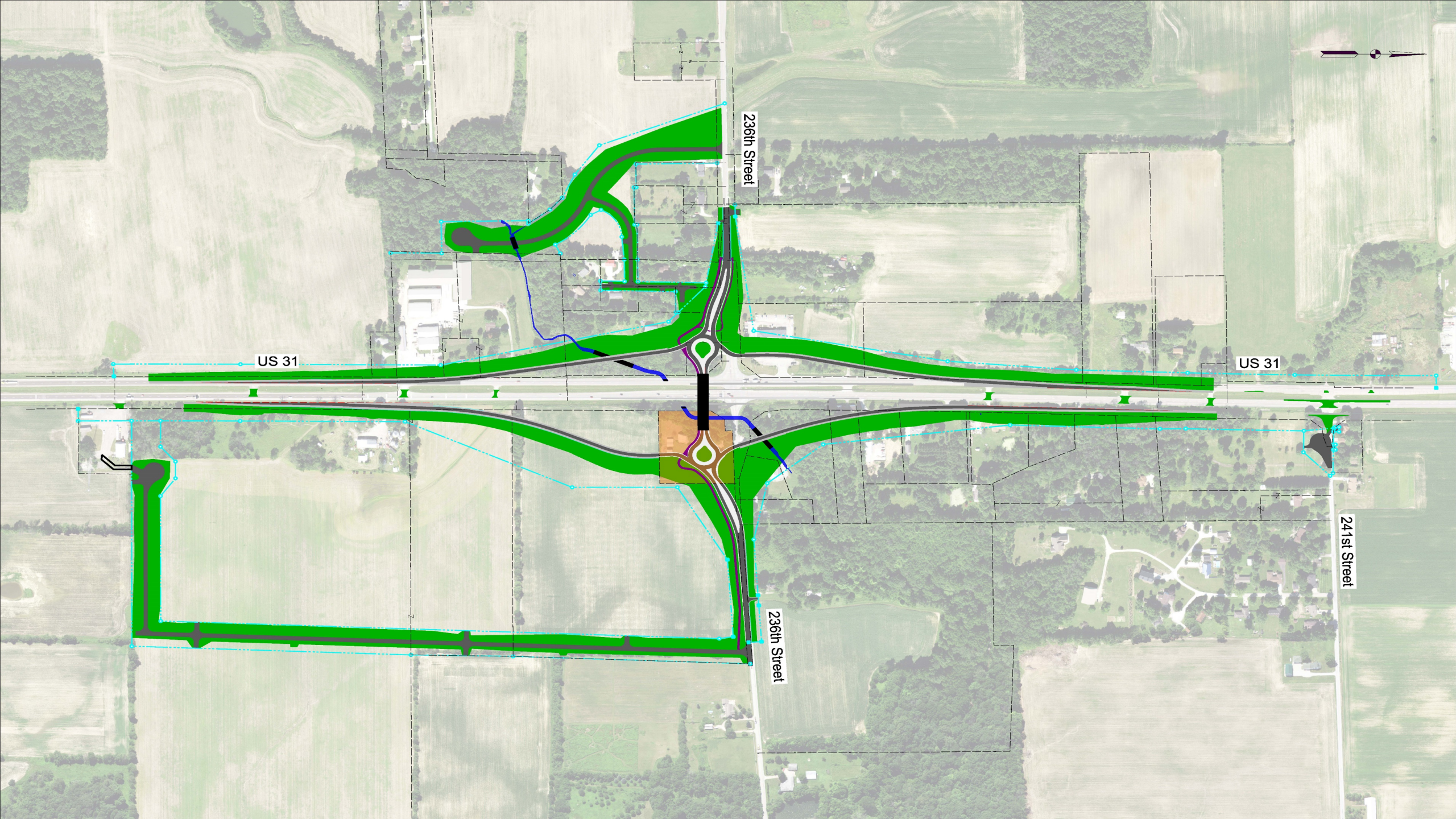

US 31 at 236th Street Interchange

Virtual Public Meeting

March 25, 2021

Welcome

- Presentation will begin at 6:00 pm.
- Presentation Exhibits can be found at: <https://www.in.gov/indot/3831.htm>
- After the presentation there will be a public comment period.
- After the public comment period, if time allows, the delivery team will be available for questions.



