

CITY OF SPARKS APPROVAL:

*[Signature]*  
JON R. ERICSON, P.E., P.T.O.E.  
CITY ENGINEER

12/12/22  
DATE:

# CIVIL IMPROVEMENT PLANS CITY OF SPARKS GLEN MEADOW DRIVE STORM DRAIN BID # 22/23-017 / PWP # WA-2023-113 SPARKS, WASHOE COUNTY, NEVADA

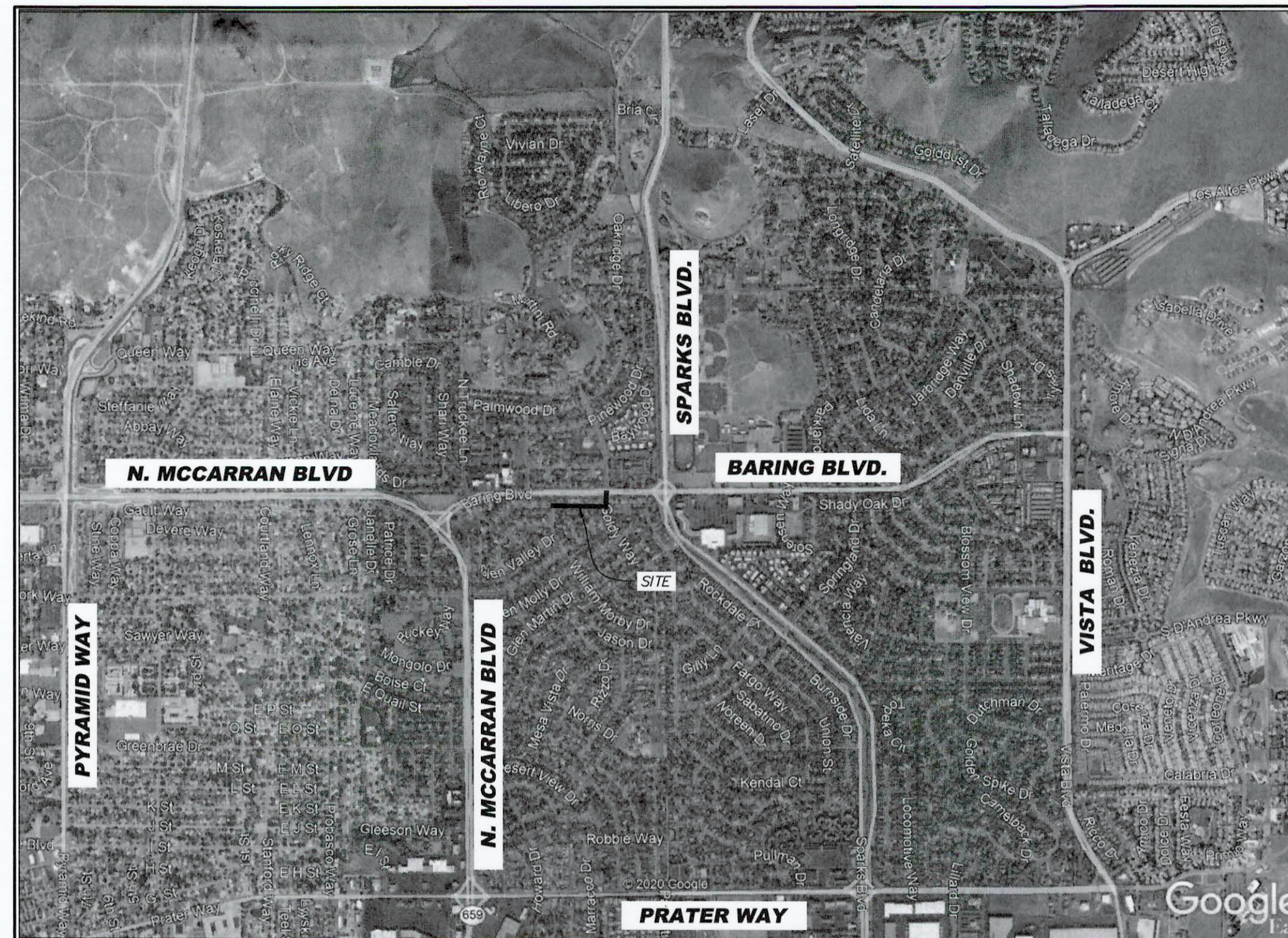
**OWNER**  
CITY OF SPARKS, PUBLIC WORKS  
431 PRATER WAY  
SPARKS, NV 89431  
(775) 353-2271

**CIVIL ENGINEER**  
ODYSSEY ENGINEERING, INC.  
895 ROBERTA LANE, SUITE 104  
SPARKS, NV 89431  
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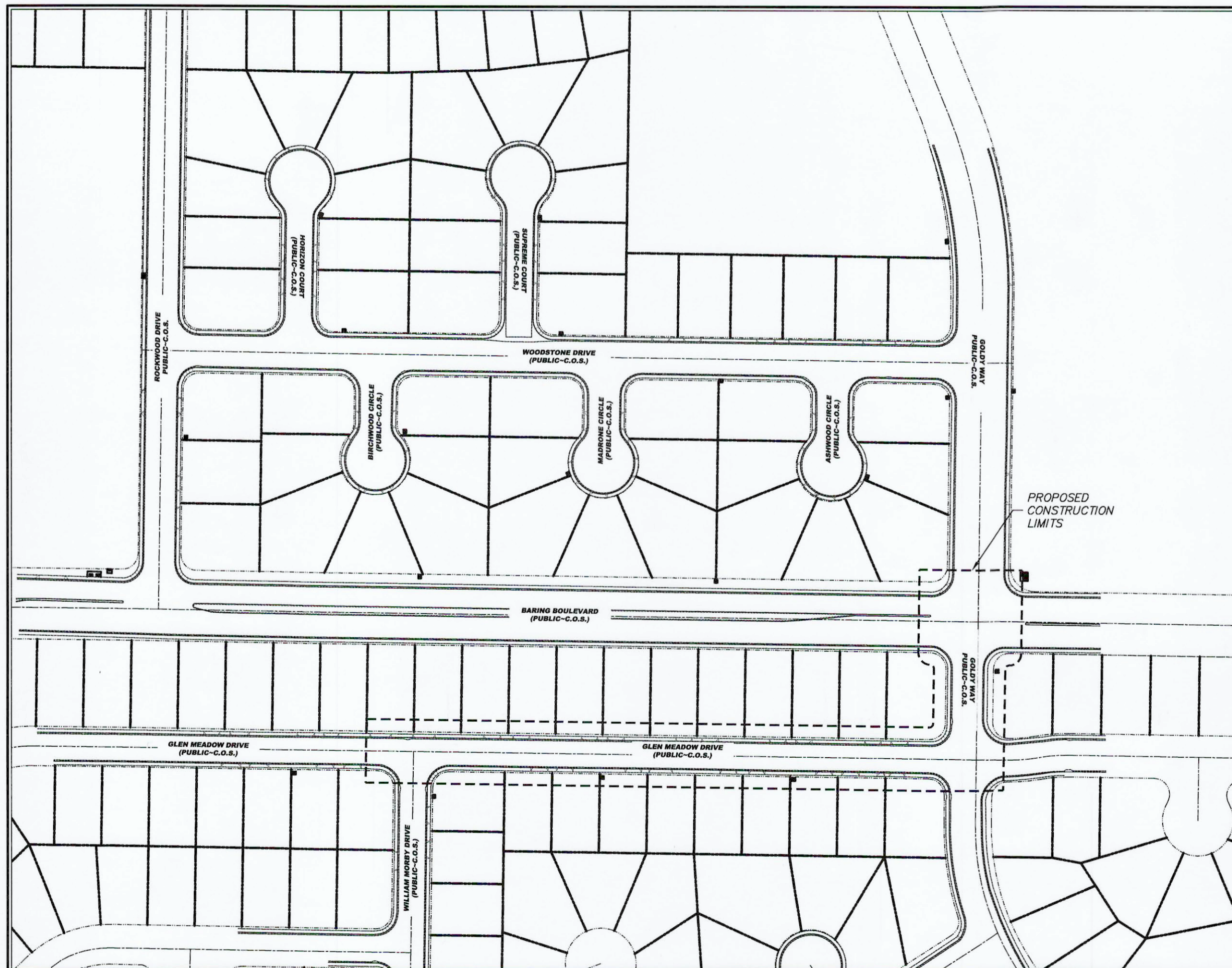
**ENGINEER OF RECORD**  
BLACK EAGLE CONSULTING, INC.  
1345 CAPITAL BOULEVARD, SUITE A  
RENO, NV 89502  
(775) 359-6600

## LIST OF ABBREVIATIONS

|          |                                |
|----------|--------------------------------|
| A.C.     | ASPHALTIC CONCRETE             |
| A.P.     | ANGLE POINT                    |
| B.C.     | BEGIN CURVE                    |
| B.F.C.   | BACK FACE CURB                 |
| B.V.C.   | BEGIN VERTICAL CURVE           |
| B.S.     | BACK OF SIDEWALK               |
| C.B.     | CATCH BASIN                    |
| C.       | CENTERLINE                     |
| CH       | CHORD                          |
| C.M.P.   | CORRUGATED METAL PIPE          |
| CONC.    | CONCRETE                       |
| CONST.   | CONSTRUCT                      |
| C.P.     | CONCRETE PIPE                  |
| D.I.     | DROP INLET                     |
| DET.     | DETAILS                        |
| D.W.     |                                |
| ELEV.    | ELEVATION                      |
| E.C.     | END OF CURVE                   |
| E.V.C.   | END VERTICAL CURVE             |
| EXIST.   | EXISTING                       |
| E.G.     | EXISTING GRADE                 |
| F.F.     | FINISH FLOOR                   |
| F.F.C.   | FRONT FACE CURB                |
| F.G.     | FINISH GRADE                   |
| F.H.     | FIRE HYDRANT                   |
| F.       | FLOW LINE                      |
| F.V.A.   | FLUSH VALVE ASSEMBLY           |
| G.       | GAS                            |
| G.B.     | GRADE BREAK                    |
| G.V.     | GATE VALVE                     |
| HORIZ.   | HORIZONTAL                     |
| H.P.     | HIGH POINT                     |
| INT.     | INTERSECTION                   |
| I.E.     | INVERT ELEVATION               |
| L.T.     | LEFT                           |
| L.       | LENGTH                         |
| L.F.     | LINEAL FEET                    |
| L.P.     | LOW POINT                      |
| L.S.     | LIGHT STANDARD                 |
| M.H.     | MANHOLE                        |
| P.       | PAD ELEVATION                  |
| P.I.     | POINT OF INTERSECTION          |
| P.O.     | PUSH ON                        |
| P.R.C.   | POINT OF REVERSE CURVATURE     |
| P.O.T.   | POINT OF TANGENT               |
| P.V.C.   | POLYVINYL CHLORIDE PIPE        |
| P.       | PROPERTY LINE                  |
| R.       | RADIAL                         |
| R.       | RADIUS                         |
| R.E.     | RECLAIMED EFFLUENT             |
| REF.     | REFERENCE                      |
| RET.     | RETURN                         |
| R.C.P.   | REINFORCED CONCRETE PIPE       |
| RT.      | RIGHT                          |
| R/W      | RIGHT OF WAY                   |
| S.D.C.O. | STORM DRAIN CLEAN OUT          |
| S.S.C.O. | SANITARY SEWER CLEAN OUT       |
| S.S.     | SANITARY SEWER                 |
| S.W.     | SIDEWALK                       |
| SHT.     | SHEET                          |
| STA.     | STATION                        |
| S.D.     | STORM DRAIN                    |
| T.       | TANGENT                        |
| T.C.     | TOP OF CURB                    |
| T.P.     | TOP OF PAVEMENT                |
| TYP.     | TYPICAL                        |
| VERT.    | VERTICAL                       |
| V.C.     | VERTICAL CURVE                 |
| V.P.I.   | VERTICAL POINT OF INTERSECTION |
| W.       | WATER                          |
| W.C.     | WASHOE COUNTY                  |
| W.S.E.   | WATER SURFACE ELEVATION        |



VICINITY MAP



SITE LAYOUT

## CIVIL SHEET INDEX

|      |       |                                     |
|------|-------|-------------------------------------|
| C0.0 | ..... | TITLE SHEET                         |
| C0.1 | ..... | GENERAL NOTES                       |
| C1.1 | ..... | W. GLEN MEADOW DR. DEMO PLAN        |
| C1.2 | ..... | E. GLEN MEADOW DR. DEMO PLAN        |
| C2.1 | ..... | W. GLEN MEADOW DRIVE PLAN & PROFILE |
| C2.2 | ..... | E. GLEN MEADOW DRIVE PLAN & PROFILE |
| C2.3 | ..... | S. GOLDY WAY PLAN & PROFILE         |
| C3.1 | ..... | PAVEMENT PLAN                       |
| C4.1 | ..... | STRIPING PLAN                       |
| C5.1 | ..... | DETAIL SHEET                        |
| C5.2 | ..... | DETAIL SHEET                        |
| C5.3 | ..... | DETAIL SHEET                        |
| C5.4 | ..... | DETAIL SHEET                        |
| C5.5 | ..... | DETAIL SHEET                        |
| C5.6 | ..... | DETAIL SHEET                        |

## TMWA SHEET INDEX

|     |       |                |
|-----|-------|----------------|
| W-1 | ..... | TITLE SHEET    |
| W-2 | ..... | PLAN & PROFILE |
| W-3 | ..... | DETAILS        |

## NV ENERGY SHEET INDEX

|     |       |  |
|-----|-------|--|
| E-1 | ..... | ELECTRICAL UTILITY RELOCATION SITE PLANE |
|-----|-------|--|

## BASIS OF BEARINGS

BASED ON THE NEVADA WEST COORDINATE SYSTEM OF 1983 (NAD 83) WITH A GRID TO GROUND FACTOR OF 1.000197939 APPLIED.

## BENCHMARK

BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988, (NAVD 88) USING THE CITY OF SPARKS GEODETIC CONTROL NETWORK "BM 85" WITH A PUBLISHED ELEVATION OF 4416.84.

## FLOOD ZONE:

THE PROPOSED PROJECT IS LOCATED WITHIN A FEMA UNSHADED ZONE X PER FIRM MAP PANELS 332031C3061G WITH AN EFFECTIVE DATE OF MARCH 16, 2009.

## SPECIFICATIONS

ALL CONSTRUCTION SHALL CONFORM TO THE STANDARD SPECIFICATIONS, AND THE LATEST STANDARD DETAILS, FOR PUBLIC WORKS CONSTRUCTION (2012 EDITION AND ANY APPURTENANT SUPPLEMENTS) SPONSORED AND DISTRIBUTED BY RENO, SPARKS, AND WASHOE COUNTY, THE CITY OF RENO PUBLIC WORKS DESIGN MANUAL & SUPPLEMENTAL STANDARD DRAWING DETAILS, REVISED JANUARY, 2009, AND THE GEOTECHNICAL INVESTIGATION ENTITLED "GOLDY WAY AND BARING BOULEVARD STORM DRAIN AND SANITARY SEWER IMPROVEMENTS", PREPARED BY BLACK EAGLE CONSULTING, INCORPORATED., DATED JULY 15TH, 2020.

## ENGINEER'S CERTIFICATE

THESE PLANS (SHEETS C0.0 OF 15 THRU C5.6 OF 15) HAVE BEEN PREPARED IN ACCORDANCE WITH ACCEPTED ENGINEERING PROCEDURES AND GUIDELINES, AND ARE IN SUBSTANTIAL COMPLIANCE WITH APPLICABLE STATUTES, CITY ORDINANCES, STANDARDS, AND CITY CODE. IN THE EVENT OF CONFLICT BETWEEN ANY PORTION OF THESE PLANS AND CITY CODE, CITY STANDARDS SHALL PREVAIL.

ERIC C. WILKINSON, P.E.

P.E. #30263

| REV. | DATE | DESCRIPTION | BY | APP'D |
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|              |           |
|--------------|-----------|
| DATE:        | DEC. 2022 |
| DRAWN BY:    | E.C.W.    |
| DESIGNED BY: | E.C.W.    |
| CHECKED BY:  | E.C.W.    |

BID SET  
C.O.S. GLEN MEADOW DRIVE  
STORM DRAIN  
TITLE SHEET  
SPARKS  
WASHOE  
NEVADA

895 ROBERTA LANE, SUITE 104, SPARKS, NV 89431  
(775) 359-3303 FAX (775) 359-3329  
ODYSSEY.ENG.COM

**odyssey**  
ENGINEERING  
INCORPORATED

SCALE  
HORIZ. -  
VERT. -  
JOB NO. -  
SHEET  
C0.0  
OF  
15



**GENERAL NOTES:**

- CONTRACTOR SHALL PROVIDE ALL MATERIALS, EQUIPMENT, LABOR, AND INCIDENTALS REQUIRED TO CONSTRUCT THE IMPROVEMENTS AS SHOWN ON THE IMPROVEMENT PLANS AND ALL WORK SHALL BE ACCOMPLISHED IN STRICT ACCORDANCE WITH THE SPECIFICATIONS SET FORTH IN THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 2012 (ORANGE BOOK 2012), TMAA ENGINEERING & CONSTRUCTION STANDARDS, NV ENERGY GAS AND ELECTRIC STANDARDS, AND THE PROJECT GEOTECHNICAL INVESTIGATION TITLED "GOLDY WAY AND BARING BOULEVARD STORM AND SANITARY SEWER IMPROVEMENTS, SPARKS, NV," DATED JULY 15, 2020, BY BLACK EAGLE CONSULTING, INC.
- ENGINEER WILL PROVIDE CONSTRUCTION SURVEY STAKING OF CRITICAL POINTS AS IDENTIFIED WITH NORTING AND EASTING COORDINATES, AND/OR STATION OFFSET COORDINATES IN THE IMPROVEMENT PLANS. THESE POINTS INCLUDE MANHOLE(S), CATCH BASIN(S), VALVE(S), TEE(S), AND/OR ELBOWS. ADDITIONAL STAKING AND/OR SURVEY TO CONSTRUCT THE PROJECT, INCLUDING VERTICAL ELEVATION STAKING, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- THESE PLANS, SHEET C.O.0 OF 19 THROUGH E-1 OF 19 HAVE BEEN PREPARED IN ACCORDANCE WITH ACCEPTED ENGINEERING PROCEDURES AND GUIDELINES, AND ARE IN SUBSTANTIAL COMPLIANCE WITH APPLICABLE STATUTES, CITY ORDINANCES OR STANDARDS, IN THE EVENT OF CONFLICT BETWEEN ANY PORTION OF THESE PLANS AND CITY OF SPARKS, TMAA OR NV ENERGY STANDARDS, THE STANDARDS SHALL APPLY AND THE ENGINEER SHALL BE CONTACTED IMMEDIATELY.
- THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; AND THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY, AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE OWNER AND ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE NEGLIGENCE OF THE OWNER OR ENGINEER.
- THE CONTRACTOR SHALL NOTIFY ALL ENTITIES INVOLVED (PUBLIC AND PRIVATE) 48 HOURS PRIOR TO THE BEGINNING OF CONSTRUCTION, AND PROVIDE 48 HOURS PRIOR NOTICE FOR ALL SURVEYING AND INSPECTIONS DURING CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXCAVATION AND SHORING PROCEDURES AND CONFORM TO THE LATEST O.S.H.A. REQUIREMENTS.
- THE CONTRACTOR SHALL MAINTAIN AN ONGOING DUST CONTROL PROGRAM, INCLUDING WATERING OF OPEN AREAS, IN ORDER TO CONFORM WITH THE LATEST STATE AND COUNTY AIR POLLUTION REGULATIONS THE CONTRACTOR SHALL HAVE A DUST CONTROL PLAN APPROVED BY THE WASHOE COUNTY HEALTH DISTRICT, AIR POLLUTION CONTROL DIVISION PRIOR TO COMMENCEMENT OF ANY WORK.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE, PERMIT AND IMPLEMENT A STORM WATER POLLUTION PREVENTION PLAN (S.W.P.P.P.) IN CONFORMANCE WITH FEDERAL, STATE, AND LOCAL REQUIREMENTS. THE CONTRACTOR SHALL MAINTAIN EXISTING BEST MANAGEMENT PRACTICES (B.M.P.) IMPROVEMENTS THAT ARE IN PLACE, AND SHALL PROVIDE AND MAINTAIN ADDITIONAL B.M.P.'S AS REQUIRED TO IMPLEMENT THE S.W.P.P.P.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DAILY REMOVAL OF ALL CONSTRUCTION MATERIALS SPILLED ON PAVED STREETS, ON-SITE AND OFF-SITE.
- THE CONTRACTOR SHALL PURSUE THE WORK IN A CONTINUOUS AND DILIGENT MANNER, CONFORMING TO ALL PERTINENT SAFETY REGULATIONS, TO INSURE A TIMELY COMPLETION OF THE PROJECT.
- ALL EXISTING UTILITY LOCATIONS, SIZES, AND DESCRIPTIONS AS SHOWN ON THESE DRAWINGS ARE FROM SURFACE OBSERVATIONS USED IN CONNECTION WITH AVAILABLE RECORDS, REFERENCE MAPS, DRAWINGS AND VERBAL STATEMENTS SUPPLIED BY UTILITY COMPANIES, AND MAYBE WHOLLY ACCURATE OR REALIZABLE, THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES WHOSE WORK MAY BE AFFECTED BY THE WORK TO OBTAIN ASSISTANCE IN LOCATING EXISTING MAINS AND SERVICE CONNECTIONS. THE CONTRACTOR SHALL ALSO CALL U.S.A. (811) PRIOR TO BEGINNING WORK.
- IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY ALL EXISTING GRADES PRIOR TO CONSTRUCTION. IF ANY DISCREPANCY OCCURS CONTACT THE ENGINEER IMMEDIATELY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION SIGNING, BARRICADES AND TRAFFIC DELINEATION TO CONFORM TO THE STATE OF NEVADA, DEPARTMENT OF TRANSPORTATION "NEVADA WORK ZONE TRAFFIC CONTROL MANUAL" AND CITY OF SPARKS STANDARDS.
- THE CONTRACTOR SHALL, AT ALL TIMES DURING CONSTRUCTION PROTECT FROM DAMAGE EXISTING IMPROVEMENTS ON AND AROUND THE SITE, INCLUDING, BUT NOT LIMITED TO, PAVEMENT, CURB AND GUTTER, SIDEWALKS, LANDSCAPING, SIGNAGE, STORM, AND SANITARY SEWER, AND ALL UTILITIES. THE CONTRACTOR SHALL ASSUME SOLE RESPONSIBILITY FOR THE REPAIR OF ANY IMPROVEMENTS (EXISTING OR PROPOSED) DAMAGED THROUGHOUT THE COURSE OF CONSTRUCTION.
- THE CONTRACTOR SHALL PROVIDE AND MAINTAIN AT ALL TIMES EMERGENCY ACCESS TO THE PROJECT SITE TO THE SATISFACTION OF THE CITY OF SPARKS FIRE DEPARTMENT.
- THE CONTRACTOR SHALL UPON COMPLETION OF THE PROJECT, PREPARE AND SUBMIT TO THE OWNER RECORD DRAWINGS INDICATING BY DIMENSION AND DESCRIPTION ANY FACILITY CONSTRUCTED CONTRARY TO THAT SHOWN ON THESE PLANS.
- THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL MATERIALS TO BE USED ON THE SITE TO INCLUDE, BUT NOT BE LIMITED TO A.C. AND P.C.C. MIX DESIGN, AGGREGATE BASE QUALIFICATIONS, PRECAST CONCRETE, CAST IRON GRATE AND COVERS, AND PIPING TO THE PROJECT ENGINEER FOR APPROVAL PRIOR TO THE MANUFACTURE OR USE OF SUCH ITEMS.
- INSPECTION REQUIREMENTS SHALL BE IN ACCORDANCE WITH CITY OF SPARKS STANDARDS OR THE ORANGE BOOK, WHICH EVER IS THE MORE STRINGENT.
- SHOULD AN OBVIOUS PROBLEM BE OBSERVED, THE ENGINEER OF RECORD SHALL BE INFORMED IMMEDIATELY, AND THE ENGINEER OF RECORD SHALL REQUIRE CORRECTIVE ACTION.

**UTILITY NOTES:**

- ALL SANITARY SEWER LATERALS SHALL BE 4" PVC (SDR-35) AND SHALL HAVE A MINIMUM GRADE OF 2.00%.
- ALL WATER AND SEWER LINES SHALL HAVE A MINIMUM OF A 10' HORIZONTAL SEPARATION OR AN 18" VERTICAL SEPARATION AT CROSSINGS. IN THE EVENT THAT THE WATER MAIN IS TO CROSS BELOW OR WITHIN 18" OF THE SANITARY SEWER MAIN, THE CONTRACTOR SHALL FOLLOW THE STANDARDS SET FORTH BY TMAA.
- ALL STREET AND COURTS SHOWN HEREON ARE PUBLIC AND MAINTAINED BY THE CITY OF SPARKS.
- PVC SEWER PIPE SHALL BE CLASS SDR-35 UNLESS OTHERWISE NOTED AND CONFORM TO ASTM D3034. INSTALLATION SHALL BE IN ACCORDANCE WITH UNIBELL PLASTIC PIPE ASSOCIATION STANDARD AND RECOMMENDED PRACTICES.
- PVC SDR35 STORM DRAIN PIPE MAY BE SUBSTITUTED TO HDPE OR CLASS III RCP BASED ON MATERIAL AVAILABILITY. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY SUBSTITUTIONS PRIOR TO THE START OF CONSTRUCTION.
- ALL REINFORCED CONCRETE PIPE SHALL BE CLASS III UNLESS OTHERWISE NOTED.
- ALL EXISTING UTILITIES BEING TIED INTO SHALL BE EXPOSED TO CHECK FOR GRADE CONFORMANCE TO THOSE SHOWN ON THE PLANS. IF A DISCREPANCY OCCURS, CONTACT THE ENGINEER IMMEDIATELY BEFORE PROCEEDING.
- THE CONTRACTOR SHALL HAVE EXISTING UTILITIES LOCATED BY CALLING "USA" TOLL FREE AT (1-800-227-2600).
- GAS AND ELECTRIC SHOWN HEREON ARE SCHEMATIC ONLY. DESIGN SHALL BE BY NV ENERGY.
- THE GAS AND WATER SHALL BE OWNED AND MAINTAINED BY NV ENERGY AND TMAA. CONSTRUCTION OF THE WATER SYSTEM SHALL BE COORDINATED WITH TMAA.
- ALL SANITARY SEWER MAINS ARE TO BE MAINTAINED BY THE CITY OF SPARKS.
- THE CONTRACTOR SHALL PERFORM AN AIR PRESSURE TEST FOR THE SANITARY SEWER MAINS PER THE CITY OF SPARKS REQUIREMENTS. THE TEST SHALL BE PERFORMED IN THE PRESENCE OF THE CITY ENGINEER.
- ALL PVC SANITARY SEWER PIPE SHALL BE BALLED MANDREL TESTED PER CITY OF SPARKS REQUIREMENTS.
- ALL STORM DRAINAGE FACILITIES LOCATED WITHIN THE PUBLIC RIGHT-OF-WAY ARE TO BE MAINTAINED BY THE CITY OF SPARKS.
- REFER TO THE APPROPRIATE STREET IMPROVEMENT SHEET FOR INVERT ELEVATIONS OF ALL SEWER AND STORM DRAIN FACILITIES.
- SEE PROFILE PLANS FOR VERTICAL AND HORIZONTAL DATA.
- ALL PVC WATER PIPE SHALL BE PRESSURE TESTED IN ACCORDANCE WITH TMAA CONSTRUCTION STANDARDS.
- ALL STORM DRAIN LATERALS 15" AND SMALLER SHALL CONNECT TO THE MAIN LINE USING AN INSERT TEE, TEE FITTING OR AT A MANHOLE. CUTTING PIPE, INSERTING LATERAL, AND SEALING WITH CONCRETE SHALL NOT BE ALLOWED.
- ALL EXISTING UNDER GROUND SANITARY SEWER AND STORM DRAIN FACILITIES TO BE ABANDONED IN PLACE SHALL BE GROUT FILLED.

