

ORDINANCE NO. 1803  
AN ORDINANCE OF THE TOWN OF MUNSTER TOWN COUNCIL  
REZONING CERTAIN PROPERTY AS THE MAPLE LEAF CROSSING PUD AND  
ADOPTING DEVELOPMENTAL STANDARDS FOR THE  
MUNSTER BUSINESS COMPLEX  
PLANNED UNIT DEVELOPMENT

WHEREAS, the Munster Redevelopment Commission previously applied for rezoning of the Munster Business Complex, which was adopted as Ordinance 1701 on October 17, 2016.

WHEREAS, the Town of Munster adopted Zoning Ordinance No. 1788 on December 23, 2019, which substantially revised the previous zoning code and maps for the Town of Munster.

WHEREAS, the Munster Town Council, Munster Plan Commission and Munster Redevelopment Commission have all engaged in significant discussion and planning with Maple Leaf Crossing, LLC, since Ordinance 1701 was passed in October, 2016.

WHEREAS, the Munster Plan Commission has held multiple public meetings, and approved the preliminary plat on May 12, 2020 for the development to be known as Maple Leaf Crossing on the Munster Business Complex site.

WHEREAS, the Munster Town Council desires to amend the Munster Business Complex Planned Unit Development, rename it to the Maple Leaf Crossing Planned Unit Development, and rezone and adopt development standards for Maple Leaf Crossing Planned Unit Development as set forth herein and in certain Development Standards approved concurrently herewith.

NOW, THEREFORE, BE IT ORDAINED by the Town Council as follows:

1. The Munster Business Complex Planned Unit Development shall be rezoned pursuant to the Approved Development Plan and Development Standards approved by the Town of Munster Plan Commission and Munster Town Council.
2. The Munster Business Complex Planned Unit Development shall now be known as the Maple Leaf Crossing Planned Unit Development.
3. The Maple Leaf Crossing PUD shall be developed according to the Approved Development Plan approved by the Munster Plan Commission on July 14, 2020, as amended, a true and correct copy of which is attached hereto as Exhibit A and incorporated herein.
4. The Development Standards for the Maple Leaf Crossing Planned Unit Development attached as Exhibit B are hereby adopted and ordained.

ORDAINED and ADOPTED by the Town Council of the Town of Munster, Indiana on the 20<sup>th</sup> Day of July, 2020 by a vote of 5 in favor and 0 opposed.

TOWN COUNCIL OF THE TOWN OF  
MUNSTER, LAKE COUNTY, INDIANA

Lee Ann Mellon  
Lee Ann Mellon, President

ATTEST:

Wendy Mis  
Wendy Mis, Clerk -Treasurer

DEVELOPMENTAL STANDARDS FOR THE  
MAPLE LEAF CROSSING DEVELOPMENT AT THE  
MUNSTER BUSINESS COMPLEX  
PLANNED UNIT DEVELOPMENT

This document sets forth the developmental standards for the Planned Unit Development known as Maple Leaf Crossing, with street addresses 9352-9482 Calumet Avenue.

I. Planned Unit Development

Maple Leaf Crossing is hereby designated as a Planned Unit Development Special District ("SD-PUD") under Ordinance No. 1788.

A. Permitted uses shall include:

1. Hotel
2. Professional Office
3. Medical or Dental Office or Clinic
4. Alcoholic Beverage Retail Sales
5. Alcoholic Beverage- Serving Establishment
6. Bar or Tavern
7. Brewpub
8. Craftsman Establishment
9. Dry Cleaning without drive-through
10. Entertainment Facility
11. Financial Services without Drive-through
12. Hair, skin, nail care or day spa
13. Open air market, including container shops
14. Open Front or Open Lot Retail, including container shops
15. Pharmacy
16. Restaurant, and Restaurant with outdoor dining
17. Tailor or Seamstress Shop
18. Tasting Room
19. Theater or Performing Arts Venue
20. Ticket Office
21. Veterinary Office Clinic or Hospital

22. Warehouse/ retail
23. Civic space
24. Brewery
25. Distillery
26. Microbrewery/MicroDistillery/ Microwinery/ Nanobrewery
27. Winery
28. Food/ Refreshment Stand
29. Garden
30. Gift Shop
31. Massage Services by Indiana licensed masseuse, accessory to Spa or Salon
32. Parking Area
33. Patio
34. Such other uses as approved by the Plan Commission or Town Council

B. Temporary buildings for construction purposes for a period not to exceed the duration of the construction.

2. Use Conditions and Restrictions

A. Hours. Maple Leaf Crossing hours of operation shall be seven days per week as allowed for any like businesses in Commercial Districts in the Town of Munster.

3. Yards

Yards, roadways, walkways, parking and greenspace shall be as set forth in the Approved Development Plan attached hereto as Exhibit A and incorporated herein.

4. Height Regulations

No building shall exceed four stories in height and a maximum of 60 feet.

5. Screening of Mechanicals

All mechanical equipment will be screened as to not be visible by those at street level on all sides of the building.

6. Off-Street Parking Facilities

Off-street parking shall include approximately 358 parking spaces as set forth in the Approved Development Plan.

7. Lot Coverage



Green space shall exceed 7.5% of the total area as set forth in the Approved Development Plan.

8. Pedestrian and Bicycle Access

Sidewalks and bicycle paths shall be located within and upon Maple Leaf Crossing as set forth in the Approved Development Plan.

II. Formula Business Regulations

Any Formula Business that desires to be located within the Planned Unit Development must obtain a Special Use permit from the Board of Zoning Appeals. A "Formula Business" is defined as a restaurant or retail establishment which is required by contractual or other arrangements to operate with standardized menus, ingredients, architecture, décor, uniforms, appearance or signage.

The following findings, at a minimum, must be made prior to the issuance of a Special Use Permit for a Formula Business:

1. The Formula Business will be compatible with existing surrounding uses, and has been designed and will be operative in a non-obtrusive manner to preserve the community's distinctive character and ambiance;
2. The Formula Business will not result in an over-concentration of formula establishments in its immediate vicinity or the Town as a whole;
3. The Formula Business will promote diversity and variety to assure a balanced mix of commercial use available to serve both resident and visitor populations;
4. The Formula Business will contribute to an appropriate balance of local, regional or national-based businesses in the community;
5. The Formula Business will be mutually beneficial to and will enhance the economic health of surrounding uses in the district; and,
6. The Formula Business will contribute to an appropriate balance of small, medium and large-sized businesses in the community.

III. Building and Material Requirements

1. Building Design

All building designs and lot plans shall be submitted to the Plan Commission for building site plan approval in accordance with Section 26-6.804.G of the Town's Code of Ordinances. The overall image should be well coordinated, fully integrating components such as entries, displays and signage. Buildings shall comply with the

Approved Development Plan and the Development Standards for the Maple Leaf Crossing Planned Unit Development.

2. Materials and Details

Building materials shall consist primarily of glass, steel, brick, stone, and shipping containers for accents and small businesses as contemplated by the Development Agreement. Proposed materials and colors shall be submitted on a color material sample as a component of building site plan approval application in accordance with Section 26-6.804.G of the Town's Code of Ordinances..

3. Permitted Materials

The following is a list of permitted materials, subject to Town approval during the review process:

- a. Painted aluminum or steel;
- b. Stainless steel;
- c. Solid brass, bronze, copper or pewter;
- d. Enamel coated steel;
- e. Textured or brushed stainless steel;
- f. Galvanized, sandblasted or etched metals;
- g. Natural stone;
- h. Full size brick;
- i. Painted or stained wood in limited amounts
- j. Porcelain, ceramic or glass

4. Metals

High quality is expected for all metal applications. Metal such as shop-painted aluminum and steel, stainless steel, solid brass, bronze, copper, pewter, or enamel coated steel may be used for hardware, trim and panels when well designed and detailed.

- a. Lap joints and seams must be even and straight and concealed when possible. Outside corners are to be mitered or continuous break shaped.
- b. Fabrication must be either heavy gauge material or thinner gauge material shop laminated to solid backing. In no case are oil canning (resulting from light reflection from an uneven or buckled surface), scratches, warps, dents, occlusions, visible seams or other imperfections allowed.
- c. Sealants on natural metals are required to prevent tarnishing.

- d. Textured or brushed stainless steel, galvanized, sandblasted and etched metals are encouraged in creative applications. Unique treatments such as patina, rusted, etched and imprinted metals will be considered for special design objectives.
- e. Polished metals should be solid, not plated and limited to accent trim.

#### 5. Natural Stone

- a. Granite, marble, limestone, slate and other natural stone materials may be used in building applications. Stone may be polished, unpolished, sandblasted, flamed, honed, split face or caved. Careful, craftsman-like attention to detail is required at all connections and transitions to other materials.
- b. Edge details must prevent visible unfinished edges. Exposed edges must be quirk mitered, chamfered or polished to match adjacent surface finish.
- c. The transition between stone and adjoining materials must be defined by use of metal reveals.
- d. Stone use as a paving material must be flush when meeting other flooring materials.
- e. Natural stone must be protected against staining and discoloration by means of sealers appropriate to the material.

#### 6. Wood

- a. Painted or stained wood may be used in many design applications, such as window frames, decorative trim or molding, and for solid areas, such as decorative bulkheads. In some cases, it may be used for larger architectural elements, such as columns and entablatures. Wood paneling and plank construction are not acceptable unless presented in a highly imaginative concept and approved by the Town.
  - 1. Wood used in the construction of the building must be kiln dried, mill quality, or marine grade hardwood and must meet local frame spread requirements.
  - 2. Painted wood must have a shop quality enamel finish.
  - 3. Wood without a paint finish must receive a clear, preservative sealant.
  - 4. Extensive use of natural wood finishes is discouraged.

#### 7. Tile

- a. Tile may be used in diverse applications. Its use is encouraged to introduce light, decorative texture or graphic quality to a storefront.
  - 1. Porcelain ceramic or glass tiles in glazed or natural finishes may be used as accents and in limited field applications. Patterns used over large areas are expected to have a sophisticated, well executed design concept.

2. Small and intricate mosaic tile patterns may be utilized for detail and accent only.
3. All tiles must be carefully detailed at outside corners with bull nose edges or special corner trims. Lapped or butt joints are not permitted.

#### 8. Glazing

- a. The creative use of glazing and other building front design elements is encouraged and must be carefully detailed.
  1. Large panes
  2. All glass
  3. Stained, leaded
  4. Glass block
  5. In frameless assemblies,
  6. Aluminum, metal or wood building
  7. All aluminum framing
  8. Tinted glass is permitted, however, reflective glass (including mirroring) is not permitted.

#### 9. Lighting

- a. Lighting fixtures shall be high quality commercial grade. The fixtures shall be constructed and installed to be glare free and shall comply with all applicable code requirements.
- b. Recessed or appropriately styled surface mounted halogen incandescent, ceramic metal halide, or solid state (LED) sources are permitted. 2077 to 3000 k is the required color temperature range of these sources, with a minimum Color Rendering Index (CRI) of 80.
- c. Fluorescent fixtures are not permitted.
- d. The lighting plan shall be of the design and layout set forth in the Approved Development Plan.
- e. A detailed lighting plan for each building and lot shall be submitted for Plan Commission approval as a component of a site plan approval application in accordance with the procedure of Section 26-6.804.G of the Town's Code of Ordinances and the standards of the Development Plan and Development Standards.

#### 10. Prohibited Materials

1. The following is a list of prohibited materials. In rare instances, special consideration may be given for the use of a prohibited material if its application is highly original, creative and essential to the theme

or design concept of the building front. Exceptions may be granted by the Plan Commission solely at its discretion as a component of a building site plan approval application in accordance with Section 26-6.804.G of the Town's Code of Ordinances.: Plastic laminates, except for high pressure laminates such as Prodema and Trespa or similar.

2. Glossy, or large expanses of acrylic or Plexiglass
3. Pegboard
4. Mirror
5. Mirrored glass (but not tinted glass)
6. Vinyl, fabric or paper
7. Plywood or particle board
8. Sheet or modular vinyl
9. Luminous ceiling, including "egg crate"
10. Shingles, shakes, rustic siding
11. Drywall
12. Stucco, exterior insulation finishing system (EIFS) or similar products

#### IV. Signage Design Criteria

Signage shall be compliant with §26-6.701 unless a variance is obtained from the Board of Zoning Appeals.

#### V. Landscape Design Criteria

Landscaping for Maple Leaf Crossing shall generally be in accordance with the Landscaping Plan attached hereto as Exhibit C and incorporated herein. Other Developmental Standards

#### VI. Other Development Standards

The Approved Development Plan and Development Standards shall govern the development of Maple Leaf Crossing PUD. The development standards for zoning district CD-4.A set forth in Zoning Ordinance 1788, Table 26-6.405.A-6 shall apply to matters not addressed in the Approved Development Plan and Development Standards.

- VII. All construction on the building sites on lots 1 through 7 of the Approved Development Plan are subject to approval by the Munster Plan Commission in accordance with the procedure set forth in Section 26-6.804.G of the Town's Code of Ordinances according to the terms and standards of the Approved Development Plan and Development Standards for Maple Leaf Crossing PUD or section VI above, if applicable.



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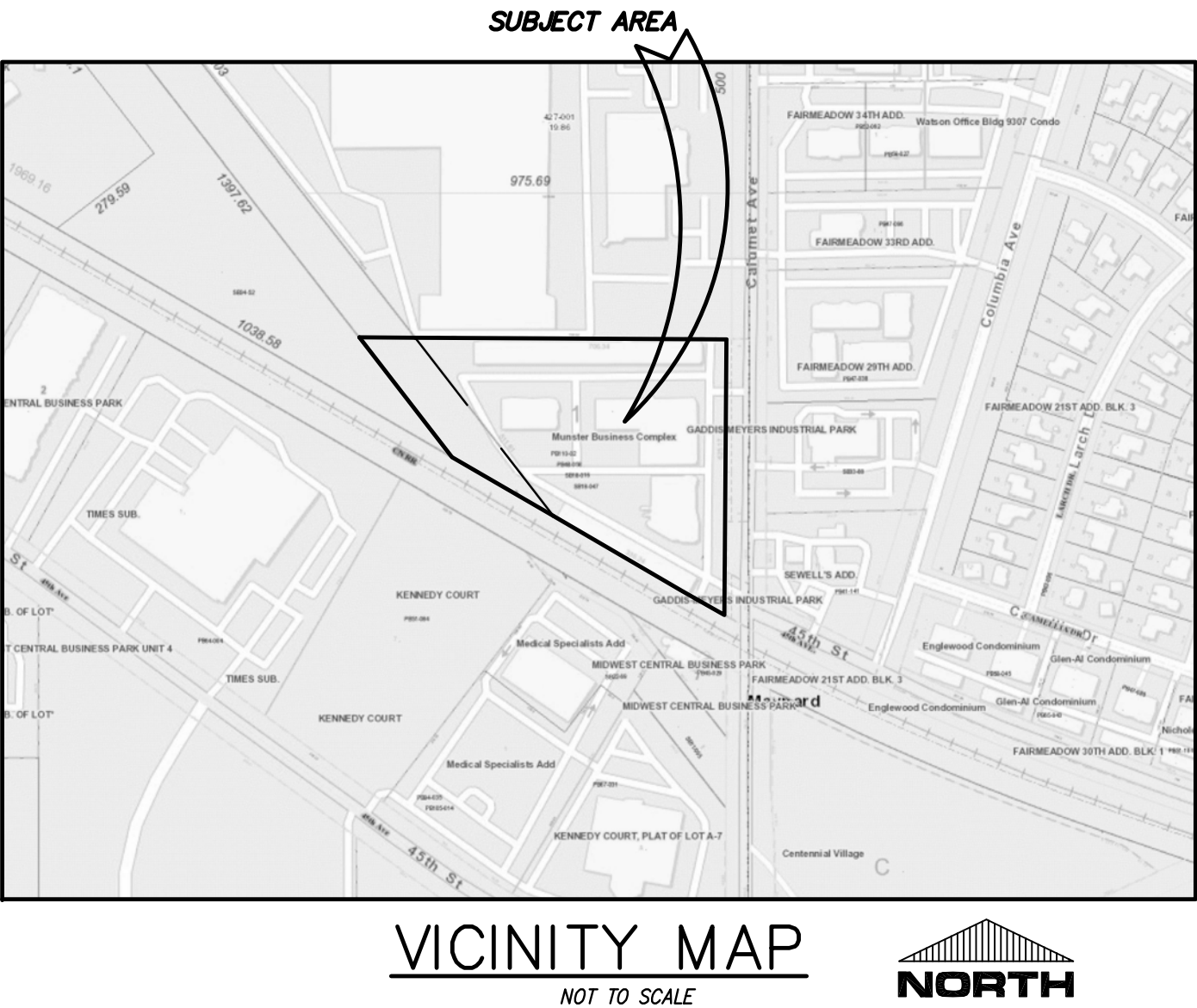
EXHIBIT A

# MAPLE LEAF CROSSING

A PLANNED UNIT DEVELOPMENT TO THE TOWN OF  
MUNSTER, LAKE COUNTY, INDIANA

INDEX	
PAGE	DESCRIPTION
COVER	TITLE PAGE
C-1.0	EXISTING TOPOGRAPHY & UTILITIES
C-1.1	DEMOLITION PLAN
C-2.0	SITE PLAN
C-2.1	SIGNAGE PLAN
C-3.0	SANITARY SEWERS & WATERMAIN PLAN
C-4.0	STORM SEWERS & GRADING PLAN
C-5.0 TO C-5.3	DETAILS & SPECIFICATIONS
C-6.0	STORM WATER POLLUTION PREVENTION PLAN
C-7.0 TO C-7.1	STORM WATER POLLUTION PREVENTION PLAN DETAILS & SPECIFICATIONS
1 OF 1	FINAL PLAT

Legal Descriptions:  
PARCEL 1  
Lot 1 in Munster Business Complex, a Planned Unit Development, in the Town of Munster, as per plat thereof, recorded in Plat Book 110, page 02 in the Office of the Recorder, Lake County, Indiana.  
  
PARCEL 2  
Part of the Southeast Quarter of Section 25, Township 36 North, Range 10 West of the Second Principal Meridian, lying West of Lot 1 in Munster Business Complex, a Planned Unit Development, in the Town of Munster, as per plat thereof, recorded in Plat Book 110, page 02 in the Office of the Recorder, Lake County, Indiana, and North of Canadian National Railroad right-of-way, being more particularly described as follows: Commencing at the Northeast corner of said Section 25; thence South 00° 26' 30" West, along the East line of said Section 25, a distance of 3,054.86 feet; thence North 89° 43' 30" West, along the North line of said Lot 1 extended East, a distance of 756.34 feet to the Northwest corner of said Lot 1 and also being point of beginning; thence South 37° 47' 07" East, along the West line of said Lot 1, a distance of 511.81 feet to the Southwest corner of said Lot 1; thence North 59° 52' 07" West, along the Northerly line of said Canadian National Railroad right-of-way (100 feet wide), a distance of 265.99 feet; thence North 37° 47' 07" West, a distance of 343.63 feet; thence South 89° 43' 30" East, a distance of 127.01 feet to the point of beginning, containing 0.982 acres, more or less, all in the Town of Munster, Lake County, Indiana.



- NOTES:
- TOTAL SITE AREA = 7.049± (ACRES) 307,066± (S.F)
  - THIS PROPERTY IS LOCATED IN FLOOD ZONE "X", AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN AS TAKEN FROM THE FLOOD INSURANCE RATE MAP (FIRM) FOR MUNSTER, LAKE COUNTY, INDIANA, MAP NUMBER 18089C0117E, EFFECTIVE DATE JANUARY 18, 2012.  
  
TBM #2 - MAG. NAIL SET LOCATED ALONG THE EAST SIDE OF CALUMET AVENUE AT CONCRETE SIDEWALK, 120 FEET SOUTH OF THE NORTH LINE OF LOT 1 IN MUNSTER BUSINESS COMPLEX, ELEVATION 616.73.
  - BENCHMARK(S):  
TBM #1 - FIRE HYDRANT LOCATED ALONG THE WEST SIDE OF CALUMET AVENUE, 85.65 FEET SOUTH OF THE NORTHWEST CORNER OF LOT 1 IN MUNSTER BUSINESS COMPLEX, SOUTH SOUTHEAST BOLT ELEVATION 618.87.  
  
TBM #2 - MAG. NAIL SET LOCATED ALONG THE EAST SIDE OF CALUMET AVENUE AT CONCRETE SIDEWALK, 120 FEET SOUTH OF THE NORTH LINE OF LOT 1 IN MUNSTER BUSINESS COMPLEX, ELEVATION 616.73.
  - DEVELOPER:  
First Metropolitan Builders  
400 Fisher Avenue  
Munster, IN 46321
  - EXISTING TOPOGRAPHY AND UTILITIES DATA ARE PROVIDED AND TAKEN FROM TORRENGA SURVEYING, LLC, JOB NO.: 2019-0676 DATED 03-25-2020
  - ALL VERTICAL DATUM IS BASED ON NAVD88.
  - HYDROLOGIC UNIT CODES: 07120003030030- HART DITCH (PLUM CREEK)-DYER DITCH
  - LOCATION:  
LATITUDE - 41°32'35" N  
LONGITUDE - 87°30'36" W
  - CURRENT ZONING: CD-4A WITH NO GROUND FLOOR RESIDENTIAL USES PERMIT



Know what's below.  
Call before you dig.

"IT'S THE LAW"  
CALL 2 WORKING DAYS BEFORE YOU DIG  
811 or 1-800-382-5544

CALL TOLL FREE  
PER INDIANA STATE LAW IC8-1-26.  
IT IS AGAINST THE LAW TO EXCAVATE  
WITHOUT NOTIFYING THE UNDERGROUND  
LOCATION SERVICE TWO (2) WORKING  
DAYS BEFORE COMMENCING WORK.

County: Lake

SE Qtr., Sec. 25, T. 36 N., R. 10 W.

Township: MUNSTER

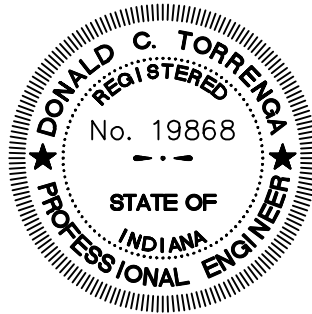
DATE AND REVISIONS:

NO.	DATE	DESCRIPTION	BY
3	06-26-2020	RE-SUBMITTAL TO MUNSTER	DT/RT
2	06-05-2020	RE-SUBMITTAL TO MUNSTER	DT/EMMH
1	05-11-2020	PRIMARY SUBMITTAL	DT/EMMH

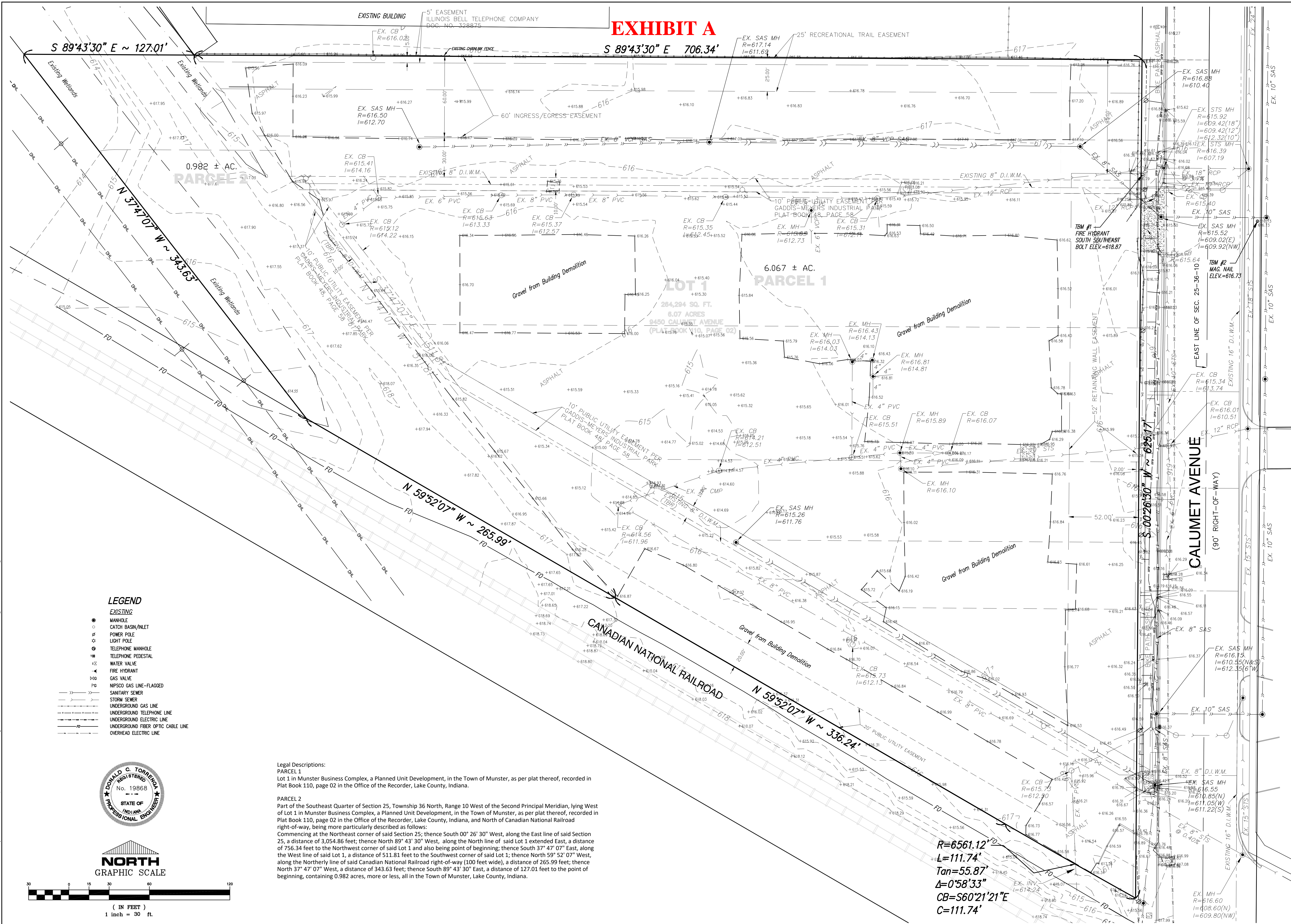
CLIENT/OWNER:  
Maple Leaf Crossing, LLC  
400 Fisher Avenue  
Munster, IN 46321


PREPARED BY:  
Torrenga Engineering, Inc.  
907 Ridge Road  
Munster, Indiana 46321  
(219)836-8918

CERTIFIED BY: DONALD C. TORRENGA  
P.E. # 19868

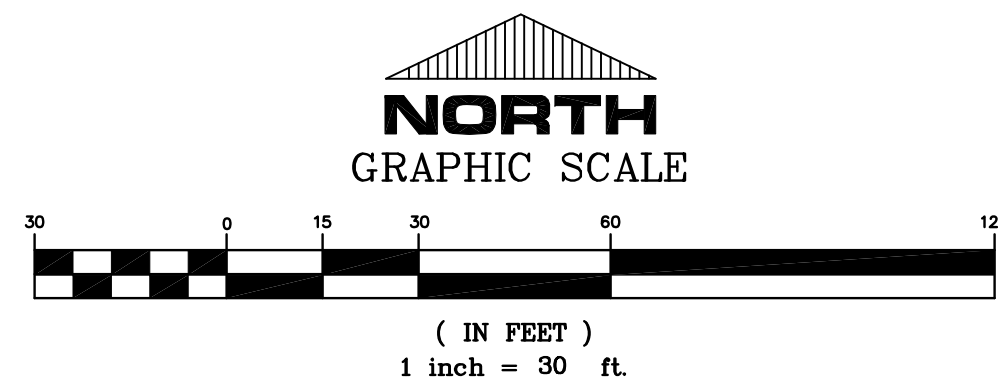
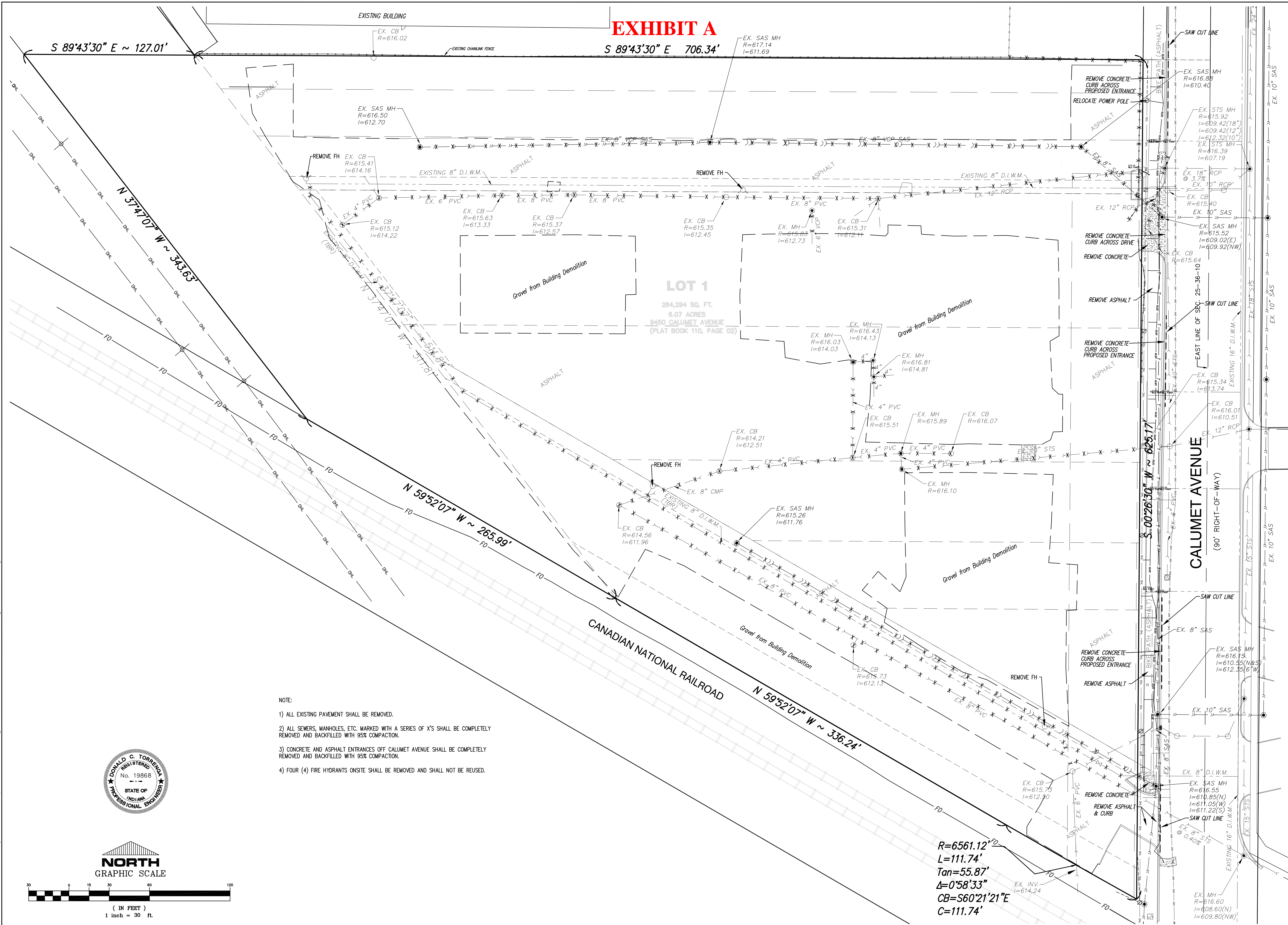






CLIENT: Maple Leaf Crossing, LLC 46321 Munster, Indiana 46321	JOB NO: 2019-5052	06-26-2020 06-05-2020	MAPLE LEAF CROSSING A PLANNED UNIT DEVELOPMENT TO THE TOWN OF MUNSTER, LAKE CO., INDIANA EXISTING TOPOGRAPHY & UTILITIES	TORRENGA ENGINEERING, INC. CONSULTING ENGINEERS & LAND SURVEYORS 907 RIDGE ROAD, MUNSTER, INDIANA 46321 Tel. No.: (219) 836-8918 website: <a href="http://www.torrengea.com">www.torrengea.com</a>	
	REVISIONS:	DATE: 05-11-2020			
	SCALE: 1" = 30'	SHEET C-1.0			





NOTE:

- 1) ALL EXISTING PAVEMENT SHALL BE REMOVED.
- 2) ALL SEWERS, MANHOLES, ETC. MARKED WITH A SERIES OF X'S SHALL BE COMPLETELY REMOVED AND BACKFILLED WITH 95% COMPACTION.
- 3) CONCRETE AND ASPHALT ENTRANCES OFF CALUMET AVENUE SHALL BE COMPLETELY REMOVED AND BACKFILLED WITH 95% COMPACTION.
- 4) FOUR (4) FIRE HYDRANTS ONSITE SHALL BE REMOVED AND SHALL NOT BE REUSED.

