

Engineer:

Tuttle & Associates, Inc.
9714 E. 55TH Place, Tulsa, OK 74146
Phone: (918) 663-5567

Owner: **AS BUILT PLANS**

PORTOFINO WICHITA, LLC
4200 E. Skelly Dr., Tulsa, OK 74133
Phone: (918) 492-1983

Contractor: Triangle Construction & Utilities
Inspector: Fred Smith, Baughman Co.

pdf's by: KEK, 2/17/15

PROJECT NUMBER:
215 PPD

PRIVATE STORMWATER DRAIN IMPROVEMENTS

TO SERVE

PORTOFINO APARTMENTS

GARY JANZEN, P.E., CITY ENGINEER
WICHITA, KANSAS

GENERAL NOTES:

1. Contractor will be required to provide a minimum advance notice of seventy-two (72) hours to utility companies prior to starting any excavation as follows:

Kansas One-Call 811 or 1-800-DIG-SAFE

The contractor must notify the following in case of an emergency:

Cox Communications	262-7204
Kansas Gas Service	
888-482-4950	
Wastor	583-8600
AT&T	1-800-285-8313
City of Wichita Water Department	262-6000
City of Wichita Sewer Maintenance	262-6000

2. 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 or unless the plans specifically identify a utility to be adjusted by its owner during construction. 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.

3. Rubble from the removal of miscellaneous structures and excess excavation which is to be wasted shall be disposed of on sites to be provided by the contractor. These sites shall be approved by the Engineer as to suitability, appearance and site location. Locations that, in the opinion of the Engineer, will leave an unsightly appearance will not be approved.

4. 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 construction limits would require additional archeological investigations unless buried in a previously approved borrow location.

5. The contractor shall give all property owners and/or tenants of developed property directly abutting the construction of the project a minimum of ten (10) days advance notice prior to start of construction.

6. The contractor shall seed, fertilize and mulch all disturbed areas upon completion of construction.

7. The contractor shall comply with all City of Wichita specifications and special provisions.

Site Bench Mark #1
Square Cut Top of Curb at the SE Corner of the Storm Water Inlet, 36.3' & 5' 1/2" of the SE Corner Lot 16, Block 1, Crest Lane Addition
KANSAS STATE PLANE COORDINATES
N: 1689256.02
E: 169074.28
Elevation = 1354.88 (NAVD88)

Site Bench Mark #2
Square Cut Top of Curb, 16.3' & 19.5' E of the NE Corner of the Subject
KANSAS STATE PLANE COORDINATES
N: 1689630.22
E: 1691630.28
Property, Elevation = 1369.58 (NAVD88)

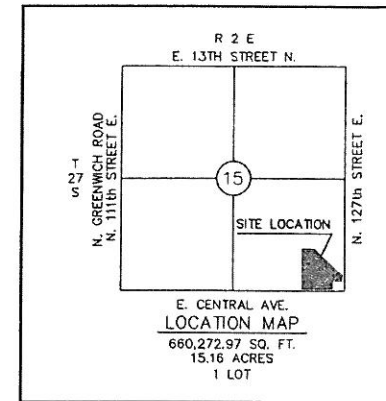


STORM SYSTEM IS TO BE PRIVATE
AND MAINTAINED BY THE OWNER.

STORMWATER COMPLIANCE STATEMENT

This plan complies with chapter 16.32 of the City of Wichita code by the use of dry detention ponds, engineered grass swales, sediment catment basins in storm sewer inlets and anti-siphon filter hoods in the storm sewer inlets. (see storm sewer profile sheets 5, 6 & 7 for model numbers.)

Disturbed Area: 15.16 Acres
Impervious Area 324,308.69 SF.
WQ (Water Quality Protection Volume) = 1.04 Acres Feet
CPV (Channel Protection Volume) = 1.51 Acre Feet



Sheet Index

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LEGAL DESCRIPTION

Lot 1, Block A, Portofino Addition, an Addition to the City of Wichita, Sedgwick County, Kansas according to the official recorded plat contained in PC 239-9, Filed 07-01-2013

APPROVED AS NOTED
BY CITY ENGINEER OF WICHITA

Public Works

Storm Sewer Lines

NOTE TO CONTRACTORS

Installation, inspection and testing for this project is to be provided by a Licensed Consulting Engineering Firm under contract with the Owner/Developer. 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 without such inspection nor shall any work be commenced without written authorization by the City Engineer. All Construction and Materials shall comply with the City of Wichita Specifications and Standards (on file and available in the City Engineer's Office).

State of Kansas) SS
Sedgwick County)

We, Savoy Company, P.A., Surveyors in aforesaid county and state do hereby certify that, under the supervision of the undersigned, we have surveyed and platted "Portofino Addition", Wichita, Sedgwick County, Kansas and that the accompanying plat is a true and correct exhibit of the property surveyed, described as:

The Southeast Quarter of Section 15, Township 27 South, Range 2 East of the Sixth Principal Meridian, Sedgwick County, Kansas, lying west of the K-96 Bypass right-of-way as condemned in Case No. 88C-4045, EXCEPT the North 164.3 feet thereof, and EXCEPT the right-of-way for Central Avenue and 127th Street East, described as that part of the Southeast Quarter of Section 15, Township 27 South, Range 2 East of the Sixth Principal Meridian, Sedgwick County, Kansas, described as beginning at the Southeast Corner thereof; thence S89°02'54"W, along the South line of said Southeast Quarter, 1791.55 feet to a point 859.88 feet East of the Southwest Corner of said Southeast Quarter; thence N00°57'32"W, parallel with the West line of said Southeast Quarter, 60 feet; thence N89°02'54"E, 1441.55 feet to a point 350 feet West of the East line of said Southeast Quarter; thence N80°37'03"E, 101.12 feet to a point 75 feet North of the South line of said Southeast Quarter and 250 feet West of the East line of said Southeast Quarter; thence N89°02'54"E, 175 feet to a point 75 feet West of the East line of said Southeast Quarter; thence N00°57'30"W, parallel with the East line of said Southeast Quarter, 175 feet; thence N13°04'41"E, 103.08 feet to a point 50 feet West of the East line of said Southeast Quarter and 350 feet North of the South line of said Southeast Quarter; thence N00°57'30"W, parallel with the East line of said Southeast Quarter, 48.96 feet to the Westerly line of the K-96 Bypass right-of-way as condemned in Case No. 88C-4045; thence N89°02'30"E, 50 feet to the East line of said Southeast Quarter; thence S00°57'30"E, along the East line of said Southeast Quarter, 398.97 feet to the place of beginning, and EXCEPT that part of the Southeast Quarter of Section 15, Township 27 South, Range 2 East of the Sixth Principal Meridian, Sedgwick County, Kansas described as commencing at the Southeast Corner of said Southeast Quarter; thence S89°02'54"W, along the South line of said Southeast Quarter, 75 feet; thence N00°57'30"W, parallel with the East line of said Southeast Quarter, 75 feet for a place of beginning; thence N00°57'30"W, 175 feet; thence S89°02'54"W 200 feet; thence S00°57'30"E, 178.75 feet; thence N80°37'03"E, 25.28 feet; thence N89°02'54"E, 175 feet to the place of beginning, and EXCEPT any portion platted as Balthrop 4th Addition to Wichita, Sedgwick County, Kansas, and EXCEPT that portion platted as "Crestlake", Wichita, Sedgwick County, Kansas.

All Public easements and dedications being vacated by virtue of K.S.A. 12-512b as amended.

Savoy Company, P.A.
Date 21 May 2013 Mark A. Savoy Surveyor
Mark A. Savoy RLS #788

Know all men by these presents that We, the undersigned, have caused the land described in the surveyor's certificate to be platted into a Lot and a Block to be known as "Portofino Addition", Wichita, Sedgwick County, Kansas. The utility easements are hereby granted for the construction and maintenance of all public utilities. The drainage and utility easements are hereby granted for drainage purposes and for the construction of all public utilities. A drainage plan has been developed for this plat and all drainage easements, rights-of-way, or reserves shall remain at established grades, or as modified with the approval of the City Engineer and unobstructed to allow for the conveyance of stormwater. Access Controls are hereby granted as shown on the face of the plat.

Portofino Wichita, LLC
Mike Case Manager

Oklahoma
State of Kansas) SS
Sedgwick County)
Shirley Rames
The foregoing instrument acknowledged before me, this 22 day of May, 2013, by Mike Case, Manager of Portofino Wichita, LLC, a Delaware limited liability company.

Shirley Rames Notary Public
My App't. Exp. 3-30-17

Portofino Addition

Wichita, Sedgwick County, Kansas

This plat of "Portofino Addition", Wichita, Sedgwick County, Kansas, has been submitted to and approved by the Wichita-Sedgwick County Metropolitan Area Planning Commission, Wichita, Sedgwick County, Kansas.

Dated this 9th day of MAY, 2013.

Wichita-Sedgwick County Metropolitan Area Planning Commission



David Dennis Chair
John L. Schlegel Secretary

This plat approved and all dedications shown hereon, accepted by the City Council of the City of Wichita, Kansas, this 11 day of JUNE, 2013.

Carl Gower Mayor
Karen Sublett City Clerk

Reviewed in accordance with K.S.A. 58-2005 on this 11 day of JUNE, 2013.

Victoria L. Robello Deputy County Surveyor
Sedgwick County Kansas

Entered on transfer record this 11 day of JUNE, 2013.

