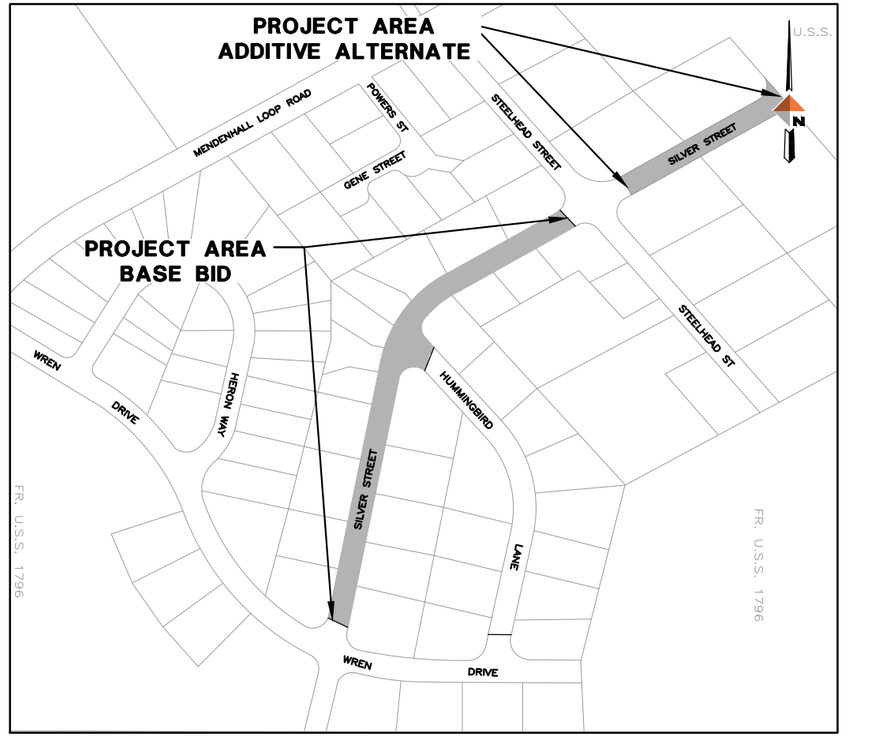
INDEX

SILVER STREET PAVING

CONTRACT NO. BE17-086



VICINITY MAP
NTS

CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY

PLANS DEVELOPED BY:
DOWL
5368 COMMERCIAL BOULEVARD
JUNEAU, ALASKA 99801
907-780-3533
AECL848

DOWL
Consulting Engineers • Land Surveyors • Construction Administration

SHEET NO.
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LEGEND

DESCRIPTION	EXISTING	REMOVE	PROPOSED
BURIED ELECTRICAL UTILITIES	E T		
CONTROL POINT			
CURB & GUTTER			
DITCH CENTERLINE			
DITCH TOP			
FENCE			
FIRE HYDRANT			
HOUSE NO	9333		
MAILBOX	MB	MB	MB OR MB MB
MATCH TO EXISTING GRAVEL DRIVE			
PROJECT CONTROL LINE			
PROPERTY LINE			
LIGHT POLE			
SANITARY SEWER PIPE			
SANITARY SEWER MANHOLE			MH-1
SHRUB			SEE SIGN ASSEMBLY TABLE
SIGN			
STORM DRAIN PIPE			S-1
SURVEY MONUMENT– REBAR W/ PLASTIC CAP			
TREE CONIFER			
TREE DECIDUOUS			
WATER LINE PIPE			
WATER VALVE BOX			

ABBREVIATIONS

AC	ASPHALT PAVING
ADOT&PF	ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BOP	BEGINNING OF PROJECT
CB	CATCH BASIN
CMP	CORRUGATED METAL PIPE
CPP	CORRUGATED POLYETHYLENE PIPE
CONC	CONCRETE
CTE	CONNECT TO EXISTING
DI	DUCTILE IRON
DIA	DIAMETER
EOP	END OF PROJECT
FL	FLOW LINE
FG	FINISHED GRADE
GV	GATE VALVE
INV	INVERT
LG	LIP OF GUTTER
LT	LEFT
MH	MANHOLE
MN	MAGNETIC NAIL
MTE	MATCH TO EXISTING
NO	NUMBER
NTS	NOT TO SCALE
PC	POINT OF CURVATURE
PT	POINT OF TANGENT
PVI	POINT OF VERTICAL INTERSECTION
POC	POINT ON CURVE
PCC	POINT OF COMPOUND CURVE
PVC	POLYVINYL CHLORIDE PIPE
ROW	RIGHT–OF–WAY
RT	RIGHT
SHLD	SHOULDER
STA	STATION
STD	STANDARD
TBC	TOP BACK OF CURB
TP	TOP OF PAVEMENT
TSW	TOP OF SIDEWALK
TTCP	TEMPORARY TRAFFIC CONTROL PLAN
UD	UNDER DRAIN

ABBREVIATIONS TO BE USED WITHOUT PERIODS

GENERAL NOTES

1. BEGIN SUBCUT AT 24 INCHES FROM PAVEMENT SAWCUT LINE AT STREET CONNECTIONS, UNLESS OTHERWISE SHOWN ON THE DRAWINGS, OR DIRECTED BY THE ENGINEER. REMOVE AND REPLACE BASE COURSE WITH 7–1/2 INCHES OF 2" MINUS SHOT ROCK/BASE COURSE TO 12 INCHES FROM PAVEMENT SAWCUT LINE. SAWCUT AS NECESSARY ALONG ALL STREET AND DRIVEWAY APPROACHES TO PROVIDE A NEAT MATCH LINE.
2. LARGE BOULDERS, STUMPS, LOGS, ORGANICS AND GROUND WATER MAY BE ENCOUNTERED AT VARIOUS DEPTHS DURING EXCAVATION OPERATIONS.
3. CONTRACTOR SHALL ASSURE GARBAGE PICKUP AND DAILY MAIL SERVICE WILL BE UNINTERRUPTED TO ALL RESIDENCES AFFECTED BY THIS PROJECT.
4. THE 4TH EDITION OF THE CBJ STANDARD DETAILS, DATED AUGUST 14 2011, IS MADE PART OF THIS CONTRACT, WITH CURRENT REVISIONS AS APPLICABLE.
5. ALL EXISTING STORM DRAIN PIPES (6 INCH DIAMETER AND LARGER), AND APPURTENANCES (TO BE ABANDONED) THAT ARE WITHIN THE STREET LIMITS, SHALL BE REMOVED AND DISPOSED OF, UNLESS OTHERWISE NOTED.
6. EXISTING PIPE LOCATIONS ARE DERIVED FROM CBJ AS–BUILTS OR FIELD LOCATED. ACTUAL LOCATIONS MAY VARY FROM THOSE SHOWN. DEPTH OF THE EXISTING PIPES SHOWN ON THE ELEVATIONS ARE ASSUMED. CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF EACH EXISTING SERVICE PIPE PRIOR TO INSTALLING THE STORM DRAIN PIPES. DIAL BEFORE YOU DIG 586–1333.
7. GRADING AND ALIGNMENT ARE SUBJECT TO MINOR REVISIONS BY THE ENGINEER.
8. LOCATION OF CULVERTS AND CULVERT LENGTHS ARE SUBJECT TO MINOR REVISIONS BY THE ENGINEER.
9. THE CONTRACTOR SHALL NOTIFY CBJ WATER UTILITIES AT 586–0393 OF ANY WATER MAIN INTERRUPTION.
10. PROPERTY LINE LOCATIONS USED IN THESE PLANS ARE DERIVED FROM RECORD PLATS AND DO NOT REPRESENT BOUNDARY SURVEY. EXISTING RECORD PLATS DO NOT CLOSE WITH EACH OTHER IN SOME CASES. THE PROPERTY LINES SHOWN ON THESE PLANS ARE A BEST FIT APPROXIMATION OF CLOSURE.
11. CONTRACTOR SHALL VERIFY LOCATION AND DEPTH OF EXISTING WATER AND SEWER PIPES TO DETERMINE PIPE INSULATION LOCATIONS, AND TO ENSURE DAMAGE DOES NOT OCCUR TO THE SERVICE PIPES. THE SERVICE LOCATIONS SHALL BE MARKED WITH PAINT WHERE CROSSINGS WITH THE NEW PIPING WILL OCCUR PRIOR TO PROCEEDING WITH THE PIPE INSTALLATION.
12. ALL ITEMS DESIGNATED TO BE REMOVED SHALL BE DISPOSED OF AT AN APPROVED DISPOSAL SITE, EXCEPT AS NOTED IN THE CONTRACT DOCUMENTS.
13. SAWCUT AS NECESSARY ALONG ALL DRIVEWAY APPROACHES TO PROVIDE A NEAT MATCH LINE.
14. CONTRACTOR SHALL REFERENCE ALL EXISTING PROPERTY CORNER MONUMENTS (I.E. REBARS, CONCRETE NAILS, BRASS CAP MONUMENT AND ETC.) PRIOR TO CONSTRUCTION, REMONUMENT AFTER SURFACING IS REPLACED, AND SUBMIT A RECORD OF MONUMENT TO THE ENGINEER. ALL WORK SHALL BE DONE BY, OR UNDER THE DIRECTION OF, AN ALASKA REGISTERED LAND SURVEYOR.
15. ALL ASPHALT AND CHIP SEAL PAVEMENT TO BE REMOVED AND DISPOSED OF SHALL BE DELIVERED TO A STOCKPILE AREA AT THE LEMON CREEK CITY PIT TO BE DESIGNATED BY THE ENGINEER. CONTACT THE ENGINEER FOR THE EXACT LOCATION OF THE STOCKPILE.
16. AEL&P, ACS, AND GCI MAY CONDUCT WORK WITHIN THE PROJECT LIMITS TO RELOCATE UTILITIES AND UPGRADE THEIR RESPECTIVE SYSTEMS. THE CONTRACTOR SHALL COORDINATE ITS ACTIVITIES WITH EACH UTILITY COMPANY AND PROVIDE ACCESS AS NECESSARY FOR UTILITY COMPANIES TO CONDUCT THEIR WORK.
17. THE CONTRACTOR SHALL RESTRICT ITS COMPACTION AND OTHER VIBRATION INDUCING OPERATIONS AS NECESSARY TO ASSURE NO DAMAGE OCCURS TO ADJACENT BUILDINGS OR STRUCTURES. REFER TO SECTION 01530, ARTICLE 1.7 FOR FURTHER REQUIREMENTS.
18. THE PLAN SHEETS DO NOT SHOW ALL OF THE TREES AND OTHER VEGETATION THAT WILL BE ENCOUNTERED DURING CONSTRUCTION ACTIVITIES. NO TREES OR OTHER VEGETATION ARE TO BE REMOVED OR DAMAGED, UNLESS SHOWN ON THE DRAWINGS OR DIRECTED BY THE ENGINEER.
19. THE CONTRACTOR SHALL NOT STORE MATERIALS OR EQUIPMENT, OR OPERATIVE EQUIPMENT WITH ITS TRACKS OR WHEELS PLACED ON PRIVATE PROPERTY, WITHOUT WRITTEN APPROVAL OF THE PROPERTY OWNER.
20. THE CONTRACTOR SHALL NOTIFY EACH RESIDENT OF EACH DRIVEWAY CLOSURE THE DAY PRECEDING THE DAY THE DRIVEWAY IS TO BE CLOSED TO VEHICULAR ACCESS. THE RESIDENT SHALL BE INFORMED OF THE PERIOD OF TIME THE CLOSURE WILL BE IN EFFECT. NO DRIVEWAY CLOSURES WILL BE PERMITTED UNTIL THIS REQUIREMENT HAS BEEN MET TO THE SATISFACTION OF THE ENGINEER.
21. "JUMPING JACK" OR SIMILAR TYPE COMPACTORS SHALL BE USED TO THOROUGHLY COMPACT ALL LAYERS OF MATERIAL AROUND WATER VALVE BOXES, CATCH BASINS, MANHOLES AND OTHER STRUCTURES.

STATE OF ALASKA 49th Naomi R. Hobbs No.CE9959 12/15/16 REGISTERED PROFESSIONAL ENGINEER

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JOB No. J70784.03 | DRAWN BY: STAFF | DESIGNED BY: STAFF | CHECKED BY: STAFF | DATE: DEC. 2016

CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
DEPARTMENT OF ENGINEERING

SILVER STREET PAVING
CONTRACT NO. BE17-086

LEGEND, ABBREVIATIONS, AND GENERAL NOTES

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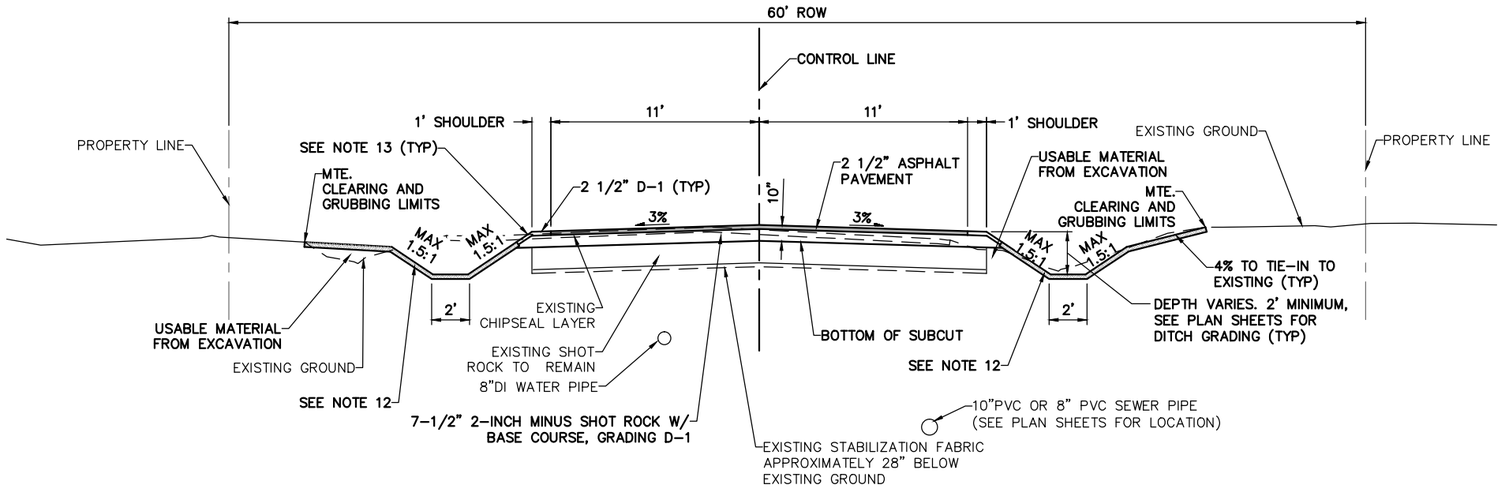

