ST. MARK'S SCHOOL OF TEXAS
DALLAS, TEXAS

ADDENDUM | A REMARKER SPECIAL SECTION
DECEMBER 14, 2018

discoveries

WITHIN ITS TWO FLOORS AND 50,000 SQUARE FEET ARE HOUSED AN EXPANDED SECTIONED GREENHOUSE, 17 CLASSROOMS AND LABS, A 235-SEAT LECTURE HALL AND A PLANETARIUM. THESE FACILITIES WILL BOTH ENHANCE COURSES IN EACH DISCIPLINE AND CATER TO INTERDISCIPLINARY SCIENCES.

the next chapter

A preview of the new Winn Science Center, opening Jan. 9, 2019.

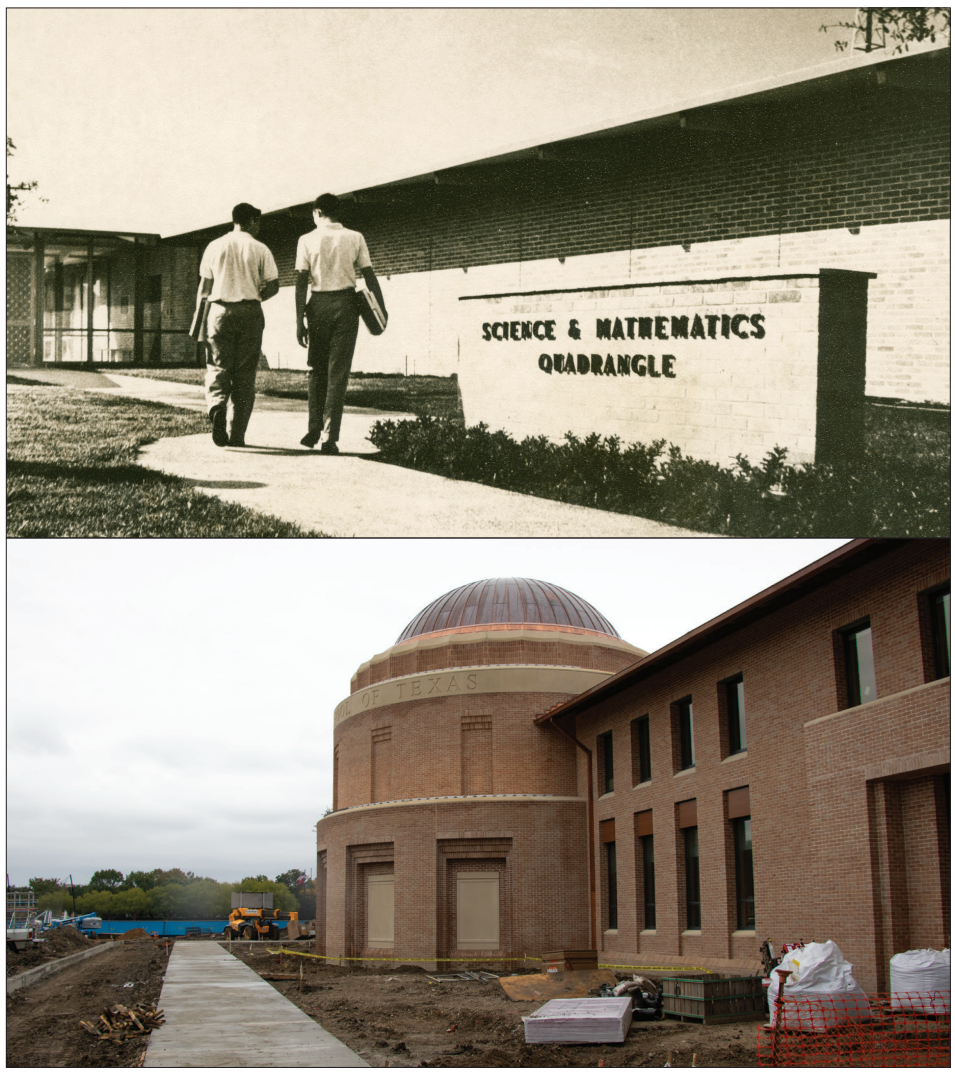
Inside

OLD AND NEW

57 years later, new beginnings

The McDermott-Green Math Science Quadrangle, which opened in 1961, put St. Mark's on the map.

Today, nearly six decades after that revolutionary opening which was featured in Time *magazine, the Winn Science Center will pick up where it left off.*



OLD AND NEW Two students (top) walk toward the newly constructed McDermott Green Math Science Quadrangle in the 60s. The Winn Science Center (above) nears the final stages of construction in anticipation of a soft opening in January 2019.

