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 Day of _______, 2020 by a vote of ______ in favor and ______ opposed.

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

Lee Ann Mellon, President

ATTEST:

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 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.
 - 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 t 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.

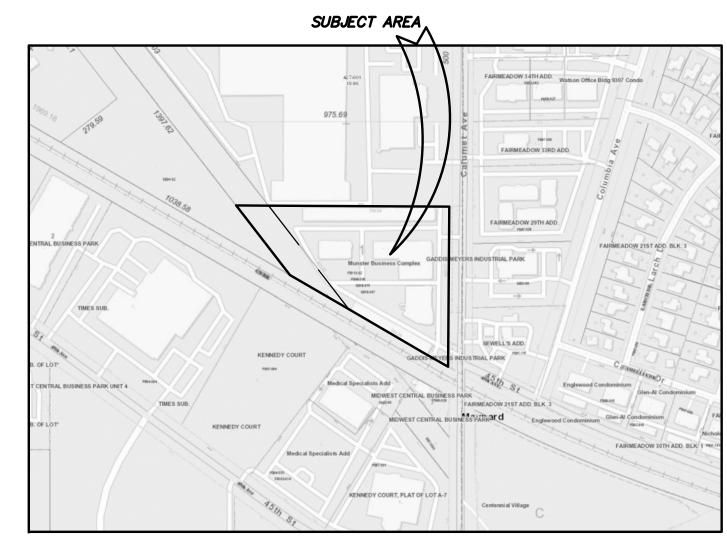


A PLANNED UNIT DEVELOPMENT TO THE TOWN OF MUNSTER, LAKE COUNTY, INDIANA

	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	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	

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.

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.





- 1. TOTAL SITE AREA = $7.049 \pm$ (ACRES) $307,066 \pm$ (S.F)
- 2. 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.
- 3. 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.

- 4. DEVELOPER: First Metropolitan Builders 400 Fisher Avenue Munster, IN 46321
- 5. EXISTING TOPOGRAPHY AND UTILITIES DATA ARE PROVIDED AND TAKEN FROM TORRENGA SURVEYING, LLC, JOB NO.: 2019-0676 DATED 03-25-2020
- 6. ALL VERTICAL DATUM IS BASED ON NAVD88.
- 7. HYDROLOGIC UNIT CODES: 07120003030030- HART DITCH (PLUM CREEK)-DYER DITCH
- 8. LOCATION: LATITUDE - 41'32'35" N LONGITUDE - 87'30'36" W
- 9. CURRENT ZONING: CD-4A WITH NO GROUND FLOOR RESIDENTIAL USES PERMIT

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





"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.

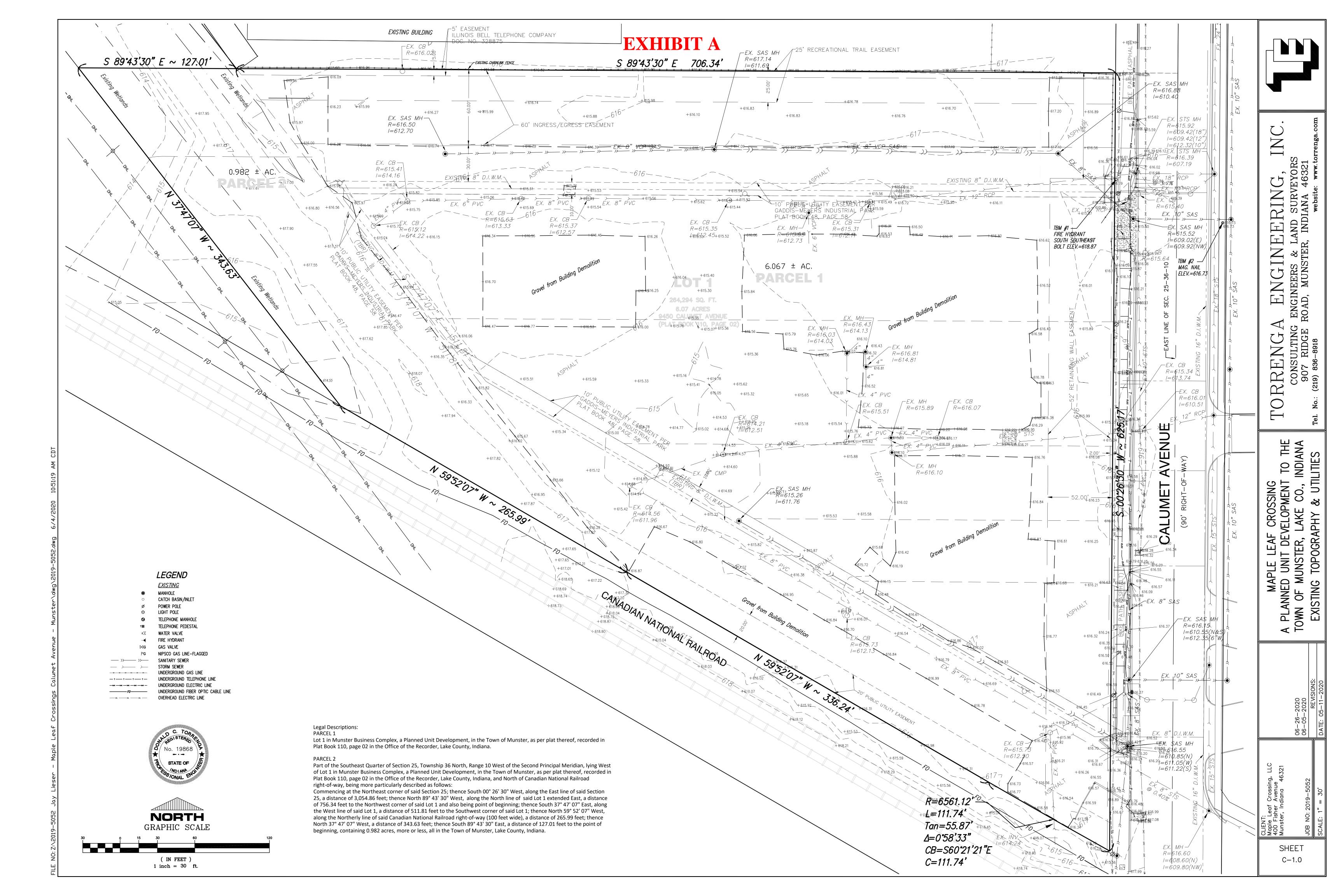
County:		La	ike	, , , , , , , , , , , , , , , , , , , ,		
SE Otr., Sec	25	, T	36	_ <i>N., R</i>	10	_ И
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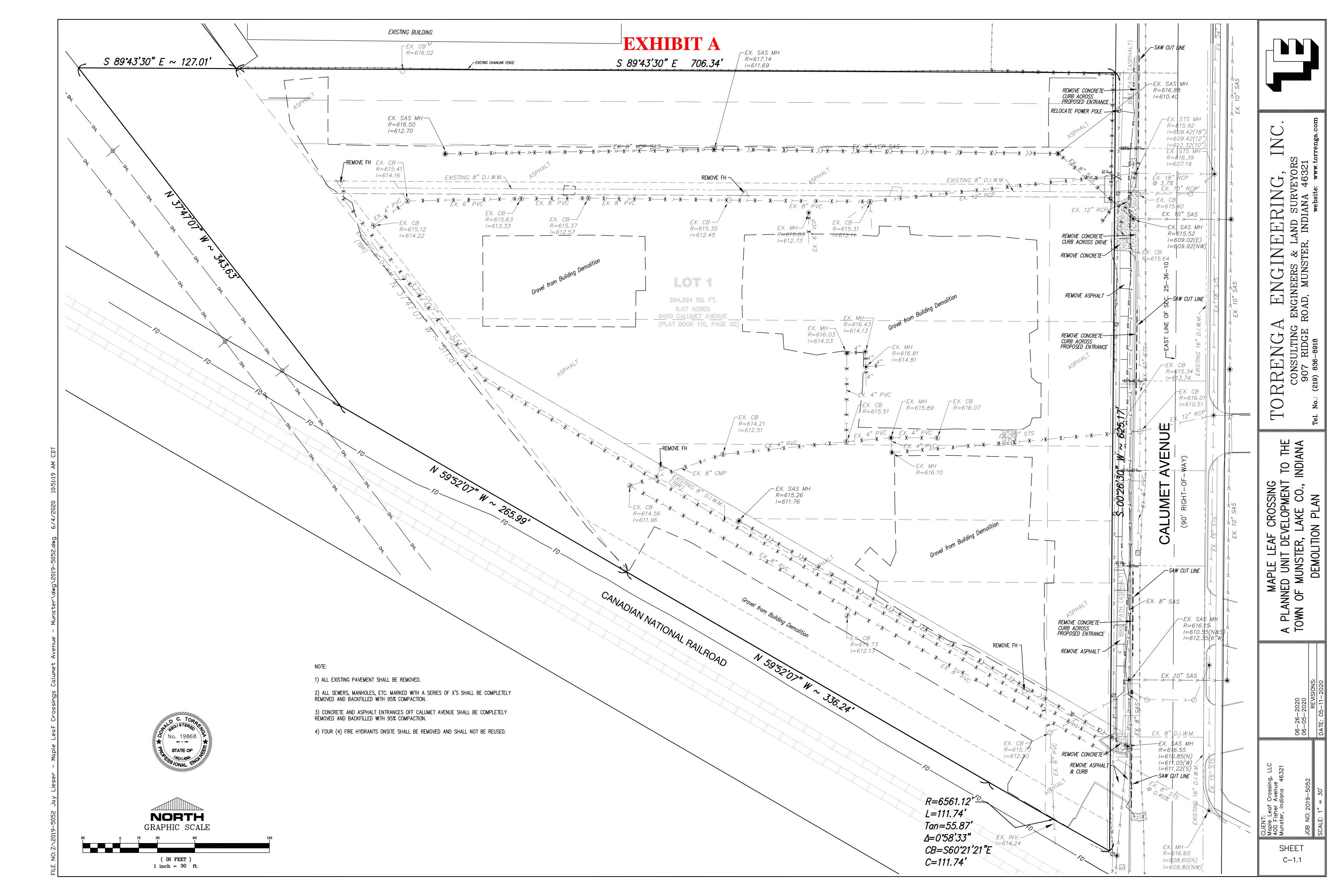
DATE AND REVISIONS:

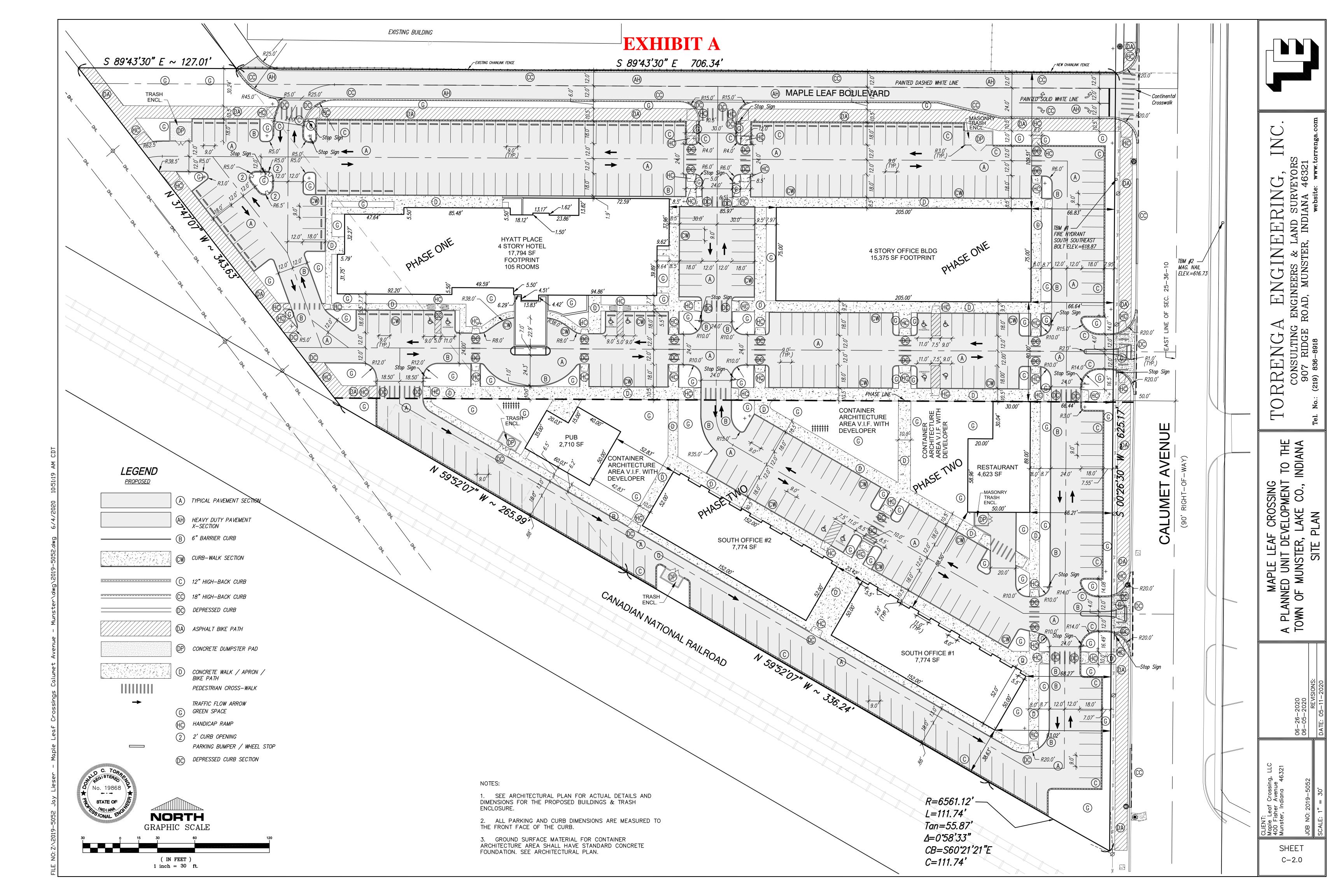
	DATE AND IX	LV1310N3.	
3	06-26-2020	RE-SUBMITTAL TO MUNSTER	DT/RT
2	06-05-2020	RE-SUBMITTAL TO MUNSTER	DT/EM/MH
1	05-11-2020	PRIMARY SUBMITTAL	DT/EM/MH
NO	DATE	DESCRIPTION	BV

