

CITY OF HOMER ALDER LANE

WATER MAIN EXTENSION

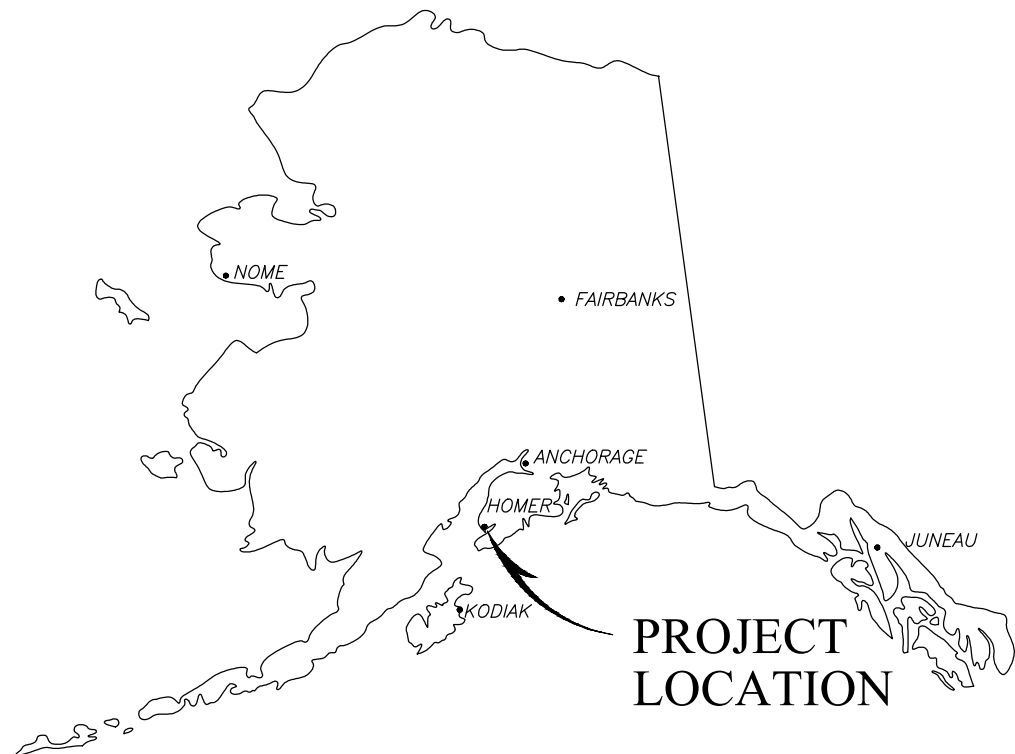
JUNE 4, 2021

Homer City Council

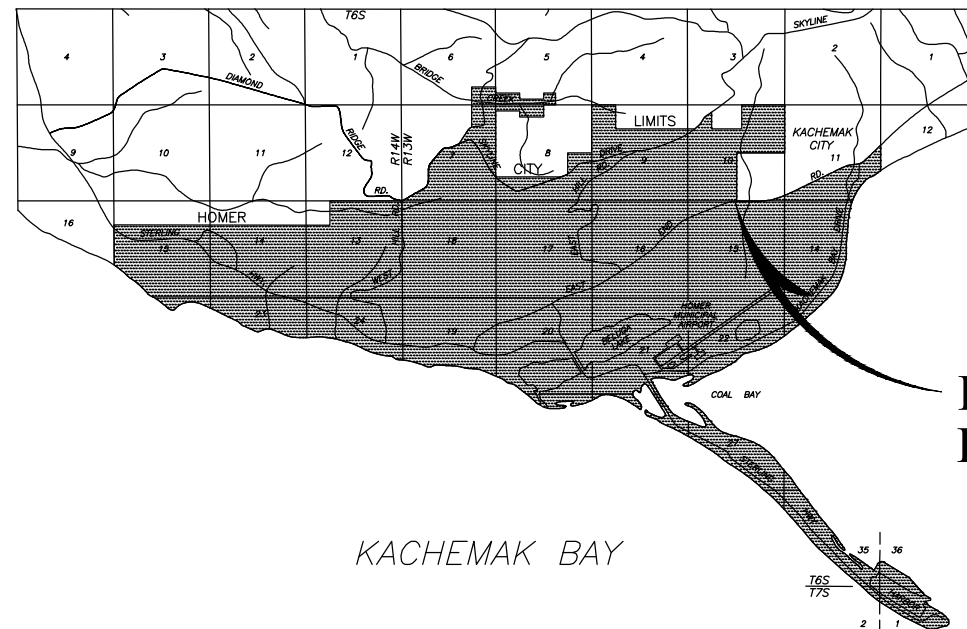
Mayor
Ken Castner

Councilmembers
Donna Aderhold
Joey Evenson
Storm Hansen-Cavasos
Rachel Lord
Heath Smith
Caroline Venuti

Public Works Director
Janette Keiser, PE



LOCATION MAP



HOMER AREA MAP

SCALE: 1" = 1 MILE

INDEX TO DRAWINGS

TITLE

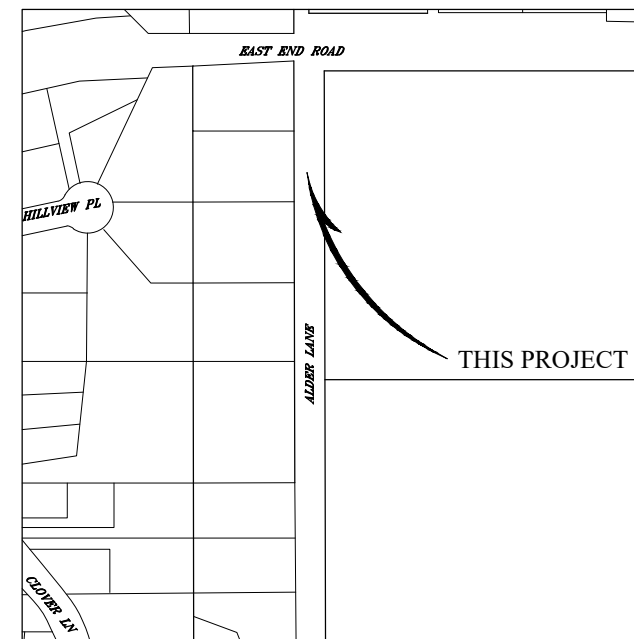
- WATER MAIN EXTENSION PLAN & PROFILE 10+00.00 TO 14+00.00
- WATER MAIN EXTENSION PLAN & PROFILE 14+00.00 TO 19+00.00
- WATER MAIN EXTENSION PLAN & PROFILE 19+00.00 TO 22+20.00
- CONSTRUCTION DETAILS
- CONSTRUCTION NOTES
- EROSION CONTROL PLAN
- EROSION CONTROL DETAILS

