

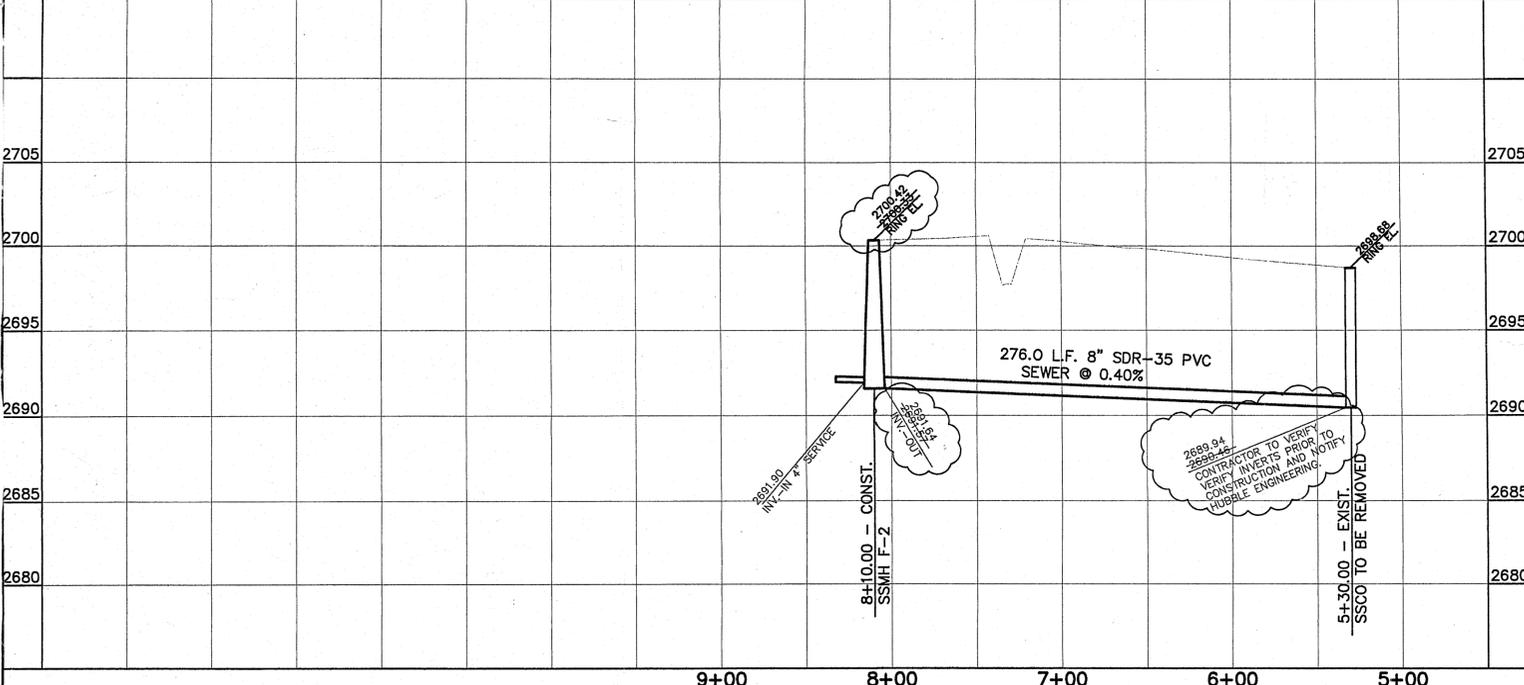
SEWER

- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE 1999 SEWER SPECIFICATIONS AND STANDARD DRAWINGS OF THE IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION (I.S.P.W.C.), KUNA CITY PUBLIC WORKS DEPARTMENT AND/OR THE ADA COUNTY HIGHWAY DISTRICT MODIFICATIONS TO THE I.S.P.W.C.
- FINAL APPROVAL AND ACCEPTANCE OF ALL SEWER CONSTRUCTION WILL BE BY THE CITY OF KUNA.
- MANHOLES 4 FEET OR GREATER IN DEPTH, SHALL BE TYPE "A" IN ACCORDANCE WITH I.S.P.W.C. STANDARD DRAWING SD 501. MANHOLES LESS THAN 4 FEET IN DEPTH SHALL BE CONSTRUCTED IN ACCORDANCE WITH I.S.P.W.C. STANDARD DRAWING SD 505.
- SEWER PIPE 4" TO 15" WITH COVER OF GREATER THAN 3 FEET, SHALL BE BELL AND SPIGOT, POLYVINYL CHLORIDE (PVC), SDR 35, ASTM D-3034 AS SET FORTH BY THE KUNA CITY PUBLIC WORKS DEPARTMENT. SEWER PIPE WITH LESS THAN 3 FEET OF COVER SHALL BE DUCTILE IRON CONFORMING TO ANSI A-21.51 OR AWWA C-151. A RUBBER RING IS TO BE INSTALLED WHERE THE PIPE IS IN CONTACT WITH THE MANHOLE BASE AND/OR ITS CHANNEL, IN ORDER TO ENSURE A WATER-TIGHT SEAL. 18" TO 27" PVC PIPE AND LARGER SHALL BE BELL AND SPIGOT, ASTM F679, T-1 WALL THICKNESS.
- ALL MANHOLES SHALL BE CONSTRUCTED SO AS TO BE WATER TIGHT AND WITH THE TOP OF CONE LOCATED WITHIN ONE (1) FOOT OF THE FINISHED GRADE. THE SEWER CONTRACTOR SHALL SUPPLY ALL LID ASSEMBLIES AND THE REQUIRED NUMBER OF RISER AND GRADE RINGS. THE SEWER CONTRACTOR SHALL FIELD VERIFY THE ELEVATION OF THE TOP OF THE EXISTING AND CONSTRUCTED GRADE RINGS TO ASSURE THAT ALL RING ELEVATIONS MATCH FINAL STREET GRADES. MANHOLES SHALL HAVE 18 INCH MAXIMUM CLEARANCE BETWEEN THE RIM AND TOP OF CONE. EACH OF THE GRADE RINGS SHALL BE SET IN A BED OF NON-SHRINK GROUT OR MORTAR AND TROWELLED SMOOTH WITH THE INSIDE OF THE MANHOLE. THE NON-SHRINK GROUT SHALL ALSO BE APPLIED BETWEEN METAL FRAME AND GRADE RINGS. STACKING OF THE GRADE RINGS AND FRAME WITHOUT NON-SHRINK GROUT OR MORTAR WILL NOT BE ALLOWED.
