SHEET NO.
1

CITY OF WICHITA, KANSAS
MICHAEL E. LINDEBAK, P.E., CITY ENGINEER
STORM WATER SEWER EXTENSION
IN
BRADLEY FAIR 2ND ADDITION
CITY OF WICHITA PRIVATE PROJECT NO. 890PPS (607861)

INDEX OF SHEETS

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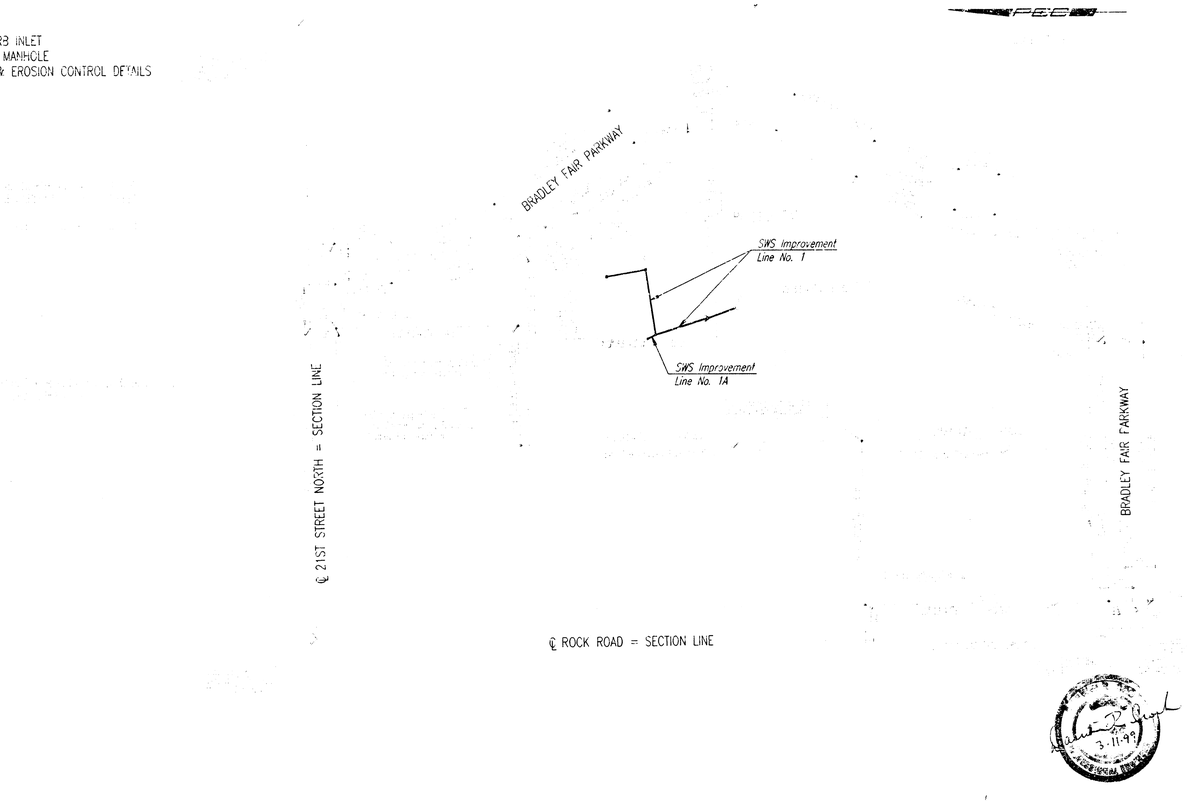
C-5 SWS PLAN
C-7 PROFILE
C-8 TYPE 1A CURB INLET
C-9 STANDARD RC MANHOLE
C-10 AREA INLET & EROSION CONTROL DETAILS



GENERAL NOTES

UNDERGROUND UTILITY SERVICE LINES AND OVERHEAD UTILITY POLE LINES ARE TO BE ADJUSTED AS NECESSARY BY OTHERS PRIOR TO CONSTRUCTION UNLESS THE PLANS SPECIFICALLY CALL FOR THEIR ADJUSTMENT BY THE CONTRACTOR. EXISTING UTILITIES AND THEIR LOCATION, AS SHOWN ON THE PLANS, REPRESENT THE BEST INFORMATION OBTAINABLE FOR DESIGN. LOCATION INFORMATION HAS BEEN OBTAINED FROM THE VARIOUS UTILITY COMPANIES AND IS EITHER FROM COMPANY RECORD DRAWINGS OR COMPANY PROVIDED FIELD LOCATIONS. THE CONTRACTOR WILL BE REQUIRED TO WORK AROUND EXISTING UTILITIES WITHIN THE RIGHT-OF-WAY WHICH DO NOT CONFLICT WITH PROPOSED CONSTRUCTION. CONTRACTOR SHALL SATISFY HIMSELF OF SUBSURFACE CONDITIONS PRIOR TO BIDDING.

TREES AND SHRUBS WHICH ARE IN DIRECT CONFLICT WITH PROPOSED NEW CONSTRUCTION SHALL BE REMOVED BY THE CONTRACTOR WITH THE OWNER'S APPROVAL. TREES AND SHRUBS WHICH ARE NOT IN DIRECT CONFLICT WITH PROPOSED NEW CONSTRUCTION SHALL BE SAVED AND PROTECTED FROM DAMAGE.

RUBBLE FROM THE REMOVAL OF MISCELLANEOUS STRUCTURES SHALL BE DISPOSED OF ON SITES TO BE PROVIDED BY THE CONTRACTOR AND APPROVED AS NOTED.

ALL DISPOSAL SITES MUST BE APPROVED BY THE KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT. MATERIAL EITHER STOCKPILED OR DISPOSED OF IN A FLOOD PLAIN WOULD REQUIRE A KANSAS STATE BOARD OF AGRICULTURE PERMIT. ANY MATERIAL DUMPED IN WATERS OF THE UNITED STATES OR WETLANDS IS SUBJECT TO U.S. CORPS OF ENGINEERS PERMITTING REGULATIONS. ANY MATERIAL BURIED OR STOCKPILED BEYOND APPROVED CONSTRUCTION LIMITS WOULD REQUIRE ADDITIONAL ARCHEOLOGICAL INVESTIGATIONS UNLESS BURIED IN A PREVIOUSLY APPROVED BORROW LOCATION.