TYPICAL SECTION BOP TO EOP

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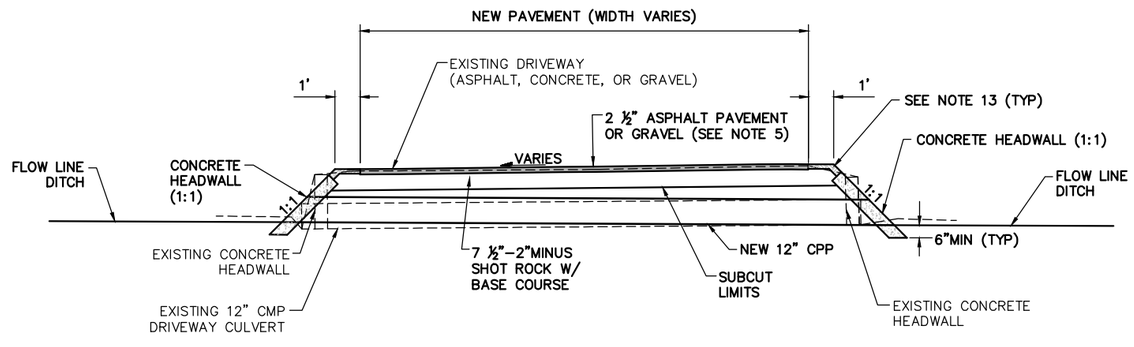

TYPICAL SECTION- DRIVEWAY

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NOTES FOR TYPICAL SECTION

1. IF EXISTING SOILS WITHIN THE PLANNED SUBCUT LAYER ARE FOUND TO BE SUITABLE, AS DETERMINED BY THE ENGINEER, THE DEPTH OF EXCAVATION AND BACKFILL MAY BE DECREASED.
2. SEE HORIZONTAL AND VERTICAL CONTROL, ROAD LAYOUT AND GRADE DRAWINGS FOR GRADING DETAILS.
3. UNDERGROUND ELECTRICAL AND STORM SERVICES NOT SHOWN ON TYPICAL SECTION. SEE PLAN SHEETS FOR LOCATIONS.
4. ALL FILL AREAS BEYOND SUBCUT LIMITS SHALL BE BACKFILLED WITH SUITABLE MATERIAL FROM EXCAVATION AND GRADED TO DRAIN, AS APPROVED BY THE ENGINEER.
5. DRIVEWAYS DISTURBED DURING CONSTRUCTION SHALL BE RECONSTRUCTED TO EQUAL, OR BETTER CONDITION WITH SUBGRADE REPLACED IN LAYERS TO MATCH THOSE REMOVED EXCEPT:

   A) PAVED DRIVEWAYS SHALL BE SUBCUT TO 10 INCHES BELOW FINISH GRADE AND REPLACED WITH 7-1/2 INCHES OF 2-INCH SHOT ROCK W/ BASE COURSE, AND 2-1/2 INCHES OF A.C. PAVEMENT FOR DRIVEWAYS. SUBCUT SETBACKS FROM SAWCUT LINES FOR DRIVEWAYS SHALL BE 6".

   B) GRAVEL DRIVEWAYS SHALL BE SUBCUT TO 10 INCHES BELOW FINISH GRADE AND REPLACED WITH 7-1/2 INCHES OF 2"-MINUS SHOT ROCK WITH BASE COURSE, AND 2-1/2 INCHES OF A.C. PAVEMENT FOR A 24-FT WIDE BY 2-FOOT APRON AT THE EDGE OF ROADWAY. THE APRON SHALL BE CENTERED ON THE EXISTING DRIVEWAY UNLESS OTHERWISE SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. FINISH THE REMAINING AREA WITH 2-1/2 INCHES OF BASE COURSE, GRADING D-1.

   C) ORGANICS, ROOTS, WOOD OR OTHER DELETERIOUS MATERIALS ENCOUNTERED IN THE DRIVEWAYS DURING EXCAVATION OPERATIONS SHALL NOT BE REPLACED, BUT SHALL BE DISPOSED OF AT AN APPROVED DISPOSAL SITE. BACKFILL VOIDS BELOW THE REQUIRED SUBBASE LAYER WITH USABLE MATERIAL FROM EXCAVATION.

6. THE BASE COURSE LAYER SHALL BE 5-1/2" TO 6-1/2" OF 2-INCH MINUS SHOT ROCK WITH 1" TO 2" TOP LAYER OF BASE COURSE, GRADING D-1 FOR A TOTAL THICKNESS OF 7-1/2". THE 2-INCH MINUS SHOT ROCK SHALL BE WELL COMPACTED PRIOR TO PLACING THE BASE COURSE GRADING D-1.
7. BASE COURSE, GRADING D-1, MAY BE USED FOR THE FULL DEPTH OF THE BASE COURSE UNDER THE DRIVEWAYS AS A NO COST SUBSTITUTION.
8. CATCH LINE FOR USABLE MATERIAL AND TOPSOIL WILL VARY IN DISTANCE FROM RIGHT-OF-WAY LINES. PLACE AND GRADE THESE MATERIALS TO PROVIDE A SMOOTH, WELL DRAINED TRANSITION TO EXISTING GRADES, AS DIRECTED BY THE ENGINEER. SEE PLAN DRAWINGS FOR APPROXIMATE CATCH LINES.
9. ASPHALT THICKNESS FOR DRIVEWAY APPROACHES AND DRIVEWAYS SHALL BE 2 ½".
10. APPROXIMATE LIMITS FOR TOPSOIL AND SEEDING ARE SHOWN ON PLAN VIEW DRAWINGS. ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES NOT RESURFACED WITH ASPHALT PAVEMENT OR CONCRETE SHALL BE GRADED TO A UNIFORM, WELL DRAINED APPEARANCE AND COVERED WITH TOPSOIL AND SEEDED, AS DIRECTED BY THE ENGINEER.
11. THE CONTRACTOR SHALL USE GRADING HUBS ALONG THE FLOW LINE OF THE NEW DITCH AT 50' MAXIMUM SPACING TO ENSURE EVEN FLOW BETWEEN CULVERT ENDS AS SHOWN ON THE DRAWINGS AND AS DIRECTED BY THE ENGINEER.
12. THE CONTRACTOR SHALL SCARIFY THE SURFACE AND HYDROSEED ALL DISTURBED AREAS. TOPSOIL SHALL ONLY BE USED IN LAWN AREAS OUTSIDE OF DITCH, AND TO COVER EXPOSED ROCK WITHIN DITCH SECTION.
13. CAP OUTER EDGE OF 2-INCH MINUS SHOT ROCK WITH 4 INCHES ± BASE COURSE, GRADING D-1.

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TYPICAL SECTION

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CORROSION PROTECTION SPECIFICATIONS AND NOTES:

ANODES

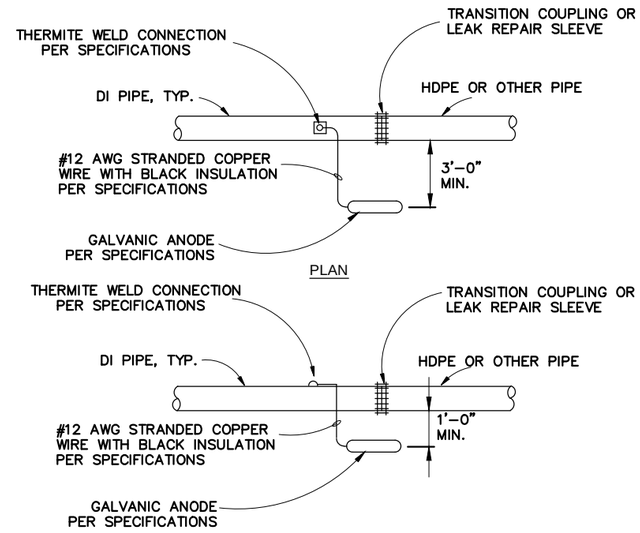
1. ANODES SHALL BE 18# BARE WEIGHT ZINC WITH PREPACKAGED ANODE BACKFILL.
2. ACCEPTABLE ANODE MODELS ARE:
   a. MODEL NO. ZUR–18 FROM FARWEST INDUSTRIES
   b. MODEL S18 FROM MESA PRODUCTS
   c. APPROVED EQUAL
3. INSTALL TYPE, SIZE, AND NUMBER OF ANODES SPECIFIED.
4. INSTALL 2 ANODES TO ALL CONNECTIONS TO EXISTING C.I. OR D.I. PIPE 12–INCH DIAMETER AND LARGER.
5. CONDUCTOR WIRE SHALL BE A MINIMUM SIZE OF 12 AWG STRANDED COPPER WITH INSULATION SUITABLE FOR WET LOCATION DIRECT BURIAL AND SHALL BE A MINIMUM OF 10 FEET LONG FROM ANODE.
6. PREPACKAGED ANODE SHALL BE SATURATED WITH WATER PRIOR TO BACKFILL.
7. ANODES SHALL BE PLACED IN NATIVE EARTH BACKFILL. DO NOT PLACE IN PIPE BEDDING MATERIAL.

THERMITE (EXOTHERMIC) WELDING

1. THERMITE WELD MATERIALS SHALL BE DESIGNED FOR CONNECTION OF COPPER TO DUCTILE IRON AND CAST IRON SURFACES AND SHALL BE INSTALLED PER MANUFACTURERS INSTRUCTIONS.
2. ACCEPTABLE MANUFACTURES OF THERMITE WELD PRODUCTS ARE:
   a. CADWELD BY ERICO PRODUCTS INC.
   b. THERMOWELD BY CONTINENTAL INDUSTRIES INC.
   c. APPROVED EQUAL
3. A 2–INCH SQUARE AREA IN THE PIPE SURFACE SHALL BE GROUND CLEAN PER MANUFACTURERS RECOMMENDATIONS PRIOR TO THERMITE WELDING.
4. WIRE ENDS SHALL HAVE PROPER ADAPTER SLEEVES TO ENSURE PROPER BOND. #12 AWG SHALL HAVE ADAPTER SLEEVES SPECIFIED BY THERMITE WELD MANUFACTURER. FIELD INSTALLED SLEEVES SHALL HAVE WIRE CONDUCTOR EXTEND ¼–INCH BEYOND ENDS OF SLEEVE.
5. WIRE CONNECTION SHALL BE TESTED FOR INTEGRITY PRIOR TO COATING.
6. CONTINUITY STRAPS SHALL BE #2 AWG COPPER STRANDED WIRE WITH THW INSULATION AND SHALL BE ATTACHED TO THE PIPE BY THERMITE WELDING AND COATED AND SEALED AS DESCRIBED BELOW.

COATING AND SEALING

1. ALL THERMITE WELDS SHALL BE PROTECTED AND SEALED BY:
   a. PREFABRICATED THERMITE WELD CAPS, SIZED ACCORDING TO WIRE SIZE, MINIMUM DIMENSIONS OF 4–INCH BY 4–INCH FILLED WITH ELASTOMERIC MASTIC COATING OR,
   b. HEAT SHRINK SLEEVE PIPE ENCASEMENT AFTER COATING THERMITE WELD WITH ELASTOMERIC MASTIC COATING – HEAT SHRINK SLEEVE SHALL BE CANUSA AQUA SEAL OR APPROVED EQUAL.
2. ALL PIPE SURFACE COATING DAMAGED BEYOND THE WELD CAPS OR HEAT SHRINK SHALL BE COATED WITH PROTAL 7125 FROM DENSO NORTH AMERICA OR APPROVED EQUAL.



GALVANIC ANODE INSTALLATION FOR EXISTING METALLIC PIPE CONNECTIONS OR LEAK REPAIR LOCATIONS DETAIL

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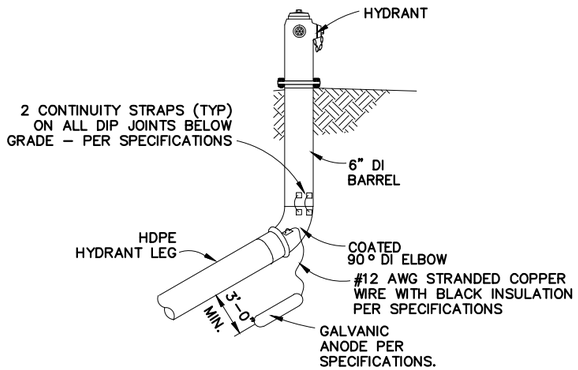

GALVANIC ANODE INSTALLATION AT HYDRANT ASSEMBLIES W/ HDPE

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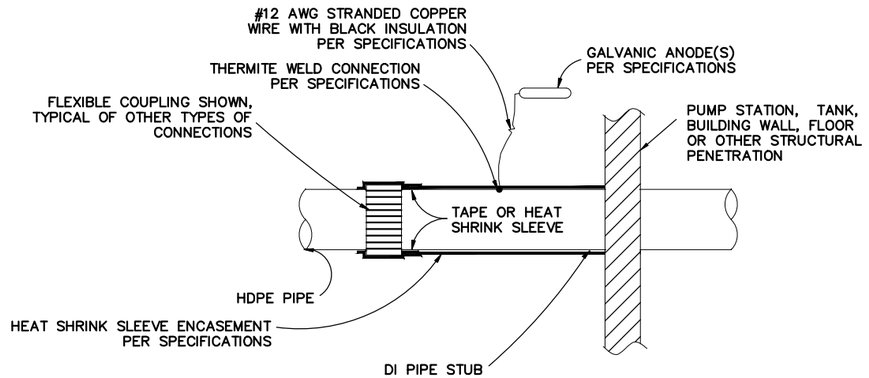

ENCASED METAL PIPE STUB BETWEEN PLASTIC PIPE, FEXIBLE COUPLING AND CONCRETE STRUCTURE CONNECTION

NTS

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SILVER STREET PAVING
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CORROSION PROTECTION DETAILS

SHEET NO. 4 of 19

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SIGN ASSEMBLY TABLE

NO.	LOCATION	MUTCD DESIGNATION OR DESCRIPTION	LEGEND AND COMMENTS
1	STA "S" 10+35.3, 20.8 LT	R1-1	"STOP" (30"X30") W/ STREET NAMES (SEE NOTE E)
2	STA "S" 18+75.7, 44.0 RT	R1-1	"STOP" (30"X30") W/ STREET NAMES (SEE NOTE F)

A) ALL SIGNS TO BE CONSTRUCTED IN ACCORDANCE WITH THE CITY & BOROUGH STANDARD DETAIL NO. 127.