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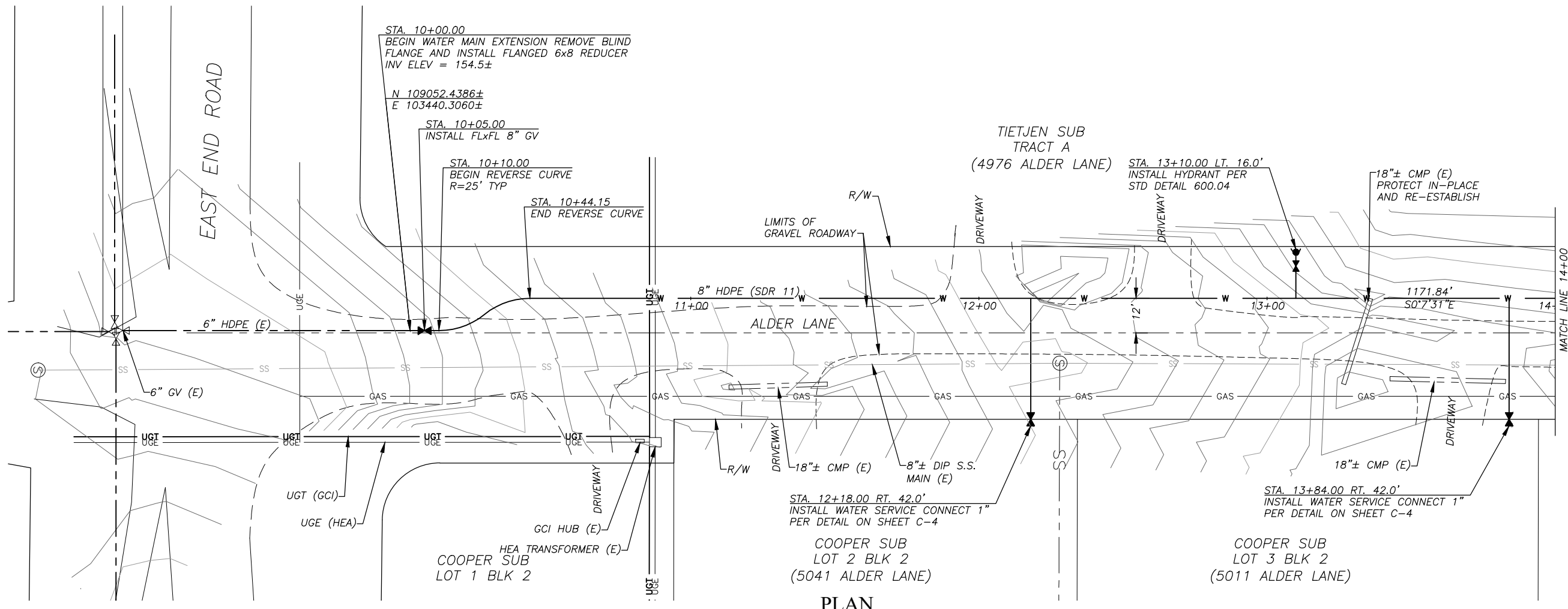
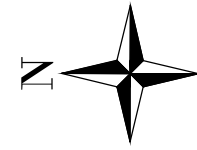
Notes:

1. BEFORE PERFORMING ANY EXCAVATIONS, CALL ALASKA DIGLINE AT: 811, (800) 478-3121, OR (907) 278-3121.
2. THESE PLANS SHALL BE USED IN CONJUNCTION THE CITY OF HOMER "STANDARD CONSTRUCTION DETAILS" IN ADOPTION ON JUNE 4, 2021.

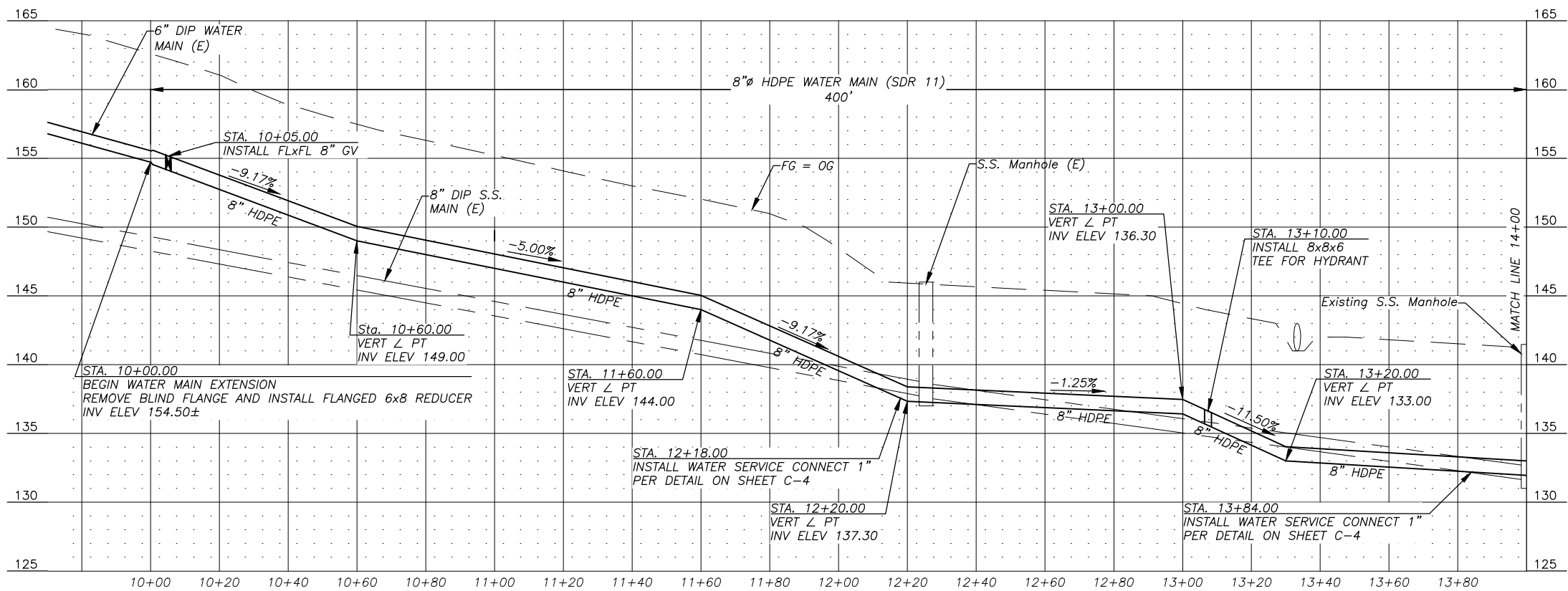
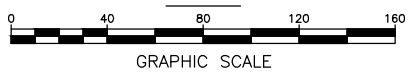


VICINITY MAP

SCALE: 1" = 400'



