



CITY OF SPARKS 2020 CDBG STREET IMPROVEMENTS FEDERALLY FUNDED

D ST. FROM ROCK BLVD TO 15TH ST., AND 16TH ST. FROM D ST. TO PRATER WAY WASHOE COUNTY, NEVADA



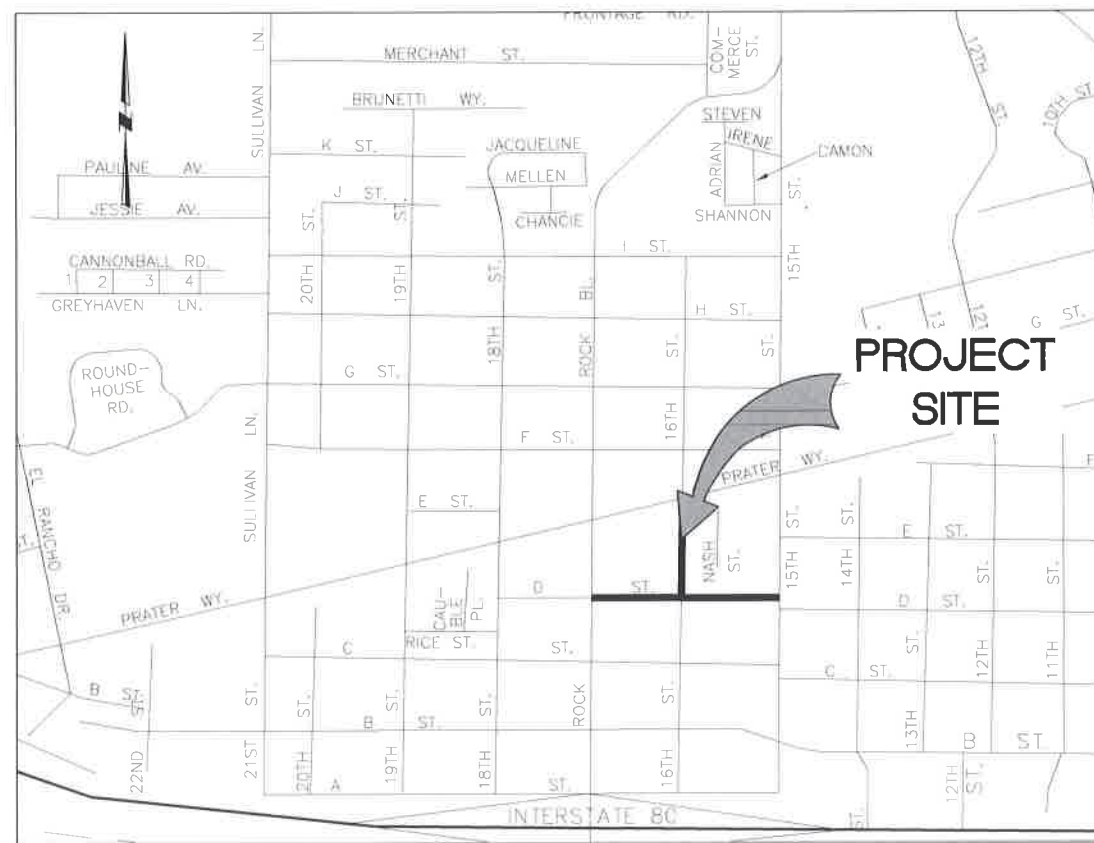
COS PROJECT NUMBER: 19/20-020
PWP NO: WA-2020-146

SPARKS CITY COUNCIL

MAYOR RONALD E. SMITH
WARD ONE DONALD ABBOTT
WARD TWO ED LAWSON
WARD THREE PAUL ANDERSON
WARD FOUR CHARLENE BYBEE
WARD FIVE KRISTOPHER DAHIR
CITY MANAGER NEIL C. KRUTZ

CIVIL:

CFA, INC.
1150 CORPORATE BOULEVARD
RENO, NEVADA 89502
(775) 856-1150 VOICE
(775) 856-1160 FAX
CONTACT: MIKE WILHELM, P.E.



VICINITY MAP
SCALE: NTS

APPROVALS

Jon R. Ericson 2/3/2020
JON R. ERICSON, P.E., P.T.O.E. DATE
CITY ENGINEER

BASIS OF BEARINGS AND COORDINATES:

THE BASIS OF BEARINGS FOR THIS SURVEY IS NEVADA STATE PLANE, WEST ZONE NAD83(94) BASED ON REAL TIME KINEMATIC (RTK) GPS OBSERVATIONS UTILIZING CORRECTIONS FROM THE NORTHERN NEVADA COOPERATIVE REAL TIME NETWORK. COORDINATES AND DISTANCES HEREON ARE AT GROUND LEVEL BASED ON A COMBINED GRID TO GROUND FACTOR OF 1.000197939.

BASIS OF ELEVATIONS:

THE BASIS OF ELEVATIONS FOR THIS SURVEY IS THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) BASED UPON GPS OBSERVATIONS UTILIZING GEOID99, CITY OF SPARKS BENCHMARK #59 AS USED IN THIS SURVEY WITH AN ELEVATION OF 4422.01 FEET.

PREPARED AND SUBMITTED BY:

Michael J. Wilhelm
MIKE WILHELM, P.E.
PRINCIPAL ENGINEER
MICHAEL J. WILHELM
Exp: 6-30-20
CIVIL
PROFESSIONAL ENGINEER - STATE OF NEVADA
No. 16371
1/30/20

GENERAL NOTES

- 1. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO THE DETAILS CONTAINED IN THESE PLANS, THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC), 2012 EDITION, AND THE STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION (SDPWC), LATEST EDITION, AS ADOPTED BY CITY OF SPARKS, AND SHALL BE SUBJECT TO THE APPROVAL OF THE OWNER. ALL SPECIFICATIONS REFERENCED HEREIN REFER TO THE SSPWC UNLESS INDICATED OTHERWISE.

Table with columns: EXISTING, PROPOSED, DESCRIPTION. Includes symbols for CURB & GUTTER, 1' CONTOUR, 5' CONTOUR, SPOT ELEVATION, SANITARY SEWER (AND SIZE, IF AVAILABLE), STORM DRAIN (AND SIZE, IF AVAILABLE), ELECTRIC, GAS (AND SIZE, IF AVAILABLE), WATER AND GAS, WATER (AND SIZE, IF AVAILABLE), TELEPHONE, OVERHEAD LINES, CABLE TV, COMMUNICATION, FIBER OPTIC, SANITARY SEWER MANHOLE, STORM DRAIN MANHOLE, TELEPHONE MANHOLE, ELECTRIC MANHOLE, UTILITY MANHOLE, WATER VALVE, GAS VALVE, SEWER OR STORM DRAIN CLEANOUT, WATER METER, BACKFLOW PREVENTER.

LEGEND

Table with columns: EXISTING, PROPOSED, DESCRIPTION. Includes symbols for TRANSFORMER PAD, ELECTRIC VAULT, TELEPHONE VAULT, POWER POLE, SURVEY MONUMENT, FIRE DEPARTMENT CONNECTION, FIRE HYDRANT, STREET SIGN, STREET LIGHTING AND/OR LIGHT POLE, TREE / TREE TO BE REMOVED, CHAINLINK FENCE, BARBED WIRE FENCE, WOOD FENCE, HANDICAP (ADA) RAMP DOMES, TRAFFIC SIGNAL, TYPE 1 STORM DRAIN CATCH BASIN, TYPE 3R STORM DRAIN CATCH BASIN, TYPE 4R STORM DRAIN CATCH BASIN, GRADE BREAK, FLOW LINE, SWALE, SAWCUT, PROPERTY LINE.

UTILITY NOTES

- 1. UTILITIES MAY EXIST THAT ARE NOT SHOWN ON THE PLANS, HORIZONTAL AND VERTICAL LOCATIONS OF EXISTING UTILITIES ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL VERIFY ACTUAL LOCATIONS OF EXISTING UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL CALL UNDERGROUND SERVICES ALERT (USA) AT 811 PRIOR TO ANY EXCAVATION.

THE CONTRACTOR SHALL NOT PERFORM ANY CONTRACT WORK ON SATURDAY, SUNDAY, LEGAL HOLIDAYS, AND OUTSIDE OF THE TWELVE (12) HOURS AVAILABLE DURING A REGULAR WORKING DAY EXCEPT AS DIRECTED AND APPROVED BY THE CITY PROJECT COORDINATOR AND AS SPECIFIED HEREIN.

WHEN DIRECTED TO WORK OUTSIDE OF THE LEGALLY PERMITTED CONSTRUCTION HOURS DEFINED ABOVE, THE CONTRACTOR SHALL FIRST OBTAIN APPROVAL FROM THE CITY PROJECT COORDINATOR AT LEAST SEVENTY-TWO (72) HOURS PRIOR TO COMMENCING SUCH OVERTIME WORK. IF THE CONTRACTOR PLANS TO PERFORM WORK ON SATURDAY OR SUNDAY, HE/SHE SHALL OBTAIN APPROVAL BY THE WEDNESDAY PRIOR TO WORK ON THE SATURDAY OR SUNDAY FOR WHICH WORK IS PLANNED.

CONTRACTOR SHALL OBTAIN APPROVAL THROUGH THE TEMPORARY USE PERMIT (T.U.P.) AND PAY A FEE OF ONE HUNDRED (\$100.00) DOLLARS TO WORK OUTSIDE OF THE ABOVE LEGALLY PERMITTED CONSTRUCTION HOURS. THE REQUEST SHALL INCLUDE JUSTIFICATION OF HOW PUBLIC SAFETY WILL BE ENHANCED THROUGH WORKING OUTSIDE OF THE RESTRICTED CONSTRUCTION HOURS. SUBMITTAL AND PAYMENT OF FEES DOES NOT GUARANTEE APPROVAL.

THE CONTRACTOR SHALL BE CHARGED FOR ALL OF CITY OF SPARKS' EMPLOYEE(S) TIME SPENT FOR OVERTIME, SATURDAY, SUNDAY AND HOLIDAY WORK BASED ON THE EMPLOYEE'S HOURLY RATE, PLUS BENEFITS. THE CONTRACTOR WILL BE NOTIFIED OF THE COSTS INCURRED AND IF THE PAYMENT IS NOT MADE, SUCH COSTS WILL BE DEDUCTED FROM ANY PAYMENT DUE TO THE CONTRACTOR. IN ADDITION TO THE CHARGE FOR THE CITY EMPLOYEE(S) TIME OUTSIDE A STANDARD WORKDAY.

- 12. ALL DIMENSIONS ARE TO FRONT FACE OF CURB UNLESS NOTED OTHERWISE.
- 13. SHOULD ANY PREHISTORIC OR HISTORIC REMAINS OR ARTIFACTS BE DISCOVERED DURING SITE DEVELOPMENT, WORK SHALL BE TEMPORARILY HALTED AT THE SPECIFIC SITE AND THE STATE HISTORIC PRESERVATION OFFICE OF THE DEPARTMENT OF MUSEUMS, LIBRARY AND ARTS, SHALL BE NOTIFIED TO RECORD AND PHOTOGRAPH THE SITE. THE PERIOD OF TEMPORARY DELAY SHALL BE LIMITED TO A MAXIMUM OF TWO (2) WORKING DAYS FROM THE DATE OF NOTIFICATION.