**PROJECT ASBESTOS CEMENT PIPE (ACP) REMOVAL, HANDLING AND DISPOSAL REQUIREMENTS:**

- IF ASBESTOS CEMENT PIPE (ACP) (AKA TRANSITE), AND/OR PIPE WITH COATINGS CONTAINING ASBESTOS ARE TO BE RETIRED THEY SHALL BE LEGALLY REMOVED, STORED, TRANSPORTED AND DISPOSED OF PER APPLICABLE OSHA, WASHOE COUNTY AND THESE REQUIREMENTS.
- ONLY EMPLOYEES TRAINED AND CURRENTLY CERTIFIED IN THE HANDLING AND DISPOSAL OF ASBESTOS CONTAINING MATERIALS SHALL CONDUCT ANY WORK RELATED TO THE REMOVAL, STORAGE AND DISPOSAL OF ASBESTOS MATERIAL.
  - THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE CURRENT ASBESTOS ABATEMENT CERTIFICATES SUBMITTALS FOR EACH EMPLOYEE THAT WILL CONDUCT WORK ON PIPE CONTAINING ASBESTOS MATERIALS.
  - ANY WORK ON THE REMOVAL OF PIPE CONTAINING ASBESTOS BY UNAUTHORIZED EMPLOYEES NOT CURRENTLY CERTIFIED SHALL RESULT IN AN IMMEDIATE STOP WORK ORDER WITH NO ADDITIONAL COST TO TMAA FOR STANDBY TIME, ADDED DELAYS, BACKFILLING/RE-EXCAVATION, STEEL PLATES AND/OR ANY WORK NEEDED TO SECURE THE SITE UNTIL PROPERLY TRAINED PERSONNEL CAN COMPLETE THE WORK.
- ASBESTOS ABATEMENT, HANDLING, STORAGE AND DISPOSAL PLAN (AAHSD): THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE A AAHSD SUBMITTAL THAT A MINIMUM SHALL CONTAIN THE FOLLOWING:
  - LIST OF ALL EMPLOYEES THAT ARE TRAINED AND CURRENTLY CERTIFIED IN ASBESTOS ABATEMENT, HANDLING AND DISPOSAL.
  - METHOD(S) TO CUT AND REMOVE PIPE MATERIALS CONTAINING ASBESTOS.
  - METHODS TO PROTECT EMPLOYEES AND/OR PUBLIC FROM EXPOSURE.
  - METHODS TO STORE ON-SITE IF NOT GOING DIRECTLY TO LANDFILL.
  - WASTE MANIFEST THAT DOCUMENTS LOCATION REMOVED, QUANTITIES, WHERE/WHEN STORED, WHEN DISPOSED AT LANDFILL AND LANDFILL DISPOSAL TICKET.
  - A "ASBESTOS CEMENT PIPE (AKA TRANSITE) AND/OR PIPE WITH COATINGS CONTAINING ASBESTOS LOG" WILL BE PROVIDED THAT WILL NEED TO BE COMPLETED BY CONTRACTOR FOR EACH LOCATION PIPE CONTAINING ASBESTOS IS REMOVED. THIS LOG DOCUMENTS REMOVAL AND ON-SITE STORAGE IF NOT TAKEN DIRECTLY TO LANDFILL AND IS ADDITION TO THE WASTE MANIFEST THAT DOCUMENTS FINAL DISPOSAL IN AN APPROVED LANDFILL. THIS FORM MUST BE COMPLETED/SIGNED BY THE CONTRACTOR'S DESIGNATED ASBESTOS TRAINED/CERTIFIED PERSONNEL (PLEASE REFERENCE THE LOG SHEET BELOW)

**ASBESTOS CEMENT PIPE (AKA TRANSITE) AND/OR PIPE WITH COATINGS CONTAIN ASBESTOS LOG**

**DATE OF REMOVAL:** \_\_\_\_\_

**LOCATION OF REMOVAL:** \_\_\_\_\_

**PIPE DIAMETER AND LENGTH:** \_\_\_\_\_

**BROKEN PIECES APPROXIMATE VOLUME (CUBIC FEET):** \_\_\_\_\_

**MISC INFORMATION:** \_\_\_\_\_

**PIPE BAGGED/WRAPPED:** \_\_\_\_\_

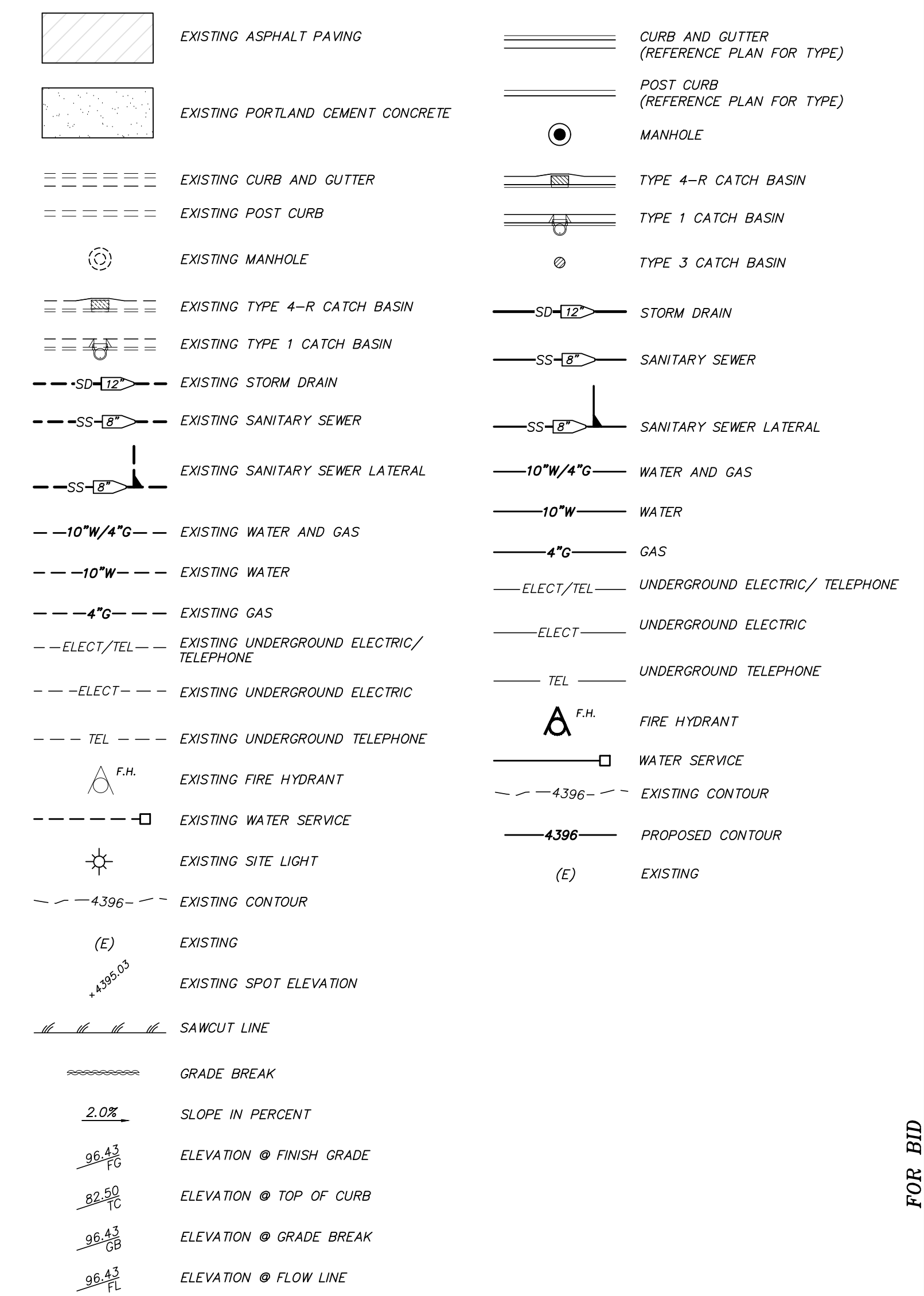
**PIPE STORED PRIOR TO LANDFILL (SPECIFY LOCATION BELOW):** YES \_\_\_\_\_ NO \_\_\_\_\_ DATE \_\_\_\_\_

**ON-SITE DISPOSAL LOCATION PRIOR TO LANDFILL:** \_\_\_\_\_

**PRINT ASBESTOS TRAINED/CERTIFIED EMPLOYEE (NAME/NUMBER):** \_\_\_\_\_

**EMPLOYEE SIGNATURE (ASBESTOS TRAINED/CERTIFIED)** \_\_\_\_\_ **DATE** \_\_\_\_\_

**GENERAL LEGEND:**



| REV. | DATE | DESCRIPTION | BY | APP'D |
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|                     |                    |
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| DATE: DEC. 2022     | DATE: _____        |
| DRAWN BY: E.C.W.    | DRAWN BY: _____    |
| DESIGNED BY: E.C.W. | DESIGNED BY: _____ |
| CHECKED BY: E.C.W.  | CHECKED BY: _____  |

FOR BID

**C.O.S. GLEN MEADOW DRIVE  
STORM DRAIN  
GENERAL NOTES**

SPARKS WASHOE NEVADA

885 ROBERTA LANE, SUITE 104, SPARKS, NV 89431  
(775) 369-3303 FAX (775) 359-3329  
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**odyssey**  
ENGINEERING  
INCORPORATED

PROFESSIONAL ENGINEER - STATE OF NEVADA  
**ERIC C. WILKINSON**  
Exp. 6-30-24  
CIVIL  
No. 30283

SCALE: -  
HORIZ. -  
VERT. -  
JOB NO. -  
SHEET **C0.1** OF **15**



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| DATE: DEC. 2022  | DESIGNED BY: E.C.W. | CHECKED BY: E.C.W. |
| DRAWN BY: E.C.W. |                     |                    |

**C.O.S. GLEN MEADOW DRIVE  
STORM DRAIN  
E. GLEN MEADOW DEMO PLAN**

SPARKS WASHOE NEVADA

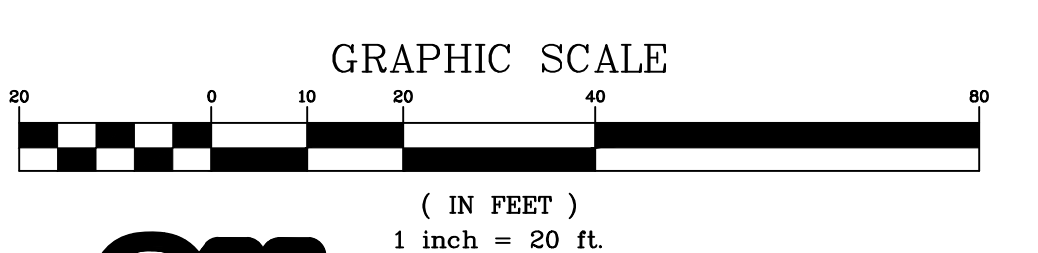
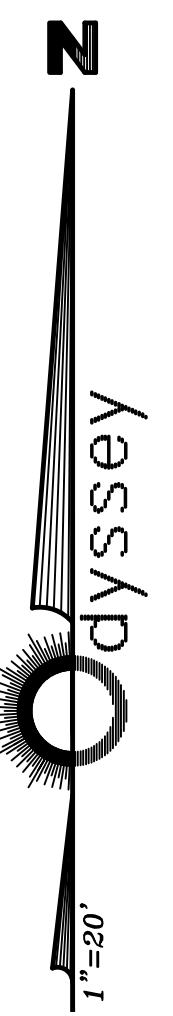
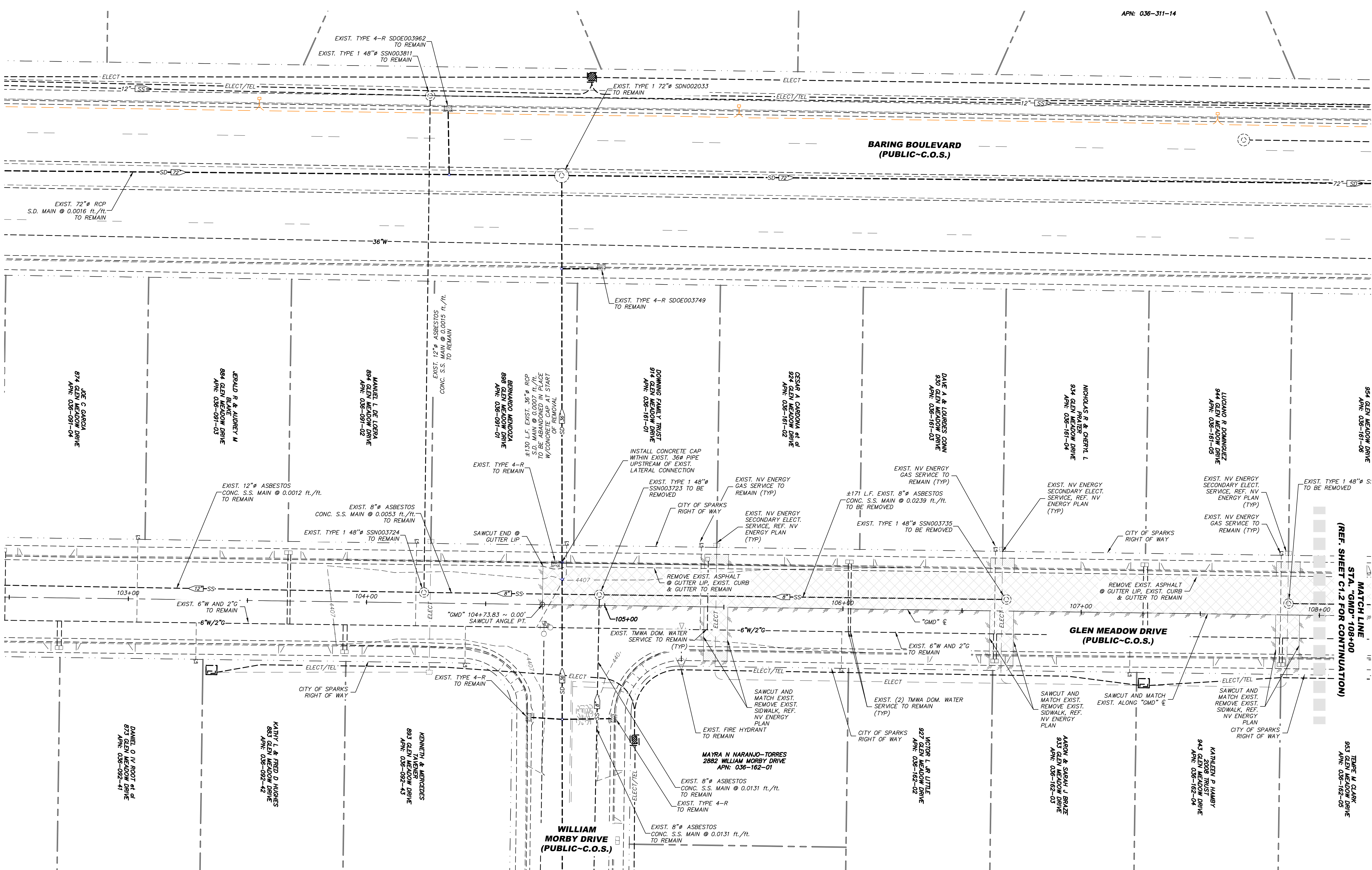
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**Odyssey ENGINEERING INCORPORATED**

PROFESSIONAL ENGINEER - STATE OF NEVADA  
**ERIC C. WILKINSON**  
Exp. 6-30-24  
No. 30263

SCALE  
HORIZ. 1"=20'  
VERT. -  
JOB NO. -  
SHEET  
**C1.1**  
OF  
**15**



- NOTES:**
- REFERENCE SHEET C0.1 FOR ALL RELEVANT DEMO NOTES.
  - REFERENCE SHEET C0.1 FOR ALL CENTERLINE INFORMATION
  - REFERENCE NV ENERGY PLAN FOR ELECTRICAL PRIMARY AND SECONDARY REPLACEMENT
  - REFERENCE TMWA PLAN FOR WATER MAIN REMOVAL

- LEGEND:**
- SD--- EXISTING STORM DRAIN REMOVAL
  - SS--- EXISTING SANITARY SEWER REMOVAL
  - 10"W/4"G--- EXISTING WATER AND GAS
  - 10"W--- EXISTING WATER
  - 4"G--- EXISTING GAS
  - ELECT/TEL--- EXISTING UNDERGROUND ELECTRIC/TELEPHONE
  - ELECT--- EXISTING UNDERGROUND ELECTRIC
  - TEL--- EXISTING UNDERGROUND TELEPHONE
  - F.H. EXISTING FIRE HYDRANT
  - 4396--- EXISTING CONTOUR
  - (E) EXISTING
  - 4396.03--- EXISTING SPOT ELEVATION
  - SAWCUT LINE
  - EXISTING TYPE 4-R CATCH BASIN
  - EXISTING TYPE 1 CATCH BASIN
  - EXISTING ASPHALT PAVING REMOVAL
  - EXISTING CONCRETE REMOVAL
  - SD--- EXISTING STORM DRAIN REMOVAL
  - SS--- EXISTING SANITARY SEWER REMOVAL
  - ===== EXISTING CURB AND GUTTER
  - ===== EXISTING POST CURB
  - EXISTING MANHOLE
  - EXISTING WATER SERVICE
  - EXISTING SITE LIGHT
  - EXISTING

**LEGEND:**

- EXISTING ASPHALT PAVING REMOVAL
- EXISTING CONCRETE REMOVAL
- EXISTING STORM DRAIN REMOVAL
- EXISTING SANITARY SEWER REMOVAL
- EXISTING CURB AND GUTTER
- EXISTING POST CURB
- SAWCUT LINE
- EXISTING MANHOLE
- EXISTING TYPE 4-R CATCH BASIN
- EXISTING TYPE 1 CATCH BASIN
- EXISTING STORM DRAIN TO REMAIN
- EXISTING SANITARY SEWER TO REMAIN
- EXISTING WATER AND GAS
- EXISTING WATER
- EXISTING GAS
- EXISTING UNDERGROUND ELECTRIC/TELEPHONE
- EXISTING UNDERGROUND ELECTRIC
- EXISTING UNDERGROUND TELEPHONE
- EXISTING FIRE HYDRANT
- EXISTING WATER SERVICE
- EXISTING SITE LIGHT
- EXISTING CONTOUR
- EXISTING
- EXISTING SPOT ELEVATION

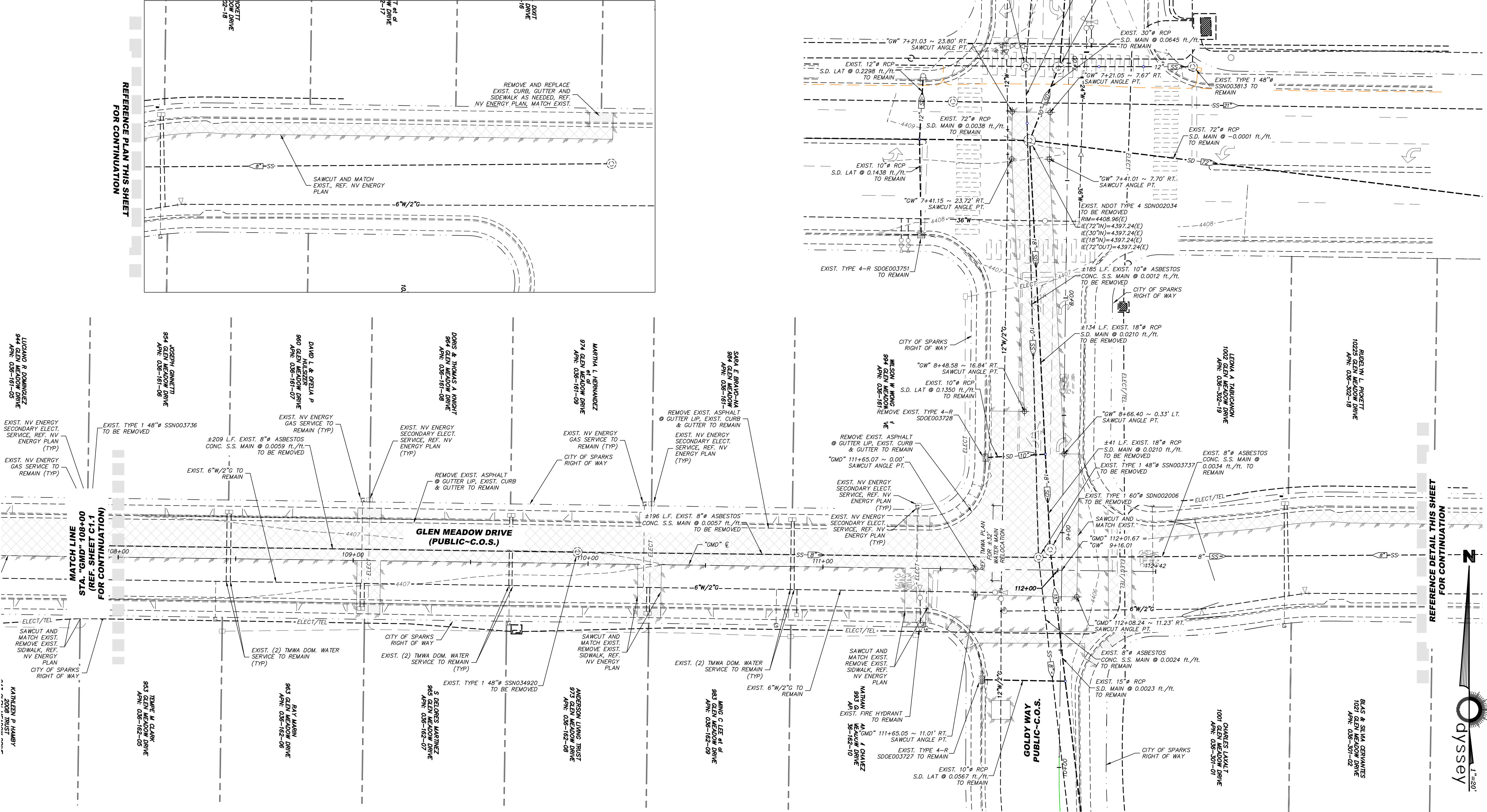
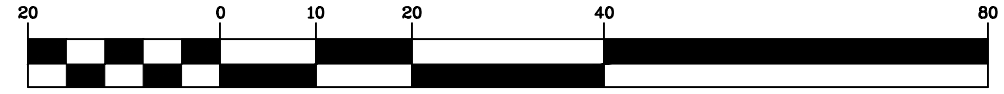
**NOTES:**

- REFERENCE SHEET C0.1 FOR ALL RELEVANT DEMO NOTES.
- REFERENCE SHEET C0.1 FOR ALL CENTERLINE INFORMATION
- REFERENCE NV ENERGY PLAN FOR ELECTRICAL PRIMARY AND SECONDARY REPLACEMENT
- REFERENCE TMWA PLAN FOR WATER MAIN REMOVAL



Know what's below.  
Call before you dig.

GRAPHIC SCALE



REFERENCE PLAN THIS SHEET FOR CONTINUATION

REFERENCE DETAIL THIS SHEET FOR CONTINUATION

| DATE      | BY          | APP'D |
|-----------|-------------|-------|
| DEC. 2022 | E.C.W.      |       |
| DATE      | DESCRIPTION |       |
| REV.      |             |       |

FOR BID

C.O.S. GLEN MEADOW DRIVE  
STORM DRAIN  
W. GLEN MEADOW DEMO PLAN

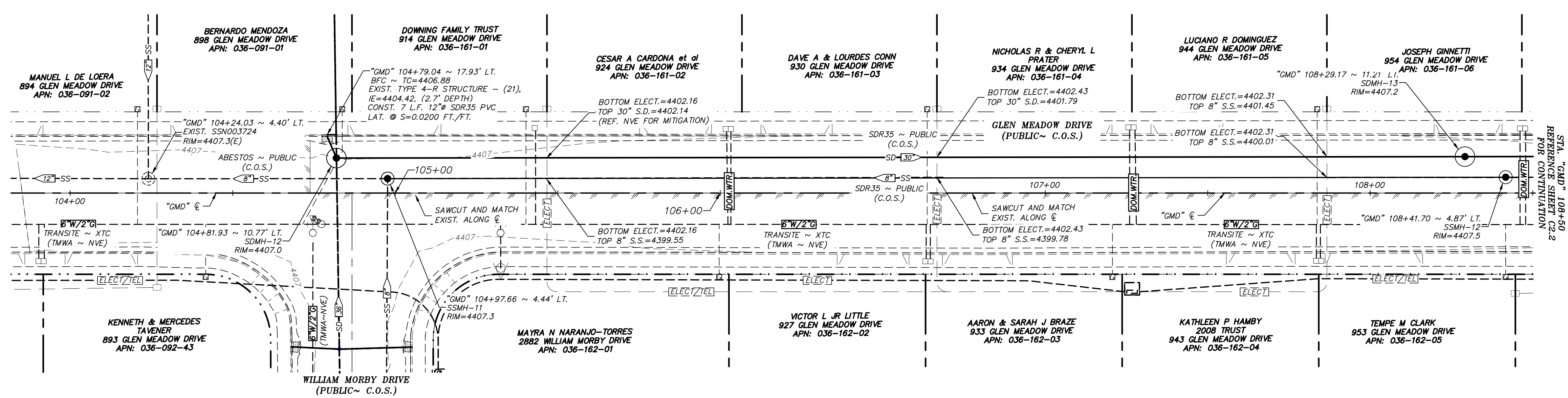
SPARKS WASHOE NEVADA

885 ROBERTA LANE, SUITE 104, SPARKS, NV 89431  
(775) 369-3303 FAX (775) 359-3329  
ODYSSEYRENO.COM

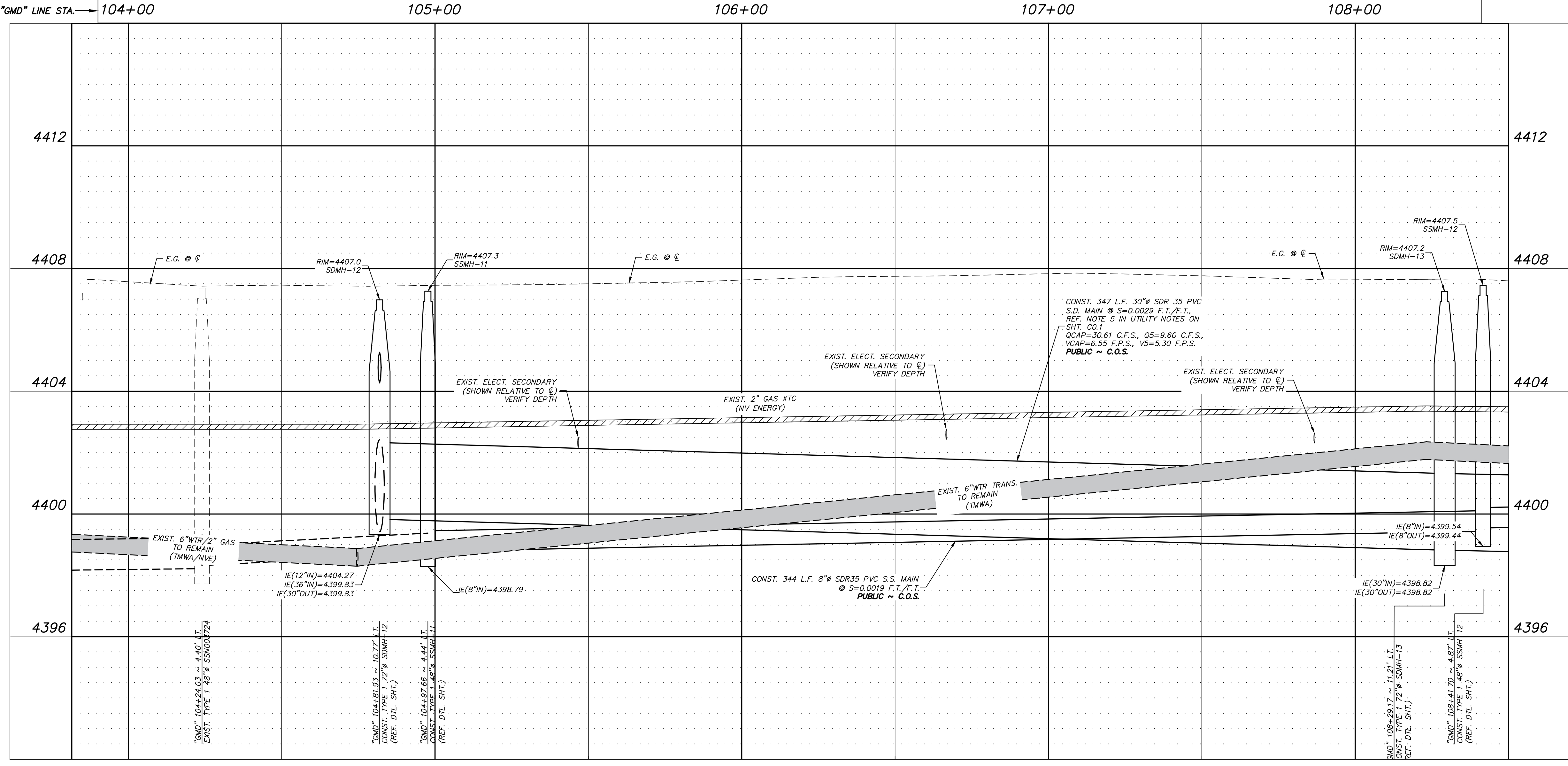
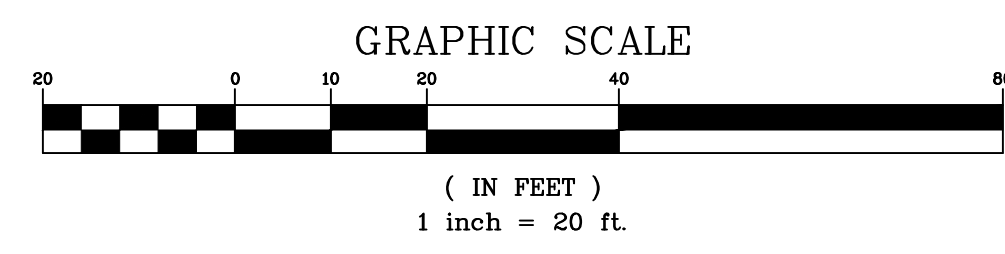
**odyssey** ENGINEERING INCORPORATED

SCALE  
HORIZ. 1"=20'  
VERT. -  
JOB NO.  
SHEET  
**C1.2**  
OF  
**15**

ERIC C. WILKINSON  
PROFESSIONAL ENGINEER - STATE OF NEVADA  
Exp. 6-30-24  
CIVIL  
No. 30263



## GLEN MEADOW DRIVE (PUBLIC) STA. "GMD" 103+82 TO 108+50



### LEGEND:

- CURB AND GUTTER (DASHED IF EXISTING)
- POST CURB (DASHED IF EXISTING)
- MANHOLE (DASHED IF EXISTING)
- TYPE 4-R CATCH BASIN (DASHED IF EXISTING)
- SITE LIGHT
- STORM DRAIN (DASHED IF EXISTING)
- SANITARY SEWER (DASHED IF EXISTING)
- SANITARY SEWER LATERAL (DASHED IF EXISTING)
- WATER AND GAS (DASHED IF EXISTING)
- WATER (DASHED IF EXISTING)
- GAS (DASHED IF EXISTING)
- WATER SERVICE (DASHED IF EXISTING)
- F.H. FIRE HYDRANT
- UNDERGROUND ELECTRIC/ TELEPHONE (DASHED IF EXISTING)
- UNDERGROUND ELECTRIC (DASHED IF EXISTING)
- UNDERGROUND TELEPHONE (DASHED IF EXISTING)

### BASIS OF BEARING

BASED ON THE NEVADA WEST COORDINATE SYSTEM OF 1983 (NAD 83) WITH A GRID TO GROUND FACTOR OF 1.000197939 APPLIED.

### BASIS OF ELEVATION

BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988, (NAVD 88), USING THE CITY OF SPARKS GEODETIC CONTROL NETWORK "BM 106" WITH A PUBLISHED ELEVATION OF 4689.50 AS RECORDED IN RECORD OF SURVEY 3885, FILE NO. 3602264 OF THE WASHOE COUNTY OFFICIAL RECORDS.

### FLOOD ZONE

THE PROPOSED PROJECT IS LOCATED WITHIN A FEMA UNSHADED ZONE X PER FIRM MAP PANELS 32031C30546 AND 32031C30606 WITH AN EFFECTIVE DATE OF MARCH 16, 2009.

### NOTES:

REFERENCE SHEET C0.1 FOR NOTES



Know what's below.  
Call before you dig.

| DATE      | BY | DESCRIPTION |
|-----------|----|-------------|
| DEC. 2022 |    |             |

| DATE      | BY | DESCRIPTION |
|-----------|----|-------------|
| DEC. 2022 |    |             |

FOR BID  
 C.O.S. GLEN MEADOW DRIVE  
 STORM DRAIN  
 W. GLEN MEADOW DR. P & P  
 SPARKS NEVADA

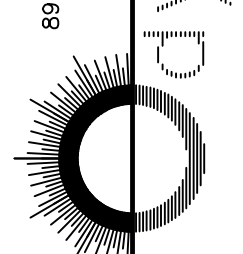
885 ROBERTA LANE, SUITE 104, SPARKS, NV 89431  
(775) 369-3303 FAX (775) 359-3329  
ODYSSEYRENO.COM

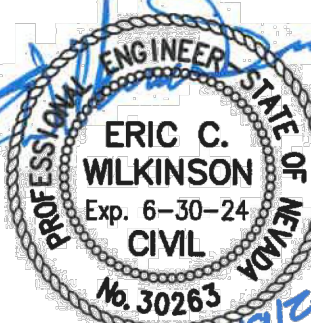
ODYSSEY ENGINEERING INCORPORATED

|         |               |
|---------|---------------|
| SCALE   | HORIZ. 1"=20' |
| VERT.   | 1"=2'         |
| JOB NO. |               |
| SHEET   | C2.1          |
| OF      | 15            |

| DATE         | BY | DESCRIPTION |
|--------------|----|-------------|
| DEC. 2022    |    |             |
| DRAWN BY:    |    |             |
| DESIGNED BY: |    |             |
| CHECKED BY:  |    |             |

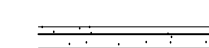
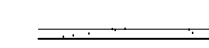
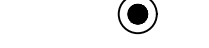
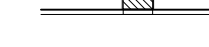

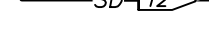



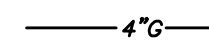
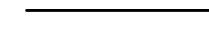





FOR BID  
 C.O.S. GLEN MEADOW DRIVE  
 STORM DRAIN  
 E. GLEN MEADOW DR. P & P  
 SPARKS NEVADA  
 WASHOE

885 ROBERTA LANE, SUITE 104, SPARKS, NV 89431  
 (775) 369-3303 FAX (775) 359-3329  
 ODYSSEYRENO.COM  

**odyssey** ENGINEERING INCORPORATED


 ERIC C. WILKINSON  
 Exp. 6-30-24  
 CIVIL  
 No. 30283

SCALE  
 HORIZ. 1"=20'  
 VERT. 1"=2'  
 JOB NO.  
 SHEET  
**C2.2**  
 OF  
 15

**LEGEND:**

-  CURB AND GUTTER (DASHED IF EXISTING)
-  POST CURB (DASHED IF EXISTING)
-  MANHOLE (DASHED IF EXISTING)
-  TYPE 4-R CATCH BASIN (DASHED IF EXISTING)
-  SITE LIGHT
-  STORM DRAIN (DASHED IF EXISTING)
-  SANITARY SEWER (DASHED IF EXISTING)
-  SANITARY SEWER LATERAL (DASHED IF EXISTING)
-  WATER AND GAS (DASHED IF EXISTING)
-  WATER (DASHED IF EXISTING)
-  GAS (DASHED IF EXISTING)
-  WATER SERVICE (DASHED IF EXISTING)
-  FIRE HYDRANT
-  UNDERGROUND ELECTRIC/ TELEPHONE (DASHED IF EXISTING)
-  UNDERGROUND ELECTRIC (DASHED IF EXISTING)
-  UNDERGROUND TELEPHONE (DASHED IF EXISTING)

**BASIS OF BEARING**

BASED ON THE NEVADA WEST COORDINATE SYSTEM OF 1983 (NAD 83) WITH A GRID TO GROUND FACTOR OF 1.000197939 APPLIED.

