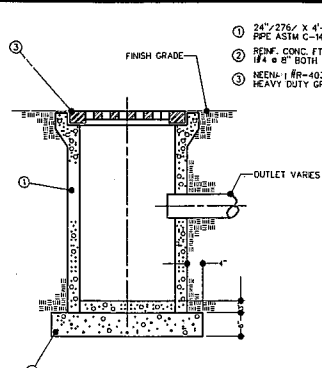


STORM DRAINAGE DESIGN SUMMARY

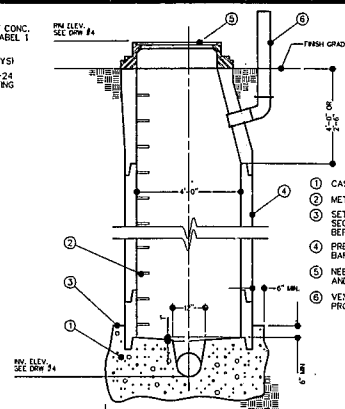
C = 0.4 IMPROVED LAND
0.9 PAVING & ROOFS

STORM FREQUENCY - 10 YEARS
n = 0.005

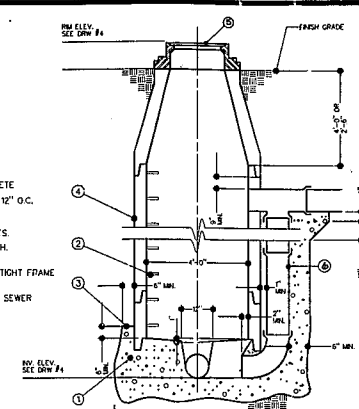
LOC. STRUCT.	CONDUIT			DRAINAGE - AREA		RAINFALL - RUNOFF		
	PPE DIA. (IN.)	LENGTH (FT.)	SLOPE (%)	AREA (ACRES)	RUNOFF COEFF.	AVG. INT. (1/1)	DESIGN FLOW-CFS	VEL. F.P.S.
RD #1 TO Y/D #1	21	100	1.0	185	0.9	7	12.0	5.7
RD #2 TO Y/D #2	15	100	3.64	195	0.9	7	12.0	9.8
GROUND TO Y/D #1	-	-	-	115	0.4	5	2.3	-
Y/D #1 TO Y/D #2	21	220	1.2	-	-	-	14.3	6.2
GROUND TO Y/D #2	-	-	-	115	0.4	5	2.3	-
Y/D #2 TO HW A	27	275	1.33	-	-	-	28.6	7.2
TRENCH DRAIN TO HW B	12	140	2.67	0.39	0.9	5	1.6	2.3
RD #3 TO Y/D #3	21	50	0.5	147	0.9	7	9.3	4.0
Y/D #3 TO Y/D #4	21	250	0.5	-	-	-	9.3	4.0
RD #4 TO Y/D #4	15	50	3.0	147	0.9	7	9.3	7.6
Y/D #4 TO Y/D #5	24	160	1.0	-	-	-	18.6	6.2
RD #5 TO Y/D #5	12	50	4.2	0.61	0.9	7	4.2	5.3
GROUND TO Y/D #5	-	-	-	0.23	0.4	5	0.5	-
Y/D #5 TO HW C	27	190	0.86	-	-	-	23.3	7.0
Y/D #5 TO HW C	12	140	2.67	0.39	0.9	5	1.6	2.3
PKG LOT TO C/D #1	-	-	-	0.6	0.9	5	2.7	-
C/D #1 TO C/D #2	12	35	0.6	-	-	-	2.7	3.4
ROAD TO C/D #2	-	-	-	0.1	0.9	5	0.5	-
C/D #2 TO C/D #3	18	120	0.7	-	-	-	3.2	1.8
PKG LOT TO C/D #3	-	-	-	0.6	0.9	5	2.7	-
C/D #3 TO C/D #4	12	35	1.0	-	-	-	2.7	3.9
ROAD TO C/D #4	-	-	-	0.1	0.9	5	0.5	-
C/D #4 TO C/D #5	18	160	0.7	-	-	-	6.4	4.3
PAYG TO C/D #5	-	-	-	0.25	0.9	5	1.2	-
C/D #5 TO HW D	12	35	1.0	-	-	-	1.2	1.5
C/D #5 TO HW D	18	95	0.7	-	-	-	7.6	4.3
LATERALS TO HW A	15	440	2.0	13	0.9	5	5.9	6.4
HW A TO HW B	15	375	2.0	-	-	-	5.9	6.4
GROUND TO Y/D #6	-	-	-	0.15	0.5	6	0.4	-
Y/D #6 TO HW E	6	105	0.54	-	-	-	0.4	2.2
HW E TO HW F	15	220	2.0	-	-	-	6.3	6.4
GROUND TO Y/D #7	-	-	-	0.11	0.4	5	0.2	-
Y/D #7 TO Y/D #8	6	75	0.7	-	-	-	0.2	2.5
GROUND TO Y/D #8	-	-	-	0.11	0.4	5	0.2	-
Y/D #8 TO HW G	6	45	0.7	-	-	-	0.4	2.5
COLLETS TO HW G	-	-	-	4.6	0.4	5	9.3	-
HW G TO HW C	21	40	0.4	-	-	-	9.3	3.9
HW C TO HW H	21	575	0.4	-	-	-	9.3	3.9