Kelly B. Arnold County Clerk

State of Kansas) SS
Sedgwick County)

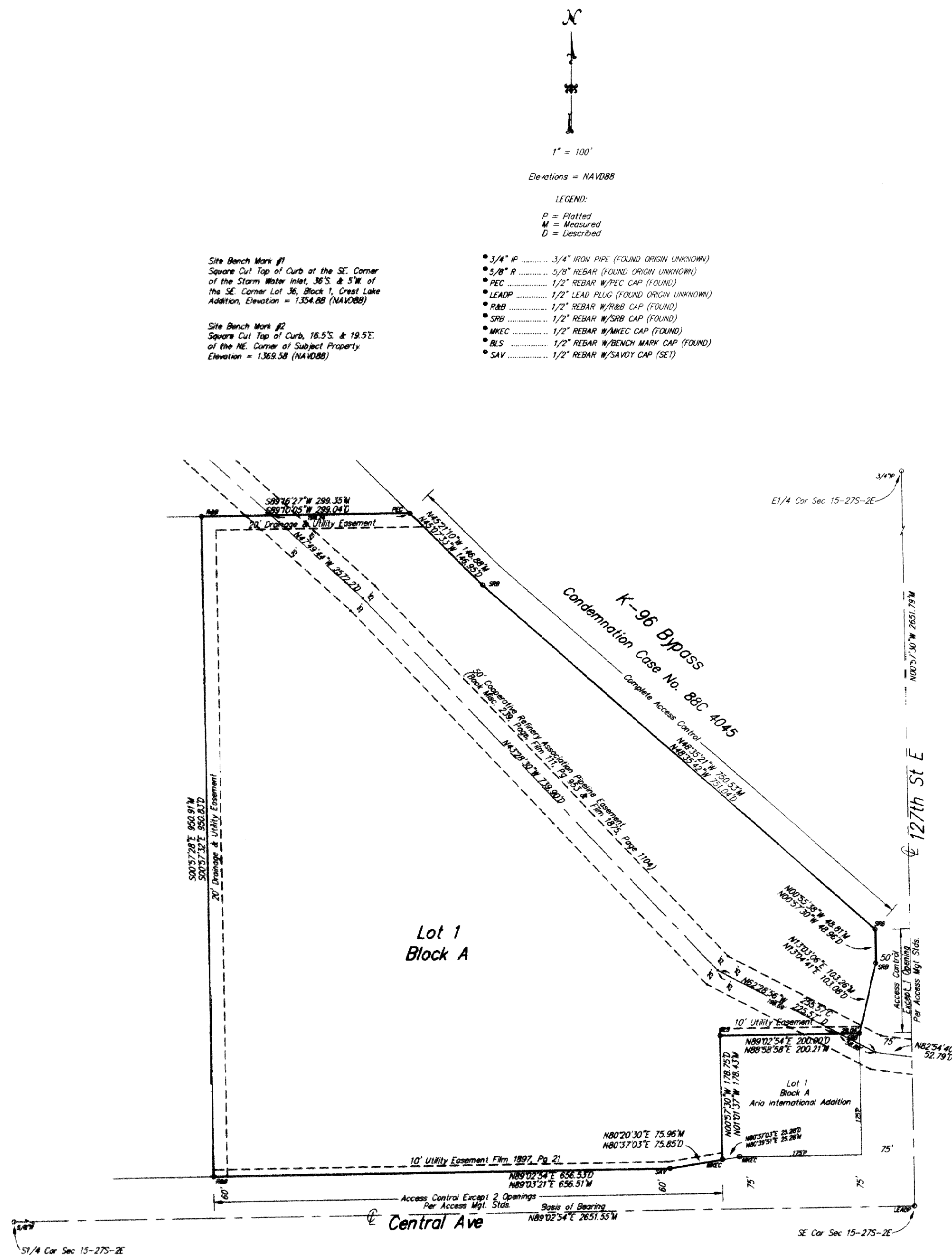
This is to certify that this plat has been filed for record in the office of the Register of Deeds, this 13 day of JULY, 2013, at 3:46:19 o'clock P. M. and is duly recorded.

Bill Meek Register of Deeds
Tonya Buckingham Deputy

Register of Deeds
DOC #/FLM-PG: 28384861
Page: 1 of 1
Date Recorded: 7/1/2013 3:46:19 PM

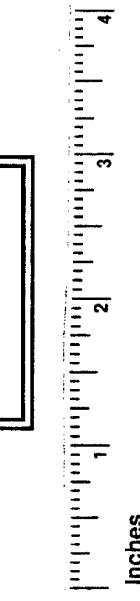


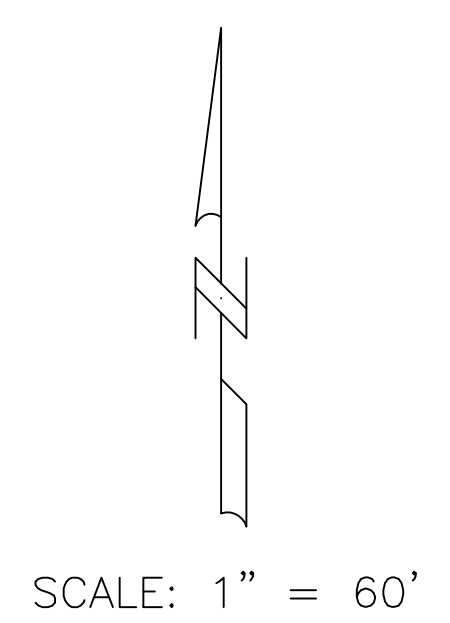
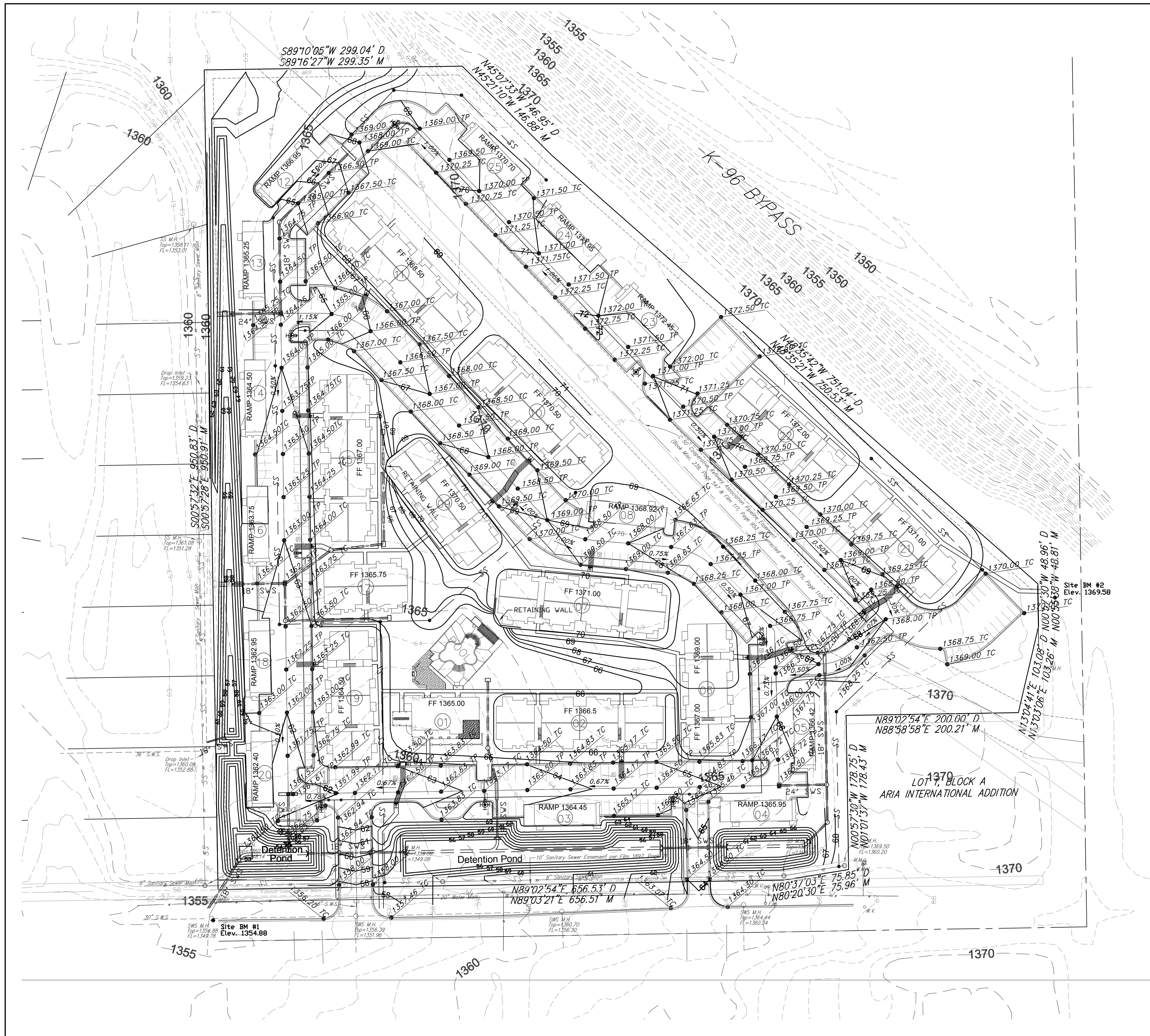
Savoy Company, P.A.
Land Surveyors
433 S. Hydraulic, Wichita, KS 67211-1911
www.savoyco.com



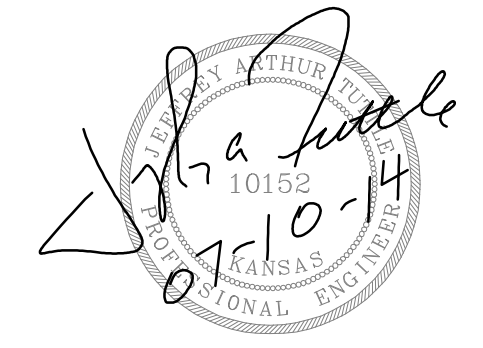
This digital plat record accurately reproduces in all details the original plat filed with the Sedgwick County Register of Deeds. Digitized under the supervision of Register of Deeds Bill Meek by Sedgwick County Geographic Information Systems.

