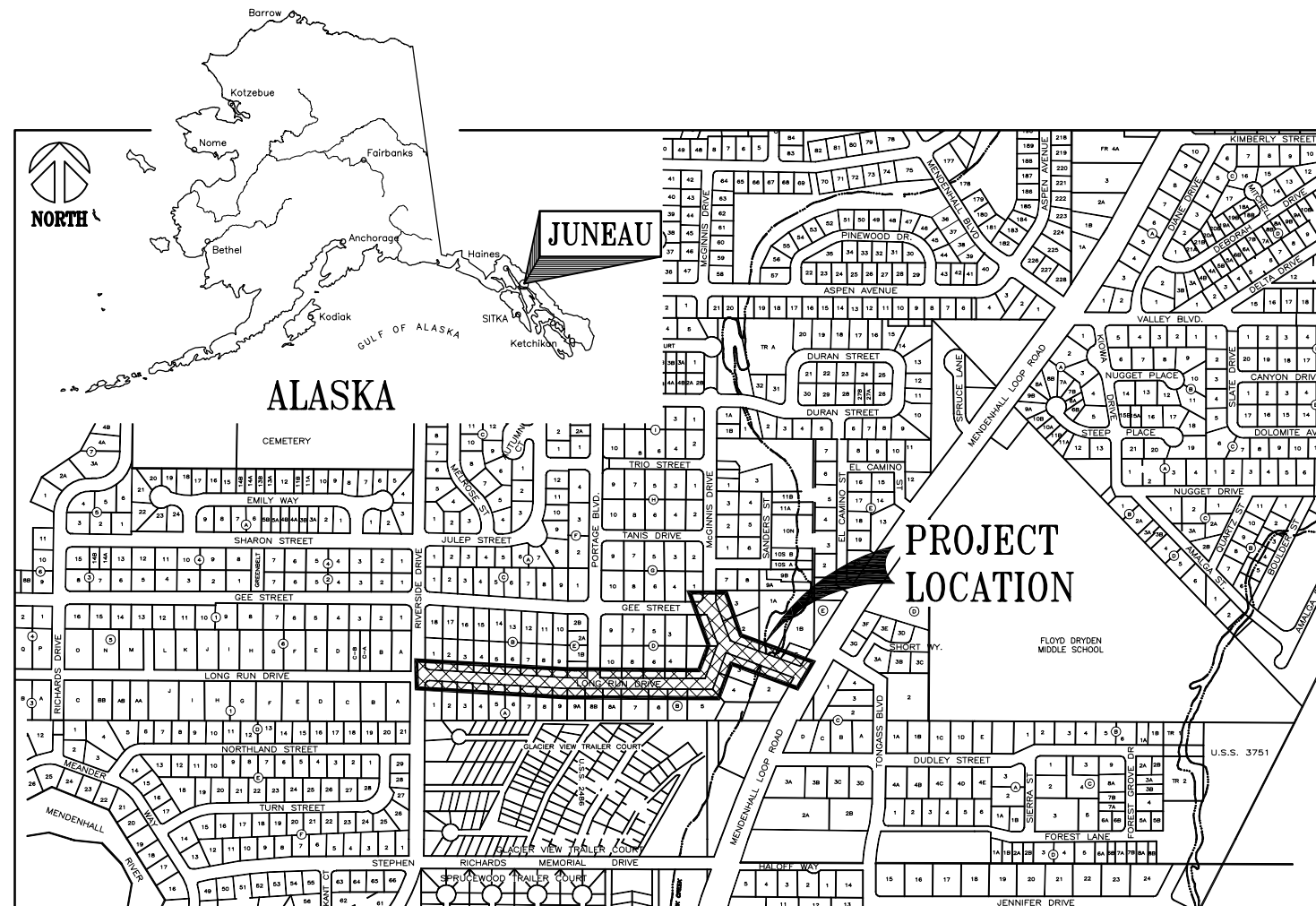


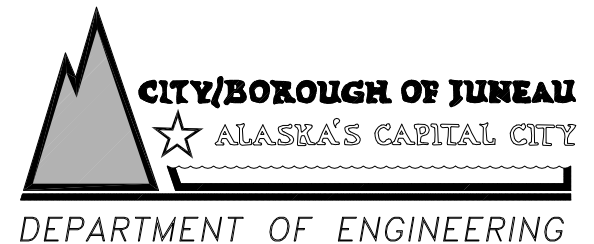
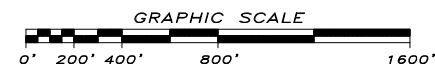
SHEET INDEX

SHEET No.	DESCRIPTION
C001	COVER SHEET
C002	GENERAL NOTES, ABBREVIATIONS AND SYMBOLS
C003	SURVEY CONTROL MAP AND SHEET KEY MAP
C100	SUMMARY TABLES
C101	TYPICAL SECTIONS
C102	CONSTRUCTION DETAILS
C200	PLAN - LONG RUN DRIVE STA.10+00 to STA.12+71
C201	PLAN - LONG RUN DRIVE STA.12+71 to STA.15+76
C202	PLAN - LONG RUN DRIVE STA.15+76 to STA.18+78
C203	PLAN - LONG RUN DRIVE STA.18+78 to STA.21+80
C204	PLAN - LONG RUN DRIVE STA.21+80 to STA.24+60
C205	PLAN - LONG RUN DRIVE / McGINNIS DRIVE STA.24+60 to STA.27+82
C206	PLAN - McGINNIS DRIVE STA.27+82 to STA.29+40
C207	PLAN - McGINNIS DRIVE STORM DRAIN CONNECTION
C300	PROFILE - LONG RUN DRIVE RIVERSIDE DRIVE to STA.12+60
C301	PROFILE - LONG RUN DRIVE STA.12+60 to STA.15+60
C302	PROFILE - LONG RUN DRIVE STA.15+60 to STA.18+60
C303	PROFILE - LONG RUN DRIVE STA.18+60 to STA.21+60
C304	PROFILE - LONG RUN DRIVE STA.21+60 to STA.24+60
C305	PROFILE - LONG RUN DRIVE / McGINNIS DRIVE STA.24+60 to STA.27+60
C306	PROFILE - McGINNIS DRIVE STA.27+60 to MENDENHALL LOOP ROAD
C400	CURB & GUTTER LAYOUT PLAN STA.10+00 to STA.12+71
C401	CURB & GUTTER LAYOUT PLAN STA.12+71 to STA.15+76
C402	CURB & GUTTER LAYOUT PLAN STA.15+76 to STA.18+78
C403	CURB & GUTTER LAYOUT PLAN STA.18+78 to STA.21+80
C404	CURB & GUTTER LAYOUT PLAN STA.21+80 to STA.24+60
C405	CURB & GUTTER LAYOUT PLAN STA.24+60 to STA.29+40

LONG RUN DRIVE SIDEWALK AND DRAINAGE RECONSTRUCTION CBJ CONTRACT No. E11-151 CITY & BOROUGH OF JUNEAU, ALASKA



PROJECT LOCATION MAP



APPROVED BY

DIRECTOR OF PUBLIC WORKS

SIGNATURE DATE

CHIEF C.I.P. ENGINEER

SIGNATURE DATE

DESIGN JMP/KAP

DRAWN KAP/MLL

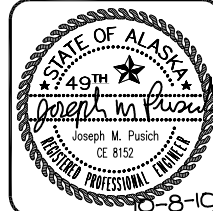
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No. DATE REVISION BY APRVD.

COVER SHEET



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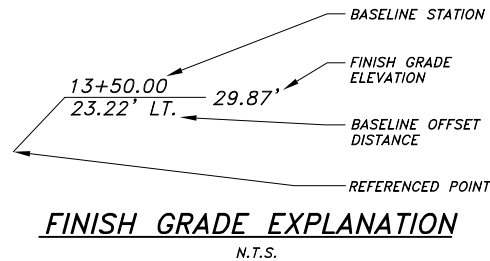
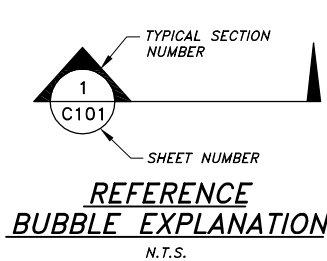
LONG RUN DRIVE
SIDEWALK AND DRAINAGE
RECONSTRUCTION
CBJ CONTRACT No. E11-151
CITY & BOROUGH OF JUNEAU, ALASKA