They knew they'd broken ground in 1961. But they didn't know the ground had broken beneath them.

In the thick of the Space Race, the country was hankering for new science facilities and innovation wherever they could be found. But compared to the well-established institutions of the Northeast, a small private school in the middle of the Texas plains seemed lackluster to everyone, except, perhaps, a snowballing industrial group like Texas Instruments.

•••

The new-fangled McDermott-Green Math Science Quadrangle was the brainchild of a Cold War paradigm and a rapidly growing school in a rapidly growing city. *Time* magazine called us the "best equipped day school in the country," and many recognize this building as what put us on the map.

"There was a *New York Times* article in 1962," science instructor Ken Owens '89 said, "that reviewed five new science education facilities across the country. There were four in New England. And there was us."

But a creek ran underneath the north end of the building, and throughout the latter part of the century, the covert leaks washed away the foundation.

For Owens, who was a student here from 1982 to 1989 and who has taught chemistry since 1997, this development prompted the construction of the McDermott-Green Science Building that has been in use since 1988, where Owens holds his fondest memories. But even this building is beginning to show its wear.

"The McDermott-Green Building was a classic space," Owens said, "but it was chopped up in design, and modernizing that space became more and more difficult. Having to put computer equipment in, and internet hookups, and projector screens and all that; it took a whole lot of work, and you can't hide that. It had cables everywhere, and upgrading it after you put it in was really difficult. That's not going to be a problem anymore [with the new building.]"

In fact, "futureproof" is a word closely associated with the Winn Science Center. Despite the charm and characteristics it carries over from the old building, its design works to ensure that future developments flow smoothly.

"Some of the rooms [in the old building] were designed very specifically to the teachers who were teaching there," Owens said. "Then they left. So there are definitely spaces in [t]here where it was hard to teach. You didn't know what had been taught and how it had been taught before. That's not going to be true so much in the new building."

Looking ahead to the new renovations, Founders' Master Teaching Chair Doug Rummel shares this sentiment on the future of the new building itself, the first part of which will open when students return in January.

"The bottom line is that we're going to make them a bit more uniform," Rummel said. "All the four labs are going to have essentially the same sort of lab benches for a general science layout with water and other features, a small demo table, and an interactive whiteboard with storage behind. Each lab has bigger prep rooms. The second floor is going to be kind of the same way. They look definitely futuristic. You'll know you're in a new space. It's university grade."

McDermott-Green		Winn Science Center
25,000 square feet	floor space	50,000 square feet
13 (10 full size, three half size)	classrooms and labs	17 (16 full size, one half size)
140 approx.	lecture hall capacity	235 approx.
$1.5 million	cost	$40 million

According to Rummel, this new space, with clearly defined lab areas, classrooms and halls, will grant each discipline more legroom while also catering to interdisciplinary sciences. And the very newness of the new building carries the same excitement as the old one had in its heyday.

"I've seen comparable [facilities] in Japan and other places," Rummel said, "but these are four to five thousand-person high schools like the [Tokyo Tech High School of Science and Technology], the Thomas Jefferson [High School for Science and Technology] of Virginia and the Bronx [High School of Science.] For our size, that's crazy, but you guys sure have the chops to do it."

According to Rummel, the collegiate-like equipment and facilities of the new building rival those at universities.

"For us," Rummel said, "it's like every university that's got a football team and has come up with a really nice, high-performance practice fields for athletes. For us, we've got a nice weight room, and we've got some really nice stuff, but we now have a science weight room and a science playing field. We're able to play on that level."

Rummel also posits the enthusiasm of the freedom the new building will give students.

"If you want to do a research project," Rummel said, "set it up and run it. We can grow things and have our own cell lines. We're just gonna have volunteers come in, and anybody that wants to learn, can learn. We'll get it all characterized and set up, and you guys can start playing. The goal is to give you guys as much room to run if you're passionate about it."

As does Owens.

"A greater focus on elementary education for the Lower School and on engineering and engineering applications fits very well with what people are looking for these days," Owens said. "But the base, the base core set of disciplines will still be taught as well as they always were. Whether there will be a *New York Times* article, there are a lot of schools paying more attention to STEM these days. So it wouldn't be just us, but definitely in this area we'll have."

But the crux of the matter is that if the [19]61 building put the school on the map, the [20]19 one is sure to keep it there. Whereas both Rummel and Owens have in common a certain nostalgia for the McDermott-Green, the Winn Science Center will offer plenty of incentive for the new.

