

GENERAL NOTES:

1. All construction shall be completed following most recent City of Wichita Standards, Specifications, and Special Provisions.

2. Contractor will be required to provide notice to utility companies a minimum of twenty-four (24) hours prior to any excavation, as follows:

Kansas One-Call (316)687-2470

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

Cox Communications (316)262-4270
or (316)263-2061

Westar Energy/
Kansas Gas & Electric Company (800)482-4950
AT&T 1-555-1212
City of Wichita Water Department (316)268-4908
City of Wichita Sewer Department (316)268-4071
Aquila Natural Gas (316)941-1608
or (800)303-0357

3. Exist. utilities and their locations, as shown on the plans, represent the best information attainable 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 which do not conflict with proposed constructions.

4. The Contractor to verify utility locations prior to construction of this project.

5. Utility service and installation shall be coordinated with the respective utility owner. Contacts are:

Kansas Gas Service	Tim Hamlin	(316)832-3121
Westar Energy	Shane Price	(316)261-6315
Black Hills Energy	Daryl Keller	(316)941-1654
Wichita Water & Sewer	Greg Lolley	(316)268-4334
AT&T	Jason Edwards	(316)268-2008
Cox Communications	Mark Henderson	(316)260-7745

6. All lawn/turf areas disturbed by construction of proposed improvements shall be restored with the same grass as existing. Restoration of disturbed areas shall include, but not limited to, soil preparation, fertilizing, seeding, mulching (all seeded areas, outside the limits of erosion mat placement), and/or reseeded, and installation of erosion control mat. All seeding work shall be in accordance with the City of Wichita Standard Specifications and the City of Wichita Administrative Regulations No. AR 6.5 which governs cleanup and respiration or replacement following construction. All cost for the soil preparation, seeding and mulching (all seeded areas, outside the limits of erosion mat placement) shall be paid for through the lump sum bid item for "Seeding." All seeded areas within eight feet of the back of new curb shall be covered with an approved erosion mat, which shall be paid for by the measured quantity bid item "Back of Curb Protection (8' wide)."

7. Traffic affected by the construction of this project shall be handled in accordance with the latest edition of the Manual on Uniform Traffic Control Devices.

8. It is the contractor's responsibility to visit this site to better understand the extent of site clearing and restoration to be performed. Site Clearing and Restoration shall include all costs for removal of items which a pay item is not provided.

9. 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 the construction operations. Such irons shall be re-established by a licensed land surveyor in accordance with state laws.

10. Properties within the project limits may have underground sprinkler systems in public right-of-way which conflict with new construction. Contractor will be required to remove such improvements should they not be removed by their owner at the time of construction of the project. The contractor will be required to salvage all sprinkler heads and/or valves and give such material to owner. Portions of underground sprinkler systems not in conflict with new construction shall be protected from damage and shall remain in place. All work in connection with underground sprinkler systems shall be considered as subsidiary to the contract pay items for work.

11. Cuts made in paved surfaces on public property will be repaired by the City's Contractor and charged against the contractor. Unit Repair prices are available from the city at 268-4418. A surcharge may be applicable. Call 268-4418 for details. Repair costs to be paid prior to release of utility service if utilities are effected.

DRAINAGE TO SERVE UNDERGROUND VAULTS & STORAGE

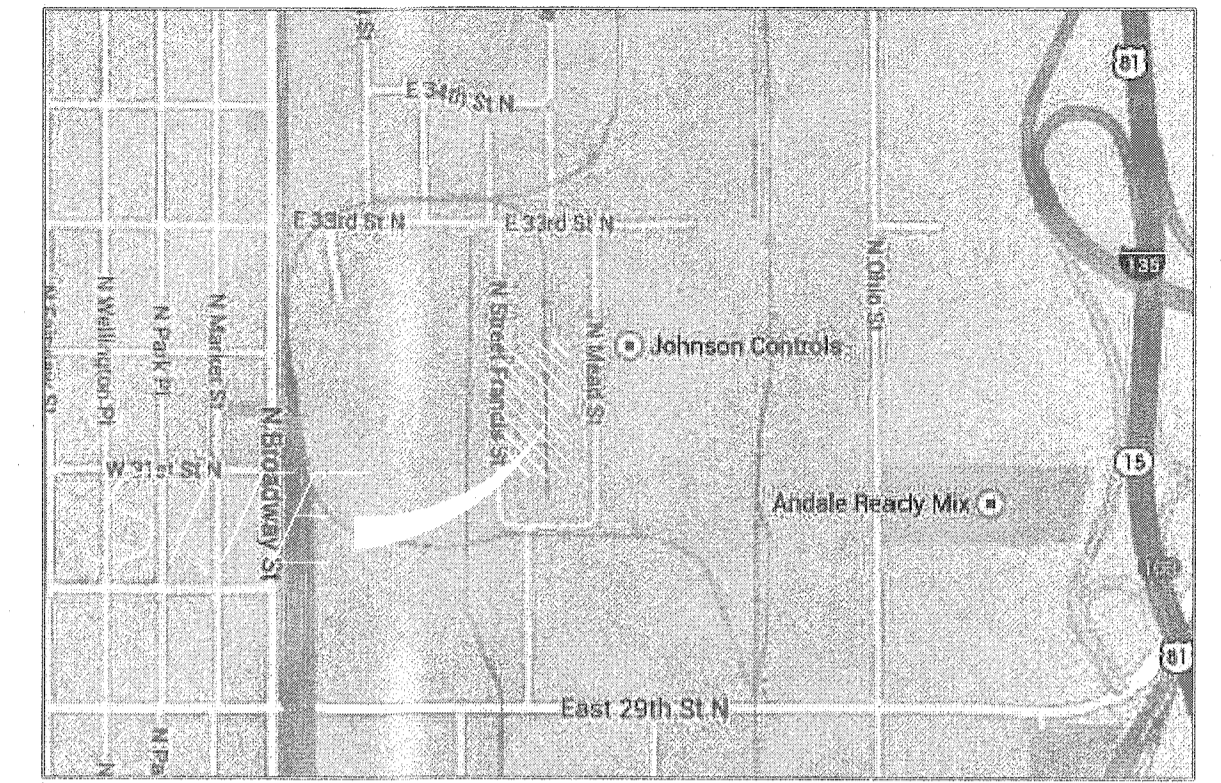
3333 N. Mead, Wichita, KS 67219

0288 PPD (607861)

CITY OF WICHITA, KANSAS
Gary Janzen, P.E., City Engineer

AS BUILTS

Contractor: McCullough Excavation, Inc. 4/17/2015
Project Inspector: Larry Gann
KEMILLER ENGINEERING PA
117 E. Lewis, Wichita, KS 67202 (316)264-0242



LOCATION MAP
(For Visual Use Only)

Index of Sheets:

- 1.0 Cover Sheet
- 2.0 ERU Plan
- 3.0 Grading Plan
- 3.1 Plan and Profile
- 4.0 Erosion Plan
- 4.1 Erosion Detail
- 4.2 Erosion Detail
- 4.3 Erosion Detail
- 4.4 Erosion Detail
- 4.5 Erosion Detail
- 5.0 Drainage Plan
- 6.0 Plat

