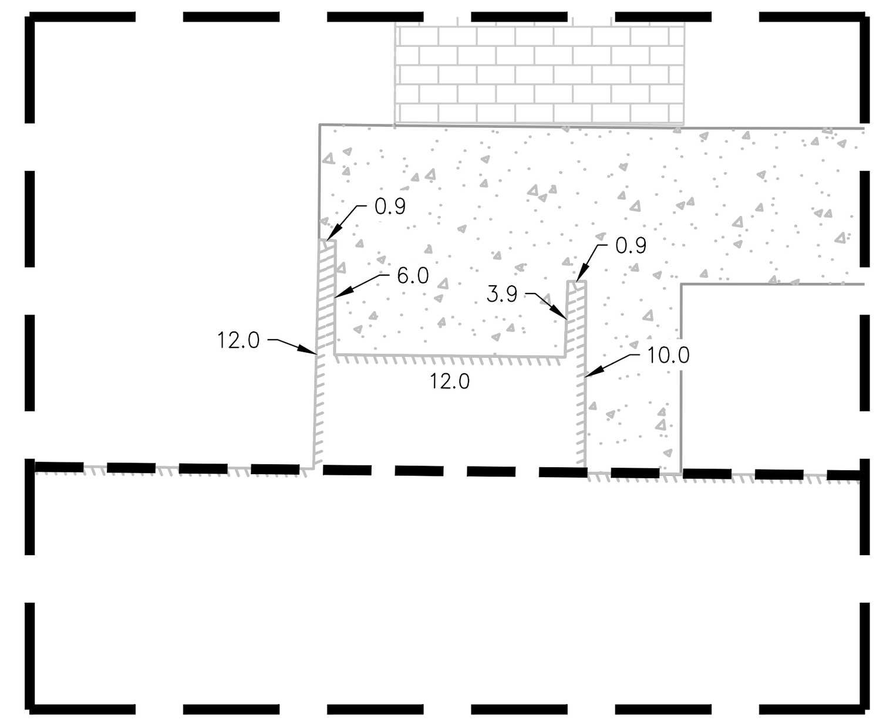
Existing Site and Demolition Plan

NORTH

20 10 0 20

SCALE – FEET



Enlarged Building Entrance View
Scale 1"=10'

Property Address

550 Superior Ave, Munster, IN 46321

Legal Description

ALL OF LOT 5 AND THE WEST 55FT OF LOT 4 IN MIDWEST CENTRAL INDUSTRIAL PARK UNIT 1 AS RECORDED IN PLAT BOOK 52 PAGE 31 IN THE OFFICE OF THE RECORDED, LAKE COUNTY, INDIANA

Existing and Demolition Site Notes

1. Boundary Information per Midwest Central Industrial Park Unit 1 Subdivision Plat, recorded as Plat Book 52 Page 31.
2. Property Information:
   - Parcel Number: 45–06–36–202–003.000–027
   - Total Area: 1.45 Acres
   - Zoning Class: General Urban – B District (CD–4.B) Light Manufacturing & Assembly
3. Coverage Information
   - Total Area: 1.45 Acres
   - Impervious Area: 46,914 sq.ft. (74.9%±)
   - Green Area: 15,744 sq.ft. (25.1%±)
   - Building Area: 19,697 sq.ft. (31.4%)
4. Lots are currently zoned General Urban – B District (CD–4.B):
   - Minimum Lot Width: 18 ft.
   - Maximum Lot Coverage: 70%
   - Maximum Height: 4 Stories (50 ft.)
   - Front Setback (Principal): 0 ft. (Min) ; 20 ft. (Max)
   - Front Setback (Secondary): 0 ft. (Min) ; 20 ft. (Max)
   - Side Setback: 0 ft. or 6ft. (Min) per side ; 130 ft. (Max) Combined
   - Rear Setback: 3 ft. (Min) or 15 ft. from centerline of Rear Lane or Rear Alley
5. Topography and spot grades shown per manual field work performed by McMAHON Associates, Inc completed on August 21, 2025.
6. The utilities shown in plan are indicated in accordance with available records, field evidence, and Indiana 811 (Ticket no. 25073002133). The contractor shall be responsible for obtaining exact locations and elevations of all utilities, including any private utilities, from the owners of the respective utilities. All utilities shall be notified 72 hours prior to excavation.
7. Flood zones shown per FEMA Flood Map Service Center. The accuracy of any flood hazard data shown on this report is subject to map scale uncertainty and to any other uncertainty in location or elevation on the referenced Flood Insurance Rate Map. All of the within described land appears to lie within special flood hazard zone 'X' as said tract plots by scale on community–panel #18089C0117E of the flood insurance rate maps for the Town of Munster (maps dated January 18, 2012).
8. Soil delineation per United States Department of Agriculture (USDA) Web Soil Survey, the entire site is comprised of Bono Silty Clay (Bn).
9. Per U.S. Fish & Wildlife Service National Wetland Inventory Map, no wetlands exist on site.
10. No effort has been made to determine the existence or extent of hazardous materials, if any exist. All improvements shown were visible and above ground. No excavations, probings, etc. were made during the progress of this survey for any buried or non–visible utilities/structures.

Existing Site and Demolition Legend

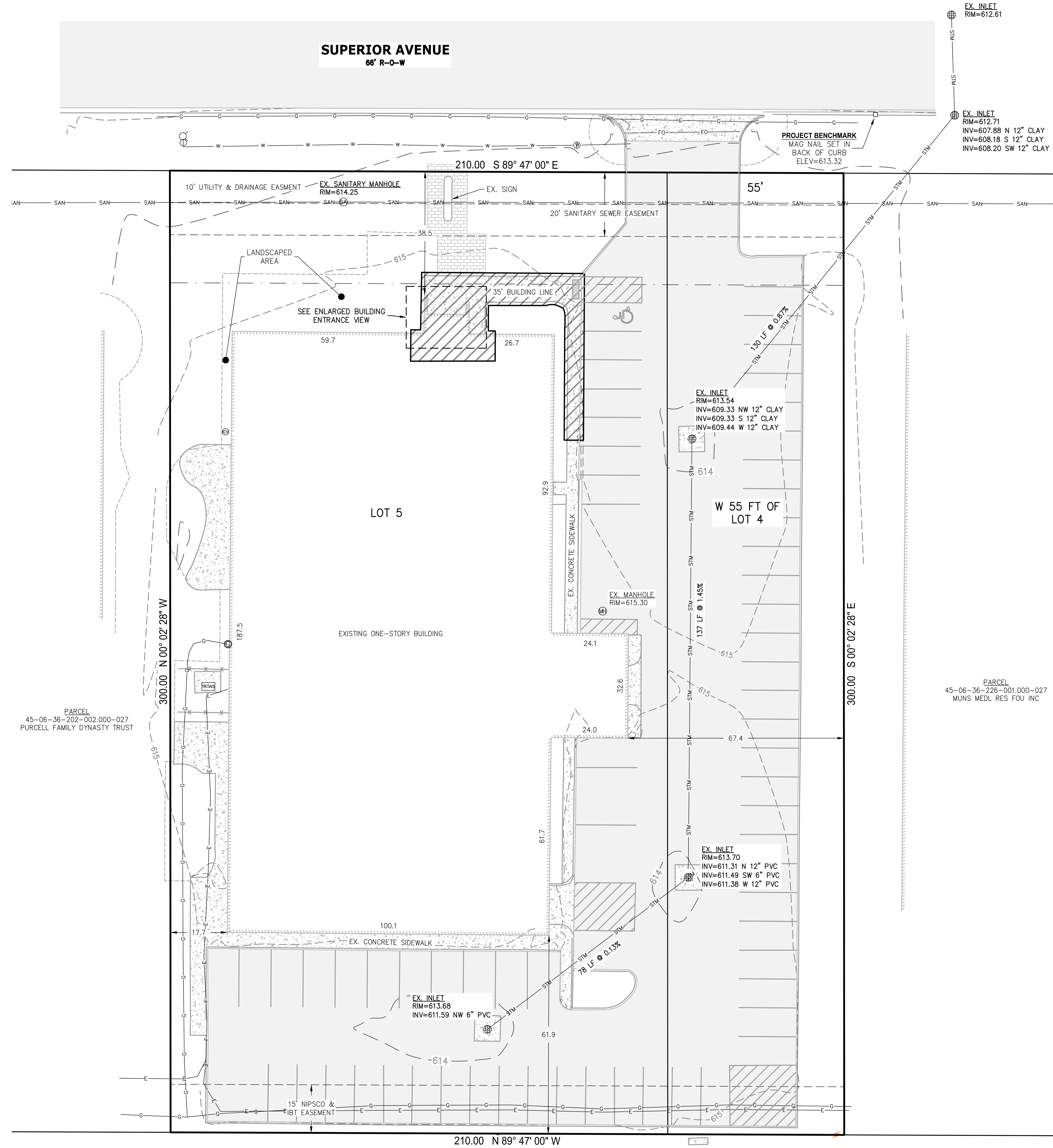
Item	Symbol	Item	Symbol
Asphalt Pavement		Irrigation Control Valve	
Brick		Over Head Utility	—OHU—
Building		Power Pole	
Concrete		Sanitary Line	—SAN—
Demolition Area		Sanitary Manhole	
Electrical Line	—E—	Storm Inlet	
Elevation – Spot Grade	+100.0	Storm Line	—STM—
Fence	—X—	Transformer	TRANS
Fiber Optic Line	—FO—	Water Line	—W—
Fire Hydrant		Water Valve	
Gas Line	—G—		

Soil Legend

Soil Symbol	Soil Description
Bn	Bono silty clay

Douglas F. Homeier

DOUGLAS F. HOMEIER REGISTERED No. PE60910357 STATE OF INDIANA PROFESSIONAL ENGINEER



PARCEL
45–06–36–202–007.000–027
CONGEGATIONAL BETH ISRAEL, INC.

McMAHON
ENGINEERS ARCHITECTS
952 South State Road 2
Valparaiso, Indiana 46385
Tel: (219) 462-7743 Fax: (219) 464-8248
mcm@mcmgrp-in.com

REVISION | DATE | NO.