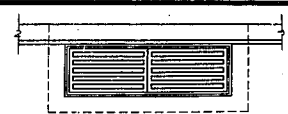
YARD DRAIN DETAIL
SCALE: NONE



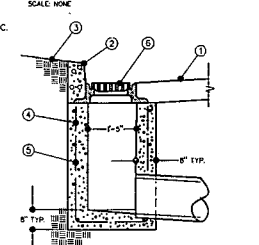
MANHOLE DETAIL
SCALE: NONE



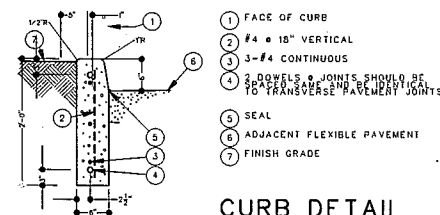
DROP MANHOLE DETAIL
SCALE: NONE



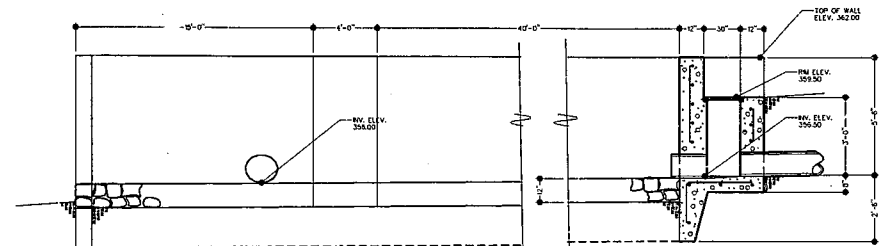
TYP GUTTER INLET PLAN VIEW
SCALE: NONE



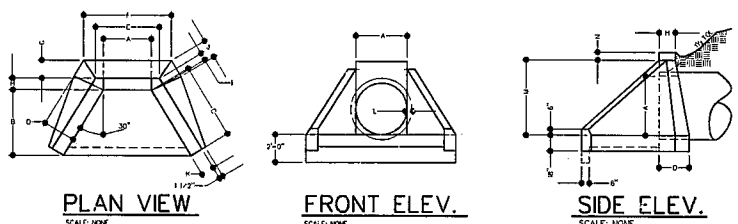
TYP GUTTER INLET SECTION
SCALE: NONE



CURB DETAIL
SCALE: 1" = 1'-0"



SECTION OF DRAINAGE STRUCTURE HW E & HW C
SCALE: NONE



PLAN VIEW
SCALE: NONE

FRONT ELEV.
SCALE: NONE

SIDE ELEV.
SCALE: NONE

DIMENSIONS FOR HEADWALLS AND WINGWALLS

DIAMETER OF PIPE	A	B	C	D	E	F	G	H	I	J	K	L	M	N
12"	12"	2'-0"	2'-0 1/2"	2'-3 1/2"	1'-10 1/2"	3'-7 1/2"	17 1/2"	10"	5 1/2"	10 1/2"	10	2	2'-0"	4"
15"	15"	2'-0"	2'-2"	2'-5"	2'-2 1/2"	4'-0"	16"	10"	5 1/2"	10 1/2"	10	2 1/2"	2'-3"	4"
18"	18"	3'-0"	3'-5"	2'-7"	2'-5 1/2"	5'-4"	21"	10"	5 1/2"	10 1/2"	10"	2 1/2"	2'-4"	4"
21"	21"	3'-2"	3'-8"	2'-8 1/2"	2'-8 1/2"	5'-10"	22 1/2"	10"	5 1/2"	10 1/2"	10"	2 1/2"	2'-4"	4"
27"	27"	3'-8"	4'-4"	3'-0"	3'-2 1/2"	6'-10"	26"	10"	5 1/2"	10 1/2"	10"	3 1/2"	3'-3"	4"

NOTE: ALL PPE TO BE REINFORCED CONCRETE PPE - CLASS B

BAHLEN / AUSTIN FOODS - PROPOSED SPECIALTY FOODS FACILITY
MCCREGOR PARK - CARY, NORTH CAROLINA

BELGAN CORPORATION
ARCHITECTS - ENGINEERS - (513) 891-0972
10200 ANDERSON WAY, CINCINNATI, OHIO 45242

THIS DOCUMENT SHALL BE USED ONLY FOR:
PLAN APPROVAL

DRAWN: WE CASE
CHECKED: LW GILLIAM
DATE: 6-9-86
ISSUED: PLANNING REVIEW

REVISIONS			
NO.	DATE	NO.	DATE

PROJECT NUMBER
3840

DRAWING TITLE
STORM DRAINAGE STRUCTURE DETAILS

SHEET
4.2
OF