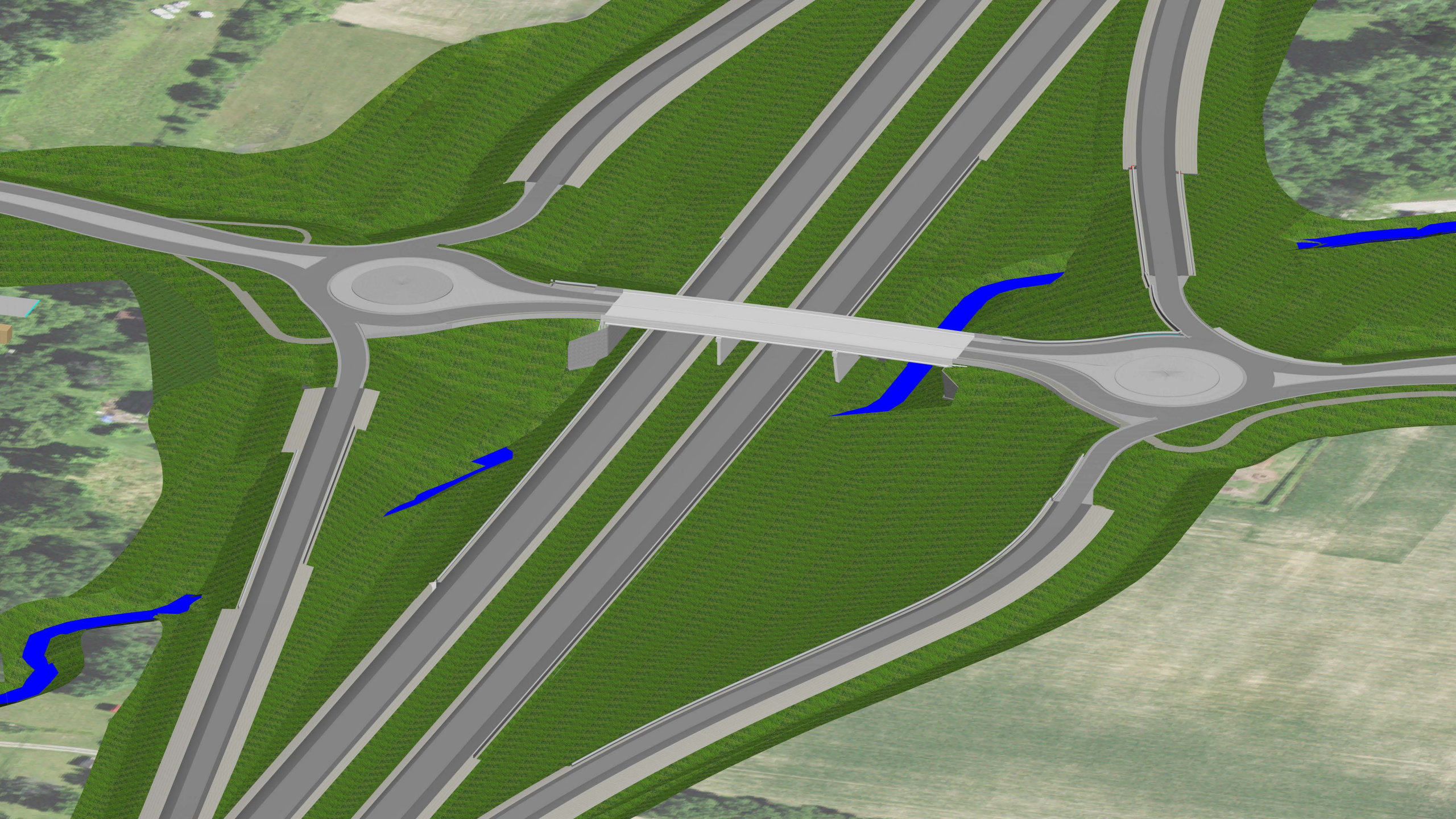
236th Street

US 31

US 31

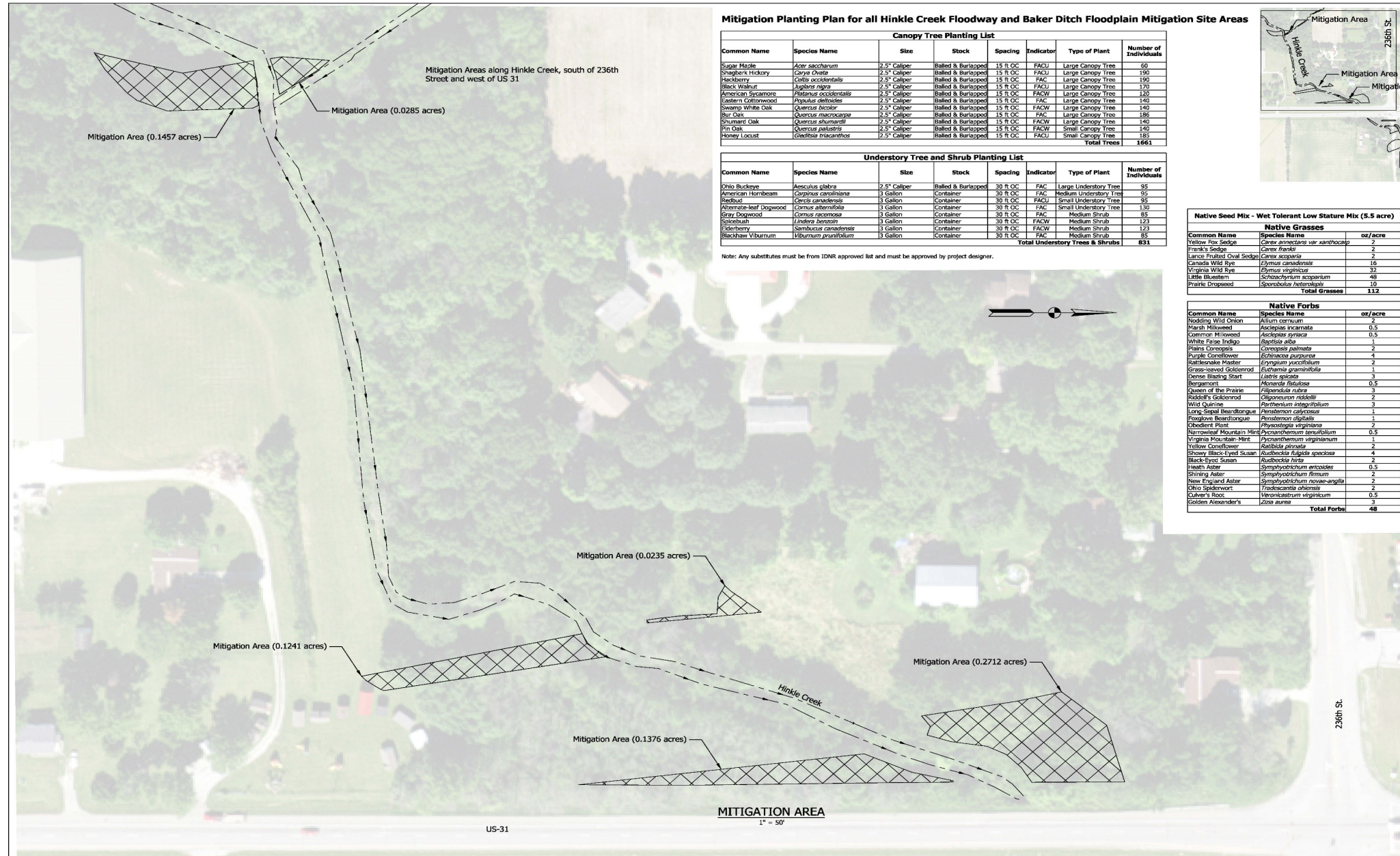
241st Street

236th Street





HAMILTON COUNTY
INDIANA

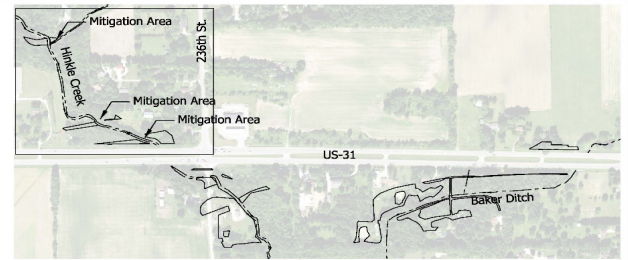


Mitigation Planting Plan for all Hinkle Creek Floodway and Baker Ditch Floodplain Mitigation Site Areas

Canopy Tree Planting List						
Common Name	Species Name	Size	Stock	Spacing	Indicator	Type of Plant
Sugar Maple	<i>Acer saccharum</i>	2.5' Caliper	Balled & Burlapped	15 R OC	FACU	Large Canopy Tree
Shagbark Hickory	<i>Carya ovata</i>	2.5' Caliper	Balled & Burlapped	15 R OC	FACU	Large Canopy Tree
Hackberry	<i>Celtis occidentalis</i>	2.5' Caliper	Balled & Burlapped	15 R OC	FAC	Large Canopy Tree
Black Walnut	<i>Juglans nigra</i>	2.5' Caliper	Balled & Burlapped	15 R OC	FACU	Large Canopy Tree
American Sycamore	<i>Platanus occidentalis</i>	2.5' Caliper	Balled & Burlapped	15 R OC	FACW	Large Canopy Tree
Eastern Cottonwood	<i>Populus deltoides</i>	2.5' Caliper	Balled & Burlapped	15 R OC	FAC	Large Canopy Tree
Swamp White Oak	<i>Quercus bicolor</i>	2.5' Caliper	Balled & Burlapped	15 R OC	FACW	Large Canopy Tree
Bur Oak	<i>Quercus macrocarpa</i>	2.5' Caliper	Balled & Burlapped	15 R OC	FAC	Large Canopy Tree
Shumard Oak	<i>Quercus shumardii</i>	2.5' Caliper	Balled & Burlapped	15 R OC	FACW	Large Canopy Tree
Pin Oak	<i>Quercus palustris</i>	2.5' Caliper	Balled & Burlapped	15 R OC	FACU	Small Canopy Tree
Honey Locust	<i>Gleditsia triacanthos</i>	2.5' Caliper	Balled & Burlapped	15 R OC	FACU	Small Canopy Tree
