

# GENERAL NOTES:

- The Contractor shall comply with all applicable safety regulations. All construction shall be completed following current City Standard Specifications and Special Provisions.
- Contractor will be required to provide notice to utility companies a minimum of seventy-two (72) hours prior to any excavation, as follows:  
Kansas One-Call 687-2470  
The Contractor must notify the following in case of an emergency:  
AT&T 1-800-246-8464  
Black Hills Energy 1-800-694-8989  
City of Wichita Water & Sewer 1-316-219-8921  
City of Wichita Stormwater 1-316-268-4090  
City of Wichita Traffic 1-316-268-4034  
Cox Communications 1-888-249-3530  
Kansas Gas Service 1-888-482-4950  
Westar Energy 1-800-544-4857
- Utility service lines, poles, etc. 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. The Contractor will be required to work around existing utilities within the right-of-way which do not conflict with proposed construction.
- 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, in the opinion of the Engineer, that will leave an unsightly appearance will not be approved. All disposal sites must be approved by the Kansas Department of Health and Environment. Material either stockpiled or disposed of in a flood plain will 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 will require additional archaeological investigations unless buried in a previously approved borrow location.
- Trees and shrubs in public right-of-way which are in direct conflict with proposed new construction shall be removed by the Contractor with the City Engineer's approval. Trees and shrubs which are not in direct conflict with proposed new construction shall be saved and protected from damage.
- The Contractor shall give all property owners and/or tenants of developed property abutting the construction of this project a minimum of ten (10) days notice prior to start of construction.
- 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 Engineering Division 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, valve boxes or fire hydrants damaged during construction shall be repaired by Contractor at his own expense. Valve boxes and water meters within the project limits shall be adjusted to match final grades by the contractor.
- The Contractor shall notify the inspecting engineer and Tom Mason at 316-268-4574 with the City of Wichita with the anticipated construction start date and notify them of project completion. Staking and inspection for this project will be the responsibility of the Contractor.
- If traffic will be impacted by construction, a traffic control plan must be submitted and approved by the City Traffic Engineer, Brian Coon at traffic@wichita.gov before construction can begin. The Contractor shall be responsible for all traffic control measures to facilitate construction. All construction zone markings and signage shall conform to the latest version of the Manual on Uniform Traffic Control Devices (MUTCD) as published by the US Dept. of Transportation, Federal Highway Administration. All costs associated with construction markings and signage shall be the Contractors responsibility.
- All elevations shown are NAVD 88.
- All areas disturbed during construction that will not be under proposed pavement shall be restored to match existing conditions.

- Any sidewalk, drive approach, or street pavement removed to construct project must have a pavement cut permit and be replaced by the City contractor. Permits can be obtained by calling 316-268-4501 or 316-268-4480.
- City maintenance of storm sewer ends at the last structure in the easement or right-of-way.
- Contractor shall limit the extent of trench openings overnight and weekends to less than 50 feet.
- The inspecting firm shall submit to the City Stormwater Maintenance Division a digital copy of the CCTV inspection of the conduits and structures following construction. The digital file formation shall be compatible with the City input template. A copy of the template is available upon request at 316-268-4090.
- The Contractor shall protect from damage and support existing utilities through construction as approved by the utility owner and the Engineer at the contractors expense.
- A portion of excess excavated material shall be mounded around manholes which extend more than one (1) foot above the existing ground. Such mound shall be constructed with new development a six (6) foot diameter flat top with 4 to 1 side slopes down to the original ground. The elevation of the flat top of the mound shall be 0.4 foot below the top of the manhole.
- Geotechnical report available upon request.

# STORM SEWER IMPROVEMENTS to serve CHICK-FIL-A

## 10515 WEST 21ST STREET NORTH

### CITY OF WICHITA, KANSAS

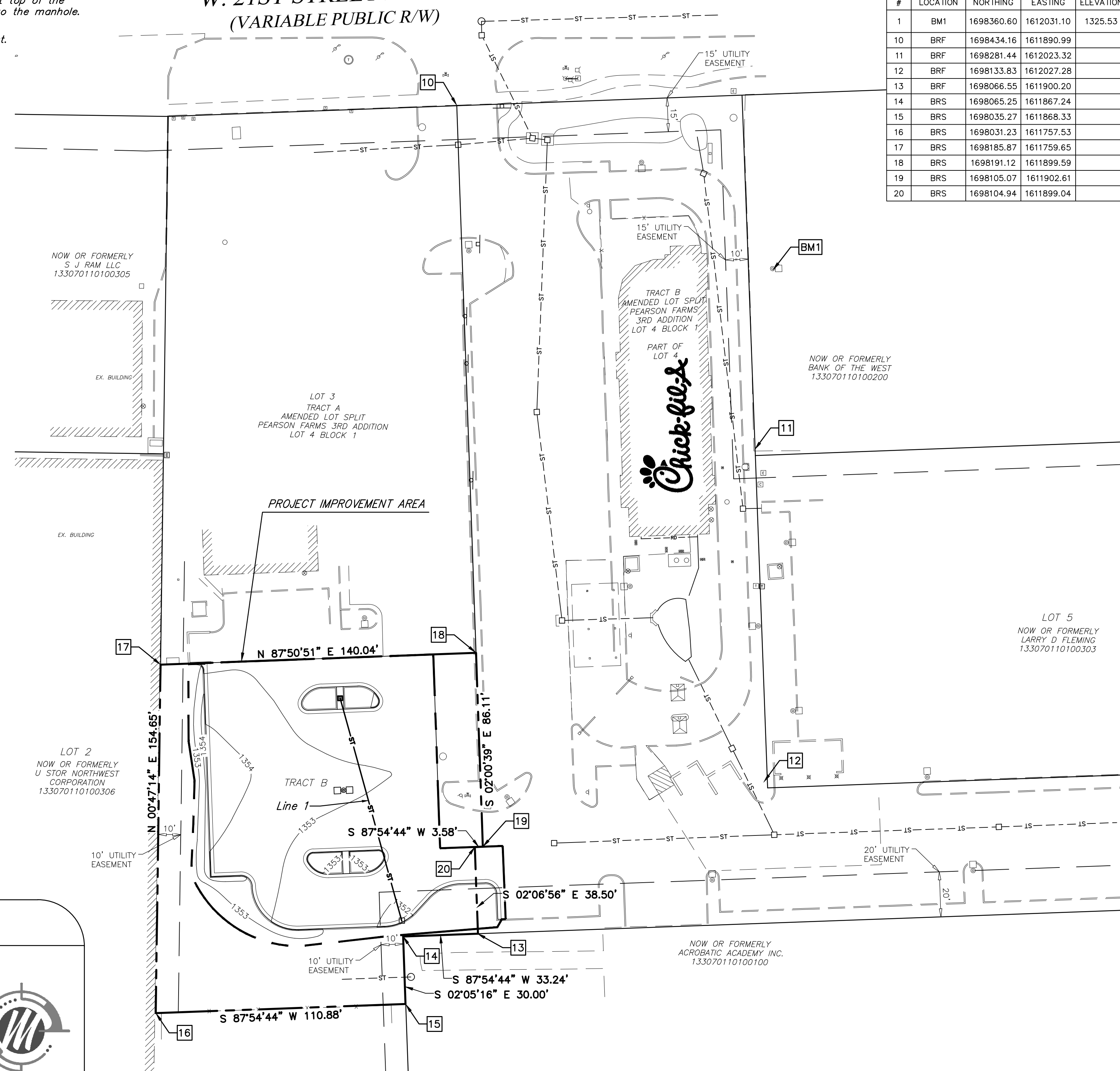
Gary Janzen, P.E. City Engineer

Project Number  
2021-000703 PPD

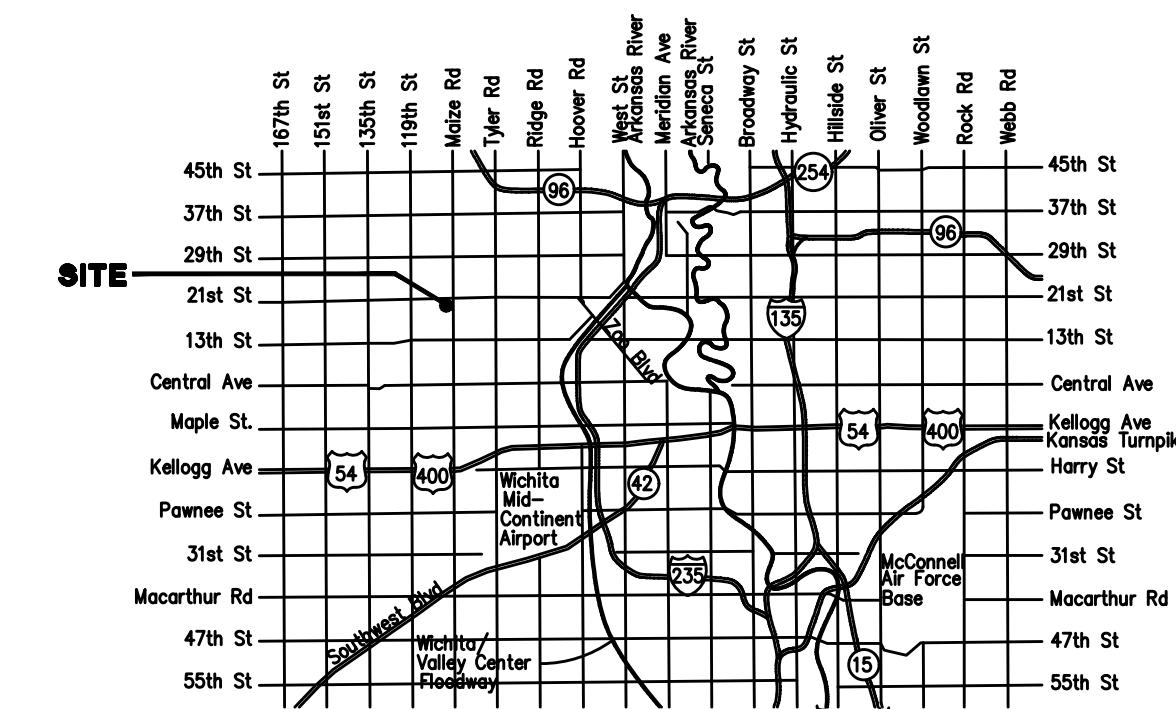
### Benchmarks

BM#1: CUT BOX ON CAISSON FOR LIGHT STANDARD LOCATED AS SHOWN ON SITE PLAN. ELEV. = 1,354.52

W. 21ST STREET NORTH  
(VARIABLE PUBLIC R/W)



POINT TABLE				
#	LOCATION	NORTHING	EASTING	ELEVATION
1	BM1	1698360.60	1612031.10	1325.53
10	BRF	1698434.16	1611890.99	
11	BRF	1698281.44	1612023.32	
12	BRF	1698133.83	1612027.28	
13	BRF	1698066.55	1611900.20	
14	BRS	1698065.25	1611867.24	
15	BRS	1698035.27	1611868.33	
16	BRS	1698031.23	1611757.53	
17	BRS	1698185.87	1611759.65	
18	BRS	1698191.12	1611899.59	
19	BRS	1698105.07	1611902.61	
20	BRS	1698104.94	1611899.04	



### Vicinity Map

APPROVED AS NOTED  
BY WICHITA PUBLIC WORKS ENGINEERING  
AND STORMWATER DIVISION

Engineering BENJAMIN FERGUSON

Stormwater JOSEPH HICKLE

#### NOTE TO CONTRACTORS

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 in the state of Kansas. No work shall be performed the Contractor without such inspection nor shall any work be commenced without written authorization by City Engineering. All Construction and Materials shall comply with the current City of Wichita Specifications and Standards and Special Provisions. (on file and available at Wichita.gov).

An approved copy of these plans signed by City staff are required on-site.

#### Stormwater Certification:

(New Development) or Redevelopment (Circle One)

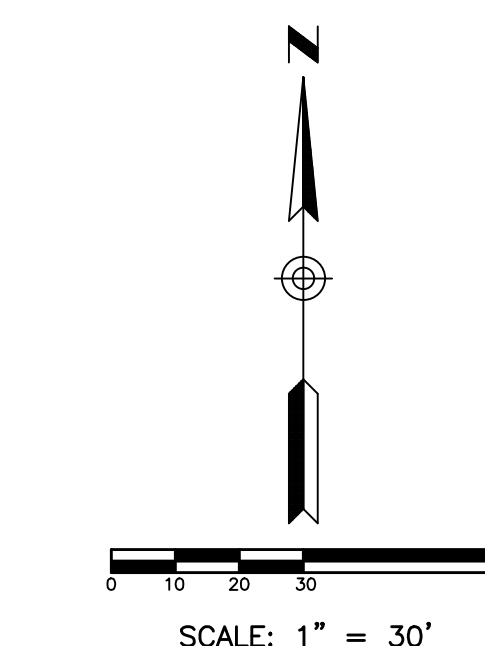
Stormwater Permit # \_\_\_\_\_

NOI State Permit # N/A

NOI Federal Permit # N/A

These construction plans were prepared in accordance with the current Stormwater management Regulations as set forth in the City of Wichita's Stormwater Management Ordinance 16.32 and the policies/guidelines presented in the Wichita/Sedgwick County Stormwater Manual.