ABBREVIATIONS

Table with columns: AB, AC, ADD, ADJ, APPROX, APPR, ARV, BC, BCR, BFC, BLDG, BM, BOT, BSW, BVC, CB, CFM, CFS, CI, CJ, CL or CL, CMP, CMU, CO, CONC, CONN, CONT, COORD, CTR, CU, CU FT, CU IN, CU YD, CULV, DBL, DEP, DTL, DI, DIA, DWG, E, EX or EXIST, EA, EC, ECR, ECC, EL, ELEC, ENGR, EVC, EW, EXP JT, F, FFC, FG, FH, FIG, FL or FL, FFS, FT, G, GAL, GALV, GB, GPD, HORIZ, HP, ID, IE, IN, INV, IRR, KW, L, LAT, LB, LB/CU FT, LONG, LT, MAX, MDD, MECH, MFR, MH, MIN, MISC, MPH, N, NDP, NTS, OC, OZ, OZ UNCE, PC, PCC, PI, P, or PL, PRC, PREFAB, PROP, PSP, PSI, PT, PUE, PVC, PVI, PVM, R, RCB, RCP, RD, REF, REIN, REQD, RT, RW or ROW, SCH, SD, SECT, SF, SI, SSE, STA, SIM, SPEC, SQ, SS, STD, SYMM, TAN, TB, TC, TC-DEP, TECH, TEL, TEMP, TF, TW or TOW, TYP, V, VERT, VG, W, WWF, YD, SANITARY SEWER EASEMENT, SIMILAR SPECIFICATIONS, SQUARE, STANDARD, SYMMETRICAL, TANGENT, THRUST BLOCK, TOP OF CURB, TOP OF INTERSECTION, TOP OF CURB - DEPRESSED TECHNICAL, TELEPHONE TEMPERATURE, TOP FACE, TOP OF WALL, TYPICAL, VELOCITY, VERTICAL CURVE, VALLEY GUTTER, WATER, WELDED WIRE FABRIC, YARD.

CONCRETE & PAVEMENT NOTES

- 1. FIBER-REINFORCED PORTLAND CEMENT CONCRETE (PCC) SHALL MEET THE REQUIREMENTS OF SPECIFICATION SECTION 202.00. PCC EXPOSED TO FREEZE-THAW ENVIRONMENTS SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4,000 PSI AND MEET THE SPECIFIC REQUIREMENTS OF SPECIFICATION SECTION 337.10.01.01. 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 PCC AT 1.5 LBS. PER CUBIC YARD. ALL MATERIALS SHALL CONFORM TO SSPWC.

DEMOLITION NOTES

- 1. THE REMOVAL OF EXISTING IMPROVEMENTS SHALL BE PERFORMED IN ACCORDANCE WITH THE SPECIAL TECHNICAL SPECIFICATIONS AND THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC, 2012), SECTION 301.00.

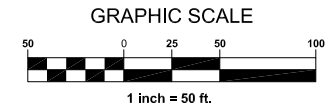
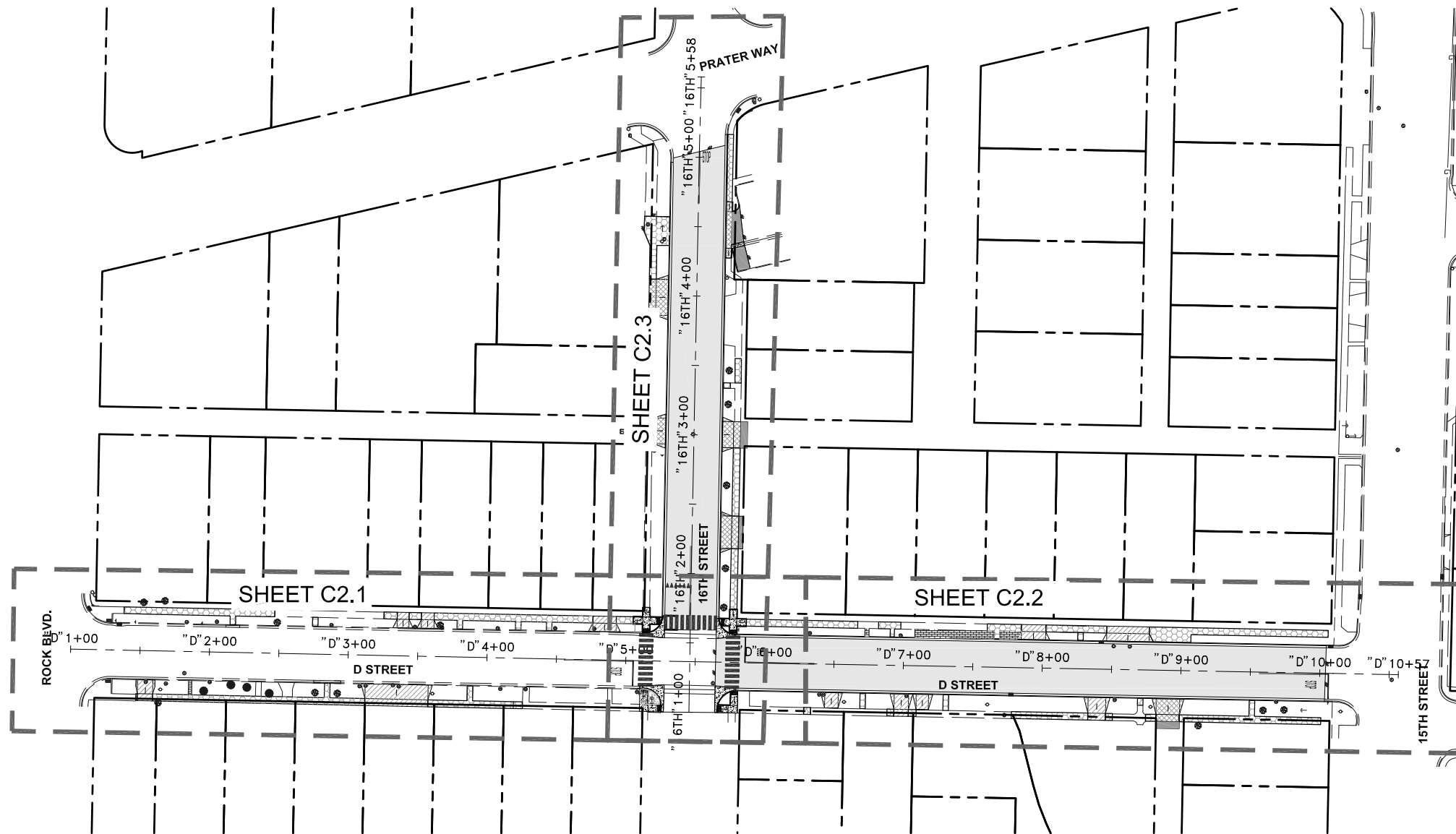
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2. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THESE LOCATIONS AND/OR ELEVATIONS AT THE PROPOSED POINTS OF CONNECTION AND IN AREAS OF POSSIBLE CONFLICT PRIOR TO BEGINNING CONSTRUCTION. SHOULD THE CONTRACTOR FIND ANY DISCREPANCIES BETWEEN THE CONDITIONS EXISTING IN THE FIELD AND THE INFORMATION SHOWN ON THESE DRAWINGS, HE SHALL NOTIFY THE ENGINEER BEFORE PROCEEDING WITH CONSTRUCTION.



UTILITY OWNERSHIP

Table with columns: SANITARY SEWER & STORM DRAIN, WATER, GAS & ELECTRIC, TELEPHONE, CABLE TV. Owners listed: CITY OF SPARKS, TMWA, NV ENERGY, AT&T, CHARTER.

Professional Engineer seal for Michael J. Wilhelm, License No. 16371, Exp. 06-30-20. Project title: CITY OF SPARKS 2020 CDBG STREET IMPROVEMENTS PROJECT. Title: TITLE SHEET - GENERAL NOTES. Job No. 17-107.00. Bid Set C1.1. 9



SHEET INDEX

C1.0	TITLE SHEET
C1.1	GENERAL NOTES
C2.0	SHEET INDEX
C2.1	PLAN & PROFILE - D STREET, STA: "D" 1+00 - 6+00
C2.2	PLAN & PROFILE - D STREET, STA: "D" 6+00 - 10+57
C2.3	PLAN & PROFILE - 16TH STREET, STA: "16TH" 1+00 - 5+58
C3.0	DETAILS
C3.1	DETAILS
C3.2	DETAILS

SHEET INDEX - D STREET & 16TH STREET

SCALE: 1" = 50'

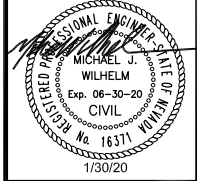


Know what's below.
Call before you dig.

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4. THE CONTRACTOR ASSUMES ALL RISK FOR ANY CONSTRUCTION PERFORMED WITH PRELIMINARY OR NONAPPROVED PLANS.
5. CONTRACTOR TO PROVIDE TRAFFIC CONTROL IN CONFORMANCE WITH THE LATEST EDITION OF MUTCD WHENEVER CONSTRUCTION IS IN PROGRESS WITHIN THE PUBLIC TRAVEL WAY.

NO.	REVISIONS	DATE	BY



ENGINEERS • LAND SURVEYORS
PLANNERS • LANDSCAPE ARCHITECTS
 1150 CORPORATE BOULEVARD • RENO, NEVADA 89502
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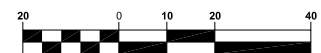


CITY OF SPARKS
 2020 CDBG STREET IMPROVEMENTS PROJECT
SITE PLAN - SHEET INDEX
 NEVADA
 SPARKS

JOB NO. 17-107.00
 DESIGNED BY BEH/CJ
 CHECKED BY MW
 DATE 01/21/2020

BID SET

SHEET
C2.0
 OF 9

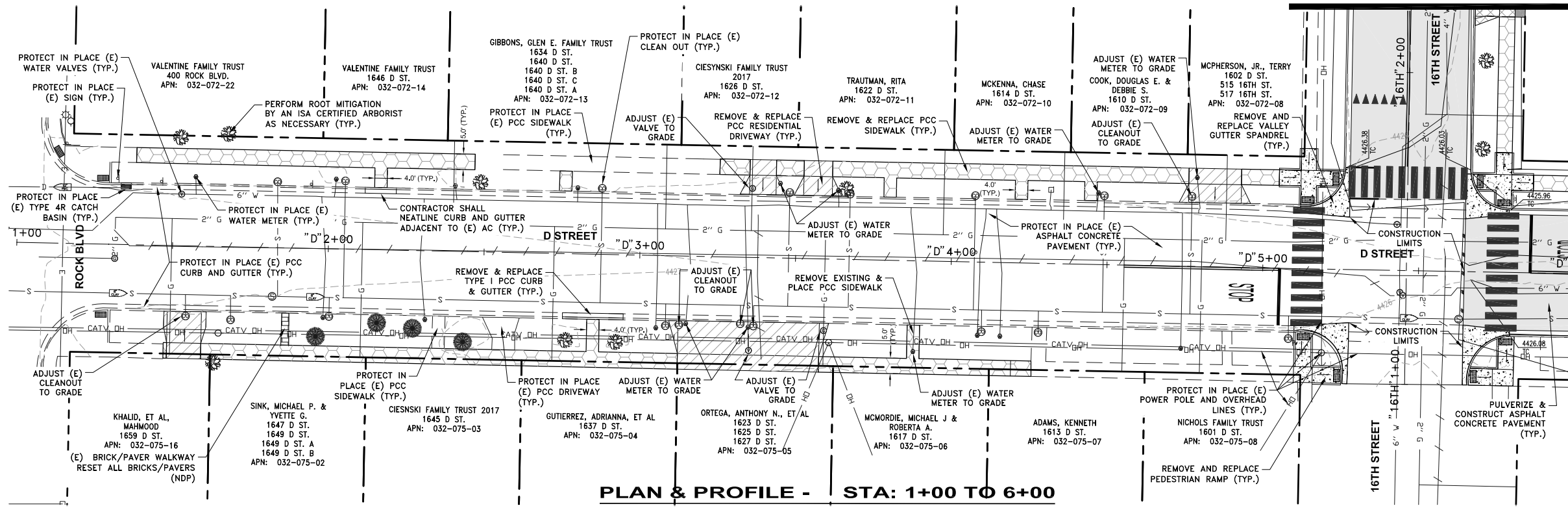


1 inch = 20 ft.