# EXHIBIT A

MAPLE LEAF CROSSING  
A PLANNED UNIT DEVELOPMENT TO THE  
TOWN OF MUNSTER, LAKE CO., INDIANA  
DEMOLITION PLAN

CLIENT:  
Maple Leaf Crossing, LLC  
400 Fisher Avenue  
Munster, Indiana 46321

SHEET  
C-1.1

06-26-2020	REVISIONS:
06-05-2020	
DATE: 05-11-2020	

**TORRENGA ENGINEERING, INC.**  
CONSULTING ENGINEERS & LAND SURVEYORS  
907 RIDGE ROAD, MUNSTER, INDIANA 46321  
Tel. No.: (219) 836-8918  
website: [www.torrenga.com](http://www.torrenga.com)

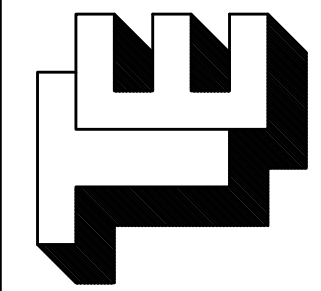
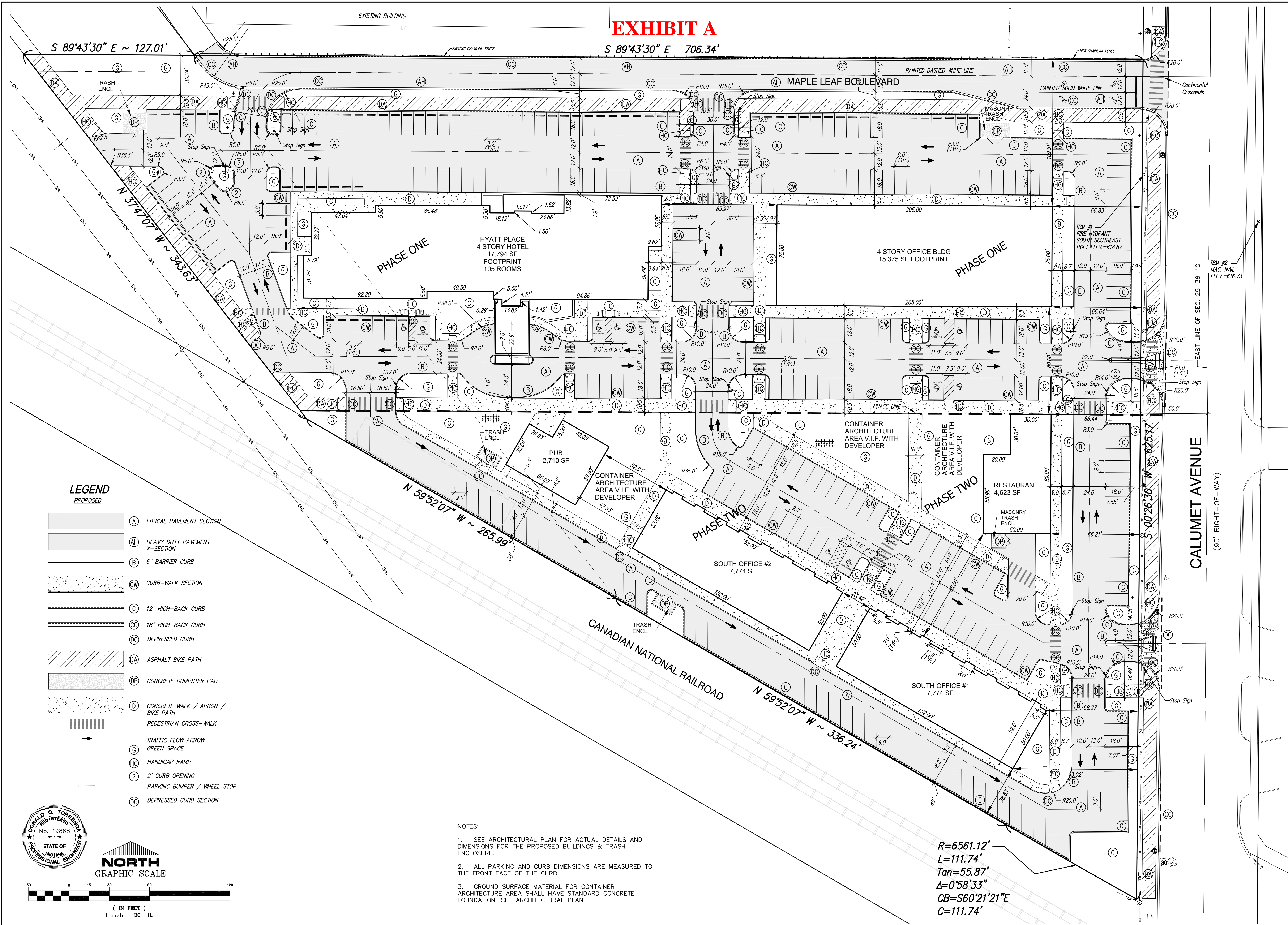




EXHIBIT A

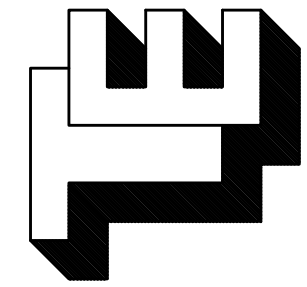


MAPLE LEAF CROSSING  
A PLANNED UNIT DEVELOPMENT TO THE  
TOWN OF MUNSTER, LAKE CO., INDIANA  
SITE PLAN

TORRENGA ENGINEERING, INC.  
CONSULTING ENGINEERS & LAND SURVEYORS  
907 RIDGE ROAD, MUNSTER, INDIANA 46321  
Tel. No.: (219) 836-8918  
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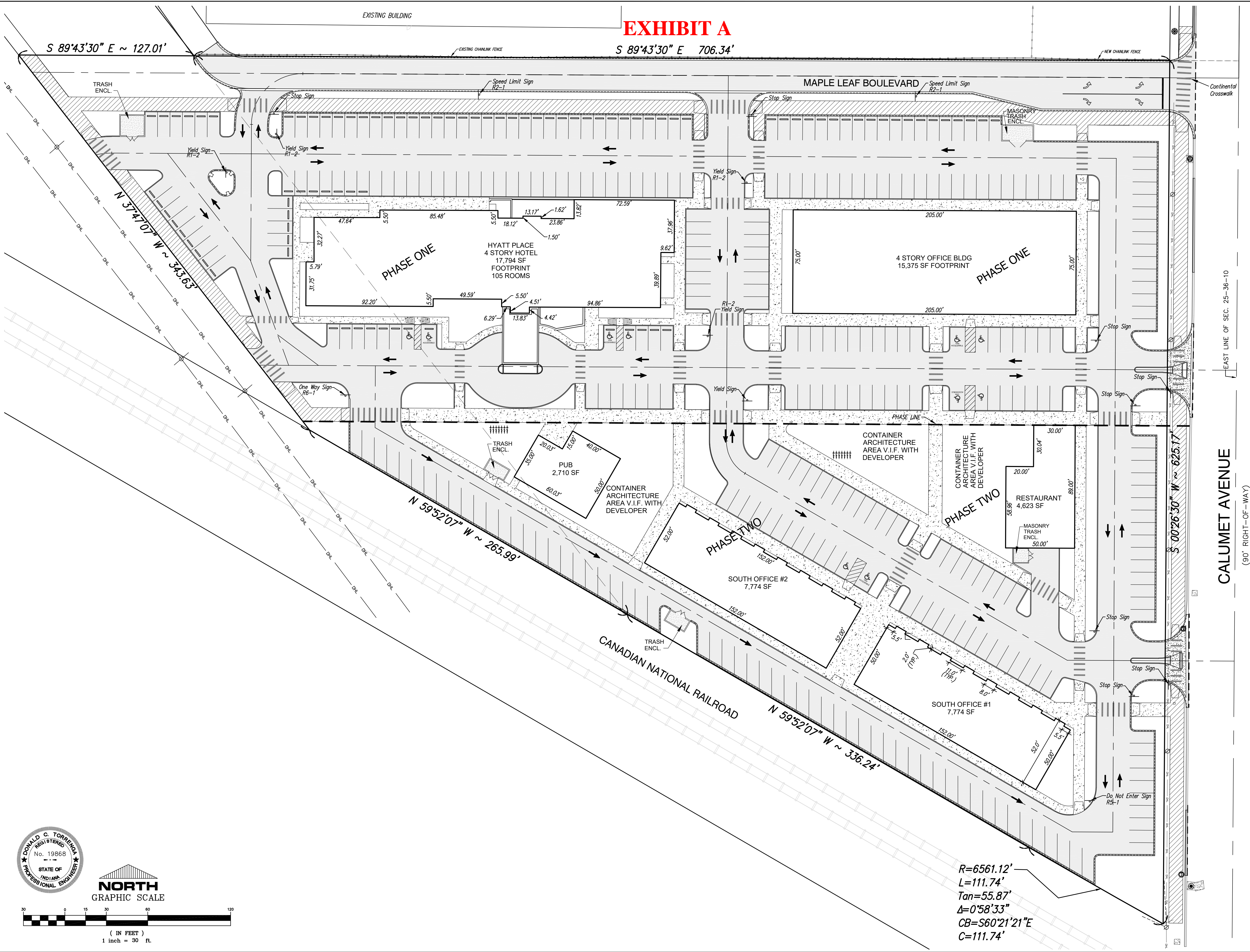
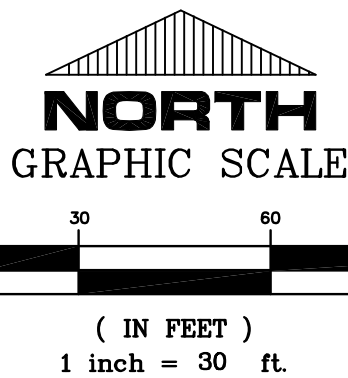
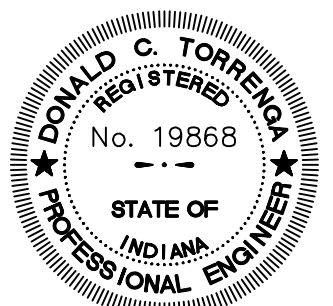
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Maple Leaf Crossing, LLC  
400 Fisher Avenue  
Munster, Indiana 46321  
JOB NO: 2019-5052  
REVISIONS:  
DATE: 05-11-2020  
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$R=6561.12'$   
 $L=111.74'$   
 $Tan=55.87'$   
 $\Delta=0^{\circ}58'33''$   
 $CB=S60^{\circ}21'21''E$   
 $C=111.74'$

CLIENT:  
Maple Leaf Crossing, LLC  
400 Fisher Avenue  
Munster, Indiana 46321

JOB NO: 2019-5052

SCALE: 1" = 30'

SHEET  
C-2.1

06-26-2020  
06-05-2020  
REVISIONS:

DATE: 05-11-2020

MAPLE LEAF CROSSING  
A PLANNED UNIT DEVELOPMENT TO THE  
TOWN OF MUNSTER, LAKE CO., INDIANA  
SIGNAGE PLAN

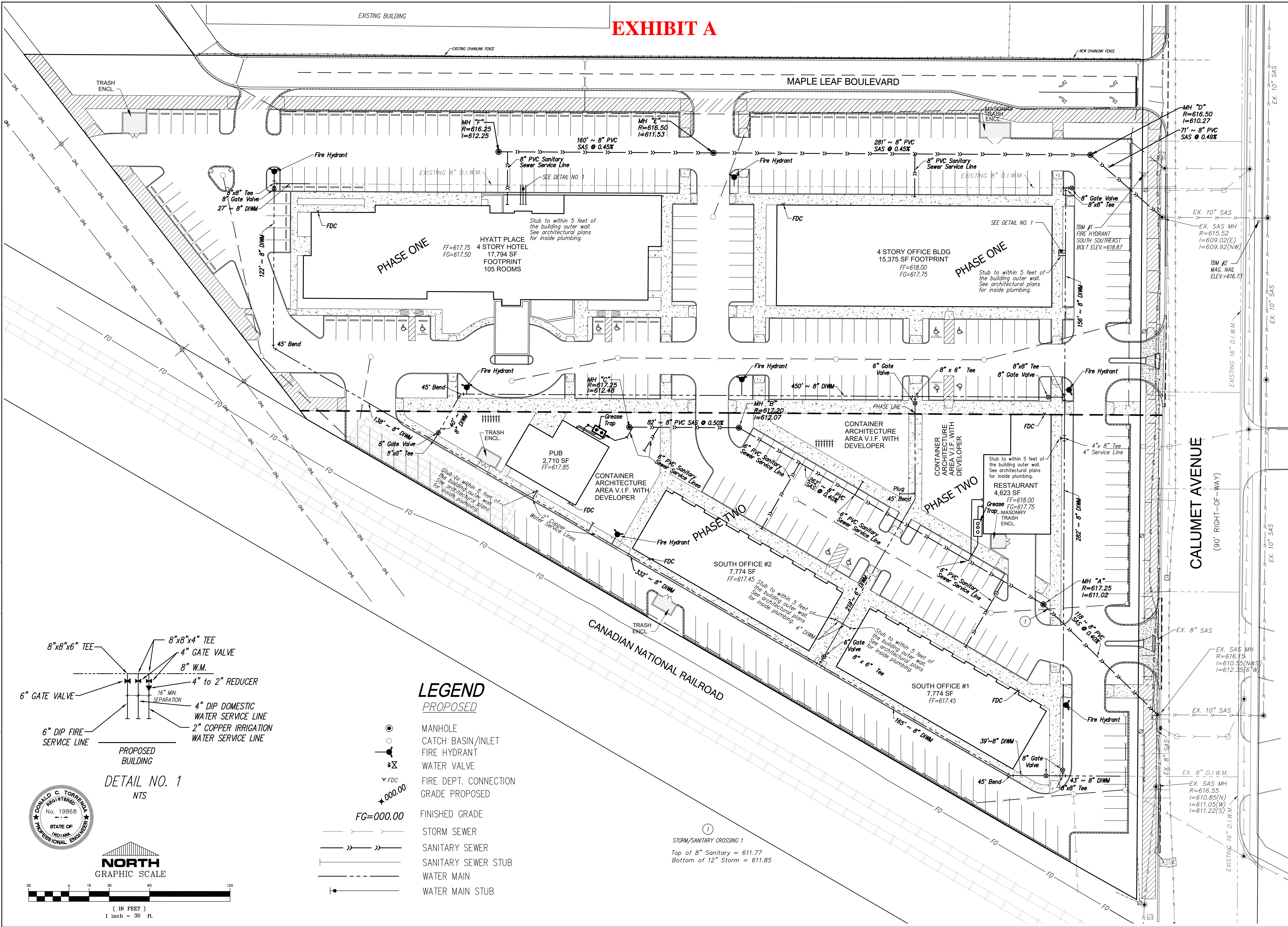
TORRENGA ENGINEERING, INC.  
CONSULTING ENGINEERS & LAND SURVEYORS  
907 RIDGE ROAD, MUNSTER, INDIANA 46321  
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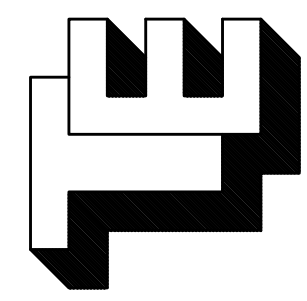
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EXHIBIT A





**TORRENGA ENGINEERING, INC.**  
CONSULTING ENGINEERS & LAND SURVEYORS  
907 RIDGE ROAD, MUNSTER, INDIANA 46321  
Tel. No.: (219) 836-8918  
website: [www.torrenga.com](http://www.torrenga.com)

**MAPLE LEAF CROSSING**  
A PLANNED UNIT DEVELOPMENT TO THE  
TOWN OF MUNSTER, LAKE CO., INDIANA  
SANITARY SEWERS & WATERMAIN PLAN

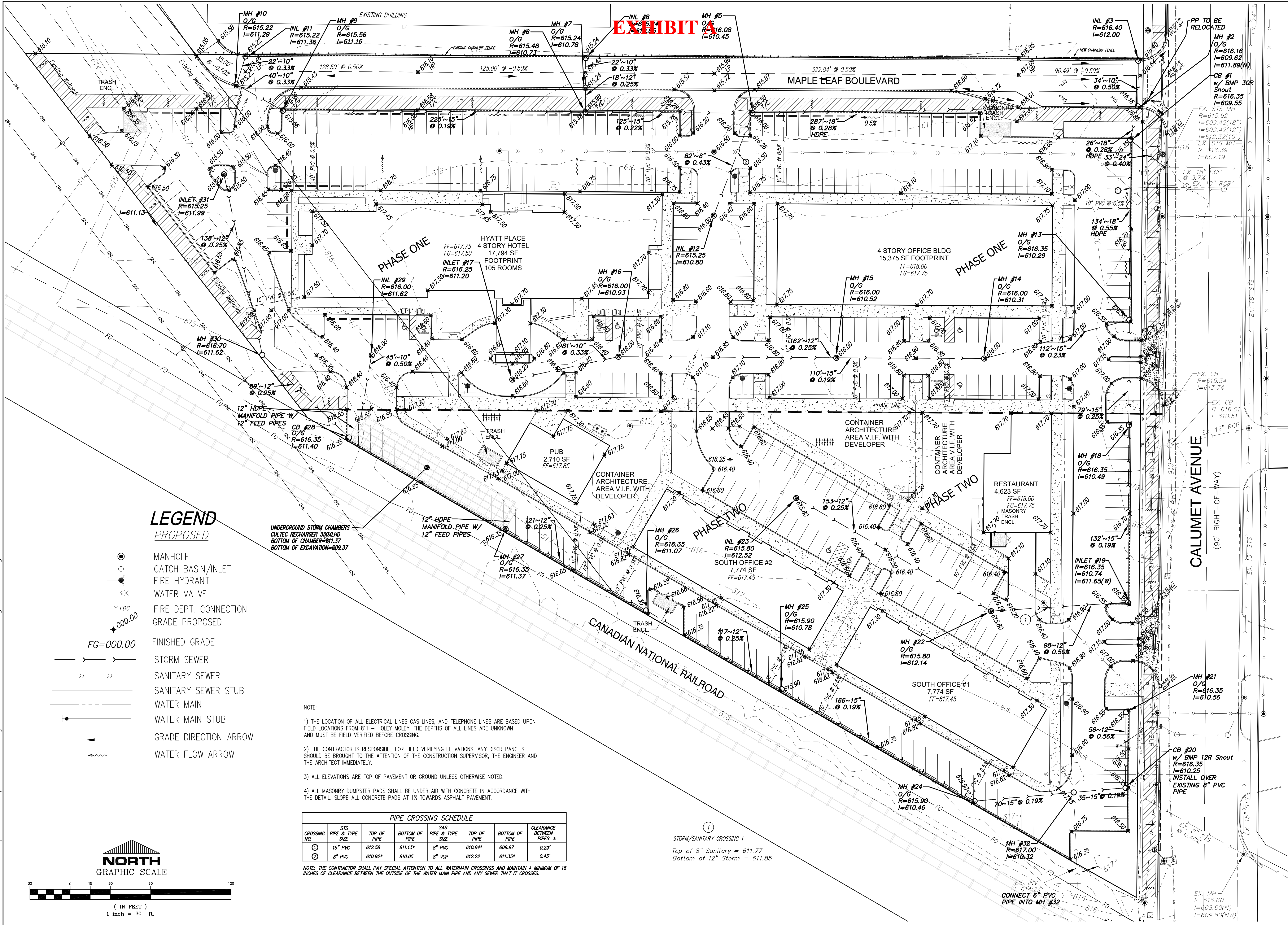
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Maple Leaf Crossing, LLC  
400 Fisher Avenue  
Munster, Indiana 46321

JOB NO: 2019-5052  
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DATE: 05-11-2020

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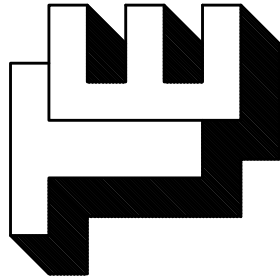
NOTE:

- 1) THE LOCATION OF ALL ELECTRICAL LINES GAS LINES, AND TELEPHONE LINES ARE BASED UPON FIELD LOCATIONS FROM 811 - HOLEY MOLEY. THE DEPTHS OF ALL LINES ARE UNKNOWN AND MUST BE FIELD VERIFIED BEFORE CROSSING.
- 2) THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ELEVATIONS. ANY DISCREPANCIES SHOULD BE BROUGHT TO THE ATTENTION OF THE CONSTRUCTION SUPERVISOR, THE ENGINEER AND THE ARCHITECT IMMEDIATELY.
- 3) ALL ELEVATIONS ARE TOP OF PAVEMENT OR GROUND UNLESS OTHERWISE NOTED.
- 4) ALL MASONRY DUMPSTER PADS SHALL BE UNDERLAID WITH CONCRETE IN ACCORDANCE WITH THE DETAIL. SLOPE ALL CONCRETE PADS AT 1% TOWARDS ASPHALT PAVEMENT.

PIPE CROSSING SCHEDULE							
CROSSING NO.	PIPE & TYPE SIZE	TOP OF PIPE	BOTTOM OF PIPE	SAS PIPE & TYPE SIZE	TOP OF PIPE	BOTTOM OF PIPE	CLEARANCE BETWEEN PIPES *
1	15" PVC	612.58	611.13*	8" PVC	610.84*	609.97	0.29'
2	8" PVC	610.92*	610.05	8" VCP	612.22	611.35*	0.43'

NOTE: THE CONTRACTOR SHALL PAY SPECIAL ATTENTION TO ALL WATERMAIN CROSSINGS AND MAINTAIN A MINIMUM OF 18 INCHES OF CLEARANCE BETWEEN THE OUTSIDE OF THE WATER MAIN PIPE AND ANY SEWER THAT IT CROSSES.

1  
STORM/SANITARY CROSSING 1  
Top of 8" Sanitary = 611.77  
Bottom of 12" Storm = 611.85



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CONSULTING ENGINEERS & LAND SURVEYORS  
907 RIDGE ROAD, MUNSTER, INDIANA 46321  
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website: [www.torrenga.com](http://www.torrenga.com)

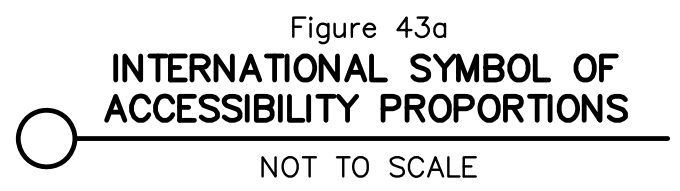
MAPLE LEAF CROSSING  
A PLANNED UNIT DEVELOPMENT TO THE  
TOWN OF MUNSTER, LAKE CO., INDIANA  
STORM SEWERS & GRADING PLAN

CLIENT:  
Maple Leaf Crossing, LLC  
400 Fisher Avenue  
Munster, Indiana 46321

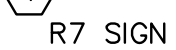
JOB NO: 2019-5052  
DATE: 05-11-2020  
REVISIONS:  
06-26-2020  
06-05-2020

SHEET  
C-4.0



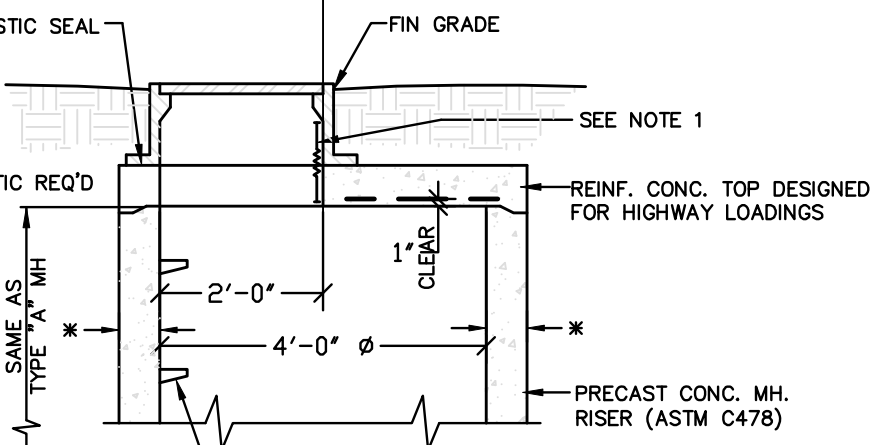


ALL PARKING STOPS SHALL BE PINNED TO THE ASPHALT WITH #4 REBAR ANCHORED 18" INTO THE GROUND. PARKING STOPS PLACED OVER THE PAVERS SHALL BE UNPINNED.

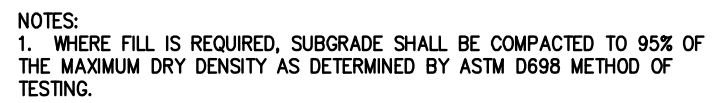


### KEYED NOTES

- 1 STANDARD USDOT R7 SIGN (BOTH SIDES—WHERE APPLICABLE).
- 2 SUPPLEMENTAL SIGNS, \$—FINE AS APPLICABLE.
- 3 STANDARD USDOT R1-1 STOP SIGN
- 4 2"x2" STEEL TUBE EXTENDED INTO GROUND, 3'-0"
- 5 FINISH GRADE.



