

CITY OF BLOOMINGTON



PLAN COMMISSION

November 9, 2020 @ 5:30 p.m.
Zoom Meeting:

<https://www.google.com/url?q=https://bloomington.zoom.us/j/92380045081?pwd%3DZEZFTVA3THNaR0xKaUpGR1ZjWUwwUT09&sa=D&source=calendar&ust=1605101541547000&usg=AOvVaw0NMmyrOI7BApyNdzUjV0pH>

**CITY OF BLOOMINGTON
PLAN COMMISSION
November 9, 2020 at 5:30 p.m.**

❖ **Virtual Meeting**

<https://www.google.com/url?q=https://bloomington.zoom.us/j/92380045081?pwd%3DZEZFTVA3THNaR0xKaUpGR1ZjWUwwUT09&sa=D&source=calendar&ust=1605110780038000&usq=AOvVaw2QT0QyoK3J78jNBth-md-h>

ROLL CALL

MINUTES TO BE APPROVED: None at this time.

REPORTS, RESOLUTIONS AND COMMUNICATIONS:

- 2021 Development Review Committee calendar.

PETITION CONTINUED TO: December 14, 2020

PUD-17-20 **McDoel Business Center, LLC**
300 W. Hillside Drive
Request: Amendment to the preliminary plan and district ordinance for the Thomson PUD to allow 88 multi-family dwelling units and 21 single-family lots on Parcel E.
Case manager: Eric Greulich

CONSENT AGENDA:

ZO-21-20 **Comcast**
1600 Fountain Drive
Request: Rezone a seven-acre property from Residential Medium Lot (R2) to Employment (EM).
Case manager: Eric Greulich

PETITIONS:

ZO-23-20 **Bill C. Brown Revocable Trust**
3100 W. Fullerton Pike
Request: Rezone 87 acres from Planned Unit Development (PUD) to Mixed-Use Corridor (MC). Also requested is a waiver from the required second hearing.
Case manager: Eric Greulich

SP/DP-24-20 **Habitat for Humanity**
700 W. Guy Avenue
Request: Final plan and primary plat approval to allow 69 single-family lots and seven common Sarea lots.
Case manager: Eric Greulich

GIS Map Link: <https://arcg.is/riPjz>

****Next Meeting December 14, 2020**

Last Updated: 11/6/2020

**Auxiliary aids for people with disabilities are available upon request with adequate notice.
Please call [812-349-3429](tel:812-349-3429) or e-mail human.rights@bloomington.in.gov.**

**BLOOMINGTON PLAN COMMISSION
STAFF REPORT – Second Hearing
LOCATION: 1600 W. Fountain Drive**

**CASE #: ZO-21-20
DATE: November 9, 2020**

PETITIONER: Comcast
1 Comcast Center, Philadelphia, PA

REQUEST: The petitioner is requesting to rezone 7 acres from Residential Medium Lot (R2) to Employment (EM).

BACKGROUND:

Area: 7 acres
Current Zoning: Residential Medium Lot (R2)
Comp Plan Designation: Employment/Mixed Urban Residential
Existing Land Use: Contractor’s Yard / Communication Facility
Proposed Land Use: Contractor’s Yard / Communication Facility
Surrounding Uses:
 North – Dwelling, Single family/Industrial/Church
 South – Railroad/Industrial
 East – Dwelling, Single family
 West – Auto salvage yard/JB Salvage

FIRST HEARING SUMMARY: This petition was first heard at the October 12, 2020 hearing. At the hearing the Plan Commission expressed comments regarding the presence of this use on this site for a substantial time frame and noted the presence of several industrial uses in this immediate area. Concern was also expressed about preserving the existing tree canopy and sinkholes on this site. The preservation of the tree areas could serve to buffer this use and potential future uses from the residences to the east and north. Comments were also made regarding the need to replace the sidewalk along this frontage with an updated multi-use path to match an upcoming City project for this area. The Plan Commission voted to continue this petition to the required second hearing.

REPORT: This 7 acre property is located at 1600 W. Fountain Drive. The property is currently developed with several outbuildings and storage areas used by Comcast Communications for cable service technicians. The site has a sinkhole on the west area of the site and several areas of mature tree canopy coverage around the perimeter. Surrounding land uses include single family residences, an industrial building, and church to the north, single family residences to the east, a railroad line and industrial building to the south, and an auto salvage yard, JB’s Salvage, to the west.

The petitioner filed a building permit application to construct a new building on the site to expand their equipment and to allow for an existing tower on the property to be removed. However, the property is zoned Residential Medium Lot (R2) and the use is classified as a Contractor’s Yard/Communication Facility and is a lawful non-conforming use. There have been several use variances approved for this property to allow for various types of expansions over the past 20 years with the most recent approval being in 2010 when a use variance was approved to allow a new building. At that time, the use was characterized as a Building Trade Shop, which is now classified as a Contractor’s Yard. The property was brought into full compliance at that time with street trees constructed along Fountain Drive and new landscaping installed on the site. Since there is not a use variance process in the current UDO, a rezoning is the only path to legitimize the use and allow

for the new building. The site has a split designation in the Comprehensive Plan with the western 2/3 of the site being designated as Employment and the eastern 1/3 designated as Neighborhood Residential.

Since there are existing trees on the site and a sinkhole, the Department recommends that these areas should be set aside in the required preservation easements. This will also serve to buffer this use from some of the adjacent residential uses to the north and east. The City is also in the process of installing a multi-use path along the north side of Fountain Drive, and the petitioner would be responsible for constructing the portion of the multi-use path along their frontage or working with the City on making a financial contribution equal to the cost of the multi-use path.

COMPREHENSIVE PLAN: The Comprehensive Plan designates this site predominantly as ‘Employment’ with the eastern one-third as ‘Mixed Urban Residential’. The Employment Center district includes professional and business offices, light assembly plants, flex-tenant facilities, and research and development centers. The Employment Center district should contain a mix of office and light/high-tech manufacturing uses that provide quality employment opportunities for the Bloomington community. The proposed rezoning would allow for the zoning district to match the existing use on the site and allow for the new construction. The new construction would also allow for an existing tower array to be removed and placed inside of a building.

Since there are some areas of sensitive environmental features on the site and the Comprehensive Plan encourages appropriate land use development through the preservation of existing features, the Department recommends that the areas of existing tree canopy coverage be placed in a tree preservation easement and the area of the sinkhole placed in a karst conservation easement. The Department will continue to work with the petitioner to identify that exact preservation area before the second hearing.

20.06.070(b)(3)(E)(i)(1) ZONING MAP AMENDMENT PLAN COMMISSION REVIEW AND RECOMMENDATION:

The following criteria are those that the Plan Commission must consider when reviewing a zoning map amendment request.

[a] The recommendations of the Comprehensive Plan;

PROPOSED FINDING: The Comprehensive Plan designates the western 2/3 of this site as “Employment” and the eastern 1/3 as “Mixed Urban Residential”. The Employment Center district includes professional and business offices, light assembly plants, flex-tenant facilities, and research and development centers. The Employment Center district should contain a mix of office and light/high-tech manufacturing uses that provide quality employment opportunities for the Bloomington community. The proposed rezoning would allow for the zoning district to match the existing use on the site and allow for the new construction. The new construction would also allow for an existing tower array to be removed and placed inside of a building. The proposed conservation easement would create a natural buffer for the less intense properties to the east.

[b] Current conditions and character of structures and uses in each zoning district;

PROPOSED FINDING: The site has currently been developed with several outbuildings and storage buildings for service vehicles and personnel. This site is also adjacent to several other Industrial type uses with a salvage yard to the southwest and industrial office to the north. The

presence of the railroad tracks to the immediate south of this property creates a separation between this and other industrial uses to the west and the residences to the east.

[c] The most desirable use for which the land in each zoning district is adapted;

PROPOSED FINDING: The Comprehensive Plan designates the majority of this site as Employment and this uses fulfills that goals. The rezoning of this property to Employment allows its continued use and expansion to continue to meet the goals of the Comprehensive Plan.

[d] The conservation of sensitive environmental features;

PROPOSED FINDING: There is a stand of trees surrounding this site as well as a karst feature. These must be placed in Conservation Easements prior to issuance of any permits.

[e] The conservation of property values throughout the jurisdiction; and

PROPOSED FINDING: The replacement of an existing dilapidated building with a new building will add to this property value as well as potentially benefit the surrounding properties. No adverse impact to property values throughout the jurisdiction is expected.

[f] Responsible development and growth

PROPOSED FINDING: The rezoning of this site will match the Comprehensive Plan designations for this area as well as match existing and surrounding land uses. The location of jobs and businesses within the City boundaries helps to discourage urban sprawl and encourages supportive uses for infill development.

CONCLUSION: The Department believes that the rezoning of this site to Employment would match the Comprehensive Plan designation of the site as Employment. The unique existing environmental features on the site allow for the inclusion of the environmental protection easements that will maintain the existing buffer between potentially intense Employment uses and the residential neighborhood to the east. This area of Fountain Drive north of the railroad tracks has predominantly been developed with Industrial uses. The preservation of the existing trees around the perimeter will provide a natural buffer between this use or potential future uses and some of the single family residences to the north and the east.

RECOMMENDATION: The Department recommends forwarding this petition to the Common Council with a favorable recommendation and the following conditions:

1. The portions of trees along the north and east property lines, including the karst feature on the west side of the site, shall be mapped to meet UDO requirements and shall be placed in the appropriate Conservation and Karst Conservancy Easements in a recorded document before issuance of any permits for the site.
2. A compliant landscape plan must be submitted prior to issuance of any permits.



City of Bloomington
Bloomington Environmental Commission

MEMORANDUM

Date: October 12, 2020

To: Bloomington Plan Commission

From: Bloomington Environmental Commission

Subject: ZO-21-20: Comcast Rezone
1600 Fountain Drive

The purpose of this memo is to convey the environmental concerns and recommendations for conditions of approval from the Environmental Commission (EC) with the hope that action will follow to enhance its environment-enriching attributes. The request is to rezone the property from R2 (Residential Medium Lot) to EM (Employment).

The EC has no objection to the rezoning of this property with the following conditions of approval.

COMMENTS

1. LANDSCAPE PLAN

The Landscape Plan needs some revisions before a building permit can be issued.

2. CONSERVATION EASEMENTS

a. The area labeled “woods” on the plan sheet C-101 is a closed-canopy wooded area, and as such should be designated as Conservation Easement (CE) according to Bloomington Municipal Code (BMC) 20.04.030(i), Tree and Forest Preservation; 20.05.040, Easements; and 20.05.040(e), Standards for Specific Easement Types, (9) Conservancy Easement. The CE shall be developed using all of the Conservation Easement regulations.

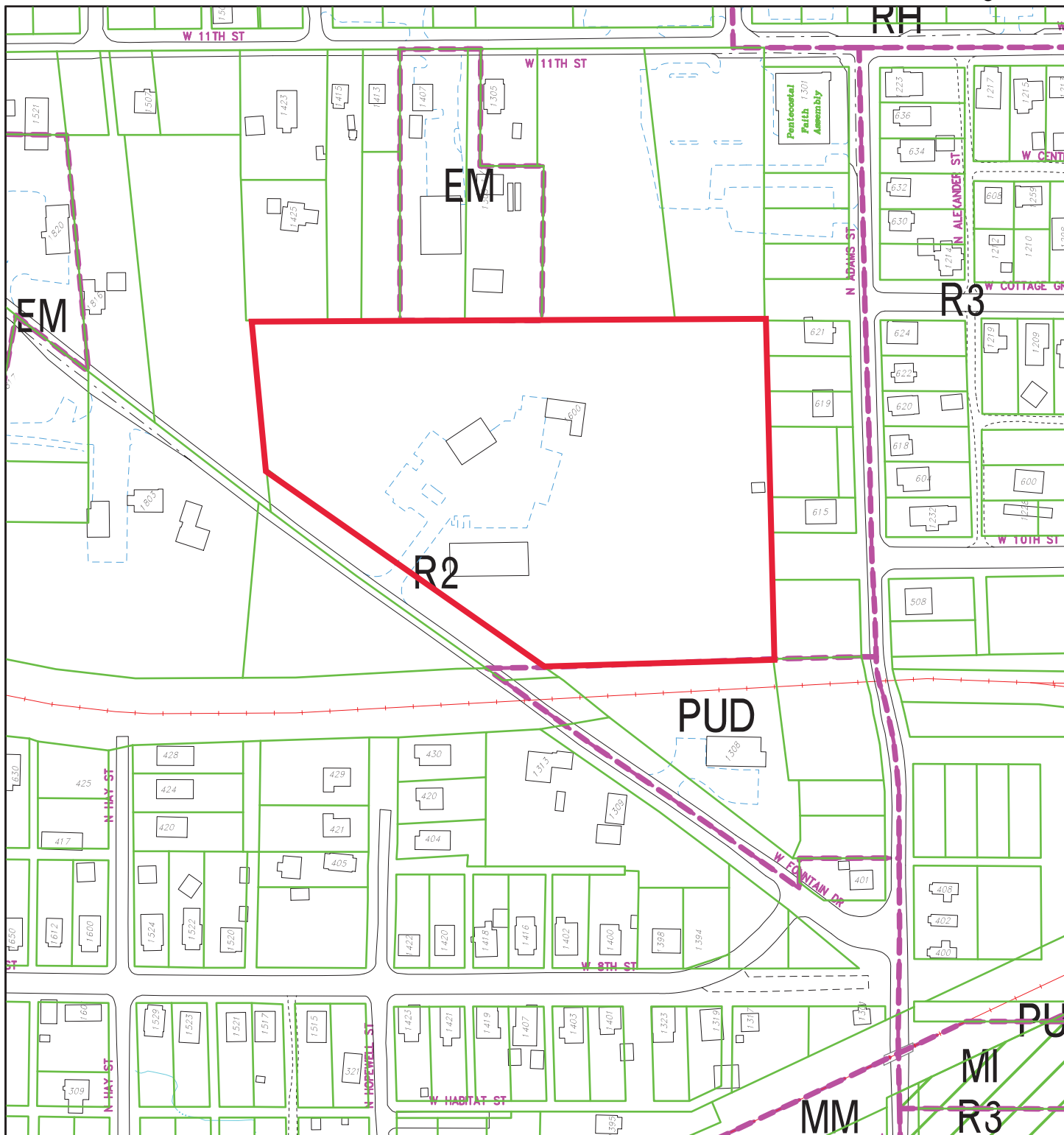
b. Within the CE lie two other easement areas; Karst Conservation Easements. The sinkhole on the west side of the property is already labeled and protected, but needs to be recorded. There is a second sinkhole on the east side of the site that is shown by contour lines, but is not yet delineated as a Karst Conservation Easement (KCE). A KCE needs to be surveyed and recorded. These shall adhere to the BMC 20.04.030(g), Karst Geology; and 20.050.040, Easements; and 20.05.040(e) Standards for Specific Easement Types (97) Karst Conservancy Easement. The KCEs shall be developed using all of the Conservation Easement regulations.

3. BUFFER YARD

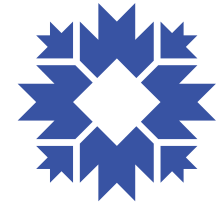
With this change in zoning to an Employment (EM) zoning district, it will adjoin properties that are zoned single-family residential. This requires a Type 3 buffer yard. A Type 3 buffer yard is 20 feet wide for the length of the property. The EC realizes that much of this is already wooded, but believes the buffer yard still needs to be delineated on the plans.

RECOMMENDED CONDITIONS OF APPROVAL

1. Revise the Landscape Plan prior to receiving a building permit.
2. Adhere to BMC 20.04 and 20.05 for Conservation Easements.
3. Delineate a Type 3 buffer yard along the length of the eastern border of the property on the site plan associated with the requested building permit.

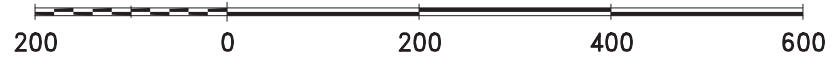


City of Bloomington
 Planning & Transportation

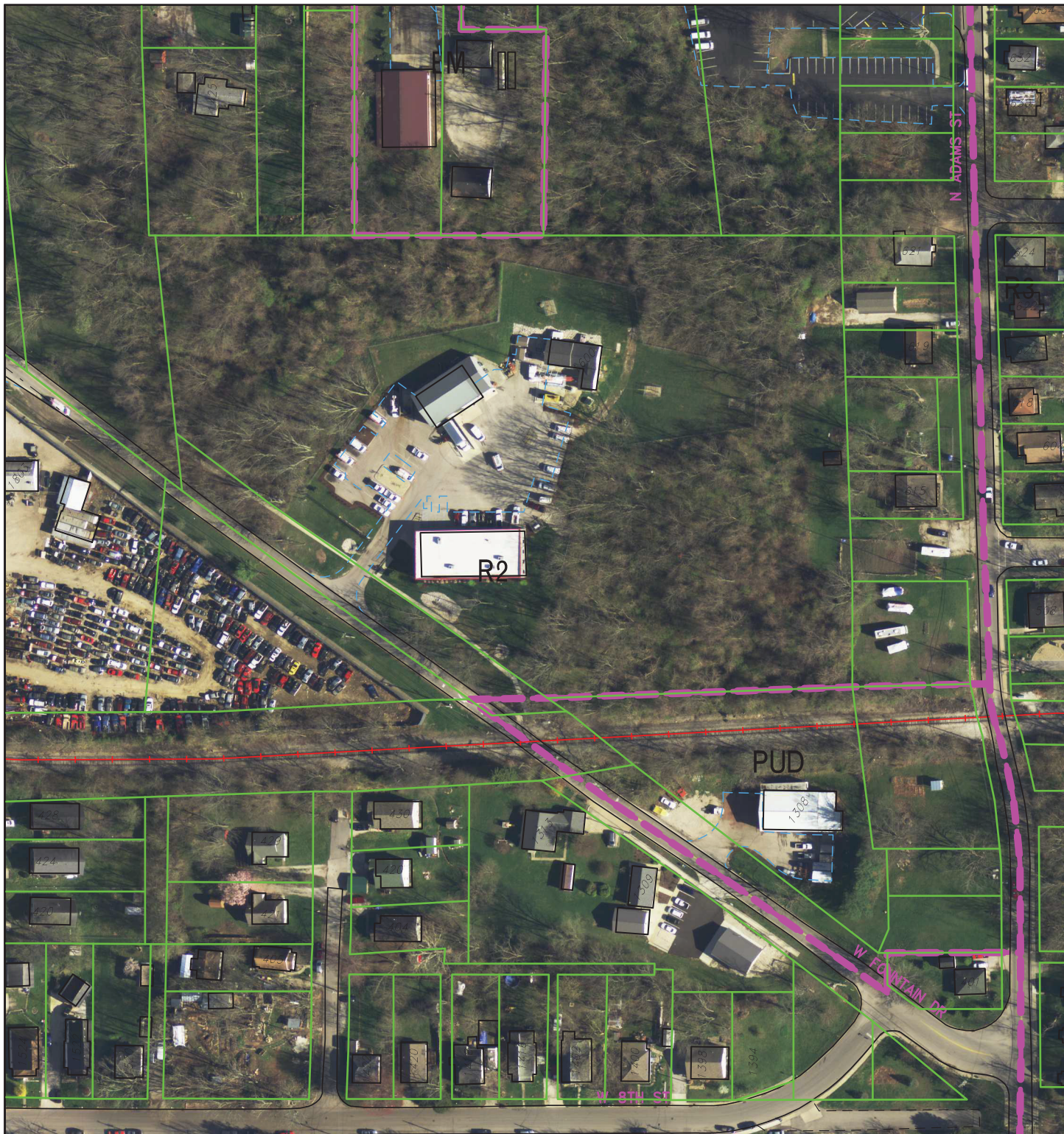


Scale: 1" = 200'

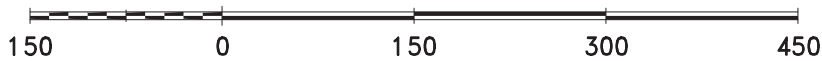
By: greulice
 14 Sep 20



For reference only; map information NOT warranted.



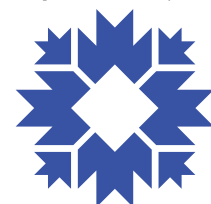
By: greulice
14 Sep 20



For reference only; map information NOT warranted.



City of Bloomington
Planning & Transportation



Scale: 1" = 150'



September 4, 2020

Planning Commission
City of Bloomington
401 N. Morton Street
Bloomington, IN 47404

Dear Mr. Gruelich:

We respectfully submit our petition for the rezoning of the Comcast parcel located at 1600 Fountain Drive, Bloomington, IN. We are requesting that the parcel be rezoned from R2 (residential) to EM (employment).

The proposed project consists of constructing a new building to encapsulate the existing building. The existing building is approximately 1,640 square feet and consists of wood structural elements (combustible construction per FM Global) with aluminum siding and shingled roof. The new 2,728 square foot building will consist of 2 hour rated load bearing split face block walls and 2 hour rated precast concrete roof planks covered with EPDM roofing material. The existing site tower will be permanently removed as a result of this project once the new building is completed.

The current facility provides essential internet, emergency (911) & telephony services and has reached its physical capacity. We provide media, entertainment and communication services for local businesses, state/local government, Indiana University, and thousands of southcentral Indiana homes. The new facility will allow for the expansion of such critical services to meet customer demands well into the future.

The construction of the new facility is essential for our ability to keep up with the increasing need for internet, emergency and telephony demands while safeguarding against potential building hazards. Our current facility footprint, low ceiling height & HVAC restrictions prohibit us from meeting these

demands. The new facility will allow us to expand our equipment/device count, augment back up power, provide proper HVAC design and deliver a building design/construction that allows us to continue to meet FM Global standards into the future.

Due to the current facility building restrictions limiting our capability to meet internet, emergency and telephony demands in the future, we ask that you consider the rezoning of our site to allow for us to proceed with the new building construction which will result in the removal of the 240 foot tower currently located on the site.

Sincerely,

Eddy G. Rodriguez | Central Division • CI Engineering | 734-634-3396
1401 E. Miller Rd., Lansing, MI. 48911



DIVN BY: BSC
CHKD BY: EAG
SCALE: 1" = 20'
DATE: 07/12/10

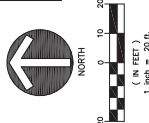
ALDERSON COMMERCIAL GROUP, INC.
1300 AMERICAN WAY, STE 210
GREENWOOD, INDIANA 46143

CIVIL SITE GROUP, INC.
643 Massachusetts Avenue, Suite 200
Indianapolis, Indiana 46204
PH: (317) 423-3305 Fax: (317) 423-3306
CIVIL SITE GROUP, INC.



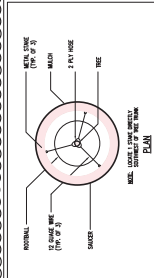
REVISION RECORD

REV.	DATE	DESCRIPTION	BY	APP. BY
1	08/26/10	REVISED PER PLANNING REVIEW COMMENTS	BSC	BSC
2	08/26/10	REVISED PER 9.0 PLAN COMMISSION COMMENTS	BSC	BSC
3	08/30/10	REVISED PER PLANNING COMMENTS (BA)	BSC	BSC



PLANTING SCHEDULE

SYMBOL	Quantity	Species
	3	JAPANESE LILAC TREE (Synops. reticulata) - 2' Caliper 6" Above F.C.
	3	VIRGINIA PINE (Pinus virginiana) - 6" HEIGHT
	2	SUMMER WHITE - Hydrangea Summer White, Hydrangea sp.
	23	GREEN VELVET ROWANWOOD (Rosa Green Velvet) - 18" HIGH, 4" O.C. - TYP.
	18	VIRGINIA SYCAMORE (Tree Virginia) - 18" HIGH, 4" O.C. - TYP.
	18	12' MAPLE - 12" HIGH, 4" O.C. - TYP.
	33	14" TREE OF HEAVEN (Strydom alopecuroides) - 14" HIGH, 4" O.C. - TYP.
	3	15" CHERRY (Prunus nigra) - 15" HIGH, 4" O.C. - TYP.
	3	18" MAPLE (Acer rubrum) - 18" HIGH, 4" O.C. - TYP.
	3	20" MAPLE (Acer rubrum) - 20" HIGH, 4" O.C. - TYP.
	3	24" MAPLE (Acer rubrum) - 24" HIGH, 4" O.C. - TYP.



TREE STAKING DETAIL
SCALE: NOT TO SCALE

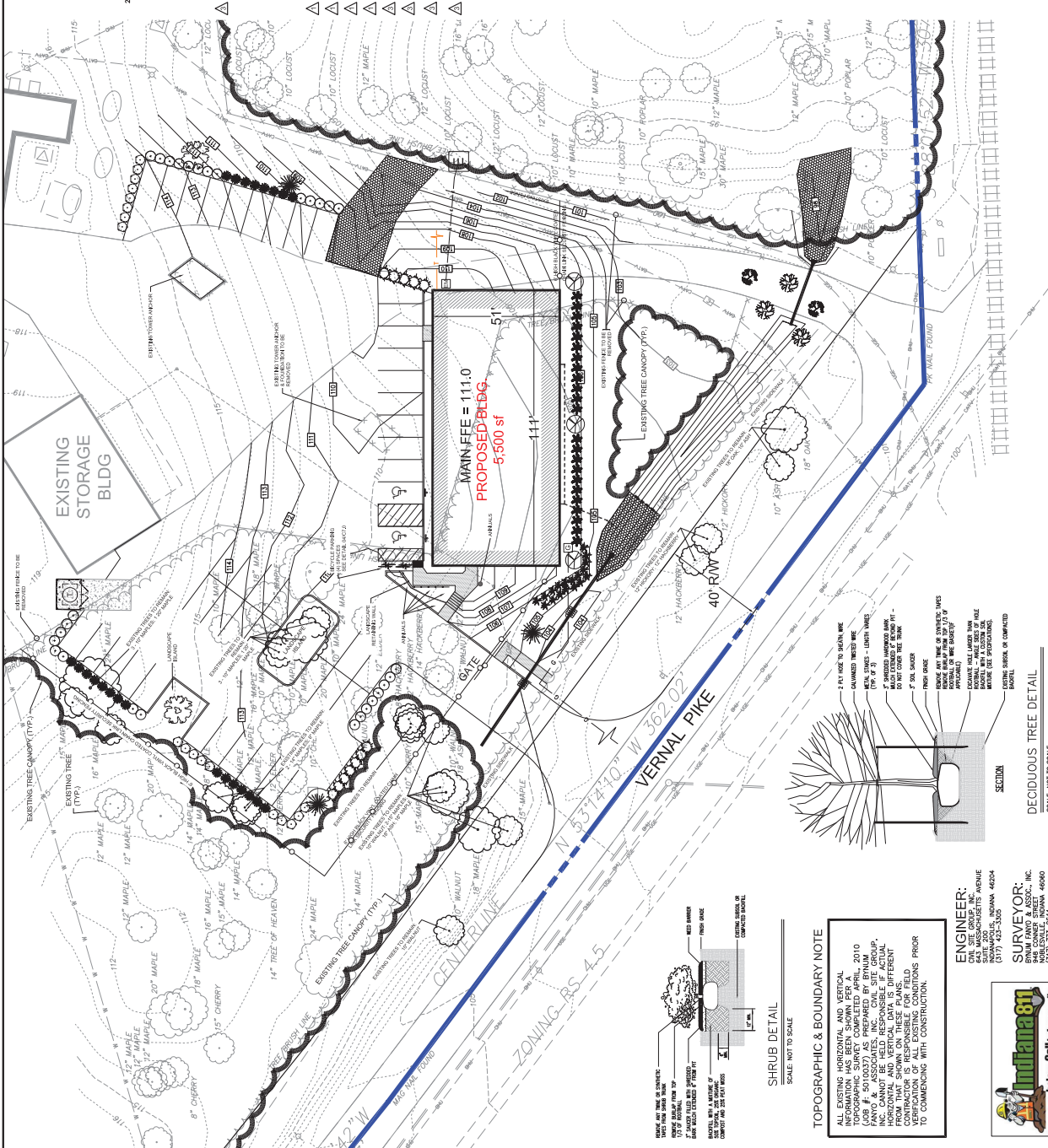
LANDSCAPE NOTES:
A. ALL PLANTING MATERIALS AND SUBSTITUTIONS SHALL BE SUBJECT TO APPROVAL BY THE CITY OF BLOOMINGTON PLANNING DEPARTMENT AND THE CITY OF BLOOMINGTON PLANNING DEPARTMENT.
B. THE SPECIES OF THE TREES AND SHRUBS SHOWN ON THIS LANDSCAPE PLAN SHALL BE IN ACCORDANCE WITH THE CITY OF BLOOMINGTON ZONING ORDINANCE. THE MINIMUM LANDSCAPING IMPROVEMENTS ARE SUBJECT TO PLANNING INSPECTION.
C. ALL EXISTING TREES TO BE REMOVED SHALL BE IDENTIFIED AND A REASONABLE EFFORT SHALL BE MADE TO PRESERVE THEM.
D. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF BLOOMINGTON PLANNING DEPARTMENT.
E. ALL PLANTING MATERIALS SHALL BE DELIVERED TO THE SITE BY THE CONTRACTOR AND SHALL BE SUBJECT TO INSPECTION BY THE CITY OF BLOOMINGTON PLANNING DEPARTMENT.
F. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITIES AND STRUCTURES.
G. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ACCESS TO ALL ADJACENT PROPERTIES.
H. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRAFFIC FLOW DURING CONSTRUCTION.
I. ALL PLANTING MATERIALS SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF BLOOMINGTON PLANNING DEPARTMENT SPECIFICATIONS.
J. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE WATERING AND PROTECTION FOR ALL PLANTING MATERIALS.
K. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE SOIL PREPARATION AND FERTILIZATION FOR ALL PLANTING MATERIALS.
L. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE MULCHING FOR ALL PLANTING MATERIALS.
M. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE STAKING FOR ALL PLANTING MATERIALS.
N. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE SUPPORT FOR ALL PLANTING MATERIALS.
O. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE PROTECTION FOR ALL PLANTING MATERIALS.
P. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE MAINTENANCE FOR ALL PLANTING MATERIALS.
Q. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE RECORDING FOR ALL PLANTING MATERIALS.
R. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE AS-BUILT FOR ALL PLANTING MATERIALS.
S. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE DOCUMENTATION FOR ALL PLANTING MATERIALS.

PLANT NOTES:
T WOOD FENCE FINISH ENCLOSURE

TREE PRESERVATION
THE SUBJECT PROPERTY IS APPROXIMATELY 3.5 ACRES IN AREA. THE BASELINE TREE CANOPY IS 4.3 ACRES, EQUATING TO 100% TREE PRESERVATION. THE REQUIRED REMAINDING CANOPY COVER = 4.3 ACRES. A 4.32% REMAINDING CANOPY COVER IS REQUIRED FOR THE PROJECT TO PROCEED.

SPECIES NOTE
THE SPECIES OF THE TREES AND SHRUBS SHOWN ON THIS LANDSCAPE PLAN SHALL BE IN ACCORDANCE WITH THE CITY OF BLOOMINGTON ZONING ORDINANCE. ALL SUBSTITUTIONS TO BE APPROVED BY THE CITY OF BLOOMINGTON PLANNING DEPARTMENT.

LANDSCAPE NOTE
ALL LANDSCAPING SHALL BE IN ACCORDANCE WITH THE CITY OF BLOOMINGTON ZONING ORDINANCE. THE MINIMUM LANDSCAPING IMPROVEMENTS ARE SUBJECT TO PLANNING INSPECTION.



SHRUB DETAIL
SCALE: NOT TO SCALE

TOPOGRAPHIC & BOUNDARY NOTE
ALL EXISTING HORIZONTAL AND VERTICAL TOPOGRAPHIC SURVEY COMPLETED APRIL, 2010 BY CIVIL SITE GROUP, INC. THE PLAN IS BASED ON THE DATA PROVIDED BY CIVIL SITE GROUP, INC. AND ASSOCIATES, P.C. CIVIL SITE GROUP, INC. CANNOT BE HELD RESPONSIBLE FOR ANY ERRORS OR OMISSIONS FROM THAT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF BLOOMINGTON PLANNING DEPARTMENT PRIOR TO COMMENCING WITH CONSTRUCTION.

ENGINEER:
JAMES S. COKER
643 MASSACHUSETTS AVENUE, SUITE 200
INDIANAPOLIS, INDIANA 46204
(317) 423-3306

SURVEYOR:
CIVIL SITE GROUP, INC.
816 COUNTY STREET, SUITE 100
BLOOMINGTON, INDIANA 47404
(317) 423-3306



Received 07/20/2020
C20-282

COMMERCIAL BUILDING PERMIT APPLICATION

MONROE COUNTY BUILDING DEPARTMENT

501 N. Morton St. Rm 220, Bloomington, Indiana 47404
Phone Number: (812) 349-2580 FAX: (812) 349-2967

60780
BL
7/10/20

Project Name Comcast Headend Building Project Address 1600 Fountain Drive
City Bloomington State IN Zip Code 47404 Parcel No. 53-05-52-350-034-100-004
Township Bloomington Section No. 32 Lot No.

Property Owners Name Eddy Rodriguez Phone No. 734-634-3396
Property Address 6174 Hardy Lane Howell State MI Zip Code 48855

Applicants Name Fredericks Inc. Phone No. 765-778-7588
Applicants Address 5448 W Old St. Rd. # 132 Pendleton State IN Zip Code 46064

Proposed Work: New Construction Addition Remodel Other
Type of use (ie. office) telecommunications Rental: Yes No Total number of units: 1
Total Square Footage of proposed structure/remodel/addition 2,800 sqft
First Floor Area sq ft 2,800 Second Floor Area sq ft _____ Third Floor Area sq ft _____
Basement Area sq ft _____ Other Floors Area sq ft _____

State Construction Design Release number: _____ We have applied waiting on release _____
Sprinkler System Yes No

Type of Construction Block & Concrete Use group _____
Maximum number of employees per shift: 2 Building height in stories: 1 Height in feet: 24'
Maximum number of Public _____
Fire Alarm YES NO
General Contractor: Fredericks Inc. HVAC Contractor: TBD
Phone Number 765-778-7588 Phone Number _____
Plumbing Contractor TBD Electrical Contractor J&J Electric
License Number _____ Phone # _____ License Number 765-457-5507

Driveway Permit No. _____ State of Indiana Monroe County City of Bloomington
Wastewater system to be connected to: City of Bloomington Sewer Other sanitary system Septic
Flood Plain: Yes No Sink Holes: Yes No Watershed: Yes No
Sign specification submitted with plans: Yes No

The applicant hereby certifies and agrees as follows: (1) I am authorized to make application. (2) I have read this application and attest that the information furnished is correct, including that contained in plans. (3) If there is any misrepresentation in this application, or associated documents, Monroe County may revoke any permit or Certificate of Occupancy issued based upon this misinformation. (4) I agree to comply with all Monroe County Ordinances, permit conditions and State statutes which regulate building construction, use, occupancy and site development. (5) I grant and will request Monroe County Officials to enter onto the property listed on this application for the purpose of inspecting the work permitted by this application and posting notices. (6) I will retain the Certificate of Occupancy in my records upon completion of the project. NOTE: Plans shall mean all site and construction plans and specifications, whether furnished prior to or subsequent to the application date. All plans furnished subsequent to application date constitute an amendment to the original application and must be specifically approved by the County with an appropriate endorsement and the signature of the approving official prior to plan implementation. The Permit is not valid, and work is not permitted until signed and issued by the agent of the Monroe County Building Department. As the Person eligible and responsible for obtaining a permit or permits as required in Section 430-7 of the Monroe County Building Code, and based upon information contained within these plans, I certify that these plans are identical to those released for construction by the Indiana Department of Fire and Building Services. I also understand that if it is determined that these plans are not identical, all permits obtained as a result of their submittal may be revoked as stated in Section 430-15 of the Monroe County Building Code.

Signature of Applicant: Karen F. Gentry Date: 07-17-2020
Email address gentry_karen@fredericksinc.com (07/15/19) updated

Sheet number

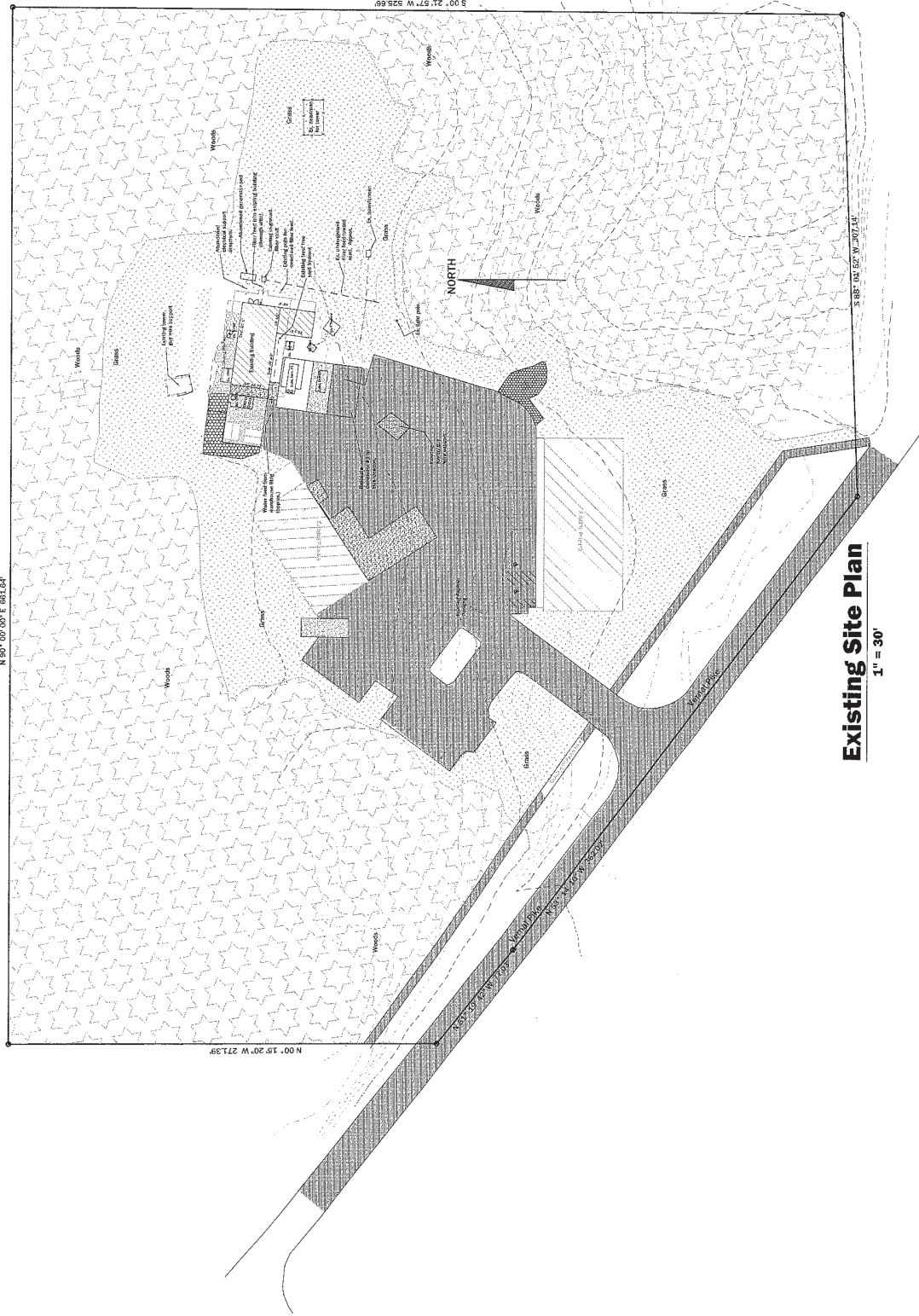


Dates

Project Information:
 Plot Date: 08/08/2009
 2009
 5/8/11

Drawn: M.S.
Drawing Date: 7/1/20
Revision Date:

Engineer Associates, Inc.
 1600 Fountain Drive
 Bloomington, Indiana 47404



Index of Civil Drawings

- C-101 Overall Site Plan
- C-102 Existing Site, Demolition Plan
- C-103 Proposed Site Plan, Erosion Control Note

Civil Note:
 This project will add a new building (2,739 sf) over the top of an existing building (1,659 sf). Once the new building is placed the existing building will be removed. Also, a concrete pad will be removed and relocated where there is existing asphalt parking. This loss of hard surface for this concrete pad is approx. 400 sf. After construction, the amount of additional hard surface will be approx. 688 sf (2,739 - 1,659 - 400).

Existing Site Plan
 1" = 30'

Sheet number



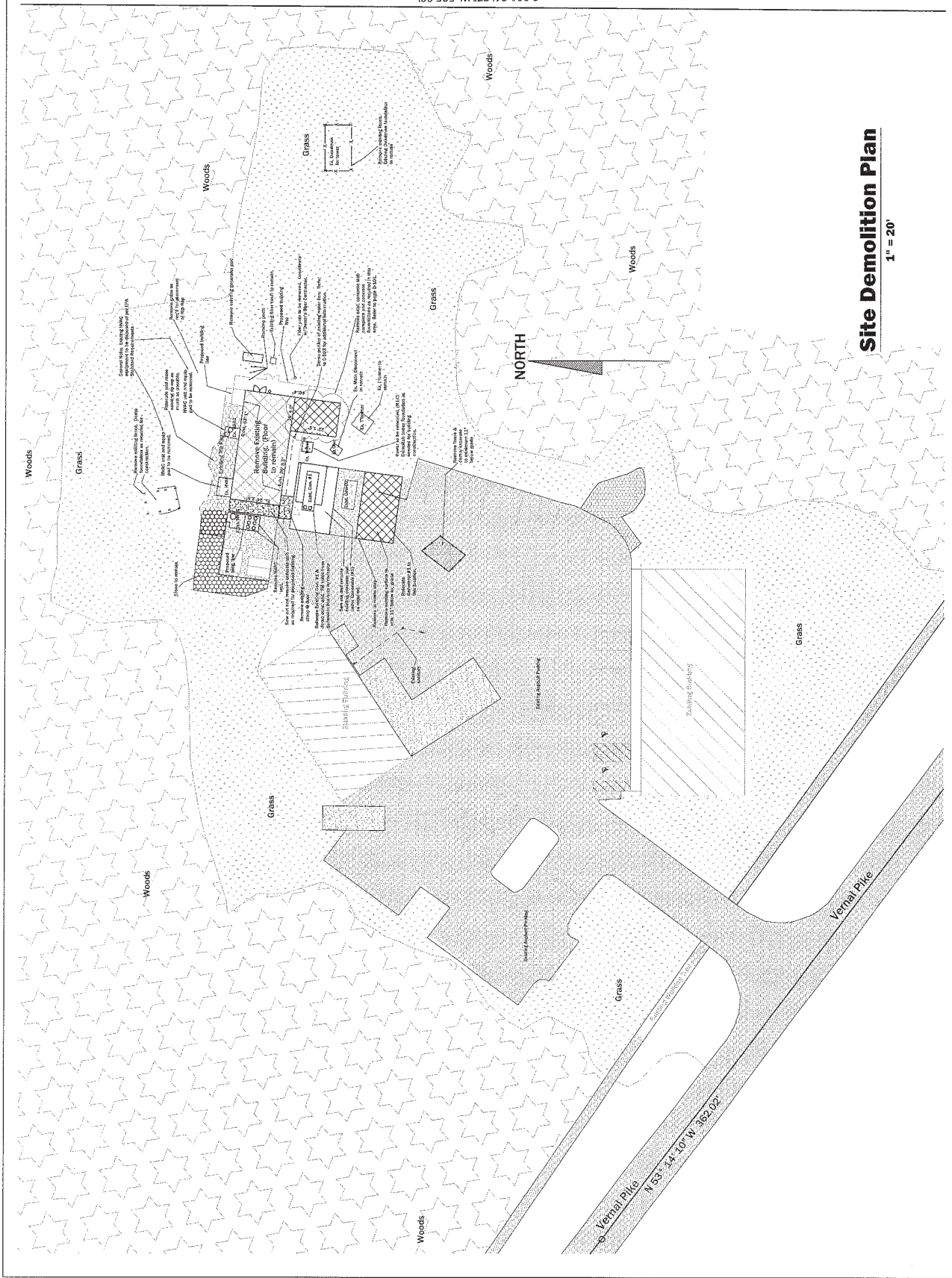
Dates
 Plot Information:
 File Name: Concast_Site.dwg
 Plot Date: 7/1/20
 Sheet: 1 of 1
 Scale: 1" = 20'

Drawing Date: 7/1/20
Revision Date:

Engineer Associates, Inc.
 445 Main Street, Suite 201
 West City, Indiana 47381
 Tel: 317.746.8333
 Fax: 317.746.8333
 Web: www.engineerassociates.com
 Kenneth Lee Stripling, P.E.

Concast
 1600 Fountain Drive
 Bloomington, Indiana 47404

S 00° 21' 57" W 525.66'



Site Demolition Plan

1" = 20'

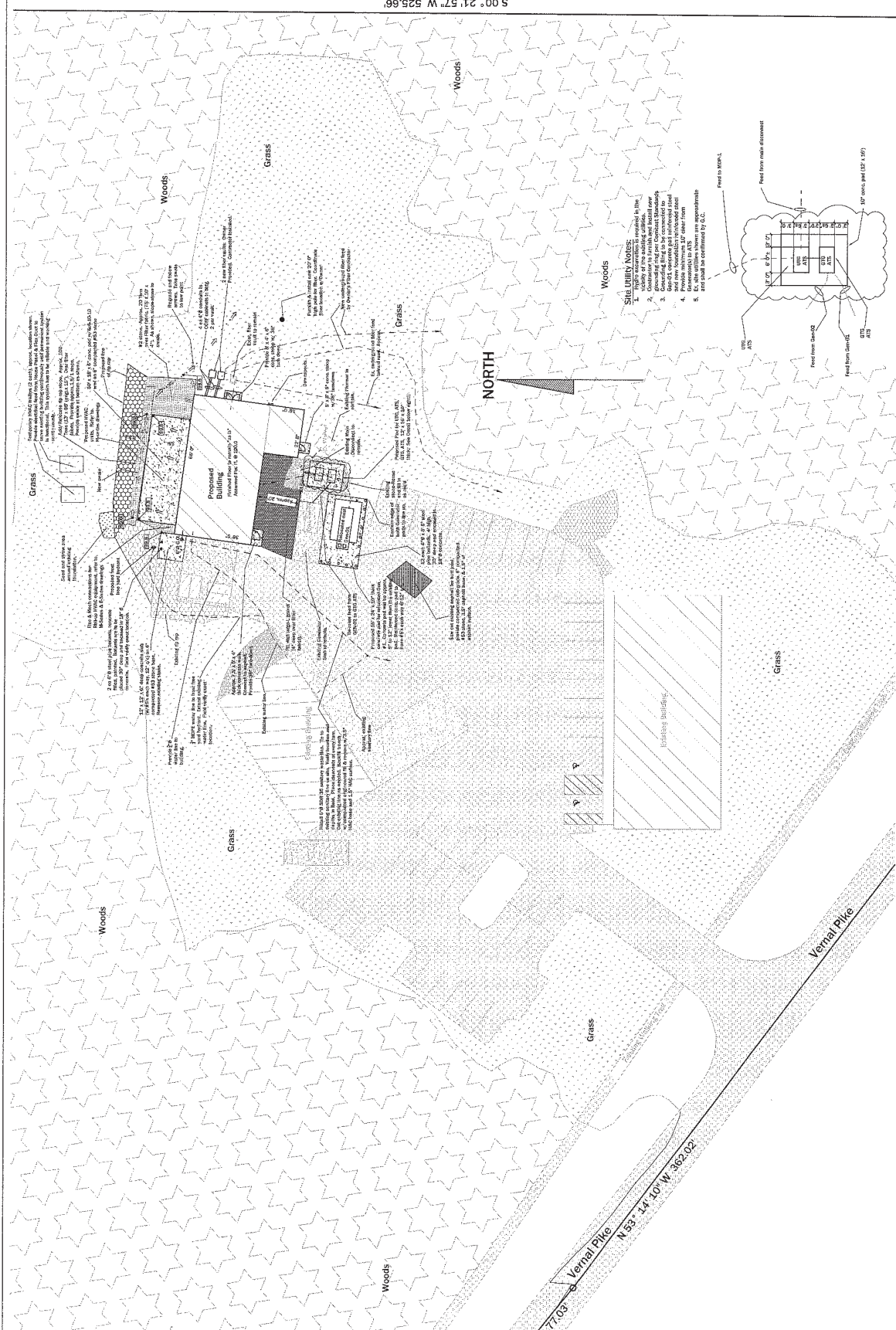


Dates
 20-09
 Project Information:
 Mr. Kevin Comcast
 1600 Fountain Drive
 Bloomington, IN 47404
 Scale: As Shown

Drawn: RLS
 Drawing Date: 7/7/20
 Revision: 01

Comcast
 1600 Fountain Drive
 Bloomington, Indiana 47404

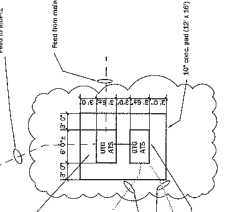
Engineer Associates, Inc.
 505 Main Street, Suite 201
 1600 Fountain Drive
 Bloomington, IN 47404
 Tel: City Phone: 815-847-1100
 Fax: 815-847-1101
 Email: info@engineerassoc.com
 Kenneth Lee Simpson, P.E.