"This chemistry space is the house that George Hague built," Owens said. "George Hague was the first chemistry master teacher, and he came in the fall of 1984. And when they decided to build this new building, he had a strong hand designing the space, and it's been a really good space. The parts of the space that have worked well for us I tried to carry over to the new building, to continue that. But working in this space with him when he was still alive, because he was my teacher, and I came back and taught with him, and then afterwards, has been really good in here. And I look forward to keeping the good parts of that going."

> "Our idea is to give you guys the tools and the time, and then turn you loose, within parameters, to do stuff that nobody else can do. It should be fun, and you guys will have a great time."
> — Founders' Master Teaching Chair Doug Rummel

STORY Jack Davis, Jamie Mahowald **PHOTOS** Parker Davis, Courtesy Development Office/Archives

WINN FAMILY

A legacy set in stone

With over two decades of combined time spent here, the Winn family's gift to the school will create a new focal point at 10600 Preston Rd.

The first impression Steve Winn '64 had of St. Mark's was from a car on Preston Rd. Facing to the west was a large cylindrical brick tower topped with a pristine, white dome.

Inside, a state-of-the-art planetarium and observatory, the newest feature of the nationally-renowned McDermott-Green Math Science Quadrangle. That building, he would learn after he joined the student body in 1962, represented the essence of the school, a desire to push the bounds of pre-collegiate education.

Eugene McDermott passed away in 1973, Cecil Green in 2003. But their legacy lives on at 10600 Preston Rd. And come next month, another name will join theirs, cementing its place in a short list of those who will make an unforgettable impact on every Marksmen for years to come.

That name: Winn.

HIS MARK Joining the 90 members of Class of 2018, Chris Winn '99 affixes the final signature to the last steel beam to be added to the Winn Science center during the topping off ceremony in January.

THE BENEFACTORS Steve Winn '64 and his wife Melinda stand in the Winn Science Center during early stages of its construction.

Spearheaded by a $10 million gift from the Winn Family Foundation, followed by an additional $2 million gift by the Foundation as the scope of the project grew, the Winn Science Center is scheduled to open for classes Jan. 9, 2019.

Steve, a former member of the Board of Trustees, attended the school for 11th and 12th grade. However, as soon as his son, Chris Winn '99, was old enough to attend first grade, he applied. After 12 years here, Chris attended the University of Texas and worked as a legal assistant in Manhattan. But as soon as he returned, he again grew close to the community of current and former Marksmen.

"I moved off to New York for a couple of years," Winn said, "so my engagement level dipped in my mid-20s. But it kind of regained some steam in my later 20s just as I got more engaged with some of my high school buddies and wanted to give back to the school in some way."

> "While [our family has] had periods where we've been more engaged and periods when we've been less engaged, we've always been engaged and it's always been top of the mind for us."
>
> — CHRIS WINN '99

When the school approached the Winn family in the early 2010s about contributing to a project that would refurbish the planetarium, a hallmark of the school's Preston Rd.-facing facade since 1961, they countered with another offer.

"My dad really felt that wasn't enough, that it was a great opportunity to dream bigger," Chris said. "So that's what the school did. They dreamt bigger, and we thought, 'What if you just tore down the entire older half of the science and mathematics quadrangle and gave that a completely new structure?' So that's what we did."

The Winn family wanted to see that there were no hurdles in terms of the resources in the new building, which they were hoping would allow the building to make as much of an impact on students as the new facility did in the 1960s.

During the development phase of the process, a group including Chris, Steve, Headmaster David Dini, Senior Director of Leadership Gifts Scott Jolly, science instructor Doug Rummel, Science Department Chair Fletcher Carron and several Trustees had the opportunity to tour the science facilities of multiple top schools in the northeast. There they had the opportunity to pick what features of the buildings they wanted to see in the Winn Science Center.

"I stepped in as the point person for the family to communicate what we wanted to see as the structure," Chris said. "And really it was just a matter of, 'What does St. Mark's need? Where is the future of science? And what are St. Mark's's views and position in the future of science? How do you incorporate things like a DNA lab, a heavier focus on computer science, robotics, and a real purposefully-designed makerspace?'"

One of the most important features of the Winn Science Center, Chris believes, is not the building itself, but instead the teachers who will be able to work with and educate students in ways the older building did not allow.

"The faculty at St. Mark's is so great," Chris said. "They do such a good job of instructing and inspiring, so they're going to capture young minds no matter what. But if we can make that job a little bit easier, if we can make that a little bit more impactful by providing a good space that just the space itself is inspiring, then that hopefully will, in the long term, accomplish the mission of getting young men into some field in science."

The part of the half-decade-long process that Chris has found most exciting is observing the response of the school community, particularly the science department faculty, to the new building and all the pieces of it.

