

New Indoor Family Entertainment Complex:

FiSH Washington, D.C. Expansion

No Life Management, Inc. Consultants:

Tiffany Austin

Ryan Currie

Tiffany Kirkland

Kristin Sapp

University of Maryland University College

PMAN 634, Spring 2018

Dr. Donna M. Karch

Change History

Date changed	Change details	Reason for change	Responsible for change
February 26, 2018	Initial Draft		Tiffany Kirkland
March 2, 2018	Content Added	Project Deliverables	Tiffany Kirkland
March 3, 2018	Content Added	Project Communications	Tiffany Austin
March 4, 2018	Content Added	Project Constraints and Assumptions	Tiffany Kirkland
March 5, 2018	Content Added	Work Breakdown Structure and Responsibility Assignment Matrix	Kristin Sapp
March 6, 2018	Content Modified	Project Scope Statement	Tiffany Kirkland
March 7, 2018	Content Modified	Responsibility Assignment Matrix	Kristin Sapp
March 8, 2018	Content Added	Project Schedule	Kristin Sapp
March 8, 2018	Content Added	Project Budget	Tiffany Kirkland
March 9, 2018	Content Added	Project Organization	Ryan Currie
March 9, 2018	Content Added	Appendix A	Tiffany Kirkland
March 9, 2018	Content Modified	Work Breakdown Structure introduction	Kristin Sapp
March 13, 2018	Content Modified	WBS, Gantt chart	Kristin Sapp

March 16, 2018	Content Modified	Milestones	Tiffany Kirkland
March 20, 2018	Content Added	Project Evaluation, Project Close-out, Appendix C	Tiffany Kirkland
March 21, 2018	Content Added	Risk Response	Tiffany Austin
March 21, 2018	Content Added	Risk Monitor and Control	Tiffany Kirkland
March 21, 2018	Content Added	Risk Management, Risk Identification, Risk Assessment	Ryan Currie
March 22, 2018	Content Added	Risk Register	Ryan Currie
March 29, 2018	Content Added	Project Over- allocation and Crashing	Kristin Sapp
	Content Modified	Budget table	
April 1, 2018	Content Added	Appendix D	Tiffany Kirkland
April 5, 2018	Content Modified	Appendix B	Ryan Currie
April 12, 2018	Content Modified	Project Constraints, Requirements, Appendix C Project Evaluation	Tiffany Kirkland
April 15, 2018	Content Modified	WBS	Tiffany Kirkland
April 17, 2018	Content Modified	Project Scope, Objectives, Milestones, WBS, Schedule, Gantt Chart, Network Activity, Hypothetical Scenarios	Kristin Sapp

April 18, 2018	Content Modified	Final Formatting	Tiffany Kirkland Kristin Sapp
----------------	------------------	------------------	----------------------------------

Table of Contents

New Indoor Family Entertainment Complex: FiSH Washington, D.C. Expansion.....	6
Project Overview and Purpose.....	6
Project Scope Statement.....	7
Project Communications.....	23
Project Schedule.....	24
Project Budget	31
Project Risk Management.....	33
Project Evaluation.....	38
Project Close-out.....	39
References.....	42
Appendix A – Project Charter	44
Appendix B – Risk Register.....	54
Appendix C – Project Close-out Checklist.....	55
Appendix D- Project Status Report Template.....	56

New Indoor Family Entertainment Complex: FiSH Washington, D.C. Expansion

No Life Management, Inc. is a program management and consulting firm that encourages creativity and innovation, producing audacious solutions for our clients. We strive to make connections that will assist in changing lives. We service the needs of our clients internationally, as well as locally. Our clients reach out to us to guarantee that every characteristic of their project is accurately administered, well-executed and copiously reinforced from start to finish. No Life Management, Inc. is well experienced and knowledgeable and uses this information to distribute the greatest outcome for our clients.

Fun is Standing Here (FiSH) Inc., currently located in Baltimore, M.D, is looking to expand its family entertainment complex (FEC) business to the Washington, D.C area, specifically the Ward 8 region (Anacostia, Barry Farm, Bellevue, Buena Vista, Congress Heights, Douglas Fairlawn, Garfield Heights, Knox Hill, Shipley Terrace, Washington Highlands and Woodland). The FEC will contain four indoor attractions; a trampoline park, a laser tag area, rock climbing station, and a bowling area. The aim of the FEC is to establish a fun environment that not only encourages physical activity but supports communities and families in forming and maintaining healthy relationships.

Project Overview and Purpose

Currently, the Ward 8 region of Washington, D.C does not have an innovative area that encourages both physical activity and parent-child interaction. With the field of technology increasing rapidly, the amount of time children participate in physical activities has dramatically decreased. With this being said, it is vital to give youth an area to socialize, physically thrive, and create family bonds. Not only will the construction of the new FEC assist in the social and economic prosperity of the community it will help FiSH in expanding its services. No Life

Management, Inc. will also benefit from the project by gaining experience, knowledge attainment and possible recommendations for similar contracts.

Project Scope Statement

The aim of this project is to assist FiSH in its expansion of its FECs to the Ward 8 region in Washington, D.C. Located near Anacostia Metro Station, the FEC will include four attraction zones; an indoor trampoline park, a laser tag area, rock climbing station, and a bowling area. It is expected to be able host a maximum of 900 customers. Housed in an 8,000 sq. ft. building, the primary structure of the FEC will be constructed to host multiple zones that will reside in a separate section of the facility. In addition, the outside of the FEC will include an electric car charging station, general parking, garbage and recycle receptacles, a green roof, a bike ramp, a wheel chair ramp, as well as van and car handicapped parking.

The FEC will be built in four phases, the first and largest phase will be the construction of the indoor trampoline park, kiosk stations, office space, concession area, and resting areas. It will cover approximately 3,500 sq. ft. and have the ability to hold a maximum of 400 people. The zone will be composed of a sock purchasing station, as well as a backup safety system. It will feature a main trampoline court, a one-on-one basketball court, a ninja obstacle course, and a kid zone. The FEC will have computer kiosk stations, an office space, as well as four resting areas located centrally of the building.

There will be four types of resting areas; a men's restroom, women's restroom, a family restroom, and a nursing station. The men's restroom will contain twelve urinals, four stalls, ten sinks, and eight air dryers. Family restrooms will contain two adult stalls, two child-sized stalls, two diaper changing stations, two sinks, and two air dryers. While the women's restrooms will have fifteen stalls, two diaper changing stations, ten sinks, and eight air dryers. The nursing station

will have two sinks, two air dryers, and two rocking chairs. Outside of the resting area will be eight adult-sized and four child-sized water fountains. In addition, there will be two locker storage areas designated for women and men. Each locker area will contain 200 lockers.

The FEC will also be outfitted with an office space, twenty computer kiosk stations, and twelve entry gates with hand stamping machines. The FEC will be wired for security cameras, Leadership in Energy and Environmental Design (LEED) lighting, and eight emergency exits to the front and side of the building. As a part of the first phase, zone one will also contain a large concession area, consisting of a dining area and fully-equipped kitchen. The kitchen will hold three deep-fryers, two full-sized ovens, three refrigerators, one walk-in freezer, three kitchen sinks, four fire extinguishers, two dishwashers, and twelve shelves. The dining area will have 20 counter and table top areas, with 80 chairs.

The second phase will consist of the construction of the laser tag area that occupies approximately 2,000 sq. ft. The zone will have the ability to hold a maximum of 200 individuals. It will be designed and equipped from two outside vendors: Delta Strike and Laser force. It will include a vesting room, a briefing station, and a control room.

The third phase will involve the construction of a rock-climbing station. Occupying 1,000 sq. feet, the station will be able to hold a maximum of 100 people. The zone will feature a stationary rock climbing well and tower, as well as a kid climbing well. It will be equipped with a non-toxic and flame-retardant airbag pit. In addition to the rock-climbing station, the zone will have another concession stand with a dining area. Similar to the larger concession area, it will have a full kitchen containing two deep-fryers, one full-sized ovens, two refrigerators, one walk-in freezer, two kitchen sinks, one dishwasher, and nine shelves. The dining area will have 15 counter and table tops with 60 chairs.

The fourth phase will consist of the construction of a bowling alley. It will cover approximately 1,500 sq. feet. and have the ability to hold a maximum of 150 individuals. The bowling area will have 16 bowling lane surfaces and an area for shoe rental. It will include a scoreboard and a sitting area, as well as feature a mini arcade area. The mini arcade area will be equipped to hold six arcade machines. The area will also include a control room and host four emergency exits

It is important to note that, each attraction will be built according to the specific guidelines and regulations of their respective organizations, including the International Association of Indoor Trampoline Parks, Brunswick Bowling Corporation and The Climbing Wall Association. The construction of the FEC will take place at the discretion of the FiSH organization. The appointed representative from FiSH will have the final say and approval of decisions regarding the project.

Project Objectives

The following objectives must be met for the project to be considered successful:

- Objective 1: To acquire zoning, building and additional applicable permit approval, before August 1, 2018.
- Objective 2: To conduct a focus group meeting to discuss the FEC with advisory neighborhood commissions, before November 1, 2018.
- Objective 3: To successfully complete Phase I of an ESA, before construction starts on February 19, 2019. If a Phase II ESA is needed it is to be completed by May 20, 2019.
- Objective 4: To construct an area composed of an indoor trampoline park, office space, computer kiosk stations, centralized public and family restrooms, locker storage and a concession stand as a part of the first phase, by February 7, 2020.
- Objective 5: To construct a laser tag area as a part of phase two by April 17, 2020.

- Objective 6: To construct a rock-climbing station with a smaller concession stand by August 14, 2020.
- Objective 7: To construct a bowling alley using recycled materials by November 6, 2020.
- Objective 8: To construct a green roof with vegetation, as well as the FEC parking lot by April 2, 2021.
- Objective 9: To hold a public conference prior to the opening of the FEC on May 28, 2021.

Project Deliverables

Outdoor Area:

1. Handicap Accessible Parking- The parking lot will have 30 handicap accessible parking spaces. Ten of the allotted spaces will be designed to be van-accessible.
2. Electric Charging Stations- There will be two electric charging stations, both will be powered by NRG Energy, Inc.
3. Wheelchair Ramp: The center will have a wheelchair ramp that complies with the American with Disabilities Act. It will have a 30-inch rise and measure at 30 feet.
4. Bike Ramps- The area will be equipped with one bike ramp (20 bike capacity).
5. Green Roof- The building will be partially covered with vegetation to assist in stormwater management. The green roof will cover 2,000 sq. ft. and be covered with lightweight inorganic materials such as perlite and rockwool, as well as mesh screen.
6. Outdoor Trash and Recycle Receptacles- The building will be equipped with 2 garbage and 2 recycling receptacles.

FEC Centralized Main Area:

1. Site plan and floor layout plans: Will be approved by FiSH, Inc. prior to continuing.

2. Environmental Site Assessment (ESA): Before the construction of the project, the area will be tested for recognized environmental conditions. If hazardous materials are found, the area will be remediated and documented before continuing.
3. Security- The FEC will have 50 security cameras placed inside and outside of the building to monitor customers' safety.
4. Directory signs- Signs will be located to assist customers in directing attractions. There will be one large sign for each attraction, four restroom signs, as well as emergency exits signs.
5. Public and family restrooms with nursing stations: The main restroom area will be centrally located. It will contain four types of areas: men, women, family, and a nursing station. The men's restroom will hold 12 urinals, 4 stalls, 8 sinks, and 8 air dryers. Family restrooms will contain 2 adult stalls, 2 child-sized stalls, 2 diaper changing stations, 2 sinks and 2 air dryers. Women's restrooms will have 10 stalls, 2 diaper changing stations, 10 sinks and 6 dryers. The nursing station will contain 2 sinks, 2 air dryers, and 2 rocking chairs.
6. Locker storage space- There will be two large locker storage areas designated for women and men. Each locker area will have 200 lockers.
7. Computer kiosk stations- There will be a station designed to host 20 computers. This area will be designed to purchase entry tickets, as well as sign waivers.
8. Entry gates and hand stamping area- Upon entering the building, there will be 12 entry gates with hand stamping areas to allow for reentry.
9. Water fountains- There will be eight adult-sized water fountains and four child-size water fountains located near the public and family restrooms.

