CITY OF SPARKS SANITARY SEWER SPOT REPAIR PROJECT

PWP # WA 2024-073 BID # 23/24-008 JANUARY 2024

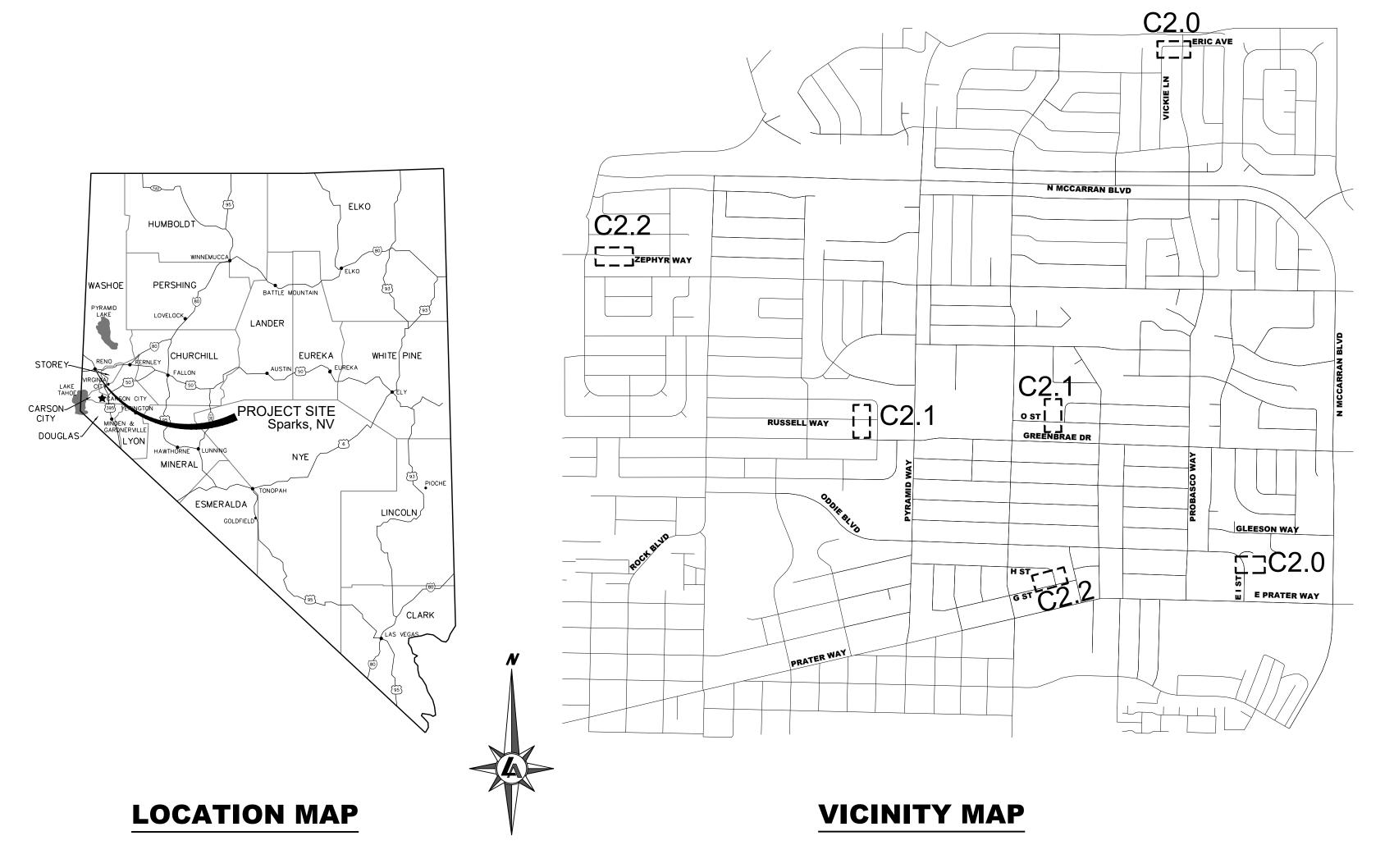


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WARD 2	DIAN VANDERWELL
WARD 3	PAUL ANDERSON
WARD 4	CHARLENE BYBEE
WARD 5	KRISTOPHER DAHIR

APPROVED BY:

1/30/2024 DATE JON R. ∉RICSON, P.E., P.T.O.E.



SHEET INDEX:

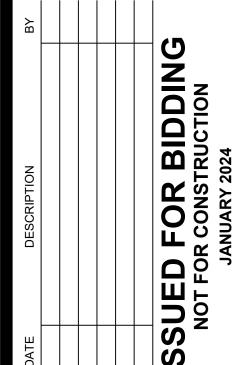
C1.0	TITLE SHEET
C1.1	NOTES, LEGEND, AND ABBREVIATION
C2.0	EAST I ST ERIC AVE.
C2.1	O ST RUSSELL ST.
C2.2	H ST ZEPHYR WAY
C3.0	DETAIL SHEET

DETAIL SHEET DETAIL SHEET

2 working days

1-800-227-2600

AVOID CUTTING UNDERGROUND UTILITIES



BAR IS 1 INCH ON ORIGINAL DRAWING

C1.0 DRAWN BY:

11032.000



ENGINEER

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DESIGNED BY: CHECKED BY: JOB NO.:

- EDGE OF PAVEMENT-AC PAVING TO BE REMOVED **CURB & GUTTER** CONCRETE UTILITY POLE -> P

LIGHT **GUY WIRE** \rightarrow ET **ELECTRIC TRANSFORMER** ELECTRIC VAULT EV ELECTRIC PANEL EP 🗆 EP 🗆 **ELECTRIC CABINET** EC □ EC 🗆 **ELECTRIC BOX** EB 🗖 EB □

ELECTRIC METER ЕМ □ ЕМ□ EG **ELECTRIC GENERATOR** E ELECTRIC MANHOLE AIR CONDITIONER AC 🛛 AC 🛛 **ELECTRIC OUTLET** BOLLARD 00 STORM DRAIN MANHOLE / DROP INLET

CATCH BASIN M WATER VALVE Ň IRRIGATION CONTROL VALVE WATER WM 🗖 WATER SPIGOT / HOSE BIB WATER ws O WSO MANHOLE WV WATER VAULT WV FIRE HYDRANT

ТВ 🗖

TV

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EX FO

_____ EX SS _____

GAS VALVE **GAS METER TELEPHONE MANHOLE** TELEPHONE BOX **TELEPHONE VAULT** TV **SEWER MANHOLE** SEWER CLEANOUT •SSCO

SURVEY MONUMENT CONTROL POINT BARRICADE _ 0 0 0 SIGN RETAINING WALL $\cdot \infty \infty \infty \cdot$ FENCE ____ X ____ **GRADE BREAK** FLOW LINE _ · · -

SOIL TEST PIT $\langle \chi \rangle$ **DETAIL CALLOUT** CX.X COMM LINE _____ TELE ______ **GAS LINE** ——— GAS ———— **ELECTRIC LINE** ____ ELEC _____ SEWER LINE

WATER LINE AIR LINE

STORM DRAIN RECLAIMED WATER LINE ---- REC WL FOUND SECTION CORNER AS NOTED

ABBREVIATIONS

ASPHALT CONCRETE ASBESTOS CEMENT PIPE NAP NIP AGGREGATE NTS BEGIN CURVE (HORIZONTAL **BOTTOM OF WALL** OC **BOTTOM OF FOOTING** OD ОН BUTTERFLY VALVE BEGIN VERTICAL CURVE PCC BACK OF WALK CATCH BASIN PG CUBIC FEET PER SECOND PIVC CUBIC FEET **CURB AND GUTTER** POCC CENTER LINE POT CLASS / CENTER LINE CORRUGATED METAL PIPE PRC COMPACTION PRVC CONCRETE PVC CONTRACTOR **PVMT** CONCRETE PAD Q 5 CABLE TELEVISION Q 100 DROP INLET DIAMETER RCP DRIVEWAY REF EAST RET EACH END CURVE (HORIZONTAL) ELBOW ELECTRICAL **ELEVATION** END VERTICAL CURVE SD EXISTING **SDMH EXTERIOR** FLANGE COUPLING ADAPTER SS FINISH ELEVATION SSCO FLARED END SECTION SSMH FINISH FLOOR FRONT FACE OF CURB FINISH GRADE STA FIRE HYDRANT SW FLOW LINE TELE FLANGE TBO FEET PER SECOND FOOTING TG GAS TOB GALVANIZED GRADE BREAK TOW GRAVEL DRIVEWAY TS GROUND TSCB GATE VALVE TR HANDICAPPED TRANS HYDRAULIC GRADE LINE TYP HORIZONTAL UG/P HIGH POINT UNO INSIDE DIAMETER **V**5 INVERT ELEVATION VC INTERSECTION **VEL** IRRIGATION **VERT** LATERAL VG LINEAR FEET **LOW POINT** W/G I FFT MAXIMUM

MAXIMUM DRY DENSITY

MAXIMUM MARSHALL DENSITY

MANUAL FOR TRAFFIC CONTROL DEVICES

MECHANICAL JOINT

MANHOLE

MINIMUM

AC

ACP

AGG

BOW

BVC

BW

CB

cfs

CF

CL

CMP

COMP

CONC

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MMD

MUTCD

HORIZ

GDW

DI

BF, BOF

BC

NORTH NOT A PART **NOT IN PROJECT** NOT TO SCALE ON CENTER **OUTSIDE DIAMETER OVERHEAD PROPOSED** PORTLAND CEMENT CONCRETE PAD GRADE POINT OF INTERSECTION POINT OF INTERSECTION VERTICAL CURVE PROPERTY LINE POINT OF COMPOUND CURVATURE POINT OF TANGENCY POWER POLE POINT OF REVERSE CURVE POINT OF REVERSE VERTICAL CURVE POLYVINYL CHLORIDE **PAVEMENT 5 YEAR PEAK FLOW** 100 YEAR PEAK FLOW RADIUS REINFORCED CONCRETE PIPE REFERENCE **CURB RETURN RADIUS POINT** RIGHT R/W, ROW **RIGHT-OF-WAY** SLOPE SOUTH STORM DRAIN STORM DRAIN MANHOLE STREET LIGHT SANITARY SEWER SANITARY SEWER CLEAN OUT SANITARY SEWER MANHOLE

SSPWC STANDARD SPEC. FOR PUBLIC WORKS CONSTRUCTION STATION **SIDEWALK TELEPHONE** TEMPORARY BLOW OFF VALVE TOP OF CURB, TOP OF CONC TO GRADE TOP OF BERM TF, TOF TOP OF FOOTING TOP OF WALL

TRAFFIC SIGNAL TRAFFIC CONTROL SIGNAL BOX TOP OF RAIL TRANSITION **TYPICAL UNDER GROUND POWER UNLESS NOTED OTHERWISE** VELOCITY AT 5 YEAR PEAK VERTICAL CURVE **VELOCITY VERTICAL VALLEY GUTTER** WEST

WATER AND GAS WATER LINE WATER METER WATER SURFACE WATER VALVE WELDED WIRE FABRIC YEAR

GENERAL

1. ALL WORK SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 2012 EDITION REVISION 8, 10-19-2018

2. THE CONTRACTOR SHALL REFER TO THE STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION, AS ADOPTED BY THE CITY OF SPARKS, FOR ALL DETAILING NOT SHOWN ON THESE PLANS.