CONTRACTOR SHALL PROVIDE A MINIMUM FORTY-EIGHT (48) HOUR ADVANCE NOTICE (EXCLUDING WEEKENDS AND HOLIDAYS) PRIOR TO BEGINNING ANY EXCAVATION TO KANSAS ONE-CALL SYSTEM, A UTILITY LOCATION SERVICE, AT (316) 637-2470 TO REQUEST THE FOLLOWING UTILITY COMPANIES TO LOCATE ALL EXISTING LINES WITHIN THE PROJECT AREA: K.G.E. GAS, PEOPLES NATURAL GAS, K.G.E. ELECTRIC, SOUTHWESTERN BELL TELEPHONE, MULTIMEDIA CABLEVISION, CITY OF WICHITA SEWER MAINTENANCE AND CITY OF WICHITA WATER DEPARTMENT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING PROPERTY IRONS. THE CONTRACTOR WILL BE REQUIRED TO RE-ESTABLISH ANY PROPERTY IRONS WHICH ARE DAMAGED OR DESTROYED BY HIS CONSTRUCTION OPERATIONS. SUCH IRONS SHALL BE RE-ESTABLISHED BY A LICENSED LAND SURVEYOR IN ACCORDANCE WITH STATE LAWS.

THE WATER DEPARTMENT SHALL FIELD LOCATE WATER VALVES ONE TIME DURING CONSTRUCTION WHEN REQUESTED BY THE CONTRACTOR. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PRESERVE SUCH FIELD LOCATIONS DURING THE CONSTRUCTION PROCESS. WATER VALVES, WATER VALVE BOXES OR FIRE HYDRANTS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE.

ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE SEEDED, FERTILIZED, AND MULCHED AS SHOWN ON SHEET C-17, OR AS DIRECTED BY OWNER.

ALL CONSTRUCTION AND MATERIALS FOR STORM SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF WICHITA STANDARD SPECIFICATIONS.

APPROVED AS NOTED
BY CITY ENGINEER OF WICHITA

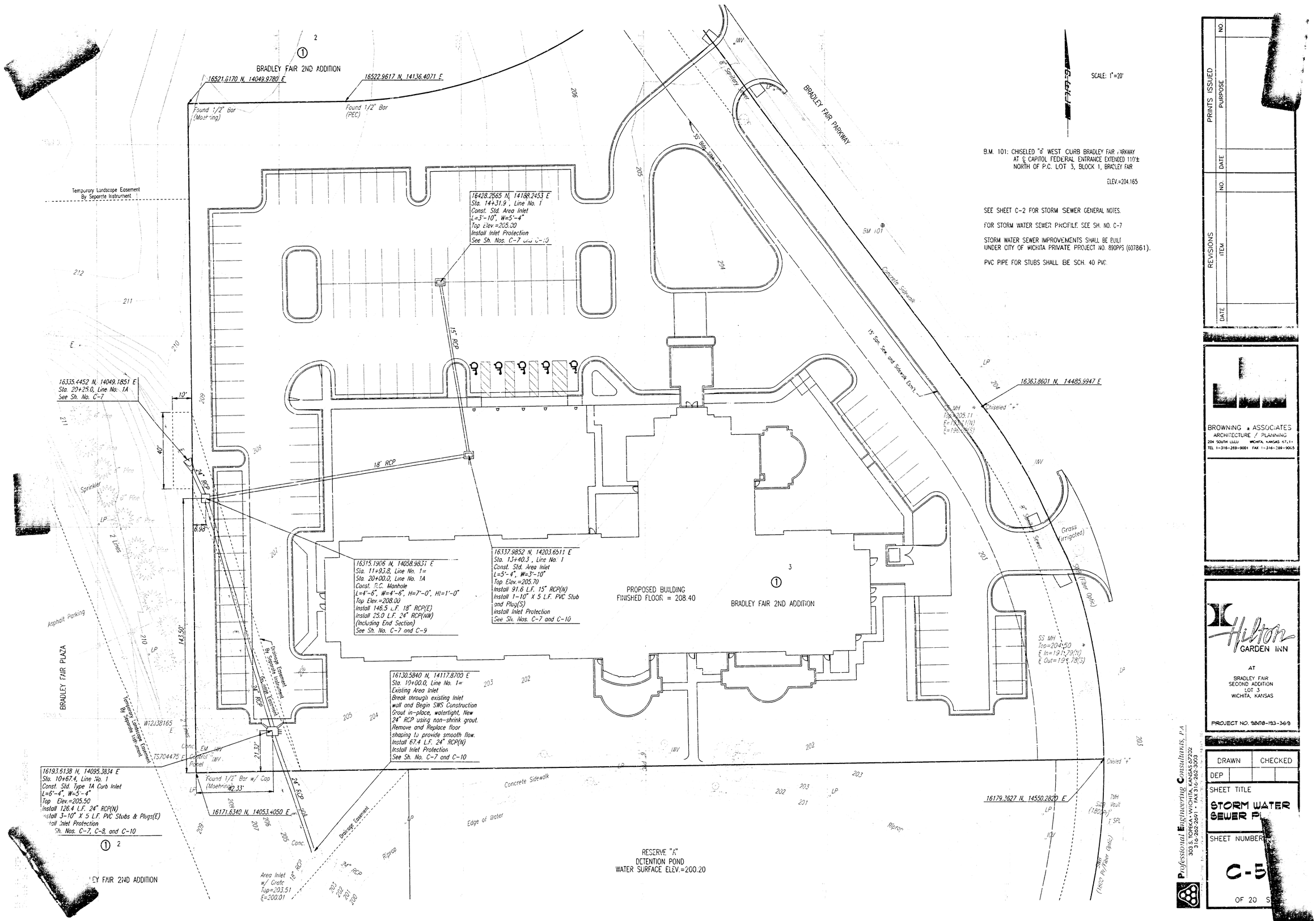
SANITARY SEWERS _____
STORM SEWERS VRH 3/11/99
DRIVEWAY APPROACHES _____
WATER MAINS _____
PAVING _____