						Total Trees
						1,663

Understory Tree and Shrub Planting List						
Common Name	Species Name	Size	Stock	Spacing	Indicator	Type of Plant
Ohio Buckeye	<i>Aesculus glabra</i>	2.5' Caliper	Balled & Burlapped	30 R OC	FAC	Large Understory Tree
American Hornbeam	<i>Carpinus caroliniana</i>	3 Gallon	Container	30 R OC	FAC	Medium Understory Tree
Redbud	<i>Cercis canadensis</i>	3 Gallon	Container	30 R OC	FACU	Small Understory Tree
Ash-leaved Dogwood	<i>Cornus alternifolia</i>	3 Gallon	Container	30 R OC	FAC	Small Understory Tree
Gray Dogwood	<i>Cornus racemosa</i>	3 Gallon	Container	30 R OC	FAC	Medium Shrub
Sweetgum	<i>Liquidambar styraciflua</i>	3 Gallon	Container	30 R OC	FACW	Medium Shrub
Elderberry	<i>Sambucus canadensis</i>	3 Gallon	Container	30 R OC	FACW	Medium Shrub
Blackhaw Viburnum	<i>Viburnum prunifolium</i>	3 Gallon	Container	30 R OC	FAC	Medium Shrub
						Total Understory Trees & Shrubs
						831

Note: Any substitutes must be from IDNR approved list and must be approved by project designer.



Native Seed Mix - Wet Tolerant Low Stature Mix (5.5 acre)

Common Name	Species Name	oz/acre
Yellow Fox Sedge	<i>Carex americana var. saxatilis</i>	2
Frank's Sedge	<i>Carex frankii</i>	2
Lance Fringed Oval Sedge	<i>Carex scoparia</i>	2
Canada Wild Eye	<i>Elymus canadensis</i>	16
Virginia Wild Eye	<i>Elymus virginicus</i>	32
Little Bluestem	<i>Schizochyrium scoparium</i>	48
Prarie Dropseed	<i>Sporobolus heterostachys</i>	10
Total Grasses		112

