## LEGEND

| | |
|---|---|
| 1264 | 1' CONTOUR INTERVAL (EXISTING GROUND) |
| 1265 | 5' CONTOUR INTERVAL (EXISTING GROUND) |
| 1265 | 5' CONTOUR INTERVAL (PROPOSED GROUND) |
| 1264 | 1' CONTOUR INTERVAL (PROPOSED GROUND) |
| | CONSTRUCTION LIMITS |

NOTE:
ANY DISTURBANCE BEYOND THE CONSTRUCTION LIMITS MADE DURING CONSTRUCTION MUST BE STABILIZED AND RE-ESTABLISHED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.

### COMPACTION AND MATERIAL GUIDELINES

1. ALL SOIL BROUGHT TO THE SITE AND IN SITU SHALL BE COMPACTED BY ROLLING WITH A SHEEPSFOOT ROLLER OR BY MECHANICAL TAMPING.
2. THE SHEEPSFOOT ROLLER, WHEN FULLY LOADED, SHALL HAVE A LOAD ON EACH TAMPER FOOT NOT LESS THAN 200 POUNDS PER SQUARE INCH OF CROSS-SECTIONAL AREA.
3. ENOUGH MOISTURE SHALL BE PRESENT IN THE SOIL TO OBTAIN A DENSITY EQUAL TO OR GREATER THAN 95% OF MAXIMUM DENSITY AS DETERMINED BY THE STANDARD PROCTOR DENSITY TEST BEFORE PLACING THE NEXT LIFT.
4. ALL FILL MATERIAL SHALL BE APPROVED BY A LICENSED ENGINEER.
5. IN AREAS OF GRADING OUTSIDE THE RIGHT-OF-WAY AND CONSISTING OF FILL GREATER THAN 12-INCHES, COMPACTION TESTING SHALL BE PERFORMED AT TWO LOCATIONS ON EVERY LOT APPROXIMATELY 35 FEET FROM THE FRONT YARD LOT LINE AND 10 FEET FROM THE SIDE YARD LOT LINE, EACH SIDE. IF COMPACTION DOES NOT EXTEND 35 FEET BEYOND THE PROPERTY LINE THEN TESTING SHALL BE PERFORMED AT A LOCATION APPROXIMATELY HALFWAY BETWEEN THE PROPERTY LINE AND FURTHEST EXTENT OF COMPACTION FROM THE PROPERTY LINE ON EACH SIDE OF THE LOT. COMPACTION TESTING RELATED TO GRADING SHALL BE PERFORMED ON EVERY LIFT UNLESS A PRECEDING LIFT PASSES. IN THAT CASE TESTING SHALL BE PERFORMED ON EVERY OTHER LIFT UNLESS A LIFT FAILS AT WHICH TIME THE FAILED LIFT MUST BE RE-COMPACTED, TESTED, AND THE FOLLOWING LIFT MUST ALSO PASS. IF THE FOLLOWING LIFT PASSES THEN TESTING CAN RESUME ON EVERY OTHER LIFT.
6. THE COMPACTION TEST SHALL DICTATE THE QUALITY OF THE COMPACTION AND THE CONTRACTOR SHALL REMOVE AND RE-COMPACT ANY AREAS WHICH DO NOT PASS THE COMPACTION TEST, AT THE CONTRACTOR'S EXPENSE.
7. THE CONTRACTOR IS RESPONSIBLE FOR ALL DENSITY TESTS AND PROCTOR INFORMATION FOR TESTING. ANY TEST REPORTS TAKEN FOR THE WEEK SHALL BE SUBMITTED TO THE OWNER AND THE CITY OF MANHATTAN BY FRIDAY AFTERNOON OF THAT WEEK.
8. ALL STRIPPED TOPSOIL SHALL BE STOCKPILED FOR RE-USE.

