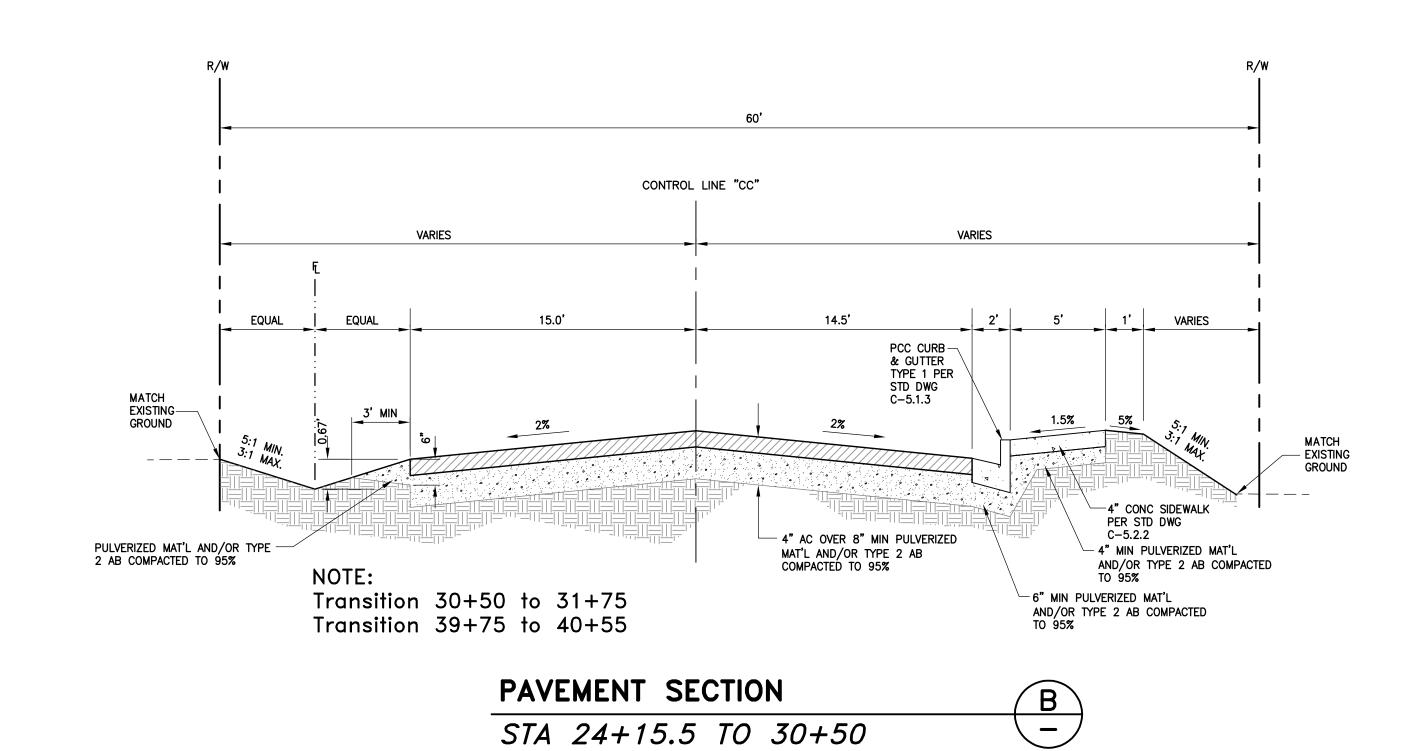










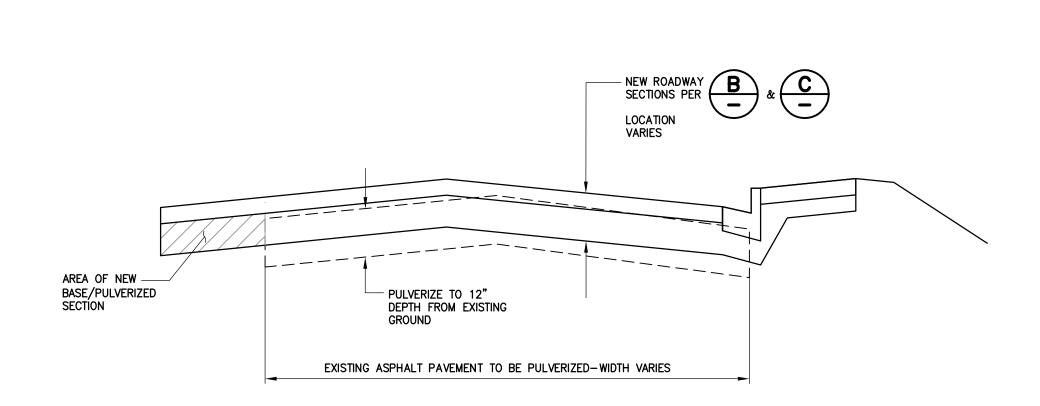


STA 40+55 TO 47+50

NOT TO SCALE

CONTROL LINE "CC" 2' 5' 1' VARIES MATCH EXISTING— GROUND AT R/W PCC CURB — & GUTTER TYPE 1 PER STD DWG C-5.1.3 1.5% MATCH — EXISTING GROUND PULVERIZED MAT'L AND/OR TYPE -2 AB COMPACTED TO 95% 4" CONC SIDEWALK
PER STD DWG
C-5.2.2

4" MIN PULVERIZED MAT'L
AND/OR TYPE 2 AB COMPACTED
TO 95% - 4" AC OVER 8" MIN PULVERIZED MAT'L AND/OR TYPE 2 AB COMPACTED TO 95% NOTE: Transition 30+50 to 31+75 Transition 39+75 to 40+55 6" MIN PULVERIZED MAT'L
AND/OR TYPE 2 AB COMPACTED
TO 95%



PAVEMENT SECTION STA 31+75 TO 39+75
NOT TO SCALE

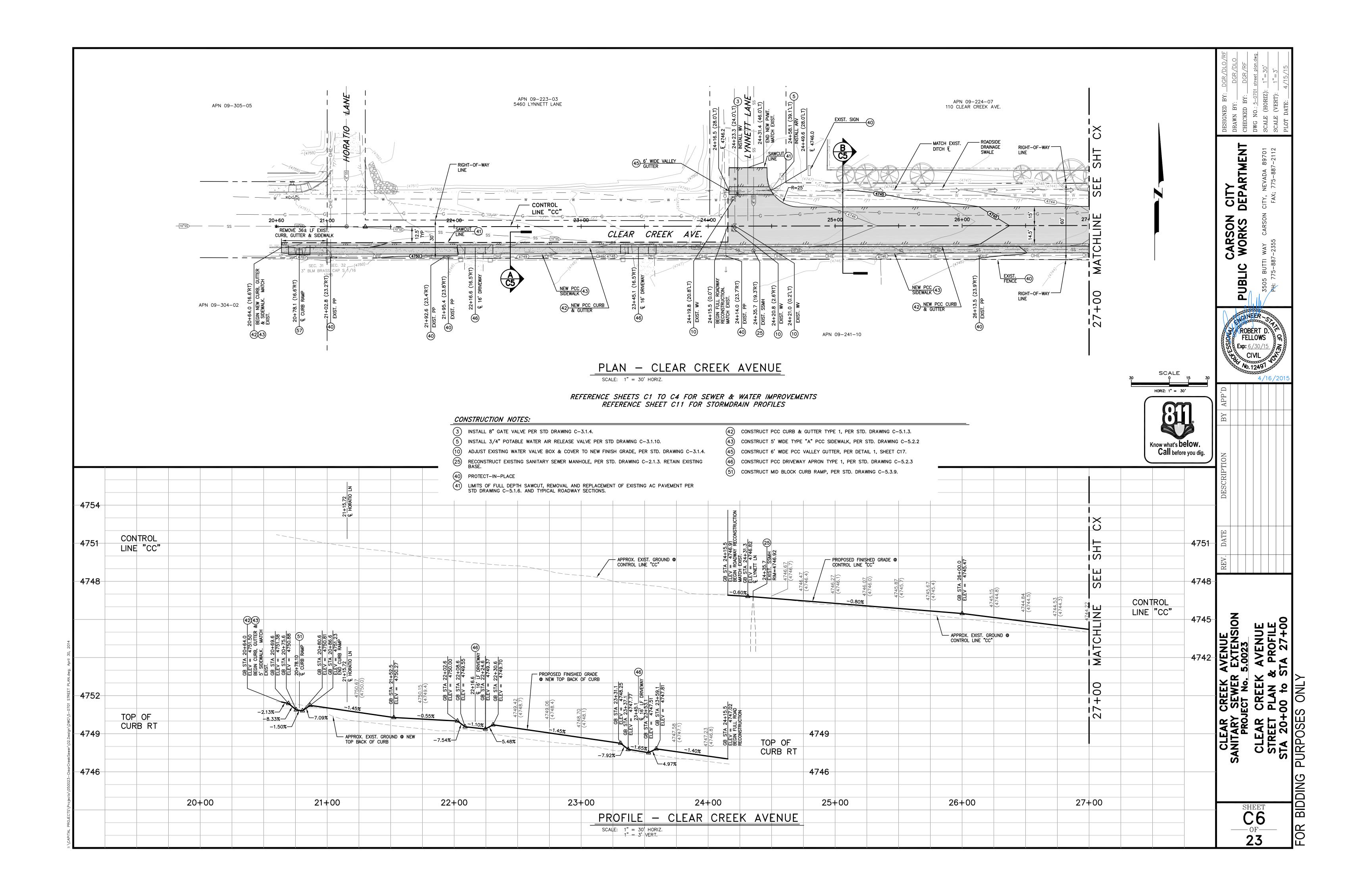
PAVEMENT PULVERIZATION SECTION NOT TO SCALE