3. CONSTRUCTION SHALL COMPLY WITH THESE PLANS AND SPECIFICATIONS AND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)

4. THE CITY OF SPARKS SHALL BE RESPONSIBLE FOR ARRANGING A PRE-CONSTRUCTION JOB SITE CONFERENCE WITH GOVERNING AGENCIES, ALL UTILITY COMPANIES, OWNER'S REPRESENTATIVES, AND THE PROJECT ENGINEER PRIOR TO COMMENCING WORK. THIS MEETING SHALL BE HELD AT LEAST FORTY-EIGHT (48) HOURS, OR TWO (2) BUSINESS DAYS, PRIOR TO THE START OF CONSTRUCTION AND SHALL COMMUNICATE SCHEDULES, CONTRACTORS MEAN AND METHODS, MATERIALS TO BE USED, AND OTHER RELEVANT MATTERS ASSOCIATED WITH THE CONSTRUCTION OF THE PROJECT.

5. ALL WORK EITHER DIRECTLY OR INDIRECTLY RELATED TO THE PROJECT SHALL BE COORDINATED WITH THE APPROPRIATE UTILITY SYSTEM MANAGER.

THE CONTRACTOR SHALL MAINTAIN AN ONSITE RECORD COPY OF ALL DRAWINGS, SPECIFICATIONS, ADDENDA, CHANGE ORDERS, WORK CHANGE DIRECTIVES, FIELD ORDERS, FIELD CHANGES, AND WRITTEN INTERPRETATIONS AND CLARIFICATIONS. RECORDS SHALL BE IN GOOD ORDER AND ANNOTATED TO SHOW CHANGES MADE DURING CONSTRUCTION.

7. CONTRACTOR SHALL REFER TO THE PROJECT SPECIFICATIONS REGARDING MATERIAL AND EQUIPMENT SUBMITTAL REQUIREMENTS.

8. THE CONTRACTOR SHALL CALL UNDERGROUND SERVICE ALERT AT 1-800-642-2444 TO PROVIDE FIELD LOCATIONS OF UNDERGROUND UTILITIES PRIOR TO THE START OF

CONSTRUCTION. 9. THE LOCATION OF EXISTING UTILITIES SHOWN ON THESE PLANS ARE BASED ON THE BEST INFORMATION AVAILABLE TO THE ENGINEER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY PROPOSED POINTS OF CONNECTION AND IN AREAS OF POSSIBLE CONFLICT WITH NEW UTILITY INSTALLATION PRIOR TO BEGINNING CONSTRUCTION. SHOULD THE CONTRACTOR FIND ANY DISCREPANCIES BETWEEN THE CONDITIONS EXISTING IN THE FIELD AND THE INFORMATION SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER BEFORE PROCEEDING WITH CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROTECT AND MAINTAIN ALL EXISTING UTILITIES WHETHER OR NOT SHOWN ON THE PLAN.

THE CONTRACTOR SHALL BE RESPONSIBLE TO PROCURE ALL NECESSARY PERMITS. LICENSES. INSURANCE POLICIES. ETC. AS MAY BE NECESSARY TO COMPLY WITH LOCAL. COUNTY. STATE. AND FEDERAL LAWS ASSOCIATED WITH THE PERFORMANCE OF THE WORK; UNLESS OTHERWISE OBTAINED BY THE OWNER

11. CONTRACTOR SHALL REFER TO THE PROJECT SPECIFICATIONS REGARDING PROJECT TRAFFIC CONTROL REQUIREMENTS. ALL TRAFFIC CONTROL PLANS SHALL BE PREPARED BY ATTSA CERTIFIED PERSONNEL

12. THE CONTRACTOR AGREES TO ASSUME SOLE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, AND FURTHER AGREES THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS IN ACCORDANCE WITH THE PROVISIONS OUTLINED BY THE PROJECT CONTROL AND THE STANDARD SPECIFICATIONS.

13. THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR COMPLIANCE WITH ALL APPLICABLE PROVISIONS OF OSHA AND NRS CHAPTER 618. 14. THE CONTRACTOR SHALL PURSUE THE WORK IN A CONTINUOUS AND DILIGENT MANNER, CONFORMING TO ALL THE PERTINENT SAFETY REGULATIONS TO ENSURE A

TIMELY COMPLETION OF THE PROJECT. 15. THE CONTRACTOR SHALL MAINTAIN A CLEAN PROJECT SITE, REMOVING CONSTRUCTION DEBRIS AT THE END OF EACH ACTIVITY DAY. THE CONTRACTOR SHALL MAINTAIN DEBRIS FREE CONSTRUCTION ROUTES, ADJACENT STREETS AND STORM

16. TEMPORARY CONSTRUCTION FENCING SHALL BE PROVIDED AND MAINTAINED BY THE CONTRACTOR THROUGHOUT THE DURATION OF THE PROJECT IN AREAS AS DELINEATED ON THE PLANS OR AS DIRECTED BY THE PROJECT ENGINEER. THE TEMPORARY FENCING SHALL PREVENT CHILDREN AND PETS FROM ENTERING THE CONSTRUCTION AREA, CREATE A VISUAL BARRIER OF THE CONSTRUCTION ACTIVITIES FROM THE ADJACENT RESIDENCE AND YARDS, AND PROTECT VEGETATION FROM

CONSTRUCTION EQUIPMENT. 17. THE CONTRACTOR SHALL USE ONLY AUTHORIZED SITES FOR STORAGE OF EQUIPMENT AND MATERIALS AND OBTAIN PROPER APPROVALS FROM THE LAND OWNER AND LOCAL GOVERNING AUTHORITY TO DO SO. CONTRACTOR SHALL BE RESPONSIBLE FOR THE SECURITY OF ALL EQUIPMENT AND MATERIALS.

18. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING SURVEY MONUMENTS AND OTHER SURVEY MARKERS DURING CONSTRUCTION. IN THE EVENT A MONUMENT IS DISTURBED. THE CONTRACTOR SHALL HAVE THE MONUMENT REPLACED. AT HIS OWN EXPENSE, BY A LICENSED SURVEYOR IN THE STATE OF NEVADA.

19. CONTRACTOR SHALL REFER TO THE PROJECT SPECIFICATIONS REGARDING CONSTRUCTION HOURS.

20. ALL FIELD CHANGES MUST BE PRE-APPROVED BY THE CITY OF SPARKS 21. 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 PROJECT ENGINEER FOR SUCH FURTHER EXPLANATIONS AS MAY

22. THE OWNER IS RESPONSIBLE FOR FURNISHING QUALIFIED SITE INSPECTIONS AS REQUIRED TO COMPLY WITH LOCAL ORDINANCES.

NOTES:

23. THE CONTRACTOR SHALL FIELD VERIFY UTILITY LOCATIONS NEAR OR WITHIN THE CONSTRUCTION LIMITS WITH THE RESPECTIVE UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ARRANGE FOR THE NECESSARY RELOCATION OF ANY UTILITY. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES INVOLVED AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO BEGINNING WORK.

24. NO OTHER UTILITIES MAY BE PLACED IN A WATER OR SEWER TRENCH.

25. ALL VALVE BOXES, MANHOLE STRUCTURES, AND CLEAN OUTS SHALL BE MARKED AND ACCESSIBLE AT ALL TIMES.

26. CONTRACTOR SHALL SUPPORT TRENCH SIDEWALLS IN ACCORDANCE WITH ALL APPLICABLE LAWS AND GOVERNING SAFETY REGULATIONS. SHEETING OR SHORING SHALL CONFORM TO LOCAL REGULATIONS AND OSHA STANDARDS.

27. ENDS OF UNFINISHED PIPE SHALL BE SEALED AT THE END OF EACH DAY 28. PIPE SHALL BE LAID IN THE UPHILL DIRECTION, WITH BELL ENDS UPHILL

GRADING, EXCAVATION & SURFACE IMPROVEMENTS

29. THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING THEIR OWN QUANTITY TAKE-OFF AND SHALL BUDGET THE PROJECT ACCORDINGLY. ALL EXCESS GRADING MATERIALS SHALL BE DISPOSED OF OFFSITE.

30. THE SOILS ENGINEER SHALL APPROVE ALL EARTHWORK AND GRADING TO CONFIRM COMPACTION REQUIREMENTS ARE MET.

31. CONTRACTOR SHALL PROTECT EXISTING PAVING, CONCRETE, LANDSCAPING, FENCING, MAILBOXES, SIGNS AND ANY OTHER IMPROVEMENTS NOT SPECIFICALLY CALLED OUT FOR REPLACEMENT. CONTRACTOR SHALL REPAIR/REPLACE ANYTHING DAMAGED BY FORCES UNDER THEIR EMPLOY OR CONTRACT.

32. ALL ASPHALT CONCRETE SURFACES SHALL BE SAWCUT ONE FOOT MINIMUM INSIDE THE EDGE OF PAVEMENT TO A NEAT, STRAIGHT LINE AND REMOVED. THE EXPOSED PAVEMENT TIE-IN EDGES SHALL BE METICULOUSLY CLEANED OF ALL LOOSE MATERIAL AND THEN TREATED WITH BITUMINOUS EMULSION PRIOR TO PAVING. THE EXPOSED BASE MATERIALS SHALL BE GRADED AND RECOMPACTED PRIOR TO PAVING.

ENVIRONMENTAL

UNDERGROUND UTILITIES

33. ALL CONSTRUCTION SHALL BE PERFORMED IN COMPLIANCE WITH THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES). CONTRACTOR IS RESPONSIBLE FOR ACQUIRING AND MAINTAINING A SWPPP.

