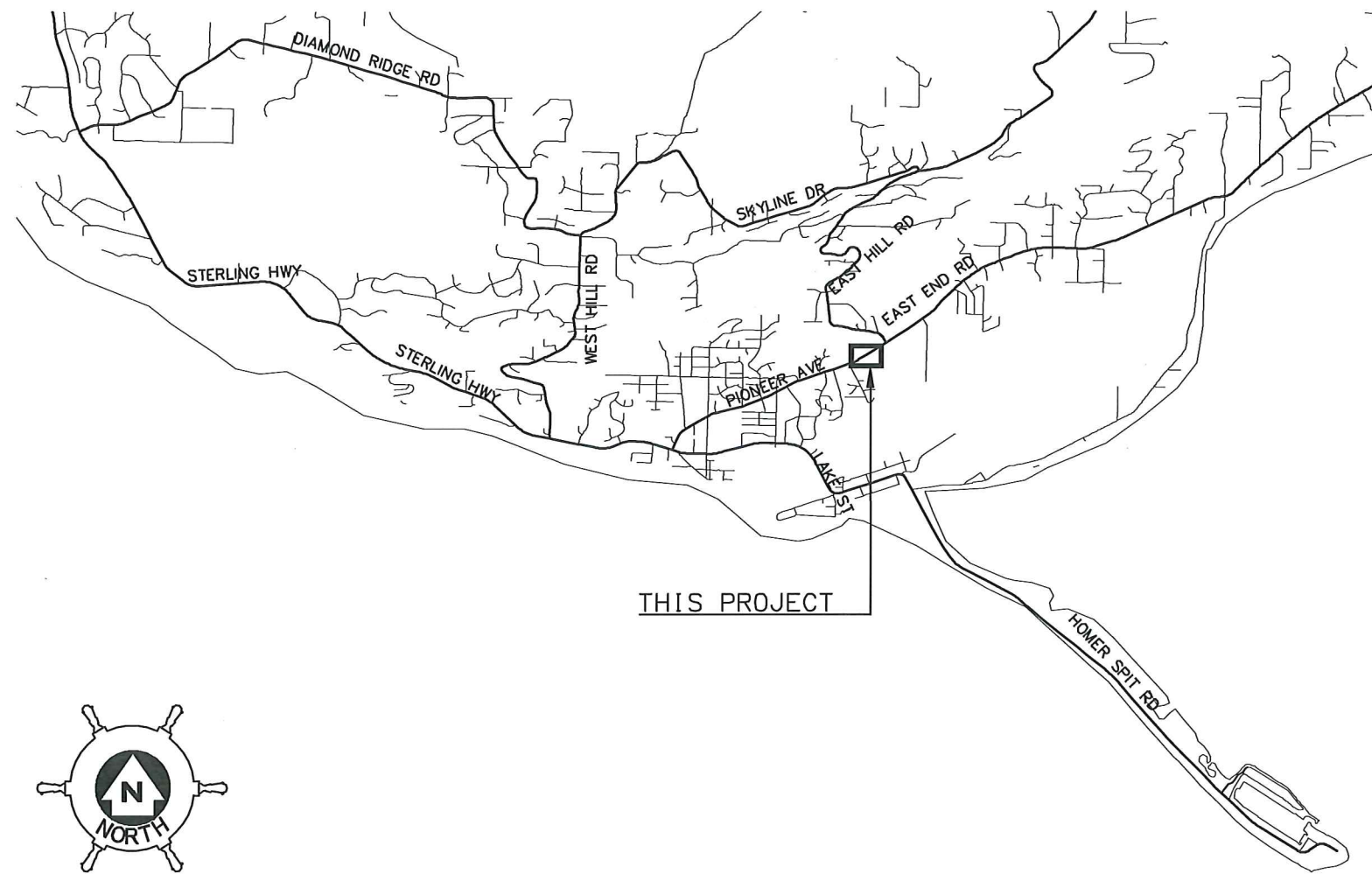


# CITY OF HOMER

## EAST END ROAD/RONDA STREET

### WATER MAIN CROSSING

(FUNDED THROUGH ADEC MUNICIPAL MATCHING GRANT  
AND HOMER ACCELERATED WATER/SEWER PROGRAM)



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COVER SHEET  
EAST END ROAD/RONDA STREET WATER MAIN  
CROSSING DESIGN  
HOMER, ALASKA

PROJECT 1128.62417.01  
DATE 2/19/2019

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G01

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**INDEX**

NO.	SHEET TITLE
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G02	INDEX, LEGEND, ABBREVIATIONS & NOTES
G03	SURVEY CONTROL
C01	PLAN & PROFILE - RONDA STREET
C02	WATER MAIN DETAILS
T01	TRAFFIC CONTROL PLAN
T02	TRAFFIC CONTROL DETAILS

**CITY OF HOMER REFERENCE DETAILS**

DESCRIPTION
200.06 COMPACTION OF BACKFILL WITHIN RIGHT-OF-WAY
200.07 CLASS B AND C BEDDING
200.08 TRENCH BACKFILL
300.01 CURB AND GUTTER CROSS SECTIONS
400.01 PAVEMENT CUT REPLACEMENT
600.02 THRUST BLOCK
600.03 TYPICAL VALVE BOX
600.10 GATE VALVE EXTENSION ROD
700.01 PIPE INSULATION

**LEGEND**

PROPOSED	EXISTING	DESCRIPTION
---	---	RIGHT-OF-WAY
---	---	PROPERTY LINE
---	---	EASEMENT LINE
---	---	CENTERLINE
---	---	EDGE OF PAVEMENT
---	---	EDGE OF GRAVEL
---	---	FENCE
---	---	LIMIT OF CUT
---	---	LIMIT OF FILL
---	---	DRAINAGE SWALE
---	---	GRAVEL
---	---	WATER LINE
---	---	WATER PROFILE LINE
---	---	FIRE HYDRANT OR FLUSH HYDRANT
---	---	WATER VALVE
---	---	SANITARY SEWER
---	---	ELECTRICAL
---	---	FIBER
---	---	COMM/TELE
---	---	NATURAL GAS
---	---	CULVERT
---	---	LIGHT POLE
---	---	SIGN
---	---	SLOPE DIRECTION & PERCENTAGE
---	---	CONTOUR
---	---	FOUND SURVEY MONUMENT
---	---	SURVEY POINT NUMBER
---	---	TREE

