KACHEMAK DRIVE
PHASE III SEWER IMPROVEMENTS

CITY OF HOMER, ALASKA
PUBLIC WORKS DEPARTMENT
3575 HEATH STREET
HOMER, ALASKA 99603
PHONE: (907) 235-3170
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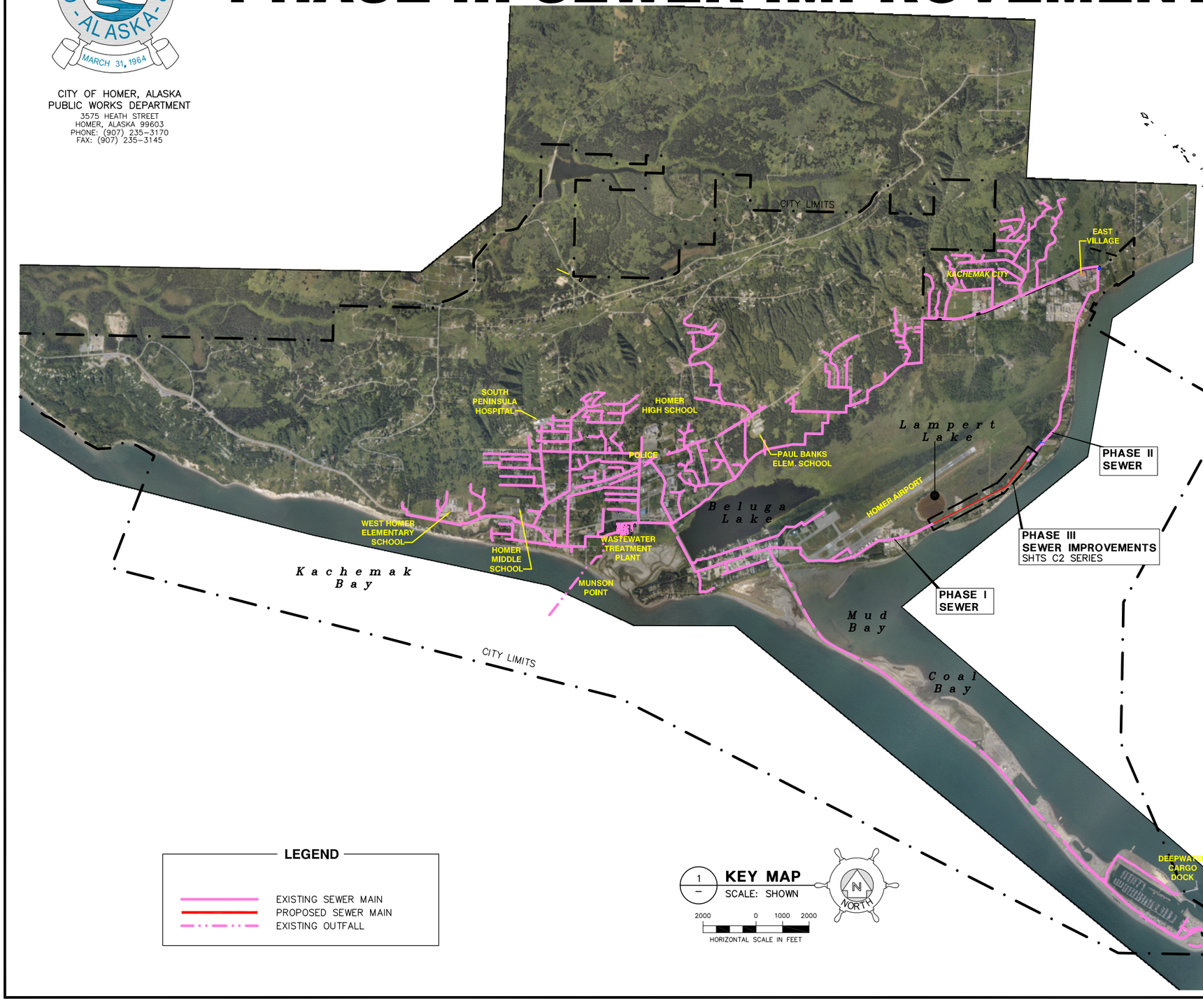

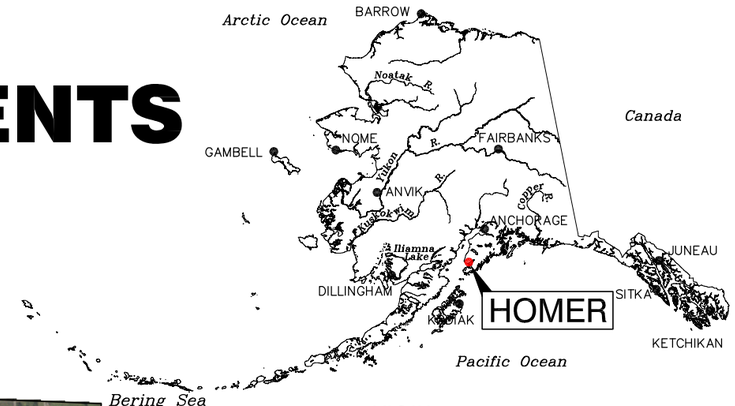

VICINITY MAP
NTS

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COH RECORD DWG NO	AS-BUILT REFERENCE DRAWINGS
02566	PHASE I WATER EXTENSION PLAN AND PROFILE
03058	PHASE II WATER LINE PLAN & PROFILE

PROJECT SUMMARY

PHASE III IMPROVEMENTS WILL COMPLETE KACEHEMAK DR SEWER MAIN
INSTALL 835± LF OF 2" HDPE SDR11 SEWER MAIN
INSTALL 3,400± LF OF 3" HDPE SDR11 SEWER MAIN
INSTALL 4 CLEANOUTS
INSTALL 1 AIR RELIEF VALVE VAULT
INSTALL 29 SEWER SERVICE CONNECTIONS (MAIN TO CURB STOP)

LEGEND

- EXISTING SEWER MAIN
- PROPOSED SEWER MAIN
- EXISTING OUTFALL

KEY MAP
1 / –
SCALE: SHOWN
2000 0 1000 2000
HORIZONTAL SCALE IN FEET
N NORTH

Bristol
ENGINEERING SERVICES CORPORATION
Phone (907) 563-0013 Fax (907) 563-6713
Project No. 32170019

GENERAL NOTES

1 THE CONTRACTOR SHALL PROVIDE ALL LABOR, EQUIPMENT AND MATERIALS NECESSARY TO COMPLETE THE PROJECT.

2 ALL CONSTRUCTION SHALL BE COMPLETED AS OUTLINED IN THE CITY OF HOMER; STANDARD CONSTRUCTION SPECIFICATIONS (2011 EDITION), UNLESS OTHERWISE SHOWN IN THE DRAWINGS OR SPECIAL PROVISIONS.

3 ALL CONSTRUCTION WITHIN THE KACHEMAK DRIVE AND EAST END ROAD PRISM SHALL BE DONE IN ACCORDANCE WITH THE STATE OF ALASKA, DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES, STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

4 THE SEWER LINE SHALL BE A MINIMUM OF 18 VERTICAL INCHES FROM ANY WATER LINE. HORIZONTAL SEPARATION BETWEEN SANITARY SEWER LINES AND WATER LINES MUST NOT BE LESS THAN 10 FEET, MEASURED SIDEWALL TO SIDEWALL, UNLESS OTHERWISE NOTED.

5 MINIMUM BURY ON SEWER MAIN & SERVICE LINES SHALL BE 6 FEET UNLESS OTHERWISE NOTED. ALL SEWER & SERVICE LINES BURIED LESS THAN 6 FEET MUST BE INSULATED AS SPECIFIED.

6 CONTRACTOR SHALL RESEED ALL DISTURBED AREAS AS REQUESTED BY THE DEPARTMENT OF TRANSPORTATION OR THE CITY OF HOMER, ALASKA.

7 BACKFILL WITHIN ADOT&PF ROAD RIGHT-OF-WAY SHALL MEET STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES SPECIFICATIONS FOR MATERIALS AND COMPACTION REQUIREMENTS.

8 EXCAVATION NEAR UTILITY POLES & UTILITY PEDESTALS SHALL BE COORDINATED WITH HOMER ELECTRIC ASSOCIATION (HEA) (907)235-8551 OR (800)478-8551. THE CONTRACTOR IS RESPONSIBLE FOR COSTS ASSOCIATED WITH REQUIRED POLE STABILIZATION.

9 CONTRACTOR SHALL RESTORE ALL PRIVATE DRIVEWAYS TO THEIR ORIGINAL CONDITION.

10 CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES TO VERIFY LOCATIONS BEFORE EXCAVATION.

11 UNDERGROUND UTILITY LINES AND SERVICE BOXES SHALL BE PROTECTED AND RELOCATED AS REQUIRED. THE "ALASKA DIG LINE" 1(800)478-3121 WILL PROVIDE TELEPHONE NUMBERS TO SUCH UTILITY COMPANIES AS ACS, GCI, AND HEA.

12 CLEARING & GRUBBING: CLEARING LIMITS SHALL NOT EXCEED 10' HORIZONTALLY EITHER SIDE OF NEW SANITARY SEWER & WATER PIPE LOCATIONS, UNLESS OTHERWISE INSTRUCTED BY THE ENGINEER.

13 EXISTING SIGNS, MAILBOXES, & FENCING SHALL TEMPORALLY BE RELOCATED DURING CONSTRUCTION. THE CONTRACTOR SHALL RESTORE THESE ITEMS TO THEIR ORIGINAL CONDITION, UPON PROJECT COMPLETION.

14 CONTRACTOR SHALL REMOVE & RESTORE EXISTING CULVERTS OBSTRUCTING CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING CULVERT(S), IF DAMAGED.

15 TRENCH AND BOREHOLE DE-WATERING PER COH STANDARD SPEC EARTHWORK DIVISION 200, 207.3, B, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, AND IS INCIDENTAL TO PIPE INSTALLATION.

16 ANY PRIVATE OR PUBLIC PROPERTY DISTURBED AS A RESULT OF THIS PROJECT SHALL BE REPLACED TO ORIGINAL CONDITION. EXISTING DRAINAGE PATTERNS SHALL BE RESTORED BY THE CONTRACTOR AFTER CONSTRUCTION OF THE IMPROVEMENTS.

ABBREVIATIONS

AC	ASPHALT CEMENT
AP	ARCTIC PIPE
ARV	AIR RELEASE VALVE
AVE	AVENUE
BF	BLIND FLANGE
BOH	BOTTOM OF HOLE
BOP	BEGINNING OF PROJECT
CI	CAST IRON
CIR	CIRCLE
CMP	CORRUGATED METAL PIPE
COH	CITY OF HOMER
CONT	CONTINUED
CP	CONTROL POINT
CT	COURT
Cu	COPPER
DR	DRIVE
DI	DUCTILE IRON
EA	EACH
EL	ELEVATION
ESMNT	EASEMENT
FCA	FLANGE COUPLING ADAPTER
FF	FINISH FLOOR
FH	FIRE HYDRANT
FM	FORCE MAIN
FL	FLANGE
GV	GATE VALVE
HDPE	HIGH-DENSITY POLYETHYLENE
HYD	HYDRANT
INV	INVERT
IP	IRON PIPE
IPS	IRON PIPE SIZE
IV	ISOLATION VALVE
KB	KEY BOX
L	LENGTH
LF	LINEAL FEET
LN	LANE
LPFM	LOW PRESSURE FORCE MAIN
LT	LEFT
MAX	MAXIMUM
MD	MAXIMUM DENSITY
MH	MANHOLE
MIN	MINIMUM
MNFR	MANUFACTURER
NFS	NON FROST SUSCEPTIBLE
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
NPT	NATIONAL PIPE THREAD
PC	POINT OF CURVATURE
PE	PLAIN END
PI	POINT OF INTERSECTION
PL	PLACE
P/L	PROPERTY LINE
PRV	PRESSURE REDUCING VAULT
PT	POINT OF TANGENCY
PVC	POLYVINYL CHLORIDE
R	RADIUS
RED	REDUCER
RD	ROAD
ROW	RIGHT OF WAY
RT	RIGHT
S	SLOPE
SCH	SCHEDULE
SD	STORM DRAIN
SEC	SECTION
SHT	SHEET
SS	STAINLESS STEEL
SSCO	SANITARY SEWER CLEANOUT
SSIV	SANITARY SEWER ISOLATION VALVE
SSMH	SANITARY SEWER MANHOLE
STA	STATION
SVC	SERVICE
ST	STREET
TBM	TEMPORARY BENCHMARK
TCE	TEMPORARY CONSTRUCTION EASEMENT
TH	TEST HOLE
THD	THREAD
TYP	TYPICAL
VB	VALVE BOX
VBM	VALVE BOX MARKER
W/	WITH

LEGEND

PROPOSED	EXISTING	
	—UG/T—	UNDERGROUND TELEPHONE
	—OH/E—	OVERHEAD ELECTRIC
	—UG/E—	UNDERGROUND ELECTRIC
	—UG/C—	UNDERGROUND CABLE
		POWER POLE
		GUY ANCHOR
		ELECTRIC PEDESTAL
		TELEPHONE PEDESTAL
		LIGHT POLE
	○ R-7	RECOVERED CORNER
		PROPERTY LINE
		EASEMENT
	⊕CP-8	SURVEY CONTROL POINT
	DMA-15	TEST HOLE LOCATION
		SIGN
		CULVERT
	FF=82.7	BUILDING FINISH FLOOR ELEVATION
		EDGE OF PAVEMENT
		EDGE OF GRAVEL SURFACE
		GUARD RAIL
	C2	CURVE DATA
	L2	LINE DATA
		STORMDRAIN MANHOLE
	—SD—	STORMDRAIN LINE
	—S—	SANITARY SEWER LINE
—W—	—W—	WATER LINE*
	—FM—	SANITARY SEWER FORCEMAIN LINE
—LPFM—	—LPFM—	SANITARY SEWER LOW PRESSURE FORCEMAIN LINE
	○	SANITARY SEWER MANHOLE
		VALVE*
	]	CAP*
		HYDRANT*
	Ⓟ	PRESSURE REDUCING VAULT
	Ⓐ	AIR RELEASE VALVE
	LS	LIFT STATION
		SANITARY SEWER CLEANOUT
		GRAVITY SANITARY SEWER SERVICE LOCATION
		LOW PRESSURE SANITARY SEWER SERVICE LOCATION
		WATER SERVICE LOCATION*
		DESIGNATED WETLAND