"Really getting to work with Doug Rummel and Fletch Carron about, 'We have the utmost faith in your abilities to teach. We want to give you better tools with which to teach,'" Chris said. "And to see the excitement on their faces with the, 'Oh my gosh, if I had this…' and to see their minds project forward with how they could use these great new resources to inspire and to instruct. That's been definitely for me the most appealing part of it."

Chris said he's excited to see the affect the building will have on not just those who hope to pursue computer science or DNA science, but those who decide to go in another direction after their time at 10600 Preston Rd.

"It generated a lot of conversation and interest in the sciences, and I hope that bears fruit in the form of more students wanting to be engaged in science and math," Chris said. "If, at a minimum, even for the student who is going to go on to become a liberal arts major, for them to be more well-versed in the sciences and more aware of how technology is going to impact their day-to-day experience and their careers and their personal lives."

He also hopes the space will allow for more exploration beyond the foundational sciences, even to how to expand beyond the sciences themselves.

"One of the things the school is going to do is figure out ways to cross-pollinate those ideas from one discipline to another and try to find that common ground," Chris said. "Maybe it's science and politics. There's any number of combinations. We just wanted to have a really great place for that to happen."

Even as the first part of the project nears its completion, there is still a lot he is looking forward to, not only in the renovations of the remaining portion of the building, but also in the impact of the Winn Science Center, an impact that may be felt for decades.

"It will be cool to see the McDermott-Green [Math Science Quadrangle] get its refresh and see the whole building come together," Chris said. "But, really now it's just the process of seeing what the graduates from this point on, from St. Mark's, what they do with it. That will be really satisfying, and it's a great legacy for my dad to have left."

By the numbers

30 *percent*

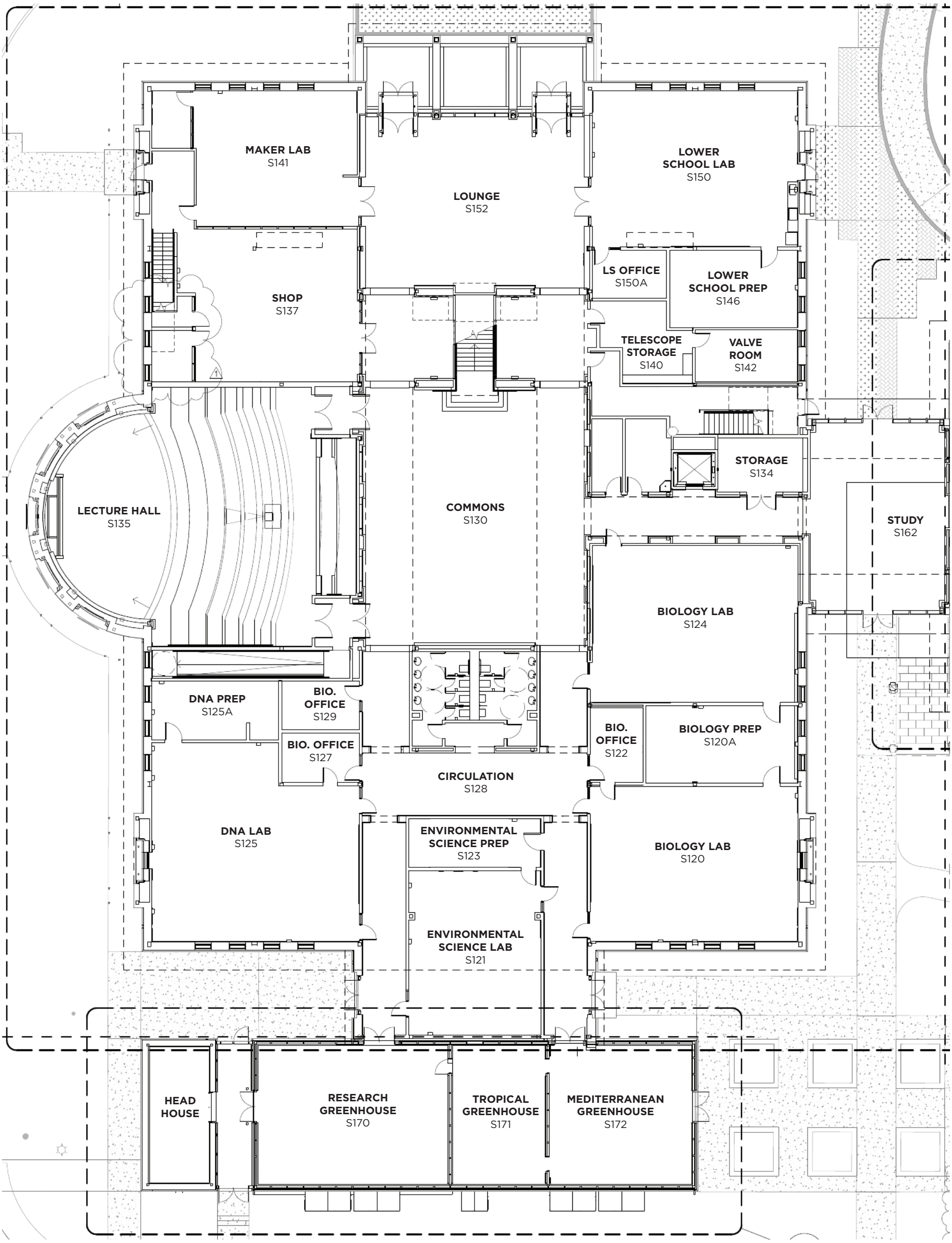
of the total cost of the Winn Science Center given by the Winn Family Foundation