Booked
E-3
8/18/03
RDL

NOTE TO CONTRACTOR

INSPECTION AND TESTING FOR THIS PROJECT IS TO BE PROVIDED BY A LICENSED CONSULTING ENGINEERING FIRM CONTRACTED BY THE CONTRACTOR. SAID INSPECTION TO BE IN ACCORDANCE WITH THE CITY OF WICHITA STANDARD CONSTRUCTION ENGINEERING PRACTICES AND CERTIFIED BY A LICENSED PROFESSIONAL ENGINEER. NO WORK SHALL BE PERFORMED IN DEDICATED EASEMENTS OR PUBLIC RIGHT-OF-WAY BY THE CONTRACTOR UNTIL SUCH INSPECTION IS ARRANGED FOR AND REQUIRED BONDS HAVE BEEN SUBMITTED TO AND APPROVED BY THE CITY, NOR SHALL ANY WORK BE COMMENCED IN DEDICATED EASEMENTS OR PUBLIC RIGHT-OF-WAY WITHOUT WRITTEN AUTHORIZATION BY THE CITY ENGINEER. IMPROVEMENTS PERFORMED UNDER THIS PROJECT SHALL NOT BE ACCEPTED BY THE CITY UNTIL ALL APPLICABLE DOCUMENTATION HAS BEEN SUBMITTED TO THE CITY ENGINEER. THIS MAY INCLUDE: AS-BUILT DRAWINGS, INSPECTION LOGS, TEST DOCUMENTATION, TV TAPES, AND A CERTIFICATE OF COMPLETION. ALL ABOVE SHALL BE PERFORMED BY THE CONSULTING FIRM CONTRACTED TO INSPECT THIS

FEBRUARY 1999
PLANS PREPARED BY
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS



SCALE: 1"=20'

B.M. 101: CHISELED "d" WEST CURB BRADLEY FAIR PARKWAY AT ℄ CAPITOL FEDERAL ENTRANCE EXTENDED 110'± NORTH OF P.C. LOT 3, BLOCK 1, BRADLEY FAIR

ELEV.=204.165

SEE SHEET C-2 FOR STORM SEWER GENERAL NOTES.

FOR STORM WATER SEWER PROFILE SEE SH. NO. C-7

STORM WATER SEWER IMPROVEMENTS SHALL BE BUILT UNDER CITY OF WICHITA PRIVATE PROJECT NO. 890PPS (607861).

