DEVELOPMENT PLAN
For
A PLANNED RESIDENTIAL DISTRICT (PRD)

THE RESIDENCES
At
BERLIN TOWNSHIP
DELWARE COUNTY, OHIO

SUBMITED BY:
T & R PROPERTIES
3895 STONERIDGE LANE
DUBLIN, OHIO

March 7, 2023



THE RESIDENCES
At
BERLIN TOWNSHIP
DELWARE COUNTY, OHIO

Prepared by:
T & R Properties
3895 Stoneridge Lane
Dublin, Ohio 43017
614-923-4000

Kontogiannis & Associates
Architects/Planners
400 South Fifth Street
Suite 400
Columbus, Ohio 43215
614-224-2083

Advanced Civil Design
781 Science Road
Suite 100
Gahanna, Ohio 43230
614-428-7750

Blendon Gardens
Landscape-Design-Installation
9590 South Old State Road
Lewis Center, Ohio 43035
614-565-2312

THE RESIDENCES
At
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DELWARE COUNTY, OHIO

DEVELOPMENT PLAN
March 7, 2023

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THE RESIDENCES
At
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DELWARE COUNTY, OHIO

INTRODUCTION & APPLICATION

THE RESIDENCES
At
BERLIN TOWNSHIP
DELWARE COUNTY, OHIO

INTRODUCTION STATEMENT

The Berlin Multi-Family Development is a 296 Unit Apartment Project located in Berlin Township, Delaware County, Ohio.

The project is bounded on the north by State Route 37 and a privately owned parcel. Our east property line is adjacent to existing residential properties.

The residential project will be developed in one phase, with residential units, a clubhouse on the south side of the newly created Reed Road and residential units on the north side on the Reed Road extension.

We have reviewed both the Berlin Township Delaware County Zoning Resolution, Planning Residential District and the New Article 19, Berlin Industrial Overlay (BIO).

While we have studied both these documents, we will forward our submission under the following:

Berlin Township Zoning Resolution
Delaware County, Ohio

With Amendments Approved 6/26/2017
Original Effective Date: January 1, 1989
And revisions Per Berlin Township
Article 11 Planned Residential District (PRD)

Our submission will include the following considerations:

1. We will forward under Article 11 PRD, designs that will meet the specifications of this Article as well as request variances from certain aspects of this document.

2. We also want to recognize and respect the good work that the residents, staff and consultants of Berlin Township produced under Article 19, Berlin Industrial Overlay (BIO). In so doing as development proceeds it is our intent to keep our development within the spirit of Article 19 in the following manner:

   Additionally, we have modified the project as follows:

   a. Increased setbacks on the northeast property line from 250.00 ft. to 350.00 ft. for all 2-story buildings.

   b. An eight-foot-high mound, with maximum 3.1 slope and a 10’-0” center will be included. See Site Plans and Site Landscape Plans.

   c. Cementations siding will be used in lieu of any vinyl lap siding product.

   d. We have reduced the number of units from 368 units to 296 units (72 units less) to reduce density, traffic and open space concerns.

   e. We have added the central space on the south portion of the project.

   f. Parking spaces and garages will reflect the BIO with required parking between 1.0 – 3.0 spaces per units at 2.11 spaces per unit with 48.64% garages provided.

3. A large reserved area along the existing stream will be kept natural except for road and utility crossings. The open space percentage is now 71.35% of the net developable acreage, or 30.26 acres.

4. Please review drawings and zoning text responses for questions, comments or request for additional information please contact:

Randall Alan Woodings, AIA
Kontogiannis & Associates
Architects/Planners
400South Fifth Street, Ste. 400
Columbus, Ohio 43215
614-224-2083 (office)

RJ Sabatino
T & R Properties
3895 Stoneridge Lane
Dublin, Ohio 43017
614-923-4000

www.berlintwp.us

BERLIN TWP. ZONING OFFICE
3271 CHESHIRE ROAD
DELAWARE, OH 43015
740.548.5217 – PHONE / 740.548.7458 – FAX

Date _____
BZC# _____
Fee: $ _____ Rec# _____
Hearing Date: _____

APPLICATION FOR PRELIMINARY DEVELOPMENT REZONING PLAN
(Resolution to Amend Berlin Township Zoning Text)

Name of Owner: X Patty Lynn Chapman & David John Reed, and William Patrick Reed

Mailing Address: Patty Lynn Chapman, 5609 Champion Creek Blvd., Medina, Ohio 44256

Email Address: jimchapman@zoominternet.net, pchapman@zoominternet.com

Business Telephone: _____ Home Telephone: _____

Address of Property: State Route 37, E. Delaware

Parcel (s): PID 41821002002000, PID 41821002005000 Acreage: 49.898 Gross Acres Present Zoning: FR-1

Range: 16 Twp: 1 (Berlin) Section: NA Farm Lot No: 3 & 4

Subdivision Name: Proposed- Berlin Mixed Use Development

Present Use: Farm/Agriculture Requested Zoning: PRD

Proposed Plan: See attachments for a rezoning from FR-1 to PRD. Land to be used for PRD (residential) Multi-Family Development.

The undersigned certifies that this application and the attachments thereto contain all information required by the Zoning Resolution and that all information contained herein is true and accurate and is submitted to induce the amendment of the Zoning Map. Applicant agrees to be bound by the provisions of the Zoning Resolution of Berlin Township, Delaware County, Ohio. Revised 12/27/19

Date: 03/03/23 Agent/Applicant Signature: Randall Alan Woodings, AIA

Agent/Applicant Address: Kontogiannis & Assoc./Randall A. Woodings, AIA

Phone: 614-582-3066 Fax: 614-224-4736

Email address: rwoodings@kontogiannis.com

Date: _____ Zoning Inspector Signature: _____

INCOMPLETE APPLICATIONS WILL NOT BE PROCESSED

The Residences at Berlin Township
Berlin Township
Delaware County, Ohio
Applicant' T&R Properties for Multifamily PRD Rezoning Request
Planning Commission Hearing #2
3/21/2023

As a follow up to T&R's first planning commission hearing at Berlin Township on 2/14/2023, this letter will serve to amend our application for our Multifamily development. We received a lot of helpful feedback which we have incorporated into this amended request for rezoning to PRD. We have eliminated many variances and made other requested changes, these changes are outlined below:

1. Density Divergence
   We are asking for a rezoning to a PRD to include multi-family with the following density:

   49.898 gross acres * .85 factor in PRD text: 42.413 net acres

   296 units / 42.413 = **6.97 units/acre**

   We have reduced our unit count substantially at the request of the Township and neighbors. We believe that this density still allows the project to be functional. For rent housing is in a severe deficiency locally, and the Berlin Industrial Park will need rooftops to drive demand for retail and business. The Berlin Business Park has sat vacant for years due to the BIO zoning/Current Township zoning resolution; the code does not work for good development to take place. Typical garden density in this immediate area is 12+ units to the acre- Seattle House apartments is 240 units, 3-story on 17.5 acres, 13.7 units/acre. Fourwinds apartments is 144 units on 5.12 acres- 28.8 units/acre. Northlake Summit apartments is 252 units on 22 acres- 11.5 units/acre. The applicant respectfully requests this increase in density for our PRD zoning.

2. Setback Divergences:
   We have eliminated all setback and building separation divergences on our amended application for PRD and preliminary development plan including.
   a. Property setback divergences on West Side have been eliminated entirely.
   b. Building separations are all a minimum of 25'. We meet or exceed this.
   c. **We have increased setbacks from the East Side (existing neighbors on Lackey Old State) to upwards of 350' from the already proposed 250' setback.**

3. Parking Divergences from 3 per dwelling unit to the following:

   We were receptive of Berlin's comments regarding adding additional guest parking. While we still believe that our previous application was overparked and this is at the expense of T&R for increasing pavement and other costs- we have agreed to this nonetheless. Still, this does not meet Berlin's zoning resolution, which is designed for a single family home 3+ bedrooms. While we have increased our parking counts, we respectfully still must request this variance.

   We request a variance for industry standard multi-family parking as follows:
   1BR 1.5
   2BR 2
   3BR 2
   Total Parking: 532
   Guest Parking: 92 extra spaces

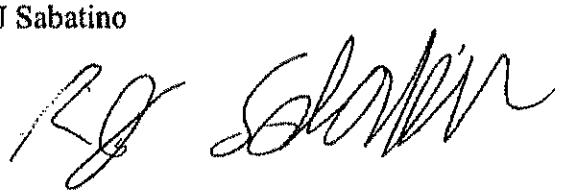
   Parking Provided: 624

4. Divergence from 800 sq ft min one bedroom to 750-800 sq ft one bedroom unit
   The applicant remains requesting the following divergence as our 1-bedroom size proposed is either the same or substantially larger than all multi-family developments nationally and in the immediate area. Examples
   a. Seattle House- 681 square foot 1 bedroom
   b. Fourwinds Apartments- 681 square feet 1 bedroom
   c. Northlake Summit- 751 square feet 1 bedroom

In addition to these substantial changes, the Applicant has also committed to using cementitious siding and providing even more amenity locations at the request of the Township. We have eliminated as many variances and decreased density as much as possible. There still remain the above variances which we respectfully request for our rezoning.

Respectfully,

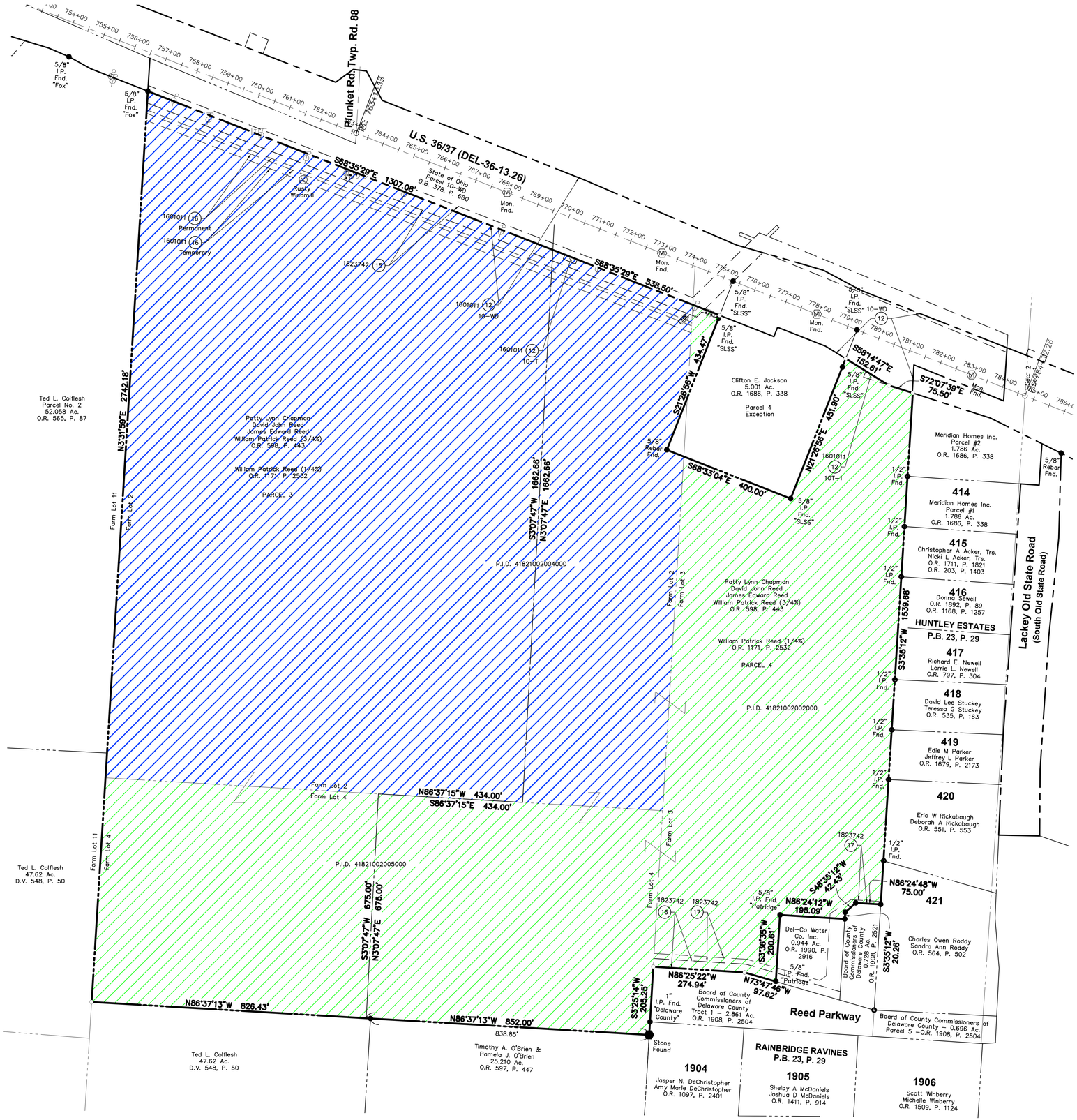
RJ Sabatino





VICINITY MAP
SCALE: NTS





HATCH LEGEND

- INDUSTRIAL LOT: 68.934 ACRES
- MULTI-FAMILY LOT: 49.898 ACRES

0 75 150 300

1 inch =150 feet

City of Reynoldsburg, Franklin County, Ohio
Quarter Township 4, Township 1, Range 16,
United States Military District

SURVEY PLAN

PLAN PREPARED BY: TLM
CHECKED BY: MIM

ADVANCED CIVIL DESIGN
ENGINEERS SURVEYORS
781 Science Boulevard ~ Suite 100
Gahanna, Ohio 43230
ph 614.428.7750
fax 614.428.7755

SCALE: 1" = 150'
DATE: February 24, 2022

SHEET 1 / 1
JOB NO.: 22-0014-1044

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THE RESIDENCES
At
BERLIN TOWNSHIP
DELWARE COUNTY, OHIO

BERLIN TOWNSHIP OFFICIAL ZONING MAP

Berlin Township
Zoning Districts Map
Delaware County, Ohio

Official Zoning Map as amended _____

_____

_____

_____

Board of Township Trustees

_____

Zoning Inspector
Berlin Township, Delaware County, Ohio

- Township Hall
- Cemeteries
- Existing Schools
- Township Boundary
- ocpud
- Incorprated Area
- Road Right of Way
- Property Lines
- Rivers
- Incorprated Area

Berlin Township Zoning

- Farm Residential District (FR-1)
- Low Density Residential District (R-2)
- R-2 with PRD Overlay (R-2/PRD)
- Multi-Type Residential District (R-3)
- R-3 with PRD Overlay (R-3/PRD)
- Multi-Type Residential District (R-4)
- R-4 with PRD Overlay (R-4/PRD)
- Planned Residential District (PRD)
- Neighborhood Commercial District (NCD)
- Transitional Planned Unit Development (TPUD)
- Planned Office District (POD)
- Planned Commercial and Office District (PCD)
- Old Cheshire Planned Unit Development District (OCPUD)
- OCPUD Overlay Applied
- Industrial District (ID)
- Planned Industrial District (PID)
- Agricultural Conservation District (A-1)
- Floodplain Regulatory District (FPRD)
- Article 15 Berlin Commercial Overlay (BCO)
- Article 19 Berlin Industrial Overlay (BIO))
- US Land

N
W E
S

0 1000 2000 3000 4000 5000 Feet

Prepared By: Delaware County Regional Planning Commission (740-833-2260)
www.dcrpc.org
Parcel Information Provided by The Delaware County Auditor's Office
Further Information is available by contacting the Auditor's GIS Office (740-833-2070)
Zoning Information provided by Berlin Township (740-548-5217)
Printed 9/9/2022

THE RESIDENCES
At
BERLIN TOWNSHIP
DELWARE COUNTY, OHIO

DEVELOPEMNT PLAN & TEXT
ARTICLE 11 & TEXT
ARTICLE 24 & TEXT
ARTICLE 25 & TEXT
ARTICLE 26 & TEXT

ARTICLE 11 PLANNED RESIDENTIAL DISTRICT (PRD)

SECTION 11.01: PURPOSE: SEE SECTION 5.055

Purpose – We have reviewed Section 5.055 and discussed with staff and a Berlin Township Commissioner.

SECTION 11.02: INITIAL DISCUSSIONS

The applicant is encouraged to engage in informal consultations with the Zoning Inspector, Zoning Commission and the Delaware County Regional Planning Commission prior to formal submission of a development plan and application to amend the zoning map.

No statement by officials of the Township or County made prior to formal submission of a development plan and application to the Zoning Commission under 11.10 shall be binding. Any and/or all such informal consultations may be subject to Ohio's open meeting laws (ORC §121.22) and may be required to be held in an open public meeting.

In addition to any other procedures set out in this Resolution, all applications for amendments to the zoning map to rezone lands to this PRD district shall follow the procedures set forth in Article 11 herein.

The development team met with Berlin Township Zoning and Development staff, the Fire Department and one of the zoning commissioners, on Monday, August 22. We reviewed the project in general and went over various options on what process to use for this submittal.

Since that time the Developer, the Architectural firm and Civil engineering firm have continued to discuss and review our process with the staff via phone and email.

Additionally, we have also met or discussed with County Engineer, State Engineer, and Regional Planning office to question, inform and comment on various planning issues surrounding our proposal.

Also, we have met with the neighbors, Delaware Regional Planning Commission and the Berlin Planning Commission for their comments and design inputs.

SECTION 11.03: LOCATION OF PLANNED RESIDENTIAL (OPEN SPACE) DEVELOPMENTS

Planned Residential Development zoning will be overlaid on FR-1, R-2, R-3, R-4, and TPUD zones pursuant to a zoning map amendment approved by the township. The net density of the underlying zoning shall be used to determine the number of units allowed. All other standards shall be as defined in Article 11.

We are pursuing PRD Zoning with various amendments. The site is zoned FR-1 with an Article 19 B.I.O. Overlay.

SECTION 11.04: PERMITTED USES

A.) Single Family detached residential dwelling units in FR-1 and R-2, R-3, and R-4 PRDs;

N/A for this proposal.

B.) Single family dwellings in R-2, R-3, and R-4 PRDs, or multi-family buildings (including condominiums separated by vertical firewalls) in TPUD PRDs.

This Subsection allows for multi-family buildings.

C.) Common Area: upon approval of the final development plan by the township, the following uses and improvements may be permitted in the common area:

1.) Outdoor sports (active recreation) and recreational activities.

Proposal includes active recreational activity spaces.

2.) Accessory service buildings and structures incidental and pertinent to the uses set forth in Section 11.04(C)(1) above, where said accessory service buildings and structures are necessary to the pursuit of a permitted recreational use on the premise.

Proposal incudes buildings and structures incidental to proposed uses such as clubhouse, free standing mobile automotive garages, swimming pool and other recreational uses.

D.) Natural Area: restricted to passive recreational uses such as fishing, swimming, hiking, canoeing, and such other recreation that does not alter any of the natural features of the area. Agriculture may also be used as natural open space, provided it does not permit hog operations, poultry barn, and fur bearing farms or feed lots. Accessory buildings should be discouraged in the natural area.

Some areas will be left in a natural state. See site plans. No agriculture areas are being proposed and accessory buildings will be limited or not permitted in natural areas.

SECTION 11.05: ACCESSORY USES

A.) Non-residential uses of a religious, cultural, educational or recreational nature or character to the extent that they are designed and intended to serve the residents of the Planned Residential District. Said facilities may be designed to serve adjoining neighborhoods or residents if they are located in such proximity to major thoroughfares as to permit access without burdening residential streets.

No non-residential uses such as religious cultural or educational are being proposed.

B.) Schools, if they occupy a lot of not less than 1 acre, with adequate area for indoor and outdoor recreation, and additional setbacks as may be necessary to avoid disruption to adjacent residences.

No schools are being proposed.

C.) Adult Family Homes as provided for and defined in ORC Chapter 3722.

No adult family homes are being proposed.

D.) Child Day Care provided in the provider's permanent residence for six or fewer children, who are not members of the immediate resident family, provided the day care is accessory to the use of the dwelling as a residence.

No child daycare facilities are being proposed.

E.) Temporary structures such as manufactured or mobile homes, or mobile offices, and temporary buildings of a non-residential character may be used incidental to construction work on the premises or on adjacent public projects or during a period while the permanent dwelling is being constructed. The user of said structure shall obtain a permit for such temporary use, which permit shall be valid for six (6) months and may be renewed not more than twice for a total combined period of time under all issued permits not exceeding eighteen (18) months. Renewal of the permit shall be at the discretion of the Zoning Inspector on finding of reasonable progress toward completion of the permanent structure or project. The Zoning Inspector may require provisions for sanitary waste disposal, solid waste disposal, and water supply, as he/she deems necessary. The fees for such permit and renewals thereof shall be established by the Board of Township Trustees. Said temporary structure shall be removed not later than ten (10) days after expiration of said permit.

A temporary construction trailer may be used during construction and all caveats of Section 11.05 E., will be complied with.

F.) Conducting of casual sale of goods in what are commonly referred to as garage sales or yard sales provided that such sales shall not be conducted on more than six (6) days in any calendar year or more than three (3) consecutive days. The sale and parking area shall be outside of the right-of-way and shall not interfere with traffic on adjacent thoroughfares. Any signage must be consistent with Article 22.

No casual sale of goods will be allowed.

G.) Limited home occupation, as prescribed in Section 24.15 of this resolution.

No limited home occupations will be allowed.

H.) Licensed Family Homes as provided for in ORC §5123.19. All such facilities shall possess all approvals and/or licenses as required by state or local agencies.

No licensed family homes will be allowed.

SECTION 11.06: CONDITIONAL USES

A.) Model Homes in Subdivisions, the same being defined as residential type structures used as sales offices by builders/developers and to display the builder's/developer's product. The same may be furnished within, since its purpose is to display to prospective buyer the builder's/developer's features (such as exterior siding treatment, roofing materials, interior trim, moldings, floor coverings, etc.), in the environment of a completed home. Model homes may be staffed by the builder's/developer's sales force. Model homes shall be subject to the following restrictions:

A model or models of existing units will be permitted at certain times within one of the newly constructed buildings.

1.) **Lighting:** All exterior lighting, except for security lighting, must be down-lighting, so that no light shall be cast onto adjoining residential properties. All off-street parking areas must be illuminated. All exterior lighting, except for security lighting, shall be extinguished at the closing time of the model home.

The proposal will comply with this subsection.

Lighting photometric data with type, temperature, style etc. will be submitted at final development plan phase. Also, see Architectural Drawings for typical site lighting fix, Tab 8 of zoning submission.

2.) **Parking:** All model homes shall provide off-street paved parking for the public. Such off-street paved parking shall be located as directed by the Board of Zoning Appeals. The number of required parking spaces shall be six (6) per model home. The driveway of the model home may be utilized for not more than two (2) parking spaces.

The proposal will comply with this subsection at model locations at clubhouse rental office.

3.) **Screening and Trash Receptacles:** Landscape drawing shall be required and show adequate landscaping and screening from adjoining residential lots, together with the clear marking of the boundaries of the model home lot. Trash receptacles shall be provided around the model home for use by visitors to the home.

The proposal will comply with this subsection.

See site plan and site landscaping plans for locations of trash compactors and screen walls.

4.) **Termination of Use:** The use of model homes within a residential subdivision, or within any single phase of a multi-phase subdivision, shall terminate after five (5) years from its opening date, or when building permits have been issued for ninety percent (90%) of the lots, whichever comes first.

N/A

5.) **Model Home Signs:** Model home signs may be approved by the Board of Zoning Appeals provided the following conditions are met:

a.) the sign shall not exceed 16 (sixteen) square feet per side with 32 (thirty-two) square feet maximum total display area;

N/A

b.) the overall height of the sign shall be no more than four (4) feet above grade.

N/A

c.) model home sign shall be located on the same lot as the model home.

N/A

6.) If sign information is not presented at the time the development is submitted and approved, the applicant will apply for a conditional use permit to the Board of Zoning Appeals, which will rule on additional sign conditions.

N/A

SECTION 11.07: PROHIBITED USES

A.) Uses not specifically authorized by the express terms of this Article of the Zoning Resolution shall not be permitted.

Proposal will comply.

B.) Outdoor storage of inoperable, unlicensed, or unused vehicles or trailers, for a period exceeding fourteen (14) days is prohibited. Said vehicles if stored on the premises shall be enclosed within a building so as not to be visible from any adjoining property or public road.

Proposal will comply.

C.) No trailer of any type, no boats, no motor homes, nor equipment of any type shall be parked in front of the building line on any parcel within this district for more than twenty-four (24) hours in any ten (10) day period. If a dwelling is located on said lot, the building line shall be considered to be the front wall of the dwelling even if said dwelling is located behind the minimum building line established by this code or the restrictions on the plat or subdivision.

Proposal will comply.

D.) No motor home, mobile home or camper of any type may be occupied by a guest of the resident/owner for more than fourteen (14) days per calendar year and only one (1) occupied motor home or camper is permitted at any time.

Proposal will comply.

E.) Except as specifically permitted in Section 11.01(G) or approved in the approved development plan, no manufactured/mobile home shall be placed or occupied in this district. This provision does not apply to permanently-sited manufactured homes.

Proposal will comply.

F.) No trash, debris, unused property, or discarded materials which create an eyesore, hazard, or nuisance to the neighborhood or general public shall be permitted to accumulate on any lot or portion thereof.

Proposal will comply.

G.) In subdivided areas that meet the requirements of section 711.131 of the Ohio Revised Code, the keeping of livestock and poultry is prohibited.

Proposal will comply.

H.) Boat or vehicle storage yards of facilities within common open space areas are prohibited.

Proposal will comply.

SECTION 11.08: DESIGN FEATURES REQUIRED OF A PRD

The development plan shall incorporate the following standards:

A.) Open space shall be distributed throughout the development as part of a unified open space system, which shall serve to unify the development visually and functionally, and buffer surrounding land uses;

Open space, ponds, landscape planting and mounds have been provided to unify the proposed development and buffer surrounding land use. See site plans and site landscaping drawings.

B.) No building shall be constructed within 50 feet of the perimeter property line of the overall PRD tract;

The existing zoning is FR-1 with a Berlin Article 19 Overlay. The PRD rezoning proposal illustrates the following setbacks while attempting to remain in the spirit of the Article 19 Overlay.

1. **All buildings meet the 50.00 ft. setback line of basic PRD zoning. See items 1 & 2 below and Site and Civil Engineering Plans for Detailed additional setback and building locations.**

2. **Development North of Reed Road**
   (See Site Plan for building lines and reference dimensions)

South Setback Line (Along Reed Road)	**83.5 ft.**
East Setback Line	**250 ft. – 350 ***
North Setback Line	**50 ft.**
West Setback Line (Along Proposed Industrial Site)	**50 ft.**

   (See Site Plans for all building setbacks)

   ***(Excludes mail kiosk and one-story garage at North property line)**

3. **Development South of Reed Road**

North Setback Line (Along Reed Road)	
Parking	**20 ft.**
Building (Varies, see Site Plan)	**50 ft. per PRD or greater See Site Plans**
West Setback Line/per PRD Zoning	**50 ft.**
South Setback Line (Varys, see site plan)	**250 ft. 50 ft.**

   (See Site Pans for all building setbacks)

C.) The zoning commission may require walkways to connect all dwelling areas with open space and to interconnect the open spaces;

See site plans for all sidewalk connectivity to dwelling areas and open space

D.) Moderate to thick coverage by trees and natural undergrowth is desirable to most intended functions of the open space. Where such foliage exists naturally, it should be retained where practicable. Where adequate foliage does not exist, the Zoning Commission may require establishment of such tree cover or other foliage as may be necessary to achieve the purpose of the open space and the buffer of adjacent uses;

See site plans for general and viable preserved areas, which the Developer, to the greatest extent possible, will keep as natural. Please note this project has a 71.35 % open space percentage.

E.) Scenic areas and views shall be preserved to the maximum extent practicable, including views from the adjacent road;

See site plans for general and viable preserved areas, which the Developer, to the greatest extent possible, will keep as natural.

F.) Open spaces may be used for the natural disposal of storm water drainage. No features should be designed which are likely to cause erosion or flooding of the proposed or existing houses;

Natural disposal of storm water will occur at 3 wet ponds as shown on the site plan. These ponds will drain to an existing watercourse and will not cause erosion or flooding to exiting houses.

G.) Minimum overall tract size for a PRD is 20 acres, unless adjacent to a neighborhood of comparable density or design, in which case the Zoning Commission may permit the tract size to be reduced to 10 acres;

The current tract site is approximately 49.898 acres above the minimum of 20 acres. Which is 29.898 acres above the minimum.

H.) Improvements within the PRD shall conform to the subdivision standards for Delaware County Ohio;

Project will comply

I.) Wetlands, steep (over 20%) slopes, forests, 100-year floodplains, ravines and noted wildlife habitat are to be preserved to the greatest extent possible;

See Master Grading Plan for information on wetlands, slopes, forest, and other natural or wildlife habitat. No 100-year flood plains exist on site. Natural areas shall be preserved to the greatest extent possible. The project has a 71.35% open space percentage.

J.) The permitted density shall not be exceeded.

A density variance is being requested. The density is as follows:
Site Size. 49.898 gross acres
49.898 x .85 = 42.413 acres (Net developable acreage)
296 units/42.413 = 6.97 units/acres
See site plans and site engineering plans.

K.) The required percent of open space shall be provided. The percent of open space required varies according to the zoning district overlaid;

1.) FR-1: 40% (of gross tract area) open space

Not Applicable, however the Residences at Berlin Township have 71.35% of gross tract area as open space.

2.) R-2, R-3 and R-4: 20% (of gross tract area) open space

Not Applicable, however the Residences at Berlin Township have 71.35% of gross tract area as open space.

In calculating open space, the areas of fee simple lots conveyed to homeowners shall not be included. Unbuildable areas, (defined as jurisdictional wetlands, floodplains, slopes greater than 20%, utility rights-of-way and existing bodies of water) may count for up to 50% of the required open space. That portion of land dedicated to public purpose that remains either open and unbuilt upon by any structure (including parking) or which houses a recreational facility approved by the Zoning Commission on the Development Plan may count toward the open space requirement.

Site NDA = 42.413 acres

Total open space provided = 30.26 acres of gross tract area
Total percentage of open space = 71.35%

71.35% open space exceeds all requirements

L.) No residential dwelling structures shall be constructed within the 100-year floodplain of any stream or river.

No residential dwelling structurers will be constructed within a 100-year floodplain. As a matter of record, no 100-year floodplains exist on the Residences at Berlin Township parcel.

M.) In FR-1 zones, water supply and sanitary sewage disposal shall be as approved by the Delaware County Board of Health and/or the Ohio EPA. Feasibility shall be indicated by the appropriate agency at the time of the preliminary plan. In the R-2, R-3 and/or R-4 zones, centralized water supply and sanitary sewage disposal systems shall be provided, subject to Delaware County Sanitary Engineer, Board of Health, and/or Ohio Environmental Protection Agency approval. Feasibility of water supply and wastewater disposal systems shall be indicated by the appropriate agencies at the time of the preliminary plan.

The water supply and sanitary sewage disposal will be as approved by the Delaware County Board of Health and Ohio EPA

N.) The project architect shall give due regard to the footprints, building orientation, massing, roof shape, pitch and exterior materials to blend with other traditional or historic architecture in the community or with the site. All residential roofs must be a minimum of 5:12 pitch, or as approved by plan. Permanently sited manufactured housing must have a minimum pitch of 3:12.

See Architectural renderings for elevations and building materials. All residential roofs shall have a minimum pitch of 5/12 with accent gable and HIP roofs with roof slopes at 6/12 to 9/12 depending on location within the building.

O.) Residential lots shall be fenced for safety if they abut agriculture.

Not Applicable

P.) Sidewalks or paths shall be provided. Sidewalks shall be separated from the paved street surface by at least five feet (5') of landscaped or grassed green strip. Deciduous, broad leaf street trees (i.e., maple, oak, sycamore, chestnut, and sweet gum) shall be planted (or saved) at the rate of one per 60 feet of frontage on both sides of the street. Trees must be at least a 2.5 inch caliper at planting. Trees may not be placed in the 5' green strip between the street and sidewalk. Trees shall be placed in the front lawn of the residences.

See Site Plans and Site Landscaping Plans for all dimensional, species and caliper information. All trees to be 2.5 inch caliper at planting.

Q.) Setbacks, front, side and rear: as defined in the underlying zoning district.

See Site Plan and Section B of this development text for all building, right-of-way, and property line setbacks.

R.) Minimum lot size: as defined in the underlying zoning district.

Minimum lot size under a PRD rezoning is 20 acres per Section G of this document. Proposed site size: 49.898 acres.

S.) Minimum lot width: as defined in the underlying zoning district.

Width – See Site Drawings, varies, but meets all minimum lot widths.

T.) Detached garages with one-hour fire rated construction may be constructed within ten (10) feet of the lot line provided the garage is located to the rear of the house, and that the garage does not abut an adjacent residence.

The Residences at Berlin Township have 5 car detached garages available to the occupants of this project on a per month rate. All detached garages are built with one hour fire rated construction and no detached garages are located within 10.00 ft. of any property line.

U.) Street layouts should relate to natural topography, and be designed to provide open space views to as many homes as possible.

The street layouts, in general, relate to the natural topography.

V.) Attached garages shall be setback at least 12 feet from the front building line of the house, if on street parking is not provided.

The Residences at Berlin Township have both attached and detached garages for residents. Item above relates to a single-family project of R-1, R-2, R-3 and R-4 PRD development. This project as allowed by Section 11.04 B.) is a multifamily project and has surface parking, attached garages and detached garages. See Site Plans for locations, sizes of parking spaces and location of attached and detached garages.

W.) Porches: A covered porch or portico across some portion of the front of the house is a recommended structural design element.

Porches, balconies, and covered patios are Architectural details provided on many units. See Architectural Building Elevations for locations of those elements.

X.) Street lighting, if provided, must be of white light, with light standards of traditional or Victorian design (no modern gooseneck lamps or yellow lighting). Maximum height of standards is 16 feet.

Street lights shall comply with this section. See Detail on Architectural drawings.

Y.) Building Height Limits: No buildings in this district shall exceed thirty-five (35) feet in height measured from the elevation of the threshold plate at the front door to the highest point of the roof. Chimneys, barns, silos, grain handling conveyors, church spires, domes, flag poles, and elevator shafts are exempted from the height regulation and may be erected to any safe height, not to exceed one-hundred (100) feet in height. No windmills, antennas, or towers shall be constructed to a height greater than the distance from the center of the base thereof to the nearest property line of said tract and not to exceed one hundred (100) feet in height.

Building heights in this PRD District shall comply with this section. Maximum roof height at the ridgeline shall not exceed 35.00 feet in height as measured from the elevation threshold plate at the front door.

Z.) Building Dimensions: (Floor space requirements): Each detached single family dwelling hereafter erected in this district shall have a living area not less than one-thousand (1000) square feet or eight-hundred (800) square feet of ground floor living area, if the residence is multi-story. All such living areas shall be exclusive of basements, porches, or garages.

Building areas for detached single family dwelling units are not applicable to the attached multifamily units of the Residences at Berlin Township project. The following are the square footages of the one-, two- and three-bedroom units proposed for construction.

All attached single-family structures constructed within this district shall contain the following minimum living area:

1. One (1) bedroom unit: 800 square feet

   Proposed: 750-800 sf

2. Two (2) bedroom unit: 900 square feet

   Proposed: 900-1000 sf

3. Three or more bedroom units: 1000 square feet

   Proposed: 1150.00 sf

AA.) Landscaping: All yards, front, side and rear, shall be landscaped, and all organized open spaces or non-residential use areas shall be landscaped and shall meet the requirements of Article 26, unless a variation from these standards is specifically approved as part of the final development plan. A landscape plan showing the caliper, height, numbers, name, and placement of all material, prepared by a licensed landscape architect shall be approved as a part of the final development plan.

See Site Landscaping Plans for caliper, height, numbers, name (species) and placement of all landscape material. All landscape drawings have been prepared by a Licensed landscape Architect.

BB.) Parking: Off-street parking shall be provided, at the time of construction of the main structure or building, with adequate provisions for ingress and egress according to the development plan. In preparing and approving the parking plan, the provisions of Article 24 of this Resolution, when appropriate, shall be incorporated.

Off street parking includes surface parking, attached garages and detached garages.

CC.) Signs: Except as provided under the provisions of this Article for home occupations or as controlled by Article 25 (Signs) of this Resolution and except as permitted by the Board of Zoning Appeals incidental to Conditional Uses, no signs shall be permitted in this district except a “For Sale” or “For Rent or Lease” sign advertising the tract on which the said sign is located. Such sign shall not exceed six (6) square feet in area on each side.

See Site Landscaping Plans for proposed site/project name and location of signage.

DD.) The owner or developer of a subdivision or similar area, upon the conditions and for the time period established by the Zoning Commission, may erect one (1) sign not exceeding thirty-two (32) square feet in area per side advertising said subdivision, development or tract for sale.

See Site Landscaping Plans for proposed site/project name and location of signage.

EE.) Exterior Lighting: All exterior lighting shall meet the lighting requirements of Article 24 of this zoning resolution, unless a variation from these standards is specifically approved as part of the final development plan.

Proposal will comply. See Site Lighting Detail in Architectural drawings.

FF.) Other required provisions as stated in this ordinance. The Berlin Township Zoning Commission and/or Board of Trustees may impose special additional conditions relating to the development with regard to type and extent of public improvements to be installed, landscaping, development, improvement and maintenance of common open space, and any other pertinent development characteristics.

SECTION 11.09: DEVELOPMENT PLANS

A.) **Preliminary Development Application:** Upon application for a PRD District, the owner(s) of lots or land within the Township shall simultaneously submit a preliminary development plan. The preliminary development plan shall show the intended layout of the site in accordance with PRD standards.

Fifteen copies, per Berlin Township Zoning office, of the preliminary plans, have been submitted to the Zoning Commission with the PRD Application and a map and list of addresses per Section 31.01, Amendments and includes all Owners contiguous to, directly across the street and with 200 feet of the perimeter boundaries of the proposed Residences at Berlin Township Development.

Twenty (20) copies of the preliminary development plan and electronic media as specified by the Zoning Inspector shall be submitted to the Zoning Commission with the PRD application along with a list of addresses for notification as defined in Section 31.01 herein. The plan shall include in text and map form, the following:

1.) The proposed size and location of the PRD district, at a scale of at least 1" = 200', showing topographic contours of at least 5' intervals, wooded areas, wetlands, adjacent (within 200') structures, 100-year floodplains.

See Site Plans, all requested information has been shown, per scale and location.

2.) Suggested architectural designs for all structures and signs.

See Architectural Plans for proposed building elevations.

3.) The intended general provisions for water, fire hydrants, sanitary sewer, and surface drainage, to the extent known. Information regarding existing pipe sizes, capacities, committed flows, and potential needed upgrades must be documented.

See Site Engineering Plan for proposed locations of waterlines, fire hydrants, sanitary sewers, storm drainage and detention areas.

4.) The relationship of the proposed development to existing and probable uses of surrounding areas, including easements, rights-of-way, proposed drainage, and public utilities.

See Site Plans.

5.) A design of the open space and proposed description of its use and maintenance.

See Site Plans, Site Engineering Plans and Site Landscaping Plans for open space design. All maintenance shall by Project Owners.

6.) Specific statements of divergence from the development standards in this Article.

1. **Site Density.**
   We are seeking a site density of 6.97 units per net developable acre
   49.898 gross acres x .85 factor = 42.413 net developable acres
   296 units ÷ 42.413 acres (NPA) = 6.97 per units per acre

2. **Parking divergence from 3 per dwelling unit to the following:**
   1 bedroom – 1.5 spaces/unit
   2 bedroom – 2.0 spaces/unit
   3 bedroom – 2.0 spaces/unit
   Total parking – 532
   Guest parking – 92
   Final total parking provided – 624 or 2.11 spaces/unit

3. **Divergence from 800 sf minimum one bedroom unit to 750-800 sq. ft. for one-bedroom units.**

4. **Also, see Residences at Berlin Township letter from T & R Properties, Tab 2 of this zoning submission.**

7.) Proposed location of all structures.

See Site Plans for locations of buildings drives, parking and other structural and/or utility information.

8.) Preliminary Traffic Impact Analysis, based upon new trip generation.

A traffic study and analysis has been provided with this submission by Advanced Civil Design, the Civil and Traffic Engineering firm providing services on the Residences at Berlin Township

9.) The responsibility and maintenance of any proposed on-site sewage disposal systems, and letter from the appropriate county or state agency declaring the site feasible for such design.

N/A

10.) All required design features from Section 11.08.

See 11.08 design responses and submitted drawings and diagrams.

11.) Emergency service provisions (letter from Fire and Police departments).

See Site Utility letters, Tab 13 of zoning submission.

12.) Phasing plans.

The Residences at Berlin Township will be constructed in one phase, see Tab 12 of zoning submission.

B.) **Preliminary Plan Approval Period:** The approval of a preliminary development plan shall be effective for a period of one (1) year from the date 30 days after the zoning became final in order to allow for the preparation and submission of the final development plan. No zoning text amendment passed during this one (1) year period shall affect the terms under which approval of the preliminary development plan was granted. If the final development plan has not been filed within this one (1) year period, then the preliminary development plan approval shall expire unless the Trustees have approved an extension of this time limit. Absent such an extension, no use shall be established or changed and no building, structure, or improvement shall be constructed until a new preliminary and final development plan has been submitted for approval to and approved by the Township. Such applications for approval shall be subject to the same procedures, fees, and conditions as an original application. In the event the one (1) year timeline expires, any preliminary development plan thereafter filed shall comply with the terms of the Zoning Resolution then in effect at the time of filing, including, without limitation, any zoning amendments enacted from and after the date of the initial request to include the property within the PRD district.

C.) **Modifications of the Preliminary Development Plan:** In the event that an applicant or owner who has obtained approval of a Preliminary Development Plan wishes to change or modify said approved plan in any respect, he or she shall make a detailed written modification request, and file that request and fee with the Zoning Inspector. The application shall specifically detail the changes requested, and shall state the reasons for all changes requested.

Upon receipt of such an application, the Zoning Inspector shall refer the application to the Board of Trustees for a determination to be made at the sole discretion of the Trustees as to whether the Application shall be treated as a request for a minor modification.

If the Trustees determine by a unanimous vote that the application should be handled as a minor modification request, it shall set the matter at any public meeting before the Board of Trustees. The applicant shall have the right to amend his or her application at any time prior to the vote of the Board of Trustees.

If the application is not determined to be minor modification request, the Trustees shall forward the Application to the Township Zoning Commission and the Commission shall schedule and conduct a public meeting, and make a written recommendation for the approval, modification, or the denial of the application to the Board of Trustees following the same procedure outlined in ORC §519.12 for the amendment of a zoning resolution.

If an amendment is sought with respect to an application deemed major after a vote by the Commission, the amended application will be returned to the Commission for additional review and recommendation.

Consideration of requests for modifications of an approved Preliminary Development Plan shall be considered in all respects to be a legislative process and approval or denial of any such request shall be considered and treated as a legislative act.

D.) **Final Development Plan:**

N/A

ARTICLE 24 GENERAL DEVELOPMENT STANDARDS

SECTION 24.00: GENERAL

It is the purpose of these development standards to establish certain general rules to be adhered to regardless of the type or classification of development. These development standards apply throughout the township. If a conflict exists between these standards and more specific standards prescribed in any individual zoning district, the specific provisions of the zoning district in question shall prevail. The standards set forth herein are to be considered minimum standards to be augmented by standards set forth elsewhere in this Resolution or prescribed or agreed to by the land owner in any rezoning or variance.

SECTION 24.01: PARKING

Wherever parking areas are to be provided as required by the provisions of this Zoning Resolution the following conditions shall apply:

A.) **Design:** Width and angle of parking stalls, drive aisle widths for automobile parking lots and truck loading docks shall conform to the design standards promulgated by the Eno Foundation for Transportation, Saugatuck, Connecticut (See Appendix A). Handicap accessible spaces shall be provided in compliance with the Americans with Disabilities Act.

See Site Plans for all parking provisions.

Width, angle, drive aisle widths per shown on PRD Site Plans. Parking areas designed per Article 24, General Development Standards.

B.) **Paving:** Except in the Farm Residential Zoning District (FR-1) and the Agricultural Conservation District (A-1) all common parking areas and adjacent aisles or driveways shall be paved with asphalt material or concrete.

Project will comply.

C.) **Driveways:** All driveways serving parking lots for five (5) or more vehicles shall be served by a driveway not less than twenty (20) feet in width but adequate in width to permit easy access to parking spaces. No driveway shall be located so that it enters a public road within one-hundred (100) feet of the intersection of any two (2) public roads unless there are two (2) driveways serving the lot, one (1) of which is more than one-hundred (100) feet and the other not less than forty (40) feet from said intersection. All driveways shall be located and the adjoining lots graded so that vehicular traffic entering a public road has an unobstructed sight distance of at least three-hundred (300) feet.

Project will comply. See Site Plans.

D.) **Parking Area Location:** Except in the residential districts (A-1), (FR-1), (R-2), (R-3), (R-4) and (PRD), no parking lot or parking areas shall be located nearer than six (6) feet to the side or rear line of the tract on which the structure is located, and parking in front of the main structure is permitted, but not more than forty percent (40%) of the front setback area may be used for parking (such parking area shall be at least twenty (20) feet from the nearest right-of-way). All parking spaces required herein shall be located on the same lot with the building or use served unless otherwise approved as part of a development plan for a Planned District. The parking lot shall be situated so that no vehicle will be required to back on to a public street or road.

See Site Plans for parking locations and dimensional information.

E.) **Required Off-Street Parking Spaces:** The user of any tract shall provide off-street parking for all employees, customers, and visitors. The following table shall specify the minimum parking areas to be provided.

The project is requesting a variance for parking from 3 spaces/unit to the following parking numbers and information:

One Bedroom Units:	**1.5 Spaces/Unit**
Two Bedroom Units:	**2.0 Spaces/Unit**
Three Bedroom Units	**2.0 Spaces//Unit**

(All three-bedroom units have one car attached garage)

Parking per above tables shown as follows:

Programmed Parking		
120 One Bedroom Units x 1.5 =	**180**	
152Two Bedroom Units x 2.0 =	**304**	
24 Three Bedroom Units x 2.0 =	**48**	
Total Programed Parking =	**532**	

Total Parking Provided		
Surface Spaces =	**480**	
Attached Garages =	**104**	
Detached Garages =	**40**	
Total Parking Provided =	**624**	**(92 visitor/extra spaces)**
		(Parking ratio = 2.11 spaces/unit)

HCP Spaces Required =	**16**
HCP Spaces Provided =	**27**

USE	REQUIRED PARKING SPACES
1. Single Family Residential	Four (4) per dwelling unit (garages and driveways count).
2. All Other Residential	Three (3) per dwelling unit (garages and driveways count).
3. Hotels, Motels, Lodges (without public meeting facilities)	1 per rental unit plus 1 per employee on largest shift plus 1 for each four (4) seats in the dining room or restaurant areas.
4. Hotels, Motels, Lodges, Exhibition Halls and Public Assembly Areas (except churches)	1 per rental unit plus 1 per employee on the largest shift plus 1 per seventy-five (75) sq. ft. of floor area used for exhibition or assembly purposes plus 1 per four (4) seats in any restaurant therein.
5. Churches or Places of Public Assembly	1 for each three (3) seats or 1 for each forty-five (45) sq. ft. of assembly area, whichever is greater.
6. Hospitals	1 1/2 for each bed plus 1 for each employee on the largest shift.
7. Nursing Homes	1 for each three (3) beds plus 1 for each employee on the largest shift.
8. Museums, Libraries, etc.	1 for each four-hundred (400) sq. ft. of area open to public plus 1 for each employee on the largest shift.
9. Primary or Elementary Schools	One and one half for each classroom
10. Secondary Schools. Colleges, Trade Schools, etc.	Four (4) for each classroom plus 1 for each four (4) students.
11. Restaurants	1 for each two (2) seats plus 1 for each employee on the largest shift.
12. Offices	1 for each three hundred (300) square feet of floor area.
13. Funeral Homes	Eight spaces per parlor or 2.3 spaces for each 100 square feet of assembly area.
14. Large Retail Stores (65,000 s.f. or larger)	Five (5) per one thousand square feet of gross leasable area.
15. Specialty Retail Stores (less than 65,000 s.f.)	Five (5) per two thousand square feet of gross leasable area.
16. All Industrial, Warehousing	.65 spaces per employee on the largest shift, plus 1 for each vehicle maintained on the premises.
17. Country Club or Golf Course	Twenty (20) plus 1 for each two (2) employees, or 1 for each four (4) members, or 1 for each two-hundred (200) sq. ft. of floor area, whichever is greater.

Any application for initial construction or use or for the expansion of any structure or use shall include plans for adequate off-street parking as required herein.

SECTION 24.02: HEIGHT LIMITATIONS

The building height limitations set forth in this resolution shall not apply to church spires, domes, chimneys, cooling towers, elevator shafts, fire towers, belfries, monuments, stacks, derricks, conveyors, storage towers, tanks, water towers, or necessary mechanical appurtenances which may be erected to any safe and lawful height, but not to exceed one-hundred (100) feet in height.

This project will comply.

SECTION 24.03: STRUCTURE SEPARATION

No principal structure shall be located closer than twenty-five (25) feet to another principal structure.

Project complies with this requirement. Distances meet 25 ft. minimum or are greater.

SECTION 24.04: SANITARY SEWER REQUIREMENTS AND POLLUTION CONTROL

All uses shall be conducted in compliance with the respective regulations of the Ohio Environmental Protection Agency, the Delaware General Health District and/or the Delaware County Sanitary Engineer's Office. Prior to issuance of any zoning certificate, evidence of compliance with said regulations shall be presented to the Zoning Inspector.

This project will comply.

SECTION 24.05: SETBACK REGULATIONS

No building or use (except parking areas) shall be located closer to the center line of adjoining streets, roads, highways, alleys, or approved private roadways than the distances set forth in the following table or chart. For purposes of this chart or table and for all other purposes of the Zoning Resolution, streets, roads, highways and approved private roadways shall be classified in one of the three following classes:

A.) **CLASS A**: The Township designates the following roads as Class A roads: U.S. 23, and U.S. Rt. 36, Cheshire Road, South Old State Road, and Africa Road and any other roads as later designated by the Trustees of the Township.

B.) **CLASS B**: Any through public street or road or any private road or street approved by the Delaware County Engineer connecting two or more public roads.

C.) **CLASS C** – Dead-end roads or streets ending at a cul-de-sac or approved turn-around when the lot configuration or approved plan precludes future extension of said roadway or any branch there from to create a connecting street between two (2) or more existing or future streets or roads.

MINIMUM SETBACK DISTANCES

All distances are measured from the center line of the existing or proposed right-of-way to the nearest use or improvement, except parking areas or signs which may be located within the setback area as regulated by Article 24 of this Resolution.

Setback requirements shall meet the designated distance from centerline in the following chart. Lots, tracts, or parcels which adjoin more than one (1) county approved street, road, alley, or easement (corner lots or double frontage lots) shall meet the required setback requirement for each adjoining street, road, alley, or easement.

The Proposed project is a PRD in the use of classification chart and the road classification is labeled as A*, see Site Plans for all setbacks, to be approved per the Development Plan review by the appropriate oversite review boards.

USE CLASSIFICATION		ROAD CLASSIFICATION		
		CLASS A	CLASS B	CLASS C
FR-1	Farm Residential	130	100	90
R-2	Low Density Residential	130	80	70
R-3	Residential High Density	130	80	70
R-4	Residential Medium Density	130	80	70
PRD	Planned Residential	A*	A*	A*
NCD	Neighborhood Commercial	130	100	90
TPUD	Transitional Planned Unit Development	A*	A*	A*
POD	Planned Office	A*	A*	A*
PCD	Planned Commercial and Office	A*	A*	A*
OCPUD	Old Cheshire Planned Unit District	A*	A*	A*
I	Industrial	130	130	100
PID	Planned Industrial	A*	A*	A*
A-1	Agricultural Conservation	130	100	90

A*: As Approved in the development plan.

Note: No building or use except signs or parking areas as permitted in Article 24 or 25 of this Resolution shall be permitted closer than eighty (80) feet to the nearest right-of-way line of US 23 or US 36-37.

SECTION 24.06: DRAINAGE

All construction within Berlin Township shall be accomplished in a manner consistent with maintenance of good surface drainage. In all improvements or uses where submittal of drainage plans is not specifically required, every reasonable effort shall be made to ensure that proper drainage on the subject property and adjacent or subservient properties is maintained or improved.

In no event shall any person interfere with any existing tile or surface drainage channel unless it is determined that such tile or channel can be removed or relocated without interfering with the drainage on adjacent properties. All drainage conditions must adhere to and be approved by the Delaware County Soil and Water Conservation District.

See Site Storm Water drawings for review of grades, storm lines and detention areas. All preliminary work has been done by Advanced Civil Design.

SECTION 24.07: CUL-DE-SACS

The size of all Cul-de-sacs shall meet or exceed the current Delaware County standard.

N/A. There are no proposed cul-de-sacs shown or under consideration on the Residences at Berlin Township project.

SECTION 24.08: WATER IMPOUNDMENTS

All water impoundments such as ponds, lakes or swimming pools shall be constructed and developed in compliance with the following standards.

A.) No impoundment shall be located closer than twenty-five (25) feet to the nearest right-of-way or fifty-five (55) feet of the center line of any adjacent approved road.

The project will comply.

B.) Except for those impoundments located within the FR-1 or A-1 district, no impoundment shall be located in the front yard in any district except upon issuance of a conditional use permit pursuant to Article 32 of this Resolution or as approved in plans of development or approved subdivision plans.

The project will comply.

SECTION 24.09: DRIVEWAY REGULATIONS

It being considered important that driveways serving any property or use be constructed in a manner which ensures access by emergency vehicles and the free and safe flow of traffic from public streets or roads, the following standards are required for such driveways:

A.) All driveways (any use): In addition to the conditions or specifications imposed in subsections (B) or (C) hereinafter established the following specifications are required for all driveways, regardless of the use served:

1.) Driveway shall not have a grade, up or down, from the public road pavement level exceeding eight percent (8%) for a minimum of twenty-five (25) feet.

The project will comply.

2.) Driveway shall not contain a grade exceeding ten percent (10%) at any point over its entire length.

The project will comply.

3.) At the point the driveway intersects the public road, the same shall have such radii and drain pipe as specified or required by the governmental agency (State, County or Township) which controls the public roadway. Drainage pipes shall be a minimum of twelve (12) inches in diameter and should be sized to handle a five (5) year storm.

4.) If the driveway leaves the public road on an up-grade the design and construction shall include a vertical curve or saddle to prevent the flow of surface drainage from said driveway onto the traveled portion of the public road.

N/A

5.) If any driveway crosses a drainage swale, stream or ditch the same should be bridged by pipe or such structure as required to permit the unobstructed passage of all surface water generated by a five-year storm. All pipes shall be a minimum of thirty (30) feet long and shall be of sufficient length to extend not less than three (3) feet beyond the toe of the slope of the fill over said pipe unless a properly designed head-wall is installed to protect the end of such pipe. Any bridge or structure spanning a stream or ditch shall be designed and approved by a Professional Engineer. No bridge should be less than twelve (12) feet in width. If the driveway serves a commercial or industrial use, the bridge should be not less than eighteen (18) feet in width.

N/A

6.) If fill is placed over any drainage structure or placed to alter the grade of any driveway, the vertical slopes on said fill shall be no steeper than a two-by-one slope. All fill areas shall be scalped of vegetation and excavated to load-bearing soil before fill material is placed over it. Such fill shall be free of all humus and organic material and should be compacted to a density of ninety-five percent (95%) proctor. The fill shall be of sufficient width to include a compacted berm beside the graveled or paved area of reasonable width to facilitate safe passage of vehicles. Guardrails or barriers shall be installed when necessary to create safe conditions.

N/A

7.) Drainage ditches, as necessary, shall be constructed parallel to said driveway; such ditches should be graded to a good and sufficient outlet. Siltation control should be placed in any ditch, and such siltation should not flow to roadside ditches along public roads. All drainage conditions must adhere to and be approved by the Delaware County Soil and Water Conservation District.

N/A

8.) All curves in the driveway shall be of sufficient radius (not less than fifty (50) feet centerline) to permit unhindered passage of public safety vehicles including fire vehicles and all other vehicles reasonably expected to utilize the same.

N/A

9.) All trees, overhanging branches or other obstructions to the free passage of public safety vehicles shall be removed.

N/A

10.) Obstructions on the prevailing wind-ward side of the driveway which contribute to drifting snow shall be removed when possible.

N/A

11.) An adequate open area shall be provided at the end of the driveway to allow emergency and fire vehicles to turn around.

The project will comply. See site entries off Reed Road for two ways in and out of north and south project parcels.

12.) The first phase of any construction project shall be the construction of a driveway of aggregate to provide off-street parking for construction vehicles and to prevent tracking dirt onto the public roadway.

Project will comply.

B.) Residential Driveways: In addition to the conditions imposed by Section 24.09(A) previously set forth, the following standards are required for driveways serving residential structures or uses:

1.) Driveways serving individual residential structures shall not be less than ten (10) feet in width and shall be constructed over an aggregate base of reasonable depth.

N/A

2.) If the driveway serves two (2) or more residences, the same shall be twelve (12) feet in width and shall be constructed over an aggregate base of reasonable depth.

N/A

3.) If any residential driveway is over five-hundred (500) feet in length, widened paved passing areas at least fifteen (15) feet in width shall be provided at reasonable intervals, not more than three-hundred (300) feet distance from each other, to permit the free passage to traffic over said drive.

N/A

4.) Dust control shall be provided on an "as needed" basis.

C.) Commercial, Industrial, Public Facility and Apartment Complex Driveways: In addition to the conditions required by Section 24.09(A) previously set forth, the following standards are required for driveways serving all commercial and industrial uses and apartment complexes containing 10 or more units and served by a common parking area:

1.) Driveways shall be not less than twenty (20) feet in width.

Project will comply.

2.) Driveway base and surface shall be designed by a professional engineer to sufficient depth for anticipated use and access by public safety vehicles.

Project will comply.

3.) The finished surface of the driveway shall be hard-surfaced and may be of any Ohio Department of Transportation approved materials.

Project will comply.

SECTION 24.10: STRUCTURES IN THE RIGHT-OF-WAY

No structures shall be permitted to be placed in the right-of-way except mail boxes which shall be designed to be "break-away" to prevent traffic hazards.

Project will comply.

SECTION 24.11: CONSTRUCTION DEBRIS OR REFUSE

Upon the initiation of construction, a steel container must be provided on site for the containment and the regular disposal of construction debris and refuse. Said container must be emptied monthly or when full.

Project will comply.

SECTION 24.12: INSTALLATION OF SATELLITE SIGNAL RECEIVING STATIONS

Installation of dish type satellite signal receiving stations shall be governed by this Article and the following regulations shall be imposed:

A.) This section does not apply and no permit for installation of a dish shall be required for a dish measuring one (1) meter or thirty-nine and thirty-seven one-hundredths (39.37) inches or less in diameter.

No satellite receiving stations will be allowed on the multi-family building.

B.) No installations may be made forward of the rear building line of the principal structure and no antenna or no part of a dish shall be placed nearer than twenty (20) feet to any property line.

N/A

C.) No dish shall be placed on the roof of any residential structure and the top of the dish may not exceed twelve (12) feet above the natural grade.

N/A

D.) No dish shall be installed on the roof or mounted more than six (6) feet above the natural grade in a commercial or industrial district, unless the mounting of the same is designed to withstand a wind force of eighty-five (85) miles per hour and a certificate is furnished to the Zoning Inspector, signed by a licensed and qualified engineer, that the installation is in conformity to the above limitations.

N/A

E.) No dish over twelve (12) feet in diameter shall be permitted in a residential district.

N/A

SECTION 24.13: LIGHTING REGULATIONS

A.) General Requirements: All lighting shall be controlled to avoid shining on the neighboring properties or into the sky. Examples of ways in which this shall be accomplished:

1.) Using light fixtures on which the light source is directed and fully shielded or covered;

All light fixtures will be specified in which the light source will be directed and/or fully shielded or covered.

2.) Direct light fixtures downward rather than upward;

Fixtures which may be traditional in nature, will be specified with light reflection shields that direct light downward rather than upward. See Lighting Detail in Architectural drawings, Tab 8 of this zoning submission.

3.) Shielding the light in such a manner that the light emitting portion of the fixture does not shine onto adjacent property.

The Residences at Berlin Township will comply with thus parameter.

4.) Searchlights are prohibited under any condition.

No search lights will be permitted under any condition.

B.) Specific Requirements:

1.) Where used for security purposes or to illuminate walkways, roadways, equipment yards, and parking lots, only fully shielded style outdoor light fixtures shall be used.

The project will comply with this specification

2.) Where used for signs, decorative effects, or recreational facilities, such as for building landscaping or sports-field illumination, the outdoor light fixtures shall be equipped with automatic timing devices and shielded and focused to minimize light pollution.

The project will comply with this specification

3.) All outdoor light pole fixtures shall not exceed a maximum height of thirty (30) feet above the surrounding grade.

The project will comply with this specification. No outdoor light poles will exceed 16'-0". See Pole Detail in Architectural drawings, Tab 8 of this zoning submission.

C.) Exemptions:

1.) All outdoor light fixtures producing light directly from fossil fuel, such as kerosene lanterns or gas lamps.

N/A to this project.

2.) All low-voltage lighting and holiday lighting.

This exemption is understood for special events and holiday lightings.

3.) Flag poles bearing the insignia of the United States and/or the State of Ohio.

This exemption is understood for flags poles with insignia of the United States and/or State of Ohio.

SECTION 24.14: STREET SIGN POLES

All street sign poles shall be made of galvanized steel or comparable non-biodegradable material.

The project will comply with this requirement.

SECTION 24.15: LIMITED HOME OCCUPATION

A limited home occupation (business) shall be permitted within a dwelling in all residential zoning districts (not in detached garages or pole barns) in accordance with the following provisions:

A.) The home occupation does not occupy more than twenty percent (20%) of the gross floor area of the dwelling unit or two hundred (200) square feet, whichever is larger.

The project will comply with this requirement

B.) Requirements:

1.) The appearance of the structure shall not be altered or the occupation within the residence shall not be conducted in a manner that would cause the premises to differ from its residential character either by the use of colors, materials, construction, lighting, or unauthorized signs. A home occupation shall be clearly incidental and secondary to the use of the unit for dwelling purposes.

No structures will be altered in any manner, nor signs, lighting or construction to identify or advertise home occupation. Nor will window signs be allowed.

2.) There are no non-resident employees.

The project will comply with this caveat by the use of leases that will not allow the use of non-resident employees.

3.) No equipment or process shall be used in such home occupation that creates noise, vibration, glare, fumes, odors, or electrical interference detectable to the normal senses off the lot. In the case of electrical interference, no equipment or process shall be used which creates visual or audible interference in any radio or television receivers, computers, wireless phones or hand held wireless transmitting devices off the premises, or causes fluctuations in line voltage off the premises.

The Residences at Berlin Township will comply with this restriction.

4.) There shall be no outside storage of any kind.

The project will comply.

5.) Specialized instruction or tutoring shall be limited to one (1) individual at a time.

The project will comply.

6.) No traffic shall be generated in substantially greater volumes than would be generated by a single family home.

The project will comply.

7.) No direct, face to face sales to the public on site.

The project will comply.

8.) There shall be no signs permitted.

The project will comply.

SECTION 24.16: EXPANDED HOME OCCUPATION (BUSINESS)

It is recognized that there may be some Home Occupations which do not meet the criteria of Section 24.15 but which may be appropriate for a residential area provided the following additional standards are addressed through the Conditional Use Permit procedure conducted by the Board of Zoning Appeals (BZA). Deviation from any of the following standards may be reason for the BZA to deny the application or limit the number of non-resident employees.

Prior to any approval for a conditional use permit, the BZA shall determine that because of the location and orientation of the residence and property in question, the proposed business use will not become a detriment to the existing residential character of the property or the general area through an increase in traffic, street parking, or any other factor resulting in an adverse impact as determined by the Board of Zoning Appeals. The conditional use permit applies to the applicant and will expire upon sale of said property.

A business plan outlining the specifics of said business such as hours, traffic and other potential detrimental or enhancing values to surrounding properties and neighbors shall be submitted for review. The BZA may deny the application or limit the number of employees if the plan indicates that the business will be detrimental to the existing, prevailing residential character of the neighborhood. This plan shall be used to help evaluate the following items.

No expanded home occupation (business) will be permitted in any residential unit at the Residences at Berlin Township.

A.) The home occupation shall be carried on within the confines of the residential structures within zoning districts that specifically list an Expanded Home Occupation as a Conditional Use and/or within architecturally compatible accessory buildings, which are customarily associated with the residential use and character of the neighborhood.

N/A

B.) There can be up to three non-resident employees as determined by the Board of Zoning Appeals. The BZA determination will be based on the following criteria and their potential impact on the neighborhood:

a.) Property size and shape, and layout of proposed business and parking.

N/A

b.) Building and parking set-backs from property lines, and distance from surrounding properties.

N/A

c.) No non-resident employees shall be allowed for properties less than three-quarters (3/4) of an acre in size.

N/A

C.) No outside storage of any kind associated with a home occupation conditional use shall be permitted unless it is totally screened from the adjacent residential lots and the abutting street.

N/A

D.) Only one sign may be erected advertising the home occupation. The sign may be mounted flat against a building or on a pole in the front yard. The sign shall be of a design compatible with the residential character, shall not be animated or lighted, and shall comply with the requirements as specified in Article 25, Section 25.02(B).

N/A

E.) All parking demands created by the conduct of a home occupation shall be met with parking located off the street and other than in a front yard. Off-street parking may be permitted in a side yard or rear yard, but shall not be located any closer to the street than the required setback line. Parking surface shall be consistent with the materials used for the surfaces of parking and driveways of the surrounding properties. The required number of off-street parking spaces shall equal the spaces required for the residential use plus those required for the commercial use which constitutes the home occupation (if no parking requirement is given for a particular home occupation, the parking requirements for the most similar commercial use shall be used in order to calculate the required minimum number of spaces.)

N/A

F.) No equipment, process, or storage associated with the home occupation shall create odors, noise, vibration, glare, electrical interference, or other nuisance detectable to normal senses off the lot. All activities, materials, and equipment associated with the business shall be totally maintained within a building. In the case of electrical interference, no equipment or process shall create visual or audible interference in any radio or television receivers, computers, hand held wireless devices or other audio appliances used off the premises, or cause fluctuation in line voltage off the premises. No equipment, process, or storage associated with a home occupation shall create any fire or explosion hazard, or involve the storage or use of hazardous materials in any concentration greater than that which would normally be found in a dwelling containing no home occupation.

N/A

G.) Solid or liquid waste materials shall not be created on the premises at a level greater than normal to the residential use, unless provisions for the disposition of said wastes are acceptable to the Delaware General Health District and do not create a burden on adjoining property.

N/A

H.) No activity shall be conducted or permitted which creates a nuisance to neighboring properties.

N/A

I.) The use of the dwelling unit for the home occupation shall be clearly incidental and subordinate to its use for residential purposes by its occupants and not more than twenty percent of the total floor area of the dwelling unit shall be used in the conduct of the home occupation nor more than fifty percent of the floor space of any garage or accessory building.

N/A

J.) No traffic shall be generated in substantially greater volumes than would be generated by a single-family home.

N/A

ARTICLE 25 SIGN AND BILLBOARD REGULATIONS

SECTION 25.01: PURPOSE

The purpose of this sign regulation is to promote and protect the public welfare by regulating existing and proposed outdoor signs of all types. It is intended to protect values, enhance and protect the needs of the properties in the entire township as well as the physical appearance of the Historic Village of Cheshire and preserve the scenic and natural beauty of the communities and countryside as a whole.

It is the intent of the Developer to meet all Article 25 sign and billboard regulations. See attached Landscape Drawings, Sheets L-1-0 thru L-3-1 for proposed signage.

SECTION 25.02: PERMITTED SIGNS: NO PERMIT REQUIRED

The following signs, ribbons and streamers (Section 25.03(H)(3)), shall be permitted in the township subject to the regulations set forth herein. No zoning permit shall be required for any sign constructed or erected under the terms of this Section.

A.) Signs for Sale, Lease, or Rent of the Premises on which the Sign is Located. Not more than two (2) signs shall be displayed on any lot or parcel. Such signs shall not be illuminated and shall not exceed six (6) square feet of area per side with not more than two (2) sides, or signs of the same size identifying the builder or contractor. All such signs shall not be higher than four (4) feet in height and will be removed after occupancy by the purchaser.

B.) Signs for Expanded Home Occupations: One (1) sign per parcel of property shall be permitted in any residential district where an expanded home occupation is permitted for the purpose of announcing a home occupation which has complied with all conditions imposed by the Board of Zoning Appeals.

1.) Only one (1) sign, not larger than six (6) square feet and four (4) feet in height above grade of the surrounding yard, may be erected advertising the home occupation. The sign may be located at a maximum of eight (8) feet in height from the grade to top of the sign if sign is mounted flat against a building.

2.) The sign shall be of a design compatible with the residential character and shall not be animated or lighted.

3.) The sign and all associated materials shall be placed outside the road right-of-way (ROW).

C.) **Identification, Informational, or Directional Signs**: On-site directional signs indicating points of entry or exit for a facility or off-street parking area, provided such signs are limited to a maximum of two (2) square feet in area and four (4) feet in height above the established approved grade and do not interfere with safe vehicular or pedestrian traffic circulation and are not located within the clear sight distance triangle. No more than two such signs are allowed per vehicular access point. Such signs may contain information such as “in”, “enter”, “entrance”, “out”, “exit”, “do not enter”, with arrows indicating desired traffic movement or similar language as approved by the Zoning Inspector or his designee. Such signs may contain no advertising, including logos and must be of a rectangular shape. Such signs must be on the property to which they refer and may not be placed within a public ROW.

D.) **Name and Address of Occupant or Property**: These signs are permitted provided that such sign is not more than three (3) square feet in area per side and is located outside of easements or ROW of any road. Not more than one sign shall be permitted.

E.) **School Pride Signs:** These signs are permitted at a residence, outside of the ROW, provided that their content is specific to the occupants / children and their school achievements. No sign shall contain

any profanity or other inappropriate verbiage. These signs must be maintained in good condition as determined by the Zoning Inspector and/or replaced when their condition deteriorates, becomes worn, faded or tears.

F.) **Political Signs**: The erection of political signs shall be permitted in any district of the Township provided that the property owner consents and said signs:

1.) Do not interfere with the clear sight triangle of vehicular traffic entering or leaving a public street.

2.) Are posted and removed without destruction of public or private property.

3.) Designate the name and address of the person charged with removal of the sign.

4.) The sign and all associated materials shall be placed outside the road ROW.

G.) **Temporary signs announcing special public or institutional events:** Said signs shall not be placed within an easement or ROW of any road. Such signs shall not exceed thirty-two (32) square feet in area per side and shall not be permitted more than thirty (30) days prior to the planned event nor more than seven (7) days after said event. Such sign shall designate the name and address of the person charged with the duty of removing said sign.

H.) **Farm signs** denoting the name and address of the occupants, denoting produce or products for sale on the premises and denoting membership in organizations. No more than one (1) sign of any type may be permitted on a single parcel of property and it shall be located outside the road ROW. Advertising signs may not exceed thirty-two (32) square feet of area per side and all other signs shall be limited to six (6) square feet per side.

I.) **Signs not having more than ten (10) square feet** of display area on or over a shop window or door of a store or business establishment, announcing without display or elaboration, only the name of the proprietor and the nature of his business.

J.) **"Open / Closed" signs**: A business or use located in a non-residential district may have one (1) "Open / Closed" sign. Such sign shall indicate only the word "Open," shall not exceed two (2) feet by one (1) foot in size, and shall be limited to a maximum of two (2) colors (not including the single color background) and must be located inside a store window. The sign may be either a printed sign or electrically lit (e.g., neon, LED). Note: Such sign may not flash or show movement.

K.) **Garage Sale or Yard Sale sign**: A sign advertising the conducting of the casual sale of goods in what is commonly referred to as a garage sale or yard sale provided that such a sign is located outside the road ROW and only on the lot or parcel upon which the sale is being conducted. Not more than two such signs shall be displayed on any lot or parcel. Such a sign shall not be illuminated and shall not exceed six (6) square feet of area per side with not more than two (2) sides. Such sales shall not be conducted more than six (6) days in any calendar year or more than three (3) consecutive days.