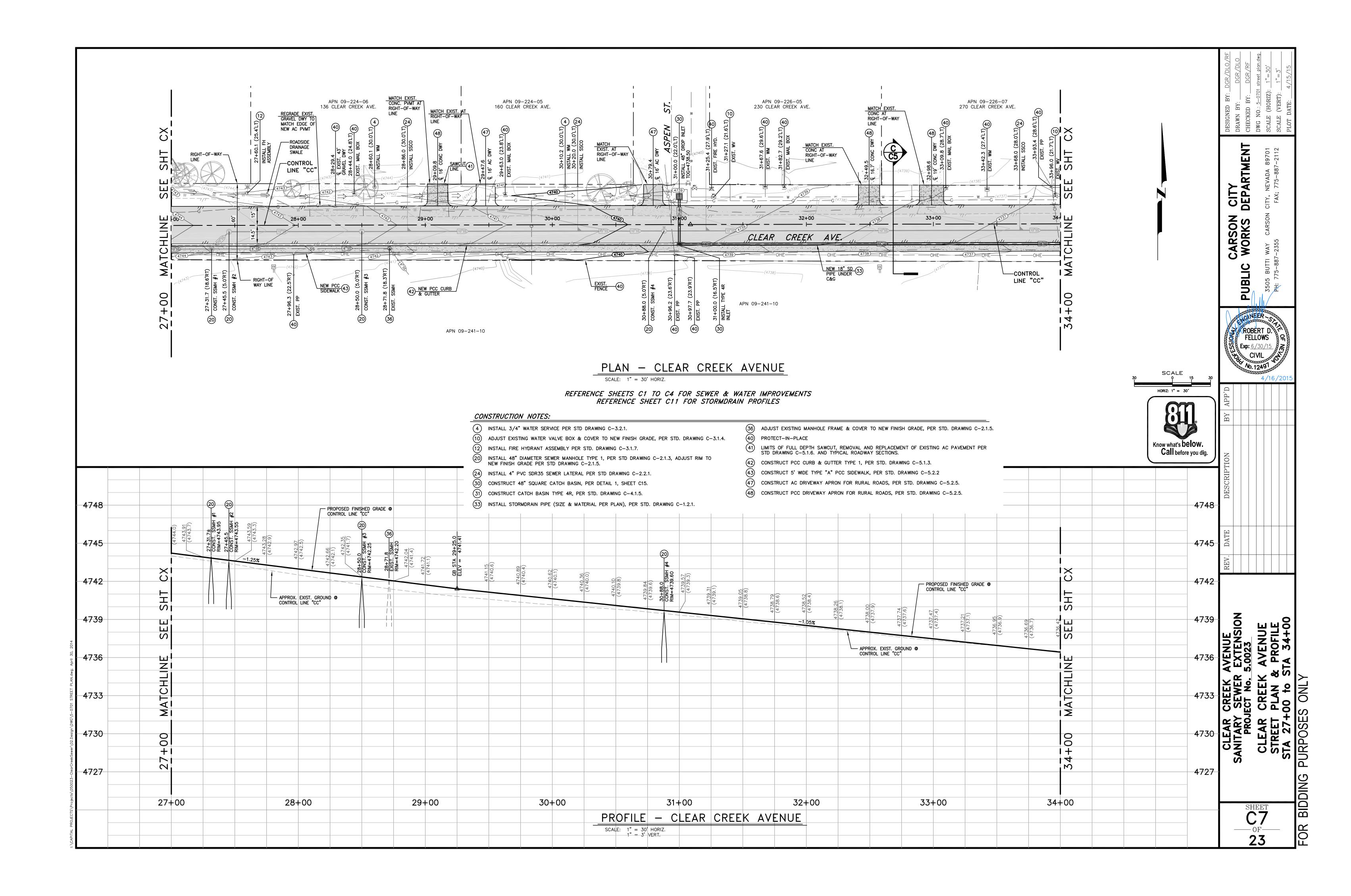
CITY DEPARTMENT

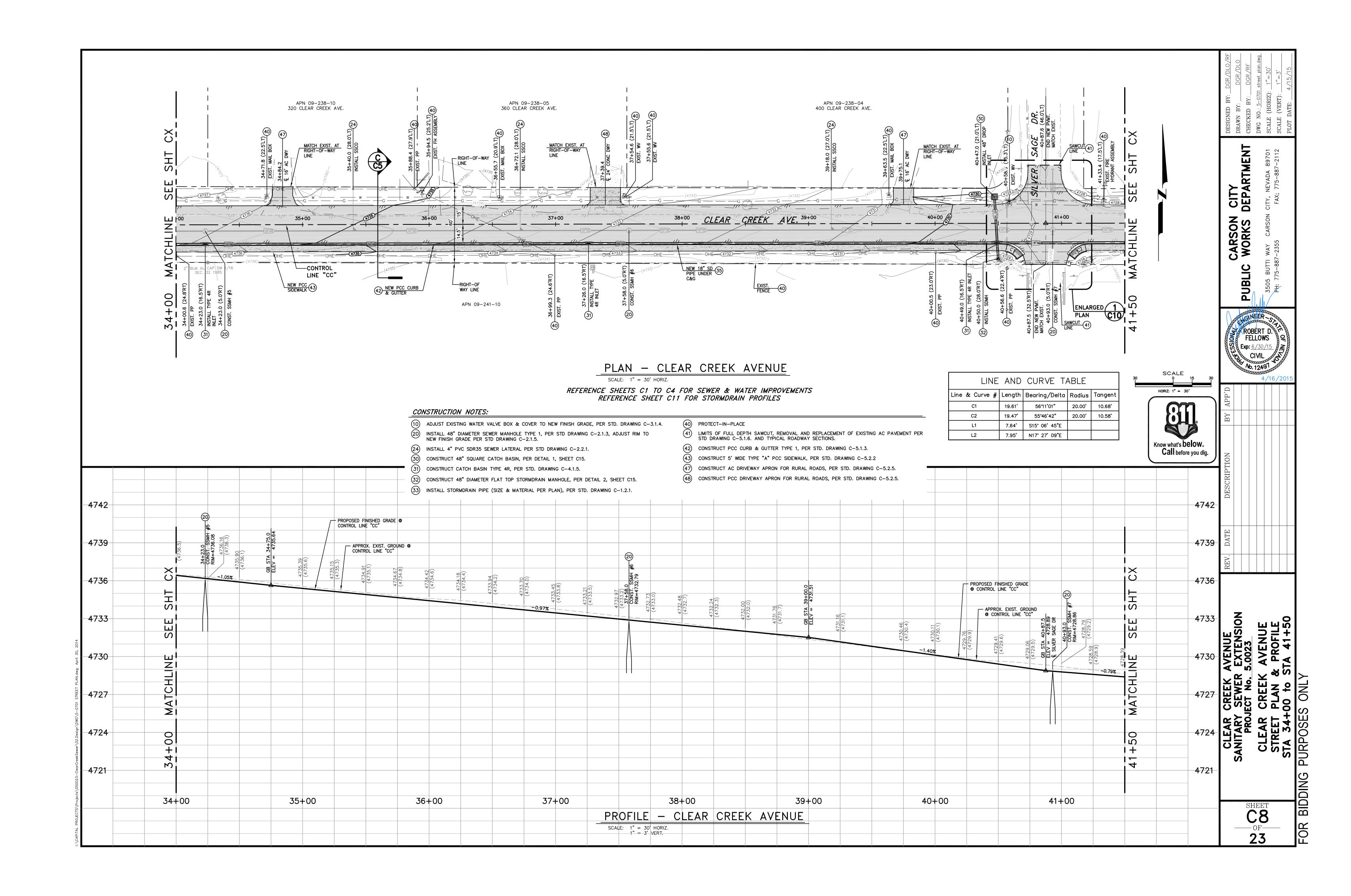
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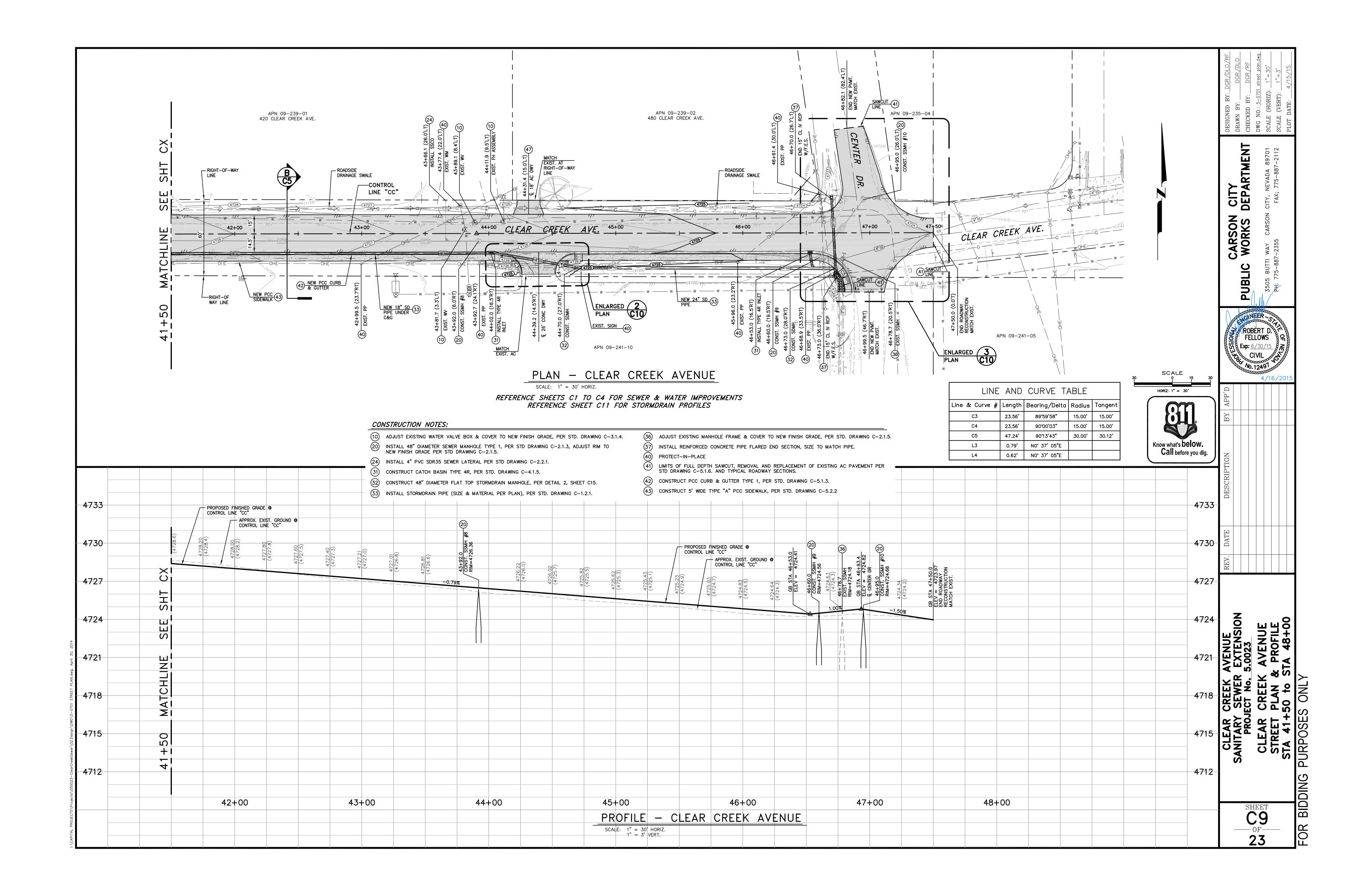
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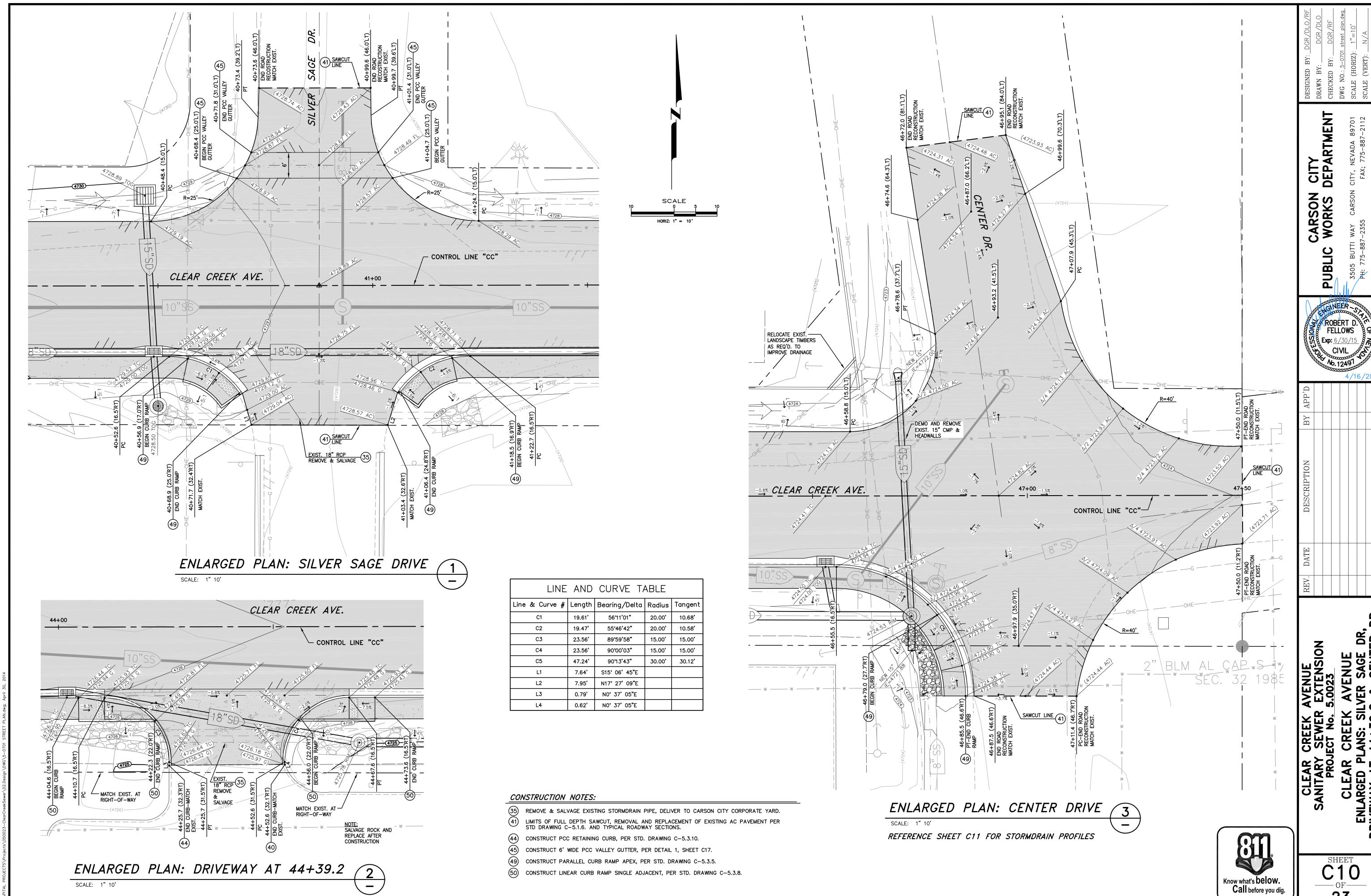
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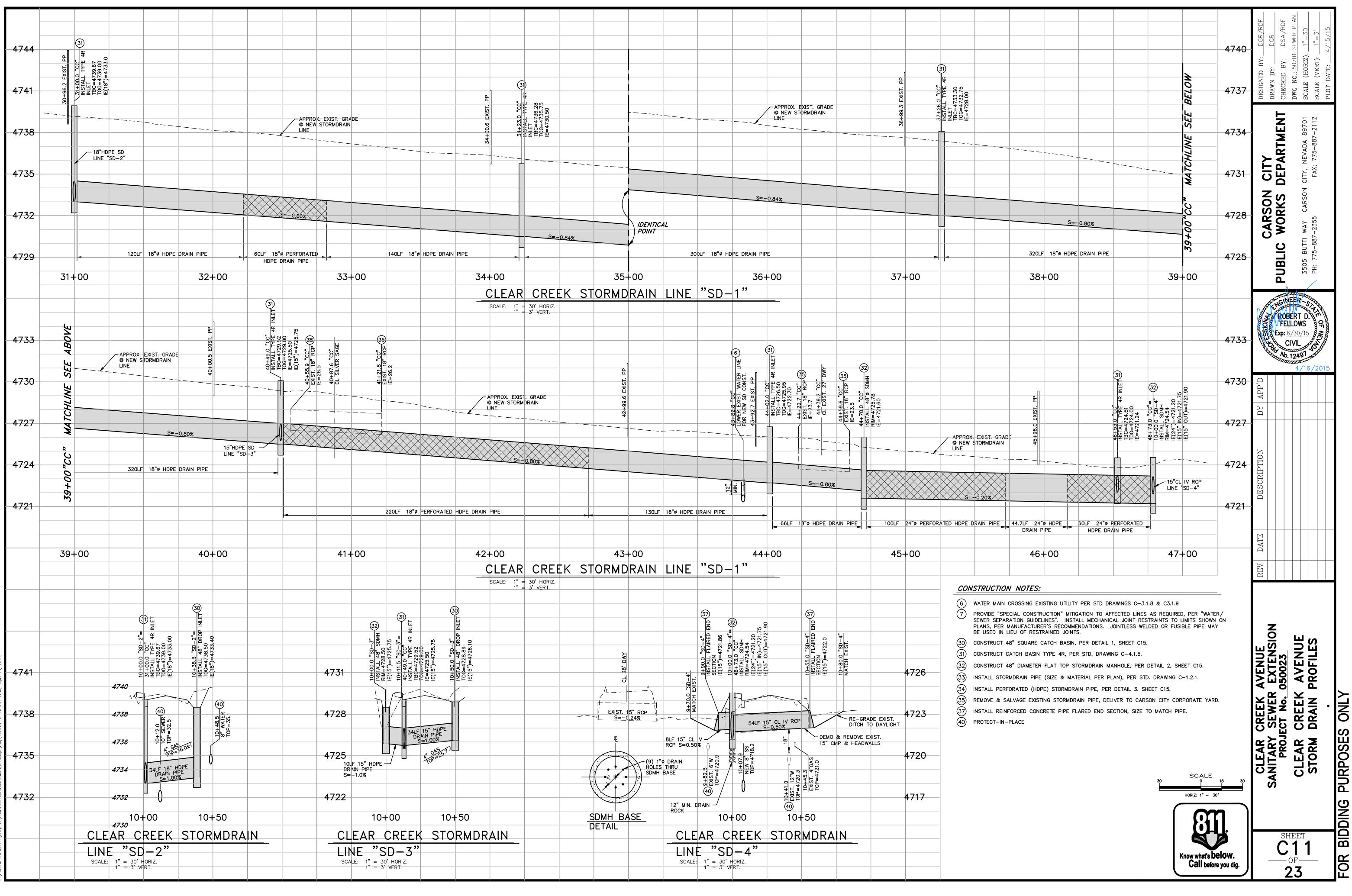




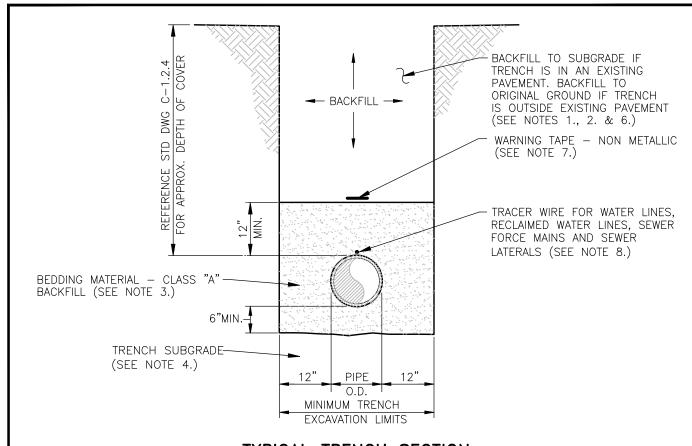




DRIVEWAY AT 44+39.2



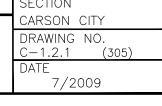
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### TYPICAL TRENCH SECTION

- WATER DENSIFIED BACKFILL AND TUNNELING SHALL BE BY SPECIAL PROVISION ONLY.
- BACKFILL SHALL CONFORM TO THE REQUIREMENTS OF CLASS E BACKFILL AS SPECIFIED IN SUBSECTION 200.03.06 OF THE SSPWC. MATERIAL SHALL BE PLACED IN LIFT THICKNESS SPECIFIED IN SUBSECTION 305.10 OF THE SSPWC AND DENSIFIED TO 90% RELATIVE COMPACTION.
- BEDDING SHALL CONFORM TO THE REQUIREMENTS OF CLASS A BACKFILL AS SPECIFIED IN SUBSECTION 200.03.02 OF THE SSPWC. MATERIAL SHALL BE DENSIFIED TO 90% RELATIVE COMPACTION.
- PLANS SHALL INCLUDE A DETAIL FOR SUBGRADE STABILIZATION INCLUDING BACKFILL MATERIAL, STRUCTURAL GEOTEXTILE FILTER FABRIC AND MODIFIED CUTOFF COLLARS WHEN POTENTIAL FOR UNSTABLE SUBGRADES EXIST, SUBJECT TO THE APPROVAL OF THE CARSON CITY ENGINEER OR PUBLIC WORKS DIRECTOR.
- FOR TRENCHES IN ROADWAY SECTION, SEE PAVEMENT PATCH DETAIL (DWG. No. C-5.1.6).
- FOR THE PURPOSE OF PAYMENT; EXCAVATION AND BACKFILL QUANTITIES ARE BASED ON THESE STANDARD DRAWINGS, AND NO ADDITIONAL COMPENSATION WILL BE MADE. SHORING OR SLOPED CUT SLOPES MAY BE NECESSARY, BUT THERE WILL BE NO ADDITIONAL PAYMENT. ALL EXCAVATIONS SHALL CONFORM TO THE LATEST O.S.H.A. REQUIREMENTS.
- PLACE NON METALLIC WARNING TAPE 1 FOOT ABOVE ALL BURIED PIPES AND CONDUITS.
- TRACER WIRE SHALL BE 12 GAUGE (MINIMUM THICKNESS) INSULATED SOLID COPPER OR COPPER-CLAD STEEL CORE WIRE. INSULATION SHALL BE 30 MIL HDPE. PLANS SHALL SPECIFY WIRE STRENGTH AND INSULATION THICKNESS FOR BORING APPLICATIONS. SPLICES SHALL BE CONNECTED BY WIRE NUTS, SEALED WITH AQUA SEAL OR SILICON FILLED, AND DOUBLE WRAPPED WITH U/L LISTED ELECTRICAL TAPE. TRACER WIRE COLOR SHALL BE, BLUE FOR WATER, PURPLE FOR RECLAIMED WATER, AND GREEN FOR SEWER.

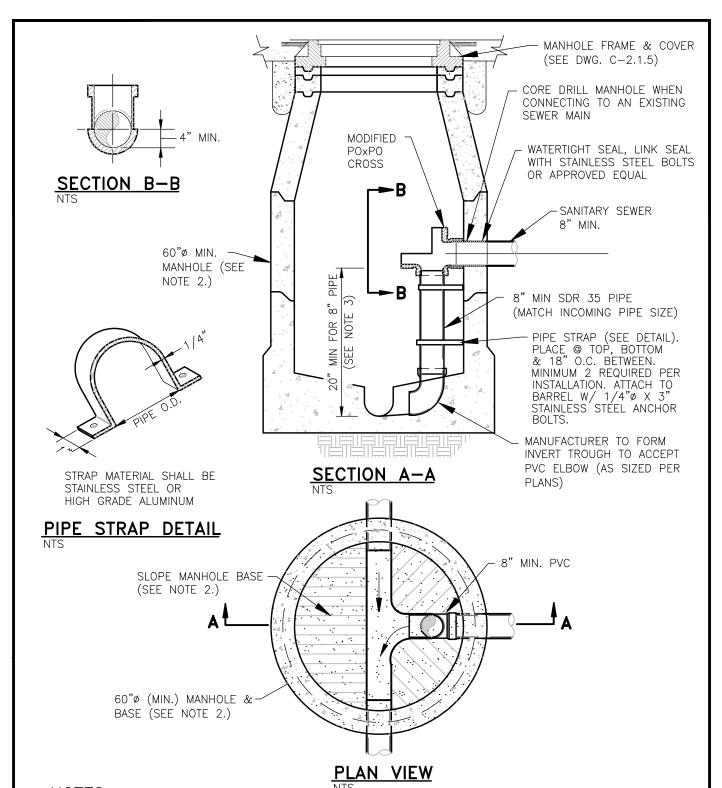
NO.	REVISION	DATE	TRENCH EXCAVATION AND BACKFILL	SECTION CARSON C DRAWING N C-1.2.1 DATE
APPRO'	VED BY:	7/09	AND BACKFILL	7/20



CARSON CITY

-2.1.4 (203,204,3

7/2009



USE OF A DROP MANHOLE REQUIRES APPROVAL FROM CARSON CITY ENGINEER OR PUBLIC WORKS DIRECTOR.

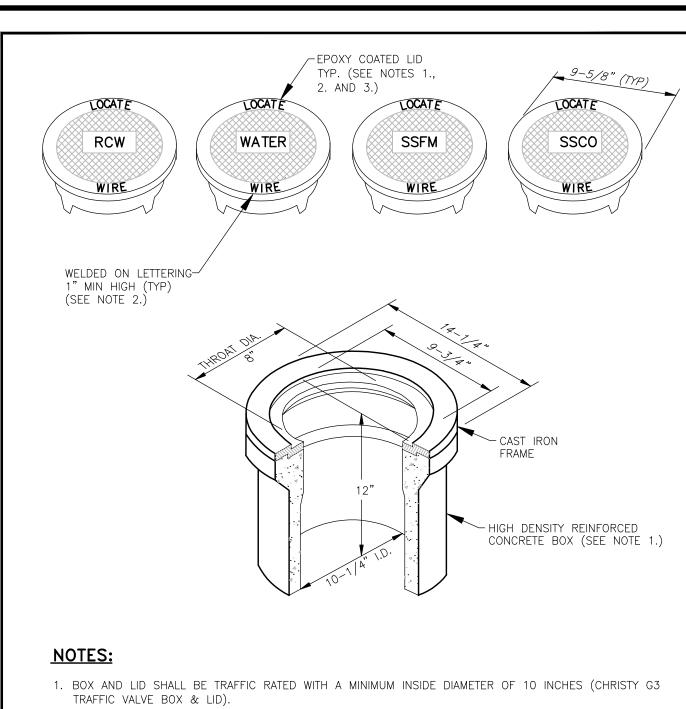
DROP MANHOLE

SEE DWGS. C-2.1.2 AND C-2.1.3 FOR ADDITIONAL NOTES, DIMENSIONS AND DETAILS.