*PROPOSED FOR PHASE III WATER IMPROVEMENT PROJECT

User: RBURDICK Jul 22, 2016 - 4:51pm
Drawing: K:\JOBS\32170019 HOMER SEWER PH3\ACAD-DESIGN_CIVIL DESIGN\32170019_G1.1.DWG - Layout: G1.1
Xrefs: 32170019_BORD.DWG - Images: None

REVISIONS

NO.	DATE	BY	DESCRIPTION

Project No. 32170019

Bristol
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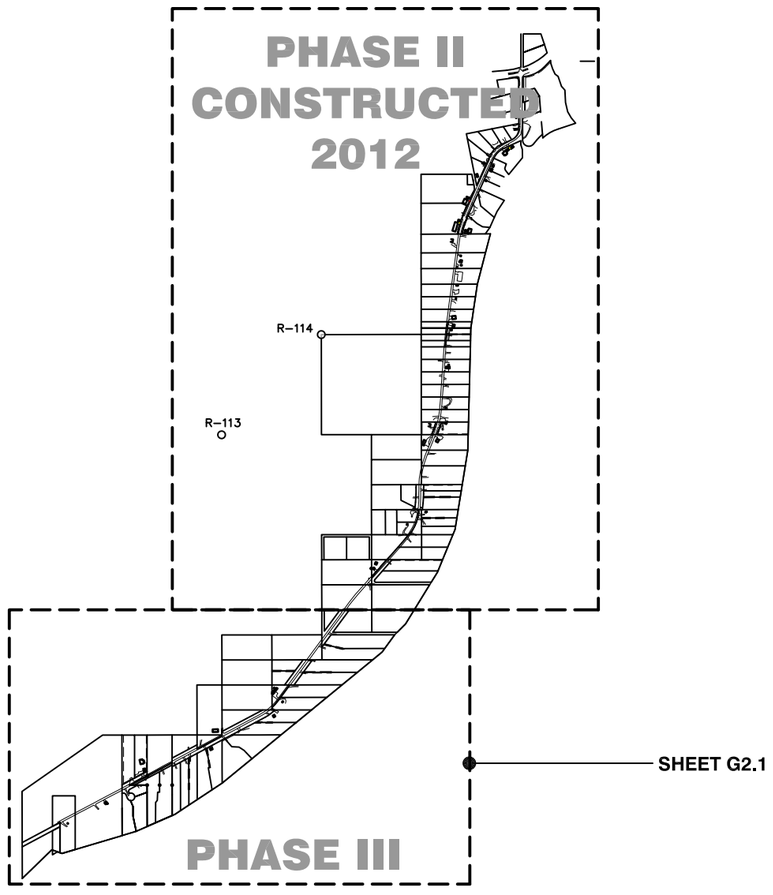
KYLE LINDEN PETERSEN
No. CE-11250
REGISTERED PROFESSIONAL ENGINEER

CITY OF HOMER - KACHEMAK DRIVE
PHASE III SEWER IMPROVEMENTS

GENERAL NOTES, ABBREVIATIONS, AND LEGEND

SHEET NO. G1.1

SCALE: SHOWN | DESIGNED: RWB | CHECKED: KLP | DRAWN: RWB | DATE: JULY 2016



KEY MAP
SCALE: SHOWN

LEGEND

R-113 ○	RECOVERED MONUMENT
CP-4◉	CONTROL POINT
▨	EXIST PLATTED R.O.W.

NOTE:
GOLDEN CROWNED SUBDIVISION RECORDED 9-19-2011 (HRD 2011-36) IS INCLUDED ON THIS DRAWING FOR PROJECT CONSISTENCY. IT IS NOT SURVEY DATA.

RECOVERED CORNERS

NAME	NORTHING	EASTING	DESCRIPTION
R-1	101,204.991	103,454.897	U.S. CADASTRAL C1/4 SEC. 22 1952
R-2	101,164.994	103,454.772	REBAR W/ALCAP 5780-S 2004
R-3	101,051.687	103,455.174	5/8"REBAR
R-4	101,098.349	103,542.530	REBAR W/SURCAP 3686-S
R-5	101,164.996	103,666.167	REBAR W/SURCAP 3686-S
R-6	101,149.761	103,855.073	1/2"ALUM. SOLID ROD
R-7	101,631.458	104,153.794	1"STEEL ROD
R-8	101,561.729	104,773.783	REBAR W/ALCAP 7610-S 2003
R-9	101,757.546	104,773.176	2"IRONPIPE W/CONCRETE
R-10	101,866.374	104,773.129	REBAR W/SURCAP 3686-S
R-11	101,740.053	104,824.059	REBAR W/SURCAP 3686-S
R-12	101,779.123	104,861.639	REBAR W/SURCAP 3686-S
R-13	101,810.913	104,872.856	REBAR W/SURCAP 3686-S
R-14	101,866.937	104,977.440	REBAR W/SURCAP 3686-S
R-15	101,866.645	105,103.122	1"IRONPIPE WITH PLASTIC CAP
R-16	101,928.437	105,102.921	1/2"REBAR
R-17	102,046.949	105,102.776	5/8"REBAR
R-18	102,527.624	105,102.123	1"IRONPIPE WITH PLASTIC CAP
R-19	102,527.459	104,772.083	U.S. CADASTRAL NE1/16 SEC. 22 1952
R-20	102,109.611	105,432.920	REBAR W/SURCAP 3686-S
R-21	102,223.027	105,432.670	REBAR W/SURCAP 3686-S
R-22	102,168.692	105,543.254	REBAR W/SURCAP 3686-S
R-23	102,227.373	105,653.375	REBAR W/SURCAP 3686-S
R-24	102,353.234	105,887.973	1/2"IRONPIPE
R-25	102,099.694	106,093.406	U.S. CADASTRAL W.C.M.C. SEC. 22/23 1952
R-26	102,462.061	106,092.708	1/2"REBAR
R-27	102,528.982	106,092.109	D.O.T. N1/16 SEC. 22/23 7610-S 2001
R-28	102,557.666	106,059.572	REBAR W/ALCAP 3686-S 198?
R-29	102,528.721	106,219.299	5/8"REBAR
R-30	102,858.642	106,124.747	REBAR (BENT) W/ALCAP ????-S
R-31	102,759.792	106,657.791	1/2"REBAR
R-32	102,859.232	106,629.431	REBAR W/ALCAP 3686-S 1985
R-33	102,529.384	106,594.168	3-1/4"ALCAP MON7614-S 1997
R-34	102,952.014	106,843.604	REBAR W/ALCAP 7610-S 2000
R-35	103,189.285	107,042.464	1/2"REBAR
R-36	103,374.374	107,054.551	1/2"REBAR
R-37	103,849.890	107,409.219	REBAR W/ALCAP 1301-S 1986
R-38	103,848.798	106,089.559	GLO COR. SECS. 14/15/22/23 1917
R-39	103,846.015	107,509.295	REBAR W/ALCAP (BENT) 1301-S 1986
R-40	103,850.167	107,956.103	GLO W.C.M.C. SEC. 14/23 1917
R-41	104,180.185	107,409.077	5/8"REBAR
R-42	104,180.254	107,773.321	REBAR W/ALCAP 7968-S 2000
R-43	105,170.534	107,405.786	PLASTIC CAP INT ALUM. PIPE
R-44	105,170.887	108,065.386	5/8"REBAR
R-45	104,841.149	108,036.398	1/2"REBAR
R-46	104,693.161	108,208.116	REBAR W/ALCAP 5780-S 2001
R-47	105,337.053	108,602.068	REBAR W/SURCAP 7328-S 2002
R-48	105,172.026	108,724.795	GRANITE STONE WITH "X"SCRIBED ONTOP
R-49	105,282.068	108,724.608	5/8"REBAR
R-50	105,392.275	108,724.578	5/8"REBAR
R-51	105,502.167	108,735.527	5/8"REBAR
R-52	105,601.002	108,645.401	REBAR W/SURCAP 3686-S 1991
R-53	105,667.325	108,750.290	1/2"REBAR
R-54	105,832.308	108,753.318	1/2"REBAR
R-55	105,830.506	108,063.563	5/8"REBAR
R-56	105,500.769	108,064.520	1/2"REBAR
R-57	106,079.872	108,771.235	REBAR W/ALCAP 5780-S 2005
R-58	106,286.536	108,846.006	REBAR W/ALCAP 5780-S 2005
R-59	106,492.453	108,722.647	GRANITE STONE WITH "X"SCRIBED ONTOP
R-60	106,492.361	108,926.444	REBAR W/ALCAP 4468-S 2003
R-61	106,532.867	108,942.559	REBAR W/ALCAP 4468-S 2003
R-62	106,554.977	108,886.773	REBAR W/ALCAP 4468-S 2003
R-63	106,657.930	108,983.064	REBAR W/ALCAP 4468-S 2003
R-64	106,657.904	108,921.016	REBAR W/ALCAP 4468-S 2003
R-65	107,402.368	108,980.210	REBAR W/ALCAP 5780-S 2000
R-66	107,732.665	109,073.869	5/8"REBAR
R-67	107,815.518	108,720.969	2"IRONPIPE W/CONCRETE
R-68	107,815.896	109,082.844	REBAR W/ALCAP 4169-S 1998
R-69	108,311.449	109,144.0[illegible]	REBAR W/ALCAP 7610-S 2006
R-70	108,311.287	109,076.[illegible]	REBAR W/ALCAP 7610-S 2006
R-71	108,478.481	109,[illegible]	REBAR W/ALCAP 4928-S 2006
R-72	108,478.127	109,[illegible]	REBAR W/ALCAP 4928-S 2006
R-73	108,684.254	109,[illegible]	REBAR W/ALCAP 4928-S 2006
R-74	108,684.68[illegible]	109,[illegible]	REBAR W/ALCAP 4928-S 2006
R-75	108,68[illegible]	109,[illegible]833	REBAR W/ALCAP 4928-S 2006
R-76	109,54[illegible]	109,[illegible]790	REBAR W/ALCAP 7610-S 2000
R-77	109,086.[illegible]	109,250.687	REBAR W/ALCAP 7610-S 2000
R-78	109,138.85[illegible]	109,198.518	REBAR W/ALCAP 7610-S 2000
R-79	109,139.265	109,259.191	3"ALUM. MONUMENT 3686-S 1982
R-80	109,382.893	109,336.744	REBAR W/ALCAP 7610-S 2000
R-81	109,678.406	109,471.119	5/8"REBAR (BENT)
R-82	109,727.881	109,427.827	REBAR W/ALCAP 7610-S 2000
R-83	109,730.003	109,494.664	3"ALUM. MONUMENT 3686-S 1982
R-84	109,789.384	109,415.756	REBAR W/ALCAP 7610-S 2000
R-85	109,789.199	109,329.698	5/8"REBAR (BENT)
R-86	109,926.363	108,718.665	REBAR W/ALCAP 7610-S 1999
R-87	110,126.324	108,717.675	1/2"REBAR
R-88	110,456.963	108,716.970	BRASS CAP CS1/16 SEC. 11 3686-S 1983
R-89	110,257.861	109,689.736	REBAR W/SURCAP 3686-S
R-90	110,267.811	109,807.401	5/8"REBAR
R-91	110,322.396	109,784.122	REBAR W/ALCAP 4129-S
R-92	110,385.497	109,887.808	REBAR W/ALCAP 4129-S
R-93	110,490.106	109,464.401	REBAR W/SURCAP 3686-S
R-94	110,525.140	109,643.745	REBAR W/SURCAP 3686-S
R-95	110,527.683	110,008.728	5/8"REBAR
R-96	110,734.937	109,805.379	5/8"REBAR (BENT)
R-97	110,748.223	108,716.042	REBAR W/ALCAP 10771-S 2003
R-98	111,021.104	110,007.192	REBAR W/ALCAP 10771-S 2005
R-99	111,198.090	109,667.426	MONUMENT 10771-S 2005
R-100	111,215.307	109,353.[illegible]	MONUMENT 10771-S 2005
R-101	111,2[illegible]	109,[illegible]	MONUMENT 10771-S 2005
R-102	[illegible]	[illegible]	MONUMENT 10771-S 2005
R-103	[illegible]	[illegible]	5/8"REBAR
R-104	[illegible]	[illegible]	IRONPIPE W/PLASTIC CAP INSIDE 3686-S
R-105	109,13[illegible]	108,718.789	IRONPIPE W/CONCRETE
R-106	108,891.620	109,223.713	REBAR W/ALCAP 7610-S 200?
R-107	102,059.395	105,102.919	1/2"REBAR
R-108	101,757.857	104,870.597	REBAR W/SURCAP 3686-S
R-109	102,694.185	106,532.102	REBAR W/SURCAP 3686-S
R-110	103,024.282	106,897.014	REBAR W/ALCAP 7610-S 2000
R-111	106,988.464	109,020.224	REBAR W/ALCAP 5780-S 2002
R-112	106,496.103	107,393.788	1/2"REBAR
R-113	106,489.807	106,085.843	3/4"GALV. IRONPIPE
R-114	107,812.271	107,401.866	ALCAP MONNW1/16 SEC. 14 3686-S 1996
R-115	109,510.403	109,328.681	REBAR W/ALCAP 7610-S 2000
R-116	109,407.408	109,282.922	5/8"REBAR
R-117	109,927.429	109,388.400	REBAR W/ALCAP 3686-S 198[illegible]
R-118	110,163.424	109,625.905	REBAR W/ALCAP [illegible]

PROJECT CONTROL

NAME	NORTHING	EASTING		DESCRIPTION
CP-1	110,434.5734	110,[illegible]		2"ALCAP ON5/8"REBAR
CP-2	110,196.8399	110,[illegible]		2"ALCAP ON5/8"REBAR
CP-3	109,196.6310	109,[illegible]	73	2"ALCAP ON5/8"REBAR
CP-4	106,592.4272	109,[illegible]	49.60	2"ALCAP ON5/8"REBAR
CP-5	106,339.2459	108,797.[illegible]	52.20	2"ALCAP ON5/8"REBAR
CP-6	105,478.6994	108,663.3445	70.47	2"ALCAP ON5/8"REBAR
CP-7	105,192.2523	108,604.9315	83.96	2"ALCAP ON5/8"REBAR
CP-8	104,600.7668	108,036.4394	98.63	2"ALCAP ON5/8"REBAR
CP-9	102,828.1648	106,684.2254	95.49	2"ALCAP ON5/8"REBAR
CP-10	101,976.4392	105,033.7227	85.95	2"ALCAP ON5/8"REBAR