PLAN



PROFILE

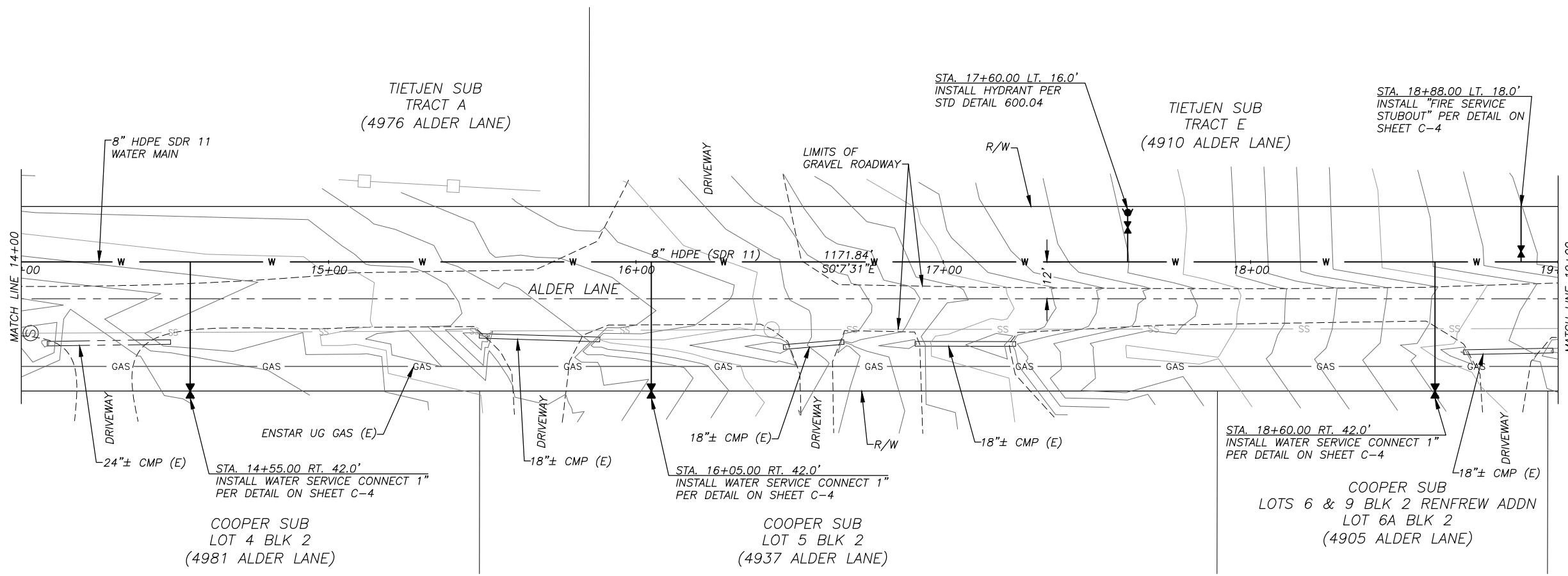
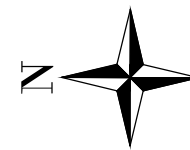
- NOTES:**
- BEFORE PERFORMING ANY EXCAVATIONS, CALL ALASKA DIGLINE AT 811, (800) 478-3121, OR (907) 278-3121.
 - SEE "DETAIL A - STRUCTURAL TRENCH SECTION" ON SHEET C-4 FOR WATER MAIN AND WATER SERVICE TRENCHES WITHIN GRAVEL SURFACED AREAS. TOTAL OF 134± LINEAR FEET THIS SHEET.
 - SEE "DETAIL B - NON-STRUCTURAL TRENCH SECTION" ON SHEET C-4 FOR WATER MAIN AND WATER SERVICE TRENCHES WITHIN NATIVE SURFACE SOIL AREAS. TOTAL OF 350± LINEAR FEET THIS SHEET.

**ALDER LANE WATER MAIN EXTENSION
WATER MAIN PLAN + PROFILE
STA 10+00.00 to 14+00.00**

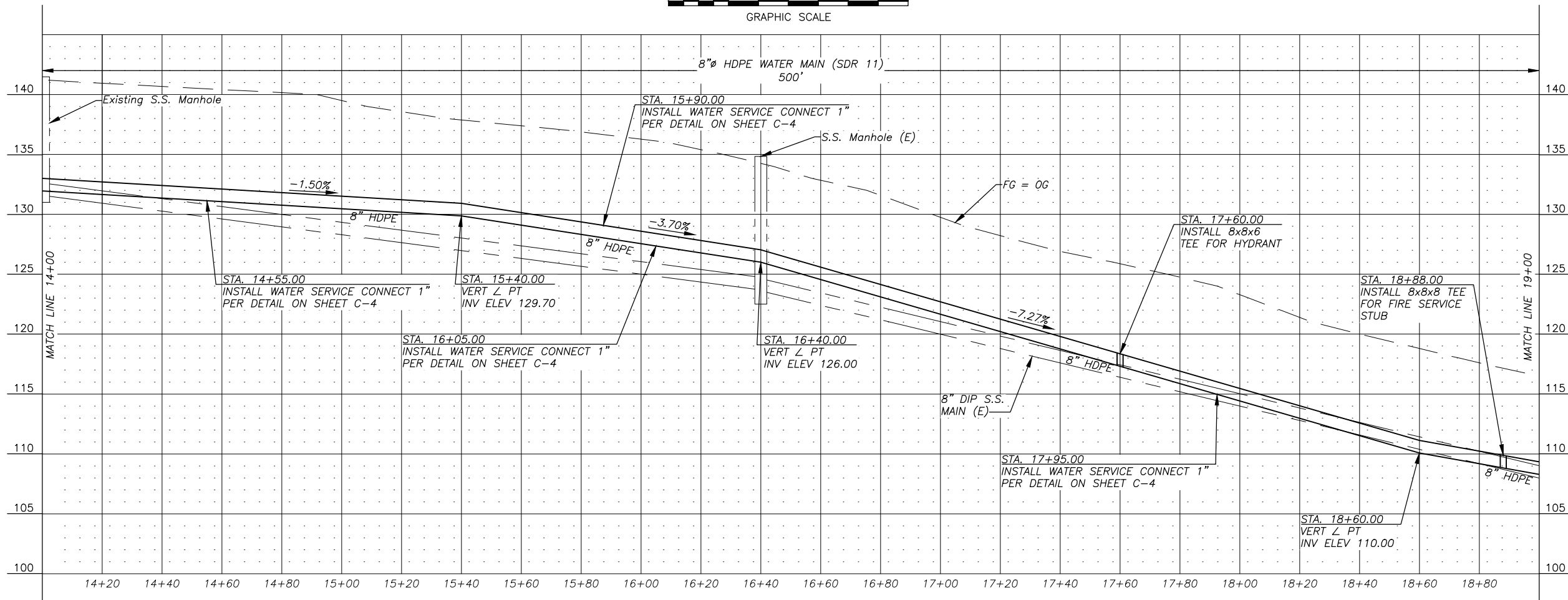
BISHOP ENGINEERING, LLC
PO BOX 2501 HOMER, ALASKA 99603
(907) 299-7609

DATE: 6/4/2021
CHK'D: JSB
SCALE: AS NOTED
PROJ. NO.: 2021002

SHEET NO.:
C-1



PLAN



PROFILE

NOTES:

