UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

(Mark One)

x **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2015

or

o **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from _____ to _____

Commission file number: 001-37557

Penumbra, Inc.

(Exact Name of Registrant as Specified in Its Charter)

Delaware	**05-0605598**
(State or Other Jurisdiction of Incorporation or Organization)	(I.R.S. Employer Identification No.)
One Penumbra Place 1351 Harbor Bay Parkway Alameda, CA	**94502**
(Address of Principal Executive Offices)	(Zip Code)

(510) 748-3200
(Registrant's telephone number, including area code)

Securities registered pursuant of Section 12(b) of the Act:

Title of each class	**Name of Each Exchange on Which Registered**
Common Stock, Par value $0.001 per share	The New York Stock Exchange

Securities registered pursuant of Section 12(g) of the Act:
None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes: o No: x

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes: o No: x

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes: x No: o

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes: x No: o

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§ 229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. Yes: o No: o

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer	o		Accelerated filer	o
Non-accelerated filer	x	(Do not check if a smaller reporting Company)	Smaller reporting company	o

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes: o No: x

The registrant was not a public company as of the last business day of its most recently completed second fiscal quarter and therefore cannot calculate the aggregate market value of its voting and nonvoting common equity held by nonaffiliates as of such date.

As of January 31, 2016, the registrant had 29,978,983 shares of common stock, par value $0.001 per share, outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive proxy statement for its 2016 annual meeting of stockholders, which is to be filed not more than 120 days after the registrants fiscal year ended December 31, 2015, are incorporated by reference into Part III of this Annual Report on Form 10-K.

Penumbra, Inc.
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FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K includes forward-looking statements in addition to historical information. These forward-looking statements are included throughout this Form 10-K, including in the sections entitled “Business,” “Risk Factors,” “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” and in other sections of this Form 10-K. In some cases, you can identify these statements by forward-looking words such as “may,” “might,” “will,” “should,” “expects,” “plans,” “anticipates,” “believes,” “estimates,” “predicts,” “potential,” “opportunity” or “continue,” the negative of these terms and other comparable terminology. These forward-looking statements, which are subject to risks, uncertainties and assumptions about us, may include projections of our future financial performance, our anticipated growth strategies and anticipated trends in our business.

These statements are only predictions based on our current expectations and projections about future events. There are important factors that could cause our actual results, level of activity, performance or achievements to differ materially from the results, level of activity, performance or achievements expressed or implied by the forward-looking statements, including those factors discussed in the section titled “Risk Factors.” You should specifically consider the numerous risks outlined in the section titled “Risk Factors.” Although we believe the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, level of activity, performance or achievements. We undertake no obligation to update any forward-looking statements made in this Form 10-K to reflect events or circumstances after the date of this Form 10-K or to reflect new information or the occurrence of unanticipated events, except as required by law.

PART I

ITEM 1. BUSINESS.

Overview

References herein to "we," "us," "our," "Company," and "Penumbra," refer to Penumbra, Inc. and its consolidated subsidiaries unless the context specifically states otherwise.

Penumbra is a global interventional therapies company that designs, develops, manufactures and markets innovative medical devices. We have a broad portfolio of products that addresses challenging medical conditions and significant clinical needs across two major markets, neuro and peripheral vascular. The conditions that our products address include, among others, ischemic stroke, hemorrhagic stroke and various peripheral vascular conditions that can be treated through thrombectomy and embolization procedures.

We are an established company focused on the neuro market, and we recently expanded our business to include the peripheral vascular market. We focus on developing, manufacturing and marketing products for use by specialist physicians, including interventional neuroradiologists, neurosurgeons, interventional neurologists, interventional radiologists and vascular surgeons. We design our products to provide these specialist physicians with a means to drive improved clinical outcomes through faster and safer procedures.

We attribute our success to our culture built on cooperation, our highly efficient product innovation process, our disciplined approach to product and commercial development, our deep understanding of our target end markets and our relationships with specialist physicians. We believe these factors have enabled us to rapidly innovate in a highly capital-efficient manner.

Since our founding in 2004, we have had a strong track record of organic product development and commercial expansion that has established the foundation of our global organization. Some of our key accomplishments include:

- launching our first product, for neurovascular access, in the U. S. in 2007;
- establishing our direct neuro salesforce in the U. S. and Europe in 2008;
- launching the first 510(k)-cleared, aspiration-based product for the treatment of ischemic stroke patients in 2008, and launching four subsequent generations of that product;
- launching our first neurovascular coil for the treatment of brain aneurysms in 2011;
- launching our first peripheral vascular product in 2013; and
- establishing our direct peripheral vascular salesforce in the U. S. and Europe in 2014.

We sell our products to hospitals primarily through our direct sales organization in the U. S., most of Europe, Canada and Australia, as well as through distributors in select international markets. In 2015, we generated revenue of $186.1 million, which represents a 48.3% increase over 2014, and $4.2 million in operating income as compared to an operating income of $3.0 million in 2014. For the year ended December 31, 2014, we generated revenue of $125.5 million, which represented a 41.3% increase over 2013, and $3.0 million in operating income as compared to an operating loss of $1.1 million in 2013.

Our Products

Since our founding in 2004, we have invested in expanding our product development and marketing capabilities. These investments have included engineering and materials science capabilities, pre-clinical and bench-testing infrastructure and in-house clinical and regulatory infrastructure. Our fully-integrated organization has enabled us to launch 16 product brands for access, thrombectomy and embolization since 2007 to service our two target end markets. The following table summarizes our product offerings in each of our target end markets:

Market		Key Product Brands	Description
NEURO	Neurovascular Access	Neuron Neuron MAX Select BENCHMARK DDC PXSLIM Velocity	Neurovascular access systems designed to provide intracranial access for use in a wide range of neurovascular therapies
	Ischemic Stroke	Penumbra System, including ACE	Aspiration based thrombectomy systems and accessory devices
		3D *(investigational device in a clinical study)*	Stent retriever designed for mechanical thrombectomy
	Neurovascular Embolization	Penumbra Coil 400	Neurovascular embolization coiling system designed to treat patients with large aneurysms and other large neurovascular lesions
		Penumbra SMART Coil	Neurovascular embolization coiling system designed to treat patients with all sizes of aneurysms and other neurovascular lesions
		LIBERTY Stent *(investigational device in a clinical study)*	Neurovascular stent for stent-assisted coiling in large and wide-neck aneurysms
	Neurosurgical Tools	Apollo System	Neurosurgical aspiration tool for the removal of tissue and fluids
PERIPHERAL VASCULAR	Peripheral Embolization	RUBY Coil	Large volume, detachable embolic coil system for peripheral embolization
		Lantern	Microcatheter for delivery of detachable coils and occlusion devices
		POD (Penumbra Occlusion Device)	Detachable, microcatheter-deliverable occlusion device designed specifically to occlude peripheral vessels
		POD Packing Coil	Complementary device for use with RUBY Coil and POD for vessel occlusion
	Peripheral Thrombectomy	Indigo System	Aspiration-based thrombectomy system for peripheral applications

OUR NEURO PRODUCTS

Neurovascular Access

Accessing the brain through the tortuous neurovasculature has been a substantial challenge for physicians treating vascular disorders in the brain. Companies developing products for neurovascular applications have historically leveraged technologies developed for use in coronary or peripheral vascular interventions. This approach created challenges given the vastly different anatomy, structure and sizing of the neurovascular vessels.

Our portfolio of neurovascular access products includes our Neuron Access System catheters, BENCHMARK Intracranial Access System catheters and a variety of microcatheters.

Neuron Access System

We recognized the challenges posed by existing access technologies and focused our initial efforts on developing a guide catheter system designed specifically for neurointerventional procedures. Our Neuron delivery catheter is a variable stiffness guide catheter with increased support in the aortic arch, which enables trackability to access the intracranial vasculature. The design of Neuron enables physicians to position the catheter much higher in the anatomy than conventional guide catheters.

We believe the Neuron family of guide catheters and the Penumbra distal delivery catheters that we subsequently introduced have enabled many neuro-endovascular procedures that previously had not been possible in the tortuous anatomy of the neurovasculature. We have continued our development and currently offer a wide range of catheters that enable delivery of the different therapeutic catheters that are required for ischemic and hemorrhagic stroke interventions. Our Neuron products include the following:

- *The Neuron Intracranial Access System* is indicated for the introduction of interventional devices into the peripheral, coronary and neuro vasculature. The system is a two-catheter system comprised of the Neuron Delivery Catheter and the Select Catheter.
    - *The Neuron Delivery Catheter* is a variable stiffness, large lumen catheter that combines proximal arch support with a microcatheter-like distal segment that is designed to access the intracranial anatomy. The Neuron can be used individually with a 0.038 inch guidewire, or together with the Neuron Select Catheter, to access the desired location.
    - *The Select Catheter* is a single lumen, braid-reinforced, torquable catheter with a radiopaque distal end and a hub on the proximal end. The Select Catheter enables primary access with the Neuron Delivery Catheters, obviating the need for an extra guide catheter.
- *The Neuron MAX System* is an additional configuration to the currently available Neuron Intracranial Access System. The Neuron MAX System is a long sheath catheter with a flexible distal tip for neurovascular use and provides a larger lumen to enable a wide range of device compatibility in neurovascular procedures.

BENCHMARK Intracranial Access System

Advances in our catheter technology, driven largely by our advances in ischemic stroke therapy, have enabled us to further develop our intracranial access category of products. Our latest development in this category is the BENCHMARK catheter, which features additional improvements in ease-of-use, trackability, and aortic arch support that we believe will further enhance our position in the neurovascular access market.

The BENCHMARK catheter technology achieves these improvements by combining our advanced tracking technology with the original Neuron intracranial access concept. In addition to improved proximal support in the arch through multi-geometry metal reinforcement, the distal tip is softer and more trackable, while maintaining complete distal shaft radiopacity for improved visualization. The BENCHMARK also is available pre-packaged with a Select catheter to obviate the need for a neurovascular guide catheter exchange, which reduces the number of devices needed per procedure and shortens procedure times.

Ischemic Stroke

Penumbra System

We developed our aspiration-based Penumbra System family of products to enable specialist physicians to revascularize blood vessels that are blocked by clots in the intracranial vasculature. We launched our first Penumbra System product in 2008 in the U. S.. We believe ACE, launched in June 2013, and ACE 64, launched in May 2015, represent significant advancements over prior generations of the Penumbra System.

Overview of the Penumbra System

Our Penumbra System family of products is comprised of several principal components, which include:

- *Penumbra Reperfusion Catheters* are the cornerstone of the Penumbra System and are manufactured using a variety of proprietary processes and materials science innovations. We have launched five successive generations of Reperfusion Catheters since 2008.

- The latest generation of our Reperfusion Catheters, the ACE family of catheters, represents our most powerful and trackable Reperfusion Catheters launched to date. Its design enables specialist physicians to track these large bore aspiration catheters to the distal locations of occluded vessels. Once at the site of the occlusion, ACE provides significantly greater aspiration power than our prior Reperfusion Catheters, which we believe contributes to improved clinical outcomes and reduced procedure times.

- ACE 64, our latest generation of ACE catheter, is designed to offer enhanced aspiration power relative to prior generations of the product, while maintaining trackability. ACE 64 launched in the U. S. in late May 2015.

- *Penumbra Separators* are a component of the earlier generations of the Penumbra System and enable a physician to remove an aspirated clot that has aggregated in the Reperfusion Catheter during the procedure. The Separators were an important component of our earlier Penumbra System due to the smaller diameter of our original Reperfusion Catheters, which resulted in frequent obstruction of the catheter. With the launch of our larger diameter ACE, Separators are less frequently used by physicians.

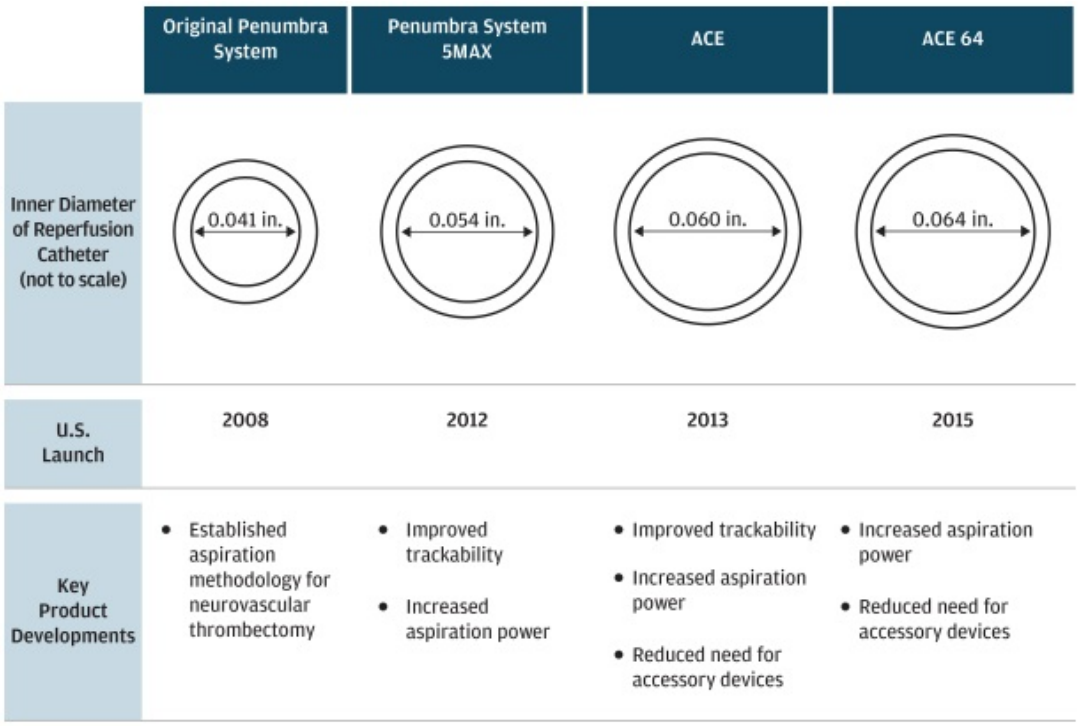
- *3D* is a stent retriever component of the Penumbra System that allows a physician to combine direct aspiration with stent retriever technology. 3D is being evaluated in a clinical study pursuant to an Investigational Device Exemption (IDE) to obtain clearance under Section 510(k) of the Federal Food, Drug, and Cosmetic Act (FD&C Act). With 198 of the anticipated 230 patients enrolled, the Data Safety Monitoring Board for this study recently temporarily suspended further enrollment in order to assess the data. The Board indicated that the suspension was not due to safety issues.

- *Penumbra Aspiration Pumps* are attached to our Reperfusion Catheters and provide the aspirating suction force. Our second generation MAX Aspiration Pump features increased aspiration capabilities and an improved, easier to use design. We have standardized the MAX Aspiration Pump to work with all generations of our Reperfusion Catheters.

Evolution of Penumbra System's Reperfusion Catheters

The Penumbra System Reperfusion Catheters are the foundation of the Penumbra System. The principal generations of our Reperfusion Catheters include the original Penumbra System, Penumbra System MAX, Penumbra System ACE and Penumbra System ACE 64. We have introduced five successive generations of these catheters since early 2008. Each subsequent generation of our Reperfusion Catheters has incorporated significant performance enhancements relative to prior generations with regard to trackability and aspiration power.

The Generations of the Penumbra System



The Original Penumbra System

Our original Penumbra System was CE-marked in September 2006 and 510(k) cleared by the U.S. Food and Drug Administration (FDA) in December 2007. The Penumbra System is intended for use in the revascularization of patients with ischemic stroke within eight hours of symptom onset.

Our original Penumbra System was evaluated in the Penumbra Pivotal study, a 125 patient clinical study to assess the safety and effectiveness of the Penumbra System in the revascularization of patients presenting with ischemic stroke. This study was sponsored by Penumbra to support and obtain regulatory clearance for the original Penumbra System. The Penumbra Pivotal study demonstrated an 81.6% success rate in achieving successful revascularization. The study was completed in 2007 and the results were published in the journal *Stroke* in 2009.

We had commissioned and subsequently evaluated the Penumbra System in our THERAPY study, a clinical study comparing the clinical outcomes in the medical management of stroke patients with IV recombinant tPA (rtPA) to stroke patients treated with a combination of IV rtPA and the Penumbra System. The THERAPY study was commenced in March 2012, and was designed to enroll up to 692 patients, but was stopped early in October 2014, because the positive results of the MR CLEAN study made it unethical to continue to treat the control group in the THERAPY study with medical management rather than with endovascular treatment. The MR CLEAN study demonstrated the superiority of endovascular treatment of stroke over medical management. As a result, the steering committee for THERAPY recommended stopping enrollment for the trial. The THERAPY study results, after the randomization of 108 patients, were presented in April 2015 at the European Stroke Organization Conference and the manuscript is being prepared for submission to a peer-reviewed journal. Despite the early termination of the study, the pre-specified per protocol analysis demonstrated a significant benefit of combined treatment with IV rtPA and the Penumbra System over IV rtPA alone.

Penumbra System MAX

The Penumbra System MAX applies our advanced tracking technology and improved aspiration power to the Penumbra System's aspiration platform. Launched in 2011, the 3MAX and 4MAX Systems feature MAX Tracking Technology that allows access over a solo guidewire for an even faster, easier procedure than with our original Penumbra System. The proximal shaft of these specialized catheters incorporates tapering, larger diameters, enabling increased aspiration power. In August 2012, we launched the 5MAX, which added our MAX Tracking Technology to an even larger dimension Reperfusion Catheter.

ACE

Almost a decade of research and product development culminated in the introduction of our first ACE Reperfusion Catheter in July 2013. ACE features a unique tapered design, large lumen diameter and other developments that result in significantly greater aspiration power and improved trackability compared to our earlier original Penumbra System and Penumbra MAX products.

Given its improved aspiration power and larger lumen size, our ACE Reperfusion Catheter can enable the extraction of a fibrous thrombus without fragmentation and often in one solid piece. This leaves the longitudinal fibrin strands in the clot intact, allowing the thrombus to retain its integrity. We believe this is evidenced in our post-launch clinical experience, in which clinicians have seen high rates of TICI 3 revascularization, representing complete recanalization of the affected area, using our ACE catheters.

Our ACE 64 Reperfusion Catheter was launched in the U. S. in May 2015. It is built on our ACE platform and offers an increased lumen diameter, which leads to further increased aspiration power and which we believe will aid in the removal of clot from the neurovasculature.

Neurovascular Embolization

Given the minimal product differentiation among the existing coils on the market, we concluded that to initially penetrate this market successfully we would have to develop a coil that was materially easier to deliver, and provided a procedural economic advantage. We also identified a segment of aneurysms that traditional neurovascular coils could not effectively treat on a cost effective basis. These included larger aneurysms and other larger, more complex lesions. We estimate that these aneurysms and lesions currently represent less than 10% of the addressable aneurysms.

The Penumbra Coil 400

We developed our Penumbra Coil 400 to offer an improved alternative for the treatment of larger aneurysms and other larger, more complex lesions. We implemented several proprietary design innovations to enable the coil to maintain shape while achieving biomechanically stable occlusion. Our coil system is composed of a platinum embolization coil complemented by a nitinol inner structure and stretch resistant nitinol wire. It is attached to a composite delivery pusher with a radiopaque positioning marker. The Penumbra Detachment Handle offers instant mechanical detachment of the coil and can be controlled by the physician in the sterile field.

We received 510(k) clearance for the Penumbra Coil 400 in 2011. The Penumbra Coil system is FDA cleared for endovascular embolization of intracranial aneurysms and other neurovascular abnormalities.

Review of Penumbra Coil 400 Clinical Performance

Given the size and handling of the Penumbra Coil 400, it is able to achieve higher packing density with fewer coils compared to competitive coiling systems. These findings have been confirmed in numerous physician sponsored post-marketing studies. Collectively, the clinical studies have shown that use of the Penumbra Coil 400 resulted in:

- less retreatments or worsening occlusions;
- larger aneurysm treatment capabilities;
- higher packing density; and
- fewer coils per aneurysm.

Penumbra SMART Coil

Leveraging our initial experience treating larger aneurysms and more complex lesions with the Penumbra Coil 400, we turned our efforts to developing a standard sized coil to compete in the traditional, smaller neurovascular coil market. While the market has seen significant growth over the last 15 years, there has been very little innovation in the last several years with regard to coil design, material science and performance. As a result, neurovascular coils built on the traditional, smaller-coil platform offer very little differentiation in terms of materials, ease-of-use and trackability.

In light of these dynamics, we focused our development efforts on a coil that would improve ease of delivery, or “feel” of the coil compared to the leading established coils. In order to accomplish this, our engineering team developed a highly sophisticated coil that dramatically changes its softness profile within the span of a single individual coil. This progressive softness feature enables physicians to pack the coil into a delicate lesion and mitigate catheter kick-back at the end of delivery, which can preclude the successful complete embolization of the lesion.

The Penumbra SMART Coil is designed to treat patients with a wide range of neurovascular lesions, including the small and medium sized aneurysms that comprise the majority of the neurovascular coiling market. Alternative products available to physicians in this market are offered in single levels of softness - standard, soft or extra soft.

The three principal levels of softness that competitors offer are derived from using smaller platinum filaments to increase the level of softness. However, this methodology does not allow for changes to the softness level within an individual coil. The design of the Penumbra SMART Coil allows the level of softness to be determined not only by the diameter of the platinum filament, but also by a structural component inside the coil itself. This development enables the Penumbra SMART Coil to become progressively softer within the span of an individual coil.

We introduced our SMART Coil in the fourth quarter of 2015. We believe that it will provide us with another important opportunity to offer specialist physicians a broader suite of products to address their neurovascular coiling needs.

Neurosurgical Tools

The Apollo System

We received 510(k) clearance from the FDA for our first neurosurgical product, the Apollo System, in 2014. The Apollo system leverages our expertise in thrombectomy and access to offer a minimally invasive approach to surgical removal of fluid and tissue from the ventricles in the brain.

The Apollo system is comprised of two primary components:

- the Apollo wand that is inserted into the brain through an endoscope, which, in turn, is inserted through a small burr hole into the skull; and
- a reusable hardware device that delivers vacuum, irrigation and vibrational energy along the disposable wand to the site of the hemorrhage.

OUR PERIPHERAL VASCULAR PRODUCTS

After initially focusing our business on our neuro products, we identified the peripheral vascular market as an ideal opportunity to leverage our neuro experience and our core expertise in thrombectomy, embolization and access technologies to develop new products that could address significant clinical needs cost effectively.

The peripheral vasculature suffers from disorders that are very similar to those experienced in the neurovasculature that our products already successfully address. For example, weakening of the vascular walls can result in aneurysms, and blockages can form as the result of embolism or advanced atherosclerosis. Just as the disruption of blood flow to the brain has high mortality and morbidity, disruptions in the peripheral vasculature can also have serious adverse consequences.

The peripheral vasculature also presents unique challenges that do not apply to interventional efforts in the brain. Many peripheral arteries and veins are significantly larger than those found in the brain and therefore have higher blood flow rates. More importantly, they must be able to accommodate larger pressure gradients and sustain structural integrity despite substantial movement and flexing of the organs and musculature that surround them. Imaging can also be more challenging as physicians have to view their equipment through many more layers of organs and tissue than in the brain.

In 2012, we began investing further in research and development to evaluate and identify potential solutions to address significant clinical needs in the peripheral vasculature. Our products for the treatment of peripheral vascular disease focus on:

- peripheral vascular embolization;
- vessel occlusion; and
- peripheral vascular thrombectomy.

Peripheral Embolization

Ruby Coil System

After completing research and development focusing on the specific requirements of the peripheral embolization market, we launched our Ruby Coil System for use in the peripheral vascular market in 2013. The Ruby Coil System consists of detachable coils that are specifically designed for peripheral applications. The Ruby coils have a controlled mechanical detachment mechanism that permits the physician to deliver and reposition the coil until the final satisfactory position is reached before detachment. Compared to pushable coils, this minimizes costly complications like embolizing unintended vessels.

The Ruby Coil System is used in a variety of clinical applications, including:

- active extravasations, or the escape of blood into surrounding tissue;
- selective embolization in patients with visceral aneurysms;
- exclusion of branches prior to chemoembolization and radioembolization;
- embolization in patients with gastrointestinal bleeding;
- embolization of branches prior to stent graft procedures;
- procedures after stent grafting in patients with persistent type II endoleaks and sac enlargement;
- treatment of patients with varicocele and pelvic congestion syndrome;
- high flow arterial venous malformations;
- post trans intrahepatic shunt placement;
- balloon retrograde transvenous obliteration; and
- exclusion of hepatic branches prior to liver resection.

We believe our Ruby Coil System offers specialist physicians a differentiated, cost-effective solution in the treatment of peripheral embolization patients.

Lantern

After entering the peripheral embolization market, we developed the Lantern Microcatheter to address unmet clinical needs. We received 510(k) clearance for the Lantern Microcatheter in December 2015. The Lantern Microcatheter is offered in a variety of lengths and tip shapes relevant to peripheral vascular procedures. The distal segment of Lantern is visual under fluoroscopy to aid in the navigation and visualization of the microcatheter during procedures.

POD (Penumbra Occlusion Device)

We developed POD, our peripheral vascular occlusion device, to address a specific need in the peripheral embolization market to rapidly and precisely occlude a target vessel. Current options for vessel occlusion in the periphery are limited, either requiring multiple devices or difficult to deliver vascular plugs. Microcatheter deliverable devices, such as coils, are not ideally suited for vessel embolization due to their tendency to migrate with antegrade flow and generally require the deployment of several devices to achieve occlusion. Vascular plug technology for larger peripheral vessels requires access with large diagnostic catheters or even larger bore sheaths. Additionally, these devices often require the placement of adjunctive devices, such as coils, to achieve complete occlusion. Our POD device utilizes technology that delivers both variable sizing and variable softness to provide a single device solution for rapid and precise embolization of the target vessel. We received 510(k) clearance for POD in July 2014.

Unlike conventional vascular plugs, our POD technology enables the occlusive device to be delivered through a microcatheter. Additionally, a single POD can occlude a range of vessel diameters, reducing the need for sophisticated measurement prior to embolization.

Our POD technology leverages the key features of a dedicated vessel embolization device to improve ease-of-use. These include:

- microcatheter deliverability;
- instant detachment;
- immediate and precise anchoring;
- a single device to treat a range of vessel diameters; and
- dense occlusion in a short segment.

The technology achieves this range of features through the design of a distal anchoring segment, thereby immediately anchoring the device in a range of vessel diameters. The proximal segment of the POD achieves dense occlusion by packing a softer, smaller diameter segment tightly behind the anchored portion. Once POD is deployed, it can be detached instantly with the sterile detachment handle.

POD Packing Coil

We introduced the POD Packing Coil in January 2016 as a complementary device for use with our other peripheral embolization products. It is uniquely designed to pack densely behind RUBY Coils and POD to occlude arteries and veins throughout the peripheral vasculature including aneurysms.

Peripheral Thrombectomy

Indigo System

Our Indigo System, which we launched in 2014, was designed for continuous aspiration mechanical thrombectomy (CAT), leveraging the success of the Penumbra System in ischemic stroke. The Indigo System is designed to remove clots in the peripheral arteries and veins.

Our Indigo System family of products and accessories is an easy to use thrombectomy system that is powerful, highly trackable, and suited to a wide range of clot morphology. The principal components include:

- *Continuous Aspiration Mechanical Thrombectomy Catheters* are the foundation of the system and are ideally suited to reach anatomy below the knee. Much like our MAX and ACE catheters, the CAT catheters are robust, durable, trackable and suited for the peripheral anatomy. The initial launch of the Indigo System included our CAT5 catheter and the device made for more distal access, CAT3, which is able to reach the distal peripheral vessels of the upper and lower extremities. On May 26, 2015, we received FDA clearance for CAT6 and CAT8, two larger sizes of the Indigo System, as well as to market the Indigo System for use in both the peripheral arterial and venous systems.

- *Indigo Separator* enables the peripheral interventionalist to remove a difficult to aspirate clot from the CAT catheter. In the peripheral vessels, clots often form in long segments, and are more resistant to traditional aspiration techniques. The Indigo System with the Separator enables a wide range of clot morphology to be removed from the body. While conclusions should not be drawn from initial results and further results may prove to be worse or inconclusive, we have demonstrated in clinical settings that the Indigo System with the Separator can remove clots that were resistant to hours of revascularization attempts with other technologies and thrombolytic agents.

- *Penumbra Aspiration Pump* is the power source that provides the aspirating suction force to remove waste, such as blood and clots.

Research and Development

We direct our research efforts towards the development of clinical therapies that expand the therapeutic alternatives available to specialist physicians and improve upon our existing product offerings. Our research and development team has a track record of product innovation and significant product improvements. Since inception, we have introduced 16 products brands in either the U. S., international markets, or both. Our research and development expenses totaled $18.0 million, $15.6 million and $14.1 million for the years ended December 31, 2015, 2014 and 2013, respectively.

We believe our ability to rapidly develop innovative products is in large part attributable to the fully integrated product innovation process that we have implemented, and the management philosophy behind that process. In addition, we have recruited and retained engineers with both significant experience in the development of medical devices as well as engineers directly from undergraduate and graduate programs that have become immediately productive within our development process. We have a pipeline of products in various stages of development that are expected to provide additional commercial opportunities. All of our research and development efforts are based at our campus in Alameda, California.

Manufacturing

We currently maintain one manufacturing facility at our campus in Alameda, California, which, together with our research and development space, totals 180,000 square feet. The manufacturing facilities run two eight-hour shifts per weekday. In addition, in December 2015, we signed a lease for an additional 99,568 square feet of space at our campus in Alameda, giving us capacity to increase production, and allowing us to expand adjacent to our current facilities. We currently produce substantially all of our products in-house.

Our rigorous quality control management programs have earned us a number of quality-related manufacturing designations. Our manufacturing facilities are EN ISO 13485 compliant with ISO 13485-2003 certification achieved in 2005. In 2007, we achieved compliance with MDD standards, allowing our products to be CE marked. We use annual internal audits, combined with external audits by regulatory agencies to help ensure strong quality control practices. An internal, on-going staff training and education program contributes to our quality assurance program; training is documented and considered part of the employee evaluation process.

Sales and Marketing

We have dedicated substantial resources to establish a direct sales capability in the U. S., most of Europe, Canada and Australia, which we have complemented with distributors in Japan and certain other international markets. We have regulatory clearance to sell our neurovascular access, ischemic stroke, neurovascular embolization, peripheral embolization and peripheral thrombectomy products in two of our three major markets, the U. S. and Europe, except that 3D has been cleared in Europe but not the U. S. In our third major market, Japan, we have regulatory clearance to sell our ischemic stroke, neurovascular embolization and peripheral embolization products. The only access product that has received regulatory clearance in Japan is PXSLIM. 3D, Ruby Coil, ACE 64 and Indigo System have not received regulatory clearance in Japan. Our Penumbra Coil 400 products are also used for peripheral embolization in Japan, and have received regulatory clearance for that use in that market. Liberty Stent has not yet received regulatory clearance anywhere. We believe our global presence enables us to capitalize on the markets for neuro and peripheral vascular devices that exist outside of the U. S.

We currently sell our products to hospitals in the U. S. through our dedicated salesforce in two target end markets, neuro and peripheral vascular. Our sales representatives and sales managers generally have substantial medical device experience and market our products directly to a variety of specialist physicians engaged in the treatment of neurovascular and peripheral vascular disorders, who are the end users of our products and significantly influence hospital buying decisions relating to medical devices. We are focused on developing strong relationships with specialist physicians and devote significant resources to training and educating physicians in the use and benefits of our products. The principal specialist physicians in our two target end markets include:

- ***Neuro:*** Interventional neuroradiologists, neurosurgeons and interventional neurologists.
- ***Peripheral vascular:*** Interventional radiologists and vascular surgeons.

In addition to our direct sales organizations, we work with distributors in certain geographic areas where we have determined that selling through distributors is likely to be more effective. The largest market where we sell our products through a distributor is Japan, with Medico’s Hirata Inc.

Our direct sales have been, and we anticipate will continue to represent, a majority of our revenues. In 2015, direct sales accounted for approximately 83.7% of our revenue, with the balance generated by independent distributors that sell our products outside of the U. S.

Backlog

We typically accept and ship orders on the day purchase orders are received or the next business day. Furthermore, if requested, we generally permit customers to cancel or reschedule without penalty. As a result, we do not believe that our backlog at any particular time is material, nor is it a reliable indication of future revenue.

Reimbursement

In the U. S., hospitals are the purchasers of our products. Hospitals in turn bill various third-party payors, such as Medicare, Medicaid and private health insurance plans, for the total healthcare services required to treat the patient. Government agencies, private insurers and other payors determine whether to provide coverage for a particular procedure and to reimburse hospitals for inpatient treatment at a fixed rate based on the diagnosis-related group (DRG) as determined by the U.S. Centers for Medicare and Medicaid Services (CMS). The fixed rate of reimbursement is based on the procedure performed, and is unrelated to the specific medical device used in that procedure. Medicare rates for the same or similar procedures vary due to geographic location, nature of facility in which the procedure is performed (i.e., teaching or community hospital) and other factors. While private payors vary in their coverage and payment policies, most look to coverage and payment by Medicare as a benchmark by which to make their own decisions.

Some payors may deny reimbursement if they determine that the device used in a treatment was unnecessary, not cost-effective, or used for a non-approved indication. We cannot assure you that government or private third-party payors will cover and reimburse the procedures using our products in whole or in part in the future or that payment rates will be adequate.

Outside the U. S., market acceptance of medical devices depends partly upon the availability of reimbursement within the prevailing healthcare payment system. Reimbursement levels vary significantly by country, and by region within some countries. Reimbursement is obtained from a variety of sources, including government-sponsored and private health insurance plans, and combinations of both. A small number of countries may require us to gather additional clinical data before recognizing coverage and reimbursement for our products. It is our intent to complete the requisite clinical studies and obtain coverage and reimbursement approval in countries where it makes economic sense to do so.

The increased emphasis on managed healthcare in the U. S. and on country and regional pricing and reimbursement controls in international markets will put additional pressure on product pricing, reimbursement and usage, which may adversely affect our product sales and results of operations. These pressures can arise from rules and practices of insurers and managed care organizations, judicial decisions and governmental laws and regulations related to Medicare, Medicaid and healthcare reform, medical device reimbursement policies and pricing in general. Our ability to achieve market acceptance or significant sales volume will depend in large part on the availability of coverage and the level of reimbursement for procedures performed using our products under healthcare payment systems in such markets.

All third-party reimbursement programs, whether government funded or insured commercially, whether in the U. S. or internationally, are developing increasingly sophisticated methods of controlling health care costs through prospective reimbursement and capitation programs, group purchasing, redesign of benefits, second opinions required prior to major surgery, careful review of bills, encouragement of healthier lifestyles and exploration of more cost-effective methods of delivering health care. These types of programs and legislative or regulatory changes to reimbursement policies could potentially limit the amount which healthcare providers may be willing to pay for medical devices.

Competition

The medical device industry is intensely competitive, subject to rapid change and significantly affected by new product introductions and other market activities of industry participants. We compete with a number of manufacturers and distributors of neurovascular and peripheral vascular medical devices. Our most notable competitors are Boston Scientific, Johnson & Johnson, Medtronic, Stryker and Terumo. All of these competitors are large, well-capitalized companies with significantly more market share and resources than we have. As a consequence, they are able to spend more on product development, marketing, sales and other product initiatives than we can. We also compete with a number of smaller medical device companies that have single products or a limited range of products. Some of our competitors have:

- significantly greater name recognition;
- broader or deeper relations with healthcare professionals, customers and third-party payors;
- more established distribution networks;
- additional lines of products and the ability to offer rebates or bundle products to offer greater discounts or other incentives to gain a competitive advantage;
- greater experience in conducting research and development, manufacturing, clinical trials, marketing and obtaining regulatory clearance or approval for products; and
- greater financial and human resources for product development, sales and marketing and patent litigation.

We compete primarily on the basis that our products are able to treat patients with neurovascular and peripheral vascular diseases and disorders safely and effectively. Our continued success depends on our ability to:

- develop innovative, proprietary products that can cost-effectively address significant clinical needs;
- continue to innovate and develop scientifically advanced technology;
- obtain and maintain regulatory clearances or approvals;
- demonstrate efficacy in Penumbra-sponsored and third-party clinical trials and studies;
- apply technology across product lines and markets;
- attract and retain skilled research and development and sales personnel; and
- cost-effectively manufacture and successfully market and sell products.

Intellectual Property

Our success depends in part on our ability to protect our proprietary technology and intellectual property and operate without infringing the patents and other proprietary rights of third parties. We rely on a combination of patent, trademark, trade secret, copyright and other intellectual property rights and measures to protect our intellectual property rights that we consider important to our business. We also rely on know-how and continuing technological innovation to develop and maintain our competitive position. We do not have any material licenses to any technology or intellectual property rights.

As of December 31, 2015, we owned 20 issued patents globally, of which nine were U.S. patents. As of December 31, 2015, we owned 38 pending patent applications, of which 15 were patent applications pending in the U. S. Subject to payment of required maintenance fees, annuities and other charges, nine of our issued patents are currently expected to expire between

2024 and 2025; five of these patents relate to components of the Penumbra System and the Indigo System and one of these patents relates to methods performed by the Apollo System. An additional five of our issued patents, which relate to components of devices that have not been commercialized, are expected to expire between 2026 and 2027. The remaining seven of our issued patents, which relate to the components of the Penumbra Coil 400 and Ruby Coil, are currently expected to expire after 2027. Our issued patents relate to the following main areas: mechanical thrombectomy, coil embolization, treatment of aneurysm and treatment of intracranial hemorrhage. Our pending patent applications relate primarily to the following five main areas: mechanical thrombectomy, coil embolization, coronary atherectomy, blood filtration and treatment of patients with intracranial hemorrhage. Some of our pending patent applications pertain to components and methods of use associated with currently commercialized products. Our pending patent applications may not result in issued patents and we can give no assurance that any patents that have issued or might issue in the future will protect our current or future products or provide us with any competitive advantage. See the section titled “Risk Factors-Risks Related to Our Intellectual Property” for additional information.

Additionally, we own or have rights to trademarks or trade names that are used in our business and in conjunction with the sale of our products, including nine U.S. trademark registrations and six foreign trademark registrations as of December 31, 2015. Included in the registered trademarks is a mark with our company name and logo.

We also seek to protect our proprietary rights through a variety of methods, including confidentiality agreements and proprietary information agreements with suppliers, employees, consultants and others who may have access to our proprietary information.

Government Regulation

United States

Our products are medical devices subject to extensive and ongoing regulation by the FDA under the FD&C Act and its implementing regulations, as well as other federal and state regulatory bodies in the U. S. and comparable authorities in other countries under other statutes and regulations. The laws and regulations govern, among other things, product design and development, pre-clinical and clinical testing, manufacturing, packaging, labeling, storage, record keeping and reporting, clearance or approval, marketing, distribution, promotion, import and export, and post-marketing surveillance. Failure to comply with applicable requirements may subject a device and/or its manufacturer to a variety of administrative sanctions, such as issuance of Warning letters, import detentions, civil monetary penalties, and/or judicial sanctions, such as product seizures, injunctions and criminal prosecution.

FDA’s Premarket Clearance and Approval Requirements

Each medical device we seek to commercially distribute in the U. S. will require either a prior 510(k) clearance, unless it is exempt, or a premarket approval from the FDA. Medical devices are classified into one of three classes-Class I, Class II or Class III-depending on the degree of risk associated with each medical device and the extent of control needed to provide reasonable assurance of safety and effectiveness. Class I devices are deemed to be low risk and are subject to the general controls of the FD&C Act, such as provisions that relate to adulteration; misbranding; registration and listing; notification, including repair, replacement, or refund; records and reports; and good manufacturing practices. Most Class I devices are classified as exempt from premarket notification under Section 510(k) of the FD&C Act, and therefore may be commercially distributed without obtaining 510(k) clearance from the FDA., Class II devices are subject to both general controls and special controls to provide reasonable assurance of safety and effectiveness. Special controls include performance standards, postmarket surveillance, patient registries, and guidance documents. A manufacturer may be required to submit to the FDA a premarket notification requesting permission to commercially distribute some Class II devices. Devices deemed by the FDA to pose the greatest risk, such as life-sustaining, life-supporting or implantable devices, or devices deemed not substantially equivalent to a previously cleared 510(k) device, are placed in Class III. A Class III device cannot be marketed in the U. S. unless the FDA approves the device after submission of a premarket approval application (PMA). However, there are some Class III devices for which the FDA has not yet called for a PMA. For these devices, the manufacturer must submit a premarket notification and obtain 510(k) clearance in order to commercially distribute these devices. The FDA can also impose sales, marketing or other restrictions on devices in order to assure that they are used in a safe and effective manner.

510(k) Clearance Pathway

When a 510(k) clearance is required, we must submit a premarket notification to the FDA demonstrating that our proposed device is substantially equivalent to a predicate device, which is a previously cleared and legally marketed 510(k) device or a device that was in commercial distribution before May 28, 1976. By regulation, a premarket notification must be submitted to the FDA at least 90 days before we intend to distribute a device. As a practical matter, clearance often takes significantly longer. To demonstrate substantial equivalence, the manufacturer must show that the proposed device has the same

intended use as the predicate device, and it either has the same technological characteristics, or different technological characteristics and the information in the premarket notification demonstrates that the device is equally safe and effective and does not raise different questions of safety and effectiveness. The FDA may require further information, including clinical data, to make a determination regarding substantial equivalence. If the FDA determines that the device, or its intended use, is not substantially equivalent to a previously cleared device or use, the FDA will place the device into Class III.

There are three types of 510(k)s: traditional, special and abbreviated. Special 510(k)s are for devices that are modified and the modification needs a new 510(k) but does not affect the intended use or alter the fundamental scientific technology of the device. Abbreviated 510(k)s are for devices that conform to a recognized standard. The special and abbreviated 510(k)s are intended to streamline review, and the FDA intends to process special 510(k)s within 30 days of receipt.

Premarket Approval Pathway

A premarket approval application must be submitted to the FDA for Class III devices for which the FDA has required a PMA. The premarket approval application process is much more demanding than the 510(k) premarket notification process. A premarket approval application must be supported by extensive data, including but not limited to technical, preclinical, clinical trials, manufacturing and labeling to demonstrate to the FDA's satisfaction reasonable evidence of safety and effectiveness of the device.

After a premarket approval application is submitted, the FDA has 45 days to determine whether the application is sufficiently complete to permit a substantive review and thus whether the FDA will file the application for review. The FDA has 180 days to review a filed premarket approval application, although the review of an application generally occurs over a significantly longer period of time and can take up to several years. During this review period, the FDA may request additional information or clarification of the information already provided. Also, an advisory panel of experts from outside the FDA may be convened to review and evaluate the application and provide recommendations to the FDA as to the approvability of the device. Although the FDA is not bound by the advisory panel decision, the panel's recommendations are important to the FDA's overall decision making process. In addition, the FDA may conduct a preapproval inspection of the manufacturing facility to ensure compliance with the Quality System Regulation (QSR). The agency also may inspect one or more clinical sites to assure compliance with FDA's regulations.

Upon completion of the PMA review, the FDA may: (i) approve the PMA which authorizes commercial marketing with specific prescribing information for one or more indications, which can be more limited than those originally sought; (ii) issue an approvable letter which indicates the FDA's belief that the PMA is approvable and states what additional information the FDA requires, or the post-approval commitments that must be agreed to prior to approval; (iii) issue a not approvable letter which outlines steps required for approval, but which are typically more onerous than those in an approvable letter, and may require additional clinical trials that are often expensive and time consuming and can delay approval for months or even years; or (iv) deny the application. If the FDA issues an approvable or not approvable letter, the applicant has 180 days to respond, after which the FDA's review clock is reset.

Clinical Trials

Clinical trials are almost always required to support premarket approval and are sometimes required for 510(k) clearance. In the U. S., for significant risk devices, these trials require submission of an application for an Investigational Device Exemption(IDE) to the FDA. The IDE application must be supported by appropriate data, such as animal and laboratory testing results, showing it is safe to test the device in humans and that the testing protocol is scientifically sound. The IDE must be approved in advance by the FDA for a specific number of patients at specified study sites. During the trial, the sponsor must comply with the FDA's IDE requirements for investigator selection, trial monitoring, reporting, and recordkeeping. The investigators must obtain patient informed consent, rigorously follow the investigational plan and study protocol, control the disposition of investigational devices, and comply with all reporting and recordkeeping requirements. Clinical trials for significant risk devices may not begin until the IDE application is approved by the FDA and the appropriate institutional review boards, or IRBs, at the clinical trial sites. An IRB is an appropriately constituted group that has been formally designated to review and monitor medical research involving subjects and which has the authority to approve, require modifications in, or disapprove research to protect the rights, safety and welfare of human research subjects. A nonsignificant risk device does not require FDA approval of an IDE; however, the clinical trial must still be conducted in compliance with various requirements of FDA's IDE regulations and be approved by an IRB at the clinical trials sites. We, the FDA or the IRB at each site at which a clinical trial is being performed may withdraw approval of a clinical trial at any time for various reasons, including a belief that the risks to study subjects outweigh the benefits or a failure to comply with FDA or IRB requirements. Even if a trial is completed, the results of clinical testing may not demonstrate the safety and effectiveness of the device, may be equivocal or may otherwise not be sufficient to obtain approval or clearance of the product.

Sponsors of clinical trials of devices are required to register with clinicaltrials.gov, a public database of clinical trial information. Information related to the device, patient population, phase of investigation, study sites and investigators, and other aspects of the clinical trial is made public as part of the registration.

Ongoing Regulation by the FDA

Even after a device receives clearance or approval and is placed on the market, numerous regulatory requirements apply. These include:

- establishment registration and device listing;
- the QSR, which requires manufacturers, including third-party manufacturers, to follow stringent design, testing, control, documentation, and other quality assurance procedures during all aspects of the manufacturing process;
- labeling regulations and the FDA prohibitions against the promotion of products for un-cleared, unapproved or "off-label" uses, and other requirements related to promotional activities;
- medical device reporting regulations, which require that manufactures report to the FDA if their device may have caused or contributed to a death or serious injury or if their device malfunctioned and the device or a similar device marketed by the manufacturer would be likely to cause or contribute to a death or serious injury if the malfunction were to recur;
- corrections and removal reporting regulations, which require that manufactures report to the FDA field corrections or removals if undertaken to reduce a risk to health posed by a device or to remedy a violation of the FD&C Act that may present a risk to health; and
- post market surveillance regulations, which apply to certain class II or III devices when necessary to protect the public health or to provide additional safety and effectiveness data for the device.

After a device receives 510(k) clearance, any modification that could significantly affect its safety or effectiveness, or that would constitute a major change in its intended use, will require a new clearance or possibly a premarket approval. The FDA requires each manufacturer to make this determination initially, but the FDA can review any such decision and can disagree with a manufacturer's determination. If the FDA disagrees with our determination not to seek a new 510(k) clearance, the FDA may retroactively require us to seek 510(k) clearance or possibly a premarket approval. The FDA could also require us to cease marketing and distribution and/or recall the modified device until 510(k) clearance or premarket approval is obtained. Also, in these circumstances, we may be subject to significant regulatory fines and penalties.

Some changes to an approved PMA device, including changes in indications, labeling, or manufacturing processes or facilities, require submission and FDA approval of a new PMA or PMA supplement, as appropriate, before the change can be implemented. Supplements to a PMA often require the submission of the same type of information required for an original PMA, except that the supplement is generally limited to that information needed to support the proposed change from the device covered by the original PMA. The FDA uses the same procedures and actions in reviewing PMA supplements as it does in reviewing original PMAs.

FDA regulations require us to register as a medical device manufacturer with the FDA. Additionally, the California Department of Health Services (CDHS) requires us to register as a medical device manufacturer within the state. Because of this, the FDA and the CDHS inspect us on a routine basis for compliance with the QSR. These regulations require that we manufacture our products and maintain related documentation in a prescribed manner with respect to manufacturing, testing and control activities. We have undergone and expect to continue to undergo regular QSR inspections in connection with the manufacture of our products at our facilities. Further, the FDA requires us to comply with various FDA regulations regarding labeling. Failure by us or by our suppliers to comply with applicable regulatory requirements can result in enforcement action by the FDA or state authorities, which may include any of the following sanctions:

- warning or untitled letters, fines, injunctions, consent decrees and civil penalties;
- customer notifications, voluntary or mandatory recall or seizure of our products;
- operating restrictions, partial suspension or total shutdown of production;
- delay in processing submissions or applications for new products or modifications to existing products;
- withdrawing approvals that have already been granted; and
- criminal prosecution.

The Medical Device Reporting laws and regulations require us to provide information to the FDA when we receive or otherwise become aware of information that reasonably suggests our device may have caused or contributed to a death or

serious injury as well as a device malfunction that likely would cause or contribute to death or serious injury if the malfunction were to recur. In addition, the FDA prohibits an approved device from being marketed for off-label use. The FDA and other agencies actively enforce the laws and regulations prohibiting the promotion of off-label uses, and a company that is found to have improperly promoted off-label uses may be subject to significant liability, including substantial monetary penalties and criminal prosecution.

Newly discovered or developed safety or effectiveness data may require changes to a product's labeling, including the addition of new warnings and contraindications, and also may require the implementation of other risk management measures. Also, new government requirements, including those resulting from new legislation, may be established, or the FDA's policies may change, which could delay or prevent regulatory clearance or approval of our products under development.

We are also subject to other federal, state and local laws, and regulations relating to safe working conditions, laboratory, and manufacturing practices.

Regulatory Inspections

We are subject to periodic inspections by the FDA and other regulatory bodies related to the regulatory requirements that apply to medical devices designed and manufactured, and clinical trials sponsored, by us. When the FDA conducts an inspection, the inspectors will identify any deficiencies they believe exist in the form of a notice of inspectional observations, or Form FDA 483. If we receive a notice of inspectional observations or deficiencies from the FDA following an inspection, we likely will be required to respond in writing, and may be required to undertake corrective and preventive actions or other actions in order to address the FDA's concerns. Failure to address the FDA's concerns may result in the issuance of a warning letter or other enforcement or administrative actions.

From June 24, 2015 to July 15, 2015, the FDA conducted an inspection of our records relating to certain investigational sites for two different clinical trials, and from July 30, 2015 to August 4, 2015, the FDA conducted an inspection of our Quality System. At the conclusion of the first inspection, a Form FDA 483 was issued with one observation related to the failure to ensure proper monitoring at five of the investigational sites reviewed. At the conclusion of the second inspection, a Form FDA 483 was also issued with one observation relating to our procedures for completing and documenting effectiveness checks for Corrective and Preventative Action (CAPA). We provided timely responses to both Form FDA 483s, implemented changes to our clinical trial monitoring and CAPA procedures, and updated the FDA on the steps taken. On November 6, 2015, we received a letter from the FDA regarding the CAPA-related Form 483, noting that they had received our responses and would review the adequacy of the actions taken at our next inspection. On December 21, 2015, we received a letter from the FDA regarding the monitoring-related Form 483 indicating that our responses and actions appeared adequate to address the observation and noting that they may verify the actions taken during a future inspection. However, the FDA may conclude in subsequent inspections that we have not adequately responded to its observations or carried out all necessary corrective actions, and could take action against us without further notice. Action by the FDA against us could result in monetary fines or require us to take further corrective actions, which could be expensive and time-consuming to complete and could impose additional burdens and expenses, and could even require us to discontinue our investigational studies.

European Union

Our products are regulated in the European Union as medical devices per the European Union Directive (93/42/EEC), also known as the Medical Device Directive. An authorized third party, also called a Notified Body, must approve products for CE marking. The CE mark is contingent upon continued compliance to the applicable regulations and the quality system requirements of the ISO 13485 standard.

Other Regions

Most major markets have different levels of regulatory requirements for medical devices. Modifications to the cleared or approved products may require a new regulatory submission in all major markets. The regulatory requirements, and the review time, vary significantly from country to country. Products can also be marketed in other countries that have minimal requirements for medical devices.

Fraud and Abuse and Other Healthcare Regulation

Anti-Kickback Statute

We are subject to various federal and state healthcare laws, including, but not limited to, anti-kickback laws. In particular, the federal Anti-Kickback Statute prohibits persons or entities from knowingly and willfully soliciting, offering, receiving or paying any remuneration, directly or indirectly, overtly or covertly, in cash or in kind, in exchange for or to induce either the referral of an individual for the furnishing or arranging for a good or service, or for the purchasing, leasing, ordering, or arranging for or recommending any good, facility, service or item for which payment may be made in whole or in part under

federal healthcare programs, such as the Medicare and Medicaid programs. The federal Anti-Kickback Statute is broad and prohibits many arrangements and practices that are lawful in businesses outside of the healthcare industry. The term "remuneration" expressly includes kickbacks, bribes, or rebates and also has been broadly interpreted to include anything of value, including, for example, gifts, discounts, the furnishing of supplies or equipment, credit arrangements, payments of cash, waivers of payments, ownership interests and providing anything at less than its fair market value.

There are a number of statutory exceptions and regulatory safe harbors protecting certain business arrangements from prosecution under the federal Anti-Kickback Statute. These statutory exceptions and safe harbors set forth provisions that, if all their applicable requirements are met, will assure healthcare providers and other parties that they may not be prosecuted under the federal Anti-Kickback Statute. The failure of a transaction or arrangement to fit precisely within one or more applicable statutory exceptions or safe harbors does not necessarily mean that it is illegal or that prosecution will be pursued. However, conduct and business arrangements that do not fully satisfy all requirements of an applicable safe harbor may result in increased scrutiny by government enforcement authorities and will be evaluated on a case-by-case basis based on a cumulative review of all of its facts and circumstances. Additionally, the intent standard under the federal Anti-Kickback Statute was amended under the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act of 2010 (Affordable Care Act), to a stricter standard such that a person or entity no longer needs to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation. The Affordable Care Act provides that the government may assert that a claim including items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the federal civil False Claims Act which is discussed below. Penalties for violations of the anti-kickback statute include, but are not limited to, criminal, civil and/or administrative penalties, damages, fines, disgorgement, individual imprisonment, possible exclusion from Medicare, Medicaid and other federal healthcare programs, and the curtailment or restructuring of operations. Various states have adopted laws similar to the federal Anti-Kickback Statute, and some of these state laws may be broader in scope in that some of these state laws extend to all payors and may not contain safe harbors.

Federal Civil False Claims Act. The federal civil False Claims Act prohibits, among other things, persons or entities from knowingly presenting or causing to be presented a false or fraudulent claim to, or the knowing use of false statements to obtain payment from or approval by, the federal government. Suits filed under the federal civil False Claims Act, known as "*qui tam*" actions, can be brought by any individual on behalf of the government. These individuals, sometimes known as "relators" or, more commonly, as "whistleblowers," may share in any amounts paid by the entity to the government in fines or settlement. The number of filings of *qui tam* actions has increased significantly in recent years, causing more healthcare companies to have to defend a case brought under the federal civil False Claim Act. If an entity is determined to have violated the federal civil False Claims Act, it may be required to pay up to three times the actual damages sustained by the government, plus civil penalties for each separate false claim. Various states have adopted laws similar to the federal civil False Claims Act, and many of these state laws are broader in scope and apply to all payors, and therefore, are not limited to only those claims submitted to the federal government.

Federal Civil Monetary Penalties Statute. The federal Civil Monetary Penalties Statute, among other things, imposes fines against any person who is determined to have presented, or caused to be presented, claims to a federal healthcare program that the person knows, or should know, is for an item or service that was not provided as claimed or is false or fraudulent.

Sunshine Act. The Affordable Care Act also included a provision, commonly referred to as the Sunshine Act. This provision requires that any manufacturer of a covered device that provides payment or other transfer of value to a physician or teaching hospital, or to a third party at the request of a physician or teaching hospital, must submit to CMS information about the payment or other transfer of value annually, with the reported information to be made public on a searchable website.

Health Insurance Portability and Accountability Act of 1996. The federal Health Insurance Portability and Accountability Act (HIPAA) created several new federal crimes, including healthcare fraud and false statements relating to healthcare matters. The healthcare fraud statute prohibits knowingly and willfully executing a scheme to defraud any healthcare benefit program, including private third-party payors. The false statements statute prohibits knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false, fictitious or fraudulent statement in connection with the delivery of or payment for healthcare benefits, items or services. In addition, HIPAA and its implementing regulations established uniform standards for certain covered entities, which are healthcare providers, health plans and healthcare clearinghouses, as well as their business associates, governing the conduct of specified electronic healthcare transactions and protecting the security and privacy of protected health information.

The American Recovery and Reinvestment Act of 2009, commonly referred to as the economic stimulus package, included an expansion of HIPAA's privacy and security standards called the Health Information Technology for Economic and Clinical Health Act (HITECH). Among other things, HITECH created four new tiers of civil monetary penalties and gave state

attorneys general new authority to file civil actions for damages or injunctions in federal courts to enforce the federal HIPAA laws and seek attorneys' fees and costs associated with pursuing federal civil actions.

Employees

As of December 31, 2015, we had approximately 1,100 employees worldwide. None of our employees are represented by a collective bargaining agreement and we have never experienced a work stoppage. We believe our employee relations are good.

Facilities

We maintain a 180,000 square feet research and development and manufacturing facility in three buildings at our campus in Alameda, California. The leases for these three buildings expire in 2029, subject to our option to renew any or all three leases for an additional ten years. In December 2015, we signed a lease for an additional 99,568 square feet of space (plus an additional space of 15,882 square feet that may be delivered to us at the landlord's option prior to May 1, 2016) in three adjacent buildings located in our campus in Alameda, California. From time to time during the ten year period following the initial commencement date of the new lease, if any space in any of the buildings or in a fourth building located in the same business park as our campus becomes vacant, that space will be added to the lease at the then current base monthly rental rate. The maximum additional space that could be added under this provision of the lease is 117,325 square feet. We have a right of first offer to lease any space that becomes available in the buildings or in the fourth building after the expiration of the ten year period following the initial commencement date, subject to the terms described in the new lease. The term of the new lease expires after fifteen years from the initial lease commencement date, subject to our option to renew the lease for up to three additional five-year periods.

We also lease office space in Berlin, Germany; Sydney, Australia; and Sao Paulo, Brazil. The offices in Berlin and Sydney support our direct sales operations in Europe and Australia, respectively, and the office in Sao Paulo supports our Latin America marketing efforts through our distribution partners.

Legal Proceedings

We were contacted in 2015 by the attorney for a potential product liability claimant who allegedly suffered injuries as a result of an aneurysm procedure in which the Penumbra Coil 400 was used. On February 19, 2016, a complaint for damages was filed on behalf of this claimant against Penumbra and the hospital involved in the procedure (*Montgomery v. Penumbra, Inc., et al.*, Case No. 16-2-04050-1 SEA, Superior Court of the State of Washington, King County). The suit alleges liability primarily under the Washington Product Liability Act and seeks both compensatory and punitive damages without a specific damages claim. Counsel for the claimant previously indicated that he expects that a jury could award $35 million in damages were this matter to go to trial. This amount is substantially in excess of our insurance coverage. The hospital defendant has requested indemnification from Penumbra. As the litigation has been filed recently and the parties have not engaged in formal discovery, we are unable to assess the merits of the plaintiff's case. We intend to vigorously defend the litigation, as we believe there will be substantial questions regarding causation, liability and damages.

Additionally, from time to time, we are subject to claims and assessments in the ordinary course of business. We are not currently a party to any litigation matter that, individually or in the aggregate, is expected to have a material adverse effect on our business, financial condition, results of operations or cash flows.

Available Information

We make our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and amendments to those reports, available free of charge at our website as soon as reasonably practicable after they have been filed with the SEC. Our website address is www.penumbrainc.com. Information on our website is not part of this report.

The public may read and copy any materials we file with the SEC at the SEC's Public Reference Room at 100 F Street, NE, Washington, DC 20549. The public may obtain information of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC maintains a website that contains the materials we file with the SEC at www.sec.gov.

ITEM 1A. RISK FACTORS.

This Annual Report on Form 10-K contains forward-looking information based on our current expectations. Because our business is subject to many risks and our actual results may differ materially from any forward-looking statements made by or on behalf of us, this section includes a discussion of important factors that could affect our business, operating results, financial condition and the trading price of our common stock. You should carefully consider these risk factors, together with all of the other information included in this Annual Report on Form 10-K as well as our other publicly available filings with the SEC.

Business Risks

We have a limited operating history and may not be able to sustain or grow our profitability or generate positive cash flows from operations.