Bill Meek, Register of Deeds
Digitized reproduction of original signature

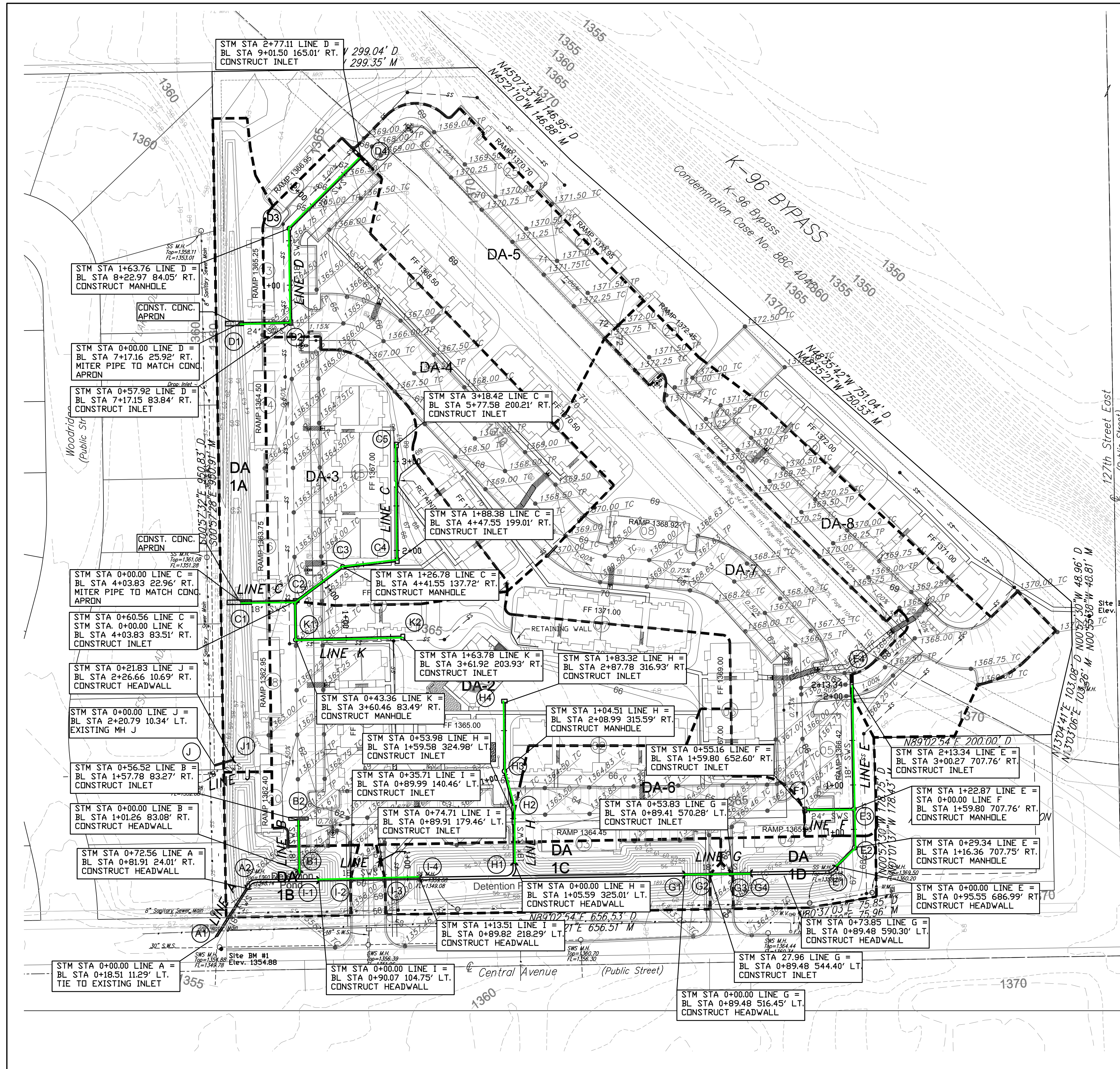




SCALE: 1" = 60'



GRADING PLAN	
PORTOFINO	
CITY OF WICHITA, KANSAS	
PLANS & ESTIMATES PREPARED BY: TUTTLE & ASSOCIATES, INC.	
9714 E. 55TH PL. TULSA, OK. 74146 918-663-5567	
PROJECT NUMBER: 215 PPD	APPROVED: _____ PUBLIC WORKS DIRECTOR
DESIGNED BY: J. TUTTLE	DATE _____
DFILE: 4981 Grading	DATE _____
RECOMMENDED:	DATE _____
DEVELOPMENT SERVICES	DATE _____
RECOMMENDED:	DATE _____
ENGINEERING SERVICES	DATE _____
FILE DRAWING	DATE _____
ATLAS PAGE NO	SHEET 3 OF 20 SHEETS



NOTES:

1. Cross-drainage agreements shall be required at the time of platting.
2. All outlets to 127th Street, Central Avenue, Crest Lake Addition or other off site areas shall conform to City of Wichita water quality requirements.
3. Detailed site grading and final drainage plans to be designed by a licensed professional engineer at the time of building permit.
4. Storm sewer easements will be provided at the time of building permit only as needed to allow drainage to discharge across adjacent lots.
5. Any revised drainage plan must be approved by storm water engineer prior to building permits being issued.
6. Any storm water detention areas required may be revised when the final plans for the development are completed but the runoff amounts will be at or below the pre-development discharge rates. The filed final drainage report shall show discharge rates and stage/storage/discharge curves for any on-site detention areas. Discharge amounts submitted to City with final drainage amendment.
7. Construct 5'-wide spillway between the West and the SW ponds as shown. The final pond location, configuration, and design will need to be resolved at the time of building permit.
8. A drainage reserve or easement for the proposed detention cells will be dedicated by separate instrument during final site design.
9. Water Quality calculations provided with final submittal. Treatment shall be accomplished with inlet BMP's at any sump location as well as with one inlet BMP upstream along longitudinal street/driveway flows using SMOUT system from Best Management Products, Inc. or approved equal. These types of devices require 4'-deep sumps at applicable inlets if outlet pipe is 18" diameter or more.
10. Downstream bank protection based on calculated channel protection volume.

CALCULATION NOTES:

1. Determination of Q's was made using the SCS method.
2. Curve Numbers weighted based on hydrologic soil groups.

PROPOSED CONDITIONS (24-HOUR STORM)										
INLET #	SITE	AREA (ACRES)	CN	1-YEAR	2-YEAR	5-YEAR	10-YEAR	25-YEAR	50-YEAR	100-YEAR
J1	AREA "1A"	0.886	93.0	2.26	2.95	3.94	4.62	5.49	6.26	7.13
A2	AREA "1B"	0.376	93.0	0.94	1.23	1.64	1.92	2.29	2.61	2.97
I4	AREA "1C"	0.703	93.0	1.78	2.32	3.10	3.63	4.32	4.93	5.61
G4	AREA "1D"	0.306	93.0	0.79	1.03	1.37	1.61	1.92	2.18	2.49
B2	AREA "2"	2.399	93.0	6.09	7.96	10.60	12.44	14.80	16.88	19.21
C2	AREA "3"	1.213	93.0	3.07	4.01	5.35	6.28	7.48	8.51	9.69
D2	AREA "4"	1.521	93.0	3.86	5.04	6.72	7.88	9.38	10.69	12.17
D4	AREA "5"	1.703	93.0	4.31	5.64	7.51	8.82	10.48	11.96	13.61
H2	AREA "6"	0.715	93.0	1.83	2.39	3.18	3.74	4.44	5.07	5.77
F1	AREA "7"	1.774	93.0	4.49	5.87	7.82	9.18	10.91	12.45	14.17
E3	AREA "8"	1.929	93.0	4.90	6.40	8.53	10.01	11.90	13.57	15.45

SCALE: 1" = 60'



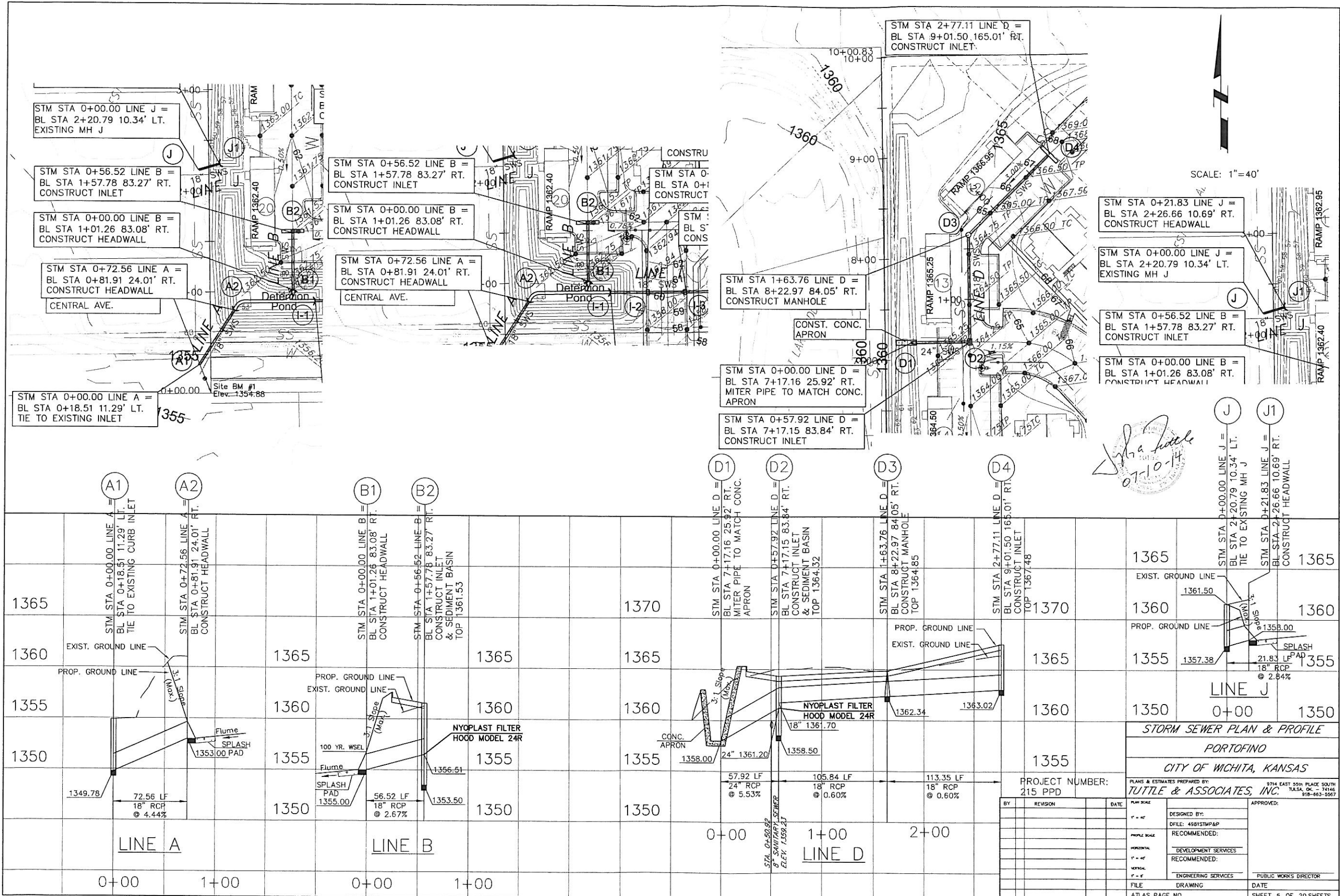
DRAINAGE PLAN
PORTOFINO
CITY OF WICHITA, KANSAS

PLANS & ESTIMATES PREPARED BY:
TUTTLE & ASSOCIATES, INC. 9718 E. 55TH PL
TULSA, OK 74146
918-663-5567

DESIGNED BY: J. TUTTLE	APPROVED:
DFILE: 4981 Drainage	
RECOMMENDED:	
DEVELOPMENT SERVICES	
RECOMMENDED:	
ENGINEERING SERVICES	
PUBLIC WORKS DIRECTOR	

FILE DRAWING DATE
ATLAS PAGE NO SHEET 4 OF 20 SHEETS

PROJECT NUMBER



SCALE: 1" = 40'

John A. Tuttle
07-10-14

STORM SEWER PLAN & PROFILE			
PORTOFINO			
CITY OF WICHITA, KANSAS			
PLANS & ESTIMATES PREPARED BY:		9714 EAST 25TH PLACE SOUTH TULSA, OK - 74146 918-663-5567	
DESIGNED BY:		APPROVED:	
DFILE: 4981STMP&P		DATE:	
RECOMMENDED:		DATE:	
DEVELOPMENT SERVICES		PUBLIC WORKS DIRECTOR	
RECOMMENDED:		DATE:	
ENGINEERING SERVICES		DATE:	
FILE	DRAWING	ATLAS PAGE NO	SHEET 5 OF 20 SHEETS