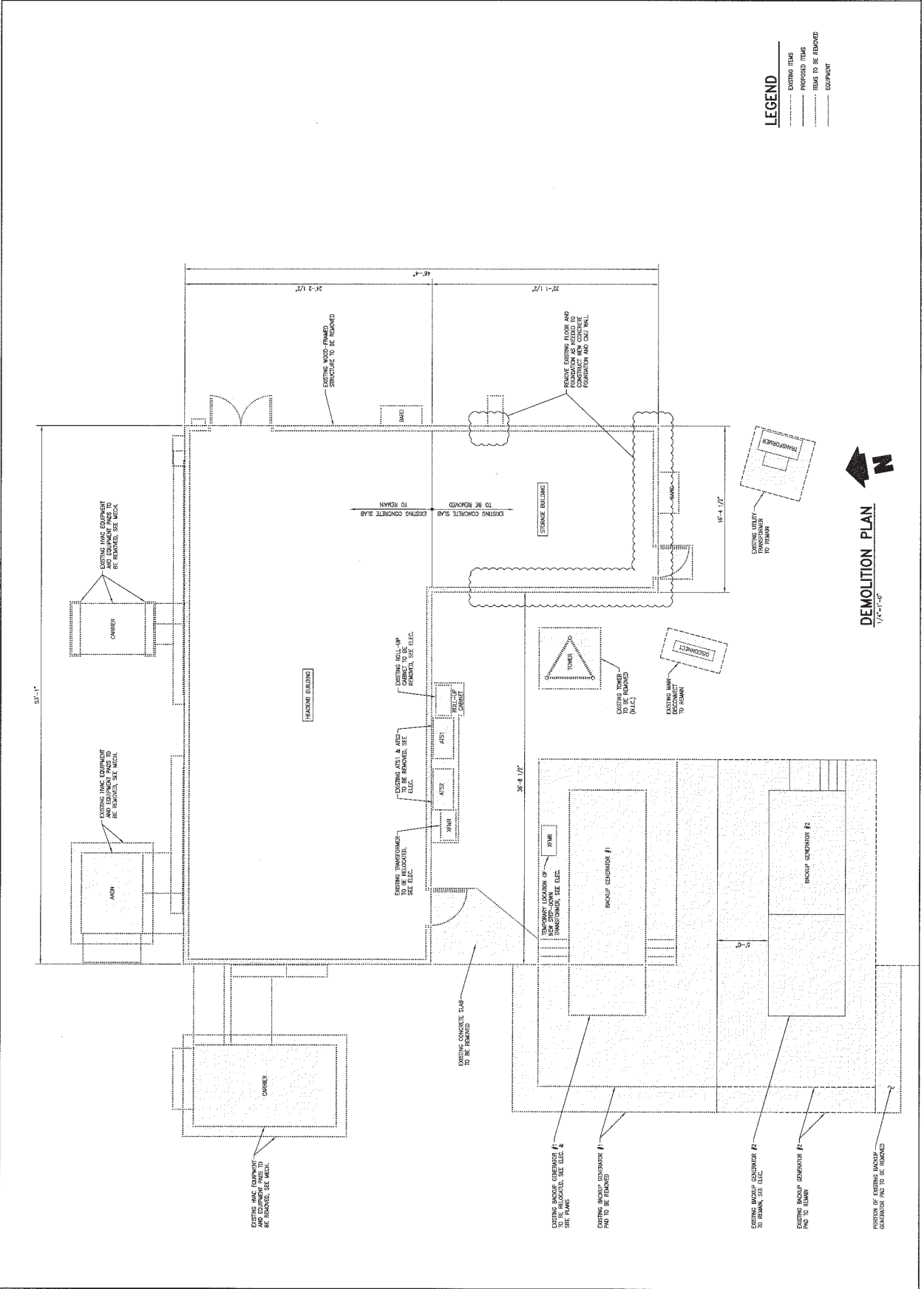
Erosion Control Note:
 Due to the small amount of disturbed area, no silt fence or other methods of erosion control are required.
 All grassy areas disturbed by construction are to be properly graded, stumps removed, seeded, fertilized, and strawed.

Proposed Site Plan
Erosion Control Note
 1" = 20'

- SITE UTILITY NOTES:**
1. Verify all existing utilities.
 2. Verify all proposed utilities.
 3. Grounding ring per Comcast Standards.
 4. Grounding ring to be connected to ground rods.
 5. All conduits to be installed in accordance with applicable codes.
 6. Grounding to be confirmed by O.C.



	Arsee Engineers, Inc. CLIENT ORIENTED — BY DESIGN 9716 KINCAID DRIVE, SUITE 100 FISHERS, INDIANA 46037-9499 317/954-6192 PHONE 317/954-9590 FAX		COMCAST HEADQUARTERS BUILDING 1600 Fountain Drive Bloomington, IN 47404 P.O. Box 229 Pendleton, IN 46064 Phone: (765) 778-7588 Fax: (765) 778-7589
--	---	--	--



S-101

DATE: 07/07/2020
 SCALE: 1/4"=1'-0"
 DRAWN BY: JED
 CHECKED BY: AKL

FOUNDATION PLAN

NO.	REVISION	DATE
1	ISSUE TO	7/7/20

HEADEND BUILDING
 1800 Fountain Drive
 Bloomington, IN 47404

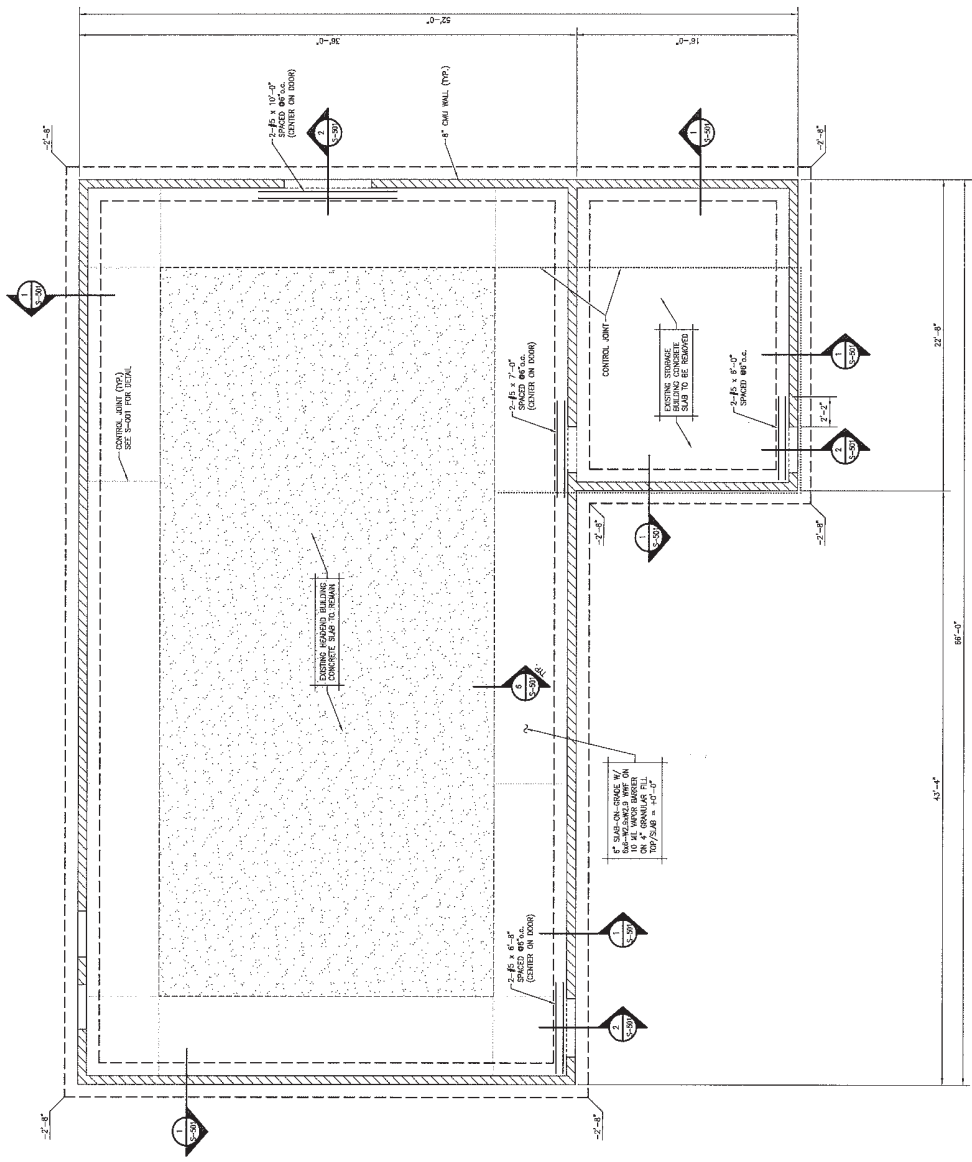


P.O. Box 229
 5448 W. Old 132
 Pendleton, IN 46064
 Phone: (765) 778-7588
 Fax: (765) 778-7589



Arsee Engineers, Inc.
 CLIENT ORIENTED — BY DESIGN
 8715 KIMCARD DRIVE, SUITE 100
 FISHERS, INDIANA 46038-9489
 317.594.4342 PHONE
 317.594.8880 FAX

LEGEND
 --- EXISTING ITEMS
 - - - - - PROPOSED ITEMS
 - - - - - ITEMS TO BE REMOVED
 --- TOY/FOODING



FOUNDATION PLAN
 1/4"=1'-0"

ROOF PLAN

Sheet No. S-102

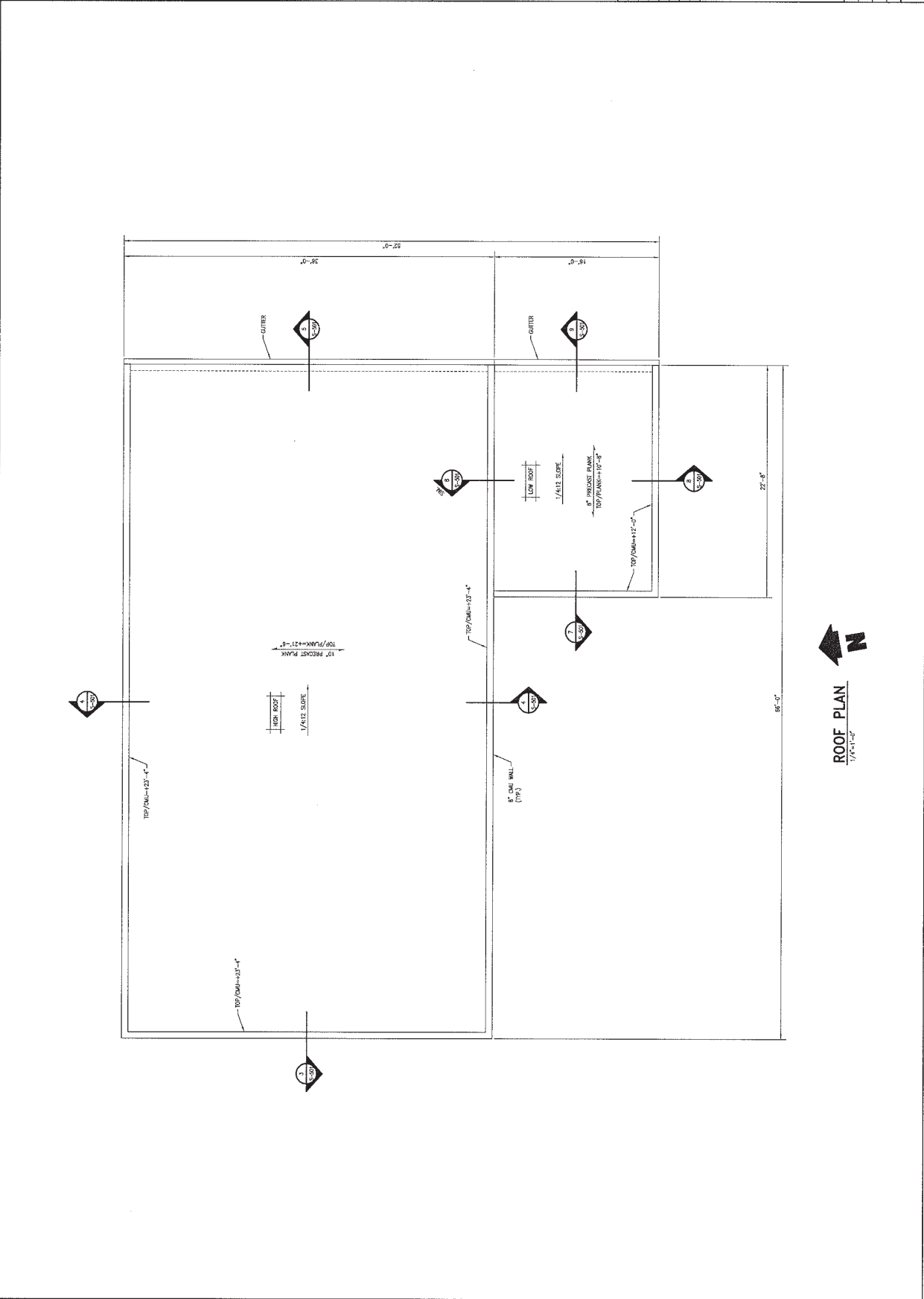
DATE	02/01/2005
SCALE	1/4"=1'-0"
DRAWN BY	TD
DESIGNED BY	JNL
CHECKED BY	
DATE	1/20/02

COMCAST
 HEADEND BUILDING
 1600 Fountain Drive
 Bloomington, IN 47404

P.O. Box 229
 5448 W. Old 132
 Pendleton, IN 46064
 Phone: (765) 778-7588
 Fax: (765) 778-7589

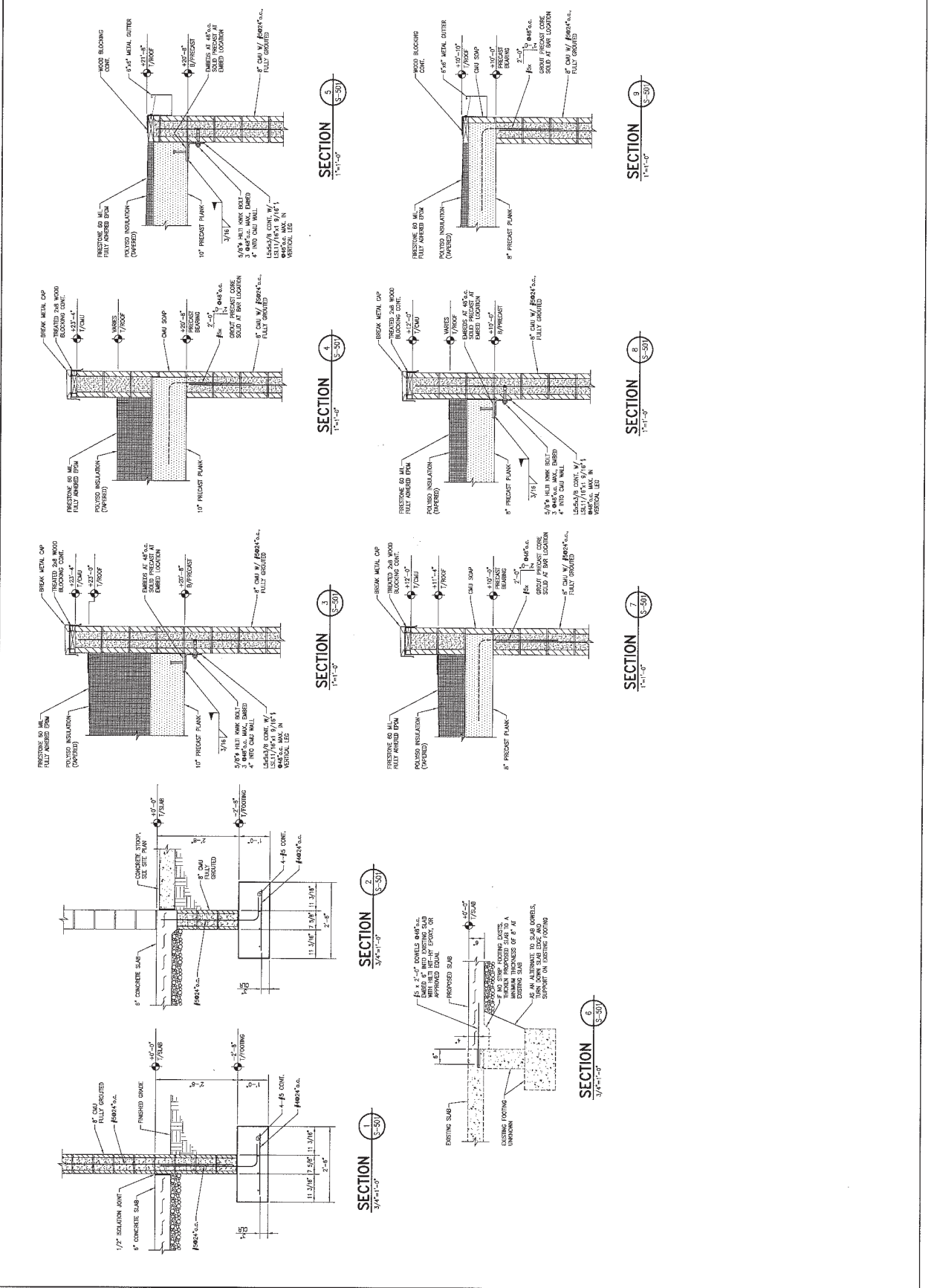


ARSEE ENGINEERS, Inc.
 CLIENT ORIENTED—BY DESIGN
 1719 KENNEDY DRIVE, SUITE 100
 FISHERS, INDIANA 46037-8489
 317/934-8182 PHONE
 317/934-8820 FAX



ROOF PLAN
 1/4"=1'-0"
 N

 <p>ARSEE ENGINEERS, INC. CLIENT ORIENTED - DESIGN</p>	<p>9715 KIMKARD DRIVE, SUITE 100 BLOOMINGTON, INDIANA 47408-4529 317/294-8592 PHONE 317/294-8590 FAX</p>	 <p>NO. 14000000 PE-14000000 VINCENT J. ARSEE REGISTERED PROFESSIONAL ENGINEER STATE OF INDIANA</p>	<p>P.O. Box 229 Pendleton, IN 46064 Phone: (765) 778-7588 Fax: (765) 778-7589</p>	 <p>COMCAST HEADEND BUILDING 1600 Fountain Drive Bloomington, IN 47404</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>REV.</td> <td>BY</td> <td>DATE</td> </tr> <tr> <td>1</td> <td>ARSEE</td> <td>7/1/02</td> </tr> <tr> <td>2</td> <td>ARSEE</td> <td>7/1/02</td> </tr> <tr> <td>3</td> <td>ARSEE</td> <td>7/1/02</td> </tr> <tr> <td>4</td> <td>ARSEE</td> <td>7/1/02</td> </tr> <tr> <td>5</td> <td>ARSEE</td> <td>7/1/02</td> </tr> <tr> <td>6</td> <td>ARSEE</td> <td>7/1/02</td> </tr> <tr> <td>7</td> <td>ARSEE</td> <td>7/1/02</td> </tr> <tr> <td>8</td> <td>ARSEE</td> <td>7/1/02</td> </tr> <tr> <td>9</td> <td>ARSEE</td> <td>7/1/02</td> </tr> </table>	REV.	BY	DATE	1	ARSEE	7/1/02	2	ARSEE	7/1/02	3	ARSEE	7/1/02	4	ARSEE	7/1/02	5	ARSEE	7/1/02	6	ARSEE	7/1/02	7	ARSEE	7/1/02	8	ARSEE	7/1/02	9	ARSEE	7/1/02
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9	ARSEE	7/1/02																																	



ARSEE ENGINEERS, INC.
 CLIENT: HENTZEN - BY DESIGN
 317.554.9152 PHONE
 317.554.9999 FAX

COMCAST
 HEADEND BUILDING
 1600 Fountain Drive
 Bloomington, IN 47404

P.O. Box 229
 Pendleton, IN 46064
 Phone: (765) 778-7589
 Fax: (765) 778-7589

PROJECT: A-101
DATE: 07/01/2020
SCALE: 1/4"=1'-0"

DESIGNED BY: VEL
CHECKED BY: VEL
DATE: 07/01/2020

PROJECT: A-101
DATE: 07/01/2020
SCALE: 1/4"=1'-0"

BUILDING CODE ANALYSIS

2014 INDIANA BUILDING CODE (IBC 2012)
 BUILDING AREA: PROPOSED - 2,740 SF
 BUILDING CONSTRUCTION TYPE: IIB
 OCCUPANCY CLASSIFICATION: B
 TABLE 1004.1.2 / OCCUPANT LOAD:
 100 SF/PERSON - BUSINESS AREAS
 TABLE 1016.2 / EXIT ACCESS TRAVEL DISTANCE:
 200 FEET - B OCCUPANCY (WITHOUT SPRINKLER SYSTEM)
 BUILDING HEIGHT: 2S-4"

FIRE EXTINGUISHING SYSTEM
 A. AN AUTOMATIC FIRE EXTINGUISHING SYSTEM IS NOT
 B. A CLEAN AGENT FIRE EXTINGUISHING SYSTEM WILL BE
 PROVIDED AT THE OWNER'S REQUEST.

WALL TYPES

1	8" CMU, 1" POLYSTYRENE INSULATION, 3/8" GTS STEEL CHANNEL W/ 8-13 BOLT INSULATION, 1/2" FIRE TREATED PLYWOOD, AND 1/2" Gypsum BOARD FINISH (NON-FIRE-RATED) (NON-FIRE-RATED)
2	8" CMU, 1" POLYSTYRENE INSULATION, 3/8" GTS STEEL CHANNEL W/ 8-13 BOLT INSULATION, AND NON-FIRE-RATED PLYWOOD, TONGUE-AND-GROOVE PANELS (NFP)
3	8" CMU, 1" POLYSTYRENE INSULATION, 3/8" GTS STEEL CHANNEL W/ 8-13 BOLT INSULATION, AND NON-FIRE-RATED PLYWOOD, TONGUE-AND-GROOVE PANELS (NFP)

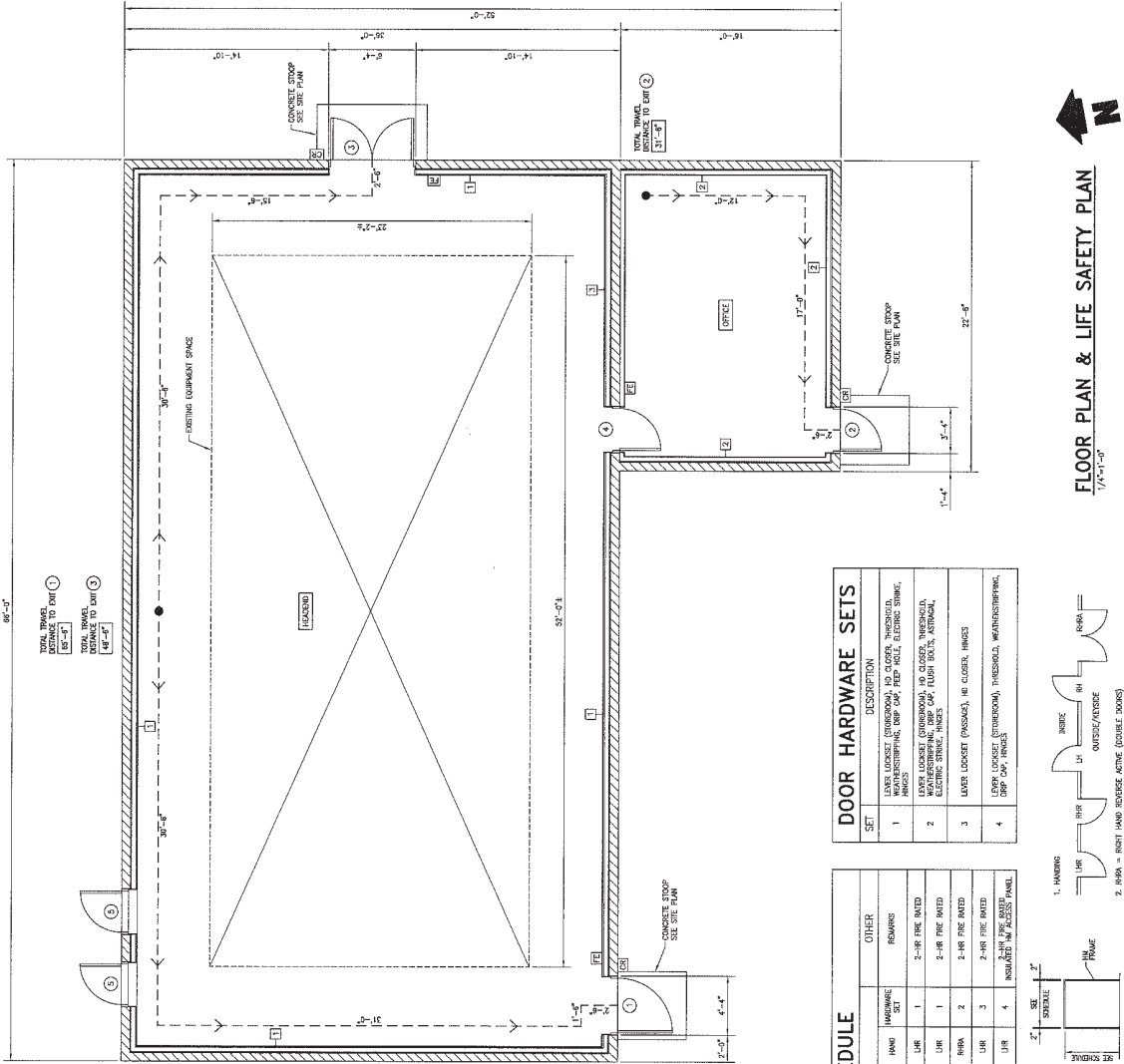
FINISH SCHEDULE

SUBFACE	DESCRIPTION
CEILING (INTERIOR)	CONCRETE (SMOOTH FACED) W/ 1 COAT PRIMER, 2 COATS FINISH PAINT
WALL (INTERIOR)	NON-FIRE-RATED PLASTER TONGUE-AND-GROOVE PANELS (NFP)
CEILING	EXPOSED PRECAST PLANKS W/ 1 COAT PRIMER, 2 COATS FINISH PAINT
FLOOR	(AT NEW CONCRETE ONLY) 1X12" WET W/ 4" VINYL BASE
DOORS	1 COAT PRIMER, 2 COATS FINISH PAINT

FLOOR PLAN & LIFE SAFETY PLAN

LEGEND

(R) FIRE EXTINGUISHER
 (S) CHAIR BEAKER

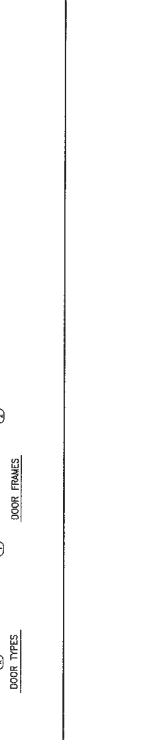


DOOR HARDWARE SETS

SET	DESCRIPTION
1	LEVER LOCKSET (CROSSBROW), NO CLOSER, INHIBITOR, WEARSTRIP, INSULATED, DRP CAP, PUSH BUTTON, ELECTRIC STRIKE, HINSE
2	LEVER LOCKSET (CROSSBROW), NO CLOSER, INHIBITOR, WEARSTRIP, INSULATED, DRP CAP, PUSH BUTTON, ELECTRIC STRIKE, HINSE
3	LEVER LOCKSET (CROSSBROW), NO CLOSER, HINSE
4	LEVER LOCKSET (CROSSBROW), INHIBITOR, WEARSTRIP, INSULATED, DRP CAP, HINSE

DOOR SCHEDULE

DOOR NUMBER	WIDTH	HEIGHT	THICK.	DOOR TYPE	EMBRASE	FRAME	HAND	REMARKS
1	3'-0 1/2"	7'-0"	1 1/2"	HM	A	1	UR	2-HR FIRE RATED
2	3'-0 1/2"	7'-0"	1 1/2"	HM	A	1	UR	2-HR FIRE RATED
3	3'-0 1/2"	7'-0"	1 1/2"	HM	A	2	RHR	2-HR FIRE RATED
4	3'-0 1/2"	7'-0"	1 1/2"	HM	A	1	UR	2-HR FIRE RATED
5	3'-0 1/2"	7'-0"	1 1/2"	HM	A	1	UR	INSULATED W/ ACCESS PANEL



FLOOR PLAN & LIFE SAFETY PLAN
 1/4"=1'-0"

PROPOSED
MECHANICAL
FLOOR PLAN

DATE: 08/12/2000
SCALE: 1/4"=1'-0"
SHEET: M101

COMCAST
HEADEND BUILDING
1600 Fountain Drive
Bloomington, IN 47404

P.O. Box 229
5448 W. Old 132
Princeton, IN 48904
Phone: (765) 778-7588
Fax: (765) 778-7589



ARGO CONSULTING ENGINEERS, INC.
516 N. DIXON STREET
PRINCETON, IN 48904
PHONE: (773) 538-2244
FAX: (773) 538-4248
EMAIL: argo@argocorp.com

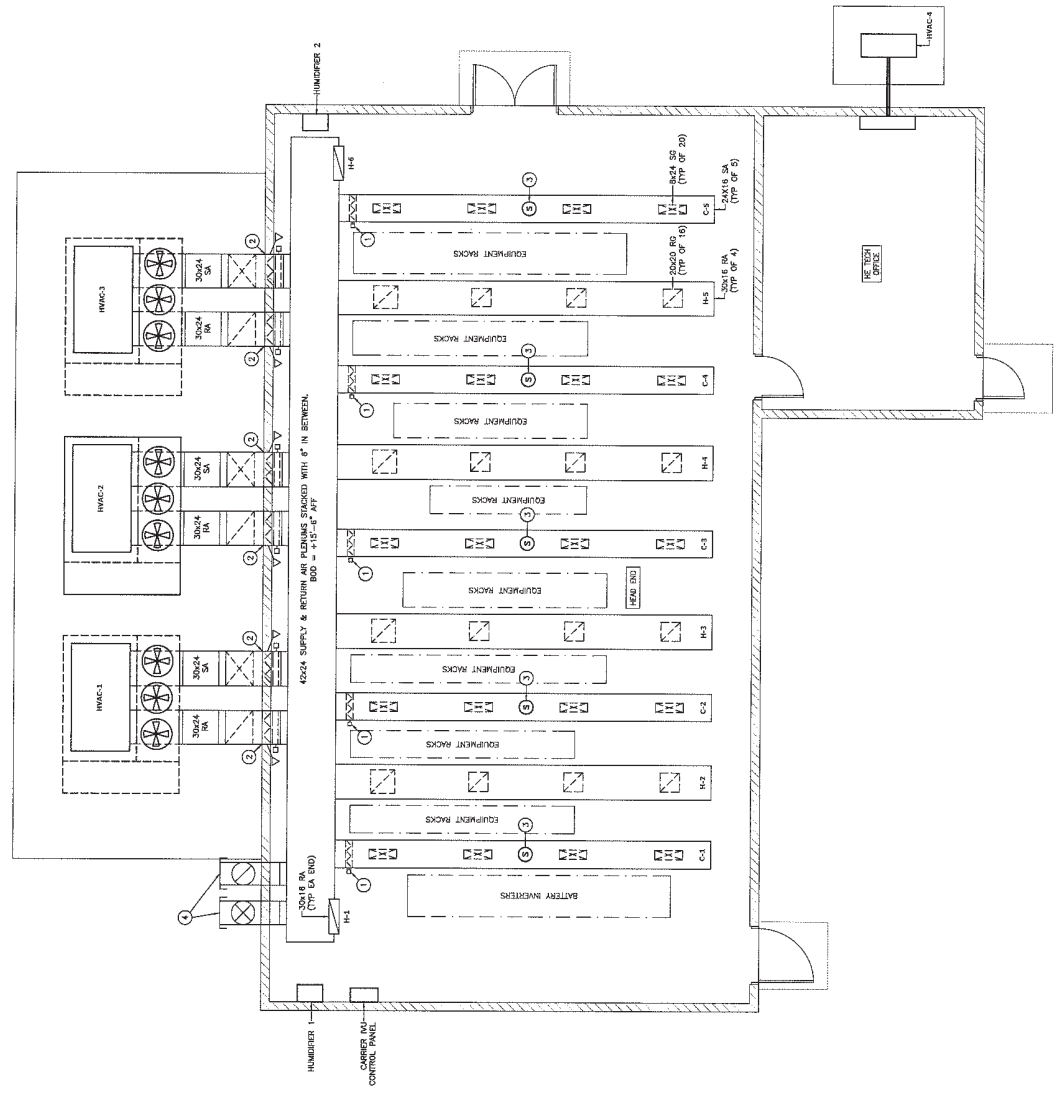
- PLAN NOTES:**
- 1) AUTOMATIC BALANCING DAMPER.
 - 2) MAIN FLEX DAMPER.
 - 3) AIR FLOW DAMPER.
 - 4) CORONAIRE "T" DAMPER IN THE FIELD.
 - 5) PROVIDE TWO ACCESS PANELS FOR ROLL-UP HVAC EQUIPMENT. REFER TO UNIT SCHEDULE ON SHEET A-101. PROVIDE 17" LONG X 14" DIAMETER SLEEVES WITH END CAPS FOR FUTURE CONNECTION TO ROLL-UP UNIT.

MECHANICAL EQUIPMENT SCHEDULE:

HVAC-1, HVAC-2, AND HVAC-3:
16 TON, 800V CH. SUPPLY, 6000 CFM EXHAUST
PR-018-2-3-EVA-000000P-EBE-001-800-800-009484-01-00000008
480 VOLTS, 3 PHASE, 50 H.P., 50 AMP MISC.

HVAC-4:
16 TON, 800V CH. SUPPLY, 6000 CFM EXHAUST
PR-018-2-3-EVA-000000P-EBE-001-800-800-009484-01-00000008
480 VOLTS, 3 PHASE, 50 H.P., 50 AMP MISC.

208 VOLT, SINGLE PHASE, 20 MVA, 30 AMP MISC. INSIDE UNIT POWERED INTERLOCKING OF THIS UNIT WITH EDC INU CONTROLS TO BE INCLUDED.



PROPOSED MECHANICAL FLOOR PLAN
1/4"=1'-0"

M102

PROPOSED
MECHANICAL
ELEVATION PLAN

HEADEND BUILDING
1600 Fountain Drive
Bloomington, IN 47404

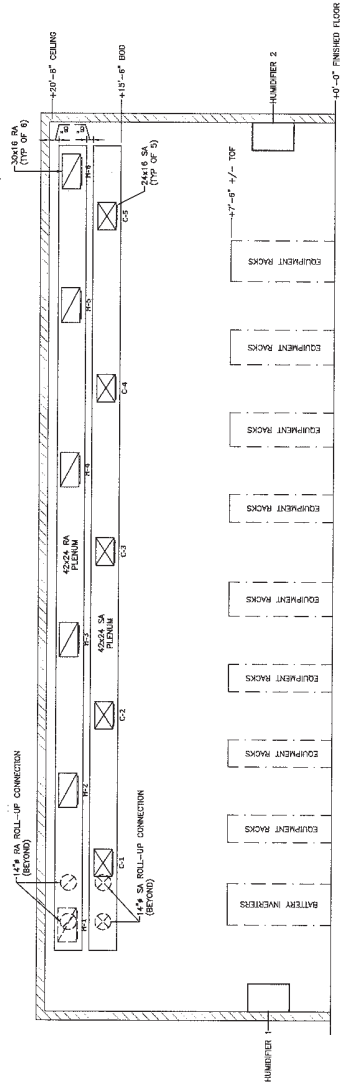
P.O. Box 229
5448 W. Old 132
Purdue, IN 46354
Phone: (765) 778-7589
Fax: (765) 778-7589



ARCO CONSULTING ENGINEERS, INC.
118 N. DUNKEN STREET
INDIANAPOLIS, IN 46202
PHONE: (317) 838-5244
FAX: (317) 838-5249
www.arcoengineers.com

EQUIPMENT	MONITORING & ALARMING GENERATE IF		MONITORING LOCATION		IP ADDRESS REQ'D
	QUEST PANEL	MODBUS	USER SWITCHABLE CONFIGURATION		
GENERATOR 1	X		X		X
GENERATOR 2	X		X		X
UTG ATS	X		X		X
GTG ATS	X		X		X
TOSS 1	X		X		X
TOSS 2	X		X		X
HW METER	X		X		X
HW METER	X		X		X
DC PLANT	X		X		X
SMART EDCIB	X		X		X
BATTERIES					X
SMART FANS (6)			X		X
RTU1			X		X
RTU2			X		X
RTU3			X		X
HVAC 4			X		X
HUMIDIFIER 1			X		X
HUMIDIFIER 2			X		X
TEMP SENSORS			X		X
FA PANEL	X				X
DCS			X		X
CARD READERS (3)			X		X
CAMERAS (9)			X		X

NOTES:
1. MONITORING FOR GENERATOR
2. USER SWITCHABLE CONFIGURATION
3. IF PANEL TO CALL LOCAL FIRE AUTHORITIES AS REQUIRED BY LOCAL CODE



PROPOSED MECHANICAL ELEVATION PLAN
1/4"=1'-0"

COMCAST
HEADEND BUILDING
1600 Fountain Drive
Bloomington, IN 47404

Fax: (765) 778-7589
Phone: (765) 778-7584
5418 W. Old 132
P.O. Box 229
Bloomington, IN 47404

PROPOSED LIGHTING FLOOR PLAN

DATE: 1/4/11
DRAWN BY: JLM
CHECKED BY: TLM
SCALE: 1/4" = 1'-0"

PROJECT NO: E101

- PLAN NOTES:**
- 1) TO PROVIDE. PHOTOCELL TO BE T8K 2100 SERIES.
 - 2) ALL LIGHT FIXTURES AND CABINETS TO BE ORDERED TO ORDER WALL MOUNTED.
 - 3) ALL LIGHT FIXTURES AND CABINETS TO BE ORDERED TO ORDER WALL MOUNTED.
 - 4) ALL LIGHT FIXTURES AND CABINETS TO BE ORDERED TO ORDER WALL MOUNTED.
 - 5) ALL LIGHT FIXTURES AND CABINETS TO BE ORDERED TO ORDER WALL MOUNTED.
 - 6) ALL LIGHT FIXTURES AND CABINETS TO BE ORDERED TO ORDER WALL MOUNTED.

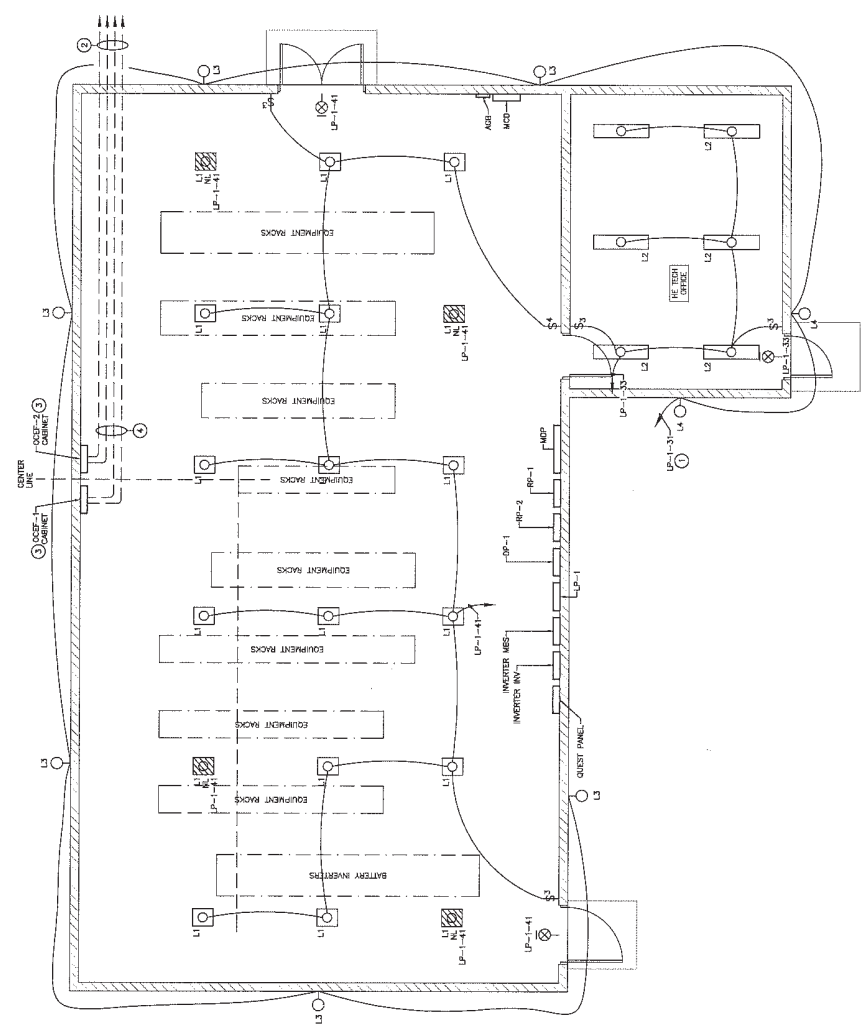
ELECTRICAL SYMBOL SCHEDULE

SYMBOL	DESCRIPTION
A	LED LIGHT FIXTURE - A - INDICATES FIXTURE TYPE
⊖	EXIT LIGHT FIXTURE - CEILING MOUNTED - BAY RECESSED FACE
⚡	20 AMPERE RATED 120/277 VOLT SINGLE POLE SWITCH
⚡	20 AMPERE RATED 120/277 VOLT FOUR POLE SWITCH
⊖	20 AMPERE RATED 3 WIRE 120 VOLT DUPLEX RECEPTACLE WITH GROUND
⊖	20 AMPERE RATED 3 WIRE 120 VOLT DOUBLE DUPLEX RECEPTACLE WITH GROUND
⊖	20 AMPERE RATED 3 WIRE 120 VOLT OVERHEAD DUPLEX RECEPTACLE WITH GROUND
⊖	ELECTRICAL PANELBOARD
⊖	DATA CABLE 3 1/2" ODP RIBBON TRAY BOX WITH 4-4-4 JACKS AND 1/2" WITH DATA CABLE TO EP - X - DENOTES QUANTITY OF JACKS AND CABLE
⊖	JUNCTION BOX-WALL MOUNTED-ALLOW 4'-0" OF WIRE FOR CONNECTION
⊖	JUNCTION BOX-CEILING MOUNTED-ALLOW 4'-0" OF WIRE FOR CONNECTION
⊖	MOTOR
⊖	DISCONNECT SWITCH
⊖	CAMERA
⊖	FIRE ALARM MANUAL STATION
⊖	FIRE ALARM HORN/VISUAL UNIT
⊖	FIRE ALARM VISUAL UNIT
⊖	FIRE DETECTOR (HEAT - 132)
⊖	FIRE DETECTOR (SMOKE) -SUCT
⊖	FIRE DETECTOR (SMOKE) AREA
⊖	WEATHERPROOF
⊖	GROUND FAULT INTERRUPTER

NOTE: NOT ALL SYMBOLS USED ON THIS PROJECT.

LIGHT FIXTURE SCHEDULE

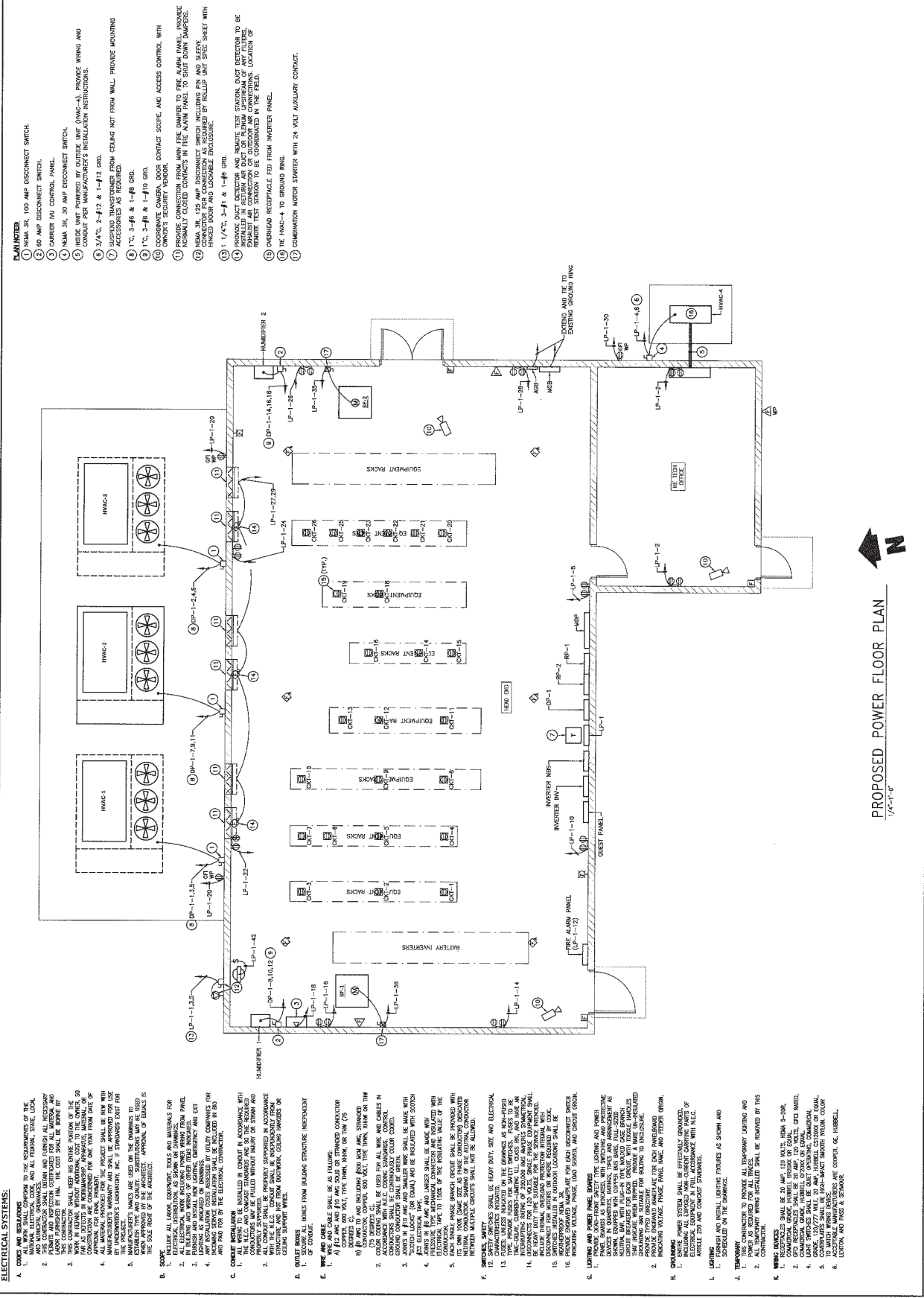
MARK	MANUFACTURER	MODEL NO.	DESCRIPTION
L1	METALUX	WB-12-AT-JAY-1840-00-U	18"X14" CHAIN MOUNTED BAY (LED) TYPE LIGHT FIXTURE WITH UNIVERSAL DRIVER AND 4000K COOL TEMPERATURE. MOUNTED AT 15'-0" AFF. (87 WATTS)
L2	METALUX	WB-12-AT-JAY-1840-00-U	18"X14" CHAIN MOUNTED BAY (LED) TYPE LIGHT FIXTURE WITH UNIVERSAL DRIVER AND 4000K COOL TEMPERATURE. MOUNTED AT 15'-0" AFF. (87 WATTS)
L3	LUMARK	XTOR18B	EXTENSION WALLWASH WITH REFLECTIVE LENS, 4000K, AND LED DRIVER, MOUNTED AT 18'-0" AFF. (81 WATTS)
L4	LUMARK	XTOR18B	EXTENSION WALLWASH WITH REFLECTIVE LENS, 4000K, AND LED DRIVER, MOUNTED AT 18'-0" AFF. (81 WATTS)
EXIT	BAYTRON	4PK SERIES	WALL MOUNTED EXIT SIGN WITH POLYCARBONATE HOUSING AND RED LETTERING.