34. INSTALLATION AND MAINTENANCE OF EROSION CONTROL MEASURES ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PREVENTION OF EROSION AND SILTATION FROM ENTERING THE STORM DRAIN SYSTEM, NATURAL DRAINAGE COURSES, AND/OR INTRUDING UPON ADJACENT ROADWAYS AND PROPERTIES. EROSION CONTROL MEASURES SHOWN ON THESE PLANS ARE INTENDED AS A GUIDE. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED AS DETERMINED IN THE FIELD. THIS RESPONSIBILITY SHALL APPLY THROUGHOUT THE COURSE OF CONSTRUCTION AND UNTIL ALL DISTURBED AREAS HAVE BECOME STABILIZED AND SHALL NOT BE LIMITED TO WET WEATHER PERIODS. THE CONTRACTOR IS RESPONSIBLE FOR SWPPP UPDATES.

35. THE CONTRACTOR SHALL MAINTAIN AN ON-GOING DUST CONTROL PROGRAM INCLUDING WATERING OF OPEN AREAS, TO CONFORM WITH THE LATEST FEDERAL STATE, AND COUNTY AIR POLLUTION REGULATIONS. CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND UPDATING DUST CONTROL PERMITS FOR THE PROJECT.

36. PROTECTIVE MEASURES AND TEMPORARY DRAINAGE PROVISIONS SHALL BE USED TO PROTECT ADJOINING PROPERTIES DURING CONSTRUCTION OF IMPROVEMENTS.

37. AFTER A RAINSTORM, ALL SILT AND DEBRIS SHALL BE REMOVED FROM CHECK BERMS AND DESILTING FACILITIES. GRADED SLOPE SURFACE PROTECTION MEASURES DAMAGED DURING THE RAINSTORM SHALL ALSO BE REPAIRED.

38. IF GROUNDWATER IS ENCOUNTERED, THE CONTRACTOR SHALL STOP WORK IMMEDIATELY, PREPARE A DEWATERING PLAN, AND OBTAIN APPROVAL FROM THE PROJECT ENGINEER BEFORE PROCEEDING WITH WORK. DEWATERING ACTIVITIES MAY REQUIRE THE CONTRACTOR TO OBTAIN A DISCHARGE/PUMPING PERMIT FROM THE STATE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN SUCH PERMITS.

39. ALL STREETS SHALL BE MAINTAINED FREE OF DUST AND MUD CAUSED BY GRADING

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TDA

AJG

FOUND 5/8" REBAR AND CAP "PLS 14413" - UNLESS OTHERWISE NOTED SET 5/8" REBAR AND CAP "PLS 17616" - UNLESS OTHERWISE NOTED

Know what's below. Call before you dig.

WM

WS

YR

CONNECT TO EXISTING 8" RCP WITH FERNCO

75 ERIC AVE

028-461-11

ABSHER, SABRINA L & AARON A

MODEL #1004-88 OR APPROVED EQUAL SEE DETAIL C3.0/D-1. SEE NOTE 3, TYP.

3360 VICKIE LN

028-461-10

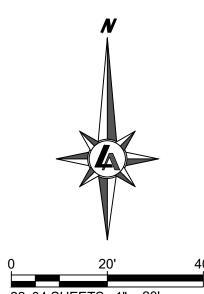
ROMERO, GILBERT M & EVINA A

- 1. ALL SANITARY SEWER PIPES SHALL BE REPLACED IN-LINE AND IN-GRADE UNLESS SHOWN OTHERWISE. ALL LATERALS ENCOUNTERED SHALL BE RECONNECTED AT NEW MAIN.
 - 2. PROTECTION OF ALL UTILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR. NOTE THAT THE LOCATION OF EXISTING UTILITIES AND FEATURES SHOWN ON THESE PLANS IS APPROXIMATE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO POTHOLE AND VERIFY THE LOCATIONS AND ELEVATIONS PRIOR TO CONSTRUCTION. DISCREPANCIES BETWEEN THE EXISTING CONDITIONS IN THE FIELD AND THE INFORMATION SHOWN ON THESE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH CONSTRUCTION.
 - 3. VERIFICATION OF EXISTING PIPE DIAMETER AND MATERIAL IS THE RESPONSIBILITY OF THE CONTRACTOR.
 - REPAIR SUMMARY: THE INTENT OF THIS IMPROVEMENT IS TO REPLACE A SEGMENT OF PIPE BASED ON THE INSPECTED DEFECTS:
 - 4.A. PIPE PROTRUSION 4.B. OFFSET JOINTS
 - 4.C. COLLAPSED PIPE

CONTRACTOR SHALL VERIFY THE DEFECT AND ENSURE THE REPLACEMENT LIMITS SHOWN ACCOMPLISH THE INTENT OF THE IMPROVEMENTS.

PAVEMENT PATCH NOTES:

- 1. IF THE SPOT REPAIR IMPROVEMENT REQUIRES ASPHALT PATCH REMOVAL AND REPLACEMENT, THEN THE PARKING LOT SHALL RECEIVE A 3-INCH DEPTH PERMANENT ASPHALT PATCH ON 6-INCH TYPE II AGGREGATE BASE.
- 2. PLACEMENT OF 3" TEMPORARY HOT MIX PATCH IS REQUIRED IN THIS AREA ONLY. TEMPORARY PATCH WILL BE A NO DIRECT COST AND PAID AS AN INCIDENTAL TO PERMANENT PATCH ITEM.



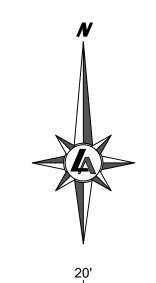
22x34 SHEETS: 1" = 20' 11x17 SHEETS: 1" = 40'



3355 PROBASCO WAY

028-461-01

HESS FAMILY TRUST



22x34 SHEETS: 1" = 20'

11x17 SHEETS: 1" = 40'

REMOVE AND REPLACE PCC SIDEWALK

REMOVE AND REPLACE CURB AND GUTTER

PROPOSED SEWER PIPE

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ADJUST SCALES ACCORDINGLY

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3375 VICKIE LN 028-462-06

LOPEZ, JAVIER J

3355 VICKIE LN 028-462-07 CHANDLER WILLIAM S & ANNE M

PROTECT EXISTING WATER SERVICES NO DIRECT PAYMENT

SEE NOTE 4B

PERMANENT AC PATCH

REMOVE AND REPLACE LANDSCAPE

PROPOSED SEWER MANHOLE

950 SANDHILL ROAD, SUITE 100

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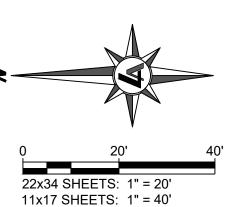
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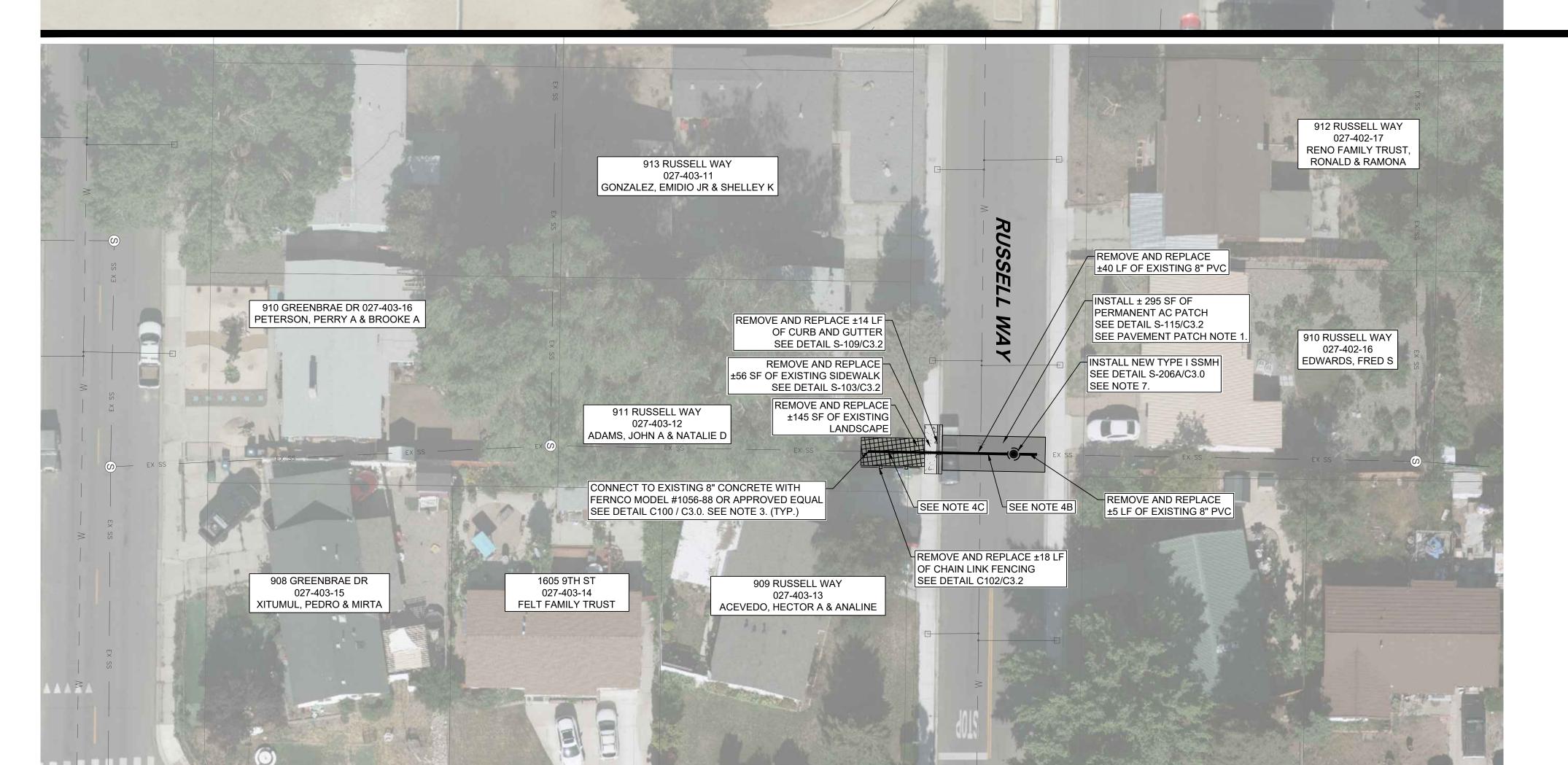
GENERAL NOTE

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- 4.C. COLLAPSED PIPE
- CONTRACTOR SHALL VERIFY THE DEFECT AND ENSURE THE REPLACEMENT LIMITS SHOWN ACCOMPLISH THE INTENT OF THE IMPROVEMENTS.
- CONTRACTOR SHALL REPLACE ALL STRIPING IMPACTED BY THE
- CONSTRUCTION OF THIS PROJECT.
- 6. CONTRACTOR TO COORDINATE WITH GREENBRAE ELEMENTARY SCHOOL PRIOR TO CONSTRUCTION. PLAN WORK ON O STREET DURING SPRING BREAK TO MINIMIZE IMPACTS. REFER TO SPECIAL PROVISIONS, SECTION 33 FOR REQUIREMENTS.
- 7. EXACT DEPTH OF SEWER MAIN UNKNOWN. CONTRACTOR TO VERIFY PRIOR TO ORDERING PRECAST MANHOLE. POUR IN PLACE IS ACCEPTABLE.

