

#### EXHIBIT 8 - DRAWINGS (PROJECT CONSTRUCTION DRAWINGS)

# CITY OF ELKO HOSPITAL SECOND SOURCE WATERLINE AND PRV PROJECT CITY OF ELKO, NEVADA PWP NO. EL-2022 -450

**OWNER/DEVELOPER:** 

А

В

CITY OF ELKO, NEVADA 1751 COLLEGE AVENUE ELKO, NEVADA 89801 PHONE: (775) 777-7210

ENGINEER/SURVEYOR:

FARR WEST ENGINEERING **421 COURT STREET** ELKO, NV 89801 PHONE: (775) 738-2121 FAX: (775) 738-7955



FARR WEST ENGINEERING ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS AND ELEVATIONS. THE UTILITIES SHOWN ON THESE DRAWINGS HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. IT IS, HOWEVER, THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO FIELD VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION. IF A CONFLICT EXISTS BETWEEN WHAT IS SHOWN ON THESE DRAWINGS AND WHAT EXISTS IN THE FIELD, THE CONTRACTOR IS TO NOTIFY THE ENGINEER IMMEDIATELY.



		SHEET INDEX					
NO.	SHEET	SHEET TITLE					
	GENERAL						
1	G01	COVER SHEET					
2	G02	GENERAL NOTES					
3	G03	GENERAL NOTES					
4	G04	SITE PLAN					
	F	PLAN & PROFILE					
5	P01	FUTURE ELKO MOUNTAIN WAY					
6	P02	FUTURE ELKO MOUNTAIN WAY					
7	P03	POWDER HOUSE RD					
8	P04	POWDER HOUSE RD					
9	P05	STIZEL ROAD					
		DETAIL SHEETS					
10	D01	TYPICAL DETAILS					
11	D02	UTILITY DETAILS					
12	D03	UTILITY DETAILS					
13	D04.1	ERRECART PRESSURE REDUCING SUSTAINING VALVE					
14	D04.2	STITZEL PRESSURE REDUCING SUSTAINING VALVE DETAIL					
15	D05	TRAFFIC CONTROL					

G

DRAWING ON 11"x17" IS HALF SCAL KONAKIS XP 06/30 PR TERLIN F ELKO 2022-450 SHEE AL NER GENE CITY C PWP EL SOURC Ģ DRAWING NUMBER  $G0^{\circ}$ \_\_ OF \_\_\_\_\_\_

CITY OF ELKO PUBLIC WORKS GENERAL NOTES	PRIVATE
. CONSTRUCTION AND MATERIALS SHALL CONFORM TO THE LATEST EDITIONS OF THE PROJECT SPECIFICATIONS, AND PROJECT PLANS AND CONSTRUCTION DETAILS, NDOT'S <u>STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION</u> (SSRBC) IN NDOT AREAS,	1. CONTRACTOF PRIOR TO W
STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC) AS ADOPTED BY THE CITY OF ELKO AND THE <u>STANDARD</u> DETAILS FOR PUBLIC WORKS CONSTRUCTION (SDPWC), NEVADA ADMINISTRATIVE CODE, NAC445–A WATER CONTROLS, AND SHALL BE SUBJECT TO THE APPROVAL OF THE OWNER. ALL SPECIFICATIONS REFERENCED HEREIN REFER TO THE PROJECT SPECIFICATION SECTION UNLESS INDICATED OTHERWISE. WHERE CONFLICTS EXIST BETWEEN SPECIFICATIONS, CONTRACTOR SHALL ADHERE TO THE STRICTER SPECIFICATION WITH APPROVAL OF THE OWNER AND INSPECTORS.	2. CONTRACTOR LANDSCAPIN CONDITION,
. ALL TRAFFIC CONTROL AND BARRICADING WITHIN THE CITY RIGHT-OF-WAY SHALL CONFORM TO SECTION 130 OF THE STANDARD SPECIFICATIONS, PART VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION, AND THE NEVADA WORK ZONE TRAFFIC CONTROL HANDBOOK, CURRENT EDITION. NO STREET CLOSURES WILL BE ALLOWED WITHOUT PRIOR APPROVAL OF A TRAFFIC CONTROL PLAN BY THE CITY. TRAFFIC CONTROL IN NDOT RIGHT OF WAY MUST ALSO BE	BIDDING PU BE INCLUDE
APPROVED BY NDOT IN ADVANCE. . UTILITIES MAY EXIST THAT ARE NOT SHOWN ON THE PLANS. HORIZONTAL AND VERTICAL LOCATIONS OF EXISTING UTILITIES ARE APPROXIMATE ONLY. CONTRACTOR SHALL VERIFY ACTUAL LOCATIONS OF EXISTING UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL CALL UNDERGROUND SERVICES ALERT, USA, AT (1-800-227-2600) AT LEAST TWO (2) WORKING DAYS PRIOR TO ANY	<ol> <li>THE CONTRA PERMANENT</li> <li>NO ESTIMATE DEFENDED</li> </ol>
. THE CONTRACTOR SHALL CALL THE CITY OF ELKO UTILITIES FORTY-EIGHT (48) HOURS PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL CALL UTILITY/ROW OWNER FORTY-EIGHT (48) HOURS PRIOR TO REQUIRED	3. ALL EARTHW OF THE STA
<ul> <li>INSPECTIONS AND TESTING.</li> <li>FINAL INSPECTIONS WILL BE PERFORMED BY THE OWNER ACCORDING TO THE CITY OF ELKO INSPECTIONS AND TESTING PROCEDURES. NOTE: THESE PROCEDURES REQUIRE SUBMITTAL OF RECORD DRAWING PRINTS BY THE CONTRACTOR AND 10 WORKING DAYS FOR THE OWNER TO PREPARE A FINAL PUNCH LIST. ALL CONDITIONS OF THE FINAL INSPECTION MUST BE COMPLETED PRIOR TO FINAL ACCEPTANCE OR APPROVAL OF A CERTIFICATE OF OCCUPANCY BY THE UTILITIES DEPARTMENT.</li> </ul>	4. SOIL TYPES 4.1 ORGAI 4.2 SOILS 4.3 MATEF 4.4 POOR
. MODIFICATIONS TO THE APPROVED PLANS REQUIRES REVIEW AND APPROVAL BY THE OWNER & ENGINEER. WORK PERFORMED WITHOUT WRITTEN APPROVAL WILL REQUIRE REMOVAL AT THE CONTRACTORS EXPENSE.	4.5 MATER 5. ELEVATIONS APPROVE AL
. THE APPROVED PLANS, PERMITS AND INSPECTION RECORDS MUST BE ON THE JOB SITE AT ALL TIMES.	6. THE CONTRA
IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO POTHOLE EXISTING WATERLINES AND UTILITIES SURROUNDING THE AREA TO DETERMINE THE EXACT LOCATION AND DEPTH. POTHOLING SHALL OCCUR A MINIMUM OF 7 DAYS PRIOR TO THE COMMENCEMENT OF WORK IN ANY AREA. CONTRACTOR SHALL REPORT THE FINDINGS TO THE ENGINEER WITHIN 24 HOURS AFTER COMPLETION.	OR PONDING 7. NO FILL SHA FILL SHALL
. OUTSIDE OF AN UNFORESEEN CIRCUMSTANCE WATER MAIN SHUTDOWNS/INTERRUPTION OF SERVICE IS NOT PERMITTED. OWNER APPROVAL IS REQUIRED 48 HOURS PRIOR TO NOTIFICATION OF CUSTOMERS. RESIDENTIAL CUSTOMERS SHALL RECEIVE 48 HOURS WRITTEN NOTICE. THE OWNER IS RESPONSIBLE FOR THE NOTIFICATION WHEN WORK IS PERFORMED BY THE OWNER. THE CONTRACTOR IS RESPONSIBLE IN ALL OTHER CASES. A LIST SHALL BE KEPT BY THE RESPONSIBLE PARTY LISTING THE DATE, TIME, AND ADDRESS OF ALL PERSONS NOTIFIED. THE CONTRACTOR WILL BE SUBJECT TO DAMAGE CLAIMS SHOULD THEY FAIL TO NOTIFY CUSTOMERS OR MAINTAIN DOCUMENTATION OF NOTIFICATION OF CUSTOMERS. THE CONTRACTOR SHALL NOT OPERATE ANY EXISTING WATER VALVES WITHOUT AUTHORIZATION OF THE OWNER.	<ul> <li>8. RIPRAP DES RIPRAP SHO</li> <li>8.1 DEPTH</li> <li>8.2 MINIM</li> <li>8.3 MINIM</li> <li>0WNER SHA</li> <li>9. USE CAUTION</li> </ul>
0. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS.	OWNER.
. PURSUE WORK IN A CONTINUOUS AND DILIGENT MANNER TO ENSURE A TIMELY COMPLETION OF THE PROJECT. 2. ALL CONSTRUCTION SHALL BE CLOSELY COORDINATED WITH THE OWNER SO THAT THE QUALITY OF WORK CAN BE CHECKED FOR	10. DRAINAGE SW Equal or be
APPROVAL. 3. MAINTAIN THE SITE IN A NEAT AND ORDERLY MANNER THROUGHOUT THE CONSTRUCTION PROCESS. ALL MATERIALS SHALL BE STORED WITHIN APPROVED CONSTRUCTION AREAS ON PAVED SURFACES ONLY. CONTRACTOR SHALL STORE/CONTAIN, HANDLE AND TRANSPORT HAZARDOUS OR FLAMMABLE MATERIALS TO MINIMIZE THE POTENTIAL FOR SPILLS, FIRES OR EXPLOSIONS. STORAGE/CONTAINMENT, HANDLING AND TRANSPORT OF HAZARDOUS OR FLAMMABLE MATERIALS SHALL BE IN ACCORDANCE WITH LOCAL, STATE OR FEDERAL	DUST CC1. CONTRACTOR AIRBORNE ON2. REGULAR VAC
REQUIREMENTS. 4. CONTRACTOR SHALL MAINTAIN AND OPERATE EQUIPMENT IN A MANNER TO MINIMIZE THE POTENTIAL FOR SPILLS. SPILLS OF HAZARDOUS OR FLAMMABLE MATERIALS SHALL BE IMMEDIATELY REPORTED TO THE OWNER OR OWNER REPRESENTATIVE.	AND MORE O 3. STOCKPILED E COVERING TH
5. WASTE FROM CONSTRUCTION ACTIVITIES SHALL BE RECYCLED, REUSED, OR DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE OR FEDERAL REQUIREMENTS.	4. ALL TRUCKS MATERIAL FRC
<ol> <li>CONTRACTOR SHALL OPERATE VEHICLES IN ACCORDANCE WITH STATE AND LOCAL REQUIREMENTS. VEHICLE AND EQUIPMENT OPERATORS SHALL BE PROPERLY LICENSED AND TRAINED.</li> </ol>	MUST BE CON DUST SUPPRE FREEBOARD IS
7. VEHICLE ACCIDENTS, INJURIES, SPILLS OR OTHER INCIDENTS SHALL BE IMMEDIATELY REPORTED TO THE OWNER OR OWNER REPRESENTATIVE.	5. ALL PROJECT
8. CONSTRUCTION STAGING AREA SHALL BE AT DESIGNATED AREAS SHOWN ON THE KEY MAP. ROAD SHOULDERS MAY BE UTILIZED FOR EQUIPMENT STAGING AREAS ONLY. OWNER MAY DESIGNATE WHICH AREAS MAY BE USED WHEN AND FOR HOW LONG. CONTRACTOR SHALL BE RESPONSIBLE FOR THE SECURITY OF ALL EQUIPMENT AND MATERIALS. CONTRACTOR MAY OBTAIN PERMISSIONS TO STAGE AT OTHER LOCATIONS ON OWN ACCORD.	
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ALL EXISTING SURVEY MONUMENTS AND SHALL REPLACE ANY MONUMENTS OBLITERATED OR DAMAGED DURING CONSTRUCTION AT HIS EXPENSE, REPLACEMENT SHALL BE PERFORMED BY A LICENSED PROFESSIONAL LAND SURVEYOR.	1. CITY OF ELKO 1.1. COMPACT 1.2. CONCRET 1.3. ASPHALT
0. THE CONTRACTOR SHALL UTILIZE CONSTRUCTION TECHNIQUES TO MINIMIZE GRADING, VEGETATION REMOVAL, AND SURFACE DISTURBANCE. CONTRACTOR WILL BE RESPONSIBLE FOR THE RESTORATION OF ALL LANDSCAPING, SOD, CURBS, ASPHALT, DRIVEWAY PAVERS, RIP RAP, RETAINING WALLS, IRRIGATION PIPING AND LANDSCAPE LIGHTING TO EQUAL OR BETTER THAN EXISTING CONDITION. ALL COST FOR RESTORATION WILL BE INCLUDED IN THE APPLICABLE BID ITEM.	DRIVEW
1. 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 GRATES AND COVERS, PIPING, FENCING, AND SIGNS TO THE PROJECT ENGINEER FOR APPROVAL PRIOR TO THE MANUFACTURER OR USE OF SUCH ITEMS.	1. ALL DRIVEWAY
2. ALL QUANTITIES SHOWN HEREIN ARE APPROXIMATE AND USED FOR PERMIT AND BOND PURPOSES ONLY. THEY SHALL NOT BE USED IN ANY WAY FOR BIDDING OR CONSTRUCTION. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO CONDUCT QUANTITY TAKE-DEES FOR BIDDING AND CONSTRUCTION PURPOSES	1. PORTLAND CE STRENGTH OF
3. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VISIT AND MAKE HIS OWN INTERPRETATIONS WITH REGARD TO MATERIALS, METHODS AND EQUIPMENT NECESSARY TO PERFORM THE WORK REQUIRED FOR THIS PROJECT.	2. FORTLAND CE SSPWC (NON 2.1 AIR CONT 2.2 MINIMUM
4. EXCAVATION WITHIN 5' OF POLE WILL REQUIRE SUPPORT FROM POWER COMPANY AT NO ADDITIONAL COST TO OWNER. 5. FINAL AS-BUILT DRAWINGS SHALL BE SUBMITTED TO THE CITY OF ELKO IN BOTH CAD AND PDF FORMATS PRIOR TO FINAL	3. TEMPORARY F CONTRACTOR SATISFACTION
AUGEPTANGE, THE DRAWINGS MUST BE IN THE CITY GRID COORDINATE SYSTEM.	4. CONCRETE PA
	5. ASPHALT CON
	6. CURB AND GU

#### D

E

### ATE PROPERTY NOTES

RACTOR TO INVESTIGATE, POTHOLE AND CONFIRM LOCATIONS OF EXISTING UTILITIES AND CONNECTION POINTS R TO WORK ON PRIVATE PROPERTY.