DATE STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION

PROVIDE ADEQUATE PIPE LENGTH TO ALLOW FOR REMOVAL OF MODIFIED CROSS.

APPROVED BY:



- 2. CAST IRON LID SHALL BE MARKED AT THE FACTORY "LOCATE WIRE", AND "WATER" FOR WATER APPLICATIONS, "RCW" FOR RECLAIMED WATER APPLICATIONS, "SSFM" FOR SANITARY SEWER FORCE MAIN APPLICATIONS, AND "SSCO" FOR SANITARY SEWER CLEANOUT APPLICATIONS.
- 3. CAST IRON LID SHALL BE EPOXY COATED AT THE FACTORY, OR POWDER COATED, COLOR SHALL BE BLUE FOR WATER APPLICATIONS, PURPLE FOR RECLAIMED WATER APPLICATIONS AND GREEN FOR SANITARY SEWER APPLICATIONS.
- 4. BOX SHALL BE SET OR ADJUSTED TO GRADE PER DRAWING NO. C-3.1.4, RISER FOR ADJUSTED BOX SHALL BE PER DRAWING NO. C-3.1.4 FOR OVERLAY ADJUSTMENTS, RISER WILL NOT REQUIRE REPLACEMENT OR EXTENSION IF IT EXTENDS A MINIMUM OF 2 INCHES INTO ADJUSTED BOX.

NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION
				CARSON CITY
			LINE LOCATION	DRAWING NO. C-1.2.2 (306,307
			BOX & LID	DATE
APPROV	/ED BY: <u>. Ø</u>	7/09	DOX & LID	7/2009

MANHOLE BASE COVER ┐

3/8" STEEL PLATE ~

TEMP. COVER (SEE

INSTALL TEMPORARY COVER WITH CONE INSTALLATION WHEN INSTALLING NEW MANHOLE OR PRIOR TO REMOVING EXISTING FRAME &

CONCRETE SHALL CONFORM TO THE SSPWC SECTION 202.01.12. REBAR SHALL BE USED ONLY WHEN THE MANHOLE IS LOCATED

COAT (CONFORMING TO THE SSPWC SECTION 316) AND FILL VOID BETWEEN ADJACENT PAVEMENT AND FRAME WITH TYPE 3 AC 20

SURFACE. ALL CUTS IN PAVING SHALL BE STRAIGHT AND EVEN. EXCEPTION: WHEN STRUCTURE NOT LOCATED IN ASPHALT PAVEMENT

INSTALL NEW FRAME & COVER UNLESS OTHERWISE SHOWN ON THE PLANS OR SPECIAL CONDITIONS. FRAME & COVER SHALL BE SET

FOR NEW MANHOLE INSTALLATIONS, DISTANCE FROM COVER TO CONE SHALL BE 12 INCHES MINIMUM AND 15 INCHES MAXIMUM FOR

MINOR RESIDENTIAL STREETS AND 15 INCHES MINIMUM AND 18 INCHES MAXIMUM FOR ALL OTHER STREETS. FOR ADJUSTING EXISTING

WHEN LOCATED IN NDOT RIGHT-OF-WAY, CONCRETE COLLAR SHALL CONFORM TO NDOT STANDARD PLAN SHT R-4.7.3 AND STANDARD

MANHOLE FRAME & COVER

**ADJUSTMENT** 

DATE STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION

PAVING (CONFORMING TO THE SSPWC SECTION 320). APPLY FOG SEAL (CONFORMING TO SSPWC SECTION 317) TO THE ASPHALT

THE CONCRETE COLLAR SHALL BE LEFT 2 1/2 INCHES TO 3 INCHES BELOW FINISHED ASPHALT SURFACE. APPLY AN APPROVED TACK

COVER AND GRADE RINGS TO ADJUST TO FINISH GRADE. INSTALL COVER OVER MANHOLE BASE TO PREVENT DEBRIS FROM ENTERING

SEWER SYSTEM. THE MANHOLE BASE COVER SHALL BE IN PLACE PRIOR TO PERFORMING ANY ADJUSTMENTS OR GROUTING AND SHALL REMAIN IN PLACE WHILE ADJUSTMENTS OR GROUTING ARE BEING PERFORMED. REMOVE BASE COVER UPON ADJUSTMENT APPROVAL BY

NOTE 1.)

V ♥ (SEE NOTE 1.) ♥ V MANHOLE ADJUSTMENT TYPICAL SECTION

A.C. PAVING (SEE NOTES 3. AND 6.)

THICKNESS, 2 1/2" TO 3" MATCH

MATERIAL WITH ADJACENT PAVEMENT

EXIST. A.C. PAVING

> CONCRETE COLLAR WITH ONE

-MANHOLE BASE COVER -

(SEE NOTE 1.)

TEMPORARY COVER TYPICAL SECTION

2.1.5 (204. 3)

7/2009

LOOP OF #4 REBAR (SEE

- ROUGH BROOM FINISH

NOTES 2. & 3.)

COMPACTED SUB-GRADE

₹ TO 95%

FRAME & COVER (SEE-

NOTE 4. AND DWG.

SECTION A-A

OR LOCATED IN AN UNPAVED AREA, EXTEND CONCRETE TO FINISH GRADE.

FRAME & COVERS THE DISTANCE FROM COVER TO CONE SHALL NOT EXCEED 18 INCHES.

FLUSH WITH FINISH GRADE UNLESS OTHERWISE NOTED.

C-2.1.3)

FINISH GRADE -

(SEE NOTE 6.)

GRADE RINGS -

GROUT RINGS -

1-1/4"x1"x1/4"

(4 PLACES, TYP.) -

1-1/4"x1"x1/4"

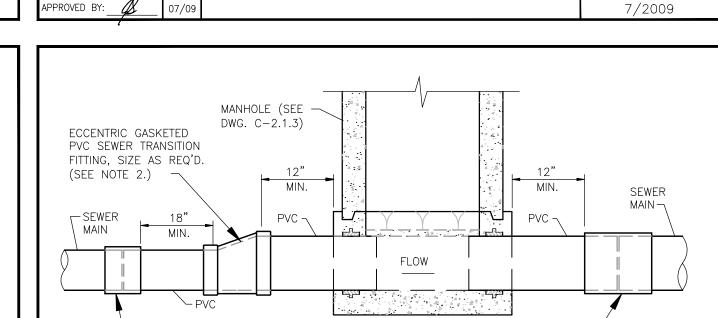
OUTSIDE PAVED AREAS.

SPECIFICATION 609.

APPROVED BY:

ANGLE IRON

ANGLE IRON x 6" LONG



PIPE FITTING/ -

TYPICAL SECTION

1. WIRE SHALL BE CONTINUOUS IN RISER AND SHALL NOT BE SPLICED WITHIN 10 FEET OF RISER.

2. RISER COLOR SHALL BE BLUE, OR SAME COLOR AS MAIN FOR WATER APPLICATIONS,

PURPLE FOR RECLAIMED WATER APPLICATIONS, AND GREEN FOR SANITARY SEWER

DATE STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION

LINE LOCATION RISER

ANGLE POINT

- LINE LOCATION BOX & LID

SOLID MASONRY BLOCK

-EXTEND TRACER WIRE UP

INTO RISER BOX (SEE NOTE 1. & DWG. C-1.2.1)

-TRACER WIRE TAPED EVERY

DRAWING NO.

5 FT. TO PIPE (SEE DWG.

REVISION

(SEE DWG. C-1.2.2)

### TYPICAL SEWER LINE & MANHOLE TRANSITION

SEWER COUPLING (SEE

SIZE ÁS REQUIRED.

NOTES). CENTER ON SPLICE.

INNER DIAMETER.

- SEWER COUPLING (SEE

SIZE AS REQUIRED.

NOTES). CENTER ON SPLICE.

REVISION

SET BOX & LID TO GRADE

(SEE DWG. C-3.1.4)

FINISH GRADE -

6" PVC RISER TO EXTEND MIN. OF -

6" INTO RISER BOX. PIPE SHALL

BE PLUMB AND CENTERED ON

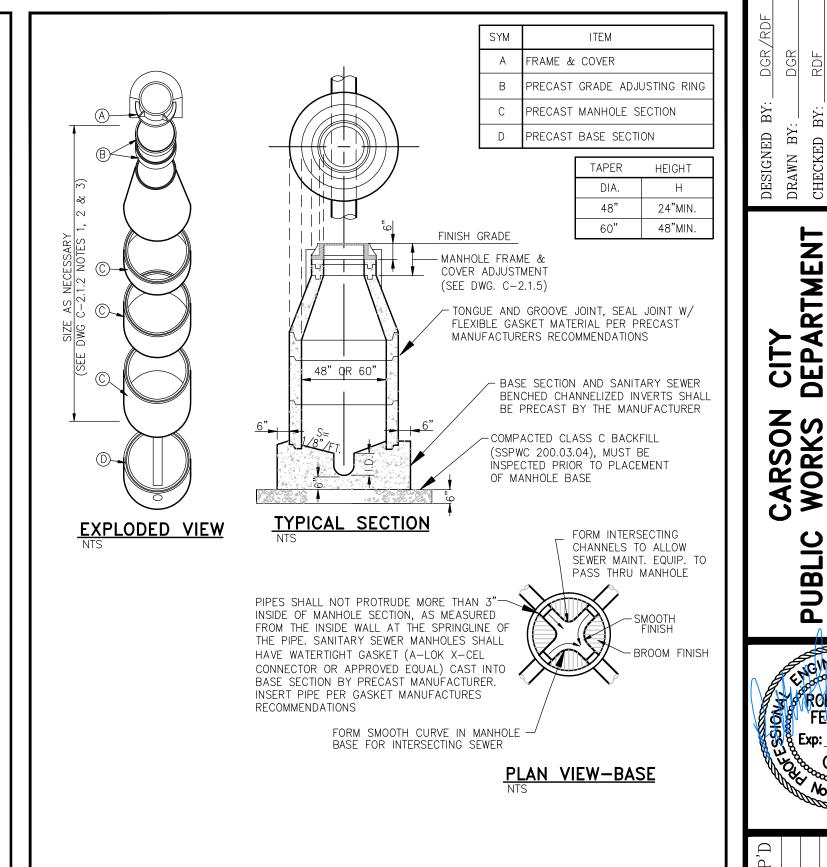
HORIZONTAL PIPE FITTING (SEE

- SEWER COUPLINGS SHALL BE USED AT LOCATIONS WHERE TWO PIPES OF EQUAL NOMINAL SIZE AND EQUAL OR DIFFERENT DIAMETERS ARE BEING JOINED. (ie. 8 INCH SDR PVC TO 8 INCH SDR PVC, OR 8 INCH PVC TO 8 INCH CLAY.)
- ECCENTRIC GASKETED PVC SEWER TRANSITION FITTINGS SHALL BE USED AT ALL LOCATIONS WHERE TWO PIPES OF UNEQUAL NOMINAL SIZES ARE TO BE JOINED. (ie. 6 INCH PIPE TO 8 INCH PIPE) GASKETED PVC SEWER FITTINGS, SEWER CLAMP COUPLINGS OR SEWER STRAIGHT COUPLINGS SHALL BE
- USED AT LOCATIONS WHERE TWO PIPES OF EQUAL SIZE AND DIAMETER ARE BEING JOINED. (ie. 8 INCH SDR PVC TO 8 INCH SDR PVC, 8 INCH C900 PVC TO 8 INCH C900 PVC) SEWER TRANSITION COUPLINGS SHALL BE USED AT LOCATIONS WHERE TWO PIPES OF EQUAL NOMINAL SIZE AND UNEQUAL DIAMETER ARE BEING JOINED. (ie. 8 INCH SDR PVC TO 8 INCH CLAY, 8 INCH SDR PVC TO 8 INCH C900 PVC) ECCENTRIC COUPLINGS WHICH MATCH PIPE INVERTS SHALL BE USED AT
- SEWER CLAMP COUPLING BODY AND CLAMP BOLTS, WASHERS & NUTS SHALL BE 304 STAINLESS STEEL, CLAMP COUPLING LENGTH SHALL BE 12 INCH MINIMUM FOR 8 INCH PIPE AND LARGER, ROMAC STYLE LSS1, LSS2, LSS3 FOR SEWER OR APPROVED EQUAL.
- SEWER STRAIGHT AND TRANSITION COUPLINGS SHALL BE RIGID TYPE, DUCTILE IRON BODY AND END RINGS WITH HIGH STRENGTH LOW ALLOY STEEL NUTS & BOLTS, ROMAC STYLE 501 FOR SEWER OR APPROVED EQUAL. COAT ALL EXPOSED BARE METAL, NUTS AND BOLTS WITH COLD-APPLIED WATER BASED ENAMEL OR BLACK ASPHALT.

LOCATIONS WHERE THE EXISTING DOWNSTREAM PIPE INNER DIAMETER IS LESS THAN THE UPSTREAM PIPE

ECCENTRIC COUPLINGS FOR MATCHING INVERTS OF NEW PIPE FLOWING INTO EXISTING PIPE SHALL BE ROMAC OR FERNCO ECCENTRIC COUPLINGS OR APPROVED EQUAL. COAT ALL EXPOSED BARE METAL, NUTS AND BOLTS ON ROMAC COUPLINGS WITH COLD-APPLIED WATER BASED ENAMEL OR BLACK ASPHALT.

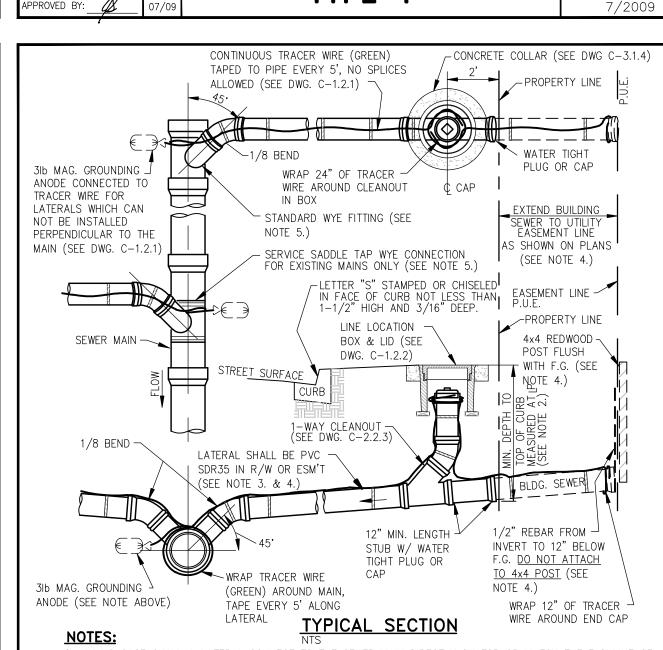
	NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION CARSON CITY
23)	APPROV	ED DV. #	7 /00	SEWER MAIN AND LATERAL TRANSITIONS	DRAWING NO. C-2.1.6 (203,306) DATE
	AFFROV	LD BI. <u>45</u>	7/09		7/2009



TANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION

MANHOLE

TYPE 1



1. IN NO CASE SHALL A LATERAL CONNECT TO THE SEWER MAIN DIRECTLY ON TOP OR MATCH THE FLOWLINE OF

2. SEWER LATERALS SHALL HAVE A MINIMUM SLOPE OF 2%. PLANS SHALL INDICATE INVERT ELEV. REQUIRED TO SERVE PROPERTY AND CLEAR UNDERGROUND OBSTRUCTIONS. 3. ALL JOINTS ON SEWER LATERAL PIPE WITHIN THE RIGHT-OF-WAY SHALL BE COMPRESSION TYPE. C900 PVC MAY BE SUBSTITUTED FOR SDR35 TO MEET NDEP BSDW SEPARATIONS.

4. LATERAL SHALL BE PERPENDICULAR TO THE MAIN AND EXTEND TO PROPERTY LINE. WHEN SHOWN ON PLANS TO INSTALL BUILDING SEWER PRIOR TO PUBLIC UTILITIES, INSTALLATION OF BUILDING SEWER IS EXTENDED TO UTILITY EASEMENT LINE AND STANDARD WATERTIGHT PLUG OR CAP, REDWOOD POST AND REBAR SHALL BE INSTALLED AT EASEMENT LINE.

5. USE OF SEWER SERVICE TAP SADDLE CONNECTIONS SHALL NOT BE ALLOWED FOR NEW SEWER MAIN CONSTRUCTION. WHEN A TAP SADDLE CONNECTION IS TO BE USED ON AN EXISTING SEWER MAIN, IT SHALL BE

A WYE SADDLE AND BE INSTALLED PER DWG. C-2.2.2. 6. DISCONTINUANCE OF USE OF AN EXISTING SEWER LATERAL REQUIRES ABANDONMENT OF THE LATERAL. CUT, REMOVE 1 FOOT OF EXISTING LATERAL AND CAP BOTH ENDS OF THE EXISTING SEWER LATERAL TO BE

ABANDONED WITHIN 6 INCHES OF THE SEWER MAIN. INSPECTION BY CARSON CITY SEWER UTILITY IS REQUIRED PRIOR TO BACKFILL

7. PROPERTY OWNER SHALL BE RESPONSIBLE FOR OPERATION, MAINTENANCE AND REPAIR OF THE SEWER LATERAL WITHIN THE PUBLIC RIGHT-OF-WAY PER CCMC 12.05.050.5.