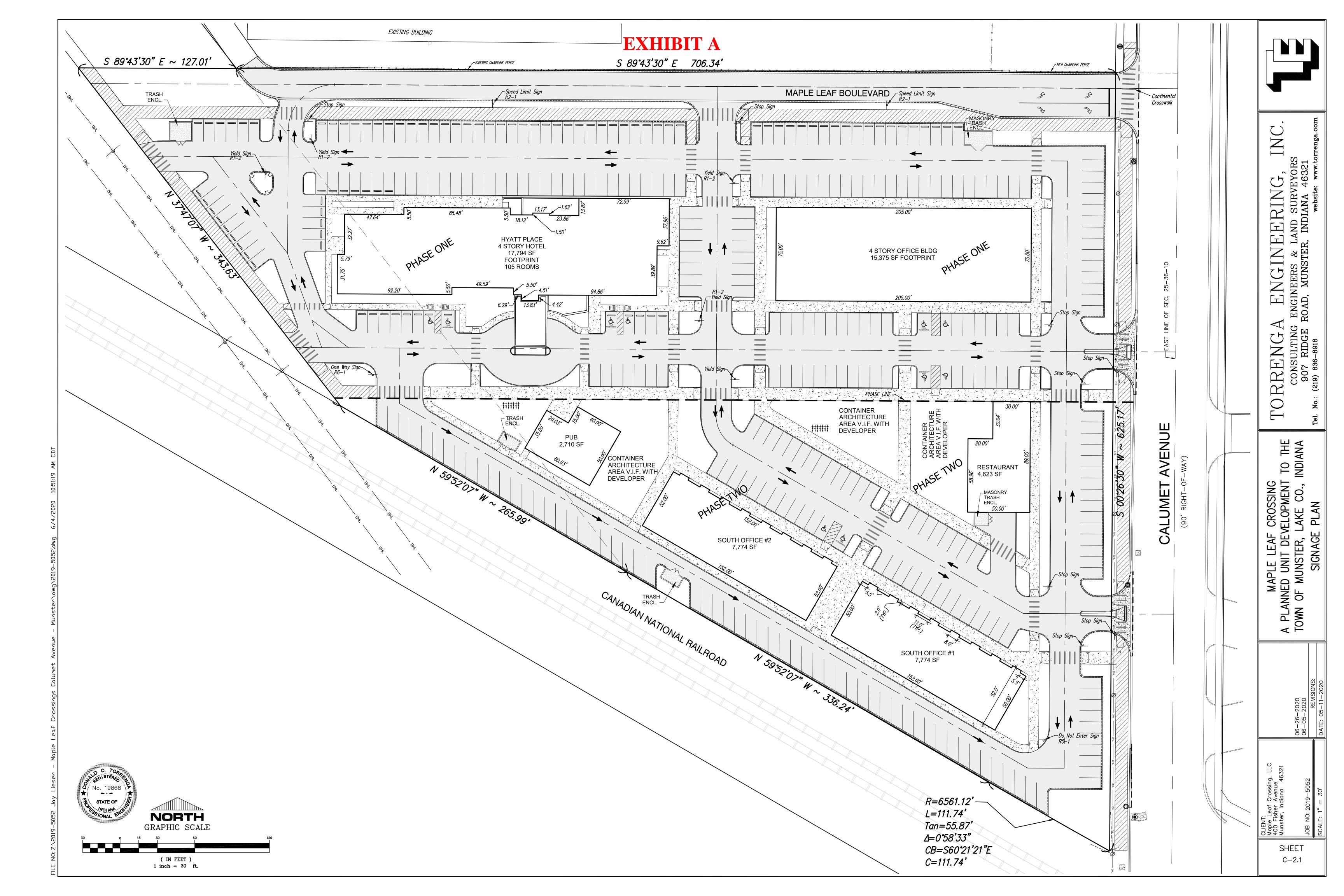
CLIENT/OWNER: Maple Leaf Crossing, LLC 400 Fisher Avenue Munster, IN 46321

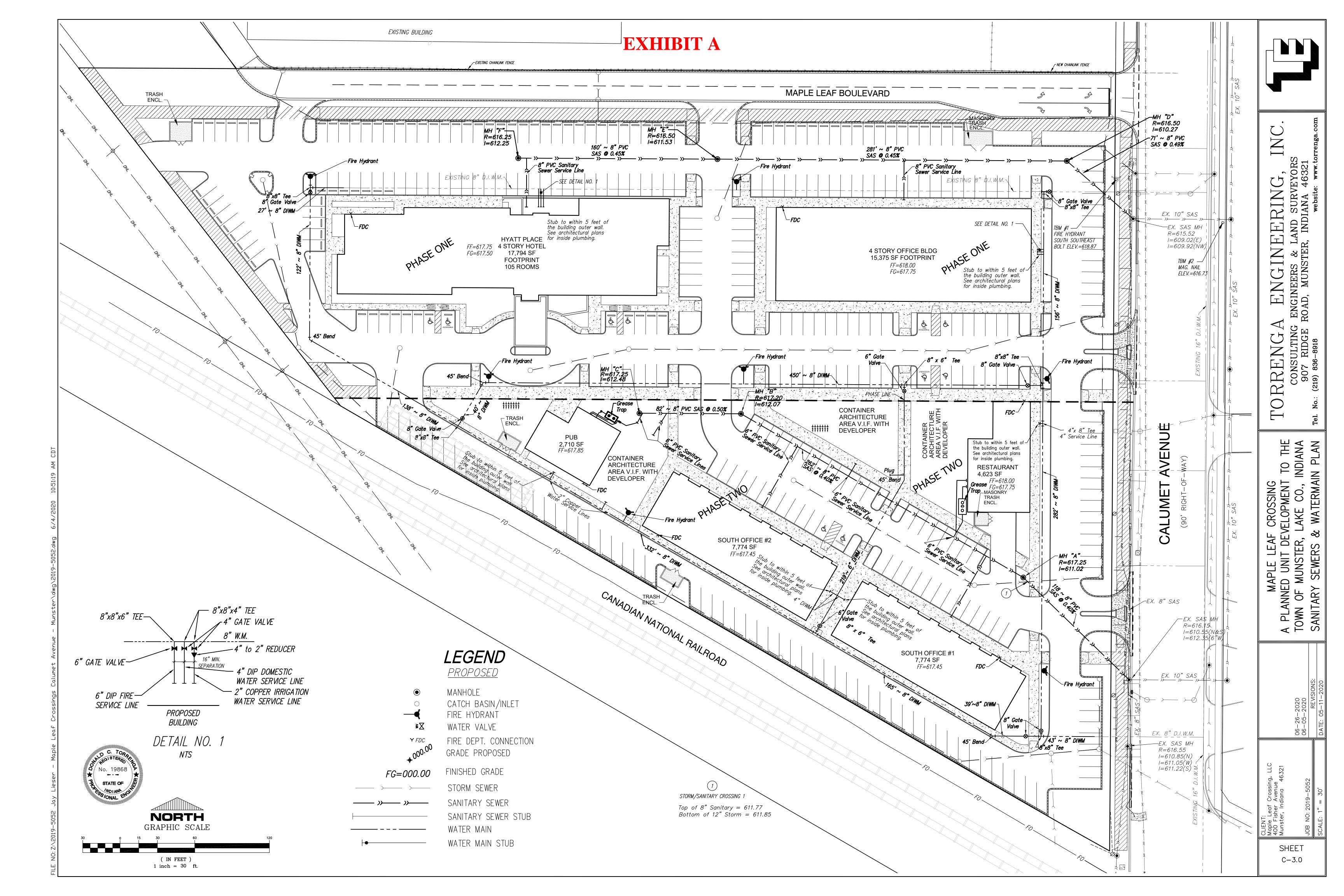
PREPARED BY: Torrenga Engineering, Inc. 907 Ridge Road Munster, Indiana 46321 (219)836 - 8918

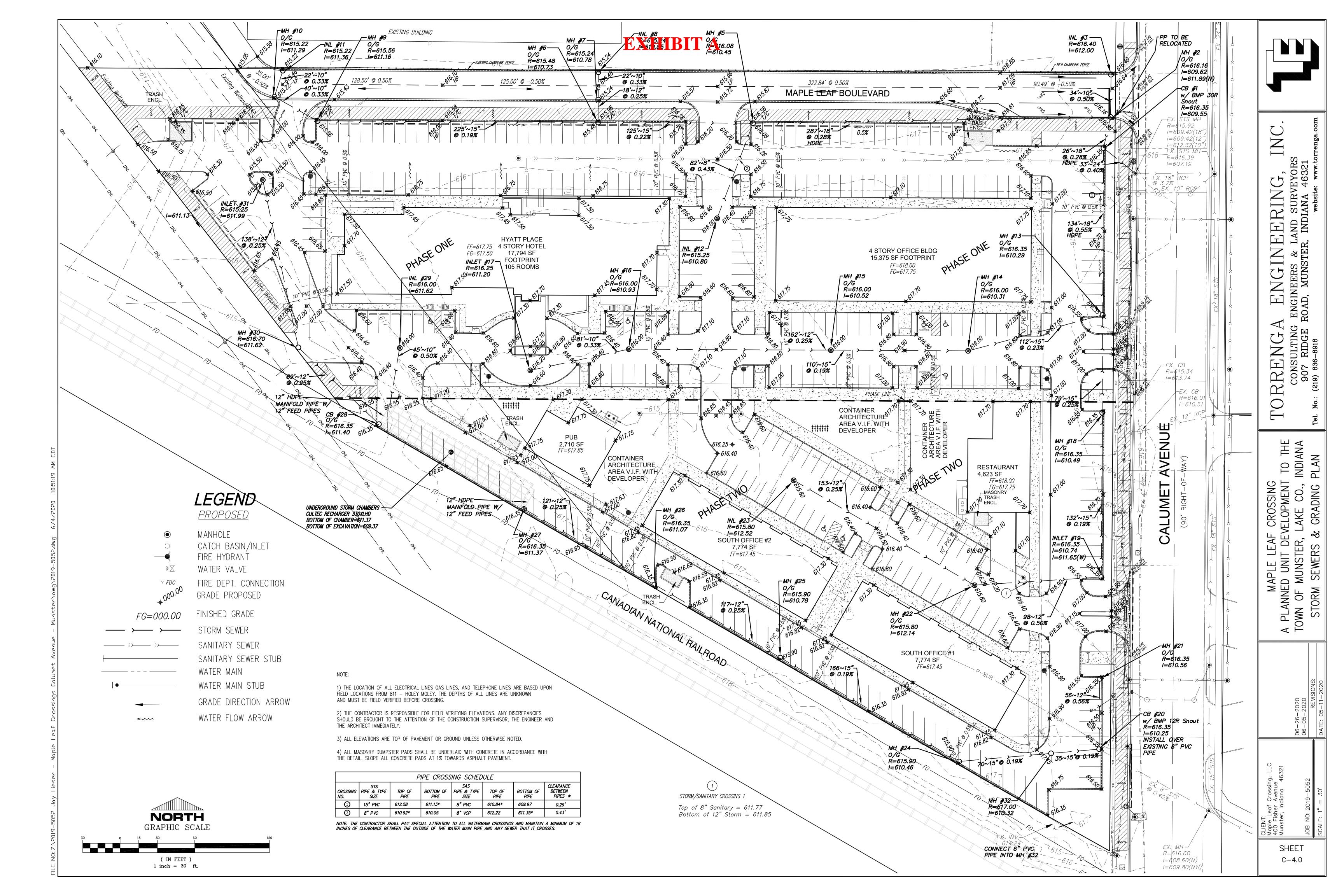


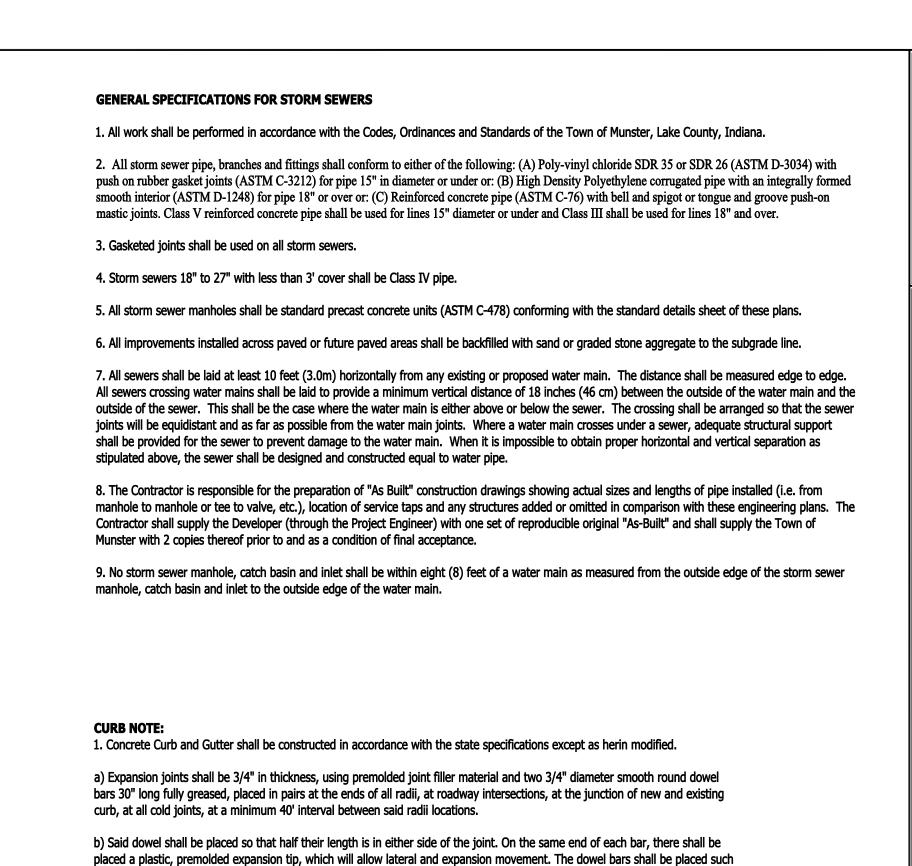


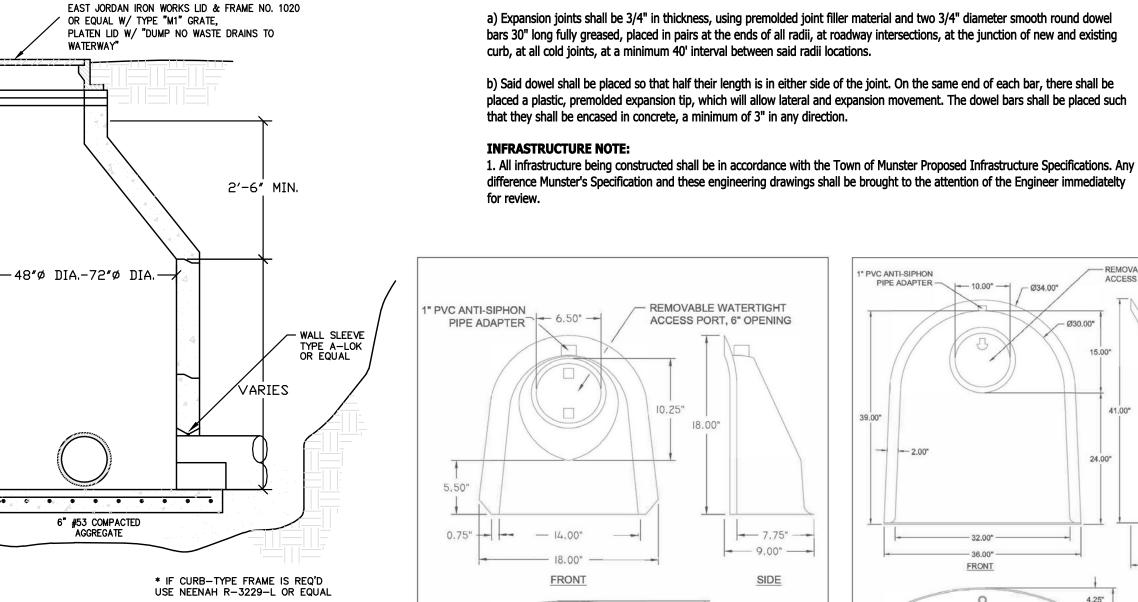












-EAST JORDAN IRON WORKS LID & FRAME NO. 1020

2'-6" MIN.