Benchmark

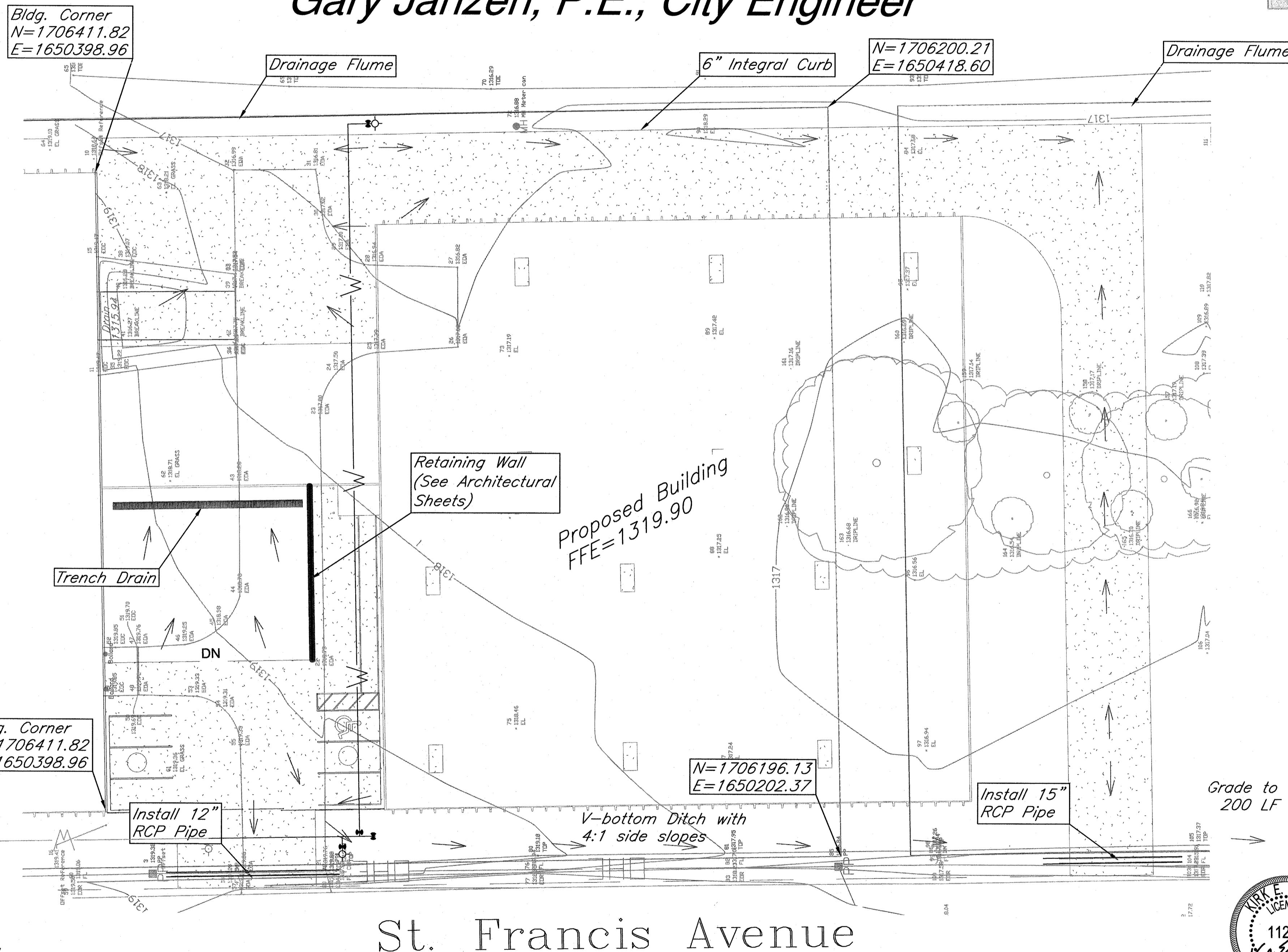
Nail set in the asphalt at the southwest corner of driveway turnout approximately 104' south and 49' west of the southeast building corner.

Elevation=1317.09 NAVD 88

Stormwater Design Certification Statement

I, Kirk Miller, of K.E. Miller Engineering, a Professional Engineer registered in the State of Kansas, hereby certify that this Stormwater Permit Application, the associated Construction Plan and all associated hydrologic and hydraulic analyses for was prepared by me (or under my direct supervision). I further certify that the plans and analyses were prepared in accordance with the provisions of the stormwater management regulation (Regulation) of the appropriate governing locality (i.e., the City of Wichita Stormwater Management Ordinance 16.32 or the Sedgewick County Stormwater Management Resolution 196-10), and the policies and guidelines presented in the Wichita/Sedgewick County Stormwater Manual (Manual). I further certify that all stormwater management components of the Development, including stormwater management facilities, water quality volume reduction areas, stormwater system components and erosion prevention and sediment control best management practices are designed to comply with the provisions of the Regulation and the Manual.

I understand that the City of Wichita, Kansas and/or Sedgewick County, Kansas does not, and will not, assume liability for drainage facilities designed by others unless such facilities are formally accepted for public ownership by the City or County.



Project Info:
Approx. disturbed area= 1.63 acres
Impervious area added= 47284.0 sq. ft.

Water Quality is to be treated using a Snout which has the capacity to treat 30%-45% of TSS (as per BMP Inc.)

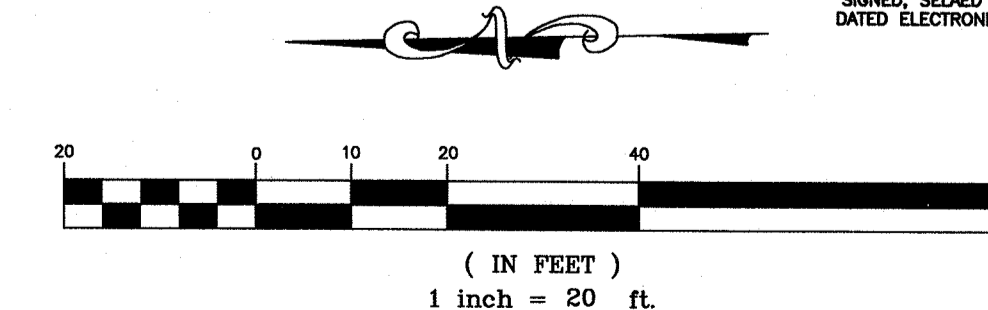
St. Francis Avenue

November, 2014

Grade to Drain
200 LF



DATE: 12-31-2014
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY



APPROVED AS NOTED

Storm Water Utility Office: *Jim Hartley* 12/1/15
City Engineers Office: *Rebecca Duff* 12/1/15

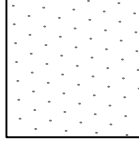
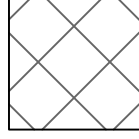

NOTE TO CONTRACTORS

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).

KEMILLER ENGINEERING PA

117 E. Lewis, Wichita, KS 67202 (316)264-0242

Hatching Legend:

-  Building Area
-  Parking, Drive, and Other Impervious Area
-  Area of Disturbance

ERU Calculations:

Ex. Impervious Area= 8,363 sq.ft.
 Total Post Developed Impervious Area: 55,647 sq.ft.
 Net Increase in Impervious Area: 47,284 sq.ft.

Benchmark

Nail set in the asphalt at the southwest corner of driveway turnout approximately 104' south and 49' west of the southeast building corner.

