

SITE DATA

SITE DESCRIPTION: PROPOSED COMMERCIAL DEVELOPMENT SITE ACREAGE = 121+ ACRES DISTURBED AREA = 0.20+ ACRES
ZONING: SITE: R-3 ADJOINER NORTH: AG ADJOINER EAST: R-3 ADJOINER SOUTH: AG ADJOINER WEST: AG
SITE CONSTRUCTION: ESTIMATED START DATE: SEPTEMBER, 2018 ESTIMATED COMPLETION DATE: SEPTEMBER, 2019

SITE SUMMARY STATEMENT

The Legends Indiana is proposing an Indoor Training Center. These plans reflect this proposed structure. The overall site acreage is approximately 121-Acres with 0.20-Acre being disturbed for this proposed expansion.

INDEX OF DRAWINGS

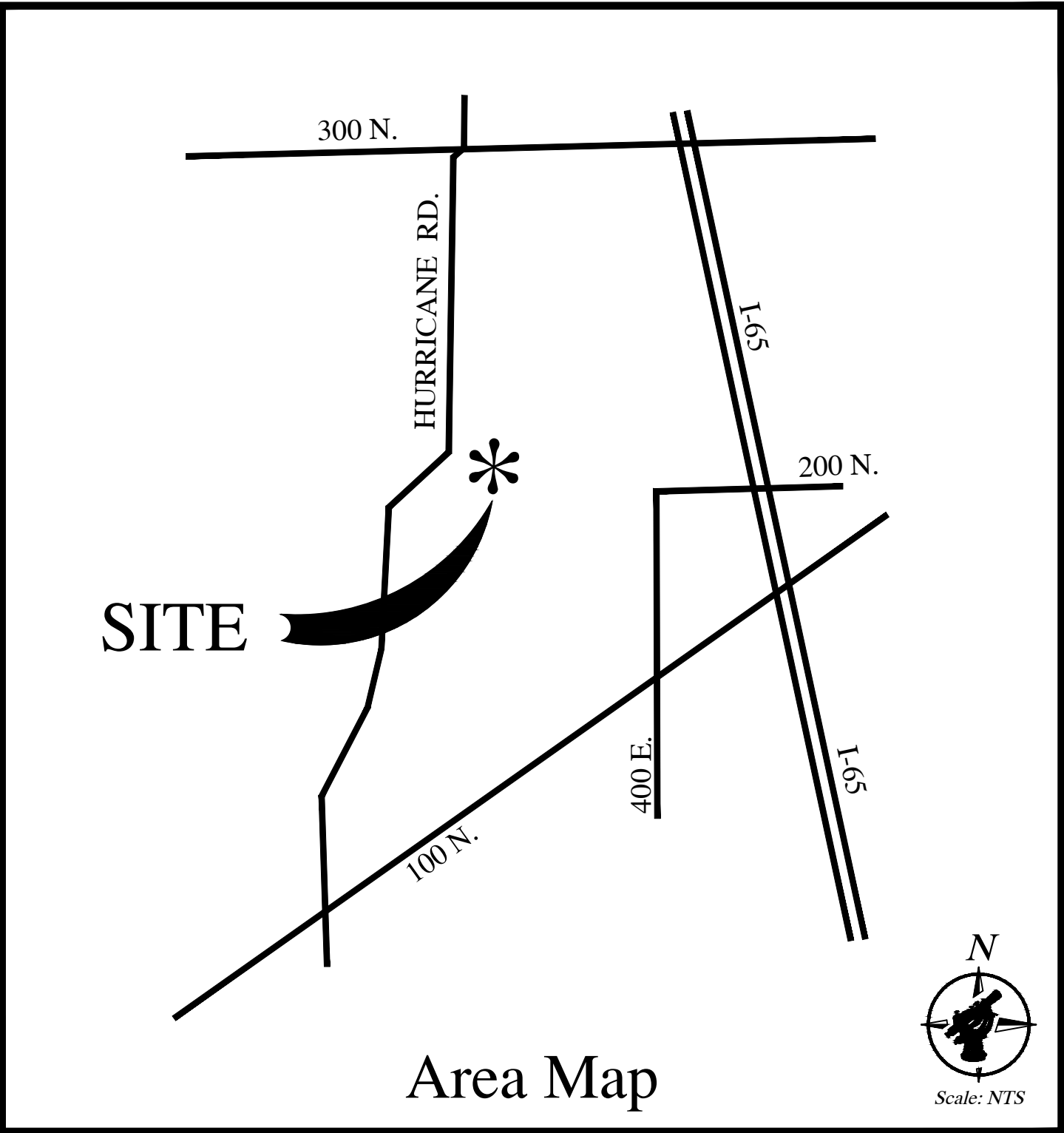
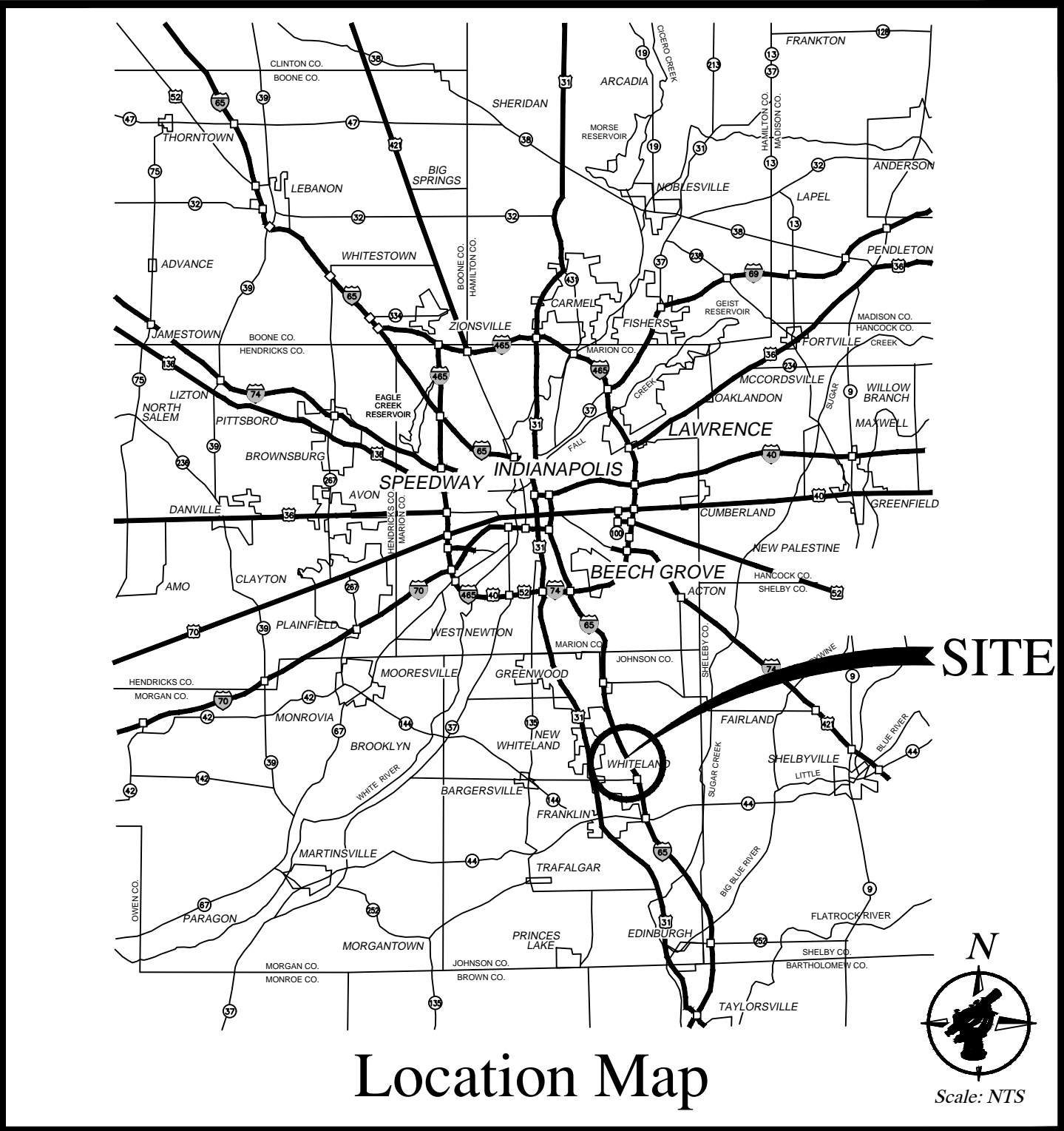
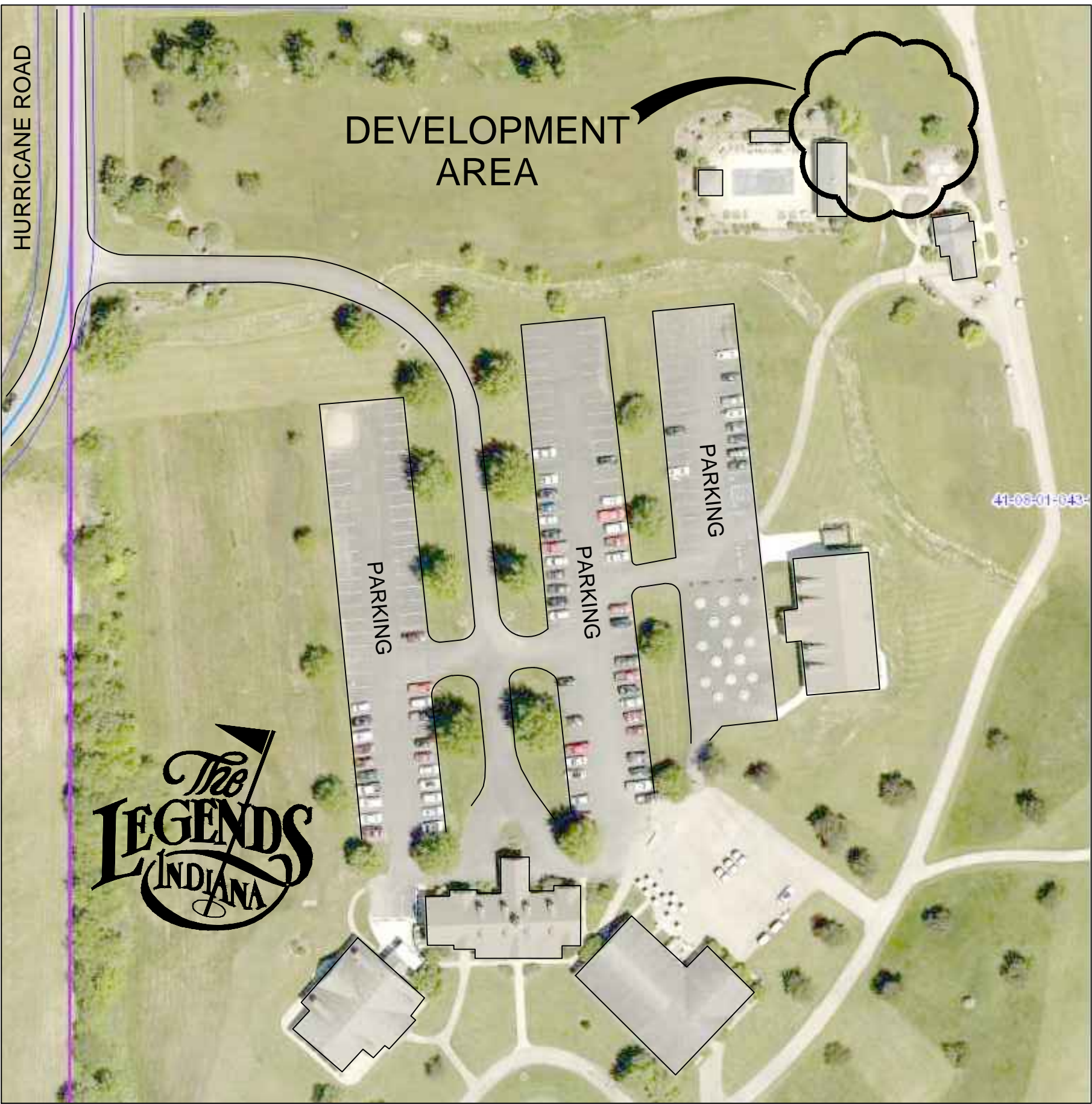
SHEET NUMBER	SHEET DESCRIPTION
1	TITLE SHEET
2	EXISTING SITE CONDITIONS
3	DEVELOPMENT PLAN
4	SPECIFICATIONS / DETAILS