L.) **Signs Approved in Planned Districts**: Signs in Planned Districts shall be constructed in strict compliance with Article 25.

M.) **Signs Approved as Part of Conditional Use Permit**: In residential zoning districts provided such signs are constructed in strict compliance with the imposed conditions.

N.) **Signs Required or Authorized for a Public Purpose**: By any law, statute or ordinance, such signs to include traffic control devices provided that such signs contain no supplementary advertising.

O.) **Commemorative Signs and or Plaques:** Signs that are placed on items donated to the township or an establishment within the township are allowed providing that the information pertains to the donation, such as "In Memoriam or Donated By", also providing there is no advertising (announcement of business services) imparted by the wording other than the name(s) of the donor and or the logo or trademark for the establishment.

P.) **Ribbons and Streamers**: Used solely for decoration in outdoor seating or garden areas are allowed. These items must be maintained in good condition or replaced when their condition deteriorates, becomes worn, faded or tears.

Q.) **Flags and Insignia**: Of the United States or the State of Ohio.

R.) **Integral Decoration or Architectural Details**: Of buildings except: letters, trademarks, moving parts or moving lights. Spinning barber poles are allowed.

S.) **Signs that are in the nature of Cornerstones, Commemorative Tablets and Historical Signs:** Such signs shall be less than nine (9) square feet in size and not illuminated.

T.) **Menu Boards** (except "Drive-thru or Drive-up Menu Boards as noted in Section 25.03(F): shall be less than ten (10) square feet of display area and must be mounted flush to the wall of the building of the store or business establishment. Said signage will be in keeping with the architecture of the building, be professionally produced.

U.) **Projecting Signs Displaying the Name of the Business** – Shall have an area of two (2) square feet or less when located under a pedestrian canopy.

V.) **Signs for Personal Sale of Goods other than Garage Sale or Yard Sale:** A sign that advertises the personal sale of goods other than garage sale or yard sale located on the premises. Such sign must not be greater than (6) square feet in size, must be located on the premises, shall be limited to four (4) feet in height, must be located out of the ROW and must be printed in legible block letters. Such sales shall not be conducted more than sixty (60) days in any calendar year or more than 30 consecutive days.

SECTION 25.03: PERMITTED SIGNS: PERMIT REQUIRED

The following shall be permitted in areas clearly delineated herein and subject to the reasonable regulations set forth.

A.) **Outdoor Advertising or Billboards**: For a product or service not located upon the premises on which the sign is located shall be classified as a business use and shall be permitted in all commercial and industrial districts and/or lands used for agricultural purposes subject to regulations set forth herein.

1.) No billboard shall exceed one hundred (100) square feet of advertising area per separate side and shall not have more than two (2) sides.

2.) No billboard shall exceed fifteen (15) feet in height above the average grade of the sign site nor have a length in excess of four (4) times the height of the sign face.

3.) The use shall comply with the general regulations set forth in other provisions of this Resolution and Article.

4.) All billboards shall be located in compliance with all local, state, and federal regulations controlling the same. Billboards shall be licensed or permitted as may be required by local, state, or federal agencies.

5.) All billboards shall be located behind the building setback lines and sight triangle established for the district in which the sign is located and shall be at least one-thousand (1000) feet from any residence.

6.) No billboard or outdoor advertising sign shall be located nearer than twenty-five (25) feet to any side lot line.

7.) Spacing Requirements: Each billboard site location shall be separated from every other billboard site location in accordance with the following:

a.) Billboards shall be located at least 1,250 feet in any direction from other billboards. The measurement shall apply to billboards located on the same and opposite sides of the street.

b.) Spacing requirements shall be measured from existing billboards regardless of the political jurisdiction within which any other billboard may be located.

c.) Measurement of the spacing between billboard locations shall begin at a point nearest to the proposed billboard site location from an existing billboard site location and extending to a point nearest to the existing bill board site location from the proposed billboard site location.

B.) **Commercial or industrial display signs:** All display signs shall be mounted on the building which houses the business establishment advertised by such signs, except as otherwise specifically authorized by this Resolution.

1.) Such signs shall be located on or along a wall of such building which faces a street, parking lot or service drive, and shall be located no more than fifteen (15) feet above finished grade or the height of the ceiling of the first floor of the building, whichever is less.

2.) Signs may be erected on a wall which is an extension of a building wall which faces a street, parking lot or service drive, provided that the design and construction of such extension are architecturally compatible with the building, that such wall does not extend beyond any required building setback line and does not exceed twelve (12) feet above finished grade in height or the height of the ceiling of the first floor of the building to which such extension wall is attached, whichever is less. The display area of the sign must be located either on the wall or extension; it may not be located on both.

3.) All such signs shall be parallel to the wall on which they are installed, and shall not project more than eighteen (18) inches from such wall, it being hereby intended to prohibit signs projecting outward from the wall, at right angles or otherwise, except as follows:

a.) Signs may be installed on an attached canopy, roof, or marquee which projects beyond the building over a walk or yard, provided that no part of such signs may extend above such canopy, roof or marquee.

b.) One sign, not more than fifteen (15) inches in height and five (5) square feet in area, projecting outward from the building wall not more than three (3) feet, may be erected at each entrance to such building, and the area of such signs shall not be included in determining the aggregate sign area of such building.

4.) No part of any sign shall be less than eight (8) feet above the sidewalk or ground level, if such projects forward of the wall on which it is mounted to such an extent as to constitute a hazard or inconvenience to pedestrian or vehicular traffic. No part of any sign shall be closer to either end of the building face, (including any wall extension), on which it is erected than eighteen (18) inches. Where more than one sign is erected on the same face of a building, there shall be a distance of at least three (3) feet between signs. Letters, numerals or other graphics attached directly to the building wall shall be considered a wall sign. Unlighted letters, numerals, or other graphics carved into the face of the building shall generally not be considered wall signs, unless they are over nineteen inches high, or one inch thick, or the color contrasts with that of the building. Super-graphics (large scale painted graphic devices) and architectural detailing which has graphic or signage functions, which are painted upon a building, shall be subject to regulation as a wall sign.

5.) No display sign shall exceed three hundred (300) square feet in area, except as hereinafter provided. If a building is located at least five hundred (500) feet from the right of way of U.S. Route 23 or U.S. Route 36, and within eight hundred (800) feet of the right of way of U.S. Route 23 or U.S. Route 36, a display sign having an area up to a maximum of four hundred eighty (480) square feet may be approved as a conditional use by the Board of Zoning Appeals upon its finding that such sign:

a.) Is necessary to the conduct of the business or use occupying the building; and

b.) Will not substantially alter the essential character of the neighborhood; and

c.) Will not cause adjoining properties to suffer a substantial detriment.

C.) **Monument style freestanding signs identifying commercial or office complexes:** A monument style freestanding sign, which is defined as a sign that identifies a commercial or office complex and is directly supported by and affixed directly to an architectural base having a width at least equal to that of the sign, with no intervening openings (except as needed to accommodate structural integrity and wind load), supporting posts, poles, pillars, uprights or braces, may be permitted on the following conditions:

1.) The maximum height of such sign does not exceed eight (8) feet above the average grade of the site and the sign when it is located fifteen (15) feet from any street ROW line. The maximum allowable height will increase according to the table outlined below depending on the distance away from the ROW.

2.) The structural design for wind loads shall comply with the applicable requirements of the current Ohio Building Code and the overall design must be approved by the zoning office.

3.) The total advertising area of all surfaces (not including the structural base) does not exceed thirty-two (32) square feet when the sign is located fifteen (15) feet from the primary frontage street ROW line. For each additional one (1) foot setback from the street ROW line, an additional eight (8) square feet of total display area will be permitted up to a maximum of one hundred twenty-eight (128) square feet of total display area, as indicated below.

4.) Such sign does not have more than two (2) sides or surfaces, and the display area of any one side or surface does not exceed one half of the total display area permitted, as indicated below.

Total Display Area (square feet)	**Maximum Area per Side or Surface (square feet)**	**Required Setback From Front ROW Line (feet)**	**Maximum Allowable Height (feet)**
32 sq. ft.	16 sq. ft.	15 ft.	8 ft.
40 sq. ft.	20 sq. ft.	16 ft.	8.5 ft.
48 sq. ft.	24 sq. ft.	17 ft.	9 ft.
56 sq. ft.	28 sq. ft.	18 ft.	9.5 ft.
64 sq. ft.	32 sq. ft.	19 ft.	10 ft.
72 sq. ft.	36 sq. ft.	20 ft.	10.5 ft.
80 sq. ft.	40 sq. ft.	21 ft.	11 ft.
88 sq. ft.	44 sq. ft.	22 ft.	11.5 ft.
96 sq. ft.	48 sq. ft.	23 ft.	12 ft.
104 sq. ft.	52 sq. ft.	24 ft.	12.5 ft.
112 sq. ft.	56 sq. ft.	25 ft.	13 ft.
120 sq. ft.	60 sq. ft.	26 ft.	13.5 ft.
128 sq. ft. (maximum)	64 sq. ft. (maximum)	27 ft.	14 ft. (maximum)

5.) Not more than five (5) colors are used. For the purposes of this Section, black and white shall not be considered colors.

6.) No part of such sign will be closer to any street ROW line than fifteen (15) feet, nor will it be closer to any other property line than the applicable building setback line, if the adjoining property is in a Residential District.

7.) The function of such sign is in keeping with the uses in the surrounding area.

8.) Such sign will be in harmony with the buildings on the site, and will not detract from the appearance of the general neighborhood in which it is located or adversely affect property values in such neighborhood.

9.) Such sign will not constitute a traffic hazard or contribute to traffic problems through confusion with traffic control devices, interference with the field of vision of motorists using streets or driveways in the area, or by creating a visual distraction for such motorists.

D.) **Signs not approved as part of the development plan** for a Planned Residential District are permitted provided that the approved sign is constructed in strict compliance with the guidelines of Article 25 Signs and a permit is issued.

E.) **Model Home Signs**: Provided the following conditions are met:

1.) Maximum advertising area of sixteen (16) square feet per single side of sign, two sides only.

2.) Maximum height of four (4) feet to the top of the advertising area.

3.) Must be a ground, monument, or single pole, braced inverted "L" pole, with suspended sign.

4.) If lit, must be externally lit from above only.

F.) **Drive-thru or Drive-up Menu Boards**: Provided all of the following conditions are fulfilled:

1.) The sign is positioned on the property to which it refers;

2.) The sign is oriented solely for the use of patrons utilizing the drive-through;

3.) The sign is not intended to be visible from adjacent property or the ROW;

4.) The sign does not exceed thirty-two (32) square feet in size, unless a variance is approved by the Board of Zoning Appeals (BZA).

G.) **A-Frame Signs**: Provided the following conditions are met.

1.) The sign is positioned on the property to which it refers;

2.) The construction of the sign is in keeping with the nature of the establishment, the sign itself may not illuminated, has only two (2) sides, and is made of heavy materials such that it cannot be easily displaced by the wind or be a nuisance to pedestrians and/or motorists.

3.) The sign may not be located in the ROW and must not impede any flow of traffic into or out of the property as well as maintaining the proper line of vision. (See clear sight triangle in Article 4 of this document);

4.) The sign must be removed daily at the close of business and replaced in the morning;

5.) The sign must be kept in good repair and appearance;

6.) The sign must only be used to reflect the events, specials or goods and services of the business upon which said sign is located;

7.) The total size of the sign will not exceed 6 square feet on either side.

H.) **Temporary Business Signs:**

1.) Temporary Business signs shall require a temporary sign permit.

2.) Banners, pennants, temporary wall signs, sixteen (16) square feet or less are permitted provided that they are attached at each corner, point and/or end so as to prevent movement. Banners may be attached to ground signs within the frame provided that they are attached at each corner, point and/or end so as to prevent movement. Only one banner is permitted per establishment. No business shall display such signs for more than ninety (90) days per calendar year or for more than thirty (30) continuous days. The area of each banner shall not count toward the minimum sign area as specified herein.

3.) Ribbons, streamers and other moving devices are prohibited as signs but may be used as decoration in outdoor seating areas or gardens as permitted in Section 25.02.

4.) All temporary business signs shall be located at the site or location of the event being promoted or of the headquarters for the sponsoring organization except as otherwise provided for community events.

5.) The date upon which a temporary business sign is first displayed and the time period for which the sign will be displayed shall be legibly marked on the sign.

6.) Normal construction requirements for permanent signs shall not be applicable to temporary business signs.

I.) **Historic Village of Cheshire Informational and / or Directional Signage**:

1.) One sign each from the North, East, South, and West within one mile of the intersection of Africa and Cheshire Roads which identifies or depicts the Village of Cheshire and its inherent historic features may be placed at locations upon entering the area. The sign located East of the intersection will require approval by the owner of the private property. The signs located North, South, and West of the intersection will require approval of the Army Corps of Engineers. Such signs shall be located outside the ROW and shall not exceed six (6) square feet of area per side with not more than two (2) sides.

2.) A single permanent directional sign may be erected in a central location which identifies the area and provides space for the names of individual area businesses, helping visitors locate areas of commerce. Architectural structure and placement of the sign must be developed in conjunction with the Zoning Commission and be in strict compliance with Section 25.03(C), (Monument style freestanding signs identifying commercial or office complexes).

SECTION 25.04: CONDITIONALLY PERMITTED SIGNS: PERMIT REQUIRED

Within any commercial or industrial district or within any non-residential portion of a residential district the following signs may be permitted, subject to the conditions and restrictions imposed by the Board of Zoning Appeals pursuant to the provisions of Article 32 of this Resolution. Conditionally permitted uses shall be considered abandoned if said use(s) is (are) not commenced within one (1) year from the date of Board of Zoning Appeals approval, or are discontinued for a period in excess of two (2) years. Unless the conditional use permit specifically provides that the grant shall be permanent and shall run with the land, the sale or conveyance of the land and/or structure wherein the same is located or upon which the same is granted shall void the conditional use permit, and the subsequent owner(s) or his agent shall be required to re-apply for a continuation and/or modification of such use(s) to the Board of Zoning Appeals. A designation by the Board of Zoning Appeals that a permit is permanent and shall run with the land does not affect the right of authorities to revoke the permit for failure to comply with conditions imposed. No conditional use shall be implemented until a permit of compliance is issued by the Zoning Inspector.

A.) **Free-Standing Pole Signs**: Free-standing pole signs, existing lawfully and now in place, which are made non-conforming by this Amended Zoning Resolution, may be maintained until such sign is destroyed, dismantled or removed. No such sign shall hereafter be relocated, rebuilt, enlarged, extended, or otherwise altered in any material respect. If, in the opinion of the Board of Zoning Appeals, a change in product name is required which is beyond the control of the owner/occupant, such substitution of signage may be approved. In the event of a violation of this provision, the continued maintenance of such sign shall be unlawful. Provided, however, that such sign, prior to January 1, 1989, may be

relocated on the same lot or parcel of ground or may be reduced in size or height, but only upon the granting of a variance therefore by the Board of Zoning Appeals.

The Board of Zoning Appeals may grant a permit for the erection or maintenance of a freestanding pole sign only upon compliance with the following requirements:

1.) The filing of a written application for such sign, together with a scale drawing of the proposed sign showing its design, color and materials, and a site plan with the location of the proposed sign.

2.) A determination by the Board of Zoning Appeals that a free-standing pole sign is necessary to the conduct of the business, professional or commercial activity on the site and that a permitted ground or monument sign would constitute a hazard or create a hardship due to sight lines, topography, or some other unique site feature not generally shared with other similar properties in the district.

3.) A determination that the proposed sign meets all of the following requirements:

a.) The maximum height of such sign does not exceed eight (8) feet above the average grade of the site when the sign is located fifteen (15) feet from the primary frontage street ROW. For each additional three (3) feet setback from the street ROW, an additional one (1) foot in height will be permitted up to a maximum of fifteen (15) feet high.

b.) The total display area of all surfaces does not exceed sixteen (16) square feet when the sign is located fifteen (15) feet from the primary frontage street ROW line. For each additional one (1) foot setback from the street ROW line, an additional three (3) square feet of display area will be permitted up to a maximum of thirty-two (32) square feet.

c.) The display area of any one surface does not exceed thirty-one (31) square feet.

Total Display Area (square feet)	Maximum Area per Side or Surface (square feet)	Required Setback From Front ROW Line (feet)	Maximum Allowable Height (feet)
16 sq. ft.	8 sq. ft.	15 ft.	8ft.
19 sq. ft.	9 sq. ft.	16 ft.	8’4”
22 sq. ft.	11 sq. ft.	17 ft.	8’8”
25 sq. ft.	12 sq. ft.	18 ft.	9 ft.
28 sq. ft.	14 sq. ft.	19 ft.	9’4”
31 sq. ft. (maximum)	15 sq. ft. (maximum)	20 ft.	9’8”
		21 ft.	10 ft.
		24 ft.	11 ft.
		27 ft.	12 ft.
		30 ft.	13 ft.
		33 ft.	14 ft.
		36 ft.	15 ft. (maximum)

d.) No part of such sign will be closer to any nearest street ROW line than fifteen (15) feet, or closer to any other property line than the applicable building setback line, if the adjoining property is in a Residential District.

e.) The function of such sign is in keeping with the activities in the surrounding district.

f.) Such sign will be in harmony with the architecture of the buildings on the site, and will not detract from the appearance of the general neighborhood in which it is located or adversely affect property values in such neighborhood.

g.) Such sign will not constitute a traffic hazard or contribute to traffic problems through confusion with traffic control devices, interference with the field of vision of motorists using streets or driveways in the area, or by creating a visual distraction for such motorists.

4.) In making its determination, the Board of Zoning Appeals shall take into consideration all pertinent factors relating to the compatibility of such sign with the surrounding neighborhood, including, but not limited to its size, shape, color, brightness, design and its general appearance.

5.) Not more than one (1) freestanding pole sign may be authorized for any one (1) business establishment. Where more than one (1) business establishment is located on a single tract of land, having an entrance or entrances or parking area or areas used in common by the customers of such establishments, only one (1) free-standing sign may be authorized for the entire tract. The existence and boundaries of such tract shall be determined by community of use, rather than by the ownership thereof, it being intended by this provision to limit each shopping center or similar joint operation to one free-standing sign, except in the case of a shopping center which is contiguous to two (2) streets which do not intersect each other at a point adjacent to such shopping center, in which case one (1) free-standing sign, fronting on each street, may be authorized.

SECTION 25.05: PROHIBITED SIGNS

The following signs shall be prohibited in Berlin Township:

A.) ALL signs not specifically permitted by the express terms of the Berlin Township Zoning Resolution.

B.) Portable signs, portable billboards, pennants, streamers, flashing lights, moving string of lights, inflatable devices, moving computer driven LED signs (“running tickers”) and air-activated attraction devices.

C.) Signs or advertising erected and maintained in trees or painted or drawn upon rocks or other natural features.

D.) Except for identification signs on agricultural buildings, no sign or billboard shall be displayed or painted directly upon the wall or roof on any building or structure.

E.) No sign shall be attached to any fence within the ROW of any road. No sign shall be attached to any fence regardless of location without the permission of the owner of the fence.

F.) Signs mounted upon the roof of any building or structure.

G.) Signs or advertising devices which attempt, or appear to attempt, to direct the movement of traffic, or which interfere with, imitate or resemble an official sign, signal or device.

H.) Pole signs, except as otherwise specifically permitted herein.

I.) Clear or white backgrounds on internally lit cabinet signs.

J.) Obscene Nature: No sign shall be erected that displays a sexual, provocative, or promiscuous act.

K.) Signs on or over any public property or public ROW except as is specifically permitted in these regulations. Signs may be erected on public property only by an authorized representative of a public agency or a quasi-public agency, provided such sign is approved by the Zoning Inspector prior to its erection. Signs on State Road rights-of-way shall comply fully with ODOT regulations.

L.) Advertising signs on benches, trash receptacles, bus shelters and similar structures, when visible from the public ROW.

M.) Off premise signs, except for legal billboards.

N.) Billboards in residential zoning districts.

O.) Billboards or signs for advertising purposes on any water tower, wind turbine or landmark.

P.) Revolving signs (excepting barber poles and Temporary Holiday Lighting), and animated signs (includes mechanical or electronic changeable copy signs, flashing signs, moving signs and any animation of signs). No sign shall contain or consist of, ribbons, streamers or similar moving devices.

Q.) Arrangements of lights in rows, strings, patterns, or designs that outline or are attached to any portion of a building or structure, including windows, are prohibited. This prohibition does not apply to seasonal light displays, or lights that are an integral part of an approved sign or those required for public safety. Flashing signs are prohibited, with the exception of time and temperature signs that do not exceed twenty-five (25) square feet of total area.

R.) Realtor signs located at a subdivision entrance.

SECTION 25.06: GENERAL REGULATIONS

The following regulations and restrictions shall apply to all signs located and erected within Berlin Township, regardless of type, style, location, design or other classification.

A.) **Location:**

No sign shall be located within the ROW of any public or private road within the township. Said sign or signs shall be located in strict compliance with this Resolution, or in strict compliance with the approved development plan or restrictions imposed by the Board of Zoning Appeals. Ground and projecting signs shall be located no closer than five feet from any side lot line. No Sign shall interfere with the clear sight triangle of vehicular traffic entering or leaving a public street.

B.) **Lighting:**

1.) No illuminating device for any sign shall be constructed which permits the direct beaming of any light on to adjacent properties, or thoroughfares thereby creating a hazard to vehicular traffic.

2.) No flashing, rotating or moving light source shall be permitted on any sign within this Township, with the exception of a spinning barber pole.

3.) All lighting shall also conform to the lighting standards of Article 24 of this Resolution.

4.) Confusing Lights: There shall be no red, amber, and blue or green lights, either fixed, moving or flashing, which could create confusion with traffic signals or lights on emergency vehicles.

5.) Illumination:

a.) **Near Residential Districts**: Except for signs located facing or fronting the public ROW, signs that are within one hundred fifty (150) feet of a residential district or existing, conforming single-family home shall be indirectly illuminated.

b.) **Internally Lit Sign Backgrounds**: Clear or white backgrounds are prohibited for interior illuminated signs. Internally lit signs may use colored translucent backgrounds for the advertising area, or they may use opaque backgrounds with illuminated letters.

C.) **Height:** No signs within Berlin Township shall be erected to a height greater than fifteen (15) feet from the approved established grade. The established grade shall be measured from the crown of the road directly adjacent to the sign.

D.) **Sight Interference:** No sign shall be permitted in Berlin Township which interferes with the visibility of pedestrian or vehicular traffic entering, leaving or operating on thoroughfares.

E.) **Stability:** Display signs shall be constructed to withstand a wind pressure of at least thirty (30) pounds per square foot of surface, and shall be fastened, suspended or supported so that they will not be a menace to persons or property.

F.) **Maintenance:** All flag, banner or sign surfaces, supports, braces, guys and anchors shall be kept in repair and in a proper state of preservation by painting or otherwise.

G.) **Traffic Safety - Colors, etc.:** Display signs shall not closely resemble or approximate the shape, form, and color of official traffic signs, signals and devices.

H.) **Sign Area:** The aggregate sign advertising area or display surface of all exterior signs of every nature shall not exceed three (3) square feet for each lineal foot of the street frontage of such building, if a one-story building, or four (4) square feet per foot, if more than one (1) story in height. Street frontage is defined as the total width of that side of the building that faces the street, **excluding any extension of a building wall beyond the building itself**. In the case of a corner lot or other situation where the building site abuts more than one (1) public street, not including alleys, the applicant shall specify which is the primary frontage, and signs may be permitted on the basis of the area authorized above for each lineal foot of primary street frontage and one-half (1/2) thereof for each lineal foot of other street frontage. The total sign area on any single side of a building shall not exceed the allowable area for such side computed in accordance with the foregoing rules. In the case of a building which does not front on a public street, as in shopping centers, the drives and parking areas adjacent to such building shall be considered as public streets for the purpose of this Resolution, provided that where any such drive or parking area abuts a Residential District, the frontage of the building on such drive or parking area shall not be considered as frontage for such purpose if the distance from such building to the nearest private property in said Residential District is less than one-hundred fifty (150) feet. In

no case shall the aggregate sign area of any single commercial use exceed twelve hundred (1,200) square feet.

I.) **Sign Area Measurement:** Sign area shall include the advertising area of the sign, not including the bracing, framing and structural supports, unless such support members are made part of the message or face of the sign or are determined by the Zoning Inspector to be intended solely to make the sign more visible rather than serving aesthetic or structural purpose. For internally illuminated signs or internally illuminated awnings, canopies or marquees, the entire lighted surface shall be considered the sign area. The lighted surface area of internally illuminated canopies, awnings, or marquees is counted as signage regardless of whether it contains graphics.

Where a sign has two (2) or more display faces, the area of all faces of the sign shall be included in determining the area of the sign unless two (2) display faces join back to back, are parallel to each other and not more than twenty-four (24) inches apart, or form a V-angle of less than forty-five (45) degrees. For spherical signs, the sphere shall be dissected by an imaginary line through the center of the sphere and the surface area of the half (1/2) sphere shall be counted as the sign face. For cubical signs, the area of all display faces shall be included in determining the area of the sign.

J.) **Compliance with Other Codes:** All signs shall be erected, altered, or maintained in accordance with the county's adopted building, fire and electrical codes and all other applicable regulations.

K.) **Fire and Health Hazards:** Vegetation shall be kept trimmed in front of, behind, and underneath the base of any ground sign in an area encompassing a ten (10) foot radius around the base of the sign, and no rubbish shall be permitted to remain under or near such sign which would constitute a fire or health hazard.

L.) **Public Interference:** Signs shall not create a traffic or fire hazard, nor create conditions that adversely affect public safety.

M.) **Wind Pressure and Dead Load Requirements:** All signs shall be designed and constructed in strict conformity with the adopted Building Code; the Chief Building Official is authorized to require certification thereof by a licensed professional engineer.

N.) **Placement:** No sign shall be placed upon any tree, shrub, vine, or utility structure.

O.) **Sign Area and Number:** In no event shall the maximum number of signs allowed be exceeded even though the total allowed area may not be used.

P.) **Information to be Provided on Sign:** All signs shall permanently display the name of the company installing the sign, the date of erection, and the permit number in a conspicuous place thereon, in letters not less than one (1) inch in height.

Q.) **Frontage:** The term "frontage" as used in calculating ground signs shall refer to the dimension of the lot along the street. When used in calculating wall signs, the term shall refer to the building wall dimension facing the street or parking lot. For structures and uses having no direct frontage on public roads, as within shopping centers, frontage shall be counted as the intersection of the building line onto adjacent drives or parking areas.

R.) **Maintenance:** Applications for permanent subdivision identification signs must demonstrate provisions for future maintenance and maintenance easements at the time of final platting. Written

consent of the property owner of each proposed sign location shall be submitted with each permit application.

SECTION 25.07: ABANDONED SIGNS

If any sign or billboard shall become abandoned, in the manner defined herein, such a sign or billboard is declared to be a public nuisance by reason that continued lack of use results in lack of reasonable and adequate maintenance, thereby causing deterioration and blighting influence on nearby properties. Such sign shall be removed by owner at owner's expense at the direction of the Township Zoning Office. An abandoned sign or billboard is defined as any sign or billboard that meets any one of the following criteria:

A.) Any sign or billboard associated with an abandoned non-conforming use.

B.) Any sign or billboard that remains after the termination of a business. A business has ceased operations if it is closed to the public for at least one hundred and eighty (180) consecutive days. Seasonal businesses are exempted from this determination, but signs are determined to be abandoned when the business has ceased operation for one (1) year.

C.) Any sign or billboard that is not maintained in accordance with this Resolution.

D.) Any sign that is structurally defective, in need of repair, or is otherwise a hazard to public safety or aesthetically incompatible with the surrounding property.

SECTION 25.08: NON-CONFORMING SIGNS OR BILLBOARDS

Any sign or billboard legally in existence within the Township prior to the effective date of this Article, as amended from time to time, that does not conform with the provisions of this Article is considered to be non-conforming.

Any sign or billboard that does not conform to the provisions of this Article shall be allowed to continue in its non-conforming status provided the sign or billboard was erected in compliance in all respects with applicable laws in existence on the date of its erection.

A non-conforming sign or billboard shall not be structurally relocated or replaced unless it is brought into compliance with the provisions of this Article. Should any replacement or relocation take place without being brought into compliance, the existing sign or billboard shall be illegal.

A non-conforming sign or billboard shall be maintained or repaired in accordance with the following provisions:

A.) The size and structural shape shall not be changed or altered.

B.) The copy may be changed, provided that the change applies to the original non-conforming use associated with the sign or billboard and that the change is made by the owner of the sign or billboard at the time the sign or billboard became non-conforming; the copy area shall not be enlarged. Any subsequent owner shall bring the sign or billboard into compliance.

C.) In the case where damage occurs to the sign or billboard to the extent of fifty percent (50%) or more of either the structure or the replacement value of the sign or billboard, the sign or billboard shall be brought into compliance. Where the damage to the sign or billboard is less than fifty percent (50%) of the structure or its replacement value, the sign or billboard shall be repaired within thirty (30) days.

D.) Illegal Signs: The Zoning Officer is authorized to give written notice requiring the removal of any illegal sign erected without a required permit within thirty (30) days of receipt of such notice.

E.) Conformance- No permit for new signs, other than for changes in sign content, shall be issued until all non-conforming signs on premises advertising the same business are removed or brought into compliance with this Code.

SECTION 25.09: SIGN PERMIT REQUIREMENTS

Before erecting, relocating, altering, or replacing any sign not specifically exempt under these regulations, the person authorized to erect such sign shall first secure a permit from the Zoning Inspector.

An applicant for a sign permit shall submit the following to the Zoning Inspector:

A.) An accurate, scaled **drawing** which shows the dimensions, materials, illumination and colors of the proposed sign;

B.) **Construction details;**

C.) **Electrical plans** conforming to the requirements of Section 4101:2-1-35 of the Ohio Basic Building Code;

D.) **A drawing** showing the location of the proposed sign on the site or building, including dimensions to property lines, rights of way, and/or buildings on the site;

E.) **The location**, type, and dimensions of other signs on the same site advertising the same business.

F.) **Fees**: The applicant for a permit herein shall pay such fee as is prescribed by the Berlin Township Trustees. An application for a sign permit shall be completed at the time such plans are submitted. The permit fee is required with the application.

G.) **Term of Permit**: Unless a different time period is stated in the zoning permit, the permit issued pursuant hereto shall be valid so long as the owner complies with the terms and conditions of this Zoning Resolution or any amendment thereto.

H.) **Inspection**: Prior to erection all signs or billboards erected within this Township are subject to inspection, whether a permit is required or not.

I.) **Cancellation of Permit**: In the event that the owner of any sign or property fails to comply with the terms of this Zoning Resolution, said permit may be revoked upon compliance with the following terms:

Notice: The Township Zoning Inspector shall notify both the owner of the sign and owner of the land upon which it is located of any deficiency or violation of this Resolution. Notice shall be served personally or by ordinary mail at the last known address of the permit holder. The permit holder may seek a hearing on said notice by complying with the provisions of Article 32 of this Resolution dealing with revocation of the Conditional Use Permit. Failure to correct deficiencies or to appeal the decision of the Zoning Inspector within thirty (30) days will result in cancellation of the permit for such sign and said sign shall then be removed as provided by this Resolution.

J.) **Removal of Signs**: The Township Zoning Inspector shall effect the removal of any sign illegally placed within the ROW of any road within this township. The Zoning Inspector shall store said sign and shall notify the owner thereof of its location. If the name and address of the owner is not listed on the sign as required by Article 25, no notice under this section shall be provided. If the owner of the sign fails

to claim the same within thirty (30) days after mailing of notice by the Zoning Inspector, said sign may be destroyed or junked.

SECTION 25.10: PENALTY

A.) Any person, firm, corporation, partnership, or association violating any provision of this chapter or failing to obey any lawful order issued pursuant to its terms shall be fined not more than $500 per offense. Each day during which such violation continues may be deemed a separate offense.

SECTION 25.11: SIGN VARIANCES

A.) **Limitation to Legally Non-Conforming Signs**: Applications for a variance shall be limited to the repair or reconstruction of signs established under this Article as non-conforming, or to damaged signs and which have been damaged or destroyed to less than fifty (50) percent of their current value.

B.) **Processing Procedure:**

1.) **Applications**: Applications shall be filed with the Township zoning officer. The application shall be accompanied by:

a.) A statement outlining the cause of damage to the sign.

b.) A drawing, to scale, depicting the location of the sign.

c.) A filing fee as required by Article 32 of this resolution.

Each application shall be scheduled for a hearing by the Board of Zoning Appeals.

2.) **Hearing of Sign Variances for Legally Non-Conforming Signs by the Board of Zoning Appeals:**

a.) The Board of Zoning Appeals is authorized to hear a request for a variance to allow the repair or reconstruction of legally non-conforming signs as set out in this Section.

b.) The Board of Zoning Appeals shall consider variances based on damage to signs resulting from the forces of nature or man-made causes not initiated by the owner of the sign.

c.) The Board of Zoning Appeals shall grant, modify, or deny the application based on the criteria established within this Section.

d.) Notice shall be given in conformance with Article 32.

3.) **Hearing of Sign Variances for New Signs that do not meet the standards of Article 25**:

a.) The Board of Zoning Appeals is authorized to hear a request for a variance to the sign regulations.

b.) The Board of Zoning Appeals shall consider variances based on practical difficulties to a particular property due to the stringent literal reading of Article 25.

c.) The Board of Zoning Appeals shall grant, modify, or deny the application based on the criteria established within this Section.

d.) Notice shall be given in conformance with Article 32.

4.) Appeals from Decisions of the Board of Zoning Appeals: All decisions of the Board of Zoning Appeals relating to applications for a sign variance are final unless appealed by filing an administrative appeal to the Court of Common Pleas pursuant to Chapter 2506 of the Ohio Revised Code

ARTICLE 26 LANDSCAPING

SECTION 26.01: PURPOSE

The intent of this article is to improve the appearance of vehicular use areas and property abutting public right-of-ways: to require buffering between non-compatible land uses: and to protect, preserve and promote the aesthetic appeal, character and value of the surrounding neighborhoods; to promote public health and safety through the reduction of noise pollution, air pollution, visual pollution, air temperature and artificial glare.

It is the intent of the Developer to meet all Article 26 Landscaping requirements. See attached Landscape Drawings sheets L-1-0 thru L-3-1 for proposed landscape design. These drawings include spacing, sq. ft. of coverage, species, and etc. pertaining to the Article 26 Landscape requirements.

It is further the purpose of this article to specifically promote the preservation and replacement of trees and significant vegetation removed in the course of land development as a buffer between certain land uses to minimize nuisance.

SECTION 26.02: APPLICATION

A.) **New Sites**: No certificate of zoning compliance shall be issued for any site development or the construction or improvement of any building, structure, or vehicular use except where landscaping for such development has been approved as required by the provisions of this Article. Farm residential uses and agricultural conservation uses shall be exempt from the requirements of Section 26.03(D)(2), but all other requirements of this Article shall apply.

B.) **Existing Sites**: No building, structure, or vehicular use area shall be constructed or expanded unless the minimum landscaping required by the provisions of this article is provided to the property to the extent of its alteration or expansion and not for the entire property of which the alteration or expansion is a part unless the alteration or expansion is substantial. An alteration or expansion to an existing property is substantial when:

1.) In the case of a building or structure expansion which does not involve additional land, the square footage of the alteration or expansion exceeds twenty-five percent (25%) of the square footage of the existing building exclusive of the alteration or expansion, and

2.) In the case of an alteration or expansion involving both an existing building or structure and additional land, and, as applicable, additional structures or buildings, the area or square footage of the expanded or altered land or structure or building, respectively, exceeds twenty-five percent (25%) of the area or square footage of the existing land or structure or building respectively, exclusive of alteration or expansion.

3.) “Land,” as used herein, includes land used for space, parking or building purposes.

SECTION 26.03: MINIMUM LANDSCAPING REQUIREMENTS

This section describes the minimum requirements that shall be met in regards to perimeter landscaping for non-compatible land use areas landscaping for service areas and interior landscaping for businesses, buildings, structures or other new developments of land.

A.) **Perimeter Landscaping Requirements:** Unless otherwise provided, landscaping material shall be installed to provide a minimum of fifty percent (50%) winter opacity and a seventy percent (70%) summer opacity, between one foot above finished grade level to the top of the required planting, hedge, fence, wall, or earth mound within four years after installation. The required landscaping shall be provided either in easements in certain zones or adjacent to vehicular use area.

1.) **Property Perimeter Requirements:**

a.) Grass or ground cover shall be planted on all portions of the easements not occupied by other landscape material.

	A.	B.	C.	D.
	When the following	adjoins the following or (vice versa)	the minimum landscaping (within a buffer zone of this average side width (with 3 ft. as the least dimension) is required. See footnote **.	which will contain this material, to achieve opacity required.
1.	Any Residential Zone	Mobile Home Park	10 ft., adjacent to all common boundaries including street Frontage.	1 tree/40 ft. of lineal boundary, OFT (*) continuous 6 ft. high planting, hedge, fence, wall or earth mound.
2.	Any Residential	Any Office Zone	6 ft., adjacent to all common boundaries except street frontage.	1 tree/40 ft. of lineal boundary, OFT (*) continuous 6 ft. high planting, hedge, fence, wall or earth mound.
3.	Any Residential Zone	Any Commercial Use	10 ft., adjacent to all common boundaries except street frontage.	1 tree/40 ft. of lineal boundary, OFT (*) continuous 6 ft. high planting, hedge, fence, wall or earth mound.
4.	Any Residential Zone	Any Industrial Use	15 ft., adjacent to all common boundaries except street frontage.	1 tree/40 ft. of lineal boundary, OFT (*) continuous 6 ft. high planting, hedge, fence, wall or earth mound.
5.	Any Office or Commercial Use	Any Industrial Use	15 ft., adjacent to all common boundaries except street frontage.	1 tree/40 ft. of lineal boundary, OFT (*) continuous 6 ft. high planting, hedge, fence, wall or earth mound.

	A.	B.	C.	D.
6.	Any zone (unless the property within the zone is used for vehicular sales or service) Except Agricultural Zone	A Freeway or Arterial Street	20 ft. for residential zones and 10 ft. for all other zones adjacent to freeway or arterial	1 tree/30 ft., OFT (*), plus continuous 6 ft. high planting, hedge, wall, fence or earth mound.
7.	Any Zone except Agricultural and Industrial Zones	Railroad (except spur tracks)	20 ft. for residential zones and 10 ft. for all other zones adjacent to freeway or arterial	1 tree/30 ft., OFT (*), plus continuous 6 ft. high planting, hedge, wall, fence or earth mound.
8.	Any property boundary, Including road or street right-of-ways	Utility sub-station, junk yards, landfills, sewage plants or similar uses	15 ft. adjacent to all boundaries except only 5 ft. for utility substations measured adjacent to the enclosure	1 tree/30 ft., OFT (*), plus continuous 6 ft. high planting, hedge, wall, fence or earth mound.
9.	Any property used for vehicular sales or service	a freeway or arterial	10 ft. adjacent to freeway or arterial	1 tree/50 ft., plus 1 low shrub/10 ft. OFT (*) opacity requirements do not apply) for the first 300 linear feet of easement; if an easement for the property exceeds 300 ft. in length, then the remaining easement shall contain 1 tree/30 ft. OFT, plus a continuous 6 ft. high wall, hedge, planting, or earth mound.

*"OFT" means "OR FRACTION THEREOF". Trees do not have to be equally spaced, but may be grouped.

**Six (6) feet shall be the least dimension for any commercial or industrial zone with three (3) feet as the least dimension for any other district.

2.) **Vehicular Use Area (VUA) Perimeter Requirements:**

A vehicular use area (VUA) is any open or unenclosed area containing more than one-thousand eight-hundred (1800) square feet of area and/or used by six or more of any type of vehicle, whether moving or at rest, including, but not limited to, parking lots, loading and unloading areas, mobile home parks, and sales and service areas.

Driveways are considered to be vehicular use areas whenever they are adjacent to public streets or roads or other vehicular use elements described previously in this paragraph, and where intervening curbs, sidewalks, landscape strips, etc. Do not eliminate adjacency.

Grass or ground cover shall be planted on all portions of easements not occupied by other landscape material.

		A.	B.	C.
	When the following	Adjoins the following or vice versa	the minimum landscape buffer zone of this width is required,	which will contain this material, to achieve opacity required
1.	Any property in any zone	any vehicular use areas (VUA) on any (see note 1) on any adjacent property	4 ft. Minimum to all trees from edge of paving where vehicles overhang, and 3 ft. strip that prohibits any vehicular overhang for areas adjacent to VUA on adjacent property	1 tree/40 ft. of boundary of vehicular area, plus a 3 ft. average height continuous planting, hedge, fence, wall or earth mound.
2.	Any public street or private street right-of-way or service road, except freeways.	any VUA, (except vehicular sales facility) in any zone	4 ft. Minimum to all trees from edge of paving where vehicles overhang, and 3 ft. strip that prohibits any vehicular overhang for areas adjacent to VUA facing public or private street or road	1 tree/40 ft. Or private OFT(*), plus a 3 ft. Average height continuous planting, hedge, fence, wall or earth mound
3.	Any public street or private street right-of-way or service road, except freeways.	any vehicular Sales or service area	4 ft. Minimum to all trees from edge of paving where vehicles overhang, and 3 ft. strip that prohibits any vehicular overhang for areas adjacent to VUA facing public or private street or road.	1 tree/50 ft. OFT(*), plus 1 low shrub 10 ft. OFT (*) (opacity requirements do not apply)

*"OFT" means "or fraction thereof".

3.) **Landscape Buffer Zone**: The landscape buffer zone and material required adjacent to any street under this article shall be provided by the property owner adjoining street, unless the authority building the street right-of-way. When adjacent to other common boundaries, the landscape buffer zone and materials:

a.) May be placed on either adjoining parcel, or astride the boundary, if both owned and being processed by the same owner; or

b.) Generally be placed on the activity listed under property perimeter requirement chart, column B and vehicular use area perimeter chart, column b when adjoining parcels have different owners; or

c.) May be placed astride the boundary of adjoining parcels having different owners if a written agreement, signed by both owners, is filed with the Township Zoning Office, as a public record; or

d.) Shall be placed on the parcel being processed when adjoining property is already developed with the exception of property perimeter requirement chart, lines 6 and/or 9; or

e.) Shall not be required along the common boundary if the requirements of this article have been fully complied with on the adjoining property, in fulfillment of the requirements of this article.

4.) **Requirements Conflicts:** Wherever a parcel or activity falls under two or more of the categories listed in the tables the most stringent requirements shall be enforced.

5.) **Landscape Buffer Zone Conflicts:** The required landscape buffer zone may be combined with utility easement as long as all of the landscape requirements can be provided in addition to, and separate from, any other easement. Cars or other objects shall not overhang or otherwise intrude upon the required landscape buffer zone more than two and one-half (2-1/2) feet, and wheel stops or curbs shall be required.

6.) **Existing Landscape Material:** Existing landscape material shall be shown on the required plan, and any material in satisfactory condition may be used to satisfy these requirements in whole or in part when, in the opinion of the public approval authority, such material meets the requirements and achieves the objectives of this article.

7.) **Landscaping at Driveway and Street Intersections:** To insure that landscape materials do not constitute a driving hazard, a sight triangle shall be observed at all street intersections or intersections of driveways with streets. Within this sight triangle, neither landscape material nor parked vehicles, except for required grass or ground cover, shall be permitted. Within this sight triangle, trees shall be permitted as long as, except during the early growth stages, only the tree trunk is visible between the ground and eight (8) feet above the ground, or otherwise does not present a traffic hazard. The sight triangle is defined in the following sections.

a.) Driveway Intersection Triangle: At intersections of driveways with streets, the sight triangle shall be established by locating the intersection of the street curb or edge with the driveway edge, and by measuring from this point and a distance of ten (10) feet along the driveway to a point and a distance of twenty (20) feet along the street curb to a point connecting these points.

b.) Street Intersection Sight Triangle: At the street intersections, the sight triangle shall be formed by measuring at least fifty (50) feet along curb lines or edge of pavement and connecting these points.

B.) **Interior Landscaping for Vehicular Use Areas:** Any open vehicular use area, excluding loading, and unloading and storage areas in an industrial zone or business zone, containing more than six-thousand (6000) square feet of area, or twenty (20) or more vehicular parking spaces, shall provide interior landscaping in addition to the previously required perimeter landscaping. Interior landscaping may be peninsular or island types.

1.) **Landscape Area:** For each one-hundred (100) square feet or fraction thereof, of vehicular use area, a minimum total of five square feet of landscaped area shall be provided.

a.) Minimum Area - The minimum landscape area permitted shall be sixty-four (64) square feet with a four (4)-feet minimum dimension to all trees from edge of pavement where vehicles overhang.

b.) Maximum Contiguous Area - In order to encourage the required landscaped areas to be properly dispersed, no individual areas shall be larger than three-hundred fifty (350) square feet in size, and no individual area shall be larger than 1500 square feet in vehicular use areas over 30,000 square feet. In both cases, the least dimension of any required area shall be four (4) feet minimum dimension to all trees from edge of pavement where vehicles overhang. Individual landscape areas larger than above are permitted as long as the additional area is in excess of the required minimum total.

2.) **Minimum Trees:** The following minimums are required, based upon total ground coverage of structures and vehicular use areas.

a.) Up to 20,000 square feet: a minimum of one (1) tree per 5000 square feet of ground coverage and, a total tree planting equal to one (1) inch in tree trunk size for every 2000 square feet of ground coverage.

b.) Between 20,000 and 50,000 square feet: a minimum of one (1) tree for every 5000 square feet of ground coverage and, a total tree planting equal to ten (10) inches plus one-half (1/2) inch in tree trunk size for every 2000 square feet over 20,000 square feet in ground coverage.

c.) Over 50,000 square feet: A minimum of one (1) tree for every 5000 square feet of ground coverage and , a total tree planting equal to twenty-five (25) inches plus one-half (1/2) inch in tree trunk size for every 4000 square feet over 50,000 square feet in ground coverage.

d.) Trees shall have a clear trunk of at least five (5) feet above the ground, and the remaining area shall be landscaped with shrubs, or ground cover, not to exceed two (2) feet in height.

3.) **Vehicular Overhang:** Parked vehicles may hang over the interior landscaping area no more than two and one-half (2-1/2) feet long as concrete or other wheel stops are provided to insure no greater overhang or penetration of the landscape area.

A.) **Landscaping for Service Structures**: Any service structure, or accessory use structure, shall be screened whenever located in any residential zone, commercial zone, or when located on property abutting any residential zone, freeway or arterial street prohibiting driveway access. Structures may be grouped together; however, screening height requirements shall be based upon the tallest of the structures.

1.) **Location of Screening**: A continuous (having ninety percent (90%) opacity year round) planting, hedge, fence, wall of earth, which would enclose any service structure on all sides unless such structure must be frequently moved, in which case screening on all but one side is required. The average height of the screening material shall be one (1) foot more than the height of the enclosed structure, but shall not be required to exceed ten (10) feet in height. Whenever a service structure is located next to a building wall, perimeter landscaping material or vehicular use area landscaping material, such walls or screening material may fulfill the screening requirements for that side of the service structure if that wall or screening material is of an average height, sufficient to meet the height requirement set out in this section. Whenever service structures are screened by plant material, such material may count towards the fulfillment of required interior or perimeter landscaping. No interior landscaping shall be required within an area screened for service structures.

2.) **Curbs to Protect Screening Material**: Whenever screening material is placed around any trash disposal unit or waste collection unit that is emptied or removed mechanically on a regular occurring basis, a curb to contain the placement of the container shall be provided within the screening material on those sides where there is such material. The curbing shall be at least one (1) foot from the material and shall be designed to prevent possible damage to the screening when the container is moved.

B.) **Interior Landscaping for All New Developments**: All new developments, regardless of type and all alterations or expansions to existing developments shall provide interior landscaping in addition to the previously required perimeter landscaping. Interior landscaping shall consist primarily of new tree planting or the preservation of existing trees or hedges within the development site.

1.) **Preservation of Existing Landscape Materials**: All trees having a trunk diameter of six (6) inches or greater as measured twenty-four (24) inches from ground level shall be preserved unless such trees are exempted as follows:

a.) Trees within public rights-of-way or utility easements, or a temporary construction easement approved by the County Engineer.

b.) Trees within the ground coverage of proposed structures or within twelve (12) feet of the perimeter of such structure.

c.) Trees within the driveway access to parking or service areas or proposed areas to service a single family home.

d.) Trees that in the judgment of the township authority are damaged, disease, over-mature, which interfere with utility lines or are an inappropriate or undesirable species for that specific location.

It is encouraged that exempted trees subject to destruction be preserved by relocating and replanting of such trees.

Preservation of Wooded Areas: It is encouraged that efforts be made to preserve natural vegetation areas. Consideration shall be given to laying out streets, lots, structures and parking areas to avoid unnecessary destruction of heavily wooded areas or outstanding tree specimens. It is further encouraged that whenever possible, heavily wooded areas be designated as park reserves.

2.) **Tree Planting Requirements:**

a.) For all new development the following landscape requirements shall apply:

USE	REQUIREMENTS
PRD DISTRICTS, R-2 and R-3	There shall be tree plantings equal to one-half (1/2) inch in tree trunk size for every 150 square feet in ground coverage by a single- family structure. Such plantings shall be required within the property lot lines of each structure.
Business and Community Shopping Uses per lot	In addition to the requirements of Section 23.03 (G) for vehicular use areas, the following shall apply: There shall be landscaped areas equal to 20 square feet for every 1000 square feet of building ground coverage area, or fraction thereof. Such landscaping areas shall contain trees, planting beds, hedges, fences, walls, earth mounds, benches, or other material designed and located in a manner complimentary to the overall architecture to the surrounding buildings.
Office, Institutional	In addition to the requirements of sub-section (G) Uses hereof, for vehicular use areas, the following shall apply: there shall be tree plantings equal to one inch in tree size for every 1500 square feet of building ground coverage, of fraction thereof.
Industrial Uses	In addition to the requirements of sub-section (G) hereof, for vehicular use areas, the following shall apply: There shall be tree plantings equal to one inch in tree size for every 2000 square feet of building ground coverage, or fraction thereof.

a.) **Parking Lots**: See Section 26.03 (B).

b.) No new tree planting shall be required if existing trees and the aggregate trunk sizes of such trees meet or exceed the requirements as set forth in this article and providing that such trees are evenly distributed throughout the developed area and not confined either to out-of-the-way dense clusters or to the permeate of developed area. The minimum tree size for such tree plantings shall be no less than one and one-half (1-1/2) inch in trunk diameter.

c.) For new development or construction, if new tree plantings are required for conformance to the landscaping requirements of this article, the applicant or owner shall indicate on the landscape plan the location and size of such tree plantings. If such tree landscape plan is approved, the applicant or owner shall plant such trees as may be required within one (1) year or the next spring planting season after issuance of a zoning permit.

SECTION 26.04: PLAN SUBMISSION AND APPROVAL

Whenever any property is affected by these landscaping requirements, the property owner or developer shall prepare a landscape plan. Where such plans are part of an application for rezoning, variance, conditional use or other matters which must be approved by the Township Zoning Commission or Township Board of Zoning Appeals, such plans shall be submitted as part of the required application and other required plans. All other landscape plans shall be approved by the Township Zoning Department.

A.) **Plan Content**: The contents of the plan shall include the following:

1.) Plot plan, drawn to an easily readable scale no smaller than one (1) inch equals sixty (60) feet; showing and labeling by name and dimensions, all existing and proposed property lines, easements, buildings and other structures, vehicular use areas including parking stalls, driveways, service areas square footage, location or structures on adjoining parcels, water outlets and landscape materials, including botanical names and common names, installation sizes, on center planting dimensions where applicable, and qualities for all plants used and all existing trees.

2.) Typical elevations and/or cross sections are required.

3.) Title block with the pertinent names and addresses, property owner, person drawing plan, scale, date, north arrow, general orientation plan so that north is to top of plan and zoning district.

B.) **Zoning Permit and Certification of Compliance**: Where landscaping is required, no zoning permit shall be issued until the required final landscaping plan has been submitted and approved and no certificate of compliance shall be issued until landscaping is completed as certified by an on-site inspection by the zoning department, unless a performance bond, or irrevocable letter of credit from a banking institution, has been posted. If the required landscaping has not been completed and a temporary certificate of compliance is issued, a performance bond or irrevocable letter of credit from a banking institution shall be posted at that time.

The final landscaping plan as submitted to the township zoning inspector shall include the following information:

1.) Plot plan, drawn to an easily readable scale no smaller than one inch equal sixty (60) feet; showing and labeling by name and dimensions, all existing and proposed property lines, easements, buildings and other structures, vehicular use areas including parking stalls, driveways, service areas square footage, etc., location of structures on adjoining parcels, water outlets and landscape materials, including botanical names and common names, installation sizes, on center planting dimensions where applicable, and qualities for all plants used and all existing trees.

2.) Typical elevations and/or cross sections are required.

3.) Title block with the pertinent names and addresses, property owner, person drawing plan, scale, date, north arrow, general orientation plan so that north is to top of plan and zoning district.

C.) **Posting of Bond or Irrevocable Letter of Credit**: After a posting of bond or an irrevocable letter of credit has been approved, the landscaping material required in the approved landscaping plan shall be installed within six (6) months after the date of posting the bond or irrevocable letter of credit. A one (1) month extension of the planting period may be granted by the zoning department upon a demonstration by the property owner or developer that such an extension is warranted because of adverse weather conditions or unavailability of required plant material. No more than three (3) such one (1) month extensions may be granted. Foreclosure proceedings shall be brought against the performance bond or irrevocable letter of credit if the required landscaping plans have not been complied with by the end of the approved planting period.

SECTION 26.05: LANDSCAPE MATERIALS

The landscaping materials shall consist of the following and are described in more detail in the plant list on file in the zoning office. The proposed landscape material should complement the form of the existing trees and plantings, as well as the development's general design and architecture. The type of sun or shade should be considered in selecting plant materials.

A.) **Earth Mounds**: Earth mounds shall be physical barriers which block the view to a hedge, fence, or wall. Mounds shall be constructed with proper and adequate plant materials to prevent erosion. A

difference in elevation between areas requiring screening does not constitute an existing earth mound and shall not be considered as fulfilling any screening requirements.

B.) **Plants**: Artificial plants are prohibited. All plant material shall be living plants and shall meet the following requirements:

1.) **Quality**: Plant material used in conformance with provisions of this chapter shall conform to the standards of the American Association of Nurserymen and shall pass inspections required by state regulations.

2.) **Deciduous Trees**: Trees which normally shed their leaves in the fall shall be species having an average mature crown spread greater than fifteen (15) feet in central Ohio and having trunks which can be maintained with over five (5) feet of clear wood in areas which have visibility requirements, except at vehicular use area intersections where eight (8) feet clear wood requirements shall control. Trees having a mature crown spread less than fifteen (15) feet may be substituted by grouping the same so as to create the equivalent of a fifteen (15) feet crowns spread. A minimum of ten (10) feet overall height or a minimum caliper, trunk diameter, measured six (6) inches above ground for trees up to four (4) inches of at least one and three-fourths (1-3/4) inches immediately after planting shall be required. Trees of species whose root systems are known to cause damage to public roadways or other public works shall not be planted closer than fifteen (15) feet to such public works.

3.) **Prohibited Trees**: Shall be those currently listed on Berlin Township's prohibited tree list.

4.) **Evergreens**: Evergreens shall be a minimum of five (5) feet high with a minimum caliper of one and three-fourths (1-3/4) inches immediately after planting.

5.) **Shrubs and Hedges**: Shall be at least two (2) feet in average height and shall conform to the opacity and other requirements within four (4) years of planting.

6.) **Grass or Ground Cover**: Grass of the fescue (Gramineae) or bluegrass (Poacese) family shall be planted in species normally grown as permanent lawns in central Ohio, and may be sodded or seeded: except in swales or other areas subject to erosion, where solid sod, erosion reducing net, or suitable mulch shall be used, nurse-grass seed shall be sewn for immediate protection until complete coverage otherwise obtained. Ground cover shall be planted in such a manner as to present a finished appearance and seventy-five percent (75%) of complete coverage after complete growing seasons.

C.) **Maintenance and Installation**: All landscape material shall be installed in a sound, workmanship-like manner and according to accepted, good construction and planting procedures. The owner of the property shall be responsible for the continued proper maintenance of all landscaping materials, and shall keep them in proper, neat, and orderly appearance, free from refuse and debris at all times. All unhealthy or dead plant material shall be replaced within one (1) year, or by the next planting period, whichever comes first: while other defective landscape material shall be replaced or repaired within three (3) months. Violation of these installations and maintenance provisions shall be grounds for the zoning inspector to refuse a certificate of compliance permit or institute legal proceedings, or to take any other enforcement action as allowed by this zoning resolution or Ohio law.

THE RESIDENCES
At
BERLIN TOWNSHIP
DELWARE COUNTY, OHIO

SITE PLANS



GENERAL NOTES:

1. SEE ADVANCED CIVIL DESIGN DRAWINGS FOR ALL UTILITY & GRADING INFORMATION.
2. SEE BLENDON GARDENS LANDSCAPING PLANS FOR PLANTING LOCATIONS.
3. SEE ARCHITECTURAL DRAWINGS FOR BUILDING ELEVATIONS.

PROJECT DATA:

296 APARTMENT UNITS
624 PARKING / GARAGE SPACES

OVERALL RESIDENTIAL SITE PLAN

SCALE: 1" = 100'

KONTOGIANNIS & ASSOCIATES
ARCHITECTURE
PLANNING
DESIGN

400 SOUTH FIFTH ST
SUITE 400
COLUMBUS, OHIO
43215-5492

PHONE: 614-224-2083
FAX: 614-224-4736
E-MAIL: architects@kontogiannis.com

PROJECT:
THE RESIDENCES AT BERLIN TOWNSHIP
BERLIN TWP.
DELAWARE COUNTY, OHIO

DRAWING TITLE:
OVERALL RESIDENTIAL SITE PLAN

DATE: 12/27/2022
REVISED:

GEORGE J. KONTOGIANNIS, LICENSE #3784
EXPIRATION DATE 12/31/2023
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- [x] ZONING SET 12/27/2022
- [ ] BID SET
- [ ] PERMIT SET
- [ ] CONSTRUCTION SET

SP-1

H:\Projects\Architects\Current\Berlin Park Apt. - T&R Properties\AutoCAD\Site Plans\SP-1.dwg, 3/7/2023 10:25:55 AM, mhannan

PHASE II
BUILDING 4

600'

126 CAR PARKING SPACES

PROPOSED INDUSTRIAL ARTICLE 19 BERLIN INDUSTRIAL OVERLAY (NOT A PART OF THIS ZONING SHOWN FOR CLARITY ONLY)

REED PKWY

S. PLUNKETT ROAD

PROPOSED INDUSTRIAL ARTICLE 19 BERLIN INDUSTRIAL OVERLAY (NOT A PART OF THIS ZONING SHOWN FOR CLARITY ONLY)

EXISTING ZONING FR-1 PROPOSED ZONING PRD MULTI-FAMILY

SP-3

WATER METER ROOM

EXISTING AREA TO BE PRESERVED IN AS MUCH WAY AS POSSIBLE GIVEN ROADWAY & UTILITY CONSTRUCTION

EXISTING WATER COURSE SEE SITE SURVEY

10' PATH

5' SIDEWALK

80' R.O.W.

APPROXIMATE EXISTING TREE LINE SEE SITE SURVEY

20' PARKING SETBACK LINE

50' BLDG. SETBACK LINE

16 UNIT W/ 4 ATTACHED GARAGE - BLDG 1

4 UNIT W/ 4 ATTACHED GARAGE - BLDG 15

16 UNIT - BLDG 16

4 UNIT W/ 4 ATTACHED GARAGE - BLDG 17

16 UNIT W/ 4 ATTACHED GARAGE - BLDG 9

5 CAR GARAGE - BLDG 14

5 CAR GARAGE - BLDG 10

SEE SITE LANDSCAPING PLANS FOR DEVELOPMENT DESIGN OF THIS AREA

SHELTER HOUSE

4 UNIT W/ 4 ATTACHED GARAGE - BLDG 8

TRASH COMPACTOR & 6'-0" SCREEN WALL

ONE STORY RESIDENT CLUBHOUSE - BLDG 7

40'x20' REF. DIMS.

SWIMMING POOL

15' MAINTENANCE EASEMENT

16 UNIT W/ 4 ATTACHED GARAGE - BLDG 2

16 UNIT W/ 8 ATTACHED GARAGE - BLDG 13

16 UNIT - BLDG 12

16 UNIT W/ 8 ATTACHED GARAGE - BLDG 11

5 CAR GARAGE - BLDG 6

16 UNIT W/ 4 ATTACHED GARAGE - BLDG 3

16 UNIT W/ 8 ATTACHED GARAGE - BLDG 4

5 CAR GARAGE - BLDG 5

STORM DETENTION AREA SEE ADVANCED ENGINEERING CIVIL PLAN DRAWINGS

PICKLE BALL COURTS

250' BLDG. SETBACK LINE

250' REFERENCE DIMENSION

250' BLDG. SETBACK LINE

15' MAINTENANCE EASEMENT

8'-0" HIGH MOUND SLOPE AT MAXIMUM 3:1 - 10'-0" FLAT SPOT AT MOUND CROWN PER ARTICLE 19 (BIO)

FR-1
(FARM RESIDENTIAL DISTRICT) (NOT IN ARTICLE 19 BERLIN INDUSTRIAL OVERLAY) (BIO)

EXISTING ZONING FR-1 PROPOSED ZONING PRD MULTI-FAMILY

FR-1
(FARM RESIDENTIAL DISTRICT) (NOT IN ARTICLE 19 BERLIN INDUSTRIAL OVERLAY) (BIO)

SP-3

GENERAL NOTES:

1. SEE ADVANCED CIVIL DESIGN DRAWINGS FOR ALL UTILITY & GRADING INFORMATION.
2. SEE BLENDON GARDENS LANDSCAPING PLANS FOR PLANTING LOCATIONS.
3. SEE ARCHITECTURAL DRAWINGS FOR BUILDING ELEVATIONS.

ENLARGED SOUTH RESIDENTIAL SITE PLAN

SCALE: 1" = 50'

0 12.5 25 50 100
GRAPHIC SCALE

NORTH

KONTOGIANNIS & ASSOCIATES
ARCHITECTURE
PLANNING
DESIGN

400 SOUTH FIFTH ST
SUITE 400
COLUMBUS, OHIO
43215-5492

PHONE: 614-224-2083
FAX: 614-224-4736
E-MAIL: architects@kontogiannis.com

PROJECT:
THE RESIDENCES AT BERLIN TOWNSHIP

BERLIN TWP.
DELAWARE COUNTY, OHIO

DRAWING TITLE:
ENLARGED SOUTH RESIDENTIAL SITE PLAN

DATE: 12/27/2022
REVISED:

GEORGE J. KONTOGIANNIS, LICENSE #3784
EXPIRATION DATE 12/31/2023
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- [x] ZONING SET 12/27/2022
- [ ] BID SET
- [ ] PERMIT SET
- [ ] CONSTRUCTION SET

SP-2

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FR-1
(FARM RESIDENTIAL DISTRICT)
(AREA WITHIN ARTICLE 19 BERLIN INDUSTRIAL OVERLAY) (BIO)

GENERAL NOTES:

1. SEE ADVANCED CIVIL DESIGN DRAWINGS FOR ALL UTILITY & GRADING INFORMATION.
2. SEE BLENDON GARDENS LANDSCAPING PLANS FOR PLANTING LOCATIONS.
3. SEE ARCHITECTURAL DRAWINGS FOR BUILDING ELEVATIONS.

ENLARGED NORTH RESIDENTIAL SITE PLAN

SCALE: 1" = 50'

0 12.5 25 50 100
GRAPHIC SCALE

NORTH

KONTOGIANNIS & ASSOCIATES
ARCHITECTURE
PLANNING
DESIGN

400 SOUTH FIFTH ST
SUITE 400
COLUMBUS, OHIO
43215-5492

PHONE: 614-224-2083
FAX: 614-224-4736
E-MAIL: architects@kontogiannis.com

PROJECT:
THE RESIDENCES AT BERLIN TOWNSHIP

BERLIN TWP.
DELAWARE COUNTY, OHIO

DRAWING TITLE:
ENLARGED NORTH RESIDENTIAL SITE PLAN

DATE: 12/27/2022
REVISED:

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SP-3

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THE RESIDENCES
At
BERLIN TOWNSHIP
DELWARE COUNTY, OHIO

ENGINEERING PLANS

DEVELOPMENT PLAN
FOR
BERLIN MIXED USE DEVELOPMENT
MULTI-FAMILY DEVELOPMENT
BERLIN TOWNSHIP, DELAWARE COUNTY, OHIO
2023

UTILITY CONTACTS

WATER MAINS	DEL-CO WATER COMPANY, INC. 6658 OLENTANGY RIVER ROAD DELAWARE, OHIO 43015-8872 ATTN: RUSTY GRIFFITH (740) 548-7746	SANITARY SEWERS	DELAWARE COUNTY REGIONAL SEWER DISTRICT 50 CHANNING STREET DELAWARE, OHIO 43015 ATTN: TIFFANY MAAG (740) 833-2240
STORM SEWERS	DELAWARE COUNTY ENGINEER'S OFFICE STORM SEWERS 50 CHANNING STREET DELAWARE, OHIO 43015 ATTN: JOHN PICCIN (740) 833-2400	CATV	CHARTER COMMUNICATIONS (SPECTRUM/TIME WARNER) P.O. BOX 2553 COLUMBUS, OHIO 43216 ATTN: DAVID HOLSTEIN (614) 975-7468
GAS	SUBURBAN NATURAL GAS 2626 LEWIS CENTER ROAD LEWIS CENTER, OHIO 43035 ATTN: AARON ROLL (740) 548-2450	PHONE	FRONTIER COMMUNICATIONS 2780 LIBERTY ROAD DELAWARE, OHIO 43015 ATTN: ROBERT CHANDLER (740) 369-0826 OR ATTN: IRA (CHRIS) AVERY (740) 383-0551 AT&T 111 NORTH 4TH STREET, ROOM 802 COLUMBUS, OHIO ATTN: GARY VANALMSICK (614) 223-7276
ELECTRIC	AMERICAN ELECTRIC POWER 700 MORRISON ROAD GAHANNA, OHIO 43230-6605 ATTN: ANDREW L. WAINWRIGHT (614) 883-6821		

BENCH MARKS
BASED ON NAVD 1988 DATUM.

SITE B.M.#1	RAILROAD SPIKE SET IN A UTILITY POLE LOCATED 51'± SOUTH OF THE EDGE OF PAVEMENT OF US 36/37 AND 545'± WEST OF THE C/L OF PLUNKETT ROAD. N: 224253.2160 Elev.=944.49 E: 1830848.1680
SITE B.M.#2	CAPPED REBAR LOCATED 47± SOUTH OF THE EDGE OF PAVEMENT OF US 36/37 AND 849± EAST OF THE C/L OF PLUNKETT ROAD. N: 223748.0800 Elev.=928.34 E: 1832147.6360
SITE B.M.#3	CAPPED REBAR LOCATED 35± SOUTH OF THE EDGE OF PAVEMENT OF REED ROAD AND 2± EAST OF THE EAST EDGE OF THE R/W OF PARCEL 41821002005000. N: 221560.0100 Elev.=928.38 E: 1832284.6880

SITE DATA TABLE:

TOTAL GROSS ACREAGE: ±49.898 ACRES
NET DEVELOPABLE ACREAGE: ±42.413 ACRES

TOTAL UNITS: 296 UNITS
NUMBER OF BUILDINGS: 32

OPEN SPACE: ±30.26 ACRES
% OPEN SPACE: 71.35%

LOT COVERAGE: ±12.15 ACRES
% LOT COVERAGE: 28.65%

PARKING LOT COVERAGE: ±6.24 ACRES
% PARKINGLOT COVERAGE: 14.71%

PARKING SPACES: 20'x9' (TYP)
PARKING SPACES PROVIDED: 144 GARAGE – 480 SURFACE
PARKING SPACES TOTAL: 624
PARKING RATIO: 2.11 SPACES/UNIT

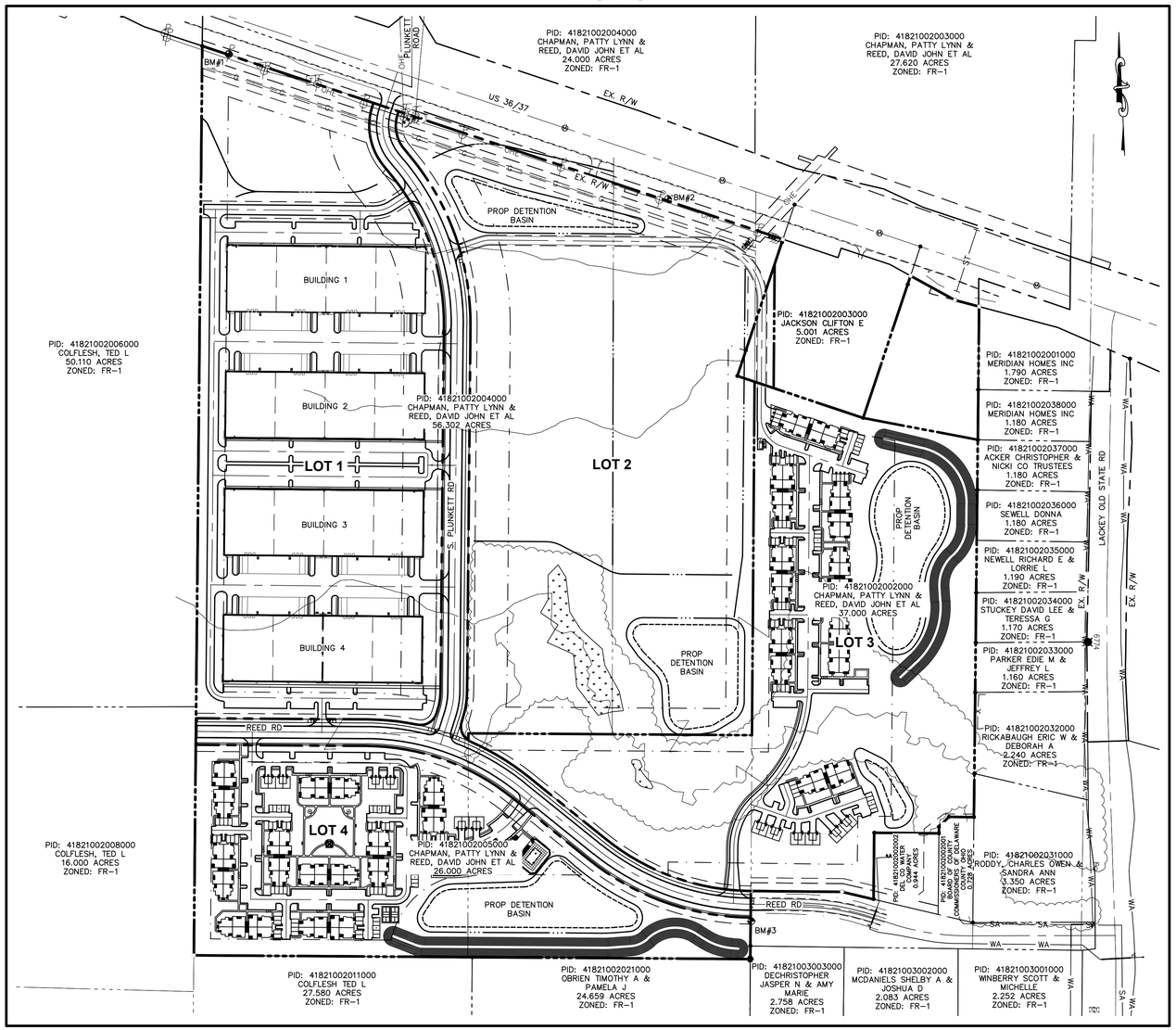
HCP SPACES REQUIRED: 16 SPACES
HCP SPACES PROVIDED: 22 SPACES (INCLUDES 2 VAN ACCESSIBLE)

GROSS DENSITY (DU./AC.): 5.93 DWELLING UNIT/ACRE
DEVELOPMENT DENSITY (DU./AC.): 6.97 DWELLING UNIT/ACRE

PROPOSED ZONING: PRD
REQUIRED FRONT YARD SETBACK: 50'
REQUIRED SIDE YARD SETBACK: 50'
REQUIRED REAR YARD SETBACK: 50'

FLOOD DESIGNATION

By graphic plotting only this property is located in Zone "x" (Areas determined to be outside of the 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile) by the Federal Emergency Management Agency on Flood Insurance Rate Map, Community Panel No. 39049C0150K, with an effective date of April 16, 2009, in Delaware County, Ohio. No field surveying was performed to determine this zone.