CTION	NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION
RSON CITY				
AWING NO. -2.1.6 (203,306)				SEWER LATERAL
TE 7/2009	APPRO	VED BY: <b>B</b>	07/09	
		<del> </del>		

SECTION CARSON CITY DRAWING NO. 2.2.1 (203.30) 7/2009

AVENUE EXTENSION 5.0023 AVENUE I DETAILS CLEAR CREEK A
ANITARY SEWER
PROJECT No. 5
CLEAR CREEK
CONSTRUCTION

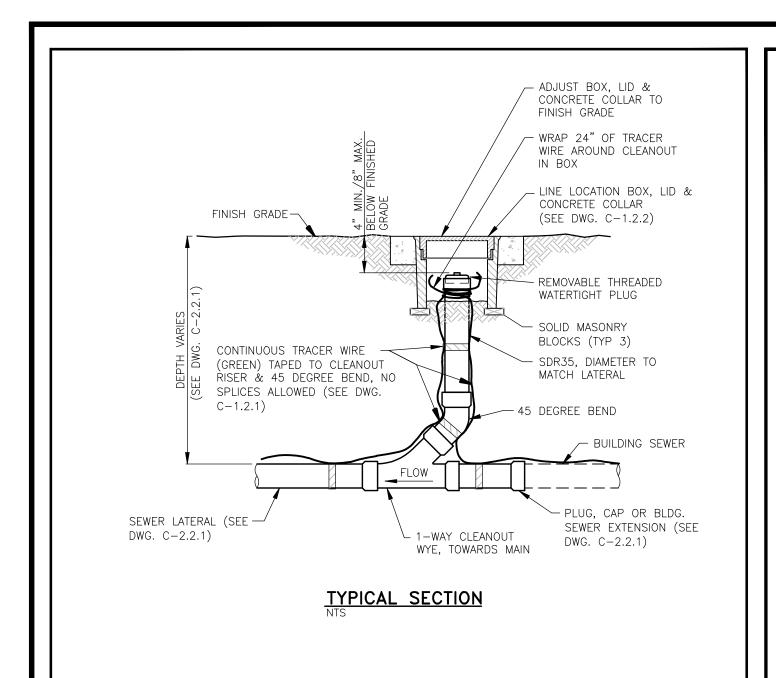
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WEEK.

ROBERT I

FELLOWS

ARSON CITY



STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION

SEWER CLEANOUT

- FIRE HYDRANT WITH STORZ CONNECTOR,

SERVICE" INDICATOR (SEE NOTES 1. & 7.)

TYPE "A" SIDEWALK

FRONT FACE OF

CURB (F.F.C.)

PAINT HYDRANT, INSTALL "OUT OF

TRACER WIRE (BLUE), LOOP

2 TIMES AROUND HYDRANT

ABOVE FLANGE (SEE DWG.

~ 6" DUCTILE IRON PC350

OR PVC C900 DR-18

W/RESTRAINED JOINTS

MJ & RESTRAINING GLAND,

CLEAN CRUSHED GRAVEL 6" FLGxMJ OR FLGxFLG GATE

CLASS "D" BACKFILL VALVE FOR HOT TAP (SEE

FIRE HYDRANTS SHALL BE MUELLER SUPER CENTURION 250 OR WATEROUS 5 1/4 INCH PACER (WB-67-250). ALL

FOR 9 FEET-0 INCHES OR WIDER SIDEWALK OR OFFSET SIDEWALK, HYDRANT SHALL BE 2 FEET-0 INCHES TO FRONT

HYDRANT SHALL BE INSTALLED SO AS TO PROVIDE **CLEARANCE** IN ALL DIRECTIONS PER **DWG. C-3.1.7.1.** 

HYDRANTS SHALL HAVE HARRINGTON HIHS 5 INCH INTEGRAL HYDRANT STORZ, OR APPROVED EQUAL, WITH BLIND CAP &

CABLE AND "OUT OF SERVICE" INDICATOR. OPERATING NUT SHALL BE 1-1/2 INCH PENTAGON. VALVE OPENING SHALL BE

5-1/4 INCHES AND OPEN COUNTER-CLOCKWISE. HYDRANTS SHALL HAVE (2) 2-1/2 INCH HOSE NOZZLES WITH AMERICAN

FACE OF CURB. IF SIDEWALK IS NOT PRESENT, HYDRANT SHALL BE LOCATED 7 FEET-0 INCHES TO FRONT FACE OF CURB,

RESTRAINING GLANDS SHALL BE ROMAC GRIPRING PIPE RESTRAINER FOR MECHANICAL JOINT VALVES OR ROMAC RESTRAINED

FCA FOR FLANGED VALVES OR APPROVED EQUAL. PIPE RESTRAINT SHALL BE ROMAC "600" SERIES RESTRAINING SYSTEM

OR APPROVED EQUAL. RESTRAINING DEVICES SHALL BE FULL CIRCLE (NON POINT) LOADING TYPE. HYDRANT SHOE MAY BE

THRUST BLOCKS SHALL HAVE THREE (3) SQUARE FEET MINIMUM AREA AND SHALL BE FORMED AGAINST UNDISTURBED NATIVE

OR BACKFILL COMPACTED TO 95%, AND CONFORM TO DWG. C-3.1.14. NO CONCRETE ON HYDRANT DRAIN HOLES OR BOLTS.

HYDRANTS SHALL BE PAINTED INTERNATIONAL ORANGE (RUST-OLEUM 7400 HIGH GLOSS ALKYD ENAMEL OR APPROVED EQUAL). DO NOT PAINT 5 INCH STORZ, CAP OR CABLE. RECLAIMED WATER HYDRANTS SHALL BE PAINTED PURPLE. INSTALL "OUT OF

SERVICE" INDICATOR COLLAR ON 2-1/2 INCH NOZZLE. INDICATOR SHALL BE HIGHLY VISIBLE, YELLOW WITH BLACK LETTERS,

2-1/2 INCH MINIMUM WIDTH WITH 1 INCH LETTERS STATING "OUT OF SERVICE". INDICATOR SHALL BE "CALPICO" OR EQUAL

STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION

FIRE HYDRANT

**ASSEMBLY** 

VALVE (SEE NOTE 4.)

RESTRAINED FCA FOR FLG X FLG

NOTE 4 & DWG. C-3.1.4)

(SEE NOTE 4.)

C-1.2.1)

(1 CU. YD. MIN)

200.03.05

AQUAGRIP, RESTRAINED MECHANICAL JOINT (MJ) OR APPROVED EQUAL.

APPROVED BY THE CARSON CITY ENGINEER OR PUBLIC WORKS DIRECTOR.

INSPECTION BY THE CARSON CITY INSPECTOR SHALL BE REQUIRED PRIOR TO BACKFILLING.

NATIONAL HOSE COUPLING THREADS, (NO SUBSTITUTIONS)

CONFORMING TO SSPWC

HOLES 🔨

W/ 5' SIDEWALK

(SEE NOTES 2. & 3.)

APPROVED BY:

FLANGE 4" TO 6'

ABOVE FINISH

SFT HYDRANT -

THRUST BLOCK

MIN. CLEARANCE

FROM FLANGE.

HOLES CLEAR.

SHOE

REVISION

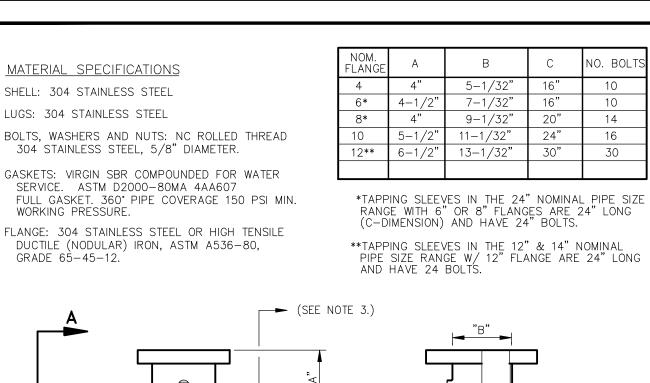
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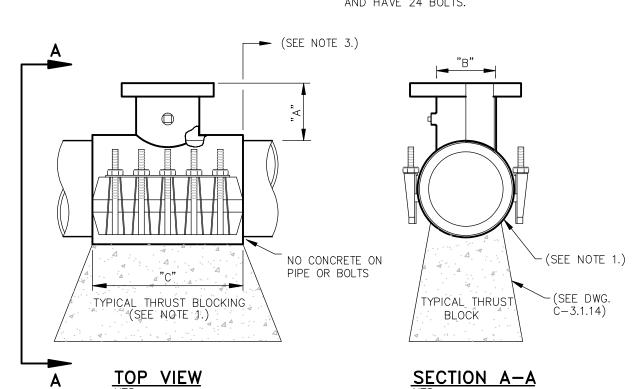
HRUST BLOCKY

KEEP DRAIN

GRADE -

PLUMB





RSON CITY

-223 (2033)

7/2009

RAWING NO.

(SEE DWG. C-3.1.4)

- SOLDER & TAPE

TRACER WIRE TO MAIN

WIRE IF MAIN WIRE

AROUND MAIN IF NO

MAIN WIRE EXISTS

(SEE DWG. C-1.2.1)

~THRUST BLOCK

(SEE NOTE 5.)

FLANGED TEE, OR

DWG. C-3.1.3)

TAPPING SLEEVE (SEE

CARSON CITY

5/2014

RAWING NO.

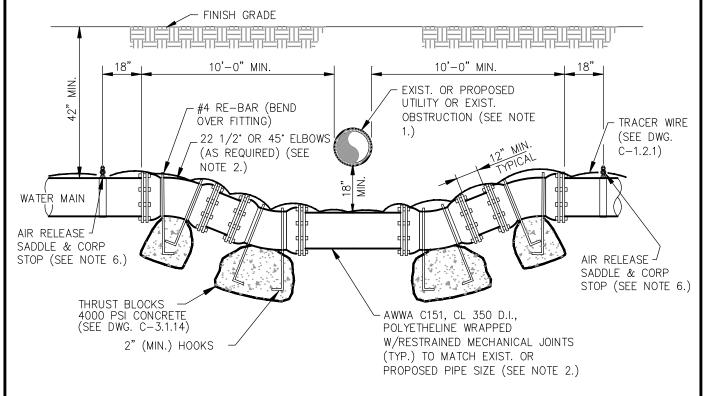
EXISTS. LOOP WIRE

- MATERIAL USED FOR THRUST BLOCKING SHALL NOT PREVENT ACCESS TO THE BOLT ASSEMBLY.
- POTABLE WATER HOT TAPS GREATER THAN 2 INCHES AND LESS THAN 14 INCHES SHALL BE PERFORMED BY CARSON CITY WATER UTILITY.
- MINIMUM DISTANCE BETWEEN TAP SADDLE, COLLARS, JOINTS, SERVICE TAPS, ETC. SHALL BE 18 INCHES CLEAR.
- SADDLE TO BE HYDROSTATICALLY PRESSURE TESTED BY THE CONTRACTOR, TO 150 PSI (MIN.) FOR A MINIMUM OF 5 MINUTES, WITNESSED BY CARSON CITY WATER UTILITY, PRIOR TO PERFORMING TAP.

5. REFERENCE "WATER GENERAL NOTES" DWG. C-3.1.1, FOR HOT-TAP SCHEDULING INFORMATION.

<b>↓ I</b>					SECTION
				TAPPING SLEEVE	CARSON CITY DRAWING NO. C-3.1.3 (203,30
	APPROVED BY: 07/09		07/09		DATE 7/2009





### TYPICAL CROSSING DETAIL

- 1. ALL POTABLE WATER CROSSINGS OF EXISTING OR PROPOSED UTILITIES, OR OTHER UNDERGROUND OBSTRUCTION SHALL BE DETAILED BY THE DESIGN ENGINEER, AND SHALL MEET THE CRITERIA OUTLINED BY NAC CHAPTER 445A AND THE NDEP BUREAU OF SAFE DRINKING WATER VERTICAL CROSSING CONFLICTS SUMMARY. FOR PURPOSES OF SEPARATION AND PROTECTION OF THE WATER SUPPLY, RECLAIMED WATER SHALL BE CONSIDERED A SEWER LINE. REFER TO DWG C-3.1.2 FOR REQUIRED MITIGATION TO SEWER STORM PIPE LOCATED ABOVE WATER MAIN.
- 2. THE ENTIRE ASSEMBLY SHALL BE INSTALLED USING DUCTILE IRON RESTRAINED MECHANICAL JOINT FITTINGS.
- 3. ALL NUTS & BOLTS SHALL BE COATED WITH COLD APPLIED WATER BASED ENAMEL OR BLACK ASPHALT (AWWA C509, SEC 4.2.2.8 OR C515, SEC 4.2.2.6)
- 4. UPON APPROVAL OF CARSON CITY ENGINEER OR PUBLIC WORKS DIRECTOR, THE ABOVE ASSEMBLY MAY BE REPLACED WITH A WELDED STEEL "SPOOL" OF EQUIVALENT DIAMETER, PRIMED AND WRAPPED (10 MILS MIN.). CONNECT TO EXISTING LINES USING MECHANICAL JOINTS. STEEL SPOOL SHALL BE CONSTRUCTED BY A CERTIFIED WELDER AND PRESSURE CHECKED IN ACCORDANCE WITH SPECIFICATIONS.
- 5. CONCRETE FOR THRUST BLOCKS SHALL NOT INTERFERE WITH THE REMOVAL OF BOLTED ASSEMBLIES.
- 6. AN AIR-RELEASE WITH A POSITIVE GRADE FROM MAIN TO RELEASE, SHALL BE INSTALLED ON BOTH SIDES OF CROSSING (18 INCHES MINIMUM FROM ANY FITTING) UNLESS OTHERWISE NOTED ON THE APPROVED PLANS. ONE AIR-RELEASE MAY BE USED WITH ONE LINE TO EACH SIDE OF CROSSING. SEE DWG. C-3.1.10 & C-3.2.2 FOR INSTALLATION.
- 7. ROUTING WATER LINE OR "ROPING" UNDER SEWER LINE REQUIRES APPROVAL BY CARSON CITY ENGINEER OR PUBLIC WORKS DIRECTOR.

NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION
				CARSON CITY
			LOWERING	DRAWING NO. C-3.1.8 (203,307)
APPROV	/ED BY: <b>/</b>	07/09	WATER MAINS	DATE 7/2009

### FINISH GRADE -- AWWA C151, CL 350 D.I. -POLYETHYLENE WRAPPED W/ RESTRAINED MECHANICAL JOINTS (TYP.) AIR RELEASE, SADDLE & -TO MATCH EXIST. OR PROPOSED PIPE SIZE (SEE NOTE 2.) CORP STOP (SEE NOTE 6.) - #4 RFBAR (BEND ÖVER FITTING) TYP. ELBOWS (AS REQUIRED) (SEE NOTE 2.) TRACER WIRE (SEE DWG. C-1.2.1) EXIST. OR PROPOSED $\sqrt{2}$ " (MIN.) HOOKS -THRUST BLOCKS (TYP) UTILITY, OR EXIST. 4000 PSI CONCRETI OBSTRUCTION (SEE (SEE DWG. C-3.1.14) NOTE 1.) 10'-0" MIN. 10'-0" MIN.

NOTES 3. AND 5.)

– LID (SEE NOTE 4.)

SUPPORT BLOCKING SHALL BE POURED AGAINST UNDISTURBED SOIL AND NOT PREVENT ACCESS TO BOLT ASSEMBLY

CONCRETE SHALL CONFORM TO THE SSPWC SECTION 337.10. REBAR SHALL ONLY BE USED WHEN THE VALVE BOX IS

THE CONCRETE COLLAR SHALL BE LEFT 2 1/2 INCHES - 3 INCHES BELOW FINISHED ASPHALT SURFACE. APPLY AN APPROVED TACK COAT (CONFORMING TO THE SSPWC SECTION 316) AND FILL VOID BETWEEN ADJACENT PAVEMENT

(CONFORMING TO THE SSPWC SECTION 317) TO THE ASPHALT SURFACE. ALL CUTS IN PAVING SHALL BE STRAIGHT

AND EVEN. EXCEPTION: WHEN STRUCTURE NOT LOCATED IN ASPHALT PAVEMENT OR IN AN UNPAVED AREA, EXTEND

RISER COLOR SHALL BE BLUE, OR SAME COLOR AS MAIN FOR WATER APPLICATIONS, PURPLE FOR RECLAIMED WATER

STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION SECTION

AND FRAME WITH TYPE 3 PG 64-22 PAVING (CONFORMING TO THE SSPWC SECTION 320). APPLY FOG SEAL

WHEN LOCATED IN NDOT RIGHT-OF-WAY, CONCRETE COLLAR SHALL CONFORM TO NDOT STANDARD PLAN SHT

GATE VALVE

VALVES ON FIRE LINES SHALL BE UL/FM APPROVED AND MEET ALL APPLICABLE NFPA REQUIREMENTS

LIDS SHALL BE SET FLUSH WITH FINISH GRADE UNLESS OTHERWISE NOTED.

APPLICATIONS, AND GREEN FOR SANITARY SEWER APPLICATIONS.

EXIST. A.C. PAVING

- ROUGH BROOM FINISH (TYP.)

- CONCRETE COLLAR WITH

95% (TYP.)

8" PVC (SDR35 MIN) RISER TO EXTEND

─ SOLID MASONRY BLOCK (TYP)

(SEE NOTE 6.)

MIN. OF 6" INTO VALVE BOX. PIPE SHALL

BE PLUMB AND CENTERED ON VALVE STEM

JP INTO VALVE BOX

TRACER WIRE TAPED EVERY 5 FT. TO PIPE (SEE DWG.