DATE: OCT. 8, 2010
R & M NO. 101340

SHEET C001

GENERAL CONSTRUCTION NOTES

1. CBJ ENGINEERING STANDARD DETAILS BOOK FOR CIVIL ENGINEERING PROJECTS AND SUBDIVISION IMPROVEMENTS DATED APRIL, 2000 AND CBJ ENGINEERING STANDARD SPECIFICATIONS DATED DECEMBER, 2003 ARE MADE A PART OF THIS CONTRACT, WITH CURRENT REVISIONS AS APPLICABLE.
2. LARGE BOULDERS, HARDPAN, STUMPS, LOGS, ORGANICS AND GROUND WATER MAY BE ENCOUNTERED AT VARIOUS DEPTHS DURING TRENCHING, DITCHING AND ROADWAY EXCAVATION OPERATIONS.
3. GRADES AND ALIGNMENTS SHOWN ON THESE PLANS ARE SUBJECT TO MINOR REVISIONS AS APPROVED BY THE ENGINEER.
4. LOCATION OF STORM DRAIN CATCH BASINS, PIPING AND PIPE LENGTHS ARE SUBJECT TO MINOR REVISIONS AS APPROVED BY THE ENGINEER.
5. ALL DISTURBED AREAS WITHIN THE DRAINAGE SWALES SHALL BE SEEDED BY THE HYDROSEEDING METHOD.
6. CONNECTIONS TO EXISTING SIDE STREETS AND DRIVEWAYS ARE APPROXIMATE AND SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
7. LOCATIONS OF EXISTING UNDERGROUND SEWER, WATER, TELEPHONE, CABLE TELEVISION, AND POWER UTILITIES SHOWN ON THESE PLANS WERE DERIVED FROM CBJ AS-BUILTS OR FIELD LOCATES. ACTUAL LOCATIONS MAY VARY FROM THOSE SHOWN. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING, PROTECTING AND MAINTAINING THE UTILITIES THROUGHOUT THE CONSTRUCTION OF THIS PROJECT. ANY DAMAGE RESULTING TO THESE UNDERGROUND UTILITIES DURING CONSTRUCTION SHALL BE PAID FOR BY THE CONTRACTOR AND SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT. CALL "DIAL BEFORE YOU DIG" @ 586-1333 FOR UNDERGROUND UTILITY LOCATES PRIOR TO ANY EXCAVATION ACTIVITIES.
8. CONTRACTOR SHALL ASSURE GARBAGE PICKUP AND DAILY MAIL SERVICE WILL BE UNINTERRUPTED TO ALL RESIDENTS AND BUSINESSES AFFECTED BY THIS PROJECT.
9. PROPERTY LINE LOCATIONS USED IN THESE PLANS ARE DERIVED FROM RECORD PLATS AND DO NOT REPRESENT A BOUNDARY SURVEY.
10. ALL SIGN INSTALLATIONS OR RELOCATIONS SHALL BE PERFORMED ACCORDING TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (M.U.T.C.D.) WITH THE ALASKA SUPPLEMENT.
11. THE CONTRACTOR SHALL DELIVER ALL ASPHALT PAVEMENT REMOVED FROM THIS PROJECT TO A STOCKPILE AREA IN THE CBJ LEMON CREEK PIT TO BE DESIGNATED BY THE ENGINEER. CONTACT THE ENGINEER FOR THE EXACT LOCATION OF THE STOCKPILE AREA.
12. ALL ITEMS DESIGNATED TO BE REMOVED SHALL BE DISPOSED OF AT AN APPROVED DISPOSAL SITE, EXCEPT AS NOTED IN THE CONTRACT DOCUMENTS.
13. PROVIDE KNOCKOUTS IN CATCH BASINS AND MANHOLES FOR ALL PIPES SHOWN ON THE PLANS.
14. SAW CUT AS NECESSARY ALONG THE BACK OF EXISTING PAVED SIDEWALKS AND DRIVEWAYS THAT ARE TO REMAIN TO PROVIDE A NEAT MATCH LINE AT ALL DRIVEWAY AND SIDEWALK APPROACHES.
15. ONLY HORIZONTAL ELBOW FITTINGS (BENDS) ARE SHOWN ON THE PLANS. ADDITIONAL FITTINGS WILL BE REQUIRED FOR VERTICAL DEFLECTIONS NEAR CONNECTION TO EXISTING PIPES, AND AT OTHER LOCATIONS REQUIRING GRADE CHANGES TO AVOID CONFLICTS.
16. THE CONTRACTOR SHALL NOT STORE MATERIALS OR EQUIPMENT OR OPERATE EQUIPMENT WITH ITS TRACKS OR WHEELS PLACED ON PRIVATE PROPERTY WITHOUT WRITTEN APPROVAL FROM THE PROPERTY OWNER.
17. THE CONTRACTOR SHALL NOTIFY CBJ WATER UTILITIES AT 780-6808 OF PROPOSED WATER SERVICE INTERRUPTION AND SUBMIT THE "WATER SYSTEM SPECIAL USE PERMIT" (COSIGNED BY THE ENGINEER) AT LEAST 48 HOURS PRIOR TO SHUT DOWN OR FLUSHING OF MAINLINE WATER PIPE.
18. CONTRACTOR SHALL REFERENCE ALL EXISTING PROPERTY CORNER MONUMENTS PRIOR TO CONSTRUCTION THAT WILL BE DISTURBED DURING HIS WORK AND REMONUMENT AFTER CONSTRUCTION OPERATIONS. ALL WORK SHALL BE DONE BY, OR UNDER THE DIRECTION OF, AN ALASKA REGISTERED LAND SURVEYOR. ALL EXISTING PROPERTY CORNERS ARE NOT NECESSARILY SHOWN ON THE PLANS.
19. THE PLAN DRAWINGS DO NOT NECESSARILY SHOW ALL TREES AND BRUSH THAT WILL BE ENCOUNTERED DURING CONSTRUCTION ACTIVITIES. NO TREES, BUSHES OR LANDSCAPING ARE TO BE REMOVED OR DAMAGED, UNLESS SHOWN ON THE DRAWINGS OR DIRECTED BY THE ENGINEER.
20. AEL&P, ACS AND GCI MAY CONDUCT WORK WITHIN THE PROJECT LIMITS TO RELOCATE UTILITIES AND TO UPGRADE THEIR RESPECTIVE SYSTEMS. THE CONTRACTOR SHALL COORDINATE HIS ACTIVITIES WITH EACH UTILITY COMPANY AND PROVIDE ACCESS AS NECESSARY FOR UTILITY COMPANIES TO COMPLETE THEIR WORK.
21. "JUMPING JACK", OR SIMILAR TYPE COMPACTORS SHALL BE USED FOR COMPACTION WITHIN 18 INCHES OF THE OUTSIDE SURFACE OF ALL WATER VALVE BOXES AND MANHOLES WITHIN THE STREET AND SIDEWALK LIMITS.
22. THE USE OF GROUT AND QUICKSET CEMENT PRODUCTS WITH ADJUSTING RINGS, BRICKS, WOOD, STONES AND OTHER SIMILAR GRADE ADJUSTMENT DEVICES TO SUPPORT CATCH BASIN FRAMES OVER CATCH BASINS AND MANHOLES WILL NOT BE PERMITTED ON THIS PROJECT. SEE CBJ STANDARD SPECIFICATIONS, SECTION 02502 - STORM SEWER MANHOLES, INLETS AND CATCH BASINS AND THE DRAWINGS FOR CATCH BASIN FRAME SUPPORT REQUIREMENTS. CATCH BASIN FRAME AND GRATES SHALL BE SET AT 6 3/4" BELOW TOP BACK OF CURB ELEVATION, WITH 3' LONG CONCRETE GUTTER TRANSITIONS TO BOTH SIDES OF GRATE.
23. THE CONTRACTOR SHALL INSTALL AND MAINTAIN EROSION CONTROL DEVICES DURING CONSTRUCTION.
24. THE ELEVATIONS GIVEN FOR THE STORM DRAIN GRATES ARE GIVEN TO THE CENTER OF THE GRATE.