LINE TABLE

LINE	BEARING	DISTANCE
L1	S 23°05'33"E	23.00'
L2	N23°05'33"W	51.79'
L3	N5°54'25"E	53.09'
L4	N89°52'47"E	38.90'
L5	N5°54'24"E	90.00'
L6	N0°34'24"E	42.01'
L7	N0°34'24"E	43.22'
L8	N5°54'24"E	31.63'
L9	N5°54'24"E	68.93'
L10	N0°34'24"E	85.23'
L11	N21°40'00"E	67.42'
L12	N21°40'00"E	43.64'
L13	N39°31'00"E	67.60'
L14	S 0°17'21"E	[illegible]
L15	S 18°17'21"E	[illegible]
L16	N68°13'00"E	[illegible]
L17	S 68°13'00"[illegible]	[illegible]

CURVE TABLE

CURVE	DELTA	RADIUS	LENGTH
C1	84°59'44"	25'	37.09'
C2	112°38'49"	50'	98.30'
C3	97°22'35"	50'	84.98'
C4	59°59'24"	50'	52.35'
C5	[illegible]0'16"	36.42'	60.39'
C6	[illegible]0"	450'	21.38'
C7	[illegible]4"	550'	166.98'
C8	[illegible]4"	573.70'	102.19'
C9	1°06'00"	20'	45.76'
C10	21°58'00"	500.63'	191.94'
C11	13°11'25"	500.63'	115.25'
C12	3°28'35"	1250'	75.84'
C13	1°51'25"	1250'	40.51'
C14	1°57'29"	1150'	39.30'
C15	5°20'00"	1150'	107.05'
C16	1°44'40"	1250'	38.06'
C17	6°24'35"	970'	108.51'
C18	7°18'59"	1030'	131.52'
C19	14°18'41"	1130'	282.25'
C20	13°43'08"	1070'	256.20'
C21	41°25'41"	256.48'	185.45'
C22	20°42'51"	316.48'	114.42'
C23	20°42'51"	316.48'	114.42'
C24	65°41'38"	160.99'	184.59'
C25	39°38'00"	80.50'	197.21'
C26	10°38'16"	593'	110.10'
C27	97°39'32"	40'	68.18'
*C28	~~42°39'45"~~	~~436'~~	~~326.18'~~
C29	12°27'50"	898.95'	195.55'
C30	23°24'01"	908.79'	371.16'

*REFER TO PRELIMINARY PLAT 2009-25
(NOT PART OF THIS SURVEY)

SURVEY NOTES

SURVEY WAS PERFORMED BY:
SEABRIGHT DESIGN GROUP,
STEVE SMITH, RLS
1044 EAST END ROAD, SUITE A
HOMER, AK. 99603

1. BASIS OF BEARING FOR THIS SURVEY IS FROM GPS STATIC OBSERVATIONS TAKEN ON THE PROJECT CONTROL POINTS. NAD83 ALASKA STATE PLANE GRID COORDINATES OBTAINED FROM THE GPS OBSERVATIONS WERE BASED ON THE NGS PUBLISHED VALUES FOR USC&GS TRISTATION "HOMAIR".

2. TRUE BEARINGS AND DISTANCES WERE DETERMINED BY ROTATING AND SCALING FROM GRID USING USC&GS TRISTATION "HOMAIR" AS A SCALING POINT. TRUE BEARINGS WERE DETERMINED BY ROTATING GRID INVERSE AZIMUTHS -1°17'13". TRUE DISTANCES WERE OBTAINED BY DIVIDING GRID INVERSE DISTANCES BY 0.999986696.

3. TRUE COORDINATE VALUES WERE TRANSLATED TO A LOCAL COORDINATE SYSTEM BASED ON=100,000 E=100,000 AT USC&GS TRISTATION "HOMAIR".

4. BASIS OF VERTICAL CONTROL FOR THIS SURVEY IS THE NGS PUBLISHED VALUE FOR USC&GS TRISATION "HOMAIR". THE NAVD 88 ELEVATION FOR "HOMAIR" IS 70.522 FEET. THE GEOID HEIGHTS FOR THE PROJECT CONTROL POINTS WERE DETERMINED BY GEOID99.

PHASE II

PHASE II

PHASE II

REVISIONS			
NO.	DATE	BY	DESCRIPTION

1000 0 500 1000
HORIZONTAL SCALE IN FEET

Project No. 32170019

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KYLE LINDEN PETERSEN
No. CE-11250
REGISTERED PROFESSIONAL ENGINEER

CITY OF HOMER – KACHEMAK DRIVE
PHASE III SEWER IMPROVEMENTS

SURVEY CONTROL
KEY MAP, LEGEND, AND TABLES

SHEET NO.
G2.0

SCALE: SHOWN | DESIGNED:RWB | CHECKED: KLP | DRAWN:RWB | DATE: JULY 2016 | SHEET 3 OF 16

LEGEND (THIS SHEET)

EXISTING PLATTED ROW

REVISIONS			
NO.	DATE	BY	DESCRIPTION

NORTH

200 0 100 200

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PHASE III SEWER IMPROVEMENTS

SURVEY CONTROL AND EXISTING EASEMENTS

SHEET NO.
G2.1

SCALE: SHOWN | DESIGNED:RWB | CHECKED: KLP | DRAWN:RWB | DATE: JULY 2016 | SHEET **4** OF **16**

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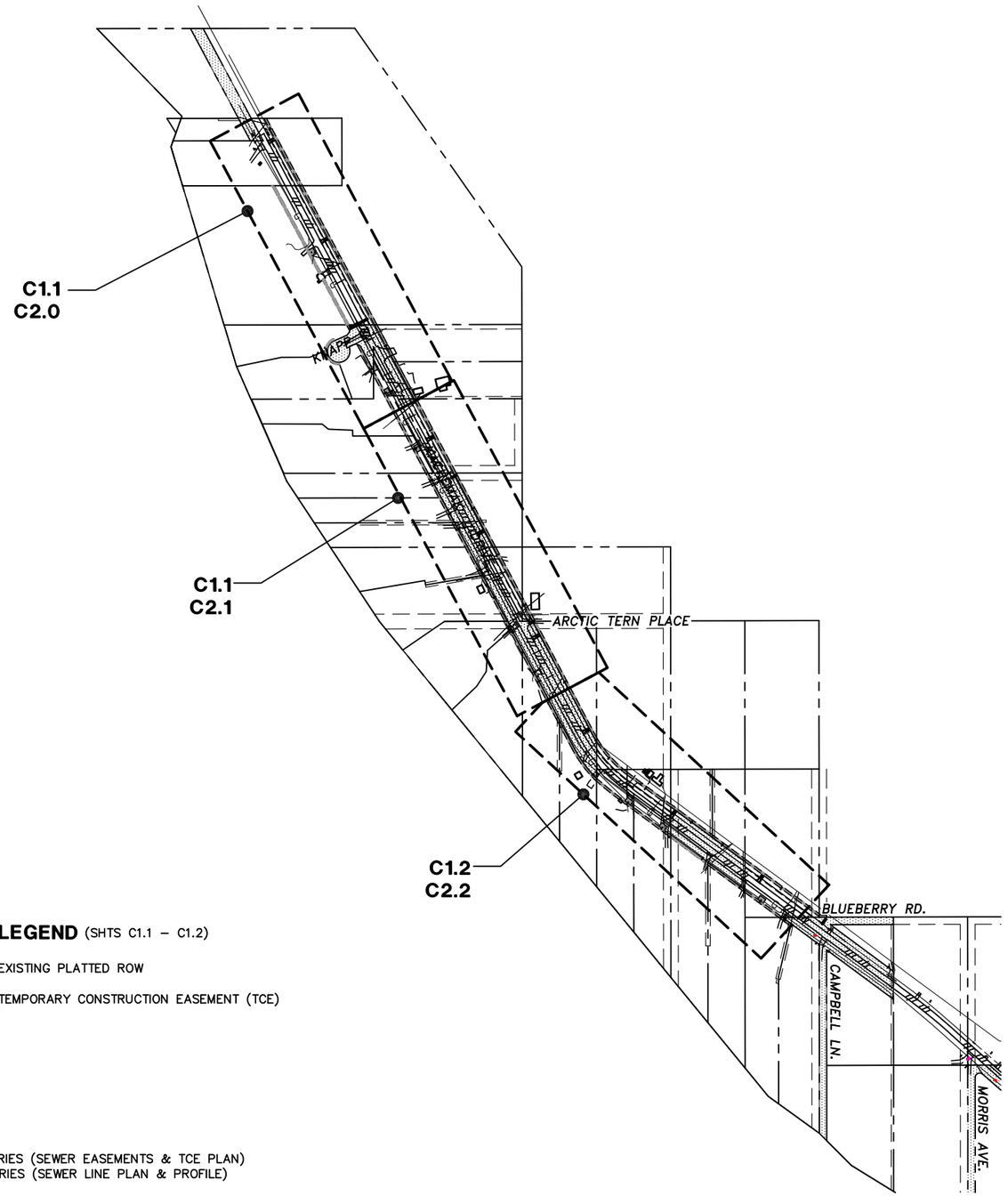

LEGEND (SHTS C1.1 – C1.2)

EXISTING PLATTED ROW

TEMPORARY CONSTRUCTION EASEMENT (TCE)

NOTES

SHEET C1 SERIES (SEWER EASEMENTS & TCE PLAN)
SHEET C2 SERIES (SEWER LINE PLAN & PROFILE)

REVISIONS			
NO.	DATE	BY	DESCRIPTION

NORTH
300 0 150 300
HORIZONTAL SCALE IN FEET

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CITY OF HOMER – KACHEMAK DRIVE
PHASE III SEWER IMPROVEMENTS

PROJECT KEY MAP

SHEET NO.
C1.0

SCALE: SHOWN	DESIGNED:RWB	CHECKED: KLP	DRAWN:RWB	DATE: JULY 2016	SHEET 5 OF 16

CARROLL SUB.
UNSUB. REMAINDER
(HRD 79-54)
17936002

GLO LOT 2
17936024

LAMPBERT
LAKE SUB.
(HRD 85-6)
LOT 1
17936016

17936023
LOT 2-A
LAMPBERT
LAKE SUB. NO. 2
(HRD 85-130)

PHASE I
12"X12"X6" TEE WITH
BLIND FLANGE AND
THRUST BLOCK

PROPOSED PH-III WATER LINE
(SEPARATE PROJECT)

12" HDPE

KACHEMAK DRIVE

10' TCE

20' TYP

65' TYP

100'

15' TYP

3" HDPE SDR11

30' TYP

SHED

DMA-23

DMA-24

DMA-25

8"DI

DOG PEN

BEGIN PHASE III
SEWERLINE
STA 1+00.00
CONNECT TO EXIST
MANHOLE

PHASE I SSMH
INV OUT=75.24

PHASE III SEWER MAIN
SEE SHT C2 SERIES

MATCH LINE A

MATCH LINE B - SEE SHT C1.2

KNAPP Ct.

LOT 1
17936003

CARROL SUB.
UNSUB. REMAINDER
17936004

GLO LOT 2
17936005

LOT 3
17936006

LOT 1
17936008
MIRIAMS ARES
(HRD 78-108)

LOT 2
17936007

LOT 1
17936026

THE PATENT FOR GLO LOT 17 RESERVED A 33' RIGHT-OF-WAY FOR ROADWAY AND PUBLIC UTILITIES ACROSS SAID LAND OR AS NEAR AS PRACTICABLE TO THE EXTERIOR BOUNDARIES

GLO LOT 15
17936014

SCENIC BAY
(HRD 83-87)
LOT 4
17936020

GLO LOT 12
17915011

LOT 1
17915056
CHECKMATE
SHORES SUB.
(HRD 79-139)

ARCTIC TERN PL.

GLO LOT 13
RMNDR.
17915030

UNSUB.
REMAINDER

SHOP
FF=94.3

LOT 2
17915058

LOT 13 B-1
17915082
DeGARMO SUB.
(HRD 91-25)

LOT 13 A
17915047

LOT 12-A-1
17915081

LOT 12-B
17915074

GREWINGK VIEW SUB.