**GENERAL NOTES**

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE 2011 EDITION OF THE CITY OF HOMER STANDARD SPECIFICATIONS AS CURRENTLY AMENDED.
- EXISTING GROUND CONTOURS ARE BASED ON THE TOPOGRAPHIC SURVEY PERFORMED JULY 2018 BY GEOVERA. CONTRACTOR SHALL VERIFY SITE CONDITIONS.
- CONTRACTOR SHALL AS-BUILD ALL UTILITIES ENCOUNTERED IN THE FIELD BY ACTUAL SURVEY METHODS AND PROVIDE FIELD NOTES TO THE ENGINEER WHICH INCLUDE HORIZONTAL AND VERTICAL LOCATIONS OF EACH. CONTRACTOR SHALL RECORD ALL DEVIATIONS FROM THE PLANS.
- COH STANDARD CONSTRUCTION SPECIFICATIONS SECTION 102, CONSTRUCTION SURVEYING BY CONTRACTOR, SHALL GOVERN ALL SURVEYING ACTIVITIES. CONTRACTOR AND CONTRACTOR'S SURVEYOR SHALL SCHEDULE A MEETING WITH ENGINEER FOR DISCUSSIONS TO INCLUDE, BUT NOT LIMITED TO, SURVEYING METHODS AND PROCEDURES, FIELD NOTES, REPORTING, AND AS-BUILT SURVEYS. THIS MEETING MUST BE HELD PRIOR TO ANY SURVEYING ACTIVITIES TAKING PLACE ON THE PROJECT.
- CONTRACTOR SHALL MAINTAIN "AS-BUILT" RECORD DRAWINGS ON A CLEAN SET OF CONSTRUCTION DRAWINGS IN ACCORDANCE WITH COH STANDARD CONSTRUCTION SPECIFICATIONS DIVISION 100, SECTION 102, CONSTRUCTION SURVEY BY CONTRACTOR. THE "AS-BUILTS" SHALL BE KEPT CURRENT ON A DAILY BASIS AND SHALL BE AVAILABLE TO THE ENGINEER FOR INSPECTION ON THE JOB SITE.
- LOCATIONS DEPICTED FOR THE UTILITIES AND OTHER EXISTING FEATURES ARE APPROXIMATE. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND VERIFYING ALL UTILITIES AND SHALL EXERCISE CAUTION DURING CONSTRUCTION.
- ELEVATIONS SHOWN ARE TO BOTTOM OF PIPE, PIPE INVERT, FLOW LINE, OR FINISH PAVEMENT SURFACE UNLESS NOTED OTHERWISE.
- UNDERGROUND ELECTRICAL, TELECOMMUNICATIONS, WATER, SEWER AND NATURAL GAS UTILITY LINES OCCUR WITHIN THE PROJECT AREA; CONTRACTOR SHALL COORDINATE WORK ACCORDINGLY. ALL WORK IN CLOSE PROXIMITY TO EXISTING UNDERGROUND LINES SHALL COMPLY WITH APPLICABLE FEDERAL, STATE, AND LOCAL STATUTES, CODES AND GUIDELINES, AND FACILITY CLEARANCE REQUIREMENT OF THE GOVERNING UTILITY. CONTRACTOR SHALL HAND DIG WITHIN TWO FEET OF BURIED UTILITY FACILITIES.
- THE CONTRACTOR SHALL FOLLOW ALL CITY DIRECTIONS AND REGULATIONS FOR NOISE, HOURS OF OPERATIONS, AND DUST CONTROL.
- THE CONTRACTOR IS RESPONSIBLE FOR EROSION AND SEDIMENT CONTROLS AS NECESSARY TO COMPLY WITH FEDERAL, STATE, AND MUNICIPAL LAWS. AT A MINIMUM, THE CONTRACTOR SHALL SWEEP UP ANY SEDIMENT TRACKED ON TO PAVED SURFACES WITHIN 24 HOURS TO MINIMIZE TRANSPORTATION OF SEDIMENT INTO THE STORM DRAINS OR WATERWAYS.
- LANE CLOSURES AND TRAFFIC IMPACTS TO EAST END ROAD ARE TO BE COORDINATED WITH THE CITY OF HOMER AND THE STATE OF ALASKA DOT&PF NO LESS THAN 72 HOURS PRIOR TO CONSTRUCTION. REFER TO THE ALASKA TRAFFIC MANUAL FOR REQUIRED SIGNING. REFER TO COH STANDARD CONSTRUCTION SPECIFICATIONS DIVISION 100 SECTION 103 FOR TRAFFIC SAFETY, MAINTENANCE, AND RESTORATION OF ROADS AND STREETS.
- PIPE BEDDING SHALL BE INSTALLED PER COH STANDARD CONSTRUCTION SPECIFICATIONS DIVISION 200, SECTION 207, AND SHALL BE INCIDENTAL TO DIVISION 600. TRENCH BEDDING MATERIAL SHALL BE COMPACTED TO AT LEAST 95% OF MAXIMUM DRY DENSITY.
- ALL CONSTRUCTION OPERATIONS REQUIRED FOR THIS PROJECT SHALL REMAIN WITHIN EXISTING COH AND STATE OF ALASKA ROW AND ACQUIRED EASEMENTS, UNLESS OTHERWISE APPROVED IN WRITING BY THE ENGINEER AND THE AFFECTED PROPERTY OWNER.
- CONTRACTOR SHALL SAW CUT EXISTING PAVEMENT TO A LINE 2 FEET BEYOND THE PROPOSED IMPROVEMENTS, DURING THE INITIAL EXCAVATION OPERATIONS. IF EXISTING PAVEMENT HAS BEEN LIFTED, IF EDGE DOES NOT OCCUR IN UNDISTURBED MATERIAL, OR IF EDGE IS LOCATED WITHIN A TRAVEL LANE, FURTHER REMOVAL MAY BE REQUIRED, AS DIRECTED BY THE ENGINEER, TO PROVIDE A PROPER TRANSITION BETWEEN NEW AND EXISTING PAVEMENT. SAW CUTTING ACROSS ROAD LANES SHALL BE SKEWED AT AN ANGLE OF 15 TO 25 DEGREES WHERE MATCHING EXISTING ASPHALT.
- CONTRACTOR SHALL APPLY TACK COAT TO THE SAW CUT ASPHALT FACE PRIOR TO PAVING. CONTRACTOR SHALL SAW CUT CURB & GUTTER AND SIDEWALK AT THE NEAREST JOINT AT OR BEYOND REMOVAL LIMITS OR AS DIRECTED BY THE ENGINEER. TACK COAT IS INCIDENTAL TO THE PROJECT AND NO SEPARATE PAYMENT WILL BE MADE.
- TRENCH AND ACCESS AREA DEWATERING PER COH STANDARD SPECIFICATION EARTHWORK DIVISION 200, 207.3, B, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, AND IS INCIDENTAL TO PIPE INSTALLATION. WATER RESULTING FROM CONTRACTOR'S DEWATERING EFFORT MAY NOT BE PUMPED OR OTHERWISE DIVERTED INTO EXISTING STORM DRAINS UNLESS REQUIRED PERMITS, INCLUDING BUT NOT LIMITED TO, ADEC PERMIT, ARE OBTAINED BY CONTRACTOR. UNDER NO CIRCUMSTANCES WILL THE CONTRACTOR BE ALLOWED TO DIVERT WATER FROM THE EXCAVATION ONTO THE ROADWAYS.
- CONTRACTOR SHALL RESTORE DISTURBED PROPERTY TO PRECONSTRUCTION CONDITION(S), UNLESS OTHERWISE DIRECTED BY THE ENGINEER. PAYMENT FOR RESTORING DISTURBED PROPERTY SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT AND NO SEPARATE PAYMENT SHALL BE MADE.
- TOPSOIL AND SEED ALL AREAS DISTURBED AND NOT OTHERWISE IMPROVED.
- CONTRACTOR SHALL PROVIDE SEPARATE PROCTORS FOR CLASSIFIED MATERIAL, LEVELING COURSE, AND BEDDING MATERIAL FOR THE PROJECT TWO WEEKS PRIOR TO PLACEMENT.