ABBREVIATIONS

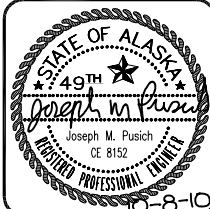
AC	ASBESTOS CEMENT PIPE
A.C.S.	ALASKA COMMUNICATIONS SYSTEMS
A.E.L.&P.	ALASKA ELECTRIC LIGHT & POWER
A.S.T.	ABOVE GROUND STORAGE TANK
B.C.	BEGINNING OF CURVE
B.O.P.	BEGINNING OF PROJECT
C.B.	CATCH BASIN
C.B.J.	CITY & BOROUGH OF JUNEAU
C/L	CENTERLINE
C.M.P.	CORRUGATED METAL PIPE
CONC.	CONCRETE
C.P.P.	CORRUGATED POLYETHYLENE PIPE
C.T.E.	CONNECT TO EXISTING
D.I.P.	DUCTILE IRON PIPE
DIA.	DIAMETER
DOT/PF	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
E	EASTING
E.G.	EXISTING GRADE
E.J.I.W.	EAST JORDAN IRON WORKS
EL	ELEVATION
E.O.P.	END OF PROJECT
EXIST.	EXISTING
EXP.	EXPANSION
F.G.	FINISH GRADE
F.H.	FIRE HYDRANT
G.V.	GATE VALVE
I.E.	INVERT ELEVATION
L	LENGTH
LP	LOW POINT
LT.	LEFT
MAX.	MAXIMUM
MIN.	MINIMUM
M.J.	MECHANICAL JOINT
M.T.E.	MATCH TO EXISTING
N	NORTHING
N/A	NOT APPLICABLE
N.F.	NEENAH FOUNDRY CO.
N.F.S.	NON-FROST SUSCEPTIBLE
N.T.S.	NOT TO SCALE
N.V.C.	NO VERTICAL CURVE
O.F.	OLYMPIC FOUNDRY CO.
P.C.	POINT OF CURVATURE
P.C.C.	POINT OF COMPOUND CURVATURE
PERF	PERFORATED
P.I.	POINT OF INTERSECTION
P/L	PROPERTY LINE
P.O.C.	POINT ON CURVE
P.O.L	POINT ON LINE
PP	POWER POLE
P.R.C.	POINT OF REVERSE CURVATURE
P.T.	POINT OF TANGENCY
P.V.C.	POLYVINYL CHLORIDE
R	RADIUS
R.O.W.	RIGHT-OF-WAY
RT.	RIGHT
S.D.M.H.	STORM DRAIN MANHOLE
S.S.	SANITARY SEWER
S.S.C.O.	SANITARY SEWER CLEANOUT
S.S.M.H.	SANITARY SEWER MANHOLE
STA.	STATION
STD.	STANDARD
SWPPP	STORM WATER POLLUTION PREVENTION PLAN
T	TANGENT
T.B.M.	TEMPORARY BENCH MARK
T.B.C.	TOP BACK OF CURB
T.O.B.	TOP OF BANK
T.O.P.	TOP OF PIPE
TYP.	TYPICAL
U.S.T.	UNDERGROUND STORAGE TANK
VERT.	VERTICAL
VPC	VERTICAL POINT OF CURVATURE
VPI	VERTICAL POINT OF INTERSECTION
W/	WITH

SYMBOLS

EXISTING	PROPOSED	
---	---	PROPERTY / BOUNDARY LINE
---	---	UTILITY EASEMENT LINE
---	---	PROJECT BASELINE
	■	TEMPORARY BENCH MARK
○	○	SANITARY SEWER MANHOLE (ADJUST LID)
— ←	— ←	SANITARY SEWER LINE
— ← ○	— ← ○	SANITARY SEWER CLEANOUT
	■ S-4	STORM DRAIN CATCH BASIN
---	— P-2 —	STORM DRAIN PIPE
○ (SD)	■ S-3	STORM DRAIN MANHOLE
	■	CONCRETE AREA DRAIN
==	==	CURB AND GUTTER, TYPE I
▭	▭	ASPHALT SURFACE
---	---	SAW CUT AND M.T.E.
— T —	— T —	WATER LINE
✕	✕	WATER VALVE (ADJUST)
	▨	RIGID BOARD INSULATION
○	○	FIRE HYDRANT
⊙	⊙	LIGHT POLE
— E —	— E —	ELECTRIC LINE UNDERGROUND
▭	▭	ELECTRIC PEDESTAL
▭	▭	ELECTRIC TRANSFORMER
— P —	— P —	TELEPHONE LINE UNDERGROUND
▭	▭	TELEPHONE PEDESTAL
— C —	— C —	CABLE TV LINE UNDERGROUND
▭	▭	CABLE TV PEDESTAL
— T T T —	— T T T —	TOP OF BANK / SHOULDER
---	---	FILL SLOPE LIMITS
---	---	DITCH LINE
---	---	DRAINAGE SWALE
●	■	TRAFFIC CONTROL SIGN
— x — x —	— x — x —	WOOD FENCE
○	○	CHAIN LINK FENCE
□ →	□ →	MAILBOX
▨	▨	DETECTABLE WARNING TILE
⬆	⬆	SATELLITE DISH
▨	▨	MISCELLANEOUS LANDSCAPING
⊙	⊙	CONIFER TREE
⊙	⊙	LANDSCAPE BUSH OR ORNAMENTAL TREE
▨	▨	STRUCTURE

DESIGN JMP/KAP
DRAWN KAP/MLL
CHECK JMP
APPROVED JMP
FILE:

No.	DATE	REVISION	BY	APRVD.

GENERAL NOTES,
ABBREVIATIONS AND SYMBOLS

R & M ENGINEERING, INC.
ENGINEERS GEOLOGISTS SURVEYORS
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rmengineering@rmjuneau.com

**LONG RUN DRIVE
SIDEWALK AND DRAINAGE
RECONSTRUCTION**
CBJ CONTRACT No. E11-151
CITY & BOROUGH OF JUNEAU, ALASKA

DATE: OCT. 8, 2010
R & M NO. 101340
SHEET **C002**

SURVEY CONTROL SYMBOLS

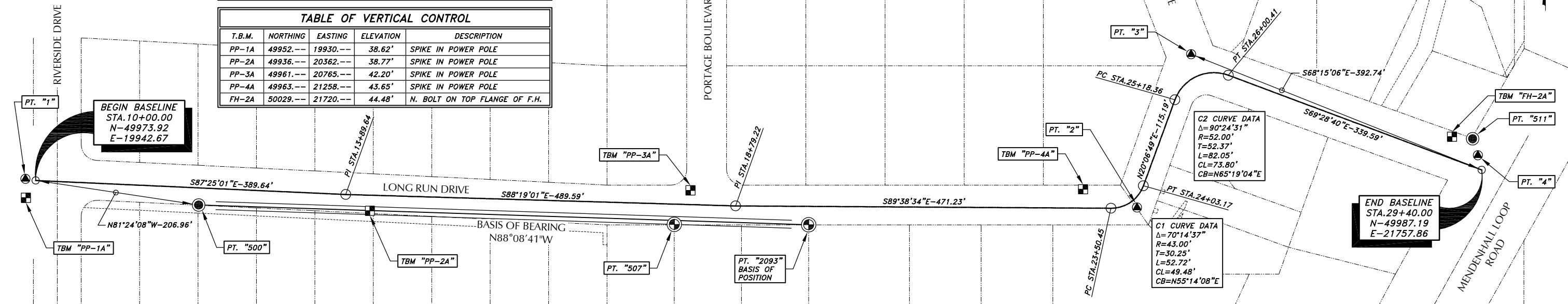
- PRIMARY MONUMENT (RECOVERED)
- SECONDARY MONUMENT (RECOVERED)
- 1" DIAMETER SURVEY SPIKE
- TEMPORARY BENCH MARK (T.B.M.)

TABLE OF HORIZONTAL CONTROL

POINT #	NORTHING	EASTING	DESCRIPTION
1	49975.92	19929.91	SURVEY SPIKE
2	49939.91	21325.24	SURVEY SPIKE
3	50132.71	21393.07	SURVEY SPIKE
4	50005.61	21753.06	SURVEY SPIKE
500	49942.98	20147.30	T&N SECONDARY MONUMENT
507	49918.67	20744.40	1410-S PRIMARY MONUMENT
511	50026.31	21746.46	7570-S SECONDARY MONUMENT
2093	49918.18	20913.02	1410-S PRIMARY MONUMENT

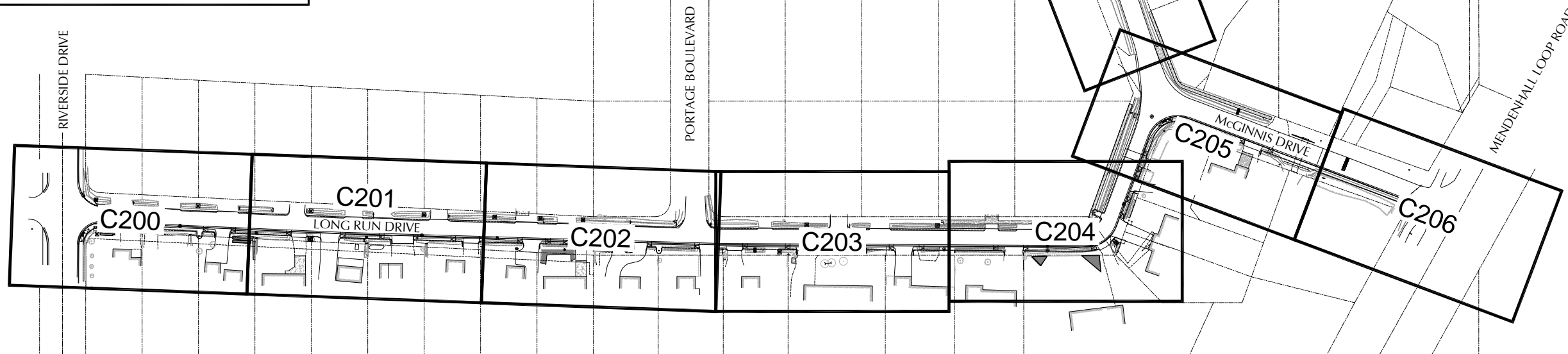
TABLE OF VERTICAL CONTROL

T.B.M.	NORTHING	EASTING	ELEVATION	DESCRIPTION
PP-1A	49952.---	19930.---	38.62'	SPIKE IN POWER POLE
PP-2A	49936.---	20362.---	38.77'	SPIKE IN POWER POLE
PP-3A	49961.---	20765.---	42.20'	SPIKE IN POWER POLE
PP-4A	49963.---	21258.---	43.65'	SPIKE IN POWER POLE
FH-2A	50029.---	21720.---	44.48'	N. BOLT ON TOP FLANGE OF F.H.



