



City of Homer

www.cityofhomer-ak.gov

Public Works

3575 Heath Street
Homer, AK 99603

publicworks@cityofhomer-ak.gov

(p) 907- 235-3170

(f) 907-235-3145

Memorandum 20-175

TO: City Council
THROUGH: Rob Dumouchel, City Manager
FROM: Janette Keiser, Director of Public Works
DATE: October 21, 2020
SUBJECT: Mt. Augustine Drive Drainage Project

Issue: We were directed to explore an engineering solution to relocate the surface water discharge at the confluence of the Sterling Highway and Mount Augustine Drive into a naturally occurring ravine, gully, watercourse or runnel. This memorandum presents the results of our exploration.

Background:

Mt. Augustine Drive is located in the Baycrest Subdivision, located near the City's western limits. This subdivision was certified in 1967, not long after the City was first incorporated in 1964. While the road is not built to City standards, it is part of the City's Road Maintenance Map and the City provides rural road maintenance – grading, dust control, brushing, snow plowing and drainage ditching. Mt. Augustine Drive connects the subdivision to the Sterling Highway, with its point of ingress/egress on the south side of the highway.

In 1996, the Alaska Department of Public Transportation and Public Facilities (“ADOT/PF”) converted the Sterling Highway from a 2-lane to a lane 4-lane highway. That project included the installation of roadside drainage ditches on both sides of the highway. Cross-culverts were installed to convey water from the north side of the highway to the south. One such cross-culvert comes out at Mt. Augustine Drive. Further, the ADOT/PF installed a “beehive” to capture surface water from the south side of the highway. The combined flows are carried under Mt. Augustine Drive through an aluminum culvert. Over the years, the property owner and other residents of the subdivision have complained this drainage was causing, or had the potential to cause, damage and sought help from the City.

In 2018, the City Council adopted Resolution 18-008 requesting the Alaska Department of Public Transportation and Public Facilities (“ADOT/PF”), *“work to fix drainage issues that are adversely affecting the Baycrest Subdivision including, but not limited to redirecting the outflow from the Sterling Highway Beehive.”* The ADOT/PF denied any responsibility and took no action.

We have explored options for an engineering solution, which involves capturing the water, where it crosses Mt. Augustine Road, in a new storm drain line that would empty into a nearby ravine. Once there, the water would flow to Kachemak Bay. The estimated cost of our engineered solution is

\$97,000. We propose to fund this solution through the HART-Roads Fund, which is authorized to address drainage problems.

Funds are available:

- I. **Funding is available.** The City Council, on April 24, 2017, passed Resolution 17-038, which adopted the Homer Accelerated Roads and Trails Program (“HART”) Manual. The HART Manual identified a set of criteria for projects that may be considered for HART funding. The criteria that would be addressed by the Mt. Augustine Drive Storm Drain Improvement Project include addressing drainage issues.

Our estimated cost of the recommended solution is \$97,000. If this project is funded from the HART-Roads Fund, the remaining balance in that Fund would be \$4,836,314.62. (See chart below.)