RACTOR SHALL PROTECT EXISTING PROPERTY IMPROVEMENTS (I.E. FENCING, TREES, STRUCTURES, ANY SCAPING NOT IDENTIFIED FOR REPLACEMENT, ETC.) AND REPLACE ANY DAMAGED ITEMS TO EQUAL OR BETTER DITION, AT CONTRACTORS EXPENSE.

OSED WATER SERVICE LINE LENGTHS IDENTIFIED SHALL BE USED AS REFERENCE AND FOR ING PURPOSES ONLY. LENGTHS WILL VARY DEPENDING ON FIELD CONDITIONS AND SHALL NCLUDED IN THE APPLICABLE BID ITEM AT NO ADDITIONAL COST.

### DING & EARTHWORK NOTES

CONTRACTOR SHALL UTILIZE TECHNIQUES WHICH MINIMIZE GRADING, VEGETATION REMOVAL, AND TEMPORARY AND ANENT DISTURBANCE. ALL AREAS DISTURBED AS A RESULT OF THE WORK SHALL BE REVEGETATED.

STIMATE OF EARTHWORK QUANTITIES HAS BEEN MADE FOR THIS PROJECT. EARTHWORK QUANTITIES SHALL BE ARED BY THE CONTRACTOR.

EARTHWORK, CLEARING AND GRUBBING, SUBGRADE PREPARATION, ETC. SHALL CONFORM TO THE CURRENT EDITION HE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.

TYPES TO BE OMITTED FROM PROJECT INCLUDE: ORGANIC MATERIAL (E.G. ORGANIC SILT, SOD, PEAT, MULCH, ETC.);

- SOILS CONTAINING EXPANSIVE CLAYS;
- MATERIAL CONTAINING EXCESSIVE MOISTURE; POORLY GRADED COARSE MATERIAL, AND

MATERIAL WHICH WILL NOT ACHIEVE DENSITY AND/OR BEARING REQUIREMENTS.

ATIONS NOT SHOWN ON PLANS SHALL BE DETERMINED IN THE FIELD BY THE CONTRACTOR. OWNER SHALL COVE ALL ELEVATIONS.

CONTRACTOR SHALL GRADE ALL AREAS TO DRAIN AND SHALL BE RESPONSIBLE FOR ELIMINATING ALL LOW SPOTS PONDING AREAS.

ILL SHALL BE PLACED OR COMPACTED IN UNFAVORABLE WEATHER CONDITIONS. OVERLY WET, DRY OR FROZEN SHALL NOT BE PLACED.

AP DESIGNATION AND GRADATION SHALL CONFORM WITH SECTION 200.06 OF THE STANDARD SPECIFICATIONS. AP SHOULD BE ANGULAR IN SHAPE, FREE FROM CRACKS AND ORGANIC MATTER. RIPRAP SIZE SHALL MAINTAIN: DEPTH AND THICKNESS SHALL BE MINIMUM ½ OF ITS LENGTH

MINIMUM SPECIFIC GRAVITY = 2.5MINIMUM LAY THICKNESS =  $2 \times d50$ 

R SHALL APPROVE ALL RIPRAP FOR PROJECT PRIOR TO STOCKPILING.

CAUTION WITH OVERHEAD POWER LINES. MAINTAIN PROPER CLEARANCE AS REQUIRED BY POWER COMPANY DURING TRUCTION. EXCAVATION WITHIN 5' OF A POLE WILL REQUIRE SUPPORT FROM POWER COMPANY AT NO ADDITIONAL COST TO R.

AGE SWALES, DITCHES, BERMS, AND OTHER EXISTING CONDITIONS SHALL BE PROTECTED IN PLACE OR RE-ESTABLISHED TO OR BETTER CONDITIONS, INCLUDING BUT NOT LIMITED TO SLOPE PROTECTION (IE. AGGREGATE ROCK).

### <u>CONTROL NOTES:</u>

RACTOR IS RESPONSIBLE FOR PREVENTING CONTROLLABLE FUGITIVE DUST FROM THE PROJECT'S DISTURBED AREAS TO BECOME RNE ON A 7-DAY/WEEK, 24-HOUR/DAY BASIS FROM COMMENCEMENT OF THE PROJECT TO FINAL COMPLETION.

AR VACUUM OR SWEEPING OF PAVED SURFACES WHERE CONSTRUCTION IS OCCURRING WILL BE PERFORMED AT LEAST DAILY MORE OFTEN IF NECESSARY TO REMOVE DIRT OR WASTE RESULTING FROM THE CONSTRUCTION.

(PILED EARTHEN MATERIALS SHALL BE STABILIZED BY MAINTAINING A VISIBLE CRUST BY APPLYING ADEQUATE MOISTURE; OR RING THE MATERIALS WITH A TARP TO PREVENT VISIBLE FUGITIVE DUST EMISSIONS.

RUCKS IMPORTING OR EXPORTING DIRT, ROCK OR OTHER FILL MATERIALS SHALL PREVENT SPILLAGE OR LOSS OF BULK RIAL FROM HOLES OR OTHER OPENINGS IN THE CARGO COMPARTMENT FLOOR, SIDES, AND/OR TAILGATE. ALL HAUL TRUCKS BE COVERED WITH A TARP OR OTHER SUITABLE CLOSURE; OR BULK MATERIALS MUST CONTAIN ENOUGH MOISTURE AND/OR SUPPRESSANT TO PREVENT FUGITIVE DUST EMISSIONS DURING TRANSPORT; OR LOAD ALL TRUCKS SUCH THAT THE BOARD IS NOT LESS THAN SIX (6) INCHES. ALL MATERIALS NOT TO BE INCORPORATED INTO THE WORK SHALL BE HAULED DE OF THE TAHOE BASIN.

PROJECT RELATED VEHICLES SHALL PARK ON EXISTING PAVED SURFACES OR EXISTING COMPACTED ROAD SHOULDERS. RACTOR SHALL MINIMIZE CONSTRUCTION RELATED VEHICLE AND EQUIPMENT EMISSIONS DURING CONSTRUCTION BY SHUTTING EQUIPMENT AND VEHICLES NOT IN USE. IDLING OF DIESEL ENGINES SHALL BE KEPT AT A MINIMUM SO FAR AS PRACTICAL.

# ERIAL TESTING:

OF ELKO WILL PROVIDE THIRD PARTY MATERIAL TESTING FOR THE FOLLOWING (PER PLANS AND SPECIFICATIONS): COMPACTION OF ALL SOILS, HERE, ETC. CONCRETE

# **EWAY & ACCESS NOTES:**

DRIVEWAYS AND ACCESS ROADS SHALL BE RE-ESTABLISHED TO EQUAL OR BETTER CONDITIONS.

### CRETE AND PAVING NOTES

AND CEMENT CONCRETE EXPOSED TO FREEZE-THAW ENVIRONMENTS SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE IGTH OF 4,000 PSI AND MEET THE SPECIFIC REQUIREMENTS OF SSPWC (NON NDOT R/W) AND SSRBC (NDOT R/W).

AND CEMENT CONCRETE PAVEMENT (PCCP) EXPOSED TO VEHICULAR TRAFFIC LOADING SHALL MEET THE REQUIREMENTS OF C (NON NDOT R/W) AND SSRBC (NDOT R/W), AND; IR CONTENT 4-1/2 TO 7-1/2%, AND

INIMUM 28 DAY FLEXURAL STRENGTH 650 PSI.

ORARY PAVEMENT SHALL MEET THE REQUIREMENTS SSPWC (NON NDOT R/W) AND SSRBC (NDOT R/W), SECTION 404. THE RACTOR SHALL MAINTAIN PAVEMENT IN A SAFE AND SMOOTH CONDITION UNTIL FINAL PAVEMENT CAN BE PLACED, TO THE FACTION OF THE ENGINEER.

RETE PAVEMENTS SHALL BE PLACED IN ACCORDANCE WITH THE SSPWC (NON NDOT R/W) AND SSRBC (NDOT R/W).

ALT CONCRETE PAVEMENT SHALL MEET THE REQUIREMENTS OF THE SSPWC (NON NDOT R/W) AND SSRBC (NDOT R/W).

AND GUTTER SHALL BE PLACED IN ACCORDANCE WITH THE SSPWC (NON NDOT R/W) AND SSRBC (NDOT R/W).

# **DEMOLITION NOTES:**

- 1. EXISTING IMPROVEMENTS, ADJACENT PROPER REMOVED SHALL BE PROTECTED FROM INJU WITH THE SSRBC AND SSPWC 301.04 AND
- 2. THE CONTRACTOR SHALL ADJUST ALL EXISTI AS REQUIRED TO FIT THE NEW WORK. THE DURING RELOCATION. DECORATIVE SURFACING

# ACCESS/TRAFFIC CONT

- 1. PROVIDE AND MAINTAIN ALL NECESSARY TRA OF SSPWC SECTION 332, THE MANUAL ON NEVADA, DEPARTMENT OF TRANSPORTATION,
- 2. THE CONTRACTOR SHALL MAINTAIN TRAFFIC ( ROADS WITHIN THE PROJECT MAY HAVE LIMI' AREA.
- 3. STREETS SHALL REMAIN OPEN TO LOCAL TR
- 4. RESIDENCES SHALL HAVE ACCESS TO/FROM (TRENCH PLATE, MOVE EQUIPMENT, ETC.) W
- 5. TRAFFIC DELAYS SHALL BE HELD TO 10 MIN
- 6. CONTRACTOR SHALL BECOME FAMILIAR WITH
- 7. CONTRACTOR SHALL DETERMINE BEST METHO DAY ACTIVITIES.
- 8. TRAFFIC CONTROL PLANS TO BE SUBMITTED
- 9. THE HOURS OF WORK MAY RANGE FROM 7
- 10. THE WORK OF SETTING UP AND TEARING DO THE HOURS SPECIFIED ON THE PERMIT AND SHALL BE COMPLETELY REMOVED FROM THE

### EROSION CONTROL NOT

- 1. BEST MANAGEMENT PRACTICES SHALL B CONSTRUCTION (COIR LOGS, GRAVEL BA
- 2. THE CONTRACTOR SHALL INCORPORATE ELIMINATE EXCESSIVE EROSION OR PON INFLUX OF RUNOFF OR SEDIMENT. SEDI
- 3. THE CONTRACTOR SHALL MAINTAIN A DU WEEK. NO FUGITIVE DUST FROM THE SI
- 4. IF NECESSARY, CONTRACTOR SHALL ENI
- 5. PRIOR TO CONSTRUCTION, CONTRACTOR
   5.1 STABILIZE ENTRANCES AND EQUIP
   5.2 INSTALL SEDIMENT CONTROL DEVI
   5.3 INSTALL WASH DOWN AREA.
- 6. UPON COMPLETION OF THE PROJECT, W
  6.1 REMOVE ALL GRADING AND CONS
  6.2 REMOVE ALL TEMPORARY EROSION
  6.3 REVEGETATE DISTURBED AREAS W
- 7. EQUIPMENT AND VEHICLES SHALL NOT VEGETATION.
- 8. STOCKPILED TOP SOILS AND VEGETATIVE
- 9. ALL AREAS DISTURBED AND LEFT UNDE THE APPLICATION OF DUST PALLIATIVE. HYDRO-SEEDED WITH AN APPROVED SE
- 10. CONCENTRATED CONSTRUCTION FLOWS FACILITIES. SEDIMENT LADEN WATER SH,
- 11. DEWATERING EFFLUENT SHALL BE TREAT STRAW BALE FILTER/SILT FENCE PIT, GI

# NDOT REQUIREMENTS:

- 1. CONTRACTOR SHALL BE BOUND TO ALL NDOT
- SURVEYOR MUST DELINEATE NDOT PROPERTY. EVERY 100' AND ON EITHER SIDE OF THE CO
   THE CONTRACTOR IS DECLUDED TO THE CO
- 3. THE CONTRACTOR IS REQUIRED TO SUBMIT A ALL NDOT ROADWAYS INCLUDING THE TIE IN I ESTABLISHED BY NDOT.
- 4. THE APPROVED PLANS, PERMITS, AND INSPEC
- 5. OPEN TRENCHING WITHIN HIGHWAY 227 ROAD
- 6. CONTRACTOR SHALL REFERENCE NDOT APPRO PLANS ARE ATTACHED TO THE BACK OF THE
- 7. CONTRACTOR TO NOTIFY NDOT PERMIT OFFICE COMMENCING WORK WITHIN NDOT R/W.