550 Superior Avenue, Munster, Indiana 46321
Midwest Central Industruak Park, Unit 1
Existing Site and Demolition Plan

DESIGNED	DRAWN
DFH	MNR

PROJECT NO.
M0581–05–25–00152.00

DATE
11/03/2025

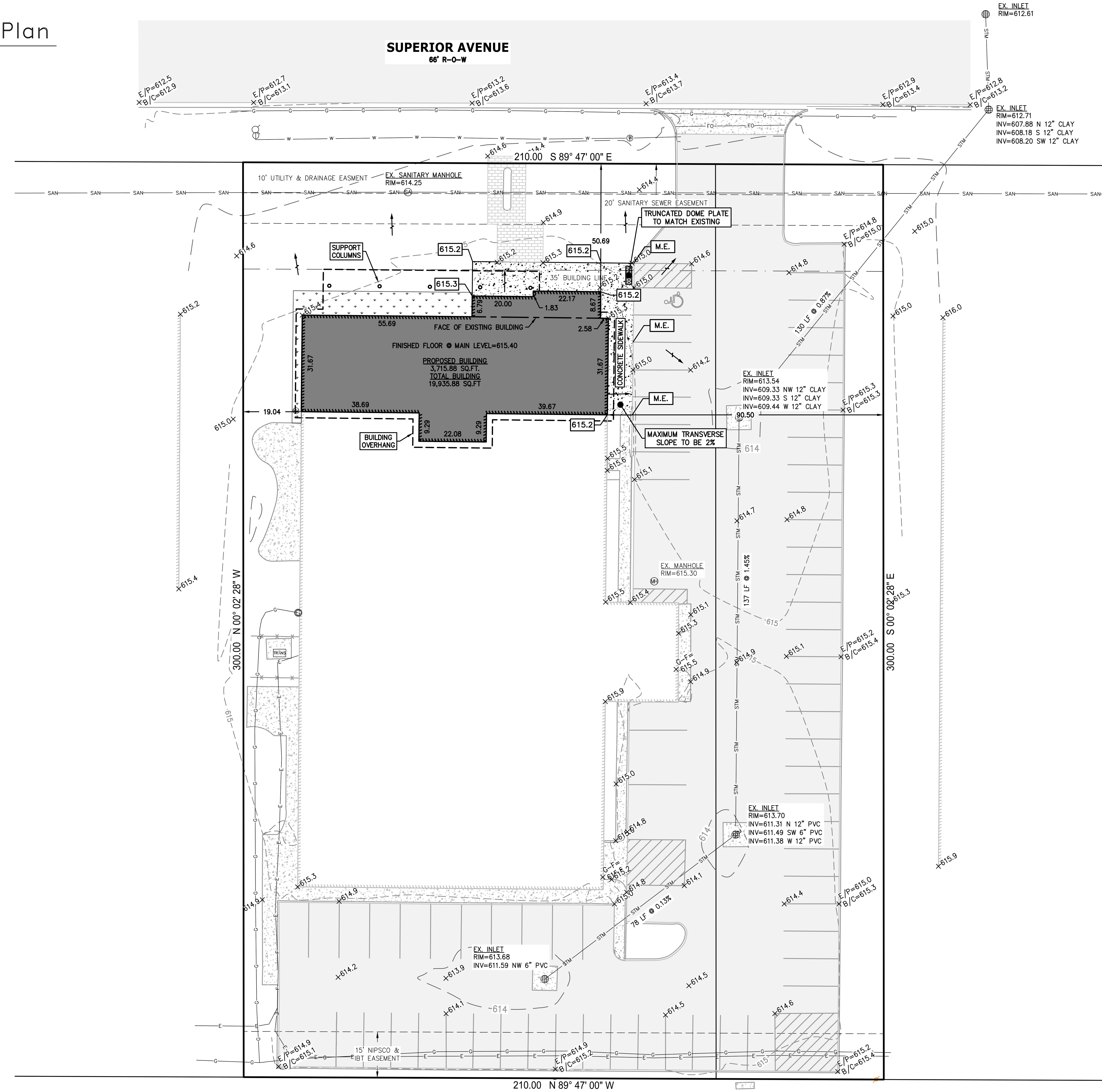
SHEET NO.
C1.0

NORTH

Proposed Building Addition, Drainage, and Grading Plan

20 10 0 20

SCALE – FEET



Proposed Commercial Site Notes

1. Property Information:
   - Parcel Number: 45–06–36–202–003.000–027
   - Total Area: 1.45 Acres
   - Zoning Class: General Urban – B District (CD–4.B) Light Manufacturing & Assembly
2. Coverage Information
   - Total Area: 1.45 Acres
   - Impervious Area: 47,150 sq.ft. (75.2%±)
   - Green Area: 15,508 sq.ft. (24.8%±)
   - Building Area: 19,935 sq.ft. (31.8%)
3. Lots are currently zoned General Urban – B District (CD–4.B):
   - Minimum Lot Width: 18 ft.
   - Maximum Lot Coverage: 70%
   - Maximum Height: 4 Stories (50 ft.)
   - Front Setback (Principal): 0 ft. (Min) ; 20 ft. (Max)
   - Front Setback (Secondary): 0 ft. (Min) ; 20 ft. (Max)
   - Side Setback: 0 ft. or 6ft. (Min) per side ; 130 ft. (Max) Combined
   - Rear Setback: 3 ft. (Min) or 15 ft. from centerline of Rear Lane or Rear Alley
4. No exterior utility work to be needed for site improvements.
5. Topography and spot grades shown per manual field work performed by McMAHON Associates, Inc completed on August 21, 2025.
6. Flood zones shown per FEMA Flood Map Service Center. The accuracy of any flood hazard data shown on this report is subject to map scale uncertainty and to any other uncertainty in location or elevation on the referenced Flood Insurance Rate Map. All of the within described land appears to lie within special flood hazard zone 'X' as said tract plots by scale on community–panel # 18089C0117E of the flood insurance rate maps for the Town of Munster (maps dated January 18, 2012).
7. Per U.S. Fish & Wildlife Service National Wetland Inventory Map, no wetlands exist on site.
8. All work shall be performed in accordance with all local, state and federal codes.
9. The contractor shall obtain all necessary permits for construction.
10. Timely notification of necessary governmental agencies regarding the commencement of construction activity is required.
11. All work performed on the site shall conform to the site construction plans and specifications. Public improvements (including areas within right–of–way) shall conform to the Town of Munster standards.
12. The contractor shall be responsible for maintaining safe traffic control on the site and adjacent public streets, as related to both physical site improvements and the movement of construction traffic.
13. All necessary inspections and certifications, as required by ordinance, code, utility companies or government agencies shall be completed before the final connection of services.

Proposed Site Legend

- Building
- Catch Basin
- Concrete
- Drainage Flow
- Elevation – Concrete (100.0)
- Elevation – Match Existing (M.E.)
- Landscaped Area
- Truncated Dome

Douglas F. Homeier

DOUGLAS F. HOMEIER
REGISTERED
No. PE60910357
STATE OF INDIANA
PROFESSIONAL ENGINEER

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mcm@mcmgrp-in.com

NO.	DATE	REVISION

550 Superior Avenue, Munster, Indiana 46321
Midwest Central Industruak Park, Unit 1
Proposed Building Addition, Drainage, and Grading Plan

DESIGNED	DRAWN
DFH	MNR

PROJECT NO. M0581–05–25–00152.00

DATE 11/03/2025

SHEET NO. C2.0

NORTH

Proposed Erosion and Sediment Control Plan

20 10 0 20

SCALE – FEET

Erosion Control Site Notes

1. Total disturbed area = 0.2± Acres.
2. Proposed silt fence denotes limits of construction.
3. Stabilization Requirements are to be aligned with the IDEM CSGP standards as delineated in section 3.4:
   - (a) Un–vegetated areas that are left idle or scheduled to be left inactive must be temporarily or permanently stabilized with measures appropriate for the season to minimize erosion potential. To meet this requirement, the following apply:
     - (1) Stabilization must be initiated by the end of the seventh day the area is left idle. The stabilization activity must be completed within fourteen (14) days after initiation. Initiation of stabilization includes, but is not limited to, the seeding and/or planting of the exposed area and applying mulch or other temporary surface stabilization methods where appropriate. Areas that are not accessible due to an unexpected and disruptive event that prevents construction activities are not considered idle.
     - (2) Areas that have been compacted may be excluded from the stabilization requirement when the areas are intended to be impervious surfaces associated with the final land use, provided run–off from the area is directed to appropriate sediment control measures.
   - (b) Final stabilization of a project site is achieved when:
     - (1) All land–disturbing activities have been completed and a uniform (evenly distributed, without large bare areas) perennial vegetative cover with a density of seventy percent (70%) has been established on all unpaved disturbed areas, and areas not covered by permanent structures, or equivalent permanent stabilization measures have been employed. This requirement does not apply to:
       - (A) Landscaping that is part of the final project plan. This is considered stable when the plan has been fully implemented and areas not being vegetated are stable with a non–erosive material and/or product.
       - (B) Projects or specific stormwater measures that utilize native vegetation and/or special vegetative plantings that are either required by a water quality permit/authorization or part of the design and functionality of a stormwater measure provided the activity does not pose a threat that will result in off–site sedimentation.
       - (C) Projects on land used for agricultural purposes when:
         - 1) Stabilization is completed in accordance with Section 3.4 (a) as land–disturbance progresses. Land that is returned to agricultural production must be temporarily or permanently seeded upon completing land–disturbing activities. Stabilization requirements may be waived by the inspecting authority if the project site does not pose a threat of discharging sediment.
         - 2) Disturbed areas not previously used for agricultural production, such as filter strips, must be returned to their pre–land disturbance use.
       - (A) Specific projects, due to function and/or operation may necessitate that an area remain disturbed. Only the minimum operational area is allowed to remain disturbed. This option primarily applies to off–road recreational commercial operations but may apply to other land use types upon determination by the regulating entity.
4. Existing vegetation, trees and shrubs, are to be removed as necessary. If existing trees are desirable, the owner/developer should enact a tree conservation and protection plan (not anticipated and therefore not included on this plan) to ensure survival of desirable trees from the effects of compaction, grading damage, wound prevention and a plan for tree repairs from construction activities. The owner/developer should see the Soil Conservation Service or the State Forester for assistance if enacting this plan.
5. Sediment accumulation onto off site roadways shall be minimized, and where necessary, kept cleared every day. Bulk clearing of accumulated sediment shall be returned to the point of likely origin or other suitable on site location(s). Accumulated sediment should be removed by scraping and/or sweeping.
6. Appropriate measures shall be taken to minimize or eliminate wastes, unused building materials, and/or other substances from being carried from the site by storm water runoff. proper disposal or management of all wastes, appropriate to the nature of the waste, is required. Contact operating authority (information located this page) for verification of waste removal during building construction.
7. All erosion and sediment control measures are to be implemented immediately following the start of construction activity and be maintained and inspected weekly during construction as well as after each 1/2" rain event.
8. Developer to maintain silt fence around building during construction and install permanent seeding when construction is complete. All erosion and sediment control measures shall be inspected and maintained until permanent stabilization has been achieved (i.e. 70% vegetative cover).
9. All appropriate erosion control measures shall be implemented in accordance with all applicable requirements and standards of Lake County.
10. All spoils are to remain onsite and utilized during the course of construction. If for any reason spoil needs to be hauled offsite (not anticipated), Owner/Developer is to be responsible for the activity. Owner/Developer is to track the amount of spoil given or sold to each individual/company and the location at which the spoil will be used. If at any time spoil from subject site is used to disturb more than minimum required amount of site disturbance (based on municipality), that individual/company is responsible for establishing a local erosion control permit or an IDEM Construction Stormwater General Permit (CSGP).