Elevation=1317.09 NAVD 88




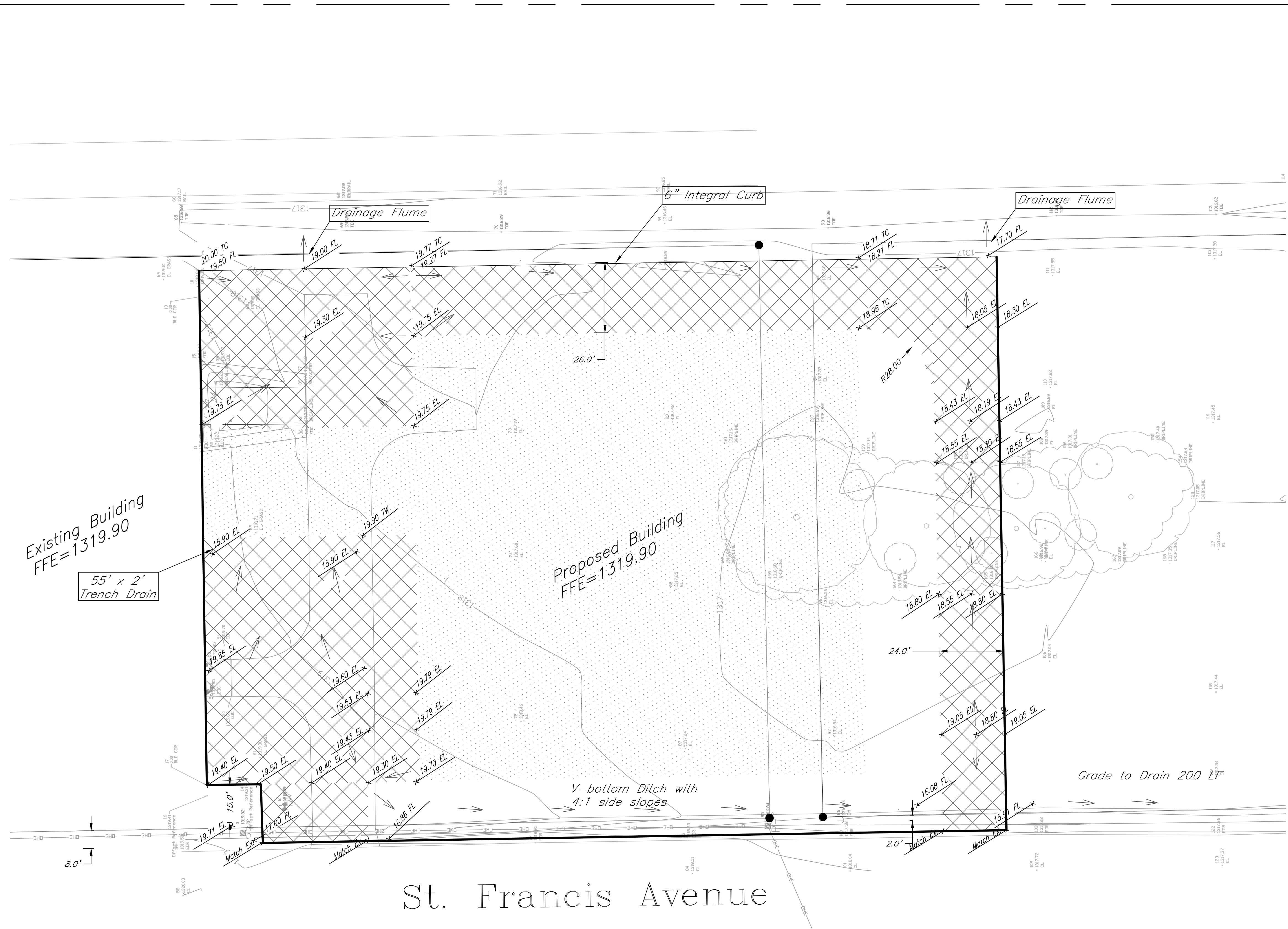
DATE: 12.31.2014
 THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

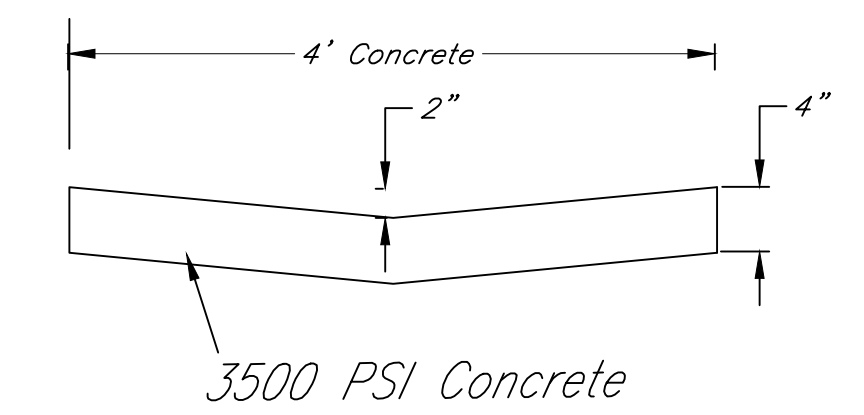
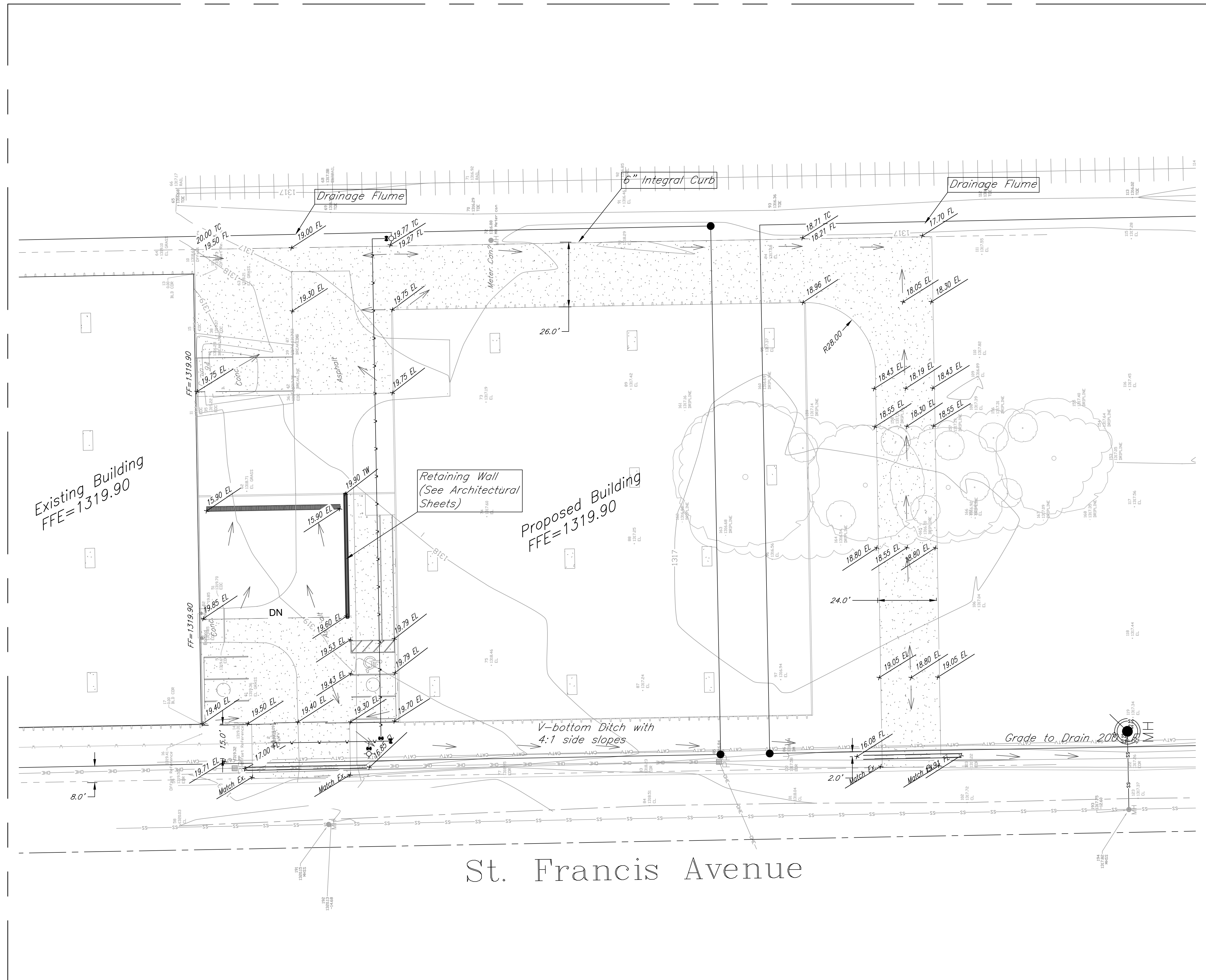