We were founded in 2004 and did not generate any revenue until 2007. Moreover, while we have successfully developed, obtained regulatory clearance or approval for, and introduced a number of products in the neuro market since 2007, we first introduced products in the peripheral vascular and neurosurgical markets in 2013 and 2014, respectively. Accordingly, we only have a limited operating history upon which investors can evaluate our business and prospects, and this limited operating history may not be indicative of our future results. Since 2009, we have been generally profitable on an annual basis; however, we incurred operating losses in 2013. We can give no assurance that we will be profitable or cash flow positive in the future.

Our general and administrative and sales and marketing expenses have increased, and we expect that they will continue to increase, to support our anticipated growth as well as the additional operational and reporting costs associated with being a public company. We have also expended significant amounts on research and development to develop and fund clinical testing of our products, and we expect to continue to do so. We also expend significant amounts on maintaining inventory levels of raw materials, components and finished products to meet anticipated customer demand. In addition, our coil products are sold on a consignment basis, which requires us to expend significant amounts on inventory that is placed at many customer locations. Our ability to sustain our growth and profitability and operate cash flow positive may be influenced by many factors, including:

- our ability to achieve and maintain market acceptance of our products;
- unanticipated problems and additional costs relating to the development and testing of new products;
- our ability to introduce, manufacture at scale, build new inventory and commercialize new products;
- our ability to produce sufficient quantities of our products to meet demand and to smoothly transition to new products;
- the impact of competition;
- the timing and impact of market and regulatory developments;
- our ability to expand into new markets;
- pricing pressure from competitors;
- the availability and adequacy of third-party reimbursement for procedures in which our products are used; and
- our ability to obtain and maintain adequate intellectual property protection for our products and technologies.

If we encounter difficulties with any of the foregoing or unexpected expenses, it could materially adversely affect our business, results of operations, financial condition or cash flows.

Our existing products may be rendered obsolete and we may be unable to effectively introduce and market new products or may fail to keep pace with advances in technology.

The medical device market is characterized by rapidly advancing technology. Our success depends, in part, on our ability to anticipate technological advancements and competitive innovations and introduce new products to adapt to these advancements and innovations. To compete in the marketplace, we have made, and we must continue to make, substantial investments in new product development, whether internally through research and development or externally through licensing or acquisitions. We can give no assurance that we will be successful in identifying, developing or acquiring, and marketing new products or enhancing our existing products. In addition, we can give no assurance that new products or alternative treatment techniques developed by competitors will not render our current or future products obsolete or inferior, technologically or economically.

The success of any new products that we develop or acquire depends on achieving and maintaining market acceptance. Market acceptance for our current and new products could be affected by a number of factors, including:

- our ability to market and distribute our products effectively;
- the availability, perceived efficacy and pricing of alternative products from our competitors;

- the development of new products or alternative treatments by others that render our products and technologies obsolete;
- the price, quality, effectiveness and reliability of our products;
- our customer service and reputation;
- our ability to convince specialist physicians to use our products on their patients; and
- the timing of market entry of new products or alternative treatments.

Our competition may respond more quickly to new or emerging technologies or a changing clinical landscape, undertake more extensive marketing campaigns, have greater financial, marketing and other resources than us or be more successful in attracting potential customers and strategic partners. Given these factors, we cannot assure you that we will be able to continue or increase our level of success. Our failure to introduce new and innovative products in a timely manner, and our inability to maintain or grow the market acceptance of our existing products, could result in permanent write-downs or write-offs of our inventory and otherwise have a material and adverse effect on our business, results of operations, financial condition or cash flows.

Delays in product introductions could adversely affect our business, results of operations, financial condition or cash flows.

The medical device market is highly competitive and designs change often to adjust to shifting market preferences and other factors. Therefore, product life cycles are relatively short. As a result, any delays in our product launches may significantly impede our ability to enter or compete in a given market and may reduce the sales that we are able to generate from these products. We may experience delays in any phase of a product launch, including during research and development, clinical trials, regulatory review, manufacturing and marketing. Delays in product introductions could materially adversely affect our business, results of operations, financial condition or cash flows.

We face significant competition, and if we are unable to compete effectively, we may not be able to achieve or maintain significant market penetration or improve our results of operations.

The medical device industry is intensely competitive, subject to rapid change and significantly affected by new product introductions and other market activities of industry participants. We compete with a number of manufacturers and distributors of neuro and peripheral vascular devices. Our most notable competitors are Boston Scientific, Johnson & Johnson, Medtronic, Stryker and Terumo. All of these competitors are large, well-capitalized companies with longer operating histories and significantly greater resources than us. We also compete with a number of smaller medical device companies that have a single product or a limited range of products. Our competitors may be able to spend more on product development, marketing, sales and other product initiatives, or be more focused in their spending and activities, than we can. Some of our competitors have:

- significantly greater name recognition;
- broader or deeper relations with healthcare professionals, customers and third-party payors;
- more established distribution networks;
- additional lines of products and the ability to offer rebates or bundle products to offer greater discounts or other incentives to gain a competitive advantage;
- greater experience in conducting research and development, manufacturing, clinical trials, marketing and obtaining regulatory clearance or approval for products; and
- greater financial and human resources for product development, sales and marketing and patent litigation.

We compete primarily on the basis that our products are able to treat patients with neurovascular and peripheral vascular diseases and disorders safely and effectively, with improved outcomes and procedural cost savings. Our continued success depends on our ability to:

- develop innovative, proprietary products that can cost-effectively address significant clinical needs;
- continue to innovate and develop scientifically advanced technology;
- obtain and maintain regulatory clearances or approvals;
- demonstrate efficacy in Penumbra-sponsored and third-party clinical trials and studies;
- apply technology across product lines and markets;
- attract and retain skilled research and development and sales personnel; and

- cost-effectively manufacture and successfully market and sell products.

We cannot assure you that we will be able to compete effectively on the basis of these factors. Additionally, our competitors with greater financial resources could acquire or develop new technologies or products that effectively compete with our existing or future products. If we are unable to effectively compete, it would materially adversely affect our business, results of operations, financial condition and cash flows.

Our future growth depends, in part, on our ability to further penetrate our current customer base and increase the frequency of use of our products by our customers.

We will need to continue to make specialist physicians and other hospital staff aware of the benefits of our products to generate increased demand and frequency of use, and thus increase sales to our hospital customers. Although we are attempting to increase the number of patients treated with procedures that use our products through our established relationships and focused sales efforts, we cannot provide assurance that our efforts will increase the use of our products. If we are unable to increase the frequency of use of our products by specialist physicians, this could materially adversely affect our business, results of operations, financial condition or cash flows.

Our future growth depends, in part, on significantly expanding our user base to include additional specialist physicians in both our existing and future target end markets.

Currently, the primary users of our neuro products are neuro interventionalists who perform endovascular neuro interventions. We also began selling in the peripheral vascular market in 2013 with the introduction of our Ruby Coil and the neurosurgery market in 2014 with the introduction of our Apollo System, and we may enter new target end markets in the future. Our revenue growth will depend in part on our ability to convince specialist physicians in our existing and future target end markets of our products' efficacy, to educate them in the proper use of our products and to sell our products to their affiliated hospitals. Convincing specialist physicians to use new products and to dedicate the time and energy necessary for adequate education in the use of our products is challenging, especially in new markets where treatments using our products are not established. Expanding our customer base in existing or new target end markets may require, among other things, additional clinical evidence supporting patient benefits, training in a manner to which we are not accustomed, or other resources that we do not readily have available or are not cost effective for us to provide. If we are unable to convert specialist physicians in existing or new target end markets to the use of our products, our sales growth will be limited, which could materially adversely affect our business, results of operations, financial condition or cash flows.

The marketing and sales of our products require a significant amount of time and expense and we may not have the resources to successfully market and sell our products, which would adversely affect our business and results of operations.

The marketing and sales of our products requires us to invest in training and education and employ a salesforce that is large enough to interact with the specialist physicians who use our products. Entering new markets also requires a significant amount of time and expense in order to identify and establish relationships with key opinion leaders among the specialist physicians who may use our products in those markets. We may not have adequate resources to market and sell our products successfully against larger competitors. For example, when we began selling in the peripheral vascular market in 2013, we did not have a dedicated direct peripheral vascular sales team and our neuro sales team was required to dedicate a portion of its efforts to the sales of our peripheral vascular products. We subsequently expended significant sums to develop a direct salesforce focused on peripheral vascular product sales. If we do not have adequate resources to market and sell our products effectively, or cannot otherwise market and sell our products successfully, it could materially adversely affect our business, results of operations, financial condition or cash flows.

Third-party reimbursement may not be available or adequate for the procedures in which our products are used.

Our ability to commercialize new products successfully in both the U. S. and international markets depends in part on the availability of, and hospitals' ability to obtain, adequate levels of third-party reimbursement for the procedures in which our products are used. In the U. S., the cost of medical care is funded, in substantial part, by government insurance programs, such as Medicare and Medicaid, and private and corporate health insurance plans. Third-party payors may deny reimbursement if they determine that a device used in a procedure has not received appropriate FDA or other governmental regulatory clearances or approvals, is not used in accordance with cost-effective treatment methods as determined by the payor, or is experimental, unnecessary or inappropriate. Our ability to commercialize our products successfully will depend, in large part, on the extent to which adequate reimbursement levels for the cost of their use are obtained from government authorities, private health insurers and other organizations, such as health maintenance organizations. Further, healthcare in the U. S. and international markets is also being affected by economic pressure to contain reimbursement levels and costs. Changing reimbursement models could materially adversely affect our business, results of operations, financial condition or cash flows.

We have generated a significant portion of our revenue from products that are used in connection with the treatment of neurovascular diseases, and our revenue and business prospects would be adversely affected if our neuro product sales were to decline.

We have generated most of our revenue from our neurovascular products, including our Penumbra System, Penumbra Coil 400 and Neuron products. If any one or more of these products, or any successor products, were no longer available for sale in any key market because of regulatory, third-party reimbursement or intellectual property issues or any other reason, or if one of our competitors introduced one or more products that specialist physicians believe are superior to our products, our revenue from these products would decline. A significant decline in our sales of neurovascular products could also negatively impact our financial condition and our ability to conduct product development activities, and therefore negatively impact our business prospects.

We must maintain and further develop relationships with specialist physicians. If specialist physicians do not recommend and endorse, or use, our products or if our relationships with specialist physicians deteriorate, our products may not be accepted or maintain acceptance in the marketplace, which would adversely affect our business and results of operations.

Our products are sold to hospitals for use by specialist physicians practicing at their facilities. In order for us to sell our products, specialist physicians must recommend and endorse them for the hospital to purchase them, and must use them in treating their patients to generate follow-on sales. We may not obtain the necessary recommendations or endorsements for new products from specialist physicians, nor may we be able to maintain the current or future level of acceptance and usage of our products. Acceptance of our products depends on educating the medical community as to the distinctive characteristics, perceived benefits, safety, clinical efficacy and cost-effectiveness of our products compared to products of our competitors or treatments that do not use our products, and on training specialist physicians in the proper application and use of our products. We invest in significant training and education of our sales representatives and specialist physicians to achieve market acceptance of our products, with no assurance of success. If we are not successful in obtaining and maintaining the recommendations or endorsements of specialist physicians for our products, if specialist physicians prefer our competitors' products or other alternative treatments that do not use our products, or if our products otherwise do not gain or maintain market acceptance, our business could be adversely affected.

In addition, the research, development, marketing and sales of our products are dependent, in part, upon our working relationships with specialist physicians. We rely on them to provide us with knowledge and feedback regarding our products and the marketing of our products. If we are unable to develop or maintain strong relationships with specialist physicians and receive their advice and input, the development and marketing of our products could suffer, which could materially adversely affect our business, results of operations, financial condition or cash flows.

We may not be able to achieve or maintain satisfactory pricing and margins for our products.

Manufacturers of medical devices have a history of price competition, and we can give no assurance that we will be able to achieve satisfactory prices for our products or maintain prices at the levels we have historically achieved. If we are unable to achieve or maintain our prices, or if our costs increase and we are unable to offset such increase with an increase in our prices, our margins could erode and we may be unable to maintain profitable operations.

We cannot be certain that we will be able to manufacture our products in high volumes at commercially reasonable costs.

We currently maintain our manufacturing operations in buildings located at our campus in Alameda, California. We currently produce substantially all of our products at this facility, and we do not have redundant facilities. We may need to expend significant capital resources and increase the size of our manufacturing capabilities as we grow our business. We could, however, encounter problems related to:

- capacity constraints;
- production yields;
- quality control;
- equipment availability; and
- shortages of qualified personnel.

Our continuous product innovation limits our ability to identify and implement manufacturing efficiencies. Failure to do so may reduce our ability to manufacture our products at commercially reasonable costs. If we are unable to manufacture our products in high volumes at commercially reasonable costs, it could materially affect our ability to adequately increase production of our products and fulfill customer orders on a timely basis, which could have a material adverse effect on our business, results of operations, financial condition or cash flows.

We are required to maintain high levels of inventory, which consume a significant amount of our working capital and could lead to permanent write-downs or write-offs of our inventory.

We maintain a significant inventory of raw materials, components and finished goods, which subjects us to a number of risks and challenges. Our hospital customers typically maintain only small quantities of our products at their facilities, so as products are used, they order replacements that typically require prompt delivery. As a result, we must maintain sufficient levels of finished goods to permit rapid shipment of products following receipt of a customer order. In turn, we must also maintain a sufficient supply of raw materials and components inventory to permit rapid manufacturing and re-stocking of finished goods. Furthermore, our coil inventory is supplied to hospital customers on a consignment basis, which means that it is classified as part of our inventory for financial reporting purposes but is maintained at the hospital location until it is used. We have built, and will continue to build, a significant inventory of coils in order to support the introduction of and to provide adequate consignment stock for our new and existing coil products.

Maintaining a significant inventory of raw materials, components and finished goods, including coils, consumes a significant amount of our working capital. This working capital could be used for other purposes, such as research and development or sales and marketing activities. As we grow our business, we may need substantial additional capital to fund higher levels of inventory, which may materially adversely affect our liquidity or result in dilution to our stockholders if we sell additional equity securities or leverage if we raise debt capital to finance our working capital requirements.

Maintaining a significant inventory of raw materials, components and finished goods, including coils, also subjects us to the risk of inventory excess and obsolescence, which may lead to a permanent write-down or write-off of our inventory. While in inventory, our components and finished goods may become obsolete, and we may over-estimate the amount of inventory needed, which may lead to excessive inventory. In these circumstances, we would write-down or write-off our inventory, and we may be required to expend additional resources or be constrained in the amount of end product that we can produce. Furthermore, our products have a limited shelf life due to sterilization requirements, and part or all of a given product or component may expire, resulting in a decrease in value and potentially a permanent write-down of our inventory. For example, we recorded write downs of $1.2 million, $1.9 million and $0.9 million for excess and obsolete inventory in 2015, 2014 and 2013, respectively. In the event that a substantial portion of our inventory becomes excess or obsolete, it could materially adversely affect our results of operations.

Defects or failures or alleged defects or failures associated with our products could lead to recalls, safety alerts or litigation, as well as significant costs and negative publicity.

Manufacturing flaws, component failures, design defects, off-label uses or inadequate disclosure of product-related information could result in an unsafe condition or the injury or death of a patient. These problems could lead to a recall of, or issuance of a safety alert relating to, our products and result in significant costs, negative publicity and adverse competitive pressure. While we have had product recalls, they have all been voluntary, based on our own internal safety and quality monitoring and testing data, and none of our past product recalls has been material. The circumstances giving rise to recalls are, however, unpredictable, and any future recalls of existing or future products could materially adversely affect our business, results of operations, financial condition or cash flows.

The medical device industry has historically been subject to extensive litigation over product liability claims. There are high rates of mortality and other complications associated with some of the medical conditions suffered by the patients whom specialist physicians use our devices to treat, and we may be subject to product liability claims if our products cause, or merely appear to have caused, an injury or death. In addition, an injury or death that is caused by the activities of our suppliers, such as those that provide us with components and raw materials, or by an aspect of a treatment used in combination with our products, such as a complementary drug or anesthesia, may be the basis for a claim against us by patients, hospitals, health-care providers or others purchasing or using our products, even if our products were not the actual cause of such injury or death. For example, a product liability lawsuit was recently filed against Penumbra by a claimant who allegedly suffered injuries as a result of an aneurysm procedure in which the Penumbra Coil 400 was used, see Legal Proceedings in Part I, Item 3 of this Form 10-K. An adverse outcome involving one of our products could result in reduced market acceptance and demand for all of our products, and could harm our reputation and our ability to market our products in the future. In some circumstances, adverse events arising from or associated with the design, manufacture or marketing of our products could result in the suspension or delay of regulatory reviews of our premarket notifications or applications for marketing. Any of the foregoing problems could disrupt our business and have a material adverse effect on our business, results of operation, financial condition or cash flows.

Although we carry product liability insurance in the U. S. and in other countries in which we conduct business, including for clinical trials and product marketing, we can give no assurance that such coverage will be available or adequate to satisfy any claims. Product liability insurance is expensive, subject to significant deductibles and exclusions, and may not be available on acceptable terms, if at all. If we are unable to obtain or maintain insurance at an acceptable cost or on acceptable terms with adequate coverage or otherwise protect against potential product liability claims, we could be exposed to significant liabilities. A product liability claim, recall or other claim with respect to uninsured liabilities or for amounts in excess of insured liabilities

could materially adversely affect our business, financial condition and results of operations. Defending a suit, regardless of its merit or eventual outcome, could be costly, could divert management's attention from our business and might result in adverse publicity, which could result in reduced acceptance of our products in the market, product recalls or market withdrawals.

Our products are continually the subject of clinical trials conducted by us, our competitors, or other third parties, the results of which may be unfavorable, or perceived as unfavorable, and which could materially adversely affect our business, financial condition and results of operations.

As a part of the regulatory process of obtaining marketing clearance or approval for new products and new indications for existing products, as well as to provide specialist physicians with ongoing information regarding the efficacy of our products, we conduct and participate in numerous clinical trials with a variety of study designs, patient populations and trial endpoints. Our competitors and third parties also conduct clinical trials of our products without our participation. Unfavorable or inconsistent clinical data from existing or future clinical trials conducted by us, our competitors or third parties, or the market's or regulators' perception of clinical data, could materially adversely affect our business, results of operations, financial condition or cash flows.

Our future success depends in part upon establishing an interventional stroke care pathway in the U. S. that integrates the use of endovascular thrombectomy into the treatment of ischemic stroke.

The stroke care pathway in the U. S. generally begins with emergency responders who are responsible for transporting the patient to a hospital facility. With a small number of exceptions (such as for trauma), emergency responders in the U. S. generally operate under a protocol that transports patients to the nearest hospital, which decreases the likelihood that the patient will be transported to a stroke center that has a developed stroke team and an interventional approach to the treatment of stroke. Further, there is no agreed upon standard of care among physicians or hospitals regarding the treatment of ischemic stroke patients, and treatment protocols vary according to the particular hospital, often resulting in significant delays and gaps in patients being assessed for and receiving interventional treatment. The absence of a uniform protocol among hospitals and among physicians within the same hospital means that we have to educate each hospital and stroke center about protocols that integrate our products for the treatment of stroke.

We believe that the stroke care system in the U. S. has not been historically geared towards interventional treatment of stroke due to the absence of clinical evidence that interventional techniques were effective. Our and our competitors' ability to alter the existing stroke care pathway may depend on whether we and our competitors are successful in using recent positive clinical studies to convince specialist physicians that intervention yields superior clinical results relative to cases where intervention is not used.

Establishing an interventional stroke pathway that integrates the use of interventional treatments, including our products, will depend upon many factors, including:

- continuing to educate hospitals and specialist physicians about the clinical evidence supporting intervention, as well as the use, benefits and cost-effectiveness of our products;
- improving the speed with which patients are assessed for and receive interventional treatments; and
- increasing the likelihood that patients are transported to a hospital or stroke center where interventional treatments are available.

Even if these efforts are successful, it may be years before existing systems and care pathways are changed. These factors may make it difficult to grow our business.

Any data that is gathered in the course of clinical trials may be significantly more favorable than the typical results achieved by practicing specialist physicians, which could negatively impact rates of adoption of our products.

Even if the data collected from clinical trials indicates positive results, each specialist physician's actual experience with our products will vary. Clinical trials often involve procedures performed by specialist physicians who are technically proficient and high volume users. Consequently, the results reported in clinical trials may be significantly more favorable than typical results of other users. If specialist physicians' experiences indicate, or they otherwise believe, that our products are not as safe or effective as other treatment options with which they are more familiar, or clinical trial data indicates the same, adoption of our products may suffer, which could materially adversely affect our business, results of operations, financial condition or cash flows.

Negative publicity regarding our products or marketing tactics by competitors could reduce demand for our products, which would adversely affect sales and our financial performance.

We may experience, from time to time, negative exposure in clinical publications or in marketing campaigns of our competitors. Such publications or campaigns may present negative individual physician experience regarding the safety or

effectiveness of our products or may suggest our competitors' products are superior to ours, based on studies or clinical trials conducted or funded by competitors or that involved competitive products.

Our reputation and competitive position may also be harmed by other publicly available information suggesting that our products are not safe. For example, we file adverse event reports under Medical Device Reporting (MDR) obligations with the FDA that are publicly available on the FDA's website. We are required to file MDRs if our products may have caused or contributed to a serious injury or death or malfunctioned in a way that could likely cause or contribute to a serious injury or death if it were to recur. Any such MDR that reports a significant adverse event could result in negative publicity and could harm our reputation and future sales.

Our dependence on key suppliers puts us at risk of interruptions in the availability of our products, which could reduce our revenue and adversely affect our results of operations. In addition, increases in prices for raw materials and components used in our products could adversely affect our results of operations.

We require the timely delivery of sufficient amounts of components and materials to manufacture our products. For reasons of quality assurance, cost effectiveness or availability, we procure certain raw materials and components from a single or limited number of suppliers. We generally acquire such raw materials and components through purchase orders placed in the ordinary course of business, and as a result we may not have a significant inventory of these materials and components and generally do not have any guaranteed or contractual supply arrangements with many of these suppliers. Our reliance on these suppliers subjects us to risks that could harm our business, including, but not limited to, difficulty locating and qualifying alternative suppliers.

Our dependence on third-party suppliers involves several other risks, including limited control over pricing, availability, quality and delivery schedules. Suppliers of raw materials and components may decide, or be required, for reasons beyond our control, to cease supplying raw materials and components to us or to raise their prices. Shortages of raw materials, quality control problems, production capacity constraints or delays by our suppliers could negatively affect our ability to meet our production requirements and result in increased prices for affected materials or components. We may also face delays, yield issues and quality control problems if we are required to locate and secure new sources of supply. While we have not experienced any to date, any material shortage, constraint or delay may result in delays in shipments of our products, which could materially adversely affect our results of operations. Increases in prices for raw materials and components used in our products could also materially adversely affect our results of operations.

In addition, the FDA and regulators outside of the U. S. may require additional testing of any raw materials or components from new suppliers prior to our use of these materials or components. In the case of a device with clearance under Section 510(k) of the FD&C Act, referred to as a 510(k), we may be required to submit a new 510(k) if a change in a raw material or component supplier results in a change in a material or component supplied that is not within the 510(k) cleared device specifications. If we need to establish additional or replacement suppliers for some of these materials or components, our access to the materials or components might be delayed while we qualify such suppliers and obtain any necessary FDA approvals or clearances. Our suppliers may also be subject to regulatory inspection and scrutiny. Any adverse regulatory finding or action against those suppliers could impact their ability to supply us with raw materials and components for our products.

Our corporate culture has contributed to our success, and if we cannot maintain this culture as we grow, we could lose the innovative approach, creativity, and teamwork fostered by our culture, and our business may be harmed.

We believe that a critical contributor to our success has been our corporate culture, which we believe fosters innovation, teamwork, and a focus on execution, as well as facilitating critical knowledge transfer and knowledge sharing. As we grow, we may find it difficult to maintain these important aspects of our corporate culture, which could limit our ability to innovate and operate effectively. Any failure to preserve our culture could also negatively affect our ability to retain and recruit personnel or execute on our business strategy.

If our facilities were to become inoperable, we would be unable to continue to develop and manufacture our products until we were able to restore full research, manufacturing and administrative capabilities at our facilities or secure a new facility, and as a result, our business would be harmed.

We currently maintain our research and development, manufacturing and administrative operations in buildings located at our campus in Alameda, California, and we do not have redundant facilities. Alameda is situated on or near earthquake fault lines, and our facilities are built on filled land, which could be prone to liquefaction in a major earthquake. Should one or more of our buildings be significantly damaged or destroyed by natural or man-made disasters, such as earthquakes, fires or other events, it could take months to relocate or rebuild, during which time our employees may seek other positions, our research, development and manufacturing would cease or be delayed and our products may be unavailable. Moreover, because of the time required to approve and license a manufacturing facility under FDA and non-U.S. regulatory requirements, we may not be able to resume production on a timely basis even if we are able to replace production capacity in the event we lose manufacturing capacity. While we maintain property and business interruption insurance, such insurance has limits and would

only cover the cost of rebuilding and relocating and lost profits, but not losses we may suffer due to our products being replaced by competitors' products. The inability to perform our research, development and manufacturing activities, combined with our limited inventory of raw materials and components and manufactured products, may cause specialist physicians to discontinue using our products or harm our reputation, and we may be unable to reestablish relationships with those specialist physicians in the future. Consequently, a catastrophic event at our facility could materially adversely affect our business, results of operations, financial condition or cash flows.

To successfully market and sell our products internationally, we must address a number of unique challenges applicable to international markets.

For the years ended December 31, 2015, 2014 and 2013, we derived 31.6%, 33.9% and 34.4%, respectively, of our revenue from international sales. International sales are subject to a number of risks and challenges, including:

- reliance on distributors;
- varying coverage and reimbursement policies, processes and procedures;
- difficulties in staffing and managing international operations from which sales are conducted;
- difficulties in penetrating markets in which our competitors' products or alternative procedures that do not use our products are more established;
- reduced protection for intellectual property rights in some countries;
- export licensing requirements or restrictions, trade regulations and foreign tax laws;
- fluctuating foreign currency exchange rates;
- foreign certification, regulatory requirements and legal requirements;
- lengthy payment cycles and difficulty in collecting accounts receivable;
- customs clearance and shipping delays;
- pricing pressure in international markets;
- political and economic instability; and
- preference for locally produced products.

If we are unable to successfully address these challenges, we may not be able to grow our international sales and our results of operations may suffer as a result.

Over the long term, we intend to grow our business internationally and to do so, we will need to either spend substantial sums to expand or develop direct sales capabilities in existing and new geographic areas or generate additional sales through existing distributors or attract additional distributors.

As a result of our international operations, we are required to comply with tax requirements in multiple jurisdictions, the scope and impact of which may be unclear. Moreover, tax authorities in jurisdictions in which we do business could disagree with tax positions that we take, including, for example, our inter-company pricing policies, or could assert that we owe more taxes than we currently pay due to the level and nature of our activities in such jurisdictions.

We rely on our distributors to market and sell our products in certain international markets.

We have established a direct sales capability in the U. S., most of Europe, Canada and Australia, which we have complemented with distributors in Japan and certain other international markets. Sales to distributors represented 16.3% and 17.7% of our revenue in 2015 and 2014 respectively. In addition, sales to our Japanese distributor, Medico's Hirata Inc., represented approximately 10.2% of our revenue in 2015. Our success outside of the U. S., most of Europe, Canada and Australia depends largely upon marketing arrangements with distributors, in particular their sales expertise and their relationships with specialist physicians and affiliated hospitals in their geographic areas. Distributors may terminate their relationship with us, sell competitive products or devote insufficient sales efforts or other resources to our products. We do not control our distributors, and they may not be successful in implementing our marketing plans. In addition, many of our distributors initially obtain and maintain foreign regulatory approval for the sale of our products in their respective countries, and their efforts in obtaining and maintaining regulatory approval may not be as robust as we desire or expect. Our failure to maintain our existing relationships with our distributors, or our failure to recruit and retain additional skilled distributors in existing or new international markets, could have an adverse effect on our operations. If current or future distributors do not perform adequately, or if we lose a significant distributor, such as our Japanese distributor, we may not be able to maintain

existing levels of international revenue or realize expected long term international revenue growth. We have also experienced turnover with some of our distributors in the past that has adversely affected sales in the countries in which those distributors operate. Similar occurrences could happen in the future.

Most of our customer relationships outside of the U. S. are with governmental entities, and we could be materially adversely affected by violations of the U.S. Foreign Corrupt Practices Act and similar anti-bribery laws in non-U.S. jurisdictions.

The U.S. Foreign Corrupt Practices Act (FCPA) and similar anti-bribery laws in non-U.S. jurisdictions generally prohibit companies and their intermediaries from making improper payments to non-U.S. officials for the purpose of obtaining or retaining business. Because of the predominance of government-sponsored healthcare systems around the world, most of our customer relationships outside of the U. S. are with governmental entities, and physicians practicing in those systems are considered "government officials." Therefore, our sales to these entities are therefore subject to such anti-bribery laws. Our policies mandate compliance with these anti-bribery laws. We operate in many parts of the world that have experienced governmental corruption, and in certain circumstances strict compliance with anti-bribery laws may be at variance with local customs and practices. Despite our training and compliance programs, our internal control policies and procedures may not always protect us from reckless or criminal acts committed by our employees, distributors or agents. Violations of the FCPA or other anti-bribery laws, or allegations of such violations, could disrupt our business and materially adversely affect our business, results of operations, financial condition or cash flows.

Foreign currency exchange rates may adversely affect our results.

We are exposed to the effects of changes in foreign currency exchange rates, and we have not historically hedged our foreign currency exposure. Approximately 31.6%, 33.9% and 34.4% of our revenue for the years ended December 31, 2015, 2014 and 2013, respectively, were derived from sales in non-U.S. markets, and we expect sales from non-U.S. markets to continue to represent a significant portion of our revenue. For direct sales in our international markets, we are paid by our customers in their local currency, which is primarily euros. For sales to distributors in our international markets, we are paid in either U.S. dollars, euros or Japanese yen. Therefore, when the U.S. dollar strengthens relative to the euro, yen or other local currency, as it has in recent periods, our U.S. dollar reported revenue from non-U.S. dollar denominated sales will decrease, or we will need to increase our non-U.S. dollar denominated prices, which may not be commercially practical. Conversely, when the U.S. dollar weakens relative to the euro, yen or other local currency, our U.S. dollar reported expenses from non-U.S. dollar denominated operating costs will increase. Changes in the relative values of currencies occur regularly and, in some instances, could materially adversely affect our business, results of operations, financial condition or cash flows.

We have experienced rapid growth in recent periods, and if we fail to manage our growth effectively, our business and results of operations may suffer.

We have significantly expanded our overall business, research and development, customer base, product portfolio, employee headcount and operations in recent periods. We have also established new operations in other countries. We have increased our total number of full-time employees from 468 as of December 31, 2013, to approximately 1,100 as of December 31, 2015. Our expansion has placed, and our expected future growth will continue to place, a significant strain on our managerial, operational, product development, sales and marketing, administrative, financial and other resources. More systems, facilities, processes and management employees are needed to allow us to continue to grow successfully. We also plan to continue to increase our salesforce. Our experience has been that it takes at least six months, and often longer, before new sales personnel generate enough sales to cover their costs, resulting in increased costs without offsetting revenue during periods in which we are increasing the size of our salesforce. To meet anticipated demand for our products, we will also have to obtain additional space, buy additional equipment and hire additional research and development and manufacturing employees, including quality control personnel and other personnel involved in the production process. If we are unable to manage our growth successfully, it could have a material and adverse effect on our business, results of operations, financial condition or cash flows.

We have experienced rapid initial growth in the endovascular treatment of stroke and we believe this market may not continue to grow sustainably at these rates.

Our revenue increased from $88.8 million to $125.5 million to $186.1 million in the years ended December 31, 2013, 2014 and 2015, respectively. Revenue increased in 2014 and 2015 partially as a result of the presentation and publication of the MR. CLEAN trial results in the fourth quarter of 2014, and the presentation and publication of additional trial results in the first quarter of 2015, each of which supported endovascular treatment of stroke and opened up additional opportunities for our products as the standard of care in treatment of stroke, resulting in increased procedures for us and our competitors. We do not expect that the rate of market growth will continue at this pace in the future.

We have experienced rapid growth in the market for our peripheral vascular products and we expect this growth to be more gradual in the future.

Revenue from our peripheral vascular products increased $25.4 million, or 131.9%, to $44.7 million in 2015, from $19.3 million in 2014. Our peripheral embolization and peripheral thrombectomy products have experienced strong volume growth, primarily due to the focused efforts of our dedicated peripheral vascular salesforce, which was established in the second half of 2014, and further market penetration of our products. As we continue to grow and scale our peripheral vascular business, we expect that our growth rates will be more gradual.

We depend on key personnel to operate our business and develop our products, and if we are unable to retain, attract and integrate qualified personnel, our ability to develop and successfully grow our business could be harmed.

We believe that our future success is highly dependent on the contributions of our executive officers, particularly our chief executive officer, as well as our ability to attract and retain highly skilled and experienced sales and marketing, technical and other personnel in the U. S. and in international markets. Each of these persons' efforts will be critical to us as we continue to develop our products and business. If we were to lose one or more of our key employees, including to competitors, we may experience difficulties in competing effectively, developing our products and implementing our business strategies.

Our research and development and sales and marketing programs depend on our ability to attract and retain highly skilled technicians, engineers and salespeople. We may not be able to attract or retain qualified employees in the future due to the intense competition for qualified personnel among life science businesses, particularly in the San Francisco Bay Area, where our corporate headquarters, research and development and manufacturing facilities are located. If we are not able to identify, recruit and retain highly qualified personnel, we may experience constraints that will adversely affect our ability to support our research, development, manufacturing and sales programs, and ultimately our ability to compete. If we are unable to identify, recruit and retain qualified salespeople, there could be a delay or decline in the adoption of our products. If key personnel were to leave Penumbra, either to join our competitors or otherwise, we may not be able to attract and retain equally qualified personnel to replace them.

We depend on information technology systems to operate our business, and issues with maintaining, upgrading or implementing these systems, or a cyber-attack or other breach of these systems could have a material adverse effect on our business.

We rely on the efficient and uninterrupted operation of information technology systems to process, transmit and store electronic information in our day-to-day operations. All information technology systems are vulnerable to damage or interruption from a variety of sources. As our business has grown in size and complexity, the growth has placed, and will continue to place, significant demands on our information technology systems. To effectively manage this growth, our information systems and applications require an ongoing commitment of significant resources to maintain, protect, enhance and upgrade existing systems and develop and implement new systems to keep pace with changing technology and our business needs. For example, we are in the process of evaluating an upgrade to our existing enterprise resource planning (ERP) software system to perform various functions, and we may implement other upgrades or new systems in the near future. These upgrades or system changes entail certain risks, including difficulties with changes in business processes that could disrupt our operations, such as our ability to track orders and timely ship products, manage our supply chain and aggregate financial and operational data. During transitions we may continue to rely on legacy information systems, which may be costly or inefficient, while the implementation of new initiatives may not achieve the anticipated benefits and may divert management's attention from other operational activities, negatively affect employee morale, or have other unintended consequences. Delays in integration or disruptions to our business from implementation of new or upgraded systems could have a material adverse impact on our financial condition and operating results. Additionally, if we are not able to accurately forecast expenses and capitalized costs related to system upgrades and changes, this may have an adverse impact on our financial condition and operating results.

In addition, our information technology systems are vulnerable to a cyber-attack, malicious intrusion, breakdown, destruction, loss of data privacy or other significant disruption. Any such successful attacks could result in the theft of intellectual property or other misappropriation of assets, or otherwise compromise our confidential or proprietary information and disrupt our operations. Cyber-attacks are becoming more sophisticated and frequent, and our systems could be the target of malware and other cyber-attacks. We have invested in our systems and the protection of our data to reduce the risk of an intrusion or interruption, and we monitor our systems on an ongoing basis for any current or potential threats. We can give no assurances that these measures and efforts will prevent interruptions or breakdowns.

If the information we rely upon to run our businesses were to be found to be inaccurate or unreliable, if we fail to maintain or protect our information technology systems and data integrity effectively, if we fail to develop and implement new or upgraded systems to meet our business needs in a timely manner, or if we fail to anticipate, plan for or manage significant disruptions to these systems, our competitive position could be harmed, we could have operational disruptions, we could lose

existing customers, have difficulty preventing, detecting, and controlling fraud, have disputes with customers, specialist physicians and other health care professionals, have regulatory sanctions or penalties imposed or other legal problems incur increased operating and administrative expenses, lose revenues as a result of a data privacy breach or theft of intellectual property or suffer other adverse consequences, any of which could have a material adverse effect on our business, results of operations, financial condition or cash flows.

Cost-containment efforts of our customers, purchasing groups and governmental organizations could have a material adverse effect on our sales and profitability.

In an effort to reduce costs, many hospitals within the U. S. have become members of Group Purchasing Organizations (GPOs) and Integrated Delivery Networks (IDNs). GPOs and IDNs negotiate pricing arrangements with medical device companies and distributors and offer the negotiated prices to affiliated hospitals and other members. GPOs and IDNs typically award contracts on a category-by-category basis through a competitive bidding process. Bids are generally solicited from multiple providers with the intention of driving down pricing or reducing the number of vendors. Due to the highly competitive nature of the GPO and IDN contracting processes, we may not be able to obtain or maintain contract positions with major GPOs and IDNs. Furthermore, the increasing leverage of organized buying groups may reduce market prices for our products, thereby reducing our profitability.

While having a contract with a GPO or IDN for a given product category can facilitate sales to members of that GPO or IDN, such contract positions can offer no assurance that any level of sales will be achieved, as sales are typically made pursuant to purchase orders. Even when a provider is the sole contracted supplier of a GPO or IDN for a certain product category, members of the GPO or IDN generally are free to purchase from other suppliers. Furthermore, GPO and IDN contracts typically are terminable without cause by the GPO or IDN upon 60 to 90 days' notice. Accordingly, although we have multiple contracts with many major GPOs and IDNs, the members of such groups may choose to purchase from our competitors due to the price or quality offered by such competitors, which could result in a decline in our sales and profitability.

The successful use of our products depends, in part, on our ability to educate specialist physicians in the proper use of our products, which may be more complex than competitive products or alternative treatments that do not use our products. If we are unable to educate specialist physicians in the proper use of our products, we may experience a high risk of product liability.

The successful use of our products depends, in part, on our ability to educate specialist physicians in the proper use of our products, which may be more complex than competitive products or alternative treatments that do not use our products. We educate specialist physicians on the proper techniques in using our products to achieve the intended outcome. However, our products may be more complicated to operate than competitive products or alternative treatments that do not use our products. In the event that specialist physicians perceive that our products are complex relative to alternative products or established treatments that do not use our products, we may have difficulty gaining or increasing adoption of our products. Further, we may be unable to provide adequate education on the use of our products to specialist physicians, and some specialist physicians may not be willing to invest the time required to become properly educated on the use of our products. If we are unable to educate specialist physicians to properly use our products, this may lead to inadequate demand for our products and materially adversely affect our business, results of operations, financial condition or cash flows.

If we do not adequately educate specialist physicians on the use of our products, and our products are used incorrectly during procedures, we may also be subject to claims against us by such specialist physicians, their hospitals or their patients. Our business, including our reputation, may consequently be adversely affected by any litigation that may occur based on error in the use of our products, and such litigation could also materially adversely affect our results of operations, financial condition or cash flows.

Regulatory Risks

We are subject to stringent domestic and foreign medical device regulation, which may impede the approval or clearance process for our products, hinder our development activities and manufacturing processes and, in some cases, result in the recall or seizure of previously approved or cleared products.

Our products, development activities and manufacturing processes are subject to extensive and rigorous regulation by the FDA and by comparable agencies in foreign countries and by other regulatory agencies and governing bodies. Manufacturers of medical devices such as us must comply with certain regulations that cover the composition, labeling, testing, clinical study, manufacturing, packaging and distribution of medical devices. In addition, medical devices must receive FDA clearance or approval before they can be commercially marketed in the U. S.. The FDA may require testing and surveillance programs to monitor the effects of cleared or approved products that have been commercialized and can prevent or limit further marketing of a product based on the results of these post-marketing programs. Furthermore, most major markets for medical devices outside the U. S. require clearance, approval or compliance with certain standards and requirements before a product can be

commercially marketed. The process of obtaining marketing approval or clearance from the FDA and foreign regulatory agencies for new products could take a significant period of time, require the expenditure of substantial resources, involve rigorous pre-clinical and clinical testing, require changes to our products and result in limitations on the indicated uses of our products. We cannot provide assurance that we will receive the required approval or clearance from the FDA and foreign regulatory agencies for future products on a timely basis. Results from pre-clinical studies and early clinical trials may not allow us to predict results in later-stage testing. We cannot be certain that our future clinical trials will demonstrate the safety and effectiveness of any of our future products or will result in clearance or approval to market any of these products. The failure to receive approval or clearance for significant new products on a timely basis could have a material adverse effect on our business, results of operation, financial condition or cash flows.

The FDA also conducts periodic inspections of our facilities to determine compliance with both the FDA's QSR requirements and/or MDR regulations. Product approvals or clearances by the FDA can be withdrawn, and new product approvals or clearances by the FDA and foreign regulatory bodies can be delayed, due to failure to comply with regulatory requirements or the occurrence of unforeseen problems following initial approval or clearance of a product. The failure to comply with regulatory requirements or the discovery of previously unknown problems with a product or manufacturer could result in fines, delays or suspensions of regulatory approvals or clearances, seizures or recalls of products (with the attendant expenses and adverse competitive impact), the banning of a particular device, an order to replace or refund the cost of any device previously manufactured or distributed, operating restrictions and criminal prosecution, as well as decreased sales as a result of negative publicity and product liability claims, all of which could have a material adverse effect on our business, results of operation, financial condition or cash flows.

The implementation of healthcare reform in the U. S. could have a material adverse effect on our business.

In March 2010, the Affordable Care Act was enacted into law in the U. S.. The Affordable Care Act includes provisions that, among other things, reduce and/or limit Medicare reimbursement, require all individuals to have health insurance (with limited exceptions) and impose new and/or increased taxes. Specifically, the law imposed a 2.3% excise tax on the sale in the U. S. of certain medical devices by a manufacturer, producer or importer of such devices starting after December 31, 2012. While this tax has been suspended for a two-year period commencing January 1, 2016, it could be reinstated. The Affordable Care Act also reduces Medicare and Medicaid payments to hospitals and clinical laboratories, which could reduce medical procedure volumes and impact the demand for our products or the prices at which we sell them. While this legislation is intended to expand health insurance coverage to uninsured persons in the U. S., the impact of any overall increase in access to healthcare on sales of our products remains uncertain. Various healthcare reform proposals have also emerged at the state level. The impact of the Affordable Care Act and these proposals could have a material adverse effect on our business, results of operation, financial condition or cash flows.

If we modify our FDA cleared products, we may need to seek and obtain new clearances, which, if not granted, would prevent us from selling our modified products or require us to redesign our products.

A component of our strategy is to continue to modify and upgrade our products that have been cleared by the FDA. The FDA requires device manufacturers to make a determination of whether or not a modification requires a clearance; however, the FDA can review a manufacturer's decision not to submit for additional clearances. Any modifications to an FDA cleared device that would significantly affect its safety or effectiveness or that would constitute a major change in its intended use would require a new 510(k) clearance or possibly a premarket approval. We may not be able to obtain additional 510(k) clearances or premarket approvals for new products or for modifications to, or additional indications for, our existing products in a timely fashion, or at all. We also cannot provide any assurance that the FDA will agree with our decisions not to seek clearances for particular device modifications. Delays in obtaining future clearances would adversely affect our ability to introduce new or enhanced products in a timely manner, which in turn would harm our revenue and future profitability. We have made modifications to our products in the past and may make additional modifications in the future that we believe do not or will not require additional clearances. If the FDA disagrees, and requires new clearances or approvals for any modifications, and we fail to obtain such approvals or clearances or fail to secure approvals or clearances in a timely manner, we may be required to recall and to stop the manufacturing and marketing of the modified device until we obtain FDA approval or clearance, and we may be subject to significant regulatory fines or penalties, all of which could harm our results of operations and require us to redesign our products.

We may not receive necessary foreign regulatory approvals or clearances or otherwise comply with foreign regulations.

For the years ended December 31, 2015, 2014 and 2013, sales outside the U. S. accounted for approximately 31.6%, 33.9% and 34.4%, respectively, of our total sales, and we expect this percentage to increase in future years. Foreign regulatory bodies have established varying regulations. Specifically, the European Union has promulgated rules that require that medical device products receive the right to affix the CE mark, an international symbol of adherence to quality assurance standards and compliance with applicable European medical device directives. Although we have received CE markings for all of the products we currently sell in the European Union, we can give no assurance that we will be able to obtain European Union

approval for any of our future products. Our inability or failure, or the inability or failure of our international distributors, to comply with varying foreign regulations or the imposition of new regulations could restrict or, in certain countries, result in the prohibition of the sale of our products, and thereby adversely affect our business, financial condition and results of operations. In addition, our profitability from our international operations may be limited by risks and uncertainties related to economic conditions in these regions, foreign currency fluctuations, regulatory and reimbursement approvals, competitive offerings, infrastructure development, rights to intellectual property and our ability to implement our overall business strategy. Any significant changes in the competitive, political, legal, regulatory, reimbursement or economic environment where we conduct international operations may have a material adverse effect on our business, results of operation, financial condition or cash flows.

We may not be able to meet regulatory quality requirements applicable to our manufacturing process.

We are required to register with the FDA as a device manufacturer and as a result, we are subject to periodic inspection by the FDA for compliance with the FDA's QSR requirements, which require manufacturers of medical devices to adhere to certain regulations, including testing, quality control and documentation procedures. In addition, the federal MDR regulations require us to provide information to the FDA whenever there is evidence that reasonably suggests that a device may have caused or contributed to a death or serious injury, or has malfunctioned, and if the malfunction were to recur, it would be likely to cause or contribute to a death or serious injury. Compliance with applicable regulatory requirements is subject to continual review and is rigorously monitored through periodic inspections by the FDA. In the European Community, we are required to maintain certain International Organization for Standardization (ISO) certifications in order to sell products and we undergo periodic inspections by notified bodies to obtain and maintain these certifications. Some foreign countries, most notably Japan and Brazil, have similar requirements or may require inspections of our manufacturing facilities before approving a product for sale in their country. Some of our suppliers are subject to the same or similar scrutiny. If we or our suppliers fail to adhere to QSR, ISO or similar requirements, this could delay production of our products and lead to fines, difficulties in obtaining regulatory clearances or approvals, recalls or other consequences, which could in turn have a material adverse effect on our business, results of operation, financial condition or cash flows.

We are subject to periodic inspections by the FDA and other regulatory bodies related to regulatory requirements that apply to medical devices designed and manufactured, and clinical trials sponsored, by us. We recently received notices of inspectional observations or deficiencies from the FDA, which require us to undertake corrective and preventive actions or other actions in order to address the FDA's concerns, which could be expensive and time-consuming to complete and could impose additional burdens and expenses.

We are subject to periodic inspections by the FDA and other regulatory bodies. If we receive a notice of inspectional observations or deficiencies from the FDA following an inspection, we may be required to undertake corrective and preventive actions or other actions in order to address the FDA's concerns, which could be expensive and time-consuming to complete and could impose additional burdens and expenses. Failure to adequately address the FDA's concerns could expose us to enforcement and administrative actions.

From June 24, 2015 to July 15, 2015, the FDA conducted an inspection of our records relating to certain investigational sites for two different clinical trials, and from July 30, 2015 to August 4, 2015, the FDA conducted an inspection of our Quality System. At the conclusion of the first inspection, a Form FDA 483 was issued with one observation related to the failure to ensure proper monitoring at five of the investigational sites reviewed. At the conclusion of the second inspection, a Form FDA 483 was also issued with one observation relating to our procedures for completing and documenting effectiveness checks for Corrective and Preventative Action (CAPA). We provided timely responses to both Form FDA 483s, implemented changes to our clinical trial monitoring and CAPA procedures, and updated the FDA on the steps taken. On November 6, 2015, we received a letter from the FDA regarding the CAPA-related Form 483, noting that they had received our responses and would review the adequacy of the actions taken at our next inspection. On December 21, 2015, we received a letter from the FDA regarding the monitoring-related Form 483 indicating that our responses and actions appeared adequate to address the observation and noting that they may verify the actions taken during a future inspection. However, the FDA may conclude in subsequent inspections that we have not adequately responded to its observations or carried out all necessary corrective actions, and could take action against us without further notice. Action by the FDA against us could result in monetary fines or require us to take further corrective actions, which could be expensive and time-consuming to complete and could impose additional burdens and expenses, and could even require us to discontinue our investigational studies.

We are subject to healthcare fraud and abuse regulations that could result in significant liability, require us to change our business practices and restrict our operations in the future.

We are subject to various federal, state and local laws targeting fraud and abuse in the healthcare industry, including anti-kickback and false claims laws. Violations of these laws are punishable by criminal or civil sanctions, including substantial fines, imprisonment and exclusion from participation in healthcare programs such as Medicare and Medicaid. These laws and regulations are wide ranging and subject to changing interpretation and application, which could restrict our sales or marketing

practices. Furthermore, since many of our customers rely on reimbursement from Medicare, Medicaid and other governmental programs to cover a substantial portion of their expenditures, our exclusion from such programs as a result of a violation of these laws could have a material adverse effect on our business, results of operation, financial condition or cash flows.

The FDA and other regulatory agencies strictly regulate the promotional claims that may be made about medical devices. If we are found to have improperly promoted our products for off-label uses, we may become subject to significant fines and other liability.

The FDA and other regulatory agencies strictly regulate the promotional claims that may be made about medical devices. For example, devices cleared under section 510(k) cannot be marketed for any intended use that is outside of the FDA's substantial equivalence determination for such devices. Physicians nevertheless may use our products on their patients in a manner that is inconsistent with the intended use cleared by the FDA. If we are found to have promoted such "off-label" uses, we may become subject to significant government fines and other related liability. The federal government has levied large civil and criminal fines against companies for alleged improper promotion and has enjoined several companies from engaging in off-label promotion. The FDA has also requested that companies enter into consent decrees or permanent injunctions under which specified promotional conduct is changed or curtailed.

Our operations are subject to environmental, health and safety laws and regulations, with which compliance may be costly.

Our business is subject to federal, state, and local laws and regulations relating to the protection of the environment, worker health and safety and the use, management, storage, and disposal of hazardous substances and wastes. Failure to comply with these laws and regulations may result in substantial fines, penalties or other sanctions. In addition, environmental laws and regulations could require us to pay for environmental remediation and response costs, or subject us to third party claims for personal injury, natural resource or property damage, relating to environmental contamination. Liability may be imposed whether or not we knew of, or were responsible for, such environmental contamination. The cost of defending against environmental claims, of compliance with environmental, health and safety regulatory requirements or of remediating contamination could materially adversely affect our business, assets or results of operations and, consequently, amounts available for distribution to our stockholders.

Risks Related to Our Intellectual Property

We rely on a variety of intellectual property rights, and if we are unable to maintain or protect our intellectual property, our business and results of operations will be harmed.

Our commercial success will depend, in part, on our ability to obtain and maintain intellectual property protection for our products and related technologies both in the U. S. and elsewhere, successfully defend our intellectual property rights against third-party challenges and successfully enforce our intellectual property rights to prevent third-party infringement. While we rely primarily upon a combination of patents, trademarks and trade secret protection, as well as nondisclosure, confidentiality and other contractual agreements to protect the intellectual property related to our brands, products and other proprietary technologies, protection derived from patents is relatively limited.

The process of obtaining patent protection is expensive and time-consuming, and we may not be able to prosecute all necessary or desirable patent applications at a reasonable cost or in a timely manner. We may choose not to seek patent protection for certain innovations or products and may choose not to pursue patent protection in certain jurisdictions, and under the laws of certain jurisdictions, patents or other intellectual property rights may be unavailable or limited in scope and, in any event, any patent protection we obtain may be limited. As a result, some of our products are not, and in the future may not be, protected by patents. We generally apply for patents in those countries where we intend to make, have made, use or sell products and where we assess the risk of infringement to justify the cost of seeking patent protection. However, we do not seek protection in all countries where we sell products and we may not accurately predict all the countries where patent protection would ultimately be desirable. If we fail to timely file a patent application in any such country or major market, we may be precluded from doing so at a later date. Competitors may use our technologies in jurisdictions where we have not obtained patent protection to develop their own products and, further, may export otherwise infringing products to territories in which we have patent protection that may not be sufficient to terminate infringing activities.

Furthermore, we cannot guarantee that any patents will be issued from any pending or future owned or licensed patent applications, or if any current or future patents will provide us with any meaningful protection or competitive advantage. Even if issued, existing or future patents may be challenged, including with respect to ownership, narrowed, invalidated, held unenforceable or circumvented, any of which could limit our ability to prevent competitors and other third parties from developing and marketing similar products or limit the length of terms of patent protection we may have for our products and technologies. Other companies may also design around technologies we have patented, licensed or developed. In addition, the issuance of a patent does not give us the right to practice the patented invention. Third parties may have blocking patents that could prevent us from marketing our products or practicing our own patented technology.

The patent positions of medical device companies can be highly uncertain and involve complex legal, scientific and factual questions for which important legal principles remain unresolved. The standards that the U. S. Patent and Trademark Office (USPTO) and its foreign counterparts use to grant patents are not always applied predictably or uniformly. Changes in either the patent laws, implementing regulations or the interpretation of patent laws may diminish the value of our rights. The legal systems of certain countries do not protect intellectual property rights to the same extent as the laws of the U. S., and many companies have encountered significant problems in protecting and defending such rights in foreign jurisdictions.

Because patent applications in the U. S., Europe and many other jurisdictions are typically not published until 18 months after filing, or in some cases not at all, and because publications of discoveries in scientific literature lag behind actual discoveries, we cannot be certain that we were the first to make the inventions claimed in our issued patents or pending patent applications, or that we were the first to file for protection of the inventions set forth in our patents or applications. We can give no assurance that all of the potentially relevant art relating to our patents and patent applications has been found; overlooked prior art could be used by a third party to challenge the validity, enforceability and scope of our patents or prevent a patent from issuing from a pending patent application. As a result, we may not be able to obtain or maintain protection for certain inventions. Therefore, the validity, enforceability and scope of our patents in the U. S., Europe and in other countries cannot be predicted with certainty and, as a result, any patents that we own or license may not provide sufficient protection against our competitors.

Third parties may challenge any existing patent or future patent we own or license through adversarial proceedings in the issuing offices or in court proceedings, including as a response to any assertion of our patents against them. In any of these proceedings, a court or agency with jurisdiction may find our patents invalid and/or unenforceable, or even if valid and enforceable, insufficient to provide protection against competing products and services sufficient to achieve our business objectives. We may be subject to a third party pre-issuance submission of prior art to the USPTO, or reexamination by the USPTO if a third party asserts a substantial question of patentability against any claim of a U.S. patent we own or license. The adoption of the Leahy-Smith America Invents Act (Leahy-Smith Act) in September 2011 established additional opportunities for third parties to invalidate U.S. patent claims, including inter parties review and post-grant review proceedings. Outside of the U. S., patents we own or license may become subject to patent opposition or similar proceedings, which may result in loss of scope of some claims or the entire patent. In addition, such proceedings are very complex and expensive, and may divert our management's attention from our core business. If any of our patents are challenged, invalidated, circumvented by third parties or otherwise limited or expire prior to the commercialization of our product candidates, and if we do not own or have exclusive rights to other enforceable patents protecting our products or other technologies, competitors and other third parties could market products and use processes that are substantially similar to, or superior to, ours and our business would suffer.

The degree of future protection for our proprietary rights is uncertain because legal means afford only limited protection and may not adequately protect our rights or permit us to gain or keep a competitive advantage. For example:

- others may be able to develop products that are similar to, or better than, ours in a way that is not covered by the claims of our patents;
- we might not have been the first to make the inventions covered by our patents or pending patent applications;
- we might not have been the first to file patent applications for these inventions;
- any patents that we obtain may not provide us with any competitive advantages or may ultimately be found invalid or unenforceable; or
- we may not develop additional proprietary technologies that are patentable.

We may file lawsuits or initiate other proceedings to protect or enforce our patents or other intellectual property rights, which could be expensive, time consuming and unsuccessful.

Competitors may infringe our issued patents or other intellectual property. To counter infringement or unauthorized use, we may be required to file infringement claims, which can be expensive and time-consuming. Any claims we assert against perceived infringers could provoke these parties to assert counterclaims against us alleging that we infringe their intellectual property. In addition, in a patent infringement proceeding, a court may decide that a patent of ours is invalid or unenforceable, in whole or in part, construe the patent's claims narrowly or refuse to stop the other party from using the technology at issue on the grounds that our patents do not cover the technology in question. An adverse result in any litigation proceeding could put one or more of our patents at risk of being invalidated or interpreted narrowly, which could adversely affect our competitive business position, business prospects and financial condition.

Our commercial success depends significantly on our ability to operate without infringing upon the intellectual property rights of third parties.

The medical device industry is subject to rapid technological change and substantial litigation regarding patent and other intellectual property rights. Our competitors in both the U. S. and abroad, many of which have substantially greater resources and have made substantial investments in patent portfolios and competing technologies, may have applied for or obtained or may in the future apply for and obtain, patents that will prevent, limit or otherwise interfere with our ability to make, use and sell our products. Numerous third party patents exist in the fields relating to our products, and it is difficult for industry participants, including us, to identify all third-party patent rights relevant to our products and technologies. Moreover, because some patent applications are maintained as confidential for a certain period of time, we cannot be certain that third parties have not filed patent applications that cover our products and technologies.

Patents could be issued to third parties that we may ultimately be found to infringe. Third parties may have or obtain valid and enforceable patents or proprietary rights that could block us from developing product candidates using our technology. Our failure to obtain or maintain a license to any technology that we require may materially harm our business, financial condition and results of operations. Furthermore, we would be exposed to a threat of litigation.

From time to time, we may be party to, or threatened with, litigation or other proceedings with third parties, including non-practicing entities, who allege that our products, components of our products and/or proprietary technologies infringe, misappropriate or otherwise violate their intellectual property rights. The types of situations in which we may become a party to such litigation or proceedings include:

- we or our collaborators may initiate litigation or other proceedings against third parties seeking to invalidate the patents held by those third parties or to obtain a judgment that our products or processes do not infringe those third parties' patents;
- we or our collaborators may participate at substantial cost in International Trade Commission proceedings to abate importation of products that would compete unfairly with our products;
- if our competitors file patent applications that claim technology also claimed by us or our licensors, we or our licensors may be required to participate in interference, derivation or opposition proceedings to determine the priority of invention, which could jeopardize our patent rights and potentially provide a third party with a dominant patent position;
- if third parties initiate litigation claiming that our processes or products infringe their patent or other intellectual property rights, we and our collaborators will need to defend against such proceedings;
- if third parties initiate litigation or other proceedings seeking to invalidate patents owned by or licensed to us or to obtain a declaratory judgment that their product or technology does not infringe our patents or patents licensed to us, we will need to defend against such proceedings;
- we may be subject to ownership disputes relating to intellectual property, including disputes arising from conflicting obligations of consultants or others who are involved in developing our products; and
- if a license to necessary technology is terminated, the licensor may initiate litigation claiming that our processes or products infringe or misappropriate their patent or other intellectual property rights and/or that we breached our obligations under the license agreement, and we and our collaborators would need to defend against such proceedings.

These lawsuits and proceedings, regardless of merit, are time-consuming and expensive to initiate, maintain, defend or settle, and could divert the time and attention of managerial and technical personnel, which could materially adversely affect our business. Any such claim could also force use to do one or more of the following:

- incur substantial monetary liability for infringement or other violations of intellectual property rights, which we may have to pay if a court decides that the product or technology at issue infringes or violates the third party's rights, and if the court finds that the infringement was willful, we could be ordered to pay treble damages and the third party's attorneys' fees;
- pay substantial damages to our customers or end users to discontinue use or replace infringing technology with non-infringing technology;
- stop manufacturing, selling, using, exporting or licensing the product or technology incorporating the allegedly infringing technology or stop incorporating the allegedly infringing technology into such product or technology;
- obtain from the owner of the infringed intellectual property right a license, which may require us to pay substantial upfront fees or royalties to sell or use the relevant technology and which may not be available on commercially reasonable terms, or at all;

- redesign our products and technology so they do not infringe or violate the third party's intellectual property rights, which may not be possible or may require substantial monetary expenditures and time;
- enter into cross-licenses with our competitors, which could weaken our overall intellectual property position;
- lose the opportunity to license our technology to others or to collect royalty payments based upon successful protection and assertion of our intellectual property against others;
- find alternative suppliers for non-infringing products and technologies, which could be costly and create significant delay; or
- relinquish rights associated with one or more of our patent claims, if our claims are held invalid or otherwise unenforceable.