Site Area (Acres): 0.48 AC.  
Disturbed Area (Acres): 0.33 AC.  
Water Quality Treatment: OFFSITE BMP PROGRAM  
Downstream Channel Protection: N/A  
Detention: N/A  
The BMP used for this development is OFFSITE BMP PROGRAM



### Sheet Index

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Erosion Control	3
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Drainage Plan/Details	5

### AS BUILTS

Contractor:

**McCullough Exc.**

**10/5/21**

Project Inspector:

**Zachary Witzansky**

**KEMILLER**  
ENGINEERING PA

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



**Chick-fil-A**

Chick-fil-A  
5200 Buffington Road  
Atlanta, Georgia 30349-2998

**GBC DESIGN, INC.**  
565 White Pond Dr.  
Akron, OH 44320-1123  
Phone 330-856-0225  
Fax 330-856-5782



**CHICK-FIL-A**  
21ST & MAIZE FSU  
2021 CUSTOM PROJECT SOLUTIONS  
10515 W 21ST STREET N  
WICHITA, KS

**FSU# 03015**

NO.	DATE	DESCRIPTION
6	2018/2/1	FOR CONSTRUCTION

GBC PROJECT #	44001
PRINTED FOR	Permit
DATE	6/2/21
DRAWN BY	BAW

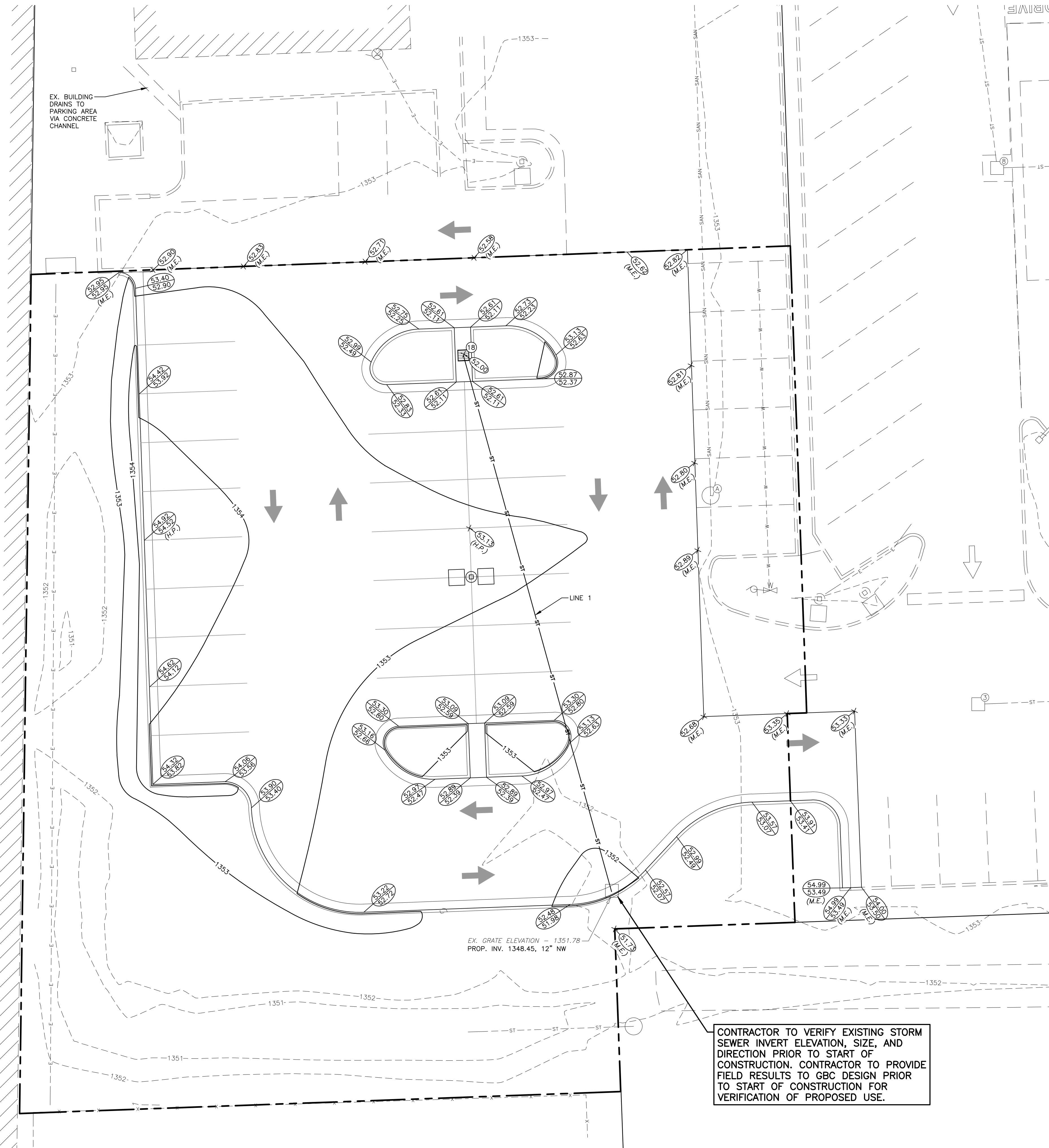
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SHEET  
PPD  
TITLE SHEET

SHEET NUMBER  
**1 OF 5**

**GRADING & UTILITY NOTES**

- LOCATIONS OF ALL EXISTING AND PROPOSED SERVICES ARE APPROXIMATE AND MUST BE CONFIRMED INDEPENDENTLY WITH LOCAL UTILITY COMPANIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION OR EXCAVATION. SANITARY SEWER AND ALL OTHER UTILITY SERVICE CONNECTION POINTS SHALL BE CONFIRMED INDEPENDENTLY BY THE CONTRACTOR IN FIELD PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. ALL DISCREPANCIES SHALL BE REPORTED IMMEDIATELY IN WRITING TO THE ENGINEER. CONSTRUCTION SHALL COMMENCE BEGINNING AT THE LOWEST INVERT (POINT OF CONNECTION) AND PROGRESS UP GRADIENT. ALL PROPOSED INTERFACE POINTS (CROSSINGS) WITH EXISTING UNDERGROUND UTILITIES SHALL BE FIELD VERIFIED BY TEST PIT PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- ALL UTILITIES AND SERVICES INCLUDING BUT NOT LIMITED TO GAS, WATER, ELECTRIC, SANITARY AND STORM SEWER, TELEPHONE, CABLE, FIBER OPTIC CABLE, ETC. WITHIN THE LIMITS OF DISTURBANCE SHALL BE VERTICALLY AND HORIZONTALLY LOCATED. THE CONTRACTOR SHALL USE AND COMPLY WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY NOTIFICATION SYSTEM TO LOCATE ALL THE UNDERGROUND UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRS OF DAMAGE TO ANY EXISTING UTILITIES DURING CONSTRUCTION AT NO COST TO THE OWNER.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THE PROJECT WORK SCOPE PRIOR TO THE INITIATION OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DOCUMENTS RELATIVE TO THE SPECIFICATIONS OR THE RELATIVE CODES, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE PROJECT ENGINEER IN WRITING PRIOR TO THE START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY THE PROJECT ENGINEER SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF WORK AS DEFINED BY THE DRAWINGS AND IN FULL COMPLIANCE WITH LOCAL REGULATIONS AND CODES.
- DEFINE AND LOCATE VERTICALLY AND HORIZONTALLY ALL ACTIVE UTILITY AND/OR SERVICE SYSTEMS THAT ARE TO BE REMOVED. THE CONTRACTOR IS RESPONSIBLE TO PROTECT AND MAINTAIN ALL ACTIVE SYSTEMS THAT ARE NOT BEING REMOVED/RELOCATED DURING SITE ACTIVITY.
- THE CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH THE APPLICABLE UTILITY SERVICE PROVIDER REQUIREMENTS AND IS RESPONSIBLE FOR ALL COORDINATION REGARDING UTILITY DEMOLITION AS IDENTIFIED OR REQUIRED FOR PROJECT. THE CONTRACTOR SHALL PROVIDE THE OWNER WRITTEN NOTIFICATION THAT THE EXISTING UTILITIES AND SERVICES HAVE BEEN TERMINATED AND ABANDONED IN ACCORDANCE WITH JURISDICTION AND UTILITY COMPANY REQUIREMENTS.
- CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF SITE PLAN DOCUMENTS AND ARCHITECTURAL DESIGN FOR EXACT BUILDING UTILITY CONNECTION LOCATIONS, GREASE TRAP REQUIREMENTS/DETAILS, DOOR ACCESS, AND EXTERIOR GRADING. THE UTILITY SERVICE SIZES ARE TO BE DETERMINED BY THE ARCHITECT. THE CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES/SERVICES WITH THE INDIVIDUAL COMPANIES, TO AVOID CONFLICTS AND ENSURE PROPER DEPTHS ARE ACHIEVED. THE JURISDICTION UTILITY REQUIREMENTS SHALL ALSO BE MET, AS WELL AS COORDINATING THE UTILITY TIE-INS/CONNECTIONS PRIOR TO CONNECTING TO THE EXISTING UTILITY/SERVICE. WHERE CONFLICTS EXIST WITH THESE SITE PLANS, ENGINEER IS TO BE NOTIFIED PRIOR TO CONSTRUCTION TO RESOLVE SAME.
- WATER SERVICE MATERIALS, BURIAL DEPTH, AND COVER REQUIREMENTS SHALL BE SPECIFIED BY THE LOCAL UTILITY COMPANY. CONTRACTOR'S PRICE FOR WATER SERVICE SHALL INCLUDE ALL FEES AND APPURTENANCES REQUIRED BY THE UTILITY TO PROVIDE A COMPLETE WORKING SERVICE.
- ALL NEW UTILITIES/SERVICES, INCLUDING ELECTRIC, TELEPHONE, CABLE TV, ETC. ARE TO BE INSTALLED UNDERGROUND. ALL NEW UTILITIES/SERVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE UTILITY/SERVICE PROVIDER INSTALLATION SPECIFICATIONS AND STANDARDS.
- SITE GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND REPLACING WITH SUITABLE MATERIALS AS SPECIFIED IN THE GEOTECHNICAL REPORT. ALL EXCAVATED OR FILLED AREAS SHALL BE COMPACTED AS OUTLINED IN THE GEOTECHNICAL REPORT. MOISTURE CONTENT AT TIME OF PLACEMENT SHALL BE SUBMITTED IN COMPACTION REPORT PREPARED BY A QUALIFIED GEOTECHNICAL ENGINEER, REGISTERED WITH THE STATE WHERE THE WORK IS PERFORMED, VERIFYING THAT ALL FILLED AREAS AND SUBGRADE AREAS WITHIN THE BUILDING PAD AREA AND AREAS TO BE PAVED HAVE BEEN COMPACTED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT. SUBBASE MATERIAL FOR SIDEWALKS, CURB, OR ASPHALT SHALL BE FREE OF ORGANICS AND OTHER UNSUITABLE MATERIALS. SHOULD SUBBASE BE DETERMINED UNSUITABLE BY OWNER OR OWNER'S REPRESENTATIVE, SUBBASE IS TO BE REMOVED AND FILLED WITH APPROVED FILL MATERIAL COMPACTED AS DIRECTED BY THE GEOTECHNICAL REPORT.
- ALL FILL, COMPACTION, AND BACKFILL MATERIALS REQUIRED FOR UTILITY INSTALLATION SHALL BE AS PER THE RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL REPORT AND SHALL BE COORDINATED WITH THE APPLICABLE UTILITY COMPANY SPECIFICATIONS.
- THE CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH THE LATEST OSHA STANDARDS AND REGULATIONS, OR ANY OTHER AGENCY HAVING JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE "MEANS AND METHODS" REQUIRED TO MEET THE INTENT AND PERFORMANCE CRITERIA OF OSHA, AS WELL AS ANY OTHER ENTITY THAT HAS JURISDICTION FOR EXCAVATION AND/OR TRENCHING PROCEDURES.
- PAVEMENT SHALL BE SAW CUT IN STRAIGHT LINES TO THE FULL DEPTH OF THE EXISTING PAVEMENT. ALL DEBRIS FROM REMOVAL OPERATIONS SHALL BE REMOVED FROM THE SITE AT THE TIME OF EXCAVATION. STOCKPILING OF DEBRIS WILL NOT BE PERMITTED.
- THE TOPS OF EXISTING MANHOLES, INLET STRUCTURES, AND SANITARY CLEANOUT TOPS SHALL BE ADJUSTED, IF REQUIRED, TO MATCH PROPOSED GRADES IN ACCORDANCE WITH ALL APPLICABLE STANDARDS.
- THE CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF EXISTING TOPOGRAPHIC INFORMATION AND UTILITY INVERT ELEVATIONS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO ENSURE 0.75% MINIMUM SLOPE ALONG ALL ISLANDS, GUTTERS, AND CURBS; 1.0% ON ALL CONCRETE SURFACES; AND 1.5% MINIMUM ON ASPHALT, TO PREVENT PONDING. ANY DISCREPANCIES THAT MAY AFFECT THE PUBLIC SAFETY OR PROJECT COST MUST BE IDENTIFIED TO THE ENGINEER IN WRITING IMMEDIATELY. PROCEEDING WITH CONSTRUCTION WITHOUT NOTIFICATION IS DONE SO AT THE CONTRACTOR'S OWN RISK.
- PROPOSED TOP OF CURB ELEVATIONS ARE GENERALLY 6" ABOVE EXISTING LOCAL ASPHALT GRADE UNLESS OTHERWISE NOTED. FIELD ADJUST TO CREATE A MINIMUM OF 0.75% GUTTER GRADE ALONG CURB FACE. ENGINEER TO APPROVE FINAL CURBING CUT SHEETS PRIOR TO INSTALLATION.
- IN CASE OF DISCREPANCIES BETWEEN PLANS OR RELATIVE TO OTHER PLANS, THE SITE PLAN WILL TAKE PRECEDENCE. IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY CONFLICTS.
- CONTRACTOR SHALL BE REQUIRED TO SECURE ALL NECESSARY PERMITS AND APPROVALS FOR ALL OFF-SITE MATERIAL SOURCES AND DISPOSAL FACILITIES. CONTRACTOR SHALL SUPPLY A COPY OF APPROVALS TO ENGINEER AND OWNER PRIOR TO INITIATING WORK.