Proposed Erosion Control Legend

Concrete Washout	
Inlet Protection Basket	
Permanent Seeding	PS
Silt Fence (sediment fence)	
Temporary Seeding	TS
Topsoil (salvage and utilization) ~If stockpile is left for more than 15 days, it is to be temporary seeded	

Operating Authority
Laborers' International Union
of North America Local 41
550 Superior Ave
Munster, Indiana 46321
Tel: (219) 924–7922

Developer / Owner
Laborers' International Union
of North America Local 41
550 Superior Ave
Munster, Indiana 46321
Tel: (219) 924–7922

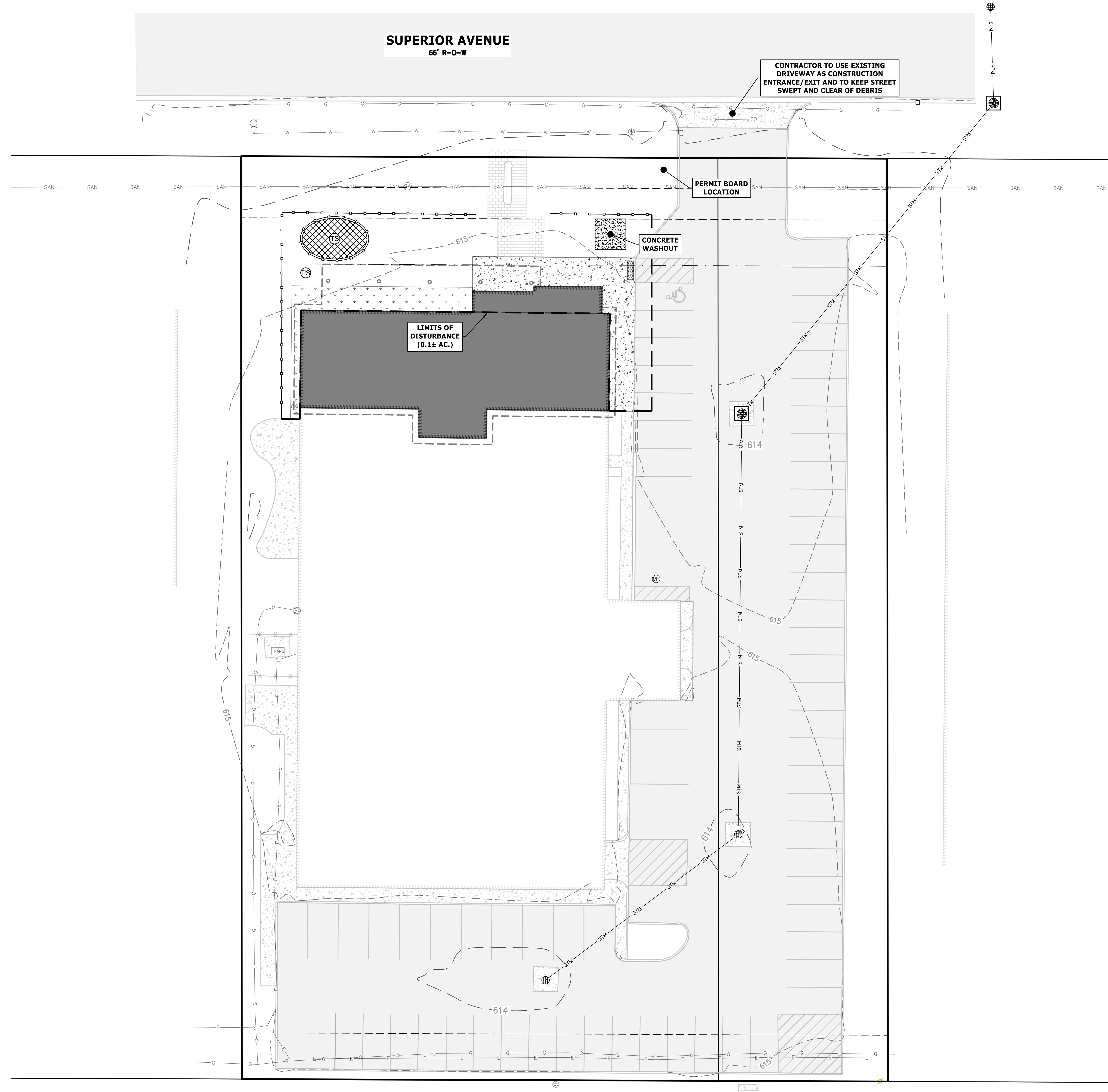
Design Company
McMAHON Engineers/Architects
952 S. State Road 2
Valparaiso, Indiana 46385

Soil Legend

Soil Symbol	Soil Description
Bn	Bono silty clay

Douglas F Homeier

DOUGLAS F. HOMEIER
REGISTERED
No.
PE60910357
STATE OF
INDIANA
PROFESSIONAL ENGINEER



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NO.	DATE	REVISION

550 Superior Avenue, Munster, Indiana 46321
Midwest Central Industruak Park, Unit 1
Proposed Erosion and Sediment Control Plan

