DETENTION BASIN CALCULATIONS

X = ΔCRA/12

ΔC = 0.70-0.30=0.40

A = 3.17 ACRES

R = 2.8 INCHES

X = (0.40)(3.17)(2.8)/12 = 0.30 AC.-FT. REQUIRED BASIN X = 13,068 CU.FT.

PROVIDED BASIN = 13,500 CU.FT./2895 SF BASIN AREA = 4.67' DEEP

SITE DATA:

OVERALL LOT SIZE	3.17 ACRE
FORM DISTRICT	SWFD
EXISTING ZONING	PEC
EXISTING USE	VACANT
PROPOSED USE	INDUSTRIAL OFFICE/WAREHOUSE
PROPOSED BUILDINGS (TOTAL SINGLE STORY)	39,100 SF
(OFFICE)	5,450 SF
(WAREHOUSE)	33,650 SF
FLOOR AREA RATIO (FAR)	0.28
PEC RATIO (MAX 50%)	28%
PROPOSED BUILDING HEIGHT	35' MAX

LANDSCAPE REQUIREMENTS

PROPOSED TRUCK MANUEVERING	24,546 SF
PROPOSED REGULAR V.U.A.	25,592 SF
ILA REQUIRED (>12,000 SF = 7.5%)	1,920 SF
ILA PROVIDED	2,932 SF

PARKING REQUIREMENTS	MIN	MAX
REQUIRED PARKING (OFFICE/SF: 1/350 MIN & 1/200 MAX) (OFFICE 5,450 SF)	16	28
REQUIRED PARKING (WAREHOUSE/EMP:1/1.5 MIN & 1/1 MAX) (WAREHOUSE 25 EMPLOYEES)	17	25
TOTAL PARKING REQUIRED	33	53

TOTAL PARKING PROVIDED = 34

(3 HANDICAP SPACES PROVIDED)

(2 LONG-TERM & 2 SHORT-TERM BICYCLE PARKING SPACES PROVIDED)