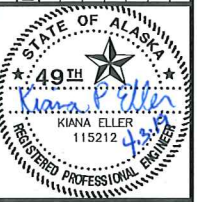
**ABBREVIATIONS**

ACP	ASPHALT CONCRETE PAVEMENT	FH	FIRE HYDRANT	OD	OUTSIDE DIAMETER
ADEC	ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION	FL	FLOW LINE	OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
ASTM	AMERICAN STANDARD OF TESTING AND MATERIAL	GAL	GALLON	PC	POINT OF CURVE
@	AT	GALV	GALVANIZED	PCC	PORTLAND CEMENT CONCRETE
BV	BUTTERFLY VALVE	GB	GRADE BREAK	PSI	POUNDS PER SQUARE INCH
BOP	BOTTOM OF PIPE	GV	GATE VALVE	PT	POINT OF TANGENCY
CL	CLASS	IAW	IN ACCORDANCE WITH	PVC	POLYVINYL CHLORIDE
☉	CENTER LINE	ID	INSIDE DIAMETER	RT	RIGHT
CMP	CORRUGATED METAL PIPE	IN	INCH	REQ'D	REQUIRED
COH	CITY OF HOMER	INV	INVERT	RET	RETAINING
CONC	CONCRETE	KIP	ONE THOUSAND POUNDS-FORCE	RD	ROAD
CPEP	CORRUGATED POLYETHYLENE PIPE	LT	LEFT	ROW	RIGHT-OF-WAY
CVP	CULVERT PIPE	LBS	POUNDS	SBD	SUBDRAIN
DIA	DIAMETER	LC	LEVELING COURSE	SCH	SCHEDULE
DIP	DUCTILE IRON PIPE	LF	LINEAR FEET	SDCB	STORM DRAIN CATCH BASIN
DOT&P	DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES	MAX	MAXIMUM	SDMH	STORM DRAIN MANHOLE
F	FURNISH AND INSTALL	MAT'L	MATERIAL	ST	STREET
EOG	EDGE OF GRAVEL	ME	MATCH EXISTING	STA	STATION
ELEV	ELEVATION	MFT	MANUFACTURER	TBC	TOP BACK OF CURB
EOP	EDGE OF PAVEMENT	MIN	MINIMUM	TYP	TYPICAL
ESMT	EASEMENT	MJ	MECHANICAL JOINT	UN	UNKNOWN
EXST	EXISTING	MON	MONUMENT	VB	VALVE BOX
F&I	FURNISH AND INSTALL	NIC	NOT IN CONTRACT	VC	VERTICAL CURVE
FG	FINISH GRADE	NO.	NUMBER	VERT	VERTICAL
		NTS	NOT TO SCALE	W/	WITH
		OAE	OR APPROVED EQUAL		
		OC	ON CENTER		

**GENERAL WATER NOTES**

- MAINTAIN A MINIMUM OF 18-INCHES OF VERTICAL SEPARATION AT ALL CROSSINGS BETWEEN ANY STORM SEWER/SANITARY SEWER MAINS AND WATERLINE MAINS.
- MAINTAIN A MINIMUM OF TEN (10) FEET HORIZONTAL SEPARATION BETWEEN WATER AND SANITARY OR STORM SEWER MAINS AND SERVICES WHERE PRACTICABLE.
- WATER MAIN PIPE JOINTS SHALL BE PLACED A MINIMUM OF NINE (9) FEET FROM ANY SANITARY AND STORM SEWER PIPE CROSSING.
- ALL PIPES AND FITTINGS SHALL BE NSF 61 CERTIFIED.
- ALL WATER PIPELINES SHALL BE DISINFECTED IN ACCORDANCE WITH THE REQUIREMENTS OF AWWA C651. REQUEST PERMISSION TO FLUSH FROM THE COH PUBLIC WORKS DEPARTMENT A MINIMUM OF 48 HOURS IN ADVANCE.
- THE WATER PIPELINES WILL COMPLY WITH LEAD CONTENT REQUIREMENTS FOR "LEAD-FREE" PLUMBING AS DEFINED BY THE U.S. SAFE DRINKING WATER ACT EFFECTIVE JANUARY 2014.
- ALL WATER MAIN TRENCHES AND BEDDING SHALL BE COMPACTED TO A MINIMUM OF 95% OF MAXIMUM DENSITY.
- MINIMUM COVER OVER WATER MAIN SHALL BE 7 FEET WITHOUT INSULATION.
- ALL PIPE INSULATION SHALL BE RIGID BOARD, HIGH DENSITY EXTRUDED POLYSTYRENE, MIN. 60 P.S.I., FOR UNDERGROUND INSTALLATIONS EQUIVALENT TO R-20 PER FOUR (4) INCH THICK INSULATION.
- F & I INSULATION BOARD BETWEEN THE STORM DRAIN AND WATER IMPROVEMENTS WHEN CLEARANCE IS LESS THAN THREE (3) FEET, FROM OUTSIDE OF PIPE TO OUTSIDE OF PIPE. VERTICAL SEPARATION BETWEEN STORM DRAIN AND WATER LINES SHALL NOT BE LESS THAN 18". INSTALL INSULATION I.A.W. COH DETAIL 700-01.
- ALL BENDS SHALL HAVE RESTRAINED FITTINGS. CONCRETE THRUST BLOCKS SHALL BE USED AT ALL FITTINGS THAT CHANGE THE DIRECTION OF WATER FLOW BY MORE THAN 5' IN ADDITION TO THE RESTRAINT REQUIREMENTS. SEE COH DETAIL 600.02 FOR THRUST BLOCKS.
- ALL HDPE WATER MAINS AND FITTINGS MATERIALS SHALL MEET OR EXCEED ASTM D3350 CELL CLASSIFICATION 345434C. IN ADDITION, THE MATERIAL MUST EXCEED 1000 HOURS WHEN TESTED IN ACCORDANCE IN THE ASTM F1248, THE RING ENVIRONMENTAL STRESS CRACK RESISTANCE WITH FEWER THAN 50 PERCENT (50%) FAILURES.
- THE EXTRUDED PIPE SHALL HAVE IMPACT STRENGTHS GREATER THAN THREE FEET POUNDS PER INCH, IN ACCORDANCE WITH THE ASTM D256 IZOD IMPACT TEST.
- ALL HDPE MAINLINE SHALL BE INSTALLED WITH NO. 6 BARE LOCATE TRACE WIRE. TRACE WIRE WILL BE SECURED TO THE TOP OF THE PIPE WITH TAPE OR OTHER APPROVED METHOD AT MINIMUM TEN FOOT INTERVALS.
- ALL HDPE MOLDED FITTINGS AND FABRICATED FITTINGS SHALL BE FULLY PRESSURE RATED TO NOT LESS THAN THE PIPE SDR PRESSURE RATING SPECIFIED. ALL FITTINGS SHALL BE MOLDED OR FABRICATED BY THE MANUFACTURER. NO CONTRACTOR FABRICATED FITTING SHALL BE USED UNLESS APPROVED BY THE ENGINEER.
- THE INDIVIDUAL PERFORMING THE FUSING PROCEDURE MUST HOLD A CURRENT CERTIFICATION FOR FUSING HDPE AS STATED IN TITLE 49.1 DOT CERTIFICATION AND MEET THE SPECIFICATION SECTION 602 REQUIREMENTS.
- ALL TRANSITIONS FROM HDPE PIPE TO DUCTILE IRON OR CAST IRON SHALL BE MADE PER THE HDPE MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS AND APPROVAL OF THE ENGINEER.
- CONTRACTOR SHALL FIELD INSTALL RESTRAINED JOINTS ON ALL MECHANICAL JOINTS SUCH AS EBAA IRON MEGALUG RESTRAINED FITTINGS OR EQUAL AND ON ALL PUSH-ON JOINTS SUCH AS US PIPE FIELD LOK GASKETS OR EQUAL.