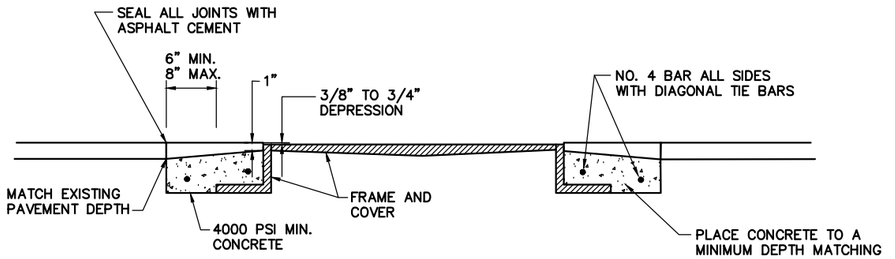
B) ALL SIGNS TO BE LOCATED AS DIRECTED BY THE ENGINEER.

C) FOR ALL NEW SIGN ASSEMBLIES, SALVAGE ALL SIGN PANELS AND DELIVER TO CBJ STREETS MAINTENANCE SHOP. DISPOSE OF ALL EXISTING POSTS AND POST SOCKETS. REPLACE ALL POST ASSEMBLY MATERIALS.

D) ALL NEW POSTS SHALL BE "TELSPAR", OR APPROVED EQUAL AND SHALL BE PRE-PUNCHED WITH ALL KNOCKOUTS REMOVED.

E) SIGN ASSEMBLY TO REMAIN. NO WORK REQUIRED.

F) REMOVE EXISTING SIGN ASSEMBLY AND RESET TO NEW OFFSET LOCATION WITH NEW POST SOCKET.



CONCRETE SHALL CURE FOR 48 HOURS MINIMUM BEFORE PLACING PAVEMENT OVERLAY

*THIS TRANSITION SLAB WILL NOT BE REQUIRED IF DEPRESSION TO COVER LUGS OR FRAME, WHICHEVER IS HIGHER, MEETS THE REQUIRED DEPRESSION RANGE FOLLOWING THE FINISH PAVING OPERATIONS

TRANSITION SLAB W/ ASPHALT PAVEMENT OVERLAY

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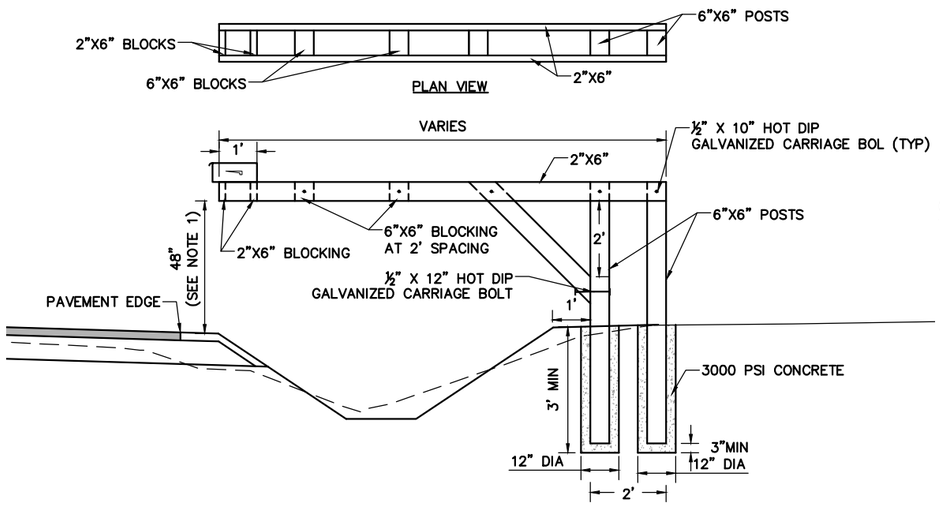

CANTILEVERED MAILBOX

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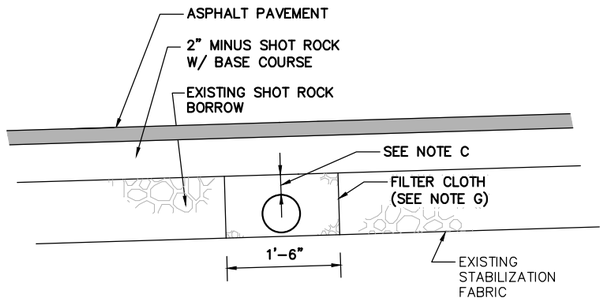

6-INCH UNDERDRAIN

NTS

A. OUTFALL CONNECTIONS WILL BE INTO DITCHES.

B. UPPER END OF PIPES SHALL BE CAPPED AND THE FILTER CLOTH FOLDED AND OVERLAPPED TO SEAL END OF DRAINAGE ROCK SECTION. VARIES AS DIRECTED BY THE ENGINEER.

C. VARIES 6" TO 8", AS DETERMINED BY THE ENGINEER.

D. MINIMUM PIPE GRADIENT SHALL BE 1%.

E. ADDITIONAL LENGTH MAY BE ADDED, AS DETERMINED BY THE ENGINEER.

F. CONTRACTOR SHALL NOT DAMAGE EXISTING STABILIZATION FABRIC.

G. FILTER CLOTH MAY BE OMITTED DURING CONSTRUCTION, AS APPROVED BY THE ENGINEER.

PAVING SEQUENCE REQUIREMENTS:

1. LAYDOWN OPERATIONS MAY BEGIN IN EITHER LANE AND AT EITHER END OF PROJECT.
2. THE EDGE OF PAVEMENT ALONG THE CENTERLINE SHALL NOT BE ALLOWED TO DROP BELOW 200'F PRIOR TO THE ASPHALT MIX FROM THE ADJACENT LANE BEING PLACED AGAINST THIS JOINT.
3. LAYDOWN OPERATIONS SHALL NOT PROCEED UNTIL ALL RESIDENTS ALONG SILVER STREET HAVE BEEN NOTIFIED OF THE PERIOD OF TIME THAT VEHICULAR ACCESS TO AND FROM THEIR RESIDENCE WILL BE UNAVAILABLE.

RECONSTRUCT MAILBOX TABLE

HOUSE NUMBER	LOCATION	COMMENTS
10130	STA "S" 11+51, 12' LT	SINGLE
10128 / 10126	STA "S" 12+50, 12' LT	DOUBLE
10122**	STA "S" 13+70, 12' LT	SINGLE
10121*	STA "S" 14+65, 12' LT	SINGLE
10118	STA "S" 14+90, 12' LT	SINGLE
10117	STA "S" 15+60, 12' LT	SINGLE
10115	STA "S" 17+30, 12' LT	SINGLE
10111	STA "S" 18+55, 12' LT	SINGLE
4949 (HUMMINGBIRD)	STA "S" 18+55, 81' RT	SINGLE
10109	STA "S" 18+90, 12' LT	SINGLE
10105	STA "S" 20+27, 12' LT	SINGLE
10104	STA "S" 20+96, 12' RT	SINGLE
10103 / 10101	STA "S" 22+30, 12' LT	DOUBLE
10102	STA "S" 22+76, 12' RT	SINGLE
10100	STA "S" 23+61, 12' RT	SINGLE

STATION AND OFFSET FOR NEW MAILBOX LOCATIONS ARE GIVEN TO THE FRONT FACE OF THE MAILBOX RECEPTACLE.

CONTRACTOR SHALL STAKE MAILBOX POST LOCATION FOR APPROVAL BY THE ENGINEER.

REINSTALL EXISTING MAILBOX AND NEWSPAPER RECEPTACLES TO NEW POST ASSEMBLIES. IF THE RECEPTACLES ARE DAMAGED BY THE CONTRACTOR, NEW RECEPTACLES OF SAME SIZE AND COLOR AND NEW HOUSE NUMBERS SHALL BE PROVIDED BY THE CONTRACTOR.

GANG (DOUBLE) MAILBOX ASSEMBLIES SHALL BE MEASURED FOR PAYMENT UNDER PAY ITEM 2719.1. RECONSTRUCT MAILBOX, AS ONE PAY UNIT.

MAIL DELIVERY SERVICE SHALL NOT BE INTERRUPTED AND ACCESS TO EACH MAILBOX RECEPTACLE SHALL BE AVAILABLE TO THE UNITED STATES POSTAL SERVICE AND THE RESIDENTS AT ALL TIMES.

EXISTING MAILBOXES THAT ARE MOVED BY THE CONTRACTOR SHALL HAVE TEMPORARY SUPPORTS PROVIDED AS REQUIRED FOR CONTINUED USAGE.

CONSTRUCT MAILBOXES PER DETAIL 'CANTILEVERED MAILBOX' ON SHEET 5.

*CONSTRUCT TO MATCH EXISTING MAILBOX POST DESIGN

**SALVAGE AND REUSE EXISTING MAILBOX RECEPTACLE

CANTILEVERED MAILBOX NOTES:

1. MAINTAIN 48" UNOBSTRUCTED CLEARANCE BENEATH CANTILEVERED ARM (NOT INCLUDING DEPTH OF DITCH).
2. MAILBOXES INSTALLED ON ROADWAYS WITHOUT CURB & GUTTER SHALL BE INSTALLED 12" BEYOND THE TRAVELED WAY.
3. REFLECTORS SHALL BE RED AND HAVE A MINIMUM AREA OF 4.5 SQ. IN. REFLECTORS SHALL BE ACRYLIC PRISMATIC TYPE AND CONFORM TO AASHTO M290, OR REFLECTIVE SHEETING TYPE AND CONFORM TO AASHTO M268, TYPE II OR III.
4. ALL WOOD USED IN MAILBOX INSTALLATION SHALL BE PRESSURE TREATED FOR GROUND CONTACT. ALL CUTS AND DRILLED HOLES SHALL BE TREATED WITH PENTACHLOROPHENAL OR EQUAL.
5. NEWSPAPER RECEPTACLES, ETC. MAY BE ATTACHED ON THE SIDE OF THE CANTILEVERED ARM. NO ATTACHMENTS ARE ALLOWED UNDER THE CANTILEVERED ARM TO MAINTAIN CLEARANCE.

NOTES FOR TRAFFIC CONTROL:

1. ALL TRAFFIC TO BE CONTROLLED PER THE REQUIREMENTS OF THE ALASKA TRAFFIC MANUAL (U.S. DEPARTMENT OF TRANSPORTATION "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND THE ALASKA SUPPLEMENT).
2. ALL DETOURS SHALL BE AS APPROVED BY THE ENGINEER.
3. ROAD CLOSURES WILL BE PERMITTED ONLY AS APPROVED BY THE ENGINEER.
4. THE CONTRACTOR WILL NOT BE PERMITTED TO OBSTRUCT VEHICULAR TRAFFIC BETWEEN THE HOURS OF 4:30pm AND 8:00am SEVEN DAYS A WEEK. DURING THIS PERIOD, TWO LANES SHALL BE OPEN TO VEHICULAR TRAFFIC AND WITH A MINIMUM TOTAL WIDTH OF 18 FEET.
5. PROVIDE ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES.
6. A MINIMUM OF ONE LANE (9 FOOT MINIMUM WIDTH) SHALL BE KEPT OPEN TO VEHICULAR TRAFFIC AT ALL TIMES, EXCEPT A FIVE (5) MINUTE MAXIMUM STOPPAGE TO VEHICULAR TRAFFIC WILL BE PERMITTED, WITH NO MORE THAN ONE TRAFFIC STOPPAGE PER HOUR.
7. PEDESTRIAN TRAFFIC SHALL BE AVAILABLE ALONG AT LEAST ONE SIDE OF THE STREET AT ALL TIMES. THE PEDESTRIAN PATHWAY SHALL BE CLEARLY MARKED AND SHALL SATISFY THE REQUIREMENTS AS DESCRIBED IN THE SPECIAL PROVISIONS.

STATE OF ALASKA 49th Naomi R. Hobbs No.CE9959 12/15/16 REGISTERED PROFESSIONAL ENGINEER

DOWL
Consulting Engineers • Land Surveyors • Construction Administration
PLANS DEVELOPED BY:
DOWL
5368 COMMERCIAL BOULEVARD
JUNEAU, ALASKA 99801
907-780-3533
AECL848