HORIZONTAL SCALE
 (IN FEET)
 1 inch = 20 ft.

Underground Vaults & Storage Expansion
ERU Plan
 Wichita, Kansas

	PROJECT NUMBER			
	KEM NO. 14167	FILE	DATE 11/2014	SHEET 2.0
DESIGN KM	DRAWN DM	REVISED		





Grading Legend:

- EP = Edge of Pavement
- EL = Elevation
- FL = Flow Line
- TC = Top of Curb
- SW = Top of Sidewalk
- TP = Top of Pavement
- TW = Top of Wall
- FFE = Finish Floor Elevation
- Flow Arrows

● 1/2" Rebar (found)

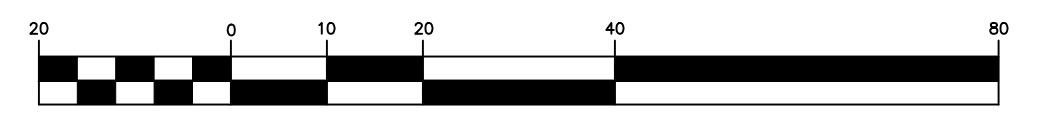
Benchmark

Nail set in the asphalt at the southwest corner of driveway turnout approximately 104' south and 49' west of the southeast building corner.

Elevation=1317.09 NAVD 88



DATE: 12.31.2014
THIS SHEET HAS BEEN
SIGNED, SEALED AND
DATED ELECTRONICALLY

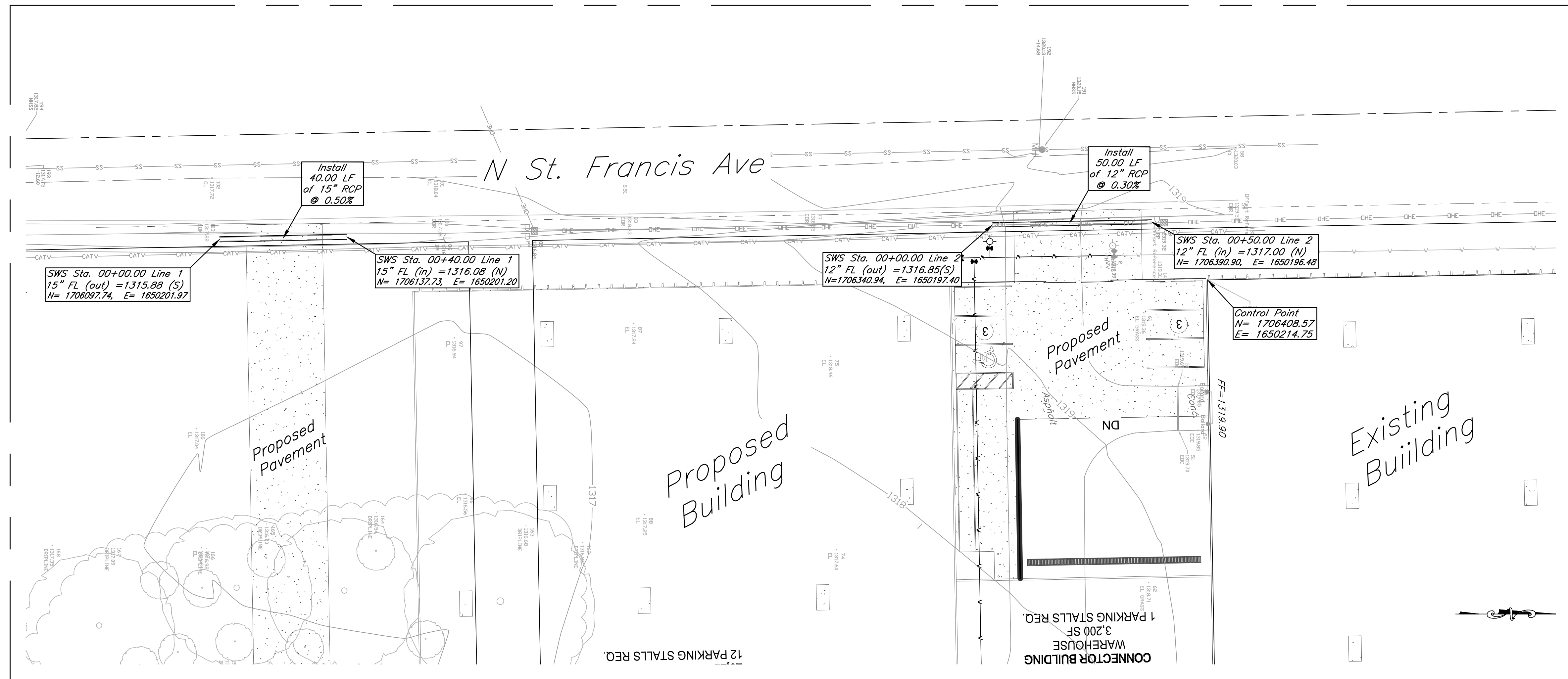


HORIZONTAL SCALE
(IN FEET)
1 inch = 20 ft.