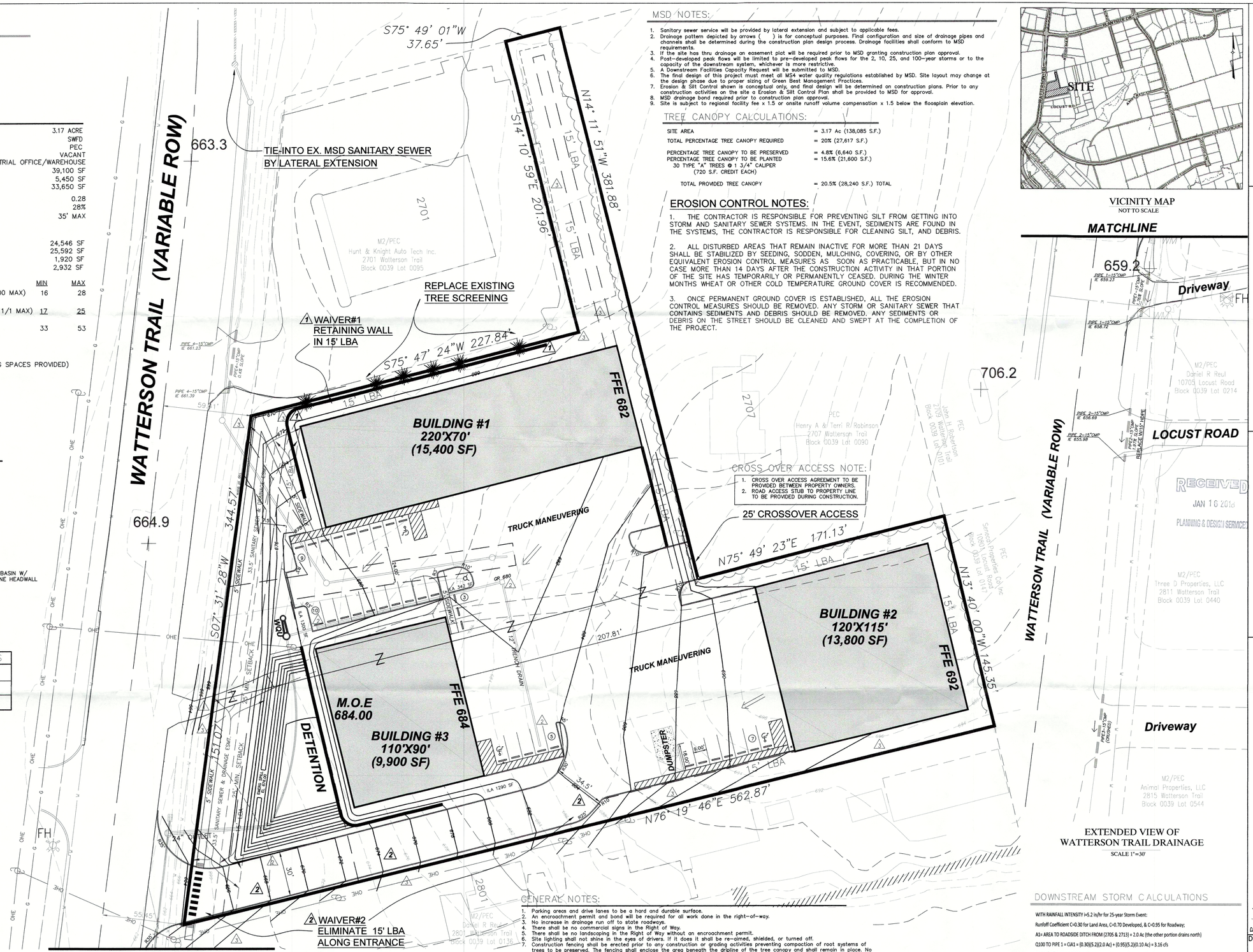
LEGEND

- EXISTING TREE
- FLOW ARROW
- HANDICAP PARKING
- INTERIOR LANDSCAPE ISLAND
- PROPOSED CONTOURS
- EXISTING CONTOURS
- EXISTING PSC
- WHEEL STOP
- PROPOSED STORM SEWER, CATCH BASIN W/ INLET PROTECTION AND CREEKSTONE HEADWALL
- EXISTING OVERHEAD ELECTRIC
- EXISTING WATER LINE
- EXISTING GAS LINE
- EXISTING SANITARY SEWER LINE
- PROPOSED SANITARY SEWER LINE

MSD STANDARD EROSION CONTROLS	
1	CONSTRUCTION ENTRANCE
2	STONE BAG INLET PROTECTION
3	REINFORCED SILT FENCE

WAIVERS REQUESTED:

1. A Waiver from LDC Section 10 to allow a retaining wall to be constructed within the 15' LBA along the north property line.
2. A Waiver from LDC Section 10 to eliminate the 15' LBA along the south property line along the length of the entrance.



MSD NOTES:

1. Sanitary sewer service will be provided by lateral extension and subject to applicable fees.
2. Drainage pattern depicted by arrows ( ) is for conceptual purposes. Final configuration and size of drainage pipes and channels shall be determined during the construction plan design process. Drainage facilities shall conform to MSD requirements.
3. If the site has thru drainage an easement plat will be required prior to MSD granting construction plan approval.
4. Post-developed peak flows will be limited to pre-developed peak flows for the 2, 10, 25, and 100-year storms or to the capacity of the downstream system, whichever is more restrictive.
5. A Downstream Facilities Capacity Request will be submitted to MSD.
6. The final design of this project must meet all MS4 water quality regulations established by MSD. Site layout may change at the design phase due to proper sizing of Green Best Management Practices.
7. Erosion & Silt Control shown is conceptual only, and final design will be determined on construction plans. Prior to any construction activities on the site a Erosion & Silt Control Plan shall be provided to MSD for approval.
8. MSD drainage bond required prior to construction plan approval.
9. Site is subject to regional facility fee x 1.5 or onsite runoff volume compensation x 1.5 below the floodplain elevation.