JOB No. J70784.03 | DRAWN BY: STAFF | DESIGNED BY: STAFF | CHECKED BY: STAFF | DATE: DEC. 2016

CITY/BOROUGH OF JUNEAU ALASKA'S CAPITAL CITY
DEPARTMENT OF ENGINEERING

SILVER STREET PAVING
CONTRACT NO. BE17-086

TRAFFIC CONTROL NOTES, TABLES, PAVING SEQUENCE REQUIREMENTS, AND DETAILS

SHEET NO. 5 of 19

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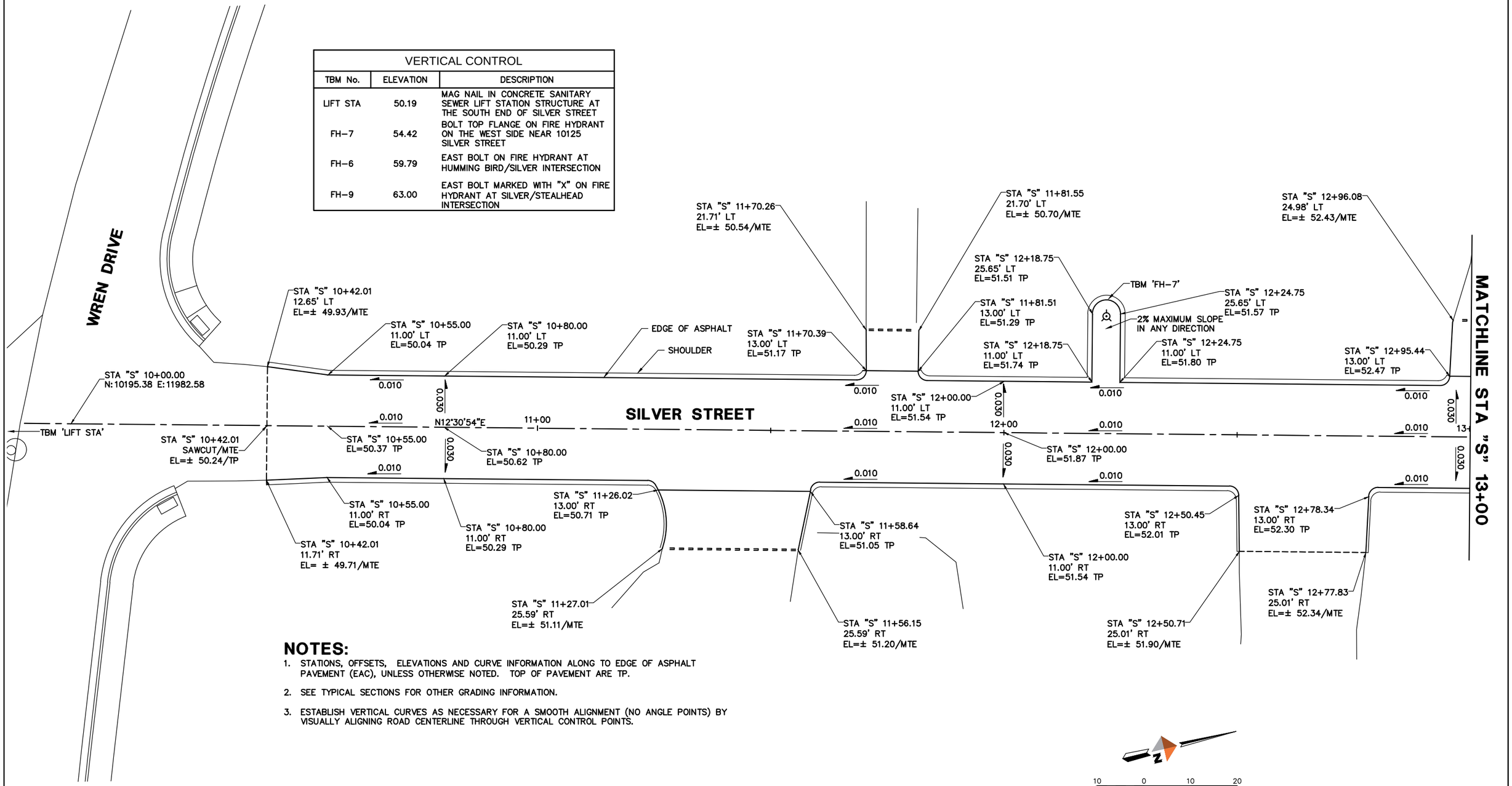
VERTICAL CONTROL		
TBM No.	ELEVATION	DESCRIPTION
LIFT STA	50.19	MAG NAIL IN CONCRETE SANITARY SEWER LIFT STATION STRUCTURE AT THE SOUTH END OF SILVER STREET
FH-7	54.42	BOLT TOP FLANGE ON FIRE HYDRANT ON THE WEST SIDE NEAR 10125 SILVER STREET
FH-6	59.79	EAST BOLT ON FIRE HYDRANT AT HUMMING BIRD/SILVER INTERSECTION
FH-9	63.00	EAST BOLT MARKED WITH "X" ON FIRE HYDRANT AT SILVER/STEALHEAD INTERSECTION



NOTES:

1. STATIONS, OFFSETS, ELEVATIONS AND CURVE INFORMATION ALONG TO EDGE OF ASPHALT PAVEMENT (EAC), UNLESS OTHERWISE NOTED. TOP OF PAVEMENT ARE TP.
2. SEE TYPICAL SECTIONS FOR OTHER GRADING INFORMATION.
3. ESTABLISH VERTICAL CURVES AS NECESSARY FOR A SMOOTH ALIGNMENT (NO ANGLE POINTS) BY VISUALLY ALIGNING ROAD CENTERLINE THROUGH VERTICAL CONTROL POINTS.

STATE OF ALASKA 49th Naomi R. Hobbs No.CE9959 12/15/16 REGISTERED PROFESSIONAL ENGINEER

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CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
DEPARTMENT OF ENGINEERING

SILVER STREET PAVING
CONTRACT NO. BE17-086

HORIZONTAL AND VERTICAL CONTROL
ROAD LAYOUT AND GRADES
WREN DRIVE TO STA "S" 13+00

SHEET NO.
6
of
19

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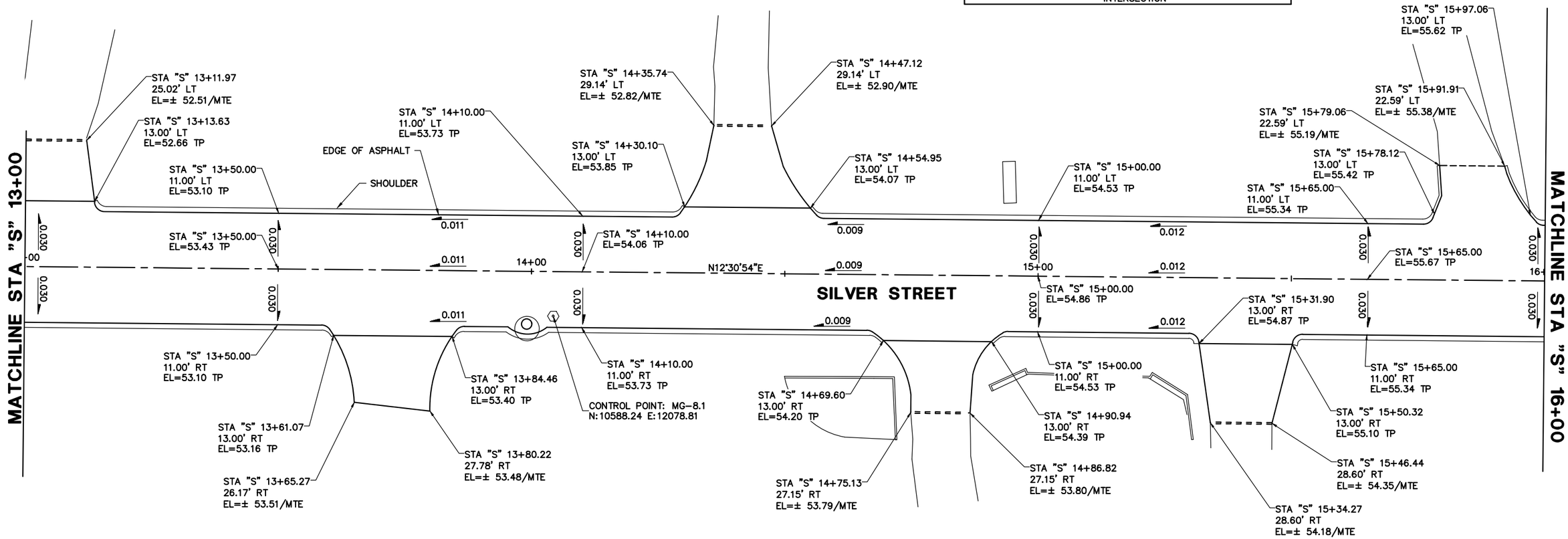
NOTES:

1. STATIONS, OFFSETS, ELEVATIONS AND CURVE INFORMATION ARE TO EDGE OF ASPHALT PAVEMENT (EAC), UNLESS OTHERWISE NOTED. TOP OF PAVEMENT ARE TP.
2. SEE TYPICAL SECTIONS FOR OTHER GRADING INFORMATION.
3. ESTABLISH VERTICAL CURVES AS NECESSARY FOR A SMOOTH ALIGNMENT (NO ANGLE POINTS) BY VISUALLY ALIGNING ROAD CENTERLINE THROUGH VERTICAL CONTROL POINTS.

VERTICAL CONTROL		
TBM No.	ELEVATION	DESCRIPTION
LIFT STA	50.19	MAG NAIL IN CONCRETE SANITARY SEWER LIFT STATION STRUCTURE AT THE SOUTH END OF SILVER STREET
FH–7	54.42	BOLT TOP FLANGE ON FIRE HYDRANT ON THE WEST SIDE NEAR 10125 SILVER STREET
FH–6	59.79	EAST BOLT ON FIRE HYDRANT AT HUMMING BIRD/SILVER INTERSECTION
FH–9	63.00	EAST BOLT MARKED WITH "X" ON FIRE HYDRANT AT SILVER/STEALHEAD INTERSECTION



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CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
DEPARTMENT OF ENGINEERING

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SILVER STREET PAVING
CONTRACT NO. BE17-086

HORIZONTAL AND VERTICAL CONTROL
ROAD LAYOUT AND GRADES
STA "S" 13+00 TO STA "S" 16+00

SHEET NO. 7 of 19

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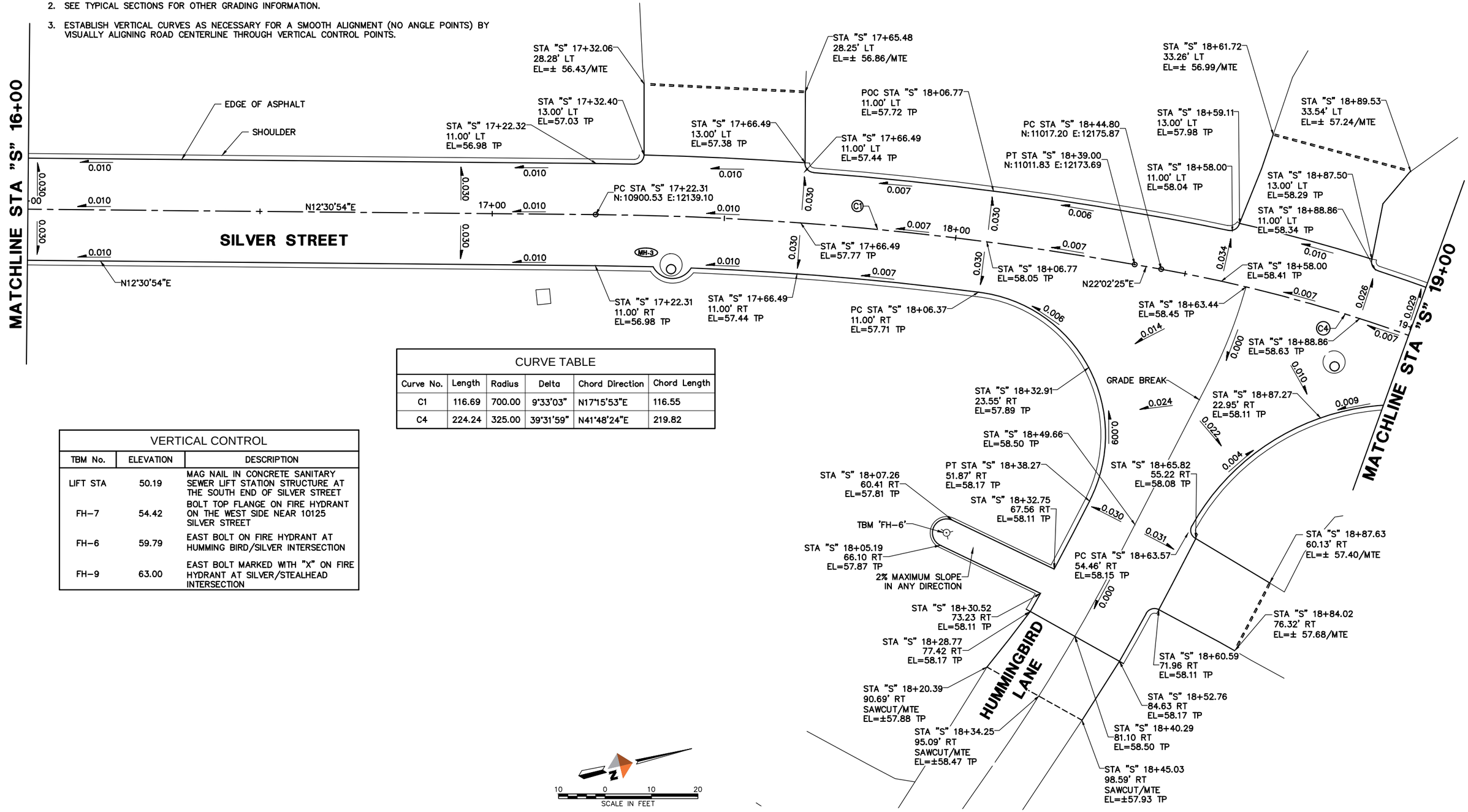
NOTES:

1. STATIONS, OFFSETS, ELEVATIONS AND CURVE INFORMATION ARE TO EDGE OF ASPHALT PAVEMENT (EAC), UNLESS OTHERWISE NOTED. TOP OF PAVEMENT ARE TP.
2. SEE TYPICAL SECTIONS FOR OTHER GRADING INFORMATION.
3. ESTABLISH VERTICAL CURVES AS NECESSARY FOR A SMOOTH ALIGNMENT (NO ANGLE POINTS) BY VISUALLY ALIGNING ROAD CENTERLINE THROUGH VERTICAL CONTROL POINTS.