**BASIS OF ELEVATION**

BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988, (NAVD 88) USING THE CITY OF SPARKS GEODETIC CONTROL NETWORK "BM 106" WITH A PUBLISHED ELEVATION OF 4689.50 AS RECORDED IN RECORD OF SURVEY 3885, FILE NO. 3602264 OF THE WASHOE COUNTY OFFICIAL RECORDS.

**FLOOD ZONE**

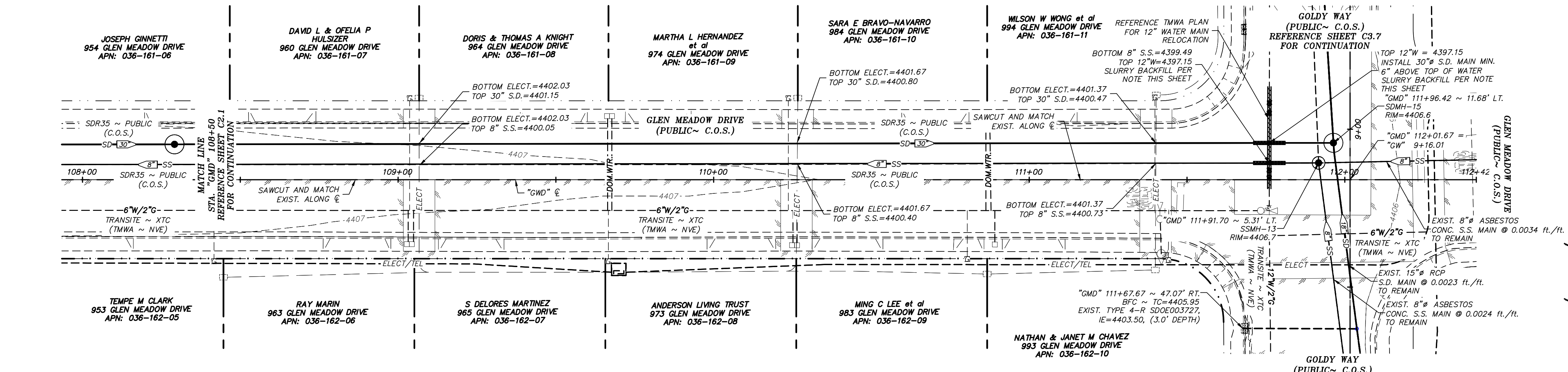
THE PROPOSED PROJECT IS LOCATED WITHIN A FEMA UNSHADED ZONE X PER FIRM MAP PANELS 32031C3054G AND 32031C3060G WITH AN EFFECTIVE DATE OF MARCH 16, 2009.

**NOTES:**

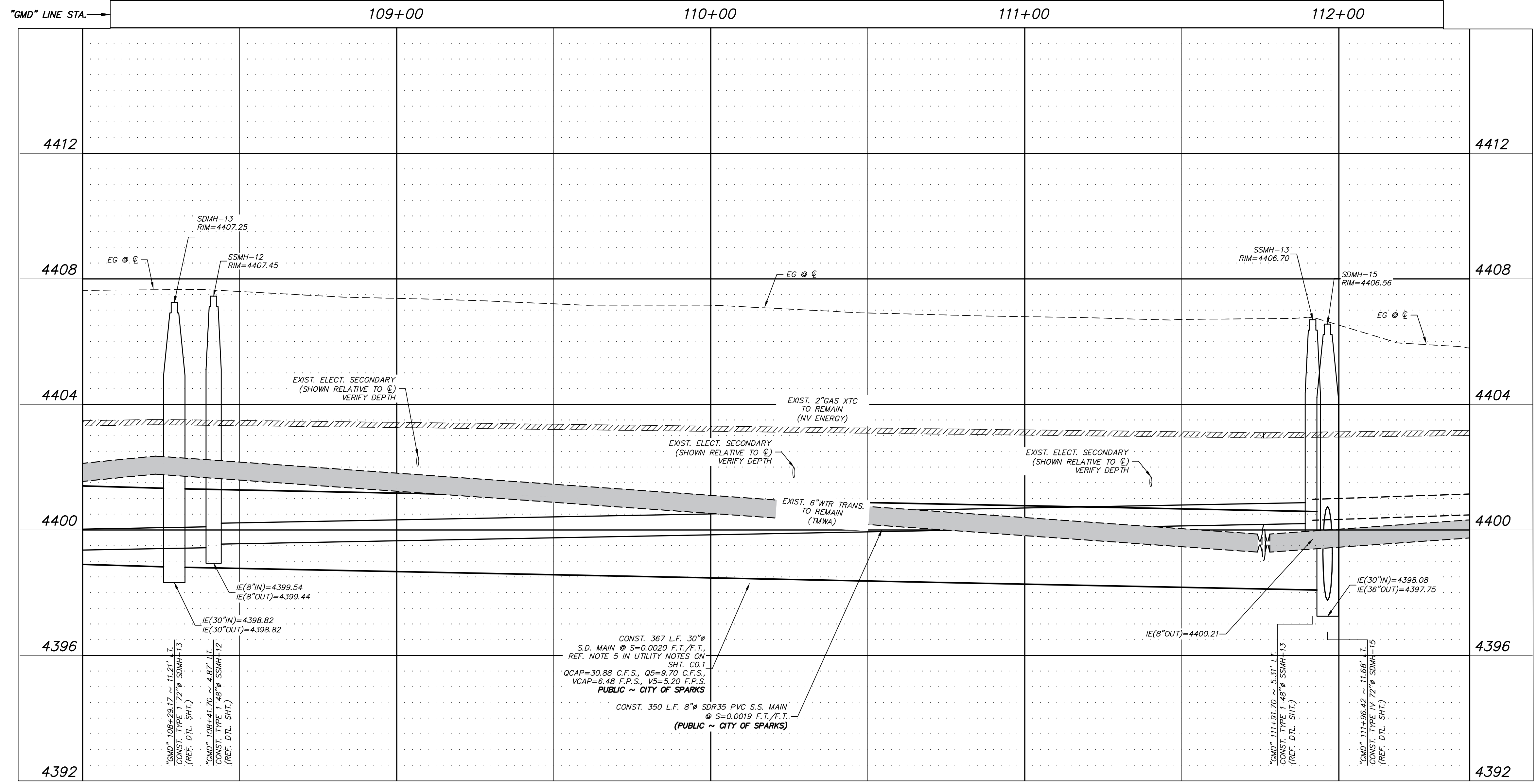
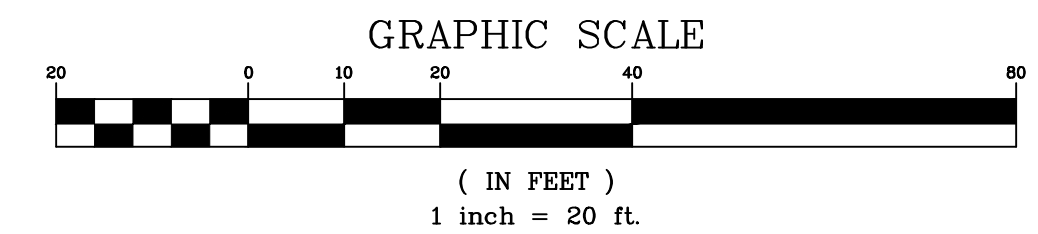
REFERENCE SHEET C0.1 FOR NOTES

**SLURRY BACKFILL NOTE:**

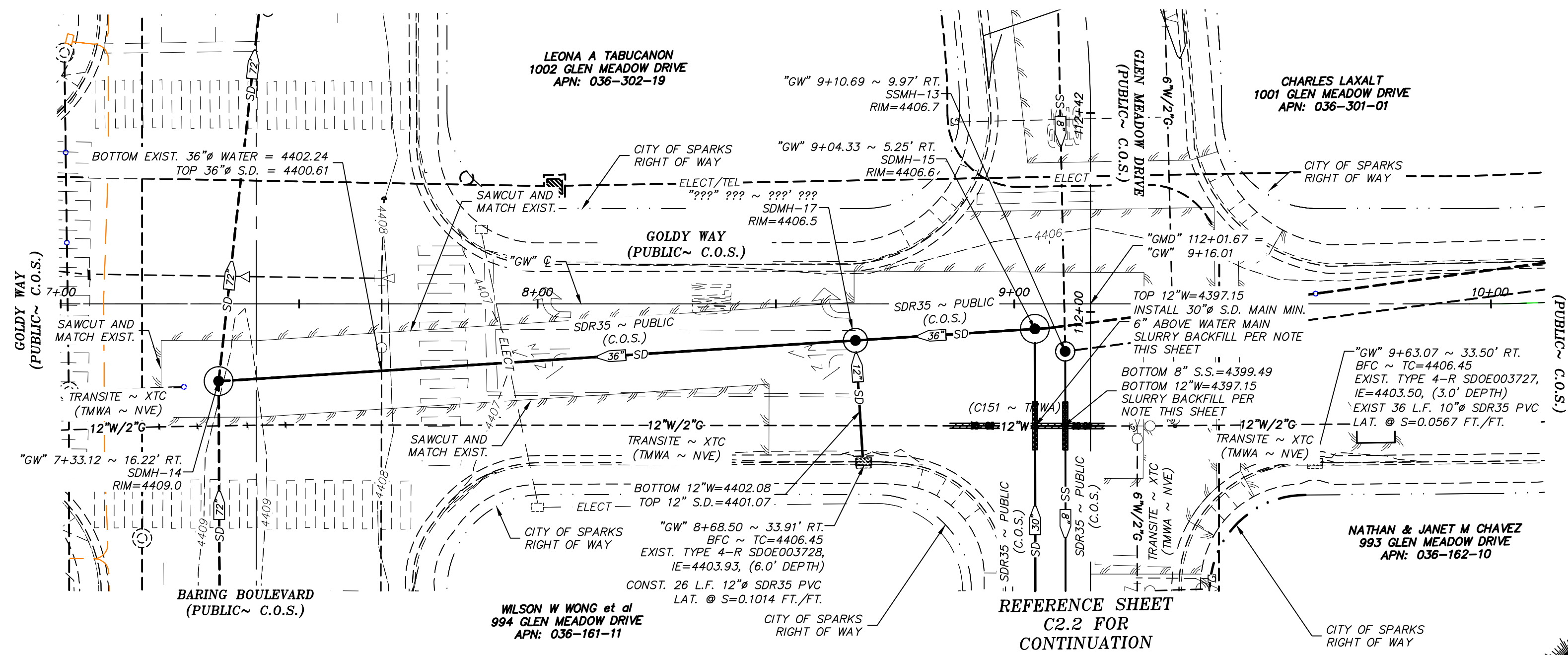
CONTRACTOR SHALL INSTALL EXCAVATABLE SLURRY BACKFILL EXTENDING 10' UP AND DOWN STREAM OF PROPOSED WATER MAIN CROSSING. EXCAVATABLE SLURRY SHALL BE INSTALLED WITHIN THE UPPER PIPE ZONE OF 12" WATER MAIN TO SPRING LINE OF THE PROPOSED STORM DRAIN AND SANITARY SEWER INSTALLATIONS



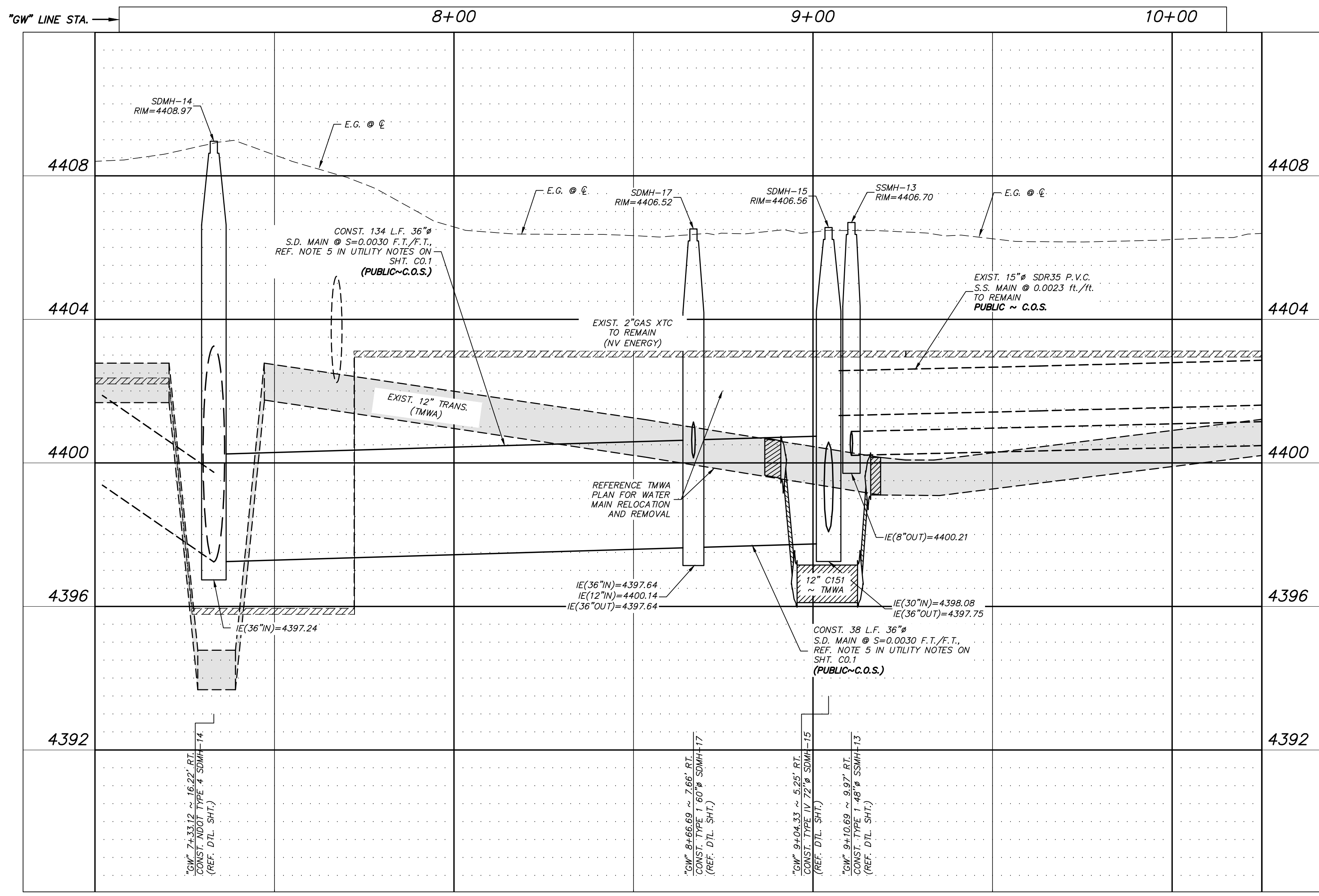
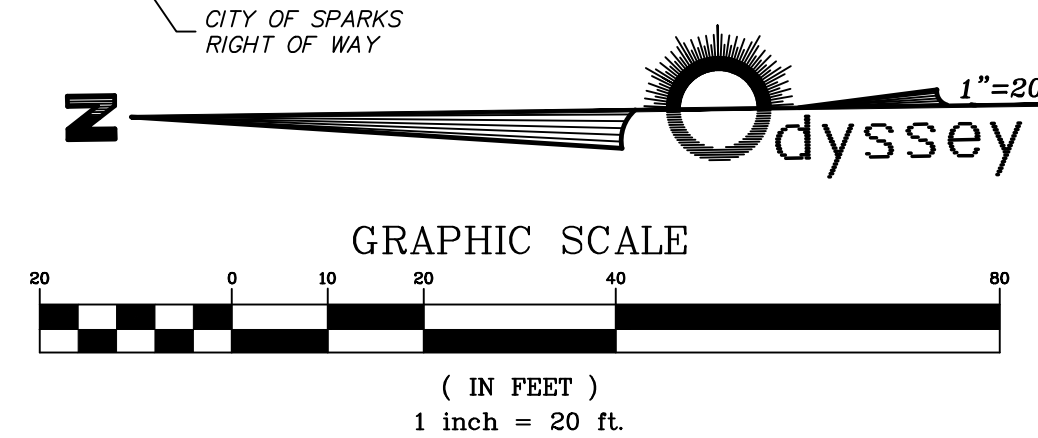
**GLEN MEADOW DRIVE (PUBLIC)**  
**STA. "GMD" 108+00 TO 112+42**



**Know what's below.**  
**Call before you dig.**



## SOUTH GOLDY WAY (PUBLIC) STA. "GW" 7+00 TO 10+50



### LEGEND:

- CURB AND GUTTER (DASHED IF EXISTING)
- POST CURB (DASHED IF EXISTING)
- MANHOLE (DASHED IF EXISTING)
- TYPE 4-R CATCH BASIN (DASHED IF EXISTING)
- STORM DRAIN (DASHED IF EXISTING)
- SANITARY SEWER (DASHED IF EXISTING)
- SANITARY SEWER LATERAL (DASHED IF EXISTING)
- WATER AND GAS (DASHED IF EXISTING)
- WATER (DASHED IF EXISTING)
- GAS (DASHED IF EXISTING)
- RECLAIM IRRIGATION MAIN (DASHED IF EXISTING)
- WATER SERVICE (DASHED IF EXISTING)
- F.H. FIRE HYDRANT
- ELECT./TEL. UNDERGROUND ELECTRIC/ TELEPHONE (DASHED IF EXISTING)
- UNDERGROUND ELECTRIC (DASHED IF EXISTING)
- TEL. UNDERGROUND TELEPHONE (DASHED IF EXISTING)
- SITE LIGHT

### BASIS OF BEARING

BASED ON THE NEVADA WEST COORDINATE SYSTEM OF 1983 (NAD 83) WITH A GRID TO GROUND FACTOR OF 1.000197939 APPLIED.

### BASIS OF ELEVATION

BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) USING THE CITY OF SPARKS GEODETIC CONTROL NETWORK "BM 106" WITH A PUBLISHED ELEVATION OF 4689.50 AS RECORDED IN RECORD OF SURVEY 3885, FILE NO. 3602264 OF THE WASHOE COUNTY OFFICIAL RECORDS.

### FLOOD ZONE

THE PROPOSED PROJECT IS LOCATED WITHIN A FEMA UNSHADED ZONE X PER FIRM MAP PANELS 32031C3054C AND 32031C3060G WITH AN EFFECTIVE DATE OF MARCH 16, 2009.

### NOTES:

REFERENCE SHEET C0.1 FOR NOTES

### SLURRY BACKFILL NOTE:

CONTRACTOR SHALL INSTALL EXCAVATABLE SLURRY BACKFILL EXTENDING 10' UP AND DOWN STREAM OF PROPOSED WATER MAIN CROSSING. EXCAVATABLE SLURRY SHALL BE INSTALLED WITHIN THE UPPER PIPE ZONE OF 12" WATER MAIN TO SPRING LINE OF THE PROPOSED STORM DRAIN AND SANITARY SEWER INSTALLATIONS

|                     |             |      |      |      |             |
|---------------------|-------------|------|------|------|-------------|
| DATE: DEC. 2022     | BY: APP'D   |      |      |      |             |
| DRAWN BY: E.C.W.    | DESCRIPTION | DATE | REV. | DATE | BY          |
| DESIGNED BY: E.C.W. | DATE        | REV. | DATE | BY   | DESCRIPTION |
| CHECKED BY: E.C.W.  | DATE        | REV. | DATE | BY   | DESCRIPTION |

**FOR BID**

C.O.S. GLEN MEADOW DRIVE  
STORM DRAIN  
S. GOLDY WAY P & P

SPARKS WASHOE NEVADA

885 ROBERTA LANE, SUITE 104, SPARKS, NV 89431  
(775) 369-3303 FAX (775) 359-3329  
ODYSSEYRENO.COM

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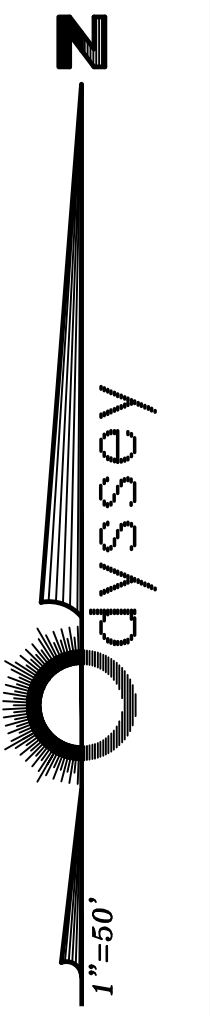
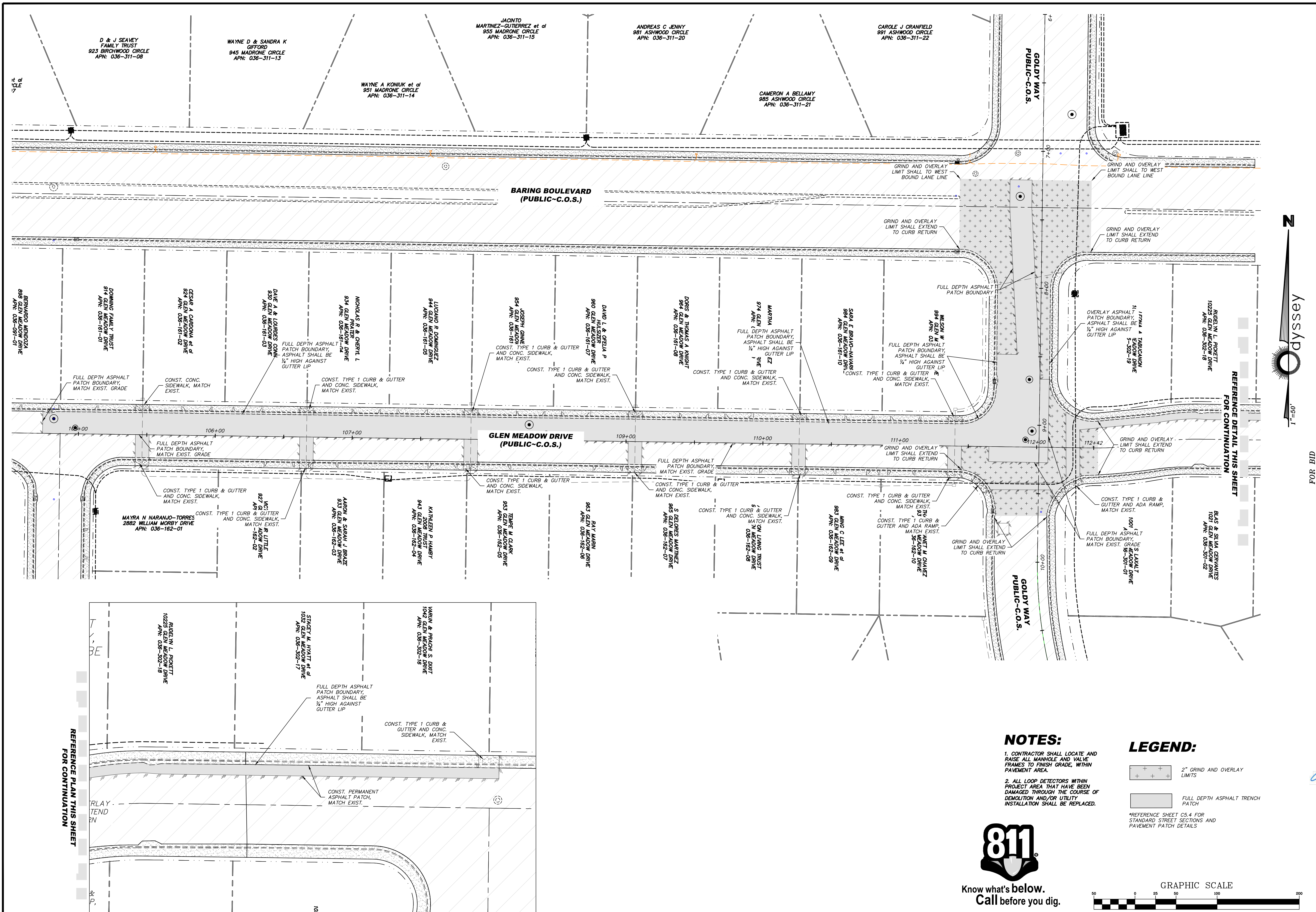
ERIC C. WILKINSON  
Exp. 6-30-24  
CIVIL  
No. 30263

SCALE  
HORIZ. 1"=20'  
VERT. 1"=2'

JOB NO.

SHEET  
C2.3  
OF  
15





| REV. | DATE | DESCRIPTION | BY | APP'D |
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DATE: DEC. 2022  
 DRAWN BY: E.C.W.  
 DESIGNED BY: E.C.W.  
 CHECKED BY: E.C.W.

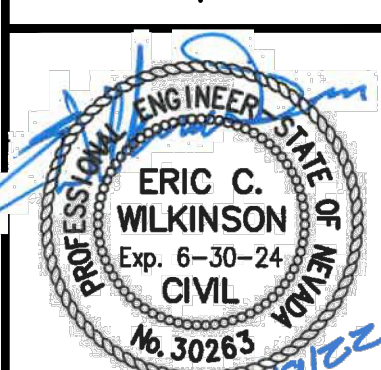
**C.O.S. GLEN MEADOW DRIVE  
 STORM DRAIN  
 PAVEMENT PLAN**

FOR BID

SPARKS WASHOE NEVADA

885 ROBERTA LANE, SUITE 104, SPARKS, NV 89431  
 (775) 369-3303 FAX (775) 359-3329  
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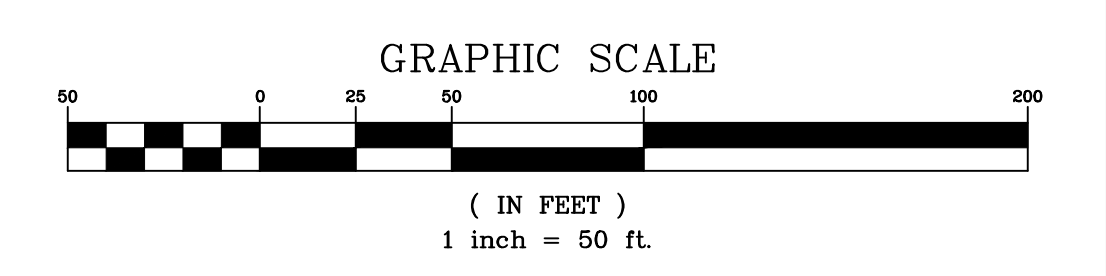
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| SCALE   | HORIZ. 1"=50' |
| VERT.   | -             |
| JOB NO. | -             |
| SHEET   | C3.1          |
| OF      | 15            |

**NOTES:**

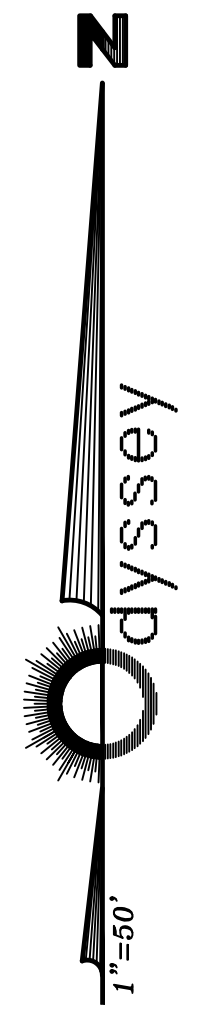
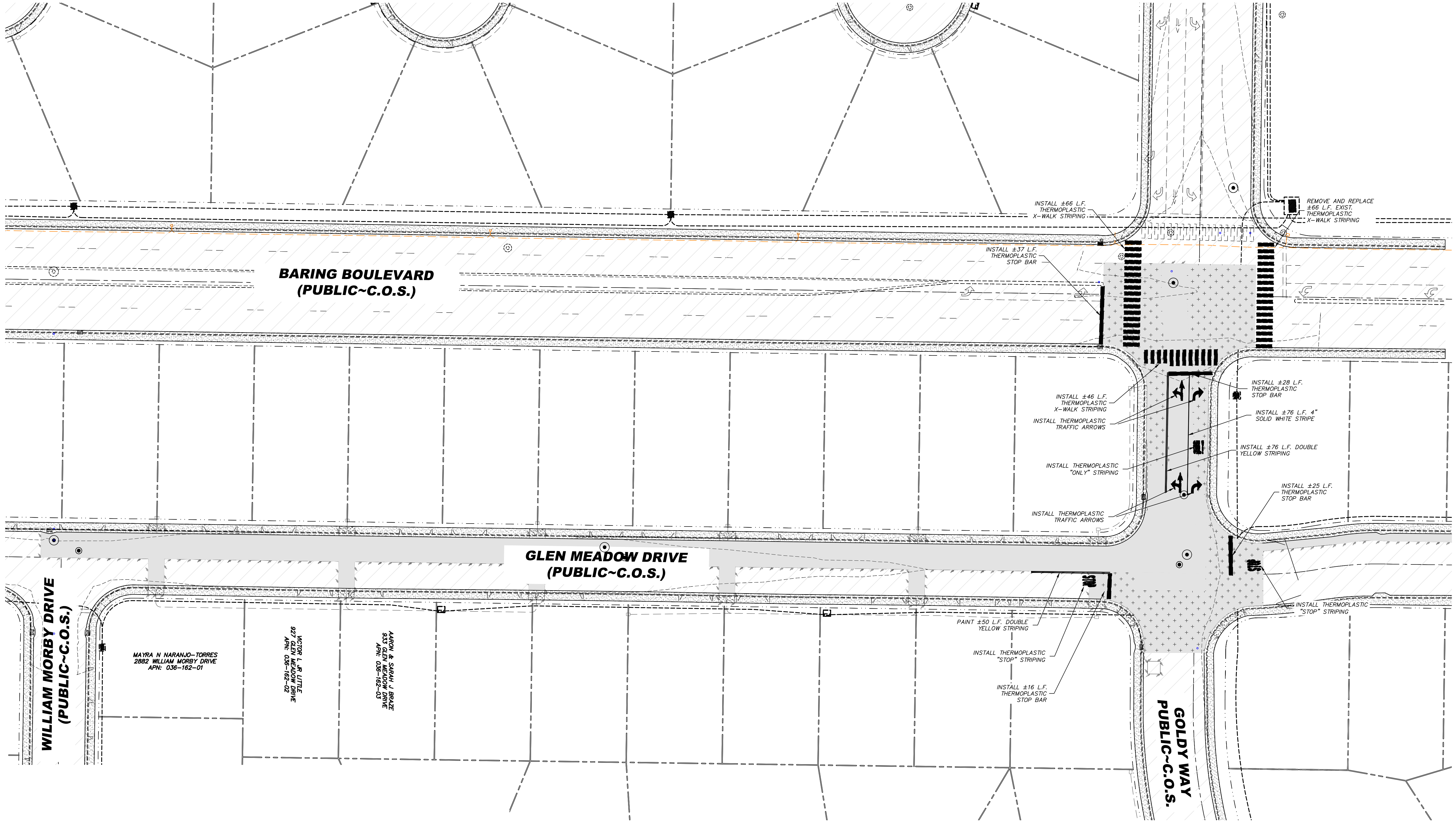
- CONTRACTOR SHALL LOCATE AND RAISE ALL MANHOLE AND VALVE FRAMES TO FINISH GRADE, WITHIN PAVEMENT AREA.
- ALL LOOP DETECTORS WITHIN PROJECT AREA THAT HAVE BEEN DAMAGED THROUGH THE COURSE OF DEMOLITION AND/OR UTILITY INSTALLATION SHALL BE REPLACED.