10. Office space- An area will be designed for “handling facility matters, handling phone calls, counting money, recording security cameras footage, storing important or expensive items, and usually tracking daily statistics” (Lasertag, n.d).
11. Emergency exits- There will be four emergency exits located on both sides of the FEC. In addition, the FEC will have four emergency exits in the rear of the building, as well as two emergency exits in each attraction area.
12. Fire protection- The entire building will be equipped to host fire detection and alarm systems, including automatic sprinklers, smoke detectors, fire extinguishers, etc.
13. LEED lighting- The entire building will utilize LEED lighting to assist in the environmental performance of the building.

Zone 1:

Indoor Trampoline Area- Designed to occupy a maximum of 400 people it will contain:

1. Sock purchasing station- There will be a station designed for customers to purchase socks. It will be able to hold seven types of socks; adult (small, medium, large, extra-large) and child (small, medium and large). Socks are mandatory in order for customers to participate.
2. Main trampoline court- An area consisting of a series of interlocking trampoline beds with angle cut pads and a netting frame structure.
3. One-on-one basketball courts- The indoor trampoline park will host a smaller area for one-on-one basketball. It will be equipped with two basketball hoops and basketballs.
4. Ninja obstacle course- The indoor trampoline park will have a ninja warrior inspired course. It will have balancing ropes with a safety net, running steps, and a climbing wall.
5. Kid zones- An area to ensure that all members are involved.
6. Backup safety system- Placed under the entire trampoline area to ensure customers safety.

Concession Area- A large concession area will be designed to include:

1. Kitchen- The area will include a full kitchen to maximize profits. It will be composed of three deep-fryers, two full-sized ovens, three refrigerators, one walk-in freezer, three kitchen sinks, two dishwashers, and twelve shelves.
2. Dining area- The dining area will have 20 counter and table tops, with 80 chairs. The counter and tabletops are made of recyclable material, composed of wine corks and recycled paper.
3. Built in trash and recycling area- The concession area will include a small area designated towards recycling and throwing away of items.
4. Fire Protection: The area will be equipped with 4 fire extinguishers, in addition to the automatic sprinkler system.

Zone 2:

Laser Tag Area- The laser tag area, designed to occupy 200 individuals will include:

1. Laser tag arena and equipment- The arena will utilize equipment from two outside vendors: Delta Strike and Laser Force.
2. Vesting room- There shall be a designated area for customers to try on different size vest, as well as a laser gun station. There will be a total of 300 vests.
3. Briefing station- There will be a briefing station before entry into the arena that will be used to discuss the rules for the area.
4. Control room- The arena shall have a control room to be used by employees to monitor customers.

Zone 3:

Rock Climbing Station- The area will hold a maximum of 100 individuals, it will include:

1. Stationary rock climbing well and tower- Composed of a 25% recycled/renewable resource-based urethane rock-climbing wall, the area has modular and semi-round panel systems. These systems maximize climbing surface area, while abating unnecessary floor space.
2. Kid rock climbing well- The rock climbing station will also have a smaller version to ensure all kids are able to participate.
3. Non-Toxic and Flame-Retardant Airbag pit- The rock climbing station will be equipped with an airbag pit to ensure the safety of customers.

Concession Stand:

1. Kitchen- The area will include a full kitchen composed of two deep-fryers, one full-sized ovens, two refrigerators, one walk-in freezer, two kitchen sinks, one dishwasher, and nine shelves.
2. Dining area: The dining area will have 15 counter and table tops with 60 chairs. The counter and tabletops are made of recyclable material, composed of wine corks and recycled paper.
3. Fire Protection: The Kitchen area will be equipped with four fire extinguishers.

Zone 4:

Bowling alley- The area will hold a maximum of 150 individuals, it will include:

1. Bowling alley area- Composed of 16 recycled bowling lane surfaces, LEED pin- spotters (use 75% less energy than its competitors), shoe rental space, bowling balls, scoreboard;
2. Mini arcade area- The area has been designed to hold six arcade machines, including Pac Man, Arcade Classics, Star Wars Battle Pod, Golden Tee, Pin ball and a Treasure Chest Crane;

3. Control room- A space dedicated for employees to monitor customers, store personal items and enjoy breaks;
4. Emergency exits- There will be four emergency exits located near the bowling alley.

Project Requirements

The following items are required in the construction of the FEC:

- Final blueprints, site layout, and budget must be approved by FiSH, before construction starts.
- All construction must adhere to its applicable regulations (i.e. the 2013 District of Columbia Construction Codes, ADA regulations, the International Association of Indoor Trampoline Parks, Brunswick Bowling Corporation and the Climbing Wall Association, National Fire Protection Association, etc.).
- Zoning must adhere to the Zoning Act of 1938 for Washington, D.C.
- Construction of the FEC must be completed in four separate phases.
- Attractions must adhere to the specific guidelines and regulations of their respective organizations.
- The FEC must pass a final inspection to be conducted by the Division of Labor and Industry (DOL), as well as the District Department of Transportation (DDOT): Public Space Regulation Division.
- The FEC must be equipped with a green roof (partial vegetation), an electric parking station and LEED lighting to increase environmental sustainability. With this being said, “environmentally friendly” construction materials must be used, whenever possible.

- The FEC must have a centralized area, consisting of men and women restrooms with a nursing station, office space, computer kiosk stations, gate entry, concession area with a fully-equipped kitchen and dining area.
- The FEC must be equipped with a heating, ventilation, and air conditioning (HVAC).
- The FEC must have a handicap parking, as well as a wheelchair ramp that adheres to the American Disability Act regulations.
- As a part of the phase 4, the rock climbing station must utilize recyclable materials, this area must have another concession stand with a dining area, emergency exits and an employee break room.
- The entire FEC must be equipped with security cameras and fire protection systems.
- The FEC must be able to hold a maximum of 925 individuals.

Project Milestones

Table 1 shows the No Life Management, Inc. project milestone that will be utilized during the life of the project:

WBS	Milestone
1	Milestone 5-28-21: New Indoor FEC
1.1.1	Milestone 3-27-18: Final Site Plan and Blueprint Approval By Fish, Inc.
1.1.2	Milestone 4-17-18: Budget Approval by Fish, Inc.
1.1.3	Milestone 7-27-18: Secure Permits
1.1.4	Milestone 10-26-18: Conduct A Focus Group Meeting
1.1.5	Milestone 1-30-19: Pass Environmental Site Assessments
1.2.1	Milestone 3-14-19: FEC Foundation Built
1.2.2	Milestone 4-25-19: FEC Framing Built
1.2.3	Milestone 5-29-19: FEC Roofing Completed
1.2.4	Milestone 6-4-19: Installed Plumbing
1.2.5	Milestone 6-14-19: FEC Electrical Wiring Completed
1.2.6	Milestone 7-1-19: Interior Finishes Completed
1.2.7	Milestone 7-15-19: Construction of Entry Gate
1.2.8	Milestone: 7-17-19: FEC Equipped with Emergency Exits
1.3.1	Milestone: 8-2-19 Outdoor Construction- Laying Asphalt Complete

1.3.2	Milestone 8-15-19: Outdoor Construction- Handicap and Van Accessible Spaces Completed
1.3.3	Milestone 8-21-19: Outdoor Construction- Bike Ramp Installed
1.3.4	Milestone 8-23-19: Outdoor Construction- Wheelchair Access Ramp Installed
1.3.5	Milestone 9-5-19: Outdoor Construction-Electrical Charging Stations Complete
1.3.6	Milestones 9-6-19: Green Roof and Trash and Recycling Receptacles
1.4.1	Milestone 11-1-19: Phase I – Indoor Trampoline Park Completed
1.4.2	Milestone 12-19-19: Phase I- Restroom Area with Water Fountains Installed
1.4.3	Milestone 1-3-20: Phase I- Locker Rooms
1.4.4	Milestone 1-10-20: Phase I- Kiosk Station Installed
1.4.5	Milestone 1-24-20: Phase I- Office Space Completed
1.4.6	Milestone 2-7-20: Phase I- Concession Stand with Dining Area Completed
15.1	Milestone 4-17-20: Phase II- Laser Tag Area Completed
1.6.1	Milestone 7-31-20: Phase III- Rock Climbing
1.6.2	Milestone 8-14-20: Phase III- Concession Stand with Dining Area Completed
1.7.1	Milestone 11-6-20: Phase IV- Bowling Alley
1.7.2	Milestone 12-4-20: Phase IV: Shoe Rental Area Installation
1.7.3	Milestone 12-11-20: Phase IV- Control Room
1.7.4	Milestone 12-28-20: Phase IV Arcade Area Complete
1.8.1	Milestone 1-11-21: Post-Phase- Security Cameras Installed
1.8.2	Milestone 1-25-21: Post-Phase- Fire Safety Equipment
1.8.3	Milestone 2-8-21: Post-Phase- Zone Signage Installed
1.9.1	Milestone 5-3-21: Final Inspections Completed
1.10.1	Milestone 5-17-21: Final Acceptance and Closure- Invoices Sent and Payments Finalized
1.10.2	Milestone 5-20-21: Final Acceptance and Closure- Contracts Closed
1.10.3	Milestone 5-24-21: Final Acceptance and Closure- Product Scope Requirements Verified
1.10.4	Milestone 5-25-21: Final Acceptance and Closure- Gained Formal Acceptance from Fish
1.10.5	Milestone 5-27-21: Final Acceptance and Closure- Press Conference Held
1.10.6	Milestone 5-28-21: Final Acceptance and Closure- New Indoor FEC Ready for Opening
1.10.7	Milestone 5-30-21: Final Acceptance and Closure- Project Closed

Table 1. This table illustrates project milestones that No Life Management, Inc. will use to track the development of the FEC.

Project Risks

As with any project, there are risks involved. The following are recognized risks for construction of FiSH's Washington DC expansion:

1. Adverse recognized environmental conditions may be found following the ESA requiring site remediation. This remediation may contribute to increased costs and delay construction, therefore increasing the projected timeline.
2. Bureaucracy of Government may delay timeline
3. Unavailability of building resources from vendors may change project scope, budget, and objectives
4. Inclement weather may require the allocation of additional time
5. Unexpected price changes in materials cost may change project scope, budget, and objectives
6. Availability of skilled laborers may delay timeline

Project Constraints:

1. The project has a time constraint. It must be finished by May 27, 2021. The project opening date for the FEC is May 30, 2021.
2. The budget for the project is \$5,000,000
3. The FEC must be able to pass an Environmental Site Assessment and obtain Zoning and Building permit approval before construction. Delayal of these processes will pose time and cost risks.
4. The project must utilize environmentally friendly construction materials, such as the synthetic bowling lane surfaces and recycled rock climbing wall. If these resources are not available at the start of construction, time to deliver will increase. Which in turn will increase project cost.
5. The scope items are to be delivered with the defined characteristics (no deviation allowed if quality tolerance is zero), *and* all deliverables must be reliable – ie, the characteristics

have been quality tested/ checked to the extent specified, so that they function as agreed (Siegelaub, 2007).

Project Assumptions:

1. The location of the FEC will pass the first and second phase of environmental testing and that no environmental remediation will be needed.
2. Building and Zoning approval will be completed in a reasonable amount of time.
3. Construction materials will be available in a reasonable amount of time and within budget.
4. Recycled materials are available, within budget and quantity
5. Finding a subcontractor to work on multiple zones
6. The project will pass the final inspection and be ready for opening.

