

TECHNICAL REPORT 1



HFS WAREHOUSE AND BAKERY EXPANSION

UNIVERSITY PARK, PA

EXECUTIVE SUMMARY

Contained within this document is information concerning the renovation and addition of the Housing and Food Services Warehouse and Bakery Expansion for The Pennsylvania State University in University Park, Pennsylvania. Scheduled for completion in March 2016, the project includes increasing freezer, cooler, and dry storage capacity, expanding the bakery, and improving building systems. The current plan will be funded through many sources such as, operational reserves, state funding, self-supporting units, capital investments, and borrowing and debt services. At University Park, its buildings are in need of major renovation and significant changes with 65% of the buildings older than 25 years.

Penn State has hired Architect LSC Design Inc. to design the addition and renovation of the Housing Food and Services Warehouse and Bakery Expansion. LSC Design Inc. was founded in 1980 as Land Survey Consultants, and has since grown to include architecture, interior design, civil engineering, survey management and landscape architecture. They are now known for their ability to listen and advocate for their clients, like Penn State, and to effectively marry design with constructability within a budget and schedule.

The project will go through three phases designated by Kinsley Construction. Phase one starts with the addition to the warehouse and continuing through the East side loading docks. Phase one also entails renovating the vending warehouse located on the south side bakery and installing new freezers and coolers in the warehouse. Phase two starts with the renovation of the cooler and freezers, and construction of new racking within the cooler and freezer. Phase three will primarily entail the renovation of offices on the south side of the building.

This expansion will allow Penn State Housing and Food Services to increase the variety and scope of product offerings to meet the culinary needs of students, faculty, staff and visitors. This project also will provide opportunities to capitalize on additional direct manufacturer relationships that will reduce overall food costs.

PROJECT SCHEDULE

The existing HFS Warehouse and Bakery Expansion will undergo three phases from the construction start date, March 2nd, 2015, and will be completed for owner occupancy one year later, March 2016. The design phase started in November of 2013. Phase one starts with the excavation and foundation of the warehouse addition located on the north side. The freezer construction is also a part of phase one. New freezer and coolers will be installed to replace the aging and inefficient system currently in place. On the south side of the bakery, the vending warehouse will be renovated.

Phase two, starting mid-July, entails the renovation of the existing freezer and coolers with new ambient racking. Exterior improvements will also be made, include site lighting, curbing, landscaping, and pouring concrete stairs. During phase three, the offices on the south side of the building will be renovated. They will be ready for occupancy mid-February.

BUILDING SYSTEM SUMMARY

The 94,000 square foot existing HFS building will undergo approximately 44,500 square feet of renovations during the three phases of construction. The warehouse will be expanded on the north side by about 25,000 square feet. This expansion will allow Penn State Housing and Food Services to increase the variety and scope of product offerings to meet the culinary needs of students, faculty, staff and visitors. This project also will provide opportunities to capitalize on additional direct manufacturer relationships that will reduce overall food costs.

The goal of this renovation is to increase the capacity of freezer, cooler and dry goods storage, improve workflow and provide more effective use of space. The project will reorganize and expand the warehouse and bakery and replace aging and inefficient building systems. Early Suppression Fast Response (ESFR) and 75 hp fire pump will be installed in the ambient storage and cooler/freezer addition.

The structural design of the existing building is primarily structural steel. The addition will continue using structural steel, creating a uniform and continuous building. New 3000 amp electrical service will be installed, as well as a two megawatt emergency generator for backup power. The HFS building will be in compliance with the ASHRAE 62.1 requirements, and all demolished material will be recycled wherever possible. Hazardous materials will be disposed of in the correct safe manner.

PROJECT COST EVALUATION

The overall construction cost is approximately \$15,988,000 and the total project cost is estimated to be about \$22,032,000. After performing the RSMeans square foot estimate of \$13,903,000, the estimate is within the 15% overall construction cost. This estimate was made based off three areas of the building: warehouse, laboratory, and office space. Subsequently, a square foot estimate is not an accurate way to obtain a project cost for any project style.