**LEGEND:**

- 2" GRIND AND OVERLAY LIMITS
  - FULL DEPTH ASPHALT TRENCH PATCH
- \*REFERENCE SHEET CS.4 FOR STANDARD STREET SECTIONS AND PAVEMENT PATCH DETAILS







| DATE:        | REV. | DATE | DESCRIPTION | BY | APP'D |
|--------------|------|------|-------------|----|-------|
| DEC. 2022    |      |      |             |    |       |
| DRAWN BY:    |      |      |             |    |       |
| E.C.W.       |      |      |             |    |       |
| DESIGNED BY: |      |      |             |    |       |
| E.C.W.       |      |      |             |    |       |
| CHECKED BY:  |      |      |             |    |       |
| E.C.W.       |      |      |             |    |       |

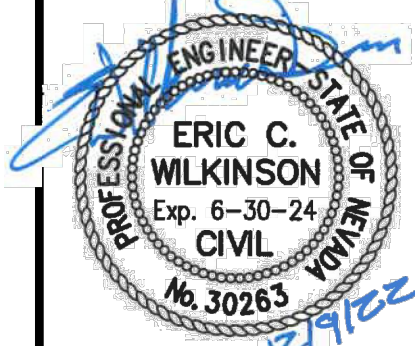
FOR BID

**C.O.S. GLEN MEADOW DRIVE  
STORM DRAIN  
STRIPING PLAN**

SPARKS      WASHOE      NEVADA

885 ROBERTA LANE, SUITE 104, SPARKS, NV 89431  
(775) 369-3303 FAX (775) 359-3329  
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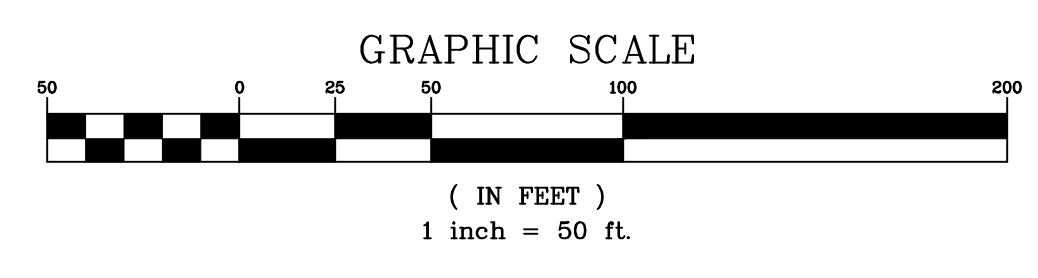


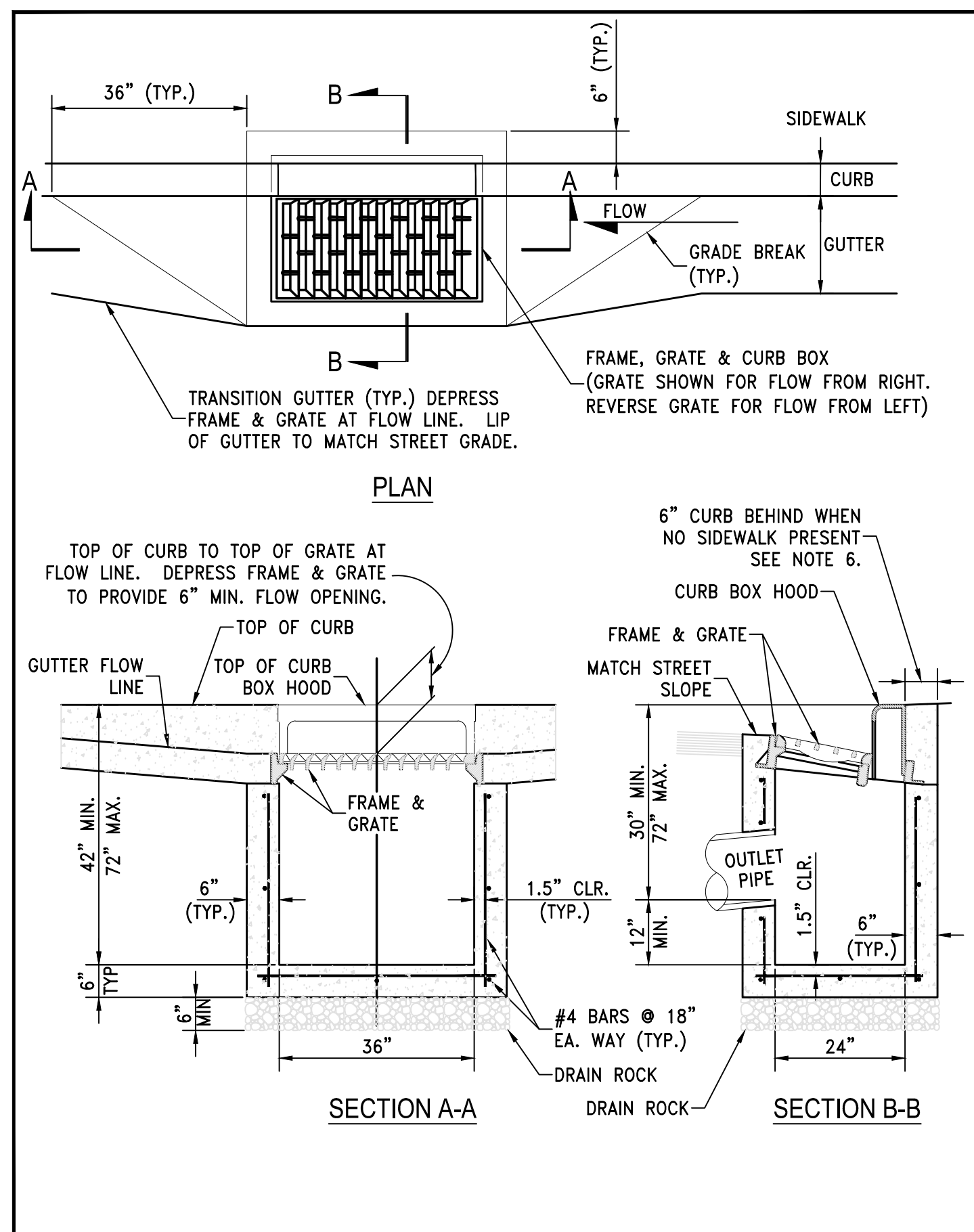
SCALE  
HORIZ. 1"=30'  
VERT. -  
JOB NO. -

SHEET  
**C4.1**  
OF  
**15**



Know what's below.  
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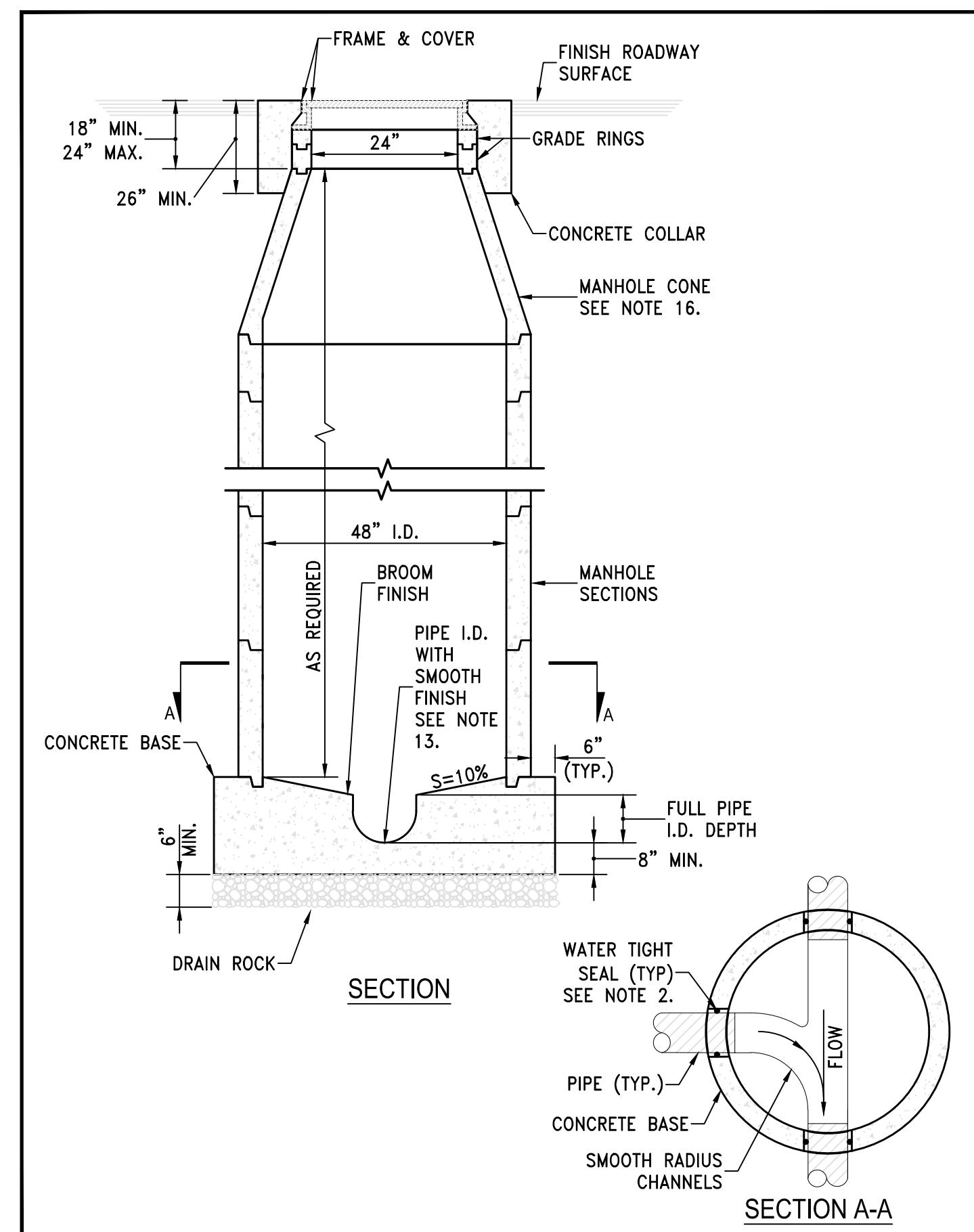


|  |                                |
|--|--------------------------------|
| STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION | DRAWING No.                    |
| <b>City of Sparks</b> CATCH BASIN TYPE 4-R     | S-204A                         |
|  | APPROVED BY: JE   DATE: 1/2020 |

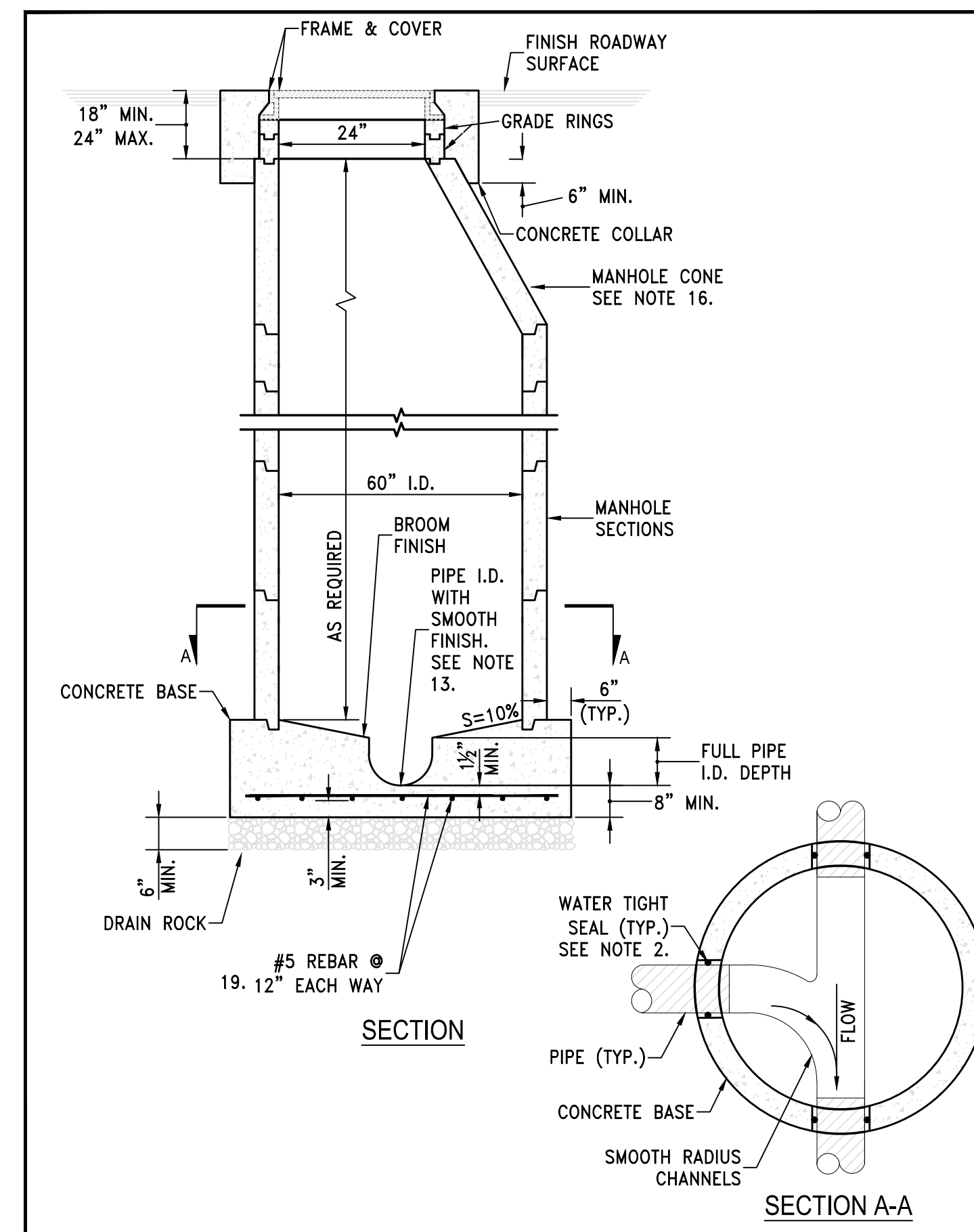
**NOTES:**

- P.C.C. CURB AND GUTTER TRANSITION SHALL BE PORTLAND CEMENT CONCRETE (P.C.C.) AND 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.
- REINFORCING STEEL SHALL BE GRADE 40 AND HAVE 1.5" MINIMUM CLEAR COVER.
- CONCRETE STRUCTURE MAY BE A CAST-IN-PLACE CONCRETE UNIT UPON APPROVAL OF THE CITY ENGINEER. BASE OF CAST-IN-PLACE CONCRETE UNIT SHALL BE PLACED ON 6" COMPACTED DRAIN ROCK.
- FRAME, GRATE AND CURB BOX HOOD ASSEMBLY SHALL BE D&L I-3519 WITH TYPE L "VANE GRATE" OR APPROVED EQUAL. GRATE SHALL BE INSTALLED WITH PROPER FLOW DIRECTION. EACH CATCH BASIN SHALL BE CAST WITH A FISH IMAGE AND THE WORDS "NO DUMPING! DRAINS TO RIVERS" IN THE TOP OF EACH CURB HOOD.
- TILT FRAME & GRATE AS REQUIRED TO ATTAIN 6" MIN. FLOW OPENING & INSTALL DURABLE SHIMS BETWEEN THE CURB BOX & FRAME AS REQUIRED TO MATCH CURB BOX TO TOP OF CURB AND FACE OF CURB (SEE SECTION B-B).
- WHEN SIDEWALK IS PRESENT CONCRETE BEHIND CURB BOX SHALL BE THICKENED TO THE FULL DEPTH OF THE CURB BOX. IF NO SIDEWALK IS PRESENT, POUR 6" CONCRETE CURB STRUCTURE BEHIND GRATE AND TIE BEAM INTO BOX.
- ALL CATCH BASINS, PUBLIC OR PRIVATE, SHALL BE PROVIDED WITH A "SUR-TRAP" OIL/WATER SEPARATOR OR APPROVED EQUAL.
- FRAMES AND GRATES SHALL BE MATCHED TO ACHIEVE A CLOSE TOLERANCE FIT WITH MINIMAL GAPS.
- CATCH BASIN SHALL NOT BE PLACED WITHIN THE RADIUS OF THE CURB UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.

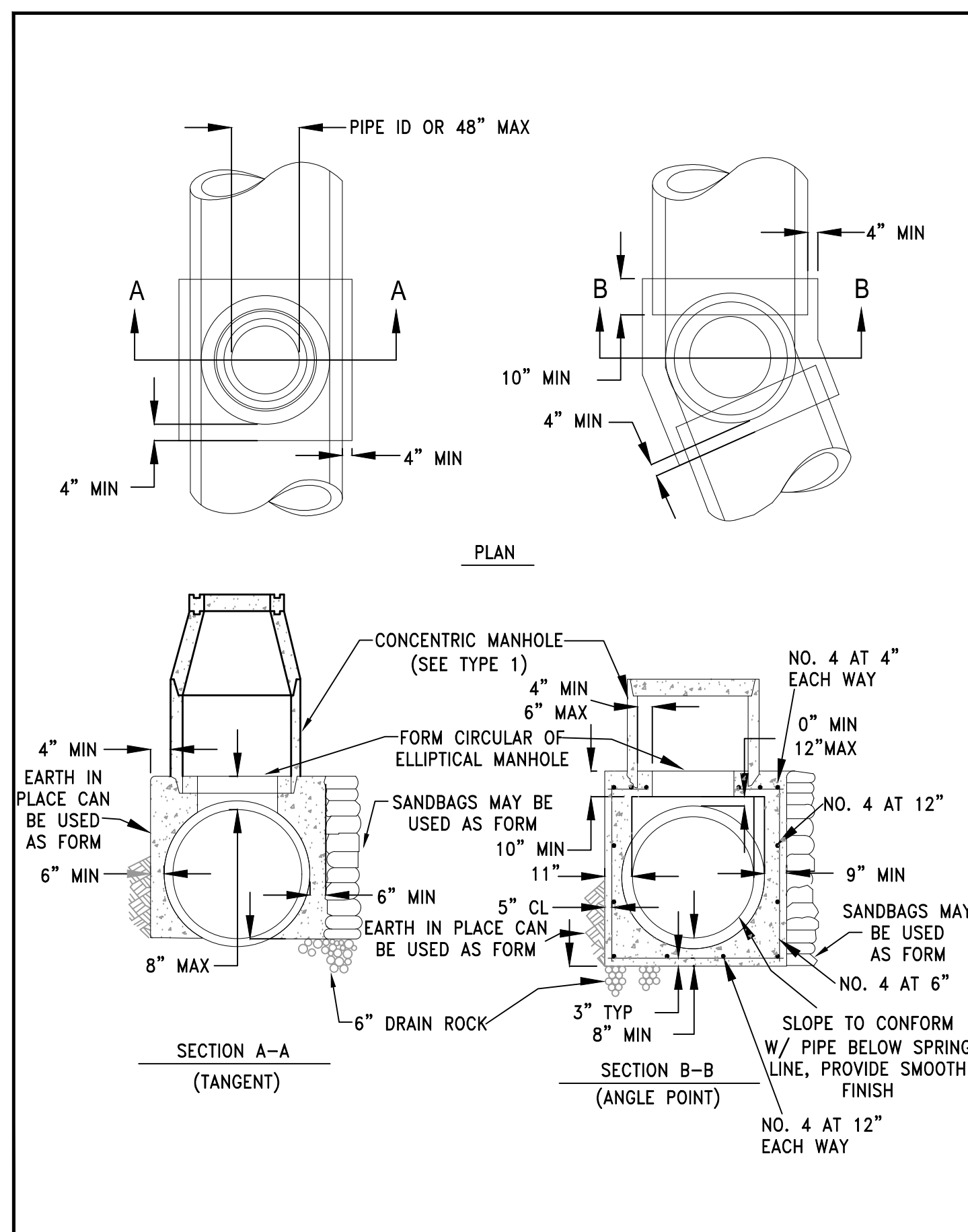
|  |                                |
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| STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION     | DRAWING No.                    |
| <b>City of Sparks</b> NOTES - CATCH BASIN TYPE 4-R | S-204B                         |
|  | APPROVED BY: JE   DATE: 1/2020 |



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| STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION | DRAWING No.                    |
| <b>City of Sparks</b> MANHOLE TYPE I           | S-206A                         |
|  | APPROVED BY: JE   DATE: 1/2020 |



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| STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION | DRAWING No.                    |
| <b>City of Sparks</b> MANHOLE TYPE V           | S-206B                         |
|  | APPROVED BY: JE   DATE: 1/2020 |

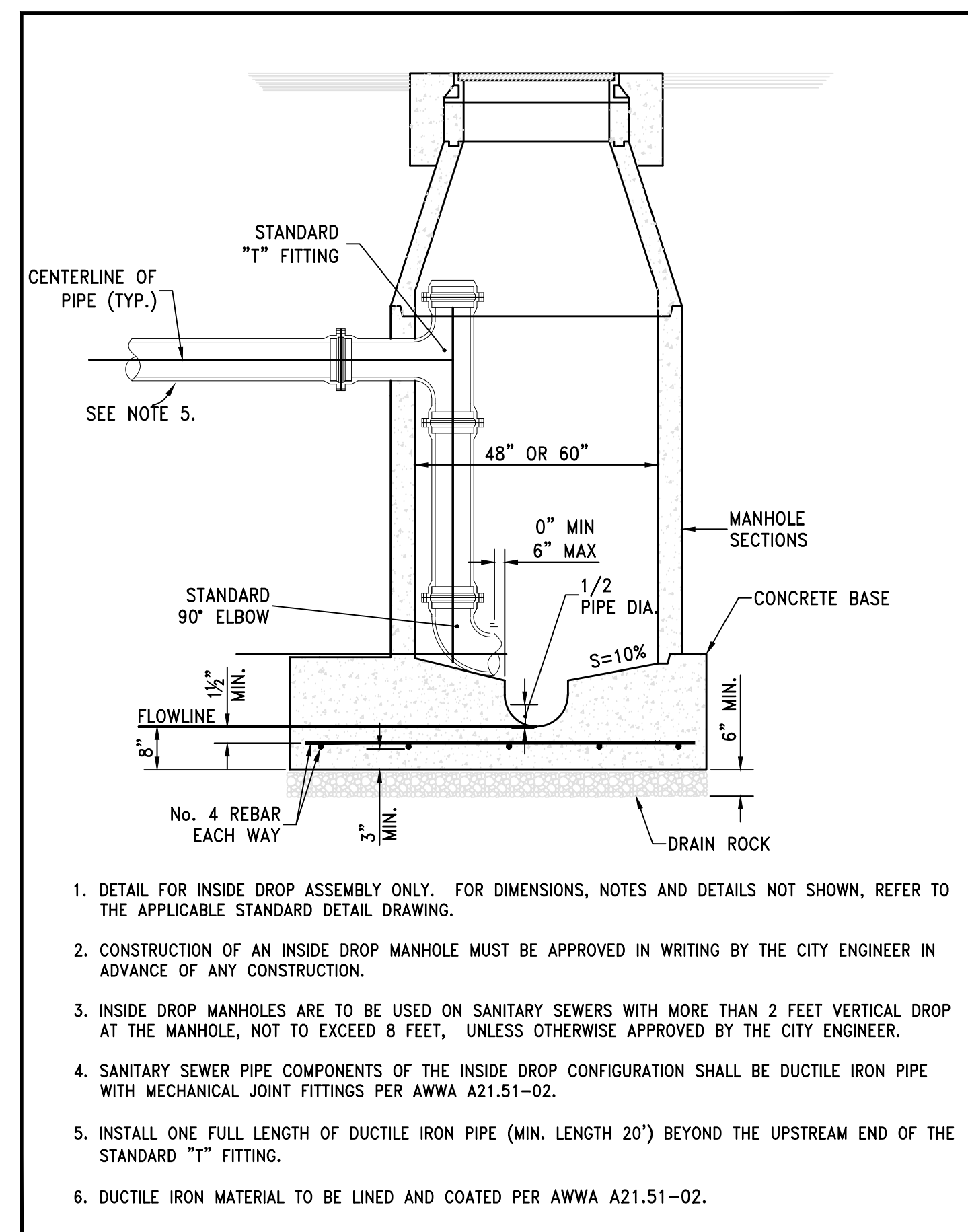


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| STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION | DRAWING No.                    |
| <b>City of Sparks</b> MANHOLE TYPE IV          | S-206C                         |
|  | APPROVED BY: JE   DATE: 1/2020 |

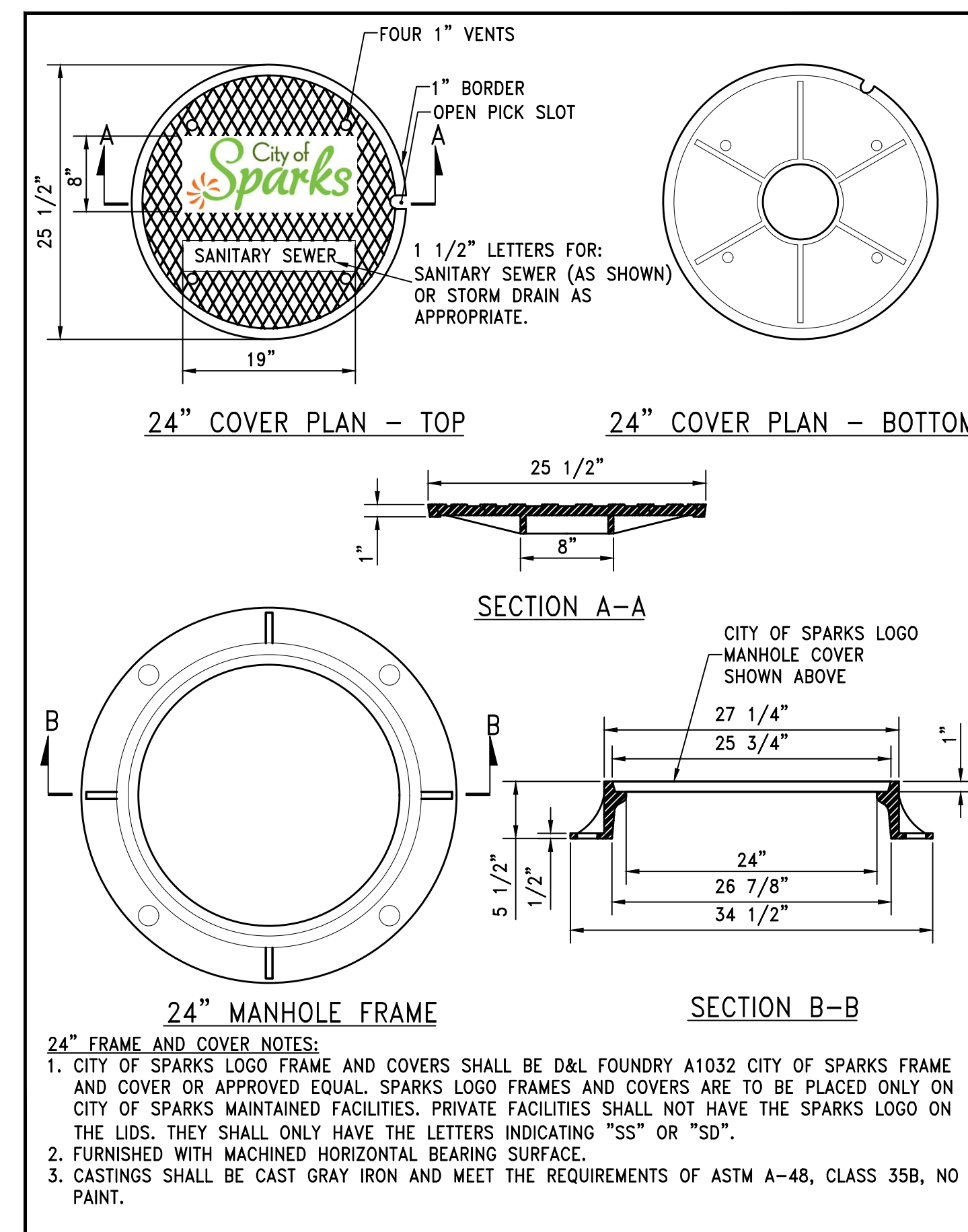
**GENERAL MANHOLE NOTES**

- 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.
- MANHOLE PRECAST SECTION LENGTH SHALL BE ARRANGED TO FIT THE REQUIRED DEPTH.
- NO LATERALS OR PIPES LESS THAN 8" IN DIAMETER SHALL BE CONNECTED TO THE MANHOLE.
- PRECAST CONCRETE BASE MAY BE USED IN LIEU OF CAST-IN-PLACE BASE.
- MATCH PIPE INVERTS TO MANHOLE INVERTS WHERE PIPES CONNECT TO MANHOLE BASE.
- ALL MANHOLES SHALL BE WATERTIGHT.
- 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.
- THE USE OF FLAT TOP MANHOLE CONES REQUIRES PRIOR APPROVAL FROM THE CITY ENGINEER.
- NO STEPS, LADDERS, OR OTHER CLIMBING DEVICES SHALL BE INSTALLED IN THE MANHOLE.
- REINFORCING STEEL SHALL BE AS SHOWN, WIRED TIGHTLY AT ALL INTERSECTIONS AND EMBEDDED AT LEAST 1 1/2" CLEAR, UNLESS OTHERWISE NOTED.
- 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.
- TYPE I MANHOLES SHALL BE FOR PUBLIC USE ONLY AS APPROVED BY CITY ENGINEER

|  |                                |
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| STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION                 | DRAWING No.                    |
| <b>City of Sparks</b> NOTES - MANHOLE TYPE I, TYPE V & TYPE IV | S-206D                         |
|  | APPROVED BY: JE   DATE: 1/2020 |



|  |                                |
|--|--------------------------------|
| STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION | DRAWING No.                    |
| <b>City of Sparks</b> MANHOLE-INSIDE DROP      | S-207                          |
|  | APPROVED BY: JE   DATE: 1/2020 |



|   |                                |
|---|--------------------------------|
| STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION  | DRAWING No.                    |
| <b>City of Sparks</b> 24" MANHOLE FRAME & COVER | S-209A                         |
|   | APPROVED BY: JE   DATE: 2/2020 |