Some of our competitors may be able to sustain the costs of complex intellectual property litigation more effectively than we can because they have substantially greater resources. In addition, intellectual property litigation, regardless of its outcome, may cause negative publicity, adversely impact prospective customers, cause product shipment delays, or prohibit us from manufacturing, marketing or otherwise commercializing our products and technology. Any uncertainties resulting from the initiation and continuation of any litigation could have a material adverse effect on our ability to raise additional funds or otherwise have a material adverse effect on our business, results of operation, financial condition or cash flows.

In addition, we may indemnify our customers and distributors against claims relating to the infringement of intellectual property rights of third parties related to our products. Third parties may assert infringement claims against our customers or distributors. These claims may require us to initiate or defend protracted and costly litigation on behalf of our customers or distributors, regardless of the merits of these claims. If any of these claims succeed, we may be forced to pay damages on behalf of our customers, suppliers or distributors, or may be required to obtain licenses for the products they use. If we cannot obtain all necessary licenses on commercially reasonable terms, our customers may be forced to stop using our products.

Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation. There could also be public announcements of the results of hearings, motions or other interim proceedings or developments. If securities analysts or investors perceive these results to be negative, it could have a material adverse effect on the price of our common stock. The occurrence of any of these events may have a material adverse effect on our business, results of operation, financial condition or cash flows.

Changes in patent law could diminish the value of patents in general, thereby impairing our ability to protect our existing and future products.

Recent patent reform legislation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents. The Leahy-Smith Act includes a number of significant changes to U.S. patent law. These include provisions that affect the way patent applications are prosecuted, redefine prior art, and may also affect patent litigation. The USPTO developed new regulations and procedures to govern administration of the Leahy-Smith Act, including switching the U. S. patent system from a "first-to-invent" system to a "first-to-file" system. Under a "first-to-file" system, assuming the other requirements for patentability are met, the first inventor to file a patent application generally will be entitled to the patent on an invention regardless of whether another inventor had made the invention earlier. Many of the substantive changes to patent law associated with the Leahy-Smith Act, in particular, the first-to-file provisions, only became effective recently. Accordingly, it is not clear what, if any, impact the Leahy-Smith Act will have on the operation of our business. The Leahy-Smith Act and its implementation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents, all of which could have a material adverse effect on our business, results of operation, financial condition or cash flows.

In addition, patent reform legislation may pass in the future that could lead to additional uncertainties and increased costs surrounding the prosecution, enforcement and defense of our patents and applications. Furthermore, the U.S. Supreme Court and the U.S. Court of Appeals for the Federal Circuit have made, and will likely continue to make, changes in how the patent laws of the U. S. are interpreted. Similarly, foreign courts have made, and will likely continue to make, changes in how the patent laws in their respective jurisdictions are interpreted. We cannot predict future changes in the interpretation of patent laws or changes to patent laws that might be enacted into law by U. S. and foreign legislative bodies. Those changes may materially affect our patents or patent applications and our ability to obtain additional patent protection in the future.

Obtaining and maintaining patent protection depends on compliance with various procedural, document submission, fee payment and other requirements imposed by governmental patent agencies, and our patent protection could be reduced or eliminated for non-compliance with these requirements.

The USPTO and various foreign patent offices require compliance with a number of procedural, documentary, fee payment and other similar provisions. In addition, periodic maintenance fees on our owned and in-licensed patents are due to be paid to governmental patent agencies over the lifetime of the patents. Future maintenance fees will also need to be paid on other patents that may be issued to us. We have systems in place to remind us to pay these fees, and we employ outside firms to remind us or our licensor to pay annuity fees due to patent agencies on our patents and pending patent applications. In certain cases, an inadvertent lapse can be cured by payment of a late fee or by other means in accordance with the applicable rules. However, there are situations in which noncompliance can result in abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. In such an event, our competitors might be able to enter the market and this circumstance would have a material adverse effect on our business, results of operation, financial condition or cash flows.

If our trademarks and trade names are not adequately protected, then we may not be able to build name recognition in our markets of interest and our business may be adversely affected.

We currently own nine trademarks, related to our company name, logo, products and technology, that are registered with the USPTO as well as six trademarks registered in Europe and Japan. Our registered or unregistered trademarks or trade names may be challenged, infringed, circumvented, declared generic or determined to be infringing on other marks or names. We may not be able to protect our rights in these trademarks and trade names, which we need in order to build name recognition with potential customers in our markets of interest. There is no guarantee we will be able to secure registration for any of our pending trademark applications with the USPTO or comparable foreign authorities. In addition, third parties have registered trademarks similar and identical to our trademarks, and may in the future file for registration of such trademarks. If they succeed in registering or developing common law rights in such trademarks, and if we are not successful in challenging such third-party rights, we may not be able to use these trademarks to market our products in those countries where such third parties have registered such trademarks or obtained such common law rights. In any case, if we are unable to establish name recognition based on our trademarks and trade names, then we may not be able to compete effectively and our business may be adversely affected.

In addition, we may be involved in litigation or other proceedings to protect our trademark rights associated with our company name or the names used with our products. For example, the U. S. application for registration of our Apollo trademark is currently subject to an opposition proceeding before the Trademark Trial and Appeal Board. An adverse decision in such proceeding could require us to establish an alternative name for our Apollo product line. Any objections we receive from the USPTO, foreign trademark authorities or third parties relating to our pending applications could require us to incur significant expense in defending the objections or establishing alternative names. Names used with our products may be claimed to infringe names held by others or to be ineligible for proprietary protection. If we have to change the name of our company or any product, we may experience a loss in goodwill associated with our brand name, customer confusion or a loss of sales.

If we are unable to protect the confidentiality of our trade secrets and other proprietary information, our business and competitive position may be harmed.

In addition to patent protection, we also rely on confidential proprietary information, including trade secrets and know-how, to develop and maintain our competitive position. We seek to protect our confidential proprietary information, in part, by entering into confidentiality agreements with our employees, consultants, collaborators and others upon the commencement of their relationships with us. These agreements require that all confidential information developed by the individual or made known to the individual by us during the course of the individual's relationship with us be kept confidential. Our agreements with employees and our personnel policies also provide that any inventions conceived by the individual in the course of rendering services to us shall be our exclusive property. However, we may not obtain these agreements in all circumstances, and individuals with whom we have these agreements may not comply with their terms. Thus, despite such agreements, such inventions may become assigned to third parties. Monitoring unauthorized uses and disclosures of our intellectual property is difficult, and we do not know whether the steps we have taken to protect our intellectual property will be effective. In the event of unauthorized use or disclosure of our trade secrets or proprietary information, these agreements, even if obtained, may not provide meaningful protection, particularly for our trade secrets or other confidential information. To the extent that our employees, consultants or contractors use technology or know-how owned by third parties in their work for us, disputes may arise between us and those third parties as to the rights in related inventions. To the extent that an individual who is not obligated to assign rights in intellectual property to us is rightfully an inventor of intellectual property, we may need to obtain an assignment or a license to that intellectual property from that individual, or a third party or from that individual's assignee. Such assignment or license may not be available on commercially reasonable terms or at all.

Adequate remedies may not exist in the event of unauthorized use or disclosure of our proprietary information. The disclosure of our trade secrets would impair our competitive position and may materially harm our business, financial condition and results of operations. Costly and time consuming litigation could be necessary to enforce and determine the scope of our proprietary rights, and failure to maintain trade secret protection could adversely affect our competitive business position. In addition, others may independently discover or develop our trade secrets and proprietary information, and the existence of our own trade secrets affords no protection against such independent discovery.

We may also employ individuals who were previously or concurrently employed at research institutions and/or other medical device companies, including our competitors or potential competitors. We may be subject to claims that these employees, or we, have inadvertently or otherwise used or disclosed trade secrets or other proprietary information of their former employers, or that patents and applications we have filed to protect inventions of these employees, even those related to one or more of our products, are rightfully owned by their former or concurrent employer. Litigation may be necessary to defend against these claims. Even if we are successful in defending against these claims, litigation could result in substantial costs and be a distraction to management.

Risks Related to Our Finances and Capital Requirements

It is difficult to forecast future performance, which may cause our financial results to fluctuate unpredictably.

A number of factors over which we have limited or no control may contribute to fluctuations in our financial results, such as:

- variations in revenue due to the unavailability of specialist physicians who use our products during certain times of the year, such as those periods when there are major conferences on conditions they treat or those periods when high volume users of our products take time off of work;
- positive or negative media coverage of our products or the procedures or products of our competitors or our industry;
- publication of clinical trial results or studies by us or our competitors;
- changes in our sales process due to industry changes, such as changes in the stroke care pathway;
- delays in receipt of anticipated purchase orders;
- delays in customers receiving products;
- performance of our independent distributors;
- our ability to obtain further regulatory clearances or approvals;
- the timing of product development and clinical trial activities, including the pace of enrollment;
- delays in, or failure of, product and component deliveries by our suppliers;
- changes in reimbursement policies or levels;
- the number of procedures performed in any given period using our products, which can sometimes vary significantly between periods;
- customer response to the introduction of new products or alternative treatments, and the degree to we which we are effective in transitioning customers to our products; and
- fluctuations in foreign currency.

In the event our actual revenue and results of operations do not meet our or others' forecasts for a particular period, the market price of our common stock may decline substantially.

We may require additional financing in the future and may not be able to obtain such financing on favorable terms, if at all, which could force us to delay, reduce or eliminate our research and development activities or otherwise harm our business.

To date, we have financed our operations primarily through our operations, sales of our equity securities, including in our IPO and borrowings under a line of credit with a financial institution. We are unable to predict the extent of any future operating cash flows or whether we will be able to maintain or grow our profitability. If we require additional financing to continue or expand our operations, for research and development, for acquisitions or for other purposes, we may determine to engage in equity or debt financings or incur other indebtedness. We may not be able to timely secure additional debt or equity financing on favorable terms, or at all. If we raise additional funds through the issuance of equity or convertible debt or other equity-linked securities, our existing stockholders could suffer significant dilution. Any debt financing obtained by us in the future could involve restrictive covenants relating to our capital raising activities and other financial and operational matters, which may make it more difficult for us to obtain additional capital and to pursue business opportunities, including potential

acquisitions. If needed funds are not available in adequate amounts or on acceptable terms from additional financing sources, our business will be materially adversely affected.

If we engage in any acquisitions, we will incur a variety of costs and may potentially face numerous risks that could adversely affect our business and operations.

If appropriate opportunities become available, we may seek to acquire additional businesses, assets, technologies or products to enhance our business. In connection with any acquisitions, we could issue additional equity securities or convertible debt or equity-linked securities, which would dilute our stockholders, cause us to incur substantial debt to fund the acquisitions, or assume significant liabilities.

Acquisitions involve numerous risks, including problems integrating the purchased operations, technologies or products, unanticipated costs and other liabilities, diversion of management's attention from our core businesses, adverse effects on existing business relationships with current and/or prospective customers and/or suppliers, risks associated with entering markets in which we have no or limited prior experience and potential loss of key employees. Acquisitions may also require us to record goodwill and non-amortizable intangible assets that will be subject to impairment testing on a regular basis and potential periodic impairment charges, incur amortization expenses related to certain intangible assets, and incur write offs and restructuring and other related expenses, any of which could harm our results of operations and financial condition. If we fail in our integration efforts with respect to any of our acquisitions and are unable to efficiently operate as a combined organization, our business and financial condition may be adversely affected.

Risks Relating to Securities Markets and Investment in Our Common Stock

The price of our common stock may be volatile, and you could lose all or part of your investment.

The trading price of our common stock has been and is likely to continue to be volatile. Our closing stock price as reported on The New York Stock Exchange (NYSE) has ranged from $35.31 to $59.36 since our IPO on September 18, 2015 through December 31, 2015. Stock markets have experienced extreme volatility that has often been unrelated to the operating performance of particular companies. These broad market fluctuations may adversely affect the trading price of our common stock. In addition, limited trading volume of our stock may contribute to its future volatility. Price declines in our common stock could result from general market and economic conditions, some of which are beyond our control, and a variety of other factors, including any of the risk factors described in this Annual Report on Form 10-K or those that we have not anticipated. These broad market and industry factors may harm the market price of our common stock, regardless of our operating performance, and could cause you to lose all or part of your investment in our common stock since you might be unable to sell your shares at or above the price you paid for such shares. Factors that could cause fluctuations in the market price of our common stock include the following:

- price and volume fluctuations in the overall stock market from time to time;
- volatility in the market prices and trading volumes of medical device company stocks;
- changes in operating performance and stock market valuations of other medical device companies generally, or those in our industry in particular;
- sales of shares of our common stock by us or our stockholders;
- failure of securities analysts to maintain coverage of us, changes in financial estimates by securities analysts who follow our company, or our failure to meet these estimates or the expectations of investors;
- the financial projections we may provide to the public, any changes in those projections or our failure to meet those projections;
- announcements by us or our competitors of new products or services;
- the public's reaction to our press releases, other public announcements and filings with the SEC;
- rumors and market speculation involving us or other companies in our industry;
- actual or anticipated changes in our results of operations or fluctuations in our results of operations;
- actual or anticipated developments in our business, our competitors' businesses or the competitive landscape generally;
- litigation involving us, our industry or both, or investigations by regulators into our operations or those of our competitors;
- developments or disputes concerning our intellectual property or other proprietary rights;
- announced or completed acquisitions of businesses or technologies by us or our competitors;

- new laws or regulations or new interpretations of existing laws or regulations applicable to our business;
- changes in accounting standards, policies, guidelines, interpretations or principles;
- any significant change in our management; and
- general economic conditions and slow or negative growth of our markets.

In addition, in the past, following periods of volatility in the overall market and the market price of a particular company's securities, securities class action litigation has often been instituted against these companies. This litigation, if instituted against us, could result in substantial costs and a diversion of our management's attention and resources.

If our executive officers, directors and largest stockholders choose to act together, they may be able to significantly influence our management and operations, acting in their own best interests and not necessarily those of other stockholders.

As of December 31, 2015, our executive officers, directors and holders of 5% or more of our outstanding stock and their affiliates beneficially owned approximately 33.4% of our voting stock in the aggregate. These stockholders, acting together, would be able to significantly influence all matters requiring approval by our stockholders, including the election of directors and the approval of mergers or other business combination transactions. The interests of this group of stockholders may not always coincide with the interests of other stockholders, and they may act in a manner that advances their best interests and not necessarily those of other stockholders. This concentration of ownership may have the effect of delaying, preventing or deterring a change in control of our company, could deprive our stockholders of an opportunity to receive a premium for their common stock as part of a sale of our company and might ultimately affect the market price of our common stock.

A significant portion of our outstanding shares of common stock is restricted from immediate resale but may be sold into the market in the near future. This could cause the market price of our common stock to drop significantly, even if our business is doing well.

Sales of a substantial number of shares of our common stock could occur at any time. In particular, the 4,600,000 shares we sold in our IPO may be resold without restriction. In addition, approximately, 26 million shares of our common stock were subject to lock-up, as part of the underwriting condition by the underwriters of our IPO, that expires on March 16, 2016 and a substantial portion of these shares may be freely sold after that date. These sales, or the perception in the market that the holders of a large number of shares of common stock intend to sell shares, could reduce the market price of our common stock. As of December 31, 2015, our directors, executive officers and holders of 5% or more of our outstanding stock beneficially owned approximately 33.4% of our outstanding stock in the aggregate. If one or more of them were to sell a substantial portion of the shares they hold, it could cause our stock price to decline. Furthermore, the lock-up mentioned above may be waived by the underwriters at any time which could lead to these shares being sold in the market prior to March 16, 2016.

In addition, as of December 31, 2015, there were 3,755,345 shares subject to outstanding options that will become eligible for sale in the public market upon exercise of such options to the extent permitted by any applicable vesting requirements, the lock-up agreements, market standoff provisions and Rules 144 and 701 under the Securities Act of 1933, as amended (Securities Act).

Holders of an aggregate of 21,617,845 shares of our common stock have rights, subject to some conditions, to require us to file registration statements covering their shares or to include their shares in registration statements that we may file for ourselves or other stockholders.

We have registered 3,600,000 shares of common stock that were initially reserved for issuance under our Amended and Restated 2014 Equity Incentive Plan and our 2015 Employee Stock Purchase Plan. These shares can be freely sold in the public market upon issuance.

Sales of our common stock as restrictions end or pursuant to registration rights may make it more difficult for us to sell equity securities in the future at a time and at a price that we deem appropriate. These sales also could cause the price of our common stock to fall and make it more difficult for you to sell shares of our common stock.

Our restated certificate of incorporation, our amended and restated bylaws and Delaware law contain provisions that could discourage another company from acquiring us and may prevent attempts by our stockholders to replace or remove our current management.

Provisions of Delaware law (where we are incorporated), our amended and restated certificate of incorporation and amended and restated bylaws may discourage, delay or prevent a merger or acquisition that stockholders may consider favorable, including transactions in which you might otherwise receive a premium for your shares. In addition, these provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace or remove our board of directors. These provisions include:

- authorizing the issuance of "blank check" preferred stock without any need for action by stockholders;

- requiring supermajority stockholder voting to effect certain amendments to our restated certificate of incorporation and amended and restated bylaws;
- eliminating the ability of stockholders to call and bring business before special meetings of stockholders;
- prohibiting stockholder action by written consent;
- establishing advance notice requirements for nominations for election to the board of directors or for proposing matters that can be acted on by stockholders at stockholder meetings;
- dividing our board of directors into three classes so that only one third of our directors will be up for election in any given year; and
- providing that our directors may be removed by our stockholders only for cause.

In addition, we are subject to Section 203 of the Delaware General Corporation Law, which may have an anti-takeover effect with respect to transactions not approved in advance by our board of directors, including discouraging takeover attempts that could have resulted in a premium over the market price for shares of our common stock.

These provisions apply even if a takeover offer may be considered beneficial by some stockholders and could delay or prevent an acquisition that our board of directors determines is not in our and our stockholders' best interests and could also affect the price that some investors are willing to pay for our common stock. See the section titled "Description of Capital Stock."

Our restated certificate of incorporation provides that the Court of Chancery of the State of Delaware is the exclusive forum for substantially all disputes between us and our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers or employees.

Our restated certificate of incorporation provides that the Court of Chancery of the State of Delaware is the exclusive forum for any derivative action or proceeding brought on our behalf; any action asserting a breach of fiduciary duty; any action asserting a claim against us arising pursuant to the General Corporation Law of the State of Delaware, our restated certificate of incorporation or our amended and restated bylaws; or any action asserting a claim against us that is governed by the internal affairs doctrine. The choice of forum provision may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our directors, officers or other employees, which may discourage such lawsuits against us and our directors, officers and other employees. If a court were to find the choice of forum provision contained in our restated certificate of incorporation to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions, which could harm our business and financial condition.

We incur significantly increased costs and devote substantial management time as a result of operating as a public company.

As a public company, we incur significant legal, accounting and other expenses. In addition, our administrative staff is required to perform additional tasks. We are subject to the reporting requirements of the Securities Exchange Act of 1934, as amended (the Exchange Act), and are required to comply with the applicable requirements of the Sarbanes-Oxley Act of 2002 (the Sarbanes-Oxley Act), and the Dodd-Frank Wall Street Reform and Consumer Protection Act, as well as rules and regulations subsequently implemented by the SEC and the NYSE, including the establishment and maintenance of effective disclosure and financial controls and changes in corporate governance practices. We expect that compliance with these requirements will increase our legal and financial compliance costs and will make some activities more time consuming and costly.

We are investing resources to comply with the evolving laws, regulations and standards applicable to public companies, and this investment may result in increased general and administrative expenses and a diversion of management's time and attention from revenue-generating activities to compliance activities. Operating as a public company and being subject to these rules and regulations makes it more expensive for us to obtain director and officer liability insurance, and we may be required to accept reduced coverage or incur substantially higher costs to obtain coverage. As a result, it may be difficult for us to attract and retain qualified members of our board of directors or executive officers.

The costs associated with operating as a public company may decrease our net income or increase any future net loss and may cause us to reduce costs in other areas of our business or increase the prices of our products to offset the effect of such costs. Additionally, if these requirements divert our management's attention from other business concerns, they could have a material adverse effect on our business, results of operation, financial condition or cash flows.

We are an "emerging growth company," and we cannot be certain if the reduced reporting requirements applicable to emerging growth companies will make our common stock less attractive to investors.

We are an "emerging growth company," as defined in the Jumpstart our Business Startups Act of 2012 (JOBS Act). For as long as we continue to be an emerging growth company, we may take advantage of exemptions from various reporting

requirements that are applicable to other public companies but not to "emerging growth companies," including, but not limited to:

- not being required to comply with the auditor attestation requirements in the assessment of our internal control over financial reporting under Section 404 of the Sarbanes-Oxley Act;
- not being required to comply with any requirement that may be adopted by the Public Company Accounting Oversight Board regarding mandatory audit firm rotation or a supplement to the auditor's report providing additional information about the audit and the financial statements;
- reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements; and
- exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and shareholder approval of any golden parachute payments not previously approved.

We will remain an emerging growth company until the earlier of (1) the last day of the fiscal year (a) following the fifth anniversary of the completion of our IPO, (b) in which we have total annual gross revenue of at least $1 billion, or (c) in which we are deemed to be a large accelerated filer, which means the market value of our common stock that is held by non-affiliates exceeds $700 million as of the prior June 30th, and (2) the date on which we have issued more than $1 billion in non-convertible debt during the prior three-year period. We cannot predict if investors will find our common stock less attractive if we choose to rely on these exemptions. If some investors find our common stock less attractive as a result of any choices to reduce future disclosure, there may be a less active trading market for our common stock and the price of our common stock may be more volatile.

Under the JOBS Act, emerging growth companies can also delay adopting new or revised accounting standards until such time as those standards apply to private companies. We have irrevocably elected not to avail ourselves of this exemption from new or revised accounting standards and, therefore, will be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies.

If we fail to maintain an effective system of disclosure controls and internal control over financial reporting, our ability to produce timely and accurate financial statements or comply with applicable regulations could be impaired.

As a public company, we are subject to the reporting requirements of the Exchange Act, Sarbanes-Oxley Act, and the listing standards of the NYSE. We expect that the requirements of these rules and regulations will continue to increase our legal, accounting and financial compliance costs, make some activities more difficult, time consuming and costly, and place significant strain on our personnel, systems and resources.

The Sarbanes-Oxley Act requires, among other things, that we maintain effective disclosure controls and procedures and internal control over financial reporting. We are continuing to develop and refine our disclosure controls and other procedures that are designed to ensure that information required to be disclosed by us in the reports that we will file with the SEC is recorded, processed, summarized and reported within the time periods specified in SEC rules and forms, and that information required to be disclosed in reports under the Exchange Act is accumulated and communicated to our principal executive and financial officers. We are also continuing to improve our internal control over financial reporting. In order to maintain and improve the effectiveness of our disclosure controls and procedures and internal control over financial reporting, we have expended, and anticipate that we will continue to expend, significant resources, including accounting-related costs and significant management oversight.

Our current controls and any new controls that we develop may become inadequate because of changes in our business. Further, weaknesses in our disclosure controls or our internal control over financial reporting may be discovered in the future. Any failure to develop or maintain effective controls, or any difficulties encountered in their implementation or improvement, could harm our operating results or cause us to fail to meet our reporting obligations and may result in errors in our financial statements or a restatement of our financial statements for prior periods. Any failure to implement and maintain effective internal control over financial reporting also could adversely affect the results of management evaluations and independent registered public accounting firm audits of our internal control over financial reporting that we will eventually be required to include in our periodic reports that will be filed with the SEC. Ineffective disclosure controls and procedures and internal control over financial reporting could also cause investors to lose confidence in our reported financial and other information, which would likely have a negative effect on the trading price of our common stock. In addition, if we are unable to continue to meet these requirements, we may not be able to remain listed on the NYSE.

We are not currently required to comply with the SEC rules that implement Section 404 of the Sarbanes-Oxley Act, and are therefore not required to make a formal assessment of the effectiveness of our internal control over financial reporting for that purpose. As a public company, we will be required to provide an annual management report on the effectiveness of our internal control over financial reporting commencing with our second Annual Report on Form 10-K. Our independent registered public accounting firm is not required to audit the effectiveness of our internal control over financial reporting until

after we are no longer an “emerging growth company,” as defined in the JOBS Act. At such time, our independent registered public accounting firm may issue a report that is adverse in the event it is not satisfied with the level at which our internal control over financial reporting is documented, designed or operating. If we have a material weakness in our internal control over financial reporting, we may not detect errors on a timely basis and our financial statements may be materially misstated. We are in the process of designing and implementing the internal control over financial reporting required to comply with this obligation, which process will be time consuming, costly and complicated. If we identify material weaknesses in our internal control over financial reporting, if we are unable to comply with the requirements of Section 404 in a timely manner, if we are unable to assert that our internal control over financial reporting are effective, or, when required in the future, if our independent registered public accounting firm is unable to express an opinion as to the effectiveness of our internal control over financial reporting, investors may lose confidence in the accuracy and completeness of our financial reports and the market price of our common stock could be adversely affected, and we could become subject to investigations by the stock exchange on which our securities are listed, the SEC, or other regulatory authorities, which could require additional financial and management resources.

Any failure to maintain effective disclosure controls and internal control over financial reporting could have a material and adverse effect on our business and results of operations, and cause a decline in the price of our common stock.

If securities or industry analysts publish inaccurate or unfavorable research about our business or cease publishing research, our stock price and trading volume could decline.

The trading market for our common stock depends in part on the research and reports that securities or industry analysts publish about us or our business. If one or more of the analysts who cover us downgrade our stock or publish inaccurate or unfavorable research about our business, our stock price would likely decline. If one or more of these analysts cease coverage of our company or fail to publish reports on us regularly, demand for our stock could decrease, which might cause our stock price and trading volume to decline.

We do not anticipate paying cash dividends, and accordingly, stockholders must rely on stock appreciation for any return on their investment.

We do not anticipate paying cash dividends in the future. As a result, only appreciation of the price of our common stock, which may never occur, would provide a return to stockholders. Investors seeking cash dividends should not invest in our common stock.

Impairment of our deferred tax assets could require a charge to earnings, which could result in a negative impact on our results of operations.

Primarily as a result of net operating losses, stock based compensation, various accruals and reserves, and tax credits, we maintain a deferred tax asset (an asset recognized to reflect an expected benefit to be realized in the future) that may be used to reduce the amount of tax that we would otherwise be required to pay in future periods. Deferred tax assets are reduced by a valuation allowance when it is more likely than not that the future realization of all or some of the deferred tax assets will not be achieved. Valuation allowances related to deferred tax assets can be affected by changes to tax laws, statutory tax rates, future taxable income levels and input from our tax advisors or regulatory authorities. At December 31, 2015, our net deferred tax asset was $10.1 million, after reduction of a valuation allowance of $2.7 million. If our management was to determine that we would not be able to realize all or a portion of our net deferred tax assets in the future, a valuation allowance and a related charge to earnings would be reflected in that period, which could have a material adverse impact on our financial condition and results of operations.

ITEM 1B. UNRESOLVED STAFF COMMENTS.

None.

ITEM 2. PROPERTIES.

We maintain a 180,000 square feet research and development and manufacturing facility in three buildings at our campus in Alameda, California. The leases for these three buildings expire in 2029, subject to our option to renew any or all three leases for an additional ten years. In December 2015, we signed a lease for an additional 99,568 square feet of space (plus an additional space of 15,882 square feet that may be delivered to us at the landlord's option prior to May 1, 2016) in three adjacent buildings located in our campus in Alameda, California. From time to time during the ten year period following the initial commencement date of the new lease, if any space in any of the buildings or in a fourth building located in the same business park as our campus becomes vacant, that space will be added to the lease at the then current base monthly rental rate. The maximum additional space that could be added under this provision of the lease is 117,325 square feet. We have a right of first offer to lease any space that becomes available in the buildings or in the fourth building after the expiration of the ten year period following the initial commencement date, subject to the terms described in the new lease. The term of the new lease expires after fifteen years from the initial lease commencement date, subject to our option to renew the lease for up to three additional five-year periods.

We also lease office space in Berlin, Germany; Sydney, Australia; and Sao Paulo, Brazil. The offices in Berlin and Sydney support our direct sales operations in Europe and Australia, respectively, and the office in Sao Paulo supports our Latin America marketing efforts through our distribution partners.

ITEM 3. LEGAL PROCEEDINGS.

For information with respect to Legal Proceedings, see Note 8 "Commitment and Contingencies" to our consolidated financial statements in Part II, Item 8 of this Form 10-K.

ITEM 4. MINE SAFETY DISCLOSURES.

Not applicable.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES.

Market Information

Our common stock has been listed on the NYSE under the symbol “PEN” since September 18, 2015. Prior to that date, there was no established public trading market for our common stock. The following table sets forth the range of high and low sale prices for our common stock as reported on the NYSE from September 18, 2015 through December 31, 2015. Such quotations represent inter dealer prices without retail markup, markdown, or commission and may not necessarily represent actual transactions.

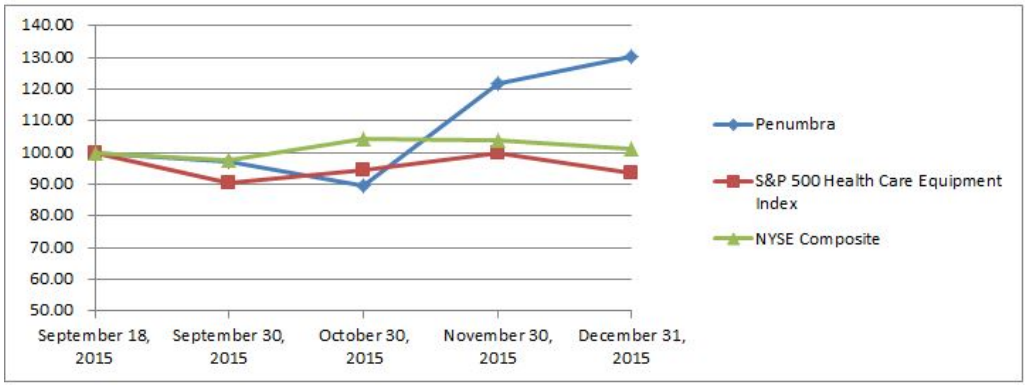
	High	Low
Year ended December 31, 2015		
Third Quarter	$ 43.06	$ 38.00
Fourth Quarter	59.36	35.31

On December 31, 2015, the last day that the NYSE was open for public trading during 2015, the last reported sale price of our common stock on the NYSE was $53.81. As of January 31, 2016, there were 365 holders of record of our common stock. The actual number of stockholders is greater than this number of record holders, and includes stockholders who are beneficial owners, but whose shares are held in street name by brokers and other nominees. This number of holders of record also does not include stockholders whose shares may be held in trust by other entities.

Performance Graph

This performance graph shall not be deemed “soliciting material,” or to be “filed” with the SEC for purposes of Section 18 of the Exchange Act, or otherwise subject to the liabilities under that Section and shall not be deemed to be incorporated by reference into any other filing of Penumbra, Inc. under the Securities Act or the Exchange Act, except to the extent that the company specifically incorporates it by reference into such filing.

The following graph compares our total common stock return with the total return for (i) the S&P Healthcare Equipment and (ii) the Russell 2000 Index (Russell 2000) for the period from September 18, 2015 (the date our common stock commenced trading on the NYSE) through December 31, 2015. Although our common stock was initially listed at $30.00 per share on the date our common stock was first listed on the NYSE, September18, 2015, the $30.00 price is not reflected in the graph. Instead, the figures represented below assume an investment of $100 in our common stock at the closing price of $41.30 on September 18, 2015 and in the NYSE Composite and the Russell 2000 on September 18, 2015 and the reinvestment of dividends into shares of common stock. The comparisons in the table are required by the SEC and are not intended to forecast or be indicative of possible future performance of our common stock.



$100 Investment in stock or index	Ticker	September 18, 2015	September 30, 2015	October 30, 2015	November 30, 2015	December 31, 2015
Penumbra	PEN	$ 100.00	$ 97.09	$ 89.66	$ 121.84	$ 130.29
S&P 500 Health Care Equipment Index	XHE	100.00	90.66	94.65	99.91	93.50
NYSE Composite	NYA	100.00	97.69	104.28	103.77	101.11

Dividend Policy

We have never declared or paid cash dividends on our capital stock. We currently intend to retain all available funds for use in the operation and expansion of our business, and do not anticipate paying any cash dividends in the foreseeable future. Any future determination related to dividend policy will be made at the discretion of our board of directors, subject to applicable laws, and will depend on a number of factors, including our financial condition, results of operations, capital requirements, contractual restrictions, general business conditions and other factors that our board of directors may deem relevant.

Recent Sales of Unregistered Securities

Between July 1, 2015 and September 18, 2015 (the date of the filing of our Registration Statement on Form S-8, No. 333-207007):

- We granted to our directors, officers, employees and consultants options to purchase an aggregate of 1,321,250 shares of common stock under our equity compensation plans, at exercise prices ranging from $22.04 to $30.00 per share.
- We issued and sold to our directors, officers, employees and consultants an aggregate of 6,500 shares of common stock upon the exercise of options under our equity compensation plans at exercise prices ranging from $1.26 to $3.98 per share, for an aggregate amount of $16,613.
- We granted to our directors, officers and employees an aggregate of 5,000 shares of restricted stock under our equity compensation plans at a fair market value of $22.04 per share, for an aggregate amount of $110,200.

None of the foregoing transactions involved any underwriters, underwriting discounts or commissions, or any public offering. Unless otherwise stated, the sales of the above securities were deemed to be exempt from registration under the Securities Act in reliance upon Section 4(a)(2) of the Securities Act (or Regulation D promulgated thereunder) or Rule 701 promulgated under Section 3(b) of the Securities Act as transactions by an issuer not involving any public offering or pursuant to benefit plans and contracts relating to compensation as provided under Rule 701. The recipients of the securities in each of these transactions represented their intentions to acquire the securities for investment only and not with a view to or for sale in connection with any distribution thereof, and appropriate legends were placed upon the stock certificates issued in these transactions.

Use of Proceeds from Public Offering of Common Stock

The Registration Statement on Form S-1 (File No. 333-206412) and the Registration Statement on Form S-1 (File No. 333-207000) filed pursuant to Rule 462(b) relating thereto, each relating to the IPO of shares of our common stock, became effective on September 17, 2015. There has been no material change in the planned use of proceeds from our IPO from that described in the prospectus dated September 17, 2015 filed with the SEC pursuant to Rule 424(b)(4) under the Securities Act. Pending the planned use of proceeds, we have invested the funds received from our IPO in marketable investments.

ITEM 6. SELECTED CONSOLIDATED FINANCIAL DATA.

The following selected consolidated financial data of Penumbra, Inc. should be read in conjunction with, and are qualified by reference to, the section titled "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the consolidated financial statements and notes thereto included in this report. The consolidated statement of operations data for the years ended December 31, 2015, 2014 and 2013, and the consolidated balance sheet data as of December 31, 2015 and 2014, are derived from, and qualified by reference to, our audited consolidated financial statements included elsewhere in this Annual Report on Form 10-K. The selected consolidated balance sheet data as of December 31, 2013 are derived from our audited consolidated financial statements not included in this Annual Report on Form 10-K. Our historical results are not necessarily indicative of the results that may be expected in the future.

	Year Ended December 31,			
	2015	2014	2013	2012
	(In thousands, except share and per share amounts)			
Consolidated Statement of Operations Data:				
Revenue	$ 186,095	$ 125,510	$ 88,848	$ 73,141
Cost of revenue	62,037	42,668	30,972	24,178
Gross profit	124,058	82,842	57,876	48,963
Operating expenses:				
Research and development	18,027	15,575	14,084	12,548
Sales, general and administrative	101,852	64,258	44,918	32,987
Total operating expenses	119,879	79,833	59,002	45,535
Income (loss) from operations	4,179	3,009	(1,126)	3,428
Interest income (expense), net	541	439	345	244
Other income (expense), net	(696)	(309)	(474)	220
Income (loss) before provision for (benefit from) income taxes	4,024	3,139	(1,255)	3,892
Provision for (benefit from) income taxes	1,659	894	(5,354)	1,934
Net income	$ 2,365	$ 2,245	$ 4,099	$ 1,958
Net income (loss) attributable to common stockholders	$ 719	$ (833)	$ 887	$ 412
Net income (loss) per share attributable to common stockholders —Basic	$ 0.09	$ (0.18)	$ 0.21	$ 0.10
—Diluted	$ 0.08	$ (0.18)	$ 0.14	$ 0.07
Weighted average shares used to compute net income (loss) per share attributable to common stockholders —Basic	11,993,429	4,609,375	4,304,396	4,153,121
—Diluted	14,219,650	4,609,375	6,500,835	5,886,126

	Year Ended December 31,			
	2015	2014	2013	2012
	(in thousands)			
Balance Sheet Data:				
Cash and cash equivalents	$ 19,547	$ 3,290	$ 4,131	$ 7,435
Marketable investments	$ 129,257	$ 48,253	$ 9,545	$ 11,341
Total assets	$ 263,848	$ 121,381	$ 71,147	$ 63,209
Long-term debt	$ —	$ —	$ —	$ 4,000
Working capital	$ 216,213	$ 94,478	$ 46,401	$ 41,607
Convertible Preferred stock	$ —	$ 111,467	$ 56,222	$ 56,222
Total stockholders' equity (deficit)	$ 232,522	$ (12,370)	$ (8,062)	$ (12,751)

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS.

You should read the following discussion and analysis of our financial condition and results of operations together with the section of this report entitled "Selected Consolidated Financial Data" and our consolidated financial statements and related notes included elsewhere in this Annual Report on Form 10-K. This discussion and other parts of this report contain forward-looking statements that involve risk and uncertainties, such as statements of our plans, objectives, expectations, and intentions. As a result of many factors, including those factors set forth in the "Risk Factors" section of this Annual Report on Form 10-K, our actual results could differ materially from the results described in or implied by these forward-looking statements.

Overview

Penumbra is a global interventional therapies company that designs, develops, manufactures and markets innovative medical devices. We have a broad portfolio of products that addresses challenging medical conditions and significant clinical needs across two major markets, neuro and peripheral vascular. The conditions that our products address include, among others, ischemic stroke, hemorrhagic stroke and various peripheral vascular conditions that can be treated through thrombectomy and embolization procedures.

We are an established company focused on the neuro market, and we recently expanded our business to include the peripheral vascular market. We sell our products to hospitals, primarily through our salesforce, as well as through distributors in select international markets. We focus on developing, manufacturing and marketing products for use by specialist physicians, including interventional neuroradiologists, neurosurgeons, interventional neurologists, interventional radiologists and vascular surgeons. We design our products to provide these specialist physicians with a means to drive improved clinical outcomes through faster and safer procedures.

Since our founding in 2004, we have invested heavily in our product development capabilities in our two key markets: neuro and peripheral vascular. We launched our first neurovascular product in 2007, our first peripheral vascular product in 2013 and our first neurosurgical product in 2014. To date, we have launched 16 product brands, and we expect to continue to develop and build our portfolio of products based on our thrombectomy, embolization and access technologies. Generally, when we introduce a next generation product or a new product designed to replace a current product, sales of the earlier generation product or the product replaced decline. Our research and development activities are centered around the development of new products and clinical activities designed to support our regulatory submissions and demonstrate the effectiveness of our products.

We manufacture substantially all of our products at our campus in Alameda, California, and stock inventory of raw materials, components and finished goods at that location. We rely on a single or limited number of suppliers for certain raw materials and components, and we generally have no long-term supply arrangements with our suppliers, as we order on a purchase order basis. We ship all of our products from Alameda to our hospital customers and distributors worldwide pursuant to purchase orders, and we are preparing to open a distribution facility in the Eastern United States. We typically recognize revenue when products are delivered to our hospital customers or distributors, other than our coils, which we ship to our hospital customers on a consignment basis, and for which we recognize revenue when the hospital customers utilize products in a procedure.

Hospitals purchase our products for use in procedures performed by their specialist physicians, generally seeking reimbursement from third party payors for procedures performed. We believe that the cost-effectiveness of our products is attractive to our hospital customers.

In 2015, 31.6% of our revenue was generated from customers located outside of the U. S. Our sales outside of the U. S. are denominated principally in the euro and Japanese yen. As a result, we have foreign exchange exposure, but do not currently engage in hedging. In 2015, no single hospital and only one distributor accounted for more than 10% of our sales.

We sell our products to hospitals primarily through our direct sales organization in the U. S., most of Europe, Canada and Australia, as well as through distributors in select international markets. In 2015, we generated revenue of $186.1 million, which represents a 48.3% increase over same period in 2014, and $4.2 million in operating income as compared to an operating income of $3.0 million in 2014. In 2014, we generated revenue of $125.5 million, which represents a 41.3% increase over same period in 2013, and $3.0 million in operating income as compared to an operating loss of $1.1 million in 2013.

Factors Affecting Our Performance

There are a number of factors that have impacted, and we believe will continue to impact, our results of operations and growth. These factors include:

- The rate at which we grow our salesforce and the speed at which newly hired salespeople become fully effective can impact our revenue growth or our costs incurred in anticipation of such growth.
- Our industry is intensely competitive and, in particular, we compete with a number of large, well-capitalized companies. We must continue to successfully compete in light of our competitors' existing and future products and their resources to successfully market to the specialist physicians who use our products.
- We must continue to successfully introduce new products that gain acceptance with specialist physicians and successfully transition from existing products to new products, ensuring adequate supply while avoiding excess inventory of older products and resulting inventory write-downs or write-offs. In addition, as we introduce new products, we generally build our inventory of components and finished goods in advance of sales, which may cause quarterly fluctuations in our financial condition.
- Publications of clinical results by us, our competitors and other third parties can have a significant influence on whether, and the degree to which, our products are used by specialist physicians and the procedures and treatments those physicians choose to administer for a given condition.
- The specialist physicians who use our products may not perform procedures during certain times of the year, such as those periods when they are at major medical conferences or are away from their practices for other reasons, the timing of which occurs irregularly during the year and from year to year.

In addition, we have experienced and expect to continue to experience meaningful variability in our annual revenue and gross profit as a result of a number of factors, including, but not limited to: the number of available selling days, which can be impacted by holidays; the mix of products sold; the geographic mix of where products are sold; the demand for our products and the products of our competitors; the timing of or failure to obtain regulatory approvals or clearances for products; increased competition; the timing of customer orders; inventory write-offs and write-downs; costs, benefits and timing of new product introductions; the availability and cost of components and raw materials; and fluctuations in foreign currency exchange rates. We experience quarters in which we have significant revenue growth sequentially followed by quarters of moderate or no revenue growth. Additionally, we experience quarters in which operating expenses, in particular research and development expenses, fluctuate depending on the stage and timing of product development.

Critical Accounting Policies and Use of Estimates

Our consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of our consolidated financial statements requires management to make estimates, assumptions and judgments that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the applicable periods. Management bases its estimates, assumptions and judgments on historical experience and on various other factors that it believes to be reasonable under the circumstances. Different assumptions and judgments would change the estimates used in the preparation of our consolidated financial statements, which, in turn, could materially change our results from those reported. Management evaluates its estimates, assumptions and judgments on an ongoing basis. Historically, our critical accounting estimates have not differed materially from actual results. However, if our assumptions change, we may need to revise our estimates, or take other corrective actions, either of which may also have a material adverse effect on our consolidated statements of operations, liquidity and financial condition.

We believe the following critical accounting policies involve significant areas where management applies judgments and estimates in the preparation of our consolidated financial statements.

Revenue Recognition

Revenue is comprised of product revenue net of returns, discounts and administration fees. We recognize revenue when persuasive evidence of an arrangement exists, delivery has occurred, the sales price is fixed or determinable and collectability is reasonably assured. Evidence of an arrangement consists of customer orders, and we typically consider delivery to have occurred once title and risk of loss has been transferred and the product has been delivered to our customers. We typically recognize revenue when products are delivered to our hospital customers or distributors. However, with respect to products that we consign to hospitals, which primarily consist of coils, we recognize revenue at the time hospitals utilize our products used in a procedure.

We defer revenue for amounts that we have already invoiced our customers for and are ultimately expected to be recognized as revenue, but for which not all revenue recognition criteria have been met.

Our terms and conditions permit product returns and exchanges, and we record returns reserves in the period when revenue is recognized. Estimates are based on actual historical returns over the prior three years and are recorded as reductions

in revenue at the time of sale. Upon recognition, we reduce revenue and cost of revenue for the estimated return. Return rates can fluctuate over time, but are sufficiently predictable to allow us to estimate expected future product returns.

Inventories

Inventories are stated at the lower of cost (determined under the first-in first-out method) or market. Write-downs are provided for finished goods expected to become nonsaleable and provisions are specifically made for excessive, slow-moving or obsolete items. Market value is determined as the lower of replacement cost or net realizable value. We regularly review inventory quantities in consideration of actual loss experiences, projected future demand, and remaining shelf life to record a provision for excess and obsolete inventory when appropriate.

The estimate of excess quantities is subjective and primarily dependent on our estimate of future demand for a particular product. If the estimate of future demand is inaccurate based on actual sales, we may increase the write down for excess inventory for that component and record a charge to inventory impairment in the accompanying consolidated statements of operations and comprehensive income. We periodically evaluate the carrying value of inventory on hand for potential excess amount over demand using the same lower of cost or market approach as that has been used to value the inventory. We also periodically evaluate inventory quantities in consideration of actual loss experience.

Cost of Revenue

Cost of revenue includes direct and indirect costs associated with the manufacture of our products. Direct costs include material and labor, while indirect costs include, but are not limited to, inbound freight charges, receiving costs, inspection and testing costs, warehousing costs, royalty expense and other labor and overhead costs incurred in the manufacturing of products. Cost of revenue also includes stock-based compensation, warranty replacement costs, cost of revenue related to product return reserves, and excess and obsolete inventory write-downs.

Stock-Based Compensation

Stock-based compensation costs related to stock options granted to employees are measured at the date of grant based on the estimated fair value of the award, net of estimated forfeitures. We estimate the grant date fair value, and the resulting stock-based compensation expense, using the Black-Scholes option-pricing model on a straight-line basis over the requisite service period of the award, which is generally the vesting term of four years.

The Black-Scholes option-pricing model requires the use of highly subjective assumptions which determine the fair value of stock-based awards. The assumptions used in our option-pricing model represent management's best estimates. These estimates are complex, involve a number of variables, uncertainties and assumptions and the application of management's judgment, so that they are inherently subjective. If factors change and different assumptions are used, our stock-based compensation expense could be materially different in the future. These assumptions are estimated as follows:

Risk-Free Interest Rate. We base the risk-free interest rate used in the Black-Scholes valuation model on the implied yield available on U.S. Treasury zero-coupon issues with an equivalent remaining term of the options for each option group.

Expected Term. The expected term represents the period that our stock-based awards are expected to be outstanding. Because of the limitations on the sale or transfer or our common stock as a privately held company before the IPO, we did not believe our historical exercise pattern was indicative of the pattern we would experience as a publicly traded company post IPO. We have consequently used the Staff Accounting Bulletin, or SAB 110, simplified method to calculate the expected term, which is the average of the contractual term and vesting period. We plan to continue to use the SAB 110 simplified method until we have sufficient trading history as a publicly traded company.

Volatility. We determine the price volatility factor based on the historical volatilities of our peer group as prior to the IPO we did not have a trading history for our common stock. Industry peers consist of several public companies in the medical device technology industry with comparable characteristics including enterprise value, risk profiles and position within the industry. We intend to continue to consistently apply this process using the same or similar public companies until a sufficient amount of historical information regarding the volatility of our own common stock share price becomes available, or unless circumstances change such that the identified companies are no longer similar to us, in which case, more suitable companies whose share prices are publicly available would be utilized in the calculation.

Dividend Yield. The expected dividend assumption is based on our current expectations about our anticipated dividend policy. We currently do not expect to issue any dividends.

In addition to assumptions used in the Black-Scholes option-pricing model, we must also estimate a forfeiture rate to calculate the stock-based compensation for our awards. We will continue to use judgment in evaluating the assumptions related

to our stock-based compensation on a prospective basis. As we continue to accumulate additional data, we may have refinements to our estimates, which could materially impact our future stock-based compensation expense.

Income Taxes

We account for income taxes using the asset and liability method, whereby deferred tax asset and liability account balances are determined based on differences between the financial reporting and tax bases of assets and liabilities, and are measured using the enacted tax rates and laws that will be in effect when the differences are expected to reverse. We provide a valuation allowance to reduce the net deferred tax assets to their estimated realizable value.

At December 31, 2015, we had approximately $16.3 million and $1.8 million of state and foreign net operating loss carryforwards, respectively, available to offset future taxable income. The state net operating loss carryforwards will begin to expire in 2017. At December 31, 2015, we had research credits available to offset state tax liabilities in the amount of $3.6 million, respectively. California state tax credits have no expiration.

The calculation of our current provision for income taxes involves the use of estimates, assumptions and judgments while taking into account current tax laws, interpretation of current tax laws and possible outcomes of future tax audits. We have established reserves to address potential exposures related to tax positions that could be challenged by tax authorities. Although we believe our estimates, assumptions and judgments to be reasonable, any changes in tax law or its interpretation of tax laws and the resolutions of potential tax audits could significantly impact the amounts provided for income taxes in our consolidated financial statements.

For the year ended December 31, 2015, our net deferred tax asset was $10.1 million, after reduction of a valuation allowance of $2.7 million. The calculation of our deferred tax asset balance involves the use of estimates, assumptions and judgments while taking into account estimates of the amounts and type of future taxable income. Deferred tax assets are reduced by a valuation allowance when it is more likely than not that the future realization of all or some of the deferred tax assets will not be achieved. Valuation allowances related to deferred tax assets can be affected by changes to tax laws, statutory tax rates, future taxable income levels and input from our tax advisors or regulatory authorities. If our management was to determine that we would not be able to realize all or a portion of our net deferred tax assets in the future, a valuation allowance related charge to earnings would be reflected in that period, which could have a material adverse impact on our financial condition and results of operations.

We have adopted FASB ASC 740-10 “Accounting for Uncertainty in Income Taxes” that prescribes a recognition threshold and measurement attribute for the financial statement recognition and measurement of uncertain tax positions taken or expected to be taken in our income tax return, and also provides guidance on derecognition, classification, interest and penalties, accounting in interim periods and disclosure.

We include interest and penalties related to unrecognized tax benefits within income tax expense in the accompanying consolidated statements of operations.

Components of Results of Operations

Revenue. We sell our products directly to hospitals and through distributors for use in procedures performed by specialist physicians to treat patients in two key markets: neuro and peripheral vascular disease. We sell our products through purchase orders, and we do not have long term purchase commitments from our customers. We typically recognize revenue when products are delivered to our hospital customers or distributors. However, with respect to products that we consign to hospitals, which primarily consist of coils, we recognize revenue at the time hospitals utilize products in a procedure. Revenue also includes shipping and handling costs that we charge to customers.

Cost of Revenue. Cost of revenue consists primarily of the cost of raw materials and components, personnel costs, including stock-based compensation, inbound freight charges, receiving costs, inspection and testing costs, warehousing costs, royalty expense, shipping and handling costs and other labor and overhead costs incurred in the manufacturing of products. We manufacture substantially all of our products in our manufacturing facility at our campus in Alameda, California.

Operating Expenses

Research and Development (R&D). R&D expenses include product development, clinical and regulatory expenses, materials, depreciation and other costs associated with the development of our products. R&D expenses also include salaries, benefits and other related costs, including stock-based compensation, for personnel and consultants. We expense R&D costs as they are incurred.

We expect to incur additional costs as we continue to innovate and develop new products and engage in ongoing clinical research. These costs will generally increase in absolute terms as we continue to expand our product pipeline and add personnel.

Sales, General and Administrative (SG&A). SG&A expenses primarily consist of salaries, benefits and other related costs, including stock-based compensation, for personnel and consultants engaged in sales, marketing, finance, legal, compliance, administrative, information technology, medical education and training and human resource activities. Our sales, general and administrative expenses also include commissions, generally based on a percentage of sales, to direct sales representatives and the medical device excise tax, which is approximately 2.3% of U.S. sales. The medical device excise tax has been suspended for a two-year period commencing January 1, 2016, it could be reinstated.

We expect our SG&A expenses to continue to increase in absolute terms as we expand our salesforce and operations. Additionally, we expect to incur increased expenses related to headcount, professional service fees, systems and other infrastructure related to operating as a public company.

Income Tax Expense. We are taxed at the rates applicable within each jurisdiction in which we operate. The composite income tax rate, tax provisions, deferred tax assets and deferred tax liabilities will vary according to the jurisdiction in which profits arise. Tax laws are complex and subject to different interpretations by management and the respective governmental taxing authorities, and require us to exercise judgment in determining our income tax provision, our deferred tax assets and liabilities and the potential valuation allowance recorded against our net deferred tax assets. Deferred tax assets and liabilities are determined using the enacted tax rates in effect for the years in which those tax assets are expected to be realized. A valuation allowance is established when it is more likely than not that the future realization of all or some of the deferred tax assets will not be achieved.

Results of Operations

The following table sets forth the components of our consolidated statements of operations in dollars and as a percentage of revenue for the periods presented:

	Year Ended December 31,					
	2015		2014		2013	
Revenue	$ 186,095	100.0 %	$ 125,510	100.0 %	$ 88,848	100.0 %
Cost of revenue	62,037	33.3 %	42,668	34.0 %	30,972	34.9 %
Gross profit	124,058	66.7 %	82,842	66.0 %	57,876	65.1 %
Operating expenses:						
Research and development	18,027	9.7 %	15,575	12.4 %	14,084	15.9 %
Sales, general and administrative	101,852	54.7 %	64,258	51.2 %	44,918	50.6 %
Total operating expenses	119,879	64.4 %	79,833	63.6 %	59,002	66.4 %
Income (loss) from operations	4,179	2.2 %	3,009	2.4 %	(1,126)	(1.3)%
Interest income (expense), net	541	0.3 %	439	0.3 %	345	0.4 %
Other income (expense), net	(696)	(0.4)%	(309)	(0.2)%	(474)	(0.5)%
Income (loss) before provision for (benefit from) income taxes	4,024	2.2 %	3,139	2.5 %	(1,255)	(1.4)%
Provision for (benefit from) income taxes	1,659	0.9 %	894	0.7 %	(5,354)	(6.0)%
Net income	$ 2,365	1.3 %	$ 2,245	1.8 %	$ 4,099	4.6 %

Year Ended December 31, 2015 Compared to Year Ended December 31, 2014

Revenue

	Year Ended December 31,		Change	
	2015	2014	$	%
	(in thousands, except for percentages)			
Neuro	$ 141,410	$ 106,242	$ 35,168	33.1%
Peripheral Vascular	44,685	19,268	25,417	131.9%
Total	$ 186,095	$ 125,510	$ 60,585	48.3%

Revenue increased $60.6 million, or 48.3%, to $186.1 million in 2015, from $125.5 million in 2014. Our revenue growth resulted from increased sales due to expansion of our salesforce headcount by 53.3%, further market penetration of our existing products and sales of new products or products with new indications. Increased sales of Penumbra System products accounted

for approximately half of the revenue increase in 2015. Additionally, approximately one quarter of the increase in revenue for the year ended December 31, 2015 was from increased sales of our Indigo System, primarily due to a new venous indication and the introduction of our larger sizes within our Indigo System, resulting in an increase in new procedure volumes.

Revenue from sales in the U. S. increased $44.3 million, or 53.5%, to $127.3 million in 2015, from $83.0 million in 2014. Revenue from sales in international markets increased $16.2 million, or 38.2%, to $58.8 million in 2015, from $42.5 million in 2014. Revenue from international sales represented 31.6% and 33.9% of our total revenue in 2015 and 2014, respectively.

Revenue from our neuro products increased $35.2 million, or 33.1%, to $141.4 million in 2015, from $106.2 million in 2014. Our neuro product sales experienced strong momentum due to further market penetration and growth in the market following the presentation and publication of MR. CLEAN trial results in the fourth quarter of 2014, and the presentation and publication of additional trial results in the first quarter of 2015, each of which support endovascular treatment of stroke. We believe that these published trial results led to increases in the number of procedures performed by specialist physicians using our products in the year ended December 31, 2015. Increased sales of Penumbra System products accounted for most of the revenue increase in 2015. Further, while our introduction of Benchmark in the fourth quarter of 2014 was designed as a potential replacement for our Neuron access products, sales of our Neuron access products have increased slightly since Benchmark was introduced. The increase in revenue from our neuro products was partially offset by a 12.5%, or $3.8 million, period over period decrease in sales of our neuro embolization products. This decrease was due to: (i) reduced demand for our Penumbra Coil 400 product, which demand can fluctuate from period to period due to the number of procedures performed in a given period using our products, as well as (ii) a shift in our focus due to the introduction of our SMART Coil in the fourth quarter of 2015. Prices for our neuro products remained substantially flat during the year.

Revenue from our peripheral vascular products increased $25.4 million, or 131.9%, to $44.7 million in 2015, from $19.3 million in 2014. Our peripheral embolization and peripheral thrombectomy products experienced strong volume growth in the year, primarily due to the focused efforts of our dedicated peripheral vascular salesforce, which was established in the second half of 2014, and further market penetration of our products. Increased sales of Indigo System products accounted more than half of the revenue increase in the year ended December 31, 2015. Prices for our peripheral vascular products remained substantially flat during the year.

Gross Profit and Gross Margin

	Year Ended December 31,		Change	
	2015	2014	$	%
	(in thousands, except for percentages)			
Cost of revenue	$ 62,037	$ 42,668	$ 19,369	45.4%
Gross profit	$ 124,058	$ 82,842	$ 41,216	49.8%
Gross margin %	66.7%	66.0%		

Gross profit increased $41.2 million, or 49.8%, to $124.1 million in 2015, from $82.8 million in 2014. The increase in gross profit was primarily due to an increase in revenue from sales of our neuro and peripheral vascular products.

Gross margin increased 0.7 percentage points to 66.7% in 2015, from 66.0% in 2014. The increase in gross margin was primarily due to geographic and product mix.

Research and Development (R&D)

	Year Ended December 31,		Change	
	2015	2014	$	%
	(in thousands, except for percentages)			
R&D	$ 18,027	$ 15,575	$ 2,452	15.7%
R&D as a percentage of revenue	*9.7%*	*12.4%*		

R&D expenses increased by $2.5 million, or 15.7%, to $18.0 million in 2015, from $15.6 million in 2014. The $2.5 million increase in R&D expenses was primarily due to a $2.0 million increase in compensation expense resulting from increased headcount to support continued investment in our products, a $0.6 million increase in R&D IT infrastructure and support related expenses and a $0.3 million increase in travel related expenses, partially offset by $1.1 million reduced R&D spend due to the stage and timing of development activities on our projects.

Sales, General and Administrative (SG&A)

	Year Ended December 31,		Change	
	2015	2014	$	%
	(in thousands, except for percentages)			
SG&A	$ 101,852	$ 64,258	$ 37,594	58.5%
SG&A *as a percentage of revenue*	*54.7%*	*51.2%*		

SG&A expenses increased by $37.6 million, or 58.5%, to $101.9 million in 2015, from $64.3 million in 2014. Our sales and administrative headcount in 2015 increased by 55.4%, which led to a $24.1 million increase in compensation expense. Additionally, SG&A expenses were impacted by a $4.4 million increase due to expanded marketing programs, a $3.0 million increase in legal, professional and consulting expenses due to our operating as a publicly traded company, and a $2.8 million increase in travel-related expenses of our salesforce to support our sales activities.

Provision for Income Taxes

	Year Ended December 31,		Change	
	2015	2014	$	%
	(in thousands, except for percentages)			
Provision for income taxes	1,659	894	$ 765	85.6%
Effective tax rate	*41.2%*	*28.5%*		

Our provision for income taxes increased $0.8 million, to $1.7 million in 2015, from $0.9 million in 2014. Our effective tax rate increased to 41.2% in 2015, compared to 28.5% in 2014. The higher effective tax rate for 2015 was primarily due to higher permanent tax differences relating to nondeductible stock-based compensation expense, change in mix of jurisdictional profits and a change in valuation allowance.

Year Ended December 31, 2014 Compared to Year Ended December 31, 2013

Revenue

	Year Ended December 31,		Change	
	2014	2013	$	%
	(in thousands, except for percentages)			
Neuro	$ 106,242	$ 81,343	$ 24,899	30.6%
Peripheral Vascular	19,268	7,505	11,763	156.7%
Total	$ 125,510	$ 88,848	$ 36,662	41.3%

Revenue increased $36.7 million, or 41.3%, to $125.5 million in 2014, from $88.8 million in 2013. Our revenue growth was primarily due to expansion of our salesforce headcount by 55.8%, further market penetration of our existing products and sales of new products. Increased sales of Penumbra System products accounted for approximately half of the revenue increase in 2014. With respect to the impact of the introduction of new products, 12.1% of the increase in 2014 revenues came from the sale of new products, including our Indigo peripheral thrombectomy product, our Apollo System and our Benchmark neuro access product.