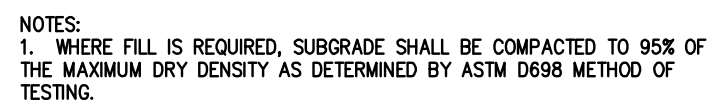
**TYPE "C" (FLAT TOP) MANHOLE**  
NOT TO SCALE  
USED WHERE RESTRICTED HEAD ROOM  
WILL NOT ALLOW FOR TAPERED WALLS



**TYPICAL PAVEMENT  
SECTION**

---

NOT TO SCALE



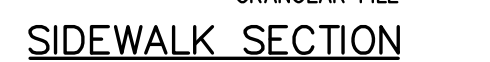
HEAVY DUTY  
PAVEMENT X-SECTION  
NOT TO SCALE



STORM TYPE MANHOLE  
NOT TO SCALE



## SIDEWALK PLAN



## GENERAL SPECIFICATIONS FOR STORM SEWERS

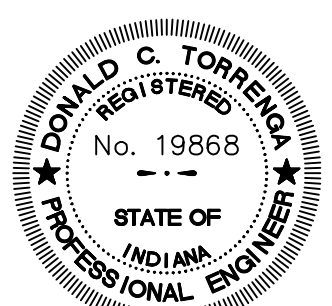
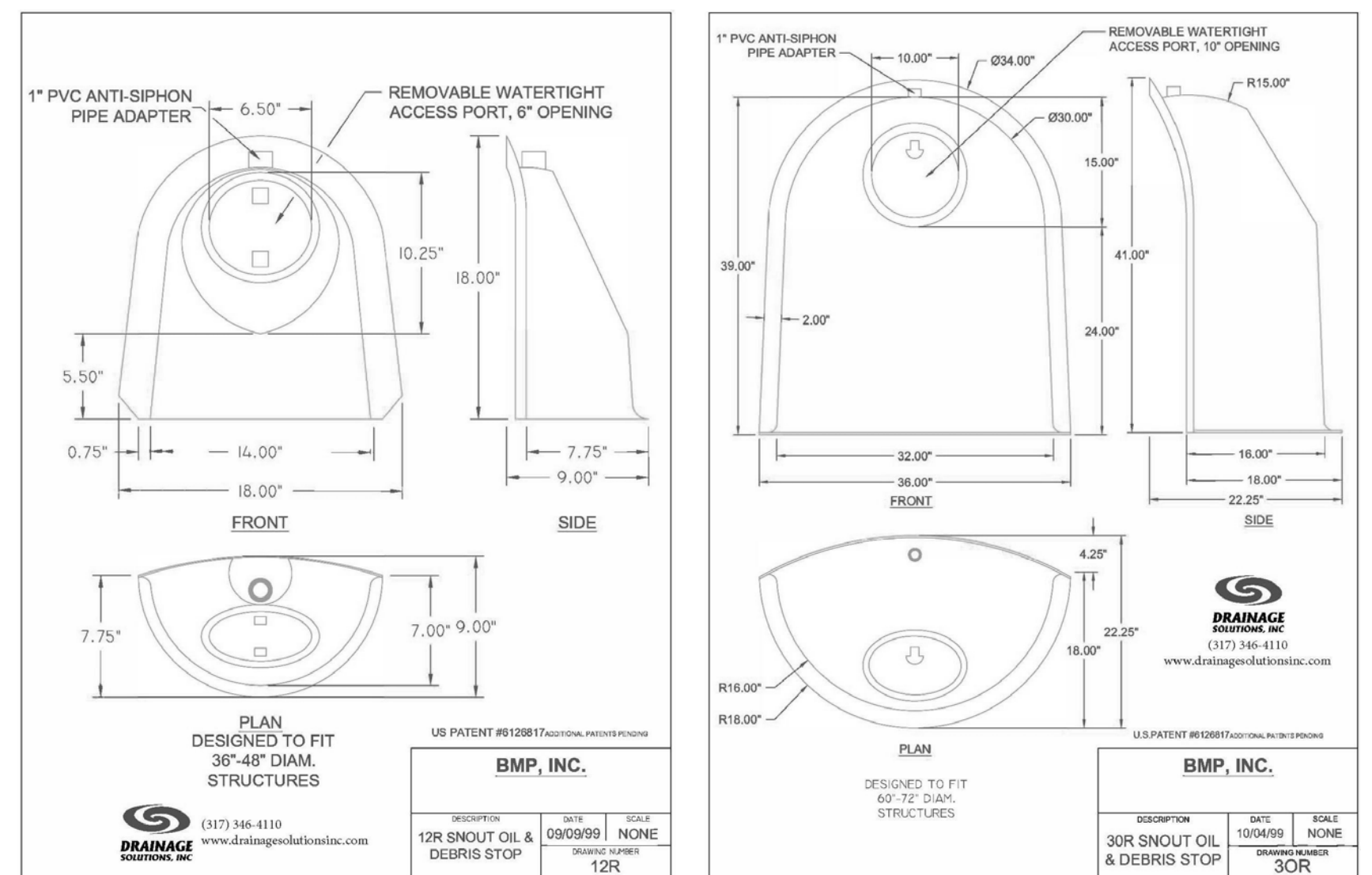
1. All work shall be performed in accordance with the Codes, Ordinances and Standards of the Town of Munster, Lake County, Indiana.
2. All storm sewer pipe, branches and fittings shall conform to either of the following: (A) Poly-vinyl chloride SDR 35 or SDR 26 (ASTM D-3034) with push on rubber gasket joints (ASTM C-3212) for pipe 15" in diameter and over; or (B) High Density Polyethylene corrugated pipe with an integrally formed smooth interior (ASTM D-1248) for pipe 18" or over; or (C) Reinforced concrete pipe (ASTM C-76) with bell and spigot or tongue and groove push-on manhole joints. Class V reinforced concrete pipe shall be used for lines 15" diameter and under and Class III shall be used for lines 18" and over.
3. Gasketed joints shall be used on all storm sewers.
4. Storm sewers 18" to 27" with less than 3' cover shall be Class IV pipe.
5. All storm sewer manholes shall be standard precast concrete units (ASTM C-478) conforming with the standard details sheet of these plans.
6. All improvements installed across paved or future paved areas shall be backfilled with sand or graded stone aggregate to the subgrade line.
7. All sewers shall be laid at least 10 feet (3.0m) horizontally from any existing or proposed water main. The distance shall be measured edge to edge. All sewers crossing water mains shall be laid to provide a minimum vertical clearance of 18 inches (46 cm) between the outside of the water main and the outside of the sewer. This shall be the case where the water main is either above or below the sewer. The crossing shall be arranged so that the sewer joints will be equidistant and as far as possible from the water main joints. Where a water main crosses under a sewer, adequate structural support shall be provided for the sewer to prevent damage to the water main. When it is impossible to obtain proper horizontal and vertical separation as stipulated above, the sewer shall be designed and constructed equal to water pipe.
8. The Contractor is responsible for the preparation of "As Built" construction drawings showing actual sizes and lengths of pipe installed (i.e. from manhole to manhole or tee to valve, etc.), location of service taps and any structures added or omitted in comparison with these engineering plans. The Contractor shall supply the Developer (through the Project Engineer) with one set of reproducible original "As-Built" and shall supply the Town of Munster with 2 copies thereof prior to and as a condition of final acceptance.
9. No storm sewer manhole, catch basin and inlet shall be within eight (8) feet of a water main as measured from the outside edge of the storm sewer manhole, catch basin and inlet to the outside edge of the water main.

**CURB NOTE:**

1. Concrete Curb and Gutter shall be constructed in accordance with the state specifications except as herein modified.
- a) Expansion joints shall be placed in 3/4" in thickness, using premolded joint filler material and two 3/4" diameter smooth round dowel bars 30" long fully greased, placed in pairs at the ends of all radii, at roadway intersections, at the junction of new and existing curb, at all cold joints, at a minimum 400' interval between said radii locations.
- b) Sawdowed shall be placed so that half their length is in either side of the joint. On the same end of each bar, there shall be placed a plastic, premolded expansion tip, which will allow lateral and expansion movement. The dowel bars shall be placed such that they shall be encased in concrete, a minimum of 3" in any direction.

**INFRASTRUCTURE NOTE:**

1. All infrastructure being constructed shall be in accordance with the Town of Munster Proposed Infrastructure Specifications. Any difference Munster's Specification and these engineering drawings shall be brought to the attention of the Engineer immediately for review.



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# MAPLE LEAF CROSSING UNNED UNIT DEVELOPMENT TO THE OF MUNSTER, LAKE CO., INDIANA DETAILS & SPECIFICATIONS

06-26-2020	REVISIONS:
06-05-2020	
DATE: 05-11-2020	

First Metropolitan Builders  
400 Fisher Avenue  
Munster, Indiana 46321

JOB NO: 2019-5052

SCALE: NTS

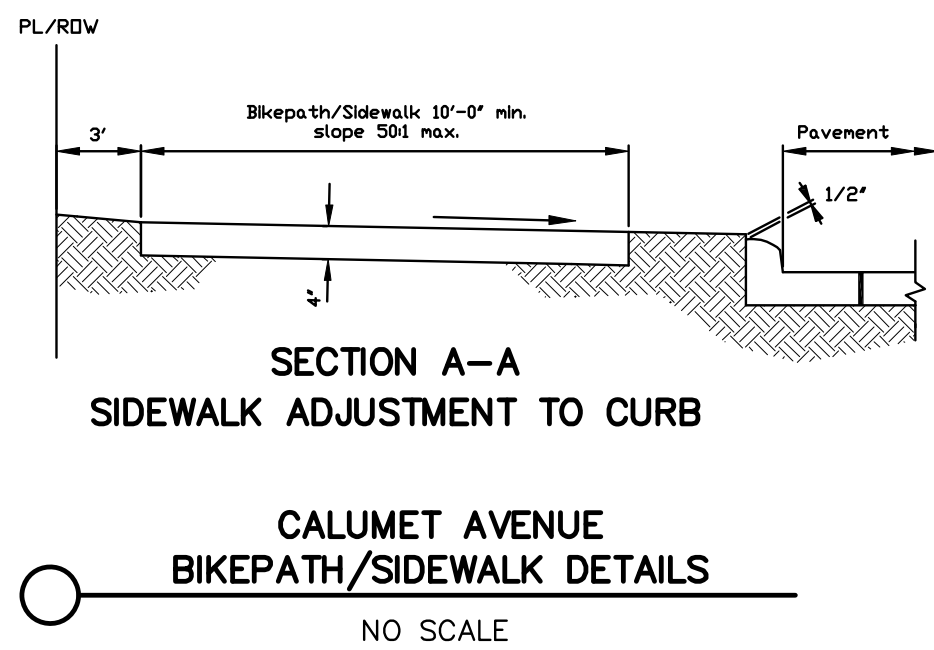
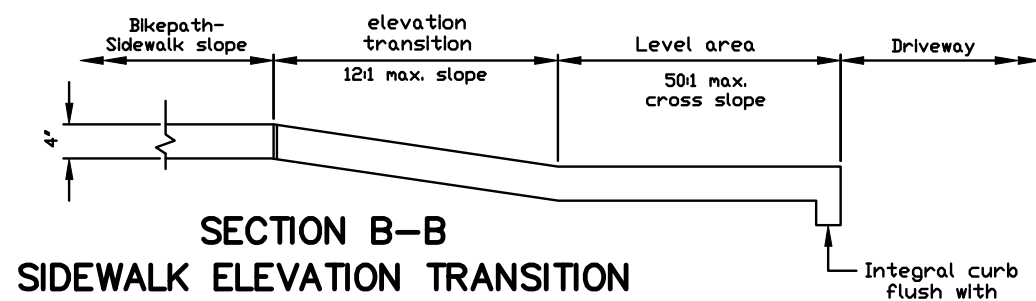
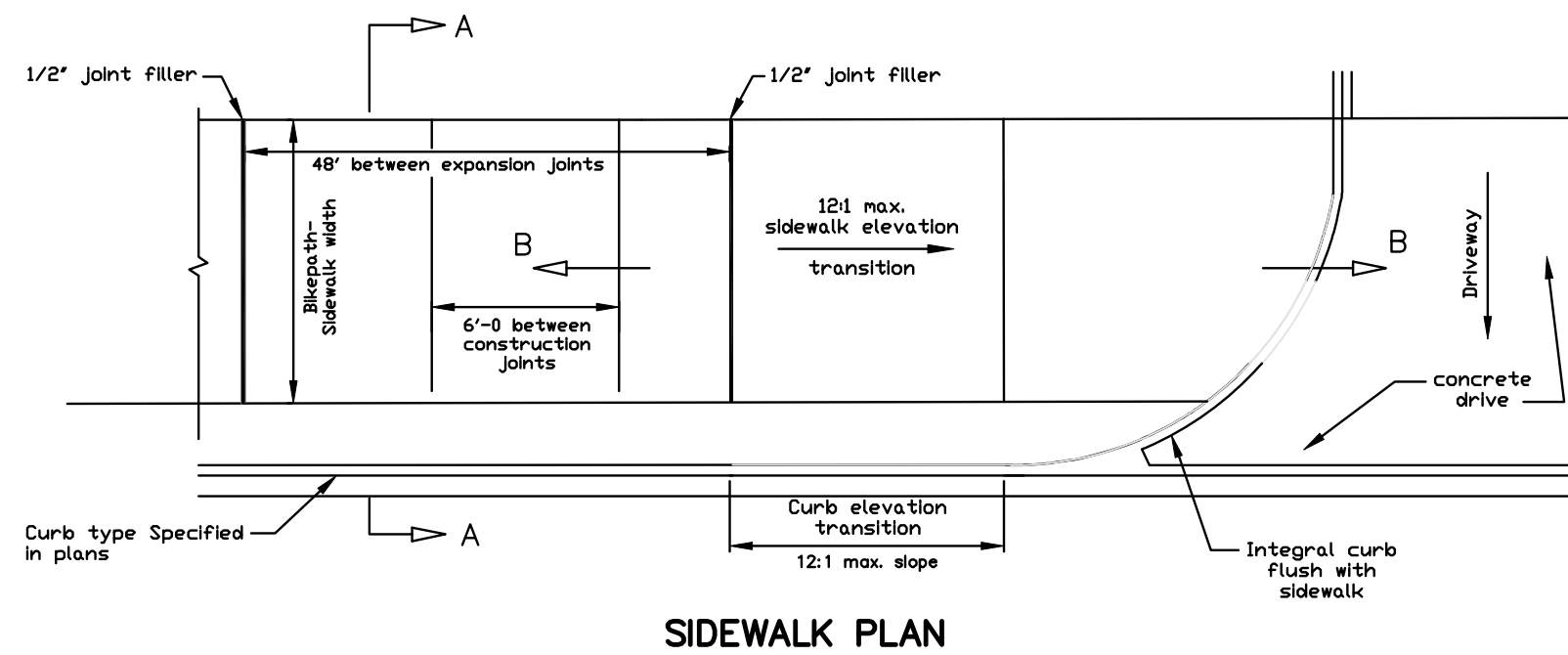
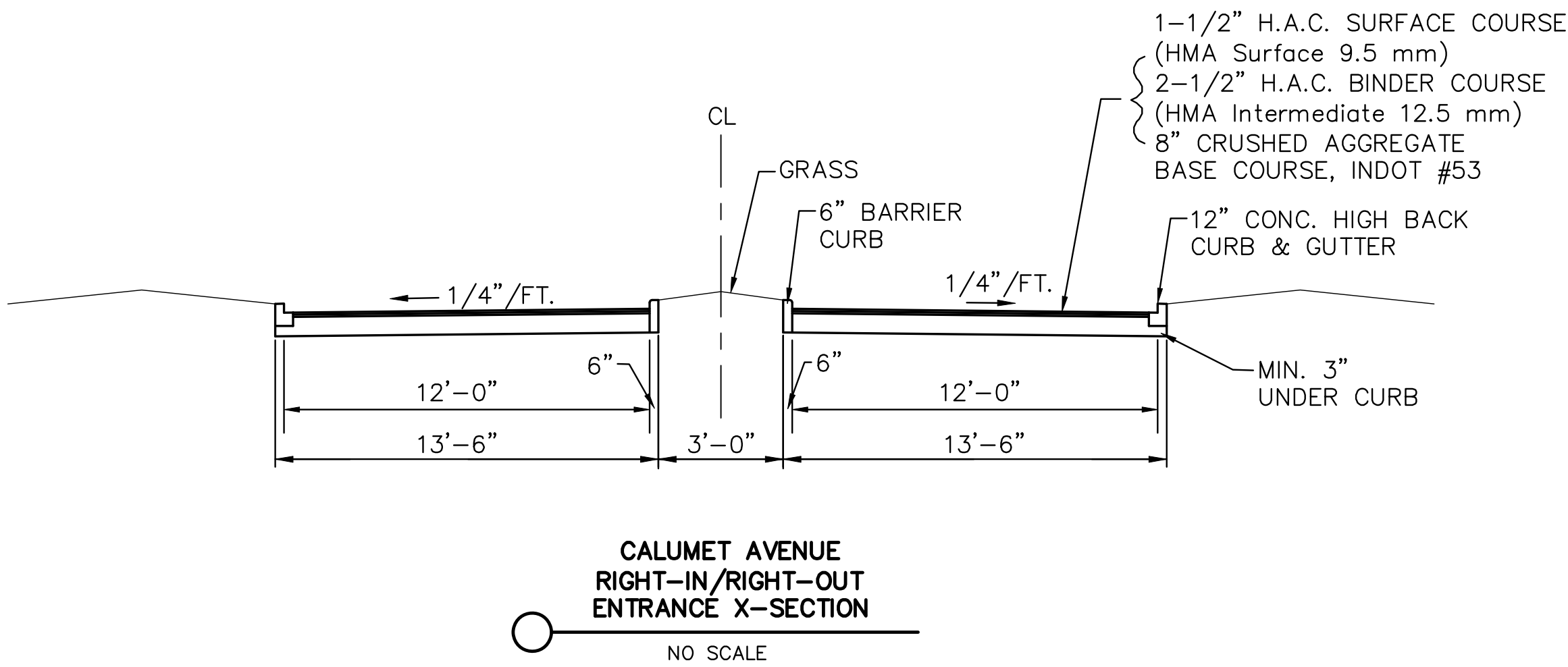
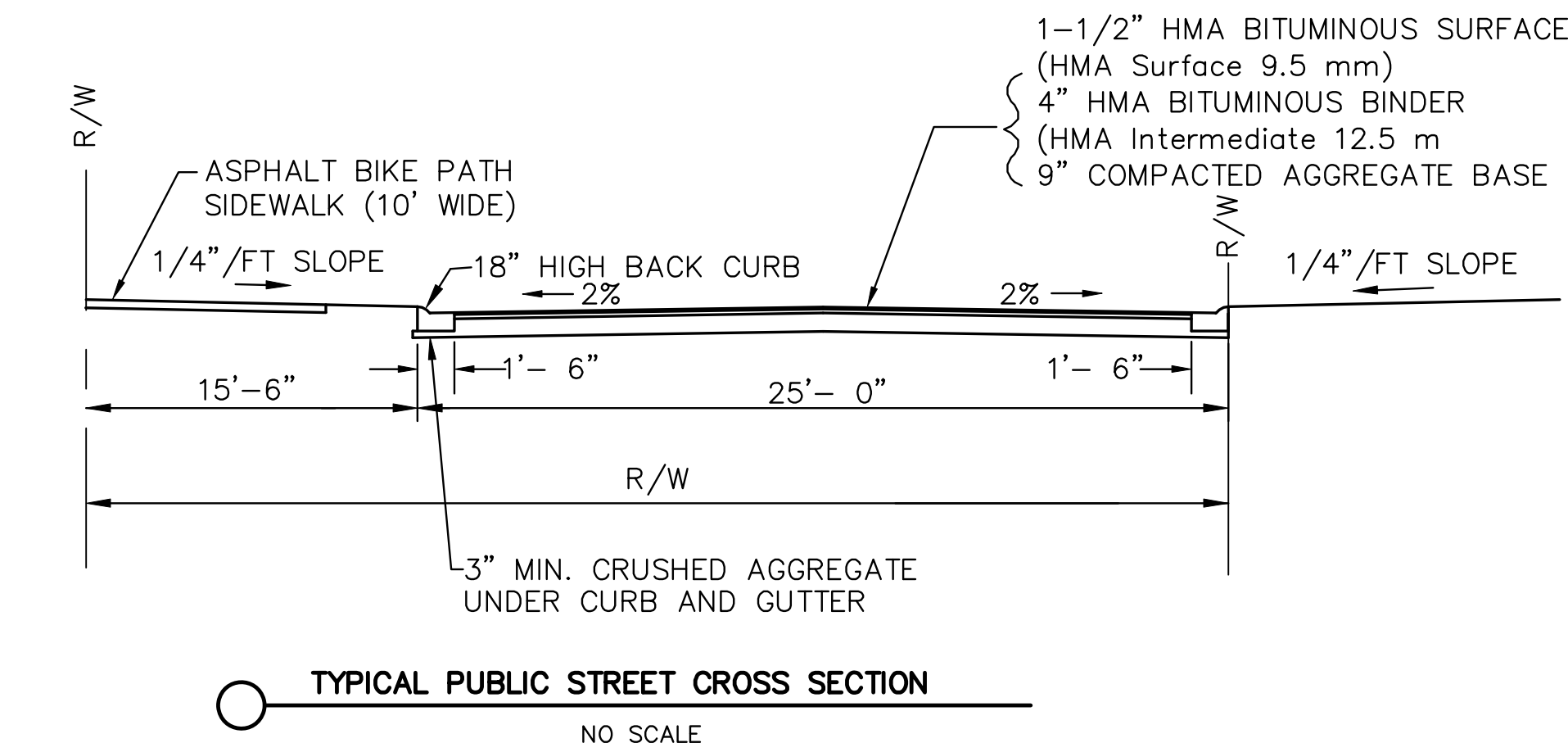
SHEET  
C-5.0





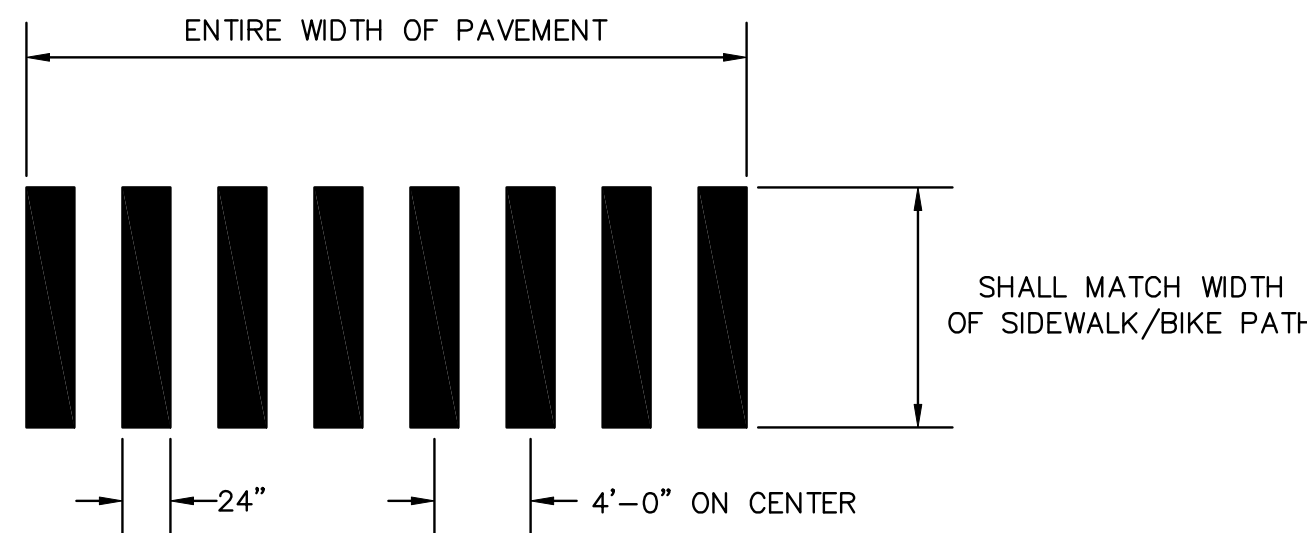
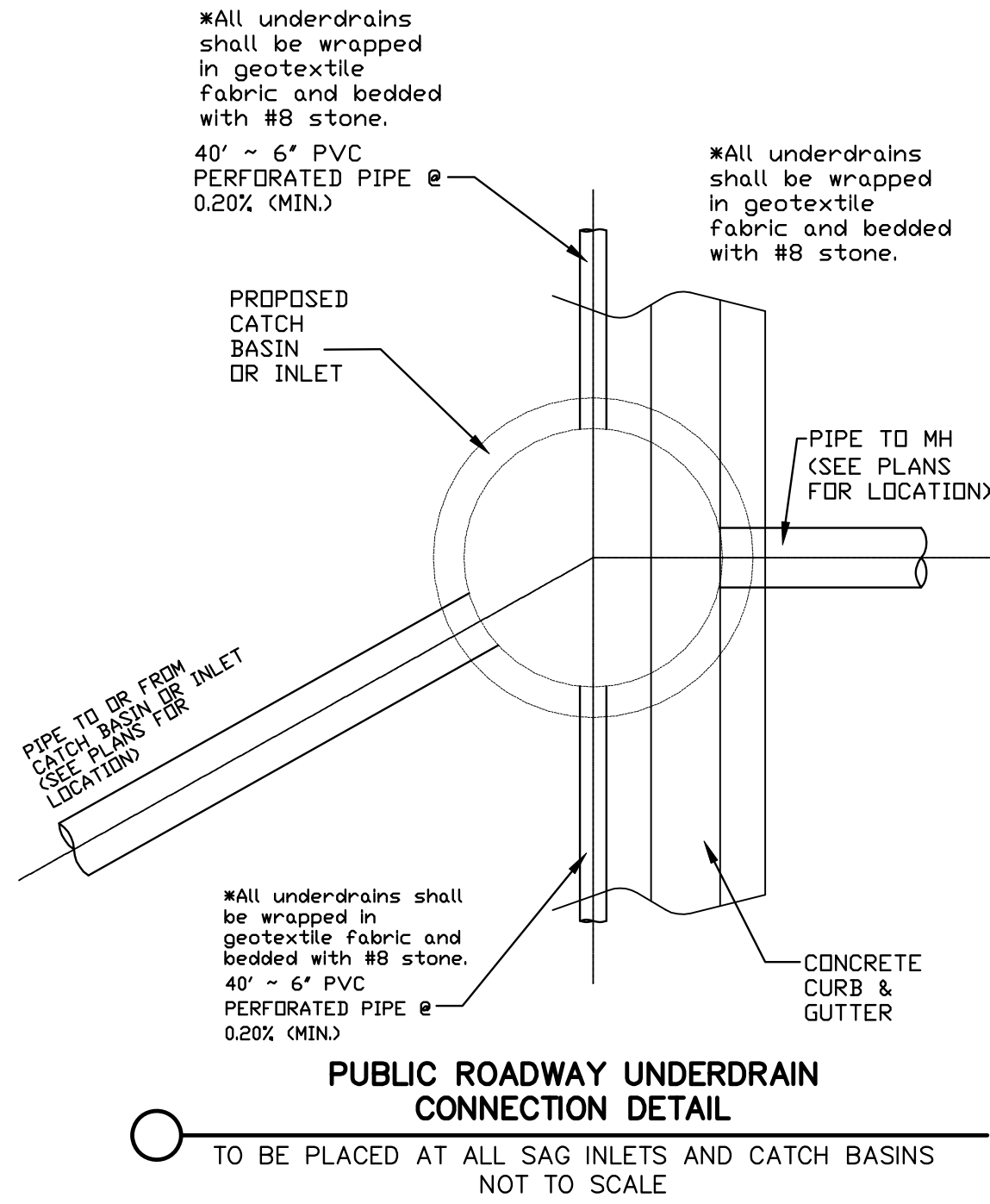


FILE NO: Z:\2019-5052 Jay Lieser - Maple Leaf Crossings Calumet Avenue - Munster\dwg\2019-5052 Details.dwg 6/5/2020 11:47:37 AM CDT

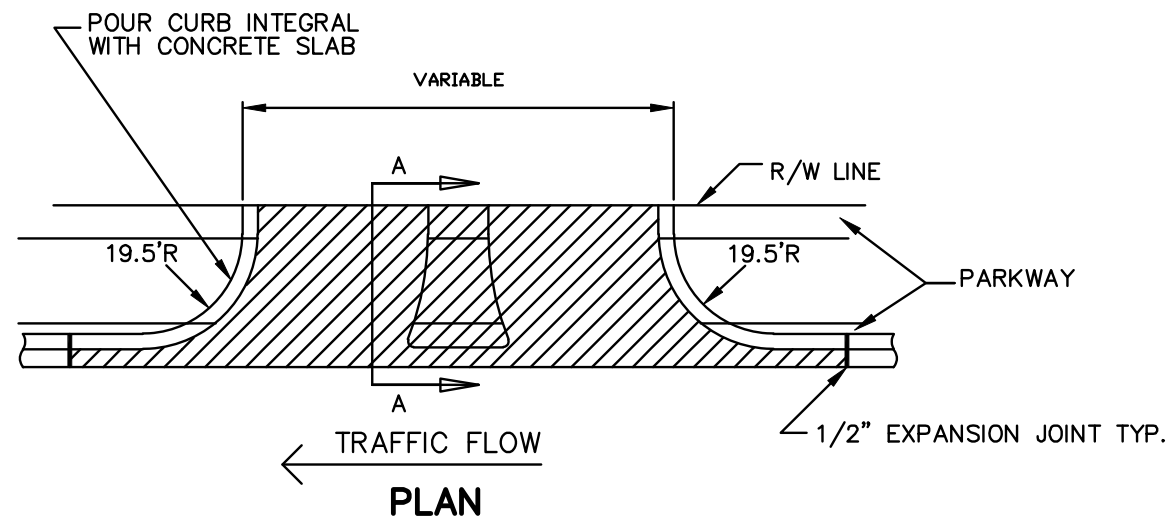
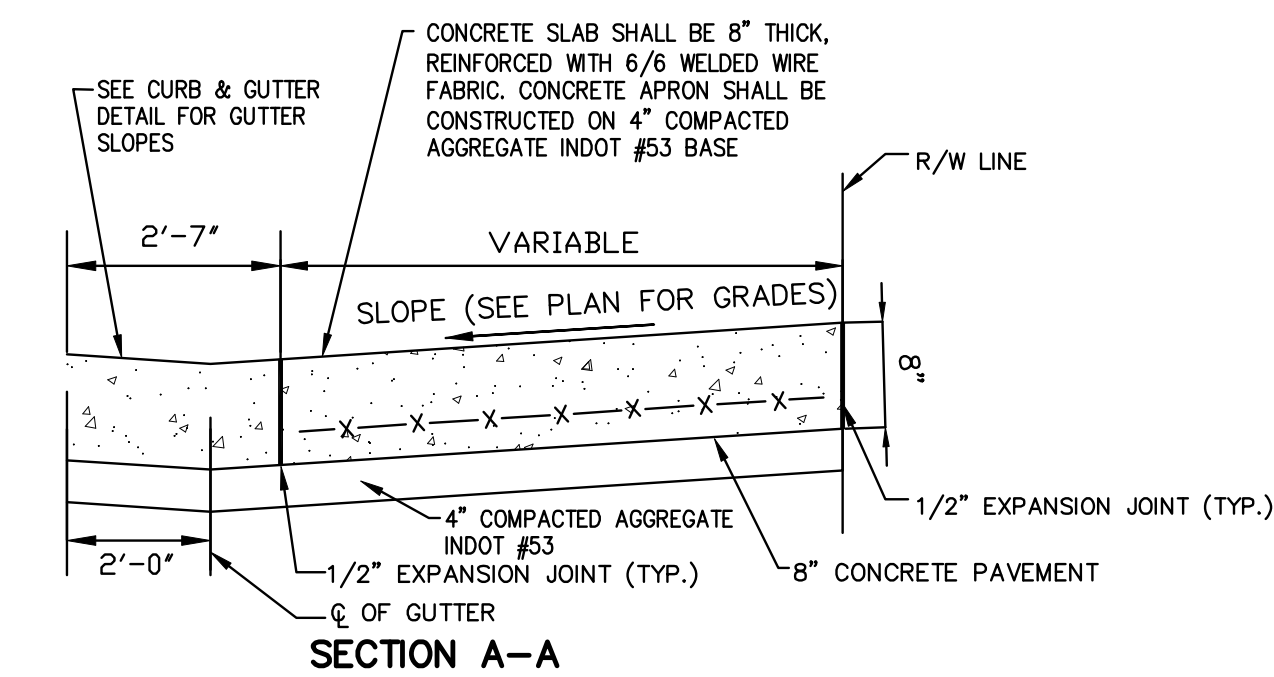