CLIENT INFORMATION

Penn State expects to receive quality work from the contractor that is seamless and neat with a minimal loss of services. Another expectation of Penn State is to obtain a crew that strives to be cost-effective, timely, and be a dependable resource to meet the expectations of the project. Safety is one of the upmost concerns when dealing with campus construction. When possible, there will be zero impact to vehicular traffic, and parking. Site fencing will be used to keep pedestrians from entering the construction site. Posting directional, hazard, and caution signs as well as making public notifications is a standard for Penn State OPP. Penn State also ensures the safety of employees by setting mandatory safety training, implementing and enforcing all safety practices and standards, inspecting and repairing equipment, and utilizing appropriate PPE. Penn State conducts a Contractor Performance Evaluation throughout the entire project to ensure the quality of the building. Firms receiving an unsatisfactory mark will be considered for removal from the Pre-qualified Bidders List for a period of no less than six months.

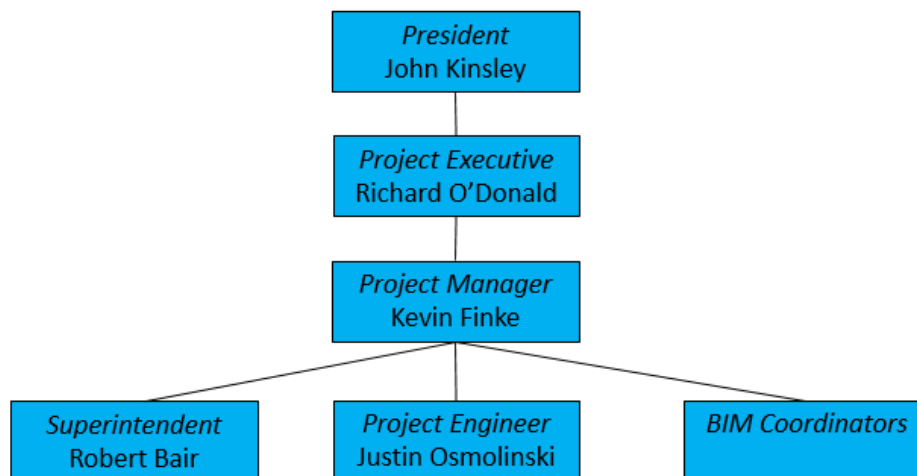
PROJECT DELIVERY SYSTEM

The Housing and Food Services Warehouse and Bakery Expansion is a design build contract between Kinsley Construction and Penn State University. This is chosen because both design and construction is in the hands of a single entity. This creates cost savings and time savings. It also reduces the administrative burden. This means the owner, Penn State, is not required to invest time and money in coordinating between separate design and construction contracts.