3 members of the Winn family attended the school

12 combined years on the Alumni Board and Board of Trustees

STORY Parker Davis **PHOTOS** Courtesy Development Office

The first floor



LOOKBOOK

The final stages

A look around the still under construction Winn Science Center's second floor, from the classrooms students will take classes in beginning Jan. 9 to the prep rooms, lecture hall, offices and research areas.

1 S120: BIOLOGY PREP "The prep room will be nice too. We will have a microwave, an ice machine, a refrigerator, a freezer—all the standard stuff that we have. We'll have these display cabinets and map drawers. There are drying racks. Biology has these really cool **ventilation cabinets for dissection specimens**." **—AP Biology instructor Mark Adame**

2 S141: MAKER LAB "[The] makerspace is primarily designed for **additive manufacturing**, or you're just adding stuff together, and the shop is going to be subtractive, you pull stuff out, you pull materials out in order to make what you want." **—Robotics sponsor Douglas Rummel**

3 S135: SCIENCE LECTURE HALL "The new lecture hall seats more students—an **increase from roughly 140 to 235 seats.** It will have high-end audio/visual capabilities that allow for presentations and recordings of the presentations. It won't have the large rows of tables, but rather flip-up writing surfaces at each seat. It also won't be full of old robotics junk and science relics!" **—Science department Head Fletcher Carron**

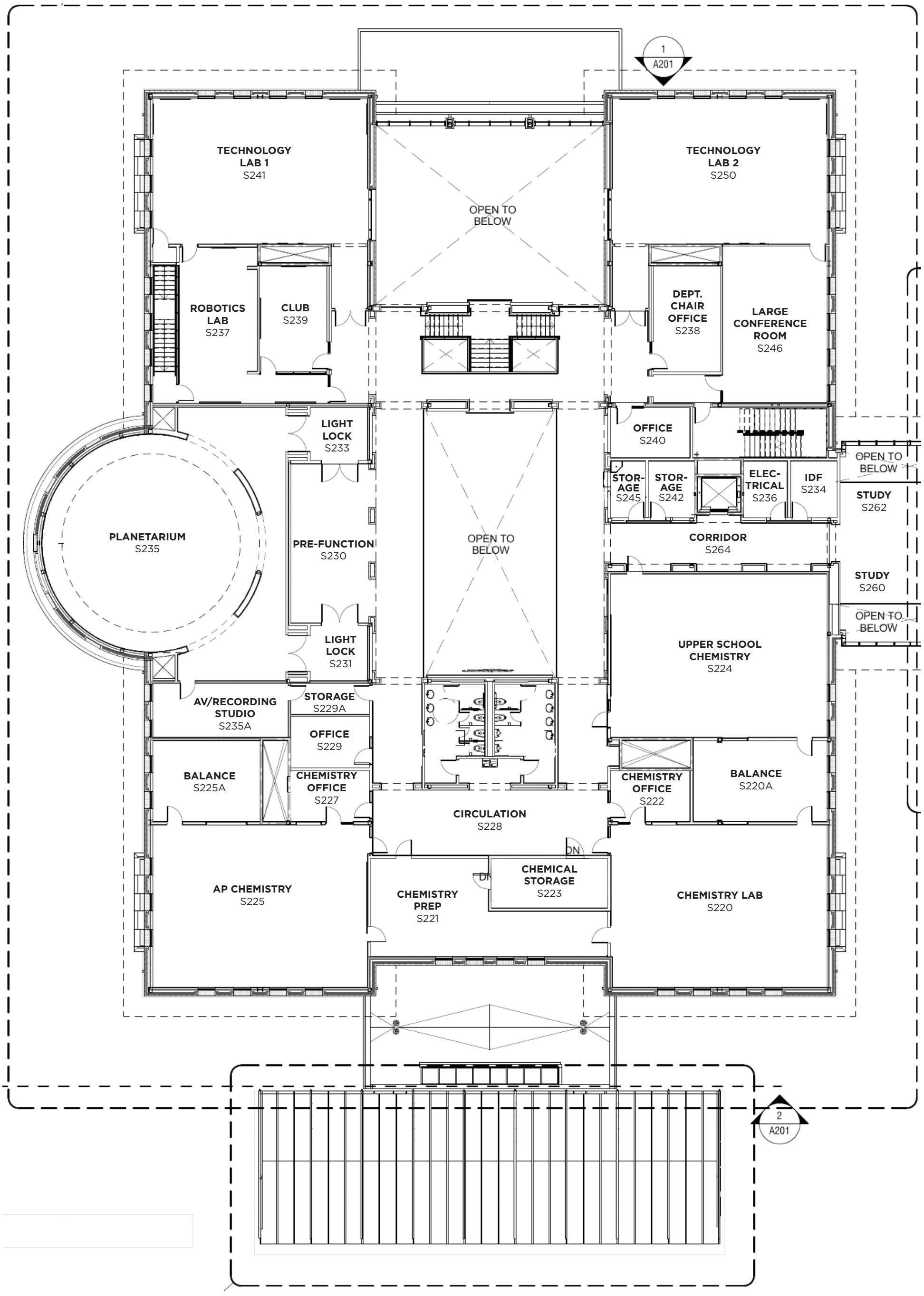
4 S125: DNA LAB "The goal is to actually have a **working DNA lab as opposed to just a teaching lab classroom**. It's a place to teach and learn how all these techniques work but also is a good place for students to come in and do work. Because in DNA science you just can't come in one class period a day and run an experiment and that's it. You have to start something and come back and check it later on, it's an ongoing process and I think a lot of people don't realize that. " **—AP Biology instructor Mark Adame**