PROPOSED LIGHTING FLOOR PLAN
1/4" = 1'-0"



 <p>ARGO CONSULTING ENGINEERS, INC. 518 N. DIXON STREET BLOOMINGTON, IN 47404 PHONE: (765) 339-9244 FAX: (765) 339-9248 EMAIL: info@argocorp.com</p>	 <p>COMCAST HEADEND BUILDING 1600 Fountain Drive Bloomington, IN 47404 Phone: (765) 778-7588 Fax: (765) 778-7588</p>	 <p>JAMES M. TLM Professional Engineer No. 12345 State of Indiana Exp. 12/31/2020</p>	<p>PROPOSED POWER FLOOR PLAN DATE: 06/12/2020 SCALE: 1/4"=1'-0" SHEET: E102</p>
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ELECTRICAL SYSTEMS:

- A. **CODES AND REGULATIONS:**
 1. NATIONAL ELECTRICAL CODE AND ALL FEDERAL, STATE, LOCAL, COUNTY AND MUNICIPAL ORDINANCES.
 2. THE CONTRACTOR SHALL OBTAIN AND FURNISH ALL NECESSARY PERMITS AND APPROVALS FROM ALL APPLICABLE AGENCIES AND AGENCIES BY THE CITY OF BLOOMINGTON, INDIANA.
 3. THE CONTRACTOR SHALL KEEP HIS ENTIRE PORTION OF THE WORK UNDERWAY AT ALL TIMES AND SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING UTILITIES AND STRUCTURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING UTILITIES AND STRUCTURES.
 4. ALL MATERIAL PROVIDED FOR THE PROJECT SHALL BE NEW UNLESS OTHERWISE NOTED AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND THE NATIONAL ELECTRICAL CODE.
 5. MANUFACTURER'S INSTRUCTIONS ARE USED ON THE DRAWINGS TO THE EXTENT THEY ARE NOT IN CONFLICT WITH THE NATIONAL ELECTRICAL CODE.
- B. **SCOPE:**
 1. ELECTRICAL INSTALLATION, AS SHOWN ON DRAWINGS.
 2. ALL WIRING AND WORK OF OTHER TRADES INDICATED.
 3. LIFTING AS INDICATED ON DRAWINGS.
 4. INCLUDING SERVICE INSTALLATION SHALL BE INCLUDED IN THE SCOPE AND PAID FOR BY THE ELECTRICAL CONTRACTOR.
- C. **CONCRETE INSTALLATION:**
 1. ALL CONCRETE SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ALL APPLICABLE LOCAL, STATE AND FEDERAL CODES.
 2. WITH THE N.E.C. CONCRETE SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ALL APPLICABLE LOCAL, STATE AND FEDERAL CODES.
- D. **OUTLET BOXES:**
 1. ALL OUTLET BOXES SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ALL APPLICABLE LOCAL, STATE AND FEDERAL CODES.
- E. **WIRE AND CABLE:**
 1. WIRE AND CABLE SHALL BE AS FOLLOWS:
 - A) ALL WIRE SHALL BE TYPE THHN, THWN, OR TYP 75 (ELECTRICAL CODE, 900 DEG. TYPE THHN, THWN OR TYP 75).
 - B) WIRE SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ALL APPLICABLE LOCAL, STATE AND FEDERAL CODES.
 - C) COLOR CODING SHALL BE USED FOR ALL WIRE AND CABLES IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ALL APPLICABLE LOCAL, STATE AND FEDERAL CODES.
 - D) ALL WIRE SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ALL APPLICABLE LOCAL, STATE AND FEDERAL CODES.
 - E) ALL WIRE SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ALL APPLICABLE LOCAL, STATE AND FEDERAL CODES.
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 5. ALL WIRE SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ALL APPLICABLE LOCAL, STATE AND FEDERAL CODES.
- F. **SPICES, SWEETS:**
 1. ALL SPICES AND SWEETS SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ALL APPLICABLE LOCAL, STATE AND FEDERAL CODES.
 2. ALL SPICES AND SWEETS SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ALL APPLICABLE LOCAL, STATE AND FEDERAL CODES.
 3. ALL SPICES AND SWEETS SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ALL APPLICABLE LOCAL, STATE AND FEDERAL CODES.
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 5. ALL SPICES AND SWEETS SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ALL APPLICABLE LOCAL, STATE AND FEDERAL CODES.
- G. **GROUNDING AND BONDING:**
 1. ALL GROUNDING AND BONDING SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ALL APPLICABLE LOCAL, STATE AND FEDERAL CODES.
 2. ALL GROUNDING AND BONDING SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ALL APPLICABLE LOCAL, STATE AND FEDERAL CODES.
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 5. ALL GROUNDING AND BONDING SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ALL APPLICABLE LOCAL, STATE AND FEDERAL CODES.
- H. **CONCRETE:**
 1. ALL CONCRETE SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ALL APPLICABLE LOCAL, STATE AND FEDERAL CODES.
 2. ALL CONCRETE SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ALL APPLICABLE LOCAL, STATE AND FEDERAL CODES.
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 5. ALL CONCRETE SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ALL APPLICABLE LOCAL, STATE AND FEDERAL CODES.
- I. **LOADING:**
 1. ALL LOADING SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ALL APPLICABLE LOCAL, STATE AND FEDERAL CODES.
 2. ALL LOADING SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ALL APPLICABLE LOCAL, STATE AND FEDERAL CODES.
 3. ALL LOADING SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ALL APPLICABLE LOCAL, STATE AND FEDERAL CODES.
 4. ALL LOADING SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ALL APPLICABLE LOCAL, STATE AND FEDERAL CODES.
 5. ALL LOADING SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ALL APPLICABLE LOCAL, STATE AND FEDERAL CODES.
- J. **TRANSFORMER:**
 1. ALL TRANSFORMERS SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ALL APPLICABLE LOCAL, STATE AND FEDERAL CODES.
 2. ALL TRANSFORMERS SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ALL APPLICABLE LOCAL, STATE AND FEDERAL CODES.
 3. ALL TRANSFORMERS SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ALL APPLICABLE LOCAL, STATE AND FEDERAL CODES.
 4. ALL TRANSFORMERS SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ALL APPLICABLE LOCAL, STATE AND FEDERAL CODES.
 5. ALL TRANSFORMERS SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ALL APPLICABLE LOCAL, STATE AND FEDERAL CODES.
- K. **WIRING DEVICES:**
 1. ALL WIRING DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ALL APPLICABLE LOCAL, STATE AND FEDERAL CODES.
 2. ALL WIRING DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ALL APPLICABLE LOCAL, STATE AND FEDERAL CODES.
 3. ALL WIRING DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ALL APPLICABLE LOCAL, STATE AND FEDERAL CODES.
 4. ALL WIRING DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ALL APPLICABLE LOCAL, STATE AND FEDERAL CODES.
 5. ALL WIRING DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ALL APPLICABLE LOCAL, STATE AND FEDERAL CODES.
 6. ALL WIRING DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ALL APPLICABLE LOCAL, STATE AND FEDERAL CODES.

PROPOSED POWER FLOOR PLAN
1/4"=1'-0"

SINGLE LINE FIBER DIAGRAM

E103

DATE	06/12/2020
DESIGNED BY	TJM
CHECKED BY	LPH
SCALE	NONE
PROJECT	
NO.	
DATE	
NO.	
DATE	
NO.	
DATE	
NO.	
DATE	
NO.	

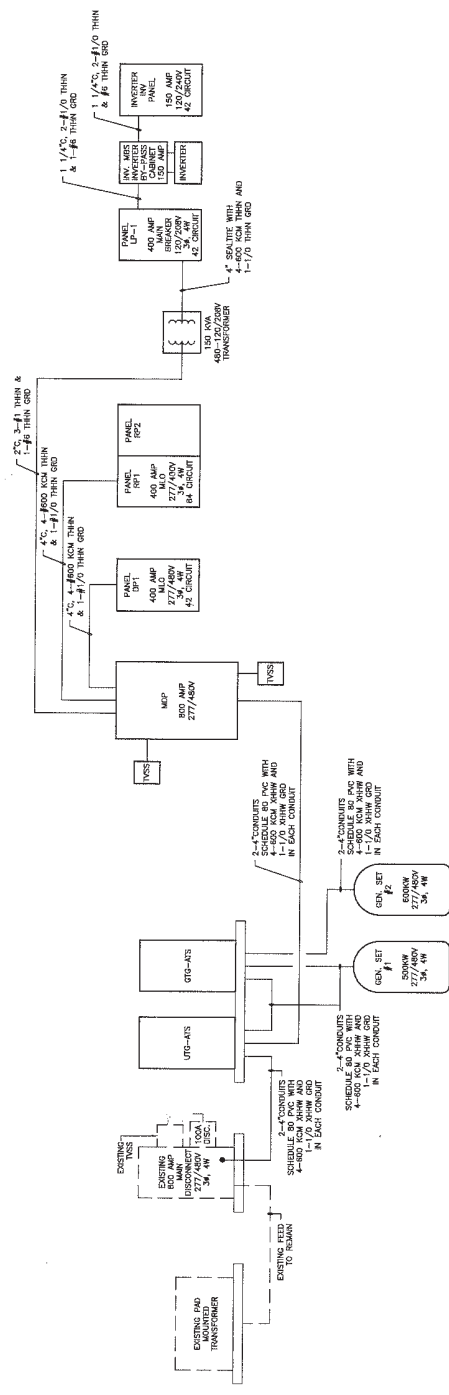
HEADEND BUILDING
1600 Fountain Drive
Bloomington, IN 47404



P. O. Box 229
5448 W. Old 132
Purdue, IN 48094
Phone: (765) 778-7588
Fax: (765) 778-7589



ARGO CONSULTING ENGINEERS, INC.
818 N. Emerson Street
Indianapolis, IN 46202
Phone: (317) 538-9244
Fax: (317) 538-9248
EMAIL: argo@argoeng.com



SINGLE LINE FIBER DIAGRAM
GROUND IN ACCORDANCE WITH COMCAST STANDARDS AND NEC 250.

APCO CONSULTING ENGINEERS, INC.
 400 W. Main Street
 Bloomington, IN 47404
 Phone: (317) 832-8244
 Fax: (317) 832-8245
 Email: info@apcoeng.com

COMCAST
 HEADEND BUILDING
 1600 Fountain Drive
 Bloomington, IN 47404
 Phone: (765) 778-7589
 Fax: (765) 778-7589

APCO CONSULTING ENGINEERS, INC.
 400 W. Main Street
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COMCAST
 HEADEND BUILDING
 1600 Fountain Drive
 Bloomington, IN 47404
 Phone: (765) 778-7589
 Fax: (765) 778-7589

PANEL "UP-1"
 277 AMP MAIN BREAKER
 400 AMP MAIN LOGS
 SURFACE MOUNTED

CIRCUIT BREAKERS SHALL HAVE A MINIMUM
 35,000 AMP INTERRUPTING CAPACITY.

LOAD SERVED	LOAD (KW)			3Ø AMP LOAD			LOAD SERVED		
	NO.	VA	FC	NO.	VA	FC	NO.	VA	FC
SPACE	1	11.0	1.0	1	11.0	1.0	1	11.0	1.0
SPACE	2	11.0	1.0	2	11.0	1.0	2	11.0	1.0
SPACE	3	11.0	1.0	3	11.0	1.0	3	11.0	1.0
SPACE	4	11.0	1.0	4	11.0	1.0	4	11.0	1.0
SPACE	5	11.0	1.0	5	11.0	1.0	5	11.0	1.0
SPACE	6	11.0	1.0	6	11.0	1.0	6	11.0	1.0
SPACE	7	11.0	1.0	7	11.0	1.0	7	11.0	1.0
SPACE	8	11.0	1.0	8	11.0	1.0	8	11.0	1.0
SPACE	9	11.0	1.0	9	11.0	1.0	9	11.0	1.0
SPACE	10	11.0	1.0	10	11.0	1.0	10	11.0	1.0
SPACE	11	11.0	1.0	11	11.0	1.0	11	11.0	1.0
SPACE	12	11.0	1.0	12	11.0	1.0	12	11.0	1.0
SPACE	13	11.0	1.0	13	11.0	1.0	13	11.0	1.0
SPACE	14	11.0	1.0	14	11.0	1.0	14	11.0	1.0
SPACE	15	11.0	1.0	15	11.0	1.0	15	11.0	1.0
SPACE	16	11.0	1.0	16	11.0	1.0	16	11.0	1.0
SPACE	17	11.0	1.0	17	11.0	1.0	17	11.0	1.0
SPACE	18	11.0	1.0	18	11.0	1.0	18	11.0	1.0
SPACE	19	11.0	1.0	19	11.0	1.0	19	11.0	1.0
SPACE	20	11.0	1.0	20	11.0	1.0	20	11.0	1.0
SPACE	21	11.0	1.0	21	11.0	1.0	21	11.0	1.0
SPACE	22	11.0	1.0	22	11.0	1.0	22	11.0	1.0
SPACE	23	11.0	1.0	23	11.0	1.0	23	11.0	1.0
SPACE	24	11.0	1.0	24	11.0	1.0	24	11.0	1.0
SPACE	25	11.0	1.0	25	11.0	1.0	25	11.0	1.0
SPACE	26	11.0	1.0	26	11.0	1.0	26	11.0	1.0
SPACE	27	11.0	1.0	27	11.0	1.0	27	11.0	1.0
SPACE	28	11.0	1.0	28	11.0	1.0	28	11.0	1.0
SPACE	29	11.0	1.0	29	11.0	1.0	29	11.0	1.0
SPACE	30	11.0	1.0	30	11.0	1.0	30	11.0	1.0
SPACE	31	11.0	1.0	31	11.0	1.0	31	11.0	1.0
SPACE	32	11.0	1.0	32	11.0	1.0	32	11.0	1.0
SPACE	33	11.0	1.0	33	11.0	1.0	33	11.0	1.0
SPACE	34	11.0	1.0	34	11.0	1.0	34	11.0	1.0
SPACE	35	11.0	1.0	35	11.0	1.0	35	11.0	1.0
SPACE	36	11.0	1.0	36	11.0	1.0	36	11.0	1.0
SPACE	37	11.0	1.0	37	11.0	1.0	37	11.0	1.0
SPACE	38	11.0	1.0	38	11.0	1.0	38	11.0	1.0
SPACE	39	11.0	1.0	39	11.0	1.0	39	11.0	1.0
SPACE	40	11.0	1.0	40	11.0	1.0	40	11.0	1.0
SPACE	41	11.0	1.0	41	11.0	1.0	41	11.0	1.0
SPACE	42	11.0	1.0	42	11.0	1.0	42	11.0	1.0
SPACE	43	11.0	1.0	43	11.0	1.0	43	11.0	1.0
SPACE	44	11.0	1.0	44	11.0	1.0	44	11.0	1.0
SPACE	45	11.0	1.0	45	11.0	1.0	45	11.0	1.0
SPACE	46	11.0	1.0	46	11.0	1.0	46	11.0	1.0
SPACE	47	11.0	1.0	47	11.0	1.0	47	11.0	1.0
SPACE	48	11.0	1.0	48	11.0	1.0	48	11.0	1.0
SPACE	49	11.0	1.0	49	11.0	1.0	49	11.0	1.0
SPACE	50	11.0	1.0	50	11.0	1.0	50	11.0	1.0
SPACE	51	11.0	1.0	51	11.0	1.0	51	11.0	1.0
SPACE	52	11.0	1.0	52	11.0	1.0	52	11.0	1.0
SPACE	53	11.0	1.0	53	11.0	1.0	53	11.0	1.0
SPACE	54	11.0	1.0	54	11.0	1.0	54	11.0	1.0
SPACE	55	11.0	1.0	55	11.0	1.0	55	11.0	1.0
SPACE	56	11.0	1.0	56	11.0	1.0	56	11.0	1.0
SPACE	57	11.0	1.0	57	11.0	1.0	57	11.0	1.0
SPACE	58	11.0	1.0	58	11.0	1.0	58	11.0	1.0
SPACE	59	11.0	1.0	59	11.0	1.0	59	11.0	1.0
SPACE	60	11.0	1.0	60	11.0	1.0	60	11.0	1.0
SPACE	61	11.0	1.0	61	11.0	1.0	61	11.0	1.0
SPACE	62	11.0	1.0	62	11.0	1.0	62	11.0	1.0
SPACE	63	11.0	1.0	63	11.0	1.0	63	11.0	1.0
SPACE	64	11.0	1.0	64	11.0	1.0	64	11.0	1.0
SPACE	65	11.0	1.0	65	11.0	1.0	65	11.0	1.0
SPACE	66	11.0	1.0	66	11.0	1.0	66	11.0	1.0
SPACE	67	11.0	1.0	67	11.0	1.0	67	11.0	1.0
SPACE	68	11.0	1.0	68	11.0	1.0	68	11.0	1.0
SPACE	69	11.0	1.0	69	11.0	1.0	69	11.0	1.0
SPACE	70	11.0	1.0	70	11.0	1.0	70	11.0	1.0
SPACE	71	11.0	1.0	71	11.0	1.0	71	11.0	1.0
SPACE	72	11.0	1.0	72	11.0	1.0	72	11.0	1.0
SPACE	73	11.0	1.0	73	11.0	1.0	73	11.0	1.0
SPACE	74	11.0	1.0	74	11.0	1.0	74	11.0	1.0
SPACE	75	11.0	1.0	75	11.0	1.0	75	11.0	1.0
SPACE	76	11.0	1.0	76	11.0	1.0	76	11.0	1.0
SPACE	77	11.0	1.0	77	11.0	1.0	77	11.0	1.0
SPACE	78	11.0	1.0	78	11.0	1.0	78	11.0	1.0
SPACE	79	11.0	1.0	79	11.0	1.0	79	11.0	1.0
SPACE	80	11.0	1.0	80	11.0	1.0	80	11.0	1.0
SPACE	81	11.0	1.0	81	11.0	1.0	81	11.0	1.0
SPACE	82	11.0	1.0	82	11.0	1.0	82	11.0	1.0
SPACE	83	11.0	1.0	83	11.0	1.0	83	11.0	1.0
SPACE	84	11.0	1.0	84	11.0	1.0	84	11.0	1.0
SPACE	85	11.0	1.0	85	11.0	1.0	85	11.0	1.0
SPACE	86	11.0	1.0	86	11.0	1.0	86	11.0	1.0
SPACE	87	11.0	1.0	87	11.0	1.0	87	11.0	1.0
SPACE	88	11.0	1.0	88	11.0	1.0	88	11.0	1.0
SPACE	89	11.0	1.0	89	11.0	1.0	89	11.0	1.0
SPACE	90	11.0	1.0	90	11.0	1.0	90	11.0	1.0
SPACE	91	11.0	1.0	91	11.0	1.0	91	11.0	1.0
SPACE	92	11.0	1.0	92	11.0	1.0	92	11.0	1.0
SPACE	93	11.0	1.0	93	11.0	1.0	93	11.0	1.0
SPACE	94	11.0	1.0	94	11.0	1.0	94	11.0	1.0
SPACE	95	11.0	1.0	95	11.0	1.0	95	11.0	1.0
SPACE	96	11.0	1.0	96	11.0	1.0	96	11.0	1.0
SPACE	97	11.0	1.0	97	11.0	1.0	97	11.0	1.0
SPACE	98	11.0	1.0	98	11.0	1.0	98	11.0	1.0
SPACE	99	11.0	1.0	99	11.0	1.0	99	11.0	1.0
SPACE	100	11.0	1.0	100	11.0	1.0	100	11.0	1.0
SPACE	101	11.0	1.0	101	11.0	1.0	101	11.0	1.0
SPACE	102	11.0	1.0	102	11.0	1.0	102	11.0	1.0
SPACE	103	11.0	1.0	103	11.0	1.0	103	11.0	1.0
SPACE	104	11.0	1.0	104	11.0	1.0	104	11.0	1.0
SPACE	105	11.0	1.0	105	11.0	1.0	105	11.0	1.0
SPACE	106	11.0	1.0	106	11.0	1.0	106	11.0	1.0
SPACE	107	11.0	1.0	107	11.0	1.0	107	11.0	1.0
SPACE	108	11.0	1.0	108	11.0	1.0	108	11.0	1.0
SPACE	109	11.0	1.0	109	11.0	1.0	109	11.0	1.0
SPACE	110	11.0	1.0	110	11.0	1.0	110	11.0	1.0
SPACE	111	11.0	1.0	111	11.0	1.0	111	11.0	1.0
SPACE	112	11.0	1.0	112	11.0	1.0	112	11.0	1.0
SPACE	113	11.0	1.0	113	11.0	1.0	113	11.0	1.0
SPACE	114	11.0	1.0	114	11.0	1.0	114	11.0	1.0
SPACE	115	11.0	1.0	115	11.0	1.0	115	11.0	1.0
SPACE	116	11.0	1.0	116	11.0	1.0	116	11.0	1.0
SPACE	117	11.0	1.0	117	11.0	1.0	117	11.0	1.0
SPACE	118	11.0	1.0	118	11.0	1.0	118	11.0	1.0
SPACE	119	11.0	1.0	119	11.0	1.0	119	11.0	1.0
SPACE	120	11.0	1.0	120	11.0	1.0	120	11.0	1.0
SPACE	121	11.0	1.0	121	11.0	1.0	121	11.0	1.0
SPACE	122	11.0	1.0	122	11.0	1.0	122	11.0	1.0
SPACE	123	11.0	1.0	123	11.0	1.0	123	11.0	1.0
SPACE	124	11.0	1.0	124	11.0	1.0	124	11.0	1.0
SPACE	125	11.0	1.0	125	11.0	1.0	125	11.0	1.0
SPACE	126	11.0	1.0	126	11.0	1.0	126	11.0	1.0
SPACE	127	11.0	1.0	127	11.0	1.0	127	11.0	1.0
SPACE	128	11.0	1.0	128	11.0	1.0	128	11.0	1.0
SPACE	129	11.0	1.0	129	11.0	1.0	129	11.0	1.0
SPACE	130	11.0	1.0	130	11.0	1.0	130	11.0	1.0
SPACE	131	11.0	1.0	131	11.0	1.0	131	11.0	1.0
SPACE	132	11.0	1.0	132	11.0	1.0	132	11.0	1.0
SPACE	133	11.0	1.0	133	11.0	1.0	133	11.0	1.0
SPACE	134	11.0	1.0	134	11.0	1.0	134	11.0	1.0
SPACE	135	11.0	1.0	135	11.0	1.0	135	11.0	1.0
SPACE	136	11.0	1.0	136	11.0	1.0	136	11.0	1.0
SPACE	137	11.0	1.0	137	11.0	1.0	137	11.0	1.0
SPACE	138	11.0	1.0	138	11.0	1.0	138	11.0	1.0
SPACE	139	11.0	1.0	139					

**BLOOMINGTON PLAN COMMISSION
STAFF REPORT
LOCATION: 3100 W. Fullerton Pike**

**CASE #: ZO-23-20
DATE: November 9, 2020**

PETITIONER: Bill C. Brown Revocable Trust
300 S. State Road 446, Bloomington

CONSULTANT: Michael L. Carmin.
116 W. 6th Street, Bloomington

REQUEST: The petitioner is requesting to rezone 87 acres from Planned Unit Development (PUD) to Mixed Use Corridor (MC). Also requested is a waiver from the required second hearing.

BACKGROUND:

Area: 87 acres
Current Zoning: Planned Unit Development
Comp Plan Designation: Employment
Existing Land Use: Undeveloped
Proposed Land Use: None
Surrounding Uses: North – Southern Indiana Medical Park
South – Undeveloped (County Jurisdiction)
East – Quarry (County Jurisdiction)
West – Interstate 69 (County Jurisdiction)

REPORT: This 87 acre property is located at the northeast corner of State Road 37 and W. Fullerton Pike. The site is currently undeveloped. This property was zoned Planned Unit Development (PUD) in 1988 (PCD-36-88) largely for industrial uses. The property received a final plan approval for an assisted care living facility in 1997 (PUD-6-97) and a PUD amendment in 1999 (PUD-15-99) to include a nine-hole, Par 3 golf course to the list of approved uses. This site was also evaluated in 2003 and 2004 in association with rezoning requests for the large vacant property to the north (Southern Indiana Medical Park II). No formal approvals for this parcel were sought at that time. A site plan approval (PUD-10-15) was approved in 2015 to allow for some of the topsoil from this site to be removed for the construction of I-69. The portions of the site that contain tree canopy coverage and riparian buffers were set aside in the required easements with the 2015 site plan approval.

The petitioner is requesting to rezone this property from a Planned Unit Development to Mixed-Use Corridor (MC). No development plan is being requested at this time and no conceptual site plan has been submitted. For reference, on the draft zoning map that has been proposed, this area is proposed to be rezoned to Mixed-Use Employment. While there are some uses within the Mixed-Use Corridor that are also allowed in the Mixed-Use Employment district, there are some specific uses that may or may not be appropriate for this area including big box retail, vehicle fuel station (e.g. truck stop), car washes, vehicle sales, and vehicle repair. Through the map update and text amendment process, the Department is evaluating possible changes to the use list for the Mixed-Use Employment district, however it is unlikely that the uses listed above would be proposed additions.

COMPREHENSIVE PLAN: The Comprehensive Plan designates this site as ‘Employment’. The Employment district includes professional and business offices, light assembly plants, flex-tenant

facilities, and research and development centers. The Plan also states that the Employment district should contain a mix of office and light/high-tech manufacturing uses that provide quality employment opportunities for the Bloomington community. The proposed district, MC, would not align as well with the Employment category as the Employment or Mixed-Use Employment zoning districts would. However, there are uses within the Mixed Use Corridor district that could be high employment uses.

20.06.070(b)(3)(E)(i)(1) ZONING MAP AMENDMENT PLAN COMMISSION REVIEW AND RECOMMENDATION:

The following criteria are those that the Plan Commission must consider when reviewing a zoning map amendment request. The Department will provide specific proposed findings before the required second hearing, but preliminarily believes that the petition will meet these requirements.

- [a] The recommendations of the Comprehensive Plan;
- [b] Current conditions and character of structures and uses in each zoning district;
- [c] The most desirable use for which the land in each zoning district is adapted;
- [d] The conservation of sensitive environmental features;
- [e] The conservation of property values throughout the jurisdiction; and
- [f] Responsible development and growth

CONCLUSION: The Department believes that the rezoning of this site to Mixed Use Corridor would not match the Comprehensive Plan designation of the site as Employment. While some of the uses in MC are conducive to employment, many more uses are not and the EM or ME zoning districts are more appropriate for this prominent intersection, and in line with the Comprehensive Plan.

RECOMMENDATION: The Department recommends forwarding this petition to the Common Council with a denial recommendation.



City of Bloomington
Bloomington Environmental Commission

MEMORANDUM

Date: November 9, 2020
To: Bloomington Plan Commission
From: Bloomington Environmental Commission
Subject: ZO-23-20: Bill C. Brown Revocable Trust Rezone
3100 W. Fullerton Pike

The purpose of this memo is to convey the environmental concerns and recommendations for conditions of approval from the Environmental Commission (EC) with the hope that action will follow to enhance its environment-enriching attributes. The request is to rezone the property from PUD to Mixed-Use Corridor (MC).

The EC has no objection to the rezoning of this property with the following conditions of approval.

COMMENTS

1. Conservation Easement signs

All easements shall be identified with public signs located along the boundary of the easement. Public signs shall be placed at intervals of no more than two hundred feet, and each sign shall be a maximum of one and one-half square feet in area. A minimum of one public sign is required, regardless of easement size. The property owner shall be responsible for installing and maintaining required signage.

2. Additional information regarding the karst geology

At the time of the previous petitioner's request, the EC recommended a through geologic investigation. The reason is that the soil is very thin and there are sinkholes and springs on the site and the surrounding area. Excavation of the soil and bedrock will likely expose more sensitive features. Because karst features that are not now obvious should also be protected if exposed, the EC believes the geologic investigation should be conducted. The staff report from 2015 states that staff thinks this investigation should be completed at the time of rezone, which is now.

Below you find the part of the staff report referred to. Additionally, you will find the 2015 EC memo requesting further investigations. The part that is struck out, does not relate to this petition.

BLOOMINGTON PLAN COMMISSION CASE NO: PUD-10-15**STAFF REPORT DATE: April 13, 2015****LOCATION: 3100 W. Fullerton Pike****PETITIONER: Bill C. Brown**

300 S. SR 446, Bloomington

ENVIRONMENTAL COMMISSION: The Environmental Commission has reviewed this petition and offered the following recommendations:

1.) The Petitioner should get a geological evaluation to describe what karst features are hidden beneath the ground surface and describe how the surface and subsurface water regime will be impacted with soil excavation.

2.) The Petitioner should get an evaluation from a Soil Scientist that describes the health and vitality of the subsurface soil that will eventually be on the surface.

Staff's Response (1 & 2): Staff finds that the proposed testing would only be appropriately required if it were attached through a rezoning process and not at a final plan stage. The proposed grading meets the environmental standards and will be protected in a manner consistent with the UDO and the PUD.

3.) The Petitioner should reconsider the location of the road bed to avoid the high quality woods to the north.

Staff's Response: Staff finds that the proposed location is both appropriate and consistent with the past approvals for this property and the property to the north. Furthermore, no construction of the road is proposed and future construction will be reviewed by the Plan Commission.

CONCLUSION: As previously stated, this proposal does not include any buildings or use of the property and only proposes grading activities. The proposal must receive Plan Commission approval only because no grading can occur without a PUD final plan approval. The proposed grading will not excessively denude the site of usable soil and will not encroach into environmentally sensitive portions of the site as regulated by the Unified Development Ordinance. Therefore, staff is supportive of this request.

RECOMMENDATION: Staff recommends approval of PUD-10-15 with the following conditions:

1. The petitioner must retain 50 percent of the topsoil for use on-site to promote stabilization of the soil after grading.

2. No grading is permitted without an approved grading permit.

3. Required easements for slopes over 18 percent, riparian buffers, and karst features must be identified and recorded prior to the release of a grading permit



City of Bloomington
Bloomington Environmental Commission

MEMORANDUM

Date: April 6, 2015

To: Bloomington Plan Commission

From: Bloomington Environmental Commission

Through: Linda Thompson, Senior Environmental Planner

Subject: PUD-10-2015, Bill Brown Trust, Fullerton Pike
South SR 37 and West Fullerton Pike

This memorandum contains the Environmental Commission's (EC) input and recommendations regarding a request for a PUD Final Plan for grading work. The request includes removal of several feet of topsoil and road bed preparation. The EC believes this project will have negative environmental effects that may not be apparent at first glance, thus does not support the proposal.

ISSUES OF SOUND ENVIRONMENTAL DESIGN:

1.) KARST PROTECTION:

There are two sinkholes on the western edge of the site where it is nearly the highest point on the property. The sinkholes will be protected during excavation, and afterwards the outer edge of the sinkholes will be higher than the surrounding surface. To help envision this after grading is complete, imagine a volcano that extends upward from the ground surface, or perhaps a sump drain that is elevated above the floor. What this means is that no water will be able to flow into the sinkholes, thus cutting off the existing water supply to the subsurface karst system. The UDO (20.05.042 (a) (6)) states "Stormwater discharge into a karst feature shall not be increased over its pre-development rate. In addition, such discharge into a karst feature shall not be substantially reduced from pre-development conditions." The EC fears that depleting the sinkholes of their current water infiltration will diminish the water reaching the spring just downslope and change the entire water regime leading to the wetlands near the bottom of the watershed.

Because of the probable negative impact to this entire ecosystem, the EC believes that the Petitioner should do more research regarding the effects of changing the hydrologic behavior in the entire watershed. Some information to be gleaned before approval include the following.

A geotechnical audit that identifies karst features that may be uncovered with excavation, thus revealing the limitations such features impose on site development, and predict changes in hydrologic behavior.

This will require a geologic investigation conducted by a Professional Geologist. The investigation results need to include, depict, illustrate, and/or portray at least the following to the satisfaction of the EC and the Senior Environmental Planner.

- a. A karst inventory for the whole sub watershed. The site is an integral part of a regional karst system and does not stand alone; therefore, it cannot be evaluated without considering the whole surface and subsurface drainage system. This includes all karst features (sinkholes, springs, grikes, underground water conduits, fracture liniments, voids, caves, etc.) expressed on the surface and in the subsurface.*
- b. Due to the intensity of karst features in the vicinity, any soil borings used to portray the bedrock surface should be drilled on a grid spaced more densely than typically used to identify a bedrock surface.*
- c. After identifying any newly-found karst features, which will contribute to the control and form the drainage regime, the stormwater and groundwater flow patterns must be identified and mapped.*
- d. Map the bedrock topography (this means the top of the subsurface rock and not the surface soil topography) and locate bedrock voids.*
- e. The results of the research and methods used to reach the conclusions of the above suggestions should be included within the environmental review plan. Examples of research methods that could be employed are:*

*Natural Potential (NP)
 Electrical Resistivity Tomography (ERT)
 Seismic
 Electromagnetic (EM)
 Microgravity
 Infrared Thermal Scanning
 Dye Tracing
 Exploratory Soil Boring
 Exploratory Rock Coring
 Ground-Penetrating Radar*

2.) DENUDED SOIL BIOLOGY:

Because there are so many living organisms in soil, the EC recommends that a Soil Scientist be employed to describe what the remaining surface will contain and whether or not it will be able to support life. If terra Rosa is all that is left on the surface, amendments may need to be applied in order for plant life to regenerate. The soil ecosystem is teaming with biodiverse organisms that enable plants to take up nutrients necessary for survival. A chart from Colorado State University Extension <http://www.ext.colostate.edu/mg/gardennotes/212.html> exemplifies this.



City of Bloomington
Bloomington Environmental Commission

*Table 1.
Organisms typically found in one cup of undisturbed native soil*

<i>Organism</i>	<i>Number</i>
<i>Bacteria</i>	<i>200 billion</i>
<i>Protozoa</i>	<i>20 million</i>
<i>Fungi</i>	<i>100,000 meters</i>
<i>Nematodes</i>	<i>100,000</i>
<i>Arthropods</i>	<i>50,000</i>

3.) ROAD CONNECTION:

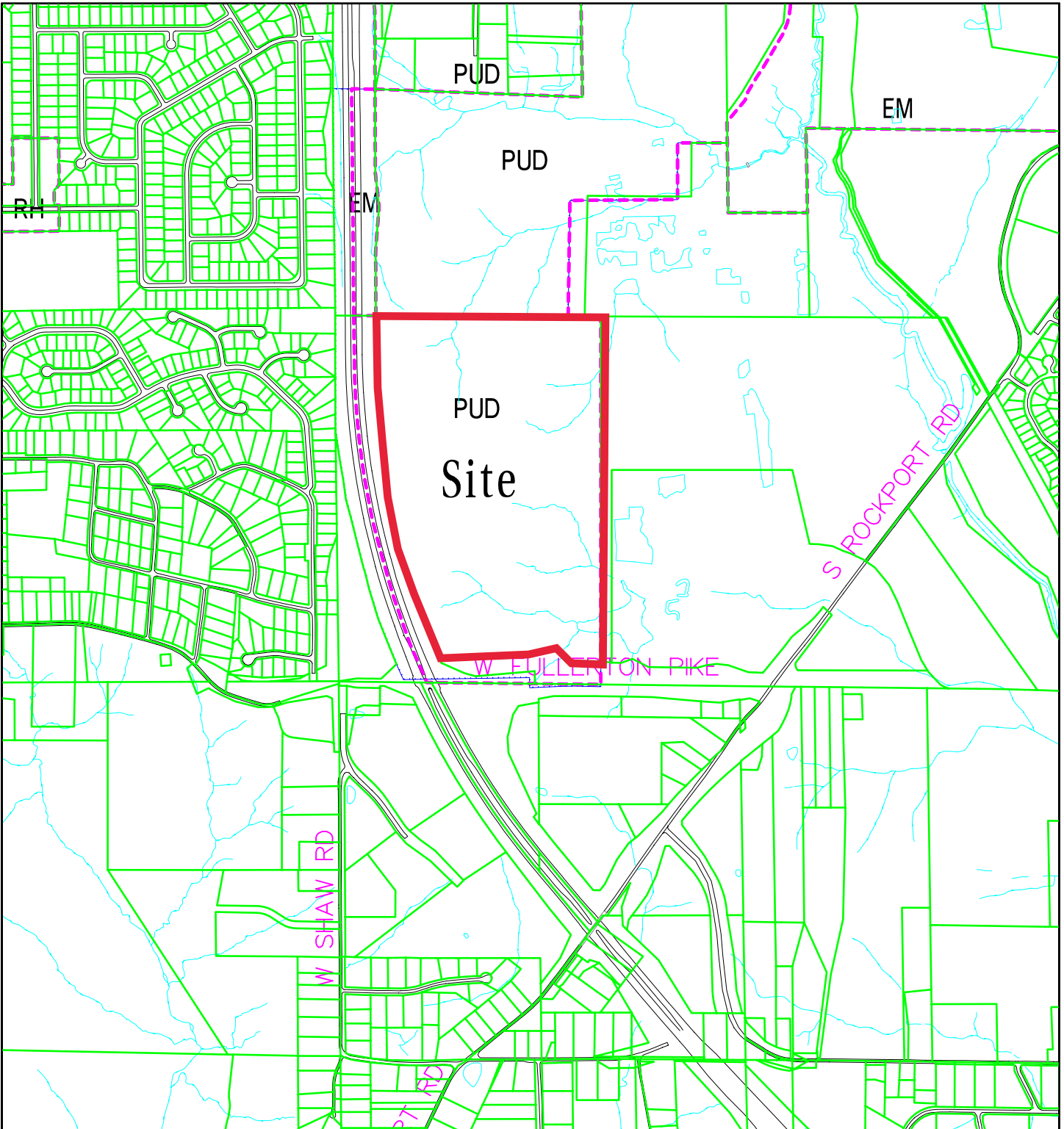
The EC is not in favor of the future road stubbing into the adjoining woods at the location shown on the plans. In the past, there was much discussion regarding saving the mature woodland to the north of this property. The EC would still recommend protecting that woods.

EC RECOMMENDATIONS:

- 1.) The Petitioner should get a geological evaluation to describe what karst features are hidden beneath the ground surface and describe how the surface and subsurface water regime will be impacted with soil excavation.*
- 2.) The Petitioner should get an evaluation from a Soil Scientist that describes the health and vitality of the subsurface soil that will eventually be on the surface.*
- 3.) ~~The Petitioner should reconsider the location of the road bed to avoid the high quality woods to the north.~~*

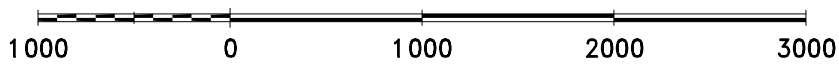
RECOMMENDED CONDITIONS OF APPROVAL for November 9, 2020

1. All signs that were required to be installed at the edges of the Conservancy Easements shall be installed now. This requirement is found in both the previous and current UDOs.
2. A geologic evaluation of the hydrology, soil health, and karst features will be conducted by a Licensed Professional Geologist (LPG) per the request in the April 6, 2015 EC memo to the Plan Commission before the issuance of any permits.

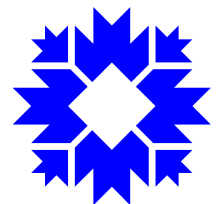


Bill Brown Fullerton Pike

By: greulice
9 Oct 20

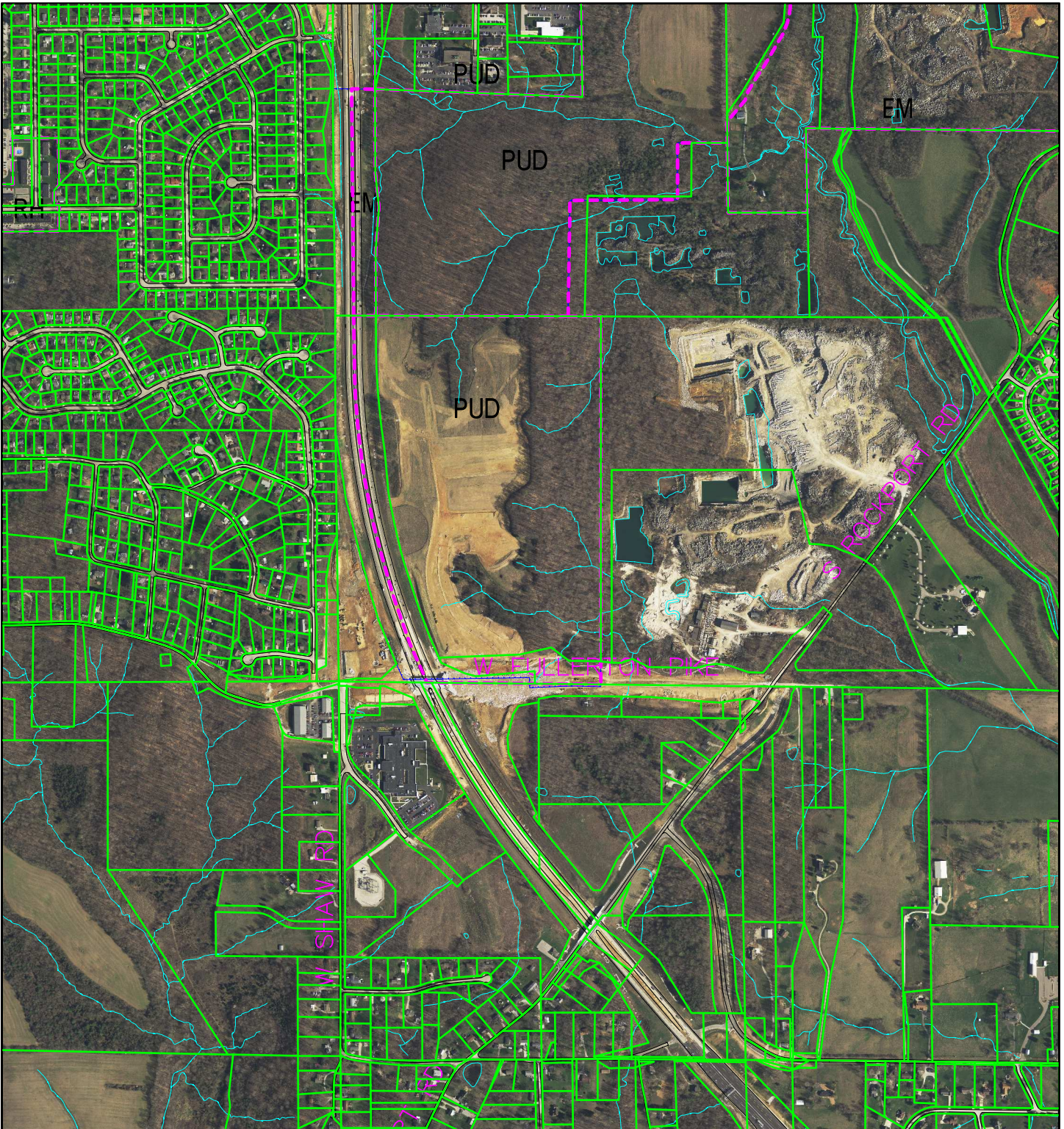


City of Bloomington
Planning & Transportation

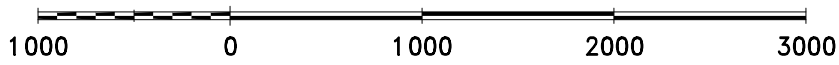


Scale: 1" = 1000'

For reference only; map information NOT warranted.



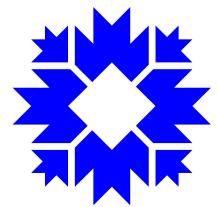
By: greulice
9 Oct 20



For reference only; map information NOT warranted.



City of Bloomington
Planning & Transportation



Scale: 1" = 1000'



**City of Bloomington
Planning and Transportation Department**



- PLAN COMMISSION
- PLAT COMMITTEE
- BOARD OF ZONING APPEALS
- HEARING OFFICER
- COMMON COUNCIL
- STAFF LEVEL

CASE# _____
 FILING DATE _____
 FILING FEE \$ _____
 HEARING DATE(S) _____
 HT ACCT# _____
 PLANNER: _____

ADDRESS OF PROPERTY W. Fullerton Place

Applicant's Name B. U. C. Brown Revocable Trust Phone _____
 Address 300 S. S.R. 446 Email billycbrown@gmail.com
 Owner's Name Bill C. Brown Revocable Trust Phone _____
 Address _____ Email _____
 Counsel or Consultant Michael L. Carraai Phone 612-332-6556
 Address 116 W 62nd St Suite 200 Bloomington Email michael@carraiparker.com

STAFF USE ONLY – TO BE COMPLETED BY STAFF

Plan Commission/Plat Committee

- Change of Zone
- Site Plan Review
- Planned Unit Development (Preliminary Plan)
- Planned Unit Development (Final Plan)
- Preliminary Plat Review
- Final Plat Review

BZA/Hearing Officer

- Appeal from Administrative Decision
- Conditional Use
- Variance
- Use Variance

Common Council

- Right-of-Way Vacation

Description of Request:

This application must be accompanied by all required submittals and plan elements, as indicated for the requested approval. Submittal of plans for review by City of Bloomington Utilities is required at or prior to time of application. Present CBU verification of receipt of plans at time of filing. Applicants are required to meet with a planner to review their request prior to filing an application. No applications will be accepted without prior Staff consultation. Staff reserves the right to schedule hearing dates for petitions subject to complete submittals and previously filed cases. Notices to adjacent property owners should not be mailed until hearing dates have been confirmed.

I (we) agree that the applicant will notify all adjacent property owners at the applicant's expense.
 I (we) further agree that the Planning and Transportation Department will cause a legal notice of this application to be published in a paper having general circulation in Bloomington at the applicant's expense.
 I (we) certify that all foregoing information is correct and that I (we) are the owners (legal agents for owners) of property subject to this application and authorize Staff to inspect the site as needed.
 If applicant is other than recorded owner, an affidavit designating authority to act on owner's behalf, must accompany this application.

Applicant Signature: Michael L. Carraai Date: 10/6/2020 Staff Initial: _____
MICHAEL CARRAAI ATTORNEY FOR PETITIONER

PETITIONER'S REZONING STATEMENT

Bill C. Brown Revocable Trust, Petitioner, requests rezoning of the PUD land located at Fullerton Pike and I-69 (northeast corner) consisting of 87.12 acres to mixed use-corridor (MC).

Unified Development Ordinance states the purpose for the MC zone as “intended to accommodate medium scaled developments with a mix of store front retail, professional office, and/or residential dwelling units along arterial and collector corners at a scale larger than the neighborhood-scale uses accommodated by the MN zoning district.”

Current Planned Unit Development zone. The existing PUD contains a variety of permitted uses, including:

- ◆ Commercial, retail
- ◆ Commercial, trade
- ◆ Commercial, wholesale
- ◆ Industrial – manufacturing and processing uses
- ◆ Industrial – non-processing use (warehouse)
- ◆ Professional, corporate and commercial offices
- ◆ Healthcare (extended care)
- ◆ Mail order sales offices and storage with limited retail

PUD Development. The Fullerton Pike PUD remains undeveloped. Approximately three acres of the PUD land along the south property line adjacent to Fullerton Pike was acquired by State of Indiana in connection with the I-69 development project. West Fullerton Pike adjacent to the PUD was widened and a roundabout constructed.

Proposed/Anticipated future development of the property includes:

- ◆ Hotel/motel
- ◆ Trade offices
- ◆ Governmental uses, including a training center
- ◆ Other employment uses
- ◆ Multi-family apartments

Adjacent and surrounding uses. The property is bordered on the east by a limestone quarry operation, on the north by vacant, undeveloped land, on the west by I-69 and west of I-69 are single family home developments, southwest is the Monroe Hospital development and the remaining land bordering on the south side of Fullerton Pike is one single family lot and undeveloped ground.

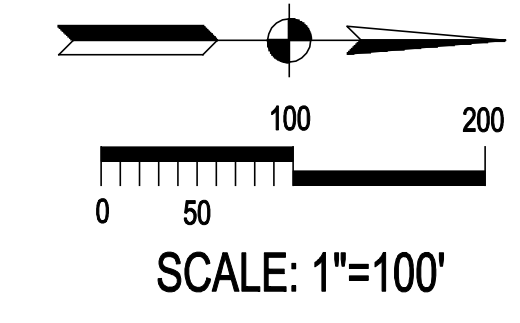
Environmental Issues. In August, 2015, Petitioner granted to the City of Bloomington conservancy and karst easements encumbering the PUD to identify, protect and preserve natural areas, slope areas, drainage ways and karst features.

Petitioner's Intent. The MC zone closely matches the PUD permitted uses. The property is bordered by I-69, an established corridor through the Monroe County community. Fullerton Pike is under development and is projected with land improvements and further development east to become a corridor from I-69 to South Walnut Street/Old State Road 37. The permitted uses in the MC zone are closely aligned with the breadth and scope of permitted uses in the existing PUD. Development standards for the MC zone are suitable for future development at this location. A specific development of the property is not planned at this time. Petitioner has been approached for possible development of a hotel in the southwest corner of the property, adjacent to I-69. Petitioner has also been approached to develop a large part of the property as a training center for fire and emergency services. It is expected that the City of Bloomington will seek to rezone the PUD at a future date. In order to promote development of the property, Petitioner seeks to clarify the zoning classification consistent with the recently adopted new Unified Development Ordinance with permitted uses appropriate to the zone without undue delay.

Petitioners request waiver of second hearing before the Plan Commission.