INDEX MAP
SCALE: 1" = 200'

GRAPHIC SCALE
0 100 200 400
1 inch = 200 feet

STANDARD DRAWINGS

THE STANDARD CONSTRUCTION DRAWINGS LISTED ON THESE PLANS SHALL BE CONSIDERED A PART THEREOF.

DELAWARE COUNTY STD. DWG.

DCED-R100	DCED-R103	DCED-R2010	DCED-R2030 (DITCH ONLY)	DCED-R2175
DCED-R2185	DCED-S100	DCED-S102A&B	DCED-S106	DCED-S107
DCED-S112	DCED-S114A&B	DCED-S115	DCED-S117	DCED-S119
DCED-S125	DCED-S128	DCED-S133A,C&D	DCED-S139	DCED-S149
DCED-S150	DCED-S151	DCED-S154	DCED-S155	DCED-S168
DCED-S440A&B				

THESE DRAWINGS ARE AVAILABLE AT THE FOLLOWING WEBPAGES:
HTTP://WWW.CO.DELAWARE.OH.US/ENGINEER/DEVELOPMENT/STDROADWAYDRAWINGS.HTM
HTTP://WWW.CO.DELAWARE.OH.US/ENGINEER/DEVELOPMENT/STDSEWERDRAWINGS.HTM

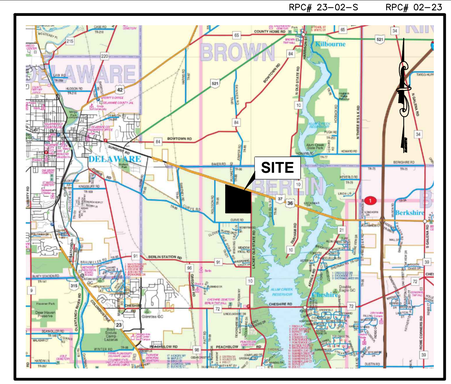
CITY OF COLUMBUS STD. DWG.

2319	AA-S121	AA-S142

ODOT STD. DWG.

DM-1.1	MT-97.10

RPC# 23-02-S RPC# 02-23



VICINITY MAP
SCALE: NTS

INDEX OF DRAWINGS

SHEET NUMBER	SHEET TITLE
1	TITLE SHEET
2	EXISTING CONDITIONS PLAN
3-5	PRELIMINARY PLAT
6-7	SITE DIMENSION PLAN
8	TYPICAL SECTION
9-10	UTILITY PLAN
11-12	GRADING & DRAINAGE PLAN

ENGINEER
ADVANCED CIVIL DESIGN, INC.
781 SCIENCE BOULEVARD, SUITE 100
GAHANNA, OH 43230
PHONE (614) 428-7750
CONTACT: THOMAS M. WARNER, P.E.
EMAIL: TWARNER@ADVANCEDCIVILDESIGN.COM

DEVELOPER – APPLICANT
T&R PROPERTIES
3895 STONERIDGE LANE
DUBLIN, OH 43017
PHONE (614) 923-4000
CONTACT: RJ SABATINO
EMAIL: RJSABATINO@TRPROP.COM

OHIO Utilities Protection SERVICE
Call Before You Dig
800-362-2764 or 8-1-1
www.oups.org

PROFESSIONAL ENGINEER'S SIGNATURE AND SEAL

DATE

PLAN PREPARED BY:
ADVANCED CIVIL DESIGN ENGINEERS SURVEYORS
781 Science Boulevard, Suite 100
Gahanna, Ohio 43230
ph 614.428.7750
fax 614.428.7755

PLAN PREPARED FOR:
T&R PROPERTIES, INC.

BERLIN TOWNSHIP, DELAWARE COUNTY, OHIO
BERLIN MIXED USE DEVELOPEMENT
DEVELOPMENT PLAN
FOR
T&R PROPERTIES
TITLE SHEET

STATE OF OHIO
THOMAS M WARNER
64513
REGISTERED PROFESSIONAL ENGINEER

Issue Dates:
NOT FOR CONSTRUCTION

Date: 03/06/2023
Scale: 1" = 200'

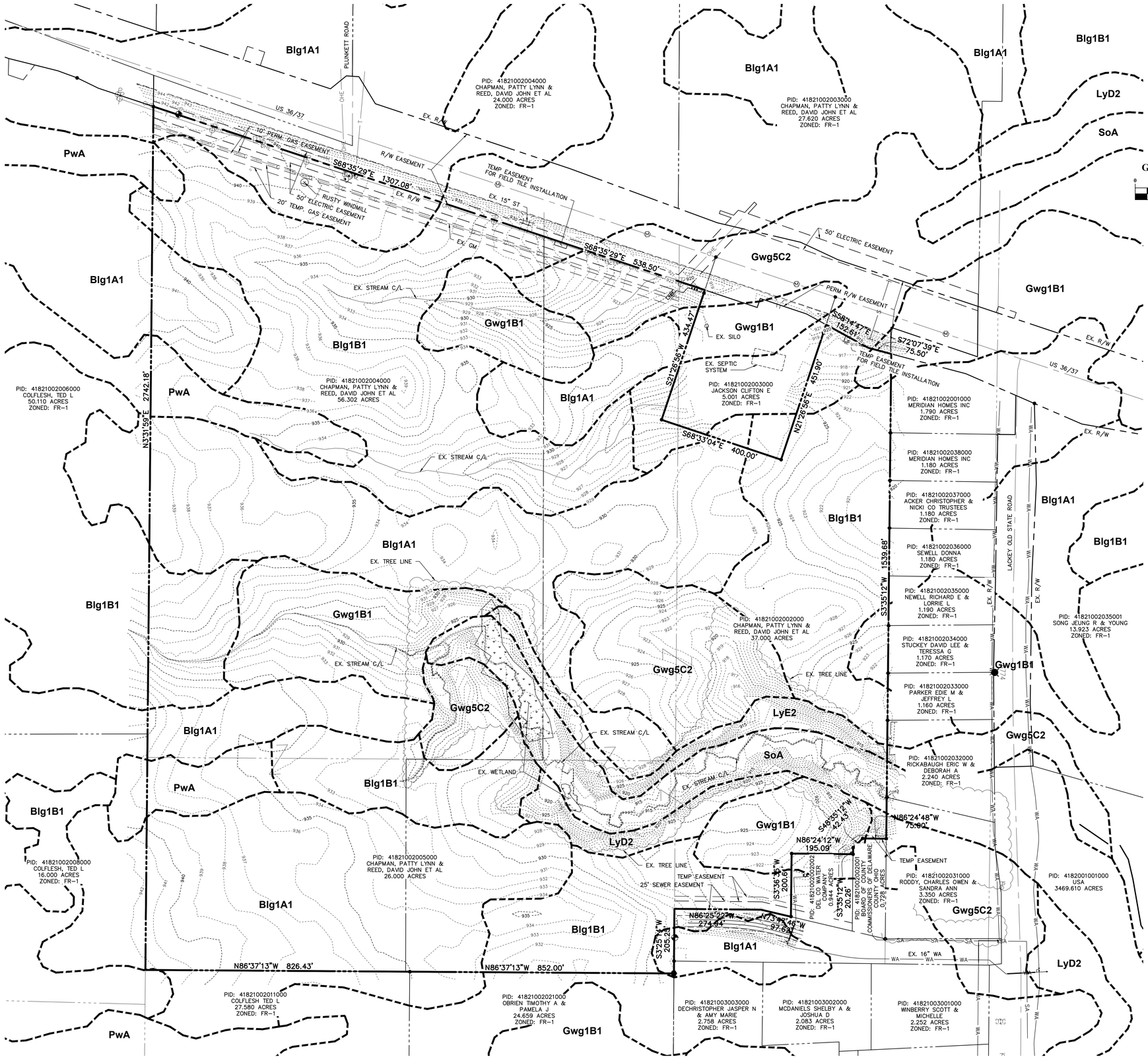
Drawn By:	Checked By:
TLM	MIM

Project Number: 22-0014-1044

Drawing Number: 1 / 12

E-1

Z:\22-0014-1044\DWG\production drawings\FINAL DEVELOPMENT PLAN\0014-1044 - Title.dwg TITLE SHEET Mar 07, 2023 - 9:25:59am Tmann



EXISTING FEATURE & UTILITY LEGEND

- ST — ST — EXISTING STORM SEWER
- SA — SA — EXISTING SANITARY SEWER
- WA — WA — EXISTING WATER MAIN
- G — G — EXISTING GAS MAIN
- OHE — EXISTING OVER HEAD ELECTRIC
- UGL — EXISTING UNDERGROUND LIGHTING

IRON PIN FOUND	IRON PIN SET W / CAP
PK NAIL FOUND	PK NAIL SET
RR SPIKE FOUND	RR SPIKE SET
MONUMENT BOX	MONUMENT
CONCRETE POST	ELECTRIC MANHOLE
TACKED HUB / TRAV PT	ELECTRIC TRANSFORMER
POST SIGN / LAMP	COMM MANHOLE
SIGN	TEL PEDESTAL
BILLBOARD / OH SIGN	POLE ELECTRIC
DECIDUOUS TREE	POLE ELEC TEL
PINE TREE	POLE ELEC TEL LIGHT
SHRUB	POLE TEL
SANITARY MANHOLE	POLE TEL LIGHT
SANITARY CLEANOUT	POLE LIGHT
STORM MANHOLE	POLE SIGNAL
CATCH BASIN	TRAFFIC BOX
CURB INLET W / GRATE	GUY POLE
GAS VALVE	GUY WIRE
GAS METER	FIRE HYDRANT
UNDERGROUND LINE MARKER	WATER VALVE
SPRINKLER VALVE BOX	MAILBOX
	MONITORING WELL

SOIL MAP UNIT LEGEND

SYMBOL	SOIL NAME
BeA	Bennington silt loam, 0 to 2 percent slopes
Blg1A1	Blount silt loam, ground moraine 0 to 2 percent slopes
Blg1B1	Blount silt loam, ground moraine 2 to 4 percent slopes
GbB	Gallman silt loam, loamy substratum, 2 to 6 percent slopes
Gwg1B1	Glynwod clay loam, ground moraine, 2 to 6 percent slopes
Gwg5C2	Glynwod clay loam, ground moraine, 6 to 12 percent slopes, eroded
JmA	Jimtown silt loam, 0 to 2 percent slopes
LyD2	Lybrand silt loam, 12 to 18 percent slopes, eroded
LyE2	Lybrand silt loam, 18 to 25 percent slopes, eroded
PwA	Pewamo silty clay loam, 0 to 1 percent slopes
SoA	Sloan silty clay loam, till substratum, 0 to 2 percent slopes, occasionally flooded
W	Water

PLAN PREPARED BY:
ADVANCED CIVIL DESIGN ENGINEERS SURVEYORS
781 Science Boulevard, Suite 100
Gahanna, Ohio 43230
ph 614.428.7750
fax 614.428.7755

PLAN PREPARED FOR:
T&R PROPERTIES, INC.

BERLIN TOWNSHIP, DELAWARE COUNTY, OHIO

BERLIN MIXED USE DEVELOPEMENT

DEVELOPMENT PLAN

FOR

T&R PROPERTIES

EXISTING CONDITIIONS PLAN

STATE OF OHIO
THOMAS M WARNER
64513
REGISTERED PROFESSIONAL ENGINEER

Issue Dates:

NOT FOR CONSTRUCTION

Date: 03/06/2023
Scale: 1" = 150'

Drawn By:	Checked By:
TLM	MIM

Project Number: 22–0014–1044

Drawing Number: 2 / 12

E-2

Z:\22-0014-1044\DWG\production drawings\FINAL DEVELOPMENT PLAN\0014-1044 - Existing Conditions.dwg EXISTING CONDITIONS PLAN Mar 06, 2023 - 8:19:15am Tmann

BERLIN MIXED USE DEVELOPMENT

State of Ohio, County of Franklin, City of Reynoldsburg
Township of Berlin, being in Farm Lot 2, 3 & 4
Quarter Township 4, Township 1, Range 16
United States Military Lands

SITUATED IN THE STATE OF OHIO, COUNTY OF FRANKLIN, TOWNSHIP OF BERLIN, LYING IN FARM LOT 2, 3 AND 4, QUARTER TOWNSHIP 4, TOWNSHIP 1, RANGE 16, UNITED STATES MILITARY LANDS, TRACTS AS CONVEYED TO TO PATTY LYNN CHAPMAN, DAVID JOHN REED, JAMES EDWARD REED AND WILLIAM PATRICK REED (3/4% OWNERSHIP) IN OFFICIAL RECORD 598, PAGE 443 AND WILLIAM PATRICK REED (1/4% OWNERSHIP), DELAWARE COUNTY RECORDER'S OFFICE.

THE UNDERSIGNED, PATTY LYNN CHAPMAN, DAVID JOHN REED, JAMES EDWARD REED AND WILLIAM PATRICK REED, BEING THE OWNERS OF THE LAND PLATTED HEREON, DULY AUTHORIZED IN THE PREMISES, DOES HEREBY CERTIFY THAT THIS PLAT CORRECTLY REPRESENTS BERLIN MIXED USE DEVELOPMENT, A SUBDIVISION CONTAINING LOTS 1, 2, 3 AND 4 AND DOES HEREBY ACCEPT THIS PLAT AND DOES VOLUNTARILY DEDICATE TO PUBLIC USE, AS SUCH, ALL OF THE ROADS (6.924 ACRES, MORE OR LESS) AS SHOWN HEREON AND NOT HERETOFORE DEDICATED.

EASEMENTS ARE RESERVED IN, OVER AND UNDER AREAS DESIGNATED ON THIS PLAT AS "UTILITY EASEMENT", OR "DRAINAGE AND UTILITY EASEMENT" FOR THE CONSTRUCTION, OPERATION AND MAINTENANCE OF ALL PUBLIC AND QUASI-PUBLIC UTILITIES ABOVE AND BENEATH THE SURFACE OF THE GROUND AND WHERE NECESSARY, FOR THE CONSTRUCTION, OPERATION AND MAINTENANCE OF SERVICE CONNECTIONS TO ALL ADJACENT LOTS AND LANDS, AND FOR STORM WATER DRAINAGE.

THE UNDERSIGNED FURTHER AGREES THAT ANY USE OF IMPROVEMENTS MADE ON THIS LAND SHALL BE IN CONFORMITY WITH ALL EXISTING VALID ZONING, PLATTING, HEALTH, OR OTHER LAWFUL RULES AND REGULATIONS INCLUDING THE APPLICABLE OFF-STREET PARKING AND LOADING REQUIREMENTS OF DELAWARE COUNTY, OHIO, FOR THE BENEFIT OF BERLIN MIXED USE DEVELOPMENT, AND ALL OTHER SUBSEQUENT OWNERS OR ASSIGNS TAKING TITLE FROM, UNDER, OR THROUGH THE UNDERSIGNED.

IN WITNESS WHEREOF PATTY LYNN CHAPMAN, DAVID JOHN REED, JAMES EDWARD REED AND WILLIAM PATRICK REED HAS HEREUNTO SET THEIR HAND THIS _____ DAY OF _____, 20___ .

OWNERS

_____ NAME
_____ NAME
_____ NAME
_____ NAME

SIGNED AND ACKNOWLEDGED IN THE PRESENCE OF:

_____ SIGNATURE
_____ SIGNATURE
_____ PRINTED
_____ PRINTED

Notary for Owner

STATE OF OHIO SS:

BEFORE ME, A NOTARY PUBLIC IN AND FOR SAID COUNTY AND STATE, PERSONALLY APPEARED PATTY LYNN CHAPMAN, DAVID JOHN REED, JAMES EDWARD REED AND WILLIAM PATRICK REED WHO ACKNOWLEDGED THE SIGNING OF THE FOREGOING INSTRUMENT TO BE THEIR FREE AND VOLUNTARY ACT AND DEED FOR THE PURPOSES THEREIN EXPRESSED.

IN WITNESS THEREOF, I HAVE HEREUNTO SET MY HAND AND AFFIXED MY OFFICIAL SEAL

THIS_____ DAY OF_____, 20___.

MY COMMISSION EXPIRES

_____
NOTARY PUBLIC, STATE OF OHIO

APPROVED THIS ____ DAY OF _____, 20___ _____ BERLIN TOWNSHIP ZONING OFFICIAL

APPROVED THIS ____ DAY OF _____, 20___ _____ DEPUTY GENERAL MANAGER, DEL-CO WATER

APPROVED THIS ____ DAY OF _____, 20___ _____ DELAWARE COUNTY SANITARY ENGINEER

APPROVED THIS ____ DAY OF _____, 20___ _____ DELAWARE COUNTY ENGINEER

APPROVED THIS ____ DAY OF _____, 20___ _____ DELAWARE COUNTY REGIONAL PLANNING COMMISSION

THIS ____ DAY OF _____, 20___ RIGHT-OF-WAY FOR PUBLIC ROAD AND PARKWAY HEREIN DEDICATED TO PUBLIC USE ARE HEREBY DEDICATED FOR THE COUNTY OF DELAWARE, STATE OF OHIO. STREET IMPROVEMENTS WITHIN SAID DEDICATED RIGHT-OF-WAY SHALL NOT BE ACCEPTED FOR PUBLIC USE AND/OR MAINTENANCE UNLESS AND UNTIL CONSTRUCTION IS COMPLETE AND STREETS ARE FORMALLY ACCEPTED BY DELAWARE COUNTY, OHIO

DELAWARE COUNTY COMMISSIONERS

APPROVED THIS ____ DAY OF _____, 20___ _____ COMMISSIONER
APPROVED THIS ____ DAY OF _____, 20___ _____ COMMISSIONER
APPROVED THIS ____ DAY OF _____, 20___ _____ COMMISSIONER

TRANSFERRED THIS ____ DAY OF _____, 20___ _____ AUDITOR, DELAWARE COUNTY, OHIO

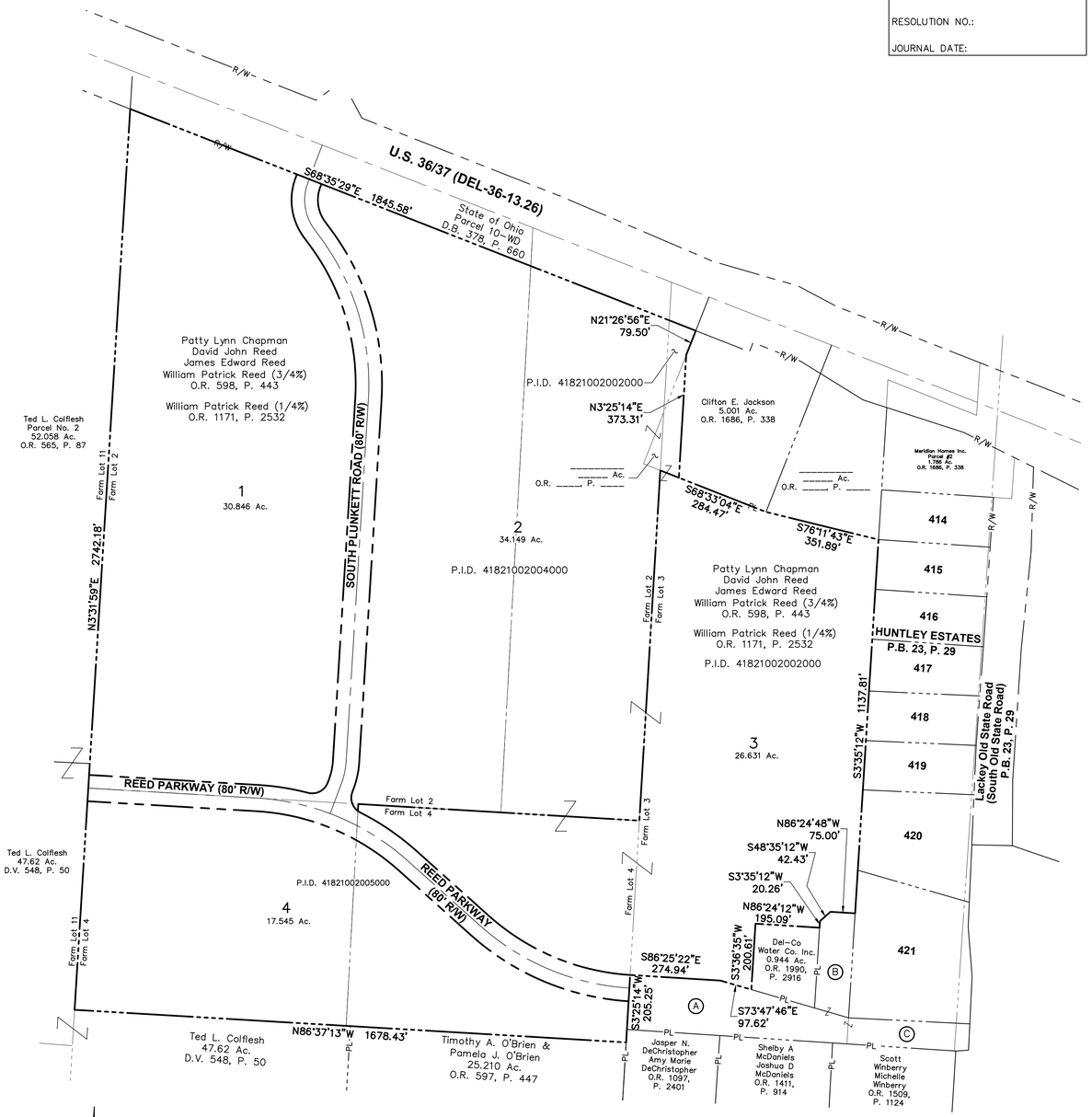
RECORDED THIS ____ DAY OF_____, 20___ AT _____ A.M./P.M. IN BOOK _____, PAGE(S) _____ ; PLAT CABINET _____ , SLIDE _____ . FEE $_____ .

_____ RECORDER, DELAWARE COUNTY, OHIO

DRAINAGE MAINTENANCE PETITION RECORDED IN THE DELAWARE COUNTY COMMISSIONER'S JOURNAL,

RESOLUTION NO.:

JOURNAL DATE:

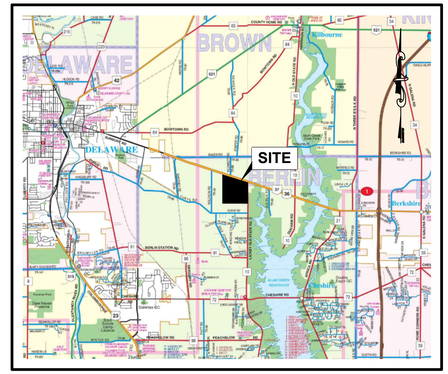


GRAPHIC SCALE

200 0 100 200

(IN FEET)

1 inch = 200 ft.



VICINITY MAP
SCALE: NTS

SOURCE DATA

THE SOURCES OF RECORDED SURVEY DATA ARE THE RECORDS OF THE DELAWARE COUNTY, OHIO, RECORDER, REFERENCED IN THE PLAN AND TEXT OF THIS PLAT.

IRON PINS, WHERE INDICATED, ARE TO BE SET AND ARE IRON PIPES, THIRTEEN-SIXTEENTHS INCH INSIDE DIAMETER, THIRTY INCHES LONG WITH A PLASTIC CAP PLACED IN THE TOP BEARING THE INSCRIPTION "ADVANCED 7661". THESE MARKERS SHALL BE SET FOLLOWING THE COMPLETION OF THE CONSTRUCTION/INSTALLATION OF THE STREET PAVEMENT AND UTILITIES.

PERMANENT MARKERS, WHERE INDICATED, ARE TO BE SET AND ARE ONE-INCH DIAMETER, THIRTY-INCH LONG, SOLID IRON PINS, WITH THE TOP END FLUSH WITH THE SURFACE OF THE GROUND AND THEN CAPPED WITH AN ALUMINUM CAP STAMPED "ADVANCED". ONCE INSTALLED, THE TOP OF THE CAP SHALL BE MARKED (PUNCHED) TO RECORD THE ACTUAL LOCATION OF THE POINT. THESE MARKERS SHALL BE SET FOLLOWING THE COMPLETION OF THE CONSTRUCTION/INSTALLATION OF THE STREET PAVEMENT AND UTILITIES.

FLOOD DESIGNATION

By graphic plotting only this property is located in Zone "x" (Areas determined to be outside of the 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile) by the Federal Emergency Management Agency on Flood Insurance Rate Map, Community Panel No. 39049C0145K, with an effective date of April 16, 2009, in Franklin County, Ohio. No field surveying was performed to determine this zone.

BASIS OF BEARINGS

Bearings are based on the Ohio State Plane Coordinate System, North Zone, NAD83 (2011). Said bearings were derived from GPS observation and determined a bearing of North 04°09'04" East, for the westerly limited access right-of-way line of Interstate 71.

OWNERSHIP INFORMATION

(A) Board of County Commissioners of Delaware County
Tract 1 – 2.861 Ac.
O.R. 1908, P. 2504

(B) Board of County Commissioners of Delaware County
0.728 Ac.
O.R. 1908, P. 2521

(C) Board of County Commissioners of Delaware County
0.696 Ac.
Parcel 5 – O.R. 1908, P. 2504

SITE STATISTICS

TOTAL AREA:	116.565 ACRES
TOTAL R/W AREA:	6.924 ACRES
BUILDABLE LOTS (4) AREA:	109.641 ACRES

I HEREBY STATE THAT THIS SURVEY IS BASED ON ACTUAL FIELD MEASUREMENTS AND IS CORRECT TO THE BEST OF MY KNOWLEDGE. ALL DIMENSIONS ARE IN FEET AND DECIMAL PARTS THEREOF.

_____
JONATHAN E. PHELPS, P.S. DATE
REGISTRATION NUMBER 8241

PLAN PREPARED BY:
ADVANCED CIVIL DESIGN ENGINEERS SURVEYORS
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PLAN PREPARED FOR:
T&R PROPERTIES, INC.

BERLIN TOWNSHIP, DELAWARE COUNTY, OHIO
BERLIN MIXED USE DEVELOPEMENT
DEVELOPMENT PLAN
FOR
T&R PROPERTIES
PRELIMINARY PLAT

THOMAS M. WARNER 8451 REGISTERED PROFESSIONAL ENGINEER
STATE OF OHIO
PRELIMINARY – NOT FOR CONSTRUCTION

Issue Dates:

NOT FOR CONSTRUCTION

Date: 03/06/2023
Scale: 1" = 200'

Drawn By:	Checked By:
TLM	MIM

Project Number:
22–0014–1044

Drawing Number:
3 / 12

E-3

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BERLIN MIXED USE DEVELOPMENT
FARM LOT 2, 3 & 4, QUARTER
TOWNSHIP 4, TOWNSHIP 1, RANGE 16
UNITED STATES MILITARY LANDS
BERLIN TOWNSHIP, DELAWARE
COUNTY, OHIO

CURVE TABLE					
NO.	DELTA	RADIUS	LENGTH	CHORD BEARING	CHORD DIST.
C1	57°29'00"	150.00'	150.49'	S07°46'44"E	144.26'
C2	40°02'41"	750.00'	524.18'	S16°29'53"E	513.58'
C3	17°05'41"	230.00'	68.62'	S12°08'58"W	68.37'
C4	38°30'04"	750.00'	503.98'	S67°22'11"E	494.55'
C5	38°18'13"	750.00'	501.39'	N67°16'15"W	492.11'
C6	17°19'01"	750.00'	226.68'	S77°57'42"E	225.82'
C7	21°11'03"	750.00'	277.30'	S58°42'40"E	275.72'
C8	57°29'00"	190.00'	190.62'	S07°46'44"E	182.73'
C9	40°02'41"	710.00'	496.23'	S16°29'53"E	486.19'
C10	19°31'40"	190.00'	64.76'	S13°12'10"W	64.44'
C11	88°16'31"	50.00'	77.03'	S60°24'30"W	69.64'
C12	11°09'59"	790.00'	153.96'	N81°02'14"W	153.72'
C13	74°04'50"	50.00'	64.65'	N16°20'37"W	60.24'
C14	17°14'38"	270.00'	81.26'	N12°04'29"E	80.95'

CURVE TABLE					
NO.	DELTA	RADIUS	LENGTH	CHORD BEARING	CHORD DIST.
C15	40°02'41"	790.00'	552.14'	N16°29'53"W	540.97'
C16	57°29'00"	110.00'	110.36'	N07°46'44"W	105.79'
C17	38°18'13"	709.84'	474.55'	N67°15'59"W	465.76'
C18	15°02'01"	790.00'	207.28'	N55°38'09"W	206.69'
C19	9°46'07"	50.00'	8.52'	N58°16'06"W	8.51'
C20	38°30'04"	710.00'	477.10'	S67°22'11"E	468.17'
C21	38°18'13"	790.00'	528.14'	S67°16'15"E	518.35'
C22	0°36'10"	710.00'	7.47'	N03°13'23"E	7.47'
C23	18°09'54"	790.00'	250.46'	N05°33'29"W	249.41'
C24	19°11'22"	115.00'	38.52'	N83°56'18"E	38.34'
C25	89°53'15"	190.00'	298.08'	S41°31'24"E	268.44'
C26	89°53'15"	160.00'	251.01'	N41°31'24"W	226.05'
C27	19°11'22"	85.00'	28.47'	S83°56'18"W	28.34'
C28	3°06'33"	710.00'	38.53'	S34°57'57"E	38.52'

5/8" rebar "Fox"

R/W

S68°35'29"E 543.96'

Ex. Gas Esmt. O.R. 1927, Pg. 2594

467.47'

U.S. 36/37 (DEL-36-13.26)

State of Ohio Parcel 10-WD D.B. 378, P. 660

S68°35'29"E 1845.58'

S68°35'29"E 1221.61'

Ex. Elec Esmt. O.R. 958, Pg. 1112

50' Access Esmt.

S86°28'01"E 519.93'

N86°28'01"W 519.93'

Δ=33°19'25" R=75.00' ArcL=43.62' ChB=N76°52'16"E ChD=43.01'

20' San. Esmt.

N60°12'34"E 53.36'

S60°12'34"W 53.36'

Δ=33°19'25" R=125.00' ArcL=72.70' ChB=S76°52'16"W ChD=71.68'

20' Util. Esmt.

N74°20'37"E 65.80'

S74°20'37"W 66.90'

S86°28'01"E 643.14'

N86°28'01"W 643.14'

30' Access Esmt.

5/8" rebar "SLSS"

S21°26'56"W 79.50'

20' San. Esmt.

N21°26'56"E 236.82'

S3°25'14"W 373.31'

234.66'

Clifton E. Jackson 5.001 Ac. O.R. 1686, P. 338

_____ Ac. O.R. _____ P. _____

5/8" Rebar

30' Access Esmt.

N3°25'14"E 351.50'

S3°25'14"W 335.17'

23.14'

S68°33'04"E 284.47'

S68°33'04"E 345.16'

S76°11'43"E 351.89'

20' San. Esmt.

S63°15'39"E 170.19'

N63°15'39"W 170.19'

Patty Lynn Chapman
David John Reed
James Edward Reed
William Patrick Reed (3/4%)
O.R. 598, P. 443

William Patrick Reed (1/4%)
O.R. 1171, P. 2532

P.I.D. 41821002002000

Farm Lot 2 / Farm Lot 3

3
26.631 Ac.

S3°25'14"W 1065.92'

N3°25'14"E 754.53'

S3°25'14"W 747.69'

20' San. Esmt.

Meridian Homes Inc.
Parcel #2
1.786 Ac.
O.R. 1686, P. 338

414 Meridian Homes Inc.
Parcel #1
1.786 Ac.
O.R. 1686, P. 338

415 Christopher A Acker, Trs.
Nicki L Acker, Trs.
O.R. 1711, P. 1821
O.R. 203, P. 1403

416 Donna Sewell
O.R. 1892, P. 89
O.R. 1168, P. 1257

HUNTLEY ESTATES
P.B. 23, P. 29

S3°35'12"W 1137.81'

417 Richard E. Newell
Lorrie L. Newell
O.R. 797, P. 304

418 David Lee Stuckey
Teressa G Stuckey
O.R. 535, P. 163

1/2" pipe

5/8" Rebar

Lackey Old State Road
(South Old State Road)
P.B. 23, P. 29

Ted L. Colflesh
Parcel No. 2
52.058 Ac.
O.R. 565, P. 87

1
30.846 Ac.

Farm Lot 11 / Farm Lot 2

N3°31'59"E 2742.18' 2027.18'

Patty Lynn Chapman
David John Reed
James Edward Reed
William Patrick Reed (3/4%)
O.R. 598, P. 443

William Patrick Reed (1/4%)
O.R. 1171, P. 2532

S12°50'38"W 92.39'

15' San. Esmt.

1019.21'

SOUTH PLUNKETT ROAD (80' R/W)

S3°31'28"W 1102.95'

1102.35'

1102.30'

40' 40'

20' Util. Esmt.

2
34.619 Ac.

P.I.D. 41821002004000

GRAPHIC SCALE

100 0 50 100

(IN FEET)
1 inch = 100 ft.

E-4

PLAN PREPARED BY:

ADVANCED CIVIL DESIGN ENGINEERS SURVEYORS

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PLAN PREPARED FOR:

T&R PROPERTIES, INC.

BERLIN TOWNSHIP, DELAWARE COUNTY, OHIO

BERLIN MIXED USE DEVELOPEMENT

DEVELOPMENT PLAN

FOR

T&R PROPERTIES

PRELIMINARY PLAT

STATE OF OHIO
THOMAS M. WARNER
E-8513
REGISTERED PROFESSIONAL ENGINEER

Issue Dates:

NOT FOR CONSTRUCTION

Date: 03/06/2023
Scale: 1" = 100'

Drawn By:	Checked By:
TLM	MIM

Project Number:
22-0014-1044

Drawing Number:
4 / 12

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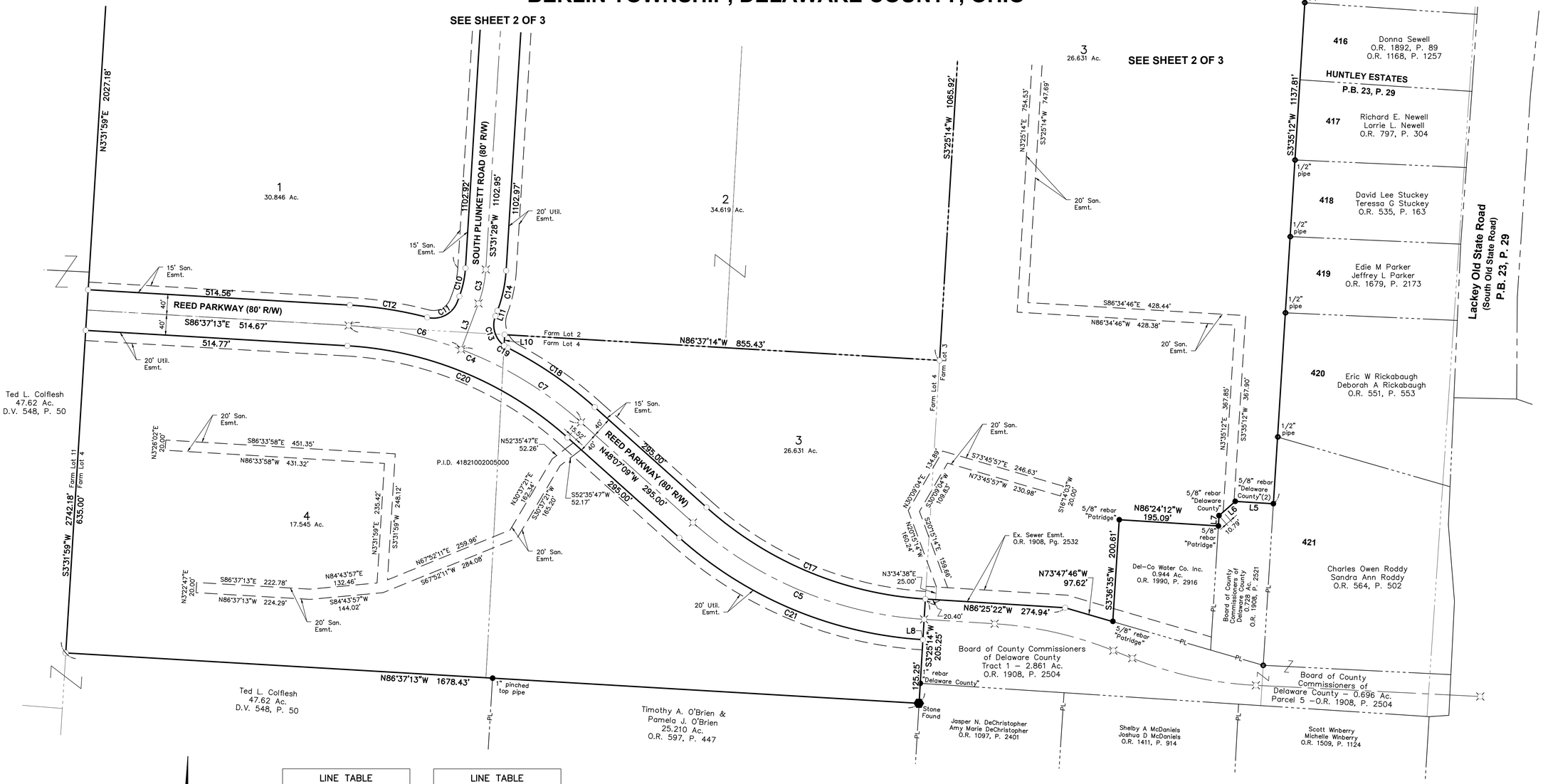
BERLIN MIXED USE DEVELOPMENT

FARM LOT 2, 3 & 4, QUARTER TOWNSHIP 4, TOWNSHIP 1, RANGE 16
UNITED STATES MILITARY LANDS
BERLIN TOWNSHIP, DELAWARE COUNTY, OHIO



GRAPHIC SCALE

100 0 50 100

(IN FEET)
1 inch = 100 ft.

LINE TABLE		
LINE	DISTANCE	BEARING
L1	121.22'	S20°57'46"W
L2	30.55'	S36°31'13"E
L3	96.55'	S20°41'48"W
L4	10.59'	S20°57'46"W
L5	75.00'	N86°24'48"W
L6	42.43'	S48°35'12"W
L7	20.26'	S03°35'12"W
L8	0.11'	S86°25'22"E

LINE TABLE		
LINE	DISTANCE	BEARING
L9	60.69'	N68°33'04"W
L10	21.30'	S03°07'47"W
L11	11.38'	N20°41'48"E
L12	9.97'	N20°57'46"E
L13	55.43'	S53°03'33"E
L14	15.00'	S36°56'27"W
L15	256.60'	S03°25'14"W
L16	246.83'	N03°25'14"E

PLAN PREPARED BY:
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Gahanna, Ohio 43230
ph 614.428.7750
fax 614.428.7755

PLAN PREPARED FOR:
T&R PROPERTIES, INC.

BERLIN TOWNSHIP, DELAWARE COUNTY, OHIO
BERLIN MIXED USE DEVELOPEMENT
DEVELOPMENT PLAN
FOR
T&R PROPERTIES
PRELIMINARY PLAT

STATE OF OHIO
THOMAS M. WARNER
E-8513
REGISTERED PROFESSIONAL ENGINEER

Issue Dates:

NOT FOR CONSTRUCTION

Date: 03/06/2023
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Drawn By:	Checked By:
TLM	MIM

Project Number:
22–0014–1044

Drawing Number:
5 / 12

E-5

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CODED NOTES

- (A) COMBINED CURB AND WALK
- (B) ENTRY FEATURE (REFER TO LANDSCAPE DRAWINGS)
- (C) ACCESSIBLE PARKING SPACE WITH SIGNAGE. SEE GRADING PLAN FOR GRADING DETAIL ("VAN" – INDICATES VAN ACCESSIBLE SPACE)
- (D) DUMPSTER/COMPACTOR LOCATION
- (E) 18" CONCRETE STRAIGHT CURB (ALL OTHER CURB IS EXTRUDED)
- (F) BIKE RACK
- (G) PARKING BLOCK
- (H) CONCRETE SIDEWALK

CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELOCATIONS, INCLUDING BUT NOT LIMITED TO, ALL UTILITIES, STORM DRAINAGE, SIGNS, TRAFFIC SIGNALS & POLES, ETC. AS REQUIRED ALL WORK SHALL BE IN ACCORDANCE WITH GOVERNING AUTHORITIES SPECIFICATIONS AND SHALL BE APPROVED BY SUCH. ALL COST SHALL BE INCLUDED IN BASE BID.

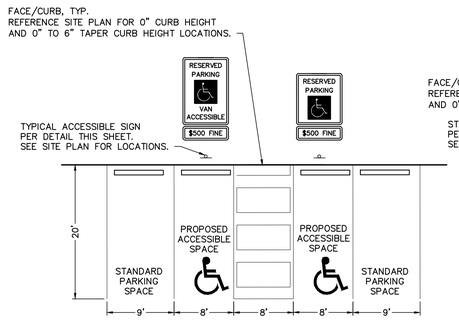
ANY EXISTING IMPROVEMENTS DAMAGED OR DESTROYED DURING FUTURE CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO THE OWNER'S SATISFACTION.

DIMENSIONS SHOWN ARE TO FACE OF CURB OR FACE OF BUILDING, UNLESS OTHERWISE NOTED.

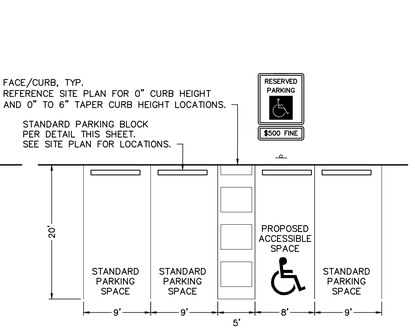
ALL CURB RADII ARE 3'–0" AS MEASURED ALONG THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.

LEGEND

- HEAVY DUTY ASPHALT PAVEMENT (SEE SHEET 8 FOR PAVEMENT DETAILS)
- LIGHT DUTY ASPHALT PAVEMENT (SEE SHEET 8 FOR PAVEMENT DETAILS)
- DELAWARE COUNTY STANDARD DRAWING R2203A



TWO ACCESSIBLE PARKING SPACES DETAIL
NO SCALE



SINGLE ACCESSIBLE PARKING SPACE DETAIL
NO SCALE

GRAPHIC SCALE

0 30 60 120

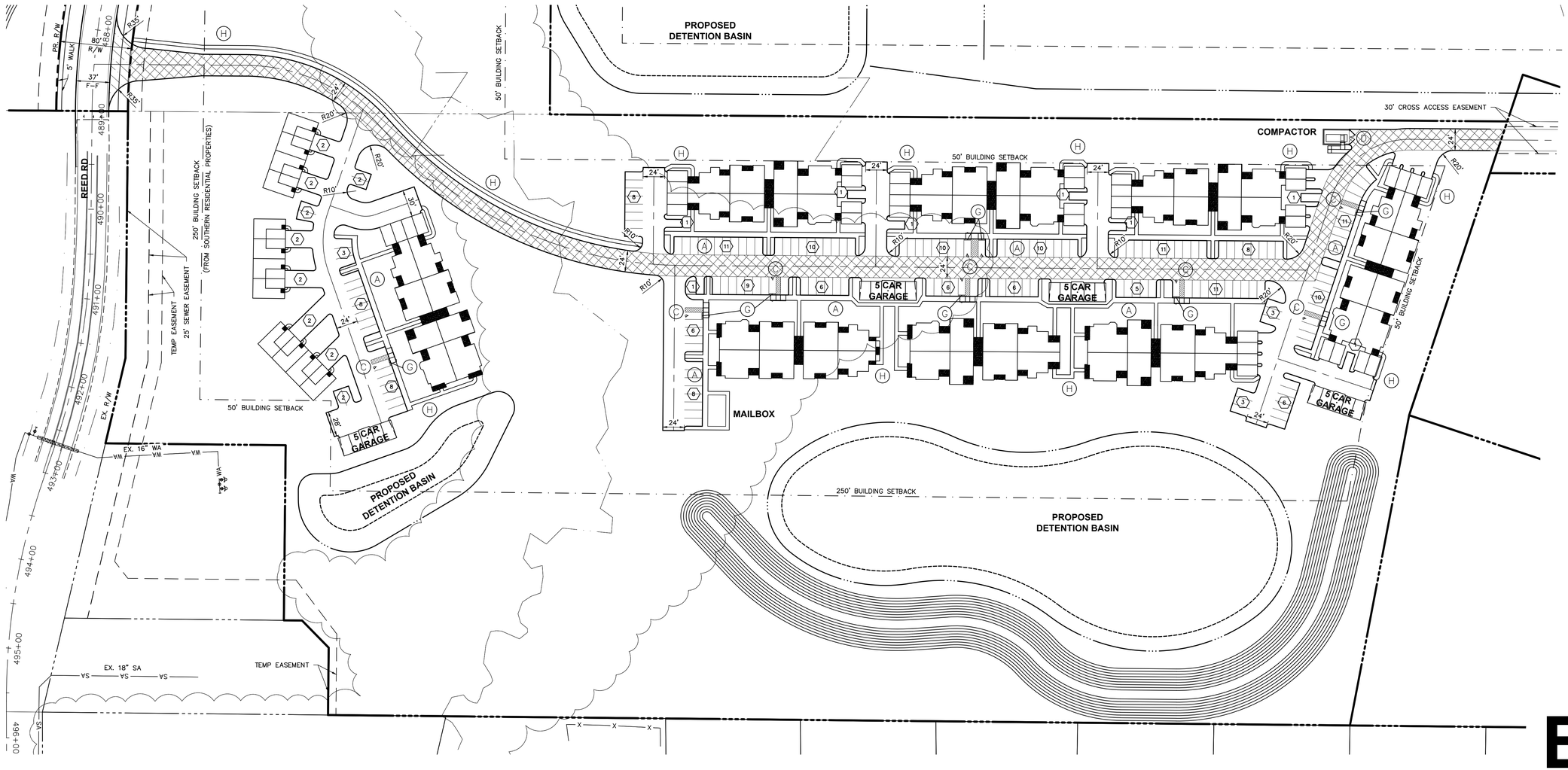
1 inch = 60 feet

SITE DATA TABLE:

TOTAL SITE AREA:	±26.63 ACRES
TOTAL UNITS:	140 UNITS
NUMBER OF BUILDINGS:	15
OPEN SPACE:	±20.94 ACRES
% OPEN SPACE:	78.63%
LOT COVERAGE:	±5.58 ACRES
% LOT COVERAGE:	20.95%
PARKING LOT COVERAGE:	±3.31 ACRES
% PARKINGLOT COVERAGE:	12.43%

PARKING SPACES: 20'x9' (TYP)
PARKING SPACES REQUIRED: 140 SPACES
PARKING SPACES PROVIDED: 72 GARAGE – 203 SURFACE
PARKING SPACES TOTAL: 275
PARKING RATIO: 1.96 SPACES/UNIT

HCP SPACES REQUIRED: 8 SPACES
HCP SPACES PROVIDED: 9 SPACES (INCLUDES 1 VAN ACCESSIBLE)



PLAN PREPARED BY:

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ADVANCED CIVIL DESIGN ENGINEERS SURVEYORS

PLAN PREPARED FOR:

T&R PROPERTIES, INC.

BERLIN TOWNSHIP, DELAWARE COUNTY, OHIO

BERLIN MIXED USE DEVELOPEMENT

DEVELOPMENT PLAN

FOR

T&R PROPERTIES

MULTI FAM SITE DIMENSION PLAN - NORTH

STATE OF OHIO
THOMAS M. WARNER
68513
REGISTERED PROFESSIONAL ENGINEER

Issue Dates:

NOT FOR CONSTRUCTION

Date: 03/06/2023
Scale: 1" = 60'

Drawn By:	Checked By:
TLM	MIM

Project Number:
22–0014–1044

Drawing Number:
6 / 12

E-6

Z:\22-0014-1044\DWG\production drawings\FINAL DEVELOPMENT PLAN\0014-1044 - Site Dimension Plan.dwg MULTI FAM SITE PLAN 1 Mar 06, 2023 - 8:19:36am Tmann

CODED NOTES

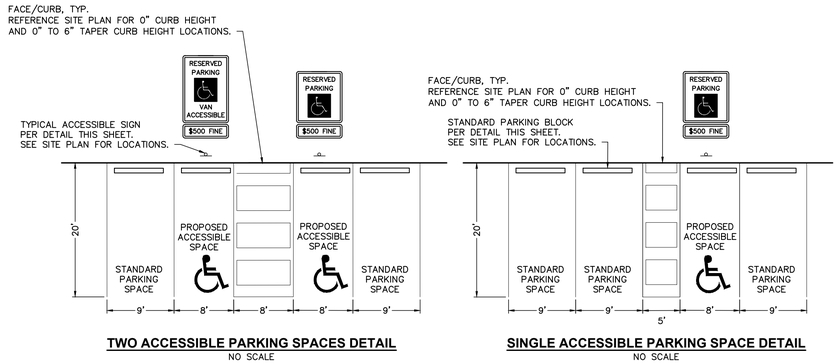
- (A) COMBINED CURB AND WALK
- (B) ENTRY FEATURE (REFER TO LANDSCAPE DRAWINGS)
- (C) ACCESSIBLE PARKING SPACE WITH SIGNAGE. SEE GRADING PLAN FOR GRADING DETAIL ("VAN" – INDICATES VAN ACCESSIBLE SPACE)
- (D) DUMPSTER/COMPACTOR LOCATION
- (E) 18" CONCRETE STRAIGHT CURB (ALL OTHER CURB IS EXTRUDED)
- (F) BIKE RACK
- (G) PARKING BLOCK
- (H) CONCRETE SIDEWALK

CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELOCATIONS, INCLUDING BUT NOT LIMITED TO, ALL UTILITIES, STORM DRAINAGE, SIGNS, TRAFFIC SIGNALS & POLES, ETC. AS REQUIRED ALL WORK SHALL BE IN ACCORDANCE WITH GOVERNING AUTHORITIES SPECIFICATIONS AND SHALL BE APPROVED BY SUCH. ALL COST SHALL BE INCLUDED IN BASE BID.

ANY EXISTING IMPROVEMENTS DAMAGED OR DESTROYED DURING FUTURE CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO THE OWNER'S SATISFACTION.

DIMENSIONS SHOWN ARE TO FACE OF CURB OR FACE OF BUILDING, UNLESS OTHERWISE NOTED.

ALL CURB RADII ARE 3'–0" AS MEASURED ALONG THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.



TWO ACCESSIBLE PARKING SPACES DETAIL
NO SCALE

SINGLE ACCESSIBLE PARKING SPACE DETAIL
NO SCALE

LEGEND

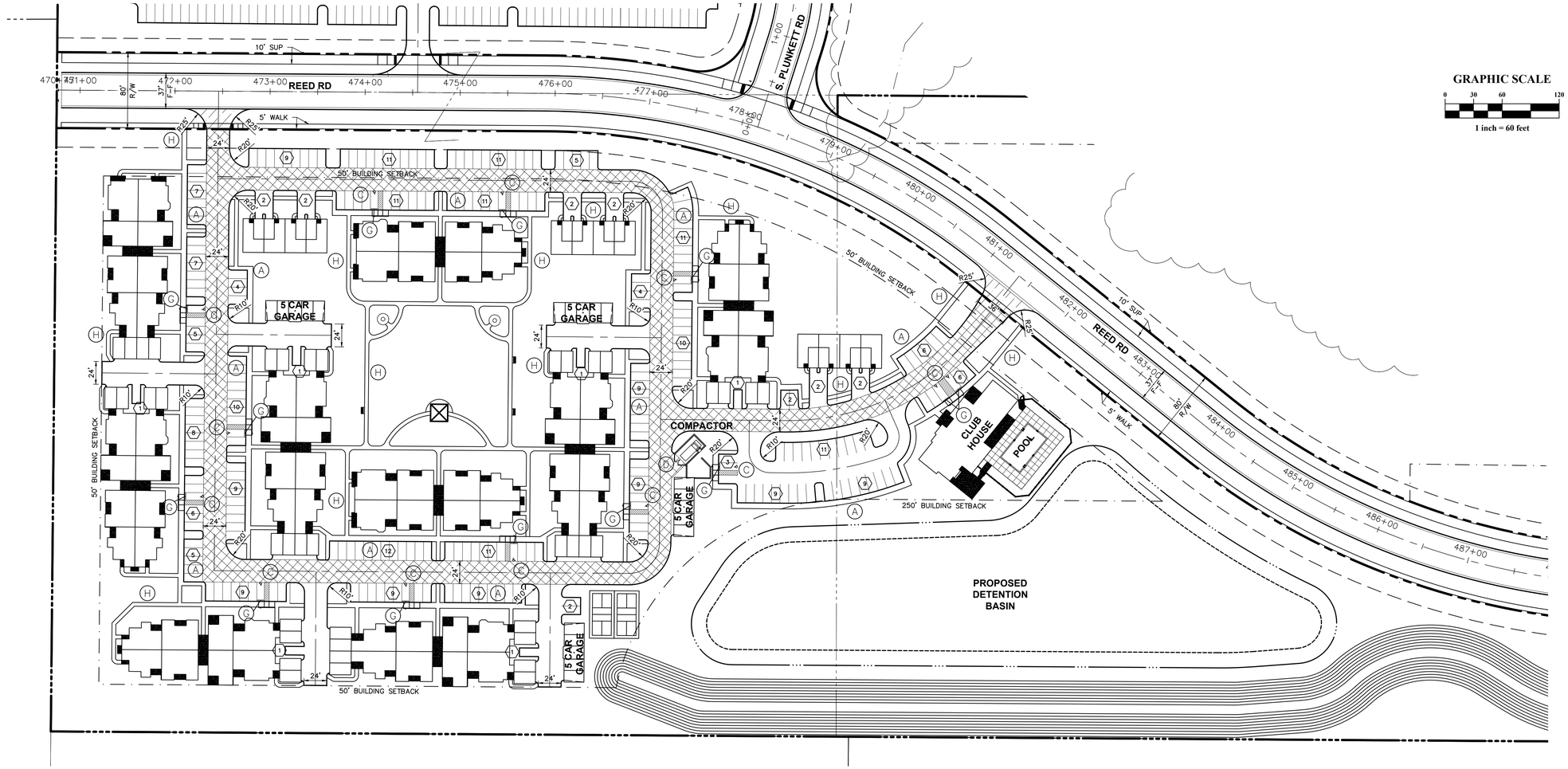
- HEAVY DUTY ASPHALT PAVEMENT (SEE SHEET 8 FOR PAVEMENT DETAILS)
- LIGHT DUTY ASPHALT PAVEMENT (SEE SHEET 8 FOR PAVEMENT DETAILS)
- DELAWARE COUNTY STANDARD DRAWING R2203A

SITE DATA TABLE:

TOTAL SITE AREA:	±17.54 ACRES
TOTAL UNITS:	156 UNITS
NUMBER OF BUILDINGS:	17
OPEN SPACE:	±10.49 ACRES
% OPEN SPACE:	59.81%
LOT COVERAGE:	±6.57 ACRES
% LOT COVERAGE:	37.46%
PARKING LOT COVERAGE:	±2.93 ACRES
% PARKINGLOT COVERAGE:	16.70%

PARKING SPACES: 20'x9' (TYP)
PARKING SPACES REQUIRED: 156 SPACES
PARKING SPACES PROVIDED: 72 GARAGE – 277 SURFACE
PARKING SPACES TOTAL: 349
PARKING RATIO: 2.24 SPACES/UNIT

HCP SPACES REQUIRED: 8 SPACES
HCP SPACES PROVIDED: 13 SPACES (INCLUDES 1 VAN ACCESSIBLE)



GRAPHIC SCALE
0 30 60 120
1 inch = 60 feet

E-7

PLAN PREPARED BY:
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PLAN PREPARED FOR:
T&R PROPERTIES, INC.

BERLIN TOWNSHIP, DELAWARE COUNTY, OHIO
BERLIN MIXED USE DEVELOPEMENT
DEVELOPMENT PLAN
FOR
T&R PROPERTIES
MULTI FAM SITE DIMENSION PLAN - SOUTH

THOMAS M WARNER 64513 REGISTERED PROFESSIONAL ENGINEER STATE OF OHIO
03/06/2023

Issue Dates:
NOT FOR CONSTRUCTION

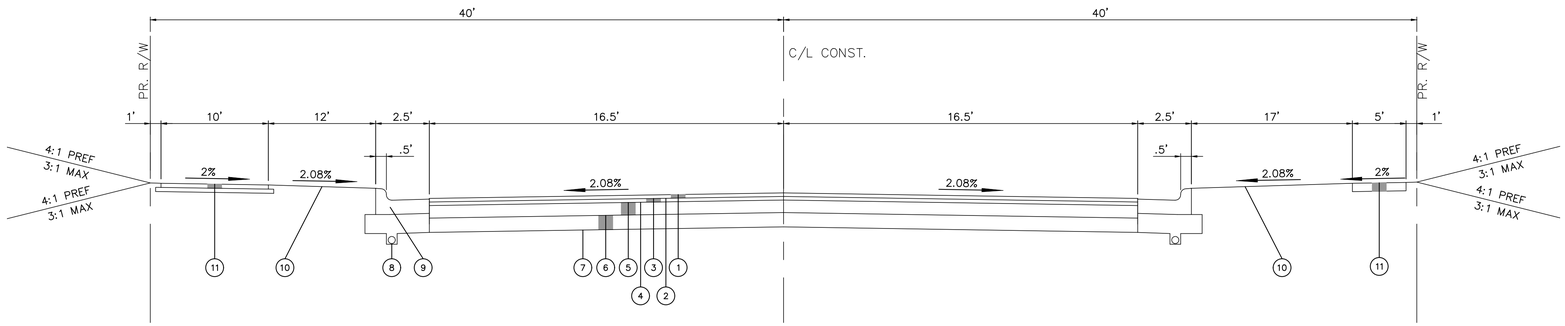
Date: 03/06/2023
Scale: 1" = 60'

Drawn By:	Checked By:
TLM	MIM

Project Number: 22–0014–1044

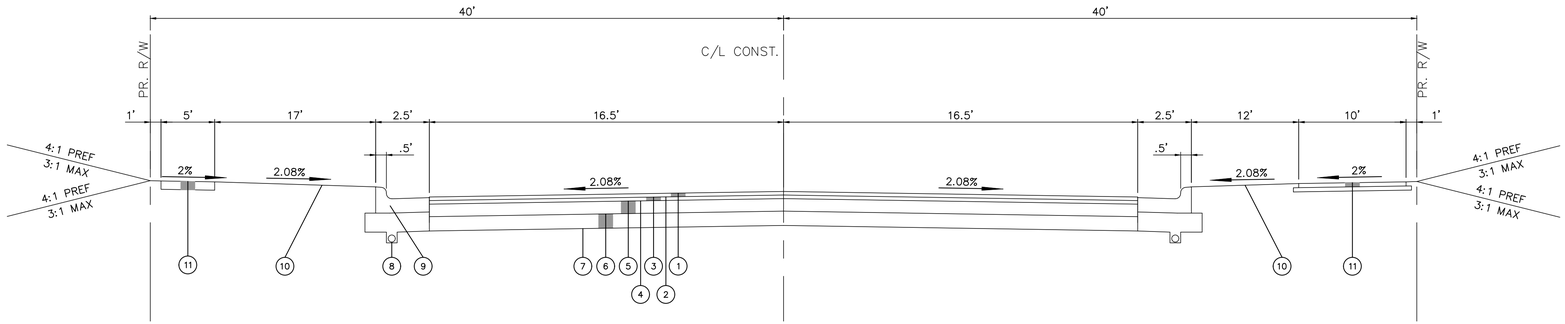
Drawing Number: 7 / 12

Z:\22-0014-1044\DWG\production drawings\FINAL DEVELOPMENT PLAN\0014-1044 - Site Dimension Plan.dwg MULTI FAM SITE PLAN 2 Mar 06, 2023 - 8:19:41am Tmonn



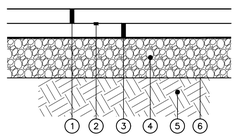
TYPICAL SECTION – REED RD

470+75.50 – STA. 489+00.00 = 1824.50 FT
(NO SCALE)



TYPICAL SECTION – S. PLUNKETT DR

STA. 0+42.31 – STA. 20+37.35 = 1995.04 FT
(NO SCALE)



(1) ITEM 448, 1–1/2" ASPHALT CONCRETE, SURFACE COURSE, TYPE 1 (448), PG64–22	(1) ITEM 448, 1–1/2" ASPHALT CONCRETE, SURFACE COURSE, TYPE 1 (448), PG64–22
(2) ITEM 407, TACK COAT (0.15–0.20 GAL/SQ. YD.)	(2) ITEM 407, TACK COAT (0.15–0.20 GAL/SQ. YD.)
(3) ITEM 448, 1–1/2" ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 2, (448)	(3) ITEM 448, 2–1/2" ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 2, (448)
(4) ITEM 304, 8" CRUSHED AGGREGATE BASE	(4) ITEM 304, 10" CRUSHED AGGREGATE BASE
(5) ITEM 204, SUBGRADE COMPACTION	(5) ITEM 204, SUBGRADE COMPACTION
	(6) TENSAR BX–1100 GEOGRID

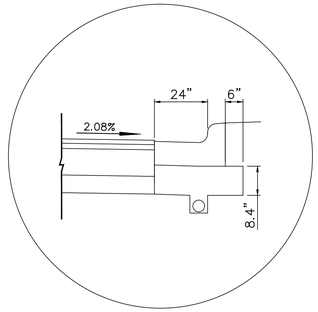
STANDARD DUTY
NO SCALE

HEAVY DUTY
NO SCALE

NOTES: THE TACK COAT MAY BE ELIMINATED IF THE INTERMEDIATE COURSE IS CLEAN AND THE SURFACE IS PLACED IMMEDIATELY FOLLOWING THE PLACEMENT OF THE INTERMEDIATE COURSE.

FOR IMPROVED PAVEMENT PERFORMANCE, MEDIUM–DUTY GEOGRID (TENSAR BX 1100, OR EQUAL) SHOULD BE CONSIDERED FOR INSTALLATION BELOW THE BASE AGGREGATE IN AREAS SUBJECTED TO STOPPING AND TURNING TRAFFIC OR CONCENTRATED TRAFFIC FLOW, SUCH AS THE MAIN ENTRANCE/EXIT DRIVES.

PAVEMENT SECTION DETAIL
NO SCALE



CURB & GUTTER DETAIL

(NO SCALE)

LEGEND

(1) ITEM 441 – 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG70–22M
(2) ITEM 407 – NON–TRACKING TACK COAT
(3) ITEM 441 – 1.5" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)
(4) ITEM 407 – TACK COAT, 702.13 ASPHALT EMULSION
(5) ITEM 301 – 9" ASPHALT CONCRETE BASE (IN TWO 4.5" LIFTS)
(6) ITEM 304 – 6" AGGREGATE BASE
(7) ITEM 204 – SUBGRADE COMPACTION
(8) ITEM 605 – 6" SHALLOW PIPE UNDERDRAIN
(9) ITEM 609 – COMBINATION CURB & GUTTER, TYPE 2
(10) ITEM 659 – SEEDING & MULCHING
(11) ITEM 608 – 4" CONCRETE WALK

PLAN PREPARED BY:
ADVANCED CIVIL DESIGN ENGINEERS SURVEYORS
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PLAN PREPARED FOR:
T&R PROPERTIES, INC.

BERLIN TOWNSHIP, DELAWARE COUNTY, OHIO
BERLIN MIXED USE DEVELOPEMENT
DEVELOPMENT PLAN
FOR
T&R PROPERTIES
TYPICAL SECTION

STATE OF OHIO
THOMAS M WARNER
64513
REGISTERED PROFESSIONAL ENGINEER

Issue Dates:
NOT FOR CONSTRUCTION

Date: 03/06/2023
Scale: NTS

Drawn By:	Checked By:
TLM	MIM

Project Number:
22–0014–1044

Drawing Number:
8 / 12

E-8

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LEGEND

PROPOSED

8" SA	SANITARY SEWER
6" SAS	SANITARY SEWER SERVICE
CATCH BASIN 12" ST	STORM SEWER
8" WM VALVE	WATER MAIN
4" WS	WATER SERVICE

EXISTING

SA SA SA MANHOLE SA	SANITARY SEWER
CATCH BASIN ST ST MANHOLE ST	STORM SEWER
HYDRANT WA WA VALVE WA	WATER
T	UNDERGROUND TELEPHONE
G G G G	GAS MAIN
E E	UNDERGROUND ELECTRIC
OHE OHE	OVERHEAD ELECTRIC
℄	PUBLIC STREET LIGHT

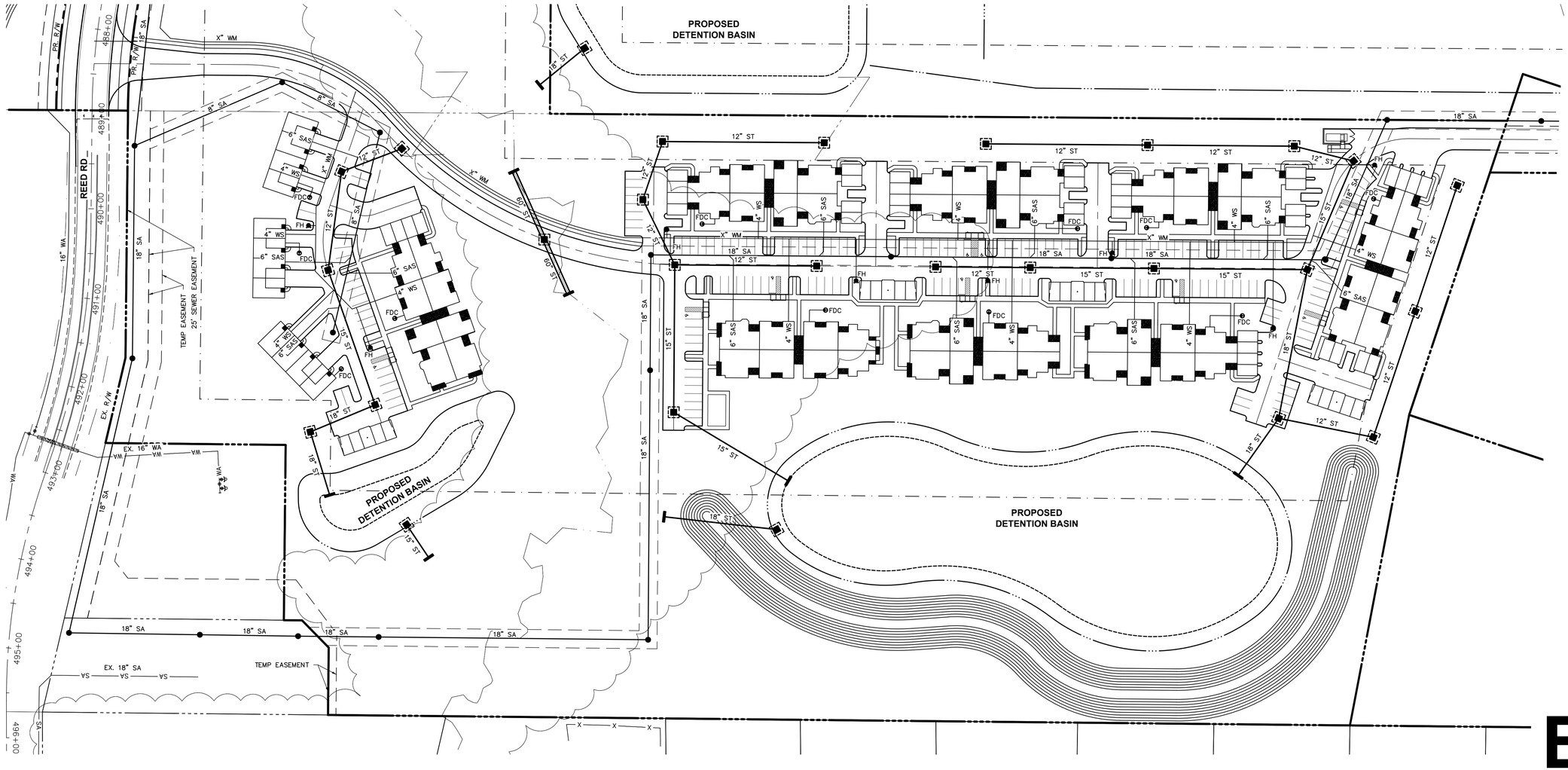
FIRE DEPARTMENT CONNECTION (FDC)

FIRE HYDRANT (FH)

GRAPHIC SCALE

0 30 60 120

1 inch = 60 feet



E-9

PLAN PREPARED BY:
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PLAN PREPARED FOR:
T&R PROPERTIES, INC.

BERLIN TOWNSHIP, DELAWARE COUNTY, OHIO

BERLIN MIXED USE DEVELOPEMENT

DEVELOPMENT PLAN

FOR

T&R PROPERTIES

MULTI FAM UTILITY PLAN - NORTH

STATE OF OHIO
THOMAS M. WARNER
68513
REGISTERED PROFESSIONAL ENGINEER

Issue Dates:

NOT FOR CONSTRUCTION

Date: 03/06/2023
Scale: 1" = 60'

Drawn By:	Checked By:
TLM	MIM

Project Number:
22-0014-1044

Drawing Number:
9 / 12

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LEGEND

PROPOSED

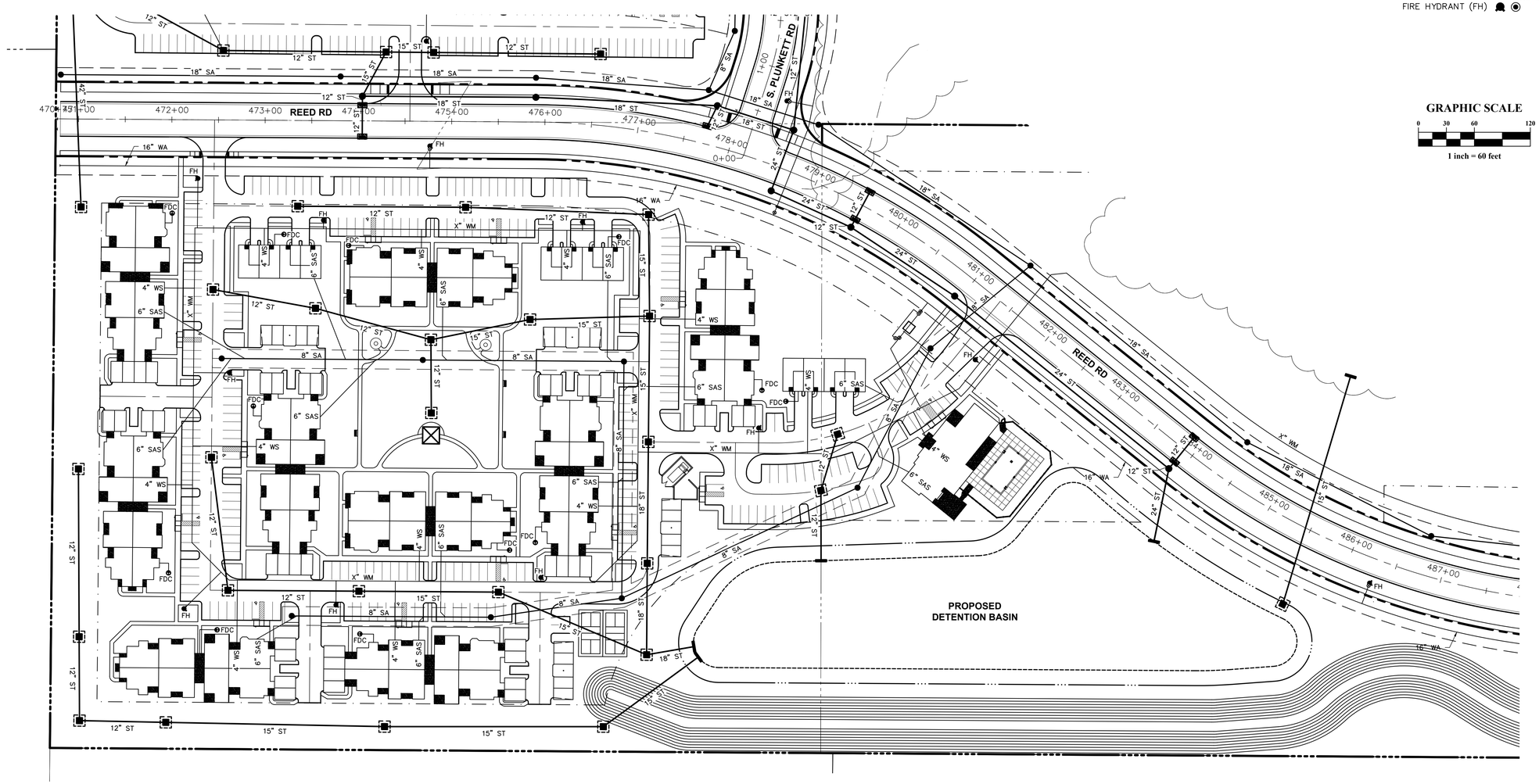
8" SA	SANITARY SEWER
6" SAS	SANITARY SEWER SERVICE
CATCH BASIN 12" ST	STORM SEWER
8" WM VALVE	WATER MAIN
4" WS	WATER SERVICE

EXISTING

SA SA SA MANHOLE SA	SANITARY SEWER
CATCH BASIN ST ST MANHOLE ST ST	STORM SEWER
HYDRANT WA WA VALVE WA WA	WATER
T	UNDERGROUND TELEPHONE
G G G G	GAS MAIN
E E	UNDERGROUND ELECTRIC
OHE OHE	OVERHEAD ELECTRIC
	PUBLIC STREET LIGHT

FIRE DEPARTMENT CONNECTION (FDC)

FIRE HYDRANT (FH)



GRAPHIC SCALE

0 30 60 120

1 inch = 60 feet

E-10

PLAN PREPARED BY:

ADVANCED CIVIL DESIGN ENGINEERS SURVEYORS

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PLAN PREPARED FOR:

T&R PROPERTIES, INC.