DRAWING ON 11"x17" IS HALF SCALE	DATE	9/14/2022	0/10/2022	0/28/2022			
RTY, UTILITIES AND OTHER FACILITIES, AND TREES AND PLANTS THAT ARE NOT TO BE JRY OR DAMAGE RESULTING FROM THE CONTRACTORS OPERATIONS IN ACCORDANCE	АРР	FSK	FSK 1	FSK			
300.04. ING UTILITY BOXES AND FRAME AND COVERS, BOTH HORIZONTALLY AND VERTICALLY, CONTRACTOR SHALL REPLACE ANY APPURTENANCES, PLANTS AND SURFACING DAMAGED IG SHALL BE MATCHED AFTER BACKFUL.	BΥ	FSK	FSK	FSK			5
ROL NOTES:							
AFFIC CONTROL, THROUGHOUT CONSTRUCTION, IN ACCORDANCE WITH APPLICABLE PARTS UNIFORM TRAFFIC CONTROL DEVICES, (MUTCD, LATEST EDITION) AND THE STATE OF TRAFFIC CONTROL STANDARDS.	DESCRIPTION	r REVIEW	r Review	REVISION			
CONTROL IN STRICT ACCORDANCE WITH PLANS AND SPECIFICATIONS AT ALL TIMES. IITED SIGHT DISTANCE. ALTERNATIVE ACCESS IS NOT AVAILABLE WITHIN THE PROJECT		REVISED FOR	REVISED FOF	BID PLAN F			
RAFFIC AT ALL TIMES. 1 DRIVEWAY AT ALL TIMES. CONTRACTOR SHALL PROVIDE COORDINATION FOR ACCESS VITH RESIDENCE.	REVISION	В	U	Ω			
INUTES OR LESS. I THE SITE AND ACCESS TO THE SITE PRIOR TO BID. IODS FOR ACCESS WHEN OFF HAULING WASTE, DELIVERY OF MATERIALS, AND DAY TO	4001.083	CT. 28, 2022	AS SHOWN	KMP	BLA	FSK	
D TO THE CITY FOR REVIEW. 7:00 AM TO 6 PM, DAILY, MONDAY THROUGH FRIDAY.	JOB NO .:	DATE: 0	SCALE:	DESIGNED:	DRAWN:	CHECKED:	4
DOWN TRAFFIC CONTROL DEVICES AS REQUIRED SHALL BE COMPLETED EACH DAY WITHIN D/OR ON THE APPROVED TRAFFIC CONTROL PLAN. ALL TRAFFIC CONTROL DEVICES E ROADWAY AND SIDEWALK AT THE END OF THE WORK PERIOD.		VEST	ER ING	TREET 89801	738-2121 8-7955	ERING.COM	
TES		RV	NEF	COURT S	775) 73 775) 73	TENĞINE	
BE IN PLACE FOR DUST CONTROL AND EROSION CONTROL DURING AGS, SILT FENCE) PER DETAILS ON SHEET DX.		TAR	U C	421 ( FI KO	PHONE: FAX: (	ARRWEŠ	
ADEQUATE DRAINAGE PROCEDURES DURING THE CONSTRUCTION PROCESS TO NDING AND TO PROTECT ADJACENT IMPROVEMENTS AND PROPERTIES FROM AN DIMENTATION FENCING IS REQUIRED AT THE LIMITS OF GRADING.			5000 5000			Ľ	
OUST CONTROL PROGRAM INCLUDING WATERING OF OPEN AREAS, 7 DAYS A SITE SHALL BE ALLOWED.	Å	SEC.			EEPI	A Star	
IHANCE EROSION CONTROL MEASURES IN THE FIELD.		RELPPR	EXP	06/30/2	3.0 - more 23 0 -		
R SHALL: PMENT PARKING AREAS; /ICES, AND	×\$	alsis a		CIVIL 2000000000000000000000000000000000000	404 K		3
WITHIN 15 DAYS OF COMPLETION OF ANY PHASE, THE CONTRACTOR SHALL: STRUCTION DEBRIS: ON CONTROL MEASURES (AFTER PERMANENT MEASURES ARE ESTABLISHED), AND WITH NATIVE SEED	ECT				<u> </u>	EVADA	
TRAVEL BEYOND THE LIMITS OF GRADING TO PREVENT DISRUPTION OF NATIVE	ROJ					NF	
'E STRIPPINGS ARE TO BE REAPPLIED TO DISTURBED SLOPE AREAS.	V P						
EVELOPED FOR A PERIOD OF MORE THAN 30 DAYS SHALL BE STABILIZED BY ALL AREAS LEFT UNDEVELOPED FOR MORE THAN 90 DAYS SHALL BE EED MIX AND TACKIFIER AND SHALL BE IRRIGATED UNTIL FIRMLY ESTABLISHED.	ND PI						
SHALL BE CHANNELIZED TO TEMPORARY OR PERMANENT SEDIMENT TREATMENT IALL NOT ENTER THE NATURAL DRAINAGE OR PUBLIC STORM DRAIN SYSTEM.	INE A			0	S		
TED PRIOR TO DISCHARGE BY MEANS OF DEWATERING STRUCTURES (e.g. GRAVEL FILTER, ETC.).	ATERL		ELKU	RAL	L NOTI		2
T PERMIT REQUIREMENTS. 7. WITHIN THE NDOT PROPERTY, CONTRACTOR MUST INSTALL WATER UTILITY MARKERS CONNECTION POINT	JRCE W	FO		GENF	ENERAI		
A TRAFFIC CONTROL PLAN TO NDOT FOR APPROVAL PRIOR TO CONSTRUCTION ALONG LOCATIONS. THE TRAFFIC CONTROL PLAN MUST CONFORM TO ALL REQUIREMENTS	IOS (			-	Ð		
CTION RECORD MUST BE ON THE JOB SITE AT ALL TIMES. DWAY SHALL NOT BE PERMITTED.	ECOND						
OVED PLANS FOR ALL WORK WITHIN NDOT RIGHT-OF-WAY. CONTRACT DOCUMENTS AND SPECIFICATIONS.	AL S					<b>.</b> KO	
E <u>TWO (2) WORKING DAYS</u> PRIOR TO	<b>JSPIT</b> .					OF EI	
	Ή					CITY	1
	F	DR	AWIN	g nun	1BER		-
	┢		(	۲ ۲	<u> つ</u>		
BID PLAN SET		-	2	of	<b>_</b> 15		