PVC PIPE FOR STUBS SHALL BE SCH. 40 PVC

REVISIONS				PRINTS ISSUED		
NO.	ITEM	DATE		NO.	PURPOSE	DATE

BROWNING & ASSOCIATES
ARCHITECTURE / PLANNING
204 SOUTH LULU WICHITA, KANSAS 67211
TEL 1-316-269-9001 FAX 1-316-269-9005

Hilton GARDEN INN

AT

BRADLEY FAIR
SECOND ADDITION
LOT 3
WICHITA, KANSAS

PROJECT NO. 9808-193-369

DRAWN	CHECKED
DEP	

SHEET TITLE

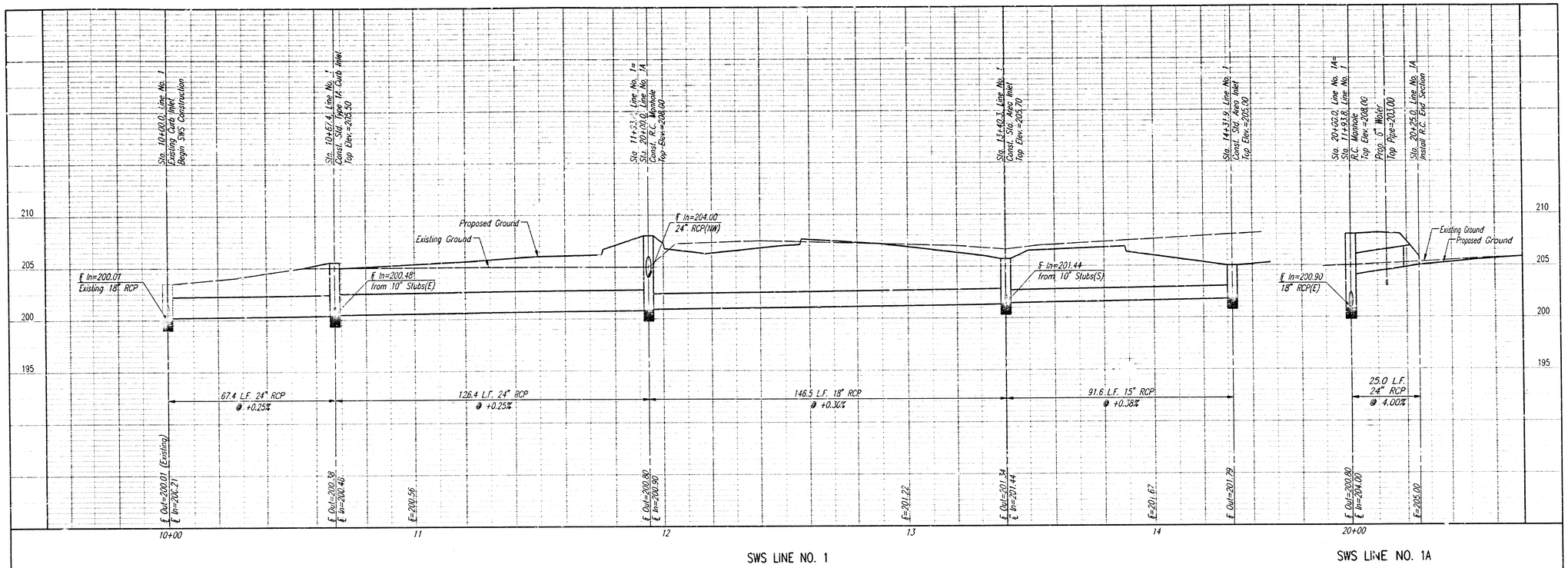
STORM WATER SEWER P

SHEET NUMBER

C-5

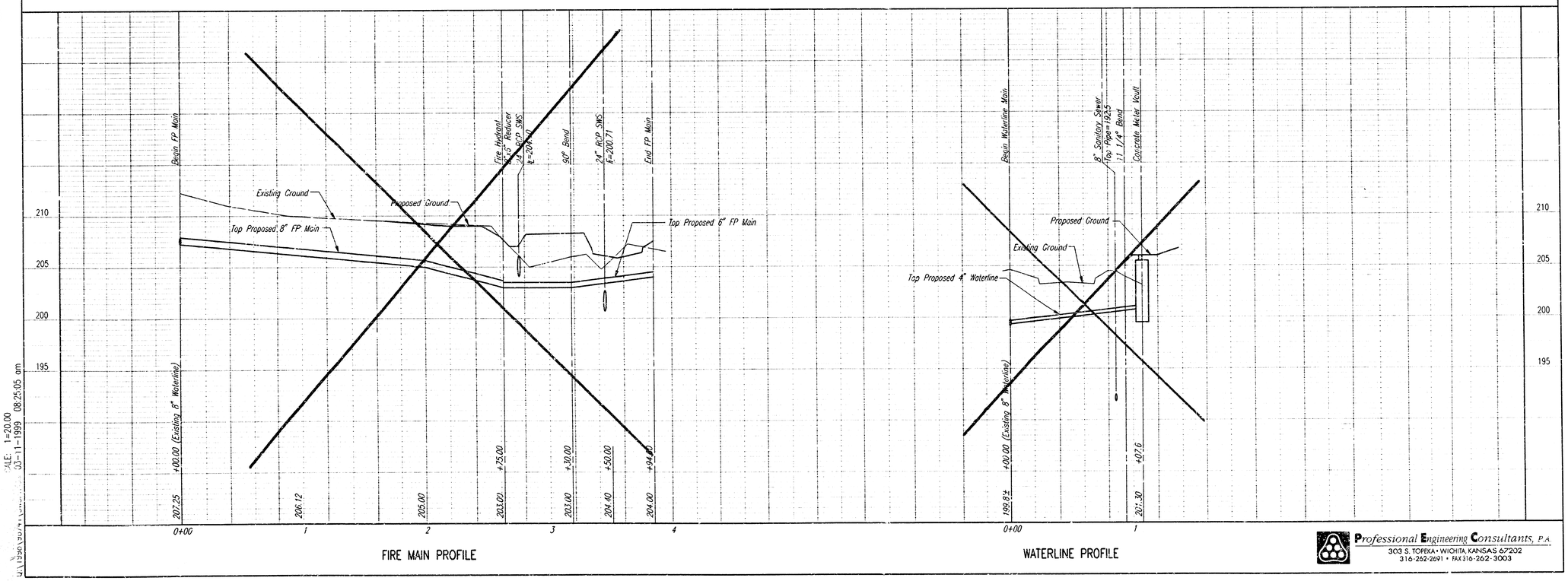
OF 20 S

Professional Engineering Consultants, P.A.
303 S. TOPEKA • WICHITA, KANSAS 67202
316-262-2691 • FAX 316-262-8464



SWS LINE NO. 1

SWS LINE NO. 1A



FIRE MAIN PROFILE

WATERLINE PROFILE

SCALE: 1=20.00
03-11-1999 08:25:05 am

PRINTS ISSUED			
NO.	PURPOSE	DATE	

REVISIONS			
NO.	ITEM	DATE	

BROWNING ▲ ASSOCIATES
ARCHITECTURE / PLANNING
204 SOUTH LULU WICHITA, KANSAS 67211
TEL 1-316-269-9001 FAX 1-316-269-9005

Hilton GARDEN INN

AT

BRADLEY FAIR
SECOND ADDITION
LOT 3
WICHITA, KANSAS

PROJECT NO. 9808-103-369

DRAWN	CHECKED
DEP	

SHEET TITLE

UTILITY PROFILES

SHEET NUMBER

C-7

OF 20

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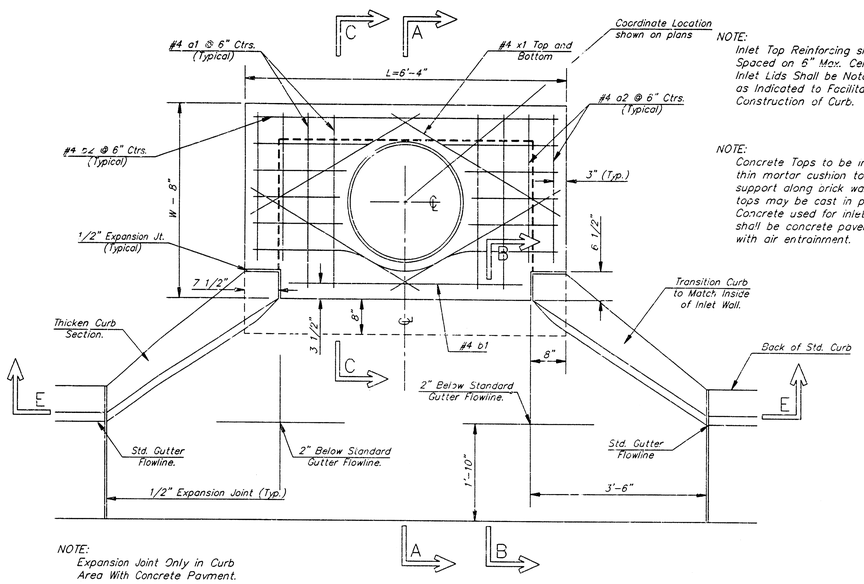
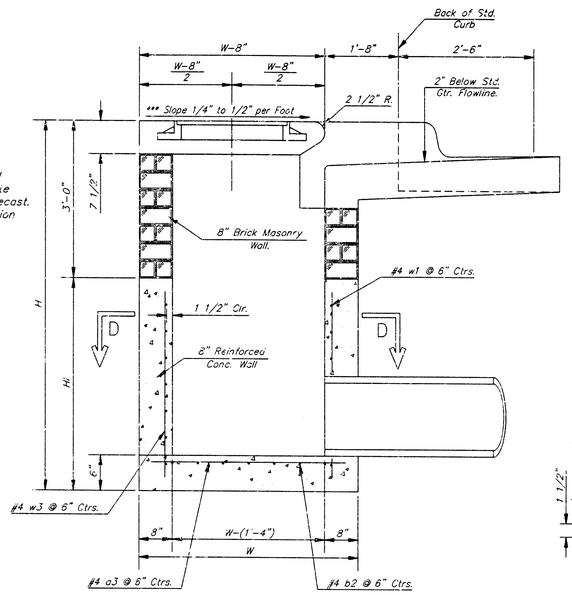


NOTE:
Inlet Top Reinforcing shall be Spaced on 6" Max. Centers. Inlet Lids Shall be Notched Out as Indicated to Facilitate Construction of Curb.