GENERAL SURVEY NOTES

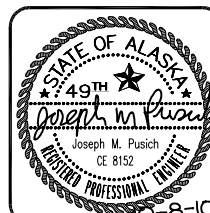
1. THE BASIS OF HORIZONTAL CONTROL UTILIZED TO CONDUCT THIS SURVEY WAS BETWEEN A 1410-S PRIMARY MONUMENT LOCATED AT THE NORTHEAST CORNER OF LOT 8A, BLOCK B, LU-RE-CO HOMES OF JUNEAU AND A T&N SECONDARY MONUMENT FOR THE NORTHWEST CORNER OF LOT 3, BLOCK A, MOUNTAIN VIEW SUBDIVISION HAVING A COMPUTED RECORD BEARING OF N88°08'41"W.
2. THE BASIS OF VERTICAL CONTROL FOR THIS SURVEY IS AN ASSUMED ELEVATION OF 34.40' FOR THE NORTH BOLT ON TOP FLANGE OF A FIRE HYDRANT (TBM FH-3) LOCATED AT THE NORTHWEST CORNER OF THE INTERSECTION OF RIVERCOURT WAY WITH RIVERSIDE DRIVE.
3. DATE OF THIS SURVEY WAS MARCH 24-30, 2010 AND MAY 13, 2010.
4. CONTRACTOR SHALL VERIFY ALL PROJECT CONTROL PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITIES.



DESIGN JMP/KAP
DRAWN KAP/MLL
CHECK JMP
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FILE:

No.	DATE	REVISION	BY	APRVD.

SURVEY CONTROL MAP AND SHEET KEY MAP N.T.S.



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**LONG RUN DRIVE
SIDEWALK AND DRAINAGE
RECONSTRUCTION**
CBJ CONTRACT No. E11-151
CITY & BOROUGH OF JUNEAU, ALASKA

DATE: OCT. 8, 2010
R & M NO. 101340
SHEET C003

STORM DRAIN STRUCTURE
FRAME & GRATE SUMMARY

STRUCTURE No.	EAST JORDAN IRON WORKS, OLYMPIC FOUNDRY CO., NEENAH FOUNDRY, CBJ STANDARD No., OR APPROVED EQUAL.
S-1	OF-MH34SCDI
S-2	EJIW-7701, T2 BACK & M2 GRATE
S-3	OF-MH34SCDI
S-4	EJIW-7701, T2 BACK & M3 GRATE
S-5A	OF-MH34SCDI
S-5B	OF-MH30 & SHALL HAVE THE WORDS "STORM DRAIN" CAST IN
S-6A	OF-MH34SCDI
S-6B	OF-MH30 & SHALL HAVE THE WORDS "STORM DRAIN" CAST IN
S-7	OF-MH34SCDI
S-8	EJIW-7701, T2 BACK & M2 GRATE
S-9	OF-MH34SCDI
S-10	OF-MH34SCDI
S-11	EJIW-7701, T2 BACK & M3 GRATE
S-12	OF-MH34SCDI
S-13	OF-MH34SCDI
S-14	OF-MH34SCDI
S-15	OF-MH34SCDI
S-16	OF-MH34SCDI
S-17	NF R-3165 (8" REAR OUTLET, STANDARD GRATE)
S-18	OF-MH30 & SHALL HAVE THE WORDS "STORM DRAIN" CAST IN
S-19	OF-MH30 & SHALL HAVE THE WORDS "STORM DRAIN" CAST IN
S-20	OF-MH34SCDI
S-21	OF-MH30 & SHALL HAVE THE WORDS "STORM DRAIN" CAST IN
S-22	NF R-3165 (8" REAR OUTLET, STANDARD GRATE)
S-23	OF-MH34SCDI
S-24	OF-MH34SCDI
S-25	EJIW-7701, T2 BACK & M2 GRATE
S-26	OF-MH30 & SHALL HAVE THE WORDS "STORM DRAIN" CAST IN
S-27	OF-MH34SCDI
S-28	NF R-3165 (12" REAR OUTLET, STANDARD GRATE)
S-29	OF-MH34SCDI

NOTE: CATCH BASIN TOP SLAB OPENINGS SHALL BE DIMENSIONED TO FIT THE FRAME DIMENSIONS. ALL GRATES SHALL BE HEAVY DUTY CONSTRUCTION AND BICYCLE SAFE. ALL FRAMES AND GRATES TO BE DUCTILE IRON.

MAILBOX RELOCATION SUMMARY

MAILBOX #	EXIST. LOCATION	PROPOSED LOCATION
9029 LONG RUN DR.	11+30.7, 23.5' RT.	11+30.5, 15.5' RT.*
9027 LONG RUN DR.	11+60.9, 23.6' RT.	
9025 LONG RUN DR.	12+24.7, 20.7' RT.	12+25.9, 15.5' RT.
9023 LONG RUN DR.	13+50.0, 20.4' RT.	13+53.4, 15.5' RT.*
9021 LONG RUN DR.	13+55.6, 13.5' RT.	
9019 LONG RUN DR.	14+50.1, 18.9' RT.	14+55.1, 15.5' RT.
9017 LONG RUN DR.	15+46.5, 19.4' RT.	15+48.3, 15.5' RT.
9016 LONG RUN DR.	14+31.2, 20.4' LT.	14+31.5, 11.0' LT.
9015 LONG RUN DR.	16+51.5, 20.1' RT.	16+48.7, 15.5' RT.
9013 LONG RUN DR.	16+93.0, 15.8' RT.	16+94.5, 15.5' RT.
9012 LONG RUN DR.	16+44.9, 13.5' LT.	16+53.0, 11.0' LT.*
9008 LONG RUN DR.	16+70.9, 13.4' LT.	
9011 LONG RUN DR.	17+31.9, 20.5' RT.	17+60.0, 15.5' RT.
9009 LONG RUN DR.	18+54.6, 19.2' RT.	18+86.2, 15.5' RT.*
9007 LONG RUN DR.	18+90.0, 19.7' RT.	
9005 LONG RUN DR.	19+79.8, 20.7' RT.	19+82.3, 15.5' RT.
9004 LONG RUN DR.	20+49.8, 17.4' LT.	20+51.0, 11.0' LT.
9003 LONG RUN DR.	21+43.2, 17.6' RT.	21+34.0, 15.5' RT.
9001 LONG RUN DR.	22+51.5, 16.6' RT.	22+52.8, 15.5' RT.
8999 LONG RUN DR.	23+67.1, 19.1' RT.	23+83.1, 17.9' RT.
8995 LONG RUN DR.	23+85.8, 22.4' RT.*	23+84.9, 17.8' RT.*
8993 LONG RUN DR.		
8991 LONG RUN DR.	N/A	24+43.5, 15.5' RT.*
3631 McGINNIS DR.	27+01.9, 19.3' RT.	27+01.8, 17.5' RT.

* INDICATES DUPLEX MAILBOX INSTALLATION.

- EXISTING MAILBOX LOCATIONS ARE GIVEN TO THE CENTER OF POST.
- PROPOSED MAILBOX LOCATIONS ARE GIVEN TO THE MIDDLE FRONT FACE OF MAILBOX.
- CONSTRUCT MAILBOXES PER CBJ STANDARD DETAILS 116 & 117.