BERLIN TOWNSHIP, DELAWARE COUNTY, OHIO

BERLIN MIXED USE DEVELOPEMENT

DEVELOPMENT PLAN

FOR

T&R PROPERTIES

MULTI FAM UTILITY PLAN - SOUTH

STATE OF OHIO
THOMAS M. WARNER
64513
REGISTERED PROFESSIONAL ENGINEER

Issue Dates:

NOT FOR CONSTRUCTION

Date: 03/06/2023
Scale: 1" = 60'

Drawn By:	Checked By:
TLM	MIM

Project Number:
22-0014-1044

Drawing Number:
10 / 12

Z:\22-0014-1044\DWG\production drawings\FINAL DEVELOPMENT PLAN\0014-1044 - Utility Plan.dwg MULTI FAM UTILITY PLAN 2 Mar 06, 2023 - 8:20:01am Tmorin

UTILITY LEGEND

PROPOSED

- 8" SA — SANITARY SEWER
- 6" SAS — SANITARY SEWER SERVICE
- CATCH_BASIN 12" ST — STORM SEWER
- 8" WM VALVE — WATER MAIN
- 4" WS — WATER SERVICE

EXISTING

- SA SA MANHOLE SA — SANITARY SEWER
- ST CATCH_BASIN ST MANHOLE ST — STORM SEWER
- WA HYDRANT WA VALVE WA — WATER
- T — UNDERGROUND TELEPHONE
- G — GAS MAIN
- E — UNDERGROUND ELECTRIC
- OHE — OVERHEAD ELECTRIC
- ℄ — PUBLIC STREET LIGHT

GRADING LEGEND

- 940 — EXISTING CONTOUR
- 913 — PROPOSED CONTOUR
- TC=795.20 — TOP OF CASTING ELEVATION
- X TC 795.20 — TOP OF CURB ELEVATION
- X 795.20 — TOP OF PAVEMENT OR GROUND SURFACE
- x 795.20 Ex — EXISTING TOP OF PAVEMENT OR GROUND SURFACE
- SURFACE FLOW ARROW
- MAJOR FLOOD ROUTING PATH (GREATER THAN 100 YR EVENT)

GRAPHIC SCALE

0 30 60 120

1 inch = 60 feet

SITE GRADING NOTES

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

ALL CUT OR FILL SLOPES SHALL BE 3:1 OR FLATTER UNLESS OTHERWISE NOTED.

STORM PIPE SHALL BE AS SPECIFIED IN THE GENERAL NOTES.

EXISTING DRAINAGE STRUCTURES TO BE INSPECTED AND REPAIRED AS NEEDED. EXISTING PIPES TO BE CLEANED OUT TO REMOVE ALL SILT AND DEBRIS.

EXISTING GRADE CONTOURS SHOWN AT 1 FOOT INTERVALS.

PROPOSED GRADE CONTOURS SHOWN AT 1 FOOT INTERVALS.

ALL STORM PIPE ENTERING STRUCTURES SHALL BE GROUTED TO ASSURE CONNECTION AT STRUCTURE IS WATERTIGHT.

ALL STORM SEWER STRUCTURES IN PAVED AREAS SHALL BE FLUSH WITH PAVEMENT, AND SHALL HAVE TRAFFIC BEARING RING & COVERS. LIDS SHALL BE LABELED "STORM SEWER".

CONTRACTOR SHALL ADJUST AND/OR CUT EXISTING PAVEMENT AS NECESSARY TO ASSURE A SMOOTH FIT AND CONTINUOUS GRADE.

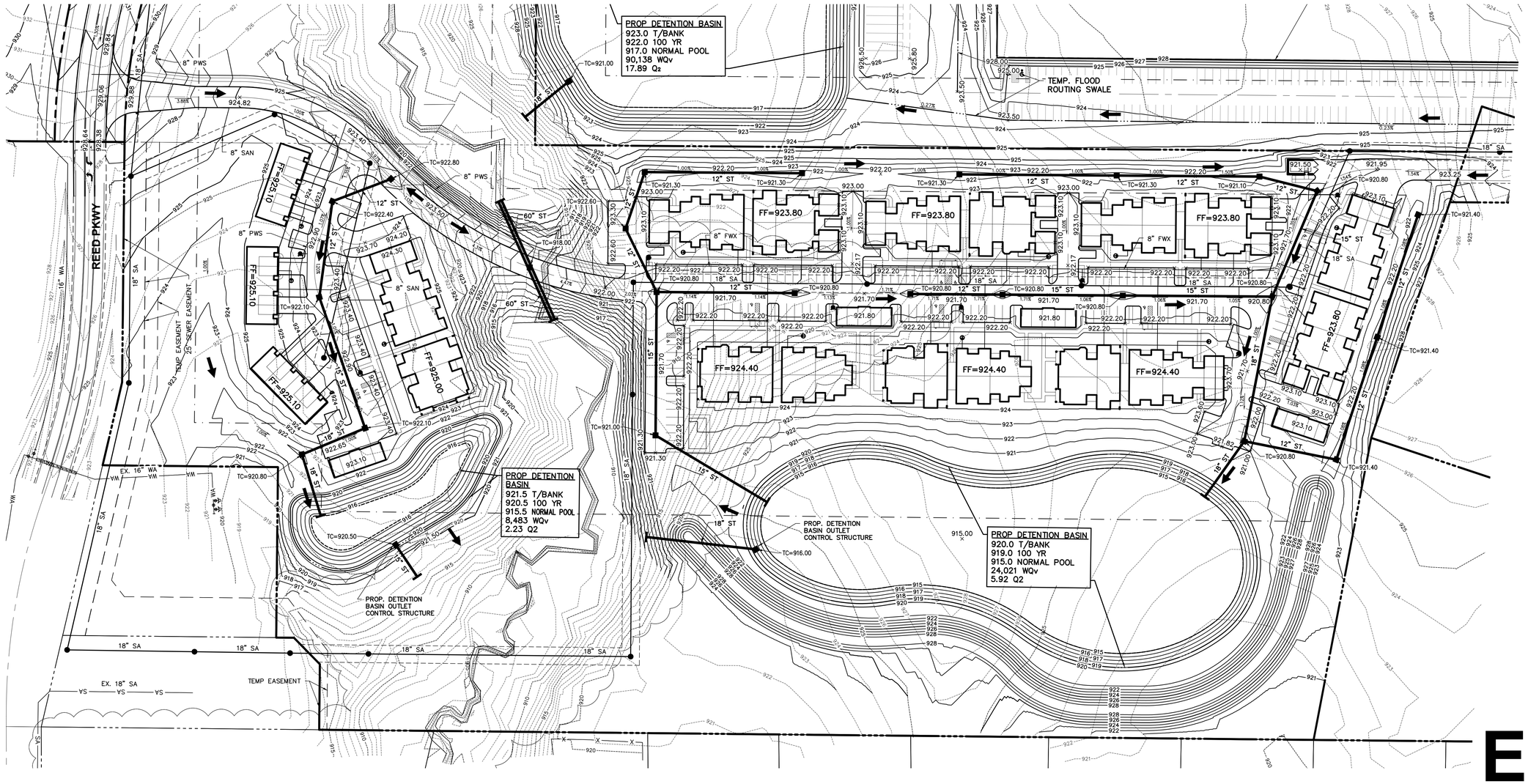
CONTRACTOR SHALL ASSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS FOR ALL NATURAL AND PAVED AREAS.

CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE GOVERNING CODES AND BE CONSTRUCTED TO SAME.

ELEVATIONS SHOWN HEREIN ARE BASED ON NORTH AMERICAN VERTICAL DATUM (NAVD) 1988.

ALL SPOT ELEVATIONS SHOWN ARE FINISHED GRADE/TOP OF PAVEMENT UNLESS OTHERWISE NOTED. TOP OF CURB ELEVATIONS DENOTED AS TC XX.X

EROSION CONTROL PLAN & DETAILS FOR ALL PHASES OF CONSTRUCTION WILL BE DEVELOPED AS PART OF THE FINAL CONSTRUCTION DRAWINGS.



E-11

PLAN PREPARED BY:

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ADVANCED CIVIL DESIGN ENGINEERS SURVEYORS

PLAN PREPARED FOR:

T&R PROPERTIES, INC.

BERLIN TOWNSHIP, DELAWARE COUNTY, OHIO

BERLIN MIXED USE DEVELOPEMENT

DEVELOPMENT PLAN

FOR

T&R PROPERTIES

MULTI FAM GRADING PLAN

STATE OF OHIO
THOMAS M. WARNER
64511
REGISTERED PROFESSIONAL ENGINEER

Issue Dates:

NOT FOR CONSTRUCTION

Date: 03/06/2023
Scale: 1" = 60'

Drawn By:	Checked By:
TLM	MIM

Project Number: 22-0014-1044

Drawing Number: 11 / 12

Z:\22-0014-1044\DWG production drawings\FINAL DEVELOPMENT PLAN\0014-1044 - Drainage Plan.dwg MULTI FAM GRADING PLAN 1 Mar 06, 2023 - 8:20:15am Tmonn

UTILITY LEGEND

PROPOSED

8" SA	SANITARY SEWER
6" SAS	SANITARY SEWER SERVICE
CATCH BASIN 12" ST	STORM SEWER
8" WM VALVE	WATER MAIN
4" WS	WATER SERVICE

EXISTING

SA SA MANHOLE SA	SANITARY SEWER
ST CATCH BASIN ST MANHOLE ST	STORM SEWER
WA HYDRANT WA VALVE WA	WATER
T	UNDERGROUND TELEPHONE
G G G	GAS MAIN
E E E	UNDERGROUND ELECTRIC
OHE OHE	OVERHEAD ELECTRIC
⌀	PUBLIC STREET LIGHT

GRADING LEGEND

940	EXISTING CONTOUR
913	PROPOSED CONTOUR
TC=795.20	TOP OF CASTING ELEVATION
X TC 795.20	TOP OF CURB ELEVATION
X 795.20	TOP OF PAVEMENT OR GROUND SURFACE
x 795.20 Ex	EXISTING TOP OF PAVEMENT OR GROUND SURFACE
	SURFACE FLOW ARROW
	MAJOR FLOOD ROUTING PATH (GREATER THAN 100 YR EVENT)

SITE GRADING NOTES

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

ALL CUT OR FILL SLOPES SHALL BE 3:1 OR FLATTER UNLESS OTHERWISE NOTED.

STORM PIPE SHALL BE AS SPECIFIED IN THE GENERAL NOTES.

EXISTING DRAINAGE STRUCTURES TO BE INSPECTED AND REPAIRED AS NEEDED. EXISTING PIPES TO BE CLEANED OUT TO REMOVE ALL SILT AND DEBRIS.

EXISTING GRADE CONTOURS SHOWN AT 1 FOOT INTERVALS.

PROPOSED GRADE CONTOURS SHOWN AT 1 FOOT INTERVALS.

ALL STORM PIPE ENTERING STRUCTURES SHALL BE GROUTED TO ASSURE CONNECTION AT STRUCTURE IS WATERTIGHT.

ALL STORM SEWER STRUCTURES IN PAVED AREAS SHALL BE FLUSH WITH PAVEMENT, AND SHALL HAVE TRAFFIC BEARING RING & COVERS. LIDS SHALL BE LABELED "STORM SEWER".

CONTRACTOR SHALL ADJUST AND/OR CUT EXISTING PAVEMENT AS NECESSARY TO ASSURE A SMOOTH FIT AND CONTINUOUS GRADE.

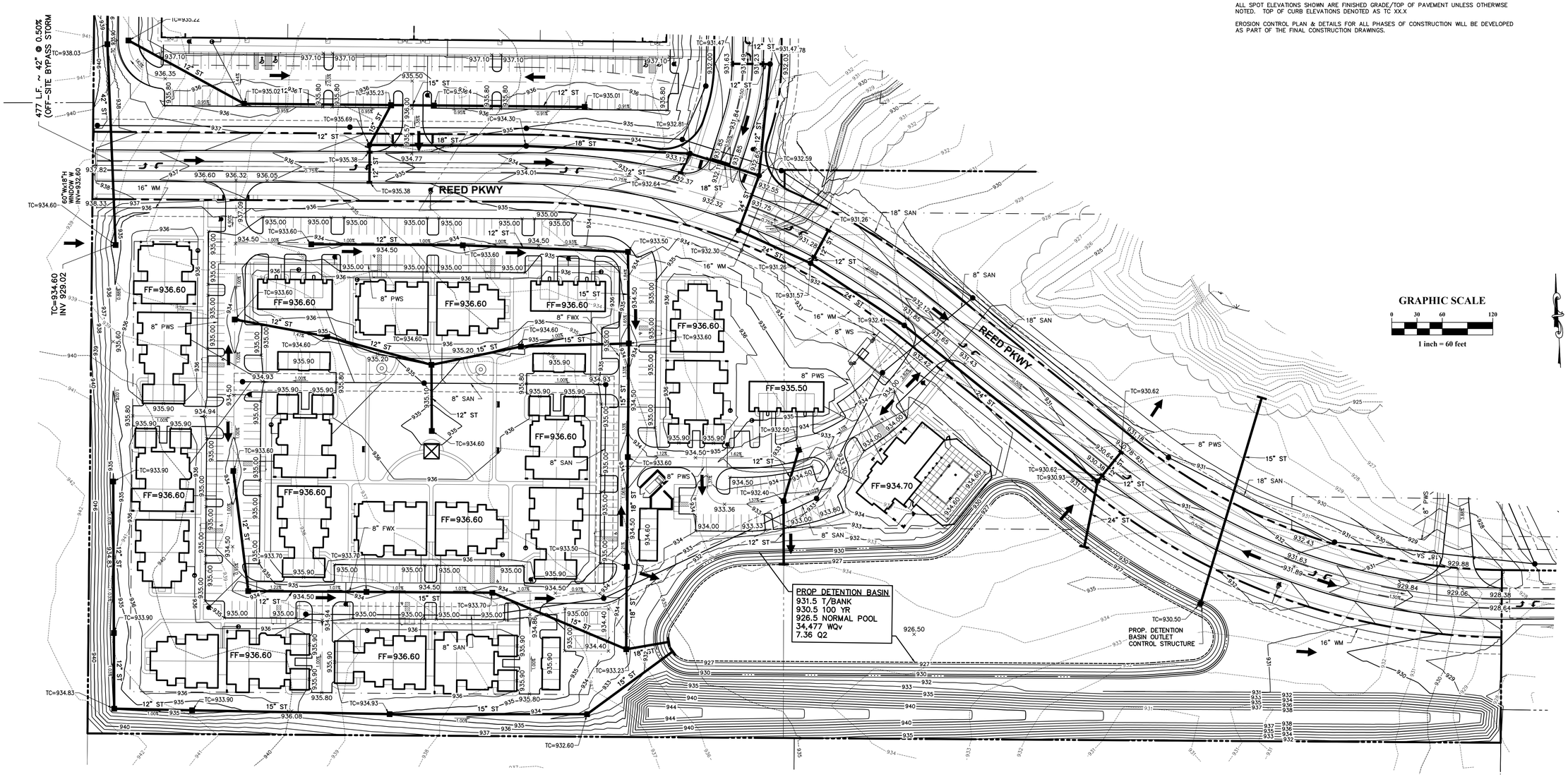
CONTRACTOR SHALL ASSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS FOR ALL NATURAL AND PAVED AREAS.

CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE GOVERNING CODES AND BE CONSTRUCTED TO SAME.

ELEVATIONS SHOWN HEREIN ARE BASED ON NORTH AMERICAN VERTICAL DATUM (NAVD) 1988.

ALL SPOT ELEVATIONS SHOWN ARE FINISHED GRADE/TOP OF PAVEMENT UNLESS OTHERWISE NOTED. TOP OF CURB ELEVATIONS DENOTED AS TC XX.X

EROSION CONTROL PLAN & DETAILS FOR ALL PHASES OF CONSTRUCTION WILL BE DEVELOPED AS PART OF THE FINAL CONSTRUCTION DRAWINGS.



PLAN PREPARED BY:
ADVANCED CIVIL DESIGN ENGINEERS SURVEYORS
781 Science Boulevard, Suite 100
Gahanna, Ohio 43230
ph 614.428.7750
fax 614.428.7755

PLAN PREPARED FOR:
T&R PROPERTIES, INC.

BERLIN TOWNSHIP, DELAWARE COUNTY, OHIO

BERLIN MIXED USE DEVELOPEMENT

DEVELOPMENT PLAN

FOR

T&R PROPERTIES

MULTI FAM GRADING PLAN

STATE OF OHIO
THOMAS M. WARNER
64519
REGISTERED PROFESSIONAL ENGINEER

Issue Dates:

NOT FOR CONSTRUCTION

Date: 03/06/2023
Scale: 1" = 60'

Drawn By:	Checked By:
TLM	MIM

Project Number: 22–0014–1044

Drawing Number: 12 / 12

E-12

Z:\22-0014-1044\DWG\production drawings\FINAL DEVELOPMENT PLAN\0014-1044 - Drainage Plan.dwg MULTI FAM GRADING PLAN 2 Mar 06, 2023 - 8:20:26am Tmann

THE RESIDENCES
At
BERLIN TOWNSHIP
DELWARE COUNTY, OHIO

LANDSCAPE PLANS



REVISIONS

MARK	DATE	DESCRIPTION

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PROJECT:

BERLIN MIXED USE DEVELOPMENT

BERLIN TOWNSHIP | DELAWARE COUNTY, OHIO

MULTI-FAMILY SITE

OVERALL SITE PLAN

T&R PROPERTIES, INC. EST. 1983
3895 Stoneridge Lane
Dublin, OH 43017

BLENDON GARDENS
landscaping...the investment that grows!
9590 S. Old State Road.
Lewis Center, OH 43035
(blendongardens.com)
Phone: (614) 840-0500

DATE: **03.03.23**

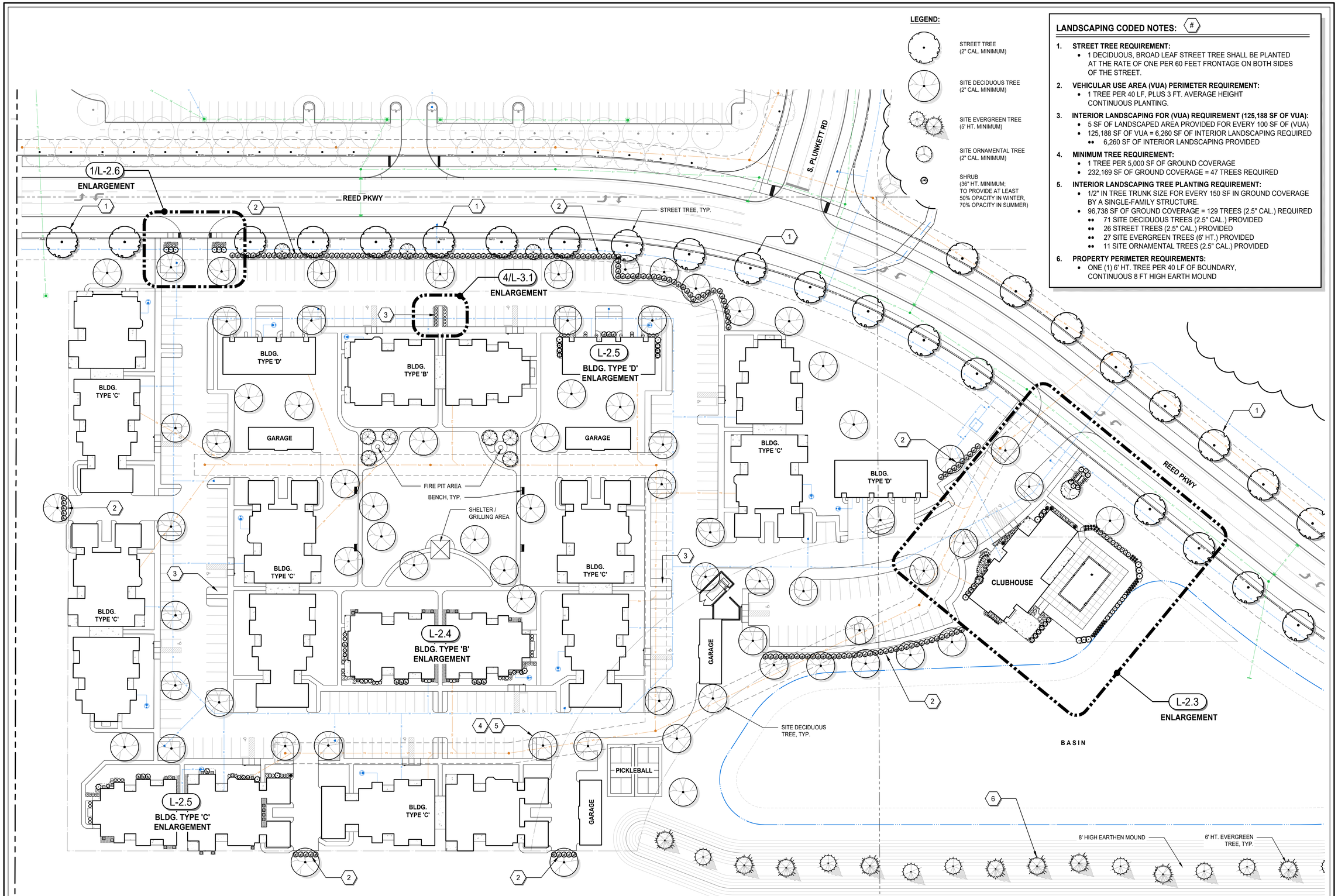
DRAWN BY: **J. MERANDA**

CHECKED BY: **B. THORNTON**

PROJECT NUMBER:

SHEET:

L-1.0



1 MULTI-FAMILY ENLARGEMENT PLAN

Scale: 1" = 40'-0"

0' 20' 40' 80'

REVISIONS

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PROJECT:

BERLIN MIXED USE DEVELOPMENT

BERLIN TOWNSHIP | DELAWARE COUNTY, OHIO

MULTI-FAMILY SITE

SITE LANDSCAPE PLAN

T&R PROPERTIES, INC. EST. 1983
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DATE: **03.03.23**

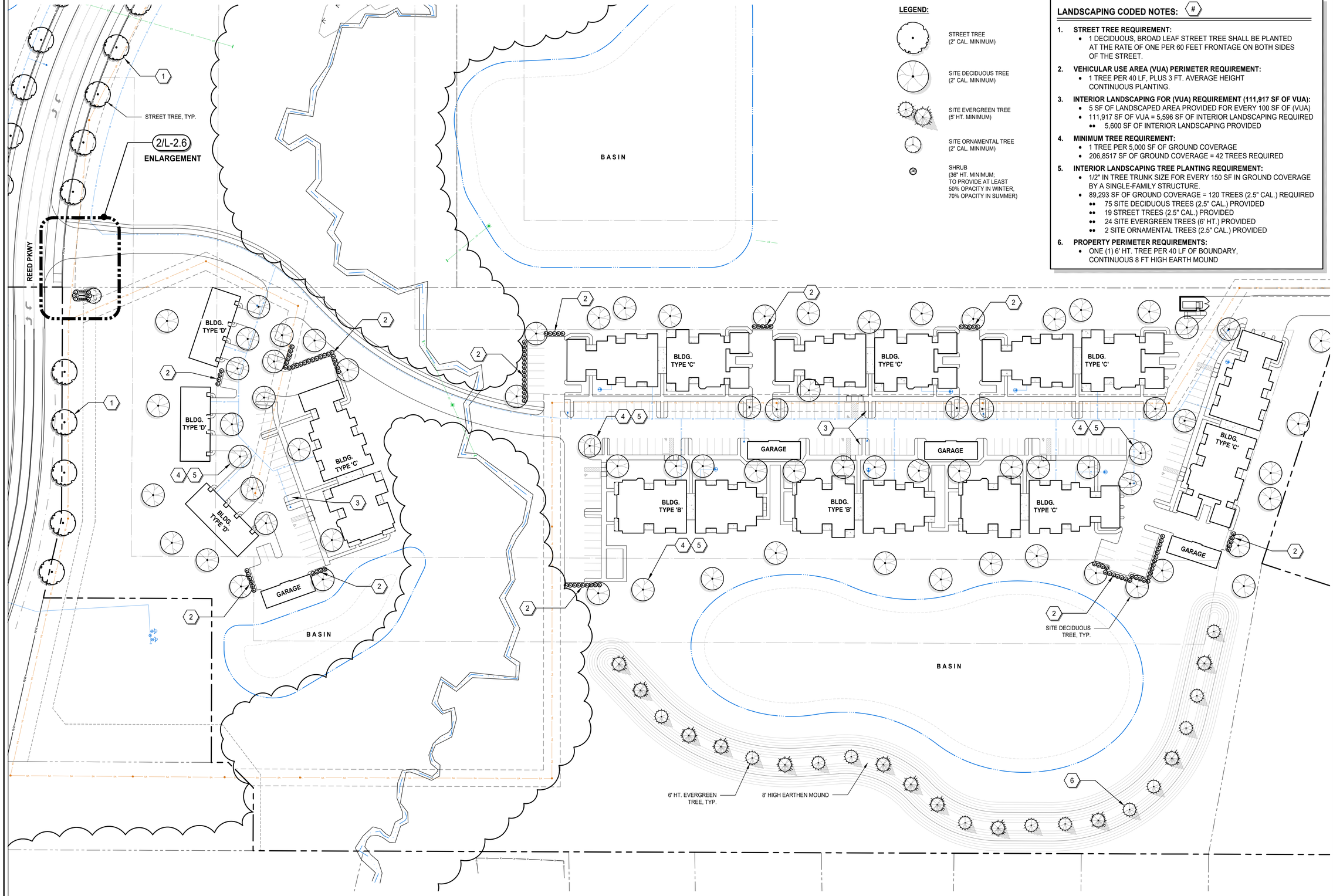
DRAWN BY: **J. MERANDA**

CHECKED BY: **B. THORNTON**

PROJECT NUMBER:

SHEET:

L-2.1



1 MULTI-FAMILY ENLARGEMENT PLAN

Scale: 1" = 50'-0"

0' 25' 50' 100'

LEGEND:

- STREET TREE (2" CAL. MINIMUM)
- SITE DECIDUOUS TREE (2" CAL. MINIMUM)
- SITE EVERGREEN TREE (5' HT. MINIMUM)
- SITE ORNAMENTAL TREE (2" CAL. MINIMUM)
- SHRUB (36" HT. MINIMUM; TO PROVIDE AT LEAST 50% OPACITY IN WINTER, 70% OPACITY IN SUMMER)

LANDSCAPING CODED NOTES:

1. **STREET TREE REQUIREMENT:**
   - 1 DECIDUOUS, BROAD LEAF STREET TREE SHALL BE PLANTED AT THE RATE OF ONE PER 60 FEET FRONTAGE ON BOTH SIDES OF THE STREET.
2. **VEHICULAR USE AREA (VUA) PERIMETER REQUIREMENT:**
   - 1 TREE PER 40 LF, PLUS 3 FT. AVERAGE HEIGHT CONTINUOUS PLANTING.
3. **INTERIOR LANDSCAPING FOR (VUA) REQUIREMENT (111,917 SF OF VUA):**
   - 5 SF OF LANDSCAPED AREA PROVIDED FOR EVERY 100 SF OF (VUA)
   - 111,917 SF OF VUA = 5,596 SF OF INTERIOR LANDSCAPING REQUIRED
     - 5,600 SF OF INTERIOR LANDSCAPING PROVIDED
4. **MINIMUM TREE REQUIREMENT:**
   - 1 TREE PER 5,000 SF OF GROUND COVERAGE
   - 206,8517 SF OF GROUND COVERAGE = 42 TREES REQUIRED
5. **INTERIOR LANDSCAPING TREE PLANTING REQUIREMENT:**
   - 1/2" IN TREE TRUNK SIZE FOR EVERY 150 SF IN GROUND COVERAGE BY A SINGLE-FAMILY STRUCTURE.
   - 89,293 SF OF GROUND COVERAGE = 120 TREES (2.5" CAL.) REQUIRED
     - 75 SITE DECIDUOUS TREES (2.5" CAL.) PROVIDED
     - 19 STREET TREES (2.5" CAL.) PROVIDED
     - 24 SITE EVERGREEN TREES (6' HT.) PROVIDED
     - 2 SITE ORNAMENTAL TREES (2.5" CAL.) PROVIDED
6. **PROPERTY PERIMETER REQUIREMENTS:**
   - ONE (1) 6' HT. TREE PER 40 LF OF BOUNDARY, CONTINUOUS 8 FT HIGH EARTH MOUND

REVISIONS		
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PROJECT:

BERLIN MIXED USE DEVELOPMENT

BERLIN TOWNSHIP | DELAWARE COUNTY, OHIO

MULTI-FAMILY SITE

SITE LANDSCAPE PLAN

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DATE: **03.03.23**

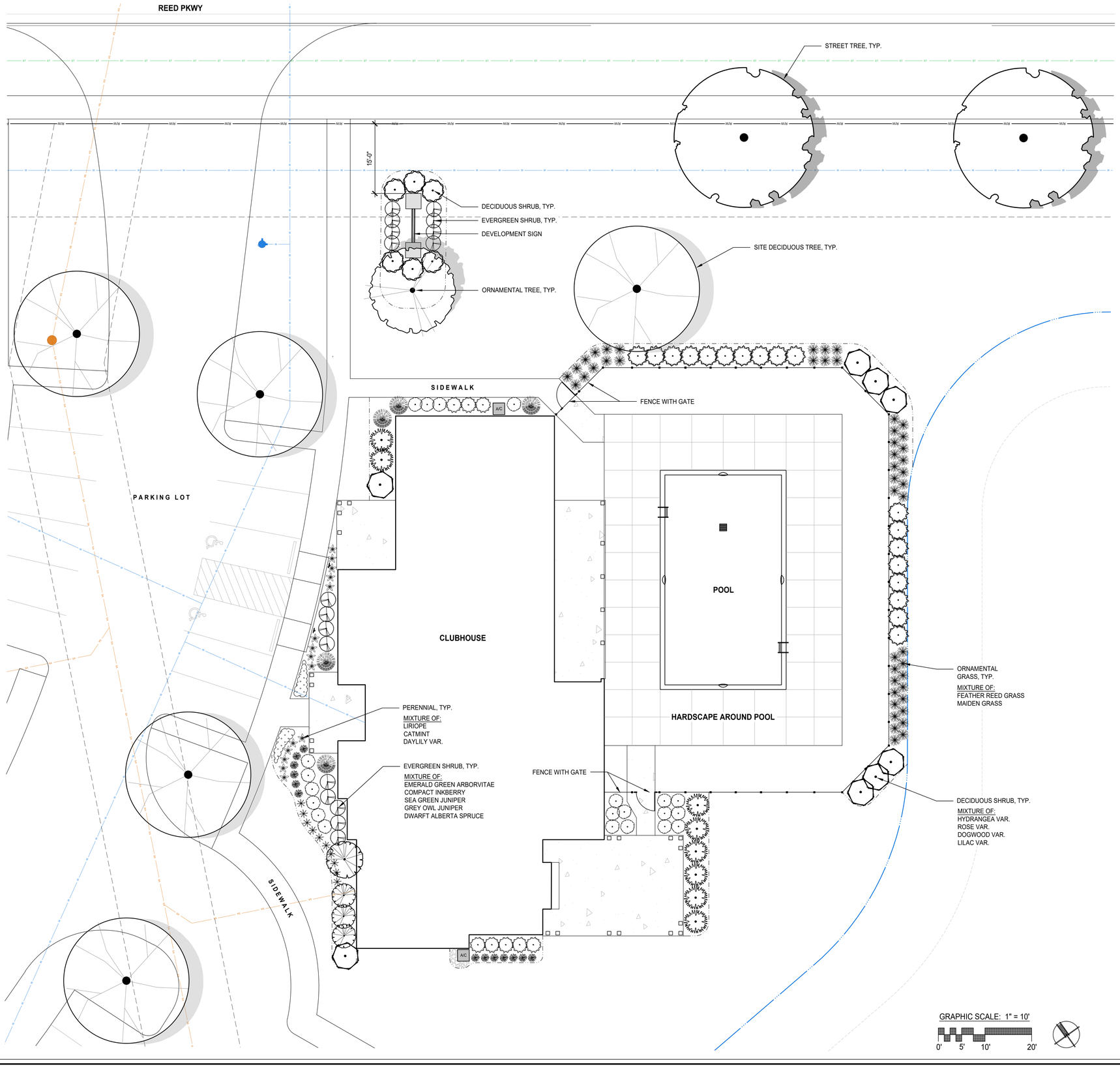
DRAWN BY: **J. MERANDA**

CHECKED BY: **B. THORNTON**

PROJECT NUMBER:

SHEET:

L-2.2



REVISIONS

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PROJECT:

BERLIN MIXED USE DEVELOPMENT

BERLIN TOWNSHIP | DELAWARE COUNTY, OHIO

MULTI-FAMILY SITE

CLUBHOUSE ENLARGEMENT SHEET

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DATE: **03.03.23**

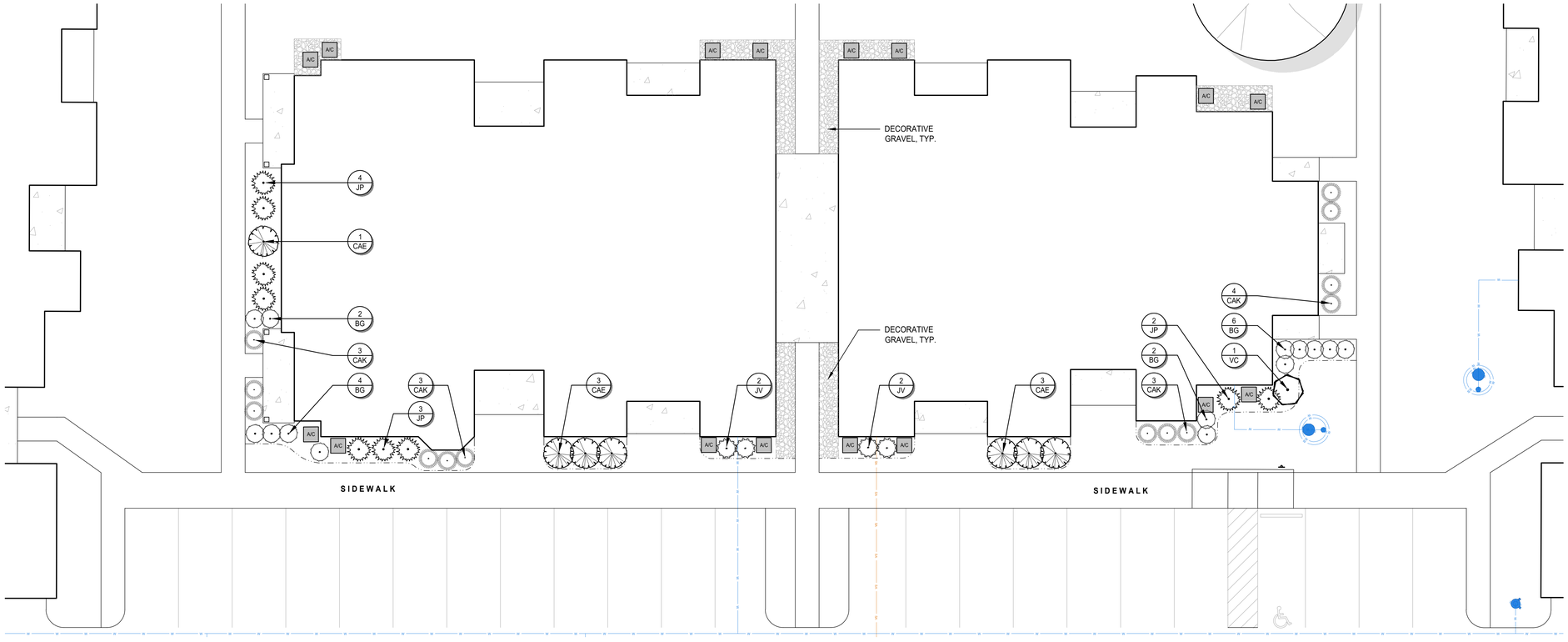
DRAWN BY: **J. MERANDA**

CHECKED BY: **B. THORNTON**

PROJECT NUMBER:

SHEET:

L-2.3



1 BUILDING TYPE 'B' - TYPICAL LANDSCAPE PLAN

Scale: 1" = 10'-0"

BUILDING TYPE 'B' - PLANT LIST

QTY.	CODE	COMMON NAME	BOTANICAL NAME	INSTALL SIZE	CONDITION
SHRUBS					
7	CAE	VARIEGATED REDTWIG DOGWOOD	CORNUS ALBA 'ELEGANTISSIMA'	5 GAL.	CONTAINER
1	VC	KOREAN SPICE VIBURNUM	VIBURNUM CARLESII	5 GAL.	CONTAINER
9	JP	SEA GREEN JUNIPER	JUNIPERUS X PFITZERIANA 'SEA GREEN'	3 GAL.	CONTAINER
14	BG	GREEN GEM BOXWOOD	BUXUS 'GREEN GEM'	3 GAL.	CONTAINER
4	JV	GREY OWL JUNIPER	JUNIPERUS VIRGINIANA 'GREY OWL'	3 GAL.	CONTAINER
ORNAMENTAL GRASSES & PERENNIALS					
13	CAK	KARL FOERSTER FEATHER REED GRASS	CALAMAGROSTIS ACUTIFLORA 'KARL FOERSTER'	2 GAL.	CONTAINER

REVISIONS

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PROJECT:

BERLIN MIXED USE DEVELOPMENT

BERLIN TOWNSHIP | DELAWARE COUNTY, OHIO

MULTI-FAMILY SITE

TYPICAL BUILDING LANDSCAPE

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DATE: **03.03.23**

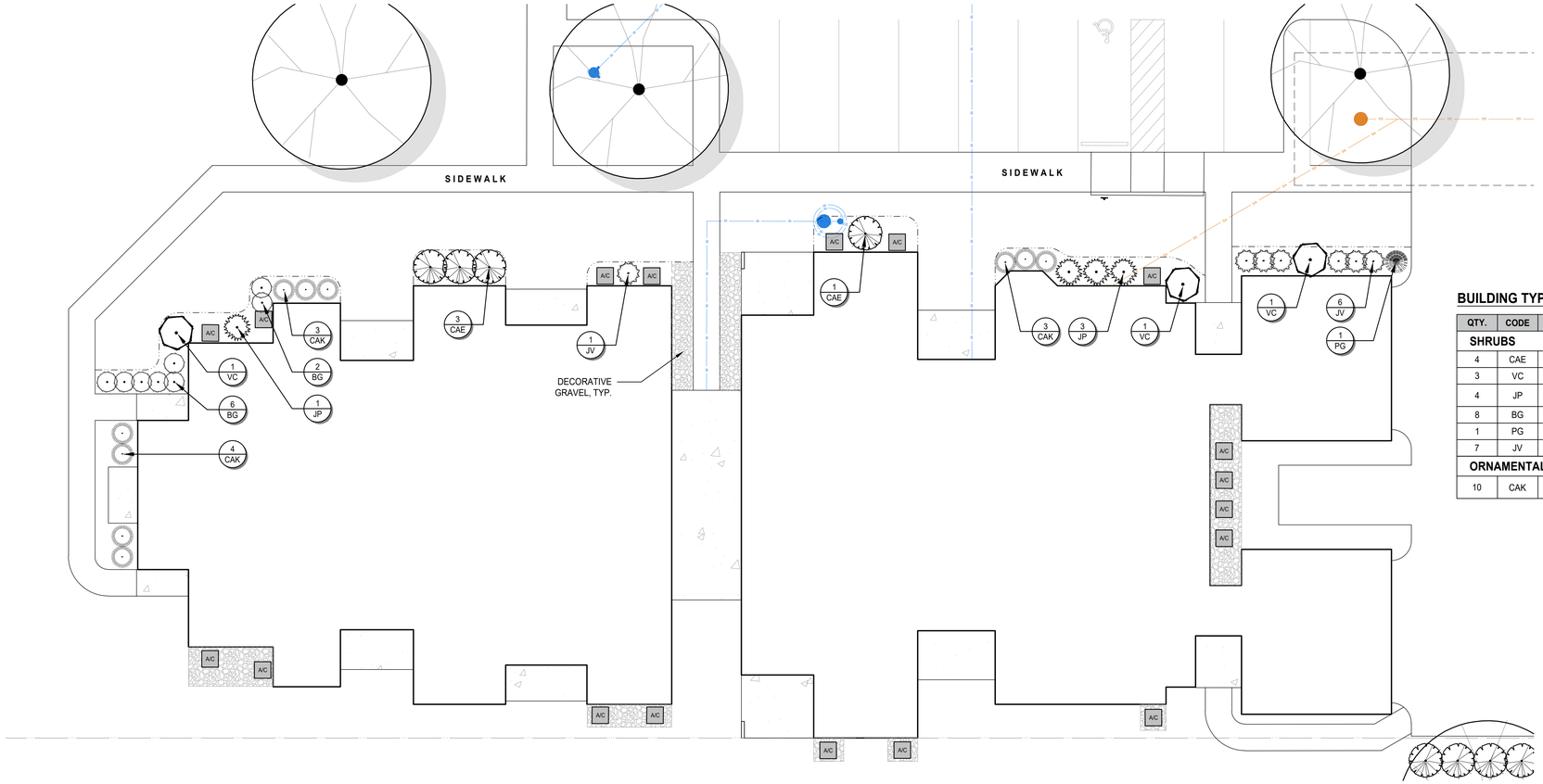
DRAWN BY: **J. MERANDA**

CHECKED BY: **B. THORNTON**

PROJECT NUMBER:

SHEET:

L-2.4



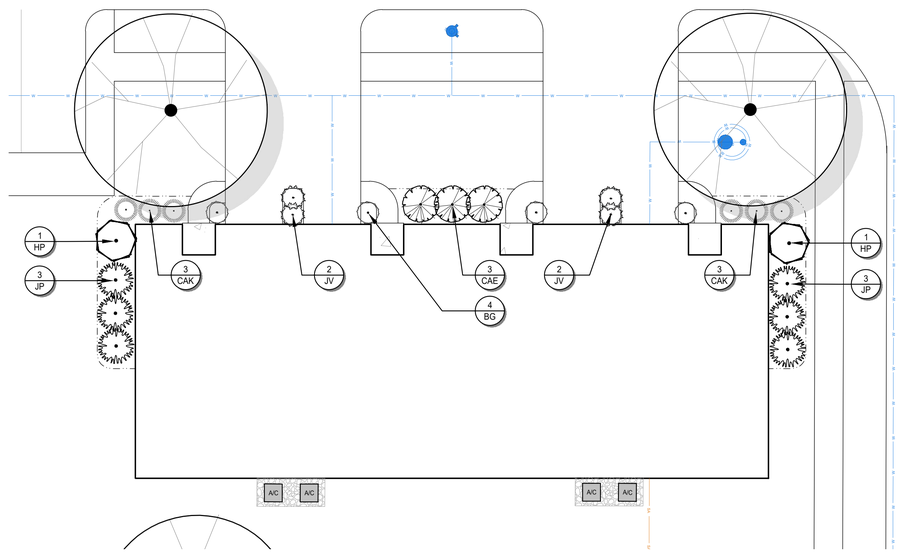
1 BUILDING TYPE 'C' - TYPICAL LANDSCAPE PLAN

Scale: 1" = 10'-0"

0' 5' 10' 20'

BUILDING TYPE 'C' - PLANT LIST

QTY.	CODE	COMMON NAME	BOTANICAL NAME	INSTALL SIZE	CONDITION
SHRUBS					
4	CAE	VARIEGATED REDTWIG DOGWOOD	CORNUS ALBA 'ELEGANTISSIMA'	5 GAL.	CONTAINER
3	VC	KOREAN SPICE VIBURNUM	VIBURNUM CARLESII	5 GAL.	CONTAINER
4	JP	SEA GREEN JUNIPER	JUNIPERUS X PFITZERIANA 'SEA GREEN'	3 GAL.	CONTAINER
8	BG	GREEN GEM BOXWOOD	BUXUS 'GREEN GEM'	3 GAL.	CONTAINER
1	PG	DWARF ALBERTA SPRUCE	PICEA GLAUCA 'CONICA'	5 GAL.	CONTAINER
7	JV	GREY OWL JUNIPER	JUNIPERUS VIRGINIANA 'GREY OWL'	3 GAL.	CONTAINER
ORNAMENTAL GRASSES & PERENNIALS					
10	CAK	KARL FOERSTER FEATHER REED GRASS	CALAMAGROSTIS ACUTIFLORA 'KARL FOERSTER'	2 GAL.	CONTAINER



2 BUILDING TYPE 'D' - TYPICAL LANDSCAPE PLAN

Scale: 1" = 10'-0"

0' 5' 10' 20'

BUILDING TYPE 'D' - PLANT LIST

QTY.	CODE	COMMON NAME	BOTANICAL NAME	INSTALL SIZE	CONDITION
SHRUBS					
3	CAE	VARIEGATED REDTWIG DOGWOOD	CORNUS ALBA 'ELEGANTISSIMA'	5 GAL.	CONTAINER
2	HP	TARDIVA HYDRANGEA	HYDRANGEA PANICULATA 'TARDIVA'	5 GAL.	CONTAINER
4	BG	GREEN GEM BOXWOOD	BUXUS 'GREEN GEM'	3 GAL.	CONTAINER
6	JP	SEA GREEN JUNIPER	JUNIPERUS X PFITZERIANA 'SEA GREEN'	3 GAL.	CONTAINER
4	JV	GREY OWL JUNIPER	JUNIPERUS VIRGINIANA 'GREY OWL'	3 GAL.	CONTAINER
ORNAMENTAL GRASSES & PERENNIALS					
6	CAK	KARL FOERSTER FEATHER REED GRASS	CALAMAGROSTIS ACUTIFLORA 'KARL FOERSTER'	2 GAL.	CONTAINER

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PROJECT:

BERLIN MIXED USE DEVELOPMENT

BERLIN TOWNSHIP | DELAWARE COUNTY, OHIO

MULTI-FAMILY SITE

TYPICAL BUILDING LANDSCAPE

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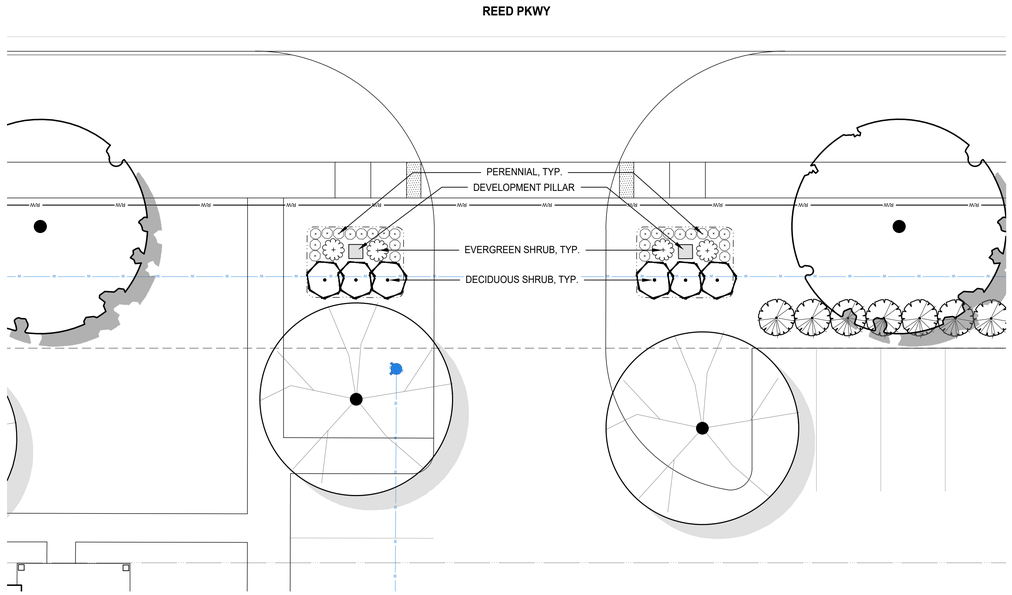
DRAWN BY: **J. MERANDA**

CHECKED BY: **B. THORNTON**

PROJECT NUMBER:

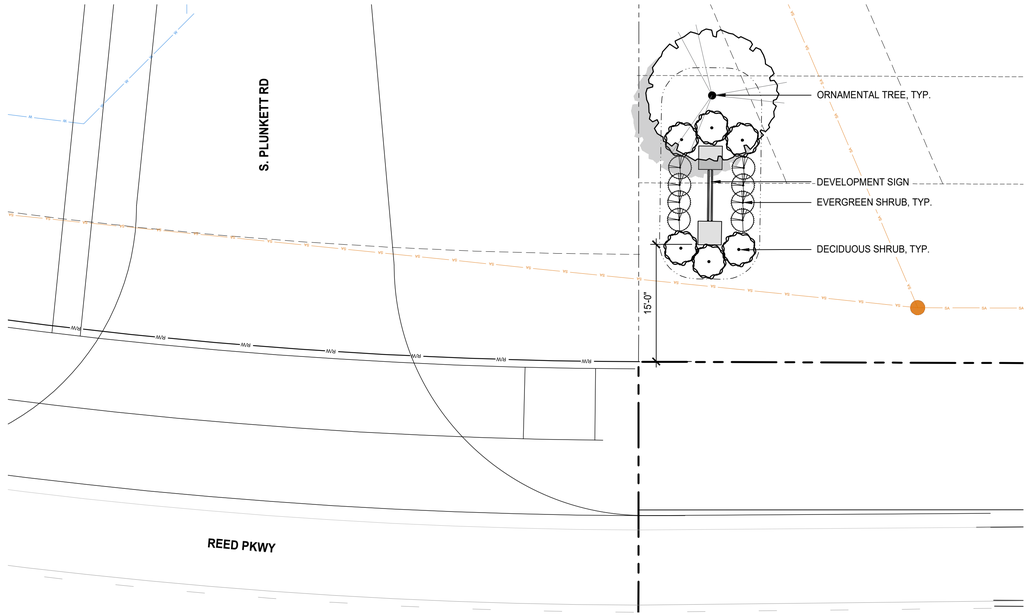
SHEET:

L-2.5



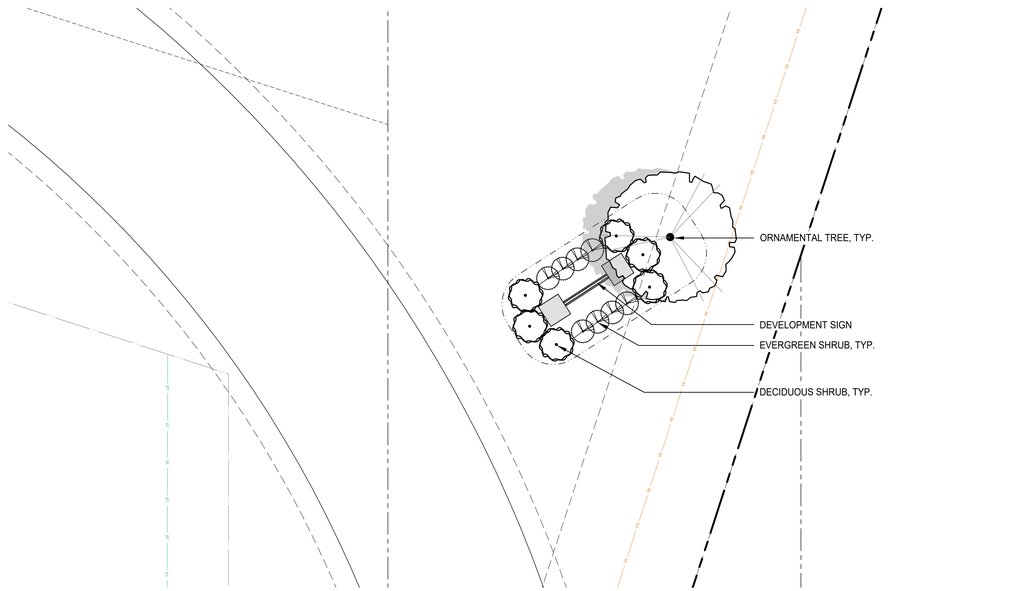
1 MULTI-FAMILY ENTRY ENLARGEMENT PLAN
Scale: 1" = 10'-0"

0' 5' 10' 20'



2 MULTI-FAMILY ENTRY ENLARGEMENT PLAN
Scale: 1" = 10'-0"

0' 5' 10' 20'



3 MULTI-FAMILY ENTRY ENLARGEMENT PLAN
Scale: 1" = 10'-0"

0' 5' 10' 20'

REVISIONS

MARK	DATE	DESCRIPTION

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PROJECT:
BERLIN MIXED USE DEVELOPMENT
BERLIN TOWNSHIP | DELAWARE COUNTY, OHIO
MULTI-FAMILY SITE
LANDSCAPE ENLARGEMENT SHEET

T&R PROPERTIES, INC.
EST. 1983
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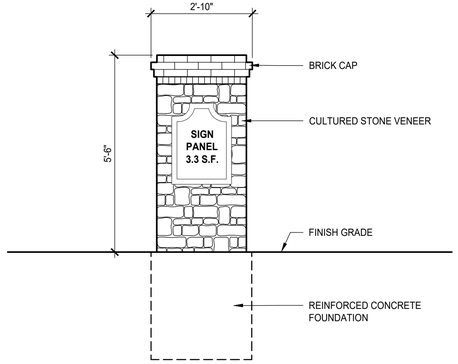
PROJECT NUMBER:

SHEET:
L-2.6

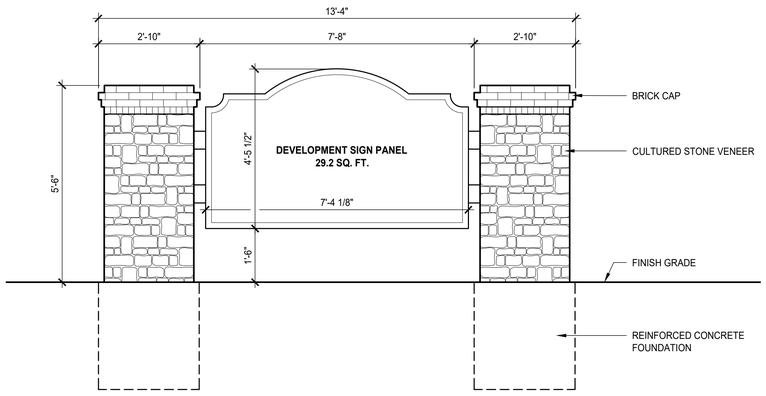


NOTE:

DEVELOPMENT PILLAR DEPICTED IS PRELIMINARY IN NATURE. FINAL DESIGN OF PILLAR WILL BE COORDINATED AND APPROVED WITH BERLIN TOWNSHIP.

1 RESIDENTIAL SIGN PILLAR DETAIL

Scale: 1/2" = 1'-0"



NOTE:

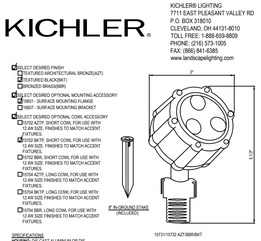
DEVELOPMENT SIGN DEPICTED IS PRELIMINARY IN NATURE. FINAL DESIGN OF SIGN WILL BE COORDINATED AND APPROVED WITH BERLIN TOWNSHIP.

2 RESIDENTIAL SIGN DETAIL

Scale: 1/2" = 1'-0"

KICHLER

KICHLERB LIGHTING
7711 EAST PLEASANT VALLEY RD
P.O. BOX 318010
CLEVELAND, OH 44131-8010
TOLL FREE: 1-888-659-8809
PHONE: (216) 573-1005
FAX: (866) 841-6385
www.landscapelighting.com



15731/15732 AZT/BBK/BKT

SELECT DESIRED FINISH:
☐ 15731/15732 ARCHITECTURAL BRONZE(AZT)
☐ 15731/15732 TEXTURED BLACK(BKT)
☐ 15731/15732 BRASS(BBK)
SELECT DESIRED OPTIONAL MOUNTING ACCESSORY:
☐ 15901 - SURFACE MOUNTING FLANGE
☐ 15907 - SURFACE MOUNTING BRACKET
SELECT DESIRED OPTIONAL COWL ACCESSORY
☐ 15701 SHORT COWL FOR USE WITH 12.4W SIZE. FINISHES TO MATCH ACCENT FIXTURES.
☐ 15703 BKTP, SHORT COWL FOR USE WITH 12.4W SIZE. FINISHES TO MATCH ACCENT FIXTURES.
☐ 15704 BKTP, SHORT COWL FOR USE WITH 12.4W SIZE. FINISHES TO MATCH ACCENT FIXTURES.
☐ 15705 AZTP, LONG COWL FOR USE WITH 12.4W SIZE FINISHES TO MATCH ACCENT FIXTURES.
☐ 15706 BKTP, LONG COWL FOR USE WITH 12.4W SIZE FINISHES TO MATCH ACCENT FIXTURES.
☐ 15706 BBK, LONG COWL FOR USE WITH 12.4W SIZE FINISHES TO MATCH ACCENT FIXTURES.

SPECIFICATIONS:
HOUSING: DIE CAST ALUMINUM OR DIE CAST BRASS WITH CLEAR TEMPERED GLASS LENS AND POLYCARBONATE MOUNTING STEM AND LOCKNUT.
FINISH: CHOICE OF SATABLE PVD, SPT.1 HI
LEADS: CABLE CONNECTOR SUPPLIED 18/2 SJT CABLE
LIGHT SOURCE: ILLUMINATION PROVIDED BY INTEGRATED LED CHIPS.
MOUNTING ACCESSORIES INCLUDED:
9" IN-GROUND STAKE
12" NPSM STEM

NOTES:
1. DO NOT SCALE DRAWINGS.
2. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
3. CONTRACTORS NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.CADdetails.com/info REFERENCE NUMBER 4FD-270

LED ACCENT LIGHTS
MODEL NO: 15731/15732

Snap-on Cowl - Short 12.4W BKTP
15703BKTP (Textured Black Polycarbonate)



Dimensions
Height: 2.417"
Width: 3.29"

Alternate Lamps

Lamp Included	Ext'd Life	Light Source	Max Wattage/Socket	Bulb Product ID	Dimming
No	Yes-My Lifestyle				

Project Name:
Fixture Type:
Qty:
Cat.# No.:

Ordering Information
Product ID: 15702BKTP
Finish: Textured Black Polycarbonate
Available IP Addres: ACTI, 5*27"

Specifications
Material: Plastic

Qual/Realtions
Warranty: Not Hagg.ured
Country of Origin: Varies-address.cc/mwr.ship

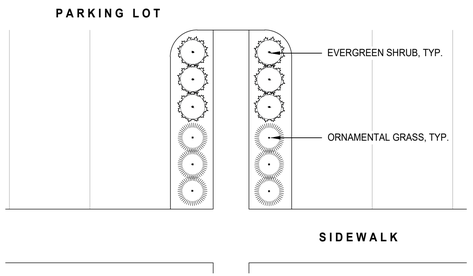
Primary Lamping
Lamp Inc.ided: Not Included

KICHLER

3 ENTRY LANDSCAPE LIGHTING DETAIL

NOT TO SCALE

NOTES: ENTRY LIGHTING LOCATIONS TO BE DETERMINED
COLOR TEMPERATURE OF EXTERIOR LED LIGHT SHALL NOT EXCEED 2700-3000 KELVIN

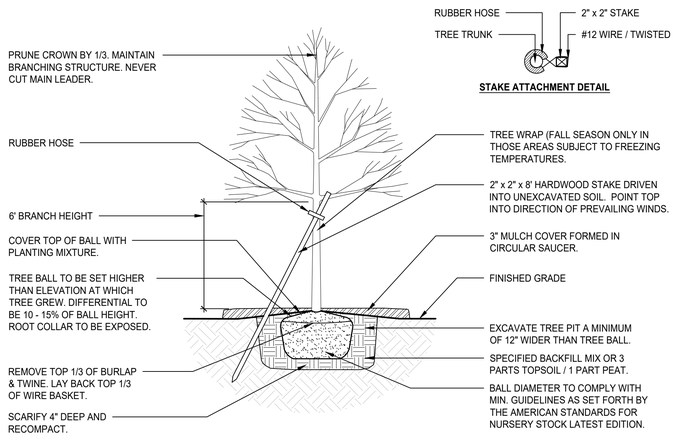


4 INTERIOR LANDSCAPING TYPICAL DETAIL

Scale: 1/8" = 1'-0"

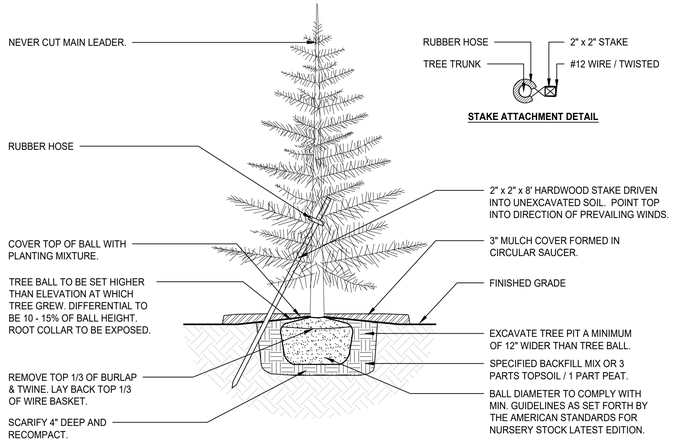
GENERAL PLANTING NOTES:

1. CONTRACTOR TO VERIFY WITH OWNER AND UTILITY COMPANIES THE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION, TO DETERMINE, IN THE FIELD, THE ACTUAL LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES WHETHER SHOWN ON THE PLANS OR NOT. THE CONTRACTOR SHALL CALL UTILITY PROTECTION SERVICE 72 HOURS PRIOR TO CONSTRUCTION.
2. EXAMINE FINISH SURFACE, GRADES, TOPSOIL QUALITY AND DEPTH. DO NOT START ANY WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED. VERIFY LIMITS OF WORK BEFORE STARTING.
3. CONTRACTOR TO REPAIR ALL DAMAGES TO EXISTING CONDITIONS AND BEARS RESPONSIBILITY FOR SATISFACTORY PERFORMANCE.
4. ALL PLANT MASSES TO BE CONTAINED WITHIN BARK MULCH BED.
5. BED LINE TO BE NO LESS THAN 18" AND NO MORE THAN 24" FROM OUTER EDGE OF PLANT MATERIAL BRANCHING.
6. ALL SHRUBS TO BE A MINIMUM OF 4'-0" FROM PAVEMENT EDGE UNLESS SPECIFICALLY NOTED OTHERWISE.
7. CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE IN LAWN AREAS.
8. FINE GRADE LAWN AREAS TO PROVIDE A SMOOTH AND CONTINUAL GRADE, FREE OF IRREGULARITIES OR DEPRESSIONS.
9. IN AREAS DESIGNATED "ANNUALS". LANDSCAPE CONTRACTOR TO PREPARE SOIL WITH MINIMUM 8" DEEP PLANT MIXTURE AND A MINIMUM 2" DEEP BARK MULCH FOR SUBSEQUENT PLANTING BY OWNER,
10. QUANTITIES SHOWN ARE INTENDED TO ASSIST CONTRACTOR IN EVALUATING THEIR OWN TAKE-OFFS AND ARE NOT GUARANTEED AS ACCURATE REPRESENTATIONS OF REQUIRED MATERIALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HIS BID QUANTITIES AS REQUIRED BY THE PLAN AND SPECIFICATIONS.
11. COORDINATE LANDSCAPE INSTALLATION WITH INSTALLATION OF UNDERGROUND SPRINKLER, SYSTEM (IF APPLICABLE).
12. WHERE PROPOSED TREE LOCATIONS OCCUR UNDER EXISTING OVERHEAD UTILITIES OR CROWD EXISTING TREES, NOTIFY THE CONSULTANT TO ADJUST TREE LOCATIONS.