DRAWING SCALE

22"x34": 1"=20'

11"x17": 1"=40'

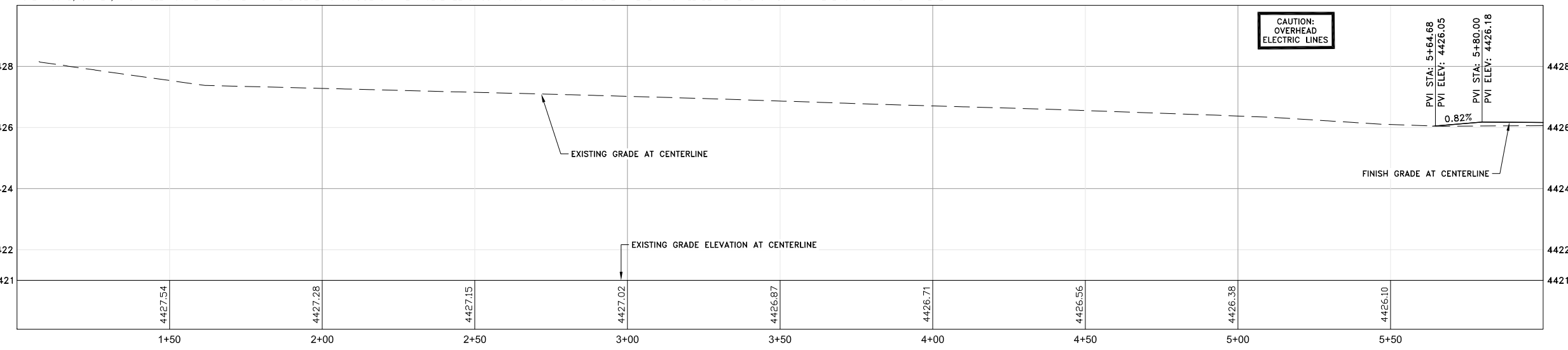


PLAN & PROFILE - STA: 1+00 TO 6+00

H: 1" = 20'

V: 1" = 2'

NOTE: CURB, GUTTER, AND VALLEY GUTTER REMOVAL AND REPLACEMENTS OUTSIDE OF THE "PULVERIZE & CONSTRUCT ASPHALT CONCRETE PAVEMENT" SHALL BE NEATLINE SAWCUT AT THE EXISTING ASPHALT PAVEMENT.



NOTES:

NOT ALL EXISTING IMPROVEMENTS, ADJACENT PROPERTY, INCLUDING BUT NOT LIMITED TO, FENCING, WALLS, UTILITIES AND OTHER FACILITIES, MAILBOXES, WATER METERS, POWER POLES, OVERHEAD LINES, STREET SIGNS, CATCH BASINS, TREES AND PLANTS, ETC., ARE SHOWN ON THE PLANS. ALL EXISTING ITEMS THAT ARE NOT TO BE REMOVED SHALL BE PROTECTED FROM INJURY OR DAMAGE RESULTING FROM THE CONTRACTORS OPERATIONS IN ACCORDANCE WITH SPECIFICATION SECTION 301.04 AND 300.04.

ESTIMATED TOTALS SHEET C2.1

ITEM	QUANTITY
REMOVE & REPLACE CURB AND GUTTER (1 C3.1)	163 LF
REMOVE & REPLACE SIDEWALK (1 C3.0)	2,615 SF
REMOVE & REPLACE RESIDENTIAL DRIVEWAY (7-8 C3.1)	1,363 SF
PULVERIZE & CONSTRUCT ROADWAY (4-5 C3.1)	142 SF
PCC VALLEY GUTTER/SPANDREL (7 C3.0)	376 SF
CONSTRUCT PEDESTRIAN RAMP (RAMP LENGTH VARIES TO COMPLY W/ ADA MAX. SLOPE.) (2-6 C3.0)	8 EACH
EXISTING TREE - PERFORM ROOT MITIGATION BY AN ISA CERTIFIED ARBORIST AS NECESSARY	9 EACH
ADJUST EXISTING UTILITY VALVE TO FINISH GRADE (3 C3.2)	3 EACH

CAUTION - NOTICE TO CONTRACTOR

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REVISIONS

NO.	DATE	MARK	BY

DATE

MARK

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CITY OF SPARKS
2020 CDBG STREET IMPROVEMENTS PROJECT

PLAN & PROFILE

STATION "D" 1+00 - 6+00

NEVADA

SPARKS

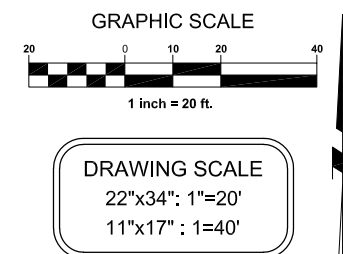
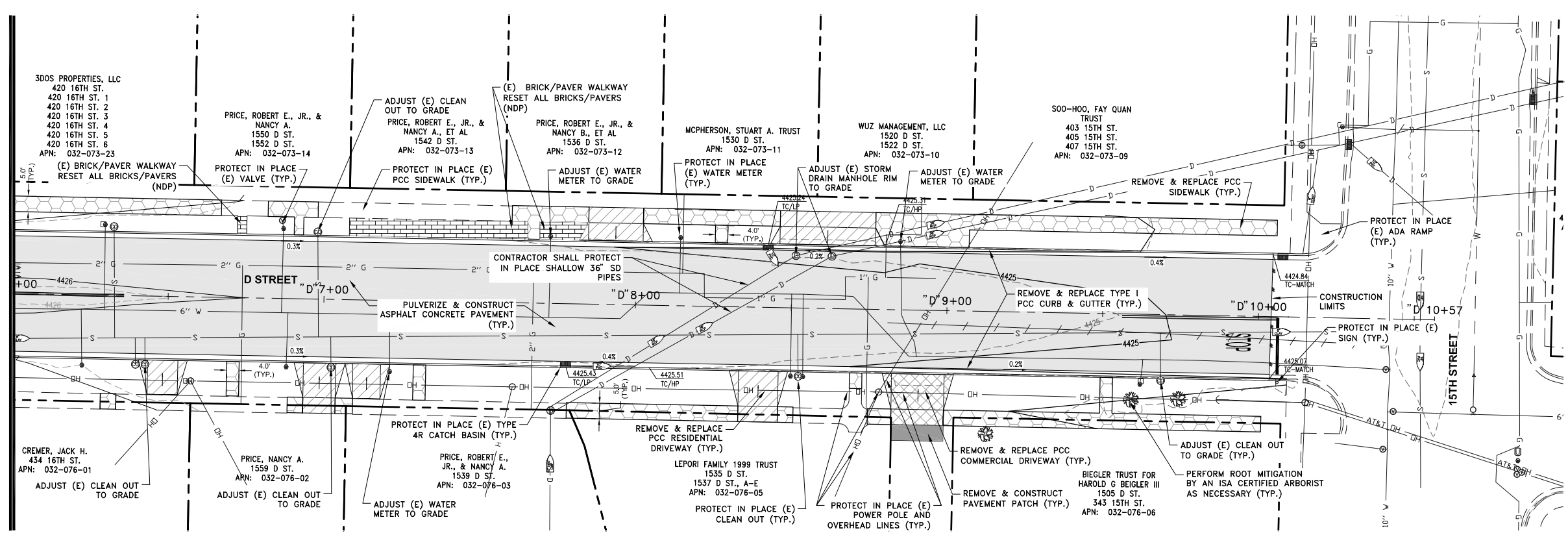
JOB NO. 17-107.00
DESIGNED BY BEH/CJ
CHECKED BY MW
DATE 01/21/2020

SHEET

C2.1

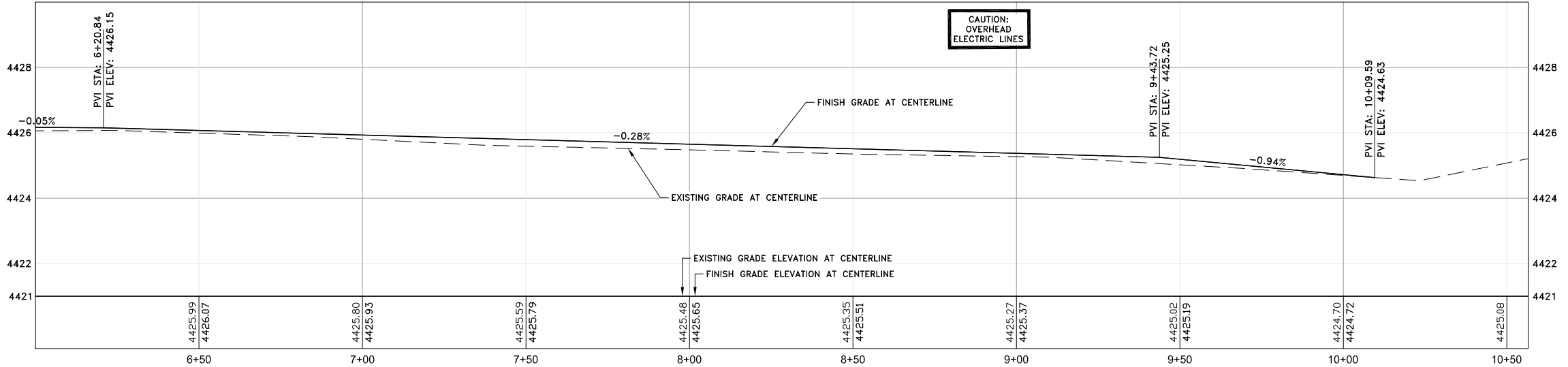
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MATCH LINE STA. "D" 6+00 ~ SEE SHEET C2.1



PLAN & PROFILE - STA: 6+00 TO 10+57

H: 1" = 20'
V: 1" = 2'



NOTES:
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DESIGN TABLE D STREET SHEET C2.4

STATION	BACK OF SIDEWALK (LEFT)		LEFT LIP		OFFSET	CROWN		OFFSET	RIGHT LIP		BACK OF SIDEWALK (RIGHT)	
	EXISTING	PROPOSED	EXISTING	PROPOSED		EXISTING	PROPOSED		EXISTING	PROPOSED	EXISTING	PROPOSED
6+50	4,426.10	4,426.08	4,425.41	4,425.39	18.5	4,425.99	4,426.07	18.5	4,425.49	4,425.47		
7+00			4,425.32	4,425.25	18.5	4,425.80	4,425.93	18.5	4,425.34	4,425.30		
7+50			4,425.16	4,425.12	18.5	4,425.59	4,425.79	18.5	4,425.19	4,425.14		
8+00	4,425.55	---	4,424.97	4,424.98	18.5	4,425.48	4,425.65	18.5	4,425.13	4,425.13	4,425.43	4,425.42
8+50	4,425.33	---	4,424.87	4,424.87	18.4	4,425.35	4,425.51	18.5	4,424.96	4,425.04	4,425.24	---
9+00	4,425.08	4,425.19	4,424.88	4,424.86	18.4	4,425.27	4,425.37	18.5	4,424.89	4,424.93	4,425.34	4,425.17
9+50	4,425.03	4,425.03	4,424.68	4,424.66	18.4	4,425.02	4,425.19	18.5	4,424.74	4,424.81	4,424.95	4,425.00
10+00	4,424.88	4,424.87	4,424.49	4,424.47	18.4	4,424.70	4,424.72	18.5	4,424.72	4,424.70	4,424.83	---

