

# Request for Variance to the City of Columbus Stormwater Management Regulations

For



**220 N. Algonquin Avenue  
Columbus, Ohio**

**Prepared By:**

**Bird+Bull, Inc.**

Consulting Engineers & Surveyors  
3500 Snouffer Road, Suite 225  
Columbus, Ohio 43235  
(614) 761-1661

**Job Number: 19-034**

**Date: 09/06/2019**



## PURPOSE:

The purpose of this report is to request a Variance for the Stream Corridor Protection Zone (SCPZ) requirement set forth by the City of Columbus Stormwater Management Regulations for the proposed Research Alloys Building located at 220 N. Algonquin Avenue in Columbus Ohio. The site has existed prior to 2006 with areas of gravel roadways inside of the stream corridor protection zone, however since the current storm water regulations were enacted in 2006, additional unpermitted gravel paving has been placed on the site.

Based on the constraints of the site, **we are requesting a Variance to Section 1.3.1 of the City of Columbus Stormwater Drainage Manual to maintain portions of the existing gravel driveways inside of the stream corridor protection zone.** Our reasons for why the variance is warranted are listed below.

1. The owner is looking to relocate their current facility from the Grandview area to Columbus. Their current land has been sold and they are under a time constraint to relocate the operation. This property was purchased for the new building without knowledge that much of the existing gravel was unpermitted and inside of the SCPZ. In order for the operation to work, the owner needs to have truck access to the side and enough room to maneuver trucks in and out of the building. To accomplish this, some of the unpermitted gravel inside of the SCPZ needs to remain.

Per the City of Columbus guidelines for variance to stream corridor protection requirements three alternatives for development are required to be presented. They are as follows:

- **Alternative 1 – Full Compliance**  
A Site plan leaving the existing pre-2006 impacts within the SCPZ unimproved and impacts created after 2006 would need to be removed. This option will limit access to the site and area for truck routing, making it unusable for the proposed development.
- **Alternative 2 – Minimal Impact**  
A Site plan showing the proposed development with minimal impact to the SCPZ and mitigation at a 1:1 ratio by removing existing gravel areas and expanding the SCPZ to account for additional impacts.
- **Alternative 3 – Preferred**  
A Site plan showing the proposed development with impact to the SCPZ improving the gravel drive, and adding a truck scale (preferred by the Owner).

## SECTION 1

### Project Background

#### Existing Conditions

The site is a 5+ acre, triangular shaped property located east of Algonquin Avenue in Columbus, Ohio. There is an existing 5,880 S.F. building on the site. Historically the site has been used as a warehouse/ outdoor storage facility. The site is bounded to the west by existing industrial buildings, to the south and east by an existing railroad, and to the north by an existing stream known as Kinnaird Ditch No. 3. The parcel is currently zoned Manufacturing (M).

The City of Columbus current storm water management regulations were enacted in 2006. Prior to 2006, the existing building and some gravel drive surfaces existed on the site. Approximately 0.46 acres of gravel drive surface existed inside of the SCPZ prior to the regulations being enforced. We consider this area to be “grandfathered” in as permissible within the SCPZ. The existing conditions per 2005 are shown on Exhibit A in the appendix of this report. However, since 2006, additional unpermitted gravel drive surface has been added to the site. The additional impact to the SCPZ as a result of this pavement is an additional 0.46 acres. This is represented in Exhibit B in the appendix of this report. We consider the additional 0.46 acres as the area that needs to be mitigated as part of this variance request.

#### Proposed Conditions

The proposed development includes the construction of a new 45,000 S.F. warehouse building. The existing building will remain as office space for the owner. Drive surfaces on the site are intended to be gravel. No additional asphalt pavement will be added. Outdoor storage is intended at the southwest corner of the site outside the SCPZ. Storm water management will be provided in a dry detention basin to be located at the northeast corner of the site, outside of the SCPZ.

The nature of the work for Research Alloys is metal sorting for recycling. Employees maintain minimal office space, but spend much of their work day in the warehouse facility breaking down various metal components for reshipping it to recycling centers. The operation will be contained completely under roof within the new warehouse building.

#### Kinnaird Ditch No. 3

The site is generally flat and is bounded to the north by an existing stream known as Kinnaird Ditch No. 3. A stream delineation has not been performed given that the actual stream is not on the development property, however visual inspection indicates it is an intermittent stream which flows water during rain events. The stream does not have an established FEMA 100-Year floodplain for floodway.

## Determination of Stream Corridor Protection Zone (SCPZ)

Section 1.3.1 of the Manual states the greatest of the following three criteria determines the stream corridor protection:

1. Designated FEMA 100 year Floodway
2. Equation  $147(DA)^{0.38} = 147(2.69)^{0.38} = 214$  feet
3. 50 feet from the top of bank which have an approximate width of 125+/- feet

Kinnaird Ditch No. 3 does not have an established FEMA 100-year floodway.

The contributing drainage area for the stream, Kinnaird Ditch No. 3, was determined through the USGS Ohio Stream Stats website. The defined drainage area was determined to be 2.69 square miles or 1,722 acres. Based on the SCPZ Drainage equation the width for the drainage area is 214 ft (107 feet either side of the centerline of the stream).