NOTE:
Concrete Tops to be installed on thin mortar cushion to insure full support along brick walls. Concrete tops may be cast in place or precast. Concrete used for inlet construction shall be concrete pavement mix with air entrainment.

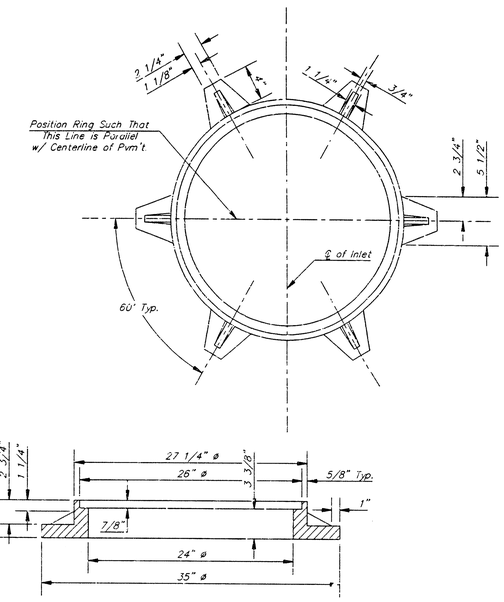
NOTE:
Expansion Joint Only in Curb Area With Concrete Pavment.

PLAN



SECTION A-A

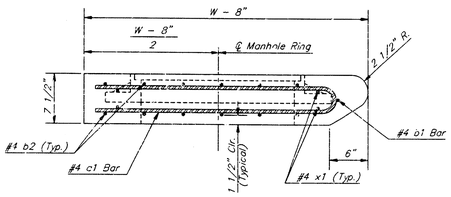
***NOTE: Slope of inlet tops to Match Sidewalk or Paving Slopes within Limits Indicated.



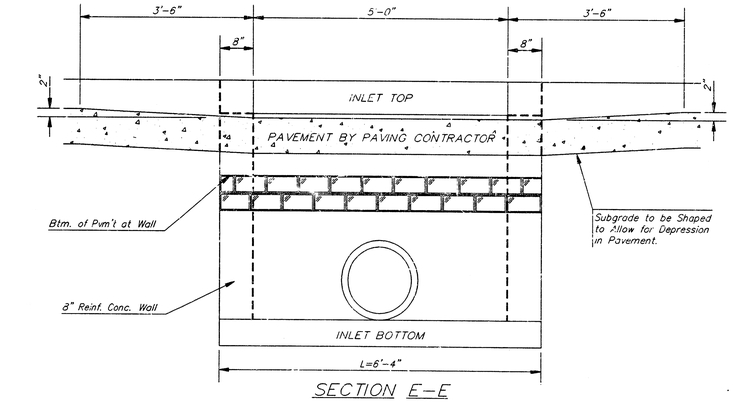
MANHOLE RING AND COVER

Weight = 180 Lbs.

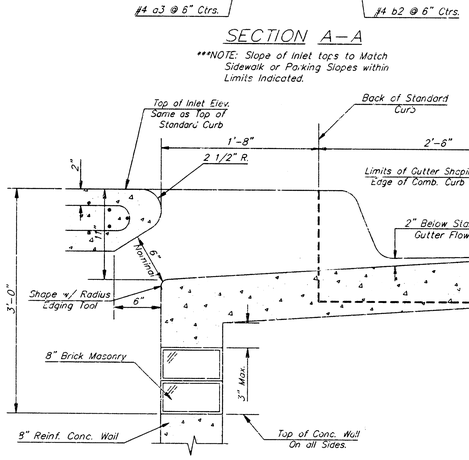
*See City of Wichita Standard Manhole Ring and Cover Detail Sheet for Cover Details to Be Used With Inlet Frame.



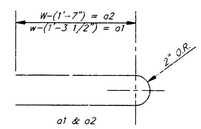
SECTION C-C



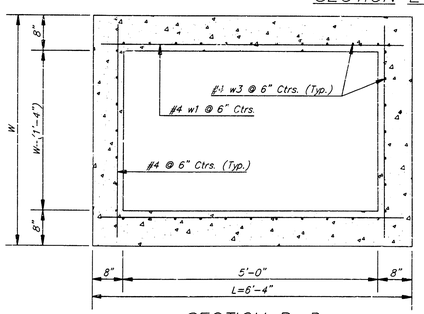
SECTION E-E



SECTION B-B



BENDING DIAGRAM



SECTION D-D

NOTE: Contractor shall have the option of constructing 8" brick masonry walls between the concrete inlet base and top on this inlet when W=6'-4" and H=7'-0" or less.

~~Additional curb and gutter construction necessary to connect set-back inlet to pavement will be paid for at the unit price bid for each inlet hookup.~~

Inlet invert shall be shaped with 8 sack sand mix concrete to create flow channels and to increase hydraulic efficiency such that the inlet will be self-cleaning between all inlet and/or outlet pipes.

The ends of all pipes installed in inlets shall be cut off flush with the inside face of the inlet wall

PRECAST SLAB AND FLOOR REINFORCING

		W = 4'-4"		W = 5'-4"		W = 6'-4"		W = 7'-4"		W = 8'-4"	
MARK	SIZE	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH
* a1	#4	6	6'-7"	6	8'-7"	6	10'-7"	6	12'-7"	6	14'-7"
a2	#4	4	6'-0"	4	8'-0"	4	10'-0"	4	12'-0"	4	14'-0"
a3	#4	13	4'-1"	13	5'-1"	13	6'-1"	13	7'-1	13	8'-1"
b1	#4	1	4'-9"	1	4'-9"	1	4'-9"	1	4'-9"	1	4'-9"
* b2	#4	23	6'-1"	29	6'-1"	35	6'-1"	41	6'-1"	47	6'-1"
x1	#4	8	3'-10"	8	4'-2"	8	4'-6"	8	4'-10"	8	5'-2"