-WALL SLEEVE TYPE A-LOK OR EQUAL

PLATEN LID W/ "DUMP NO WASTE DRAINS TO

OR EQUAL W/ TYPE "M1" GRATE,

WATERWAY"

WATER LINE

6" #53 COMPACTED AGGREGATE

TYPE "A" CATCH BASIN

NOT TO SCALE

STORM TYPE MANHOLE

NOT TO SCALE

36'-0" MAX

DIRECTION CHANGE

JOINT W/ 1/2"

FILLER

VARIES 3'-0" MIN.

ADJUSTING RING(S)-

ECCENTRIC CONE ----

COMPACTED GRANULAR

PRECAST -

#4 BARS @ 6" O.C.

ADJUSTING RING(S)

ECCENTRIC CONE ----

COMPACTED GRANULAR BACKFILL INDOT "B" BORROW

> PRECAST -SECTION

#4 BARS @ 6" O.C.-

INDOT "B" BORROW

TRENCH BACKFILL
COMPACTED EXCAVATED
SOIL, unless soil is
unsuitable, such as peat,
marble, vegetation, etc.

PER SPECIFICATIONS

TRENCH BACKFILL INDOT #53 LIMESTONE

PIPE BEDDING DETAIL

NOT TO SCALE

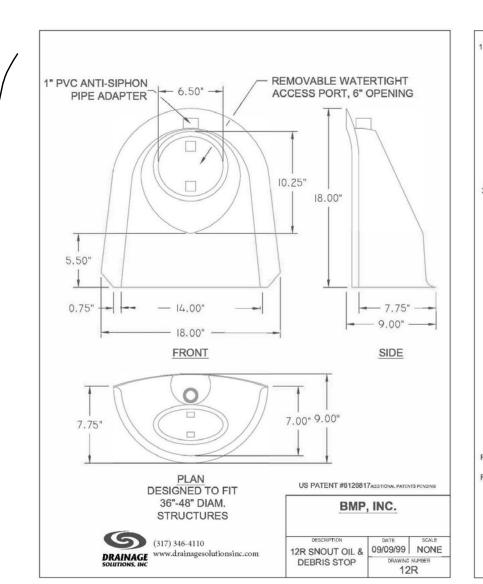
′--6**′-∤**--□.D.---∤--6″--

PIPE BEDDING DETAIL

NOT TO SCALE

FOR TRENCH IN PAVED AREAS

FOR TRENCH IN GRASS AREAS

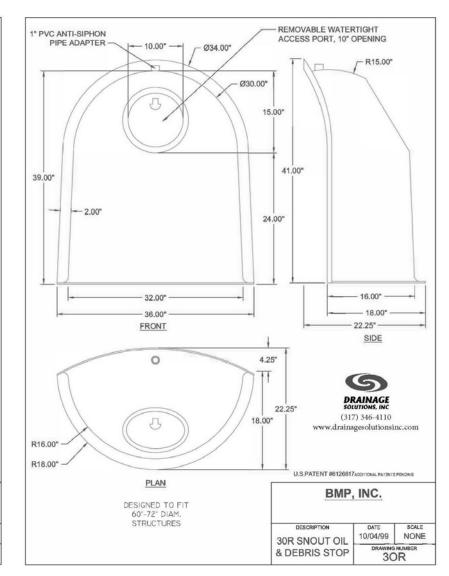


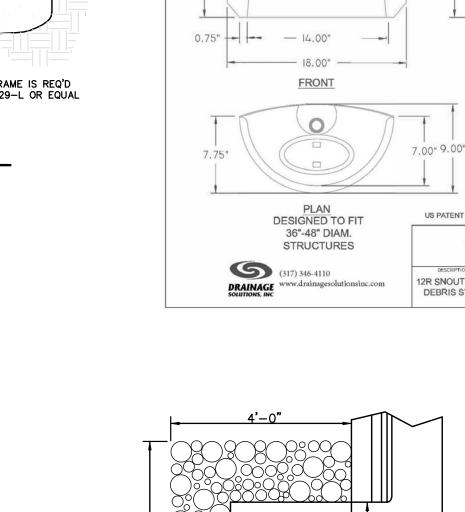
SECTION A-A

SECTION B-B

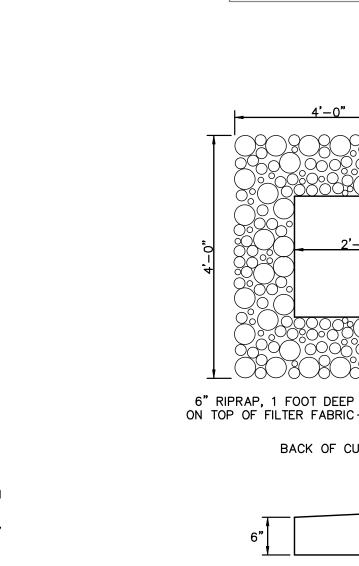
TOE OF CURB

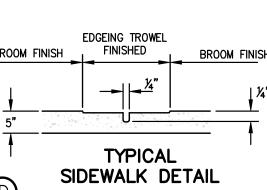
AT PAVEMENT





BACK OF CURB-





COMPACTED SUBGRADE VARIES TRANSVERSE JOINT 1. WHERE FILL IS REQUIRED, SUBGRADE SHALL BE COMPACTED TO 95% OF ► MIN. 4000 PSI MIX WITH AIR THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D698 METHOD OF ENTRAINMENT - EXPANSION PREFORMED SIDEWALK PLAN TYPICAL PAVEMENT SECTION NOT TO SCALE 5" THICK CONC. WALK W/ BROOM FINISH — -1-1/2" BITIMINOUS SURFACE, 11 MV (HMA Surface 9.5 mm) 4" BITUMINOUS BINDER, 8 OR 9 MV (HMA Intermediate 12.5 mm) → 9" CRUSHED AGGREGATE
BASE COURSE, INDOT #53 — МІН. 4" СОМР. GRANULAR FILL SIDEWALK SECTION ___COMPACTED SUBGRADE BROOM FINISH

1-1/2" BITIMINOUS SURFACE, 11 MV

8" CRUSHED AGGREGATE BASE COURSE, INDOT #53

(HMA Surface 9.5 mm)

 $\sim 2-1/2$ " BITUMINOUS BINDER, 8 OR 9 MV

(HMA Intermediate 12.5 mm)

I. WHERE FILL IS REQUIRED, SUBGRADE SHALL BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D698 METHOD OF TESTING.

PROPOSED PAVEMENT -6x6 W2.9 x W2.9 WWWF PLACED 4" BELOW TOP OF SLAB - 6" THICK CONCRETE WITH BROOM FINISH & TO BE EPOXY SEALED ─6" COMP. GRANULAR FILL ── COMPACTED SUBGRADE

EAST JORDAN IRON WORKS

LID & FRAME NO. 1020 OR

PLATEN LID W/ "DUMP NO WASTE DRAINS TO

2'-0" MIN. STANDARD

OUTLET PIPE

FITTING OR EQUAL

ADJUSTING RING(S)

VARIES

PRECAST CONC.-

PAVERS SHALL BE UNPINNED.

RESERVE

PARKING

R7 SIGN

KEYED NOTES

APPLICABLE).

STANDARD USDOT R1-1 STOP SIGN

 $\langle 4 \rangle$ 2"x2" STEEL TUBE

EXTENDED INTO

GROUND, 3'-0"

 $\langle 5 \rangle$ FINISH GRADE.

y− 3/4" R

1 STANDARD USDOT R7

(2) SUPPLEMENTAL SIGNS, \$-FINE AS APPLICABLE.

SIGN (BOTH SIDES-WHERE

BITUMASTIC SEAL 7

MASTIC REQ'D

Figure 43a

ACCESSIBILITY PROPORTIONS

NOT TO SCALE

NOTE (R7 SIGN): THIS IS A STANDARD SIGN AND MAY BE ORDERED FROM ANY TRAFFIC SIGN SUPPLIER BY NUMBER.

ACCESSIBILITY SIGNAGE

NOT TO SCALE

SIGN AND POST (FREE STANDING)

NOT TO SCALE

USE 4" SOLID WHITE PAVEMENT MARKING FOR REGULAR PARKING

3-1/2"

/—6″*→*/

CURB-WALK SECTION

NOT TO SCALE

ACCESSIBILITY AND PARKING

NOT TO SCALE

5" THICK CONC. WALK

(1) 18" LONG #4 GREASED DOWELLS TOP & -BÓTTOM CENTERED AT EXPANSION JOINTS

 $W/6x6 W2.9 \times W2.9 WWWF$ W/ BROOM FINISH —

STRIPING DETAIL

SOLID BLUE PAVEMENT MARKING

MIN. 6" COMP.

GRANULAR FILL

OF PARKING STALL

INTERNATIONAL SYMBOL OF

∤—36″ I.D.

AS REQ'D

STANDARD INLET

NOT TO SCALE

PRECAST CONCRETE PARKING

CHOCKS/WHEEL STOPS

NOT TO SCALE

ALL PARKING STOPS SHALL BE PINNED TO THE ASPHALT WITH #4 REBAR

EX. MANHOLE

MANHOLE WALL TO BE

WITH A FLEXIBLE WATERTIGHT CONNECTION FOR PROP. PIPE

(CORE-N-SEAL OR EQUAL)

PRECAST SECTION

PROP. SEWER

PIPE CONNECTION DETAIL

TO EXISTING MANHOLE

NOT TO SCALE

FIN GRADE

TYPE "C" (FLAT TOP) MANHOLE

USED WHERE RESTRICTED HEAD ROOM WILL NOT ALLOW FOR TAPERED WALLS

REINF. CONC. TOP DESIGNED

→ PRECAST CONC. MH.

RISER (ASTM C478)

ANCHORED 18" INTO THE GROUND. PARKING STOPS PLACED OVER THE

EQUAL W/ TYPE "M1" GRATE,

__EXISTING GRADE

EXISTING GRADE

AGGREGATE BASE

DUMPSTER PAD

SECTION VIEW NOT TO SCALE

HEAVY DUTY PAVEMENT X-SECTION NOT TO SCALE

BROOM FINISH

NOT TO SCALE

LAKE CO., INDISPECIFICATIONS

- 1. All work shall be performed in accordance with the Codes, Ordinances and Standards of the Town of Munster, Lake County, and the State of Indiana.
- 2. All sanitary sewer pipe, branches and fittings shall conform to one of the following: (a) Extra strength vitrified clay pipe (ASTM C-700) with push on rubber gasket joints (ASTM C-425). (b) Poly-vinyl chloride (PVC), SDR 26 (ASTM D-3034), with push-on rubber gasket joints (ASTM C-3212). Six inch service pipes shall be in accordance with the infrastructure improvement codes of the Town of Munster.
- 3. All sanitary sewer manholes shall be standard 48" diameter precast concrete units (ASTM C-478) conforming with the Standard Detail sheet of these plans.
- 4. The sanitary manhole base shall be precast with a minimum of 2 foot section, trough, etc...
- 5. Sanitary manholes shall be provided with a watertight gasketed cover
- 6. All improvements installed across paved or future paved areas shall be backfilled with sand or graded stone aggregate to the subgrade.
- 7. The competed sanitary sewer system shall be air tested for infiltration and shall have a maximum infiltration of 100 GPD/inch/diameter/mile of sewer pipe. The completed sanitary sewer system shall be air pressure tested for infiltration/exfiltration with 4 lbs. of pressure for 4 minutes. The testing shall conform to the procedure described in ASTM C-838-86 for clay pipe, ASTM C 924 for concrete pipe, ASTM F-1417 for poly-vinyl chloride pipe, and for other materials test procedures approved by the regulatory agency. The Contractor shall be responsible for supplying all testing materials and appurtenances. The Town of Munster shall be notified when the system (or portion thereof) is ready for testing.
- 8. Deflection tests shall be performed on all flexible pipe materials placed. The contractor shall be responsible for supplying testing materials and appurtenances. The tests shall be conducted after the final backfill has been in place at least 30 days. No pipe shall exceed a deflection of 5 %. If the deflection test is to be run using a rigid ball or mandrel, it shall have a diameter equal to 95 % of the inside diameter of the pipe. The test shall be performed without mechanical pulling devices. The Town of Munster shall be notified when the system (or portion thereof) is ready for testing.
- 9. Care should be taken in parkway areas to assure compaction acceptable for the future stability of driveways and sidewalks. While special backfill material is not required, it shall be the responsibility of the Contractor to protect against substantial future settlement of backfilled areas. The contractor shall provide special backfill material across driveways and sidewalks in the event that a sewer or main is installed underneath.
- 11. 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 distance 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.
- 12. 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" Plans and shall supply the Town of Munster with 2 copies thereof prior to and as a condition of the final acceptance.

13. Air pressure test shall be performed on all completed Sanitary Manholes in accordance with ASTM C 1244-93, Standard Test Method for Concrete Sewer Manholes by Negative Air Pressure (Vacuum) Test. The tests shall be conducted prior to backfill to demonstrate the integrity of the installed materials. The manhole shall pass if the test time meets or exceeds the required minimum test times as specified in ASTM C 1244-93 for the vacuum reading to drop from 10 inches of mercury to 9 inches of mercury. If the manhole fails the initial test, necessary repairs shall be made, and the test shall be repeated. The contractor shall be responsible for supplying all testing materials and appurtenances. The Town of Munster shall be notified when the manholes (or portion thereof) are ready for testing.

14. No sanitary sewer manhole shall be within eight (8) feet of a water main as measured from the outside edge of the sanitary sewer manhole to the outside edge of the water main.

VARES PER MANUF.

10

 \bigcirc

TRIANGULAR PATTERN

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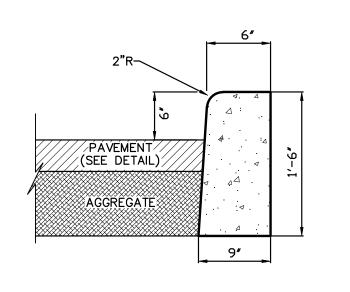
(EITHER PATTERN IS ACCEPTABLE)

PLAN OF "DOME STAMP" PATTERN IN SURFACE

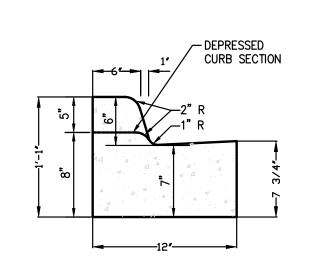
GENERAL SPECIFICATIONS FOR WATER MAINS

1. All work shall be performed in accordance with the Codes, Ordinances and Standards of the Munster, and the State of Indiana.