Based on the top of bank, 50 feet on each side would equate to approximately 125 feet with the stream width being 25 feet in most areas of the site as measured from the top of bank. However, the top of bank criterion is only applicable for streams of the 4<sup>th</sup> order and higher. Kinnaird Ditch No. 3 is of a lower order therefore the 3<sup>rd</sup> criteria does not apply.

The width of the SCPZ has been calculated at 214 feet (107 feet each side) per equation 2 listed above.



## SECTION 2

Per the City of Columbus guidelines for variance to storm water management requirements three alternatives for development of the project are presented in this report. They are as follows:

### **Alternative 1: Full Compliance Development Plan**

To achieve full compliance there will be no improvements to the existing pre-2006 impacts within the limits of the SCPZ and impacts created after 2006 would need to be removed. This includes a portion of the drive entrance to the site which is inside of this area, and the only access point to Algonquin Avenue. While the owner does currently control the adjacent property to the west it is not desired to use it for access as it is a separate parcel and would require an access easement. Shifting the building out of the SCPZ and removing the post 2006 gravel area will restrict truck access to the building and will not work for the desired use. As such, we do not feel the full compliance option is feasible given the constraints of this parcel.

### **Alternative 2: Minimal Impact Development Plan**

Per the variance requirements a minimal impact alternative is presented which would impact a small portion of the Stream Corridor Protection Zone while preserving the natural flow of the stream and permit the proposed development. The proposed building will be located completely outside of the SCPZ, with some gravel drive surfaces maintained to allow truck circulation around the site and access to Algonquin Avenue. The owner would use the adjacent parcel for access of trucks entering the building and maintain the gravel drive for trucks leaving under this option. The owner also proposed to place the truck scale inside the building which limits their operation square footage.

The disturbance within the SCPZ would be approximately 0.60 acres (26,136 SF) including the 0.46 acres grandfathered in as disturbance before the regulations were enacted. So, the remaining impact is 0.14 acres of disturbed area.

### **Alternative 3: Preferred Development Plan**

The preferred alternative would impact a more significant portion of the Stream Corridor Protection Zone to provide two-way access for the proposed development without the use of the adjacent property. A portion of the gravel drives will be located in the SCPZ along with the truck scale.

The disturbance within the SCPZ would be approximately 1.08 acres (47,044 SF) including the 0.46 acres grandfathered in as disturbance before the regulations were enacted. So the remaining impact is 0.62 acres of disturbed area.