Project Organization

No Life Management, Inc. uses a Projectized Organizational structure. This high efficiency tactic ensures that resources are dedicated to the development of the new FEC. Ryan Currie, the project manager, will have authority over the project's budget (with approval), schedule, and construction of the project team. Mr. Currie will report to FiSH Inc.'s CEO, Tiffany Austin to ensure the overall quality of the project and notification of project status. Mr. Currie has appointed both Kristin Sapp and Tiffany Kirkland as Functional Managers. As Functional Managers, Mrs. Sapp and Mrs. Kirkland will assess operational and project requirements for the resources. The external team will report to them, and the Functional Managers will report directly to Mr. Currie. The external team is composed of the construction team, electricians, plumbers, laborers, excavators, etc. This organizational structure establishes a clear line of authority and can result in an efficient and effective decision-making and approval time. Figure 1, illustrates this alliance.

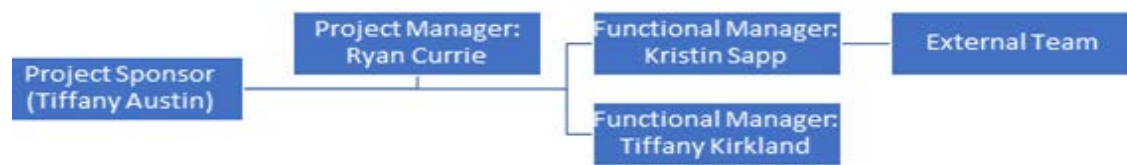


Figure 1. This figure depicts the project organizational structure for the FiSH FEC expansion

Work Breakdown Structure

The Work Breakdown Structure (WBS) is a tool for all stakeholders that breaks down the scope of a project into smaller pieces. The WBS defines deliverables, tasks and subtasks, and provides a tool to assign detailed cost and time estimates in a top-down, then bottom-up manner during the estimating process (Harned, 2015). Table 2 outlines the WBS for the FEC which contains 81 tasks and subtasks arranged in 10 major tiers.

WBS	Task
1	<i>New Indoor Family Entertainment Center</i>
1.1	Project Initiation
1.1.1	Site Plan Approval
1.1.2	Floor Plan Approval
1.1.3	Permitting (building, zone, foundation, framing, electrical, and plumbing)
1.1.4	Focus Group Meeting
1.1.5	Environmental Site Assessment (phase I, phase II, remediation)
1.2	Primary Structure
1.2.1	Building the Foundation (site dig, concrete)
1.2.2	Exterior Walls
1.2.3	Electrical Wiring (LED lights)
1.2.4	Roofing (green roof Installation)
1.2.5	Plumbing (restrooms, kitchen, water fountains)
1.2.6	Interior Walls
1.2.7	Entry Gates
1.2.8	Emergency Exits
1.3	Outdoor Construction
1.3.1	Parking lot with General Parking

1.3.2	Handicapped Parking (van-accessible spaces)
1.3.3	Bike Ramps
1.3.4	Wheel Chair Ramp
1.3.5	Electric Charging Stations
1.3.6	Trash and recycle receptacles
1.4	Phase I
1.4.1	Indoor Trampoline Park (sock purchasing station, trampoline court, basketball court, obstacle course, kid zone, safety system)
1.4.2	Restrooms (Men's, Women's, family rooms, nursing station)
1.4.3	Locker Storage (Men's and Women's)
1.4.4	Kiosk Stations
1.4.5	Office Space
1.4.6	Concession Stand (kitchen, dining, trash and recycle area)
1.5	Phase II
1.5.1	Laser Tag Arena (vesting room, briefing room, control room)
1.6	Phase III
1.6.1	Rock Climbing Area (stationary climb, kid climb, airbag pit)
1.6.2	Concession Stand (kitchen, dining, trash and recycle area)
1.7	Phase IV
1.7.1	Bowling Lanes
1.7.2	Shoe Rental Area
1.7.3	Control Room
1.7.4	Mini Arcade
1.8	Post-Phase Construction
1.8.1	Security Camera Installation
1.8.2	Fire Safety Installation
1.8.3	Install Signage
1.9	Clean-up and Final Inspections
1.9.1	Removal of Materials and Equipment
1.9.2	Site Clean-up
1.9.3	Final Inspections
1.10.	Final Acceptance and Closure process
1.10.1	Send final billing invoices
1.10.2	Close Procurements
1.10.3	Project walk through
1.10.4	Customer sign-off
1.10.5	Opening Press Conference for Public
1.10.6	Prepare for opening
1.10.7	FEC Opening to Public

Table 2. Work Breakdown Structure for the construction of the New Indoor FEC.

Responsibility Assignment Matrix

Table 3 illustrates the breakdown of responsibilities for each party during each major phase of the project. FiSH, Inc. and No Life Management, Inc. will act as overall approvers for each major stage before onset of construction and at completion of each phase milestone. No Life Management, Inc. will act as support for all activities. Laborers will be responsible for all construction, with subcontractors responsible for oversight of all construction and for specialty applications such as plumbing, electric, etc. Inspectors will be responsible for all building and site approvals.

New Indoor FEC	FiSH	No Life Management, Inc.	Labor/Operators	Subcontractors	Inspectors
Initiation		●			
Plan approvals	●	◇			●
Permitting	□	◇			●
Focus group meeting	○	○			
ESA testing	□	◇		○	●
Primary Structure	●	●		○	●
Foundation		◇	○		
Exterior walls		◇	○		
Roofing		◇	○		
Electrical wiring		◇		○	
Plumbing		◇		○	
Interior walls		◇	○		
Entry gate		◇	○		
Emergency exits		◇	○		
Outdoor construction	●	●		○	●
General parking		◇	○		
Handicapped parking		◇	○		
Handicap access		◇	○		
Bike ramp		◇	○		
Electric charging stations		◇	○		
Trash and recycling receptacles		◇	○		
Phase I	●	●		○	●
Trampoline park		◇	○		
Restrooms		◇	○		
Locker storage		◇	○		
Kiosk stations		◇	○		
Office space		◇	○		
Concession stand		◇	○		
Phase II	●	●		○	●
Laser Tag area		◇	○		

Phase III	●	●		○	●
Bowling area		◇	○		
Phase IV	●	●		○	●
Rock climbing area		◇	○		
Concession stand		◇	○		
Post-phase construction	●	●		○	●
Security cameras		◇	○		
Fire alarms		◇	○		
Signage		◇	○		
Final Acceptance	●	●		○	●
Send final billing invoices		○			
Close Procurements		○			
Project walkthrough	●	○			
Customer sign-off	●	◇			
Press conference	○	◇			
Opening conference	○	◇			
Legend: Responsible ○ Support ◇ Notification □ Approval ●					

Table 3. Responsibility Assignment Matrix

Project Communications

In an effort to ensure the success of the project, No Life Management, Inc. has developed an effective communication plan to formally define communication channels. The plan provides vital information on the project, such as milestone achievements and methods and frequency. As illustrated in Table 4, the plan discusses how information will be received and delivered between the projects team and FiSH, Inc. during the life of the project. No Life Management, Inc. will discuss administrative matters, accomplishments, areas of conflict or concern during the weekly team meeting. It will then address the status of the project, ensuring all information is communicated clearly and effectively, through the weekly meeting notes and email. This information will be utilized and given to the project sponsor by the Project Manager, through email and hard copy, bi-weekly.

On a monthly basis, the Project Manager will conduct an onsite observation with the construction manager to discuss the status of the project. This is done for quality assurance purposes. Bi-monthly, the Project Manager and the approval representative from FiSH, Inc. will

meet to discuss his or her observations. During this meeting, the Project Manager will provide FiSH, Inc. with a hard copy and email of the project status report. The meeting will serve the Project Manager in ensuring the project is running smoothly and meeting the requirements of FiSH, Inc. Quarterly, a high-level project report will be made to observe the status of each milestone. The report will be delivered both as a hard copy and through email. The Project Manager will provide general information to the extended team (subcontractors) on an as needed basis.

Audience	Category	Information	Delivery Method	Delivery Frequency	Who is Responsible
Core Team	Project Execution, Status	Project Progress, Accomplishments, Conflicts, Areas of Concern	Team Meeting	Daily	Project Manager, Approved Stakeholders
Core Team	Project Execution	High Level Project Status, Issues and Challenges	Team Meeting, Email	Weekly	Project Manager
Core Team	Status	Detailed Status	Email, Hard Copy	Bi-Weekly	Project Manager
Extended Team (Construction)	Status	Status Overview	On-Site Meeting	Monthly	Project Manager
Sponsor	Status	Project Status Report	Email, Hard Copy	Bi-Monthly	Project Manager
Sponsor	Status	High-Level Project Status	Email, Hard Copy	Quarterly	Project Manager
Extended Team (Construction)	General Information	Project Status	Email	As Needed, Ongoing	Project Manager

Table 4. Project Communications Plan utilized by No Life Management, Inc.

Project Schedule

The project schedule was created based on the project deliverables, milestones indicated in Table 1, and WBS shown in Table 2. Project activity estimates (Table 5), timelines, and

dependencies were calculated utilizing historical data and expert advice (FiSH, Inc. management, the appropriate engineers, subcontractors, and laborers). The estimates were then used to formulate a Gantt chart, illustrated in Figure 2, for the project. Thus, identifying and arranging the tasks necessary for successful project completion and determining the critical path (Figure 3). Using information from project activity estimates and their networks (Figure 3), the critical path was determined.

Task Name	Duration	Start	Finish
New Indoor FEC	867 days	Mon 1/29/18	Fri 5/28/21
Final site plan and blueprint approval by FiSH, Inc.	15 days	Wed 3/7/18	Tue 3/27/18
Budget approval by FiSH, Inc.	15 days	Wed 3/28/18	Tue 4/17/18
Secure permits	73 days	Wed 4/18/18	Fri 7/27/18
Focus group meeting	65 days	Mon 7/30/18	Fri 10/26/18
ESA testing	145 days	Mon 10/29/18	Mon 5/20/19
<i>Phase I</i>	<i>65 days</i>	Mon 10/29/18	<i>Wed 1/30/19</i>
<i>Phase II (if needed)</i>	<i>66 days</i>	<i>Thu 1/31/19</i>	<i>Mon 5/20/19</i>
Primary Structure (8,000 sq. ft.)	107 days	Tue 2/19/19	Wed 7/17/19
<i>Foundation</i>	<i>18 days</i>	<i>Tue 2/19/19</i>	<i>Thu 3/14/19</i>
<i>Framing</i>	<i>30 days</i>	<i>Fri 3/15/19</i>	<i>Thu 4/25/19</i>
<i>Roofing</i>	<i>10 days</i>	<i>Thu 5/16/19</i>	<i>Wed 5/29/19</i>
<i>Electric/ Plumbing</i>	<i>12 days</i>	<i>Thu 5/30/19</i>	<i>Fri 6/14/19</i>
<i>Interior Finishes</i>	<i>11 days</i>	<i>Mon 6/17/19</i>	<i>Mon 7/1/19</i>
Outdoor Construction	45 days	Mon 7/8/19	Fri 9/6/19
<i>Lay Parking Asphalt</i>	<i>21 days</i>	<i>Thu 7/18/19</i>	<i>Thu 8/15/19</i>
<i>Install Bike Ramp</i>	<i>4 days</i>	<i>Fri 8/16/19</i>	<i>Wed 8/21/19</i>
<i>Handicap Parking and Wheel Chair Ramp</i>	<i>11 days</i>	<i>Mon 8/5/19</i>	<i>Fri 8/23/19</i>
<i>Electrical charging stations</i>	<i>9 days</i>	<i>Mon 8/26/19</i>	<i>Thu 9/5/19</i>
<i>Trash and Recycling Receptacles</i>	<i>1 day</i>	<i>Fri 9/6/19</i>	<i>Fri 9/6/19</i>
Phase I (3,500 sq. ft)	109 days	Mon 9/9/19	Fri 2/7/20
<i>Trampoline Park</i>	<i>40 days</i>	<i>Mon 9/9/19</i>	<i>Fri 11/1/19</i>
<i>Sock Purchasing Station</i>	<i>5 days</i>	<i>Mon 9/9/19</i>	<i>Fri 9/13/19</i>