DESIGNED	DRAWN
DFH	MNR

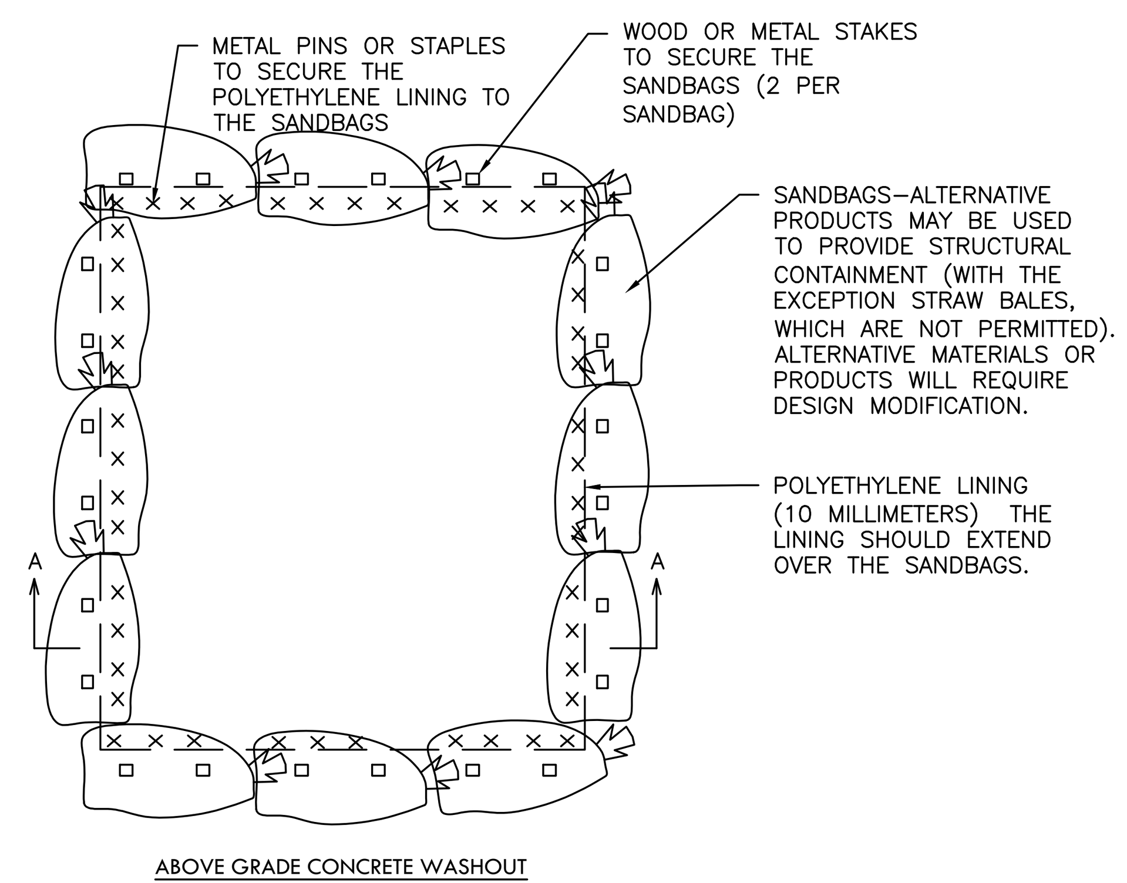
PROJECT NO.
M0581–05–25–00152.00

DATE
11/03/2025

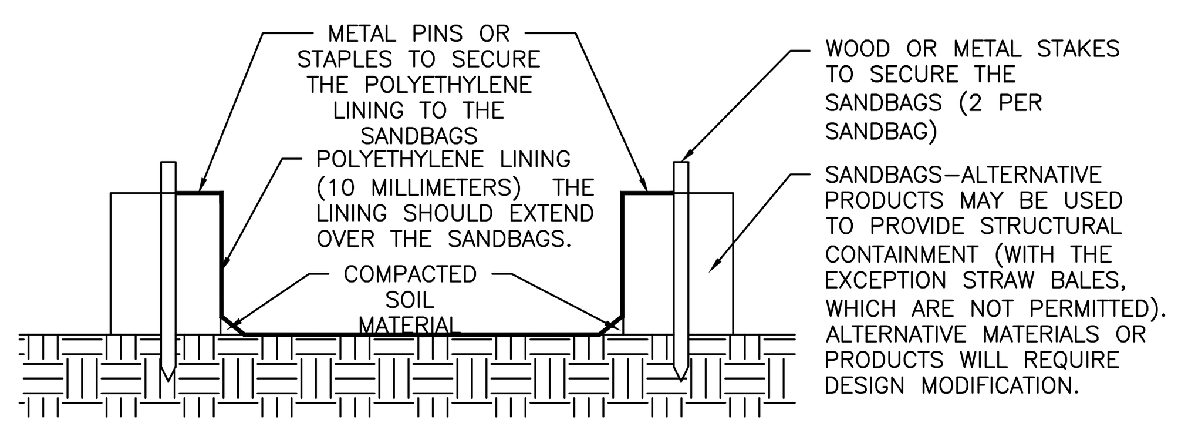
SHEET NO.
C3.0

DISCLAIMER WARNING

MCMAHON ASSOCIATES, INC. HAS PREPARED THIS EROSION AND SEDIMENTATION CONTROL PLAN FOR THE OWNER/DEVELOPER IN ACCORDANCE WITH THE KNOWN REQUIREMENTS AND ORDINANCES. IT IS THE RESPONSIBILITY OF THE OWNER/DEVELOPER FOR COMPLIANCE WITH THIS EROSION AND SEDIMENTATION CONTROL PLAN AND THE RELATED ATTACHMENTS BY ALL SUBCONTRACTORS AND CONSULTANTS THAT PERFORM WORK ON THE PROJECT SITE. THE OWNER/DEVELOPER IS RESPONSIBLE FOR THE ROUTINE INSPECTION AND MAINTENANCE OF THE EROSION AND SEDIMENT CONTROL MEASURES. MCMAHON ASSOCIATES, INC. IS NOT RESPONSIBLE FOR THE ENFORCEMENT OR COMPLIANCE OF THE EROSION AND SEDIMENT CONTROL PLAN. ANY ADDITIONAL EROSION OR SEDIMENT CONTROL MEASURES BEYOND THOSE SPECIFIED IN THIS PLAN, FOR UNFORESEEN OR UNEXPECTED SITUATIONS, WHICH MAY BE REQUIRED BY THE REGULATORY AGENCIES SHALL BE THE RESPONSIBILITY OF THE OWNER/DEVELOPER TO IMPLEMENT.



ABOVE GRADE CONCRETE WASHOUT



SECTION A-A

NOTE: SIZE OF WASHOUT IS TO BE 10'x10' MINIMUM

LOCATION
- LOCATE CONCRETE WASHOUT SYSTEMS AT LEAST 50 FEET FROM ANY CREEKS, WETLANDS, DITCHES, KARST FEATURES, OR STORM DRAINS/MANMADE CONVEYANCE SYSTEMS.
- LOCATE CONCRETE WASHOUT SYSTEMS IN RELATIVELY FLAT AREAS THAT HAVE ESTABLISHED VEGETATIVE COVER AND DO NOT RECEIVE RUNOFF FROM ADJACENT LAND AREAS.
- LOCATE AWAY FROM OTHER CONSTRUCTION TRAFFIC IN AREAS THAT PROVIDE EASY ACCESS FOR CONCRETE TRUCKS.

MATERIALS
- MINIMUM OF TEN MILLIMETER POLYETHYLENE SHEETING, FREE OF HOLES, TEARS, AND OTHER DEFECTS.
- ORANGE SAFETY FENCING OR EQUIVALENT.
- SANDBAGS
- METAL PINS OR STAPLES SIX INCHES IN LENGTH MINIMUM.

INSTALLATION
- 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.
- 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.
- PLACE FLAGS, SAFETY FENCING, OR EQUIVALENT TO PROVIDE A BARRIER TO CONSTRUCTION EQUIPMENT AND OTHER TRAFFIC.
- INSTALL SIGN THAT IDENTIFIES CONCRETE WASHOUT AREAS.
- WHERE NECESSARY, PROVIDE STABLE INGRESS AND EGRESS OR ALTERNATIVE APPROACH PAD.

COMMON CONCERNS
- COMPLETE CONSTRUCTION/INSTALLATION OF THE SYSTEM AND HAVE WASHOUT LOCATIONS OPERATIONAL PRIOR TO CONCRETE DELIVERY.
- IT IS RECOMMENDED THAT WASHOUT SYSTEMS BE RESTRICTED TO WASHING CONCRETE FROM MIXER AND PUMP TRUCKS AND NOT USED TO DISPOSE OF EXCESS CONCRETE OR RESIDUAL LOADS DUE TO POTENTIAL TO EXCEED THE DESIGN CAPACITY OF THE WASHOUT SYSTEM.
- INSTALL SYSTEMS AT STRATEGIC LOCATIONS THAT ARE CONVENIENT AND IN CLOSE PROXIMITY TO WORK AREAS AND IN SUFFICIENT NUMBER TO ACCOMMODATE THE DEMAND FOR DISPOSAL.
- INSTALL SIGN IDENTIFYING THE LOCATION OF CONCRETE WASHOUT SYSTEMS.

MAINTENANCE
- INSPECT DAILY AND AFTER EACH STORM EVENT.
- 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.
- UPON REMOVAL OF THE SOLIDS, INSPECT THE STRUCTURE. REPAIR THE STRUCTURE AS NEEDED OR CONSTRUCT A NEW SYSTEM.
- 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.
- THE PLASTIC LINER SHOULD BE REPLACED AFTER EVERY CLEANING; THE REMOVAL OF MATERIAL WILL USUALLY DAMAGE THE LINING.
- THE CONCRETE WASHOUT SYSTEM SHOULD BE REPAIRED OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR CONCRETE WASTE.
- 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.
- 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.
- WHEN CONCRETE WASHOUT SYSTEMS ARE NO LONGER REQUIRED, THE CONCRETE WASHOUT SYSTEMS SHALL BE CLOSED. DISPOSE OF ALL HARDENED CONCRETE AND OTHER MATERIALS USED TO CONSTRUCT THE SYSTEM.
- HOLES, DEPRESSIONS, AND OTHER LAND DISTURBANCES ASSOCIATED WITH THE SYSTEM SHOULD BE BACKFILLED, GRADED, AND STABILIZED.

PLAN SYMBOL:

Concrete Washout

NOT TO SCALE

CONTRIBUTING DRAINAGE AREA
1/4 ACRE MAXIMUM.

LOCATION
AT CURB INLETS WHERE BARRIERS SURROUNDING THEM WOULD BE IMPRACTICAL OF UNSAFE.

MATERIAL
CATCH–ALL STORMWATER INLET PROTECTOR OR APPROVED EQUAL. MARATHON MATERIALS, INC. 1–800–983–9493 OR WWW.MARATHONMATERIALS.COM

CAPACITY
RUNOFF FROM A 2–YR FREQUENCY, 24–HR DURATION STORM EVENT ENTERING A STORM DRAIN WITHOUT BY–PASS FLOW.

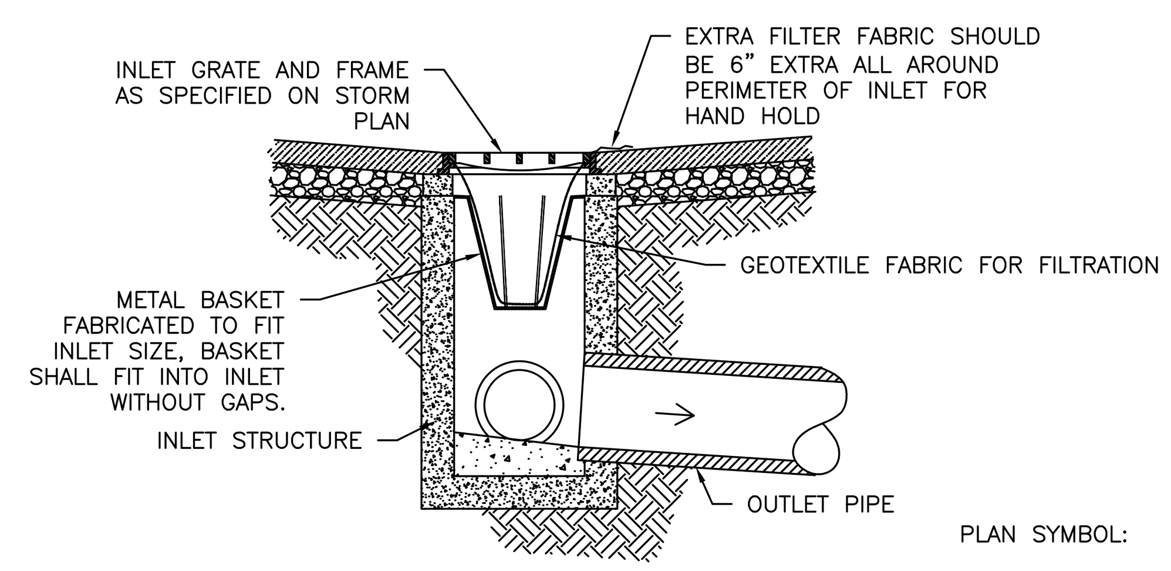
BASKET
FABRICATED METAL WITH TOP WIDTH–LENGTH DIMENSIONS SUCH THAT THE BASKET FITS INTO THE INLET WITHOUT GAPS.