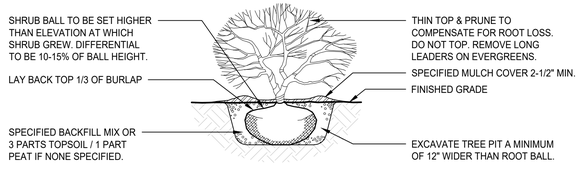
DECIDUOUS TREE PLANTING / STAKING DETAIL

NOT TO SCALE — TREES UP TO 3" CALIPER



EVERGREEN TREE PLANTING / STAKING DETAIL

NOT TO SCALE — TREES UP TO 8' HEIGHT



SHRUB PLANTING DETAIL

NOT TO SCALE

REVISIONS

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PROJECT:
BERLIN MIXED USE DEVELOPMENT
BERLIN TOWNSHIP | DELAWARE COUNTY, OHIO
MULTI-FAMILY SITE
DETAILS

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Lewis Center, OH 43035
(blendongardens.com)
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DATE: **03.03.23**

DRAWN BY: **J. MERANDA**

CHECKED BY: **B. THORNTON**

PROJECT NUMBER:

SHEET:
L-3.1

THE RESIDENCES
At
BERLIN TOWNSHIP
DELWARE COUNTY, OHIO

ARCHITECTURAL PLANS



RIGHT END ELEVATION
BLDG. A & B

SCALE: 1/8" = 1'-0"



LEFT END ELEVATION
BLDG. A & B

SCALE: 1/8" = 1'-0"



FRONT ELEVATION BLDG. A

SCALE: 1/8" = 1'-0"

(BLDG. B SIMILAR)

KONTOGIANNIS
& ASSOCIATES

ARCHITECTURE
PLANNING
DESIGN

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SUITE 400
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43215-5492

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PROJECT:

THE RESIDENCES AT BERLIN TOWNSHIP

BERLIN TWP.
DELAWARE COUNTY, OHIO

DRAWING TITLE:

EXTERIOR ELEVATIONS

DATE:
REVISED:

STATE OF OHIO
GEORGE J. KONTOGIANNIS
3784
REGISTERED ARCHITECT

GEORGE J. KONTOGIANNIS, LICENSE #3784
EXPIRATION DATE 12/31/2023

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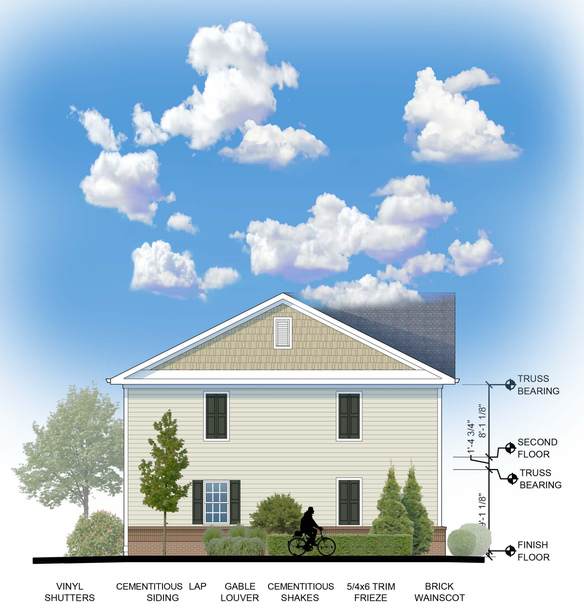
FRONT ELEVATION BLDG. B

SCALE: 1/8" = 1'-0"



TOWNHOUSE REAR ELEVATION

SCALE: 1/8" = 1'-0"



TOWNHOUSE END ELEVATION

SCALE: 1/8" = 1'-0"



TOWNHOUSE FRONT ELEVATION

SCALE: 1/8" = 1'-0"

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THE RESIDENCES AT BERLIN TOWNSHIP

BERLIN TWP.
DELAWARE COUNTY, OHIO

DRAWING TITLE:

TOWNHOUSE EXTERIOR ELEVATIONS

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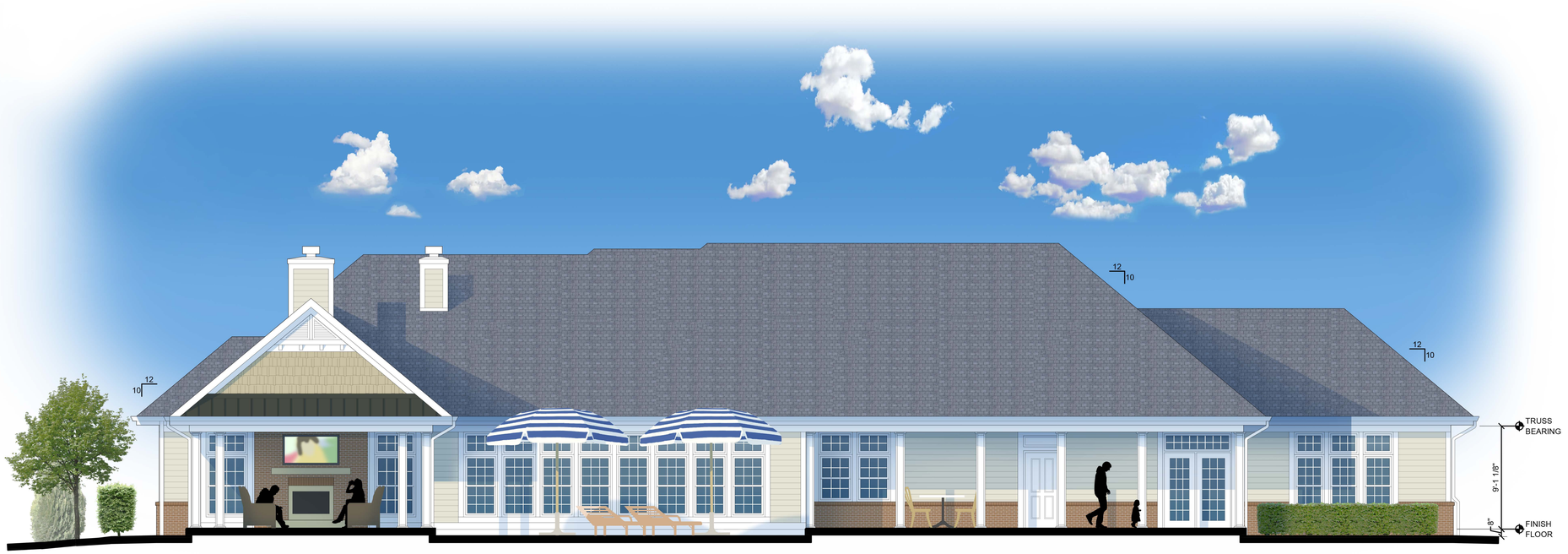

GABLE LOUVER | CEMENTITIOUS SHAKES | FACE BRICK | STANDING SEAM METAL ROOF | 5/4x6 TRIM FRIEZE | PRE-FIN. ALUM. WRAPPED 2x8 FASCIA | PRE-FIN. ALUM. GUTTER | 6" ALUM. COLUMN | CEMENTITIOUS LAP SIDING | BRICK ROWLOCK | BRICK WAINSCOT

REAR ELEVATION

SCALE: 3/16" = 1'-0"



PRE-FIN. ALUM. RAILING | 5/4x6 TRIM FRIEZE | PRE-FIN. ALUM. WRAPPED 2x8 FASCIA | PRE-FIN. ALUM. GUTTER | GABLE LOUVER | CEMENTITIOUS SHAKES | 6" ALUM. COLUMN | STANDING SEAM METAL ROOF | FACE BRICK | BRICK SOLDIER | BRICK ROWLOCK | CEMENTITIOUS LAP SIDING | BRICK WAINSCOT

FRONT ELEVATION

SCALE: 3/16" = 1'-0"

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& ASSOCIATES

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PLANNING
DESIGN

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PROJECT:

BERLIN PARK APARTMENTS

BERLIN TWP.
DELAWARE, OHIO

DRAWING TITLE:

CLUBHOUSE
COLOR
ELEVATION

DATE:
REVISED:

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RIGHT ELEVATION

SCALE: 3/16" = 1'-0"



LEFT ELEVATION

SCALE: 3/16" = 1'-0"

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PROJECT:

THE RESIDENCES AT BERLIN TOWNSHIP

BERLIN TWP.
DELAWARE COUNTY, OHIO

DRAWING TITLE:

CLUBHOUSE EXTERIOR ELEVATIONS

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PROJECT:

THE RESIDENCES AT BERLIN TOWNSHIP

BERLIN TWP.
DELAWARE COUNTY, OHIO

DRAWING TITLE:

GARAGE EXTERIOR ELEVATIONS

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5/4x6 TRIM FRIEZE | PRE-FIN. ALUM. WRAPPED FASCIA | PRE-FIN. ALUM. GUTTER | CEMENTITIOUS SHAKES | GABLE LOUVER | CEMENTITIOUS LAP SIDING

LEFT ELEVATION - 5 CAR GARAGE

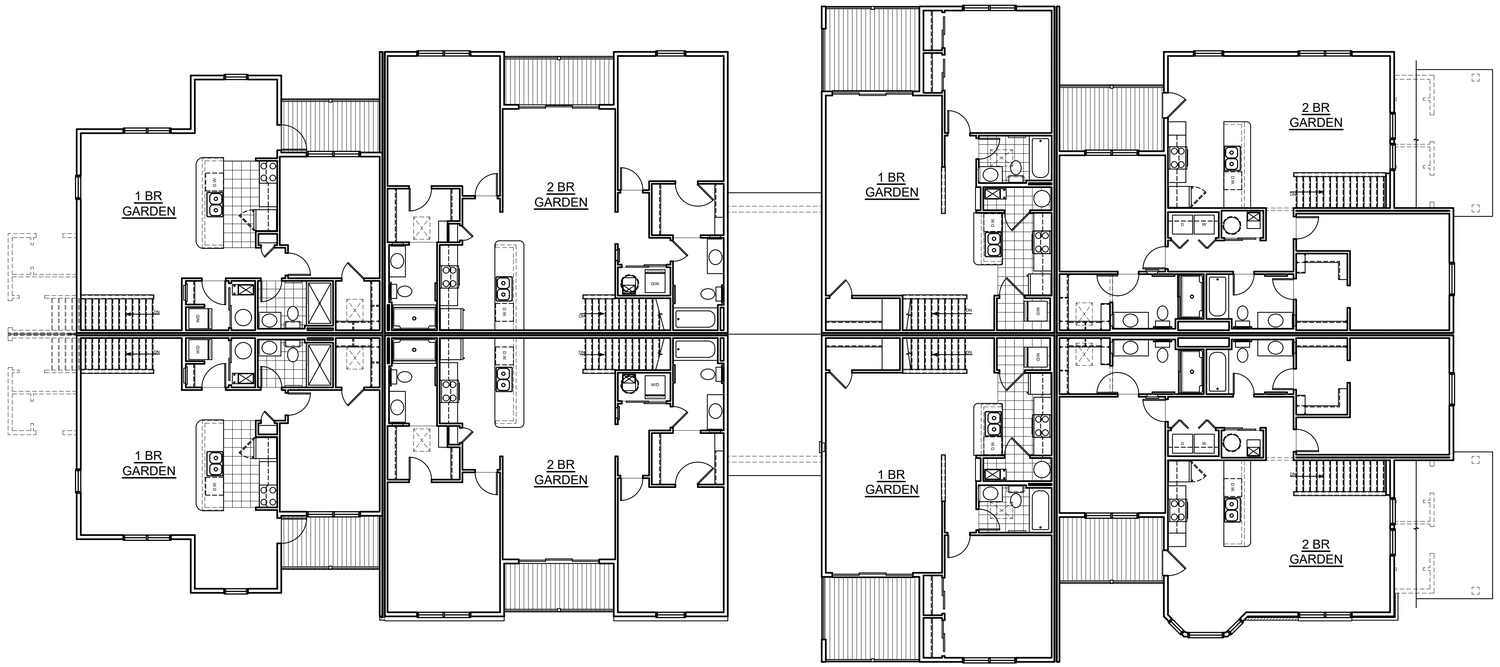
SCALE: 1/8" = 1'-0"



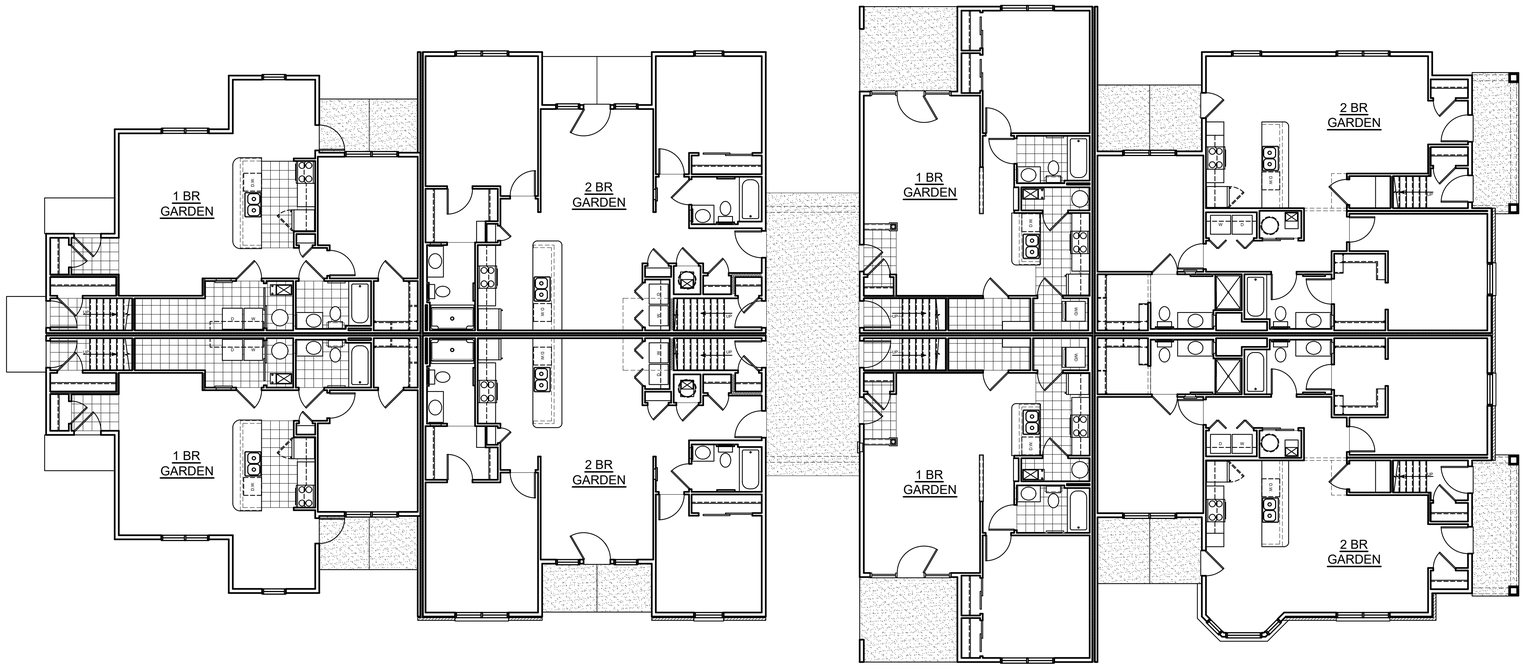
5/4x6 TRIM FRIEZE | PRE-FIN. ALUM. WRAPPED FASCIA | PRE-FIN. ALUM. GUTTER | GABLE LOUVER | FACE BRICK | BRICK SOLDIER | INSULATED GARAGE DOOR | CEMENTITIOUS LAP SIDING

FRONT ELEVATION - 5 CAR GARAGE

SCALE: 1/8" = 1'-0"



BUILDING A SECOND FLOOR PLAN



BUILDING A FIRST FLOOR PLAN

SCALE: 1/8" = 1'-0"

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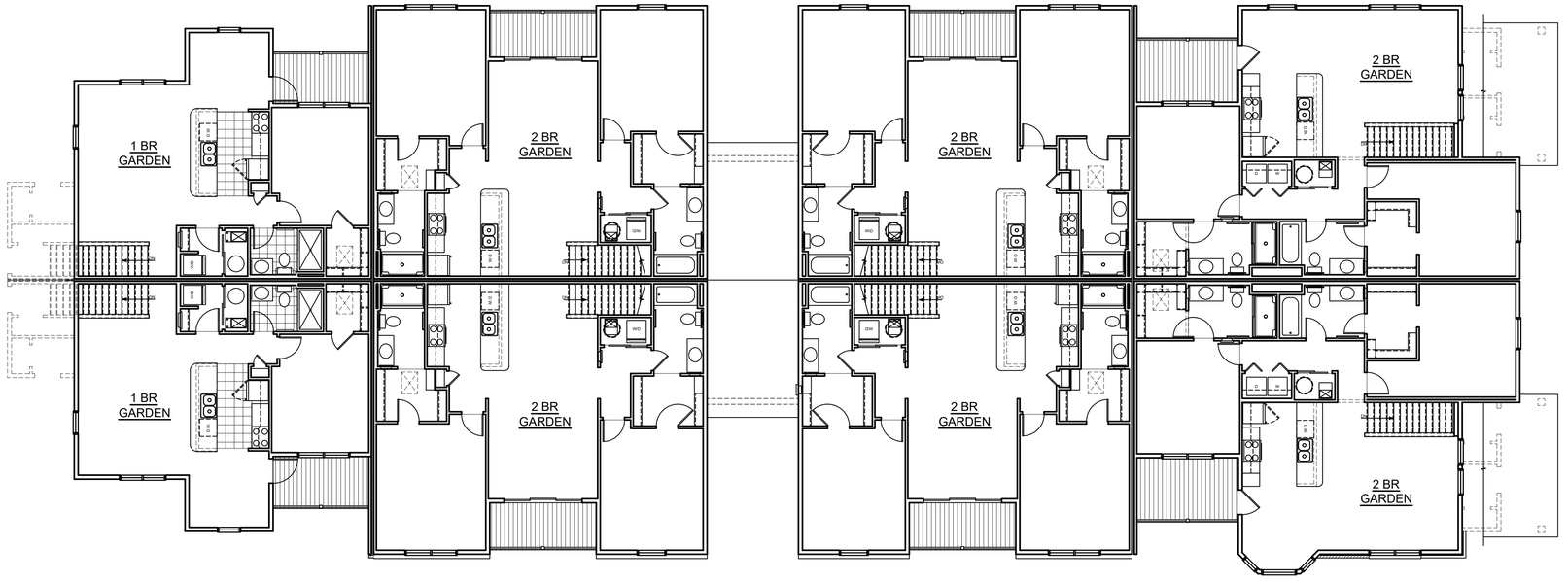
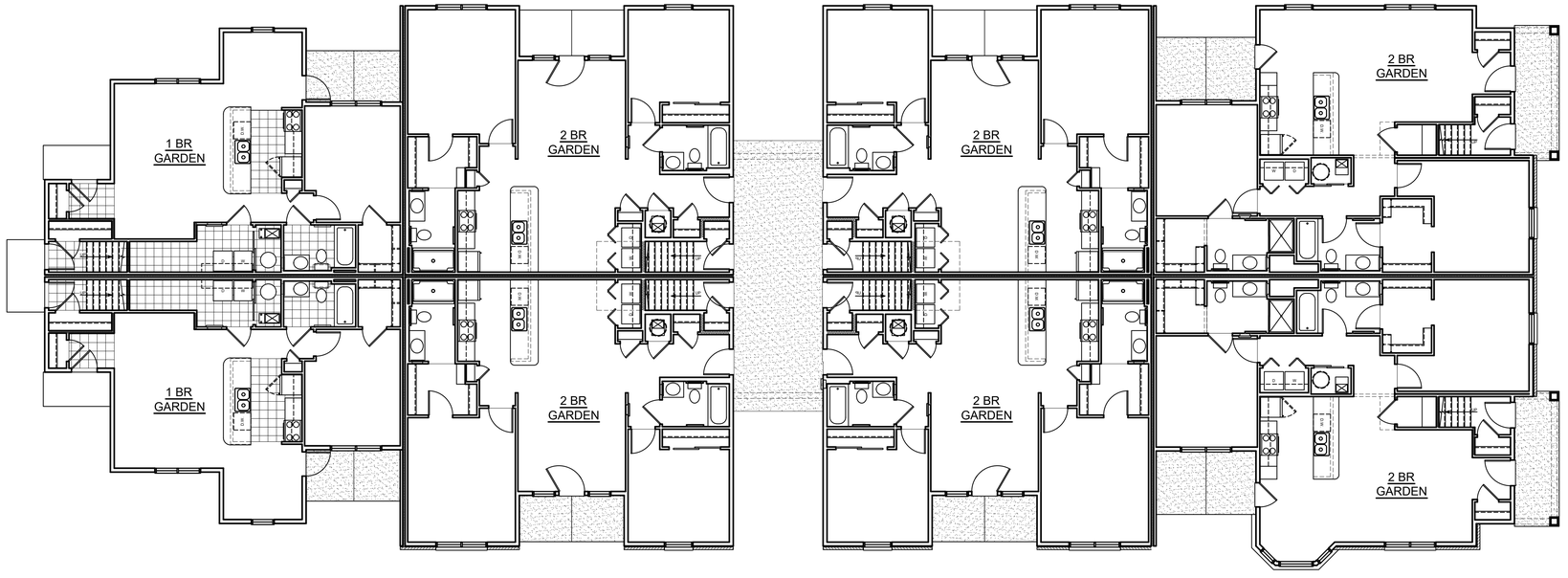


BUILDING B SECOND FLOOR PLAN



BUILDING B FIRST FLOOR PLAN

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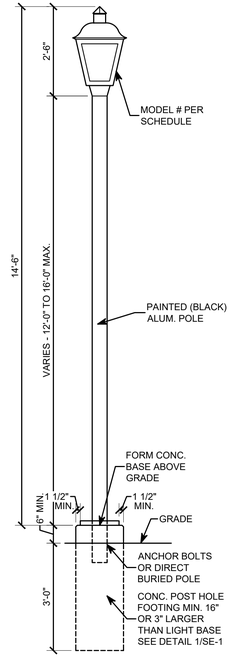
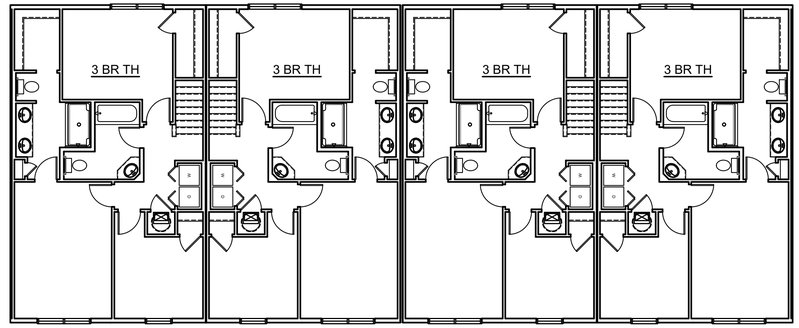


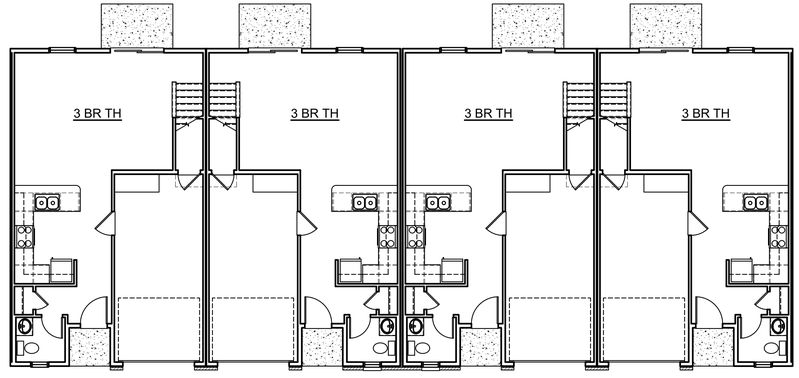
LIGHT & POLE DETAIL

SITE LIGHT FIXTURE SCHEDULE

MARK	MANUFACTURER	CATALOG NUMBER	LAMP	MT'G. TYPE	REMARKS
AA	NLS LIGHTING	CAL-1-T3-48L-53-30K	102W LED 3000K	12'-0" POLE	CUT OFF LIGHT
BB	NLS LIGHTING	CLA-1-T5-20L-1-30K	65W LED 3000K	12'-0" POLE	CUT OFF LIGHT



BUILDING C SECOND FLOOR PLAN



BUILDING C FIRST FLOOR PLAN

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& ASSOCIATES

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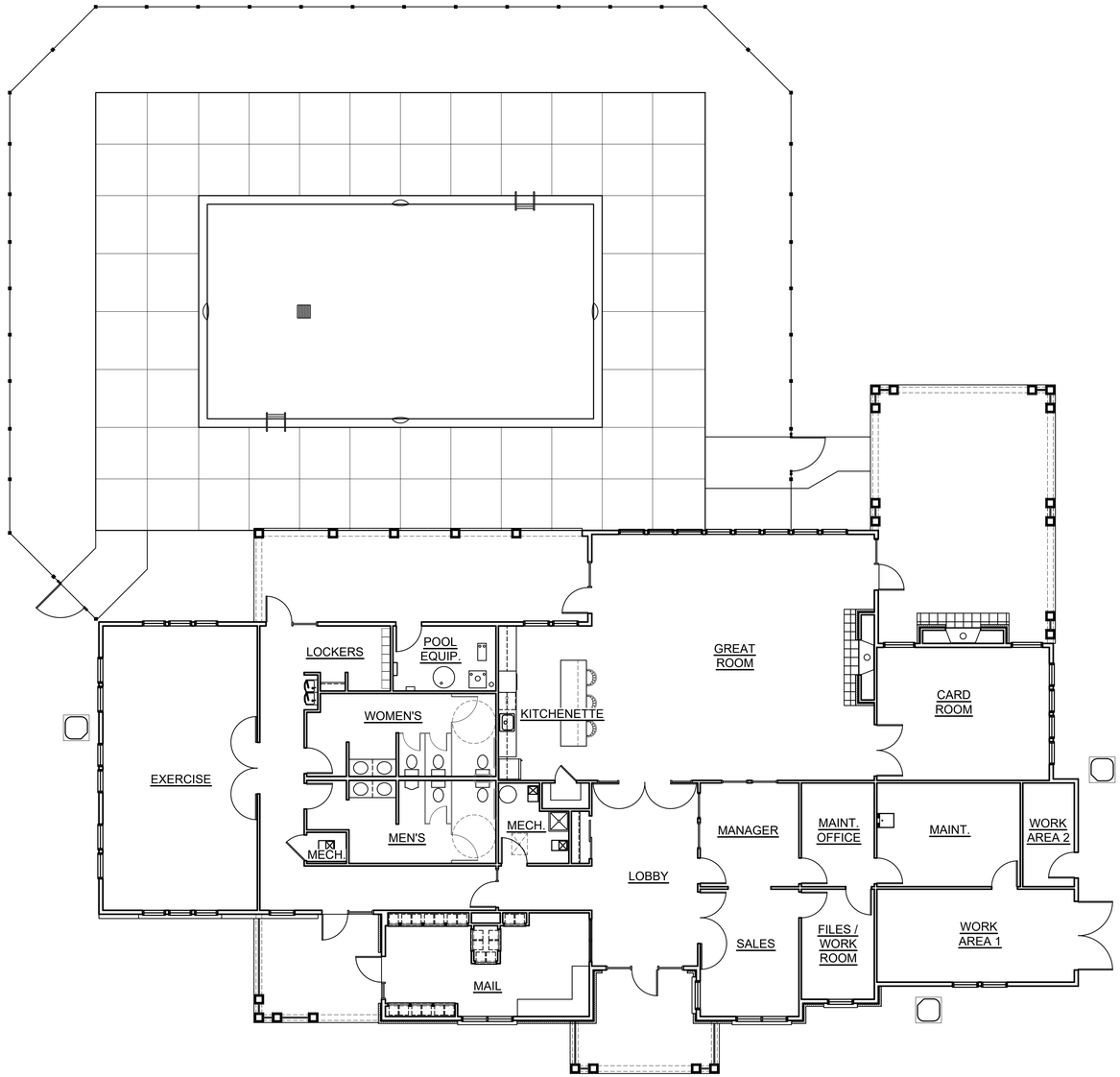

CLUBHOUSE FLOOR PLAN

KONTOGIANNIS
& ASSOCIATES

ARCHITECTURE
PLANNING
DESIGN

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PROJECT:

THE RESIDENCES AT BERLIN TOWNSHIP

BERLIN TWP.
DELAWARE COUNTY, OHIO

DRAWING TITLE:

CLUBHOUSE BUILDING PLAN

DATE: 12/27/2022
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THE RESIDENCES
At
BERLIN TOWNSHIP
DELWARE COUNTY, OHIO

TRAFFIC STUDY

Traffic Impact Study

Berlin Township Mixed Use Development – T&R Properties

Prepared for

Delaware County Engineer's Office

By

Advanced Civil Design, Inc.
781 Science Blvd., Suite 100, Gahanna Ohio 43230
(614) 428-7750

Mark I. Mann, P.E.
Director – Transportation Services

January 3, 2023

Table of Contents

Introduction 1

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No-Build Capacity Analysis – Un-Signalized Intersections 7

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List of Figures

Figure 1. Location Map & Site Plan 2

Introduction

The 120 acre development by T&R Properties in located in the Berlin Township Industrial Overlay District, in the south-west quadrant of the US 36/ SR37 & S, Old State Road intersection in Delaware County, Ohio. This development will consist of 368 apartment units in two sections, one on either side of Reed Road and 890,000 square feet of industrial warehousing of which 480,000 square feet will be in the initial development phase and the remainder built in some future year with surface level parking.

Access to the development will be from two access point, an existing east access from S. Old State Road, on to Reed Road and a proposed left-in, right-in/ right-out from US 36/ SR 37 based on the location shown for an access to the property in the ODOT D6 Access Management Plan for this portion of 36/37. Both accesses will be stop sign controlled on the minor roadway. The access from 36/ 37 will be studied as an R-Cut for northbound traffic wanting to make the left turn to go westbound.

The scope of this study was developed from correspondence with ODOT District 6 and the DCEO. The following will be studied and evaluated as part of this study:

- Right turn lane warrant at S. Old State and Reed Road.
- Right turn lane warrant at US 36/ SR 37 and S. Plunkett Rd.
- Operational analysis for the R-Cut intersection of US 36/ SR 37 & Old State Road
- Operational analysis for the R-Cut intersection of US 36/ SR 37 & S. Plunkett Road
- LOS analysis at S. Old State Road & Reed Road

Delaware County requires a left turn lane to be constructed for any development that generates more than 10 new left turn trips during any hour of the day. With this requirement in mind no left turn warrants were investigated for roadways under the DCEO jurisdiction. The analyses for this study will be for the Opening Year of 2024, the 10 year design year of 2034 and for those intersections in ODOT's jurisdiction 2044. The "Build" condition will be evaluated, and the background traffic will have a growth factor applied derived from recent ODOT studies on US 36/ SR 37. (see appendices).

Figure 1. Location Map & Site Plan

Existing/ No Build Conditions

US 36/ ST 37 is a 4 lane divided highway with a speed limit of 55 MPH. Access is controlled by ODOT. Plunkett Road (north) intersects 36/ 37 approximately 2,250 feet west of the Old State intersection. Plunkett Road will be extended south as part of this development.

South Old State is a two lane major collector roadway with a 55 MPH speed limit. The roadway is under the jurisdiction of the DCEO. Reed Road is a stub roadway that intersects with Old State approximately 1900 feet south of 36/ 37. Reed Road will be extended to the west as part of this development.

Traffic Volumes and Trip Generation

Traffic volume data for this study was collected by Smart Services and provided by ODOT and DCEO (see appendix).

To determine total entering and exiting volumes land use code (LUC 220) was used for the multi-family portion of the development and LUC 150 for the Industrial warehousing portion of the development. The ITE Trip Generation Manual was used to calculate total trips (see appendix).

All industrial trips were assigned to the S. Plunkett intersection and all multi-family trips were assigned to the Reed Road intersection.

The in-bound and out-bound trip volumes for the external roadway system are shown in the figure below.

Table 1. Site Trip Generation

Trip Generation												
Description	Land Use Code (LUC)	Total Trips	Enter	Exit	Pass-By		Primary	Pass-By	Total IN	Primary	Pass-By	Total OUT
Multi-Family Residential - North (176 units)	220	77	24%	76%	-	AM	18	-	18	59	-	59
		96	63%	37%	-	PM	64	-	64	32	-	32
Multi-Family Residential - South (192 units)	220	82	24%	76%	-	AM	20	-	20	62	-	62
		103	63%	37%	-	PM	38	-	38	65	-	65
Warehousing - Industrial 890k S.F	150	151	77%	23%	-	AM	116	-	116	35	-	35
		160	28%	72%	-	PM	45	-	45	115	-	115

All traffic volume exhibits are contained in the appendix.

No-Build Capacity Analysis – Un-Signalized Intersections

Capacity analyses were performed utilizing HCM module in Synchro 11 for signalized intersections and HCS 2023 for Two-Way Stop Controlled intersections, in this case as an R-CUT. The Opening Year (2024) No-Build, ODOT Design Year (2044) No-Build were both analyzed. Detailed print outs are contained in the Appendices.

Table 2. Traffic Study Un-Signalized Intersections LOS, No Build

Intersection	Un-Signalized Intersection Level of Service (LOS/ sec. delay)															
	No Build															
	2024								2044							
	AM				PM				AM				PM			
	NBRT	SB	EB	WBLT	NBRT	SB	EB	WBLT	NBRT	SB	EB	WBLT	NBRT	SB	EB	WBLT
US36/ SR37 & Old State Road	C/17.6	-	-	B/12.6	C/22.6	-	-	B/12.4	F/60.0	-	-	C/24.3	F/198.3	-	-	C/24.8

In the Existing Conditions No-Build scenarios un-signalized movements LOS and delays are shown above.

Build Conditions

Build Capacity Analyses – Un-Signalized Intersections

Capacity analyses were performed utilizing HCM module in Synchro 11 for signalized intersections and HCS 2023 for Two-Way Stop Controlled intersections, in this case as an R-CUT. The Opening Year (2024) Build, Design Year (2044) Build were both analyzed. Detailed print outs are contained in the Appendices.

Table 3. Traffic Study Un-Signalized Intersections LOS, Build

Intersection	Un-Signalized Intersection Level of Service (LOS/ sec. delay)															
	Build															
	2024								2044							
	AM				PM				AM				PM			
	NBRT	SB	EB	WBLT	NBRT	SB	EB	WBLT	NBRT	SB	EB	WBLT	NBRT	SB	EB	WBLT
US36/ SR37 & Old State Road	D/27.2	-	-	B/13.8	E/47.4	-	-	C/18.0	F/189.8	-	-	D/33.6	F/402.1	-	-	F/51.4

Intersection	Un-Signalized Intersection Level of Service (LOS/ sec. delay)															
	Build															
	2024								2044							
	AM				PM				AM				PM			
	NBRT	SB	EB	WBLT	NBRT	SB	EB	WBLT	NBRT	SB	EB	WBLT	NBRT	SB	EB	WBLT
US 36/ SR 37 & S. Plunkett Road	B/14.3	-	-	B/11.6	C/16.6	-	-	B/12.3	C/20.6	-	-	C/16.4	D/28.0	-	-	C/18.4

Intersection	Un-Signalized Intersection Level of Service (LOS/ sec. delay)															
	Build															
	2024								2044							
	AM				PM				AM				PM			
	NBLT	SB	EBLT	EBRT	NBLT	SB	EBLT	EBRT	NBLT	SB	EBLT	EBRT	NBLT	SB	EBLT	EBRT
Old State Road & Reed Road	A/7.8	-	B/13.6	B/10.2	A/8.4	-	D/25.9	A/9.7	A/8.1	-	C/16.7	B/11.0	A/8.8	-	E/40.6	B/10.3

In the Existing Conditions Build scenarios un-signalized movements LOS and delays are shown above.

Turn Lane Warrants and Storage Length Calculations

The Ohio Department of Transportation has a warrant process for the determination of turn lanes at un-signalized intersections. These warrants are based on the number of lanes on the roadways, the speed limits, and the volume of traffic.

An ODOT warrant study was completed to determine if a right turn lane is warranted for the site access 1 on 36/37 at the LiRiRo, and the southbound right turn movement from Old State on to Reed Road.

The warrant for site access 1 is based on the warrant for a 4-lane roadway with a posted speed limit of 45 MPH or greater.

The warrant for the Reed Road intersection is based on the warrant for a 42lane roadway with a posted speed limit of 40 MPH or less.

As a result of the analyses, right turn lanes are warranted at both locations. (see appendix)

Delaware County requires the construction of a left turn lane when there are 10 or more vehicles making a left turn during the peak hour.

A left turn lane on northbound Old State Road at the Reed Road intersection is required. (see exhibit)

Turn lane lengths for warranted turn lanes were calculated based on ODOT design criteria. Calculation can be found in the appendix

Conclusions and Recommendations

Using the 2044 Build traffic, we have calculated, based on ODOT design criteria, that an eastbound right turn lane is warranted at the unsignalized intersection of S. Plunkett Rd & US 36/ SR37. The calculations show that for 2044 PM Build traffic a 150-foot-long left turn lane, including the 50 feet of taper is required. (see appendix)

For the un-signalized intersection of Old State Road and Reed Road, based on ODOT design criteria, a 315 feet northbound left turn lane, including the 50 feet taper, and a 285 feet southbound right turn lane, including the 50 taper are required. (See Appendix).

HCS 2023 results show that the northbound right turn at the unsignalized intersection of US 36/ SR 37 and Old State Road operates at LOS F in the 2044 No Build and the 2044 Build conditions with the current geometry.

The 2044 Build LOS is considerably worse in the PM Peak hour. However, a current ODOT study is underway for US 36/ SR 37 to study the accesses. It’s likely that the results from this ODOT study will influence the future geometry at this intersection, therefore, no mitigation is recommended at this time.

Appendices

Scoping Documentation

ADVANCED
CIVIL DESIGN

November 4, 2022

Andrew Hurst, P.E. (ODOT D6)
Jessica Ormeroid, PE, PTOE (ODOT D6)
Michael Love, PE PTOE (Delaware County)

Subject: Berlin Township Mixed Use Development – Traffic Impact Study
Memorandum of Understanding

All,

We submit this Memorandum of Understanding (MOU) to document the scope of the above captioned traffic study as discussed in a meeting with the staff of Delaware County and ODOT District 6 on October 24, 2022. This submission also adds our detailed traffic assignment for your review.

Proposed Development & Access Plan

Figure 1 shows the development concept for site layout and access points. Proposed access includes one full movement access point on Lackey Old State and one Right-in/Right-out access on US 36/ SR 37 from the ODOT Access Management Plan for US 36/ SR 37.

Figure 1: Site Concept Plan

Site Design for 2024 Opening Year and 2034 and 2044 Design Year

- 368 multi-family units – north & south of Reed Road
- 890,000 square feet - Industrial Warehousing 2 Phases

Study Area

The Study Area of this TIS is limited to the following intersections:

1. US 36/ SR 37 & Lackey Old State Road (LiRiRo, ODOT)
2. US 36/ SR 37 & Site Access (S. Plunkett Road) (LiRiRo, ODOT)
3. Lackey Old State Road & Reed Road (County)

Data Collection

Traffic data was collected on October 18, 2022 at the US 36/ SR 37 & Lackey Old State intersection, including the U-Turn data for the R-CUT. Additional data was provided by the DCEO and from recently completed traffic studies in the area. These data provide turning and thru movement volumes at Study Area intersections.

Future traffic growth rates will be derived from ODOT studies and from the Mid-Ohio Regional Planning Commission (MORPC) if required.

Trip Generation and Distribution

This study will estimate new trips generated by development according to the data and procedures contained in the Trip Generation Manual, 11th ed. (Institute of Transportation Engineers, 2021). We will use land use code 220 for the Multi-Family portions of the development and land use code 150 for the industrial warehousing portions of the site. The trips generated for the proposed land uses are shown in **Table 1**.

Table 1: Trip Generation

Trip Generation												
Description	Land Use Code (LUC)	Total Trips	Enter	Exit	Pass-By		Primary	Pass-By	Total IN	Primary	Pass-By	Total OUT
Multi-Family Residential - North (176 units)	220	77	24%	76%	-	AM	18	-	18	59	-	59
		96	63%	37%	-	PM	64	-	64	32	-	32
Multi-Family Residential - South (192 units)	220	82	24%	76%	-	AM	20	-	20	62	-	62
		103	63%	37%	-	PM	38	-	38	65	-	65
Warehousing - Industrial 890k S.F	150	151	77%	23%	-	AM	116	-	116	35	-	35
		160	28%	72%	-	PM	45	-	45	115	-	115

Traffic Assignment and Volume Balancing

This study developed AM and PM peak hour volumes for the following scenarios and the attached volume exhibits are submitted for review with this submission:

- 2024 No-Build Site
- 2024 Build Site
- 2034 No-Build Site
- 2034 Build Site
- 2044 No-Build Site
- 2044 Build Site

The attached volume exhibits increase counts to design year No-Build conditions based on calculated growth rates. The attached volume exhibits show the straight mathematical application of growth rates to each intersection approach.

Traffic Analyses

Intersection Capacity Analyses

Advanced Civil Design will use Synchro (v.11) and HCS software to evaluate intersection capacity at Study Area intersections that are under the control of the DCEO. We will use HCS for intersections under the control of the ODOT.

ODOT and DCEO performance criteria for the overall intersection Level of Service (LOS) is LOS D with individual movements also at LOS D or better. City of Columbus performance criteria for the overall intersection is LOS D with approach LOS D and LOS E in any individual movement. The Sawmill Road corridor is severely congested under background conditions and the Sawmill Road Corridor Study and Tuller Road/Emerald Parkway connector study are regional initiatives intended to address multiple existing deficiencies in the area road network. If improvements required to meet traditional agency performance criteria are not practical, this study will consider alternate goals such as restoring pre-development performance and/or mitigating queues where background conditions are severely deficient. Agency concurrence is required in the event that alternate criteria are used as the basis for study recommendations.

Turn Lane Warrant Analysis

We will analyze right turn lane warrants at proposed site access points for the locations controlled by DCEO. Left turn lane warrants are generally not applicable because DCEO requires left turn lane additions to the street being accessed when 10 or more left turn movements are made in the peak hour.

We will analyze left and right turn lane warrants at proposed site access points and intersections for the locations controlled by ODOT D6.

We will evaluate the length of existing and proposed Study Area turn lanes impacted by site generated traffic. We will prepare our turn lane analysis in accordance with the Location and Design Manual § 401 (Ohio Department of Transportation).

We will determine lane length based on the maximum volume for the design year Build condition for either AM or PM peak conditions considering both L&D methodology.

Signal Warrant Analysis
If signalization is considered to meet performance criteria at a location that is not currently signalized, we will evaluate traffic signal warrants. Traffic signal warrant evaluation will use thresholds established by the Ohio Manual of Uniform Traffic Control Devices §4C (Ohio Department of Transportation).

This study is limited to analysis of Warrants 1, 2 and 3. We will remove a portion of minor street right turns in accordance with the Traffic Engineering Manual §402-5 (Ohio Department of Transportation). We will consider roundabouts as an alternative to signalization where applicable.

Traffic Impact Study Report
A report including applicable figures and tables will be prepared to summarize study methodologies, analysis, findings and recommendations. We will provide the report to ODOT and DCEO for review.

Please signify your concurrence with the scope of services outlined herein by signing below and returning this Memorandum of Understanding to me. Please feel free to contact me by email at mmann@advancecivildesign.com or by calling me at (614) 944-5035.

Sincerely,

Mark I. Mann, PE
Director - Transportation Services

ACCEPTANCE AND APPROVAL OF MEMORANDUM OF UNDERSTANDING

By: _____
For Delaware County Engineer's Office

By: _____
For ODOT District 6

Traffic Count Data

US 36-SR 37 & Lackey Old State - TMC

Tue Oct 4, 2022
Full Length (6 AM-8 PM)
All Classes (Lights and Motorcycles, Heavy, Pedestrians)
All Movements
ID: 997819, Location: 40.278627, -82.983901

Provided by: Smart Services, Inc.
88 W. Church Street, Newark, OH, 43055, US

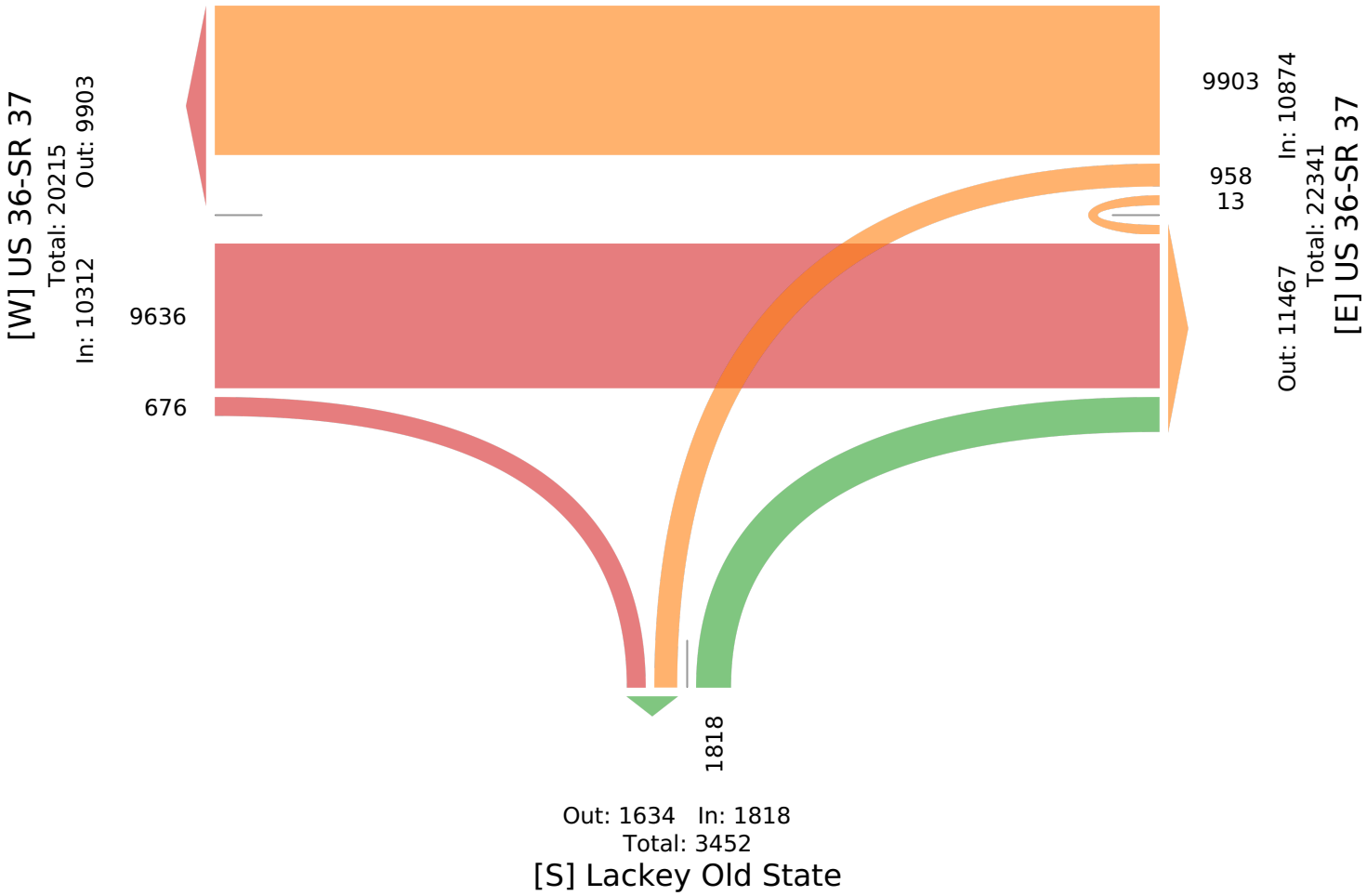
Leg	US 36-SR 37					US 36-SR 37					Lackey Old State					
Direction	Eastbound					Westbound					Northbound					
Time	T	R	U	App	Ped*	L	T	U	App	Ped*	L	R	U	App	Ped*	Int
2022-10-04 6:00AM	97	2	0	**99**	0	7	60	0	**67**	0	0	5	0	**5**	0	**171**
6:15AM	168	10	0	**178**	0	7	110	0	**117**	0	0	7	0	**7**	0	**302**
6:30AM	175	6	0	**181**	0	22	126	0	**148**	0	0	22	0	**22**	0	**351**
6:45AM	188	18	0	**206**	0	23	159	0	**182**	0	0	20	0	**20**	0	**408**
Hourly Total	628	36	0	**664**	0	59	455	0	**514**	0	0	54	0	**54**	0	**1232**
7:00AM	196	15	0	**211**	0	27	150	0	**177**	0	0	41	0	**41**	0	**429**
7:15AM	247	27	0	**274**	0	25	167	1	**193**	0	0	43	0	**43**	0	**510**
7:30AM	256	19	0	**275**	0	31	189	1	**221**	0	0	36	0	**36**	0	**532**
7:45AM	228	21	0	**249**	0	23	196	1	**220**	0	0	46	0	**46**	0	**515**
Hourly Total	927	82	0	**1009**	0	106	702	3	**811**	0	0	166	0	**166**	0	**1986**
8:00AM	223	15	0	**238**	0	19	148	0	**167**	0	0	34	0	**34**	0	**439**
8:15AM	193	19	0	**212**	0	23	155	0	**178**	0	0	30	0	**30**	0	**420**
8:30AM	209	11	0	**220**	0	20	184	1	**205**	0	0	31	0	**31**	0	**456**
8:45AM	191	12	0	**203**	0	23	150	0	**173**	0	0	24	0	**24**	0	**400**
Hourly Total	816	57	0	**873**	0	85	637	1	**723**	0	0	119	0	**119**	0	**1715**
9:00AM	155	11	0	**166**	0	19	163	0	**182**	0	0	39	0	**39**	0	**387**
9:15AM	157	9	0	**166**	0	15	166	0	**181**	0	0	21	0	**21**	0	**368**
9:30AM	154	18	0	**172**	0	11	171	0	**182**	0	0	26	0	**26**	0	**380**
9:45AM	129	10	0	**139**	0	17	148	1	**166**	0	0	24	0	**24**	0	**329**
Hourly Total	595	48	0	**643**	0	62	648	1	**711**	0	0	110	0	**110**	0	**1464**
10:00AM	135	3	0	**138**	0	12	139	0	**151**	0	0	23	0	**23**	0	**312**
10:15AM	131	13	0	**144**	0	7	121	0	**128**	0	0	27	0	**27**	0	**299**
10:30AM	150	11	0	**161**	0	17	159	0	**176**	0	0	17	0	**17**	0	**354**
10:45AM	159	6	0	**165**	0	16	148	0	**164**	0	0	26	0	**26**	0	**355**
Hourly Total	575	33	0	**608**	0	52	567	0	**619**	0	0	93	0	**93**	0	**1320**
11:00AM	155	5	0	**160**	0	13	125	0	**138**	0	0	25	0	**25**	0	**323**
11:15AM	135	3	0	**138**	0	11	140	0	**151**	0	0	20	0	**20**	0	**309**
11:30AM	148	13	0	**161**	0	10	156	0	**166**	0	0	33	0	**33**	0	**360**
11:45AM	139	12	0	**151**	0	16	144	2	**162**	0	0	28	0	**28**	0	**341**
Hourly Total	577	33	0	**610**	0	50	565	2	**617**	0	0	106	0	**106**	0	**1333**
12:00PM	148	17	0	**165**	0	19	150	0	**169**	0	0	26	0	**26**	0	**360**
12:15PM	148	10	0	**158**	0	14	163	0	**177**	0	0	27	0	**27**	0	**362**
12:30PM	160	16	0	**176**	0	7	186	0	**193**	0	0	28	0	**28**	0	**397**
12:45PM	140	16	0	**156**	0	10	160	0	**170**	0	0	23	0	**23**	0	**349**
Hourly Total	596	59	0	**655**	0	50	659	0	**709**	0	0	104	0	**104**	0	**1468**
1:00PM	161	11	0	**172**	0	11	174	0	**185**	0	0	25	0	**25**	0	**382**
1:15PM	169	18	0	**187**	0	15	146	1	**162**	0	0	34	0	**34**	0	**383**
1:30PM	153	14	0	**167**	0	14	186	0	**200**	0	0	25	0	**25**	0	**392**
1:45PM	150	15	0	**165**	0	14	165	0	**179**	0	0	29	0	**29**	0	**373**
Hourly Total	633	58	0	**691**	0	54	671	1	**726**	0	0	113	0	**113**	0	**1530**
2:00PM	158	7	0	**165**	0	10	173	0	**183**	0	0	29	0	**29**	0	**377**
2:15PM	174	10	0	**184**	0	16	182	0	**198**	0	0	23	0	**23**	0	**405**
2:30PM	149	7	0	**156**	0	12	194	1	**207**	0	0	40	0	**40**	0	**403**
2:45PM	188	9	0	**197**	0	13	174	0	**187**	0	0	51	0	**51**	0	**435**
Hourly Total	669	33	0	**702**	0	51	723	1	**775**	0	0	143	0	**143**	0	**1620**
3:00PM	172	10	0	**182**	0	20	177	0	**197**	0	0	38	0	**38**	0	**417**
3:15PM	212	14	0	**226**	0	15	225	0	**240**	0	0	32	0	**32**	0	**498**
3:30PM	246	12	0	**258**	0	20	217	0	**237**	0	0	27	0	**27**	0	**522**
3:45PM	230	13	0	**243**	0	22	208	0	**230**	0	0	44	0	**44**	0	**517**
Hourly Total	860	49	0	**909**	0	77	827	0	**904**	0	0	141	0	**141**	0	**1954**
4:00PM	243	11	0	**254**	0	25	239	0	**264**	0	0	47	0	**47**	0	**565**
4:15PM	218	12	0	**230**	0	13	273	0	**286**	0	0	58	0	**58**	0	**574**
4:30PM	250	20	0	**270**	0	21	263	0	**284**	0	0	62	0	**62**	0	**616**
4:45PM	205	15	0	**220**	0	31	287	0	**318**	0	0	70	0	**70**	0	**608**

Leg	US 36-SR 37					US 36-SR 37					Lackey Old State					
Direction	Eastbound					Westbound					Northbound					
Time	T	R	U	**App**	Ped*	L	T	U	**App**	Ped*	L	R	U	**App**	Ped*	**Int**
Hourly Total	916	58	0	**974**	0	90	1062	0	**1152**	0	0	237	0	**237**	0	**2363**
5:00PM	233	16	0	**249**	0	28	271	1	**300**	0	0	56	0	**56**	0	**605**
5:15PM	235	17	0	**252**	0	28	276	0	**304**	0	0	59	0	**59**	0	**615**
5:30PM	197	8	0	**205**	0	31	295	1	**327**	0	0	61	0	**61**	0	**593**
5:45PM	177	7	0	**184**	0	21	250	0	**271**	0	0	58	0	**58**	0	**513**
Hourly Total	842	48	0	**890**	0	108	1092	2	**1202**	0	0	234	0	**234**	0	**2326**
6:00PM	150	11	0	**161**	0	24	195	0	**219**	0	0	39	0	**39**	0	**419**
6:15PM	169	17	0	**186**	0	14	199	1	**214**	0	0	25	0	**25**	0	**425**
6:30PM	147	5	0	**152**	0	8	199	1	**208**	0	0	38	0	**38**	0	**398**
6:45PM	138	16	0	**154**	0	14	166	0	**180**	0	0	12	0	**12**	0	**346**
Hourly Total	604	49	0	**653**	0	60	759	2	**821**	0	0	114	0	**114**	0	**1588**
7:00PM	113	13	0	**126**	0	15	148	0	**163**	0	0	15	0	**15**	0	**304**
7:15PM	107	10	0	**117**	0	8	136	0	**144**	0	0	17	0	**17**	0	**278**
7:30PM	95	6	0	**101**	0	17	131	0	**148**	0	0	32	0	**32**	0	**281**
7:45PM	83	4	0	**87**	0	14	121	0	**135**	0	0	20	0	**20**	0	**242**
Hourly Total	398	33	0	**431**	0	54	536	0	**590**	0	0	84	0	**84**	0	**1105**
Total	9636	676	0	**10312**	0	958	9903	13	**10874**	0	0	1818	0	**1818**	0	**23004**
% Approach	93.4%	6.6%	0%	**-**	-	8.8%	91.1%	0.1%	**-**	-	0%	100%	0%	**-**	-	**-**
% Total	41.9%	2.9%	0%	**44.8%**	-	4.2%	43.0%	0.1%	**47.3%**	-	0%	7.9%	0%	**7.9%**	-	**-**
Lights and Motorcycles	8479	654	0	**9133**	-	866	8663	13	**9542**	-	0	1715	0	**1715**	-	20390
% Lights and Motorcycles	88.0%	96.7%	0%	**88.6%**	-	90.4%	87.5%	100%	**87.8%**	-	0%	94.3%	0%	**94.3%**	-	88.6%
Heavy	1157	22	0	**1179**	-	92	1240	0	**1332**	-	0	103	0	**103**	-	2614
% Heavy	12.0%	3.3%	0%	**11.4%**	-	9.6%	12.5%	0%	**12.2%**	-	0%	5.7%	0%	**5.7%**	-	11.4%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

US 36-SR 37 & Lackey Old State - TMC
Tue Oct 4, 2022
Full Length (6 AM-8 PM)
All Classes (Lights and Motorcycles, Heavy, Pedestrians)
All Movements
ID: 997819, Location: 40.278627, -82.983901

Provided by: Smart Services, Inc.
88 W. Church Street, Newark, OH, 43055, US



US 36-SR 37 & Lackey Old State - TMC

Tue Oct 4, 2022
AM Peak (7:15 AM - 8:15 AM)
All Classes (Lights and Motorcycles, Heavy, Pedestrians)
All Movements
ID: 997819, Location: 40.278627, -82.983901

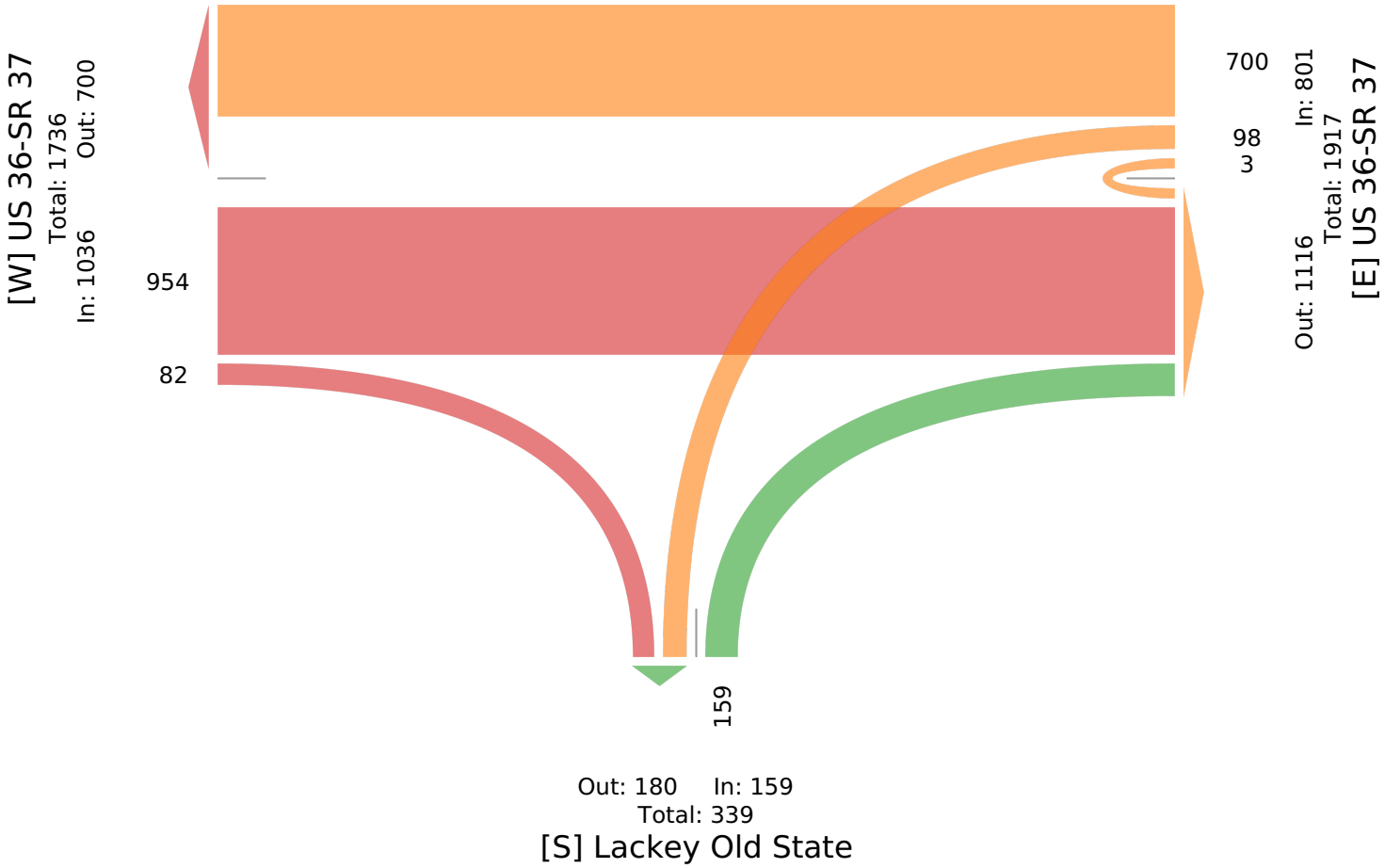
Provided by: Smart Services, Inc.
88 W. Church Street, Newark, OH, 43055, US

Leg	US 36-SR 37					US 36-SR 37					Lackey Old State					
Direction	Eastbound					Westbound					Northbound					
Time	T	R	U	**App**	Ped*	L	T	U	**App**	Ped*	L	R	U	**App**	Ped*	**Int**
2022-10-04 7:15AM	247	27	0	**274**	0	25	167	1	**193**	0	0	43	0	**43**	0	**510**
7:30AM	256	19	0	**275**	0	31	189	1	**221**	0	0	36	0	**36**	0	**532**
7:45AM	228	21	0	**249**	0	23	196	1	**220**	0	0	46	0	**46**	0	**515**
8:00AM	223	15	0	**238**	0	19	148	0	**167**	0	0	34	0	**34**	0	**439**
Total	954	82	0	**1036**	0	98	700	3	**801**	0	0	159	0	**159**	0	**1996**
% Approach	92.1%	7.9%	0%	**-**	-	12.2%	87.4%	0.4%	**-**	-	0%	100%	0%	**-**	-	**-**
% Total	47.8%	4.1%	0%	**51.9%**	-	4.9%	35.1%	0.2%	**40.1%**	-	0%	8.0%	0%	**8.0%**	-	**-**
PHF	0.932	0.759	-	**0.942**	-	0.790	0.893	0.750	**0.906**	-	-	0.864	-	**0.864**	-	0.938
Lights and Motorcycles	856	78	0	**934**	-	90	591	3	**684**	-	0	155	0	**155**	-	1773
% Lights and Motorcycles	89.7%	95.1%	0%	**90.2%**	-	91.8%	84.4%	100%	**85.4%**	-	0%	97.5%	0%	**97.5%**	-	88.8%
Heavy	98	4	0	**102**	-	8	109	0	**117**	-	0	4	0	**4**	-	223
% Heavy	10.3%	4.9%	0%	**9.8%**	-	8.2%	15.6%	0%	**14.6%**	-	0%	2.5%	0%	**2.5%**	-	11.2%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

US 36-SR 37 & Lackey Old State - TMC
Tue Oct 4, 2022
AM Peak (7:15 AM - 8:15 AM)
All Classes (Lights and Motorcycles, Heavy, Pedestrians)
All Movements
ID: 997819, Location: 40.278627, -82.983901

Provided by: Smart Services, Inc.
88 W. Church Street, Newark, OH, 43055, US



US 36-SR 37 & Lackey Old State - TMC

Tue Oct 4, 2022
Midday Peak (1 PM - 2 PM)
All Classes (Lights and Motorcycles, Heavy, Pedestrians)
All Movements
ID: 997819, Location: 40.278627, -82.983901

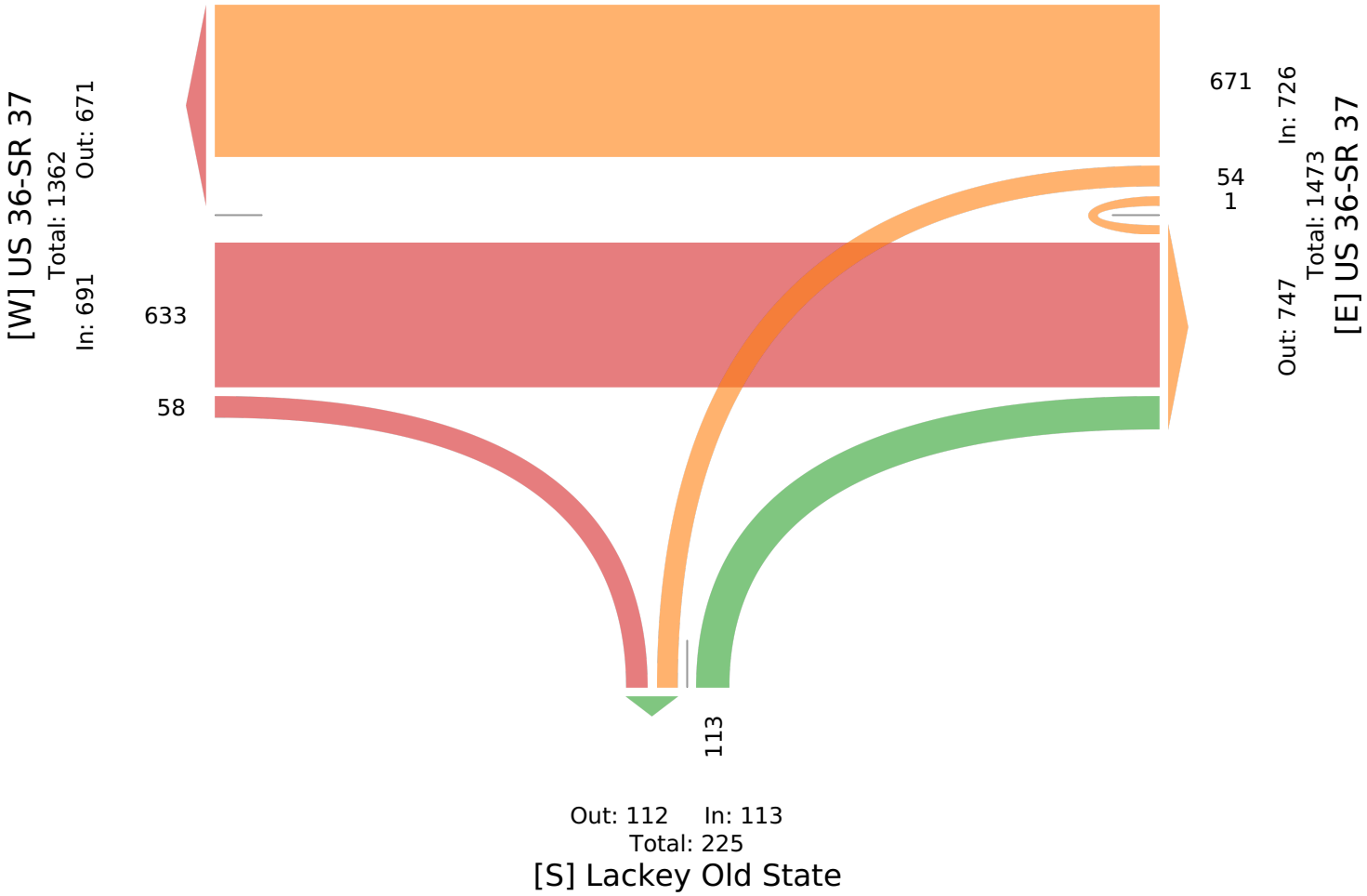
Provided by: Smart Services, Inc.
88 W. Church Street, Newark, OH, 43055, US

Leg	US 36-SR 37					US 36-SR 37					Lackey Old State					
Direction	Eastbound					Westbound					Northbound					
Time	T	R	U	**App**	Ped*	L	T	U	**App**	Ped*	L	R	U	**App**	Ped*	**Int**
2022-10-04 1:00PM	161	11	0	**172**	0	11	174	0	**185**	0	0	25	0	**25**	0	**382**
1:15PM	169	18	0	**187**	0	15	146	1	**162**	0	0	34	0	**34**	0	**383**
1:30PM	153	14	0	**167**	0	14	186	0	**200**	0	0	25	0	**25**	0	**392**
1:45PM	150	15	0	**165**	0	14	165	0	**179**	0	0	29	0	**29**	0	**373**
Total	633	58	0	**691**	0	54	671	1	**726**	0	0	113	0	**113**	0	**1530**
% Approach	91.6%	8.4%	0%	**-**	-	7.4%	92.4%	0.1%	**-**	-	0%	100%	0%	**-**	-	**-**
% Total	41.4%	3.8%	0%	**45.2%**	-	3.5%	43.9%	0.1%	**47.5%**	-	0%	7.4%	0%	**7.4%**	-	**-**
PHF	0.936	0.806	-	**0.924**	-	0.900	0.902	0.250	**0.908**	-	-	0.831	-	**0.831**	-	0.976
Lights and Motorcycles	515	57	0	**572**	-	48	561	1	**610**	-	0	106	0	**106**	-	1288
% Lights and Motorcycles	81.4%	98.3%	0%	**82.8%**	-	88.9%	83.6%	100%	**84.0%**	-	0%	93.8%	0%	**93.8%**	-	84.2%
Heavy	118	1	0	**119**	-	6	110	0	**116**	-	0	7	0	**7**	-	242
% Heavy	18.6%	1.7%	0%	**17.2%**	-	11.1%	16.4%	0%	**16.0%**	-	0%	6.2%	0%	**6.2%**	-	15.8%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

US 36-SR 37 & Lackey Old State - TMC
Tue Oct 4, 2022
Midday Peak (1 PM - 2 PM)
All Classes (Lights and Motorcycles, Heavy, Pedestrians)
All Movements
ID: 997819, Location: 40.278627, -82.983901

Provided by: Smart Services, Inc.
88 W. Church Street, Newark, OH, 43055, US



US 36-SR 37 & Lackey Old State - TMC

Tue Oct 4, 2022
PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour
All Classes (Lights and Motorcycles, Heavy, Pedestrians)
All Movements
ID: 997819, Location: 40.278627, -82.983901

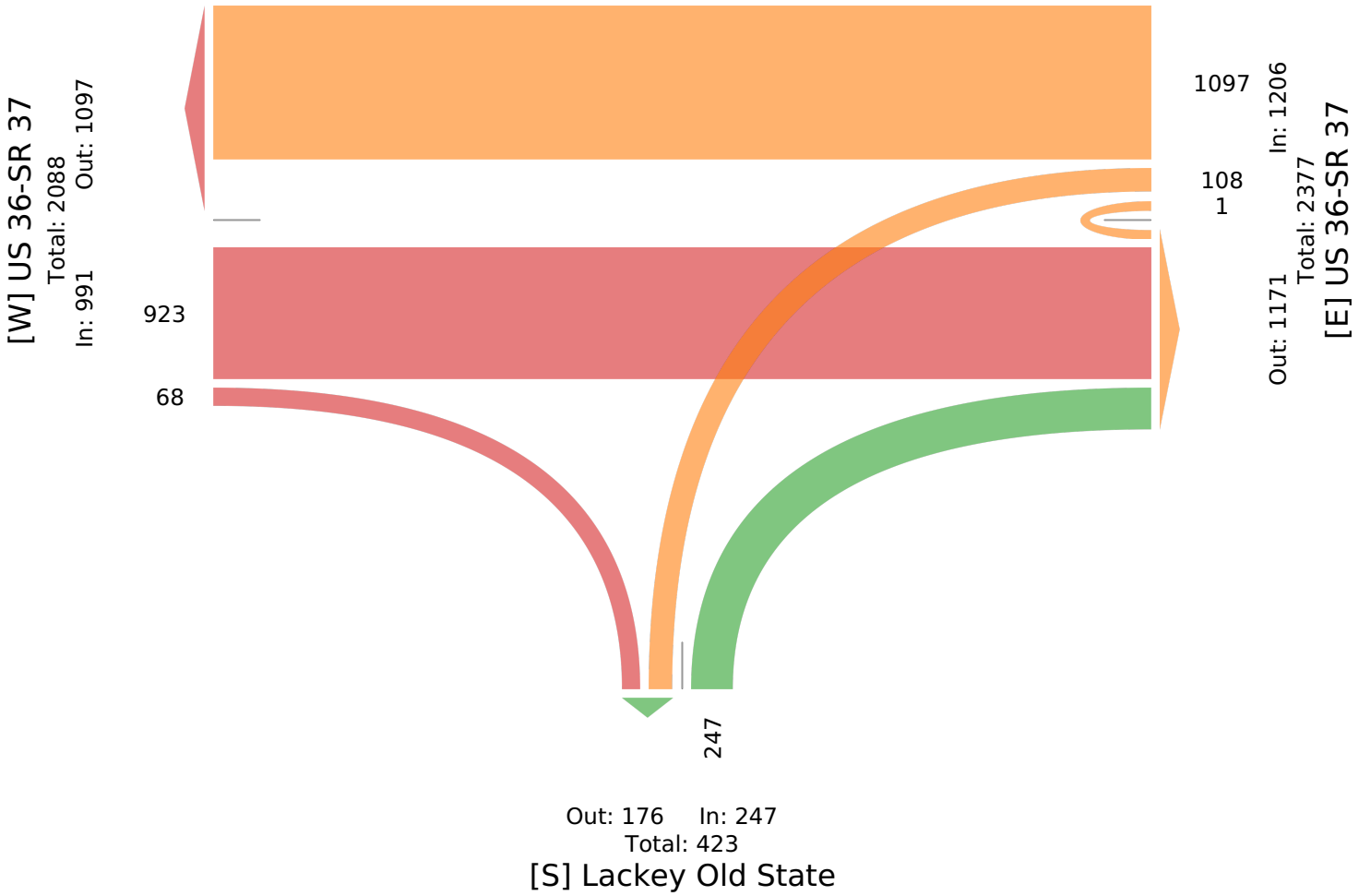
Provided by: Smart Services, Inc.
88 W. Church Street, Newark, OH, 43055, US

Leg	US 36-SR 37					US 36-SR 37					Lackey Old State					
Direction	Eastbound					Westbound					Northbound					
Time	T	R	U	**App**	Ped*	L	T	U	**App**	Ped*	L	R	U	**App**	Ped*	**Int**
2022-10-04 4:30PM	250	20	0	**270**	0	21	263	0	**284**	0	0	62	0	**62**	0	**616**
4:45PM	205	15	0	**220**	0	31	287	0	**318**	0	0	70	0	**70**	0	**608**
5:00PM	233	16	0	**249**	0	28	271	1	**300**	0	0	56	0	**56**	0	**605**
5:15PM	235	17	0	**252**	0	28	276	0	**304**	0	0	59	0	**59**	0	**615**
Total	923	68	0	**991**	0	108	1097	1	**1206**	0	0	247	0	**247**	0	**2444**
% Approach	93.1%	6.9%	0%	**-**	-	9.0%	91.0%	0.1%	**-**	-	0%	100%	0%	**-**	-	**-**
% Total	37.8%	2.8%	0%	**40.5%**	-	4.4%	44.9%	0%	**49.3%**	-	0%	10.1%	0%	**10.1%**	-	**-**
PHF	0.923	0.850	-	**0.918**	-	0.871	0.956	0.250	**0.948**	-	-	0.882	-	**0.882**	-	0.992
Lights and Motorcycles	853	68	0	**921**	-	105	1042	1	**1148**	-	0	244	0	**244**	-	2313
% Lights and Motorcycles	92.4%	100%	0%	**92.9%**	-	97.2%	95.0%	100%	**95.2%**	-	0%	98.8%	0%	**98.8%**	-	94.6%
Heavy	70	0	0	**70**	-	3	55	0	**58**	-	0	3	0	**3**	-	131
% Heavy	7.6%	0%	0%	**7.1%**	-	2.8%	5.0%	0%	**4.8%**	-	0%	1.2%	0%	**1.2%**	-	5.4%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

US 36-SR 37 & Lackey Old State - TMC
Tue Oct 4, 2022
PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour
All Classes (Lights and Motorcycles, Heavy, Pedestrians)
All Movements
ID: 997819, Location: 40.278627, -82.983901

Provided by: Smart Services, Inc.
88 W. Church Street, Newark, OH, 43055, US



US 36-SR 37 EB U Turn East of Lackey Old Sta... - ATR

Tue Oct 4, 2022
Full Length (6 AM-8 PM)
All Classes (Lights and Motorcycles, Heavy)
All Channels
ID: 997824, Location: 40.278088, -82.982033



Provided by: Smart Services, Inc.
88 W. Church Street, Newark, OH, 43055, US

Leg Direction	South Northbound		
Time	T	App	Int
2022-10-04 6:00AM	1	**1**	**1**
6:15AM	1	**1**	**1**
6:30AM	12	**12**	**12**
6:45AM	6	**6**	**6**
Hourly Total	20	**20**	**20**
7:00AM	8	**8**	**8**
7:15AM	15	**15**	**15**
7:30AM	11	**11**	**11**
7:45AM	16	**16**	**16**
Hourly Total	50	**50**	**50**
8:00AM	11	**11**	**11**
8:15AM	7	**7**	**7**
8:30AM	6	**6**	**6**
8:45AM	4	**4**	**4**
Hourly Total	28	**28**	**28**
9:00AM	9	**9**	**9**
9:15AM	1	**1**	**1**
9:30AM	8	**8**	**8**
9:45AM	10	**10**	**10**
Hourly Total	28	**28**	**28**
10:00AM	5	**5**	**5**
10:15AM	7	**7**	**7**
10:30AM	8	**8**	**8**
10:45AM	5	**5**	**5**
Hourly Total	25	**25**	**25**
11:00AM	8	**8**	**8**
11:15AM	7	**7**	**7**
11:30AM	11	**11**	**11**
11:45AM	10	**10**	**10**
Hourly Total	36	**36**	**36**
12:00PM	10	**10**	**10**
12:15PM	9	**9**	**9**
12:30PM	11	**11**	**11**
12:45PM	8	**8**	**8**
Hourly Total	38	**38**	**38**
1:00PM	13	**13**	**13**
1:15PM	9	**9**	**9**
1:30PM	11	**11**	**11**
1:45PM	12	**12**	**12**
Hourly Total	45	**45**	**45**
2:00PM	8	**8**	**8**
2:15PM	8	**8**	**8**
2:30PM	14	**14**	**14**
2:45PM	17	**17**	**17**
Hourly Total	47	**47**	**47**
3:00PM	11	**11**	**11**
3:15PM	12	**12**	**12**
3:30PM	9	**9**	**9**
3:45PM	12	**12**	**12**
Hourly Total	44	**44**	**44**
4:00PM	9	**9**	**9**
4:15PM	15	**15**	**15**
4:30PM	17	**17**	**17**
4:45PM	17	**17**	**17**