<i>Trampoline Court</i>	<i>10 days</i>	<i>Mon 9/16/19</i>	<i>Fri 9/27/19</i>
<i>Backup Safety System</i>	<i>5 days</i>	<i>Mon 9/30/19</i>	<i>Fri 10/4/19</i>
<i>Basketball Court</i>	<i>5 days</i>	<i>Mon 10/7/19</i>	<i>Fri 10/11/19</i>
<i>Ninja Obstacle Course</i>	<i>10 days</i>	<i>Mon 10/14/19</i>	<i>Fri 10/25/19</i>
<i>Kid Zone</i>	<i>5 days</i>	<i>Mon 10/28/19</i>	<i>Fri 11/1/19</i>
<i>Restrooms</i>	<i>34 days</i>	<i>Mon 11/4/19</i>	<i>Thu 12/19/19</i>
<i>Men's</i>	<i>7 days</i>	<i>Mon 11/4/19</i>	<i>Tue 11/12/19</i>
<i>Women's</i>	<i>7 days</i>	<i>Wed 11/13/19</i>	<i>Thu 11/21/19</i>
<i>Family</i>	<i>7 days</i>	<i>Fri 11/22/19</i>	<i>Mon 12/2/19</i>
<i>Nursing Station</i>	<i>7 days</i>	<i>Tue 12/3/19</i>	<i>Wed 12/11/19</i>
<i>Restroom Exterior</i>	<i>6 days</i>	<i>Thu 12/12/19</i>	<i>Thu 12/19/19</i>
<i>Locker Storage</i>	<i>10 days</i>	<i>Fri 12/20/19</i>	<i>Fri 1/3/20</i>
<i>Men's</i>	<i>5 days</i>	<i>Fri 12/20/19</i>	<i>Fri 12/27/19</i>
<i>Women's</i>	<i>5 days</i>	<i>Mon 12/30/19</i>	<i>Fri 1/3/20</i>
<i>Kiosk Stations</i>	<i>5 days</i>	<i>Mon 1/6/20</i>	<i>Fri 1/10/20</i>
<i>Office Space</i>	<i>10 days</i>	<i>Mon 1/13/20</i>	<i>Fri 1/24/20</i>
<i>Concession Stand</i>	<i>10 days</i>	<i>Mon 1/27/20</i>	<i>Fri 2/7/20</i>
<i>Kitchen</i>	<i>5 days</i>	<i>Mon 1/27/20</i>	<i>Fri 1/31/20</i>
<i>Dining</i>	<i>4 days</i>	<i>Mon 2/3/20</i>	<i>Thu 2/6/20</i>
<i>Trash Area</i>	<i>1 day</i>	<i>Fri 2/7/20</i>	<i>Fri 2/7/20</i>
Phase II (2,000 sq. ft.)	50 days	Mon 2/10/20	Fri 4/17/20
<i>Laser Tag Area</i>	<i>50 days</i>	<i>Mon 2/10/20</i>	<i>Fri 4/17/20</i>
<i>Briefing Room</i>	<i>50 days</i>	<i>Mon 2/10/20</i>	<i>Fri 4/17/20</i>
<i>Vesting Room</i>	<i>50 days</i>	<i>Mon 2/10/20</i>	<i>Fri 4/17/20</i>
<i>Arena</i>	<i>50 days</i>	<i>Mon 2/1/20</i>	<i>Fri 4/17/20</i>
<i>Control Room</i>	<i>50 days</i>	<i>Mon 2/10/20</i>	<i>Fri 4/17/20</i>
Phase III (1,000 sq. ft.)	85 days	Mon 4/20/20	Fri 8/14/20
<i>Rock Climbing Area</i>	<i>75 days</i>	<i>Mon 4/20/20</i>	<i>Fri 7/31/20</i>
<i>Airbag Pit</i>	<i>25 days</i>	<i>Mon 4/20/20</i>	<i>Fri 5/22/20</i>
<i>Stationary Climb</i>	<i>25 days</i>	<i>Mon 5/25/20</i>	<i>Fri 6/26/20</i>
<i>Kid Climb</i>	<i>25 days</i>	<i>Mon 6/29/20</i>	<i>Fri 7/31/20</i>
<i>Concession Stand</i>	<i>10 days</i>	<i>Mon 8/3/20</i>	<i>Fri 8/14/20</i>
<i>Kitchen</i>	<i>5 days</i>	<i>Mon 8/3/20</i>	<i>Fri 8/7/20</i>
<i>Dining</i>	<i>4 days</i>	<i>Mon 8/10/20</i>	<i>Thu 8/13/20</i>
<i>Trash Area</i>	<i>1 day</i>	<i>Fri 8/14/20</i>	<i>Fri 8/14/20</i>
Phase IV (1,500 sq. ft.)	90 days	Mon 8/17/20	Fri 12/18/20
<i>Bowling Alley</i>	<i>60 days</i>	<i>Mon 8/17/20</i>	<i>Fri 11/6/20</i>
<i>Shoe Rental</i>	<i>20 days</i>	<i>Mon 11/9/20</i>	<i>Fri 12/4/20</i>
<i>Control Room</i>	<i>5 days</i>	<i>Mon 12/7/20</i>	<i>Fri 12/11/20</i>
<i>Mini Arcade</i>	<i>5 days</i>	<i>Mon 12/14/20</i>	<i>Fri 12/18/20</i>
Post-Phase Construction	40 days	Mon 12/14/20	Mon 2/8/21
<i>Security Installation</i>	<i>15 days</i>	<i>Mon 12/21/20</i>	<i>Tue 1/11/21</i>
<i>Fire Safety Installation</i>	<i>10 days</i>	<i>Wed 1/12/21</i>	<i>Mon 1/25/21</i>

<i>Signage Installation</i>	<i>10 days</i>	<i>Tue 1/26/21</i>	<i>Mon 2/8/21</i>
Cleanup & Final Inspections	60 days	Tue 2/9/21	Mon 5/3/21
<i>Return Materials, Equipment, and Tools</i>	<i>10 days</i>	<i>Tue 2/9/21</i>	<i>Mon 2/22/21</i>
<i>Site Cleanup</i>	<i>10 days</i>	<i>Tue 2/23/21</i>	<i>Mon 3/8/21</i>
<i>Green Roof Installation</i>	<i>19 days</i>	<i>Tue 3/9/21</i>	<i>Fri 4/2/21</i>
<i>DOL Inspection</i>	<i>30 days</i>	<i>Tue 4/5/21</i>	<i>Mon 5/3/21</i>
<i>DDOT Inspection</i>	<i>30 days</i>	<i>Tue 4/5/21</i>	<i>Mon 5/3/21</i>
Plumbing Inspection	30 days	Tue 4/5/21	Mon 5/3/21
Electrical Inspection	30 days	Tue 4/5/21	Mon 5/3/21
Certificate of Occupancy	30 days	Tue 4/5/21	Mon 5/3/21
Final Acceptance and Closure	20 days	Tue 5/4/21	Sun 5/30/21
<i>Send final billing invoices</i>	<i>10 days</i>	<i>Tue 5/4/21</i>	<i>Mon 5/17/21</i>
<i>Close Procurements</i>	<i>3 days</i>	<i>Tue 5/18/21</i>	<i>Thu 5/20/21</i>
<i>Project Walkthrough</i>	<i>15 days</i>	<i>Tue 5/4/21</i>	<i>Mon 5/24/21</i>
<i>Customer Sign-off</i>	<i>1 day</i>	<i>Tue 5/25/21</i>	<i>Tue 5/25/21</i>
<i>Press Conference</i>	<i>1 day</i>	<i>Thu 5/27/21</i>	<i>Thu 5/27/21</i>
<i>Prepare for opening</i>	<i>1</i>	<i>Fri 5/28/21</i>	<i>Fri 5/28/21</i>
<i>Opening to Public</i>	<i>1 day</i>	<i>Sun 5/30/21</i>	<i>Sun 5/30/21</i>
<i>Project closed</i>	<i>1</i>	<i>Sun 5/30/21</i>	<i>Sun 5/30/21</i>
Weekly Meetings	863 days	Mon 1/29/18	Mon 5/24/21

Table 5. This table depicts a summary of project activity estimates for the new FEC.

Project Gantt Chart

A Gantt chart was generated for the project to demonstrate the duration of each activity (Figure 2). The chart will be utilized to communicate to the FiSH, Inc. appointed representative, the No Life Management, Inc. project team, engineers, and contractors project dependencies, determine and manage resources, track tasks, and monitor progress.

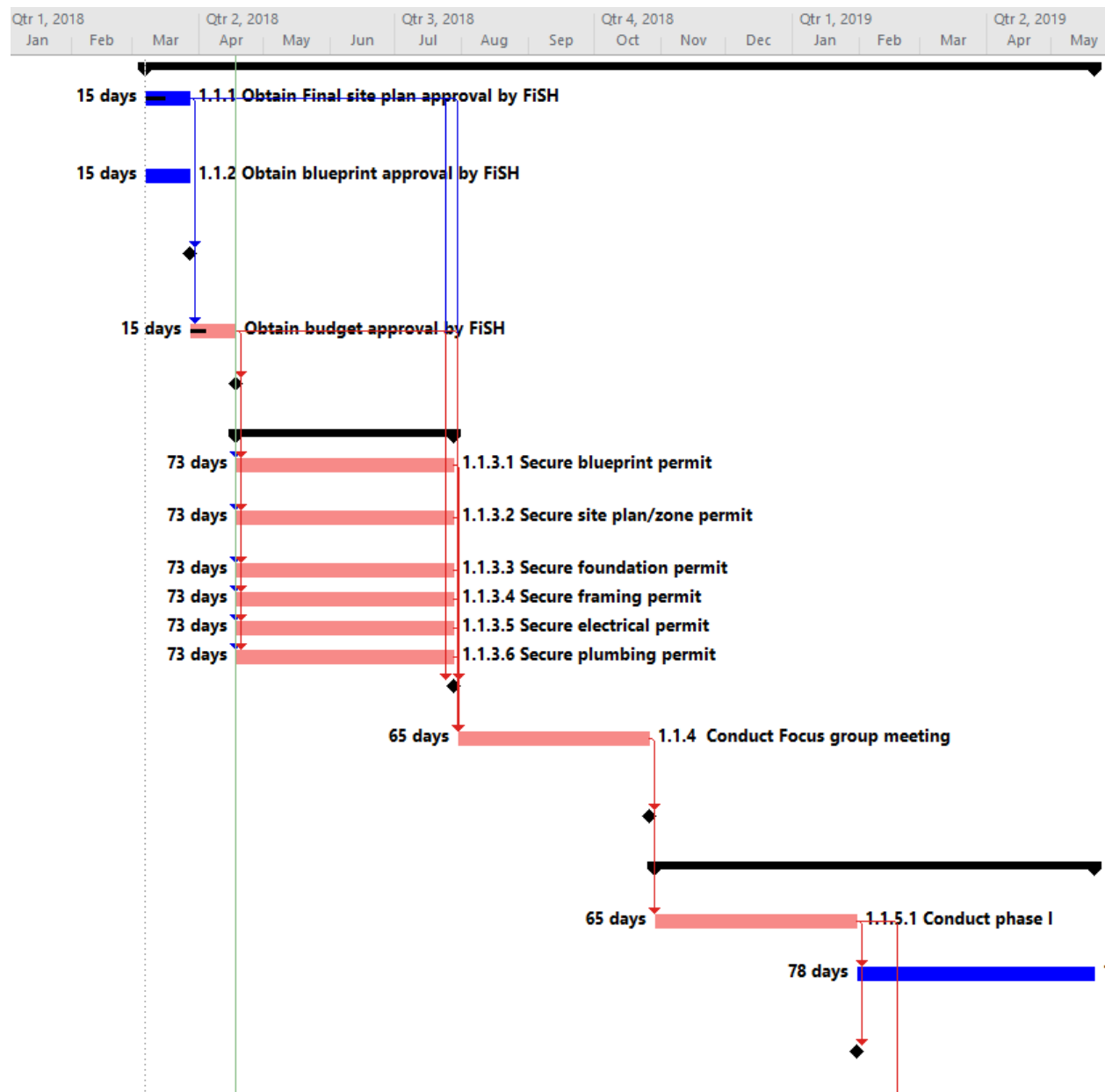


Figure 2. This figure illustrates a portion of the Gantt Chart for the new indoor FEC.