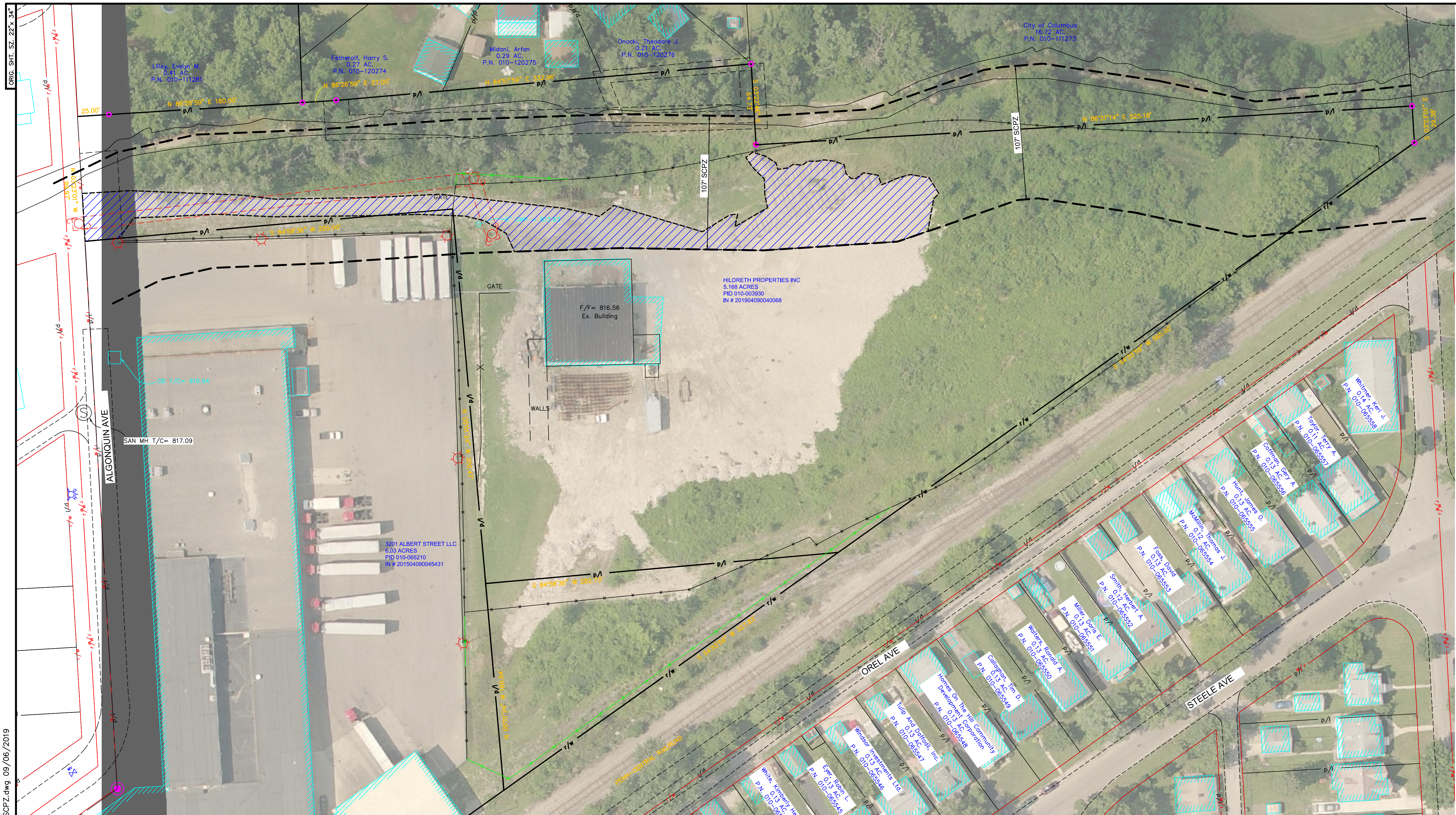
## SECTION 3

### Mitigation

For Alternative 2, we are proposing to remove approximately 0.47 acres of gravel drive surface and restoring those areas to their natural state. This includes an additional 0.07 acres added to the SCPZ at the east end of the property to offset the 0.14 acres of impact. Any disturbance of the SCPZ will be mitigated by vegetating the areas with native plants. A detailed landscape plan has not been provided at this time, however the owner will work with the City Staff to ensure the restoration is acceptable. We have included in the exhibits a preliminary restoration plan which denotes the area that will be restored. No existing trees are expected to be removed under this option.

For Alternative 3, we are proposing to remove approximately 0.17 acres of gravel drive surface and restoring those areas to their natural state. However, there is insufficient area onsite to mitigate the 0.45 acres of proposed impact on site. Per City of Columbus regulations, offsite mitigation will need to occur at a ratio of 2:1 for this alternate, resulting in a required offsite mitigation area of 0.90 acres. Per discussions with city staff, it has been suggested that we work with the Columbus Division of Parks and Recreation to determine a suitable mitigation location. However, due to time constraints of finding an offsite location to mitigate at a 2:1 ratio we are requesting the minimal impact option (Alternative 2) be approved in lieu of the Alternative 3 option.





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**SITE DEVELOPMENT INFORMATION**

**ZONING:**  
 PROPERTY OWNER: DWAYNE ZIMMER  
 PROPERTY USE: COMMERCIAL WAREHOUSE  
 SITE ACREAGE: 5.17 AC

**PARCEL**      **ACREAGE**      **OWNER**  
 010-003930      5.17      DWAYNE ZIMMER

**COUNTY:**      **FRANKLIN**  
**JURISDICTION:**      **CITY OF COLUMBUS**

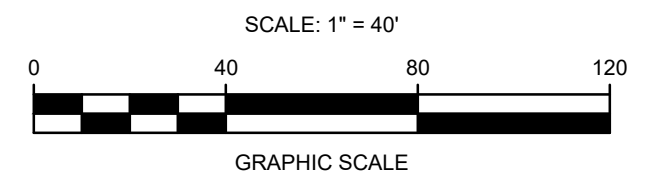
**EXISTING ZONING:**      **M - MANUFACTURING, H-35**  
**ADJACENT ZONING NORTH:**      **R2 - RESIDENTIAL, H-35**  
**ADJACENT ZONING SOUTH:**      **R4 - RESIDENTIAL, H-35**  
**ADJACENT ZONING EAST:**      **R2 - RESIDENTIAL, H-35**  
**ADJACENT ZONING WEST:**      **M - MANUFACTURING, H-35**

**BUILDING DATA:**

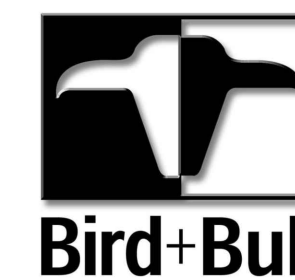
EXISTING BUILDING AREA      5,880± S.F.

**FLOOD ZONE:**  
 PROPERTY IS WITHIN AN AREA OF MINIMAL FLOOD HAZARD (ZONE X) PER FLOOD INSURANCE RATE MAP, PANEL 304 OF 465, FRANKLIN COUNTY, OHIO AND INCORPORATED AREAS, MAP NO. 39049C0304 K (MAP REVISED DATE: JUNE 17, 2008).

2005 GRAVEL AREA INSIDE STREAM CORRIDOR PROTECTION ZONE TOTAL 0.460 ACRES



Above Grade LLC  
 7901 Greenside Lane  
 Columbus, Ohio 43235  
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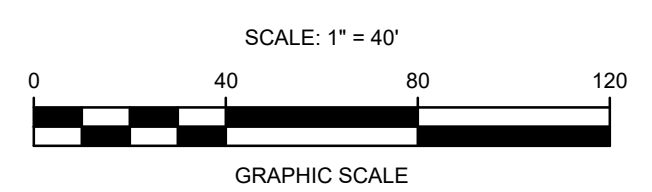
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220 N. ALGONQUIN AVE.  
 COLUMBUS, OHIO 43204