PAVEMENT PATCH NOTE

1. A 2" MILL AND FILL IS REQUIRED AFTER PERMANENT PATCH IS PLACED ±50 FT EITHER SIDE OF THE SPOT REPAIR. LIMITS WILL BE DETERMINED IN THE FIELD BY THE CITY PROJECT MANAGER. SEE DETAIL C103/C3.2.





LEGEND

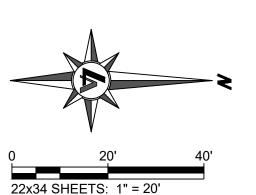
PERMANENT AC PATCH

REMOVE AND REPLACE PCC SIDEWALK

REMOVE AND REPLACE CURB AND GUTTER

REMOVE AND REPLACE LANDSCAPE

PROPOSED SEWER PIPE
PROPOSED SEWER MANHOLE



11x17 SHEETS: 1" = 40'



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VEVADA

SEWER PROJECT SELL ST.

REPAIR PRO

ANITARY

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ISSUED FOR BIDDING
NOT FOR CONSTRUCTION
JANUARY 2024

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C2.1

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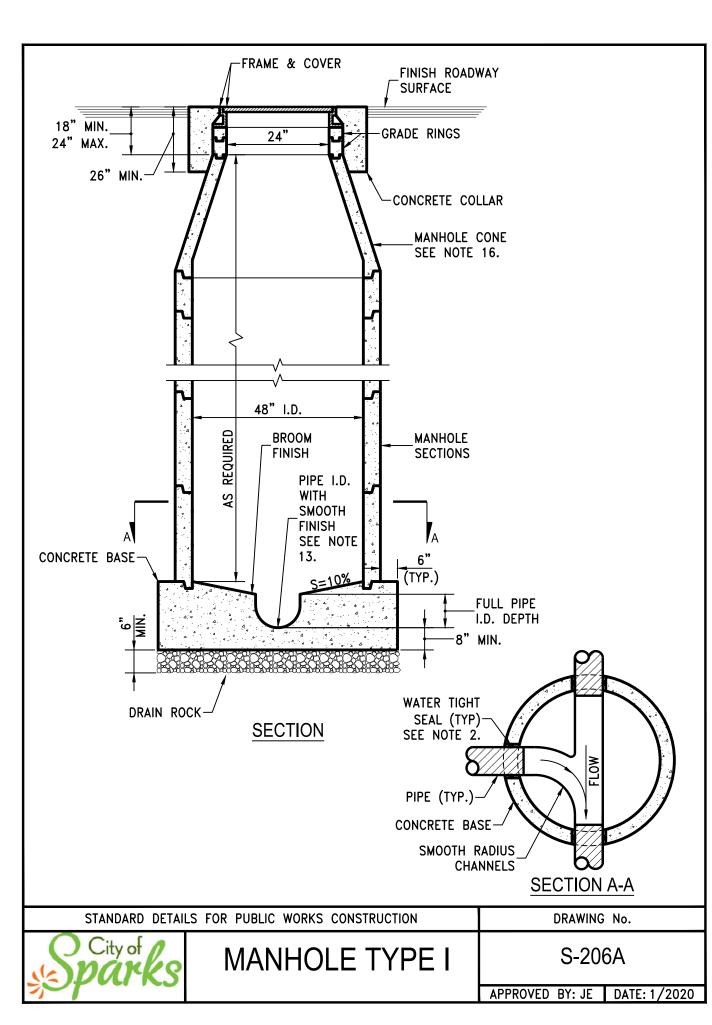
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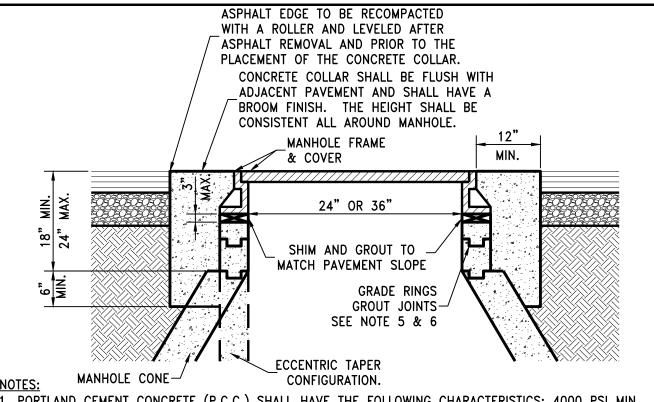
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. PORTLAND CEMENT CONCRETE (P.C.C.) SHALL HAVE THE FOLLOWING CHARACTERISTICS: 4000 PSI MIN. COMPRESSIVE STRENGTH AT 28 DAYS, MIN. 6 SACKS OF CEMENT PER CUBIC YARD WITH MAX. WATER-CEMENT RATIO OF 0.45, AIR ENTRAINMENT 6% ±1.5%, SLUMP AT 1 TO 4 INCHES. MIX DESIGN SHALL CONFORM TO THE REQUIREMENTS OF SECTION 337 OF STANDARD SPECIFICATIONS OF PUBLIC WORKS CONSTRUCTION (SSPWC), AS ADOPTED BY CITY COUNCIL. CEMENT SHALL BE TYPE II. ALL CEMENT CONCRETE SHALL HAVE A COARSE AGGREGATE GRADATION CONFORMING TO SIZE No. 67. POLYPROPYLENE OR CELLULOSE FIBERS SHALL BE ADDED TO THE P.C.C. AT 1.5 LBS. PER CUBIC YARD. ALL MATERIALS SHALL CONFORM TO SSPWC, AS ADOPTED BY CITY COUNCIL.

- . CIRCUMSTANCES MAY REQUIRE THE NEED FOR SPECIAL TYPES OF TOP OF MANHOLE CONFIGURATIONS SUCH AS FLAT TOP, ABOVE GROUND, ETC. AS DIRECTED BY THE CITY OF SPARKS. DETAILED PLANS OF ANY SPECIAL TOP OF MANHOLE CONFIGURATIONS AND ASSOCIATED COLLARS MUST BE APPROVED BY THE CITY ENGINEER.
- 3. IN UNPAVED AREAS, IT SHALL BE NECESSARY TO SET THE MANHOLE RIM APPROXIMATELY 6 INCHES ABOVE THE SURROUNDING AREA. INSTALL A 6 INCH THICK RING OF CONCRETE, TAPERED AT A 3:1 SLOPE, FROM THE TOP, OUTSIDE EDGE OF THE COLLAR TO THE EXISTING GROUND SURFACE.
- I. EXISTING SANITARY SEWER MANHOLE LIDS LOCATED IN GUTTER PANS, SHALL HAVE NEW WATER TIGHT FRAMES AND COVERS.
- . ALL GRADE RING JOINTS ARE TO BE GROUTED WITH NON-SHRINK GROUT HAVING THE FOLLOWING CHARACTERISTICS: 3000 PSI MIN. COMPRESSIVE STRENGTH AT 28 DAYS, MIN. 6 SACKS OF CEMENT PER CUBIC YARD AND SLUMP AT 1 TO 4 INCHES. ALL MATERIAL SHALL CONFORM TO SSPWC, AS ADOPTED BY CITY COUNCIL.
- . ALL GRADE RINGS SHALL BE PORTLAND CEMENT CONCRETE. PVC GRADE RINGS ARE NOT ALLOWED. CONTRACTOR SHALL USE AS FEW GRADE RINGS AS POSSIBLE TO REACH REQUIRED DEPTH. HOWEVER IN NO CASE SHALL THE QUANTITY EXCEED 4 GRADE RINGS WITHOUT APPROVAL OF THE CITY ENGINEER.
- 7. P.C.C. COLLARS IN ALL ROADWAYS SHALL BE PROTECTED FROM TRAFFIC LOADS UNTIL MINIMUM 3000 PSI IS ATTAINED.

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STANDARD	DETAIL	S FOR PUBLIC WORKS CONSTRUCTION	DRAWING No.
City of	23	MANHOLE COLLAR	S-210A
			APPROVED BY: JE DATE: 1/2020

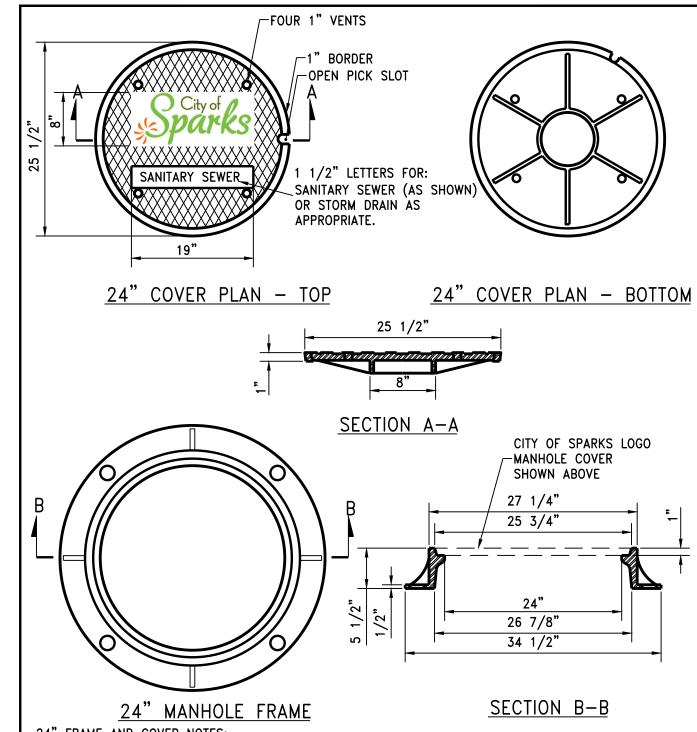
GENERAL MANHOLE NOTES

- ALL PRECAST MANHOLE COMPONENTS SHALL CONFORM TO ASTM C-478.
- PIPES SHALL NOT PROTRUDE MORE THAN 3" INSIDE MANHOLE SECTION AS MEASURED AT THE OUTSIDE EDGES OF THE PIPE, VERTICALLY ALIGNED WITH THE SPRINGLINE. PIPE CONNECTION TO MANHOLE SHALL BE WATERTIGHT PER STANDARD DETAILS S-211A, S-211B AND S-211C.
- MANHOLE BASE SHALL BE PORTLAND CEMENT CONCRETE (P.C.C.) AND SHALL HAVE THE FOLLOWING CHARACTERISTICS: 3000 PSI MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS, MINIMUM 6 SACKS OF CEMENT PER CUBIC YARD WITH SLUMP AT 1 TO 4 INCHES. ALL MATERIAL SHALL CONFORM TO STANDARD SPECIFICATIONS OF PUBLIC WORKS CONSTRUCTION (SSPWC), AS ADOPTED BY CITY COUNCIL. PRECAST CONCRETE BASE MAY BE USED IN LIEU OF CAST-IN-PLACE BASE.
- TYPE I MANHOLE TO BE UTILIZED FOR PIPE DIAMETERS OF 12" OR SMALLER AND DEPTHS NOT EXCEEDING 18 FEET.
- TYPE V MANHOLE TO BE UTILIZED FOR PIPE DIAMETERS OF 15" THROUGH 27" OR DEPTHS EXCEEDING 18 FEET.
- MANHOLE MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF SECTION 204 "MANHOLES AND CATCH BASINS" OF THE STANDARD SPECIFICATIONS.
- PRECAST MANHOLE SECTIONS, OTHER THAN GRADE RINGS, SHALL BE JOINED WITH FLEXIBLE GASKET