- THE CONTRACTOR SHALL NOTIFY THE CITY PUBLIC WORKS DEPARTMENT 48 HOURS PRIOR TO CONSTRUCTION AT 922-3397.
- THE HORIZONTAL SEPARATION OF THE WATER AND SEWER MAINS SHALL BE A MINIMUM OF TEN (10) FEET.
- GROUNDWATER LEVELS SHALL BE MAINTAINED BELOW THE BOTTOM OF THE TRENCH DURING THE PIPE LAYING AND PIPE JOINING OPERATIONS.
- THE TRENCH BACKFILL ABOVE THE PIPE ZONE WILL BE INSPECTED BY THE ADA COUNTY HIGHWAY DISTRICT OR BY THE OWNER'S ENGINEER IN ACCORDANCE WITH THE LATEST EDITION OF THE "CONSTRUCTION QUALITY ASSURANCE MANUAL." COMPACTION TESTS ARE REQUIRED IN THE BACKFILL ABOVE THE PIPE ZONE WITHIN PUBLIC RIGHT-OF-WAY, ACCORDING TO ADA COUNTY HIGHWAY DISTRICT REQUIREMENTS AND THE RESULTS SHALL BE SUBMITTED TO KUNA CITY AND ADA COUNTY HIGHWAY DISTRICT PRIOR TO FINAL ACCEPTANCE.
- ALL STATIONING RELATES TO THE GRAVITY SEWER CENTERLINE.
- THE SEWER MAIN SHALL BE TESTED FOR DEFLECTION, INSPECTED AND TESTED FOR LEAKAGE AND DAMAGE PRIOR TO PLACING THE SEWER INTO SERVICE IN ACCORDANCE WITH THE 1999 I.S.P.W.C.
- KUNA CITY WILL PROVIDE PERIODIC INSPECTIONS FOR AN EIGHT-HOUR DAY, FROM 8:00 A.M. TO 5:00 P.M., FOR A FORTY-FOUR HOUR WEEK. THE CONTRACTOR SHALL REIMBURSE THE CITY AT RATES ESTABLISHED BY THE CITY FOR INSPECTION IN EXCESS OF THE NORMAL WORK WEEK, INCLUDING LEGAL HOLIDAYS. OVERTIME INSPECTION RATES AND A LIST OF LEGAL HOLIDAYS CAN BE OBTAINED FROM THE KUNA CITY PUBLIC WORKS DEPARTMENT.
- WHERE IT IS NECESSARY FOR THE SEWER OR NON POTABLE WATER LINE AND WATER LINE TO CROSS EACH OTHER AND THE SEWER OR NON POTABLE LINE IS LESS THAN 18" BELOW OR ABOVE THE WATER MAIN, THE SEWER OR NON POTABLE WATER LINE CROSSING SHALL BE P.V.C. PRESSURE PIPE CONFORMING TO AWWA C-900 OR ASTM D2241 STANDARDS WITH WATER-TIGHT JOINTS, OR EQUAL. CONSTRUCTION FOR A DISTANCE OF 10' ON BOTH SIDES OF THE WATER LINE IN ACCORDANCE WITH SECTION 1-8305.09 OF THE IDAHO PUBLIC DRINKING WATER STANDARDS. ONE FULL LENGTH OF