GOLDEN CROWNED SUBD
(HRD 2011-36)

LOT 1
17936026

LOT 2
17936027

LOT 1
17936017

LOT 2
17936018

LOT 3
17936019

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CITY OF HOMER - KACHEMAK DRIVE
PHASE III SEWER IMPROVEMENTS

SEWER EASEMENTS AND TCE PLAN

SHEET NO.
C1.1

SCALE: SHOWN | DESIGNED: KLP | CHECKED: KLP | DRAWN: RWB | DATE: JULY 2016

SHEET 6 OF 16

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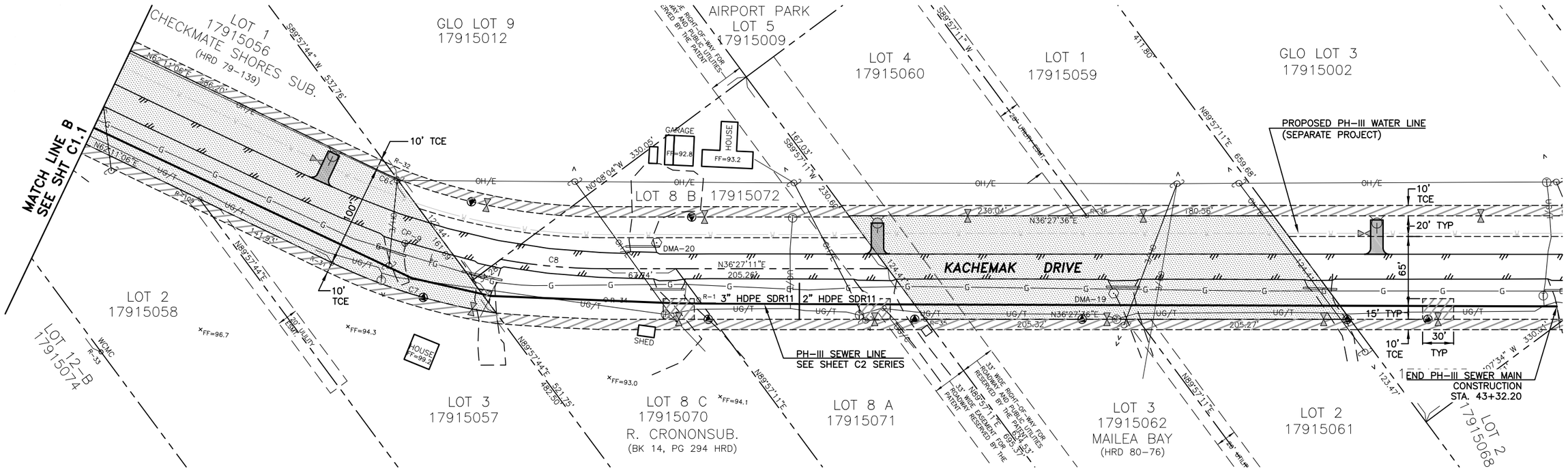
Xrefs: 32170019_BORD.DWG 32170019_BASE.DWG - Images: None



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Xrefs: 32170019_BORD.DWG 32170019_BASE.DWG – Images: None

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No. CE–11250

CITY OF HOMER – KACHEMAK DRIVE
PHASE III SEWER IMPROVEMENTS

SEWER EASEMENTS AND TCE
PLAN

SHEET NO.
C1.2

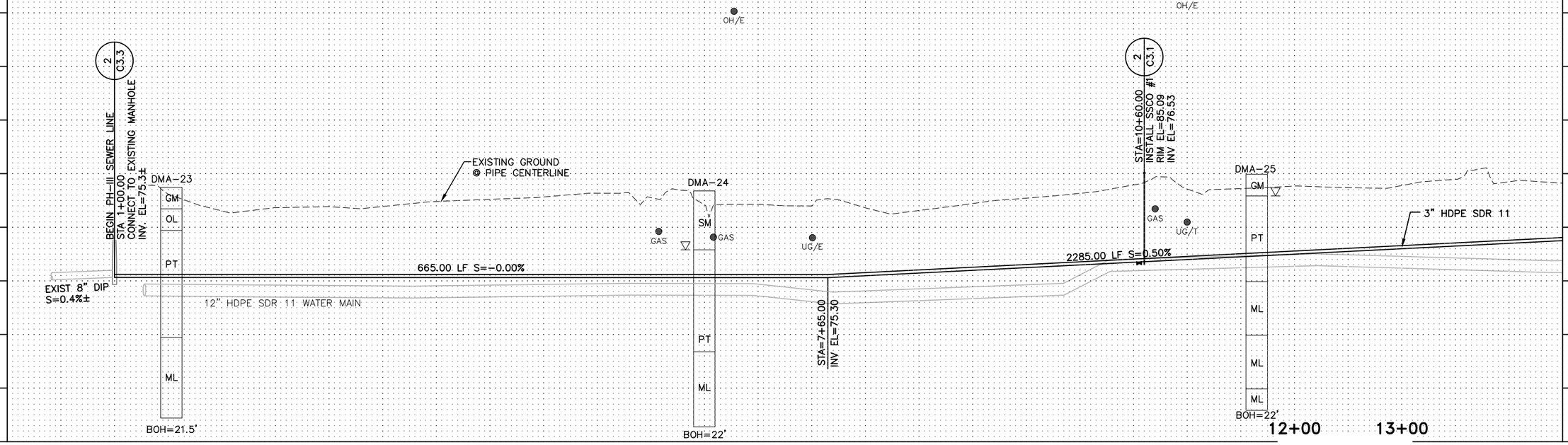
SCALE: SHOWN | DESIGNED: KLP | CHECKED: KLP | DRAWN: RWB | DATE: JULY 2016

SHEET **7** OF **16**

NOTES

1 WETLANDS BOUNDARIES INDICATED WERE TAKEN FROM EXISTING WETLANDS MAPPING GENERATED BY THE KENAI WATERSHED FORUM WITH CONCURRENCE FROM THE UNITED STATES ARMY CORPS OF ENGINEERS.
2 WHEN ESTABLISHING HDPE PIPELINE ALIGNMENT – CONTRACTOR SHALL DEFLECT PIPING TO AVOID SURFACE FEATURES, POWER POLES, OR TREES AS DIRECTED BY THE ENGINEER
3 LOCATION OF GAS LINE IS APPROXIMATE AND HAS NOT BEEN SURVEYED

CARROLL SUB. UNSUB. REMAINDER (HRD 79-54) 17936002
DESIGNATED WETLANDS (SEE NOTE 1, THIS SHT)
GLO LOT 2 17936024
LAMPBERT LAKE SUB. (HRD 85-6) LOT 1 17936016
17936023 LOT 2-A LAMPBERT LAKE SUB NO. 2 (HRD 85-130)
SHOP
BLDG
PROPOSED PH III WATER LINE (SEPARATE PROJECT)
BEGIN PH-III SEWER LINE CONNECT TO EXISTING MANHOLE. STA 1+00 N=101340.13 E=103962.09
2 C3.3
12" HDPE
8"DI
KACHEMAK DRIVE
DMA-23
DMA-24
DMA-25
LPFM
3" HDPE SDR11
PIPE ALIGNMENT ℄
FLOW DIRECTION (TYP)
DOG PEN
SHED
OH/E
UG/E
UG/C
1 C3.3 SANITARY SEWER SERVICE (TYP)
2 C3.1 STA 10+60 INSTALL SSCO #1 INSTALL SSIV #1 INSTALL SSIV #2
KNAPP Ct.
LOT 1 17936003
CARROLL SUB. UNSUB. REMAINDER 17936004
GLO LOT 2 17936005
LOT 3 17936006
LOT 2 17936007
LOT 1 17936008 MIRIAMS ACRES (HRD 78-108)
LOT 1 17936026
THE PATENT FOR GLO LOT 17 RESERVED A 33' RIGHT-OF-WAY FOR ROADWAY AND PUBLIC UTILITIES ACROSS SAID LAND OR AS NEAR AS PRACTICABLE TO THE EXTERIOR BOUNDARIES
MATCH LINE STA. 14+50.00 (SEE SHEET C2.1)



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NORTH
50 0 25 50
HORIZONTAL SCALE IN FEET

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CITY OF HOMER – KACHEMAK DRIVE PHASE III SEWER IMPROVEMENTS

SEWER LINE PLAN & PROFILE STA 1+00.00 TO STA 14+50.00

SHEET NO. C2.0

SCALE: SHOWN | DESIGNED:RWB | CHECKED: KLP | DRAWN:RWB | DATE: JUNE 2016 | SHEET 8 OF 16

User: RBURDICK Jul 22, 2016 – 4:53pm
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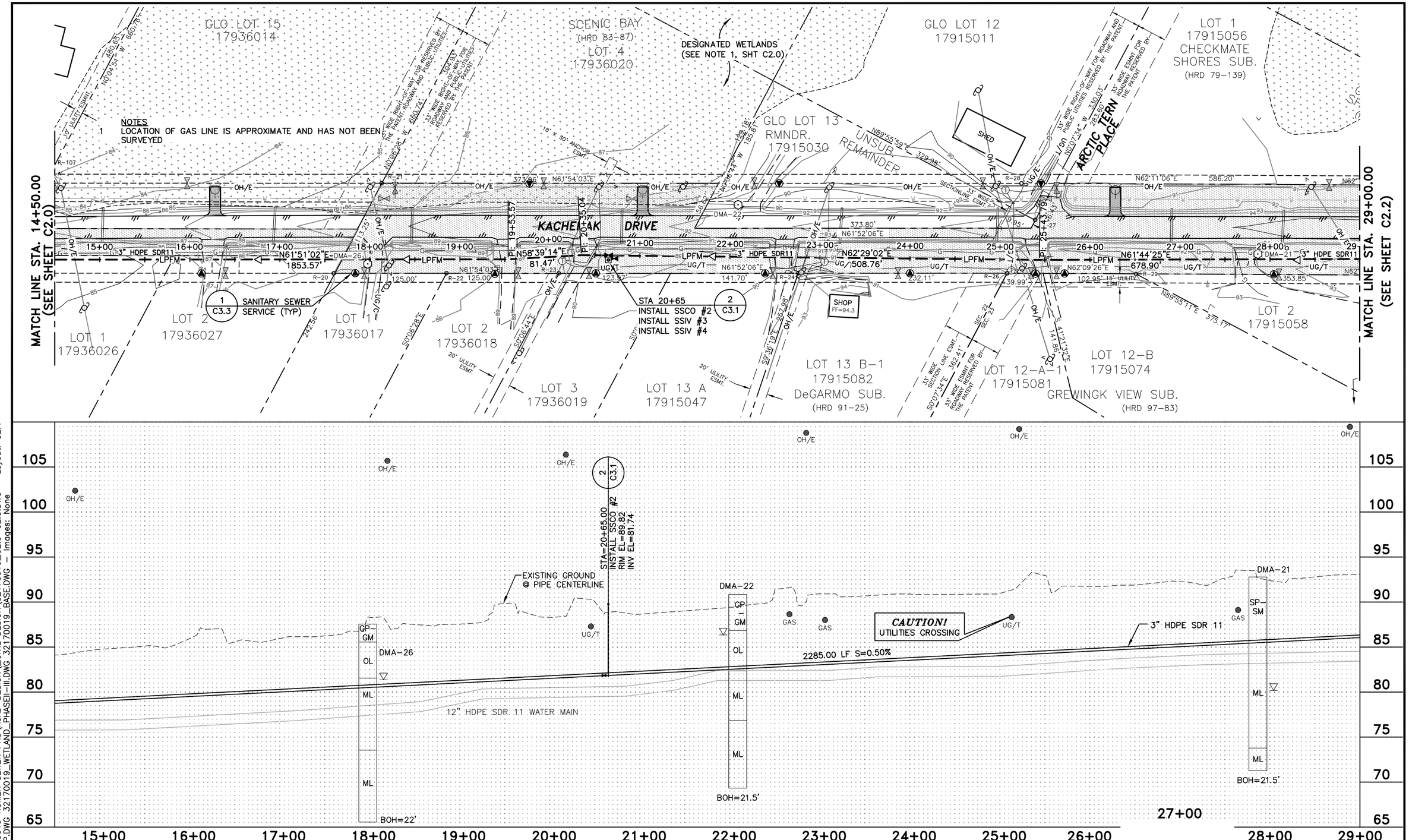
Xrefs: 32170019_PANDP.DWG 32170019_WETLAND_PHASEII-III.DWG 32170019_BASE.DWG – Images: None



REVISIONS			
NO.	DATE	BY	DESCRIPTION

NORTH

50 0 25 50

HORIZONTAL SCALE IN FEET

Project No. 32170019

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CITY OF HOMER – KACHEMAK DRIVE
PHASE III SEWER IMPROVEMENTS

SEWER LINE PLAN & PROFILE
STA 14+50.00 TO STA 29+00.00

SHEET NO.
C2.1

SCALE: SHOWN | DESIGNED:RWB | CHECKED: KLP | DRAWN:RWB | DATE: JUNE 2016 | SHEET 9 OF 16

User: RBURDICK Jul 22, 2016 – 5:15pm
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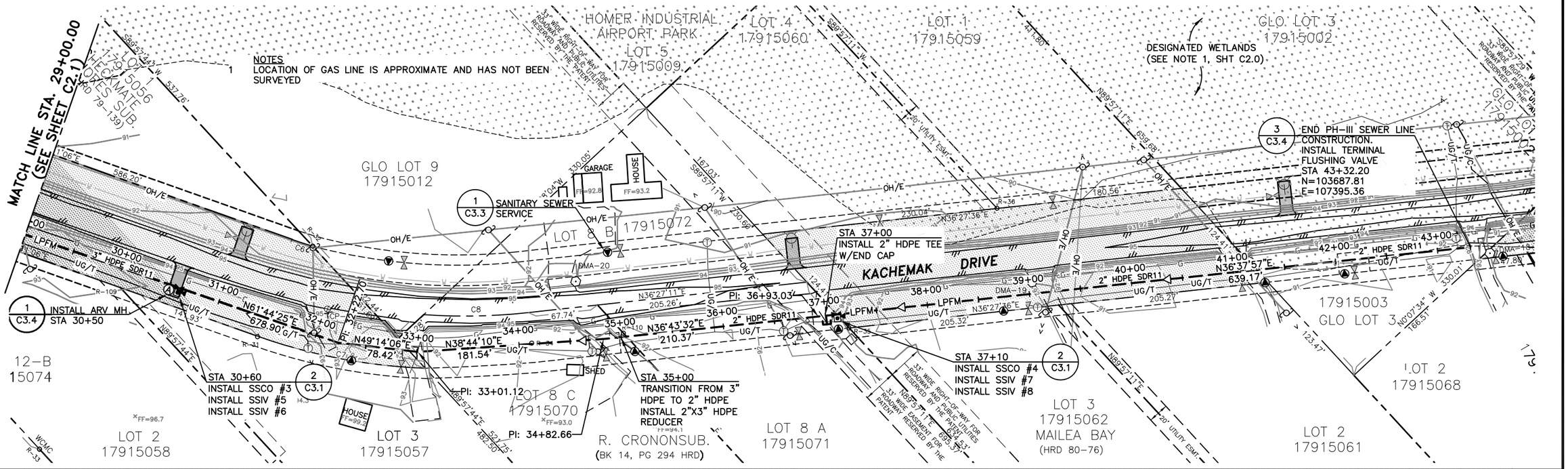