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

- EXCAVATION AND BACKFILL SHALL BE AS SPECIFIED FOR "TRENCH EXCAVATION AND BACKFILL" IN SECTION 305 OF THE STANDARD SPECIFICATIONS.
- EXCAVATION SHALL BE AS NEARLY VERTICAL AS POSSIBLE (SHEET AND SHORE IF SOIL CONDITIONS REQUIRE) IN EXISTING STREET SECTIONS, ALLEY SECTIONS, AND CONFINED AREAS, SUCH AS LIMITED EASEMENTS OR ADJACENT STRUCTURES.
- 10. MANHOLE PRECAST SECTION LENGTH SHALL BE ARRANGED TO FIT THE REQUIRED DEPTH.
- 11. NO LATERALS OR PIPES LESS THAN 8" IN DIAMETER SHALL BE CONNECTED TO THE MANHOLE.
- 12. PRECAST CONCRETE BASE MAY BE USED IN LIEU OF CAST-IN-PLACE BASE.
- 13. MATCH PIPE INVERTS TO MANHOLE INVERTS WHERE PIPES CONNECT TO MANHOLE BASE.
- 14. ALL MANHOLES SHALL BE WATERTIGHT.
- 15. SEE DETAIL FOR INSIDE DROP MANHOLE FOR SANITARY SEWERS WITH MORE THAN 2 FEET VERTICAL DROP AT THE MANHOLE. THE USE OF "OUTSIDE DROP" MANHOLES IS NOT PERMITTED.
- 16. THE USE OF FLAT TOP MANHOLE CONES REQUIRES PRIOR APPROVAL FROM THE CITY ENGINEER.
- 17. PRIOR TO BACKFILLING, ALL MANHOLES SHALL BE VACUUM TESTED PER ASTM C-1244.
- 18. NO STEPS, LADDERS, OR OTHER CLIMBING DEVICES SHALL BE INSTALLED IN THE MANHOLE.
- 19. REINFORCING STEEL SHALL BE AS SHOWN, WIRED TIGHTLY AT ALL INTERSECTIONS AND EMBEDDED AT LEAST 1½" CLEAR, UNLESS OTHERWISE NOTED.
- 20. WHEN PIPE CONNECTIONS TO EXISTING MANHOLES ARE ALLOWED, THEY SHALL BE MADE BY CORE DRILLING THE MANHOLE AND CONNECTING THE PIPE PENETRATION PER DETAIL S-211A & S-211B.
- 21. TYPE IV MANHOLES SHOULD ONLY BE USED AS APPROVED BY CITY ENGINEER
- 22. ALL MANHOLE BARREL JOINTS TO BE RAPPED WITH EXTERNAL JOINT WRAP M-860 OR APPROVED EQUAL.

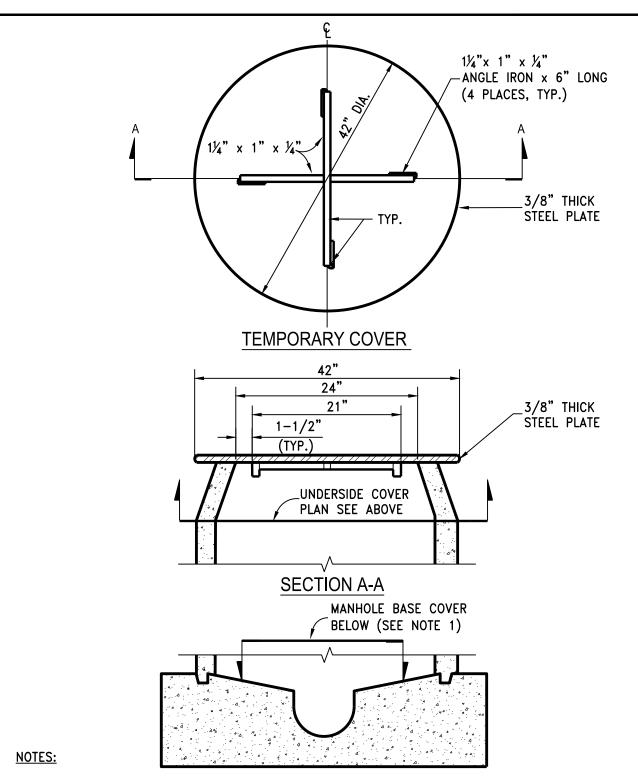
STANDARD DETAI	LS FOR PUBLIC WORKS CONSTRUCTION	DRAWING	No.
City of Darks	NOTES - MANHOLE TYPE I. TYPE V & TYPE IV	S-20	6D
	,	APPROVED BY: JE	DATE: 1/2020



24" FRAME AND COVER NOTES: . CITY OF SPARKS LOGO FRAME AND COVERS SHALL BE D&L FOUNDRY A1032 CITY OF SPARKS FRAME AND COVER OR APPROVED EQUAL. SPARKS LOGO FRAMES AND COVERS ARE TO BE PLACED ONLY ON CITY OF SPARKS MAINTAINED FACILITIES. PRIVATE FACILITIES SHALL NOT HAVE THE SPARKS LOGO ON THE LIDS. THEY SHALL ONLY HAVE THE LETTERS INDICATING "SS" OR "SD". 2. FURNISHED WITH MACHINED HORIZONTAL BEARING SURFACE.

3. CASTINGS SHALL BE CAST GRAY IRON AND MEET THE REQUIREMENTS OF ASTM A-48, CLASS 35B, NO

STANDARD DETAIL	DRAWING No.	
City of City of	24" MANHOLE FRAME &	S-209A
	COVER	APPROVED BY: JE DATE: 2/2020



1. INSTALL TEMPORARY COVER WITH CONE INSTALLATION WHEN INSTALLING NEW MANHOLE OR PRIOR TO REMOVING EXISTING FRAME & 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 CITY OF SPARKS.

STANDARD DETAIL	S FOR PUBLIC WORKS CONSTRUCTION	DRAWING	No.
O City of	TEMPORARY	S-209B	
sparks	MANHOLE COVER	APPROVED BY: JE	DATE: 1/2020



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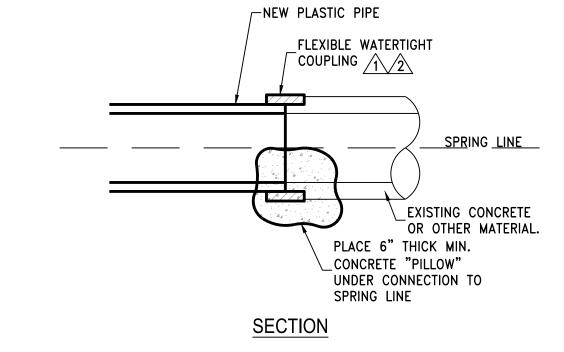
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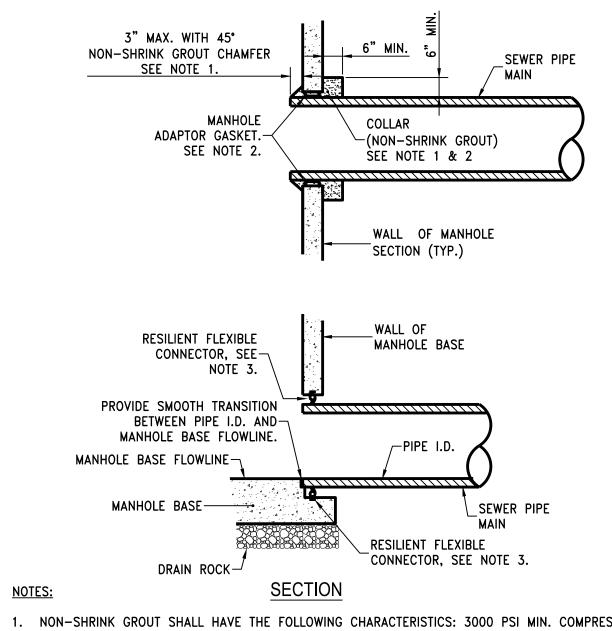
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X FERNCO FLEXIBLE COUPLING OR APPROVED EQUAL SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS.

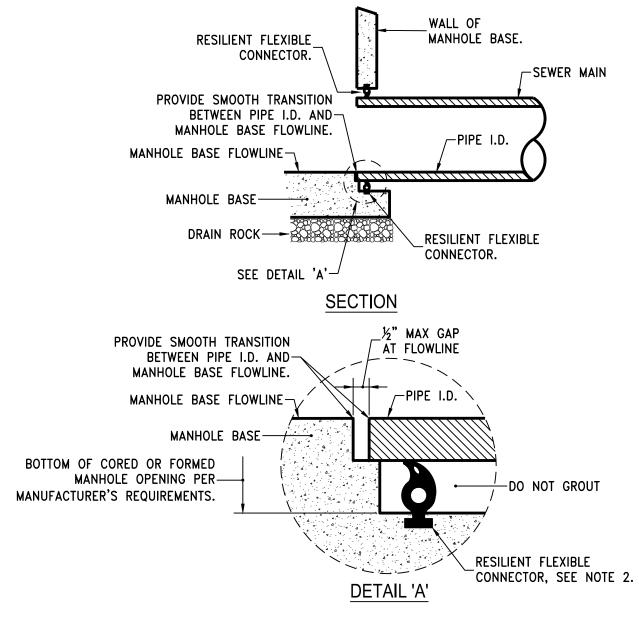
2. CONTRACTOR TO VERIFY OUTSIDE DIAMETER OF EXISTING PIPE AND PROVIDE PROPER FLEXIBLE WATERTIGHT COUPLINGS. IF CIPP IS ENCOUNTERED, EPOXY LINER AT END OF PIPE.