ESTIMATED TOTALS SHEET C2.2

ITEM	QUANTITY
REMOVE & REPLACE CURB AND GUTTER (1 C3.1)	808 LF
REMOVE & REPLACE SIDEWALK (1 C3.0)	2,704 SF
REMOVE & REPLACE RESIDENTIAL DRIVEWAY (7-8 C3.1)	1,257 SF
COMMERCIAL DRIVEWAY (7-8 C3.1)	311 SF
PULVERIZE & CONSTRUCT ROADWAY (4-5 C3.1)	14,935 SF
PAVEMENT PATCH (3 C3.1)	85 SF
EXISTING TREE - PERFORM ROOT MITIGATION BY AN ISA CERTIFIED ARBORIST AS NECESSARY	3 EACH
ADJUST EXISTING SEWER/STORM DRAIN MANHOLE RIM TO GRADE (1 C3.2)	2 EACH

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REVISIONS

DATE

MARK

BY

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2020 CDBG STREET IMPROVEMENTS PROJECT
PLAN & PROFILE
STATION "D" 6+00 - 10+57

NEVADA
SPARKS

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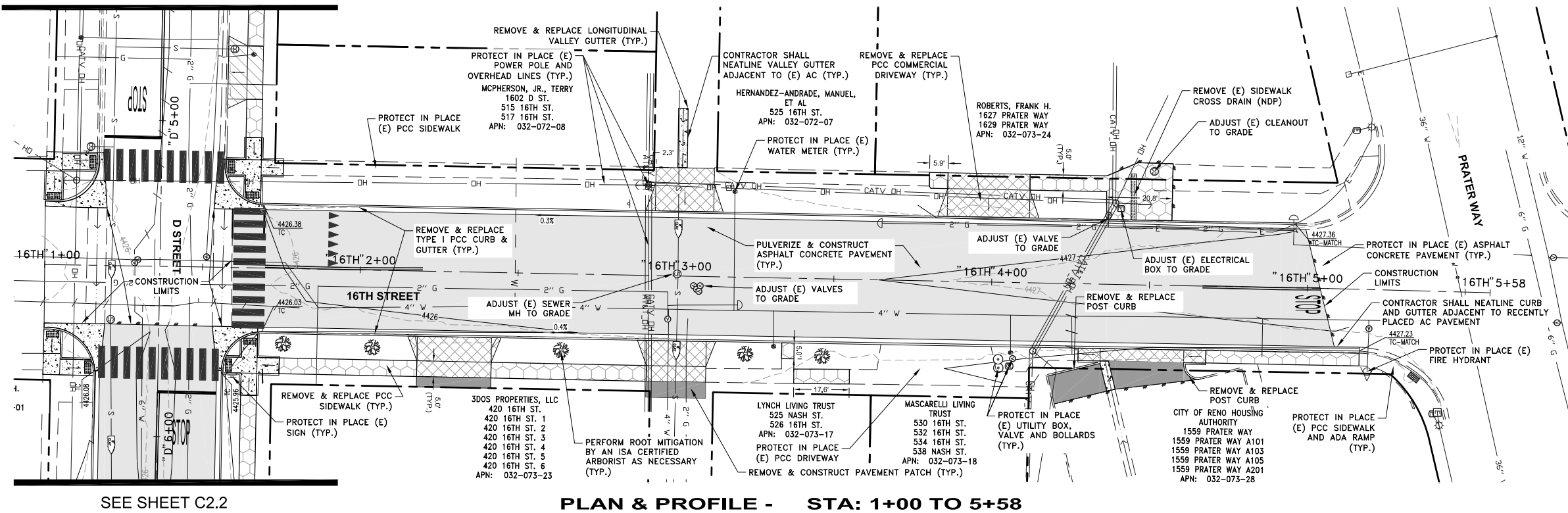
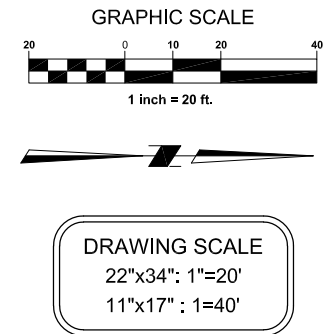
SHEET
C2.2
OF 9

BID SET

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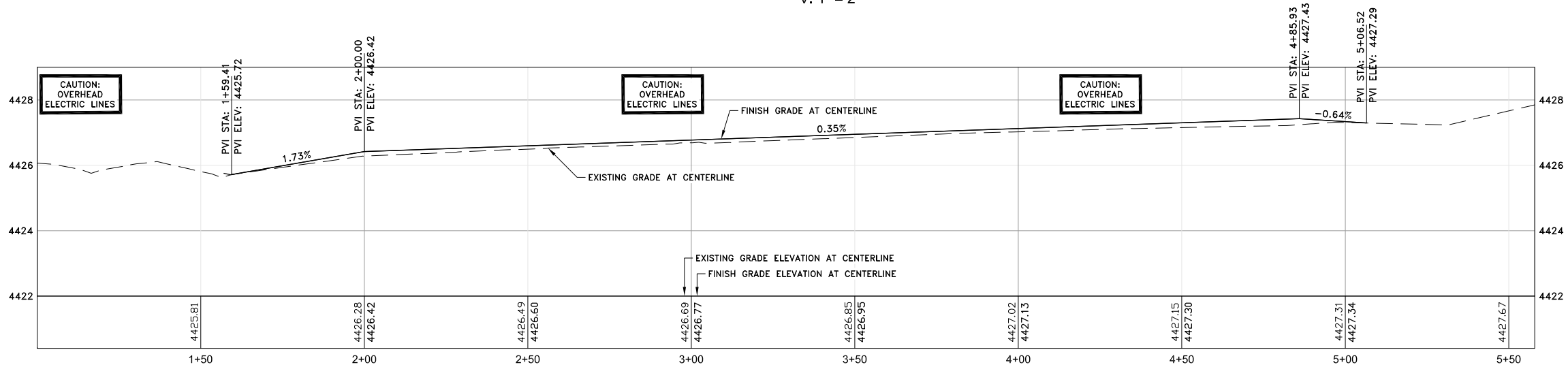
PROFESSIONAL ENGINEER STATE OF NEVADA
MICHAEL J. WILHELM
Exp. 08-30-20
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No. 16371
1/30/20

SEE SHEET C2.1



PLAN & PROFILE - STA: 1+00 TO 5+58

H: 1" = 20'
V: 1" = 2'



STATION	BACK OF SIDEWALK (LEFT)		LEFT LIP			CROWN			RIGHT LIP			BACK OF SIDEWALK (RIGHT)	
	EXISTING	PROPOSED	EXISTING	PROPOSED	OFFSET	EXISTING	PROPOSED	OFFSET	EXISTING	PROPOSED	EXISTING	PROPOSED	
2+00			4,426.10	4,426.09	18.5	4,426.28	4,426.42	18.7	4,425.85	4,425.77	4,426.43	4,426.43	
2+50			4,426.28	4,426.24	18.5	4,426.49	4,426.60	18.6	4,425.96	4,425.93	4,426.58	4,426.63	
3+00	4,426.43	4,426.43	4,426.35	4,426.39	18.5	4,426.69	4,426.77	18.6	4,426.18	4,426.11	4,426.77	4,426.83	
3+50			4,426.59	4,426.53	18.5	4,426.85	4,426.95	18.5	4,426.43	4,426.28			
4+00	4,427.80	4,427.80	4,426.75	4,426.68	18.5	4,427.02	4,427.13	18.5	4,426.55	4,426.46	4,427.08		
4+50			4,426.89	4,426.82	18.5	4,427.15	4,427.30	18.4	4,426.75	4,426.64	4,427.08	---	
5+00			4,427.07	4,427.07	18.5	4,427.31	4,427.34	18.4	4,426.87	4,426.87	4,427.27	4,427.27	

NOTES:

NOT ALL EXISTING IMPROVEMENTS, ADJACENT PROPERTY, INCLUDING BUT NOT LIMITED TO, FENCING, WALLS, UTILITIES AND OTHER FACILITIES, MAILBOXES, WATER METERS, POWER POLES, OVERHEAD LINES, STREET SIGNS, CATCH BASINS, TREES AND PLANTS, ETC., ARE SHOWN ON THE PLANS. ALL EXISTING ITEMS THAT ARE NOT TO BE REMOVED SHALL BE PROTECTED FROM INJURY OR DAMAGE RESULTING FROM THE CONTRACTORS OPERATIONS IN ACCORDANCE WITH SPECIFICATION SECTION 301.04 AND 300.04.

ITEM	QUANTITY
REMOVE & REPLACE CURB AND GUTTER (1 C3.1)	675 LF
CONSTRUCT POST CURB (2 C3.1)	41 LF
REMOVE & REPLACE SIDEWALK (1 C3.0)	1,266 SF
COMMERCIAL DRIVEWAY (7-8 C3.1)	1,418 SF
PULVERIZE & CONSTRUCT ROADWAY (4-5 C3.1)	12,772 SF
PCC VALLEY GUTTER (8 C3.0)	83 SF
PAVEMENT PATCH (3 C3.1)	498 SF
EXISTING TREE - PERFORM ROOT MITIGATION BY AN ISA CERTIFIED ARBORIST AS NECESSARY	5 EACH
ADJUST EXISTING SEWER/STORM DRAIN MANHOLE RIM TO GRADE (1 C3.2)	1 EACH
ADJUST EXISTING UTILITY VALVE TO FINISH GRADE (3 C3.2)	5 EACH



Know what's below.
Call before you dig.

CAUTION - NOTICE TO CONTRACTOR

1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AND FEATURES AS SHOWN ON THESE PLANS IS BASED ON THE BEST INFORMATION AVAILABLE TO THE ENGINEER. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE.

2. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THESE LOCATIONS AND/OR ELEVATIONS AT THE PROPOSED POINTS OF CONNECTION AND IN AREAS OF POSSIBLE CONFLICT PRIOR TO BEGINNING CONSTRUCTION. SHOULD THE CONTRACTOR FIND ANY DISCREPANCIES BETWEEN THE CONDITIONS EXISTING IN THE FIELD AND THE INFORMATION SHOWN ON THESE DRAWINGS, HE SHALL NOTIFY THE ENGINEER BEFORE PROCEEDING WITH CONSTRUCTION.

3. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE OR RELOCATE ALL EXISTING UTILITIES AND FEATURES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS. CONTRACTOR SHALL OBTAIN APPROVALS FROM THE GOVERNING AGENCIES, THE ENGINEER, AND THE UTILITY COMPANIES PRIOR TO SUCH REMOVAL AND/OR RELOCATION.

4. THE CONTRACTOR ASSUMES ALL RISK FOR ANY CONSTRUCTION PERFORMED WITH PRELIMINARY OR NONAPPROVED PLANS.

5. CONTRACTOR TO PROVIDE TRAFFIC CONTROL IN CONFORMANCE WITH THE LATEST EDITION OF MUTCD WHENEVER CONSTRUCTION IS IN PROGRESS WITHIN THE PUBLIC TRAVEL WAY.