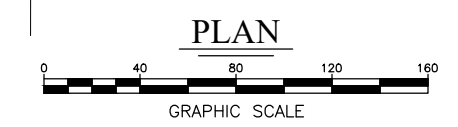
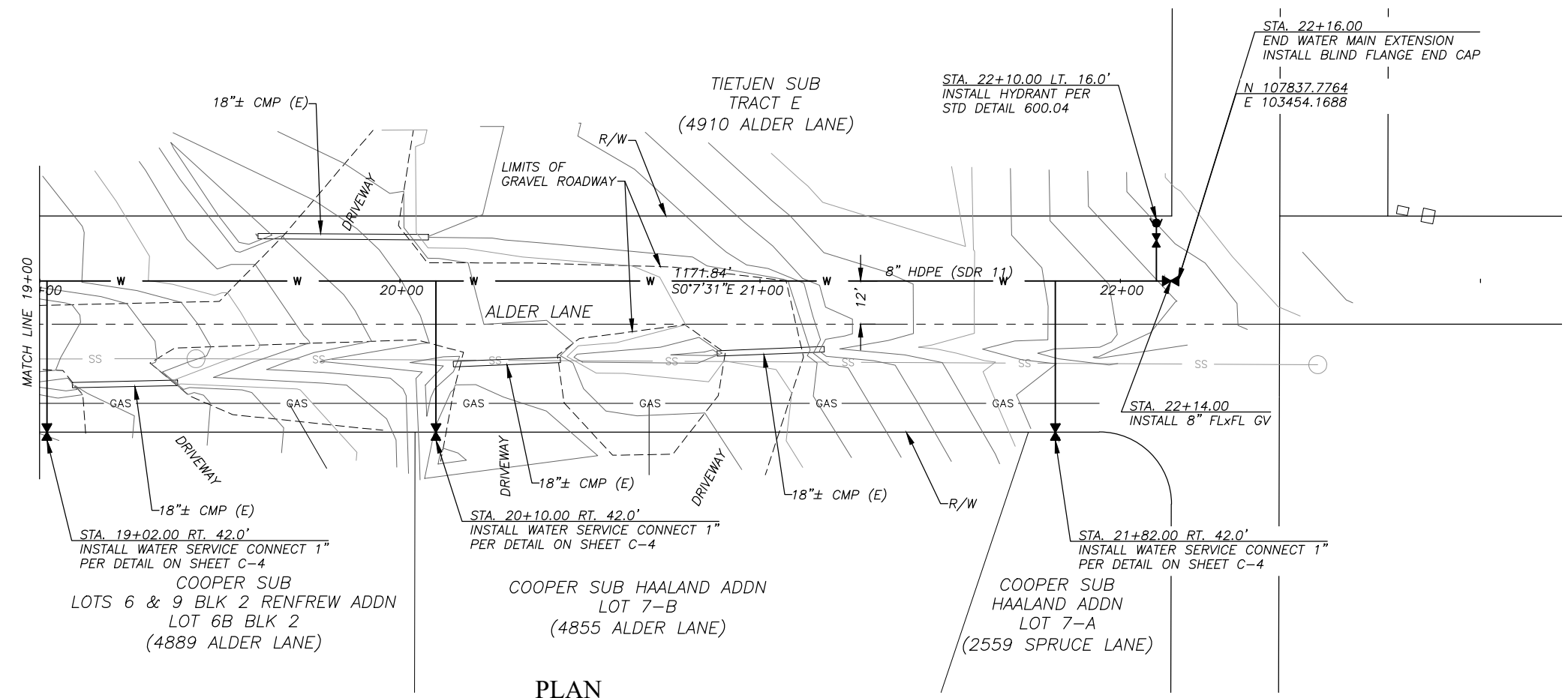
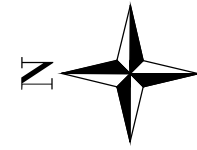
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2. SEE "DETAIL A - STRUCTURAL TRENCH SECTION" ON SHEET C-4 FOR WATER MAIN AND WATER SERVICE TRENCHES WITHIN GRAVEL SURFACED AREAS. TOTAL OF 130± LINEAR FEET THIS SHEET.
3. SEE "DETAIL B - NON-STRUCTURAL TRENCH SECTION" ON SHEET C-4 FOR WATER MAIN AND WATER SERVICE TRENCHES WITHIN NATIVE SURFACE SOIL AREAS. TOTAL OF 530± LINEAR FEET THIS SHEET.

**ALDER LANE WATER MAIN EXTENSION
WATER MAIN PLAN + PROFILE
STA 14+00.00 to 19+00.00**

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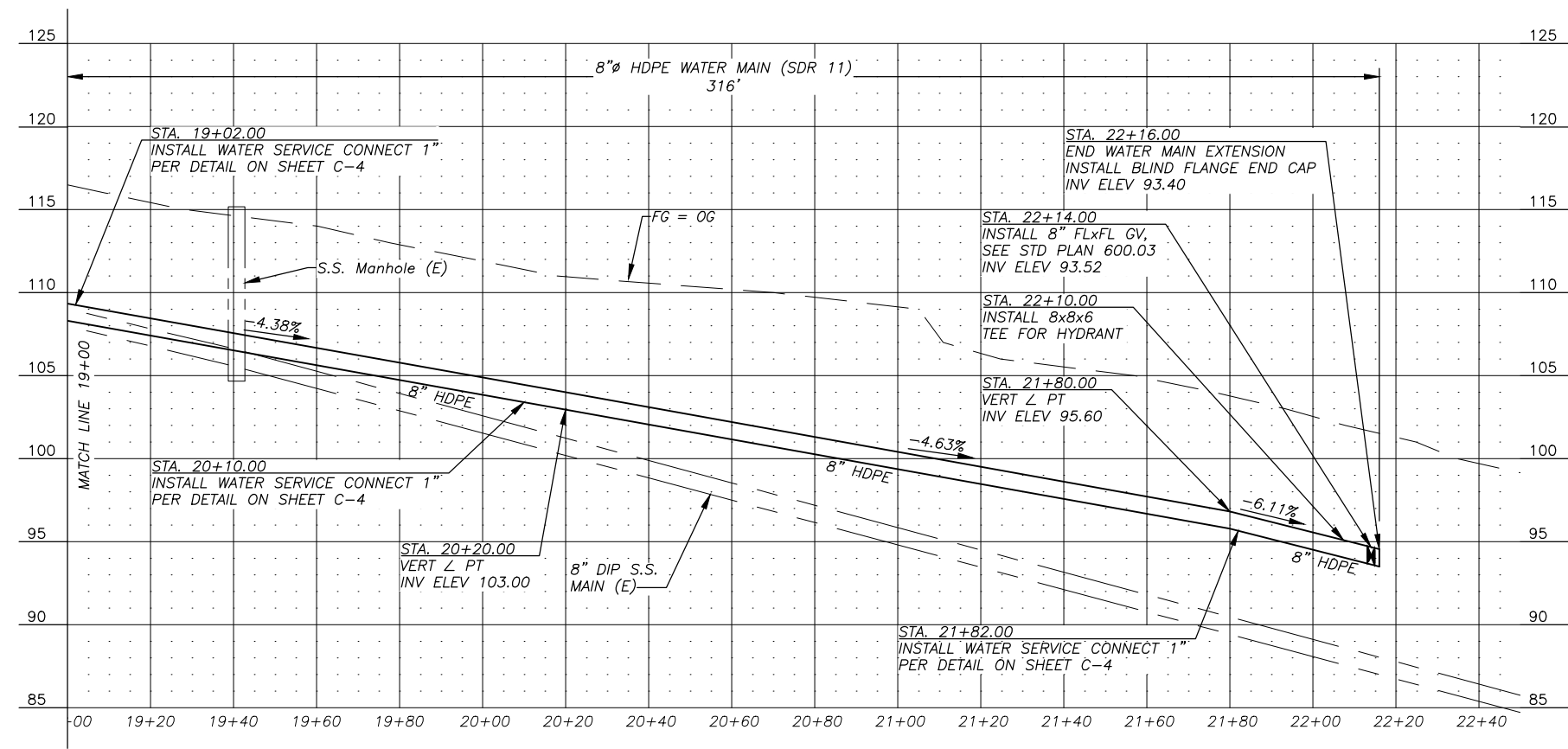
DATE: 6/4/2021
CHK'D: JSB
SCALE: AS NOTED
PROJ. NO.: 2021002

SHEET NO.:
C-2



NOTES:

- BEFORE PERFORMING ANY EXCAVATIONS, CALL ALASKA DIGLINE AT 811, (800) 478-3121, OR (907) 278-3121.
- SEE "DETAIL A - STRUCTURAL TRENCH SECTION" ON SHEET C-4 FOR WATER MAIN AND WATER SERVICE TRENCHES WITHIN GRAVEL SURFACED AREAS. TOTAL OF 190± LINEAR FEET THIS SHEET.
- SEE "DETAIL B - NON-STRUCTURAL TRENCH SECTION" ON SHEET C-4 FOR WATER MAIN AND WATER SERVICE TRENCHES WITHIN NATIVE SURFACE SOIL AREAS. TOTAL OF 268± LINEAR FEET THIS SHEET.