Project Critical Path

The critical path is the longest path through the activity network. It helps define the shortest amount of time a project can be completed regardless of float. The tasks that make up the critical path are dependent upon completion of a previous task, as well as tasks that have the possibility of causing project delay. The critical path, highlighted in red on the Gantt chart (figure 2),

illustrates milestones, task durations, and task names. The network diagram (Figure 3), shows the schedule, highlights task relationships, and the sequence of activities.

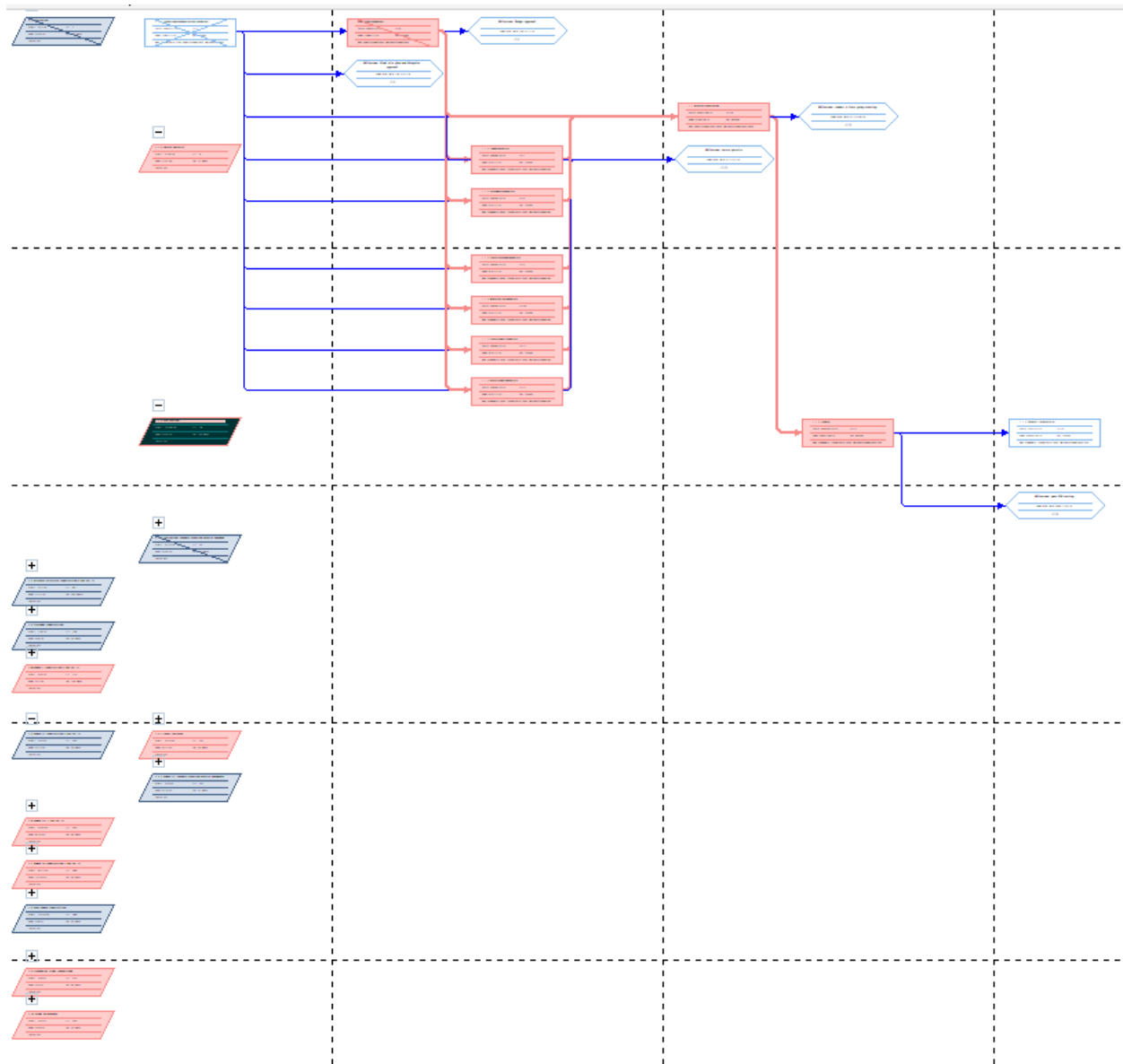


Figure 3. Network activity diagram

Over-allocated Resources

A resource (i.e people, materials, funding, etc) is a necessary asset that is required to complete project tasks. A resource becomes over-allocated when it is assigned more work than is

available for the given task or project. Although, there are no over-allocated resources for the FEC expansion, the following hypothetical scenario has been generated to be used as a guide should a resource become over-allocated.

Hypothetical Scenario. During Phase IV, three laborers are injured while installing the trampoline court and are unable to report for work. This results in the project being delayed by five days. These laborers are also scheduled to work on the trampoline park for the next 25 days. Microsoft Project can be used to manage this situation. The appointed FiSH representative has indicated a strict deadline, thus project delay is not an option. To resolve this issue, No Life Management Inc. will hire additional laborers to finish the trampoline park on time. The project is currently under budget and can afford to hire three additional workers. Using Microsoft Project, three additional laborers were manually added and assigned to the trampoline part task to ensure the deadline for completing the trampoline park was met.

Project Crashing

Project crashing is a method for shortening a project duration. A known risk for the construction of the FEC project is inclement weather. This risk can result in potential delays to the project that may necessitate crashing the project in order to meet project deadlines. The following hypothetical scenario has been generated to be used as a guide should project crashing need to be initiated.

Hypothetical Scenario. The FEC is scheduled to begin construction on the primary structure on February 19, 2019. On February 20, 2019, Washington, D.C. experiences a blizzard that causes the foundation of the FEC to be halted for two business days. In order to recover and remain on schedule while minimizing costs, No Life Management Inc. decides to crash two subsequent primary structure subtasks and hire an additional laborer. This will cost an additional

\$1600 to complete installation of the emergency exits and the windows of the FEC. By crashing two subtasks and hiring additional laborers, the No Life Management, Inc will be able to eliminate two days of work, allowing the primary structure construction to be completed on time.

Project Budget

No Life Management, Inc. created a budget of \$ 5,000,000 for the construction of the FiSH FEC. All direct and indirect costs have been factored, including possible costs of failed inspections and/or environmental assessments. The management firm utilized the bottoms-up estimating technique to establish cost estimates associated with task levels designed in the projects WBS. When constructing the budget, team No Life Management, Inc. identified all major required tasks, broke them down into smaller components, identified applicable resource, assigned time duration, and assigned cost to each component. Table 6 illustrates the cost estimation by phase.

	PROJECT TASKS	LABOR HOURS	LABOR COST (\$)	MAT. COST (\$)	COST/USE (\$)	COST PER TASK
PROJECT DESIGN	Permit Approval				\$6,000.00	\$6,000.00
	ESA Phase II (Phase II, if necessary)				\$10,000.00	\$10,000.00
	Constructing the primary structure			\$14,000.00		\$14,000.00
	Rough-ins (plumbing and electricity)			\$50,000.00		\$50,000.00
	Interior Finishes (wall, roof insulation, etc)			\$52,000.00		\$52,000.00
	Outdoor Construction (electric parking,etc)			\$617,000.00		\$617,000.00
	Total	0.0	\$0.00	\$733,000.00	\$16,000.00	\$749,000.00
Phase I	Trampoline Park and Restrooms					
	Main Trampoline court			\$160,000.00		\$160,000.00
	Backup safety system			\$40,000.00		\$40,000.00
	Sock Purchasing Station			\$8,000.00		\$8,000.00
	Kid Zone			\$50,062.00		\$50,062.00
	One-on-one basketball court (hoops,balls)			\$17,000.00		\$17,000.00
	Ninja obstacle course			\$20,000.00		\$20,000.00
	<u>Restroom</u>					
	Restroom Exterior			\$9,000.00		\$9,000.00
	Women's Room (stalls, dryers,sinks,etc)			\$15,600.00		\$15,600.00
	Family Room (diaper station, sink, etc)			\$11,900.00		\$11,900.00
	Nursing Room (Rocking chair, sink,etc)			\$18,550.00		\$18,550.00
	Men's Room (Urinals, airdryers, stalls,etc)			\$13,600.00		\$13,600.00
	Water fountains			\$15,000.00		\$15,000.00
	<u>Locker Storage</u>					
	Mens and womens (lockers, seating,etc)			\$48,000.00		\$48,000.00
	<u>Kiosk Stations</u>					
	Desks (Computers,etc)			\$21,000.00		\$21,000.00
	<u>Office Space</u>					
	Desks (Computers,etc)			\$8,000.00		\$8,000.00
	<u>Concession Stand</u>					
	Kitchen (stove, freezer, sinks,etc)			\$19,950.00		\$19,950.00
	Dining (chairs, table and counter top, etc)			\$6,800.00		\$6,800.00
	Trash area (built-in receptacles)			\$5,000.00		\$5,000.00
	Total	0.0	\$0.00	\$487,462.00	\$0.00	\$487,462.00
PHASE II	Laser tag area					
	Briefing area			\$11,000.00		\$11,000.00
	Vesting area (Vest)			\$18,000.00		\$18,000.00
	Arena area			\$100,000.00		\$100,000.00
	Control room			\$26,000.00		\$26,000.00
	Total	0.0	\$0.00	\$155,000.00	\$0.00	\$155,000.00
Phase III	Rock Climbing & Concession Stand					
	Air bag pit			\$12,000.00		\$12,000.00
	Stationary climbing area (equipment)			\$72,500.00		\$72,500.00
	Kid climbing area			\$29,000.00		\$29,000.00
	Kitchen (stove, freezer, sinks,etc)			\$39,705.00		\$39,705.00
	Dining (chairs, table and counter top, etc)			\$17,100.00		\$17,100.00
	Trash area (built-in receptacles)			\$5,000.00		\$5,000.00
	Total	0.0	\$0.00	\$175,305.00	\$0.00	\$175,305.00

Phase IV:	Bowling and Final Touches				
	Bowling Alley (Sitting area, lanes, score)		\$313,700.00		\$313,700.00
	Shoe Rental Area		\$2,000.00		\$2,000.00
	Control room		\$58,000.00		\$58,000.00
	Arcade (Games, etc)		\$2,400.00		\$2,400.00
	Employee Room		\$7,000.00		\$7,000.00
	Final touches (Post-phase)				
	Security Camera Installation		\$25,000.00		\$25,000.00
	Fire systems (sprinklers, detectors, etc)		\$39,000.00		\$39,000.00
	Sign Installation		\$3,700.00		\$3,700.00
	Green roof installation		\$20,000.00		\$20,000.00
	Cleanup		\$8,000.00		\$8,000.00
	Final Inspections		\$5,000.00		\$5,000.00
	Total	0.0	\$0.00	\$483,800.00	\$483,800.00
Other Cost:	Labor				
	Contractors	2588	\$517,600.00		\$517,600.00
	Excavator Operator	40	\$4,000.00		\$4,000.00
	Laborer	5384	\$538,400.00		\$538,400.00
	Plumber	240	\$48,000.00		\$48,000.00
	No Life Management, Inc	2687.2	\$537,440.00		\$537,440.00
	Electrician	96	\$19,200.00		\$19,200.00
	Engineer	2572.4	\$771,720.00		\$771,720.00
	Inspector	586.4	\$175,920.00		\$175,920.00
	Total	14194	\$2,612,280.00		\$2,612,280.00
Subtotals		14194.0	\$2,612,280.00	\$16,000.00	\$2,612,280.00
Total		14194.0	\$2,612,280.00	\$2,034,567.00	\$4,662,847.00

Table 6. This table illustrates the Cost Estimation and Budget of the new FEC by phase

Project Risk Management

Project Risk Management

“A risk is an event or condition that, if it occurs, could have a positive or negative effect on project objectives” (Bridges, 2016). No Life Management, Inc. will identify, assess, monitor and control, and report risks throughout the lifecycle of the project. This will be done to guarantee that all levels of risks, as well as uncertainties, are appropriately managed to result in project success. In order to minimize the impact of threats and maximize positive opportunities, the No Life Management, Inc. risk management team will address all risks through avoidance, transfer,

mitigation, prevention, or acceptance. The team is composed of the FiSH appointed representative, the No Life Management, Inc. Project Manager and his team, engineers, as well as site managers.