St. Francis Avenue

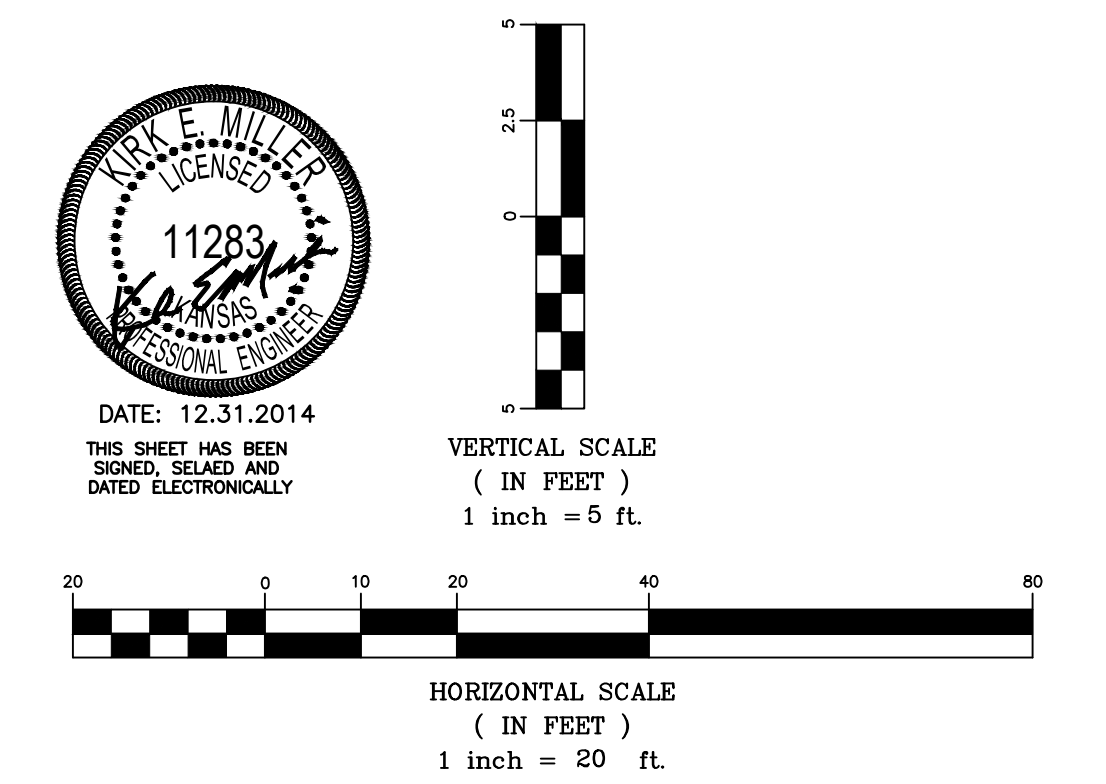
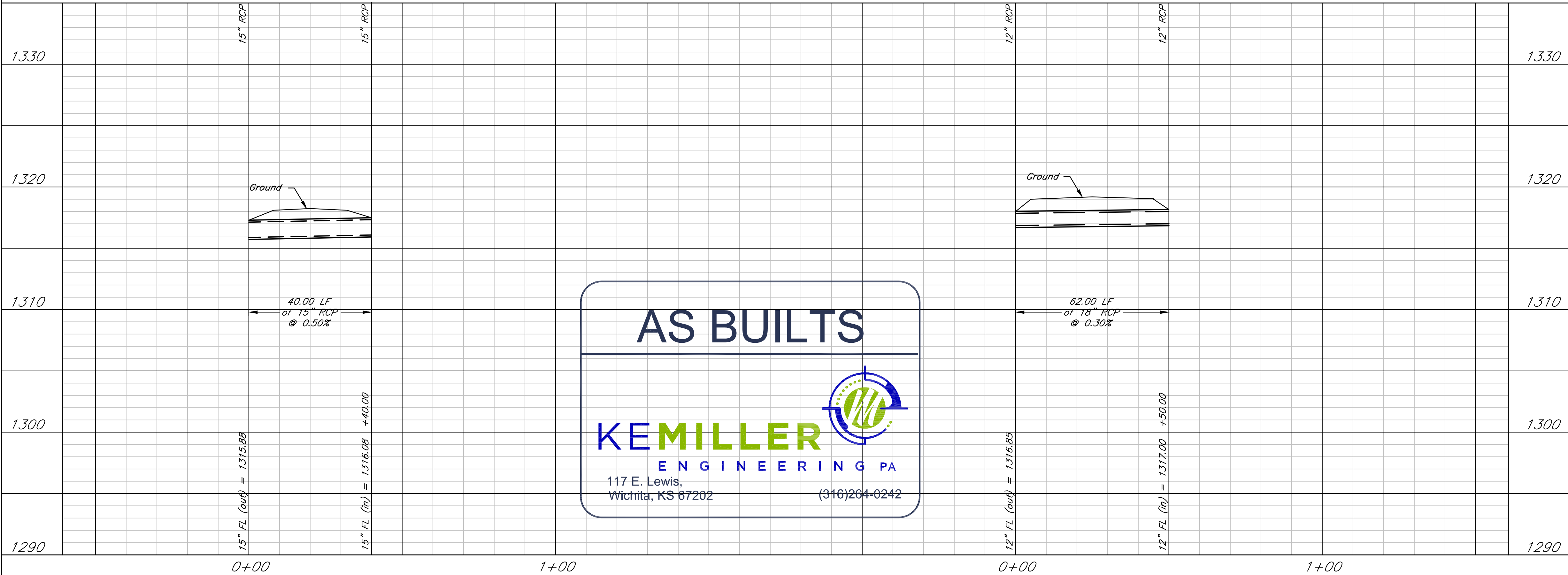
Underground Vaults & Storage Expansion
Grading Plan
Wichita, Kansas

	PROJECT NUMBER			SHEET 3.0
	KEM. NO. 14167	FILE	DATE 11/2014	
117 E. Lewis, Wichita, KS 67202 (316)264-0242	DESIGN KM	DRAWN DM	REVISED	