PROFILE

**ALDER LANE WATER MAIN EXTENSION
WATER MAIN PLAN + PROFILE
STA 19+00.00 to 22+16.00**

BISHOP ENGINEERING, LLC
PO BOX 2501 HOMER, ALASKA 99603
(907) 299-7609

DATE: 6/4/2021
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PROJ. NO.: 2021002

SHEET NO.:
C-3



ALDER LANE WATER MAIN EXTENSION

CONSTRUCTION DETAILS

BISHOP ENGINEERING, LLC
 PO BOX 2501 HOMER, ALASKA 99603
 (907) 299-7609

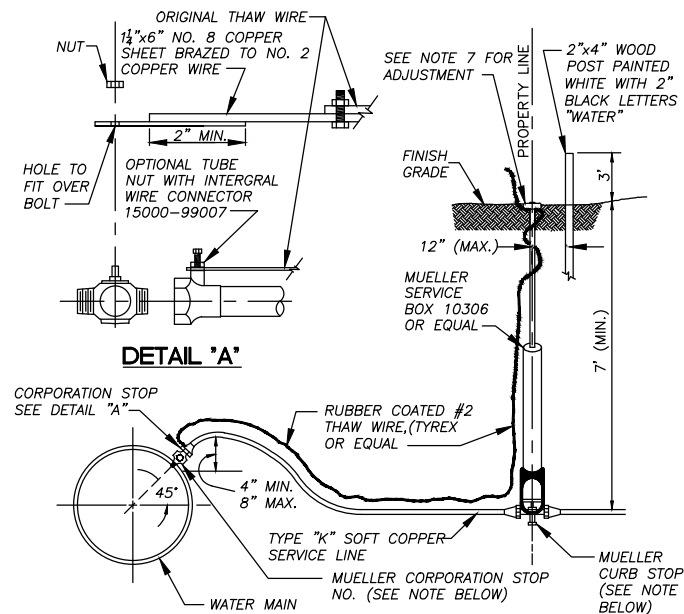
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 SCALE: AS NOTED
 PROJ. NO.: 2021002

SHEET NO.:

C-4

NOTES:

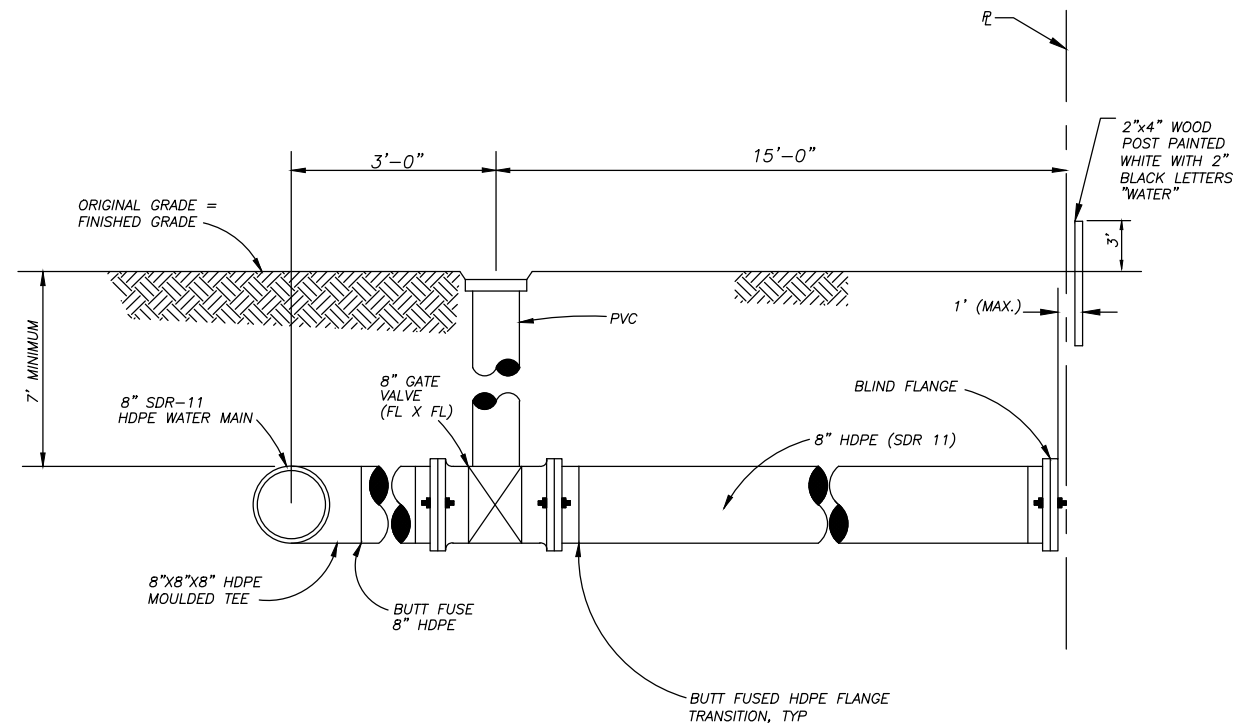
- BEFORE PERFORMING ANY EXCAVATIONS, CALL ALASKA DIGLINE AT 811, (800) 478-3121, OR (907) 278-3121.



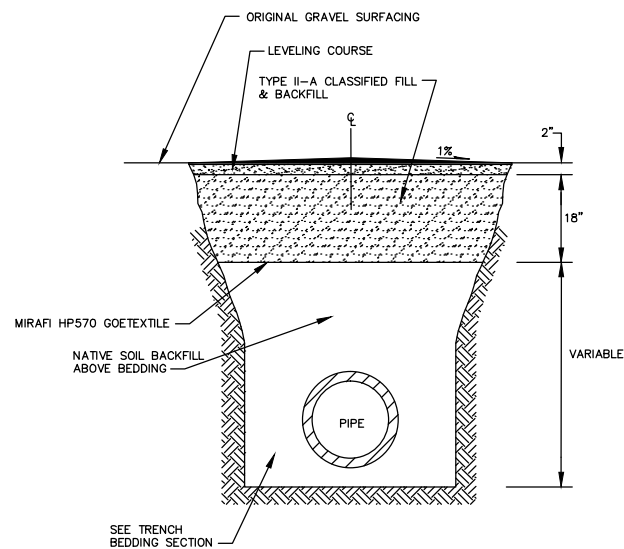
NOTES:

- USE MUELLER CORPORATION STOP NO. 15025 FOR PIPE-THREAD SADDLES.
- USE MUELLER CORPORATION STOP NO. 15000 FOR STEEL PIPE.
- USE MUELLER CURB STOP NO. H-15204 OR EQUAL FOR COPPER TO COPPER CONNECTIONS.
- ROD TO BE ATTACHED TO CURB STOP WITH NO. 6 GAUGE COPPER WIRE, NO SUBSTITUTIONS.
- MUELLER SERVICE CLAMPS TO BE USED ON ALL PLATIC PIPE, DOUBLE STRAP OR EQUAL.
- HDPE MAINLINES SHALL UTILIZE A SIDEWALL BRANCH SADDLE WITH INTEGRAL BRASS CC THREAD INSERT TO RECEIVE CORPORATION STOP.
- CURB BOX FINISH ELEVATION SHALL BE AS FOLLOWS:
 - PAVED AREA 0.5" BELOW FINISH GRADE
 - GRAVEL AREA 1" TO 3" BELOW FINISH GRADE
 - YARD/UNDEVELOPED AREA 0" TO 3" ABOVE FINISH GRADE