SITE CONSTRUCTION PLANS
FINAL PLAN DATE: 00.00.2018
PC-2018-0000

FINAL SITE CONSTRUCTION PLANS ARE THOSE CONTAINING THE FINAL PLAN DATE SHOWN ABOVE

INDOOR TRAINING CENTER
THE LEGENDS GOLF COURSE

2555 North Hurricane Road, Franklin, Indiana 4613



CONSTRUCTION DOCUMENTS

PROJECT MANAGER: DATE:
THESE PLANS ARE NOT TO BE CONSIDERED FINAL OR TO BE UTILIZED FOR CONSTRUCTION UNLESS SIGNED AND DATED BY THE APPROPRIATE NORTHPOINTE ENGINEERING & SURVEYING, INC. PROJECT MANAGER.

CERTIFIED BY:
Venus L.L. Thome
Professional Engineer
State of Indiana
Registration Number 11200278

Donna Jo Smithers
Professional Engineer
State of Indiana
Registration Number 20100076

PLANNING - City of Franklin
796 South State Street
Franklin, Indiana 46131
Contact: Rick Littleton
(317) 736-3640

SANITATION - City of Franklin
796 South State Street
Franklin, Indiana 46131
Contact: Rick Littleton
(317) 736-3640

STORMWATER - City of Franklin
796 South State Street
Franklin, Indiana 46131
Contact: Rick Littleton
(317) 736-3640

WATER - Indiana-American Water Company
110 South Park Boulevard
Greenwood, Indiana 46143
Contact: Ron Ballard
(317) 881-0270

GAS - Vectren Energy
4324 Middle Road
Columbus, Indiana 47203-1829
Contact: Perry Cloyd
(812) 330-4010
pcloyd@vectren.com

ELECTRIC - Duke Energy
2515 North Morton Street
Franklin, Indiana 46131
Contact: Tim Padgett
(317) 736-2016

TELEPHONE - Embarras
5858 North College Avenue
Indianapolis, Indiana 46220
Contact: Jeff Rice
(317) 252-5017

CABLE - Insight Communication
2520 Endress Place
Greenwood, Indiana 46143
Contact: George Foldhand
(317) 535-4198

FIRE DEPARTMENT - Franklin Fire Department
31800 Thornburg Lane
Franklin, Indiana 46131
Contact: Bryne Pursiful
(317) 736-3650

HIGHWAY - Johnson County Highway Dept
1051 Hospital Road
Franklin, Indiana 46131
Contact: Neil VanTrees
(317) 346-4630
nvantrees@co.johnson.in.us

THE DEVELOPER/OWNER IS ULTIMATELY RESPONSIBLE TO MAKE SURE THAT THE PROJECT IS BUILT PER THE REQUIREMENTS OF THE CITY OF FRANKLIN, LOCAL UTILITY AND STATE REQUIREMENTS AND SPECIFICATIONS.