Risk Identification

Before implementing mitigation strategies, No Life Management, Inc. utilized several techniques in the planning process to identify risks. The first tactic involved creating a risk breakdown structure (RBS). The RBS assists in evaluating the likelihood of the risk occurring, “by organizing the risks that have been identified into categories using a table with increasing levels of detail to the right” (Bpayne & Watt, n.d).

Level 0	Level 1	Level 2
P R O J E C T R I S K S	Management	Lack of skills
		Disagreements in the team
		Defect in interim results
		Poor estimating methods
		Failure to recognize opportunities
		Lack of ability to consistently use opportunities
	External	Building Permits
		Inclement Weather
		Political
		Legal/ Regulatory
		Interest groups (changes in society)
		A shift in the market (price changes)
		Technological changes
		Environmental Site Assessment
		Subcontractor, Laborer availability and Building resources
	Cost and Time	Planning changes
		Complicated project conditions (Phase II ESA)
		Customers failing to pay
		Labor rate changes
		Physical resources
		Cost/ availability of materials
		Funds not available
	Technical	Scope Creep
		Technology
		Regulation Changes
		Complexity and Interfaces
		Quality

Table 7. This table depicts the Risk Breakdown Structure used to identify risks.

FiSH is designing a FEC that will replicate its first location in Baltimore, MD, for this reason, the No Life Management, Inc. team analyzed the former project, as well as interviewed the appointed FiSH representative, in order to form a checklist of potential risks. In addition to former lessons learned, the lowest level of the RBS was also used to form the checklist. The FiSH representative was beneficial in determining technical, financial, contractual, political, and schedule risks that could interfere with the success of the project. Although the checklist (Table 8) will be used as guidance for identifying risk, the No Life Management team will work to identify possible risks outside of the checklist. The checklist will be reviewed during project closure to formulate a new lesson learned document.

Risk	Details
1	Quality risks (Defect in interim results, lack of application of project methods, and few controls/tests)
2	Personnel risks (lack of skills, miscommunication, disagreements in the team)
3	Cost risks (Planning changes, complicated project conditions, invoices not being sent resulting in customers failing to pay)
4	Schedule risks (Tasks not properly scheduled, resulting in extended project time and availability of laborers)
5	Risks of strategic decisions (Failure to recognize chances, lack of ability to consistently use chances)
6	External risks (Natural occurrences, political changes, changes in society, legal developments, technological changes)

Table 8. This table illustrates a portion of the risk identification checklist formulated from the Baltimore, MD location to identify risks for the new FEC.

Risk Assessment

After the potential risks have been identified, the project team will then evaluate the risk identified based on the probability of it impacting the project. The No Life Management, Inc.

team will utilize a risk assessment matrix (Table 9) to manage and prioritize identified risks. This technique was utilized in effort to increase visibility of risks, as well as assist in decision making.

Probability	Consequences				
	Insignificant Risk that can be easily mitigated by daily processes	Minor Risks that could cause a 10% delay of schedule/ cost up to 10% of budget	Moderate Risks that could result in 30% delay of schedule/ 30% of budget	Major Risks that could result in 50% delay of schedule/ cost up to 50% of budget	Catastrophic Risks resulting in the project being abandoned
Certain >90% chance					
Likely 50%- 90% chance	Inclement weather				
Moderate 10%-50% chance		Price Change in Building Resources	Phase II ESA needed	Building Resources Unavailable	
Unlikely 3%- 10% chance			Availability of Laborers		
Rare <3% chance			Bureaucracy of Government halting project		

Table 9. This table illustrates the risk assessment matrix utilized by the No Life Management, Inc. team.

It is important to note that a risk that is identified as:

- High – has the potential to greatly impact project cost, project schedule or performance;
- Medium – has the potential to slightly impact project cost, project schedule or performance;
- Low – has relatively little impact on cost, schedule or performance.

In addition, “Risks that fall within the RED and YELLOW zones will have risk response planning, which may include both risk mitigation and a risk contingency plan” (Georgia Technology Authority, 2008).

Risk Response

For each major risk (highlighted in yellow and red) the No Life Management, Inc. team will assign a team member to monitor the risk. This will ensure that the risk is carefully monitored.

Identified risks will be either:

- Avoided- Eliminating the source, thus eliminating the risk;
- Mitigated- Reducing the severity of the threat;
- Accepted- No action taken;
- Transferred- Transferred to another party.

Each risk that is subject to mitigation, No Life Management, Inc. will find remediation tactics to prevent the recurrence of the risk and its impacts. For example, adding tasks to the project schedule, adding resources, etc. Risks that have been accepted and mitigated will result in a course of action outlined for the risk. This will ensure that the threat's impact on the project is reduced.

Risk Monitor and Control

No Life Management, Inc. will monitor risk throughout the life of the project using project status and performance reports. Recognizing that risk monitoring can make or break a project, the project manager and his team will vigilantly “monitor identified risks, identify new risks, ensure proper execution of planned risk responses, and evaluate overall effectiveness of the Risk Management Plan in reducing risk” (True Solutions, 2010). If risks or risk symptoms are discovered, it will be communicated immediately for evaluation, corrective action, and/or recommended for preventive action. If No Life Management, Inc. discovers an unanticipated risk after it has happened, the project manager will follow a workaround plan. In addition, a “top 10 risk list” will be “maintained by the project team and will be reported as a component of the project status reporting process for this project” (Georgia Technology Authority, 2008). All workaround plans will be documented into the Risk Register as soon as possible. If there are approved change requests, the project manager will conduct a new risk assessment to determine if the new changes will present risks or have an impact on the projects plan. FiSH will be notified of risk statuses in the project status report.

Project Evaluation

No life Management, Inc. believes that project evaluation is an essential part of controlling the projects outcome. “Project evaluation is the examination and appraisal of the likely probability of a project attaining its technical performance, schedule, and cost objectives” (Cleland, 1985). For this reason, No Life Management, Inc. has conducted a pre-evaluation to select the project, an ongoing evaluation during the life of the project, and a post-project evaluation will be conducted to assist with lessons learned.

During the project life cycle, No life Management, Inc. will evaluate document tasks as they are completed. Tasks will be evaluated monthly and reviewed by the Project Manager for efficiency. This evaluation will assist in determining the status of the project in terms of time, budget, and technical performance objectives. It will ask questions such as “does the project continue to have a strategic fit with the enterprise’s mission? Is there anything that should be done, that is not being done? Are the project “stakeholders” comfortable with the results of the project?” (Cleland,1985). In addition, the process will determine what is going in the correct or incorrect direction, as well as problems and/or opportunities emerging. These questions will be used during the bi-weekly meeting and contribute to the lessons learned document

It is important to note that if there are conflicts with tasks, the functional manager will report it to the Project Manager. The Project Manager will report the conflict to the appointed FiSH, Inc. representative., if not remediated. In order to measure the project by tasks achieved, the project manager will conduct an earned value analysis to “measure the amount of work actually performed on the project beyond the basic review of cost and schedule reports” (Reichel, 2006). This information will then be utilized to predict the project’s overall cost and completion date.

Before the completion of the project, No Life Management, Inc. will conduct financial and administrative closure of the project. Within financial closure, the project manager will ensure that all project related accounts have been closed and billing has been finalized. In addition, a comparison analysis will be conducted to determine the difference between the actual costs of the project and the planned project budget. The analysis can also be used in the future to “compare alternative projects to select which ones should be implemented” (University of Washington, n.d.) Once it has been determined that all characteristics aforementioned have been fulfilled the financial closure process is completed.

Next, when all work has been signed off by the customer, the project manager will begin the administrative closure process. This process ensures that all deliverables have been completed and satisfactory to FiSH, Inc, documentation of the project is up-to-date and ready to be archived. In addition, administrative closure involves documenting project results, confirmation that the project met requirements, analysis of the success or failure, analysis of the effectiveness of the performance by the project manager and team members, acceptance of the product, and lessons learned or retrospectives from the project (Phillips, 2004). When all of the aforementioned characteristics have been met the administrative closure process is complete and the project is ready to begin project close-out.

Project Close-out

No life Management, Inc. recognizes the importance of the close-out phase of the project life cycle. “Although the primary emphasis in any project is to provide the end product to the customer on time and on schedule, the Project Manager must not forget that there are ancillary support items required in each project” (Principles of Project Closeout, 2003). For this reason,

No Life Management, Inc has set-forth the following activities before the project can be deemed as complete. In addition, a project checklist for the project is outlined in Appendix C:

1. Scope Verification- No Life Management, Inc will ensure that all requirements found under the scope sector has been fulfilled in a timely manner and within budget. Requirements found under scope statement will be reviewed using a technical and financial analysis to ensure it meets the customers satisfaction.
2. Financial audit- The project manager and his team will ensure that the FEC successfully completes a financial audit. The project manager will ensure that all financial obligations, including vendors and staff being advised of financial closing dates, have been met and that the tasks taken to complete the FEC match the proposed budget.
3. Technical Audit- This audit will determine the performance of the project, as well as management and team members.
4. Risk Management- The project manager will ensure that issues and risks were managed by the project.
5. Product completion and delivery- After the physical completion the FEC, final safety tests, inspections, and clean-up activities must be conducted before the delivery to the customer. A walkthrough will be conducted to gain the final acceptance of the project.
6. Customer sign-off- After FiSH, Inc., has conducted the final walk through, the organization will sign-off. Sign-off signifies that the final product successfully adheres to the requirements outlined within the scope statement.
7. Contract close-out- Following customer sign-off, No Life Management will present FiSH, Inc with a standard form that gives, date of acceptance, and the signature of FiSH's designated contracting officer, Ms. Tiffany Austin.

8. Project Retrospective Analysis- As a part of the project closure process, the project manager and his team will conduct a project retrospective analysis to review information gathered during project. This information will be used to gather what went wrong or right with the project. It will encourage the repetition of desirable outcomes and prevent the repetition of undesirable outcomes.

If all the close-out activities are completed, the project manager and his team will have succeeded and the project will be complete.