- 2. All water main pipe shall be polywrapped Ductile Iron Pipe (AWWA C151 C-52) with bell and spigot push-on rubber gasket joints (AWWA CIII). All water main pipe shall be installed with a minimum cover of 5.0 feet from top of curb to top of pipe. All fire hydrants, tees, bends and fittings shall be suitably harnessed or thrust blocked with concrete.
- 3. All improvements installed across paved or future paved areas shall be backfilled with sand or graded stone aggregate to the subgrade.
- 4. All water valves 12" or larger shall be placed in vaults.
- 5. On 12" water main bends, restrained joints shall be used, megalug or equal. At 90° bends, the water main shall be additionaly restrained at 1 joint in each direction.
- 6. All fire hydrants shall be manufactured by Mueller Company, Super Centurion 250 model with 51/4" valve openings with a 5" Storz pumper connection and shall be backfilled with 3/4" stone for drainage purposes.
- 7. All water mains shall be laid at least 10 feet (3.0m) horizontally from any existing or proposed sewer. The distance shall be measured from outside of pipe to outside of pipe. All sewers crossing water mains shall be laid to provide a minimum vertical distance 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. Care should be taken in parkway areas to assure compaction acceptable for the future stability of driveways and sidewalks. While special backfill material is not required, it shall be the responsibility of the Contractor to protect against substantial future settlement of backfilled areas. The Contractor shall provide special backfill material across driveways and sidewalks in the event that a water main is installed underneath.
- 9. The Buffalo Boxes shall be arch pattern box style and shall be located one foot behind sidewalks, if possible. No Buffalo Boxes shall be located in concrete areas, and they shall have AWWA approved shut offs and corporation valves.
- 10. All water main pipe shall be disinfected by the use of liquid chlorine. The Contractor shall notify the town of Munster when the water main system (or portion thereof) is ready for testing.
- 11. The Contractor is responsible for water quality tests done by a State Certified Laboratory. The Town of Munster Water Department staff shall be notified and be present while tests are being performed. The approved water system shall be turned on by the Water Department Staff, only after the water quality reports have been approved.
- 12. The newly installed water main (or portions thereof) shall be subjected to a pressure and leakage test, using hydrostatic testing. Test pressure shall not be less than 1.5 times the working pressure or exceed pipe design pressure. Pressure shall not vary by more than \pm 5 PSI for a minimum of a 2 hour duration test. The exposed pipe and joints shall be examined carefully during the test and any damaged or defective pipe or joints shall be replaced, and the test shall be repeated. The allowable leakage shall not exceed 11.65 gpd/mi/in of nominal pipe diameter at a pressure of 150 PSI.
- All visible leaks are to be repaired regardless of the amount of leakage. The contractor shall be responsible for supplying all testing materials and appurtenances. The Town of Munster shall be notified when the water main (or portion thereof) is ready for testing.
- 13. 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" Plans and shall supply the Town of Munster with 2 copies thereof prior to and as a condition of the final acceptance.
- 14. No water main shall be within eight (8) feet of a sanitary sewer manhole, a storm sewer manhole, or a drainage grate support structure as measured from the outside edge of the water main to the outside edge of the sanitary sewer manhole, storm sewer manhole, or drainage grate support structure.



BARRIER CURB DETAIL



COMBINED CONCRETE HIGH BACK CURB AND GUTTER

NOT TO SCALE

CURB RAMPS MUST HAVE A <u>DETECTABLE WARNING</u> FEATURE EXTENDING THE FULL WIDTH AND DEPTH OF THE RAMP (MID-WALK "IN-LINE" RAMPS ONLY NEED DETECTABLE WARNINGS AT WALK/PARKING TRANSITION). THE DETECTABLE SURFACE MUST CONSIST OF RAISED TRUNCATED DOMES WITH A DIAMETER OF NOMINAL 0.9 INCHES, A HEIGHT OF NOMINAL 0.2 INCHES AND A CENTER-TO CENTER SPACING OF NOMINAL 2.35 INCHES. THE TEXTURE OF THE DETECTABLE WARNING FEATURE MUST CONTRAST WITH THE SURROUNDING SURFACES (EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT). SEE ABOVE. ACCEPTABLE PAVER MANUFACTURERS:

-HANOVER ARCHITECTURAL PRODUCTS, DETECTABLE WARNING PAVERS, www.hanoverpavers.com/html/detectable.html -TekWay™ - DETECTABLE WARNING SYSTEM www.stronggo.com/ourproducts.html
-NuWay, CAST IN TACT, DETECTABLE WARNING www.nuwayinc.com/CAST_IN_TACT_1.pdf

SQUARE PATTERN

YELLOW COLOR ONLY DETECTABLE WARNING SURFACE NOT TO SCALE

COMBINED CONCRETE HIGH BACK CURB AND GUTTER

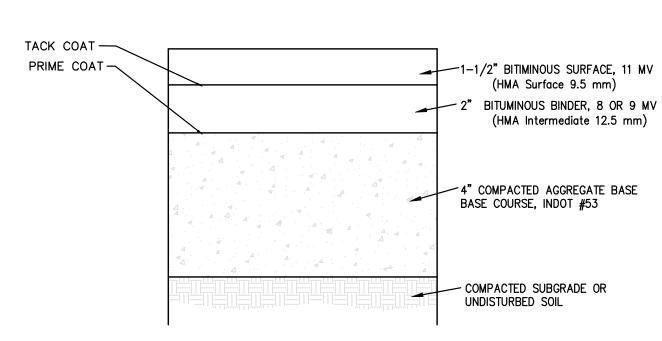
NOT TO SCALE

~ "WATER" ON LID - EXISTING GRADE SERVICE BOX TAP SERVICE PIPING COPPER TUBE TYPE "K" - DIRECT CONNECTION CURB STOP WATER MAIN COUPLING CORPORATION STOP COLLEIING SIZE VARIES

TYPICAL WATER TAP SERVICE PIPING NOT TO SCALE

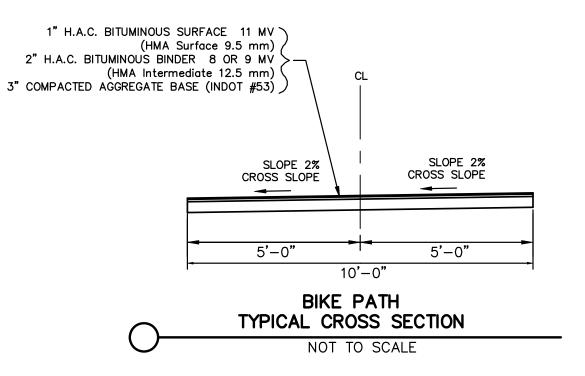
NOTE: PROVIDE CONCRETE COLLAR IF THE BUFFALO

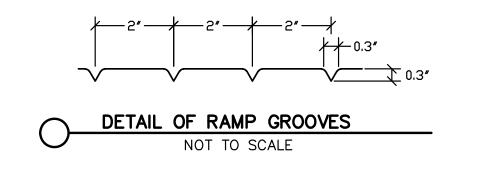
BOX IS LOCATED IN AN ASPHALT

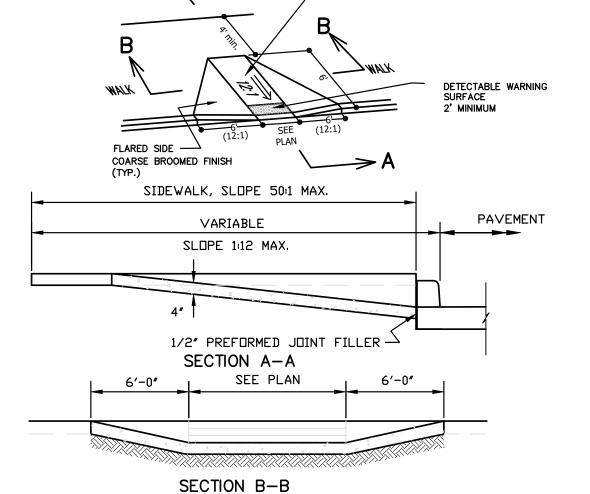


1. PAVEMENT & AGGREGATE THICKNESS MAY VARY DEPENDING ON CBR SOIL TESTING RESULTS.

2. WHERE FILL IS REQUIRED, SUBGRADE SHALL BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D698 METHOD OF

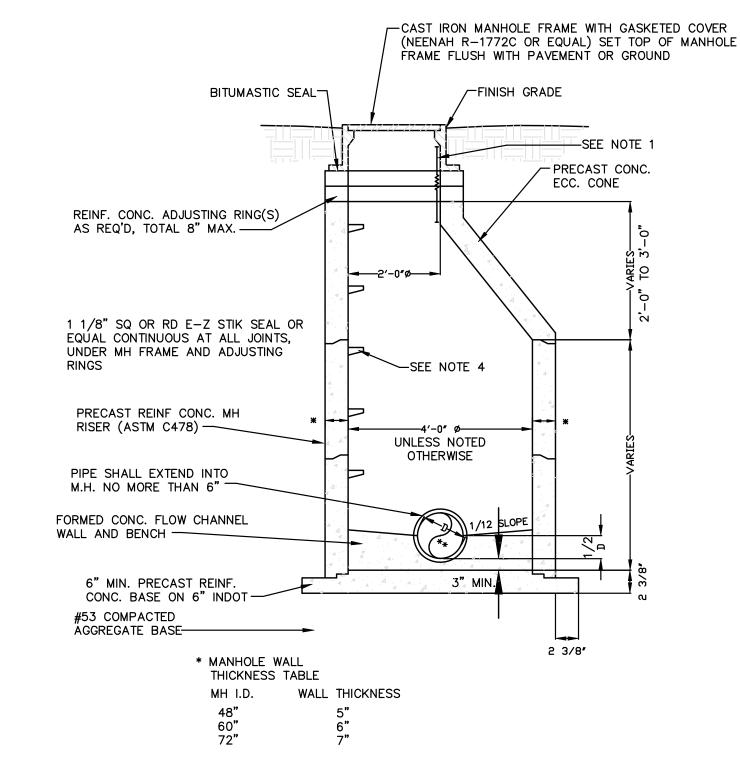






GROOVE SURFACE

HANDICAP RAMP TYPE A NOT TO SCALE

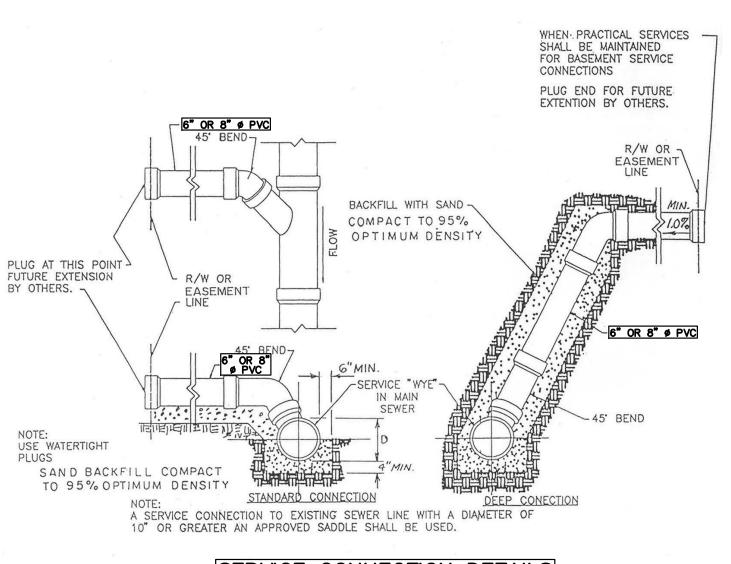


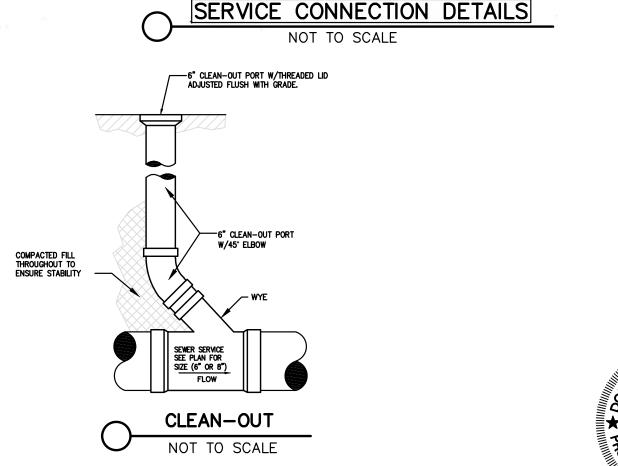
1. USE CANUSA WRAP ON ALL MANHOLES.

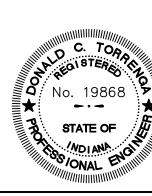
- 2. WHERE DEPTH FROM TOP OF CASTING TO INVERT IS LESS THAN 5'-0", USE FLAT TOP MANHOLE TYPE "C" IN LIEU OF ECCENTRIC CONE
- 3. WATERTIGHT SEAL IS REQ'D BETWEEN PRECAST RISER AND SEWER PIPE, TYPE A-LOK OR EQUAL.
- 4. COPOLYMER/STEEL MH STEPS AS MANUFACTURED BY M.A. INDUSTRIES, INC., OR EQUAL, AT 16" O.C. ** FOR PIPE SIZES RANGING FROM 8" TO 30" IN DIAMETER.

SANITARY

TYPE "A" MANHOLE NOT TO SCALE





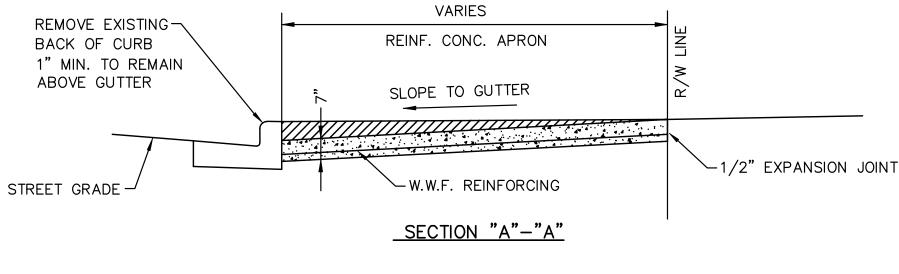


~ Z

, LAKE CU., II PECIFICATIONS CROSSING ELOPMENT DE

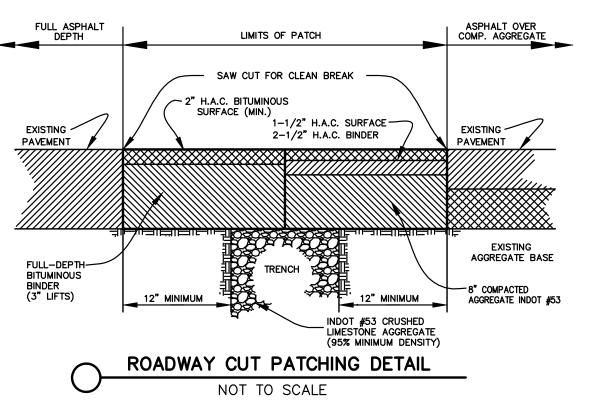
A PLA TOWN

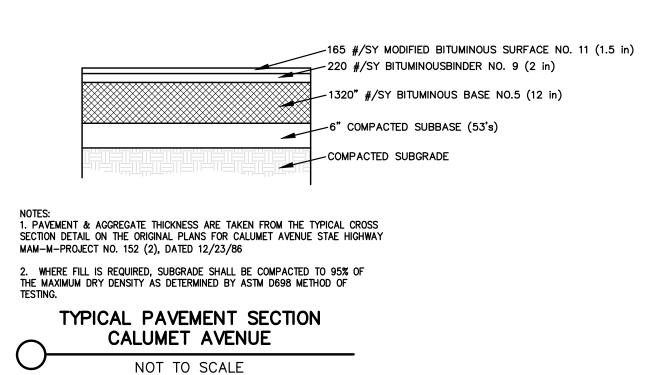
SHEET C - 5.1

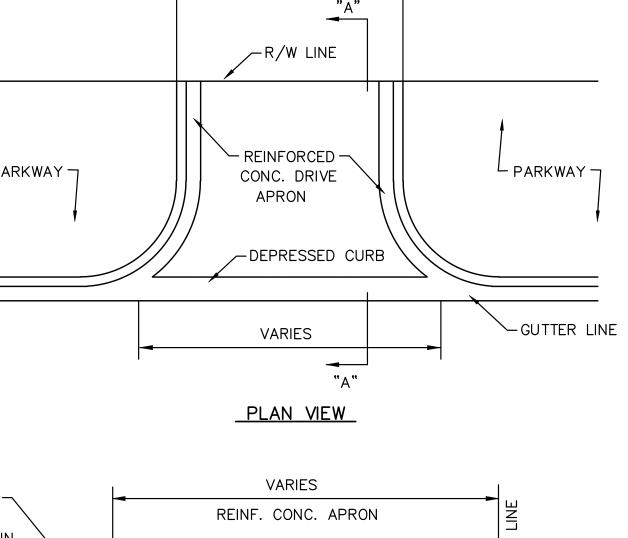


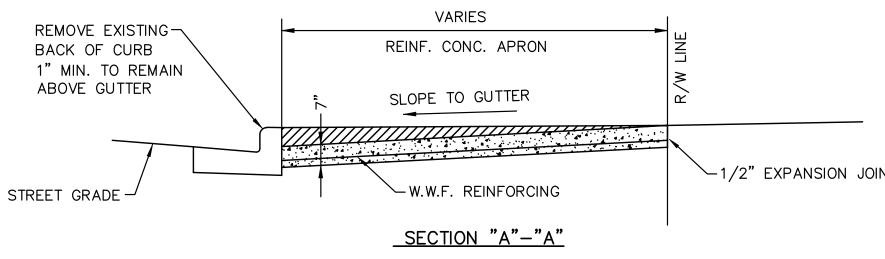
All concrete work for the drive aprons shall be in accordance with the codes and ordinances