REVISIONS

MARK

DATE

ENGINEERS - LAND SURVEYORS
PLANNERS - LANDSCAPE ARCHITECTS
1150 CORPORATE BOULEVARD • RENO, NEVADA 89502
775-856-1150 MAIN • 775-856-1160 FAX • CFARENCO.COM

cfa

CITY OF SPARKS
2020 CDBG STREET IMPROVEMENTS PROJECT
PLAN & PROFILE
STATION "16TH" 1+00 - 5+58

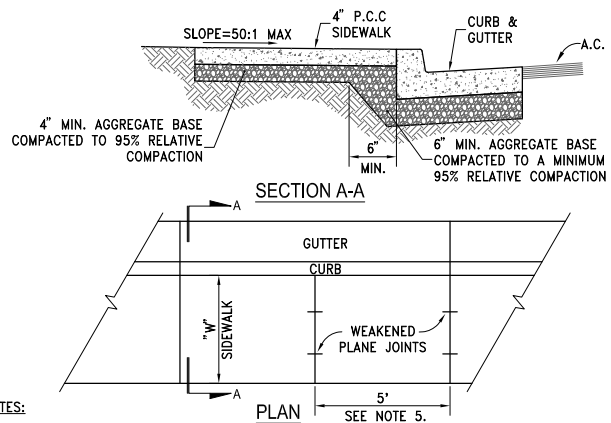
NEVADA
SPARKS

JOB NO. 17-107.00
DESIGNED BY BEH/CJ
CHECKED BY MW
DATE 01/21/2020

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C2.3

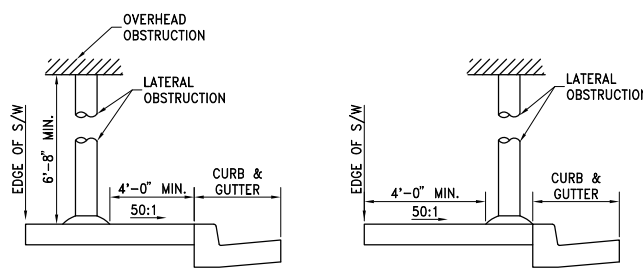
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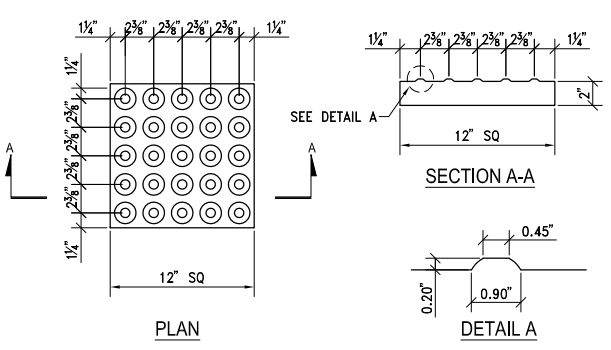


- NOTES:**
1. PORTLAND CEMENT CONCRETE (P.C.C.) SHALL HAVE THE FOLLOWING CHARACTERISTICS: 4000 PSI MIN. COMPRESSIVE STRENGTH AT 28 DAYS, MIN. 6 SACKS OF CEMENT PER CUBIC YARD WITH MAX. WATER-CEMENT RATIO OF 0.45, AIR ENTRAINMENT 6% ± 1.5%, SLUMP AT 1 TO 4 INCHES. MIX DESIGN SHALL CONFORM TO THE REQUIREMENTS 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.
 2. 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.
 3. 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.
 4. WEAKENED PLANE JOINTS SHALL BE CONSTRUCTED AT 5 FT INTERVALS AND ACCORDANCE WITH SECTION 312 OF THE SSPWC, AS ADOPTED BY CITY COUNCIL.
 5. 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.
 6. SIDEWALKS SHALL NOT BE POURED MONOLITHICALLY WITH CURBS.
 7. TUNNELING AND/OR BORING IS NOT ALLOWED.

1 SIDEWALK DETAIL
C3.0 N.T.S.

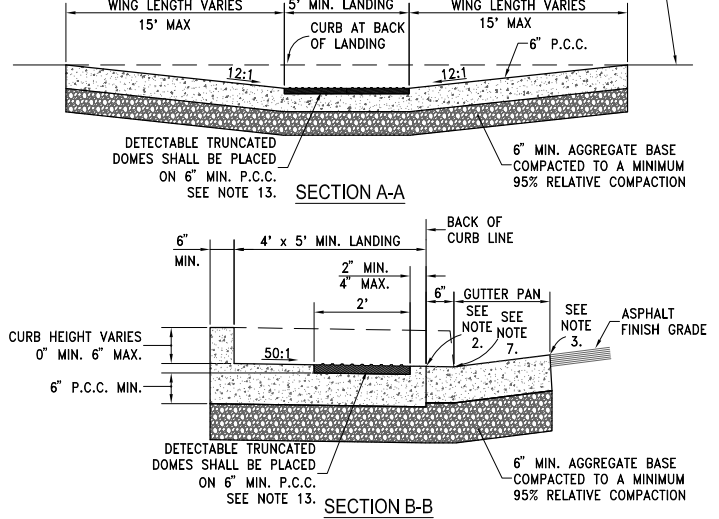
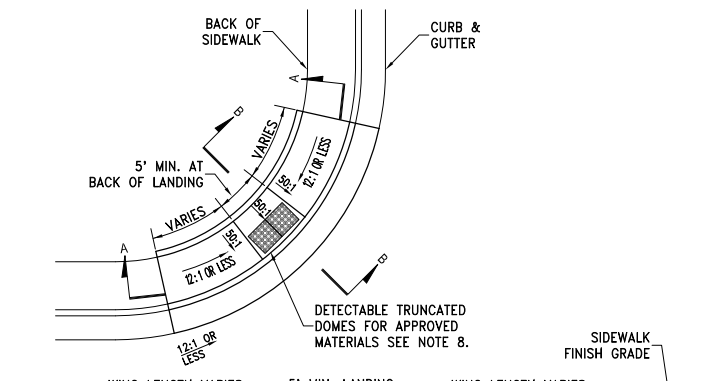


TYPICAL SIDEWALK vs OBSTRUCTION CLEARANCE DETAIL



NOTE: FOR DETECTABLE TRUNCATED DOMES APPROVED MATERIALS SEE NOTE 8.
TRUNCATED DOMES DETAIL

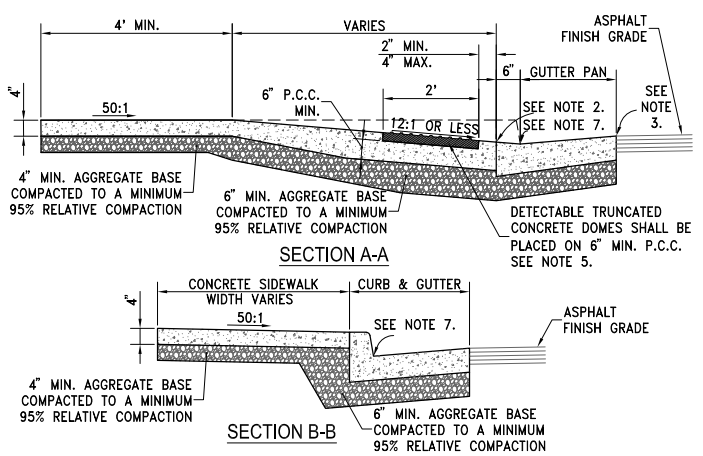
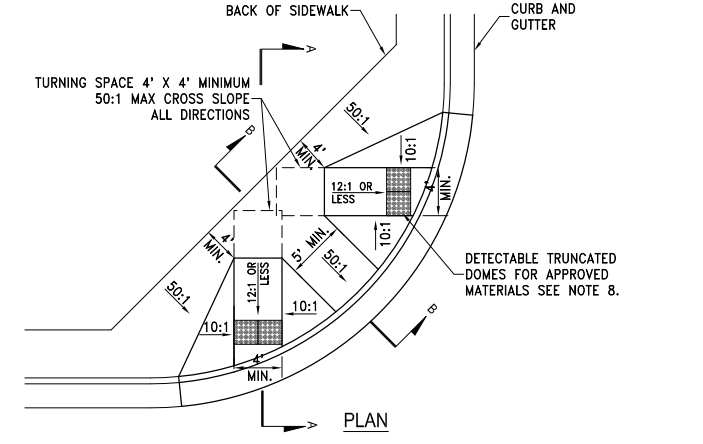
5 PEDESTRIAN RAMP DETAIL
C3.0 N.T.S.



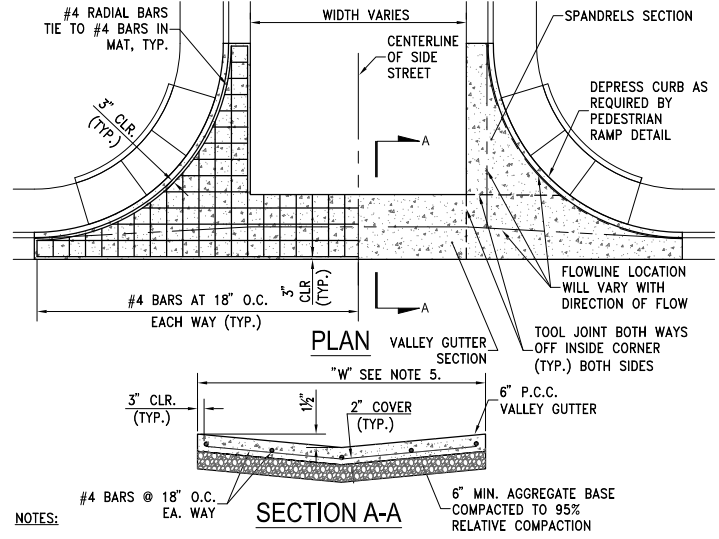
2 PEDESTRIAN RAMP DETAIL
C3.0 N.T.S.

1. STORM DRAIN INLETS OR SIMILAR ACCESSES SHALL NOT BE LOCATED IN THE AREA AT THE BASE OF THE CURB RAMP OR LANDING AREA. IF OBSTRUCTIONS SUCH AS INLETS, UTILITY POLES, PULL BOXES, FIRE HYDRANTS, ETC. ARE ENCOUNTERED, THE LOCATION AND DIMENSIONS MAY BE ADJUSTED UPON APPROVAL OF THE CITY ENGINEER.
2. NO LIP SHALL BE PERMITTED AT THE CURB RAMP SLOPE TO GUTTER PAN.
3. PLANTMIX BITUMINOUS SURFACE SHALL BE FLUSH WITH THE EDGE OF THE GUTTER PAN IN THE AREA OF THE CURB RAMP.
4. ROUGH BROOM TEXTURE ON CURB RAMPS AND WINGS.
5. DETECTABLE WARNING SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND SHALL BE PLACED ON MIN. SIX (6") INCHES OF P.C.C.
6. ALL SLOPE RATES ARE RELATIVE TO LEVEL AND SHALL COMPLY WITH THE PUBLIC RIGHT-OF-WAY ACCESSIBILITY GUIDELINES (PROWAG) STANDARDS.
7. GUTTER SHALL MAINTAIN POSITIVE DRAINAGE TO PREVENT PONDING.
8. DETECTABLE WARNING SHALL CONSIST OF PRECAST WETSET TILES WITH MIN. SIZE OF 2' X 2', COLOR YELLOW. APPROVED PRODUCTS INCLUDE: "CASTIN TACT 3", "TEKWAY DOME-TILES", AND "ACCESS TILE". DETECTABLE WARNING SURFACES SHALL EXTEND THE FULL WIDTH OF THE RAMP RUN (EXCLUDING ANY FLARED SIDES), BLENDED TRANSITION, OR TURNING SPACE. DETECTABLE WARNING SHALL BE CONSTRUCTED PER MANUFACTURER'S INSTALLATION GUIDELINES AND CONFORM TO ADAAG.
9. CONCRETE REMOVAL SHALL BE TO NEAT SAW CUT LINES
10. AGGREGATE BASE MATERIAL UNDER PEDESTRIAN RAMPS SHALL BE TYPE 2, CLASS B CRUSHED AGGREGATE BASE. MATERIALS SHALL CONFORM TO SSPWC SECTION 200, AS ADOPTED BY CITY COUNCIL.
11. 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.
12. CONTRACTORS SHALL CORRECT ANY GRADE CONFLICT WITH EXISTING BOXES. THE CITY ENGINEER SHALL MAKE THE FINAL DETERMINATION REGARDING THE DEGREE OF MODIFICATIONS REQUIRED BY THE CONTRACTOR FOR GRADE CONFLICTS BETWEEN EXISTING BOXES AND NEW PEDESTRIAN RAMPS.
13. SIDEWALK AT BOTH SIDES OF RAMP MAY BE RECONSTRUCTED TO MINIMIZE THE GRADE AT A HORIZONTAL DISTANCE TO BE DETERMINED IN THE FIELD, UPON APPROVAL OF THE CITY ENGINEER, SUBJECT TO PROWAG REQUIREMENTS. CURB AT THE BACK OF WALK MAY BE NEEDED. A TRANSITION SECTION OF SIDEWALK MAY BE NECESSARY TO MATCH CROSS SLOPE OF EXISTING SIDEWALK TO PEDESTRIAN RAMP IMPROVEMENTS. TRANSITION SECTIONS SHALL BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.