CALUMET AVENUE  
BIKEPATH/SIDEWALK DETAILS  
NO SCALE

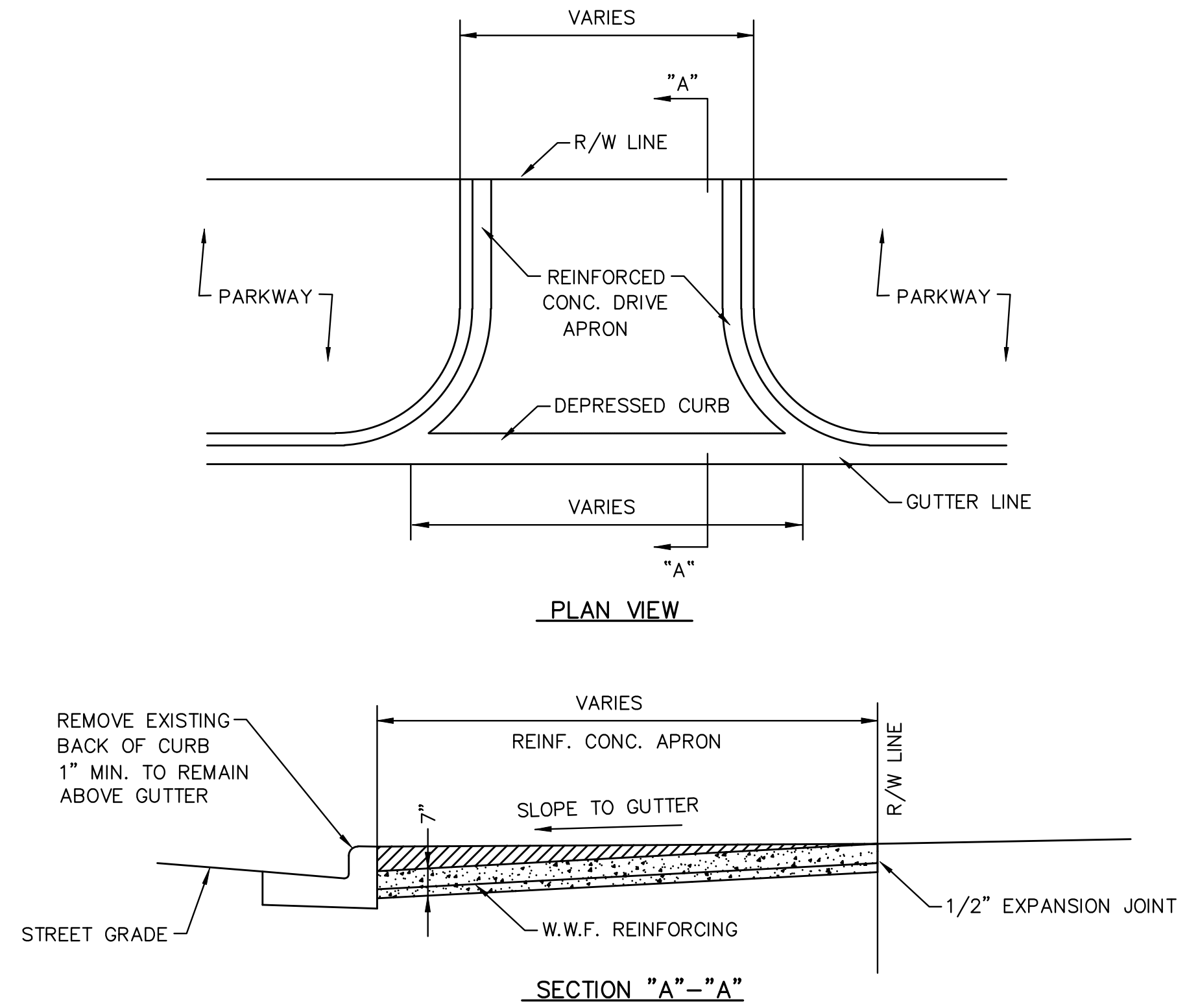
## EXHIBIT A



- NOTE:
1. ALL REGULATORY SIGNS SHALL BE HIGH INTENSITY AND IN ACCORDANCE WITH THE INDIANA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, MOST RECENT EDITION.
  2. ALL PAVEMENT MARKINGS SHALL BE WHITE THERMOPLASTIC AND SPAN ACROSS APPROACH LANES.

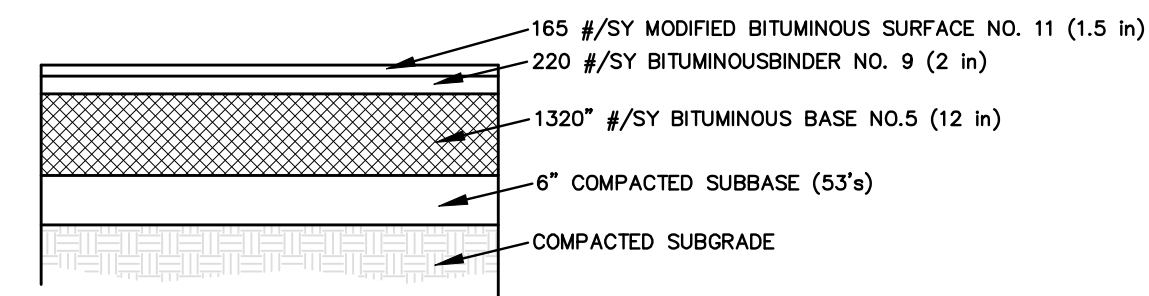
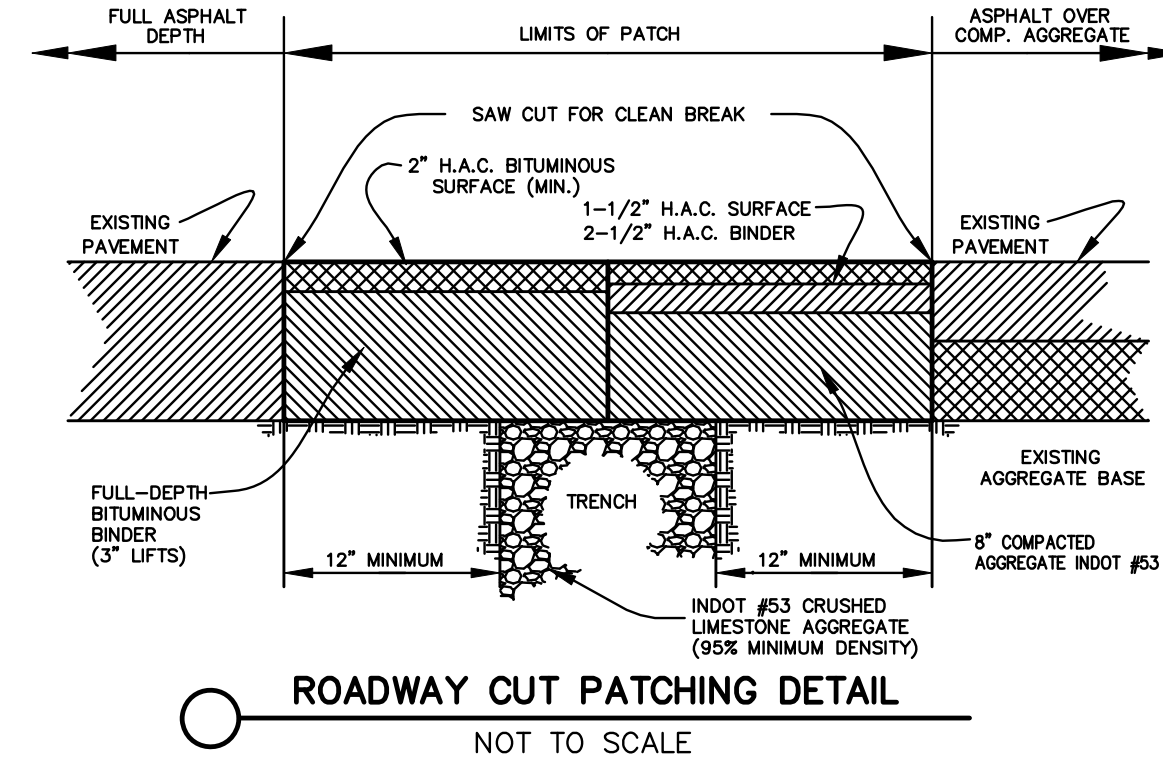


CALUMET AVENUE  
CONCRETE DRIVE DETAIL  
NO SCALE



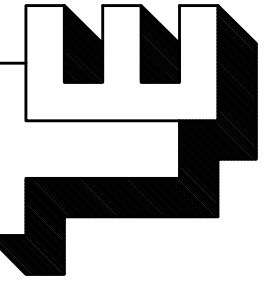
NOTE:  
All concrete work for the drive aprons shall be in accordance with the codes and ordinances of the Town of Munster.

All driveway aprons extending beyond the sidewalk and into the street (parkway) shall consist of reinforced concrete at least seven inches in thickness and placed as shown on these plans and/or site plan accompanying the permit application.



- NOTES:
1. PAVEMENT & AGGREGATE THICKNESS ARE TAKEN FROM THE TYPICAL CROSS SECTION DETAIL ON THE ORIGINAL PLANS FOR CALUMET AVENUE STATE HIGHWAY MAM-M-PROJECT NO. 152 (2), DATED 12/23/86
  2. WHERE FILL IS REQUIRED, SUBGRADE SHALL BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D698 METHOD OF TESTING.

TYPICAL PAVEMENT SECTION  
CALUMET AVENUE  
NOT TO SCALE



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website: [www.torrengea.com](http://www.torrengea.com)

MAPLE LEAF CROSSING  
A PLANNED UNIT DEVELOPMENT TO THE  
TOWN OF MUNSTER, LAKE CO., INDIANA  
DETAILS & SPECIFICATIONS

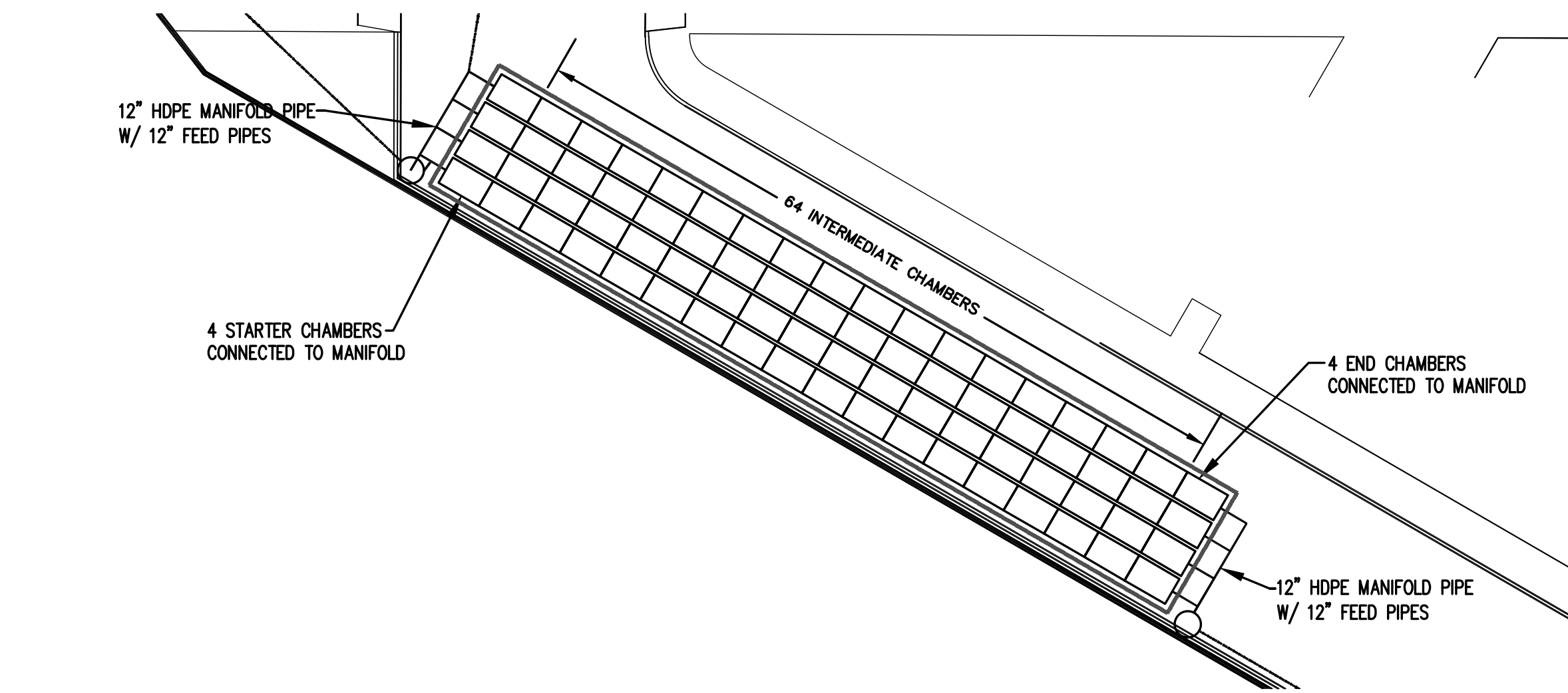
CLIENT:  
First Metropolitan Builders  
400 Fisher Avenue  
Munster, Indiana 46321  
JOB NO: 2019-5052  
SCALE: NTS  
DATE: 05-11-2020  
REVISIONS:

REGISTERED  
PROFESSIONAL ENGINEER  
No. 19868  
STATE OF INDIANA



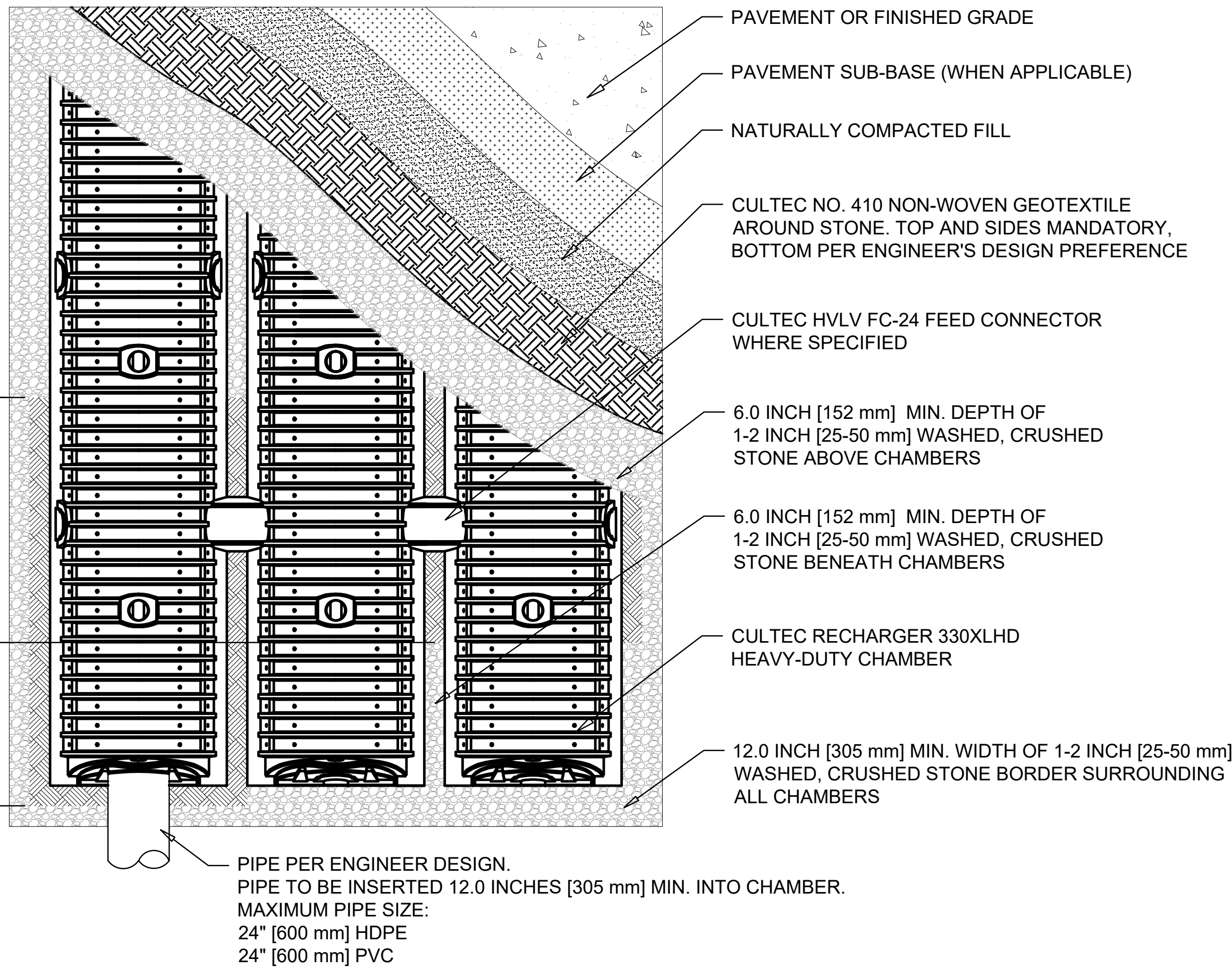
FILE NO: Z:\2019-5052 Jay Lieser - Maple Leaf Crossings Calumet Avenue - Munster\dwg\2019-5052 Details.dwg 6/5/2020 11:47:37 AM CDT

EXHIBIT A



7.5' [2.29 m] MIN.  
CULTEC NO. 4800 WOVEN GEOTEXTILE  
BENEATH FEED CONNECTORS

10.0' [3.0 m] MIN.  
CULTEC NO. 4800 WOVEN GEOTEXTILE  
BENEATH INLET PIPES



CULTEC Stormwater Design Calculator

Date:	June 15, 2020
Project Information:	
Maple Leaf Crossings	
9450 Calumet Avenue	
Munster	
Indiana	
United States	

INPUT INFO

RECHARGER 330XLHD



Project Number:	2019-5052
Calculations Performed By:	
Ryan Torrenga	
Torrenga Engineering	
907 Ridge Road	
Munster	
Indiana	
46321	
United States	
(219) 836-8918	
Ryan.Torrenga@Torrenga.com	

Recharger 330XLHD Chamber Specifications		
Height	30.5	inches
Width	52.0	inches
Length	8.50	feet
Installed Length	7.00	feet
Bare Chamber Volume	52.21	cu. feet
Installed Chamber Volume	99.56	cu. feet

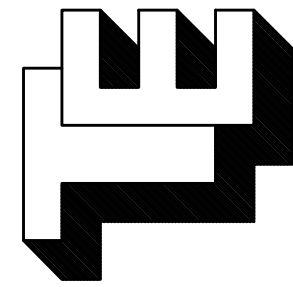
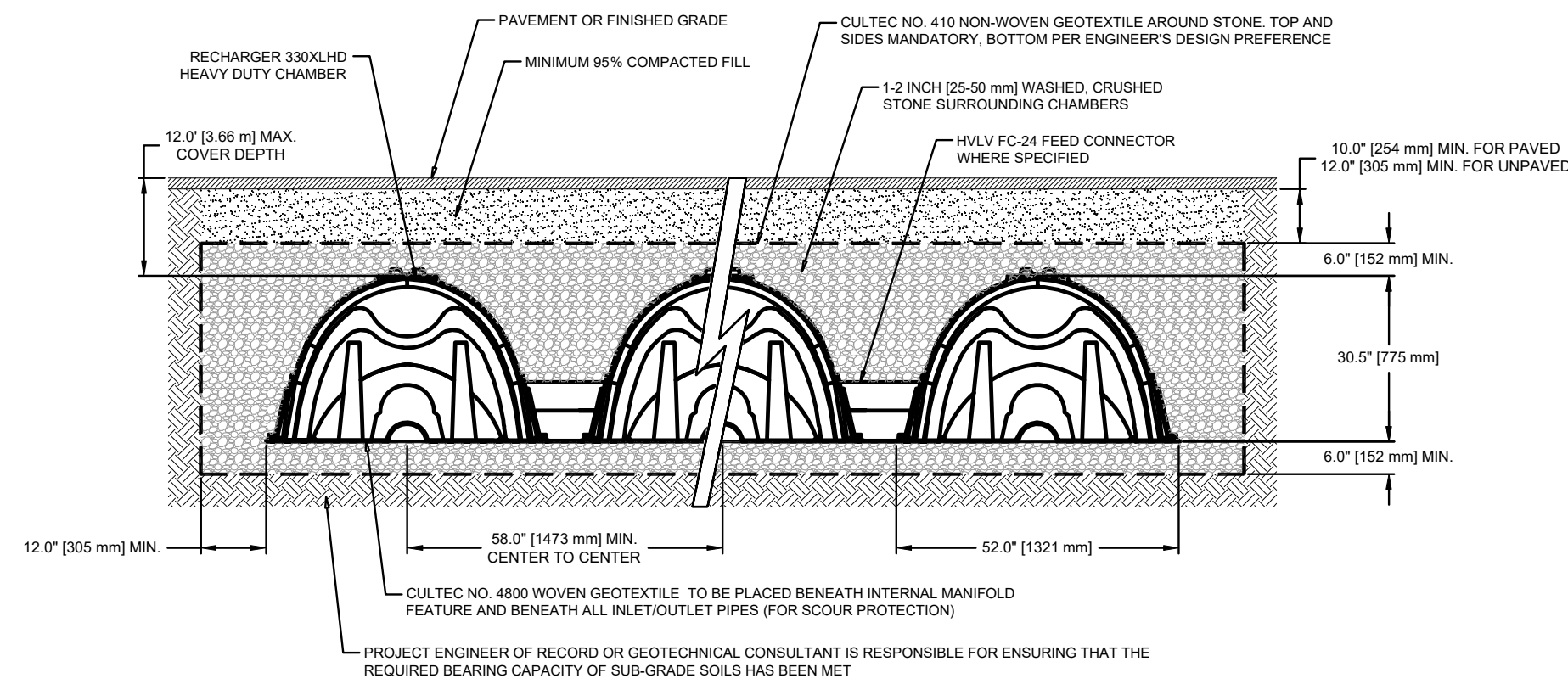
Breakdown of Storage Provided by Recharger 330XLHD Stormwater System		
Within Chambers	3,804.09	cu. feet
Within Feed Connectors	-	cu. feet
Within Stone	3,919.16	cu. feet
Total Storage Provided	7,723.3	cu. feet
Total Storage Required	7622.00	cu. feet

Materials List

Recharger 330XLHD		
Total Number of Chambers Required	72	pieces
Separator Row Chambers	18	pieces
Starter Chambers	4	pieces
Intermediate Chambers	64	pieces
End Chambers	4	pieces
HVLV FC-24 Feed Connectors	0	pieces
CULTEC No. 410 Non-Woven Geotextile	960	sq. yards
CULTEC No. 4800 Woven Geotextile	128	feet
Stone	363	cu. yards

Separator Flow Qty. Included in Total

Based on External/Pipe/Manifold



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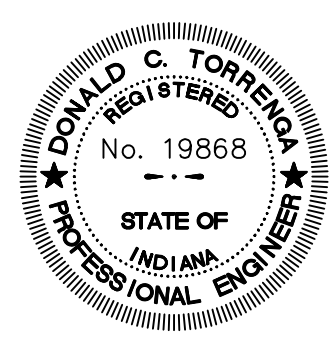
MAPLE LEAF CROSSING  
A PLANNED UNIT DEVELOPMENT TO THE  
TOWN OF MUNSTER, LAKE CO., INDIANA  
DETAILS & SPECIFICATIONS

CLIENT: First Metropolitan Builders  
400 Fisher Avenue  
Munster, Indiana 46321  
JOB NO: 2019-5052  
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DATE: 05-11-2020

First Metropolitan Builders  
400 Fisher Avenue  
Munster, Indiana 46321  
JOB NO: 2019-5052  
SCALE: NTS

SHEET  
C-5.3





( IN FEET )  
1 inch = 40 ft.

●	MANHOLE
○	CATCH BASIN/INLET
⊙	POWER POLE
☆	LIGHT POLE
⊕	TELEPHONE MANHOLE
⊗	TELEPHONE PEDESTAL
⊗	WATER VALVE
⊗	FIRE HYDRANT
⊗	GAS VALVE
—X—X—	NIPSCO GAS LINE-FLAGGED
—S—S—	SANITARY SEWER
—SS—SS—	STORM SEWER
—T—T—T—T—	UNDERGROUND GAS LINE
—R—R—R—R—R—	UNDERGROUND TELEPHONE LINE
—FO—FO—	UNDERGROUND ELECTRIC LINE
—DL—DL—DL—DL—	OVERHEAD ELECTRIC LINE

## LEGEND

### EXISTING

## LEGEND

### PROPOSED

●	MANHOLE
○	CATCH BASIN/INLET
⊙	FIRE HYDRANT
⊗	WATER VALVE
⊗	FIRE DEPT. CONNECTION
⊗	GRADE PROPOSED
FG=000.00	FINISHED GRADE
—S—S—	STORM SEWER
—SS—SS—	SANITARY SEWER
—S—S—	SANITARY SEWER STUB
—W—W—	WATER MAIN
—W—W—	WATER MAIN STUB
→	GRADE DIRECTION ARROW

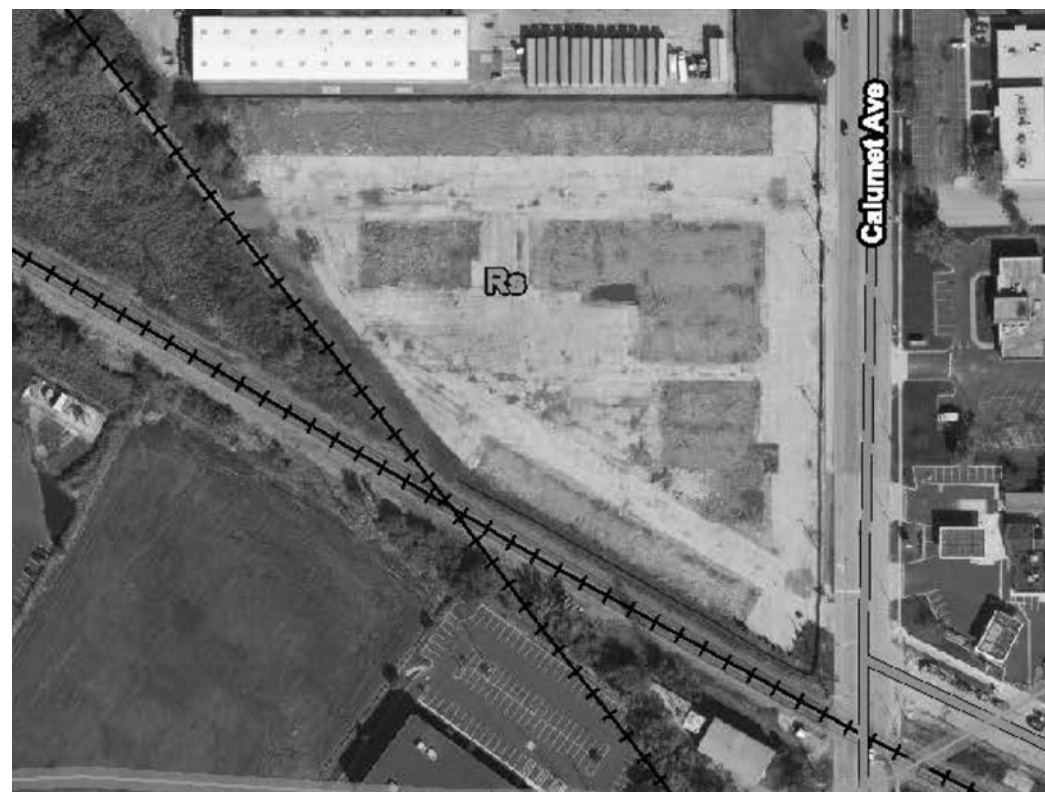
## SWPPP LEGEND:

⬮	— TEMPORARY ENTRANCE/EXIT (GRAVEL OR MAT)
⬮	— SOIL STOCK PILE
B	— BASKET DROP INLET PROTECTION
G	— GRADE LIMITS
SF	— SILT FENCE (SEDIMENT FENCE)
CW	— CONCRETE WASH OUT AREA
TS	— TEMPORARY SEEDING (SEE NOTE 12)
P	— POSTING RULE 5 NOI & NOS LETTERS AND LOCAL SWPPP PERMIT (SEE NOTE 14)

RESPONSIBLE INDIVIDUAL FOR SWPPP  
COMPANY: FIRST METROPOLITAN BUILDERS  
NAME: JACK LIEISER  
ADDRESS: 400 FISHER AVENUE  
MUNSTER, IN 46321  
PHONE: (219) 746-0753  
E-MAIL: JACKLIEISER@AOL.COM

## Temporary stabilization plans and sequence of implementation.

- On site posting of the complete Rule 5 NOI and NOS Letters. Location of the posting and plans shall be made available by the owner contractor.
- Installation of all erosion/sedimentation controls including stabilized construction entrance, silt fences, etc., per the engineering plans.
- Clearing and grubbing.
- All disturbed areas shall be permanent seeded, mulched, when no additional disturbance is anticipated.
- Topsoil stockpile surrounded with silt fencing.
- Rough cut and fill of all proposed swales, road, and other major grading per the engineering plans shall be done to rough grades at start of construction to prevent excessive soil erosion due to construction.
- Construction of storm sewers, sanitary sewers, water mains, and other utility, and implementation of storm sewer inlet protection at each open-grate structure (fabric drop inlet protection, basket inlet protection, etc., as per engineering plans).
- Regrade and construct road.
- Complete permanent erosion control and restoration of site vegetation. Erosion control measures are to be removed upon permanent vegetative cover being established.