CURVE TABLE					
Curve No.	Length	Radius	Delta	Chord Direction	Chord Length
C1	116.69	700.00	9°33'03"	N17°15'53"E	116.55
C4	224.24	325.00	39°31'59"	N41°48'24"E	219.82

VERTICAL CONTROL		
TBM No.	ELEVATION	DESCRIPTION
LIFT STA	50.19	MAG NAIL IN CONCRETE SANITARY SEWER LIFT STATION STRUCTURE AT THE SOUTH END OF SILVER STREET
FH-7	54.42	BOLT TOP FLANGE ON FIRE HYDRANT ON THE WEST SIDE NEAR 10125 SILVER STREET
FH-6	59.79	EAST BOLT ON FIRE HYDRANT AT HUMMING BIRD/SILVER INTERSECTION
FH-9	63.00	EAST BOLT MARKED WITH "X" ON FIRE HYDRANT AT SILVER/STEALHEAD INTERSECTION

N

10 0 10 20
SCALE IN FEET

STATE OF ALASKA 49th Naomi R. Hobbs No.CE9959 12/15/16 REGISTERED PROFESSIONAL ENGINEER

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SILVER STREET PAVING
CONTRACT NO. BE17-086

HORIZONTAL AND VERTICAL CONTROL
ROAD LAYOUT AND GRADES
STA "S" 16+00 TO STA "S" 19+00

SHEET NO.
8 of 19

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NOTES:

1. STATIONS, OFFSETS, ELEVATIONS AND CURVE INFORMATION ARE TO EDGE OF ASPHALT PAVEMENT (EAC), UNLESS OTHERWISE NOTED. TOP OF PAVEMENT ARE TP.
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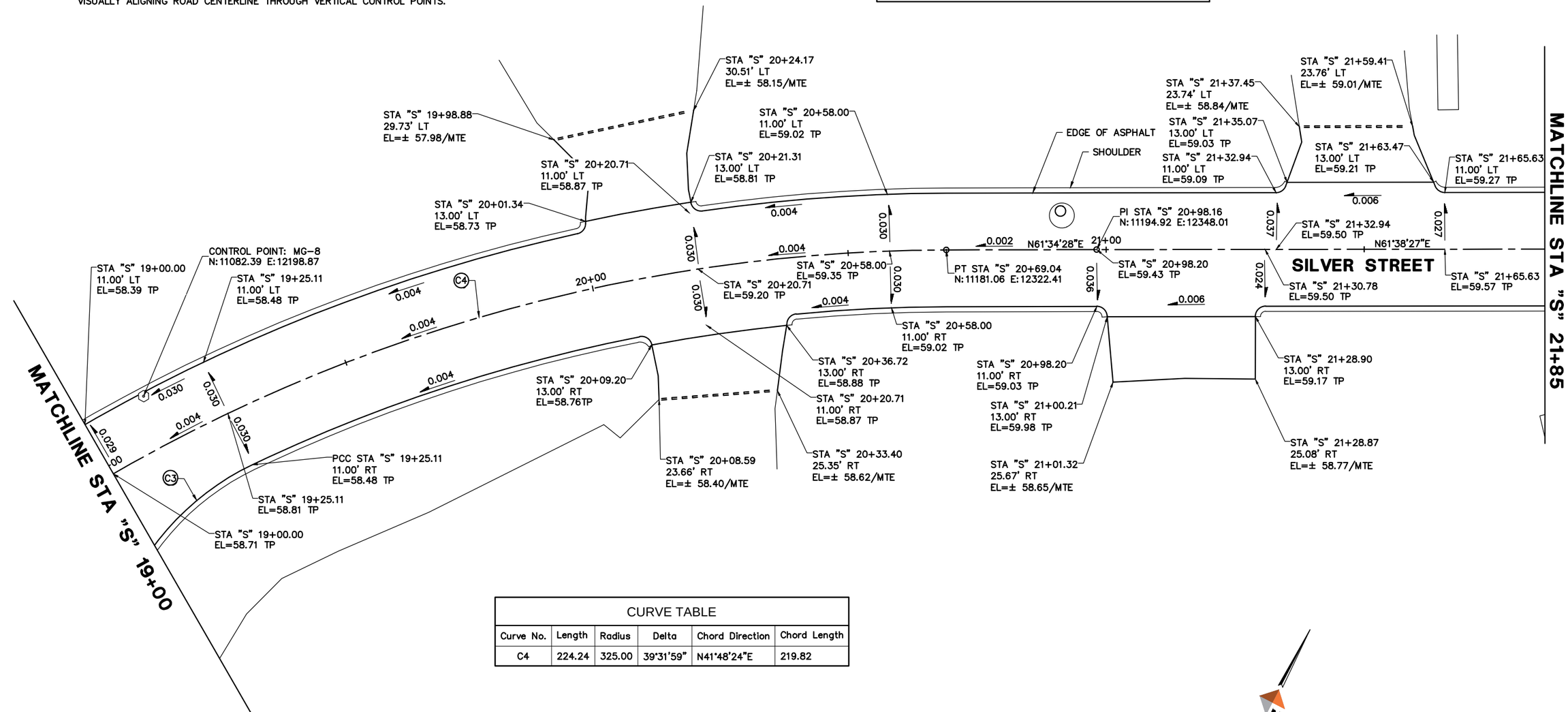
3. ESTABLISH VERTICAL CURVES AS NECESSARY FOR A SMOOTH ALIGNMENT (NO ANGLE POINTS) BY VISUALLY ALIGNING ROAD CENTERLINE THROUGH VERTICAL CONTROL POINTS.

VERTICAL CONTROL		
TBM No.	ELEVATION	DESCRIPTION
LIFT STA	50.19	MAG NAIL IN CONCRETE SANITARY SEWER LIFT STATION STRUCTURE AT THE SOUTH END OF SILVER STREET
FH-7	54.42	BOLT TOP FLANGE ON FIRE HYDRANT ON THE WEST SIDE NEAR 10125 SILVER STREET
FH-6	59.79	EAST BOLT ON FIRE HYDRANT AT HUMMING BIRD/SILVER INTERSECTION
FH-9	63.00	EAST BOLT MARKED WITH "X" ON FIRE HYDRANT AT SILVER/STEALHEAD INTERSECTION



CURVE TABLE					
Curve No.	Length	Radius	Delta	Chord Direction	Chord Length
C4	224.24	325.00	39°31'59"	N41°48'24"E	219.82

STATE OF ALASKA 49th
Naomi R. Hobbs
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REGISTERED PROFESSIONAL ENGINEER

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DEPARTMENT OF ENGINEERING

SILVER STREET PAVING
CONTRACT NO. BE17-086

HORIZONTAL AND VERTICAL CONTROL
ROAD LAYOUT AND GRADES
STA "S" 19+00 TO STA "S" 21+85

SHEET NO.
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VERTICAL CONTROL		
TBM No.	ELEVATION	DESCRIPTION
LIFT STA	50.19	MAG NAIL IN CONCRETE SANITARY SEWER LIFT STATION STRUCTURE AT THE SOUTH END OF SILVER STREET
FH-7	54.42	BOLT TOP FLANGE ON FIRE HYDRANT ON THE WEST SIDE NEAR 10125 SILVER STREET
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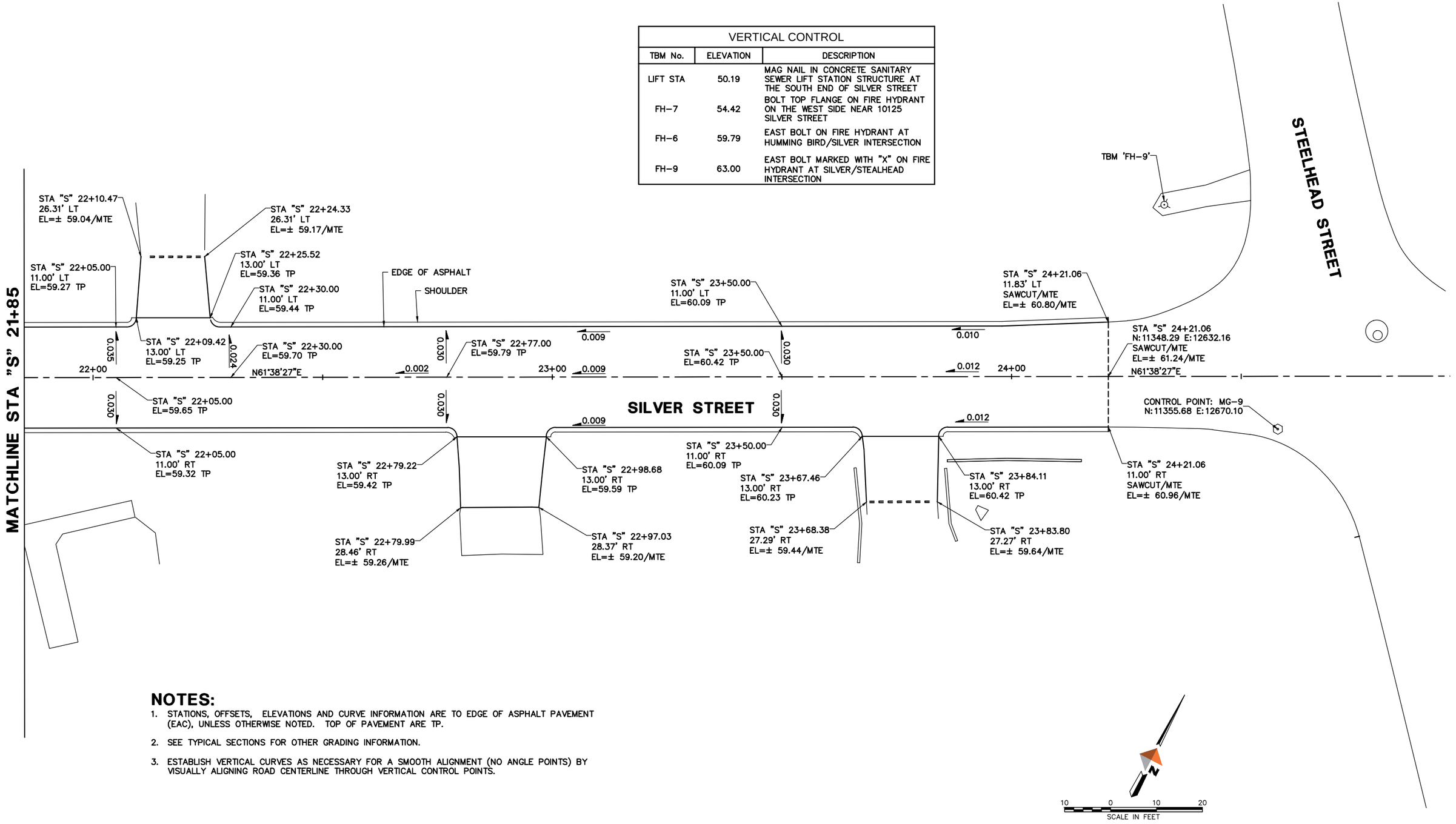
FH-9	63.00	EAST BOLT MARKED WITH "X" ON FIRE HYDRANT AT SILVER/STEALHEAD INTERSECTION



NOTES:

1. STATIONS, OFFSETS, ELEVATIONS AND CURVE INFORMATION ARE TO EDGE OF ASPHALT PAVEMENT (EAC), UNLESS OTHERWISE NOTED. TOP OF PAVEMENT ARE TP.
2. SEE TYPICAL SECTIONS FOR OTHER GRADING INFORMATION.
3. ESTABLISH VERTICAL CURVES AS NECESSARY FOR A SMOOTH ALIGNMENT (NO ANGLE POINTS) BY VISUALLY ALIGNING ROAD CENTERLINE THROUGH VERTICAL CONTROL POINTS.

STATE OF ALASKA 49th Naomi R. Hobbs No.CE9959 12/15/16 REGISTERED PROFESSIONAL ENGINEER

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ALASKA'S CAPITAL CITY
DEPARTMENT OF ENGINEERING

SILVER STREET PAVING
CONTRACT NO. BE17-086

HORIZONTAL AND VERTICAL CONTROL
ROAD LAYOUT AND GRADES
STA "S" 21+85 TO STEELHEAD STREET

SHEET NO.
10
of
19

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MH-1 EXISTING TYPE I	
STA "S" 9+87.20, 5.8 RT	
EXIST COVER	EL=50.01
TOP OF FLATTOP	EL=49.04
INV 8"PVC (IN) NORTH	EL=42.06
INV 10"DI (IN) WEST	EL=37.97
INV 8"PVC (IN) EAST	EL=39.74
INV 8"PVC (OUT)	EL=37.71

PIPE SUMMARY – STORM DRAINAGE				
PIPE	DIA	LENGTH	TYPE	SLOPE
S-1	12"	37.2	CPP	0.014
S-2	12"	33.5	CPP	0.008
S-3	12"	18.6	CPP	0.008
S-4	12"	40.9	CPP	0.012
S-5	SEE SHEET 12			
SEE NOTE 3				

WREN DRIVE

SILVER STREET

4931
MARIE R & CLAUDE MCMILLAN
LOT 9
463–2684

10125
MICHAEL R BOONE
LOT 8
789–7360

10130
KENNETH R & RENEE L JONES
LOT 5A

10128

10126
JEFFREY BALLOU &
JUDITH MASON
LOT 6

END DITCH GRADING
STA "S" 10+34.78
25.37 LT
EL=± 47.68

PLANTER

STA "S" 10+59.95
16.16 LT
EL=47.95

STA "S" 10+00.00
N:10195.38 E:11982.58

SAWCUT/MTE

10"DI

10"DI CHANGES
TO 10"PVC

10"PVC

6"UD

MH-1

11+00

8"DI

12+00

0.010

0.008

0.014

0.009

12"CPP

12"CMP

18"CMP

S-1

S-2

S-3

S-4

S-5

CONCRETE HEADWALL
STA "S" 11+59.29
16.51 LT
INV EL=48.75

WOOD FENCE

GRAVEL
DRIVE

CONCRETE HEADWALL
STA "S" 11+92.77
16.62 LT
INV EL=49.02

CONCRETE HEADWALL
STA "S" 12+12.38
16.44 LT
INV EL=49.18

SALVAGE AND RELOCATE EXISTING
HYDRANT AND VALVE
STA "S" 12+21.7, 25.2 LT
(SEE NOTE 1)

CONCRETE HEADWALL
STA "S" 12+90.38
16.50 LT
INV EL=49.95

DRIP LINE

CONCRETE HEADWALL
STA "S" 12+30.98
16.50 LT
INV EL=49.33

STA "S" 10+42.08
16.64 RT
EL=47.45

CHAIN LINK FENCE

END DITCH GRADING
STA "S" 10+19.30
34.98 RT
EL=± 47.00

CONCRETE HEADWALL
STA "S" 11+24.05
16.20 RT
INV EL=48.59

GRAVEL DRIVE

GRAVEL PARKING

CONCRETE HEADWALL
STA "S" 11+61.28
16.00 RT
INV EL=49.10

PLANTER

CONCRETE HEADWALL
STA "S" 12+43.87
16.00 RT
INV EL=49.89

ASPHALT
DRIVE

SAWCUT/MTE

CONCRETE HEADWALL
STA "S" 12+84.83
16.00 RT
INV EL=50.38

MATCHLINE STA "S" 13+00

NOTES

1. REMOVE EXISTING HYDRANT PAD. INSTALL NEW HYDRANT PAD AND REPLACE EXISTING CULVERT PER CBJ STD DETAIL Nos. 405 AND 404. REPLACE THE EXISTING VALVE BOX. CLEAN AND REPAINT HYDRANT. INSTALL NEW STORZ COUPLING.
2. GRADE DITCHES WITH A MINIMUM GRADIENT OF 0.5%, UNLESS OTHERWISE SHOWN OR DIRECTED BY THE ENGINEER..
3. PIPE LENGTHS ARE MEASURED ALONG THE SLOPE, FROM INVERT TO INVERT OF STRUCTURES. SLOPES ARE CALCULATED TO ENDS OF PIPE.