G

1.	AT NO TIME SHALL THE CONTRACTOR CLOSE OFF ANY UTILITY, OPEN VALVES OR TAKE ANY OTHER ACTION WHICH WOULD AFFECT THE OPERATION OF THE EXISTING SYSTEM. ONLY AUTHORIZED UTILITY PERSONNEL ARE	445A.67125(1)(a). IN WATER USE
	ALLOWED TO OPERATE VALVES OR OTHER WATER SYSTEM COMPONENTS. APPROPRIATE ADVANCE APPROVAL BY THE UTILITY COMPANY IS REQUIRED PRIOR TO THE INTERRUPTION OF THE EXISTING WATER SYSTEM. CONTACT THE OWNER AT 775–777–7212	28. ALL WATER MAINS SHALL (7)(c).
2.	LOCATE ALL EXISTING UTILITIES WHICH MAY CONFLICT WITH THE NEW WORK IN ADVANCE SO AS TO ALLOW ADJUSTMENT, REALIGNMENT AND OR REDESIGN OF THE NEW WORK AROUND THE EXISTING UTILITY AND OR STRUCTURE. UTILITY LINES WHICH CONFLICT WITH THE NEW WORK SHALL BE REROUTED AS REQUIRED AFTER UTILITY AGENCY APPROVALS ARE OBTAINED. TEMPORARY REROUTES SHALL BE MADE PERMANENT AFTER ALL NEW WORK HAS BEEN COMPLETED IN ACCORDANCE WITH APPLICABLE STANDARDS. REROUTING OF WATER LINES SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE AWWA STANDARDS.	29. DUCTILE IRON PIPELINES 600 (NAC 445A.6663) AN WITH STANDARD AWWA C6 SHALL BE IN ACCORDANC ADOPTED BY THE CITY ACCORDANCE WITH THE RI
3.	CONTRACTOR SHALL UTILIZE EVERY MEANS POSSIBLE TO MINIMIZE WATER SERVICE OUTAGES TO CUSTOMERS. THE CONTRACTOR SHALL NOTIFY CUSTOMERS OF PLANNED WATER OUTAGES 48 HOURS PRIOR TO AN OUTAGE. THE WRITTEN NOTICE SHALL INCLUDE THAT OUTAGES WILL OCCUR DURING THE DAY BETWEEN 9:00 AM AND 4:00 PM AND NAME AND PHONE NUMBER OF CONTRACTOR FOR QUESTIONS AND CONCERNS. IN ADDITION TO DELIVERED WRITTEN NOTICES, NOTICES SHALL BE POSTED ON NOTICE BOARDS AND PLACED FACING TRAFFIC AT ALL STREET ENTRANCES TO THE PROPOSED WORK AREAS. CONTRACTOR SHALL COORDINATE WITH OWNER FOR A LIST OF AFFECTED CUSTOMERS.	<ul> <li>30. BACTERIOLOGICAL TESTING, PERFORMED PER AWWA C AND FUNDING UP TO TW TESTS ARE REQUIRED, THE</li> <li>31. PER NAC 445A.67145(6),</li> </ul>
ŀ.	IF WATER OUTAGES EXTEND BEYOND ALLOWABLE/NOTIFIED TIMES, CONTRACTOR SHALL PROVIDE BOTTLED DRINKING WATER TO THE UTILITY CUSTOMERS AT A LOCATION CONVENIENT TO THE CUSTOMERS AFFECTED, AND AS APPROVED BY THE OWNER.	UNTIL: 31.1. THE WATER MAIN HA C651.
).	THE CONTRACTOR SHALL BE RESPONSIBLE TO PROTECT THE INTEGRITY OF EXISTING PRIVATE WATER LINES DURING CONSTRUCTION.	OF WATER POLLUTION 31.3. ANALYSES OF THE V
<b>.</b>	TRENCH EXCAVATION AND BACKFILL SHALL BE PERFORMED IN ACCORDANCE WITH THE DETAILS. THE CONTRACTOR SHALL BE RESPONSIBLE OF ALL EXCAVATION AND SHORING PROCEDURES. PIPE PLACEMENT SHALL BE BY OPEN TRENCH UNLESS OTHERWISE SPECIFIED OR SHOWN ON THE PLAN OR BY APPROVED ALTERNATIVE. SHORING, BRACING AND SHEETING SHALL BE AS SET FORTH IN THE RULES, ORDERS, AND REGULATIONS OF THE OCCUPATIONAL HEALTH AND SAFETY ADMINISTRATION, OSHA.	WATER STANDARDS F OBTAINED AND REPOR SAMPLES MUST BE TA END OF THE LINE, AN
•	COMPLETE BACKFILL OF TRENCH IN STREET RIGHT OF WAY AT THE END OF EACH WORKDAY. USE TEMPORARY PATCH MATERIAL WHERE REQUIRED. STEEL PLATES ON THE TRAVEL LANES MAY BE USED ONLY UPON APPROVAL OF THE OWNER AND NDOT INSPECTOR (NDOT R/W). CONTRACTOR SHALL COORDINATE.	1. "WATER" INCLUDES AN
•	THE MAXIMUM LENGTH OF OPEN TRENCH AT ANYTIME SHALL NOT EXCEED SSPWC LIMITS AND MAY ONLY ENCROACH UPON ONE LANE OF TRAFFIC. ONE LANE OF TRAFFIC SHALL REMAIN FUNCTIONING AT ALL TIMES.	2. "SEWER" INCLUDES AN WASTEWATER MAINS AN
•	NOTIFY THE FIRE DEPARTMENT OF FIRE HYDRANTS AFFECTED DURING CONSTRUCTION. FIRE DEPARTMENT SHALL ALSO FLOW TEST EACH HYDRANT PRIOR TO FINAL ACCEPTANCE.	3. "SLEEVE" MEANS ENC DR18 (235 PSI PRES
0.	THE CONTRACTOR TO FOLLOW ALL PROVISIONS FOR TOPIC INCLUDED IN NAC 445A.54022 THROUGH 445A.5405 FOR GROUNDWATER APPLICATIONS AND NAC 445A.65505 THROUGH 445A.6731 AND NAC 445A.6663 FOR CONSTRUCTION AND OPERATION MEASURES.	DINT OF WATER/SEWI INSIDE THE SLEEVE DIAMETER OF THE S CENTERING THE WATER
1.	CONTRACTOR SHALL VERIFY CONSTRUCTION METHODS AND OVERALL JOB APPROACH WITH OWNER AND ENGINEER PRIOR TO CONSTRUCTION.	4. "RESTRAINT" MEANS SEPARATION OF PIPE
2.	CONSTRUCTION TIMES SHALL CORRESPOND TO THE TIMES SPECIFIED IN THE SUPPLEMENTARY CONDITIONS OF THE PROJECT CONTRACT DOCUMENTS.	5. ALL WATER MAINS, SE
3.	CONTRACTOR WILL PERFORM CONNECTIVITY TEST FOR LOCATOR WIRE WHEN PERFORMING PRESSURE AND BAC-T TESTING. INSPECTOR SHALL OVERSEE AND APPROVE PRIOR TO FINAL ACCEPTANCE AND/OR ASPHALT PAVING.	THE REQUIREMENTS S MITIGATION FOR WATER 6. "SPECIAL CONSTRUCT
4.	ALL WATER MAINS AND WATER SERVICE INSPECTIONS MUST BE APPROVED PRIOR TO ANY CERTIFICATE OF OCCUPANCY BY THE SERVICE PROVIDER ACCEPTING IMPROVEMENTS.	ADDRESSES PHYSICALL 445A.67175 INCLUSIVE
5.	MISCELLANEOUS UTILITY CONDUIT, NOT OTHERWISE DETAILED, SHALL BE BEDDED IN CLASS A PIPE BEDDING, THE MAXIMUM LOOSE LIFT THICKNESS SHALL BE 6 INCHES.	7. "CONCRETE ENCASEME DISCOURAGED. MITIGA ONLY AS APPROVED B
3.	ALL ABANDONED WATER LINES SHALL BE DRAINED, CAPPED AND PLUGGED WITH/NON-SHRINK GROUT AS NECESSARY.	8. ALL POTABLE WATER SANITARY SEWER PIPE
7.	PROVIDE ALL MISCELLANEOUS PIPE, FITTINGS AND APPURTENANCES AS REQUIRED TO COMPLETE THE UTILITY WORK AS SHOWN.	ACCORDANCE WITH TH SHALL BE APPROVED I
8.	CONTRACTOR SHALL SEAL ANY OPENINGS IN UNFINISHED PIPING OR APPURTENANCES AT THE END OF EACH WORKING DAY IN SUCH A MANNER AS TO PREVENT THE ENTRY OF BIRDS, OTHER ANIMALS, DIRT, TRENCH WATER, AND OTHER SOURCES OF POLLUTION OR CONTAMINATION (NAC445A.67145 (8)).	9. EVERY EFFORT IS TO SEWER/STORM MAIN C THE CONTRACTOR SHA ACCORDANCE WITH NA WATER LINE BY ANY D
9.	PIPELINE DEPTHS SHALL BE INSTALLED PER PLAN TO AVOID ADDITIONAL HIGHPOINTS IN THE WATERLINE AND TO SUPPORT AIR RELIEF VALVE LOCATIONS SHOWN IN THE PLANS. ANY HIGH POINT CREATED FROM INSTALLATION THAT VARIES FROM PLANS SHALL HAVE AN AIR RELEASE VALVE ASSEMBLY INSTALLED (PER DETAIL SHEETS) AT THE CONTRACTOR'S EXPENSE.	<ul> <li>9.1. EFFORT SHALL BE N CROSSING.</li> <li>9.2. PIPELINES MUST BE PROJECT DETAILS.</li> </ul>
Э.	CONTRACTOR SHALL SUPPLY, AT NO ADDITIONAL COST, ALL TEMPORARY CONSTRUCTION FLUSH VALVE ASSEMBLIES THAT ARE REQUIRED FOR FLUSHING MAINS AND TESTING WHERE REQUIRED.	9.3. WATER LINE MUST E 9.4. SEWER MUST HAVE 20' CENTERED ON
1.	ALL WATER PIPE BENDS, TEES, CROSSES, END CAPS, AND VALVES SHALL REQUIRE THE USE OF CONCRETE THRUST BLOCKS, OR APPROVED RESTRAINED JOINT PRESSURE PIPE FITTINGS WHERE THERE IS NO ROOM FOR CONCRETE THRUST BLOCKS, AS SHOWN ON THE PLAN SHEETS AND DESCRIBED IN THE PLAN NOTES AND SPECIFICATIONS. SEE THE PROJECT PLAN DETAILS.	9.5. WATER LATERALS MA 9.6. ALL WORK SHALL D 10. ALL WATER LINES SHA
2.	ALL HOT TAPS ARE TO BE PERFORMED BY THE CITY OF ELKO WATER DEPARTMENT. ALL HOT TAPS SHALL INCLUDE ISOLATION AND DISINFECTION OF WATERLINES PER NAC 445A.67145(6)(a). THE CONTRACTOR SHALL CONTACT THE CITY OF ELKO WATER AND UTILITIES DEPARTMENT AT LEAST 72 HOURS PRIOR TO SCHEDULING HOT TAP DATE AND TIME	SEWER MAIN AND/OR WATER AND SEWER LII THE NDEP-BUREAU OF REQUIRING MITIGATION
23.	ALL WATER MAINS WITHIN NOOT RIGHT OF WAY SHALL BE INSTALLED AS SPECIFIED ON PLAN SHEETS AND SHALL COMPLY WITH NOOT PERMIT REQUIREMENTS AS WELL AS CURRENT NAC 4454 PEQUIPEMENTS	11. ALL WATER MAIN AND PRESENCE OF THE PR
4.	VERIFICATION OF ALL LOCATOR WIRE AT GATE VALVES, AIR RELEASE VALVES, AND LOCATE STATIONS SHALL BE PERFORMED BY THE OWNER AND VERIFIED INSPECTOR <u>PRIOR TO ASPHALT</u> PAVING AND/OR PROJECT COMPLETION.	12. THE CONTRACTOR SHA TO LOCATE AND MO EXCAVATING NEAR OR
5.	ALL WATER STORAGE TANK MATERIALS, WATER PIPE AND MAIN MATERIALS, WATER PIPE FITTINGS, AND ALL WATER SYSTEM COMPNENTS THAT WILL COME IN CONTACT WITH POTABLE WATER SHALL BE ANSI/NSF61-372 CERTIFIED AND APPROVED FOR POTABLE WATER SYSTEM USE IN ACCORDANCE WITH NAC 445A.66685.	
26.	CONSTRUCTION OF A PUBLIC WATER SYSTEM MUST COMPLY WITH THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, AND THE AMERICAN WATER WORKS ASSOCIATION STANDARDS PER NAC 445A.67145(1)(a).	
7	ALL PIPE, PIPE FITTINGS, WATER VALVES OF A DISTRIBUTION SYSTEM CONNECTED TO A PUBLIC	

В

E

ADDITION ALL MATERIALS SHALL BE ANSI/NSF61 COMPLIANT FOR POTABLE  $_{\textcircled{O}}$ 

BE TESTED FOR PRESSURE AND LEAKAGE PER AWWA C605 AND NAC 445A.67145 ADA

SHALL BE INSTALLED AND PRESSURE TESTED IN ACCORDANCE WITH STANDARD AWWA AGG ND PVC WATER PIPE SHALL BE INSTALLED AND PRESSURE TESTED IN ACCORDANCE 05, AS ADOPTED BY NAC 445A.6663. WATER DISTRIBUTION SYSTEM CONSTRUCTION CE WITH THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION", AS ALT OF ELKO, NEVADA AND THE "NDEP-BUREAU OF SAFE DRINKING WATER" IN A EQUIREMENTS STATED IN "NAC 445A.67145 DISTRIBUTION SYSTEM CONSTRUCTION".

DISINFECTION, AND FLUSHING, FOR POTABLE WATER LINE CONSTRUCTION, SHALL BE AC C651-05 AS STATED ABOVE. THE OWNER SHALL BE RESPONSIBLE FOR PERFORMING VO BACTERIOLOGICAL TESTS PER RUN OF PIPE CONSTRUCTED. IF MORE THAN TWO COST SHALL BE PLACED UPON THE CONTRACTOR.

WATER MAIN MUST NOT BE PLACED INTO SERVICE AFTER ITS INITIAL CONSTRUCTION

S BEEN DISINFECTED AND FLUSHED IN ACCORDANCE WITH AWWA STANDARD

IY SPENT CHLORINE SOLUTIONS MUST BE COORDINATED WITH NDEP'S BUREAU I CONTROL (BWPC).

WATER MAIN WHICH INDICATE THAT THE WATER MEETS PRIMARY DRINKING FOR COLIFORM BACTERIA (ABSENT FOR COLIFORM BACTERIA) HAVE BEEN RTED TO THE BSDW. PER AWWA STANDARD C651. TWO SETS OF CONSECUTIVE AKEN AT LEAST 24 HOURS APART <u>FROM EVERY 1200 FEET OF MAIN</u>, AT THE ND FROM EACH BRANCH.

# PARATION NOTES

AND ALL WATER MAINS AND LATERALS (PUBLIC & PRIVATE).

NY AND ALL SANITARY SEWER, SEPTIC, STORM DRAIN AND RECLAIMED ND LATERALS (PUBLIC & PRIVATE).

CASING THE WATER OR SEWER WITH A 20' LENGTH OF AWWA C900 SSURE RATING) OR GREATER WATER QUALITY PIPE, CENTERED AT THE ER CROSSING. TO AVOID BEING GROUTED IN PLACE, THE WATER MAIN MUST HAVE A DIAMETER EQUAL TO OR GREATER THAN 2/3 THE SLEEVE. USE OF A "SLEEVE" IS AN ACCEPTABLE ALTERNATIVE TO AND SEWER AT THE POINT OF CROSSING.

USING MECHANICAL COUPLINGS TO RESTRICT JOINT MOVEMENT OR JOINTS WITHIN 10' EACH SIDE OF THE POINT OF CROSSING AND/OR BLOCKS AT ANGLE POINTS.

EWER MAINS AND LATERALS SHALL BE INSTALLED IN COMPLIANCE WITH TATED WITHIN THE "NDEP GUIDANCE DOCUMENT FOR AREAS REQUIRING AND SEWER SEPARATION" - EDITION 1.1 UPDATED NOVEMBER 2018.

TION" IDENTIFIES ACCEPTABLE MITIGATION OR PROTECTION THAT LY CONSTRAINED ENVIRONMENTS WHERE THE REQUIREMENTS OF NAC CANNOT BE MET.

ENT" OF THE WATER AS MITIGATION OR PROTECTION IS STRONGLY TION SHALL ONLY BE AS DESCRIBED AND ALLOWED IN NAC 445A AND Y THE NDEP-BUREAU OF SAFE DRINKING WATER.

PIPE SHALL MEET THE MINIMUM SEPARATION REQUIREMENTS FROM EFFLUENT PIPE, AND STORM DRAIN PIPES AND OPEN CHANNELS IN HE PROVISIONS OF NAC 445A.6715 THROUGH NAC 445A.6718 AND BY THE ENGINEER AND LOCAL WATER COMPANY.

BE MADE TO KEEP WATER MAIN CROSSINGS 18-INCHES ABOVE CROSSINGS AND WATER 12-INCHES ABOVE SEWER LATERAL CROSSINGS. IALL BE AWARE THAT MITIGATION MEASURES SHALL BE REQUIRED IN C445A ANY TIME A SANITARY SEWER LINE CROSSES ABOVE A POTABLE DISTANCE:

MADE TO KEEP PIPELINE JOINTS EQUAL DISTANCE FROM THE POINT OF

6" APART. IF 6" IS NOT ATTAINABLE RELOCATE WATER MAIN PER

BE INSPECTED TO INSURE SUFFICIENT RESTRAINTS ARE IN PLACE. A SLEEVE OR BE ENCASED IN 4-INCHES OF CONCRETE SLURRY FOR POINT OF CROSSING.

AY BE RELOCATED WHEN APPROVED.

OONE ACCORDING THE NAC 445A.6715 THROUGH NAC 445A.6718.

ALL BE LOCATED WITH AT LEAST 18-INCHES OF SEPARATION ABOVE A AT LEAST 12-INCHES OF SEPARATION ABOVE A SEWER LATERAL. ALL NE CROSSINGS SHALL MEET THE MINIMUM REQUIREMENTS PROVIDED IN SAFE DRINKING WATER'S CURRENT DOCUMENT "GUIDANCE FOR AREAS FOR WATER AND SEWER SEPARATION".

WATER SERVICE PIPE INSTALLATIONS SHALL BE PERFORMED IN THE ROJECT INSPECTOR AND SHALL BE APPROVED BY THE ENGINEER.

ALL NOTIFY THE LOCAL NATURAL GAS COMPANY FOR THEIR PRESENCE ONITOR WORK WHEN WHEN THE CONTRACTOR IS WORKING AND CROSSING BURIED HIGH PRESSURE NATURAL GAS PIPELINES.