Michael L. Carmin
Attorney for Petitioners

423648



Smith Brehob & Associates, Inc.
 453 S. Claritz Boulevard
 Bloomington, Indiana, 47401
 Telephone: (812) 336-6536
 Fax: (812) 336-0513
 Web: <http://smibrehob.com>

CERTIFICATION DATE
 / /

JOB TITLE
BILL C. BROWN TRUST
FULLERTON PIKE
BLOOMINGTON, INDIANA

REVISIONS	BY	DATE

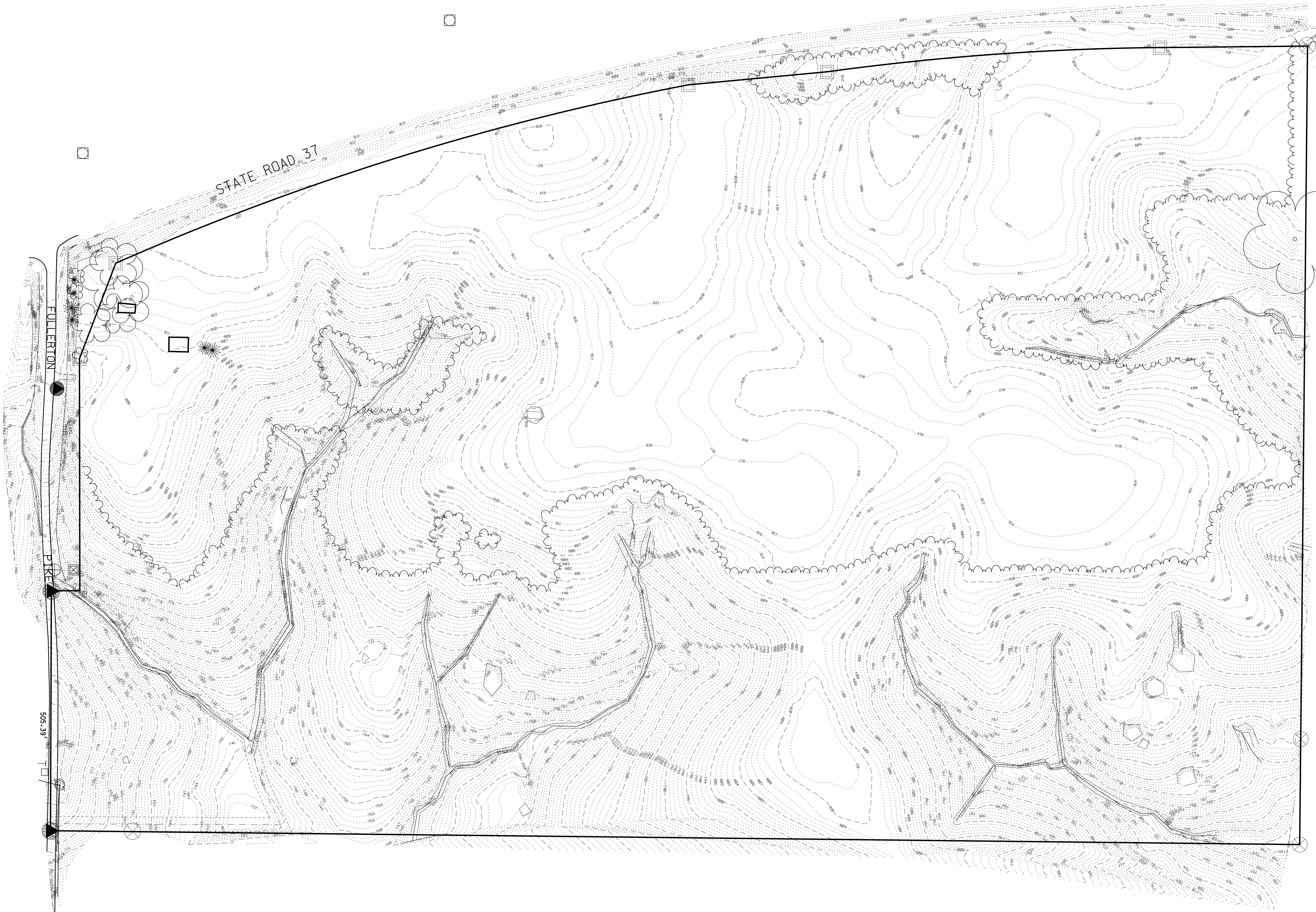
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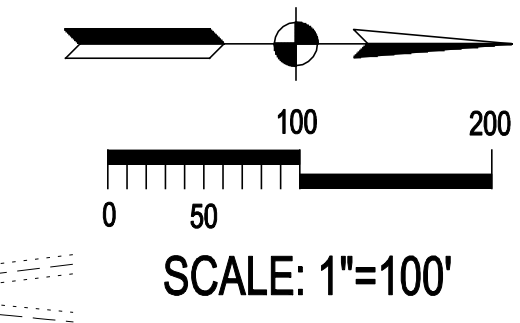
JOB NUMBER
4900
 SHEET
2 OF 7
 DATE
 03/13/15

EXISTING TOPOGRAPHY

TOPOGRAPHIC LEGEND

- 1' CONTOUR INTERVAL - - - - -
- 5' CONTOUR INTERVAL - - - - -
- FLOW LINE - - - - -
- EDGE OF WATER - - - - -
- SPOT ELEVATION 123.45
- TEST BORING ⊕
- BENCHMARK ⊕
- CONCRETE MONUMENT ⊕
- GPS MONUMENT ⊕
- IRON PIPE MONUMENT ⊕
- IRON ROD MONUMENT ⊕
- RAILROAD SPIKE ⊕
- REBAR w/ PLASTIC CAP ⊕
- STONE MONUMENT ⊕
- STONE MONUMENT w/ "X" ⊕
- SIGN ⊕
- TELEPHONE POLE ⊕
- CONIFEROUS TREE ⊕
- DECIDUOUS TREE ⊕
- SOIL BORING ⊕





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 Bloomington, Indiana, 47401
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 Web: <http://smibbrehab.com>

CERTIFICATION DATE
 / /

JOB TITLE
BILL C. BROWN TRUST
FULLERTON PIKE
BLOOMINGTON, INDIANA

REVISIONS	BY	DATE

DESIGNED BY
WDW

CHECKED BY
WDW

DATE

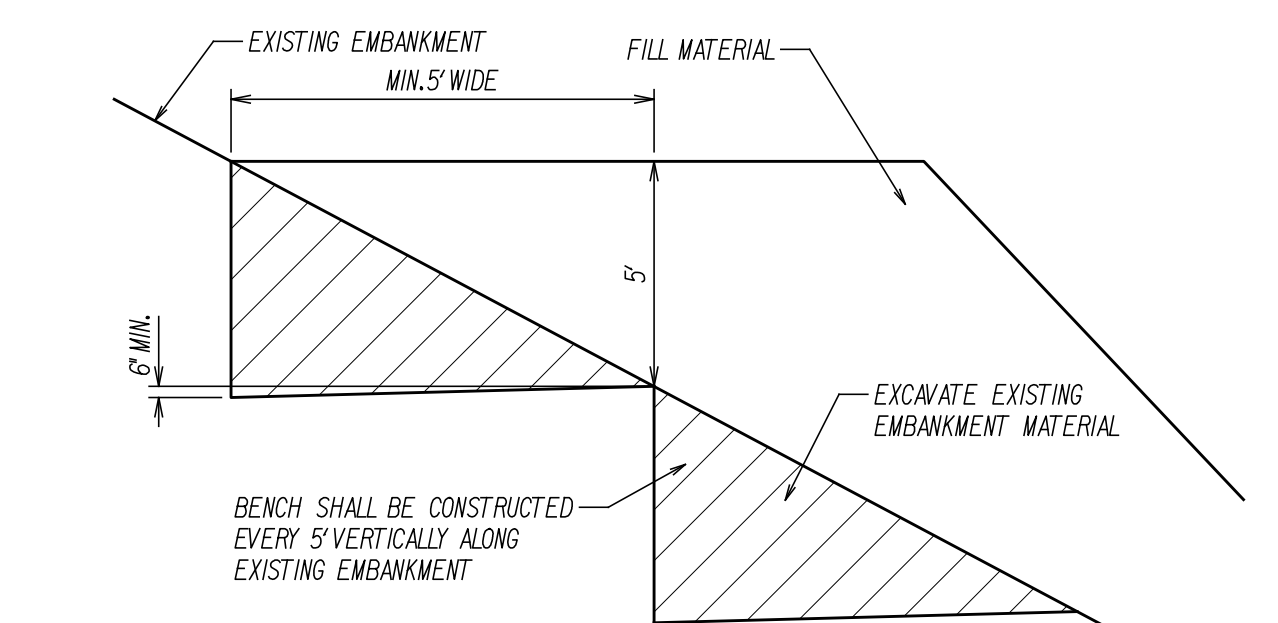
JOB NUMBER
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SHEET
3 OF **7**

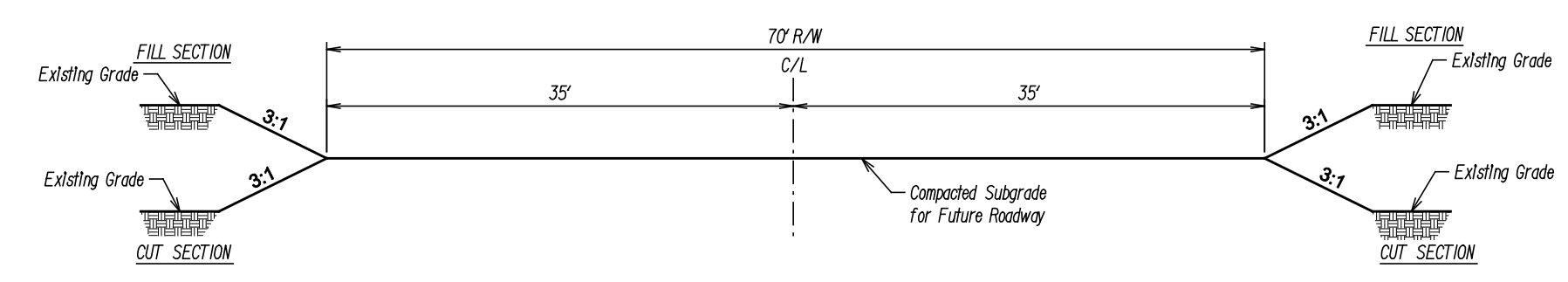
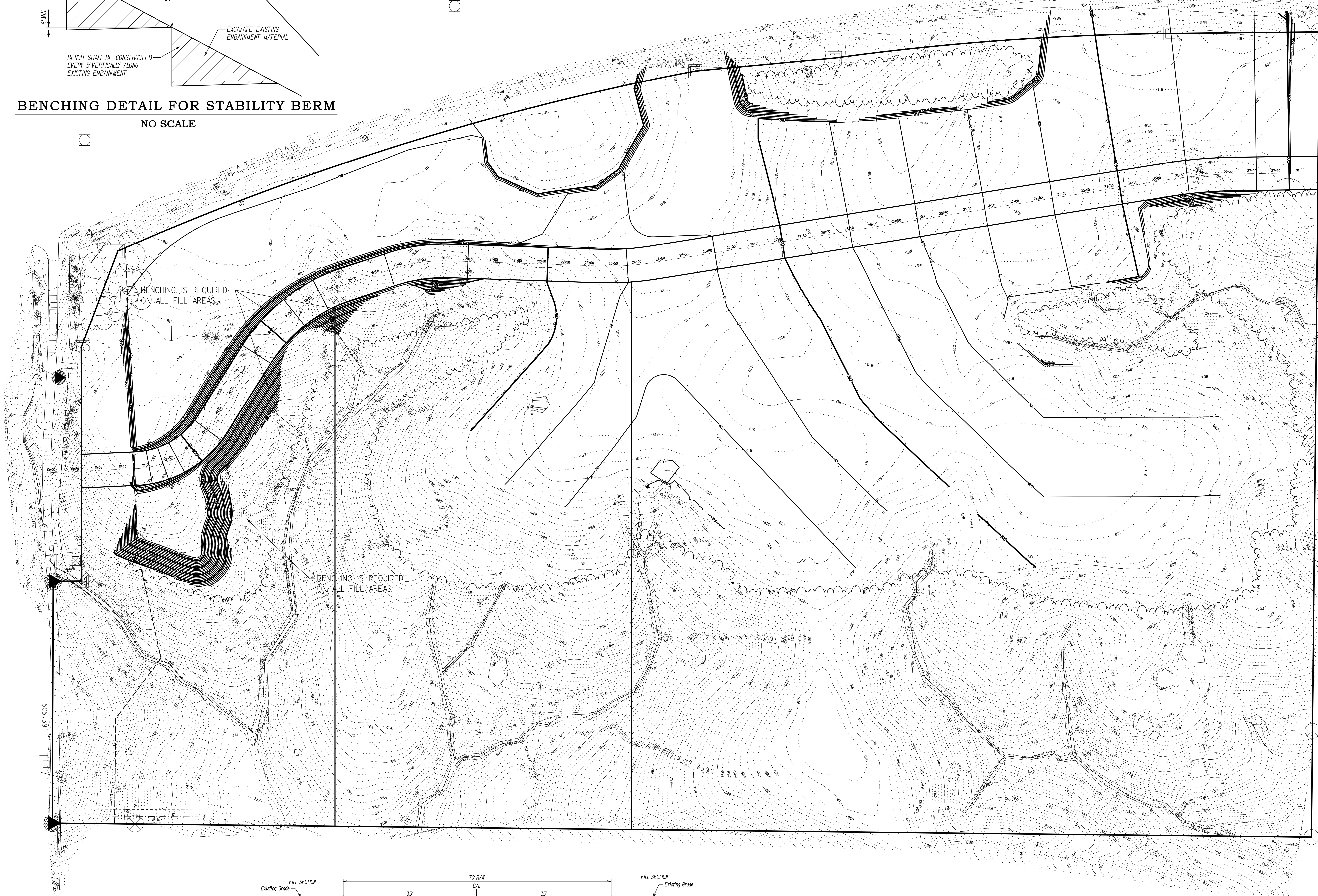
DATE
03/13/15

GRADING PLAN

- GRADING & EROS. CTRL LEGENDS**
- PROPOSED 1' CONTOUR ———
 - PROPOSED 5' CONTOUR ———
 - PROPOSED SPOT ELEVATION ———
 - SOIL BORING ———
 - RIP-RAP ———
 - SILT TRAP ———
 - INLET PROTECTION ———
 - DETENTION BASIN ———
 - STRAW BALE DAM ———
 - ROCK CHECK DAM ———
 - PAVED SIDE DITCH ———
 - DIVERSION DITCH ———
 - TREE PROTECTION FENCE ———
 - FLOOD LINE ———
 - FLOW LINE ———
 - GRADING LIMITS ———
 - SEDIMENT BASIN ———
 - SILT FENCE ———

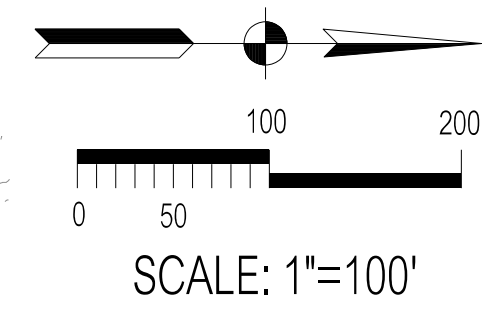
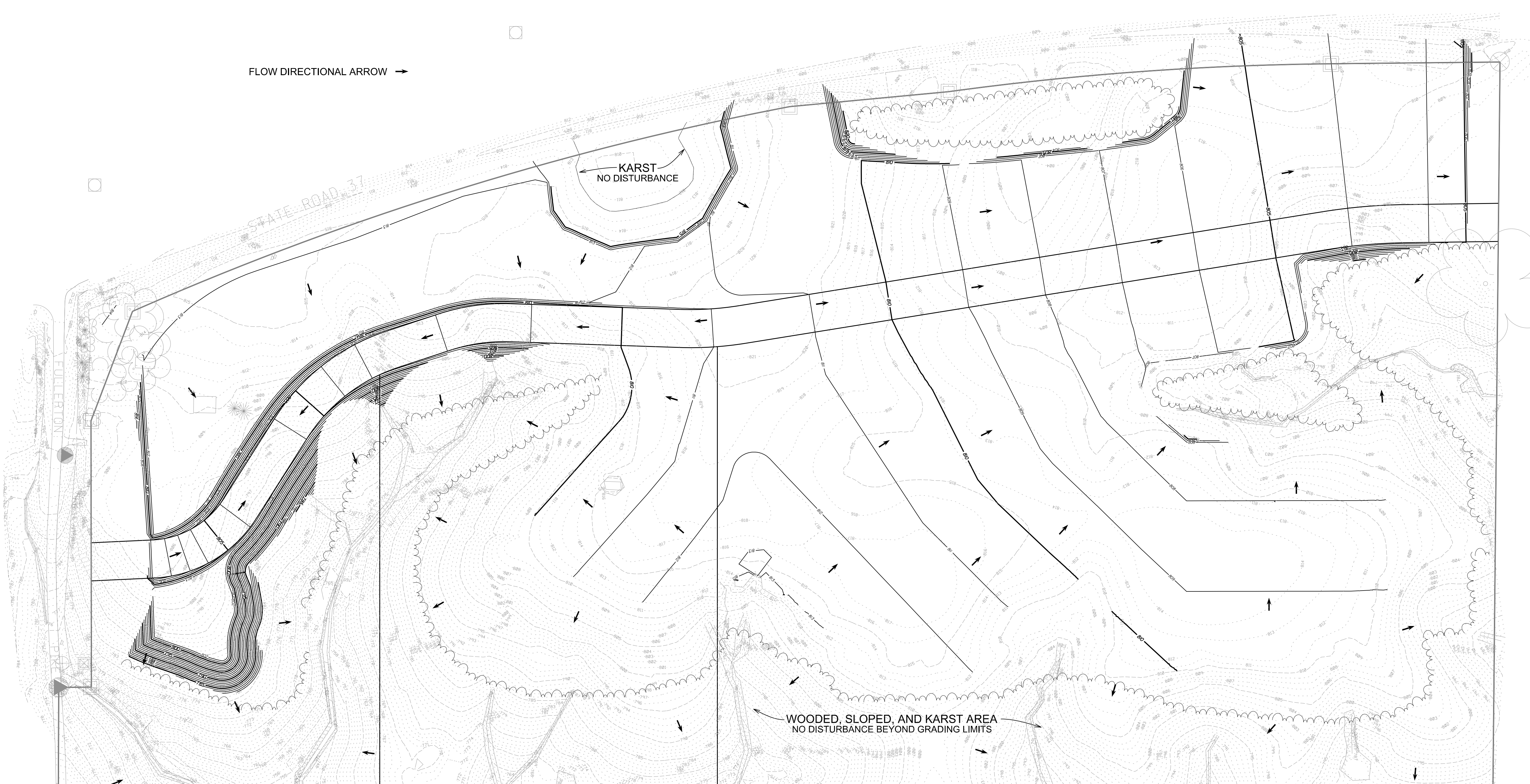


BENCHING DETAIL FOR STABILITY BERM
 NO SCALE



TYPICAL CROSS SECTIONS FOR FUTURE ROADWAY
 NO SCALE

- GRADING NOTES**
- 100YR. F.E.L. = IF SHOWN ON THE PLANS, = 100YR. FLOOD ELEV.
 - GRADING LIMITS: IF SHOWN ON THE PLANS, INDICATE THE LINE AT WHICH THE PROPOSED GRADING MEETS THE EXISTING GRADE AND THE EDGE OF THE AREA THAT SHOULD BE DISTURBED DURING THE CONSTRUCTION PROCESS.
 - PROPOSED SPOT ELEVATIONS, IF SHOWN, ARE AT FINISH GRADE UNLESS NOTED OTHERWISE ON THE PLANS



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CERTIFICATION DATE
 / /

JOB TITLE
BILL C. BROWN TRUST
FULLERTON PIKE
BLOOMINGTON, INDIANA

BY	DATE	REVISIONS
SLS	08/03/15	

APPROVED	DATE
WDW	
DISCOVERED	
WDW	
CHECKED	

JOB NUMBER
4900
 SHEET
4 OF 7
 DATE
 03/13/15
DRAINAGE MAP

SEC. A CONSTRUCTION PLAN ELEMENTS

- A2 - Recorded Final Plat
Not applicable. No legal subdivision of land is occurring as part of this project.
- A3 - Narrative describing nature and purpose of project
The parcel of land described in this application is anticipated to be future commercial and industrial development. The property lies on the northeast corner of West Fullerton Pike and the future I69 where an interchange will be constructed over the next several years. The work proposed with this application is for mass grading and erosion control measures only. The site will be cut down several feet where possible and the excavation utilized as embankment for the ongoing I69 project.
- A4 - Vicinity Map
A vicinity map is shown on Sheet 1.
- A5 - Legal Description
Please see title sheet
- A6 - Location of lots and proposed improvements
No lots are being created. The location of the project can be seen on the location map shown on Sheet 1.
- A7 - Hydrologic Units Code (HUC14)
05120208090010
- A8 - Notation of any State or Federal water quality permits
No State or Federal water quality permits are required for this project other than the IDEM Storm Water NPDES NDI.
- A9 - Specific points where storm water discharge leaves the site
Noted on the drainage map.
- A10 - Location & name of all wetlands, lakes & water courses on and adjacent to the site - (if they exist).
No wetlands were noted on the National Wetlands Inventory mapper within the project area. Water courses are noted on the drainage map.
- A11 - Identification of all receiving waters
Noted on the drainage map. Discharge leaves the site via sheet flow to limestone quarry areas within the Clear Creek watershed.

- A12 - Identification of potential discharges to ground water
There is one known sinkhole on the property. It is noted on the drainage map.
- A13 - 100 yr floodplains, floodways, and flood fringes - if they exist
There are no mapped floodways within the project area, based on the FEMA FIRM for the area.
- A14 - Pre & Post construction estimates of peak discharge (10 yr)
Using the SCS Runoff Method and TR55, the pre-development discharge is approximately 28 cfs and the post-development is approximately 18 cfs due to the reduction in land slope.
- A15 - Adjacent land use, including upstream watershed
The use of adjacent land is visible on Sheet 1. Adjacent land to the project is either undeveloped land that is composed of open fields or wooded area or is used for the NSWC purposes that is undisclosed.
- A16 - Location & approximate boundary of all disturbed areas
All disturbed areas are shown on Sheet 2 as a stippled pattern to denote areas requiring re-vegetation after construction or through a hard surfaced area such as pavement.
- A17 - Identification of existing vegetative cover
Noted on Sheet 1. The existing vegetation consists of farm and pasture land with trees along the north, east and south perimeter of the property.
- A18 - Soils map including soil descriptions and limitation
Soils map is shown on Sheet 1. Soil types indicated below:
BdB Bedford Silt Loam, 2 to 6 percent slopes
CaD Caneyville Silt Loams, 12 to 18 percent slopes
Cb Caneyville-Hagerstown Silt Loam, Karst
CrC Crider Silt Loam, 6 to 12 percent slopes
HdD Hagerstown Silt Loam, 12 to 18 percent slopes
- A19 -Proposed storm water system location, size & dimension
No new permanent storm water collection systems or control systems are being proposed or are required. Culverts will be placed within the diversion ditches to convey runoff underneath the access road. Their locations and sizes are shown on Sheet 5.
- A20 - Plans for off-site constr. Activities assoc. w/project
Not applicable. No offsite work is proposed or required.

- A21 - Proposed stockpile and/or borrow/disposal area locations
A stockpile location is shown in Sheet 5.
 - A22 - Existing topography
The existing topography is shown on Sheet 3.
 - A23 - Proposed final topography
The proposed final topography is shown on Sheet 3.
- SECTION B STORMWATER POLLUTION PREVENTION PLAN - CONSTRUCTION COMPONENT**
- B1 - Description of potential pollutant sources assoc. w/constr.
Pollutants associated with this project will be minimal due to the scope of the project. Possible pollutants associated with construction include trucks used for delivery of fuel and maintenance of vehicles. Some pollutants associated with construction include grit and sediment due to grading and clearing, rust and brake dust from the construction vehicles and various fluids that may be used to lubricate or maintain construction equipment. Other pollutants may be possible, but are not foreseeable at this time. The SBA 2015 Specifications cover recommendations used for spills and other groundwater contaminants due to construction.
 - B2 - Sequence describing storm water quality measures implementation relative to land disturbing activity
Indicated in the Erosion Control Notes on Sheet 5.
 - B3 - Stable construction entrance location and specifications
The location is shown on Sheet 5. Specifications are shown on Sheet 6 and details are located on Sheet 7.
 - B4 - Sediment control measures for sheet flow
Silt fence will be utilized. Diversion ditches, temporary sediment basins and traps will be utilized throughout the site. Locations are shown on Sheet 5. Specifications are shown on Sheet 6 and details are located on Sheet 7.
 - B5 - Sediment control measures for concentrated flow areas
Diversion ditches will be used throughout the site to direct runoff to the appropriate sediment basin or trap. Locations are shown on Sheet 5. Specifications are shown on Sheet 6 and details are located on Sheet 7.

- B6 - Storm sewer inlet protection measure location & spec's.
Not applicable. There are no storm sewer inlets on or adjacent to the project location.
- B7 - Runoff control measures
Diversion ditches will be used throughout the site and will direct runoff to the appropriate sediment basin or trap within the site. The locations of such measures are shown on Sheet 5. Specifications are shown on Sheet 6 and details are located on Sheet 7.
- B8 - Storm water outlet protection specifications
Not applicable. No new storm water culverts or storm sewer systems will be installed for this project.
- B9 - Grade stabilization structure locations and specifications
Not applicable. Retaining walls or other grade stabilization features are not included for this project.
- B10 - Location, dimensions, specifications, & constr. Details of each storm water quality measure
Storm water quality measures and erosion control measures are shown on Sheet 5. Specifications are shown on Sheet 6 and details are located on Sheet 7.
- B11 - Temporary surface stabilization methods appropriate for each season
Locations requiring seeding will be the disturbed areas shown on Sheet 5. Specifications for such are shown on Sheet 6.
- B12 - Permanent surface stabilization specifications
All disturbed areas other than hard surface pavement areas will be finished lawn seeded. The specifications for which are noted by reference on Sheet 6.
- B13 - Material handling and spill prevention plan
Specifications for material handling and spill prevention are noted on Sheet 6
- B14 - Monitoring and maintenance guidelines for each proposed storm water quality measure
Specifications for temporary erosion control devices are noted on Sheet 6.
- B15 - Erosion & sediment control specifications for individual building lots
Not applicable. No single family building lots are being created.

SEC. C. STORMWATER POLLUTION PREVENTION PLAN - POST CONSTRUCTION

- C1 - Description of pollutants & their sources associated with the proposed land use
Possible pollutants associated with a project such as this will be minimal and may include grit, dust or fluids from the vehicles accessing the project area for testing or maintenance of the facility.
- C2 - Sequence describing storm water quality measures implementation
Storm water quality implementation will consist of re-establishment of vegetative cover. Seeding sequence is described in the Erosion Control Notes on Sheet 3.
- C3 - Description of proposed post-construction storm water quality measures
Post construction storm water quality will consist of re-establishment of vegetative cover.
- C4 - Location, dimensions, specifications, and construction details of each storm water quality measure
Post construction storm water quality will consist of re-establishment of vegetative cover. All disturbed areas within the site not including the road will require permanent seeding as shown on sheets 5. Specifications are noted by reference on Sheet 6.
- C5 - Description of maintenance guidelines for post construction storm water quality measures
Not applicable. Areas may require mowing or re-seeding as no post-construction storm water quality measures other than re-establishment of vegetative cover are proposed or required. Future maintenance of lawn areas will be at the discretion of the Owner and subject to any maintenance program currently in place or implemented in the future.

2015011604 EASE \$36.00
 08/18/2015 12:26:50P 12 PGS
 Eric Schmitz
 Monroe County Recorder IN
 Recorded as Presented



CONSERVANCY AND KARST EASEMENTS

THIS INDENTURE WITNESSETH, that Bill C. Brown Revocable Trust, hereinafter called GRANTOR, of Monroe County, State of Indiana grants to The City of Bloomington, the Grantee, for and in consideration of One Dollar (\$1.00) and other valuable consideration, the receipt of which is hereby acknowledged, Conservancy Easements and Karst Easements as defined below and as described on the attached exhibit "A"

Conservancy Easement – This easement is to protect natural areas and includes wooded areas, sloped areas, drainage ways and karst features. The following restrictions apply within the easement area;

- Any land disturbing activity including the placement of a fence, or alteration of any vegetative cover, including mowing, is prohibited in the easement area.
- Removal of dead or diseased trees that pose a safety risk or impede drainage as well as allowing the removal of exotic species is allowed only after first obtaining written approval from the City of Bloomington Planning & Transportation Department.
- In cases where removal of exotic invasive species is proposed, the restoration of disturbed areas with native plant material is allowed with written approval from the City of Bloomington Planning & Transportation Department prior to any proposed removal and restoration.
- Karst areas within this Conservancy Easement are also subject to any additional restrictions provided by the Karst Conservancy Easement.

Karst Easement – This easement is to protect the Karst features. The following restrictions apply within the easement area;

- No land disturbing activity, including the placement of a fence or the placement of any fill material is allowed within the easement area.
- No structures shall be located within 10 of the easement.
- Storm water discharge into the easement area shall not be substantially changed. The easement are shall not be used for storm water detention.
- Spring or cave entrances shall not be modified except for the placement of a gate to prevent human access.
- Mowing is allowed in the easement area. Removal of dead or diseased trees that pose a safety risk or impede draining as well as removal of exotic invasive species is allowed only after first obtaining written approval from the City of Bloomington Planning & Transportation Department.
- Right is granted to the City of Bloomington to enter the property to inspect the easement and alter or repair the karst feature.
- Any use of pesticides, herbicides, or fertilizers is prohibited within the easement area.

- Where removal of exotic invasive species is proposed, the restoration of the disturbed area with native plant material is allowed. Written approval of the City of Bloomington Planning & Transportation Department is required prior to any proposed removal and restoration.

IN WITNESS WHEREOF, the said Grantor has executed this instrument this _____ day of August, 2015.

Bill C. Brown Revocable Trust

By:  _____

Bill C. Brown, Trustee

STATE OF INDIANA)
) SS:
COUNTY OF MONROE)

SUBSCRIBED AND SWORN TO before me this 17th day of August, 2015.


My Commission Expires:

August 10, 2016

Larry J. Beckman / Larry J. Beckman
Notary Public

Resident of Monroe County

I affirm, under penalties of perjury that I have taken reasonable care to redact each social security number from this document unless required by law.


Stephen L. Smith



This instrument prepared by Smith Brehob & Associates, Inc.
453 South Clarizz Boulevard, Bloomington, IN 47401

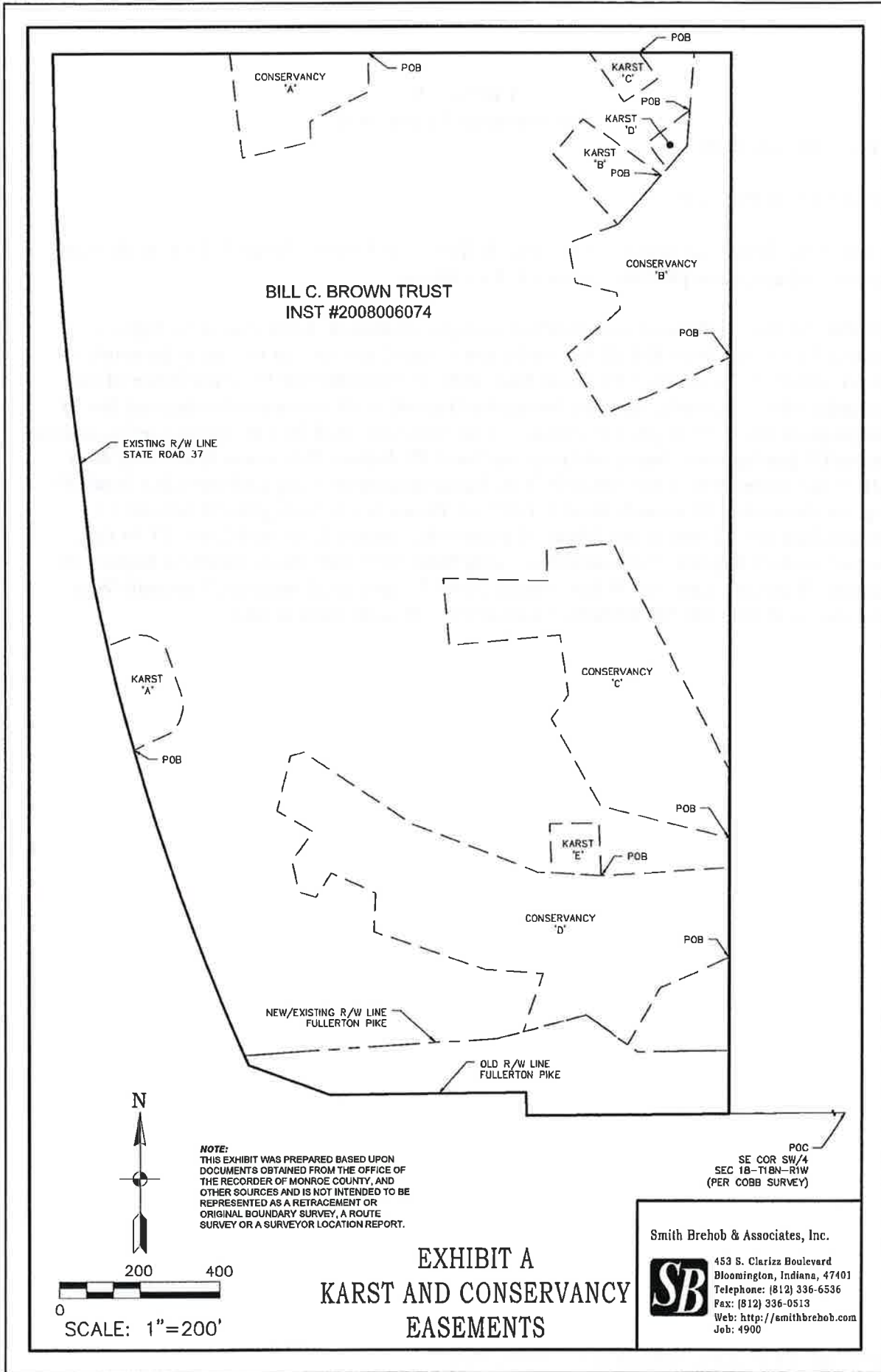


Exhibit "A"
"Conservancy Easement A"

Project Number: 4900

LEGAL DESCRIPTION:

A part of the Southwest Quarter of Section 18, Township 9 North, Range 1 West, in Monroe County, Indiana, more particularly described as follows:

COMMENCING at the southeast corner of said quarter section; thence South 89 degrees 30 minutes 53 seconds West 885.32 feet on the south line of said quarter section to the southeast corner of Bill C. Brown Trust Fullerton Pike (Instrument #2008006074, in the Office of the Recorder, Monroe County, Indiana), thence leaving said south line and following east line of said property North 00 degrees 01 minutes 11 seconds East 2628.76 feet, thence leaving said east line and following north line of said property South 89 degrees 56 minutes 28 seconds West 901.21 feet to the POINT OF BEGINNING; thence continuing along said north line South 89 degrees 56 minutes 28 seconds West 341.42 feet; thence South 06 degrees 53 minutes 17 seconds East 261.41 feet; thence North 76 degrees 41 minutes 22 seconds East 171.94 feet; thence North 01 degrees 40 minutes 08 seconds West 50.99 feet; thence North 62 degrees 58 minutes 56 seconds East 164.48 feet; thence North 01 degrees 23 minutes 27 seconds West 94.63 to the POINT OF BEGINNING, containing 1.45 acres more or less.

Exhibit "A"
"Conservancy Easement B"

Project Number: 4900

LEGAL DESCRIPTION:

A part of the Southwest Quarter of Section 18, Township 9 North, Range 1 West, in Monroe County, Indiana, more particularly described as follows:

COMMENCING at the southeast corner of said quarter section; thence South 89 degrees 30 minutes 53 seconds West 885.32 feet on the south line of said quarter section to the southeast corner of Bill C. Brown Trust Fullerton Pike (Instrument #2008006074, in the Office of the Recorder, Monroe County, Indiana), thence leaving said south line and following east line of said property North 00 degrees 01 minutes 11 seconds East 1875.23 feet to the POINT OF BEGINNING; thence continuing on said east line of said property North 00 degrees 01 minutes 11 seconds East 753.53; thence leaving said east line and following the north line of said property South 89 degrees 56 minutes 28 seconds West 90.98 feet; thence leaving the north line of said property South 04 degrees 21 minutes 56 seconds West 231.89 feet; thence South 41 degrees 22 minutes 46 seconds West 259.24 feet; thence South 69 degrees 32 minutes 56 seconds West 131.82 feet; thence South 10 degrees 29 minutes 21 seconds East 100.61 feet; thence South 76 degrees 26 minutes 07 seconds East 105.45 feet; thence South 14 degrees 04 minutes 29 seconds East 40.30 feet; thence South 49 degrees 51 minutes 40 seconds West 173.60 feet; thence South 31 degrees 06 minutes 21 seconds East 173.72 feet; thence North 67 degrees 57 minutes 31 seconds East 184.23 feet; thence North 63 degrees 22 minutes 02 seconds East 162.02 feet to the POINT OF BEGINNING, containing 4.71 acres more or less.

Exhibit "A"
"Conservancy Easement C"

Project Number: 4900

LEGAL DESCRIPTION:

A part of the Southwest Quarter of Section 18, Township 9 North, Range 1 West, in Monroe County, Indiana, more particularly described as follows:

COMMENCING at the southeast corner of said quarter section; thence South 89 degrees 30 minutes 53 seconds West 885.32 feet on the south line of said quarter section to the southeast corner of Bill C. Brown Trust Fullerton Pike (Instrument #2008006074, in the Office of the Recorder, Monroe County, Indiana), thence leaving said south line and following east line of said property North 00 degrees 01 minutes 11 seconds East 683.70 feet to the POINT OF BEGINNING; thence leaving east line of said property North 76 degrees 08 minutes 59 seconds West 331.31 feet; thence North 29 degrees 35 minutes 48 seconds West 249.48 feet; thence North 35 degrees 30 minutes 41 seconds East 73.49 feet; thence North 08 degrees 02 minutes 01 seconds West 148.13 feet; thence South 84 degrees 43 minutes 31 seconds West 277.39 feet; thence North 05 degrees 21 minutes 35 seconds West 166.77 feet; thence South 88 degrees 38 minutes 10 seconds East 261.19 feet; thence North 01 degrees 24 minutes 29 seconds West 77.69 feet; thence North 84 degrees 51 minutes 42 seconds East 166.16 feet; thence South 27 degrees 17 minutes 23 seconds East 632.66 feet to said east line; thence South 00 degrees 01 minutes 11 seconds West along said east line 167.37 feet to the POINT OF BEGINNING, containing 5.52 acres more or less.

Exhibit "A"
"Conservancy Easement D"

Project Number: 4900

LEGAL DESCRIPTION:

A part of the Southwest Quarter of Section 18, Township 9 North, Range 1 West, in Monroe County, Indiana, more particularly described as follows:

COMMENCING at the southeast corner of said quarter section; thence South 89 degrees 30 minutes 53 seconds West 885.32 feet on the south line of said quarter section to the southeast corner of Bill C. Brown Trust Fullerton Pike (Instrument #2008006074, in the Office of the Recorder, Monroe County, Indiana), thence leaving said south line and following the east line of said property North 00 degrees 01 minutes 11 seconds East 388.00 feet to the POINT OF BEGINNING; thence continuing on the east line of said property North 00 degrees 01 minutes 11 seconds East 222.40 feet; thence leaving the east line of said property South 86 degrees 18 minutes 32 seconds East 320.63 feet; thence North 86 degrees 24 minutes 33 seconds West 159.11 feet; thence North 69 degrees 14 minutes 20 seconds West 333.42 feet; thence North 56 degrees 32 minutes 29 seconds West 325.46 feet; thence South 73 degrees 43 minutes 37 seconds West 33.43 feet; thence South 13 degrees 51 minutes 44 seconds West 139.77 feet; thence South 59 degrees 58 minutes 16 seconds East 103.04 feet; thence South 36 degrees 17 minutes 33 seconds West 87.83 feet; thence South 12 degrees 13 minutes 16 seconds East 80.84 feet; thence South 73 degrees 34 minutes 39 seconds East 44.21 feet; thence North 32 degrees 16 minutes 02 seconds East 70.27 feet; thence South 65 degrees 49 minutes 55 seconds East 120.47 feet; thence South 02 degrees 24 minutes 30 seconds West 96.59 feet; thence South 71 degrees 25 minutes 46 seconds East 293.77 feet; thence South 86 degrees 04 minutes 49 seconds East 145.63 feet; thence South 19 degrees 22 minutes 08 seconds West 152.98 feet to existing right-of-way line of Fullerton Pike, the next (2) calls are along said right-of-way; thence (1) North 75 degrees 42 minutes 16 seconds East 163.63 feet; thence (2) South 54 degrees 36 minutes 23 seconds East 125.98 feet; thence North 30 degrees 20 minutes 41 seconds East 163.31 feet; thence North 66 degrees 09 minutes 05 seconds East 163.63 feet to the POINT OF BEGINNING, containing 7.68 acres more or less.

Exhibit "A"
"Karst Easement A"

Project Number: 4900

LEGAL DESCRIPTION:

A part of the Southwest Quarter of Section 18, Township 9 North, Range 1 West, in Monroe County, Indiana, more particularly described as follows:

COMMENCING at the southeast corner of said quarter section; thence South 89 degrees 30 minutes 53 seconds West 885.32 feet on the south line of said quarter section to the southeast corner of Bill C. Brown Trust Fullerton Pike (Instrument #2008006074, in the Office of the Recorder, Monroe County, Indiana), thence continuing on said south line South 89 degrees 30 minutes 53 seconds West 505.39 feet; thence leaving said south line and following on the old right-of-way of Fullerton Pike the following three (3) courses: (1) North 01 degrees 09 minutes 42 seconds West 57.41 feet; thence (2) South 89 degrees 16 minutes 53 seconds West 488.72 feet; thence (3) North 69 degrees 50 minutes 09 seconds West 215.25 feet to the east right-of-way line of State Road 37; thence following said east right of way 834.38 feet along a 5584.58 foot radius curve to the right whose chord bears North 20 degrees 08 minutes 28 seconds West 833.61 feet to the POINT OF BEGINNING; thence continuing on said east right of way 266.36 feet along a 5584.58 foot radius curve to the right whose chord bears North 14 degrees 29 minutes 40 seconds West 266.33 feet; thence leaving said east right-of-way, North 69 degrees 14 minutes 58 seconds East 65.38 feet; thence 99.33 feet along a 75.00 foot radius curve to the right whose chord bears South 69 degrees 47 minutes 12 seconds East 92.23 feet; thence South 19 degrees 19 minutes 25 seconds East 128.66 feet; thence 90.65 feet along a 100.00 foot radius curve to the right whose chord bears South 19 degrees 43 minutes 29 seconds West 90.65 feet; thence South 65 degrees 29 minutes 03 seconds West 102.22 feet to the POINT OF BEGINNING, containing 0.83 acres more or less.

Exhibit "A"
"Karst Easement B"

Project Number: 4900

LEGAL DESCRIPTION:

A part of the Southwest Quarter of Section 18, Township 9 North, Range 1 West, in Monroe County, Indiana, more particularly described as follows:

COMMENCING at the southeast corner of said quarter section; thence South 89 degrees 30 minutes 53 seconds West 885.32 feet on the south line of said quarter section to the southeast corner of Bill C. Brown Trust Fullerton Pike (Instrument #2008006074, in the Office of the Recorder, Monroe County, Indiana), thence leaving said south line and following east line of said property North 00 degrees 01 minutes 11 seconds East 2628.76, thence leaving said east line and following north line of said property South 89 degrees 56 minutes 28 seconds West 90.98 feet, thence leaving said north line, South 04 degrees 21 minutes 56 seconds West 231.89 feet, thence South 41 degrees 22 minutes 46 seconds West 96.09 feet to the POINT OF BEGINNING; thence North 54 degrees 42 minutes 31 seconds west 239.53 feet; thence South 40 degrees 17 minutes 55 seconds West 113.89 feet; thence South 42 degrees 50 minutes 38 seconds East 237.24 feet; thence North 41 degrees 22 minutes 46 seconds East 163.15 feet to the POINT OF BEGINNING, containing 0.75 acres more or less.

Exhibit "A"
"Karst Easement C"

Project Number: 4900

LEGAL DESCRIPTION:

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COMMENCING at the southeast corner of said quarter section; thence South 89 degrees 30 minutes 53 seconds West 885.32 feet on the south line of said quarter section to the southeast corner of Bill C. Brown Trust Fullerton Pike (Instrument #2008006074, in the Office of the Recorder, Monroe County, Indiana), thence leaving said south line and following east line of said property North 00 degrees 01 minutes 11 seconds East 2628.76, thence leaving said east line and following north line of said property South 89 degrees 56 minutes 28 seconds West 227.30 feet to the POINT OF BEGINNING; thence continuing along said north line South 89 degrees 56 minutes 28 seconds West 123.29 feet; thence South 34 degrees 53 minutes 29 seconds East 148.62 feet; thence North 55 degrees 47 minutes 03 seconds East 102.05 feet; thence North 35 degrees 30 minutes 02 seconds West 79.41 feet to the POINT OF BEGINNING, containing 0.27 acres more or less.

Exhibit "A"
"Karst Easement D"

Project Number: 4900

LEGAL DESCRIPTION:

A part of the Southwest Quarter of Section 18, Township 9 North, Range 1 West, in Monroe County, Indiana, more particularly described as follows:

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Exhibit "A"
"Karst Easement E"

Project Number: 4900

LEGAL DESCRIPTION:

A part of the Southwest Quarter of Section 18, Township 9 North, Range 1 West, in Monroe County, Indiana, more particularly described as follows:

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**BLOOMINGTON PLAN COMMISSION
STAFF REPORT
Location: 700 W. Guy Avenue**

**CASE #: SP/DP-24-20
DATE: November 9, 2020**

PETITIONER: Habitat for Humanity
213 E. Kirkwood Ave., Bloomington, IN

CONSULTANTS: Smith Design Group, Inc.
2755 E. Canada Drive, Bloomington

REQUEST: The petitioner is requesting final plan and primary plat approval to allow 69 single family lots and seven common area lots.

BACKGROUND:

Area: 12.5 acres
Zoning: Planned Unit Development and Residential Medium Lot (R2)
Comp Plan Designation: Neighborhood Residential (Thomson PUD) and Mixed Urban Residential
Existing Land Use: Undeveloped
Proposed Land Use: Dwelling, Single-family (attached and detached)
Surrounding Uses: North – Commercial/Industrial (Thomson PUD)
 West – RCA Community Park
 East – Dwelling, Single-family
 South – Dwelling, Single-family

REPORT: The property is located at 700 W. Guy Avenue and is zoned Planned Unit Development (Thomson PUD). The 12.5 acre property is located at the west end of the stubs of Cherokee Drive, Chambers Drive, Duncan Drive, and Guy Avenue with Bernard Drive to the south. Surrounding zoning includes the Thomson PUD to the north, Residential Medium Lot (R2) to the east and south, and Mixed Use Institutional (MI) to the west. The surrounding properties have been developed with a mix of single family residences to the east and south, industrial uses within the Thomson PUD to the north, and the RCA Community Park to the west. This site is undeveloped and has several trees along the property border and no known sensitive environmental features. The property has approximately 60' of elevation change from the south end of the site to the north end.

The Plan Commission approved an amendment to the Thomson PUD District Ordinance and Preliminary Plan under PUD-10-20 to allow for this property to be redeveloped by Habitat for Humanity for a single family residential development. The petitioner is now requesting final plan and primary plat approval to allow for 69 single family lots and 7 common area lots. The development would have 63 detached single family residences and 6 attached single family residences.

This petition would involve extending the adjacent stub streets to connect through this development, as well as providing a new stub street to the north. The proposed lots would be

approximately 3,000 square feet for the lots with attached residences and 4,000 sq. ft. for the lots with detached residences. There would be areas of tree preservation set aside along the west and north property lines and specific individual trees shown to be preserved along the east property lines. All internal roads will be public and 26 of the 69 lots will be alley loaded.

COMPREHENSIVE PLAN: This property is designated as *Mixed Urban Residential* (for the portion that was zoned R2) and *Neighborhood Residential* (for the portion originally within the Thomson PUD). The Comprehensive Plan identifies several characteristics and provides land use guidance for both of these districts.

The comprehensive plan states that new and redevelopment activity for these districts is mostly limited to remodeling or new construction for single-family residential uses.

Additional guidance specifically includes-

- Support incentive programs that increase owner occupancy and affordability (including approaches promoting both permanent affordability and home ownership for all income levels).
- Promote neighborhood enhancements of public improvements such as sidewalks, streetlights, street trees and landscaping, and playgrounds and play areas.
- Optimize street, bicycle, and pedestrian connectivity to adjacent neighborhoods and other 20-minute walking destinations.
- Create neighborhood focal points, gateways, and centers. These could include such elements as a pocket park, formal square with landscaping, or a neighborhood-serving land use. These should convey a welcoming and open-to-the-general-public environment.
- Ensure that appropriate linkages to neighborhood destinations are provided.

Both of these districts call for single family residences to be the predominant land use and to encourage owner occupied housing, which this petition directly addresses. The comprehensive plan further encourages incentives to provide affordable housing, which again this petition directly addresses as these units will only be sold to income eligible families. The petitioner will be solidifying language regarding a “buy-back option” if the original families elect to sell the residence, in order to insure long-term affordability.

The location of this site and new residences immediately adjacent to a RCA Park, offices, and employment uses within the Thomson PUD offers a prime and unique location for infill development for affordable, single family housing and furthers many of the goals of the Comprehensive Plan.

FINAL PLAN DETAILS:

Uses/Development Standards: The Plan Commission approved the Residential Urban (R4) zoning district for the development standards for the final plan and the Traditional Subdivision type for the subdivision request, with some proposed modifications. The approved modifications are as follows-

Rear Yard Setback- a 20’ rear yard building setback was approved instead of 25’.

Minimum Lot Width- for the attached single family lots only, a minimum 30' width was approved rather than the 35' requirement.

Minimum Lot Size- for the attached single family lots only, a minimum lot size of 3,000 square feet was approved rather than the minimum standard of 4,000 square feet.

Minimum number of lots served by an alley- although the Traditional Subdivision type requires a minimum of 67% of the lots be served by an alley, this petition was approved to allow 57%, which is shown on the site plan and primary plat.

The Plan Commission also approved a request to allow an existing storage building that is located at the west end of Guy Street to be utilized as an on-site office and storage area for this project. This is located on the area identified as Lot #59 on the proposed plan. This would be used as a temporary, on-site construction office and Habitat headquarters, and to store building materials associated with the development of this property. There was a condition of approval that required the office to be removed after the last lot is sold and to require all building materials to be stored inside the structure or other structures on the site.

Parking, Streetscape, and Access: The petitioner is showing public streets throughout the project with some of these streets having on-street, parallel spaces along both sides. Some of the lots will also utilize alley loaded garages to accomplish a traditional, grid-like design encouraged by the Comprehensive Plan and required with the Traditional Subdivision type. The internal alleys will be 14' wide and in 20' of dedicated right-of-way. The petitioner is proposing to preserve existing trees along several of the property boundaries and is not utilizing alley loaded garages for all of the lots to increase preservation possibilities and to minimize impacts to surrounding uses.