Native Forbs

Common Name	Species Name	oz/acre
Nodding Wild Onion	<i>Allium carolinianum</i>	2
Marsh Milkwort	<i>Asclepias incarnata</i>	0.5
Common Milkwort	<i>Asclepias syriaca</i>	0.5
White False Indigo	<i>Baptisia alba</i>	1
Plains Coreopsis	<i>Coreopsis palmata</i>	2
Purple Coneflower	<i>Echinacea purpurea</i>	4
Bottlebrush Prairie	<i>Eryngium yuccifolium</i>	2
Grass-leaved Goldenrod	<i>Euthamia graminifolia</i>	1
Dense Blazing Star	<i>Liatris spicata</i>	3
Bergamont	<i>Monarda fistulosa</i>	0.5
Queen of the Prairie	<i>Pilipendula rubra</i>	3
Rabbit's Goldenrod	<i>Quercus rubra</i>	2
Wild Quinine	<i>Rhus glabra</i>	3
Long Sidal Beardtongue	<i>Penstemon calycosus</i>	1
Fraxinose Beardtongue	<i>Penstemon digitalis</i>	1
Obedient Plant	<i>Physostegia virginiana</i>	2
Narrowleaf Mountain Mint	<i>Pycnanthemum tenuifolium</i>	0.5
Virginia Mountain Mint	<i>Pycnanthemum virginianum</i>	1
Yellow Coneflower	<i>Ratibida pinnata</i>	2
Showy Black-eyed Susan	<i>Rudbeckia fulgida speciosa</i>	4
Black-eyed Susan	<i>Rudbeckia hirta</i>	2
Heath Aster	<i>Symphoricarpos ericoides</i>	0.5
Shining Aster	<i>Symphoricarpos firmus</i>	2
New England Aster	<i>Symphoricarpos rose-anglia</i>	2
Ohio Spiderwort	<i>Tradescantia ohioensis</i>	2
Colver's Foot	<i>Veronicastrum virginicum</i>	0.5
Golden Alexander's	<i>Xipha aerea</i>	1
Total Forbs		48

MITIGATION PLAN GENERAL NOTES

- Contractor shall adhere to the standard erosion measures for this project.
- Plants shall be installed in a uniform layout and varieties distributed throughout the planting areas, including appropriate consideration of wetlands indicator statuses.
- Plant trees at a 12' minimal spacing and inter plant the trees with shrubs. Trees and shrubs shall be planted randomly by species to simulate natural stocking. Shrubs and understory trees are planted between every other canopy tree and their species are mixed.
- All plants shall meet or exceed American Standards for nursery stock, as set forth by the American Nursery and Landscape Association.
- Plants and all other materials to be stored on site shall be placed where they will not conflict with the construction operations.
- All landscape plantings shall be guaranteed for a period of one year, following final inspection by engineer. At the end of this period, plant material termed dead or unsatisfactory shall be replaced at no additional charge by the landscape contractor.
- The Landscape Contractor shall obtain and pay for all permits and fees that may be required for this portion of work.
- If needed, place topsoil over the sub-grade of unpaved, disturbed areas to a depth of 6" prior to planting.
- All excess soil materials shall become the property of the contractor unless otherwise designated and shall be removed by the contractor and disposed of offsite, at no additional cost to the owner in accordance with all local and state codes and permit requirements.
- Species with an indicator of FAC or FACU should be planted within the floodway 10' from the stream channel. Species with an indicator status of FAC or FACW should be planted in the floodway closest to the stream channel. Species with an indicator of DBL should be planted only in the wettest areas of the floodway.
- All planting should be in accordance with INDOT specifications section 622 - Planting, Shrubs, and Vines or the most recent edition.
- All plants to be mulched with 3" thick layer of shredded hardwood bark mulch. Bark mulch shall be approved by the engineer and shall be uniform in texture and color and shall be obtained from an acceptable hardwood distributor. No utility mulch or process tree trimmings will be allowed.
- Backfill for tree plantings shall be 50% approved topsoil, 25% approved peat moss, 25% native soil. The top 6" of backfill shall be 100% approved topsoil.
- Any substitutions of plant material shall be approved by engineer and IDNR. Contractor shall notify the engineer of any substitutions prior to installation. Plans may be inspected and approved or rejected at the project areas.
- All bare and disturbed areas that are not currently mown and maintained shall be revegetated with a mixture of grasses, sedges, and wildflowers native to Central Indiana and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion. Tall-type grasses (including low-endophyte, freely endophyte, and endophyte free tall fescue but excluding all other varieties of tall fescue) may be used in currently mowed areas only.
- All disturbed soil shall receive a mesic seed mixture applied according to the pounds per acres in the seeding schedule.
- Plantings are required to receive 15 gallons of water per week from April 1st to October 31st for a period of 2 years.
- A three (3) year monitoring plan to ensure that a minimal of 80% survival rate is achieved as a measure of success. The monitoring plan must include the following:
 - A report submitted to the Central Region Environmental Biologist (Division of Water, 402 W. Washington Street, Room W264, Indianapolis, Indiana 46204) by November 1 of each year to monitor the initiation, progress, and success of the mitigation areas. The report will include a minimal of ten appropriate pictures of the tree plantings. A narrative will describe the activity accomplished to date, areas planted, list of species planted, including volunteer species, and estimated survival rate. The monitoring report will also include goals achieved and plans for the completion of successful mitigation. Reports shall be submitted each year, even if work has not been initiated, or until the mitigation areas are completed and determined to be successful. If after three years after work initiation a mitigation area is not successful, the permit will be considered in violation, and another plan will be submitted for approval.