E		Г		U		
	ABBREVIATIONS			DRAWI	NG ON 11"x17" IS HALF SCAL	Е 5022 2022
		·				DAT 14/2 28/
0	— AT	G	– GAS	REINF	- REINFORCED	9/ 9/ 10/ 10/
ABND	– ABANDON	GALV	- GALVANIZED	RC	- REINFORCED CONCRETE	
ADA	- AMERICAN WITH DISABILITIES ACT	GM	– GAS METER	RCB	- REINFORCED CONCRETE BOX	FS FS
ADJ	– ADJUST	GR	– GAS PRESSURE REGULATOR	RELOC	- RELOCATE	
AGG	- AGGREGATE, AGGREGATE BASE	GS	– GAS SERVICE	RCP	- REINFORCED CONCRETE PIPE	
AIP	– ABANDONED IN PLACE	GB	– GRADE BREAK	RT	- RIGHT	
ALT	– ALTERNATE	GUT	– GUTTER		- RAW WATER	5
А	– ANODE, GAS	GV	– GAS VALVE	R/W, KUW RD		
ACP	– ASBESTOS CEMENT PIPE	HDPE	– HIGH DENSITY POLYETHYLENE			~
AC	– ASPHALTIC CONCRETE	HDWL	- HEADWALL	(S)		
ARV	– AIR RELEASE/VAC VALVE	НМА	– HOT MIX ASPHALT	S		CRIF EVIEV
BC	– BACK OF CURB	HP	– HIGH POINT	S-G	- STEEL GAS	R RI RI
BCR	– BACK OF CURB RADIUS	ID	– INSIDE DIAMETER	SDMH	- STORM DRAIN MANHULE	AN F FOF
BEG	- BEGIN	IE	- INVERT ELEVATION	SDR		SED SED
BF	– BLIND FLANGE	IN	– INCH	55	- SANITARY SEWER	BID
BVC	<ul> <li>BEGINNING OF VERTICAL CURVE</li> </ul>	INT	- INTERSECTION	SSCU	- SANITART SEWER CLEANOUT	
BM	– BENCH MARK	INV	– INVERT	SSMH	- SANHART SEWER MANHOLE	NO
BDRY LINE	– BOUNDARY LINE	ISL	– ISLAND	SHI	- SHELI	
BW	- BACK OF SIDEWALK	JB	– JUNCTION BOX	S/O	- SOUTH OF	RE
CATV	– CABLE TELEVISION	ID		SIL		083 083 018 018 018 018 018 018 018 018 018 018
СВ	– CATCH BASIN			SW	- SIDEWALK	8, 2001.(
C-C	- CENTER TO CENTER		- LAIERAL	SQ FI, SF	- SQUARE FOOT	A AS AS
ССР	- CONCRETE CYLINDER PIPE		LLINGTH OF GURD	SQ YD, SY	- SQUARE YARD	
q	– CENTER LINE		- LANDSCAPE	STA	- STATION	NN CONE CONE CONE CONE CONE
СО	– CLEAN OUT, SEWER			SHP	- SIELL HIGH-PRESSURE PIPE	JOB DATE SCAI DESI DESI DRAN CHE(
СОММ	– COMMERCIAL	LF	- LINEAR FEET	SD	- STORM DRAIN	
CONC, PCC	- CONCRETE	LG	- LIP OF GUTTER	STD	– STANDARD	
CONST	- CONSTRUCTION OR CONSTRUCT	LJ	- LEAD JOINI	STRUCT	- STRUCTURAL OR STRUCTURE	ET 212 955 6.CO
COR	– CORNER	LP	- LOW POINT	SURV	– SURVEY	<b>R</b> 17REF 899 88-7 88-7
СМР	– CORRUGATED METAL PIPE	MH	- MANHOLE	SL	– STREET LIGHT	<b>E E E</b> 31 S
CSAP	- CORRUGATED STEEL ARCH PIPE	MAX	- MAXIMUM	T, TELE	– TELEPHONE	R (1775) TTPS)
CSP	- CORRUGATED STEEL PIPE	MDD	- MAXIMUM DRY DENSITY	TEMP	– TEMPORARY	K: (7 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
C&G	– CURB & GUTTER	MIN	- MINIMUM	TBA	– TO BE ADJUSTED	ARR FAX
		MON	– MONUMENT	TBC	– TOP BACK OF CURB	
CIP	- CAST IRON PIPE	MP	– MILE POST	TBR	– TO BE REMOVED	
		MUE	- MUNICIPAL UTILITY EASEMENT	TFC	– TOP FACE OF CURB	NAL ENGINE
CTR		(N)	- NORTH	TC	- TOP OF CURB	
		NDP	- NO DIRECT PAYMENT	ТМН	– TOP OF MANHOLE	FERRON S. S Z
CU FT CF		NIC	- NUT IN CUNTRACT	TP	- TOP OF PIPE	Exp 06/30/23 & S
CULV	– CULVERT	NP	- NON-POTABLE	TR	– TRANSITE	
CF	– CURB FACE	NO	– NUMBER	TS	– TRAFFIC SIGNAL	10 000000000 VUN
	- DEPRESSED CURB	N/O	– NORTH OF	TSC	– TRAFFIC SIGNAL CONDUIT	No. 1242
DEPT	– DEPARTMENT	NTS	– NOT TO SCALE	TSI	- TRAFFIC SIGNAL INTERCONNECT	
DG	– DECOMPOSED GRANITE	OC	– ON CENTER	TRANS	– TRANSITION	Dł
DIA	– DIAMETER	OHE	- OVERHEAD ELECTRIC	TW	– TOP OF WALL	VA VA
DWY	- DRIVEWAY	OHU	– OVERHEAD UTILITY	TYP	– TYPICAL	IEV
DI	– DUCTILE IRON, DROP INLET	OD	– OUTSIDE DIAMETER	UG	- UNDERGROUND	
DIP	- DUCTILE IRON PIPE	(P)	– PROPOSED	UGE	<ul> <li>UNDERGROUND ELECTRICAL</li> </ul>	PR
DMH	– DROP MANHOLE	PCC	- POINT OF COMPOUND CURVE	UGT	- UNDERGROUND TELEPHONE	
(E)	– EAST	PE	– POLYETHYLENE	UG-UT	- UNDERGROUND UTILITIES	PR
EB	– ELECTRICAL PULL BOX	PG	– PAD GRADE	UON	- UNLESS OTHERWISE NOTED	D
EG	– EXISTING GRADE	PHP	– PLASTIC HIGH PRESSURE	UPRR	– UNION PACIFIC RAILROAD	Z
ESMT	– EASEMENT	PL	– PROPERTY LINE	VAR	– VARIABLE	(A)
F/O	– EAST OF	P&P	– PLAN & PROFILE	VERT	– VERTICAL	Ž 70
EOA	– EDGE OF ASPHALT	PVMT	- PAVEMENT	VC	– VERTICAL CURVE	E, 50 E, E
EP	- EDGE OF PAVEMENT	PI	- POINT OF INTERSECTION	VG	– VALLEY GUTTER	H X T L
EOL	– END OF LINE	PRC	- POINT OF REVERSE CURVE	VCP	– VITRIFIED CLAY PIPE	L I Z Z <sup>2</sup>
E, EL. ELFC	- ELECTRIC	PC	- POINT OF CURVE	(W)	- WEST	VA FJ -20 L
,,о ЕМ	- ELECTRIC METER	PT	- POINT OF TANGENCY	W/	– WITH	
ELEV	- ELEVATION	PS	– PUMP STATION	, W, WTR	– WATER	EF P P
EMBK	– EMBANKMENT	PCC, CONC	- PORTLAND CEMENT CONCRETE	WM	– WATER METER	K FN ~ X
ECR	– END OF CURB RETURN	PP	- POWER POLE	WS	- WATER SERVICE	GF P, O
FC	- END OF CURVE	Ρ	– POWER	W/O	– WEST OF	Ň
EO	- EO	Æ	– PROPERTY LINE	WV	- WATER VALVE	<u> </u>
 FRS	 - CATHODE PROTECTION ROND STATION	PROP	- PROPOSED	YD	– – YARD	ð
FTS	- CATHODE PROTECTION TEST STATION	PL-G	– PLASTIC GAS	. 🖵		Ŭ
EVC	- END OF VERTICAL CURVE	PRC	- POINT OF REVERSE CURVE			N N
EVUST FV	- EXISTING	PB	– PULL BOX			MK X
EAC	- FRAME AND COVER	PT	- POINT			JT/
FC	- FACE OF CURR	PUE	– PUBLIC UTILITY EASEMENT			I H
	- FINISHED FLOOP	PVI	- POINT OF VERTICAL INTERSECTION			OS OS
	- FIRE DEPARTMENT CONNECTION	PVC	- POLYVINYL CHLORIDE PIPE			Η̈́Η
	- EIRED ODTIG LINE	PVT	- PRIVATE			L C
LIRFK		Q	- RATE OF FLOW			
FUU	- FIBER UPTIC CABLE	RP	– RADIUS POINT			DRAWING NUMBER
	- FEEL UK FUUL	R&D	- REMOVE AND DISPOSE			1
FIKM	- FLUUD INSURANCE RATE MAP	- R&R	- REMOVE AND REPLACE			
		R&W	- REMOVE AND WASTE			
FA	- FIRE ALARM	R	– RADIUS			
FH F		RR	– RAILROAD			
۴ <u>ـ</u>	- FLUW LINE				BID PLAN SEI	2 ~ 15

G

Η



FILE SPEC: P:\Client Projects\Elko City 4001\083 Hospital 2nd Source Waterline\6.0 Drawings\6.1 DWG\Sheet Files\G04 SITE PLAN.dwg PLOT DATE: Oct 28, 2022 - 11:48am





HORZ: 1" = 50'VERT: 1" = 10'







B

D



Η



G

### CONSTRUCTION NOTES:

- 1 INSTALL 10 LF OF 10"Ø AWWA C-900 DR18 PIPE AND TEMPORARY FLUSH VALVE ASSEMBLY, SEE DETAIL M/D03.
- 2 upon completion of water main, backfill and COMPACT TRENCH IN 6" LIFTS WITH 90% COMPACTION. IN TRAVEL WAYS PLACE 10" THICK TYPE II CLASS B AGGREGATE BASE AT ROAD SURFACE, 95% COMPACTION. MOUND 2" ABOVE ADJACENT GRADE.
- (3) INSTALL 10 LF OF 18"Ø AWWA C-900 DR18 PIPE AND TEMPORARY FLUSH VALVE ASSEMBLY, SEE DETAIL M/D03.
- (4) STA. 10+00.00 TO STA. 13+00.00 REALIGN, REGRADE AND CONSTRUCT THE POWER HOUSE ROAD GRADED GRAVEL SURFACE TO THE NEW ALIGNMENT SHOWN ON THE PLANS – SEE SHEETS PO2 AND PO3. SEE TYPICAL GRAVEL ROADWAY SECTION DETAIL "A" ON SHEET PO2 FOR THE ROADWAY DESIGN SECTION.







D

В

А



Η



#### ○ CONSTRUCTION NOTES:

(1) EXISTING 18"Ø WATER MAIN LOCATION SHOWN IS APPROXIMATE. NEW 8"Ø C-900 DR18 TO BE INSTALLED PARALLEL TO EXISTING 18"Ø MAIN. CONTRACTOR SHALL LOCATE THE EXISTING WATER MAIN PRIOR TO CONSTRUCTION. THE NEW 18-INCH Ø WATER MAIN AND 8-INCH DIAMETER WATER MAIN SHOWN SHALL BE INSTALLED WITH A MINIMUM SOIL COVER OF 42-INCHES MEASURED FROM FINISH GRADE TO THE TOP OF THE WATER MAIN PIPE.

G

(2) UPON COMPLETION OF WATER MAIN, BACKFILL AND COMPACT TRENCH IN 6" LIFTS WITH 90% COMPACTION. IN TRAVEL WAYS PLACE 10" THICK TYPE II CLASS B AGGREGATE BASE AT ROAD SURFACE, 95% COMPACTION. MOUND 2" ABOVE ADJACENT

(3) CONTRACTOR SHALL MAINTAIN ACCESS TO THE EXISTING RESIDENTIAL HOMES LOCATED ON STITZEL ROAD AND POWDER HOUSE ROAD DURING WATER LINE CONSTRUCTION.

4 the "contractor" shall purchase and provide all water PIPE MATERIALS, INCLUDING TAPPING VALVES AND TEES. THE CITY OF ELKO WATER DEPARTMENT SHALL PERFORM, OR MAKE, ALL HOT TAPS TO EXISTING LIVE WATER MAINS THAT ARE CURRENTLY IN SERVICE AND OWNED AND OPERATED BY THE CITY OF ELKO WATER DEPARTMENT.