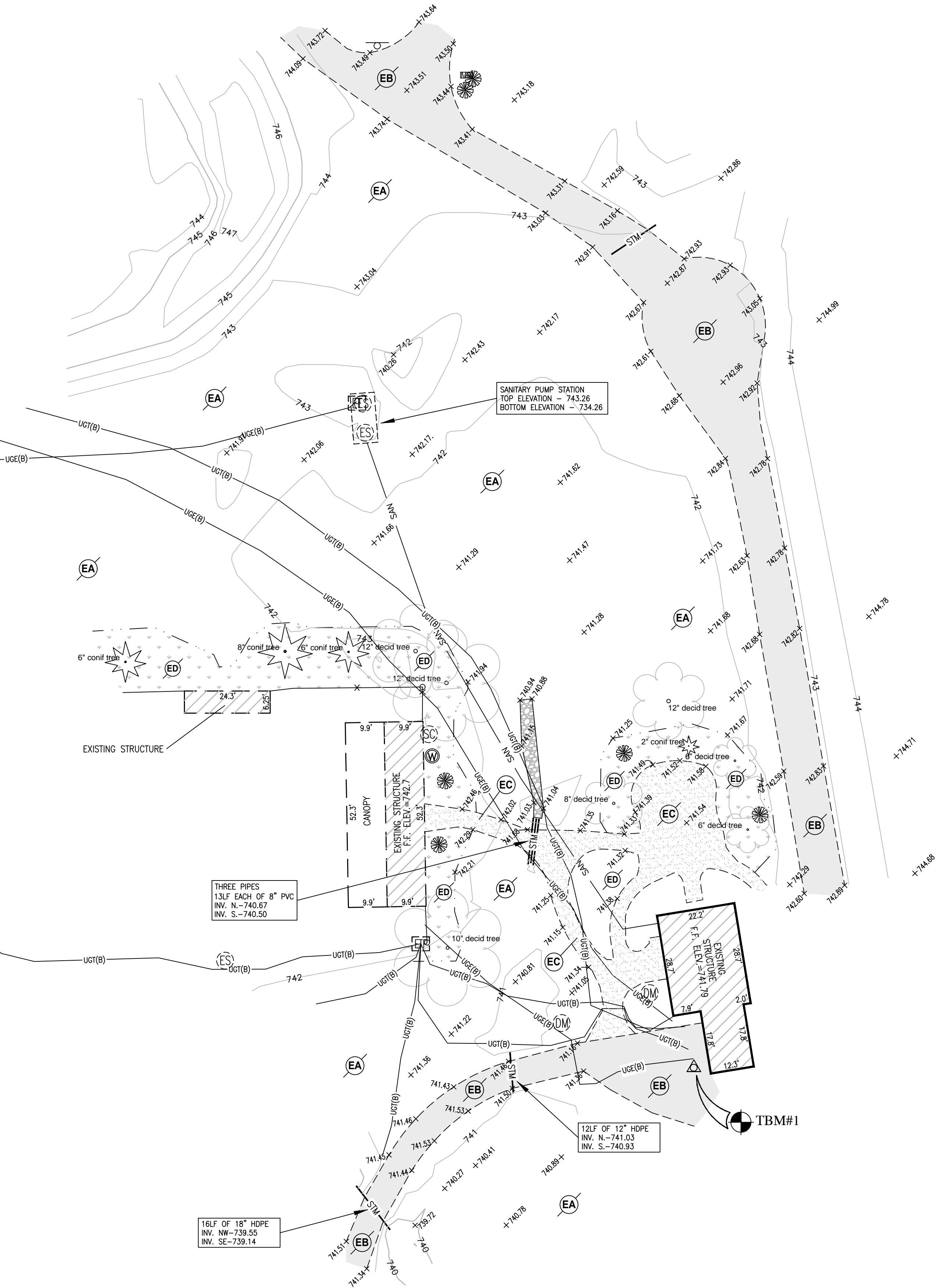
THE PROJECT ENGINEER/SURVEYOR IS RESPONSIBLE TO MAKE SURE THAT THE SITE DEVELOPMENT PLANS ARE DESIGNED PER THE REQUIREMENTS OF THE CITY OF FRANKLIN AND LOCAL UTILITY AND STATE REQUIREMENTS AND SPECIFICATIONS.



Plans Prepared By:



Engineering, Land Surveying
Consulting & Inspection
Donna Jo Smithers
Professional Land Surveyor
President / Owner
Venus L.L. Thome
Professional Engineer
Vice President
Martin K. Spees
Professional Engineer
Vice President Engineering
6125 South East Street, Suite "B"
Indianapolis, Indiana 46227-2147
Office - 317-884-3020
www.npesindy.com

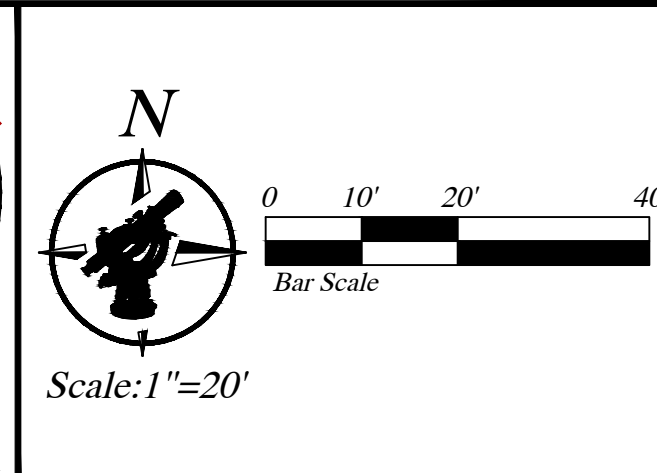
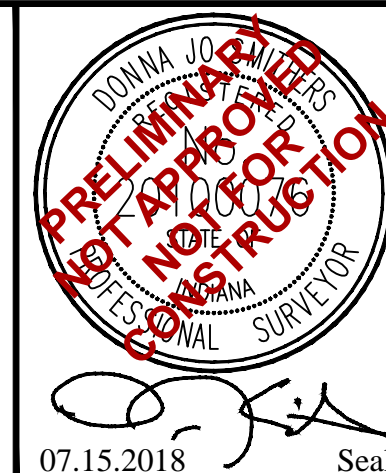
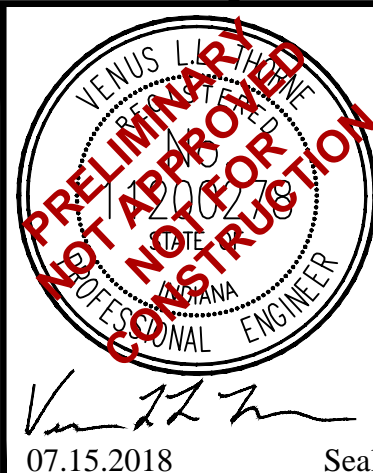


UTILITY STATEMENT:
INFORMATION REGARDING THE REPUTED PRESENCE, SIZE, CHARACTER AND LOCATION OF EXISTING UNDERGROUND UTILITIES AND STRUCTURES RELATED TO UNDERGROUND UTILITIES IS SHOWN HEREON. THERE IS NO CERTAINTY OF THE ACCURACY OF THIS INFORMATION AND IT SHALL BE CONSIDERED IN THAT LIGHT BY THOSE USING THIS DRAWING. THE LOCATION AND ARRANGEMENT OF UNDERGROUND UTILITIES AND STRUCTURES RELATED TO UNDERGROUND UTILITIES SHOWN HEREON MAY BE INACCURATE AND UTILITIES AND STRUCTURES RELATED TO UNDERGROUND UTILITIES NOT SHOWN MAY BE ENCOUNTERED. THE OWNER, HIS EMPLOYEES, HIS CONSULTANTS AND HIS CONTRACTORS SHALL HEREBY DISTINCTLY UNDERSTAND THAT THE SURVEYOR IS NOT RESPONSIBLE FOR THE CORRECTNESS OR SUFFICIENCY OF THIS INFORMATION REGARDING THE UNDERGROUND UTILITIES AND STRUCTURES RELATED TO UNDERGROUND UTILITIES SHOWN HEREON.

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6125 South East Street, Suite "B"
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www.apesindy.com



SCALE
1"=20'
DRAWN BY
CHECKED BY
DJS-VT

PREPARED FOR
Jim Morse
6846 Travis Road
Greenwood, Indiana
46143

PROJECT NAME
Indoor Golf Training Facility
The Legends Golf Course
Franklin, Johnson County, Indiana
SHEET TITLE
EXISTING SITE CONDITIONS

FINAL PLAN DATE
07.15.2018
NPES Job # 18-0094
Sheet **2**
of **4**

SITE MAP



FLOOD HAZARD STATEMENT

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. The surveyed parcel lies within Zone "X" as said land plots by scale on Community Panel No. 18081 C 0143 D of the Flood Insurance Rate Map for the City of Franklin, Johnson County, Indiana dated August 2, 2007.