**LEGEND**

- ▲ PROP. FDC
- △ EX. FIRE HYDRANT
- ▼ PROP. VALVE
- ⊕ EX. VALVE
- ⊙ PROP. MANHOLE
- ⊖ EX. MANHOLE
- ⊞ PROP. INLET
- ⊟ EX. INLET
- EX. GRADE
- PROP. TOP OF CURB ELEV.
- PROP. BOTTOM OF CURB ELEV.
- PROP. FINISHED ELEVATION
- PROP. TOP OF WALL ELEV.
- PROP. BOTTOM OF WALL ELEV.
- POSITIVE DRAINAGE
- EX. STORM SEWER
- PROP. STORM SEWER
- EX. CURB
- PROP. CURB & GUTTER
- PROP. CONTOURS
- EX. CONTOURS
- (M.E.) MEET EXISTING ELEVATION

SCALE: 1" = 10'

BY GRAPHIC PLOTTING ONLY, THIS PROPERTY IS IN ZONE X OF THE FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 20173032705, WHICH BEARS AN EFFECTIVE DATE OF 12/22/2016 AND IS NOT IN A SPECIAL FLOOD HAZARD AREA. THIS COMMUNITY DOES CURRENTLY PARTICIPATE IN THE PROGRAM. NO FIELD SURVEYING WAS PERFORMED TO DETERMINE THIS ZONE AND AN ELEVATION CERTIFICATE MAY BE NEEDED TO VERIFY THIS DETERMINATION OR TO APPLY FOR A VARIANCE FROM THE FEDERAL EMERGENCY MANAGEMENT AGENCY. ZONE X-AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.

**EXISTING STORM SEWER STRUCTURE SCHEDULE**

**PROPOSED STORM SEWER STRUCTURE SCHEDULE**

**STORM SEWER PIPE SCHEDULE**

FROM	TO	SIZE	LENGTH	SLOPE	TYPE
18	EX. C.B.	12"	102.52'	0.54%	HDPE Pipe

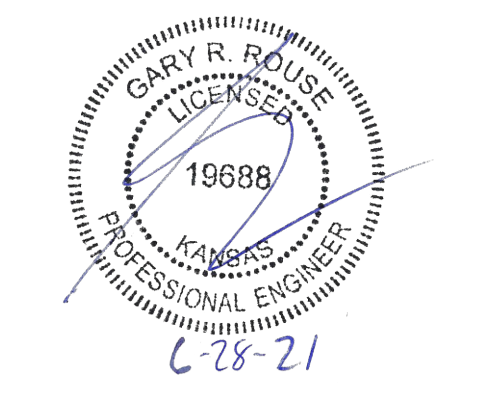
CONTRACTOR TO VERIFY EXISTING STORM SEWER INVERT ELEVATION, SIZE, AND DIRECTION PRIOR TO START OF CONSTRUCTION. CONTRACTOR TO PROVIDE FIELD RESULTS TO GBC DESIGN PRIOR TO START OF CONSTRUCTION FOR VERIFICATION OF PROPOSED USE.

CONTRACTOR RESPONSIBLE TO FIELD VERIFY LOCATIONS AND ELEVATIONS OF EXISTING UTILITY TIE-INS AND CROSSINGS AS SHOWN ON SITE PLANS (SANITARY, STORM, WATER, GAS, ELECTRIC, PHONE, ETC.) PRIOR TO THE START OF CONSTRUCTION. CONTACT ALLAN WILEY AT GBC DESIGN, INC., 330-836-0228, WITH ANY CONCERNS OR CONFLICTS PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR TO VERIFY THE THICKNESS OF ANY OFF-SITE PAVEMENT (ASPHALT AND CONCRETE) AND SIDEWALK SO THE RESTORATION WORK IS INCLUDED IN THE BID.



Chick-fil-A  
5200 Buffington Road  
Atlanta, Georgia 30349-2998

GBC DESIGN, INC.  
565 White Pond Dr. Akron, OH 44320-1123  
Phone 330-836-0228 Fax 330-836-5782



**CHICK-FIL-A**  
21ST & MAIZE FSU  
2021 CUSTOM PROJECT SOLUTIONS  
10515 W 21ST STREET N  
WICHITA, KS

FSU# 03015

**REVISION SCHEDULE**

NO.	DATE	DESCRIPTION

GBC PROJECT # 44001  
PRINTED FOR Permit  
DATE 6/2/21  
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SHEET  
Permit PPD GRADING PLAN  
SHEET NUMBER 2 OF 5

**PROJECT DESCRIPTION:**  
THE LAND IS BEING DISTURBED TO CONSTRUCT A PARKING AREA. MODIFICATION OF THE SITE INCLUDES DISTURBANCE OF 0.33 AC. FOR SAID MODIFICATIONS.

**SCHEDULE OF CONSTRUCTION ACTIVITY:**  
THE CONTRACTOR SHALL IMPLEMENT ALL EROSION CONTROL MEASURES PRIOR TO OTHER CONSTRUCTION ACTIVITY. ALL EROSION CONTROL MEASURES MUST REMAIN FUNCTIONAL UNTIL THE SITE HAS BEEN STABILIZED UNLESS OTHERWISE STATED ON THE PLAN. SEE SEQUENCE OF CONSTRUCTION ACTIVITIES, SHEET C-310.

**EROSION CONTROL NOTES:**  
DIVERSION CHANNELS AND PERIMETER CONTROLS SHALL BE IMPLEMENTED AS A FIRST STEP OF GRADING AND WITHIN 7 DAYS FROM THE START OF GRUBBING AND SHALL CONTINUE TO FUNCTION UNTIL UPLAND AREAS ARE STABILIZED. BMP'S SHOULD BE CLEANED OUT ONCE CAPACITY HAS BEEN REDUCED BY 40%.

EROSION CONTROL BLANKETS WITH MATTING WILL BE USED ON DITCHES GREATER THAN 1.5% AND ALL OTHER SLOPES GREATER THAN 6% GRADE.

**CONTRACTOR IS RESPONSIBLE FOR EROSION CONTROL.**

NO SOLID OR LIQUID WASTE SHALL BE DISCHARGED INTO STORM WATER RUNOFF.

ALL EROSION AND SEDIMENT CONTROL PRACTICES MUST MEET THE STANDARDS AND SPECIFICATIONS OF SEDGWICK COUNTY AND THE KANSAS DOT STORM WATER MANAGEMENT GUIDELINES FOR CONSTRUCTION ACTIVITY.

OTHER EROSION AND SEDIMENT CONTROL ITEMS MAY BE NECESSARY DUE TO ENVIRONMENTAL CONDITIONS.

CONTRACTOR IS RESPONSIBLE TO PICK UP/CLEAN UP ANY LITTER, CONSTRUCTION DEBRIS AND/OR CONSTRUCTION CHEMICALS EXPOSED TO STORM WATER PRIOR TO ANTICIPATED STORM EVENTS OR WIND EVENTS AS FORECASTED BY LOCAL WEATHER.

OFF-SITE VEHICLE TRACKING SEDIMENT SHALL BE MINIMIZED. CONSTRUCTION VEHICLES ARE LIMITED TO THE CONSTRUCTION ACCESS ROAD NOTED ON THE PLAN

REGULAR INSPECTION AND MAINTENANCE WILL BE PROVIDED FOR ALL EROSION AND SEDIMENT CONTROL PRACTICES. PERMANENT RECORDS OF MAINTENANCE AND INSPECTIONS MUST BE KEPT THROUGHOUT THE CONSTRUCTION PERIOD. PROVIDED WILL BE NAME OF INSPECTOR, MAJOR OBSERVATIONS, DATED OF INSPECTION AND CORRECTIVE MEASURES TAKEN.

INLET PROTECTION TO BE INSTALLED IN FRONT OF EXISTING STORM INLETS AND FILL AREAS BEFORE STARTING CONSTRUCTION PER MANUFACTURERS RECOMMENDATIONS.

SILT FENCES ARE TO BE CONSTRUCTED ON THE OUTSIDE OF ALL STOCK PILES.

ALL EROSION CONTROL MEASURES TO BE MAINTAINED BY CONTRACTOR UNTIL PROJECT COMPLETION AND THEN REMOVED.

SEDIMENT TO BE REMOVED FROM SILT FENCE AS NECESSARY AND MUST BE REMOVED WHEN DESIGN CAPACITY HAS BEEN REDUCED BY 50%.

ANY DE-WATERING ACTIVITY SHALL INCLUDE A DIRT BAG OR DANDY BAG AT THE END OF PUMPING DISCHARGE LINE PRIOR TO ENTERING INTO THE STORM SEWER.

EXISTING MAX. SLOPE TO OUTFALL = 25.0%

EXISTING MIN. SLOPE TO OUTFALL = 1.0%

POST-CONSTRUCTION MAX. SLOPE TO OUTFALL = 33.3%

POST-CONSTRUCTION MIN. SLOPE TO OUTFALL = 1.0%

POST CONSTRUCTION RUNOFF COEFFICIENT = 0.95.

RECEIVING WATER: CITY OF WICHITA M54

EXISTING TOPOGRAPHY: CURRENTLY THE SITE IS A VACANT LOT

INSPECT OUTFALLS AND FIX SITE BASED ON THE INSPECTIONS.

THERE IS NO INDUSTRIAL/NON-CONSTRUCTION DISCHARGE ASSOCIATED WITH THIS PROJECT.

TEMPORARY SEEDING IS REQUIRED WHEN GRADING OPERATIONS ARE TEMPORARILY HALTED FOR OVER 14 DAYS, AND ON STOCKPILES. PERMANENT SEEDING IS REQUIRED WHEN GRADING OPERATIONS ARE COMPLETED AND/OR CONSTRUCTION OPERATIONS WILL NOT IMPACT THE DISTURBED AREA. SEED AREAS THAT SHOW SIGNS OF EROSION.

OFFSITE ACCUMULATION OF SEDIMENT WILL BE REMOVED, YET IF A STREAM IS REACHED, CONTACT WATER POLLUTION CONTROL FIRST.