5 S152: LOUNGE "As you enter the lounge, you will immediately see on your right the makerspace and on your left the Lower School lab, which will be two places to **see a lot of science in action**. The lounge ceiling is two stories high, and above there are big glass panels into the second-floor technology labs, which will host engineering activities and computer science classes. " **—Science department Head Fletcher Carron**

6 S124: BIOLOGY LAB "The bio rooms are going to be awesome. There's going to be a dedicated lab area like the old building. Every lab bench, all five of them, have vacuum, air, gas, and a sink. What's cool is that **from above are these snorkels.** In a sense they are giant vacuum cleaner things. When we are doing a dissection or something that's smelly, we just pull them down, turn them on, and they suck all the fumes out." **—AP Biology instructor Mark Adame**

PHOTOS Kamal Mamdani, Parker Davis **INTERVIEWS** Matthew Zhang

The second floor



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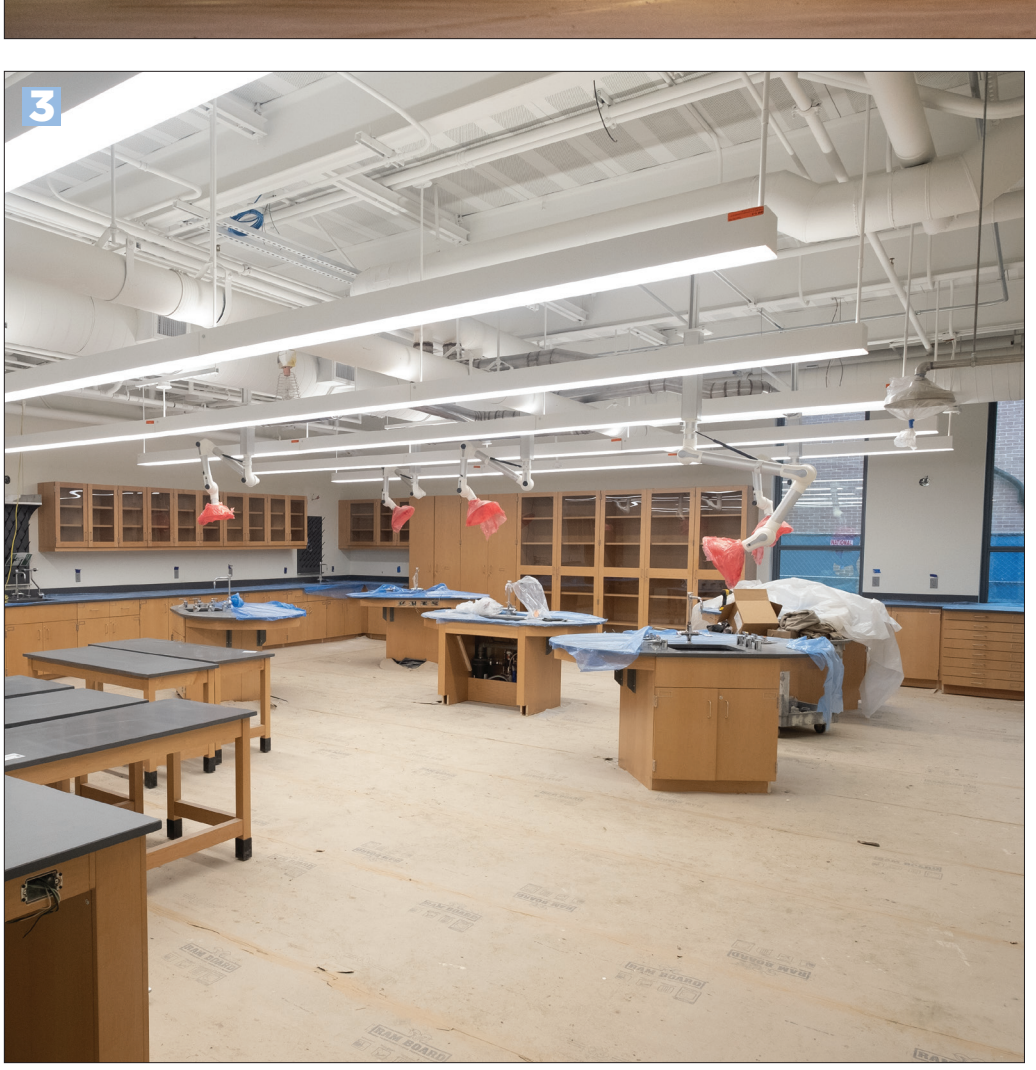