LEGEND - EXISTING

	-EXISTING STORM (CURB) INLET
	-EXISTING STORM MANHOLE
	-EXISTING STORM SEWER
	-EXISTING SANITARY MANHOLE
	-EXISTING SANITARY LATERAL MARKER
	-EXISTING SANITARY MAIN
	-EXISTING FIRE HYDRANT
	-EXISTING WATER MAIN
	-EXISTING WATER VALVE
	-EXISTING LIGHT POLE
	-EXISTING ELECTRIC TRANSFORMER
	-EXISTING ELECTRIC LINE
	-EXISTING GAS LINE
	-EXISTING GAS VALVE
	-EXISTING GAS LINE MARKER
	-EXISTING TELEPHONE LINE
	-EXISTING TELEPHONE PEDESTAL
	-EXISTING TELEPHONE MANHOLE
	-EXISTING TELEPHONE SPLICE TUB
	-EXISTING FIBER OPTIC
	-EXISTING SIGN
	-EXISTING SPOT ELEVATIONS
	-EXISTING CONTOUR ELEVATION

GENERAL SITE NOTES

1. ALL WORK SHALL CONFORM TO STATE AND LOCAL REGULATIONS.
2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD AS SHOWN ON THIS PLAN PRIOR TO STARTING CONSTRUCTION. IF ANY DISCREPANCIES ARE FOUND IN THE PLANS FROM FIELD CONDITIONS, CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.
3. THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES TO LOCATE MAINS, CONDUITS, SERVICE LINES, ETC. IN THE AFFECTED CONSTRUCTION AREA EXISTING UTILITY STRUCTURES ARE SHOWN HERE IN ACCORDANCE WITH AVAILABLE INFORMATION. THE LOCATION AND PROTECTION OF UTILITY STRUCTURES, THEIR SUPPORT AND MAINTENANCE DURING CONSTRUCTION (IN COOPERATION WITH APPLICABLE UTILITY COMPANY) IS THE EXPRESSED RESPONSIBILITY OF THE CONTRACTOR.
4. VERIFY EXISTING STORM INVERT ELEVATIONS PRIOR TO STARTING NEW STORM SEWER CONNECTION.

SITE NOTES

EA	- EXISTING GRASS COVER
EB	- EXISTING BITUMINOUS PAVEMENT
EC	- EXISTING CONCRETE
ED	- EXISTING LANDSCAPE BED

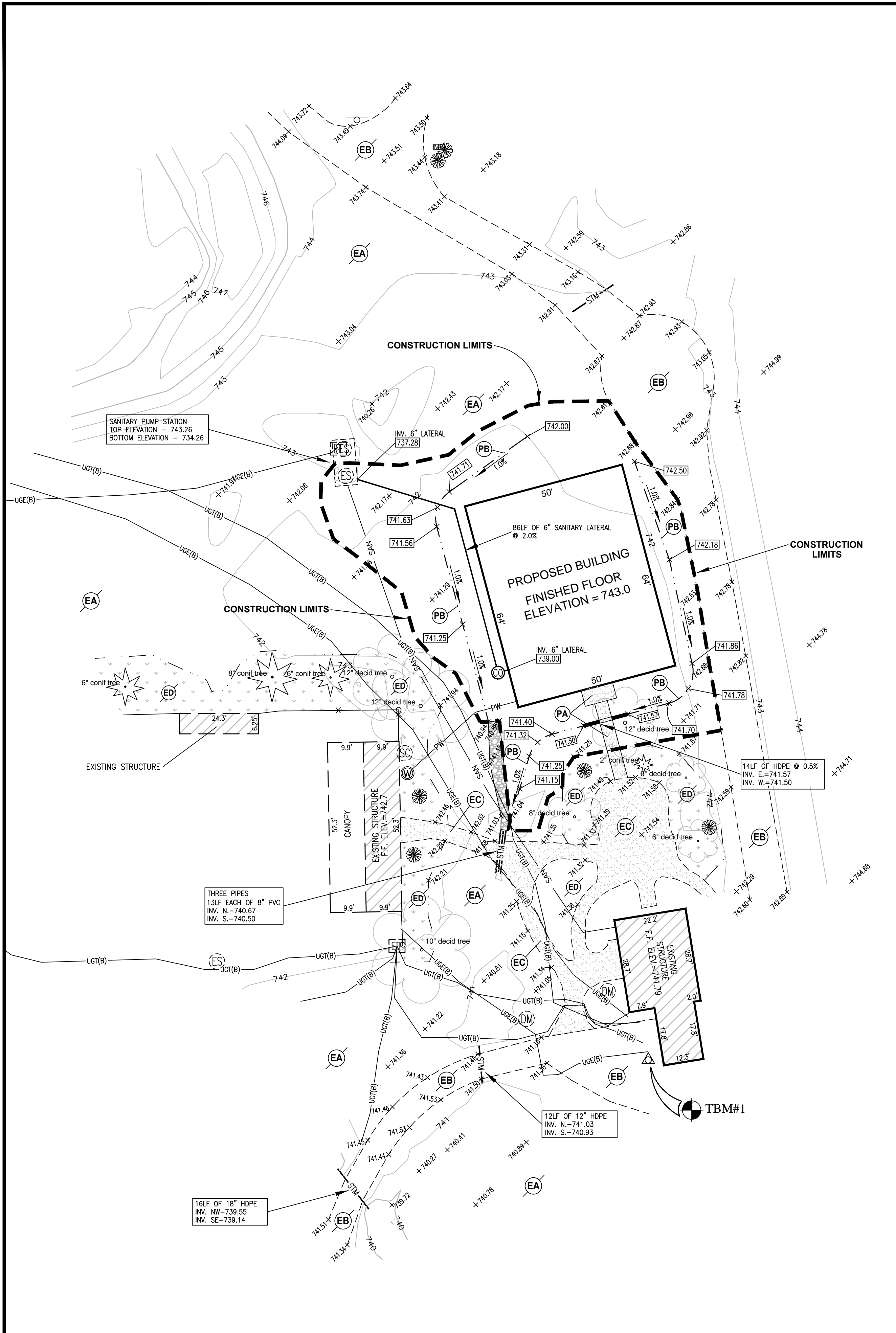


Call before you dig
Indiana811

THIS DRAWING IS NOT INTENDED
TO BE REPRESENTED AS A
RETRACEMENT OR ORIGINAL
BOUNDARY SURVEY.

SITE BENCHMARK: TBM#1

CUT SQUARE ON THE NORTHWEST CORNER OF CONCRETE SIDEWALK
AT THE SOUTHWEST CORNER OF FAMILY FUN CENTER BUILDING.
APPROXIMATELY 200' EAST OF THE NORTHEAST CORNER PARKING
LOT.
ELEVATION = 741.565 NAVD 88



- SITE NOTES**
- (EA) - EXISTING GRASS COVER
 - (EB) - EXISTING BITUMINOUS PAVEMENT
 - (EC) - EXISTING CONCRETE
 - (ED) - EXISTING LANDSCAPE BED
 - (PA) - PROPOSED CONCRETE
 - (PB) - PROPOSED SWALE

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Call before you dig
Indiana811

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- LEGEND - EXISTING**
- STM - EXISTING STORM MANHOLE
 - ES - EXISTING STORM SEWER
 - ES - EXISTING SANITARY MANHOLE
 - ES - EXISTING SANITARY CLEANOUT
 - SAN - EXISTING SANITARY MAIN
 - ET - EXISTING ELECTRIC TRANSFORMER
 - UGE (B) - EXISTING ELECTRIC LINE
 - UGT (B) - EXISTING TELEPHONE LINE
 - EP - EXISTING TELEPHONE PEDESTAL
 - O - EXISTING SIGN
 - 000.0 - EXISTING SPOT ELEVATIONS
 - 000 - EXISTING CONTOUR ELEVATION

- LEGEND - PROPOSED**
- PS - PROPOSED STORM SEWER
 - PCS - PROPOSED SANITARY CLEANOUT
 - PSL - PROPOSED SANITARY LATERAL
 - PSW - PROPOSED SWALE
 - PSFA - PROPOSED FLOW ARROW
 - PWL - PROPOSED WATER LINE
 - PG - PROPOSED GRADE