C100 EXISTING PIPE TO NEW PVC PIPE CONNECTION



- 1. NON-SHRINK GROUT SHALL HAVE THE FOLLOWING CHARACTERISTICS: 3000 PSI MIN. COMPRESSIVE STRENGTH AT 28 DAYS, MIN. 6 SACKS OF CEMENT PER CUBIC YARD AND SLUMP AT 1 TO 4 INCHES. ALL MATERIAL SHALL CONFORM TO STANDARD SPECIFICATIONS OF PUBLIC WORKS CONSTRUCTION (SSPWC) SECTION 202, AS ADOPTED BY CITY COUNCIL.
- 2. SANITARY SEWER PIPE CONNECTION TO MANHOLE SECTIONS (DROP MANHOLES) REQUIRE AN AGENCY-APPROVED FORM OF SEAL OR WATER STOP TO PROVIDE A WATERTIGHT CONNECTION. UTILIZE A ROMAC STYLE "LCT" MANHOLE ADAPTOR GASKET OR APPROVED EQUAL IN CONJUNCTION WITH NON-SHRINK GROUT.
- 3. SANITARY SEWER PIPE CONNECTION TO MANHOLE BASE SHALL REQUIRE A RESILIENT FLEXIBLE CONNECTOR INSTALLED IN ACCORDANCE WITH STANDARD DETAIL S-211C.
- 4. ALL PIPE OPENINGS TO NEW MANHOLES MUST BE EITHER CAST—IN—PLACE OR PRE—FORMED AND PIPE OPENINGS TO EXISTING MANHOLES MUST BE CORE DRILLED.

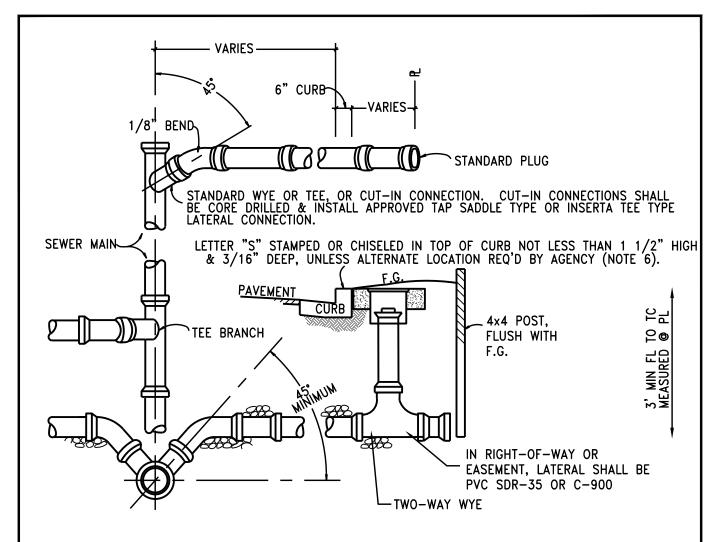
STANDARD DETAI	DRAWING No.	
City of Darks	SANITARY SEWER PIPE TO MANHOLE CONNECTION	S-211A
3)	10 101/11/1022 001/11/2011011	APPROVED BY: JE DATE: 1/2020



NOTES:

- 1. A SEAL OR WATER STOP IS REQUIRED ON ALL SANITARY SEWER INSTALLATIONS AND IN OTHER APPLICATIONS AS REQUIRED BY THE CITY TO PROVIDE A WATERTIGHT CONNECTION.
- 2. A RESILIENT FLEXIBLE CONNECTOR PER ASTM C 923-89 SHALL BE USED AT THE MANHOLE/PIPE CONNECTION TO SATISFY THE REQUIREMENTS OF NOTE 1. FOR PRE-CAST CONCRETE STRUCTURES, THE RESILIENT FLEXIBLE CONNECTOR SHALL BE AN "A-LOK" TYPE PIPE-TO-MANHOLE CONNECTOR OR APPROVED EQUAL. FOR CAST-IN-PLACE STRUCTURES, THE RESILIENT FLEXIBLE CONNECTOR SHALL BE A "KOR-N-SEAL I TOGGLE KORBAND" TYPE PIPE-TO-MANHOLE CONNECTOR OR APPROVED EQUAL.
- 3. THE INTERIOR MANHOLE CONNECTION SHALL HAVE A SMOOTH TRANSITION BETWEEN PIPE I.D. AND MANHOLE BASE FLOWLINE. NO GROUT OR CONCRETE SHALL BE PLACED AROUND THE RESILIENT FLEXIBLE CONNECTOR.

STANDARD DETAIL	LS FOR PUBLIC WORKS CONSTRUCTION	DRAWING No.
City of City of	RESILIENT FLEXIBLE CONNECTOR	S-211C
	001111201011	APPROVED BY: JE DATE: 1/2020



NOTES

- 1. SEWER LATERALS SHALL HAVE A MINIMUM SLOPE OF 2%, UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
- 2. LATERAL SHALL BE CUT BACK TO SOUND MATERIAL FOR COUPLING.
- 3. ALL CONNECTIONS TO THE CITY SEWER MAINS MUST BE CORE DRILLED.
- 4. ENCASE LATERAL CONNECTION IN CEMENT, STABILIZED SAND OR 2000 PSI CONCRETE FOLLOWING INSTALLATION. CONNECTION MUST BE INSPECTED BY CITY PRIOR TO BACKFILL.
- 5. NO LATERAL CONNECTIONS SHALL BE MADE TO SANITARY SEWER "INTERCEPTOR" LINES WITHOUT THE APPROVAL OF THE CITY ENGINEER.
- 6. ALL APPLICABLE SANITARY SEWER PIPE INSTALLATION WORK SHALL BE IN ACCORDANCE WITH THE UNIFORM PLUMBING CODE.

STANDARD DETAIL	DRAWING No.		
City of Darks	SANITARY SEWER LATERAL	S-212	2A
		APPROVED BY: JE	DATE: 1/2020

NOTES

SEWER LATERALS SHALL HAVE A MINIMUM PIPE DIAMETER OF 4-INCHES.

BE A WYE SADDLE AND BE INSTALLED PER DETAIL S-212C.

- 2. ALL PLASTIC PIPE USED FOR SEWER SERVICE LATERAL CONSTRUCTION SHALL BE SOLID WALL AND SHALL MEET THE REQUIREMENTS OF D-2412, HAVE A MINIMUM STIFFNESS OF 46 PSI AS DEFINED BY THE REQUIREMENTS OF ASTM D-3034.
- SERVICE LATERALS SHALL HAVE A MINIMUM SLOPE OF 1/4-INCH PER FOOT UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
- SEWER LATERALS SHALL HAVE A MINIMUM COVER OF 36-INCHES IN THE PUBLIC RIGHT-OF-WAY AND IN EASEMENTS UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER. THE DEFINITION OF "COVER" IS THE DISTANCE FROM THE TOP OF PIPE TO FINISHED GRADE.
- 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
- S. SEWER LATERALS SHALL HAVE A CLEANOUT INSTALLED BETWEEN SIDEWALK AND RIGHT-OF-WAY. A G5 BOX CLEARLY MARKED "SEWER" SHALL BE INSTALLED OVER THE TOP OF THE CLEANOUT RISER CAP PIPE.
- SEWER LATERALS SHALL NOT BE CONNECTED DIRECTLY TO OR WITHIN 5-FEET OF A MANHOLE STRUCTURE.
- EXISTING SEWER LATERALS SHALL BE CUT BACK TO SOUND MATERIAL FOR COUPLING. PLACE 6-INCH THICK CONCRETE PAD UNDER CONNECTION.
- SEWER LATERAL CONNECTION SHALL BE STABILIZED WITH APPROVED MATERIAL FOLLOWING INSTALLATION. CONNECTION TO CITY SEWER MAIN MUST BE INSPECTED BY THE CITY PRIOR TO BACKFILL.
- 10. NO LATERAL CONNECTIONS SHALL BE MADE DIRECTLY TO A SANITARY SEWER "INTERCEPTOR" UNLESS APPROVED BY THE CITY ENGINEER.
- 11. SEWER LATERALS SHALL NOT BE CONNECTED TO A SEWER MAIN UNLESS THE CONNECTION POINT IS BETWEEN TWO MANHOLE STRUCTURES.
- 12. EACH INDIVIDUAL PARCEL SHALL HAVE A MINIMUM OF ONE SEWER LATERAL. TWO OR MORE PARCELS SHALL NOT SHARE ONE SEWER LATERAL.
- 13. SANITARY SEWER LATERAL IDENTIFICATION AND LOCATING REQUIREMENTS SHALL BE PER SPARKS MUNICIPAL CODE 17.16.130 (SMC 17.16.130).
- 14. 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. ABANDONMENT MUST BE INSPECTED BY CITY PRIOR TO BACKFILL.
- 15. PROPERTY OWNER SHALL BE RESPONSIBLE FOR OPERATION, MAINTENANCE AND REPAIR OF THE SEWER LATERAL WITHIN THE PUBLIC RIGHT-OF-WAY PER SPARKS MUNICIPAL CODE.