The streets with on-street parking are proposed to have 60' of dedicated right-of-way, which is consistent with the Neighborhood Residential street design outlined in the Transportation Plan. The Plan Commission required these to be widened to 61' to allow for 6' wide sidewalks and 6' tree plots. This must be revised prior to final plat approval.

The Plan Commission approved the extensions of Duncan and Chambers Drive to only have 44' of dedicated right-of-way since they are requesting to not have on-street parking on either side and are extensions of substandard right-of-way. Those sections of the street would be required to be signed with No Parking signs. These are the areas of the site that transition from the existing stub streets to the east into this development. The existing stub streets have very little to no excess right-of-way and the right-of-way varies from 30' wide to only the edge of pavement.

Alternative Transportation: The proposed site plan features several multi-modal transportation facilities. All of the internal streets will have sidewalks along both sides. In addition, there is an 8' wide multi-use path shown running east/west through the site that aligns with Chambers Drive to the east and provides a multi-use path to the RCA Park immediately to the west that can be used by residents of the existing neighborhoods. The portions of the 8' wide multi-use path have all been shown on Common Area lots.

The petitioner will also be making a \$40,000 contribution to a project to construct a multi-use path along an east/west electric line corridor that runs along the north side of this site and will connect Weimer Road to Rogers Street. This contribution must be received prior to issuance of a grading permit.

Architecture/Materials: A sample rendering of residences along one of the internal streets has been submitted. The petitioner has submitted four different housing elevations to insure diversity within the development. These are the same elevations that were reviewed and approved with the preliminary plan.

Environmental Considerations: The petition site is currently undeveloped with almost 60' of grade change from the south end of the site to the north end. While there are several scattered trees on the property, there is not a mature canopy that is required to be preserved. The petitioner has designed the site plan to preserve the trees along the property boundaries along the west and north sides, and will be able to save several other trees on the east. These will be required to be placed in tree preservation easements. There are no known sensitive environmental features.

SITE PLAN REVIEW:

Section 20.06.050 outlines the site plan review criteria. The site plan review procedure is intended to ensure that potential impacts of development are considered before submittal of a petition for construction or issuance of a building permit and to:

- (A) Promote well-planned and well-designed use of property;
- (B) Promote a high character of community development;
- (C) Review site plans relative to site layout, improvements and engineering in the interest of public health, safety, convenience, and welfare;
- (D) Promote new development that has a positive impact on the community as a whole, does not negatively impact neighbors, protects sensitive natural resources, is well-designed to maximize efficient use of the land and surrounding transportation system, and provides for adequate stormwater management;
- (E) Determine compliance with the standards of this UDO;
- (F) Protect environmental quality; and
- (G) Ensure that the statutory requirements established in the Indiana Code for development plan review and approval are met.

PROPOSED FINDING: The proposed site plan layout is consistent with the approved preliminary plan. The preliminary plan was heavily discussed and evaluated based on the site plan criteria outlined above and meets those standards. All aspects of the proposed final plan are consistent with the recently approved preliminary plan and district ordinance.

PRIMARY PLAT REVIEW: The Plan Commission or Plat Committee shall review the primary subdivision petition and approve, approve with conditions, or deny the petition in accordance with Section 20.06.040(g) (Review and Decision)-

i. Consistency with Comprehensive Plan and Other Applicable Plans

The proposed use and development shall be consistent with and shall not interfere with the achievement of the goals and objectives of the Comprehensive Plan and any other adopted plans and policies.

PROPOSED FINDING: The proposed primary plat is consistent with the approved preliminary plan.

ii. Consistent with Intergovernmental Agreements

The proposed use and development shall be consistent with any adopted intergovernmental agreements and shall comply with the terms and conditions of any intergovernmental agreements incorporated by reference into this UDO.

PROPOSED FINDING: There are no Intergovernmental Agreements that effect this site or development. The petitioner will be submitting the details of the financial contribution regarding the adjacent trail project prior to issuance of a grading permit.

iii. Minimization or Mitigation of Adverse Impacts

1. The proposed use and development shall be designed to minimize negative environmental impacts and shall not cause significant adverse impacts on the natural environment. Examples of the natural environment include water, air, noise, stormwater management, wildlife habitat, soils, and native vegetation.

PROPOSED FINDING: The petitioner is setting aside the tree preservation areas that were approved with the Preliminary Plan in the required easements. There are no other known environmental features that are subject to the UDO. Adequate stormwater management areas have been shown and will be planted with a raingarden seed mixture to meet stormwater quality requirements.

2. The proposed use and development shall not result in the excessive destruction, loss or damage of any natural, scenic, or historic feature of significant importance.

PROPOSED FINDING: There are no known natural, scenic, or historical features of significant importance on this site.

3. The proposed use and development shall not result in significant adverse fiscal impacts on the city.

PROPOSED FINDING: The City is making a financial contribution toward some of the infrastructure and site improvements for this project. This project will provide 69 single family residences and an increased tax base for the community. No significant adverse fiscal impacts on the City have been identified.

4. The petitioner shall make a good-faith effort to address concerns of the adjoining property owners in the immediate neighborhood as defined in the pre-submittal neighborhood meeting for the specific proposal, if such a meeting is required.

PROPOSED FINDING: The petitioner held a neighborhood meeting last year and there were also several members of the public from the adjacent neighborhoods that spoke about this site at the Plan Commission several months ago. Adjacent neighbors have expressed concern regarding stormwater management for this petition and the preservation of existing trees along the property boundaries. Several stormwater management systems have been proposed to meet stormwater management requirements and approval from the City of Bloomington Utilities Department is required prior to issuance of a grading permit. There are two large areas of tree preservation along the north and west property lines and in addition, there are several existing mature trees along the east property line that have been shown to be preserved to address adjacent neighbor's concerns.

iv. Adequacy of Road Systems

1. Adequate road capacity must exist to serve the uses permitted under the proposed development, and the proposed use and development shall be designed to ensure safe ingress and egress onto the site and safe road conditions around the site, including adequate access onto the site for fire, public safety, and EMS services.

PROPOSED FINDING: This project will involve extending 5 adjacent road stubs through this site and provide a road stub to the north for a future extension. There will therefore be multiple ways into this site with roads that all meet current emergency service standards.

2. The proposed use and development shall neither cause undue traffic congestion nor draw significant amounts of traffic through residential streets.

PROPOSED FINDING: As mentioned previously, this project will extend 5 road stubs through the site which will spread out the concentration of traffic and give residents along the existing roads additional ways to access the adjacent roads, thereby increasing transportation routes for the existing residents on the streets that are currently dead-ends.

v. Provides Adequate Public Services and Facilities

Adequate public service and facility capacity shall exist to accommodate uses permitted under the proposed development at the time the needs or demands arise, while maintaining adequate levels of service to existing development. Public services and facilities include, but are not limited to, streets, potable water, sewer, stormwater management structures, schools, public safety, fire protection, libraries, and vehicle/pedestrian connections and access within the site and to adjacent properties.

PROPOSED FINDING: No problems with providing utility services to this site have been identified. The City of Bloomington Utilities Department must approve all utility connections and services prior to issuance of a grading permit.

vi. Rational Phasing Plan

If the petition involves phases, each phase of the proposed development shall contain all of the required streets, utilities, landscaping, open space, and other improvements that are required to comply with the project's cumulative development to date and shall not depend upon subsequent phases for those improvements

PROPOSED FINDING: The petitioner has proposed phasing the plat into two phases. Adjacent road stubs will be constructed with each phase and no problems from the proposed phasing plan have been identified.

In addition, the following general approval criteria are outlined in Section 20.06.040(d)(6) (Approval Criteria) as also applicable to the review of a Primary Plat:

- All subdivision proposals shall be consistent with the need to minimize flood damage. All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize flood damage.

PROPOSED FINDING: This site is not located in a 100-year regulated floodplain. The petitioner has designed on on-site stormwater management system to meet the City Standards. New public utilities will be extended to this development.

- All subdivision proposals shall have adequate drainage provided to reduce exposure to flood hazards.

PROPOSED FINDING: This site must receive approval from the City Utility Department prior to grading permit approval and this must meet all stormwater detention requirements.

- Base flood elevation data shall be provided for subdivision proposals and other proposed development (including manufactured home parks and subdivisions), which is greater than the lesser of 50 lots or five acres.

PROPOSED FINDING: This can be shown on the secondary plat, however this site is not located in a 100-year regulated floodplain so there is no established base flood elevation for this site.

- All subdivision proposals shall minimize development in the SFHA and/or limit intensity of development permitted in the SFHA.

PROPOSED FINDING: No portion of this property is located in a Special Flood Hazard Area (SFHA).

- All subdivision proposals shall ensure safe access into/out of SFHA for pedestrians and vehicles (especially emergency responders).

PROPOSED FINDING: No portion of this property is located in a Special Flood Hazard Area (SFHA).

CONCLUSION: The proposed offers a highly needed housing type for the community, in an appropriate location. The lack of sensitive environmental features allows for a dense, infill project with a high degree of connectivity, while still allowing for preservation of the few high quality trees on the site. This petition accomplishes many of the goals of the Comprehensive Plan already outlined in this report, including providing owner occupied, single family housing adjacent to other single family residences, a major employment center, and a community park. The proposed final plan is consistent with the approved preliminary plan and meets the UDO requirements.

RECOMMENDATION: The Planning and Transportation Department recommends that the Plan Commission approved the final plan and primary plat with the following conditions:

1. Approved per terms and conditions of Plan Commission case #PUD-10-20.
2. Interior sidewalks and tree plots for the streets shown with 60' of right-of-way must be widened to be consistent with the Transportation Plan and Plan Commission approval with the final plat.
3. All common area lots must be listed as Common Area lots and identified as not buildable lots of record.
4. Final details regarding the details of the off-site, multi-use path along the north end of the property must be resolved with the Parks Department prior to issuance of a grading permit.
5. All easements must be listed and defined on the final plat.



City of Bloomington
Bloomington Environmental Commission

MEMORANDUM

Date: November 9, 2020

To: Bloomington Plan Commission

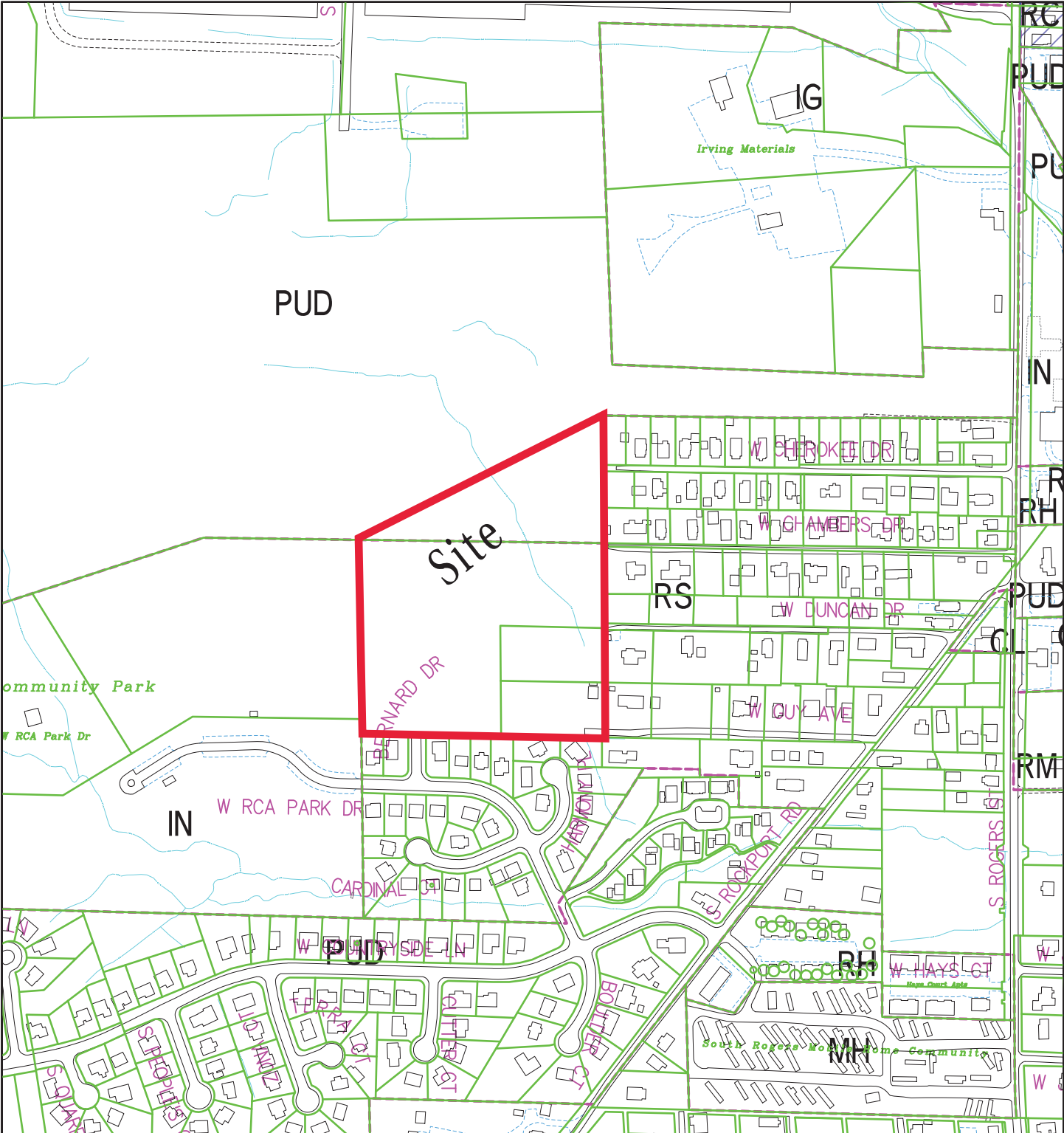
From: Bloomington Environmental Commission

Subject: DP-24-20: Osage Place, Habitat for Humanity, Thomson, Final Plan & Primary Plat
700 W. Guy, Duncan, Cherokee, & Chambers Streets

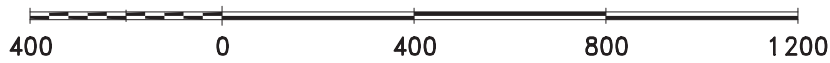
The purpose of this memo is to convey the environmental concerns and recommendations for conditions of approval from the Environmental Commission (EC) with the hope that action will be taken to enhance its environment-enriching attributes. The EC reviewed the petition and offers the following for your consideration.

COMMENTS AND RECOMMENDED CONDITIONS OF APPROVAL

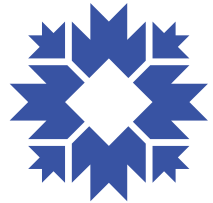
- 1.) The EC would like to see the results of any environmental remediation that has been performed at the site.
- 2.) The EC would like to see the location for the placement of the signs adjacent to the Conservancy Easements.



By: greulice
8 May 20



City of Bloomington
Planning & Transportation



Scale: 1" = 400'

For reference only; map information NOT warranted.

Smith Brehob & Associates, Inc.



Todd M. Borgman, PLS
Don Kocarek, L.A.
Katherine E. Stein, P.E.
Stephen L. Smith, Founder (Retired)

October 5, 2020

Eric Greulich
City of Bloomington Planning and Transportation
401 N. Morton Street
Bloomington, IN. 47404

Re: Osage Place Neighborhood Primary Plat

Dear Eric,

On behalf of our client, Habitat for Humanity of Monroe County, we respectfully request to be placed on the City of Bloomington Plan Commission agenda for consideration of a Primary Plat and Site Plan approval for the Osage Place Neighborhood. This petition would subdivide the 12.90 acre parcel into 76 total lots with 69 lots for single-family homes and 7 lots for Common Area. Details of this request are discussed in the attached petitioner's statement and shown on the materials included with this petition.

Habitat for Humanity of Monroe County's mission is to eliminate poverty housing by building decent, affordable homes in partnership with qualifying families. Habitat houses are built through volunteer labor and tax-deductible donations of money and materials, then sold to low-income families earning 25-80% of the Area Median Income. As homeowners pay back their affordable mortgage, Habitat is able to offer future families an opportunity for home ownership. The Osage Place neighborhood will house sixty-nine low-income families when complete.

Details of the proposed project are enumerated in the attached Petitioner's Statement and plan sheets that comprise the application materials.

Sincerely,

Katherine E. Stein, P.E.
Smith Brehob & Associates, Inc.



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Petitioner's Statement

Project Location

The 12.90 acre vacant site is located immediately north of the Autumn View subdivision and is bounded by the Thomson PUD to the north, RCA Park to the west and the Cherokee, Chambers, Duncan and Guy area neighborhood to the east.

Topography

The site is predominately a vacant field with tree canopy coverage around the old fencerow edges. The site generally slopes from northwest to southeast.

Environmental

There are no karst features, springs, wetlands, steep slopes or other environmental constraints on the property. There is tree canopy coverage around the old fencerow edges and scatter trees across this site. A tree conservation easement will be included with the final plat along the western property line. Trees along the eastern property line will try to be preserved to the best ability possible.

Access

Access to the site is provided by a road stub on the south from the Autumn View subdivision (S. Bernard Drive) and the aforementioned road stubs of Cherokee Drive, Chambers Drive, Duncan Drive and Guy Avenue. These local streets all provide direct access to S. Rockport Road and S. Rogers Street.

Trail Connection

Habitat has committed to City of Bloomington Parks Department to provide a contribution for a future trail from Rogers Street to the RCA Park. This trail will provide a safe pedestrian access to The Osage Place Neighborhood from Switchyard Park/Rogers Road within the Thompson PUD property north of this project. This trail is part of the master trails plan for the City of Bloomington and will continue west to Weimer Road area.

Multi-Use Path

A multi-use path will be located midway within the neighborhood as a pedestrian corridor to RCA Park to the west. The path will align with Chambers Drive and run east/west providing safe pedestrian access to RCA park for residents within the neighborhood as well as to residents of the adjacent neighborhoods.



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Phasing

The subdivision will be completed in multiple phases over a period of several years to address the demand need for affordable housing. Phase 1 will include lots 1-31 and Phase 2 will include the remainder Lots 32-72.

Development Standards

Residential Development Standards

- Allow detached and attached single family residential
- Minimum lot size
 - o Detached = 4000 SF
 - o Attached = 3000 SF
- Minimum lot width
 - o Detached = 40'
 - o Attached = 30'
- Setbacks
 - o Front yard = 15'
 - o Carport/garage = 10' behind front wall line
 - o Side yard = 5'
 - o Rear yard = 20'
- Impervious surface coverage
 - o Detached = 50%
 - o Attached = 45%
- Height
 - o Primary = 35'
 - o Accessory = 20'

Roadway Standards

- Minimum Roadway right-of-way widths
 - o No on-street parking = 44'
 - o On-street parallel parking = 60'
- Minimum pavement width of travel lanes = 20'
- Minimum Alley right-of-way width = 20'
- Minimum alley pavement = 14'
- Sidewalks = minimum 6' both sides
- Tree plot = minimum width = 5' for 60' ROW
 minimum width = 4.5' for 44' ROW

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Accessory Uses Permitted

- Temporary build-out office
- Temporary building material storage
-

Stormwater Management

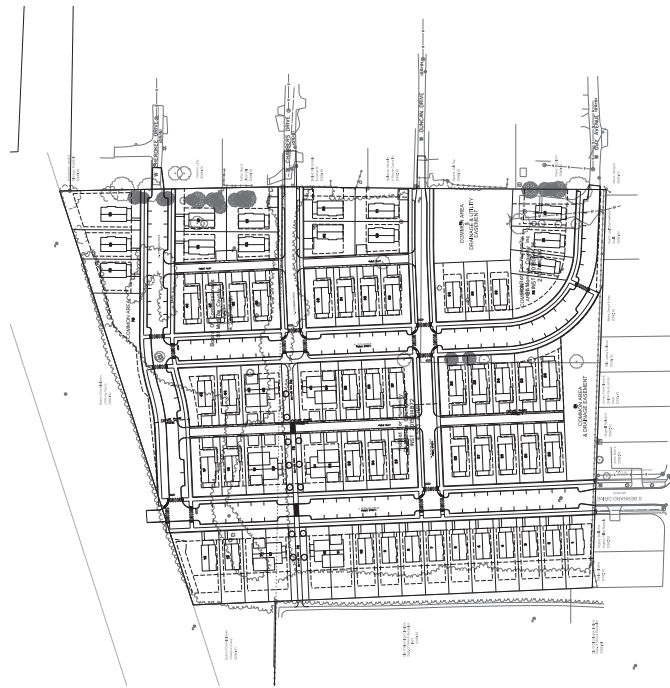
Two detention basins are proposed to provide both storm water management and water quality for the entire development. The storm water detention basins will be planted with native plant material. Basins are located on lots 31 and 71.

Utility Availability

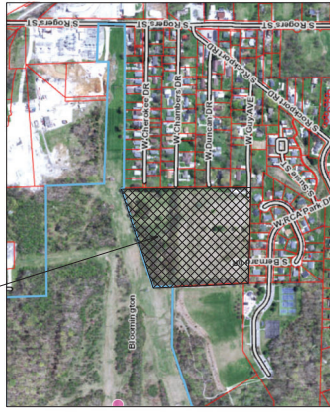
City of Bloomington Utilities including sanitary sewer and water are stubbed to the property and available for connection. Private utility lines including electric, power, phone and gas area also available.

OSAGE PLACE

BLOOMINGTON, INDIANA
HABITAT FOR HUMANITY



PROJECT LOCATION



LOCATION MAP
NTS

SHEET INDEX

SHEET #	DESCRIPTION
1	TITLE SHEET
2	PRELIMINARY PLAT
3-4	SITE PLAN
5-6	GRADING PLAN
7-8	UTILITY PLAN
9-11	ROAD & WATER PROFILES
12-13	SANITARY PROFILES
14-16	STORM PROFILES
17	SWPP INDEX
18-19	SWPP PLAN
20	SWPP SPECIFICATIONS
21-22	MISCELLANEOUS DETAILS

NOTE: SANITARY SEWER AND WATER UTILITY CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST ISSUE OF THE CITY OF BLOOMINGTON UTILITIES CONSTRUCTION SPECIFICATIONS. ALL OTHER WORK SHALL BE IN ACCORDANCE WITH THE 2014 SMITH DESIGN GROUP, INC. STANDARD SPECIFICATIONS.

SHEET #	REVISIONS	BY	DATE

CERTIFICATION DATE



JOB NUMBER: 5254



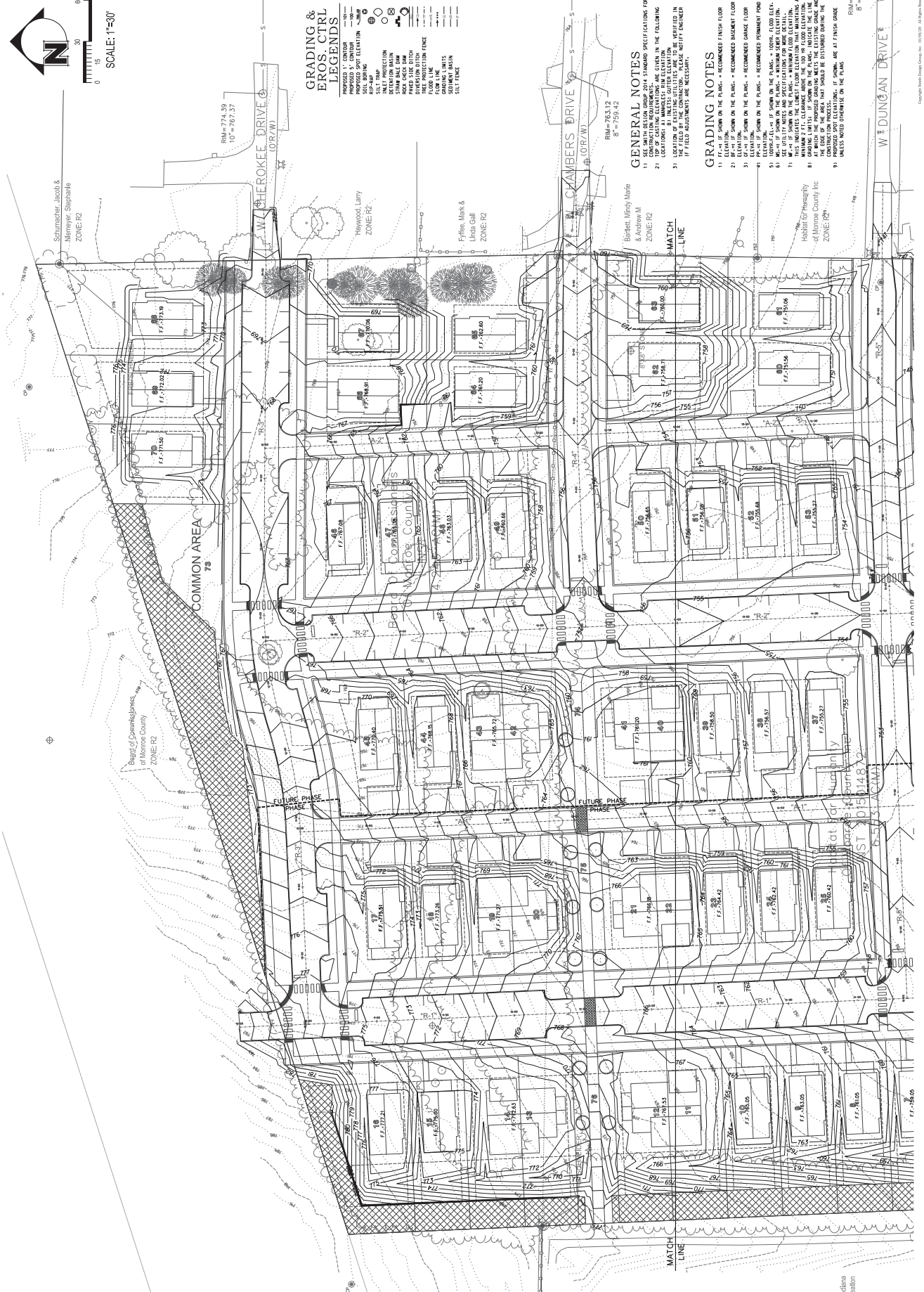
OSAGE PLACE
 BLOOMINGTON, INDIANA
 JOB TITLE
 HABITAT FOR HUMANITY

REVISIONS	BY	DATE

DESIGNED	K S
CHECKED	W M
APPROVED	K S

5254
 SHEET
 5 OF 22

10/26/2008
 NORTH
 GRADING PLAN



GRADING & EROS. CTRL. LEGENDS

- PROPOSED 1' CONTOUR
- PROPOSED 5' CONTOUR
- PROPOSED FINISH ELEVATION
- SOIL BORING
- SILT TRAP
- INLET PROTECTION
- STORM DRAIN
- STORM DRAIN COVER
- PAVED SIDE WALK
- UNPAVED SIDE WALK
- FLOOR LINE
- GRADING LIMITS
- SILT FENCE

GENERAL NOTES

- 1) SEE SMITH DESIGN GROUP 2004 STANDARD SPECIFICATIONS FOR
- 2) TOP OF CASTING ELEVATIONS ARE GIVEN IN THE FOLLOWING
- 3) LOCATIONS BY INLET'S OTHER ELEVATION, UNLESS IN
- 4) THE FIELD OF THE CONSTRUCTION, PLACE, AND FIT OTHERWISE
- 5) IF FIELD ADJUSTMENTS ARE NECESSARY.

GRADING NOTES

- 1) FINISH ELEVATION SHOWN ON THE PLAN. = RECOMMENDED FINISH FLOOR ELEVATION.
- 2) RECOMMENDED BASEMENT FLOOR ELEVATION.
- 3) RECOMMENDED GARAGE FLOOR ELEVATION.
- 4) RECOMMENDED TERRACE FLOOR ELEVATION.
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DATE: 10/26/2008 10:26:08 AM
 DRAWN BY: K S
 CHECKED BY: W M
 APPROVED BY: K S
 PROJECT NO: 08-0148
 SHEET NO: 5 OF 22
 TITLE: OSAGE PLACE GRADING PLAN
 CLIENT: HABITAT FOR HUMANITY
 ADDRESS: 1000 W. CHEROKEE DRIVE, BLOOMINGTON, IN 47403
 PHONE: (317) 326-6528
 FAX: (317) 326-6529
 WWW: WWW.SDGROUP.COM

NO.	DATE	BY	REVISIONS

DESIGNED BY	K.S.
CHECKED BY	W.C.M.
DATE	K.S.



SCALE: 1"=30'

RM = 753.07
P = 747.86

GRADING & EROSION CONTROL LEGENDS

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- 315. PROPOSED 1884" CURB
- 316. PROPOSED 1890" CURB
- 317. PROPOSED 1896" CURB
- 318. PROPOSED 1902" CURB
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- 320. PROPOSED 1914" CURB
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- 323. PROPOSED 1932" CURB
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- 555. PROPOSED 3324" CURB
- 556. PROPOSED 3330" CURB
- 557. PROPOSED 3336" CURB
- 558. PROPOSED 3342" CURB
- 559. PROPOSED



CIVIL ENGINEERING - LAND SURVEYING
2025 E CHASE PL SUITE 101 BLOOMINGTON, IN 47403
(317) 336-6554 - BLOOMINGTON, IN

OSAGE PLACE
BLOOMINGTON, INDIANA
HABITAT FOR HUMANITY

NO.	DATE	BY	REVISIONS

W.D.W.
DESIGNED
K.B.S.
CHECKED

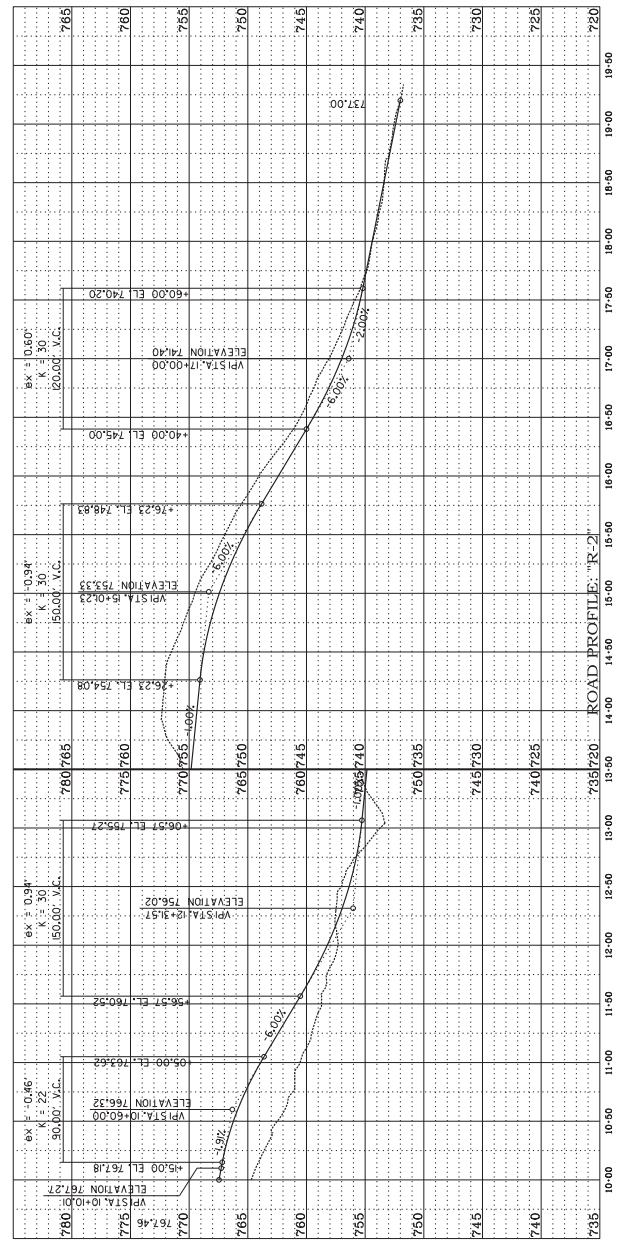
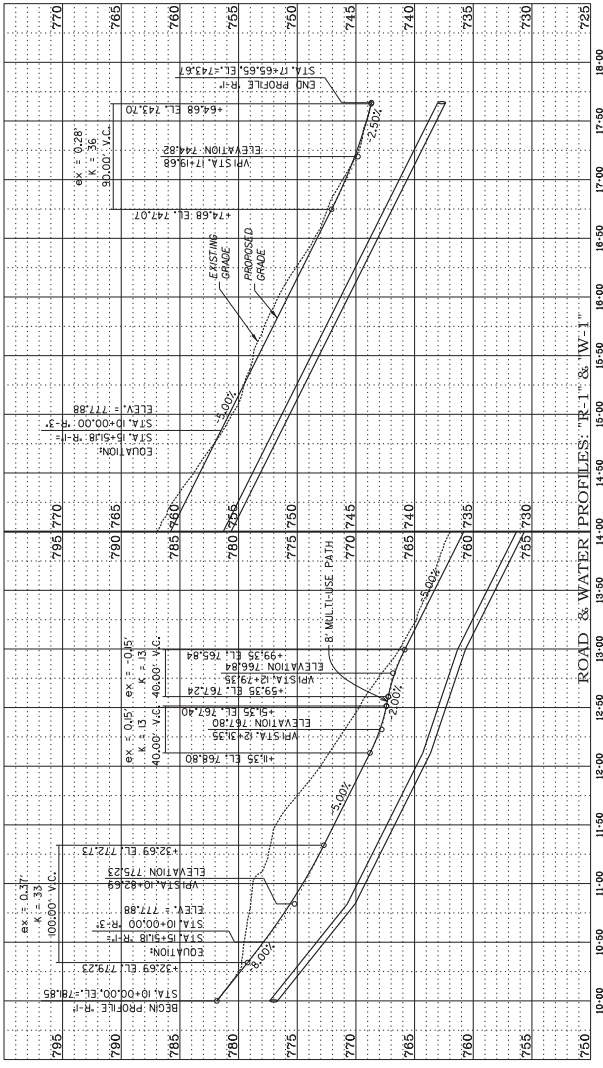
5254
SHEET

9 OF 22

10/26/2022
ROAD AND WATER PROFILES

PROFILE NOTES
1. CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING UTILITIES PRIOR TO BEGINNING WORK.
2. SEE PLANS FOR UTILITY LOCATIONS.

SCALE:
Horizontal: 1"=50'
Vertical: 1"=5'





CIVIL ENGINEERING - LAND SURVEYING
2755 E. CHESAPE PI. SUITE 101 BLOOMINGTON, IN 47408
(317) 336-6528 - BLDG@SMITHDESIGN.COM

OSAGE PLACE
BLOOMINGTON, INDIANA
HABITAT FOR HUMANITY

NO.	DATE	BY	REVISIONS

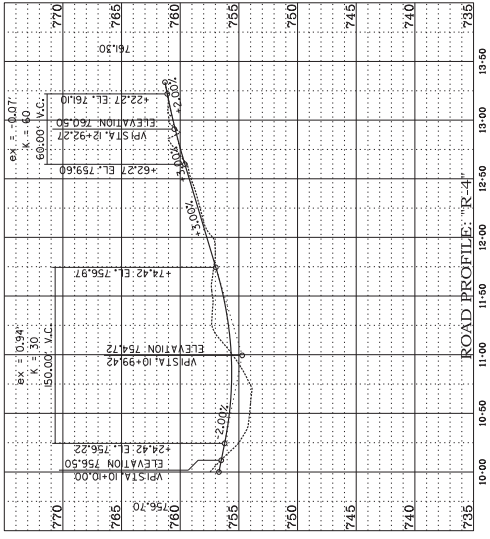
W.D.W.
DESIGNED
K.B.S.
CHECKED

5254
SHEET

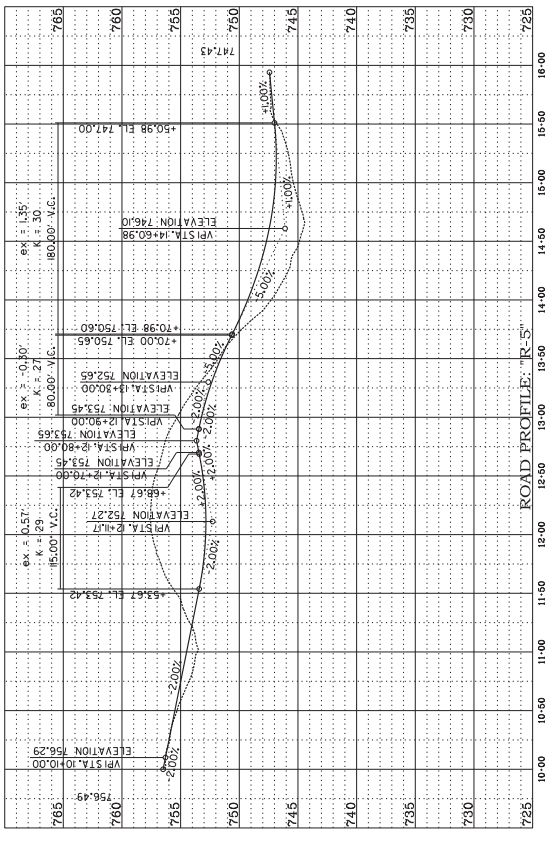
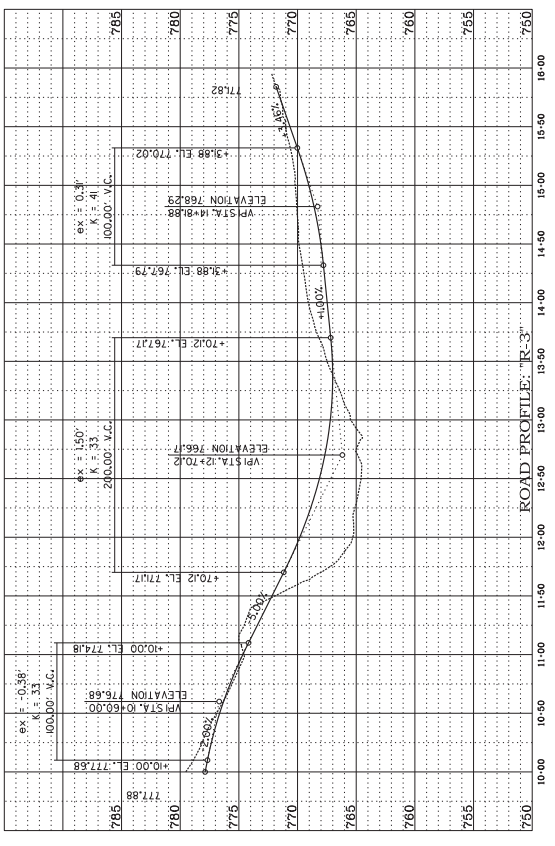
10 OF 22

10/26/2008
ROAD AND WATER PROFILES

PROFILE NOTES
1) CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION. UNLESS OTHERWISE NOTED, ALL UTILITIES ARE SHOWN AS APPROXIMATE.



SCALE:
Horizontal: 1"=50'
Vertical: 1"=5'



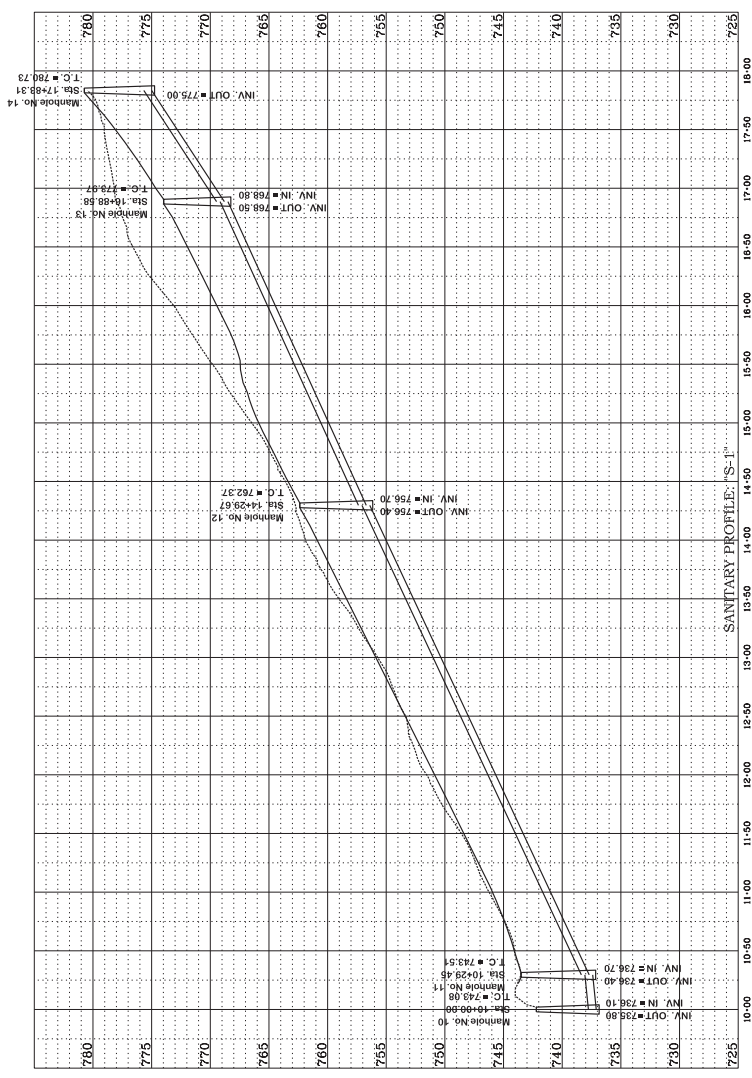
NO.	DATE	BY	REVISIONS

DESIGNED BY	W.D.W.
CHECKED BY	K.F.S.

PROJECT NO. 5254
 SHEET 12 OF 22

DATE 10/26/2008
 DRAWN BY SAVERIO
 PROFILES

SCALE:
 Horizontal: 1"=50'
 Vertical: 1"=5'



PROFILE NOTES
 11 CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING UTILITIES
 PRIOR TO BEGINNING CONSTRUCTION.



CIVIL ENGINEERING - LAND SURVEYING
 2735 E. Chelsea Pl. Suite 101 Bloomington, IN 47403
 (317) 336-6338 - hannah@sdg.com

DATE: // /
 CHECKED BY: //

JOB TITLE
OSAGE PLACE
BLOOMINGTON, INDIANA
 HABITAT FOR HUMANITY

NO.	BY	DATE

DESIGNED BY
W.D.W.
 CHECKED BY
K.F.S.
 DATE
 10/26/2008

SHEET
5254

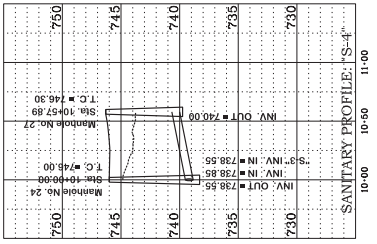
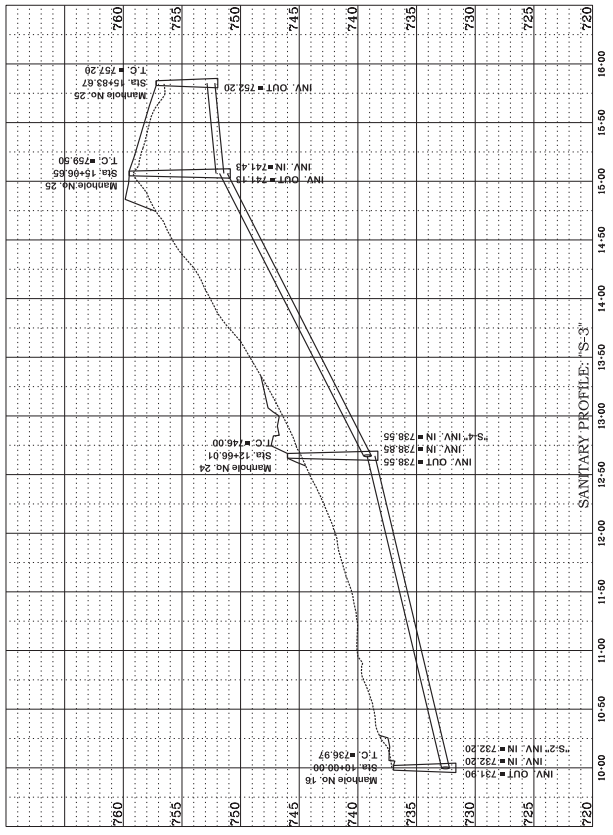
OF
22

DATE
10/26/2008

PROFILE NOTES
 1) CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF BLOOMINGTON, INDIANA SPECIFICATIONS FOR THE FIELD AND NOTIFY THE ENGINEER OF THESE AND CONFLICTS PRIOR TO ORDERING STRUCTURES.

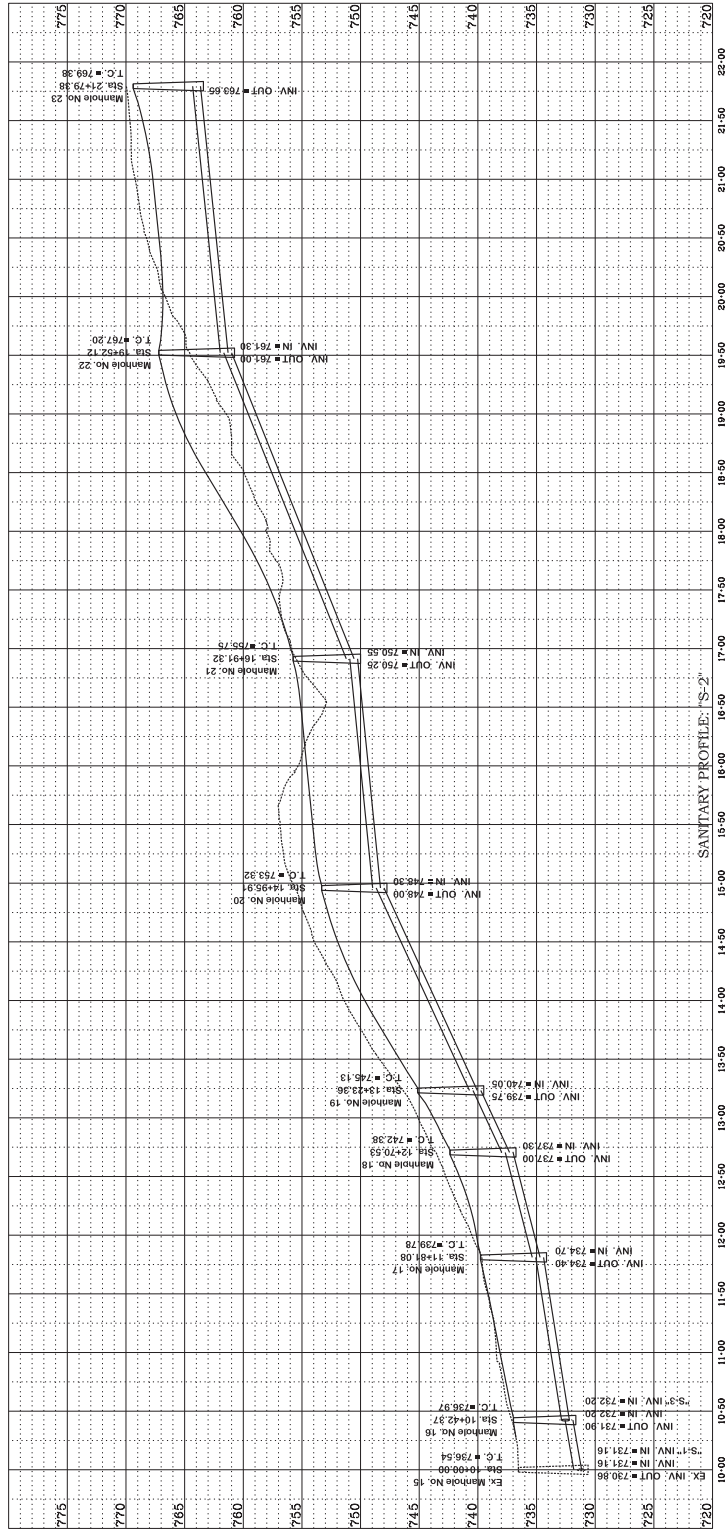
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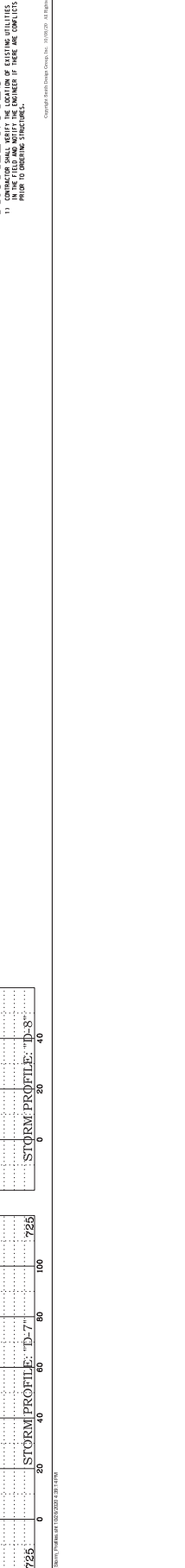
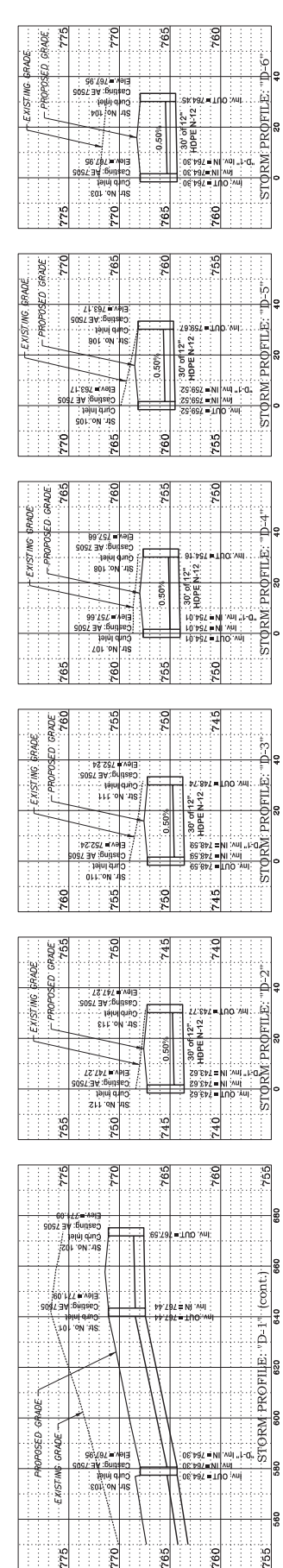
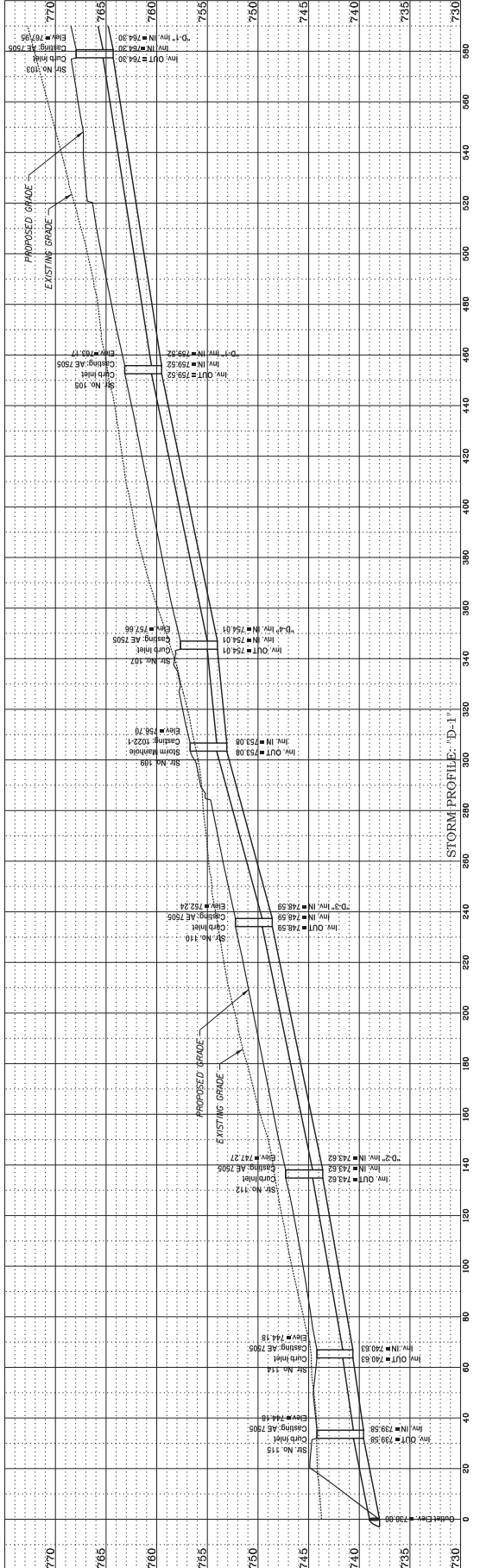
NO.	DATE	BY	REVISIONS

SCALE:
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Vertical: 1"=5'



PROFILE NOTES
1. CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING UTILITIES PRIOR TO CREATING STRUCTURES.