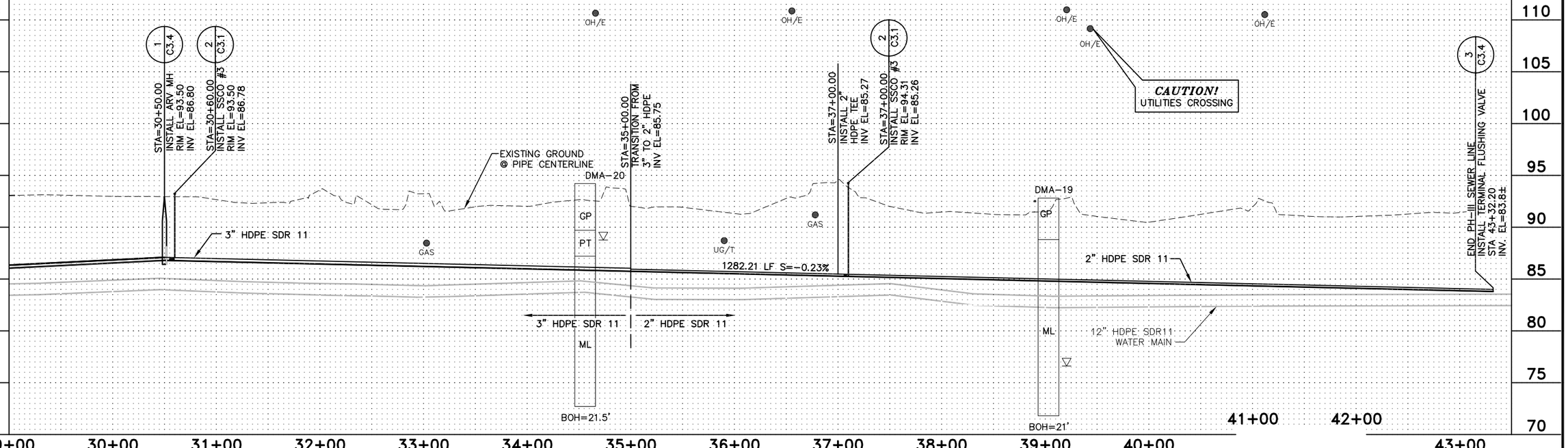

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HORIZONTAL SCALE IN FEET

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CITY OF HOMER – KACHEMAK DRIVE PHASE III SEWER IMPROVEMENTS

SEWER LINE PLAN & PROFILE STA 29+00.00 TO STA 43+32.20

SHEET NO. C2.2

SCALE: SHOWN | DESIGNED:RWB | CHECKED: KLP | DRAWN:RWB | DATE: JUNE 2016 | SHEET 10 OF 16

User: RBURDICK Jul 22, 2016 – 5:15pm
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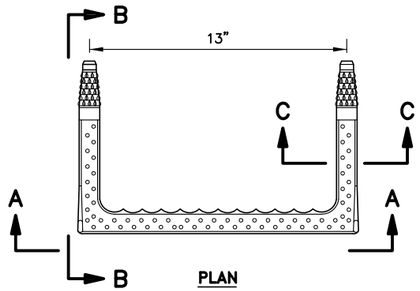
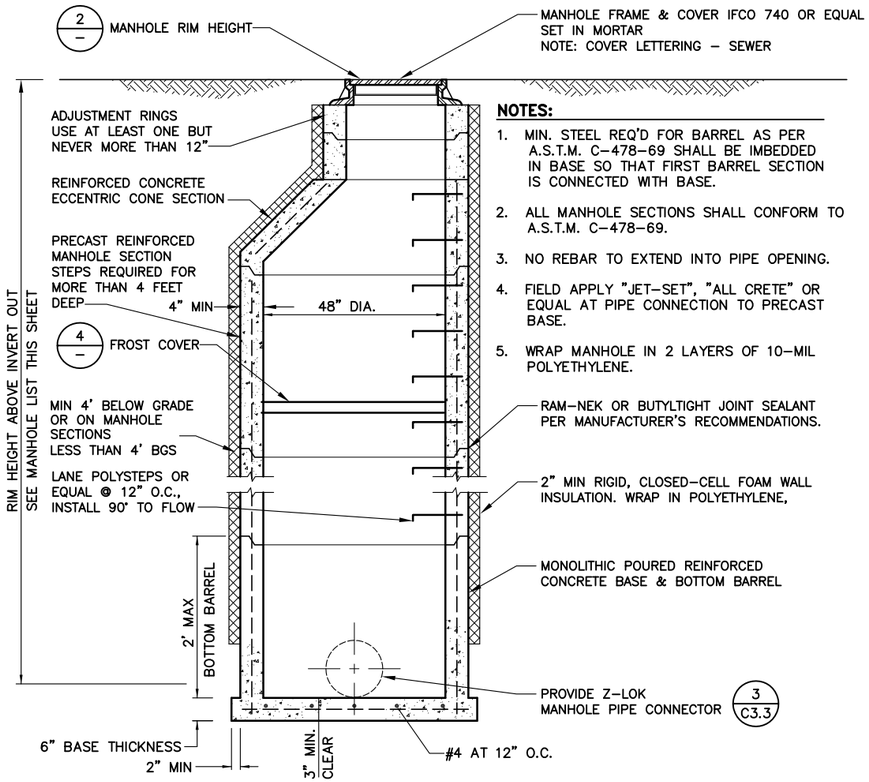
Xrefs: 32170019_PANDP.DWG 32170019_WETLAND_PHASEII-III.DWG 32170019_BASE.DWG – Images: None



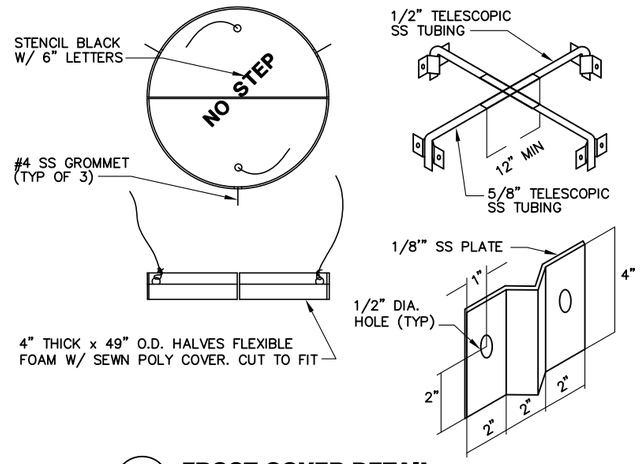
NOTES

1. DRIVE RUNG INTO PREFORMED OR DRILLED HOLES WITH A 6 TO 10 LB. SLEDGE HAMMER, AFTER CONCRETE IS CURED TO 3000 PSI MIN.
2. THE INSTALLED STEP SHALL RESIST A PULLOUT FORCE OF 1500 LBS.

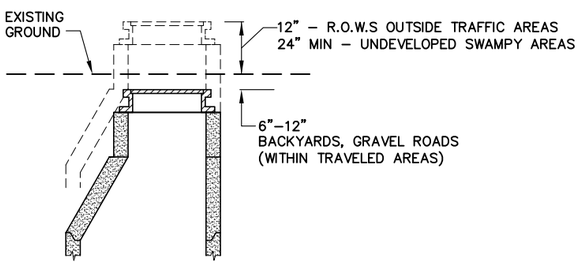
1/– MANHOLE STEP
SCALE: NTS



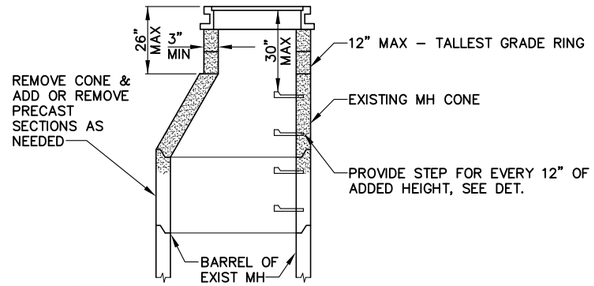
3/– ARV MANHOLE
SCALE: NTS



4/– FROST COVER DETAIL
SCALE: NTS



2/– MANHOLE RIM HEIGHT
SCALE: NTS



NOTES

1. WHEN AN ADJUSTMENT OF GREATER THAN 18" IN GRADE RINGS IS REQUIRED, ADJUST CONE RATHER THAN GRADE RINGS.
2. RESET CONCRETE GRADE RING IN FULL BED OF MORTAR.
3. REFER TO ASTM DESIGNATION C–478 FOR DESIGN AND STRENGTH REQUIREMENTS.
4. RESET CONE IN RAM–NEK OR EQUAL.
5. ADJUST FRAME TO ELEVATION SHOWN IN PLANS.

5/– MANHOLE CONE/RING ADJUSTMENT
SCALE: NTS

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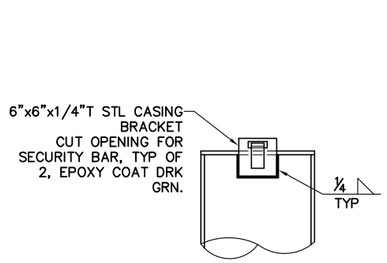
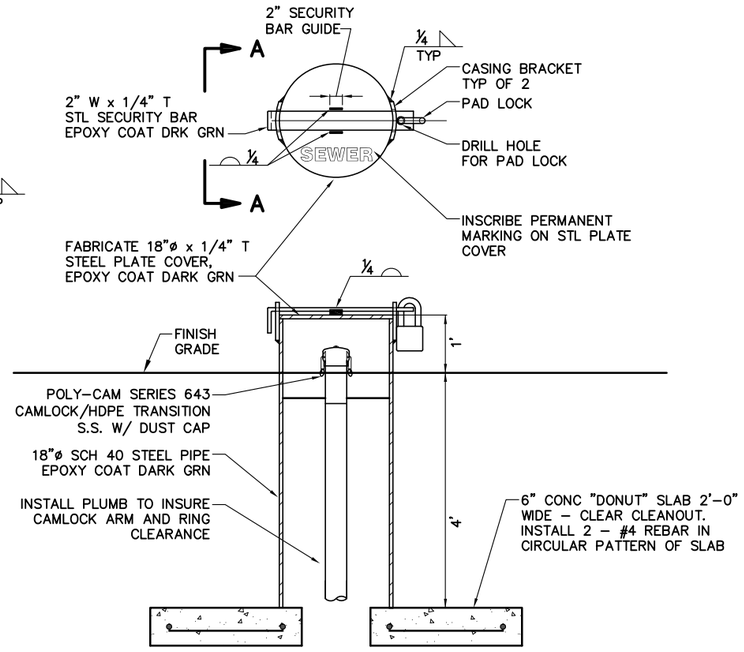
SANITARY SEWER TYPICAL DETAILS

SHEET NO.
C3.0

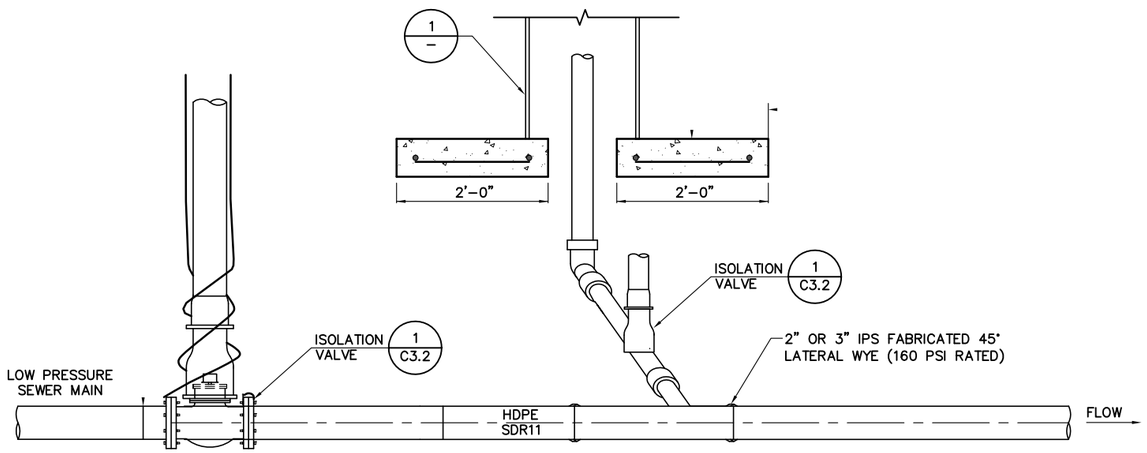
SCALE: SHOWN	DESIGNED:KLP	CHECKED: KLP	DRAWN:RWB	DATE: JULY 2016	SHEET 11 OF 16



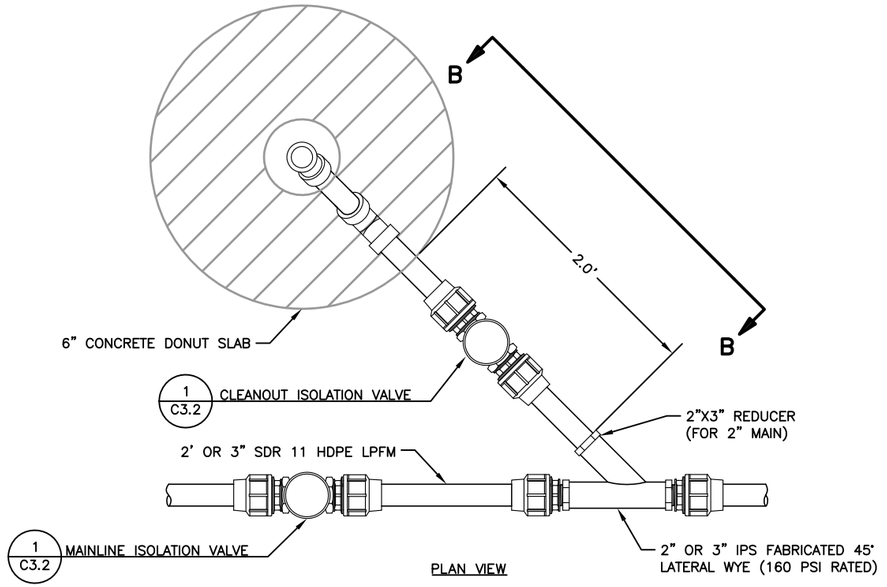
SECTION A–A



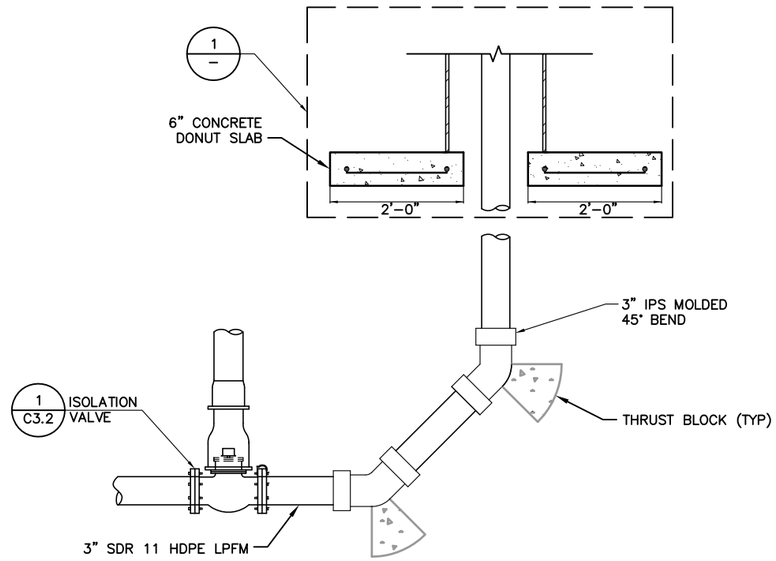
1/– SANITARY SEWER CLEANOUT ACCESS ASSEMBLY
SCALE: NTS



