INDIANA STATE BOARD OF EDUCATION

LOCAL PATHWAY APPLICATION:
LOCALLY CREATED PATHWAYS and LOCAL CTE CONCENTRATORS

Below is the information that schools and districts must provide to the State Board of Education (SBOE) to have a Locally Created Pathway (LCP) or Local CTE Concentrator considered. Applications for both local pathways will be reviewed on a rolling basis. The deadline to submit applications for the ***2018-19 school year*** *is October 1, 2018. This application and accompanying rubric may change over time.*

Directions: Schools and/or districts must submit the application containing the information required below. The District Superintendent and local governing board must sign the application. **All** of the questions below must be answered completely, unless the question is labeled as optional.

Please send your completed application, including the letter of support (or other documentation) from your collaborator and any additional supporting documents, to Alicia Kielmovitch.

NEXT STEPS

1. Upon submission, a Review Team consisting of SBOE staff, and staff from the Commission of Higher Education (CHE), Department of Education (DOE), and Department of Workforce Development (DWD) will conduct an Initial Review.

2. The Initial Review will take at least thirty (30) business days from the receipt of the application. During the Initial Review, the Review Team may request additional information and/or ask clarifying or follow-up questions regarding the application as part of the due diligence process. All responses must be provided within ten (10) business days. In addition, requests for updates and/or changes to the application may be made to strengthen the local pathway.

3. Upon the completion of the Initial Review, SBOE staff will draft a final recommendation for SBOE consideration. The recommendation will be provide to the applicant and SBOE at least one (1) week before the next scheduled Board meeting, pursuant to SBOE Operating Procedures.

4. At the Board meeting, SBOE will approve, table, or reject the local pathway.
   a. *Approved Local Pathways:* The local pathway joins state's "Graduation Pathways Library" and all Indiana schools may start utilizing the local pathway immediately.
      - If adopted by other districts, the local pathway's model must be the same, though the components (e.g., collaborator or courses) may change.
      - If an adopted pathway differs substantively (e.g., competency or outcomes), the school/district must resubmit the new local pathway for approval using the application below.
      - Schools and districts wishing to adopt an approved local pathway will need to notify the SBOE by filling out the Adopting an Approved Locally Created Pathway form.
      - Schools/districts will present annual reports of local pathway's effectiveness to the Board.

   b. *Tabled/Rejected local pathways*: SBOE (in addition to DOE, CHE, and DWD) staff will work with applicant over the next two (2) months to address outstanding issues and a new recommendation will be submitted to the SBOE.

INDIANA STATE BOARD OF EDUCATION

SCHOOL INFORMATION

School Corporation Name and Number:

Wa-Nee Community Schools (2285)

Information on School/Corporation Demographics:

School type:

- ☐ Urban
- ☐ Suburban
- ☑ Rural
- ☐ All of the above

Total high school enrollment: 874

Anticipated enrollment in Local Pathway: 30

Point of Contact for Application and Information:

Name: Scot Croner

Position: Superintendent

Number: 574-773-3131

Email: scroner@wanee.org

Contact Info for District Superintendent:

Name: Scot Croner

Number: 574-773-3131

Email: scroner@wanee.org

Signature of District Superintendent:

Signature of Local Governing Board Representative:

Type of Local Pathway:

- ☑ Locally Created Pathway
- ☐ Local CTE Concentrator

Title of the Local Pathway:

INDIANA STATE BOARD OF EDUCATION

Recreation Vehicle (RV) Construction

CRITERIA FOR LOCALLY CREATED PATHWAY

1) **Criterion 1: Collaboration**: Both the LCPs and Local CTE Concentrators must be developed in collaboration (or partnership) with business & industry, postsecondary education & training providers, and/or community organizations. Additional partners may include other schools/districts, career and technical education centers, and other local partners (e.g., Workforce Investment Boards, Chambers of Commerce, Economic Development Boards, etc.).

   Local CTE Concentrator Pathways **must** align to regional economic needs and high wage and/or high demand data. Data may come from DWD, CHE, INDemand Jobs, Hoosiers by the Numbers, Burning Glass, local economic development boards, or other sources. Those data must be included with the submission of the application. It is recommended that Local CTE Concentrators are developed with local CTE Centers and include a letter of support from the Director.