10 0 10 20
SCALE IN FEET

STATE OF ALASKA
49th
Naomi R. Hobbs
No.CE9959
12/15/16
REGISTERED PROFESSIONAL ENGINEER

DOWL
Consulting Engineers • Land Surveyors • Construction Administration

PLANS DEVELOPED BY:
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5368 COMMERCIAL BOULEVARD
JUNEAU, ALASKA 99801
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ALASKA'S CAPITAL CITY
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SILVER STREET PAVING
CONTRACT NO. BE17-086

PLAN - SILVER STREET
WREN DRIVE TO STA "S" 13+00

SHEET NO.
11
of
19

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MH–2 EXISTING TYPE I*	
STA "S" 13+99.17, 10.4 RT	
FG	EL=53.63
EXIST COVER	EL=53.44
TOP OF CONE	EL=51.34
INV 10"PVC (IN) EAST	EL=44.70
INV 10"PVC (OUT) WEST	EL=44.60
*RECONSTRUCT EXISTING MANHOLE. REMOVE AND REUSE EXISTING 36" OFFSET CONE. INSTALL 18" FULL BARREL RISER. RESET EXISTING 36" OFFSET CONE. ADJUST TO GRADE WITH NEW FRAME AND COVER, ADJUSTING RINGS, AND RECYCLED RUBBER RINGS. WATERPROOF ALL NEW JOINTS.	

PIPE SUMMARY – STORM DRAINAGE				
PIPE	DIA	LENGTH	TYPE	SLOPE
S–5	12"	34.7	CPP	0.010
S–6	12"	33.4	CPP	0.009
S–7	12"	34.3	CPP	0.010
S–8	12"	34.6	CPP	0.008
S–9	12"	34.2	CPP	0.008
S–10	12"	33.6	CPP	0.014
SEE NOTE 2				

10125
MICHAEL R BOONE
LOT 8

10121
CLARENCE C & AMY K VANDERJACK
LOT 7

10117
JOHN B GAGUINE
LOT 6

MATCHLINE STA "S" 13+00

MATCHLINE STA "S" 16+00

SILVER STREET

CONCRETE HEADWALL
STA "S" 13+25.11
16.50 LT
INV EL=50.31

CONCRETE HEADWALL
STA "S" 14+28.45
16.87 LT
INV EL=51.27

CONCRETE HEADWALL
STA "S" 14+62.73
16.61 LT
INV EL=51.61

CONCRETE HEADWALL
STA "S" 15+65.89
16.40 LT
INV EL=53.05

CONCRETE HEADWALL
STA "S" 15+99.54
16.23 LT
INV EL=53.51

GRAVEL DRIVE
TREE LINE
DEAD TREE
SEE NOTE 3
SEE NOTE 4
SEE NOTE 5
REMOVE/RESET FOOT BRIDGE
FOOT BRIDGE
WOOD FENCE
TREELINE
SAWCUT/MTE
ASPHALT DRIVE
SALVAGE AND REUSE EXISTING MAILBOX

12"CMP
12"CPP
S-5
S-7
S-10
0.009
0.014
8"DI
14+00
15+00
16+00

CONTROL POINT: MG–8.1
N:10588.24 E:12078.81

MH-2
10"PVC
0.010
0.008
0.007
S-6
S-8
S-9
PLACE AC PAVEMENT TO 12" OUTSIDE COVER

CONCRETE HEADWALL
STA "S" 13+53.31
16.20 RT
INV EL=50.97

4"CPP
INV EL=51.91
SEE NOTE 3

CONCRETE DRIVE
TREE LINE
CONCRETE HEADWALL
STA "S" 13+86.72
16.30 RT
INV EL=51.28

ROCK DRAINAGE
CONCRETE HEADWALL
STA "S" 14+67.00
16.30 RT
INV EL=52.05

PLANTER
GRAVEL DRIVE
WOOD PLANTER
WOOD PLANTERS
CONCRETE HEADWALL
STA "S" 15+01.56
16.30 RT
INV EL=52.33

CONCRETE HEADWALL
STA "S" 15+26.84
16.31 RT
INV EL=52.54

CONCRETE HEADWALL
STA "S" 15+61.01
16.33 RT
INV EL=52.82

10118
LOUIS C & MARGARET J CORAZZA
LOT 8
789–5175

10122
DOUGLAS S HANON & VIRGINIA R REED
LOT 7
789–4662

4942
LOWPETE CONSTRUCTION INC
LOT 9B

NOTES

1. GRADE DITCHES WITH A MINIMUM GRADIENT OF 0.5%, UNLESS OTHERWISE SHOWN OR DIRECTED BY THE ENGINEER.
2. PIPE LENGTHS ARE MEASURED ALONG THE SLOPE, FROM INVERT TO INVERT OF STRUCTURES. SLOPES ARE CALCULATED TO ENDS OF PIPE.
3. ENSURE PROPER DRAINAGE OF EXISTING 4"CPP FRENCH DRAIN.
4. REMOVE UNUSED CONCRETE FOUNDATION IN EXISTING DITCH BOTTOM.
5. CONTRACTOR SHALL BUILD MAILBOX SUPPORT FOR 10121 SILVER STREET TO MATCH THE EXISTING MAILBOX SUPPORT DESIGN.

10 0 10 20
SCALE IN FEET

STATE OF ALASKA
49th
Naomi R. Hobbs
No.CE9959
12/15/16
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PLANS DEVELOPED BY:
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ALASKA'S CAPITAL CITY
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SILVER STREET PAVING
CONTRACT NO. BE17-086

PLAN - SILVER STREET
STA "S" 13+00 TO STA "S" 16+00

SHEET NO.
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of
19

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10117
JOHN B GAGUINE
LOT 6

10115
MICHAEL J & PHYLLIS SCOTT
LOT 5A2
789-3840

10113
RICHARD & JILL BAILEY
LOT 5A1

10111
ABBEY J & NICHOLAS D
CUMMINGS
LOT 4A2

4942
LOWPETE CONSTRUCTION INC
LOT 9B

MATCHLINE STA "S" 16+00

MATCHLINE STA "S" 19+00

WOOD FENCE

PLANTER

GRAVEL DRIVE

CONCRETE HEADWALL
STA "S" 17+27.31
16.86 LT
INV EL=54.42

CONCRETE HEADWALL
STA "S" 17+71.91
17.02 LT
INV EL=54.74

FENCE

CONCRETE HEADWALL
STA "S" 18+52.34
17.20 LT
INV EL=55.19

CONCRETE HEADWALL
STA "S" 18+94.55
17.31 LT
INV EL=55.43

12"CMP

12"CPP
S-12

0.007

0.005

TREELINE DRIPLINE

8"DI

17+00

18+00

SILVER STREET

PC STA "S" 17+22.31
N:10900.53 E:12139.10

PT STA "S" 18+39.00
N:11011.83 E:12173.69

PC STA "S" 18+44.80
N:11017.20 E:12175.87

MH-3

MH-4

10"PVC

12"CPP
S-11

0.007

CONCRETE HEADWALL
STA "S" 17+06.10
16.86 RT
INV EL=53.78

REMOVE AND
DISPOSE OF EXISTING
WOOD PALLET

PLACE AC PAVEMENT
TO 12" OUTSIDE COVER

STA "S" 18+06.77
17.09 RT
EL=54.45

REPLACE EXISTING
VALVE BOXES (2)
SEE NOTE 3

RESET SIGN ASSEMBLY
AS DIRECTED BY THE ENGINEER

CONCRETE HEADWALL
STA "S" 18+74.64
45.70 RT
INV EL=54.98

CONCRETE HEADWALL
STA "S" 17+16.10
16.89 RT
INV EL=53.85

CONCRETE HEADWALL
STA "S" 18+32.72
39.72 RT
INV EL=54.72

CONCRETE HEADWALL
STA "S" 18+27.00
60.11 RT
INV EL=55.12

0.007

0.006

12"CPP
S-14

CHAIN LINK FENCE

PIPE SUMMARY – STORM DRAINAGE				
PIPE	DIA	LENGTH	TYPE	SLOPE
S-11	12"	10.0	CPP	0.007
S-12	12"	45.6	CPP	0.007
S-13	12"	17.2	CPP	0.010
S-14	12"	38.0	CPP	0.007
S-15	12"	44.4	CPP	0.005
SEE NOTE 4				

MH-4 EXISTING TYPE I*	
STA "S" 18+86.80, 11.5 RT	
FG	EL=58.35
EXIST COVER	EL=58.54
TOP OF CONE	EL=55.88
INV 10"PVC (IN) EAST	EL=46.34
INV 10"PVC (OUT) WEST	EL=46.24
*RECONSTRUCT EXISTING MANHOLE. REMOVE AND REUSE EXISTING 36" OFFSET CONE. INSTALL 18" FULL BARREL RISER. RESET EXISTING 36" OFFSET CONE. ADJUST TO GRADE WITH NEW FRAME AND COVER, ADJUSTING RINGS, AND RECYCLED RUBBER RINGS. WATERPROOF ALL NEW JOINTS.	

MH-3 EXISTING TYPE I*	
STA "S" 17+38.93, 11.4 RT	
FG	EL=57.14
EXIST COVER	EL=57.07
TOP OF CONE	EL=55.29
INV 10"PVC (IN) EAST	EL=45.57
INV 10"PVC (OUT) WEST	EL=45.60
*RECONSTRUCT EXISTING MANHOLE. REMOVE AND REUSE EXISTING 36" OFFSET CONE. INSTALL 12" FULL BARREL RISER. RESET EXISTING 36" OFFSET CONE. ADJUST TO GRADE WITH ADJUSTING RINGS, RECYCLED RUBBER RINGS, AND A NEW 4" FRAME AND COVER. WATERPROOF ALL NEW JOINTS.	

SEE NOTE 1

12"CMP
S-13

12"CPP

HUMMINGBIRD LANE

GRAVEL DRIVE

CONCRETE HEADWALL
STA "S" 18+20.35
76.23 RT
INV EL=55.30

15.0'

0.016

SAWCUT/MTE

BEGIN TRANSITION
TO EXISTING PAVED
SURFACE WIDTH

BURY CULVERT INVERT AND
RE-GRADE DITCH
DITCH EL=56.00
EXISTING INV EL=55.30

NOTES

1. REMOVE EXISTING HYDRANT PAD. INSTALL NEW HYDRANT PAD AND REPLACE EXISTING CULVERT PER CBJ STD DETAIL Nos. 405 AND 404. REPLACE THE EXISTING VALVE BOX. CLEAN AND REPAINT HYDRANT. INSTALL NEW STORZ COUPLING.
2. GRADE DITCHES WITH A MINIMUM GRADIENT OF 0.5%, UNLESS OTHERWISE SHOWN OR DIRECTED BY THE ENGINEER.
3. INSTALL CORROSION PROTECTION AS DESCRIBED ON SHEET 4 AND AS APPROVED BY THE ENGINEER. THESE TWO EXISTING VALVE BOXES ARE BURIED UNDER THE EXISTING PAVEMENT.
4. PIPE LENGTHS ARE MEASURED ALONG THE SLOPE, FROM INVERT TO INVERT OF STRUCTURES. SLOPES ARE CALCULATED TO ENDS OF PIPE.

N

10 0 10 20
SCALE IN FEET

STATE OF ALASKA
49th
Naomi R. Hobbs
No. CE9959
12/15/16
REGISTERED PROFESSIONAL ENGINEER

DOWL
Consulting Engineers • Land Surveyors • Construction Administration

PLANS DEVELOPED BY:
DOWL
5368 COMMERCIAL BOULEVARD
JUNEAU, ALASKA 99801
907-780-3533
AECL848

JOB No. J70784.03 | DRAWN BY: STAFF | DESIGNED BY: STAFF | CHECKED BY: STAFF | DATE: DEC. 2016

CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
DEPARTMENT OF ENGINEERING

SILVER STREET PAVING
CONTRACT NO. BE17-086

PLAN - SILVER STREET
STA "S" 16+00 TO STA "S" 19+00

SHEET NO.
13
of
19

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MH-5 EXISTING TYPE I*	
STA "S" 20+91.18, 7.5 LT	
FG	EL=59.26
EXIST COVER	EL=59.09
TOP OF CONE	EL=56.66
INV 10"PVC (IN) EAST	EL=46.86
INV 10"PVC (OUT) WEST	EL=46.85

*RECONSTRUCT EXISTING MANHOLE. REMOVE AND REUSE EXISTING 36" OFFSET CONE. INSTALL 24" FULL BARREL RISER. RESET EXISTING 36" OFFSET CONE. ADJUST TO GRADE WITH NEW FRAME AND COVER, ADJUSTING RINGS, AND RECYCLED RUBBER RINGS. WATERPROOF ALL NEW JOINTS.

10109
MONICA M WINDOM
LOT 4A1

10107

CONCRETE HEADWALL
STA "S" 19+89.00
17.12 LT
INV EL=55.94

10105
TERRY J & LYNN SQUIRES
LOT 3A

CONCRETE HEADWALL
STA "S" 20+30.52
17.07 LT
INV EL=56.16

CONCRETE HEADWALL
STA "S" 21+31.28
16.91 LT
INV EL=56.68

CONCRETE HEADWALL
STA "S" 21+67.68
16.85 LT
INV EL=56.87

10103
DANIEL A COLEMAN
LOT 2

GRAVEL DRIVE
PLANTER
12"CMP
12"CPP
S-16
0.005
S-19
0.008
10"PVC
6"UD
8"DI

PT STA "S" 20+69.04
N:11181.06 E:12322.41

MH-5

20+00
21+00

SILVER STREET

PI STA "S" 20+98.16
N:11194.92 E:12348.01

CONTROL POINT: MG-8
N:11082.39 E:12198.87

MATCHLINE STA "S" 19+00

S-17
S-18
0.006
12"CMP
12"CPP
GRAVEL DRIVE
CONCRETE DRIVE
SHED
SHED
PLANTER
PLANTER

CONCRETE HEADWALL
STA "S" 20+03.69
16.71 RT
INV EL=55.76

CONCRETE HEADWALL
STA "S" 20+44.07
16.66 RT
INV EL=56.96

CONCRETE HEADWALL
STA "S" 20+94.31
16.80 RT
INV EL=56.26

CONCRETE HEADWALL
STA "S" 21+34.69
16.45 RT
INV EL=56.47

STA "S" 19+23.11
19.75 RT
EL=55.30

4949
BONFILS REVOCABLE LIVING TRUST &
MICHAEL H BONFILS AND HELGA I BONFILS AS TRUSTEE
LOT 3A

10104
KARA L & JOSHUA D LOCKHART
LOT 1B
NL

MATCHLINE STA "S" 21+85

NOTES

1. GRADE DITCHES WITH A MINIMUM GRADIENT OF 0.5%, UNLESS OTHERWISE SHOWN OR DIRECTED BY THE ENGINEER..
2. PIPE LENGTHS ARE MEASURED ALONG THE SLOPE, FROM INVERT TO INVERT OF STRUCTURES. SLOPES ARE CALCULATED TO ENDS OF PIPE.