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**INDEX, LEGEND, ABBREV. & NOTES**

EAST END ROAD/RONDA STREET WATER MAIN CROSSING DESIGN

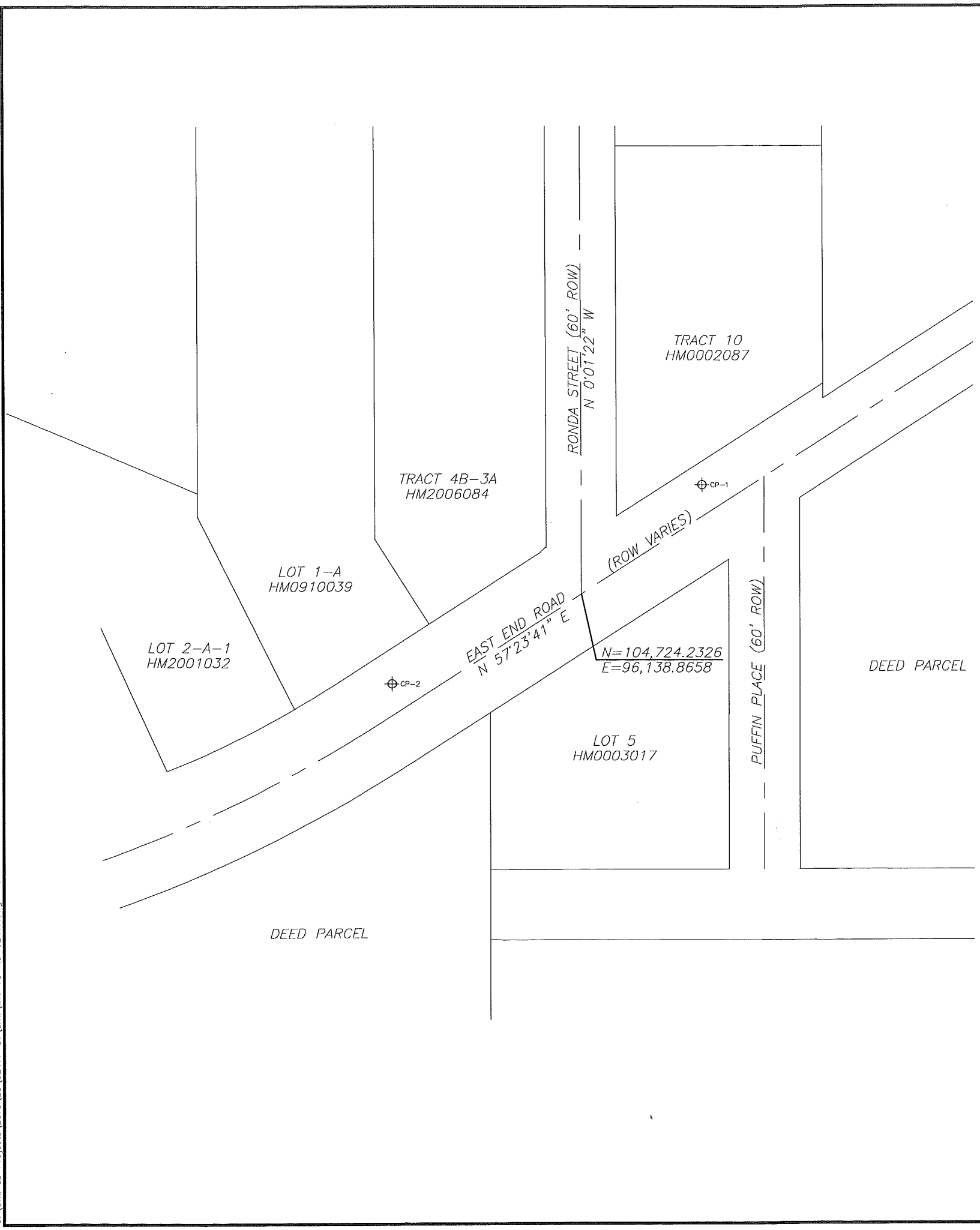
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**SURVEY CONTROL**

**BASIS OF BEARING**

1. BASIS OF BEARING FOR THIS SURVEY WAS DETERMINED BY A HIGH PRECISION GPS SURVEY USING TOPCON DUAL-FREQUENCY HiPer V RECEIVERS, DIFFERENTIALLY COLLECTED AND PROCESSED WITH MAGNET OFFICE VERSION 3.1 SOFTWARE. NAD83 ALASKA STATE PLANE GRID COORDINATES (U.S. SURVEY FEET) OBTAINED FROM THE GPS OBSERVATIONS WERE BASED ON THE NGS PUBLISHED VALUES FOR FEDERAL BASE NETWORK CONTROL STATION "HOMAIR" (PID TT0155).

2. TRUE BEARINGS AND DISTANCES WERE DETERMINED BY ROTATING AND SCALING FROM GRID USING FEDERAL BASE NETWORK CONTROL STATION "HOMAIR" AS A SCALING POINT. TRUE BEARINGS WERE DETERMINED BY ROTATING GRID INVERSE AZIMUTHS -1°17'13.4". TRUE DISTANCES WERE OBTAINED BY DIVIDING GRID INVERSE DISTANCES BY 0.999986696.

3. THE RESULTING SCALED COORDINATES WERE TRANSLATED TO A LOCAL COORDINATE SYSTEM BASED ON FEDERAL BASE NETWORK CONTROL STATION "HOMAIR" N=100,000 E=100,000. ALL COORDINATE VALUES REPRESENT GROUND DISTANCES IN U.S. SURVEY FEET ORIENTED TO TRUE NORTH.

**BASIS OF VERTICAL DATUM**

BASIS OF VERTICAL DATUM FOR THIS SURVEY IS THE NAVD88 NGS PUBLISHED VALUE FOR FEDERAL BASE NETWORK CONTROL STATION "HOMAIR" (PID TT0155). ORTHOMETRIC HEIGHTS (ELEVATIONS) WERE DETERMINED FROM ELLIPSOID HEIGHTS USING GEOID12B. ELEVATIONS ARE IN U.S. SURVEY FEET.

**PROJECT CONTROL POINTS**

CP-1 PK NAIL IN SIDEWALK  
 N=104,816.5021  
 E=96,241.1023  
 EL=133.91

CP-2 PK NAIL IN SIDEWALK  
 N=104,648.7184  
 E=95,978.3594  
 EL=139.62

**SURVEYOR'S CERTIFICATE**

I HEREBY CERTIFY THAT I AM PROPERLY REGISTERED AND LICENSED TO PRACTICE LAND SURVEYING IN THE STATE OF ALASKA, THAT THIS PLAT REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECT SUPERVISION, THAT THE MONUMENTS SHOWN HEREON ACTUALLY EXIST AS DESCRIBED, AND THAT ALL DIMENSIONS AND OTHER DETAILS ARE CORRECT TO THE BEST OF MY KNOWLEDGE.