- GENERAL SITE NOTES**
- ALL WORK SHALL CONFORM TO STATE AND LOCAL REGULATIONS.
 - THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD AS SHOWN ON THIS PLAN PRIOR TO STARTING CONSTRUCTION. IF ANY DISCREPANCIES ARE FOUND IN THE PLANS FROM FIELD CONDITIONS, CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.
 - REFER TO THE INDIANA DEPARTMENT OF TRANSPORTATION (INDOT) STANDARD SPECIFICATIONS, 1995 EDITION, FOR BASIC MATERIALS AND CONSTRUCTION METHODS.
 - FILL MATERIAL SHALL CONSIST OF EARTH OBTAINED FROM CUT AREAS, BORROW PITS OR OTHER APPROVED SOURCES. EARTH SHALL BE FREE FROM ORGANIC MATTER AND OTHER DELETERIOUS SUBSTANCES AND LARGE ROCKS. THE FILL MATERIAL SHALL BE PLACED IN LAYERS NOT TO EXCEED SIX INCHES FOLLOWING COMPACTION, PROPER MOISTURE CONTENT OF FILL MATERIAL WILL BE SUCH TO ACHIEVE SPECIFIED COMPACTION DENSITY. ALL FILL BENEATH PAVED AREAS, FLOOR SLABS AND FUTURE BUILDINGS SHALL BE COMPACTED TO AT LEAST 95% OF THE MAXIMUM DRY DENSITY PER ASTM 0-157. FIELD COMPACTION TEST SHALL BE RUN ON EACH LIFT, IN FILL SECTIONS, AND THE REQUIRED COMPACTION ON EACH LIFT SHALL BE IN ACCORDANCE WITH INDOT SECTION 211.
 - THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES TO LOCATE MAINS, CONDUITS, SERVICE LINES, ETC. IN THE AFFECTED CONSTRUCTION AREA EXISTING UTILITY STRUCTURES ARE SHOWN HERE IN ACCORDANCE WITH AVAILABLE INFORMATION. THE LOCATION AND PROTECTION OF UTILITY STRUCTURES, THEIR SUPPORT AND MAINTENANCE DURING CONSTRUCTION (IN COOPERATION WITH APPLICABLE UTILITY COMPANY) IS THE EXPRESSED RESPONSIBILITY OF THE CONTRACTOR.
 - ALL SPOT ELEVATIONS ARE TO FINISHED GRADE.
 - ALL GRADES AT BOUNDARY SHALL MEET EXISTING.
 - ALL CONSTRUCTION ON THIS SITE TO BE PERFORMED IN COMPLIANCE WITH O.S.H.A. STANDARDS FOR WORKER SAFETY.
 - PROVIDE POSITIVE DRAINAGE WITHOUT PONDING IN ALL AREAS AFTER INSTALLATION. CONTRACTOR TO TEST FOR AND CORRECT ANY PONDING CONDITIONS. ANY AREAS THAT HOLD WATER MORE THAN 1/8" DEEP SHALL BE CUT OUT AND CORRECTED TO POSITIVE DRAINAGE AT NO COST TO THE OWNER/ DEVELOPER/ OR ENGINEER.
 - VERIFY EXISTING STORM INVERT ELEVATIONS PRIOR TO STARTING NEW STORM SEWER CONNECTION.
 - THE CONTRACTOR IS RESPONSIBLE TO CALCULATE THEIR OWN DIRT QUANTITIES TO DETERMINE A SITE BALANCE. THE CONTRACTOR IS ALSO RESPONSIBLE TO CHECK EXISTING GRADES AGAINST PROPOSED GRADES TO DETERMINE AMOUNT OF DIRT TO BE MOVED ON THE SITE. ONCE THE CONTRACTOR MOVES ANY DIRT ON SITE THEY ARE RESPONSIBLE FOR ALL DIRT TO BE MOVED AT NO ADDITIONAL COST TO THE DEVELOPER.
 - ALL CONTRACTORS SHALL BE RESPONSIBLE FOR OBTAINING THE MOST UPDATED SET OF CONSTRUCTION PLANS PRIOR TO COMMENCING CONSTRUCTION.
 - ALL SANITARY SEWER LATERALS SHOWN ARE TO BE 6" PVC SDR-35 NORMAL LATERAL SLOPE IS 1/4" PER FOOT MINIMUM LATERAL SLOPE IS 1/8" PER FOOT MINIMUM COVER IS 4 FEET OVER THE PIPE
 - CONTRACTOR SHALL RESURFACE AND/OR RECONSTRUCT BACK TO ITS ORIGINAL CONDITION, ANY AREAS DISTURBED BY CONSTRUCTION ACTIVITY AS WELL AS TRAFFIC FROM SUPPLIERS AND SUBCONTRACTORS AFTER CONSTRUCTION WORK IS COMPLETE.

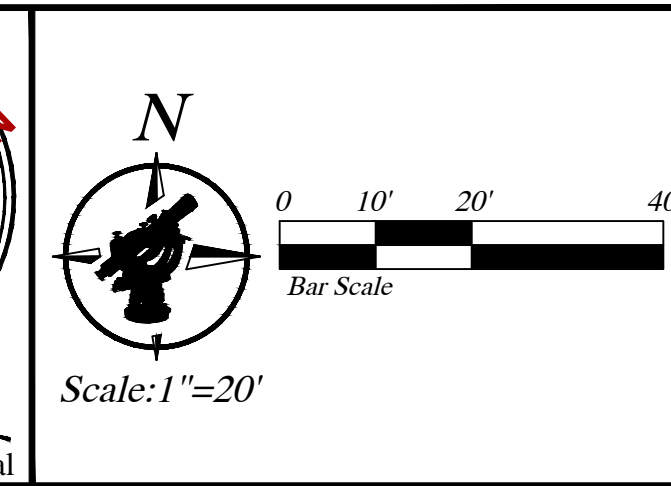
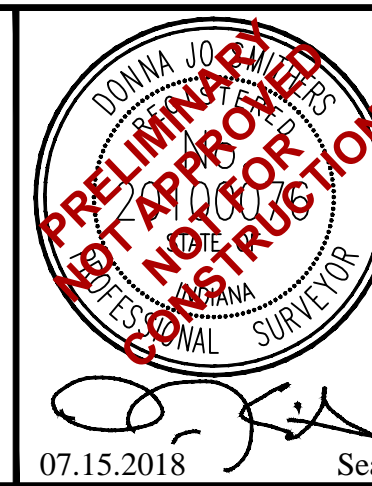
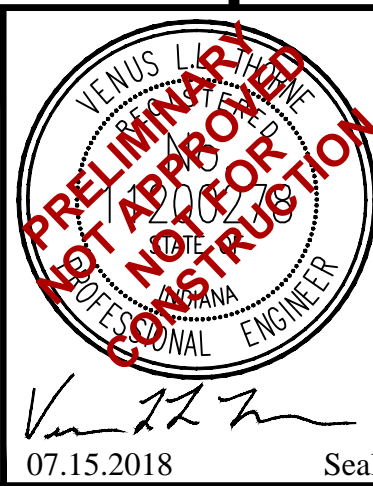
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SCALE
1"=20'
DRAWN BY
CHECKED BY
DJS-VT

PREPARED FOR
Jim Morse
6846 Travis Road
Greenwood, Indiana
46143

PROJECT NAME
Indoor Golf Training Facility
The Legends Golf Course
Franklin, Johnson County, Indiana
SHEET TITLE
DEVELOPMENT PLAN

FINAL PLAN DATE
07.15.2018
NPES Job # 18-0094
Sheet 3
of 4

- A. NOTICES AND PERMITS**
- The contractor shall be responsible for obtaining or verifying that all permits and approvals are obtained from the respective town, county and state agencies prior to starting construction.
 - It shall be the Contractor's responsibility to determine the exact location of all existing utilities in the vicinity of the construction area prior to starting construction.
 - It shall be the Contractor's responsibility for notification and coordination of all construction with the respective utility companies.
 - It shall be the responsibility of the Developer and Contractor to maintain quality control throughout the project; failure to do so may result in removal and replacement of the defective work. It is recommended that the Developer have a qualified inspector on the job site at all times during construction.
 - It is essential that the work to be done in conjunction with this project shall be installed according to these specifications. The Engineer will be required to certify to certain portions of this project upon completion. Therefore, it is necessary to obtain approval and acceptance by the City of Franklin and Johnson County that construction was done in compliance with these plans and specifications.