WATER SERVICE CONNECT 1"Ø
 NOT TO SCALE



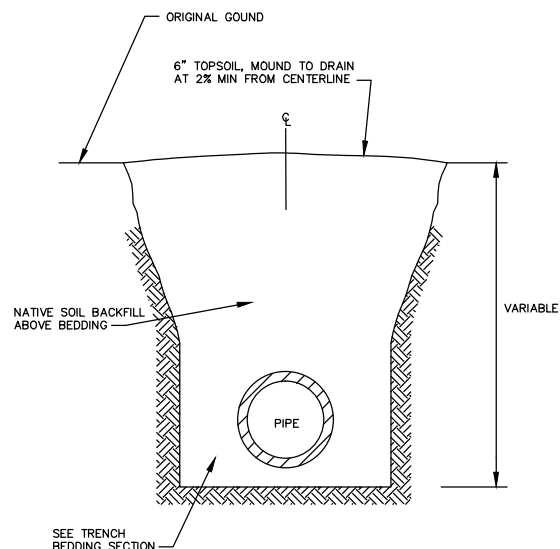
FIRE SERVICE STUBOUT
 NOT TO SCALE



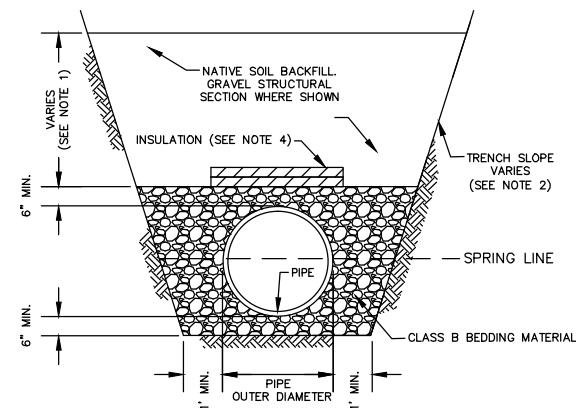
NOTE:

- CONTRACTOR SHALL CONSTRUCT A 1% CROWN WITH THE PEAK CENTERED OVER THE CENTERLINE OF THE EXCAVATION.

DETAIL A - STRUCTURAL TRENCH SECTION
 NOT TO SCALE



DETAIL B - NON-STRUCTURAL TRENCH SECTION
 NOT TO SCALE



NOTES:

- TRENCH BACKFILL MATERIAL PLACED AND COMPACTED TO DEPTHS SHOWN IN THE DRAWINGS OR AS DETERMINED BY ENGINEER. COMPACT TRENCH BACKFILL TO A MINIMUM OF 95% MAXIMUM DENSITY.
- TRENCH WALL SLOPES WILL VARY WITH SOIL STRENGTH AND CHARACTER. SLOPES SHALL CONFORM TO OSHA SAFETY STANDARDS.
- BACKFILL SHALL BE FREE OF CLAYS AND ORGANIC MATERIALS.
- WHEN SPECIFIED IN CONTRACT DOCUMENTS, SEE STANDARD DETAIL 20-9 FOR INSULATION DETAILS.

TRENCH BEDDING SECTION
 NOT TO SCALE

CITY OF HOMER STANDARD DRAWINGS INDEX

200.03	STANDARD LOCATION FOR NEW UTILITIES
200.04	TYPICAL UTILITY LOCATIONS
200.05	TYPICAL WATER AND SEWER LOCATIONS
200.06	COMPACTION OF BACKFILL WITHIN RIGHT-OF-WAY
200.07	CLASS B AND C BEDDING
200.08	TRENCH BACKFILL
400.02	RESURFACING DETAIL TYPICAL GRAVEL SECTION
600.03	TYPICAL VALVE BOX
600.04	SINGLE PUMPER "L" BASE HYDRANT ASSEMBLY
600.05	HYDRANT GUARD POSTS
600.06	FIRE HYDRANT ACCESS PAD
600.10	GATE VALVE EXTENSION ROD

LEGEND & SYMBOLS

EDGE EXISTING GRAVEL	----
CUT CATCH LINE	-----
FILL CATCH LINE
CENTERLINE	---+---+---+---+---
UNDERGROUND ELECTRIC	----- UGE -----
OVERHEAD ELECTRIC	----- OHE -----
UNDERGROUND TELEPHONE	----- UGT -----
WATER MAIN	----- W -----
SANITARY SEWER	----- SS -----
CONTOURS MAJOR	----- 85 -----
CONTOURS MINOR	-----
TEST PIT LOCATION	⊕ TP-1
SIGN	⊥
PIPE CULVERT W/ END SECTION	
FIRE HYDRANT	
VALVE OR RISER	
EXISTING VALVE OR RISER	
PRESSURIZED SEWER SERVICE POLY VALVE	

ABBREVIATIONS

AKDOT&PF	ALASKA DEPT. OF TRANSPORTATION & PUBLIC FACILITIES
ASDS	ALASKA SIGN DESIGN SPECIFICATIONS
APDES	ALASKA POLLUTION DISCHARGE ELIMINATION SYSTEM
Δ	DELTA / CENTRAL ANGLE OF CURVE
BP	BEGIN PROJECT
C/L	CENTERLINE
CMP	CORREGATED METAL PIPE
CO	CONTRACTING OFFICER
COH	CITY OF HOMER
CY	CUBIC YARD
DIA	DIAMETER
DIST	DISTANCE
E	EASTING
EL	ELEVATION
ELEV	ELEVATION
EP	END PROJECT
ESMT	EASEMENT
(E)	EXISTING
FL	FLANGE
FT	FOOT
GV	GATE VALVE
HDPE	HIGH-DENSITY POLYETHYLENE
IN	INCH
INV	INVERT
L	LENGTH OF CURVE
LF	LINEAR FOOT
LT	LEFT
MIN	MINIMUM
MAX	MAXIMUM
MJ	MECHANICAL JOINT
MPH	MILES PER HOUR
MSF	1000 SQUARE FEET
MUTCD	MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES
N	NORTHING
OHE	OVERHEAD ELECTRIC
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
PRC	POINT OF REVERSE CURVATURE
PVC	POINT OF VERTICAL CURVATURE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENCY
PT	POINT OF TANGENCY
R	RADIUS
RT	RIGHT
R/W	RIGHT-OF-WAY
SEC	SECTION
SI	STREET INTERSECTION
SF	SQUARE FOOT
SMH	SEWER MANHOLE
S.S.	SANITARY SEWER
STA.	STATION
STD	STANDARD
SY	SQUARE YARD
UGE	UNDERGROUND ELECTRIC
UGT	UNDERGROUND TELEPHONE
UTIL	UTILITY
TYP.	TYPICAL
W	WATER MAIN OR SERVICE