BY	REVISION	DATE

PROJECT NUMBER:
215 PPD

0+00 1+00 2+00
LINE D

NYOPLAST FILTER HOOD MODEL 24R

CONC. APRON

NYOPLAST FILTER HOOD MODEL 24R

FLUME

FLUME

SPLASH PAD

100 YR. WSEL

18" RCP @ 5.53%

18" RCP @ 2.67%

18" RCP @ 4.44%

24" RCP @ 0.60%

18" RCP @ 0.60%

18" RCP @ 0.60%

21.83 LF @ 2.84%

72.56 LF @ 4.44%

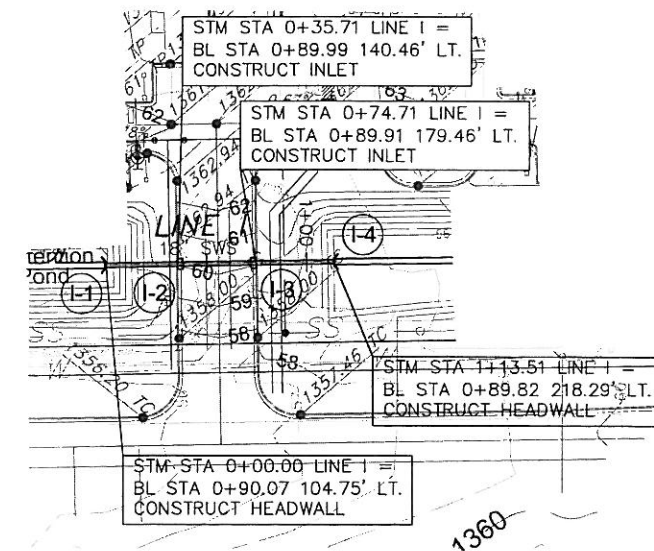
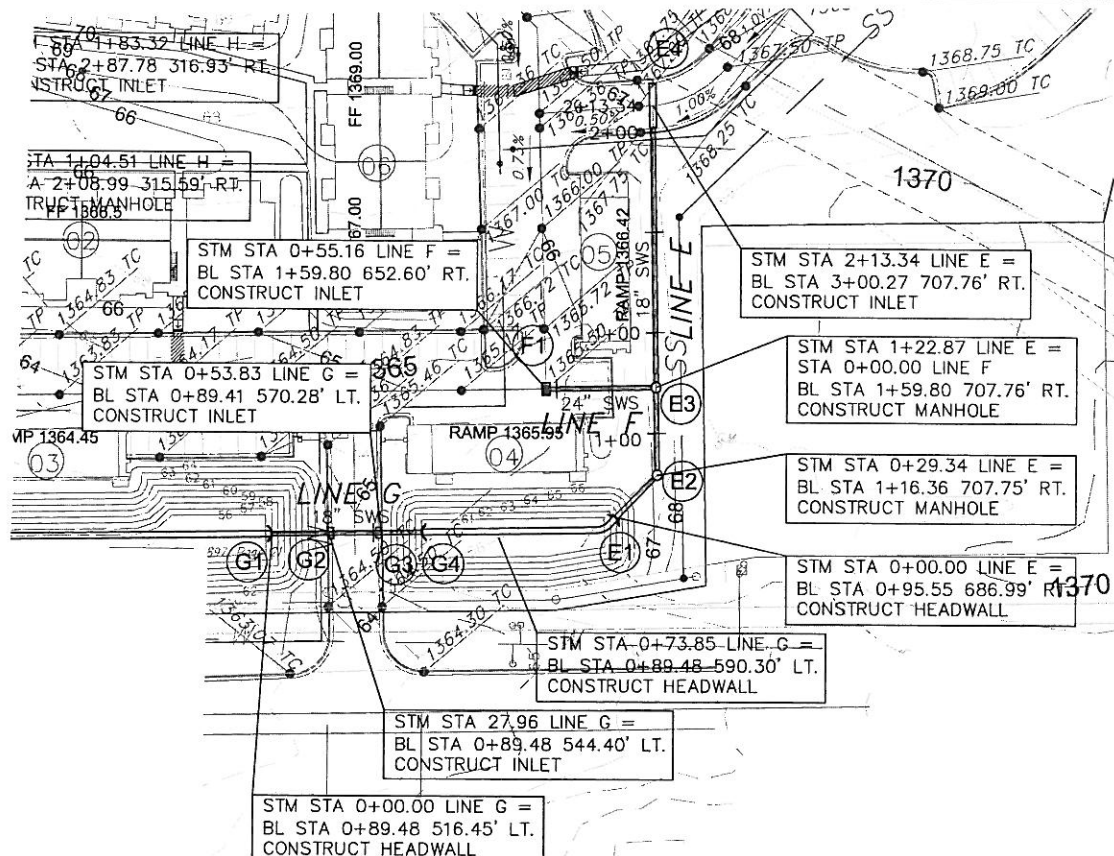
56.52 LF @ 2.67%

57.92 LF @ 5.53%

105.84 LF @ 0.60%

113.35 LF @ 0.60%

21.83 LF @ 2.84%



SCALE: 1"=40'

E1
STM STA 0+00.00 LINE E =
BL STA 0+95.55 686.99' RT.
CONSTRUCT HEADWALL

E2
STM STA 0+29.34 LINE E =
BL STA 1+16.36 707.75' RT.
CONSTRUCT MANHOLE
TOP 1367.00

E3
STM STA 1+22.87 LINE E =
BL STA 1+59.80 707.76' RT.
CONSTRUCT MANHOLE
& SEDIMENT BASIN
TOP 1367.50

E4
STM STA 2+13.34 LINE E =
BL STA 3+00.27 707.76' RT.
CONSTRUCT INLET
TOP 1367.07

E3
STM STA 1+22.87 LINE E =
BL STA 1+59.80 707.76' RT.
CONSTRUCT MANHOLE
& SEDIMENT BASIN
TOP 1367.00

F1
STM STA 1+59.80 LINE F =
BL STA 1+59.80 652.60' RT.
CONSTRUCT INLET
TOP 1365.50

G1
STM STA 0+00.00 LINE G =
BL STA 0+89.48 516.45' LT.
CONSTRUCT HEADWALL

G2
STM STA 0+27.96 LINE G =
BL STA 0+89.48 544.40' LT.
CONSTRUCT INLET
& SEDIMENT BASIN
TOP 1364.89

G3
STM STA 0+53.83 LINE G =
BL STA 0+89.41 570.28' LT.
CONSTRUCT INLET
TOP 1364.89

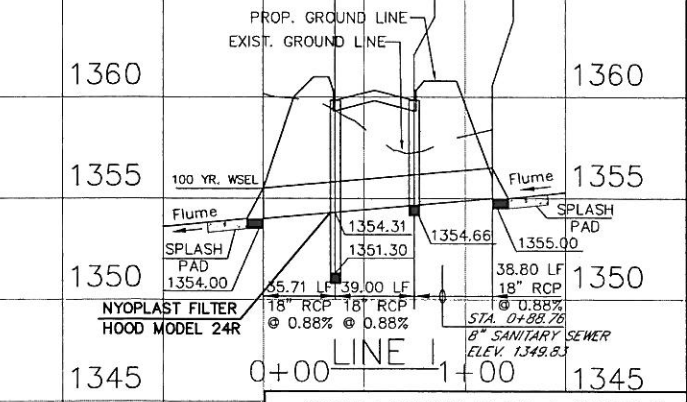
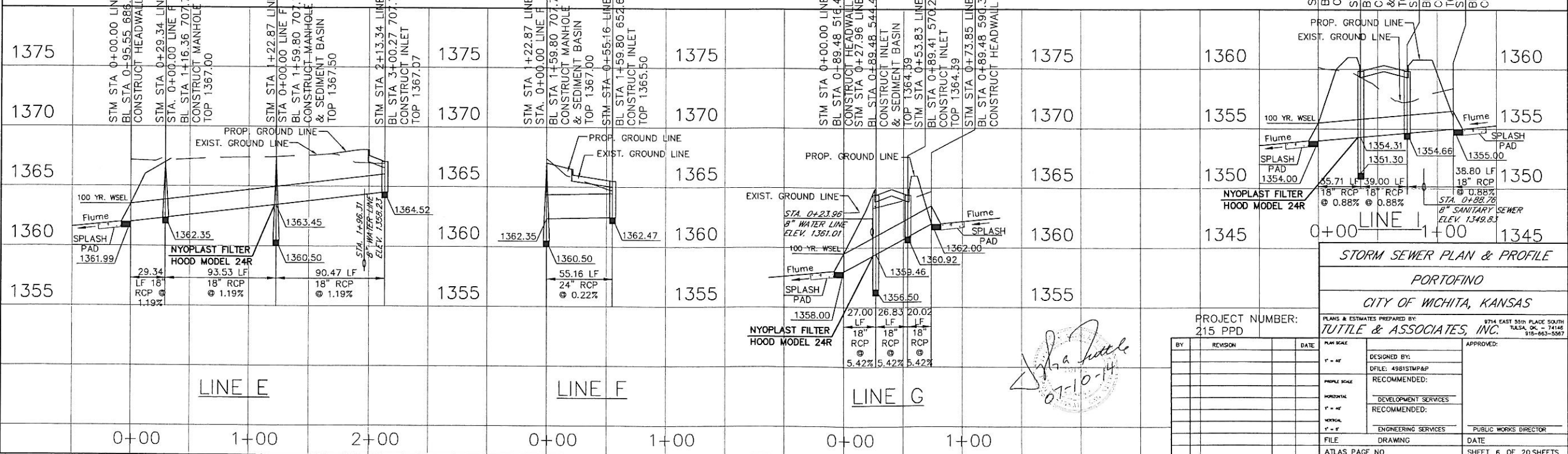
G4
STM STA 0+73.85 LINE G =
BL STA 0+89.48 590.30' LT.
CONSTRUCT HEADWALL