COLD-APPLIED WATER BASED ENAMEL

NUTS AND BOLTS (AWWA C509, SEC

EXTERIOR OF ALL EXPOSED BARE METAL,

ARSON CITY

-3.1.4 (203.)

7/2009

DRAWING NO.

OR BLACK ASPHALT COATING ON

4.2.2.8 OR C515, SEC 4.2.2.6)

— VALVE BOX AND LID (SEE DWG. C-3.1.6)

─ SOLID MASONRY BLOCK (TYP)

ONE LOOP OF #4 REBAR

(SEE NOTES 2., 3., AND 5.

COMPACTED SUB-GRADE TO

FINISH GRADE -

(SEE NOTE 5.)

DEBRIS CAP, SW SERVICES DC600, DC800 OF

LOCATED IN A GUTTER OR VALLEY GUTTER

RESILIENT-SEATED WEDGE GATE VALVE - (AWWA C509 OR C515)

FULL EPOXY COATING INSIDE & OUT

6. HEXAGONAL STAINLESS STEEL BOLTS W/LOW ZINC BRONZE OR STAINLESS

50 (MIN) PSI RATING (GREATER THÁN 12

CONCRETE SUPPORT BLOCK

EXTEND 6" ON EACH SIDE

OF VALVE (SEE NOTES 1.

LOCATED OUTSIDE PAVED AREAS.

CONCRETE TO FINISH GRADE.

APPROVED BY

R-4.3.3 AND STANDARD SPECIFICATION 609.

AND 2.)

(BLUE FOR WATER OR PURPLE FOR RCW)

. STANDARD 2" OPERATOR NUT

7. LOW ZINC COPPER ALLOY OR STAINLESS STEEL STEM

. O-RING SEALS

. WEDGE DESIGN

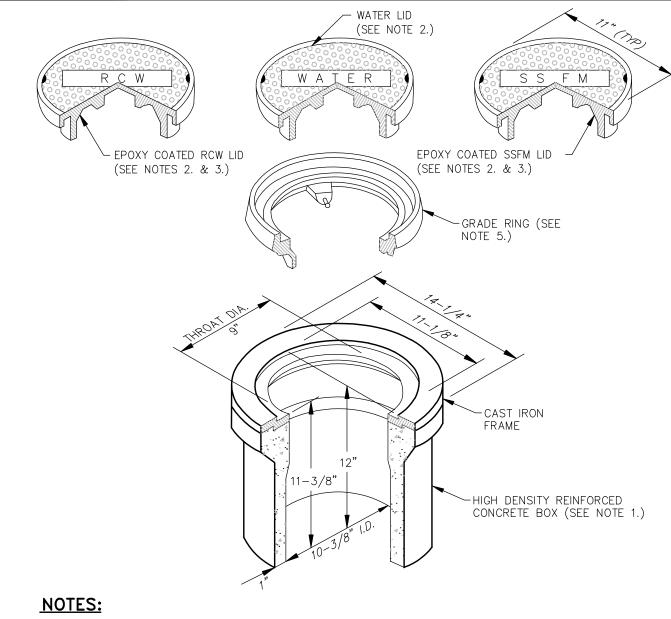
APPROVED EQUAL REQUIRED WHEN VALVE IS

ALL POTABLE WATER CROSSINGS OF EXISTING OR PROPOSED UTILITIES, OR OTHER UNDERGROUND OBSTRUCTION SHALL BE DETAILED BY THE DESIGN ENGINEER, AND SHALL MEET THE CRITERIA OUTLINED BY NAC CHAPTER 445A AND THE NDEP BUREAU OF SAFE DRINKING WATER VERTICAL CROSSING CONFLICTS SUMMARY. FOR PURPOSES OF SEPARATION AND PROTECTION OF THE WATER SUPPLY, RECLAIMED WATER SHALL BE CONSIDERED A SEWER LINE.

TYPICAL CROSSING DETAIL

- 2. THE ENTIRE ASSEMBLY SHALL BE INSTALLED USING DUCTILE IRON RESTRAINED MECHANICAL JOINT
- 3. ALL NUTS & BOLTS SHALL BE COATED WITH COLD APPLIED WATER BASED ENAMEL OR BLACK ASPHALT (AWWA C509, SEC 4.2.2.8 OR C515, SEC 4.2.2.6)
- 4. UPON APPROVAL OF CARSON CITY ENGINEER OR PUBLIC WORKS DIRECTOR, THE ABOVE ASSEMBLY MAY BE REPLACED WITH A WELDED STEEL "SPOOL" OF EQUIVALENT DIAMETER, PRIMED AND WRAPPED (10 MILS MIN.). CONNECT TO EXISTING LINES USING MECHANICAL JOINTS. STEEL SPOOL SHALL BE CONSTRUCTED BY A CERTIFIED WELDER AND PRESSURE CHECKED IN ACCORDANCE WITH SPECIFICATIONS.
- 5. CONCRETE FOR THRUST BLOCKS SHALL NOT INTERFERE WITH THE REMOVAL OF BOLTED ASSEMBLIES. 6. AN AIR-RELEASE WITH POSITIVE GRADE FROM MAIN TO RELEASE SHALL BE INSTALLED AT THE HIGH
- POINT OF THE MAIN (18 INCHES MINIMUM FROM ANY FITTING) UNLESS OTHERWISE NOTED ON THE APPROVED PLANS. SEE DWG. C-3.1.10 FOR INSTALLATION.
- ROUTING WATER LINE OVER SEWER LINE REQUIRES APPROVAL BY CARSON CITY ENGINEER OR PUBLIC
- 8. EVERY EFFORT IS TO BE MADE TO KEEP THE WATER MAIN OR WATER LATERAL 18 INCHES ABOVE THE SEWER MAIN AND THE WATER MAIN 12 INCHES ABOVE SEWER LATERAL.

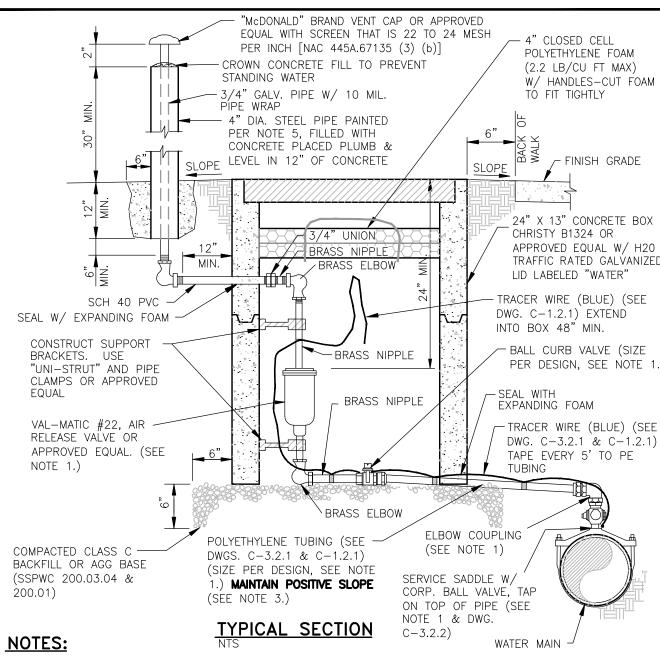
	NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION
					CARSON CITY
7)				RAISING	DRAWING NO. C-3.1.9 (203,307)
	APPRO'	VED BY:	07/09	WATER MAINS	DATE 7/2009



# 1. VALVE BOX AND LID SHALL BE H20 TRAFFIC RATED WITH A MINIMUM INSIDE DIAMETER OF 10 INCHES

- (CHRISTY G5 TRAFFIC VALVE BOX & LID). 2. CAST IRON LID SHALL BE MARKED AT THE FACTORY "WATER" FOR WATER APPLICATIONS, "RECLAIMED WATER" OR "RCW" FOR RECLAIMED WATER APPLICATIONS, AND "SS FORCE MAIN" OR "SSFM" FOR SANITARY SEWER APPLICATIONS.
- 3. FOR RECLAIMED WATER AND SANITARY SEWER APPLICATIONS, CAST IRON LID SHALL BE EPOXY COATED AT THE FACTORY, OR POWDER COATED, COLOR SHALL BE PURPLE FOR RECLAIMED WATER APPLICATIONS AND GREEN FOR SANITARY SEWER APPLICATIONS.
- 4. VALVE BOX SHALL BE SET OR ADJUSTED TO GRADE PER DRAWING NO. C-3.1.4, RISER FOR ADJUSTED VALVE BOX SHALL BE PER DRAWING NO. C-3.1.4. FOR OVERLAY ADJUSTMENTS, RISER WILL NOT REQUIRE
- REPLACEMENT OR EXTENSION IF IT EXTENDS A MINIMUM OF 2 INCHES INTO ADJUSTED VALVE BOX. 5. GRADE RING IS NOT ALLOWED FOR NEW VALVE BOX INSTALLATIONS. CAST IRON GRADE RING (CHRISTY G5 GRADE RING) MAY BE USED FOR OVERLAY ADJUSTMENTS WHEN OVERLAY DEPTH EQUALS THE GRADE RING

	DEPTH. NO	MORE	THAN ONE GRADE RING ALLOWED PER BOX.	
NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION
				CARSON CITY
			VALVE BOX & LID	DRAWING NO. C-3.1.6 (203,306,
APPROV	ED BY: A.	07/09		DATE 7/2009



### SIZE AND PRESSURE CLASS AS INDICATED ON THE PLANS, SHALL BE DETERMINED BY THE DESIGN ENGINEER, MINIMUM SIZE 3/4 INCH. CORP BALL VALVE SHALL BE MUELLER B-20013 OR B-2969, OR FORD FB-500-x WITH MALE I.P. THREADS BOTH ENDS OR APPROVED EQUAL. ELBOW COUPLING SHALL BE MUELLER H-15533 FEMALE I.P. THREAD X CTS 110 COMP, OR FORD L14-xx-Q FEMALE IP THREAD X QUICK JOINT, W/ TUBING LINER OR APPROVED EQUAL. BALL CURB VALVE SHALL BE MUELLER B-25171N OR FORD B41-xxx-NL FEMALE I.P. X CTS 110 OR APPROVED EQUAL.

- AIR RELEASE VALVES SHALL BE INSTALLED OUTSIDE PAVEMENT SECTION. SLOPE GROUND AWAY FROM AIR RELEASE VALVE BOX OR CONSTRUCT MINIMUM HEIGHT CURBING TO PROTECT FROM FLOODING BY SURFACE WATERS.
- 3. ALL PIPES SHALL HAVE POSITIVE SLOPE FROM MAIN LINE TO AIR RELEASE VALVE. 4. 1 1/2 INCH TO 2 INCH AIR-RELEASE VALVES REQUIRE A CHRISTY FL36 BOX AND COVER OR APPROVED EQUAL.
- STEEL PIPE PAINT SHALL BE RUST-OLEUM 7400 HIGH GLOSS SAFETY YELLOW ALKYD ENAMEL OR APPROVED

REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION
OAM INSULATION	02/13	DOTABLE WATER	CARSON CITY
OTE 1	05/13	POTABLE WATER	DRAWING NO. C-3.1.10 (203,30
		AIR RELEASE	DATE (203,30
BY: FR	5/13	AIR RELEASE	5/2013

AVENUE EXTENSI 5.0023 AVENUE I DETAILS CLEAR CREEK A
ANITARY SEWER
PROJECT No. 5
CLEAR CREEK
CONSTRUCTION

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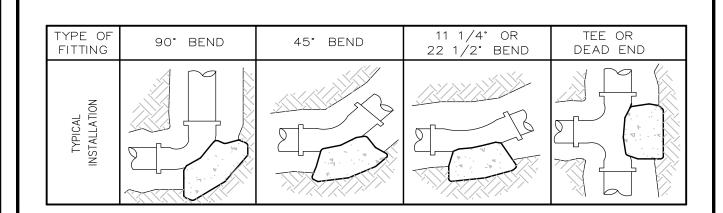
CIMERR

ROBERT [

FELLOWS

1249<sup>1</sup>

**8 Exp:** <u>6/30/15</u>



### THRUST BLOCK BEARING AREA (SQ. FT.)

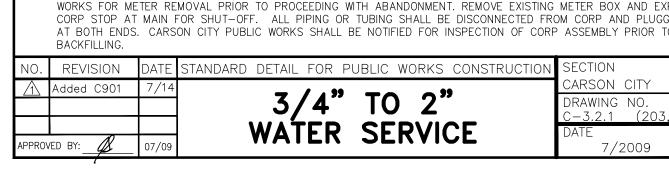
	E OF TING	90° BEND	45° BEND	11 1/4° OR 22 1/2° BEND	TEE OR DEAD END	TEE W/PLUG	CROSS W/PLUG
	4"	2	1	1	2	2	2
P P E	6"	4	4	2	4	4	4
₫	8"	7	4	2	5	7	7
F0	10"	12	6	3	8	12	12
	12"	16	10	5	12	16	16
SIZE	14"	20	12	6	14	20	20
"	16"	27	15	8	18	27	27
	18"	45	25	13	32	45	45
	24"	65	35	18	46	65	65

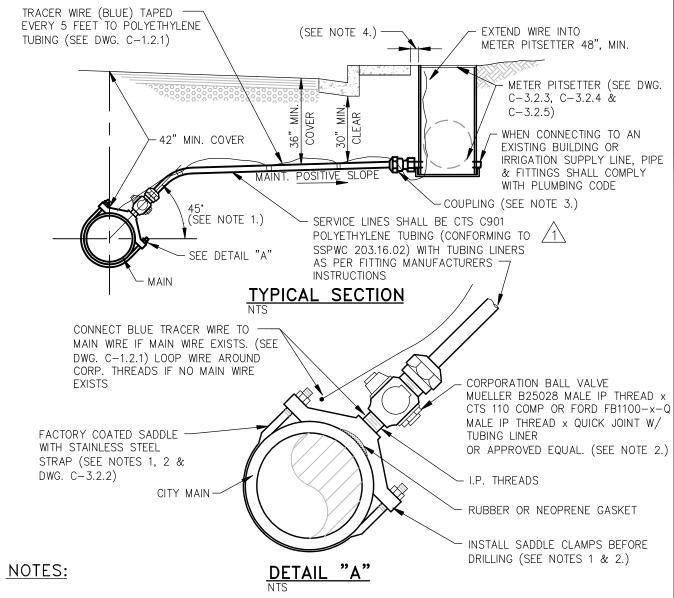
TYPE OF FITTING	CROSS W/PLUG	TEE W/PLUG
TYPICAL INSTALLATION		

- 1. THRUST BLOCKS TO BE CONSTRUCTED OF CONCRETE CONFORMING TO 337.10 OF THE SSPWC AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI @ 28 DAYS.
- AREAS GIVEN ARE FOR CLASS 150 PIPE AT WORKING AND TESTING PRESSURE OF 150 P.S.I., WITH 2000 P.S.F. BEARING CAPACITY. INSTALLATIONS USING DIFFERENT PIPE, TEST PRESSURES, AND/OR SOIL TYPES SHOULD HAVE AREAS ADJUSTED ACCORDINGLY, SUBJECT TO THE APPROVAL OF THE CARSON CITY ENGINEER OR PUBLIC WORKS DIRECTOR.
- 3. THRUST BLOCKS SHALL BE POURED AGAINST UNDISTURBED SOIL.

4. JOINTS, FLANGES, NUTS, BOLTS AND FACE OF PLUG SHALL BE KEPT CLEAR OF CONCRETE.

	., .,	, , _, ,, ,	25, 110 10, 20210 1112 1112 11 122 1112 22 112 1 22 112 1	
NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION
				CARSON CITY
			THRUST BLOCKS	DRAWING NO. C-3.1.14
APPROV	/ED BY: 🔏	07/09	TINOSI BLOCKS	DATE 7/2009





### MINIMUM DISTANCE BETWEEN TAPS AND MAINLINE FITTINGS, INCLUDING BELLS SHALL BE 18 INCHES. TAPPING SADDLE MUST BE AT 45 DEGREE ANGLE, EXCEPTIONS MUST BE APPROVED BY CARSON CITY WATER UTILITY.

- CORPORATION VALVES AND SERVICE SADDLES SHALL CONFORM TO AWWA C800 AND BE NO LESS THAN THE SERVICE LINE SIZE. WHEN REPLACING AN EXISTING SERVICE LINE AND A SIZE LARGER THAN SHOWN IS ENCOUNTERED, THE LARGER SIZE LINE, FITTINGS AND SADDLE SHALL BE INSTALLED UNLESS APPROVED BY CARSON CITY WATER UTILITY.
- COUPLING FITTING SHALL CONFORM TO AWWA C800 AND BE A MUELLER H-15451 CTS 110 COMP OR FORD C14-xx-Q QUICK JOINT W/ TUBING LINER x FEMALE IP THREAD OR APPROVED EQUAL.
- METER PITSETTERS TO BE PLACED 4 INCHES FROM BACK OF SIDEWALK IN AREAS WHERE SIDEWALK IS ADJACENT TO CURB, OR 6 INCHES FROM BACK OF CURB IN AREAS WHERE SIDEWALK IS OFFSET FROM CURB, OR AS DIRECTED BY CARSON CITY WATER UTILITY. IN AREAS WHERE NO CURB OR SIDEWALK IS PRESENT, METER PITSETTERS SHALL BE PLACED WITHIN THE RIGHT-OF-WAY AS SHOWN ON THE APPROVED PLANS.
- DISCONTINUANCE OF USE OF A SERVICE REQUIRES ABANDONMENT OF THE SERVICE. NOTIFY CARSON CITY PUBLIC WORKS FOR METER REMOVAL PRIOR TO PROCEEDING WITH ABANDONMENT. REMOVE EXISTING METER BOX AND EXPOSE CORP STOP AT MAIN FOR SHUT-OFF. ALL PIPING OR TUBING SHALL BE DISCONNECTED FROM CORP AND PLUGGED AT BOTH ENDS. CARSON CITY PUBLIC WORKS SHALL BE NOTIFIED FOR INSPECTION OF CORP ASSEMBLY PRIOR TO

AT BOTH ENDS BACKFILLING.	S. CARS	SON CITY PUBLIC WORKS SHALL BE NOTIFIED FOR INSPECTION OF COR					SS STEEL (304 OR 304L) STRAP(S), BOLTS, NUTS, & WASHERS. BE FULLY PASSIVATED.	ALL STAINLESS
REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION		NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION
Added C901	7/14	- / - 11 11	CARSON CITY				_ /	CARSON CITY
		3/4" TO 2"	DRAWING NO. C-3.2.1 (203,307)				3/4" TO 2"	DRAWING NO. C-3.2.2 (203, 3
		WATER SERVICE	DATE				SERVICE SADDLE	DATE (203, 3
D BY:	07/09	WATER SERVICE	7/2009	APPRO\	/ED BY:	07/09	SERVICE SADDLE	7/2009

OUTLET TAP SHALL BE -

3/4", 1" 1-1/2" OR

IRON PIPE THREADS)

2" AWWA FIPT (FEMALE

└─ 18-8 STAINLESS STEEL WIDE STRAP WITH

WELDS SHALL BE CORROSION RESISTANT.