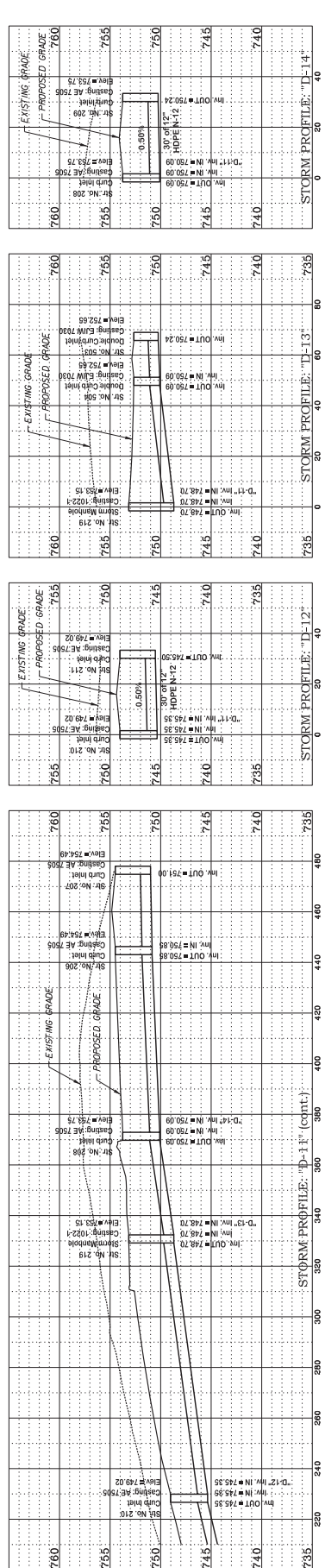
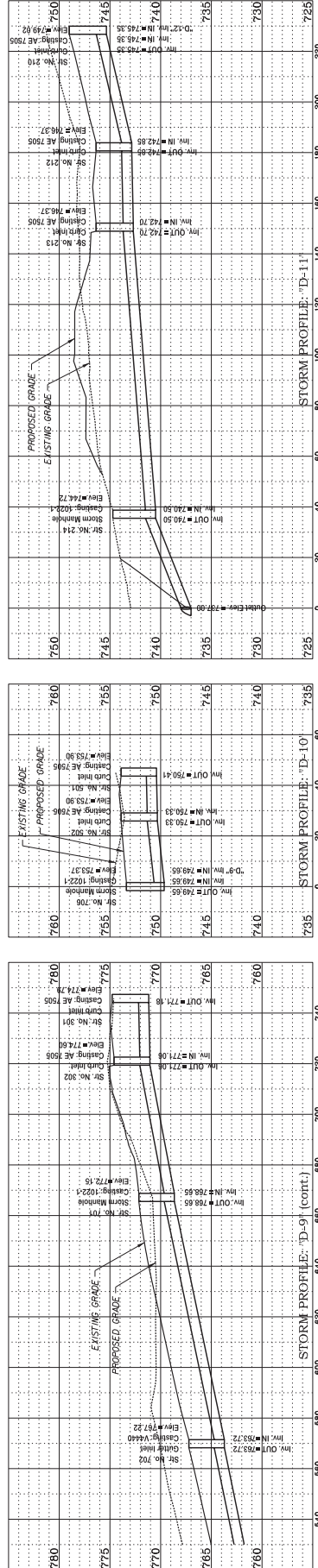
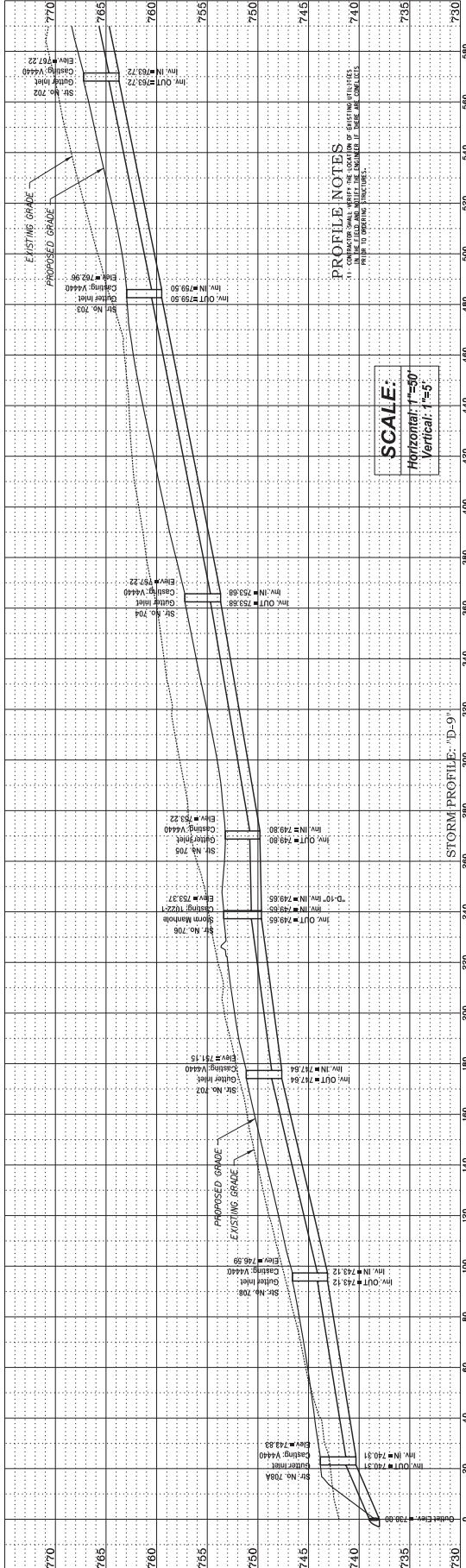
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SCALE:
 Horizontal: 1"=20'
 Vertical: 1"=5'

PROFILE NOTES
 1) THE USER SHALL VERIFY THE EXISTING CONDITIONS IN THE FIELD AND NOTIFY THE CONTRACTOR OF THESE AND CONSULT PRIOR TO ORDERING STRUCTURES.

NO.	DATE	BY	REVISIONS



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CIVIL ENGINEERING - LAND SURVEYING
2755 E. CHASE ST. SUITE 101 BLOOMINGTON, IN 47403
731.338.6338 - BLOOMINGTON, IN

OSAGE PLACE
BLOOMINGTON, INDIANA
HABITAT FOR HUMANITY

NO.	DATE	BY	REVISIONS

DESIGNED BY
W.D.W.
CHECKED BY
K.B.S.
DATE

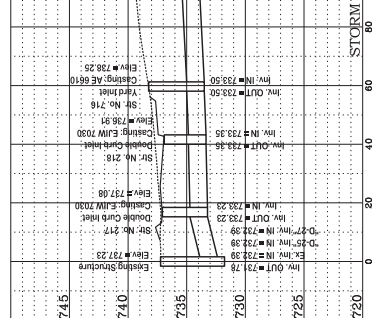
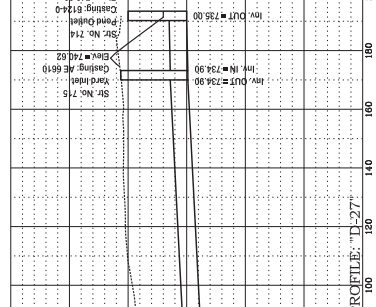
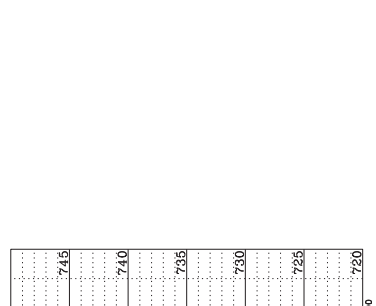
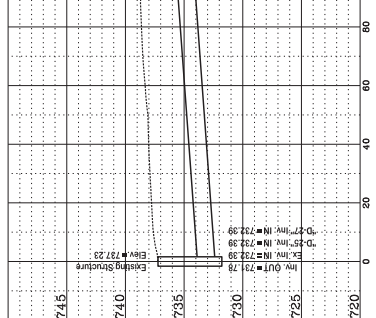
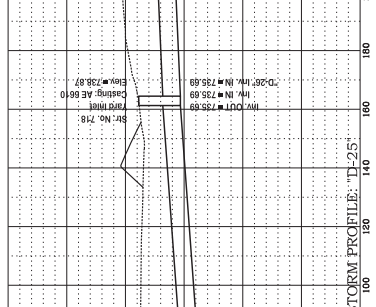
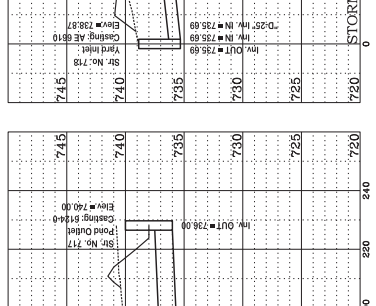
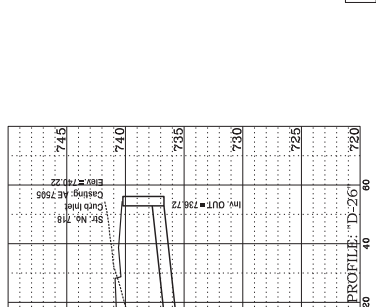
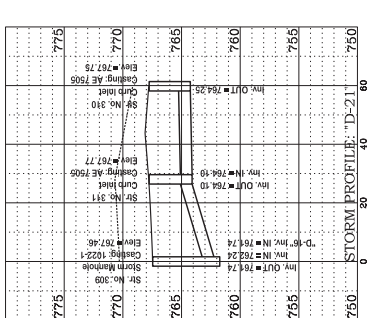
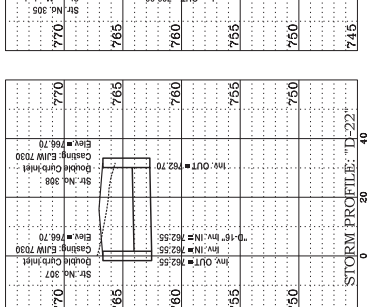
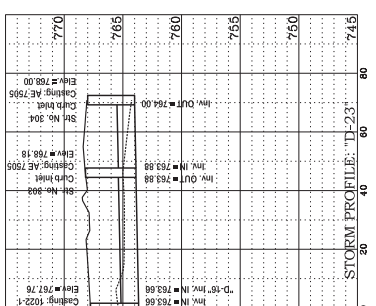
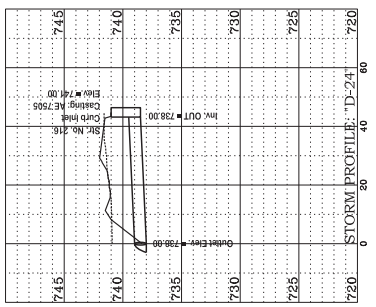
PROJECT NO.
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SHEET

DATE
10/26/2009
16A OF 22

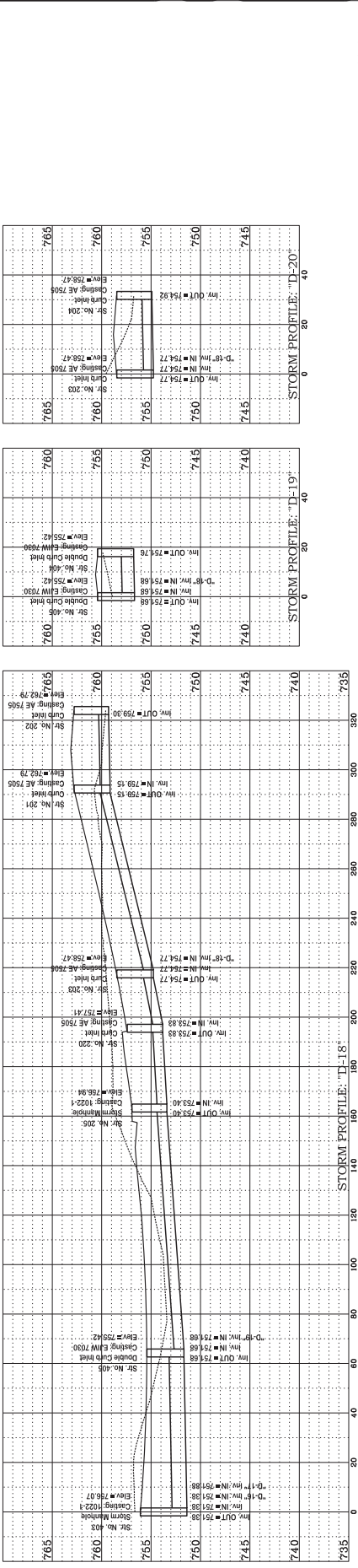
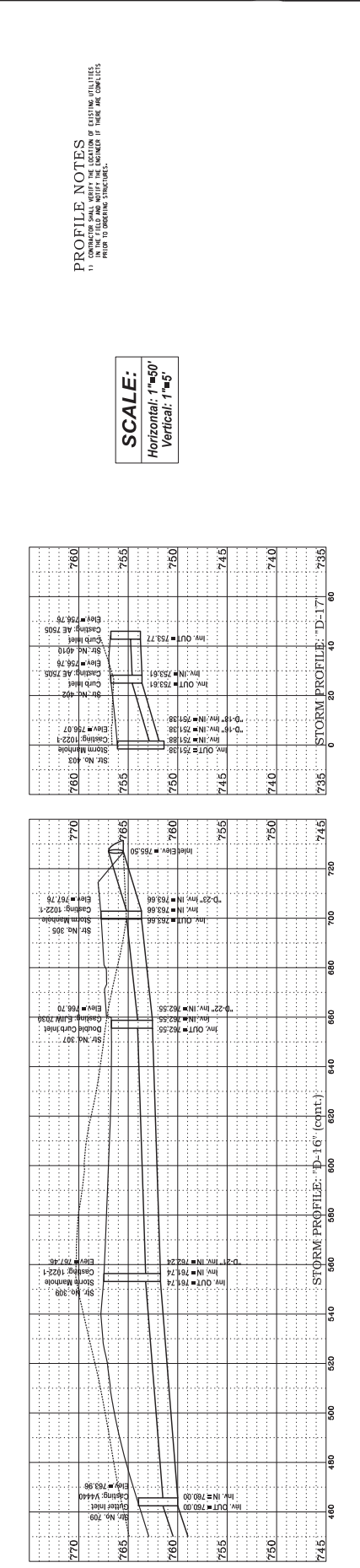
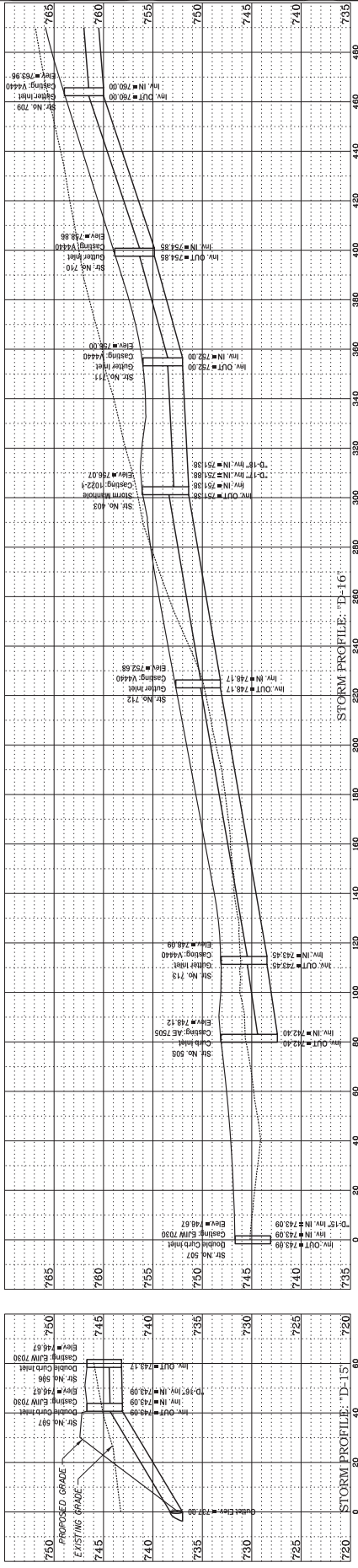
STORM PROFILES
9

PROFILE NOTES
1. CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING UTILITIES AND SHALL BE RESPONSIBLE FOR LOCATING THEM PRIOR TO EXCAVATING STRUCTURES.

SCALE:
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Vertical: 1"=5'



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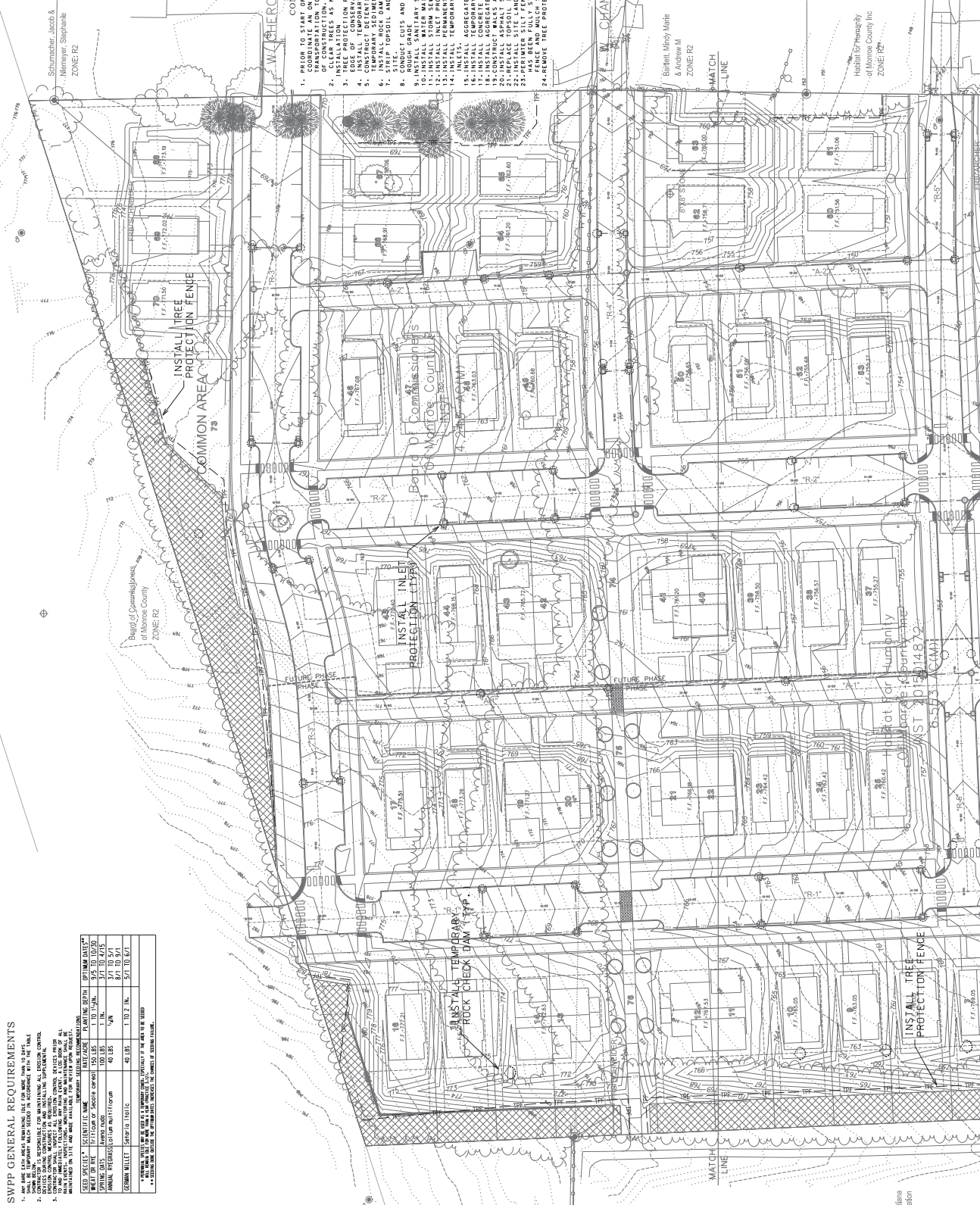
PROFILE NOTES
 11 COMPARE SHALL WITH THE LOCATION OF EXISTING UTILITIES
 PRIOR TO BEGINNING CONSTRUCTION OF THE NEW UTILITIES

SCALE:
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 Vertical: 1"=5'

SWPP GENERAL REQUIREMENTS

1. ALL SWPP AREAS SHALL BE MAINTAINED IN ACCORDANCE WITH THE TABLE BELOW.
2. SWPP AREAS SHALL BE MAINTAINED IN ACCORDANCE WITH THE TABLE BELOW.
3. SWPP AREAS SHALL BE MAINTAINED IN ACCORDANCE WITH THE TABLE BELOW.
4. SWPP AREAS SHALL BE MAINTAINED IN ACCORDANCE WITH THE TABLE BELOW.
5. SWPP AREAS SHALL BE MAINTAINED IN ACCORDANCE WITH THE TABLE BELOW.

SWPP TYPE	PERCENTAGE OF OPEN AREA	MINIMUM DEPTH	MINIMUM LENGTH	MINIMUM WIDTH	MINIMUM AREA
SEDIMENTATION BASIN	10%	1.0 FT	10 FT	10 FT	100 SQ FT
SEDIMENTATION BASIN	10%	1.0 FT	10 FT	10 FT	100 SQ FT
SEDIMENTATION BASIN	10%	1.0 FT	10 FT	10 FT	100 SQ FT
SEDIMENTATION BASIN	10%	1.0 FT	10 FT	10 FT	100 SQ FT
SEDIMENTATION BASIN	10%	1.0 FT	10 FT	10 FT	100 SQ FT
SEDIMENTATION BASIN	10%	1.0 FT	10 FT	10 FT	100 SQ FT
SEDIMENTATION BASIN	10%	1.0 FT	10 FT	10 FT	100 SQ FT
SEDIMENTATION BASIN	10%	1.0 FT	10 FT	10 FT	100 SQ FT
SEDIMENTATION BASIN	10%	1.0 FT	10 FT	10 FT	100 SQ FT
SEDIMENTATION BASIN	10%	1.0 FT	10 FT	10 FT	100 SQ FT



**HABITAT FOR HUMANITY
BLOOMINGTON, INDIANA
OSAGE PLACE
JOB TITLE**

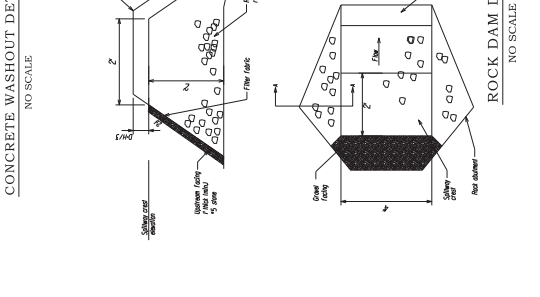
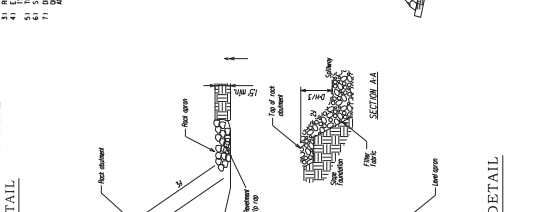
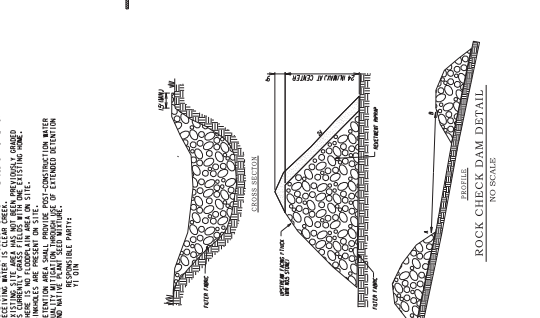
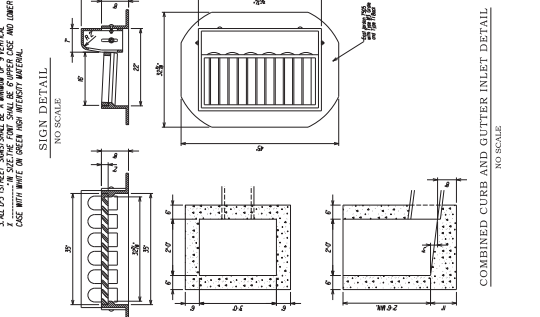
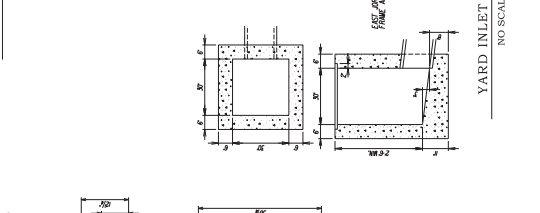
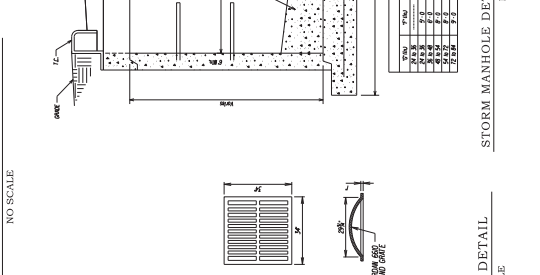
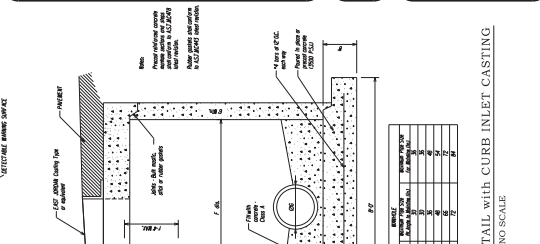
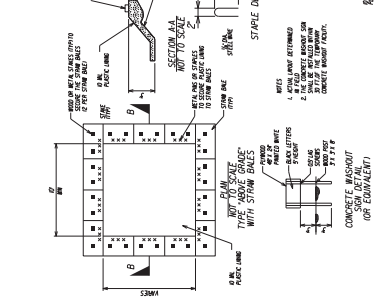
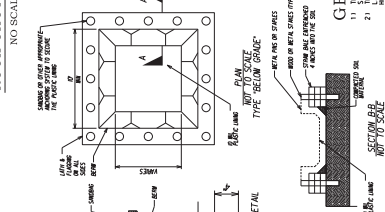
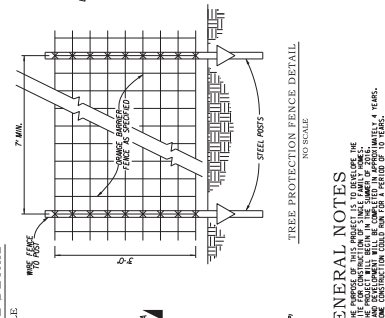
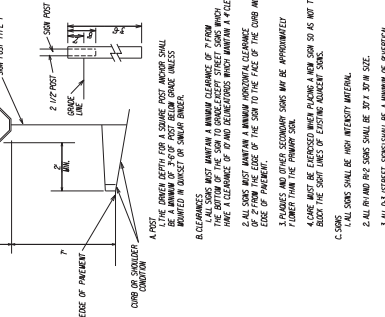
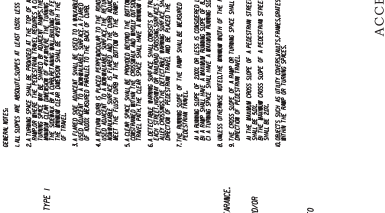
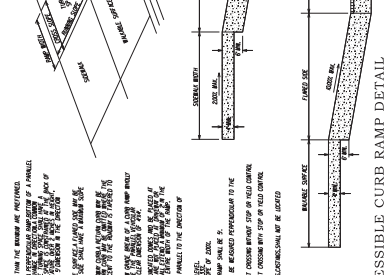
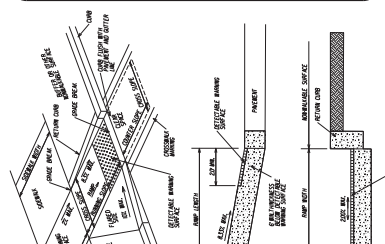
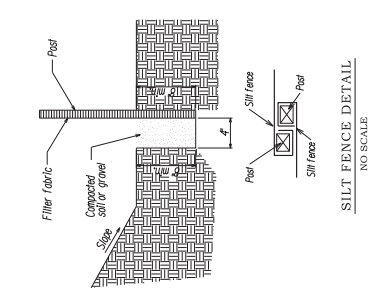
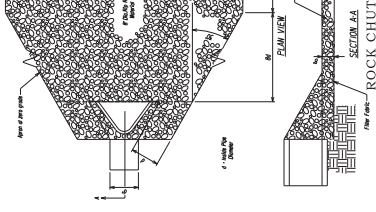
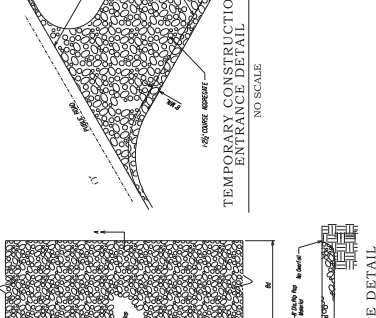
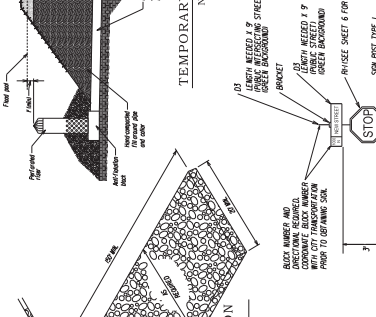
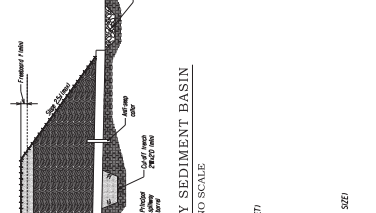
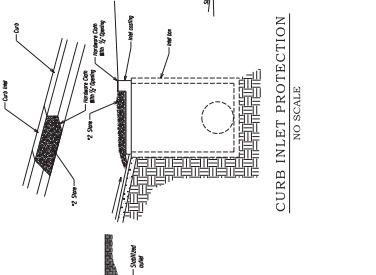
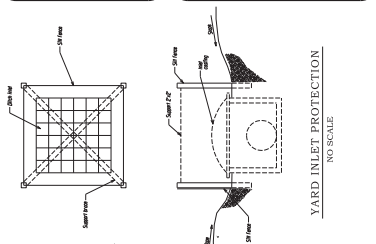
NO.	DATE	BY	REVISIONS

DESIGNED BY	KRS
CHECKED BY	WDM
DATE	

PROJECT NO.	5254
SHEET NO.	18 OF 22
DATE	10/26/2010
PROJECT NAME	HABITAT FOR HUMANITY SWPPP PLAN

- CONSTRUCTION SEQUENCE**
1. PRIOR TO START OF CONSTRUCTION, CONTRACTOR SHALL COORDINATE AN ON-SITE MEETING WITH CITY PLANNING AND ENGINEERING TO REVIEW THE SCHEDULE AND SEQUENCE OF CONSTRUCTION.
 2. INSTALL PILES AS NECESSARY FOR GRADING AND INFRASTRUCTURE.
 3. TREE PROTECTION FENCE SHALL BE INSTALLED ALONG THE PERIMETER OF THE SITE.
 4. INSTALL TEMPORARY PERIMETER SILT FENCE AS SHOWN ON THE PLANS.
 5. TEMPORARY SEDIMENT TRAPS AND OUTLET PIPES TO SERVE AS SILT TRAPS.
 6. INSTALL ROCK DAM AROUND DETENTION BASIN OUTLET STRUCTURES.
 7. SITE, SLOPES, AND ROAD DEGRASS, SLOPES AND WEDGE FROM SLOPES.
 8. ROUND GRADTS AND FILLS AS REQUIRED TO BRING THE SITE TO FINISH GRADE.
 9. INSTALL VENTILATION SEWER MAINS.
 10. INSTALL STORM SEWER.
 11. INSTALL PERMANENT ROCK CHECK AT PIPE OUTLETS.
 12. INSTALL PERMANENT ROCK CHECK AT PIPE OUTLETS.
 13. INSTALL TEMPORARY INLET PROTECTION AROUND ALL STORM SEWER INLETS.
 14. INSTALL TEMPORARY INLET PROTECTION AROUND ALL STORM SEWER INLETS.
 15. INSTALL AGGREGATE BASE ON ROADWAYS.
 16. INSTALL CONCRETE CURBS.
 17. INSTALL CONCRETE CURBS.
 18. CONSTRUCT WALKS AND PATIOWAYS ON ALL PAVED SURFACES.
 19. INSTALL ASPHALT SURFACE AREAS AND FINISH GRADE.
 20. INSTALL SITE LANDSCAPING, GRASSING, AND FINISH GRADE.
 21. INSTALL SITE LANDSCAPING, GRASSING, AND FINISH GRADE.
 22. INSTALL SITE LANDSCAPING, GRASSING, AND FINISH GRADE.
 23. HAS BEEN FULLY STABILIZED, ONCE STABILIZED, REMOVE SILT FENCE AND WHICH USED ANY BARE AREAS RESULTING FROM REMOVAL.
 24. REMOVE TREE PROTECTION FENCING.

NO.	DATE	BY	REVISIONS

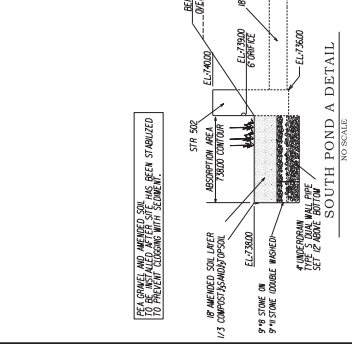
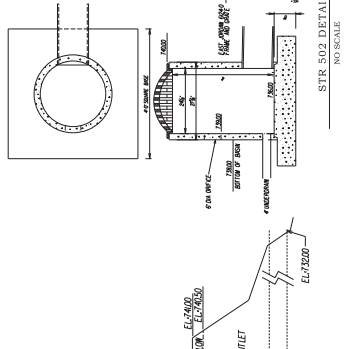
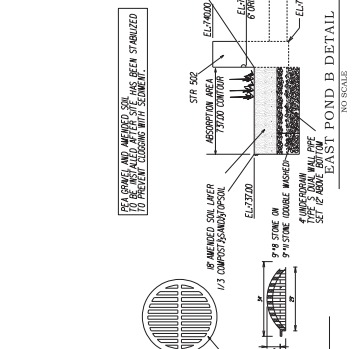
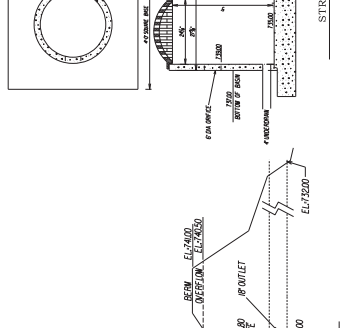
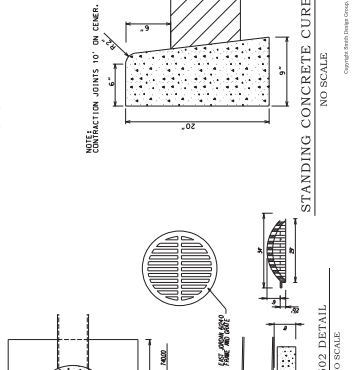
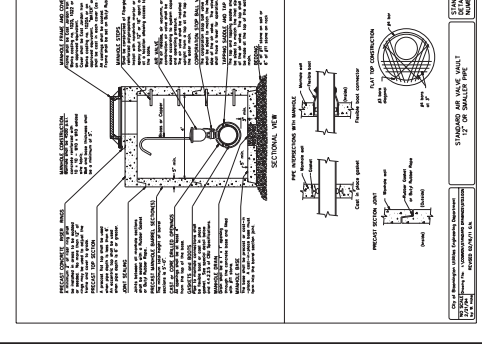
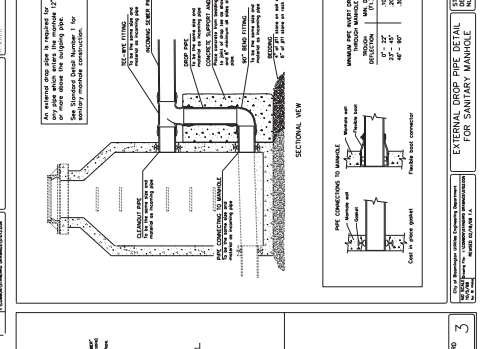
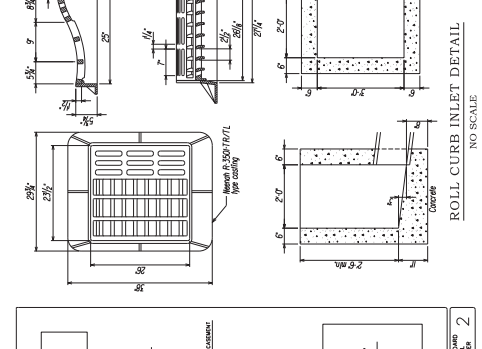
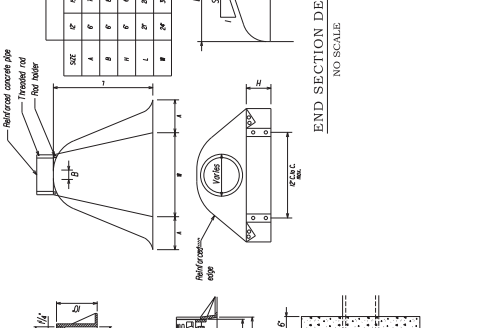
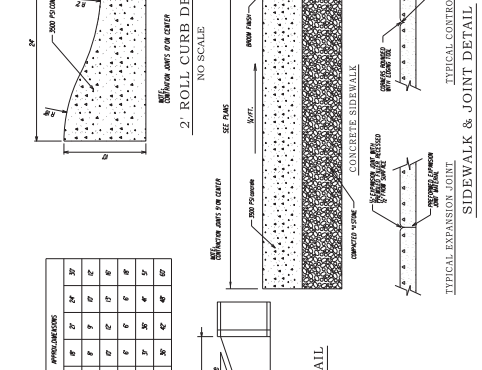
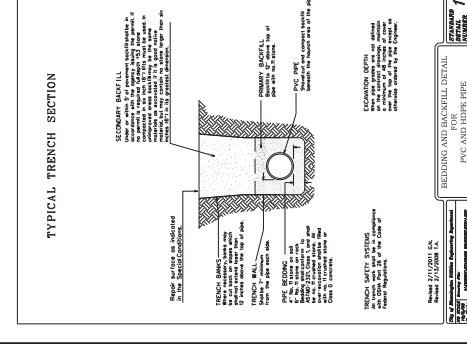
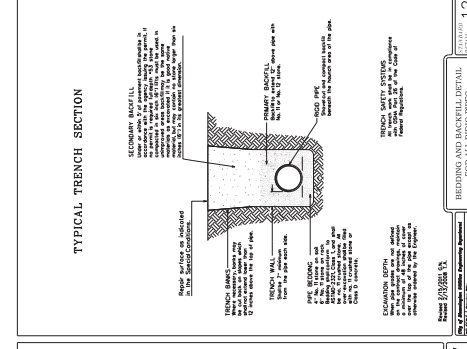
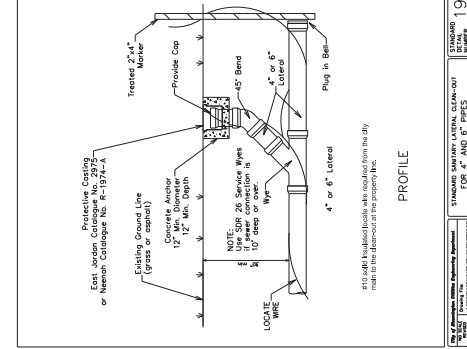
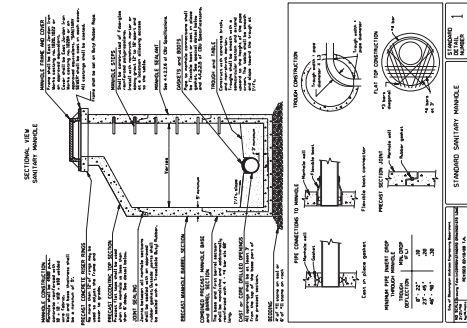
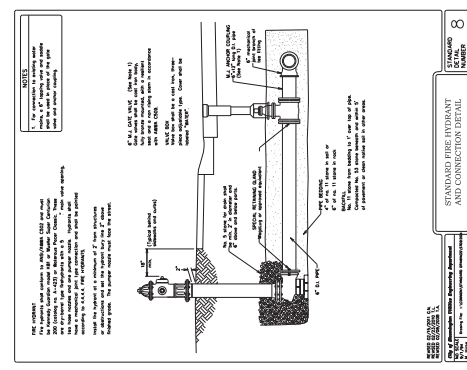


GENERAL NOTES:

1. ALL NOTES ARE RECONSTRUCTIONS OF EXISTING CONDITIONS UNLESS OTHERWISE NOTED.
2. ALL NOTES ARE RECONSTRUCTIONS OF EXISTING CONDITIONS UNLESS OTHERWISE NOTED.
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Osage Place
Habitat for Humanity
Bloomington, IN

Section 8 Township 8 North, Range 1 West

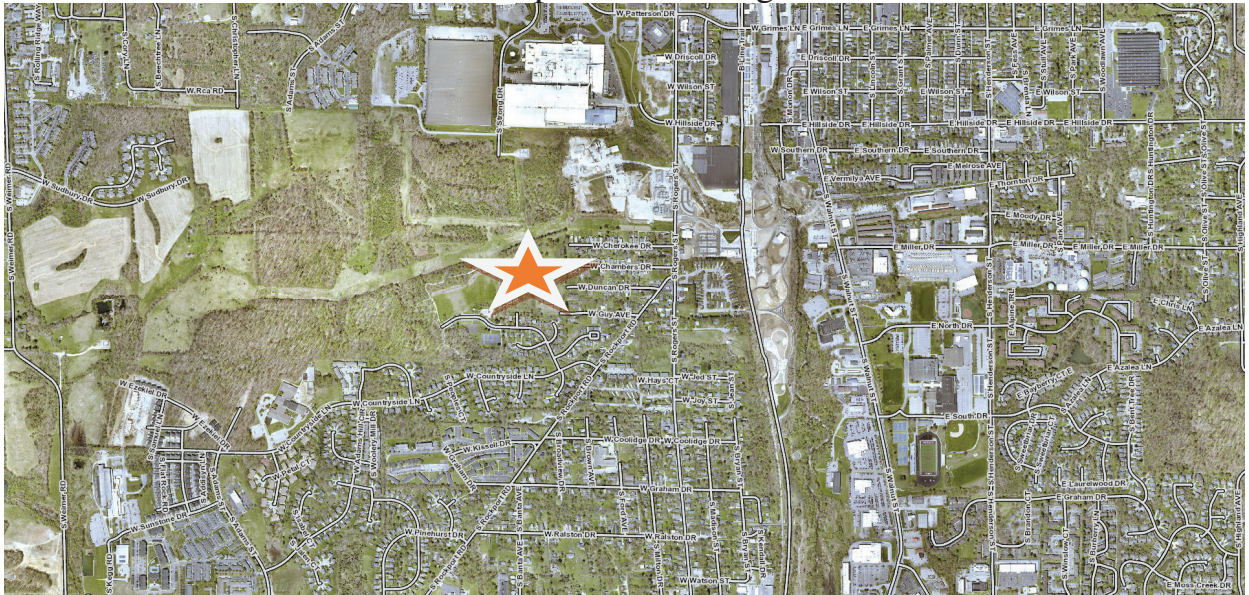


Figure 1: Vicinity Map

Storm Water Report
Project No. 5254

October 3, 2020



Smith Brehob & Associates, Inc.

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Summary

This drainage report is for the Osage Place Neighborhood subdivision for Habitat for Humanity. The project will consist of installation of public infrastructure for a 76 lot single family residential development.

Existing Conditions Pre Construction

This site is currently undeveloped with the exception of an existing structure in the southeast area of the site. This structure will remain for most of construction as a staging and storage area. The existing land coverage consists of a mature tree line along the western property and northwest area of the site and the remainder is open field with scrub vegetation. The site drains from north to south and slopes range from 5.7% to 10%.

There is a considerable amount of off-site runoff that drains onto the property from the north and east that has been included with the drainage calculations.

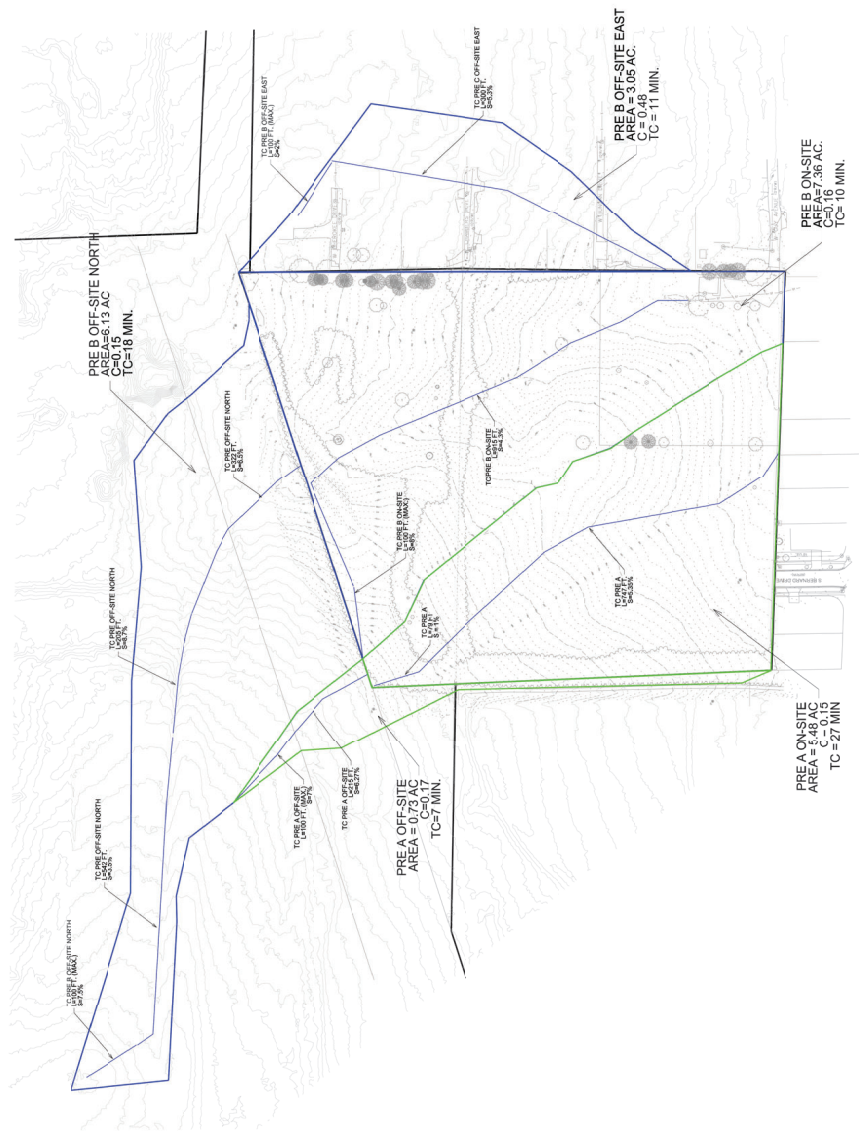
There is an existing 24" CPP culvert on the southeast area of the site that connects to an existing yard inlet structure. The yard inlet structure 24" CPP outlet pipe continues south of the site towards Susie Street. This 24" CPP will be utilized post construction.