SIGN ASSEMBLY TABLE

EXISTING LOCATION	PROPOSED LOCATION	MUTCD DESIGNATION	LEGEND AND COMMENTS
10+54.7, 23.7 LT.	10+55.0, 22.0' LT.	R1-1	"STOP" (30"x30") "RIVERSIDE DRIVE" AND "LONG RUN DRIVE"
13+50.9, 20.4' RT.	13+56.0, 16.5' RT.	R2-1	SPEED LIMIT 20 (24"x30")
18+25.2, 19.2' LT.	18+27.0, 17.0' LT.	R1-1	"STOP" (30"x30") "LONG RUN DRIVE" AND "PORTAGE BOULEVARD"
21+67.4, 17.5' LT.	21+60.0, 17.0' LT.	R2-1	SPEED LIMIT 20 (24"x30")
21+88.0 17.9' RT.	21+88.0, 17.3' RT.	W1-1L W13-1	TURN ARROW 90 DEGREE SYMBOL (30"x30") 10 MPH (ADVISORY SPEED PLATE) (18"x18")
23+81.2, 26.0' RT.	23+81.0, 21.0' RT.	W1-6L	ONE WAY LARGE ARROW SYMBOL (36"x18")
24+56.4, 22.2' LT.	24+56.0, 20.0' LT.	W1-1R W13-1	TURN ARROW 90 DEGREE SYMBOL (30"x30") 10 MPH (ADVISORY SPEED PLATE) (18"x18")
25+44.0, 22.5' RT.	25+44.0, 17.0' RT.	R1-1	"STOP" (30"x30") "LONG RUN DRIVE" AND "McGINNIS DRIVE"
29+19.8, 18.3' RT.	29+20.0, 16.3' RT.	R1-1	"STOP" (30"x30") "LONG RUN DRIVE" AND "MENDENHALL LOOP ROAD"

NOTES:

- ALL SIGNS TO BE CONSTRUCTED IN ACCORDANCE WITH CBJ STANDARD DETAIL No. 127.
- ALL SIGNS TO BE LOCATED AS DIRECTED BY THE ENGINEER.
- ALL SIGNS TO BE IDENTICAL WITH EXISTING SIGNS WITH THE EXCEPTION THAT ALL STOP SIGNS SHALL BE HIGH INTENSITY. CONTACT CBJ STREET MAINTENANCE VALLEY SHOP 789-0730 BEFORE ORDERING SIGNS.
- STREET IDENTIFICATION SHALL BE LABELED AS SHOWN ABOVE.
- SALVAGE ALL EXISTING SIGN PANELS AND DELIVER TO CBJ STREET MAINTENANCE VALLEY SHOP. DISPOSE OF ALL EXISTING POSTS AND POST SOCKETS.
- REPLACE ALL LOWER BRACKETS FOR STREET IDENTIFICATION PANELS. BRACKET BETWEEN PANELS MAY BE REUSED.
- ALL POSTS SHALL BE "TELSPAR", OR APPROVED EQUAL.
- POSTS SHALL BE PRE PUNCHED WITH ALL KNOCKOUTS REMOVED.

CULVERT REMOVAL SUMMARY

BEGIN STATION	END STATION
10+16.7, 27.4' LT.	10+70.1, 19.2' LT.*
10+72.4, 14.7' LT.*	10+70.9, 16.1' RT.*
10+88.5, 18.1' LT.	11+18.3, 17.7' LT.
10+97.5, 18.4' RT.*	11+54.1, 18.3' RT.*
11+50.2, 17.4' LT.	11+81.2, 16.7' LT.
12+01.5, 18.0' RT.	12+11.7, 17.8' RT.
12+21.2, 17.8' RT.	12+49.7, 17.4' RT.
12+25.5, 16.5' LT.	12+55.4, 16.4' LT.
12+98.8, 16.6' LT.*	13+46.3, 16.8' LT.*
13+20.7, 16.6' RT.	13+48.2, 16.6' RT.
13+51.7, 17.1' RT.	13+96.8, 15.9' RT.
13+90.7, 16.8' LT.	14+21.8, 17.3' LT.
14+28.1, 17.2' LT.	14+59.5, 17.0' LT.
14+50.3, 15.8' RT.	14+92.0, 15.6' RT.
15+00.6, 16.9' LT.	15+31.2, 16.8' LT.*
15+41.9, 16.2' RT.	15+73.3, 16.3' RT.
16+14.6, 16.7' LT.*	16+45.2, 16.4' LT.
16+24.4, 16.5' RT.	16+54.1, 16.5' RT.
16+65.4, 16.4' LT.	16+96.9, 15.9' LT.
16+88.8, 16.5' RT.	17+19.3, 16.7' RT.
17+35.5, 16.6' RT.	17+61.8, 16.6' RT.
17+68.1, 16.7' RT.	17+91.4, 17.0' RT.
17+97.9, 16.6' RT.	18+10.5, 16.7' RT.
18+21.4, 15.2' LT.	18+69.6, 16.2' LT.*
18+50.8, 17.0' RT.	18+81.0, 16.7' RT.
18+86.4, 16.9' RT.	19+17.8, 16.9' RT.
19+30.8, 16.7' LT.	19+51.4, 16.5' LT.
19+39.6, 17.0' RT.	19+60.7, 17.1' RT.
19+79.3, 16.9' RT.	20+19.4, 16.2' RT.
20+21.3, 16.1' LT.	20+55.5, 15.7' LT.
20+76.6, 15.8' LT.	21+06.6, 15.6' LT.
21+66.4, 15.3' RT.	21+88.1, 15.6' RT.
22+25.7, 16.1' LT.	22+45.3, 15.9' LT.
22+49.8, 15.5' RT.	22+79.6, 15.7' RT.
22+68.4, 16.1' LT.	22+98.2, 16.1' LT.
23+65.5, 16.3' RT.	23+82.3, 21.6' RT.
23+85.0, 22.2' RT.	24+07.5, 16.4' RT.
23+92.1, 16.6' LT.	24+06.7, 17.2' LT.
24+41.7, 16.1' RT.	24+59.9, 15.8' RT.
25+32.1, 20.5' LT.*	25+66.8, 14.8' RT.*
25+45.2, 30.6' LT.	25+57.7, 84.9' LT.
25+61.0, 179.1' LT.	25+63.9, 191.1' LT.
26+74.1, 18.4' RT.	27+03.9, 18.4' RT.

* INDICATES CONCRETE HEADWALL REMOVAL

EXISTING SANITARY SEWER MANHOLE ADJUSTMENT SUMMARY

MANHOLE #	MANHOLE LOCATION	EXISTING EL.	PROPOSED EL.	WORK SUMMARY
K2.1	STA.14+16.6, 8.5' LT.	38.72'	38.82'	REPLACE EXISTING FRAME AND COVER WITH NEW FRAME AND COVER PER CBJ STANDARD No. 206A. USE INFRA RISER (RECYCLED RUBBER) GRADE RINGS FOR ADJUSTING/INSTALLING NEW FRAME AND COVER ON MANHOLE TO FINISH GRADE.
K2	STA.14+22.0, 2.0' LT.	38.85'	39.04'	RECONSTRUCT EXISTING MANHOLE. REMOVE EXISTING ADJUSTMENT RISER RINGS, REMOVE 24-INCH CONE AND REPLACE WITH 36-INCH CONE. REPLACE EXISTING FRAME AND COVER WITH NEW FRAME AND COVER PER CBJ STANDARD No. 206A. USE INFRA RISER (RECYCLED RUBBER) GRADE RINGS FOR ADJUSTING/INSTALLING NEW FRAME AND COVER ON MANHOLE TO FINISH GRADE.
I2	STA.18+43.5, 1.9' RT.	41.13'	41.24'	RECONSTRUCT EXISTING MANHOLE. REMOVE EXISTING ADJUSTMENT RISER RINGS, REMOVE 24-INCH CONE AND REPLACE WITH 36-INCH CONE. REPLACE EXISTING FRAME AND COVER WITH NEW FRAME AND COVER PER CBJ STANDARD No. 206A. USE INFRA RISER (RECYCLED RUBBER) GRADE RINGS FOR ADJUSTING/INSTALLING NEW FRAME AND COVER ON MANHOLE TO FINISH GRADE.
H2	STA.21+13.0, 2.2' LT.	41.66'	41.17'	REPLACE EXISTING FRAME AND COVER WITH NEW FRAME AND COVER PER CBJ STANDARD No. 206A. USE INFRA RISER (RECYCLED RUBBER) GRADE RINGS FOR ADJUSTING/INSTALLING NEW FRAME AND COVER ON MANHOLE TO FINISH GRADE.
G2	STA.23+78.2, 9.2' RT.	41.01'	40.27'	REPLACE EXISTING FRAME AND COVER WITH NEW FRAME AND COVER PER CBJ STANDARD No. 206A. USE INFRA RISER (RECYCLED RUBBER) GRADE RINGS FOR ADJUSTING/INSTALLING NEW FRAME AND COVER ON MANHOLE TO FINISH GRADE.