Legend
 Mitigation Planting

Mitigation Site Plan (Page 1 of 3)
 US 31 New Interchange
 (Des No. 1702149), Hamilton Co., IN

NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	4/27/2020	DATE
DESIGNED: DDB	4/27/2020	DRAWN: BTS	4/27/2020
CHECKED: DJR	4/27/2020	CHECKED: GTB	4/27/2020

INDIANA DEPARTMENT OF TRANSPORTATION
 MITIGATION SITE PLAN (PAGE 1 OF 3)

SCALE	BRIDGE FILE
AS NOTED	N/A
	DESIGNATION
	1702149
SURVEY BOOK	SHEETS
ELECTRONIC	of
CONTRACT	PROJECT
R-41346	1702149



Mitigation Areas along Hinkle Creek, along 236th Street and east of US 31

Mitigation Area (0.0326 acres)

Mitigation Area (0.0173 acres)

Mitigation Area (0.1398 acres)

Mitigation Area (0.1105 acres)

Mitigation Area (1.8699 acres)

MITIGATION AREA
1" = 50'

For Planting Tables & General Notes See Page 1 of 3

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Legend
 Mitigation Planting

Mitigation Site Plan (Page 2 of 3)
 US 31 New Interchange
 (Des No. 1702149), Hamilton Co., IN

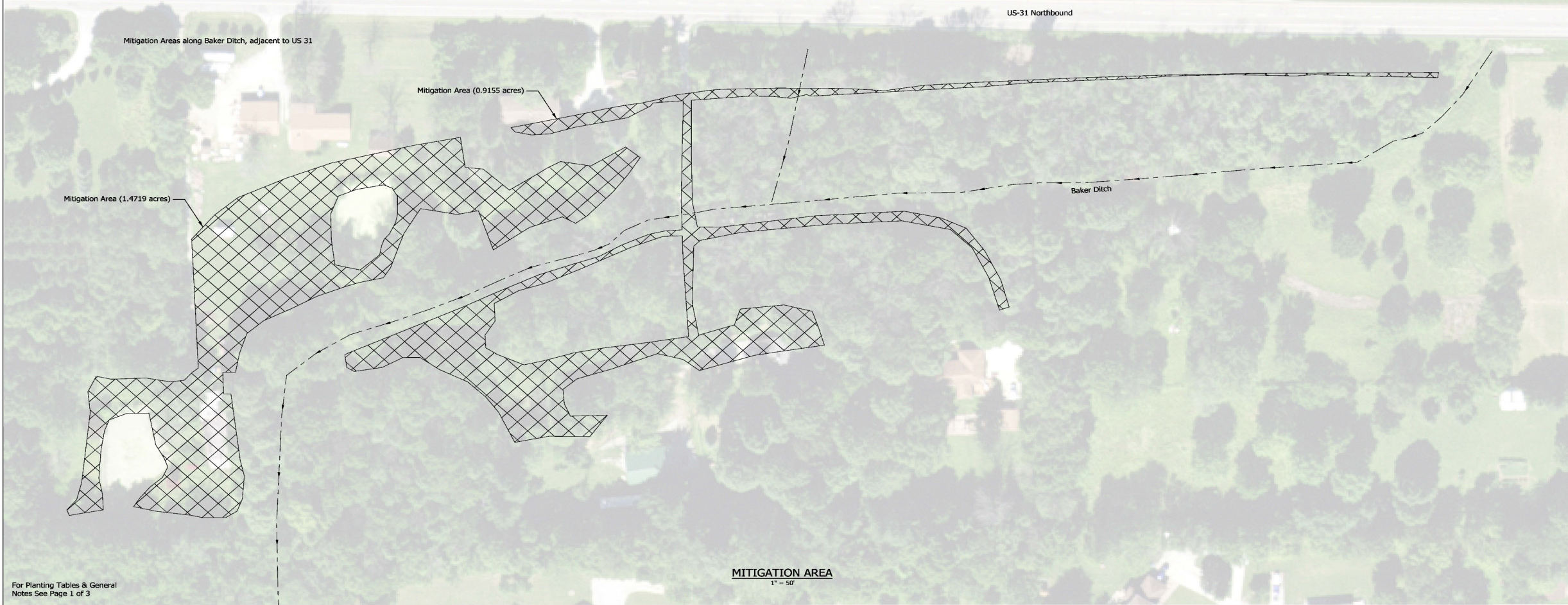
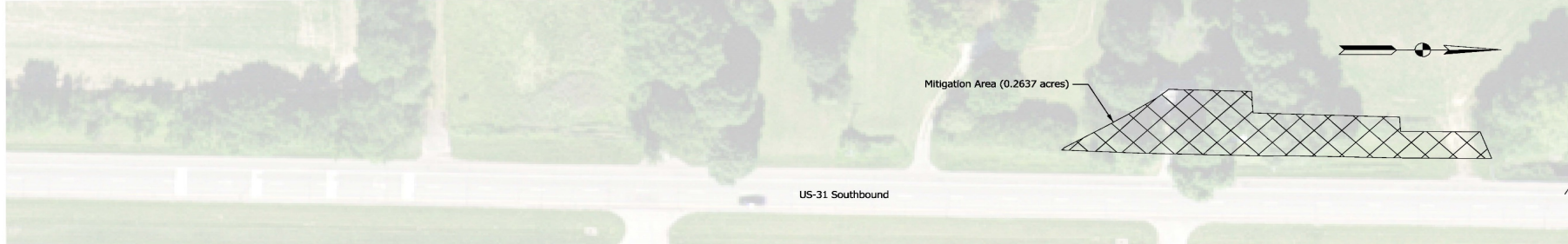
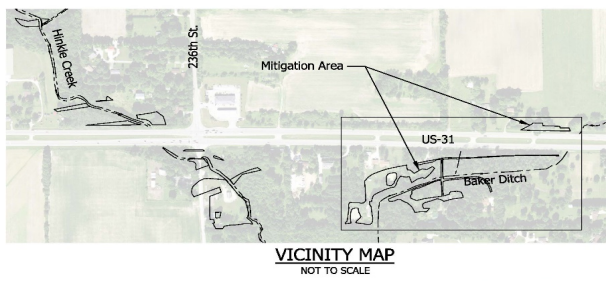
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CHECKED: DJR	4/27/2020	CHECKED: GTR	4/27/2020