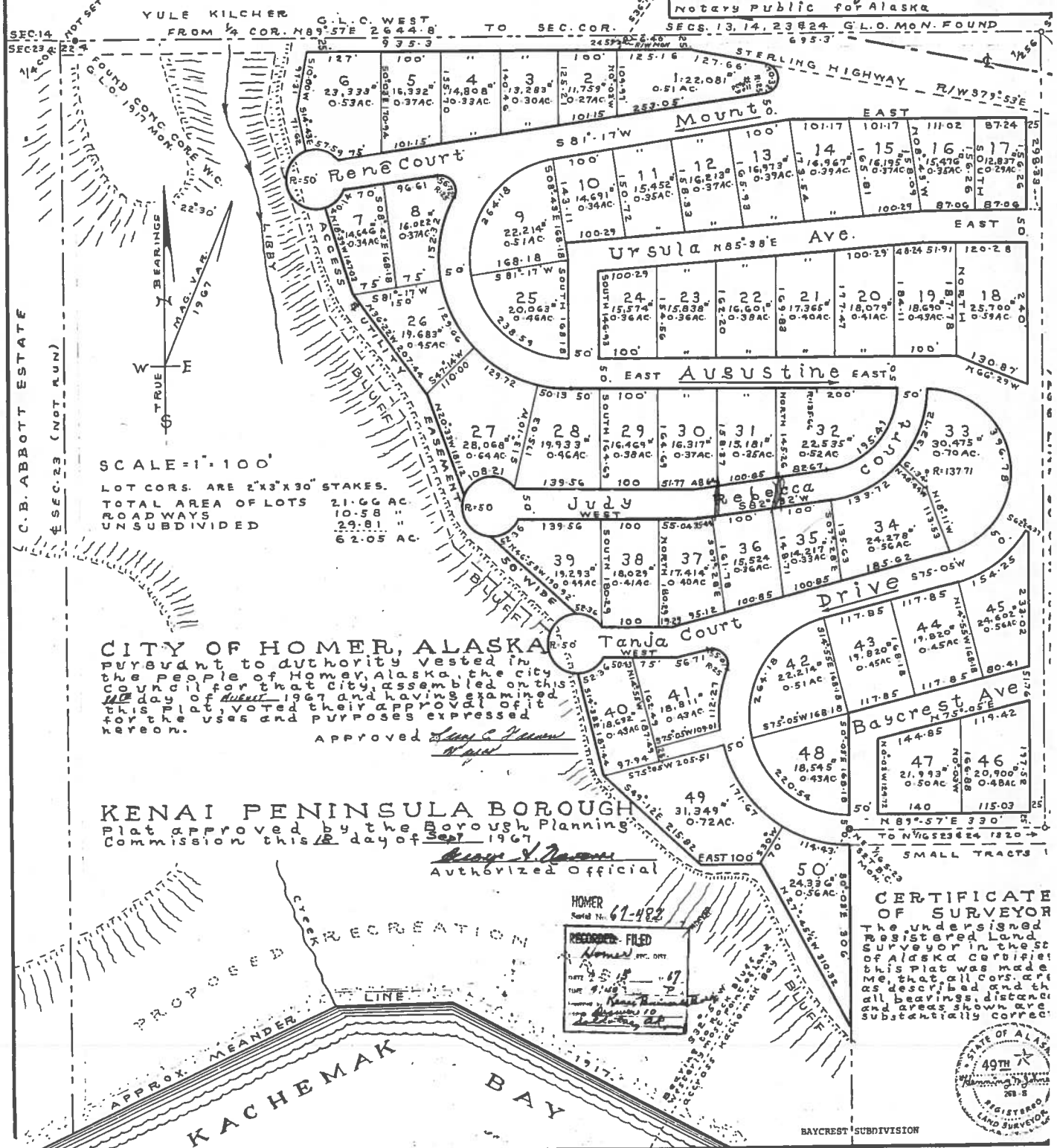
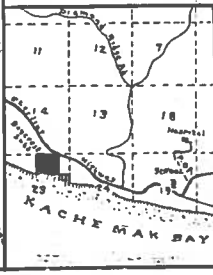
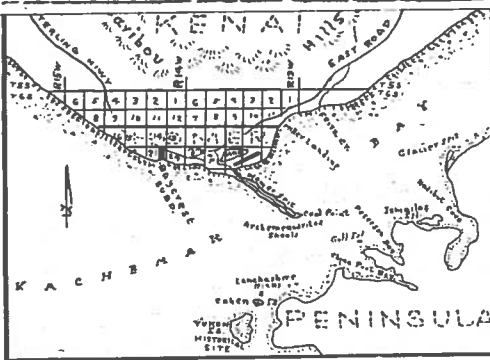
Project Item	HART - Roads
Starting Balance as of 3/31/20	\$ 5,995,992.62
Funds Obligated Balance thru 9/14/20	
Fuel Island Replacement	\$ 95,000.00
Small Works Drainage Improvement Program	\$ 110,000.00
Small Works Road Repair Program	\$ 175,000.00
Main Street Storm Drain and Sidewalk Project - Pioneer Avenue North	\$ 98,000.00
Update 1979 Drainage Management Plan	\$ 90,000.00
Woodard Creek Culvert Replacement Project	\$ 500,000.00
Horizon Court	\$ 20,000.00
Homer Soil & Water Conservation District	\$ 25,000.00
Funds obligated thru 9-14-20 from HART Roads	\$1,113,000
Lake Street ROW and other easement elements of Seawall Armor Revetment Project	\$ 46,678.00
New Requests from HART - Roads	\$46,678.00
Balance Remaining	\$4,836,314.62

BAYCREST SUBDIVISION

LOCATED IN LOT 1 AND W 1/2 W 1/2 NE 1/4 NE 1/4, SEC. 23, T6S. R14W. S.M. HOMER, ALASKA.

CERTIFICATE OF OWNERSHIP & DEDICATION
I (we) certify that I (we) are the owners of the property shown and described hereon. I (we) hereby request approval of this Plat, showing such easements for public utilities, roadways and alleys dedicated by me (us) for public use.

NOTARY'S ACKNOWLEDGEMENT
Subscribed and sworn before me this 2 day of August 1967
My commission expires August 1969
Marjorie Anderson-Pete
Notary Public for Alaska



SCALE = 1" = 100'
LOT CORNS. ARE 2"x3"x30" STAKES.
TOTAL AREA OF LOTS 21.66 AC.
ROADWAYS 10.58 AC.
UNSUBDIVIDED 29.81 AC.
62.05 AC.