GEOTEXTILE FABRIC
FOR FILTRATION

INSTALLATION
1. INSTALL BASKET CURB INLET PROTECTIONS AS SOON AS INLET BOXES ARE INSTALLED IN THE NEW DEVELOPMENT OR BEFORE LAND DISTURBING ACTIVITIES BEGIN IN A STABILIZED AREA.
2. IF NECESSARY, ADAPT BASKET DIMENSIONS TO FIT INLET BOX DIMENSIONS, WHICH VARY ACCORDING TO THE MANUFACTURER AND/OR MODEL.
3. SEAL THE SIDE INLETS ON THOSE TYPES OF INLET BOXES THAT HAVE THEM.
4. REMOVE THE GRATE AND PLACE THE BASKET IN THE INLET.
5. CUT AND INSTALL A PIECE OF FILTER FABRIC LARGE ENOUGH TO LINE THE INSIDE OF THE BASKET AND EXTEND AT LEAST 6 INCHES BEYOND THE FRAME.
6. REPLACE THE INLET GRATE, WHICH ALSO SERVES TO ANCHOR THE FABRIC.

MAINTENANCE
1. INSPECT AFTER EACH STORM EVENT.
2. REMOVE BUILT–UP SEDIMENT AND REPLACE THE GEOTEXTILE FABRIC AFTER EACH STORM EVENT.
3. PERIODICALLY REMOVE SEDIMENT AND TRACKED–ON SOIL FROM THE STREET (BUT NOT BY FLUSHING WITH WATER) TO REDUCE THE SEDIMENT LOAD ON THIS CURB INLET PRACTICE.

COMMON CONCERNS
1. SEDIMENT NOT REMOVED AND GEOTEXTILE FABRIC NOT REPLACED FOLLOWING A STORM EVENT – RESULTS IN INCREASED SEDIMENT, TRACKING, TRAFFIC HAZARD, AND EXCESSIVE PONDING.
2. GEOTEXTILE FABRIC PERMITTIVITY TOO LOW – RESULTS IN RAPID CLOGGING, THUS SEVERE PONDING, SEDIMENT ENTERS THE DRAIN IF THE FABRIC BREAKS.
3. DRAINAGE AREA TOO LARGE – RESULTS IN SEDIMENT OVERLOAD AND SEVERE PONDING; SEDIMENT ENTERS THE DRAIN IF THE FABRIC BREAKS.



PLAN SYMBOL:

Inlet Protection Basket

NOT TO SCALE

SALVAGING AND STOCK PILING
1. DETERMINE DEPTH AND SUITABILITY OF TOPSOIL AT THE SITE
2. PRIOR TO STRIPPING TOPSOIL, INSTALL ANY SITE–SPECIFIC DOWNSLOPE PRACTICES NEEDED TO CONTROL RUNOFF AND SEDIMENT
3. REMOVE THE SOIL MATERIAL NO DEEPER THAN WHAT THE COUNTY SOIL SURVEY DESCRIBES AS "SURFACE SOIL" (I.E., A OR AP HORIZON)
4. STOCKPILE THE MATERIAL IN ACCESSIBLE LOCATIONS THAT NEITHER INTERFERE WITH OTHER CONSTRUCTION ACTIVITIES NOR BLOCK NATURAL DRAINAGE; AND INSTALL SILT FENCES, STRAW BALES, OR OTHER BARRIERS TO TRAP SEDIMENT. (SEVERAL SMALLER PILES AROUND THE CONSTRUCTION SITE ARE USUALLY MORE EFFICIENT AND EASIER TO CONTAIN THAN ONE LARGE PILE.)
5. IF SOIL IS STOCKPILED FOR MORE THAN 6 MONTHS, IT SHOULD BE TEMPORARILY SEEDED OR COVERED WITH A TARP OR SURROUNDED BY A SEDIMENT BARRIER

SPREADING TOPSOIL
1. PRIOR TO APPLYING TOPSOIL, GRADE THE SUBSOIL AND ROUGHEN THE TOP 3–4 IN. BY DISKING. THIS HELPS THE TOPSOIL BOND WITH THE SUBSOIL
2. DO NOT APPLY THE TOPSOIL WITH THE SITE IS WET, MUDDY OR FROZEN, BECAUSE IT MAKES SPREADING DIFFICULT, INHIBITS BONDING, AND CAN CAUSE COMPACTION PROBLEMS
3. APPLY TOPSOIL EVENLY TO A DEPTH OF AT LEAST 4 IN (8–12 IN. IF THE UNDERLYING MATERIAL IS BEDROCK, LOOSE SAND, ROCK FRAGMENTS, GRAVEL OR OTHER UNSUITABLE SOIL MATERIAL) COMPACT SLIGHTLY TO IMPROVE CONTACT WITH THE SUBSOIL
4. AFTER SPREADING, GRADE AND STABILIZE

MAINTENANCE
1. INSPECT NEWLY TOPSOILED AREAS FREQUENTLY UNTIL VEGETATION IS ESTABLISHED
2. REPAIR ERODED OR DAMAGED AREAS AS REPLANT

PLAN SYMBOL:

Topsoil (Salvage & Utilization)

SITE PREPARATION
1. THESE INSTALLATION PRACTICES ARE NEEDED TO CONTROL EROSION, SEDIMENTATION, AND WATER RUNOFF, SUCH AS TEMPORARY AND PERMANENT DIVERSIONS, SEDIMENT TRAPS OR BASINS, SILT FENCES, AND STRAW BALE DAMS.
2. GRADE THE SITE AS SPECIFIED IN THE CONSTRUCTION PLAN

SEED PREPARATION
1. FERTILIZE AS REQUIRED
2. WORK THE FERTILIZER INTO THE SOIL 2–4 IN. DEEP WITH A DISK OR RAKE OPERATED ACROSS THE SLOPE

SEEDING
1. SELECT A SEEDING MIXTURE AND RATE FROM THE TABLE AND PLANT AT DEPTH AND ON DATES SHOWN
2. APPLY SEED UNIFORMLY WITH A DRILL OR CULTIPACKER SEEDER OR BY BROADCASTING, AND COVER TO THE DEPTH SHOWN
3. IF DRILLING OR BROADCASTING, FIRM THE SEEDBED WITH A ROLLER OR CULTIPACKER
4. MULCH SEEDED AREAS TO INCREASE SEEDING SUCCESS
5. DISTURBED AREAS LEFT INACTIVE FOR MORE THAN 14 DAYS SHOULD BE TEMPORARY SEEDED.

MAINTENANCE
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
3. TOPDRESS FALL SEEDED WHEAT OR RYE SEEDING WITH 50LBS./ACRE OF NITROGEN IN FEBRUARY OR MARCH IF NITROGEN DEFICIENCY IS APPARENT

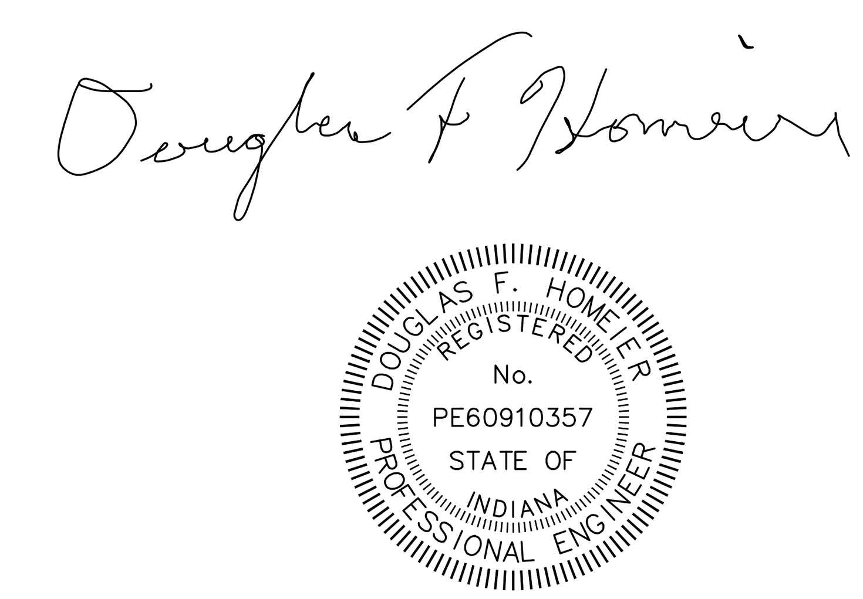
TEMPORARY SEEDING RECOMMENDATIONS

SEED SPECIES*	RATE/ACRE	PLANTING DEPTH	OPTIMUM DATES**
WHEAT OR RYE	150 LBS	1" TO 1–1/2"	9/15 TO 10/30
SPRING OATS	100 LBS	1"	3/1 TO 4/15
ANNUAL RYEGRASS	40 LBS	1/4"	3/1 TO 5/1 8/1 TO 9/1
GERMAN MILLET	40 LBS	1" TO 2"	5/1 TO 6/1
SUDANGRASS	35 LBS	1" TO 2"	5/1 TO 7/30

* PERENNIAL SPECIES MAY BE USED AS TEMPORARY COVER, ESPECIALLY IF THE AREA TO BE SEEDED WILL REMAIN IDLE FOR MORE THAN A YEAR
** SEEDING DONE OUTSIDE THE OPTIMUM DATES INCREASES THE CHANCE OF SEEDING FAILURE

PLAN SYMBOL: (TS)

Temporary Seeding Specifications



PERMANENT SEEDING
PERMANENTLY SEED ALL FINAL GRADE AREAS (E.G. LANDSCAPE BERMS, DRAINAGE SWALES, EROSION CONTROL STRUCTURES, ETC.) AS EACH IS COMPLETED AND ALL AREAS WHERE ADDITIONAL WORK IS NOT SCHEDULED FOR A PERIOD OF MORE THAN A YEAR.