Revenue from sales in the U. S. increased $24.7 million, or 42.3%, to $83.0 million in 2014, from $58.3 million in 2013. Revenue from sales in international markets increased $12.0 million, or 39.3%, to $42.5 million in 2014, from $30.5 million in 2013. Revenue from international sales represented 34% and 34% of our total revenue in 2014 and 2013, respectively.

Revenue from our neuro products increased $24.9 million, or 30.6%, to $106.2 million in 2014, from $81.3 million in 2013. Our neuro product sales experienced strong momentum due to further market penetration and growth in the market following presentation of trial results in October 2014, which support endovascular treatment of stroke. Additionally, our neuro product sales benefited from the launch of our ACE Reperfusion Catheter in July 2013. Prices for our neuro products remained substantially flat during the period.

Revenue from our peripheral vascular products increased $11.8 million, or 156.7%, to $19.3 million in 2014, from $7.5 million in 2013. Peripheral vascular product sales volume growth benefited from the focused efforts of our dedicated peripheral vascular salesforce, which was established in the second half of 2014, further market penetration and sales from our recently launched Indigo product. Prices for our peripheral vascular products remained substantially flat during the period.

Gross Profit and Gross Margin

	Year Ended December 31,		Change	
	2014	2013	$	%
	(in thousands, except for percentages)			
Cost of revenue	$ 42,668	$ 30,972	$ 11,696	37.8%
Gross profit	$ 82,842	$ 57,876	$ 24,966	43.1%
Gross margin %	*66.0%*	*65.1%*		

Gross profit increased $25.0 million, or 43.1%, to $82.8 million in 2014, from $57.9 million in 2013. The increase in gross profit was primarily driven by an increase in revenue from sales of our neuro and peripheral vascular products.

Gross margin increased 0.9 percentage points to 66.0% in 2014, from 65.1% in 2013. The increase in gross margin is attributable to geographic and product mix and improved manufacturing efficiency.

Research and Development (R&D) Expenses

	Year Ended December 31,		Change	
	2014	2013	$	%
	(in thousands, except for percentages)			
R&D	$ 15,575	$ 14,084	$ 1,491	10.6%
R&D as a percentage of revenue	*12.4%*	*15.9%*		

R&D expenses increased by $1.5 million, or 10.6%, to $15.6 million in 2014, from $14.1 million in 2013. The $1.5 million increase was primarily due to a $1.2 million increase in compensation expense resulting from increased headcount to support continued research and development in our products and a $0.3 million increase in consulting costs.

Sales, General and Administrative (SG&A) Expenses

	Year Ended December 31,		Change	
	2014	2013	$	%
	(in thousands, except for percentages)			
SG&A	$ 64,258	$ 44,918	$ 19,340	43.1%
SG&A as a percentage of revenue	*51.2%*	*50.6%*		

SG&A expenses increased by $19.3 million, or 43.1%, to $64.3 million in 2014, from $44.9 million in 2013. The $19.3 million increase was primarily due to a $10.9 million increase in compensation expense resulting from increased headcount, a $2.1 million increase in legal, professional and consulting fees, a $2.1 million increase in marketing expenses due to expanded marketing programs and a $1.5 million increase in travel-related expenses for our salesforce to support our sales activities.

Provision for (Benefit from) Income Taxes

	Year Ended December 31,		Change	
	2014	2013	$	%
	(in thousands, except for percentages)			
Provision for (benefit from) income taxes	$ 894	$ (5,354)	$ 6,248	nm
Effective tax rate	*28.5%*	*nm*		

Our provision for income taxes was $0.9 million in 2014 compared to a tax benefit of $5.4 million in 2013. The higher tax provision in 2014 was due to the release of a valuation allowance of $5.0 million against net deferred tax assets in 2013 and the reduced availability of net operating loss carryforwards in 2014. Our effective tax rate increased to 28.5% in 2014. The effective tax rate in 2014 was lower than the U.S. federal statutory rate due to the impact of federal income tax credits.

Prior to 2013, we recorded a valuation allowance in the full amount of our net deferred tax assets, as we had assessed our cumulative loss position and determined that the future benefits were not more likely than not to be realized. As of December 31, 2013, we determined that it is more likely than not that a portion of the net deferred tax assets will be realized for federal and state income tax purposes in the U.S., except in California, and released $5.0 million of the valuation allowance. We continue to record a valuation allowance in the full amount of the net deferred tax assets attributable to California and certain foreign jurisdictions.

Liquidity and Capital Resources

As of December 31, 2015, we had $216.2 million in working capital, which included $19.5 million in cash and $129.3 million in marketable investments. Prior to our initial public offering (IPO), we financed our operations primarily through private placements of convertible preferred stock and borrowings under a line of credit. We closed our IPO on September 23, 2015 and raised $124.7 million in net proceeds.

In addition to our existing cash and cash equivalents and marketable investment balances, our principal source of liquidity is our accounts receivable. We believe these sources will be sufficient to meet our liquidity requirements for at least the next 12 months. Our principal liquidity requirements are to fund our operations, including our research and development, and capital expenditures. To facilitate our expansion, we may also lease or purchase additional facilities. We expect to continue to make investments as we launch new products, expand our manufacturing operations and further expand into international markets. We may, however, require or elect to secure additional financing as we continue to execute our business strategy. If we require or elect to raise additional funds, we may do so through equity or debt financing, which may not be available on acceptable terms, could result in dilution to our stockholders and could require us to agree to covenants that limit our operating flexibility.

	December 31, 2015	December 31, 2014
	(in thousands)	
Cash and cash equivalents	$ 19,547	$ 3,290
Marketable investments	129,257	48,253
Accounts receivable, net	29,444	18,912
Accounts payable	2,567	2,348
Accrued liabilities	25,581	18,475
Working capital(1)	216,213	94,478

(1) Working capital consists of total current assets less total current liabilities.

The following table sets forth, for the periods indicated, our beginning balance of cash and cash equivalents, net cash flows provided by (used in) operating, investing and financing activities and our ending balance of cash and cash equivalents:

	Year Ended December 31,		
	2015	2014	2013
	(in thousands)		
Cash and cash equivalents at beginning of year	$ 3,290	$ 4,131	$ 7,435
Net cash used in operating activities	(22,279)	(6,389)	(3,396)
Net cash used in investing activities	(85,816)	(37,001)	(1,251)
Net cash provided by financing activities	124,424	42,897	2,178
Cash and cash equivalents at end of year	19,547	3,290	4,131

Net Cash Used in Operating Activities

Net cash used in operating activities consists primarily of net income adjusted for certain non-cash items (including depreciation and amortization, inventory write downs, stock-based compensation expense, provision for doubtful accounts, provision for sales returns, loss on minority investment, loss on disposal of property and equipment, and provision for product warranty), and the effect of changes in working capital and other activities.

Net cash used in operating activities was $22.3 million in 2015 and consisted of net income of $2.4 million and non-cash items of $7.6 million offset by net changes in operating assets and liabilities of $32.3 million. The change in operating assets and liabilities includes the increase in inventories of $25.1 million to support our revenue growth, an increase in accounts receivable of $11.1 million, an increase in prepaid expenses and other current and non-current assets of $4.0 million, partially offset by an increase in accrued expenses and other non-current liabilities of $7.8 million and accounts payable of $0.1 million, as a result of the growth in our business activities.

Net cash used by operating activities was $6.4 million in 2014 and consisted of net income of $2.2 million and non-cash items of $3.5 million, offset by net changes in operating assets and liabilities of $12.1 million. The change in operating assets and liabilities includes an increase in inventories of $9.4 million to support our revenue growth and a corresponding increase in accounts receivable of $7.4 million and an increase in prepaid expenses and other current and non-current assets of $1.9 million

partially offset by an increase in accrued expenses and other non-current liabilities of $5.4 million and accounts payable of $1.3 million as a result of the growth in our business activities.

Net cash used by operating activities was $3.4 million in 2013 and consisted of net income of $4.1 million, and a change in non-cash items of $2.5 million, which includes a release of a valuation allowance of $5.0 million and a change in deferred tax benefits of $0.3 million, partially offset by net changes in operating assets and liabilities of $5.0 million. The significant items in the change in operating assets and liabilities include increases in inventories and accounts receivable of $3.8 million and $1.6 million, respectively, partially offset by an increase in accrued expenses and other non-current liabilities of $1.7 million.

Net Cash Used in Investing Activities

Net cash used in investing activities relates primarily to divestures or purchases of marketable investments and capital expenditures.

Net cash used in investing activities was $85.8 million in 2015 and consisted of net purchases of marketable investments of $80.3 million and capital expenditures of $5.5 million.

Net cash used in investing activities was $37.0 million in 2014 and consisted of net purchases of marketable investments of $33.1 million and capital expenditures of $3.9 million.

Net cash used in investing activities was $1.3 million during in 2013 and consisted of capital expenditures of $0.8 million and net purchases of marketable investments of $0.5 million.

Net Cash Provided by Financing Activities

Net cash from financing activities primarily relates to capital raising activities through equity or debt financing.

Financing activities in 2015 provided cash of $124.4 million and consisted of net proceeds from our IPO of $124.7 million, net of issuance costs, excess tax benefit from stock-based compensation of $1.6 million and proceeds from exercises of stock options of $0.6 million, partially offset by payment of employee taxes related to vested common and restricted stock of $2.5 million.

Financing activities in 2014 provided $42.9 million and consisted of proceeds from issuance of Series F Preferred Stock of $57.2 million, net of issuance costs, and proceeds from exercises of stock options of $1.0 million. These proceeds were partially offset by repurchases of preferred stock, common stock and stock options of $9.4 million and the repayment of amounts outstanding under our credit facility of $6.0 million upon its termination in May 2014.

Financing activities in 2013 provided $2.2 million and consisted of proceeds from our credit facility of $2.0 million and proceeds from exercises of stock options of $0.2 million.

Indebtedness

In May 2012, we entered into a $15.0 million revolving credit facility with Wells Fargo Bank, National Association. The credit facility was collateralized by our investment balances. The interest on the credit facility was based on the daily one-month London Inter-Bank Offered Rate, plus 1.75% and was payable monthly. The credit facility contained customary covenants for credit facilities of this type, including limitations on disposition of assets and changes in control. In May 2014, in conjunction with our Series F Preferred Stock financing, we paid the then outstanding balance and terminated the credit facility.

Contractual Obligations and Commitments

The following table summarizes our contractual obligations as of December 31, 2015:

	Payments Due by Period				
	Total	Less Than One Year	1-3 Years	3-5 Years	More than Five Years
			(in thousands)		
Rent obligations(1)	$ 75,535	$ 3,803	$ 9,351	$ 9,826	$ 52,555
Equipment lease obligations(2)	953	252	387	314	—
Purchase commitments(3)	11,820	10,960	860	—	—
Total	$ 88,308	$ 15,015	$ 10,598	$ 10,140	$ 52,555

(1) We lease our corporate headquarters and a manufacturing facility at our campus in Alameda, California, pursuant to lease agreements that expire on various dates from 2029 to 2031. Additionally, we lease offices in Germany, Australia and Brazil. Included in rent obligations

is a lease for an additional 99,568 square feet of space pursuant to a lease agreement that we signed in December 2015. Under this lease agreement, we may be delivered with an additional space of 15,882 square feet at the landlord's option prior to May 1, 2016. Additionally, from time to time during the ten year period following the initial commencement date of the lease, if any space located in the same business park as our campus becomes vacant, that space will be added to the lease at the then current base monthly rental rate. The maximum additional space that could be added under this provision of the lease is 117,325 square feet. The table above does not include our potential obligation for the additional space(s) that may be added to the lease by the landlord.

(2) We lease equipment and automobiles under operating leases. These leases expire at various dates through 2018.

(3) Purchase commitments consist of contracts with suppliers to purchase raw materials to be used to manufacture products.

The amounts in the table above exclude $1.7 million of income tax liabilities included in other non-current liabilities as we are unable to reasonably estimate the timing of settlement. In addition, the table above does not reflect royalty obligations under a license agreement as amounts due thereunder fluctuate depending on sales levels.

Off-Balance Sheet Arrangements

We do not have any off-balance sheet arrangements or any holdings in variable interest entities.

Recently Issued Accounting Standards

For information with respect to recently issued accounting standards and the impact of these standards on our consolidated financial statements, see Note 2 "Summary of Significant Accounting Policies" to our consolidated financial statements in Part II, Item 8 of this Annual Report on Form 10-K.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK.

We are exposed to various market risks, which may result in potential losses arising from adverse changes in market rates, such as interest rates and foreign exchange rates. We do not enter into derivatives or other financial instruments for trading or speculative purposes and do not believe we are exposed to material market risk with respect to our cash and cash equivalents and/or our marketable investments.

Interest Rate Risk. We had cash and cash equivalents of $19.5 million as of December 31, 2015, which consisted of funds held in general checking and savings accounts. In addition, we had marketable investments of $129.3 million, which consisted primarily of corporate bonds, commercial paper, U.S. agency securities and U.S. Treasury. Our investment policy is focused on the preservation of capital and supporting our liquidity needs. Under the policy, we invest in highly rated securities, while limiting the amount of credit exposure to any one issuer other than the U.S. government. We do not invest in financial instruments for trading or speculative purposes, nor do we use leveraged financial instruments. We utilize external investment managers who adhere to the guidelines of our investment policy. A hypothetical 100 basis point change in interest rates would not have a material impact on the value of our cash and cash equivalents or marketable investments.

Foreign Exchange Risk Management. We operate in countries other than the U. S., and, therefore, we are exposed to foreign currency risks. We bill most sales outside of the U. S. in local currencies, primarily the euro and Japanese yen. We expect that the percentage of our sales denominated in foreign currencies may increase in the foreseeable future as we continue to expand into international markets. When sales or expenses are not denominated in U.S. dollars, a fluctuation in exchange rates could affect our net income. We do not believe an immediate 10% adverse change in foreign exchange rates would have a material effect on our results of operations. We do not currently hedge our exposure to foreign currency exchange rate fluctuations; however, we may choose to hedge our exposure in the future.

We do not believe that inflation and change in prices had a significant impact on our results of operations for any periods presented on our consolidated financial statements.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA.
PENUMBRA, INC.
INDEX TO THE CONSOLIDATED FINANCIAL STATEMENTS

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of
Penumbra, Inc.
Alameda, California

We have audited the accompanying consolidated balance sheets of Penumbra, Inc. and subsidiaries (the "Company") as of December 31, 2015 and 2014, and the related consolidated statements of operations and comprehensive income, convertible preferred stock and stockholders' equity (deficit), and cash flows for each of the three years in the period ended December 31, 2015. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, such consolidated financial statements present fairly, in all material respects, the financial position of Penumbra, Inc. and subsidiaries as of December 31, 2015 and 2014, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2015, in conformity with accounting principles generally accepted in the United States of America.

As discussed in Note 2 to the financial statements, the Company early adopted the Financial Accounting Standards Board Accounting Standards Update No. 2015-17, Balance Sheet Classification of Deferred Taxes, as of December 31, 2015 on a prospective basis.

/s/ DELOITTE & TOUCHE LLP

San Francisco, California
March 8, 2016

Penumbra, Inc.
Consolidated Balance Sheets
(in thousands, except share and per share amounts)

	December 31,	
	2015	2014
Assets		
Current assets:		
Cash and cash equivalents	$ 19,547	$ 3,290
Marketable investments	129,257	48,253
Accounts receivable, net of doubtful accounts of $589 and $602 at December 31, 2015 and 2014, respectively	29,444	18,912
Inventories	56,761	33,451
Deferred taxes	—	6,280
Prepaid expenses and other current assets	9,352	5,115
Total current assets	244,361	115,301
Property and equipment, net	8,951	5,181
Deferred taxes	10,143	571
Other non-current assets	393	328
Total assets	$ 263,848	$ 121,381
Liabilities, Convertible Preferred Stock and Stockholders' Equity (Deficit)		
Current Liabilities:		
Accounts payable	$ 2,567	$ 2,348
Accrued liabilities	25,581	18,475
Total current liabilities	28,148	20,823
Other non-current liabilities	3,178	1,461
Total liabilities	31,326	22,284
Commitments and contingencies (Note 8)		
Convertible preferred stock, $0.001 par value per share—none authorized, issued and outstanding at December 31, 2015; 25,000,000 shares authorized, 19,510,410 shares issued and outstanding at December 31, 2014; aggregate liquidation value $149,361 at December 31, 2014	—	111,467
Stockholders' Equity (Deficit):		
Preferred stock, $0.001 par value per share—5,000,000 shares authorized, none issued and outstanding at December 31, 2015; None authorized, issued and outstanding at December 31, 2014	—	—
Common stock, $0.001 par value per share—300,000,000 shares authorized, 29,897,860 issued and outstanding at December 31, 2015; 40,000,000 shares authorized, 4,736,689 issued and outstanding at December 31, 2014	30	5
Additional paid-in capital	252,087	8,446
Notes receivable from stockholders	(5)	(117)
Accumulated other comprehensive loss	(2,115)	(864)
Accumulated deficit	(17,475)	(19,840)
Total stockholders' equity (deficit)	232,522	(12,370)
Total liabilities, convertible preferred stock and stockholders' equity (deficit)	$ 263,848	$ 121,381

The accompanying notes are an integral part of these consolidated financial statements.

Penumbra, Inc.
Consolidated Statements of Operations and Comprehensive Income
(in thousands, except share and per share amounts)

	Year Ended December 31,		
	2015	2014	2013
Revenue	$ 186,095	$ 125,510	$ 88,848
Cost of revenue	62,037	42,668	30,972
Gross profit	124,058	82,842	57,876
Operating expenses:			
Research and development	18,027	15,575	14,084
Sales, general and administrative	101,852	64,258	44,918
Total operating expenses	119,879	79,833	59,002
Income (loss) from operations	4,179	3,009	(1,126)
Interest income (expense), net	541	439	345
Other income (expense), net	(696)	(309)	(474)
Income (loss) before provision for (benefit from) income taxes	4,024	3,139	(1,255)
Provision for (benefit from) income taxes	1,659	894	(5,354)
Net income	2,365	2,245	4,099
Foreign currency translation adjustments, net of tax	(1,308)	(1,423)	(522)
Unrealized gains (losses) on available-for-sale securities, net of tax	57	(237)	(84)
Comprehensive income	$ 1,114	$ 585	$ 3,493
Net income (loss) attributable to common stockholders (Note 16)	$ 1,084	$ (833)	$ 887
Net income (loss) per share attributable to common stockholders —Basic	$ 0.09	$ (0.18)	$ 0.21
—Diluted	$ 0.08	$ (0.18)	$ 0.14
Weighted average shares used to compute net income (loss) per share attributable to common stockholders —Basic	11,993,429	4,609,375	4,304,396
—Diluted	14,219,650	4,609,375	6,500,835

The accompanying notes are an integral part of these consolidated financial statements.

Penumbra, Inc.
Consolidated Statements of Convertible Preferred Stock and Stockholders' Equity (Deficit)
(in thousands, except share amounts)

	Convertible Preferred Stock		Common Stock		Additional Paid-in Capital	Notes Receivable from Stockholders	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity (Deficit)
	Shares	Amount	Shares	Amount					
Balance at December 31, 2012	15,594,618	$ 56,222	4,192,745	$ 4	$ 5,073	$ (138)	$ 1,402	$ (19,092)	$ (12,751)
Issuance of common stock	—	—	198,843	—	310	—	—	—	310
Stock-based compensation	—	—	—	—	886	—	—	—	886
Foreign currency translation adjustment, net of tax of $213	—	—	—	—	—	—	(522)	—	(522)
Unrealized loss on investments, net of tax of $10	—	—	—	—	—	—	(84)	—	(84)
Net income	—	—	—	—	—	—	—	4,099	4,099
Balance at December 31, 2013	15,594,618	56,222	4,391,588	4	6,269	(138)	796	(14,993)	(8,062)
Issuance of Series F preferred stock, net of issuance cost of $2,788	4,545,455	57,212	—	—	—	—	—	—	—
Repurchase of preferred stock	(629,663)	(1,967)	—	—	—	—	—	(6,344)	(6,344)
Repurchase of common stock	—	—	(115,612)	—	(292)	—	—	(748)	(1,040)
Issuance of common stock	—	—	460,713	1	1,036	—	—	—	1,037
Stock-based compensation	—	—	—	—	1,433	—	—	—	1,433
Forgiven notes receivable from stockholders	—	—	—	—	—	21	—	—	21
Foreign currency translation adjustment, net of tax of $245	—	—	—	—	—	—	(1,423)	—	(1,423)
Unrealized loss on investments, net of tax of $168	—	—	—	—	—	—	(237)	—	(237)
Net income	—	—	—	—	—	—	—	2,245	2,245
Balance at December 31, 2014	19,510,410	111,467	4,736,689	$ 5	8,446	(117)	(864)	(19,840)	(12,370)
Conversion of convertible preferred stock into common stock upon closing of IPO	(19,510,410)	(111,467)	19,510,410	19	111,448	—	—	—	111,467
Shares issued upon closing of IPO	—	—	4,600,000	5	124,737	—	—	—	124,742
Issuance of common stock	—	—	1,074,411	1	1,125	—	—	—	1,126
Shares held for tax withholdings	—	—	—	—	(2,525)	—	—	—	(2,525)
Repurchase of common stock	—	—	(23,650)	—	(342)	—	—	—	(342)
Stock-based compensation	—	—	—	—	7,608	—	—	—	7,608
Excess tax benefit from stock-based compensation	—	—	—	—	1,590	—	—	—	1,590
Forgiven notes receivable from stockholders	—	—	—	—	—	91	—	—	91
Note received from a stockholder	—	—	—	—	—	21	—	—	21
Foreign currency translation adjustment, net of tax of $117	—	—	—	—	—	—	(1,308)	—	(1,308)
Unrealized gain on investments, net of tax of $66	—	—	—	—	—	—	57	—	57
Net income	—	—	—	—	—	—	—	2,365	2,365
Balance at December 31, 2015	—	$ —	29,897,860	$ 30	$252,087	$ (5)	$ (2,115)	$ (17,475)	$ 232,522

The accompanying notes are an integral part of these consolidated financial statements.

Penumbra, Inc.
Consolidated Statements of Cash Flows
(in thousands)

	Year Ended December 31,		
	2015	**2014**	**2013**
CASH FLOWS FROM OPERATING ACTIVITIES:			
Net income	$ 2,365	$ 2,245	$ 4,099
Adjustments to reconcile net income to net cash used in operating activities:			
Depreciation and amortization	1,752	751	677
Amortization of premium on marketable investments	83	—	—
Stock-based compensation	7,271	1,433	886
Excess tax benefit from stock-based compensation	(1,590)	—	—
Provision for doubtful accounts	(13)	150	259
Inventory write downs	1,163	1,852	892
Write off of note receivable	91	21	—
Provision for sales returns	1,083	(3)	(212)
Loss on minority investment	—	150	—
Loss on disposal of property and equipment	43	21	3
Realized loss on marketable investments	541	—	160
Provision for product warranty	399	(8)	—
Release of valuation allowance	(243)	(321)	(4,962)
Deferred taxes	(2,961)	(571)	(335)
Issuance of common stock to third parties	—	—	132
Changes in operating assets and liabilities:			
Accounts receivable	(11,063)	(7,426)	(1,550)
Inventories	(25,126)	(9,444)	(3,779)
Prepaid expenses and other current and non-current assets	(4,013)	(1,906)	(961)
Accounts payable	132	1,299	(451)
Accrued expenses and other non-current liabilities	7,807	5,368	1,746
Net cash used in operating activities	(22,279)	(6,389)	(3,396)
CASH FLOWS FROM INVESTING ACTIVITIES:			
Purchases of marketable investments	(135,340)	(51,342)	(6,858)
Proceeds from sales of marketable investments	54,998	18,229	6,405
Purchases of property and equipment	(5,474)	(3,888)	(798)
Net cash used in investing activities	(85,816)	(37,001)	(1,251)
CASH FLOWS FROM FINANCING ACTIVITIES:			
Proceeds from issuance of preferred stock, net of issuance costs	—	57,212	—
Proceeds from issuance of common stock issued in initial public offering, net of issuance costs	124,742	—	—
Proceeds from exercises of stock options	617	1,036	178
Excess tax benefit from stock-based compensation	1,590	—	—
Repurchase of preferred stock	—	(8,311)	—
Proceeds from credit facility	—	—	2,000
Repayment of credit facility	—	(6,000)	—
Repurchase of common stock and stock options	—	(1,040)	—
Payment of employee taxes related to vested common and restricted stock	(2,525)	—	—
Net cash provided by financing activities	124,424	42,897	2,178
Effect of foreign exchange rate changes on cash and cash equivalents	(72)	(348)	(835)
NET INCREASE IN CASH AND CASH EQUIVALENTS	16,257	(841)	(3,304)
CASH AND CASH EQUIVALENTS—Beginning of period	3,290	4,131	7,435
CASH AND CASH EQUIVALENTS—End of period	$ 19,547	$ 3,290	$ 4,131
SUPPLEMENTAL DISCLOSURES OF CASH FLOW INFORMATION:			
Cash paid for interest	$ 1	$ 160	$ 100
Cash paid for income taxes	$ 1,220	$ 3,086	$ 37
NONCASH INVESTING AND FINANCING ACTIVITIES:			
Conversion of convertible preferred stock into common stock	$ 111,467	$ —	$ —
Purchase of property and equipment funded through accounts payable	$ 143	$ 44	$ 5

The accompanying notes are an integral part of these consolidated financial statements.

Penumbra, Inc.
Notes to Consolidated Financial Statements

1. Organization and Description of Business

Penumbra, Inc. (the Company) is a global interventional therapies company that designs, develops, manufactures and markets innovative medical devices. The Company has a broad portfolio of products that addresses challenging medical conditions and significant clinical needs across two major markets, neuro and peripheral vascular. The conditions that the Company's products address include, among others, ischemic stroke, hemorrhagic stroke and various peripheral vascular conditions that can be treated through thrombectomy and embolization procedures.

2. Summary of Significant Accounting Policies

Basis of Presentation and Consolidation

The accompanying consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States (U.S. GAAP). The consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries. All intercompany accounts and transactions have been eliminated in consolidation.

Use of Estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities and equity accounts; disclosure of contingent assets and liabilities at the date of the financial statements; and the reported amounts of revenues and expenses during the reporting period. On an ongoing basis, the Company evaluates its estimates, including those related to provisions for doubtful accounts, sales return reserve, warranty reserves, valuation of inventories, useful lives of property and equipment, income taxes, the valuation of equity instruments and contingencies, among others. The Company bases its estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other data. Actual results could differ from those estimates.

Segments

The Company determined its operating segment on the same basis that it uses to evaluate its performance internally. The Company has one business activity: the design, development, manufacturing and marketing of innovative medical devices, and operates as one operating segment. The Company's chief operating decision-maker, its Chief Executive Officer, reviews its operating results for the purpose of allocating resources and evaluating financial performance. The Company determines revenue by geographic area, based on the destination to which it ships its products.

Foreign Currency Translation

The Company's consolidated financial statements are prepared in United States Dollars (USD). Its foreign subsidiaries use their local currency as their functional currency and maintain their records in the local currency. Accordingly, the assets and liabilities of these subsidiaries are translated into USD using the current exchange rates in effect at the balance sheet date and equity accounts are translated into USD using historical rates. Revenues and expenses are translated using the average exchange rates in effect for the year involved. The resulting foreign currency translation adjustments are recorded in accumulated other comprehensive income in the consolidated balance sheets. Transactions denominated in foreign currency are translated at exchange rates at the date of transaction with foreign currency gains (losses) recorded in other income (expense), net in the consolidated statements of operations and comprehensive income. The Company recognized net foreign currency transaction losses of $0.1 million, $0.3 million and $0.3 million during the years ended December 31, 2015, 2014 and 2013, respectively.

As the Company's international operations grow, its risks associated with fluctuation in currency rates will become greater, and the Company will continue to reassess its approach to managing this risk. In addition, currency fluctuations or a weakening USD can increase the costs of the Company's international expansion. To date, the Company has not entered into any foreign currency hedging contracts, since exchange rate fluctuations have not had a material impact on its operating results and cash flows.

Concentration of Credit Risk

Financial instruments that potentially subject the Company to a concentration of credit risk consist of cash and cash equivalents, marketable investments and accounts receivable. The majority of the Company's cash is held by one financial

institution in the U. S. in excess of federally insured limits. The Company maintained investments in money market funds that were not federally insured during the year ended December 31, 2015 and held cash in foreign banks of approximately $1.9 million and $0.8 million at December 31, 2015 and 2014, respectively, that was not federally insured.

All of the Company's revenue has been derived from sales of its products in the U. S. and international markets. The Company uses both its own salesforce and independent distributors to sell its products. Concentrations of credit risk with respect to accounts receivable are limited due to the large number of entities comprising the Company's customer base. The Company performs ongoing credit evaluations of its customers, including its distributors, does not require collateral, and maintains allowances for potential credit losses on customer accounts when deemed necessary.

During the years ended December 31, 2015, 2014 and 2013, one customer (a distributor) accounted for 10%, 12% and 14%, respectively, of the Company's revenue. No customer accounted for greater than 10% of the Company's accounts receivable balance as of December 31, 2015 or 2014.

Significant Risks and Uncertainties

The Company is subject to risks common to medical device companies including, but not limited to, new technological innovations, dependence on key personnel, protection of proprietary technology, compliance with government regulations, product liability, uncertainty of market acceptance of products and the potential need to obtain additional financing. The Company is dependent on third party suppliers, in some cases single-source suppliers.

There can be no assurance that the Company's products will continue to be accepted in the marketplace, nor can there be any assurance that any future products can be developed or manufactured at an acceptable cost and with appropriate performance characteristics, or that such products will be successfully marketed, if at all.

The Company's products require approval or clearance from the U.S. Food and Drug Administration prior to commencing commercial sales in the U. S.. There can be no assurance that the Company's products will receive all of the required approvals or clearances. Approvals or clearances are also required in foreign jurisdictions in which the Company sells its products. If the Company is denied such approvals or clearances or such approvals or clearances are delayed, it may have a material adverse impact on the Company's results of operations, financial position and liquidity.

Fair Value of Financial Instruments

Carrying amounts of certain of the Company's financial instruments, including cash equivalents, accounts receivable, prepaid expenses and other current assets, accounts payable and accrued liabilities, approximate fair value due to their relatively short maturities.

Cash, Cash Equivalents and Marketable Investments

The Company invests its cash primarily in money market funds and in highly liquid debt instruments of U.S. federal and municipal governments, and their agencies, and corporate debt securities. All highly liquid investments with stated maturities of three months or less from the date of purchase are classified as cash equivalents; all highly liquid investments with stated maturities of greater than three months are classified as marketable investments. The majority of the Company's cash and investments are held in U.S. banks.

The Company determines the appropriate classification of its investments in marketable investments at the time of purchase and re-evaluates such designation at each balance sheet date. The Company's marketable investments have been classified and accounted for as available-for-sale. Investments with remaining maturities of more than one year are viewed by the Company as available to support current operations and are classified as current assets under the caption marketable investments in the accompanying consolidated balance sheets. Investments in marketable investments are carried at fair value, with the unrealized gains and losses reported as a component of accumulated other comprehensive loss. Any realized gains or losses on the sale of marketable investments are determined on a specific identification method, and such gains and losses are reflected as a component of other income (expense), net.

Impairment of Marketable Investments

After determining the fair value of available-for-sale debt instruments, unrealized gains or losses on these securities are recorded to accumulated other comprehensive income (loss) until either the security is sold or the Company determines that the decline in value is other-than-temporary. The primary differentiating factors that the Company considers in classifying impairments as either temporary or other-than-temporary impairments is the intent and ability to retain the investment in the issuer for a period of time sufficient to allow for any anticipated recovery in market value, the length of the time and the extent to which the market value of the investment has been less than cost, the financial condition and near-term prospects of the issuer. There were no other-than-temporary impairments for the years ended December 31, 2015, 2014 or 2013.

Accounts Receivable

Accounts receivable are stated at invoice value less estimated allowances for doubtful accounts. The Company continually monitors customer payments and maintains a reserve for estimated losses resulting from its customers' inability to make required payments. The Company considers factors such as historical experience, credit quality, age of the accounts receivable balances, geographic related risks and economic conditions that may affect a customer's ability to pay. In cases where there are circumstances that may impair a specific customer's ability to meet its financial obligations, a specific allowance is recorded against amounts due, and thereby reduces the net recognized receivable to the amount reasonably believed to be collectible.

Inventories

Inventories are stated at the lower of cost (determined under the first-in first-out method) or market. Write downs are provided for raw materials, components or finished goods that are determined to be excessive or obsolete. Market value is determined as the lower of replacement cost or net realizable value. The Company regularly reviews inventory quantities in consideration of actual loss experience, projected future demand and remaining shelf life to record a provision for excess and obsolete inventory when appropriate.

The estimate of excess quantities is subjective and primarily dependent on the Company's estimates of future demand for a particular product or components or raw materials used in the manufacturing of such product. If the estimate of future demand is inaccurate based on actual sales, the Company may increase the write down for excess inventory and record a charge to inventory impairment in the accompanying consolidated statements of operations and comprehensive income. The Company periodically evaluates the carrying value of inventory on hand for potential excess amounts over demand using the same lower of cost or market approach that has been used to value the inventory. The Company also periodically evaluates inventory quantities in consideration of actual loss experience. As a result of these evaluations, the Company recognized total write downs of $1.2 million, $1.9 million and $0.9 million for the years ended December 31, 2015, 2014 and 2013, respectively.

Property and Equipment, net

Property and equipment are stated at cost less accumulated depreciation. Depreciation is computed using the straight-line method over five years, which is the estimated useful lives of the assets. Leasehold improvements are amortized using the straight-line method over the shorter of the lease term or estimated useful life. Upon retirement or sale, the cost and the related accumulated depreciation are removed from the consolidated balance sheet and the resulting gain or loss is reflected in operations. Maintenance and repairs are charged to operations as incurred.

Impairment of Long-Lived Assets

The Company reviews long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. When such an event occurs, management determines whether there has been impairment by comparing the anticipated undiscounted future net cash flows to the related asset group's carrying value. If an asset is considered impaired, the asset is written down to fair value, which is determined based either on discounted cash flows or appraised value, depending on the nature of the asset. There was no impairment of long-lived assets during the years ended December 31, 2015, 2014 or 2013.

Convertible Preferred Stock

The Company, prior to the closing of its initial public offering (IPO) on September 23, 2015, classified its outstanding convertible preferred stock as temporary equity in the consolidated balance sheet due to the existence of certain change in control events that were not solely within the Company's control, including liquidation, sale or transfer of the Company, that could trigger the ability of the holders of the convertible preferred stock to call for redemption of shares. Upon the closing of

the IPO, all outstanding shares of convertible preferred stock automatically converted into shares of common stock on a one-for-one basis.

Revenue Recognition

Revenue is comprised of product revenue net of returns, discounts, administration fees and sales rebates. The Company recognizes revenue when persuasive evidence of an arrangement exists, delivery has occurred, the sales price is fixed or determinable and collectability is reasonably assured. Evidence of an arrangement consists of customer orders and the Company typically considers delivery to have occurred once title and risk of loss has been transferred and the product has been delivered to the customer. The Company typically recognizes revenue when products are delivered to hospital customers or distributors. However, with respect to products that the Company consigns to hospitals, which primarily consist of coils, the Company recognizes revenue at the time hospitals utilize products in a procedure.

Deferred revenue represents amounts that the Company has already invoiced its customers and that are ultimately expected to be recognized as revenue, but for which not all revenue recognition criteria have been met. The Company had a deferred revenue balance of $0.6 million and $1.6 million, as of December 31, 2015 and 2014, respectively.

The Company's terms and conditions permit product returns and exchanges, and it records returns reserves in the period when revenue is recognized. Estimates are based on actual historical returns over the prior three years and are recorded as reductions in revenue at the time of sale. Upon recognition, the Company reduces revenue and cost of revenue for the estimated return. Return rates can fluctuate over time, but are sufficiently predictable to allow the Company to estimate expected future product returns.

Cost of Revenue

Cost of revenue includes direct and indirect costs associated with the manufacture of the Company's products. Direct costs include material and labor, while indirect costs include inbound freight charges, receiving costs, inspection and testing costs, warehousing costs, royalty expense and other labor and overhead costs incurred in the manufacturing of products. Cost of revenue also includes stock-based compensation, warranty replacement costs, cost of revenue related to product return reserves and excess and obsolete inventory write-downs.

Shipping Costs

Shipping and handling costs charged to customers are recorded as revenue. Shipping and handling costs are included in cost of revenue.

Research and Development (R&D) Costs

R&D costs primarily consist of product development, clinical and regulatory expenses, materials, depreciation and other costs associated with the development of the Company's products. R&D costs also include related personnel and consultants' salaries, benefits and related costs, including stock-based compensation. The Company expenses R&D costs as they are incurred.

The Company's clinical trial accruals are based on estimates of patient enrollment and related costs at clinical investigator sites. The Company estimates preclinical and clinical trial expenses based on the services performed pursuant to contracts with research institutions and clinical research organizations that conduct and manage preclinical studies and clinical trials on its behalf. In accruing service fees, the Company estimates the time period over which services will be performed and the level of patient enrollment and activity expended in each period. If the actual timing of the performance of services or the level of effort varies from the estimate, the Company will adjust the accrual accordingly. Payments made to third parties under these arrangements in advance of the receipt of the related services are recorded as prepaid expenses until the services are rendered.

Advertising Costs

Advertising costs are included in sales, general and administrative expenses and are expensed as incurred. Advertising costs consist primarily of trade show and booth costs, product demonstration, and marketing materials. Advertising costs were $0.5 million, $0.3 million and $0.1 million for the years ended December 31, 2015, 2014 and 2013, respectively.

Stock-Based Compensation

The Company recognizes the cost of stock-based compensation in the financial statements based upon fair value. The fair value of restricted stock and restricted stock unit (RSU) awards is determined based on the number of units granted and the

closing price of the Company's common stock as of the grant date. The fair value of stock options is determined as of the grant date using the Black-Scholes option pricing model. The Company's determination of the fair value of stock options is impacted by the price of the Company's common stock as well as changes in assumptions regarding a number of highly complex and subjective variables. These variables include, but are not limited to, the expected term that options will remain outstanding, expected common stock price volatility over the term of the option awards, risk-free interest rates and expected dividends.

The fair value of an option award is recognized over the period during which an optionee is required to provide services in exchange for the option award, known as the requisite service period (usually the vesting period) on a straight-line basis. Stock-based compensation expense recognized at fair value includes the impact of estimated forfeitures. The Company estimates future forfeitures at the date of grant and revises the estimates, if necessary, in subsequent periods if actual forfeitures differ from those estimates. To the extent actual forfeiture results differ from the estimates, the difference is recorded as a cumulative adjustment in the period forfeiture estimates are revised. No compensation cost is recorded for options that do not vest.

Equity instruments issued to non-employees are recorded at their fair value on the measurement date and are subject to periodic adjustments as the underlying equity instruments vest. The fair value of these equity instruments are expensed over the service period.

Estimates of the fair value of equity-settled awards as of the grant date using valuation models, such as the Black-Scholes option pricing model, are affected by assumptions regarding a number of complex variables. Changes in the assumptions can materially affect the fair value of the award and ultimately how much stock-based compensation expense is recognized. These inputs are subjective and generally require significant analysis and judgment to develop. For all stock options granted to date, the Company estimated the volatility data based on a study of publicly traded industry peer companies. For purposes of identifying these peer companies, the Company considered the industry, stage of development, size and financial leverage of potential comparable companies. The risk-free interest rate is based on the yield available on U.S. Treasury zero-coupon issues similar in duration to the expected term of the equity-settled award. The Company uses the Staff Accounting Bulletin, No. 110 (SAB 110) simplified method to calculate the expected term, which is the average of the contractual term and vesting period.

Income Taxes

The Company accounts for income taxes using the asset and liability method, whereby deferred tax asset and liability account balances are determined based on differences between the financial reporting and tax bases of assets and liabilities, and are measured using the enacted tax rates and laws that will be in effect when the differences are expected to reverse. The Company provides a valuation allowance to reduce the net deferred tax assets to their estimated realizable value.

The calculation of the Company's current provision for income taxes involves the use of estimates, assumptions and judgments while taking into account current tax laws, interpretation of current tax laws and possible outcomes of future tax audits. The Company has established reserves to address potential exposures related to tax positions that could be challenged by tax authorities. Although the Company believes its estimates, assumptions and judgments to be reasonable, any changes in tax law or its interpretation of tax laws and the resolutions of potential tax audits could significantly impact the amounts provided for income taxes in the Company's consolidated financial statements.

The calculation of the Company's deferred tax asset balance involves the use of estimates, assumptions and judgments while taking into account estimates of the amounts and type of future taxable income. Actual future operating results and the underlying amount and type of income could differ materially from the Company's estimates, assumptions and judgments thereby impacting the Company's financial position and results of operations.

The Company follows the guidance relating to accounting for uncertainty in income taxes, which prescribes a recognition threshold and measurement attribute for the financial statement recognition and measurement of uncertain tax positions taken or expected to be taken in the Company's income tax return, and also provides guidance on derecognition, classification, interest and penalties, accounting in interim periods and disclosure.

The Company includes interest and penalties related to unrecognized tax benefits within income tax expense in the accompanying consolidated statements of operations.

Comprehensive Income

The Company is required to display comprehensive income and its components as part of the Company's consolidated financial statements. Comprehensive income consists of net income, unrealized gains or losses on available-for-sale investments and the effects of foreign currency translation.

Net Income (Loss) Per Share of Common Stock

The Company, for the periods prior to the closing of the IPO, calculated its basic and diluted net income (loss) per share attributable to common stockholders in conformity with the two-class method required for companies with participating securities. Under the two-class method, the Company determined whether it had net income (loss) attributable to common stockholders, which included the results of operations less current period preferred stock non-cumulative dividends. If it was determined that the Company did have net income (loss) attributable to common stockholders during a period, the related undistributed earnings were then allocated between common stock and the preferred stock based on the weighted average number of shares outstanding during the period to determine the numerator for the basic net income (loss) per share attributable to common stockholders. In computing diluted net income attributable to common stockholders, undistributed earnings were re-allocated to reflect the potential impact of dilutive securities to determine the numerator for the diluted net income per share attributable to common stockholders.

The Company's basic net income (loss) per share attributable to common stockholders is calculated by dividing the net income (loss) by the weighted average number of shares of common stock outstanding for the period. The diluted net income per share attributable to common stockholders is computed by giving effect to all potential dilutive common stock equivalents outstanding for the period. For purposes of this calculation, options to purchase common stock, restricted stock, RSUs and common stock warrants are considered common stock equivalents.

Recently Issued Accounting Standards

In May 2014, the Financial Accounting Standards Board (FASB) issued ASU No. 2014-09, *Revenue from Contracts with Customers*, which outlines a comprehensive new revenue recognition model designed to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. In August 2015, the FASB issued ASU No. 2015-14, *Revenue from Contracts with Customers—Deferral of the Effective Date* to defer the effective date by one year for annual reporting periods beginning after December 15, 2017, including interim reporting periods within that reporting period. Earlier adoption is permitted only as of annual reporting periods beginning after December 15, 2016, including interim reporting periods within that reporting period. The Company is currently evaluating the impact of this accounting standard.

In July 2015, the FASB issued ASU No. 2015-11, *Simplifying the Measurement of Inventory*, which requires an entity to measure most inventory at the lower of cost and net realizable value, thereby simplifying the current guidance under which an entity must measure inventory at the lower of cost or market. The accounting standard is effective prospectively for annual periods beginning after December 15, 2016, and interim periods therein. Early adoption is permitted as of the beginning of an interim or annual reporting period. The Company is currently evaluating the impact of this accounting standard.

In November 2015, the FASB issued ASU No. 2015-17, *Balance Sheet Classification of Deferred Taxes*, which requires that deferred tax assets and liabilities be classified as non-current in a classified statement of financial position. The accounting standard is effective, either prospectively to all deferred tax assets and liabilities or retrospectively to all periods presented, for annual periods beginning after December 15, 2016, and interim periods therein. Early adoption is permitted as of the beginning of an interim or annual reporting period. The Company early adopted this standard as of December 31, 2015 on a prospective basis.

In January 2016, the FASB issued ASU 2016-01, *Recognition and Measurement of Financial Assets and Financial Liabilities*, which addresses certain aspects of recognition, measurement, presentation and disclosure of financial instruments. The new standard is effective for annual periods and interim periods beginning after December 15, 2017, and upon adoption, an entity should apply the amendments by means of a cumulative-effect adjustment to the balance sheet at the beginning of the first reporting period in which the guidance is effective. Early adoption is not permitted except for the provision to record fair value changes for financial liabilities under the fair value option resulting from instrument-specific credit risk in other comprehensive income. The Company is currently evaluating the impact of adopting this guidance.

In February 2016, the FASB issued ASU 2016-02, *Leases*, which requires to recognize and measure leases at the beginning of the earliest period presented using a modified retrospective approach. The accounting standard is effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. Early adoption is permitted. The Company is currently evaluating the impact of adopting this guidance.

3. Initial Public Offering (IPO)

The Company closed its IPO on September 23, 2015, in which it sold 4.6 million shares of common stock at an offering price of $30.00 per share and raised $124.7 million in net proceeds after deducting underwriting discounts and commissions of $9.7 million and other offering expenses of $3.6 million.

Upon the closing of the IPO, all outstanding shares of convertible preferred stock of the Company were automatically converted into 19,510,410 shares of common stock on a one-for-one basis.

4. Fair Value of Financial Instruments

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability (an exit price) in an orderly transaction between market participants at the reporting date. The accounting guidance establishes a three-tiered hierarchy, which prioritizes the inputs used in the valuation methodologies in measuring fair value:

Level 1 - Quoted prices in active markets for identical assets or liabilities.

Level 2 - Inputs other than Level 1 that are observable, either directly or indirectly, such as quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

Level 3 - Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

The categorization of a financial instrument within the valuation hierarchy is based on the lowest level of input that is significant to the fair value measurement.

The Company classifies its cash equivalents and marketable investments within Level 1 and Level 2, as it uses quoted market prices or alternative pricing sources and models utilizing market observable inputs.

The Company determined the fair value of its Level 1 financial instruments, which are traded in active markets, using quoted market prices for identical instruments.

Marketable investments classified within Level 2 of the fair value hierarchy are valued based on other observable inputs, including broker or dealer quotations or alternative pricing sources. When quoted prices in active markets for identical assets or liabilities are not available, the Company relies on non-binding quotes from its investment managers, which are based on proprietary valuation models of independent pricing services. These models generally use inputs such as observable market data, quoted market prices for similar instruments, historical pricing trends of a security as relative to its peers and internal assumptions of the independent pricing services. To validate the fair value determination provided by its investment managers, the Company reviews the pricing movement in the context of overall market trends and trading information from its investment managers. In addition, the Company assesses the inputs and methods used in determining the fair value in order to determine the classification of securities in the fair value hierarchy.

The Company did not own any Level 3 financial assets or liabilities as of December 31, 2015 or 2014.

The Company did not have any financial assets and liabilities measured at fair value on a non-recurring basis as of December 31, 2015 and 2014.

During the years ended December 31, 2015, 2014 and 2013, the Company did not record any impairment charges related to its marketable investments, and the Company did not have any transfers between Level 1, Level 2 and Level 3 of the fair value hierarchy.

The following tables set forth the Company's financial assets and liabilities measured at fair value by level within the fair value hierarchy (in thousands):

	As of December 31, 2015			
	Level 1	Level 2	Level 3	Fair Value
Financial Assets				
Cash equivalents:				
Commercial paper	$ —	$ 9,850	$ —	$ 9,850
Money market funds	252	—	—	252
Marketable investments:				
Commercial paper	—	22,332	—	22,332
U.S. Treasury	15,436	—	—	15,436
U.S. Agency securities	—	21,464	—	21,464
U.S. States and Municipalities	—	2,084	—	2,084
Corporate bonds	—	61,002	—	61,002
Non-U.S. Government debt securities	—	6,939	—	6,939
Total	$ 15,688	$ 123,671	$ —	$ 139,359

	As of December 31, 2014			
	Level 1	Level 2	Level 3	Fair Value
Financial Assets				
Cash equivalents:				
Money market funds	$ 155	$ —	$ —	$ 155
Marketable investments:				
Mutual funds	8,619	—	—	8,619
U.S. Treasury	4,009	—	—	4,009
U.S. Agency securities	—	6,006	—	6,006
Corporate bonds	—	29,619	—	29,619
Total	$ 12,783	$ 35,625	$ —	$ 48,408

5. Balance Sheet Components

Accounts Receivable, Net

The Company's allowance for doubtful accounts comprised of the following (in thousands):

	Balance At Beginning Of Year	Charged To Costs And Expenses	Deductions	Balance At End Of Year
For the year ended:				
December 31, 2013	$ 212	$ 259	$ —	$ 471
December 31, 2014	471	150	(19)	602
December 31, 2015	602	(13)	—	589

Prepaid Expenses and Other Current Assets

The Company's prepaid expenses and other current assets comprised of the following (in thousands):

	December 31,	
	2015	2014
Prepaid expenses	$ 7,442	$ 3,130
Income tax receivable	606	1,654
Other current assets	1,304	331
Prepaid expenses and other current assets	$ 9,352	$ 5,115

Marketable Investments

The Company's marketable investments as of December 31, 2015 and 2014 were as follows (in thousands):

	December 31, 2015			
	Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Commercial paper	$ 22,328	$ 5	$ (1)	$ 22,332
U.S. Treasury	15,459	4	(27)	15,436
U.S. Agency securities	21,497	1	(34)	21,464
U.S. States and Municipalities	2,086	—	(2)	2,084
Corporate bonds	61,188	3	(189)	61,002
Non-U.S. Government debt securities	6,954	1	(16)	6,939
Total	$ 129,512	$ 14	$ (269)	$ 129,257

	December 31, 2014			
	Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
U.S. Agency securities	$ 6,012	$ 3	$ (9)	$ 6,006
U.S. Treasury	4,011	—	(2)	4,009
Corporate bonds	29,834	4	(219)	29,619
Mutual funds	8,768	—	(149)	8,619
Total	$ 48,625	$ 7	$ (379)	$ 48,253

The following tables present the gross unrealized losses and the fair value for those marketable investments that were in an unrealized loss position for less than twelve months as of December 31, 2015 and 2014 (in thousands):

	December 31, 2015	
	Fair Value	Gross Unrealized Losses
Commercial paper	$ 4,746	$ (1)
US Treasury	12,453	(27)
US Agency securities	13,475	(34)
US States and Municipalities	2,084	(2)
Corporate bonds	59,163	(189)
Non-U.S. government debt securities	5,881	(16)
Total	$ 97,802	$ (269)

	December 31, 2014	
	Fair Value	Gross Unrealized Losses
Mutual Funds	$ 8,619	$ (149)
US Treasury	3,008	(2)
US Agency Securities	5,255	(9)
Corporate Bonds	26,633	(219)
Total	$ 43,515	$ (379)

As of December 31, 2015 and 2014, there were no securities that had been in a loss position for more than twelve months.

The contractual maturities of the Company's marketable investments as of December 31, 2015 and 2014 were as follows (in thousands):

	December 31,	
	2015	2014
Marketable Investments	Fair Value	Fair Value
Due in one year	$ 62,983	$ 16,442
Due in one to five years	66,274	31,811
Total	$ 129,257	$ 48,253

Inventories

The components of inventories consisted of the following (in thousands):

	December 31,	
	2015	2014
Raw materials	$ 9,176	$ 5,105
Work in process	2,746	543
Finished goods	44,839	27,803
Inventories	$ 56,761	$ 33,451

Property and Equipment, Net

Property and equipment, net consisted of the following (in thousands):

	December 31,	
	2015	2014
Machinery and equipment	$ 8,559	$ 5,089
Furniture and fixtures	2,091	519
Leasehold improvements	1,564	379
Software	666	599
Computers	565	153
Construction in progress	577	1,931
Total property and equipment	14,022	8,670
Less: Accumulated depreciation and amortization	(5,071)	(3,489)
Property and equipment, net	$ 8,951	$ 5,181

Depreciation and amortization expense was $1.8 million, $0.8 million and $0.7 million for the years ended December 31, 2015, 2014 and 2013, respectively.

Accrued Liabilities

The following table shows the components of accrued liabilities (in thousands):

	December 31,	
	2015	2014
Payroll and employee-related expenses	$ 13,653	$ 8,221
Sales return reserve	3,247	2,164
Preclinical and clinical trial cost	1,330	2,319
Deferred revenue	526	1,591
Product warranty	713	314
Sales tax payable	531	306
Income tax payable	308	332
Other accrued liabilities	5,273	3,228
Total accrued liabilities	$ 25,581	$ 18,475

The estimated product warranty accrual was as follows (in thousands):

	December 31,		
	2015	2014	2013
Balance at the beginning of the year	$ 314	$ 323	$ 323
Accruals of warranties issued	752	149	100
Settlements of warranty claims	(353)	(158)	(100)
Balance at the end of the year	$ 713	$ 314	$ 323

6. Credit Facility

In May 2012, the Company entered into a revolving credit facility of $15.0 million with Wells Fargo Bank, National Association. The credit facility was collateralized by the Company's investment balances. The interest on the credit facility was based on the daily one-month London Inter-Bank Offered Rate, plus 1.75% and was payable monthly. The credit facility contained customary covenants for credit facilities of this type, including limitations on disposition of assets and changes in control. In May 2014, in conjunction with its Series F preferred stock financing, the Company paid the then outstanding balance on the credit facility and terminated the credit facility.

7. Related Party Transactions

Notes Receivable from Stockholders

In March 2005, options to purchase 250,000 shares of common stock, subject to repurchase by the Company, were exercised in exchange for a full recourse promissory note totaling $21,250. The note bore interest at 2.92% per year, compounded annually. The Company received the amount due including interest under the promissory note in the fourth quarter of 2015.

In July 2011, options to purchase 5,000 shares of common stock were exercised in exchange for a full recourse promissory note totaling $4,600. The note is noninterest bearing and is due in full on December 31, 2016.

As of December 31, 2015 and 2014, the amounts due under outstanding promissory notes were $4,600 and $0.1 million, respectively.

8. Commitments and Contingencies

Lease Commitments

The Company leases its offices and other equipment under non-cancelable operating leases that expire at various dates from 2029 to 2031. In December 2015, the Company entered into a lease agreement (the Lease) relating to the lease of additional office, research and development and manufacturing space at the campus where the Company's headquarters is located in Alameda, California. Pursuant to the Lease, the Company agreed to lease 99,968 square feet of space (plus an additional space of 15,882 square feet that may be delivered to the Company at the landlord's option prior to May 1, 2016). From time to time during the ten year period following the initial commencement date of the new lease, if any space in any of the buildings located in the same business park as our campus becomes vacant, that space will be added to the lease at the then current base monthly rental rate. The maximum additional space that could be added under this provision of the lease is 117,325 square feet. The Company has a right of first offer to lease any space that becomes available after the expiration of the ten year period following the initial commencement date, subject to the terms described in the new lease. The term of the lease expires after 15 years from the initial lease commencement date, subject to the Company's option to renew the lease for up to three additional five-year periods. The table below does not include the Company's potential obligation for the additional space(s) that may be added to the lease by the landlord.

Rent expense for the years ended December 31, 2015, 2014, and 2013 was $3.2 million, $1.8 million and $1.7 million, respectively.

Future minimum lease payments under the non-cancelable operating leases as of December 31, 2015 are as follows (in thousands):

	Lease Payments
Year Ending December 31:	
2016	$ 4,055
2017	4,861
2018	4,877
2019	5,007
2020	5,133
Thereafter	52,555
Total future minimum lease payments	$ 76,488

Purchase Commitments

The Company had non-cancellable purchase obligations to suppliers at December 31, 2015 of $11.8 million.

Royalty Obligations

In March 2005, the Company entered into a license agreement that requires the Company to make minimum royalty payments to the licensor, on a quarterly basis. As of December 31, 2015 and 2014, the license agreement requires minimum annual royalty payments of $0.1 million and $0.1 million in equal quarterly installments, respectively. On each January 1, the

quarterly calendar year minimum royalty shall be adjusted to equal the prior year's minimum royalty adjusted by a percentage equal to the percentage change in the "consumer price index for all urban consumers" for the prior calendar year as reported by the U.S. Department of Labor. Unless terminated earlier, the term of the license agreement shall continue until the expiration of the last to expire patent that covers that licensed product or for the period of 15 years following the first commercial sale of such licensed product, whichever is longer. The first commercial sale of covered products occurred in June 2007.

In April 2012, the Company entered into an agreement that requires the Company to pay a 5% royalty on sales of products covered under applicable patents, on a quarterly basis. The first commercial sale of covered products occurred in April 2014. Unless terminated earlier, the royalty term for each applicable product shall continue for 15 years following the first commercial sale of such patented product, or when the applicable patent covering such product has expired, whichever is sooner.

In April 2015, the Company entered into a royalty agreement that requires the Company to pay a 2% royalty on sales of certain products covered by the agreement, on a quarterly basis. The Company began the first commercial sale of the covered products in July 2015. Unless terminated earlier, the royalty term for each covered product shall continue for 20 years following the first commercial sale of the covered products.

Royalty expense included in cost of sales for the years ended December 31, 2015, 2014 and 2013 was $2.0 million, $1.1 million and $0.7 million, respectively.

Contingencies

From time to time, the Company may have certain contingent liabilities that arise in the ordinary course of business. The Company accrues a liability for such matters when it is probable that future expenditures will be made and such expenditures can be reasonably estimated.

Indemnification

The Company enters into standard indemnification arrangements in the ordinary course of business. Pursuant to these arrangements, the Company indemnifies, holds harmless, and agrees to reimburse the indemnified parties for losses suffered or incurred by the indemnified party, in connection with any trade secret, copyright, patent or other intellectual property infringement claim by any third-party with respect to the Company's technology. The term of these indemnification agreements is generally perpetual. The maximum potential amount of future payments the Company could be required to make under these agreements is not determinable because it involves claims that may be made against the Company in the future, but have not yet been made.

The Company has entered into indemnification agreements with its directors and officers that may require the Company to indemnify its directors and officers against liabilities that may arise by reason of their status or service as directors or officers, other than liabilities arising from willful misconduct of the individual.

The Company has not incurred costs to defend lawsuits or settle claims related to these indemnification agreements. No liability associated with such indemnifications has been recorded to date.

Litigation

The Company was contacted in 2015 by the attorney for a potential product liability claimant who allegedly suffered injuries as a result of aneurysm procedure in which the Penumbra Coil 400 was used. On February 19, 2016, a complaint for damages was filed on behalf of this claimant against Penumbra and the hospital involved in the procedure (*Montgomery v. Penumbra, Inc., et al.*, Case No. 16-2-04050-1 SEA, Superior Court of the State of Washington, King County). The suit alleges liability primarily under the Washington Product Liability Act and seeks both compensatory and punitive damages without a specific damages claim. Counsel for the claimant previously indicated that he expects that a jury could award $35 million in damages were this matter to go to trial. This amount is substantially in excess of the Company's insurance coverage. The hospital defendant has requested indemnification from Penumbra. As the litigation has been filed recently and the parties have not engaged in formal discovery, the Company is unable to assess the merits of the plaintiff's case. The Company intends to vigorously defend the litigation, as the Company believes there will be substantial questions regarding causation, liability and damages.

From time to time, the Company is subject to claims and assessments in the ordinary course of business. The Company is not currently a party to any litigation matter that, individually or in the aggregate, is expected to have a material adverse effect on the Company's business, financial condition, results of operations or cash flows.

9. Convertible Preferred Stock

The convertible preferred stock at December 31, 2014 consisted of the following (in thousands, except shares):

Series	Shares Authorized	Shares Issued and Outstanding	Proceeds, Net of Issuance Costs	Aggregate Liquidation Amount
Series A Preferred Stock	1,000,000	1,000,000	$ 299	$ 554
Series B Preferred Stock	4,287,486	4,005,338	6,536	11,725
Series C Preferred Stock	4,388,715	4,168,218	13,266	22,238
Series D Preferred Stock	3,944,733	3,881,459	19,647	30,976
Series E Preferred Stock	1,973,684	1,909,940	14,507	21,609
Series F Preferred Stock	5,303,031	4,545,455	57,212	62,259
Undesignated	4,102,351	—	—	—
Total convertible preferred stock	25,000,000	19,510,410	$ 111,467	$ 149,361

Upon the closing of the IPO on September 23, 2015, all outstanding shares of convertible preferred stock were automatically converted into 19,510,410 shares of common stock on a one-for-one basis and the related balance was reclassified from temporary equity to common stock and additional paid-in capital.