DATE 7/30/2018 REGISTRATION NO. 7538-S

*Stephen C. Smith*  
 REGISTERED LAND SURVEYOR



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**SURVEY CONTROL**  
 EAST END ROAD/RONDA STREET WATER MAIN  
 CROSSING DESIGN  
 HOMER, ALASKA

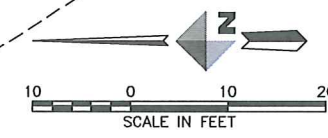
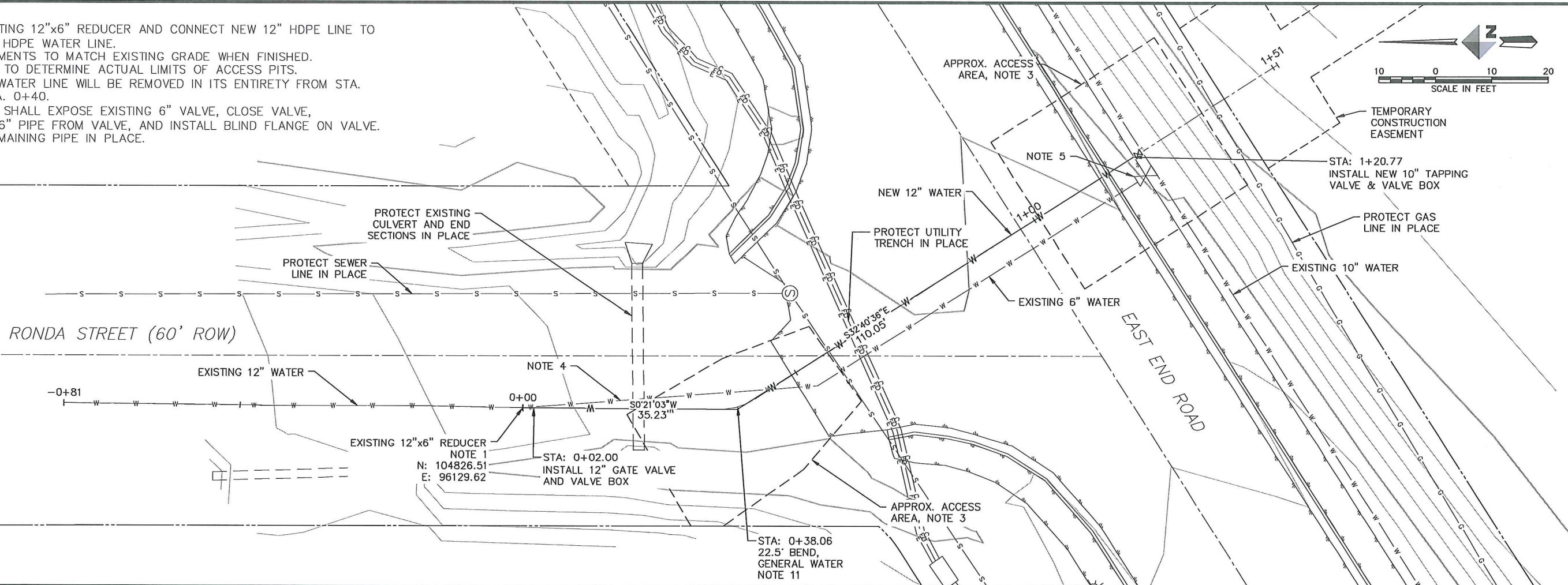
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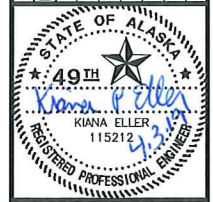
**G03**

**NOTES:**

1. REMOVE EXISTING 12"x6" REDUCER AND CONNECT NEW 12" HDPE LINE TO EXISTING 12" HDPE WATER LINE.
2. ALL IMPROVEMENTS TO MATCH EXISTING GRADE WHEN FINISHED.
3. CONTRACTOR TO DETERMINE ACTUAL LIMITS OF ACCESS PITS.
4. EXISTING 6" WATER LINE WILL BE REMOVED IN ITS ENTIRETY FROM STA. 0+00 TO STA. 0+40.
5. CONTRACTOR SHALL EXPOSE EXISTING 6" VALVE, CLOSE VALVE, DISCONNECT 6" PIPE FROM VALVE, AND INSTALL BLIND FLANGE ON VALVE. ABANDON REMAINING PIPE IN PLACE.



REV	DATE	DESCRIPTION



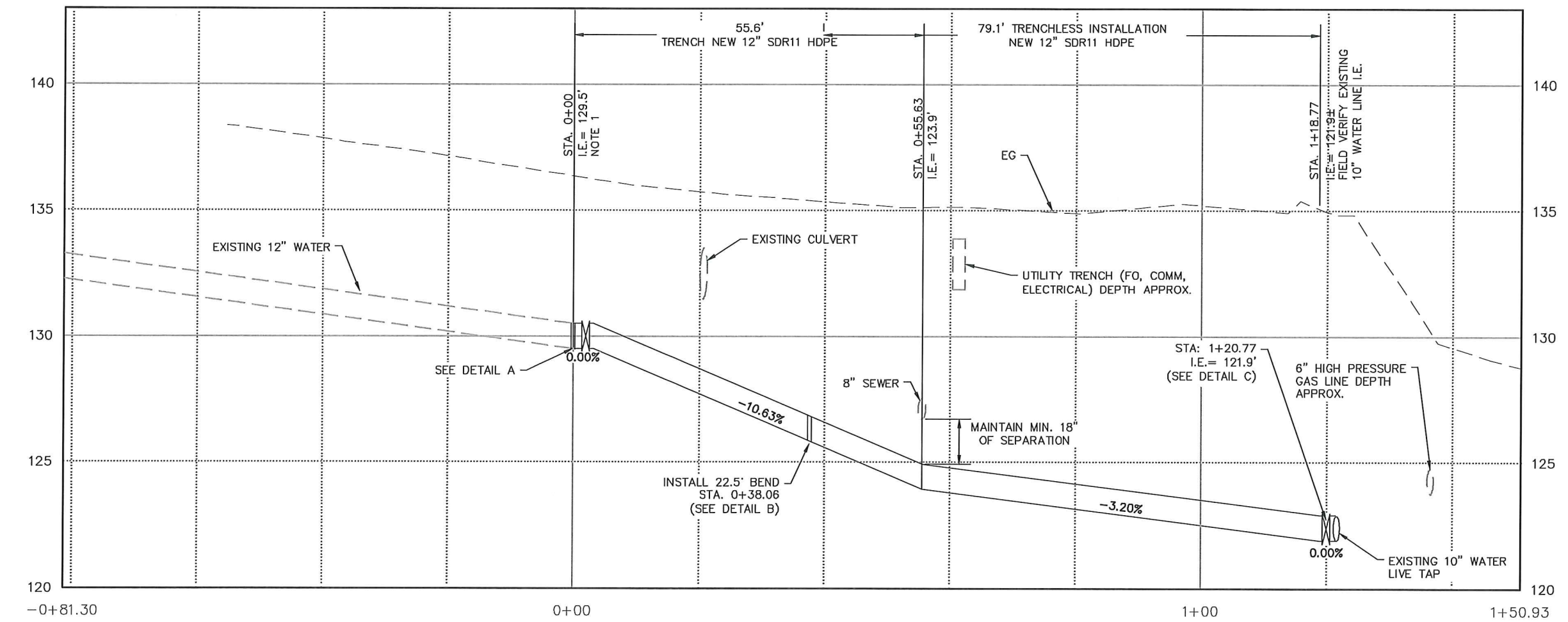
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**PLAN & PROFILE - RONDA STREET**  
EAST END ROAD/RONDA STREET WATER MAIN  
CROSSING DESIGN  
HOMER, ALASKA