The appropriate storm water facilities will be included with this development meeting the requirements for both water quantity and quality. Below is the drainage area map for pre development:

Figure 2: Existing Conditions Drainage Area Map



PRE CONSTRUCTION



JOB TITLE
OSAGE PLACE
BLOOMINGTON, INDIANA
 HABITAT FOR HUMANITY

REVISIONS	BY	DATE

DESIGNED
 KES
 CHECKED
 WCM
 APPROVED
 KES

JOB NO.
5254
 SHEET

DATE
 10/05/2014
 OF 1

104
 DRAINAGE
 EXHIBIT

Osage Place
Habitat for Humanity

Below is drainage area information for the existing conditions.

Hydrograph Plot

Hydraflow Hydrographs by Intelisolve

Saturday, Oct 3 2020, 1:20 PM

Hyd. No. 1

Offsite A

Hydrograph type = Rational
 Storm frequency = 2 yrs
 Drainage area = 0.730 ac
 Intensity = 4.917 in/hr
 IDF Curve = CBU 2011.IDF

Peak discharge = 0.61 cfs
 Time interval = 1 min
 Runoff coeff. = 0.17
 Tc by TR55 = 7.00 min
 Asc/Rec limb fact = 1/1

Hydrograph Volume = 256 cuft

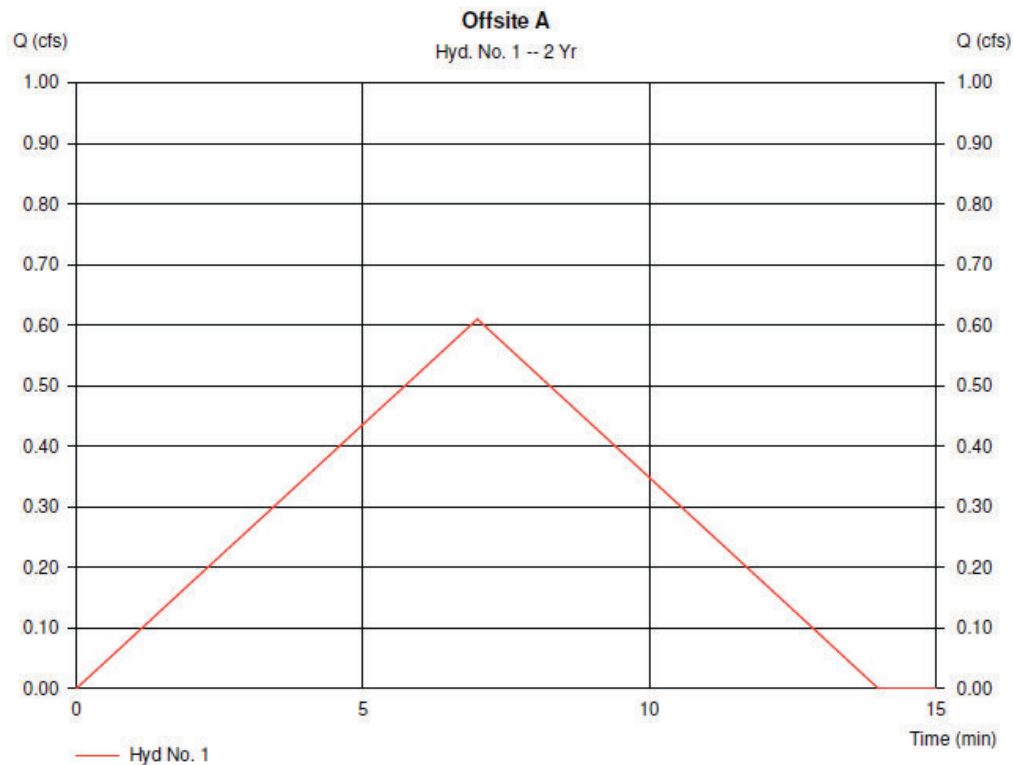


Figure 3: Existing Conditions Offsite Pre A

Osage Place
Habitat for Humanity

TR55 Tc Worksheet

Hydraflow Hydrographs by Intelisolve

Hyd. No. 1

Offsite A

<u>Description</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>Totals</u>
Sheet Flow				
Manning's n-value	= 0.150	0.011	0.011	
Flow length (ft)	= 100.0	0.0	0.0	
Two-year 24-hr precip. (in)	= 3.07	0.00	0.00	
Land slope (%)	= 7.00	0.00	0.00	
Travel Time (min)	= 6.06	+ 0.00	+ 0.00	= 6.06
Shallow Concentrated Flow				
Flow length (ft)	= 215.00	0.00	0.00	
Watercourse slope (%)	= 6.27	0.00	0.00	
Surface description	= Unpaved	Paved	Paved	
Average velocity (ft/s)	= 4.04	0.00	0.00	
Travel Time (min)	= 0.89	+ 0.00	+ 0.00	= 0.89
Channel Flow				
X sectional flow area (sqft)	= 0.00	0.00	0.00	
Wetted perimeter (ft)	= 0.00	0.00	0.00	
Channel slope (%)	= 0.00	0.00	0.00	
Manning's n-value	= 0.015	0.015	0.015	
Velocity (ft/s)	= 0.00	0.00	0.00	
Flow length (ft)	= 0.0	0.0	0.0	
Travel Time (min)	= 0.00	+ 0.00	+ 0.00	= 0.00
Total Travel Time, Tc				6.95 min

Figure 4: Time of Concentration Offsite Pre A

Hydrograph Plot

Hydraflow Hydrographs by Intelisolve

Saturday, Oct 3 2020, 1:56 PM

Hyd. No. 2

Pre A

Hydrograph type = Rational
Storm frequency = 2 yrs
Drainage area = 5.480 ac
Intensity = 2.505 in/hr
IDF Curve = CBU 2011.IDF

Peak discharge = 2.20 cfs
Time interval = 1 min
Runoff coeff. = 0.16
Tc by TR55 = 27.00 min
Asc/Rec limb fact = 1/1

Hydrograph Volume = 3,559 cuft

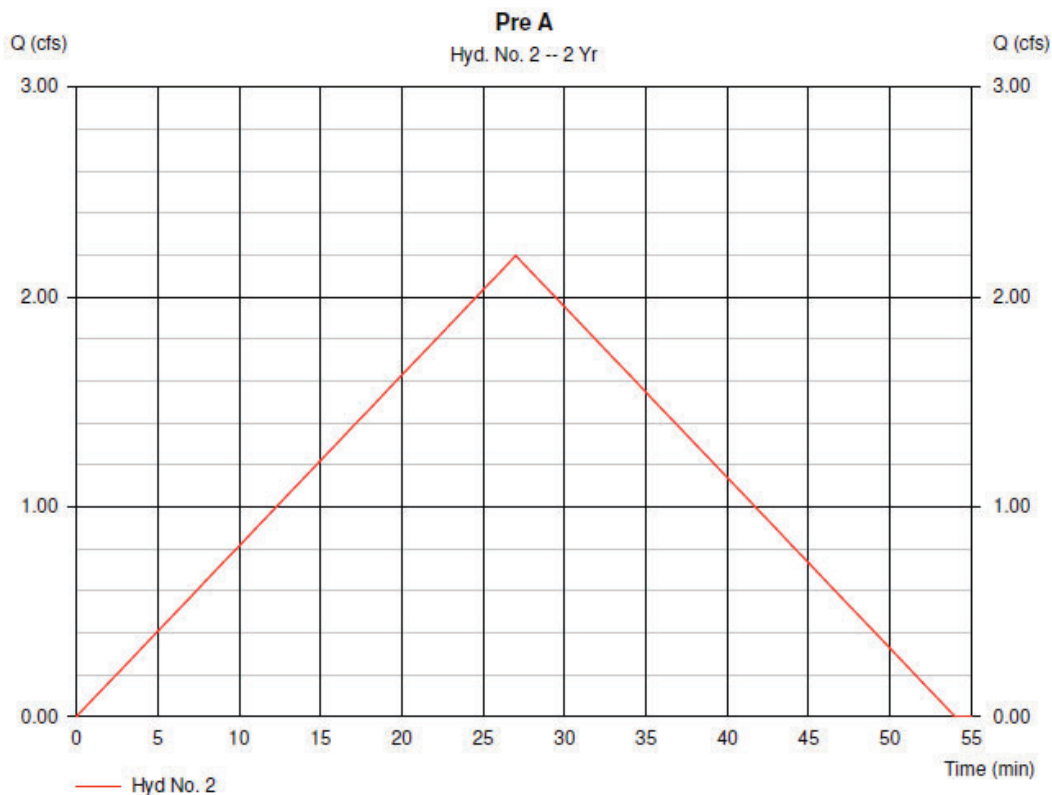


Figure 5: Existing Conditions Pre A

TR55 Tc Worksheet

Hydraflow Hydrographs by Intelisolve

Hyd. No. 2

Pre A

<u>Description</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>Totals</u>
Sheet Flow				
Manning's n-value	= 0.400	0.011	0.011	
Flow length (ft)	= 79.0	0.0	0.0	
Two-year 24-hr precip. (in)	= 3.07	0.00	0.00	
Land slope (%)	= 1.00	0.00	0.00	
Travel Time (min)	= 23.96	+ 0.00	+ 0.00	= 23.96
Shallow Concentrated Flow				
Flow length (ft)	= 747.00	0.00	0.00	
Watercourse slope (%)	= 5.35	0.00	0.00	
Surface description	= Unpaved	Paved	Paved	
Average velocity (ft/s)	= 3.73	0.00	0.00	
Travel Time (min)	= 3.34	+ 0.00	+ 0.00	= 3.34
Channel Flow				
X sectional flow area (sqft)	= 0.00	0.00	0.00	
Wetted perimeter (ft)	= 0.00	0.00	0.00	
Channel slope (%)	= 0.00	0.00	0.00	
Manning's n-value	= 0.015	0.015	0.015	
Velocity (ft/s)	= 0.00	0.00	0.00	
Flow length (ft)	= 0.0	0.0	0.0	
Travel Time (min)	= 0.00	+ 0.00	+ 0.00	= 0.00
Total Travel Time, Tc				27.29 min

Figure 6: Time of Concentration Pre A

Hydrograph Plot

Hydraflow Hydrographs by Intelisolve

Saturday, Oct 3 2020, 1:58 PM

Hyd. No. 5

Offsite B North

Hydrograph type = Rational
 Storm frequency = 2 yrs
 Drainage area = 6.130 ac
 Intensity = 3.195 in/hr
 IDF Curve = CBU 2011.IDF

Peak discharge = 2.94 cfs
 Time interval = 1 min
 Runoff coeff. = 0.15
 Tc by TR55 = 18.00 min
 Asc/Rec limb fact = 1/1

Hydrograph Volume = 3,173 cuft

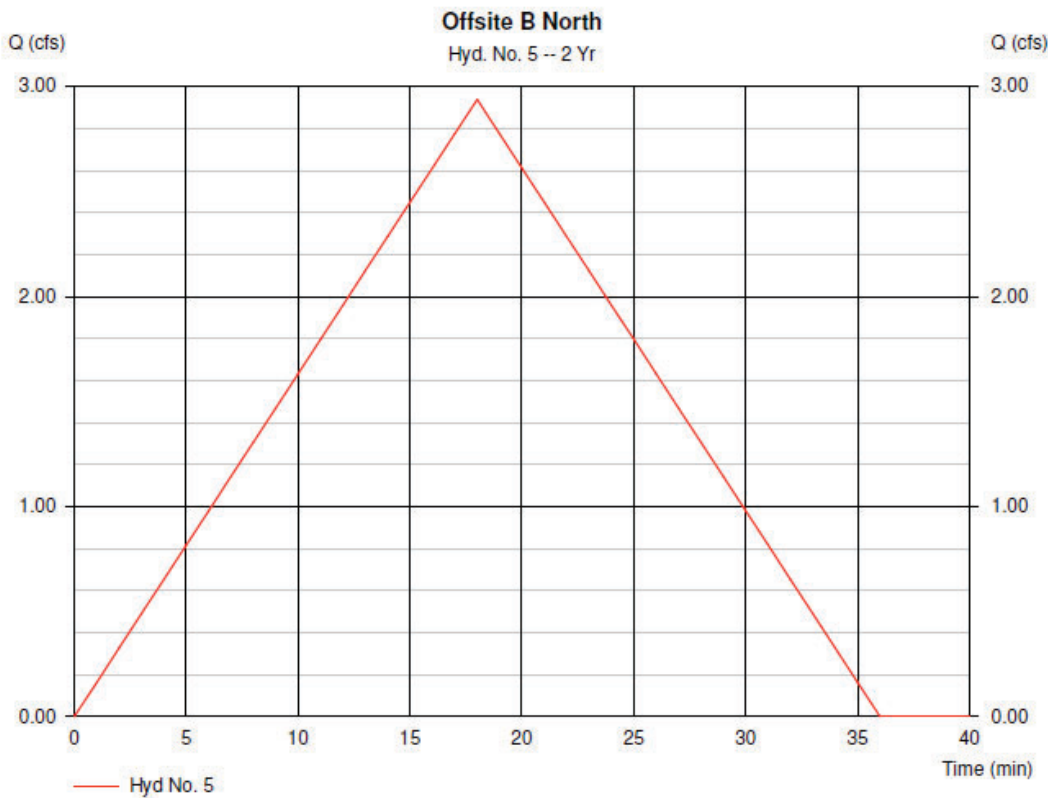


Figure 7: Existing Conditions Off Site Pre B North

TR55 Tc Worksheet

Hydraflow Hydrographs by Intelisolve

Hyd. No. 5

Offsite B North

<u>Description</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>Totals</u>
Sheet Flow				
Manning's n-value	= 0.400	0.011	0.011	
Flow length (ft)	= 100.0	0.0	0.0	
Two-year 24-hr precip. (in)	= 3.07	0.00	0.00	
Land slope (%)	= 7.50	0.00	0.00	
Travel Time (min)	= 12.92	+ 0.00	+ 0.00	= 12.92
Shallow Concentrated Flow				
Flow length (ft)	= 542.00	205.00	322.00	
Watercourse slope (%)	= 3.50	8.70	6.50	
Surface description	= Unpaved	Unpaved	Unpaved	
Average velocity (ft/s)	= 3.02	4.76	4.11	
Travel Time (min)	= 2.99	+ 0.72	+ 1.30	= 5.02
Channel Flow				
X sectional flow area (sqft)	= 0.00	0.00	0.00	
Wetted perimeter (ft)	= 0.00	0.00	0.00	
Channel slope (%)	= 0.00	0.00	0.00	
Manning's n-value	= 0.015	0.015	0.015	
Velocity (ft/s)	= 0.00	0.00	0.00	
Flow length (ft)	= 0.0	0.0	0.0	
Travel Time (min)	= 0.00	+ 0.00	+ 0.00	= 0.00
Total Travel Time, Tc				17.94 min

Figure 8: Time of Concentration Offsite Pre B North

Osage Place
Habitat for Humanity

Hydrograph Plot

Hydraflow Hydrographs by Intelisolve

Saturday, Oct 3 2020, 2:0 PM

Hyd. No. 6

Offsite B East

Hydrograph type = Rational
 Storm frequency = 2 yrs
 Drainage area = 3.050 ac
 Intensity = 4.100 in/hr
 IDF Curve = CBU 2011.IDF

Peak discharge = 6.00 cfs
 Time interval = 1 min
 Runoff coeff. = 0.48
 Tc by TR55 = 11.00 min
 Asc/Rec limb fact = 1/1

Hydrograph Volume = 3,962 cuft

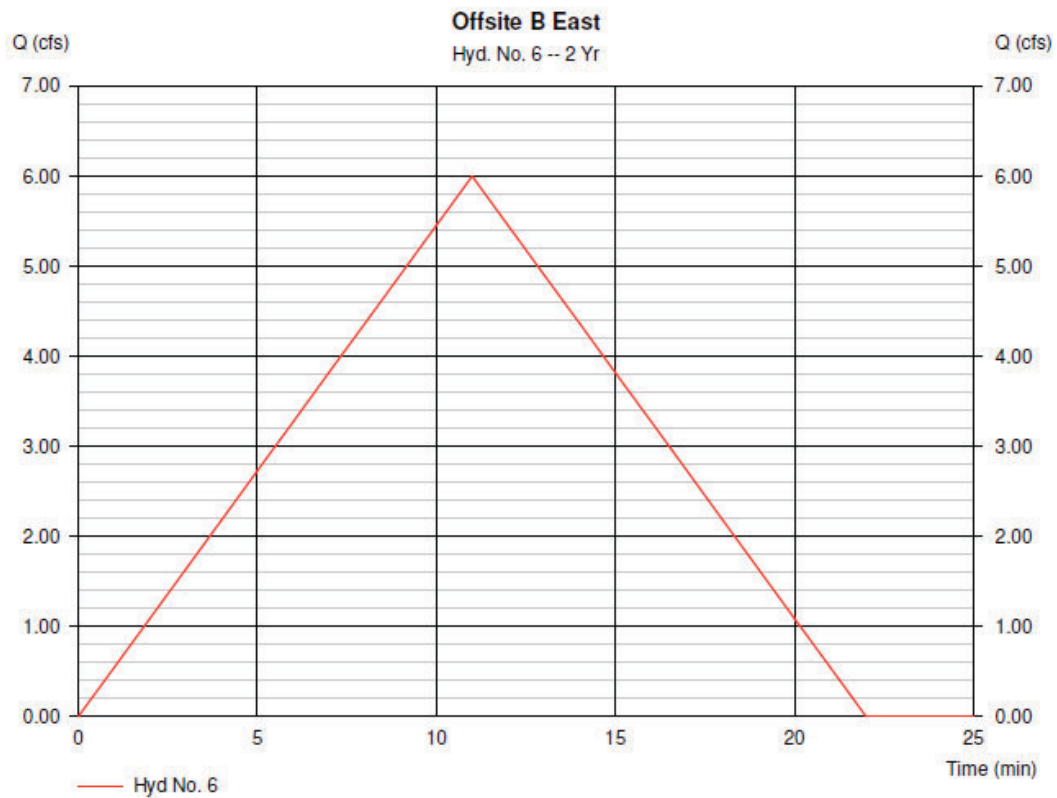


Figure 9: Existing Conditions Offsite Pre B East

Osage Place
Habitat for Humanity

TR55 Tc Worksheet

Hydraflow Hydrographs by Intelisolve

Hyd. No. 6

Offsite B East

<u>Description</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>Totals</u>
Sheet Flow				
Manning's n-value	= 0.130	0.011	0.011	
Flow length (ft)	= 100.0	0.0	0.0	
Two-year 24-hr precip. (in)	= 3.07	0.00	0.00	
Land slope (%)	= 2.00	0.00	0.00	
Travel Time (min)	= 8.92	+ 0.00	+ 0.00	= 8.92
Shallow Concentrated Flow				
Flow length (ft)	= 300.00	300.00	0.00	
Watercourse slope (%)	= 5.30	5.30	0.00	
Surface description	= Unpaved	Paved	Paved	
Average velocity (ft/s)	= 3.71	4.68	0.00	
Travel Time (min)	= 1.35	+ 1.07	+ 0.00	= 2.41
Channel Flow				
X sectional flow area (sqft)	= 0.00	0.00	0.00	
Wetted perimeter (ft)	= 0.00	0.00	0.00	
Channel slope (%)	= 0.00	0.00	0.00	
Manning's n-value	= 0.015	0.015	0.015	
Velocity (ft/s)	= 0.00	0.00	0.00	
Flow length (ft)	= 0.0	0.0	0.0	
Travel Time (min)	= 0.00	+ 0.00	+ 0.00	= 0.00
Total Travel Time, Tc				11.34 min

Figure 10: Time of Concentration Offsite Pre B East

Hydrograph Plot

Hydraflow Hydrographs by Intelisolve

Saturday, Oct 3 2020, 2:2 PM

Hyd. No. 7

Pre B

Hydrograph type = Rational
 Storm frequency = 2 yrs
 Drainage area = 7.360 ac
 Intensity = 3.298 in/hr
 IDF Curve = CBU 2011.IDF

Peak discharge = 3.88 cfs
 Time interval = 1 min
 Runoff coeff. = 0.16
 Tc by TR55 = 17.00 min
 Asc/Rec limb fact = 1/1

Hydrograph Volume = 3,961 cuft

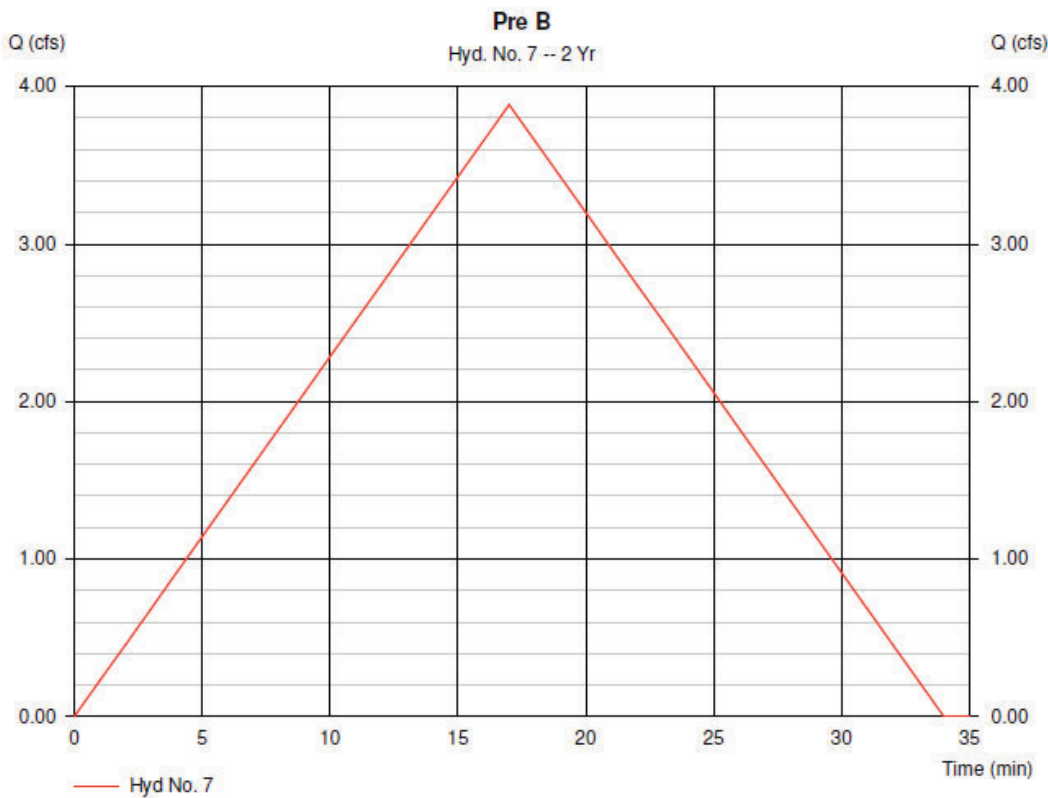


Figure 11: Existing Conditions Pre B

TR55 Tc Worksheet

Hydraflow Hydrographs by Intelisolve

Hyd. No. 7

Pre B

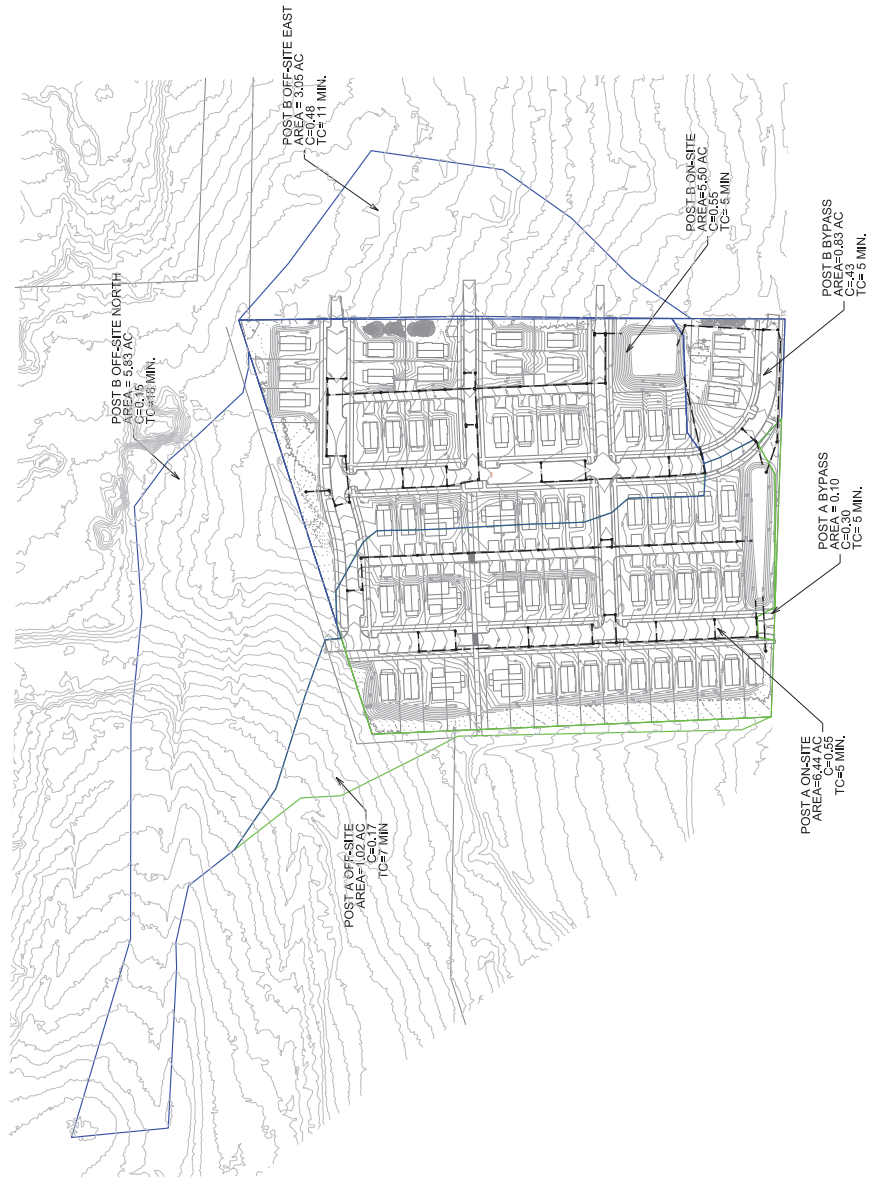
<u>Description</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>Totals</u>
Sheet Flow				
Manning's n-value	= 0.400	0.011	0.011	
Flow length (ft)	= 100.0	0.0	0.0	
Two-year 24-hr precip. (in)	= 3.07	0.00	0.00	
Land slope (%)	= 8.00	0.00	0.00	
Travel Time (min)	= 12.59	+ 0.00	+ 0.00	= 12.59
Shallow Concentrated Flow				
Flow length (ft)	= 915.00	0.00	0.00	
Watercourse slope (%)	= 4.30	0.00	0.00	
Surface description	= Unpaved	Paved	Paved	
Average velocity (ft/s)	= 3.35	0.00	0.00	
Travel Time (min)	= 4.56	+ 0.00	+ 0.00	= 4.56
Channel Flow				
X sectional flow area (sqft)	= 0.00	0.00	0.00	
Wetted perimeter (ft)	= 0.00	0.00	0.00	
Channel slope (%)	= 0.00	0.00	0.00	
Manning's n-value	= 0.015	0.015	0.015	
Velocity (ft/s)	= 0.00	0.00	0.00	
Flow length (ft)	= 0.0	0.0	0.0	
Travel Time (min)	= 0.00	+ 0.00	+ 0.00	= 0.00
Total Travel Time, Tc				17.15 min

Figure 12: Time of Concentration Pre B

Post Construction

The post construction drainage will more or less follow the same flow pattern as existing conditions. Runoff from the development will be directed to two detention ponds. The time of concentration for the offsite areas remained the same from pre construction calculations. Drainage area map and calculations are shown below.

POST CONSTRUCTION



REVISIONS	BY	DATE

REVISIONS	BY	DATE
KES		
WCM		
KES		

Figure 13: Post Conditions Drainage Area Map

Hydrograph Plot

Hydraflow Hydrographs by Intelisolve

Saturday, Oct 3 2020, 2:5 PM

Hyd. No. 10

Post Offsite A

Hydrograph type = Rational
 Storm frequency = 2 yrs
 Drainage area = 1.020 ac
 Intensity = 4.917 in/hr
 IDF Curve = CBU 2011.IDF

Peak discharge = 0.85 cfs
 Time interval = 1 min
 Runoff coeff. = 0.17
 Tc by User = 7.00 min
 Asc/Rec limb fact = 1/1

Hydrograph Volume = 358 cuft

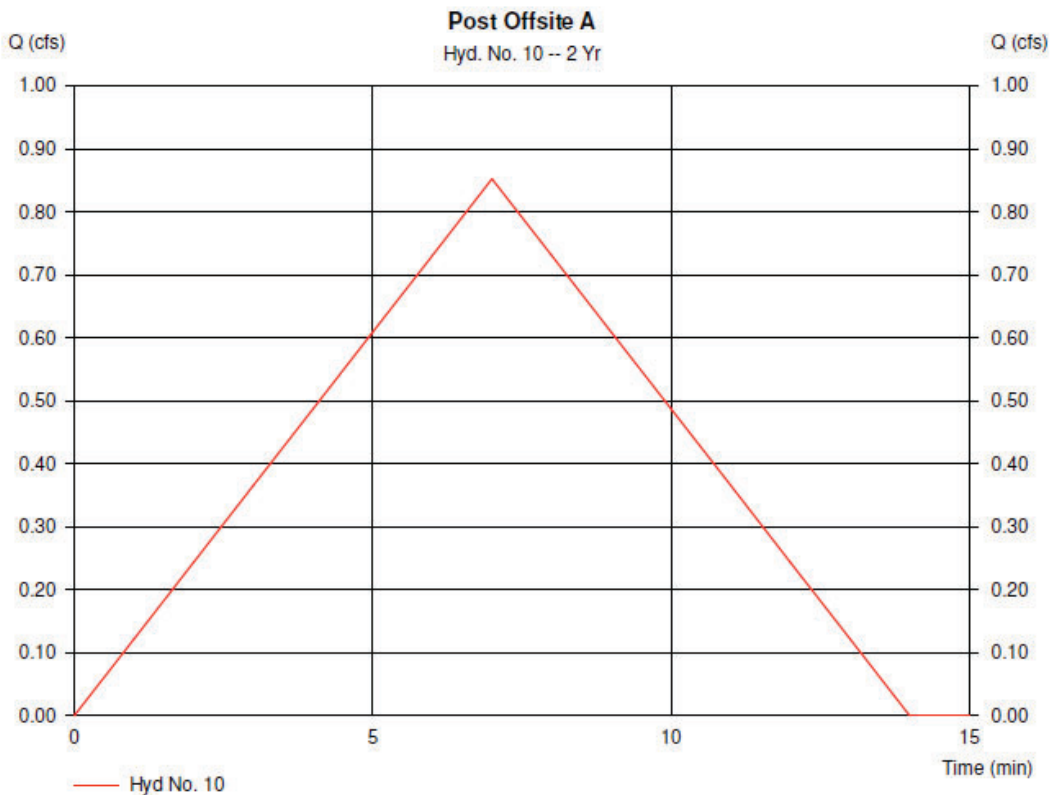


Figure 14: Offsite Post A Drainage Calcs

Osage Place
Habitat for Humanity

Hydrograph Plot

Hydraflow Hydrographs by Intelisolve

Saturday, Oct 3 2020, 2:7 PM

Hyd. No. 11

Post A Detention

Hydrograph type = Rational
 Storm frequency = 2 yrs
 Drainage area = 6.440 ac
 Intensity = 5.472 in/hr
 IDF Curve = CBU 2011.IDF

Peak discharge = 19.38 cfs
 Time interval = 1 min
 Runoff coeff. = 0.55
 Tc by User = 5.00 min
 Asc/Rec limb fact = 1/1

Hydrograph Volume = 5,815 cuft

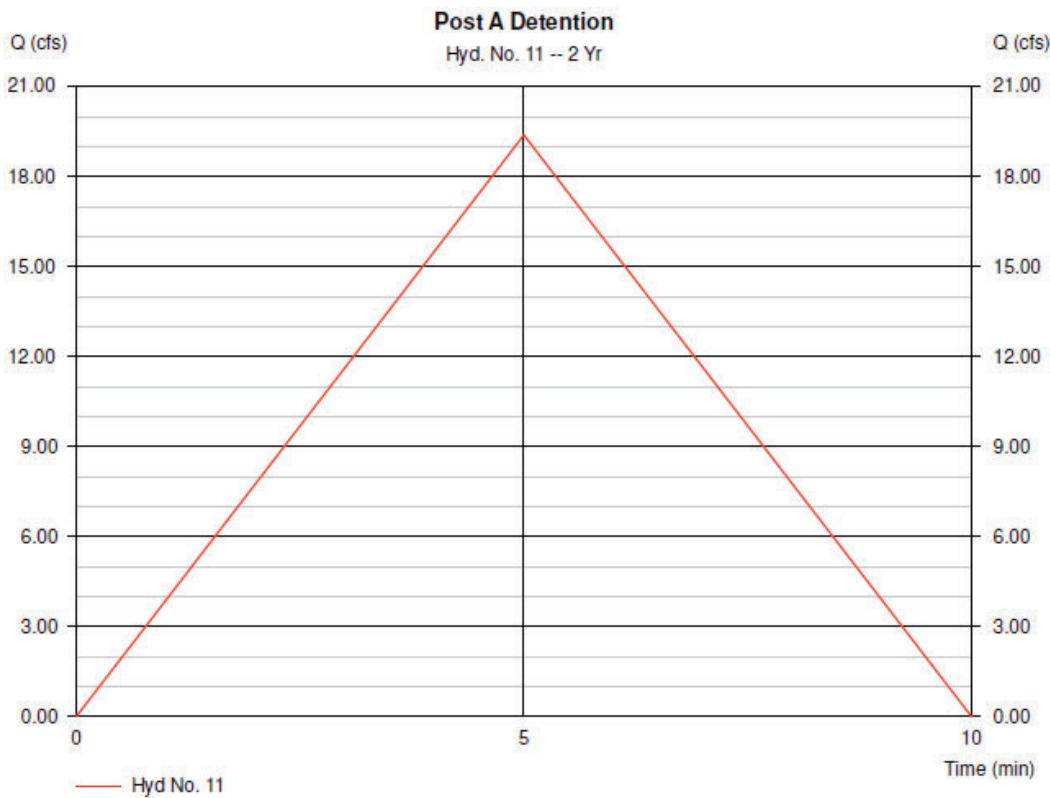


Figure 15: Post A Drainage Calcs

Hydrograph Plot

Hydraflow Hydrographs by Intelisolve

Saturday, Oct 3 2020, 2:8 PM

Hyd. No. 14

Post A Bypass

Hydrograph type = Rational
 Storm frequency = 2 yrs
 Drainage area = 0.100 ac
 Intensity = 5.472 in/hr
 IDF Curve = CBU 2011.IDF

Peak discharge = 0.16 cfs
 Time interval = 1 min
 Runoff coeff. = 0.3
 Tc by User = 5.00 min
 Asc/Rec limb fact = 1/1

Hydrograph Volume = 49 cuft

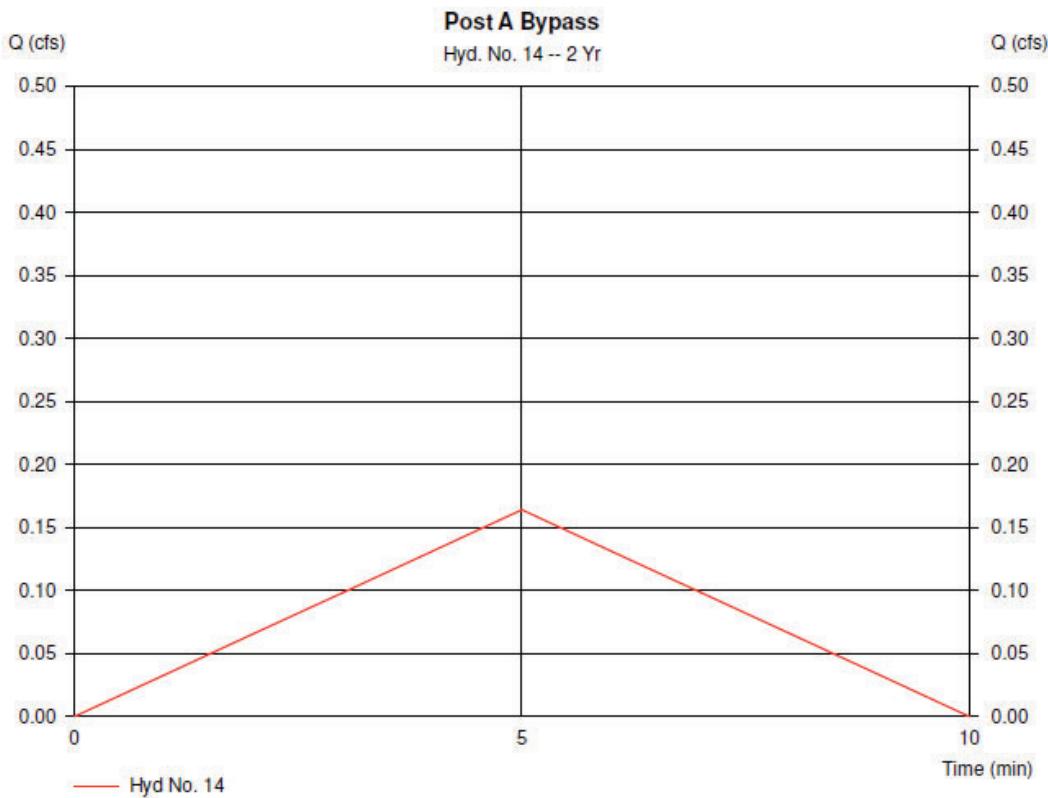


Figure 16: Post A Bypass Drainage Calcs

Hydrograph Plot

Hydraflow Hydrographs by Intelisolve

Saturday, Oct 3 2020, 2:10 PM

Hyd. No. 17

Offsite B North

Hydrograph type = Rational
 Storm frequency = 2 yrs
 Drainage area = 5.830 ac
 Intensity = 3.195 in/hr
 IDF Curve = CBU 2011.IDF

Peak discharge = 2.79 cfs
 Time interval = 1 min
 Runoff coeff. = 0.15
 Tc by TR55 = 18.00 min
 Asc/Rec limb fact = 1/1

Hydrograph Volume = 3,018 cuft

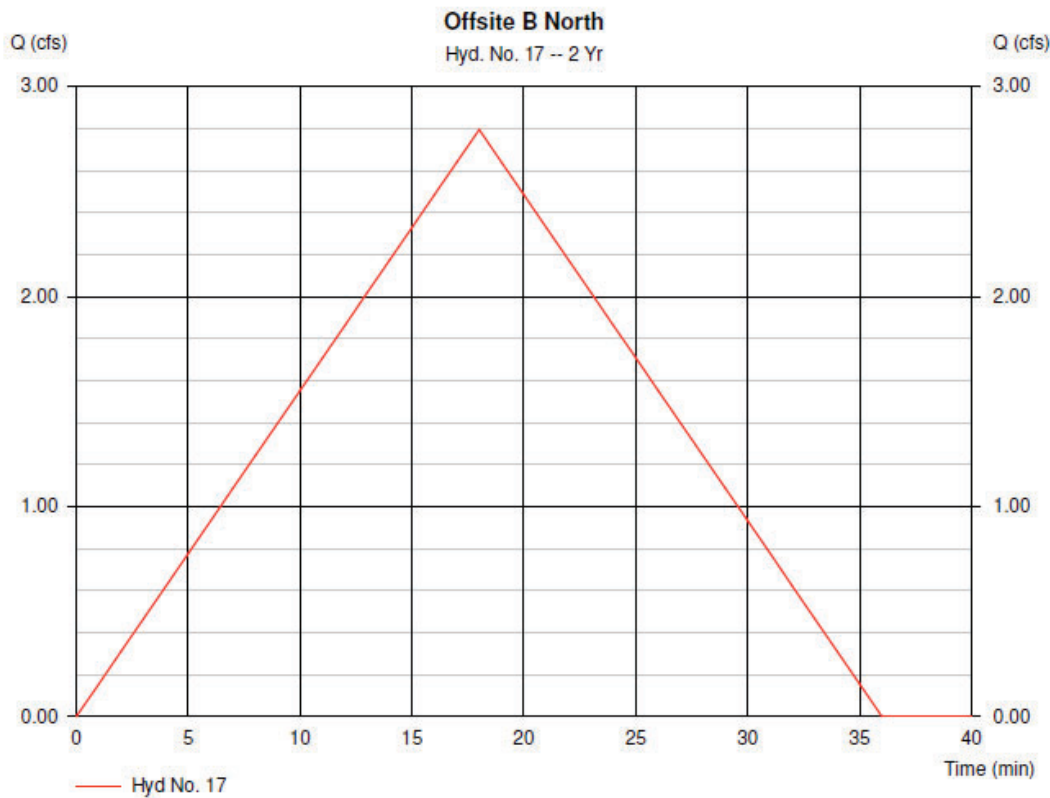


Figure 17: Offsite Post B North

Hydrograph Plot

Hydraflow Hydrographs by Intelisolve

Saturday, Oct 3 2020, 2:11 PM

Hyd. No. 18

Offsite B East

Hydrograph type = Rational
 Storm frequency = 2 yrs
 Drainage area = 3.050 ac
 Intensity = 4.100 in/hr
 IDF Curve = CBU 2011.IDF

Peak discharge = 6.00 cfs
 Time interval = 1 min
 Runoff coeff. = 0.48
 Tc by TR55 = 11.00 min
 Asc/Rec limb fact = 1/1

Hydrograph Volume = 3,962 cuft

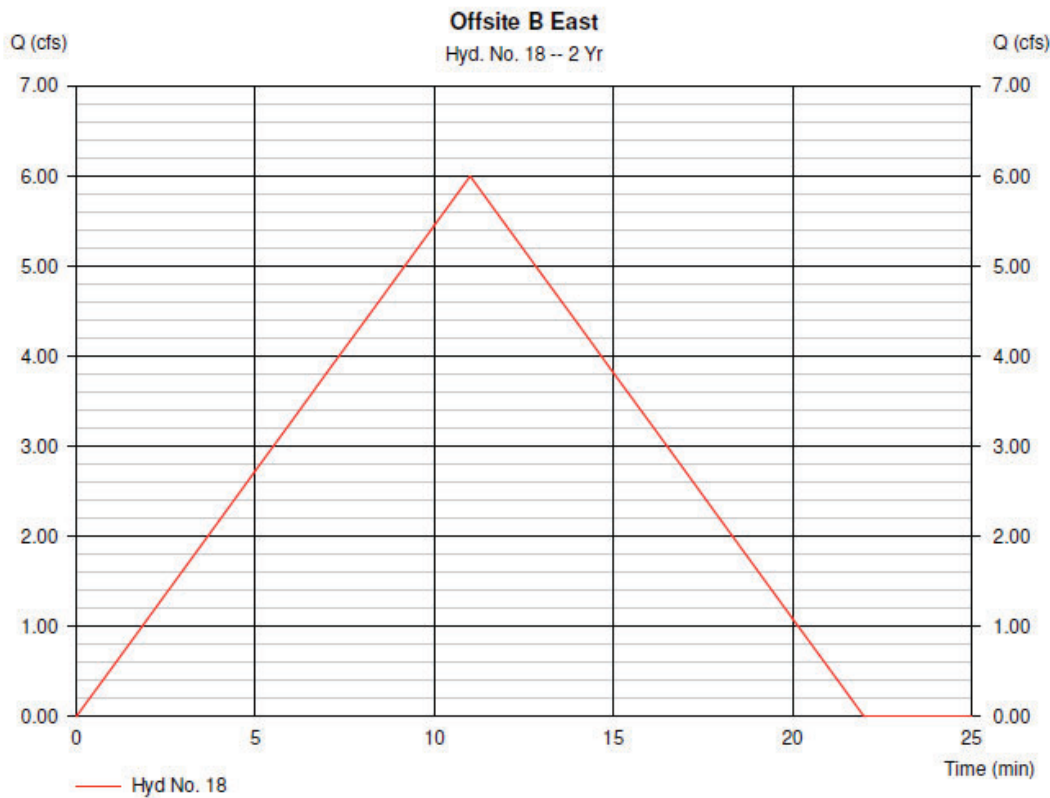


Figure 18: Offsite Post B East

Osage Place
Habitat for Humanity

Hydrograph Plot

Hydraflow Hydrographs by Intelisolve

Saturday, Oct 3 2020, 2:12 PM

Hyd. No. 19

Post B Detention

Hydrograph type = Rational
 Storm frequency = 2 yrs
 Drainage area = 5.500 ac
 Intensity = 5.472 in/hr
 IDF Curve = CBU 2011.IDF

Peak discharge = 16.55 cfs
 Time interval = 1 min
 Runoff coeff. = 0.55
 Tc by User = 5.00 min
 Asc/Rec limb fact = 1/1

Hydrograph Volume = 4,966 cuft

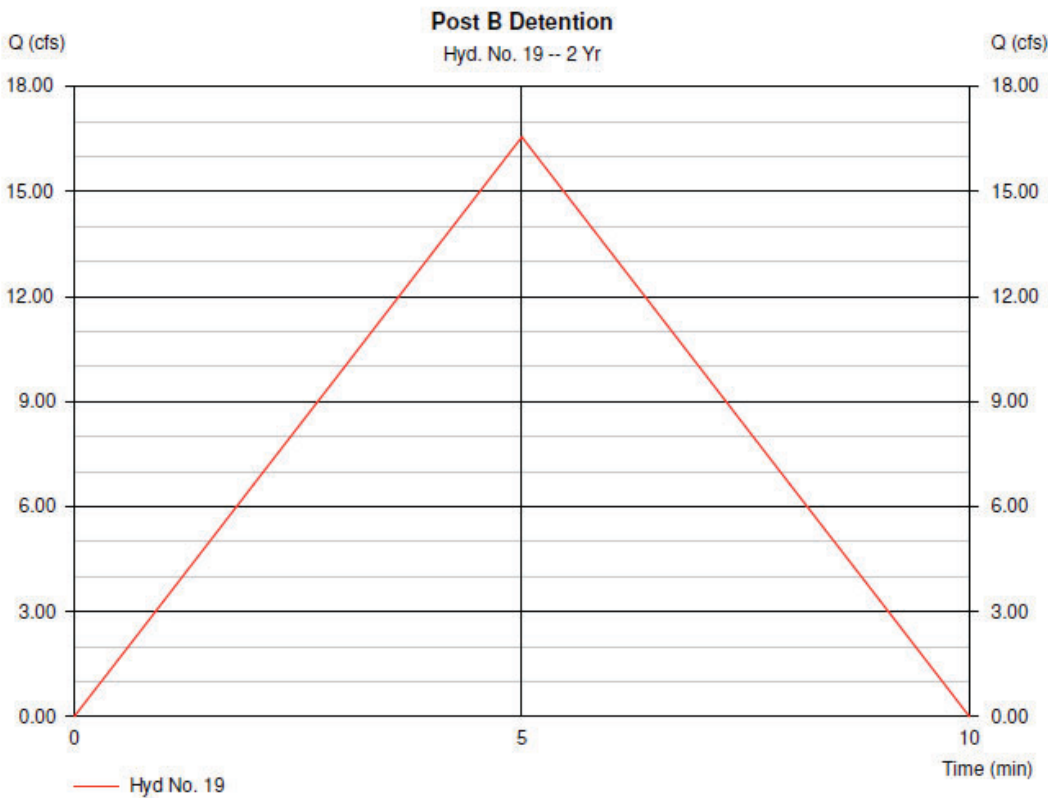


Figure 19: Post B Detention

Hydrograph Plot

Hydraflow Hydrographs by Intelisolve

Saturday, Oct 3 2020, 2:17 PM

Hyd. No. 22

Post B Bypass

Hydrograph type = Rational
 Storm frequency = 2 yrs
 Drainage area = 0.830 ac
 Intensity = 5.472 in/hr
 IDF Curve = CBU 2011.IDF

Peak discharge = 1.95 cfs
 Time interval = 1 min
 Runoff coeff. = 0.43
 Tc by User = 5.00 min
 Asc/Rec limb fact = 1/1

Hydrograph Volume = 586 cuft

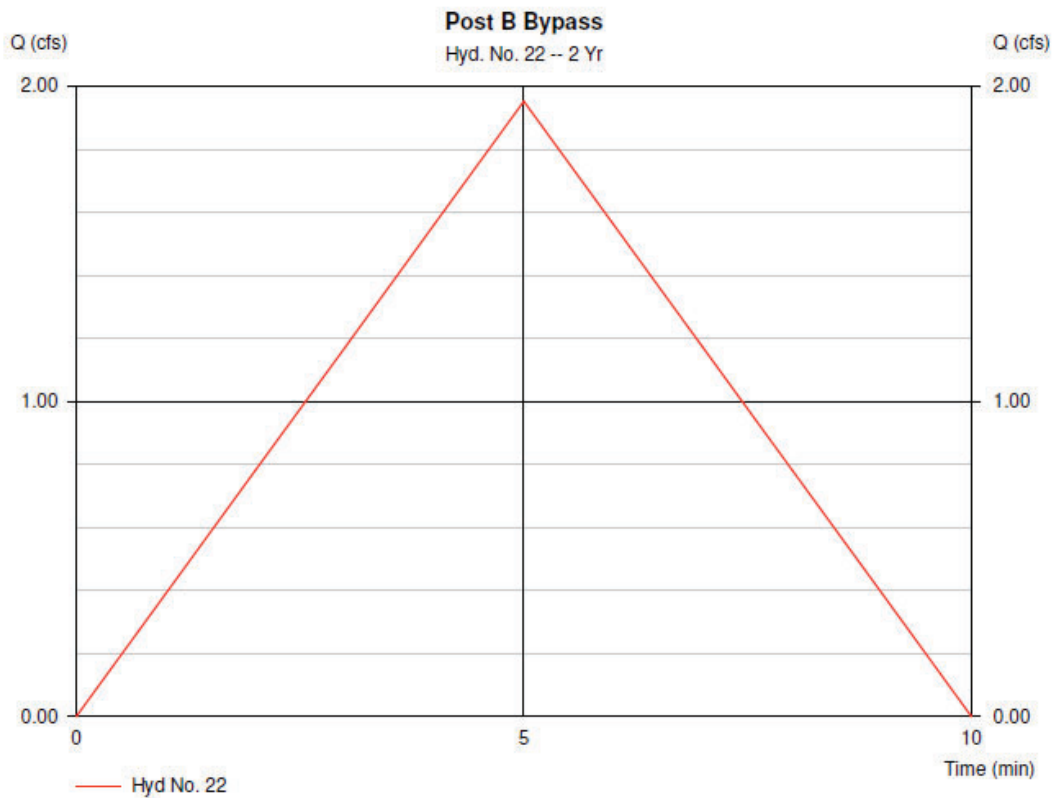


Figure 20: Post B Bypass

Osage Place
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Detention Pond

There are two detention ponds on-site. One is located on the south side of the project and the second is located on the east side of the project.