Line 1

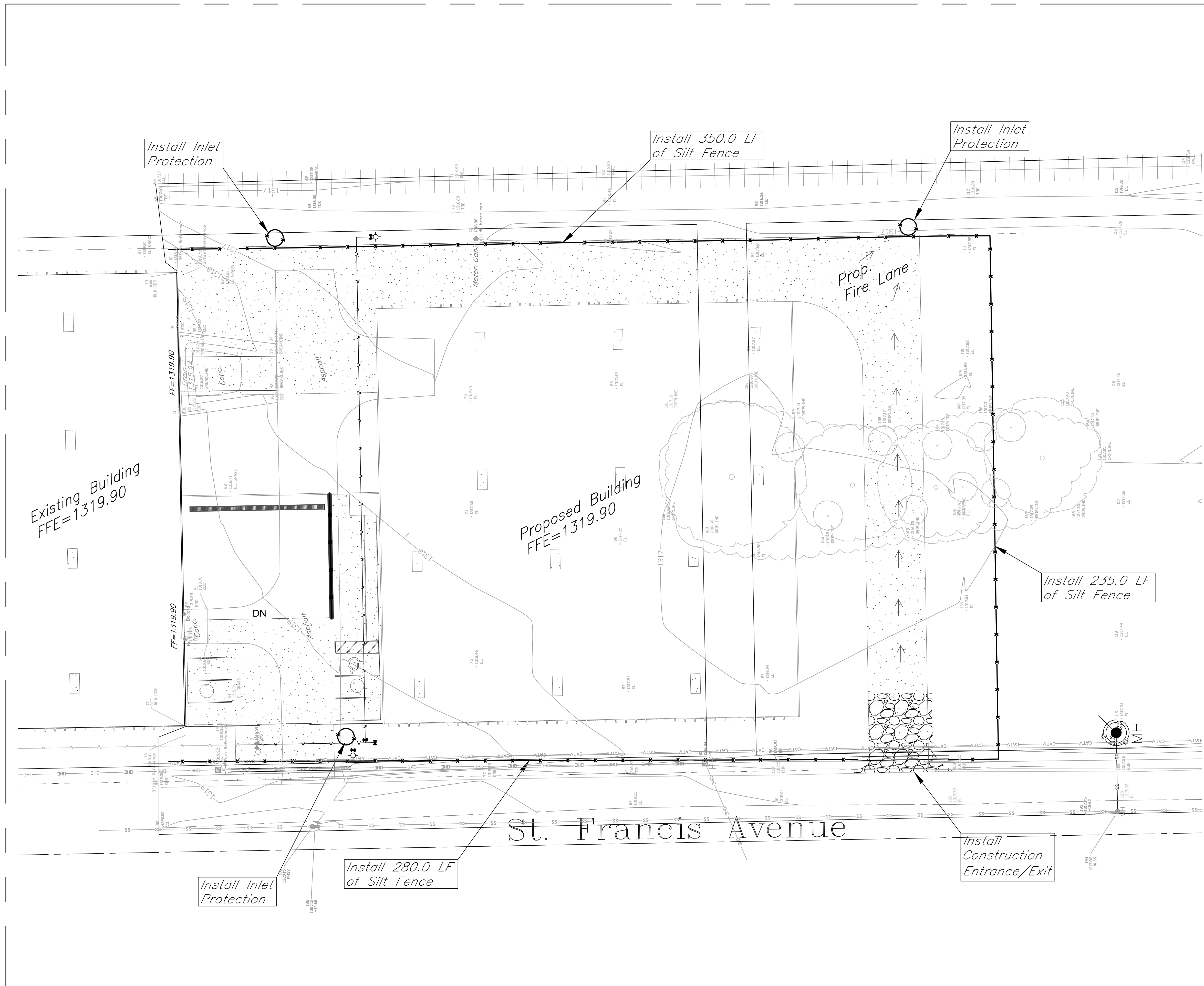
Line 2



Underground Vaults & Storage
Plan and Profile
Wichita, Kansas

	PROJECT NUMBER			SHEET 3.1
	KEM NO. 14167 DESIGN KM	FILE DRAWN ME	DATE 12/2014 REVISED	

117 E. Lewis, Wichita, KS 67202 (316)264-0242

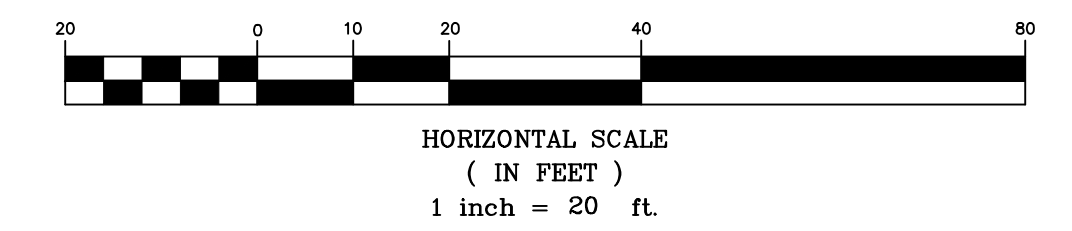


- General Notes:**
1. The BMP's shown on this sheet are considered minimum standards. Whenever sediment enters the streets, storm sewers, ditches, or ponds, contractor will install additional BMP's, as needed, to correct the problem.
 2. The soil erosion BMP's shown hereon must be in place at all times during construction until such time as the site is re-established with paving or grass.
 3. Back of curb protection can include hay bale, silt fence, Curlex barrier, or approved alternate as shown on BMP standard details. This BMP must remain in place until the area between the curb and right-of-way line has been permanently stabilized.
 4. The General Contractor is responsible for the installation and maintenance per the prevention maintenance plan.
 5. Concrete trucks will be permitted to wash out only at approved locations, then maintain and clean up as conditions require, by contractor. No hazardous materials are expected to be encountered. Any spills (diesel, fuel, oil, etc.) will be cleaned up and removed immediately. Portable toilets will be supplied and maintained at various sites along the project. Disposal of sewage will be handled by a contracting firm specializing in this activity.
 6. The above mentioned storm water prevention methods will be monitored daily and maintained as required. A weekly erosion control log will be posted in the job trailer onsite, and updated weekly. Site inspections are required within 24 hours after a precipitation event of 0.5" or greater.

- LEGEND:**
- Flow Direction
 - Inlet Protection - to be provided at all inlets subject to silt laden runoff.
 - - - Ditch Check
 - Temporary Seeding.
 - Silt Fence or Hay Bale Barrier - to be installed along property lines where runoff from construction site can run onto other properties.
 - Stabilized Construction Entrance - to be used at all locations where vehicles or equipment enter or exit property.
 - Back of Curb Protection - to be installed whenever curb is backfilled to less than 3 inches from top and disturbed earth exists adjacent thereto. (See City Standard Details.)



DATE: 12.31.2014
 THIS SHEET HAS BEEN
 SIGNED, SEALED AND
 DATED ELECTRONICALLY



Underground Vaults & Storage Expansion
Erosion Control Plan
 Wichita, Kansas

 117 E. Lewis, Wichita, KS 67202 (316)264-0242	PROJECT NUMBER			SHEET 4.0
	KEM NO. 14167 DESIGN KM	FILE DM	DATE 11/2014 REVISED	

December 31, 2014

Project Narrative:
 The site is located on the West side of N St. Francis St between E 33rd St N and E 30th St N. The total site is 7.92 acres. The proposed development includes the construction of new building and parking lot south the existing warehouse building. The existing drainage pattern indicates that the entire area drains east to a shallow ditch west of existing railroad tracks, and south to the north end of the existing parking lot along E 30th St N. Runoff ponds north of the existing parking lot and in the shallow railroad ditch.

Water Quality and TSS Removal Calculation

Total water quality flow needs to be treated for proposed development. The WQV and water quality flow will be treated in proposed inlets by the use of snouts (city approved method) by BMP inc.

Water Quality Volume (WQV) Calculation			
Calculation for water quality volume (WQV=P*Rv*A/12)		Soil Group 'C'	
85th percentile storm event (1.2 inches), P =	1.20	inches	
Total area, A =	7.92	acres	
Rainfall Coeff, Rv, =	0.622	cf	
Required Vol. for Water Quality =	0.492	ac-ft	
Corresponding Water Quality Peak Flow =	4.78	cfs	
		Calculation of Rv	
		Coeff.	Area
		Coeff for undisturbed area, R _u =	0.04 0.00
		Coeff for turf cover, disturbed, R _v =	0.22 3.56
		Coeff for impervious area, R _v =	0.95 4.36
		Weighted, Rv =	0.622

Channel Protection Volume (CPv)

The Channel protection volume detention (1-yr storm for 24 hrs) is not required for this site as the total disturbance of proposed development is less than 5.0 acres.