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION DRAWING No.				
City of City o	NOTES - SANITARY SEWER LATERAL	O Z IZB		
	_,	APPROVED BY: JE	DATE: 1/2020	



950 SANDHILL ROAD, SUITE 100 RENO, NV 89521 TEL: 775.827.6111

WWW.LUMOSINC.COM INFO@LUMOSINC.COM

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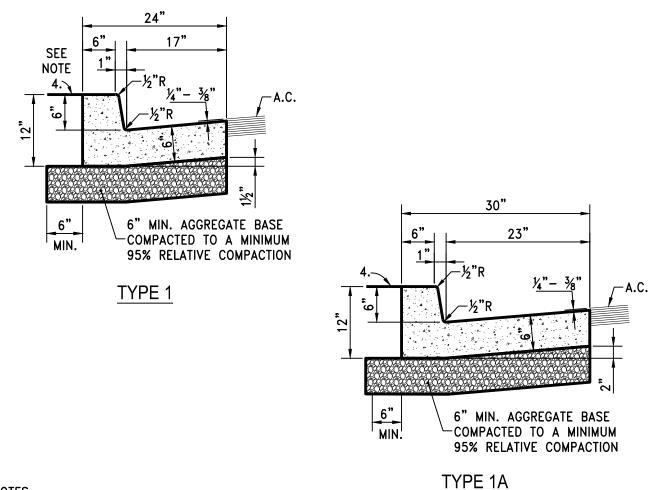
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- PORTLAND CEMENT CONCRETE (P.C.C.) SHALL HAVE THE FOLLOWING CHARACTERISTICS: 4000 PSI MIN. COMPRESSIVE STRENGTH AT 28 DAYS, MIN. 6 SACKS OF CEMENT PER CUBIC YARD WITH MAX. WATER-CEMENT RATIO OF 0.45, AIR ENTRAINMENT 6% ±1.5%, SLUMP AT 1 TO 4 INCHES. MIX DESIGN SHALL CONFORM TO THE REQUIREMENTS OF SECTION 337 OF STANDARD SPECIFICATIONS OF PUBLIC WORKS CONSTRUCTION (SSPWC), AS ADOPTED BY CITY COUNCIL. CEMENT SHALL BE TYPE II. ALL CEMENT CONCRETE SHALL HAVE A COARSE AGGREGATE GRADATION CONFORMING TO SIZE No. 67. POLYPROPYLENE OR CELLULOSE FIBERS SHALL BE ADDED TO THE P.C.C. AT 1.5 LBS. PER CUBIC YARD. ALL MATERIALS SHALL CONFORM TO SSPWC, AS ADOPTED BY CITY COUNCIL.
- AGGREGATE BASE MATERIAL UNDER SIDEWALKS SHALL BE TYPE 2, CLASS B CRUSHED AGGREGATE BASE. MATERIALS SHALL CONFORM TO SSPWC SECTION 200, AS ADOPTED BY CITY COUNCIL.
- SIDEWALK WIDTH "W" SHALL BE 4 FT MIN. WITH 60" PASSING SPACE EVERY 200' ON RESIDENTIAL STREETS AND 6 FT MIN. ON COLLECTOR AND ARTERIAL STREETS.
- WEAKENED PLANE JOINTS SHALL BE CONSTRUCTED AT 5 FT INTERVALS AND ACCORDANCE WITH SECTION 312 OF THE SSPWC, AS ADOTED BY CITY COUNCIL.
- ALL ADJACENT CONCRETE REMOVAL SHALL BE TO NEAT SAW CUT LINES AT RIGHT ANGLES TO NEW SIDEWALK. DOWEL INTO EXISTING ADJACENT CONCRETE SIDEWALK WITH A MINIMUM OF TWO (2) No. 4 REINFORCEMENT BARS EQUALLY SPACED ACROSS WIDTH "W". DOWELS SHALL PENETRATE A MINIMUM OF 4" INTO EXISTING CONCRETE.
- SIDEWALKS SHALL NOT BE POURED MONOLITHICALLY WITH CURBS.
- 7. TUNNELING AND/OR BORING IS NOT ALLOWED

STANDARD	DRAV	VING	No.		
City of	Sparks SIDEWALK DETAIL		S-	103	}
7)			APPROVED BY:	JE	DATE: 1/2020

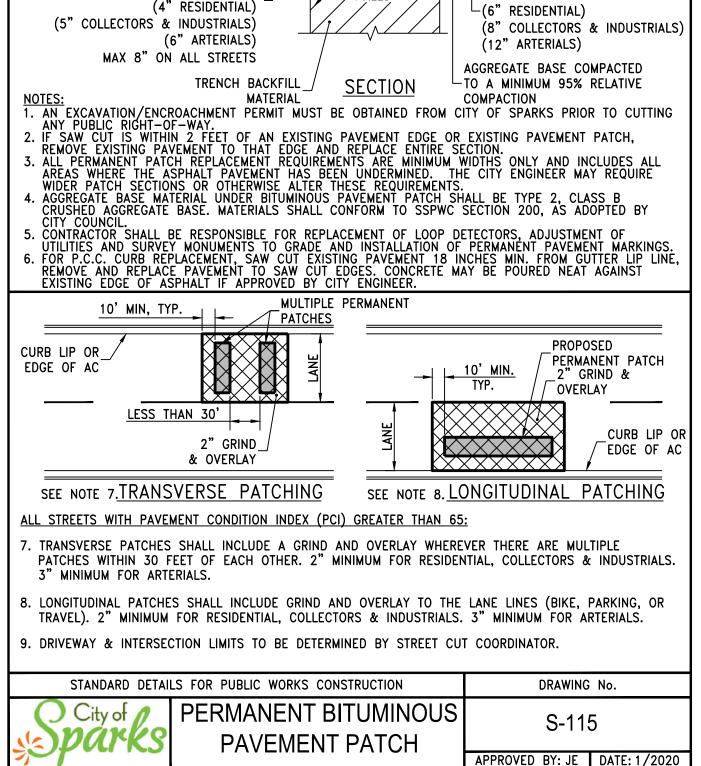


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- . AGGREGATE BASE MATERIAL UNDER AND BEHIND CURB AND GUTTER SHALL BE TYPE 2, CLASS B CRUSHED AGGREGATE BASE. MATERIALS SHALL CONFORM TO SSPWC SECTION 200, AS ADOPTED BY CITY
- . WEAKENED PLANE JOINTS SHALL BE EVERY 10 FEET AND LOCATED ON THE BACK, TOP AND FACE OF THE CURB AND THE TOP OF THE GUTTER PAN.
- 4. CURB & GUTTER SECTIONS SHALL BE PLACED SEPARATELY FROM SIDEWALK SECTIONS. WHEN SIDEWALF IS NOT REQUIRED DIRECTLY BEHIND THE CURB, BACKFILL TO TOP OF CURB FOR A HORIZONTAL DISTANCE OF 12" FROM BACK FACE OF CURB AND COMPACT TO 90% RELATIVE COMPACTION.

5. FOR REPLACEMENT OF EXISTING CURB AND GUTTER, MATCH EXISTING TYPE.

UNPAVED AREAS MATCH EXISTING SURFACE

STANDARD DETAI	DRAWING	No.	
City of	P.C.C.	P.C.C. _{S-109}	
SE)DUCKS	CURB & GUTTER		
7	CONDAGOTILIN	APPROVED BY: JE	DATE: 1/2020



FOR ALL STREETS, SEE NOTE 3.

24" MIN. TOTAL PATCH WIDTH,

WHICHEVER IS GREATER

TRENCH

· WALLS ·

SAW CUT EDGE PARALLEL OR

PAVEMENT PATCH DEPTH TO MATCH

CONTIGUOUS PAVEMENT BUT NOT

LESS THAN

PERPENDICULAR TO TRENCH, TYP.

TRENCH WIDTH PLUS 24" EACH SIDE OR

TACK COAT ALL

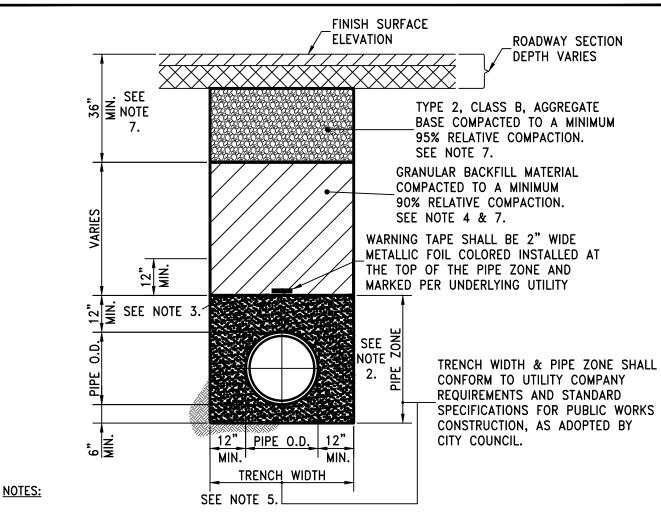
SURFACE

BASE DEPTH TO MATCH EXISTING

EXISTING PAVEMENT

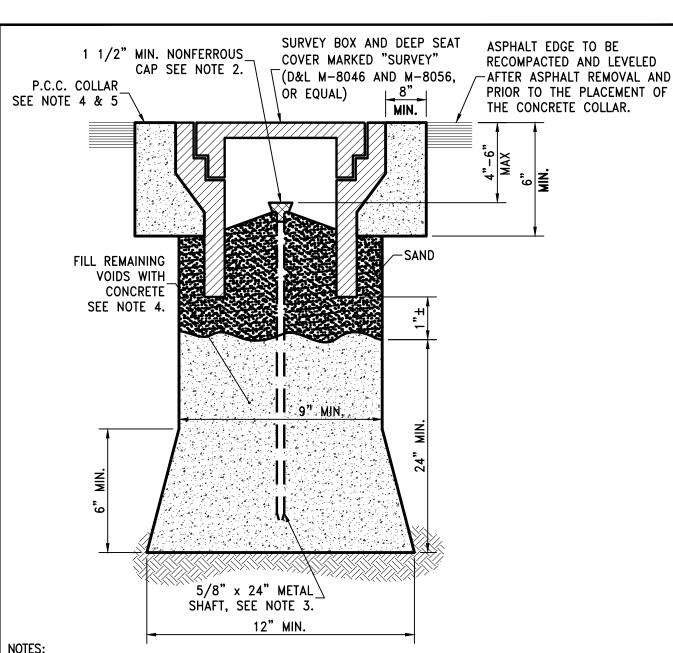
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BUT NOT LESS THAN



- ALL MATERIALS AND INSTALLATION PROCEDURES SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC), AS ADOPTED BY CITY COUNCIL.
- BEDDING MATERIAL SHALL CONFORM TO OWNING-UTILITY COMPANY REQUIREMENTS AS APPROVED BY THE CITY OF SPARKS. FOR CITY-OWNED UTILITIES, BEDDING MATERIAL SHALL BE CLASS A OR C, COMPACTED TO MINIMUM 90% RELATIVE COMPACTION. MATERIALS SHALL CONFORM TO SSPWC SECTION 200, AS ADOPTED BY CITY COUNCIL.
- CLASS C BEDDING REQUIRES INSTALLATION OF GEOTEXTILE FABRIC BETWEEN PIPE ZONE AND BACKFILL MATERIAL, GEOTEXTILE FABRIC SHALL BE MIRAFI 180N OR APPROVED EQUAL.
- BACKFILL MATERIAL SHALL BE TYPE 2, CLASS B OR CLASS E AND COMPACTED TO MINIMUM 90% RELATIVE COMPACTION. MATERIALS SHALL CONFORM TO SSPWC SECTION 200, AS ADOPTED BY CITY
- ALL EXCAVATIONS SHALL CONFORM TO THE LATEST O.S.H.A. REQUIREMENTS.
- EXISTING PIPE TO BE ABANDONED SHALL BE GROUT FILLED OR COMPLETELY REMOVED.
- MINIMUM BACKFILL DEPTH REQUIREMENT IS FOR TRENCHING IN EXISTING PAVED STREETS. TRENCHING FOR <u>NEW DEVELOPMENT</u> WHERE STREETS HAVE NOT YET BEEN CONSTRUCTED, BACKFILL MATERIAL SHALL BE TYPE 2, CLASS B OR CLASS E AND COMPACTED TO MINIMUM 90% RELATIVE COMPACTION. MATERIALS SHALL CONFORM TO SSPWC SECTION 200, AS ADOPTED BY CITY COUNCIL.