I-1
STM STA 0+00.00 LINE I =
BL STA 0+90.07 104.75' LT.
CONSTRUCT HEADWALL

I-2
STM STA 0+35.71 LINE I =
BL STA 0+89.99 140.46' LT.
CONSTRUCT INLET
& SEDIMENT BASIN
TOP 1359.84

I-3
STM STA 0+74.71 LINE I =
BL STA 0+89.91 179.46' LT.
CONSTRUCT INLET
TOP 1359.84

I-4
STM STA 1+13.51 LINE I =
BL STA 0+89.82 218.29' LT.
CONSTRUCT HEADWALL



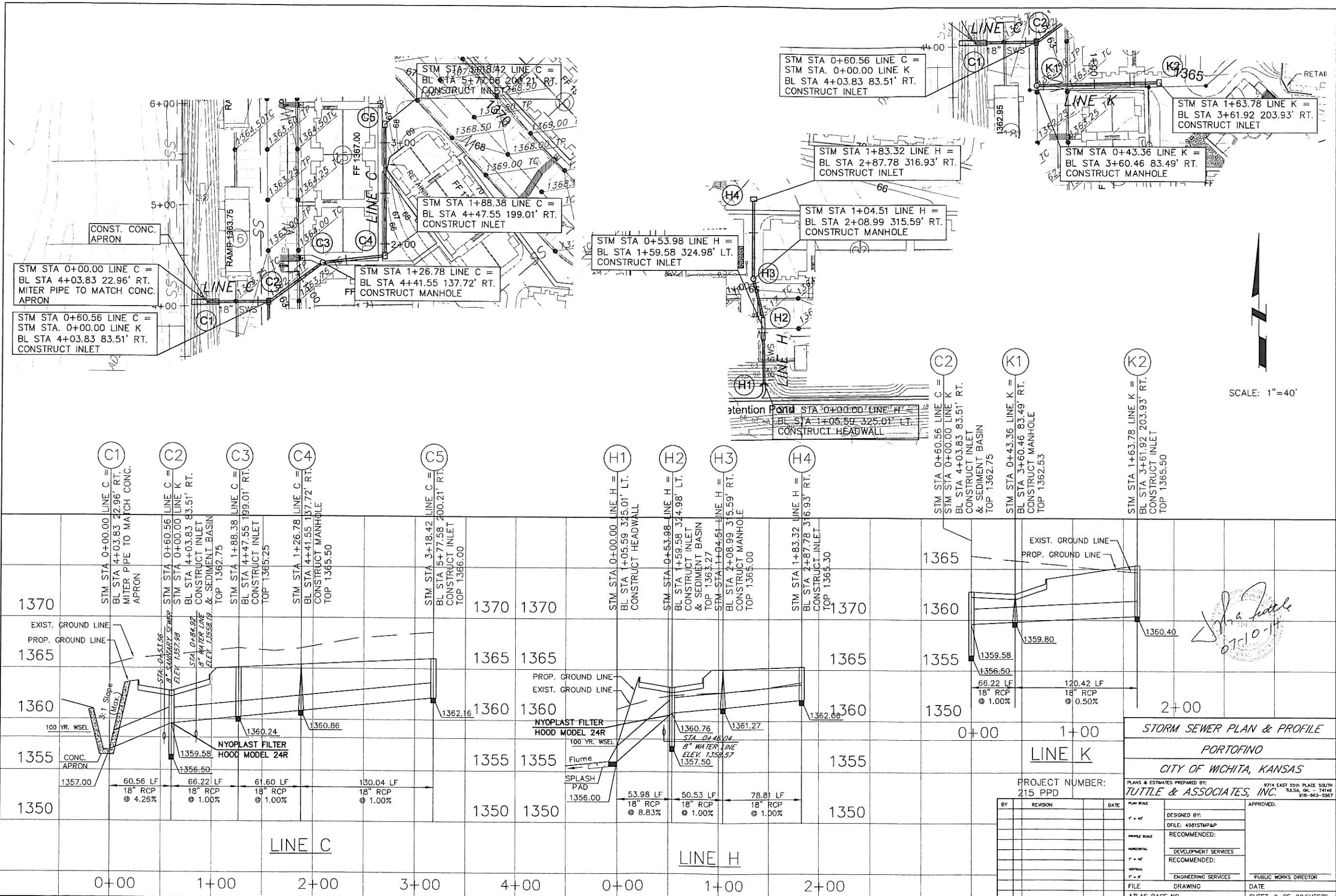
STORM SEWER PLAN & PROFILE
PORTOFINO
CITY OF WICHITA, KANSAS

PLANS & ESTIMATES PREPARED BY:
TUTTLE & ASSOCIATES, INC.
8714 EAST 55TH PLACE SOUTH
TULSA, OK - 74146
918-663-5067

PROJECT NUMBER:
215 PPD

BY	REVISION	DATE	PLANNING	DESIGNED BY:	APPROVED:
				DFILE: 4981STMP&P	
				RECOMMENDED:	
				DEVELOPMENT SERVICES	
				RECOMMENDED:	
				ENGINEERING SERVICES	
				FILE	PUBLIC WORKS DIRECTOR
				DRAWING	DATE
				ATLAS PAGE NO	SHEET 6 OF 20 SHEETS

Handwritten signature and date:
07-10-14



STM STA 0+00.00 LINE C =
BL STA 4+03.83 22.96' RT.
MITER PIPE TO MATCH CONC.
APRON

STM STA 0+60.56 LINE C =
STM STA. 0+00.00 LINE K
BL STA 4+03.83 83.51' RT.
CONSTRUCT INLET

STM STA 1+88.38 LINE C =
BL STA 4+47.55 199.01' RT.
CONSTRUCT INLET

STM STA 1+26.78 LINE C =
BL STA 4+41.55 137.72' RT.
CONSTRUCT MANHOLE

STM STA 0+53.98 LINE H =
BL STA 1+59.58 324.98' LT.
CONSTRUCT INLET

STM STA 0+60.56 LINE C =
STM STA. 0+00.00 LINE K
BL STA 4+03.83 83.51' RT.
CONSTRUCT INLET

STM STA 1+83.32 LINE H =
BL STA 2+87.78 316.93' RT.
CONSTRUCT INLET

STM STA 1+04.51 LINE H =
BL STA 2+08.99 315.59' RT.
CONSTRUCT MANHOLE

STM STA 0+43.36 LINE K =
BL STA 3+60.46 83.49' RT.
CONSTRUCT MANHOLE

STM STA 1+63.78 LINE K =
BL STA 3+61.92 203.93' RT.
CONSTRUCT INLET

SCALE: 1"=40'

Station	Line	Structure	Elevation	Notes
0+00	C	MITER PIPE TO MATCH CONC. APRON	1357.00	
0+60.56	C	CONSTRUCT INLET	1356.50	
1+00	C	CONSTRUCT INLET	1362.75	
1+26.78	C	CONSTRUCT MANHOLE	1365.50	
1+88.38	C	CONSTRUCT INLET	1365.25	
3+00	C	CONSTRUCT INLET	1366.00	
0+00	H	CONSTRUCT HEADWALL	1365.01	
0+53.98	H	CONSTRUCT INLET & SEDIMENT BASIN	1363.27	
1+04.51	H	CONSTRUCT MANHOLE	1365.00	
1+83.32	H	CONSTRUCT INLET	1365.30	
2+00	K	CONSTRUCT INLET	1365.50	
2+87.78	H	CONSTRUCT INLET	1365.30	
3+60.46	K	CONSTRUCT MANHOLE	1362.75	
3+61.92	K	CONSTRUCT INLET	1365.50	

STORM SEWER PLAN & PROFILE
PORTOFINO
CITY OF WICHITA, KANSAS

PLANS & ESTIMATES PREPARED BY:
TUTTLE & ASSOCIATES, INC.
 9714 EAST 25TH PLACE SOUTH
 W.S.A. OK. - 74145
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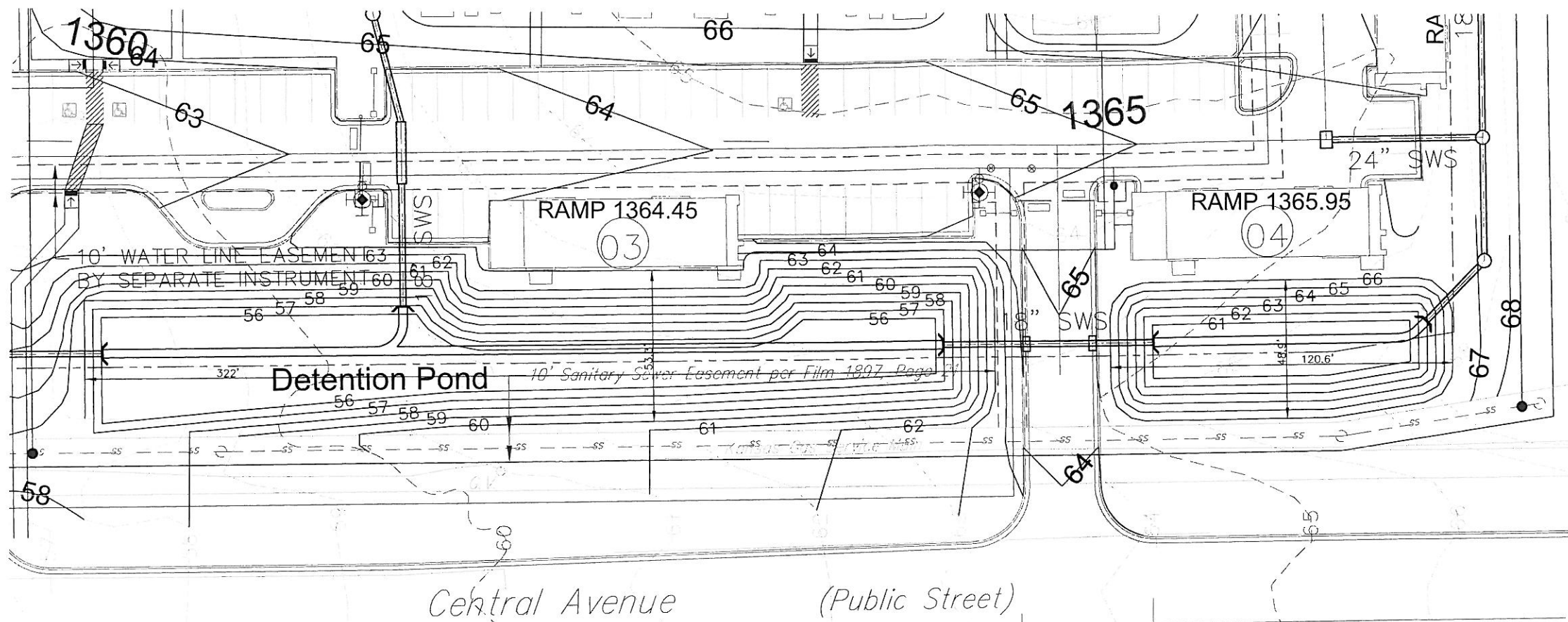
DESIGNED BY:
 DFLE: 4981TMP&P

RECOMMENDED:
 DEVELOPMENT SERVICES
 RECOMMENDED:
 ENGINEERING SERVICES

APPROVED:
 PUBLIC WORKS DIRECTOR

FILE DRAWING
 ATLAS PAGE NO

DATE
 SHEET 7 OF 20 SHEETS



South POND STAGE STORAGE TABLE

ELEV	AREA (sq. ft.)	DEPTH (ft)	AVG END INC. VOL. (cu. ft.)	AVG END TOTAL VOL. (cu. ft.)	CONIC INC. VOL. (cu. ft.)	CONIC TOTAL VOL. (cu. ft.)
1,356.000	7,566.90	N/A	N/A	0.00	N/A	0.00
1,357.000	9,587.74	1.000	8577.32	8577.32	8557.41	8557.41
1,358.000	11,827.36	1.000	10707.55	19284.87	10687.98	19245.39
1,359.000	14,285.04	1.000	13056.20	32341.07	13036.88	32282.27