   When possible, the LCP should align to regional economic needs and high wage and/or high demand data.

   a. Who is the collaborator for this local pathway? (Application **must** include at least one external partner).
      - Institution of higher education or postsecondary training provider:
        Ivy Tech Community College and Vincennes University
      - Industry/Sector Partnership/Business:
        THOR Industries (see attached letter of support)
      - Community Organization:
        Horizon Education Alliance (see attached letter of support)

   b. Are there any additional collaborators? (Optional.)
      - Schools/districts:
        Wa-Nee Community Schools
      - CTE Center:
        Elkhart Area Career Center
      - Community Partner:
        Horizon Education Alliance

      Point of contact and contact information for collaborator(s):

      Ken Julian (574-361-2529, kjulian@thorindustries.com); Rick Schutt (574-361-2529, rschutt@thorindustries.com); David Benak (574-262-5670, dbenak@elkhart.k12.in.us), Brian Wiebe (574-849-0492, bwiebe@heaindiana.org)

   c. Describe how the local pathway was developed with the collaborator. (Application **must** include letter(s) of support from partner(s) or other documents demonstrating collaboration in application submission.)

During the 2017-18 school year, several meetings occured between WCS administration, THOR Industries executives, and the Horizon Education Alliance to discuss the current shortfall within our local RV Manufacturing labor pool. From our meetings it was determined that NorthWood High School would partner with THOR Industries to develop an RV Construction pathway/certication program. In-person, follow up meetings occured on 11/13/17, 1/25/18, 2/20/18, and 5/10/18. These meetings included plant visitations with THOR training personnel and NWHS teachers to identify skills necessary for successful employment, develop curriculum, and create assessments to certify proficiency.

d. Describe the collaborator's role in the local pathway.

Following meetings with THOR Industry personnel, WCS administration met with Elkhart Area Career Center administration to discuss the skills that will be taught through the locally developed pathway and determine the CTE courses that best align with THOR Industries needs. Based upon the skills identified in the attached pathway, EACC administration recommended (5592) Building and Facility Management I and (4830) Construction Trades: Electrical I as the Indiana State Approved courses that best aligned with our curriculum.

e. **For Local CTE Concentrators**: Describe how the proposed local pathway is aligned to regional economic needs and high wage and/or high demand data.

For LCPs: If applicable, describe how the proposed LCP is aligned to regional economic needs and high wage and/or high demand data.

Regional economic needs and high wage and/or high demand data may include: local current employment (number of jobs opened and/or filled), local occupational outlook (projected openings), or local asset mapping. Cite or include related data or resources in application submission.

Through discussions with Rick Schutt (Director of Community Engagement, THOR Industries) and Ken Julian (Senior Vice President, THOR Industries) there are 100-200 current openings in THOR Industries. THOR projects that they will have 500-600 job openings over the next 5 years. Probationary pay for these positions range from $16.00 to $36.00 an hour. Current employees that maintain a consistent work record eventually have the opportunity to earn up to $45.00 an hour. NWHS students that complete the RV Construction Pathway will be immediately elible for $16.00 - $36.00 an hour. However, within a short two-week period our students will move to tier 2 pay of $20.00 - $45.00 an hour (full rate).

2) **Criterion 2: Competency**: LCPs must provide students with recognized postsecondary knowledge and skills (e.g., credits, credentials) that prepare students for meaningful postsecondary education/training and/or employment opportunities. Local CTE Concentrator Pathways **must** lead to an industry-recognized

credential, technical certification, stackable credits for an associate or bachelor degree, or other meaningful postsecondary education/training and/or employment opportunities.

a. **For Local CTE Concentrators:** Identify the course titles, codes, and credits that will comprise this pathway and relates to the competency.

   For LCPs: Describe the LCP's components as related to the competency. (May include but is not limited to: final student work product; course sequence; assessments; or description of the skills and academic knowledge.)

   Please see pages 4-7 of the attached pathway document for a full list of skills that will be taught, measured through performance assessment, and mastered throughout the pathway. In addition, IDOE Course (4830) Construction Trades: Electrical I is aligned to Ivy Tech Course INDT 113 Basic Electricty (3 credits) and Vincennes University Courses APPE 101 Electrical Blueprints (1 credit) and APPE 111 Electrical Theory, Components, and Applications (3 credits).

b. Will this local pathway also fulfill the Employability Skills experience? If so, please explain how. (Optional.)