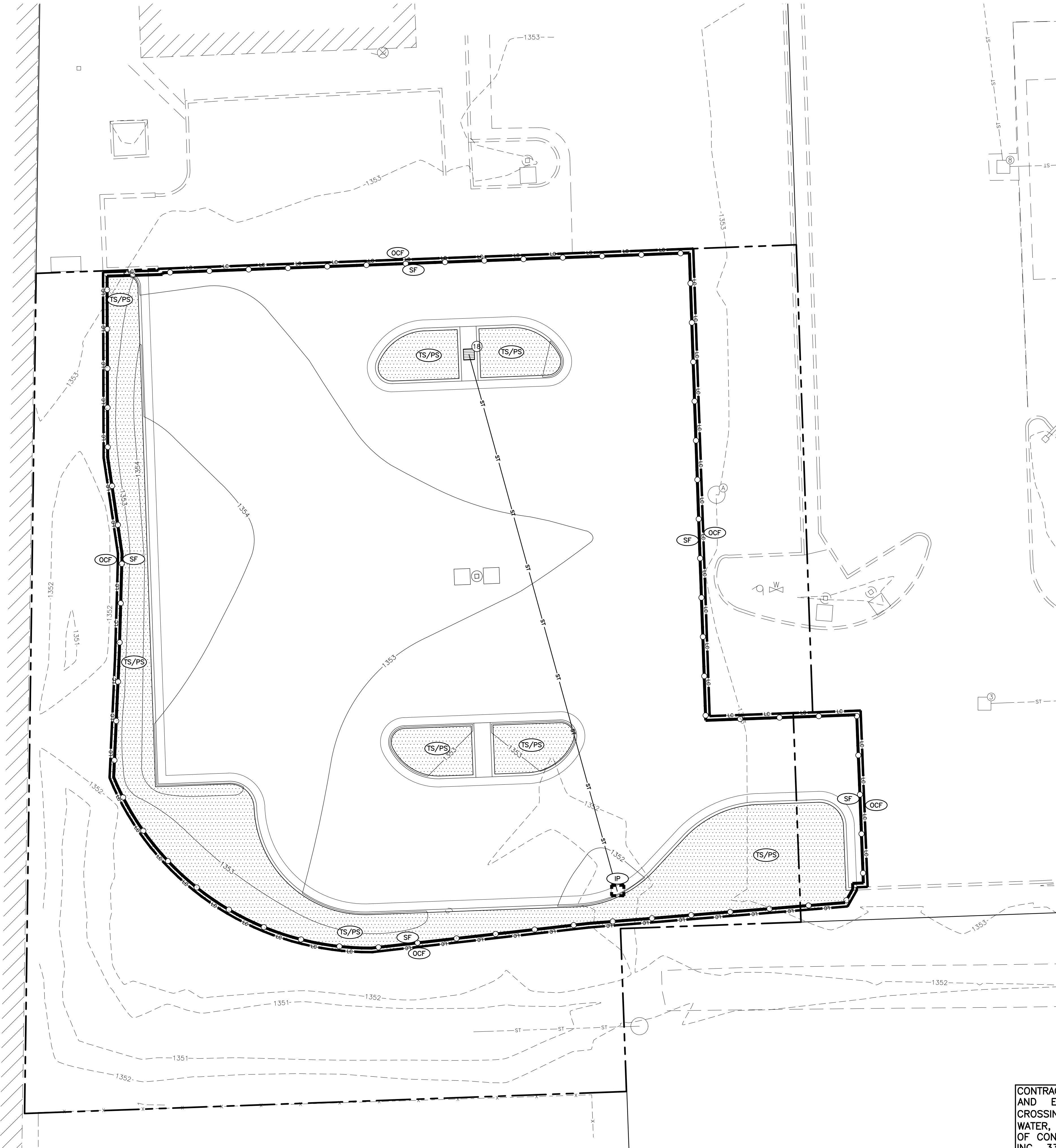
CONTRACTOR TO MAINTAIN A RAIN GAUGE ON SITE OR NEARBY REFERENCE FOR RECORDS. INSPECTORS OF THE SITE MUST HAVE COMPLETED THE WFC FUNDAMENTALS OF EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) COURSE.

REMOVAL OF ALL TEMPORARY EROSION CONTROL DEVICES UPON FINAL STABILIZATION & REMOVAL OF SEDIMENT IN THE DRAIN INLET FILTRATION DEVICES ACCORDING TO STATE AND LOCAL REGULATIONS.

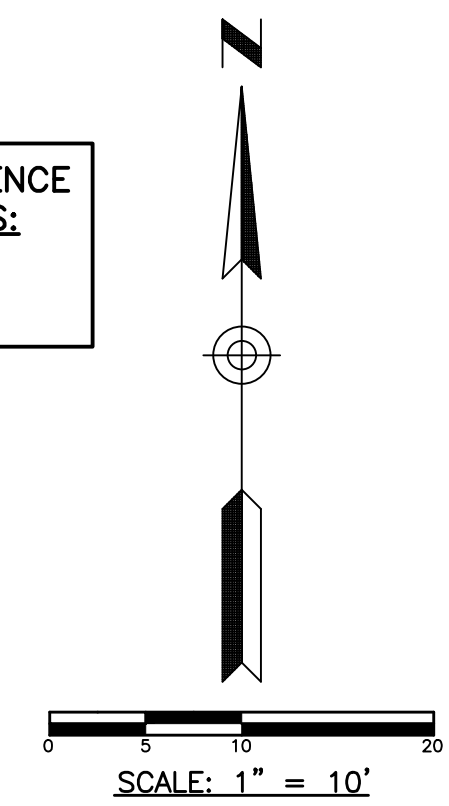
**SEQUENCE OF CONSTRUCTION ACTIVITY**

THE CONTRACTOR SHALL IMPLEMENT ALL OF THE FOLLOWING EROSION CONTROL MEASURES, IN THE ORDER STATED, PRIOR TO OTHER CONSTRUCTION ACTIVITY. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION CONTROL AND STORM WATER POLLUTION PREVENTION ITEMS. ALL EROSION CONTROL MEASURES MUST REMAIN FUNCTIONAL UNTIL THE SITE HAS BEEN STABILIZED.

- BEFORE CONSTRUCTION, EVALUATE, MARK, AND PROTECT IMPORTANT TREES.
- CLEAR AREAS FOR CONSTRUCTION ENTRANCE AND SILT FENCE.
- INSTALL CONSTRUCTION ENTRANCE.
- POST THE NOI AND SWPPP PLANS ONSITE.
- INSTALL EROSION CONTROL FENCES AND OTHER PERIMETER CONTROLS AROUND CONSTRUCTION AREA BEFORE CONSTRUCTION ACTIVITIES BEGIN.
- INSTALL PROTECTION MEASURES AROUND EXISTING INLETS.
- BEGIN DEMOLITION AND EARTHWORK.
- COMPLETE THE CUT AND FILLS ON THE SITE. INSTALL CHECK DAMS OR STABILIZE THE SLOPES WITH EROSION CONTROL BLANKETS AS NEEDED.
- INSTALL STAGING AREAS, MATERIAL STORAGE AREAS, FUEL STATIONS, AND CONCRETE WASHOUT.
- INSTALL STORM SEWERS, INLETS, AND UNDERGROUND DETENTION CHAMBERS.
- INSTALL INLET FILTER PROTECTION AS INLETS ARE INSTALLED.
- CONTINUE SITE EXCAVATING, BACKFILLING, AND GRADING ACTIVITIES. ANY AREA LEFT DORMANT FOR MORE THAN 15 DAYS MUST BE TEMPORARILY SEEDED.
- ESTABLISH BUILDING PAD.
- FINISH MASS EARTHWORK.
- CONSTRUCT BUILDING.
- COMPLETE ASPHALT PAVING.
- FINAL GRADE AND FINISH.
- COMPLETE FINAL SEEDING AND LANDSCAPING AND STABILIZE ALL DISTURBED AREAS.
- MAINTAIN ALL EROSION AND SEDIMENT CONTROL PRACTICES UNTIL ALL DISTURBED AREAS ARE PERMANENTLY STABILIZED.
- SEED AND MULCH SITE AS NEEDED.



CONTRACTOR TO REFERENCE CITY OF WICHITA DETAILS:  
SW-501  
SW-502



**LEGEND**

- ⊙ PROP. MANHOLE
- EX. MANHOLE
- PROP. INLET
- EX. INLET
- ▬ SPILLING SECTION
- ▬ CATCHING SECTION
- ← EX. STORM SEWER
- ST --- EX. STORM SEWER
- ST --- PROP. STORM SEWER
- EX. CURB
- PROP. CURB & GUTTER
- PROP. CONTOURS
- EX. CONTOURS
- SF ○ SILT FENCE/FILTER SOCK
- OCF ○ LIMITS OF CONSTRUCTION TO BE DESIGNATED BY ORANGE CONSTRUCTION FENCE WHEN NOT ADJACENT TO SILT FENCE
- IP ○ FLEXSTORM CATCH-IT LITE
- TS/PS ○ TEMPORARY SEEDING & MULCHING / PERMANENT SEEDING & MULCHING SEE LANDSCAPE PLAN L-100

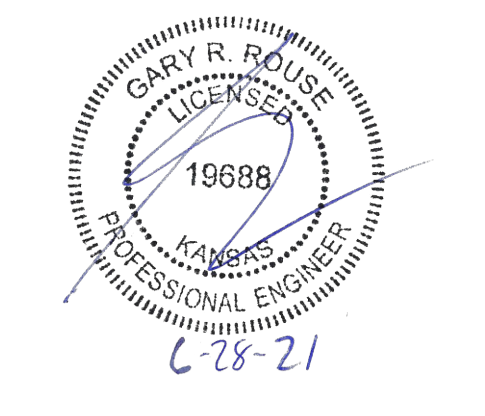
LIMITS OF DISTURBANCE = 0.33 AC.



**Chick-fil-A**

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5200 Buffington Road  
Atlanta, Georgia 30349-2998

**GBC DESIGN, INC.**  
565 White Pond Dr. Akron, OH 44320-1123  
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2021 CUSTOM PROJECT SOLUTIONS  
10515 W 21ST STREET N  
WICHITA, KS

**FSU# 03015**

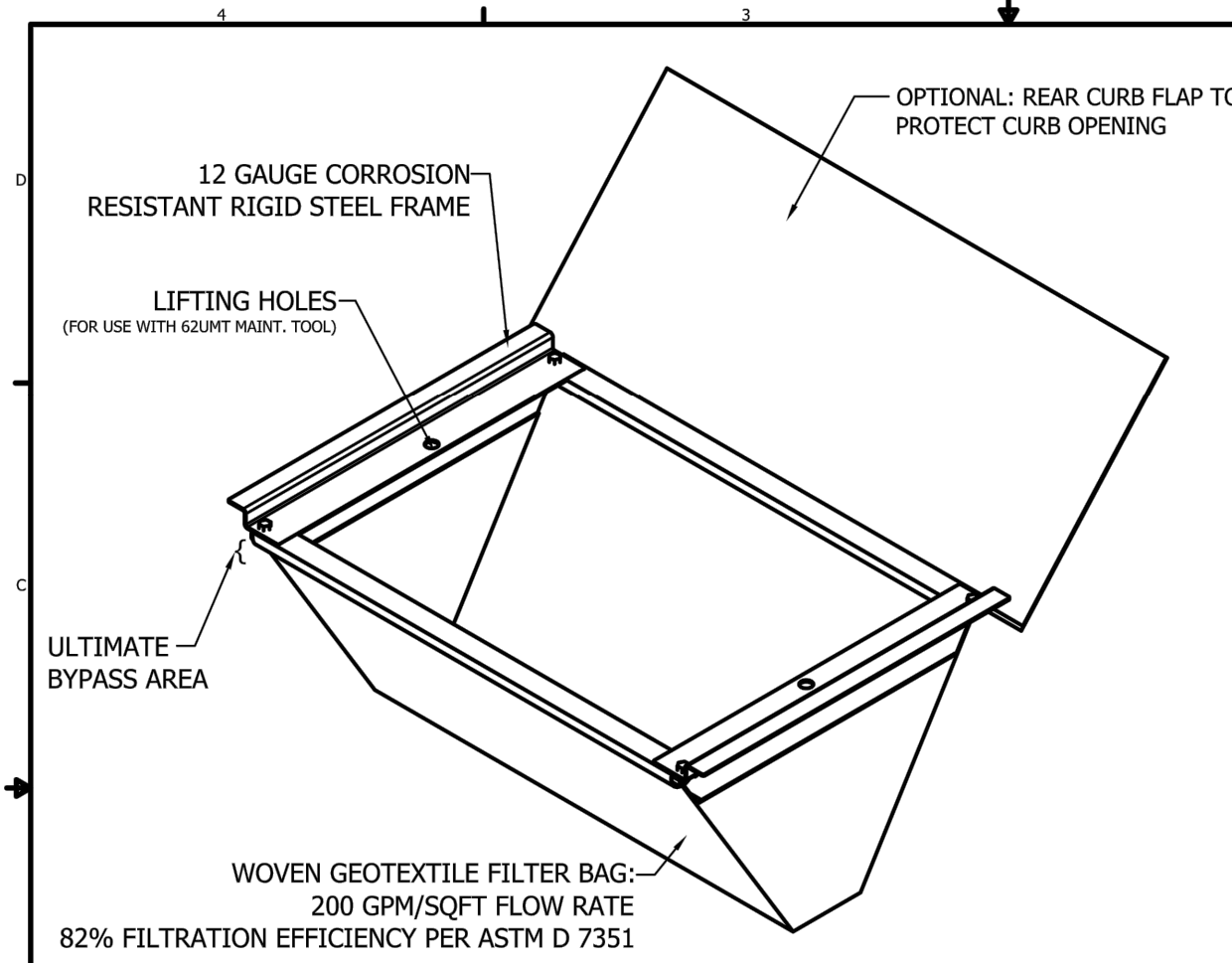
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NO.	DATE	