- B. CLEARING AND GRUBBING**
- Clearing and grubbing shall consist of cutting, removal and satisfactory disposal of all trees, down timber, brush, projecting roots, stumps, rubbish, boulders, broken concrete, fencing (as designated) and other material on the project site and within the boundary as shown on the Construction Documents and/or as designated by "Construction Limits".
 - Special care shall be taken to insure that the trees to be left remaining in the project area shall not receive limb, bark or root injuries. When such injuries occur, all rough edges of scarred areas shall be removed in accordance with accepted horticultural practice and the scars coated thoroughly with an asphaltum base tree paint.

- C. STRIPPING OF TOPSOIL**
- The Contractor shall verify that all topsoil has been removed in the areas to be occupied by road, walks and designated building areas. Topsoil shall be removed to a depth of six (6) inches or deeper, if necessary, to remove vegetable matter where required.
 - Topsoil shall be kept separated from suitable fill materials and shall not be used as fill under pavement and/or building areas.
 - Topsoil shall be stored at a location where it does not interfere with construction operations. Excess topsoil shall be used for finish grading on site of drainage swales, yards of new residences, buffer strips, etc.
 - Topsoil shall be reasonably free from subsoil debris and stones.

- D. GRADING**
- The Contractor shall perform all grading operations to bring subgrades, after final compaction, to the required grades and sections for site improvement.
 - Subgrade shall be prefinished with suitable equipment and all spongy and otherwise unsuitable material shall be removed and replaced with suitable material.
 - Subgrade shall be prepared in compliance with most current I.N.D.O.T. standard specifications and as per the City of Franklin Ordinance.
 - ~~See PAVEMENT CONSTRUCTION.~~
 - All fill material shall be formed from soil free of deleterious material. Prior to placement of fill a sample of the proposed fill material should be submitted to the Soils Engineer for his approval.
 - All fill material in areas outside building and pavement areas shall be compacted lightly and protected from erosion by one or more of the methods of Item G. Areas where building and pavement construction is feasible shall not have unsuitable material placed in that location and fill shall be compacted to 95% Standard Proctor or better. These areas shall be determined by the Developer's representative.

- E. EROSION PROTECTION DURING CONSTRUCTION**
- The Contractor shall provide adequate erosion protection measure during construction such as, but not limited to:
 - Siltation basins
 - Silt traps
 - Straw bale dams
 - Soil cement
 - Mulch and seeding
 - Soil stabilization fabric
 - Jute netting
 - Details and placement specifications for the above items are available on request from the Engineer.
 - See "Erosion Control Plan" and Details for more erosion control measures.
 - All erosion control practices shall be in accordance with the IDNR INDIANA STORMWATER QUALITY MANUAL

- F. STORM SEWER CONNECTION**
- Storm sewer structures shall comply with current specifications of the City of Franklin, County and all agencies in respect to design and quality of construction.
 - All storm sewer construction inside public right-of-way, either existing or to be dedicated, shall be in accordance with the most current I.N.D.O.T. Specifications.
 - Where reinforced concrete pipe is shown on the construction plans, it shall be in accordance with A.S.T.M. C-76 Class III Wall "B" unless otherwise specified on the plans.
 - Manholes, catchbasins and inlets will be precast structures. Precast concrete and steel for manholes and inlets shall be in accordance with A.S.T.M. C-478.
 - Castings shall be as shown on the detail sheet(s) for manufacturer, type and model number.

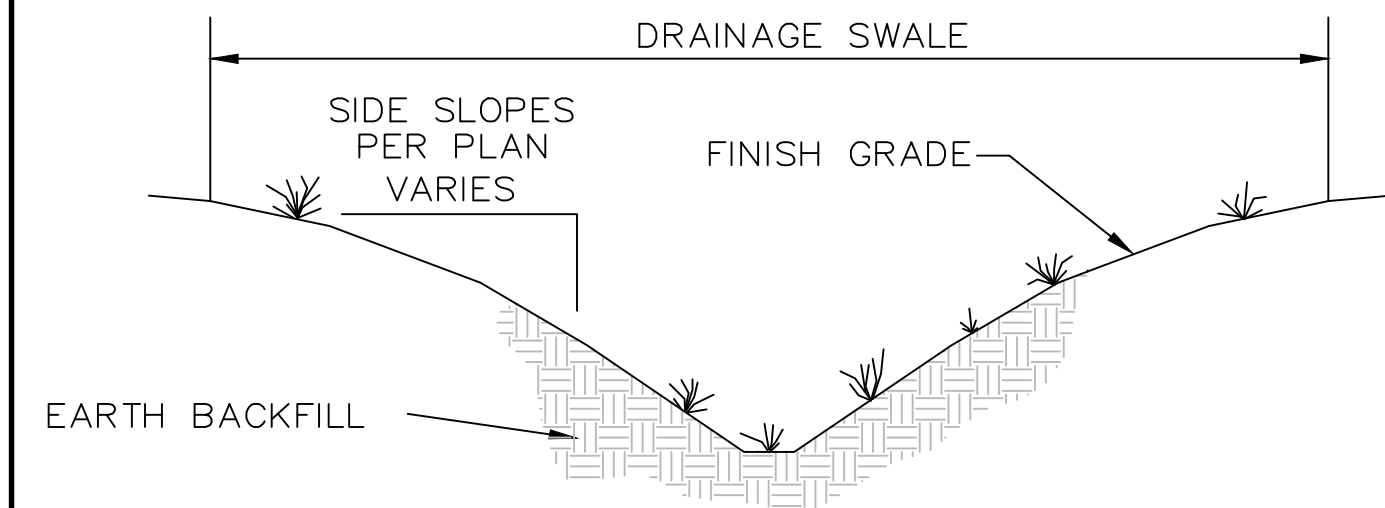
- G. UTILITIES**
- WATER SERVICE:**
 - The contractor shall coordinate all waterline construction with the utility, City of Franklin. The contractor shall install only the water mains, valves, fire hydrants and other mainline appurtenances. The utility shall install all service crossings, corporation stops, meter pits and meters.
 - All PVC pipe used on this project shall meet ASTM-22241 Standard and bear the National Sanitation Foundation seal of approval.
 - Solvent-weld joint PVC pipe is not to be used. Only "slip on" gasket joints are acceptable.
 - See Sanitary Sewers for vertical and horizontal separations (Note F-8-a and b).
 - The water mains are to be installed at a minimum 54" of cover to prevent freezing. This includes casing pipe to carry mains under streets.
 - The Contractor shall be responsible for leakage tests on the water mains carried out following procedures outlined by applicable American Water Works Association Standards and meet the leakage requirements designated therein. Certificate copies of the test results shall be submitted to the utility engineer.
 - The Contractor shall be responsible for disinfection of the new pipe following procedures outlined by applicable American Water Works Association Standards and produce bacteriologically satisfactory water in two successive sets of samples collected at 24 hour intervals before the new construction is released for use.
 - All water lines from the City of Franklin main to the building shall be either cast iron, ductile iron or copper and shall be installed in accordance with the City of Franklin specifications.
 - Granular backfill shall be required for all utility crossings under and within 5' of pavement area. (See Section J).
 - All water lines shall be in accordance with the specifications of the City of Franklin and the Indiana State Board of Health.
 - A continuous #12 wire shall be placed in trench with PVC water main at least 18" below grade.
- 2. ELECTRIC, TELEPHONE AND TELEPHONE:**
- Conduit shall be required for all crossings under pavement areas.
 - Granular backfill shall be required for all crossings under pavement areas.
 - Concrete pads for electric and telephone transformers shall be set at the approximate ground grade as shown on the Site Development Grading Plans for the respective locations.
 - The Contractor shall be responsible for coordinating with each utility their installation of any lines or conduits or any other equipment required in the project. The utilities shall be notified prior to the placement of pavement a minimum of 48 hours so that they might install any crossings.

- H. GRANULAR BACKFILL**
- SHALL BE IN ACCORDANCE WITH I.N.D.O.T. STANDARD SPECIFICATIONS, 1999 EDITION, AS REVISED. The material shall be Compacted aggregate No. 53 under or within 5 feet of all pavement per the City of Franklin.