2/– SANITARY SEWER CLEANOUT
SCALE: NTS



PLAN VIEW



B/– SECTION
SCALE: NTS

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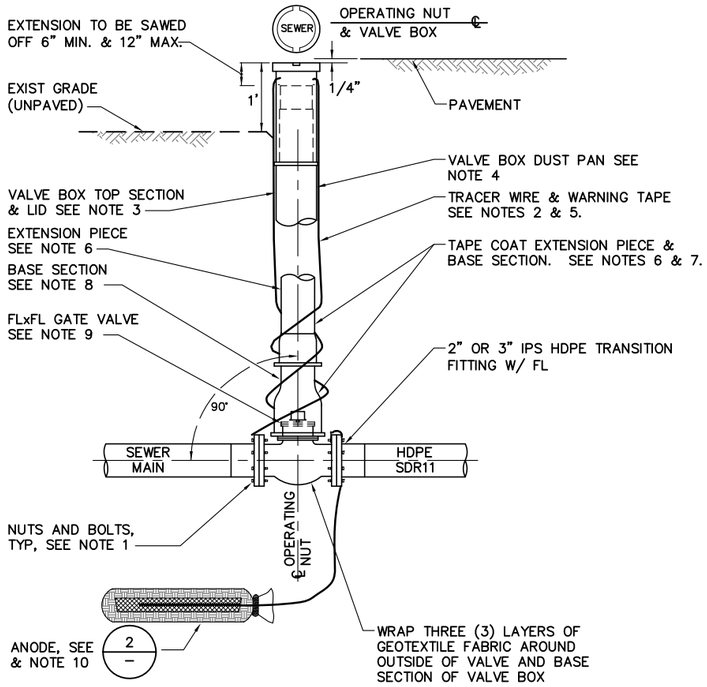
CITY OF HOMER – KACHEMAK DRIVE
PHASE III SEWER IMPROVEMENTS

SANITARY SEWER TYPICAL DETAILS

SHEET NO.
C3.1

SCALE: SHOWN	DESIGNED:KLP	CHECKED: KLP	DRAWN:RWB	DATE: JULY 2016	SHEET 12 OF 16

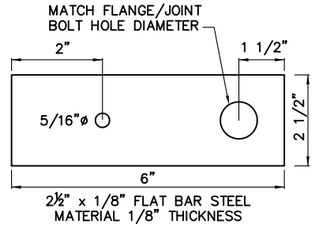


NOTES:

1. ALL CARBON STEEL BOLT THREADS SHALL BE COATED WITH TS MOLY–LUBRICANTS TS–74 STAINLESS ANTISEIZE, OR APPROVED EQUAL, IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
2. FURNISH & INSTALL TRACER WIRE DIRECTLY ON TOP OF AND SECURE TO THE SEWER MAIN. REFER TO THE SPECIAL PROVISIONS FOR TRACE WIRE SPECIFICATIONS.
3. LID AND TOP SECTION SHALL BE OLYMPIC FOUNDRY TYPE C OR APPROVED EQUAL.
4. VALVE BOX DUST PAN SHALL BE MADE OF 14 GAUGE HREW TUBE.
5. FURNISH & INSTALL TRACER WIRE AND WARNING TAPE PER THE SPECIAL PROVISIONS. REFER TO TYPICAL TRENCH DETAILS FOR LOCATION OF TRACER WIRE AND WARNING TAPE IN RELATION TO SEWER PIPE.
6. TAPE COAT EXTENSION PIECE AND BASE SECTION WITH DENSYL TAPE OR APPROVED EQUAL IN ACCORDANCE WITH THE SPECIFICATIONS. PRIME SURFACES WITH DENSO PASTE OR APPROVED EQUAL.
7. EXTENSION PIECE SHALL BE OLYMPIC FOUNDRY TYPE A, 10 FOOT SECTION OF 5" DIA. SINGLE HUB SOIL PIPE OR APPROVED EQUAL.
8. BASE SECTION SHALL BE OLYMPIC FOUNDRY TYPE B OR APPROVED EQUAL.
9. BONNET BOLTS ON ALL VALVES SHALL BE CARBON STEEL.

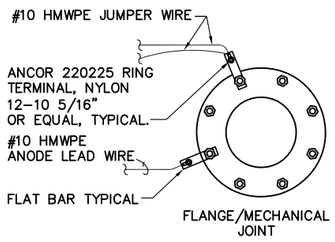
1 – SANITARY SEWER MAIN ISOLATION VALVE

SCALE: NTS



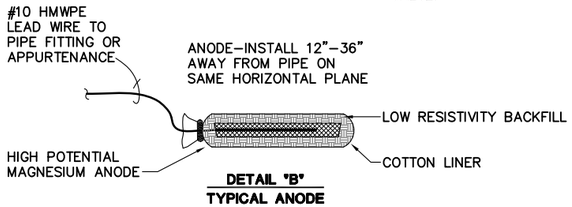
NOTES:

1. CONTRACTOR TO FABRICATE FLAT BAR.
2. WRAP TAPE AROUND RING CONNECTOR AND BOND STRAP (WIRE END ONLY).
3. WRAP ELECTRICAL INSULATION TAPE A MINIMUM OF 3" DOWN ON WIRE INSULATION TO ENCAPSULATE CONNECTION.



NOTES:

1. INSTALL FLAT BAR ON BODY SIDE OF FLANGE OR MECHANICAL JOINT. REMOVE COATING, AT THE FLAT BAR LOCATION, PRIOR TO INSTALLATION. METAL TO METAL CONTACT IS REQUIRED. REPAIR VISIBLE COATING DAMAGE PER SPECIFICATIONS.
2. CONNECT WIRE WITH COMPRESSION RING CONNECTOR AND 1/4"ø x 1" CARBON STEEL BOLT WITH WASHER AND SELF LOCKING NUT.
3. TWO #10 HMWPE BONDING WIRES REQUIRED TO CONNECT EACH VALVE.



DETAIL "B"
TYPICAL ANODE

ANODE INSTALLATION NOTES:

1. ANODE SHALL BE INSTALLED ON SAME HORIZONTAL PLANE AS WATER (OR SEWER) MAIN. IF VALVES ARE JUMPERED TOGETHER, INSTALL THE ANODE AT MIDPOINT BETWEEN THEM.
2. HIGH POTENTIAL MAGNESIUM ANODES SHALL BE PREPACKAGED IN A CLOTH BAG WITH A BACKFILL MIXTURE OF 75% GYPSUM, 20% BENTONITE AND 5% SODIUM SULFATE. THE ANODES SHALL HAVE A 20 lb. BARE WEIGHT AND APPROXIMATELY 70 lb. PACKAGED WEIGHT.
3. THE CONTRACTOR IS REQUIRED TO PROVIDE COORDINATES OR PIPE STATIONING FOR EACH ANODE INSTALLED.
4. ALL CABLES SHALL BE SINGLE CONDUCTOR, STRANDED COPPER, WITH TYPE HMWPE INSULATION RATED FOR 600 VOLTS.
5. SPLIT–BOLT CONNECTIONS SHALL NOT BE ALLOWED ON ANY UNDERGROUND CONDUCTORS. IF SPLICES ARE REQUIRED, COMPRESSION CONNECTIONS (BURNDY OR APPROVED EQUAL) SHALL BE USED. COMPRESSION CONNECTIONS SHALL BE SEALED WITH A HEAT SHRINK SLEEVE RATED FOR BELOW GRADE USE.
6. FURNISH AND INSTALL ANODES AS SHOWN IN DETAILS THIS SHEET. JUMPER ANODE TO NEARBY VALVES WHERE SHOWN ON THE DRAWINGS. FURNISH AND INSTALL ANODE AT EXISTING POINT OF CONNECTION FITTINGS, TYP.

2 – ANODE/BOND WIRE CONNECTION

SCALE: NTS

REVISIONS			
NO.	DATE	BY	DESCRIPTION

Project No. 32170019

Bristol ENGINEERING SERVICES CORPORATION
Phone (907) 563-0013 Fax (907) 563-6713

CITY OF HOMER, ALASKA
PUBLIC WORKS DEPARTMENT
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STATE OF ALASKA 49TH KYLE LINDEN PETERSEN No. CE–11250 REGISTERED PROFESSIONAL ENGINEER

CITY OF HOMER – KACHEMAK DRIVE
PHASE III SEWER IMPROVEMENTS

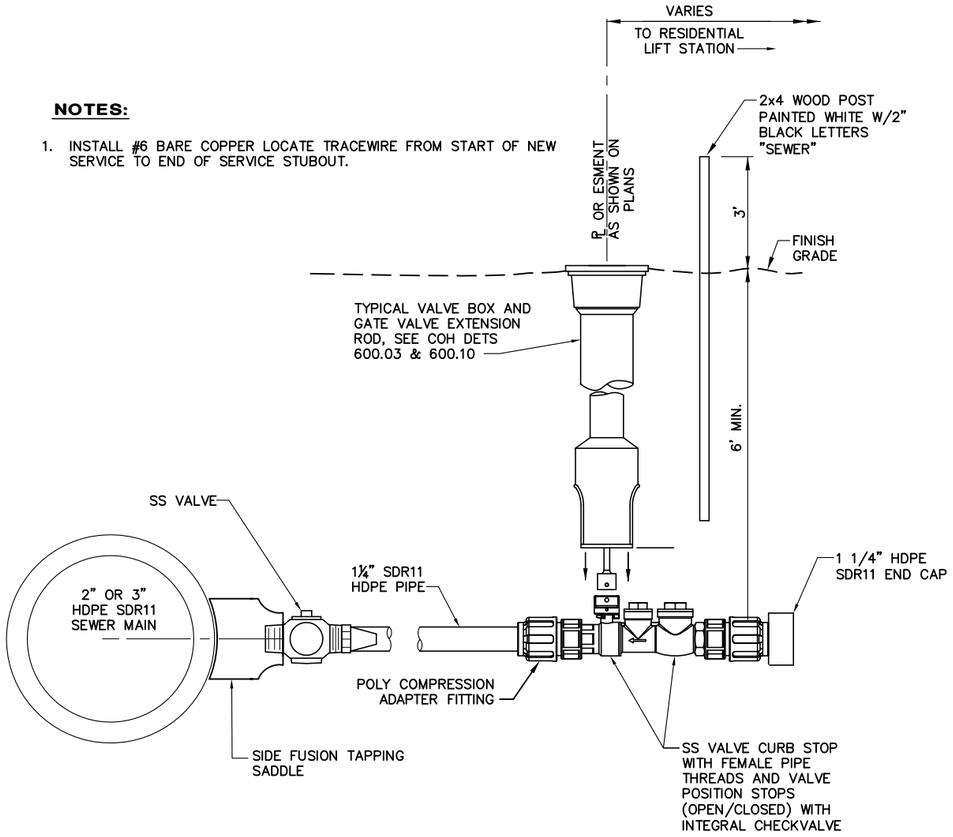
SANITARY SEWER TYPICAL DETAILS

SHEET NO.
C3.2

SCALE: SHOWN	DESIGNED:KLP	CHECKED: KLP	DRAWN:RWB	DATE: JULY 2016	SHEET 13 OF 16

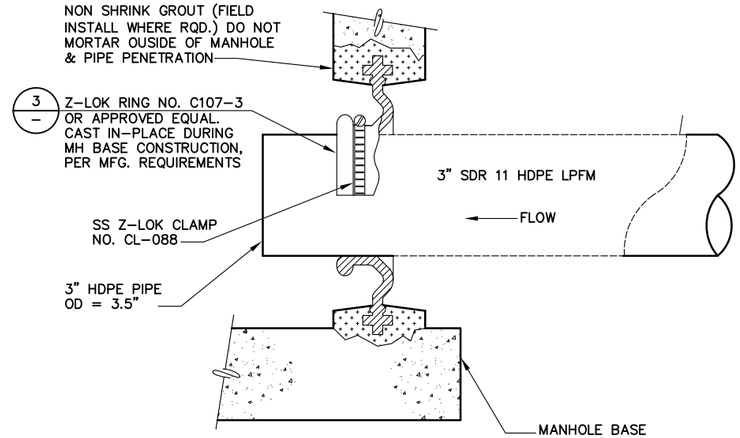
NOTES:

1. INSTALL #6 BARE COPPER LOCATE TRACEWIRE FROM START OF NEW SERVICE TO END OF SERVICE STUBOUT.



LOW PRESSURE FORCE MAIN SANITARY SEWER SERVICE CONNECT

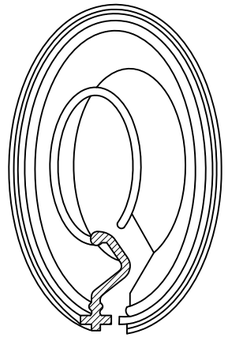
1 / – SCALE: NTS



NOTE:
MANHOLE PIPE CONNECTION TO PROVIDE A MIN PIPE DEFLECTION OF 25 DEGREES IN ANY DIRECTION & 3/4" OF VERTICAL OR HORIZONTAL MOVEMENT WITHOUT A LOSS OF SEAL.