SITE PREPARATION
1. THESE INSTALLATION PRACTICES ARE NEEDED TO CONTROL EROSION, SEDIMENTATION, AND WATER RUNOFF, SUCH AS TEMPORARY
2. GRADE THE SITE AS SPECIFIED IN THE CONSTRUCTION PLAN AND FILL IN DEPRESSIONS THAT CAN COLLECT WATER.
3. ADD TOPSOIL TO ACHIEVE NEEDED DEPTH FOR ESTABLISHMENT OF VEGETATION.

SEEDBED PREPARATION
1. FERTILIZE AS REQUIRED
2. TILL THE SOIL TO OBTAIN A UNIFORM SEEDBED, WORKING THE FERTILIZER INTO THE SOIL 2–4 IN. DEEP WITH A DISK OR RAKE OPERATED ACROSS THE SLOPE.

SEEDING
OPTIMUM SEEDING DATES ARE MARCH 1–MAY 10 AND AUGUST 10–SEPTEMBER 30. PERMANENT SEEDING DONE BETWEEN MAY 10 AND AUGUST 10 MAY NEED TO BE IRRIGATED. AS AN ALTERNATIVE, USE TEMPORARY SEEDING UNTIL THE PREFERRED DATE FOR PERMANENT SEEDING.
1. SELECT A SEEDING MIXTURE AND RATE FROM THE TABLE AND PLANT AT DEPTH AND ON DATES SHOWN.
2. APPLY SEED UNIFORMLY WITH A DRILL OR CULTIPACKER–SEEDER OR BY BROADCASTING, AND COVER TO THE DEPTH SHOWN.
3. IF DRILLING OR BROADCASTING, FIRM THE SEEDBED WITH A ROLLER OR CULTIPACKER.
4. MULCH SEEDED AREAS. USE EROSION CONTROL BLANKETS ON SLOPING AREAS. IF SEEDING IS DONE WITH A HYDROSEEDER, FERTILIZER AND MULCH CAN BE APPLIED WITH THE SEED IN A SLURRY MIXTURE.

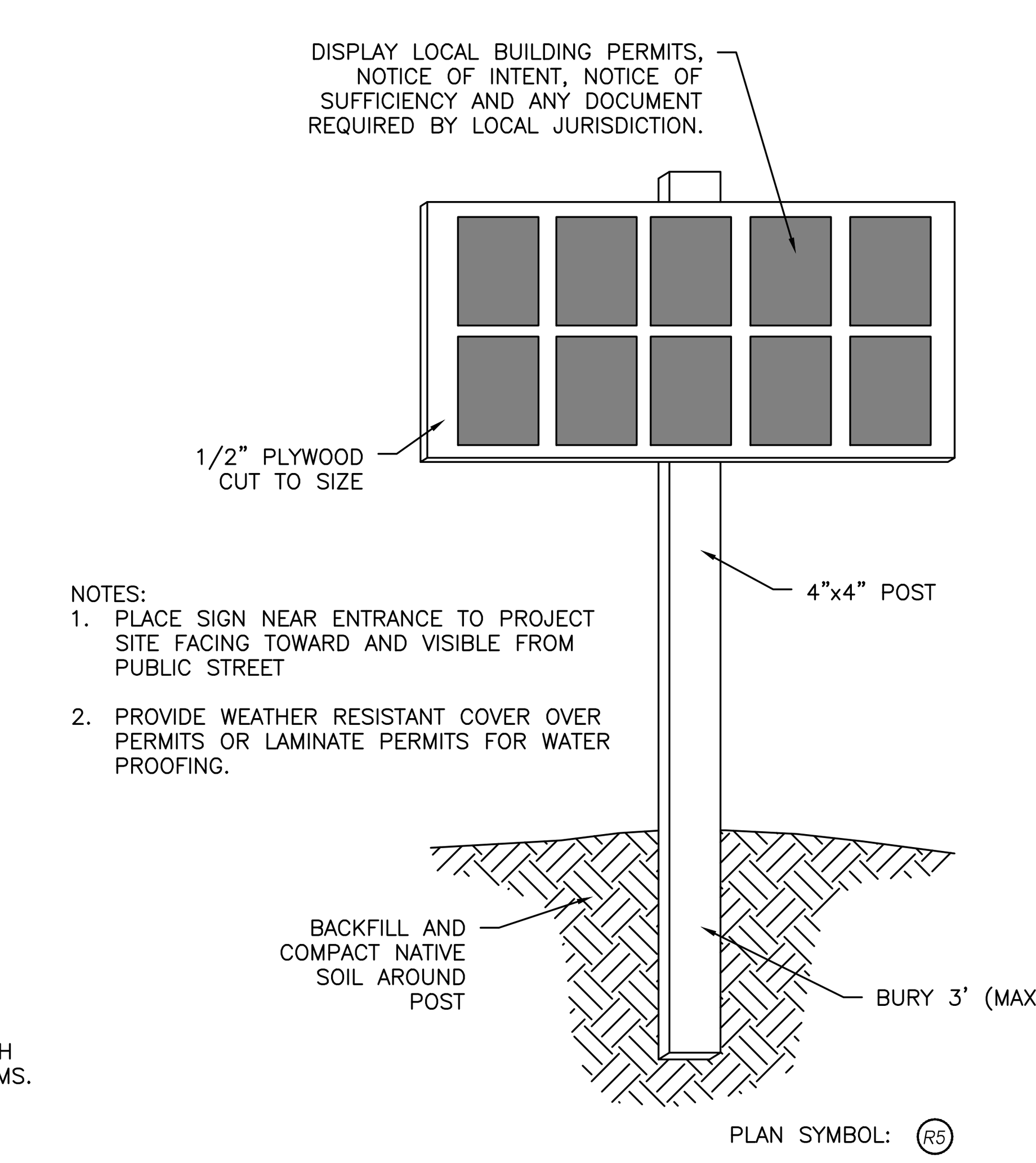
MAINTENANCE
1. INSPECT PERIODICALLY AFTER PLANTING TO SEE THAT VEGETATIVE STANDS ARE ADEQUATELY ESTABLISHED, RE–SEED
2. CHECK FOR EROSION DAMAGE AFTER STORM EVENTS AND REPAIR, RESEED AND MULCH IF NECESSARY.

PERMANENT 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 DROUGHT.

SEED SPECIES AND MIXTURES	RATE/ACRE	OPTIMUM SOIL PH
OPEN AND DISTURBED AREAS (REMAINING IDLE FOR MORE THAN ONE YEAR)		
PERENNIAL RYEGRASS	35 TO 50 LBS	5.6 TO 7.0
+WHITE OR LADINO COVER	1 TO 2 LBS	
KENTUCKY BLUEGRASS	20 LBS	5.5 TO 7.5
+SMOOTH BROMEGRASS	10 LBS	
+SWITCHGRASS	3 LBS	
+TIMOTHY	4 LBS	
+PERENNIAL RYEGRASS	10 LBS	
+WHITE OR LADINO CLOVER	1 TO 2 LBS	

PLAN SYMBOL: (PS)

Permanent Seeding Specifications

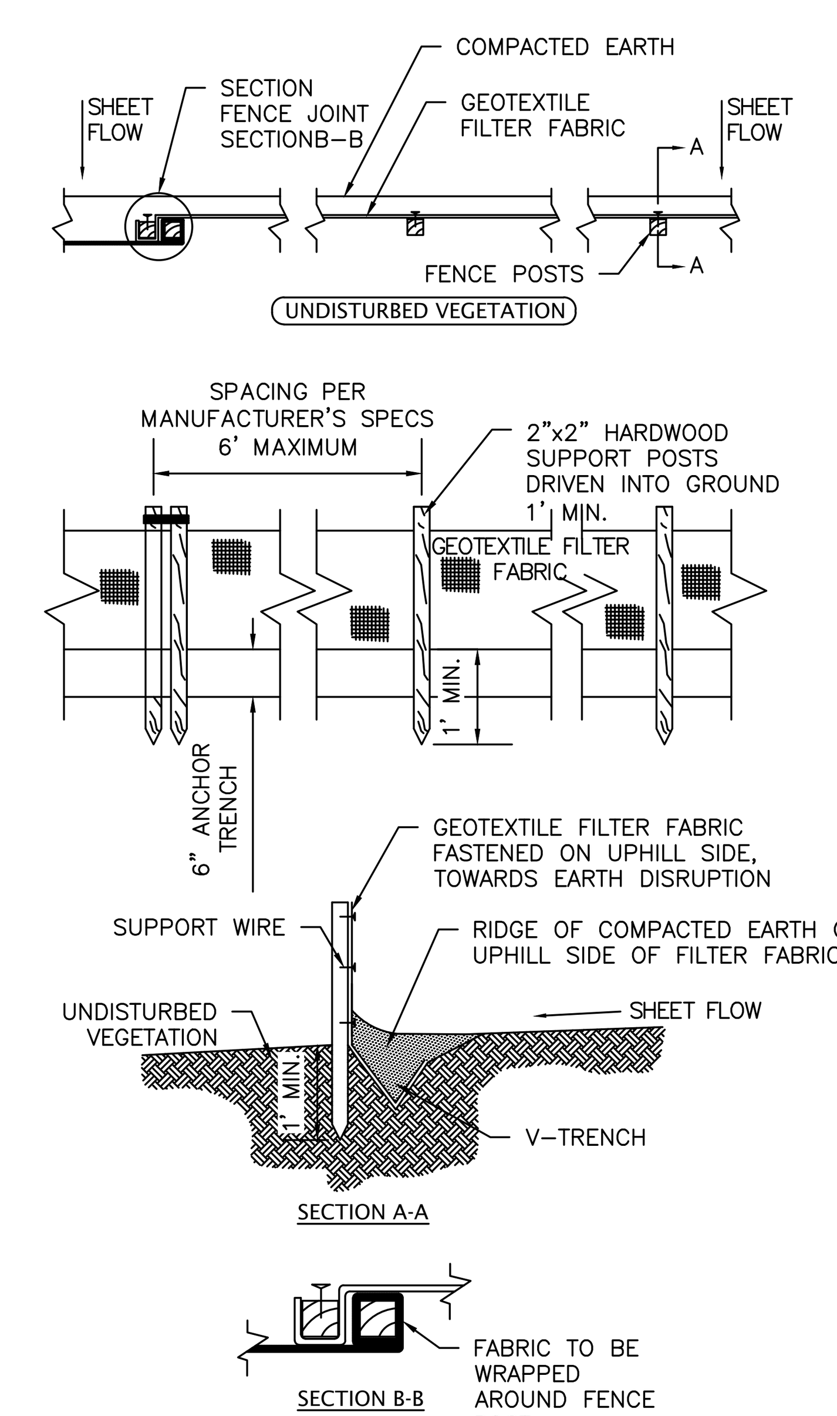


NOTES:
1. PLACE SIGN NEAR ENTRANCE TO PROJECT SITE FACING TOWARD AND VISIBLE FROM PUBLIC STREET
2. PROVIDE WEATHER RESISTANT COVER OVER PERMITS OR LAMINATE PERMITS FOR WATER PROOFING.