**EXHIBIT A**  
**EX. CONDITIONS PRE-2006**

SCALE: 1" = 40'  
 DWN:60    CKD:AAG    DATE: 07/09/2019    JOB NO. 19-034    1/2





**SITE DEVELOPMENT INFORMATION**

**ZONING:**  
 PROPERTY OWNER: DWAYNE ZIMMER  
 PROPERTY USE: COMMERCIAL WAREHOUSE  
 SITE ACREAGE: 5.17 AC


**PARCEL**      **ACREAGE**      **OWNER**  
 010-003930      5.17      DWAYNE ZIMMER

**COUNTY:**      **FRANKLIN**  
**JURISDICTION:**      **CITY OF COLUMBUS**

**EXISTING ZONING:**      **M - MANUFACTURING, H-35**  
**ADJACENT ZONING NORTH:**      **R2 - RESIDENTIAL, H-35**  
**ADJACENT ZONING SOUTH:**      **R4 - RESIDENTIAL, H-35**  
**ADJACENT ZONING EAST:**      **R2 - RESIDENTIAL, H-35**  
**ADJACENT ZONING WEST:**      **M - MANUFACTURING, H-35**

**BUILDING DATA:**

EXISTING BUILDING AREA  
 5,880± S.F.

 2018 GRAVEL AREA INSIDE STREAM CORRIDOR  
 PROTECTION ZONE TOTAL 0.928 ACRES

**FLOOD ZONE:**  
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Above Grade LLC  
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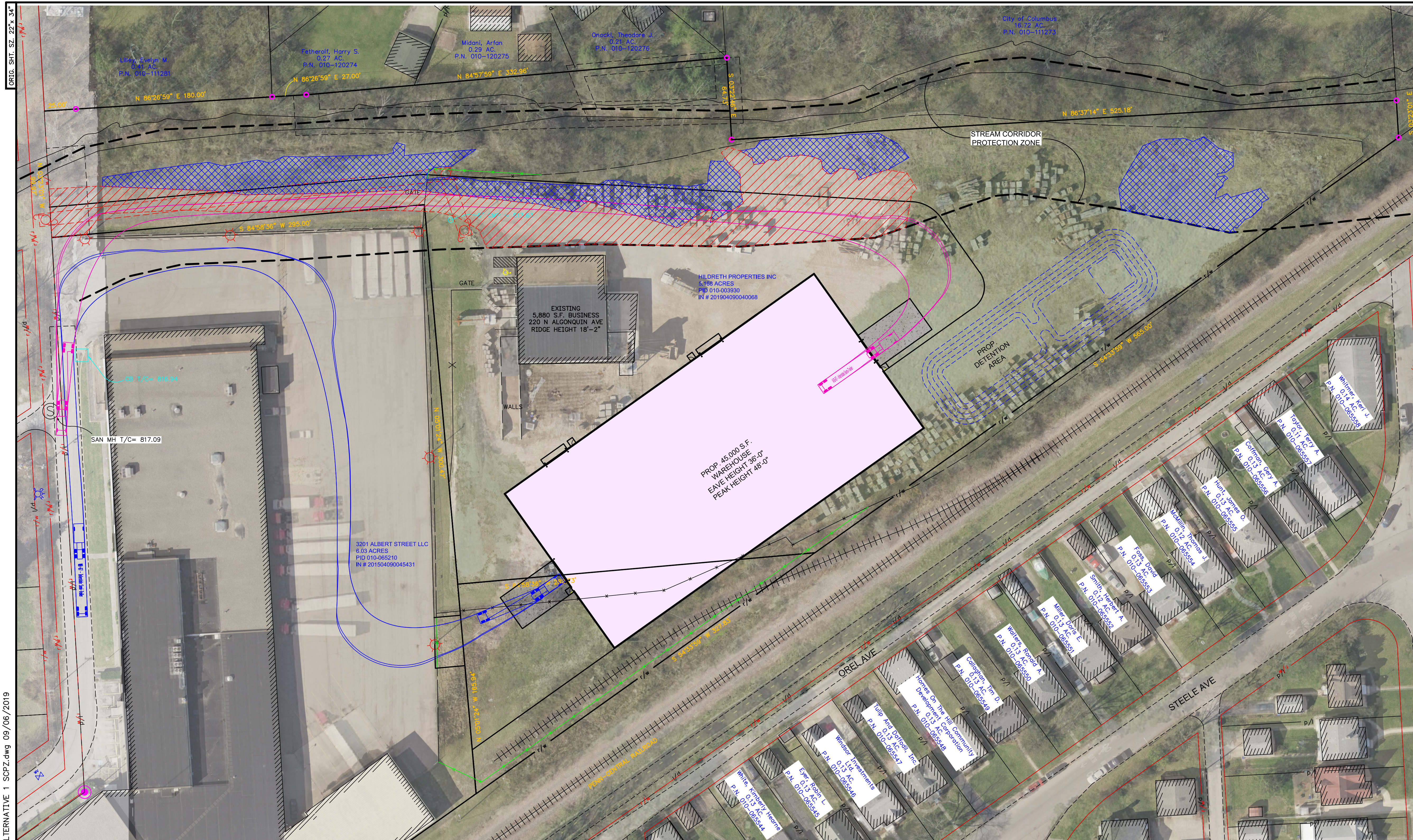


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**EXHIBIT B**  
**EX. CONDITIONS**  
**POST 2006**





**SITE DEVELOPMENT INFORMATION**

**ZONING:**

PROPERTY OWNER: DWAYNE ZIMMER  
 PROPERTY USE: COMMERCIAL WAREHOUSE  
 SITE ACREAGE: 5.17 AC

| PARCEL     | ACREAGE | OWNER         |
|------------|---------|---------------|
| 010-003930 | 5.17    | DWAYNE ZIMMER |