PROJECT 1128.62417.01  
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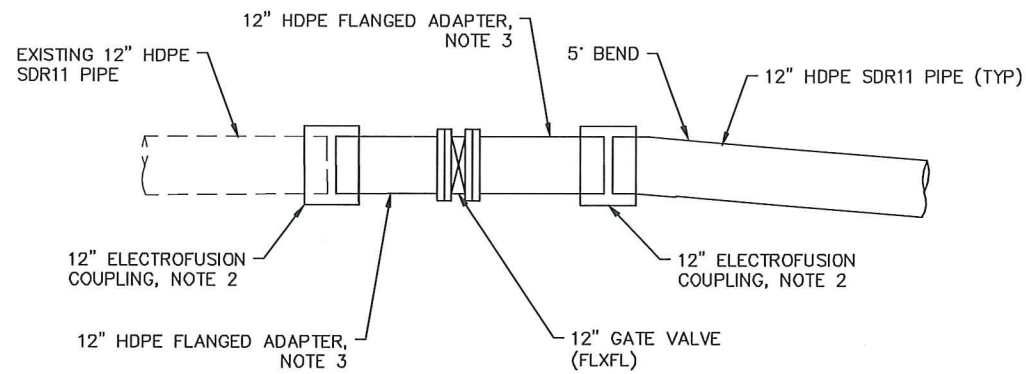
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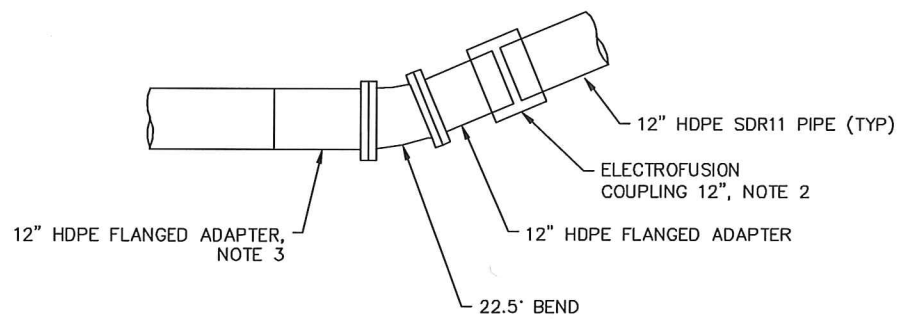


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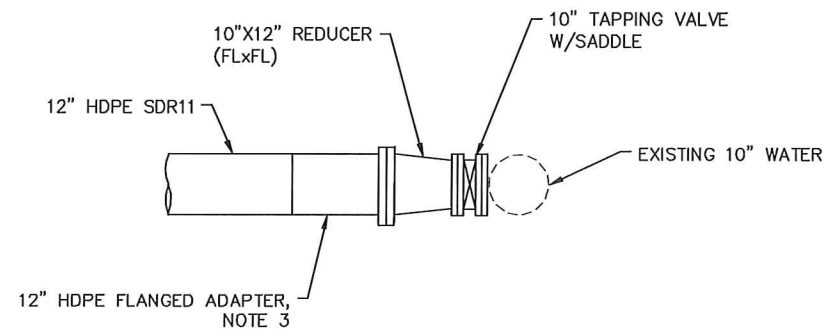




DETAIL 'A'  
NTS



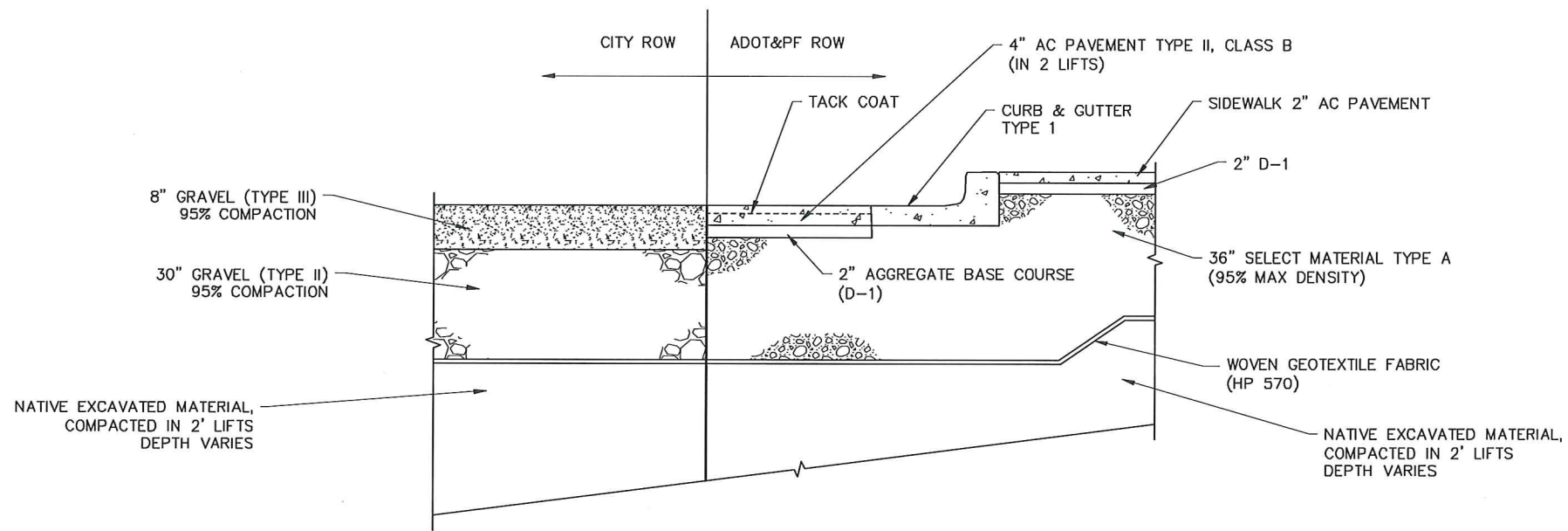
DETAIL 'B'  
NTS



DETAIL 'C'  
NTS

NOTES:

1. ALL HDPE WATER MAIN PIPE AND FITTINGS ARE TO BE BUTT-FUSED IN ACCORDANCE WITH ASTM D2657. ELECTROFUSION SHALL BE ALLOWED ONLY WHERE SHOWN ON THE DRAWINGS OR OTHERWISE APPROVED BY THE CITY OF HOMER.
2. ELECTROFUSION FITTINGS MUST COMPLY WITH ASTM F1055. ALL FITTINGS MUST HAVE PRESSURE CLASS RATINGS NOT LESS THAN THE PRESSURE CLASS RATING OF THE PIPE TO WHICH THEY ARE JOINED. ALL ELECTROFUSION JOINTS WILL BE PRESSURE TESTED TO 150 PSI OR 1.5 TIMES THE OPERATING PRESSURE BEFORE IT IS BURIED.
3. FLANGES MUST COMPLY WITH ASTM F2880. MJ ADAPTERS MUST COMPLY WITH ASTM D3261.