10. Common Stock

Each share of common stock is entitled to one vote. The holders of common stock are also entitled to receive dividends whenever funds are legally available and when declared by the board of directors, subject to the prior rights of holders of all classes of stock outstanding.

11. Warrants

In connection with the sale of Series B preferred stock in 2004, the Company issued warrants to purchase 211,138 shares of common stock at a purchase price of $0.01 per share. The warrants were exercisable upon grant and had a term of 10 years from the date of grant, which expired on December 31, 2014. The value of the warrants was calculated using Black-Scholes option pricing model and was deemed to be immaterial. No warrants were outstanding as of December 31, 2015 or 2014.

12. Stock Option Plans

2005 Stock Plan

The Company adopted the Penumbra, Inc. 2005 Stock Plan (the 2005 Plan) in January 2005. The 2005 Plan was subsequently amended and restated in 2006, 2007, 2008 and 2010. As of December 31, 2015 and 2014, the Company had granted options to purchase 5,431,017 and 5,431,017 shares of common stock, respectively, under the 2005 Plan, of which options to purchase 1,757,282 and 2,707,176 shares of common stock were outstanding, and options to purchase 12,339 and 33,081 shares of common stock had been early exercised and were unvested and subject to repurchase, as of December 31, 2015 and 2014, respectively. Under the 2005 Plan, the board of directors could grant incentive stock options (ISOs), nonqualified stock options (NSOs), and/or stock awards to eligible persons, including employees, nonemployees, directors, consultants and other independent advisors who provide services to the Company. Stock purchase rights could also be granted under the 2005 Plan. The board of directors had the authority to determine to whom options would be granted, the number of options, the term and the exercise price. ISOs could only be granted to Company employees, which include officers and directors of the Company. NSOs and stock purchase rights could be granted to employees and consultants. For individuals holding more than 10% of the voting rights of all classes of stock, the exercise price for an ISO could not be less than 110% of fair market value. Options granted under the 2005 Plan permitted an optionee to exercise options immediately upon grant irrespective of the vesting term. Options generally vest annually at a rate of 1/4 after the first year and 1/48 per month thereafter. The term of the options is no longer than five years for ISOs, for which the grantee owns greater than 10% of the voting power of all classes of stock and no longer than 10 years for all other options.

2011 Equity Incentive Plan

The Company adopted the Penumbra, Inc. 2011 Equity Incentive Plan (the 2011 Plan) in October 2011. As of December 31, 2015 and 2014, the Company had granted options to purchase 145,000 and 145,000 shares of common stock, respectively, under the 2011 Plan, of which options to purchase 145,000 and 145,000 shares of common stock were outstanding at December 31, 2015 and 2014, respectively. As of December 31, 2015 and 2014, the Company had granted 505,000 and 505,000 shares of restricted stock under the 2011 Plan, of which 249,125 and 367,126 shares were unvested and subject to forfeiture and 4,667 and 1,667 shares had been forfeited as of December 31, 2015 and 2014, respectively. Under the 2011 Plan, the board of directors could grant ISOs, NSOs, restricted stock, and/or RSUs to eligible persons, including employees, directors and consultants who provide services to the Company. Stock Appreciation Rights (SAR) could also be granted under the 2011 Plan. The board of directors had the authority to determine to whom options would be granted, the number of options, the term and the exercise price. ISOs could only be granted to Company employees, which include officers and directors of the Company. NSOs, SARs, restricted stock and RSUs could be granted to employees and consultants. For individuals holding more than 10% of the voting rights of all classes of stock, the exercise price for an ISO could not be less than 110% of fair market value. Stock options granted under the 2011 Plan generally have a contractual life of ten years, and generally vest over a period of four years.

Amended and Restated 2014 Equity Incentive Plan

The Company adopted the Penumbra, Inc. 2014 Equity Incentive Plan in May 2014. The plan was amended and restated as of September 17, 2015 (as amended and restated, the 2014 Plan). The 2014 Plan replaced the 2011 Plan and the 2005 Plan and no further equity awards may be granted under the 2011 Plan or the 2005 Plan. Under the 2014 Plan, 3,000,000 shares of common stock were reserved for issuance, of which as of December 31, 2015, 597,730 shares of common stock were available for grant. As of December 31, 2015 and 2014, the Company had granted options to purchase 1,857,900 and 48,500 shares of common stock under the 2014 Plan, 1,853,063 and 48,500 of which were outstanding and 4,421 and 1,000 of which had been forfeited as of December 31, 2015 and 2014, respectively. The Company had granted 673,361 and 0 shares of restricted stock under the 2014 Plan, as of December 31, 2015 and 2014, respectively, of which 508,646 and 0 shares were unvested and subject to forfeiture as of such dates. The Company had granted 91,800 and 0 shares of RSU under the 2014 Plan, as of December 31, 2015 and 2014, respectively, of which 91,800 and 0 shares were unvested and subject to forfeiture as of such dates.

Employee Stock Purchase Plan

The Penumbra, Inc. Employee Stock Purchase Plan (the ESPP), became effective on September 17, 2015. The ESPP initially reserved 600,000 shares of common stock for purchase under the ESPP, with the number of shares reserved for purchase automatically increasing each year pursuant to an “evergreen” provision set forth in the ESPP. All qualifying employees of the Company and its designated subsidiaries are eligible to participate in the ESPP. Each offering to the Company’s employees to purchase stock under the ESPP will begin on each May 20 and November 20 and will end on the following November 19 and May 19, respectively, each referred to as offering periods, except that the first offering period under the ESPP began on September 17, 2015 and will end on May 19, 2016. Under the ESPP, each employee may purchase shares by authorizing payroll deductions at a minimum of 1% and up to 15% of his or her eligible compensation for each pay period during the offering period. Unless the participating employee withdraws from the offering, his or her accumulated payroll deductions will be used to purchase the Company’s common stock on the last business day of the offering period at a price equal to 85% of the fair market value of the common stock on either the first or the last day of the offering period, whichever is lower, provided that no more than 2,000 shares of the Company’s common stock or such other lesser maximum number established by the ESPP administrator may be purchased by any one employee during each offering period. Under applicable tax rules, an employee may purchase no more than $25,000 worth of common stock, valued at the start of the purchase period (corresponding to an offering period), under the ESPP in any calendar year.

Early Exercises

Stock options granted under the 2005 Plan, 2011 Plan and 2014 Plan allow the board of directors to grant awards to provide employee option holders the right to elect to exercise unvested options in exchange for restricted common stock. Unvested shares, which amounted to 12,339 and 33,081 as of December 31, 2015 and 2014, respectively, were subject to a repurchase right held by the Company at the original issue price in the event the optionees' employment was terminated either voluntarily or involuntarily. For exercises of employee options, this right lapses according to the vesting schedule designated on the associated option grant. The repurchase terms are considered to be a forfeiture provision. The shares purchased by the employees pursuant to the early exercise of stock options are not deemed to be issued or outstanding for accounting purposes until those shares vest, though they are legally issued and outstanding. In addition, cash received from employees for exercise of unvested options is treated as a refundable deposit shown as a liability on the consolidated balance sheets. As of December 31, 2015 and 2014, cash received related to unvested shares totaled $0.1 million and $0.2 million, respectively. Amounts recorded are transferred into common stock and additional paid-in-capital as the shares vest.

Activity of stock options under 2005 Plan, 2011 Plan and 2014 Plan is set forth below:

	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (in Years)	Aggregate Intrinsic Value (in thousands)
Balance, December 31, 2014	2,900,676	$ 2.66		
Granted	1,809,400	21.47		
Exercised	(948,872)	0.99		
Canceled/Forfeited	(5,859)	11.15		
Balance, December 31, 2015	3,755,345	$ 12.13		
Vested and expected to vest—December 31, 2015	3,621,919	$ 11.79	6.70	$ 152,187
Exercisable—December 31, 2015	1,941,150	$ 3.47	4.20	$ 97,717

The Company uses the Black-Scholes option pricing model to determine the fair value of stock options. The valuation model for stock compensation expense requires the Company to make assumptions and judgments about the variables used in the calculation including the expected term (weighted average period of time that the options granted are expected to be outstanding); volatility of the Company's common stock and an assumed-risk-free interest rate.

The Company used the following assumptions in its Black-Scholes option pricing model to determine the fair value of stock options:

	Year Ended December 31,		
	2015	2014	2013
Expected term (in years)	6.08—6.25	6.25	6.25
Expected volatility	45%	45%	45%
Risk-free interest rate	1.56%—1.78%	1.76%—2.02%	0.63%—0.90%
Expected dividend rate	0%	0%	0%

Fair Value of Common Stock. Prior to the IPO, the fair value of the shares of common stock underlying the Company's stock options was determined by the Company's board of directors. Because there was no public market for the Company's common stock and in the absence of recent arm's-length cash sales transactions of the Company's common stock with independent third parties, the Company's board of directors determined the fair value of the Company's common stock by considering at the time of grant a number of objective and subjective factors. The intent of the Company's board of directors was for all options granted to be exercisable at a price per share not less than the per share fair value of the Company's common stock underlying those options on the date of grant. The estimated fair value of the Company's common stock was determined at each valuation date in accordance with the guidelines outlined in the American Institute of Certified Public Accountants Practice Aid, Valuation of Privately-Held-Company Equity Securities Issued as Compensation. The Company's board of directors, with the assistance of management, developed these valuations using significant judgement and taking into account numerous factors, including the following:

- independent third-party valuations;

- progress of research and development activities;
- the Company's operating and financial performance, including its levels of available capital resources;
- rights and preferences of the Company's common stock compared to the rights and preferences of the Company's other outstanding equity securities;
- equity market conditions affecting comparable public companies, as reflected in comparable companies' market multiples, IPO valuations and other metrics;
- the achievement of enterprise milestones, including the Company's progress in clinical trials;
- the likelihood of achieving a liquidity event for the shares of common stock, such as an IPO given prevailing market and medical device sector conditions;
- sales of the Company's preferred stock in arms-length transactions;
- the illiquidity of the Company's securities by virtue of being a private company;
- business risks; and
- management and board experience.

The Company considered the following approaches in the preparation of its valuations:

- *Market Approach.* The market approach values a business by reference to guideline companies, for which enterprise values are known. This approach has two principal methodologies. The guideline public company methodology derives valuation multiples from the operating data and share prices of similar publicly traded companies. The guideline acquisition methodology focuses on comparisons between the subject company and guideline acquired public or private companies.
- *Option-Pricing Method Backsolve (OPM backsolve).* The OPM backsolve method derives the implied equity value for a company from a recent transaction involving the Company's own securities issued on an arms-length basis.
- *Probability Weighted Expected Return Method (PWERM).* Using the PWERM method, the value of a company's common stock is estimated based upon the analysis of future values for the company assuming various possible future liquidity events like an initial public offering, sale or merger. Share value is based upon the probability-weighted present value of expected future net cash flows, considering each of the possible future events, as well as the rights and preferences of each share class.

In addition, the Company also considered an enterprise value allocation method:

- *Option-Pricing Method (OPM).* Under the OPM method, each class of stock is modeled as a call option with a distinct claim on the enterprise value of the company. The option's exercise prices would be based on a comparison with the enterprise value. The method assumes that a formula, such as the Black-Scholes model, would calculate the fair value when provided with certain values, including share price, expiration date, volatility and the risk free interest rate.

The per share common stock value was estimated by allocating the Company's enterprise value using the OPM method on October 1, 2013, May 16, 2014, and September 30, 2014, which determined the common value to be $7.75, $9.06 and $10.92, respectively. The per share common stock value was estimated in December 31, 2014, March 31, 2015, June 30, 2015 and July 31, 2015, which utilized the PWERM method, which determined the common stock value to be $12.36, $14.46, $20.51 and $22.04, respectively.

In determining the estimated fair value of the common stock, the Company's board of directors also considered the fact that the Company's stockholders could not freely trade the Company's common stock in the public markets. Accordingly, the Company applied discounts to reflect the lack of marketability of its common stock based on the expected time to liquidity. The estimated fair value of the Company's common stock at each grant date reflected a non-marketability discount partially based on the anticipated likelihood and timing of a future liquidity event.

The key subjective factors and assumptions used in the Company's valuations primarily consisted of: (i) the selection of the appropriate market comparable transactions, (ii) the selection of the appropriate comparable publicly traded companies, (iii) the financial forecasts utilized to determine future cash balances and necessary capital requirements, (iv) the probability and timing of the various possible liquidity events, (v) the estimated weighted-average cost of capital and (vi) the discount for lack of marketability of the Company's common stock.

At each grant date the board of directors reviewed any recent events and their potential impact on the estimated fair value per share of the common stock.

Weighted Average Expected Term. The Company derived the expected term using the "simplified" method (the expected term is determined as the average of the time-to-vesting and the contractual life of the options), as the Company had limited historical information to develop expectations about future exercise patterns and post vesting employment termination behavior.

Volatility. Since there has been no public market for the Company's common stock and lack of company-specific historical volatility, it has determined the share price volatility for options granted based on an analysis of the volatility used by a peer group of publicly traded medical device companies. In evaluating similarity, the Company considers factors such as industry, stage of life cycle and size.

Risk-Free Interest Rate. The risk-free interest rate is based upon U.S. Treasury zero-coupon issues with remaining terms similar to the expected term of the options.

Dividend Yield. The Company has never paid any dividends and does not plan to pay dividends in the foreseeable future, and therefore, used an expected dividend yield of zero in the valuation model.

Forfeitures. The Company is required to estimate forfeitures at the time of grant, and revise those estimates in subsequent periods if actual forfeitures differ from those estimates. The Company uses historical data to estimate pre-vesting option forfeitures and record stock based compensation expense only for those awards that are expected to vest. To the extent actual forfeitures differ from the estimates, the difference will be recorded as a cumulative adjustment in the period that the estimates are revised.

The total intrinsic value of stock options exercised during the year ended December 31, 2015, 2014 and 2013 was $13.1 million, $3.8 million and $0.3 million, respectively. The intrinsic value is calculated as the difference between the estimated fair value of the Company's common stock at the exercise date and the exercise price of the stock option.

The weighted average grant date fair value of the employee stock options was $9.69, $3.69 and $2.63 per share during the years ended December 31, 2015, 2014 and 2013, respectively.

The following table summarizes the activity of unvested restricted stock and RSUs:

	Number of Shares	Weighted Average Grant Date Fair Value
Unvested at December 31, 2014	367,126	$ 7.26
Granted	765,161	17.70
Vested	(279,716)	11.93
Canceled/Forfeited	(3,000)	7.75
Unvested at December 31, 2015	849,571	15.12

As of December 31, 2015, total unrecognized compensation cost was $27.2 million related to unvested share-based compensation arrangements which is expected to be recognized over a weighted average period of 2.1 years.

The total stock-based compensation cost capitalized in inventory was $0.3 million as of December 31, 2015. The total stock-based compensation cost capitalized in inventory was insignificant as of December 31, 2014 and 2013.

The following table sets forth the stock-based compensation expense included in the consolidated statements of operations (in thousands):

	Year Ended December 31,		
	2015	2014	2013
Cost of sales	$ 316	$ 267	$ 98
Research and development	444	96	84
Sales, general and administrative	6,511	1,070	704
	$ 7,271	$ 1,433	$ 886

13. Common and Preferred Stock Repurchase

The Company's board of directors approved the repurchase of 70,612 shares of common stock, 45,000 stock options and 45,611 of preferred stock from shareholders in May 2014 for $13.20 per share for a total purchase price of $2.0 million. For the repurchased shares of common stock and stock options, the Company charged the difference between the purchase and market prices of $0.5 million to expense. For the repurchased preferred shares, the excess between the purchase and the issuance price of $0.5 million was treated as a deemed dividend. In addition, the Company closed a tender offer in July 2014 to repurchase shares of preferred stock from existing shareholders at a purchase price of $13.20 per share. The Company repurchased 584,052 shares of preferred stock for a total purchase price of $7.7 million. The excess between the purchase and the issuance price of $5.8 million was treated as a deemed dividend. The repurchased shares of common and preferred stock were retired and remained as authorized but unissued.

14. Accumulated Other Comprehensive Income

Other comprehensive income consists of two components: unrealized gains or losses on the Company's available-for-sale marketable investments, and gains or losses from foreign currency translation adjustments. Until realized and reported as a component of net income, these comprehensive income items accumulate and are included within accumulated other comprehensive income. Unrealized gains and losses on our marketable investments are reclassified from accumulated other comprehensive income into earnings when realized upon sale, and are determined based on specific identification of securities sold. Gains and losses from the translation of assets and liabilities denominated in non-U.S. dollar functional currencies are included in accumulated other comprehensive income.

The following table summarizes the changes in the accumulated balances during the period, and includes information regarding the manner in which the reclassifications out of accumulated other comprehensive income into earnings affect our consolidated statements of operations (in thousands):

	Year Ended December 31, 2015			Year Ended December 31, 2014		
	Marketable Investments	Currency Translation Adjustments	Total	Marketable Investments	Currency Translation Adjustments	Total
Balance, beginning of the year	$ (220)	$ (644)	$ (864)	$ 17	$ 779	$ 796
Other comprehensive income before reclassifications:						
Unrealized gains (losses)—marketable investments	(417)	—	(417)	(388)	—	(388)
Foreign currency translation gains (losses)	—	(1,425)	(1,425)	—	(1,668)	(1,668)
Income tax effect—benefit (expense)	128	117	245	161	245	406
Net of tax	(289)	(1,308)	(1,597)	(227)	(1,423)	(1,650)
Amounts reclassified from accumulated other comprehensive income to earnings:						
Realized losses—marketable investments	540	—	540	(17)	—	(17)
Income tax effect—benefit	(194)	—	(194)	7	—	7
Net of tax	346	—	346	(10)	—	(10)
Net current-year other comprehensive income (loss)	57	(1,308)	(1,251)	(237)	(1,423)	(1,660)
Balance, end of the year	$ (163)	$ (1,952)	$ (2,115)	$ (220)	$ (644)	$ (864)

15. Employee Benefit Plans

The Company offers a retirement savings plan under Section 401(k) of the Internal Revenue Code (IRC) to its eligible U.S. employees whereby they may contribute up to the maximum amount permitted by the IRC. In the third quarter of 2015, the Company began 401(k) matching of eligible compensation under the plan, subject to a maximum dollar threshold. Contribution expense was $0.3 million for the year ended December 31, 2015.

16. Income Taxes

The Company's income tax expense (benefit), deferred tax assets and liabilities, and reserves for unrecognized tax benefits reflect management's best assessment of estimated current and future taxes to be paid. The Company is subject to income taxes in both the U. S. and foreign jurisdictions. Significant judgments and estimates are required in determining the consolidated income tax expense (benefit).

The Company is incorporated in the U. S. and operates in various countries with differing tax laws and rates. A portion of the Company's income or (loss) before taxes and the provision for (benefit from) income taxes are generated from international operations.

Income or (loss) before income taxes for the years ended December 31, 2015, 2014 and 2013 is summarized as follows:

	Year Ended December 31,		
	2015	2014	2013
United States	$ 2,955	$ 2,230	$ (1,142)
Foreign	1,069	909	(113)
Total income (loss) before provision for (benefit from) income taxes	$ 4,024	$ 3,139	$ (1,255)

Income tax provision in 2015, 2014 and 2013 is comprised of federal, state, and foreign taxes.

The components of the provision for (benefit from) income taxes are summarized as follows:

	Year Ended December 31,		
	2015	2014	2013
Current:			
Federal	$ 3,815	$ 1,155	$ (155)
State	603	274	87
Foreign	492	323	—
Total current	4,910	1,752	(68)
Deferred:			
Federal	(3,025)	(625)	(5,087)
State	(251)	(116)	(199)
Foreign	25	(117)	—
Total deferred	(3,251)	(858)	(5,286)
Provision for (benefit from) income taxes	$ 1,659	$ 894	$ (5,354)

The Company's actual provision for tax differed from the amounts computed by applying the U.S. federal income tax rate of 34% to pretax income as a result of the following:

	Year Ended December 31,		
	2015	2014	2013
Income tax at federal statutory rate	34.0 %	34.0 %	34.0 %
State income taxes, net of federal benefit	1.9	3.2	(5.6)
Foreign taxes differential	(9.0)	5.2	5.8
Prepaid tax ASC 810-10	2.1	(8.9)	(2.7)
Foreign exchange gains and losses	—	—	11.7
IRC 199 deduction	(7.4)	(7.0)	—
Stock-based compensation	14.8	6.0	(14.1)
Meals and entertainment	5.6	5.8	(10.7)
Imputed interest	4.7	6.6	(12.1)
Tax credits	(11.6)	(12.1)	41.8
Other	3.6	2.8	0.3
Change in valuation allowance	2.5	(7.1)	378.2
Effective tax rate	41.2 %	28.5 %	426.6 %

Deferred income tax assets and liabilities consist of the following:

	December 31,	
	2015	2014
Deferred tax assets		
Net operating loss carryforwards	$ 1,000	$ 1,626
Tax credits	1,355	1,779
Accruals and reserves	5,048	3,759
Stock-based compensation	1,352	416
Translation adjustment	715	674
UNICAP adjustments	3,840	2,227
Other	870	—
Gross deferred tax assets	14,180	10,481
Valuation allowance	(2,702)	(2,945)
Total deferred tax assets	11,478	7,536
Deferred tax liabilities		
Depreciation and amortization	(1,335)	(685)
Total deferred tax liabilities	(1,335)	(685)
Net deferred tax assets	$ 10,143	$ 6,851
Deferred income taxes, net - Balance Sheet Classification		
Current deferred income tax assets	$ —	$ 6,280
Long-term deferred income tax assets	10,143	571
Net deferred tax assets	$ 10,143	$ 6,851

The Company assesses the realizability of its net deferred tax assets by evaluating all available evidence, both positive and negative, including (1) cumulative results of operations in recent years, (2) sources of recent losses, (3) estimates of future taxable income and (4) the length of net operating loss carryforward periods. As of December 31, 2013, the Company determined that it is more likely than not that a portion of the net deferred tax assets will be realized for federal and US states except California and released the valuation allowance of $5.0 million. As a result, the Company has maintained a full valuation allowance against the net deferred tax assets of California through December 31, 2015. As of December 31, 2014, the Company determined that it is more likely than not that German net deferred tax assets will be realized and released the German valuation allowance of $0.3 million.

The net deferred tax assets was $10.1 million as of December 31, 2015 and was included in non-current deferred tax assets due to the adoption of FASB guidance discussed in Note 2 “Summary of Significant Accounting Policies” to the consolidated financial statements included in this Form 10-K.

The valuation allowance against net deferred tax assets changed as follows:

	December 31,		
	2015	2014	2013
Balance at the beginning of the year	$ 2,945	$ 3,860	$ 8,742
Release of valuation allowance	(243)	(321)	(4,962)
Other reserves and deferrals	—	(594)	80
Balance at the end of the year	$ 2,702	$ 2,945	$ 3,860

At December 31, 2015, the Company had approximately $16.3 million and $1.8 million of state and foreign net operating loss carryforwards, respectively, available to offset future taxable income. The state net operating loss carryforwards will begin to expire in 2017. At December 31, 2015, the Company had research credits available to offset state tax liabilities in the amount of $3.6 million. California state tax credits have no expiration. The state net operating loss carryforwards of $16.3 million included $0.6 million relating to stock-based compensation deductions. These amounts are not included in the Company’s gross or net deferred tax assets pursuant to applicable accounting guidance and, if and when realized, through a reduction in income tax payable, will be accounted for as a credit to additional paid-in capital.

IRC Sections 382 and 383 limit the use of net operating losses and business credits if there is a change in ownership. In 2009, the Company determined there were changes in ownership in 2004 and 2008, which did not cause any impairment of tax attributes.

Included in the $3.6 million balance of unrecognized tax benefits as of December 31, 2015 is $1.3 million of tax benefits that, if recognized, would affect the effective tax rate.

A reconciliation of the change in the gross unrecognized tax benefits from January 1, 2013 to December 31, 2015, is as follows:

	December 31,		
	2015	2014	2013
Beginning Balance	$ 1,726	$ 1,325	$ 838
Gross increase for tax positions of current year	1,023	401	324
Gross increase for tax positions of prior years	1,062	—	163
Settlements	—	—	—
Lapse of statute of limitations	(192)	—	—
Ending Balance	$ 3,619	$ 1,726	$ 1,325

The Company recognizes interest and penalties related to uncertain tax positions in income tax expense. As of December 31, 2015, the Company had $0.1 million accrued interest and penalties related to uncertain tax positions.

The Company files U.S., state and foreign income tax returns in jurisdictions with varying statutes of limitations. Due to net operating loss and credit carryovers, the tax years ending December 31, 2004 through December 31, 2015 remain subject to examination by federal and state tax authorities. In Australia and Canada, tax years ending December 31, 2008 through December 31, 2015 generally remain subject to examination by tax authorities. In Germany, tax years ending December 31, 2013 through December 31, 2015 remain subject to examination by tax authorities.

The Company does not anticipate any significant changes in the balance of gross unrecognized tax benefits over the next 12 months.

17. Net Income (Loss) per Share of Common Stock attributable to Common Stockholders

A reconciliation of the numerator and denominator used in the calculation of the basic and diluted net income (loss) per share attributable to common stockholders is as follows (in thousands, except share and per share amounts):

	Year Ended December 31,		
	2015	2014	2013
Net income (loss) per share:			
Numerator			
Net income	$ 2,365	$ 2,245	$ 4,099
Less: Deemed dividend paid to convertible preferred stockholders upon repurchase	—	(6,344)	—
Less: Undistributed income attributable to convertible preferred stockholders	(1,281)	—	(3,212)
Add: Undistributed loss attributable to convertible preferred stockholders	—	3,266	—
Net income (loss) attributable to common stockholders—basic and diluted	$ 1,084	$ (833)	$ 887
Denominator			
Weighted average shares used to compute net income (loss) attributable to common stockholders—Basic	11,993,429	4,609,375	4,304,396
Potential dilutive options, as calculated using treasury stock method	1,959,226	—	2,021,394
Potential dilutive common stock warrants, as calculated using treasury stock method	—	—	86,985
Potential dilutive restricted stock, as calculated using treasury stock method	266,995	—	88,060
Weighted average shares used to compute net income (loss) attributable to common stockholders—Diluted	14,219,650	4,609,375	6,500,835
Net income (loss) per share attributable to common stockholders —Basic	$ 0.09	$ (0.18)	$ 0.21
—Diluted	$ 0.08	$ (0.18)	$ 0.14

The following outstanding shares of potentially dilutive securities were excluded from the computation of diluted net income (loss) per share of common stock for the periods presented, because the effect of including them would have been anti-dilutive:

	Year Ended December 31,		
	2015	2014	2013
Options to purchase common stock	1,321,250	2,933,757	63,750
Restricted stock and restricted stock units	96,800	367,126	—
Total	1,418,050	3,300,883	63,750

18. Geographic Areas and Product Sales

The Company's revenue by geographic area, based on the destination to which the Company ships its products, was as follows (in thousands):

	Year Ended December 31,		
	2015	2014	2013
United States	$ 127,311	$ 82,965	$ 58,305
Japan	19,016	14,699	12,668
Other International	39,768	27,846	17,875
Total	$ 186,095	$ 125,510	$ 88,848

The following table sets forth revenue by product category (in thousands):

	Year Ended December 31,		
	2015	2014	2013
Neuro	$ 141,410	$ 106,242	$ 81,343
Peripheral Vascular	44,685	19,268	7,505
Total	$ 186,095	$ 125,510	$ 88,848

The Company does not have significant long-lived assets outside the U.S.

19. Selected Quarterly Financial Data (Unaudited)

The following table provides the selected quarterly financial data for 2015 and 2014 (in thousands, except share and per share amounts):

	Quarter Ended							
	2015				2014			
	December 31	September 30	June 30	March 31	December 31	September 30	June 30	March 31
Revenue	$ 54,416	$ 50,416	$ 42,311	$ 38,952	$ 35,403	$ 32,464	$ 31,480	$ 26,163
Cost of revenue	17,958	16,919	14,936	12,224	11,512	11,667	10,780	8,709
Gross profit	$ 36,458	$ 33,497	$ 27,375	$ 26,728	$ 23,891	$ 20,797	$ 20,700	$ 17,454
Income (loss) before provision for (benefit from) income taxes	$ 1,876	$ 2,084	$ (4,178)	$ 4,242	$ 417	$ 399	$ 526	$ 1,797
Net income (loss)	$ 1,633	$ 901	$ (2,671)	$ 2,502	$ 416	$ 172	$ 391	$ 1,266
Net income (loss) attributable to common stockholders	$ 1,633	$ 276	$ (553)	$ 503	$ 81	$ (1,192)	$ 81	$ 280
Net income (loss) per share attributable to common stockholders—Basic	$ 0.05	$ 0.04	$ (0.11)	$ 0.10	$ 0.02	$ (0.25)	$ 0.02	$ 0.06
Net income (loss) per share attributable to common stockholders—Diluted	$ 0.05	$ 0.03	$ (0.11)	$ 0.07	$ 0.01	$ (0.25)	$ 0.01	$ 0.04
Weighted average shares used to compute net income (loss) per share attributable to common stockholders—Basic	29,890,944	7,853,730	5,096,151	4,903,535	4,701,999	4,688,045	4,608,510	4,430,824
Weighted average shares used to compute net income (loss) per share attributable to common stockholders—Diluted	32,321,410	10,189,248	5,096,151	7,193,452	7,102,885	4,688,045	6,868,889	6,705,066

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE.

None.

ITEM 9A. CONTROLS AND PROCEDURES.

Evaluation of Disclosure Controls and Procedures

We have established disclosure controls and procedures that are designed to ensure that the information required to be disclosed by the Company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in SEC rules and forms and that such information is accumulated and communicated to management, including our principal executive officer and principal financial officer, as appropriate to allow timely decisions regarding required disclosure.

Our management, including our principal executive officer and principal financial officer, evaluated the effectiveness of our disclosure controls and procedures. Based on this review, the principal executive officer and principal financial officer of the Company have concluded that the Company's disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) were effective as of December 31, 2015.

Management's Report on Internal Control Over Financial Reporting

This annual report does not include a report of management's assessment regarding internal control over financial reporting or an attestation report of our registered public accounting firm due to a transition period established by rules of the SEC for newly public companies.

Changes in Internal Control Over Financial Reporting

There was no change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) that occurred during the quarterly period ended December 31, 2015 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

ITEM 9B. OTHER INFORMATION.

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE.

The information required by this item is incorporated by reference to the information set forth in our Definitive Proxy Statement to be filed with the SEC in connection with our Annual Meeting of Stockholders to be held in June 2016 (the 2016 Proxy Statement).

We have adopted a Code of Ethics that applies to all of our directors, officers and employees, including our principal executive, financial and accounting officers, or persons performing similar functions. Our Code of Ethics is posted under Corporate Governance on the Investor Relations page of our corporate website, www.penumbrainc.com. We intend to make any required disclosures regarding any amendments of our Code of Ethics or waivers granted to any of our directors or executive officers under our Code of Ethics on our website.

ITEM 11. EXECUTIVE COMPENSATION.

The information required by this item is incorporated by reference to the information in the 2016 Proxy Statement.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS.

The information required by this item is incorporated by reference to the information in the 2016 Proxy Statement.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS AND DIRECTOR INDEPENDENCE.

The information required by this item is incorporated by reference to the information in the 2016 Proxy Statement.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES.

The information required by this item is incorporated by reference to the information in the 2016 Proxy Statement.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES.

1. Financial Statements: The financial statements included in “Index to Consolidated Financial Statements” in Part II, Item 8 are filed as part of this Annual Report on Form 10-K

2. Exhibits: The exhibits listed in the accompanying index to exhibits are filed or incorporated by reference as part of this Annual Report on Form 10-K.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

PENUMBRA, INC.

Date: March 8, 2016

By: /s/ Sri Kosaraju
Sri Kosaraju
Chief Financial Officer and Head of Strategy
(Principal Financial and Accounting Officer)

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Adam Elsesser and Sri Kosaraju, his attorney-in-fact, each with the power of substitution, for him in any and all capacities, to sign any amendments in this Annual Report on Form 10-K, and to file the same, with exhibits thereto and other documents in connections therewith, with the Securities and Exchange Commission, hereby ratifying and conforming all that each of said attorneys-in-fact, or his substitutes, may do or cause to be done by virtue of hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Adam Elsesser Adam Elsesser	Chairman, Chief Executive Officer and President (principal executive officer)	March 8, 2016
/s/ Sri Kosaraju Sri Kosaraju	Chief Financial Officer and Head of Strategy (principal financial officer and principal accounting officer)	March 8, 2016
/s/ Arani Bose Arani Bose	Chief Innovator and Director	March 8, 2016
/s/ Don Kassing Don Kassing	Director	March 8, 2016
/s/ Walter C. Wang Walter Charles Wang	Director	March 8, 2016
/s/ Harpreet Grewal Harpreet Grewal	Director	March 8, 2016
/s/ Kevin J. Sullivan Kevin James Sullivan	Director	March 8, 2016

EXHIBIT INDEX

Exhibit Number	Description	Incorporation by Reference			
		Form	File No.	Exhibit(s)	Filing Date
3.1	Restated Certificate of Incorporation of Penumbra, Inc.	8-K	001-37557	3.3	September 29, 2015
3.2	Amended and Restated Bylaws of Penumbra, Inc.	8-K	001-37557	3.4	September 29, 2015
4.1	Specimen Common Stock Certificate	S-1/A	333-206412	4.1	September 8, 2015
4.2	Fourth Amended and Restated Investors' Rights Agreement, by and among Penumbra, Inc., Adam Elsesser and Arani Bose and the investors listed on Exhibit A thereto, dated May 16, 2014	S-1	333-206412	4.2	August 14, 2015
10.1	Lease for facilities at 1351 Harbor Bay Parkway, Alameda, California, dated November 28, 2007 and amended on May 7, 2008 and June 23, 2011	S-1	333-206412	10.1	August 14, 2015
10.2	Lease for facilities at 1411 Harbor Bay Parkway, Alameda, California, dated September 11, 2014	S-1	333-206412	10.2	August 14, 2015
10.3	Lease for facilities at 1321 Harbor Bay Parkway, Alameda, California, dated September 11, 2014	S-1	333-206412	10.3	August 14, 2015
10.4*	Lease for facilities at 1301, 1311, 1401 and 1431 Harbor Bay Parkway, Alameda, California, dated December 19, 2015				
10.5#	Distribution Agreement between Penumbra, Inc. and Medico's Hirata, dated August 2, 2009, as amended	S-1	333-206412	10.4	August 14, 2015
10.6†	Amended and Restated 2014 Equity Incentive Plan, and forms of Restricted Stock Agreement, Stock Option Agreement and Early Exercise Stock Option Agreement	S-1	333-206412	10.19	August 14, 2015
10.7†	Amended and Restated 2014 Equity Incentive Plan - Restricted Stock Agreement of Penumbra, Inc.	10-Q	001-37557	10.1	November 12, 2015
10.8†	Amended and Restated 2014 Equity Incentive Plan - Stock Option Agreement of Penumbra, Inc.	10-Q	001-37557	10.2	November 12, 2015
10.9†*	Amended and Restated 2014 Equity Incentive Plan - Restricted Stock Unit Agreement of Penumbra, Inc.				
10.10†	2014 Equity Incentive Plan, and forms of Restricted Stock Agreement, Stock Option Agreement and Early Exercise Stock Option Agreement	S-1	333-206412	10.5	August 14, 2015
10.11†	2011 Equity Incentive Plan, and forms of Restricted Stock Agreement, Stock Grant Agreement, Stock Option Agreement and Early Exercise Stock Option Agreement	S-1	333-206412	10.6	August 14, 2015
10.12†	2005 Stock Plan, and forms of Notice of Grant and Early Exercise Stock Option Agreement	S-1	333-206412	10.7	August 14, 2015
10.13†	Form of Indemnification Agreement by and between Penumbra, Inc. and each of its directors and executive officers	S-1	333-206412	10.9	August 14, 2015
10.14†	Offer Letter with Adam Elsesser	S-1	333-206412	10.10	August 14, 2015
10.15†	Offer Letter with Arani Bose	S-1	333-206412	10.11	August 14, 2015
10.16†	Offer Letter with Sri Kosaraju	S-1	333-206412	10.12	August 14, 2015
10.17†	Offer Letter with Daniel Davis	S-1	333-206412	10.13	August 14, 2015
10.18†	Offer Letter with James Pray	S-1	333-206412	10.14	August 14, 2015
10.19†	Offer Letter with Lynn Rothman	S-1	333-206412	10.15	August 14, 2015
10.20†	Offer Letter with Robert Evans	S-1	333-206412	10.16	August 14, 2015
10.21†	Form of Employee Nondisclosure and Assignment Agreement	S-1	333-206412	10.17	August 14, 2015
10.22†	Employee Stock Purchase Plan	S-1/A	333-206412	10.18	August 31, 2015
10.24	Engagement Letter between the Penumbra, Inc. and Perella Weinberg Partners LP	S-1/A	333-206412	10.20	August 31, 2015

21.1	Subsidiaries of the Registrant	S-1	333-206412	21.1	August 14, 2015
23.1*	Consent of Deloitte & Touche LLP				
24.1*	Power of Attorney (included on signature page)				
31.1*	Certification of Principal Executive Officer required under Rule 13a-14(a) and 15d-14(a) of the Securities Exchange Act of 1934, as amended.				
31.2*	Certification of Principal Financial Officer required under Rule 13a-14(a) and 15d-14(a) of the Securities Exchange Act of 1934, as amended.				
32.1*	Certification of Principal Executive Officer and Principal Financial Officer required under Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended, and 18 U.S.C. §1350.				
101*	The following materials from the Company's Annual Report on Form 10-K for the year ended December 31, 2015 formatted in Extensible Business Reporting Language (XBRL) includes: (i) Consolidated Balance Sheets as of December 31, 2015 and 2014, (ii) Consolidated Statements of Operations and Comprehensive Income for the years ended December 31, 2015, 2014 and 2013, (iii) Consolidated Statements of Convertible Preferred Stock and Stockholders' Equity (Deficit) for the years ended December 31, 2015, 2014 and 2013, (iv) Consolidated Statements of Cash Flows for the years ended December 31, 2015, 2014 and 2013, and (v) Notes to Consolidated Financial Statements.				

* Filed herewith

† Indicates a management contract or compensatory plan or arrangement.

Portions of this exhibit (indicated by asterisks) have been omitted pursuant to a grant of confidential treatment.

Exhibit 10.4

LEASE AGREEMENT

By and Between

SKS HARBOR BAY ASSOCIATES, LLC,
a Delaware limited liability company

("Landlord")

and

PENUMBRA, INC.,
a Delaware corporation

("Tenant")

December 17, 2015

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LEASE AGREEMENT

THIS LEASE AGREEMENT, (this "Lease") is made and entered into as of December 17, 2015 (the "Effective Date") by and between SKS HARBOR BAY ASSOCIATES, LLC, a Delaware limited liability company ("Landlord"), and Tenant identified in the Basic Lease Information below.

BASIC LEASE INFORMATION

Tenant: Penumbra, Inc., a Delaware corporation

Premises: collectively:

(i) the entire ground floor of the 1301 Harbor Bay Building, containing approximately 32,306 square feet of rentable area outlined in Exhibit B-1 to this Lease (the "1301 Harbor Bay Ground Floor Premises"),

(ii) Suite 202 and open office area on the second (2nd) floor of the 1301 Harbor Bay Building, containing approximately 4,647 square feet of rentable area outlined in Exhibit B-2 to this Lease (the "1301 Harbor Bay Second Floor Premises", and collectively with the 1301 Harbor Bay Ground Floor Premises, the "1301 Harbor Bay Premises" containing 36,953 square feet of rentable area),

(iii) the entire 1311 Harbor Bay Building, containing approximately 29,849 square feet of rentable area outlined in Exhibit B-3 to this Lease (the "1311 Harbor Bay Premises"),

(iv) Suite 100 on the ground floor of the 1401 Harbor Bay Building containing approximately 8,600 square feet of rentable area outlined in Exhibit B-4 to this Lease (the "1401 Harbor Bay Ground Floor Premises "); Landlord, at Landlord's sole discretion, may by notice to Tenant delivered on or before May 1, 2016, elect to include the balance of the space on the ground floor of the 1401 Harbor Bay Building, consisting of approximately 15,882 square feet of rentable area and identified in Exhibit B-4 to this Lease (the "Optional 1401 Harbor Bay Ground Floor Premises") in the 1401 Harbor Bay Ground Floor Premises and the Initial Premises, in which event the 1401 Harbor Bay Ground Floor Premises will contain 24,482 square feet of rentable area.

(v) the entire second (2nd) floor of the 1401 Harbor Bay Building containing approximately 24,566 square feet of rentable area outlined in Exhibit B-5 to this Lease (the "1401 Harbor Bay Second Floor Premises", and collectively with the 1401 Harbor Bay Ground Floor Premises, the "1401 Harbor Bay Premises", containing 33,166 square feet of rentable area **[**however, if Landlord elects to add the Optional 1401 Harbor Bay Ground Floor Premises to the 1401 Harbor Bay Ground Floor Premises, the 1401 Harbor Bay Premises will contain 49,048 square feet of rentable area**]**), and

(vi) the Must-Take Space (defined below) as the same is added to the Premises from time to time during the Term in accordance with this Lease.

The 1301 Harbor Bay Premises, the 1311 Harbor Bay Premises, the 1401 Harbor Bay Premises, and the Must-Take Space (as the same is added to the Premises from time to time during the Term in accordance with this Lease) are referred to collectively herein as the "Premises," and each individually, as a "Premises." The 1301 Harbor Bay Premises, the 1311 Harbor Bay Premises, and the 1401 Harbor Bay Premises are from time to time referred to collectively herein as the "Initial Premises". The Initial Premises collectively contains approximately 99,968 square feet of rentable area (if Landlord elects to add the Optional 1401 Harbor Bay Ground Floor Premises to the 1401 Harbor Bay Ground Floor Premises, the Initial Premises will contain 115,850 square feet of rentable area).

Buildings: collectively:

(i) the building commonly known as 1301 Harbor Bay Parkway, Alameda, California (the "1301 Harbor Bay Building"), containing approximately (a) 65,475 square feet of rentable area, so long as the 1301 Harbor Bay Building is a Multi-Tenant Building (as defined below) or (b) 68,886 square feet of rentable area from and after the date the 1301 Harbor Bay Building becomes a Single Tenant Building (as defined below).

(ii) the building commonly known as 1311 Harbor Bay Parkway, Alameda, California (the "1311 Harbor Bay Building"), containing approximately 29,849 square feet of rentable area,

(iii) the building commonly known as 1401 Harbor Bay Parkway, Alameda, California (the "1401 Harbor Bay Building"), containing approximately 49,048 square feet of rentable area, and

(iv) the building commonly known as 1431 Harbor Bay Parkway, Alameda, California (the "1431 Harbor Bay Building"), containing approximately 69,510 square feet of rentable area outlined in Exhibit B-6 to this Lease.

The 1301 Harbor Bay Building, the 1311 Harbor Bay Building, the 1401 Harbor Bay Building, and the 1431 Harbor Bay Building are referred to collectively herein as the "Buildings," and each individually, as a "Building." If Tenant exercises any of its rights to lease space in buildings in the Project other than the Buildings, then upon the commencement date of the leasing of that applicable expansion space, the term "Buildings" shall also include the applicable building in which that expansion space is located. The Buildings collectively contain approximately (a) 213,882 square feet of rentable area so long as the 1301 Harbor Bay Building is a Multi-Tenant Building or (b) 217,293 square feet of rentable area from and after the date the 1301 Harbor Bay Building becomes a Single Tenant Building. A Building in which Tenant leases all of the rentable area may sometimes be referred to herein as a "Single Tenant Building" and a Building in which Tenant does not lease all of the rentable area may sometimes be referred to herein as a "Multi-Tenant Building."

Must-Take Space: collectively means any space in any of the Buildings (other than the Initial Premises) which becomes vacant during the initial ten (10) years of the Term due to the expiration or earlier termination of a lease of that space to a tenant other than Tenant. The Must-Take Space in the 1301 Harbor Bay Building shall be deemed to contain approximately 31,933 square feet of rentable area, which recognizes that the total rentable area of the 1301 Harbor Bay Building shall equal 68,886 square feet upon the 1301 Harbor Bay Building becoming a Single Tenant Building. The Must-Take Space in the 1401 Harbor Bay Building (i.e., the same space as the Optional 1401 Harbor Bay Ground Floor Premises) shall be deemed to contain approximately 15,882 square feet of rentable area. The Must-Take Space in the 1431 Harbor Bay Building (i.e., the entire Building) shall be deemed to contain approximately 69,510 square feet of rentable area.

Base Rent: The Base Rent for the Premises shall be $1.25 per rentable square foot in the Premises increased on each anniversary of the Initial Commencement Date by three percent (3%), as illustrated in the charts below. The initial Base Rent for any portion of the Initial Premises which is unable to be delivered by the Initial Commencement Date, and for any Must-Take Space which is added to the Premises during the Term, shall be calculated by taking the then applicable Base Rent payable for the then existing Premises (using the then applicable rate per square foot of rentable space) multiplied by the applicable rentable square feet being added to the Premises, subject to annual three percent (3%) increases on each anniversary of the Initial Commencement Date, even if the first such Base Rent adjustment would occur prior to the end of the first twelve (12) months of the lease term for such portion of the Premises. As an inducement to Tenant entering into this Lease, so long as no Event of Default shall exist under this Lease, Base Rent for each portion of the Premises (inclusive of any Must-Take Space) shall be abated for the first one hundred fifty (150) days after the applicable Commencement Date for such portion of the Premises (each such period, an "Abatement Period"). During any such Abatement Period, Tenant shall still be responsible for the payment of all of its other monetary obligations under the Lease. The parties hereby acknowledge and agree that the charts set forth below are for illustrative purposes only with respect to the Initial Premises and reflect the assumptions that (i) the Initial Commencement Date is the Anticipated Initial Commencement Date, and (ii) the delivery of the entire Initial Premises to Tenant occurs by the Initial Commencement Date. In the event of any discrepancy between the charts below and/or any updates or supplements thereto, and the text above, the text above shall control.

Period (In Months)	Approximate Monthly Base Rent Per Square Foot of Rentable Area	1301 Harbor Bay Premises Monthly Base Rent	1311 Harbor Bay Premises Monthly Base Rent	1401 Harbor Bay Premises Monthly Base Rent**
February 1, 2016 – January 31, 2017	$1.25	$46,191.25	$37,311.25	$41,457.50
February 1, 2017 – January 31, 2018	$1.29	$47,576.99	$38,430.59	$42,701.23
February 1, 2018 – January 31, 2019	$1.33	$49,004.30	$39,583.51	$43,982.26
February 1, 2019 – January 31, 2020	$1.37	$50,474.43	$40,771.01	$45,301.73
February 1, 2020 – January 31, 2021	$1.41	$51,988.66	$41,994.14	$46,660.78
February 1, 2021 – January 31, 2022	$1.45	$53,548.32	$43,253.96	$48,060.60
February 1, 2022 – January 31, 2023	$1.49	$55,154.77	$44,551.58	$49,502.42
February 1, 2023 – January 31, 2024	$1.54	$56,809.41	$45,888.13	$50,987.50
February 1, 2024 – January 31, 2025	$1.58	$58,513.69	$47,264.78	$52,517.12
February 1, 2025 – January 31, 2026	$1.63	$60,269.10	$48,682.72	$54,092.63
February 1, 2026 – January 31, 2027	$1.68	$62,077.18	$50,143.20	$55,715.41
February 1, 2027 – January 31, 2028	$1.73	$63,939.49	$51,647.50	$57,386.88
February 1, 2028 – January 31, 2029	$1.78	$65,857.68	$53,196.92	$59,108.48
February 1, 2029 – January 31, 2030	$1.84	$67,833.41	$54,792.83	$60,881.74
February 1, 2030 – January 31, 2031	$1.89	$69,868.41	$56,436.61	$62,708.19

* Subject to the Base Rent abatement described in the text above.

** Based on 33,166 rentable square feet

Security Deposit Amount: Initially $374,880.00 with respect to the Initial Premises, which is based on Three (3) months of Base Rent, subject to increases and reductions in accordance with Section 4.3 below.

Rent Payable Upon Execution: $210,628.60

Tenant's Building Percentage: (i) 56.44% with respect to the 1301 Harbor Bay Premises (i.e., 36,953/65,475), (ii) 100% with respect to the 1311 Harbor Bay Premises (i.e., 29,849/29,849), and (iii) 67.62% with respect to the 1401 Harbor Bay Premises (i.e., 33,166/49,048), as the same may be updated from time to time to account for the addition of any Must-Take Space or Specific Offer Space (as defined below) to the Premises and the 1301 Harbor Bay Building becoming a Single Tenant Building.

Tenant's Common Area Building Percentage: 46.80%, (i.e., 99,968/213,882) as the same may be updated from time to time to account for the addition of any Must-Take Space or Specific Offer Space to the Premises and the 1301 Harbor Bay Building becoming a Single Tenant Building.

Commencement Date: Landlord and Tenant hereby acknowledge that Landlord shall be delivering the Premises to Tenant on a phased basis, with the first phase consisting of the Initial Premises and the second and subsequent phases consisting of the Must-Take Space. As such: (i) the "Initial Commencement Date" with respect to any portion of the Initial Premises means the latest to occur of (a) the date upon which Landlord delivers any such portion of the Initial Premises to Tenant, (b) February 1, 2016 (the "Anticipated Initial Commencement Date"), and (c) the date upon which the County of Alameda shall have accepted the decommissioning of any laboratory space (other than laboratory space installed by or on behalf of Tenant) in the applicable portion of the Initial Premises as and to the extent required under Applicable Laws (the "County Decommissioning Approval"), and (ii) the "Must-Take Space Commencement Date(s)" is as defined in Section 1.4 below. For purposes of this Lease, acceptance of the decommissioning by the County of Alameda shall include (without limitation on any other alternative means of establishing that acceptance) completion of a walk-through by the County of Alameda of the applicable laboratory space without requiring any additional decommissioning work (or if additional decommissioning work is required by the County of Alameda in response to that walk-through, the completion of that additional decommissioning work and, to the extent required by the County of Alameda, acceptance or approval of that additional decommissioning work so required). For purposes of this Lease, the Initial Commencement Date and each of the Must-Take Space Commencement Dates are each sometimes referred to herein individually as the "Commencement Date."

Expiration Date: The date that is the day prior to the day that is fifteen (15) years after the Initial Commencement Date. If the Expiration Date falls on a day other than the last day of the calendar month, then, the Expiration Date shall be extended to the last day of the calendar month in which the day that the Term of this Lease would otherwise end but for this proviso occurs, and the Term of this Lease shall be extended accordingly (and the Base Rent rate payable hereunder on a per rentable square foot basis will not be increased, as described in the definition of "Base Rent" above, with respect to such additional period which is so added to the Term of this Lease). At any time prior to the Commencement Date, Tenant may elect by written notice to Landlord to advance the Expiration Date to the date that is the later of (a) November 30, 2029, or (b) the date that is fourteen (14) years after the Initial Commencement Date.

Landlord's Address:

c/o The Prudential Insurance Company of America
4 Embarcadero Center, 27th Floor
San Francisco, CA 94111
Attn: WCOT

With a copy by the same method to:

c/o The Prudential Insurance Company of America
7 Giralda Farms
Madison, New Jersey 07940
Attention: James Marinello, Esquire

With a copy by the same method to:

c/o SKS Partners, LLC
601 California Street, Suite 1310
San Francisco, California 94108
Attention: Pamela Izzo

Address for rental payment:

SKS Harbor Bay Associates, LLC
c/o CBRE
101 California Street, 22nd Floor
San Francisco, California 94111

Tenant's Address:

One Penumbra Place
1351 Harbor Bay Parkway
Alameda, California 94502
Attention: General Counsel

With a copy to:

Shartsis Friese LLP
One Maritime Plaza, 18th Floor
San Francisco, California 94111
Attention: Jonathan M. Kennedy/
Kathleen K. Bryski

Landlord's Broker: Kidder Mathews.

Tenant's Broker: Cushman & Wakefield.

Maximum Parking Allocation: initially three hundred thirty (330), which is based on a ratio of three and three tenths (3.3) non-exclusive parking spaces per one thousand (1,000) square feet of rentable space in the Initial Premises (the "Parking Ratio"), The Maximum Parking Allocation shall be increased or decreased, as the case may be, upon any addition of space to, or deletion of space from, the Premises, to reflect the Parking Ratio.

Tenant Improvement Allowance: $31.25 per rentable square foot in the Premises, including any Must-Take Space if, as and when such Must-Take Space is added to the Premises.

The Basic Lease Information is incorporated into and made part of this Lease. Each reference in this Lease to any Basic Lease Information shall mean the applicable information set forth in the Basic Lease Information, except that in the event of any conflict between an item in the Basic Lease Information and this Lease, this Lease shall control. Additional terms used but not defined in the Basic Lease Information shall have the meanings given those terms in this Lease.

ARTICLE 1

PREMISES; COMMON AREAS

1.1 Subject to all of the terms and conditions hereinafter set forth, Landlord hereby leases to Tenant and Tenant hereby leases from Landlord the Premises. The property shown on Exhibit A to this Lease and all improvements thereon and appurtenances on that land thereto, including, but not limited to, the Buildings, other office buildings, access roadways, and all other related areas, shall be collectively hereinafter referred to as the "Project." Tenant acknowledges and agrees that Landlord may elect to sell one or more of the buildings within the Project and that upon any such sale Tenant's Common Area Building Percentage of those Operating Expenses and Taxes (each as defined below) allocated to the areas of the Project other than buildings may be equitably adjusted accordingly by Landlord. The parties hereto hereby acknowledge that the purpose of Exhibit A, Exhibit B-1, Exhibit B-2, Exhibit B-3, Exhibit B-4, and Exhibit B-5 are to show the approximate location of the Premises in the Buildings and the general layout of the Project and such Exhibits are not meant to constitute an agreement, representation or warranty as to the construction of the Premises, the Buildings or the Project, the precise area of the Premises, the Buildings or the Project or the specific location of the Buildings, "Common Areas," as that term is defined in Section 1.3, below, or the elements thereof or of the accessways to the Premises, or the Project, or the identity or existence of any other tenant or occupant of the Project. Tenant acknowledges that the space known as approximately 800 square feet of office space on the second floor of the 1301 Harbor Bay Building will not be separately demised.

1.2 For purposes of this Lease, (1) "rentable area" and "usable area" shall be calculated pursuant to the Standard Method for Measuring Floor Area in Office Buildings (ANSI/BOMA Z65.1, 1996) (the "BOMA Standard"); (2) "rentable square feet" and "rentable footage" shall have the same meaning as the term "rentable area;" (3) "usable square feet" and "usable square footage" shall have the same meaning as the term "usable area;" and (4) rentable area for a Single Tenant Building shall mean the "gross building area" under the BOMA Standard. Notwithstanding anything to the contrary in this Lease, the recital of the rentable area herein above set forth is for descriptive purposes only. Tenant shall have no right to terminate this Lease or receive any adjustment or rebate of any Base Rent or Additional Rent (as hereinafter defined) payable hereunder if said recital is incorrect. The rentable area of the Premises will not be subject to remeasurement by either party hereto at any time, unless in connection with a change in the physical dimensions of the Premises (and, in such events, any

remeasurement will be carried out in accordance with the BOMA Standard). For clarity, in any event, the rentable areas specified in this Lease for the 1301 Harbor Bay Premises and the 1301 Harbor Bay Building shall be changed to 68,886 square feet of rentable area from and after the date the 1301 Harbor Bay Building becomes a Single Tenant Building.

1.3 Tenant shall have the non-exclusive right to use in common with other tenants in the Project, and subject to the rules and regulations referred to in Article 27 of this Lease, those portions of the Project which are provided, from time to time, for use in common by Landlord, Tenant and any other tenants of the Project (such areas, together with such other portions of the Project designated by Landlord, in its reasonable discretion, after the Effective Date including certain areas designated for the exclusive use of certain tenants, or to be shared by Landlord and certain tenants, are collectively referred to herein as the "Common Areas"). The Common Areas shall consist of the "Project Common Areas" and the "Building Common Areas." The term "Project Common Areas," as used in this Lease, shall mean the portion of the Project reasonably designated as such by Landlord. The term "Building Common Areas," as used in this Lease, shall collectively mean the portions of the Common Areas located within the Buildings reasonably designated as such by Landlord. Tenant shall have the nonexclusive right, in common with others, to use the Common Areas subject to the terms and conditions of this Lease. As used herein, the Common Areas include the lobby area on the ground floor of any Building (unless said lobby is included in the Premises), the areas on individual multi-tenant floors devoted to corridors, fire vestibules, elevator foyers, lobbies, electric and telephone closets, restrooms, mechanical rooms, janitor closets and other similar facilities for the benefit of all tenants (or invitees) on the particular floor, those areas of any multi-tenant Building devoted to mechanical and service rooms servicing more than one floor or the Building as a whole and any other portion of the Project not leased or designated for lease to tenants from time to time that are provided for use in common by Landlord, Tenant and other tenants of the Project, whether or not any such area is open to the general public, including all landscaping located in or used in connection with those areas of the Project, and including without limitation and pedestrian walkways, parking areas and roads located in the Project. The manner in which the Common Areas are maintained and operated shall, except as set forth below, be at the reasonable discretion of Landlord; but subject to the standards set forth in Article 7, and the use thereof shall be subject to such reasonable rules, regulations and restrictions as Landlord may make from time to time. Landlord reserves the right to close certain Common Areas temporarily to make alterations or additions to, or change the location of elements of the Project and the Common Areas; provided that in exercising its rights under this sentence, Landlord shall make commercially reasonable efforts to minimize the disruption to Tenant's business operations during standard business hours. Notwithstanding the foregoing, if at any time Tenant leases in excess of fifty percent (50%) of the rentable area of the Buildings, Landlord will not materially alter (or agree to any material alteration of) the maintenance standards for the Project Common Areas or construct or demolish (or agree to the construction or demolition of) of any aspect of the Project Common Areas, in each case, to the extent under the control of Landlord, without first consulting with Tenant. Tenant acknowledges that certain equipment rooms in the 1301 Harbor Bay Building and the means of access to the roof of the 1301 Harbor Bay Building are, as of the Effective Date, located within the premises of another tenant in the 1301 Harbor Bay Building and that Tenant's access to those equipment rooms and roof access will require that Tenant enter into a separate agreement with that other tenant governing the terms and conditions of that access. Subject to "Applicable Laws," as that term is defined in Section 5.1(a) of this Lease, except when and where Tenant's right of access is specifically excluded in this Lease, and except in the event of an emergency, Tenant shall have the right of access to the Premises, the Buildings, and the parking facilities servicing the Buildings twenty-four (24) hours per day, seven (7) days per week during the "Term," as that term is defined in Section 2.1, below.

1.4 The Premises shall be expanded during the initial ten (10) years of the Term to include any portion of the Must-Take Space on each of the dates (the "Must-Take Space Commencement Date(s)") that is the latest to occur of (a) the third (3rd) business day after possession of the applicable Must-Take Space is surrendered to Landlord by the existing tenant of such Must-Take Space following the expiration of the scheduled term of such lease with such tenant (including, if applicable, any extension of any such term pursuant to renewal or extension rights existing as of the Effective Date which are properly exercised by such tenant and, with respect to any space leased to the United States of America that is used by the Food and Drug Administration (the "GSA"), any extension of any such term that may be agreed upon between Landlord and the GSA), (b) the date on which Landlord delivers to Tenant such Must-Take Space in broom-clean condition, free of the prior occupant's furniture, personal property and debris, and (c) the date upon which the County of Alameda shall have accepted the decommissioning of any laboratory space (other than laboratory space installed by or on behalf of Tenant) in the applicable portion of the Must-Take Space as and to the extent required under Applicable Laws. A schedule of the expiration dates of the current third party leases for the Must-Take Space is attached hereto as Exhibit L. For avoidance of doubt: (i) Landlord will not (x) grant any existing or future tenant of the Buildings any right to extend or renew the term of their lease, or (y) otherwise negotiate or agree to the extension or renewal of the term of any existing tenant's lease for space in the Buildings on terms other than expressly pursuant to the terms of an existing (as of the Effective Date) extension or renewal option contained such lease, without the prior written consent of Tenant in each case, which consent Tenant may grant or withhold in Tenant's sole and absolute discretion. Additionally, if any tenant's lease for space in the Buildings terminates prior to the scheduled term of such lease (whether due to the default by such tenant, a negotiated termination, or otherwise) (the "Early Must-Take Space"), the

Must-Take Space Commencement Date with respect to such Early Must-Take Space shall not occur prior to the date that is three (3) business days following the originally scheduled date of expiration of the term of such lease unless Tenant leases such Early Must-Take Space pursuant to Article 55. Accordingly, on each Must-Take Space Commencement Date: (a) the Tenant Improvement Allowance, the applicable Tenant's Building Percentage, the Tenant's Common Area Building Percentage, the Tenant's Maximum Parking Allocation and any other provision that is determined based on the rentable area of the Premises shall be redetermined, (b) the Base Rent per square foot of rentable area for each portion of the Must-Take Space added pursuant to this Section 1.4 shall be the same as the Base Rent per square foot of rentable area for the Premises as it may be adjusted during the Term, (c) the lease commencement date for each portion of the Must-Take Space added by this Section 1.4 shall be the applicable Must-Take Space Commencement Date for such Must-Take Space, (d) the lease term for each portion of the Must-Take Space added by this Section 1.4 shall expire coterminously with the Term for the Initial Premises, and (e) upon either party's request, Landlord and Tenant shall execute an amendment to this Lease and a memorandum thereof confirming the change to the Premises pursuant to this Section 1.4 and the corresponding changes to the provisions of this Lease that are based on the rentable area of the Premises.