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



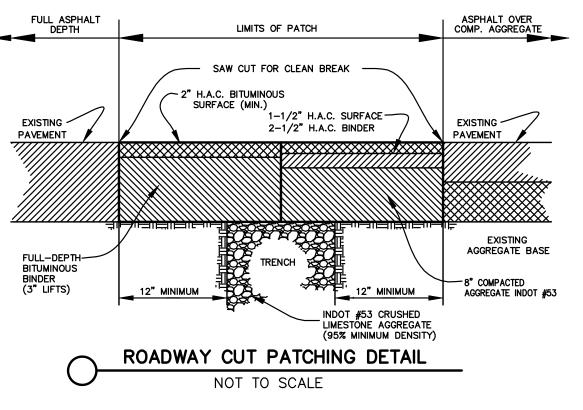


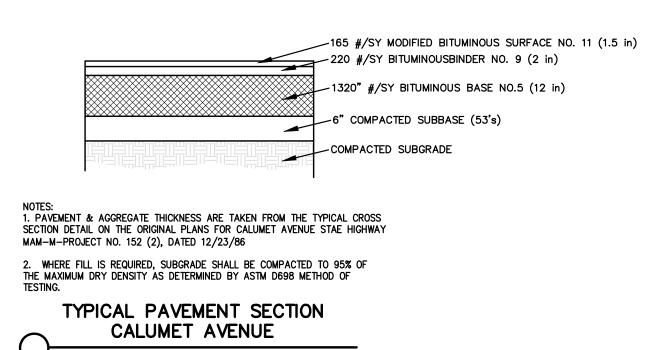


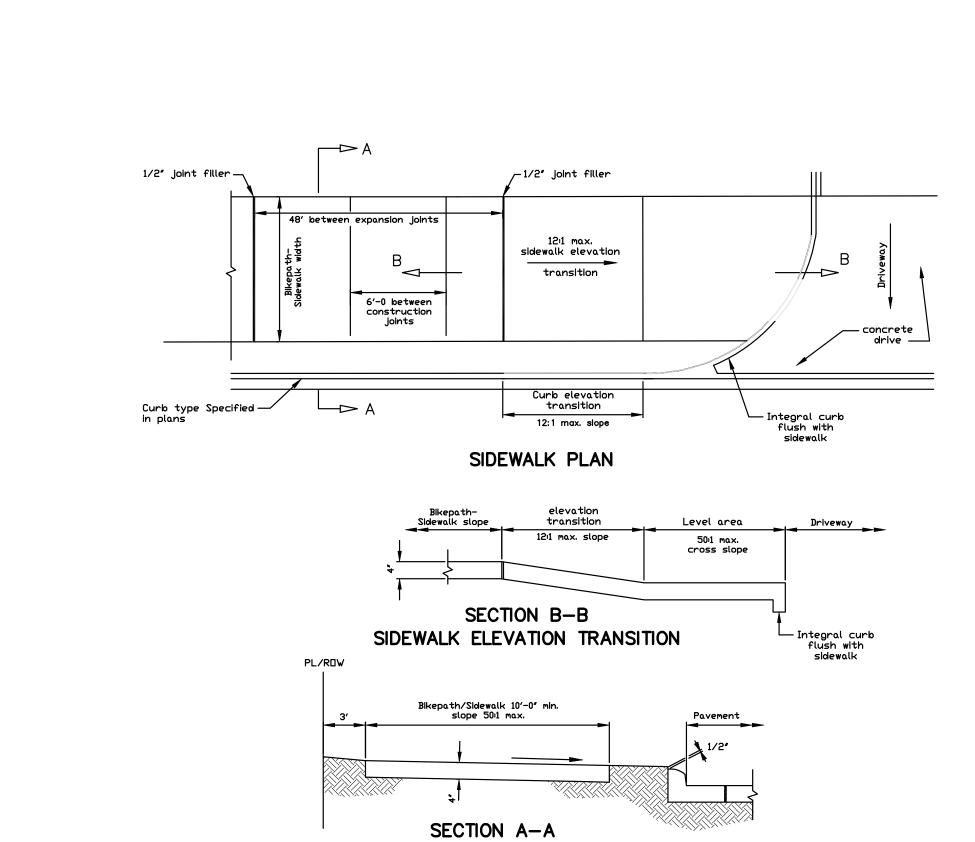


TYPICAL STREET CROSS SECTION NOT TO SCALE

of the Town of Munster.







SIDEWALK ADJUSTMENT TO CURB

CALUMET AVENUE

BIKEPATH/SIDEWALK DETAILS

NO SCALE

- ASPHALT BIKE PATH

SIDEWALK (10' WIDE)

18" HIGH BACK CURB

R/W

L3" MIN. CRUSHED AGGREGATE

UNDER CURB AND GUTTER

TYPICAL PUBLIC STREET CROSS SECTION

→ 1/4"/FT.

12'-0"

13'-6"

NO SCALE

25'- 0"

→1'- 6"

1-1/2" HMA BITUMINOUS SURFACE

9" COMPACTED AGGREGATE BASE

1/4"/FT SLOPE

1-1/2" H.A.C. SURFACE COURSE

2-1/2" H.A.C. BINDER COURSE (HMA Intermediate 12.5 mm)

(HMA Surface 9.5 mm)

8" CRUSHED AGGREGATE

CURB & GUTTER

BASE COURSE, INDOT #53

┌12" CONC. HIGH BACK

UNDER CURB

-SEE CURB & GUTTER

DETAIL FOR GUTTER

2'-7"

POUR CURB INTEGRAL WITH CONCRETE SLAB

SLOPES

(HMA Surface 9.5 mm)

2% --

_GRASS

CALUMET AVENUE

RIGHT-IN/RIGHT-OUT

ENTRANCÉ X-SECTION

NO SCALE

┌6" BARRIER

1/<u>4"/</u>FT.

12'-0"

13'-6"

1'- 6"--

4" HMA BITUMINOUS BINDER

(HMA Intermediate 12.5 m

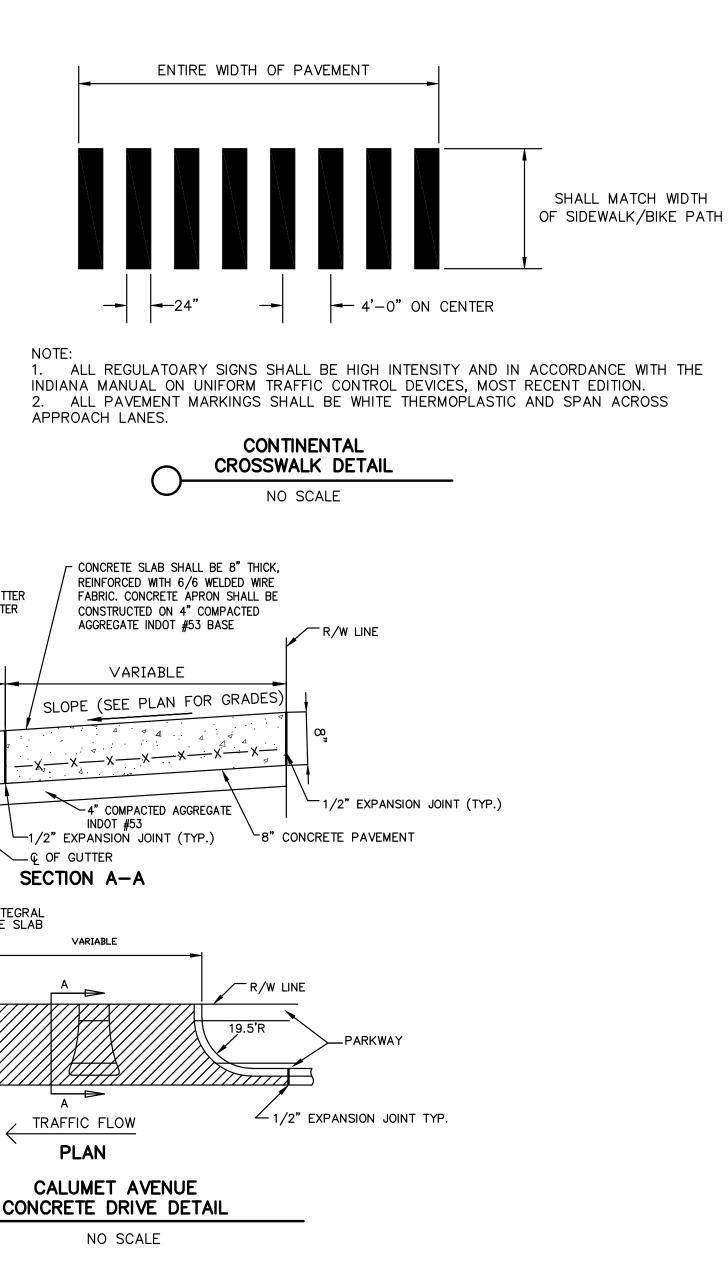


EXHIBIT A

*All underdrains

shall be wrapped

PIPE TO MH
(SEE PLANS

-CONCRETE

CURB & GUTTER

FOR LOCATION)

in geotextile fabric and bedded with #8 stone.

*All underdrains

with #8 stone.

40' ~ 6" PVC

PROPOSED CATCH BASIN —— OR INLET

0.20% (MIN.)

shall be wrapped

in geotextile fabric and bedded

PERFORATED PIPE @-

geotextile fabric and bedded with #8 stone.

PUBLIC ROADWAY UNDERDRAIN CONNECTION DETAIL

TO BE PLACED AT ALL SAG INLETS AND CATCH BASINS

NOT TO SCALE

PERFORATED PIPE @-

40' ~ 6" PVC

0.20% (MIN.)

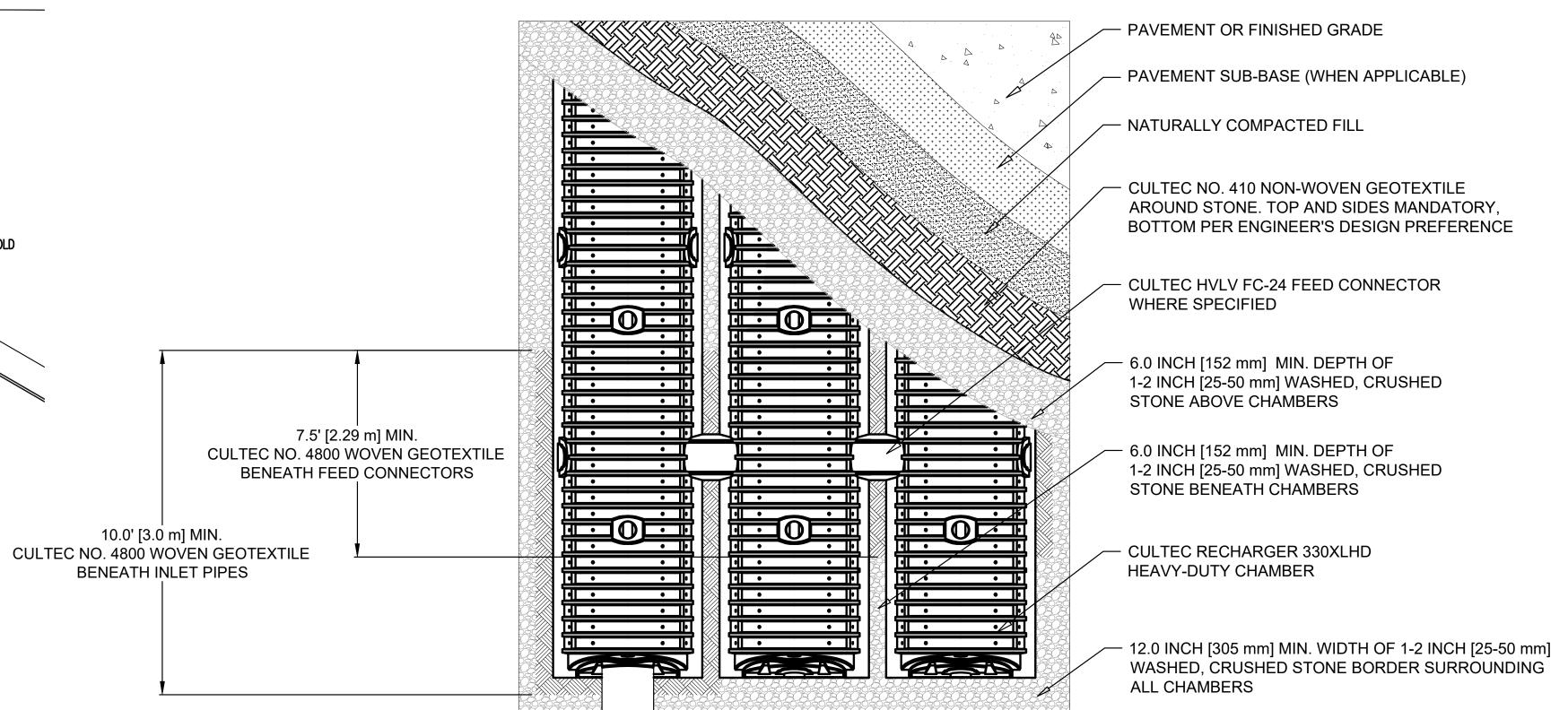
O No. 19868 STATE OF

ENGINEERS ROAD, MUNST ENG ENG THE ANA

INEERING, I & LAND SURVEYORS STER, INDIANA 46321

ED UNIT DEV MUNSTER, TAILS & SPE LEAF A PLA TOWN

SHEET C - 5.2



CULTEC

CULTEC Stormwater Design Calculator

Date:	June 15, 2020	
	Project Information:	
Maple L	eaf Crossings	
9450 C	alumet Avenue	
Munster	r	
Indiana	1	
United :	States	