1  
500  
TYPICAL ROADWAY STRUCTURAL SECTIONS  
NTS

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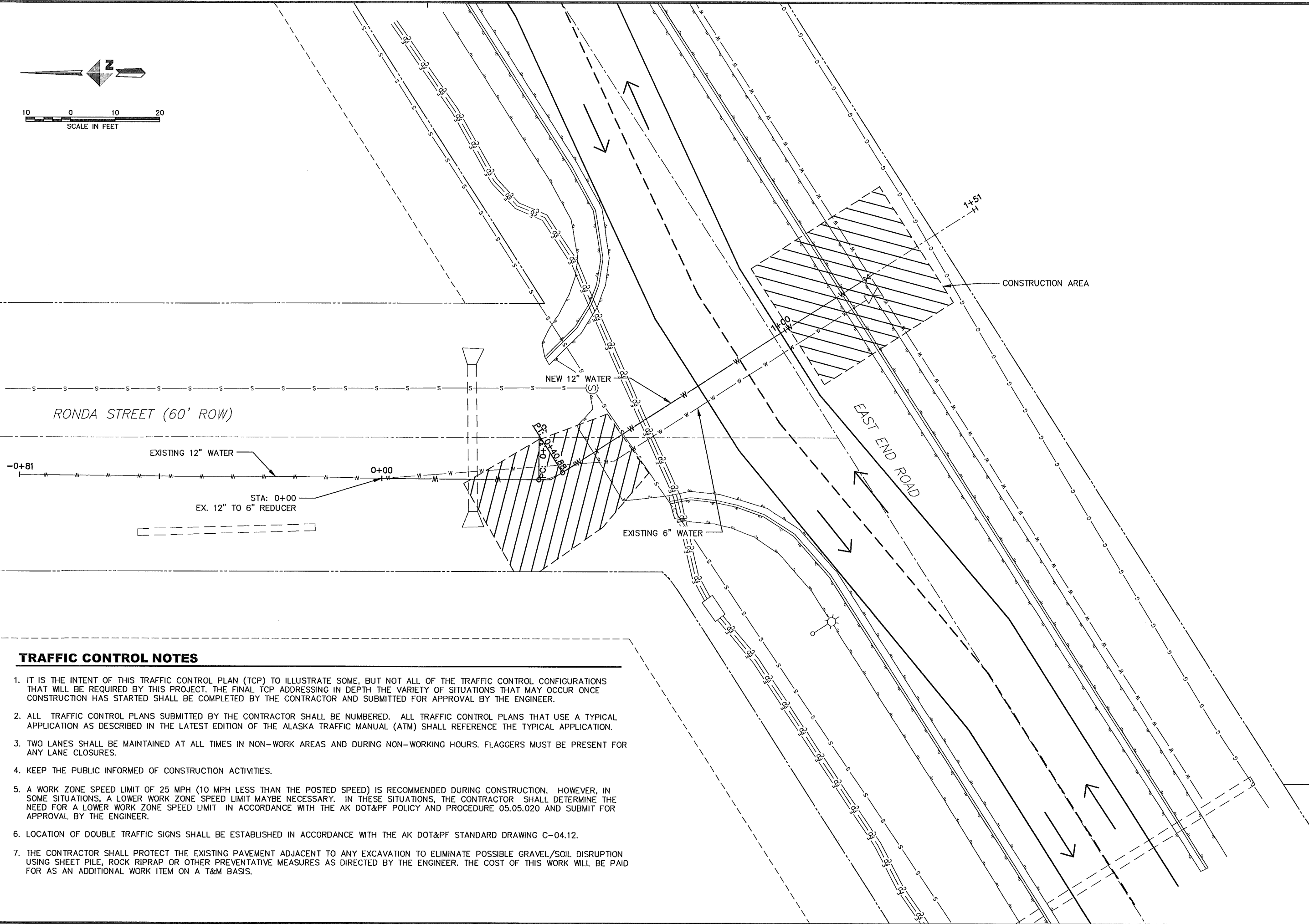
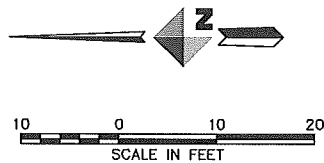
WATER MAIN DETAILS  
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C02

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**TRAFFIC CONTROL NOTES**

1. IT IS THE INTENT OF THIS TRAFFIC CONTROL PLAN (TCP) TO ILLUSTRATE SOME, BUT NOT ALL OF THE TRAFFIC CONTROL CONFIGURATIONS THAT WILL BE REQUIRED BY THIS PROJECT. THE FINAL TCP ADDRESSING IN DEPTH THE VARIETY OF SITUATIONS THAT MAY OCCUR ONCE CONSTRUCTION HAS STARTED SHALL BE COMPLETED BY THE CONTRACTOR AND SUBMITTED FOR APPROVAL BY THE ENGINEER.
2. ALL TRAFFIC CONTROL PLANS SUBMITTED BY THE CONTRACTOR SHALL BE NUMBERED. ALL TRAFFIC CONTROL PLANS THAT USE A TYPICAL APPLICATION AS DESCRIBED IN THE LATEST EDITION OF THE ALASKA TRAFFIC MANUAL (ATM) SHALL REFERENCE THE TYPICAL APPLICATION.
3. TWO LANES SHALL BE MAINTAINED AT ALL TIMES IN NON-WORK AREAS AND DURING NON-WORKING HOURS. FLAGGERS MUST BE PRESENT FOR ANY LANE CLOSURES.
4. KEEP THE PUBLIC INFORMED OF CONSTRUCTION ACTIVITIES.
5. A WORK ZONE SPEED LIMIT OF 25 MPH (10 MPH LESS THAN THE POSTED SPEED) IS RECOMMENDED DURING CONSTRUCTION. HOWEVER, IN SOME SITUATIONS, A LOWER WORK ZONE SPEED LIMIT MAYBE NECESSARY. IN THESE SITUATIONS, THE CONTRACTOR SHALL DETERMINE THE NEED FOR A LOWER WORK ZONE SPEED LIMIT IN ACCORDANCE WITH THE AK DOT&PF POLICY AND PROCEDURE 05.05.020 AND SUBMIT FOR APPROVAL BY THE ENGINEER.
6. LOCATION OF DOUBLE TRAFFIC SIGNS SHALL BE ESTABLISHED IN ACCORDANCE WITH THE AK DOT&PF STANDARD DRAWING C-04.12.
7. THE CONTRACTOR SHALL PROTECT THE EXISTING PAVEMENT ADJACENT TO ANY EXCAVATION TO ELIMINATE POSSIBLE GRAVEL/SOIL DISRUPTION USING SHEET PILE, ROCK RIPRAP OR OTHER PREVENTATIVE MEASURES AS DIRECTED BY THE ENGINEER. THE COST OF THIS WORK WILL BE PAID FOR AS AN ADDITIONAL WORK ITEM ON A T&M BASIS.