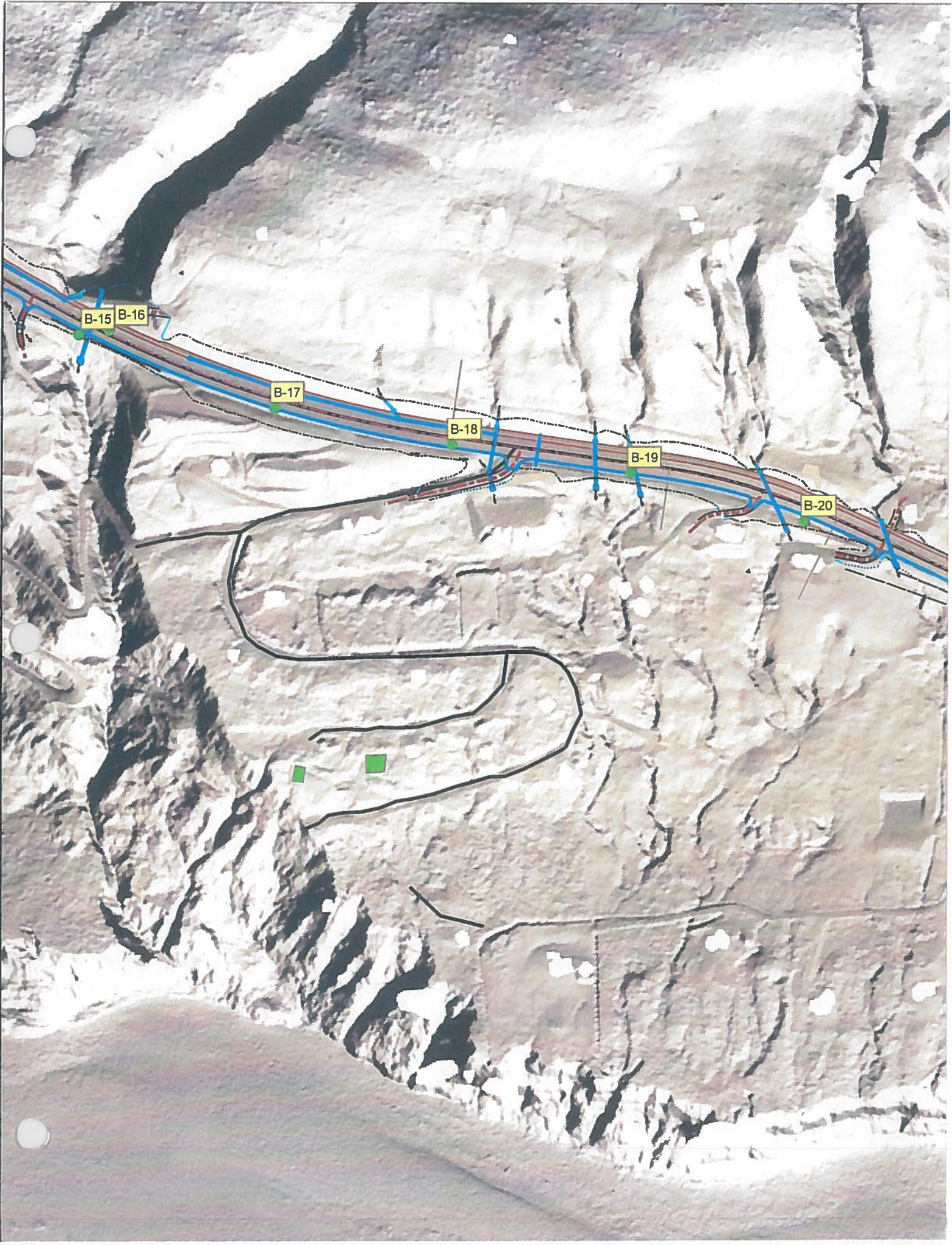
CITY OF HOMER, ALASKA
Pursuant to authority vested in the people of Homer, Alaska, the city council for that city, assembled on this day of August 1967 and having examined this plat, voted their approval of it for the uses and purposes expressed hereon.
Approved *Larry C. Hansen*
Mayor

KENAI PENINSULA BOROUGH
Plat approved by the Borough Planning Commission this 2 day of August 1967
Larry C. Hansen
Authorized official

HOMER
Serial No. 67-482
RECORDED - FILED
Homer, Inc. DIV.
DATE 8-15-67
BY *James H. [Signature]*
100
[Signature]

CERTIFICATE OF SURVEYOR
The undersigned Registered Land Surveyor in the State of Alaska certifies that this Plat was made by me, that all corners are as described and that all bearings, distances and areas shown are substantially correct.





B-15

B-16

B-17

B-18

B-19

B-20



Drainage Improvement - Mt. Augustine Drive Beehive
 Conceptual Cost Estimate

Item of Work

Item of Work	Quantity	Unit	Unit Price	Cost
Construct Storm Drain Manhole	1	LS	\$12,000.00	\$12,000.00
Install 24" Dia. Gal. Steel CMP	150	LF	\$75.00	\$11,250.00
Construct Ditch	600	LF	\$12.00	\$7,200.00
Abandon Existing Storm Drain Manhole	1	LS	\$8,000.00	\$8,000.00
Type II Gravel Import	40	CY	\$40.00	\$1,600.00
Asphalt Paving Removal/Replacement	1000	SF	\$9.00	\$9,000.00
Topsoil/Seeding	1000	SF	\$6.50	\$6,500.00
Traffic Control	1	LS	\$10,000.00	\$10,000.00

Total Construction	\$65,550.00
Design	\$16,000.00
Permitting	\$2,500.00
Contingency (15%)	\$12,607.50
	\$96,657.50