PLAN SYMBOL: (R5)

Permit Posting Detail

NOT TO SCALE



APPROACH
POOL AREA FLAT (LESS THAN 1% SLOPE), WITH SEDIMENT STORAGE OF 945 CU.FT./ACRE DISTURBED.

MATERIAL
AMOCO NO. 2130 SILT STOP WITH POSTS, MANUFACTURED BY MID–WEST CONSTRUCTION PRODUCTS AT 1–800–426–9647 OR 1–317–781–2380, OR APPROVED EQUAL.

ANCHORING
2 X 2 IN. HARDWOOD STAKES WITH A LENGTH EQUAL TO THE HEIGHT OF THE SILT FENCE PLUS 1 FT.

INSTALLATION
1. DRIVE STAKES 1 FT. MIN. INTO GROUND AND ATTACH FABRIC TO STAKES WITH STAPLER.
2. BOTTOM OF FABRIC SHALL BE PLACED UNDER 6 INCHES OF COMPACTED SOIL TO PREVENT SEDIMENT FLOW UNDERNEATH THE FENCE.
3. ENSURE THAT ALL SUPPORTING POSTS ARE ON THE DOWN SLOPE SIDE OF THE FENCING.

MAINTENANCE
1. INSPECT WITHIN 24 HOURS OF A STORM EVENT OF 0.5" OF RAINFALL OR GREATER AND AT LEASE ONCE EVERY SEVEN CALENDAR DAYS.
2. REMOVE BUILT–UP SEDIMENT AND REPAIR/REPLACE THE SILT FENCE AS NEEDED.
3. SILT FENCES WILL BE PERIODICALLY INSPECTED AND AFTER EACH STORM EVENT TO ENSURE IT IS FUNCTIONING PROPERLY AND TO MAKE ANY REPAIRS IF NECESSARY. DEPOSITED SEDIMENTS WILL BE REMOVED WHEN IT REACHES HALF THE HEIGHT OF THE FENCE OR IS CAUSING THE FENCE TO BULGE.

PLAN SYMBOL:

Silt Fence (Silt Saver SS-700)

NOT TO SCALE

McMAHON
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952 South State Road 2
Valparaiso, Indiana 46385
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mcm@mcmgrp-in.com

REVISION | DATE | NO.

550 Superior Avenue, Munster, Indiana 46321
Midwest Central Industruak Park, Unit 1
Proposed Erosion Control Details and Specifications

DESIGNED	DRAWN
DFH	MNR

PROJECT NO. M0581–05–25–00152.00

DATE 11/03/2025

SHEET NO. C4.0

I - General Construction

The contractor, subcontractors, their assigns, etc. are considered to be skilled and experienced in the use and interpretations of plans and specifications such as those included in the bid documents or herein described for this contract. Said contractor and subsequent sub–contractors, assigns, etc. are to have carefully reviewed said documents and have found them free of ambiguities and are sufficient for bid and construction purposes.

A. The Contractor shall provide all labor and materials necessary for a complete and finished installation, including any alterations to work already performed, entirely to the satisfaction of the Owner and/or Engineer.

B. All labor, materials, and systems or components thereof to be in full accordance with the requirements of all governing codes and regulations having jurisdiction over this work. Each Contractor to obtain and pay for all permits and inspections as required for proper installation of their respective work.

C. The Contractor shall visit the site and take into account all existing conditions as they may affect the work, and to include in its proposal any changes as may be required by supplementation to the new work. Failure to recognize work required shall not be reason for additional compensation after the letting of the contract.

D. All work shall be performed in the best and most professional manner by craftsmen skilled in their respective trades and in accordance with the agreed upon schedule with the Owner.

E. The Contractor shall notify all utility companies for field locations of their facilities prior to commencement of construction. The Contractor shall be responsible for the maintenance and preservation of the facilities.

F. All elevations are U.S.G.S. Datum.

G. Trench backfill material meeting INDOT Standards shall be used in all utility trenches under existing or proposed pavement and sidewalks.

H. The underground contractor shall deposit and level all sewer spoil onsite as directed by the Engineer or Owner. The Underground Contractor shall return the pavement subgrade to the plus or minus 0.10 elevation as left by the Grading Contractor. The fill shall be compacted to 95% of maximum dry density as determined by ASTM Designation D1557–70. This work shall be considered as incidental to the underground contract.

I. The cost of all testing of the underground utilities as required shall be considered as incidental to the underground contract. See sanitary sewer construction for testing.

J. Whenever equipment or material is identified in the specifications by reference to a manufacturer's brand, trade name, catalogue number, or similar notation, is intended to merely establish a standard. A substitution may be permitted provided a prior request is submitted in writing and approved by the Engineer.

K. Contractor shall call the Indiana Underground Plant Protection Systems, Inc. at (800) 382–5544 for utility locations prior to commencement of construction.

L. Locations of existing underground utilities shown on the plans are taken from existing records. The actual locations and depths of these utilities to be verified by the Contractor in the field.

M. There shall be no structures or objects, permanent or temporary, erected within ten feet of the sanitary sewer and water mains. Where ten foot separation cannot physically be maintained, structure foundation depth shall be equal to or below the pipe invert.

N. "As–Built" reproducible drawing(s) for underground utilities shall be prepared by the Contractor and submitted to the Engineer and the local municipal engineer prior to project completion. The drawings shall be certified by a licensed professional engineer or land surveyor.

O. The Contractor shall provide a temporary installation of electric and water service and toilet facilities as required, if such services are not available on the construction site.

P. Safety barricades, fences, temporary walks and signals shall be erected in compliance with the local building code and police regulations.

Q. All materials shall be as shown on drawings or as per specification. Any substitutes shall be permitted only upon receiving written approval from the Owner and/or Engineer. Upon request by the Owner and/or Engineer to furnish samples, the Contractor shall submit the requested samples for approval.

R. Any discrepancies, conflicts or ambiguities on the drawings shall be brought to the attention of the Engineer. Failure to do so will not relieve the Contractor of bearing additional costs for labor, materials, and installation to complete its work as intended.

S. All materials and workmanship of each trade shall be guaranteed for a period of 1 (one) year from the time of final acceptance and payment by the Owner.

T. The Contractor shall be responsible for verifying field measurements and design dimensions before ordering materials and prefabricated items. Any necessary adjustments shall be made in accordance with the decision of the Owner and/or Engineer.

U. The Contractor shall coordinate the work for all trades and schedule the timing as not to cause delays to any phase of construction due to late scheduling or interconnected work.

V. After substantial completion of the project, the Contractor shall complete all defects and omissions noted at the final inspection in the time period agreed upon at the inspection.

W. The Engineer and his consultants do not warrant or guarantee the accuracy and completeness of the work product herein beyond a reasonable diligence. If any mistakes, omissions or discrepancies are found to exist within the work product, the Engineer shall be promptly notified so that he may have the opportunity to take appropriate action necessary to resolve the differences. Failure to promptly notify the Engineer of such conditions shall absolve the Engineer from any responsibility for the consequences of such failure. Actions taken without the knowledge and consent of the Engineer, or in contradiction to the Engineer's work product or related recommendations, shall become the responsibility not of the Engineer but the parties responsible for taking such action.

X. The Contractor agrees to indemnify and hold the Owner, Engineer and the Municipality, County or Township where the work is to be performed or constructed harmless from all liability and expenses including the cost of defending actions arising out of the performance of the work undertaken, or out of any claim by any Subcontractor or anyone who furnishes material, equipment or labor in the work of this project.

II - Concrete

A. Concrete and its placement shall be in accordance with ACI 318 and ACI 301 except as modified in these specifications. Protect all concrete in accordance with ACI standards for hot, cold weather concreting.

B. Standard weight concrete shall comply with the following:
1. Minimum compressive strength (at 28 days): 4,000 psi
2. Maximum water/cement ratio – .45 air entrained
3. Aggregate size – Footings 12" thick or greater 1–1/2"
   – All other concrete 3/4"
4. Total air content – 6% ± 1–1/2% – 3/4" aggregate
   – 5% ± 1–1/2% – 1–1/2" aggregate
5. Max Slump – 4%
6. Reinforcing Bars: Provide deformed bars complying with ASTM A615 grade 60
7. Welded wire fabric: ASTM A185. cold drawn steel plain
8. No admixtures without approval from engineer. Admixtures containing chlorides shall not be used.

C. Concrete coverage for reinforcing (U.N.O.):
1. Unformed concrete in contact with earth = 3"
2. Formed concrete in contact with earth = 2"
3. Other concrete =1–1/2"

D. Lap splices shall be the following bar diameters unless noted otherwise on drawings. Locate splices at point of minimum stress. Welded splices are not permitted.

D1. All reinforcement except for that noted in D2.

Reinforcement	Lap Length in Bar Diameters
#3 – #6	38
#7 – #11	48

D2. Horizontal reinforcement so placed that more than 12 inch of concrete is cast below the reinforcement (i.e. horizontal wall reinforcement and top beam reinforcement)

Reinforcement	Lap Length in Bar Diameters
#3 – #6	50
#7 – #11	62

D3. Welded wire fabric – mesh space +2"

E. Comply with ACI 301. Position, support, and secure reinforcement against displacement, locate and support with metal chairs, runners, bolsters, spacers, and hangers, as required. Set wire ties so ends are directed into concrete, not toward exposed concrete surfaces.