ARTICLE 2

TERM AND CONDITION OF PREMISES

2.1 The term of this Lease (the "Term") shall commence on the Initial Commencement Date and end on the Expiration Date, unless sooner terminated (the "Termination Date") as hereinafter provided. The Commencement Dates of this Lease and the obligation of Tenant to pay Base Rent, Additional Rent and all other charges hereunder shall not be delayed or postponed by reason of any delay by Tenant in performing changes or alteration in the Premises not required to be performed by Landlord. In the event that any Commencement Date is a day other than the first day of a month, then the Base Rent shall be immediately paid for such partial month prorated in accordance with Section 4.4 below, subject to Tenant's abatement rights set forth in the Basic Lease Information. If Landlord does not deliver possession of the Initial Premises to Tenant on or before the Anticipated Initial Commencement Date in the condition required by Section 1 of Exhibit C attached hereto, Landlord shall not be subject to any liability nor shall the validity of this Lease nor the obligations of Tenant hereunder be affected, except as expressly set forth in Section 2.4 below. In the event that the Initial Commencement Date is a date which is other than the Anticipated Initial Commencement Date, within a reasonable period of time after the date Tenant takes possession of any portion of the Initial Premises Landlord shall deliver to Tenant an amendment to lease in the form as set forth in Exhibit E, attached hereto, wherein the parties shall specify such different Initial Commencement Date and the Expiration Date, and which amendment Tenant shall execute (or make good faith corrective comments to the specific information added to the attached form) and return to Landlord within ten (10) business days of receipt thereof.

2.2 Except as expressly set forth in this Lease and in the Tenant Work Letter attached hereto as Exhibit C (the "Tenant Work Letter"), Landlord shall not be obligated to provide or pay for any improvement, remodeling or refurbishment work or services related to the improvement, remodeling or refurbishment of the Premises, Buildings or Project, and Tenant shall accept the Premises, Buildings and Project in their "As Is" condition on the applicable Commencement Date; provided Landlord shall, subject to Landlord's receipt of all approvals required under the CC&R's and applicable laws, renovate certain Project Common Area improvements in a manner substantially similar to the renovations depicted on the plans (the "Common Area Improvement Plans") described or shown on Exhibit J attached hereto (the "Common Area Improvements"), as such Common Area Improvement Plans may be further refined by Tenant's landscape architect; provided that any such refinement of the Common Area Improvement Plans shall be subject to Landlord's approval, which shall not be unreasonably withheld, conditioned or delayed. Landlord's costs incurred in performing the Common Area Improvements shall be included in Operating Expenses (defined below) and Tenant shall be responsible for paying Tenant's Common Area Building Percentage thereof.

2.3 The taking of possession of any portion of the Premises by Tenant shall be conclusive evidence that such portion of the Premises and the applicable Building were in good and satisfactory condition at such time subject to (i) Landlord's obligations set forth in Section 2.5 and 2.6 below, and (ii) Landlord's general maintenance and repair obligations set forth herein. Neither Landlord nor Landlord's agents have made any representations or promises with respect to the condition of the Buildings, the Premises, the land upon which the Buildings are constructed, or any other matter or thing affecting or related to the Buildings or the Premises, except as herein expressly set forth, and no rights, easements or licenses are acquired by Tenant by implication or otherwise except as expressly set forth in this Lease.

2.4 In the event that the Initial Commencement Date does not occur by the Outside Initial Commencement Date (as defined below), then Tenant shall be afforded an additional one (1) day of abated Base Rent for each such day of delay beyond the Outside Initial Commencement Date that the Initial Commencement Date does not occur,

calculated based on the rentable area of the portion(s) of the Initial Premises with respect to which the Initial Commencement Date has not occurred following the Outside Initial Commencement Date. Additionally, if the Initial Commencement Date does not occur with respect to the entire Initial Premises by the date that is one hundred eighty (180) days following the Outside Initial Commencement Date, Tenant shall have the right, to be exercised by written notice delivered to Landlord at any time prior to the Initial Commencement Date, to cancel this Lease in its entirety or, at Tenant's option, with respect to the portion of the Premises for which delivery has not occurred, in which event the parties shall be discharged from all obligations hereunder with respect to the portion of the Premises (or all, if applicable) that is the subject of such termination. The term "Outside Initial Commencement Date" initially means May 1, 2016. The Outside Initial Commencement Date shall each be extended by one day for every one day in delay in delivery of any portion of the Initial Premises caused by (i) Tenant Delays (as defined in Exhibit C), (ii) inability to obtain or delays in obtaining necessary permits despite Landlord having timely and properly filed all required documentation, and/or (iii) any other one or more Force Majeure Events (as defined in Article 10). The Outside Initial Commencement Date shall also be extended by one day for every one day after February 1, 2016, until the County Decommissioning Approval has been issued by the County of Alameda.

2.5 Notwithstanding Section 2.3 above, Landlord warrants that the HVAC systems, electrical, life-safety, mechanical and plumbing systems, and elevators (the "Building Systems") in the 1301 Harbor Bay Building and the 1401 Harbor Bay Building (the "Covered Items"), other than those constructed by Tenant, shall be in good operating condition on the date(s) possession of the 1301 Harbor Bay Premises and 1401 Harbor Bay Premises, respectively, are delivered to Tenant; provided that the foregoing warranty shall not apply if the applicable Building is not a Multi-Tenant Building on the date possession of the applicable Building is delivered to Tenant. If a non-compliance with such warranty exists as of the delivery of possession, or if one of such Covered Items should malfunction or fail within ninety (90) days after the delivery of possession of the applicable Premises to Tenant, Landlord shall, as Landlord's sole obligation with respect to such matter, promptly after receipt of written notice from Tenant setting forth in reasonable detail the nature and extent of such non-compliance, malfunction or failure, rectify the same at Landlord's expense ("Landlord's Warranty Work"). If Tenant does not give Landlord the required notice within ninety (90) days after the delivery of possession of the applicable Premises to Tenant, Landlord shall have no obligation with respect to that warranty other than obligations regarding the Covered Items set forth elsewhere in this Lease.

2.6 Landlord shall cause each of the 1301 Harbor Bay Building, the 1311 Harbor Bay Building, the 1401 Harbor Bay Building, and the Initial Premises to comply with all current laws, building codes and ADA requirements in effect and enforceable against the Landlord or such Buildings as of the Effective Date. If non-compliance with such laws exists as of the Effective Date, Landlord shall, as Landlord's sole obligation with respect to such matter, promptly after receipt of written notice from Tenant setting forth in reasonable detail the nature and extent of such non-compliance, rectify the same at Landlord's expense (and such cost will not be included in Operating Expenses, defined below); provided that compliance with such laws is not the express responsibility of Tenant under this Lease, and provided further that Landlord's failure to comply therewith would prohibit Tenant from obtaining or maintaining a certificate of occupancy (or its legal equivalent) for the Initial Premises, or would unreasonably and materially affect the safety of Tenant's employees or create a significant health hazard for Tenant's employees or otherwise materially and adversely affect Tenant's use or occupancy of any portion of the Initial Premises. Notwithstanding the foregoing or anything to the contrary in this Lease, Landlord shall have the right to contest any alleged violation in good faith, including without limitation the right (at Landlord's sole cost and not as an Operating Expense) to apply for and obtain a waiver or deferment of compliance, the right to assert any and all defenses allowed by applicable law and the right to appeal any decisions, judgments or rulings to the fullest extent permitted by applicable law.

ARTICLE 3

USE, NUISANCE, OR HAZARD

3.1 The Premises shall be used and occupied by Tenant solely for research and development (including clean rooms), general office and light manufacturing/assembly purposes and any other purposes which are legally permissible and do not materially adversely impact the value of the Project (including the operation of cafeterias (not open to general public or available for use by employees of other Project tenants) or restaurants (i.e., open to the general public and available for use by employees of other Project tenants (each, a "Restaurant")). As part of Tenant's use, Tenant shall have the right to use one or more portions of the Premises for the operation of, and include in the Tenant Improvements (or subsequent Alterations) the construction of, a kitchen/cooking facility (including a gas line of adequate capacity with gas lines stubbed to the Premises) for Tenant's employees and guests only (in no event shall such kitchen/cooking facility be open to or serve the general public), on and subject to the following terms and conditions: (i) Tenant shall be responsible, at its sole cost and expense (subject to the application of the Tenant Improvement Allowance), for obtaining all applicable permits, licenses and governmental approvals necessary for the use of the Premises for such kitchen/cooking facility uses (including, without limitation, any necessary

approvals from the applicable health and/or fire departments, permits required in connection with any venting or other air-removal/circulation system, and any required fire-suppression systems), copies of which shall be delivered to Landlord prior to Tenant's installation of any alterations in the Premises in connection with such kitchen/cooking facility uses; (ii) in the event such use requires any alterations to the Base Building (specifically including, without limitation, in connection with the installation of any venting or other air-removal/circulation system), Tenant shall be solely responsible for all costs incurred in connection therewith (subject to the application of the Tenant Improvement Allowance), and (iii) Landlord shall have consented to such use, which consent shall not be unreasonably withheld. Tenant will additionally have the right to devote a reasonable portion of the Premises towards the operation of a fitness/wellness center for Tenant's employees only (including shower and locker facilities) subject to such reasonable rules and regulations regarding such operations as Landlord may implement for such fitness center.

3.2 Tenant shall not use, occupy, or permit the use or occupancy of the Premises for any purpose which is illegal or which Landlord, in its reasonable discretion, deems to be dangerous; permit any public or private nuisance; do or permit any act or thing which may unreasonably disturb the quiet enjoyment of any other tenant of the Project; keep any substance or carry on or permit any operation which might introduce offensive odors or conditions into other portions of the Project, use any apparatus which might make undue noise or set up vibrations in or about the Project; permit anything to be done which would increase the premiums paid by Landlord for special causes of loss form property insurance on the Project or its contents (unless Tenant agrees to pay such increased premium) or cause a cancellation of any insurance policy covering the Project or any part thereof or any of its contents; or permit anything to be done which is prohibited by or which shall in any way conflict with any law, statute, ordinance, or governmental rule, regulation or covenants, conditions and restrictions affecting the Project, including without limitation the CC&R's (as defined below) now or hereinafter in force. Should Tenant do any of the foregoing without the prior written consent of Landlord, and the same is not cured within ten (10) business days after notice from Landlord (which ten (10) business day period shall be subject to extension if the nature of the breach is such that it is not possible to cure the same within such ten (10) business day period so long as the Tenant commences the cure of such breach within such ten (10) business day period and diligently prosecutes the same to completion) at Landlord's option, it shall constitute an Event of Default (as hereinafter defined) and shall enable Landlord to resort to any of its remedies hereunder.

3.3 The ownership, operation, maintenance and use of the Project shall be subject to certain conditions and restrictions contained in an instrument ("CC&R's") recorded or to be recorded against title to the Project. Tenant agrees that regardless of when those CC&R's are so recorded, this Lease and all provisions hereof shall be subject and subordinate thereto and Tenant shall comply therewith; provided, however, that except as required by Applicable Laws (as defined below), Tenant's obligation to comply with CC&R's recorded after the date of this Lease shall be subject to Tenant's prior consent, which will not be withheld unless the same would materially adversely affect Tenant's rights or materially increase Tenant's obligations under this Lease. Accordingly, as a consequence of that subordination, during any period in which the entire Project is not owned by Landlord, (a) the portion of Operating Expenses and Taxes (each as defined below) for the Common Areas shall be allocated among the owners of the Project as provided in the CC&R's, and (b) the CC&R's shall govern the maintenance and insuring of the portions of the Project not owned by Landlord. Tenant shall, promptly upon request of Landlord, sign all documents reasonably required to carry out the foregoing into effect.

ARTICLE 4

RENT

4.1 Tenant hereby agrees to pay Landlord the Base Rent. For purposes of Rent adjustment hereunder, the number of months is measured from the first day of the calendar month in which the Initial Commencement Date falls. Each monthly installment (the "Monthly Rent") shall be payable by check or by money order or by Federal Reserve Automated Clearing House (ACH) deposit to an account as directed by Landlord by written notice to Tenant on or before the first day of each calendar month. Landlord agrees to accept payment by Federal Reserve Automated Clearing House (ACH) deposit only so long as such system is available for Landlord's use. In addition to the Base Rent, Tenant also agrees to pay Tenant's Share of Operating Expenses and Taxes (each as hereinafter defined), and any and all other sums of money as shall become due and payable by Tenant as set forth in this Lease, all of which shall constitute additional rent under this Lease (the "Additional Rent"). All non-recurring payments of Additional Rent will be due and payable as of the date that is thirty (30) days after Landlord's delivery of an invoice therefor. Landlord expressly reserves the right to apply any payment received to Base Rent or any other items of Rent that are not paid by Tenant. The Base Rent, the Monthly Rent and the Additional Rent are sometimes hereinafter collectively called "Rent" and shall be paid when due in lawful money of the United States without demand, deduction, abatement, or offset, except to the extent expressly set forth herein, to the addresses for the rental payment set forth in the Basic Lease Information, or via ACH transfer or as Landlord may designate from time to time by written notice delivered at least thirty (30) days prior to the effective date of the address change.

4.2 In the event any Monthly or Additional Rent or other amount payable by Tenant hereunder is not paid within five (5) days after its due date, Tenant shall pay to Landlord a late charge (the "Late Charge"), as Additional Rent, in an amount of five percent (5%) of the amount of such late payment. Failure to pay any Late Charge following notice and the passage of the cure period described in Section 22.1(a) below shall be deemed a Monetary Default (as hereinafter defined). Provision for the Late Charge shall be in addition to all other rights and remedies available to Landlord hereunder, at law or in equity, and shall not be construed as liquidated damages or limiting Landlord's remedies in any manner. Failure to charge or collect such Late Charge in connection with any one (1) or more such late payments shall not constitute a waiver of Landlord's right to charge and collect such Late Charges in connection with any other similar or like late payments. Notwithstanding the foregoing provisions of this Section 4.2, the Late Charge shall not be imposed with respect to the first late payment in the twelve (12) months following the Commencement Date or with respect to the first late payment in any succeeding twelve (12) month period during the Term unless the applicable payment due from Tenant is not received by Landlord within five (5) days following written notice from Landlord that such payment was not received when due. Following the first such written notice from Landlord in the twelve (12) months following the Commencement Date and the first such written notice in any succeeding twelve (12) month period during the Term (but regardless of whether such payment has been received within such five (5) day period), the Late Charge will be imposed without notice for any subsequent payment due from Tenant during such applicable twelve (12) month period which is not received within five (5) days after its due date.

4.3 Simultaneously with the execution hereof, Tenant shall deliver to Landlord (i) the Rent Payable Upon Execution as payment of the first installment of Monthly Rent and Tenant's Share of Operating Expenses and Taxes due hereunder and (ii) an amount equal to the Security Deposit Amount to be held by Landlord as security for Tenant's faithful performance of all of the terms, covenants, conditions, and obligations required to be performed by Tenant hereunder (the "Security Deposit"). The Security Deposit Amount shall be increased upon the addition of any Must-Take Space or Specific Offer Space (defined below) to the Premises by an amount equal to three (3) months of the initial Base Rent payable under this Lease with respect to such Must-Take Space or Specific Offer Space, and Tenant shall deliver such increased amount to Landlord on or before the applicable Must-Take Space Commencement Date or Specific Offer Space Delivery Date, as applicable. Provided no Event of Default has occurred under this Lease as of such date, Tenant shall no longer have the obligation to maintain the Security Deposit if at any time during the Term (1) Tenant becomes a public company with its stock traded on the New York Stock Exchange or NASDAQ and (2) Tenant has thereafter achieved a market capitalization of at least $500,000,000 (the reduction in the Security Deposit permitted by this sentence is sometimes referred to herein as the "Market Capitalization Reduction"). Landlord acknowledges that, as of the Effective Date, Tenant has achieved a sufficient market capitalization to justify a Market Capitalization Reduction, and, therefore, no Security Deposit is initially due under this Lease. If Tenant is entitled to a reduction in or elimination of the Security Deposit, Tenant shall provide Landlord with written notice requesting that the Security Deposit be reduced or eliminated as provided above and the excess portion of the Security Deposit be applied to payment of Base Rent (the "Reduction Notice"). If Tenant provides Landlord with a Reduction Notice, and Tenant is entitled to reduce or eliminate the Security Deposit as provided herein, Landlord shall apply the applicable portion of the Security Deposit to Base Rent. Notwithstanding the foregoing, if at any time after the Security Deposit has been reduced the market capitalization of Tenant falls below $500,000,000 for three (3) consecutive calendar months, Tenant shall within ten (10) business days after Landlord's request, restore the amount of the Security Deposit to the amount that would otherwise apply if the Market Capitalization Reduction had not occurred; following any such reinstatement of the Security Deposit, if at any time thereafter Tenant achieves a market capitalization of at least $500,000,000 for a period of at least three (3) consecutive calendar months, Tenant may once again have the right, upon notice to Landlord, require a Market Capitalization Reduction. The Security Deposit shall be held by Landlord as security for the performance by Tenant of all of the covenants of this Lease to be performed by Tenant and Tenant shall not be entitled to interest thereon. The Security Deposit is not an advance rent deposit, an advance payment of any other kind, or a measure of Landlord's damages in any case of Tenant's default. If Tenant fails to timely perform any of the covenants of this Lease to be performed by Tenant, including without limitation the provisions relating to payment of Rent, the removal of property at the end of the Term, the repair of damage to the Premises caused by Tenant, and the cleaning of the Premises upon termination of the tenancy created hereby, then Landlord shall have the right, but no obligation, to apply the Security Deposit, or so much thereof as may be necessary, for the payment of any Rent or any other sum in default and/or to cure any other such failure by Tenant. If Landlord applies the Security Deposit or any part thereof for payment of such amounts or to cure any such other failure by Tenant, then Tenant shall within ten (10) days after demand by Landlord, pay to Landlord the sum necessary to restore the Security Deposit to the full amount then required by this Section 4.3 Landlord's obligations with respect to the Security Deposit are those of a debtor and not a trustee. Landlord shall not be required to maintain the Security Deposit separate and apart from Landlord's general or other funds and Landlord may commingle the Security Deposit with any of Landlord's general or other funds. Upon termination of the original Landlord's or any successor owner's interest in the Premises or the Building and the transfer of any then-current Security Deposit to Landlord's transferee by payment or other credit, the original Landlord or such successor owner shall be released from further liability with respect to the Security Deposit upon the original Landlord's or such successor owner's complying with California Civil Code Section 1950.7. Subject to the foregoing, Tenant hereby waives the provisions of Section 1950.7 of the California

Civil Code, and all other provisions of law, now or hereafter in force, to the extent the same (a) establish a time frame within which a landlord must refund a security deposit under a lease, and/or (b) provide that Landlord may claim from a security deposit only those sums reasonably necessary to remedy defaults in the payment of Rent, to repair damage caused by Tenant or to clean the Premises, it being agreed that Landlord may, in addition, claim those sums reasonably necessary to compensate Landlord for any other loss or damage caused by the default of Tenant under this Lease, including without limitation all damages or Rent due upon termination of this Lease pursuant to Section 1951.2 of the California Civil Code. If Tenant performs every provision of this Lease to be performed by Tenant, the unused portion of the Security Deposit shall be returned to Tenant or the last assignee of Tenant's interest under this Lease within thirty (30) days following expiration or termination of the Term of this Lease.

4.4 If the Term commences on a date other than the first day of a calendar month or expires or terminates on a date other than the last day of a calendar month, the Rent for any such partial month shall be prorated to the actual number of days in such partial month.

4.5 All Rents and any other amount payable by Tenant to Landlord hereunder, if not paid when due, shall bear interest from the date due until paid at a rate equal to the prime commercial rate established from time to time by Bank of America, plus four percent (4%) per annum; but not in excess of the maximum legal rate permitted by law. Failure to charge or collect such interest in connection with any one (1) or more delinquent payments shall not constitute a waiver of Landlord's right to charge and collect such interest in connection with any other or similar or like delinquent payments.

ARTICLE 5

RENT ADJUSTMENT

5.1 Definitions.

(a) "Operating Expenses", as said term is used herein, shall, subject to the exclusions and limitations set forth herein, mean all expenses, costs, and disbursements of every kind and nature which Landlord shall pay or become obligated to pay because of or in connection with the ownership, operation, management, security, repair, restoration, replacement, or maintenance of the Project, or any portion thereof. Operating Expenses shall be computed in accordance with generally accepted property management practices prevailing among owners of Comparable Buildings ("Prevailing Management Practices"), consistently applied, and shall include, but not be limited to, the items as listed below:

(i) Wages, salaries, other compensation and any and all taxes, insurance and benefits of, the Project manager and of all other persons engaged in the operation, maintenance and security of the Project (prorated, in the case of employees performing services for one or more properties, on the basis of the estimated number of hours spent performing services for the Project);

(ii) Payments under any equipment rental agreements or management agreements, including without limitation the cost of any actual or charged management fee and all expenses for the Project management office including rent, office supplies, and materials therefor;

(iii) Costs of all supplies, equipment, materials, and tools and amortization (including interest at the rate described in clause (vii) below on the unamortized cost) of the cost of acquiring or the rental expense of personal property used in the maintenance, operation and repair of the Project, or any portion thereof;

(iv) All costs incurred in connection with the operation, maintenance, and repair of the Project including without limitation, the following: (A) the cost of operation, repair, maintenance and replacement of all systems and equipment and components thereof of the Project; (B) the cost of Common Area janitorial, alarm, security and other services, replacement of wall and floor coverings, ceiling tiles and fixtures in common areas, maintenance and replacement of curbs and walkways, repair to roofs and re-roofing; (C) the cost of licenses, certificates, permits and inspections and the cost of contesting any governmental enactments which are reasonably anticipated by Landlord to increase Operating Expenses, and the cost incurred in connection with a transportation system management program or similar program; (D) the cost of landscaping, decorative lighting, and relamping, the cost of maintaining fountains, sculptures, bridges; (E) costs, fees, charges or assessments imposed by, or resulting from any mandate imposed on Landlord by,

any federal, state or local government for fire and police protection, trash removal, community services, or other services which do not constitute "Taxes" as that term is defined below; and (F) costs and expenses of complying with, or participating in, conservation, recycling, sustainability, energy efficiency, waste reduction or other programs or practices implemented or enacted from time to time at the Buildings, including, without limitation, in connection with any LEED (Leadership in Energy and Environmental Design) rating or compliance system or program, including that currently coordinated through the U.S. Green Building council or Energy Star rating and/or compliance system or program (collectively, "Conservation Costs"); provided, however, that Operating Expenses will not include any capital costs incurred by Landlord in order to initially meet or achieve any LEED or similar certification or rating, as opposed to the annual costs associated with maintaining a previously obtained or achieved rating.

(v) The cost of supplying all utilities, the cost of operating, maintaining, repairing, replacing, renovating and managing the utility systems, mechanical systems, sanitary, storm drainage systems, communication systems and escalator and elevator systems, and the cost of supplies, tools, and equipment and maintenance and service contracts in connection therewith (however, if and to the extent that any portion of the Premises, from time to time, is metered for any utility consumption such that Tenant pays for the cost of Tenant's utility consumption in such portion of the Premises, either directly to the utility provider or to Landlord, then, with respect to the rentable area of such portion of the Premises, Operating Expenses will not include the cost of the provision of such utilities to any other occupied or occupiable space in the Project).

(vi) The cost of all insurance carried by Landlord in connection with the Project as reasonably determined by Landlord, including without limitation commercial general liability insurance, physical damage insurance covering damage or other loss caused by fire, earthquake, flood or other water damage, explosion, vandalism and malicious mischief, theft or other casualty, rental interruption insurance and such insurance as may be required by any lessor under any present or future ground or underlying lease of any of the Buildings or of the Project or any holder of a mortgage, deed of trust or other encumbrance now or hereafter in force against any of the Buildings or the Project or any portion thereof, and any deductibles payable thereunder; including, without limitation, Landlord's cost of any self insurance deductible or retention; provided, however, that if and to the extent Landlord incurs a deductible payment under any policy of earthquake or terrorism insurance coverage, then for the purposes of including such deductible payment in Operating Expenses, such deductible payment shall be treated as if it is a Permitted Capital Expenditure (defined below) with an associated useful life of seven (7) calendar years;

(vii) Capital improvements or capital renovations made to or capital assets or capital replacements acquired for the Project, or any portion thereof that (1) are intended for the primary purpose of causing a net reduction in Operating Expenses ("Cost Saving Capital Items"), or (2) are necessary for the health, safety and/or security of the Project, its occupants and visitors and are deemed advisable in the reasonable judgment of Landlord and are commensurate with the practices of owners of Comparable Buildings, or (3) are Conservation Costs (subject to the limitation set forth in clause (F) of Section 5.1(a)(iv) above), or (4) are required under any and all applicable laws, statutes, codes, ordinances, orders, rules, regulations, conditions of approval and requirements of all federal, state, county, municipal and governmental authorities and all administrative or judicial orders or decrees and all permits, licenses, approvals and other entitlements issued by governmental entities, and rules of common law, relating to or affecting the Project, the Premises or the Buildings or the use or operation thereof, whether now existing or hereafter enacted, including, without limitation, the Americans with Disabilities Act of 1990, 42 USC 12111 et seq. as the same may be amended from time to time (the "ADA"), all Environmental Laws (as hereinafter defined), and any CC&R's, or any corporation, committee or association formed in connection therewith, or any supplement thereto recorded in any official or public records with respect to the Project or any portion thereof (collectively, "Applicable Laws") (except for capital repairs, replacements or other improvements to remedy a condition existing prior to the Commencement Date which an applicable governmental authority, if it had knowledge of such condition prior to the Commencement Date, would have then required to be remedied pursuant to then-current governmental laws or regulations in their form existing as of the Commencement Date and pursuant to the then-current interpretation of such governmental laws or regulations by the applicable governmental authority as of the Commencement Date); and the cost described in this Section 5.1(a)(vii) being referred to as "Permitted Capital Expenditures". The cost of Permitted Capital Expenditures shall, for the purpose of inclusion in Operating Expenses, be amortized by Landlord on a straight line basis over the economic useful life of the capital item in question, as reasonably determined by Landlord using

generally accepted accounting principles ("GAAP"), consistently applied, and Prevailing Management Practices. The amortized cost of Permitted Capital Expenditures may include interest at the rate paid or payable by Landlord on any funds borrowed for such expenditures from an unaffiliated third-party financial institution, but in no event in excess of the market rate of interest customarily paid on such borrowed funds for such purposes. However, with respect to Cost Saving Capital Items, the monthly inclusion of the amortized cost of such Cost Saving Capital Item shall be further subject to the following limitation: such inclusion shall not exceed an amount that Landlord, anticipated in good faith to be the net reduction in Operating Expenses resulting from such Cost Saving Capital Item;

(viii) fees, charges and other costs, including management fees, consulting fees, legal fees and accounting fees, of all contractors, engineers, consultants and other persons engaged by Landlord or otherwise incurred by or charged by Landlord in connection with the management, operation, maintenance and repair of the Buildings and the Project; and

(ix) payments, fees or charges under the CC&R's and any easement, license, operating agreement, declaration, restricted covenant, or instrument pertaining to the sharing of costs by the Project, or any portion thereof (including without limitation costs with respect to the installation and/or replacement of a fountain payable under the CC&R's).

Expressly excluded from Operating Expenses are the following items:

1. Advertising and leasing commissions;

2. If, at any time, Landlord elects to self-insure for all or any portion of the insurance coverage required to be maintained by Landlord pursuant to the provisions of Article 13 below, the amount which Landlord would have recovered from any event or circumstance if Landlord had maintained the full amount of insurance coverage described in Article 13 below in lieu of any such self-insurance program;

3. Principal, interest, and other costs directly related to financing the Project or ground lease rental or depreciation;

4. The cost of special services to tenants (including Tenant) for which a special charge is made;

5. The costs of any capital expenditures except (i) Permitted Capital Expenditures and (ii) any capital expenditures assessed or payable under any CC&R's;

6. The costs, including permit, license and inspection costs and supervision fees, incurred with respect to the installation of tenant improvements within the Project or incurred in renovating or otherwise improving, decorating, painting or redecorating vacant space within the Project or promotional or other costs in order to market space to potential tenants;

7. The legal fees and related expenses and legal costs incurred by Landlord (together with any damages awarded against Landlord) due to the violation by Landlord or any tenant of the terms and conditions of any lease of space in the Project;

8. Costs incurred: (x) to comply with Applicable Laws with respect to any Hazardous Materials (as defined below) which were in existence in, on, under or about the Project (or any portion thereof) prior to the Initial Commencement Date, and were of such a nature that a federal, state or municipal governmental or quasi-governmental authority, if it had then had knowledge of the presence of such Hazardous Materials, in the state, and under the conditions that they then existed in, on, under or about the Project, would have then required the removal, remediation or other action with respect thereto; and/or (y) with respect to Hazardous Materials which are disposed of or otherwise introduced into, on, under or about the Project after the date hereof by Landlord or Landlord's agents or employees and are of such a nature, at time of disposition or introduction, that a federal, state or municipal governmental or quasi-governmental authority, if it had then had knowledge of the presence of such Hazardous Materials, in the state, and under the conditions, that they then existed in, on, under or about the Project, would have then required the removal, remediation or other action with respect thereto; provided, however, Operating

Expenses shall include costs incurred in connection with the clean-up, remediation, monitoring, management and administration of (and defense of claims related to) the presence of (1) Hazardous Materials used by Landlord (provided such use is not negligent and is in compliance with Applicable Laws) in connection with the operation, repair and maintenance of the Project to perform Landlord's obligations under this Lease (such as, without limitation, fuel oil for generators, cleaning solvents, and lubricants) and which are customarily found or used in Comparable Buildings and (2) Hazardous Materials created, released or placed in the Premises, Buildings or the Project by Tenant (or Tenant's affiliates or their tenants, contractors, employees or agents) prior to or after the Commencement Date;

9. The attorneys' fees in connection with the negotiation and preparation of letters, deal memos, letters of intent, leases, subleases and/or assignments, space planning costs, and other costs and expenses incurred in connection with lease, sublease and/or assignment negotiations and transactions with present or prospective tenants or other occupants of the Project;

10. The expenses in connection with services or other benefits which are not available to Tenant;

11. The overhead and profit paid to Landlord or to subsidiaries or affiliates of Landlord for goods and/or services in the Project to the extent the same exceeds the costs of such goods and/or services rendered by qualified, unaffiliated third parties on a competitive basis;

12. Landlord's charitable or political contributions;

13. The costs (other than ordinary maintenance and insurance) for sculpture, paintings and other objects of art;

14. Interest and penalties resulting from Landlord's failure to pay any items of Operating Expense or Taxes when due;

15. The Landlord's general corporate overhead and general and administrative expenses, costs of entertainment, dining, automobiles or travel for Landlord's employees, and costs associated with the operation of the business of the partnership or entity which constitutes Landlord as the same are distinguished from the costs of the operation of the Project, including partnership accounting and legal matters, costs of defending any lawsuits with any mortgagee, costs of selling, syndicating, financing, mortgaging or hypothecating any of Landlord's interest in the Project, costs of any disputes between Landlord and its employees (if any) not engaged in the operation of the Project, disputes of Landlord with management, or outside fees paid in connection with disputes with other Project tenants or occupants (except to the extent such dispute is based on Landlord's good faith efforts to benefit Tenant or meet Landlord's obligations under this Lease);

16. The costs arising from the gross negligence or willful misconduct of Landlord;

17. The management office rental to the extent such rental exceeds the fair market rental for such space;

18. The costs of correction of latent defects in the Project to the extent covered by warranties;

19. The costs of Landlord's membership in professional organizations (such as, by way of example and without limitation, BOMA) in excess of $2,500.00 per year.

20. Repairs or other work occasioned by casualty to the extent that Landlord shall receive proceeds of such insurance or would have received such proceeds had Landlord maintained the insurance coverage required under this Lease;

21. Salaries of individuals who hold a position which is generally considered to be higher in rank than the position of the manager of the Project or the chief engineer of the Project;

22. The cost of any service sold to any tenant or occupant of the Building for which Landlord is entitled to be reimbursed as an additional charge or rental over and above the basic rent and escalations payable under the lease or occupancy agreement with that tenant or other occupant;

23. Any amounts paid to any person, firm or corporation related or otherwise affiliated with Landlord or any general partner, officer or director of Landlord or any of its general partners, to the extent same materially exceeds arms-length competitive prices paid in the Alameda, California, metropolitan area for services and goods comparable to the services or goods provided;

24. Costs incurred in removing and storing the property of former tenants or occupants of the Building;

25. The cost of installing, operating and maintaining any specialty service, observatory, broadcasting facilities, luncheon club, museum, athletic or recreational club, or child care facility, and the cost of installing, operating and maintaining any other service operated or supplied by or normally operated or supplied by a third party under an agreement between a third party and a landlord;

26. The entertainment expenses and travel expenses of Landlord, its employees, agents, partners and affiliates (other than travel expenses specifically related to Landlord or its property manager performing its obligations under this Lease);

27. Costs incurred in connection with any bankruptcy proceedings; and

28. Consulting costs and consulting expenses paid by Landlord unless they relate exclusively to the management or operation of the Project.

29. That portion, if any, of the management fees paid to Landlord or any affiliate of Landlord that are materially in excess of management fees charged in connection with the management of Comparable Buildings, providing services similar to, and to the same level as, those provided for the Building or are otherwise in excess of three percent (3.0%) of the gross rental revenue derived from the Premises;

(b) "Taxes" shall mean all real property taxes, ad valorem taxes, personal property taxes, and all other taxes, assessments, embellishments, use and occupancy taxes, transit taxes, water, sewer and pure water charges not included in Section 5.1.(a)(v) above, excises, levies, license fees or taxes, and all other similar charges, levies, penalties, or taxes, if any, which are levied, assessed, or imposed, by any Federal, State, county, or municipal authority, whether by taxing districts or authorities presently in existence or by others subsequently created, upon, or due and payable in connection with, or a lien upon, all or any portion of the Project, or facilities used in connection therewith, and rentals or receipts therefrom and all taxes of whatsoever nature that are imposed in substitution for or in lieu of any of the taxes, assessments, or other charges included in its definition of Taxes, and any costs and expenses of contesting the validity of same. Taxes shall include, without limitation: (i) Any tax on the rent, right to rent or other income from the Project, or any portion thereof, or as against the business of leasing the Project, or any portion thereof; (ii) Any assessment, tax, fee, levy or charge in addition to, or in substitution, partially or totally, of any assessment, tax, fee, levy or charge previously included within the definition of real property tax, it being acknowledged by Tenant and Landlord that Proposition 13 was adopted by the voters of the State of California in the June 1978 election ("Proposition 13") and that assessments, taxes, fees, levies and charges may be imposed by governmental agencies for such services as fire protection, street, sidewalk and road maintenance, refuse removal and for other governmental services formerly provided without charge to property owners or occupants, and, in further recognition of the decrease in the level and quality of governmental services and amenities as a result of Proposition 13, Taxes shall also include any governmental or private assessments or the Project's contribution towards a governmental or private cost-sharing agreement for the purpose of augmenting or improving the quality of services and amenities normally provided by governmental agencies; (iii) Any assessment, tax, fee, levy, or charge allocable to or measured by the area of the Premises, the tenant improvements in the Premises, or the Rent payable hereunder, including, without limitation, any business or gross income tax or excise tax with respect to the receipt of such rent, or upon or with respect to the possession, leasing, operating, management, maintenance, alteration, repair, use or occupancy by Tenant of the Premises, or any portion thereof; (iv) Any assessment, tax, fee, levy or charge, upon this transaction or any document to which Tenant is a party, creating or transferring an interest or an estate in the Premises; (v) All of the real estate taxes and assessments imposed upon or with respect to the Buildings and all of the real estate taxes and assessments imposed on the land and improvements comprising the Project, and (vi) assessments attributable

to the Project by any governmental or quasi-governmental agency that Landlord is required to pay. For purposes of this Lease, Taxes shall be calculated as if the tenant improvements in the Buildings were fully constructed and the Project, the Buildings, and all tenant improvements in the Buildings were fully assessed for real estate tax purposes, and accordingly, Taxes shall be deemed to be increased appropriately. Notwithstanding anything to the contrary contained in this Section 5.1(b), there shall be excluded from Taxes (1) all excess profits taxes, franchise taxes, gift taxes, capital stock taxes, inheritance and succession taxes, estate taxes, federal and state net income taxes, and other taxes to the extent applicable to Landlord's net income (as opposed to rents, receipts or income attributable to operations at the Project), (ii) any items included as Operating Expenses, and (iii) any items paid by Tenant under Section 17.1 of this Lease and similar amounts payable by other Project tenants under similar terms of their leases. If Landlord receives a refund of Taxes, or a credit against future Taxes, for any calendar year, Landlord shall, at its election, either pay to Tenant, or credit against subsequent payments of Rent due hereunder, an amount equal to Tenant's Common Area Building Percentage of the refund (not to exceed the amount paid by Tenant for Taxes for the applicable year), net of any reasonable expenses incurred by Landlord in achieving such refund; provided, however, if this Lease shall have expired or is otherwise terminated, Landlord shall refund in cash any such refund or credit due to Tenant within thirty (30) days after Landlord's receipt of such refund or its receipt of such credit against future Taxes. Landlord's obligation to so refund to Tenant any such refund or credit of Taxes shall survive such expiration or termination. If any Tax can be paid by Landlord in installments, then, for the purpose of calculating Tenant's obligation to pay Taxes, any such Tax shall be deemed to be paid by Landlord in the maximum allocable number of installments, regardless of the manner in which Landlord actually pays such Taxes. Tenant, at Tenant's sole cost and expense, may retain a reputable consultant to review pertinent information related to Taxes assessed against the Project, including valuations, tax bills and other information ("Tax Information"), including review of Tax Information for similar projects in the vicinity of the Project. If, based on that consultant's written recommendation, Tenant believes that it would be appropriate to contest or seek recovery of Taxes, Tenant may give Landlord notice thereof together with a copy of all reports provided by Tenant's consultant and Landlord will meet and confer with Tenant in good faith to discuss whether a contest or other appeal or challenge of Taxes is appropriate. If and to the extent Landlord reasonably believes that it is a prudent business decision to contest or seek recovery of Taxes as recommended by Tenant's consultant, Landlord will take reasonable action to pursue such contest and/or recovery. However (i) if and to the extent that any Building is located on a separate tax parcel (i.e., the Building does not share a tax parcel with any other building) and Tenant leases eighty percent (80%) or more of the rentable area in the Building or (ii) with respect to any tax parcel which is shared by more than one Building, if and to the extent that Tenant leases eighty percent (80%) or more of the rentable area of the Buildings located on such tax parcel, then, if Landlord declines to proceed with any such contest or other challenge or appeal of Taxes which was recommended by Tenant's tax consultant, Tenant may elect by written request (the "Tax Notice") to Landlord to require Landlord to proceed with such contest or other challenge or appeal of Taxes, in which event, so long as Tenant continues to pay all Rent (including all Taxes as assessed) as required under this Lease, Landlord agrees to undertake such contest or other challenge or appeal as requested by Tenant in the Tax Notice and Tenant shall reimburse Landlord for all costs and expenses incurred by Landlord in connection with such contest, challenge or appeal within thirty (30) days after Landlord's written demand given from time to time. In the event that as a result of such contest, challenge or appeal undertaken by Landlord in response to a Tax Notice it is determined that Taxes have been overpaid or that the taxpayer is entitled to a reimbursement or retroactive decrease, then any refund or credit shall first be applied to reimburse Tenant for the cost of such proceedings paid by Tenant, but in no event more than the cumulative tax savings to Landlord achieved as a result of such contest, challenge or appeal, and the balance thereof shall be paid or credited to Tenant as provided above in this Section 5.1(b).

(c) "Lease Year" shall mean the twelve (12) month period commencing January 1st and ending December 31st.

(d) "Tenant's Building Percentage" shall mean Tenant's percentage of each Building as determined by dividing the rentable area of the Premises in each Building by the total rentable area of such Building. If there is a change in the total of any Building rentable area as a result of an addition to any Building, partial destruction, modification or similar cause, which event causes a reduction or increase on a permanent basis, Landlord shall cause adjustments in the computations as shall be necessary to provide for any such changes; any such adjustments shall be calculated in accordance with the BOMA Standard. Landlord shall segregate Operating Expenses on an equitable basis into two (2) separate categories, one (1) such category, to be applicable only to Operating Expenses incurred for the Buildings and the other category applicable to Operating Expenses incurred for the Common Areas and/or the Project as a whole. As a consequence, two (2) Tenant's Building Percentages shall apply, one (1) such Tenant's Building Percentage shall be calculated by dividing the rentable area of the Premises by the total rentable area in the Building ("Tenant's Building Only Percentage"), and the other Tenant's Building Percentage to be calculated

by dividing the rentable area of all Premises by the total rentable area of all buildings in the Project ("Tenant's Common Area Building Percentage"). Consequently, any reference in this Lease to "Tenant's Building Percentage" shall mean and refer to both Tenant's Building Only Percentage and Tenant's Common Area Building Percentage of Operating Expenses. Tenant's Building Percentage shall be determined separately for each individual Building in which a portion of the Premises may be located.

(e) "Tenant's Tax Percentage" shall mean the percentage determined by dividing the rentable area of the Premises by the total rentable area of all buildings in the Project.

(f) "Market Area" shall mean Alameda, California (the "City").

(g) "Comparable Buildings" shall mean comparable office/R&D use buildings owned by institutions in the Market Area.

5.2 Tenant shall pay to Landlord, as Additional Rent, Tenant's Share (as hereinafter defined) of the Operating Expenses. "Tenant's Share" shall be determined by multiplying Operating Expenses for any Lease Year or pro rata portion thereof, by Tenant's Building Percentage. Landlord shall, in advance of each Lease Year, deliver to Tenant a written estimate of what Tenant's Share will be for such Lease Year based, in part, on Landlord's operating budget for such Lease Year, Landlord's annual statement of estimated Operating Expenses for any year shall be set forth in reasonable detail, and shall contain (i) a line-item breakdown of component costs comparable to that described in Section 5.3 and (ii) the method of calculation of any so-called "gross-up" performed by Landlord in estimating Operating Expenses. Tenant shall pay Tenant's Share as so estimated each month (the "Monthly Escalation Payments"). The Monthly Escalation Payments shall be due and payable at the same time and in the same manner as the Monthly Rent.

5.3 Landlord shall, within one hundred fifty (150) days after the end of each Lease Year, or as soon thereafter as reasonably possible, provide Tenant with a written statement of the actual Operating Expenses incurred during such Lease Year for the Project and such statement shall set forth Tenant's Share of such Operating Expenses ("Landlord's Statement"). Landlord's Statement shall be set forth in reasonable detail, and shall contain a line-item breakdown showing at least the following major categories and subcategories of costs:

(i) maintenance and repairs;

(ii) utilities;

(iii) security;

(iv) common area association dues and assessments;

(v) grounds;

(vi) management fees;

(vii) insurance; and

(viii) administrative fees.

Without the necessity of exercising Tenant's rights described in Section 5.4 below, Tenant may at any time following delivery of Landlord's Statement, request that Landlord meet with Tenant to review such Landlord's Statement including, without limitation, for the purpose of allowing Tenant to receive an explanation of any other items reasonably requested by Tenant, including:

1) the method of calculation of any "gross-up" of Operating Expenses performed by Landlord;

2) the anticipated savings to be realized in the subject calendar year by any Cost Saving Capital Item the cost of which is included as a portion of Operating Expenses;

3) the method of prorating the wages, salaries and payroll burden of employees engaged primarily, but not solely, in the management, operation or maintenance of the Project; and/or

4) any proportionate cost attributable to a Building which represents a proration of costs shared by one or more buildings.

Tenant shall pay Landlord, as Additional Rent, the difference between Tenant's Share of Operating Expenses and the amount of Monthly Escalation Payments made by Tenant attributable to said Lease Year, such payment to be made within thirty (30) days of the date of Tenant's receipt of said statement (except as provided in Section 5.4 below); similarly, Tenant shall receive a credit if Tenant's Share is less than the amount of Monthly Escalation Payments collected by Landlord during said Lease Year, such credit to be applied to future Monthly Escalation Payments to become due hereunder (or, if the Term expires prior to the full crediting of such overpayment, any such remaining overpayment will be delivered by Landlord to Tenant within thirty (30) days following the delivery of the statement). If utilities, janitorial services or any other components of Operating Expenses increase during any Lease Year, Landlord may revise Monthly Escalation Payments due during such Lease Year by giving Tenant written notice to that effect; and thereafter, Tenant shall pay, in each of the remaining months of such Lease Year commencing as of the first (1st) day of the calendar month which next occurs at least thirty (30) days following the date of Landlord's delivery to Tenant of such revised estimate, a sum equal to the amount of the revised difference in Operating Expenses multiplied by Tenant's Building Percentage divided by the number of months remaining in such Lease Year.

5.4 Within one hundred fifty (150) days following Tenant's receipt of Landlord's Statement or Landlord's Tax Statement, Tenant may give Landlord notice (the "Review Notice") stating that Tenant elects to review Landlord's calculation of the amount of Operating Expenses and/or Taxes payable by Tenant for the Lease Year to which such Statement applies. Tenant may not deliver more than one (1) Review Notice with respect to Operating Expenses or Taxes for any Lease Year (for avoidance of doubt, however, Tenant may deliver one (1) Review Notice with respect to Tenant's desire to review Landlord's books and records regarding Operating Expenses, and subsequently deliver a second (2nd) Review Notice with respect to Tenant's desire to review Landlord's books and records with respect to Taxes, provided that each such Review Notice is delivered within the time period described in the second (2nd) sentence of this Section 5.4). If Tenant fails to give Landlord such a Review Notice within the one hundred fifty (150) day period, Tenant shall be deemed to have approved the applicable Statement. If Tenant timely gives the Review Notice, Tenant shall be entitled to conduct or require an audit to be conducted, provided that (a) not more than one (1) such audit of each category of pass-through (i.e., Operating Expenses and Taxes) may be conducted with respect to any Lease Year, (b) the records for each Lease Year may be audited only once with respect to each category and pass through (i.e., Operating Expenses and Taxes), (c) such audit is commenced within thirty (30) days following the date upon which Landlord makes Landlord's applicable books and records available to Tenant for review, and (d) such audit is completed and a copy thereof is delivered to Landlord within thirty (30) days following the commencement of such audit. Tenant's auditor must be a member of a nationally recognized accounting firm and must not charge a fee based on the amount that the accountant is able to save Tenant by the inspection. As a condition precedent to any inspection by Tenant's accountant, Tenant shall deliver to Landlord a copy of Tenant's written agreement with such accountant, which agreement shall include provisions which state that (i) Landlord is an intended third party beneficiary of such agreement, (ii) such accountant will not in any manner solicit or agree to represent any other tenant of the Project with respect to an audit or other review of Landlord's accounting records at the Project, and (iii) such accountant shall maintain in strict confidence any and all information obtained in connection with the review and shall not disclose such information to any person or entity other than to the management personnel of Tenant or as may be necessary in any judicial or arbitration proceeding between Landlord and Tenant regarding the accurate calculation and payment of Operating Expenses or Taxes, or as otherwise mandated by law. An overcharge of Operating Expenses or Taxes by Landlord shall not entitle Tenant to terminate this Lease. No subtenant shall have the right to audit. Any assignee's audit right will be limited to the period after the effective date of the assignment. No audit shall be permitted if an Event of Default by Tenant has occurred and is continuing under this Lease, including without limitation any failure by Tenant to pay any amount due under this Article 5. If Landlord responds to any such audit with an explanation of any issues raised in the audit, such issues shall be deemed resolved unless Tenant responds to Landlord with further written objections within thirty (30) days after receipt of Landlord's response to the audit. In no event shall payment of Rent ever be contingent upon the performance of such audit. For purposes of any audit, Tenant or Tenant's duly authorized representative, at Tenant's sole cost and expense, shall have the right, upon fifteen (15) days' written notice to Landlord, to inspect Landlord's books and records pertaining to Operating Expenses and Taxes at the offices of Landlord or Landlord's managing agent during ordinary business hours, provided that such audit must be conducted so as not to interfere with Landlord's business operations and must be reasonable as to scope and time. If, following any such audit, Tenant disputes Landlord's determination of Operating Expenses or Taxes, Tenant will provide a full and complete copy of Tenant's auditor's report and the parties shall, thereafter, diligently and in good faith, meet and confer in an attempt to resolve any differences. If, however, the parties are unable to resolve any differences within thirty (30) days after their initial meeting, at the election of either party hereto, the subject matter shall be referred to, and determined by, the arbitration procedure described in Article 12. If actual Operating Expenses or Taxes are determined to have been overstated or understated by Landlord for any calendar year, then the parties shall within thirty (30) days thereafter make such adjustment payment or refund as is applicable, and if actual Operating

Expenses or Taxes are determined to have been overstated by Landlord for any calendar year by in excess of three percent (3%), then Landlord shall pay the reasonable cost of Tenant's audit and the overstated amount refundable to Tenant shall include interest at a rate equal to the LIBOR Rate (as defined below) from the date of Landlord's annual Operating Expense statement or Taxes statement described in Section 5.3 above until the date such refund is paid to Tenant (such payment will not be an Operating Expense). As used herein, the term "LIBOR Rate" means, for each month, the one (1) month LIBOR (London Interbank Offered Rate) Rate published in The Wall Street Journal (the "Reported Rate") on the first Publication Date (as defined below) of the applicable month. If The Wall Street Journal (i) publishes more than one (1) Reported Rate on any Publication Date, the average of such rates shall apply or (ii) publishes a retraction or correction of any Reported Rate, the corrected rate reported in such retraction or correction shall apply. If the Reported Rate is no longer published at least monthly, the LIBOR Rate shall be deemed to be such other London Interbank Offered Rate published in The Wall Street Journal as most reasonably approximates the Reported Rate. As used herein, the term "Publication Date" means any date on which the LIBOR Rate is published in The Wall Street Journal. Notwithstanding the foregoing, in the event that Tenant identifies a material error or omission in Landlord's calculations that may relate to the prior Lease Year, Tenant shall have the right to re-audit or otherwise verify the existence or non-existence of such error for such prior Lease Year, and to the extent such error has occurred in such prior Lease Year, Landlord shall provide Tenant with full credit for such errors against the next payment(s) of Additional Rent due hereunder, or if beyond the end of the Term, refund such amount to Tenant.

5.5 If the occupancy of any Building during any part of any Lease Year is less than one hundred percent (100%), Landlord shall make an appropriate adjustment of the variable components of Operating Expenses for that Lease Year, as reasonably determined by Landlord using sound accounting and management principles, to determine the amount of Operating Expenses that would have been incurred had the Building been one hundred percent (100%) occupied. This amount shall be considered to have been the amount of Operating Expenses for that Lease Year. For purposes of this Section 5.5, "variable components" include only those component expenses that are affected by variations in occupancy levels.

5.6 Tenant shall pay to Landlord, as Additional Rent, "Tenant's Tax Share" (as hereinafter defined) of the Taxes. "Tenant's Tax Share" shall be determined by multiplying Taxes for any Lease Year or pro rata portion thereof, by Tenant's Tax Percentage. Landlord shall, in advance of each Lease Year, deliver to Tenant a written estimate of what Tenant's Tax Share will be for such Lease Year and Tenant shall pay Tenant's Tax Share as so estimated each month (the "Monthly Tax Payments"). The Monthly Tax Payments shall be due and payable at the same time and in the same manner as the Monthly Rent.

5.7 Landlord shall, within one hundred fifty (150) days after the end of each Lease Year, or as soon thereafter as reasonably possible, provide Tenant with a written statement of the actual Taxes incurred during such Lease Year for the Project ("Landlord's Tax Statement"), shall set forth Tenant's Tax Share of such Taxes; without having to exercise Tenant's rights under Section 5.4 above, Tenant shall have the right, from time to time, upon reasonable advance written or telephonic notice to Landlord, to review, in the property management office for the Project, the Tax invoices upon which Landlord's Tax Statement is based. Tenant shall pay Landlord, as Additional Rent, the difference between Tenant's Tax Share of Taxes and the amount of Monthly Tax Payments made by Tenant attributable to said Lease Year, such payment to be made within thirty (30) days of the date of Tenant's receipt of said statement; similarly, Tenant shall receive a credit if Tenant's Tax Share is less than the amount of Monthly Tax Payments collected by Landlord during said Lease Year, such credit to be applied to future Monthly Tax Payments to become due hereunder. If Taxes increase during any Lease Year, Landlord may revise Monthly Tax Payments due during such Lease Year by giving Tenant written notice to that effect; and, thereafter, Tenant shall pay, in each of the remaining months of such Lease Year, a sum equal to the amount of revised difference in Taxes multiplied by Tenant's Tax Percentage divided by the number of months remaining in such Lease Year. Despite any other provision of this Article 5, Landlord may adjust Operating Expenses and/or Taxes and submit a corrected statement to account for Taxes or other government public-sector charges (including utility charges) that are for that given year but that were first billed to Landlord after the date that is ten (10) business days before the date on which the statement was furnished.

5.8 If the Taxes for any Lease Year are changed as a result of protest, appeal or other action taken by a taxing authority, the Taxes as so changed shall be deemed the Taxes for such Lease Year. Any expenses incurred by Landlord in attempting to protest, reduce or minimize Taxes shall be included in Taxes in the Lease Year in which those expenses are paid. Landlord shall have the exclusive right to conduct such contests, protests and appeals of the Taxes as Landlord shall determine is appropriate in Landlord's sole discretion.

5.9 Tenant's obligation with respect to Additional Rent and the payment of Tenant's Share of Operating Expenses and Tenant's Tax Share of Taxes as well as Landlord's obligation to reconcile Additional Rent and make payments of any overcharge of Operating Expenses or Taxes, shall survive the Expiration Date or Termination Date of this Lease and Landlord shall have the right to retain the Security Deposit, or so much thereof as it deems necessary, to secure payment of

Tenant's Share of Operating Expenses and Tenant's Tax Share of Taxes for the final year of the Lease, or part thereof, during which Tenant was obligated to pay such expenses.

5.10 With respect to any particular service provided by Landlord to the Premises, the cost of which is included in the Operating Expenses payable by Tenant under this Lease, Landlord agrees that for the purpose of calculating the Operating Expenses payable by Tenant hereunder, the cost of any such service payable by Tenant shall be no higher than the lowest cost Landlord charges other tenants in the Project for the same service, calculated on a per unit, per square foot or other reasonable basis, with variations allowed to account for any material differences in the services provided to the Premises and those provided to other tenants of the Project. For illustrative purposes only, if (a) Landlord's cost of providing a particular service is included in the Operating Expenses payable by Tenant under this Lease, (b) the lowest amount Landlord charges any other tenant in the Project for such service is $0.25 per rentable square foot, and (c) there are no material differences in the service provided to the Premises and the service provided to such lowest-cost tenant, then that portion of the Operating Expenses payable by Tenant under this Lease with respect to such service shall be no higher than $0.25 per rentable square foot.

5.11 Notwithstanding the foregoing provisions of this Article 5, Tenant will not be responsible for any Operating Expenses or Taxes attributable to any year which is first billed to Tenant more than three (3) calendar years after the date of expiration of the expiration of the Lease Year to which such Operating Expenses or Taxes apply, provided that Tenant shall nonetheless be responsible for any such sums for any Lease Year if the same are first levied by any governmental authority or by any public utility companies following the date that is three (3) calendar years following the expiration of such Lease Year.

ARTICLE 6

SERVICES TO BE PROVIDED BY LANDLORD

6.1 Subject to Articles 5 and 10 herein, Landlord agrees to furnish or cause to be furnished to the Premises the utilities and services described in the Standards for Utilities and Services, attached hereto as Exhibit G, subject to the conditions and in accordance with the standards set forth herein.

6.2 Landlord shall not be liable for any loss or damage arising or alleged to arise in connection with the failure, stoppage, or interruption of any such services; nor shall the same be construed as an eviction of Tenant, work an abatement of Rent (except as set forth in Article 45), entitle Tenant to any reduction in Rent, or relieve Tenant from the operation of any covenant or condition herein contained; it being further agreed that Landlord reserves the right to discontinue temporarily such services or any of them at such times as may be necessary by reason of repair or capital improvements performed within the Project, accident, unavailability of employees, repairs, alterations or improvements, or whenever by reason of strikes, lockouts, riots, acts of God, or any other happening or occurrence beyond the reasonable control of Landlord. In the event of any such failure, stoppage or interruption of services, Landlord shall promptly use reasonable diligence to have the same restored. Neither diminution nor shutting off of light or air or both, nor any other effect on the Project by any structure erected or condition now or hereafter existing on lands adjacent to the Project, shall affect this Lease, abate Rent, or otherwise impose any liability on Landlord. Furthermore, Landlord shall not be liable under any circumstances for a loss of, or injury to, property or for injury to, or interference with, Tenant's business, including, without limitation, loss of profits, however occurring, through or in connection with or incidental to a failure to furnish any of the services or utilities as set forth in this Article 6.

6.3 Landlord shall have the right to reduce heating, cooling, or lighting within the Premises and in the public area in the Building as required by any mandatory fuel or energy-saving program.

6.4 Unless otherwise provided by Landlord, Tenant shall separately arrange with the applicable local public authorities or utilities, as the case may be, for the furnishing of and payment of all telephone and facsimile services as may be required by Tenant in the use of the Premises. Tenant shall directly pay for such telephone and facsimile services as may be required by Tenant in the use of the Premises, including the establishment and connection thereof, at the rates charged for such services by said authority or utility; and the failure of Tenant to obtain or to continue to receive such services for any reason whatsoever shall not relieve Tenant of any of its obligations under this Lease.

6.5 Tenant shall provide Landlord with keys and access codes to allow Landlord access to the Premises.

6.6 At all times during the Term Landlord shall have the right to select the utility company or companies that shall provide electric, telecommunication and/or other utility services to the Premises and, subject to all Applicable Laws,

Landlord shall have the right at any time and from time to time during the Term to either (a) contract for services from electric, telecommunication and/or other utility service provider(s) other than the provider with which Landlord has a contract as of the date of this Lease (the "Current Provider"), or (b) continue to contract for services from the Current Provider. The cost of such utility services and any energy management and procurements services in connection therewith shall be Operating Expenses. Notwithstanding the foregoing, at such time as Tenant leases all of the rentable area in a Building, Tenant shall have the right to select alternative utility providers for that Building, subject to Landlord's approval, which shall not be unreasonably withheld.

6.7 If Tenant is billed directly by a public utility with respect to Tenant's electrical usage at the Premises, upon request from time to time, Tenant shall provide monthly electrical utility usage for the Premises to Landlord for the period of time requested by Landlord (in electronic or paper format) or, at Landlord's option, provide any written authorization or other documentation required for Landlord to request information regarding Tenant's electricity usage with respect to the Premises directly from the applicable utility company.