Leg Direction	South Northbound		
Time	T	**App**	**Int**
Hourly Total	58	**58**	**58**
5:00PM	20	**20**	**20**
5:15PM	20	**20**	**20**
5:30PM	20	**20**	**20**
5:45PM	13	**13**	**13**
Hourly Total	73	**73**	**73**
6:00PM	12	**12**	**12**
6:15PM	8	**8**	**8**
6:30PM	13	**13**	**13**
6:45PM	7	**7**	**7**
Hourly Total	40	**40**	**40**
7:00PM	6	**6**	**6**
7:15PM	4	**4**	**4**
7:30PM	6	**6**	**6**
7:45PM	5	**5**	**5**
Hourly Total	21	**21**	**21**
Total	553	**553**	**553**
% Approach	100%	**-**	-
% Total	100%	**100%**	-
Lights and Motorcycles	543	**543**	543
% Lights and Motorcycles	98.2%	**98.2%**	98.2%
Heavy	10	**10**	10
% Heavy	1.8%	**1.8%**	1.8%

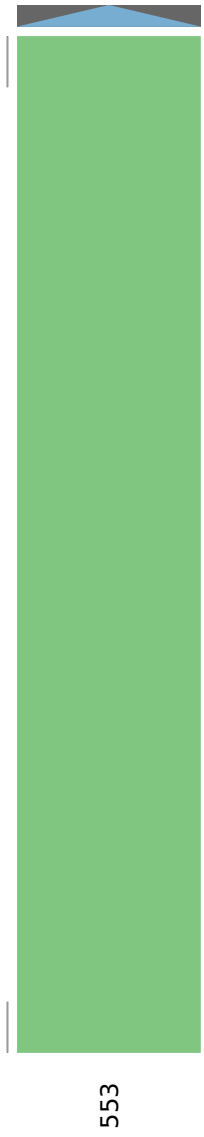
*T: Thru

US 36-SR 37 EB U Turn East of Lackey Old Sta... - ATR
Tue Oct 4, 2022
Full Length (6 AM-8 PM)
All Classes (Lights and Motorcycles, Heavy)
All Channels
ID: 997824, Location: 40.278088, -82.982033

Provided by: Smart Services, Inc.
88 W. Church Street, Newark, OH, 43055, US

N

Total: 553
In: 0 Out: 553



553

Out: 0 In: 553
Total: 553

S

US 36-SR 37 EB U Turn East of Lackey Old Sta... - ATR

Tue Oct 4, 2022
AM Peak (7:15 AM - 8:15 AM)
All Classes (Lights and Motorcycles, Heavy)
All Channels
ID: 997824, Location: 40.278088, -82.982033

Provided by: Smart Services, Inc.
88 W. Church Street, Newark, OH, 43055, US

Leg Direction	South Northbound		
Time	T	**App**	**Int**
2022-10-04 7:15AM	15	**15**	**15**
7:30AM	11	**11**	**11**
7:45AM	16	**16**	**16**
8:00AM	11	**11**	**11**
Total	53	**53**	**53**
% Approach	100%	**-**	-
% Total	100%	**100%**	-
PHF	0.828	**0.828**	0.828
Lights and Motorcycles	52	**52**	52
% Lights and Motorcycles	98.1%	**98.1%**	98.1%
Heavy	1	**1**	1
% Heavy	1.9%	**1.9%**	1.9%

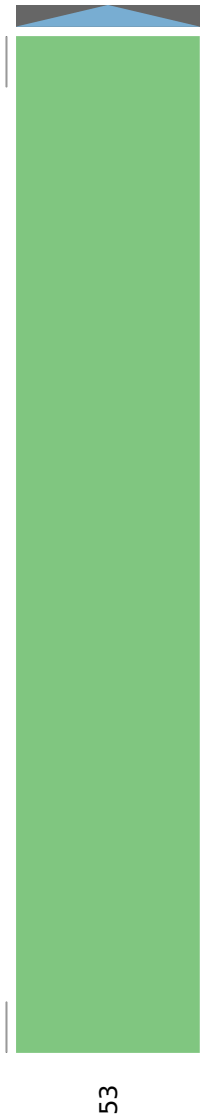
*T: Thru

US 36-SR 37 EB U Turn East of Lackey Old Sta... - ATR
Tue Oct 4, 2022
AM Peak (7:15 AM - 8:15 AM)
All Classes (Lights and Motorcycles, Heavy)
All Channels
ID: 997824, Location: 40.278088, -82.982033

Provided by: Smart Services, Inc.
88 W. Church Street, Newark, OH, 43055, US

N

Total: 53
In: 0 Out: 53



53

Out: 0 In: 53
Total: 53

S

US 36-SR 37 EB U Turn East of Lackey Old Sta... - ATR

Tue Oct 4, 2022
Midday Peak (1 PM - 2 PM)
All Classes (Lights and Motorcycles, Heavy)
All Channels
ID: 997824, Location: 40.278088, -82.982033

Provided by: Smart Services, Inc.
88 W. Church Street, Newark, OH, 43055, US

Leg Direction	South Northbound		
Time	T	**App**	**Int**
2022-10-04 1:00PM	13	**13**	**13**
1:15PM	9	**9**	**9**
1:30PM	11	**11**	**11**
1:45PM	12	**12**	**12**
Total	45	**45**	**45**
% Approach	100%	**-**	-
% Total	100%	**100%**	-
PHF	0.865	**0.865**	0.865
Lights and Motorcycles	44	**44**	44
% Lights and Motorcycles	97.8%	**97.8%**	97.8%
Heavy	1	**1**	1
% Heavy	2.2%	**2.2%**	2.2%

*T: Thru

US 36-SR 37 EB U Turn East of Lackey Old Sta... - ATR
Tue Oct 4, 2022
Midday Peak (1 PM - 2 PM)
All Classes (Lights and Motorcycles, Heavy)
All Channels
ID: 997824, Location: 40.278088, -82.982033

Provided by: Smart Services, Inc.
88 W. Church Street, Newark, OH, 43055, US



US 36-SR 37 EB U Turn East of Lackey Old Sta... - ATR

Tue Oct 4, 2022
PM Peak (4:45 PM - 5:45 PM) - Overall Peak Hour
All Classes (Lights and Motorcycles, Heavy)
All Channels
ID: 997824, Location: 40.278088, -82.982033

Provided by: Smart Services, Inc.
88 W. Church Street, Newark, OH, 43055, US

Leg Direction	South Northbound		
Time	T	**App**	**Int**
2022-10-04 4:45PM	17	**17**	**17**
5:00PM	20	**20**	**20**
5:15PM	20	**20**	**20**
5:30PM	20	**20**	**20**
Total	77	**77**	**77**
% Approach	100%	**-**	-
% Total	100%	**100%**	-
PHF	0.963	**0.963**	0.963
Lights and Motorcycles	77	**77**	77
% Lights and Motorcycles	100%	**100%**	100%
Heavy	0	**0**	0
% Heavy	0%	**0%**	0%

*T: Thru

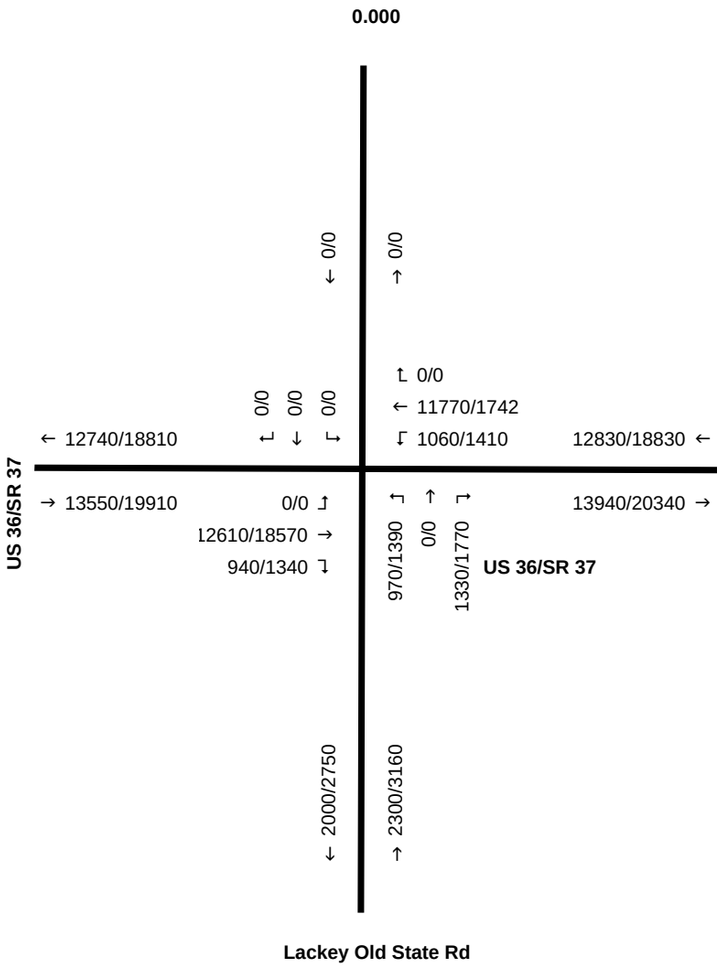
US 36-SR 37 EB U Turn East of Lackey Old Sta... - ATR
Tue Oct 4, 2022
PM Peak (4:45 PM - 5:45 PM) - Overall Peak Hour
All Classes (Lights and Motorcycles, Heavy)
All Channels
ID: 997824, Location: 40.278088, -82.982033

Provided by: Smart Services, Inc.
88 W. Church Street, Newark, OH, 43055, US

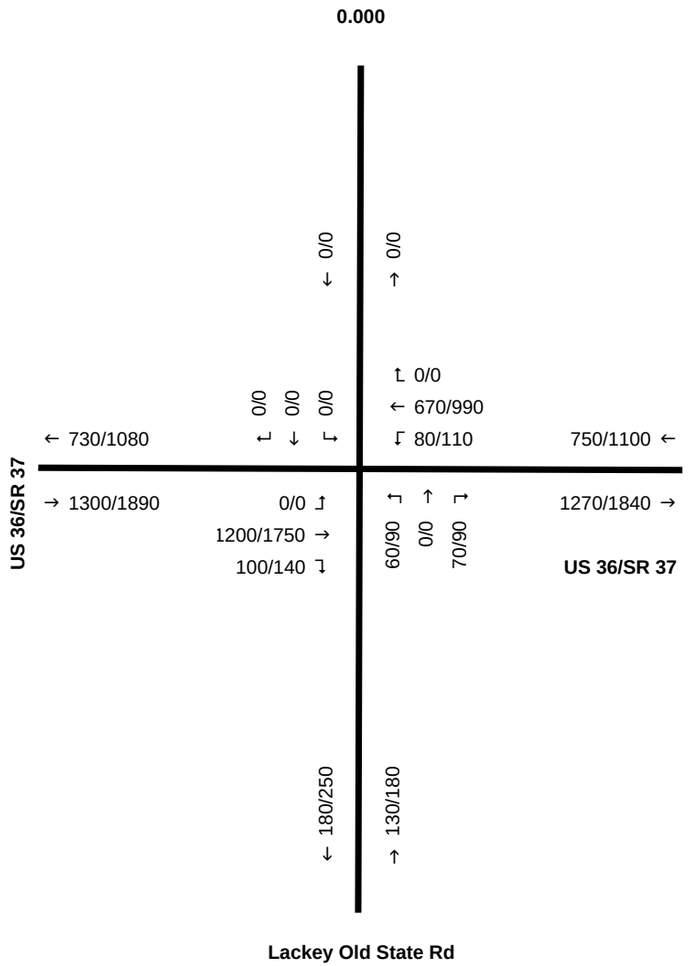


DEL-36-14.85
PID
PLATE 1 OF 1

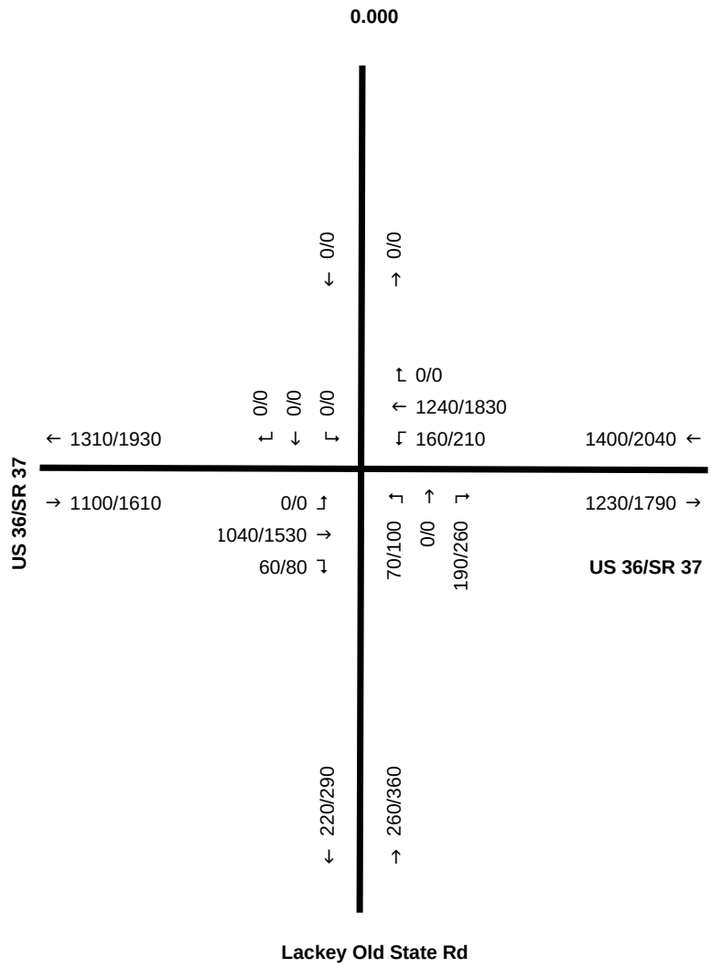
2019/2039 ADT



2019/2039 A.M. DHV



2019/2039 P.M. DHV



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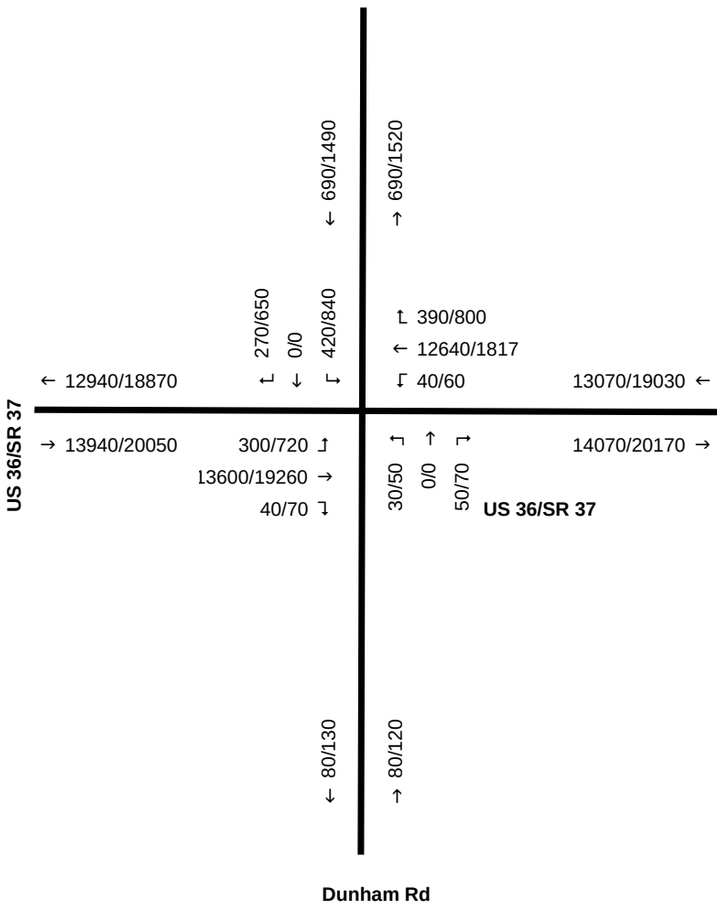
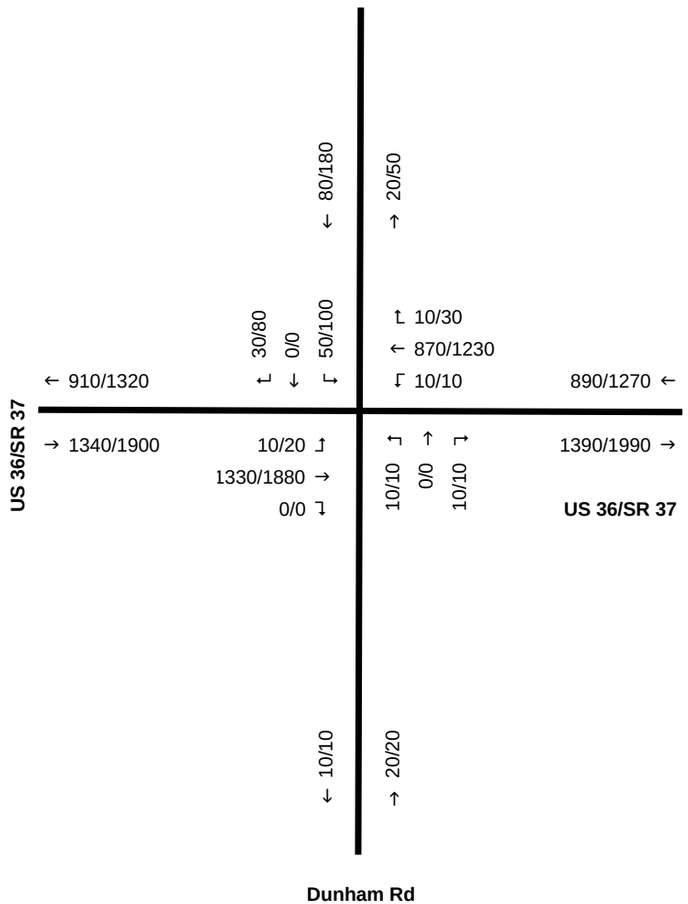
DEL-36-14.85	PID
2019/2039 ADT, AM DHV, PM DHV	
OHIO DEPARTMENT OF TRANSPORATION	
JULY 12, 2017	NOT TO SCALE

DEL-36-15.99
PID
PLATE 1 OF 1

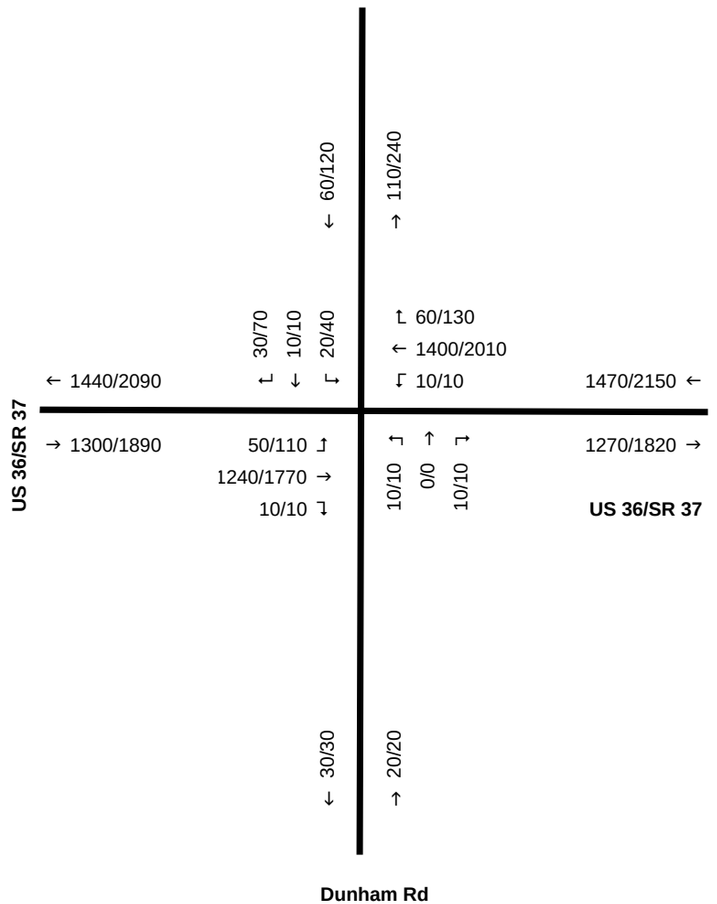
2019/2039 ADT



2019/2039 A.M. DHV



2019/2039 P.M. DHV



DEL-36-15.99	PID
2019/2039 ADT, AM DHV, PM DHV	
OHIO DEPARTMENT OF TRANSPORATION	
JULY 12, 2017	NOT TO SCALE

Site Plan

DEVELOPMENT PLAN
FOR
BERLIN MIXED USE DEVELOPMENT
MULTI-FAMILY DEVELOPMENT
BERLIN TOWNSHIP, DELAWARE COUNTY, OHIO
2023

UTILITY CONTACTS

WATER MAINS	DEL-CO WATER COMPANY, INC. 6658 OLENTANGY RIVER ROAD DELAWARE, OHIO 43015-8872 ATTN: RUSTY GRIFFITH (740) 548-7746	SANITARY SEWERS	DELAWARE COUNTY REGIONAL SEWER DISTRICT 50 CHANNING STREET DELAWARE, OHIO 43015 ATTN: TIFFANY MAAG (740) 833-2240
STORM SEWERS	DELAWARE COUNTY ENGINEER'S OFFICE STORM SEWERS 50 CHANNING STREET DELAWARE, OHIO 43015 ATTN: JOHN PICCIN (740) 833-2400	CATV	CHARTER COMMUNICATIONS (SPECTRUM/TIME WARNER) P.O. BOX 2553 COLUMBUS, OHIO 43216 ATTN: DAVID HOLSTEIN (614) 975-7468
GAS	SUBURBAN NATURAL GAS 2626 LEWIS CENTER ROAD LEWIS CENTER, OHIO 43035 ATTN: AARON ROLL (740) 548-2450	PHONE	FRONTIER COMMUNICATIONS 2780 LIBERTY ROAD DELAWARE, OHIO 43015 ATTN: ROBERT CHANDLER (740) 369-0826 OR ATTN: IRA (CHRIS) AVERY (740) 383-0551 AT&T 111 NORTH 4TH STREET, ROOM 802 COLUMBUS, OHIO ATTN: GARY VANALMSICK (614) 223-7276
ELECTRIC	AMERICAN ELECTRIC POWER 700 MORRISON ROAD GAHANNA, OHIO 43230-6605 ATTN: ANDREW L. WAINWRIGHT (614) 883-6821		

BENCH MARKS
BASED ON NAVD 1988 DATUM.

SITE B.M.#1	RAILROAD SPIKE SET IN A UTILITY POLE LOCATED 51'± SOUTH OF THE EDGE OF PAVEMENT OF US 36/37 AND 545'± WEST OF THE C/L OF PLUNKETT ROAD. N: 224253.2160 E: 1830848.1680	Elev.=944.49
SITE B.M.#2	CAPPED REBAR LOCATED 47± SOUTH OF THE EDGE OF PAVEMENT OF US 36/37 AND 849± EAST OF THE C/L OF PLUNKETT ROAD. N: 223748.0800 E: 1832147.6360	Elev.=928.34
SITE B.M.#3	CAPPED REBAR LOCATED 35± SOUTH OF THE EDGE OF PAVEMENT OF REED ROAD AND 2± EAST OF THE EAST EDGE OF THE R/W OF PARCEL 41821002005000. N: 221560.0100 E: 1832284.6880	Elev.=928.38

SITE DATA TABLE:

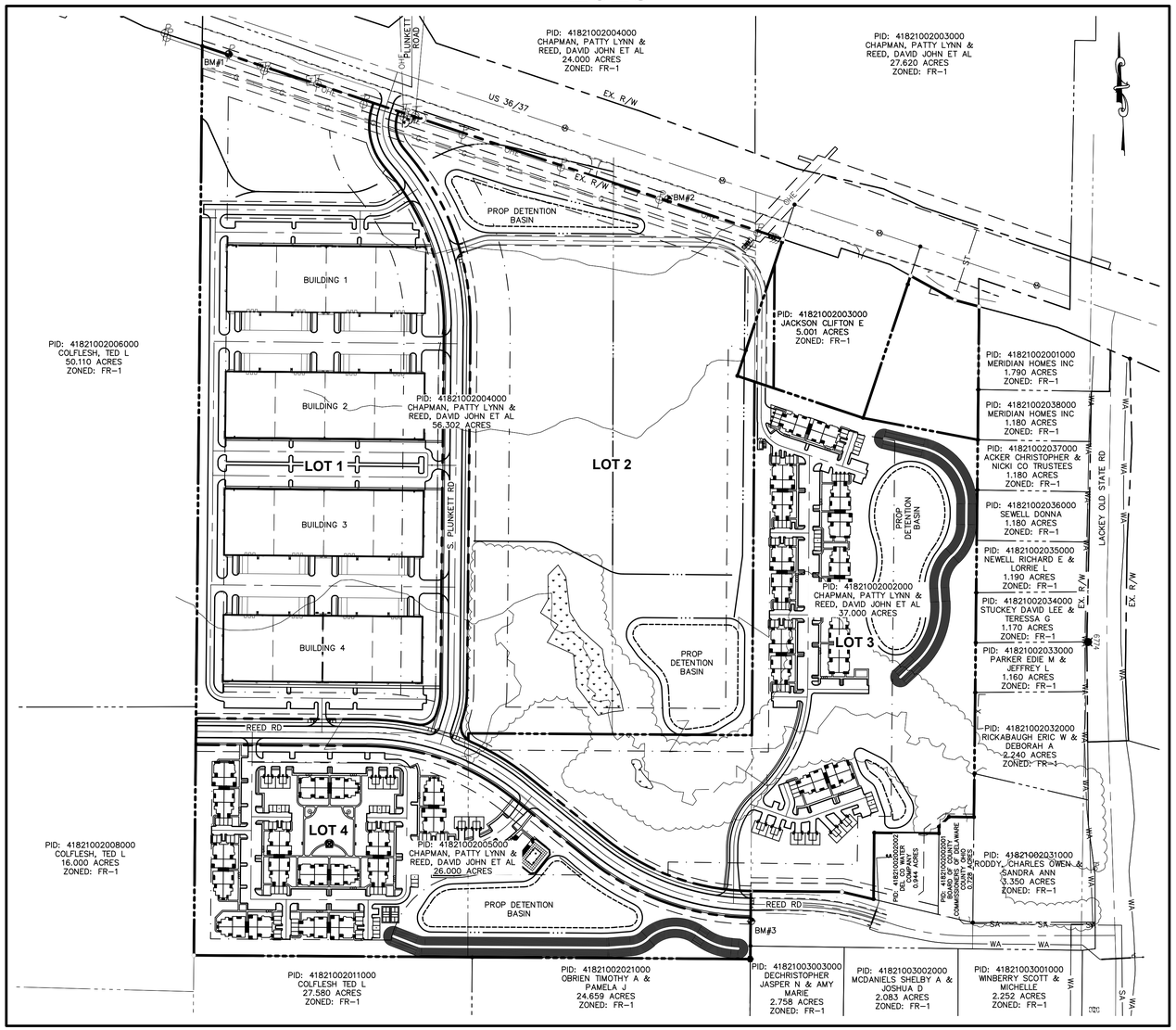
TOTAL GROSS ACREAGE:	±49.898 ACRES
NET DEVELOPABLE ACREAGE:	±42.413 ACRES
TOTAL UNITS:	296 UNITS
NUMBER OF BUILDINGS:	32
OPEN SPACE:	±30.26 ACRES
% OPEN SPACE:	71.35%
LOT COVERAGE:	±12.15 ACRES
% LOT COVERAGE:	28.65%
PARKING LOT COVERAGE:	±6.24 ACRES
% PARKINGLOT COVERAGE:	14.71%

PARKING SPACES: 20'x9' (TYP)
PARKING SPACES PROVIDED: 144 GARAGE – 480 SURFACE
PARKING SPACES TOTAL: 624
PARKING RATIO: 2.11 SPACES/UNIT

HCP SPACES REQUIRED: 16 SPACES
HCP SPACES PROVIDED: 22 SPACES (INCLUDES 2 VAN ACCESSIBLE)

GROSS DENSITY (DU./AC.):	5.93 DWELLING UNIT/ACRE
DEVELOPMENT DENSITY (DU./AC.):	6.97 DWELLING UNIT/ACRE
PROPOSED ZONING:	PRD
REQUIRED FRONT YARD SETBACK:	50'
REQUIRED SIDE YARD SETBACK:	50'
REQUIRED REAR YARD SETBACK:	50'

FLOOD DESIGNATION
By graphic plotting only this property is located in Zone "x" (Areas determined to be outside of the 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile) by the Federal Emergency Management Agency on Flood Insurance Rate Map, Community Panel No. 39049C0150K, with an effective date of April 16, 2009, in Delaware County, Ohio. No field surveying was performed to determine this zone.



INDEX MAP
SCALE: 1" = 200'

GRAPHIC SCALE
0 100 200 400
1 inch = 200 feet

STANDARD DRAWINGS
THE STANDARD CONSTRUCTION DRAWINGS LISTED ON THESE PLANS SHALL BE CONSIDERED A PART THEREOF.

DELAWARE COUNTY STD. DWG.

DCED-R100	DCED-R103	DCED-R2010	DCED-R2030 (DITCH ONLY)	DCED-R2175
DCED-R2185	DCED-S100	DCED-S102A&B	DCED-S106	DCED-S107
DCED-S112	DCED-S114A&B	DCED-S115	DCED-S117	DCED-S119
DCED-S125	DCED-S128	DCED-S133A,C&D	DCED-S139	DCED-S149
DCED-S150	DCED-S151	DCED-S154	DCED-S155	DCED-S168
DCED-S440A&B				

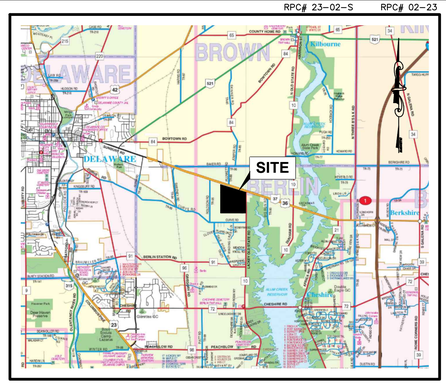
THESE DRAWINGS ARE AVAILABLE AT THE FOLLOWING WEBPAGES:
HTTP://WWW.CO.DELAWARE.OH.US/ENGINEER/DEVELOPMENT/STDROADWAYDRAWINGS.HTM
HTTP://WWW.CO.DELAWARE.OH.US/ENGINEER/DEVELOPMENT/STDSEWERDRAWINGS.HTM

CITY OF COLUMBUS STD. DWG.

2319	AA-S121	AA-S142

ODOT STD. DWG.

DM-1.1	MT-97.10



RPC# 23-02-S RPC# 02-23

VICINITY MAP
SCALE: NTS

INDEX OF DRAWINGS

SHEET NUMBER	SHEET TITLE
1	TITLE SHEET
2	EXISTING CONDITIONS PLAN
3-5	PRELIMINARY PLAT
6-7	SITE DIMENSION PLAN
8	TYPICAL SECTION
9-10	UTILITY PLAN
11-12	GRADING & DRAINAGE PLAN

PROFESSIONAL ENGINEER'S SIGNATURE AND SEAL

DATE

ENGINEER
ADVANCED CIVIL DESIGN, INC.
781 SCIENCE BOULEVARD, SUITE 100
GAHANNA, OH 43230
PHONE (614) 428-7750
CONTACT: THOMAS M. WARNER, P.E.
EMAIL: TWARNER@ADVANCEDCIVILDESIGN.COM

DEVELOPER – APPLICANT
T&R PROPERTIES
3895 STONERIDGE LANE
DUBLIN, OH 43017
PHONE (614) 923-4000
CONTACT: RJ SABATINO
EMAIL: RJSABATINO@TRPROP.COM

OHIO Utilities Protection SERVICE
Call Before You Dig
800-362-2764 or 8-1-1
www.oups.org

E-1

PLAN PREPARED BY:
ADVANCED CIVIL DESIGN ENGINEERS SURVEYORS
781 Science Boulevard, Suite 100
Gahanna, Ohio 43230
ph 614.428.7750
fax 614.428.7755

PLAN PREPARED FOR:
T&R PROPERTIES, INC.

BERLIN TOWNSHIP, DELAWARE COUNTY, OHIO
BERLIN MIXED USE DEVELOPEMENT
DEVELOPMENT PLAN
FOR
T&R PROPERTIES
TITLE SHEET

STATE OF OHIO
THOMAS M WARNER
64513
REGISTERED PROFESSIONAL ENGINEER

Issue Dates:
NOT FOR CONSTRUCTION

Date: 03/06/2023
Scale: 1" = 200'

Drawn By:	Checked By:
TLM	MIM

Project Number: 22-0014-1044

Drawing Number: 1 / 12

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Trip Generation Data

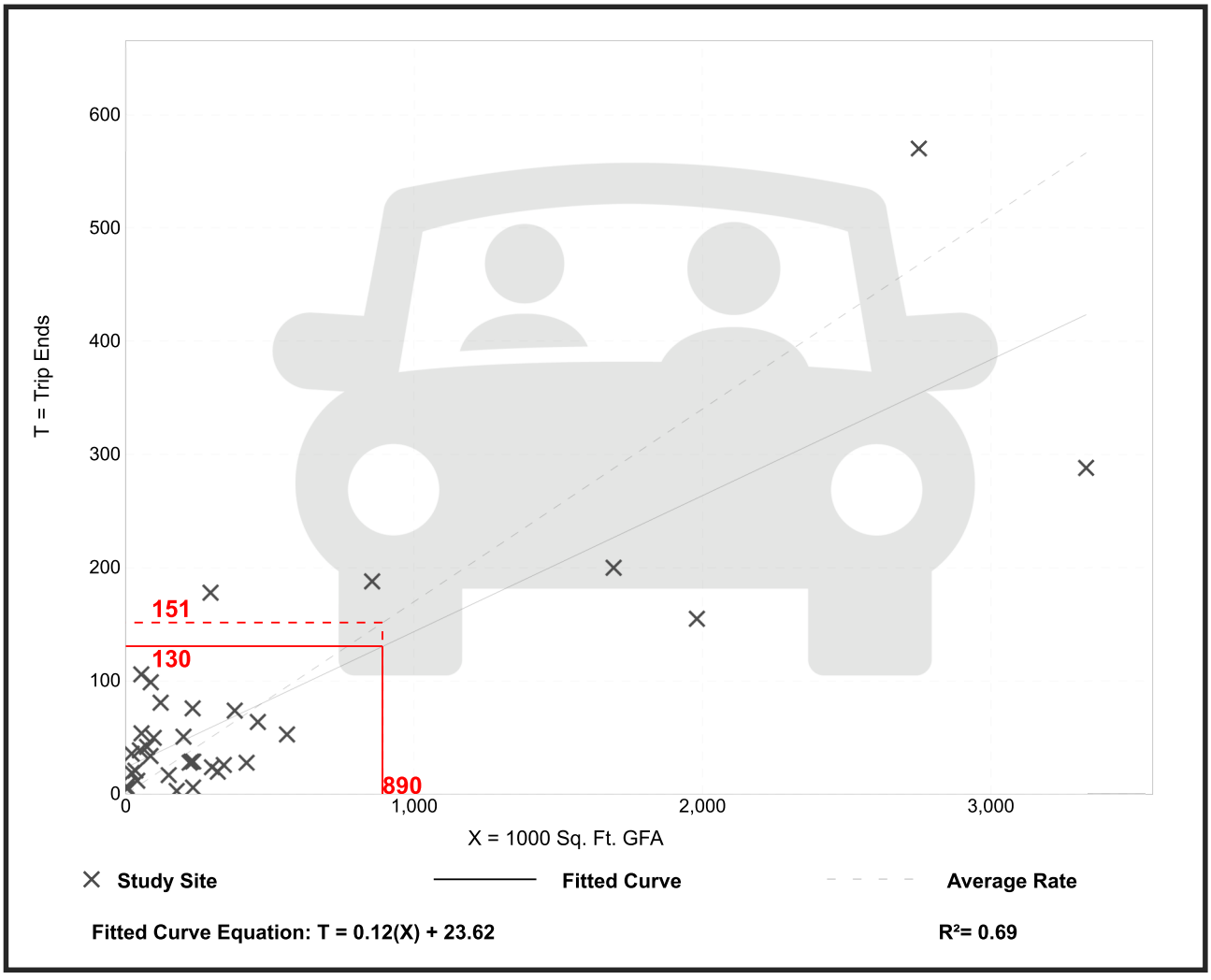
Warehousing
(150)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 36
Avg. 1000 Sq. Ft. GFA: 448
Directional Distribution: 77% entering, 23% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.17	0.02 - 1.93	0.19

Data Plot and Equation



Trip Gen Manual, 11th Edition ● Institute of Transportation Engineers

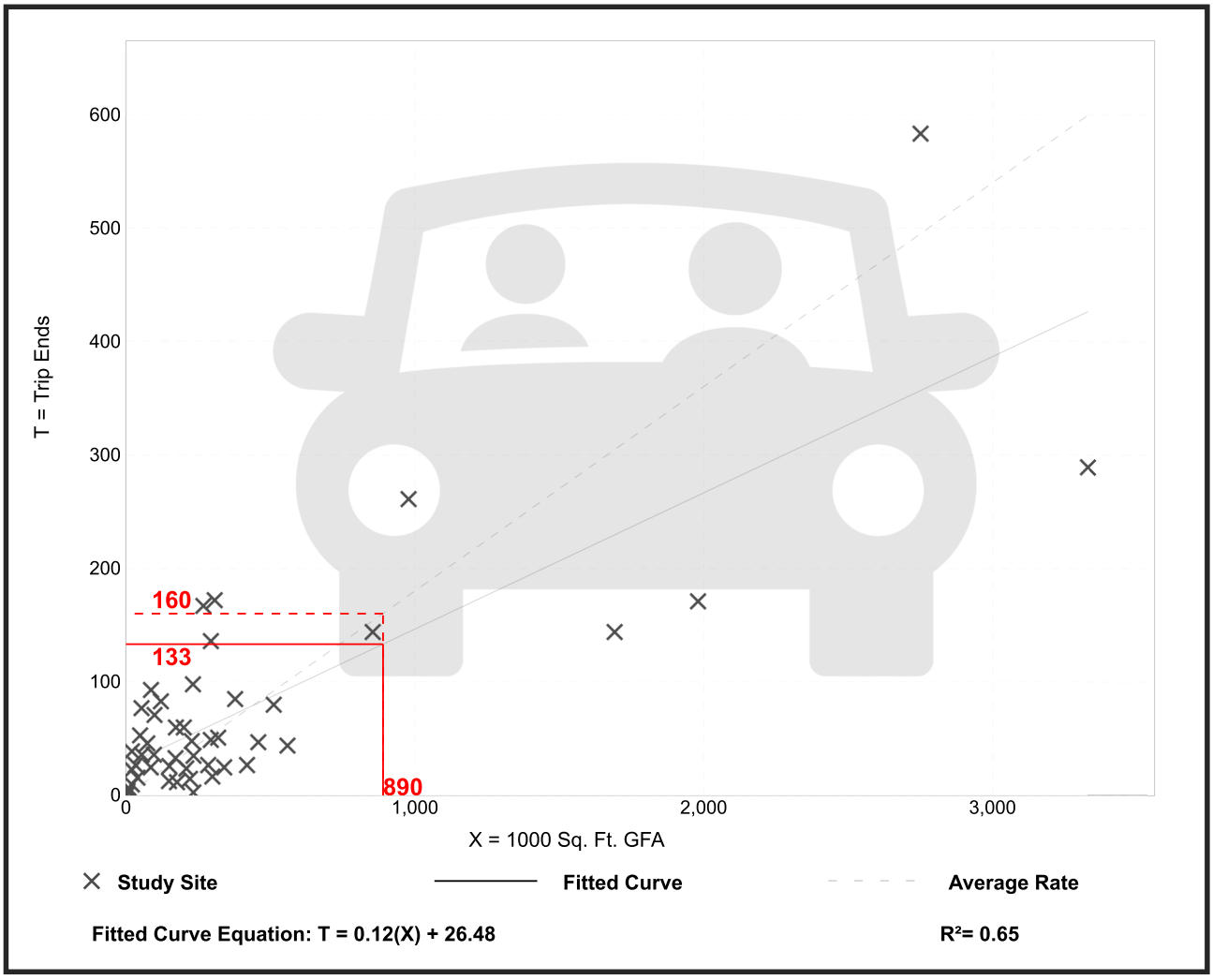
Warehousing
(150)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 49
Avg. 1000 Sq. Ft. GFA: 400
Directional Distribution: 28% entering, 72% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.18	0.01 - 1.80	0.18

Data Plot and Equation



Trip Gen Manual, 11th Edition ● Institute of Transportation Engineers

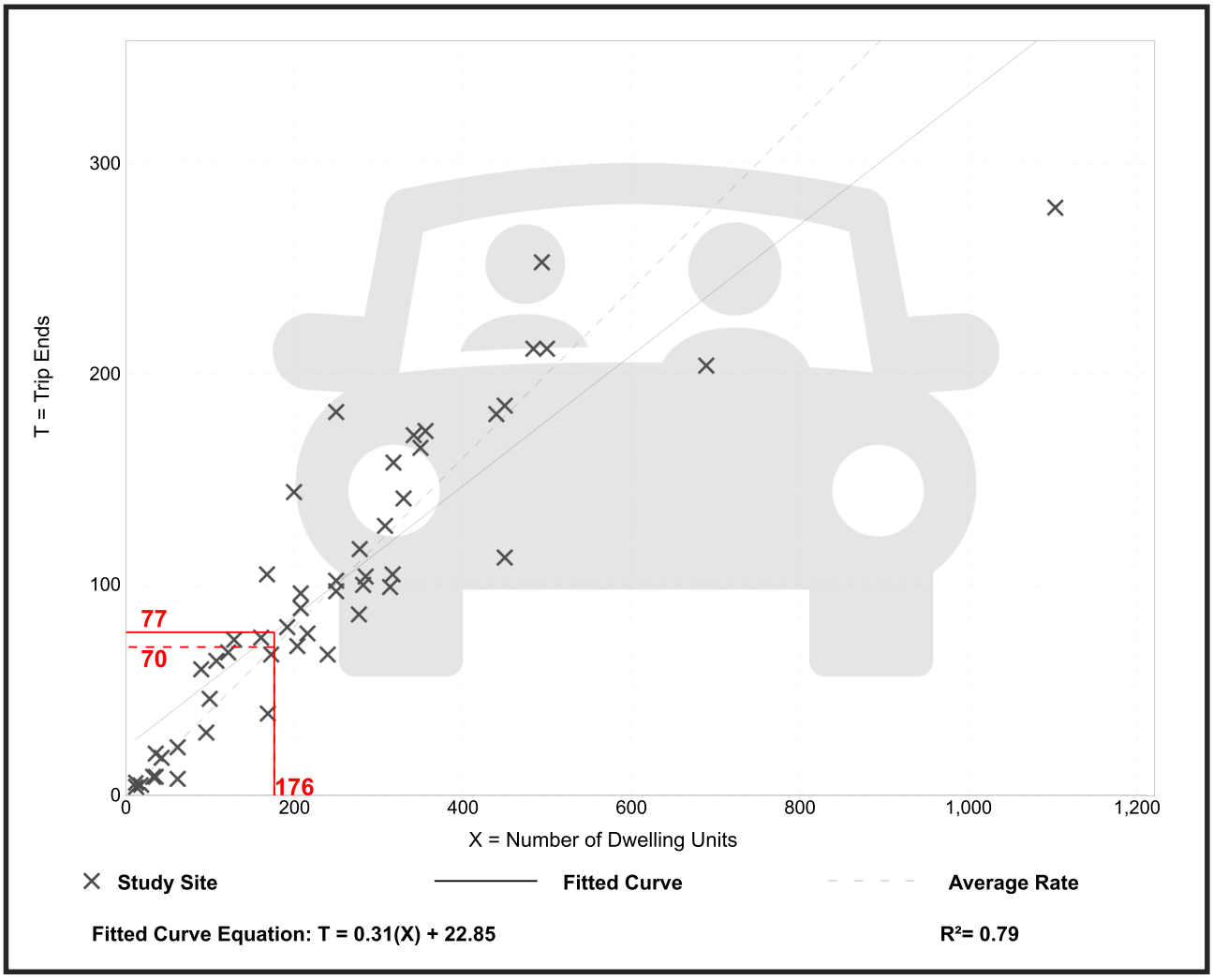
Multifamily Housing (Low-Rise)
Not Close to Rail Transit (220)

Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 49
Avg. Num. of Dwelling Units: 249
Directional Distribution: 24% entering, 76% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.40	0.13 - 0.73	0.12

Data Plot and Equation



Trip Gen Manual, 11.1 Ed ● Institute of Transportation Engineers

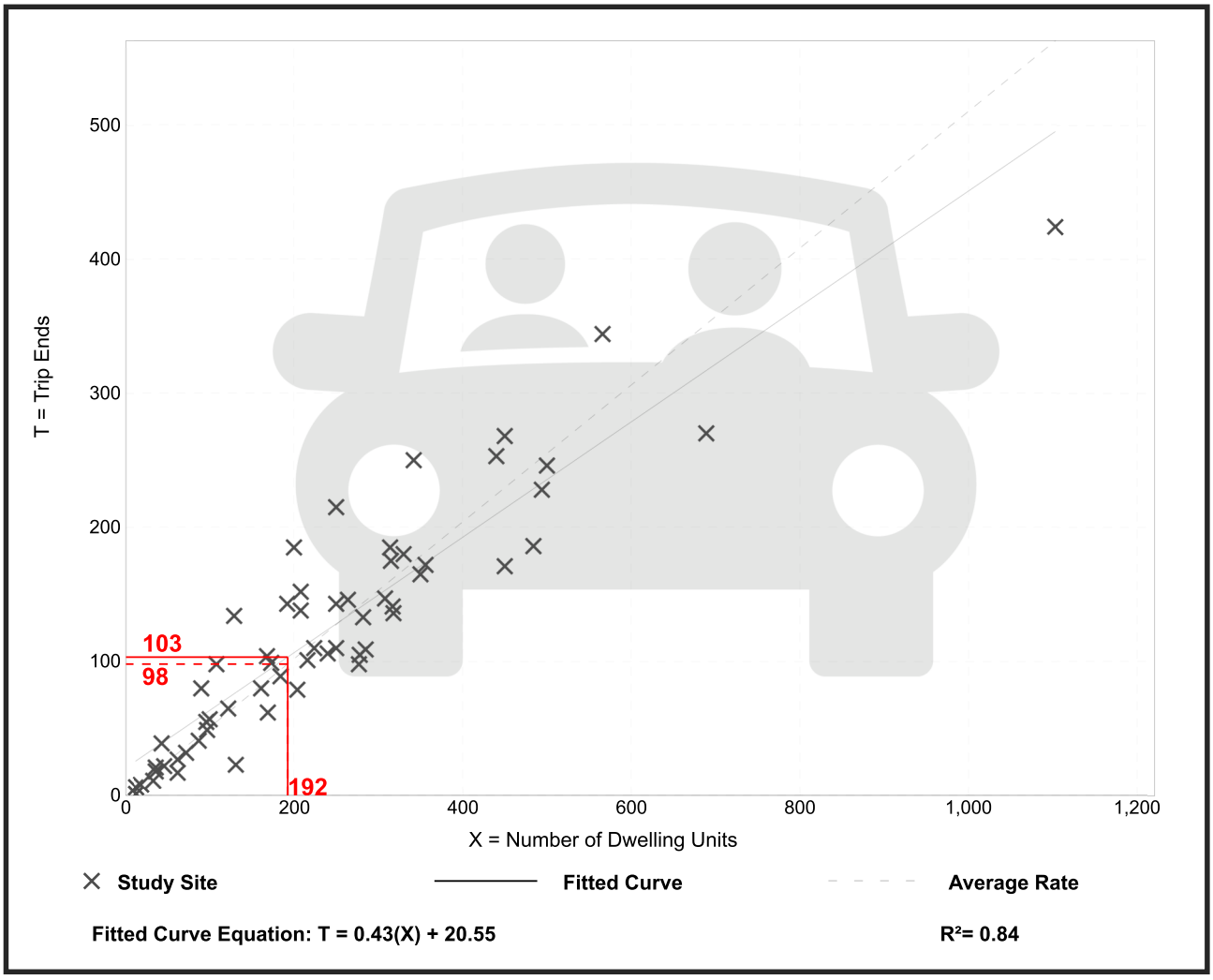
Multifamily Housing (Low-Rise)
Not Close to Rail Transit (220)

Vehicle Trip Ends vs:	**Dwelling Units**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 4 and 6 p.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	59
Avg. Num. of Dwelling Units:	241
Directional Distribution:	63% entering, 37% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.51	0.08 - 1.04	0.15

Data Plot and Equation



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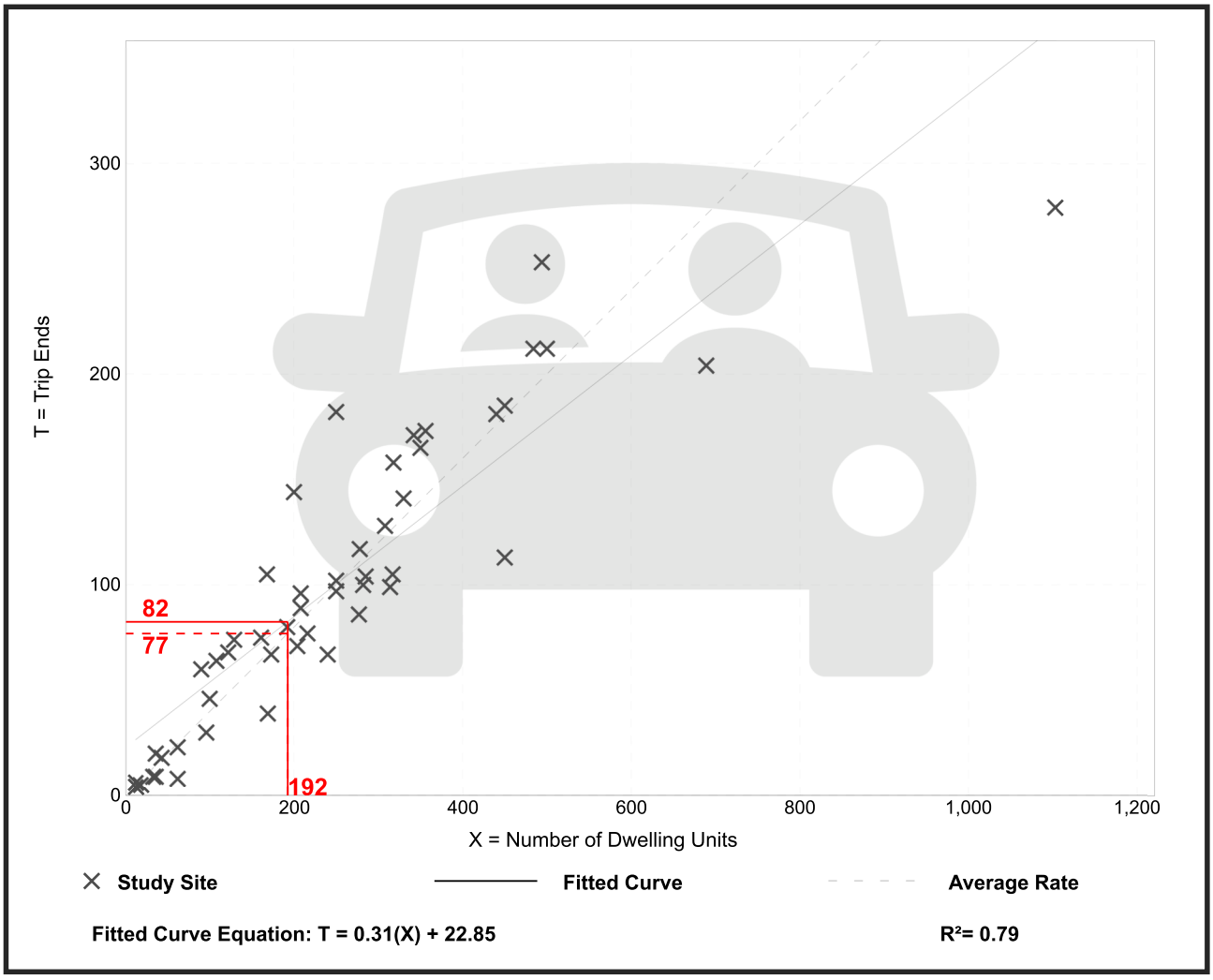

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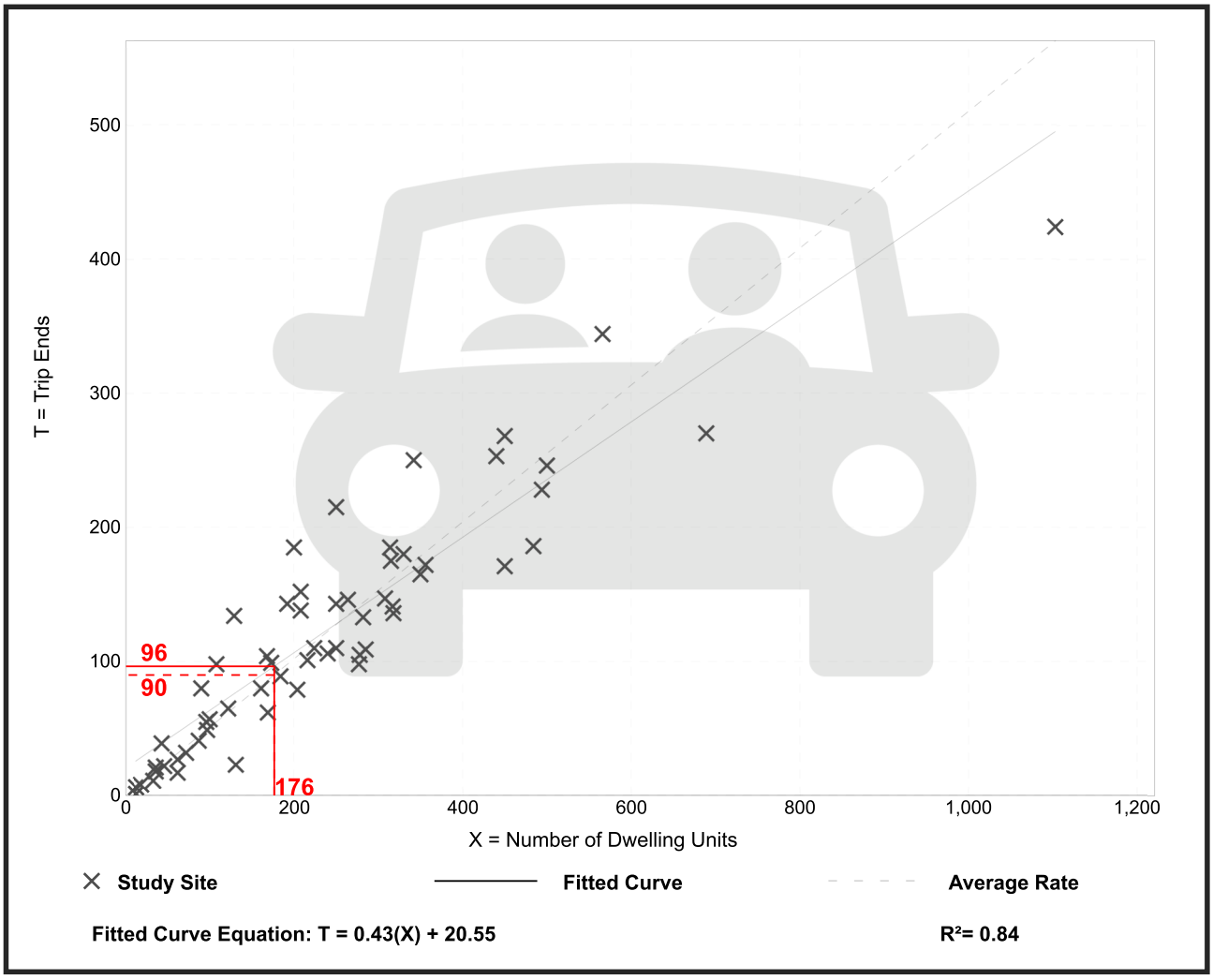
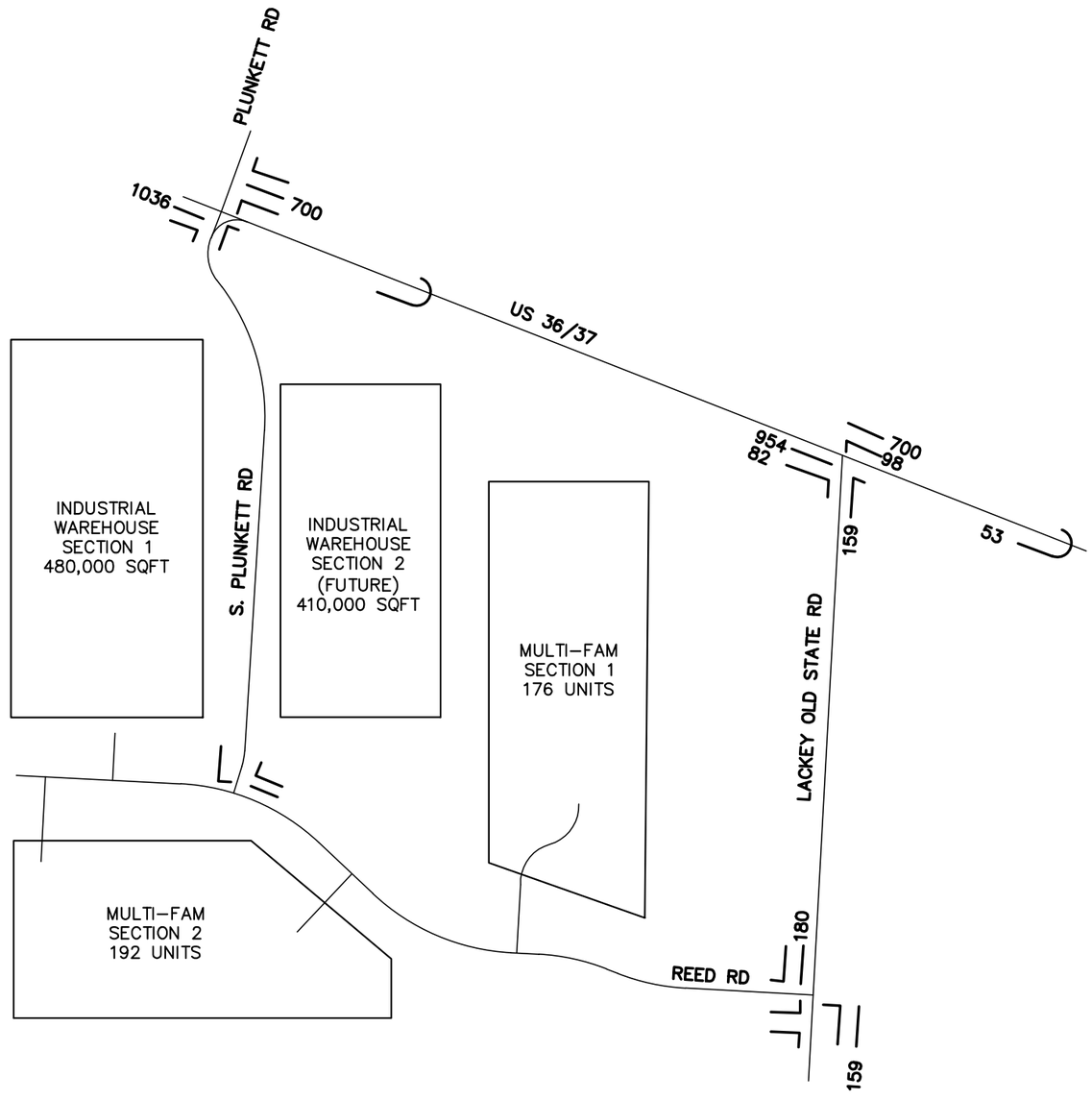


Trip Gen Manual, 11.1 Ed ● Institute of Transportation Engineers

Traffic Volume Exhibits



GRAPHIC SCALE

0 250 500 1000

1 inch = 500 feet

BERLIN TOWNSHIP, DELAWARE COUNTY, OHIO

EXISTING TRAFFIC (2022 AM)

FOR

BERLIN TWP MIXED USE DEV

PLAN PREPARED BY:

ADVANCED CIVIL DESIGN ENGINEERS SURVEYORS

781 Science Boulevard, Suite 100
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ph 614.428.7750
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SCALE: 1" = 500'
DATE: DECEMBER 21, 2022

SHEET 1 / 16

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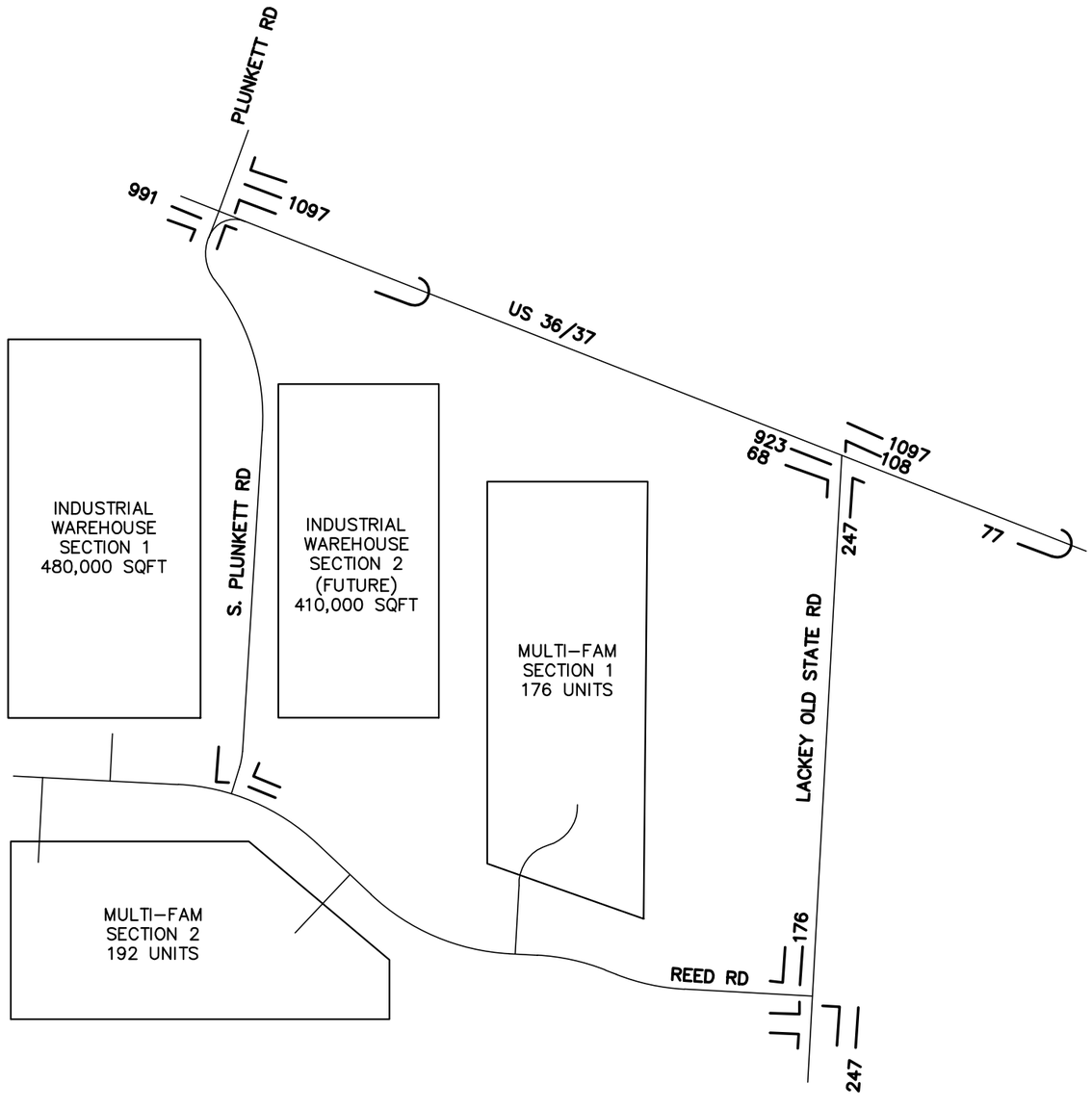

GRAPHIC SCALE

0 250 500 1000

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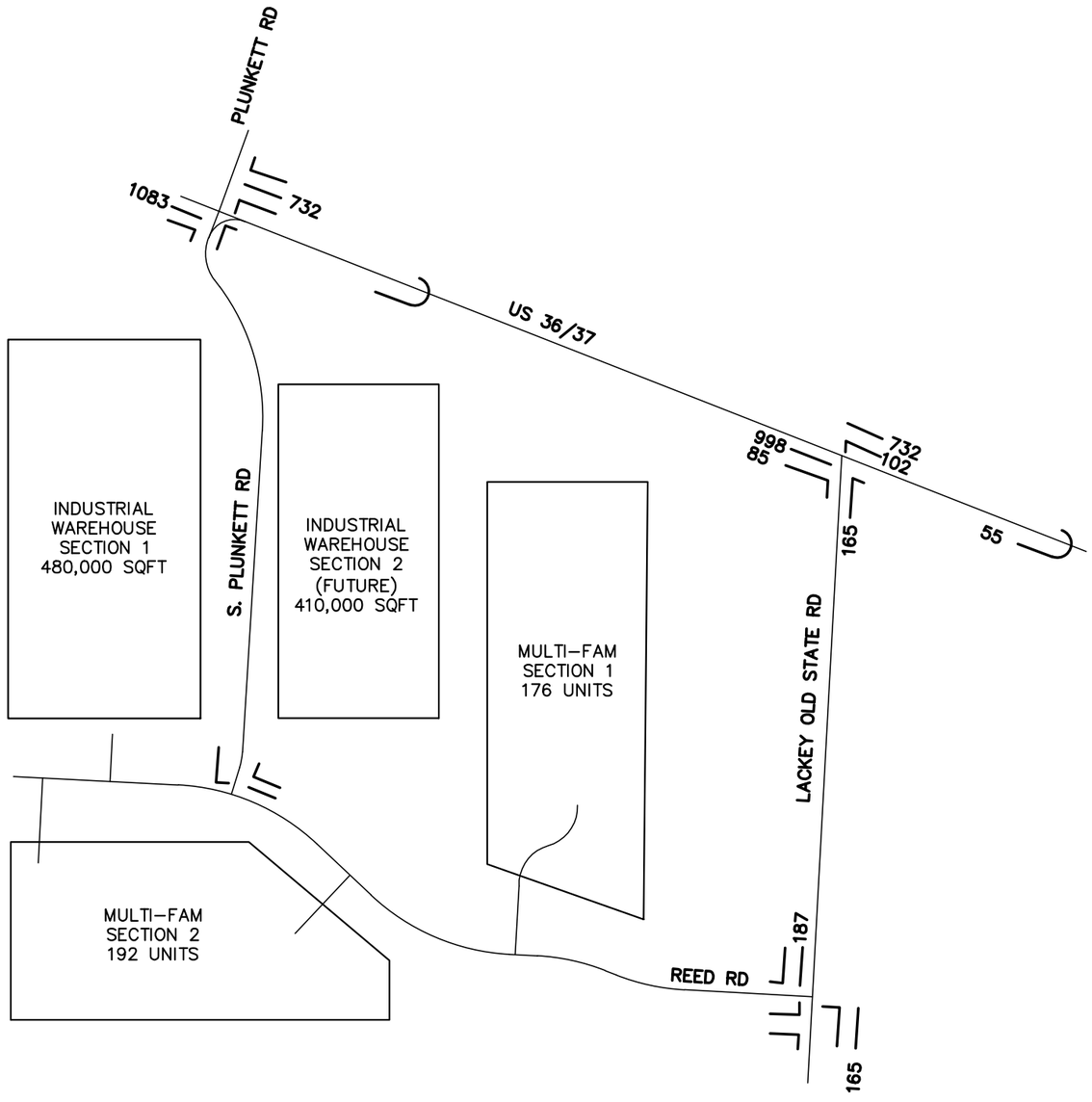

GRAPHIC SCALE

0 250 500 1000

1 inch = 500 feet

BERLIN TOWNSHIP, DELAWARE COUNTY, OHIO

NO BUILD (2024 AM)

FOR

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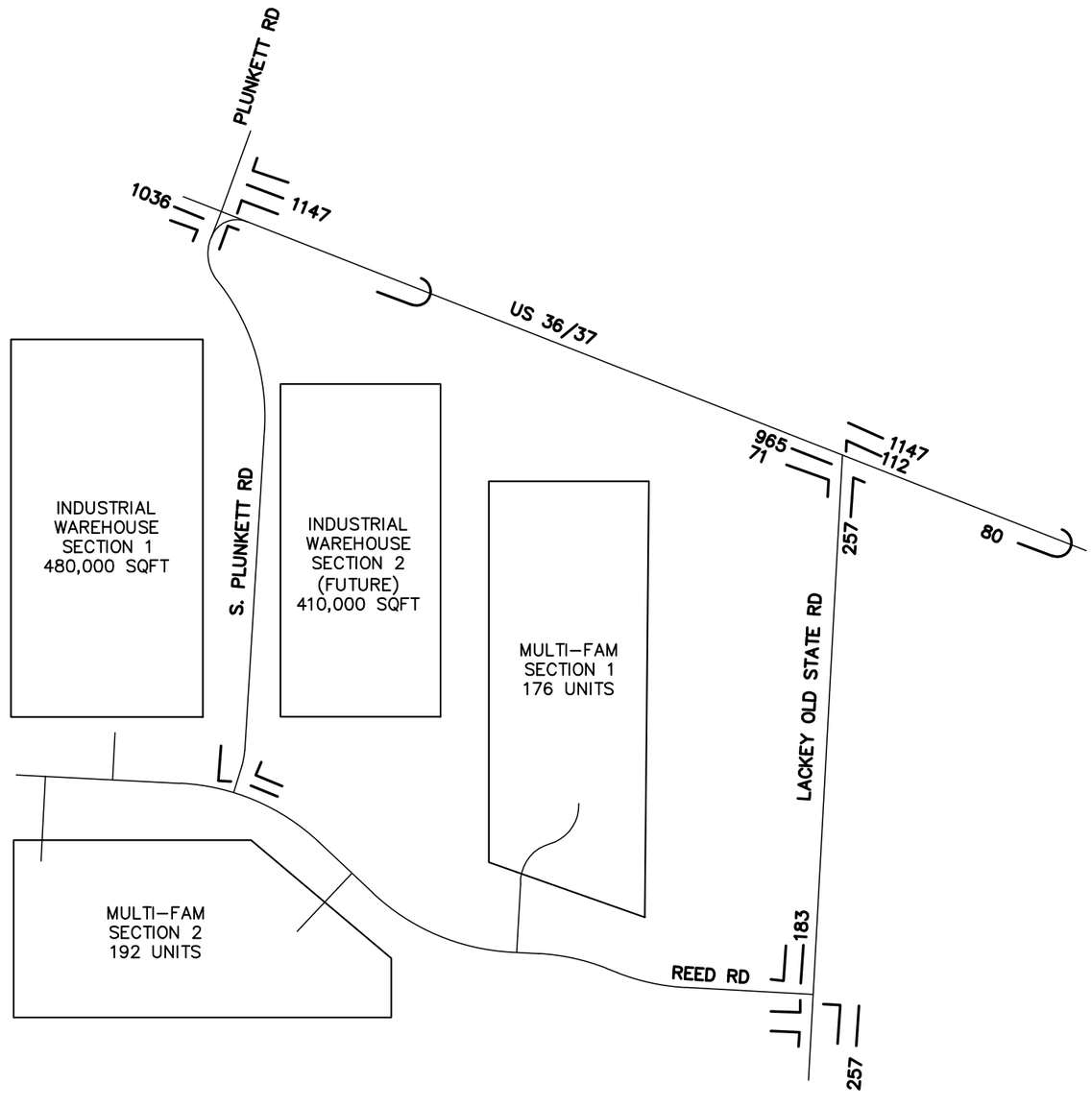