RECHARGER 330XLHD



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



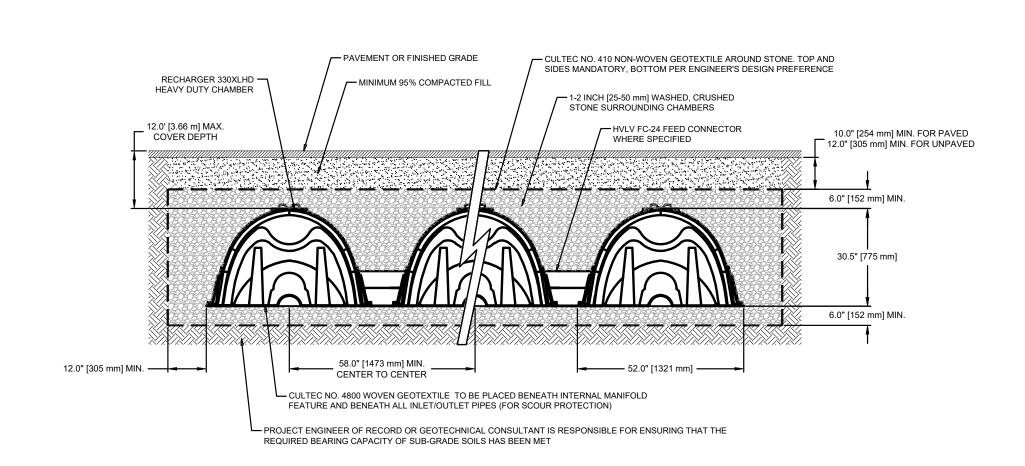
Breakdown of Storage Provided by Recharger 330XLHD Stormwater System		
Within Chambers	3,804.09	cu. feet
Within Feed Connectors	-	cu. feet
Within Stone	3,919.16	cu. feet
Total Storage Provided	7,723.3	cu. feet
Total Storage Required	7622.00) cu. feet

Materials List

Recharger 330	XLHD		
Total Number of Chambers Required	72	pieces	
Separator Row Chambers	18	pieces	Separator Row Qty Included in Total
Starter Chambers	4	pieces	AV - V CASAGRA CO PARRITMANTO A MATOR AND
Intermediate Chambers	64	pieces	
End Chambers	4	pieces	
HVLV FC-24 Feed Connectors	0	pieces	Based on External Pipe Manifold
CULTEC No. 410 Non-Woven Geotextile	960	sq. yards	36
CULTEC No. 4800 Woven Geotextile	128	feet	
Stone	363	cu. yards	

- PIPE PER ENGINEER DESIGN.
PIPE TO BE INSERTED 12.0 INCHES [305 mm] MIN. INTO CHAMBER.
MAXIMUM PIPE SIZE:

24" [600 mm] HDPE 24" [600 mm] PVC



19868 A TOP

OREING ENGINEERS & LAND SURVEYORS
907 RIDGE ROAD, MUNSTER, INDIANA 46321
(219) 836-8918
website: www.torrenga.co

E LEAF CROSSING
NIT DEVELOPMENT TO THATE
VSTER, LAKE CO., INDIAN
S & SPECIFICATIONS

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

First Metropolitan Builders 400 Fisher Avenue Munster, Indiana 46321 JOB NO: 2019—5052

SHEET C-5.3

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ST

SHEET C - 6.0

I. THIS PROPERTY IS LOCATED IN FLOOD ZONE "X" (SHADED), AREA WITH REDUCED FLOOD RISK DUE TO LEVEE AS TAKEN FROM THE FLOOD INSURANCE RATE MAP (FIRM) FOR MUNSTER, LAKE COUNTY, INDIANA, MAP NUMBER 18089C0128E, EFFECTIVE DATE JANUARY 18, 2012. 2. HYDROLOGIC UNIT CODES: 071200030300630 - HART DITCH (PLUM CREEK) - DYER DITCH. 3. 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. 4. THE SITE CONSISTS PRIMARILY OF DEMOLISHED BUILDINGS, BROKEN ASPHALT AND STONE. 5. THERE IS NO PRESENCE OF HYDRIC SOILS ON THIS PROPERTY. 6. 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±. 7. 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 8. 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 9. 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 SEEDED. 10. ALL ACREAGE OF THIS PROPERTY WILL BE DISTURBED DURING CONSTRUCTION. 11. 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 12. 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 13. 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 SEEDED WITH MEASURES APPROPRIATE FOR THE SEASON. 14. 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. 15. ALL PUBLIC AND PRIVATE STREETS AND ROADS FRONTING THE PROJECT SHALL BE SWEPT OF ANY DEBRIS, TRASH OR SEDIMENT WHICH MAY ULTIMATELY DRAIN TO STORM SEWER. 16. SITE ELEVATIONS ARE BASED ON NAVD 88, AND HORIZONTAL DATUM IS BASED ON INDIANA STATE PLANE

Rensselaer loam, calcareous subsoil variant NORTH NOT TO SCALE

Temporary stabilization plans and sequence of implementation.

- a. 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.
- b. Installation of all erosion/sedimentation controls including stabilized construction entrance, silt fences, etc... per the engineering plans.
- c. Clearing and grubbing. d. All disturbed areas shall be permanent seeded, mulched, when no additional disturbance is

to construction.

E-MAIL:

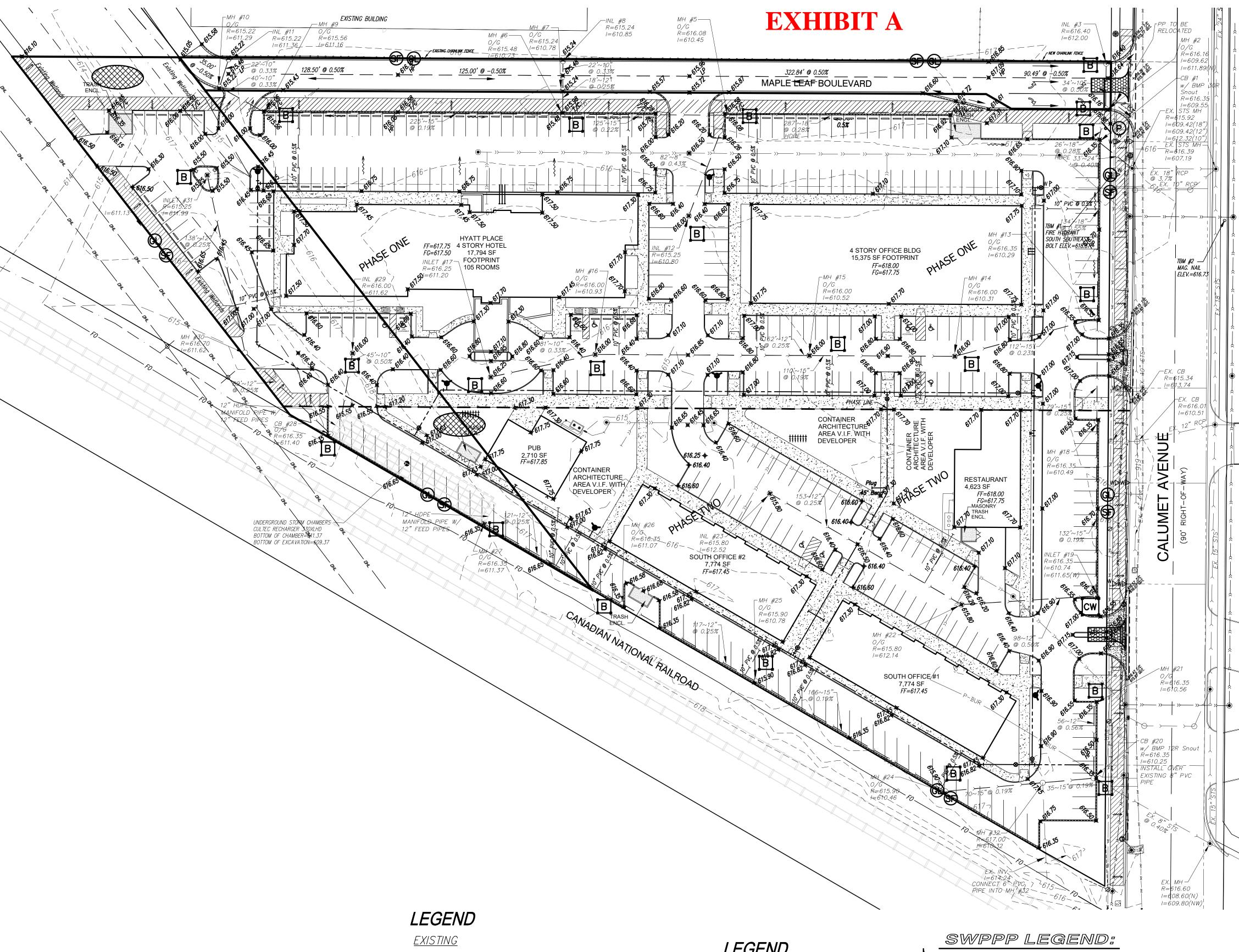
- e. Topsoil stockpile surrounded with silt fencing. f. Rough cut and fill of all proposed swales, road, and other major grading per the engineering plans shall be done to rough grades at start of construction to prevent excessive soil erosion due
- g. Construction of storm sewers, sanitary sewers, water 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).
- h. Regrade and construct road. i. Complete permanent erosion control and restoration of site vegetation. Erosion control
- measures are to be removed upon permanent vegetative cover being established.

RESPONSIBLE INDIVIDUAL FOR SWPPP

COMPANY: FIRST METROPOLITAN BUILDERS JACK LIEISER MUNSTER, IN 46321 PHONE: (219) 746-0753

JACKLIESER@AOL.COM

ADDRESS: 400 FISHER AVENUE



MANHOLE CATCH BASIN/INLET POWER POLE LIGHT POLE TELEPHONE MANHOLE TELEPHONE PEDESTAL WATER VALVE FIRE HYDRANT GAS VALVE NIPSCO GAS LINE-FLAGGED SANITARY SEWER STORM SEWER UNDERGROUND GAS LINE ____ GAS ____ GAS ____ GAS ____ GAS ____ GAS ____ UNDERGROUND TELEPHONE LINE UNDERGROUND ELECTRIC LINE — ELEC —— ELEC —— ELEC — UNDERGROUND FIBER OPTIC CABLE LINE

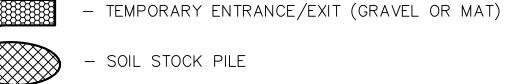
OVERHEAD ELECTRIC LINE

LEGEND <u>PROPOSED</u>

MANHOLE CATCH BASIN/INLET FIRE HYDRANT WATER VALVE FIRE DEPT. CONNECTION GRADE PROPOSED

> FINISHED GRADE STORM SEWER SANITARY SEWER SANITARY SEWER STUB WATER MAIN WATER MAIN STUB

GRADE DIRECTION ARROW



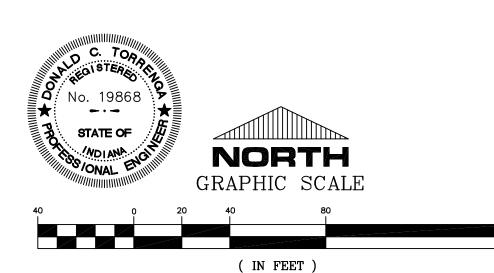
- SOIL STOCK PILE

- BASKET DROP INLET PROTECTION - GRADE LIMITS

- SILT FENCE (SEDIMENT FENCE) - CONCRETE WASH OUT AREA

- TEMPORARY SEEDING (SEE NOTE 12)

- POSTING RULE 5 NOI & NOS LETTERS AND LOCAL SWPPP PERMIT (SEE NOTE 14)



1 inch = 40 ft.

FG=000.00

"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

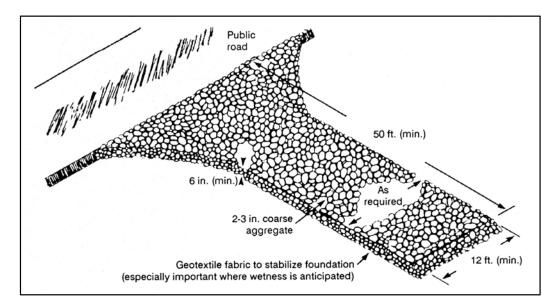
Installation:

Remove all vegetation and other objectionable material from the foundation area. Install pipe under the stone if needed to provide proper public road drainage. 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
- Reshape pad as needed for drainage and runoff control. 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

Material: Geotextile-Type mats, AGES Mud Mat or approved equal

Installation: Install pipe under mat if needed to provide proper site drainage.

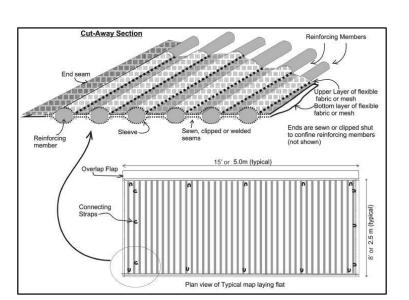
Install Geotextile-Type mat on the graded foundation area. Divert all surface runoff and drainage from the mat to sediment trap.

Maintenance:

1. Inspect entrance mat for sediment deposits weekly and after storm of a minimum of 1/2 inch rainfall events or heavy use.

Reshape pad as needed for drainage and runoff control. Repair or replace mats as needed.

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.

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

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:

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. 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.)

1. Inspect periodically after planting to see that vegetative stands are adequately

established; re-seed if necessary 2. Check for erosion damage after storm events and repair; re-seed and mulch if necessary.

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

2. Permanent Seeding: or sodding shall be done at the time of final landscaping.

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.	1/4 in.	3/1 to $5/1$
			8/1 to 9/1
German millet	40 lbs.	1 to 2 in.	5/1 to 6/1
Sudangrass	35 lbs.	1 to 2 in.	5/1 to 7/30

** Seeding done outside the optimum dates increases the chances of seeding failure.

PERMANENT SEEDING

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

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

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.

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

- Fertilize and line as recommended by soil test. 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. Apply seed uniformly with a drill or cultipacker-seeder, or broadcasting, and cover to
- If drilling or broadcasting, firm the seedbed with a roller or cultipacker. 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.)

- 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.)
- Plan to add fertilizer the following seasons according to soil test recommendations. 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. If vegetation fails to grow, consider soil testing to determine acidity or nutrient deficiency problems. (Contact your SWCD or Cooperative Extension office for
- 6. If additional fertilization is needed to get a satisfactory stand, do so according to soil

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.