COUNTY: FRANKLIN  
 JURISDICTION: CITY OF COLUMBUS

|                        |                         |
|------------------------|-------------------------|
| EXISTING ZONING:       | M - MANUFACTURING, H-35 |
| ADJACENT ZONING NORTH: | R2 - RESIDENTIAL, H-35  |
| ADJACENT ZONING SOUTH: | R4 - RESIDENTIAL, H-35  |
| ADJACENT ZONING EAST:  | R2 - RESIDENTIAL, H-35  |
| ADJACENT ZONING WEST:  | M - MANUFACTURING, H-35 |

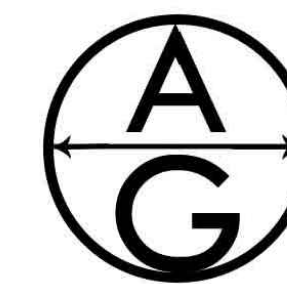
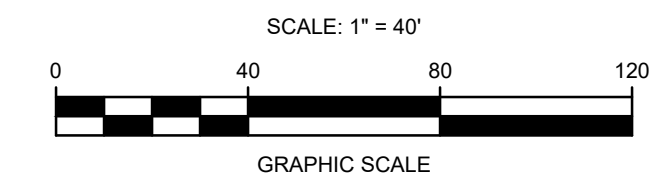
**BUILDING DATA:**

|                            |             |
|----------------------------|-------------|
| EXISTING BUILDING AREA     | 5,800± S.F. |
| PROPOSED WAREHOUSE AREA:   | 45,000 S.F. |
| PROPOSED WAREHOUSE HEIGHT: | 48' - 0"    |

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 0.46 AC. EXISTING PRE-2006 IMPACTS

 0.46 AC. CREATED AFTER 2006 IMPACTS



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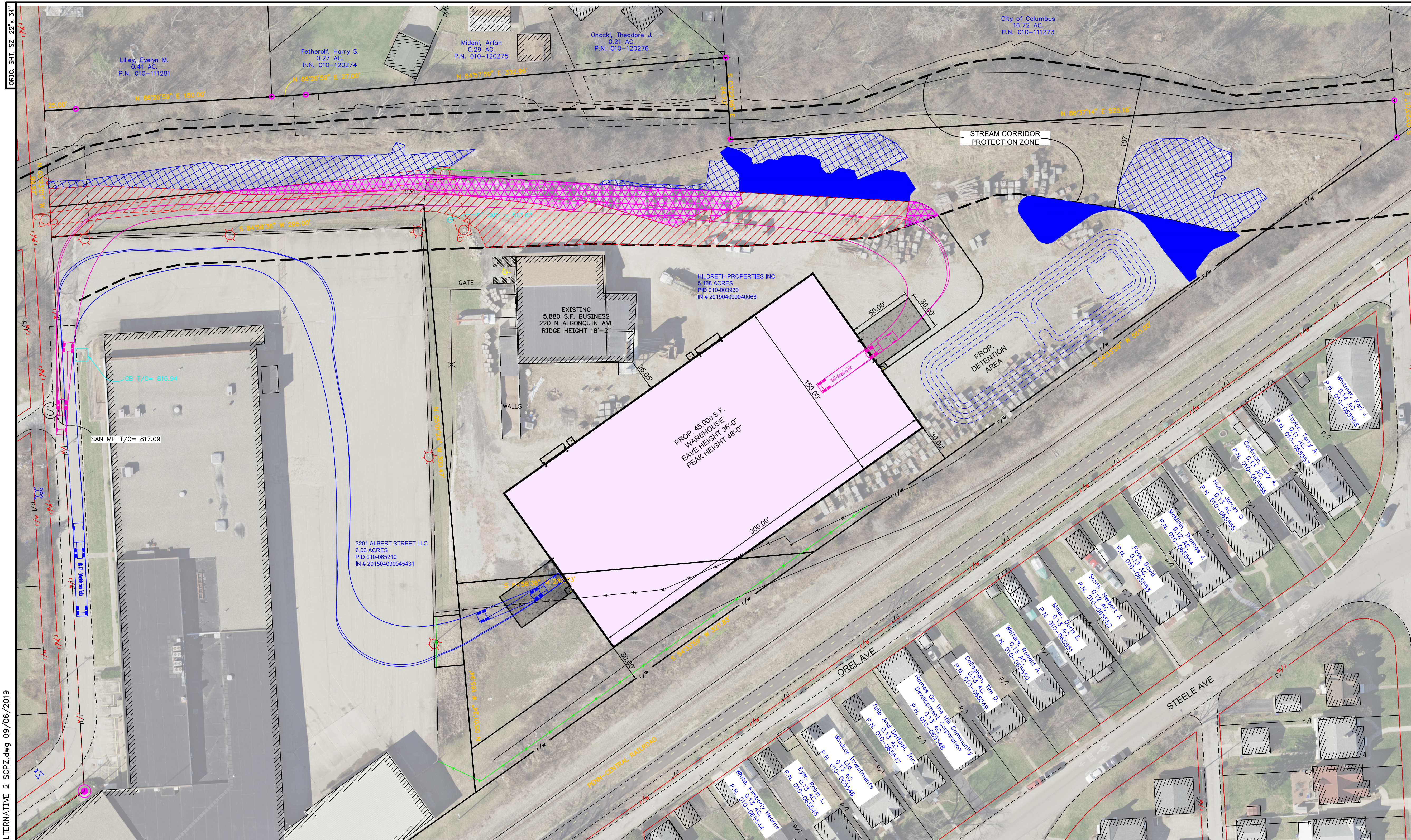
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220 N. ALGONQUIN AVE.  
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**ALTERNATIVE 1  
 FULL COMPLIANCE**