6 PEDESTRIAN RAMP NOTES
C3.0 N.T.S.

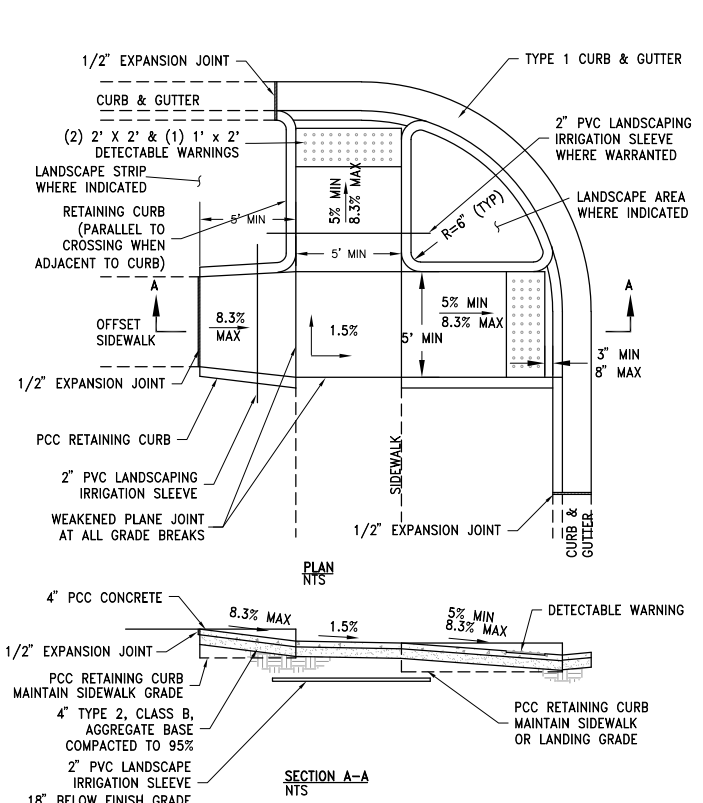


3 PEDESTRIAN RAMP DETAIL
C3.0 N.T.S.



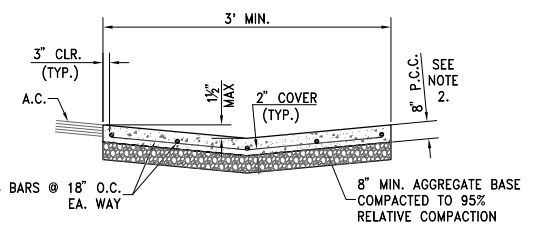
- NOTES:**
1. PORTLAND CEMENT CONCRETE (P.C.C.) SHALL HAVE THE FOLLOWING CHARACTERISTICS: 4000 PSI MIN. COMPRESSIVE STRENGTH AT 28 DAYS, MIN. 6 SACKS OF CEMENT PER CUBIC YARD WITH MAX. WATER-CEMENT RATIO OF 0.45, AIR ENTRAINMENT 6% ± 1.5%, SLUMP AT 1 TO 4 INCHES. MIX DESIGN SHALL CONFORM TO THE REQUIREMENTS 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.
 2. AGGREGATE BASE UNDER VALLEY GUTTER AND SPANDRELS SHALL BE TYPE 2, CLASS B CRUSHED AGGREGATE. ALL MATERIALS SHALL CONFORM TO SSPWC SECTION 200, AS ADOPTED BY CITY COUNCIL.
 3. P.C.C. VALLEY GUTTER DETAIL FOR RESIDENTIAL OR COMMERCIAL ZONES ONLY FOR OTHER APPLICATIONS AN ENGINEERED DESIGN IS REQUIRED.
 4. VALLEY GUTTER SHALL HAVE WEAKENED PLANE JOINTS EVERY 10 FEET.
 5. LOCAL AND COLLECTOR STREETS, "W"=6" MIN. ARTERIAL STREETS (DRIVEWAYS ONLY), "W"=10' MIN.
 6. VALLEY GUTTER SECTIONS (SPANDRELS) ALONG CURB & GUTTER MAY BE A MONOLITHIC POUR AS SHOWN. DOWELS MATCHING REBAR SPACING SHOWN ARE REQUIRED FROM VALLEY GUTTER SECTION TO SPANDREL SECTION IF POURED SEPARATELY.

7 PCC VALLEY GUTTER
C3.0 N.T.S.



- NOTES:**
1. 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.

4 PEDESTRIAN RAMP DIRECTIONAL DETAIL
C3.0 N.T.S.



- NOTES:**
1. THIS GUTTER DESIGN IS FOR USE ON CITY STREETS UPON APPROVAL OF THE CITY ENGINEER.
 2. 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.
 3. AGGREGATE BASE MATERIAL UNDER VALLEY GUTTERS SHALL BE TYPE 2, CLASS B CRUSHED AGGREGATE BASE. MATERIALS SHALL CONFORM TO SSPWC SECTION 200, AS ADOPTED BY CITY COUNCIL.
 4. WEAKENED PLANE JOINTS SHALL BE CONSTRUCTED AT 10 FT INTERVALS AND ACCORDANCE WITH SECTION 312 OF THE SSPWC, AS ADOPTED BY CITY COUNCIL.

8 LONGITUDINAL VALLEY GUTTER
C3.0 N.T.S.



REVISIONS
DATE
MARK

PROFESSIONAL ENGINEER STATE OF NEVADA
MICHAEL U. WILHELM
Exp. 08-30-20
CIVIL
No. 16371
1/30/20

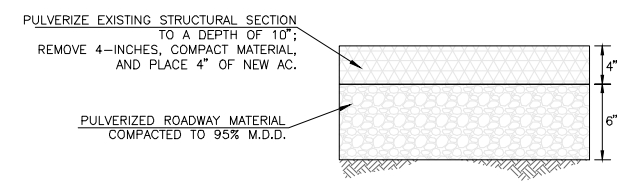
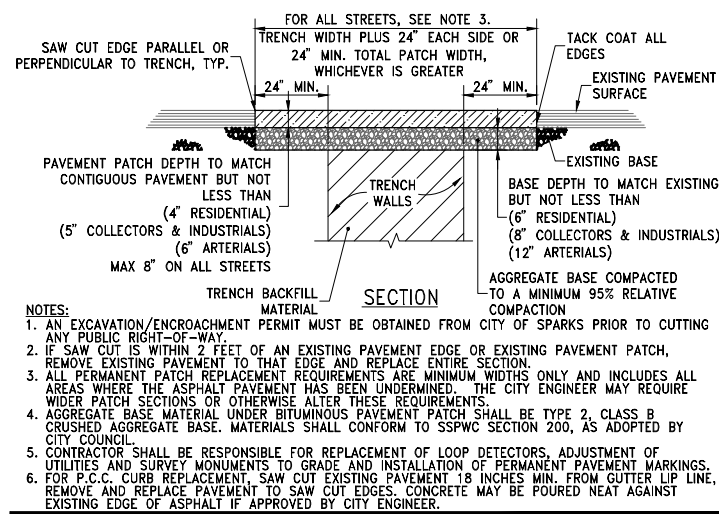
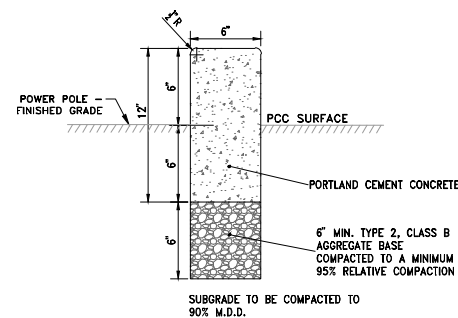
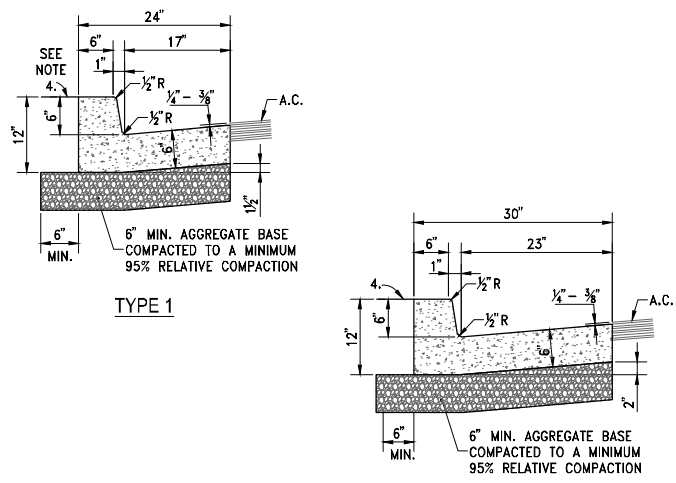
CFA, INC.
LAND SURVEYORS
CIVIL ENGINEERS
LAND USE PLANNERS
1150 CORPORATE BOULEVARD • RENO, NEVADA 89502
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CITY OF SPARKS
2020 CDBG STREET IMPROVEMENTS PROJECT
CIVIL DETAILS

NEVADA
SPARKS

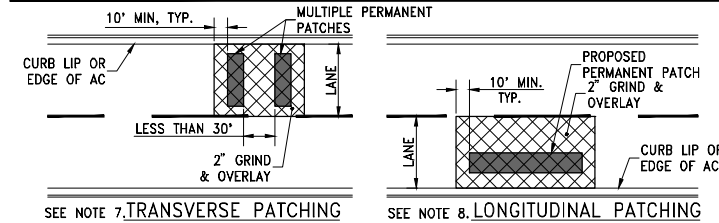
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DESIGNED BY BEH/CJ
CHECKED BY MW
DATE 01/21/2020
SHEET
C3.0
OF 9

BID SET



- NOTES:**
1. 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.
 2. 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 COUNCIL.
 3. 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 SIDEWALK 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.

