

DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF WATER & SEWER OPERATIONS

HYDRAULIC COMPUTATION TEMPLATE

| JOB | SHEET | OF |
|----------|-------------|----|
| LOCATION | COMPUTED BY | |
| DATE | CHECKED BY | |
| DATUM | APPROVED BY | |

CFS = POP. X .000231

| | CFS = POP. | X .000231 | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------|------------|-----------|--------|-----------|---------|--------------------------|---------------------|---------|----------------|-----------|------------------|------------|-----------------------|----------------------|--------------|--------|--------------|-------------|--|--|---------------|-----------|-------------------|-----------------------|----------------------------|----------------|--|
| | | | | ARFA | (ACRES) | ⋖ | | DO | MESTIC FLOW (C | (FS) | INDUSTRI | AL WASTE | | | SURFACE ELEV | /ATION | COVER (FEET) | INNER TOP E | I EVATION | | | | | | | | $\overline{}$ |
| LOCATION | FROM | то | ZONING | INCREMENT | TOTAL | DENSITY PERSONS/ACREA | TOTAL POPULATION | AVERAGE | PEAK FACTOR | PEAK FLOW | AVERAGE (CFS) | PEAK (CFS) | INFILTRATION (CFS) | DESIGN FLOW (CFS) | UPPER END | | UPPER END | UPPER END | LOWER END | FALL (F.T.) | LENGTH (F.T.) | SLOPE (%) | SHAPE OF SEWER | DIMENSION OF SEWER | CAPACITY OF SEWER (CFS) | VELOCITY (FPS) | REMARKS |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | , | , 1 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | $\overline{}$ |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | - | | 1 | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| - | 1 | | 1 | | - | | | - | | | | | | | | | | | - | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| - | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | - |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | igcup |
| | + | | 1 | | | | | | | | | | | | | | | | - | | | | | | | | \vdash |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | 1 | | | | | | | | | | | | | | | | | 1 | | | | | | | $\overline{}$ |
| | 1 | | | | | | | | | | | | | | | | | | İ | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | \vdash |
| 1 | | | 1 | | | - | | | | | - | | | | | | | | | | | | | | 1 | | $\overline{}$ |
| | <u> </u> | | | | | | | | | | | | | | | | | | | | | | | | | | - |
| | | | | _ | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | | 1 | | | - | | | | | | | | | | | | | | | | | | | | | |
| | 1 | | 1 | | | | | | | | | | | | | | | | - | 1 | | | | | | | $\overline{}$ |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| - | 1 | | 1 | | | | | | | | | | | | | | | | - | | | | | | - | | |
| | 1 | | 1 | | | | | | | | | | | | | | | | - | 1 | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | | | | | | | | | | | | | | | | | · | | | | | | | | | |
| | 1 | ļ | 1 | | | | | | | | | | | | | | | | | <u> </u> | | | | | | ' | |

SANITARY SEWER DESIGN

Page 1 Rev. 07/22/10



DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF WATER & SEWER OPERATIONS

HYDRAULIC COMPUTATION TEMPLATE

| | | JOB | SHEET | OF |
|-----------------------|-------------------------|----------|-------------|----|
| | | LOCATION | COMPUTED BY | |
| $R = \frac{125}{100}$ | STORMWATER SEWER DESIGN | DATE | CHECKED BY | |
| T+15 | | DATUM | APPROVED BY | |

| | 1 | П | ı | 1 | 1 | ı | | I 11 | 01: | | 1 | | | 7.700 | | 1 | | | | | _ | | | | |
|----------|--------------|----|--|-----------|-----------|------------------------------------|-------------------|------------------------|--------------|-------|-------|-------|---------------|-------|-------------|---------------|-----------|-------------------|-----------------------|----------------------------|----------------|----------------------------|---------------|----------------------------|--|
| | | | তু | Ę | , A. | ALL SITY | F F. | IN-OFF | SURI ELEV | ATION | CO | VER | INNEF ELEV | ATION | .T.) | (F.T.) | (%) | P H | DIMENDICA | Y OF (CFS) | (FPS | | LAPSED (MI | | |
| LOCATION | FROM | ТО | ZONING | AREA UNIT | TOTAL 'A' | RAINFALL INTENSITY (IN./HR.) | RUN-OFF COEFF. | TOTAL RUN-OFF (CFS) | UPPER | LOWER | UPPER | LOWER | UPPER | LOWER | FALL (F.T.) | LENGTH (F.T.) | SLOPE (%) | SHAPE OF SEWER | DIMENSION OF SEWER | CAPACITY OF SEWER (CFS) | VELOCITY (FPS) | UPPER END OF SECTION | IN SECTION | LOWER END OF SECTION | REMARKS |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | - | | | | | | | | | | | | | | | | | | | | | |
| | | | 1 | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | 1 | | | | | | | | | | | | | | | | | | | | | | |
| | | | 1 | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | - | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| | ļ | | 1 | | | | 1 | | | | | | | | | | | | | | | | | | |
| | | | | - | 1 | | - | | | | | | | | | | | | | | | | | | |
| | | | + | 1 | | | | | | | | | | | | | | | | | | | | | |
| | 1 | | 1 | 1 | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 1 | | 1 | | l | I | | | l | | l | l | | | l | l | | | | l | | | l | 1 |



DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF WATER & SEWER OPERATIONS HYDRAULIC COMPUTATION TEMPLATE

| CONTRACTOR CONTRACTOR | | COMBINED SEWER DESIGN | | | |
|---|-------------|-----------------------|-------------|--------|--|
| OTTO | | WER | | | |
| CHIEF | | DESIGN | | | |
| COMPANIES COM | | | | | |
| (1) | DATUM | DATE | LOCATION | BOL | |
| Γ) | | | | | |
| H) | APPROVED BY | CHECKED BY | COMPUTED BY | HS SH | |
| 6) | D BY | D BY | | SHEET | |
| Е | | | | 유 | |
| N () | | | | Ϋ́ | |
| Y (S) | | | | | |
| Y S) | | | | | |
| E Z S S S S S S TIME EL APSED (MIN) | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | LOCAT | ION |
|---|---|---|---------------|---|---|-----------|-----------|---|--|---|-----------|---------------|-----------|----------|--|--|---|---|--|---|-----------|---------------|----------|---|---|---|---|---|---|---|---------------|---|---------------|---------|---|------------------------------------|---------------------|
| | | Ī | | | | | | | | Ī | | | | | | | | | | | | | | | Ī | | | | | | | | | | | FR | ОМ |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | то | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | ZONING | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Ì | | | + | H | | INCREM ENT | AR |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | TOTAL | AREA (ACRES) |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | DENSITY (PERSON CRE) | S/A |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | TOTAL POPULAT | OII |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | AVERAG E | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PEAK FACTOR | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | SANITARY FLOW (CFS) |
| | | | | | | | | | | | | | | | | | | | | | | - | | | | | | | | | | | | | | INFILTR | LOW (CFS) |
| | | | - | | | 1 | - | | | | | $\frac{1}{1}$ | | | | | | | | | + | $\frac{1}{1}$ | | | | 1 | | | | | 1 | | | \prod | | DESIGN | |
| | | | - | | | + | + | | | | + | - | + | <u> </u> | | | - | | | | - | - | <u> </u> | | | 1 | | | | + | | | 1 | H | | SAN. FLOW RUN-OFF | Н |
| | | | | | | 1 | | | | | + | + | | | | | | | | | | - | | | | + | | | | - | $\frac{1}{1}$ | | 1 | H | | COEFF | |
| | | | _ | | | | | | | | | | | | | | | | | | | - | | | | | | | | | | | ļ | | | INTENSI TY (IN/HR) DESIGN | FLOW (CFS) |
| | | | - | | | | | | | | | | | | | | | | | | | 1 | | | | | | | | | | | - | | | STM. FLOW DESIGN | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | - | | | COM. FLOW | CFS |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | UPPER END | SURFACE EI |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | L | | | LOWER | (FT) |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | UPPER END | COVER (FT) |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | L | | | LOWER END | (FT) |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | UPPER END | INNER TOP (FT) |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | LOWER END | OP (FT) |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | FALL | (FT) |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | LENG | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | SLOPE | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Ī | | | DIMENS | ION |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | CAPAC | (IN) |
| | | | $\frac{1}{1}$ | | H | \dagger | \dagger | | | | \dagger | | \dagger | 1 | | | | 1 | | | | $\frac{1}{1}$ | - | | | - | 1 | | | 1 | | 1 | + | \prod | | VELOC | TFS) |
| | | | 1 | - | H | + | + | | | | | 1 | 1 | | | | 1 | | | | \dagger | + | | | | | | | | 1 | $\frac{1}{1}$ | | 1 | H | | (F | PS) |
| - | | | + | - | H | + | \dagger | | | | 1 | 1 | \dagger | | | | 1 | | | | + | + | | | | | | | | 1 | $\frac{1}{1}$ | | 1 | H | | UPPER END | TIME ELAPS |
| | | | - | | | 1 | - | | | | | 1 | | | | | | | | | 1 | - | | | | | | | H | | 1 | | | | H | IN SECTION | |
| | H | | + | - | H | + | + | L | | | 1 | | + | 1 | | | 1 | | | H | - | $\frac{1}{1}$ | 1 | H | | 1 | | L | | 1 | | | $\frac{1}{1}$ | H | H | LOWER | Ц |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | L | | | REMAI | RKS |

Page 3