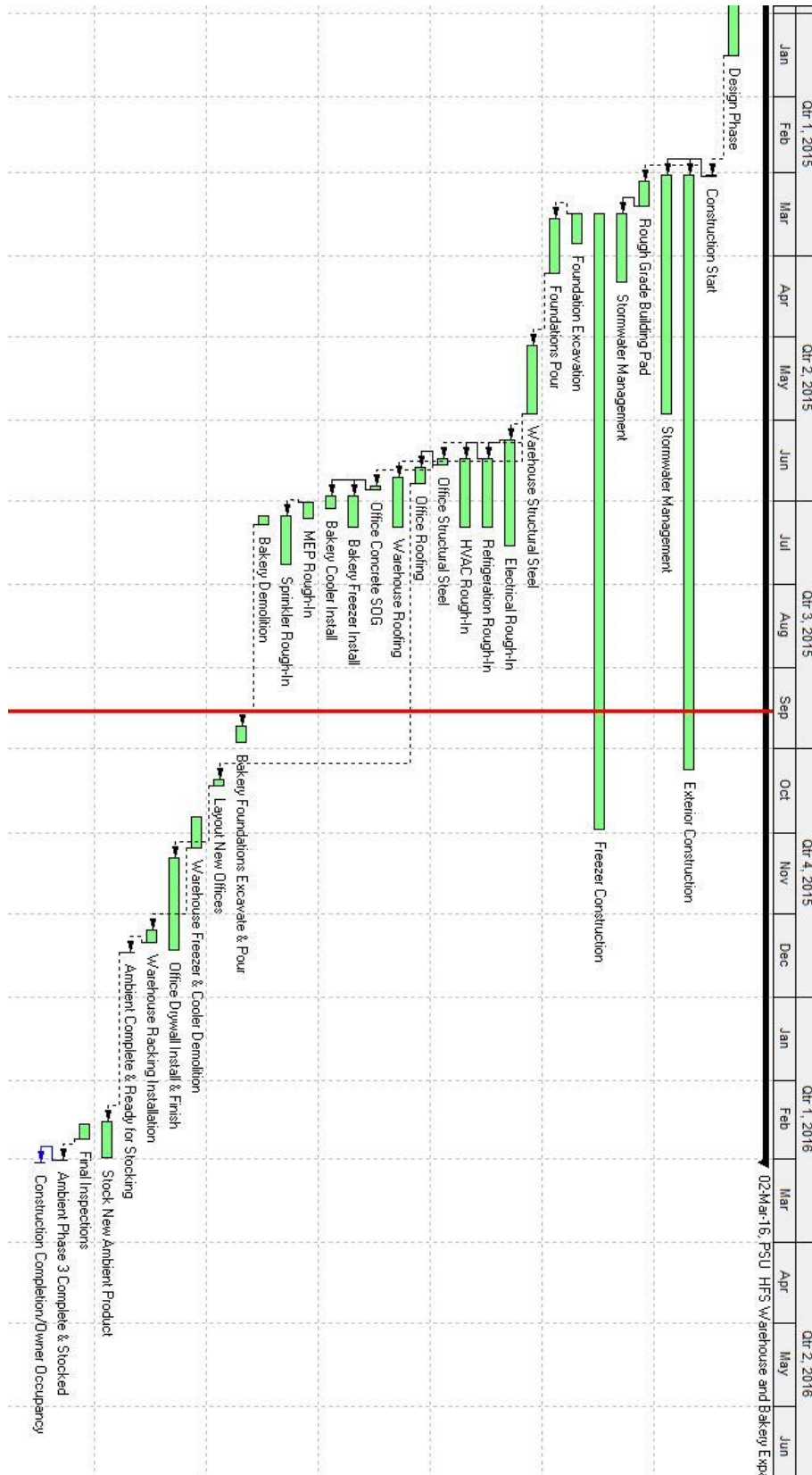
Pennsylvania State University	Owner	9 Housing and Food Services Building University Park, PA	814-863-5611
LSC Design Inc.	Architect	320 N. George St. Suite 100 York, PA	717-845-8383
Carney Engineering Group	Structural Engineer	320 N. George St. Suite 120 York, PA	717-852-1260
Barton Associates	Mechanical Engineer	329 Innovation Boulevard, Suite 112 State College, PA	814-237-2180
Sweetland Engineering	Civil Engineer	600 Science Park Road State College, PA	814-237-6518
Kinsley Construction	Contractor	2700 Water Street P.O. Box 2886 York, PA	717-741-3841
McFarland Kistler & Associates Inc.	Food Service	1130 Perry Hwy Pittsburgh, PA	412-367-1905

STAFFING PLAN

The staff of Kinsley Construction for this project is a team from York, Pennsylvania. Project Manager, Kevin Finke, is the main contact for Kinsley Construction on this project. Below are the details of the staffing plan.