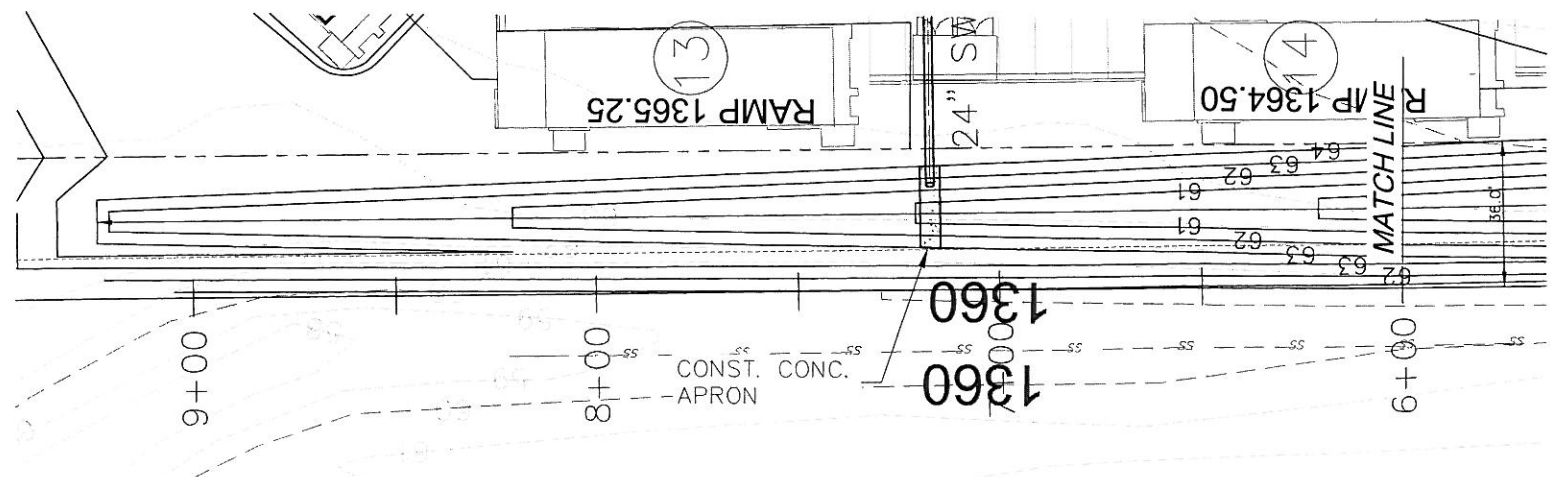
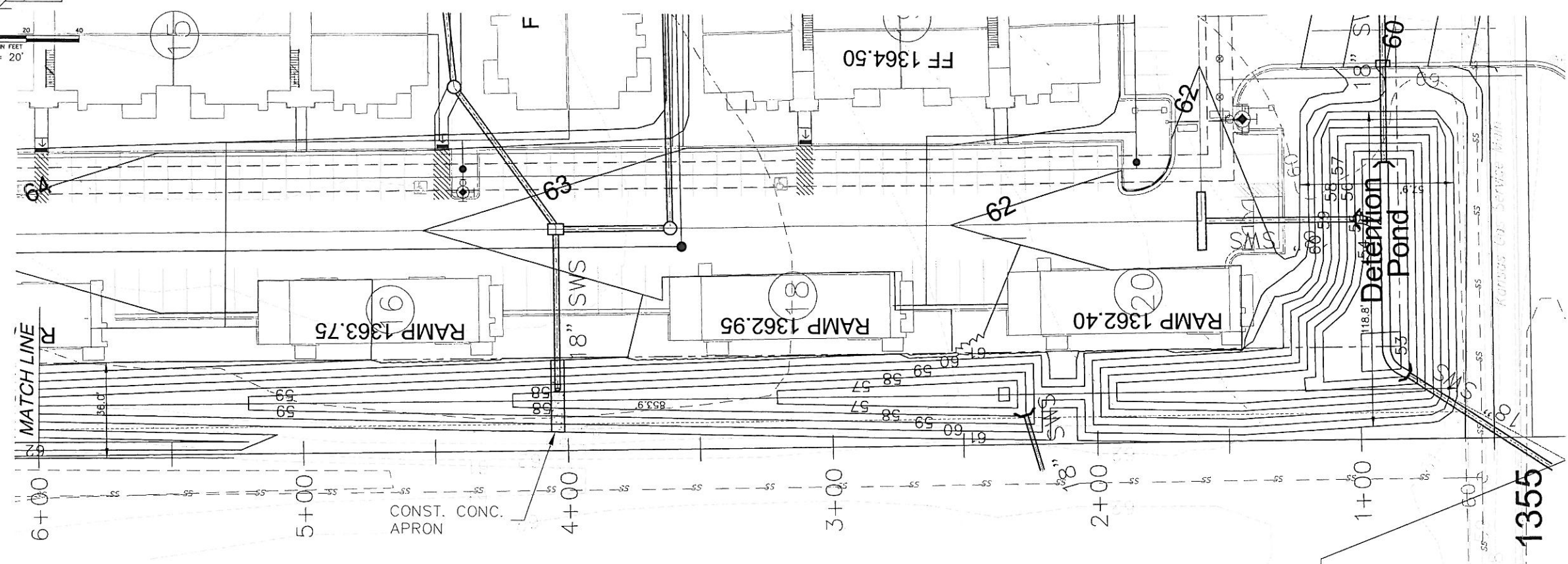
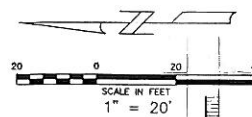
SE POND STAGE STORAGE TABLE

ELEV	AREA (sq. ft.)	DEPTH (ft)	AVG END INC. VOL. (cu. ft.)	AVG END TOTAL VOL. (cu. ft.)	CONIC INC. VOL. (cu. ft.)	CONIC TOTAL VOL. (cu. ft.)
1,360.500	697.02	N/A	N/A	0.00	N/A	0.00
1,361.000	1,651.21	0.500	587.06	587.06	570.17	570.17
1,362.000	2,332.04	1.000	1991.63	2578.68	1981.86	2552.03
1,363.000	3,076.42	1.000	2704.23	5282.91	2695.65	5247.68
1,364.000	3,877.46	1.000	3476.94	8759.85	3469.22	8716.90
1,365.000	4,735.06	1.000	4306.26	13066.11	4299.13	13016.03
1,366.000	5,649.20	1.000	5192.13	18258.24	5185.41	18201.44
1,366.500	6,127.48	0.500	2944.17	21202.41	2943.36	21144.80

Tuttle & Associates, Inc.
 07-10-14

DETENTION POND DETAIL
PORTOFINO
CITY OF WICHITA, KANSAS
PLANS & ESTIMATES PREPARED BY:
TUTTLE & ASSOCIATES, INC.
9714 E. 25TH PL.
 TULSA, OK 74146
 918-463-5567

REVISION	BY	DATE	PLN NO:	Reviewed By:
			1" = 20'	Director of Engineering
				APPROVED:
				DEVELOPMENT SERVICES RECOMMENDED:
				ENGINEERING SERVICES
			FILE	DRAWING
				PUBLIC WORKS DIRECTOR
				DATE
				SHEET 8 OF 20 SHEETS



SW POND STAGE STORAGE TABLE

ELEV	AREA (sq. ft.)	DEPTH (ft)	AVG END INC. VOL. (cu. ft.)	AVG END TOTAL VOL. (cu. ft.)	CONIC INC. VOL. (cu. ft.)	CONIC TOTAL VOL. (cu. ft.)
1,353.000	0.19	N/A	N/A	0.00	N/A	0.00
1,354.000	1,766.31	1.000	883.25	883.25	594.86	594.86
1,355.000	2,482.94	1.000	2124.62	3007.87	2114.48	2709.34
1,356.000	3,902.56	1.000	3192.75	6200.62	3166.12	5875.46
1,357.000	5,173.27	1.000	4537.92	10738.54	4523.02	10398.47
1,358.000	6,510.98	1.000	5842.13	16580.66	5829.32	16227.80
1,359.000	7,898.82	1.000	7204.90	23785.56	7193.73	23421.53
1,360.000	9,383.47	1.000	8641.14	32426.70	8630.49	32052.02
1,361.000	10,691.44	1.000	10037.46	42464.16	10030.35	42082.37

West POND STAGE STORAGE TABLE

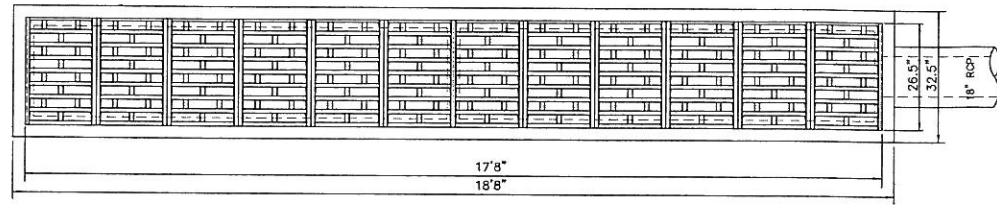
ELEV	AREA (sq. ft.)	DEPTH (ft)	AVG END INC. VOL. (cu. ft.)	AVG END TOTAL VOL. (cu. ft.)	CONIC INC. VOL. (cu. ft.)	CONIC TOTAL VOL. (cu. ft.)
1,356.000	20.00	N/A	N/A	0.00	N/A	0.00
1,357.000	769.32	1.000	394.66	394.66	304.45	304.45
1,358.000	2,203.22	1.000	1486.27	1880.93	1424.82	1729.27
1,359.000	4,273.63	1.000	3238.43	5119.36	3181.79	4911.06
1,360.000	6,980.50	1.000	5627.07	10746.42	5572.00	10483.06
1,361.000	10,339.63	1.000	8660.06	19406.48	8605.25	19088.31
1,362.000	13,873.75	1.000	12106.69	31513.17	12063.47	31151.78

Sha Hill
07-10-14

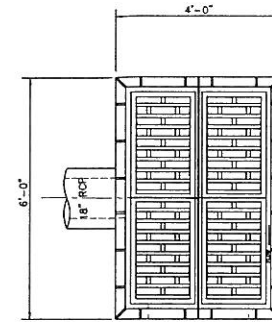
DETENTION POND DETAIL
PORTOFINO
CITY OF WICHITA, KANSAS