INDIANA DEPARTMENT OF TRANSPORTATION

MITIGATION SITE PLAN (PAGE 2 OF 3)

SCALE AS NOTED	BRIDGE FILE N/A
	DESIGNATION 1702149
SURVEY BOOK ELECTRONIC	SHEETS of
CONTRACT R-41346	PROJECT 1702149



MITIGATION AREA
1" = 50'

For Planting Tables & General Notes See Page 1 of 3

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Legend
 Mitigation Planting

Mitigation Site Plan (Page 3 of 3)
 US 31 New Interchange
 (Des No. 1702149), Hamilton Co., IN

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CHECKED: DJR	4/27/2020	CHECKED: GTR	4/27/2020

INDIANA DEPARTMENT OF TRANSPORTATION

MITIGATION SITE PLAN (PAGE 3 OF 3)

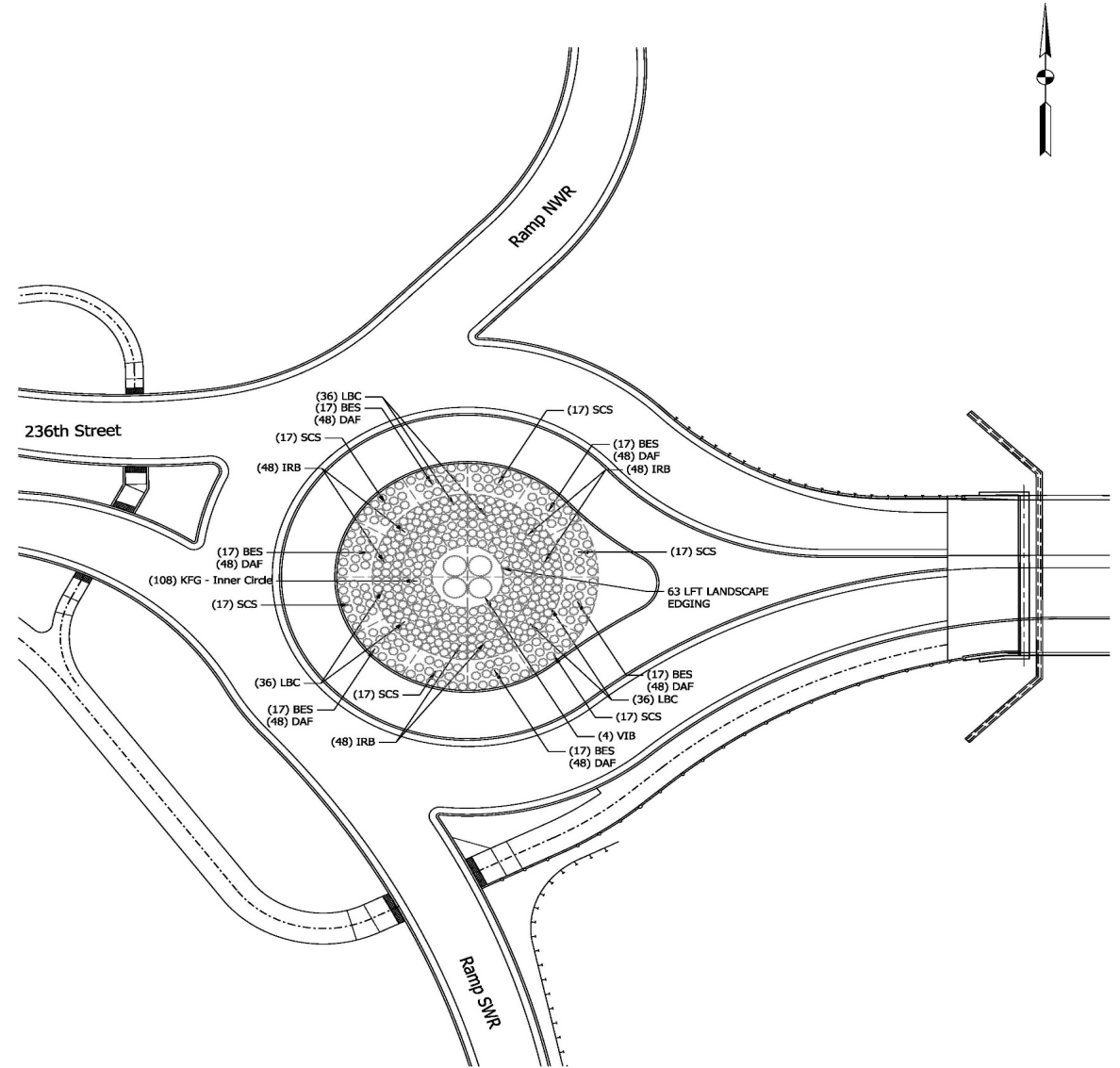
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AS NOTED	N/A
	DESIGNATION
	1702149
SURVEY BOOK	SHEETS
ELECTRONIC	of
CONTRACT	PROJECT
R-41346	1702149

PLANT SCHEDULE:

SHRUBS	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	NOTES
VIB	<i>Viburnum prunifolium</i>	Blackhaw Viburnum	4" B&B	Per plan	If planting containers, at least #5 or larger, Multi-stem shrubs
GRASSES					
LBC	<i>Schizachyrium scoparium</i> 'Carousel'	Little Bluestem 'Carousel'	#3 Container	24" o.c.	Approx. 108 plants
KFG	<i>Calamagrostis x acutiflora</i> 'Karl Foerster'	Karl Foerster Feather Reed Grass	#3 Cont.	36" o.c.	Approx. 120 plants
SCS	<i>Panicum virgatum</i> 'Cheyenne Sky'	Panic Grass	#3 Cont.	30" o.c.	Approx. 102 plants
PERENNIALS					
BES	<i>Rudbeckia fulgida</i> 'American Gold Rush'	Am. Gold Rush Black Eyed Susan	#1 Cont.	18" o.c.	Approx. 102 plants
IRB	<i>Vernonia lettermanii</i> 'Iron Butterfly'	Iron Butterfly Vernonia	#3 Cont.	36" o.c.	Approx. 72 plants
BULBS					
DAF	<i>Narcissus pseudonarcissus</i> 'Roadside Yellow'	Yellow Trumpet Daffodil, Roadside Yellow	14/16 cm bulbs	4 bulbs in each 6"-8" dia. by 6" deep pit	12 pits, between each BES plantings, see detail; approx. 288 bulbs. Plant in late autumn.

LANDSCAPE GENERAL NOTES:

- LANDSCAPE CONTRACTOR TO VERIFY PLANTING AREAS, SPACING OF PLANTS AND QUANTITIES TO BE PLANTED IN THOSE SPACES, MARKING PLANTING LOCATIONS PRIOR TO ACTUAL PLANTING. LAYOUT TO BE FIRST CHECKED BY ENGINEER'S REPRESENTATIVE BEFORE PLANTING COMMENCES.
- LANDSCAPE CONTRACTOR TO ENSURE ALL PLANTING AREAS ARE PREPARED ACCORDING TO PLANS AND SPECIFICATIONS PRIOR TO ACTUAL PLANTING.
- LANDSCAPE CONTRACTOR TO REPORT ANY DISCREPANCIES TO ENGINEER PRIOR TO COMMENCING WORK
- EDGING AT PERIMETER OF VIBURNUM PLANTING TO BE STANDARD CONCRETE "BRICK", COMMON SIZE, 4"x8"x2.5", SET IN MORTAR.
- ALL PLANTING BEDS ARE TO RECEIVE 3 IN MINIMUM SHREDDED HARDWOOD BARK MULCH, PLACED AFTER EACH AREA PLANTING IS COMPLETED. DO NOT COVER ANY PLANTS, ONLY THE SOIL SURROUNDING THEM.
- PUSH SOIL IMMEDIATELY SURROUNDING EVERY PLANT TO FORM A SMALL DEPRESSION FOR CAPTURE OF WATER.
- LANDSCAPE CONTRACTOR TO COORDINATE WORK WITH EARTHWORK CONTRACTOR FOR PROPER PLACEMENT OF PLANTING SOILS. SEE SPECIFICATIONS.
- PROTECT ALL AREAS OF PROJECT FROM DAMAGE. ANY DAMAGE OCCURING AS A RESULT OF LANDSCAPE OPERATIONS MUST BE REPORTED TO ENGINEER OR REPRESENTATIVE.
- ANY SUBSTITUTIONS DEEMED NECESSARY MUST FIRST BE PRESENTED TO ENGINEER OR REPRESENTATIVE FOR APPROVAL OR DISPOSITION.
- ALL PLANT QUANTITIES TO FOLLOW THE QUANTITIES LISTED IN "PLANT SCHEDULE" AS MINIMUMS. FINAL QUANTITIES MAY DIFFER BASED ON LAYOUT AND SPACING.