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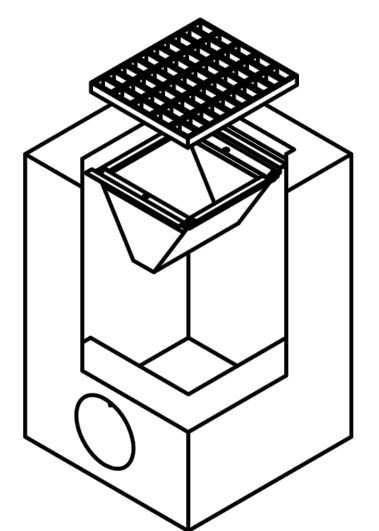
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SHEET  
**PPD EROSION CONTROL**  
SHEET NUMBER 3 OF 5

CONTRACTOR RESPONSIBLE TO FIELD VERIFY LOCATIONS AND ELEVATIONS OF EXISTING UTILITY TIE-INS AND CROSSINGS AS SHOWN ON SITE PLANS (SANITARY, STORM, WATER, GAS, ELECTRIC, PHONE, ETC.) PRIOR TO THE START OF CONSTRUCTION. CONTACT ALLAN WILEY AT GBC DESIGN, INC., 330-836-0228, WITH ANY CONCERNS OR CONFLICTS PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR TO VERIFY THE THICKNESS OF ANY OFF-SITE PAVEMENT (ASPHALT AND CONCRETE) AND SIDEWALK SO THE RESTORATION WORK IS INCLUDED IN THE BID.



**Installation Instructions:**  
 1. Remove grate from the drainage structure  
 2. Clean stone and dirt from ledge (lip) of drainage structure  
 3. Drop the FLEXSTORM inlet filter through the clear opening such that the hangers rest firmly on the lip of the structure.  
 4. Replace the grate and confirm it is not elevated more than 1/8", the thickness of the steel hangers.

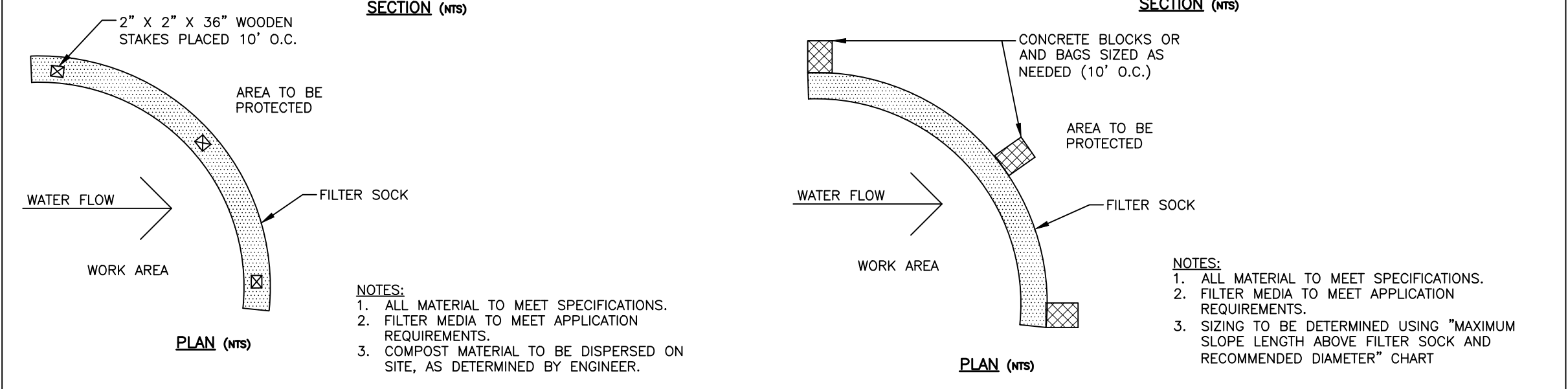
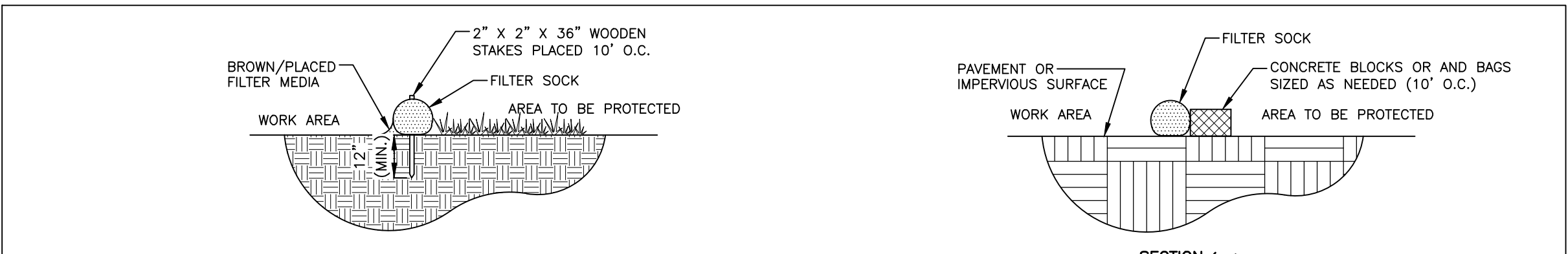


Meets ASTM D8057 standards

**FLEXSTORM FX FABRIC SPECS**

PROPERTY	TEST METHOD	English	Metric
<b>Mechanical</b>			
TENSILE STRENGTH	ASTM D4832	350 x 225 lbs	1557 x 1003 N
ELONGATION	ASTM D4832	20% x 20%	20% x 20%
CBR PUNCTURE	ASTM D6241	5000 lbs	4448 N
TRAPEZOIDAL TEAR	ASTM D4833	110 x 75 lbs	483 x 334 N
TEAR RESISTANCE	ASTM D4833	90%	90%
UV RESISTANCE	ASTM D4833	90%	90%
<b>Permeability</b>			
APPARENT OPENING SIZE (AOS)	ASTM D4751	20 US STD SIEVE	450 mm
PERCENT OPEN AREA (POA)	CW-02215 M007	17%	17%
PERMEABILITY	ASTM D4891	1.5 Sec	1.5 Sec
WATER FLOW RATE	ASTM D4891	200 gal/min/ft <sup>2</sup>	8140 l/min/m <sup>2</sup>

- Product Features**
- Rigid frame and removable geosynthetic bag
  - Sized to meet treatment flow rate.
  - Bag maintains shape to be extracted when completely filled with sediment
  - Rigid frame capable of supporting full load of sediment without deforming.
  - Does not interfere or elevate grate by more than 1/8"
  - Bypass flow exceeds design flow of drainage location
  - Filter bag achieves +80% gross removal efficiency per ASTM D7351.



**FILTER SOCK DETAIL**

- (NOT TO SCALE)
- MATERIALS - COMPOST USED FOR FILTER SOCKS SHALL BE WEED, PATHOGEN AND INSECT FREE AND FREE OF ANY REFUSE, CONTAMINANTS OR OTHER MATERIALS TOXIC TO PLANT GROWTH. THEY SHALL BE DERIVED FROM A WELLD-DECOMPOSED SOURCE OF ORGANIC MATTER AND CONSIST OF A PARTICLES RANGING FROM 3/8" TO 2".
  - FILTER SOCKS SHALL BE 3 OR 5 MIL CONTINUOUS, TUBULAR, HDPE 3/8" KNITTED MESH NETTING MATERIAL, FILLED WITH COMPOST PASSING THE ABOVE SPECIFICATIONS FOR COMPOST PRODUCTS.
- INSTALLATION:**
- FILTER SOCKS WILL BE PLACED ON A LEVEL LINE ACROSS SLOPES, GENERALLY PARALLEL TO THE BASE OF THE SLOPE OR OTHER AFFECTED AREA ON SLOPES APPROACHING 2:1. ADDITIONAL SOCKS SHALL BE PROVIDED AT THE TOP AND AS NEEDED MIDSLOPE.
  - FILTER SOCKS INTENDED TO BE LEFT AS A PERMANENT FILTER OR PART OF THE NATURAL LANDSCAPE, SHALL BE SEEDED AT THE TIME OF INSTALLATION FOR ESTABLISHMENT OF PERMANENT VEGETATION.
  - FILTER SOCKS ARE NOT TO BE USED IN CONCENTRATED FLOW SITUATIONS OR IN RUNOFF CHANNELS.