APPENDIX



Activity ID	Activity Name	Start	Finish
PSU HFS Warehouse and Bakery		22-Nov-13	02-Mar-16
A1000	Design Phase	22-Nov-13	16-Jan-15
A1010	Construction Start	02-Mar-15	02-Mar-15
A1020	Exterior Construction	02-Mar-15	08-Oct-15
A1030	Stormwater Management	02-Mar-15	29-May-15
A1040	Rough Grade Building Pad	04-Mar-15	13-Mar-15
A1050	Stormwater Management	16-Mar-15	10-Apr-15
A1060	Freezer Construction	16-Mar-15	30-Oct-15
A1070	Foundation Excavation	16-Mar-15	27-Mar-15
A1080	Foundations Pour	18-Mar-15	07-Apr-15
A1090	Warehouse Structural Steel	04-May-15	29-May-15
A1100	Electrical Rough-In	08-Jun-15	17-Jul-15
A1110	Refrigeration Rough-In	15-Jun-15	10-Jul-15
A1120	HVAC Rough-In	15-Jun-15	10-Jul-15
A1150	Office Structural Steel	15-Jun-15	17-Jun-15
A1160	Office Roofing	18-Jun-15	24-Jun-15
A1140	Warehouse Roofing	22-Jun-15	10-Jul-15
A1170	Office Concrete SOG	25-Jun-15	26-Jun-15
A1210	Bakery Freezer Install	29-Jun-15	10-Jul-15
A1220	Bakery Cooler Install	29-Jun-15	03-Jul-15
A1180	MEP Rough-In	01-Jul-15	07-Jul-15
A1130	Sprinkler Rough-In	06-Jul-15	24-Jul-15
A1190	Bakery Demolition	06-Jul-15	09-Jul-15
A1200	Bakery Foundations Excavate & Pour	22-Sep-15	28-Sep-15
A1270	Layout New Offices	12-Oct-15	14-Oct-15
A1230	Warehouse Freezer & Cooler Demolition	26-Oct-15	06-Nov-15
A1280	Office Drywall Install & Finish	10-Nov-15	14-Dec-15
A1240	Warehouse Racking Installation	07-Dec-15	11-Dec-15
A1250	Ambient Complete & Ready for Stocking	15-Dec-15	15-Dec-15
A1300	Stock New Ambient Product	16-Feb-16	29-Feb-16
A1290	Final Inspections	17-Feb-16	22-Feb-16
A1310	Ambient Phase 3 Complete & Stocked	01-Mar-16	01-Mar-16
A1320	Construction Completion/Owner Occupanc	02-Mar-16	02-Mar-16

Building Parameters			
Gross Area (SF)	94000		
Perimeter (ft)	1800		
Average Story Height (ft)	29.5		
Warehouse		System Selected	
Exterior Wall Type	Metal Sandwich Panels		
Interior Structure	Steel Frame		
Cost Adjustments	Adjustment Value (ft)	Adjusted SF Cost	
Base SF Cost	N/A		102.45
Perimeter Adjustment	800	1.20/100 LF	9.6
Story HT Adjustment	5.5	0.30/LF	1.65
Total			113.70
Laboratory		System Selected	
Exterior Wall Type	Face Brick w/ Concrete Brick Back-Up		
Interior Structure	Steel Frame		
Cost Adjustments	Adjustment Value (ft)	Adjusted SF Cost	
Base SF Cost	N/A		185.90
Perimeter Adjustment	480	1.45/100 LF	6.96
Story HT Adjustment	17.5	0.70/LF	12.25
Total			205.11
Office		System Selected	
Exterior Wall Type	Brick on Block		
Roof Structure	Steel Roof Deck		
Cost Adjustments	Adjustment Value (ft)	Adjusted SF Cost	
Base SF Cost	N/A		160.30
Perimeter Adjustment	1100	1.90/100 LF	20.9
Story HT Adjustment	17.5	0.70/LF	12.25
Total			193.45

System	Warehouse		Laboratory		Office	
	%	\$/SF	%	\$/SF	%	\$/SF
D20 - Plumbing	4.5	5.12	25	51.28	6.6	12.77
D30 - HVAC	7.7	8.75	13.6	27.89	16.3	31.53
D40 - FP	7.6	8.64	2.1	4.31	3.7	7.16
D50 - Electrical	11.4	12.96	10.8	22.15	18.3	35.40

System	Warehouse \$/SF	Lab \$/SF	Office \$/SF	Adjusted \$/SF	Total Cost
D20 - Plumbing	5.12	51.28	12.77	10.55	\$991,407
D30 - HVAC	8.75	27.89	31.53	18.12	\$1,703,359
D40 - FP	8.64	4.31	7.16	7.85	\$738,283
D50 - Electrical	12.96	22.15	35.4	21.64	\$2,033,823

Summary	Floor Area	%	Cost / SF	Total Cost
Warehouse Use	54470	57.95%	113.7	\$6,193,239
Laboratory Use	5394	5.74%	205.11	\$1,106,363
Office Use	34136	36.31%	193.45	\$6,603,609
			Total Cost	\$13,903,212



KEY:

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|--|--|
|  Site Fencing |  Fire Hydrant |
|  Access Road |  Site Trailer |
|  Traffic |  Material Laydown |
|  Restroom | |