References

- Bpayne & Watt, A. (n.d). 16. Risk Management Planning. Retrieved on March 20, 2018, from <https://opentextbc.ca/projectmanagement/chapter/chapter-16-risk-management-planning-project-management/>
- Bridges, J. (4 April 2016). Positive vs. Negative Risks on Projects. Retrieved from <https://www.projectmanager.com/training/positive-vs-negative-risks-on-projects>
- Chapter 11: Principles of Project Closeout. (2003). Managing Information Technology Projects (pp. 245-254) American Management Association International
- Cleland, D. I. (1985). A strategy for ongoing project evaluation. *Project Management Journal*, 16(3), 11–17.
- Environmental Protection Agency. (2017 July 24). Superfund: Cercla Overview. Retrieved from <https://www.epa.gov/superfund/superfund-cercla-overview>
- Department of Consumer and Regulatory Affairs. (n.d). About Permits. Retrieved from <https://dcra.dc.gov/page/about-permits>
- Georgia Technology Authority. (31 March 2008), Risk Management Framework. Retrieved from <https://gta.georgia.gov/psg/article/risk-management-framework>
- Harned, B. (2015, October). How to estimate projects accurately using a work breakdown structure. Retrieved from <https://www.teamgantt.com/blog/how-to-estimate-projects-accurately-using-a-work-breakdown-structure/>
- Phillips, J. (2004). PMP Project Management Professional study guide, third edition. Retrieved from <https://flylib.com/books/en/4.273.1.102/1/>
- Pitagorsky, G. (1998). The project manager/functional manager partnership. *Project Management Journal*, 29(4), 7–16.

Reichel, C. W. (2006). Earned value management systems (EVMS): "you too can do earned value management" Paper presented at PMI® Global Congress 2006—North America, Seattle, WA. Newtown Square, PA: Project Management Institute.

Siegelaub, J. M. (2007). Six (yes six!) constraints: an enhanced model for project control. Paper presented at PMI® Global Congress 2007—North America, Atlanta, GA. Newtown Square, PA: Project Management Institute.

True Solutions. (2010 September 21). Applying the Risk Monitoring and Control Process.

Retrieved from <http://project-management.truesolutions.com/2010/09/21/applying-the-risk-monitoring-and-control-process/>

University of Washington. (n.d.) Chapter 4: Financial Analysis Overview. Retrieved on April 15, 2018, from

https://www.courses.psu.edu/for/for466w_mem14/PDFs/Ch4_FinAnaly_Overview.PDF

Usmani, Fahad, et al. (2012, August 13). "What Is a Projectized Organization Structure?" *PM Study Circle*, Retrieved from <http://www.pmstudycircle.com/2012/08/what-is-a-projectized-organization-structure/>

Appendix A - Project Charter

New Indoor Family Entertainment Complex: FiSH Washington, D.C. Expansion

No Life Management, Inc. is a program management and consulting firm that encourages creativity and innovation, producing audacious solutions for our clients. We strive to make connections that will assist in changing lives. We service the needs of our clients internationally, as well as locally. Our clients reach out to us to guarantee that every characteristic of their project is accurately administered, well-executed and copiously reinforced from start to finish. No Life Management is well experienced and knowledgeable and uses this information to distribute the greatest outcome for our clients.

Fun is Standing Here (FiSH), currently located in Baltimore, M.D, is looking to expand its family entertainment complex (FEC) business to the Washington, D.C area, specifically the Ward 8 region (Anacostia, Barry Farm, Bellevue, Buena Vista, Congress Heights, Douglas Fairlawn, Garfield Heights, Knox Hill, Shipley Terrace, Washington Highlands and Woodland). The FEC will contain four indoor attractions; a trampoline park, a laser tag area, a bowling area and a rock climbing station. The aim of the FEC is to establish a fun environment that not only encourages physical activity, but supports communities and families in forming and maintaining healthy relationships.

Purpose for the project

Currently, the Ward 8 region of Washington, D.C does not have an innovative area that encourages both physical activity and parent-child interaction. With the field of technology increasing rapidly, the amount of time children spend doing physical activities has dramatically

decreased. With this being said, it is vital to give youth an area to socialize, physically thrive, and create family bonds. The construction of this FEC will not only assist in the social and economic prosperity of the community but will assist in the expansion of the FiSH business. No Life Management will also benefit from the project by gaining experience, knowledge attainment and possible recommendations for similar contracts.

Project Scope Statement

FiSH's expansion will be constructed in the Ward 8 region of Washington, D.C, specifically near Anacostia Metro Station. Before construction, the proposed location will be evaluated for environmental liability through a Phase 1, and if necessary a Phase II, Environmental Site Assessment (ESA) pertinent to the Comprehensive Environmental Response, Compensation and Liability Act of 1980, founded by the United States Environmental Protection Agency (EPA, 2017). The FEC will include four attraction zones; an indoor trampoline park, a laser tag area, a rock climbing station, and a bowling alley. In addition, the FEC will have a sales office, computer kiosk stations (waiver stations), public and family restrooms with locker storage space, several water fountains and two concession stands.

Housed in an 8,000 sq. ft. building, each zone will reside in a separate section of the facility. The FEC will be built in four phases, the first and largest phase will be the construction of the indoor trampoline park, sales office, computer kiosk stations, centralized public and family restrooms and a concession area with a dining area. This phase will cover approximately 3,500 sq. ft. in total. The second phase will consist of the construction of the laser tag area, occupying approximately 2,000 sq. ft. The third phase will be the construction of a bowling alley and a

smaller concession stand with a dining area. It will cover approximately 1,500 sq. feet. The final phase will involve the construction of a rock-climbing station, occupying 1,000 sq. feet.

Each attraction will be built according to the specific guidelines and regulations of their respective organizations, including the International Association of Indoor Trampoline Parks, Brunswick Bowling Corporation and The Climbing Wall Association. Recycled materials will be used during construction to reduce costs and contribute to environmental sustainability. For example, the FEC will utilize Recy-blocks for building walls, a 25% recycled/renewable resource-based urethane rock-climbing wall, recycled foundation I-beam materials, and synthetic bowling lane surfaces.

The construction of the FEC will adhere to the 2013 District of Columbia Construction Codes and the Zoning Act of 1938 for Washington, D.C., outlined by the Department of Consumer and Regulatory Affairs. The FEC will acquire other necessary permits, such as Supplemental Systems Installation (A/C, electric, plumbing, etc.) and Water and Sewer Excavation (pipe installation, water main connections, etc.) (DCRA, n.d). Final approval on all blueprints, project plans, and timelines resides with FiSH management. A proposed budget for construction of the FEC will be \$5,000,000 to be completed within 3 years.

Project objectives

The following objectives must be met for the project to be considered successful:

- Objective 1: Zoning, building and other applicable permit approval (with stakeholder involvement meeting)

- Objective 2: Successful completion of a Phase I or II ESA (site remediation, if necessary)
- Objective 3: Construction of an area composed of a sales office, computer kiosk stations, centralized public and family restrooms with locker storage and a concession stand
- Objective 4: Construction of a trampoline park as part of the first phase
- Objective 5: Construction of a laser tag area
- Objective 6: Construction of a bowling alley
- Objective 7: Construction of a rock-climbing station with a smaller concession stand

Project requirements

The following items are required in the construction of the FEC:

- All construction must meet the 2013 District of Columbia Construction Codes
- Zoning must adhere to the Zoning Act of 1938 for Washington, D.C.
- Zones must be constructed in four separate phases
- Attractions must adhere to the specific guidelines and regulations of their respective organizations
- Utilization of “Environmentally Friendly” construction materials
- The first phase of the project must be centralized

Project risks

As with any project, there are risks involved. The following are recognized risks for construction of FiSH’s Washington DC expansion:

- Adverse recognized environmental conditions may be found following the ESA requiring site remediation. This remediation may contribute to increased costs and delay construction, therefore increasing the projected timeline.
- Bureaucracy of Government may delay timeline
- Unavailability of building resources from vendors may change project scope, budget, and objectives
- Inclement weather may require the allocation of additional time
- Unexpected price changes in materials cost may change project scope, budget, and objectives
- Availability of skilled laborers may delay timeline

Milestone schedule (summary)

In order to ensure that the project stays on target, No Life Management firm will utilize the following milestone schedule during the life of the project:

WBS	Milestone
1	Milestone 5-28-21: New Indoor FEC
1.1.1	Milestone 3-27-18: Final Site Plan and Blueprint Approval By Fish, Inc.
1.1.2	Milestone 4-17-18: Budget Approval by Fish, Inc.
1.1.3	Milestone 7-27-18: Secure Permits
1.1.4	Milestone 10-26-18: Conduct A Focus Group Meeting
1.1.5	Milestone 1-30-19: Pass Environmental Site Assessments
1.2.1	Milestone 3-14-19: FEC Foundation Built
1.2.2	Milestone 4-25-19: FEC Framing Built
1.2.3	Milestone 5-29-19: FEC Roofing Completed
1.2.4	Milestone 6-4-19: Installed Plumbing
1.2.5	Milestone 6-14-19: FEC Electrical Wiring Completed
1.2.6	Milestone 7-1-19: Interior Finishes Completed
1.2.7	Milestone 7-15-19: Construction of Entry Gate
1.2.8	Milestone 7-17-19: FEC Equipped with Emergency Exits
1.3.1	Milestone 8-2-19 Outdoor Construction- Laying Asphalt Complete
1.3.2	Milestone 8-15-19: Outdoor Construction- Handicap and Van Accessible Spaces Completed
1.3.3	Milestone 8-21-19: Outdoor Construction- Bike Ramp Installed
1.3.4	Milestone 8-23-19: Outdoor Construction- Wheelchair Access Ramp Installed
1.3.5	Milestone 9-5-19: Outdoor Construction-Electrical Charging Stations Complete
1.3.6	Milestones 9-6-19: Green Roof and Trash and Recycling Receptacles
1.4.1	Milestone 11-1-19: Phase I – Indoor Trampoline Park Completed
1.4.2	Milestone 12-19-19: Phase I- Restroom Area with Water Fountains Installed
1.4.3	Milestone 1-3-20: Phase I- Locker Rooms
1.4.4	Milestone 1-10-20: Phase I- Kiosk Station Installed
1.4.5	Milestone 1-24-20: Phase I- Office Space Completed
1.4.6	Milestone 2-7-20: Phase I- Concession Stand with Dining Area Completed
15.1	Milestone 4-17-20: Phase II- Laser Tag Area Completed
1.6.1	Milestone 7-31-20: Phase III- Rock Climbing
1.6.2	Milestone 8-14-20: Phase III- Concession Stand with Dining Area Completed
1.7.1	Milestone 11-6-20: Phase IV- Bowling Alley
1.7.2	Milestone 12-4-20: Phase IV: Shoe Rental Area Installation
1.7.3	Milestone 12-11-20: Phase IV- Control Room
1.7.4	Milestone 12-28-20: Phase IV Arcade Area Complete
1.8.1	Milestone 1-11-21: Post-Phase- Security Cameras Installed
1.8.2	Milestone 1-25-21: Post-Phase- Fire Safety Equipment
1.8.3	Milestone 2-8-21: Post-Phase- Zone Signage Installed
1.9.1	Milestone 5-3-21: Final Inspections Completed
1.10.1	Milestone 5-17-21: Final Acceptance and Closure- Invoices Sent and Payments Finalized
1.10.2	Milestone 5-20-21: Final Acceptance and Closure- Contracts Closed