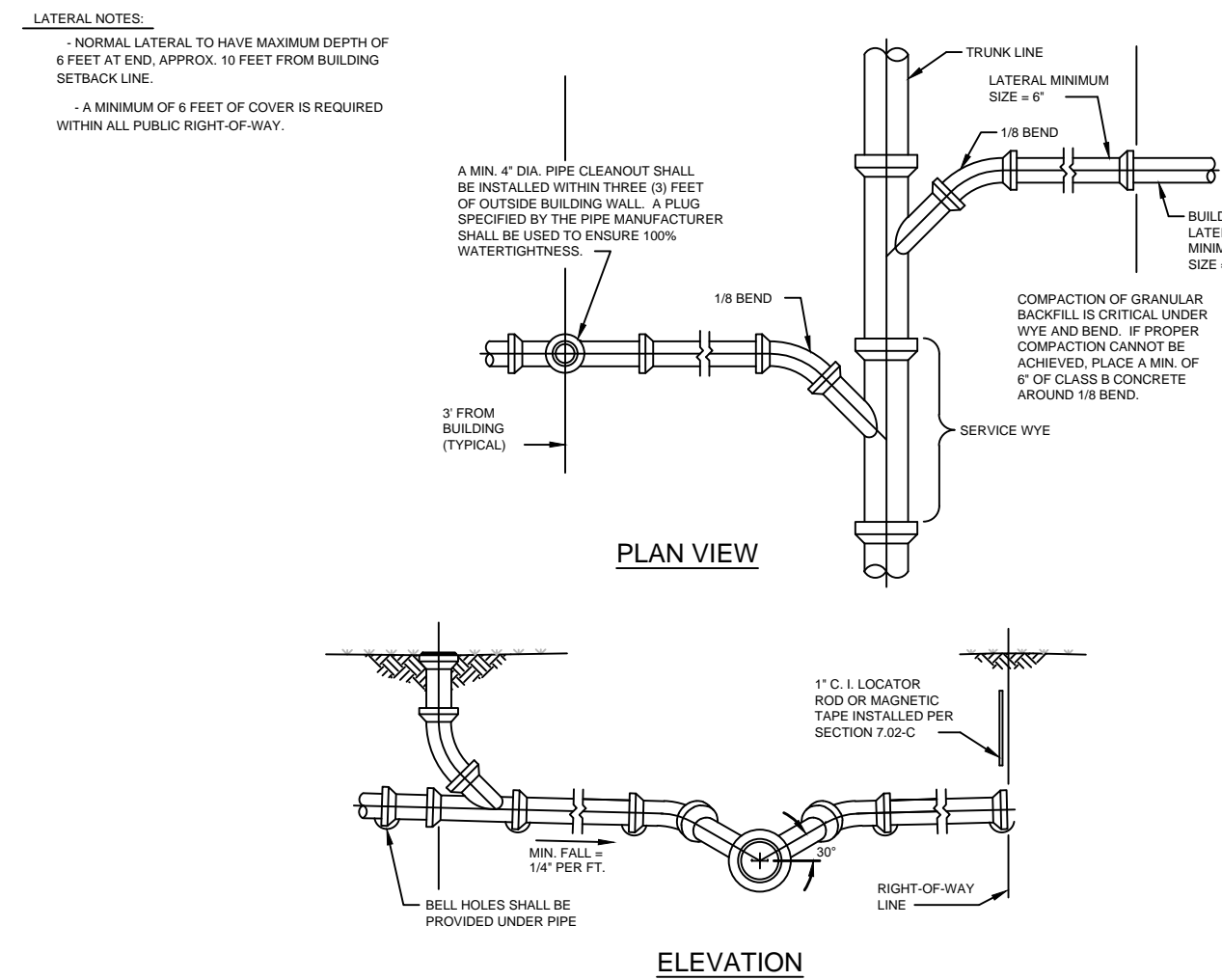
- I. Concrete Curb and Walks**
- See detail sheet for type and details.
 - Concrete shall be ready mixed portland cement conforming to a.s.i.m. c-150 and water. aggregate shall conform to a.s.i.m. c-33. concrete shall be 6 bag class "a" with compressive strength of concrete at 28 days being minimum 4000 p.s.i. where required.
 - Reinforcement**
 - Welded wire fabric shall conform to a.s.i.m. a-185
 - Reinforcing steel shall conform to a.s.i.m. a-615
 - Application**
 - Place concrete only on a moist, compacted subgrade or loose material. loose material, place no concrete on muddy or frozen subgrade.
 - Concrete shall be deposited so as to require as little rehandling as practicable. when concrete is to be placed at an atmospheric temperature of 35 degrees f or less I.N.D.O.T. Specifications, 1999 edition as revised shall apply.
 - Except as otherwise specified, cure all concrete by one of the methods described in I.N.D.O.T. Specifications, 1999 editions, as revised.
 - Breakdown rolling:** accomplish breakdown or initial rolling immediately following rolling of joints and outside edge. check surface after breakdown rolling, and repair displaced areas by loosening and filling, if required, with hot material.
 - Second rolling:** follow breakdown rolling as soon as possible, which mixture is hot. continue second rolling until mixture has been thoroughly compacted.
 - Finish rolling:** perform finish rolling while mixture is still be warm enough to work. use of roller marks. continue rolling until roller marks are eliminated and course has attained maximum density.
 - Patching:** remove and replace paving areas mixed with foreign materials and defective areas. cut out such areas and fill with fresh, hot bituminous aggregate mix. compact by rolling to maximum surface density and smoothness.
 - Protection:** after final rolling, do not permit vehicular traffic on pavement until it has cooled and hardened.
 - Erect barricades** to protect paving from traffic until mixture has cooled enough not to become marked.
- F. TRAFFIC AND LANE MARKINGS**
- Cleaning:** sweep and clean surface to eliminate loose material and dust.
 - Stripping:** use chlorinated rubber base traffic lane-marking paint, factory-mixed, quick-drying, and non-bleeding.
color: yellow.
 - Do not apply traffic and lane marking paint until layout and placement has been verified with architect/engineer.
 - Apply paint with mechanical equipment to produce uniform straight edges. apply in two coats at manufacturer's recommended rates.

- G. FIELD QUALITY CONTROL**
- Testing and Inspection Service:**
 - Owner shall employ a testing laboratory to perform pavement testing and inspection service for quality control during paving operations.
 - Testing service shall have representative present to observe and perform tests at all times paving work is in progress.
 - General:** testing service representative shall take a minimum of two samples per lift of bituminous aggregate mix each day before paving operation. laboratory test shall be performed on these samples to determine aggregate gradation and asphalt content.
 - Test in-place compacted bituminous aggregate mix courses for compliance with requirements for thickness, density and air voids and surface smoothness. repair or remove and replace unacceptable paving as directed by engineer.
 - Thickness:** in-place compacted thickness will not be acceptable if exceeding following allowable variation from required thickness:
aggregate base course: 1/2", plus or minus.
base course: 1/2", plus or minus.
binder course: 1/4", plus or minus.
surface course: 1/4", plus or minus.
 - A minimum of two pavement cores per compacted lift shall be taken. cores are to be taken at locations and at times of day as directed by the testing service. the following tests shall be performed by the testing service, on each pavement core:
PAVEMENT THICKNESS
DENSITY
AIR VOIDS
 - Testing service shall submit certified results to the owner and architect/engineer within 72 hours after tests are made, with their comments and recommendations for action.
 - Pavement which fails to comply with approved job mix formula shall be replaced as directed by the architect/engineer.
 - Surface smoothness:** test finished surface for smoothness, using 10' straightedge applied