South Pond A

This pond will provide 20,646 cu. ft of storage, which will be adequate storage and water quality for the site.

Outlet

The outlet control structure will consist of a 2’ dia standpipe with yard inlet casting. There will be a 6” orifice within the standpipe set at the equivalent water quality WSE – 739.00. A 4” underdrain will be installed 2’ below the bottom of the pond to promote infiltration and water quality. A 18” DIA HDPE will connect from Str. #XXX and drain to the existing yard inlet with 24” CPP outlet pipe.

Water Quality

The pond will also provide water quality for the entire drainage area to the pond. The orifice was set at the equivalent water quality WSE – 739.00. Below are water quality calculations:

Pond A	Water Quality Calculations		
	Detention Pond Area		
	Total Pond Vol. =	20,646	cu. ft.
	Total Impervious Area Post A=	126,320	sq. ft.
	1/2" water Volume =126,620 sq. ft./24=	5,263	cu. ft.
	Volume Provided=Total Volume-WQ Volume=	15,383	cu. ft.
	Detention Volume Check:		
	Storm	Detention Req'D	Remaining Vol.
	(yr)	(cu. ft.)	(cu.ft.)
	2	6,159	9,224
	10	8,278	7,105
	100	11,461	3,922
	Water Quality Elevation= 739.00		

Figure 21: Pond A Water Quality

Osage Place
Habitat for Humanity

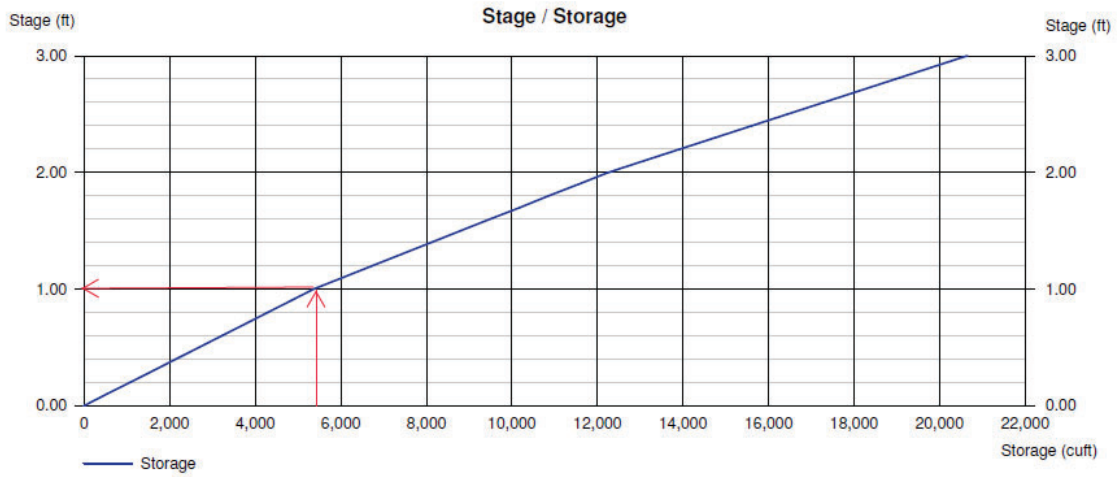


Figure 22: Detention Pond A Water Quality WSE

Below is the Pond Data for detention Pond A:

Osage Place
Habitat for Humanity

Pond Report

Hydraflow Hydrographs by Intelisolve

Saturday, Oct 3 2020, 2:37 PM

Pond No. 1 - Pond A

Pond Data

Pond storage is based on known contour areas. Average end area method used.

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	738.00	4,586	0	0
1.00	739.00	6,149	5,368	5,368
2.00	740.00	7,612	6,881	12,248
3.00	741.00	9,183	8,398	20,646

Culvert / Orifice Structures

	[A]	[B]	[C]	[D]
Rise (in)	- 18.00	6.00	0.00	0.00
Span (in)	- 18.00	6.00	0.00	0.00
No. Barrels	- 1	1	0	0
Invert EL (ft)	- 736.00	739.00	0.00	0.00
Length (ft)	- 10.00	0.00	0.00	0.00
Slope (%)	- 2.00	0.00	0.00	0.00
N-Value	- .013	.013	.000	.000
Orif. Coeff.	- 0.60	0.60	0.00	0.00
Multi-Stage	- n/a	Yes	No	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	- 6.28	0.00	0.00	0.00
Crest EL (ft)	- 740.00	0.00	0.00	0.00
Weir Coeff.	- 3.33	0.00	0.00	0.00
Weir Type	- Riser	--	--	--
Multi-Stage	- Yes	No	No	No

Exfiltration = 0.000 in/hr (Contour) Tailwater Elev. = 0.00 ft

Note: Culvert/Orifice outflows have been analyzed under inlet and outlet control.

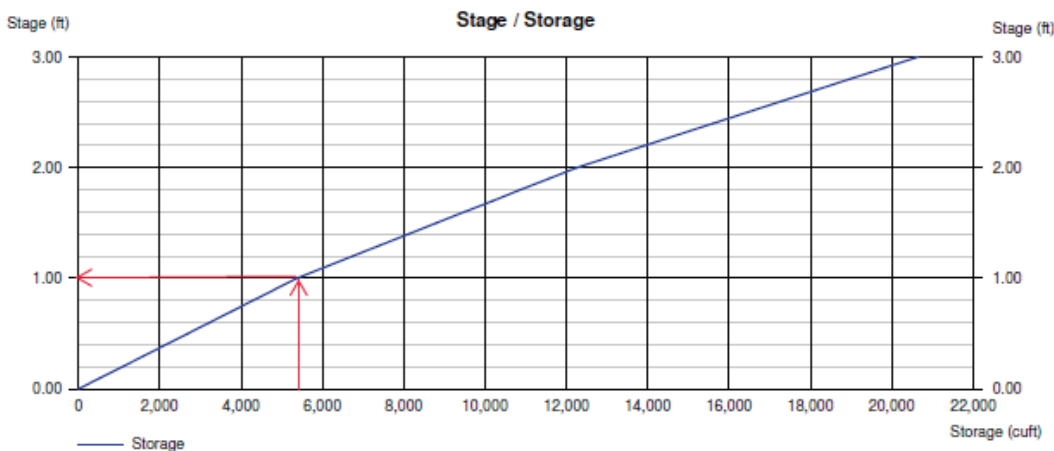


Figure 23: Pond Report for Pond C

Osage Place
Habitat for Humanity

East Pond B

This pond will provide 29,184 cu. ft of storage, which will be adequate storage and water quality for the site.

Outlet

The outlet control structure will consist of a 2' dia standpipe with yard inlet casting. There will be a 6" orifice within the standpipe set at the equivalent water quality WSE – 737.80. A 4" underdrain will be installed 2' below the bottom of the pond to promote infiltration and water quality. A 18" DIA HDPE will connect from Str. #XXX and drain to the existing yard inlet with 24" CPP outlet pipe.

Water Quality

The pond will also provide water quality for the entire drainage area to the pond. The orifice was set at the equivalent water quality WSE – 737.80. Below are water quality calculations:

Pond B	Water Quality Calculations		
	Detention Pond Area		
	Total Pond Vol. =	29,184	cu. ft.
	Total Impervious Area Post B=	106,079	sq. ft.
	1/2" water Volume =25,314 sq. ft./24=	4,420	cu. ft.
	Volume Provided=Total Volume-WQ Volume=	24,764	cu. ft.
	Detention Volume Check:		
	Storm	Detention Req'D	Remaining Vol.
	(yr)	(cu. ft.)	(cu.ft.)
	2	10,939	13,825
	10	14,850	9,914
	100	20,705	4,059
	Water Quality Elevation= 737.80		

Figure 24: Pond B Water Quality

Osage Place
Habitat for Humanity

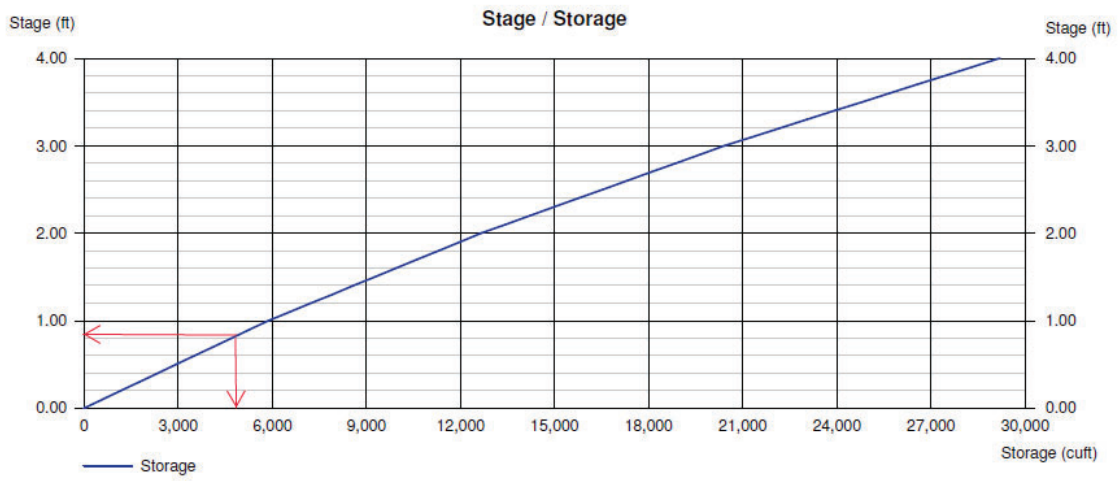


Figure 25: Detention Pond B Water Quality WSE

Below is the Pond Data for detention Pond B:

Osage Place
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Pond Report

Hydraflow Hydrographs by Intelisolve

Saturday, Oct 3 2020, 2:46 PM

Pond No. 2 - Pond B

Pond Data

Pond storage is based on known contour areas. Average end area method used.

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	737.00	5,418	0	0
1.00	738.00	6,325	5,872	5,872
2.00	739.00	7,254	6,790	12,661
3.00	740.00	8,252	7,753	20,414
4.00	741.00	9,287	8,770	29,184

Culvert / Orifice Structures

	[A]	[B]	[C]	[D]
Rise (in)	- 18.00	6.00	0.00	0.00
Span (in)	- 18.00	6.00	0.00	0.00
No. Barrels	- 1	1	0	0
Invert EL. (ft)	- 735.00	737.80	0.00	0.00
Length (ft)	- 10.00	0.00	0.00	0.00
Slope (%)	- 2.00	0.00	0.00	0.00
N-Value	- .013	.013	.000	.000
Orif. Coeff.	- 0.60	0.60	0.00	0.00
Multi-Stage	- n/a	Yes	No	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	- 6.28	0.00	0.00	0.00
Crest EL. (ft)	- 740.00	0.00	0.00	0.00
Weir Coeff.	- 3.33	0.00	0.00	0.00
Weir Type	- Fliser	--	--	--
Multi-Stage	- Yes	No	No	No

Exfiltration = 0.000 in/hr (Contour) Tailwater Elev. = 0.00 ft

Note: Culvert/Orifice outflows have been analyzed under inlet and outlet control. Weir riser checked for orifice conditions.

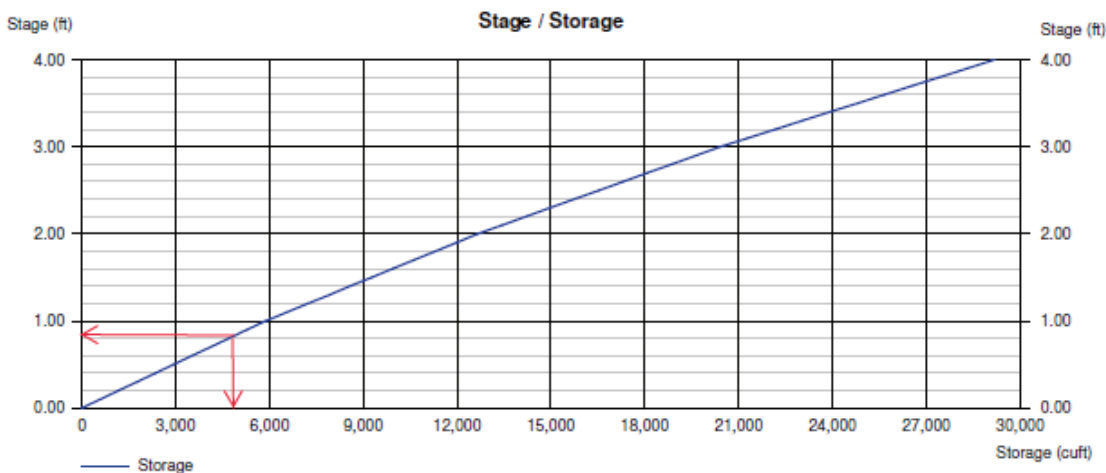


Figure 26: Pond Report for Pond C

Osage Place
Habitat for Humanity

Hydraflow Results

HYDRAFLOW SUMMARY						
Osage Place						
Job # 5254						
*Pre Construction Flows				*Post Construction		
Drainage Area	Flow Rates (cfs)			Drainage Area	Flow Rates (cfs)	
	2-yr	10-yr	100-yr		2-yr	10-yr
Pre A	2.18	3.05	4.33	Total Post A	0.16	0.40
Pre B	10.15	13.91	19.34	Total Post B	1.95	2.66
					3.80	
DETENTION POND A						
Storm (yr.)	Peak Flow (cfs)	Outflow (cfs)	Detention Provided (cfs)	W.S. ELEV. (ft.)	Max. Storage Req'd (cft.)	Design Storage (cft.)
2	19.99	0.04	19.95	739.12	6,159	20,646
10	27.21	0.39	2.40	739.42	8,278	
100	37.98	0.75	37.23	739.89	11,461	
*From Hydraflow Hydrographs 2004						
DETENTION POND B						
Storm (yr.)	Peak Flow (cfs)	Outflow (cfs)	Detention Provided (cfs)	W.S. ELEV. (ft.)	Max. Storage Req'd (cft.)	Design Storage (cft.)
2	20.06	0.79	19.27	738.75	10,939	29,184
10	27.32	1.05	2.40	739.28	14,850	
100	38.11	1.55	36.56	740.03	20,709	
*From Hydraflow Hydrographs 2004						

Figure 27: Hydraflow Summary

Osage Place
Habitat for Humanity

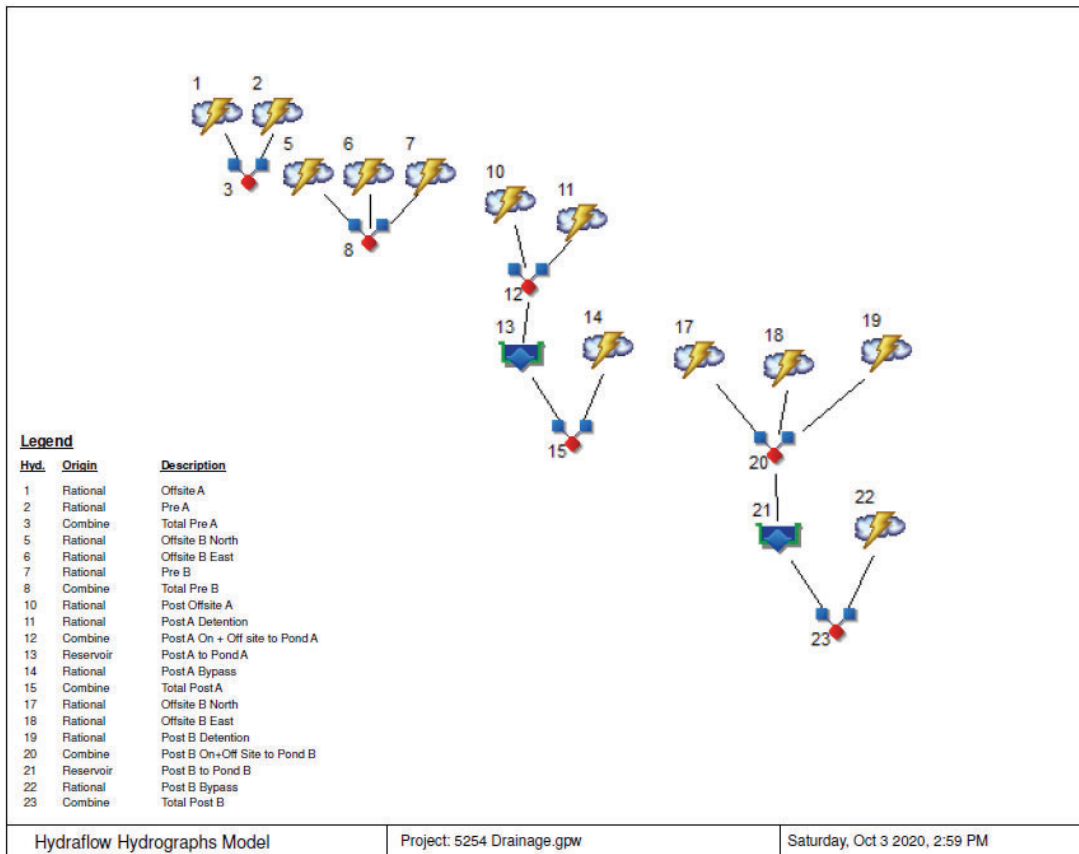


Figure 28: Hydraflow Model

Osage Place
Habitat for Humanity

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Hydrograph Return Period Recap

Hyd. No.	Hydrograph type (origin)	Inflow Hyd(s)	Peak Outflow (cfs)								Hydrograph description
			1-Yr	2-Yr	3-Yr	5-Yr	10-Yr	25-Yr	50-Yr	100-Yr	
1	Rational	-----	-----	0.61	-----	-----	0.83	-----	-----	1.16	Offsite A
2	Rational	-----	-----	2.18	-----	-----	3.05	-----	-----	4.33	Pre A
3	Combine	1, 2	-----	2.18	-----	-----	3.05	-----	-----	4.33	Total Pre A
5	Rational	-----	-----	2.94	-----	-----	4.05	-----	-----	5.67	Offsite B North
6	Rational	-----	-----	5.92	-----	-----	8.08	-----	-----	11.20	Offsite B East
7	Rational	-----	-----	3.87	-----	-----	5.32	-----	-----	7.42	Pre B
8	Combine	5, 6, 7	-----	10.15	-----	-----	13.91	-----	-----	19.34	Total Pre B
10	Rational	-----	-----	0.85	-----	-----	1.16	-----	-----	1.61	Post Offsite A
11	Rational	-----	-----	19.38	-----	-----	26.38	-----	-----	36.83	Post A Detention
12	Combine	10, 11	-----	19.99	-----	-----	27.21	-----	-----	37.98	Post A On + Off site to Pond A
13	Reservoir	12	-----	0.04	-----	-----	0.39	-----	-----	0.75	Post A to Pond A
14	Rational	-----	-----	0.16	-----	-----	0.22	-----	-----	0.31	Post A Bypass
15	Combine	13, 14	-----	0.16	-----	-----	0.40	-----	-----	0.79	Total Post A
17	Rational	-----	-----	2.79	-----	-----	3.85	-----	-----	5.38	Offsite B North
18	Rational	-----	-----	6.00	-----	-----	8.19	-----	-----	11.35	Offsite B East
19	Rational	-----	-----	16.55	-----	-----	22.53	-----	-----	31.45	Post B Detention
20	Combine	17, 18, 19	-----	20.06	-----	-----	27.32	-----	-----	38.11	Post B On+Off Site to Pond B
21	Reservoir	20	-----	0.79	-----	-----	1.05	-----	-----	1.55	Post B to Pond B
22	Rational	-----	-----	1.95	-----	-----	2.66	-----	-----	3.71	Post B Bypass
23	Combine	21, 22	-----	1.95	-----	-----	2.66	-----	-----	3.80	Total Post B

Proj. file: 5254 Drainage.gpw

Saturday, Oct 3 2020, 3:05 PM

Hydraflow Hydrographs by Intelisolve

Figure 29: Return Recap 2, 10 and 100 YR

Osage Place
Habitat for Humanity

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Hydrograph Summary Report

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Maximum storage (cuft)	Hydrograph description
1	Rational	0.61	1	7	255	---	----	----	Offsite A
2	Rational	2.18	1	27	3,573	---	----	----	Pre A
3	Combine	2.18	1	27	3,754	1, 2	----	----	Total Pre A
5	Rational	2.94	1	18	3,168	---	----	----	Offsite B North
6	Rational	5.92	1	11	4,027	---	----	----	Offsite B East
7	Rational	3.87	1	17	3,977	---	----	----	Pre B
8	Combine	10.15	1	11	10,853	5, 6, 7	----	----	Total Pre B
10	Rational	0.85	1	7	358	---	----	----	Post Offsite A
11	Rational	19.38	1	5	5,815	---	----	----	Post A Detention
12	Combine	19.99	1	5	6,173	10, 11	----	----	Post A On + Off site to Pond A
13	Reservoir	0.04	1	14	783	12	739.12	6,159	Post A to Pond A
14	Rational	0.16	1	5	49	---	----	----	Post A Bypass
15	Combine	0.16	1	5	833	13, 14	----	----	Total Post A
17	Rational	2.79	1	18	3,018	---	----	----	Offsite B North
18	Rational	6.00	1	11	3,962	---	----	----	Offsite B East
19	Rational	16.55	1	5	4,966	---	----	----	Post B Detention
20	Combine	20.06	1	5	11,946	17, 18, 19	----	----	Post B On+Off Site to Pond B
21	Reservoir	0.79	1	31	7,229	20	738.75	10,939	Post B to Pond B
22	Rational	1.95	1	5	586	---	----	----	Post B Bypass
23	Combine	1.95	1	5	7,815	21, 22	----	----	Total Post B
5254 Drainage.gpw					Return Period: 2 Year			Saturday, Oct 3 2020, 3:08 PM	

Hydraflow Hydrographs by Intelisolve

Figure 30: Hydraflow Results 2 YR

Hydrograph Summary Report

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Maximum storage (cuft)	Hydrograph description
1	Rational	0.83	1	7	347	---	----	----	Offsite A
2	Rational	3.05	1	27	4,988	---	----	----	Pre A
3	Combine	3.05	1	27	5,234	1, 2	----	----	Total Pre A
5	Rational	4.05	1	18	4,363	---	----	----	Offsite B North
6	Rational	8.08	1	11	5,497	---	----	----	Offsite B East
7	Rational	5.32	1	17	5,471	---	----	----	Pre B
8	Combine	13.91	1	11	14,892	5, 6, 7	----	----	Total Pre B
10	Rational	1.16	1	7	487	---	----	----	Post Offsite A
11	Rational	26.38	1	5	7,913	---	----	----	Post A Detention
12	Combine	27.21	1	5	8,400	10, 11	----	----	Post A On + Off site to Pond A
13	Reservoir	0.39	1	12	3,011	12	739.42	8,278	Post A to Pond A
14	Rational	0.22	1	5	67	---	----	----	Post A Bypass
15	Combine	0.40	1	9	3,078	13, 14	----	----	Total Post A
17	Rational	3.85	1	18	4,156	---	----	----	Offsite B North
18	Rational	8.19	1	11	5,406	---	----	----	Offsite B East
19	Rational	22.53	1	5	6,758	---	----	----	Post B Detention
20	Combine	27.32	1	5	16,320	17, 18, 19	----	----	Post B On+Off Site to Pond B
21	Reservoir	1.05	1	31	11,604	20	739.28	14,850	Post B to Pond B
22	Rational	2.66	1	5	797	---	----	----	Post B Bypass
23	Combine	2.66	1	5	12,401	21, 22	----	----	Total Post B
5254 Drainage.gpw					Return Period: 10 Year			Saturday, Oct 3 2020, 3:08 PM	

Hydraflow Hydrographs by Intelisolve

Figure 31: Hydraflow Results 10 YR

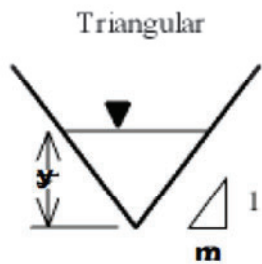
Hydrograph Summary Report

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Maximum storage (cuft)	Hydrograph description
1	Rational	1.16	1	7	482	---	----	----	Offsite A
2	Rational	4.33	1	27	7,095	---	----	----	Pre A
3	Combine	4.33	1	27	7,435	1, 2	----	----	Total Pre A
5	Rational	5.67	1	18	6,098	---	----	----	Offsite B North
6	Rational	11.20	1	11	7,619	---	----	----	Offsite B East
7	Rational	7.42	1	17	7,636	---	----	----	Pre B
8	Combine	19.34	1	11	20,743	5, 6, 7	----	----	Total Pre B
10	Rational	1.61	1	7	676	---	----	----	Post Offsite A
11	Rational	36.83	1	5	11,049	---	----	----	Post A Detention
12	Combine	37.98	1	5	11,726	10, 11	----	----	Post A On + Off site to Pond A
13	Reservoir	0.75	1	11	6,336	12	739.89	11,461	Post A to Pond A
14	Rational	0.31	1	5	94	---	----	----	Post A Bypass
15	Combine	0.79	1	9	6,430	13, 14	----	----	Total Post A
17	Rational	5.38	1	18	5,810	---	----	----	Offsite B North
18	Rational	11.35	1	11	7,491	---	----	----	Offsite B East
19	Rational	31.45	1	5	9,436	---	----	----	Post B Detention
20	Combine	38.11	1	5	22,738	17, 18, 19	----	----	Post B On+Off Site to Pond B
21	Reservoir	1.55	1	31	18,021	20	740.03	20,705	Post B to Pond B
22	Rational	3.71	1	5	1,113	---	----	----	Post B Bypass
23	Combine	3.80	1	5	19,134	21, 22	----	----	Total Post B
5254 Drainage.gpw					Return Period: 100 Year			Saturday, Oct 3 2020, 3:09 PM	

Hydraflow Hydrographs by Intelisolve

Figure 32: Hydraflow Results 100 YR

Shape	Triangular								
Given:									
Q100=		6.96							
Depth, y=		2 FT.							
Side Slope, m=		3 :1							
Mannings, n=		0.030							
Slope, s=		0.043 FT/FT							
$Q = VA$ $V = \left(\frac{1.49}{n} \right) R^{2/3} S^{1/2}$									
Calculated:									
Area, A=		12 SF							
Wetted Perm., P=		12.65 FT.							
Velocity, V=		9.94 FT/S							
Flow Rate, Q=		119.32 CFS	OK						
$P = 2y(1 + m^2)^{1/2}$ $A = my^2$ $R = \frac{A}{P}$									



Storm Sewer Summary

STORM SEWER CALCATIONS WILL BE SUBMITTED AT A LATER DATE

Osage Place
Habitat for Humanity

Osage Place
Habitat for Humanity

Osage Place
Habitat for Humanity
Bloomington, IN

Section 8 Township 8 North, Range 1 West

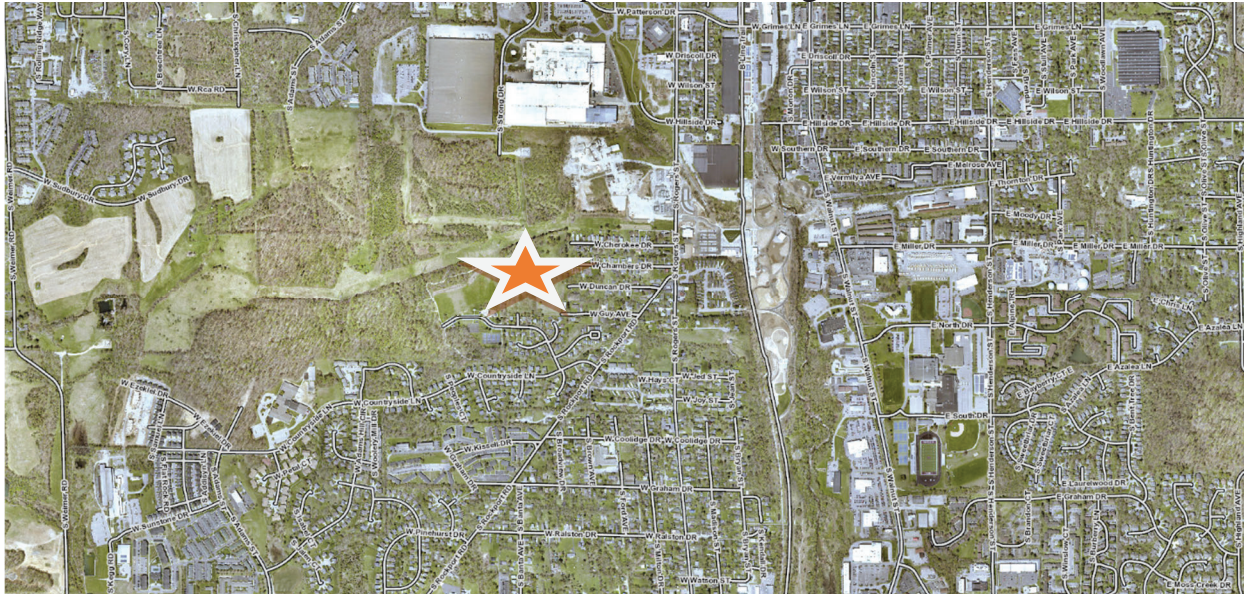


Figure 1: Vicinity Map

Water Model Report
Project No. 5254

October 3, 2020



Smith Brehob & Associates, Inc.

Summary

This water model summary is for the Osage Place Neighborhood subdivision for Habitat for Humanity. The project will consist of installation of public infrastructure for a 76 lot single family residential development. The project will be constructed in two phases.

Phase 1 – Phase I will consist of Lots 1-30. The water line installation will include connecting from the existing 6” DIP along the west side of Bernard Drive and extending a new 8” main north and east approximately 150’ along Cherokee Drive to Junction 9.

Phase 2 - Phase 2 will consist of the remaining lots and public infrastructure connecting the 8” water mains to the existing water main dead ends along Cherokee Dr., Chambers Dr. , Duncan Dr. and Guy Ave.

The hydrant used for the pump source is the existing hydrant at the SW corner of Bernard and RCA Park Drive (CBU Hydrant #2297) since Phase I will be connecting to this water main.

Results

The water main system both for Phase 1 and Phase 2 is able to provide 1,000 gpm fire demand while maintaining min. 35 psi within the entire system. The only pump used for modeling was Hydrant #2297. When the entire development is complete, in theory the fire demand and pressures will be better with the completion of the looped mains.



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CIVIL ENGINEERING
LAND PLANNING &
LAND SURVEYING

BLOOMINGTON INDIANA

Subject Osage Place Job# 5254
Water Model Results
Calc. By Katie Stein Date 05-Oct-20 Checked by _____

Scope:

Trials - Tested for fire demands at each hydrant 1,000 gpm

Note: Flow and pressure data used for the model is the fire protection system design data. This data represents a worst case scenario and is 10-15 psi lower than the test data for the hydrant.

Source Pump Data

Hydrant # 2297
Date Tested: 10/15/2018
Elevation: 741 Head(ft)
Static Pressure = 84 psi 193.8
Residual Pressure = 62 psi 143.1
Flow = 2478 gpm
Q20 = 4411 gpm

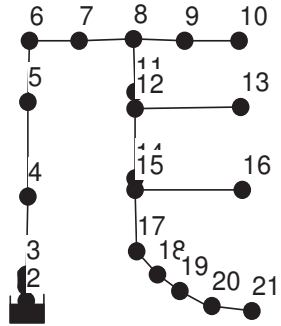
<u>Pump #</u>	<u>Junc.#</u>	<u>Flow(1)</u>	<u>Head(1)</u>	<u>Flow(2)</u>	<u>Head(2)</u>	<u>Flow(3)</u>	<u>Head(3)</u>
1	P1	0	193.8	2478	143.1	4411	46.2

Summary

- Trial 1 - J4 - 52.71-69.50
- Trial 2 - J5 - 52.98-69.50
- Trial 3 - J7 - 49.23-69.50
- Trial 4 - J9 - 47.91-69.50
- Trial 5 - J11 - 49.18-69.50
- Trial 6 - J14 - 49.18-69.50
- Trial 7 - J19 - 49.18-69.50
- Trial 8 - J21 - 49.18-69.50

Osage Place

Day



Osage Place

Network Table - Nodes

Node ID	Demand GPM	Head ft	Pressure psi	Quality
Junc 3	0.00	904.40	69.50	0.00
Junc 1	0.00	720.04	-10.38	0.00
Junc 4	0.00	899.65	62.68	0.00
Junc 5	0.00	895.27	55.15	0.00
Junc 6	0.00	891.62	49.23	0.00
Junc 7	0.00	889.06	50.51	0.00
Junc 8	0.00	886.50	51.56	0.00
Junc 9	1000.00	883.58	50.08	0.00
Junc 10	0.00	883.58	47.91	0.00
Junc 11	0.00	886.50	55.68	0.00
Junc 12	0.00	886.50	56.11	0.00
Junc 13	0.00	886.50	54.38	0.00
Junc 14	0.00	886.50	57.41	0.00
Junc 15	0.00	886.50	57.63	0.00
Junc 16	0.00	886.50	60.45	0.00
Junc 17	0.00	886.50	61.31	0.00
Junc 18	0.00	886.50	62.61	0.00
Junc 19	0.00	886.50	63.26	0.00
Junc 20	0.00	886.50	63.70	0.00
Junc 21	0.00	886.50	64.78	0.00
Resvr 2	-1000.00	741.00	0.00	0.00

Osage Place

Network Table - Links

Link ID	Length ft	Diameter in	Roughness	Flow GPM
Pipe 1	115	6	80	-1000.00
Pipe 3	260	8	130	1000.00
Pipe 4	240	8	130	1000.00
Pipe 5	200	8	130	1000.00
Pipe 6	140	8	130	1000.00
Pipe 7	140	8	130	1000.00
Pipe 8	160	8	130	1000.00
Pipe 9	180	8	130	0.00
Pipe 10	210	8	130	0.00
Pipe 11	30	8	130	0.00
Pipe 12	315	8	130	0.00
Pipe 13	210	8	130	0.00
Pipe 14	30	8	130	0.00
Pipe 15	270	8	130	0.00
Pipe 16	190	8	130	0.00
Pipe 17	60	8	130	0.00
Pipe 18	50	8	130	0.00
Pipe 19	50	8	130	0.00
Pipe 20	150	8	130	0.00
Pump 2	#N/A	#N/A	#N/A	1000.00

Osage Place

Network Table - Links

Link ID	Velocity fps	Unit Headloss ft/Kft	Friction Factor	Reaction Rate mg/L/d
Pipe 1	11.35	182.27	0.046	0.00
Pipe 3	6.38	18.27	0.019	0.00
Pipe 4	6.38	18.27	0.019	0.00
Pipe 5	6.38	18.27	0.019	0.00
Pipe 6	6.38	18.27	0.019	0.00
Pipe 7	6.38	18.27	0.019	0.00
Pipe 8	6.38	18.27	0.019	0.00
Pipe 9	0.00	0.00	0.000	0.00
Pipe 10	0.00	0.00	0.000	0.00
Pipe 11	0.00	0.00	0.000	0.00
Pipe 12	0.00	0.00	0.000	0.00
Pipe 13	0.00	0.00	0.000	0.00
Pipe 14	0.00	0.00	0.000	0.00
Pipe 15	0.00	0.00	0.000	0.00
Pipe 16	0.00	0.00	0.000	0.00
Pipe 17	0.00	0.00	0.000	0.00
Pipe 18	0.00	0.00	0.000	0.00
Pipe 19	0.00	0.00	0.000	0.00
Pipe 20	0.00	0.00	0.000	0.00
Pump 2	0.00	-184.37	0.000	0.00

Osage Place

Network Table - Links

Link ID	Quality	Status
Pipe 1	0.00	Open
Pipe 3	0.00	Open
Pipe 4	0.00	Open
Pipe 5	0.00	Open
Pipe 6	0.00	Open
Pipe 7	0.00	Open
Pipe 8	0.00	Open
Pipe 9	0.00	Open
Pipe 10	0.00	Open
Pipe 11	0.00	Open
Pipe 12	0.00	Open
Pipe 13	0.00	Open
Pipe 14	0.00	Open
Pipe 15	0.00	Open
Pipe 16	0.00	Open
Pipe 17	0.00	Open
Pipe 18	0.00	Open
Pipe 19	0.00	Open
Pipe 20	0.00	Open
Pump 2	0.00	Open

CITY OF BLOOMINGTON UTILITIES

**FIRE HYDRANT
PRESSURE INFORMATION
FOR FIRE PROTECTION SYSTEM DESIGN**

DATE 9/22/2020

COMPANY REQUESTING DATA Smith Behnb & Assoc

ADDRESS _____

CITY _____ STATE IN ZIP _____

PHONE# _____ FAX# _____

PERSON REQUESTING DATA Katie Stein

LOCATION OF PROJECT Habitat - North of Bernard Dr and West of Duncan

HYD # 2297 - connected to a 1992, 6", ductile main

ELEV 741'

DATE OF TEST	10/15/2018	STATIC, psi	FLOW, gpm	RESIDUAL, psi
TEST DATA RECORDED ON ABOVE DATE			2478	65
# OF NOZZLES/PUMPER FLOWING	87		2/1	
FIRE PROTECTION SYSTEM DESIGN DATA	84			62

HYD # 2939 - connected to a 1997, 8", ductile main

ELEV 746'

DATE OF TEST	10/23/2018	STATIC, psi	FLOW, gpm	RESIDUAL, psi
TEST DATA RECORDED ON ABOVE DATE			4385	82
# OF NOZZLES/PUMPER FLOWING	89		2/1	
FIRE PROTECTION SYSTEM DESIGN DATA	82			57

HYD # 3385 - connected to a 2001, 8", ductile main

ELEV 759'

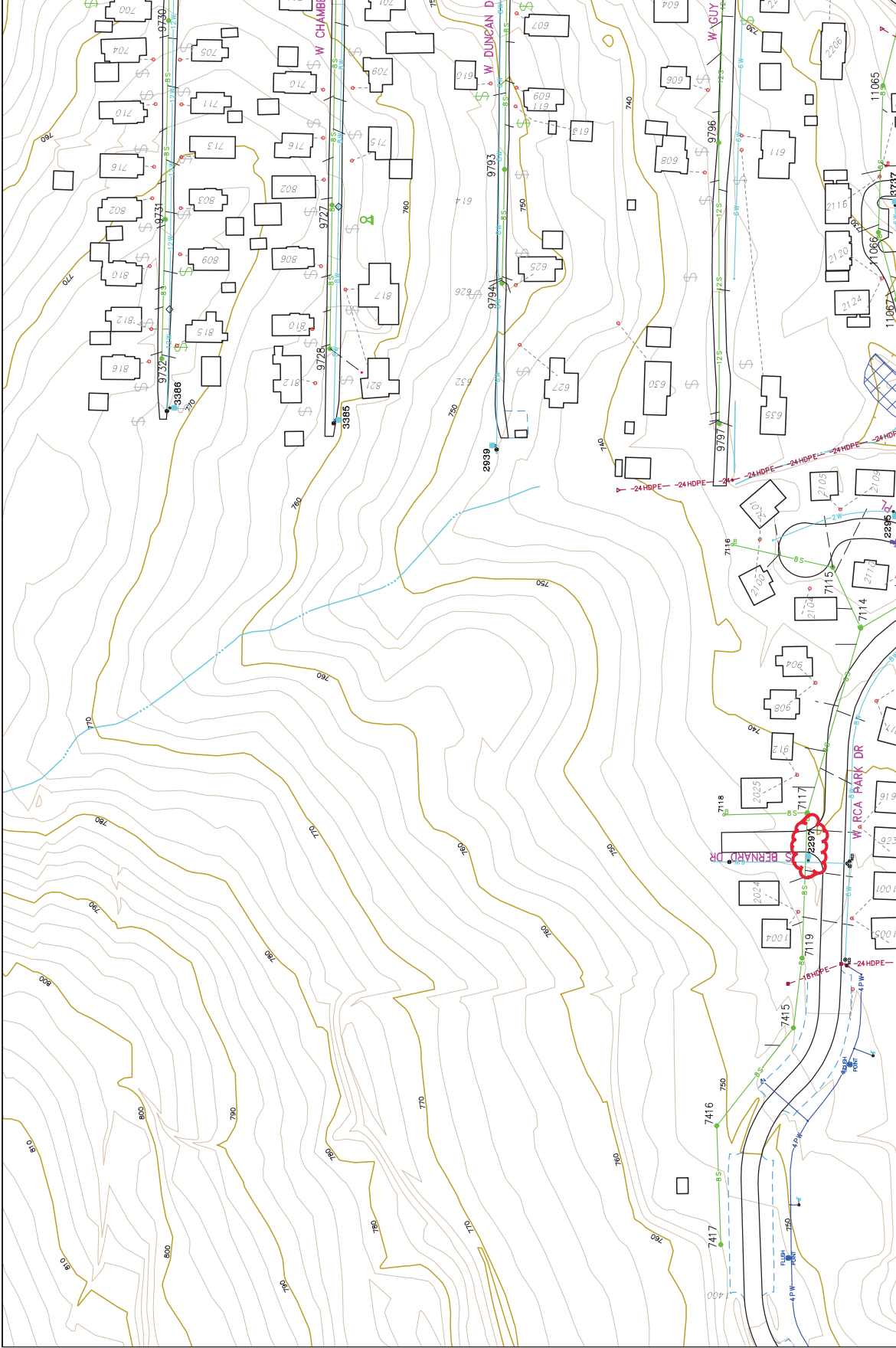
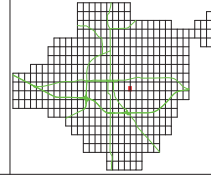
DATE OF TEST	10/23/2018	STATIC, psi	FLOW, gpm	RESIDUAL, psi
TEST DATA RECORDED ON ABOVE DATE			4314	68
# OF NOZZLES/PUMPER FLOWING	77		2/1	
FIRE PROTECTION SYSTEM DESIGN DATA	76			67

HYD # 3386 - connected to a 2001, 12", ductile main

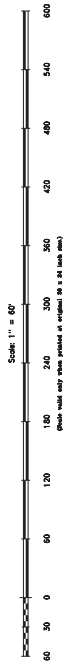
ELEV 771'

DATE OF TEST	10/23/2018	STATIC, psi	FLOW, gpm	RESIDUAL, psi
TEST DATA RECORDED ON ABOVE DATE			4314	65
# OF NOZZLES/PUMPER FLOWING	71		2/1	
FIRE PROTECTION SYSTEM DESIGN DATA	71			65

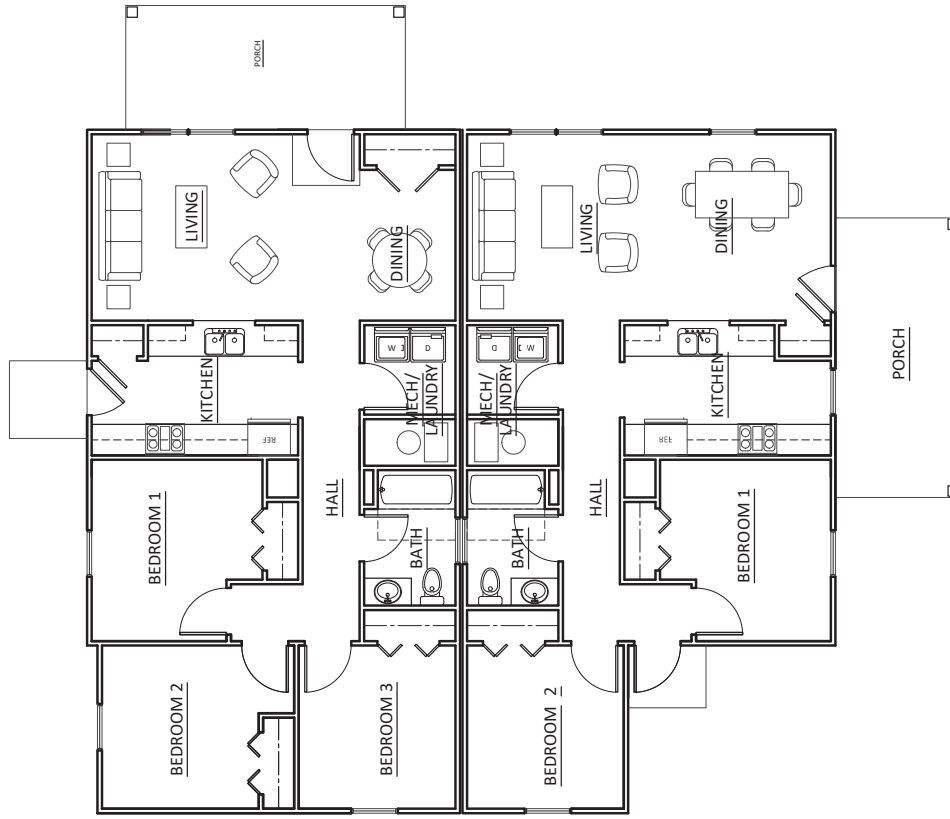
NOTE TO DESIGNERS: The fire protection system shall be designed to a demand pressure no greater than the "FIRE PROTECTION DESIGN DATA" residual pressure above, at the hydrant location.



Important Notice:
The position of underground utilities are shown schematically.
Please call 811 to have all underground utilities located.

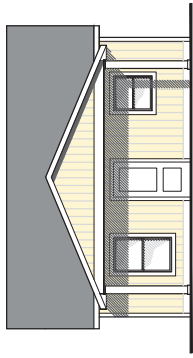


DLtempplot
10 August 2020
150
powell

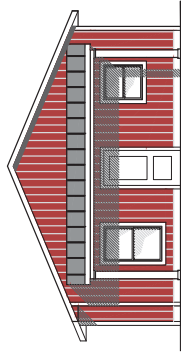


PAIRED PATIO HOME
PROPOSED FLOOR PLAN
 SCALE: 1/8" = 1'-0"

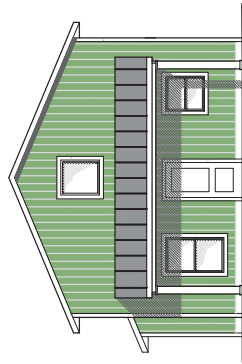
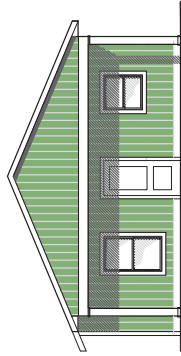
OSAGE PLACE
 HABITAT FOR HUMANITY OF MONROE COUNTY



2
BEDROOM



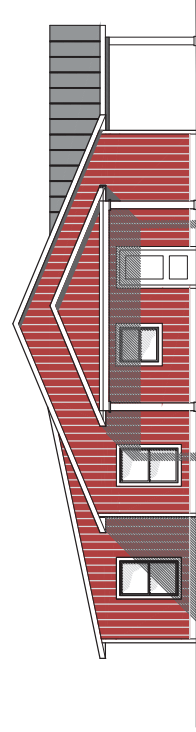
3
BEDROOM



4
BEDROOM



P
PAIRED



HOUSE TYPES

OSAGE PLACE
HABITAT FOR HUMANITY OF MONROE COUNTY