TREE CANOPY CALCULATIONS:

SITE AREA	= 3.17 Ac (138,085 S.F.)
TOTAL PERCENTAGE TREE CANOPY REQUIRED	= 20% (27,617 S.F.)
PERCENTAGE TREE CANOPY TO BE PRESERVED	= 4.8% (6,640 S.F.)
PERCENTAGE TREE CANOPY TO BE PLANTED (30 TYPE "A" TREES @ 1 3/4" CALIPER (720 S.F. CREDIT EACH)	= 15.6% (21,600 S.F.)
TOTAL PROVIDED TREE CANOPY	= 20.5% (28,240 S.F.) TOTAL

EROSION CONTROL NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR PREVENTING SILT FROM GETTING INTO STORM AND SANITARY SEWER SYSTEMS. IN THE EVENT, SEDIMENTS ARE FOUND IN THE SYSTEMS, THE CONTRACTOR IS RESPONSIBLE FOR CLEANING SILT, AND DEBRIS.

2. ALL DISTURBED AREAS THAT REMAIN INACTIVE FOR MORE THAN 21 DAYS SHALL BE STABILIZED BY SEEDING, SODDEN, MULCHING, COVERING, OR BY OTHER EQUIVALENT EROSION CONTROL MEASURES AS SOON AS PRACTICABLE, BUT IN NO CASE MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. DURING THE WINTER MONTHS WHEAT OR OTHER COLD TEMPERATURE GROUND COVER IS RECOMMENDED.

3. ONCE PERMANENT GROUND COVER IS ESTABLISHED, ALL THE EROSION CONTROL MEASURES SHOULD BE REMOVED. ANY STORM OR SANITARY SEWER THAT CONTAINS SEDIMENTS AND DEBRIS SHOULD BE REMOVED. ANY SEDIMENTS OR DEBRIS ON THE STREET SHOULD BE CLEANED AND SWEPT AT THE COMPLETION OF THE PROJECT.

CROSS OVER ACCESS NOTE:

1. CROSS OVER ACCESS AGREEMENT TO BE PROVIDED BETWEEN PROPERTY OWNERS.
2. ROAD ACCESS STUB TO PROPERTY LINE TO BE PROVIDED DURING CONSTRUCTION.

VICINITY MAP
NOT TO SCALE

EXTENDED VIEW OF WATTERSON TRAIL DRAINAGE
SCALE 1"=30'

DOWNSTREAM STORM CALCULATIONS

WITH RAINFALL INTENSITY I=5.2 in/hr for 25-year Storm Event:

Runfoff Coefficient C=0.30 for Land Area, C=0.70 Developed, & C=0.95 for Roadway;

A1= AREA TO ROADSIDE DITCH FROM (2705 & 2713) = 2.0 Ac (the other portion drains north)

Q100 TO PIPE 1 = C1A1 = (0.30)(5.2)(2.0 Ac) + (0.95)(5.2)(0.10 Ac) = 3.16 cfs

Pipe 1 (15" CMP at 1.76%) full flow capacity = 4.45 cfs > 3.16 cfs. OK

A2= AREA TO ROADSIDE DITCH FROM (2717 & 10705 Locust) = 1.09 Ac

Q100 TO PIPE 2 = C1A1 = (0.70)(5.2)(1.09 Ac) + (0.95)(5.2)(0.10 Ac) = 4.46 cfs

plus flow from Pipe 1 of 3.16 cfs = 8.07 cfs

Pipe 2 (15" CMP at 1.97%) full flow capacity = 4.72 cfs < 8.07 cfs

==> Replace Pipe 2 with (15" HDPE at 1.97%) full flow capacity = 9.07 cfs > 8.07 cfs