6.8 Notwithstanding anything to the contrary in Section 6.2 or elsewhere in this Lease, if (a) Landlord fails to provide Tenant with the electrical service or elevator service described in Section 6.1 (or, in any Multi-Tenant Building, HVAC service), or Landlord enters any portion of the Premises and/or performs work outside of the Premises and such entry or work interferes with Tenant's reasonable use of or ability to have access to any portion of the Premises (b) such failure or Landlord's entry is not due to any one or more Force Majeure Events or to an event covered by Article 19, (c) Tenant has given Landlord reasonably prompt written notice (which notice may, for the purposes of this Section 6.8, be delivered via personal delivery to the Project's property management office as long as a copy of that notice is concurrently sent as provided in Article 36) of such failure or that such entry or work by Landlord is unreasonably interfering with Tenant's use of or ability to have access to any portion of the Premises and (d) as a result of such failure, entry or work all or any part of the Premises is rendered unusable or inaccessible for Tenant's normal business purposes (and, as a result, all or such part of the Premises is not used by Tenant during the applicable period) for more than five (5) consecutive days, then Tenant shall be entitled to an abatement of Rent proportional to the extent to which the Premises are thereby rendered unusable or inaccessible by Tenant, commencing with the later of (i) the sixth business day during which such unusability or inaccessibility continues or (ii) the sixth business day after Landlord receives such notice from Tenant, until the Premises (or part thereof affected) are again usable or until Tenant again uses the Premises (or part thereof rendered unusable) in its business, whichever first occurs. The foregoing rental abatement shall be Tenant's exclusive remedy therefor, unless the foregoing rental abatement is due to Landlord's willful failure to provide the services in question, in which event the foregoing rental abatement shall be Tenant's exclusive monetary remedy therefor. Notwithstanding the foregoing, the provisions of Article 19 below and not the provisions of this subsection shall govern in the event of casualty damage to the Premises or Project and the provisions of Article 20 below and not the provisions of this subsection shall govern in the event of condemnation of all or a part of the Premises or Project.

ARTICLE 7

REPAIRS AND MAINTENANCE BY LANDLORD

7.1 Subject to Sections 7.4 and 8.4 below, Landlord shall provide for the cleaning and maintenance of the public portions of the Project including the Common Areas in keeping with the ordinary standard for Comparable Buildings as part of Operating Expenses; as described in Section 1.3 above. If and for so long as Tenant leases in excess of fifty percent (50%) of the rentable area of the Buildings, Landlord will not materially alter (or agree to the material alteration of) the maintenance standards for the Project Common Areas and/or construct or demolish (or agree to the construction or demolition of) any aspect of the Project Common Areas (in each case, to the extent under the control of Landlord) without first consulting with Tenant. Unless otherwise expressly stipulated herein, with respect to Multi-Tenant Buildings, Landlord shall be responsible for maintaining and repairing and keeping in good condition and repair, commensurate with the standards of maintenance and repair at Comparable Buildings, the structure, the exterior, the roof (including roof membrane) and all Building Systems serving the Premises in that Multi-Tenant Building (other than HVAC systems serving only the Premises) and the Multi-Tenant Building, all exterior landscaping and parking areas; and all portions of the Multi-Tenant Building the maintenance of which is not the express obligation of Tenant or other occupants of the Project, and subject to Section 13.4, below, such additional maintenance as may be necessary because of the damage caused by persons other than Tenant, its agents, employees, licensees, or invitees. As used in this Lease, the "Base Building" shall mean the structural portions of each Building, and the public restrooms, elevators, exit stairwells and the Building Systems in each Building.

7.2 Landlord or Landlord's officers, agents, and representatives (subject to any security regulations imposed by any governmental authority) shall have the right to enter all parts of the Premises at all reasonable hours upon reasonable prior notice to Tenant (other than in an emergency) to inspect, clean, make necessary repairs, alterations, and additions to the Project or the Premises to make repairs to adjoining spaces, to cure any Event of Default of Tenant hereunder

that Landlord elects to cure pursuant to Section 22.5, below, to post notices of nonresponsibility, to show the Premises to prospective tenants (during the final nine (9) months of the Term or at any time after the occurrence of an Event of Default that remains uncured), mortgagees or purchasers of the Building (provided that Tenant shall have the right to require that any such prospective tenant, mortgagee or purchaser execute a nondisclosure agreement in the form of Exhibit N attached hereto prior to any entry into the Premises), or to provide any service which it is obligated or elects to furnish to Tenant; and, except as set forth in Section 6.8, Tenant shall not be entitled to any abatement or reduction of Rent by reason thereof. Landlord shall have the right to enter the Premises at any time and by any means in the case of an emergency. Landlord will endeavor to provide Tenant with at least fifteen (15) days prior notice of any of the actions set forth in this Section 7.2, to be taken by Landlord if such action could substantially interfere with Tenant's ability to (i) conduct business in any portion of the Premises, (ii) gain access to and from any portion of the Premises, or (iii) use or have access to and egress from the parking area. Tenant shall have the right to require that Landlord be accompanied by a representative of Tenant during any such entry, but in no event shall Landlord be required to wait for such representative if entry is in response to an emergency and the emergency requires immediate access to prevent imminent harm to person or property, and Tenant agrees to use reasonable efforts to make such a representative available at such commercially reasonable times as Landlord requests. Landlord shall use commercially reasonable efforts to minimize interference with Tenant's use of the Premises (or any portion thereof) for Tenant's business purposes in connection with that access (such efforts to include limiting the performance of any such work (other than in an emergency) which might be disruptive to weekends or the evening and the cleaning of any work area prior to the commencement of the next business day; provided that notwithstanding anything to the contrary and others Lease, the additional cost of performing such work on weekends or outside of normal business hours shall be an Operating Expense). For clarity, such fifteen (15) day notice shall never be required in connection with Landlord's inspection of the Premises or to show the Premises to prospective tenants, mortgagees or purchasers of the Building, but in those instances at least one (1) business day's prior written notice will be required. To the extent that Landlord installs, maintains, uses, repairs or replaces pipes, cables, ductwork, conduits, utility lines, and/or wires through hung ceiling space, exterior perimeter walls and column space, adjacent to and in demising partitions and columns, in or beneath the floor slab or above, below, or through any portion of the Premises, then in the course of making any such installation or repair: (w) Landlord will not interfere unreasonably with or interrupt the business operations of Tenant within the Premises; (x) Landlord will not reduce Tenant's usable space, except to a de minimus extent, if the same are not installed behind existing walls or ceilings; (y) Landlord will box in any of the same installed adjacent to existing walls with construction materials substantially similar to those existing in the affected area(s) of the Premises; and (z) Landlord will repair all damage caused by the same and restore such area(s) of the Premises to substantially the condition existing immediately prior to such work. Notwithstanding anything to the contrary set forth in this Article 17, Tenant may designate in writing certain reasonable areas of the Premises as "Secured Areas" should Tenant require such areas for the purpose of securing certain valuable property or confidential information. In connection with the foregoing, Landlord shall not enter such Secured Areas except in the event of an emergency. Landlord shall only maintain or repair such secured areas to the extent (i) such repair or maintenance is required in order to maintain and repair the Base Building and Landlord has been provided access to the Secured Areas necessary to perform that repair or maintenance; (ii) as required by Applicable Law, or (iii) in response to specific requests by Tenant and in accordance with a schedule reasonably designated by Tenant, subject to Landlord's reasonable approval. If Landlord has not been provided with keys to the Secured Area, Tenant shall provide a system for making a key available to the fire department and other emergency responders and Tenant shall be responsible for any damage to the Premises or Building arising from Landlord not having been provided with keys to the Secured Area.

7.3 Except as otherwise expressly provided in this Lease, Landlord shall not be liable for any failure to make any repairs or to perform any maintenance and there shall be no abatement of rent and no liability of Landlord by reason of any injury to or interference with Tenant's business arising from the making of any repairs, alterations or improvements in or to any portion of the Project, Building or the Premises or in or to fixtures, and equipment therein. Tenant hereby waives all rights it would otherwise have under California Civil Code Sections 1932(1) and 1942(a), or any similar law, statute or ordinance now or hereafter in effect, to make repairs at Landlord's expense, to deduct repair costs from Rent and/or terminate this Lease as the result of any failure by Landlord to maintain or repair.

7.4 Notwithstanding any provision set forth in this Lease to the contrary, if (a) Tenant provides prior written notice to Landlord of an event or circumstance which requires the action of Landlord with respect to repair and/or maintenance that are Landlord's obligations under Section 6.2(a) or Section 7.1 of this Lease (a "Required Action"), (b) Landlord is, in fact, required to perform such repairs and/or maintenance under the terms of this Lease, and (c) Landlord (i) fails to commence such Required Action within a reasonable period of time, given the circumstances, after the receipt of such notice, but in any event not later than twenty (20) days after receipt of such notice (the "Commencement Period"), or (ii) fails to pursue such Required Action after the Commencement Period with reasonable diligence and complete the same with a reasonable time (the "Required Action Period"), then Tenant may proceed to take the Required Action after delivery of an additional ten (10) day notice to Landlord and any lender for which Tenant has been given an address for notices (such second notice given not earlier than the expiration of the first aforesaid twenty (20) day period for commencement of the repair and/or

maintenance, or not earlier than the expiration of the Required Action Period, as applicable) specifying that the first twenty (20) day period has expired or the Required Action Period has expired, the specific action required and that Tenant intends to take such Required Action. If such action is required under the terms of this Lease to be taken by Landlord and is not commenced or completed (as applicable) by Landlord within such second ten (10) day period, then Tenant shall be entitled to take such action in the manner described below and shall be further entitled to prompt reimbursement by Landlord of Tenant's reasonable and necessary, actual out-of-pocket costs and expenses in taking such action (and only such action as specified in the second ten (10) day notice given to Landlord), but only to the extent such amounts would not have been payable by Tenant under this Lease. Such amounts shall be promptly reimbursed by Landlord on the receipt from Tenant of a detailed invoice setting forth a particularized breakdown of the costs and expenses incurred in connection with the action taken by Tenant. Notwithstanding the foregoing to the contrary, if the Required Action represents a response to an Emergency (defined below), then the required response period with respect to the two (2) notices described above shall be reduced, in such case, to three (3) business days with respect to the first (1st) notice and three (3) business days with respect to the second (2nd) notice, provided that Tenant's first (1st) and second (2nd) notices each specify in bold faced letting that notice in question constitutes a request for Landlord's Required Action with respect to an Emergency pursuant to the provisions of this Section 7.4. If Tenant takes any such action, Tenant shall use only those contractors used by Landlord in the Building for work unless such contractors are unwilling or unable to perform, or timely perform such work, in which event Tenant may utilize the services of any other qualified contractor which normally and regularly performs similar work in Comparable Buildings. Promptly following completion of any work taken by Tenant pursuant to this Section 7.4, Tenant shall deliver a detailed invoice of the work completed, the materials used and the costs relating thereto. If Landlord does not deliver a detailed written objection to Tenant within thirty (30) days after receipt of an invoice from Tenant, then Tenant shall be entitled to deduct from Rent next due and payable by Tenant under this Lease, the amount set forth in such invoice. If, however, Landlord delivers to Tenant, within thirty (30) days after receipt of Tenant's invoice, a written objection to the payment of such invoice, setting forth with reasonable particularity Landlord's reasons for its claim that such action did not have to be taken by Landlord pursuant to this Lease or that the charges are excessive (in which case Landlord shall pay the amount it contends would not have been excessive), then Tenant shall not then be entitled to such deduction from Rent. On the other hand, Tenant may proceed to claim a default by Landlord. If Tenant prevails in such claim, the amount of the award (which shall include interest from the time of each expenditure by Tenant until the date Tenant receives such amount by payment or offset and attorneys' fees and related costs) may be deducted by Tenant from the Rent next due and owing under this Lease; provided, however, that Tenant shall not been entitled to deduct or offset more than fifty percent (50%) of the Base Rent payable hereunder in any calendar month pursuant to the provisions of this Section 7.4 (for example, if the amount owed by Landlord to Tenant is the equivalent of one (1) full calendar month's payment of Base Rent, Tenant would be entitled to deduct fifty percent (50%) of the Base Rent payable hereunder for the next two (2) successive calendar months in order to offset such amount). For purposes of this Section 7.4, an "Emergency" shall mean an event threatening immediate and material danger to people located in the applicable Building or immediate, material damage to the Building, Building Systems, Building structure, any portion of the Premises, or creates a realistic possibility of an immediate and material interference with, or immediate and material interruption of a material aspect of Tenant's business operations which are carried on therein.

7.5 Notwithstanding the foregoing, if at any time during the Term the Tenant leases the entirety of the Project, then, without limiting Tenant's obligations under Article 8 below, Tenant may elect, with written notice to Landlord, to take over the provision of some or all of the services to Project Common Areas. Such notification shall be in writing and shall provide no less than thirty (30) days' notice of the requested termination of Landlord's provision of services to such Project Common Areas, which termination shall be effective with respect to the services designated in Tenant's notice as of the end of a calendar month if required by the applicable vendor contract. In the event Tenant makes this determination, Landlord shall terminate the existing vendor agreement for such services in accordance with the terms of the existing vendor contract and Tenant shall make its own arrangements with a new vendor to provide such services. Although Tenant may elect to provide supplemental services, Tenant will arrange for services at least equal to the level and scope of the services as had been provided by Landlord. The vendor(s) selected by Tenant shall be qualified and reputable and shall contract in writing with Tenant to provide services at least consistent at all times with the services which had been provided by Landlord (subject to such modifications as may be approved in writing by Landlord) and in any event sufficient to comply with the requirements of the CC&R's. Each such new vendor's contract shall be in a commercially reasonable form and shall be terminable upon thirty(30) days written notice by Tenant. Each such new vendor shall assume the obligation to provide the services for which it is retained effective as of the date of termination of the contract with the existing vendor providing such service, and such vendor shall agree in writing to look solely to Tenant for payment under such contract, and Landlord shall have no liability or responsibility with respect thereto. Tenant further agrees to indemnify, defend and hold Landlord harmless from and against any and all claims, liabilities, costs and causes of action arising out of or relating to any contract entered into by Tenant or any services provided pursuant to such contract.

ARTICLE 8

REPAIRS AND CARE OF PREMISES BY TENANT

8.1 Without limiting Tenant's obligations under Section 8.4 below, if the Buildings, the Project, or any portion thereof, including but not limited to, the elevators, boilers, engines, pipes, and other apparatus, or members of elements of the Buildings (or any of them) used for the purpose of climate control of the Buildings or operating of the elevators, or of the water pipes, drainage pipes, electric lighting, or other equipment of the Buildings or the roof or outside walls of the Buildings and also the Premises improvements, including but not limited to, the carpet, wall coverings, doors, and woodwork, become damaged or are destroyed through the negligence, carelessness, or misuse of Tenant, its servants, agents, employees, or anyone permitted by Tenant to be in the Buildings(other than Landlord and Landlord's agents, contractors, employees or representatives), or through it or them, then, subject to Section 13.4 below, the reasonable cost of the necessary repairs, replacements, or alterations shall be borne by Tenant who shall pay the same to Landlord as Additional Rent within thirty (30) days after demand accompanied by reasonably detailed backup documentation. Landlord shall have the exclusive right, but not the obligation, to make any repairs necessitated by such damage.

8.2 Subject to Section 13.4 below, Tenant agrees, at its sole cost and expense, to repair or replace any damage or injury done to the Project, or any part thereof, caused by Tenant, Tenant's agents, employees, licensees, or invitees which Landlord elects not to repair. Tenant shall not injure the Project or the Premises and, at Tenant's sole cost and expense, shall maintain the interior non-structural portions of the Premises, including without limitation all improvements, fixtures and furnishings therein, and the floor or floors on which the Premises are located, in good order, repair and condition at all times during the Term. If Tenant fails to keep such elements of the Premises in such good order, condition, and repair as required hereunder to the reasonable satisfaction of Landlord and such failure continues for ten (10) business days following Landlord's notice to Tenant (except in the case of emergency, in which no such cure period shall apply), Landlord may, upon notice to Tenant, restore the Premises to such good order and condition and make such repairs without liability to Tenant for any loss or damage that may accrue to Tenant's property or business by reason thereof, and within thirty (30) days after Landlord's delivery of a detailed invoice for the cost associated therewith, accompanied by reasonably detailed backup documentation, Tenant shall pay to Landlord, as Additional Rent, upon demand, the cost of restoring the Premises to such good order and condition and of the making of such repairs, plus an additional charge of five percent (5%) thereof; provided, however, that, except in the case of emergency, if any such work of repairs is anticipated to cost in excess of one hundred thousand dollars ($100,000.00), Landlord shall first competitively bid such work to at least three (3) qualified contractors and shall select the lowest responsible bid. Upon the Expiration Date or the Termination Date, Tenant shall surrender and deliver up each portion of the Premises to Landlord in the same condition in which it existed at the applicable Commencement Date for such Premises, excepting only ordinary wear and tear, damage arising from any cause not required to be repaired by Tenant, any alterations approved by Landlord (or permitted to be made by Tenant without the need for Landlord approval) pursuant to Article 15, and the initial Tenant Improvements made to any portion of the Premises by Tenant in accordance with the Tenant Work Letter. Upon the Expiration Date or the Termination Date, Landlord shall have the right to re-enter and take possession of the Premises.

8.3 Tenant shall provide its own janitorial and cleaning services to the Premises at Tenant's sole cost and expense. Landlord is not obligated to provide any janitorial or cleaning services to the Premises.

8.4 Notwithstanding the provisions of Article 7 or the foregoing provisions of this Article 8, with respect to the 1311 Harbor Bay Premises initially, and at any time during the Term when any other portion of the Premises comprises a Single Tenant Building, Tenant, and not Landlord, shall, at Tenant's sole cost and expense, be responsible for the full maintenance and repair of the non-structural interior portions of such Single Tenant Building, including without limitation all corridors, windows, roof membrane, Building Systems, all other non-structural Base Building elements and equipment (i.e., other than the structural elements of the Single Tenant Building and roof, the exterior of the Building and the Common Areas, which shall be the obligation of Landlord as part of Operating Expenses). Tenant's obligations under the prior sentence shall include all work, whether ordinary or extraordinary, including capital expenditures as needed, so that such Single Tenant Building(s) are maintained and repaired to a condition which is consistent with the other Buildings in the Project, or, in the event the Premises ever comprises the entirety of the Project, to a condition which is consistent with Comparable Buildings. In such event, Landlord will either assign to Tenant, or enforce on behalf of Tenant, any then-applicable warranties with respect to any materials or equipment located in the subject Single Tenant Building, at no additional cost to Tenant.

ARTICLE 9

TENANT'S EQUIPMENT AND INSTALLATIONS

9.1 If heat-generating machines or equipment, including telephone equipment, cause the temperature in any portion of the Premises in a Multi-Tenant Building, or any part thereof, to exceed the temperatures any Multi-Tenant Building's air conditioning system would be able to maintain in such Premises were it not for such heat-generating equipment, then Landlord may notify Tenant of such circumstance, and the parties shall promptly meet and confer in good faith in an attempt to determine the most economically efficient method of mitigating the impact of Tenant's machines or equipment, which either Landlord or, at Landlord's option, Tenant, will then implement upon agreement; however, if the parties are unable to agree on any such effective mitigation measure, then Landlord, upon notice to Tenant, shall have the right to install supplementary air conditioning units in the Premises as reasonably necessary to mitigate the effect of Tenant's machinery or equipment, and the cost thereof, including the cost of installation and the cost of operation and maintenance thereof, including water, shall be paid by Tenant to Landlord within thirty (30) days after demand by Landlord.

9.2 The provisions of this Section 9.2 shall apply only with respect to a Multi-Tenant Building. Except for office equipment consistent with office use in Comparable Buildings, Tenant shall not install within the Premises any equipment which consumes high volumes of electricity or produces heat that may affect the temperature of the Premises without the specific written consent of Landlord, subject to Article 15, below. Tenant shall not, without the specific written consent of Landlord (which consent shall not be unreasonably withheld, conditioned, or delayed), install or maintain any apparatus or device within the Premises which shall increase the usage of electrical power or water for the Premises to an amount materially greater than would be normally required for general office use for space of comparable size in Comparable Buildings; and if any such apparatus or device is so installed, Tenant agrees to furnish Landlord a written agreement to pay for any additional costs of utilities as the result of said installation.

ARTICLE 10

FORCE MAJEURE

10.1 It is understood and agreed that with respect to any service or other obligation to be furnished or obligations to be performed by either party, in no event shall either party be liable for failure to furnish or perform the same when prevented from doing so by strike, lockout, breakdown, accident, supply, or inability by the exercise of reasonable diligence to obtain supplies, parts, or employees necessary to furnish such service or meet such obligation; or because of war or other emergency; or for any cause beyond the reasonable control with the party obligated for such performance; or for any cause due to any act or omission of the other party or its agents, employees, licensees, invitees, or any persons claiming by, through, or under the other party; or because of the failure of any public utility to furnish services; or because of order or regulation of any federal, state, county or municipal authority (collectively, "Force Majeure Events"). Nothing in this Section 10.1 shall limit or otherwise modify or waive a party's obligation to pay any amount payable hereunder as and when due pursuant to the terms of this Lease. The provisions of this Article 10 will not, however, serve to delay except as expressly set forth in Article 19 below, the date upon which Tenant may terminate this Lease in accordance with the provisions of Article 19. If either party hereto is delayed in the performance of any obligation hereunder by Force Majeure Event(s), such party shall promptly notify the other of the nature of, obligation and the Force Majeure Event causing such delay, and shall keep the other party apprised, from time to time of the delayed party's reasonable estimate (without warranty) of the extent of the remaining delay.

ARTICLE 11

CONSTRUCTION, MECHANICS' AND MATERIALMAN'S LIENS

11.1 Tenant shall not suffer or permit any construction, mechanics' or materialman's lien to be filed against the Premises or any portion of the Project by reason of work, labor services, or materials supplied or claimed to have been supplied to Tenant. Nothing herein contained shall be deemed or construed in any way as constituting the consent or request of Landlord, expressed or implied, by inference or otherwise, for any contractor, subcontractor, laborer, or materialman to perform any labor or to furnish any materials or to make any specific improvement, alteration, or repair of or to the Premises or any portion of the Project; nor of giving Tenant any right, power, or authority to contract for, or permit the rendering of, any services or the furnishing of any materials that could give rise to the filing of any construction, mechanics' or materialman's lien against the Premises or any portion of the Project.

11.2 If any such construction, mechanics' or materialman's lien shall at any time be filed against the Premises or any portion of the Project as the result of any act or omission of Tenant, Tenant covenants that it shall, within twenty (20) days after Tenant has notice of the claim for lien, procure the discharge thereof by payment or by giving security or in such other manner as is or may be required or permitted by law or which shall otherwise satisfy Landlord. If Tenant fails to take such action, Landlord, in addition to any other right or remedy it may have, may take such action as may be reasonably necessary to protect its interests. Any amounts paid by Landlord in connection with such action, all other expenses of Landlord incurred in connection therewith, including reasonable attorneys' fees, court costs, and other necessary disbursements shall be repaid by Tenant to Landlord within thirty (30) days after demand.

ARTICLE 12

ARBITRATION

12.1 In the event that a dispute arises under Section 5.3 above, Section 18.3 below, or Section 2.3 of the Tenant Work Letter or with respect to the measurement of the Must-Take Space under Section 1.4, the same shall be submitted to arbitration in accordance with the provisions of applicable state law, if any, as from time to time amended. Arbitration proceedings, including the selection of an arbitrator, shall be conducted pursuant to the Streamlined Arbitration Rules of JAMS. Both parties agree to proceed with any such arbitration in good faith and to refrain from taking any actions which will unreasonably delay any such arbitration proceedings. Prior written notice of application by either party for arbitration shall be given to the other at least ten (10) days before submission of the application to the JAMS office in the city wherein the Building is situated (or the nearest other city having a JAMS office). The award of the arbitrator may be entered as a judgment in the appropriate Federal or Superior court, and the parties consent to the jurisdiction of such court and further agree that any service of process or notice of motion or other application to the court or a judge thereof may be served outside the state wherein the Building is situated by registered mail or by personal service, provided a reasonable time for appearance is allowed. The costs and expenses of each arbitration hereunder and their apportionment between the parties shall be determined by the arbitrator in his or her award or decision, subject to the penultimate sentence of this section. No arbitrable dispute shall be deemed to have arisen under this Lease (a) prior to the expiration of the period of twenty (20) days after the date of the giving of written notice by the party asserting the existence of the dispute, together with a description thereof sufficient for an understanding thereof, and (b) where Tenant disputes the amount of a Tenant payment required hereunder (e.g., Operating Expense excess under Section 5.3 hereof), prior to Tenant paying in full the amount billed by Landlord, including the disputed amount. The prevailing party in such arbitration shall be reimbursed for its expenses, including reasonable attorneys' fees. Notwithstanding the foregoing, in no event shall this Article 12 affect or delay Landlord's unlawful detainer rights under California law.

ARTICLE 13

INSURANCE

13.1 Landlord shall maintain, as a part of Operating Expenses, special causes of loss form property insurance on the Project (excluding, at Landlord's option, the property required to be insured by Tenant pursuant to Section 13.2(e), below) in an amount equal to the full replacement cost of the Project, subject to such deductibles as Landlord may determine. Such coverage will be inclusive of standard fire and extended coverage insurance, including endorsements (or coverage in the policy) against vandalism, malicious mischief and other perils, will contain at least twelve (12) months of "rental income loss" coverage payable in instances in which Tenant is entitled to Rent abatement hereunder, and shall include (i) an "extended coverage" endorsement (or coverage in the policy), (ii) a "building laws" and/or "law and ordinance" coverage endorsement (or coverage in the policy) that covers "costs of demolition," "increased costs of construction" due to changes in building codes and "contingent liability" with respect to undamaged portions of the Buildings, and (iii) an "earthquake sprinkler leakage" endorsement (or coverage in the policy). Landlord shall not be obligated to insure, and shall not assume any liability of risk of loss for, any of Tenant's furniture, equipment, machinery, goods, supplies, improvements or alterations upon the Premises. Such insurance shall be maintained with an insurance company selected, and in amounts desired, by Landlord or Landlord's mortgagee, and payment for losses thereunder shall be made solely to Landlord subject to the rights of the holder of any mortgage or deed of trust which may now or hereafter encumber the Project. Additionally Landlord may maintain such additional insurance, including, without limitation, earthquake insurance, flood insurance, liability insurance and/or rent insurance, as Landlord may in its sole discretion elect. The cost of all such additional insurance shall also be part of the Operating Expenses. Any or all of Landlord's insurance may be provided by blanket coverage maintained by Landlord or any affiliate of Landlord under its insurance program for its portfolio of properties, and in such event Operating Expenses shall include the portion of the reasonable cost of blanket insurance that is allocated to the Project. Landlord may elect to meet some or all of its insurance obligations under this Lease pursuant to a program of self-insurance, including loss reserves derived in accordance with accepted standards of the insurance industry and accrued or otherwise funded, that is comparable the self

insurance programs of other comparable owners of Comparable Buildings with respect to such Comparable Buildings, and in such event Operating Expenses shall include the portion of the reasonable cost of self-insurance that is allocated to the Project. If Landlord so elects to self-insure, then the following shall apply:

(a) Landlord shall have, and shall promptly perform each and every of the duties of, an insurer issuing the policy which Landlord has elected to self-insure (and Landlord shall have no defense to such duties arising from or in connection with this Lease, except to the extent that such defense would be available to an unrelated third-party insurer issuing the required policy of insurance and issuing a waiver of subrogation as to Tenant), including all fiduciary duties and duties of good faith and fair dealing implied by law with respect to insurance carriers.

(b) Any self-insurance by Landlord shall comply with all insurance requirements of Landlord otherwise required by the provisions of this Lease and shall provide coverage no less restrictive than as provided by standard Insurance Services Office, Inc. policy form commercially available during the Term and, as to property insurance, equivalent in coverage to that provided by a "Causes of Loss - Special Form" policy as of the Effective Date.

(c) Landlord shall have no claim, and Landlord hereby waives all rights of recovery, against Tenant, its agents, officers, directors, shareholders, members, managers, constituent partners or employees, for any damage, loss, or injury which would have been covered by any policy of property insurance policy required under this Lease, even if Landlord is self-insuring for all or a portion of the perils or risks which would have been covered by such policy of insurance had it been carried with a third party insurance carrier, rather than self-insured; provided that Landlord shall have all defenses that would be available to an unrelated third-party insurer issuing the required policy of insurance and issuing a waiver of subrogation as to Tenant.

13.2 Tenant, at its own expense, shall maintain with insurers authorized to do business in the State of California and which are rated A- or better and have a financial size category of at least VII in the most recent Best's Key Rating Guide, or any successor thereto (or if there is none, an organization having a national reputation), (a) commercial general liability insurance, including Broad Form Property Damage and Contractual Liability with the following minimum limits: General Aggregate $3,000,000.00; Products/Completed Operations Aggregate $2,000,000.00; Each Occurrence $2,000,000.00; Personal and Advertising Injury $1,000,000.00; Medical Payments $5,000.00 per person, (b) Umbrella/Excess Liability on a following form basis with the following minimum limits: General Aggregate $10,000,000.00; Each Occurrence $10,000,000.00; (c) Workers' Compensation with statutory limits; (d) Employer's Liability insurance with the following limits: Bodily injury by disease per person $1,000,000.00; Bodily injury by accident policy limit $1,000,000.00; Bodily injury by disease policy limit $1,000,000.00; (e) property insurance on special causes of loss insurance form covering (i) all office furniture, business and trade fixtures, office equipment, free-standing cabinet work, movable partitions, merchandise and all other items of Tenant's property on the Premises installed by, for, or at the expense of Tenant, (ii) the "Tenant Improvements," as that term is defined in Section 2.1 of the Tenant Work Letter, and any other improvements which exist in the Premises as of the Commencement Date (excluding the Base Building) (the "Original Improvements"), and (iii) all other improvements, alterations and additions to the Premises (such insurance shall be for the full replacement cost value (subject to reasonable deductible amounts) new without deduction for depreciation of the covered items and in amounts that meet any co-insurance clauses of the policies of insurance and shall include coverage for damage or other loss caused by fire or other peril including, but not limited to, vandalism and malicious mischief, theft, water damage of any type, including sprinkler leakage, bursting or stoppage of pipes, and explosion); and (f) business auto liability insurance having a combined single limit of not less than One Million Dollars ($1,000,000.00) per occurrence and insuring Tenant against liability for claims arising out of ownership, maintenance or use of any owned, hired or non-owned automobiles. At all times during the Term, such insurance shall be maintained, and Tenant shall cause a current and valid certificate of such policies to be deposited with Landlord. If Tenant fails to have a current and valid certificate of such policies on deposit with Landlord at all times during the Term and such failure is not cured within three (3) business days following Tenant's receipt of notice thereof from Landlord, Landlord shall have the right, but not the obligation, to obtain such an insurance policy, and Tenant shall be obligated to pay Landlord the amount of the premiums applicable to such insurance within thirty (30) days after Tenant's receipt of Landlord's request for payment thereof. Said policy of liability insurance shall designate Landlord and Landlord's managing agent as additional insureds and Tenant as the insured and shall be noncancellable with respect to Landlord except after thirty (30) days' written notice from the insurer to Landlord; notwithstanding the foregoing, Landlord acknowledges that, as of the Effective Date, many insurers are unwilling to provide third parties (such as Landlord) with notice of cancellation and agrees that if Tenant is unable to obtain such commitment from its insurer, then Tenant's obligation pursuant to the provisions of this sentence will be to promptly notify Landlord following Tenant's receipt of any notice of cancellation from Tenant's insurer.

13.3 Tenant shall adjust the amount of coverage established in Section 13.2 hereof to such amount as in Landlord's reasonable opinion, adequately protects Landlord's interest; provided that (i) the same is consistent with the amount of coverage customarily required of comparable tenants in Comparable Buildings and (ii) Landlord shall not have the right to require Tenant to adjust its insurance coverage more than once in any twenty four (24) calendar month period.

13.4 Notwithstanding anything in this Lease to the contrary, Landlord and Tenant each hereby waives any and all rights of recovery, claim, action, or cause of action against the other, its agents, employees, licensees, or invitees for any loss or damage to or at the Premises or the Project or any personal property of such party therein or thereon by reason of fire, the elements, or any other cause which would be insured against under the terms of (i) special causes of loss form property insurance or (ii) the liability insurance referred to in Section 13.2, to the extent of such insurance, regardless of cause or origin, including omission of the other party hereto, its agents, employees, licensees, or invitees. Landlord and Tenant covenant that no insurer shall hold any right of subrogation against either of such parties with respect thereto. This waiver shall be ineffective against any insurer of Landlord or Tenant to the extent that such waiver is prohibited by the laws and insurance regulations of the State of California. The parties hereto agree that any and all such insurance policies required to be carried by either shall be endorsed with a subrogation clause, substantially as follows: "This insurance shall not be invalidated should the insured waive, in writing prior to a loss, any and all right of recovery against any party for loss occurring to the property described therein, " and shall provide that such party's insurer waives any right of recovery against the other party in connection with any such loss or damage. For avoidance of doubt, if at any time Landlord elects to self-insure for any of its obligations as described in Section 13.1, above, then for the purposes of this Section 13.4, Landlord shall be deemed to have maintained all of the insurance coverage described in Section 13.1 above.

13.5 In the event Tenant's occupancy or conduct of business in or on the Premises, whether or not Landlord has consented to the same, results in any increase in premiums for the insurance carried from time to time by Landlord with respect to the Buildings, Tenant shall pay any such increase in premiums as Rent within thirty (30) days after bills for such additional premiums shall be rendered by Landlord. In determining whether increased premiums are a result of Tenant's use or occupancy of the Premises, a schedule issued by the organization computing the insurance rate on the Buildings showing the various components of such rate, shall be conclusive evidence of the several items and charges which make up such rate. Tenant shall promptly comply with all reasonable requirements of the insurance authority or of any insurer now or hereafter in effect relating to the Premises.

13.6 If Landlord or Tenant has been or at any time hereafter is granted the right to self-insure or if either party breaches this agreement by its failure to carry required insurance, such failure shall automatically be deemed to be a covenant and agreement by Landlord or Tenant, respectively, to self-insure to the full extent of such required coverage, with full waiver of subrogation. For clarity, Tenant does not have the right to self insure.

ARTICLE 14

QUIET ENJOYMENT

14.1 Provided No Event of Default on the part of Tenant exists under this Lease, including, but not limited to, the payment of Rent and all other sums due hereunder, Tenant shall peaceably and quietly hold and enjoy the Premises for the Term, without hindrance by Landlord, subject to the provisions and conditions set forth in this Lease.

ARTICLE 15

ALTERATIONS

15.1 Tenant agrees that, except as set forth herein, it shall not make or allow to be made any alterations, physical additions, or improvements in or to the Premises without first obtaining the written consent of Landlord in each instance. As used herein, the term "Minor Alteration" refers to an alteration that (a) does not affect the outside appearance of any Building and is not visible from the Common Areas, (b) is non-structural and does not impair the strength or structural integrity of any Building, and (c) does not adversely affect the Building Systems of any Building in any material way. Landlord agrees not to unreasonably withhold, condition or delay its consent to any Minor Alteration. Landlord's consent to any other alteration may be conditioned, given, or withheld in Landlord's sole discretion. Notwithstanding the foregoing, (x) Landlord consents to any repainting, recarpeting, or other purely cosmetic changes or upgrades to the Premises, so long as (i) the aggregate cost of such work is less than $250,000.00 in any Building in any twelve-month period (i.e., Tenant may spend up to $250,000.00 in each of two (2) separate Buildings in the same year pursuant to the provisions of this clause (i)), (ii) such work constitutes a Minor Alteration and (iii) no building permit is required in connection therewith and (y) subject to Landlord's

reasonable review and approval of Tenant's plans therefor, Landlord agrees that Tenant shall have the right to install clean rooms, testing areas, laboratories and other uses that support Tenant's business operations provided that the same are legally permitted and comply with all Applicable Laws. At the time of said request, Tenant shall submit to Landlord plans and specifications of the proposed alterations, additions, or improvements; and Landlord shall have a period of not less than ten (10) business days therefrom in which to review and approve or disapprove said plans; provided that if Landlord determines in good faith that Landlord requires a third party to assist in reviewing such plans and specifications, Landlord shall instead have a period of not less than twenty (20) business days in which to review and approve or disapprove said plans. If Landlord fails to notify Tenant of Landlord's approval or disapproval of any plans pursuant to Section 15.1 within the applicable time period set forth in Section 15.1, Tenant shall have the right to provide Landlord with a second written request for approval (a "Second Request") that contains the following statement in bold and capital letters: "**THIS IS A SECOND REQUEST FOR APPROVAL OF PLANS PURSUANT TO THE PROVISIONS OF SECTION 15.1 OF THE LEASE. IF LANDLORD FAILS TO RESPOND WITHIN FIVE (5) BUSINESS DAYS AFTER RECEIPT OF THIS NOTICE, THEN LANDLORD SHALL BE DEEMED TO HAVE APPROVED THE WORK DESCRIBED HEREIN.** If Landlord fails to respond to such Second Request within five (5) business days after receipt by Landlord, the works in question shall be deemed approved by Landlord. If Landlord timely delivers to Tenant notice of Landlord's disapproval, Tenant may revise Tenant's plans to incorporate the changes suggested by Landlord in Landlord's notice of disapproval, and resubmit such plans to Landlord; in such event, the scope of Landlord's review shall be limited to Tenant's correction of the items in which Landlord had previously objected in writing. Landlord's review and approval (or deemed approval) of such revised plans shall be governed by the provisions set forth above in this Section 15.1). The procedure set out above for approval of Tenant's plans will also apply to any change, addition or amendment to Tenant's plans. Tenant shall pay to Landlord upon demand the actual, commercially reasonable third party cost and expense of Landlord in (A) reviewing said plans and specifications, and (B) inspecting the alterations, additions, or improvements to determine whether the same are being performed in accordance with the approved plans and specifications and all laws and requirements of public authorities, including, without limitation, the fees of any architect or engineer employed by Landlord for such purpose; provided the costs and expenses described in subclause (A) above shall not apply with respect to any alterations to any portion of the Premises which is in a Single Tenant Building, and for all other portions of the Premises shall be limited to the lesser of $25,000 or three percent (3%) of the contracted improvement cost of the applicable alterations. In any instance where Landlord grants such consent, and permits Tenant to use its own contractors, laborers, materialmen, and others furnishing labor or materials for Tenant's construction (collectively, "Tenant's Contractors"), Landlord's consent shall be deemed conditioned upon each of Tenant's Contractors (1) working in harmony and not interfering with any laborer utilized by Landlord, Landlord's contractors, laborers, or materialmen; and (2) furnishing Landlord with evidence of acceptable liability insurance, worker's compensation coverage and if required by Landlord, completion bonding, and if at any time such entry by one or more persons furnishing labor or materials for Tenant's work shall cause such disharmony or interference, the consent granted by Landlord to Tenant may be withdrawn immediately upon written notice from Landlord to Tenant. Landlord agrees not to require completion bonding for any Alterations costing less than $250,000.00 so long as the initially named Tenant is the Tenant under this Lease. Tenant, at its expense, shall obtain all necessary governmental permits and certificates for the commencement and prosecution of alterations, additions, or improvements and for final approval thereof upon completion, and shall cause any alterations, additions, or improvements to be performed in compliance therewith and with all Applicable Laws (including without limitation, California Energy Code, Title 24) and all requirements of public authorities and with all applicable requirements of insurance bodies. All alterations, additions, or improvements shall be diligently performed in a good and workmanlike manner, using new materials and equipment at least equal in quality and class to be better than (a) the original installations of the Buildings, or (b) the then standards for the Comparable Building. Upon the completion of work and upon request by Landlord, Tenant shall provide Landlord copies of all waivers or releases of lien from each of Tenant's Contractors. No alterations, modifications, or additions to the Project or the Premises shall be removed by Tenant either during the Term or upon the Expiration Date or the Termination Date without the express written approval of Landlord, which will not be unreasonably withheld, conditioned or delayed. Tenant shall not be entitled to any reimbursement or compensation resulting from its payment of the cost of constructing all or any portion of said improvements or modifications thereto unless otherwise expressly agreed by Landlord in writing. Tenant agrees specifically that no food, soft drink, or other vending machine shall be installed within the Premises, without the prior written consent of Landlord as to the effect on the structure of the Building, which consent shall not be unreasonably withheld, conditioned or delayed.

15.2 Landlord's approval of Tenant's plans for work shall create no responsibility or liability on the part of Landlord for their completeness, design sufficiency, or compliance with all laws, rules, and regulations of governmental agencies or authorities, including, but not limited to, the Americans with Disabilities Act. Tenant's Contractors shall be subject to the prior written approval of Landlord, which shall not be unreasonably withheld, conditioned or delayed.

15.3 At least five (5) days prior to the commencement of any work permitted to be done by persons requested by Tenant on the Premises, Tenant shall notify Landlord of the proposed work and the names and addresses of

Tenant's Contractors. During any such work on the Premises, Landlord, or its representatives, shall have the right to go upon and inspect the Premises at all reasonable times, provided that Landlord and Landlord's representatives shall use commercially reasonable efforts to minimize any interference with, or delay or, the process of construction of any such alterations or improvements resulting from such inspections, and shall have the right to post and keep posted thereon building permits and notices of non-responsibility or to take any further action which Landlord may deem to be proper for the protection of Landlord's interest in the Premises.

15.4 At the conclusion of any alteration, (i) Tenant shall cause the applicable architect and contractor (A) to update the applicable drawings approved by Landlord as necessary to reflect all changes made to the applicable drawings approved by Landlord during the course of construction, (B) to certify to the best of their knowledge that the "record-set" of as-built drawings are true and correct, (C) to deliver to Landlord two (2) sets of sepias of such as-built drawings within ninety (90) days following issuance of a certificate of occupancy for the applicable portion of the Premises, and (D) to deliver to Landlord a computer disk containing the applicable drawings in AutoCAD format, and (ii) Tenant shall deliver to Landlord a copy of all warranties, guaranties, and operating manuals and information relating to the improvements, equipment, and systems in the applicable portion of the Premises.

15.5 Tenant's initial improvement of each portion of the Premises (inclusive of any Must-Take Space) shall be governed by Exhibit C and not the provisions of this Article 15.

ARTICLE 16

FURNITURE, FIXTURES, AND PERSONAL PROPERTY

16.1 Tenant, at its sole cost and expense, may remove its trade fixtures, office supplies and moveable office furniture and equipment not attached to the Project or Premises provided:

(a) Such removal is made prior to the Expiration Date or the Termination Date; and

(b) Tenant promptly repairs all damage caused by such removal.

16.2 If Tenant does not remove its trade fixtures, office supplies, and moveable furniture and equipment as herein above provided prior to the Expiration Date or the Termination Date (unless prior arrangements have been made with Landlord and Landlord has agreed in writing to permit Tenant to leave such items in the Premises for an agreed period), then, in addition to its other remedies, at law or in equity, Landlord shall have the right to have such items removed and stored at Tenant's sole cost and expense and all damage to the Project or the Premises resulting from said removal shall be repaired at the cost of Tenant; Landlord may elect that such items automatically become the property of Landlord upon the Expiration Date or the Termination Date, and Tenant shall not have any further rights with respect thereto or reimbursement therefor subject to the provisions of applicable law. All other property in the Premises, any alterations, or additions to the Premises (including wall-to-wall carpeting, paneling, wall covering, specially constructed or built-in cabinetry or bookcases), and any other article attached or affixed to the floor, wall, or ceiling of the Premises shall become the property of Landlord and shall remain upon and be surrendered with the Premises as a part thereof at the Expiration or Termination Date regardless of who paid therefor; and Tenant hereby waives all rights to any payment or compensation therefor. If, and only if, however, concurrently with Landlord's approval of any Alteration which constitutes a Specialty Alteration (defined below), Landlord in writing, notifies Tenant that such Alteration constitutes a Specialty Alteration which, if installed or controlled by Tenant, will be required to be removed by Tenant at the expiration or sooner termination of this Lease, then Tenant shall, prior to the Expiration Date or the Termination Date, remove such Specialty Alterations other than the initial Tenant Improvements constructed prior to the Commencement Date pursuant to the Tenant Work Letter and shall repair any damage caused by such removal. As used herein, a "Specialty Alteration" shall mean any Alteration that cannot reasonably be categorized as a general office/research and development/light manufacturing improvement (it being agreed that clean room space and laboratory space similar to the clean room/lab space being operated by Tenant as of the Effective Date in other occupied portions of the Project will not be deemed a Specialty Alteration) including, but not limited to improvements which (i) require major penetrations of a floor slab (other than normal core drilling), (ii) consist of the dedication of any material portion of the Premises to non-office/research and development/light manufacturing usage (such as commercial kitchen improvements located in cafeterias and/or Restaurants such as exhaust hoods, ovens, cooktops, food preparation areas, food storage areas, and walk-in refrigeration units or laboratories or manufacturing facilities containing heavy infrastructure the existence of which would materially preclude the use of such space for normal office/research and development/light manufacturing purposes). For avoidance of doubt, (A) an open ceiling will not be considered a Specialty Alteration and (B) no improvements existing in the Premises as of the Effective Date or constructed by Tenant as part of the initial Tenant Improvements in any portion of the Premises prior to the

Commencement Date will be considered a Specialty Alteration and (C) if and to the extent that Tenant at any time constructs a Restaurant in the Premises (or converts a cafeteria operation to a Restaurant operation) and the portion of the Premises occupied by Restaurants does not exceed the Restaurant Threshold (as defined below) no improvements comprising such Restaurant shall be deemed a Specialty Alteration, and Landlord will not have the right to require Tenant to remove any improvements located in any Restaurant. If the portion of the Premises occupied by Restaurants exceeds the Restaurant Threshold, any areas designated by Landlord that are occupied by Restaurants that exceed the Restaurant Threshold shall be treated as containing Specialty Alterations. As used herein, the "Restaurant Threshold" means (1) four (4) Restaurants, or (2) a total rentable area occupied by Restaurants equal to 12,500 rentable square feet, whichever is less.

16.3 All the furnishings, fixtures, equipment, effects, and property of every kind, nature, and description of Tenant and of all persons claiming by, through, or under Tenant which, during the continuance of this Lease or any occupancy of the Premises by Tenant or anyone claiming under Tenant, may be on the Premises or elsewhere in the Project shall be at the sole risk and hazard of Tenant, and if the whole or any part thereof shall be destroyed or damaged by fire, water, or otherwise, or by the leakage or bursting of water pipes, steam pipes, or other pipes, by theft, or from any other cause, no part of said loss or damage is to be charged to or be borne by Landlord unless due to the gross negligence or willful misconduct of Landlord or its employees, agents or contractors.

ARTICLE 17

PERSONAL PROPERTY AND OTHER TAXES

17.1 During the Term hereof, Tenant shall pay, prior to delinquency, all business and other taxes, charges, notes, duties, and assessments levied, and rates or fees imposed, charged, or assessed against or in respect of Tenant's occupancy of the Premises or in respect of the personal property, trade fixtures, furnishings, equipment, and all other personal and other property of Tenant contained in the Project (including without limitation taxes and assessments attributable to the cost or value of any leasehold improvements made in or to the Premises by or for Tenant (to the extent that the assessed value of those leasehold improvements exceeds the assessed value of standard office improvements in other space in the Project regardless of whether title to those improvements is vested in Tenant or Landlord)), and shall hold Landlord harmless from and against all payment of such taxes, charges, notes, duties, assessments, rates, and fees, and against all loss, costs, charges, notes, duties, assessments, rates, and fees, and any and all such taxes. Tenant shall cause said fixtures, furnishings, equipment, and other personal property to be assessed and billed separately from the real and personal property of Landlord; provided, however, that if Landlord does not at any time require all other tenants of the Project as to which Landlord has a clear contractual right to do so to similarly cause their fixtures, furnishings, equipment and other personal property to be assessed and billed separately from the real and personal property of Landlord, then this sentence shall not apply to Tenant. In the event any or all of Tenant's fixtures, furnishings, equipment, and other personal property shall be assessed and taxed with Landlord's real property, Tenant shall pay to Landlord Tenant's share of such taxes within thirty (30) days after delivery to Tenant by Landlord of a statement in writing setting forth the amount of such taxes applicable to Tenant's property accompanied by reasonable backup documentation. In addition, Tenant shall be liable for and shall pay ten (10) days before delinquency any (i) rent tax, gross receipts tax, or sales tax, service tax, transfer tax or value added tax, or any other applicable tax on the rent or services herein or otherwise respecting this Lease; or (ii) taxes assessed upon or with respect to the possession, leasing, operation, management, maintenance, alteration, repair, use or occupancy by Tenant of the Premises or any portion of the Project. If any of such taxes are billed to Landlord or included in bills to Landlord for taxes, then Tenant shall pay to Landlord all such amounts within thirty (30) days after receipt of Landlord's invoice therefor. If applicable law prohibits Tenant from reimbursing Landlord for any such taxes, but Landlord may lawfully increase the Base Rent to account for Landlord's payment of such taxes, the Base Rent payable to Landlord shall be increased to net to Landlord the same return without reimbursement of such taxes as would have been received by Landlord with reimbursement of such taxes.

ARTICLE 18

ASSIGNMENT AND SUBLETTING

18.1 Except as expressly set forth herein, Tenant shall not, without the prior written consent of Landlord, which consent shall not be unreasonably withheld, conditioned or delayed (except that Landlord shall in no event be obligated to consent to an encumbrance of this Lease or any transfer by operation of law): (a) assign, convey, mortgage or otherwise transfer this Lease or any interest hereunder, or sublease the Premises, or any part thereof, whether voluntarily or by operation of law; or (b) permit the use of the Premises or any part thereof by any person other than Tenant and its employees. Any such transfer, sublease or use described in the preceding sentence (a "Transfer") occurring without the prior written consent of Landlord shall, at Landlord's option, be void and of no effect. Landlord's consent to any Transfer shall not constitute a waiver

of Landlord's right to withhold its consent to any future Transfer. Landlord may require as a condition to its consent to any assignment of this Lease that the assignee execute an instrument in which such assignee assumes the remaining obligations of Tenant hereunder; provided that the acceptance of any assignment of this Lease by the applicable assignee shall automatically constitute the assumption by such assignee of all of the remaining obligations of Tenant that accrue following such assignment. The voluntary or other surrender of this Lease by Tenant or a mutual cancellation hereof shall not work a merger and shall, at the option of Landlord, terminate all or any existing sublease or may, at the option of Landlord, operate as an assignment to Landlord of Tenant's interest in any or all such subleases.

18.2 For purposes of this Lease, the term "Transfer" shall also include (i) if a Tenant is a partnership or limited liability company, the withdrawal or change, voluntary, involuntary or by operation of law, of fifty percent (50%) or more of the partners, members or managers thereof, or transfer of twenty-five percent (25%) or more of partnership or membership interests therein within a twelve (12) month period, or the dissolution of the partnership or the limited liability company without immediate reconstitution thereof, and (ii) if Tenant is a corporation whose stock is not publicly held and not traded through an exchange or over the counter or any other form of entity, (A) the dissolution, merger, consolidation or other reorganization of Tenant, the sale or other transfer of Control of Tenant (other than a transfer of shares to immediate family members by reason of gift or death), to an individual or entity who did not previously Control Tenant, or (B) the sale, mortgage, hypothecation or pledge of more than an aggregate of fifty percent (50%) of the value of the unencumbered assets of Tenant within a twelve (12) month period. As used herein "Control" means, with respect to any party, the direct or indirect power to direct the ordinary management and policies of such party, whether through the ownership of voting securities, by statute or by contract or otherwise (but not through the ownership of voting securities listed on a recognized securities exchange) and whether directly or indirectly through Affiliates. A public offering of Tenant's shares on any nationally recognized securities exchange will not be deemed a Transfer.

18.3 If Tenant desires the consent of Landlord to a Transfer, Tenant shall submit to Landlord, at least thirty (30) days prior to the proposed effective date of the Transfer, a written notice (the "Transfer Notice") which includes (a) the name of the proposed sublessee or assignee, (b) the nature of the proposed sublessee's or assignee's business, (c) the terms and provisions of the proposed sublease or assignment, and (d) current financial statements and information on the proposed sublessee or assignee. Within five (5) business days following receipt of the Transfer Notice, Landlord may reasonably request additional information concerning the Transfer or the proposed sublessee or assignee (the "Additional Information") if Landlord, in Landlord's reasonable discretion, deems such Additional Information could be necessary in order for Landlord to appropriately evaluate the Transfer described in the Transfer Notice. Subject to Landlord's rights under Section 18.6, Landlord shall not unreasonably withhold its consent to any assignment or sublease (excluding an encumbrance or transfer by operation of law), which consent or lack thereof shall be provided within twenty (20) business days of receipt of Tenant's Transfer Notice; provided, however, Tenant hereby agrees that it shall be a reasonable basis for Landlord to withhold its consent if Landlord has not received the Additional Information requested by Landlord. If Landlord fails to timely deliver to Tenant notice of Landlord's consent, or the withholding of consent, to a proposed Transfer, Tenant may send a second (2nd) notice to Landlord, which notice must contain the following inscription, in bold faced lettering: **"SECOND NOTICE DELIVERED PURSUANT TO ARTICLE 18 OF LEASE - - FAILURE TO TIMELY RESPOND WITHIN FIVE (5) BUSINESS DAYS SHALL RESULT IN DEEMED APPROVAL OF ASSIGNMENT OR SUBLEASE."** If Landlord fails to deliver notice of Landlord's consent to, or the withholding of Landlord's consent, to the proposed assignment or sublease within such five (5) business day period, Landlord shall be deemed to have approved the assignment or sublease in question. If Landlord at any time timely delivers notice to Tenant or Landlord's withholding of consent to a proposed assignment or sublease, Landlord shall specify in reasonable detail in such notice, the basis for such withholding of consent. Without limiting any other reasonable basis for Landlord to withhold its consent to the proposed Transfer, Landlord and Tenant agree that for purposes of this Lease and any Applicable Law, Landlord shall not be deemed to have unreasonably withheld its consent if, in the judgment of Landlord: (i) the transferee is of a character or engaged in a business which is not in keeping with the standards generally provided at Comparable Buildings; (ii) the financial condition of the transferee is such that it may not be able to perform its obligations in connection with this Lease (or otherwise does not satisfy Landlord's standards for financial standing with respect to tenants under direct leases of comparable economic scope); (iii) the transferee, or any person or entity which directly or indirectly controls, is controlled by the transferee, is negotiating for space in the Project or has negotiated with Landlord within the preceding one hundred ninety (190) days (or is currently negotiating with Landlord) to lease space in the Project and in either case, Landlord then has sufficient available space in the Project to accommodate such proposed transferee's occupancy needs, (iv) the transferee has the power of eminent domain, is a governmental agency or an agency or subdivision of a foreign government; (v) an Event of Default by Tenant has occurred and is uncured at the time Tenant delivers the Transfer Notice to Landlord; (vi) in the judgment of Landlord, such a Transfer would violate any term, condition, covenant, or agreement of Landlord involving the Project or any other tenant's lease within it or would give an occupant of the Project a right to cancel or modify its lease; (vii) in Landlord's judgment, the use of the Premises by the proposed transferee would not be comparable to the types of use by other tenants in the Project, would result in more density of occupants per square foot of the

Premises which materially exceeds the density for which the Building Systems in the Building in question were designed to accommodate, unless Tenant agrees to bear the cost of any upgrade to such Building Systems, would increase the burden on elevators or other Building Systems or equipment beyond the capacity for which they were designed, would require increased services by Landlord (unless Tenant or the transferee are willing to bear the cost of such increased services) or would require any alterations to the Project to comply with applicable laws (unless Tenant or the transferee are willing to bear the cost of such work); (viii) the transferee intends to use the space for purposes which are not permitted under this Lease; (ix) the terms of the proposed Transfer would allow the transferee to exercise a right of renewal, right of expansion, right of first offer, or other similar right held by Tenant (or will allow the transferee to occupy space leased by Tenant pursuant to any such right); (x) the proposed Transfer would result in more than five subleases on any full floor of the Premises being in effect at any one time during the Term; or (xi) any ground lessor or mortgagee whose consent to such Transfer is required fails to consent thereto. Tenant hereby waives any right to terminate the Lease and/or recover damages as remedies for Landlord wrongfully withholding its consent to any Transfer and agrees that Tenant's sole and exclusive remedy therefor shall be to seek specific performance of Landlord's obligation to consent to such Transfer. However, in the event that Tenant, in good faith, believes that Landlord's withholding of consent to any proposed transfer is not reasonable, at Tenant's option, the matter shall be submitted to arbitration pursuant to the provisions of Article 12 above.

18.4 Landlord and Tenant agree that, in the event of any approved assignment or subletting, the rights of any such assignee or sublessee of Tenant herein shall be subject to all of the terms, conditions, and provisions of this Lease, including, without limitation, restriction on use, assignment, and subletting and the covenant to pay Rent. In the event of any Event of Default by Tenant, Landlord may collect the rent owing by the sublessee directly from such sublessee and apply the amount so collected to the Rent herein reserved. No such consent to or recognition of any such assignment or subletting shall constitute a release of Tenant or any guarantor of Tenant's performance hereunder from further performance by Tenant or such guarantor of covenants undertaken to be performed by Tenant herein. Tenant and any such guarantor shall remain liable and responsible for all Rent and other obligations herein imposed upon Tenant, and Landlord may condition its consent to any Transfer upon the receipt of a written reaffirmation from each such guarantor in a form reasonably acceptable to Landlord (which shall not be construed to imply that the occurrence of a Transfer without such a reaffirmation would operate to release any guarantor). Consent by Landlord to a particular assignment, sublease, or other transaction shall not be deemed a consent to any other or subsequent transaction. In any case where Tenant desires to assign, sublease or enter into any related or similar transaction, whether or not Landlord consents to such assignment, sublease, or other transaction, Tenant shall pay any reasonable attorneys' fees incurred by Landlord in connection with such assignment, sublease or other transaction, including, without limitation, fees incurred in reviewing documents relating to, or evidencing, said assignment, sublease, or other transaction. All documents utilized by Tenant to evidence any subletting or assignment for which Landlord's consent has been requested and is required hereunder, shall be subject to prior approval (not to be unreasonably withheld, conditioned or delayed) by Landlord or its attorney.

18.5 Tenant shall be bound and obligated to pay Landlord a portion of any sums or economic consideration payable to Tenant by any sublessee, assignee, licensee, or other transferee, within thirty (30) days following receipt thereof by Tenant from such sublessee, assignee, licensee, or other transferee, as the case might be, as follows:

(a) In the case of an assignment, fifty percent (50%) of any sums or other economic consideration received by Tenant as a result of such assignment shall be paid to Landlord after first deducting the unamortized cost of reasonable leasehold improvements paid for by Tenant in connection with such assignment, (whether paid directly by Tenant or as an allowance), any reasonable rental concessions granted by Tenant in connection with such assignment, and the reasonable cost of any real estate commissions, marketing costs, and legal fees incurred by Tenant in connection with such assignment.

(b) In the case of a subletting, fifty percent (50%) of any sums or economic consideration received by Tenant as a result of such subletting shall be paid to Landlord after first deducting (i) the Rent due hereunder prorated to reflect only Rent allocable to the sublet portion of the Premises, (ii) any reasonable rental concessions granted by Tenant in connection with such subletting (which shall be amortized over the term of the sublease), and (iii) the reasonable cost of any real estate commissions leasehold improvements (whether paid directly by Tenant or as an allowance), marketing costs and legal fees incurred by Tenant in connection with such subletting, which shall be amortized over the term of the sublease.

(c) Tenant shall provide Landlord with a detailed statement setting forth any sums or economic consideration Tenant either has or will derive from such Transfer, the deductions permitted under (a) and (b) of this Section 18.5, and the calculation of the amounts due Landlord under this Section 18.5. In addition, Landlord or its representative shall have the right at all reasonable times to audit the books and records of Tenant with respect to the

calculation of the Transfer profits. If such inspection reveals that the amount paid to Landlord was incorrect, then within thirty (30) days of Tenant's receipt of the results of such audit, Tenant shall pay Landlord the deficiency and the cost of Landlord's audit.

18.6 If this Lease is assigned to any person or entity pursuant to the provisions of the Bankruptcy Code, 11 U.S.C. Section 101 et seq. or any successor or substitute therefor (the "Bankruptcy Code"), any and all monies or other consideration payable or otherwise to be delivered in connection with such assignment shall be paid or delivered to Landlord, shall be and remain the exclusive property of Landlord, and shall not constitute property of Tenant or of the estate of Tenant within the meaning of the Bankruptcy Code. Any such monies or other consideration not paid or delivered to Landlord shall be held in trust for the benefit of Landlord and shall be promptly paid or delivered to Landlord. Any person or entity to whom this Lease is so assigned shall be deemed, without further act or deed, to have assumed all of the remaining obligations arising under this Lease as of the date of such assignment. Any such assignee shall, upon demand therefor, execute and deliver to Landlord an instrument confirming such assumption.