ĿΕ	DATE	9/14/2022	10/10/2023	10/28/202:				
	АРР	FSK	FSK	FSK				
	BΥ	FSK	FSK	FSK				
	DESCRIPTION	REVISED FOR REVIEW	REVISED FOR REVIEW	BID PLAN REVISION				5
	REVISION	В	С	D				
	JOB NO.: 4001.083	DATE: 0CT. 28, 2022	SCALF. AS SHOWN		DESIGNEU: KMP	DRAWN: PJB	CHECKED: FSK	4
		FARR WEST		ENGINEERING	421 CUURI SIREEI Elko, Nevada 89801	PHONE: (775) 738–2121 FAX: (775) 738–7955	FARRWESTENGINEERING.COM	
		CIERELAPROSE	FE EXI EXI	EN EN ERRC ONA P. 06/ CIVI Poooo Io. 72	G/NE ON S N S 30/23 IL O 242 S	S. S. M. S. M. M. M. S.	V DE MAR 22 V	3
	<b>UD PRV PROJECT</b>						NEVAD	
	<b>JND SOURCE WATERLINE AN</b>	FOR	CITY OF ELKU	PWP EL-2022-450	PLAN & PROFILE	<b>POWDER HOUSE RD</b>		2
	HOSPITAL SECC	DR	11WA	NG N	NUME	BER	CITY OF ELKO	1
7			F	<b>P(</b>	)4			

<u>8</u> OF <u>15</u>









PIPE/(	210112	
CARRIER PIPE DIAM.	CASING MIN. O.D.	MINIMUN CASING THICKNES
6"	16"	3/8"
8"	18"	3/8"
10"	20"	3/8"
12"	24"	7/16"
14"	24"	7/16"
16"	26"	7/16"
18"	30"	1/2"
20"	32"	1/2"

G J	Н						
DRAWING ON 11"x17" IS HALF SCALE	DATE	14/2022	10/2022	28/2022			1
THRUST BLOCK, D D MUELLER RESILIENT SEAT GATE VALVES WITH MECHANICAL JOINT, OR FLANGED, CONNECTIONS	APP 1	FSK 9/1	SK 10/	FSK 10/2			1
	BΥ	FSK	FSK	FSK			
ED TEE E PLANS E VALVE L JOINT BIL HONNER BIL HONNER BI	SION DESCRIPTION	REVISED FOR REVIEW	REVISED FOR REVIEW	D BID PLAN REVISION			5
PIPE CL 218 (235-PSI) WITH CAST IRON O.D.'S AND SHALL CONFORM TO STANDARD	.083 REVI	2022 B				FSK	1
M PRESSURE CLASS 250 AND SHALL BE AS SPECIFIED BY STANDARDS C110/A21.10, C111/A21.11, C115/A21.15, C116/A21.16, C150/A21.50, APPLY. DCEDURES SHALL BE APPROVED BY THE CITY OF ELKO ENGINEERING	JOB NO.: 4001	DATE: 0CT. 28, 2	SCALE. AS SH	DUALLY AS 21	JESIGNED:	CHECKED:	4
D THE NDEP-BUREAU OF SAFE DRINKING WATER. INSTALLATION SHALL BE IN /A C600 FOR DUCTILE IRON PIPE AND/OR STANDARD ANSI/AWWA C605 FOR THE CONTRACTOR SHALL COMPLY WITH NEVADA ADMINISTRATIVE CODE 445A.67145.		LS S			01 2121	)55 5.COM (	1
ENT SEAT GATE VALVES AND SHALL BE USED WITH PIPE SIZES 3" THROUGH RIBED IN STANDARD AWWA C509 — STANDARD FOR RESILIENT SEATED GATE IREE (3) VALVES SHALL BE REQUIRED ON ALL TEES EXCEPT FIRE HYDRANT		ARR WE		GINEEK	-21 COUNT STREE -KO, NEVADA 898 3NE: (775) 738-2	X: (775) 738-79 WESTENGINEERING	
VALVES SHALL BE USED FOR PIPE SIZES 14—INCH OR MORE IN DIAMETER /A C504 — STANDARD FOR RUBBER SEATED BUTTERFLY VALVES. R BUTTERFLY VALVES INSTALLED ON EACH PIPE AT TEES SHALL BE "AS		FA			PHO	FA) FARR	
HEETS". TEES OF HIGH IMPORTANCE FOR WATER DISTRIBUTION MAY BE THRUST BLOCKS AND VALVE BOXES. LATERAL TEES FOR FIRE HYDRANTS E VALVE LOCATED ON THE TEE LATERAL PIPE FLANGE. DLYETHYLENE SHEETING BETWEEN THRUST BLOCKS AND TEES, OR VALVES.		CIEREDPROFUN	FE FE EXI	ERRC ØNA P. 06/3 CIVII °°°°°°	GINEER SINEER SN S. G SN SN S. G SN SN S	SINTE OF MEL	3
S BARREL NSTION SURE PIPE UGH BORE INDICATED HEETS 900 PVC 235-PSI	HOSPITAL SECOND SOURCE WATERLINE AND PRV PROJECT			PWP EL-2022-450		CITY OF ELKO	2
BID PLAN SET		_1	<b>Г</b>	<b>)(</b> _ OF	)1 15	5	



90° BEND

#### CROSSING LINE SEPARATION SEWER MAIN CROSSING WATER MAIN/LATERAL Н SCALE: NONE

1. SEWER MAIN CROSSING WATER MAIN OR WATER SERVICE LATERAL SHALL MEET THE REQUIREMENTS

OF NAC 445A.67165 & NAC 445A.6717.



# THRUST BLOCK BEARING AREAS SCALE: NONE

SEWER MAIN-

BEARING CAPACITY. INSTALLATIONS USING DIFFERENT PIPE, TEST PROCEDURES, AND/OR SOIL TYPES SHOULD ADJUST AREAS ACCORDINGLY, SUBJECT TO THE APPROVAL OF THE ÉNGINEER. THRUST BLOCKS ARE TO BE POURED AGAINST UNDISTURBED SOIL. JOINTS AND FACES OF PLUGS TO BE KEPT CLEAR OF CONCRETE. 5. BOLT ON SADDLE TEES ARE EXEMPT FROM THRUST BLOCK REQUIREMENTS IF STATED IN

WATER MAIN

- WATER MAIN

18" MIN



							X	
		THRUST	T BLC	DCK BEARING AF	REA (SQ. FT.)			
-	90° BEND	45° BEI	ND	11–1/4° OR 22–1/2° BEND	TEE OR DEAD END	TEE PL	WITH .UG	CROSS WITH PLUG
"	2	1		1 2		2		2
"	4	4		2	4		4	4
"	7	4		2	5		7	7
0'	, 12	6		3	8		12	12
2	, <i>16</i>	10		5	12	12 16		16
4	, <i>20</i>	12		6	14	Ż	20	20
6	' 27	15		8	18		27	27
8	<b>'</b> 45	25		13	32		45	45
4	, 65	35		18	46		65	





- CONSTRUCTION DRAWINGS. 2. 6-INCH Ø BOLLARDS SHAL VEHICLE IMPACT PROTECTI INTERNATIONAL FIRE CODE
- 3. STEEL BOLLARDS FOR THIS PLAN SHEETS, OR PLAN FROM THE IMPROVEMENTS BE PROTECTED INCLUDE FIF STORAGE TANKS, WATER ME BARRIER PROTECTION ALONG
- 4. PAINT BOLLARDS WITH EPO> PAINT AFTER REMOVING ALL
- 5. FOR THIS PROJECT PLACE AND SUSTAINING VALVE VA DETAILS SHEETS D04.1 AND

WATER SERVICE LATERAL

18" MIN.

SEWER MAIN-

D

DRAWI	NG ON 11" $_{\Psi}$ 17" IS HALESCALE		
	NO ON 11 X17 IS HALF SCALE	DATE /14/2022 /10/202	/28/202
		, PP SK 9, K 10,	X X 10
		× × ×	<u>Х</u>
SEWER LATERAL		FS FS	
1       NOTE: IF 1 CAN NOT BE CONSTRUCTED, THEN         1       LOCATE SEWER SERVICE LATERAL IN SUCH A MANNER         AS IS AUTHORIZED BY THE HEALTH DIVISION.		RIPTION EW EW	z
NOTE: CONSTRUCT 2A, IF CAN NOT CONSTRUCT 1. IF WATER MAIN OR WATER SERVICE LATERAL IS IN PLACE AT THE TIME A SEWER MAIN IS CONSTRUCTED AND MUST BE RELOCATED TO MEET VERTICAL CLEARANCE, THE RELOCATION SHALL BE PERFORMED WITH THE APPROVAL OF AND IN ACCORDANCE WITH THE PROCEDURES & STANDARDS OF THE SUPPLIER OF WATER.		DESCF REVISED FOR REVI REVISED FOR REVI	BID PLAN REVISIO
		NOIS	
NOTE: CONSTRUCT 2A, IF CAN NOT CONSTRUCT 1. IF WATER MAIN OR WATER SERVICE LATERAL IS IN PLACE AT THE TIME A SEWER MAIN IS CONSTRUCTED AND MUST BE RELOCATED TO MEET VERTICAL CLEARANCE, THE RELOCATION SHALL BE PERFORMED IN SUCH A MANNER AS IS AUTHORIZED BY THE HEALTH DIVISION.		4001.083 REVI 28, 2022 B	AS SHOWN KMP PJB FSK
SEWER LATERAL CROSSING WATER MAIN OR WATER SERVICE LATERAL		JOB NO.:	SCALE:
NOTES: 1. sewer service lateral crossing water main or water service lateral shall meet the			<u>v</u> _ ×
CROSSING LINE SEPERATION SEWER LATERAL CROSSING WATER MAIN/LATERA SCALE: NONE	AL F	FARR WES	<b>ENGINEERIN</b> 421 COURT STREET ELKO, NEVADA 89801 PHONE: (775) 738–212 FAX: (775) 738–7955 FARWESTENGINEERING.C
BOLLARD CL 6-INCH Ø SCHEDULE 4C PIPE FILLED WITH CONCF & PAINTED OSHA/SAFET MIN. INSTALL VERTICAL WITH L	D STEEL RETE Y YELLOW LEVEL	T TEREPPROFIL TEREPROFIL TEREPPROFIL TEREP	AL ENG/NEEP 200000000 ERRON S. 8 9 (ONAKISM & Karol (P. 06/30/23 8 9 CIVIL 200000000 No. 7242 20000000000000000000000000000000000
EXISTING GROUND, OR GRAVEL SURFACE 3'-6" MIN. 15-INCH Ø HOLE FILLED READYMIX CONCRETE (f'c	R ) WITH c = 3,000 psi)	ERLINE AND PRV PROJEC LKO	2-450 EETS TAILS NEV/
BOLLARD CONSTRUCTION NOTES:		WAT FOR DF EI	,-202 , SHI
<ol> <li>INSTALL BOLLARDS AT THE LOCATIONS AND/OR SPACINGS S CONSTRUCTION DRAWINGS.</li> <li>6-INCH Ø BOLLARDS SHALL MEET THE MINIMUM REQUIREMENTS OF VEHICLE IMPACT PROTECTION OF THE MOST CURRENT ADOPTED INTERNATIONAL FIRE CODE (IFC).</li> </ol>	SHOWN ON THE SECTION 312 – EDITION OF THE	SOURCE V CITY C	PWP EL DETAII UTILITY
3. STEEL BOLLARDS FOR THIS PROJECT SHALL BE AT THE LOCATIONS PLAN SHEETS, OR PLAN DETAILS, BUT SHALL BE PLACED NOT LES FROM THE IMPROVEMENTS AND/OR OBJECTS TO BE PROTECTED. I BE PROTECTED INCLUDE FIRE HYDRANTS, FUEL STORAGE TANKS, LIQU STORAGE TANKS, WATER METER BOXES, AND VALVE VAULTS WITHOUT BARRIER PROTECTION ALONG ROADWAYS AND HIGHWAYS.	S SHOWN ON THE SS THAN 3–FEET IMPROVEMENTS TO UID PROPANE GAS CONCRETE CURB	SECOND	$\sim$
4. PAINT BOLLARDS WITH EPOXY, VINYL OR POLYURETHANE INDUSTRIAL I PAINT AFTER REMOVING ALL RUST AND SCALE FROM THE SCHEDULE A	BASE PRIMER AND 40 STEEL PIPE.	TAL	ELKC
5. FOR THIS PROJECT PLACE SIX (6) BOLLARDS AT THE TWO (2) PRE AND SUSTAINING VALVE VAULTS SHOWN ON PLAN SHEETS PO1 AND DETAILS SHEETS D04.1 AND D04.2)	ESSURE REDUCING D P05 (ALSO SEE	IdSOH	CITY OF 1
6-INCH Ø STEEL BOLLARD CONSTRUCTION SCALE: AS SHOWN ABOVE	N DETAIL (H1.2)	DRAWI	NG NUMBER
		т	
			<b>NI</b> /



(OR CONCRETE FLOOR)

4'X 5/8" REBAR

LOCATOR WIRE

- 3/4" X 48" EYE BOLT

- BNG SET

┌ 4" GALV. WASHERS

PRESSURE PLATE

4" X 6" GALV

NIPPLE



4"X 12"

4"X 90°

GALV. ELBOW

GALV. NIPPLE









- 2. VALVE COLLAR SHAL VALVE COLLARS IN A OTHERWISE SPECIFIED
- 3. CONCRETE COLLAR SURFACE.
- VALVE DE

SCALE: NONE





NO. 5 BARS, 3-EACH BOTH WAYS IN 2'-6" x 2'-6" x 10" THICK CONCRETE 

#### DETAIL NOTES AND REQUIREMENTS

- 1. CONCRETE FOR PIPE SUPPOR COMPRESSIVE STRENGTH OF 4
- 2. THE MINIMUM SEPARATION BET **BE 3-INCHES. INSTALL REINFOR**
- 3. ALL CONCRETE REINFORCING S
- 4. ALL FILL SOIL MATERIAL SHALI ACCORDANCE WITH TEST METH
- 5. GRADED GRAVEL BASE MATERIA CONDITIONED, AND COMPACT METHOD ASTM D 1557.
- 6. WHEN INSTALLED INSIDE A PU SUPPORT CONCRETE FOOTING
- 7. WHERE PIPE SUPPORTS ARE PIPE SUPPORTS CAN BE MOUN (16" SQIARE WITH STEEL fy = 60 VERTICAL PIPE SUPPORT, AS SH

WATER PIP

SCALE: NONE



NO. 5 BARS, 3-EACH BOTH WAYS IN 2'-6" x 2'-6" x 10" THICK CONCRETE - 2'-6" SUPPORT FOOTING (AS SHOWN) -

10"

#### DETAIL NOTES AND REQUIREMENTS:

1. CONCRETE FOR PIPE SUPPORTS SHALL BE AIR ENTRAINED (6%, ±1.5%) AND SHALL HAVE A 28-DAY COMPRESSIVE STRENGTH OF 4,000 PSI MINIMUM.