Runoff Calculations (2-, 5-, 10-, 25-, and 100-yr)

EXISTING CONDITION:
 Total Area 1 = 7.92 acres
 Soil Group =B (as per COW HSG map)
 CN=90

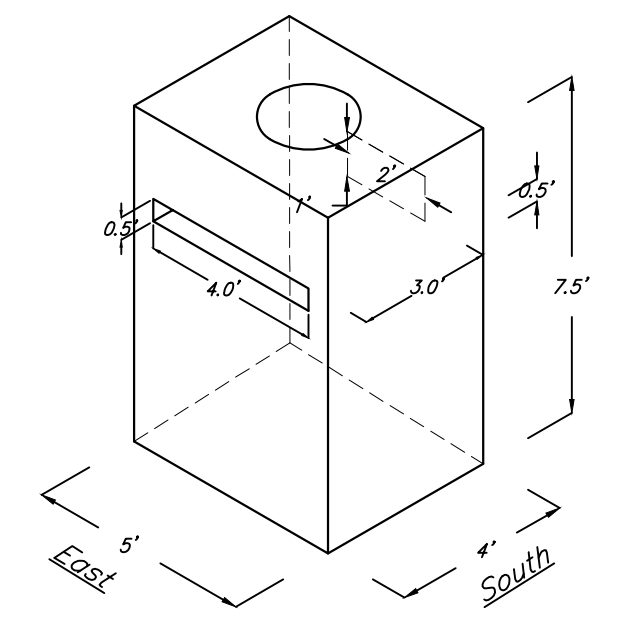
EXISTING SITE									
DRAINAGE AREA	ACRES	Tc min	CN	Q2	Q5	Q10	Q25	Q100	REMARKS
On-site (1)	7.92	47.9	90	12.13	16.68	19.86	23.95	31.61	Draining to Existing SWS on E. 30th St N

DEVELOPED CONDITION:
 Total Area 1 = 7.92 acres
 Soil Group =B (as per COW HSG map)
 CN=92

DEVELOPED SITE									
DRAINAGE AREA	ACRES	Tc min	CN	Q2	Q5	Q10	Q25	Q100	REMARKS
On-site (1)	7.92	47.9	92	12.95	17.50	20.67	24.72	32.32	Draining to Existing SWS on E. 30th St N

Notes:

- Existing and developed flows are calculated using the SCS hydrograph method. "CN" & "Runoff Depth" values are established from "City of Wichita Stormwater Design Manual." Time of concentration (Tc) are calculated using TR-55 method.
- The developed peak flows are calculated for the Type II rainfall distribution for 24 hours. The peak flows are routed to the Drainage Easement along the south line of the property.
- The site is not in designated 100-yr floodplain (FIRM 20173C0355E, dated February 2, 2007).
- Lidar indicates the ditch west of the railroad tracks acts in detention as there is not an outlet to the SWS system along E 30th St N.



Type 1 Inlet Detail

Benchmark:

COW Benchmark: NE Corner of intersection about 57ft east and 36ft north of center line of 29th N & Washington

Elev. = 1314.78 (NAD88)
 N=1704408.75 E=1651708.06



HORIZONTAL SCALE
 (IN FEET)
 1 inch = 60 ft.



DATE: 12.31.2014
 THIS SHEET HAS BEEN
 SIGNED, SEALED AND
 DATED ELECTRONICALLY

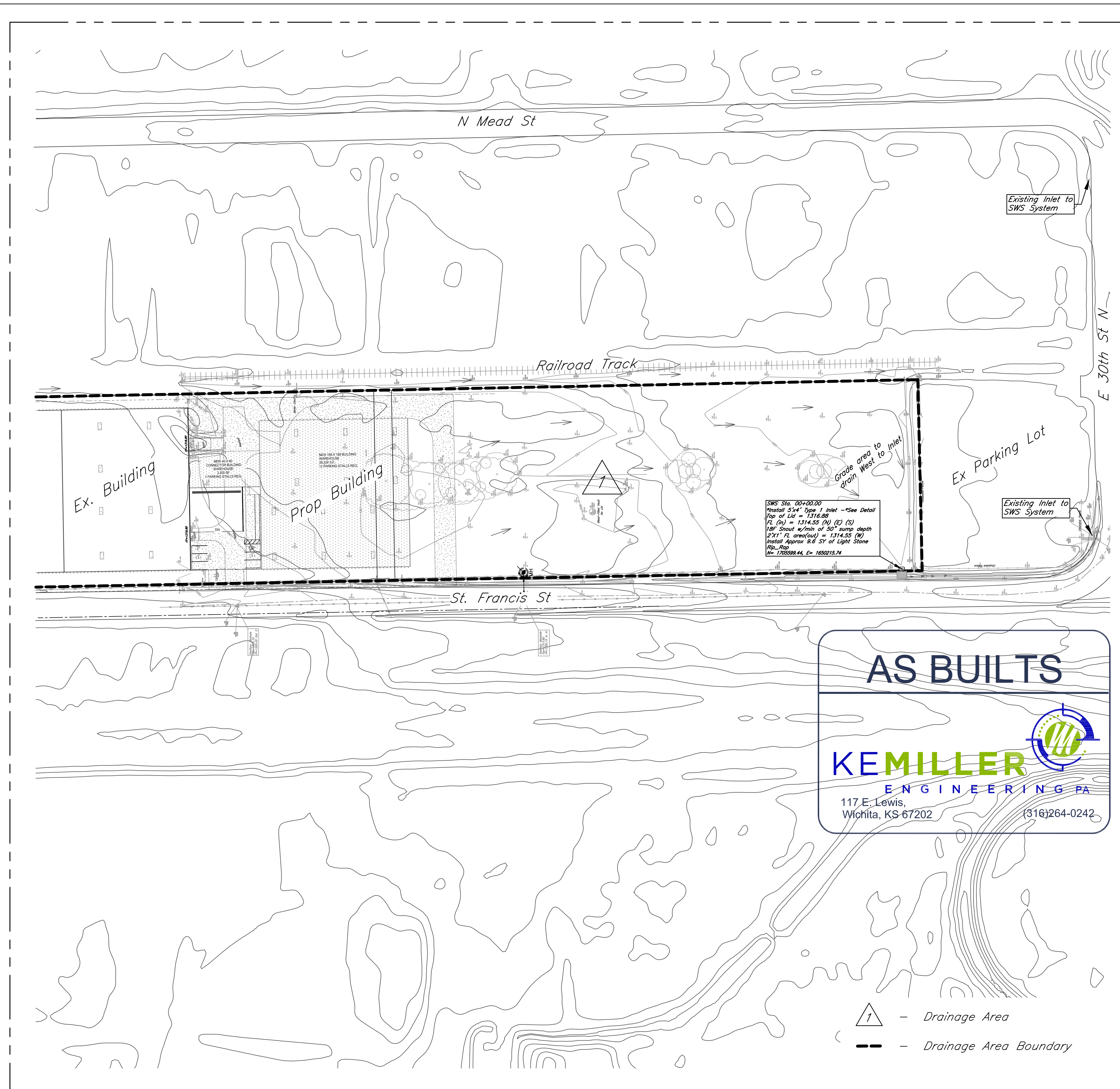
Underground Vaults & Storage			
DRAINAGE PLAN			
Wichita, Kansas			
PROJECT NUMBER			
KEMILLER ENGINEERING PA 117 E. Lewis, Wichita, KS 67202 (316)264-0242	KEM NO. 14167	FILE	DATE 11/2014
	DESIGN KM	DRAWN ME	REVISED
			5.0