WALL REINFORCING

		W = 4'-4"		W = 5'-4"		W = 6'-4"		W = 7'-4"		W = 8'-4"	
MARK	SIZE	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH
w1	#4	①	6'-1"	①	6'-1"	①	6'-1"	①	6'-1"	①	6'-1"
w2	#4	①	4'-1"	①	5'-1"	①	6'-1"	①	7'-1"	①	8'-1"
w3	#4	32	②	36	②	40	②	44	②	48	②

* Field Bend or Cut Reinforcing as Required for Clearance.
① 4 (HI - 12") (HI - 21") Rounded down to nearest 0.5'
② HI - 3"

STANDARD CURB INLET PRECAST TOPS

W	PRE-CAST TOP SIZE	PIPE SIZE	CU. YD. CONC.
4'-4"	3'-8" x 6'-4" x 7 1/2"	21" & SMALLER	0.38±
5'-4"	4'-8" x 6'-4" x 7 1/2"	24" & 30"	0.51±
6'-4"	5'-8" x 6'-4" x 7 1/2"	36" & 42"	0.64±
7'-4"	6'-8" x 6'-4" x 7 1/2"	48" & 54"	0.77±
8'-4"	7'-8" x 6'-4" x 7 1/2"	60" & 66"	0.90±

"TAKEN FROM CITY OF WICHITA STANDARD DETAILS"

PRINTS ISSUED			
NO.	PURPOSE	DATE	

REVISIONS			
NO.	ITEM	DATE	

BROWNING & ASSOCIATES
ARCHITECTURE / PLANNING
204 SOUTH LULU WICHITA, KANSAS 67211
TEL 1-316-269-9001 FAX 1-316-269-9005

Hilton GARDEN INN

AT

BRADLEY FAIR
SECOND ADDITION
LOT 3
WICHITA, KANSAS

PROJECT NO. 3808-193-369

Professional Engineering Consultants, P.A.
303 S. TOPEKA • WICHITA, KANSAS 67202
316-262-2691 • FAX 316-262-3003

DRAWN	CHECKED
DEP	

SHEET TITLE

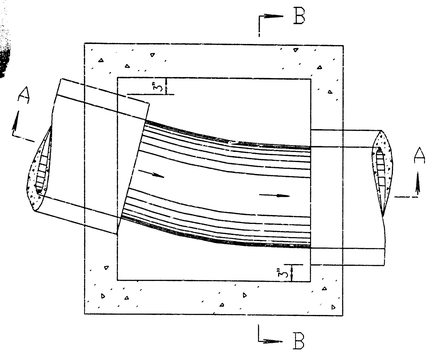
TYPE IA C INLET

SHEET NUMBER

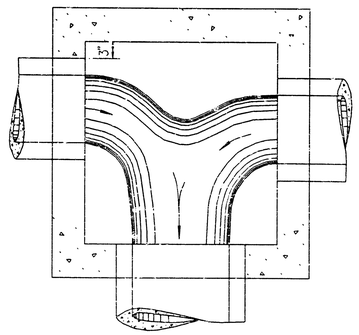
C-8

OF 20

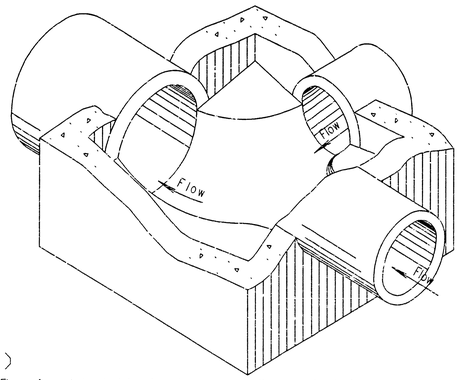
1.00 08:26:06 am



PLAN - FLOOR (Example I)

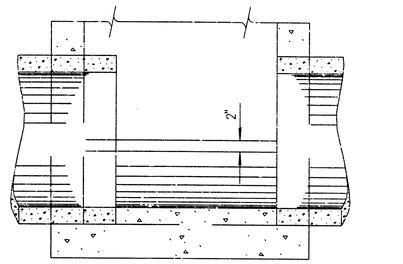


PLAN - FLOOR (Example III)

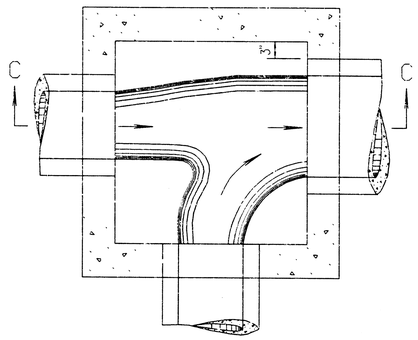


Floor of manhole shall be shaped as shown in the examples to increase hydraulic efficiency.

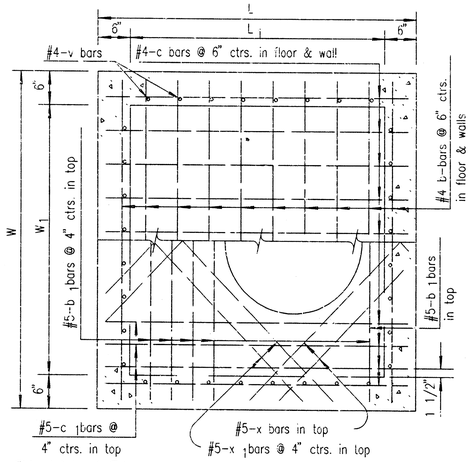
ISOMETRIC VIEW (Example IV)



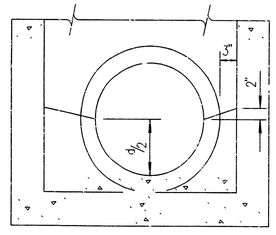
SECTION A-A (Example I)



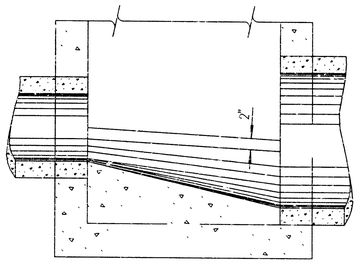
PLAN - FLOOR (Example IV)



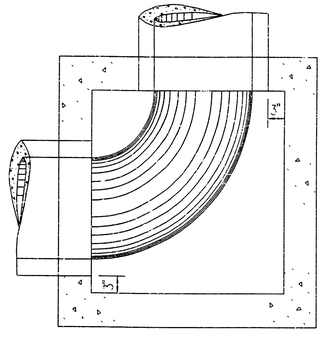
PLAN (Showing top & floor reinf.)