1 S130: COMMONS "The new commons is **the heart of the building,** and it can be used for informal student gatherings, special events, and even science demonstrations. On one end, there will be a large video wall that will have a range of uses, from displaying science content to serving as a canvas for Information Engineering projects." **—Science Department Chair Fletcher Carron**

2 S235: PLANETARIUM "The layered Earth feature, I think that's going to be the most exciting and most used piece because it's not only geology and weather related. **Any kind of graphical information** that can be displayed on a map, **we can do it in 3-D** on the dome. We can do a lot of stuff with history in terms of mapping boundary lines and watching how boundary lines move over centuries." **—Cecil H. and Ida Green Master Teaching Chair Stephen Balog**

3 S220: CHEMISTRY LAB "There are going to be t**wo full size regular chemistry labs**, so that will be for chemistry and applied chemistry. And we will be able to do something we haven't been able to do recently, which is run two first year chemistry labs at the same time. We will have enough gear for that, we will have enough space for that." **—AP chemistry instructor Kenneth Owens**

4 S221: CHEMISTRY PREP "The prep space for chemistry is much bigger than what we have now. Between two of the three Upper School chemistry labs there is a large teacher preparation area, and a small stock room for chemicals. **There is also more in-room storage** because we are increasing from two classrooms to three." **—Science Department Chair Fletcher Carron**

5 S225: AP CHEMISTRY "There is an instrument room attached to the AP chem lab which holds more accurate balances, just for AP use, and some instruments we don't use with the sophomore chemistry students. We have these little fume hoods here, like the draft hood here, we have much better versions of that for every lab station [in the new building]. So y**ou don't have to go to the fumehood to do exhaust work**, you can pull it right down to the tabletop and do your work there. The ventilation and air handling will be better. " **—AP chemistry instructor Kenneth Owens**

PHOTOS Kamal Mamdani, Parker Davis **INTERVIEWS** Matthew Zhang

A BRIGHT FUTURE

Discovering new horizons

From the breathtaking planetarium to the massive bear skeleton to the DNA scicence lab, the new Winn Science Center offers a plethora of exciting facilities and opportunities for students, faculty, alums, and parents to appreciate and enjoy. Here are a few things to look forward to...

COMPILED BY Sahit Dendekuri, Robert Pou **PHOTO** Parker Davis

I think the new science building is going to be an incredible opportunity for the St. Mark's science program to be on the cutting edge. The labs and robotics room will be a great space for the boys to do tremendous work. I also hope the building allows for more collaboration between the science and math departments."
— *Math instructor Lynne Steckler*

The engineering spaces are near and dear to my heart, but I'm really excited to see the laser set on the planetarium working. Toys tend to bring people in, and especially because it is on display, it should be fairly robust—figuring how to manage that, figuring how to get everybody in and get everybody cycling through and become excited about it."
— *Founders' Master Teaching Chair Doug Rummel*