BOTH WATER MAIN AND SEWER OR NON POTABLE WATER LINE SHALL BE CENTERED OVER THE CROSSING POINT SO THAT ALL JOINTS WILL BE AS FAR FROM THE CROSSING AS POSSIBLE. IN LIEU OF CONSTRUCTING OR RECONSTRUCTING THE SEWER OR NON POTABLE WATER LINE TO CONFORM TO WATER MAIN STANDARDS, THE WATER LINE, SEWER LINE OR NON POTABLE WATER LINE OR ALL LINES MAY BE ENCASED IN FOUR (4) INCHES OF CONCRETE, MEASURED AT THE BELL FOR A HORIZONTAL DISTANCE OF 10' ON BOTH SIDES OF THE CROSSING.
- SEWER CONSTRUCTION WILL MEET SPECIFIC DETAILS AND REQUIREMENTS OF THE FOLLOWING IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION AND THE ADA COUNTY HIGHWAY DISTRICT STANDARD DRAWINGS:
 - STANDARD MANHOLE - TYPE A, DRAWING NO. SD-501.
 - STANDARD SHALLOW MANHOLE, DRAWING NO. SD-505.
 - MANHOLE COLLAR DETAIL, DRAWING NO. SD-508.
 - MANHOLE COVER & FRAME, DRAWING NO. SD-507.
 - STANDARD SEWER SERVICE LINE, DRAWING NO. SD-511-A.
 - SEWER SERVICE MARKER, DRAWING NO. SD-512.
- THE CONTRACTOR SHALL LEAVE THE EXCAVATION FOR THE UPSTREAM END OF ALL SERVICE LINES OPEN FOR FIELD VERIFICATION OF THE INVERT ELEVATION BY THE CITY'S INSPECTOR. THE CONTRACTOR SHALL NOT BACKFILL THE ENDS OF SERVICE LINES UNTIL HE HAS OBTAINED APPROVAL FROM KUNA CITY'S INSPECTOR OR MADE OTHER ARRANGEMENTS FOR THE VERIFICATION OF SERVICE LINE INVERT ELEVATIONS.
- THE CONTRACTOR SHALL CONSTRUCT THE SANITARY SEWER IN ACCORDANCE WITH THE STAMPED PLANS APPROVED BY THE CITY OF KUNA. THESE PLANS WILL BE PROVIDED TO THE CONTRACTOR BY THE PROJECT INSPECTOR PRIOR TO CONSTRUCTION. WORK SHALL NOT BE DONE WITHOUT THE CURRENT SET OF APPROVED PLANS.
- THE CONTRACTOR SHALL INSTALL A REMOVABLE PLUG DOWNSTREAM OF SSMH F-1 BETWEEN SSMH F-2 AND F-1. THE PLUG SHALL REMAIN IN PLACE DURING CONSTRUCTION UNTIL FINAL ACCEPTANCE OF THIS SEWER PROJECT.
- ALL PIPE, MAINS, AND SERVICES SHALL BE BEDDED WITH TYPE 1 BEDDING. IN AREAS OF ROCK EXCAVATION BEDDING SHALL BE SIX (6) INCHES BELOW THE PIPE.