PIPE SUMMARY – STORM DRAINAGE				
PIPE	DIA	LENGTH	TYPE	SLOPE
S-16	12"	43.7	CPP	0.005
S-17	12"	38.3	CPP	0.005
S-18	12"	40.4	CPP	0.005
S-19	12'	36.4	CPP	0.005
		SEE NOTE 2		

N

10 0 10 20
SCALE IN FEET

STATE OF ALASKA 49th Naomi R. Hobbs No.CE9959 12/15/16 REGISTERED PROFESSIONAL ENGINEER

DOWL
Consulting Engineers • Land Surveyors • Construction Administration

PLANS DEVELOPED BY:
DOWL
5368 COMMERCIAL BOULEVARD
JUNEAU, ALASKA 99801
907-780-3533
AECL848

JOB No. J70784.03	DRAWN BY: STAFF	DESIGNED BY: STAFF	CHECKED BY: STAFF	DATE: DEC. 2016

CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
DEPARTMENT OF ENGINEERING

SILVER STREET PAVING
CONTRACT NO. BE17-086

PLAN - SILVER STREET
TO STA "S" 19+00 TO STA "S" 21+85

SHEET NO.
14
of
19

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MH-6 EXISTING TYPE I	
STA "S" 24+79.74, 8.9 LT	
EXIST COVER	EL=62.65
TOP OF CONE	EL=60.28
INV 10"PVC (IN) NORTH	EL=52.93
INV 10"PVC (IN) EAST	EL=52.47
INV 10"PVC (IN) SOUTH	EL=49.54
INV 10"PVC (OUT) WEST	EL=49.44

PIPE SUMMARY – STORM DRAINAGE				
PIPE	DIA	LENGTH	TYPE	SLOPE
S-19	12"	34.7	CPP	0.005
S-20	12"	33.1	CPP	0.006
S-21	12"	32.6	CPP	0.011
SEE NOTE 3				

MATCHLINE STA "S" 21+85

10101

CONCRETE HEADWALL
STA "S" 21+99.58
16.81 LT
INV EL=57.14

CONCRETE HEADWALL
STA "S" 22+34.25
16.76 LT
INV EL=57.32

4989
MICHAEL S & MICHELLE E KLAWONN
LOT 1
790-3573

GRAVEL DRIVE

PLANTER

0.008

12"CPP
S-20
12"CPP

0.007

10"PVC

22+00

8"DI

23+00

SILVER STREET

DO NOT DISTURB

0.006

12"CMP
S-21
12"CPP

0.008

PLANTER

PLANTER

PLANTER

GRAVEL DRIVE

PLANTER

DO NOT DISTURB

PLANTER

POND

10102
SCOTT L & CHERYL A NOVAK
LOT 1C
789-2233

CONCRETE DRIVE

CONCRETE HEADWALL
STA "S" 22+72.94
16.21 RT
INV EL=57.35

CONCRETE HEADWALL
STA "S" 23+06.08
16.15 RT
INV EL=57.56

CONCRETE HEADWALL
STA "S" 23+60.52
16.06 RT
INV EL=57.99

6"UD

24+00

12"CMP
S-22
12"CPP

0.016

GRAVEL DRIVE

10100
ROBIN L & STEVEN MULVEY
LOT 1D
NL

WOOD DITCH WALL
DO NOT DISTURB

CONCRETE HEADWALL
STA "S" 23+93.11
16.00 RT
INV EL=58.35

END DITCH GRADING
STA "S" 24+30.90
17.98 RT
EL=±58.95/MTE

END DITCH GRADING
STA "S" 24+41.32
28.24 LT
EL=±58.76/MTE

STA "S" 24+21.02
16.44 LT
EL=58.59

SAWCUT/MTE

STEELHEAD STREET

18"CMP

8"CMP

10"DI

8"DI CHANGES TO 8"PVC

10"PVC

MH-6

8"DI

8"DI

8"DI

CONTROL POINT: MG-9
N:11355.68 E:12670.10

PLANTER

10 0 10 20
SCALE IN FEET

NOTES

1. GRADE DITCHES WITH A MINIMUM GRADIENT OF 0.5%, UNLESS OTHERWISE SHOWN OR DIRECTED BY THE ENGINEER.
2. PIPE LENGTHS ARE MEASURED ALONG THE SLOPE, FROM INVERT TO INVERT OF STRUCTURES. SLOPES ARE CALCULATED TO ENDS OF PIPE.

STATE OF ALASKA
49th
Naomi R. Hobbs
No. CE9959
12/15/16
REGISTERED PROFESSIONAL ENGINEER

DOWL
Consulting Engineers • Land Surveyors • Construction Administration

PLANS DEVELOPED BY:
DOWL
5368 COMMERCIAL BOULEVARD
JUNEAU, ALASKA 99801
907-780-3533
AECL848

JOB No. J70784.03	DRAWN BY: STAFF	DESIGNED BY: STAFF	CHECKED BY: STAFF	DATE: DEC. 2016

CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
DEPARTMENT OF ENGINEERING

SILVER STREET PAVING
CONTRACT NO. BE17-086

PLAN - SILVER STREET
STA "S" 21+85 TO STEELHEAD STREET

SHEET NO.
15
of
19

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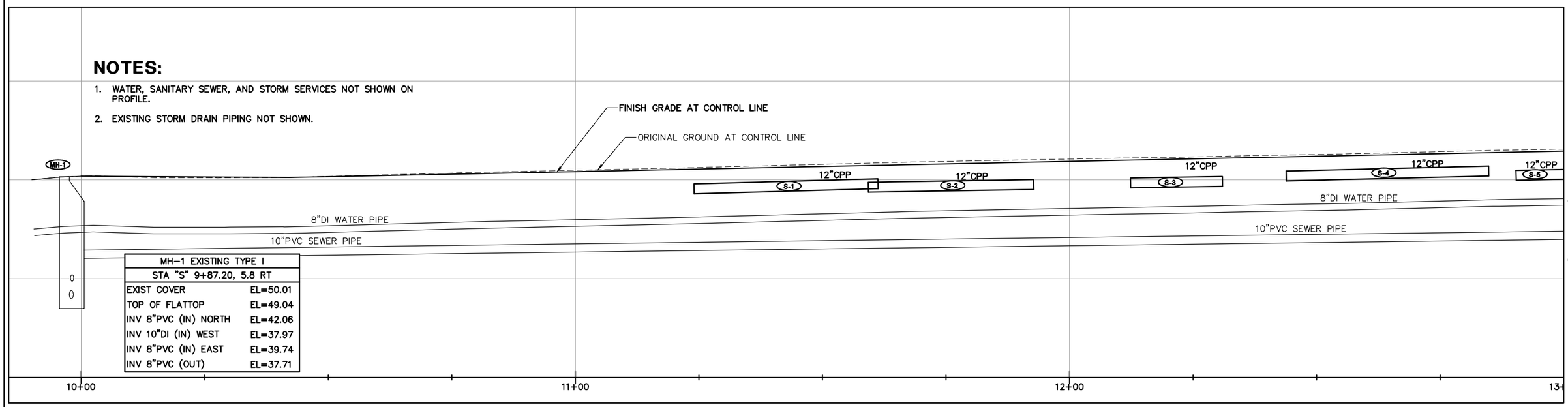
NOTES:

1. WATER, SANITARY SEWER, AND STORM SERVICES NOT SHOWN ON PROFILE.
2. EXISTING STORM DRAIN PIPING NOT SHOWN.

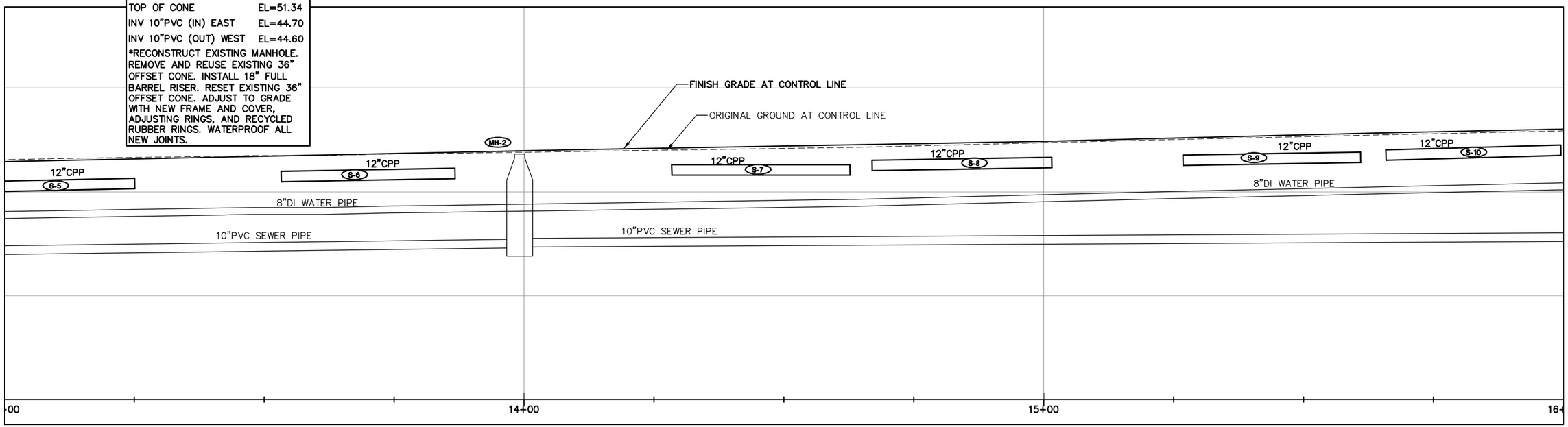


MH-1 EXISTING TYPE I	
STA "S" 9+87.20, 5.8 RT	
EXIST COVER	EL=50.01
TOP OF FLATTOP	EL=49.04
INV 8"PVC (IN) NORTH	EL=42.06
INV 10"DI (IN) WEST	EL=37.97
INV 8"PVC (IN) EAST	EL=39.74
INV 8"PVC (OUT)	EL=37.71

MATCHLINE STA "S" 13+00

MH-2 EXISTING TYPE I*	
STA "S" 13+99.17, 10.4 RT	
FG	EL=53.63
EXIST COVER	EL=53.44
TOP OF CONE	EL=51.34
INV 10"PVC (IN) EAST	EL=44.70
INV 10"PVC (OUT) WEST	EL=44.60

*RECONSTRUCT EXISTING MANHOLE. REMOVE AND REUSE EXISTING 36" OFFSET CONE. INSTALL 18" FULL BARREL RISER. RESET EXISTING 36" OFFSET CONE. ADJUST TO GRADE WITH NEW FRAME AND COVER, ADJUSTING RINGS, AND RECYCLED RUBBER RINGS. WATERPROOF ALL NEW JOINTS.



10 0 10 20
SCALE IN FEET

STATE OF ALASKA
49th
Naomi R. Hobbs
No.CE9959
12/15/16
REGISTERED PROFESSIONAL ENGINEER

DOWL
Consulting Engineers • Land Surveyors • Construction Administration

PLANS DEVELOPED BY:
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5368 COMMERCIAL BOULEVARD
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CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
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JOB No. J70784.03	DRAWN BY: STAFF	DESIGNED BY: STAFF	CHECKED BY: STAFF	DATE: DEC. 2016

SILVER STREET PAVING
CONTRACT NO. BE17-086

PROFILE - SILVER STREET
WREN DRIVE TO STA "S" 16+00

SHEET NO.
16
of
19

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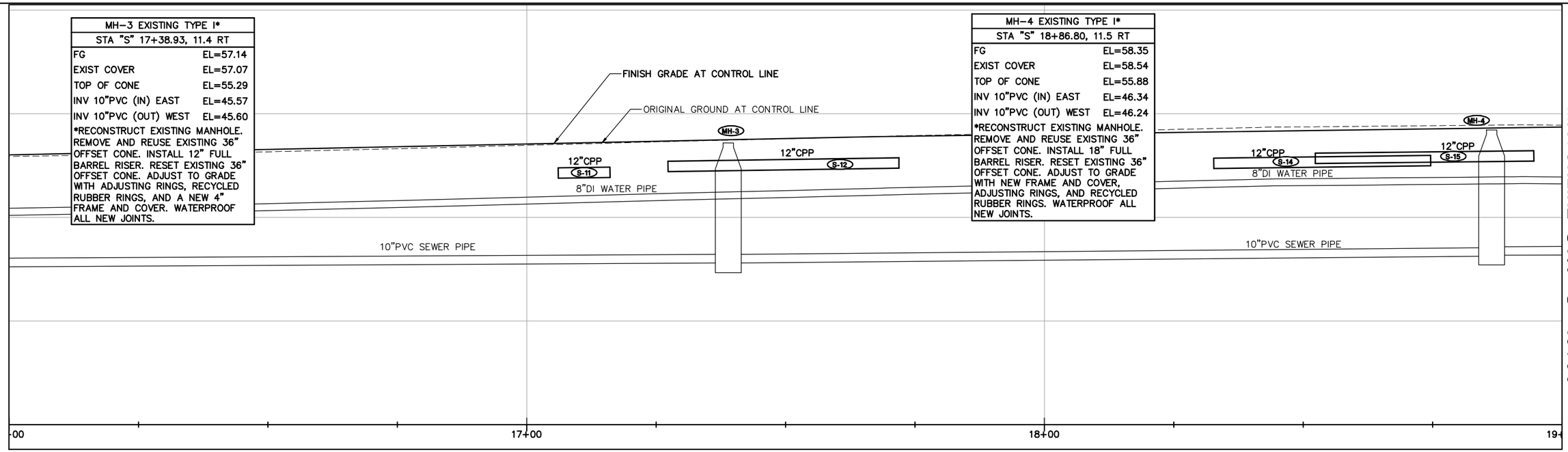
MATCHLINE STA "S" 16+00

MH-3 EXISTING TYPE I*	
STA "S" 17+38.93, 11.4 RT	
FG	EL=57.14
EXIST COVER	EL=57.07
TOP OF CONE	EL=55.29
INV 10"PVC (IN) EAST	EL=45.57
INV 10"PVC (OUT) WEST	EL=45.60