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		Rat	Optimum soil pl	
		Permanent	Dormont or frost	оришиш остр
OPF	N AND DISTURBED AREAS (REMA	AINING IDI F 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.	
STFI	EP BANKS AND CUTS, LOW MAIN	ΤΕΝΔΝΟΕ ΔΡΕΔς (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.	3.5 to 7.5
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.	3.3 to 7.3
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	^^ 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	0)		
IAW	/NS AND HIGH MAINTENANCE AR	RFAS		
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 (turf-type)**	130 to 170 lbs.	195 to 250 lbs.	5.6 to 7.5
	+ bluegrass	20 to 30 lbs.	30 to 45 lbs.	
CLIA	NINELS AND ADEAS OF CONCENT	DATED FLOW		
Сп <i>А</i>	NNELS AND AREAS OF CONCENT Perennial ryegrass	00 to 150 lbs.	150 to 225 lbs.	5.6 to 7.0
1.	+ white or ladino clover*	1 to 2 lbs.	1 ½ to 3 lbs.	3.0 to 7.0
2.	Kentucky bluegrass	20 lbs.	30 lbs.	5.5 to 7.5
۷.	+ smooth bromegrass	10 lbs.	15 lbs.	5.5 to 7.5
	+ 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.	0.0 10 7.0
	+ 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.

To provide early germination and soil stabilization in the spring.

To reduce sediment runoff to downstream areas. 3. To repair previous seedings.

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.

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 3.15) 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) Broadcast fertilizer as recommended by a soil test.

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.)

- 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.

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

Coverage: 75% of the soil surface

Anchoring: Required to prevent displacement by wind or water, see table for Mulch Anchoring Methods.

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

Hydromulch with short cellulose fibers.

(excelsior)

Exhibit 3.15-D. Mulch Anchoring Methods.

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

ton/acre

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	1 ton	Apply with a hydromulcher and use
cellulose	/acre	with tacking agent.
Long fiber wood	1/2-3/4	Anchor in areas subject to wind.

Anchoring method	How to apply
Mulch anchoring tool <u>OR</u> 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 simi- lar material)*	Apply over mulch and staple with 6-8 in. wire staples. 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 upgrade 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:

- 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. 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.
- Written evaluation reports must include: a. the name of individual performing the evaluation;
- the date of evaluation;
- problems identified at the project site; and details of corrective actions recommended and completed.
- 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.
- Evaluation reports must be maintained for a period of two (2) years from date of NOT. All evaluation reports will be submitted to the Town of Munster when requested.

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 then are no measurable storm events within a given week, the site should be monitored at least once in the 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 Town Engineer, if an organized fashion, within forty-eight (48) hours upon request. Yes No N/A 1. Are all sediment control barriers, inlet 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 discharge points free of any noticeable pollutant discharges? 5. Are all discharge points free of any noticeable 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 spill 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	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 ensur continued performance of their intended function during construction and shall continue until the entil site has been stabilized and a Notice of Termination has been issued. An inspection of the project sit must be completed by the end of the next business day following each measurable storm event. If their are no measurable storm events within a given week, the site should be monitored at least once in the week. Maintenance and repair shall be conducted in accordance with the accepted site plans. This ic shall be kept as a permanent record and must be made available to the Town of Munster Town Engineer, an organized fashion, within forty-eight (48) hours upon request. Yes	
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		17. Have previously recommended corrective actions been implemented?

REPORT SAMPLE

SPILL PREVENTION AND RESPONSE

Procedures and practices to prevent and control spills in a manner that m

eliminates the discharge of spilled r	naterial to the drainage system or watercourse				
eminiates the disentarge of spinear	naterial to the dramage system of watercourse				
ardous Waste Products:	Other Waste Products:				
Petroleum Products,	 Soil stabilizers/binders 				
 Asphalt Products, 	 Dust palliatives 				
 Concrete Curing Compounds, 	Herbicides				
• Pesticides,	 Growth inhibitors 				
Acids,	Fertilizers				
• Paints,	 Deicing/anti-icing chemicals 				
 Stains, 	• Fuels				
 Solvents, 	 Lubricants 				

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

Spill Prevention Practices:

• Wood Preservatives,

Roofing Tar, or

The following are management practices used for reduction of spills and other accidental

• Other petroleum distillates

- 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.

In the event that a large spill occurs (that which requires extensive cleanup actions, refer to MSD sheets for information), the following procedures shall be followed to minimize exposure of the material.

- a. Immediate action shall be taken to control and contain the spill to prevent it from
- entering any nearby storm sewer structures or open waters. b. Notify the Town of Munster Fire Department at 911 for all combustible and

booms, and pillows designed for the use of spill containment and absorption.

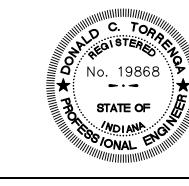
- c. Notify the Federal Emergency Spill Hotline at 1-800-424-8802 within 2 hours for spills above the reported allowable quantity, or if the material enters any nearby
- storm sewer structures or open waters. d. Notify the Indiana Emergency Response Hotline at 1-888-233-7745. e. The spill area shall be isolated from all surrounding areas with absorbent pads,
- f. The spill kits that are required to be on site shall be utilized. g. Emergency Response teams shall be contacted for extensive spills above and

beyond the containment by available methods.

Waste Disposal Management Practices:

All solid waste associated with the construction and development of this project shall be removed and disposed of properly with in all applicable state and federal laws associated with the waste generated. Developer and/or contractor are to provide on-site dumpsters, rented from a licensed solid waste management company, to ensure waste is collected and disposed of properly. All trash and construction debris from the site will be deposited in a dumpster. No construction waste will be buried onsite. All personnel will be instructed regarding the correct procedure for waste disposal.

- a. Select a designated waste collection area onsite.
- b. Provide an adequate number of containers with lids or covers throughout the site, and frequent pickups
- c. Provide immediate cleanup of any container spills.
- d. Make sure that construction waste is collected, removed, and disposed of only at



MAPLE LEAF (LANNED UNIT DEVEN OF MUNSTER, L

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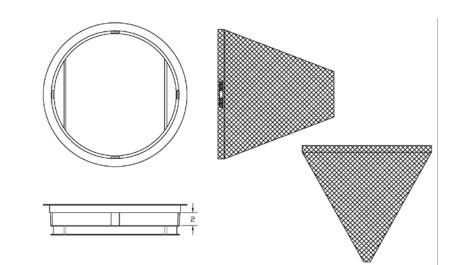
Install protection to existing and newly installed inlet/catch basin in a new development

bag attached with a steel band locking cap that is suspended from the frame,

Catch -all Inlet Protector Hancor Flo-Gard bt Nyloplast or approved equal.

- 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. Replace the inlet/catch basin grate.

- Inspect weekly during construction and after each storm event of a minimum of 1/2 inch rainfall, and remove built-up sediment. Replace bag every six (6) months.
- Replace the Geotextile fabric bag if there is a hole and/or won't pass water. Replace the Geotextile fabric bag after any oil, gasoline or solvent spill.



GENERAL NOTES:
FRAME: Top flange fabricated from 1½'x1½'x½' angle. Base rim fabricated from 1½'x½'x½' channel. Handles and suspension brackets fabricated from 1½'x½' 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.

1. Sweeping may be ineffective if soil is wet or heavy accumulation of mud. 2. May require repeat cleanings.

- 1. Inspect potential sediment tracking ingress and egress points locations daily, and after rain
- 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

7. After sweeping is finished, properly dispose of sweeper wastes at an approved dumpsite.

- 4. If not mixed with debris or trash, consider incorporating the removed sediment back into the
- 5. Be careful not to sweep up any unknown substance or any object that may be potentially
- 6. Adjust brooms frequently; maximize efficiency of sweeping operations.

reas by reducing the velocity of sheet flow.

SILT FENCE

Trench: 6" minimum depth, flat bottom, filled with compacted soil to bury lower portion of fence

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.

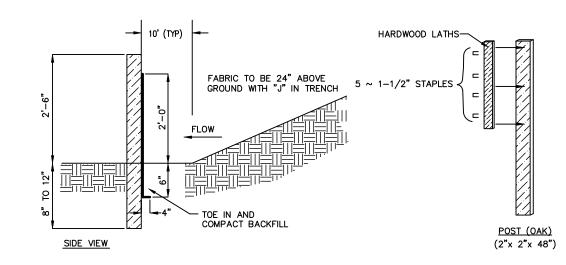
Attachement: Hardwood laths secured to stakes with five (5) 1-1/2 inch staples.

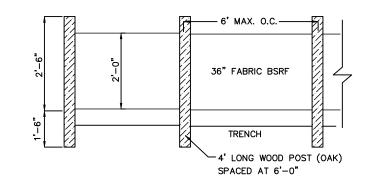
Fence Fabric: Spunbound polyester material with a fiberglass scrim or net sandwiched in between the layers, SS-700 SiltSaver or approved equal.

- 1. Along the entire intended fence line, maintain contour as much as possible, dig a 6" deep flat
- On the downslope side of the trench, drive the post 8" to 12" into the ground.
- Run a continuous length of fence fabric along upslope side of posts. 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.
- Backfill the trench with compacted earth.

Maintenance:

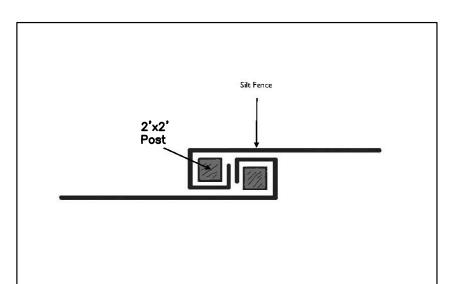
- 1. Inspect silt fence once every seven calendar days and 24 hours after each storm event of minimum of 1/2 inch rainfall.
- 2. If fence fabric tears, starts to decompose, or becomes ineffective, replace the affected portion, as outlined by the manufacturer. Remove deposited sediment when it reaches one-half the height of the fence at its lowest point
- or is causing the fabric to bulge. Take care to avoid undermining the fence during clean out.
- After watershed has been stabilized, remove fence and sediment deposits, bring the disturbed area to grade and stabilize.





FRONT ELEVATION MINIMUM OVERLAP OF 18" IS TO BE PROVIDED AT ALL SPLICE JOINTS

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

Specifications:

Typically the darker, friable, loamy surface layer of soil found immediately below vegetation.

Storage Area

1. Free of stumps, rock, and construction debris.

- Stockpile covered with vegetation or a tarp.
 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

Spreading Topsoil

- Prior to applying topsoil, grade the subsoil and roughen the top three to four inches
- 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.

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.

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
- 4.) Locate away from other construction traffic to reduce the potential for damage to the
- 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.
- Orange safety fencing or equivalent.
- 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).

- 1.) Dependent upon the type of system, either excavate the pit or install the containment
- 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
- 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
- 6.) Install signage that identifies concrete washout areas. 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
- Inspect the system for leaks, spills, and tracking of soil by equipment.
- Inspect the polyethylene lining for failure, including tears and punctures. Once concrete wastes harden, remove and dispose of the material.
- 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
- 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

CONCRETE WASHOUT

10' (MIN.)

Metal pins or staples

Chapter 7

to secure the polyethylene lining to the straw bales

15.) Holes, depressions and other land disturbances associated with the system should be backfilled, graded, and stabilized.

Concrete Washout (Above Grade System) Worksheet

Plan View Not to Scale

should extend polyethylene

/ over the straw $\,$ lining to the $\,$

Section A-A Not to scale

Metal pins or

Polyethylene

lining (10 millimeters);

Metal pins or staples to secure the polyethylene

Wood or metal stakes to secure the

Straw bale (alternative materials

Wood or metal stakes to

Straw bale (alternative materials or

structural

containment)

October 2007

products may

secure the straw bales

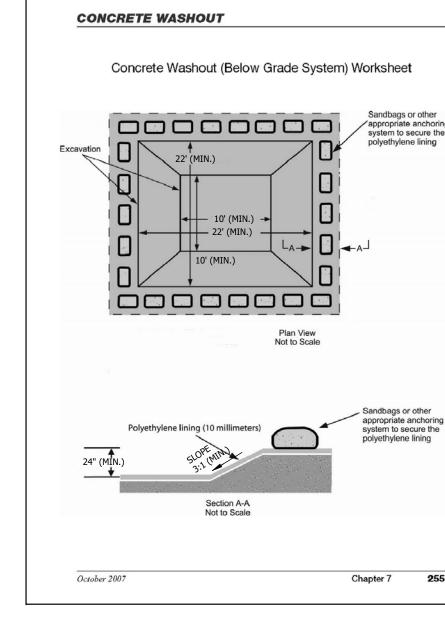
or products may be used to provide structural containment . Alternative materials or products will require design modification.

The lining should

extend over the

straw bales.

straw bales (2 per straw bale)



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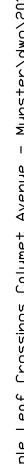
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MAPLE LEAF CROSSING

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

CROSSING: VELOPMENT LAKE CO., NIT DE ISTER, FINAL INO CI A PLANNEI TOWN OF I

SHEET 1 of 1

Legal Descriptions: 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. 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. 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 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___ , 20___ A.D. County of Residence: STATE OF INDIANA **COUNTY OF LAKE** Submitted to, approved and accepted by the Plan Commission of the Town of Munster, Lake County, Indiana, this PLAN COMMISSION OF THE TOWN OF MUNSTER, LAKE COUNTY, INDIANA. Chairman: **STATE OF INDIANA COUNTY OF LAKE** I, Gary P. Torrenga, hereby state that 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. TORRENGA ENGINEERING, INC.