|                                 |           |
|---------------------------------|-----------|
| SCALE: 1" = 40'                 | JOB NO. 1 |
| DWN:SG CKD:AAG DATE: 07/11/2019 | 19-034 1  |





**SITE DEVELOPMENT INFORMATION**

**ZONING:**  
 PROPERTY OWNER: DWAYNE ZIMMER  
 PROPERTY USE: COMMERCIAL WAREHOUSE  
 SITE ACREAGE: 5.17 AC

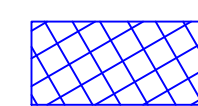
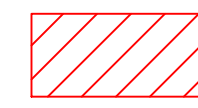
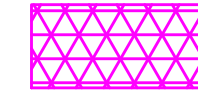

**PARCEL:** 010-003930  
**ACREAGE:** 5.17  
**OWNER:** DWAYNE ZIMMER

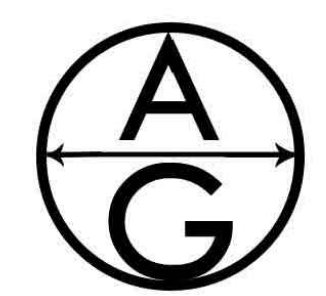
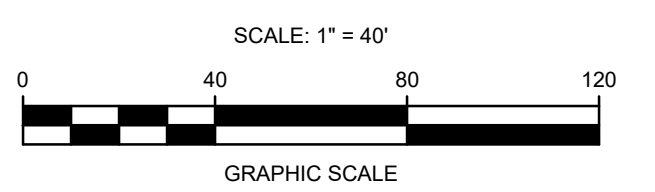
**COUNTY:** FRANKLIN  
**JURISDICTION:** CITY OF COLUMBUS

**EXISTING ZONING:** M - MANUFACTURING, H-35  
**ADJACENT ZONING NORTH:** R2 - RESIDENTIAL, H-35  
**ADJACENT ZONING SOUTH:** R4 - RESIDENTIAL, H-35  
**ADJACENT ZONING EAST:** R2 - RESIDENTIAL, H-35  
**ADJACENT ZONING WEST:** M - MANUFACTURING, H-35

**BUILDING DATA:**  
 EXISTING BUILDING AREA: 5,800± S.F.  
 PROPOSED WAREHOUSE AREA: 45,000 S.F.  
 PROPOSED WAREHOUSE HEIGHT: 48' - 0"

**FLOOD ZONE:**  
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-  0.32 AC. GRAVEL AREA TO BE REMOVED AND RESTORED AS PART OF THE STREAM CORRIDOR PROTECTION ZONE
-  0.46 AC. EXISTING PRE-2006 IMPACTS
-  0.14 AC. AFTER 2006 IMPACTS REQUESTED FOR GRAVEL DRIVE
-  0.15 AC. MITIGATION AREA