SUMMARY TABLES



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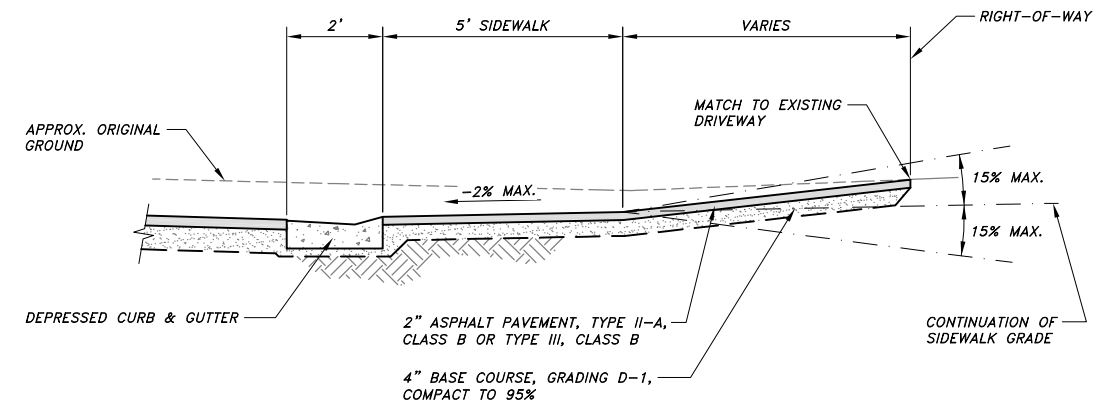
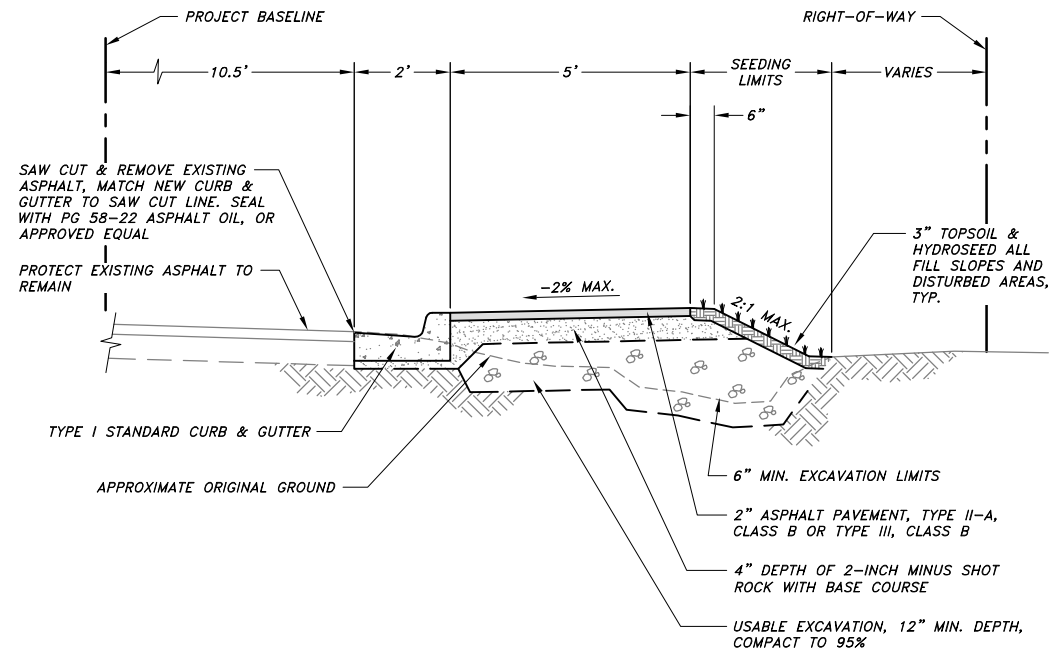
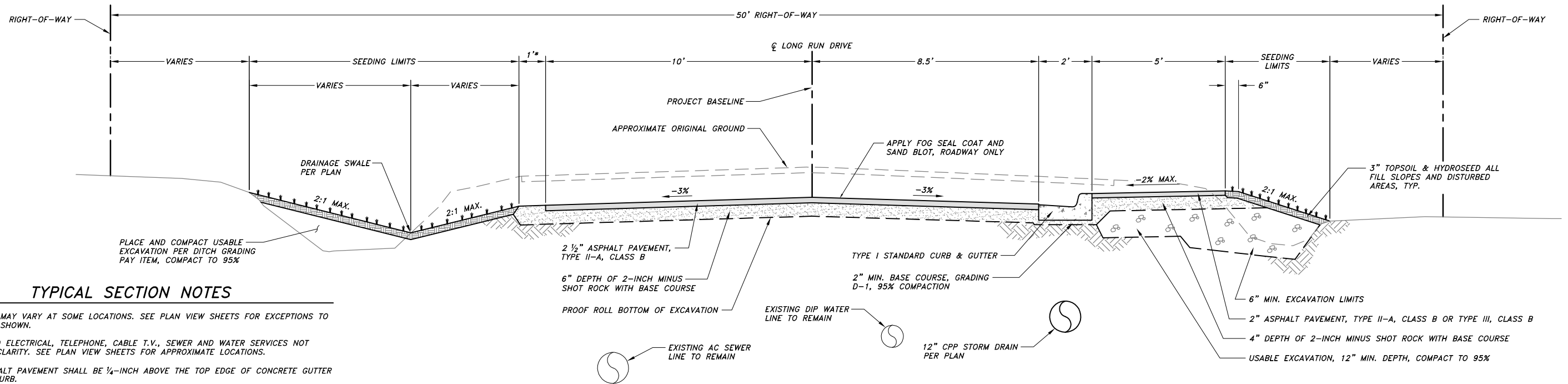
LONG RUN DRIVE
SIDEWALK AND DRAINAGE
RECONSTRUCTION
CBJ CONTRACT No. E11-151
CITY & BOROUGH OF JUNEAU, ALASKA

DATE: OCT. 8, 2010
R & M NO. 101340

SHEET
C100

DESIGN JMP/KAP
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APPROVED JMP
FILE:

No.	DATE	REVISION	BY	APRVD.



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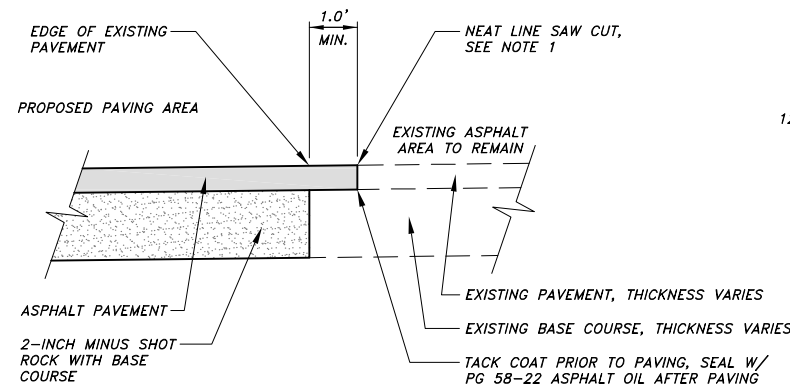
TYPICAL SECTIONS



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**LONG RUN DRIVE
SIDEWALK AND DRAINAGE
RECONSTRUCTION**
CBJ CONTRACT No. E11-151
CITY & BOROUGH OF JUNEAU, ALASKA

DATE: OCT. 8, 2010
R & M NO. 101340
SHEET **C101**



1 PAVEMENT MATCH JOINT DETAIL

- NOTE:**
1. SAW CUT IN EXISTING PAVEMENT SHALL NOT BE MADE UNTIL 24 HOURS PRIOR TO FINAL PAVING.

2 24-INCH CPP INLET DETAIL

- NOTES:**
1. SEE PLAN SHEETS FOR NUMBER AND ORIENTATION OF PIPES.
 2. CONCRETE AREA DRAIN NOT SHOWN FOR CLARITY.
 3. THE 24-INCH CPP INLET SHALL HAVE A FACTORY SEALED BOTTOM PLATE.
 4. THE INLET AND OUTLET PIPES SHALL BE FACTORY SEALED.

4 CURB INLET DRAIN DETAIL

DESIGN JMP/KAP
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No.	DATE	REVISION	BY	APPRD
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5 MODIFIED AREA DRAIN DETAIL
N.T.S.

- NOTES:**
1. FRAME AND GRATE MUST BE OF A TYPE THAT WILL NOT CREATE A TRIP HAZARD.
 2. COMPACT BACKFILL TO 95% OF MAXIMUM DENSITY.
 3. CONCRETE SHALL HAVE A TROWEL FINISH.

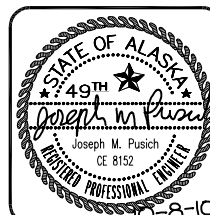
3 CATCH BASIN FRAME SUPPORT DETAIL
N.T.S.