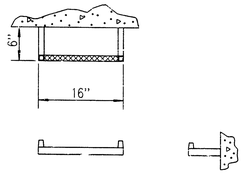
SECTION B-B (Example I)



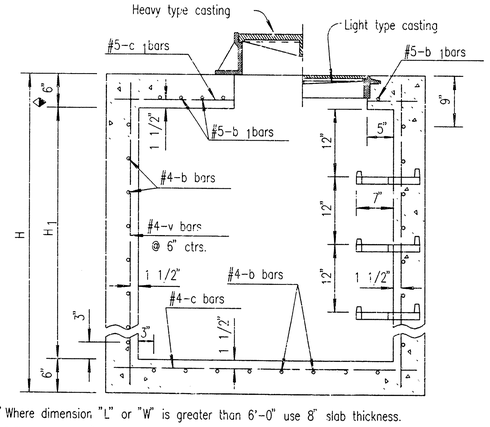
SECTION C-C (Example IV)



PLAN - FLOOR (Example II)



STEP DETAILS



◆ Where dimension "L" or "W" is greater than 6'-0" use 8" slab thickness.

SECTION (Exclusive of floor shaping)

Note: Use Class A Concrete throughout. All exposed edges shall be finished with an edging tool.
At the contractors option Class A Concrete (AE) or mix used in concrete pavement may be used throughout.
In general, pipes will enter and leave manhole at various positions. Where possible bend bars around pipes.
Floor of manhole shall be shaped as shown in various "EXAMPLES" with unreinforced Class "A" Concrete.
Manhole opening and steps, where used, shall be placed to afford easy access to top of shaped invert. Top reinforcing bars shall be adjusted accordingly.
All castings shall be gray iron and shall comply with the KDOT Standard Specifications.
No deductions in concrete quantities shall be made for pipe openings or additions to concrete quantities shall be made for shaping floor of manholes.
The top of the manhole shall be sloped slightly to approximately fit the ground line or other condition as directed by the Engineer.
The Contractor has the option of using precast manholes, as approved by the Architect.
Manhole Frames and Cover shall be per City of Wichita Standard Specifications.

"TAKEN FROM KDOT STANDARD DETAILS"

PRINTS ISSUED			REVISIONS		
NO.	PURPOSE	DATE	NO.	ITEM	DATE

BROWNING & ASSOCIATES
ARCHITECTURE / PLANNING
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TEL 1-316-269-9001 FAX 1-316-269-9005

Hilton GARDEN INN
AT
BRADLEY FAIR
SECOND ADDITION
LOT 3
WICHITA, KANSAS

PROJECT NO. 9808-193-369

DRAWN	CHECKED
DEP	

SHEET TITLE
REINFORCE CONCRETE MANHOLE

SHEET NUMBER
C-9
OF 20

Professional Engineering Consultants, P.A.
303 S. TOPEKA • WICHITA, KANSAS 67202
316.262.2691 • FAX 316.262.8509

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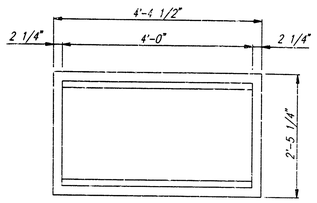
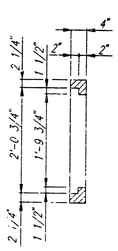
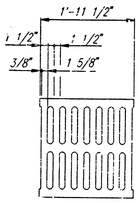
9/9 08:37:41 am

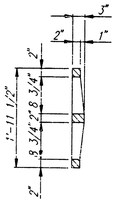


FRAME DETAIL
(Wt.=460 lbs.)





GRATE DETAIL
(Wt.=180 lbs.)



GENERAL NOTES

CONCRETE SHALL BE C.O.W. STANDARD PAVING MIX. ALL EXPOSED EDGES SHALL BE FINISHED WITH AN APPROVED EDGING TOOL.

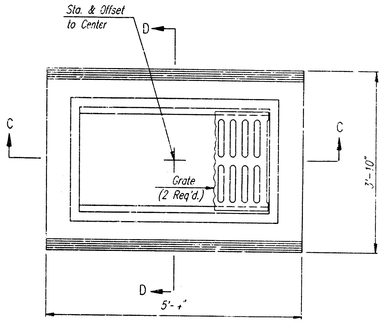
REINFORCING STEEL SHALL BE A MINIMUM GRADE 40, A.S.T.M. A615. ALL DIMENSIONS RELATIVE TO PLACEMENT OF REINFORCING ARE TO THE CENTERLINE OF BARS UNLESS OTHERWISE NOTED.

INLET CASTINGS SHALL BE MANUFACTURED USING GOOD QUALITY GRAY IRON CONFORMING TO CLASS 30 OF A.S.T.M. DESIGNATION A-48. DIMENSIONS AND WEIGHTS SHOWN ON THE DETAILED DRAWINGS SHALL BE CONSIDERED AS MINIMUM REQUIREMENTS AND ANY DEVIATIONS FROM THE DIMENSIONS SHOWN MUST BE SPECIFICALLY APPROVED. THE FINISHED CASTINGS SHALL BE OF UNIFORM QUALITY, FREE FROM BLOWHOLES, POROSITY, HARD SPOTS, SHRINKAGE DISTORTIONS OR OTHER DEFECTS.

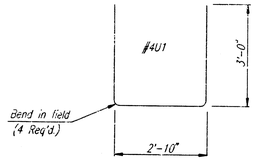
CONSTRUCTION REQUIREMENTS AND MATERIALS FOR MASONRY WALLS SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS.

INLET FLOOR SHALL BE SHAPED WITH UNREINFORCED CONCRETE (3 SACK SAND MIX) TO CREATE FLOW CHANNELS AND TO INCREASE HYDRAULIC EFFICIENCY SUCH THAT THE INLET WILL BE SELF CLEANING BETWEEN ALL INLET AND/OR OUTLET PIPES.