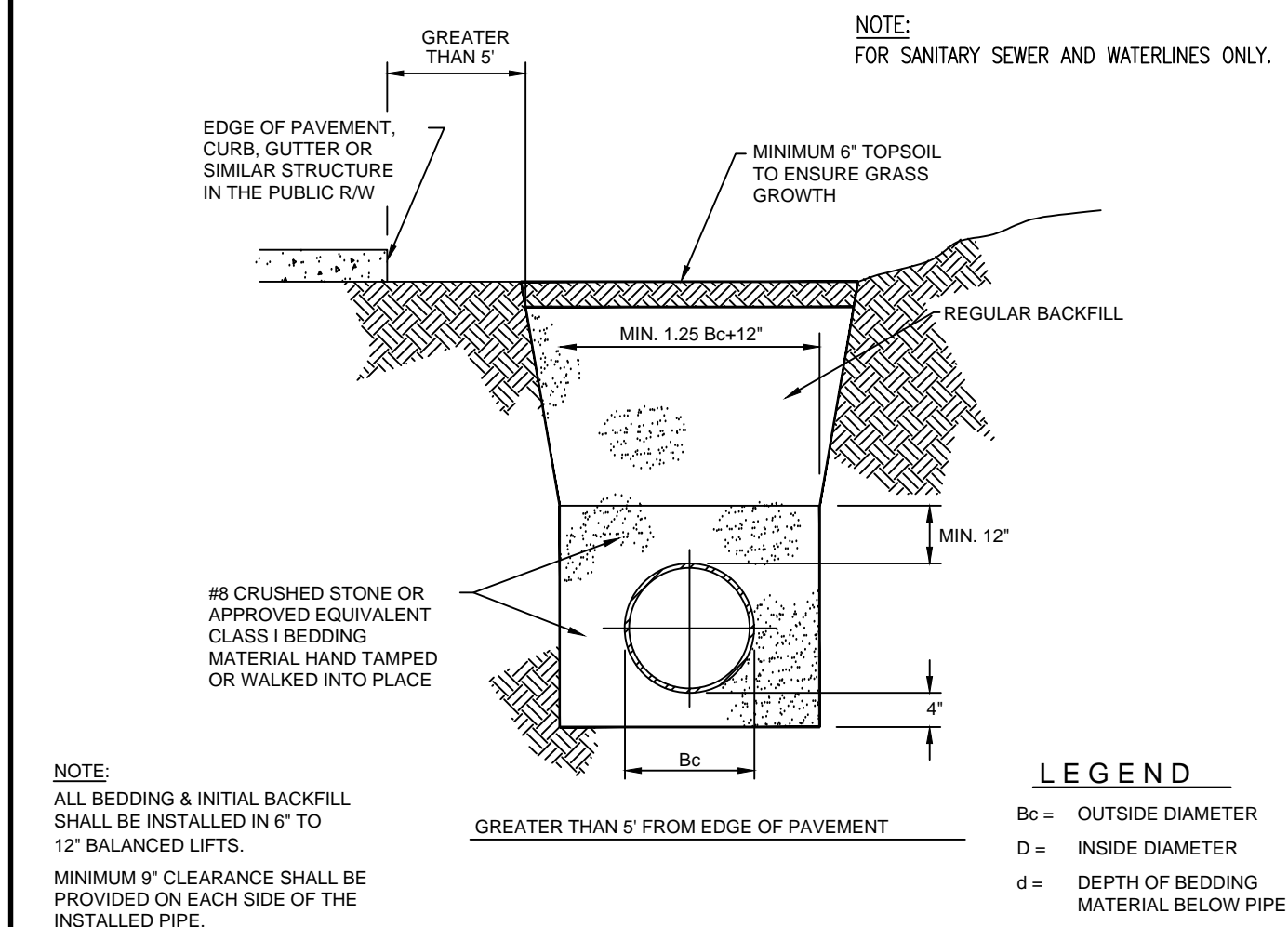
- J. Finish Grading and Seeding**
- Over the approved rough grade (see section e), spread 4" minimum of topsoil or approved fill to such depth as will finish to the required finish grades and contours after rolling and natural settlement. new grades shall slope uniformly between levels established on the plans and intersections of new grades with existing grades shall be uniform and smooth.
 - Fertilizer and agricultural limestone shall be spread uniformly over the area to be seeded. they shall be mixed into the top 2" of soil with a disk harrow, rotary tiller or other approved equipment. fertilizer shall be spread at the rate of 800 pounds per acre and agricultural limestone at the rate of 1/2 ton per acre unless otherwise specified.
 - Temporary seeding-** the areas where stripping, cuts or fills have been graded shall be seeded for silt and erosion protection with one of the following methods:
 - Early spring mix: 100% oats
seeding rate: 50 lbs./acre
 - Spring or late fall mix: 100% annual rye
seeding rate: 50 lbs./acre
 - Fall mix: 100% perennial rye
seeding rate 50 lbs./acre
straw or mulch as approved by the engineer shall be applied at a rate of 2 tons per acre.
 - Mulch-seeding:** mulch-seeding shall be as per I.D.O.H specifications, section 621, dated 1988. fertilizer shall be 12-12-12 applied at the rate of 400 pounds per acre. seed mixture shall be 60 pounds per acre of perennial rye grass and 60 pounds per acre of kentucky 31 fescue or alta fescue.



TYPICAL SWALE CROSS-SECTION



SERVICE CONNECTION FOR SHALLOW SEWERS (LESS THAN 15' DEEP)



PLASTIC PIPE (PVC & HDPE) TRENCH DETAIL GREATER THAN 5' OF EDGE OF PAVEMENT

UTILITY STATEMENT:
INFORMATION REGARDING THE REPUTED PRESENCE, SIZE, CHARACTER AND LOCATION OF EXISTING UNDERGROUND UTILITIES AND STRUCTURES RELATED TO UNDERGROUND UTILITIES IS SHOWN HEREON. THERE IS NO CERTAINTY OF THE ACCURACY OF THIS INFORMATION AND IT SHALL BE CONSIDERED IN THAT LIGHT BY THOSE USING THIS DRAWING. THE LOCATION AND ARRANGEMENT OF UNDERGROUND UTILITIES AND STRUCTURES RELATED TO UNDERGROUND UTILITIES SHOWN HEREON MAY BE INACCURATE AND UTILITIES AND STRUCTURES RELATED TO UNDERGROUND UTILITIES NOT SHOWN MAY BE ENCOUNTERED. THE OWNER, HIS EMPLOYEES, HIS CONSULTANTS AND HIS CONTRACTORS SHALL HEREBY DISTINCTLY UNDERSTAND THAT THE SURVEYOR IS NOT RESPONSIBLE FOR THE CORRECTNESS OR SUFFICIENCY OF THIS INFORMATION REGARDING THE UNDERGROUND UTILITIES AND STRUCTURES RELATED TO UNDERGROUND UTILITIES SHOWN HEREON.

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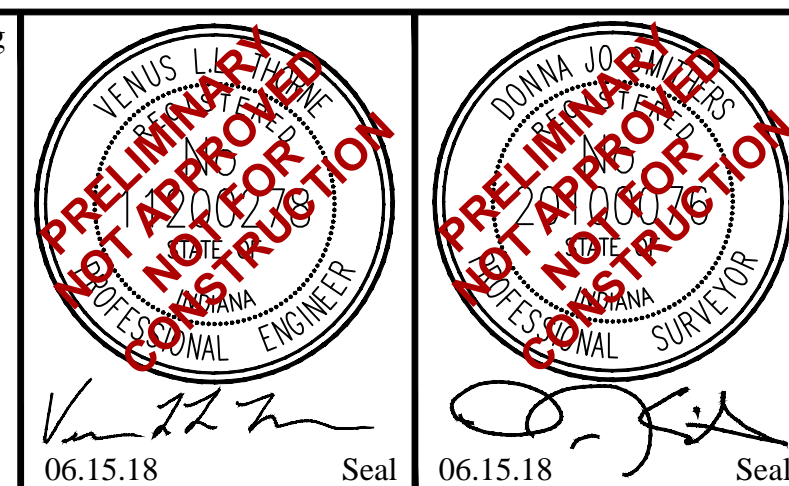
Engineering, Land Surveying
Consulting & Inspection

Donna Jo Smithers
Professional Land Surveyor
President / Owner

Venus L.L. Thorne
Professional Engineer
Vice President

Martin K. Spees
Professional Engineer
Vice President Engineering

6125 South East Street, Suite "B"
Indianapolis, Indiana 46227-2147
Office - 317-884-3020
www.npesindy.com



SCALE
N/A
DRAWN BY
CHECKED BY
DJS

PREPARED FOR

Jim Morse

6846 Travis Road
Greenwood, Indiana
46143

PROJECT NAME

Indoor Golf Training Facility

The Legends Golf Course

Franklin, Johnson County, Indiana

SHEET TITLE

SPECIFICATIONS / DETAILS

PLAN DATE

07.15.2018

NPES Job # 18-0094

Sheet 4

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