SERVICE SADDLE DETAIL

1. SERVICE SADDLES FOR 3/4 INCH, 1 INCH, 1-1/2 INCH & 2 INCH TAPS SHALL CONFORM TO

C800 WITH A MINIMUM WORKING PRESSURE OF 150 PSI, UNLESS A HIGHER PRESSURE IS

2. SERVICE SADDLES SHALL BE FACTORY COATED DUCTILE IRON (ASTM A395 OR A536) WITH TYPE

SPECIFIED, AND BE MANUFACTURED BY FORD, MUELLER, ROMAC, SMITH-BLAIR OR APPROVED

EQUAL. (SEE DWG. C-3.2.1 FOR ADDITIONAL NOTES AND DETAILS.) POTABLE SERVICE SADDLES

BOLT THREADS SHALL BE COATED FOR

WELDED THREADED 18-8 BOLTS.

CORROSION PROTECTION.

SHALL BE IN COMPLIANCE WITH NSF61.

- DUCTILE IRON SADDLE BODY WITH

FACTORY FUSION EPOXY OR NYLON COATING, MINIMUM 10 MILS THICK

/─18-8 STAINLESS STEEL

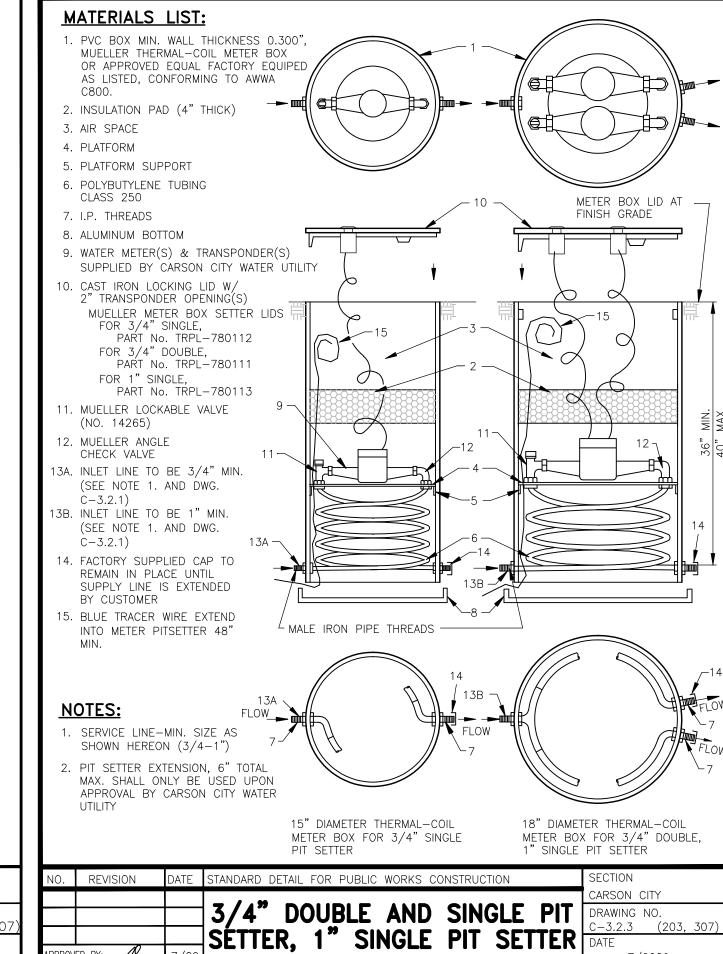
AND WASHER (TYP)

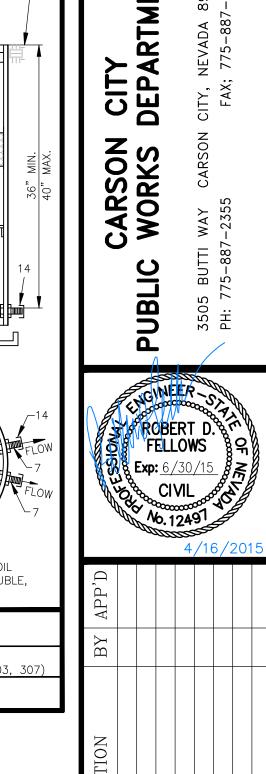
WIDTH SHALL BE 2" MIN FOR

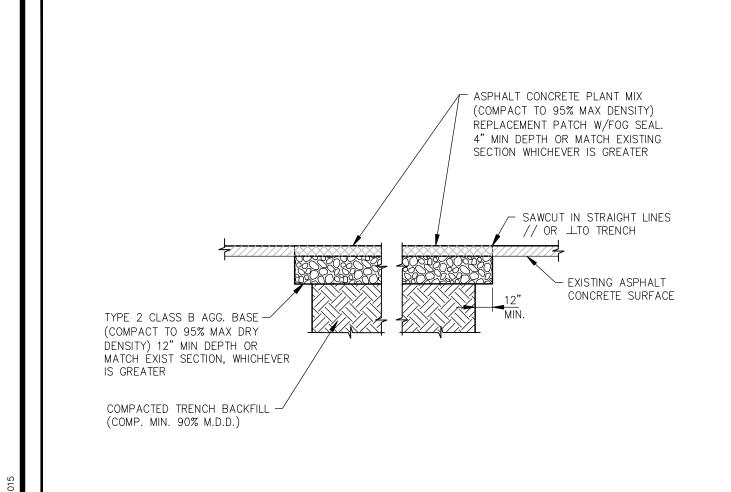
SINGLE STRAP, 1-1/2" MIN

FOR DOUBLE STRAPS

HEAVY HEX COATED NUT



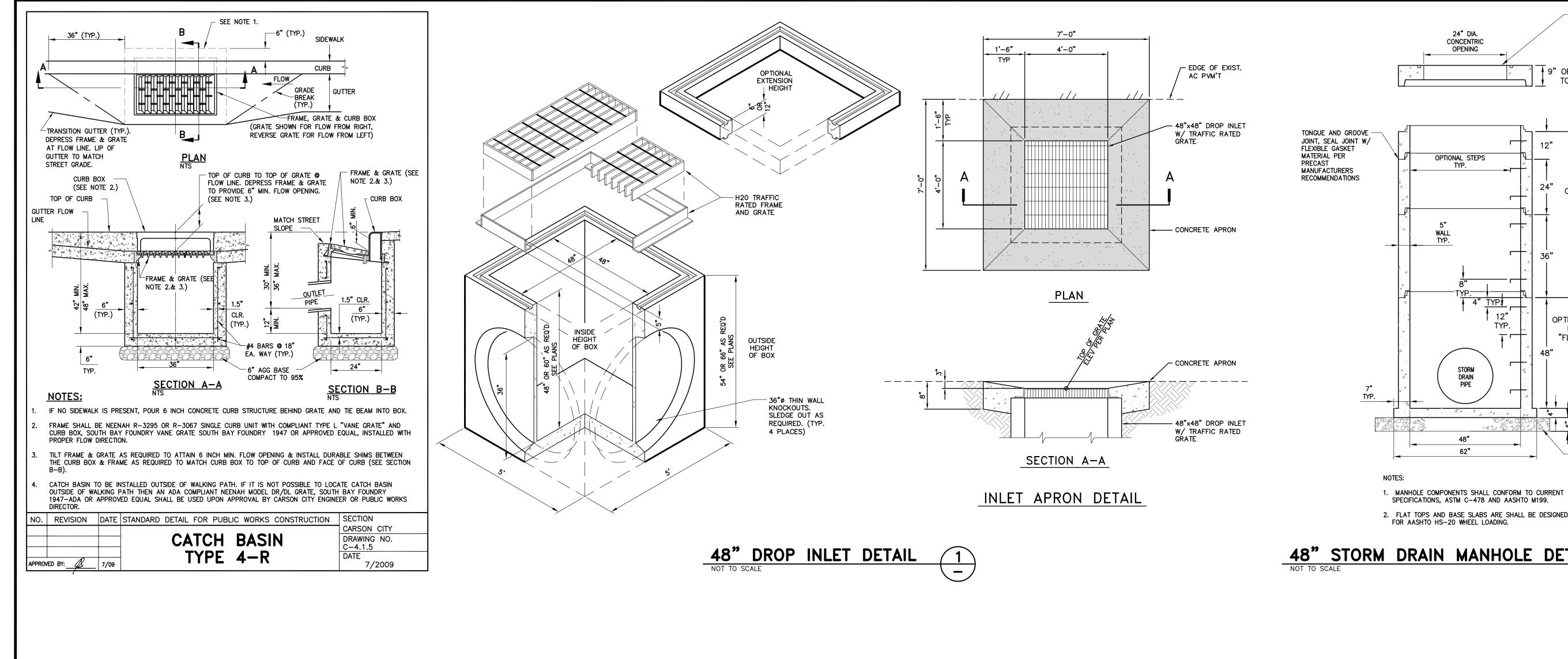


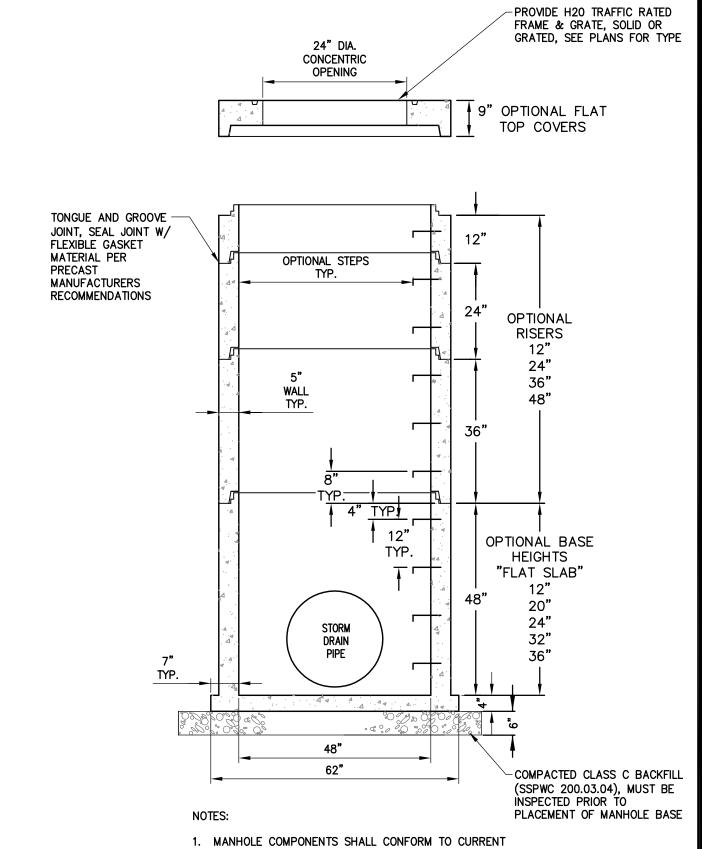


- IF SAWCUT IS WITHIN 24 INCHES OF EDGE OF A.C. PAVEMENT REMOVE EXISTING PAVEMENT TO THAT EDGE AND REPLACE ENTIRE SECTION.
- BITUMINOUS MATERIAL SHALL MEET THE REQUIREMENTS OF SECTIONS 201 AND 320 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
- MIXING, SPREADING, AND COMPACTING OF BITUMINOUS PAVEMENT SHALL BE DONE ONLY WHEN THE SURFACE ON WHICH THE MATERIALS ARE TO BE PLACED IS DRY AND WHEN THE ATMOSPHERIC TEMPERATURE IS ABOVE 50 DEGREES FAHRENHEIT AND HAS NOT BEEN BELOW 40 DEGREES FAHRENHEIT DURING THE PRECEDING 24 HOURS.
- FINISHED SURFACE VARIATIONS SHALL BE 0 TO 0.25 INCHES <u>ABOVE</u> EXISTING SURFACE. ALL HUMPS EXCEEDING THIS TOLERANCE SHALL BE CORRECTED BY REMOVAL OF MATERIAL AND REPLACING IT WITH NEW MATERIAL. <u>FINISHED</u> SURFACE OF PATCH SHALL NOT BE BELOW EXISTING ADJACENT SURFACE.
- PLANTMIX BITUMINOUS PAVEMENT SURFACE COURSE SHALL BE PG-64-22 TYPE 3 AND SUB SURFACE COURSES SHALL BE PG-64-22 TYPE 3 UNLESS OTHERWISE NOTED.
- PLANTMIX BITMUMINOUS PAVEMENT PATCHES SHALL MATCH EXISTING SECTION OR HAVE A MINIMUM THICKNESS OF 5 INCHES, WHICHEVER IS GREATER.
- PLANS SHALL SPECIFY PAVEMENT PATCH AND AGGREGATE BASE DEPTHS AS SPECIFIED BY THE DESIGN ENGINEER.

NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION
1	5" AC DEPTH	09/11		CARSON CITY
·	0 710 BEV 111	33/ 11	PAVEMENT PATCH	DRAWING NO. C-5.1.6
APPRO\	VED BY:	09/11	(MODIFIED)	DATE 7/2009

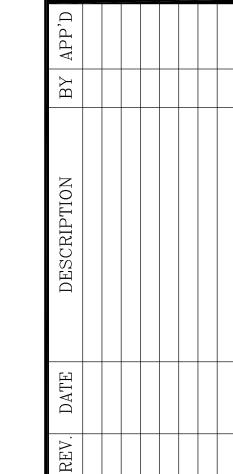
CLEAR SANITARY PROJ





FLAT TOPS AND BASE SLABS ARE SHALL BE DESIGNED FOR AASHTO HS-20 WHEEL LOADING.

48" STORM DRAIN MANHOLE DETAIL (2)



CITY DEPARTMENT

CARSON WORKS

**PUBLIC** 

ROBERT D FELLOWS

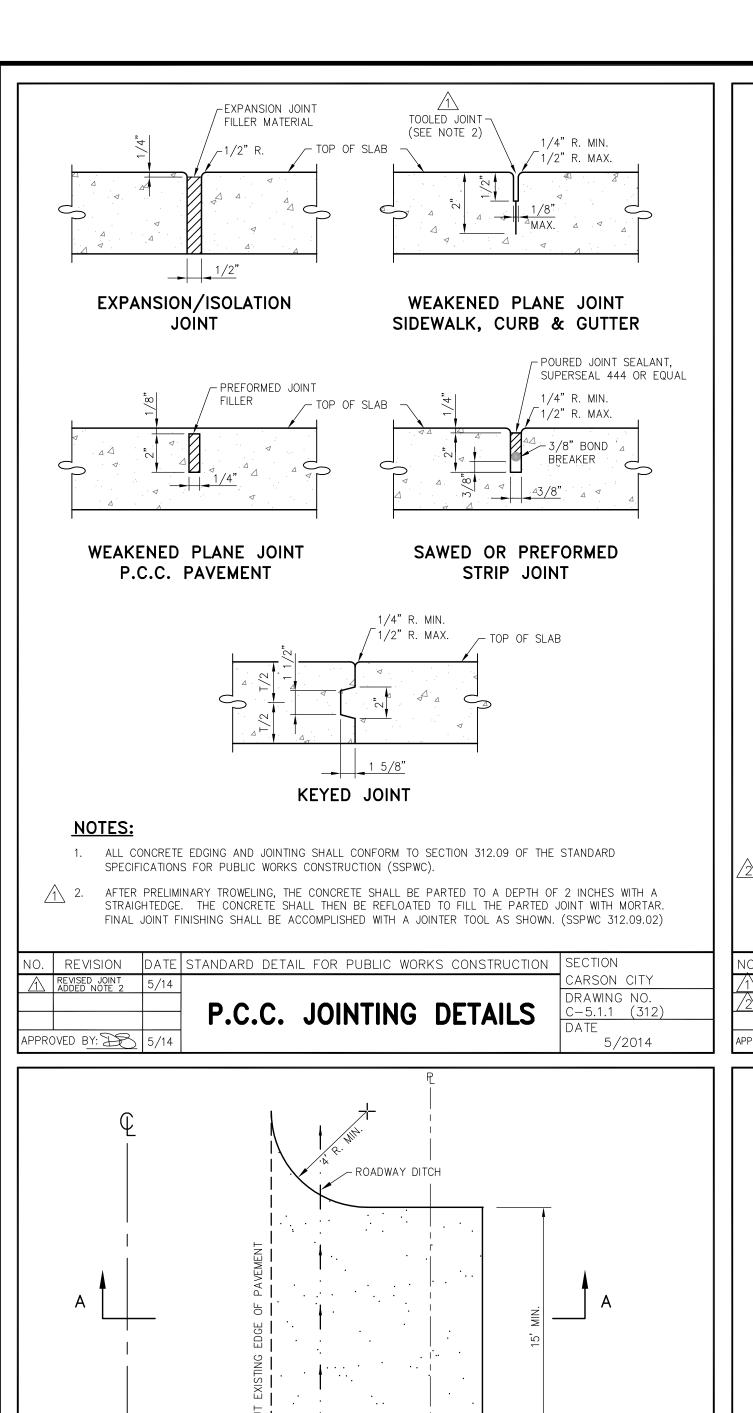
C15 — OF— 23

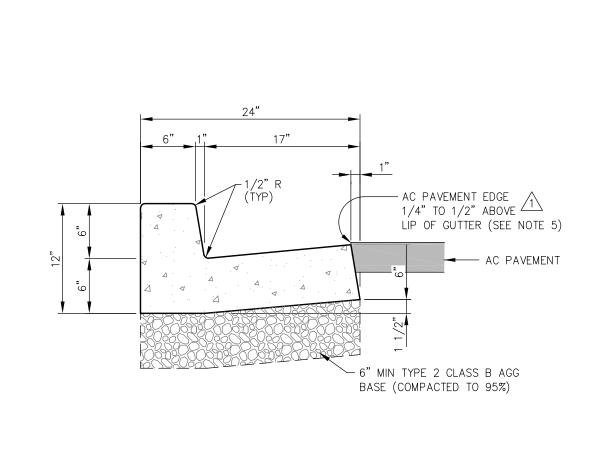
FINISHED GRADE — - BACKFILL PER SPECIFICATIONS WOVEN 5 OZ. GEOTEXTILE FABRIC TO OVERLAP AT PERFORATED HDPE PIPE REFERENCE PLAN FOR SIZE PIPE OPENINGS PLACEDON BOTTOM OF PIPE.5 HOLES, 1"ø PIPE SIZE PER PLAN