### DEFINITION OF FILL TYPES:

TYPE A: ALL FILL MATERIAL SHALL HAVE ROCK NO LARGER THAN 3" DIAMETER. EACH LIFT SHALL CONSIST OF 12-INCH LOOSE LIFTS OR LESS PRIOR TO COMPACTION.

TYPE B: ALL FILL MATERIAL SHALL NOT EXCEED 6" DIAMETER. EACH LIFT SHALL CONSIST OF 12-INCH LOOSE LIFTS OR LESS PRIOR TO COMPACTION. THIS SHALL ONLY BE PERMITTED IN RIGHT-OF-WAY AREAS UNDER 4 FEET OF TYPE A FILL, UNLESS OTHERWISE NOTED. TYPE B FILL SHOULD NOT BE CONFUSED WITH TYPE C FILL.

TYPE C: ALL FILL MATERIAL SHALL BE ROCK FILL BASED ON MOST RECENT ADDITION OF KDOT SPECIFICATIONS. THIS SHALL ONLY BE PERMITTED IN RIGHT-OF-WAY AREAS UNDER 4 FEET OF TYPE A FILL, UNLESS OTHERWISE NOTED. NO ROCK FILLS WITHIN 2' OF BURIED UTILITIES IN ALL DIRECTIONS.

NOTES TO CONTRACTOR:

1. ALL AREAS NOT IN RIGHT OF WAY SHALL BE TYPE A UNLESS OTHERWISE NOTED.
2. FOR AREAS IN RIGHT-OF-WAY, TOP 4 FEET SHALL BE TYPE A TO ACCOMODATE UTILITIES.
3. ALL DISTURBED AREAS SHALL BE TOPPED WITH 6 INCHES OF TOP SOIL.
4. DO NOT DEVIATE FROM DESCRIBED FILL ACTIVITY WITHOUT APPROVAL FROM THE ENGINEER.
5. OTHER AREAS OF ROCK FILL TOPPED WITH 6-INCHES OF TOP SOIL MAY BE PERMITTED IN LOCATIONS WHERE FILL WILL NOT CONFLICT WITH UTILITIES WITH APPROVAL OF THE ENGINEER.

* MINIMUM FFE IS BASED ON SANITARY SEWER SERVICE EXTENDED PAST CLEAN OUT AT 2% SLOPE TO CENTER OF LOT PLUS 10 FEET. THE 10 FEET ALLOWS FOR FOOTING AND FOUNDATION WALL TO ACCOMODATE BASEMENTS. FFEs CAN BE LOWER BUT MAY REQUIRE SEWAGE EJECTOR PUMPS IN BASEMENTS TO ELEVATE TO A GRAVITY FLOW FROM THE HOME TO THE SEWER MAIN.

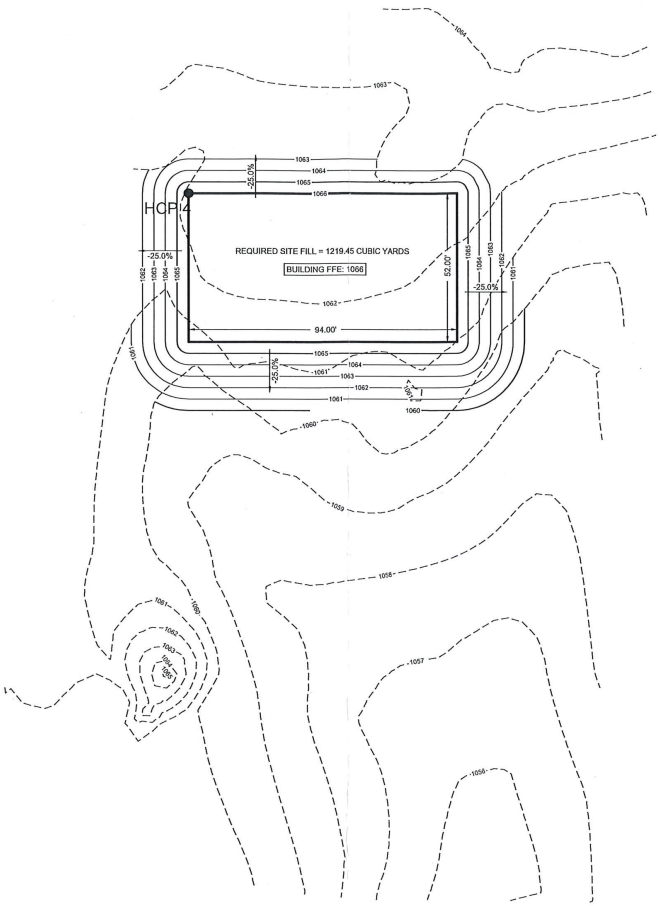
EXCESS FILL MATERIAL TO BE RETAINED ON SITE. COORDINATE STOCKPILE LOCATIONS WITH OWNER. CONTACT ZAC BURTON, 785-477-8249.