- NOTES:**
1. ALL VOIDS BETWEEN THE TOP OF THE CATCH BASIN AND THE FRAME (EXCEPT A 1/4-INCH MAXIMUM THICKNESS GROUT BED MAY BE APPLIED IF BETWEEN PRECAST CONCRETE RISERS) SHALL BE FILLED WITH CONCRETE MEETING THE REQUIREMENTS OF SECTION 03302 CONCRETE STRUCTURES. NO BRICKS, WOOD, STONES, ADJUSTING RINGS, OR OTHER GRADE ADJUSTMENT DEVICES SHALL BE USED.
 2. CBJ STANDARD DETAIL 303-STORM DRAIN MANHOLE TYPES I AND II IS REVISED AS FOLLOWS:
 - DELETE NOTE 1
 - DELETE THE DRAWING NOTES THAT READ:
 "IF MANHOLE IS IN PAVED ROADWAY, INSTALL CONCRETE COLLAR PER STANDARD 126", "FRAME AND GRATE SHALL CONFORM TO STANDARD 206" AND "ADJUSTING RINGS (SEE NOTE 1)", AND REPLACE WITH: "FRAME AND COVER SHALL CONFORM WITH STANDARD 306" AND "CONCRETE SHALL BE USED FOR ADJUSTMENT OF FRAME TO FINISH GRADE".
 3. TEMPORARY FORM WORK SHALL BE CONSTRUCTED TO PROVIDE A SMOOTH INSIDE EXPOSED SURFACE. AFTER REMOVAL OF FORM WORK, THE EXPOSED SURFACES SHALL BE FINISHED AS REQUIRED TO PROVIDE A SURFACE FREE OF VOIDS AND PROJECTIONS.
 4. THIS DETAIL SHALL ALSO APPLY TO TYPE I MANHOLES. THE CONCRETE FRAME SUPPORT MAY BE CONSTRUCTED WITH A RECTANGULAR SHAPE TO MATCH THE FRAME (OVER A CIRCULAR MANHOLE OPENING), BUT MUST BE CONSTRUCTED WITH A CIRCULAR INSIDE SHAPE FOR INSTALLATION OF A CIRCULAR FRAME. GROUT SHALL BE USED (1/4-INCH MAX.) TO SLOPE LEVEL AREAS OF TOP SLAB FOR DRAINAGE.
 5. THE USE OF GROUT AND QUICKSET CEMENT PRODUCTS WITH ADJUSTING RINGS, BRICKS, WOOD, STONES AND OTHER SIMILAR GRADE ADJUSTMENT DEVICES TO SUPPORT CATCH BASIN FRAMES OVER CATCH BASINS AND MANHOLES WILL NOT BE PERMITTED ON THIS PROJECT. SEE CBJ STANDARD SPECIFICATIONS, SECTION 02502 - STORM SEWER MANHOLES, INLETS AND CATCH BASINS AND THE DRAWINGS FOR CATCH BASIN FRAME SUPPORT REQUIREMENTS. CATCH BASIN FRAME AND GRATES SHALL BE SET AT 6 3/4" BELOW TOP BACK OF CURB ELEVATION, WITH 3' LONG CONCRETE GUTTER TRANSITIONS TO BOTH SIDES OF GRATE.

6 CONCRETE TRANSITION SLAB DETAILS

MANHOLE FRAME SHALL BE RAISED TO FINISH GRADE PRIOR TO PAVING OPERATIONS. IF NOT WITHIN ALLOWABLE TOLERANCES AFTER PAVING OPERATION THE ABOVE DETAILS SHALL BE USED.

CONSTRUCTION DETAILS



R & M

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ENGINEERS GEOLOGISTS SURVEYORS

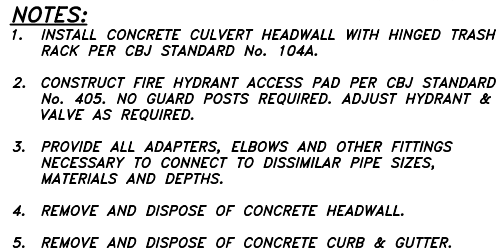
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**LONG RUN DRIVE
SIDEWALK AND DRAINAGE
RECONSTRUCTION**
CBJ CONTRACT No. E11-151
CITY & BOROUGH OF JUNEAU, ALASKA

MATCH LINE S1A. 12+71, SHEET C201

THE STORM DRAIN GRATE
ELEVATIONS ARE GIVEN TO
THE CENTER OF THE GRATE.



STORM DRAIN PIPE SUMMARY				
PIPE	DIA.	LENGTH	TYPE	SLOPE
P-9B	12"	70'	CPP	0.50%
P-9C	12"	7'	CPP	10.00%
P-10	12"	37'	CPP	1.00%
P-11A	12"	74'	CPP	0.50%
P-11B	12"	72'	CPP	0.50%
P-11C	12"	8'	CPP	13.00%
P-12	12"	13'	CPP	12.70%
P-13	12"	27'	CPP	0.50%
P-14	12"	92'	CPP	0.50%

NOTE: PIPE LENGTHS AND SLOPES ARE MEASURED FROM CENTER TO CENTER OF STRUCTURES.

S-5B CB TYPE-IV	
STA.	RT.
STA.12+80.17,	14.35'
LID EL.=	37.71'
P-9A I.E.=	33.07'
P-9B I.E.=	33.15'
P-9C I.E.=	35.00'
SUMP=	16" MIN.

* W/ CONCRETE AREA DRAIN

S-6B CB TYPE-IV	
STA.	RT.
STA.14+23.30,	13.88'
LID EL.=	39.35'
P-11A I.E.=	33.95'
P-11B I.E.=	34.03'
P-11C I.E.=	35.15'
SUMP=	16" MIN.

* W/ CONCRETE AREA DRAIN

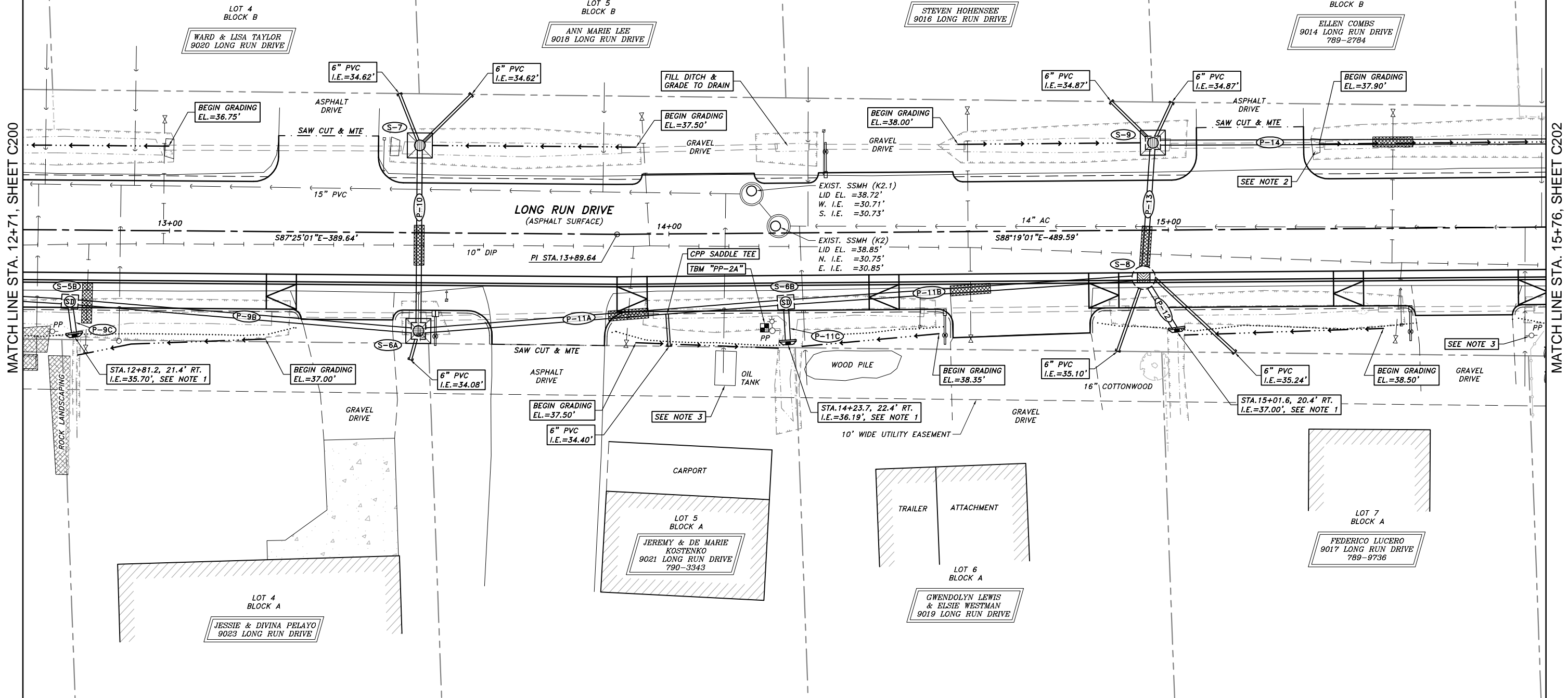
S-8 SDMH TYPE-I	
STA.	RT.
STA.14+95.00,	9.50'
GRATE EL.=	38.49'
P-11B I.E.=	34.39'
P-12 I.E.=	35.35'
P-13 I.E.=	34.47'
SW 6" PVC I.E.=	34.80'
SE 6" PVC I.E.=	34.80'
SUMP=	16" MIN.

* W/ CONCRETE AREA DRAIN

THE STORM DRAIN GRATE ELEVATIONS ARE GIVEN TO THE CENTER OF THE GRATE.

- NOTES:**
1. INSTALL CONCRETE CULVERT HEADWALL WITH HINGED TRASH RACK PER CBJ STANDARD No. 104A.
 2. REMOVE AND DISPOSE OF CONCRETE HEADWALL.
 3. PROTECT AND MAINTAIN.