NOTES TO CONTRACTOR:

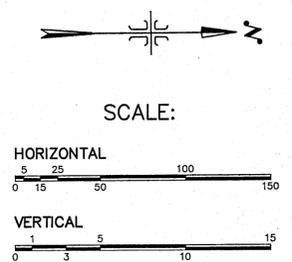
- CONTRACTOR TO FIELD VERIFY ALL EXISTING CURB & GUTTER, STORM DRAIN, CHANNEL CROSSINGS, & SEWER ELEVATIONS OR INVERTS PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER WHEN ELEVATIONS OR INVERTS DO NOT MATCH PLANS.
- THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

THESE DRAWINGS, OR ANY PORTION THEREOF, SHALL NOT BE USED ON ANY PROJECT OR EXTENSIONS OF THIS PROJECT EXCEPT BY AGREEMENT IN WRITING WITH HUBBLE ENGINEERING, INC.



- LEGEND**
- PROPERTY LINE
 - RIGHT-OF-WAY LINE
 - CENTERLINE
 - S --- SANITARY SEWER LINE
 - --- CONST. SEWER MANHOLE
 - - - EXIST. SANITARY SEWER LINE
 - --- EXIST. 5.0' SANITARY SEWER MANHOLE
 - W --- CONST. WATER LINE
 - ⊗ --- WATER SERVICE AND WATER METER
 - - - EXIST. WATER LINE
 - S.C. --- SANITARY SEWER SERVICE CONNECTION - STATION
 - S.L. --- SANITARY SEWER SERVICE LINE - LT. OR RT.
 - E.I. --- END INVERT OF SANITARY SEWER SERVICE
 - ⊙ --- CONST. WATER VALVE
 - ⊙ --- EXIST. WATER VALVE
 - ⊙ --- INSTALL 6" FIRE HYDRANT
 - ⊙ --- BENCH MARK LOCATION

RECORD DRAWING



DESIGNED BY:		DATE:	
DRAWN BY:		DATE:	
CHECKED BY:		DATE:	
APPROVED:		DATE:	
NO. REVISIONS	MS 1-30-01	COGO FILE:	
	BY DATE	REV. COGO FILE:	
		DATE:	

HUBBLE ENGINEERING, INC.
ENGINEERING-SURVEYING-PLANNING

701 S. ALLEN ST.
SUITE 102
MERIDIAN, IDAHO 83642
(208) 322-8992

DICK REED SEWER EXTENSION

OFFSITE SEWER PLAN & PROFILE	JOB NO. 00-000
	SHEET NO. 1