HYDROLOGY

L19/D32

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adding + expanding city sidewalk 4th
Zoning 6th
Motel Washington
1st floor

SITE DESCRIPTION

LOT: A & B
~~BLK:~~
ADD: LAND OF PAUL BILLINGHAM

DRAINAGE

SITE AREA 43299 FT², .994 AC
BUILDINGS 10740 FT², .2466 AC
WALKS & BLACKTOP 19886 FT², .4565 AC
TOPSOIL & PLANTING 12673 FT², .2909 AC

UNDEVELOPED SITE

USING RATIONAL FORMULA Q=CIA
WHERE A = ACRE AREA
C = .35
I = 7.0

(.35)(7.0)(.994) = 2.4353 CFS (UNDEV)

Q = (.35)(7.0)(ACRE) = CFS (UNDEV.)

COMPOSITE FACTOR "C"

BUILDINGS, BLACKTOP & WALKS = .95 x AC = _____ .95 x .78307 = .6679
TOPSOIL & PLANTING = .35 x AC = _____ .35 x .29093 = .1018
TOTAL = _____ = "C" .7697
TOTAL (ACRE) .994

"C" = .77

DEVELOPED SITE

Q = ("C")(7.0)(ACRE) = CFS (DEV)
MINUS CFS (UNDEV)
TOTAL CFS RETAINAGE

(.77)(7.0)(.994) = 5.3577 CFS (DEV)
2.4353 CFS (UNDEV)
2.9224 CFS RETAINAGE

RETAINAGE AREA

USING 2.5" FOR A 6HR-100YR STORM
TOTAL VOLUME OF RUNOFF = 2.5" x AREA FT² x RUNOFF COEF. / 12 = FT³ RETENTION

$\frac{(2.5)(43299)(.77)}{12} = \frac{6945.88}{12673} = .548$ POND DEPTH

AVAILABLE AREA = 12673 FT²

OPEN SPACE & PARKING REQ.

TOTAL SITE AREA. 43299
BALCONY AREA CREDIT. 2307
TOTAL USABLE SPACE 45606

COVERED AREA FT²

TOTAL LIVING GRND AREA 10458
TOTAL EXT. STOR OR UTIL AREA 282
TOTAL BLACKTOP & PARKING 16896
TOTAL OTHER. --
TOTAL COVERED AREA 27636

OPEN SPACE REQ.				PARKING REQ.		
NO	TYPE	FT²	FT²	PER PATH		SPACES
35	1BR	400	= 14000	@ 1.5	=	52.5
7	2BR	500	= 3500	@ 1.5	=	10.5
	3BR		=	@	=	
	OTHER STOR.		=	@ 1	=	1
	TOTAL		17,500	TOTAL		64 SPACES

28106 FT²

AVAILABLE UNCOVERED AREA = 28106
TOTAL COVERED AREA = 27636
TOTAL EXCESS AREA = 470

CALCULATIONS BY: M.V. ROBINSON 6/30/77

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