FOR BID

C.O.S. GLEN MEADOW DRIVE STORM DRAIN UTILITY DETAILS

SPARKS WASHOE NEVADA

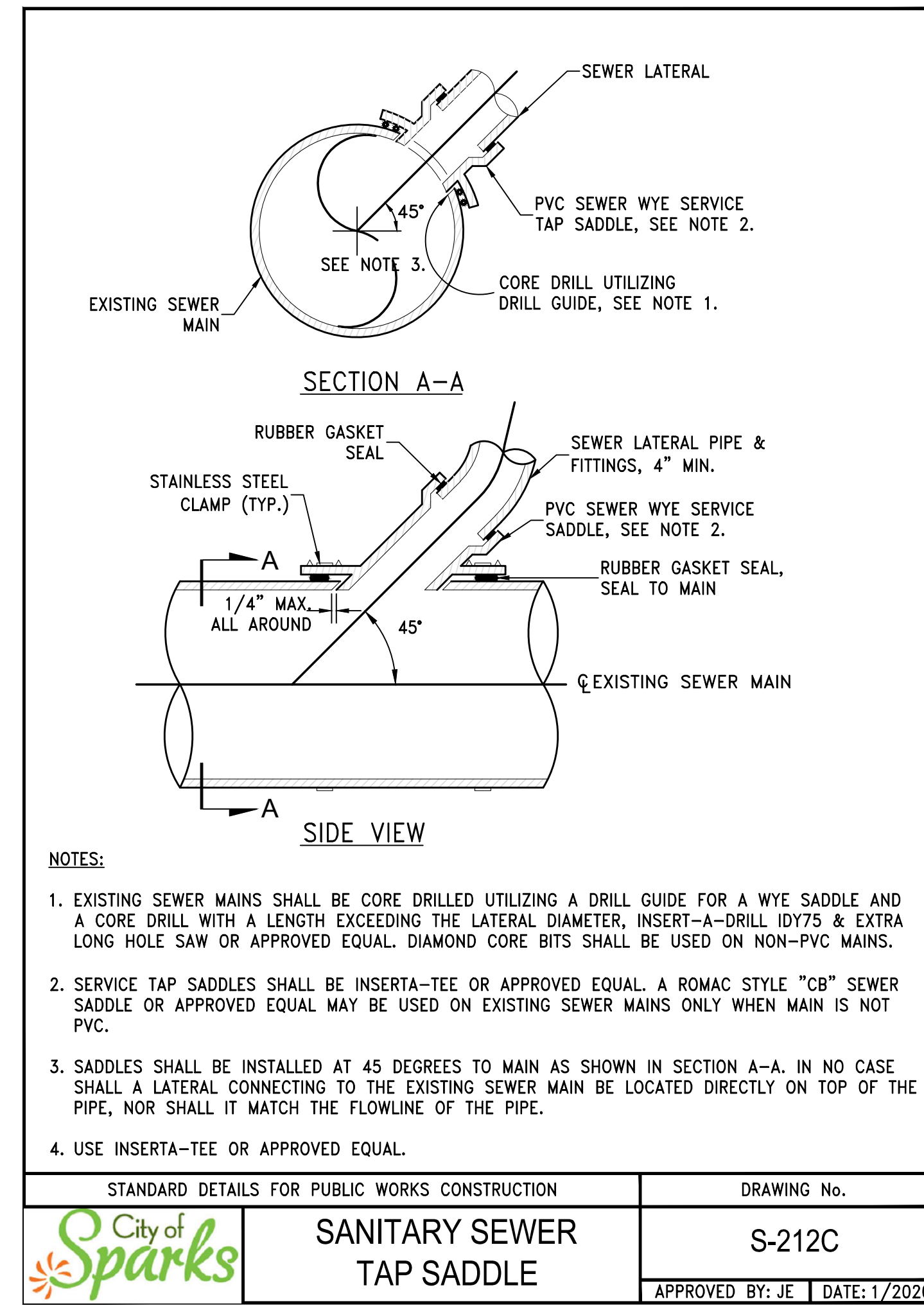
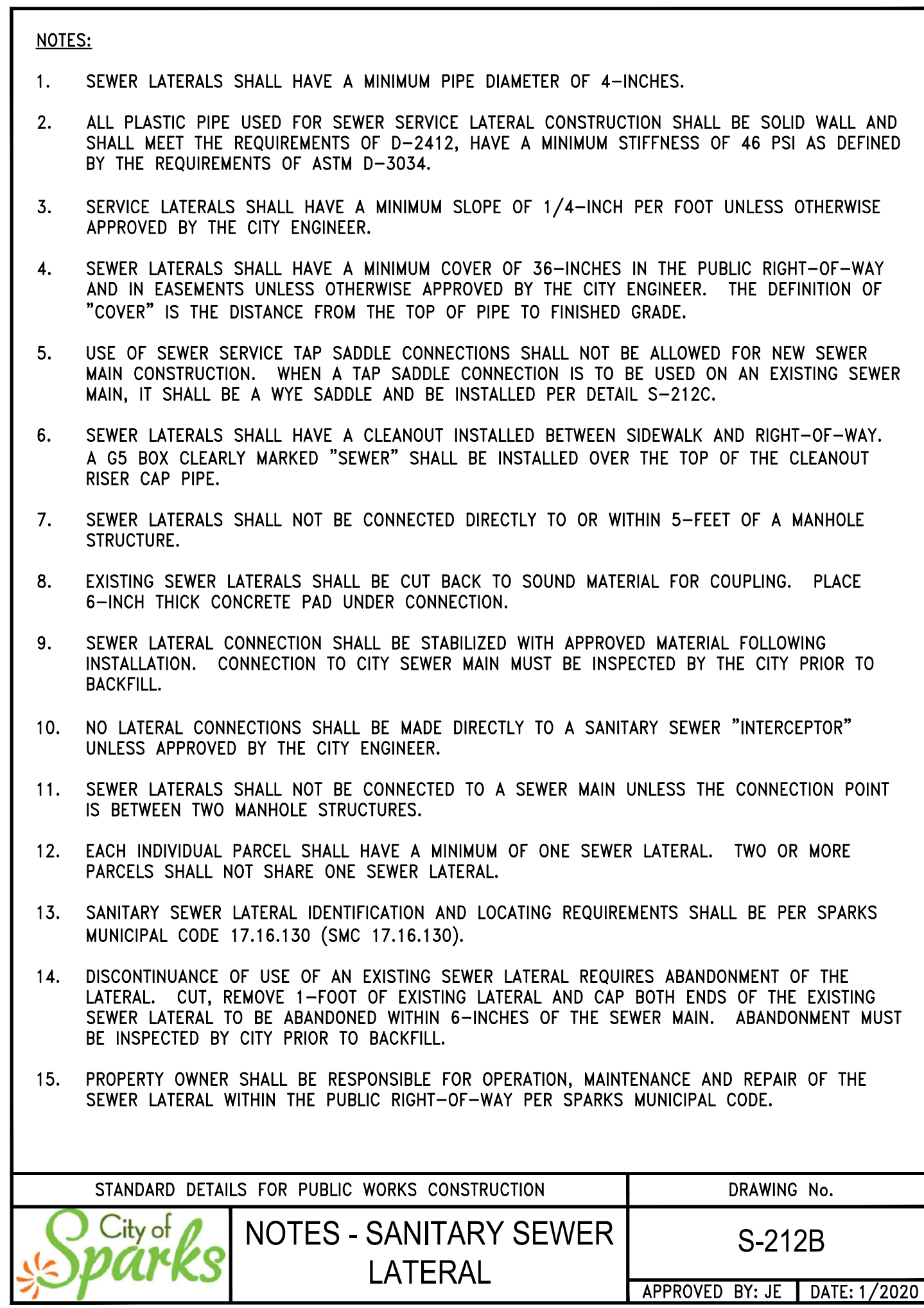
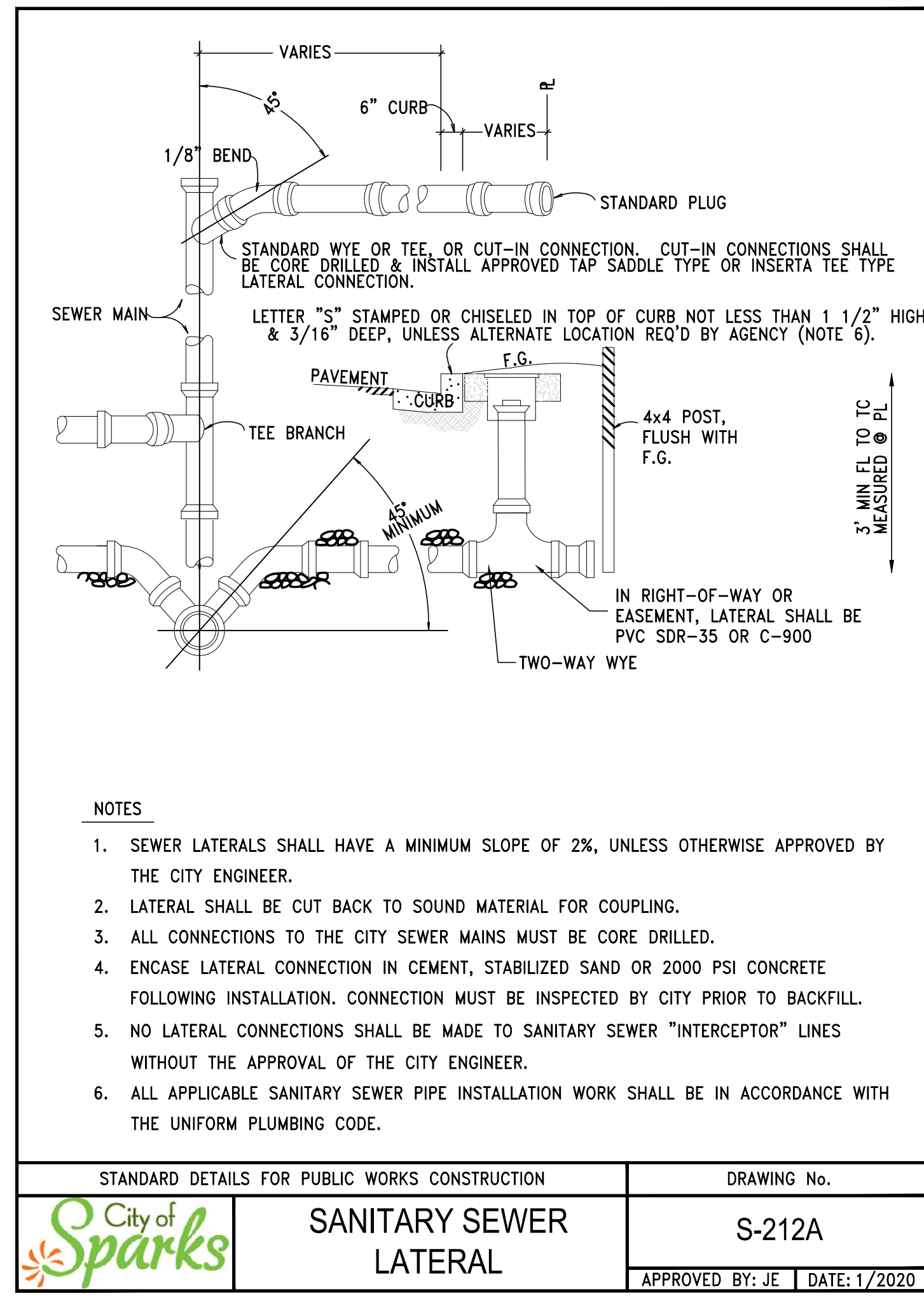
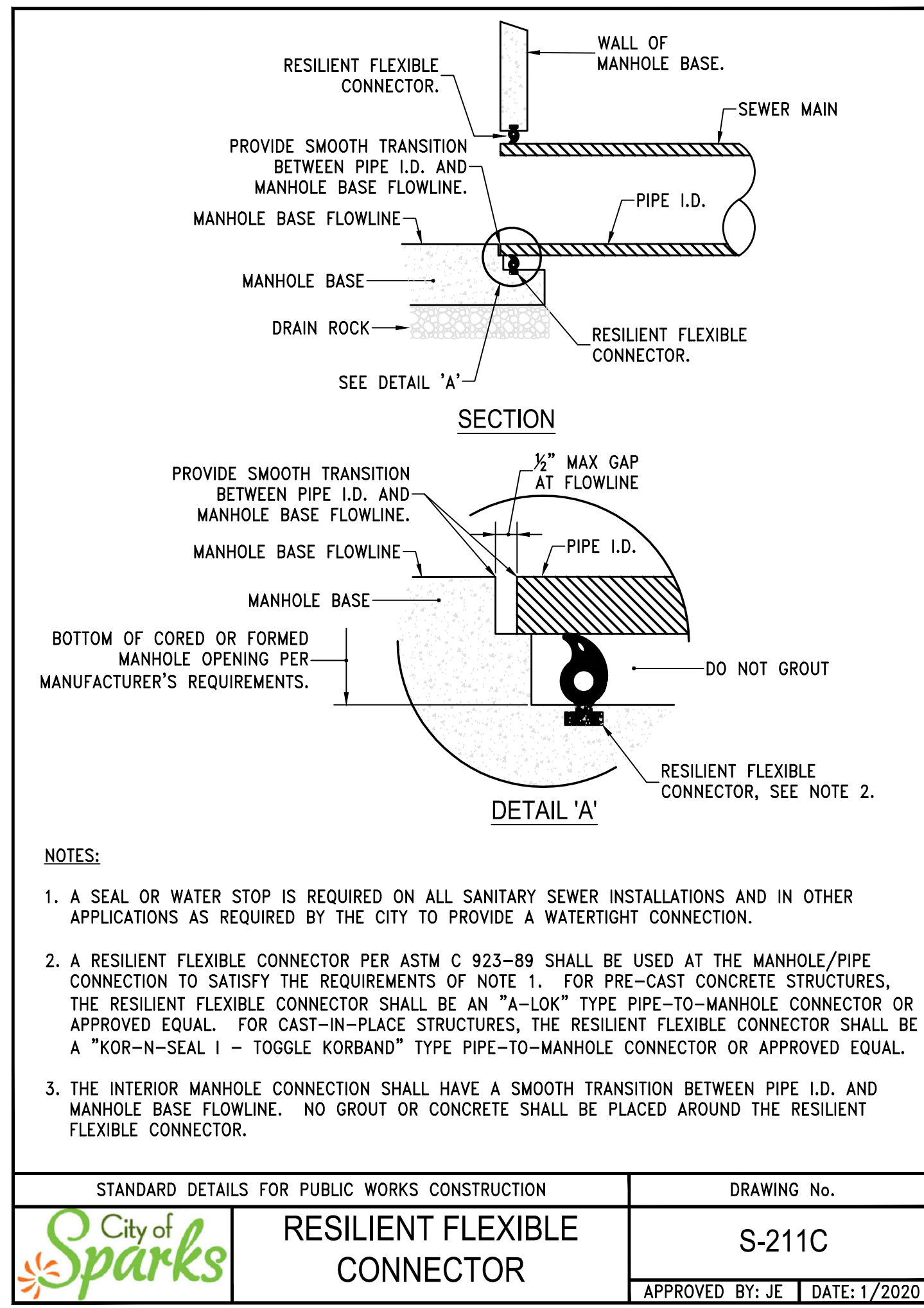
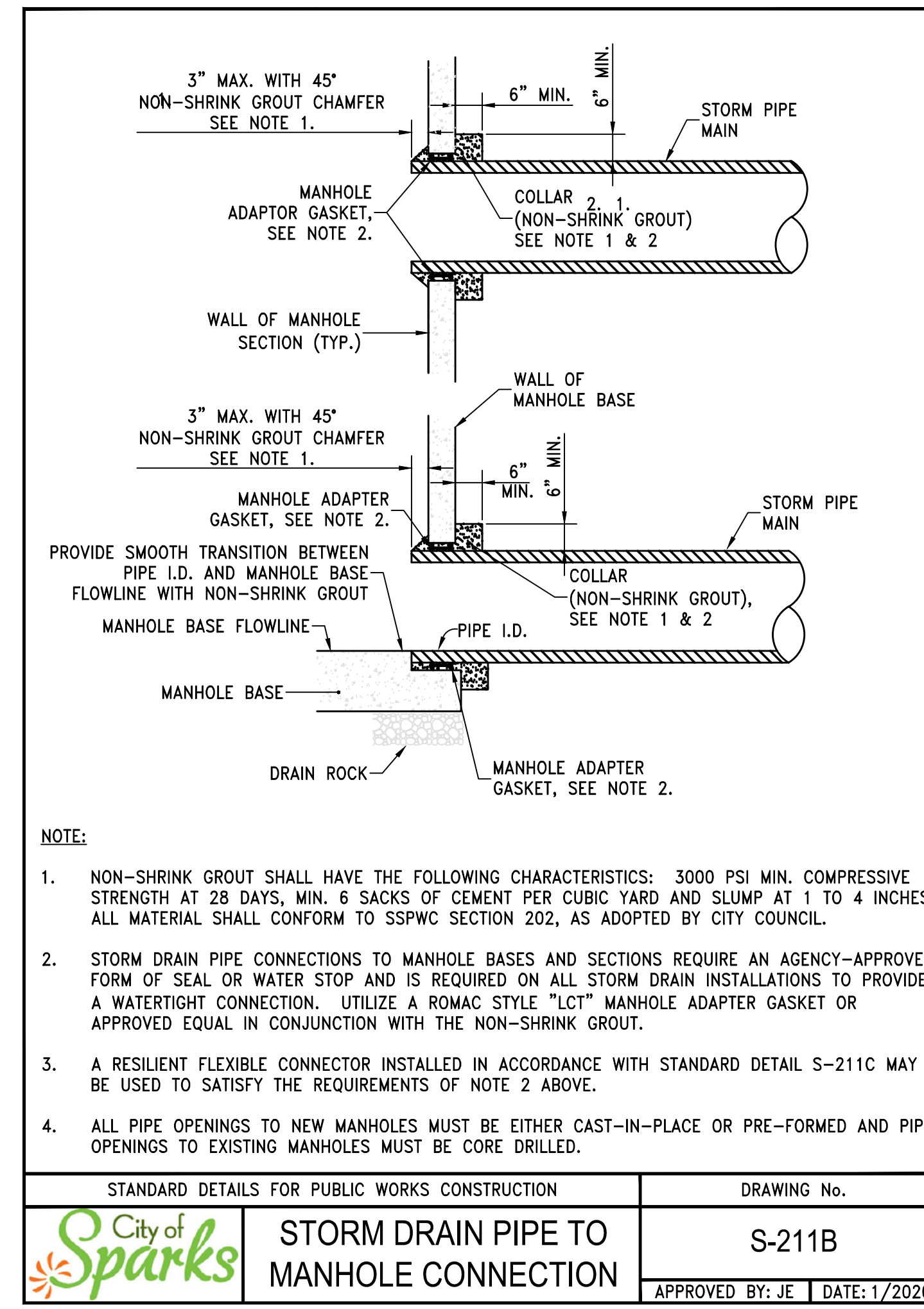
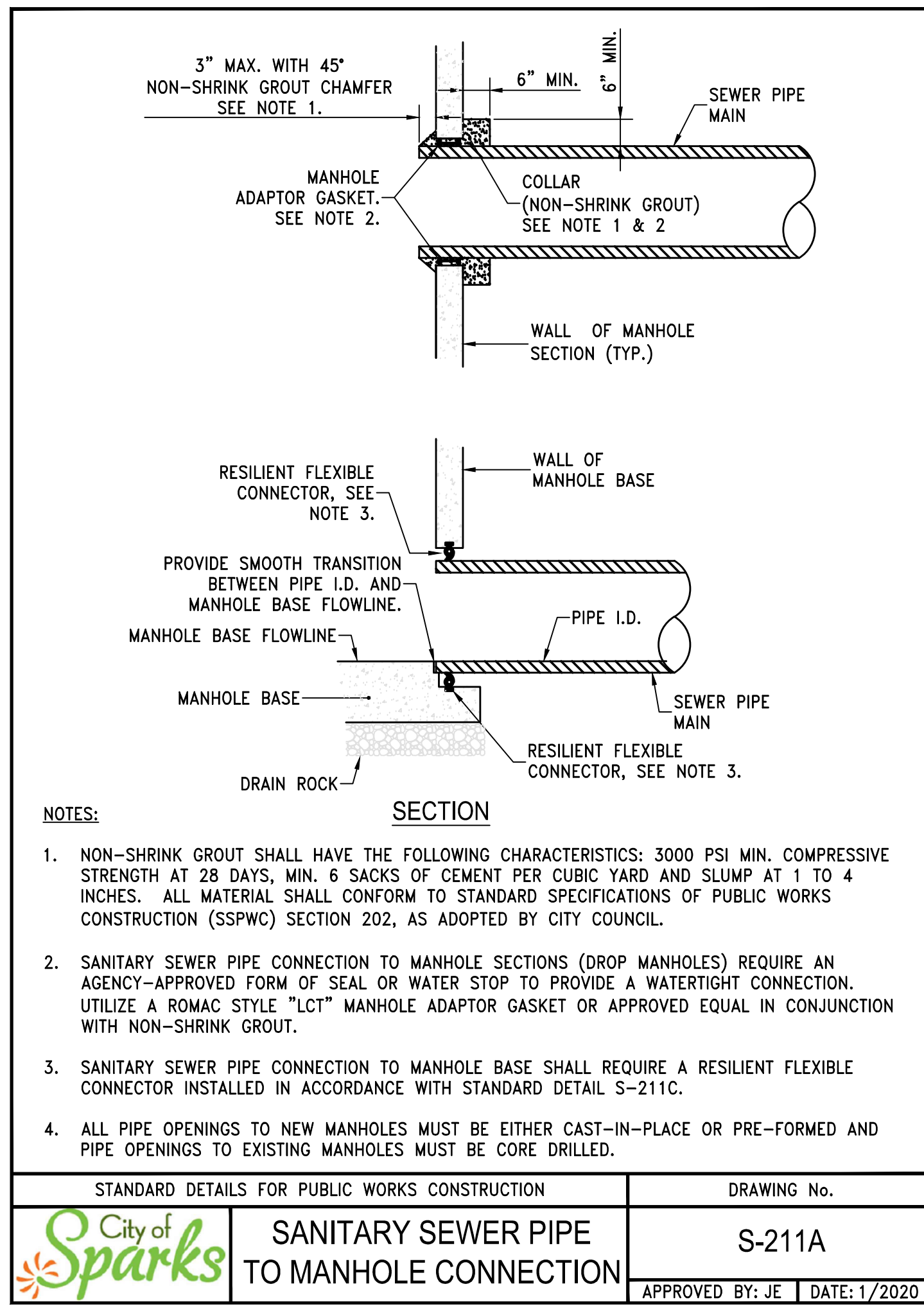
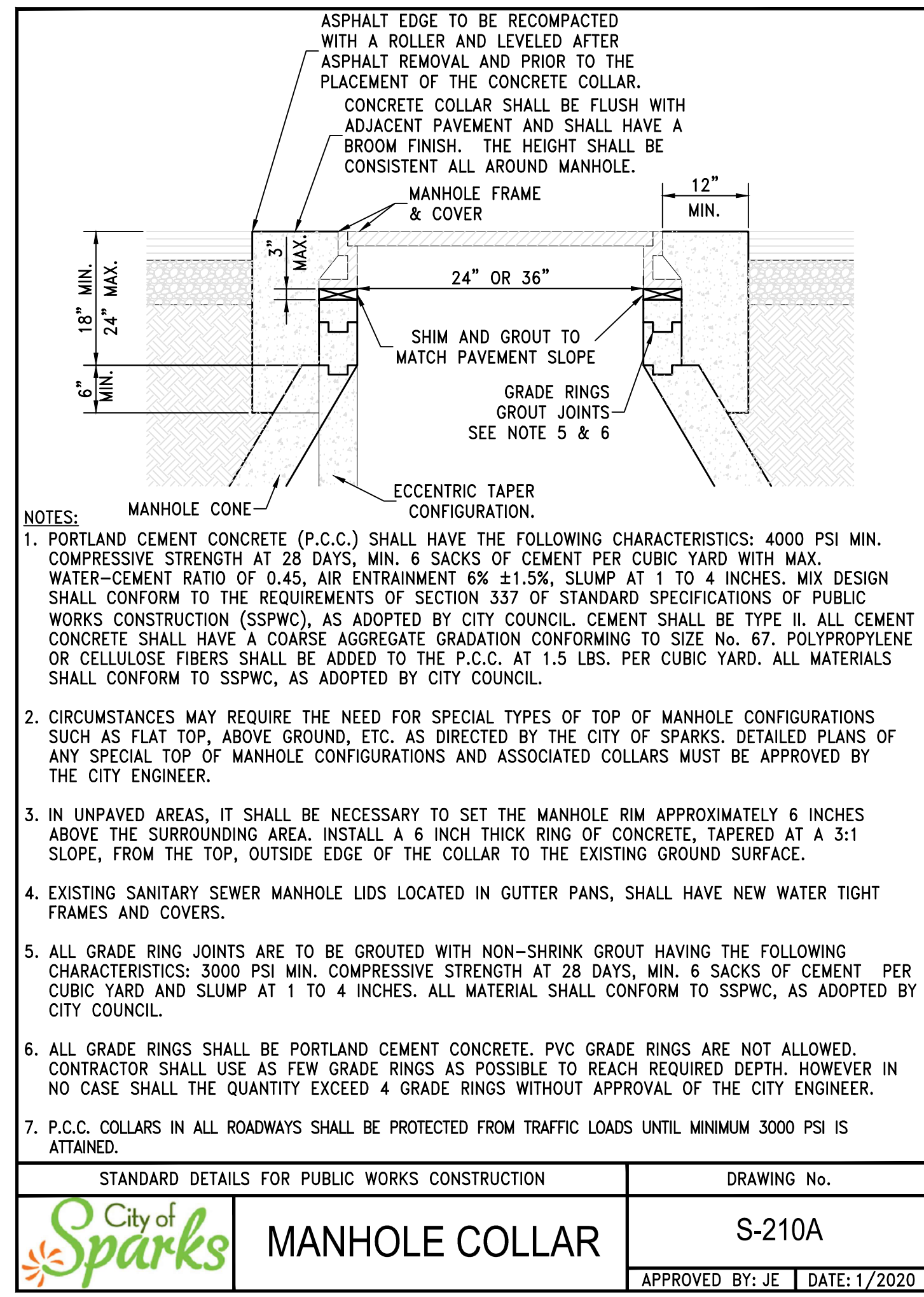
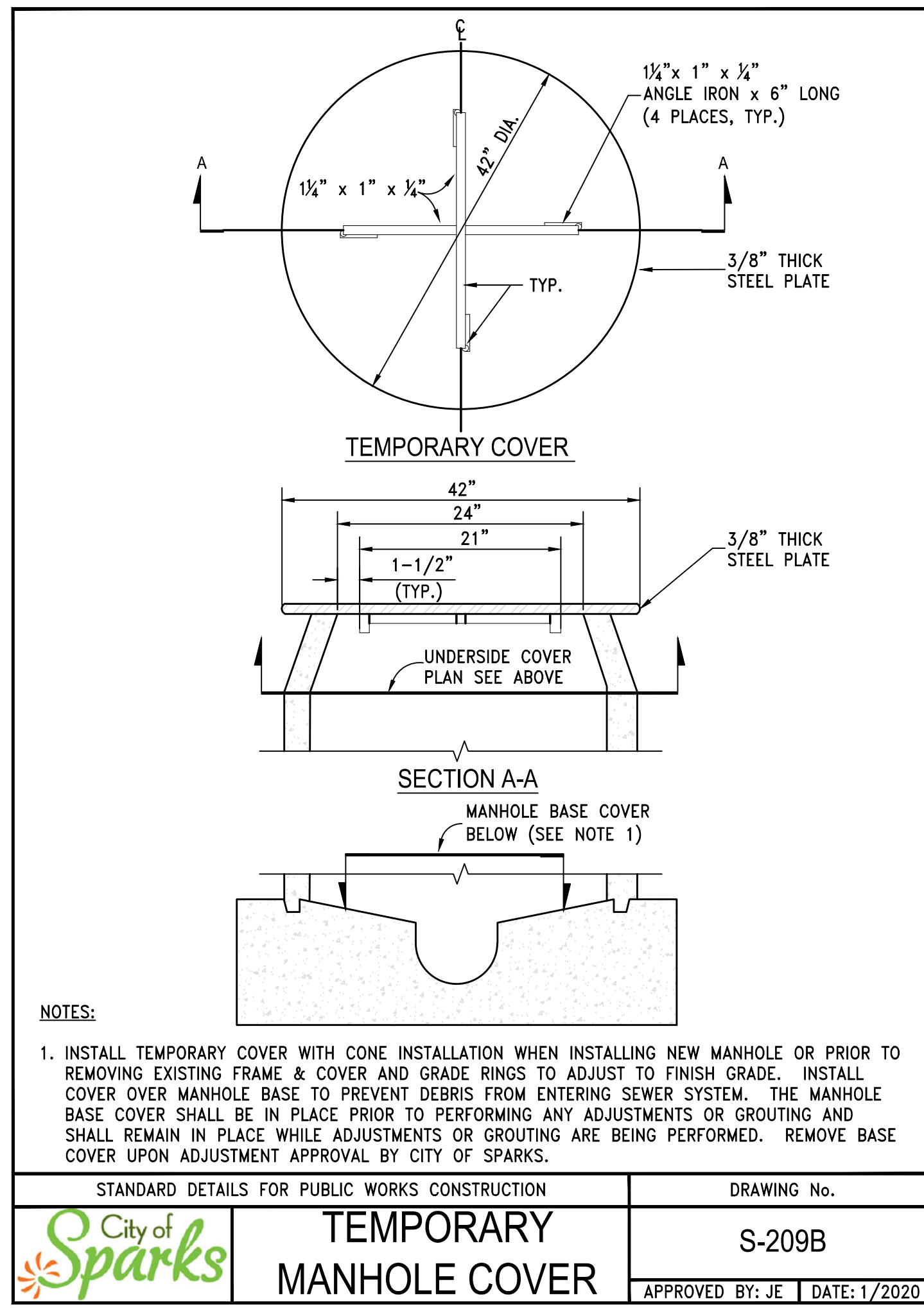
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|---------------------|--------------------|
| DATE: DEC. 2022     | BY: [Signature]    |
| DRAWN BY: E.C.W.    | CHECKED BY: E.C.W. |
| DESIGNED BY: E.C.W. | DATE: [Blank]      |
| DESCRIPTION         | DATE               |
| REV.                | DATE               |

885 ROBERTA LANE, SUITE 104, SPARKS, NV 89431  
(775) 369-3303 FAX (775) 359-3329  
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odyssey ENGINEERING INCORPORATED

ERIC C. WILKINSON  
Exp. 6-30-24  
CIVIL  
No. 30263

SCALE  
HORIZ. -  
VERT. -  
JOB NO. -  
SHEET C5.1 OF 15



FOR BID

C.O.S. GLEN MEADOW DRIVE  
STORM DRAIN  
UTILITY DETAILS

SPARKS WASHOE NEVADA

| DATE:        | REV. | DATE | DESCRIPTION | BY | APP'D |
|--------------|------|------|-------------|----|-------|
| DEC. 2022    |      |      |             |    |       |
| DRAWN BY:    |      |      |             |    |       |
| E.C.W.       |      |      |             |    |       |
| DESIGNED BY: |      |      |             |    |       |
| E.C.W.       |      |      |             |    |       |
| CHECKED BY:  |      |      |             |    |       |
| E.C.W.       |      |      |             |    |       |