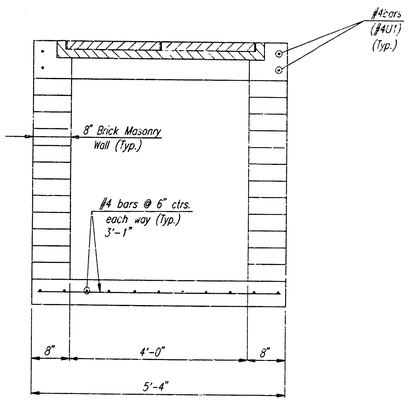
A PRECAST INLET MAY BE USED AT THE CONTRACTOR'S OPTION, WITH APPROVAL OF THE ENGINEER.



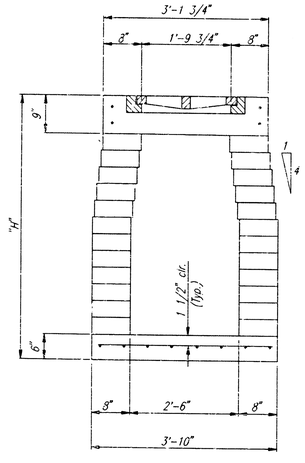
PLAN



BENDING DIAGRAM

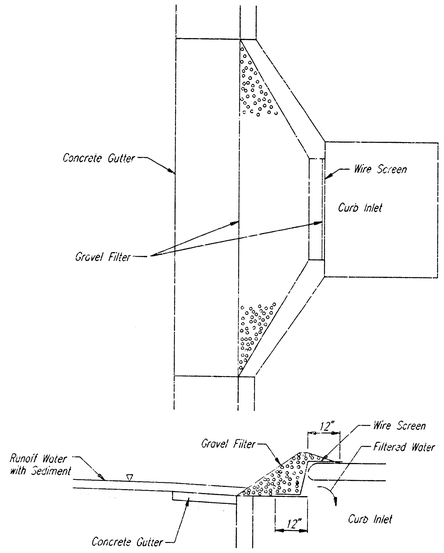


SECTION C-C

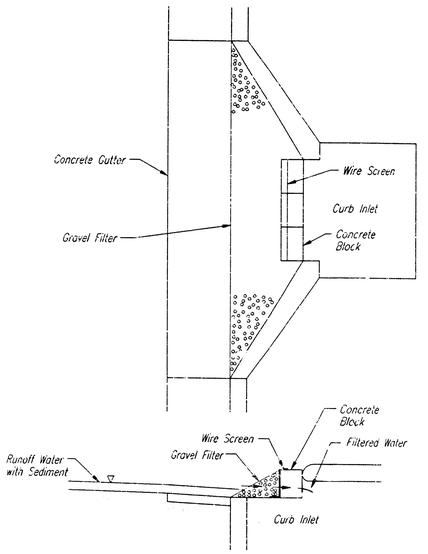


SECTION D-D

AREA INLET



CURB INLET PROTECTION
GRAVEL AND WIRE MESH FILTER



CURB INLET PROTECTION
BLOCK AND GRAVEL FILTER

GENERAL NOTES
INLET PROTECTION

1. INLET PROTECTION METHOD MAY BE ANY OF THE APPLICABLE TYPES SHOWN, AT THE CONTRACTORS OPTION.

2. GRAVEL FILTER SHALL BE A DURABLE, WELL-GRADED SAND-GRAVEL OR CRUSHED STONE, MAXIMUM 1-1/2 IN. SIZE. AS AN ALTERNATE GRAVEL FILLED BAGS OF BURLAP OR OTHER FABRIC MAY BE USED. WHERE BAGS ARE USED, THE WIRE SCREEN, WHERE SHOWN, MAY BE OMITTED.

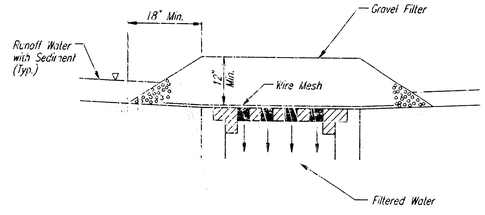
3. FILTER FABRIC, WHERE USED, SHALL BE RESISTANT TO ULTRAVIOLET LIGHT. MATERIALS MAY BE SUPPLIED BY THE FOLLOWING MANUFACTURERS:

MIRAFI, INC.	–	100X
HOECHST FIBERS INDUSTRIES	–	TREVIRA 1115
EXXON	–	TYPAR 3301 W

MATERIALS SUPPLIED BY THE ABOVE NAMED MANUFACTURERS SHALL BE ACCEPTED UPON VISUAL INSPECTION BY THE ENGINEER. OTHER COMPARABLE MATERIALS MAY BE USED IF APPROVED BY THE ENGINEER.

4. INLET PROTECTION SHALL BE ERECTED AS SOON AS THE STRUCTURE HAS BEEN BACKFILLED. MEASURES SHALL BE TAKEN TO PRECLUDE ENTRY OF SEDIMENT INTO THE STORM WATER SEWER SYSTEM DURING CONSTRUCTION OF THE STRUCTURE.

5. REMOVAL AND DISPOSAL OF ACCUMULATED SILT AND DEBRIS AND/OR REMOVAL AND RECONSTRUCTION OF INLET PROTECTION INSTALLATIONS SHALL BE PERFORMED THROUGHOUT THE PROJECT LIFE WHENEVER DEBRIS REACHES ONE-THIRD THE BARRIER HEIGHT, OR AS DEEMED NECESSARY BY THE ENGINEER. ULTIMATE REMOVAL AND DISPOSAL OF INLET PROTECTION AND DEBRIS WILL BE PERFORMED BY THE CONTRACTOR.



AREA INLET PROTECTION
GRAVEL AND WIRE MESH

PRINTS ISSUED			
NO.	PURPOSE	DATE	

REVISIONS			
NO.	ITEM	DATE	

BROWNING & ASSOCIATES
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TEL 1-316-269-9001 FAX 1-316-269-9005

Hilton GARDEN INN

AT
BRADLEY FAIR
SECOND ADDITION
LOT 3
WICHITA, KANSAS

PROJECT NO. 9808-193-369

DRAWN	CHECKED
DEP	

SHEET TITLE
STD AREA INLET AND CURB INLET PROTECTION

SHEET NUMBER
C-10

OF 20 SHEETS

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