PLANS & ESTIMATES PREPARED BY:
TUTTLE & ASSOCIATES, INC. 9714 E. 50TH PL.
TULSA, OK 74146
918-663-5567

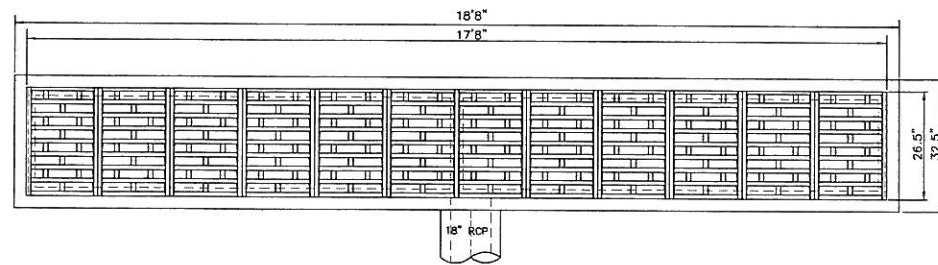
REVISION	BY	DATE	PLN. NO.	REVIEWED BY:
			1" = 20'	Director of Engineering
				APPROVED:
				DEVELOPMENT SERVICES
				RECOMMENDED:
				ENGINEERING SERVICES
				PUBLIC WORKS DIRECTOR
			FILE	DATE
			DRAWING	SHEET 9 OF 20 SHEETS



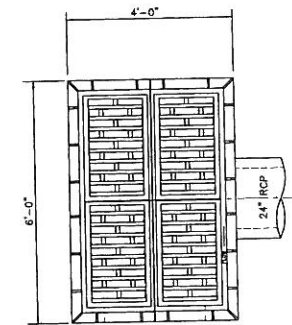
AREA INLET PLAN FOR E4 & H2
DEETER FOUNDRY #2440-LB BOLTED
CATCH BASIN INLET GRATE AND FRAME



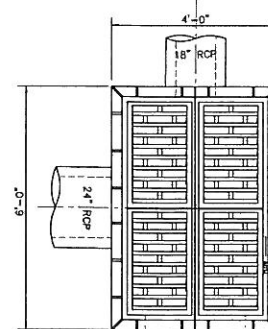
AREA INLET PLAN FOR C2
TYPE C GRATE COT. STD. 765
TYPE A FRAME COT. STD. 766



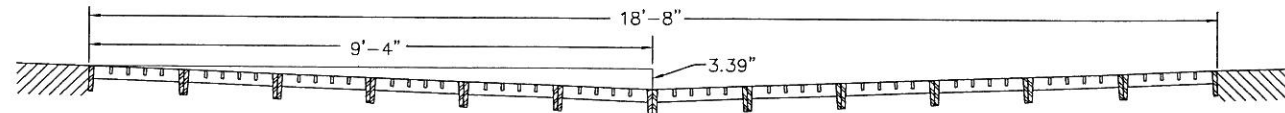
AREA INLET PLAN FOR B2 & D4
DEETER FOUNDRY #2440-LB BOLTED
CATCH BASIN INLET GRATE AND FRAME



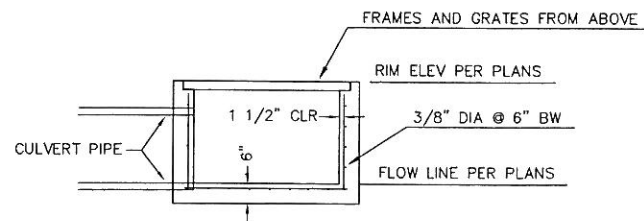
AREA INLET PLAN FOR F1
TYPE C GRATE COT. STD. 765
TYPE A FRAME COT. STD. 766



AREA INLET PLAN FOR D2
TYPE C GRATE COT. STD. 765
TYPE A FRAME COT. STD. 766



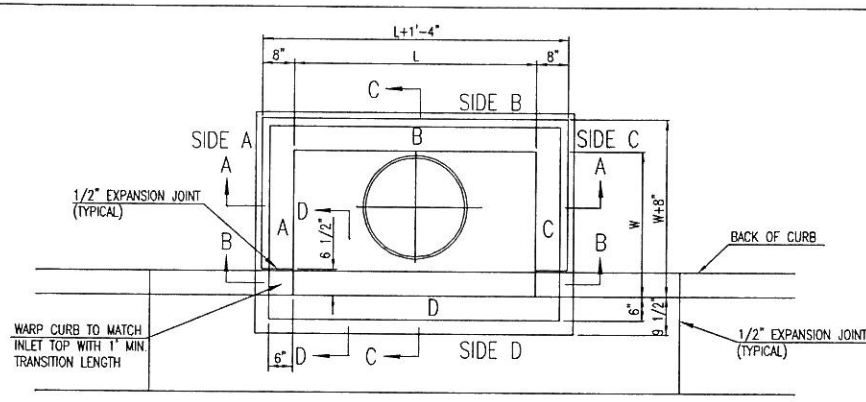
AREA INLET DETAIL
FOR A5, A8, B3, B5, E3



J. Tuttle
07-10-14

INLET DETAILS			
PORTOFINO			
CITY OF WICHITA, KANSAS			
PROJECT NUMBER		PLANS & ESTIMATES PREPARED BY: TUTTLE & ASSOCIATES, INC.	
DESIGNED BY: J. TUTTLE	DFILE: 4981 Inlet Details	APPROVED:	
PROFILE SCALE: 1" = 60'	RECOMMENDED:	PUBLIC WORKS DIRECTOR	
HORIZONTAL SCALE: 1" =	DEVELOPMENT SERVICES	DATE	
VERTICAL SCALE: 1" =	RECOMMENDED:	SHEET 11 OF 20 SHEETS	
FILE	DRAWING	DATE	
ATLAS PAGE NO		DATE	

9714 E. 55TH PL.
TULSA, OK. 74146
918-663-5567



TOP VIEW

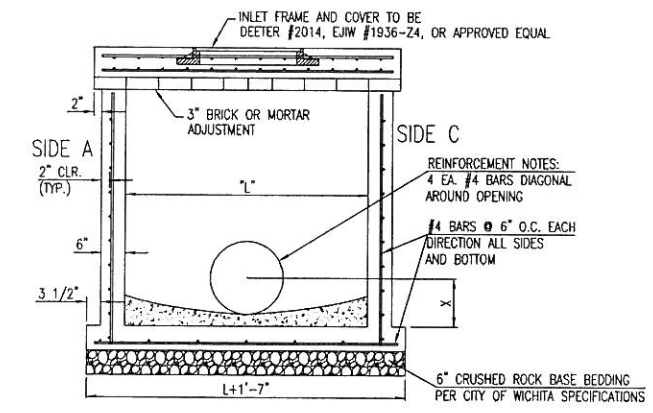
BAR SCHEDULE		
INLET OPENING	B1 BARS	SPACING
5'-0"	#4	4"
10'-0"	#6	3.5"

PRECAST CURB INLET WIDTHS				
W	PRE-CAST TOP SIZE			PIPE DIA.**
	WIDTH	LENGTH	TOP	
3'-0"	W+8"	L+1'-4"	7 1/2"	21" & SMALLER
4'-0"	W+8"	L+1'-4"	7 1/2"	24" & 30"
5'-0"	W+8"	L+1'-4"	7 1/2"	36" & 42"
6'-0"	W+8"	L+1'-4"	7 1/2"	48" & 54"
7'-0"	W+8"	L+1'-4"	7 1/2"	60" & 66"

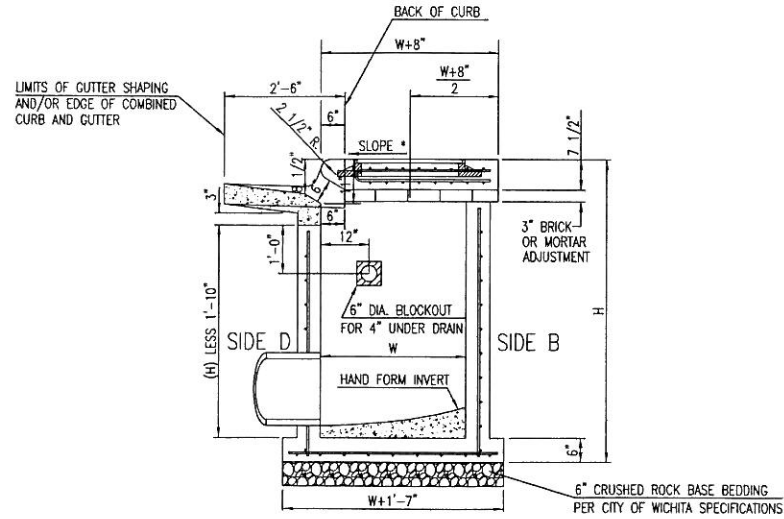
** FOR PIPES PERPENDICULAR TO INLET WALL

GENERAL NOTES

1. CONCRETE TOPS TO BE INSTALLED ON THIN MORTAR CUSHION TO INSURE FULL SUPPORT ALONG BRICK. CONCRETE TOPS MAY BE CAST IN PLACE OR PRECAST. CONCRETE USED FOR INLET CONSTRUCTION SHALL CONFORM TO CITY OF WICHITA SPECIFICATIONS FOR CONCRETE PAVEMENT MIX.
2. CONTRACTOR SHALL HAVE THE OPTION OF CONSTRUCTING 8" BRICK MASONRY WALLS BETWEEN THE CONCRETE INLET BASE AND TOP OF THIS INLET WHEN W=5'-0" AND H=7'-0" OR LESS.
3. 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.
4. THE ENDS OF ALL PIPES INSTALLED IN INLETS SHALL BE CUT OFF FLUSH WITH THE INSIDE FACE OF THE INLET WALL.
5. INLET FRAME AND COVER TO BE DEETER #2014, E.I.W #1936 24, OR APPROVED EQUAL, SEE SW-303.
6. CONTRACTOR SHALL REMOVE LIFTING HOOKS AFTER INSTALLATION. RECESSES IN INLET WALL SHALL BE GROUTED FLUSH TO THE INLET WALL WITH HYDRAULIC CEMENT AFTER THE INLET IS IN PLACE. LIFTING HOLES THRU THE INLET WALL WILL NOT BE ACCEPTED.