F. Re–entrant corners: At all re–entrant corners in slabs, walls and topping, the contractor shall install two (2) #3x3'–0" long, each mat, at 3–inch o.c.

G. Provide bent corner bars to match and lap horizontal bars at corners and intersections of walls and footing.

H. Concrete can only e placed on a frost–free subgrade.

I. Mechanically vibrate all concrete.

J. All cast–in–place concrete shall be protected against rapid drying and must be kept moist for a minimum of (7) days for nominal concrete.

K. Provide a 3/4"x3/4" chamfer on all exposed corners of concrete.

L. Maximum free drop of all concrete = 2'–0".

M. Provide dowels of same size and spacing as vertical wall or column reinforcing, with standard hooks, at the foundation (U.N.O.)

N. Concrete field tests for slump, air content, yield and strength shall be conducted by a certified concrete technician in accordance with ACI 301. Tests shall be submitted to engineer for approval.

III - Earthwork

Earthwork under this contract shall include the following:

A. Removal and disposal of trees and other vegetation from the r.o.w.

B. Stripping of all topsoil. Stockpiling as shown on Erosion Control plan or as directed by owner.

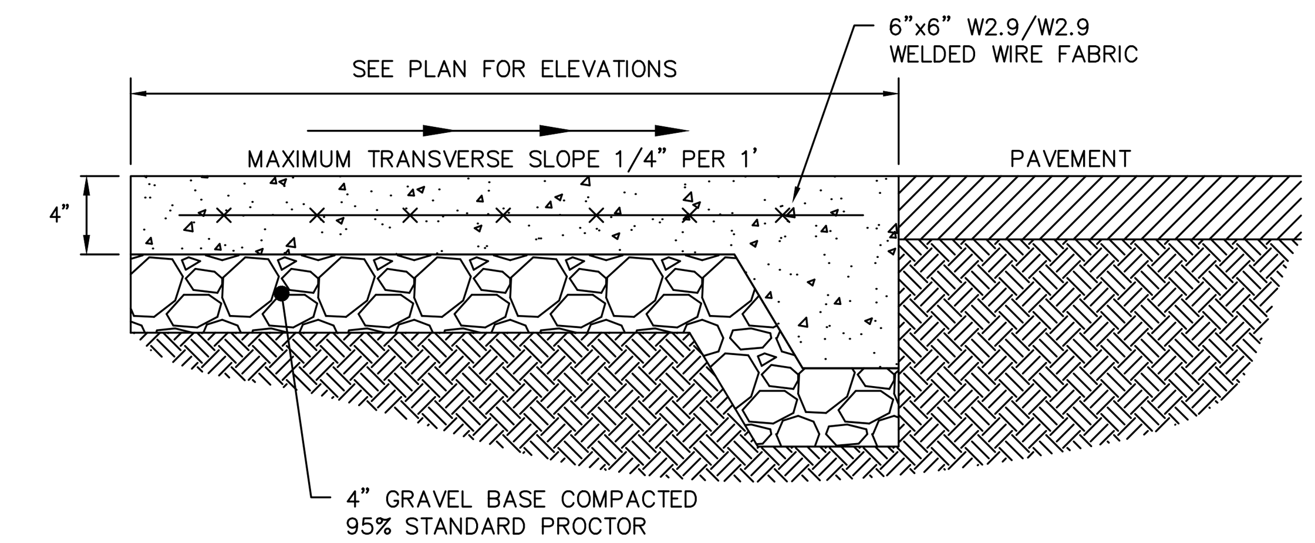
C. Clay excavation, placement and compaction as necessary to obtain designed subgrade elevations in pavement, sidewalk and detention areas.

D. Subgrade elevations shall be finished to within 0.1 feet of designed elevations. Fine grading in pavement areas shall be the responsibility of the paving contractor.

E. Fill materials shall be placed in layers not to exceed eight (8) inches loose measurement. Each layer shall be compacted to at least ninety–five percent (95%) of the maximum dry weight that can be produced under testing procedures as outlined under ASTM designation D1557–70.

F. The owner shall be responsible for independent testing and inspection of fill operations. Based on these observations and test results, the contractor shall adjust his methods as necessary to achieve the required degree of compaction.

G. It shall be the grading contractor's responsibility to maintain proper site drainage while the grading operation is in progress. The cost of maintaining said drainage shall be considered as incidental to the grading contract.



Concrete Sidewalk Detail

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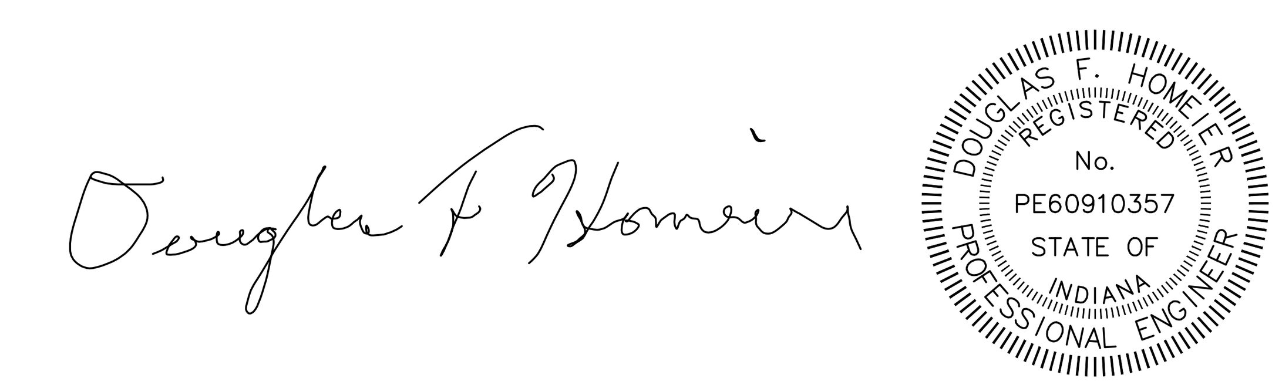

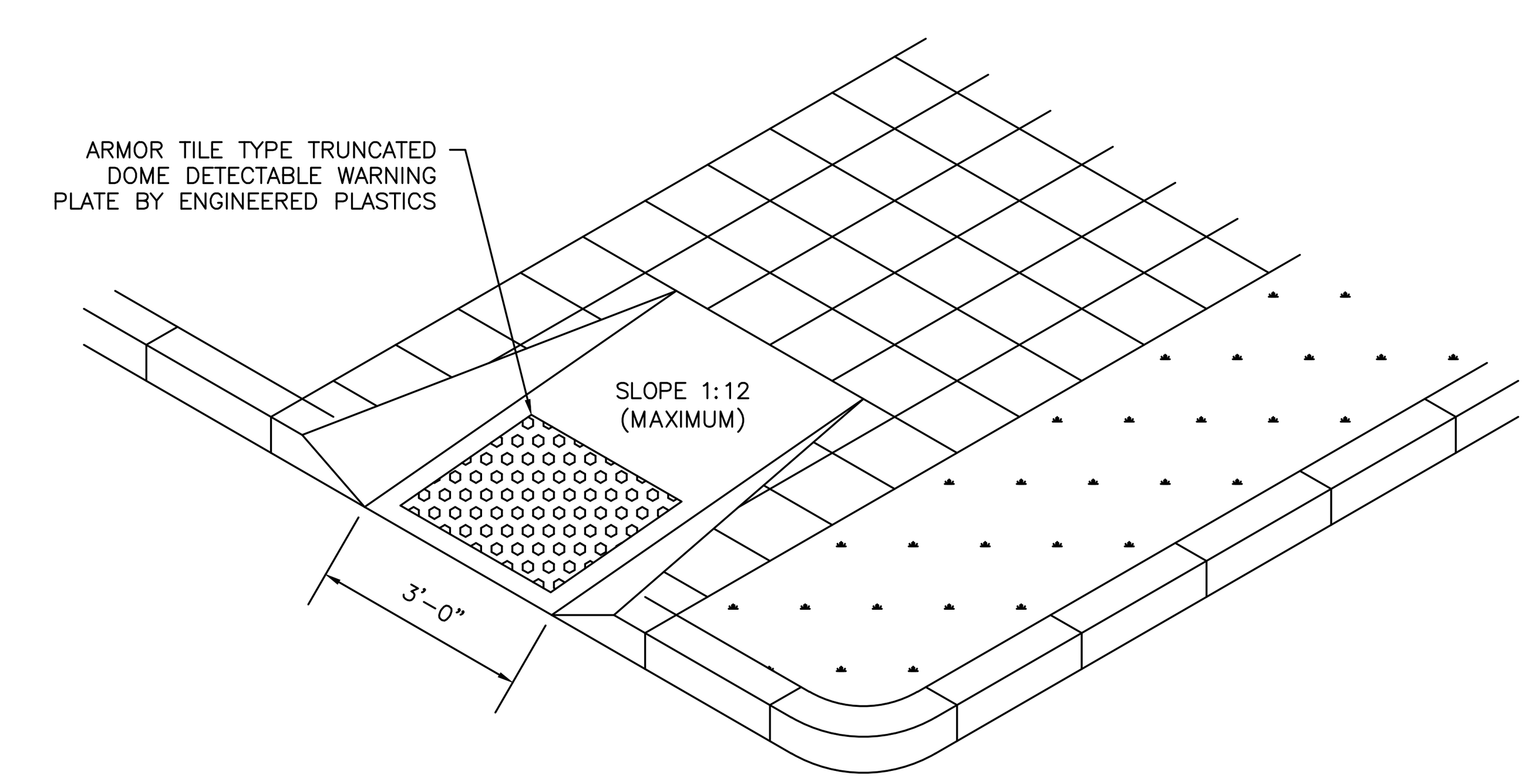

Typical Handicapped Curb Ramp

NOT TO SCALE

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