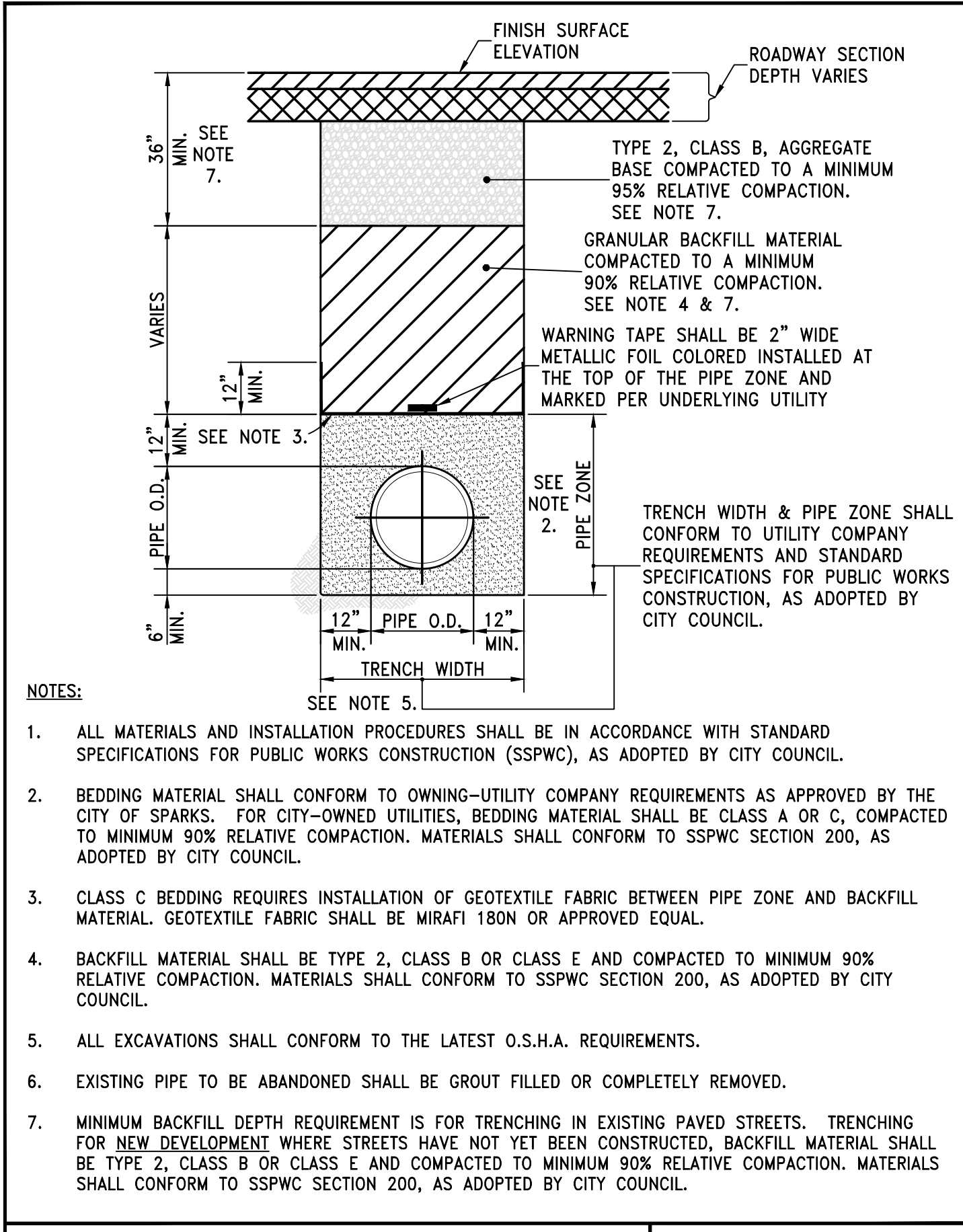
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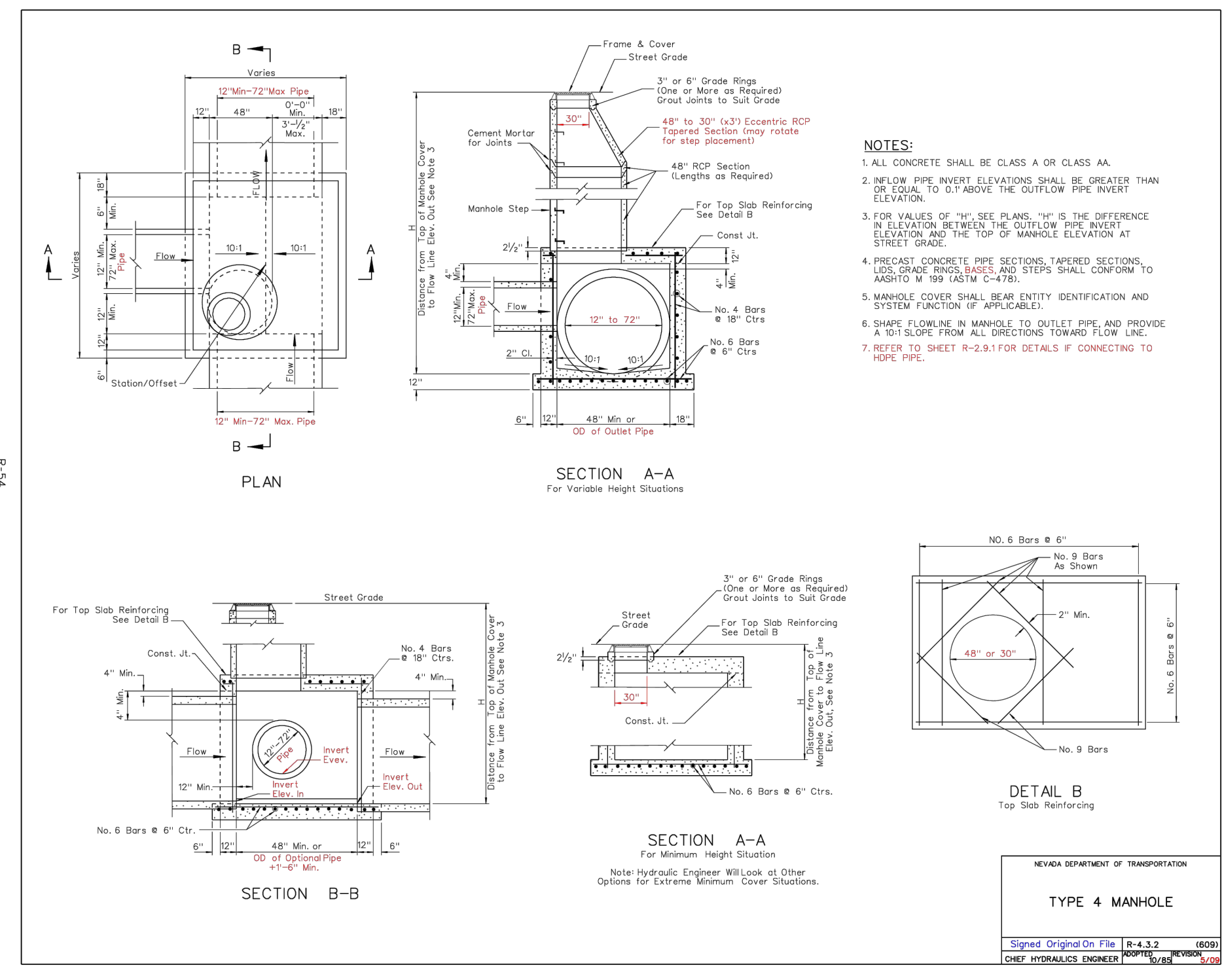
PROFESSIONAL ENGINEER - STATE OF NEVADA  
ERIC C. WILKINSON  
Exp. 6-30-24  
CIVIL  
No. 30263

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November 25, 2022 - 10:00 Dwg Name: H:\COS STORM AND SEWER MASTER CIP\Production Drawings\CIP 6-3\C6.0 - CIVIL DETAILS.dwg Updated By: eric



- NOTES:
1. ALL MATERIALS AND INSTALLATION PROCEDURES SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC), AS ADOPTED BY CITY COUNCIL.
  2. 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.
  3. CLASS C BEDDING REQUIRES INSTALLATION OF GEOTEXTILE FABRIC BETWEEN PIPE ZONE AND BACKFILL MATERIAL. GEOTEXTILE FABRIC SHALL BE MIRAFI 180N OR APPROVED EQUAL.
  4. 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.
  5. ALL EXCAVATIONS SHALL CONFORM TO THE LATEST O.S.H.A. REQUIREMENTS.
  6. EXISTING PIPE TO BE ABANDONED SHALL BE GROUT FILLED OR COMPLETELY REMOVED.
  7. MINIMUM BACKFILL DEPTH REQUIREMENT IS FOR TRENCHING IN EXISTING PAVED STREETS. TRENCHING FOR NEW DEVELOPMENT 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.



|  |              |
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| STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION | DRAWING No.  |
| <b>TRENCH EXCAVATION/BACKFILL</b>              | S-117        |
| APPROVED BY: JE                                | DATE: 1/2020 |



| REV. | DATE | DESCRIPTION | BY | APP'D |
|------|------|-------------|----|-------|
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| DATE: DEC. 2022 | DRAWN BY: E.C.W. | DESIGNED BY: E.C.W. | CHECKED BY: E.C.W. |
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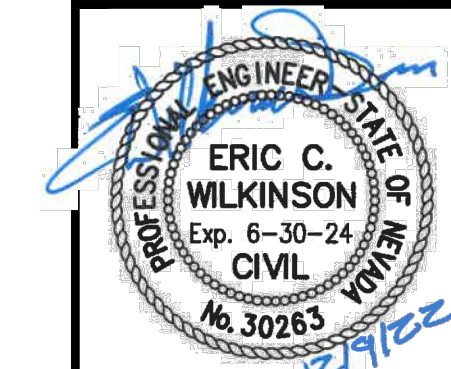
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C.O.S. GLEN MEADOW DRIVE  
STORM DRAIN  
UTILITY DETAILS

SPARKS WASHOE NEVADA

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| SCALE   | -    |
| HORIZ.  | -    |
| VERT.   | -    |
| JOB NO. | -    |
| SHEET   | C5.3 |
| OF      | 15   |

**TEMPORARY A.C. TRENCH PATCH**

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

DRAWING No. S-116

APPROVED BY: JE | DATE: 1/2020

City of Sparks

**ROADWAY SECTIONS**

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

DRAWING No. S-101A

APPROVED BY: JE | DATE: 2/2020

City of Sparks

**NOTES - ROADWAY SECTIONS**

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

DRAWING No. S-101B

APPROVED BY: JE | DATE: 2/2020

City of Sparks

**PERMANENT BITUMINOUS PAVEMENT PATCH**

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

DRAWING No. S-115

APPROVED BY: JE | DATE: 1/2020

City of Sparks

**PEDESTRIAN RAMP - EXISTING SIDEWALKS**

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

DRAWING No. S-106A

APPROVED BY: JE | DATE: 1/2020

City of Sparks

**PEDESTRIAN RAMP - DETAILS**

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

DRAWING No. S-106F

APPROVED BY: JE | DATE: 1/20

City of Sparks

**NOTES - PEDESTRIAN RAMP**

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

DRAWING No. S-106G

APPROVED BY: JE | DATE: 3/2021

City of Sparks

**P.C.C. CURB & GUTTER**

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

DRAWING No. S-109

APPROVED BY: JE | DATE: 1/2020

City of Sparks

DATE: DEC. 2022  
 DRAWN BY: E.C.W.  
 DESIGNED BY: E.C.W.  
 CHECKED BY: E.C.W.

DESCRIPTION: GLEN MEADOW DRIVE STORM DRAIN SITE DETAILS

DATE: 1/2020

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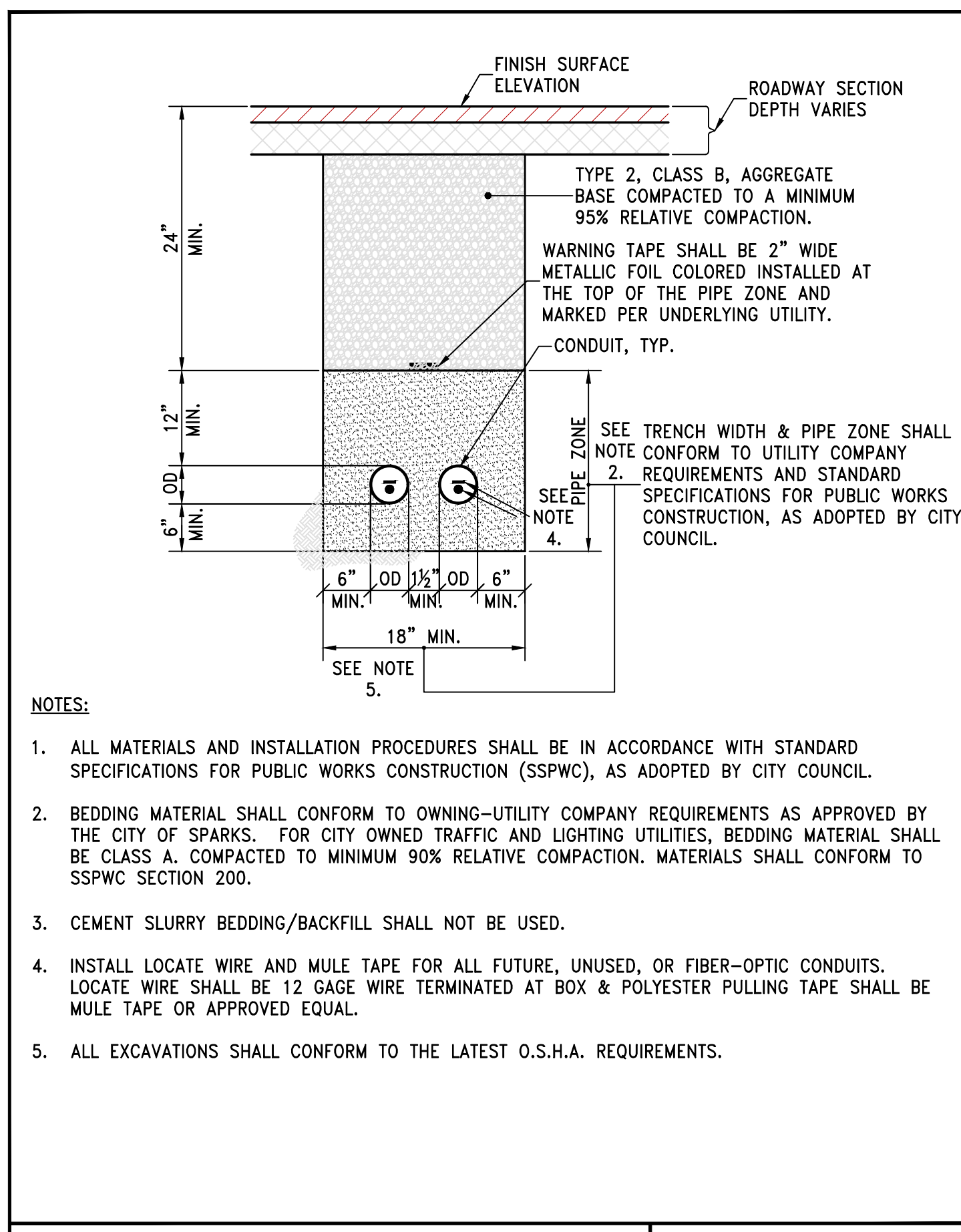
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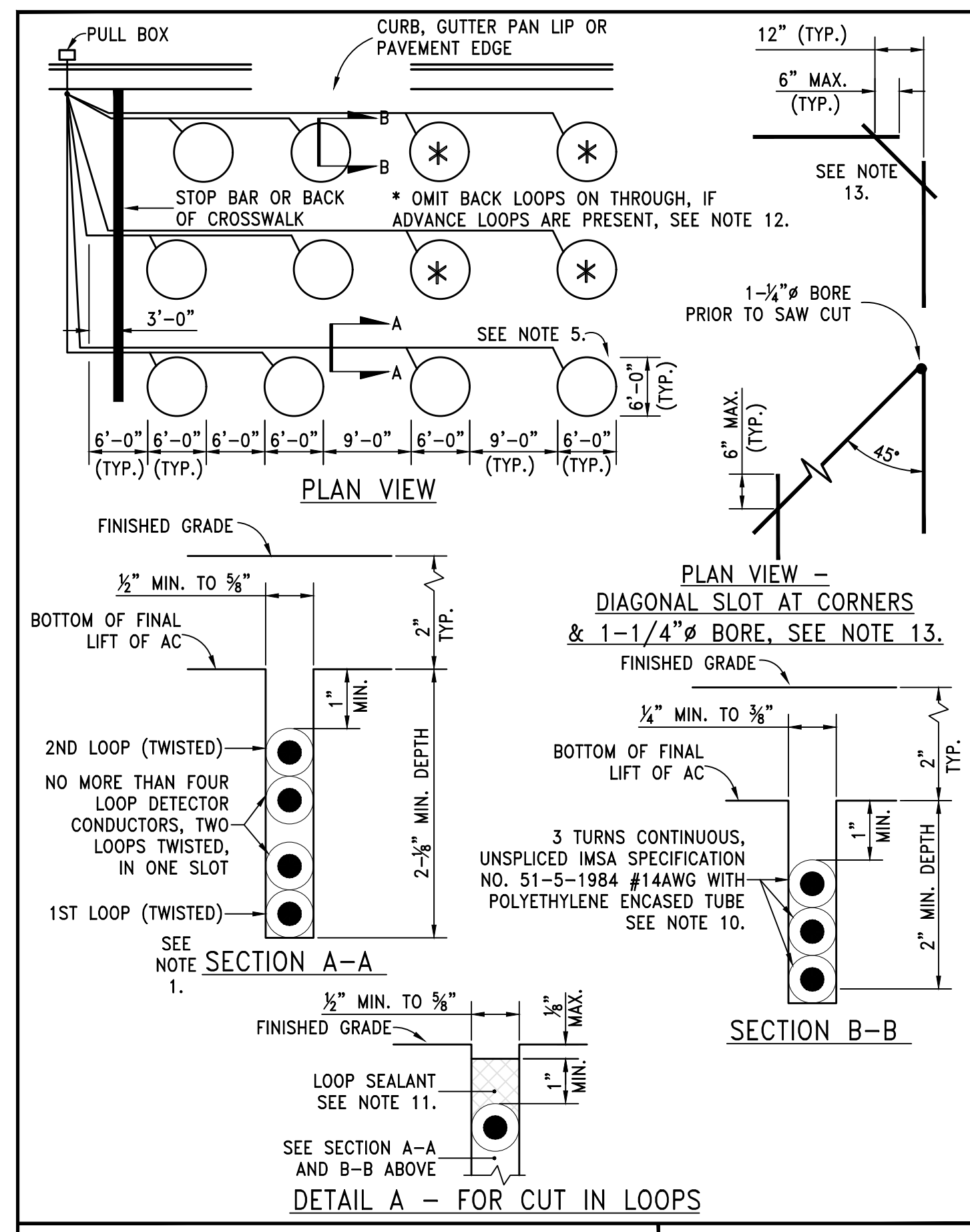
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PROFESSIONAL ENGINEER STATE OF NEVADA  
 ERIC C. WILKINSON  
 Exp. 6-30-24  
 No. 30263

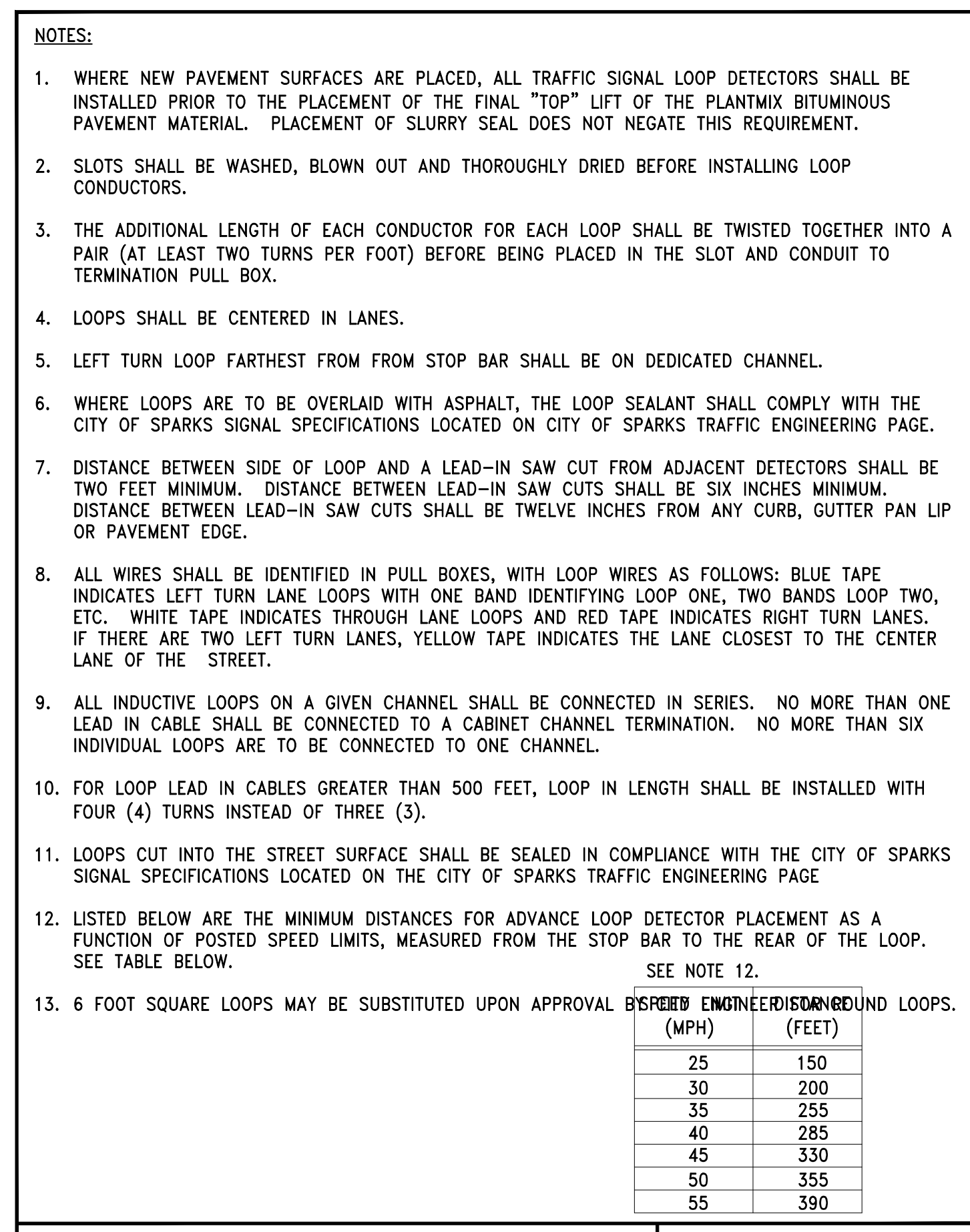
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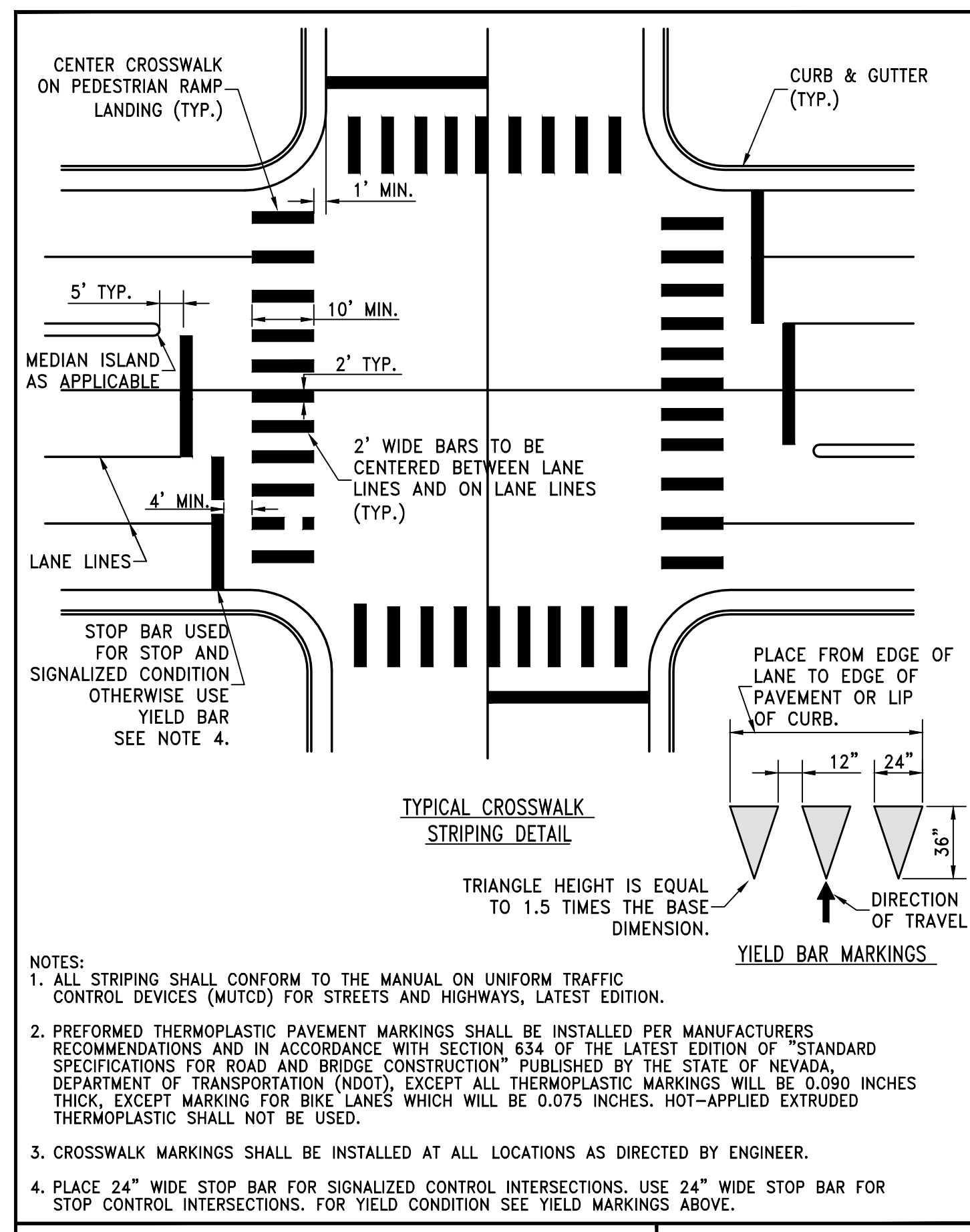
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| STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION | DRAWING No. |
| TRAFFIC & LIGHTING CONDUIT TRENCH              | S-404       |
| APPROVED BY: JE   DATE: 1/2020                 |             |



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| STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION | DRAWING No. |
| LOOP DETECTOR LAYOUT                           | S-405A      |
| APPROVED BY: JE   DATE: 1/2020                 |             |



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| STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION | DRAWING No. |
| NOTES - LOOP DETECTOR LAYOUT                   | S-405B      |
| APPROVED BY: JE   DATE: 1/2020                 |             |



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| STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION | DRAWING No. |
| CROSSWALK LEGEND                               | S-411       |
| APPROVED BY: JE   DATE: 1/2020                 |             |

FOR BID

C.O.S. GLEN MEADOW DRIVE STORM DRAIN TRAFFIC DETAILS

DATE: DEC. 2022  
DRAWN BY: E.C.W.  
DESIGNED BY: E.C.W.  
CHECKED BY: E.C.W.

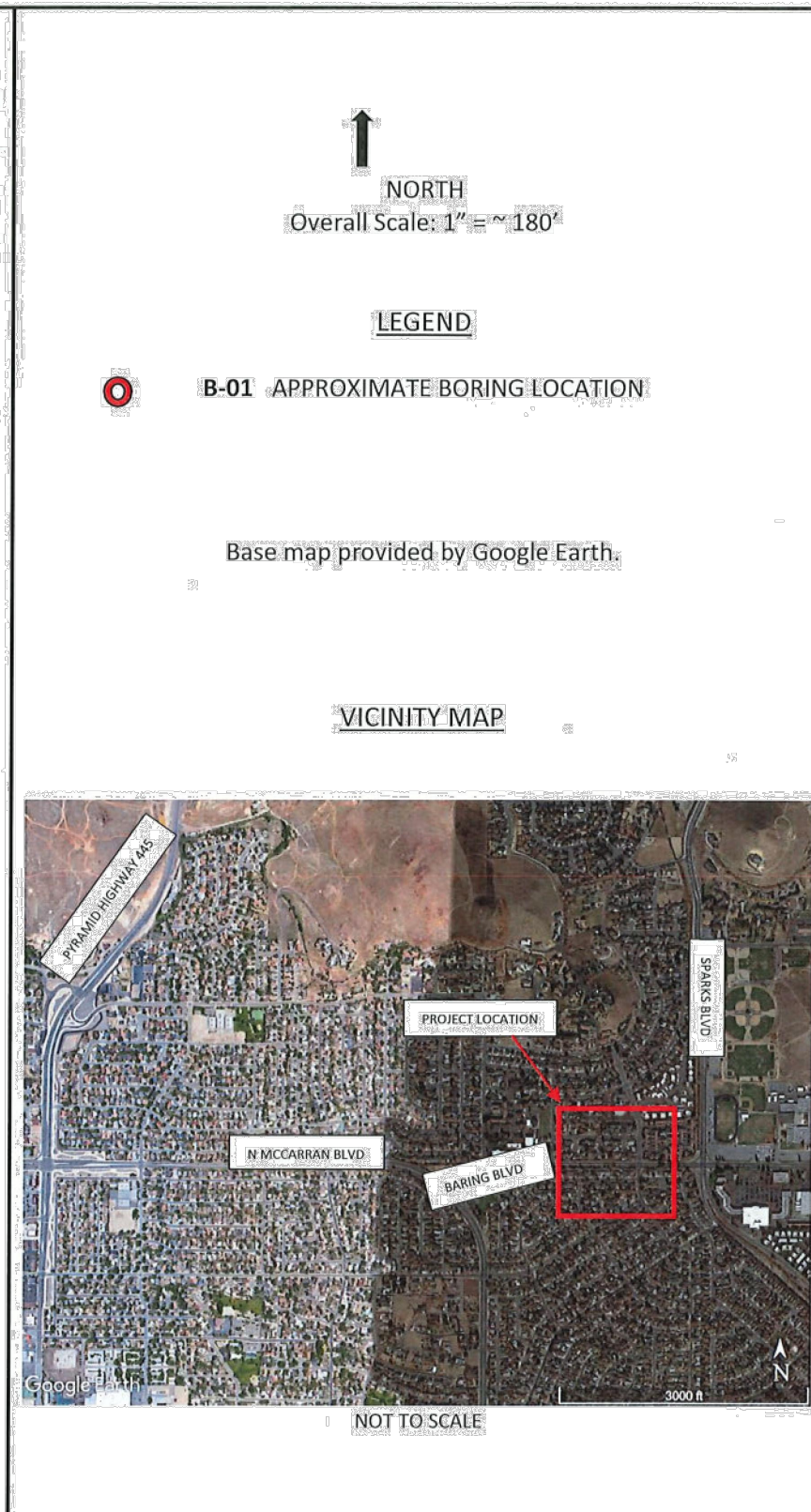
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PROFESSIONAL ENGINEER - STATE OF NEVADA  
No. 30283  
Exp. 6-30-24  
CIVIL

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SPARKS WASHOE NEVADA



Odyssey Engineering  
**PLOT PLAN**  
 Goldy Way at Baring Boulevard Storm Drain and Sanitary Sewer Improvements  
 Sparks, Nevada