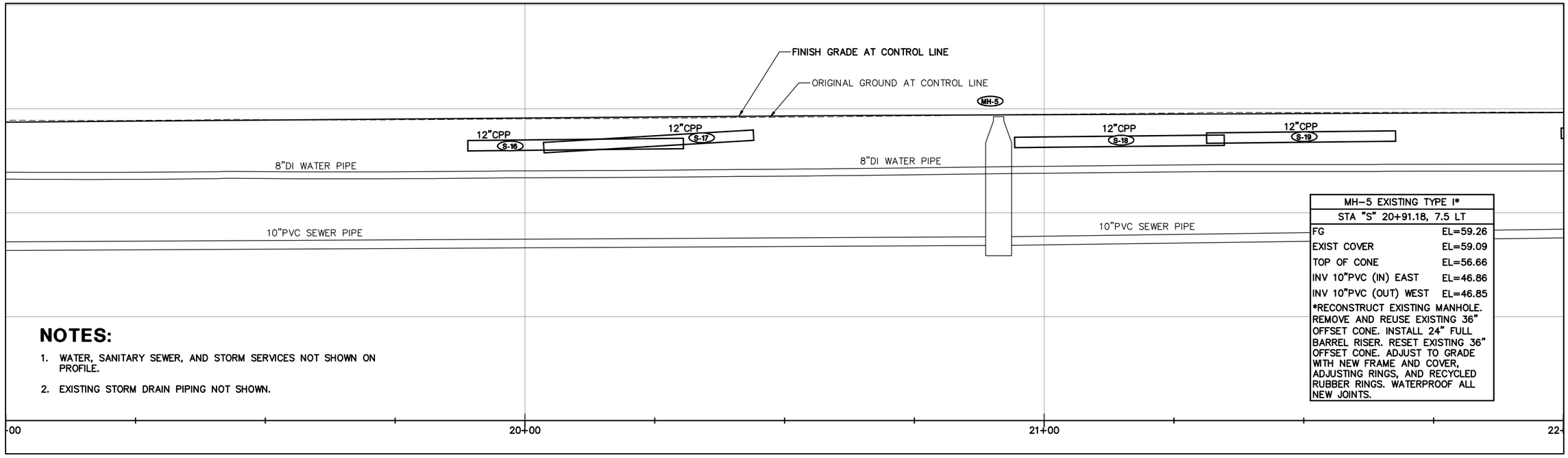
*RECONSTRUCT EXISTING MANHOLE. REMOVE AND REUSE EXISTING 36" OFFSET CONE. INSTALL 12" FULL BARREL RISER. RESET EXISTING 36" OFFSET CONE. ADJUST TO GRADE WITH ADJUSTING RINGS, RECYCLED RUBBER RINGS, AND A NEW 4" FRAME AND COVER. WATERPROOF ALL NEW JOINTS.

MH-4 EXISTING TYPE I*	
STA "S" 18+86.80, 11.5 RT	
FG	EL=58.35
EXIST COVER	EL=58.54
TOP OF CONE	EL=55.88
INV 10"PVC (IN) EAST	EL=46.34
INV 10"PVC (OUT) WEST	EL=46.24

*RECONSTRUCT EXISTING MANHOLE. REMOVE AND REUSE EXISTING 36" OFFSET CONE. INSTALL 18" FULL BARREL RISER. RESET EXISTING 36" OFFSET CONE. ADJUST TO GRADE WITH NEW FRAME AND COVER, ADJUSTING RINGS, AND RECYCLED RUBBER RINGS. WATERPROOF ALL NEW JOINTS.



MATCHLINE STA "S" 19+00



MH-5 EXISTING TYPE I*	
STA "S" 20+91.18, 7.5 LT	
FG	EL=59.26
EXIST COVER	EL=59.09
TOP OF CONE	EL=56.66
INV 10"PVC (IN) EAST	EL=46.86
INV 10"PVC (OUT) WEST	EL=46.85

*RECONSTRUCT EXISTING MANHOLE. REMOVE AND REUSE EXISTING 36" OFFSET CONE. INSTALL 24" FULL BARREL RISER. RESET EXISTING 36" OFFSET CONE. ADJUST TO GRADE WITH NEW FRAME AND COVER, ADJUSTING RINGS, AND RECYCLED RUBBER RINGS. WATERPROOF ALL NEW JOINTS.

MATCHLINE STA "S" 22+00

NOTES:

1. WATER, SANITARY SEWER, AND STORM SERVICES NOT SHOWN ON PROFILE.
2. EXISTING STORM DRAIN PIPING NOT SHOWN.

10 0 10 20
SCALE IN FEET

STATE OF ALASKA 49th Naomi R. Hobbs No.CE9959 12/15/16 REGISTERED PROFESSIONAL ENGINEER

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PLANS DEVELOPED BY:
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907-780-3533
AECL848

JOB No. J70784.03	DRAWN BY: STAFF	DESIGNED BY: STAFF	CHECKED BY: STAFF	DATE: DEC. 2016

CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
DEPARTMENT OF ENGINEERING

SILVER STREET PAVING
CONTRACT NO. BE17-086

PROFILE - SILVER STREET
STA "S" 16+00 TO STA "S" 22+00

SHEET NO.
17 of 19

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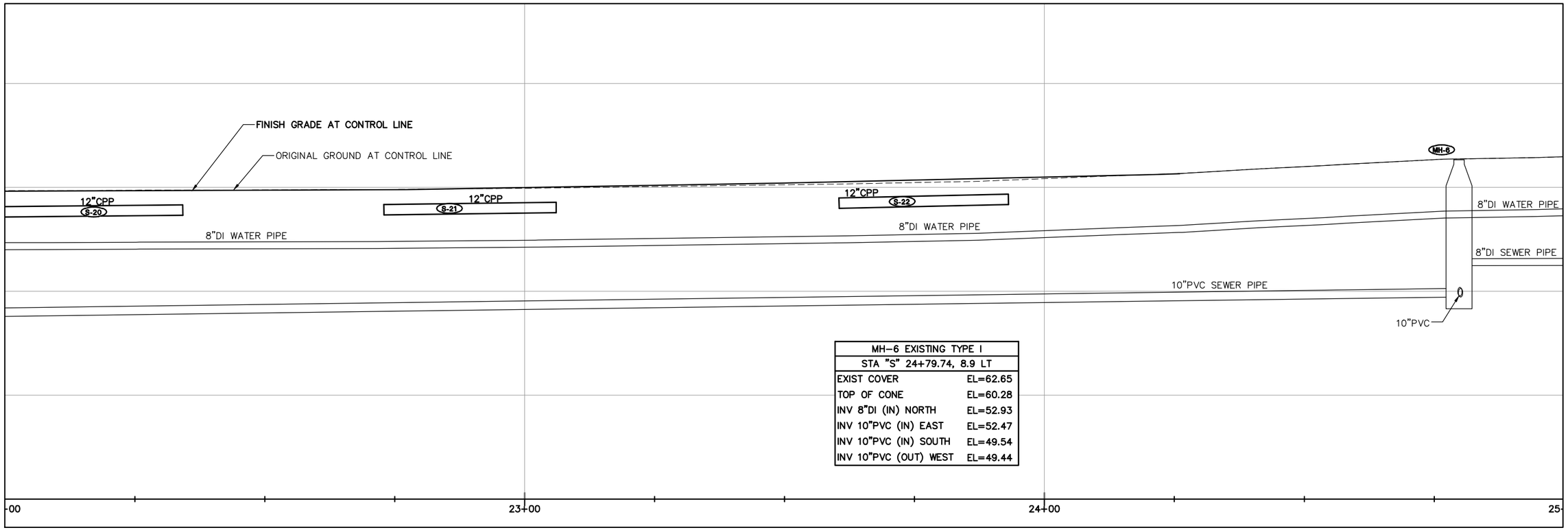
MATCHLINE STA "S" 22+00



MH-6 EXISTING TYPE I	
STA "S" 24+79.74, 8.9 LT	
EXIST COVER	EL=62.65
TOP OF CONE	EL=60.28
INV 8"DI (IN) NORTH	EL=52.93
INV 10"PVC (IN) EAST	EL=52.47
INV 10"PVC (IN) SOUTH	EL=49.54
INV 10"PVC (OUT) WEST	EL=49.44

NOTES:

1. WATER, SANITARY SEWER, AND STORM SERVICES NOT SHOWN ON PROFILE.
2. EXISTING STORM DRAIN PIPING NOT SHOWN.

STATE OF ALASKA 49th Naomi R. Hobbs No.CE9959 12/15/16 REGISTERED PROFESSIONAL ENGINEER

DOWL
Consulting Engineers • Land Surveyors • Construction Administration

PLANS DEVELOPED BY:
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JOB No. J70784.03 | DRAWN BY: STAFF | DESIGNED BY: STAFF | CHECKED BY: STAFF | DATE: DEC. 2016

CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
DEPARTMENT OF ENGINEERING

SILVER STREET PAVING
CONTRACT NO. BE17-086

PROFILE - SILVER STREET
STA "S" 22+00 TO STEELHEAD STREET

SHEET NO. 18 of 19

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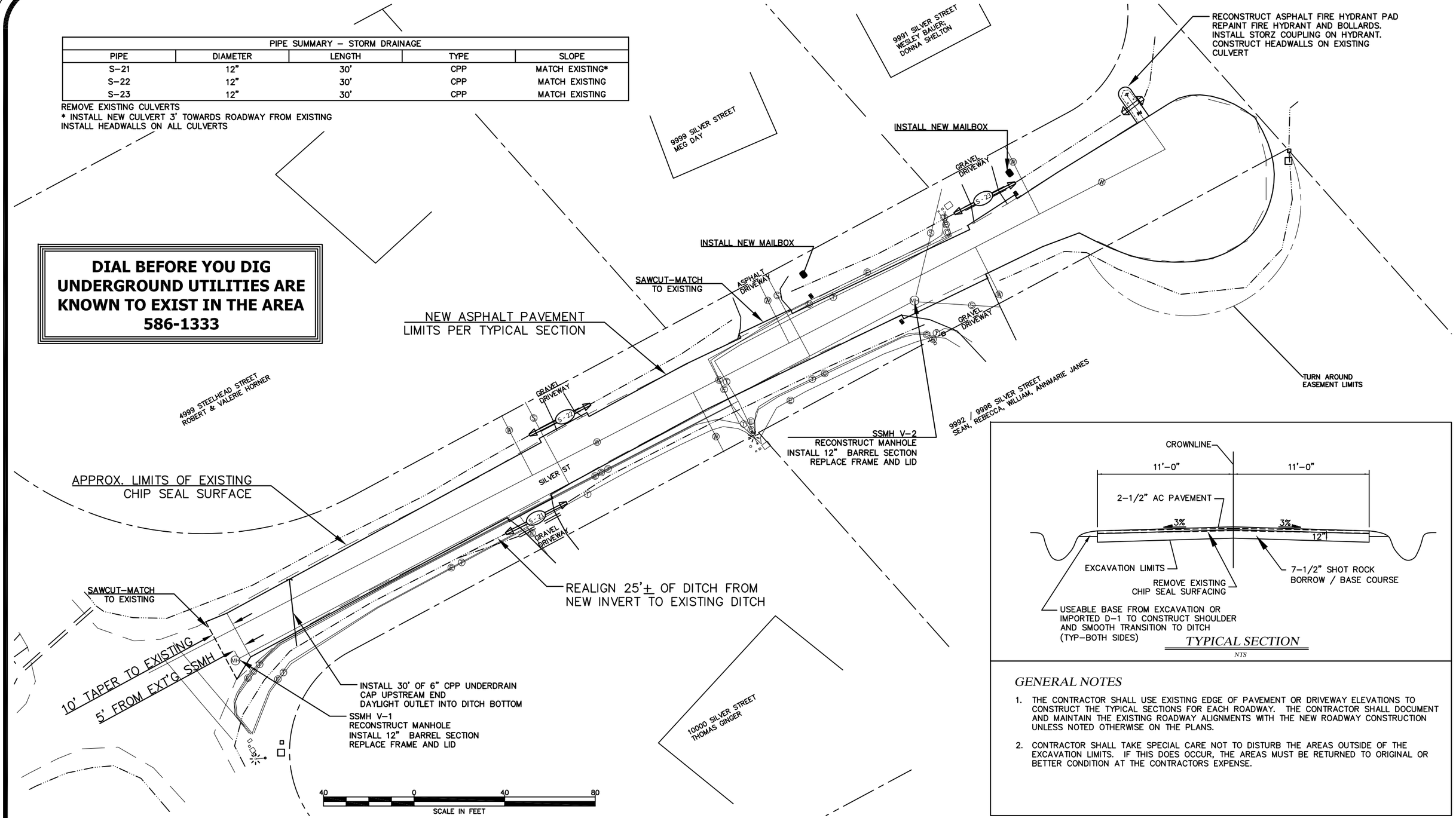
PIPE SUMMARY – STORM DRAINAGE				
PIPE	DIAMETER	LENGTH	TYPE	SLOPE
S–21	12"	30'	CPP	MATCH EXISTING*
S–22	12"	30'	CPP	MATCH EXISTING
S–23	12"	30'	CPP	MATCH EXISTING

REMOVE EXISTING CULVERTS
* INSTALL NEW CULVERT 3' TOWARDS ROADWAY FROM EXISTING
INSTALL HEADWALLS ON ALL CULVERTS

DIAL BEFORE YOU DIG
UNDERGROUND UTILITIES ARE KNOWN TO EXIST IN THE AREA
586-1333



TYPICAL SECTION
NTS

GENERAL NOTES

1. THE CONTRACTOR SHALL USE EXISTING EDGE OF PAVEMENT OR DRIVEWAY ELEVATIONS TO CONSTRUCT THE TYPICAL SECTIONS FOR EACH ROADWAY. THE CONTRACTOR SHALL DOCUMENT AND MAINTAIN THE EXISTING ROADWAY ALIGNMENTS WITH THE NEW ROADWAY CONSTRUCTION UNLESS NOTED OTHERWISE ON THE PLANS.
2. CONTRACTOR SHALL TAKE SPECIAL CARE NOT TO DISTURB THE AREAS OUTSIDE OF THE EXCAVATION LIMITS. IF THIS DOES OCCUR, THE AREAS MUST BE RETURNED TO ORIGINAL OR BETTER CONDITION AT THE CONTRACTORS EXPENSE.

STATE OF ALASKA
49th
JOHN BOHAN
CE – 9796
REGISTERED PROFESSIONAL ENGINEER

CITY AND BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
ENGINEERING DEPARTMENT

SILVER STREET PAVING

CONTRACT NO. BE17-086

ADDITIVE ALTERNATE PLAN - EAST SILVER STREET

SCALE: AS SHOWN

SHEET: 19 of 19