GRAPHIC SCALE

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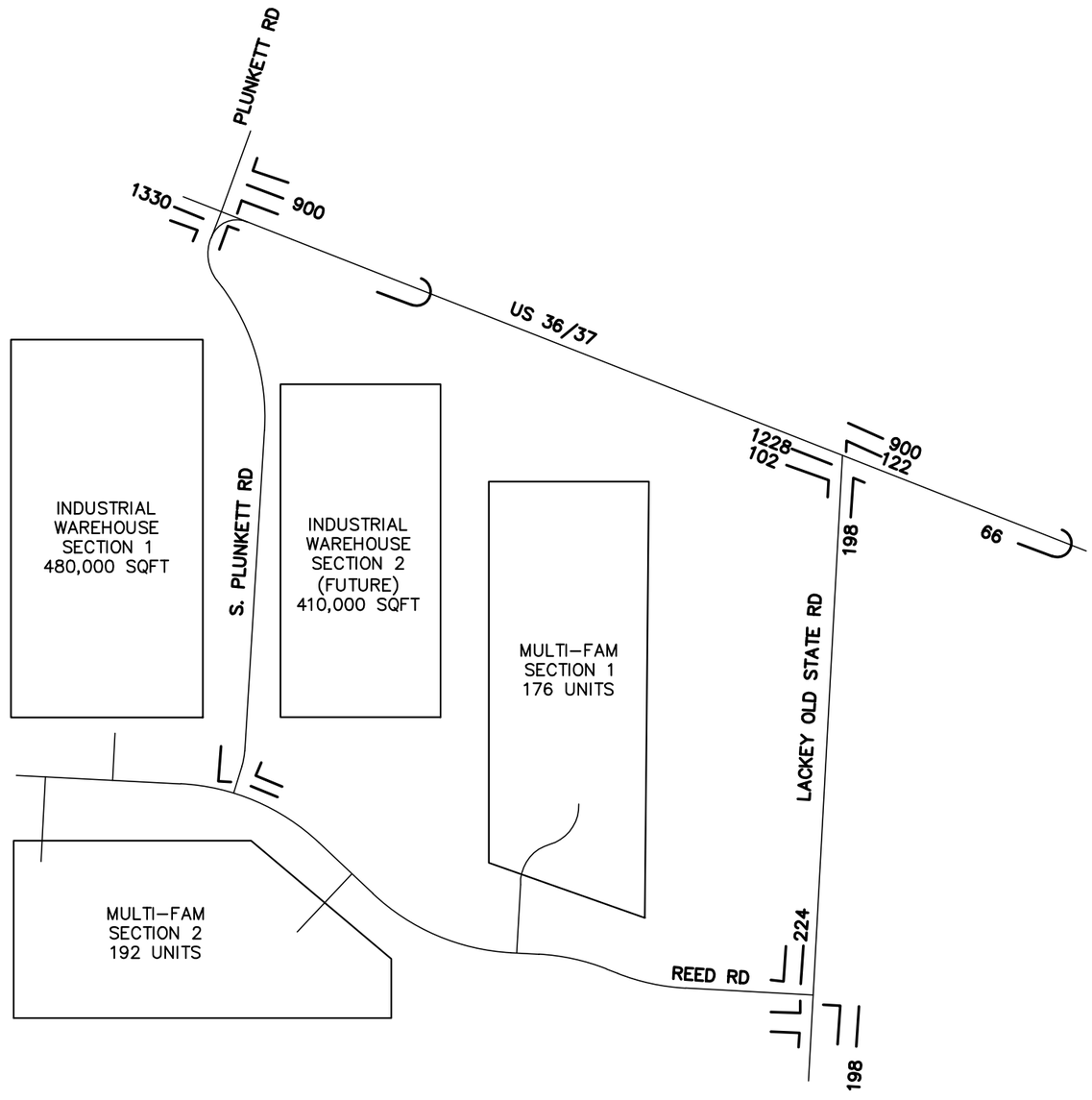

GRAPHIC SCALE

0 250 500 1000

1 inch = 500 feet

BERLIN TOWNSHIP, DELAWARE COUNTY, OHIO

NO BUILD (2034 AM)

FOR

BERLIN TWP MIXED USE DEV

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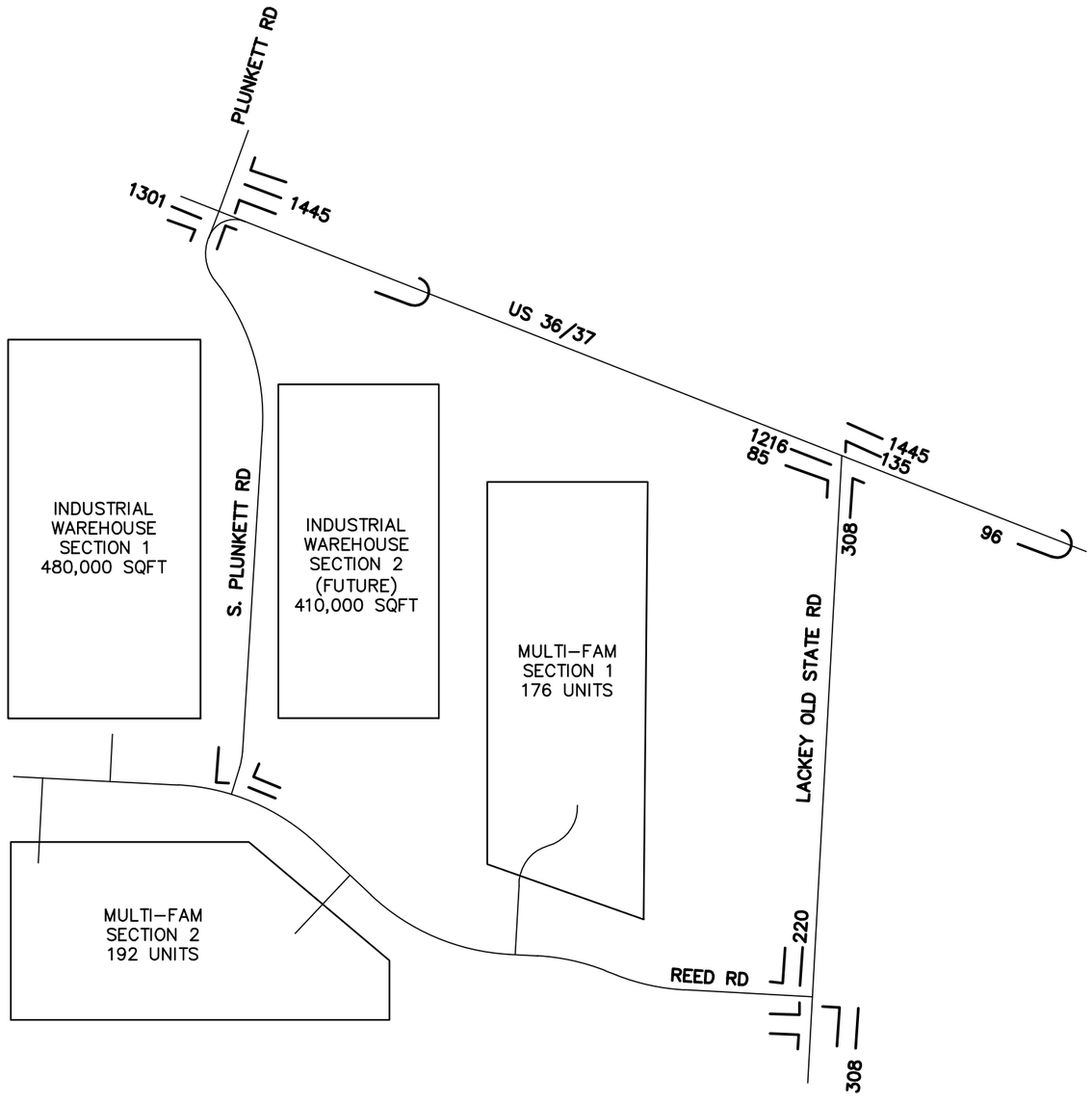



GRAPHIC SCALE

0 250 500 1000

1 inch = 500 feet

BERLIN TOWNSHIP, DELAWARE COUNTY, OHIO

NO BUILD (2034 PM)

FOR

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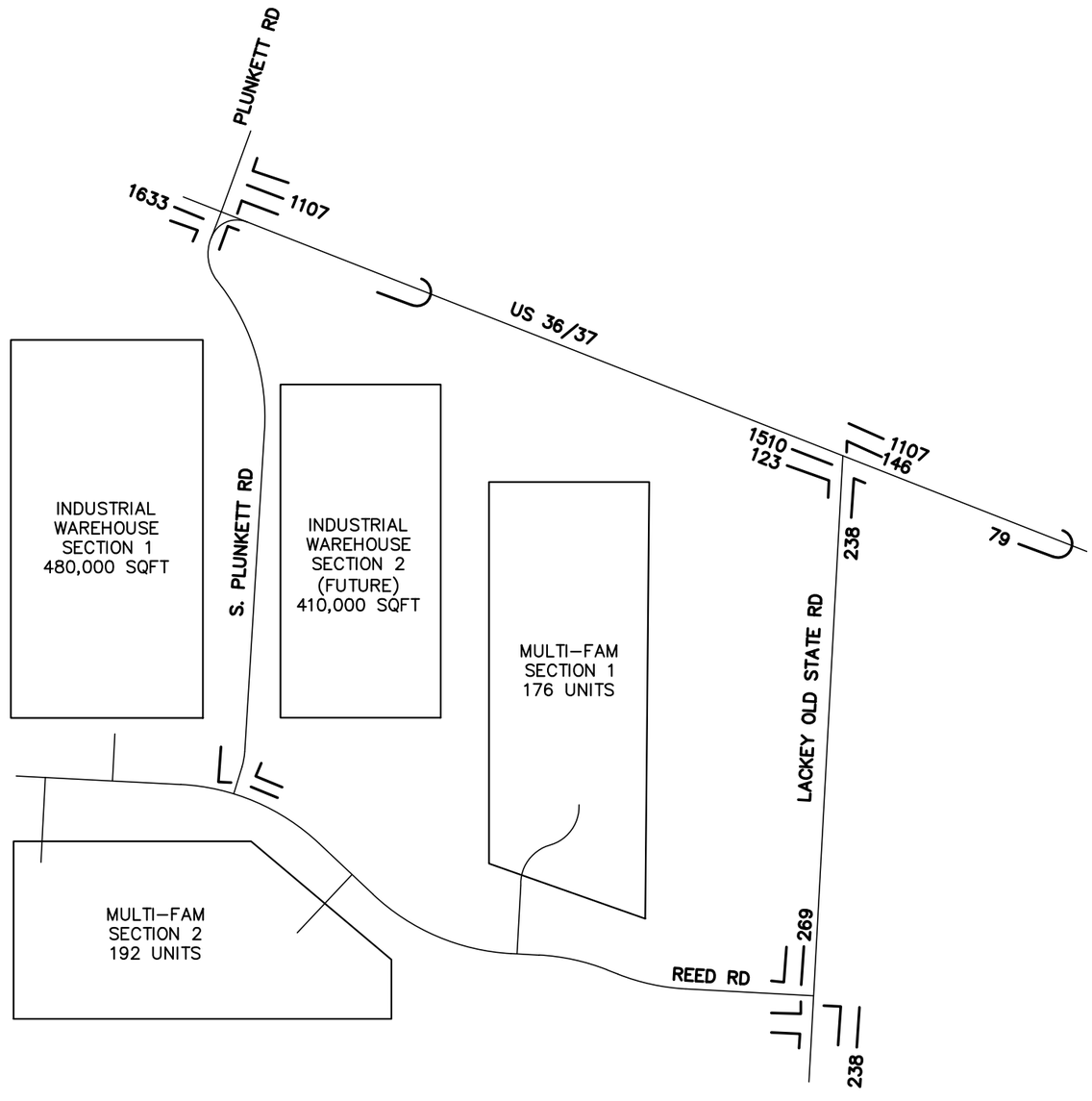

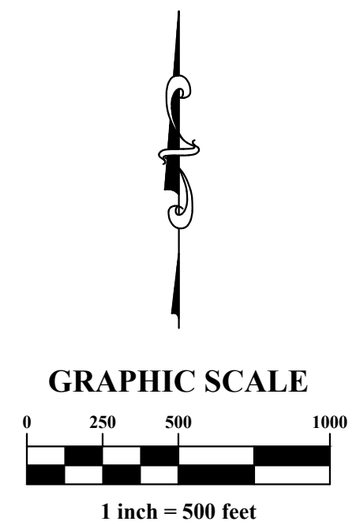

BERLIN TOWNSHIP, DELAWARE COUNTY, OHIO

NO BUILD (2044 AM)

FOR

BERLIN TWP MIXED USE DEV

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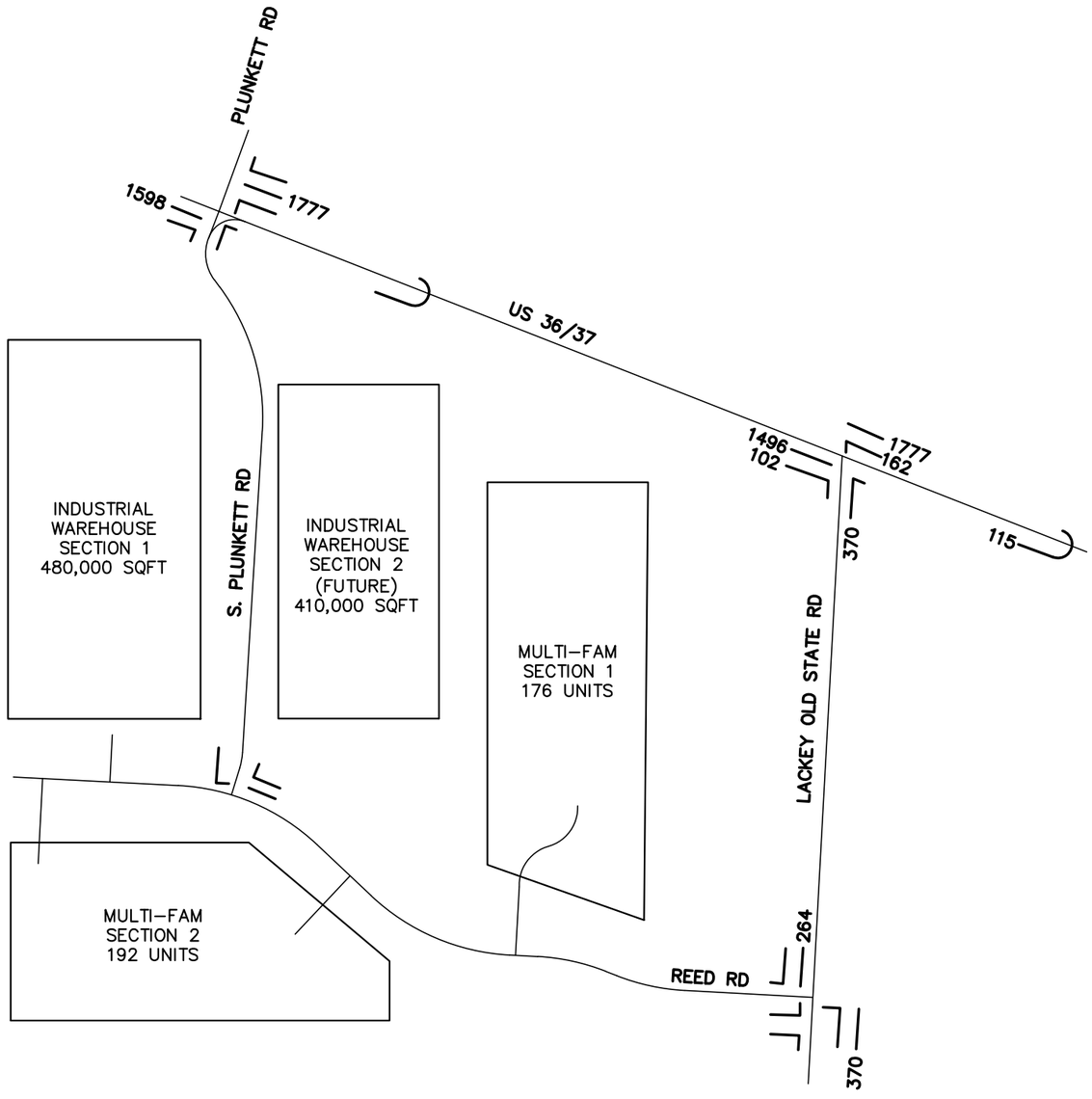

GRAPHIC SCALE

0 250 500 1000

1 inch = 500 feet

BERLIN TOWNSHIP, DELAWARE COUNTY, OHIO

NO BUILD (2044 PM)

FOR

BERLIN TWP MIXED USE DEV

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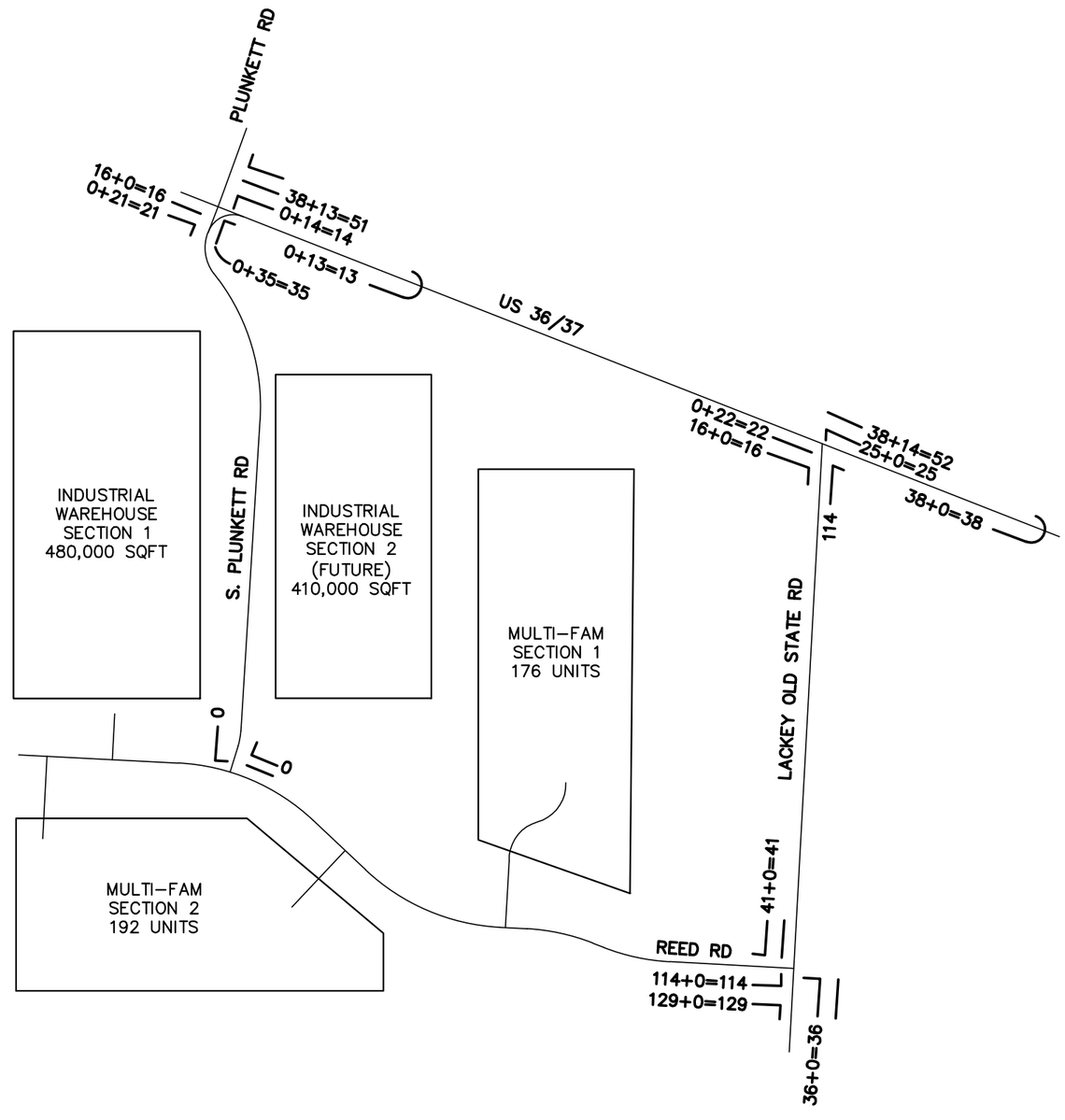
LEGEND

A + B = C

(MULTI-FAM) + (INDUSTRIAL) = SITE TRIPS





GRAPHIC SCALE

0 250 500 1000

1 inch = 500 feet

BERLIN TOWNSHIP, DELAWARE COUNTY, OHIO

SITE DEVELOPED TRAFFIC (AM)

FOR

BERLIN TWP MIXED USE DEV

PLAN PREPARED BY:

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ENGINEERS SURVEYORS

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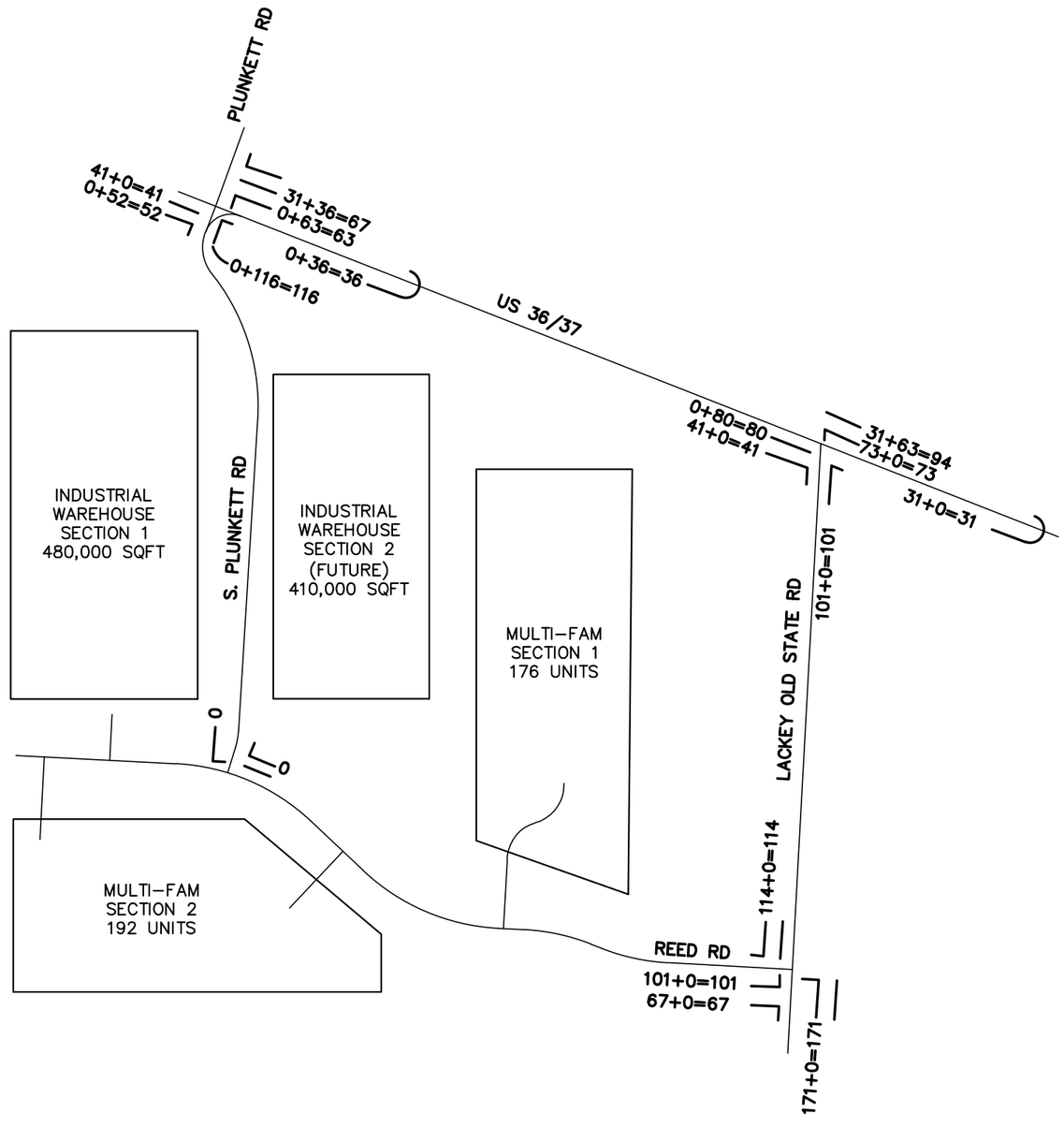
DATE: DECEMBER 21, 2022

SHEET 9 /16



LEGEND

A + B = C

(MULTI-FAM) + (INDUSTRIAL) = SITE TRIPS

GRAPHIC SCALE

0 250 500 1000

1 inch = 500 feet

BERLIN TOWNSHIP, DELAWARE COUNTY, OHIO

SITE DEVELOPED TRAFFIC (PM)

FOR

BERLIN TWP MIXED USE DEV

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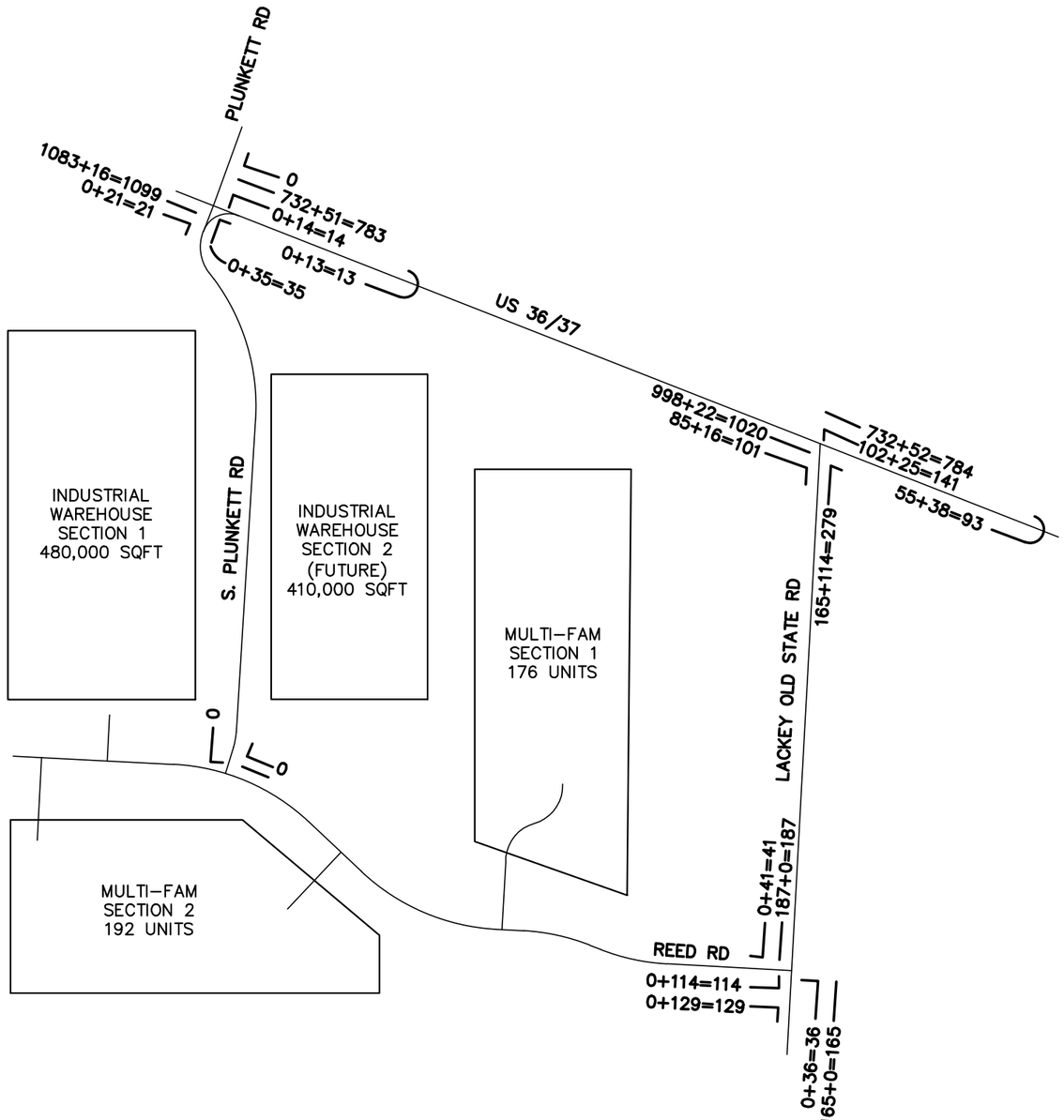

LEGEND

A + B = C

BACKGROUND + SITE = TOTAL TRIPS

GRAPHIC SCALE

0 250 500 1000

1 inch = 500 feet

BERLIN TOWNSHIP, DELAWARE COUNTY, OHIO

BUILD (2024 AM)

FOR

BERLIN TWP MIXED USE DEV

PLAN PREPARED BY:

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SHEET 11 / 16

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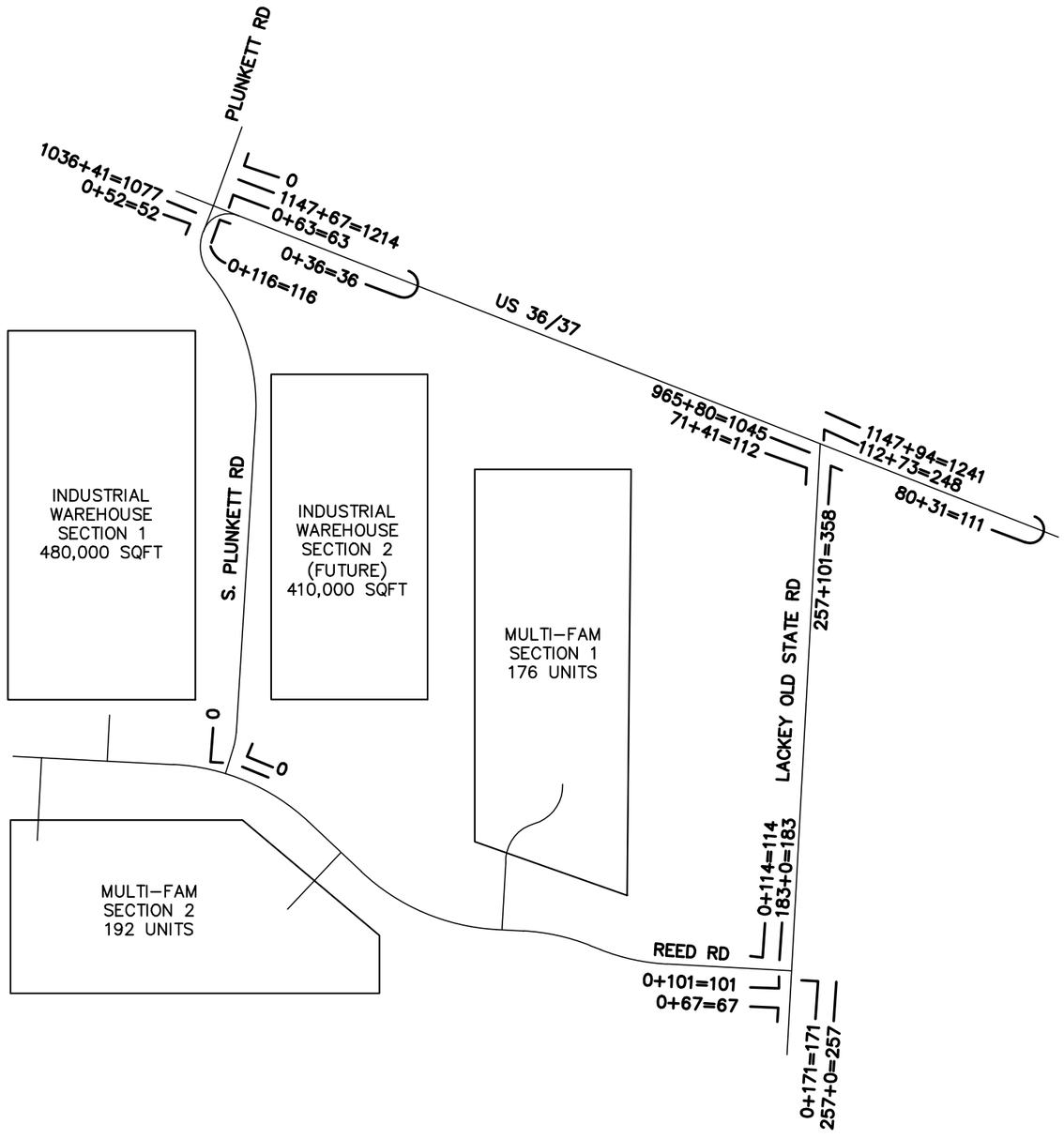
LEGEND

A + B = C

BACKGROUND + SITE = TOTAL TRIPS



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LEGEND

A + B = C

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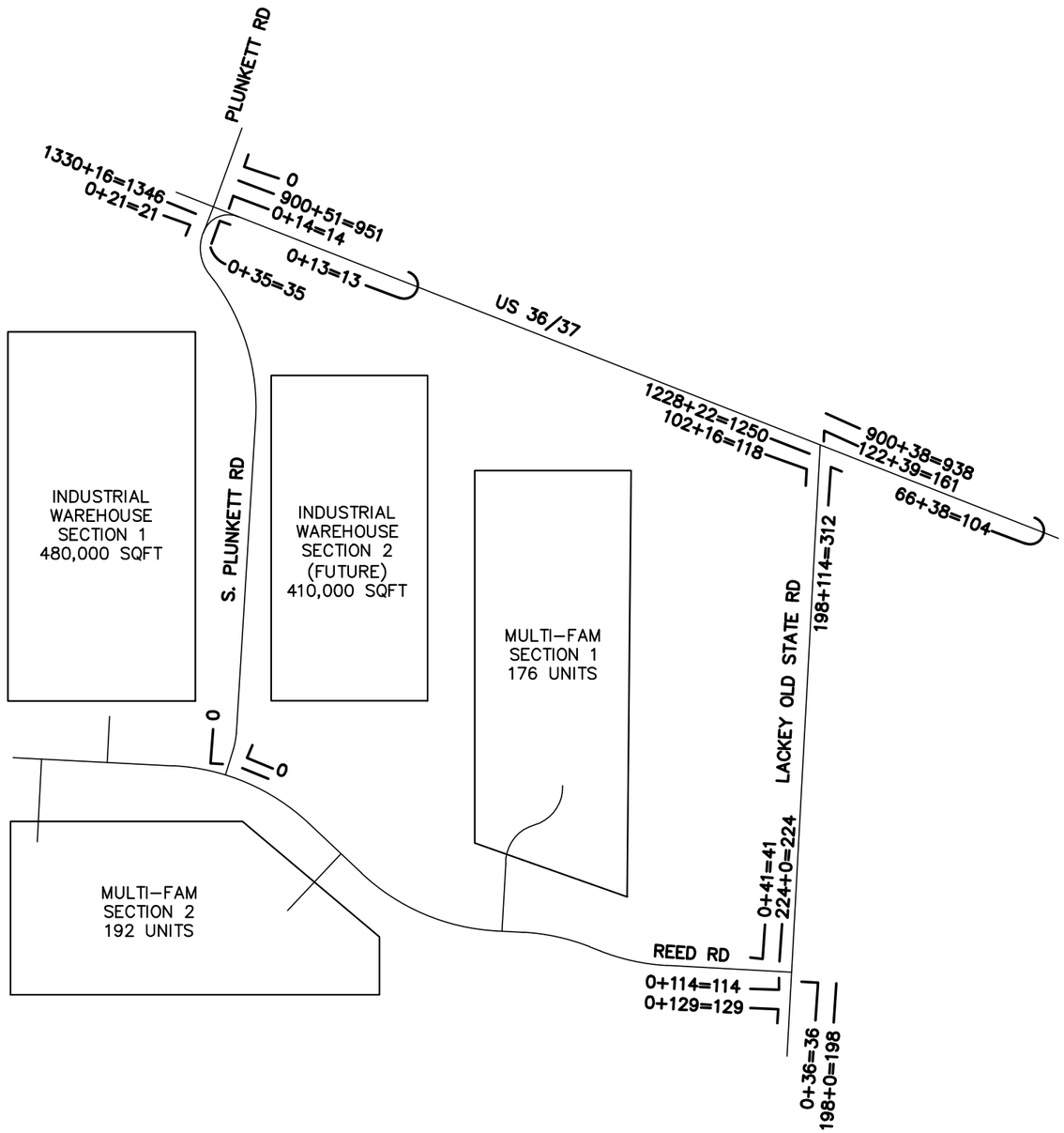



GRAPHIC SCALE

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1 inch = 500 feet

BERLIN TOWNSHIP, DELAWARE COUNTY, OHIO

BUILD (2034 AM)

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SHEET 13 / 16

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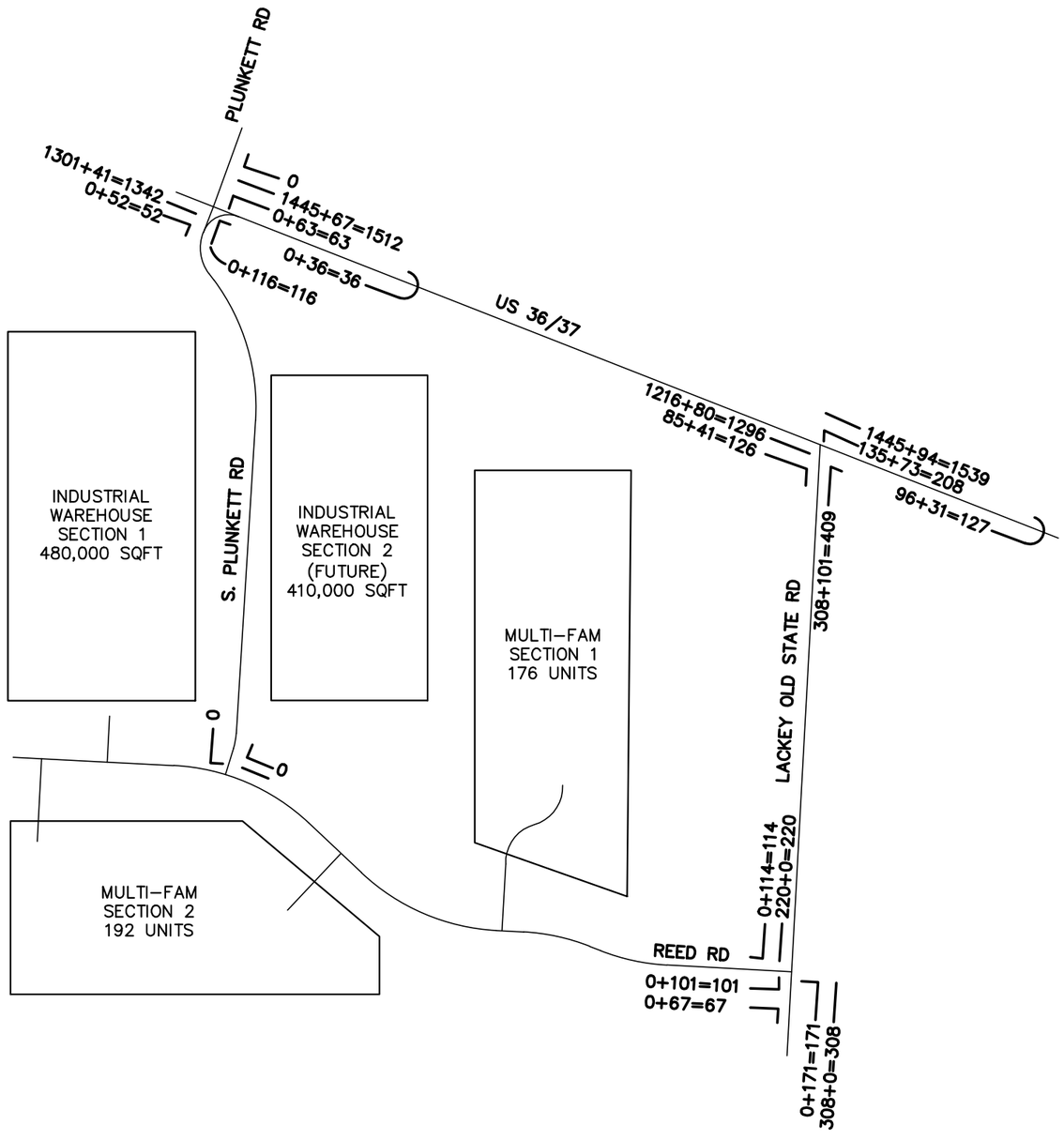
LEGEND

A + B = C

BACKGROUND + SITE = TOTAL TRIPS



GRAPHIC SCALE

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1 inch = 500 feet

BERLIN TOWNSHIP, DELAWARE COUNTY, OHIO

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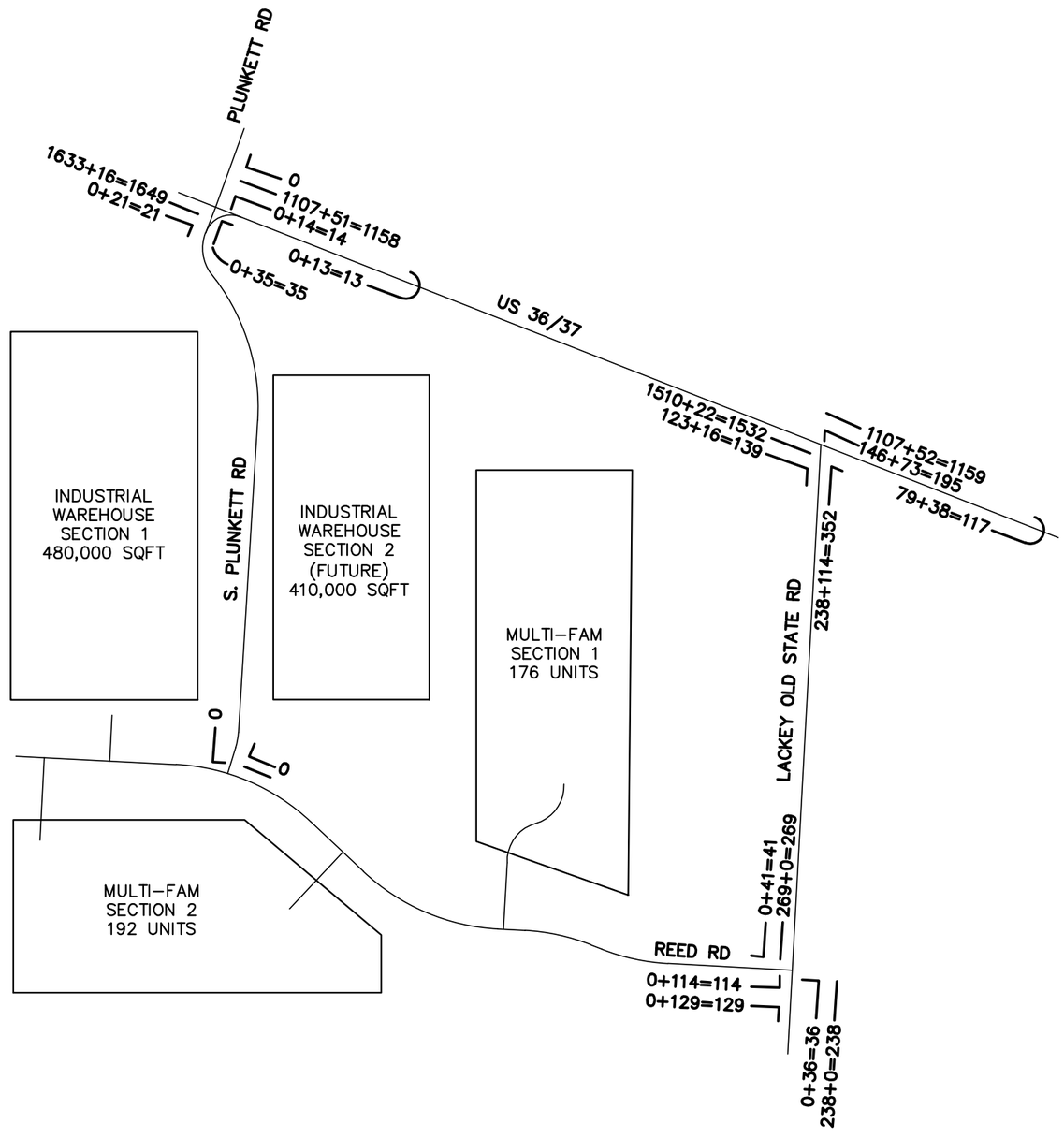

LEGEND

A + B = C

BACKGROUND + SITE = TOTAL TRIPS

GRAPHIC SCALE

0 250 500 1000

1 inch = 500 feet

BERLIN TOWNSHIP, DELAWARE COUNTY, OHIO

BUILD (2044 AM)

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BERLIN TWP MIXED USE DEV

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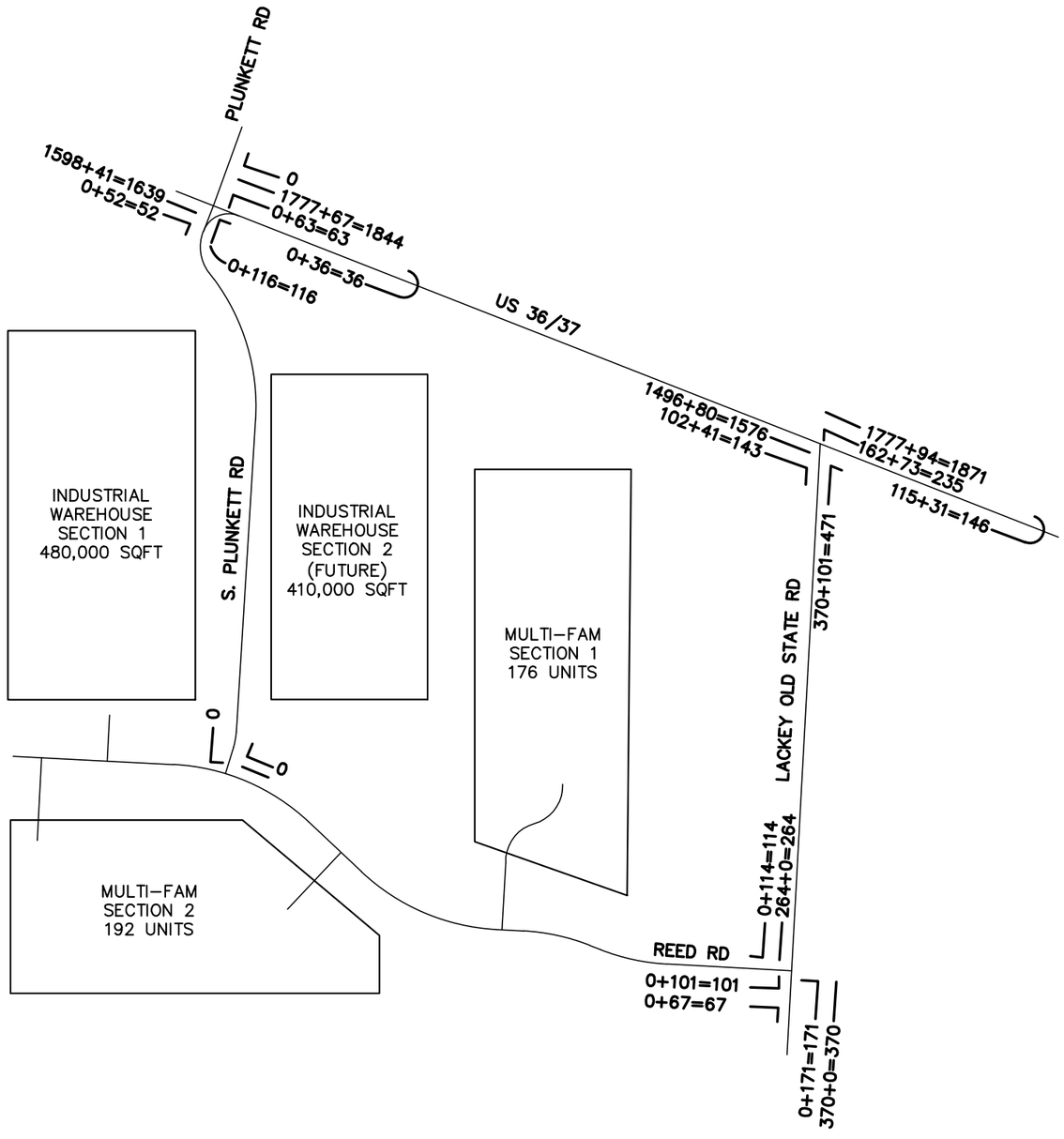
LEGEND

A + B = C

BACKGROUND + SITE = TOTAL TRIPS



GRAPHIC SCALE

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BERLIN TOWNSHIP, DELAWARE COUNTY, OHIO

BUILD (2044 PM)

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SCALE: 1" = 500'
DATE: DECEMBER 21, 2022

SHEET 16 / 16

Turn Lane Warrants

2-LANE RIGHT TURN LANE WARRANT (HIGH SPEED)

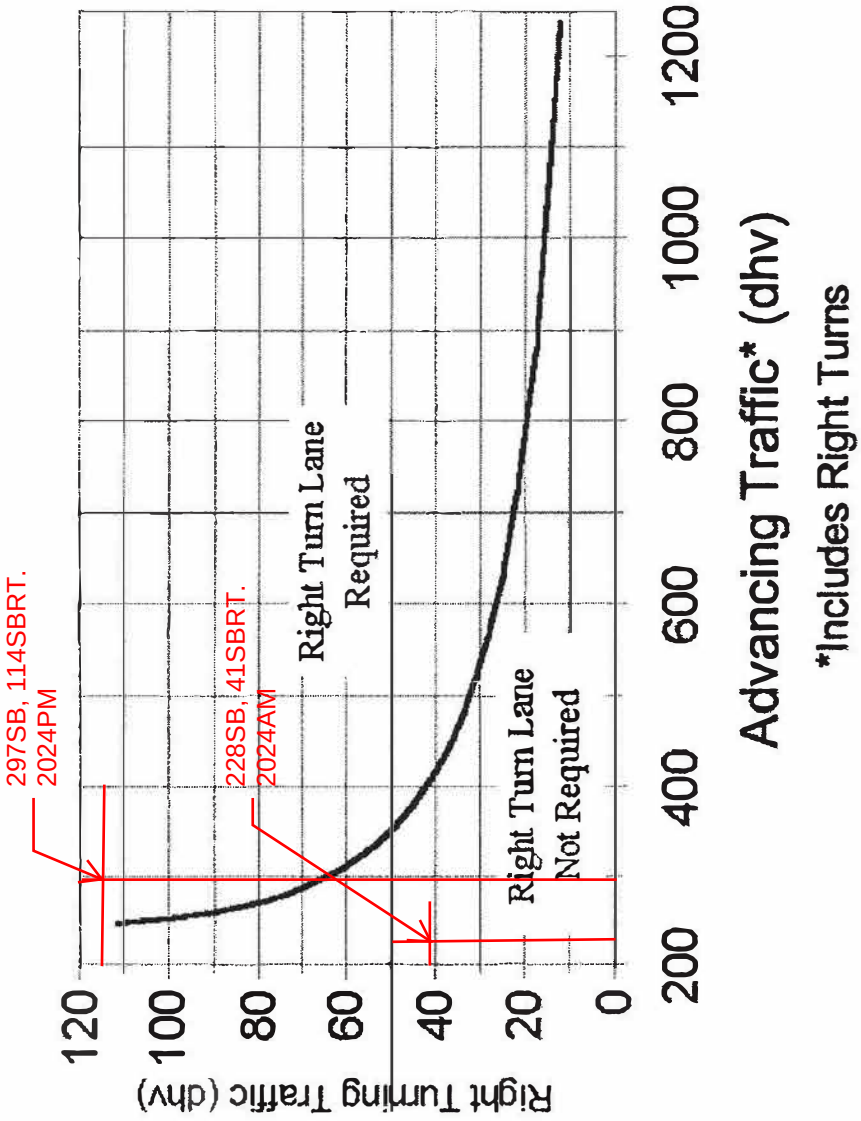
401-6b

REFERENCE SECTION
401.6.3

OLD STATE ROAD SOUTHBOUND RIGHT TURN 2024
BUILD VOLUMES

2-Lane Highway Right Turn Lane Warrant

> 40 mph or 70 kph Posted Speed



2-LANE RIGHT TURN LANE WARRANT (HIGH SPEED)

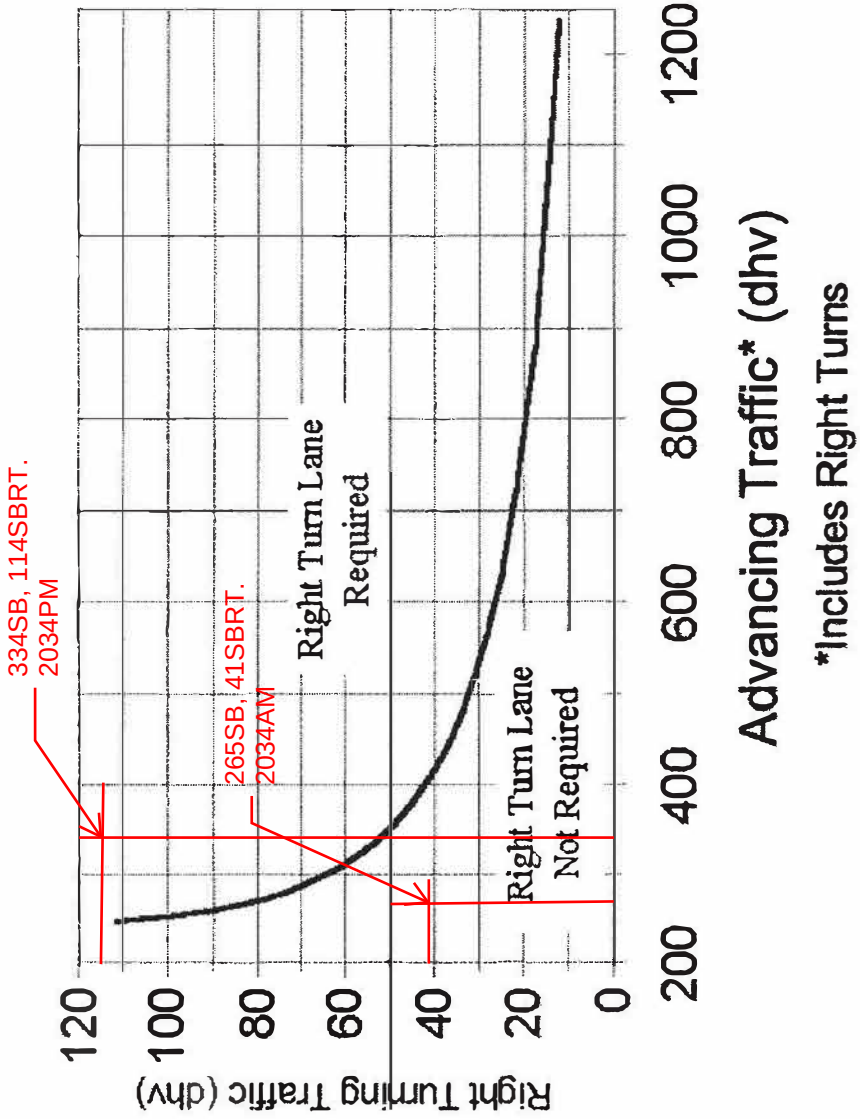
401-6b

REFERENCE SECTION
401.6.3

OLD STATE ROAD SOUTHBOUND RIGHT TURN 2034 BUILD VOLUMES

2-Lane Highway Right Turn Lane Warrant

> 40 mph or 70 kph Posted Speed



October 2004

Turn Lane Length Computation Worksheet
(Based on ODOT's Location Design Manual)

Project Name:	Berlin Mixed Use Development	**Intersection:**	Old State & Reed Road
Project Number:		**Year:**	2034 Build
Compiled By:	MIM - ACD	**Condition:**	Peak Hour Design Year

General Information:

Approach	Old State	Old State		
Movement	NBLT	SBRT		
Peak Hour	PM	PM		

Type of Traffic Control

Signalized	NO	NO	NO	NO
Unsignalized Stopped Crossroad	NO	NO	NO	NO
Unsignalized Through Road	YES	YES	YES	YES

Design Parameters

Design Speed	55	55		
Turn Volume (vph)	171	114		
Approach Volume (vph)	479	334		
Turn Percentage	36%	34%	#DIV/0!	#DIV/0!
High or Low	HIGH	HIGH	#DIV/0!	#DIV/0!
Applicable Design Condition (A, B or C)	Greater of B or C	Greater of B or C	A	A
Cycle Length (sec)	60	60	60	60
Cycles/Hour	60	60	60	60
Average Number of Vehicles/Cycle	3	2	0	0
Storage Length (ft)	150	100	#N/A	#N/A

Design Method

Condition A (Storage Only)	***Taper***	-	-	50	50
	Storage	-	-	#N/A	#N/A
	Total	**-**	**-**	**#N/A**	**#N/A**
Condition B (High Speed Decel Only)	***Taper***	50	50	-	-
	Decel Length	235	235	-	-
	Total	**285**	**285**	**-**	**-**
Condition C (Moderate Speed Deceleration & Storage)	***Taper***	50	50	-	-
	Decel Length	115	115	-	-
	Storage	150	100	-	-
	Total	**315**	**265**	**-**	**-**

Required Storage and/or Decel Length (ft/lane) =	**265**	**235**	**#N/A**	**#N/A**
Required Turn Lane Length, including 50' taper (ft/lane) =	**315**	**285**	**#N/A**	**#N/A**

Note: EB - Eastbound, WB - Westbound, NB - Northbound, SB - Southbound

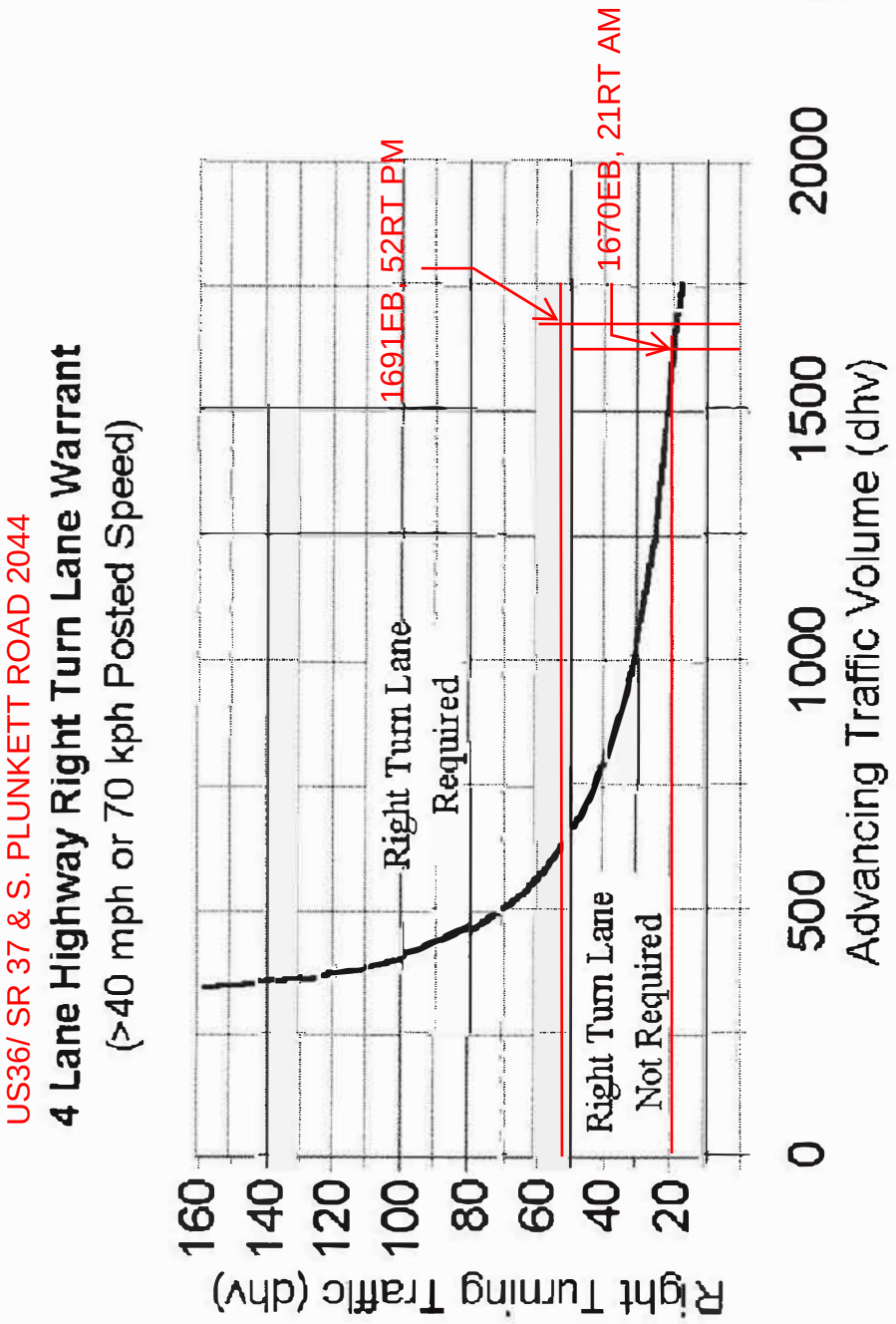
Source: January 2006 ODOT L& D Manual-Volume I: 401 - 9E, 401 -10E

4-LANE RIGHT TURN LANE WARRANT (HIGH SPEED)

401-6d

REFERENCE SECTION
401.6.3

US36/ SR 37 & S. PLUNKETT ROAD 2044



Turn Lane Length Computation Worksheet
(Based on ODOT's Location Design Manual)

Project Name:	Berlin Mixed Use Development	**Intersection:**	US 36/ SR 37 & Plunkett
Project Number:		**Year:**	2044 Build
Compiled By:	MIM - ACD	**Condition:**	Peak Hour Design Year

General Information:

Approach	US 36/ SR 37	US 36/ SR 37	US 36/ SR 37	
Movement	E R-CUT	WBLT	EBRT	
Peak Hour	PM	PM	PM	

Type of Traffic Control

Signalized	NO	NO	NO	NO
Unsignalized Stopped Crossroad	NO	NO	NO	NO
Unsignalized Through Road	YES	YES	YES	YES

Design Parameters

Design Speed	55	55	55	
Turn Volume (vph)	36	63	52	
Approach Volume (vph)	1755	1907	1691	
Turn Percentage	2%	3%	3%	#DIV/0!
High or Low	LOW	LOW	LOW	#DIV/0!
Applicable Design Condition (A, B or C)	B	B	B	A
Cycle Length (sec)	60	60	60	
Cycles/Hour	60	60	60	#DIV/0!
Average Number of Vehicles/Cycle	1	2	1	#DIV/0!
Storage Length (ft)	50	100	50	#DIV/0!