   Employability Skills (Communication, Teamwork, Problem Solving, Initiative, Planning, Self-Management, Technology) have been embedded, will be taught and reinforced throughout the courses of this pathway. Units of instruction have been designed to incorporate employability skills as each industry skill is learned. THOR Industries will assist by providing visits, job shadowing opportunities, and incentives that will teach, model, and assess student Employability Skills. THOR Industries has also agreed to grant preferred status by conducting guaranteed interviews for our certified students. Upon two weeks of successful employment, students will become immediately eligible for tier 2 pay ($20-$45 per hour).

c. How will this local pathway add currency for a student's postsecondary endeavors?

   This pathway will result in a locally developed certification that ensures 100% accuracy between learned skills and industry need. Upon successful completion of this pathway, students will receive a THOR Industries RV Construction Certification specifically certifying that each skill has been mastered by the student. Students will be immediately eligible for starting pay of $16.00 - $36.00 an hour. However, upon their successful employment of two weeks, graduation pathway concentrators will be fast tracked to tier 2 pay of $20.00 - $45.00 an hour or full rate.

3) **Criterion 3: Continuous Improvement**: Both the LCP and Local CTE Concentrator pathway must be evaluated and continuously improved based upon the evaluation at the state and local level. Applicant will serve as a model and point of contact for other districts interested in adopting or creating a similar pathway.

a. What are the intended outcomes for students who complete this pathway? Please be as specific as possible. (This may include but is not limited to: credentials, certificates, credits, enrollment in a specific institution or program, or employment in a specific sector/industry/occupation.)

Upon successful completion of our local pathway, students will receive a locally developed THOR certification. We expect 100% completion with a target of 30 students annually achieving this measure. In order to earn this certification, students will be required to demonstrate proper application and usage of devices and processes found in the RV manufacturing industry. NWHS staff will utilize the same assessments to measure attainment of these skills as probationary/trainee employees at THOR. Upon completion and mastery of every performance task/assessment, students will be eligible for starting pay of $16.00 - $36.00 an hour and upon two weeks of their successful employment, will be elibible for tier 2 pay ($20-$45 per hour)

b. How will the school and district measure student outcomes?
(This may include but is not limited to: data from the Commission for Higher Education, Management Performance Hub, the Department of Workforce Development, employer surveys, or student surveys.)

We will monitor the success of the pathway by measuring the number of students that receive employment in the RV Manufacturing Industry (specifically THOR Industries) as well as the longevity of each student's tenure. Our goal is to ensure at least 30 students annually attain employment within the RV Manufacturing Industry upon completion of our program and remain employed for a minimum of five consecutive years. THOR and NWHS agree to share non-confidential information in order to measure and track attainment of our goals. Continuous feedback will occur through quarterly meetings between THOR executives and WCS Administration to reaffirm alignment of curriculum, attainment of goals, and accuracy of skill assessment

c. What process will the school and district have in place to evaluate and continuously improve the pathway based upon that evaluation?

Annual meetings will occur between WCS administration/teachers and THOR Industries personnel to discuss curriculum alignment as well as the requirement for any adjustment based upon new industry needs. During these meetings, we will discuss the preparedness of current graduates and evaluate student assessment to ensure that both the skills and proficiency levels are in alignment with industry need. Additional informal meetings and visitations from THOR Industries will occur during site visitations.

d. Who will serve as the point of contact for other schools/districts interested in replicating this local pathway?