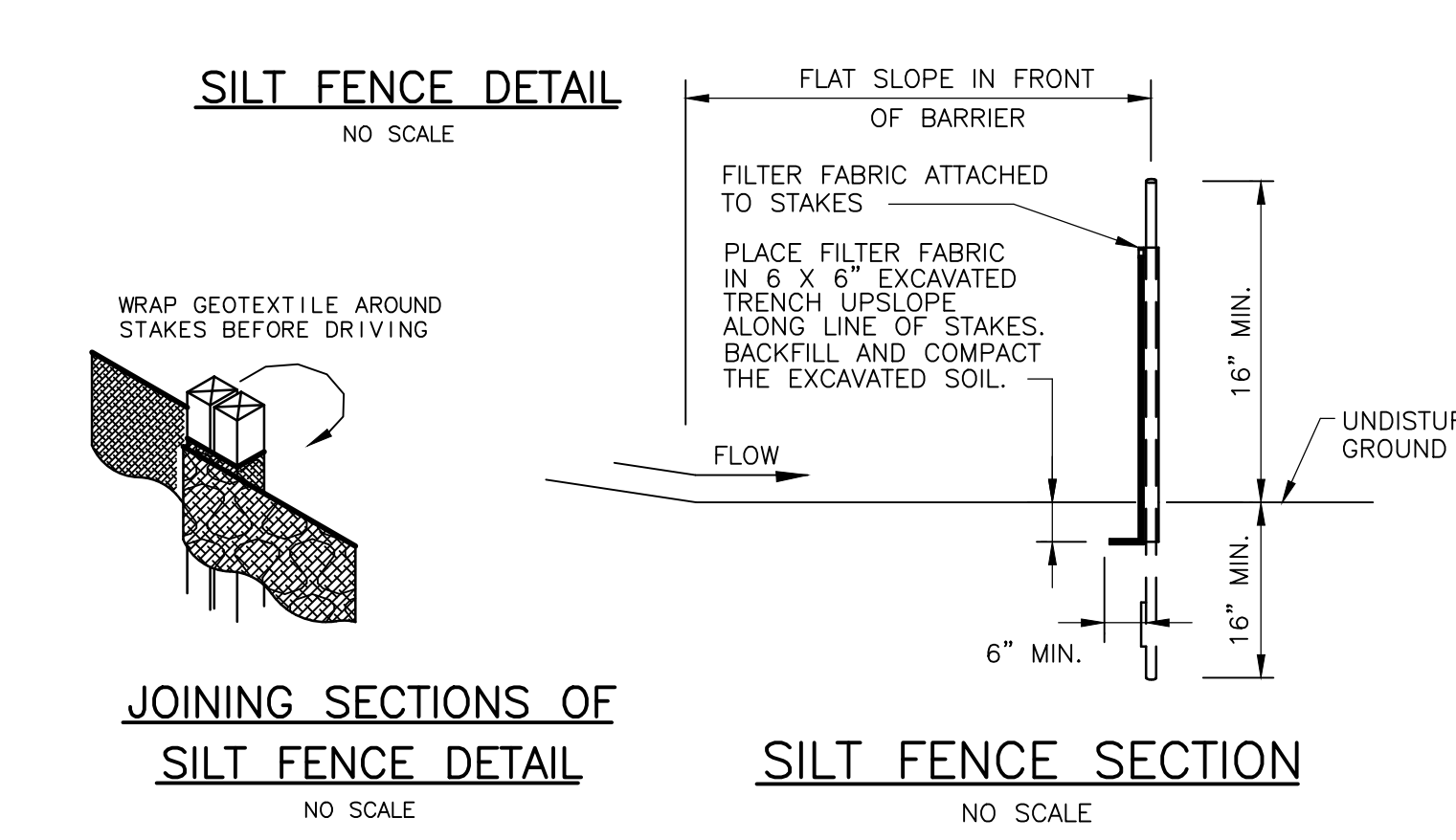
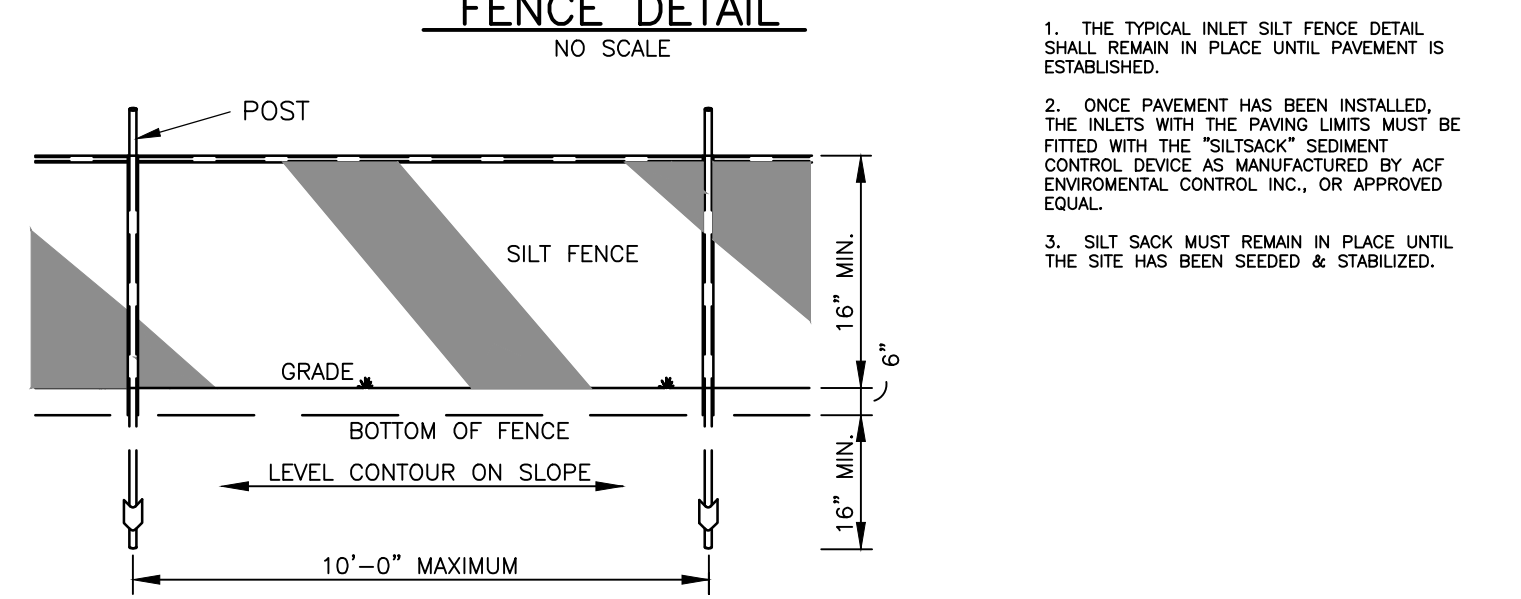
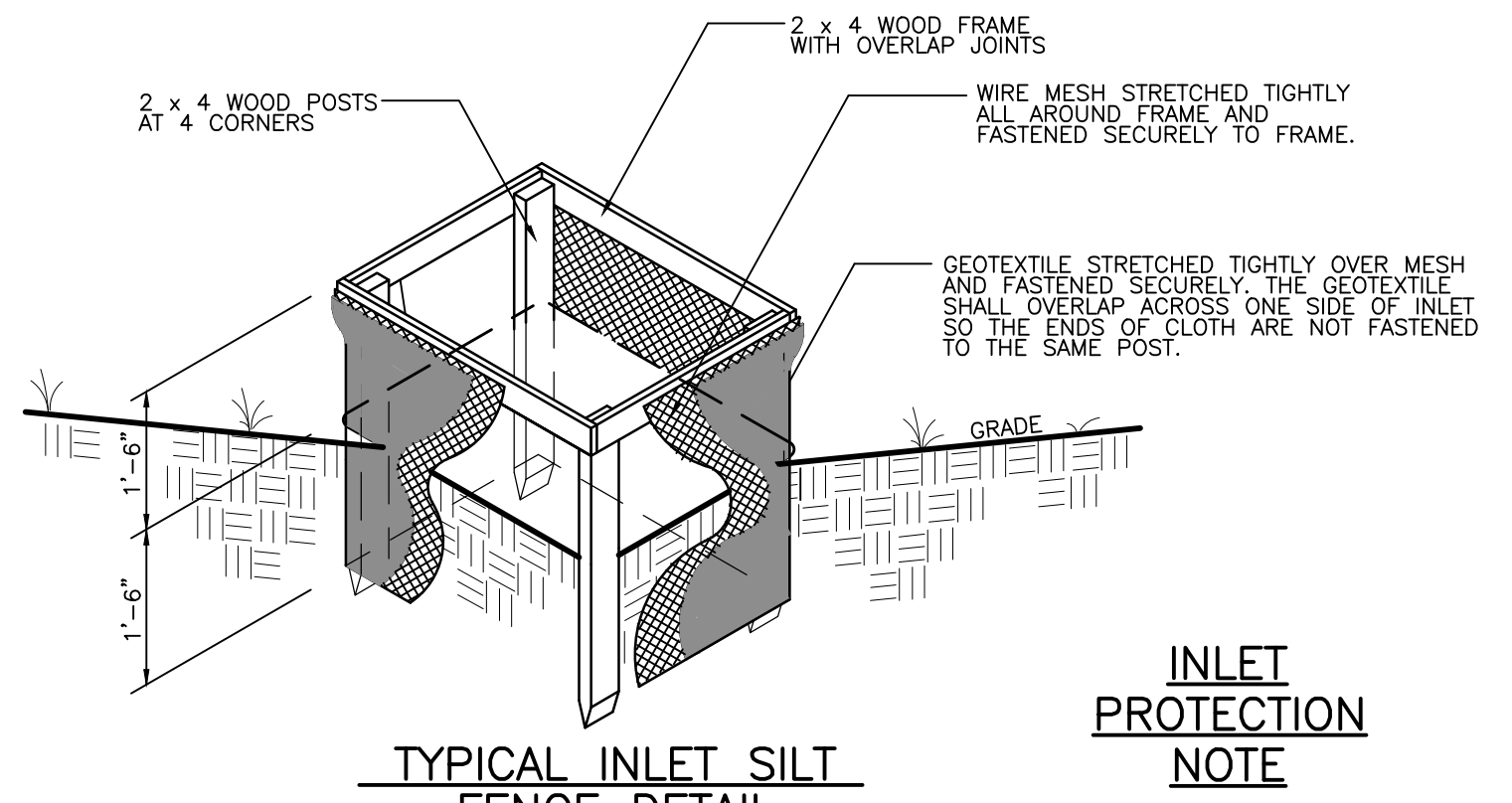
**FILTER SOCK ON PAVEMENT DETAIL**

- (NOT TO SCALE)
- MAINTENANCE:**
- ROUTINELY INSPECT FILTER SOCKS AFTER EACH SIGNIFICANT RAIN, MAINTAINING FILTER SOCKS IN A FUNCTIONAL CONDITION AT ALL TIMES.
  - REMOVE SEDIMENTS COLLECTED AT THE BASE OF THE FILTER SOCKS WHEN THEY REACH 1/3 OF THE EXPOSED HEIGHT OF THE PRACTICE.
  - WHERE THE FILTER SOCK DETERIORATES OR FAILS, IT WILL BE REPAIRED OR REPLACED WITH A MORE EFFECTIVE ALTERNATIVE.
  - REMOVAL - FILTER SOCKS WILL BE DISPERSED ON SITE WHEN NO LONGER REQUIRED IN SUCH AS WAY AS TO FACILITATE AND NOT OBSTRUCT SEEDINGS.
- Maximum Slope Length Above Filter Sock and Recommended Diameter**
- | Slope     | Ratio (H:V) | 8"  | 12" | 18" | 24" |
|-----------|-------------|-----|-----|-----|-----|
| 0% - 2%   | 10% - 20%   | 125 | 250 | 300 | 350 |
| 10% - 20% | 50:1 - 10:1 | 100 | 125 | 200 | 250 |
| 2% - 10%  | 10:1 - 5:1  | 75  | 100 | 150 | 200 |
| 20% - 33% | 5:1 - 2:1   | 50  | 75  | 100 |     |
| >50%      | >2:1        | 25  | 50  | 75  |     |

**SILT FENCE**

- INLET PROTECTION SHALL BE CONSTRUCTED EITHER BEFORE UPSLOPE LAND DISTURBANCE BEGINS OR BEFORE THE STORM DRAIN BECOMES OPERATIONAL.
  - THE EARTH AROUND THE INLET SHALL BE EXCAVATED COMPLETELY TO A DEPTH AT LEAST 18 INCHES.
  - THE WOODEN FRAME SHALL BE CONSTRUCTED OF 2-BY-4-IN. CONSTRUCTION-GRADE LUMBER. THE 2-BY-4-IN. POSTS SHALL BE DRIVEN 1 FT. INTO THE GROUND AT FOUR CORNERS OF THE INLET AND THE TOP PORTION OF 2-BY-4-IN. FRAME ASSEMBLED USING THE OVERLAP JOINT SHOWN. THE TOP OF THE FRAME SHALL BE AT LEAST 6 INCHES BELOW ADJACENT ROADS. IF PONDED WATER WOULD POSE A SAFETY HAZARD TO TRAFFIC.
  - WIRE MESH SHALL BE OF SUFFICIENT STRENGTH TO SUPPORT FABRIC WITH WATER FULLY IMPOUNDED AGAINST IT. IT SHALL BE STRETCHED TIGHTLY AROUND THE FRAME AND FASTENED SECURELY TO THE FRAME.
  - GEOTEXTILE SHALL HAVE AN EQUIVALENT OPENING SIZE OF 20-40-80 AND BE RESISTANT TO SUNLIGHT. SHALL BE STRETCHED TIGHTLY AROUND THE FRAME AND FASTENED SECURELY. IT SHALL EXTEND FROM TOP OF THE FRAME TO 18 INCHES ABOVE THE INLET NOTCH ELEVATION. THE GEOTEXTILE SHALL OVERLAP ACROSS ON SIDE OF THE INLET SO THE ENDS OF THE CLOTH ARE NOT FASTENED TO THE SAME POST.
  - BACKFILL SHALL BE PLACED AROUND THE INLET IN COMPACTED 6-IN. LAYERS UNTIL THE EARTH IS EVEN WITH NOTCH ELEVATION ON ENDS AND TOP ELEVATION ON SIDES.
  - A COMPACTED EARTH DIKE OR A CHECK DAM SHALL BE CONSTRUCTED IN THE DITCH LINE BELOW THE INLET IF THE INLET IS NOT IN A DEPRESSION AND IF RUNOFF BYPASSING THE INLET WILL NOT FLOW TO A SETTLING POND. THE TOP OF EARTH DIKES SHALL BE AT LEAST 6 INCHES HIGHER THAN THE TOP OF THE FRAME.
  - THE SILT FENCE SHALL BE PLACED WITH THE STAKES ON THE DOWN SLOPE SIDE OF THE GEOTEXTILE AND SO THAT 8 IN. OF CLOTH ARE BELOW THE GROUND SURFACE. EXCESS MATERIAL SHALL LAY ON THE BOTTOM OF THE 6 IN. DEEP TRENCH. THE TRENCH SHALL BE BACKFILLED AND COMPACTED.
  - SEAMS BETWEEN SECTIONS OF SILT FENCE SHALL OVERLAPPED WITH THE END STAKES OF EACH SECTION WRAPPED TOGETHER BEFORE DRIVING INTO THE GROUND.
  - MAINTENANCE--SILT FENCE SHALL ALLOW RUNOFF TO PASS ONLY AS DIFFUSE FLOW THROUGH THE GEOTEXTILE. IF RUNOFF OVERTOPS THE SILT FENCE, FLOWS UNDER OR AROUND THE ENDS, OR IN ANY OTHER WAY BECOMES A CONCENTRATED FLOW, ONE OF THE FOLLOWING SHALL BE PERFORMED, AS APPROPRIATE: 1) THE LAYOUT OF THE SILT FENCE SHALL BE CHANGED, 2) A COMPACTED SEDIMENT SHALL BE REMOVED, OR 3) OTHER PRACTICES SHALL BE INSTALLED.
- CRITERIA FOR SILT FENCE MATERIALS**
- FENCE POSTS-- THE LENGTH SHALL BE A MINIMUM OF 32 IN. LONG. WOOD POSTS WILL BE 2-BY-2 IN. HARDWOOD OF SOUND QUALITY. THE MAXIMUM SPACING BETWEEN POSTS SHALL BE 10 FT.
  - SILT FENCE FABRIC (SEE CHART BELOW):