CONSTRUCTION NOTES

- CONTRACTOR SHALL COMPLETE CONSTRUCTION IN ACCORDANCE WITH THE CITY OF HOMER STANDARD SPECIFICATIONS 2011 EDITION INCLUDING ITEMS. DRAWINGS, TECHNICAL SPECIFICATIONS, AND SPECIAL PROVISIONS TAKE PRECEDENCE OVER THE STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL ADHERE TO ALL REQUIREMENTS CONTAINED IN LOCAL, STATE AND FEDERAL PERMITS OBTAINED BY THE CITY FOR CONSTRUCTION OF THIS PROJECT. COPIES OF THE PERMITS SHALL BE MAINTAINED AT THE JOB SITE.
- CONTRACTOR SHALL MAINTAIN "REDLINE" RECORD DRAWINGS ON A CLEAN SET OF CONSTRUCTION DRAWINGS. THE CONTRACTOR SHALL MAINTAIN THE "REDLINES" CURRENT ON A DAILY BASIS WHICH SHALL BE AVAILABLE TO THE ENGINEER FOR INSPECTION ON THE JOB SITE. CONTRACTOR SHALL RECORD SURVEY NOTES FOR SUBMITTAL WITH RECORD DRAWINGS, INCLUDING HORIZONTAL AND VERTICAL LOCATIONS OF ALL UTILITIES ENCOUNTERED IN THE FIELD.
- ALL IMPORTED MATERIAL SHALL BE COMPACTED TO A MINIMUM OF 95% OF MAXIMUM DENSITY AS DETERMINED BY AASHTO T 180.
- UNDERGROUND ELECTRICAL AND TELECOMMUNICATIONS LINES OCCUR WITHIN THE PROJECT AREA. LOCATIONS DEPICTED FOR THE UTILITIES ARE APPROXIMATE. SOME UTILITIES HAVE BEEN LOCATED FROM RECORD DRAWINGS AND UTILITY COMPANY LOCATES. CONTRACTOR SHALL LOCATE AND VERIFY ALL UTILITIES PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL COORDINATE WORK ACCORDINGLY. ALL WORK IN CLOSE PROXIMITY TO EXISTING UNDERGROUND LINES SHALL COMPLY WITH THE APPLICABLE FEDERAL, STATE AND LOCAL STATUTES, CODES AND GUIDELINES, AND THE ELECTRICAL FACILITY CLEARANCE REQUIREMENTS OF THE GOVERNING UTILITY. CONTRACTOR SHALL HAND DIG WITHIN TWO FEET OF BURIED ELECTRICAL CABLE.
- THIS PROJECT IS REQUIRED TO BE CONSTRUCTED IN ACCORDANCE WITH THE APDES GENERAL CONSTRUCTION PERMIT FOR STORM WATER POLLUTION. THE CONTRACTOR SHALL ADHERE TO THE REQUIREMENTS OF THE PERMIT.
- THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN TO THE CITY ENGINEER FOR APPROVAL AT LEAST TWO WEEKS PRIOR TO THE START OF CONSTRUCTION ACTIVITIES.
- LIMITS OF EXCAVATION AND BACKFILL SHALL BE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
- CONTRACTOR SHALL CONSTRUCT EROSION CONTROL DEVICES AS SHOWN IN THE PLANS AND PROCEDURES AND REQUIREMENTS DOCUMENTED IN THE SWPPP PERMIT.
- IF CONTAMINATED SOIL, GROUNDWATER, OR FREE-PRODUCT ARE ENCOUNTERED, THE CONSTRUCTION CONTRACTOR SHALL IMMEDIATELY CONTACT THE ENGINEER WHO WILL IMMEDIATELY CONTACT THE ADEC PREVENTION AND EMERGENCY RESPONSE (PERP) OFFICE STAFF AT (907) 465-5340 / FAX (907) 465-2237 IN ACCORDANCE WITH SPILL REPORTING REQUIREMENTS UNDER 18 AAC 75.300, AND COORDINATE MANAGEMENT OF ALL CONTAMINATED MEDIA WITH EMERGENCY RESPONSE PERSONNEL.
- THE CONTRACTOR SHALL PROVIDE DOCUMENTATION THAT DEMONSTRATES THE PIPE MATERIAL IS CERTIFIED TO CONFORM TO ANSI/NSF STANDARD 61.
- THE CONTRACTOR SHALL REDUCE THE CONCENTRATION OF RESIDUAL CHLORINE IN THE FLUSHED WATER BY NEUTRALIZATION BEFORE THE WATER IS RELEASED OVERLAND OR TO ANY CREEKS, STREAMS, AND TEMPORARY OR PERMANENT DRAINAGE SWALES OR DITCHES. THE RESIDUAL CHLORINE LEVEL BEFORE RELEASE SHALL NOT EXCEED 19 PPB (PARTS PER BILLION). THE PROCEDURE USED TO ADD AND MIX THE NEUTRALIZING AGENT INTO THE FLUSHED WATER SHALL ACHIEVE A THOROUGHLY AND EVENLY MIXED SOLUTION. MEASUREMENTS OF RESIDUAL CHLORINE SHALL BE TAKEN AT THE POINT OF RELEASE FROM THE NEWLY INSTALLED WATER SYSTEM INTO THE NEUTRALIZING CHAMBER AND AT THE POINT OF RELEASE FROM THE CONTRACTOR'S CONTROL AT 10 MINUTE INTERVALS OR MORE FREQUENTLY AS DIRECTED BY THE ENGINEER. ACCEPTABLE AGENTS FOR NEUTRALIZATION INCLUDE:
 - CALCIUM THIOSULFATE,
 - ASCORBIC ACID, OR
 - SODIUM ASCORBATE.

THE CONTRACTOR SHALL FOLLOW THE MANUFACTURER'S INSTRUCTIONS ON THE AMOUNTS OF AGENT ADDED TO THE FLUSHED WATER BASED ON THE RESIDUAL CHLORINE CONCENTRATION MEASURED AT THE POINT OF RELEASE FROM THE NEWLY INSTALLED WATER SYSTEM INTO THE NEUTRALIZING CHAMBER.
- THE CONTRACTOR SHALL PROVIDE DOCUMENTATION THAT DEMONSTRATES THE CHEMICAL ADDITIVE FOR DISINFECTION IS CERTIFIED TO CONFORM TO ANSI/NSF STANDARD 60.
- DISCHARGES OF EFFLUENT FROM HYDROSTATIC TESTING AND DISINFECTION SHALL CONFORM SECTIONS 4.0 "CONTROL MEASURES", 5.1 "LAND DISPOSAL DISCHARGES OF HYDROSTATIC TESTING", AND 6.0 "REPORTING AND RECORDKEEPING" OF THE ALASKA POLLUTANT DISCHARGE ELIMINATION SYSTEM "GENERAL PERMIT FOR HYDROSTATIC AND AQUIFER PUMP TESTING" PERMIT NUMBER AKG003000.
- FIBER ROLLS SHALL BE STRAW TYPE, 6-INCH NOMINAL DIAMETER, AND AT LEAST 3.1 LB/CU.FT. DENSITY. INSTALL ROLLS AS SHOWN ON THE PLANS AND MANUFACTURER'S INSTRUCTIONS.
- DETAIL A - STRUCTURAL TRENCH SECTION SHALL BE USED FOR WATER MAIN AND WATER SERVICE BACKFILL WITHIN ALL GRAVEL SURFACED AREAS. DETAIL B - NON-STRUCTURAL TRENCH SECTION SHALL BE USED FOR BACKFILL IN ALL AREAS CONSISTING OF NATURAL SILTY AND ORGANIC SURFACE SITE SOILS.

NOTES:

- Before performing any excavations, call Alaska Digline at 811, (800) 478-3121, or (907) 278-3121.