Name: Scot Croner

INDIANA STATE BOARD OF EDUCATION

Position: Superintendent

Number: 574-773-3131

Email: scroner@wanee.org

Locally Developed Pathway
Recreation Vehicle Construction
(THOR Certification)

Instructor: Damon Hummel
License: Rules 46-47: Industrial Technology

Indiana College and Career Pathway Plan – State Model

Cluster: Architecture & Construction | **Pathway: Recreation Vehicle Construction**

SECONDARY	Grade	English/ Language Arts	Math	Science	Health/PE Social Studies	CTE/Career Preparation Courses for this Pathway		Other Elective Courses for this Pathway	
	9	English 9	Algebra I	Biology	Health & Wellness/ Physical Ed	Preparing for College & Careers;		Digital Citizenship	World Language
	10	English 10	Geometry	Chemistry	Geography/History of the World or World History/Civilization	Introduction to Construction			World Language
	11	English 11	Algebra II	3rd Core 40 Science	US History	(5592) Building and Facilities Management I			World Language
	12	English 12	Math or Quantitative Reasoning		Government Economics	**(4830) Construction Trades: Electrical I			Fine Arts

State Specified Pathway Assessment: Dual credit assessment from Ivy Tech or Vincennes University or Home Builders Institute(HBI) Principles of Construction or Carpentry Basic assessments

Industry Recognized Certification: THOR Certification

Postsecondary Courses Aligned for Potential Dual Credit**

**See individual Course Frameworks for alignment of high school course standards and postsecondary course objectives

Ivy Tech Community College	Vincennes University
**INDT 113 Basic Electricity (3 credits)	**APPE 101 Electrical Blueprints (1 credit) **APPE 111 Electrical Theory, Components, and Applications I (3 credits)

Locally Developed Pathway
Recreation Vehicle Construction
(THOR Certification)

PREPARING FOR COLLEGE AND CAREERS
5394

Preparing for College and Careers addresses the knowledge, skills, and behaviors all students need to be prepared for success in college, career, and life. The focus of the course is the impact of today's choices on tomorrow's possibilities. Topics to be addressed include twenty-first century life and career skills; higher order thinking, communication, leadership, and management processes; exploration of personal aptitudes, interests, values, and goals; examining multiple life roles and responsibilities as individuals and family members; planning and building employability skills; transferring school skills to life and work; and managing personal resources. This course includes reviewing the 16 national career clusters and Indiana's College and Career Pathways, in depth investigation of one or more pathways, reviewing graduation plans, developing career plans, and developing personal and career portfolios. A project-based approach, including computer and technology applications, cooperative ventures between school and community, simulations, and real-life experiences, is recommended.

- Recommended Grade Level: 9
- Recommended Prerequisites: None
- Credits: 1 semester course, 1 credit per semester, 1 credit maximum
- Qualifies as one of the FACS courses a student can take to waive the Heath & Wellness graduation requirement. To qualify for a waiver, a student must take three of the approved courses. For more information, please see 511 IAC 6-7.1-4(c) (6).
- Counts as a Directed Elective or Elective for all diplomas

INTRODUCTION TO CONSTRUCTION
4792

Introduction to Construction is a course that will offer hands-on activities and real-world experiences related to the skills essential in residential, commercial, civil building, and recreational vehicle construction. During the course students will be introduced to the history and traditions of construction trades. The student will also learn and apply knowledge of the care and safe use of hand and power tools as related to each trade. In addition, students are introduced to blueprint reading, applied math, basic tools and equipment, and safety. Students will demonstrate building construction techniques, including concrete and masonry, framing, electrical, plumbing, dry walling, HVAC, and painting as developed locally in accordance with available space and technologies. Students learn how architectural ideas are converted into projects and how projects are managed during a construction project in this course. Students study construction technology topics such as preparing a site, doing earthwork, setting footings and foundations, building the superstructure, enclosing the structure, installing systems, finishing the structure, and completing the site. Students also investigate topics related to the purchasing and maintenance of structures, special purpose facilities, green construction and construction careers.

- Recommended Grade Level: 10
- Recommended Prerequisites: Preparing for College and Careers
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

Locally Developed Pathway
Recreation Vehicle Construction
(THOR Certification)

BUILDING and FACILITIES MANAGEMENT I
5592

Building and Facilities Management I is an instructional program that prepares students to service a variety of structures including commercial and institutional buildings. This course provides instruction in basic maintenance and repair skills related to air conditioning, heating, plumbing, electrical, and other mechanical systems. Emphasis should be placed on the use of hand and power tools and the selection and use of appropriate professional supplies needed for care, repair and maintenance. Students will reinforce their mathematical skills through the practical study of measurement units, ratios, area, and volume calculations. Scientific knowledge will be enhanced through the emphasis on environmental concerns and chemical and electrical safety instruction. Language skills will be strengthened through oral and written work intended to improve students' abilities to communicate with supervisors, colleagues, and clients.