Witness my hand and Seal this _____ day of _ Gary P. Torrenga - Registered L.S. #S0514 STATE OF

Executive Secretary:

UTILITY EASEMENTS:

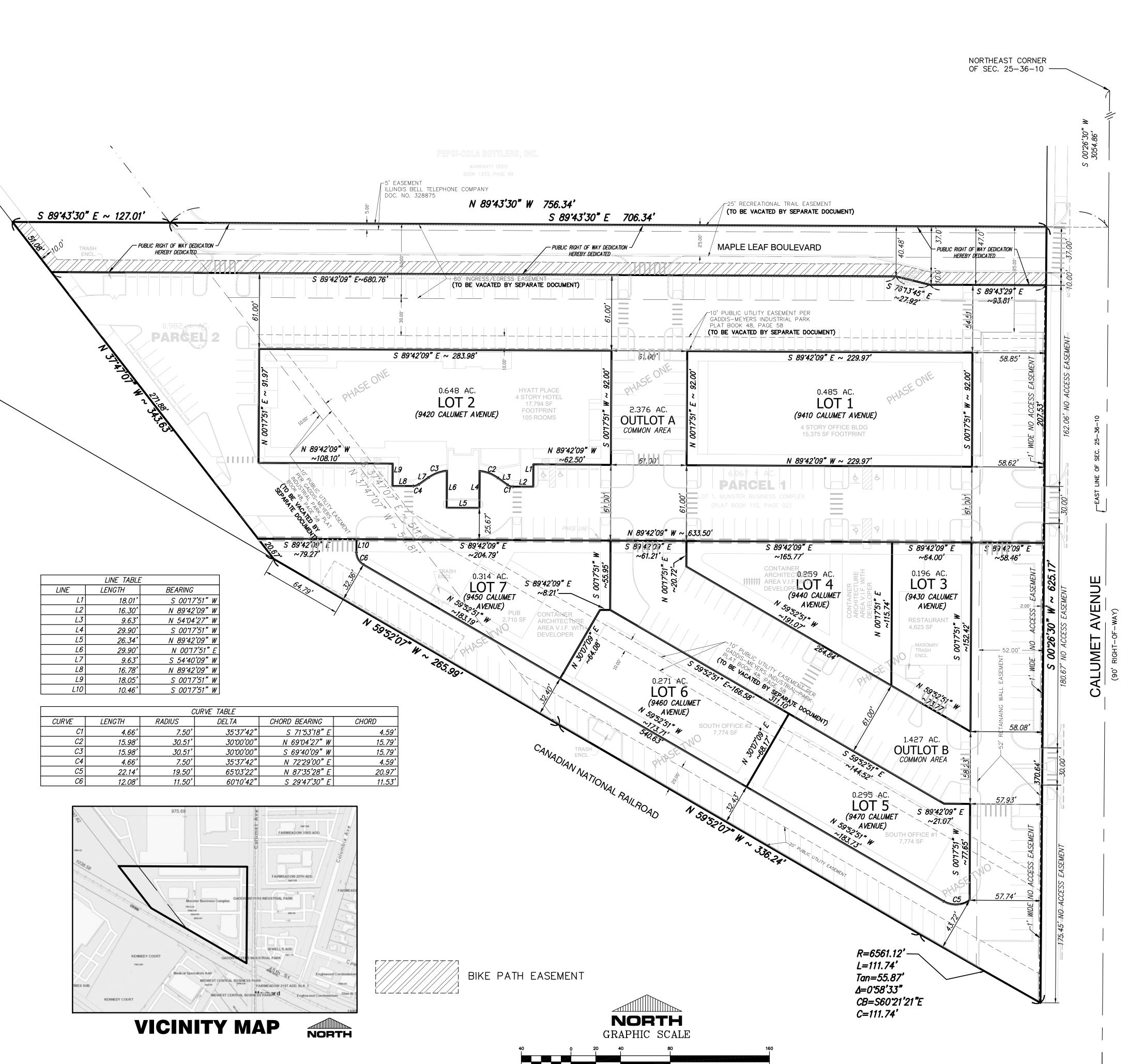
An easement is hereby granted to the Town of Munster, Indiana, SBC, AT&T, Northern Indiana Public Service Company and other companies identified by the Munster Town Board as supplying public service needs severally and their respective successors and assigns to install, lay, erect, construct, renew, 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 strip or strips of land designated by dotted lines on the plat and marked " easements for public utilities" for the purpose of serving the public in general with sewer, water, gas, electric, telephone and television service, including aerial right as 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 toppings, 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. Changes of yard elevations in easements from those established upon the subdivision plat or noted on plats submitted and approved when building permits are issued that adversely impact drainage of adjoining lots shall be subject to regrading at the owner's expense. All designated utility easements are also hereby dedicated as drainage easements.

FLOOD STATEMENT:

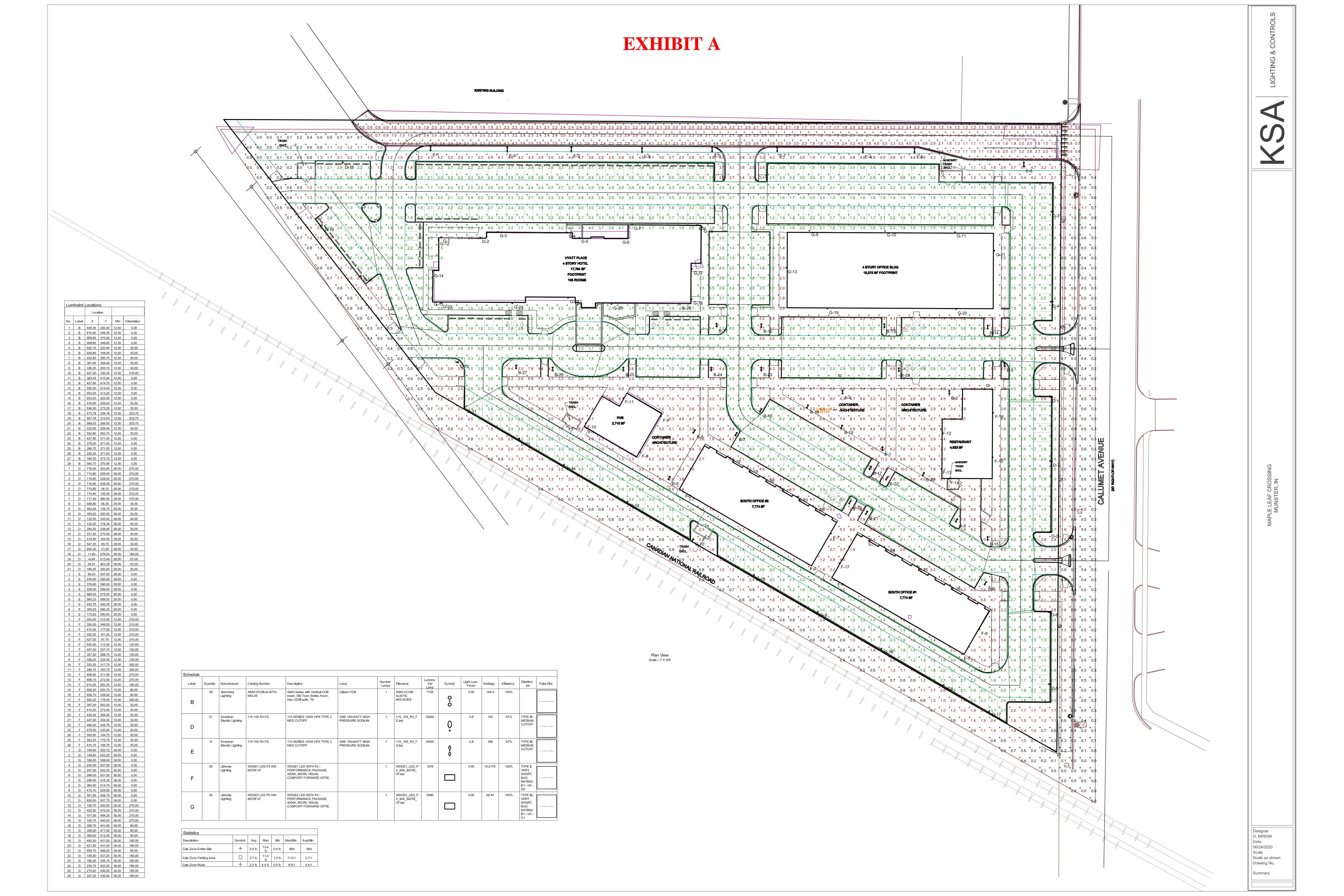
As taken from FEMA Flood Insurance Rate Map (FIRM), Community-Panel Number 18089C0117E, Effective Date January 18, 2012, this property is in Flood Zone X, areas determined to be outside the 0.2 % annual chance floodplain.

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.



(IN FEET) 1 inch = 40 ft.



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 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 t 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

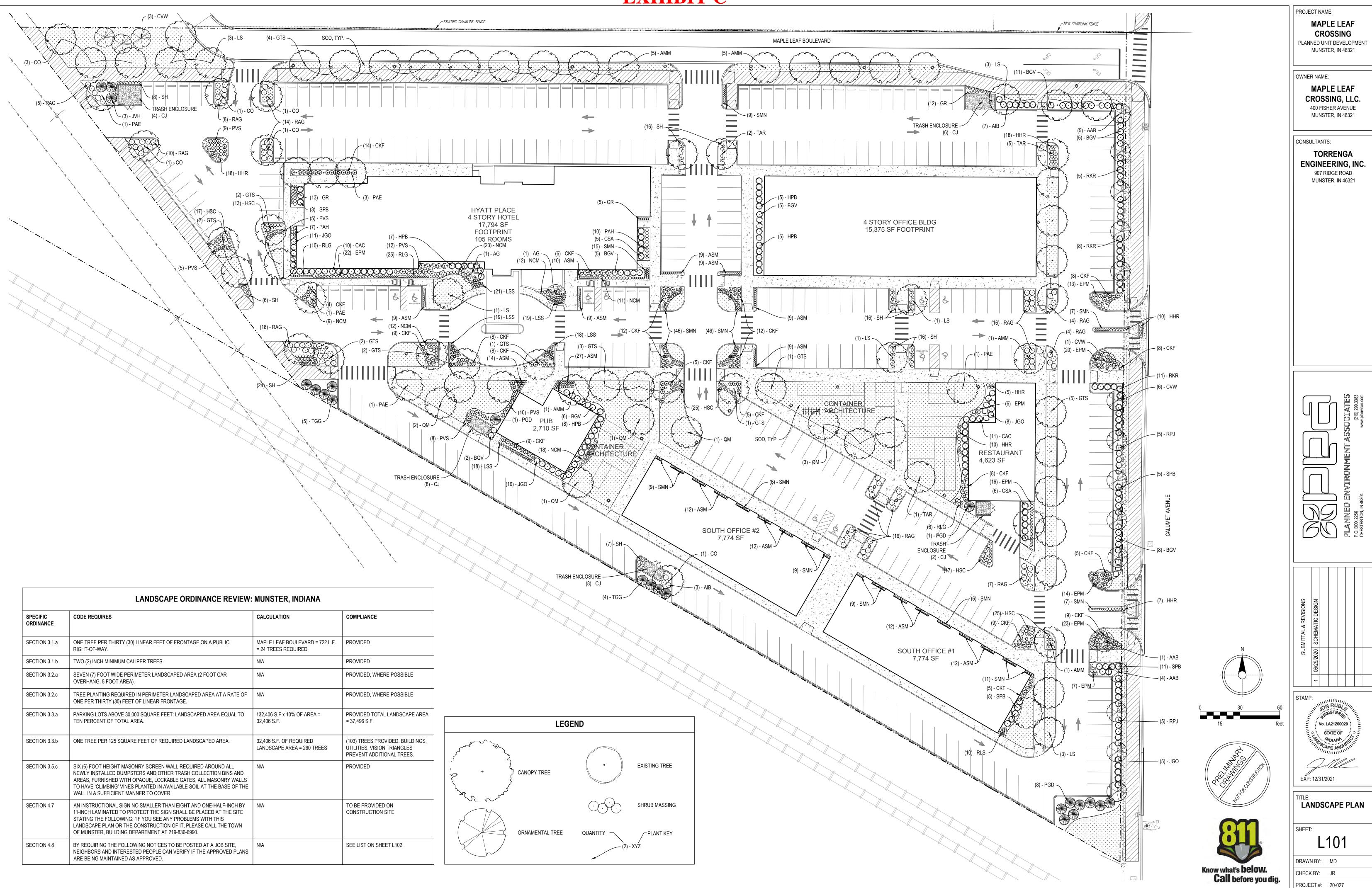
or design concept of the building front. Exceptions may be granted by the Plan Commission solely at its discretion as a component of a building site plan approval application in accordance with Section 26-6.804.G of the Town's Code of Ordinances.: Plastic laminates, except for high pressure laminates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



PLANTING NOTES

- 1. SEE SHEET L101 FOR PLANTING PLAN. SEE SHEET L201 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.
- 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.
- 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.
- TREES SHALL HAVE STRAIGHT TRUNK WITH LEADER INTACT, UNDAMAGED AND UNCUT. BRANCHING MUST BE WELL DEVELOPED.
- 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.
- 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

IRRIGATION:

- 6.1. CONTRACTOR SHALL PROVIDE BID ALTERNATE FOR IRRIGATION SHALL BE PROVIDED PER IRRIGATION PERFORMANCE DRAWING AND NOTES.
- 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.
- 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
- 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, FIND SANDY LOAM, UNIFORM IN COMPOSITION ANDFREE 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.
- ORGANIC MATTER: 4% MIN, 10% MAX
- AVAILABLE PHOSPHORUS: 25 PPM, MIN
- 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.

MULCH MATERIALS:

- 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.
- MULCH SHALL BE 2-INCH THICKNESS MINIMUM COVERAGE IN ALL AREAS OF TREE PITS 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
- 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
- 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
- 10.6. WHERE PROPOSED PLANTING ARE INDICATED IN EXISTING PAVING AREAS, CONTRACTOR SHALL EXCAVATE A MINIMUM OF 2'-0" BELOW PAVING SURFACE.

VEGETATION IS NOT KILLED WITHIN 10 DAYS OF 2ND APPLICATION, A 3RD APPLICATION IS REQUIRED.

- 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 COMPLETE 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:

- 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
- HUNTER I-40 SPRAY ROTARS (OR APPROVED EQUAL) 1.2. EMISSION (LAWNS):
- 1.3. DRIP (BEDS): HUNTER HDL-CV (OR APPROVED EQUAL)
- 1.4. QUICK COUPLER: **HUNTER QCV - 3RC**
- HUNTER HCC (OR APPROVED EQUAL) 1.5. CONTROLLER:
- 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:
- DRIP/MICRO-IRRIGATION COMPONENTS THAT ALLOW FOR HIGHER DISTRIBUTION UNIFORMITY AND LOWER EVAPORATION AND RUNOFF.
- 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 ONTO HARDSCAPES, 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

- A COPY OF THE APPROVED LANDSCAPE PLAN:
- 1.1. NO SMALLER THAN 11 INCHES BY 17 INCHES
- 1.2. LAMINATED TO PROTECT THE PLAN
- 1.3. SHOWING ALL PLANT TYPES, SIZES, AND LOCATIONS

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:
- "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:
- NEW TREES AND SHRUBS WILL BE WATERED FOR THE FIRST TWO YEARS UNTIL FIRMLY ESTABLISHED.
- NEW TREES AND SHRUBS WILL BE PRUNED TO REMOVE DEAD OR DAMAGED WOOD. 2.3.3.
- 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.
- PERENNIALS AND HERBACEOUS SHRUBS WILL BE PRUNED BEFORE THE ONSET OF NEW SPRING 2.3.6.
- 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.



KEY	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	COMMENTS
DECID	JOUS TRI	EES	•	•	•	
AMM	13	ACER MIYABEI 'MORTON'	STATE STREET MAPLE	2.5" CAL.		B&B SPECIMEN
СО	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
EVERG	REEN TR	EES		'	•	
JVH	3	JUNIPERUS VIRGINIANA 'CUPRESSIFOLIA'	HILLSPIRE EASTERN REDCEDAR	6'-8' HT.	6' O.C.	B&B SPECIMEN
PGD	10	PICEA GLAUCA '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
ORNAN	MENTAL T	REES		-	l	
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
DECID	JOUS SHI	RUBS	1			1
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.	
EVERG	REEN SH	RUBS			L	1
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.	
ORNAN	MENTAL C	GRASSES	1			
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.	
PEREN	NIALS &	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.	1



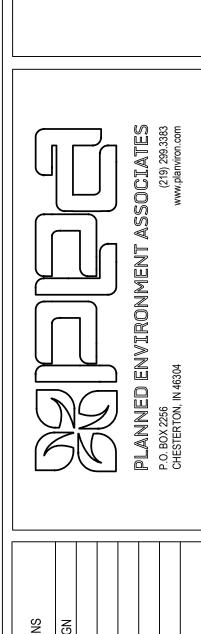


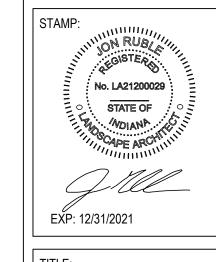


PROJECT NAME:

MAPLE LEAF CROSSING

PLANNED UNIT DEVELOPMENT MUNSTER, IN 46321





PLANTING LISTS & **SPECIFICATIONS** SHEET:

DRAWN BY: MD

CHECK BY: JR PROJECT #: 20-027