MANHOLE PIPE CONNECTION

2 / – SCALE: NTS



Z-LOK RING DETAIL

3 / – SCALE: NTS

REVISIONS			
NO.	DATE	BY	DESCRIPTION

Project No. 32170019

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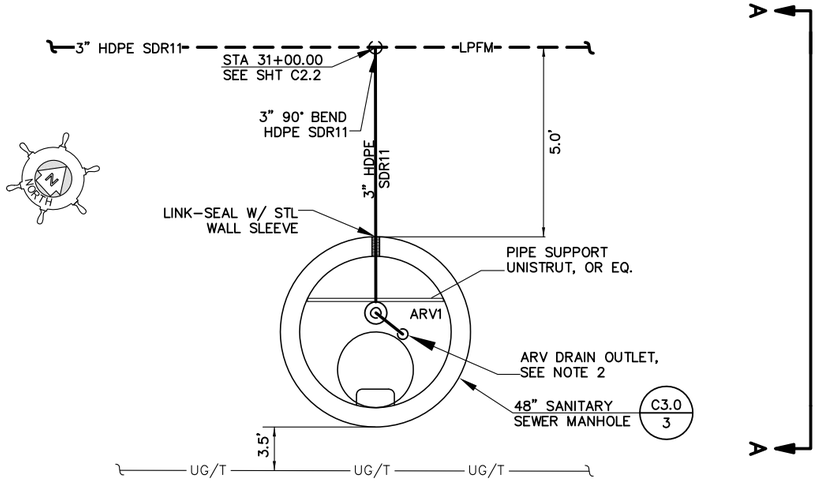
KYLE LINDEN PETERSEN
No. CE-11250
REGISTERED PROFESSIONAL ENGINEER

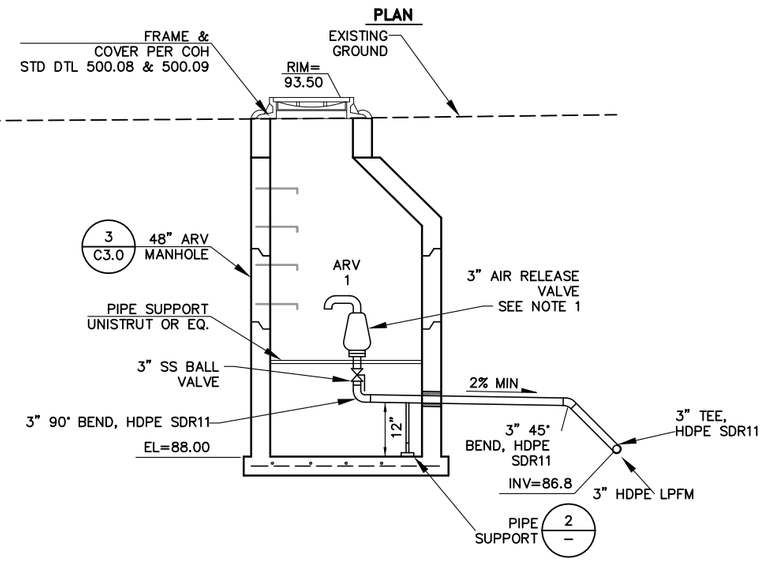
CITY OF HOMER – KACHEMAK DRIVE
PHASE III SEWER IMPROVEMENTS

SANITARY SEWER TYPICAL DETAILS

SHEET NO. C3.3

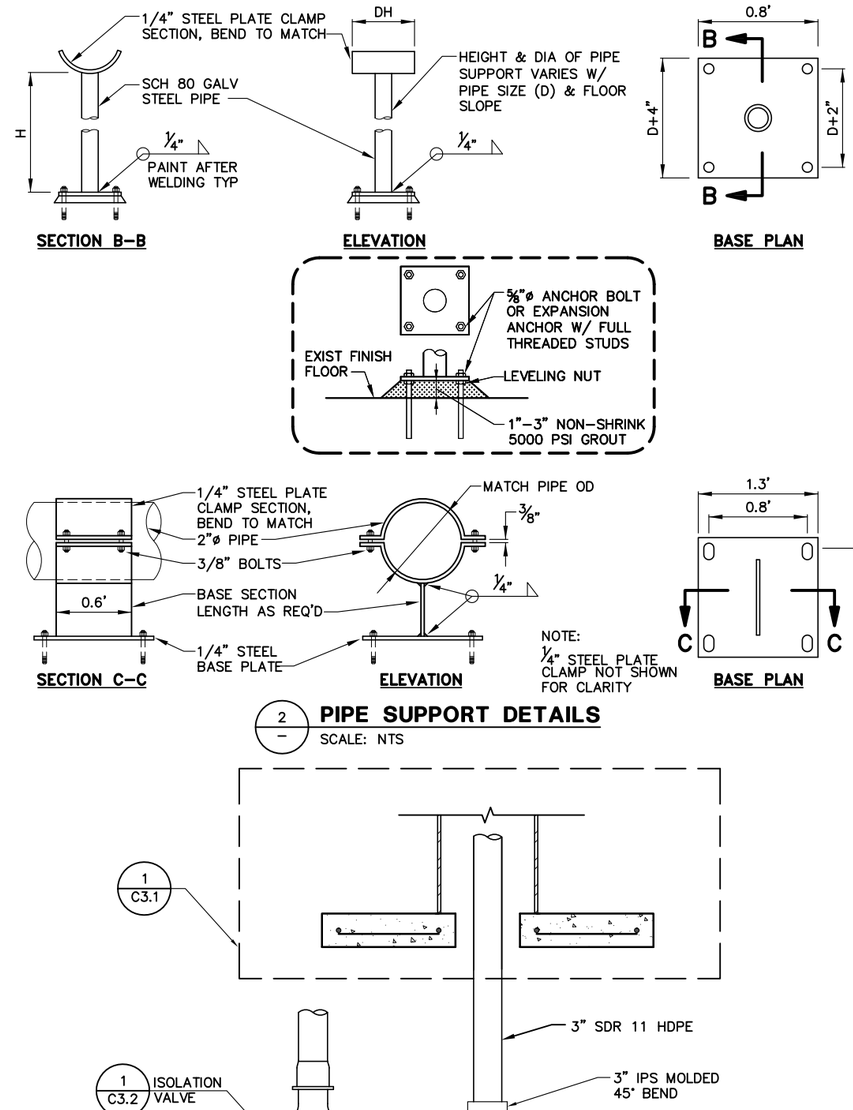
SCALE: SHOWN | DESIGNED:KLP | CHECKED: KLP | DRAWN:RWB | DATE: JULY 2016 | SHEET 14 OF 16



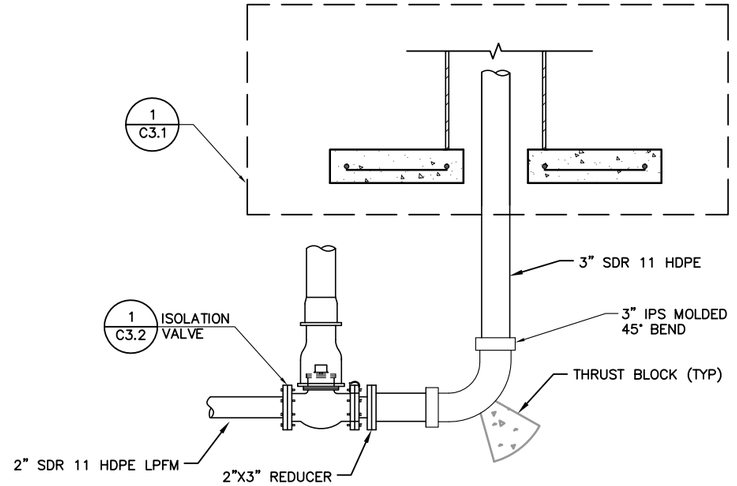


1. 3" FLOMATIC PRESSURE SEWER AIR RELASE VALVE, SEWAIR-MINI MODEL, PART# 6600 OR EQUAL.
2. DIRECT ARV DRAINAGE OUTLET AWAY FROM VALVES & MH STAIRS.

1 / – LOW PRESSURE FORCE MAIN AIR RELEASE VALVE
SCALE: NTS



2 / – PIPE SUPPORT DETAILS
SCALE: NTS



3 / – TERMINAL FLUSHING CONNECTION
SCALE: NTS

REVISIONS			
NO.	DATE	BY	DESCRIPTION

Project No. 32170019

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STATE OF ALASKA 49TH KYLE LINDEN PETERSEN No. CE-11250 REGISTERED PROFESSIONAL ENGINEER

CITY OF HOMER – KACHEMAK DRIVE
PHASE III SEWER IMPROVEMENTS

SANITARY SEWER TYPICAL DETAILS

SHEET NO. C3.4

SCALE: SHOWN | DESIGNED:KLP | CHECKED: KLP | DRAWN:RWB | DATE: JULY 2016 | SHEET 15 OF 16

SEWER SERVICE CONNECTION TABLE
KACHEMAK DRIVE

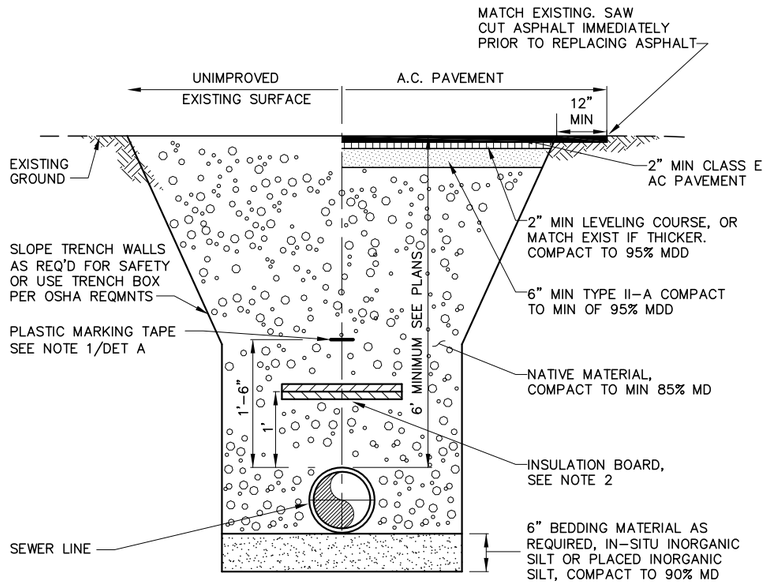
SVC. NO.	AP NO.	LOT	SHT NO	SWR LINE STA @ MAIN		OFFSET	B.O.P. @ P.L.	T.O.P. @ MAIN	SVC	ASBUILT COORDINATES (1)(2)	
				DESIGN	ASBUILT (2)		ASBUILT (2)	ASBUILT (2)		NORTH	EAST
1	17936005	GLO LOT 2	C2.0	6+42	"	15.0 R	"	"	1¼" PE	"	"
2	17936024	GLO LOT 2	C2.0	7+43	"	85.0 L	"	"	1¼" PE	"	"
3	17936006	LOT 3	C2.0	10+45	"	145.3 R	"	"	1¼" PE	"	"
~~4~~	~~17936007~~	~~LOT 2~~	~~C2.0~~	~~10+92~~	"	~~170.2 R~~	"	"	~~1¼" PE~~	"	"
5	17936016	LOT 1	C2.0	11+59	"	85.1 L	"	"	1¼" PE	"	"
6	17936008	LOT 1	C2.0	12+19	"	15.1 R	"	"	1¼" PE	"	"
7	17936023	LOT 2-A	C2.0	13+55	"	85.0 L	"	"	1¼" PE	"	"
8	17936026	LOT 1	C2.0	13+86	"	15.4 R	"	"	1¼" PE	"	"
9	17936027	LOT 2	C2.1	16+13	"	15.3 R	"	"	1¼" PE	"	"
10	17936017	LOT 1	C2.1	17+84	"	15.3 R	"	"	1¼" PE	"	"
11	17936018	LOT 2	C2.1	19+39	"	16.1 R	"	"	1¼" PE	"	"
12	17936020	LOT 4	C2.1	19+82	"	82.6 L	"	"	1¼" PE	"	"
13	17936019	LOT 3	C2.1	20+51	"	20.0 R	"	"	1¼" PE	"	"
14	17915047	LOT 13A	C2.1	22+39	"	18.0 R	"	"	1¼" PE	"	"
15	17915030	GLO LOT 13	C2.1	22+54	"	82.0 L	"	"	1¼" PE	"	"
16	17915082	LOT 13 B-1	C2.1	24+00	"	16.3 R	"	"	1¼" PE	"	"
17	17915081	LOT 12-A-1	C2.1	25+40	"	15.2 R	"	"	1¼" PE	"	"
18	17915011	GLO LOT 12	C2.1	25+46	"	85.0 L	"	"	1¼" PE	"	"
19	17915074	LOT 12-B	C2.1	25+72	"	15.1 R	"	"	1¼" PE	"	"
20	17915058	LOT 2	C2.1	28+04	"	16.7 R	"	"	1¼" PE	"	"
21	17915057	LOT 3	C2.2	32+38	"	15.9 R	"	"	1¼" PE	"	"
22	17915012	GLO LOT 9	C2.2	32+63	"	84.7 L	"	"	1¼" PE	"	"
23	17915072	LOT 8 B	C2.2	34+95	"	83.6 L	"	"	1¼" PE	"	"
24	17915070	LOT 8 C	C2.2	35+12	"	15.2 R	"	"	1¼" PE	"	"
25	17915071	LOT 8 A	C2.2	37+11	"	14.3 R	"	"	1¼" PE	"	"
26	17915062	LOT 3	C2.2	38+73	"	13.7 R	"	"	1¼" PE	"	"
27	17915061	LOT 2	C2.2	41+30	"	13.2 R	"	"	1¼" PE	"	"
28	17915003	GLO LOT 3	C2.2	42+08	"	12.8 R	"	"	1¼" PE	"	"
29	17915068	LOT 2	C2.2	43+62	"	12.1 R	"	"	1¼" PE	"	"

TO BE COMPLETED BY C.O.H.

NOTES

(1) ASBUILT NORTHINGS AND EASTINGS ARE PER C.O.H COORDINATE SYSTEM.

(2) TO BE COMPLETED BY THE PROJECT INSPECTOR.



NOTES:

1. PLASTIC MARKING TAPE IS REQUIRED FOR ALL PLASTIC OR NONFERROUS PIPE.

2. FOR TRENCH AND BOREHOLE LOCATIONS INSULATE WHERE SHOWN IN PROFILE, SEE C.O.H. STANDARD DETAIL 700.01. PROVIDE 1" OF INSULATION BOARD FOR EACH FOOT OF BURY LESS THAN MIN. SHOWN.