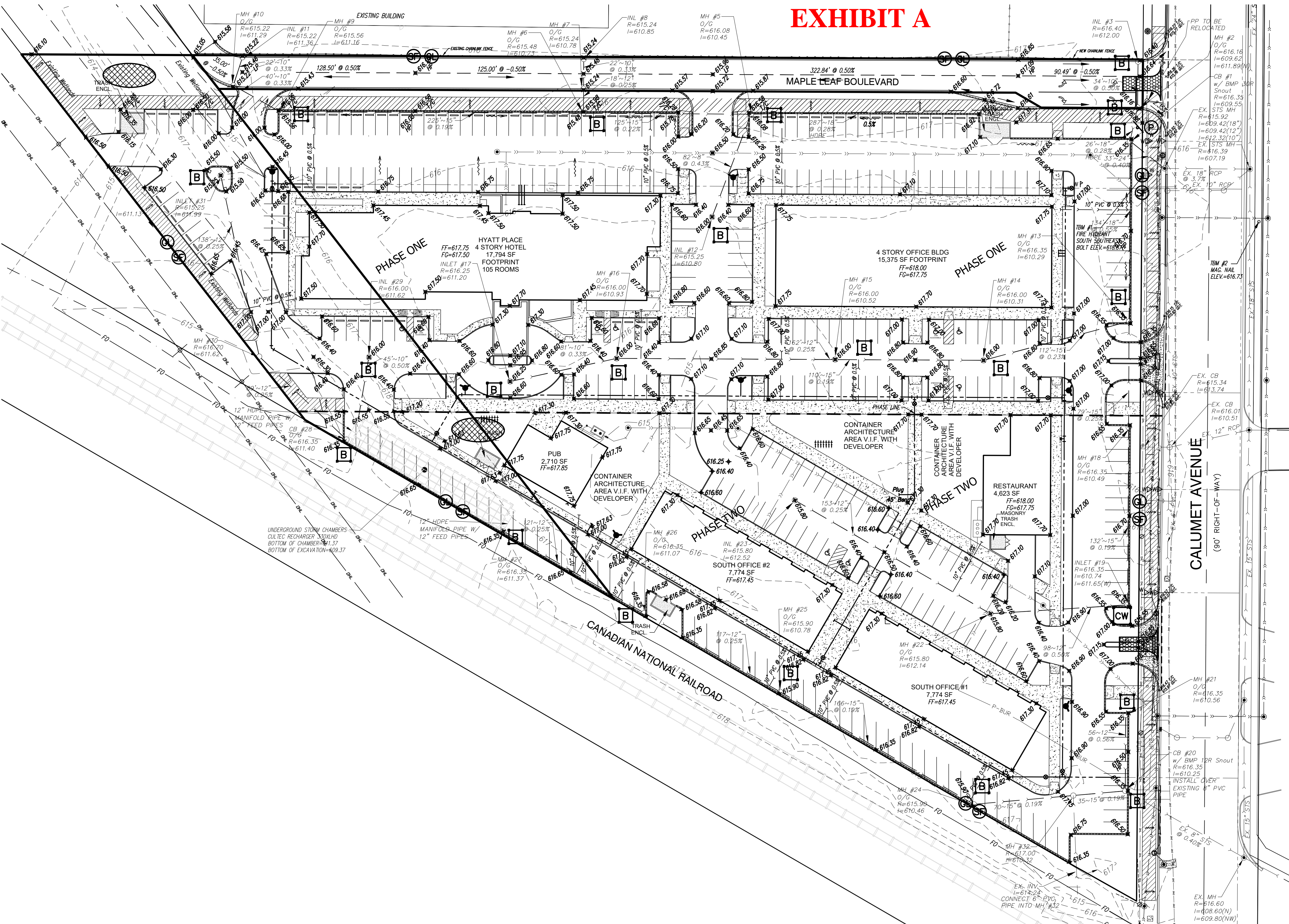


SOIL MAP  
NOT TO SCALE



- GENERAL NOTES:
- THIS PROPERTY IS LOCATED IN FLOOD ZONE "X" (SHADED), AREA WITH REDUCED FLOOD RISK DUE TO LEEVEE AS TAKEN FROM THE FLOOD INSURANCE RATE MAP (FIRM) FOR MUNSTER, LAKE COUNTY, INDIANA, MAP NUMBER 18880C13E, EFFECTIVE DATE JANUARY 18, 2012.
  - HYDROLOGIC UNIT CODES: 07120003030630 - HART DITCH (PLUM CREEK) - DYER DITCH.
  - STATE OR FEDERAL WATER QUALITY PERMITS ARE REQUIRED FOR THE PROJECT, A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) IDEM RULE 5 WATER QUALITY PERMIT IS REQUIRED.
  - THE SITE CONSISTS PRIMARILY OF DEMOLISHED BUILDINGS, BROKEN ASPHALT AND STONE.
  - THERE IS NO PRESENCE OF HYDRIC SOILS ON THIS PROPERTY.
  - THERE ARE EXISTING WETLAND AREAS ON THIS PROPERTY AS CLASSIFIED BY THE U.S. FISH AND WILDLIFE SERVICE, NATIONAL WETLANDS INVENTORY, AND THE UNITED STATES DEPARTMENT OF THE INTERIOR. HART DITCH (PLUM CREEK) - DYER DITCH IS THE WATER COURSE WHICH THE STORMWATER FROM THE PROPOSED SITE WILL ULTIMATELY DISCHARGE INTO, ITS LOCATED APPROXIMATELY 1 MILE EAST OF THE PROJECT SITE, AND IS CLASSIFIED AS A WATER OF THE U.S., WITH A NWL = 602.
  - POTENTIAL SOURCE OF STORM WATER DISCHARGE ENTERING THE GROUNDWATER FROM THIS DEVELOPMENT WILL BE THROUGH NATURAL GROUND ABSORPTION ONLY. THERE ARE NO ABANDONED WELLS OR SINKHOLES ON THE PROPERTY.
  - THERE ARE NO REGULATED DRAINS WITHIN THIS PROPERTY, OR ON ADJACENT PROPERTIES. THERE IS NO RECORD OR KNOWLEDGE OF EXISTING FARM DRAINS OR FIELD TILE, INLETS AND OUTFALLS LOCATED WITHIN THE EXISTING PROPERTY LIMITS.
  - SOIL STOCKPILES, BORROW AND DISPOSAL AREAS ARE LOCATED WITHIN THE PROJECT SITE. THERE ARE NO OFFSITE BORROW, STOCKPILES, OR DISPOSAL AREA ASSOCIATED WITH THIS PROJECT. SOIL STOCKPILES SHALL BE SURROUNDED WITH SILT FENCING AT ALL TIMES TO PREVENT EXCESSIVE EROSION, AND IF LEFT UNDISTURBED FOR A PERIOD OF MORE THAN 14 DAYS, IT SHALL BE TEMPORARY SEED.
  - ALL ACREAGE OF THIS PROPERTY WILL BE DISTURBED DURING CONSTRUCTION.
  - FUEL STORAGE AREA SHALL BE WITHIN THE CONSTRUCTION STAGING AREA, FUEL SHALL BE STORED IN APPROVED MOBILE REFUELING TANK LOCATED AWAY FROM DRAINAGE STRUCTURES AND CHANNELS. FIRE EXTINGUISHERS SHALL BE LOCATED NEAR FUEL STORAGE AREA AND BE OF SUITABLE TYPE, POSTED, AND BE MAINTAINED IN GOOD CONDITION.
  - TEMPORARY SEED ALL AREAS OF BARE SOIL (WITH THE ADDITION OF A BLANKET WHERE SLOPES ARE GREATER THAN 2:1) THAT WILL REMAIN UNDISTURBED FOR A PERIOD OF MORE THAN 14 DAYS. SEEDING, OPTIMUM SEEDING DATED ARE MARCH 1 - MAY 10 AND AUGUST 10 - SEPTEMBER 30. SEEDING DATES BETWEEN MAY 10 AND AUGUST 10, MAY NEED TO BE IRRIGATED. FOR SEEDING RECOMMENDATIONS SEE PRACTICE 3.12, INDIANA STORM WATER QUALITY MANUAL.
  - ALL SOIL STOCKPILES, AREAS THAT ARE DISTURBED DURING CONSTRUCTION, AND DRAINAGE SWALES WHICH ARE SCHEDULED OR LIKELY TO BE LEFT INACTIVE FOR FOURTEEN (14) CALENDAR DAYS OR MORE MUST BE TEMPORARILY OR PERMANENTLY SEED WITH MEASURES APPROPRIATE FOR THE SEASON.
  - LOCATION OF ON-SITE POSTING, OF THE COMPLETE RULE 5 NOI WITH ASSIGNED PERMIT NUMBER, NOS LETTERS, LOCAL SWPPP PERMIT AND LOCATION OF THE COMPLETE SET OF ENGINEERING PLANS, SHALL BE AVAILABLE AT THE ENTRANCE TO THE SITE AND VISIBLE TO THE PUBLIC.
  - ALL PUBLIC AND PRIVATE STREETS AND ROADS FRONTING THE PROJECT SHALL BE SWEEPED OF ANY DEBRIS, TRASH OR SEDIMENT WHICH MAY ULTIMATELY DRAIN TO STORM SEWER.
  - SITE ELEVATIONS ARE BASED ON NAVD 88, AND HORIZONTAL DATUM IS BASED ON INDIANA STATE PLANE COORDINATES NAD 83.

## EXHIBIT A



TORRENGA ENGINEERING, INC.  
CONSULTING ENGINEERS & LAND SURVEYORS  
907 RIDGE ROAD, MUNSTER, INDIANA 46321  
Tel. No.: (219) 836-8918

MAPLE LEAF CROSSING  
A P.U.D. TO THE TOWN MUNTER, INDIANA  
STORM WATER POLLUTION PREVENTION PLAN

CLIENT:  
Maple Leaf Crossing, LLC  
400 Fisher Avenue  
Munster, Indiana 46321

JOB NO: 2019-5052

REVISIONS:  
06-26-2020  
06-05-2020  
DATE: 05-11-2020

SCALE: 1" = 40'

SHEET  
C-6.0



TEMPORARY CONSTRUCTION ENTRANCE/EXIT

**Purpose:** To provide a stable entrance/exit condition from the construction site, and to keep mud and sediment off public roads.

"GRAVEL"

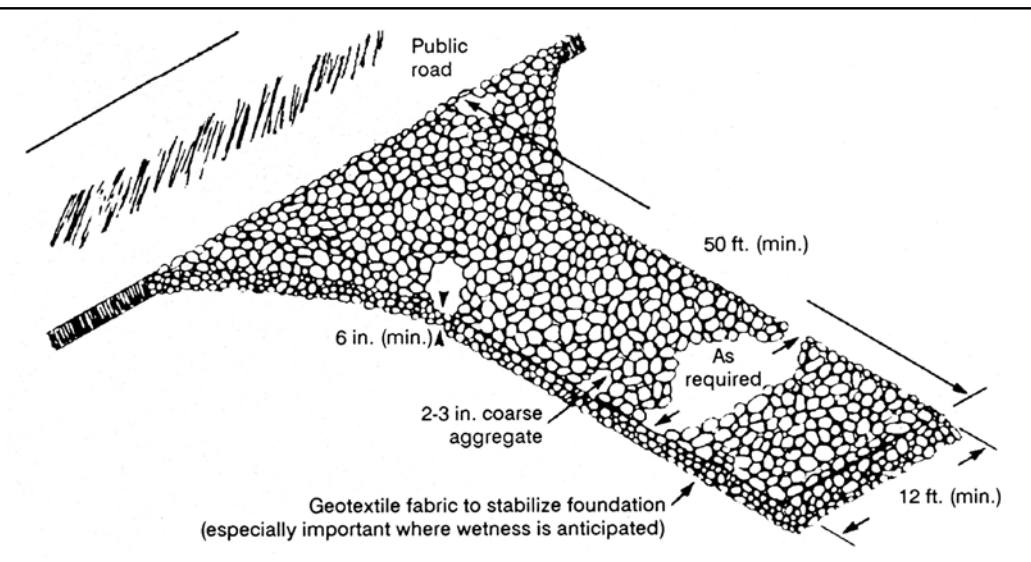
**Requirements:**  
Width: 12 feet minimum or full width of entrance  
Length: 50 feet minimum  
Material: 2-3 inch diameter washed stone (INDOT CA No. 2), with Geotextile Fabric Underliner.  
Thickness: 6 inch minimum

**Installation:**

1. Remove all vegetation and other objectionable material from the foundation area.
2. Install pipe under the stone if needed to provide proper public road drainage.
3. Install Geotextile fabric on the graded foundation area prior to stone placement.
4. Divert all surface runoff and drainage from the stone to sediment trap.

**Maintenance:**

1. Inspect entrance pad for sediment deposits weekly and after storm events or heavy use.
2. Reshape pad as needed for drainage and runoff control.
3. Topdress with clean stone as needed.
4. Remove mud and sediment tracked or washed onto public road by brushing or sweeping. No flushing of sediment off the street.
5. Repair any broken road pavement immediately.



Plans of a temporary gravel construction entrance/exit pad.

"MAT"

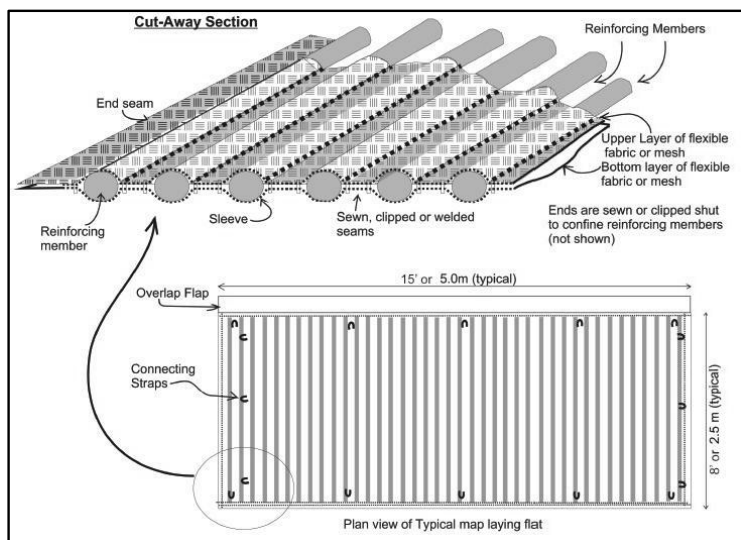
**Requirements:**  
Width: 12 feet minimum or full width of entrance  
Length: 50 feet minimum  
Material: Geotextile-Type mats, AGES Mud Mat or approved equal

**Installation:**

1. Install pipe under mat if needed to provide proper site drainage.
2. Install Geotextile-Type mat on the graded foundation area.
3. Divert all surface runoff and drainage from the mat to sediment trap.

**Maintenance:**

1. Inspect entrance mat for sediment deposits weekly and after storm of a minimum of 1/2 inch rainfall events or heavy use.
2. Reshape pad as needed for drainage and runoff control.
3. Repair or replace mats as needed.
4. Remove mud and sediment tracked or washed onto public road by brushing or sweeping. No flushing of sediment off the street.



PLANS OF TEMPORARY CONSTRUCTION INGRESS/EGRESS PAD

TEMPORARY SEEDING

**Purpose:** To stabilize disturbed areas especially along both sides of the streets and courts after final grading work is completed and where additional work is not scheduled.

**Requirements:**

Site and seedbed preparation: Graded, and lime and fertilizer applied

**Seed Selected:**

Selected on the basis of quick germination, growth, and time of year, see Table for temporary seeding recommendations.

**Fertilize:**

According to soil test or use 600 lbs/acre 12-12-12 analysis or equivalent.

**Mulch:**

1.5 - 2 tons/acre straw. Straw must be dry, unchopped and free of undesirable seeds.

**Application:**

1. Fertilize and lime as recommended by the soil test.
2. Till the soil to obtain a uniform seedbed, working the fertilizer and lime into the soil 2-4" deep with a disk or rake operated across the slope.
3. Apply seed uniformly with a drill or cultipacker-seeder, or by broadcasting, and cover to a depth as shown on Table for temporary seeding recommendations.
4. If drilling or broadcasting, firm the seedbed with a roller or cultipacker.
5. Mulch all seeded areas. (Note: If seeding is done with a hydroseeder, fertilizer and mulch can be applied with the seed in a slurry mixture.)

**Maintenance:**

1. Inspect periodically after planting to see that vegetative stands are adequately re-seed if necessary.
2. Check for erosion damage after storm events and repair; re-seed and mulch if necessary.

**Notes:**

1. Vegetative Filter Strip: permanent or temporary, shall be done on all disturbed areas along both sides of the streets and courts to reduce erosion where additional work is not scheduled.
2. Permanent Seeding: or sodding shall be done at the time of final landscaping.

Exhibit 3.11-B. Temporary Seeding Recommendations.

Seed species*	Rate/acre	Planting depth	Optimum dates**
Wheat or rye	150 lbs.	1 to 1½ in.	9/15 to 10/30
Spring oats	100 lbs.	1 in.	3/1 to 4/15
Annual ryegrass	40 lbs.	3/1 to 5/1	1/4 in.
German millet	40 lbs.	1 to 2 in.	8/1 to 9/1
Sudangrass	35 lbs.	1 to 2 in.	5/1 to 6/1
			5/1 to 7/30

\* Perennial species may be used as a temporary cover, especially if the area to be seeded will remain idle for more than a year (BETWEEN PERMANENT SEEDING)  
\*\* Seeding done outside the optimum dates increases the chances of seeding failure.

PERMANENT SEEDING

**Purpose:** To stabilize disturbed areas especially along both sides of the streets and courts after final grading work is completed and where additional work is not scheduled.

**Requirements:**

Site and seedbed preparation: Graded, and lime and fertilizer applied.

**Seed Selected:**

Selected on the basis of Site Conditions, Soil PH, intended land use, and expected level of maintenance see Table for permanent seeding recommendations.

**Fertilize:**

According to soil test or use 600 lbs/acre 12-12-12 analysis or equivalent.

**Mulch:**

1.5 - 2 tons/acre straw. Straw must be dry, unchopped and free of undesirable seeds.

**Application:**

1. Fertilize and lime as recommended by soil test.
2. Till the soil to obtain a uniform seedbed, working the fertilizer and lime into the soil 2-4" deep with a disk or rake operated across the slope.
3. Apply seed uniformly with a drill or cultipacker-seeder, or broadcasting, and cover to a depth of ¼ to ½ inch.
4. If drilling or broadcasting, firm the seedbed with a roller or cultipacker.
5. Mulch all seeded areas. (Note: If seeding is done with a hydroseeder, fertilizer and mulch can be applied with the seed in a slurry mixture.)

**Maintenance:**

1. Inspect periodically, especially after storm events, until the stand is successfully established. (Characteristics of a successful stand include: vigorous dark green or bluish-green seedling; uniform density with nurse plants, legumes, and grasses well intermixed; green leaves; and the perennials remaining green throughout the summer, at least at the plant base.)
2. Plan to add fertilizer the following seasons according to soil test recommendations.
3. Repair damaged, bare or sparse areas by filling any gullies, refertilizing, over- or re-seeding, and mulching.
4. If plant cover is sparse or patchy, review the plant materials chosen, soil fertility, moisture condition, and mulching; then repair the affected area either by over-seeding or by re-seeding, and mulching.
5. If vegetation fails to grow, consider soil testing to determine acidity or nutrient deficiency problems. (Contact your SWCD or Cooperative Extension office for assistance.)
6. If additional fertilization is needed to get a satisfactory stand, do so according to soil test recommendations.

**Notes:**

1. Permanent seeding optimum dates are March 1 to May 10 and August 10 to September 30, seeding done between May 10 to August 10 may require irrigation. Temporary seeding may be used as an alternative until preferred date for Permanent Seeding.
2. Retention/Detention area walls and base will be seeded as soon as possible using permanent seeding when possible, mulch or erosion control blankets are to be used on seeded areas to protect the soil from wind and water impact. Install silt fences around Retention/Detention area until seed is established.

Seeding Recommendations.

This table provides several seeding options. Additional seed species and mixtures are available commercially. When selecting a mixture, consider site conditions, including soil properties (e.g., soil pH and drainage), slope aspect and the tolerance of each species to shade and droughtiness.

Seed species and mixtures	Rate per acre		Optimum soil pH
	Permanent	Dormant or frost	
OPEN AND DISTURBED AREAS (REMAINING IDLE MORE THAN 1 YR.)			
1. Perennial ryegrass	35 to 50 lbs.	50 to 75 lbs.	5.6 to 7.0
+ white or ladino clover*	1 to 2 lbs.	1 ½ to 3 lbs.	
2. Kentucky bluegrass	20 lbs.	30 lbs.	5.5 to 7.5
+ smooth bromegrass	10 lbs.	15 lbs.	
+ switchgrass	3 lbs.	5 lbs.	
+ timothy	4 lbs.	6 lbs.	
+ perennial ryegrass	10 lbs.	15 lbs.	
+ white or ladino clover*	1 to 2 lbs.	1 ½ to 3 lbs.	
3. Perennial ryegrass	15 to 30 lbs.	22 to 45 lbs.	5.6 to 7.0
+ tall fescue**	15 to 30 lbs.	22 to 45 lbs.	
4. Tall fescue**	35 to 50 lbs.	50 to 75 lbs.	5.5 to 7.5
+ ladino or white clover*	1 to 2 lbs.	1 ½ to 3 lbs.	
STEEP BANKS AND CUTS, LOW MAINTENANCE AREAS (NOT MOWED)			
1. Smooth bromegrass	25 to 35 lbs.	35 to 50 lbs.	5.5 to 7.5
+ red clover*	10 to 20 lbs.	15 to 30 lbs.	
2. Tall fescue**	35 to 50 lbs.	50 to 75 lbs.	5.5 to 7.5
+ white or ladino clover*	1 to 2 lbs.	1 ½ to 3 lbs.	
3. Tall fescue**	35 to 50 lbs.	50 to 75 lbs.	5.5 to 7.5
+ red clover*	10 to 20 lbs.	15 to 30 lbs.	
(Recommended north of US 40)			
4. Orchardgrass	10 to 30 lbs.	30 to 45 lbs.	5.6 to 7.0
+ red clover*	10 to 20 lbs.	15 to 30 lbs.	
+ ladino clover*	1 to 2 lbs.	1 ½ to 3 lbs.	
5. Crownvetch*	10 to 12 lbs.	15 to 18 lbs.	5.6 to 7.0
+ tall fescue**	20 to 30 lbs.	30 to 45 lbs.	
(Recommended south of US 40)			
LAWNS AND HIGH MAINTENANCE AREAS			
1. Bluegrass	105 to 140 lbs.	160 to 210 lbs.	5.5 to 7.0
2. Perennial ryegrass (turf-type)	45 to 60 lbs.	70 to 90 lbs.	
+ bluegrass	70 to 90 lbs.	105 to 135 lbs.	5.6 to 7.0
3. Tall fescue**	130 to 170 lbs.	195 to 250 lbs.	
+ bluegrass	20 to 30 lbs.	30 to 45 lbs.	
CHANNELS AND AREAS OF CONCENTRATED FLOW			
1. Perennial ryegrass	30 to 150 lbs.	150 to 225 lbs.	5.6 to 7.0
+ white or ladino clover*	1 to 2 lbs.	1 ½ to 3 lbs.	
2. Kentucky bluegrass	20 lbs.	30 lbs.	5.5 to 7.5
+ smooth bromegrass	10 lbs.	15 lbs.	
+ switchgrass	3 lbs.	5 lbs.	
+ timothy	4 lbs.	6 lbs.	
+ perennial ryegrass	10 lbs.	15 lbs.	
+ white or ladino clover*	1 to 2 lbs.	1 ½ to 3 lbs.	
3. Tall fescue**	100 to 150 lbs.	150 to 225 lbs.	5.5 to 7.5
+ ladino or white clover*	1 to 2 lbs.	1 ½ to 3 lbs.	
4. Tall fescue**	100 to 150 lbs.	150 to 225 lbs.	5.5 to 7.5
+ Perennial ryegrass	15 to 20 lbs.	22 to 30 lbs.	
+ Kentucky bluegrass	15 to 20 lbs.	22 to 30 lbs.	

LAWNS AND HIGH MAINTENANCE AREAS

1. Bluegrass 105 to 140 lbs. 160 to 210 lbs. 5.5 to 7.0
2. Perennial ryegrass (turf-type) 45 to 60 lbs. 70 to 90 lbs. 5.6 to 7.0
- + bluegrass 70 to 90 lbs. 105 to 135 lbs.
3. Tall fescue\*\* 130 to 170 lbs. 195 to 250 lbs. 5.6 to 7.5
- + bluegrass 20 to 30 lbs. 30 to 45 lbs.

CHANNELS AND AREAS OF CONCENTRATED FLOW

1. Perennial ryegrass 30 to 150 lbs. 150 to 225 lbs. 5.6 to 7.0
- + white or ladino clover\* 1 to 2 lbs. 1½ to 3 lbs.
2. Kentucky bluegrass 20 lbs. 30 lbs. 5.5 to 7.5
- + smooth bromegrass 10 lbs. 15 lbs.
- + switchgrass 3 lbs. 5 lbs.
- + timothy 4 lbs. 6 lbs.
- + perennial ryegrass 10 lbs. 15 lbs.
- + white or ladino clover\* 1 to 2 lbs. 1½ to 3 lbs.
3. Tall fescue\*\* 100 to 150 lbs. 150 to 225 lbs. 5.5 to 7.5
- + ladino or white clover\* 1 to 2 lbs. 1½ to 3 lbs.
4. Tall fescue\*\* 100 to 150 lbs. 150 to 225 lbs. 5.5 to 7.5
- + Perennial ryegrass 15 to 20 lbs. 22 to 30 lbs.
- + Kentucky bluegrass 15 to 20 lbs. 22 to 30 lbs.

\* For best results: (a) legume seed should be inoculated; (b) seeding mixtures containing legumes should preferably be spring-seeded, although the grass may be fall-seeded and the legume frost-seeded; and (c) if legumes are fall-seeded, do so in early fall.  
\*\* Tall fescue provides little cover for, and may be toxic to, some species of wildlife. The IDNR recognizes the need for additional research on alternatives to tall fescue, such as buffalograss, orchardgrass, smooth bromegrass, and switch-grass. This research, in conjunction with demonstration areas, should focus on erosion control characteristics, wildlife toxicity, turf durability, and drought resistance.

DORMANT OR FROST SEEDING

- Purpose:**
1. To provide early germination and soil stabilization in the spring.
  2. To reduce sediment runoff to downstream areas.
  3. To repair previous seedings.

**Requirements:**

Site and seedbed preparation: Graded, lime and fertilizer applied.

**Seed Selected:**

Selected on the basis of Site Conditions, Soil PH, intended land use, and expected level of maintenance. See Table for dormant or frost seeding recommendations.

**Fertilize:**

According to soil test or use 400-600 lbs/acre 12-12-12 analysis or equivalent.

**Application:**

Dormant seeding is a temporary or permanent seeding application at a time when soil temperatures are too low for germination to occur (less than 50 °F) Frost seeding is a temporary or permanent seeding application in early spring when soils are in the freeze-thaw stage.

**For Dormant Seeding:** (Seeding dates: Dec. 1-Feb. 28)

1. Site preparation and mulching can be done months ahead of actual seeding, apply mulch upon completion of grading (Practice 3.13)
2. Broadcast fertilizer as recommended by soil test.
3. Broadcast seeding on top of the mulch and/or into existing ground cover at the rate shown on table. (if site preparation occurs within the recommended dates, fertilize and lime, seed, and mulch at the time.)

**For Frost Seeding:** (Seeding dates: Feb. 28 - Mar. 28)

1. Broadcast fertilizer as recommended by a soil test.
2. Select an appropriate seed species or mixture from table for temporary seeding or table for permanent seeding, and broadcast on to the seedbed or into the existing ground cover at the rate shown. (Do not work the seed into the soil.)

**Maintenance:**

1. Apply 200-300 lbs./acre of 12-12-12 or equivalent fertilizer between Apr. 15 and May 10 or during periods of vigorous growth.
2. Re-seed and mulch any areas that have inadequate cover by mid- to late April. For best results, re-seed within the recommended dates shown for temporary seeding or for permanent seeding.

Temporary Dormant or Frost Seeding Recommendations.

Seed species*	Rate per acre
Wheat or rye	150 lbs.
Spring oats	150 lbs.
Annual ryegrass	60 lbs.

\*Perennial species may be used as temporary cover, especially if the area to be seeded will remain idle for more than a year.

MULCHING

**Purpose:** To promote seed germination and seedling growth, a temporary surface stabilization, and protecting the soil from wind and water impact.

**Requirements:**

Material: Straw, hay, wood fiber or excelsior, see table for Mulch Materials, Rates, and comments.

**Comments:**

Coverage: 75% of the soil surface  
Anchoring: Required to prevent displacement by wind or water, see table for Mulch Anchoring Methods.

**Application:**

1. Apply mulch at the recommended rate.
2. Spread uniformly by hand, hay fork, mulch blower, or hydromulcher with no more than 25% of the surface visible.
3. Anchor immediately if using straw or hay, using one of the following methods:
  - Crimp with mulch anchoring tool.
  - Hydromulch with short cellulose fibers.
  - Apply liquid tackifier.
  - Cover with netting secured with metal staples.

**Maintenance:**

1. Inspect after storm events to check for movement of mulch or for erosion.
2. If washout, breakage, or erosion is present, repair the surface, then re-seed, re-mulch.
3. Continue inspections until vegetation is firmly established.

Exhibit 3.15-B. Mulch Materials, Rates, and Comments.

Material	Rate	Comments
Straw or hay	1½-2 tons/acre	Should be dry, unchopped, free of undesirable seeds. Spread by hand or machine. Must be crimped or anchored (see Exhibit 3.15-D).
Wood fiber or cellulose	1 ton /acre	Apply with a hydromulcher and use with tacking agent.
Long fiber wood (excelsior)	1/2-3/4 ton/acre	Anchor in areas subject to wind.

