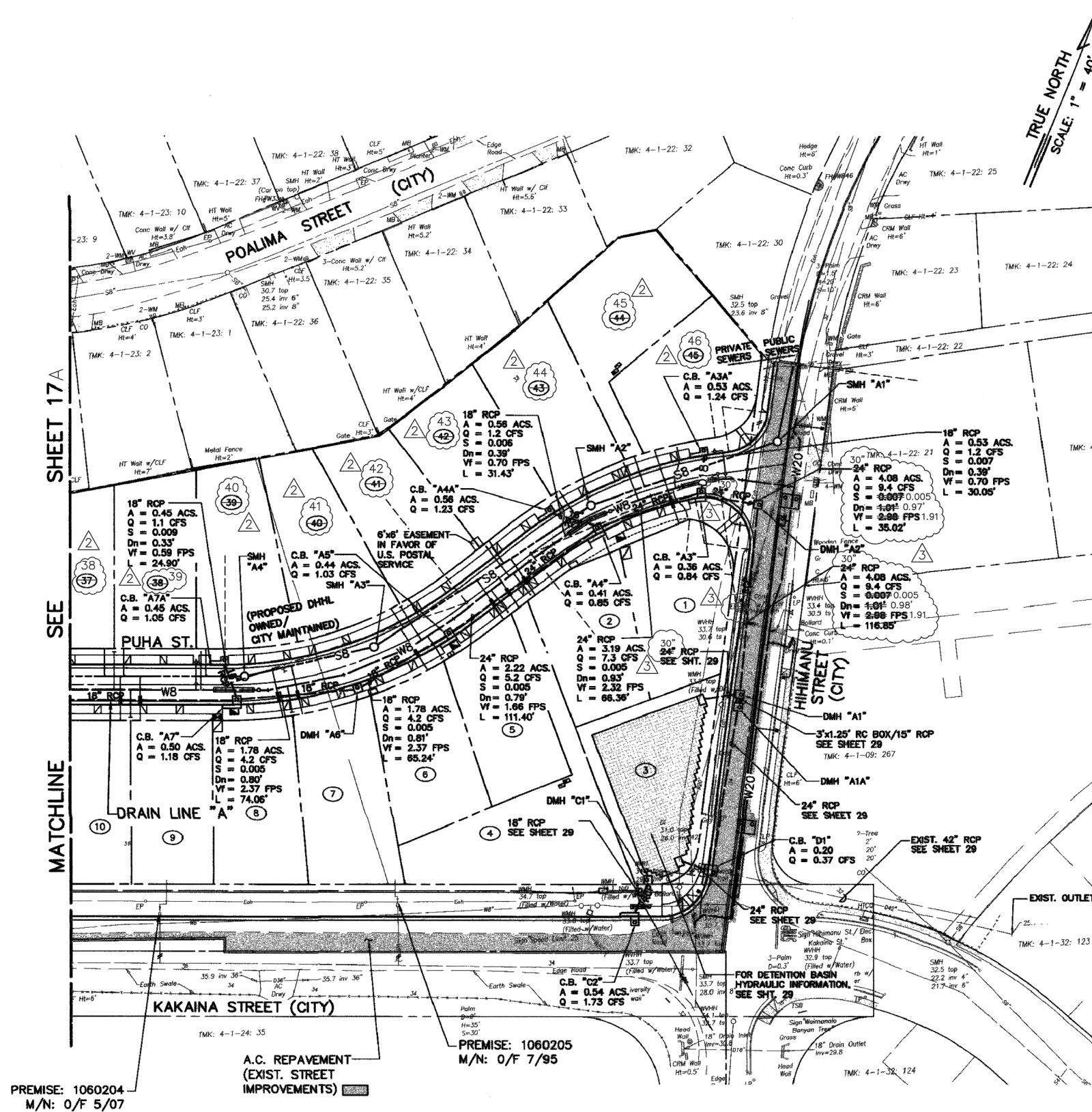


HYDROLOGIC DATA					
AREA	AREA "A"	AREA "B"	AREA "C"	AREA "D"	AREA "E"
(acres)	0.53	10.50	4.10	0.54	0.20
COEFF "C"	0.55	0.53	0.55	0.55	0.44
Tc (min.)	7.37	27.79	22.59	6.24	15.93
INTENSITY (in/hr)	5.54	3.31	3.63	5.83	4.21
Q=CIA (cfs)	1.63	18.42	8.19	1.73	0.37
Q10/A	3.08	1.75	2.00	3.20	1.85



LEGEND

WB	EXIST. WATER LINE
WB	NEW WATER LINE
D24	EXIST. DRAIN LINE
D24	NEW DRAIN LINE
EOH	EXIST. UTILITY/ELECT. LINE
S8	EXIST. SEWER LINE
S8	NEW SEWER LINE
	SINGLE SERVICE WATER LATERAL
	FIRE HYDRANT
	DOUBLE SERVICE WATER LATERAL "C-1"
	SINGLE SERVICE WATER LATERAL "A"
	TRANSFORMER PADS
5	LOT NUMBER
18" RCP	PIPE DIAMETER & TYPE
A = 11.99 AC.	DRAINAGE AREA, ACRES
Q = 55.64 CFS	FLOW IN CFS, CUBIC FEET PER SECOND
S = 0.260	SLOPE, FEET PER FOOT
Dn = 0.79'	NORMAL DEPTH, FEET
Vf = 6.78 FPS	VELOCITY, FEET PER SECOND AT FULL FLOW
	A.C. REPAVEMENT

6/25/2013	REVISE DRAINLINE "A"	A&A	CEB
REVISION DATE	DESCRIPTION	MADE BY	APP

APPROVED:

Dennis M. Nishimura
CHIEF, WASTEWATER BRANCH, DPP
(FOR CONFORMANCE WITH CITY STANDARDS AND WORK IN CITY R/W ONLY)

John J. ...
CHIEF, TRAFFIC REVIEW BRANCH, DPP
MANAGER AND CHIEF ENGINEER, BWS
(FOR WORK AFFECTING BWS FACILITIES IN CITY/STATE R/W AND BWS EASEMENTS ONLY)
CITY & COUNTY OF HONOLULU

5/6/2013	REVISE LOT NOS & GRADES	A&A	CEB
REVISION DATE	DESCRIPTION	MADE BY	APP

DEPARTMENT OF HAWAIIAN HOME LANDS
KAKAINA SUBDIVISION
TAX MAP KEY: 4-1-08: 10, 81, 91 & 92
WAIMANALO, KOOLAUPOKO, OAHU, HAWAII

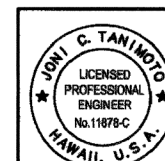
UTILITY PLAN

APPROVED:

M. ...
CHIEF, CIVIL ENGINEERING BRANCH, DPP

AKINAKA & ASSOCIATES, LTD.

CONSULTING ENGINEERS



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION
LICENSE EXPIRES 4/30/14