Black Eagle Consulting, Inc.  
 Project No. 0117-28-1  
 Plate 1

| BORING LOG  |             |                 |              |   |            |                                 |                  |   |  |                              |  |
|---|-------------|-----------------|--------------|---|------------|---------------------------------|------------------|---|--|------------------------------|--|
| BORING NO.: B-01  |             | DATE: 6/11/2020 |              | TYPE OF BORING: Dietrich 120  |            | DEPTH TO GROUND WATER (ft): 8.5 |                  | LOGGED BY: KC   |  | GROUND ELEVATION (ft): ~4411 |  |
| SAMPLE NO.  | SAMPLE TYPE | BLOWS/12"       | MOISTURE (%) | PLASTICITY INDEX  | DEPTH (ft) | USCS SYMBOL                     | LITHOLOGY        | DESCRIPTION   |  |                              |  |
|   |             |                 |              |   |            | SM                              | Asphalt Concrete | An approximate 3-inch-thick layer of asphalt concrete.  |  |                              |  |
|   |             |                 |              |   |            | SC                              | Aggregate Base   | An approximate 6-inch-thick layer of aggregate base.  |  |                              |  |
| A   | SPT         | 16              |              |   | 5          | CH                              | Clayey Sand      | Brown, moist, medium dense, with an estimated 25% low to medium plasticity fines, 70% fine to coarse sand, and 5% subangular to subrounded gravel up to 1/2 inch in diameter. |  |                              |  |
| C   | MC          | 11              |              |   | 5          | SM                              | Sandy Fat Clay   | Dark brown, moist, stiff, with an estimated 70% medium plasticity fines, 25% fine to coarse sand, and 5% subangular to subrounded gravel up to 1/2 inch in diameter.          |  |                              |  |
| D   | SPT         | 45              | 36.8         | NP  | 10         | ML                              | Silty Sand       | Dark brown, moist, loose, with an estimated 25% non-plastic fines, 70% fine to coarse sand, 5% subangular to subrounded gravel up to 1/2 inch in diameter.                    |  |                              |  |
| E   | MC          | 59              |              |   | 10         | ML                              | Sandy Silt       | Brown, moist to wet, hard, with 53% non-plastic fines, 31% fine to medium sand, and 11% subangular to subrounded gravel up to 1/2 inch in diameter.                           |  |                              |  |
|   |             |                 |              |   | 15         | SC                              | Clayey Sand      | Brown, wet, very dense, with an estimated 30% low plasticity fines, 65% fine to coarse sand, and 5% subangular to subrounded gravel up to 1/2 inch in diameter.               |  |                              |  |
|   |             |                 |              |   | 20         |                                 |                  |   |  |                              |  |
| Groundwater depth approximate. Equilibrium not achieved.  |             |                 |              |   |            |                                 |                  |   |  |                              |  |
| Black Eagle Consulting, Inc.<br>1345 Capital Blvd., Suite A<br>Reno, Nevada 89502-7140<br>Telephone: (775) 359-6600 |             |                 |              | Odyssey Engineering<br>Goldy Way at Baring Boulevard Storm<br>Drain and Sanitary Sewer Improvements<br>Sparks, Nevada |            |                                 |                  | PROJECT NO.:<br>0117-28-1<br>PLATE:<br>2<br>SHEET 1 OF 1  |  |                              |  |

| BORING LOG  |             |                 |              |   |            |                                  |             |   |  |                              |  |
|---|-------------|-----------------|--------------|---|------------|----------------------------------|-------------|---|--|------------------------------|--|
| BORING NO.: B-02  |             | DATE: 6/11/2020 |              | TYPE OF BORING: Dietrich 120  |            | DEPTH TO GROUND WATER (ft): 10.0 |             | LOGGED BY: KC   |  | GROUND ELEVATION (ft): ~4411 |  |
| SAMPLE NO.  | SAMPLE TYPE | BLOWS/12"       | MOISTURE (%) | PLASTICITY INDEX  | DEPTH (ft) | USCS SYMBOL                      | LITHOLOGY   | DESCRIPTION   |  |                              |  |
| A   | MC          | 16              |              |   | 5          | SC                               | Clayey Sand | Black to brown, moist, medium dense, with an estimated 35% medium plasticity fines, 60% fine to coarse sand, and 5% subangular to subrounded gravel up to 1/2 inch in diameter. |  |                              |  |
| C   | SPT         | 10              |              |   | 5          | SC                               | Clayey Sand | Brown, moist, loose to medium dense, with an estimated 40% low plasticity fines, 55% fine to coarse sand, and 5% subangular to subrounded gravel up to 1/2 inch in diameter.    |  |                              |  |
| D   | MC          | 19              |              |   | 10         | SM                               | Silty Sand  | Brown, wet, medium dense, with an estimated 30% non-plastic fines, 65% fine to coarse sand, 5% subangular to subrounded gravel up to 1/2 inch in diameter.                      |  |                              |  |
| E   | SPT         | 13              |              |   | 10         | SM                               | Silty Sand  | Brown, wet, medium dense, with an estimated 30% non-plastic fines, 65% fine to coarse sand, 5% subangular to subrounded gravel up to 1/2 inch in diameter.                      |  |                              |  |
| Groundwater depth approximate. Equilibrium not achieved.  |             |                 |              |   |            |                                  |             |   |  |                              |  |
| Black Eagle Consulting, Inc.<br>1345 Capital Blvd., Suite A<br>Reno, Nevada 89502-7140<br>Telephone: (775) 359-6600 |             |                 |              | Odyssey Engineering<br>Goldy Way at Baring Boulevard Storm<br>Drain and Sanitary Sewer Improvements<br>Sparks, Nevada |            |                                  |             | PROJECT NO.:<br>0117-28-1<br>PLATE:<br>2<br>SHEET 1 OF 1  |  |                              |  |

| BORING LOG  |             |                 |              |   |            |                                 |                  |  |  |                              |  |
|---|-------------|-----------------|--------------|---|------------|---------------------------------|------------------|--|--|------------------------------|--|
| BORING NO.: B-03  |             | DATE: 6/11/2020 |              | TYPE OF BORING: Dietrich 120  |            | DEPTH TO GROUND WATER (ft): 9.0 |                  | LOGGED BY: KC  |  | GROUND ELEVATION (ft): ~4411 |  |
| SAMPLE NO.  | SAMPLE TYPE | BLOWS/12"       | MOISTURE (%) | PLASTICITY INDEX  | DEPTH (ft) | USCS SYMBOL                     | LITHOLOGY        | DESCRIPTION  |  |                              |  |
| A   | AUGER       |                 | 18.1         | 18  | 5          | CL                              | Asphalt Concrete | An approximate 3-inch-thick layer of asphalt concrete.   |  |                              |  |
| B   | MC          | 20              |              |   | 5          | SC                              | Aggregate Base   | An approximate 6-inch-thick layer of aggregate base.   |  |                              |  |
| C   | SPT         | 9               |              |   | 5          | SC                              | Sandy Lean Clay  | Brown, moist, stiff, with 51% medium plasticity fines, 45% fine to coarse sand, and 4% subangular to subrounded gravel up to 1 inch in diameter. Cobble or boulder indicated by drilling response.                 |  |                              |  |
| E   | MC          | 66              |              |   | 10         | SC                              | Clayey Sand      | Brown, moist to wet, loose to very dense, with an estimated 40% low plasticity fines, 55% fine to coarse sand, and 5% subangular to subrounded gravel up to 1/2 inch in diameter. Interbedded SC, SM and CL soils. |  |                              |  |
| F   | SPT         | 29              |              |   | 10         | SM                              | Silty Sand       | Brown, wet, medium dense, with an estimated 15% non-plastic fines, 80% fine to coarse sand, and 5% subangular to subrounded gravel up to 1/2 inch in diameter.   |  |                              |  |
| Groundwater depth approximate. Equilibrium not achieved.  |             |                 |              |   |            |                                 |                  |  |  |                              |  |
| Black Eagle Consulting, Inc.<br>1345 Capital Blvd., Suite A<br>Reno, Nevada 89502-7140<br>Telephone: (775) 359-6600 |             |                 |              | Odyssey Engineering<br>Goldy Way at Baring Boulevard Storm<br>Drain and Sanitary Sewer Improvements<br>Sparks, Nevada |            |                                 |                  | PROJECT NO.:<br>0117-28-1<br>PLATE:<br>2<br>SHEET 1 OF 1   |  |                              |  |

FOR BID

**C.O.S. GLEN MEADOW DRIVE  
STORM DRAIN  
BORING LOGS**

SPARKS      WASHOE      NEVADA

---

885 ROBERTA LANE, SUITE 104, SPARKS, NV 89431  
(775) 369-3303 FAX (775) 359-3329  
ODYSSEYRENO.COM

**Odyssey ENGINEERING INCORPORATED**

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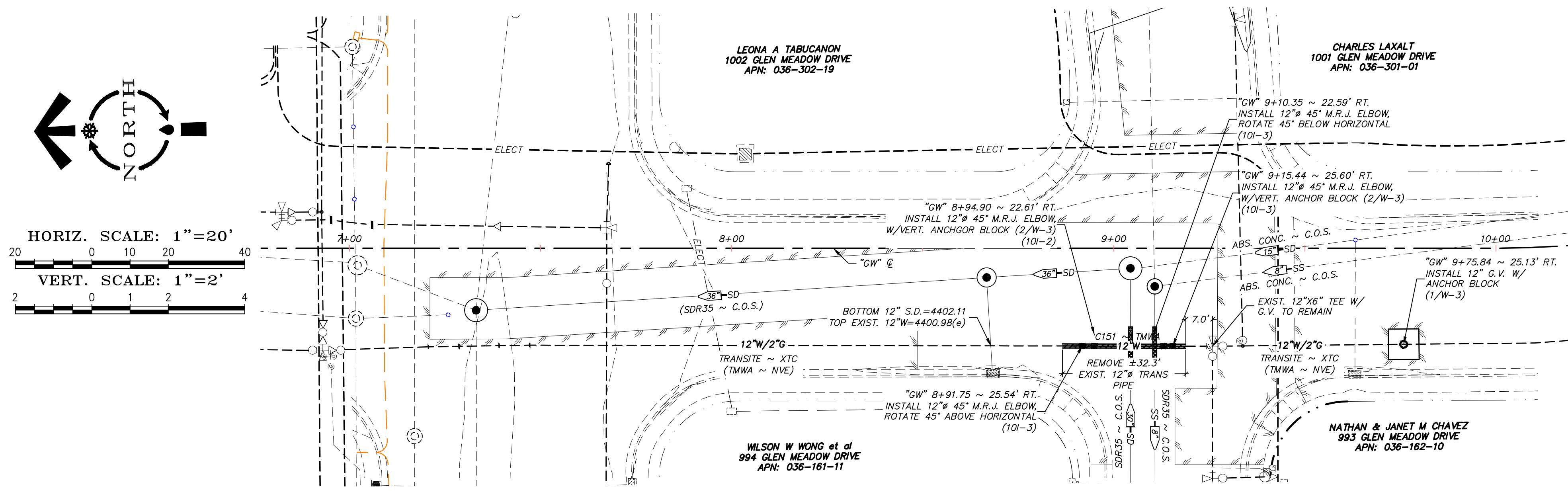
PROFESSIONAL ENGINEER - STATE OF NEVADA  
**ERIC C. WILKINSON**  
 Exp. 6-30-24  
 CIVIL  
 No. 30283

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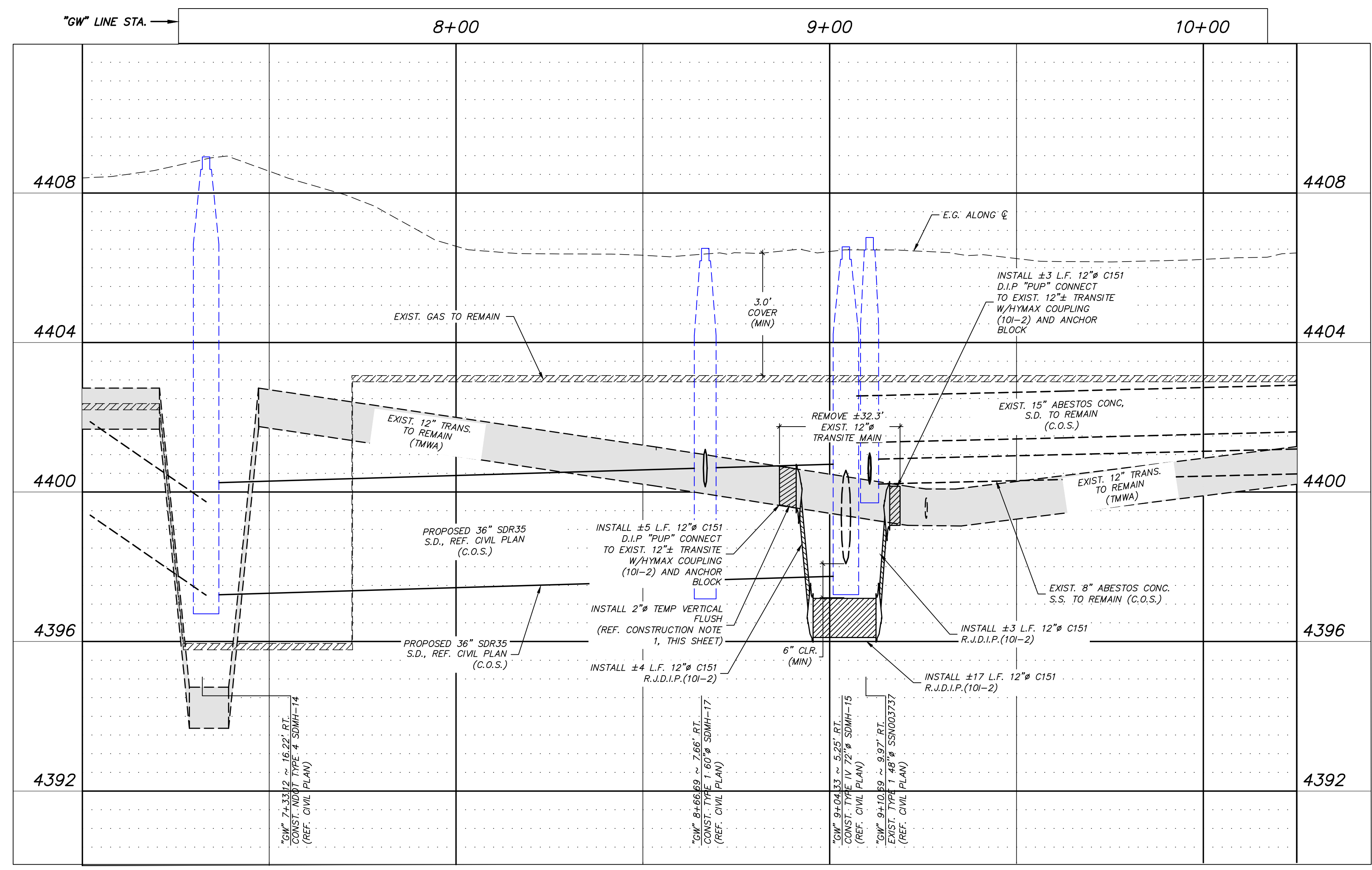
SCALE  
 HORIZ. —  
 VERT. —  
 JOB NO. —  
 SHEET  
**C5.6**  
 OF  
**15**







**GOLDY WAY (PUBLIC)**  
**STA. "GW" 7+00 TO 10+50**



**NOTES**

- INSTALL 2" TEMP VERTICAL FLUSH
- INSTALL 12" X 2" SERVICE SADDLE
- INSTALL 2" CORR STOP
- CONTRACTOR TO FURNISH PIPE TO GRADE
- AS REQUIRED, RETIRE FLUSH WITH 2" BRASS CAP ONCE TESTING HAS BEEN COMPLETED.

**SLURRY BACKFILL NOTE:**  
 CONTRACTOR SHALL INSTALL EXCAVATABLE SLURRY BACKFILL EXTENDING 10' UP AND DOWN STREAM OF PROPOSED WATER MAIN CROSSING. EXCAVATABLE SLURRY SHALL BE INSTALLED WITHIN THE UPPER PIPE ZONE OF 12" WATER MAIN TO SPRING LINE OF THE PROPOSED STORM DRAIN AND SANITARY SEWER INSTALLATIONS

895 ROBERTA LANE, SUITE 104, SPARKS, NV 89431  
 (775) 359-3303 FAX (775) 359-3329  
**odyssey ENGINEERING INCORPORATED**  
**DESIGNER**

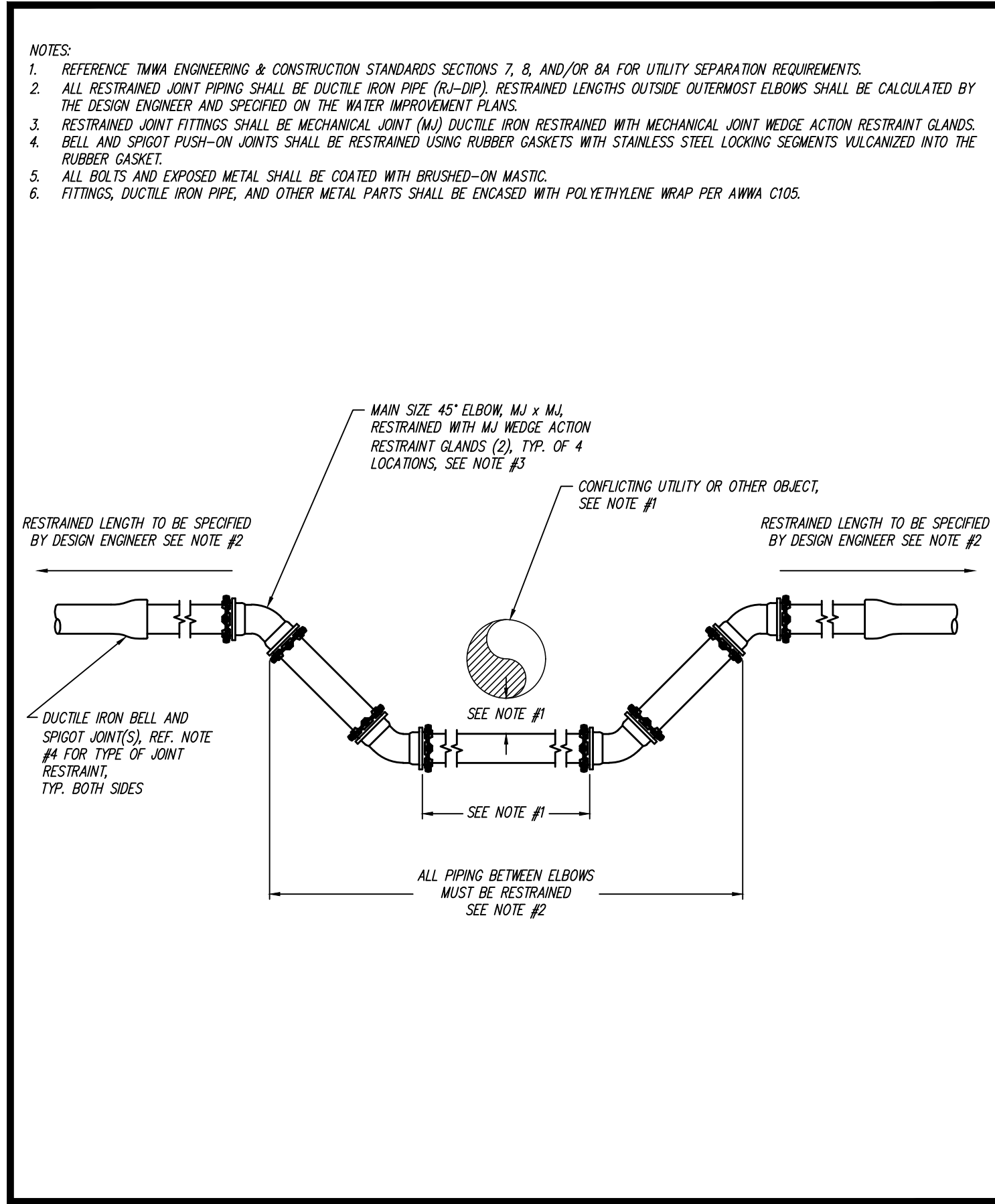
**811**  
 Know what's below. Call before you dig.  
 ERIC C. WILKINSON  
 Exp. 6-30-24  
 CIVIL  
 No. 30263  
 ENGINEER STATE OF NV

WORK ORDER NO. \_\_\_\_\_  
 DESIGNED BY: ODYSSEY ENGINEERING  
 DRAWN BY: AAD 2021  
 DATE: NOVEMBER 2022  
 CHECKED BY: \_\_\_\_\_  
 SUBMITTED BY: \_\_\_\_\_  
 RECOMMENDED BY: \_\_\_\_\_  
 APPROVED BY: \_\_\_\_\_

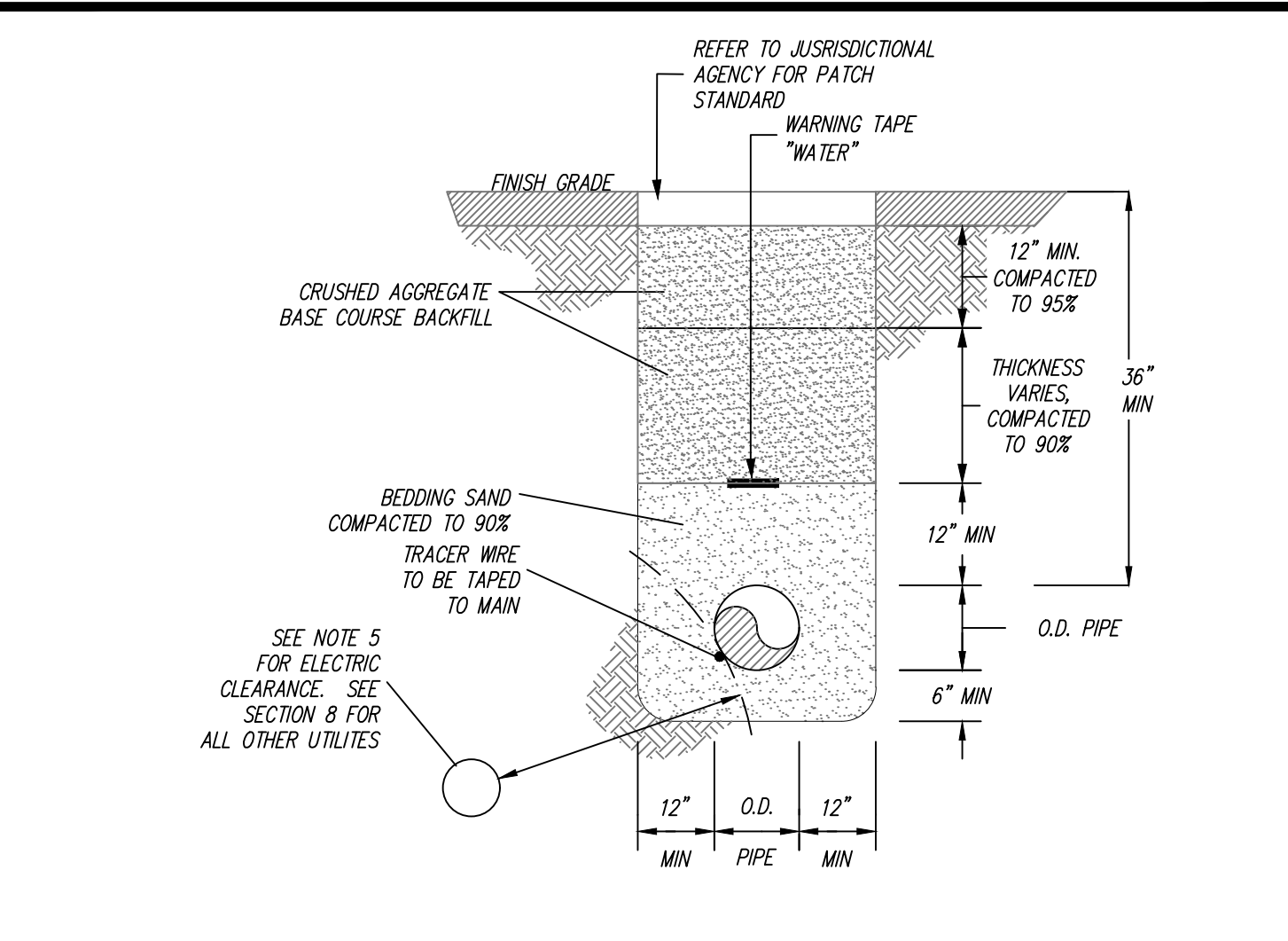
**TRUCKEE MEADOWS WATER**  
 R U T H O R I T Y  
 1365 CAPITAL BLVD., PO BOX 30013  
 RENO, NEVADA 89502 / 775-333-8000 / FAX 775-834-8003  
 FAX 775-834-8000 / FX 775-834-8003

**C.O.S. GLEN MEADOW STORM DRAIN**  
**GOLDBY WAY MAIN LOWERING**  
 DETAILS

SHEET NUMBER  
**W-3**  
 3 OF 3



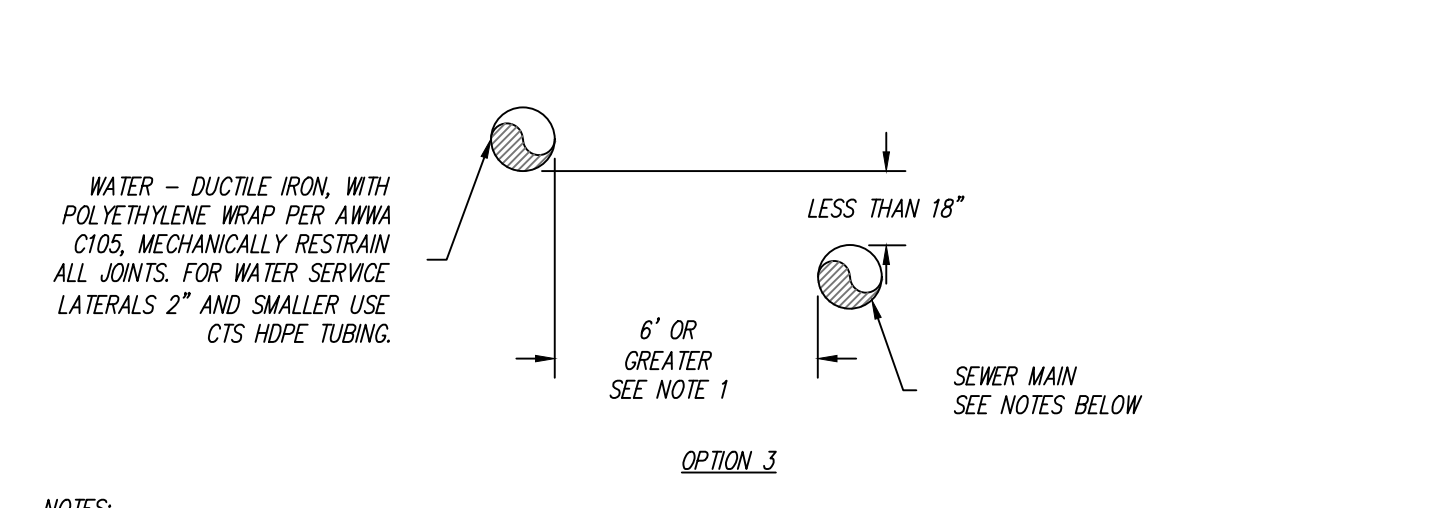
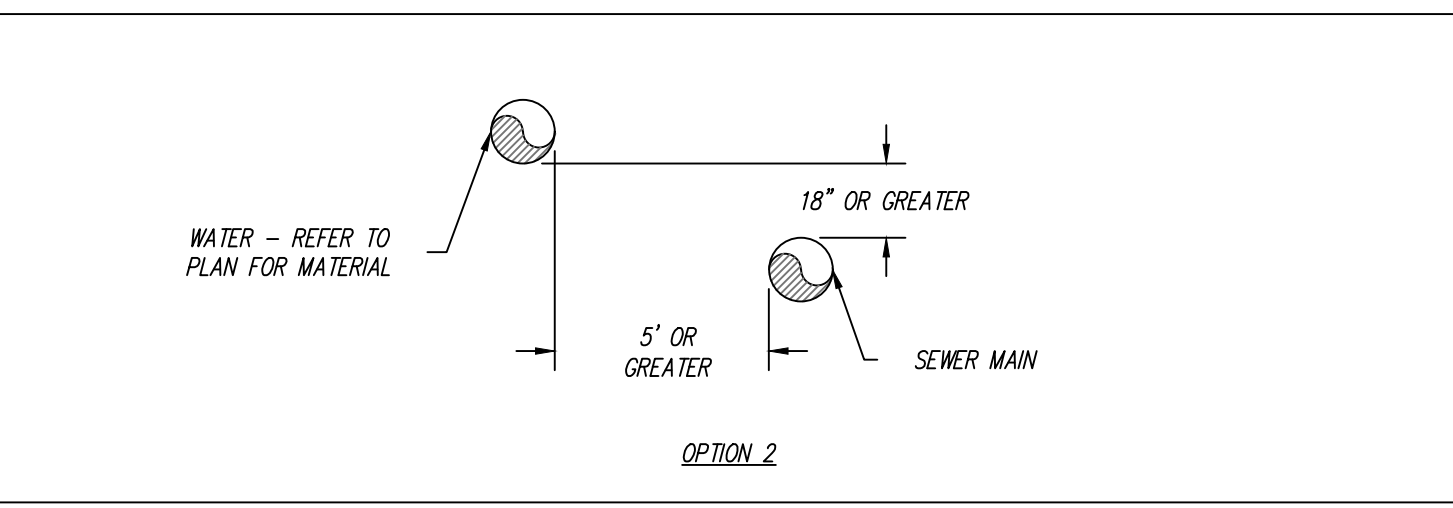
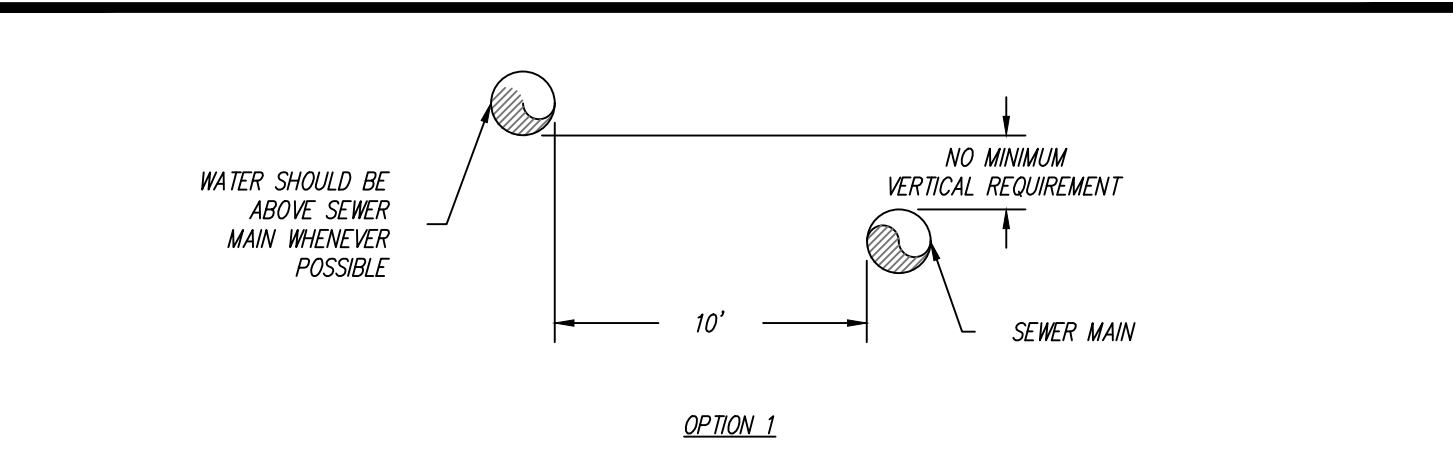
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|--|------|--------|-----------------------------|---|-------|
|  | DATE | 7/2001 | APPENDIX 10I                | DRAWING NUMBER  | 10I-2 |
|  | REV  | 7/2011 | VERTICAL ELBOW INSTALLATION | RESTRAINED JOINT VERTICAL OFFSET UNDER UTILITY OBJECT FOR MAINS 6" TO 12" |       |
|  | DATE | 7/2001 | APPENDIX 10I                | DRAWING NUMBER  | 10I-2 |



**NOTES:**

- ALL TRENCHES MUST CONFORM TO APPLICABLE TMAA, CITY, STATE, COUNTY, AND OSHA SPECIFICATIONS AND REQUIREMENTS. IN THE CASE OF CONFLICT, THE MORE RIGID SPECIFICATION OR STANDARD SHALL APPLY.
- BEDDING SAND SHALL BE COMPACTED TO 90% MAXIMUM DENSITY PER SECTION 5.05.03 AND SHALL BE A MINIMUM OF 12" ABOVE AND 6" BELOW THE MAIN, PER SECTION 5 OF TMAA STANDARDS.
- CRUSHED AGGREGATE BASE COURSE BACKFILL SHALL BE PLACED IN 12" MAXIMUM LOOSE LIFTS. THE TOP 12" SHALL BE COMPACTED TO 95% MAXIMUM DENSITY. THE AREA ABOVE THE BEDDING SAND & BELOW 12" FROM FINISH GRADE SHALL BE COMPACTED TO 90% MAXIMUM DENSITY, PER SECTION 5 OF TMAA STANDARDS.
- NON-METALLIC BLUE WARNING TAPE SHALL BE PLACED IN ALL TRENCHES AT LEAST 12" ABOVE THE WATER MAIN.
- ELECTRIC UTILITIES MUST BE LOCATED BELOW WATER & MAINTAIN 2" MINIMUM RADIAL CLEARANCE FROM TMAA WATER FACILITIES. IF 2" RADIAL CLEARANCE CAN NOT BE MET ELECTRIC CONDUIT MUST BE CONCRETE ENCASED AT LEAST 18" EACH SIDE OF WATER CROSSING. FIBER OPTIC AND/OR COMMUNICATION CONDUITS SHALL NOT BE PLACED IN THE SAME TRENCH AS WATER.
- ALL CHANGES MUST BE APPROVED BY THE TMAA INSPECTOR AND/OR THE TMAA ENGINEER.
- SEPARATION FOR PIPES IN A JOINT TRENCH SHALL BE A MINIMUM OF 12".
- TRACER WIRE SHALL BE #14 COPPER CLAD STAINLESS STEEL CORE WITH 30 MILS BLUE HDPE INSULATION. ALL WIRE SPLICES SHALL BE MADE USING A SPLIT BOLT CONNECTOR WRAPPED WITH AQUASEAL AND ELECTRIC TAPE. THE CONTRACTOR SHALL INSTALL A 3 POUND ANODE AT EVERY TEST STATION. TEST STATIONS SHALL BE LOCATED ALONG THE MAIN NO MORE THAN 500 FEET APART. REFER TO 10L-9.