Exhibit 3.15-D. Mulch Anchoring Methods.

Anchoring method	How to apply
Mulch anchoring tool OR Farm disk (dull, serrated, and set straight)	Crimp or punch the straw or hay into the soil 2-4 in. Operate machinery on the contour of the slope.
Cleating with dozer tracks	Operate dozer up and down slope, not across, or else the tracks will form rills.
Wood hydromulch fibers	Apply 1-2 tons/acre using a hydromulcher at a rate of 750 lbs./acre with a tacking agent (or according to contractor specifications). Do not use in areas of concentrated flow.
Asphalt emulsion	Emulsified asphalt should conform to the requirements of ASTM Spec. #977. Apply with suitable equipment at a rate of 0.05 gal./sq. yd. Do not use in areas of concentrated flow.
Synthetic tackifier, binder or soil stabilizer	Apply according to manufacturer's recommendation.
Biodegradable netting (polypropylene or similar material)*	Follow manufacturer's recommendations for installation. Best suited to slope application.

\* Install the netting immediately after applying the mulch. In areas of concentrated water flow, lay it parallel to the direction of flow; on other slopes, lay it either parallel or perpendicular to direction of flow. Edges of adjacent netting strips should overlap 4-6 in., with the strip on the up-slope side of any lateral water flow on top. Installation details are site specific, so follow manufacturer's directions.

SELF-MONITORING PROGRAM

A self-monitoring program that includes the following must be implemented at all permitted project sites:

1. A trained individual shall perform a written evaluation of the project site a minimum of one (1) time per week and by the end of the next business day following each measurable storm event.
2. The evaluation must address the maintenance of existing storm water quality measures to ensure they are functioning properly and identify additional measures necessary to remain in compliance with all applicable statutes and rules.
3. Written evaluation reports must include:
  - a. the name of individual performing the evaluation;
  - b. the date of evaluation;
  - c. problems identified at the project site; and
  - d. details of corrective actions recommended and completed.
4. All evaluation reports for the project site must be made available to the MS4 Operator or other designated entity within forty-eight (48) hours of a request.
5. Evaluation reports must be maintained for a period of two (2) years from date of NOT.
6. All evaluation reports will be submitted to the Town of Munster when requested.

Date: \_\_\_\_\_  
Project: \_\_\_\_\_  
Inspected by: \_\_\_\_\_ Scheduled Weekly: \_\_\_\_\_ Rain Event: \_\_\_\_\_

CONSTRUCTION SITE INSPECTION AND MAINTENANCE LOG  
(To be Completed by Property Owner or Agent)

All stormwater pollution prevention (BMPs) shall be inspected and maintained as needed to ensure continued performance of their intended function during construction and shall continue until the entire site has been stabilized and a Notice of Termination has been issued. An inspection of the project site must be completed by the end of the next business day following each measurable storm event. If there are no measurable storm events within a given week, the site should be monitored at least once in that week. Maintenance and repair shall be conducted in accordance with the accepted site plans. This log shall be kept as a permanent record and must be made available to the Town of Munster Engineer, in an organized fashion, within forty-eight (48) hours upon request.

Yes	No	NA	
			1. Are all sediment control barriers, silt protection and silt fences in place and functioning properly?
			2. Are all erodible slopes protected from erosion through the implementation of acceptable soil stabilization practices?
			3. Are all dewatering structures functioning properly?
			4. Are all discharge points free of any releasable pollutant discharges?
			5. Are all discharge points free of any releasable erosion or sediment transport?
			6. Are designated equipment washout areas properly sited, clearly marked, and being utilized?
			7. Are construction staging and parking areas restricted to areas designated as such on the plans?
			8. Are temporary soil stockpiles in approved areas and properly protected?
			9. Are construction entrances properly installed and being used and maintained?
			10. Are "Do Not Disturb" areas designated on plan sheets clearly marked on-site and avoided?
			11. Are public roads at intersections with site access roads being kept clear of sediment, debris, and mud?
			12. Is soil response equipment on-site, logically located, and easily accessed in an emergency?
			13. Are emergency response procedures and contact information clearly posted?
			14. Is solid waste properly contained?
			15. Is the spill area provided to the solid waste storage and pick-up area?
			16. Are hazardous materials, waste or otherwise, being properly handled and stored?
			17. Have previously recommended corrective actions been implemented?

If you answered "no" to any of the above questions, describe any corrective action which must be taken to remedy the problem and when the corrective actions are to be completed.

REPORT SAMPLE

SPILL PREVENTION AND RESPONSE

**Purpose:** Procedures and practices to prevent and control spills in a manner that minimizes or eliminates the discharge of spilled material to the drainage system or watercourses.

**Hazardous Waste Products:**

- Petroleum Products,
- Asphalt Products,
- Concrete Curing Compounds,
- Pesticides,
- Acids,
- Paints,
- Stains,
- Solvents,
- Wood Preservatives,
- Roofing Tar, or

**Other Waste Products:**

- Soil stabilizers/binders
- Dust palliatives
- Herbicides
- Growth inhibitors
- Fertilizers
- Deicing/anti-icing chemicals
- Fuels
- Lubricants
- Other petroleum distillates

Any materials deemed a hazardous waste in 40 CFR Parts 110, 117, 261, or 302

**Spill Prevention Practices:**

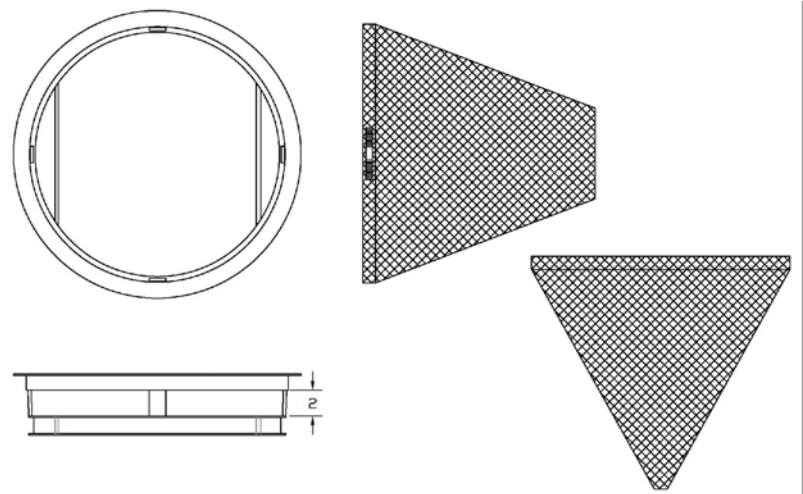
- The following are management practices used for reduction of spills and other accidental exposure of materials and substances to storm water runoff:
- a. The contractors and subcontractors shall refer to the Material Safety Data Sheet (MSDS) for information on the proper storage, use, and clean-up methods for all materials anticipated being on the project site.
  - b. All required materials for spill clean up and disposal of all onsite materials shall be kept on site in a project trailer with easy access for all users of associated materials.
  - c. All disposals of spilled materials shall be done in accordance with Federal, State and Local waste disposal regulations. All contractors and subcontractors shall be responsible for any and all spills associated with their work.
  - d. Prompt cleanup of any spills that may occur of liquid or dry materials.
  - e. Cleanup of sediments that have been tracked by vehicles or have been transported by wind or storm water about the site or onto nearby roadways.

**Response Practices:**



BASKET INLET / CATCH BASIN PROTECTION

- Purpose:** To prevent excessive sediment from entering storm sewers at inlet/catch basin, allowing full use of the storm drain system during the construction period.
- Requirements:** Steel Frame with top width-length dimensions such that the basket fits into the inlet and/or catch basin (circular and/or rectangular), and a replaceable Geotextile fabric bag attached with a steel band locking cap that is suspended from the frame,  
**Catch-all Inlet Protector Hancor Flo-Gard ht Nyloplast** or approved equal.
- Installation:**
1. Install protection to existing and newly installed inlet/catch basin in a new development before land disturbing activities begin in a stabilized area.
  2. Remove the grate, and place the basket assembly under the grate on the lip of the structure frame.
  3. Replace the inlet/catch basin grate.
- Maintenance:**
1. Inspect weekly during construction and after each storm event of a minimum of 1/2 inch rainfall, and remove built-up sediment.
  2. Replace bag every six (6) months.
  3. Replace the Geotextile fabric bag if there is a hole and/or won't pass water.
  4. Replace the Geotextile fabric bag after any oil, gasoline or solvent spill.



GENERAL NOTES:  
FRAME: Top Flange fabricated from 1/8"x1/8"x1/8" angle. Base rim fabricated from 1/8"x2"x1/8" channel. Handles and suspension brackets fabricated from 1/8"x1/8" flat stock. All steel conforming to ASTM-A36.  
SEDIMENT BAG: Bag fabricated from 4 oz./sq.yd. non-woven polypropylene geotextile reinforced with polyester mesh. Bag secured to base rim with a stainless steel band and lock.

TYPICAL INLET/CATCH BASIN PROTECTION  
INSERT DETAIL

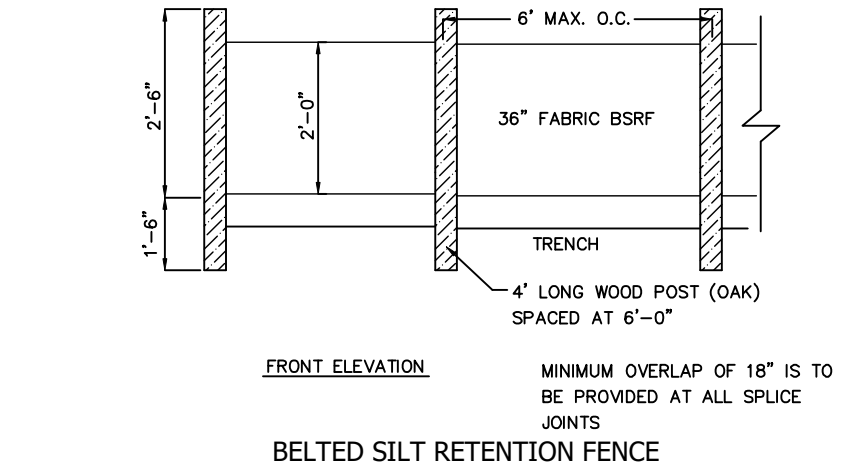
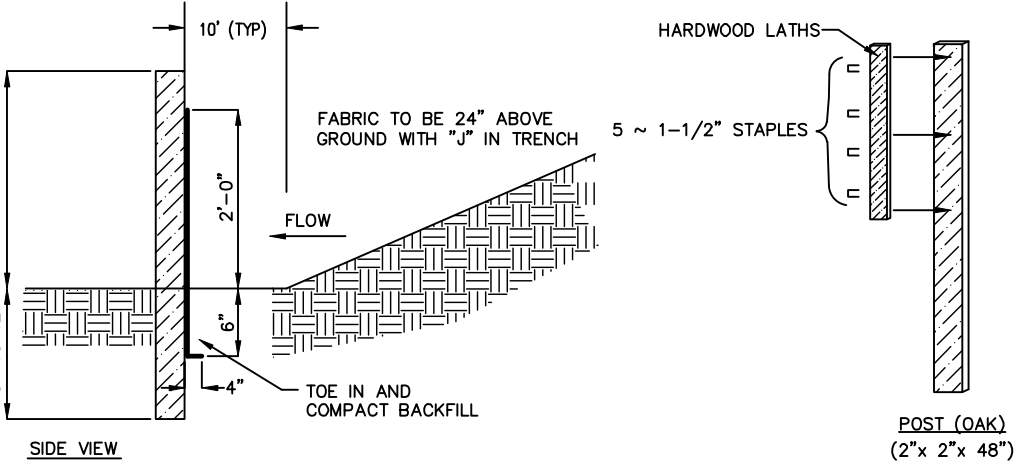
STREET AND PARKING LOT SWEEPING

- Purpose:** To reduce the amount of pollutants that get washed into the storm drain and ultimately transported and deposited in waterbodies.
- Application:**
1. Sweeping at points of egress where sediment is tracked from project site onto public or private streets and roads.
- Limitations:**
1. Sweeping may be ineffective if soil is wet or heavy accumulation of mud.
  2. May require repeat cleanings.
- Maintenance:**
1. Inspect potential sediment tracking ingress and egress points locations daily, and after rain events.
  2. Visible sediment observed outside the construction limits shall be swept and removed daily.
  3. Do not use kick brooms or sweeper attachments. These tend to spread the dirt rather than remove it.
  4. If not mixed with debris or trash, consider incorporating the removed sediment back into the project.
  5. Be careful not to sweep up any unknown substance or any object that may be potentially hazardous.
  6. Adjust brooms frequently; maximize efficiency of sweeping operations.
  7. After sweeping is finished, properly dispose of sweeper wastes at an approved dumpsite.

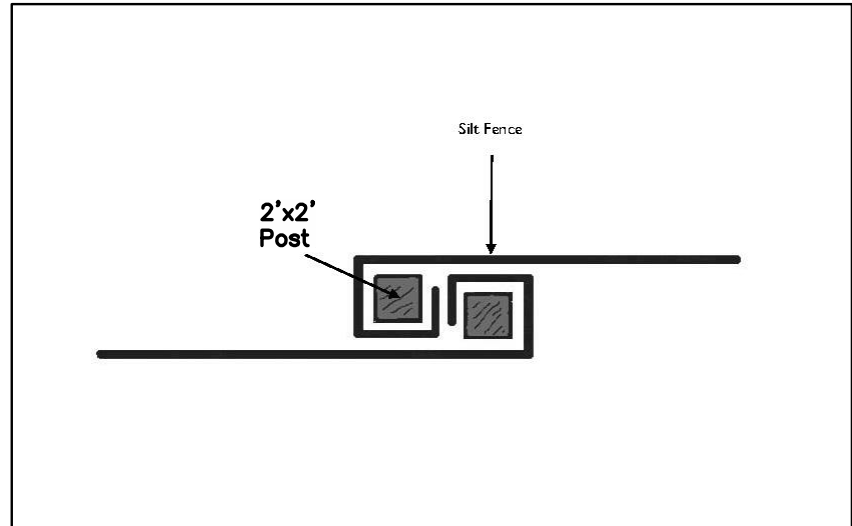
SILT FENCE

- Purpose:** To stabilize and control erosion and sedimentation by reducing the velocity of sheet flow.
- Requirements:**  
Trench: 6" minimum depth, flat bottom , filled with compacted soil to bury lower portion of fence fabric.
- Support : 2" x 2" hardwood stakes set at least 8-inches to 12-inches deep.
- Spacing of Support: 6-foot maximum on center.
- Fence height: A 2-ft. minimum or high enough so depth of impounded water does not exceed one-half the height of the fence at any point along the line.
- Attachment: Hardwood laths secured to stakes with five (5) 1-1/2 inch staples.
- Fence Fabric: Spunbound polyester material with a fiberglass scrim or net sandwiched in between the layers, **SS-700 SiltSaver** or approved equal.

- Installation:**
1. Along the entire intended fence line, maintain contour as much as possible, dig a 6" deep flat bottom trench.
  2. On the downslope side of the trench, drive the post 8" to 12" into the ground.
  3. Run a continuous length of fence fabric along upslope side of posts.
  4. Fasten fence fabric to the upslope side of the stakes, extending it into the trench, and securing it with hardwood laths secured with five (5) 1-1/2 staples. The bottom 12" of the fence fabric shall be left unsecured to allow for entrenchment.
  5. If a joint is necessary, staple the overlap to the nearest post with a wood lath.
  6. Place the bottom 1' of fabric in the 6" deep trench, extending the remaining 4" of fabric toward the upslope side.
  7. Backfill the trench with compacted earth.
- Maintenance:**
1. Inspect silt fence once every seven calendar days and 24 hours after each storm event of minimum of 1/2 inch rainfall.
  2. If fence fabric tears, starts to decompose, or becomes ineffective, replace the affected portion, as outlined by the manufacturer.
  3. Remove deposited sediment when it reaches one-half the height of the fence at its lowest point or is causing the fabric to bulge.
  4. Take care to avoid undermining the fence during clean out.
  5. After watershed has been stabilized, remove fence and sediment deposits, bring the disturbed area to grade and stabilize.



FRONT ELEVATION  
BELTED SILT RETENTION FENCE



Silt Fence Wrap Joint Detail

TOPSOIL SALVAGE & UTILIZATION

- Purpose:** To provide a method of preserving topsoil for use in establishing vegetation to achieve final site stabilization.
- Specifications:**  
Material  
Typically the darker, friable, loamy surface layer of soil found immediately below vegetation.
- Storage Area
1. Free of stumps, rock, and construction debris.
  2. Stockpile covered with vegetation or a tarp.
  3. Surrounded by a sediment barrier or sediment filter.
  4. Stockpile outside rooting zone of trees to be protected.

- Application:**  
Salvaging and Stockpiling Topsoil
1. Determine depth and suitability of topsoil at site.
  2. Prior to stripping topsoil, install any site-specific down slope measures needed to control storm water runoff and sedimentation.
  3. Remove soil material no deeper than the "surface soil".
  4. Stockpile the material in accessible locations that will not interfere with other construction activities or block drainage.
  5. Stockpiled soil should be temporarily seeded and surrounded by a sediment control measure.

- Spreading Topsoil
1. Prior to applying topsoil, grade the subsoil and roughen the top three to four inches by disking.
  2. Apply topsoil evenly to a depth of a minimum of four inches, then compact slightly to improve contact with the subsoil.
  3. Do not apply topsoil when the site is wet, muddy, or frozen.
  4. After spreading the topsoil, grade and stabilize the site.

- Maintenance:**
1. Inspect daily.
  2. Check for damage to perimeter barrier; repair immediately.
  3. Check for erosion or damage to newly spread topsoil; repair immediately and revegetate.

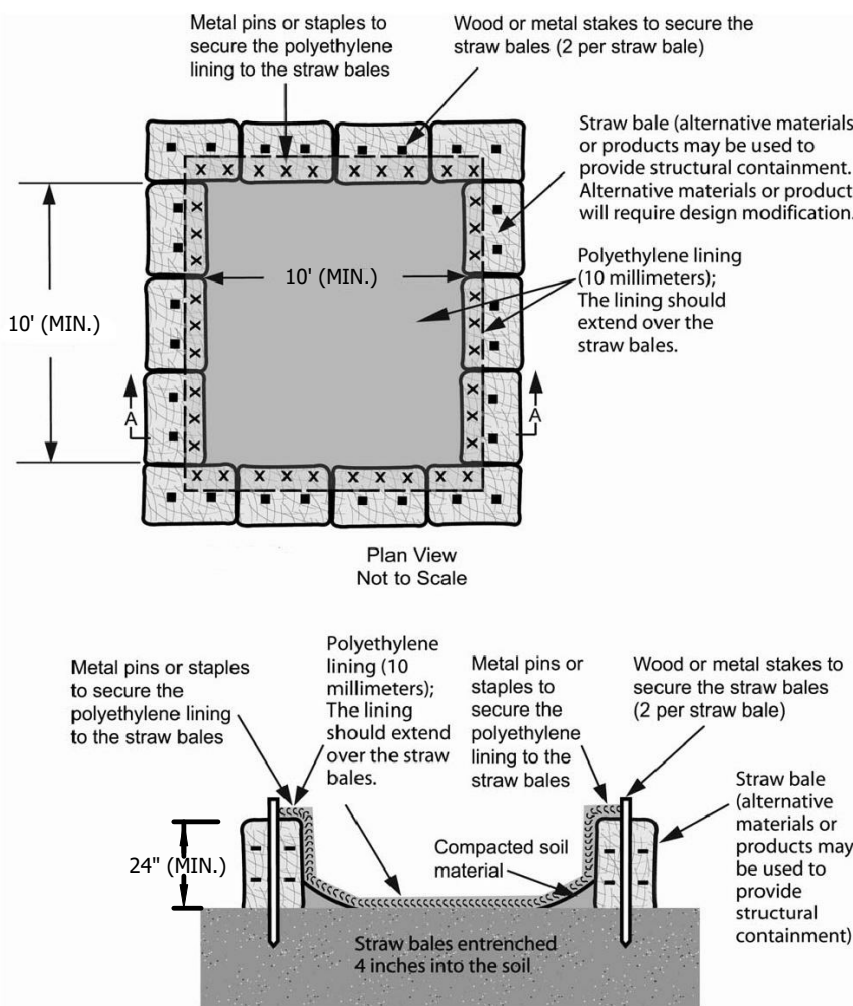
CONCRETE WASHOUT

- Purpose:** To reduce the discharge of pollutants associated with concrete waste through consolidation of solids and retention of liquids.
- Requirements:**
- 1.) Locate concrete washout systems at least 50 feet from any creeks, wetlands, ditches, karst features, or storm drains/manmade conveyance systems.
  - 2.) Locate concrete washout systems in relatively flat areas with established vegetative cover and do not receive runoff from adjacent land areas.
  - 3.) Locate in areas that provide easy access for concrete trucks and other construction equipment.
  - 4.) Locate away from other construction traffic to reduce the potential for damage to the system.
  - 5.) Minimum of ten millimeter polyethylene sheeting that is free of holes, tears, and other defects. The sheeting selected should be of an appropriate size to fit the washout system without seams or overlap of the lining.
  - 6.) Signage.
  - 7.) Orange safety fencing or equivalent.
  - 8.) Straw bales, sandbags (bags should be ultraviolet-stabilized geotextile fabric), soil material, or other appropriate materials that can be used to construct a containment system (above grade systems).

- Installation:**
- 1.) Dependent upon the type of system, either excavate the pit or install the containment system.
  - 2.) A base shall be constructed and prepared that is free of rocks and other debris that may cause tears or punctures in the polyethylene lining.
  - 3.) Install the polyethylene lining. For excavated systems, the lining should extend over the entire excavation. The lining for bermed systems should be installed over the pooling area with enough material to extend the lining over the berm or containment system. The lining should be secured with pins, staples, or other fasteners.
  - 4.) Place flags, safety fencing, or equivalent to provide a barrier to construction equipment and other traffic.
  - 5.) Place a non-collapsing, non-water holding cover over the washout facility prior to a predicted rainfall event to prevent accumulation of water and possible overflow of the system (optional).
  - 6.) Install signage that identifies concrete washout areas.
  - 7.) Post signs directing contractors and suppliers to designated locations.
- Maintenance:**
- 1.) Inspect daily and after each storm event.
  - 2.) Inspect the integrity of the overall structure including, where applicable, the containment system.
  - 3.) Inspect the system for leaks, spills, and tracking of soil by equipment.
  - 4.) Inspect the polyethylene lining for failure, including tears and punctures.
  - 5.) Once concrete wastes harden, remove and dispose of the material.
  - 6.) Excess concrete should be removed when the washout system reaches 50 percent of the design capacity. Use of the system should be discontinued until appropriate measures can be initiated to clean the structure. Prefabricated systems should also utilize this criterion, unless the manufacturer has alternate specifications.
  - 7.) Upon removal of the solids, inspect the structure. Repair the structure as needed or construct a new system.
  - 8.) Dispose of all concrete in a legal manner. Reuse the material on site, recycle, or haul the material to an approved construction/demolition landfill site. Recycling of material is encouraged. The waste material can be used for multiple applications including but not limited to roadbeds and building. The availability for recycling should be checked locally.
  - 9.) The plastic liner should be replaced after every cleaning; the removal of material will usually damage the lining.
  - 10.) The concrete washout system should be repaired or enlarged as necessary to maintain capacity for concrete waste.
  - 11.) Concrete washout systems are designed to promote evaporation. However, if the liquids do not evaporate and the system is near capacity it may be necessary to vacuum or remove the liquids and dispose of them in an acceptable method. Disposal may be allowed at the local sanitary sewer authority provided their National Pollutant Discharge Elimination System permits allow for acceptance of this material. Another option would be to utilize a secondary containment system or basin for further dewatering.
  - 12.) Prefabricated units are often pumped and the company supplying the unit provides this service.
  - 13.) Inspect construction activities on a regular basis to ensure suppliers, contractors, and others are utilizing designated washout areas. If concrete waste is being disposed of improperly, identify the violators and take appropriate action.
  - 14.) When concrete washout systems are no longer required, the concrete washout systems shall be closed. Dispose of all hardened concrete and other materials used to construct the system.
  - 15.) Holes, depressions and other land disturbances associated with the system should be backfilled, graded, and stabilized.

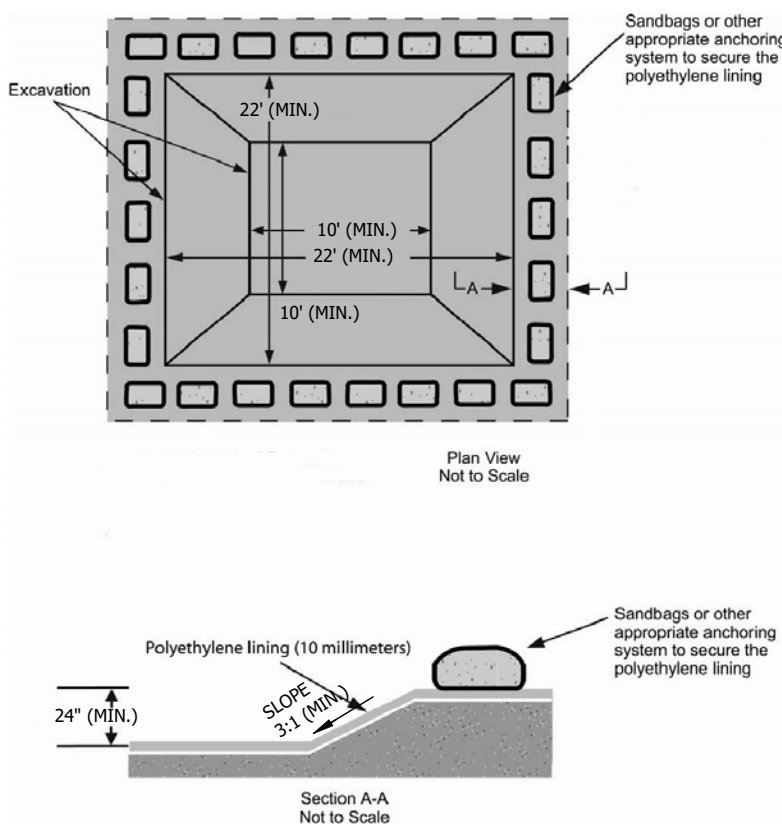
CONCRETE WASHOUT

Concrete Washout (Above Grade System) Worksheet



CONCRETE WASHOUT

Concrete Washout (Below Grade System) Worksheet



MAPLE LEAF CROSSING  
A PLANNED UNIT DEVELOPMENT TO THE  
TOWN OF MUNSTER, LAKE CO., INDIANA  
SWPPP DETAILS & SPECIFICATIONS

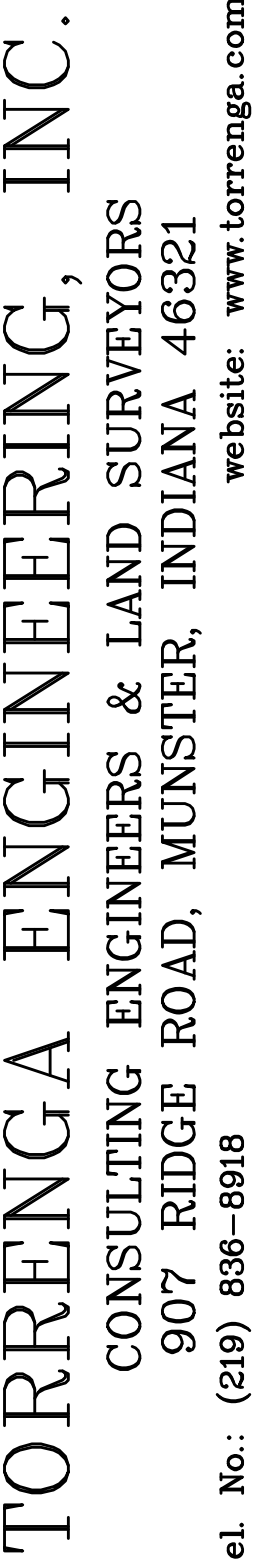
TORRENGA ENGINEERING, INC.  
CONSULTING ENGINEERS & LAND SURVEYORS  
907 RIDGE ROAD, MUNSTER, INDIANA 46321  
Tel. No.: (219) 836-8918  
website: www.torrenge.com

CLIENT: Metropolitan Builders  
First 400 Fisher Avenue  
Munster, Indiana 46321  
JOB NO: 2019-5052  
SCALE: NTS  
DATE: 05-11-2020  
REVISIONS:  
06-26-2020  
06-05-2020



# MAPLE LEAF CROSSING

A PLANNED UNIT DEVELOPMENT TO THE TOWN OF  
MUNSTER, LAKE COUNTY, INDIANA

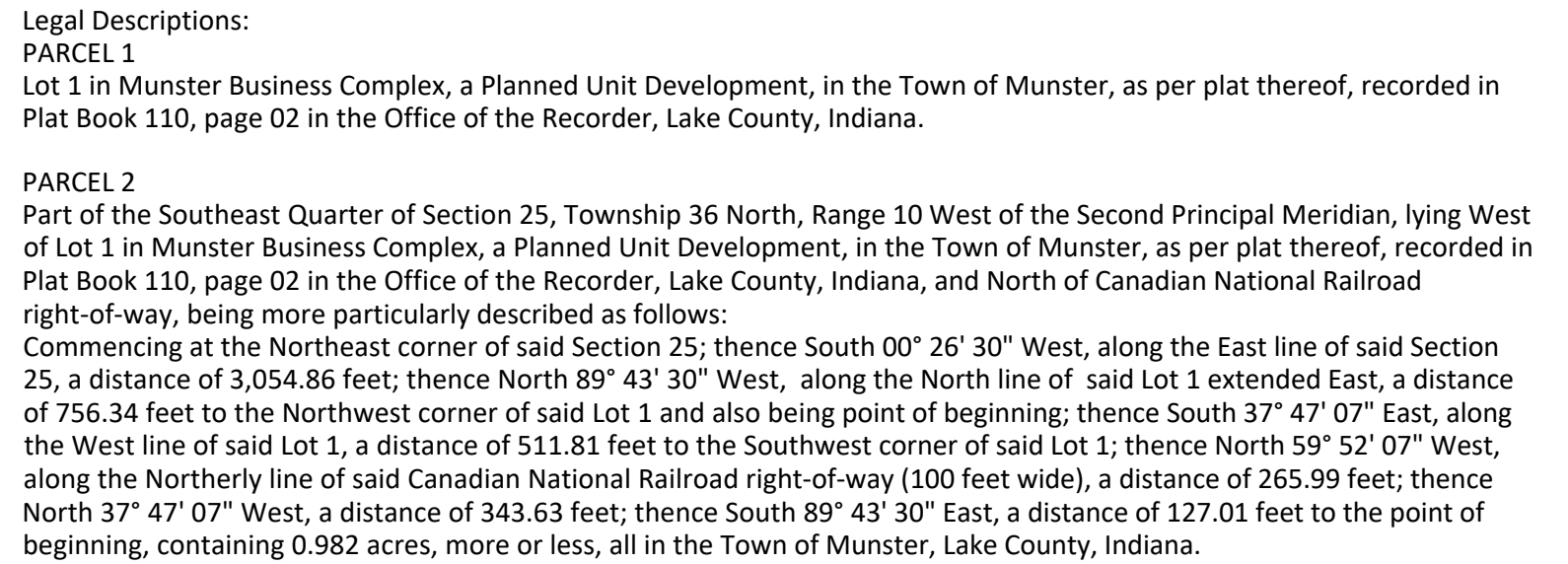


MAPLE LEAF CROSSING  
A PLANNED UNIT DEVELOPMENT TO THE  
TOWN OF MUNSTER, LAKE CO., INDIANA  
FINAL PLAT

REVISIONS:  
DATE: 06-05-2020

JOB NO: 2019-5052  
SCALE: 1" = 40'

SHEET  
1 of 1



**STATE OF INDIANA      )**  
**COUNTY OF LAKE         ) §**

We, the undersigned, Maple Leaf Crossings, LLC, do hereby certify that we are the owner of the property herein described and that of its own free will and accord has caused said property to be surveyed and subdivided into lots, blocks and streets as heron shown.