- Recommended Grade Level: 10, 11, 12
- Recommended Prerequisites: Preparing for College and Careers; Introduction to Construction
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas
- License Requirements: Rules 46-47 (Standard Trade & Industrial: Building Management 9-12)

CONSTRUCTION TRADES: ELECTRICAL I
4830

Construction Trades: Electrical I includes classroom and laboratory experiences focused on the installation and repair of the electrical and wiring systems of physical structures. This course includes instruction on the reading of technical drawings and their application in construction processes. Topics include the relationship between views and details, interpretation of dimension, transposing scale, tolerance, electrical symbols, sections, material lists, architectural plans, room schedules and plot plans. This course covers both AC and DC circuits. Studies include electron theory, Ohm's Law, Watt's Law, Kirchhoff's Law, series circuits, series-parallel circuits, and other electrical concepts. Students will use the underlying scientific principles related to electricity, to complete construction projects. Mathematical principles will be used to solve electrical problems. Students will also interpret health, safety, and welfare standards and codes as dictated by local, state or federal agencies.

- Recommended Grade Level: 11, 12
- Required Prerequisites: Introduction to Construction; Building and Facilities Management I
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas
- License Requirements: Rules 46-47 (Standard Trade & Industrial: Building Trades 9-12)

Locally Developed Pathway
Recreation Vehicle Construction
(THOR Certification)

The purpose of this pathway is for students to master the skills necessary for today's advanced Recreational Vehicle Construction industry. Through a close industry partnership with THOR, students will learn the proper application and usage of devices and processes found in the trailer manufacturing industry. The class will be self-paced utilizing instruction combined with numerous hands on activities designed to teach mastery of skills. Students will demonstrate mastery of each skill before moving on to the next concept.

<u>Concepts Covered</u>

I. Overview
   a. Life of an RV
   b. Acronyms and terminology
   c. Class C vs A
II. Shop Math
   a. Basic math terms and concepts
   b. Working with whole numbers
   c. Fractions and Decimals
   d. Percentage, Average, and Ratio
   e. Geometry Basics
   f. Trigonometry (Pythagorean Theorem)
III. Print Reading
IV. Tool Use
   a. Precision measurements
      i. Tape measure reading
      ii. Equipment gauging
      iii. Chalk line
      iv. Level
   b. Hand tools
      i. Stay-con
      ii. Reciprocating saw
      iii. Hammer
      iv. Rivet gun
      v. Driver
         1. How to angle screws
      vi. Trailer hoist

vii. Tin clippers
viii. Hand clamps
ix. Monkey wrench
x. Pipe cutters
xi. Hand screw driver

c. Air tools

V. Safety
a. Workstation organization
b. General safety procedures
c. Fire extinguisher use

VI. Shelling and Slide-outs
a. Parts and functions
b. Stripping wires
c. Butt connecting
d. Rubber cutting
e. Installation
i. Retainer bracket
ii. Slide roller
iii. Drip cup
iv. Precision slide rubber installation
v. Skid pads
vi. Cabinets
vii. Roof setting

VII. Plumbing
a. Parts and functions
i. Difference between colors, lines, pipes, and tanks
ii. Valves
b. Slope codes and TMC standards
c. Part preparation
d. Order of installation (why)
e. Pipe gluing
f. Securing lines

g. Gauges
    i. Pressure tests
    ii. Air tests
    iii. Water tests
h. Macerator pump
    i. Usage
    ii. Installation
i. Tank filling

VIII. Electric
a. Parts and functions
b. Terminology, definitions and abbreviations
    i. Voltage
    ii. Amps
    iii. Difference between 12V and 110 (functions of each)
    iv. AC vs DC
    v. Ground Fault Circuit Interrupters (GFI)
    vi. Difference between American and CSA (Canadian) wires
    vii. Insulated vs non-insulated wires
    viii. Fuses
c. Safety
    i. Exposed wire
    ii. Hot wire
    iii. Electrical sparks/fire
d. Lockout system
e. Inverters and converters
    i. How to test
f. Hi-pot tester to locate shortages
g. Reading electrical prints
h. Wiring
    i. Colors, types, gauges
    ii. Cable cutters, hand knife, router
    iii. Stripping wires