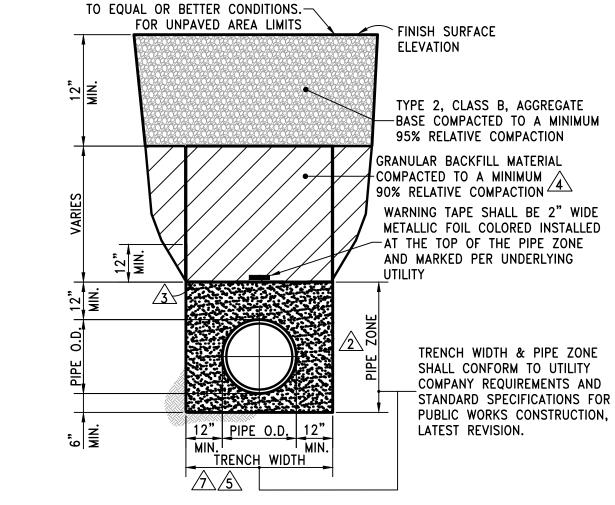
STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION		DRAWING No.	
City of Darks	TRENCH EXCAVATION/BACKFILL	S-117	
	LACAVATION/DACKITLL	APPROVED BY: JE	DATE: 1/2020



1. FERROUS METAL OVER MONUMENT FOR RECOVERY BY DIP NEEDLE OR MAGNETIC INSERT IN CAP.

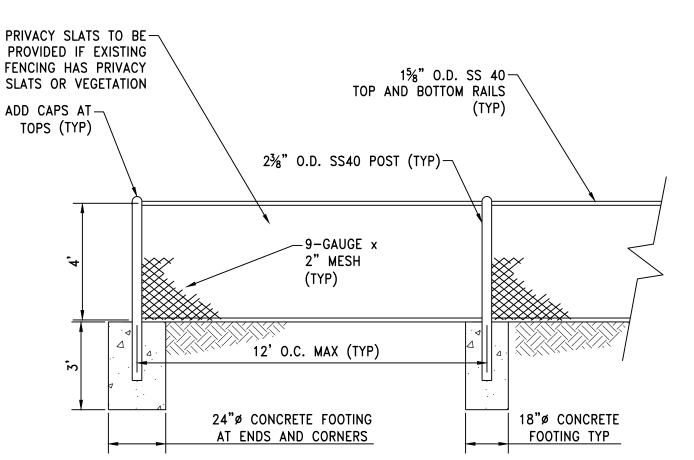
- 2. 1 1/2" MIN. NONFERROUS CAP WITH PROFESSIONAL LAND SURVEYOR NO. PERMANENTLY ATTACHED PRIOR TO PLACEMENT. PRE-PUNCHED CAPS SHALL NOT BE PERMITTED
- 5/8" METALLIC SHAFT (SMOOTH SHAFTS TO BE DEFORMED)
- 4. PORTLAND CEMENT CONCRETE (P.C.C.) SHALL HAVE THE FOLLOWING CHARACTERISTICS: 4000 PSI MIN. COMPRESSIVE STRENGTH AT 28 DAYS, MIN. 6 SACKS OF CEMENT PER CUBIC YARD WITH MAX. WATER-CEMENT RATIO OF 0.45, AIR ENTRAINMENT 6% ±1.5%, SLUMP AT 1 TO 4 INCHES. MIX DESIGN SHALL CONFORM TO THE REQUIREMENTS OF SECTION 337 OF STANDARD SPECIFICATIONS OF PUBLIC WORKS CONSTRUCTION (SSPWC), AS ADOPTED BY CITY COUNCIL. CEMENT SHALL BE TYPE II. ALL CEMENT CONCRETE SHALL HAVE A COARSE AGGREGATE GRADATION CONFORMING TO SIZE No. 67. POLYPROPYLENE OR CELLULOSE FIBERS SHALL BE ADDED TO THE P.C.C. AT 1.5 LBS. PER CUBIC YARD. ALL MATERIALS SHALL CONFORM TO SSPWC, AS ADOPTED BY CITY COUNCIL.
- 5. P.C.C. COLLARS IN ALL ROADWAYS SHALL BE PROTECTED FROM TRAFFIC LOADS UNTIL MINIMUM 3000 PSI IS ATTAINED.

STANDARD DETAILS FO	R PUBLIC WORKS CONSTRUCTION	DRAWING	No.
City of Darks	MONUMENTS	S-118	
		APPROVED BY: IF	DATE: 1/2020

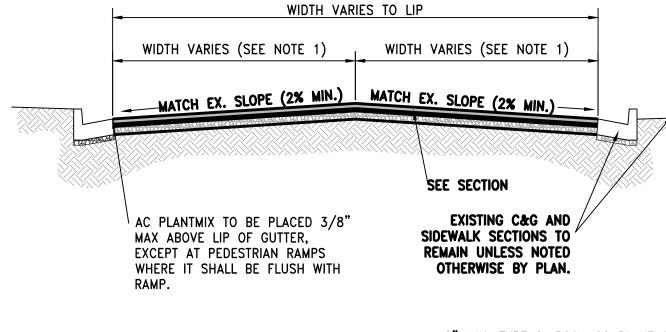


ALL MATERIALS AND INSTALLATION PROCEDURES SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC), LATEST REVISION.

- BEDDING MATERIAL SHALL CONFORM TO OWNING-UTILITY COMPANY REQUIREMENTS AS APPROVED BY THE CITY OF SPARKS. FOR CITY OF SPARKS SANITARY SEWER AND STORM DRAINAGE, BEDDING MATERIAL SHALL BE CLASS A OR C, COMPACTED TO MINIMUM 90% RELATIVE COMPACTION. MATERIALS SHALL CONFORM TO SSPWC SECTION 200.
- CLASS C BEDDING REQUIRES INSTALLATION OF GEOTEXTILE FABRIC BETWEEN PIPE ZONE AND BACKFILL MATERIAL. GEOTEXTILE FABRIC SHALL BE MIRAFI 180N OR APPROVED EQUAL.
- BACKFILL MATERIAL SHALL BE TYPE 2, CLASS B OR CLASS E AND COMPACTED TO MINIMUM 90% RELATIVE COMPACTION. MATERIALS SHALL CONFORM TO SSPWC SECTION 200.
- ALL EXCAVATIONS SHALL CONFORM TO THE LATEST O.S.H.A. REQUIREMENTS.
- EXISTING PIPE TO BE ABANDONED SHALL BE GROUT FILLED OR COMPLETELY REMOVED. WHERE PIPE IS SHOWN ON PLAN SHEETS TO BE REMOVED, TRENCH WIDTH SHALL EXTEND TO INCLUDE REMOVAL, DISPOSAL OF EXISTING PIPE, BACKFILL AND SURFACE RESTORATION ACCORDING TO THE PLANS AND SPECIFICATIONS.
- CONTRACTOR SHALL NOTE THAT TRENCH WIDTH SHOWN IS MINIMUM. CONTRACTOR IS CAUTIONED THAT THEY MAY ENCOUNTER UNSTABLE TRENCH WALLS DUE TO LARGE BOULDERS AND/OR GRANULAR BACKFILL FROM ADJACENT UTILITIES. SPECIAL CONSTRUCTION TECHNIQUES, WIDER TRENCH WIDTH, ADDITIONAL TRENCHING, BACKFILL AND SURFACE RESTORATION MAY BE NECESSARY AND WILL NOT BE SUBJECT TO ADDITIONAL PAYMENT.
- WHERE SANITARY SEWER MAIN CROSSES TMWA OWNED WATER MAIN FACILITIES, SEE DETAIL SHEET D-5. TRENCH EXCAVATION/BACKFILL - UNPAVED AREAS



C102 CHAINLINK FENCE AND POSTS



2" MIN. TYPE 2, PG64-22 PLANTMIX BITUMINOUS PAVEMENT. 50 BLOW WITH 4% EX. PAVEMENT (DEPTH VARIES) /EX. AGGREGATE BASE AND SUBGRADE (DEPTH VARIES)

SECTION

NOTES:

FOR STREET WIDTHS SEE PLAN SHEETS.

MILL AND OVERLAY TO LIMITS SHOWN ON PLANS.

3. PROTECT IN PLACE EXISTING UTILITIES AND APPURTENANCES.

- 4. MILL AND OVERLAY TO BE COMPLETED ONCE ALL PERMANENT PATCHING IS COMPLETED.
- CONTRACTOR SHALL PROTECT IN PLACE ALL CONCRETE CURB & GUTTER DURING MILL & OVERLAY CONSTRUCTION ACTIVITIES AT NO DIRECT PAYMENT.
- 6. PULVERIZE APPROXIMATELY TWO INCHES (2") EXISTING PLANTMIX BITUMINOUS PAVEMENT AFTER COMPLETION OF ALL PERMANENT PATCHING ACTIVITIES.
- 7. PLACE TWO INCHES (2") PLANTMIX BITUMINOUS PAVEMENT (ONE LIFT) OF TYPE 2, 50 BLOW WITH 4% VOIDS ON TOP OF EX. PAVEMENT.
- 8. IF THE MATERIAL BELOW SUBGRADE IS DETERMINED TO BE UNSUITABLE BY THE ENGINEER, THE TYPICAL OVER EXCAVATION SECTION WILL BE USED, SEE SPECS.
- CONTRACTOR SHALL BE ADVISED: IF SHALLOW UTILITIES ARE ENCOUNTERED FROM ROADWAY REMOVAL METHOD, THERE SHALL BE NO DIRECT PAYMENT FOR MODIFYING REMOVAL METHOD TO PROTECT UTILITIES.

SCALE: NTS

2-INCH MILL AND OVERLAY

C3.2 DRAWN BY: **DESIGNED BY:**

11032.000

4 . Z V $\sum_{i=1}^{n} \sum_{j=1}^{n} a_{ij}$

WE

950 SANDHILL ROAD, SUITE 100

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BIDDIN

S

BAR IS 1 INCH ON ORIGINAL DRAWING

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

TDA AJG

CHECKED BY: JOB NO.:

SCALE: N