This subdivision shall be known and designated as MAPLE LEAF CROSSING, a Planned Unit Development to the Town of Munster. All streets and easements shown and not heretofore dedicated, are hereby dedicated, to the Town of Munster.

Maple Leaf Crossings, LLC

Jack Lieser, Principal

**STATE OF INDIANA            )**  
   )**§**  
**COUNTY OF LAKE            )**

Before me, the undersigned Notary Public, in and for the County and State aforesaid, personally appeared Jack Lieser, on behalf of Maple Leaf Crossings, LLC, personally known to me to be the same persons who signed the attached certificate and acknowledged to me that he executed the same as his own free act and deed.

Witness my hand and Notarial Seal this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_ A.D.

My Commission expires: \_\_\_\_\_  
County of Residence: \_\_\_\_\_ Notary Public

**STATE OF INDIANA       )**  
**COUNTY OF LAKE         ) §**

Submitted to, approved and accepted by the Plan Commission of the Town of Munster, Lake County, Indiana, this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

PLAN COMMISSION OF THE TOWN OF MUNSTER, LAKE COUNTY, INDIANA.

Chairman: \_\_\_\_\_ ATTEST: \_\_\_\_\_  
Executive Secretary: \_\_\_\_\_

[illegible]

I, Gary P. Torrenza, hereby statutan I am a registered Land Surveyor, licensed in compliance with the laws of the State of Indiana; and that to the best of my knowledge, information and belief, the plat within represents a survey made under my direction in accordance with Title 865, Article 1, Rule 12 of the Indiana Administrative Code. The field work for said survey was completed on March 25, 2020; that this plat correctly represents said survey and that all dimensions, linear and angular are correctly shown, and that all monuments or markers shown thereon actually exist, and that their locations, size, type and description are accurately shown. I affirm, under the penalties for perjury, that I have taken reasonable care to redact each Social Security Number in this document, unless required by law.

Witness my hand and Seal this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

TORRENGA ENGINEERING, INC.

Gary P. Torrenga - Registered L.S. #S0514

UTILITY EASEMENTS:

An easement is hereby granted to the Town of Munster, Indiana, SBC, AT&T, Northern Indiana Public Service Company and other companies identified by the Munster Town Board as supplying public services needed severally and their respective successors and assigns to install, lay, erect, construct, renew, operate, repair, replace and maintain sewers, water mains, gas mains, conduits, cables, poles and wires, underground with all necessary braces, guys, anchors and other appliances, in, upon, along and over the property and easements and designed to be used by the town of Munster, Indiana, for public utilities' for the purpose of serving the public in getting water, gas, electric, telephone and telegraph service, including aerial lines to streets where necessary with aerial service wires to adjacent lots, together with the right to enter upon the said easements for public utilities at all times for any and all of the purposes aforesaid and to trim and keep trimmed any trees, shrubs, or saplings that interfere with any such utility equipment. Any fences, trees, black topplings, vegetation improvements or other potential obstacles to the use of easements shown upon the subdivision plat shall be placed at the risk of the property owner and may be subject to removal in the event of any interference with the use of said easements or drainage of other lots. The use of easements for public utilities shall not be subject to removal from the plat upon the owner's submitting and approved when building permits are issued that adversely impact drainage of adjoining lots shall be subject to regaining at the owner's expense. All designated utility easements are also hereby dedicated as drainage easements.

FLOOD STATEMENT:

As taken from FEMA Flood Insurance Rate Map (FIRM), Community-Panel Number 18089C0117E, Effective Date January 18, 2012, this property is in Flood Zone X, areas determined to be outside the 0.2 % annual chance floodplain.




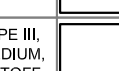

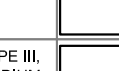




OUTLOT A & OUTLOT B (COMMON AREA):




Each Lot (Lots 1 through 7) shall have an unlimited, non-exclusive easement to Outlot A and Outlot B for the purpose of Ingress-Egress and parking.



EXHIBIT A

Luminaire Locations					
No.	Label	X	Y	Mt	Orientation
1	B	548.35	292.40	12.50	0.00
2	B	614.90	348.35	12.50	0.00
3	B	669.80	375.90	12.50	0.00
4	B	508.65	348.90	12.50	0.00
5	B	622.10	220.90	12.50	30.00
6	B	650.80	158.50	12.50	30.00
7	B	402.65	306.75	12.50	30.00
8	B	381.05	309.40	12.50	30.00
9	B	336.25	263.10	12.50	30.00
10	B	427.30	330.35	12.50	210.00
11	B	383.45	415.20	12.50	0.00
12	B	427.90	414.70	12.50	0.00
13	B	550.30	414.65	12.50	0.00
14	B	653.05	413.90	12.50	0.00
15	B	653.05	203.00	12.50	0.00
16	B	516.05	230.00	12.50	30.00
17	B	536.30	273.25	12.50	30.00
18	B	472.75	334.15	12.50	203.70
19	B	507.78	313.83	12.50	203.70
20	B	589.03	266.93	12.50	203.75
21	B	532.55	228.50	12.50	30.00
22	B	559.80	282.75	12.50	30.00
23	B	427.95	371.55	12.50	0.00
24	B	378.20	371.55	12.50	0.00
25	B	296.75	371.55	12.50	0.00
26	B	220.35	371.65	12.50	0.00
27	B	184.05	373.70	12.50	0.00
28	B	564.70	370.90	12.50	0.00
1	D	716.40	143.90	270.00	0.00
2	D	715.80	209.45	280.00	270.00
3	D	716.80	528.00	280.00	270.00
4	D	716.80	438.30	280.00	270.00
5	D	715.85	58.15	280.00	270.00
6	D	715.40	132.05	280.00	270.00
7	D	717.40	280.00	280.00	270.00
8	D	658.80	65.30	280.00	30.00
9	D	483.65	129.75	290.00	30.00
10	D	359.20	200.50	280.00	30.00
11	D	132.55	332.40	280.00	30.00
12	D	124.05	376.30	280.00	30.00
13	D	294.50	239.80	280.00	30.00
14	D	231.30	275.90	280.00	30.00
15	D	419.80	165.50	280.00	30.00
16	D	547.25	93.15	290.00	30.00
17	D	654.30	31.05	280.00	30.00
18	D	11.80	578.90	280.00	180.00
19	D	-8.99	513.49	280.00	53.09
20	D	28.41	463.29	280.00	53.09
21	D	186.05	300.00	280.00	30.00
1	E	99.00	591.00	280.00	0.00
2	E	239.00	590.00	280.00	0.00
3	E	379.00	590.00	280.00	0.00
4	E	529.00	589.00	280.00	0.00
5	E	689.00	575.00	280.00	0.00
6	E	580.25	589.00	280.00	0.00
7	E	443.75	590.25	280.00	0.00
8	E	309.25	599.25	280.00	0.00
9	E	175.25	599.00	280.00	0.00
1	F	254.00	312.50	120.00	210.00
2	F	390.50	249.00	120.00	210.00
3	F	474.50	177.00	120.00	210.00
4	F	502.00	161.25	120.00	210.00
5	F	627.50	87.75	120.00	210.00
6	F	645.00	112.20	120.00	120.00
7	F	497.50	207.75	120.00	120.00
8	F	307.50	288.75	120.00	120.00
9	F	328.25	324.50	120.00	120.00
10	F	233.25	317.75	120.00	200.00
11	F	290.75	342.75	120.00	300.00
12	F	608.50	311.50	120.00	270.00
13	F	686.75	272.50	120.00	270.00
14	F	614.25	282.25	120.00	180.00
15	F	658.25	283.75	120.00	90.00
16	F	658.75	328.00	120.00	90.00
17	F	552.25	178.50	120.00	300.00
18	F	397.00	283.50	120.00	30.00
19	F	414.25	273.50	120.00	30.00
20	F	430.50	264.00	120.00	30.00
21	F	447.00	254.50	120.00	30.00
22	F	464.00	244.75	120.00	30.00
23	F	479.50	235.90	120.00	30.00
24	F	550.50	194.75	120.00	30.00
25	F	583.25	175.75	120.00	30.00
26	F	615.75	156.75	120.00	30.00
1	G	109.50	502.75	36.00	0.00
2	G	148.50	502.25	36.00	0.00
3	G	166.00	509.00	36.00	0.00
4	G	234.50	507.50	36.00	0.00
5	G	247.00	502.25	36.00	0.00
6	G	285.00	501.50	36.00	0.00
7	G	299.50	515.25	36.00	0.00
8	G	364.00	514.75	36.00	0.00
9	G	475.75	509.00	36.00	0.00
10	G	551.00	508.75	36.00	0.00
11	G	620.50	507.75	36.00	0.00
12	G	106.75	509.00	36.00	270.00
13	G	455.50	472.25	36.00	270.00
14	G	101.00	468.25	36.00	270.00
15	G	100.75	440.00	36.00	270.00
16	G	338.75	441.00	36.00	90.00
17	G	359.00	471.00	36.00	90.00
18	G	369.00	512.50	36.00	90.00
19	G	493.50	431.50	36.00	180.00
20	G	521.50	431.00	36.00	180.00
21	G	659.75	489.25	36.00	90.00
22	G	109.50	437.25	36.00	180.00
23	G	183.25	436.75	36.00	180.00
24	G	235.75	442.25	36.00	180.00
25	G	279.00	436.00	36.00	180.00
26	G	347.00	436.00	36.00	180.00

Schedule														
Label	Quantity	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Filename	Lumens Per Lamp	Symbol	Light Loss Factor	Wattage	Efficiency	Distribution	Polar Plot
B	28	Sternberg Lighting	AA40VCOB-4L07TS-MDL05	AA40 Series with Vertical COB tower, Oak Town Series Acorn, new LED optic, TS	Osram COB	1	AA40VCOB-4L07TS-MDL05IES	7728		0.95	148.4	100%	TYPE III MEDIUM CUTOFF	
D	21	American Electric Lighting	115 15S R3 FG	115 SERIES 150W HPS TYPE 3 MED CUTOFF	ONE 150WATT HIGH PRESSURE SODIUM.	1	115_15S_R3_F G.klx	16000		0.8	193	67%	TYPE III MEDIUM CUTOFF	
E	9	American Electric Lighting	115 15S R3 FG	115 SERIES 150W HPS TYPE 3 MED CUTOFF	ONE 150WATT HIGH PRESSURE SODIUM.	1	115_15S_R3_F G.klx	16000		0.8	388	67%	TYPE III MEDIUM CUTOFF	
F	26	Lithonia Lighting	WDGE1 LED P2 40K 80CRI VF	WDGE1 LED WITH P2+ PERFORMANCE PACKAGE, 4000K, 80CRI, VISUAL COMFORT FORWARD OPTIC		1	WDGE1_LED_P 2_40K_80CRI_VF.klx	1978		0.95	15,017.6	100%	TYPE II VERY SHORT, BUG RATING: B1+ UO+ G1	
G	26	Lithonia Lighting	WDGE2 LED P5 40K 80CRI VF	WDGE2 LED WITH P5+ PERFORMANCE PACKAGE, 4000K, 80CRI, VISUAL COMFORT FORWARD OPTIC		1	WDGE2_LED_P 5_40K_80CRI_VF.klx	5996		0.95	48.44	100%	TYPE III VERY SHORT, BUG RATING: B1+ UO+ G1	

Statistics					
Description	Symbol	Avg	Max	Min	Avg/Min
Calc Zone Entire Site		2.5 f.c.	13.4 f.c.	0.0 f.c.	N/A
Calc Zone Parking Area		2.7 f.c.	11.5 f.c.	1.0 f.c.	11.5:1
Calc Zone Road		2.2 f.c.	4.4 f.c.	0.5 f.c.	8.8:1

Plan View  
Scale = 1" = 30'



# **EXHIBIT B**

## **DEVELOPMENTAL STANDARDS FOR THE MAPLE LEAF CROSSING DEVELOPMENT AT THE MUNSTER BUSINESS COMPLEX PLANNED UNIT DEVELOPMENT**

This document sets forth the developmental standards for the Planned Unit Development known as Maple Leaf Crossing, with street addresses 9352-9482 Calumet Avenue.

### **I. Planned Unit Development**

Maple Leaf Crossing is hereby designated as a Planned Unit Development Special District (“SD-PUD”) under Ordinance No. 1788.

#### **A. Permitted uses shall include:**

1. Hotel
2. Professional Office
3. Medical or Dental Office or Clinic
4. Alcoholic Beverage Retail Sales
5. Alcoholic Beverage- Serving Establishment
6. Bar or Tavern
7. Brewpub
8. Craftsman Establishment
9. Dry Cleaning without drive-through
10. Entertainment Facility
11. Financial Services without Drive-through
12. Hair, skin, nail care or day spa
13. Open air market, including container shops
14. Open Front or Open Lot Retail, including container shops
15. Pharmacy
16. Restaurant, and Restaurant with outdoor dining
17. Tailor or Seamstress Shop
18. Tasting Room
19. Theater or Performing Arts Venue
20. Ticket Office
21. Veterinary Office Clinic or Hospital

## **EXHIBIT B**

22. Warehouse/ retail
23. Civic space
24. Brewery
25. Distillery
26. Microbrewery/MicroDistillery/ Microwinery/ Nanobrewery
27. Winery
28. Food/ Refreshment Stand
29. Garden
30. Gift Shop
31. Massage Services by Indiana licensed masseuse, accessory to Spa or Salon
32. Parking Area
33. Patio
34. Such other uses as approved by the Plan Commission or Town Council

- B. Temporary buildings for construction purposes for a period not to exceed the duration of the construction.

### **2. Use Conditions and Restrictions**

A. Hours. Maple Leaf Crossing hours of operation shall be seven days per week as allowed for any like businesses in Commercial Districts in the Town of Munster.

### **3. Yards**

Yards, roadways, walkways, parking and greenspace shall be as set forth in the Approved Development Plan attached hereto as Exhibit A and incorporated herein.

### **4. Height Regulations**

No building shall exceed four stories in height and a maximum of 60 feet.

### **5. Screening of Mechanicals**

All mechanical equipment will be screened as to not be visible by those at street level on all sides of the building.

### **6. Off-Street Parking Facilities**

Off-street parking shall include approximately 358 parking spaces as set forth in the Approved Development Plan.

### **7. Lot Coverage**

## **EXHIBIT B**

Green space shall exceed 7.5% of the total area as set forth in the Approved Development Plan.

### **8. Pedestrian and Bicycle Access**

Sidewalks and bicycle paths shall be located within and upon Maple Leaf Crossing as set forth in the Approved Development Plan.

## **II. Formula Business Regulations**

Any Formula Business that desires to be located within the Planned Unit Development must obtain a Special Use permit from the Board of Zoning Appeals. A “Formula Business” is defined as a restaurant or retail establishment which is required by contractual or other arrangements to operate with standardized menus, ingredients, architecture, décor, uniforms, appearance or signage.

The following findings, at a minimum, must be made prior to the issuance of a Special Use Permit for a Formula Business:

1. The Formula Business will be compatible with existing surrounding uses, and has been designed and will be operative in a non-obtrusive manner to preserve the community’s distinctive character and ambiance;
2. The Formula Business will not result in an over-concentration of formula establishments in its immediate vicinity or the Town as a whole;
3. The Formula Business will promote diversity and variety to assure a balanced mix of commercial use available to serve both resident and visitor populations;
4. The Formula Business will contribute to an appropriate balance of local, regional or national-based businesses in the community;
5. The Formula Business will be mutually beneficial to and will enhance the economic health of surrounding uses in the district; and,
6. The Formula Business will contribute to an appropriate balance of small, medium and large-sized businesses in the community.

## **III. Building and Material Requirements**

### **1. Building Design**

All building designs and lot plans shall be submitted to the Plan Commission for building site plan approval in accordance with Section 26-6.804.G of the Town’s Code of Ordinances. The overall image should be well coordinated, fully integrating components such as entries, displays and signage. Buildings shall comply with the



## **EXHIBIT B**

Approved Development Plan and the Development Standards for the Maple Leaf Crossing Planned Unit Development.

### **2. Materials and Details**

Building materials shall consist primarily of glass, steel, brick, stone, and shipping containers for accents and small businesses as contemplated by the Development Agreement. Proposed materials and colors shall be submitted on a color material sample as a component of building site plan approval application in accordance with Section 26-6.804.G of the Town's Code of Ordinances..

### **3. Permitted Materials**

The following is a list of permitted materials, subject to Town approval during the review process:

- a. Painted aluminum or steel;
- b. Stainless steel;
- c. Solid brass, bronze, copper or pewter;
- d. Enamel coated steel;
- e. Textured or brushed stainless steel;
- f. Galvanized, sandblasted or etched metals;
- g. Natural stone;
- h. Full size brick;
- i. Painted or stained wood in limited amounts
- j. Porcelain, ceramic or glass

### **4. Metals**

High quality is expected for all metal applications. Metal such as shop-painted aluminum and steel, stainless steel, solid brass, bronze, copper, pewter, or enamel coated steel may be used for hardware, trim and panels when well designed and detailed.

- a. Lap joints and seams must be even and straight and concealed when possible. Outside corners are to be mitered or continuous break shaped.
- b. Fabrication must be either heavy gauge material or thinner gauge material shop laminated to solid backing. In no case are oil canning (resulting from light reflection from an uneven or buckled surface), scratches, warps, dents, occlusions, visible seams or other imperfections allowed.
- c. Sealants on natural metals are required to prevent tarnishing.

## **EXHIBIT B**

- d. Textured or brushed stainless steel, galvanized, sandblasted and etched metals are encouraged in creative applications. Unique treatments such as patina, rusted, etched and imprinted metals will be considered for special design objectives.
- e. Polished metals should be solid, not plated and limited to accent trim.

### **5. Natural Stone**

- a. Granite, marble, limestone, slate and other natural stone materials may be used in building applications. Stone may be polished, unpolished, sandblasted, flamed, honed, split face or caved. Careful, craftsman-like attention to detail is required at all connections and transitions to other materials.
- b. Edge details must prevent visible unfinished edges. Exposed edges must be quirk mitered, chamfered or polished to match adjacent surface finish.
- c. The transition between stone and adjoining materials must be defined by use of metal reveals.
- d. Stone use as a paving material must be flush when meeting other flooring materials.
- e. Natural stone must be protected against staining and discoloration by means of sealers appropriate to the material.

### **6. Wood**

- a. Painted or stained wood may be used in many design applications, such as window frames, decorative trim or molding, and for solid areas, such as decorative bulkheads. In some cases, it may be used for larger architectural elements, such as columns and entablatures. Wood paneling and plank construction are not acceptable unless presented in a highly imaginative concept and approved by the Town.
  - 1. Wood used in the construction of the building must be kiln dried, mill quality, or marine grade hardwood and must meet local frame spread requirements.
  - 2. Painted wood must have a shop quality enamel finish.
  - 3. Wood without a paint finish must receive a clear, preservative sealant.
  - 4. Extensive use of natural wood finishes is discouraged.

### **7. Tile**

- a. Tile may be used in diverse applications. Its use is encouraged to introduce light, decorative texture or graphic quality to a storefront.
  - 1. Porcelain ceramic or glass tiles in glazed or natural finishes may be used as accents and in limited field applications. Patterns used over large areas are expected to have a sophisticated, well executed design concept.

## **EXHIBIT B**

2. Small and intricate mosaic tile patterns may be utilized for detail and accent only.
3. All tiles must be carefully detailed at outside corners with bull nose edges or special corner trims. Lapped or butt joints are not permitted.

### **8. Glazing**

- a. The creative use of glazing and other building front design elements is encouraged and must be carefully detailed.
  1. Large panes
  2. All glass
  3. Stained, leaded
  4. Glass block
  5. In frameless assemblies,
  6. Aluminum, metal or wood building
  7. All aluminum framing
  8. Tinted glass is permitted, however, reflective glass (including mirroring) is not permitted.

### **9. Lighting**

- a. Lighting fixtures shall be high quality commercial grade. The fixtures shall be constructed and installed to be glare free and shall comply with all applicable code requirements.
- b. Recessed or appropriately styled surface mounted halogen incandescent, ceramic metal halide, or solid state (LED) sources are permitted. 2077 to 3000 k is the required color temperature range of these sources, with a minimum Color Rendering Index (CRI) of 80.
- c. Fluorescent fixtures are not permitted.
- d. The lighting plan shall be of the design and layout set forth in the Approved Development Plan.
- e. A detailed lighting plan for each building and lot shall be submitted for Plan Commission approval as a component of a site plan approval application in accordance with the procedure of Section 26-6.804.G of the Town's Code of Ordinances and the standards of the Development Plan and Development Standards.

### **10. Prohibited Materials**

1. The following is a list of prohibited materials. In rare instances, special consideration may be given for the use of a prohibited material if its application is highly original, creative and essential to the theme

## **EXHIBIT B**

or design concept of the building front. Exceptions may be granted by the Plan Commission solely at its discretion as a component of a building site plan approval application in accordance with Section 26-6.804.G of the Town's Code of Ordinances.: Plastic laminates, except for high pressure laminates such as Prodema and Trespa or similar.

2. Glossy, or large expanses of acrylic or Plexiglass
3. Pegboard
4. Mirror
5. Mirrored glass (but not tinted glass)
6. Vinyl, fabric or paper
7. Plywood or particle board
8. Sheet or modular vinyl
9. Luminous ceiling, including "egg crate"
10. Shingles, shakes, rustic siding
11. Drywall
12. Stucco, exterior insulation finishing system (EIFS) or similar products

#### **IV. Signage Design Criteria**

Signage shall be compliant with §26-6.701 unless a variance is obtained from the Board of Zoning Appeals.

#### **V. Landscape Design Criteria**

Landscaping for Maple Leaf Crossing shall generally be in accordance with the Landscaping Plan attached hereto as Exhibit C and incorporated herein. Other Developmental Standards

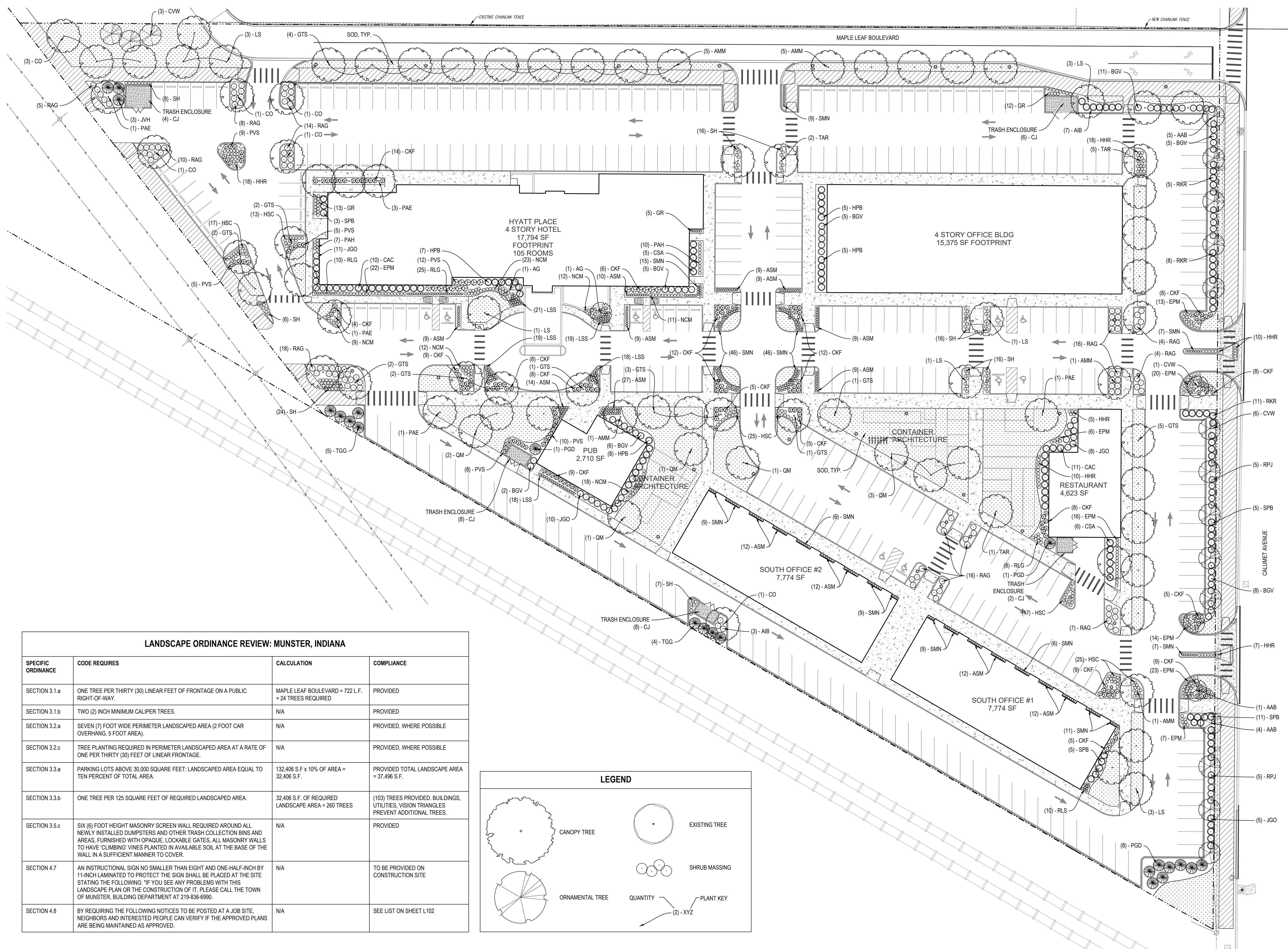
#### **VI. Other Development Standards**

The Approved Development Plan and Development Standards shall govern the development of Maple Leaf Crossing PUD. The development standards for zoning district CD-4.A set forth in Zoning Ordinance 1788, Table 26-6.405.A-6 shall apply to matters not addressed in the Approved Development Plan and Development Standards.