Pipe 3 (Replace existing "Crushed" CMP with new 15" HDPE pipe & match ditch inverts)

GENERAL NOTES:

1. Parking areas and drive lanes to be a hard and durable surface.
2. An encroachment permit and bond will be required for all work done in the right-of-way.
3. No increase in drainage run off to state roadways.
4. There shall be no commercial signs in the Right of Way.
5. There shall be no landscaping in the Right of Way without an encroachment permit.
6. Site lighting shall not shine in the eyes of drivers. If it does it shall be re-aimed, shielded, or turned off.
7. Construction fencing shall be erected prior to any construction or grading activities preventing compaction of root systems of trees to be preserved. The fencing shall enclose the area beneath the dripline of the tree canopy and shall remain in place. No parking, material storage, or construction activities shall be permitted within the fenced area.
8. Mitigation measures for dust control shall be in place during construction to prevent fugitive particulate emissions from reaching existing roads and neighboring properties.
9. Compatible utilities shall be placed in a common trench unless otherwise required by appropriate agencies.
10. The Development Plan shall be in accordance with the approved development plan, all applicable sections of the Land Development Code (LDC) and agreed upon binding elements unless amended puruant to the Land Development Code. Any changes/additionas/alterations of the plan shall be submitted to the City of Jeffersontown for review and approval, and changes/additions/alterations not so referred shall not be valid.
11. All off-street parking areas shall be permanently and continually maintained in good condition and free from potholes, weeds, dirt, trash, and other debris.
12. Drainage Note: Downstream improvements to the roadside ditch shall be required at 2801 & 2811 Watterson Trail at the time of site construction. The ditch improvements shall be included in the site construction documents and approved by the Jeffersontown Public Works Department.

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Kentucky 811
Call 811 Before You Dig

UTILITY WARNING
THE UNDERGROUND UTILITIES HAVE NOT BEEN LOCATED. CONTACT KENTUCKY 811-TOLL FREE PHONE NO. 1-800-752-6007 OR LOCAL 502-266-5123 PRIOR TO ANY CONSTRUCTION ACTIVITY.

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 feet

TRUE NORTH

MSD WM#11516
CASE# 17-0002

DATE	DESCRIPTION	BY
7/27	REVISED INDUSTRIAL LAYOUT	CC
7/27	JEFFERSONTOWN COMMENTS/REV LAYOUT	CC
7/06	JEFFERSONTOWN COMMENTS	CC
6/15	REVISED LAYOUT OWNER	CC
6/15	REVISED LAYOUT OWNER	CC
6/15	REVISED LAYOUT OWNER/TOWN COMMENTS	CC
6/29	JEFFERSONTOWN COMMENTS	CC
9/06	REMOVAL OF BLDG 1B	CC
1/12	MOVE ENTRANCE TO SOUTH PROPERTY LINE	CC

BlueStone Engineers, PLLC
3703 TAYLORSVILLE ROAD, SUITE 205
LOUISVILLE, KY 40220
P. 502-298-2272 C. 502-292-9288
EMAIL:CHRIS@BLUESTONEENGINEERS.COM

RECEIVED
JAN 16 2018
PLANNING & DESIGN SERVICES

Project: 2705 WATTERSON TRAIL INDUSTRIAL

Title: CATEGORY 2B DEVELOPMENT PLAN

OWNER/DEVELOPER:
Barnett Watterson LLC
10301 Watterson Trail
Louisville, Kentucky 40299
(502) 418-8784

PROPERTY ADDRESS:
2705 & 2713 WATTERSON TRIL
LOUISVILLE, KY

Draw By: CW
Checked By: CW/CTC
Scale: 1"=30'
Drawing Date: 01-12-2018
Drawing Name: 2017-WT-21DDDP
Sheet: DDDP

18 WAIVER 1000