NUTS

WHEN THE CONCRETE BASE IS LEVEL INSTALL THE METAL BASE PLATE FLUSH

WITH THE CONCRETE WITH NO LEVELING

- 2. THE MINIMUM SEPARATION BETWEEN REINFORCING STEEL AND THE BOTTOM OF THE FOOTING SHALL BE 3-INCHES. INSTALL REINFORCING STEEL IN THE CENTER OF THE SUPPORT FOOTING, AS SHOWN.
- 3. ALL CONCRETE REINFORCING STEEL SHALL BE GRADE 60 DEFORMED BARS (Fs = 60,000 PSI).
- 4. ALL FILL SOIL MATERIAL SHALL BE COMPACTED TO A MINIMUM OF 90% MAXIMUM DRY DENSITY IN ACCORDANCE WITH TEST METHOD ASTM D 1557.
- GRADED GRAVEL BASE MATERIAL AND SELECT GRAVEL BASE MATERIAL SHALL BE PLACED, MOISTURE CONDITIONED, AND COMPACTED TO 95% MAXIMUM DRY DENSITY IN ACCORDANCE WITH TEST METHOD ASTM D 1557.
- 6. WHEN INSTALLED INSIDE A PUMP HOUSE, WELL HOUSE, PRV STATION, OR LIFT STATION THE PIPE SUPPORT CONCRETE FOOTING SHALL BE POURED FLUSH WITH THE CONCRETE FLOOR.
- WHERE PIPE SUPPORTS ARE REQUIRED INSIDE PRECAST CONCRETE VAULTS, OR MANHOLES, THE PIPE SUPPORTS CAN BE MOUNTED ON 1/2-INCH THICK EMBEDDED SQUARE STEEL ANCHOR PLATES (16" SQIARE WITH STEEL fy = 60,000 PSI) MOUNTED ON THE VAULT FLOOR AND CENTERED BELOW THE VERTICAL PIPE SUPPORT, AS SHOWN IN THE PLAN SHEETS.

# WATER PIPE INVERT SUPPORT DETAIL

SCALE: NONE

	BID PLAN SET		_1	2_	OF	<u> </u>		
г				Γ	)()	3		
HOWN IN THE PLAN SHEETS. PE FLANGE SUPPORT DET	TAIL O		אט	/¬¥¥11N		ηυεκ		
REQUIRED INSIDE PRECAST CONCRETE VAULTS NTED ON 1/2-INCH THICK EMBEDDED SQUARE S 0,000 PSI) MOUNTED ON THE VAULT FLOOR AND (	S, OR MANHOLES, THE TEEL ANCHOR PLATES CENTERED BELOW THE	Ţ	D۵	AWIN	GNU	/RFR	CIT	1
JMP HOUSE, WELL HOUSE, PRV STATION, OR L SHALL BE POURED FLUSH WITH THE CONCRETE	IFT STATION THE PIPE FLOOR.	IOSPI					Y OF E	
IAL AND SELECT GRAVEL BASE MATERIAL SHALL IED TO 95% MAXIMUM DRY DENSITY IN ACC	BE PLACED, MOISTURE ORDANCE WITH TEST	<b>TAL SF</b>					JLKO	
STEEL SHALL BE GRADE 60 DEFORMED BARS (Fs IL BE COMPACTED TO A MINIMUM OF 90% MAX	= 60,000 PSI). IMUM DRY DENSITY IN	ECON						
WEEN REINFORCING STEEL AND THE BOTTOM OR CONTROL OF THE SUPPORT F	OF THE FOOTING SHALL TOOTING, AS SHOWN.	D SOI	•			LU L		
TS SHALL BE AIR ENTRAINED (6%, ±1.5%) AND (000 PSI MINIMUM.	SHALL HAVE A 28-DAY	JRCE			WF E.			
<u>S:</u>		WATE	FOR	UF EL	L-2U22	Y DET		2
Image: 1 mining of the imag	NUKETE WITH NU LEVELING	ERLIN	C ZI	NU AFN	FTS	AILS		
WHEN THE CO     INSTALL THE	ONCRETE SUPPORT IS LEVEL METAL BASE PLATE FLUSH	E AND						
4 - 5/8" Ø EPOXY GROUT WITH 4" MIN. EMBEDMEN	ED ANCHOR BOLTS NT	PRV						
1 1/2" S FANDARD WEIG THREADED AS SHOWN	HT STEEL PIPE	PROJE					NE	
		ECT					VADA	
		¥	(9) (9)	N	0000000 0. 7242	VON /	₽ 2022	
		the second	STEREUPPR		06/30/2 CIVIL			3
		Å	75.50 M	0NAL		EEP.		
TAIL			FA	N 4	42	PHON FAX	FARR	
REQUIRED WHEN VALVE IS NOT LOCATED IN CONCRETE	OR BITUMINOUS		RR V		COURT S	VC, NEVAUA VE: (775) 7 (775) 73;	VESTENGINE	
TIONS FOR PUBLIC WORKS CONSTRUCTION, UNLESS O L BE SET $\frac{1}{4}$ " TO $\frac{1}{2}$ " BELOW FINISHED CONCRETE OR BI ALL OTHER AREAS SHALL BE SET FLUSH WITH FINISHED D.	THERWISE SPECIFIED. ITUMINOUS SURFACE. D GRADE, UNLESS		WEST	SN1 A	TREET	738-2121 8-7955	ERING.COM	
EET THE REQUIREMENTS OF SECTION 337 10 OF THE	LATEST EDITION OF THE	JOB N	DATE: _	SCALE:	DESIGN	DRAWN	CHECK	
JST BLOCK		10.: 400	0CT. 28,	S SA	VED:		(ED:	4
WATER MAI	IN	<u>21.083</u> REV	2022	NWOHS	KMP	PJB	FSK	
	$\overline{}$	VISION	В	U	0			
10 GAUGE WIRE TAPE LOOPED T	COPPER TRACE ED TO LINE AND O TOP OF BOX		REVISED F	REVISED F	BID PLAN			
VALVE	355 564-A E BOX	DESCRIPT	OR REVIEW	FOR REVIEW	I REVISION			
CONCRETE COLLA	AR TO BOTTOM OF TAPER	TION						
12"	I/4″ – 1/2″ BELOW AY SURFACE			E.				5
		BY AP	SK FSI	SK FSK	FSK			
		P DA	K 9/14,	< 10/10	SK 10/2E			
DRAWIN	IG ON 11"x17" IS HALF SCALE	1 JTE	/2022	/2022	1/2022			
, G	, F	Ŧ						



### DRAWING ON 11"x17" IS HALF SCALE

Η

PRESSURE REDUCING VALVE STATION CONSTRUCTION NOTES:

G

- 1. THE PRESSURE REDUCING VALVE STATION SHALL BE EQUIPPED WITH A LOW FLOW PRESSURE REDUCING & SUSTAINING VALVE AND A HIGH FLOW PRESSURE REDUCING & SUSTAINING VALVE, AS SHOWN, THE LOW FLOW PRESSURE REDUCING AND SUSTAINING VALVE SHALL BE A 4" Ø CLA-VAL MODEL 92-01 PRV AND PSV. THE HIGH FLOW PRESSURE REDUCING AND SUSTAINING VALVE SHALL BE A 10-INCH Ø CLA-VAL MODEL 92-01 PRV AND PSV (OR APPROVED EQUAL) AS SHOWN ON THE PLAN DETAIL. SEE THE VALVE SPECIFICATIONS AND MANUFACTURER'S VALVE INFORMATION FOR MORE INFORMATION.
- 2. INSTALL 18-INCH × 10-INCH Ø MJ REDUCERS UPSTREAM AND DOWNSTREAM FROM THE PRESSURE REDUCING AND SUSTAINING VALVE STATION VAULT TO TRANSITION FROM C-900 DR18 (235 PSI) PIPE TO DUCTILE IRON PIPE. ALL PIPE FLANGES SHALL BE IN ACCORDANCE WITH STANDARD ASME/ANSI B16.5 (FOR PIPE 1/2 -INCH THROUGH 24-INCHES IN Ø) AND ASME/ANSI B16.47 (FOR PIPE 26-INCHES THROUGH 60-INCHES IN Ø). WRAP ALL BURIED DUCTILE IRON AND STEEL PIPE FITTINGS WITH 8-MIL POLYETHYLENE SHEETING PRIOR TO POURING CONCRETE THRUST BLOCKS.
- 3. THE PRV & PSV STATION VAULT INSIDE MINIMUM CLEAR DIMENSIONS SHOW ARE 14'-6" LONG BY 7'-0" WIDE. SEE THE DETAIL DIMENSIONS SHOWN. THE PRECAST VAULT SHALL BE MANUFACTURED BY JENSEN PRECAST OF SPARKS, NEVADA; DURACRETE PRECAST OF SALT LAKE CITY, UTAH; OR OLDCASTLE (AMCOR) PRECAST. THE PRECAST CONCRETE VAULT FOR THE PRV STATION SHALL BE MANUFACTURED FOR AN HS-20 VEHICLE LOADING. THE PRV STATION PRECAST ROOF SHALL BE EQUIPPED WITH A 3'-0" BY 5'-0" LOCKING DOUBLE ACCESS DOORS THAT LOCKS IN THE OPEN POSITION FOR EQUIPMENT ACCESS TO THE PRECAST VAULT. PROVIDE OPENINGS FOR CONDUIT ENTRY INTO VAULT.
- 4. PROVIDE AND INSTALL A TOTAL OF SIX (6) 6-INCH Ø STEEL BOLLARDS FOR IMPACT PROTECTION OUTSIDE THE VAULT. INSTALL BOLLARDS WITH A MAXIMUM OF 3-FEET OF CLEARANCE FROM THE FACE OF THE VAULT TO THE BOLLARD. PLACE THE BOLLARDS ALONG THE SIDE AND END OF THE VAULT THAT FACES THE ERRECART BOULEVARD ROADWAY SURFACE. INSTALL A TOTAL OF 6-BOLLARDS AT EACH PRECAST CONCRETE VAULT INSTALLATION. SEE THE BOLLARD DETAIL (DETAIL H1.2 ON SHEET D02).
- 5. PIPE BEDDING MATERIAL SHALL BE CLEAN SAND AGGREGATE MATERIAL MEETING THE REQUIREMENTS OF SUBSECTION 200.03.02 CLASS A BACKFILL OF THE PROJECT "STANDARD SPECIFICATIONS".
- 6. THE SERVICE PIPE TRENCH BACKFILL MATERIAL SHALL BE NATIVE SOIL MATERIAL MEETING THE GENERAL REQUIREMENTS OF SUBSECTION 200.03.06 CLASS E BACKFILL OF THE PROJECT "STANDARD SPECIFICATIONS".
- 7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING A DRY TRENCH AT ALL TIMES. WHERE PIPE MUST BE PLACED IN HIGH GROUNDWATER CONDITIONS THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TRENCH DEWATERING METHODS IN THE CONSTRUCTION TO ENSURE PROPER INSTALLATION OF ALL FRESH WATER AND DRAINAGE PIPES.
- 8. 3-INCH WIDE X 5-MIL DETECTABLE WARNING TAPE SHALL BE PLACED 12-INCHES ABOVE ALL WATER SERVICE PIPES, FIRE SERVICE PIPES, FRESH WATER PIPES AND DRAINAGE PIPES. THE WARNING TAPE FOR ALL WATER LINES SHALL BE BLUE IN COLOR AND SHALL BE MARKED "WATER PIPE BELOW". DETECTIBLE WARNING TAPE FOR DRAINAGE PIPE INSTALLATIONS SHALL BE GREEN AND MARKED "SEWER PIPE BELOW".
- 9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE TRENCH IN COMPLIANCE WITH THE NDOT ENCROACHMENT PERMIT, OSHA TRENCH REQUIREMENTS, AND CURRENT STATE AND CITY OF ELKO REQUIREMENTS FOR TRENCHING AND EXCAVATION.
  - 10. PIPE BEDDING MATERIAL AND PIPE BACKFILL MATERIAL SHALL BE PLACED AND COMPACTED TO A MINIMUM COMPACTION OF 90% MAXIMUM DRY DENSITY IN ACCORDANCE WITH TEST METHOD ASTM D1557.
  - 11. THE CONTRACTOR SHALL PROVIDE AND INSTALL TEMPORARY 4-INCH Ø AND 10-INCH Ø DUCTILE IRON PIPE SPOOLS IN PLACE OF THE PRESSURE REDUCING AND SUSTAINING VALVES AND STRAINER ASSEMBLIES. THE PIPE SPOOLS SHALL BE INSTALLED AT THIS TIME AND THE PRV/PSV ASSEMBLIES AND STRAINERS SHALL BE INSTALLED IN THE FUTURE BY THE CITY OF ELKO WHEN THE CITY'S FUTURE ELEVATION 5600 PRESSURE ZONE IS PERMITTED, CONSTRUCTED, AND PLACED IN OPERATION. THE PROJECT CONTRACTOR SHALL PURCHASE AND PROVIDE THE HIGH FLOW AND LOW FLOW PRESSURE REDUCING AND SUSTAINING VALVE ASSEMBLIES ALONG WITH ALL THE VALVES AND FITTINGS SHOWN ON THIS DETAIL SHEET.