1. 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.
2. EXPANSION JOINTS 1/2-INCH WIDE SHALL BE LOCATED IN CURBS AND GUTTERS AT EACH SIDE OF STRUCTURES, AT THE ENDS OF ALL CURB RETURNS, AND ABUTTING HARDENED IN-PLACE CURB AND GUTTER, EXCEPT THAT EXPANSION JOINTS SHALL NOT BE INSTALLED WITHIN 20 FEET OF AN ISLAND NOSE. EXPANSION JOINTS SHALL BE 1/2-INCH THICK, SHAPED TO THE CROSS SECTION OF THE CURB AND GUTTER, AND CONSTRUCTED AT RIGHT ANGLES TO THE CURB AND GUTTER. JOINT FILLER MATERIAL SHALL CONFORM TO SECTION 202.10. WEAKENED PLANE JOINTS SHALL BE EVERY 10 FEET AND LOCATED ON THE BACK, TOP AND EDGE OF THE CURB.
3. CURB AND GUTTER SECTIONS SHALL BE PLACED SEPARATELY FROM SIDEWALK SECTIONS.



- ALL STREETS WITH PAVEMENT CONDITION INDEX (PCI) GREATER THAN 65:**
7. TRANSVERSE PATCHES SHALL INCLUDE A GRIND AND OVERLAY WHEREVER THERE ARE MULTIPLE PATCHES WITHIN 30 FEET OF EACH OTHER. 2" MINIMUM FOR RESIDENTIAL, COLLECTORS & INDUSTRIALS. 3" MINIMUM FOR ARTERIALS.
 8. LONGITUDINAL PATCHES SHALL INCLUDE GRIND AND OVERLAY TO THE LANE LINES (BIKE, PARKING, OR TRAVEL). 2" MINIMUM FOR RESIDENTIAL, COLLECTORS & INDUSTRIALS. 3" MINIMUM FOR ARTERIALS.
 9. DRIVEWAY & INTERSECTION LIMITS TO BE DETERMINED BY STREET CUT COORDINATOR.

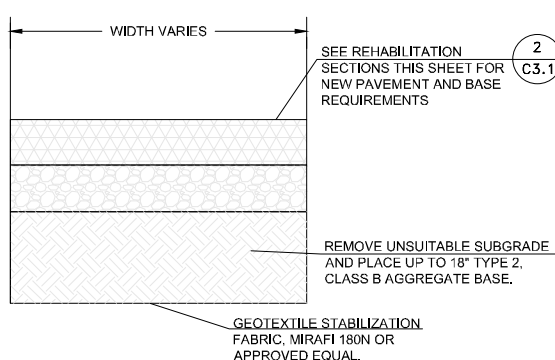
- STRUCTURAL PAVEMENT SECTION NOTES:**
- PLANTMIX BITUMINOUS PAVEMENT SHALL BE A TYPE 3, 50 BLOW, 3% AIR VOID MIX USING PG64-28HV ASPHALT CEMENT. AGGREGATES SHALL BE PRE-MARINATED WITH LIME PER NDOT SPECIFICATIONS. RECYCLED ASPHALT PAVEMENT (RAP) UP TO 15% WILL BE ALLOWED; HOWEVER, ALL VIRGIN AGGREGATES WILL BE SUBJECT TO LIME PRE-MARINATING PER NDOT SPECIFICATIONS.
- GEOTECHNICAL REPORT NOT PROVIDED. ROADWAY ASPHALT SECTION THICKNESS, AGGREGATE BASE, AND SUBGRADE PREPARATION HAS BEEN PROVIDED BY THE CITY OF SPARKS FOR ROADWAY IMPROVEMENTS. NO WARRANTIES OR GUARANTEES ARE IMPLIED OR PROVIDED FOR THE MATERIALS PERFORMANCE OF ROADWAY AREA. PLANS PROVIDE LIMITS OF ASPHALT, CURB AND GUTTER, AND REMOVAL OF PROPOSED IMPROVEMENTS ONLY.
- OVEREXCAVATE AND STABILIZE ANY UNSUITABLE SUBGRADE MATERIAL AS DIRECTED BY THE ENGINEER PRIOR TO PAVING OPERATIONS. REFERENCE DETAIL 5, SHEET C3.1.

1 PCC CURB AND GUTTER DETAIL
C3.1 N.T.S.

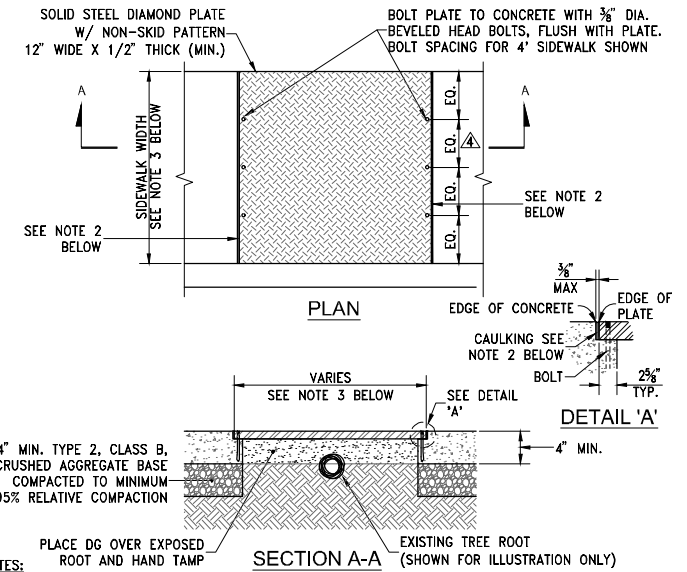
2 POST CURB
C3.1 N.T.S.

3 PAVEMENT PATCH DETAIL
C3.1 N.T.S.

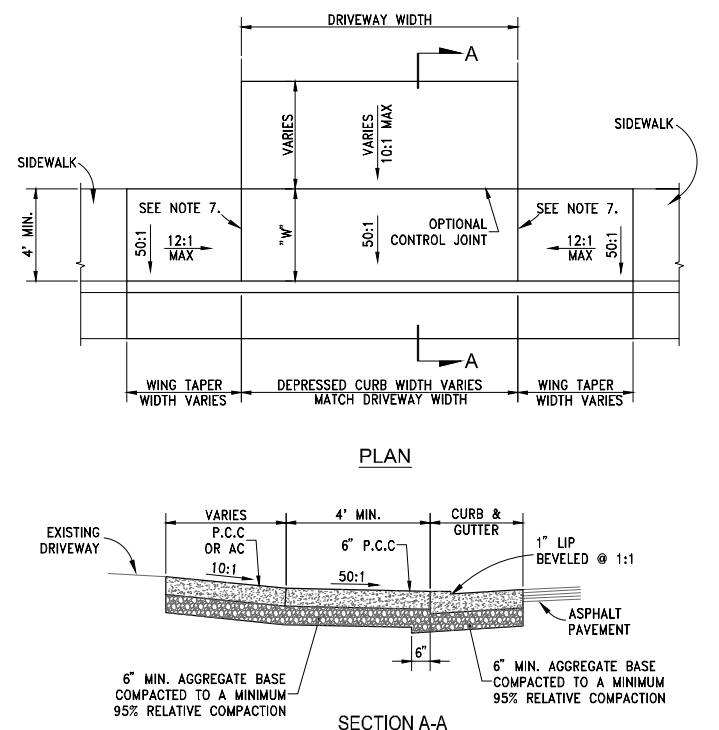
4 ASPHALT SECTION DETAIL
C3.1 16TH ST. & D ST. N.T.S.



TYPICAL STABILIZATION SECTION
NOTE: LIMITS OF OVEREXCAVATION, WIDTHS, AND DEPTH TO BE DETERMINED BY THE ENGINEER.



- NOTES:**
1. CONTRACTOR SHALL REMOVE ONLY THE EXISTING CONCRETE WITHIN THE ROOT MITIGATION LIMITS. THE CONTRACTOR SHALL EMPLOY AN ISA CERTIFIED ARBORIST TO PERFORM ROOT CROWN EXCAVATION / ROOT PRUNING. ISA CERTIFIED ARBORIST SHALL COORDINATE THIS WORK WITH THE CITY OF SPARKS URBAN FORESTER (334-2270).
 2. SET PLATE FLUSH WITH ADJACENT CONCRETE AND PROVIDE 3/8" MAX GAP BETWEEN STEEL PLATE AND EDGE OF SIDEWALK. FILL GAP WITH CAULKING AFTER PLACEMENT OF PLATE. CAULKING MATERIAL SHALL BE GE SILICONE II W/D SUPREME, OR APPROVED EQUAL. COLOR SHALL BE WHITE.
 3. ROOT PLATE WIDTH SHALL MATCH WIDTH OF SIDEWALK. ROOT PLATE LENGTH VARIES, FINAL LENGTH SHALL BE DETERMINED IN THE FIELD BY THE CERTIFIED ARBORIST AND ENGINEER.
 4. BOLTS: 3/8" DIA x 2 7/8" LONG DYNABOLT SLEEVE ANCHOR RAMSET REDHEAD FS-3826 OR APPROVED EQUAL SIDEWALK WIDER THAN 4FT, BOLTS SHALL BE PLACED AT 18" O.C. FOR WIDTH OF SIDEWALK.
 5. CONTRACTOR SHALL PROTECT TREES AT ALL TIMES, INCLUDING BUT NOT LIMITED TO TRUNKS, LIMBS AND ROOTS. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH REPAIR OR REMOVAL OF DAMAGED TREES DUE TO CONSTRUCTION ACTIVITIES.



7 P.C.C. DRIVEWAY APRON DETAIL
C3.1 N.T.S.

- NOTES:**
1. 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.
 2. AGGREGATE BASE MATERIAL UNDER DRIVEWAYS AND SIDEWALKS SHALL BE TYPE 2, CLASS B CRUSHED AGGREGATE BASE. ALL MATERIALS SHALL CONFORM TO SSPWC SECTION 200, AS ADOPTED BY CITY COUNCIL.
 3. RESIDENTIAL DRIVEWAYS SHALL BE POURED SEPARATE FROM CURB AND GUTTER.
 4. COMMERCIAL DRIVEWAYS MAY BE POURED MONOLITHIC WITH CURB AND GUTTER. COMMERCIAL DRIVEWAYS TO HAVE #4 BARS AT 18" ON CENTER LONGITUDINAL & TRANSVERSE EXTENDING INTO GUTTER PAN AND DRIVEWAY WINGS. MINIMUM 2" CONCRETE COVER FOR ALL REINFORCING BARS. WHEN COMMERCIAL DRIVEWAY APPROACH AND CURB & GUTTER IS POURED SEPARATELY, IT SHALL BE REQUIRED FOR EACH REINFORCING BAR TO BE DOWELED INTO ADJACENT CURB & GUTTER. DOWELS SHALL #4 REBAR, PENETRATE INTO CURB & GUTTER MINIMUM OF 6", SPACED AT 18" ON CENTER AND BE SECURELY TIED TO THE DRIVEWAY APPROACH REINFORCING.
 5. IF JOINT EXISTS WITHIN 4 FEET OF DRIVEWAY, REMOVE SIDEWALK AND CURB AND GUTTER TO THAT JOINT.
 6. ALL ADJACENT CONCRETE REMOVAL SHALL BE TO NEAT SAW CUT LINES AT RIGHT ANGLES. DOWEL INTO EXISTING ADJACENT CONCRETE DRIVEWAY APPROACH OR SIDEWALK WITH (2) No. 4 REINFORCEMENT BARS EQUALLY SPACED ACROSS WIDTH "W". DOWELS SHALL PENETRATE A MINIMUM OF 4" INTO EXISTING CONCRETE.
 7. WEAKENED PLANE JOINTS SHALL BE CONSTRUCTED AT 5 FT INTERVALS AND IN ACCORDANCE WITH SECTION 312 OF THE SSPWC, AS ADOPTED BY CITY COUNCIL.
 8. DETAIL S-111A SHALL NOT BE USED FOR NEW CONSTRUCTION UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.