HDPE PERFORATED

STORMDRAIN PIPE DETAIL

NOT TO SCALE





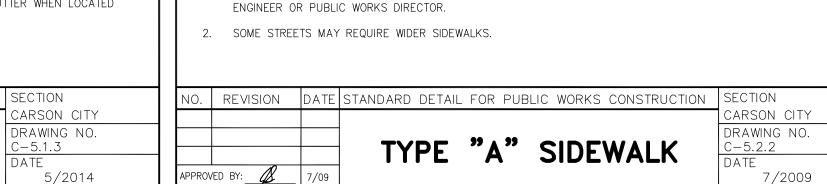
### NOTES:

- PORTLAND CEMENT CONCRETE (P.C.C.) SHALL HAVE THE FOLLOWING CHARACTERISTICS: SYNTHETIC FIBER-REINFORCEMENT (AT A MINIMUM OF 1 POUND PER CUBIC YARD), 4000 PSI MIN COMPRESSIVE STRENGTH @ 28 DAYS, MIN 6 SACKS OF CEMENT PER CUBIC YARD WITH A MAX. WATER/CEMENT RATIO OF 0.45, AIR ENTRAINMENT 6% ±1.5%, SLUMP AT 1 TO 4 INCHES ALL MATERIALS SHALL CONFORM TO SECTION 202 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
- ALL CONCRETE CURB & GUTTER SHALL HAVE 1/2 INCH EXPANSION JOINTS EVERY 30 FEET (UNLESS APPROVED OTHERWISE BY THE ENGINEER) AND AT ALL CURB RETURNS AND SHALL HAVE WEAKENED PLANE JOINTS EVERY 10 FEET. CONCRETE EDGING AND JOINTING SHALL BE CONSTRUCTED IN ACCORDANCE WITH STANDARD DETAIL C-5.1.1 AND CONFORM TO SECTION 312.09 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC).
- ALL AGGREGATE BASE SHALL BE TYPE 2, CLASS B AND CONFORM TO SECTION 200.01. OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, AND SHALL BE MECHANICALLY COMPACTED TO 95% COMPACTION, IN CONFORMANCE WITH SECTION 308.05 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
- 4. CURBS SHALL BE MARKED WITH A 2 INCH "S" ON THE TOP OF CURB AT SEWER LATERAL LOCATIONS.

\_\_ TYPE 1 CURB & GUTTER

EXCEPTION: AC PAVEMENT EDGE SHALL BE FLUSH TO 1/4 INCH ABOVE THE LIP OF GUTTER WHEN LOCATED ADJACENT TO A PEDESTRIAN RAMP, WITHIN AN ACCESSIBLE ROUTE OR BIKE LANE.

NO.	REVISION		STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION
/2	NOTE 5	06/12 05/14	U''' ''IIIU
APPROVED BY: 28 05/14			TYPE 1



JOINT (TYP)

CURB &

GUTTER

(SEE NOTE 3

DWG C-5.2.1)

PLAN NTS

(SEE NOTE 2.)

6" MIN. AGG BASE

COMPACTED TO 95%

SECTION A-A

" MIN. AGG BASE

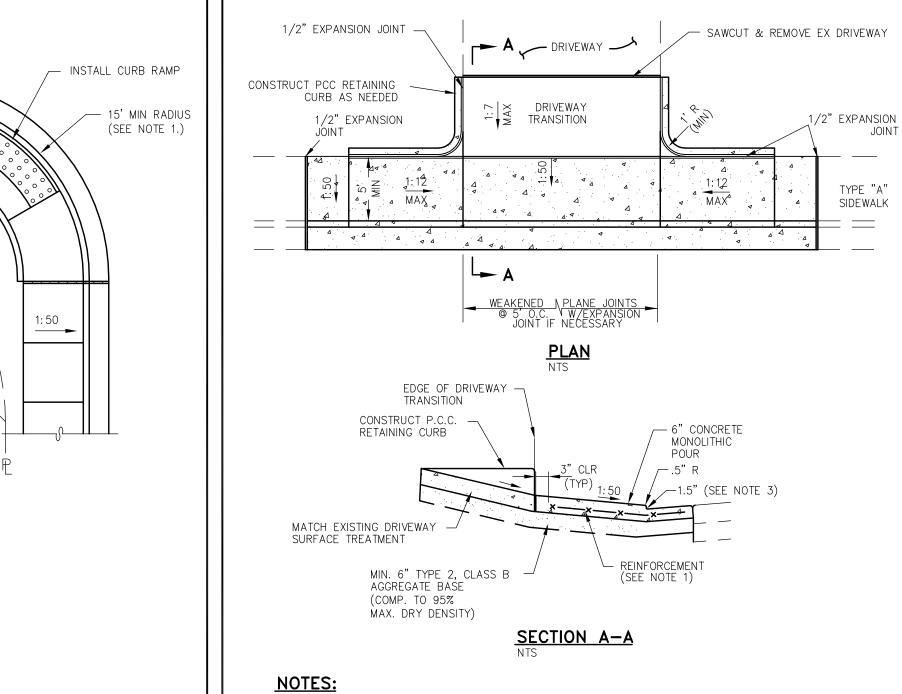
COMPACTED TO 95%

MINIMUM CURB RETURN RADIUS SHALL BE 15 FEET UNLESS OTHERWISE APPROVED BY THE CARSON CITY

WEAKENED PLANE

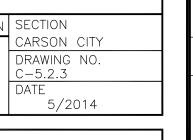
JOINTS (TYP)

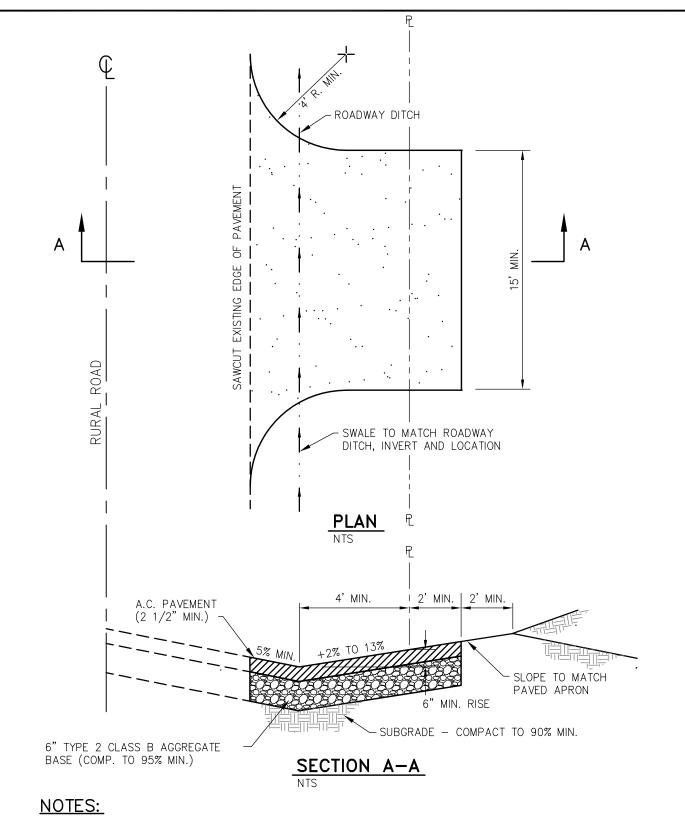
CURB & GUTTER



- COMMERCIAL DRIVEWAYS TO HAVE 6 INCH X 6 INCH 10/10 WIRE MESH EXTENDED INTO GUTTER PAN UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
- 2. DRIVEWAY LANDING, SIDEWALK, CURB & GUTTER TO BE MONOLITHIC POUR TO A.C. LINE.
- 3. CURB HEIGHT AT LANDING SHALL BE 1 INCH MINIMUM AND 2 INCH MAXIMUM (3 INCH MAX UPON CARSON CITY PUBLIC WORKS APPROVAL) 2 INCH RADIUS TO BE USED WHEN CURB HEIGHT AT LANDING IS GREATER THAN 2 INCHES.
- 4. DRIVEWAY APRONS SHALL BE CONSTRUCTED IN COMPLIANCE WITH STANDARD DETAILS C-5.1.1 AND

_					
	NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	
1	<u></u>	NOTE 1	05/14		(
l				P.C.C. DRIVEWAY APRON	[
┨				TYPE 1	<u>-</u>
	APPRO <sup>1</sup>	VED BY:	05/14	ITPE	١
				·	-





1. IN LIEU OF A.C. SURFACING A 6 INCH THICK P.C.C. SLAB WITH 6 INCH x 6 INCH WWF AND 6 INCHES

A.C. DRIVEWAY APRON RURAL ROADS

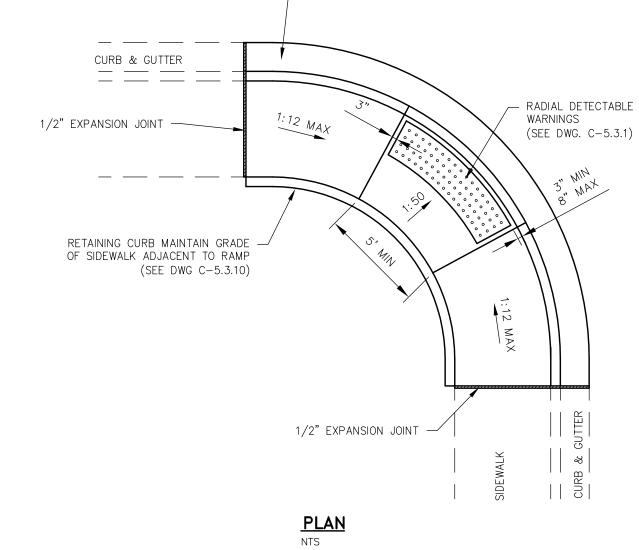
DRAWING NO.

7/2009

). | revision ||date|standard detail for public works construction |section |

OF SELECT GRANULAR BASE (COMP. TO 95% MIN.) MAY BE USED.

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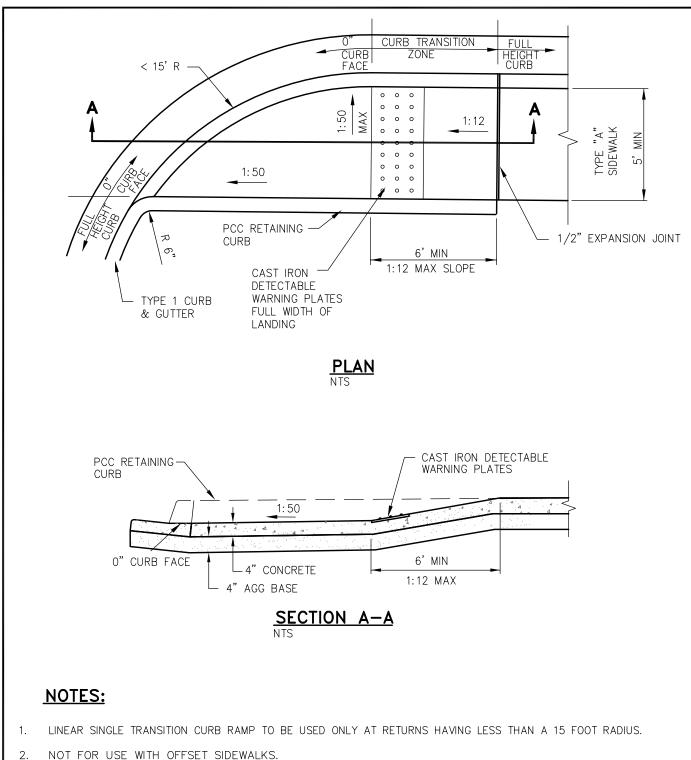


### NOTES:

- 1. NOT FOR USE WITH OFFSET SIDEWALKS.
- 2. RETAINING CURBS ARE TO BE USED IN ALL CASES AND FINISH GRADE AT BACK OF SIDEWALK IS TO BE RAISED TO TOP OF RETAINING CURB ELEVATION.
- 3. SEE "CURB RAMP GENERAL NOTES" DWG C-5.3.1 FOR FURTHER REQUIREMENTS.

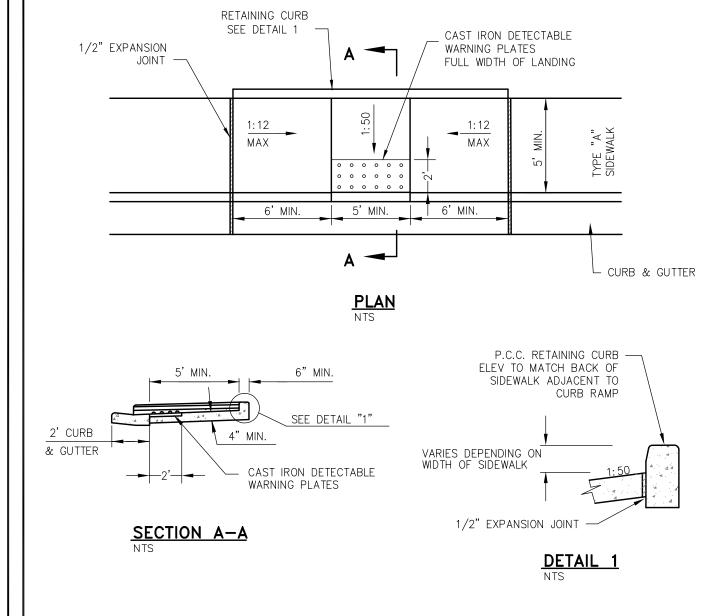
D. REVISION DATE STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION SECTION CARSO	
J.   REVISION     DATE   STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION   SECTION	N
DEVICION DATE CTANDARD RETAIL FOR PURLIC WORKS CONSTRUCTION SECTIO	A 1

12 1101011	57112	DADALLEL GUIDE	DAMA	CARSON
		PARALLEL CURB	RAMP	DRAWING C-5.3.5
BY: <b>1</b>	7/09	APEX		DATE 7/
1				



- NOT FOR USE WITH OFFSET SIDEWALKS.
- RETAINING CURBS ARE TO BE USED IN ALL CASES AND EXISTING GRADE AT BACK OF SIDEWALK IS TO BE RAISED TO TOP OF RETAINING CURB ELEVATION.
- 4. SEE "CURB RAMP GENERAL NOTES" DWG C-5.3.1 FOR FURTHER REQUIREMENTS.

NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION
			LINEAR CURB RAMP	CARSON CITY DRAWING NO.
APPROV	/ED BY: 🔏	7/09	SINGLE ADJACENT	C-5.3.8 DATE 7/2009



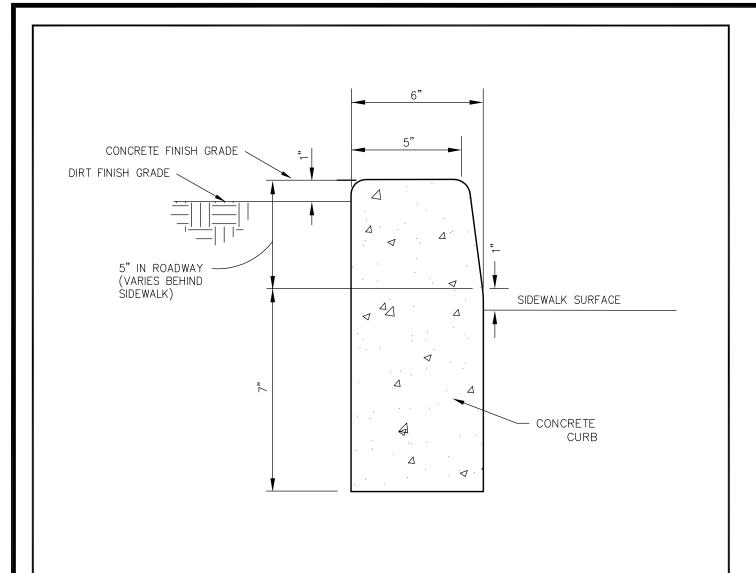
### NOTES:

- 1. RETAINING CURB TO BE USED IN ALL CASES. MAINTAIN SLOPE OF SIDEWALK OUTSIDE OF CURB RAMP.
- 2. SEE "CURB RAMP GENERAL NOTES" DWG C-5.3.1 FOR FURTHER REQUIREMENTS.