ION PRESSURE REDUCING AND SUSTAINING VALVE STATION SYSTEM OPERATING ES AND MAXIMUM RATED FLOWS:
TEM OPERATING PRESSURE UPSTREAM FROM PRV = $150 \text{ PSI}$
SSURE REDUCING VALVE DOWNSTREAM SET PRESSURE = <u>62 PSI</u>
/E UPSTREAM SUSTAINING PRESSURE SET PRESSURE = <u>100 PSI</u>
INCH Ø PR & PS VALVE FLOW RATING: 35 GPM MIN. – <u>4,900 GPM MAX.</u>
NCH Ø PR & PS VALVE FLOW RATING: 4 GPM MIN. – <u>800 GPM MAX.</u>

REVISION DESCRIPTION BY APP D	B REVISED FOR REVIEW FSK 9/14	C REVISED FOR REVIEW FSK FSK 10/10	D BID PLAN REVISION FSK FSK 10/2				5
JOB NO.: 4001.083	FARR WEST DATE: 0CT. 28, 2022	SCALE: AS SHOWN		421 COURT STREET DESIGNED: KMP ELKO, NEVADA 89801	PHONE: (775) 738–2121 DRAWN:	FARRWEŠTENĆINEERING.COM CHECKED: FSK	4
)JECT	CISCOMPOSITION STREET	FE EXF	EI RR ON CIV CON CIV CON CIV	NG/N/E NG/N/E ON S AK19 3/30/23 /IL 242		NEVADA R Munda	3
HOSPITAL SECOND SOURCE WATERLINE AND PRV PRO	FOR	CIIY OF ELKO	PWP EL-2022-450	DETAIL SHEETS	ERRECART PRESSURE REDUCING SUSTAINING VAI	ITY OF ELKO	2
	DR	AWIN	١G	NUME	BER	CJ	1
	<b>I</b>	<b>)</b> 3	0 0F	4	.1		

![](_page_14_Figure_0.jpeg)

#### STITZEL ROAD PRESSURE REDUCING & SUSTAINING VALVE ASSEMBLY NOTES:

G

1. THE COMBINATION PRESSURE REDUCING & SUSTAINING VALVE ASSEMBLY SHALL BE PLACED ON THE STITZEL ROAD GRAVEL SHOULDER, AS SHOWN ON PROJECT PLAN AND PROFILE SHEET P05. THE PRECAST VAULT HOUSING THE VALVE ASSEMBLY SHALL BE AS SPECIFIED AND SHALL NOT BE LOCATED WITHIN THE ROADWAY VEHICLE TRAVELED WAY. PLACE THE ASSEMBLY OUTSIDE THE ROADWAY TRAVEL SURFACES ON THE ROADWAY SHOULDER.

2. THE PRESSURE REDUCING AND PRESSURE SUSTAINING VALVE ASSEMBLY SHALL BE CONSTRUCTED PARALLEL TO THE NEW 8-INCH DIAMETER ANSI/AWWA C900 PVC WATER PIPE INSTALLED IN STITZEL ROAD AND SHALL BE EQUIPPED WITH THREE (3) 8-INCH Ø SHUTOFF VALVES WITH VALVE BOXES LOCATED IN SPRUCE ROAD TO DIRECT MUNICIPAL WATER FLOW THROUGH THE PRESSURE REDUCING AND SUSTAINING VALVE ASSEMBLIES OR THROUGH THE 8-INCH Ø PIPE IN STITZEL ROAD THAT WILL BYPASS THE PRESSURE REDUCING AND PRESSURE SUSTAINING VALVE VAULT (AS SHOWN ON PLAN AND PROFILE SHEET P05 OF THE PLANS).

3. THE COMBINATION PRESSURE REDUCING AND PRESSURE SUSTAINING VALVE ASSEMBLY SHALL BE EQUIPPED WITH A LOW FLOW (3-INCH Ø) AND A HIGH FLOW (6-INCH Ø) PRESSURE REDUCING AND PRESSURE SUSTAINING VALVE, AS SHOWN. THE LOW FLOW VALVE SHALL BE A 3-INCH Ø CLA-VAL MODEL 92-01 PRESSURE REDUCING AND SUSTAINING VALVE AND THE HIGH FLOW PRESSURE REDUCING AND SUSTAINING VALVE SHALL BE A 6-INCH Ø CLA-VAL MODEL 92-01 (OR APPROVED EQUAL PRESSURE REDUCING & SUSTAINING VALVE) AS SHOWN.

4. INSTALL 8-INCH Ø ROMAC XR-501 PIPE TRANSITION COUPLINGS UPSTREAM AND DOWNSTREAM FROM THE PRESSURE REDUCING AND SUSTAINING VALVE STATION VAULT TO TRANSITION FROM ANSI/AWWA C900 PVC PIPE TO THE DUCTILE IRON WATER PIPE SHOWN INSIDE THE PRECAST CONCRETE VAULT. INSTALL ROMAC DJ400 DISMANTLING JOINTS AS SHOWN INSIDE THE PRESSURE REDUCING AND SUSTAINING VAULT. ALL DUCTILE IRON AND STEEL PIPE FLANGES SHOWN SHALL BE RATED FOR A MINIMUM 300 PSI WORKING PRESSURE. THE PRESSURE REDUCING VALVE AND STRAINER FLANGES SHALL BE ANSI 300 LB FLANGES. ALL PIPE FLANGES SHALL BE IN ACCORDANCE WITH STANDARD ASME/ANSI B16.5 (FOR PIPE 1/2 -INCH THROUGH 24-INCHES IN DIAMETER) AND ASME/ANSI B16.47 (FOR PIPE 26-INCHES THROUGH 60-INCHES IN Ø). ALL WATER PIPE, VALVES, FITTINGS, VALVE ACCESSORY PORTS AND CONTROL SYSTEM COMPONENTS THAT ARE IN CONTACT WITH THE MUNICIPAL POTABLE WATER SUPPLY SHALL BE ANSI/NSF 61 AND 372 CERTIFIED COMPLIANT.

THE PRESSURE REDUCING AND PRESSURE SUSTAINING VALVE VAULT INSIDE MINIMUM CLEAR DIMENSIONS SHALL BE 13'-6" LONG BY 7'-0" WIDE (MINIMUM CLEARANCES) TO PROVIDE 2-FOOT OF CLEARNCE AROUND ALL PIPE FITTINGS AND VALVES. THE PRECAST CONCRETE VAULT SHALL BE AS MANUFACTURED BY JENSEN PRECAST OF SPARKS, NEVADA; DURACRETE PRECAST OF SALT LAKE CITY, UTAH; OR OLDCASTLE (AMCOR) PRECAST. THE PRECAST CONCRETE VAULT FOR THE PRESSURE REDUCING AND SUSTAINING VALVE STATION SHALL BE MANUFACTURED TO SUPPORT AN HS-20 VEHICLE LOADING. THE PRV AND PSV VAULT PRECAST ROOF SHALL BE EQUIPPED WITH A 3'-0" BY 5'-0" LOCKING DOUBLE ACCESS DOOR THAT LOCKS IN THE OPEN POSITION AND IS LOCATED ABOVE THE PRESSURE REDUCING AND SUSTAINING VALVES FOR ACCESS.

6. THE CONTRACTOR SHALL PROVIDE AND INSTALL 6-INCH Ø STEEL BOLLARDS ALONG THE TRAFFIC ACCESS SIDE AND THE ENDS OF THE PRECAST CONCRETE PRESSURE REDUCING AND SUSTAINING VALVE VAULT. A TOTAL OF 6-BOLLARDS SHALL BE INSTALLED AT EACH VAULT TO PROVIDE VEHICLE PROTECTION ON BOTH ENDS OF THE VAULT AND ALONG THE STITZEL ROAD TRAVELED WAY. SEE DETAIL H1.2 ON SHEET D02 FOR THE TYPICAL BOLLARD CONSTRUCTION

7. PIPE BEDDING MATERIAL SHALL BE CLEAN SAND BACKFILL MATERIAL MEETING THE REQUIREMENTS OF SUBSECTION 200.03.02 CLASS A BACKFILL OF THE REFERENCED PROJECT "STANDARD SPECIFICATIONS".

8. THE INTERMEDIATE BACKFILL MATERIAL SHALL BE NATIVE SOIL MATERIAL MEETING THE GENERAL REQUIREMENTS OF SUBSECTION 200.03.06 CLASS E BACKFILL OF THE REFERENCED PROJECT "STANDARD SPECIFICATIONS".

9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING A DRY TRENCH AT ALL TIMES. WHERE PIPE MUST BE PLACED IN HIGH GROUNDWATER CONDITIONS THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TRENCH DEWATERING METHODS IN THE CONSTRUCTION TO ENSURE PROPER INSTALLATION OF ALL POTABLE WATER AND VAULT DRAINAGE PIPES.

10. 3-INCH WIDE BY 5-MIL DETECTABLE WARNING TAPE SHALL BE PLACED 12-INCHES ABOVE ALL WATER SERVICE PIPES, FIRE SERVICE PIPES, POTABLE WATER PIPES AND DRAINAGE PIPES. THE WARNING TAPE FOR POTABLE WATER LINES SHALL BE BLUE IN COLOR AND SHALL BE MARKED "WATER PIPE BELOW". DETECTIBLE WARNING TAPE FOR DRAINAGE PIPE INSTALLATIONS SHALL BE GREEN AND MARKED "SEWER (DRAINAGE) PIPE BELOW".

11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE TRENCH IN COMPLIANCE WITH ALL CURRENT CITY OF ELKO, STATE OF NEVADA, AND OSHA REQUIREMENTS FOR TRENCHING

12. PIPE BEDDING MATERIAL AND PIPE BACKFILL MATERIAL SHALL BE PLACED AND COMPACTED TO A MINIMUM COMPACTION OF 90% MAXIMUM DRY DENSITY IN ACCORDANCE WITH TEST METHODS ASTM D1556 AND ASTM D1557.

13. ALL WATER PIPE, VALVES, FITTINGS AND WATER SERVICE LINES SHALL BE PROPERLY FLUSHED AND DISINFECTED IN ACCORDANCE WITH THE REQUIREMENTS SHOWN IN NAC 445A AND STANDARD ANSI/AWWA C651-05. SEE THE CURRENT NAC 445A REQUIREMENTS FOR DISINFECTION OF WATER PIPES AND FITTINGS AND SEE THE GENERAL NOTES SHOWN ON PLAN SHEET G03 FOR MORE INFORMATION ON PIPE PRESSURE TESTING AND DISINFECTION.

JRE REDUCING & PRESSURE SUSTAINING VALVE STATION SYSTEM OPERATING								
AND DESITN FLOW RATES ARE SHOWN BELOW:								
E SYSTEM OPERATING PRESSURE UPSTREAM FROM PRV = $160 \text{ PSI } \pm$								
URE REDUCING VALVE DOWNSTREAM SET PRESSURE = <u>60 PSI</u>								
RESSURE SUSTAINING VALVE SET PRESSURE SHALL = $95 \text{ PSI } \pm$								
INCH Ø PRV & PSV VALVE DESIGN FLOW RATES: 10 GPM MIN 1,800 GPM MAX								
NCH Ø PRV & PSV VALVE DESIGN FLOW RATES: 2 GPM MIN 460 GPM MAX								

![](_page_14_Figure_20.jpeg)

<u>14</u> of <u>15</u>

![](_page_15_Figure_0.jpeg)