3. UPLAND TRENCH SECTION APPLIES TO SEWER LINE STA 1+00 TO STA 41+35.

1/– **TYPICAL TRENCH SECTION**
SCALE: NTS

REVISIONS			
NO.	DATE	BY	DESCRIPTION

Project No. 32170019

Bristol
ENGINEERING SERVICES CORPORATION
Phone (907) 563-0013 Fax (907) 563-6713

CITY OF HOMER, ALASKA
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3575 HEATH STREET
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STATE OF ALASKA · 49TH · KYLE LINDEN PETERSEN No. CE-11250 REGISTERED PROFESSIONAL ENGINEER

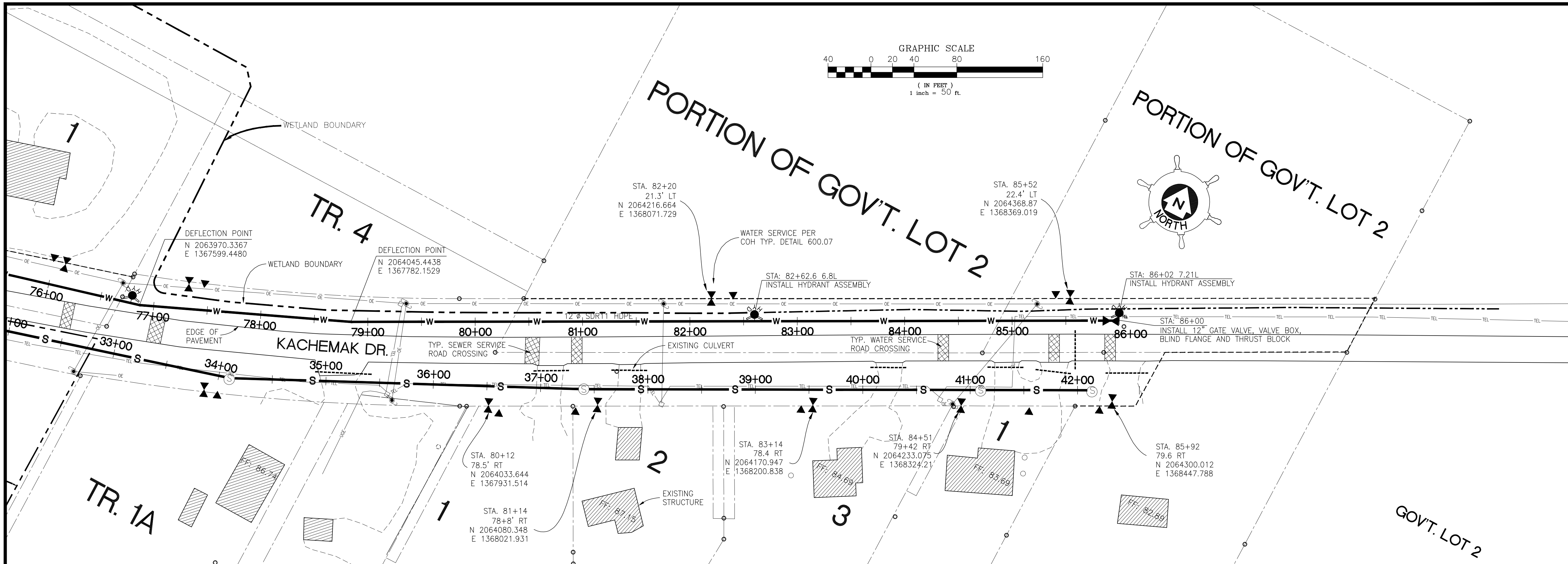
CITY OF HOMER – KACHEMAK DRIVE
PHASE III SEWER IMPROVEMENTS

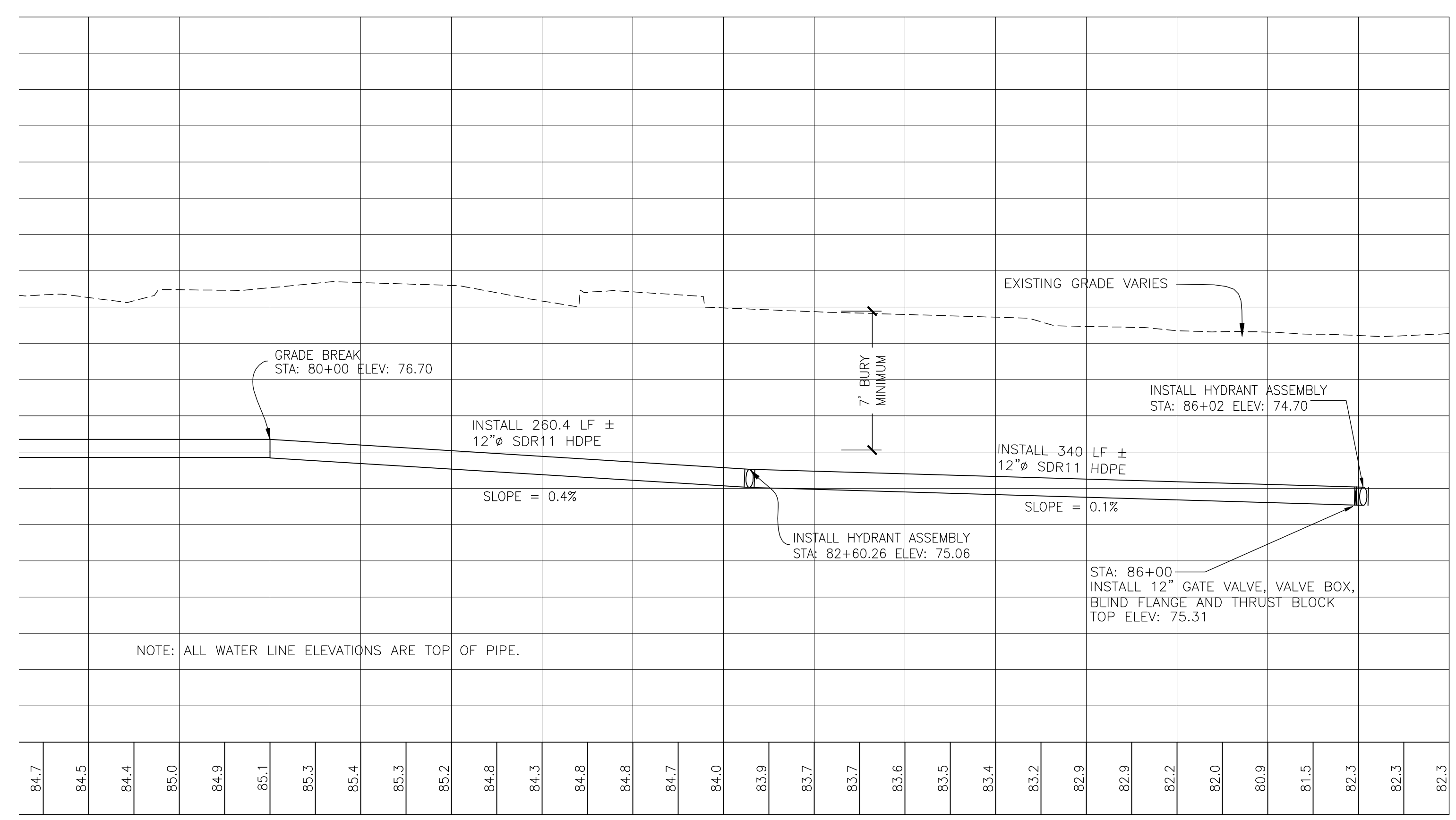
SANITARY SEWER CONNECTION TABLE AND TYPICAL DETAILS

SCALE: SHOWN | DESIGNED:KLP | CHECKED: KLP | DRAWN:RWB | DATE: JULY 2016

SHEET NO. C3.5

SHEET 16 OF 16





RECORD DRAWING:
WATER AND SEWER RECORD DRAWING INFORMATION WAS PROVIDED BY THE CONTRACTOR AND CITY OF HOMER. OTHER UTILITIES ARE FOR REFERENCE ONLY.

A/8 STA: 76+00 - 86+00 PLAN AND PROFILE
SCALE: 1"=50' 24x36, 1"=100' 11x17

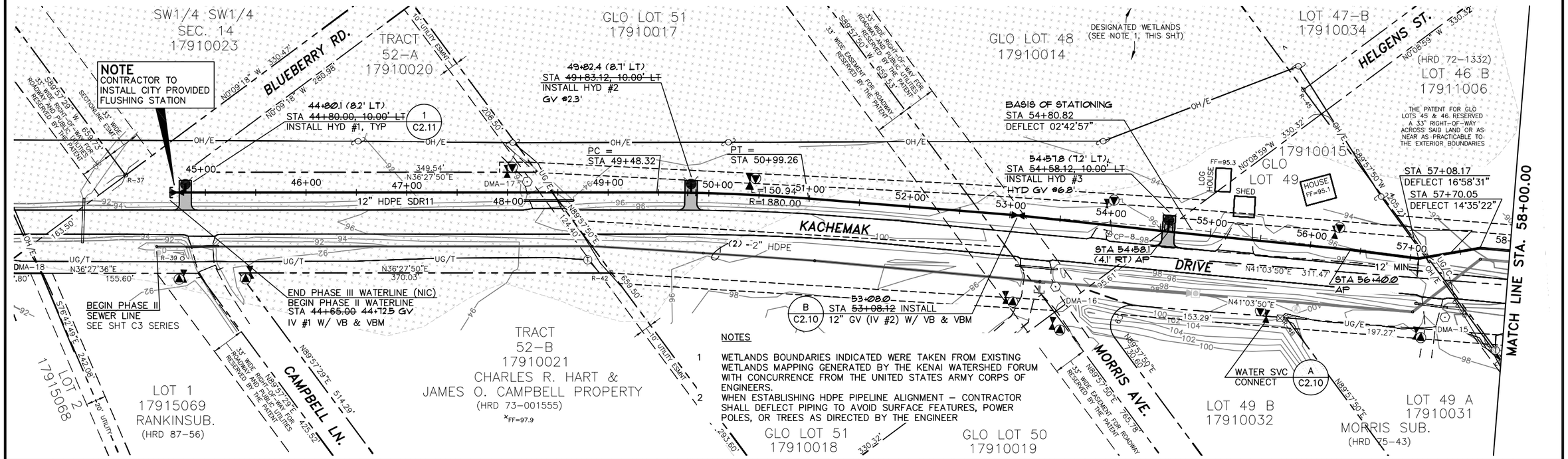
02566

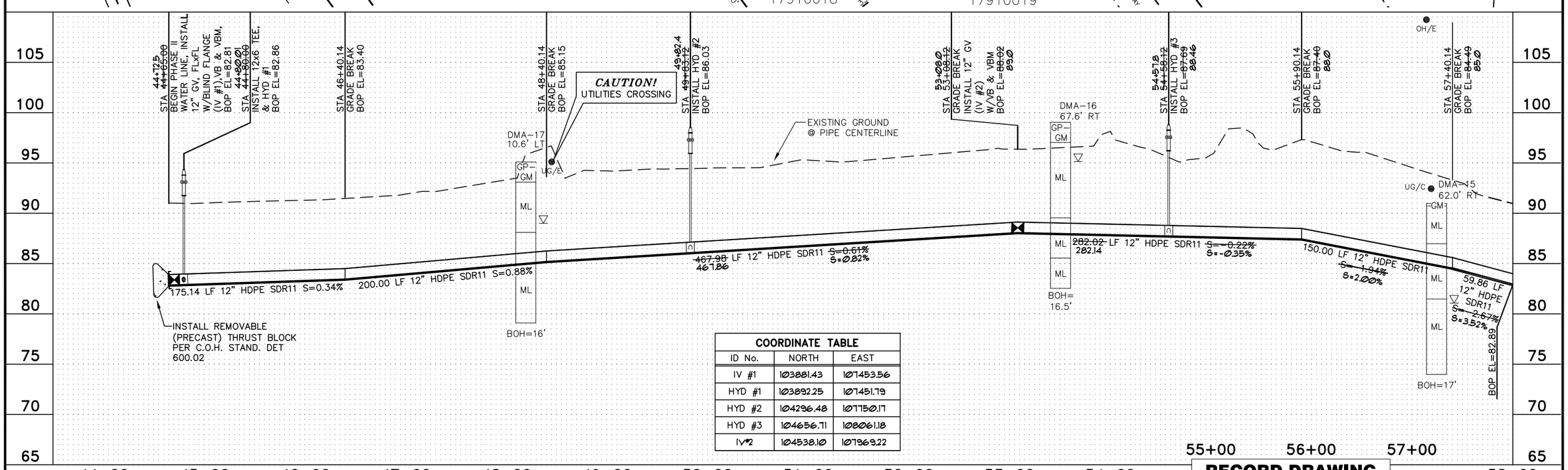
NO.	REVISION	DATE
1	REVISION	7/26/06
2	REVISION	11/13/06
	RECORD DRAWING	9/07

WILLIAM J. NELSON & ASSOCIATES
CONSULTING ENGINEERS - STRUCTURAL/CIVIL
155 BIDARKA ST.
KENAI, ALASKA
99611
(907) 283-3583

HOMER LID
CITY OF HOMER
KACHEMAK DRIVE WATER EXRENSION
PLAN AND PROFILE STA: 76+00 - 86+00

PROJECT NO. 0431
DRAWN BY: BWL
CHECKED BY: WJN
DATE: 6/20/06
SCALES: NOTED
HORIZ. NOTED
VERT. 1"=10'
SHEET





COORDINATE TABLE		
ID No.	NORTH	EAST
IV #1	103881.43	107453.56
HYD #1	103892.25	107451.79
HYD #2	104296.48	107750.17
HYD #3	104656.71	108061.18
IV#2	104538.10	107969.22

RECORD DRAWING

REVISIONS			
NO.	DATE	BY	DESCRIPTION
1	6/20/12	FJV	AS CONSTRUCTED

NORTH
50 0 25 50
HORIZONTAL SCALE IN FEET

Bristol
ENVIRONMENTAL & ENGINEERING SERVICES CORPORATION
Phone (907) 563-0013 Fax (907) 563-6713
Project No. 27098

CITY OF HOMER, ALASKA
PUBLIC WORKS DEPARTMENT
3575 HEATH STREET
HOMER, ALASKA 99603
PHONE: (907) 235-3170
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STATE OF ALASKA
49TH
FRANCIS VOGEL II
No. CE-4906
REGISTERED PROFESSIONAL ENGINEER
7/19/12

CITY OF HOMER – KACHEMAK DRIVE
PHASE II WATER AND SEWER IMPROVEMENTS

WATER LINE PLAN & PROFILE
STA 44+65.00 TO STA 58+00.00

SCALE: SHOWN | DESIGNED:SJW | CHECKED: FJV | DRAWN:SJW | DATE: 08/19/11

SHEET NO.
C2.0
03058
SHEET 10 OF 38