Above Grade LLC  
 7901 Greenside Lane  
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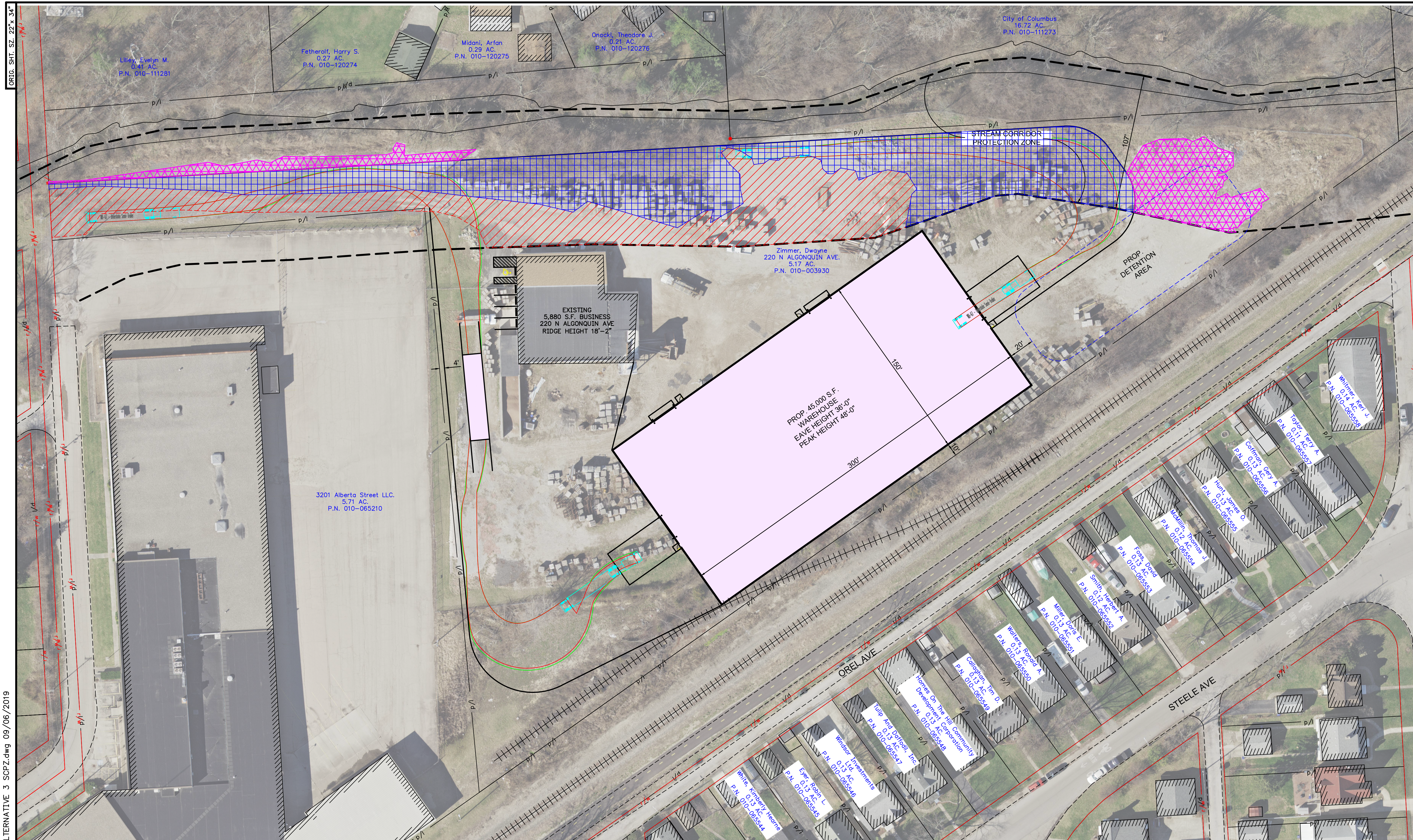
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**ALTERNATIVE 2  
 MINIMAL IMPACT OPTION**

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**PARCEL:** 010-003930  
**ACREAGE:** 5.17  
**OWNER:** DWAYNE ZIMMER


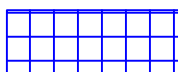
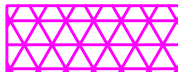
**COUNTY:** FRANKLIN  
**JURISDICTION:** CITY OF COLUMBUS

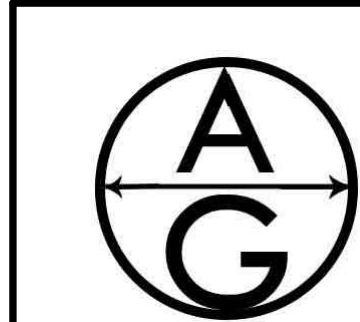
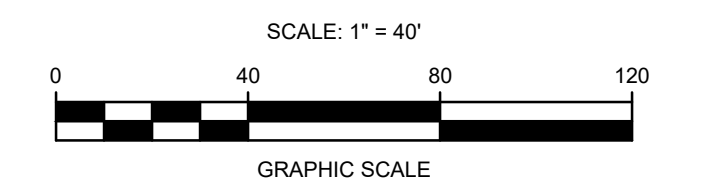
**EXISTING ZONING:** M - MANUFACTURING, H-35  
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**ADJACENT ZONING WEST:** M - MANUFACTURING, H-35

**BUILDING DATA:**

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-  0.46 AC. EXISTING PRE-2006 IMPACTS
-  0.62 AC. ALTERNATIVE 3 PROPOSED IMPACTS
-  0.17 AC. GRAVEL AREA TO BE REMOVED AND RESTORED AS PART OF THE STREAM CORRIDOR PROTECTION ZONE