FABRIC PROPERTIES	VALUES	TEST METHOD
GRAB TENSILE STRENGTH	90 LB. MINIMUM	ASTM D 1682
MULLEN BURST STRENGTH	190 PSI MINIMUM	ASTM D 3786
SLURRY FLOW RATE	0.3 GAL./MIN./F <sup>2</sup> MAXIMUM	ASTM D 3786
EQUIVALENT OPENING SIZE	40-80	US STD. SIEVE CW-02215
ULTRAVIOLET RADIATION STABILITY	90% MINIMUM	ASTM-G-26



**INLET PROTECTION NOTE**

- THE TYPICAL INLET SILT FENCE DETAIL SHALL REMAIN IN PLACE UNTIL PAVEMENT IS ESTABLISHED.
- ONCE PAVEMENT HAS BEEN INSTALLED, THE INLETS WITH THE PAVING LIMITS MUST BE FITTED WITH THE "SILT-SACK" SEDIMENT CONTROL DEVICE AS MANUFACTURED BY ACI ENVIRONMENTAL CONTROL, INC. OR APPROVED EQUAL.
- SILT SACK MUST REMAIN IN PLACE UNTIL THE SITE HAS BEEN SEEDDED & STABILIZED.

**TEMPORARY SEEDING**

TEMPORARY SEEDING SPECIES SELECTION			
SEEDING DATES	SPECIES	LB/1000 FT. <sup>2</sup>	PER ACRE
MARCH 1 TO AUGUST 15	OATS	3	4 BUSHEL
	TALL FESCUE ANNUAL RYEGRASS	1	40 LB.
AUGUST 16 TO NOVEMBER 1	PERENNIAL RYEGRASS	1	40 LB.
	TALL FESCUE ANNUAL RYEGRASS	1	40 LB.
	RYE	3	2 BUSHEL
	TALL FESCUE ANNUAL RYEGRASS	1	40 LB.
NOVEMBER 1 TO SPRING SEEDING	WHEAT	3	2 BUSHEL
	TALL FESCUE ANNUAL RYEGRASS	1	40 LB.
	PERENNIAL RYEGRASS	1	40 LB.
	TALL FESCUE ANNUAL RYEGRASS	1	40 LB.
NOVEMBER 1 TO SPRING SEEDING	USE MULCH ONLY, SODDING PRACTICES OR DORMANT SEEDING.		

NOTE: OTHER APPROVED SEED SPECIES MAY BE SUBSTITUTED.

- STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS AND SEDIMENT TRAPS SHALL BE INSTALLED AND STABILIZED WITH TEMPORARY SEEDING PRIOR TO GRADING THE REST OF THE CONSTRUCTION-SITE.
- TEMPORARY SEED SHALL BE APPLIED BETWEEN CONSTRUCTION OPERATIONS ON SOIL THAT WILL NOT BE GRADED OR REWORKED FOR 14 DAYS OR MORE. THESE IDLE AREAS SHOULD BE SEEDDED AS SOON AS POSSIBLE AFTER GRADING OR SHALL BE SEEDDED WITHIN 7 DAYS. SEVERAL APPLICATIONS OF TEMPORARY SEEDING ARE NECESSARY ON TYPICAL CONSTRUCTION PROJECTS.
- THE SEEDBED SHALL BE PULVERIZED AND LOOSE TO ENSURE THE SUCCESS OF ESTABLISHING VEGETATION. HOWEVER, TEMPORARY SEEDING SHALL NOT BE POSTPONED IF IDEAL SEEDBED PREPARATION IS NOT POSSIBLE.
- SOIL AMENDMENTS--APPLICATIONS OF TEMPORARY VEGETATION SHALL ESTABLISHED ADEQUATE STANDS OF VEGETATION WHICH MAY REQUIRE THE USE OF SOIL AMENDMENTS. SOIL TESTS SHOULD BE TAKEN ON THE SITE TO PREDICT THE NEED FOR LIME AND FERTILIZER.
- SEEDING METHOD--SEED SHALL BE APPLIED UNIFORMLY WITH A CYCLONE SOWER, DRILL, CULTIPACKER SEEDER, OR HYDROSEEDER. WHEN FEASIBLE, SEED THAT HAS BEEN BROADCAST SHALL BE COVERED BY RAKING OR DRAGGING AND THEN LIGHTLY TAMPED INTO PLACE USING A ROLLER OR CULTIPACKER. IF HYDROSEEDING IS USED, THE SEED AND FERTILIZER WILL BE MIXED ON-SITE AND THE SEEDING SHALL BE DONE IMMEDIATELY AND WITHOUT INTERRUPTION.

**MULCHING TEMPORARY SEEDING**

- APPLICATIONS OF TEMPORARY SEEDING SHALL INCLUDE MULCH WHICH SHALL BE APPLIED DURING OR IMMEDIATELY AFTER SEEDING. SEEDINGS MADE DURING OPTIMUM SEEDING DATES AND WITH FAVORABLE SOIL CONDITIONS AND ON VERY FLAT AREAS MAY NOT NEED MULCH TO ACHIEVE ADEQUATE STABILIZATION.
- MATERIALS:
  - STRAW--IF STRAW IS USED, IT SHALL BE UNROTTED SMALL--GRAIN APPLIED AT 2 TONS/AC. OR 90 LB. / 1,000 SQ. FT. (TWO TO THREE BALES). THE MULCH SHALL BE SPREAD UNIFORMLY BY HAND OR MECHANICALLY SO THE SOIL SURFACE IS COVERED. FOR UNIFORM DISTRIBUTION OF HAND-SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1,000 SQ. FT. SECTIONS AND SPREAD TWO 45 LB. BALES OF STRAW IN EACH SECTION.
  - HYDROSEEDERS--IF WOOD CELLULOSE FIBER IS USED, IT SHALL BE USED AT 2,000 LB. / AC. OR 46 LB. /1,000 SQ. FT.

OTHER--OTHER ACCEPTABLE MULCHES INCLUDE MULCH MATTINGS APPLIED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS OR WOOD CHIPS APPLIED AT 6 TONS / AC.

- STRAW MULCH SHALL BE ANCHORED IMMEDIATELY TO MINIMIZE LOSS BY WIND OR WATER. ANCHORING METHODS:
  - MECHANICAL--A DISK, CRIMPER OR SIMILAR TYPE TOOL SHALL BE SET STRAIGHT TO PUNCH OR ANCHOR THE MULCH MATERIAL INTO THE SOIL. STRAW MECHANICAL ANCHORED SHALL NOT BE FINELY CHOPPED BUT, GENERALLY BE LEFT LONGER THAN 6 IN.
  - MULCH NETTINGS--NETTINGS SHALL BE USE ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS. NETTING MADE BE NECESSARY TO HOLD MULCH IN PLACE IN AREAS OF CONCENTRATED RUNOFF AND ON CRITICAL SLOPES.
  - ASPHALT EMULSION--ASPHALT SHALL BE APPLIED AS RECOMMENDED BY THE MANUFACTURER OR AT THE RATE OF 160 GAL. / AC.
  - SYNTHETIC BINDERS--SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGRI-TAC), DCA-70, PETROSET, TERRA-TACK OR EQUAL MAY BE USED AT RATES RECOMMENDED BY THE MANUFACTURER.
  - WOOD-CELLULOSE FIBRE--WOOD-CELLULOSE FIBER BINDER SHALL BE APPLIED AT A NET DRY WEIGHT OF 750 LB. /AC. THE WOOD-CELLULOSE FIBER SHALL BE MIXED WITH WATER AND THE MIXTURE SHALL CONTAIN A MAXIMUM OF 50 LB. / 100 GAL.