We will have updated, modern, computer infrastructure. In here [Science building] there was no internet when this building was built. So everything has been added to the building since it was built. So the projectors, the smart boards, the wireless and all that will be up to date and future proofed because they've built in the ability to improve the infrastructure as technology improves."
— *Chemistry instructor Kenneth Owens '89*

I'm very excited for the new science building and all the new aspects it will bring to St. Mark's. I heard there's a new greenhouse. That'll be pretty cool. The new planetarium. That'll be one of my favorite places on campus. Even the classrooms. I hope they'll let us do some cool new labs."
— *sophomore Benny Wang*

I think that the construction of the new building was certainly a factor in everyday life during my final year at St. Marks. Although we (seniors) weren't around to get to experience it, which is unfortunate, I'm happy that I can see the finished product when I come back to visit campus. I think it's great that future Marksmen will get to have the building."
— *Christopher McElhaney '18*

It will offer the Middle School more options. It will make science more relevant to careers they'll pursue, a greater variety of classes will give the other disciplines like math and humanities more opportunities to connect with those classes, for example, classes on genetics could bring up ethical questions which might tie into character and leadership issues."
— *sophomore Kit Colson*

I'm excited about the new technology and more "hands on" spaces that will be available not only to Upper School students but also for the Middle and Lower School."
— *Head Athletic Trainer Matt Hjerstedt*

WRITTEN IN STONE The inscription on the west side of the Winn Science Center is an affirmation of the school's continued commitment to the sciences. With the new facilities available, Marksmen will benefit from the new building for years to come.

I love the way our new science center looks from Preston Road. It shows we are serious about our science. The new Lower School space in the Winn Science Center is going to allow us to expand and broaden our Lower School science curriculum."
— *Lower School administrative assistant Kathy Mallick*

I am excited to see the bear skeleton in front of the biology section of the building and all the other new and awesome opportunities that the science building will provide."
— *freshman Sahil Dodda*

I'm just really excited that the robotics team portable isn't going to be half of a portable [building] now, although I am grateful for that."
— *junior Faraz Asim*

It'll work great for the students to have more places where they can study and to socialize. And in a beautiful space, it's likely to enhance both the socializing and the studying. It's a great symbol of the investment that the school is placing in the future of students. Education regarding the math and sciences is gonna be a great opportunity for students to learn all kinds of new and exciting things in the years ahead."
— *Chaplain Stephen Arbogast*

I'm really excited about the future of robotics because of the remarkable facilities and resources we have at our disposable."
— *senior William Haga*

I'm excited for the new lounges coming. I think they'll add a lot of productivity to students."
— *freshman Daniel Unglunts*

I am most excited about the science building for the labs. I think with the new resources and technology we will have, we will have more unique opportunities in terms of what we can do in the classroom."
— *senior Shreyas Annaswamy*

I'm excited that St. Mark's will be a leader in the 21st century with the addition of the Winn Science Center. St. Mark's continues to invest and re-invest in its assets, and our boys will have the resources to learn and lead in the scientific community."
— parent *Jamie Rogers '85*

St. Mark's has a strong reputation in Mathematics and Science and the addition of the new Winn Family Science Center will only add to that legacy. We are excited to have the opportunity to showcase the new facility to interested parents."
— *Director of Admission and Financial Aid David Baker*

I'm really looking forward to really two things. First of all, the technology that's everywhere, including the planetarium, all the lab spaces and the greenhouse. The second thing is the aesthetic value. We're going to have a bunch of spaces that we can be in. I think it's going to be the new hub of St. Mark's life."
— *sophomore Sam Morgan*

Being able to switch from the lecture tables to the five lab stations for biology is going to be awesome. And having a Vent-A-Hood, or snorkel, that sucks all the stinky air out when we do demos or we do dissections — that'll be nice, too. We don't have to stink the rest of the building out, which is what happened before."
— *Biology instructor Mark Adame*

I remember exploring the old science building during a parent preview day 12 years ago. I was impressed by the technology and innovation at the time, and I'm so excited to see what improvements the new building has. I'm sure the building will be a cornerstone of St. Mark's for many years to come."
— *parent Dr. Jane Sung*

What I'm excited for with the new building changes almost daily depending on what I'm thinking about. The fact that we'll have a new greenhouse that will allow us to do a whole range of stuff that was never possible in the old greenhouse is amazing. I'm also looking forward to having a biotech lab that will let us do a whole lot of stuff with younger students, and we've never had anything like that before. The fact that the planetarium is going to be useful for things that aren't just astronomy related, we'll be able to put all types of stuff on the dome there, and that's going to open things up as well. Also, for me personally, that idea of having a host of 3D printers gives us a chance to maybe 3D print a whole lot of fossils."
— *Eugene McDermott Master Teaching Chair in Science John Mead*