8 P.C.C. DRIVEWAY APRON NOTES
C3.1 N.T.S.

5 OVEREXCAVATION SECTION FOR UNSUITABLE MATERIAL
C3.1 N.T.S.

6 SIDEWALK PLATE FOR TREE ROOT CLEARANCE
C3.1 N.T.S.



REVISIONS

DATE

MARK

PROFESSIONAL ENGINEER
MICHAEL J. WILHELM
Exp. 08-30-20
CIVIL
No. 16371
1/30/20

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NEVADA

SPARKS

CITY OF SPARKS
2020 CDBG STREET IMPROVEMENTS PROJECT
CIVIL DETAILS

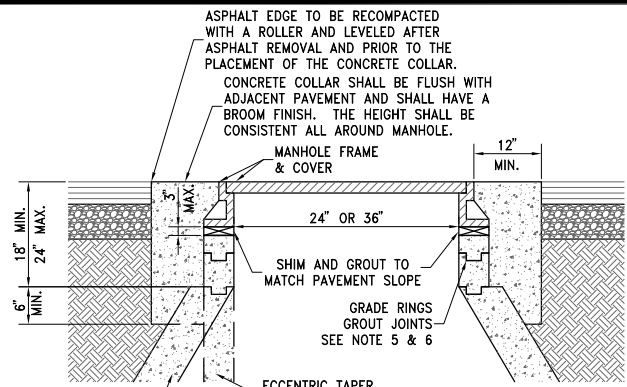
JOB NO. 17-107.00
DESIGNED BY BEH/CJ
CHECKED BY MW
DATE 01/21/2020

SHEET
C3.1

9

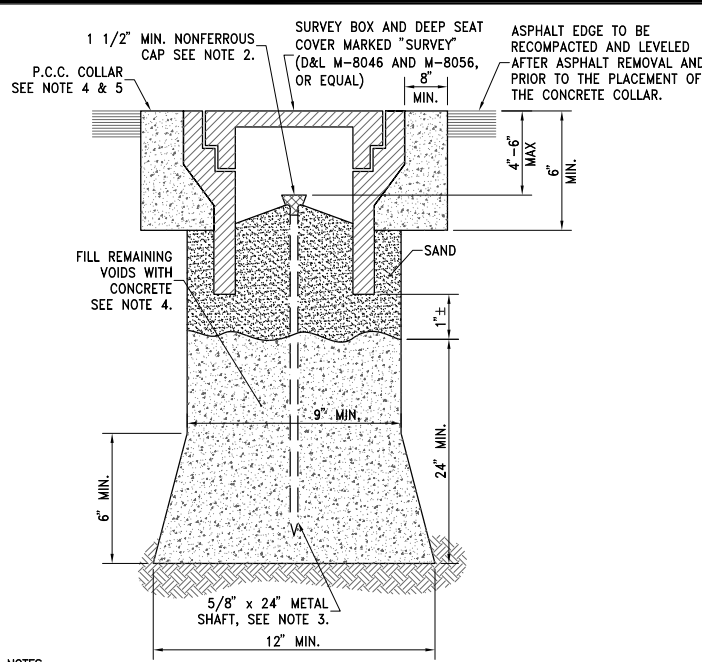
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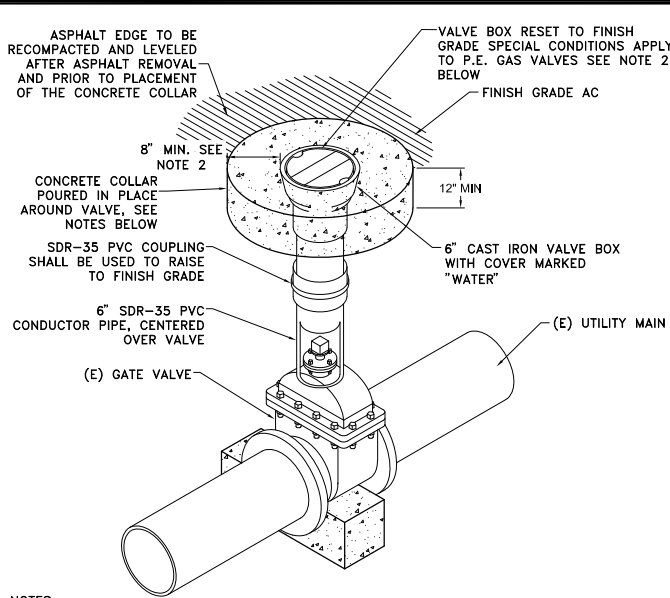
- NOTES:**
1. PORTLAND CEMENT CONCRETE (P.C.C.) SHALL HAVE THE FOLLOWING CHARACTERISTICS: 4000 PSI MIN. COMPRESSIVE STRENGTH AT 28 DAYS, MIN. 6 SACKS OF CEMENT PER CUBIC YARD WITH MAX. WATER-CEMENT RATIO OF 0.45, AIR ENTRAINMENT 6% ± 1.5%, SLUMP AT 1 TO 4 INCHES. MIX DESIGN SHALL CONFORM TO THE REQUIREMENTS 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.
 2. 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.
 4. EXISTING SANITARY SEWER MANHOLE LIDS LOCATED IN GUTTER PANS, SHALL HAVE NEW WATER TIGHT FRAMES AND COVERS.
 5. 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.
 6. 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.

1 MANHOLE COLLAR
C3.2 N.T.S.



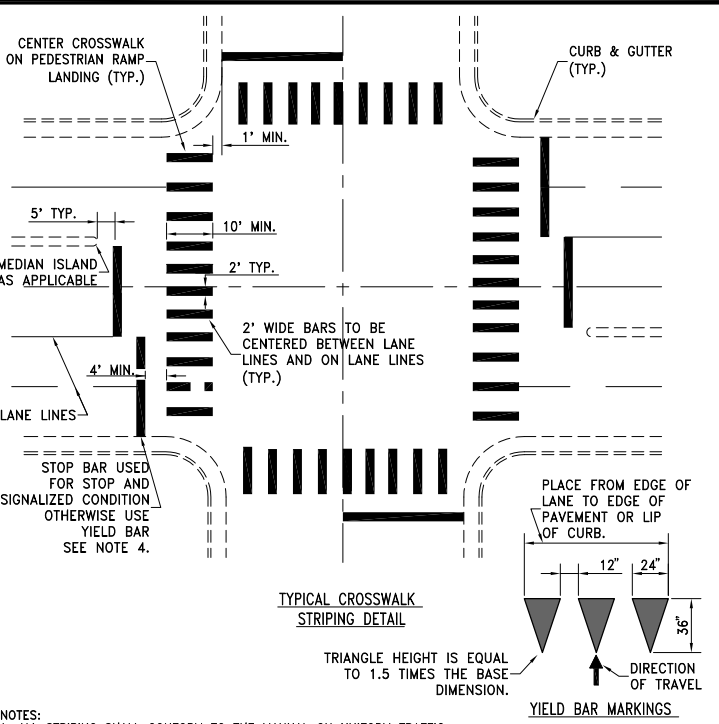
- NOTES:**
1. FERROUS METAL OVER MONUMENT FOR RECOVERY BY DIP NEEDLE OR MAGNETIC INSERT IN CAP.
 2. 1 1/2" MIN. NONFERROUS CAP WITH PROFESSIONAL LAND SURVEYOR NO. PERMANENTLY ATTACHED PRIOR TO PLACEMENT. PRE-PUNCHED CAPS SHALL NOT BE PERMITTED
 3. 5/8" METALLIC SHAFT (SMOOTH SHAFTS TO BE DEFORMED).
 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.

2 SURVEY MONUMENT
C3.2 N.T.S.



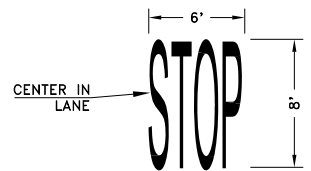
- NOTES:**
1. PORTLAND CEMENT CONCRETE (P.C.C.) SHALL HAVE THE FOLLOWING CHARACTERISTICS: 4000 PSI MIN. COMPRESSIVE STRENGTH AT 28 DAYS, MIN. 6 SACKS OF CEMENT PER CUBIC YARD WITH MAX. WATER-CEMENT RATIO OF 0.45, AIR ENTRAINMENT 6% ± 1.5%, SLUMP AT 1 TO 4 INCHES. MIX DESIGN SHALL CONFORM TO THE REQUIREMENTS 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.
 2. SPECIAL CONDITIONS APPLY TO P.E. GAS VALVES WITH TELESCOPING RISERS. CONTRACTORS SHALL NOT RAISE TO GRADE RISERS THAT HAVE BEEN CUT-OFF DURING LOWERING. RISERS CUT-OFF DURING LOWERING SHALL BE REMOVED COMPLETELY TO MAIN AND TAKEN TO NV ENERGY FOR EXACT MATERIAL REPLACEMENT PRIOR TO RAISING TO GRADE.
 3. FOR MULTIPLE VALVE/RISER BOXES IN CLOSE PROXIMITY, A MONOLITHIC CONCRETE COLLAR MAY BE POURED.

3 VALVE BOX COLLAR
C3.2 N.T.S.



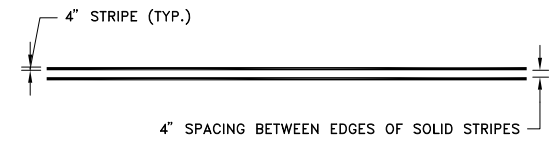
- NOTES:**
1. ALL STRIPING SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) FOR STREETS AND HIGHWAYS, LATEST EDITION.
 2. PREFORMED THERMOPLASTIC PAVEMENT MARKINGS SHALL BE INSTALLED PER MANUFACTURERS RECOMMENDATIONS AND IN ACCORDANCE WITH SECTION 634 OF THE LATEST EDITION OF "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" PUBLISHED BY THE STATE OF NEVADA, DEPARTMENT OF TRANSPORTATION (NDOT). EXCEPT ALL THERMOPLASTIC MARKINGS WILL BE 0.090 INCHES THICK, EXCEPT MARKING FOR BIKE LANES WHICH WILL BE 0.075 INCHES. HOT-APPLIED EXTRUDED THERMOPLASTIC SHALL NOT BE USED.
 3. CROSSWALK MARKINGS SHALL BE INSTALLED AT ALL LOCATIONS AS DIRECTED BY ENGINEER.
 4. PLACE 24" WIDE STOP BAR FOR SIGNALIZED CONTROL INTERSECTIONS. USE 24" WIDE STOP BAR FOR STOP CONTROL INTERSECTIONS. FOR YIELD CONDITION SEE YIELD MARKINGS ABOVE.

4 CROSSWALK LEGEND DETAIL
C3.2 N.T.S.



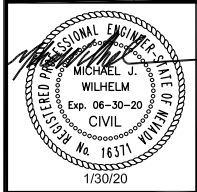
- NOTES:**
1. REFERENCE THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) 2009 EDITION FOR STRIPING AND SIGNAGE INSTALLATION.
 2. REFERENCE SHEET C1.1 FOR GENERAL NOTES.
 3. REMOVE ALL EXISTING STRIPING AND PAVEMENT MARKINGS WHICH CONFLICT WITH PROPOSED MARKINGS BY GRINDING.

5 "STOP" PAVEMENT MARKING DETAIL
C3.2 N.T.S.



6 DOUBLE YELLOW STRIPE DETAIL
C3.2 N.T.S.

BY	
REVISIONS	
DATE	
MARK	



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OF	9



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