ALDER LANE WATER MAIN EXTENSION

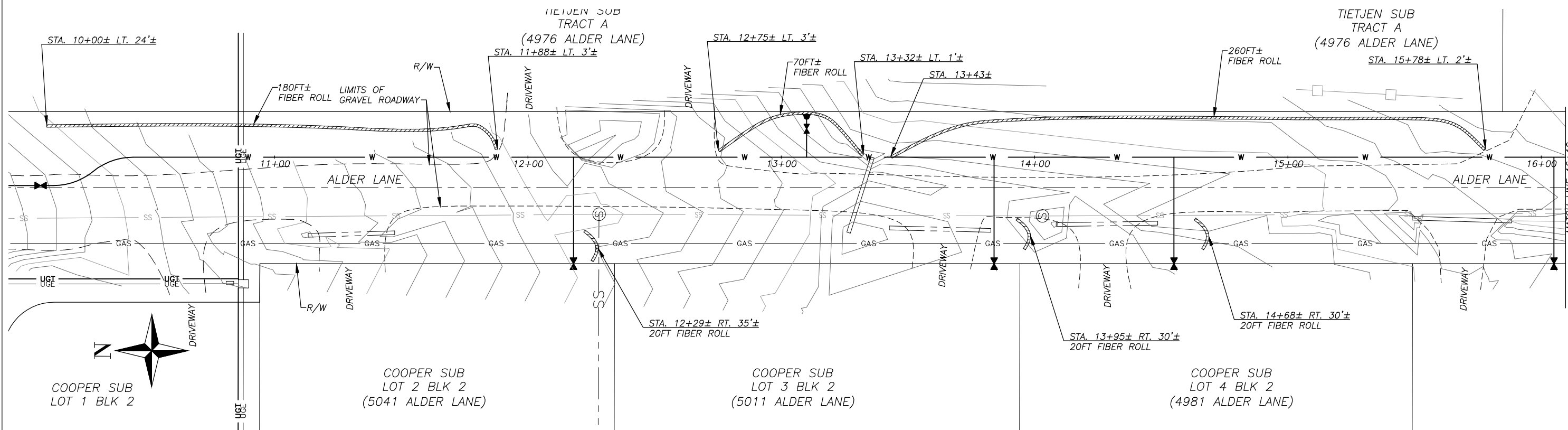
CONSTRUCTION NOTES

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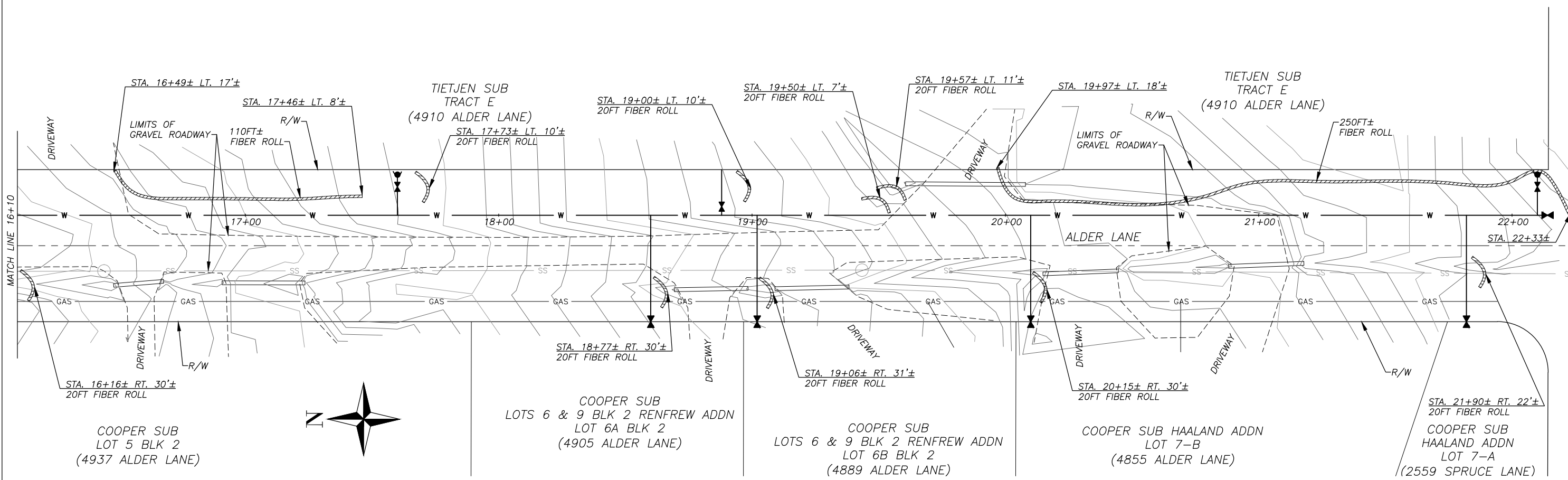
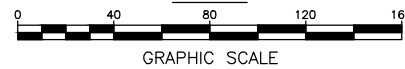
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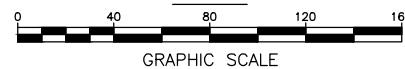
C-5



PLAN



PLAN



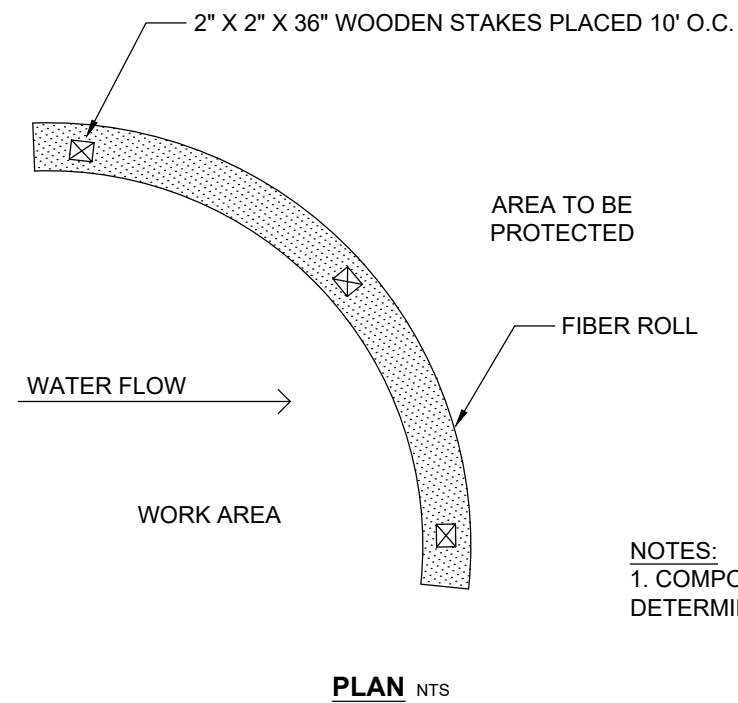
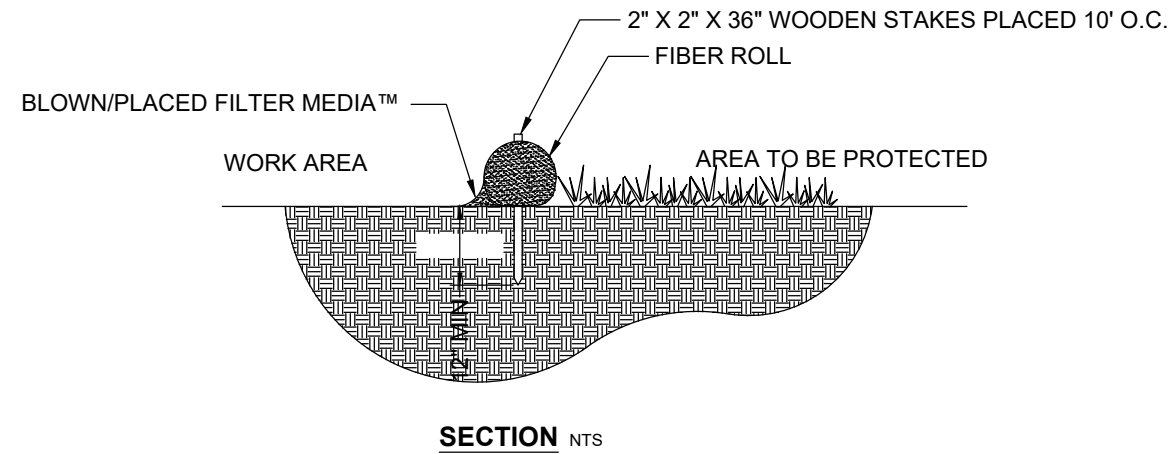
- NOTES:
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ALDER LANE WATER MAIN EXTENSION
EROSION CONTROL PLAN

BISHOP ENGINEERING, LLC
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 (907) 299-7609

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 C-6



NOTES:
 1. COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY ENGINEER.

FIBER ROLL SEDIMENT CONTROL

NTS

NOTES:

- BEFORE PERFORMING ANY EXCAVATIONS, CALL ALASKA DIGLINE AT 811, (800) 478-3121, OR (907) 278-3121.

ALDER LANE WATER MAIN EXTENSION

EROSION CONTROL DETAILS

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C-7