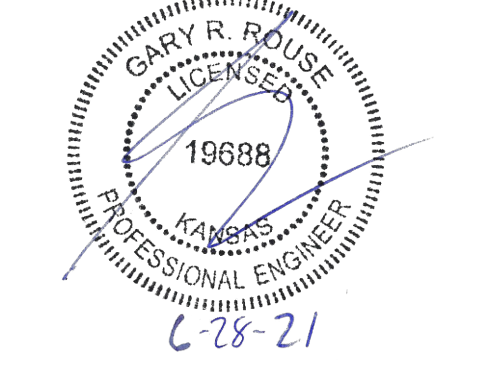


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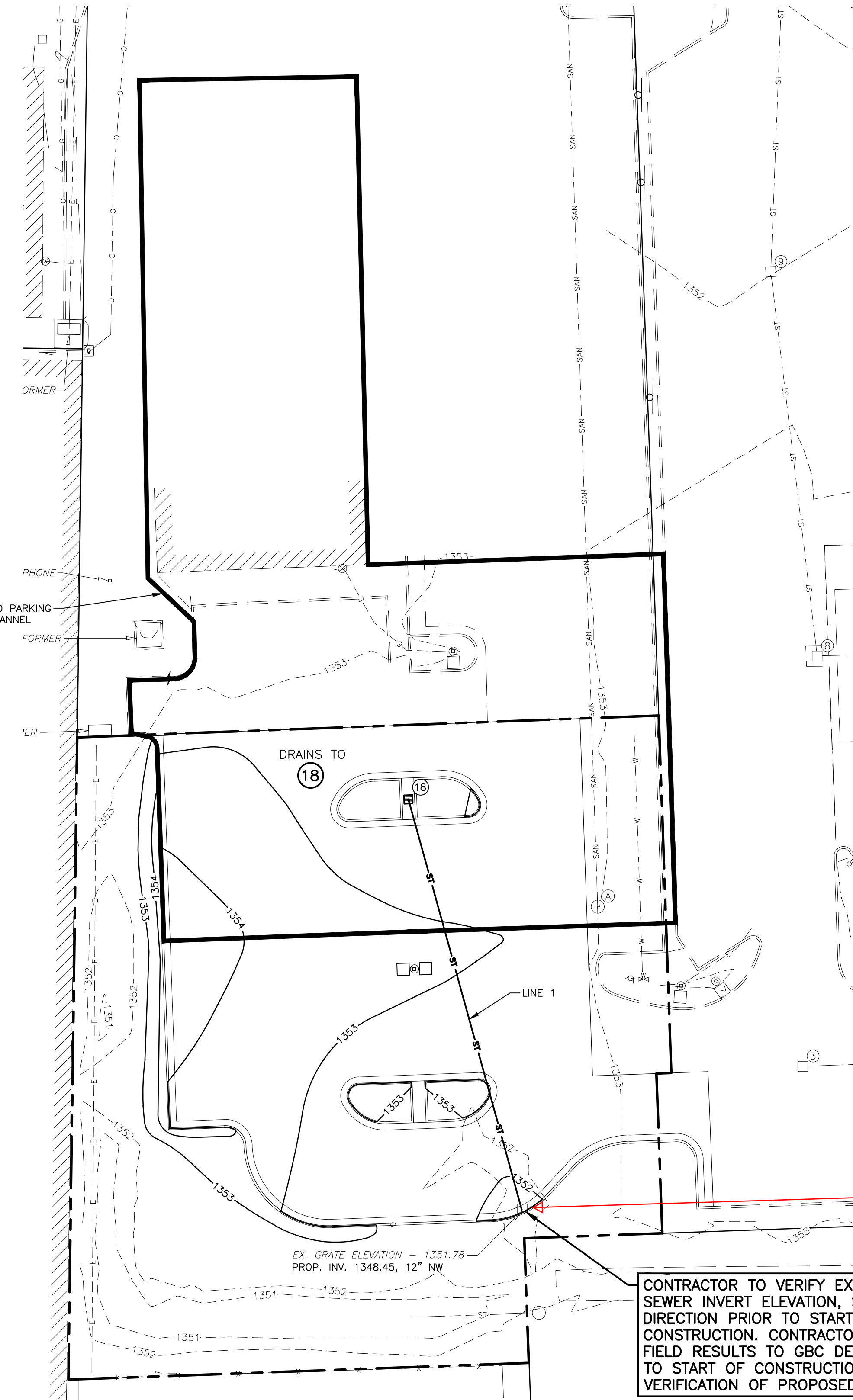
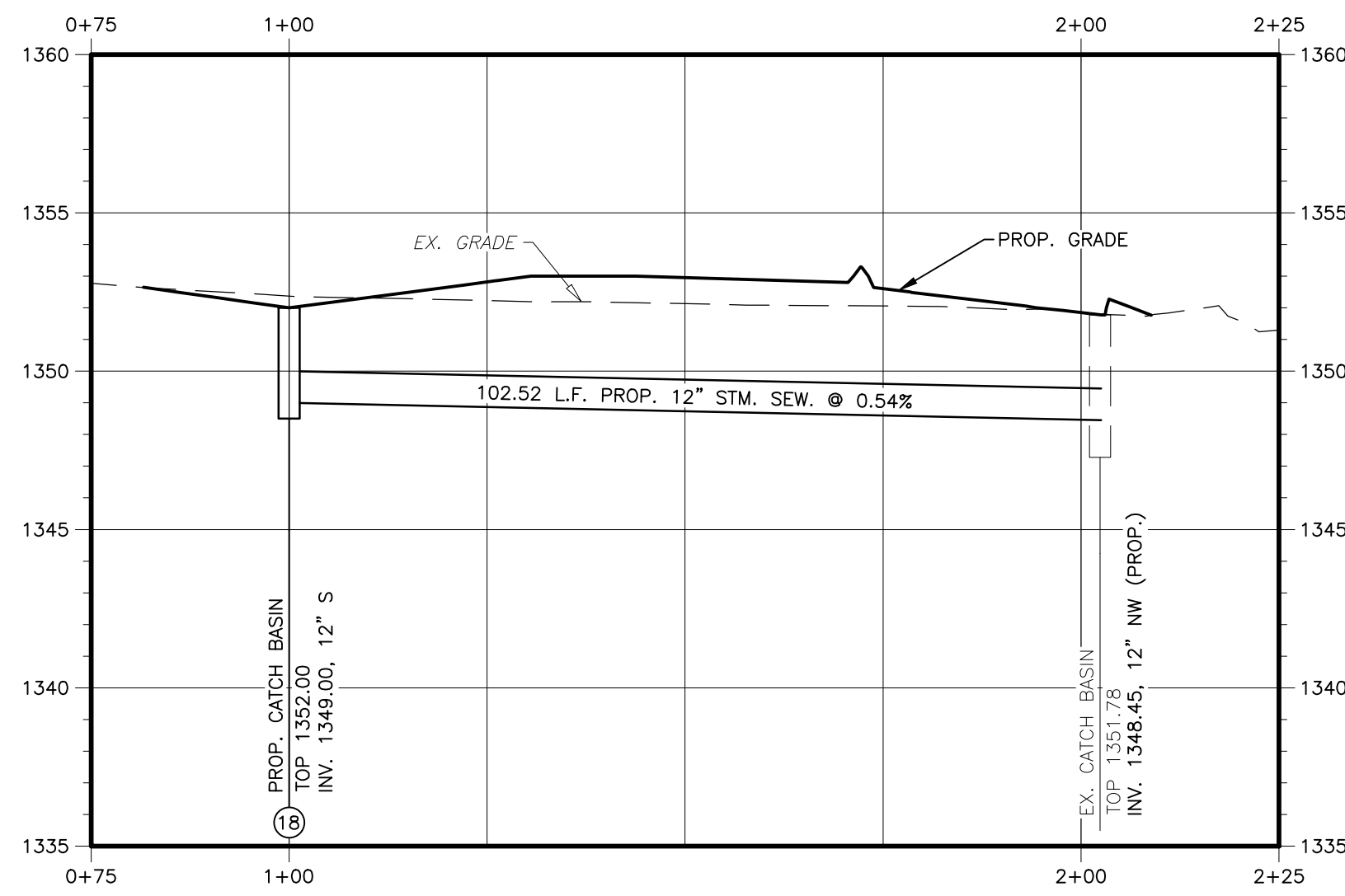
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SHEET  
**PPD EROSION CONTROL DETAILS**

**Line 1 Storm Sewer (STA. 0+75 TO 2+25)**



**LEGEND**

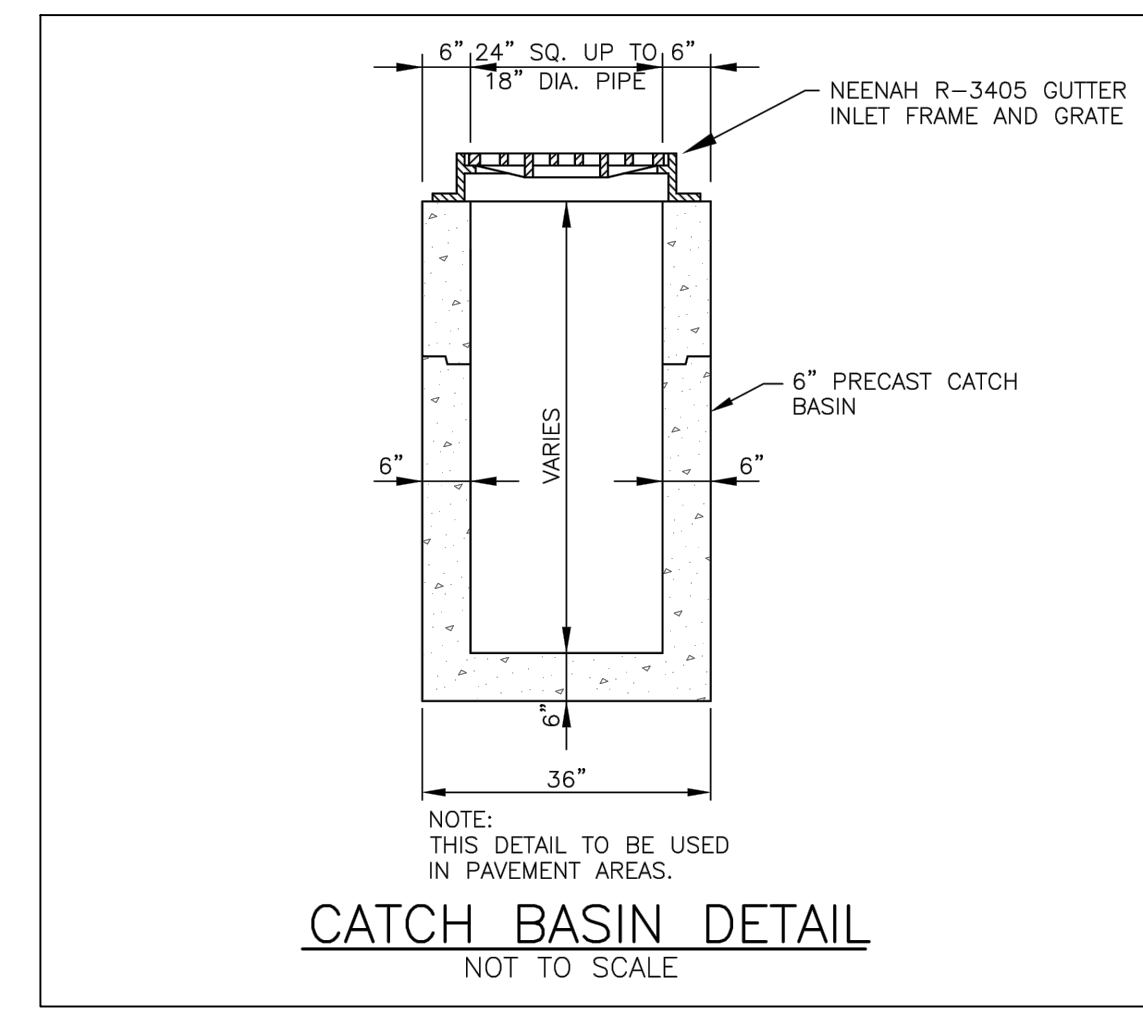
- ▲ PROP. FDC
- △ EX. FIRE HYDRANT
- PROP. VALVE
- EX. VALVE
- PROP. MANHOLE
- EX. MANHOLE
- PROP. INLET
- EX. INLET
- POSITIVE DRAINAGE
- EX. STORM SEWER
- PROP. STORM SEWER
- EX. CURB
- PROP. CURB & GUTTER
- PROP. CONTOURS
- EX. CONTOURS
- DRAINAGE AREA DELINEATION LIMITS

Scale: 1" = 20'

EXISTING STORM SEWER STRUCTURE SCHEDULE		PROPOSED STORM SEWER STRUCTURE SCHEDULE	
3.	EX. CATCH BASIN TOP 1353.04 INV. 1349.67, 15" E	18.	PROP. CATCH BASIN TOP 1352.00 INV. 1349.00, 12" S
8.	EX. CATCH BASIN TOP 1353.87 INV. 1349.43, 18" E INV. 1349.43, 24" N		

STORM SEWER PIPE SCHEDULE					
FROM	TO	SIZE	LENGTH	SLOPE	TYPE
18	EX. C.B.	12"	102.52'	0.54%	HDPE Pipe



Existing drop inlet  
Top = 1352.04  
FL (in) N = 1348.5  
FL (out) S = 1348.3

CONTRACTOR TO VERIFY EXISTING STORM SEWER INVERT ELEVATION, SIZE, AND DIRECTION PRIOR TO START OF CONSTRUCTION. CONTRACTOR TO PROVIDE FIELD RESULTS TO GBC DESIGN PRIOR TO START OF CONSTRUCTION FOR VERIFICATION OF PROPOSED USE.

**AS BUILTS**

Contractor: **McCullough Exc.**  
Date: **10/5/21**

Project Inspector: **Zachary Witzansky**

**KEMILLER ENGINEERING PA**  
117 E. Lewis, Wichita, KS 67202 (316)264-0242

**10-YEAR STORM EVENT STORM SEWER CALCULATIONS**  
Manning's 'n' value of 0.015 was used in the calculations

From Structure	To Structure	Line Length (ft)	Increment Area (acres)	Total Area (acres)	Runoff Coeff. C	Increment C x A	Total C x A	Inlet Time (min)	Time of Concentration (min)	Rainfall Intensity (in/hr)	Total Runoff (cfs)	Additional Flow (cfs)	Total Flow (cfs)	Capacity Full (cfs)	Velocity (ft/s)	Pipe Size (in)	Pipe Slope (%)	Inv Elev Down (ft)	Inv Elev Up (ft)	HGL Down (ft)	HGL Up (ft)	Gmd/Rim Down (ft)	Gmd/Rim Up (ft)	Line ID
18	Ex. Structure	102.5	0.39	0.39	0.95	0.37	0.37	10.0	10.0	6.0	2.24	0.00	2.24	2.26	3.53	12	0.54	1348.45	1349.00	1349.09	1350.00	1351.78	1352.00	Prop. HDPE Storm Sewer

CONTRACTOR RESPONSIBLE TO FIELD VERIFY LOCATIONS AND ELEVATIONS OF EXISTING UTILITY TIE-INS AND CROSSINGS AS SHOWN ON SITE PLANS (SANITARY, STORM, WATER, GAS, ELECTRIC, PHONE, ETC.) PRIOR TO THE START OF CONSTRUCTION. CONTACT ALLAN WILEY AT GBC DESIGN, INC., 330-836-0228, WITH ANY CONCERNS OR CONFLICTS PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR TO VERIFY THE THICKNESS OF ANY OFF-SITE PAVEMENT (ASPHALT AND CONCRETE) AND SIDEWALK SO THE RESTORATION WORK IS INCLUDED IN THE BID.



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**GARY R. ROUSE**  
LICENSED PROFESSIONAL ENGINEER  
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10515 W 21ST STREET N  
WICHITA, KS

**FSU# 03015**

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SHEET  
**PPD DRAINAGE PLAN/DETAILS**  
SHEET NUMBER  
**5 OF 5**