### COMMON EXCAVATION:

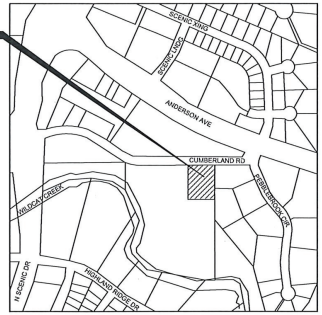
1. COMMON EXCAVATION SHALL CONSIST OF ALL EXCAVATION NOT INCLUDED AS ROCK EXCAVATION OR EXCAVATION WHICH IS OTHERWISE CLASSIFIED AND PAID FOR.

### ROCK EXCAVATION:

1. ROCK EXCAVATION SHALL INCLUDE THE EXCAVATION OF ALL SEDIMENTARY, IGNEOUS, AND METAMORPHIC ROCK WHICH IS NATURALLY IN PLACE AND IS FIRM, RIGID, AND UNWEATHERED AND ALL BOULDERS OR OTHER DETACHED STONE WITH A VOLUME OF TWO CUBIC METERS OR MORE. ROCK EXCAVATION WILL ALSO INCLUDE THE REMOVAL AND DISPOSAL OR PORTLAND CEMENT CONCRETE PAVEMENT, PORTLAND CEMENT BASE COURSE, CONCRETE CURB AND GUTTER, PORTLAND CEMENT TREATED BASE COURSES, BITUMINOUS MIX MATERIAL OVER 150 MILLIMETERS IN THICKNESS, AND ALL BITUMINOUS MIX MATERIAL LAID UPON THESE MATERIALS. IF COMMON EXCAVATION IS INTERLAYERED WITH ROCK EXCAVATION AND THE COMMON EXCAVATION MAKES UP 25% OR LESS OF THE VOLUME OF THE NAMED UNIT THEN THE ENTIRE UNIT WILL BE ROCK EXCAVATION.
2. ROCK EXCAVATION FOR UTILITY TRENCHES SHALL BE SUBSIDIARY PER CITY OF MANHATTAN STANDARD SPECIFICATIONS 2104.1.




PROJECT LOCATION




VICINITY MAP
(NOT TO SCALE)

RECEIVED WATER RESOURCES
APR 08 2021
KS DEPT AGRICULTURE

VERTICAL SCALE: 1" = 5'


SMH CONSULTANTS
www.smhconsultants.com
Civil Engineering • Land Surveying
Landscape Architecture
Manhattan, KS - HQ
(785) 776-0541
Dodge City, KS
(620) 255-1952
Overland Park, KS
(913) 444-9615
Colorado Springs, CO
(719) 465-2145


# GRADING PLAN
POTTORF FLOODPLAIN FILL
MANHATTAN, KS

| REVISION DATE | REVISION DESCRIPTION (DESCRIPTION) |
|---|---|
| 00/00/00 | . . . . . |

GRADING PLAN

NORTH

SCALE: 1" = 20'

2103-0104
CHECKED BY: JH
DRAWN BY: JAG

DATE: 3/29/2021

SHEET # 1

TOTAL SHEETS 1