Design Method

Condition A (Storage Only)	***Taper***	-	-	-	50
	Storage	-	-	-	#DIV/0!
	Total	**-**	**-**	**-**	**#DIV/0!**
Condition B (High Speed Decel Only)	***Taper***	50	50	50	-
	Decel Length	235	235	235	-
	Total	**285**	**285**	**285**	**-**
Condition C (Moderate Speed Deceleration & Storage)	***Taper***	-	-	-	-
	Decel Length	-	-	-	-
	Storage	-	-	-	-
	Total	**-**	**-**	**-**	**-**

Required Storage and/or Decel Length (ft/lane) =	**235**	**235**	**235**	**#DIV/0!**
Required Turn Lane Length, including 50' taper (ft/lane) =	**285**	**285**	**285**	**#DIV/0!**

Note: EB - Eastbound, WB - Westbound, NB - Northbound, SB - Southbound

Source: January 2006 ODOT L& D Manual-Volume I: 401 - 9E, 401 -10E

Un-Signalized Intersection Analysis

HCS Two-Way Stop-Control Report

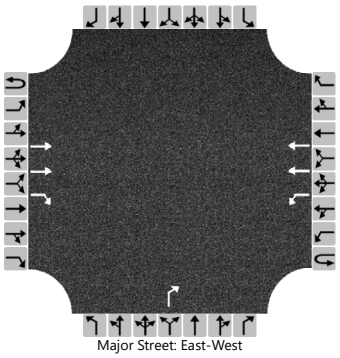
General Information

Analyst	MIM -ACD
Agency/Co.	
Date Performed	12/27/22
Analysis Year	2024
Time Analyzed	AM Peak No Build
Intersection Orientation	East-West
Project Description	Berlin Twp Mixed Use Development

Site Information

Intersection	US36/ SR37 & Old State
Jurisdiction	ODOT D6
East/West Street	US 36/ SR 37
North/South Street	Old State
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	1	0	1	2	0		0	0	1		0	0	0
Configuration			T	R		L	T					R				
Volume (veh/h)			998	85	0	102	732					165				
Percent Heavy Vehicles (%)					3	3						10				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized			No							No						
Median Type | Storage			Left Only							9						

Critical and Follow-up Headways

Base Critical Headway (sec)						4.1						6.9				
Critical Headway (sec)						4.16						7.10				
Base Follow-Up Headway (sec)						2.2						3.3				
Follow-Up Headway (sec)						2.23						3.40				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						111						179				
Capacity, c (veh/h)						583						464				
v/c Ratio						0.19						0.39				
95% Queue Length, Q_{95} (veh)						0.7						1.8				
Control Delay (s/veh)						12.6						17.6				
Level of Service (LOS)						B						C				
Approach Delay (s/veh)						1.5				17.6						
Approach LOS						A				C						

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HCS Two-Way Stop-Control Report

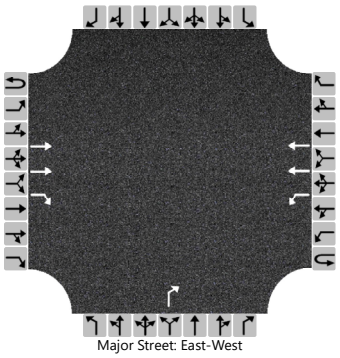
General Information

Analyst	MIM -ACD
Agency/Co.	
Date Performed	12/27/22
Analysis Year	2024
Time Analyzed	PM Peak No Build
Intersection Orientation	East-West
Project Description	Berlin Twp Mixed Use Development

Site Information

Intersection	US36/ SR37 & Old State
Jurisdiction	ODOT D6
East/West Street	US 36/ SR 37
North/South Street	Old State
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	1	0	1	2	0		0	0	1		0	0	0
Configuration			T	R		L	T					R				
Volume (veh/h)			965	71	0	112	1147					257				
Percent Heavy Vehicles (%)					3	3						10				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized			No							No						
Median Type | Storage			Left Only							9						

Critical and Follow-up Headways

Base Critical Headway (sec)						4.1						6.9				
Critical Headway (sec)						4.16						7.10				
Base Follow-Up Headway (sec)						2.2						3.3				
Follow-Up Headway (sec)						2.23						3.40				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						122						279				
Capacity, c (veh/h)						610						477				
v/c Ratio						0.20						0.59				
95% Queue Length, Q_{95} (veh)						0.7						3.7				
Control Delay (s/veh)						12.4						22.6				
Level of Service (LOS)						B						C				
Approach Delay (s/veh)						1.1				22.6						
Approach LOS						A				C						

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HCS Two-Way Stop-Control Report

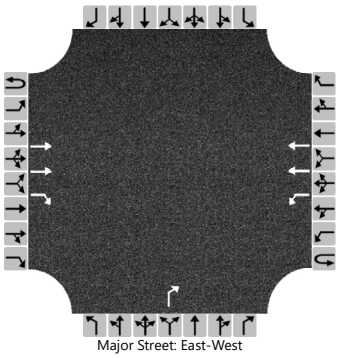
General Information

Analyst	MIM -ACD
Agency/Co.	
Date Performed	12/27/22
Analysis Year	2044
Time Analyzed	AM Peak No Build
Intersection Orientation	East-West
Project Description	Berlin Twp Mixed Use Development

Site Information

Intersection	US36/ SR37 & Old State
Jurisdiction	ODOT D6
East/West Street	US 36/ SR 37
North/South Street	Old State
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	1	0	1	2	0		0	0	1		0	0	0
Configuration			T	R		L	T					R				
Volume (veh/h)			1510	123	0	146	1107					238				
Percent Heavy Vehicles (%)					3	3						10				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized			No							No						
Median Type | Storage			Left Only							9						

Critical and Follow-up Headways

Base Critical Headway (sec)						4.1						6.9				
Critical Headway (sec)						4.16						7.10				
Base Follow-Up Headway (sec)						2.2						3.3				
Follow-Up Headway (sec)						2.23						3.40				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						159						259				
Capacity, c (veh/h)						342						302				
v/c Ratio						0.46						0.86				
95% Queue Length, Q_{95} (veh)						2.4						7.5				
Control Delay (s/veh)						24.3						60.0				
Level of Service (LOS)						C						F				
Approach Delay (s/veh)						2.8				60.0						
Approach LOS						A				F						

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HCS Two-Way Stop-Control Report

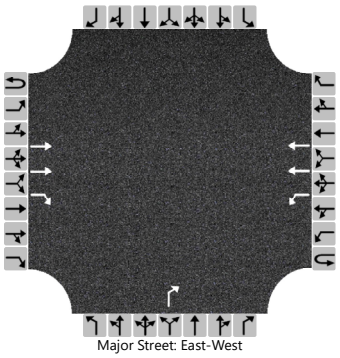
General Information

Analyst	MIM -ACD
Agency/Co.	
Date Performed	12/27/22
Analysis Year	2044
Time Analyzed	PM Peak No Build
Intersection Orientation	East-West
Project Description	Berlin Twp Mixed Use Development

Site Information

Intersection	US36/ SR37 & Old State
Jurisdiction	ODOT D6
East/West Street	US 36/ SR 37
North/South Street	Old State
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	1	0	1	2	0		0	0	1		0	0	0
Configuration			T	R		L	T					R				
Volume (veh/h)			1496	102	0	162	1777					370				
Percent Heavy Vehicles (%)					3	3						10				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized			No							No						
Median Type | Storage			Left Only							9						

Critical and Follow-up Headways

Base Critical Headway (sec)						4.1						6.9				
Critical Headway (sec)						4.16						7.10				
Base Follow-Up Headway (sec)						2.2						3.3				
Follow-Up Headway (sec)						2.23						3.40				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						176						402				
Capacity, c (veh/h)						354						305				
v/c Ratio						0.50						1.32				
95% Queue Length, Q_{95} (veh)						2.7						19.8				
Control Delay (s/veh)						24.8						198.3				
Level of Service (LOS)						C						F				
Approach Delay (s/veh)						2.1				198.3						
Approach LOS						A				F						

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HCS Two-Way Stop-Control Report

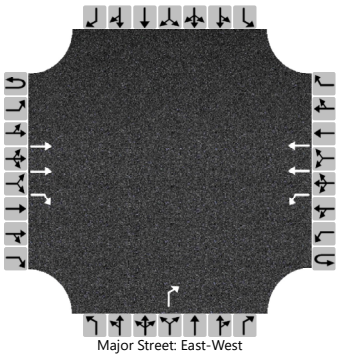
General Information

Analyst	MIM -ACD
Agency/Co.	
Date Performed	12/27/22
Analysis Year	2024
Time Analyzed	AM Peak Build
Intersection Orientation	East-West
Project Description	Berlin Twp Mixed Use Development

Site Information

Intersection	US36/ SR37 & Old State
Jurisdiction	ODOT D6
East/West Street	US 36/ SR 37
North/South Street	Old State
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes


Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	1	0	1	2	0		0	0	1		0	0	0
Configuration			T	R		L	T					R				
Volume (veh/h)			1020	101	0	141	784					279				
Percent Heavy Vehicles (%)					3	3						10				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized		No								No						
Median Type | Storage		Left Only								9						

Critical and Follow-up Headways

Base Critical Headway (sec)						4.1						6.9				
Critical Headway (sec)						4.16						7.10				
Base Follow-Up Headway (sec)						2.2						3.3				
Follow-Up Headway (sec)						2.23						3.40				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						153						303				
Capacity, c (veh/h)						563						456				
v/c Ratio						0.27						0.67				
95% Queue Length, Q_{95} (veh)						1.1						4.8				
Control Delay (s/veh)						13.8						27.2				
Level of Service (LOS)						B						D				
Approach Delay (s/veh)						2.1				27.2						
Approach LOS						A				D						

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HCS Two-Way Stop-Control Report

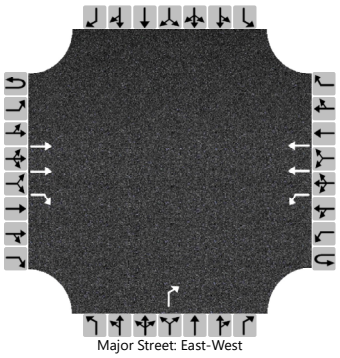
General Information

Analyst	MIM -ACD
Agency/Co.	
Date Performed	12/27/22
Analysis Year	2024
Time Analyzed	PM Peak Build
Intersection Orientation	East-West
Project Description	Berlin Twp Mixed Use Development

Site Information

Intersection	US36/ SR37 & Old State
Jurisdiction	ODOT D6
East/West Street	US 36/ SR 37
North/South Street	Old State
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	1	0	1	2	0		0	0	1		0	0	0
Configuration			T	R		L	T					R				
Volume (veh/h)			1045	112	0	248	1241					358				
Percent Heavy Vehicles (%)					3	3						10				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized			No							No						
Median Type | Storage			Left Only							9						

Critical and Follow-up Headways

Base Critical Headway (sec)						4.1						6.9				
Critical Headway (sec)						4.16						7.10				
Base Follow-Up Headway (sec)						2.2						3.3				
Follow-Up Headway (sec)						2.23						3.40				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						270						389				
Capacity, c (veh/h)						543						446				
v/c Ratio						0.50						0.87				
95% Queue Length, Q_{95} (veh)						2.7						9.0				
Control Delay (s/veh)						18.0						47.4				
Level of Service (LOS)						C						E				
Approach Delay (s/veh)						3.0				47.4						
Approach LOS						A				E						

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HCS Two-Way Stop-Control Report

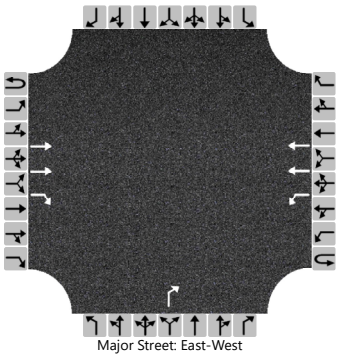
General Information

Analyst	MIM -ACD
Agency/Co.	
Date Performed	12/27/22
Analysis Year	2044
Time Analyzed	AM Peak Build
Intersection Orientation	East-West
Project Description	Berlin Twp Mixed Use Development

Site Information

Intersection	US36/ SR37 & Old State
Jurisdiction	ODOT D6
East/West Street	US 36/ SR 37
North/South Street	Old State
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	1	0	1	2	0		0	0	1		0	0	0
Configuration			T	R		L	T					R				
Volume (veh/h)			1532	139	0	195	1159					352				
Percent Heavy Vehicles (%)					3	3						10				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized			No							No						
Median Type | Storage			Left Only							9						

Critical and Follow-up Headways

Base Critical Headway (sec)						4.1						6.9				
Critical Headway (sec)						4.16						7.10				
Base Follow-Up Headway (sec)						2.2						3.3				
Follow-Up Headway (sec)						2.23						3.40				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						212						383				
Capacity, c (veh/h)						330						296				
v/c Ratio						0.64						1.29				
95% Queue Length, Q_{95} (veh)						4.2						18.6				
Control Delay (s/veh)						33.6						189.8				
Level of Service (LOS)						D						F				
Approach Delay (s/veh)						4.8				189.8						
Approach LOS						A				F						

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HCS Two-Way Stop-Control Report

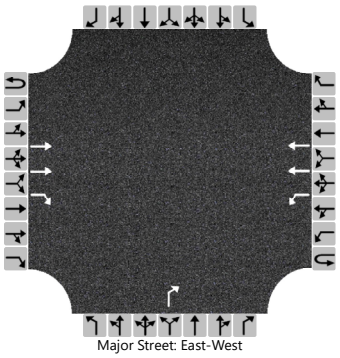
General Information

Analyst	MIM -ACD
Agency/Co.	
Date Performed	10/20/2022
Analysis Year	2044
Time Analyzed	PM Peak
Intersection Orientation	East-West
Project Description	Berlin Twp Mixed Use Development

Site Information

Intersection	US36/ SR37 & Old State
Jurisdiction	ODOT D6
East/West Street	US 36/ SR 37
North/South Street	Old State
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	1	0	1	2	0		0	0	1		0	0	0
Configuration			T	R		L	T					R				
Volume (veh/h)			1576	143	0	235	1871					471				
Percent Heavy Vehicles (%)					3	3						10				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized			No							No						
Median Type | Storage			Left Only							9						

Critical and Follow-up Headways

Base Critical Headway (sec)						4.1						6.9				
Critical Headway (sec)						4.16						7.10				
Base Follow-Up Headway (sec)						2.2						3.3				
Follow-Up Headway (sec)						2.23						3.40				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						255						512				
Capacity, c (veh/h)						315						285				
v/c Ratio						0.81						1.80				
95% Queue Length, Q_{95} (veh)						6.8						34.0				
Control Delay (s/veh)						51.4						402.1				
Level of Service (LOS)						F						F				
Approach Delay (s/veh)						5.7				402.1						
Approach LOS						A				F						

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HCS Two-Way Stop-Control Report

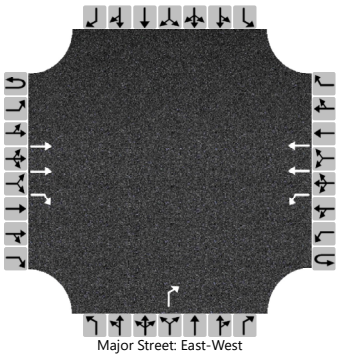
General Information

Analyst	MIM -ACD
Agency/Co.	
Date Performed	12/27/2022
Analysis Year	2024
Time Analyzed	AM Peak Build
Intersection Orientation	East-West
Project Description	Berlin Twp Mixed Use Development

Site Information

Intersection	US36/ SR37 & S. Plunkett (Site Access)
Jurisdiction	ODOT D6
East/West Street	US 36/ SR 37
North/South Street	S. Plunkett
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes


Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	1	0	1	2	0		0	0	1		0	0	0
Configuration			T	R		L	T					R				
Volume (veh/h)			1099	21	0	14	783					35				
Percent Heavy Vehicles (%)					3	3						10				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized			No							No						
Median Type | Storage			Left Only							5						

Critical and Follow-up Headways

Base Critical Headway (sec)						4.1						6.9				
Critical Headway (sec)						4.16						7.10				
Base Follow-Up Headway (sec)						2.2						3.3				
Follow-Up Headway (sec)						2.23						3.40				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						15						38				
Capacity, c (veh/h)						563						427				
v/c Ratio						0.03						0.09				
95% Queue Length, Q_{95} (veh)						0.1						0.3				
Control Delay (s/veh)						11.6						14.3				
Level of Service (LOS)						B						B				
Approach Delay (s/veh)						0.2				14.3						
Approach LOS						A				B						

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HCS Two-Way Stop-Control Report

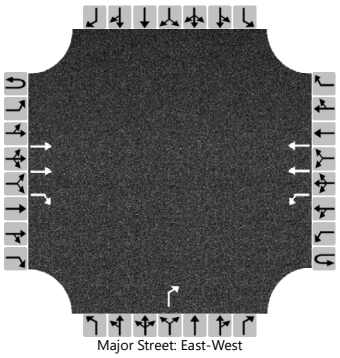
General Information

Analyst	MIM -ACD
Agency/Co.	
Date Performed	10/20/2022
Analysis Year	2024
Time Analyzed	PM Peak
Intersection Orientation	East-West
Project Description	Berlin Twp Mixed Use Development

Site Information

Intersection	US36/ SR37 & S. Plunkett (Site Access)
Jurisdiction	ODOT D6
East/West Street	US 36/ SR 37
North/South Street	S. Plunkett
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	1	0	1	2	0		0	0	1		0	0	0
Configuration			T	R		L	T					R				
Volume (veh/h)			1077	52	0	63	1214					116				
Percent Heavy Vehicles (%)					3	3						10				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized	No								No							
Median Type | Storage	Left Only								5							

Critical and Follow-up Headways

Base Critical Headway (sec)						4.1						6.9				
Critical Headway (sec)						4.16						7.10				
Base Follow-Up Headway (sec)						2.2						3.3				
Follow-Up Headway (sec)						2.23						3.40				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						68						126				
Capacity, c (veh/h)						558						435				
v/c Ratio						0.12						0.29				
95% Queue Length, Q_{95} (veh)						0.4						1.2				
Control Delay (s/veh)						12.3						16.6				
Level of Service (LOS)						B						C				
Approach Delay (s/veh)					0.6				16.6							
Approach LOS					A				C							

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HCS Two-Way Stop-Control Report

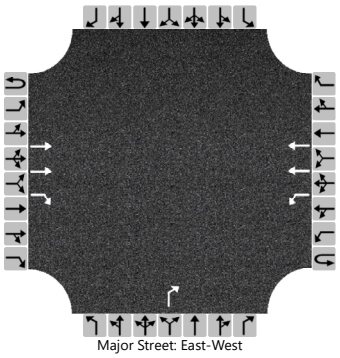
General Information

Analyst	MIM -ACD
Agency/Co.	
Date Performed	12/27/2022
Analysis Year	2044
Time Analyzed	AM Peak Build
Intersection Orientation	East-West
Project Description	Berlin Twp Mixed Use Development

Site Information

Intersection	US36/ SR37 & S. Plunkett (Site Access)
Jurisdiction	ODOT D6
East/West Street	US 36/ SR 37
North/South Street	S. Plunkett
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	1	0	1	2	0		0	0	1		0	0	0
Configuration			T	R		L	T					R				
Volume (veh/h)			1649	21	0	14	1158					35				
Percent Heavy Vehicles (%)					3	3						10				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized	No								No							
Median Type | Storage	Left Only								5							

Critical and Follow-up Headways

Base Critical Headway (sec)						4.1						6.9				
Critical Headway (sec)						4.16						7.10				
Base Follow-Up Headway (sec)						2.2						3.3				
Follow-Up Headway (sec)						2.23						3.40				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						15						38				
Capacity, c (veh/h)						330						268				
v/c Ratio						0.05						0.14				
95% Queue Length, Q_{95} (veh)						0.1						0.5				
Control Delay (s/veh)						16.4						20.6				
Level of Service (LOS)						C						C				
Approach Delay (s/veh)					0.2				20.6							
Approach LOS					A				C							

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HCS Two-Way Stop-Control Report

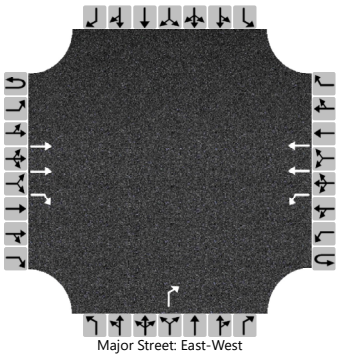
General Information

Analyst	MIM -ACD
Agency/Co.	
Date Performed	10/20/2022
Analysis Year	2044
Time Analyzed	PM Peak
Intersection Orientation	East-West
Project Description	Berlin Twp Mixed Use Development

Site Information

Intersection	US36/ SR37 & S. Plunkett (Site Access)
Jurisdiction	ODOT D6
East/West Street	US 36/ SR 37
North/South Street	S. Plunkett
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	1	0	1	2	0		0	0	1		0	0	0
Configuration			T	R		L	T					R				
Volume (veh/h)			1598	52	0	63	1844					116				
Percent Heavy Vehicles (%)					3	3						10				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized			No							No						
Median Type | Storage			Left Only							5						

Critical and Follow-up Headways

Base Critical Headway (sec)						4.1						6.9				
Critical Headway (sec)						4.16						7.10				
Base Follow-Up Headway (sec)						2.2						3.3				
Follow-Up Headway (sec)						2.23						3.40				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						68						126				
Capacity, c (veh/h)						337						280				
v/c Ratio						0.20						0.45				
95% Queue Length, Q_{95} (veh)						0.7						2.2				
Control Delay (s/veh)						18.4						28.0				
Level of Service (LOS)						C						D				
Approach Delay (s/veh)						0.6				28.0						
Approach LOS						A				D						

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HCS Two-Way Stop-Control Report

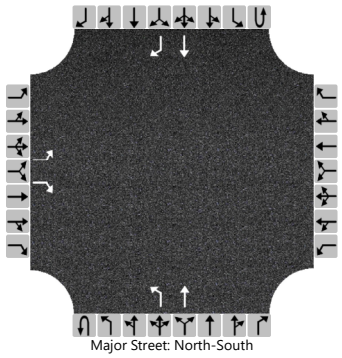
General Information

Analyst	MIM - ACD
Agency/Co.	
Date Performed	12/22/2022
Analysis Year	2024
Time Analyzed	AM Peak Build
Intersection Orientation	North-South
Project Description	Berlin Mixed Use Development

Site Information

Intersection	Old State Road & Reed Road
Jurisdiction	
East/West Street	Reed Road
North/South Street	Old State Road
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		1	0	1		0	0	0	0	1	1	0	0	0	1	1
Configuration		L		R						L	T				T	R
Volume (veh/h)		114		129						36	165				187	41
Percent Heavy Vehicles (%)		3		3						3						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized		No												No		
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.43		6.23						4.13						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.53		3.33						2.23						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		124		140						39						
Capacity, c (veh/h)		540		835						1312						
v/c Ratio		0.23		0.17						0.03						
95% Queue Length, Q_{95} (veh)		0.9		0.6						0.1						
Control Delay (s/veh)		13.6		10.2						7.8						
Level of Service (LOS)		B		B						A						
Approach Delay (s/veh)		11.8								1.4						
Approach LOS		B								A						

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HCS Two-Way Stop-Control Report

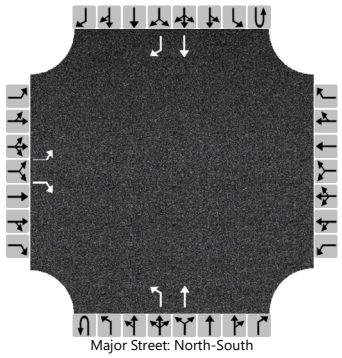
General Information

Analyst	MIM - ACD
Agency/Co.	
Date Performed	12/22/2022
Analysis Year	2024
Time Analyzed	PM Peak Build
Intersection Orientation	North-South
Project Description	Berlin Mixed Use Development

Site Information

Intersection	Old State Road & Reed Road
Jurisdiction	
East/West Street	Reed Road
North/South Street	Old State Road
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		1	0	1		0	0	0	0	1	1	0	0	0	1	1
Configuration		L		R						L	T				T	R
Volume (veh/h)		101		67						171	257				183	114
Percent Heavy Vehicles (%)		3		3						3						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized		No												No		
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.43		6.23						4.13						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.53		3.33						2.23						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		110		73						186						
Capacity, c (veh/h)		280		840						1231						
v/c Ratio		0.39		0.09						0.15						
95% Queue Length, Q_{95} (veh)		1.8		0.3						0.5						
Control Delay (s/veh)		25.9		9.7						8.4						
Level of Service (LOS)		D		A						A						
Approach Delay (s/veh)		19.5								3.4						
Approach LOS		C								A						

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HCS Two-Way Stop-Control Report

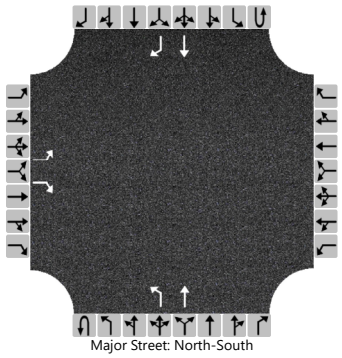
General Information

Analyst	MIM - ACD
Agency/Co.	
Date Performed	12/22/2022
Analysis Year	2044
Time Analyzed	AM Peak Build
Intersection Orientation	North-South
Project Description	Berlin Mixed Use Development

Site Information

Intersection	Old State Road & Reed Road
Jurisdiction	
East/West Street	Reed Road
North/South Street	Old State Road
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		1	0	1		0	0	0	0	1	1	0	0	0	1	1
Configuration		L		R						L	T				T	R
Volume (veh/h)		114		129						36	238				269	41
Percent Heavy Vehicles (%)		3		3						3						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized		No												No		
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.43		6.23						4.13						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.53		3.33						2.23						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		124		140						39						
Capacity, c (veh/h)		430		744						1217						
v/c Ratio		0.29		0.19						0.03						
95% Queue Length, Q_{95} (veh)		1.2		0.7						0.1						
Control Delay (s/veh)		16.7		11.0						8.1						
Level of Service (LOS)		C		B						A						
Approach Delay (s/veh)		13.7								1.1						
Approach LOS		B								A						

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HCS Two-Way Stop-Control Report

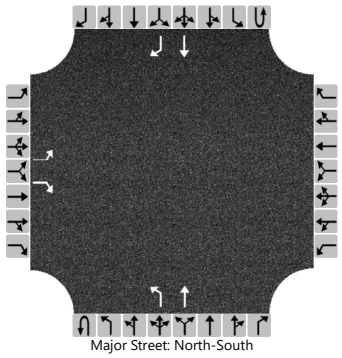
General Information

Analyst	MIM - ACD
Agency/Co.	
Date Performed	12/22/2022
Analysis Year	2044
Time Analyzed	PM Peak Build
Intersection Orientation	North-South
Project Description	Berlin Mixed Use Development

Site Information

Intersection	Old State Road & Reed Road
Jurisdiction	
East/West Street	Reed Road
North/South Street	Old State Road
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		1	0	1		0	0	0	0	1	1	0	0	0	1	1
Configuration		L		R						L	T				T	R
Volume (veh/h)		101		67						171	370				264	114
Percent Heavy Vehicles (%)		3		3						3						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized		No												No		
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.43		6.23						4.13						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.53		3.33						2.23						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		110		73						186						
Capacity, c (veh/h)		207		750						1143						
v/c Ratio		0.53		0.10						0.16						
95% Queue Length, Q_{95} (veh)		2.8		0.3						0.6						
Control Delay (s/veh)		40.6		10.3						8.8						
Level of Service (LOS)		E		B						A						
Approach Delay (s/veh)		28.5								2.8						
Approach LOS		D								A						

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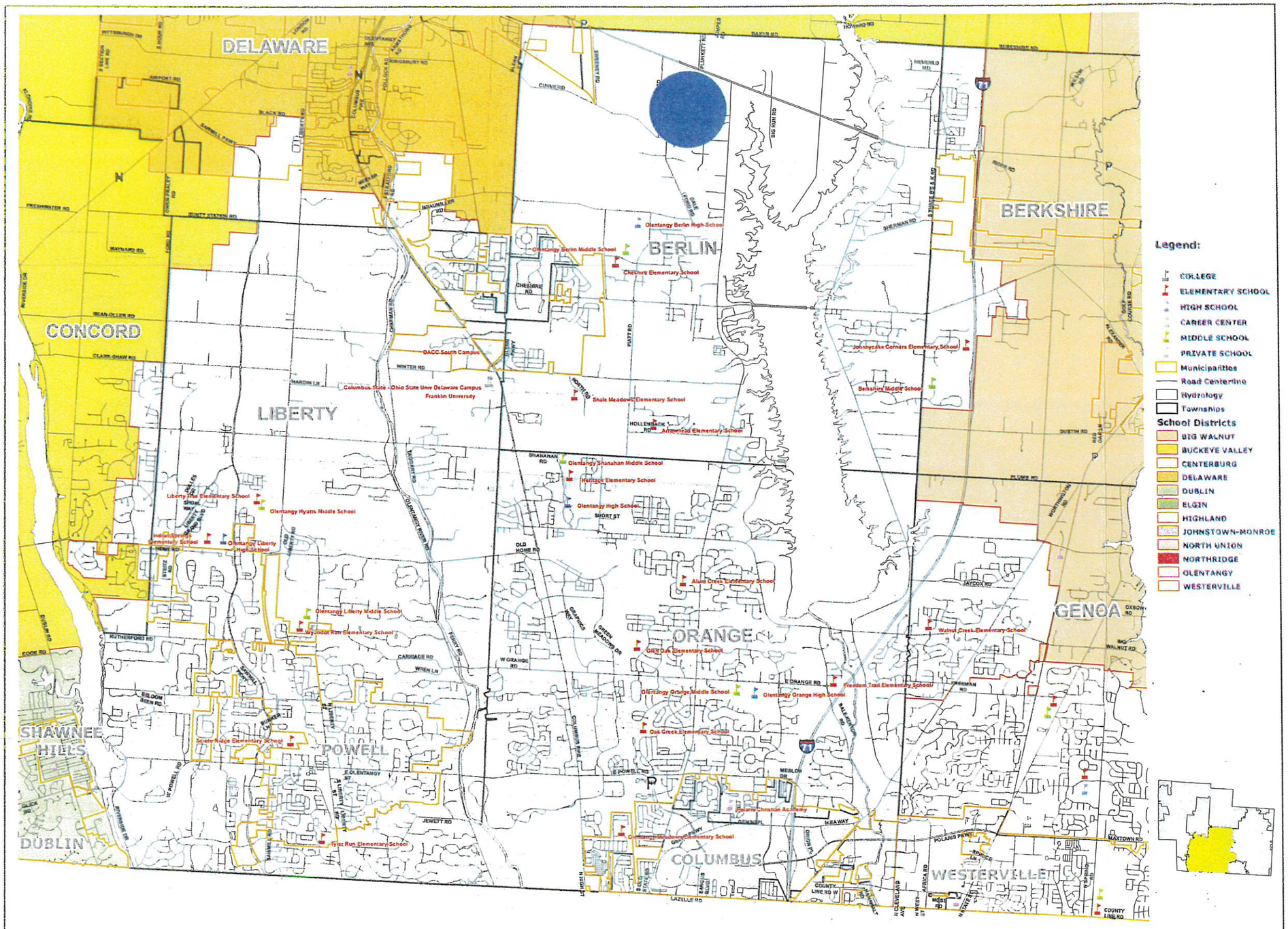
THE RESIDENCES
At
BERLIN TOWNSHIP
DELWARE COUNTY, OHIO

LOCATION of SCHOOLS, PARKS & OTHER PUBLIC FACILITIES WITHIN ONE (1) MILE



Olentangy School District

Delaware County Auditor
George Kaitsa

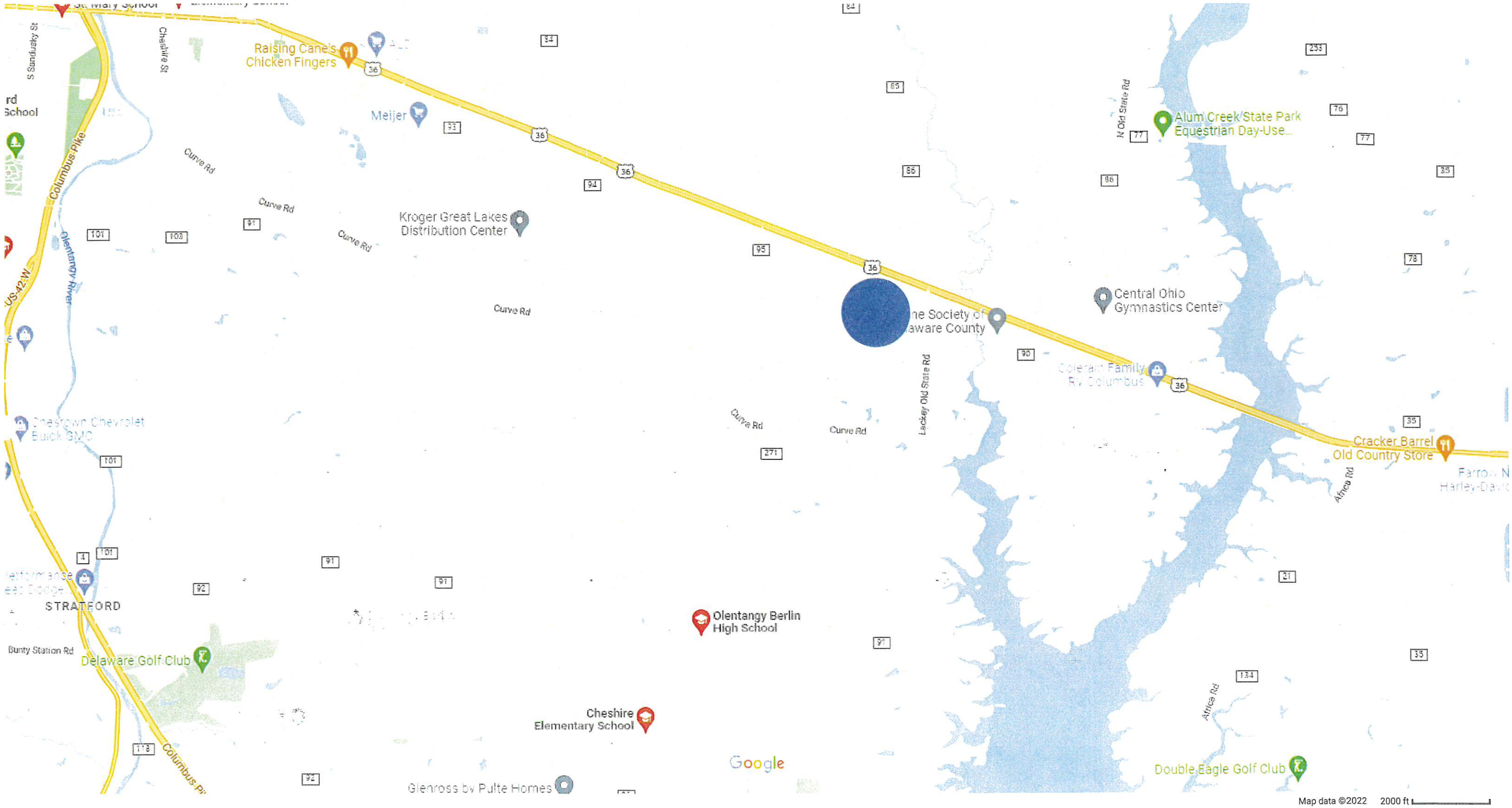
Information contained within this map may be used to generally locate, identify and inventory land parcels within Delaware County. Delaware County cannot warrant or guarantee the information contained herein, including, but not limited to its accuracy or completeness. The map parcel lines shown are approximate and this information cannot be constructed or used as a "legal description" of a parcel.

Please report any errors or omissions to the Delaware County Auditor's office.
Prepared by: Delaware County Auditor's GIS Office.

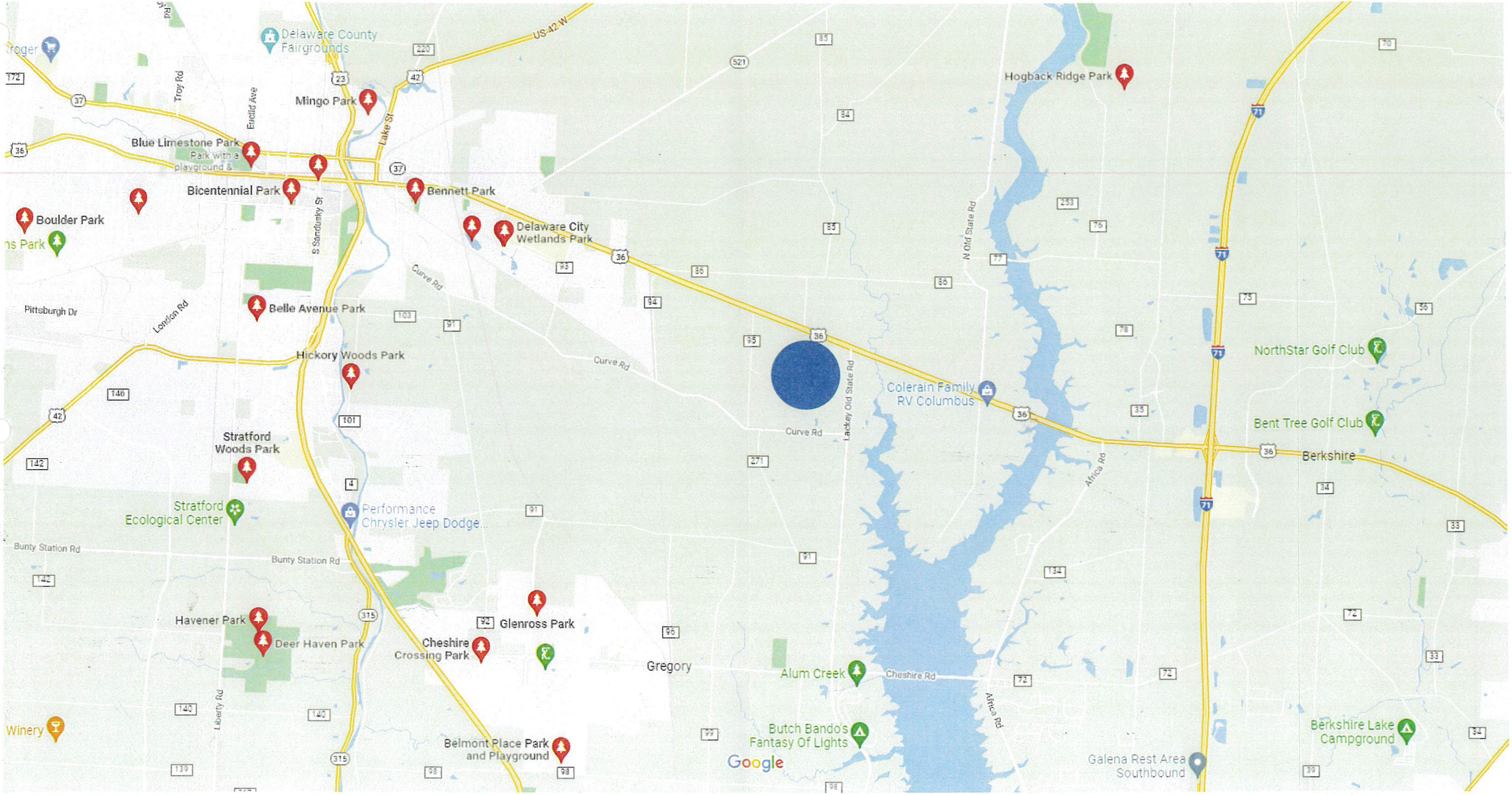
Map current as of January 2022

0 0.375 0.75 1.5 2.25 3 Miles

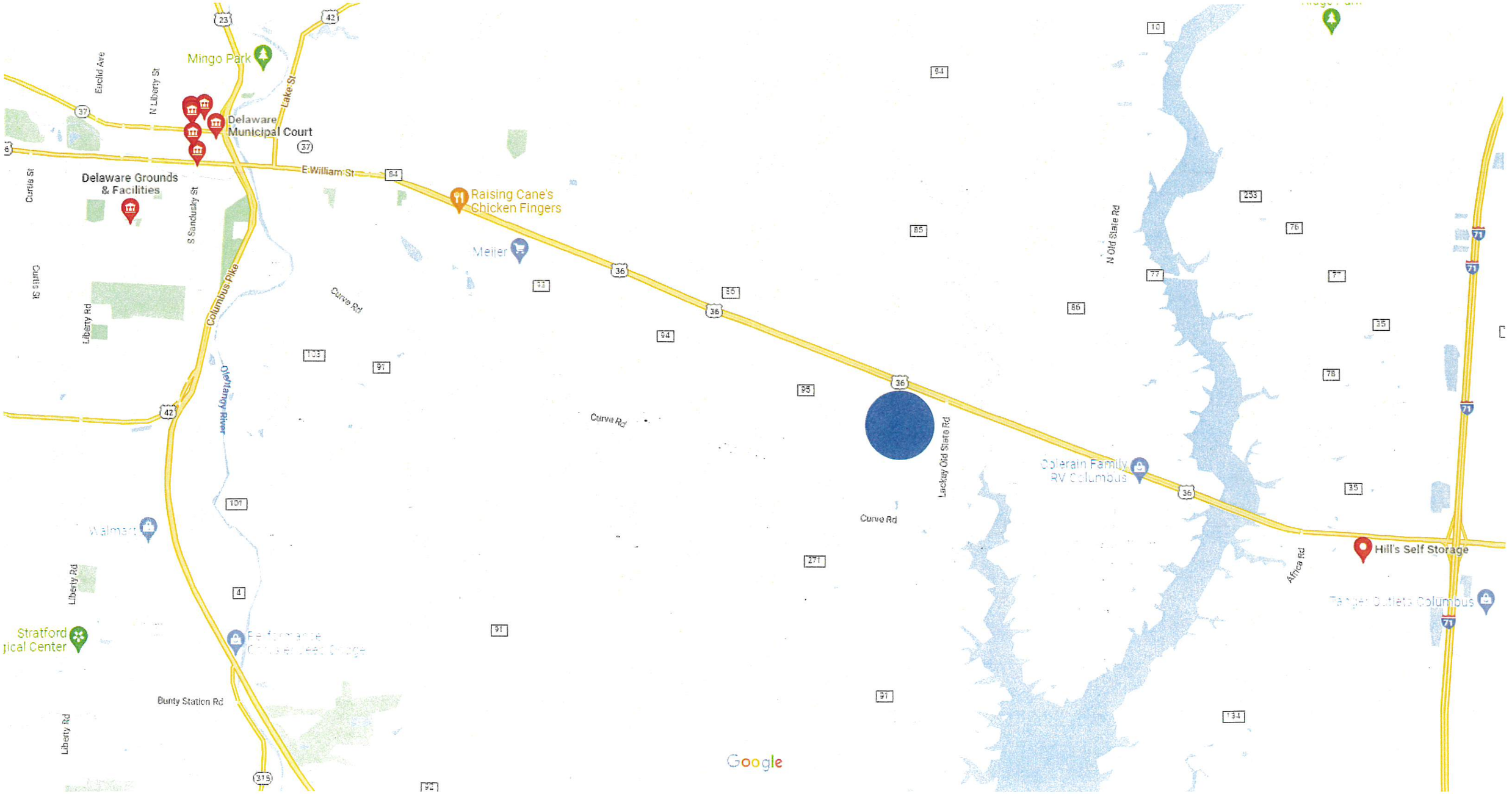
Google Maps schools



Google Maps parks



Google Maps public facilities



THE RESIDENCES
At
BERLIN TOWNSHIP
DELWARE COUNTY, OHIO

BOND/LETTER of CREDIT STATEMENT

CFBANK

Berlin Township
3721 Chesire Road
Delaware OH 43015

RE: T&R Properties, Berlin Mixed Use Project- Apartments and Industrial

Berlin Township Trustees and Zoning Staff,

I hope this letter finds you well. I am writing on behalf of CFBank in regards to the zoning/development plan submission for both T&R Properties Industrial Development Plan and Apartment Rezoning and Preliminary Development Plan. This letter is specifically regarding the Townships requests for the "applicant's (T&R Properties) ability to post a bond or an irrevocable letter of credit if the plan is approved assuring completion of public service facilities to be constructed within the project by the developer", as outlined as an item required for submission in the Berlin Zoning Resolution.

T&R Properties maintains accounts with CFBank and has completed numerous different development and construction projects with CFBank financing. After review of the development plan submissions for both the industrial and apartment projects in Berlin Township, CFBank believes T&R Properties and associated development affiliates has the financial capacity to complete all necessary improvements, public and private, associated with the projects for which they are proposing in Berlin Township.

Please allow this letter to fulfill the above submission requirement for both projects, and feel free to contact me for any other additional questions.

Respectfully,

Dan Ludwig
Senior Vice President
CFBank
(614)334-7984

THE RESIDENCES
At
BERLIN TOWNSHIP
DELWARE COUNTY, OHIO

CONSTRUCTION SCHEDULE STATEMENT

THE RESIDENCES at BERLIN TOWNSHIP
DELAWARE COUNTY, OHIO

Project Schedule

1. Development & Zoning: Summer 2022 – Winter & Spring 2023

2. Final Building and Construction Documents: Winter 2023 – Summer 2023

3. Construction Start: Summer 2023

4. The Residences at Berlin Township will be Constructed Continuously in One Phase

THE RESIDENCES
At
BERLIN TOWNSHIP
DELWARE COUNTY, OHIO

UTILITY LETTERS

SUBURBAN NATURAL GAS COMPANY
ESTABLISHED 1882

211 FRONT STREET, P.O. BOX 130
CYGNET, OHIO 43413-0130
(419) 655-2345
FAX: (419) 655-2274
2626 LEWIS CENTER ROAD
LEWIS CENTER, OHIO 43035-9206
(740) 548-2450
FAX: (740) 549-4939

November 21, 2022

Thomas M. Warner
Advanced Civil Design, Inc.
781 Science Boulevard, Suite 100
Gahanna, Ohio 43230
VIA EMAIL: tmann@advancedcivildesign.com

RE: Parcels: 41821002004000, 41821002005000, 41821002002000

Dear Thomas:

In response to your request for natural gas service availability to the approximately 118.83 acres located south of 36/37 and west of Lackey Old State Road, Delaware County, Ohio, Suburban Natural Gas Company does have natural gas service available to the above described location.

Natural gas is located on the northwest corner of the property. Suburban Natural Gas Company will provide all the natural gas mains to said property at no cost. Application requirements can be coordinated with the Suburban Natural Gas office.

As always, natural gas service to the area as well as any other served or to be served by Suburban Natural Gas Company is subject to the terms and conditions of our PUCO tariff.

We look forward to working with you on the proposed project. If you have any questions, feel free to contact me directly.

Cordially,

Aaron Roll
Vice President
System Development

AR/hc

cc: D. Joseph Pemberton

FRONTIER

1309 Wilson Dr
Marion, OH 43302

November 29, 2022

Advanced Civil Design
ATTN: Thomas M. Warner
781 Science Blvd., Suite 100
Gahanna, OH 43230

Reference: Utility Service Request – Proposed T&R Properties 118.83 acres US 36/37 and west of Lackey Old State Rd. (PID #s 41821002004000, 41821002005000, 41821002002000)

Dear Thomas:

This letter is being issued to you to confirm that Frontier North INC. can provide the telecommunications services required to the proposed 118.83 acres of Multi-family units and industrial warehousing along US 36/37 west of Lackey Old State Rd, in Berlin Township, Delaware County, OH.

Please provide preliminary & final construction drawings to me, Chris Avery by email at ira.avery@ftr.com. Should you have any questions or concerns please contact me at 740-360-8001.

Sincerely,

CHRIS AVERY

CHRIS AVERY
Network Engineer – Frontier North INC.

Officers
BRIAN P. COGHLAN
President
PAMALA L. HAWK
Vice President
ROBERT W. JENKINS
Secretary
. MICHAEL DICKEY
Treasurer
GLENN MARZLUF
General Manager/CEO
SHANE CLARK
Deputy General Manager

DEL-CO WATER COMPANY

6658 OLENTANGY RIVER ROAD
DELAWARE, OHIO 43015
www.delcowater.org
Phone (740) 548-7746 • (800) 521-6779

Directors
DAVID A. BENDER
BRUCE A. BLACKSTON
DOUGLAS D. DAWSON
TIMOTHY D. MCNAMARA
PERRY K. TUDOR

Mr. Thomas M. Warner
Advanced Civil Design, Inc.
781 Science Boulevard, Suite 100
Gahanna, Ohio 43230

Via Email: tmann@advancedcivildesign.com

RE: Water Availability Chapman Property, US 36 Industrial & Residential Development

Dear Mr. Warner:

Please know that Del-Co Water can provide water service to the site described below upon plan approval and payment of the required fees:

Proposed Land Use: ±889 multi-family units and industrial warehouses
Location: Southwest corner of US 36 and Lackey Old State Road
Land Size: ±118.83 acres

This site can be served from a planned transmission along Reed Road extended. Construction of the transmission line will be coordinated with the developer. Construction of a new elevated water tank on Reed Road is currently under way and will be necessary to provide long-term water supply to the development.

This letter of water availability is valid for a period of one year from the date of this letter. Del-Co makes no guarantee of water availability beyond this period. Contact our Engineering Department if you have any questions on the plan review process, or our Customer Service Department for information on tap fees.

Sincerely,
DEL-CO WATER COMPANY, INC.

Shane F. Clark

Shane F. Clark, P.E.
Deputy General Manager

Delaware County
Regional Sewer District

Director/Sanitary Engineer
Tiffany M. Maag, P.E.

November 17, 2022

Thomas M. Warner
Advanced Civil Design, Inc.
781 Science Boulevard, Suite 100
Gahanna, Ohio 43230

sent via email: tmann@advancedcivildesign.com

Re: **Serviceability Request**
Berlin Business Park
Parcels: 41821002005000, 41821002004000, 41821002002000

Dear Mr. Warner:

Pursuant to your request dated November 16, 2022, for a sanitary sewer service letter for the aforementioned parcels, we offer the following conditional sanitary sewer availability:

Availability
The Delaware County Sanitary Engineer's Office can confirm that public sanitary sewer will be available to serve the above referenced parcels provided that the development obtain sanitary service via the proposed 18" sanitary sewer on parcel 41821002002001 adjacent to the subject parcel. Extensions from the existing sanitary sewer will be necessary to provide service to the proposed development.

Capacity
Capacity is available to serve the proposed development. Capacity for the proposed development **is not reserved** until such time that all the requirements for the sewer extension or commercial tap permit have been fulfilled. Sewer capacity is dynamic and subject to decrease pending ongoing development.

If you should have any questions or concerns about this correspondence, please feel free to contact me.

Sincerely,

Kelly Thiel
Staff Engineer III

cc: Correspondence File

DELAWARE COUNTY SHERIFF'S OFFICE
SHERIFF RUSSELL L. MARTIN

Administrative Division 149 N. Sandusky St. Delaware, OH 43015
Phone (740) 833-2810 Fax (740) 833-2809

November 30, 2022

Advanced Civil Design, Inc.
781 Science Boulevard, Suite 100
Gahanna, Ohio 43230
Attention: Thomas M. Warner

RE: Berlin Twp. Schematic Site Plan (identified below), Berlin Township, Delaware County

To: Thomas M. Warner

I have reviewed the submitted Berlin Twp. Schematic Site Plan. The area identified in the document as 118.83± acres located to the west of Lackey Old State Road, south and adjacent to US 37 (PID # 41821002002000, 41821002004000, and 41821002005000), in Berlin Township, Delaware County, Ohio) does lie within the jurisdiction of the Delaware County Sheriff's Office. As such, the Delaware County Sheriff's Office will comply with section 311.07 of the Ohio Revised Code as it pertains to the general powers and duties of the Sheriff.

Respectfully,

Capt. S.C. Vance

Captain S.C. Vance
Law Enforcement Operations

Berlin Township
Fire Department
2708 Lackey Old State Road
Delaware, Ohio 43015
(740) 548-6031

Fire Chief Adam Miller
Lt. Steve Arnold, Fire Prevention

1) Entry into a subdivision/project development shall have 1 lane in and 2 lanes out. When required by Berlin Township FD there shall be at least 2 entry points into the subdivision/project development.

2) No Parking signage shall be on the Fire Hydrant side of the street. This signage shall meet the Delaware County Sheriff's office enforcement requirements.

3) There shall be a Fire Hydrant installed within the first 50' going into the project development.

4) After the first Fire Hydrant going into the project fire hydrants shall be installed every 300'- throughout the project development.

5) Any street stubs or ending point shall have a fire hydrant installed at the end point. If determined by Berlin Township FD a flash hydrant is acceptable to be installed in the project development however once the street extension takes place a fire hydrant shall be installed in place of the flush hydrant at the developer's cost.

6) The minimum water main size within any project development shall be at least 8" that shall flow a minimum 1000 GPM. Actual water main size for the project development shall be determined at plan review by Berlin Township Fire Department.

7) Cul-de-sac shall meet the turning radius per the Orange Twp. FD attachment of 48'

8) Berlin Twp. FD shall have access to all green space. The width of the hard surface shall be a minimum 6'. Berlin Township FD will determine hard service requirements.

9) Model homes shall have an EXIT sign non-illuminated in the Office area and a 5# ABC Fire Extinguisher.

10) To scale drawings shall be provided for all new and revised projects. The scale can be 1"=100' or 1/2"=100' for large projects.

This is not an all-inclusive list

Rev. 03/22

THE RESIDENCES
At
BERLIN TOWNSHIP
DELWARE COUNTY, OHIO

ADJACENT PROPERTY OWNERS WITHIN 200 FEET



Delaware County GIS
George Kaitsa, MBA, County Auditor
About the Auditor

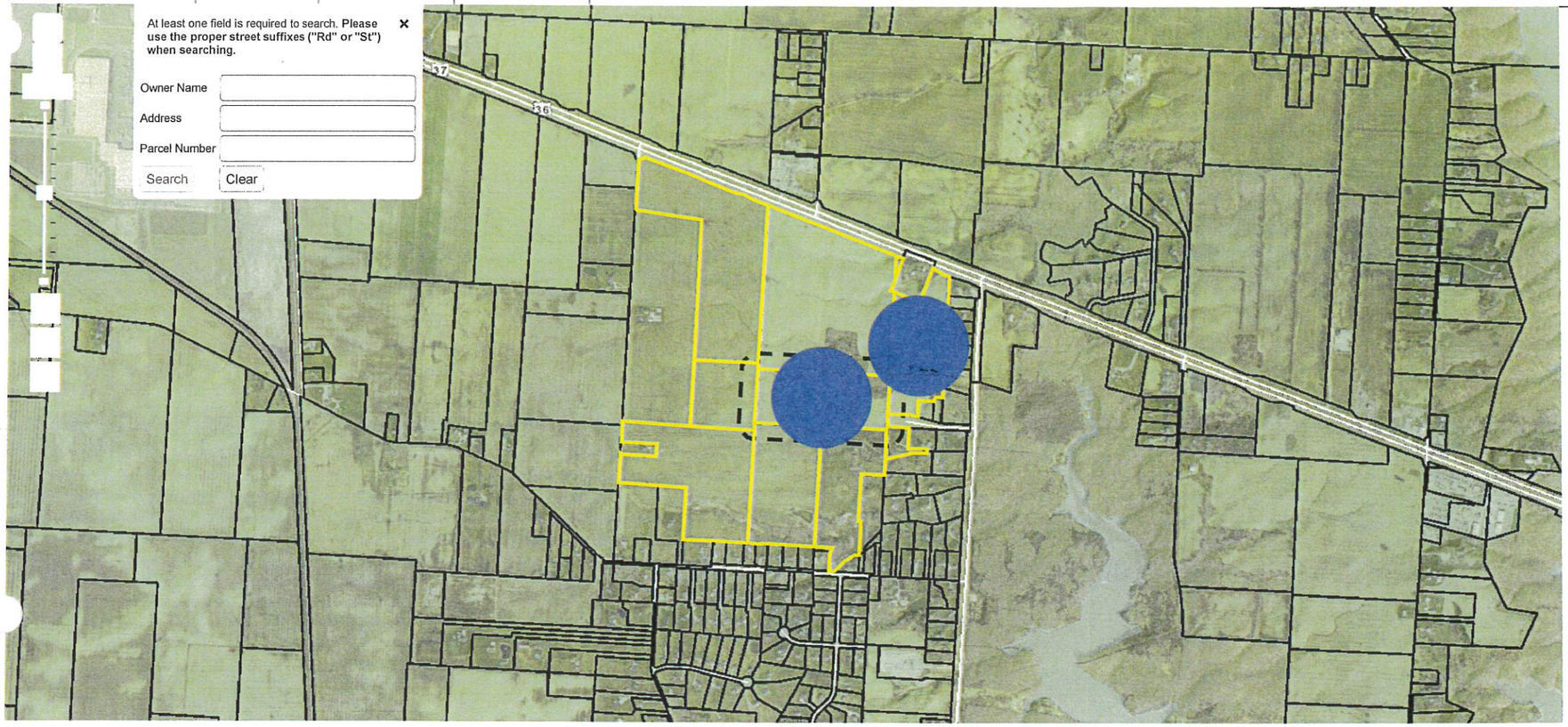
Robert Parsons, GIS Director
Report an Issue

Property Search | Advanced Search | Subdivision Search | Intersection Search

Select | Identify | Layers | Sales Report | Refresh | Tools | Maps | Printing | Links | Help

At least one field is required to search. Please use the proper street suffixes ("Rd" or "St") when searching.

Owner Name
Address
Parcel Number
Search Clear



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https://auditor.delco-gis.org

version: v20210802A1
Click here for Legal Disclaimer



Delaware County GIS
George Kaitsa, MBA, County Auditor
About the Auditor

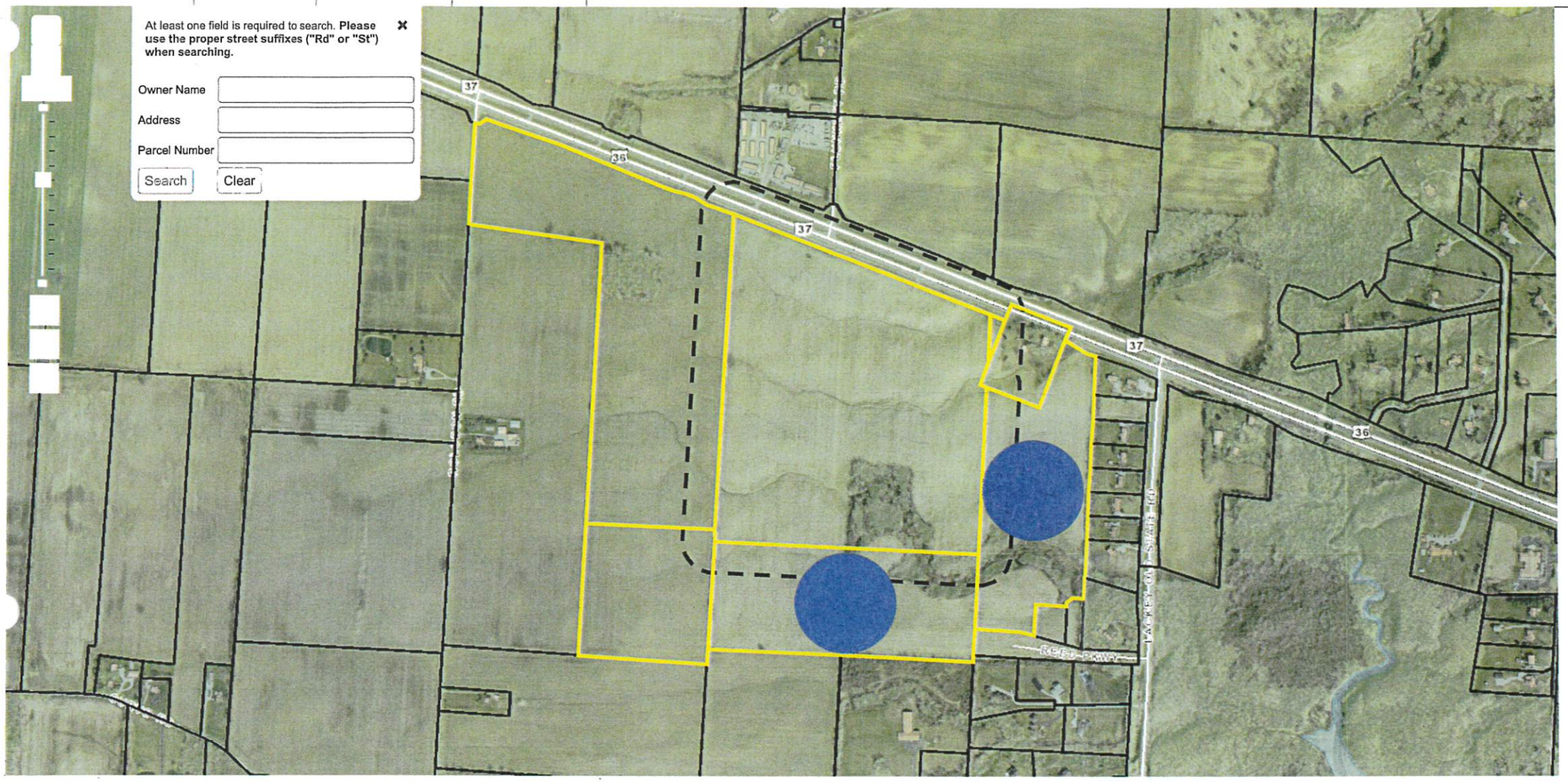
Robert Parsons, GIS Director
Report an Issue

Property Search | Advanced Search | Subdivision Search | Intersection Search

Select | Identify | Layers | Sales Report | Refresh | Tools | Maps | Printing | Links | Help

At least one field is required to search. **Please use the proper street suffixes ("Rd" or "St") when searching.**

Owner Name
Address
Parcel Number
Search Clear



600ft

https://auditor.delco-gis.org

version: v20210802a1
Click here for Legal Disclaimer



Delaware County GIS
George Kaitsa, MBA, County Auditor
About the Auditor

Robert Persons, GIS Director
Report an Issue

Property Search | Advanced Search | Subdivision Search | Intersection Search | Select | Identify | Layers | Sales Report | Refresh | Tools | Maps | Printing | Links | Help

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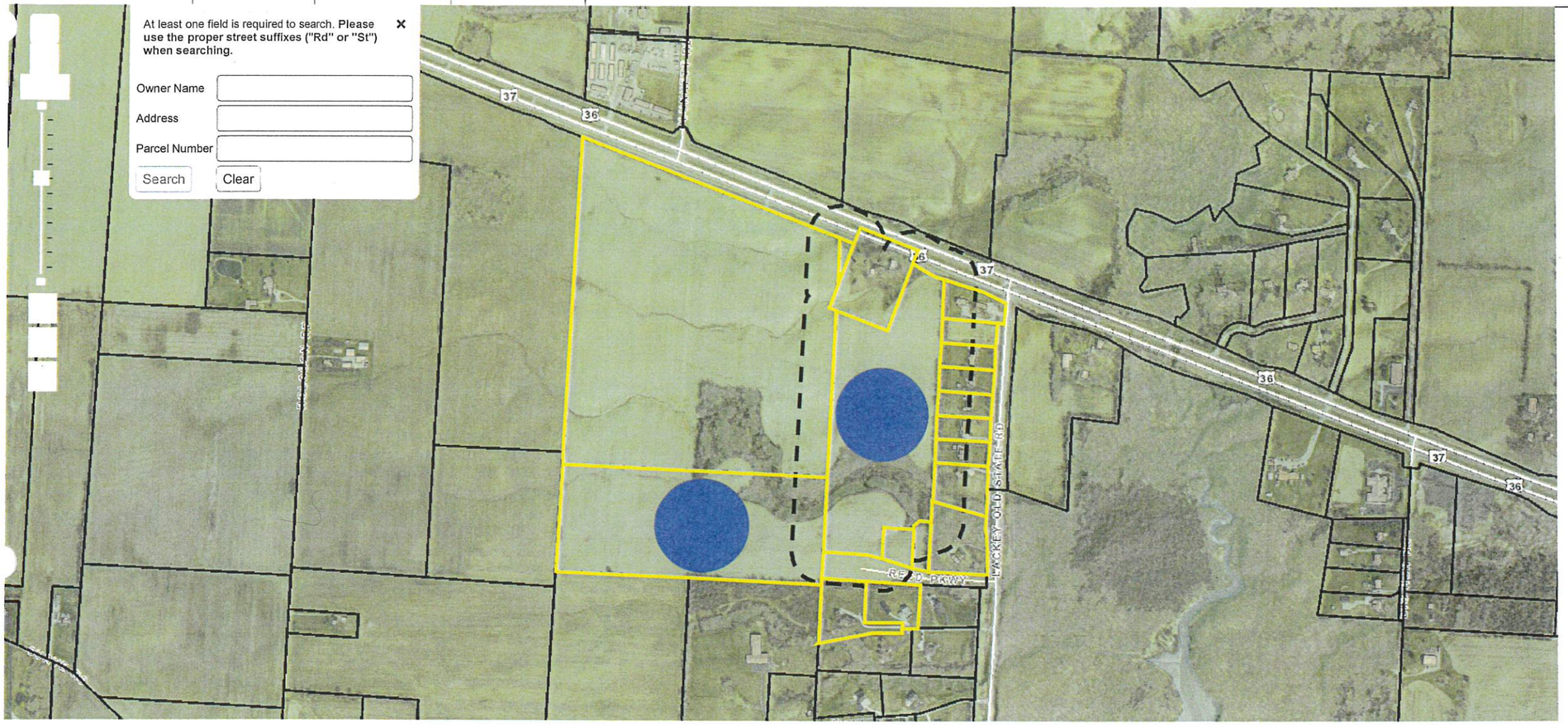
Owner Name
Address
Parcel Number
Search Clear



600ft

MERIDIAN INC
28 LACKEY OLD STATE RD
DELAWARE OH 43015

DEL WATER
STATE ROUTE 37
DELAWARE OH 43015

CHAPMAN LYNN & REED
DAVID JOHN ET AL
STATE ROUTE 37
DELAWARE OH 43015

PARKER M & JEFFREY L
220 LACKEY OLD STATE RD
DELAWARE OH 43015

SEWELL
130 LACKEY OLD STATE RD
DELAWARE OH 43015

MCDANIELS A & JOSHUA D
428 LACKEY OLD STATE RD
DELAWARE OH 43015

CHAPMAN LYNN & REED
DAVID JOHN ET AL
STATE ROUTE 37
DELAWARE OH 43015

JACKSON E
4400 STATE ROUTE 37
DELAWARE OH 43015

RODDY OWEN & SANDRA ANN
330 LACKEY OLD STATE RD
DELAWARE OH 43015

STUCKEY LEE & TERESSA G
192 LACKEY OLD STATE RD
DELAWARE OH 43015

ACKER & NICKI CO
TRUSTEES
90 LACKEY OLD STATE RD
DELAWARE OH 43015

DECHRISTOPHER N & AMY
MARIE
436 LACKEY OLD STATE RD
DELAWARE OH 43015

BOARD COUNTY
COMMISSIONERS OF
DELAWARE
4367 REED PKWY
DELAWARE OH 43015

CHAPMAN LYNN & REED
DAVID JOHN ET AL
STATE ROUTE 37
DELAWARE OH 43015

RICKABAUGH W & DEBORAH
A
244 LACKEY OLD STATE RD
DELAWARE OH 43015

NEWELL E & LORRIE L
160 LACKEY OLD STATE RD
DELAWARE OH 43015

MERIDIAN INC
LACKEY OLD STATE RD
DELAWARE OH 43015

Parcel Number	Owner Name	Address	Market Value	Conveyance Date	Year Built	Bedrooms	Baths	Finished Sq Ft	Acreage
41821002037000	ACKER CHRISTOPHER & NICKI CO TRUSTEES	90 LACKEY OLD STATE RD DELAWARE	355800	3/30/2020	1993	3	3	2779	1.18
41821002002001	BOARD OF COUNTY COMMISSIONERS OF DELAWARE COUNTY OHIO	4367 REED PKWY DELAWARE	0	10/11/2021	0	0	0	0	0.728
41821002002000	CHAPMAN PATTY LYNN & REED DAVID JOHN ET AL	STATE ROUTE 37 E DELAWARE	578800	9/9/2022	0	0	0	0	37
41821002004000	CHAPMAN PATTY LYNN & REED DAVID JOHN ET AL	STATE ROUTE 37 E DELAWARE	565100	11/26/2012	0	0	0	0	56.302
41821002005000	CHAPMAN PATTY LYNN & REED DAVID JOHN ET AL	STATE ROUTE 37 E DELAWARE	212200	11/26/2012	0	0	0	0	26
41821003003000	DECHRISTOPHER JASPER N & AMY MARIE	436 LACKEY OLD STATE RD DELAWARE	860100	2/1/2012	2014	4	4	4864	2.758
41821002002002	DEL CO WATER COMPANY INC	STATE ROUTE 37 E DELAWARE	0	9/9/2022	0	0	0	0	0.944
41821002003000	JACKSON CLIFTON E	4400 STATE ROUTE 37 E DELAWARE	321800	12/9/2019	1901	5	1	2304	5.001
41821003002000	MCDANIELS SHELBY A & JOSHUA D	428 LACKEY OLD STATE RD DELAWARE	745000	3/30/2016	2018	5	5	3792	2.083
41821002038000	MERIDIAN HOMES INC	LACKEY OLD STATE RD DELAWARE	63500	1/2/2007	0	0	0	0	1.18
41821002001000	MERIDIAN HOMES INC	28 LACKEY OLD STATE RD DELAWARE	310300	1/2/2007	1988	3	1	1100	1.79
41821002035000	NEWELL RICHARD E & LORRIE L	160 LACKEY OLD STATE RD DELAWARE	290200	7/17/2007	1993	3	3	2192	1.19
41821002033000	PARKER EDIE M & JEFFREY L	220 LACKEY OLD STATE RD DELAWARE	346500	11/13/2019	1993	3	2	2698	1.16
41821002032000	RICKABAUGH ERIC W & DEBORAH A	244 LACKEY OLD STATE RD DELAWARE	367000	11/10/1992	1990	4	2	2258	2.24
41821002031000	RODDY CHARLES OWEN & SANDRA ANN	330 LACKEY OLD STATE RD DELAWARE	428500	11/2/1993	1997	3	2	2560	3.35
41821002036000	SEWELL DONNA	130 LACKEY OLD STATE RD DELAWARE	310400	8/9/2021	1991	3	2	2137	1.18
41821002034000	STUCKEY DAVID LEE & TERESSA G	192 LACKEY OLD STATE RD DELAWARE	297300	6/6/1991	1990	3	2	1878	1.17
41821002002002	TAXABLE PARCEL FOR 2023; PAYABLE 2024		0		0	0	0	0	0

Parcel Number	Owner Name	Address	Market Value	Conveyance Date	Year Built	Bedrooms	Baths	Finished Sq Ft	Acreage
41821002002000	CHAPMAN PATTY LYNN & REED DAVID JOHN ET AL	STATE ROUTE 37 E DELAWARE	578800	9/9/2022	0	0	0	0	37
41821002004000	CHAPMAN PATTY LYNN & REED DAVID JOHN ET AL	STATE ROUTE 37 E DELAWARE	565100	11/26/2012	0	0	0	0	56.302
41821002005000	CHAPMAN PATTY LYNN & REED DAVID JOHN ET AL	STATE ROUTE 37 E DELAWARE	212200	11/26/2012	0	0	0	0	26
41821002006000	COLFLESH TED L	STATE ROUTE 37 E DELAWARE	511100	11/12/1993	0	0	0	0	50.11
41821002008000	COLFLESH TED L	ROLOSON RD DELAWARE	163200	7/31/1992	0	0	0	0	16
41821002010000	COLFLESH TED L	ROLOSON RD DELAWARE	516700	7/31/1992	0	0	0	0	39.48
41821002011000	COLFLESH TED L	ROLOSON RD DELAWARE	365800	10/15/1991	0	0	0	0	27.58
41821003003000	DECHRISTOPHE R JASPER N & AMY MARIE	436 LACKEY OLD STATE RD DELAWARE	860100	2/1/2012	2014	4	4	4864	2.758
41821002021000	OBRIEN TIMOTHY A & PAMELA J	4071 CURVE RD DELAWARE	942000	4/15/1996	1996	4	4	3400	24.659

Parcel Number	Owner Name	Address	Market Value	Conveyance Date	Year Built	Bedrooms	Baths	Finished Sq Ft	Acreage
41821002004000	CHAPMAN PATTY LYNN & REED DAVID JOHN ET AL	STATE ROUTE 37 E DELAWARE	565100	11/26/2012	0	0	0	0	56.302
41821002005000	CHAPMAN PATTY LYNN & REED DAVID JOHN ET AL	STATE ROUTE 37 E DELAWARE	212200	11/26/2012	0	0	0	0	26
41821002002000	CHAPMAN PATTY LYNN & REED DAVID JOHN ET AL	STATE ROUTE 37 E DELAWARE	578800	9/9/2022	0	0	0	0	37
41821002006000	COLFLESH TED L	STATE ROUTE 37 E DELAWARE	511100	11/12/1993	0	0	0	0	50.11
41821002008000	COLFLESH TED L	ROLOSON RD DELAWARE	163200	7/31/1992	0	0	0	0	16
41821002003000	JACKSON CLIFTON E	4400 STATE ROUTE 37 E DELAWARE	321800	12/9/2019	1901	5	1	2304	5.001

THE RESIDENCES
At
BERLIN TOWNSHIP
DELWARE COUNTY, OHIO

24” x 36” ENLARGED SITE PLANS



GENERAL NOTES:

1. SEE ADVANCED CIVIL DESIGN DRAWINGS FOR ALL UTILITY & GRADING INFORMATION.
2. SEE BLENDON GARDENS LANDSCAPING PLANS FOR PLANTING LOCATIONS.
3. SEE ARCHITECTURAL DRAWINGS FOR BUILDING ELEVATIONS.

PROJECT DATA:

296 APARTMENT UNITS
624 PARKING / GARAGE SPACES

OVERALL RESIDENTIAL SITE PLAN

SCALE: 1" = 100'

KONTOGIANNIS & ASSOCIATES
ARCHITECTURE
PLANNING
DESIGN

400 SOUTH FIFTH ST
SUITE 400
COLUMBUS, OHIO
43215-5492

PHONE: 614-224-2083
FAX: 614-224-4736
E-MAIL: architects@kontogiannis.com

PROJECT:
THE RESIDENCES AT BERLIN TOWNSHIP
BERLIN TWP.
DELAWARE COUNTY, OHIO

DRAWING TITLE:
OVERALL RESIDENTIAL SITE PLAN

DATE: 12/27/2022
REVISED:

GEORGE J. KONTOGIANNIS, LICENSE #3784
EXPIRATION DATE 12/31/2023
COPYRIGHT © 2022 BY
GEORGE J. KONTOGIANNIS & ASSOCIATES

- [x] ZONING SET 12/27/2022
- [ ] BID SET
- [ ] PERMIT SET
- [ ] CONSTRUCTION SET

SP-1

H:\Projects\Architects\Current\Berlin Park Apt. - T&R Properties\AutoCAD\Site Plans\SP-1.dwg, 3/7/2023 10:25:55 AM, mhannan

PHASE II
BUILDING 4

600'

126 CAR PARKING SPACES

PROPOSED INDUSTRIAL ARTICLE 19 BERLIN INDUSTRIAL OVERLAY (NOT A PART OF THIS ZONING SHOWN FOR CLARITY ONLY)

REED PKWY

S. PLUNKETT ROAD

PROPOSED INDUSTRIAL ARTICLE 19 BERLIN INDUSTRIAL OVERLAY (NOT A PART OF THIS ZONING SHOWN FOR CLARITY ONLY)

EXISTING ZONING FR-1 PROPOSED ZONING PRD MULTI-FAMILY

SP-3

WATER METER ROOM

EXISTING AREA TO BE PRESERVED IN AS MUCH WAY AS POSSIBLE GIVEN ROADWAY & UTILITY CONSTRUCTION

EXISTING WATER COURSE SEE SITE SURVEY

10' PATH

5' SIDEWALK

80' R.O.W.

APPROXIMATE EXISTING TREE LINE SEE SITE SURVEY

20' PARKING SETBACK LINE

50' BLDG. SETBACK LINE

16 UNIT W/ 4 ATTACHED GARAGE - BLDG 1

4 UNIT W/ 4 ATTACHED GARAGE - BLDG 15

16 UNIT - BLDG 16

4 UNIT W/ 4 ATTACHED GARAGE - BLDG 17

16 UNIT W/ 4 ATTACHED GARAGE - BLDG 9

5 CAR GARAGE - BLDG 14

5 CAR GARAGE - BLDG 10

4 UNIT W/ 4 ATTACHED GARAGE - BLDG 8

SEE SITE LANDSCAPING PLANS FOR DEVELOPMENT DESIGN OF THIS AREA

SHELTER HOUSE

TRASH COMPACTOR & 6'-0" SCREEN WALL

16 UNIT W/ 8 ATTACHED GARAGE - BLDG 13

16 UNIT - BLDG 12

16 UNIT W/ 8 ATTACHED GARAGE - BLDG 11

5 CAR GARAGE - BLDG 6

ONE STORY RESIDENT CLUBHOUSE - BLDG 7

16 UNIT W/ 4 ATTACHED GARAGE - BLDG 2

16 UNIT W/ 4 ATTACHED GARAGE - BLDG 3

16 UNIT W/ 8 ATTACHED GARAGE - BLDG 4

5 CAR GARAGE - BLDG 5

MAINTENANCE EASEMENT

SWIMMING POOL

STORM DETENTION AREA SEE ADVANCED ENGINEERING CIVIL PLAN DRAWINGS

PICKLE BALL COURTS

BLDG. SETBACK LINE

REFERENCE DIMENSION

250'

MAINTENANCE EASEMENT

8'-0" HIGH MOUND SLOPE AT MAXIMUM 3:1 - 10'-0" FLAT SPOT AT MOUND CROWN PER ARTICLE 19 (BIO)

FR-1
(FARM RESIDENTIAL DISTRICT) (NOT IN ARTICLE 19 BERLIN INDUSTRIAL OVERLAY) (BIO)

EXISTING ZONING FR-1 PROPOSED ZONING PRD MULTI-FAMILY

FR-1
(FARM RESIDENTIAL DISTRICT) (NOT IN ARTICLE 19 BERLIN INDUSTRIAL OVERLAY) (BIO)

GENERAL NOTES:

1. SEE ADVANCED CIVIL DESIGN DRAWINGS FOR ALL UTILITY & GRADING INFORMATION.
2. SEE BLENDON GARDENS LANDSCAPING PLANS FOR PLANTING LOCATIONS.
3. SEE ARCHITECTURAL DRAWINGS FOR BUILDING ELEVATIONS.

ENLARGED SOUTH RESIDENTIAL SITE PLAN

SCALE: 1" = 50'

0 12.5 25 50 100
GRAPHIC SCALE

NORTH

KONTOGIANNIS & ASSOCIATES
ARCHITECTURE
PLANNING
DESIGN

400 SOUTH FIFTH ST
SUITE 400
COLUMBUS, OHIO
43215-5492

PHONE: 614-224-2083
FAX: 614-224-4736
E-MAIL: architects@kontogiannis.com

PROJECT:
THE RESIDENCES AT BERLIN TOWNSHIP

BERLIN TWP.
DELAWARE COUNTY, OHIO

DRAWING TITLE:
ENLARGED SOUTH RESIDENTIAL SITE PLAN

DATE: 12/27/2022
REVISED:

- [x] ZONING SET 12/27/2022
- [ ] BID SET
- [ ] PERMIT SET
- [ ] CONSTRUCTION SET

GEORGE J. KONTOGIANNIS, LICENSE #3784
EXPIRATION DATE 12/31/2023

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SP-2

H:\Projects\Architects\Current\Berlin Park Apt. - T&R Properties\AutoCAD\Site Plans\SP-1.dwg, 3/7/2023 10:29:51 AM, mhannan



FR-1
(FARM RESIDENTIAL DISTRICT)
(AREA WITHIN ARTICLE 19 BERLIN INDUSTRIAL OVERLAY) (BIO)

GENERAL NOTES:

1. SEE ADVANCED CIVIL DESIGN DRAWINGS FOR ALL UTILITY & GRADING INFORMATION.
2. SEE BLENDON GARDENS LANDSCAPING PLANS FOR PLANTING LOCATIONS.
3. SEE ARCHITECTURAL DRAWINGS FOR BUILDING ELEVATIONS.

ENLARGED NORTH RESIDENTIAL SITE PLAN

SCALE: 1" = 50'

0 12.5 25 50 100
GRAPHIC SCALE

NORTH

KONTOGIANNIS & ASSOCIATES
ARCHITECTURE
PLANNING
DESIGN

400 SOUTH FIFTH ST
SUITE 400
COLUMBUS, OHIO
43215-5492

PHONE: 614-224-2083
FAX: 614-224-4736
E-MAIL: architects@kontogiannis.com

PROJECT:
THE RESIDENCES AT BERLIN TOWNSHIP

BERLIN TWP.
DELAWARE COUNTY, OHIO

DRAWING TITLE:
ENLARGED NORTH RESIDENTIAL SITE PLAN

DATE: 12/27/2022
REVISED:

GEORGE J. KONTOGIANNIS, LICENSE #3784
EXPIRATION DATE: 12/31/2023
COPYRIGHT © 2022 BY
GEORGE J. KONTOGIANNIS & ASSOCIATES

- [x] ZONING SET 12/27/2022
- [ ] BID SET
- [ ] PERMIT SET
- [ ] CONSTRUCTION SET

SP-3

H:\Projects\Architects\Current\Berlin Park Apt. - T&R Properties\AutoCAD\Site Plans\SP-1.dwg, 3/7/2023 10:29:39 AM, mhannan