- iv. Butt connecting
- v. Crimping wires
- vi. Securing and connection
- vii. Bell caps

i. Battery hookup
- i. Positive and negative

j. RVIA basic codes

k. Recep press usage

IX. Systems/Quality Control

a. Parts and functions
- i. Dashboard lighting (meaning)

b. Difference between LP and Gas

c. System testing and checklist
- i. Order of operations
  1. Base test, turn on unit, plug in unit, test
- ii. Precision gauge reading
- iii. Recep tester
- iv. Air pressure tests
- v. How to drain and fill tanks
  1. Function of each tank
- vi. Function of each valve
- vii. Testing inverters and converters
- viii. Electrical
  1. Hi-pot tester to locate shortages
  2. Reading voltage and amps
  3. Review of 12 V and 110
  4. Review of AC vs DC
  5. Ground Fault Circuit Interrupter (GFI) Review
- ix. Basic troubleshooting
- x. Reporting needed corrections
- xi. Emergency protocol (fire, sparks, leaks)
- xii. Safety/lockout system

THOR INDUSTRIES

July 20, 2018

Dear Indiana Department of Education,

I am writing in support of Wa-Nee Community Schools' efforts to develop a Recreational Vehicle Construction Pathway at Northwood High School. As Senior VP of Administration and Human Resources for Thor Industries, I am aware of the commitment of the administrators and staff on its career pathway initiative. Wa-Nee is an innovative school district in Elkhart County and Thor Industries views Wa-Nee as a leader in education innovation.

I hope you will give Wa-Nee Community Schools' serious consideration as it is deserving of this opportunity for their students and families.

Please contact our offices if any additional information is needed.

Sincerely,

Ken Julian
Senior VP of Administration and Human Resources
Thor Industries

601 East Beardsley Ave. | Elkhart, IN 46514 | Phone: 574-970-7460 | Fax: 574-970-7013 | www.thorindustries.com

HORIZON EDUCATION ALLIANCE

May 25, 2018

Dear Indiana State Board of Education,

Horizon Education Alliance (HEA), an Elkhart County-based non-profit, is pleased to be the community partner for Wa-Nee Community Schools' Locally Created Pathways application. WCS is an outstanding district in our county and region, and they have actively been working with our local career center and the industry sector to prepare this plan.

I believe the strength of the partners is what will lead to success of this Local Pathway:

- Wa-Nee consistently ranks at or near the top in academic performance in our region.
- Our Elkhart Area Career Center (EACC) is one of the finest in the state, with over 30 programs that offer dual credit. EACC was the first in Indiana to be fully endorsed by CELL of UIndy as an "early college career center."
- THOR Industries is our county's largest employer, and just recently they rose significantly in the ranks of Fortune 500 Companies (currently at #392). VP of Administration, Mr. Ken Julian, is active on the HEA board, along with Wa-Nee Superintendent Scot Croner.

HEA strives to support collaboration across Elkhart County, and our "Pathways for Students and Adults" is one of our two main programmatic areas. We will actively work to support Superintendent Croner, NorthWood Principal Dave Maugel, and the industry leaders who are putting this plan into action. I encourage the SBOE to give full approval of this application.

Sincerely,

Brian Wiebe

Brian Wiebe, Executive Director
bwiebe@heaindiana.org
(574) 849-7173

Elkhart Area Career Center • 2424 California Road • Elkhart, Indiana 46514 • 574/262-5650 • Fax 574/262-5801

A Division of Elkhart Community Schools

April 30, 2018

Kris Campbell
Workforce & STEM Alliances Support Specialist
Indiana Department of Education
115 W Washington St #600
Indianapolis, IN 46204

Mrs. Campbell:

The purpose of this letter is to affirm our support of the attached locally developed pathway. Please contact our offices if any additional information is needed.

Thanks,

David R Benak

David R, Benak, Ed.D.
Director
Elkhart Area Career Center/CTE District #8
2424 California Road
Elkhart, Indiana 46514
Phone: (574) 262-5670
e-mail: dbenak@elkhart.k12.in.us