Budget

	PROJECT TASKS	LABOR HOURS	LABOR COST (\$)	MAT. COST (\$)	COST/USE (\$)	COST PER TASK
PROJECT DESIGN	Permit Approval				\$6,000.00	\$6,000.00
	ESA Phase II (Phase II, if necessary)				\$10,000.00	\$10,000.00
	Constructing the primary structure			\$14,000.00		\$14,000.00
	Rough-ins (plumbing and electricity)			\$50,000.00		\$50,000.00
	Interior Finishes (wall, roof insulation, etc)			\$52,000.00		\$52,000.00
	Outdoor Construction (electric parking,etc)			\$617,000.00		\$617,000.00
	Total	0.0	\$0.00	\$733,000.00	\$16,000.00	\$749,000.00
Phase I	<u>Trampoline Park and Restrooms</u>					
	Main Trampoline court			\$160,000.00		\$160,000.00
	Backup safety system			\$40,000.00		\$40,000.00
	Sock Purchasing Station			\$8,000.00		\$8,000.00
	Kid Zone			\$50,062.00		\$50,062.00
	One-on-one basketball court (hoops,balls)			\$17,000.00		\$17,000.00
	Ninja obstacle course			\$20,000.00		\$20,000.00
	<u>Restroom</u>					
	Restroom Exterior			\$9,000.00		\$9,000.00
	Women's Room (stalls, dryers,sinks,etc)			\$15,600.00		\$15,600.00
	Family Room (diaper station, sink, etc)			\$11,900.00		\$11,900.00
	Nursing Room (Rocking chair, sink,etc)			\$18,550.00		\$18,550.00
	Men's Room (Urinals, airdryers, stalls,etc)			\$13,600.00		\$13,600.00
	Water fountains			\$15,000.00		\$15,000.00
	<u>Locker Storage</u>					
	Mens and womens (lockers, seating,etc)			\$48,000.00		\$48,000.00
	<u>Kiosk Stations</u>					
	Desks (Computers,etc)			\$21,000.00		\$21,000.00
	<u>Office Space</u>					
	Desks (Computers,etc)			\$8,000.00		\$8,000.00
	<u>Concession Stand</u>					
	Kitchen (stove, freezer, sinks,etc)			\$19,950.00		\$19,950.00
	Dining (chairs, table and counter top, etc)			\$6,800.00		\$6,800.00
	Trash area (built-in receptacles)			\$5,000.00		\$5,000.00
	Total	0.0	\$0.00	\$487,462.00	\$0.00	\$487,462.00
PHASE II	<u>Laser tag area</u>					
	Briefing area			\$11,000.00		\$11,000.00
	Vesting area (Vest)			\$18,000.00		\$18,000.00
	Arena area			\$100,000.00		\$100,000.00
	Control room			\$26,000.00		\$26,000.00
	Total	0.0	\$0.00	\$155,000.00	\$0.00	\$155,000.00
Phase III	<u>Rock Climbing & Concession Stand</u>					
	Air bag pit			\$12,000.00		\$12,000.00
	Stationary climbing area (equipment)			\$72,500.00		\$72,500.00
	Kid climbing area			\$29,000.00		\$29,000.00
	Kitchen (stove, freezer, sinks,etc)			\$39,705.00		\$39,705.00
	Dining (chairs, table and counter top, etc)			\$17,100.00		\$17,100.00
	Trash area (built-in receptacles)			\$5,000.00		\$5,000.00
	Total	0.0	\$0.00	\$175,305.00	\$0.00	\$175,305.00

Phase IV:	Bowling and Final Touches				
	Bowling Alley (Sitting area, lanes, score)			\$313,700.00	\$313,700.00
	Shoe Rental Area			\$2,000.00	\$2,000.00
	Control room			\$58,000.00	\$58,000.00
	Arcade (Games, etc)			\$2,400.00	\$2,400.00
	Employee Room			\$7,000.00	\$7,000.00
	<u>Final touches (Post-phase)</u>				
	Security Camera Installation			\$25,000.00	\$25,000.00
	Fire systems (sprinklers, detectors, etc)			\$39,000.00	\$39,000.00
	Sign Installation			\$3,700.00	\$3,700.00
	Green roof installation			\$20,000.00	\$20,000.00
	Cleanup			\$8,000.00	\$8,000.00
	Final Inspections			\$5,000.00	\$5,000.00
	Total	0.0	\$0.00	\$483,800.00	\$483,800.00
Other Cost:	<u>Labor</u>				
	Contractors	2588	\$517,600.00		\$517,600.00
	Excavator Operator	40	\$4,000.00		\$4,000.00
	Laborer	5384	\$538,400.00		\$538,400.00
	Plumber	240	\$48,000.00		\$48,000.00
	No Life Management, Inc	2687.2	\$537,440.00		\$537,440.00
	Electrician	96	\$19,200.00		\$19,200.00
	Engineer	2572.4	\$771,720.00		\$771,720.00
	Inspector	586.4	\$175,920.00		\$175,920.00
	Total	14194	\$2,612,280.00		\$2,612,280.00
Subtotals		14194.0	\$2,612,280.00	\$16,000.00	\$2,612,280.00
Total		14194.0	\$2,612,280.00	\$2,034,567.00	\$4,662,847.00

Criteria for project approval

The FEC must adhere to the Districts zoning and building permit requirements, as outlined by the Department of Consumer and Regulatory Affairs. It must be able to acquire additional permits, such as Supplemental System Installation (A/C, electric, plumbing, etc.) and Water or Sewer Excavation (pipe installation, water main connections, etc.). In addition, the projects areas must be separated into individual phases. The first phase should be composed of the trampoline park, concession stand, sales office and computer kiosk stations. It must have public and family restrooms with locker stations in the center of the FEC. The second and third phase must result in the construction of the laser tag and bowling alley area, respectively. The final phase of the

project must be comprised of a rock climbing area with a smaller concession stand. When applicable, the project must utilize environmentally friendly construction materials. In addition to the aforementioned requirements, the FEC must pass the Occupational Safety and Health Administration inspection.

Project Authority

The project will be under the review of the FiSH organization. FiSH will appoint representatives to conduct bi-weekly meetings with the Project Manager and other functional managers from the No Life Management team. Bi-weekly meetings will benefit the project by serving as a status updater, as well as a platform to confront conflicts that may arise or have arisen throughout the life of the project. FiSH will have the final say in all decisions pertaining to the direction of the project and has the authority to override the decisions of No Life Management, if needed.

No Life Management has the authority of the procurement process (i.e material sourcing and usage) within the project. The Project manager, to be appointed by No Life, will determine the needs of the 8,000 square foot facility, and coordinate resources based on the outlined requires and needs of each phase.

Project manager and authority level

Ryan Currie, a representative of No Life Management, has been appointed the role of Project Manager for the project. Mr. Currie will be responsible for project coordination and delivery throughout the life of the project. His duties will include day-to-day activities, such as hiring subcontractors, overseeing and approving budget allocation, as well as ensuring that FiSH's resources are applied effectively to meet the objectives and goals of the project. In addition, No Life Management will utilize other functional managers to complete activities within the project.

Kristin Sapp and Tiffany Kirkland, will have the responsibility of “ensuring that the resources in each are properly trained, evaluated, and motivated; that core processes with the function are effective, and that sufficient resources are available for program performance “(Pitagorsky, 1998). The managers will report directly to Mr. Currie.

Project sponsor or customer and authority level

Tiffany Austin, FiSH’s founder, will function as the representative of the organization. Ms. Austin will represent the needs of the organization and be responsible for describing the goals and objectives of the project. She will review project status reports and inform Mr. Currie of changes that could impact project deliverables. Ms. Austin will make decisions to the project, when needed, provide feedback to Mr. Currie on a regular basis, as well as inspect the final deliverables of the project.

Appendix B - Risk Register

Risk Information			Risk Assessment				Risk Response		
Risk Name	Category	Responsible Party	Probability	Risk Rating	Response	Contingency	Trigger	Impact	Risk Status
Inadequate Equipment	Technical	Project Manager	Occasional	Extreme	Mitigation	Exchange inadequate equipment for efficient tools	Equipment does not fulfill expected capability	Extreme	Open
Failure to Comply to Standards	Scope	Project Manager	Occasional	High	Mitigation	Work with design team to meet building standards	Project delays with tasking between milestones	High	Open
Inclement Weather	Environmental	Project Manager	Occasional	Extreme	Retention	Project Buffer	Construction on Hold	Extreme	Open
Building Permits Not Approved	Schedule	Project Manager & Construction Manager	Seldom	High	Mitigation	Correct issues that caused failed approval	Break Ground delayed	Extreme	Open
Unexpected Material Cost Changes	Cost	Medium	Likely	Medium	Acceptance	Retrieve Contingency funds for cost increase	Cost of materials increase over time	Project Manager	Open
Availability of Skilled Laborers	People	Medium	Occasional	Medium	Mitigation	Find resources with similar skill set.	Competing with outside projects for highly skilled personnel	Project Manager	Open

Appendix C - Project Close-out Checklist

The mission of this checklist is to provide No Life Management, Inc with a reference to utilize to ensure that project related activities have been successfully met as outlined by, FiSH, Inc. If all the closeout activities are completed, No Life Management, Inc. will have successfully completed the project.

Project Start Date		Project End Date	
Project Sponsor	Title	Department	Contact Number
Project Manager	Title	Department	Contact Number
Project Closure Checklist			
#	Item	Yes/ No	Comments
1	Have all deliverables been performed as outlined in the scope statement (including approved change orders)?		
2	Have all deliverables been approved?		
3	Have clean-up chores been performed?		
4	Have all final inspections and post-project evaluations been performed and documented?		
5	Was the performance of subcontractors, suppliers, etc. reviewed?		
6	Has individual performance feedback been given to the team?		
7	Has the Project Manager composed a lessons learned document or held a meeting?		
8	Did the project adhere to the planned project?		
9	Have project related accounts been closed and all billing finalized?		
10	Were the estimates of risk compared to the actual events?		
	Have all outstanding issues been documented and resolved?		
11	Are all project documents up-to-date?		
12	Are resource assignments properly documented and up-to-date?		
13	Are change requests properly documented and up-to-date?		
14	Have all deliverables been formally accepted and signed off by the sponsor?		
15	Have all borrowed equipment been returned or disposed of?		
16	Have project resources (people, equipment, etc.) been released or reassigned ?		
17	Has the Project Manager composed all project related plans (charter documents, scope statements, change documents, etc) to be archived for future reference?		
18	Have all documents been organized and signed by the appropriate		

Appendix D- Project Status Report Template

Project Type:		Reporting Period	From:			
			To:			
Project Name:						
Project Description:						
Project Location:		Person responsible for reporting (including: Title, phone number, email, etc.)				
PROJECT SUMMARY						
Overall Project Status (INSERT CHECK) *Key indicators: budget, schedule, stakeholders, scope, resources		On Track	The project is well controlled. Some issues may have been identified, but effective actions are planned for solving them.			
		Off Track	The project has problems that require change in plans. Additional focus and management is essential to bring the project back under control.			
		At Risk	The project has serious problems. One or more* key indicators are in At Risk status.			
		Not Started	Not started (and not scheduled to start)			
Comments:						
Project Schedule						
Project Start Date:			Proposed End Date:			
Current Phase :						
Major Milestones or Deliverables		Status	Revised	Plan Date	Actual Date	Completion Percentage
1						
2						
3						
4						
5						
GREEN – On target to achieve Milestone/Deliverable Date. Baseline date = Forecast Date. YELLOW – Milestone Target Delivery Date is in danger of not being achieved but a managed solution capable of bringing forward the Forecast date is being applied. Baseline date < Forecast Date		RED – Milestone Target Delivery Date is not going to be achieved or has already passed. No work rounds or solutions capable of bringing forward the forecast date is available.				
Project Costing & Tracking: Please provide details regarding project costs for this reporting period (budget, actual expenditures, and variance) and include comments for all variances, including the row ID and description of the variance. 'Budget' refers to the amount received by the LHIN. 'Actual' refers to what is spent to-date. 'Variance' is the difference between 'Budget' and 'Actual'.						
Comments		Budget	Project to Date Actual		Variance	
Project Issues and Risks - Briefly describe the risk or issue and current status						
Date Added	Issue or Risk	Description			Status	
Additional Comments:						

Change Request History- List any amendments to the original contract					
ID.	Title	Amount Change	Schedule Change	Status Review (in review, agreed, with drawn)	Comments