DIAL BEFORE YOU DIG!
586-1333
 U/G POWER, TELEPHONE & T.V. SHOWN ON THIS DRAWING INDICATE EXISTENCE ONLY AND DO NOT SUBSTITUTE FOR FIELD LOCATES



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DRAWN: KAP/MLL

CHECK: JMP

APPROVED: JMP

FILE:

PLAN - LONG RUN DRIVE

STA.12+71 to STA.15+76

GRAPHIC SCALE

0' 5' 10' 20' 40'

STATE OF ALASKA

49th

Joseph M. Pusich

CE 8152

REGISTERED PROFESSIONAL ENGINEER

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LONG RUN DRIVE

SIDEWALK AND DRAINAGE RECONSTRUCTION

CBJ CONTRACT No. E11-151

CITY & BOROUGH OF JUNEAU, ALASKA

DATE: OCT. 8, 2010

R & M NO. 101340

SHEET C201

STORM DRAIN PIPE SUMMARY

PIPE	DIA.	LENGTH	TYPE	SLOPE
P-15	12"	27'	CPP	0.50%
P-16	12"	60'	CPP	0.50%
P-17	12"	56'	CPP	0.50%
P-18	12"	62'	CPP	1.66%
P-19	12"	35'	CPP	0.71%
P-20	8"	12'	CPP	1.00%
P-21	12"	46'	CPP	1.00%

NOTE: PIPE LENGTHS AND SLOPES ARE MEASURED FROM CENTER TO CENTER OF STRUCTURES.

S-10 CB TYPE-III*

STA.15+89.00,	17.09' LT.
GRATE EL.=	37.44'
P-14 I.E.=	35.15'
P-15 I.E.=	35.23'
P-16 I.E.=	35.23'
N 6" PVC I.E.=	35.49'
SUMP=	16" MIN.

* W/ CONCRETE AREA DRAIN

S-11 CB TYPE-III

STA.15+93.26,	9.50' RT.
GRATE EL.=	37.98'
P-15 I.E.=	35.37'
S 6" PVC I.E.=	35.87'
SUMP=	16" MIN.

S-12 CB TYPE-III*

STA.16+48.50,	17.00' LT.
GRATE EL.=	37.81'
P-16 I.E.=	35.53'
P-17 I.E.=	35.61'
N 6" PVC I.E.=	35.70'
S 6" PVC I.E.=	35.70'
SUMP=	16" MIN.

* W/ CONCRETE AREA DRAIN

S-13 CB TYPE-III*

STA.17+04.00,	17.00' LT.
GRATE EL.=	38.16'
P-17 I.E.=	36.07'
P-18 I.E.=	36.15'
N 6" PVC I.E.=	36.50'
SUMP=	16" MIN.

* W/ CONCRETE AREA DRAIN

S-14 24" CPP INLET*

STA.17+64.20,	20.50' RT.
GRATE EL.=	39.25'
P-19 I.E.=	37.28'
E 6" PVC I.E.=	37.61'
SUMP=	12" MIN.

* W/ CONCRETE AREA DRAIN

THE STORM DRAIN GRATE ELEVATIONS ARE GIVEN TO THE CENTER OF THE GRATE.

NOTES:

1. INSTALL CONCRETE CULVERT HEADWALL WITH HINGED TRASH RACK PER CBJ STANDARD No. 104A.
2. INSTALL CONCRETE CULVERT HEADWALL WITHOUT HINGED TRASH RACK PER CBJ STANDARD No. 104B.
3. CONSTRUCT FIRE HYDRANT ACCESS PAD PER CBJ STANDARD No. 405. NO GUARD POSTS REQUIRED. ADJUST HYDRANT & VALVE AS REQUIRED.
4. PROVIDE ALL ADAPTERS, ELBOWS AND OTHER FITTINGS NECESSARY TO CONNECT TO DISSIMILAR PIPE SIZES, MATERIALS AND DEPTHS.
5. PROTECT AND MAINTAIN.
6. REMOVE AND DISPOSE OF CONCRETE HEADWALLS.
7. RELOCATE PLANTER ONTO PRIVATE PROPERTY.

DIAL BEFORE YOU DIG!
586-1333

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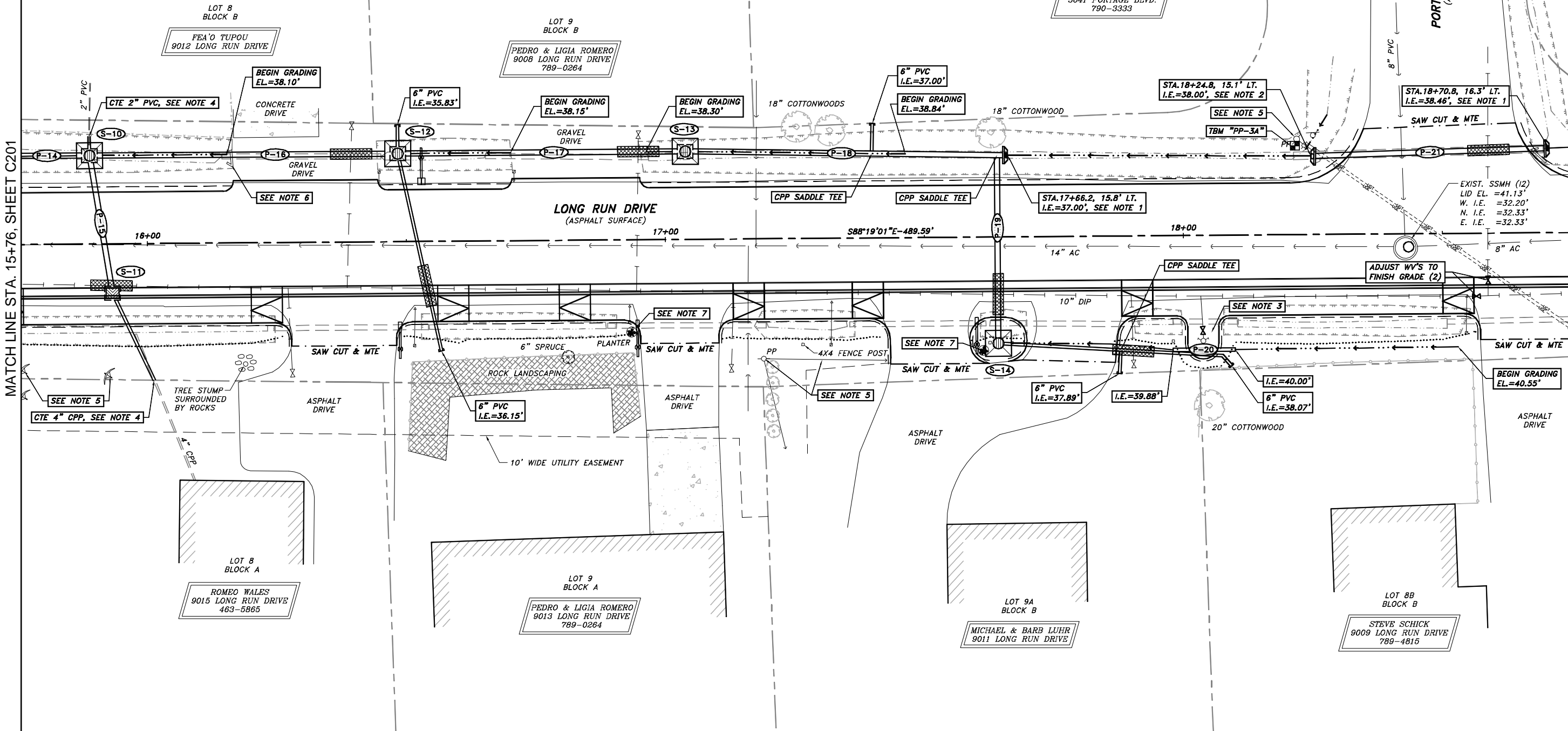
LOT 1A
BLOCK E

ELIAS & TONI DURAN
3641 PORTAGE BLVD.
790-3333

PORTAGE BOULEVARD
(ASPHALT SURFACE)

MATCH LINE STA. 15+76, SHEET C201

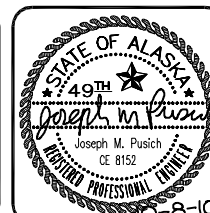
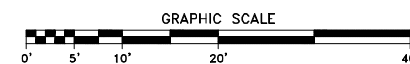
MATCH LINE STA. 18+78, SHEET C203



DESIGN JMP/KAP
DRAWN KAP/MLL
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APPROVED JMP
FILE:

No.	DATE	REVISION	BY	APRVD.

PLAN - LONG RUN DRIVE
STA.15+76 to STA.18+78



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**LONG RUN DRIVE
SIDEWALK AND DRAINAGE
RECONSTRUCTION**
CBJ CONTRACT No. E11-151
CITY & BOROUGH OF JUNEAU, ALASKA

DATE: OCT. 8, 2010
R & M NO. 101340
SHEET C202