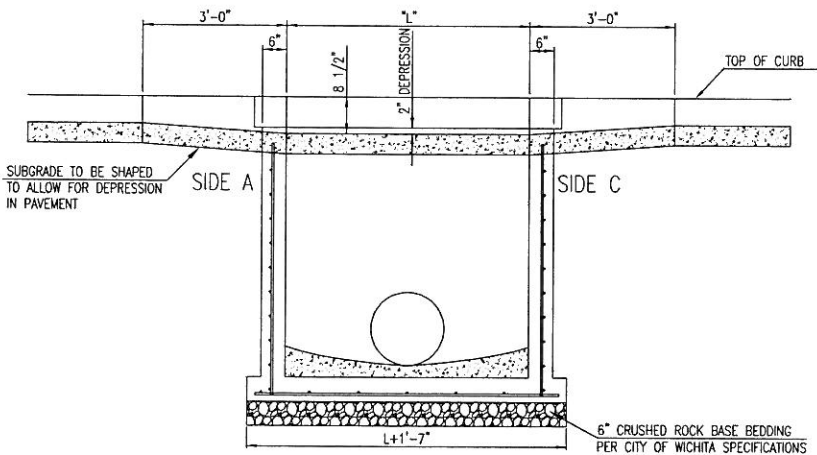
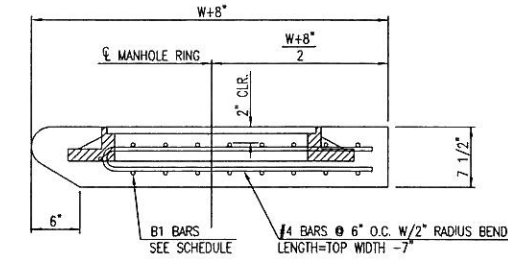


SECTION "A-A"

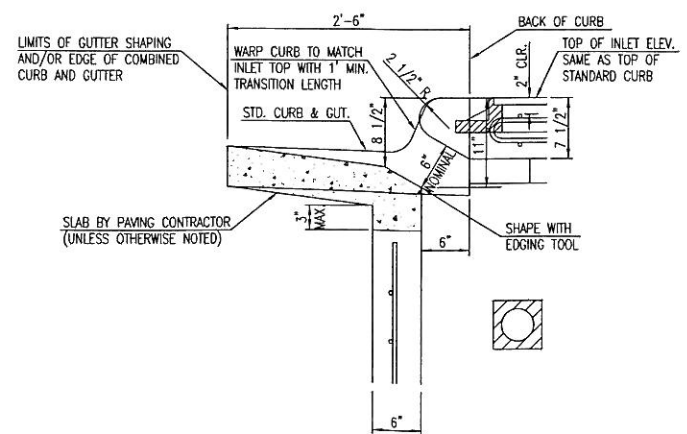


SECTION "C-C"


NOTES:
 * SLOPE OF INLET TOP TO MATCH SIDEWALK OR PARKING SLOPES WITHIN LIMITS INDICATED.



SECTION "B-B"



SECTION "D-D"

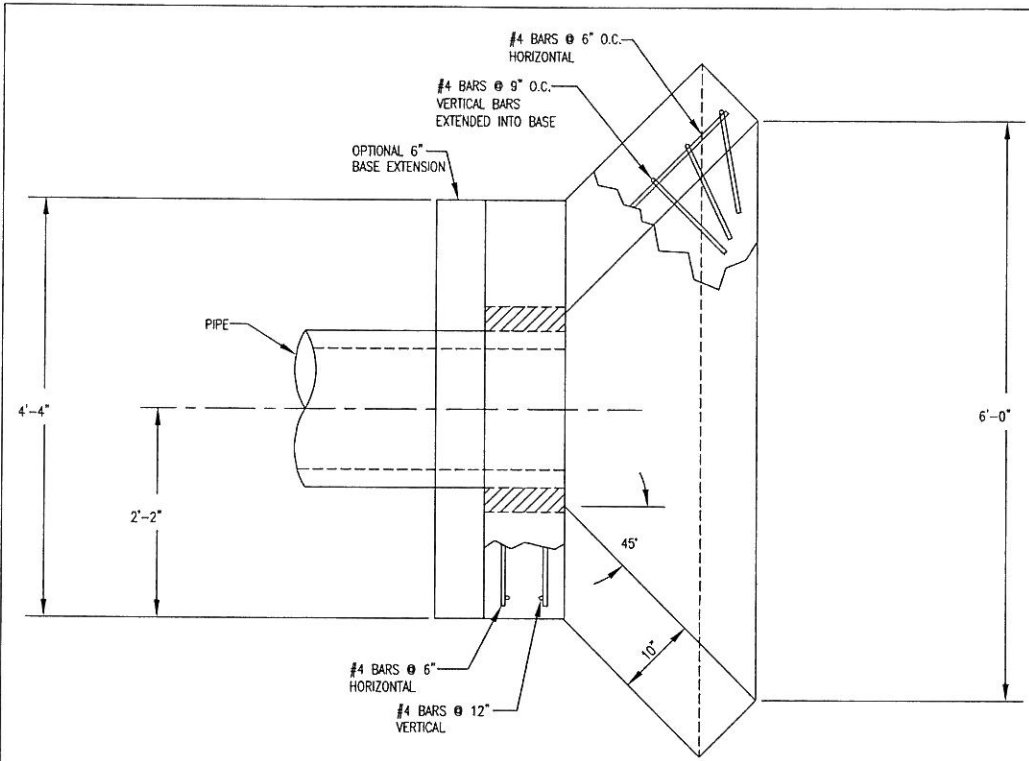


CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

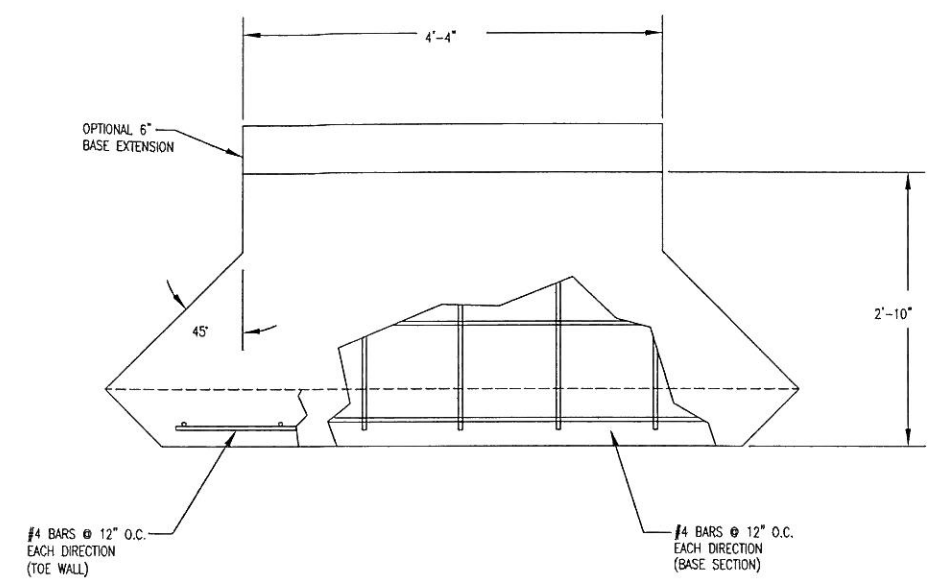
**STANDARD TYPE 1
CURB INLET
5'-0" OR 10'-0" OPENING**

CITY ENGINEER
GARY JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
		11/2010
CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501		SHEET

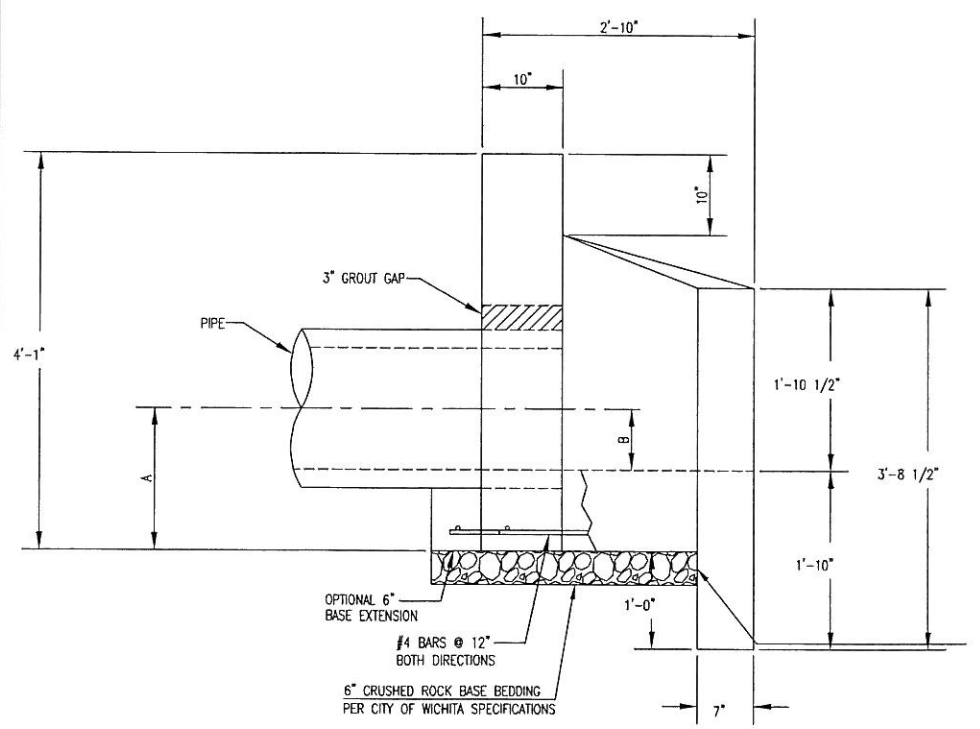


PLAN VIEW

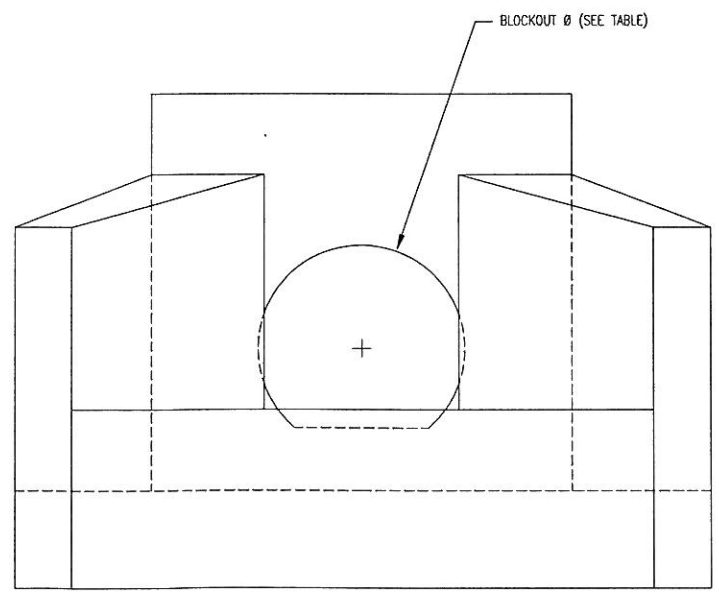


PLAN VIEW
BASE

PIPE Ø	A	B	BLOCKOUT Ø
15"	1'-5 1/2"	7 1/2"	2'-1 1/2"
18"	1'-7"	9"	2'-5"
24"	1'-10"	1'-0"	3'-0"




ELEVATION



FRONT VIEW

HEADWALLS, AS SHOWN, WILL NOT SUPPORT FLAP GATE.

 <p>CITY OF WICHITA PUBLIC WORKS & UTILITIES ENGINEERING DIVISION</p>	<p>HEADWALL DETAILS FOR 15", 18", AND 24" PIPE</p>		
	<p>CITY ENGINEER GARY JANZEN, P.E.</p>		
	PROJECT NUMBER	OCA NUMBER	DATE
		11/2010	
CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501		SHEET	