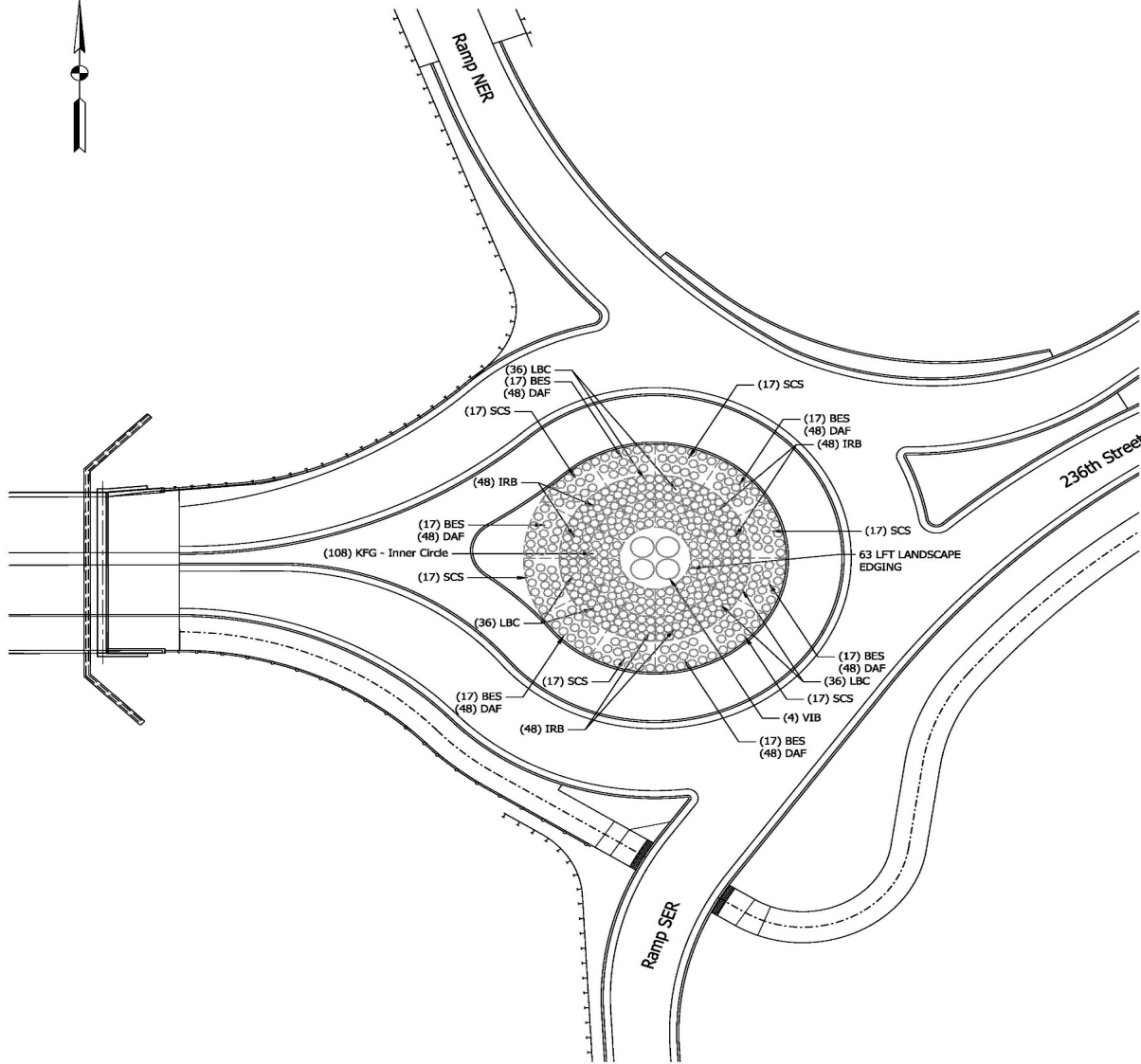
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DESIGNED: GTB	3/23/2021	DRAWN: DDB	3/23/2021
CHECKED: DJR	3/23/2021	CHECKED: DJR	3/23/2021

INDIANA DEPARTMENT OF TRANSPORTATION

WEST ROUNDABOUT LANDSCAPE PLAN

SCALE	BRIDGE FILE
1" = 20'	N/A
	DESIGNATION
	1702149
SURVEY BOOK	SHEETS
ELECTRONIC	171 of 277
CONTRACT	PROJECT
R-41346	1702149



PLANT SCHEDULE:

SHRUBS	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	NOTES
VIB	<i>Viburnum prunifolium</i>	Blackhaw Viburnum	4' B&B	Per plan	If planting containers, at least #5 or larger, Multi-stem shrubs
GRASSES					
LBC	<i>Schizachyrium scoparium</i> 'Carousel'	Little Bluestem 'Carousel'	#3 Container	24" o.c.	Approx. 108 plants
KFG	<i>Calamagrostis x acutiflora</i> 'Karl Foerster'	Karl Foerster Feather Reed Grass	#3 Cont.	36" o.c.	Approx. 120 plants
SCS	<i>Panicum virgatum</i> 'Cheyenne Sky'	Panic Grass	#3 Cont.	30" o.c.	Approx. 102 plants
PERENNIALS					
BES	<i>Rudbeckia fulgida</i> 'American Gold Rush'	Am. Gold Rush Black Eyed Susan	#1 Cont.	18" o.c.	Approx. 102 plants
IRB	<i>Vernonia lettermanii</i> 'Iron Butterfly'	Iron Butterfly Vernonia	#3 Cont.	36" o.c.	Approx. 72 plants
BULBS					
DAF	<i>Narcissus pseudonarcissus</i> 'Roadside Yellow'	Yellow Trumpet Daffodil, Roadside Yellow	14/16 cm bulbs	4 bulbs in each 6"-8" dia. by 6" deep pit	12 pits, between each BES plantings, see detail; approx. 288 bulbs. Plant in late autumn.

LANDSCAPE GENERAL NOTES:

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**NOT FOR
CONSTRUCTION**

RECOMMENDED FOR APPROVAL		DATE	3/23/2021
DESIGNED:	GTB	3/23/2021	DRAWN:
			DDB
			3/23/2021
CHECKED:	DJR	3/23/2021	CHECKED:
			DJR
			3/23/2021

INDIANA DEPARTMENT OF TRANSPORTATION

EAST ROUNDABOUT LANDSCAPE PLAN

SCALE	BRIDGE FILE
1" = 20'	N/A
	DESIGNATION
	1702149
SURVEY BOOK	SHEETS
ELECTRONIC	172 of 277
CONTRACT	PROJECT
R-41346	1702149

Interchange Tree Planting List

- Canopy Trees:

- Sugar Maple
- Shagbark Hickory
- Hackberry
- Black Walnut
- American Sycamore
- Eastern Cottonwood
- Swamp White Oak
- Bur Oak
- Shumard Oak
- Pin Oak
- Honey Locust

- Understory Tree and Shrubs:

- Ohio Buckeye
- American Hornbeam
- Redbud
- Alternate-leaf Dogwood
- Gray Dogwood
- Spicebush
- Elderberry
- Blackhaw Viburnum

Roundabout Planting List

- Shrubs:
 - Blackhaw Viburnum
- Grasses:
 - Little Bluestem 'Carousel'
 - Karl Foerster Feather Reed Grass
 - Panic Grass
- Perennials:
 - American Gold Rush Black Eyed Susan
 - Iron Butterfly Vernonia
- Bulbs:
 - Yellow Trumpet Daffodil, Roadside Yellow