AS BUILTS

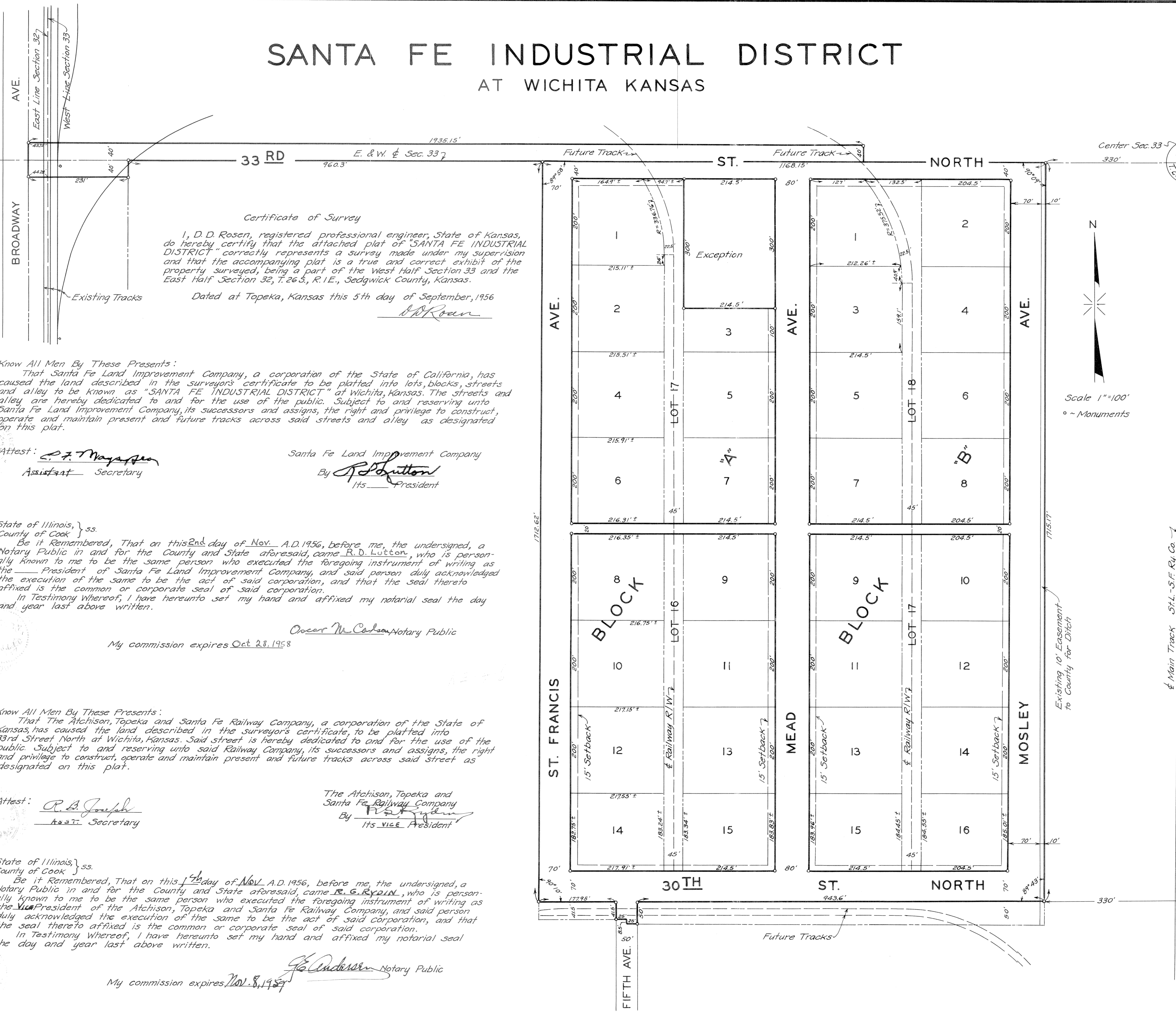
KEMILLER
ENGINEERING PA

117 E. Lewis,
 Wichita, KS 67202 (316)264-0242

- Drainage Area
- Drainage Area Boundary



SANTA FE INDUSTRIAL DISTRICT AT WICHITA KANSAS



Certificate of Survey

I, D.D. Rosen, registered professional engineer, State of Kansas, do hereby certify that the attached plat of "SANTA FE INDUSTRIAL DISTRICT" correctly represents a survey made under my supervision and that the accompanying plat is a true and correct exhibit of the property surveyed, being a part of the West Half Section 33 and the East Half Section 32, T.26 S., R.1 E., Sedgwick County, Kansas.

Dated at Topeka, Kansas this 5th day of September, 1956
D.D. Rosen

Know All Men By These Presents:

That Santa Fe Land Improvement Company, a corporation of the State of California, has caused the land described in the surveyor's certificate to be platted into lots, blocks, streets and alley to be known as "SANTA FE INDUSTRIAL DISTRICT" at Wichita, Kansas. The streets and alley are hereby dedicated to and for the use of the public. Subject to and reserving unto Santa Fe Land Improvement Company, its successors and assigns, the right and privilege to construct, operate and maintain present and future tracks across said streets and alley as designated on this plat.

Santa Fe Land Improvement Company
By *R.D. Lutton*
Its President

Attest: *P.T. Mayhew*
Assistant Secretary

State of Illinois, } ss.
County of Cook

Be it Remembered, That on this 2nd day of Nov. A.D. 1956, before me, the undersigned, a Notary Public in and for the County and State aforesaid, came R.D. Lutton, who is personally known to me to be the same person who executed the foregoing instrument of writing as the President of Santa Fe Land Improvement Company, and said person duly acknowledged the execution of the same to be the act of said corporation, and that the seal thereto affixed is the common or corporate seal of said corporation.

Oscar M. Carlson Notary Public

My commission expires Oct. 28, 1958

Know All Men By These Presents:

That The Atchison, Topeka and Santa Fe Railway Company, a corporation of the State of Kansas, has caused the land described in the surveyor's certificate, to be platted into 33rd Street North at Wichita, Kansas. Said street is hereby dedicated to and for the use of the public. Subject to and reserving unto said Railway Company, its successors and assigns, the right and privilege to construct, operate and maintain present and future tracks across said street as designated on this plat.

The Atchison, Topeka and
Santa Fe Railway Company
By *Frank J. ...*
Its Vice President

Attest: *R.B. Joseph*
Assistant Secretary

State of Illinois, } ss.
County of Cook

Be it Remembered, That on this 4th day of Nov. A.D. 1956, before me, the undersigned, a Notary Public in and for the County and State aforesaid, came R.C. Rydell, who is personally known to me to be the same person who executed the foregoing instrument of writing as the Vice President of the Atchison, Topeka and Santa Fe Railway Company, and said person duly acknowledged the execution of the same to be the act of said corporation, and that the seal thereto affixed is the common or corporate seal of said corporation.

R.C. Rydell Notary Public

My commission expires Nov. 8, 1957

This plat of "SANTA FE INDUSTRIAL DISTRICT" at Wichita, Kansas, has been submitted to and considered by the City Planning Commission of the City of Wichita, Kansas, and is hereby transmitted to the Board of Commissioners of the City of Wichita, Kansas, with the recommendation that such plat be approved as proposed.

Dated this 19 day of June, 1956

The City Planning Commission
of the City of Wichita, Kansas
By *John ...*, Chairman
John ..., Secretary

Approved by the Board of City Commissioners
this 26 day of June, 1956

John ..., Mayor
John ..., City Clerk

Approved by the Board of County Commissioners
this 31st day of January, 1957

John ..., County Clerk

Entered on transfer record this 1st day
of February 1957

John ..., County Clerk

State of Kansas } ss.
County of Sedgwick

This is to certify that this instrument was filed for record in the Register of Deeds office on the 1st day of Feb., 1957, at 11:10 o'clock, and is duly recorded.

Rufus E. Deering Register of Deeds
Norma Riley, Deputy #3207

Prot. Rest. M386 P. 499
ORDER - VAC. 4426 P. 57