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**TRAFFIC CONTROL PLAN**  
EAST END ROAD/RONDA STREET WATER MAIN  
CROSSING DESIGN  
HOMER, ALASKA

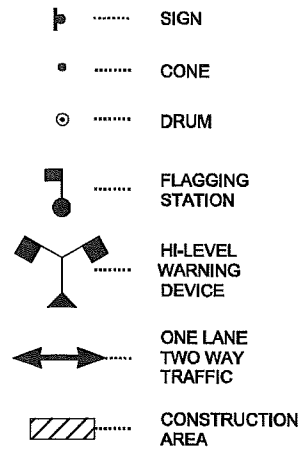
PROJECT 1128.62417.01  
DATE 2/19/2019

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SHEET  
**T01**

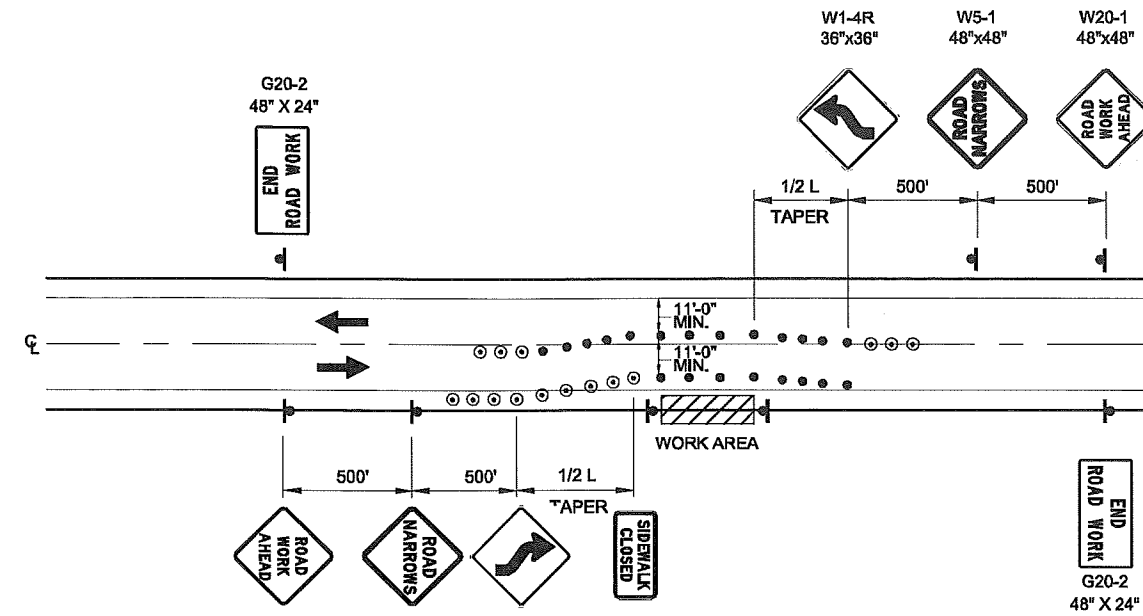
C:\Civil 3D\Projects\2016\28162417-01\Civil\SC-CU-TC-62417.dwg PLOT DATE 2019-04-03 16:50 USER: jminturn

C:\Projects\2016\28\62417\01\Civil\SC-CU-TC-62417.dwg PLOT DATE 2019-4-3 16:45 SAVED DATE 2019-04-03 15:29 USER: drandersen

**TCP LEGEND**

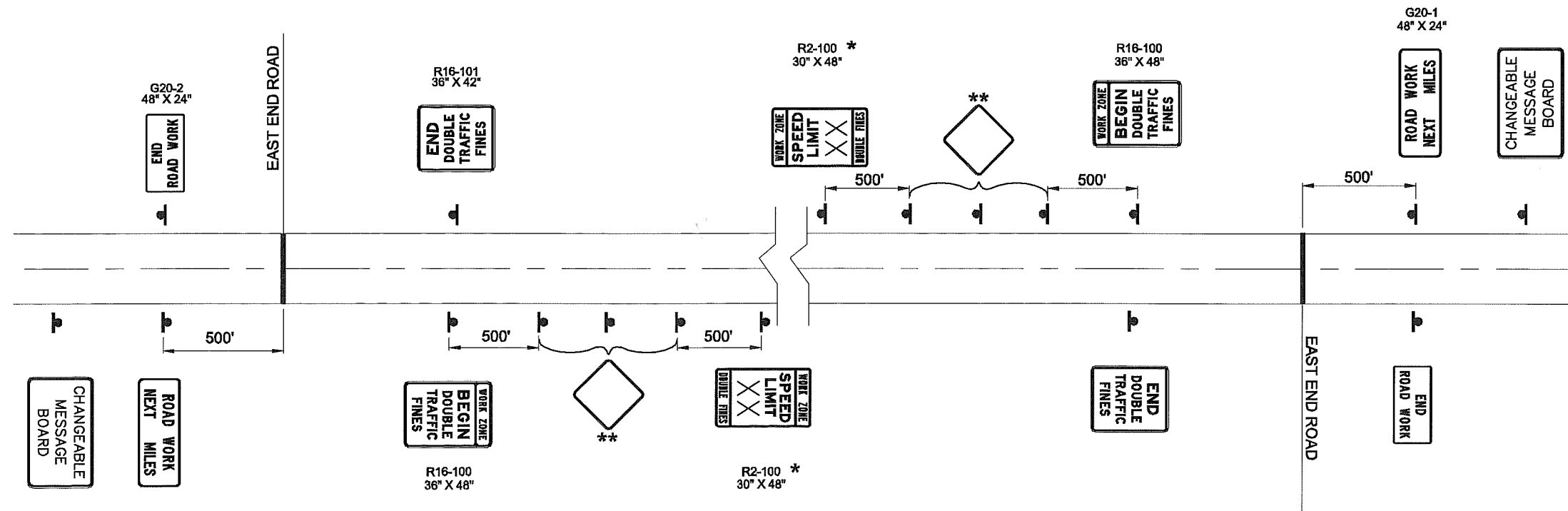


SPEED (MPH)	TCP SETUP TABLE								
	MIN MERGING TAPER LENGTH (L) IN FEET WIDTH OF OFFSET (W) IN FEET			MIN NUMBER OF DEVICES WIDTH OF OFFSET (W) IN FEET			MAX DEVICE SPACING IN FEET		BUFFER SPACE IN FEET
	10'	11'	12'	10'	11'	12'	ALONG TAPER	ALONG TANGENT	
25 OR BELOW	105	115	125	6	6	6	25	50	155
30	150	165	180	6	7	7	30	60	200
35	205	225	245	7	8	8	35	70	250
40	270	295	320	8	9	9	40	80	305
45	450	495	540	11	12	13	45	90	380
50	500	550	600	11	12	13	50	100	425
55	550	605	660	11	12	13	55	110	495
60	600	660	720	11	12	13	60	120	570



**ROADWAY ENCROACHMENT**

**NOTE:**  
IF ONLY ONE LANE IS AFFECTED BY ROAD WORK (THAT IS, THE CONES ALONG THE WORK AREA ARE NO CLOSER THAN 11' TO CENTERLINE) THE CENTERLINE CONES FOR THE OPPOSING LANE WILL NOT BE NEEDED.



**PERMANENT CONSTRUCTION SIGNING**

- \* WHERE DOUBLE FINE ZONE LENGTH IS LONGER THAN 2 MILES, INTERIM WORK ZONE SPEED LIMIT SIGNS SHALL BE INSTALLED AT A SPACING NOT TO EXCEED 2 MILES.
- \*\* ADVANCE WARNING SIGNS, NUMBER AND SPACING VARIES PER THE IMPLEMENTED TCP

REV	DATE	DESCRIPTION

**DOWL**  
AECL648  
WWW.DOWL.CO  
4041 B Street  
Anchorage, Alaska 99503  
907-562-2000

**TRAFFIC CONTROL DETAILS**  
EAST END ROAD/RONDA STREET WATER MAIN CROSSING DESIGN  
HOMER, ALASKA

PROJECT 1128.62417.01  
DATE 2/19/2019

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SHEET  
**T02**