	N	O. F	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION
_					MID DI GOIX	CARSON CITY
- 1					MID BLOCK	DRAWING NO.
					CURB RAMP	C-5.3.9 DATE
	API	PROVED	BY:	7/09	COND NAMI	7/2009
			1			

CITY DEPARTMENT CARSON WORKS

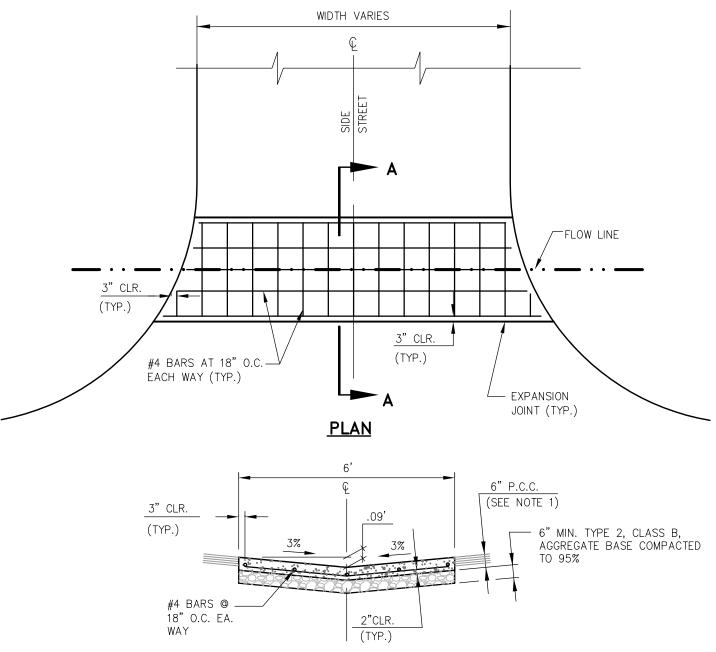
**PUBLIC** CINEER. ROBERT ( FELLOWS **8 Exp:** <u>6/30/1</u>5



### NOTES:

NO CONCRETE SHALL BE PLACED UNTIL FORMS AND SUBGRADE ARE INSPECTED BY CARSON CITY PUBLIC WORKS
 ALL CONCRETE EDGING AND JOINTING SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. DETAIL 5.1.1 AND CONFORM TO SEC. 312.09 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC).

	NO.	REVISION	DATE	STANDARD DET	AIL FOR PUBLIC WORKS	CONSTRUCTION	SECTION
Г							CARSON CITY
Į					RETAINING	CLIDD	DRAWING NO. C-5.3.10
╌				P.C.C.	RETAINING	CUKB	DATE
- 1	APPRO\	/ED BY:	7/09				7/2009



### SECTION A-A

### **NOTES**

- 1. PORTLAND CEMENT CONCRETE (P.C.C.) SHALL HAVE THE FOLLOWING CHARACTERISTICS: SYNTHETIC FIBER-REINFORCEMENT (AT A MINIMUM OF 1 POUND PER CUBIC YARD),4000 PSI MIN. COMPRESSIVE STRENGTH @ 28 DAYS, MIN. 6 SACKS OF CEMENT PER CUBIC YARD WITH A MAX. WATER/CEMENT RATIO OF 0.45, AIR ENTRAINMENT 6% ±1.5%, SLUMP AT 1 TO 4 INCHES. ALL MATERIALS SHALL CONFORM TO SSPWC SECTION 202. POLYPROPYLENE FIBERS SHALL BE ADDED TO THE P.C.C. PER THE MANUFACTURER'S
- 2. RECOMMENDATIONS.AGGREGATE BASE SHALL BE ENGINEERED TYPE 2, CLASS B WITH 95% COMPACTION.
- 3. VALLEY GUTTER SHALL HAVE WEAKENED PLANE JOINTS EVERY 10 FEET.
- 4. ALL CONCRETE EDGING AND JOINTING SHALL BE CONSTRUCTED IN ACCORDANCE WITH STANDARD DETAIL C-5.1.1 AND CONFORM TO SECTION 312.09 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC).

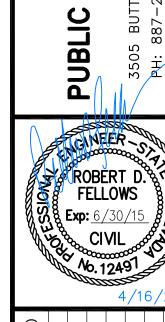
# VALLEY GUTTER DETAIL

NOT TO SCALE



DRAWN BY: DGR/DLO
CHECKED BY: DGR/RF
DWG NO.: 5-0701 street plan.dwg
O1 SCALE (HORIZ): AS SHOWN

CARSON CITY
C WORKS DEPARTMENT

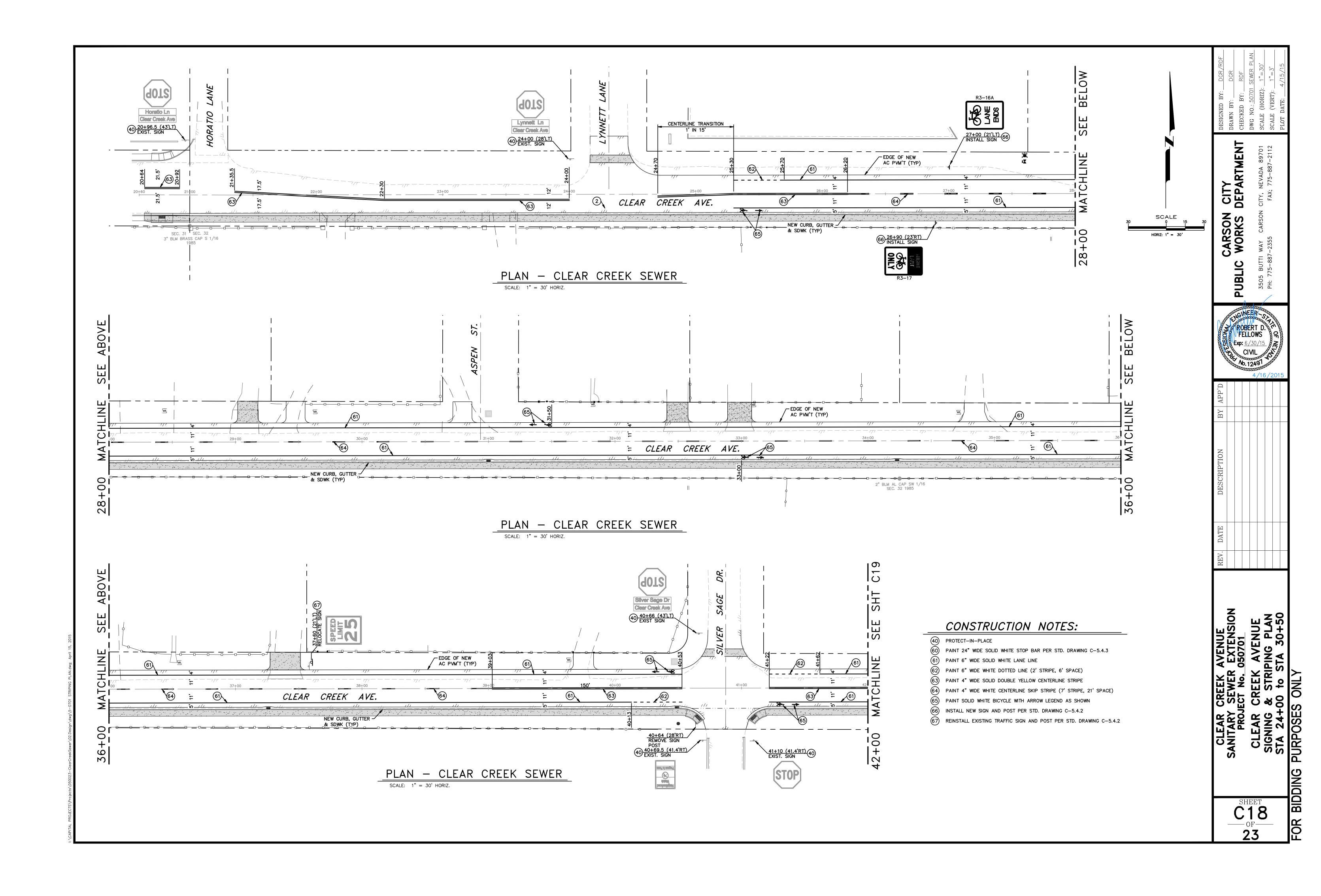


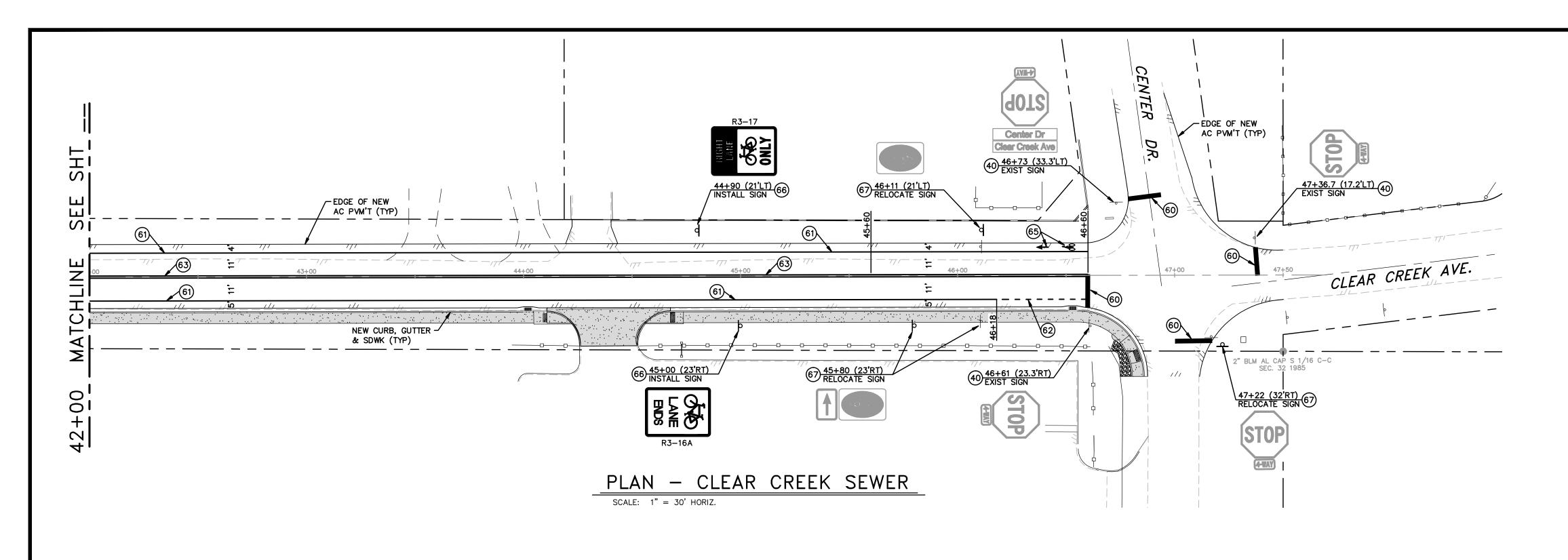
4/16/20 4/16/20 BY APP'D 7/10/20 1/20/

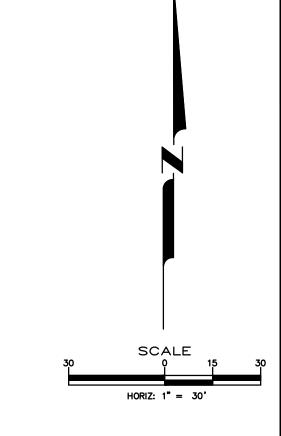
> SANITARY SEWER EXTENSIO PROJECT No. 5.0023 CLEAR CREEK AVENUE STREET PLANS

C17 — OF— 23

eekSewer\02.Design\DWG\5-0701 STREET PLAN.dwg; 4/15/

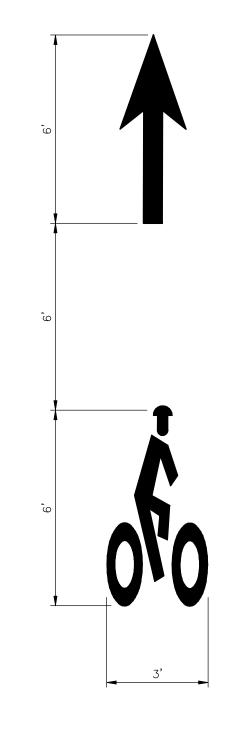






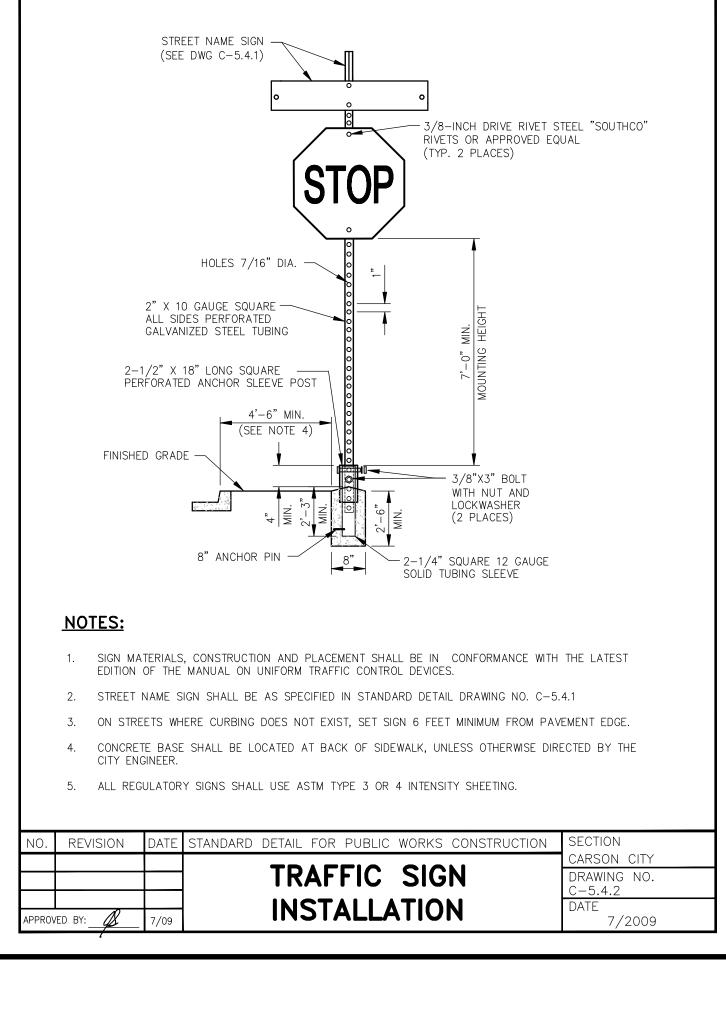
# **CONSTRUCTION NOTES:**

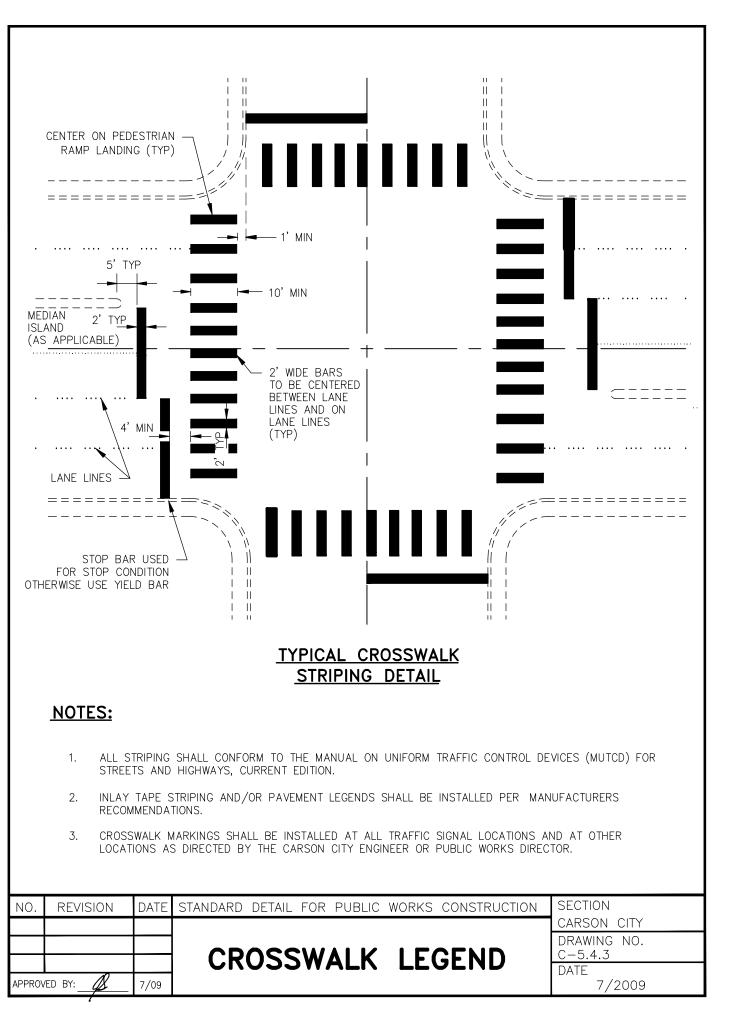
- (40) PROTECT-IN-PLACE
- PAINT 24" WIDE SOLID WHITE STOP BAR PER STD. DRAWING C-5.4.3
- PAINT 6" WIDE SOLID WHITE LANE LINE
- PAINT 6" WIDE WHITE DOTTED LINE (2' STRIPE, 6' SPACE) PAINT 4" WIDE SOLID DOUBLE YELLOW CENTERLINE STRIPE
- PAINT 4" WIDE WHITE CENTERLINE SKIP STRIPE (7' STRIPE, 21' SPACE)
- PAINT SOLID WHITE BICYCLE WITH ARROW LEGEND AS SHOWN
- INSTALL NEW SIGN AND POST PER STD. DRAWING C-5.4.2
- (67) REINSTALL EXISTING TRAFFIC SIGN AND POST PER STD. DRAWING C-5.4.2



# BIKE LANE LEGEND

- 1. ALL STRIPING SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) FOR STREETS AND HIGHWAYS, 2009 EDITION.
- ALL PAINTED STRIPING AND PAVEMENT LEGENDS SHALL CONFORM TO CARSON CITY STREETS DEPARTMENT SPECIFICATIONS.





CARSON WORKS **PUBLIC** CLE SANIT, C19

CITY DEPARTMENT

23