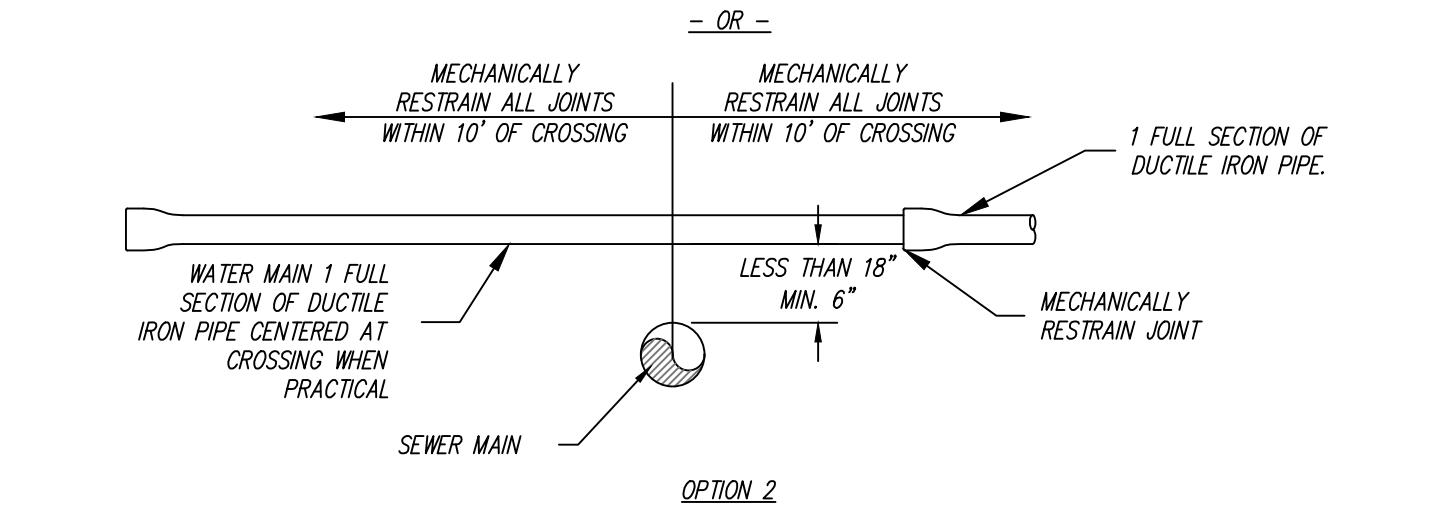
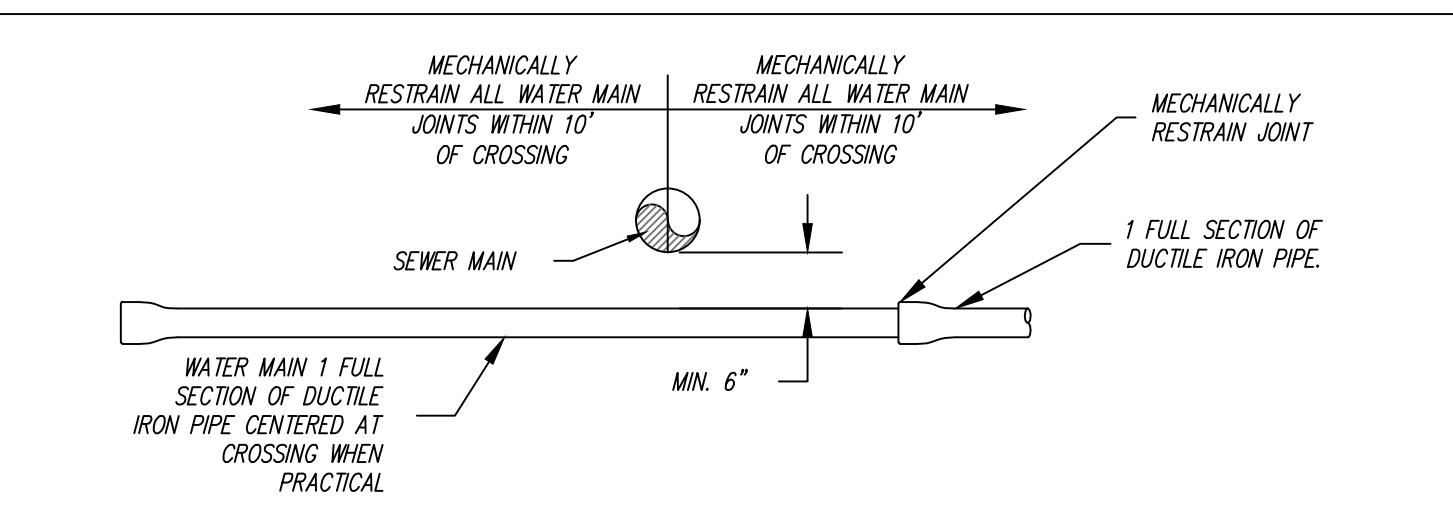
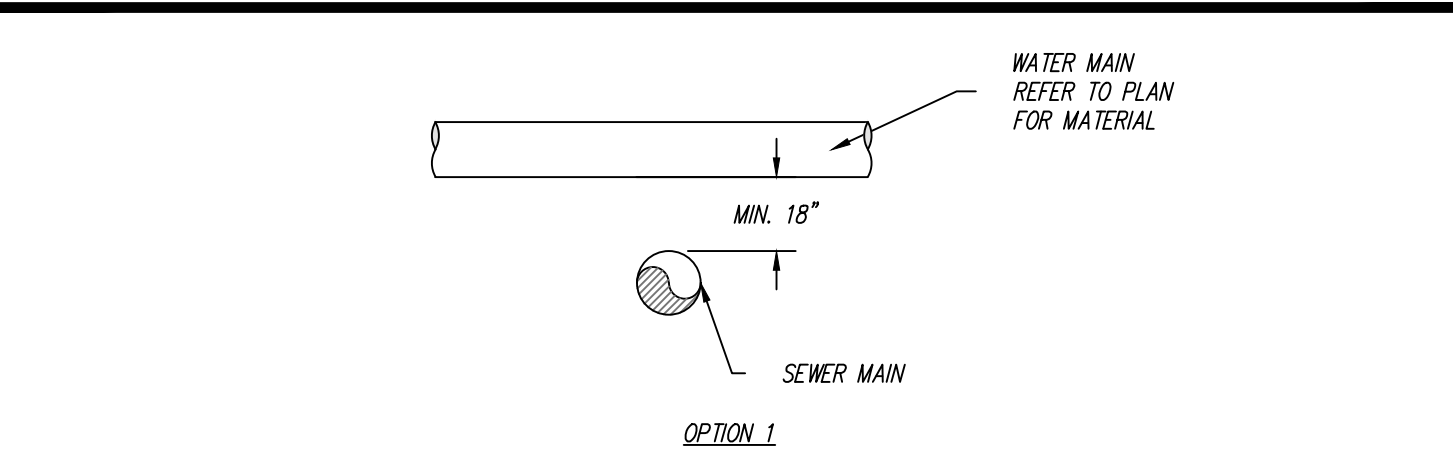
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|--|------|---------|-----------------------------|--------------------------|-------|
|  | DATE | 7/2011  | APPENDIX 10L                | DRAWING NUMBER           | 10L-6 |
|  | REV  | 02/2014 | MISCELLANEOUS WATER DETAILS | TRENCH DETAIL WATER ONLY |       |
|  | DATE | 7/2011  | APPENDIX 10L                | DRAWING NUMBER           | 10L-6 |



**NOTES:**

- IF SEPARATION IS 10 FEET OR MORE USE OPTION 1.
- NON-PRESSURIZED SEWER MAINS SHALL BE SDR 35 PVC. IF SEWER MAINS ARE NON SDR 35 PVC, SEWER MAINS SHALL BE ENCASED IN 4" OF EXCAVATABLE SLURRY, USE EXTERNAL JOINT SEALANT OR OTHER MITIGATION TO ENSURE JOINTS ARE WATERTIGHT. WHERE THE SEWER MAINS ARE PRESSURIZED, THE SEWER MAINS SHALL HAVE MECHANICALLY RESTRAINED JOINTS OR SHALL USE WELDED OR FUSED PIPE.
- FOR STORM SEWER MAINS WITH A DIAMETER OF 24" OR LARGER, THE SEWER MAINS SHALL BE INSTALLED WITH WATER TIGHT JOINTS THAT USE JOINT SEALANTS OR JOINT GASKETS.

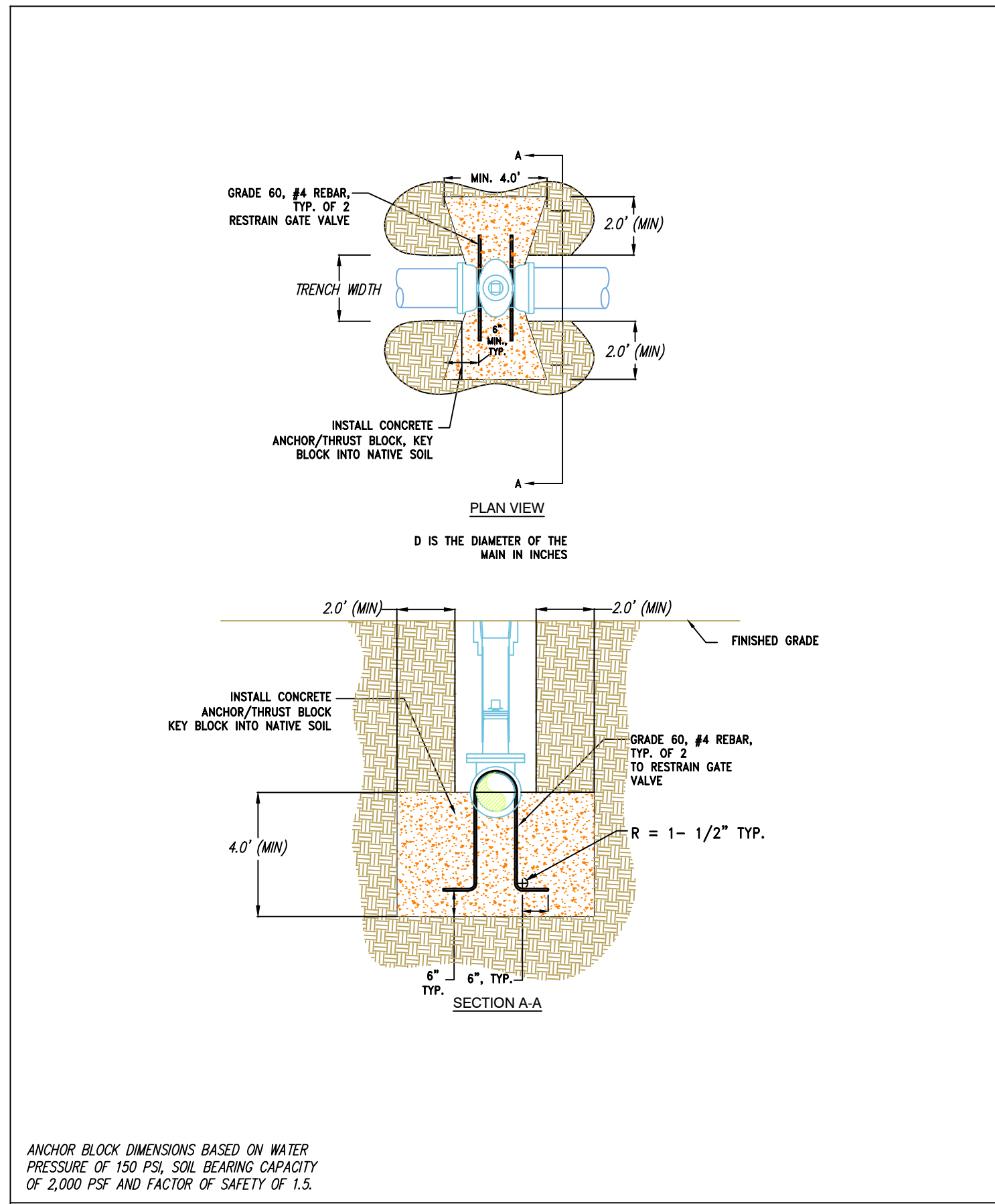
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|--|------|---------|-----------------------------|--|--------|
|  | DATE | 02/2014 | APPENDIX 10L                | DRAWING NUMBER   | 10L-10 |
|  | REV  |         | MISCELLANEOUS WATER DETAILS | WATER MAIN OR WATER SERVICE LATERAL PARALLEL TO SEWER MAIN |        |
|  | DATE | 02/2014 | APPENDIX 10L                | DRAWING NUMBER   | 10L-10 |



**NOTES:**

- OPTION 1 SHOULD BE UTILIZED WHEN POSSIBLE.
- NON-PRESSURIZED SEWER MAINS SHALL BE SDR 35 PVC. IF SEWER MAINS ARE NON SDR 35 PVC, SEWER MAINS SHALL BE ENCASED IN 4" OF EXCAVATABLE SLURRY, USE EXTERNAL JOINT SEALANT OR OTHER MITIGATION TO ENSURE JOINTS ARE WATERTIGHT. WHERE THE SEWER MAINS ARE PRESSURIZED THE SEWER MAINS SHALL HAVE MECHANICALLY RESTRAINED JOINTS OR SHALL USE WELDED OR FUSED PIPE.
- ALL MECHANICALLY RESTRAINED WATER PIPES SHALL BE DUCTILE IRON WITH POLYETHYLENE WRAP PER AWWA C105.

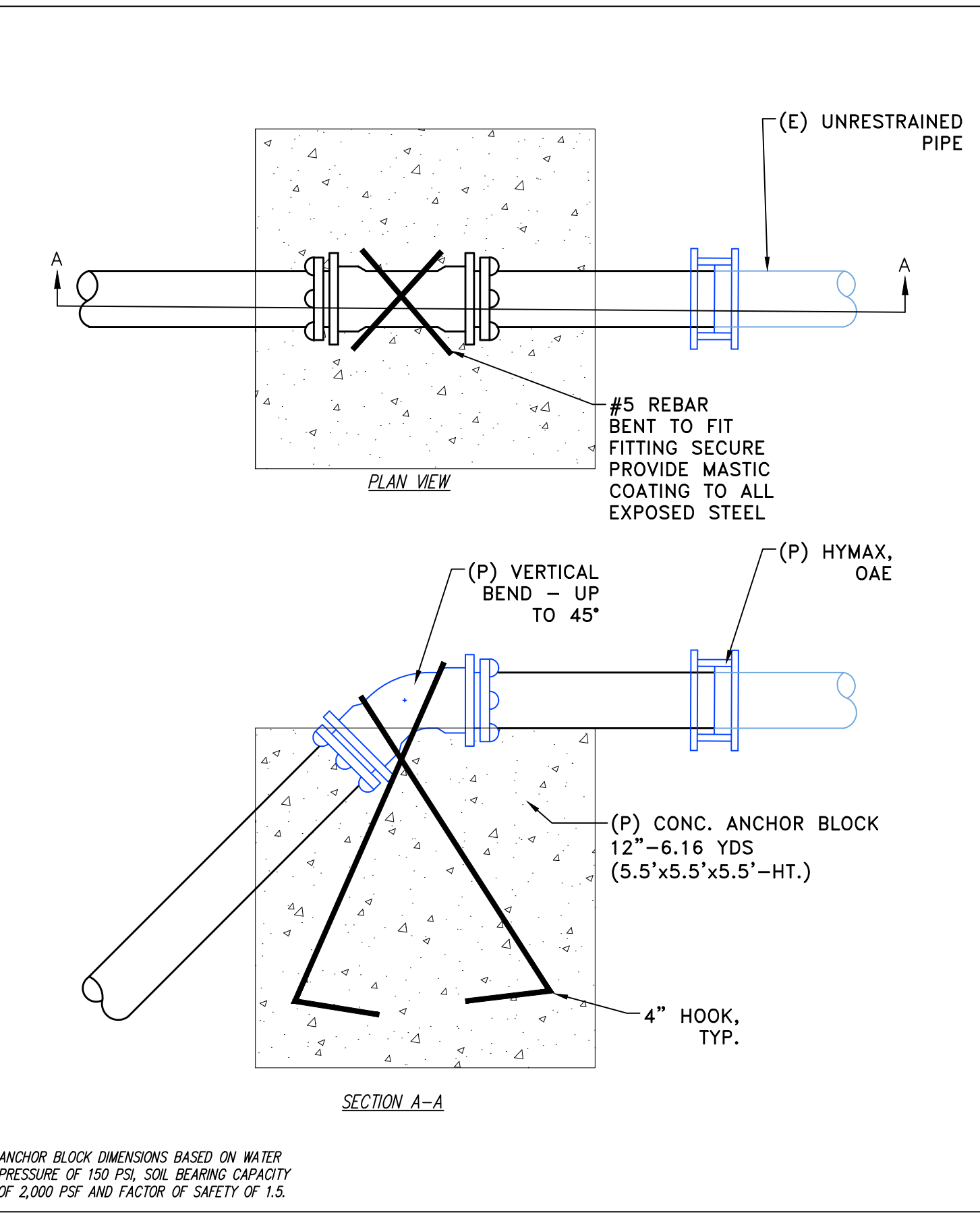
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|  | DATE | 02/2014 | APPENDIX 10L                | DRAWING NUMBER                 | 10L-11 |
|  | REV  |         | MISCELLANEOUS WATER DETAILS | WATER MAIN CROSSING SEWER MAIN |        |
|  | DATE | 02/2014 | APPENDIX 10L                | DRAWING NUMBER                 | 10L-11 |



ANCHOR BLOCK DIMENSIONS BASED ON WATER PRESSURE OF 150 PSF, SOIL BEARING CAPACITY OF 2,000 PSF AND FACTOR OF SAFETY OF 1.5.

**1**  
W-3

**GATE VALVE ANCHOR BLOCK DETAIL**



ANCHOR BLOCK DIMENSIONS BASED ON WATER PRESSURE OF 150 PSF, SOIL BEARING CAPACITY OF 2,000 PSF AND FACTOR OF SAFETY OF 1.5.

**2**  
W-3

**VERTICAL ANCHOR BLOCK DETAIL**

895 ROBERTA LANE, SUITE 104, SPARKS, NV 89431  
 (775) 359-3303 FAX (775) 359-3329

**odyssey** ENGINEERING INCORPORATED

**DESIGNER**

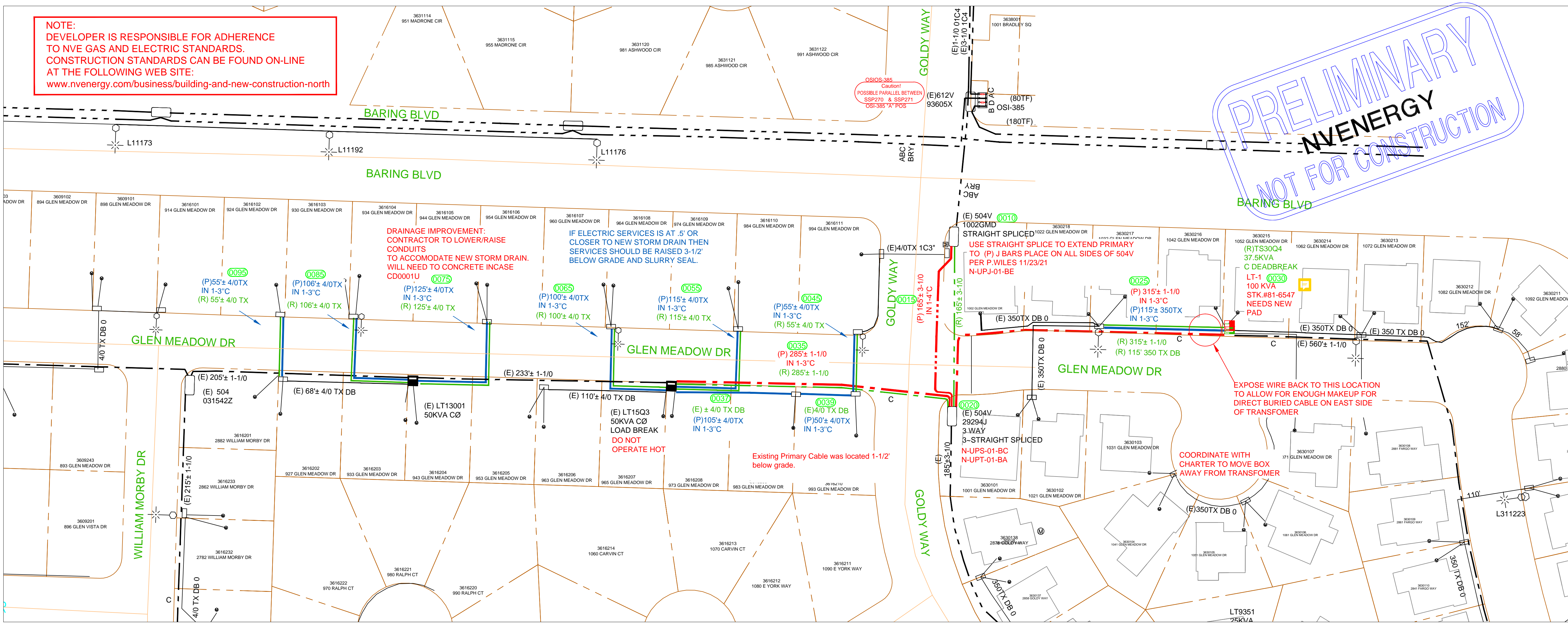
PROFESSIONAL ENGINEER STATE OF NEVADA  
 ERIC C. WILKINSON  
 Exp. 6-30-24  
 CIVIL  
 No. 30263

**811**

Know what's below.  
 Call before you dig.

NOTE:  
DEVELOPER IS RESPONSIBLE FOR ADHERENCE  
TO NVE GAS AND ELECTRIC STANDARDS.  
CONSTRUCTION STANDARDS CAN BE FOUND ON-LINE  
AT THE FOLLOWING WEB SITE:  
[www.nvenergy.com/business/building-and-new-construction-north](http://www.nvenergy.com/business/building-and-new-construction-north)

**PRELIMINARY**  
**NVENERGY**  
**NOT FOR CONSTRUCTION**



THIS IS A DRAINAGE IMPROVEMENT PROJECT  
ELECTRICAL CROSSINGS WILL NEED TO BE LOWERED/OR RAISED AS THEY ARE IN  
CONFLICT WITH STORM DRAIN

**OUTAGE  
REQUIRED**

CITY OF SPARKS ENCROACHMENT  
PERMIT NEEDED

**NV ENERGY TO FURNISH AND/OR INSTALL:**

- APPROX. 165 CKT. FT. 25 KV 3Ø U/G PRIMARY C/O 3-1/0 CABLE IN NEW 1-4" C.
- APPROX. 600 CKT. FT. 25 KV 1Ø U/G PRIMARY C/O 1-1/0 CABLE IN NEW 1-3" C.
- APPROX. 711 CKT. FT. 1Ø U/G SECONDARY BUSS C/O 1-4/0TX, IN 1-3" C (CONDUIT BY CONTRACTOR).
- APPROX. 115 CKT. FT. 1Ø U/G SECONDARY BUSS C/O 1-350TX, IN 1-3" C (CONDUIT BY CONTRACTOR).
- 1 - 1Ø PDM LOAD BREAK TRANSFORMER 100 KVA, 24.9GDY/14.4KV, 240/120V, STK.#81-6547.

**NV ENERGY TO REMOVE:**

- 165' 3-1/0 U/G CABLE
- 600' 1-1/0 U/G CABLE
- 711' FT. 4/0 CABLE.
- 115' FT. 350TX CABLE.
- 1 - 1Ø PDM DEAD BREAK TRANSFORMER 37.5 KVA, 24.9GDY/14.4KV, 240/120V.

**APPLICANT TO FURNISH AND/OR INSTALL:**

- 1 - 1Ø TRANSFORMER PAD 44"x48"x6" PER NVE. STD. PE0001U.
- PROPOSED APPROX. 165 FT. 4" PVC PRIMARY CONDUIT.
- PROPOSED APPROX. 600 FT. 3" PVC PRIMARY CONDUIT.
- PROPOSED APPROX. 826 FT. 3" PVC SECONDARY CONDUIT.

APPLICANT IS RESPONSIBLE FOR MANDRELLING CONDUIT AND INSTALLING A PULL LINE THAT MEETS OR EXCEEDS THE FOLLOWING REQUIREMENTS:  
- THE PULL LINE WILL BE OF A FLAT DESIGN  
- SHALL HAVE A MINIMUM BREAKING STRENGTH OF 400 LBS.  
- WILL HAVE SEQUENTIAL FOOTAGE MARKINGS  
- EXAMPLES OF PULL LINES THAT MEET THESE REQUIREMENTS (NVE. STK.#95-7305)  
- NEPTCO "MULE TAPE" (WP400P)  
- CONDUX INTERNATIONAL (08096203)  
- SEE NVE VOLUME 17, SECTION 4-CD0001U.

ALL TRENCHING AND BACKFILL PER APPLICABLE NVE. STDS. TE0001, TE0003, TE0004 AND TE0020.  
ALL STREET CUT PERMITS AND PAVEMENT CUTTING AND REPLACEMENT AS REQUIRED.  
NOTE: ALL CONDUIT INSTALLATIONS BENEATH FOUNDATION AND SLABS TO BE RIGID STEEL OR CONCRETE ENCASED PER NVE STDS. CD0003U.

**GENERAL COMMENTS:**

CALL NVE INSPECTION REQUEST LINE (775) 834-7520 48 HOURS PRIOR TO START OF ALL OVERHEAD OR UNDERGROUND CONSTRUCTION. (INCLUDE PROJECT NUMBER, NAME AND PHONE NUMBER, AND TYPE OF INSPECTION REQUIRED)

ALL MATERIAL SHALL BE ON THE JOB SITE PRIOR TO THE START OF ANY WORK BY NVE. COMPACTION TESTS REQUIRED PER NVE. STD. SUB01X.

NO TREE SHALL BE PLANTED UNDER OR ADJACENT TO ENERGIZED POWER LINES WHICH, AT MATURITY, SHALL GROW WITHIN 10 FEET OF THE ENERGIZED CONDUCTORS. NOR SHALL ANY PERMANENT STRUCTURE, FENCE, SHRUB OR TREE BE PLANTED CLOSER THAN 10 FEET IN FRONT AND 3 FEET FROM ALL OTHER SIDES OF A PAD MOUNTED TRANSFORMER.

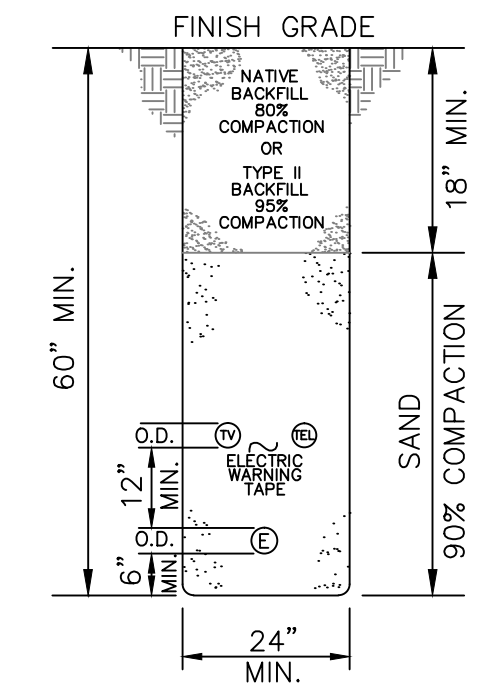
THESE DRAWINGS ARE BASED ON CIVIL PLANS DATED: 12/31/2020  
NOTE: DEVELOPER IS RESPONSIBLE FOR ADHERENCE TO NV ENERGY GAS AND ELECTRIC STANDARDS. CONSTRUCTION STANDARDS CAN BE FOUND ON-LINE AT THE FOLLOWING WEB SITE: <http://www.nvenergy.com/account-services/building-and-new-construction>

THIS MAP ILLUSTRATES DATA COLLECTED FROM VARIOUS SOURCES AND MAY NOT REPRESENT A SURVEY OF THE PREMISES. NO RESPONSIBILITY IS ASSUMED AS TO THE SUFFICIENCY OR ACCURACY OF THE DATA DISPLAYED HEREON.

ALL WORK SHALL BE ACCOMPLISHED IN STRICT ACCORDANCE WITH THE SPECIFICATIONS SET FORTH IN THE ELECTRIC DISTRIBUTION GUIDE, VOL. 17 AS CURRENTLY ADOPTED BY NVE. THE CONTRACTOR SHALL SECURE COPIES OF THE FOREMENTIONED CONSTRUCTION SPECIFICATIONS ON HIS OR HER OWN BEHALF.

USE CAUTION! PRIOR TO EXCAVATION, CHECK TO ENSURE ADDITIONAL DEPTH IS NOT REQUIRED TO ACCOMMODATE GAS AND/OR WATER FACILITIES.

SYMBOLS ARE NOT TO SCALE AND DO NOT NECESSARILY REPRESENT ACTUAL LOCATIONS OF FACILITIES.



TYP. PRIMARY OR SECONDARY TRENCH  
NTS

(E) = EXISTING  
(P) = PROPOSED  
(R) = REMOVE

SYMBOLS ARE NOT TO SCALE AND DO NOT NECESSARILY REPRESENT ACTUAL LOCATIONS OF FACILITIES.



NVE Electric Standards  
Volume 17



| DRAWING  | DESIGNED BY | DATE     |
|----------|-------------|----------|
| BASE     | CD          | 11/17/21 |
| ELECTRIC | CD          | 11/17/21 |
| GAS      |             |          |

| REVIEWED BY:     |          |                      |                    |
|------------------|----------|----------------------|--------------------|
| Utility Designer | Engineer | Design Administrator | Design Facilitator |
| CARRIE DUESING   |          |                      |                    |

| NO. | REVISION | DESCRIPTIONS | DATE | DI |
|-----|----------|--------------|------|----|
| 1   |          |              |      |    |
| 2   |          |              |      |    |
| 3   |          |              |      |    |
| 4   |          |              |      |    |
| 5   |          |              |      |    |
| 6   |          |              |      |    |
| 7   |          |              |      |    |

Call before you dig  
Call 811  
Call before you dig  
Call 1-702-227-2929

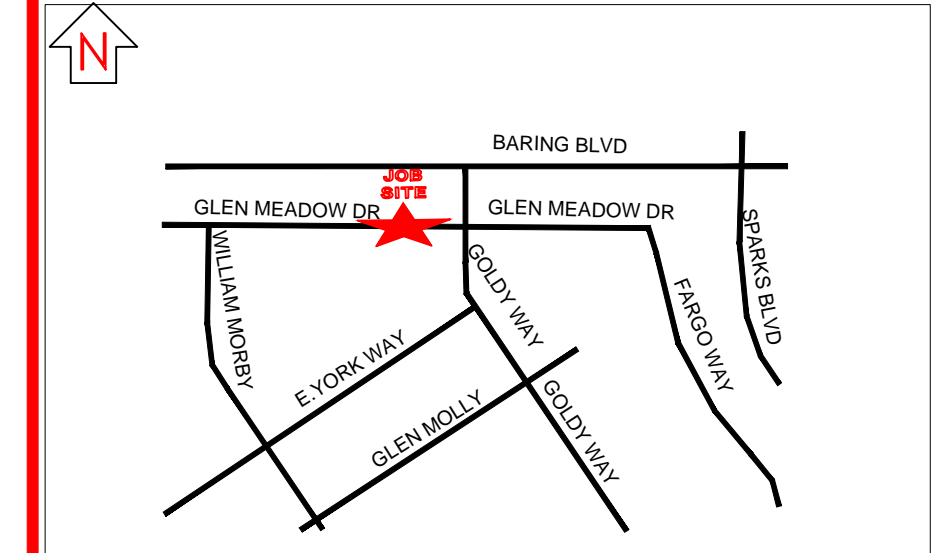
**NV Energy.**  
P.O. Box 10100  
R77CSE  
Reno, NV. 89520-0024

**NV ENERGY CONTACT INFORMATION:**  
COORDINATOR: CARRIE DUESING  
OFFICE: # 775 834-7232  
CELL: # 775 846-2003  
FAX: #  
EMAIL: CARRIE.DUESING@NVENERGY.COM  
DESIGNER: CARRIE DUESING  
INSPECTION HOTLINE#: 888/999-1556

**CUSTOMER CONTACT INFORMATION:**  
CUSTOMER: NVE  
ATTENTION: RUSS LOUIE  
PHONE: # 775 834-7733  
FAX: #  
EMAIL:  
CUST REP: #  
PHONE: #  
EMAIL:

TOWNSHIP-RANGE-SECTION  
2020-34  
APN#

**SOURCE INFORMATION:**  
228  
25KV NORM OUT OF  
GREG ST  
SUB



VICINITY MAP (NTS)

E-CITY OF  
SPARKS-RELO-S&H-NVE

|   |       |       |                   |
|---|-------|-------|-------------------|
| EXHIBIT "A" APPLICANT INSTALLED CONDUIT | AUD#: | GAS#: | FILE#: 3008399569 |
| ELECTRIC DESIGN                         |       |       |                   |
| SCALE: 1"=50'                           |       |       |                   |
| SHEET#: E.1of1                          |       |       |                   |