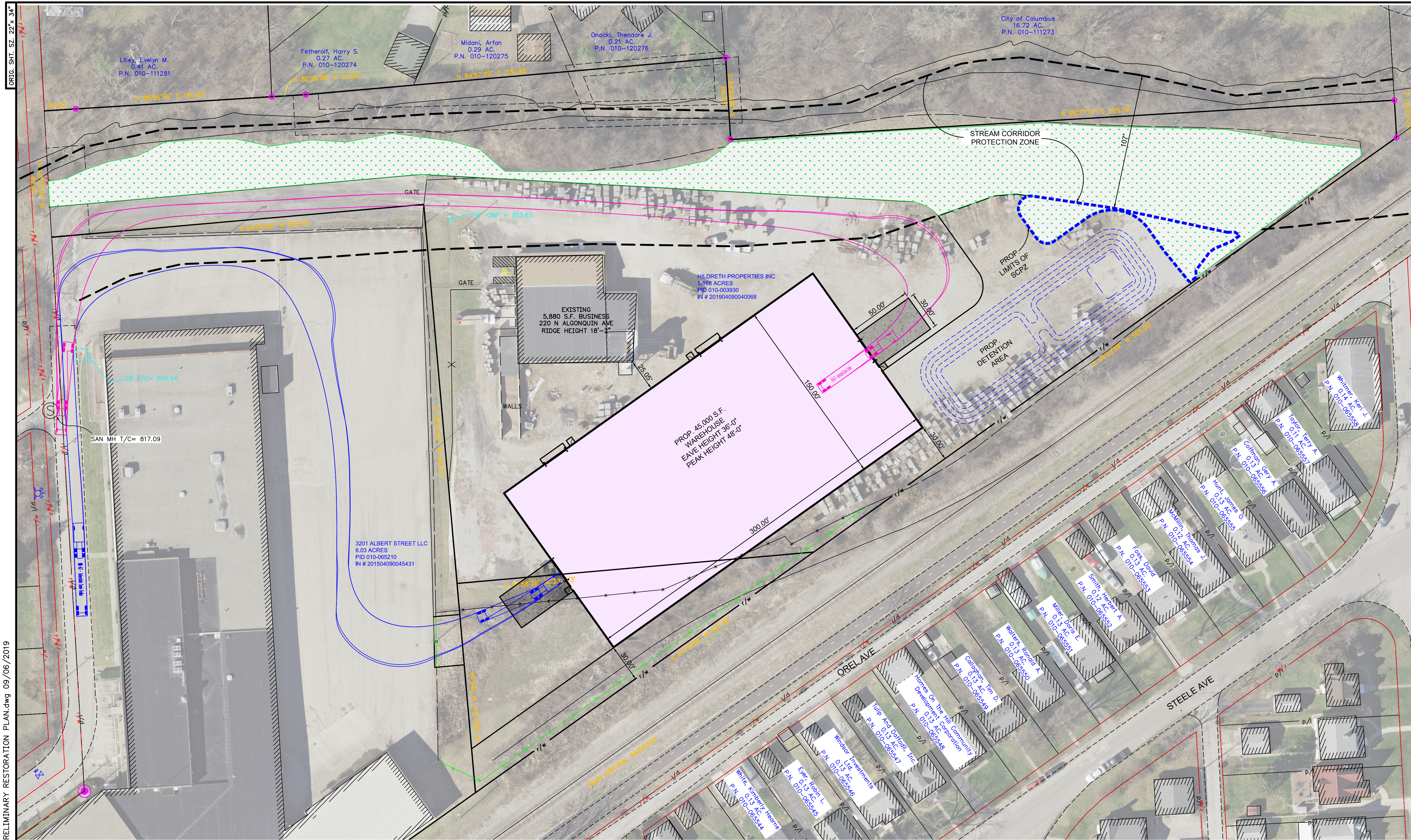


ABOVE GRADE LLC  
 7901 GREENSIDE LN  
 COLUMBUS, OH 43235  
 PH: 614-365-0578

220 N. ALGONQUIN AVE.  
 COLUMBUS, OHIO 43204

**ALTERNATIVE 3  
 PREFERRED OPTION**





H:\Jobs\2019\034\CADD\DWG\Design\Exhibit\Exhibit PRELIMINARY RESTORATION PLAN.dwg 09/06/2019

**SITE DEVELOPMENT INFORMATION**

**ZONING:**  
 PROPERTY OWNER: DWAYNE ZIMMER  
 PROPERTY USE: COMMERCIAL WAREHOUSE  
 SITE ACREAGE: 5.17 AC

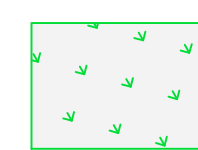
**PARCEL:** 010-003930  
**ACREAGE:** 5.17  
**OWNER:** DWAYNE ZIMMER

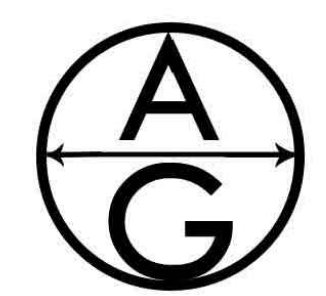
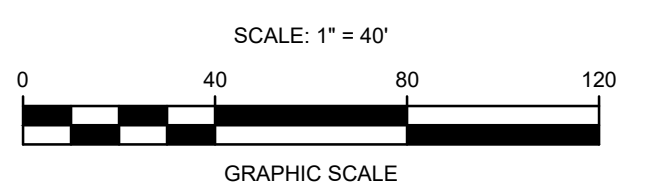
**COUNTY:** FRANKLIN  
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**EXISTING ZONING:** M - MANUFACTURING, H-35  
**ADJACENT ZONING NORTH:** R2 - RESIDENTIAL, H-35  
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**ADJACENT ZONING EAST:** R2 - RESIDENTIAL, H-35  
**ADJACENT ZONING WEST:** M - MANUFACTURING, H-35

**BUILDING DATA:**  
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 PROPOSED WAREHOUSE AREA: 45,000 S.F.  
 PROPOSED WAREHOUSE HEIGHT: 48' - 0"

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 AREA WITHIN STREAM CORRIDOR PROTECTION ZONE TO BE RESTORED WITH NATIVE VEGETATION AND GRASS COVER PER COC APPROVED PLANTINGS LIST. ALL EXISTING STORAGE OR GRAVEL WITHIN THIS AREA SHALL BE REMOVED.



Above Grade LLC  
 7901 Greenside Lane  
 Columbus, Ohio 43235  
 Ph: (614) 365-0578



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220 N. ALGONQUIN AVE.  
 COLUMBUS, OHIO 43204

**PRELIMINARY RESTORATION PLAN**

SCALE: 1" = 40'  
 DWN:SG CKD:AAG DATE: 07/11/2019 JOB NO. 19-034 1