#### **VII. All construction on the building sites on lots 1 through 7 of the Approved Development Plan are subject to approval by the Munster Plan Commission in accordance with the procedure set forth in Section 26-6.804.G of the Town's Code of Ordinances according to the terms and standards of the Approved Development Plan and Development Standards for Maple Leaf Crossing PUD or section VI above, if applicable.**




## EXHIBIT C




LANDSCAPE ORDINANCE REVIEW: MUNSTER, INDIANA			
SPECIFIC ORDINANCE	CODE REQUIRES	CALCULATION	COMPLIANCE
SECTION 3.1.a	ONE TREE PER THIRTY (30) LINEAR FEET OF FRONTAGE ON A PUBLIC RIGHT-OF-WAY.	MAPLE LEAF BOULEVARD = 722 L.F. = 24 TREES REQUIRED	PROVIDED
SECTION 3.1.b	TWO (2) INCH MINIMUM CALIPER TREES.	N/A	PROVIDED
SECTION 3.2.a	SEVEN (7) FOOT WIDE PERIMETER LANDSCAPED AREA (2 FOOT CAR OVERHANG, 5 FOOT AREA).	N/A	PROVIDED, WHERE POSSIBLE
SECTION 3.2.c	TREE PLANTING REQUIRED IN PERIMETER LANDSCAPED AREA AT A RATE OF ONE PER THIRTY (30) FEET OF LINEAR FRONTAGE.	N/A	PROVIDED, WHERE POSSIBLE
SECTION 3.3.a	PARKING LOTS ABOVE 30,000 SQUARE FEET: LANDSCAPED AREA EQUAL TO TEN PERCENT OF TOTAL AREA.	132,406 S.F x 10% OF AREA = 32,406 S.F.	PROVIDED TOTAL LANDSCAPE AREA = 37,496 S.F.
SECTION 3.3.b	ONE TREE PER 125 SQUARE FEET OF REQUIRED LANDSCAPED AREA.	32,406 S.F. OF REQUIRED LANDSCAPE AREA = 260 TREES	(103) TREES PROVIDED. BUILDINGS, UTILITIES, VISION TRIANGLES PREVENT ADDITIONAL TREES.
SECTION 3.5.c	SIX (6) FOOT HEIGHT MASONRY SCREEN WALL REQUIRED AROUND ALL NEWLY INSTALLED DUMPSTERS AND OTHER TRASH COLLECTION BINS AND AREAS, FURNISHED WITH OPAQUE, LOCKABLE GATES, ALL MASONRY WALLS TO HAVE "CLIMBING" VINES PLANTED IN AVAILABLE SOIL AT THE BASE OF THE WALL IN A SUFFICIENT MANNER TO COVER.	N/A	PROVIDED
SECTION 4.7	AN INSTRUCTIONAL SIGN NO SMALLER THAN EIGHT AND ONE-HALF-INCH BY 11-INCH LAMINATED TO PROTECT THE SIGN SHALL BE PLACED AT THE SITE STATING THE FOLLOWING: "IF YOU SEE ANY PROBLEMS WITH THIS LANDSCAPE PLAN OR THE CONSTRUCTION OF IT, PLEASE CALL THE TOWN OF MUNSTER, BUILDING DEPARTMENT AT 219-836-6890.	N/A	TO BE PROVIDED ON CONSTRUCTION SITE
SECTION 4.8	BY REQUIRING THE FOLLOWING NOTICES TO BE POSTED AT A JOB SITE, NEIGHBORS AND INTERESTED PEOPLE CAN VERIFY IF THE APPROVED PLANS ARE BEING MAINTAINED AS APPROVED.	N/A	SEE LIST ON SHEET L102

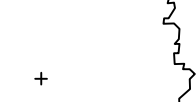
**LEGEND**




CANOPY TREE



EXISTING TREE




ORNAMENTAL TREE



SHRUB MASSING

QUANTITY PLANT KEY

(2) - XYZ

PROJECT NAME: <b>MAPLE LEAF CROSSING</b> PLANNED UNIT DEVELOPMENT MUNSTER, IN 46321		
OWNER NAME: <b>MAPLE LEAF CROSSING, LLC.</b> 400 FISHER AVENUE MUNSTER, IN 46321		
CONSULTANTS: <b>TORRENZA ENGINEERING, INC.</b> 907 RIDGE ROAD MUNSTER, IN 46321		
 <b>PLANNED ENVIRONMENT ASSOCIATES</b> P.O. BOX 2246 CHESTERTON, IN 46304 (719) 290-3393 www.planenv.com		
SUBMITTAL & REVISIONS		
1	06/29/2020	SCHEMATIC DESIGN
STAMP:  EXP: 12/31/2021		
TITLE: <b>LANDSCAPE PLAN</b>		
SHEET: <b>L101</b>		
DRAWN BY: MD		
CHECK BY: JR		
PROJECT #: 20-027		



## EXHIBIT C

## PLANTING NOTES

- SEE SHEET L'01 FOR PLANTING PLAN. SEE SHEET L'201 FOR PLANTING DETAILS.
2. THE LANDSCAPE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS AND FEES THAT MAY BE REQUIRED FOR HIS PORTION OF WORK.
3. ESTIMATED SCHEDULE FOR PLANTING IS FALL 2021.
4. IN CASE OF DISCREPANCIES BETWEEN THE PLAN AND THE PLANT LIST, THE GRAPHIC SYMBOLS SHOWN ON THE PLAN SHALL DICTATE.
5. PLANT MATERIALS:
  - 5.1. ALL PLANT MATERIALS SHALL MEET OR EXCEED THE AMERICAN STANDARDS FOR NURSERY STOCK, 1986 EDITION, AS SET FORTH BY AMERICAN ASSOCIATION OF NURSERYMEN.
  - 5.2. PLANTS SHALL BE SOUND, HEALTHY, VIGOROUS, AND FREE FROM INSECT PESTS, PLANT DISEASES, AND INJURIES. PLANTS SHALL BE EQUAL TO OR EXCEED THE MEASUREMENTS SPECIFIED IN THE PLANT LIST.
  - 5.3. TREES SHALL HAVE STRAIGHT TRUNK WITH LEADER INTACT, UNDAMAGED AND UNCUT. BRANCHING MUST BE WELL DEVELOPED.
  - 5.4. ALL PLANT MATERIAL AND SEED SHALL BE PROVIDED FROM A NURSERY (WITHIN 200 MILES) WITH A SIMILAR PLANT HARDINESS ZONE AS PROJECT LOCATION.
  - 5.5. NO SUBSTITUTIONS OF PLANT MATERIALS WILL BE ALLOWED. IF PLANTS ARE NOT AVAILABLE, THE CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT PRIOR TO BID IN WRITING. ALL PLANTS SHALL BE INSPECTED AND TAGGED WITH PROJECT I.D. AT NURSERY OR CONTRACTORS OPERATIONS PRIOR TO MOVING TO JOB SITE. PLANTS MAY BE INSPECTED AND APPROVED OR REJECTED ON THE JOB SITE BY LANDSCAPE ARCHITECT.
  - 5.6. LANDSCAPE CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT IN WRITING PRIOR TO BID DATE OF ANY PLANTS HE/SHE FEELS MAY NOT SURVIVE IN LOCATIONS NOTED ON PLANS
6. IRRIGATION:
  - 6.1. CONTRACTOR SHALL PROVIDE BID ALTERNATE FOR IRRIGATION SHALL BE PROVIDED PER IRRIGATION PERFORMANCE DRAWING AND SPEC.
  - 6.2. IF BID ALTERNATE OF IRRIGATION SYSTEM IS NOT SELECTED BY OWNER, CONTRACTOR RESPONSIBLE FOR ESTABLISHMENT WATERING THROUGH TEMPORARY FACILITIES, WATERING BAGS, ETC., AS APPROVED BY OWNER FOR PLANT WARRANTY.
7. TOPSOIL & PLANTING MIXTURES:
  - 7.1. CONTRACTOR SHALL ENSURE THAT SOIL CONDITIONS AND COMPACTION ARE ADEQUATE TO ALLOW FOR PROPER DRAINAGE AROUND THE CONSTRUCTION SITE. UNDESIRABLE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT PRIOR TO BEGINNING OF WORK. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE PROPER SURFACE AND SUBSURFACE DRAINAGE IN ALL AREAS.
  - 7.2. SALVAGE TOPSOIL FROM THE EARTHWORK AREAS AS APPROPRIATE AND/OR AS DIRECTED BY LANDSCAPE ARCHITECT AND STOCKPILE FOR REUSE IN LOCATION APPROVED BY OWNER.
  - 7.3. TOPSOIL SHALL BE MATERIALS CONSISTING OF FERTILE, FRIABLE, FINE SANDY LOAM, UNIFORM IN COMPOSITION AND FREE OF SUBSOIL, STONES, LUMPS, CLODS OF HARD EARTH, PLANTS, PLANT ROOTS, STICKS, NOXIOUS WEEDS, SLAG, CINDERS, DEMOLITION DEBRIS OR OTHER EXTRANEOUS MATTER OVER 1" IN LARGEST DIMENSION.
  - 7.4. EXISTING TOPSOIL SHALL BE PREPARED BY THOROUGHLY MIXING IN ORGANIC MATTER AT THE RATE OF 1/3 VOLUME OF SOIL REPLACED.
    - 7.4.1. ADJUST SOIL TO A PH OF 6.0 TO 6.5.
    - 7.4.2. ORGANIC MATTER: 4% MIN, 10% MAX
    - 7.4.3. AVAILABLE PHOSPHORUS: 25 PPM, MIN
    - 7.4.4. EXCHANGEABLE POTASSIUM: 125 PPM, MIN
  - 7.5. PEATMOSS TO BE USED ON PROJECT SHALL BE DOMESTIC OR IMPORTED MATERIAL, CHOCOLATE BROWN IN COLOR AND COMPOSED OF PARTIALLY DECOMPOSED VEGETABLE MATERIAL. PEAT MOSS TO BE MILDLY ACIDIC IN CHARACTER AND SHALL BE APPROVED BY LANDSCAPE ARCHITECT.
  - 7.6. SEED & SOD AREAS SHALL RECEIVE A MINIMUM OF 4" DEPTH OF TOPSOIL.
  - 7.7. PLANTING BEDS SHALL RECEIVE MINIMUM 6" DEPTH OF AMENDED TOPSOIL.

8. MULCH MATERIALS:
- 8.1. ALL MULCH MATERIALS SHALL BE PROCESSED DOUBLE SHREDDED HARDWOOD BARK MULCH OF UNIFORM SIZE. NO UTILITY MULCH OR PROCESSED TREE TRIMMINGS WILL BE ALLOWED. SUBMIT SAMPLE TO ARCHITECT.
- 8.2. MULCH SHALL BE 2-INCH THICKNESS MINIMUM COVERAGE IN ALL AREAS OF TREE PITTS OR PLANTING BEDS, UNLESS OTHERWISE NOTED.
- 8.3. MULCH SHALL BE HELD 1" BELOW SURFACE ELEVATION OF DOWNHILL SIDE OF WALK, SLAB, CURB, LAWN, ETC.

9. LANDSCAPE BED EDGING.
- 9.1. ALL LANDSCAPE BED EDGING SHALL BE SHOVEL-CUT SPADE EDGE BETWEEN LAWN AREAS, UNLESS OTHERWISE NOTED.

10. STORAGE, INSTALLATION, MAINTENANCE & WARRANTY:

- 10.1. CONFIRM LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION.
- 10.2. EXISTING TREES FOUND ON SITE SHALL BE PROTECTED AND SAVED UNLESS NOTED TO BE REMOVED OR ARE LOCATED IN AN AREA TO BE GRADED. NO VEHICLES OR EQUIPMENT ARE ALLOWED WITHIN THE DRIP LINE OF TREES TO BE PROTECTED. QUESTIONS REGARDING EXISTING PLANT MATERIAL SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT PRIOR TO REMOVAL.
- 10.3. PRUNING AND REMOVAL OF BRANCHES ON EXISTING TREES SHALL BE DIRECTED IN THE FIELD BY OWNER OR LANDSCAPE ARCHITECT.
- 10.4. EQUIPMENT, PLANTS AND ALL OTHER MATERIALS TO BE STORED ON SITE WILL BE STORED OUTSIDE OF THE DRIPLINE OF TREES TO BE PROTECTED AND PLACED WHERE THEY WILL NOT CONFLICT W/ CONSTRUCTION OPERATIONS.
- 10.5. NEW PLANTING AREAS ARE TO BE TREATED WITH HERBICIDE TO KILL ALL EXISTING GROUNDCOVER. THERE SHALL BE A MINIMUM OF TWO (2) APPLICATIONS SEPARATED BY 10 DAYS. IF ALL EXISTING GROUNDCOVER VEGETATION IS NOT KILLED WITHIN 10 DAYS OF 2ND APPLICATION, A 3RD APPLICATION IS REQUIRED.
- 10.6. WHERE PROPOSED PLANTING ARE INDICATED IN EXISTING PAVING AREAS, CONTRACTOR SHALL EXCAVATE A MINIMUM OF 2'-0" BELOW PAVING SURFACE.
- 10.7. FINAL PLACEMENT OF PLANT MATERIALS, ETC., SHALL BE APPROVED BY LANDSCAPE ARCHITECT BEFORE PLANTING OPERATIONS ARE TO PROCEED. ALL TREE LOCATIONS SHALL BE MARKED WITH A WOOD STAKE INDICATING VARIETY AND SIZE OF TREE. ALL GROUND COVER AND PLANTING BED LINES SHALL BE MARKED W/ HIGHLY VISIBLE PAINT LINES W/ OCCASIONAL WOOD STAKES FOR REFERENCE. ALL STAKES SHALL BE REMOVED FOLLOWING PLANTING OPERATIONS. LANDSCAPE ARCHITECT RESERVES THE RIGHT TO ADJUST PLANT LOCATIONS ON SITE.
- 10.8. ALL DISTURBED AREAS OUTSIDE THE LIMITS OF WORK SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION AT NO ADDITIONAL COST TO THE OWNER.
- 10.9. PRIOR TO FINAL PAYMENT, CONTRACTOR SHALL COORDINATE A FINAL INSPECTION WALK-THROUGH WITH OWNER AND LANDSCAPE ARCHITECT FOR OWNER ACCEPTANCE. THE LANDSCAPE ARCHITECT WILL PROVIDE A PUNCHLIST OF ANY DEFICIENCIES AND PROVIDE TO OWNER AND CONTRACTOR FOR REVIEW.
- 10.10. INCLUDE PRICING WITH THE BID FOR A 60-DAY MAINTENANCE PERIOD OF ALL LANDSCAPE PLANTINGS FOLLOWING COMPLETION OF INSTALLATION AND FINAL INSPECTION BY LANDSCAPE ARCHITECT. MAINTENANCE SHALL INCLUDE WATERING, WEEDING, CULTIVATING, MULCHING, MOWING, AND ALL OTHER NECESSARY OPERATIONS REQUIRED FOR PROPER ESTABLISHMENT OF LAWNS AND PLANTINGS.
- 10.11. ALL LANDSCAPE PLANTINGS SHALL BE WARRANTED FOR A PERIOD OF ONE YEAR FOLLOWING FINAL INSPECTION BY LANDSCAPE ARCHITECT. AT THE END OF THIS PERIOD, PLANT MATERIAL TERMED DEAD OR UNSATISFACTORY BY LANDSCAPE ARCHITECT SHALL BE REPLACED AT NO ADDITIONAL CHARGE BY THE LANDSCAPE CONTRACTOR. THE REPLACEMENTS SHALL ALSO BE WARRANTED FOR 1 YEAR.

**IRRIGATION NOTES:**

1. CONTRACTOR SHALL PROVIDE DESIGN/BUILD IRRIGATION SYSTEM PER THE IRRIGATION NOTES BELOW:
  - 1.1. DESIGN GUIDELINES: CONTRACTOR TO VERIFY PRESSURE AND AVAILABLE WATER SERVICE SIZE
  - 1.2. EMISSION (LAWNS): HUNTER I40 SPRAY ROTARS (OR APPROVED EQUAL)
  - 1.3. DRIP (BEDS): HUNTER HDL-CV (OR APPROVED EQUAL)
  - 1.4. QUICK COUPLER: HUNTER QCV - 3/8C
  - 1.5. CONTROLLER: HUNTER HCC (OR APPROVED EQUAL)
  - 1.6. SENSOR: HUNTER SOLAR-SYNC & HC FLOW METER (OR APPROVED EQUAL)
  - 1.7. PIPING: PVC OR APPROVED EQUAL
2. CONTRACTOR SHALL PROVIDE A QUALIFIED IRRIGATION DESIGNER OR IRRIGATION CONSULTANT TO DESIGN THE SYSTEM FOR EFFICIENT AND UNIFORM DISTRIBUTION OF WATER. "QUALIFIED" MEANS CERTIFIED BY ONE THE FOLLOWING AGENCIES BELOW:
  - 2.1. CERTIFIED IRRIGATION CONTRACTOR (CIC)
  - 2.2. CERTIFIED LANDSCAPE IRRIGATION AUDITOR (CLIA)
  - 2.3. CERTIFIED LANDSCAPE IRRIGATION MANAGER (CLIM)
  - 2.4. CERTIFIED IRRIGATION DESIGNER (CID)
  - 2.5. CERTIFIED WATER CONSERVATION MANAGER-LANDSCAPE (CWCM)
3. SYSTEM DESIGN:
  - 3.1. THE SYSTEM SHALL BE COMPRISED OF EITHER:
    - 3.1.1. DRIP/MICRO-IRRIGATION COMPONENTS THAT ALLOW FOR HIGHER DISTRIBUTION UNIFORMITY AND LOWER EVAPORATION AND RUNOFF.
    - 3.1.2. THE DESIGN AND LAYOUT OF THE EMISSION DEVICES PROVIDES FOR ZERO OVERSPRAY ACROSS OR ONTO A STREET, PUBLIC DRIVEWAY OR SIDEWALK, PARKING AREA, BUILDING, FENCE OR ADJOINING PROPERTY. OVERSPRAY MAY OCCUR DURING THE OPERATION OF THE IRRIGATION SYSTEM DUE TO THE ACTUAL WIND CONDITION THAT DIFFER FROM THE DESIGN CRITERIA.
4. SYSTEM CONTROLLER:
  - 4.1. THE SYSTEM SHOULD USE A CONTROLLER THAT HAS MULTI-PROGRAM CAPABILITY WITH AT LEAST FOUR START TIMES/FOR MULTIPLE REPEAT SOAK CYCLES) AND RUN TIME ADJUSTMENT IN ONE MINUTE INCREMENTS. THE CONTROLLER PROGRAMMING (SCHEDULING) SHOULD BE MANAGED TO RESPOND TO THE CHANGING NEED FOR WATER IN THE LANDSCAPE.

5. DESIGN FEATURES:
- 5.1. FOLLOW ALL ORDINANCES RELATING TO IRRIGATION SYSTEMS INCLUDING THE INSTALLATION OF BACKFLOW DEVICES.
- 5.2. INSTALL A MASTER VALVE TO STOP UNSCHEDULED FLOW OF IRRIGATION WATER
- 5.3. A DESIGN THAT RESULTS IN UNIFORM AND EFFICIENT COVERAGE. SPRINKLER HEAD SPACING SHOULD BE A MINIMUM OF "HEAD-TO-HEAD" (MINIMUM 50% OF DIAMETER) UNLESS THE COVERAGE IS DESIGNED FOR WIND DE-RATING. WIND DE-RATING SHOULD BE BASED ON AVERAGE NIGHTTIME WIND SPEED.
- 5.4. A MINIMUM OF "HEAD-TO-HEAD" (MINIMUM OF 50% OF DIAMETER) UNLESS THE COVERAGE IS DESIGNED FOR WIND DE-RATING. WIND DE-RATING SHOULD BE BASED ON AVERAGE NIGHTTIME WIND SPEED. DESIGN TO AVOID OVERSPRAY ON HARDCAPES, FENCES, BUILDINGS AND ADJOINING PROPERTY.
- 5.5. HAVE SEPARATE STATIONS/ZONES (HYDROZONES) FOR AREAS WITH DISSIMILAR WATER OR SCHEDULING REQUIREMENTS
- 5.6. PROVIDE SENSOR TO SUSPEND IRRIGATION DURING WET WEATHER CONDITIONS.
- 5.7. PROVIDE FLOW METER FOR MONITORING FLOW CONDITIONS AND SAVING WATER.
- 5.8. PROVIDE OWNER WITH WALKTHROUGH FOR SYSTEM OPERATIONS, PRIOR TO FINAL ACCEPTANCE. INCLUDE PROCEDURES FOR CONTROLLER PROGRAMMING, MAINTENANCE AND WINTERIZATION.

FOLLOWING TO BE POSTED ON-SITE PER SECTION 4.8

1. A COPY OF THE APPROVED LANDSCAPE PLAN:
  - 2.1. NO SMALLER THAN 11 INCHES BY 17 INCHES
  - 2.2. LAMINATED TO PROTECT THE PLAN
  - 2.3. SHOWING ALL PLANT TYPES, SIZES, AND LOCATIONS
2. AN INSTRUCTIONAL SIGN:
  - 2.1. NO SMALLER THAN 11 INCHES BY 17 INCHES
  - 2.2. LAMINATED TO PROTECT THE SIGN
  - 2.3. STATING THE FOLLOWING:
    - 2.3.1. THE OWNER OF THIS SITE HAS AGREED TO INSTALL AND MAINTAIN THE REQUIRED LANDSCAPING ON THIS SITE IN ACCORDANCE WITH THE TOWN OF MUNSTER LANDSCAPE ORDINANCE. COMPLIANCE REQUIRES THE FOLLOWING:
      - 2.3.2. NEW TREES AND SHRUBS WILL BE WATERED FOR THE FIRST TWO YEARS UNTIL FIRMLY ESTABLISHED.
      - 2.3.3. NEW TREES AND SHRUBS WILL BE PRUNED TO REMOVE DEAD OR DAMAGED WOOD.
      - 2.3.4. MULCH IN PLANTING BEDS WILL BE MAINTAINED AT A DEPTH OF THREE INCHES.
      - 2.3.5. ALL PLANTING BEDS AND TREE MULCH CIRCLES WILL BE WEEDED REGULARLY.
      - 2.3.6. PERENNIALS AND HERBACEOUS SHRUBS WILL BE PRUNED BEFORE THE ONSET OF NEW SPRING GROWTH.
      - 2.3.7. ALL GRASS WILL BE MOWED REGULARLY (I.E. ONCE PER WEEK) DURING THE GROWING SEASON.
3. THE SIGN SHALL ALSO STATE: "IF YOU SEE ANY PROBLEMS WITH THE LANDSCAPING OF THIS SITE OR THE MAINTENANCE OF IT, PLEASE CALL THE TOWN OF MUNSTER, BUILDING DEPARTMENT AT 219-836-6990."

## SWORN STATEMENT BY OWNER:

THE UNDERSIGNED ACKNOWLEDGES THAT THE LANDSCAPE PLANTING PLAN SHOWN ON THE ATTACHED LANDSCAPE PLAN(S) FOR THE MAPLE LEAF CROSSING PLANNED UNIT DEVELOPMENT, TOWN OF MUNSTER, INDIANA HAS TO THE BEST OF THE UNDERSIGNED APPLICANT'S KNOWLEDGE, BEEN DESIGNED AND WILL BE INSTALLED, MAINTAINED AND REPLACED AS REQUIRED BY CURRENT AND SUBSEQUENT OWNERS IN ACCORDANCE WITH THE REQUIREMENTS OF THE TOWN OF MUNSTER MUNICIPAL CODE, THE LANDSCAPING STANDARDS OF THE TOWN OF MUNSTER ZONING ORDINANCE, AND THE GUIDE TO THE TOWN OF MUNSTER LANDSCAPE ORDINANCE.

EXISTING PARKWAY AND ON-SITE INTERIOR TREES ARE TO BE PROTECTED WHILE PROJECT IS UNDER CONSTRUCTION AND WILL BE REPLACED BY CURRENT AND SUBSEQUENT OWNER IF DAMAGED.

SWORN STATEMENT BY  
REGISTERED LANDSCAPE  
ARCHITECT:

THE UNDERSIGNED LANDSCAPE ARCHITECT, REGISTERED IN THE STATE OF INDIANA, ACKNOWLEDGES THAT THE LANDSCAPE PLANTING PLAN AND CONSTRUCTION DETAILS SHOWN ON THE ATTACHED LANDSCAPE PLAN(S) FOR THE MAPLE LEAF CROSSING PLANNED UNIT DEVELOPMENT, TOWN OF MUNSTER, INDIANA HAS BEEN DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF THE TOWN OF MUNSTER MUNICIPAL CODE, THE LANDSCAPING STANDARDS OF THE TOWN OF MUNSTER ZONING ORDINANCE, AND THE GUIDE TO THE TOWN OF MUNSTER LANDSCAPE ORDINANCES.



## PLANTING SCHEDULE

KEY	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	COMMENTS
DECIDUOUS TREES						
AMM	13	ACER MIYABEI 'MORTON'	STATE STREET MAPLE	2.5' CAL.		B&B SPECIMEN
CO	8	CELTIS OCCIDENTALIS	COMMON HACKBERRY	2.5' CAL.		B&B SPECIMEN
GTS	23	GLEDITSIA TRIACANTHOS 'SKYCOLE'	SKYLINE HONEYLOCUST	2.5' CAL.		B&B SPECIMEN
LS	12	LIQUIDAMBAR STYRACIFLUA	AMERICAN SWEETGUM	2.5' CAL.		B&B SPECIMEN
PAE	7	PLATANUS X ACERFOLIA 'MORTON CIRCLE'	EXCLAMATION LONDON PLANE TREE	2.5' CAL.		B&B SPECIMEN
QM	8	QUERCUS MACROCARPA	BUR OAK	2.5' CAL.		B&B SPECIMEN
TAR	8	TILIA AMERICANA 'REDMOND'	REDMOND AMERICAN LINDEN	2.5' CAL.		B&B SPECIMEN
EVERGREEN TREES						
JVH	3	JUNIPERUS VIRGINIANA 'CUPRESSIFOLIA'	HILLSPIRE EASTERN REDCEDAR	6'-8' HT.	6' O.C.	B&B SPECIMEN
PGD	10	PICEA GLAUCOA 'DENSATA'	BLACK HILLS SPRUCE	8'-10' HT.		B&B SPECIMEN
TGG	9	THUJA PLICATA x STANDISHII 'GREEN GIANT'	GREEN GIANT CEDAR	8'-10' HT.		B&B SPECIMEN
ORNAMENTAL TREES						
AG	2	ACER GRISEUM	PAPERBARK MAPLE	8' HT.		SINGLE-TRUNK SPECIMEN
AAB	10	AMELANCHIER 'AUTUMN BRILLIANCE'	AUTUMN BRILLIANCE SERVICEBERRY	8' HT.		MULTI-STEM SPECIMEN
CVW	10	CRATAEGUS VIRIDIS 'WINTER KING'	THORNLESS COCKSPUR HAWTHORN	8' HT.		MULTI-STEM SPECIMEN
DECIDUOUS SHRUBS						
AIB	10	ARONIA MELANOCARPA 'MORTON'	IROQUOIS BEAUTY CHOKEBERRY	#3 CONT.	36" O.C.	
CAC	21	CLETHRA ALNIFOLIA 'CALEB'	VANILLA SPICE SUMMERSWEET	#3 CONT.	48" O.C.	
CSA	11	CORNUS SERICEA 'FARROW'	ARCTIC FIRE DOGWOOD	#3 CONT.	48" O.C.	
HPB	25	HYDRANGEA PANICULATA 'BOBO'	BOBO HYDRANGEA	#3 CONT.	48" O.C.	
RAG	102	RHUS AROMATICA 'GRO LOW'	GRO-LOW SUMAC	#3 CONT.	48" O.C.	
RKR	24	ROSA 'RADRAZZ'	RADRAZZ KNOCKOUT ROSE	#3 CONT.	48" O.C.	
SPB	24	SYRINGA PENDA 'BLOOMERANG'	BLOOMERANG DWARF LILAC	#3 CONT.	36" O.C.	
EVERGREEN SHRUBS						
BGV	42	BUXUS 'GREEN VELVET'	GREEN VELVET BOXWOOD	#3 CONT.	48" O.C.	
JGO	34	JUNIPERUS VIRGINIANA 'GREY OWL'	GREY OWL COMPACT JUNIPER	#3 CONT.	48" O.C.	
RPJ	10	RHODODENDRON 'PJM'	PJM RHODODENDRON	#3 CONT.	48" O.C.	
ORNAMENTAL GRASSES						
CKF	144	CALAMOGROSTIS X 'KARL FOERSTER'	KARL FOERSTER FEATHER REED GRASS	#3 CONT.	36" O.C.	
PVS	49	PANICUM VIRGATUM 'SHENANDOAH'	SHENANDOAH SWITCH GRASS	#3 CONT.	36" O.C.	
PAH	17	PENNISETUM ALOPECUROIDES 'HAMELN'	HAMELN DWARF FOUNTAIN GRASS	#1 CONT.	24" O.C.	
SH	93	SPOROBOLUS HETEROLEPIS	PRAIRIE DROPSEED	#1 CONT.	24" O.C.	
PERENNIALS & GROUNDCOVERS						
ASM	153	ALLIUM 'MILLENIUM'	MILLENIUM ALLIUM	#1 CONT.	18" O.C.	
CJ	28	CLEMATIS 'JACKMANII'	JACKMAN'S CLEMATIS	#1 CONT.	48" O.C.	TRAIN AS VINE
EPM	121	ECHINACEA 'CBG CONE2'	PIXIE MEADOWBRITE CONEFLOWER	#1 CONT.	24" O.C.	
GR	30	GERANIUM 'ROZANNE'	ROZANNE GERANIUM	#1 CONT.	24" O.C.	
HHR	68	HEMEROCALLIS 'HAPPY RETURNS'	HAPPY RETURNS DAYLILY	#1 CONT.	24" O.C.	
HSC	97	HEMEROCALLIS 'STRAWBERRY CANDY'	STRAWBERRY CANDY DAYLILY	#1 CONT.	24" O.C.	
LSS	95	LEUCANTHEMUM SUPERBUM 'SNOWCAP'	SNOWCAP SHASTA DAISY	#1 CONT.	18" O.C.	
NCM	85	NEPETA 'CATS MEOW'	CAT'S MEOW NEPETA	#1 CONT.	24" O.C.	
RLG	53	RUDBECKIA 'LITTLE GOLDSTAR'	LITTLE GOLDSTAR BLACK-EYED SUSAN	#1 CONT.	18" O.C.	
SMN	174	SALVIA 'MAY NIGHT'	MAY NIGHT SALVIA	#1 CONT.	18" O.C.	

PROJECT NAME:

## MAPLE LEAF CROSSING

PLANNED UNIT DEVELOPMENT  
MUNSTER, IN 46321

OWNER NAME

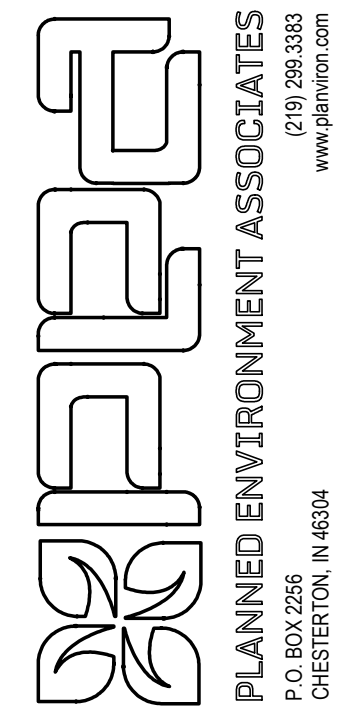
**MAPLE LEAF  
CROSSING, LLC.**

400 FISHER AVENUE  
MUNSTER, IN 46321

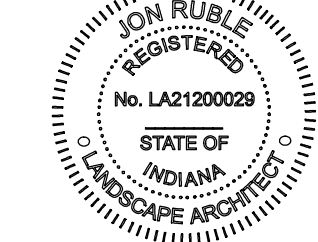
## CONSULTANTS

**TORRENGA  
ENGINEERING, INC.**

907 RIDGE ROAD  
MUNSTER, IN 46321

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STAMP



EXP: 12/31/2021

TITLE: **PLANTING LISTS & SPECIFICATIONS**

SHEET

# L102

DRAWN BY: M

CHECK BY: JF

PROJECT #: 20-027



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Call before you dig.**