18.7 Except in the case of a Permitted Transfer, Landlord shall have the following option with respect to (i) any assignment proposed by Tenant , and (ii) any subletting proposed by Tenant where such subletting is for more than fifty percent (50%) or more of the Premises, either in a single transaction or, in the aggregate, following a series of transactions, and the subletting is for more than fifty percent (50%) of the then remaining Term:

(a) Notwithstanding any other provision of this Article (other than Section 18.8), Landlord has the option, by written notice to Tenant (the "Recapture Notice") within thirty (30) days after receiving any Transfer Notice to recapture the space covered by the proposed sublease or the entire Premises in the case of an assignment (the "Subject Space") by terminating this Lease for the Subject Space or taking an assignment or a sublease of the Subject Space from Tenant. A timely Recapture Notice will terminate this Lease with respect to the Subject Space, effective as of the date specified in the Transfer Notice. After such termination, Landlord may (but shall not be obligated to) enter into a lease with the party to the sublease or assignment proposed by Tenant.

(b) To determine the new Base Rent under this Lease in the event Landlord recaptures the Subject Space, the original Base Rent under the Lease shall be multiplied by a fraction, the numerator of which is the rentable square feet of the Premises retained by Tenant after Landlord's recapture and the denominator of which is the total rentable square feet in the Premises before Landlord's recapture. The Additional Rent, to the extent that it is calculated on the basis of the rentable square feet within the Premises, shall be reduced to reflect Tenant's proportionate share based on the rentable square feet of the Premises retained by Tenant after Landlord's recapture. This Lease as so amended shall continue thereafter in full force and effect. Either party may require a written confirmation of the amendments to this Lease necessitated by Landlord's recapture of the Subject Space. If Landlord recaptures the Subject Space, Landlord shall, at Landlord's sole expense, construct any partitions required to segregate the Subject Space from the remaining Premises retained by Tenant. Tenant shall, however, pay for painting, covering or otherwise decorating the surfaces of the partitions facing the remaining Premises retained by Tenant.

18.8 Notwithstanding the foregoing, Tenant may Transfer all or part of its interest in this Lease or all or part of the Premises (a "Permitted Transfer") to the following types of entities (a "Permitted Transferee") without the written consent of Landlord: (a) any parent, subsidiary or affiliate corporation which Controls (as defined below), is Controlled by or is under common Control with Tenant (collectively, an "Affiliate"); (b) any corporation, limited partnership, limited liability partnership, limited liability company or other business entity in which or with which Tenant, an Affiliate of Tenant, or their respective corporate successors or assigns, is merged or consolidated, in accordance with applicable statutory provisions governing merger and consolidation of business entities, so long as (i) in both cases (a) and (b), Tenant's obligations hereunder are assumed by the Permitted Transferee; and (ii) in the case of clause (b), the Permitted Transferee satisfies the Net Worth Threshold as of the effective date of the Permitted Transfer; or (c) any corporation, limited partnership, limited liability partnership, limited liability company or other business entity which acquires all or substantially all of Tenant's assets and/or ownership interests, if the transferee satisfies the Net Worth Threshold as of the effective date of the Transfer. Tenant shall notify Landlord in writing of any such Permitted Transfer. Tenant shall remain liable for the performance of all of the obligations of Tenant hereunder, or if Tenant no longer exists because of a merger, consolidation, or acquisition, the surviving or acquiring entity shall expressly assume in writing, the obligations of Tenant hereunder. Additionally, the Permitted Transferee shall comply with all of the terms and conditions of this Lease, whether accruing prior to and/or from and after the consummation of the Transfer. No later than ten (10) days prior to the effective date of any Permitted Transfer, Tenant agrees to furnish Landlord with (1) copies of the instrument effecting any of the foregoing Transfers, (2) documentation establishing Tenant's satisfaction of the requirements set forth above applicable to any such Transfer, and (3) evidence of insurance as required under this Lease with respect to the Permitted Transferee; provided, however, that if the furnishing of such information

is precluded by applicable law or confidentiality agreement, then Tenant shall be obligated to provide such information as soon as the furnishing of such information is permissible. The occurrence of a Permitted Transfer shall not waive Landlord's rights as to any subsequent Transfers. As used herein, the term "Net Worth Threshold" shall mean the proposed Permitted Transferee has a tangible net worth equal to or greater than that of Tenant immediately prior to such transaction (determined in accordance with generally accepted accounting principles consistently applied and excluding from the determination of total assets all assets which would be classified as intangible assets under generally accepted accounting principles, including, without limitation, goodwill, licenses, trademarks, trade names, copyrights and franchises), and as evidenced by financial statements audited by a certified public accounting firm reasonably acceptable to Landlord.

ARTICLE 19

DAMAGE OR DESTRUCTION

19.1 If the Premises or any Building should be damaged or destroyed by fire or other casualty, Tenant shall give immediate written notice to Landlord. If the Premises or any Common Areas of a Building or the Project serving or providing access to the Premises shall be damaged by fire or other casualty, Landlord will, within sixty (60) days following the date of the damage, deliver to Tenant an estimate of the time necessary to repair the damage in question such that the Premises may be used by and accessible to Tenant and the applicable Building and Common Areas operable as before; such notice will be based upon the review and opinions of Landlord's architect and contractor ("Landlord's Repair Notice"). Landlord shall promptly and diligently, subject to reasonable delays for insurance adjustment or other matters beyond Landlord's reasonable control, and subject to all other terms of this Article 19, restore the base, shell, and core (i.e., the Building structure and Building Systems) of the Premises and the applicable Building and such Common Areas. Such restoration shall be to substantially the same condition of the base, shell, and core of the Premises and Common Areas prior to the casualty, except for modifications required by zoning and building codes and other laws or by the holder of a mortgage on the Project, or the lessor of a ground or underlying lease with respect to the Project and/or the Buildings, or any other modifications to the Common Areas reasonably deemed desirable by Landlord, provided access to the Premises and any common restrooms serving the Premises shall not be materially impaired and Tenant's use of the Premises is not substantially altered as a consequence. Landlord shall not be liable for any inconvenience or annoyance to Tenant or its visitors, or injury to Tenant's business resulting in any way from such damage or the repair thereof; provided however, that if such fire or other casualty shall have damaged the Premises or Common Areas necessary to Tenant's occupancy, and if such damage is not the result of the negligence or willful misconduct of Tenant or Tenant's employees, contractors, licensees, or invitees, Landlord shall allow Tenant a proportionate abatement of Base Rent and Tenant's Share of Operating Expenses and Tenant's Share of Taxes during the time and to the extent the Premises are unfit for occupancy for the purposes permitted under this Lease, and not occupied by Tenant as a result thereof. In addition, in the event of a period of partial or total rent abatement under the terms of this Section 19.1, Tenant's period of rent abatement shall include a reasonable period following the completion of such repairs for the re-installation of Tenant's furniture, fixtures and equipment in the Premises. In the event that Landlord shall not deliver the Landlord Repair Notice, Tenant's right to rent abatement pursuant to the preceding sentences shall terminate as of the date which is reasonably determined by Landlord to be the date Tenant should have completed repairs to the Premises assuming Tenant used reasonable due diligence in connection therewith, subject to delays caused by Force Majeure events, Landlord Delay (defined in the Work Letter) and/or other factors beyond Tenant's reasonable control. However, that if any portion of the Premises is damaged such that the remaining portion thereof within the same Building is not sufficient to allow Tenant to conduct is business operations from such remaining portion and Tenant does not conduct its business operations therefrom, Landlord shall allow Tenant a total abatement of Rent within the report to the portion of the Premises in such Building during the time and to the extent such portion of the Premises is unfit for occupancy for the purposes permitted under this Lease and not occupied by Tenant as a result of the subject damage. If any such abatement right described herein occurs during any Abatement Period, then any Abatement Period which previously governed such portion of the Premises shall be suspended until the completion of the abatement described in this Section 19.1, whereafter such abatement shall once again be commenced.

19.2 Notwithstanding the terms of Section 19.1 of this Lease, Landlord may elect not to rebuild and/or restore the Premises, the Buildings and/or any other portion of the Project and instead terminate this Lease with respect to any particular Premises (but not less, at any time, than all of the Premises in any single Building; i.e., Landlord may not terminate this Lease pursuant to this Section 19.2 with respect to only a portion of the Premises leased by Tenant in any particular Building), by notifying Tenant in writing of such termination within sixty (60) days after the date of Landlord's discovery of such damage (the "Damage Discovery Date"), such notice to include a termination date giving Tenant ninety (90) days to vacate the applicable Premises, but Landlord may so elect only if a particular Building shall be damaged by fire or other casualty or cause, whether or not any portion of the applicable portion of the Premises is affected, and one or more of the following conditions is present: (i) repairs cannot reasonably be completed within one hundred eighty (180) days of the Damage Discovery Date (when such repairs are made without the payment of overtime or other premiums); (ii) the holder of any

mortgage on the Project or ground or underlying lessor with respect to the Project and/or the applicable Building shall require that the insurance proceeds or any portion thereof in excess of the Threshold Amount (as defined below) be used to retire the mortgage debt, or shall terminate the ground or underlying lease, as the case may be; or (iii) the damage is not Substantially Covered (except for deductible amounts in the case of a casualty other than earthquake or flood) by Landlord's insurance policies (in the event that Landlord has elected to self-insure for any portion of Landlord's property insurance coverage described in Section 13.1 above, then for the purposes of this clause (iii), the analysis will be whether the damage would be Substantially Covered (except for deductible amounts) had Landlord maintained the insurance coverage described in Section 13.1) and provided that this clause (iii) will not apply to provide Landlord with a right to terminate if Landlord has failed to maintain the insurance coverage required hereunder. As used herein, "Substantially Covered" shall mean that no more than the Threshold Amount of the repair costs is not covered by proceeds of Landlord's property insurance policies plus Landlord's deductible payments. In addition, if any Premises within a particular Building, or any particular Building, is destroyed or damaged to the extent that such space is not occupiable and the time necessary to repair such damage would exceed ninety (90) days when such repairs are made without the payment of overtime or other premiums ("Substantial Extent") during the last twelve (12) months of the Term, then notwithstanding anything contained in this Article 19, Landlord shall have the option to terminate this Lease with respect to the applicable Premises by giving written notice to Tenant of the exercise of such option within thirty (30) days after the Damage Discovery Date, in which event this Lease shall cease and terminate with respect to such Premises as of the date of such notice. Upon any such termination of this Lease pursuant to this Section 19.2 or Section 19.3 below, Tenant shall pay the Base Rent and Additional Rent for the applicable Premises, properly apportioned up to such date of termination, and both parties hereto shall thereafter be freed and discharged of all further obligations hereunder with respect to such Premises, except as provided for in provisions of this Lease which by their terms survive the expiration or earlier termination of the Term. As used in this Section 19.2, the term "Threshold Amount" means an amount equal to five percent (5%) of the replacement cost of the applicable Building, as reasonably determined by Landlord.

19.3 If any portion of the Premises is damaged by fire or other casualty and are rendered not reasonably usable for Tenant's business purposes thereby, or if the applicable Building shall be so damaged that Tenant shall be deprived of reasonable access to the Premises located therein, and if, pursuant to Landlord's Repair Notice, the restoration will not be substantially completed within nine (9) months following the date of such damage, Tenant shall have the right to terminate this Lease (with respect to the affected portion of the Premises or, if such portion exceeds fifty percent (50%) of the then-current Premises, at Tenant's option with respect to the entire Premises) by giving written notice (the "Termination Notice") to Landlord not later than thirty (30) days following receipt of Landlord's Repair Notice. If Tenant gives a Termination Notice, this Lease shall be deemed cancelled and terminated with respect to the applicable portion of the Premises as of the date of the damage as if such date were the Expiration Date, and Rent shall be apportioned and shall be paid or refunded, as the case may be up to and including the date of such damage. Notwithstanding the foregoing, if Tenant was entitled to but elected not to exercise its right to terminate this Lease and Landlord does not substantially complete the repair and restoration of the applicable portion of the Premises within two (2) months after the expiration of the estimated period of time set forth in Landlord's Repair Notice, which period shall be extended to the extent of any delays caused by Tenant and by Force Majeure (up to a maximum of sixty (60) days of delay due to Force Majeure), then Tenant may terminate this Lease with respect to such portion (or all, as described above) of the Premises by written notice to Landlord within thirty (30) days after the expiration of such period, as the same may be so extended. Additionally, if the Premises, or any part thereof, or any portion of a Building necessary for Tenant's use of the Premises located in such Building, is damaged or destroyed to a Substantial Extent during the last twelve (12) months of the Term, or any extension thereof, Tenant may terminate this Lease with respect to the applicable portion of the Premises (or all, as described above) by giving written notice thereof to Landlord within thirty (30) days after the date of the casualty, in which case this Lease shall terminate with respect to such space as of the later of the date of the casualty or the date of Tenant's vacation of the Premises.

19.4 If there is an occurrence of any damage to the Premises that does not result in the termination of this Lease pursuant to this Article 19, then upon notice (the "Landlord Repair Notice") to Tenant from Landlord, Tenant shall assign to Landlord (or to any party reasonably designated by Landlord) all insurance proceeds payable to Tenant under Tenant's insurance required under Sections 13.2(e)(ii) and (iii) above with respect to any improvements in the Premises required to be insured by Tenant hereunder (excluding proceeds for Tenant's personal property), and Landlord shall repair any injury or damage to the Tenant Improvements, alterations and the Original Improvements installed in the Premises and shall return such Tenant Improvements, alterations and Original Improvements to their original condition; provided that (x) Tenant shall have the right to require that such Original Improvements be constructed pursuant to one or more alternate designs, provided the same are subject to Landlord's approval (as described in Article 15 above) and (y) if the cost of such repair by Landlord exceeds the sum of (A) amount of insurance proceeds received by Landlord from Tenant's insurance carrier, as assigned by Tenant, plus (B) any insurance proceeds received by Landlord with respect to such Tenant Improvements, alterations and Original Improvements (it being acknowledged and agreed that Tenant's insurance as to the Tenant Improvements, alterations and Original Improvements is primary in nature and Landlord's insurance, if any, with respect to same is secondary in nature), the

cost of such repairs shall be paid by Tenant to Landlord prior to Landlord's commencement of repair of the damage. In the event that Landlord does not deliver the Landlord Repair Notice within forty-five (45) days following the Damage Discovery Date, Tenant shall, at its sole cost and expense, repair any injury or damage to the Tenant Improvements, alterations, and the Original Improvements installed in the Premises and shall return such Tenant Improvements, alterations, and Original Improvements to their original condition (or such alternate condition as Tenant may elect, subject to Landlord's approval as described in Article 15 above). Whether or not Landlord delivers a Landlord Repair Notice, prior to the commencement of construction, Tenant shall submit to Landlord, for Landlord's review and approval, all plans, specifications and working drawings relating thereto, and Landlord shall select the contractors to perform such improvement work.

19.5 In the event this Lease is terminated in whole or in part in accordance with the terms of this Article 19, Tenant shall assign to Landlord (or to any party designated by Landlord) all insurance proceeds payable to Tenant under Tenant's insurance required under Sections 13.2(e)(ii) and (iii) with respect to the applicable portion of the Premises subject to such termination.

19.6 The provisions of this Lease, including this Article 19, constitute an express agreement between Landlord and Tenant with respect to damage to, or destruction of, all or any portion of the Premises or the Project, and any statute or regulation of the State of California, including without limitation Sections 1932(2) and 1933(4) of the California Civil Code, with respect to any rights or obligations concerning damage or destruction in the absence of an express agreement between the parties (and any other statute or regulation now or hereafter in effect with respect to such rights or obligations), shall have no application to this Lease or to any damage or destruction to all or any portion of the Premises or the Project.

ARTICLE 20

CONDEMNATION

20.1 If all of the Premises or all of the Premises in any particular Building is condemned by eminent domain, inversely condemned or sold under threat of condemnation for any public or quasi-public use or purpose ("Condemned"), this Lease shall terminate with respect to such Premises as of the earlier of the date the condemning authority takes title to or possession of such Premises, and Rent shall be adjusted to the date of termination.

20.2 If any portion of a particular Premises or if any of the Buildings is condemned and such partial condemnation materially impairs Tenant's ability to use the particular Premises for Tenant's business as reasonably determined by Landlord, Landlord shall have the option in Landlord's sole and absolute discretion of either (i) relocating Tenant to comparable space within the Project or (ii) terminating this Lease with respect to such particular Premises as of the earlier of the date title vests in the condemning authority or as of the date an order of immediate possession is issued and Rent shall be adjusted to the date of termination. If such partial condemnation does not materially impair Tenant's ability to use any particular Premises for the business of Tenant, Landlord shall promptly restore the applicable Premises to the extent of any condemnation proceeds recovered by Landlord, excluding the portion thereof lost in such condemnation, and this Lease shall continue in full force and effect except that after the date of such title vesting or order of immediate possession Rent shall be adjusted as reasonably determined by Landlord.

20.3 If any particular Premises is wholly or partially condemned, Landlord shall be entitled to the entire award paid for such condemnation, and Tenant waives any claim to any part of the award from Landlord or the condemning authority; provided, however, Tenant shall have the right to recover from the condemning authority such compensation as may be separately awarded to Tenant in connection with costs in removing Tenant's merchandise, furniture, fixtures, leasehold improvements and equipment to a new location. No condemnation of any kind shall be construed to constitute an actual or constructive eviction of Tenant or a breach of any express or implied covenant of quiet enjoyment. Tenant hereby waives the effect of Sections 1265.120 and 1265.130 of the California Code of Civil Procedure.

20.4 In the event of a temporary condemnation not extending beyond the Term, this Lease shall remain in effect, Tenant shall continue to pay Rent and Tenant shall receive any award made for such condemnation except damages to any of Landlord's property. If a temporary condemnation is for a period which extends beyond the Term, this Lease shall terminate as of the date of initial occupancy by the condemning authority and any such award shall be distributed in accordance with the preceding section. If a temporary condemnation remains in effect at the expiration or earlier termination of this Lease, Tenant shall pay Landlord the reasonable cost of performing any obligations required of Tenant with respect to the surrender of the applicable Premises.

ARTICLE 21

HOLD HARMLESS

21.1 Tenant agrees to defend, with counsel approved by Landlord, all actions against Landlord, any member, partner, trustee, stockholder, officer, director, employee, or beneficiary of Landlord (collectively, "Landlord Parties"), holders of mortgages secured by the Premises or the Project and any other party having an interest therein (collectively with Landlord Parties, the "Indemnified Parties") with respect to, and to pay, protect, indemnify, and save harmless, to the extent permitted by law, all Indemnified Parties from and against, any and all liabilities, losses, damages, costs, expenses (including reasonable attorneys' fees and expenses), causes of action, suits, claims, demands, or judgments of any nature (collectively, "Losses") to which any Indemnified Party is subject because of its estate or interest in the Premises or the Project arising from (a) subject to Section 13.4, injury to or death of any person, or damage to or loss of property on the Premises, the Project, on adjoining sidewalks, streets or ways, or, in any of the foregoing cases, connected with the use, condition, or occupancy of the Premises, the Project sidewalks streets, or ways, except to the extent, if any, caused by the negligence or willful misconduct of Landlord or its employees, contractors or agents, (b) any violation of this Lease by or attributable to Tenant, or (c) subject to Section 13.4, any act, fault, omission, or other misconduct of Tenant or its agents, contractors, licensees, sublessees, or invitees. Tenant agrees to use and occupy the Premises and other facilities of the Project at its own risk, and hereby releases the Indemnified Parties from any and all claims for any damage or injury to the fullest extent permitted by law.

21.2 Subject to Section 13.4, Landlord shall indemnify and hold harmless Tenant and its agents, directors, officers, shareholders, partners, members, employees and invitees, from all Losses arising, wholly or in part, out of any negligence or willful misconduct of Landlord or Landlord's employees, agents, or contractors and not insured (or required to be insured) by Tenant under this Lease (provided, however, that Landlord's indemnity shall, in no event, extend to loss of profits, loss of business or other consequential damages incurred by Tenant). If Tenant shall without fault on its part, be made a party to any action commenced by or against Landlord, for which Landlord is obligated to indemnify Tenant hereunder, then Landlord shall protect and hold Tenant harmless from, and shall pay all costs and expenses, including reasonable attorneys' fees, of Tenant in connection therewith.

21.3 Tenant agrees that Landlord shall not be responsible or liable to Tenant, its agents, employees, or invitees for fatal or non-fatal bodily injury or property damage occasioned by the acts or omissions of any other tenant, or such other tenant's agents, employees, licensees, or invitees, of the Project. Landlord shall not be liable to Tenant for losses due to theft, burglary, or damages done by persons on the Project.

ARTICLE 22

DEFAULT BY TENANT

22.1 The term "Event of Default" refers to the occurrence of any one (1) or more of the following:

(d) Failure of Tenant to pay when due any sum required to be paid hereunder which is not received by Landlord within seven (7) days after the date due (the "Monetary Default");

(e) Failure of Tenant, within thirty (30) days following written notice thereof, to perform any of Tenant's obligations, covenants, or agreements except a Monetary Default, provided that if the cure of any such failure is not reasonably susceptible of performance within such thirty (30) day period, then an Event of Default of Tenant shall not be deemed to have occurred so long as Tenant has promptly commenced and thereafter diligently prosecutes such cure to completion and completes that cure within ninety (90) days;

(f) Tenant, or any guarantor of Tenant's obligations under this Lease (the "Guarantor"), admits in writing that it cannot meet its obligations as they become due; or is declared insolvent according to any law; or assignment of Tenant's or Guarantor's property is made for the benefit of creditors; or a receiver or trustee is appointed for Tenant or Guarantor or its property; or the interest of Tenant or Guarantor under this Lease is levied on under execution or other legal process; or any petition is filed by or against Tenant or Guarantor to declare Tenant bankrupt or to delay, reduce, or modify Tenant's debts or obligations; or any petition filed or other action taken to reorganize or modify Tenant's or Guarantor's capital structure if Tenant is a corporation or other entity. Any such levy, execution, legal process, or petition filed against Tenant or Guarantor shall not constitute a breach of this Lease provided Tenant or Guarantor shall vigorously contest the same by appropriate proceedings and shall remove or vacate the same within ninety (90) days from the date of its creation, service, or filing;

(g) The abandonment (as defined in the California Civil Code) of any particular Premises where such abandonment has materially impaired Landlord's insurance coverage for that Premises or the applicable Building and Tenant fails to cure the same by either reoccupying such portion of the Premises or reinstating Landlord's insurance coverage within thirty (30) days after notice from Landlord;

(h) The discovery by Landlord that any financial statement given by Tenant or any of its assignees, subtenants, successors-in-interest, or Guarantors was materially false; or

(i) If Tenant or any Guarantor shall be dissolved or liquidated or become insolvent, or shall make a transfer in fraud of creditors.

22.2 In the event of any Event of Default by Tenant, Landlord, at its option, may pursue one or more of the following remedies without notice or demand in addition to all other rights and remedies provided for at law or in equity:

(a) Landlord may continue this Lease in full force and effect, and this Lease shall continue in full force and effect as long as Landlord does not terminate Tenant's right to possession, and Landlord shall have the right to collect Rent when due. Landlord may enter the Premises and relet it, or any part of it, to third parties for Tenant's account, provided that any Rent in excess of the Rent due hereunder shall be payable to Landlord. Tenant shall be liable immediately to Landlord for all costs Landlord incurs in reletting the Premises, including, without limitation, brokers' commissions, expenses of cleaning and redecorating the Premises required by the reletting and like costs ("Costs of Reletting"). Reletting may be for a period shorter or longer than the remaining Term of this Lease. Notwithstanding the above, if Landlord relets the Premises for a term (the "Relet Term") that extends past the Termination Date of this Lease (without consideration of any earlier termination pursuant to this Article 22), the Costs of Reletting which may be included in Landlord's damages under this Lease shall be limited to a prorated portion of the Costs of Reletting, based on the percentage that the length of the Term remaining on the date Landlord terminates this Lease or Tenant's right to possession bears to the length of the Relet Term. For example, if there are 2 years left on the Term at the time that Landlord terminates possession and, prior to the expiration of the 2 year period, Landlord enters into a lease with a Relet Term of 10 years with a new tenant, then only twenty percent (20%) of the Costs of Reletting shall be included when determining Landlord's damages. Tenant shall pay to Landlord the Rent and other sums due under this Lease on the dates the Rent is due, less the Rent and other sums Landlord receives from any reletting. No act by Landlord allowed by this Section 22.2(a) shall terminate this Lease unless Landlord notifies Tenant in writing that Landlord elects to terminate this Lease.

"The lessor has the remedy described in Civil Code Section 1951.4 (lessor may continue the lease in effect after lessee's breach and abandonment and recover rent as it becomes due, if lessee has the right to sublet or assign subject only to reasonable limitations)."

(b) Landlord may terminate Tenant's right to possession of the Premises at any time by giving written notice to that effect. No act by Landlord other than giving written notice to Tenant shall terminate this Lease. Acts of maintenance, efforts to relet the Premises or the appointment of a receiver on Landlord's initiative to protect Landlord's interest under this Lease shall not constitute a termination of Tenant's right to possession. On termination, Landlord shall have the right to remove all personal property of Tenant and store it at Tenant's cost and to recover from Tenant as damages: (i) the worth at the time of award of unpaid Rent and other sums due and payable which had been earned at the time of termination; plus (ii) the worth at the time of award of the amount by which the unpaid Rent and other sums due and payable which would have been payable after termination until the time of award exceeds the amount of the Rent loss that Tenant proves could have been reasonably avoided; plus (iii) the worth at the time of award of the amount by which the unpaid Rent and other sums due and payable for the balance of the Term after the time of award exceeds the amount of the Rent loss that Tenant proves could be reasonably avoided; plus (iv) any other amount necessary to compensate Landlord for all the detriment proximately caused by Tenant's failure to perform Tenant's obligations under this Lease, or which, in the ordinary course of things, would be likely to result therefrom, including, without limitation, any costs or expenses incurred by Landlord: (A) in retaking possession of the Premises, including reasonable attorneys' fees and costs therefor; (B) maintaining or preserving the Premises for reletting to a new tenant, including repairs or alterations to the Premises for the reletting; (C) leasing commissions; (D) any other costs necessary or appropriate to relet the Premises; and (E) at Landlord's election, such other amounts in addition to or in lieu of the foregoing as may be permitted from time to time by the laws of the State of California.

The "worth at the time of award" of the amounts referred to in Sections 22.2(b)(i) and 22.2(b)(ii) shall be calculated by allowing interest at the lesser of twelve percent (12%) per annum or the maximum rate permitted by law, on the unpaid Rent

and other sums due and payable from the termination date through the date of award. The "worth at the time of award" of the amount referred to in Section 22.2(b)(iii) shall be calculated by discounting the amount at the discount rate of the Federal Reserve Bank of San Francisco at the time of award, plus one percent (1%). Tenant waives redemption or relief from forfeiture under California Code of Civil Procedure Sections 1174 and 1179, or under any other present or future law, if Tenant is evicted or Landlord takes possession of the Premises by reason of any Event of Default by Tenant.

22.3 If Landlord shall exercise any one or more remedies hereunder granted or otherwise available, it shall not be deemed to be an acceptance or surrender of the Premises by Tenant whether by agreement or by operation of law; it is understood that such surrender can be effected only by the written agreement of Landlord and Tenant. No alteration of security devices and no removal or other exercise of dominion by Landlord over the property of Tenant or others in the Premises shall be deemed unauthorized or constitute a conversion, Tenant hereby consenting to the aforesaid exercise of dominion over Tenant's property within the Premises after any Event of Default.

22.4 Each right and remedy provided for in this Lease shall be cumulative and shall be in addition to every other right or remedy provided for in this Lease or now or hereafter existing at law or in equity or by statute or otherwise, including, but not limited to, suits for injunctive relief and specific performance. The exercise or beginning of the exercise by Landlord of any one or more of the rights or remedies provided for in this Lease or now or hereafter existing at law or in equity, or by statute or otherwise shall not preclude the simultaneous or later exercise by Landlord for any or all other rights or remedies provided for in this Lease or now or hereafter existing at or in equity or by statute or otherwise. All such rights and remedies shall be considered cumulative and non-exclusive. All costs incurred by Landlord in connection with collecting any Rent or other amounts and damages owing by Tenant pursuant to the provisions of this Lease, or to enforce any provision of this Lease, including reasonable attorneys' fees from the date such matter is turned over to an attorney, whether or not one or more actions are commenced by Landlord, shall also be recoverable by Landlord from Tenant. If any notice and grace period required under subparagraphs 22.1(a) or (b) was not previously given, a notice to pay rent or quit, or to perform or quit, as the case may be, given to Tenant under any statute authorizing the forfeiture of leases for unlawful detainer shall also constitute the applicable notice for grace period purposes required by subparagraphs 22.1(a) or (b). In such case, the applicable grace period under subparagraphs 22.1(a) or (b) and under the unlawful detainer statute shall run concurrently after the one such statutory notice, and the failure of Tenant to cure the default within the greater of the two (2) such grace periods shall constitute both an unlawful detainer and an Event of Default entitling Landlord to the remedies provided for in this Lease and/or by said statute.

22.5 If Tenant should fail to make any payment or cure any default hereunder within the time herein permitted and such failure constitutes an Event of Default (except in the case where if Landlord in good faith believes that action prior to the expiration of any cure period under Section 22.1 is necessary to prevent damage to persons or property, in which case Landlord may act without waiting for such cure period to expire), Landlord, without being under any obligation to do so and without thereby waiving such default, may make such payment and/or remedy such default for the account of Tenant (and enter the Premises for such purpose), and thereupon, Tenant shall be obligated and hereby agrees to pay Landlord, upon demand, all reasonable costs, expenses, and disbursements, plus ten percent (10%) overhead cost incurred by Landlord in connection therewith.

22.6 In addition to Landlord's rights set forth above, if Tenant fails to pay any recurring installment of Rent on the due date thereof more than four (4) times during any calendar year during the Term, then upon the occurrence of the fifth (5th) or any subsequent default in the payment of monies during said calendar year, Landlord, at its sole option, shall have the right to require that Tenant, as a condition precedent to curing such default, pay to Landlord, in check or money order, in advance, the Rent and Landlord's estimate of all other amounts which will become due and owing hereunder by Tenant for a period of two (2) months following said cure. All such amounts shall be paid by Tenant within thirty (30) days after notice from Landlord demanding the same. All monies so paid shall be retained by Landlord, without interest, for the balance of the Term and any extension thereof, and shall be applied by Landlord to the last due amounts owing hereunder by Tenant. If, however, Landlord's estimate of the Rent and other amounts for which Tenant is responsible hereunder are inaccurate, when such error is discovered, Landlord shall pay to Tenant, or Tenant shall pay to Landlord, within thirty (30) days after written notice thereof, the excess or deficiency, as the case may be, which is required to reconcile the amount on deposit with Landlord with the actual amounts for which Tenant is responsible.

22.7 Nothing contained in this Article 22 shall limit or prejudice the right of Landlord to prove and obtain as damages in any bankruptcy, insolvency, receivership, reorganization, or dissolution proceeding, an amount equal to the maximum allowed by any statute or rule of law governing such a proceeding and in effect at the time when such damages are to be proved, whether or not such amount be greater, equal, or less than the amounts recoverable, either as damages or Rent, referred to in any of the preceding provisions of this Article 22. Notwithstanding anything contained in this Article to the contrary, any such proceeding or action involving bankruptcy, insolvency, reorganization, arrangement, assignment for the

benefit of creditors, or appointment of a receiver or trustee, as set forth above, shall be considered to be an Event of Default only when such proceeding, action, or remedy shall be taken or brought by or against the then holder of the leasehold estate under this Lease.

22.8 Landlord is entitled to accept, receive, in check or money order, and deposit any payment made by Tenant for any reason or purpose or in any amount whatsoever, and apply them at Landlord's option to any obligation of Tenant, and such amounts shall not constitute payment of any amount owed, except that to which Landlord has applied them. No endorsement or statement on any check or letter of Tenant shall be deemed an accord and satisfaction or recognized for any purpose whatsoever. The acceptance of any such check or payment shall be without prejudice to Landlord's rights to recover any and all amounts owed by Tenant hereunder and shall not be deemed to cure any other default nor prejudice Landlord's rights to pursue any other available remedy, Landlord's acceptance of partial payment of Rent does not constitute a waiver of any rights, including without limitation any right Landlord may have to recover possession of the Premises.

22.9 In the event that this Lease is terminated prior to the end of the initial Term by reason of an Event of Default by Tenant, then immediately upon such termination, an amount shall be due and payable by Tenant to Landlord equal to the unamortized portion as of that date (which amortization shall be based on an interest rate of eleven percent (11%) per annum) of the sum of (a) the Tenant Improvement Allowance (if any), (b) the value of any free Base Rent (i.e., the Base Rent stated in this Lease to be abated as an inducement to Tenant's entering into this Lease) enjoyed as of that date by Tenant, and (c) the amount of all commissions paid by Landlord in order to procure this Lease.

22.10 Tenant waives the right to terminate this Lease on Landlord's default under this Lease. Tenant's sole remedy on Landlord's default is an action for damages or injunctive or declaratory relief. Landlord's failure to perform any of its obligations under this Lease shall constitute a default by Landlord under this Lease if the failure continues for thirty (30) days after written notice of the failure from Tenant to Landlord. If the required performance cannot be completed within thirty (30) days, Landlord's failure to perform shall constitute a default under the Lease unless Landlord undertakes to cure the failure within thirty (30) days and diligently and continuously attempts to complete this cure as soon as reasonably possible. All obligations of each party hereunder shall be construed as covenants, not conditions.

ARTICLE 23

[INTENTIONALLY OMITTED]

ARTICLE 24

[INTENTIONALLY OMITTED]

ARTICLE 25

ATTORNEYS' FEES

25.1 All costs and expenses, including reasonable attorneys' fees (whether or not legal proceedings are instituted), involved in collecting rents, enforcing the obligations of Tenant, or protecting the rights or interests of Landlord under this Lease, whether or not an action is filed, including without limitation the cost and expense of instituting and prosecuting legal proceedings or recovering possession of the Premises after default by Tenant or upon expiration or sooner termination of this Lease, shall be due and payable by Tenant on demand, as Additional Rent. In addition, and notwithstanding the foregoing, if either party hereto shall file any action or bring any proceeding against the other party arising out of this Lease or for the declaration of any rights hereunder, the prevailing party in such action shall be entitled to recover from the other party all costs and expenses, including reasonable attorneys' fees incurred by the prevailing party, as determined by the trier of fact in such legal proceeding. For purposes of this provision, the terms "attorneys' fees" or "attorneys' fees and costs," or "costs and expenses" shall mean the fees and expenses of legal counsel (including external counsel and in-house counsel) of the parties hereto, which include printing, photocopying, duplicating, mail, overnight mail, messenger, court filing fees, costs of discovery, and fees billed for law clerks, paralegals, investigators and other persons not admitted to the bar for performing services under the supervision and direction of an attorney. For purposes of determining in-house counsel fees, the same shall be considered as those fees normally applicable to a partner in a law firm with like experience in such field. In addition, the prevailing party shall be entitled to recover reasonable attorneys' fees and costs incurred in enforcing any judgment arising from a suit or proceeding under this Lease, including without limitation post-judgment motions, contempt proceedings, garnishment, levy and debtor and third party examinations, discovery and bankruptcy litigation, without regard to schedule or rule of court purporting to restrict such award. This post-judgment award of attorneys' fees and costs provision shall be severable from any other

provision of this Lease and shall survive any judgment/award on such suit or arbitration and is not to be deemed merged into the judgment/award or terminated with the Lease.

ARTICLE 26

NON-WAIVER

26.1 Neither acceptance of any payment by Landlord from Tenant nor, failure by a party hereto to complain of any action, non-action, or default of the other shall constitute a waiver of any of such party's rights hereunder. Time is of the essence with respect to the performance of every obligation of each party under this Lease in which time of performance is a factor. Waiver by either party of any right or remedy arising in connection with any default of the other party shall not constitute a waiver of such right or remedy or any other right or remedy arising in connection with either a subsequent default of the same obligation or any other default. No right or remedy of either party hereunder or covenant, duty, or obligation of any party hereunder shall be deemed waived by the other party unless such waiver is in writing, signed by the other party or the other party's duly authorized agent.

ARTICLE 27

RULES AND REGULATIONS

27.1 Such reasonable rules and regulations applying to all lessees in the Project for the safety, care, and cleanliness of the Project and the preservation of good order thereon are hereby made a part hereof as Exhibit D, and Tenant agrees to comply with all such rules and regulations. Landlord shall have the right at all times to change such rules and regulations or to amend them in any reasonable and non-discriminatory manner as may be deemed advisable by Landlord, all of which changes and amendments shall be sent by Landlord to Tenant in writing and shall be thereafter carried out and observed by Tenant. Landlord shall not have any liability to Tenant for any failure of any other lessees of the Project to comply with such rules and regulations. In the event of any conflict between the provisions of this Lease and the provisions of any such rules and regulations, the terms and conditions of this Lease shall control.

ARTICLE 28

ASSIGNMENT BY LANDLORD; RIGHT TO LEASE

28.1 Landlord shall have the right to transfer or assign, in whole or in part, all its rights and obligations hereunder and in the Premises and the Project. In such event, and upon the assumption by the transferee of the obligations of Landlord hereunder, no liability or obligation shall accrue or be charged to Landlord with respect to the period from and after such transfer or assignment and assumption of Landlord's obligations by the transferee or assignee.

28.2 Subject to the provisions of this Lease, including, without limitation, provisions regarding the Must-Take Space and Article 56 below, Landlord reserves the absolute right to effect such other tenancies in the Project as Landlord in the exercise of its sole business judgment shall determine to best promote the interests of the Buildings or Project, subject to Tenant's rights set forth herein. Tenant does not rely on the fact, nor does Landlord represent, that any specific tenant or type or number of tenants shall, during the Lease Term, occupy any space in the Buildings or Project.

ARTICLE 29

LIABILITY OF LANDLORD

29.1 It is expressly understood and agreed that the obligations of Landlord under this Lease shall be binding upon Landlord and its successors and assigns and any future owner of the Project only with respect to events occurring during its and their respective ownership of the Project. In addition, Tenant agrees to look solely to Landlord's interest in the Project for recovery of any judgment against Landlord arising in connection with this Lease, it being agreed that neither Landlord nor any successor or assign of Landlord nor any future owner of the Project, nor any partner, shareholder, member, or officer of any of the foregoing shall ever be personally liable for any such judgment. For purposes hereof, "the interest of Landlord in the Project" shall include rents due from tenants, proceeds from any sale of the Project, insurance proceeds, and proceeds from condemnation or eminent domain proceedings (prior to the distribution of same to any partner or shareholder of Landlord or any other third party). The limitations of liability contained in this Section 29.1 shall inure to the benefit of Landlord's and the Landlord Parties' present and future partners, beneficiaries, officers, directors, trustees, shareholders, agents

and employees, and their respective partners, heirs, successors and assigns. Under no circumstances shall any present or future partner of Landlord (if Landlord is a partnership), or trustee or beneficiary (if Landlord or any partner of Landlord is a trust), have any liability for the performance of Landlord's obligations under this Lease. Notwithstanding any contrary provision herein, neither Landlord nor the Landlord Parties nor Tenant shall be liable under any circumstances for any indirect or consequential damages or any injury or damage to, or interference with, the other party's business, including but not limited to, loss of profits, loss of rents or other revenues, loss of business opportunity, loss of goodwill or loss of use, in each case, however occurring except, in the case of Tenant, with respect to Tenant's liability under Article 31 or Article 33; provided that Tenant hereby acknowledges and agrees that the foregoing shall not prevent Landlord from recovering any and all damages to which Landlord is entitled pursuant to California Civil Code Sections 1951.2 (except for Section 1951.2(a)(4) , but only to the extent Section 1951.2(a)(4) allows recovery of damages other than direct out-of-pocket costs to repair the Premises and lease the Premises) and 1951.4 following an Event of Default by Tenant hereunder.

ARTICLE 30

SUBORDINATION AND ATTORNMENT

30.1 This Lease, at Landlord's option, shall be subordinate to any present or future mortgage or deed of trust encumbering any Building included in the Premises (a "Mortgage") (to the extent of the portion of the Premises encumbered by such Mortgage, ground lease or declaration of covenants regarding maintenance and use of any areas contained in any portion of the Buildings), and to any and all advances made under any present or future mortgage and to all renewals, modifications, consolidations, replacements, and extensions of any or all of same. Tenant agrees, with respect to any of the foregoing documents other than any SNDA required hereunder, that no documentation other than this Lease shall be required to evidence such subordination. If any holder of a Mortgage ("Holder") shall elect for this Lease to be superior to the lien of its mortgage and shall give written notice thereof to Tenant, then this Lease shall automatically be deemed prior to such Mortgage whether this Lease is dated earlier or later than the date of said Mortgage or the date of recording thereof. Tenant agrees to execute (or make reasonable good faith corrective comments to) such documents as may be further required to evidence such subordination or to make this Lease prior to the lien of any Mortgage, as the case may be, and by failing to do so within ten (10) business days after written demand, Tenant does hereby make, constitute, and irrevocably appoint Landlord as Tenant's attorney-in-fact and in Tenant's name, place, and stead, to do so. This power of attorney is coupled with an interest. Tenant hereby attorns to all successor owners of the Buildings, whether or not such ownership is acquired as a result of a sale through foreclosure or otherwise. Notwithstanding the foregoing, as a condition to the subordination of this Lease to any Mortgage, Landlord shall provide a Non-Disturbance Agreement ("SNDA") from any Holder in a commercially reasonable form acceptable to Tenant and such Holder in their sole discretion. Landlord represents to Tenant that as of the Effective Date, there is no (a) Mortgage encumbering any portion of the Project or (b) ground lease affecting any of the Buildings.

30.2 Tenant shall, at such time or times as Landlord may request, upon not less than ten (10) business days' prior written request by Landlord, sign (or make reasonable good faith corrective comments to) and deliver to Landlord an estoppel certificate, which shall be substantially in the form of Exhibit E, attached hereto (or such other commercially reasonable form as may be required by any prospective Holder or purchaser of the Project, or any portion thereof), indicating therein any exceptions thereto that may exist at that time, and shall also contain such other information and agreements as may be reasonably requested, it being intended that any such statement delivered pursuant to this Article may be relied upon by Landlord and by any prospective purchaser of all or any portion of the Project, or a holder or prospective holder of any mortgage encumbering the Project, or any portion thereof; provided, however, that in no event will any such certificate be deemed to amend, revise or modify the express written terms of this Lease. Tenant's failure to deliver such statement within five (5) days after Landlord's second written request therefor shall constitute an Event of Default (as that term is defined elsewhere in this Lease) and shall conclusively be deemed to be an admission by Tenant of the matters set forth in the request for an estoppel certificate. Similarly, within twenty (20) days following a request by Tenant (or ten (10) business days, if requested in connection with a proposed Transfer by Tenant), Landlord agrees to deliver to Tenant a similar statement (provided, that for the purposes of such statement, clause (c) shall be written to state that Landlord will state whether or not, to Landlord's actual knowledge, Tenant is in default under this Lease) which may be relied upon by any entity extending financing to Tenant, engaged in a merger or acquisition transaction with Tenant or proposing to engage in any Transfer with Tenant.

30.3 From time to time upon Landlord's written request to Tenant not more than once in each consecutive one (1) year period during the Term unless (i) an Event of Default then exists or (ii) the request is made in connection with a proposed sale or financing of the Buildings or any Building, and provided that Landlord (and any third party to whom Landlord intends to disclose the information described herein to) executes a commercially reasonable nondisclosure agreement, Tenant shall deliver to Landlord within a reasonable period, Tenant's current financial statements, including a balance sheet and profit and loss statement for the most recent prior year (collectively, the "Statements"), which Statements shall accurately and

completely reflect the financial condition of Tenant. If audited financial statements are not then available, Tenant may instead provide unaudited financial statements certified by an officer of Tenant as accurately and completely reflecting the financial condition of Tenant. Landlord shall have the right to deliver the same to any proposed purchaser of the Building or the Project, and to any encumbrancer of all or any portion of the Building or the Project. The provisions of this Section 30.3 shall not apply if and for so long as the shares of Tenant's stock are traded on a nationally recognized securities exchange, Tenant's financial statements (i.e., Forms 10-K and 10Q) are available to the public, including Landlord, and Tenant is current on its reporting obligations under applicable federal securities laws.

30.4 Tenant acknowledges that Landlord is relying on the Statements in its determination to enter into this Lease, and Tenant represents to Landlord, which representation shall be deemed made on the date of this Lease and again on the Commencement Date, that no material adverse change in the financial condition of Tenant, as reflected in the Statements, has occurred since the date Tenant delivered the Statements to Landlord. The Statements are represented and warranted by Tenant to be correct and to accurately and fully reflect Tenant's true financial condition as of the date of submission of any Statements to Landlord.

ARTICLE 31

HOLDING OVER

31.1 Tenant shall have the right to holdover in all or any portion of the Premises for up to ninety (90) days following the expiration or earlier termination of this Lease (the "Stub Period") and the Base Rent payable during the Stub Period shall equal the lesser of (x) the then market rental value of the Premises as reasonably determined by Landlord assuming a new lease of the Premises of the then usual duration and other terms (the "Holdover Market Rental Value"), and (y) one hundred fifty percent (150%) of the Base Rent for the last period prior to the Stub Period, and Tenant shall also pay Additional Rent attributable Operating Expenses and Taxes as provided in Article 5 of this Lease during the Stub Period, together with all other Additional Rent and other amounts payable pursuant to the terms of this Lease. Tenant shall also be liable for any and all damages sustained by Landlord as a result of such holdover after the expiration of such Stub Period. Subject to Tenant's right to hold over during the Stub Period, Tenant shall vacate the Premises and deliver same to Landlord immediately upon Tenant's receipt of notice from Landlord to so vacate. The Rent during such holdover period shall be payable to Landlord on demand. Landlord's acceptance of Rent if and after Tenant holds over shall not convert Tenant's tenancy at sufferance to any other form of tenancy or result in a renewal or extension of the Term of this Lease, unless otherwise specified by notice from Landlord to Tenant.

31.2 Subject to Section 31.1 above, in the event Tenant, or any party claiming under Tenant, retains possession of the Premises after the Expiration Date or Termination Date, such possession shall be that of a tenant at sufferance and an unlawful detainer. No tenancy or interest shall result from such possession, and such parties shall be subject to immediate eviction and removal. Tenant or any such party shall pay Landlord, as Base Rent for the period of such holdover, a monthly amount equal to the greater of (i) the sum of (a) one hundred fifty percent (150%) of the Base Rent for the last period prior to the date of such termination plus (b) one hundred percent (100%) of Additional Rent attributable to Operating Expenses and Taxes as provided in Article 5 of this Lease during the time of holdover, and (ii) the Holdover Market Rental Value, in either case, together with all other Additional Rent and other amounts payable pursuant to the terms of this Lease. Such tenancy at sufferance shall be subject to every other applicable term, covenant and agreement contained herein.

ARTICLE 32

SIGNS; ADDRESSES

32.1 Except as expressly set forth below in Section 32.2, no sign, symbol, or identifying marks shall be put upon the Project, Buildings, in the halls, elevators, staircases, entrances, parking areas, or upon the doors or walls, without the prior written approval of Landlord in its reasonable discretion. All signs or lettering installed by Tenant which is visible from the exterior of the Premises shall conform in all respects to the sign and/or lettering criteria reasonably established by Landlord and Tenant and comply with the CC&R's and all Applicable Laws. Landlord, at Landlord's sole cost and expense, reserves the right to change the door plaques as Landlord deems reasonably desirable.

32.2 Notwithstanding the foregoing, Landlord hereby agrees that, subject to Tenant's compliance with the requirements set forth above, subject to existing (as of the Effective Date) rights of existing tenants and all relevant municipal and business park rules and regulations, Tenant shall have exclusive signage rights with respect to Buildings in which Tenant is the sole tenant and pro-rata signage rights with respect to any multi-tenant Building in which a portion of the Premises is

located and shall be permitted to install signage on any Building which Tenant occupies space. Tenant may install, at Tenant's sole cost and expense, signage similar to the current signage at Tenant's current headquarters facility located at 1351 Harbor Bay Parkway, Alameda, California, within the silver band above the lobby doors to the 1301 Harbor Bay Building and 1401 Harbor Bay Building. Landlord further agrees that Tenant shall have exclusive signage rights with respect to the 1311 Harbor Bay Building so long as Tenant leases the entirety thereof, and with respect to any other Single Tenant Building. All such signage shall be at Tenant's sole cost and expense. Tenant agrees that the existing (i.e., as of the Effective Date) tenant on the second floor of the 1301 Harbor Bay Building may have a monument sign near the lobby entry to that Building. Landlord and Tenant hereby approve the signage plan for the Buildings and the Project (if any) attached hereto as Exhibit M (the "Sign Plan"). Landlord and Tenant acknowledge that the Sign Plan shall be subject to modification as and to the extent required by Applicable Laws and the CC&R's.

32.3 Additionally, Landlord further agrees that subject to compliance with Applicable Laws and at least thirty (30) days' prior written notice to Landlord, Tenant may change the street address of any Single Tenant Building.

ARTICLE 33

HAZARDOUS SUBSTANCES

33.1 Except for Hazardous Material (as defined below) contained in products used by Tenant for ordinary cleaning and office purposes in quantities not violative of applicable Environmental Requirements, Tenant shall not permit or cause any party to bring any Hazardous Material upon the Premises and/or the Project or transport, store, use, generate, manufacture, dispose, or release any Hazardous Material on or from the Premises and/or the Project without Landlord's prior written consent. Tenant, at its sole cost and expense, shall operate its business in the Premises in strict compliance with all Environmental Requirements (as defined below) and all requirements of this Lease. Tenant shall complete and certify to disclosure statements as requested by Landlord from time to time relating to Tenant's transportation, storage, use, generation, manufacture, or release of Hazardous Materials on the Premises, and Tenant shall promptly deliver to Landlord a copy of any notice of violation relating to the Premises or the Project of any Environmental Requirement. Without limiting the generality of the foregoing, Tenant shall, at such intervals as Landlord may require, provide to Landlord or its designated consultant a list of all Hazardous Materials used by Tenant in the Premises. Tenant shall reimburse Landlord within thirty (30) days after demand for the actual costs and fees charged by Landlord's consultant to review the list of chemicals provided by the Tenant.

33.2 The term "Environmental Requirements" means all applicable present and future statutes, regulations, ordinances, rules, codes, judgments, permits, authorizations, orders, policies or other similar requirements of any governmental authority, agency or court regulating or relating to health, safety, or environmental conditions on, under, or about the Premises or the environment, including without limitation, the following: the Comprehensive Environmental Response, Compensation and Liability Act; the Resource Conservation and Recovery Act; the Clean Air Act; the Clean Water Act; the Toxic Substances Control Act and all state and local counterparts thereto; all applicable California requirements, including, but not limited to, Sections 25115, 25117, 25122.7, 25140, 25249.8, 25281, 25316 and 25501 of the California Health and Safety Code and Title 22 of the California Code of Regulations, Division 4.5, Chapter 11, and any policies or rules promulgated thereunder as well as any County or City ordinances that may operate independent of, or in conjunction with, the State programs, and any common or civil law obligations including, without limitation, nuisance or trespass, and any other requirements of Article 3 of this Lease. The term "Hazardous Materials" means and includes any substance, material, waste, pollutant, or contaminant that is or could be regulated under any Environmental Requirement or that may adversely affect human health or the environment, including, without limitation, any solid or hazardous waste, hazardous substance, asbestos, petroleum (including crude oil or any fraction thereof, natural gas, synthetic gas, polychlorinated biphenyls (PCBs), and radioactive material). For purposes of Environmental Requirements, to the extent authorized by law, Tenant is and shall be deemed to be the responsible party, including without limitation, the "owner" and "operator" of Tenant's "facility" and the "owner" of all Hazardous Materials brought on the Premises by Tenant, its agents, employees, contractors or invitees, and the wastes, by-products, or residues generated, resulting, or produced therefrom.

33.3 Tenant, at its sole cost and expense, shall remove all Hazardous Materials stored, disposed of or otherwise released by Tenant, its assignees, subtenants, agents, employees, contractors or invitees onto or from the Premises, in a manner and to a level satisfactory to Landlord in its sole discretion, but in no event to a level and in a manner less than that which complies with all Environmental Requirements and does not limit any future uses of the Premises or require the recording of any deed restriction or notice regarding the Premises. Tenant shall perform such work at any time during the Term of the Lease upon written request by Landlord or, in the absence of a specific request by Landlord, before Tenant's right to possession of the Premises terminates or expires. If Tenant fails to perform such work within the time period specified by Landlord or before Tenant's right to possession terminates or expires (whichever is earlier), Landlord may at its discretion, and

without waiving any other remedy available under this Lease or at law or equity (including without limitation an action to compel Tenant to perform such work), perform such work at Tenant's cost. Tenant shall pay all costs incurred by Landlord in performing such work within ten (10) days after Landlord's request therefor. Such work performed by Landlord is on behalf of Tenant and Tenant remains the owner, generator, operator, transporter, and/or arranger of the Hazardous Materials for purposes of Environmental Requirements. Tenant agrees not to enter into any agreement with any person, including without limitation any governmental authority, regarding the removal of Hazardous Materials that have been disposed of or otherwise released onto or from the Premises without the written approval of Landlord.

33.4 Tenant shall indemnify, defend, and hold Landlord harmless from and against any and all losses (including, without limitation, diminution in value of the Premises or the Project and loss of rental income from the Project), claims, demands, actions, suits, damages (including, without limitation, punitive damages), expenses (including, without limitation, remediation, removal, repair, corrective action, or cleanup expenses), and costs (including, without limitation, actual attorneys' fees, consultant fees or expert fees and including, without limitation, removal or management of any asbestos brought into the Premises or disturbed in breach of the requirements of this Article 33, regardless of whether such removal or management is required by law) which are brought or recoverable against, or suffered or incurred by Landlord as a result of any release of Hazardous Materials or any breach of the requirements under this Article 33 by Tenant, its agents, employees, contractors, subtenants, assignees or invitees, regardless of whether Tenant had knowledge of such noncompliance. The obligations of Tenant under this Article 33 shall survive any termination of this Lease.

33.5 Landlord shall have access to, and a right to perform inspections and tests of, the Premises to determine Tenant's compliance with Environmental Requirements, its obligations under this Article 33, or the environmental condition of the Premises. Access shall be granted to Landlord upon Landlord's prior notice to Tenant and at such times so as to minimize, so far as may be reasonable under the circumstances, any disturbance to Tenant's operations. Such inspections and tests shall be conducted at Landlord's expense, unless such inspections or tests reveal that Tenant has not complied with any Environmental Requirement, in which case Tenant shall reimburse Landlord for the reasonable cost of such inspection and tests. Landlord's receipt of or satisfaction with any environmental assessment in no way waives any rights that Landlord holds against Tenant. Tenant shall promptly notify Landlord of any communication or report that Tenant makes to any governmental authority regarding any possible violation of Environmental Requirements or release or threat of release of any Hazardous Materials onto or from the Premises. Tenant shall, within five (5) days of receipt thereof, provide Landlord with a copy of any documents or correspondence received from any governmental agency or other party relating to a possible violation of Environmental Requirements or claim or liability associated with the release or threat of release of any Hazardous Materials onto or from the Premises.

33.6 In addition to all other rights and remedies available to Landlord under this Lease or otherwise, Landlord may, in the event of a breach of the requirements of this Article 33 that is not cured within thirty (30) days following notice of such breach by Landlord, require Tenant to provide financial assurance (such as insurance, escrow of funds or third party guarantee) in an amount and form satisfactory to Landlord. The requirements of this Article 33 are in addition to and not in lieu of any other provision in the Lease.

ARTICLE 34

COMPLIANCE WITH LAWS AND OTHER REGULATIONS

34.1 Subject to Section 34.2(b), Tenant, at its sole cost and expense, shall promptly comply with all laws, statutes, ordinances, and governmental rules, regulations, or requirements now in force or which may hereafter become in force, of federal, state, county, and municipal authorities, including without limitation the Americans with Disabilities Act and the California Energy Code, Title 24, with the requirements of any board of fire underwriters or other similar body now or hereafter constituted, and with any occupancy certificate issued pursuant to any law by any public officer or officers, which impose, any duty upon Landlord or Tenant, insofar as any thereof relate to or affect the condition, use, alteration, or occupancy of the Premises. Landlord's approval of Tenant's plans for any improvements shall create no responsibility or liability on the part of Landlord for their completeness, design sufficiency, or compliance with all laws, rules, and regulations of governmental agencies or authorities, including, but not limited to, the Americans with Disabilities Act. Tenant, at Tenant's expense, may contest by appropriate proceedings in good faith the legality or applicability of any Law affecting the Premises, provided that (A) the applicable Building or any part thereof shall not be subject to being condemned or vacated by reason of non-compliance or otherwise by reason of such contest, (B) no unsafe or hazardous condition remains unremedied as a result of such contest, (C) such non-compliance or contest is not prohibited under any then-applicable law, (D) such non-compliance or contest shall not prevent Landlord from obtaining any and all permits and licenses then required by applicable laws in connection with the operation of the Building, and (E) the certificate of occupancy for the Building (or any portion) is neither subject to being

suspended by reason such of non-compliance or contest (any such proceedings instituted by Tenant being referred to herein as a "Compliance Challenge"). In the event that Tenant commences a Compliance Challenge, Tenant's obligation to cease any use specified in Landlord's notice and/or obligation to comply with the applicable law in question shall, unless otherwise mandated by applicable law, be suspended pending the resolution of the Compliance Challenge.

34.2 However,:

(a) Subject to Section 2.6 and Section 34.2(b), Tenant shall be solely responsible for all costs and expenses relating to or incurred in connection with: (i) the failure of the Premises to comply with Applicable Laws; and (ii) bringing the Building and the Common Areas into compliance with Applicable Laws, if and to the extent such noncompliance arises out of or relates to: (1) Tenant's use of the Premises for other than general office use; (2) any Alterations to the Premises; or (3) any Alterations constructed in the Premises at the request of Tenant;

(b) Landlord shall be responsible for all work required to and all costs and expenses relating to or incurred in connection with bringing the Building Common Areas of any Building in which Tenant does not lease all of the rentable area into compliance with Applicable Laws, unless such costs and expenses are Tenant's responsibility as provided in the preceding subparagraph. Any cost or expense paid or incurred by Landlord to bring Building Common Areas into compliance with Applicable Laws which is not Tenant's responsibility under the preceding subparagraph shall be an Operating Expense for purposes of this Lease. Nothing contained herein shall be deemed to prohibit Landlord from obtaining a variance or relying upon a grandfathered right in order to achieve compliance with Applicable Laws. Notwithstanding the foregoing, Landlord shall have the right to contest any alleged violation in good faith, including, without limitation, the right to apply for and obtain a waiver or deferment of compliance, the right to assert any and all defenses allowed by law, and the right to appeal any decisions, judgments or rulings to the fullest extent permitted by law, and Landlord's obligation to perform work or take such other action to cure a violation under this Section shall apply after the exhaustion of any and all rights to appeal or contest. If Tenant leases all of the rentable area in a Building, Tenant shall be solely responsible for all costs and expenses relating to or incurred in connection with bringing the Building and the Building Common Areas into compliance with Applicable Laws. If Tenant leases all of the rentable area in the Project, Tenant shall be solely responsible for all costs and expenses relating to or incurred in connection with bringing the Building and the all Common Areas into compliance with Applicable Laws.

(c) Landlord's consent to any proposed Alterations shall (i) not relieve Tenant of its obligations contained in this Article 34 or (ii) be construed as a warranty that such proposed Alterations comply with any Applicable Laws; and

(d) The provisions of this Section 34.2 shall supersede any other provisions in this Lease regarding Applicable Laws, to the extent inconsistent with the provisions of any other paragraphs.

34.3 As an inducement to Landlord to enter into this Lease, Tenant hereby represents and warrants that: (i) Tenant is not, nor is it owned or controlled directly or indirectly by, any person, group, entity or nation named on any list issued by the Office of Foreign Assets Control of the United States Department of the Treasury pursuant to Executive Order 13224 or any similar list or any law, order, rule or regulation or any Executive Order of the President of the United States as a terrorist, "Specially Designated National and Blocked Person" or other banned or blocked person (any such person, group, entity or nation being hereinafter referred to as a "Prohibited Person"); (ii) Tenant is not (nor is it owned or controlled, directly or indirectly, by any person, group, entity or nation which is) acting directly or indirectly for or on behalf of any Prohibited Person; and (iii) neither Tenant (nor any person, group, entity or nation which owns or controls Tenant, directly or indirectly) has conducted or will conduct business or has engaged or will engage in any transaction or dealing with any Prohibited Person, including without limitation any assignment of this Lease or any subletting of all or any portion of the Premises or the making or receiving of any contribution of funds, goods or services to or for the benefit of a Prohibited Person. As used in the immediately preceding sentence, the phrase "owned or controlled" will not be deemed to include any ownership of the shares of Tenant's stock through the passive direct or indirect ownership of interests traded on a recognized securities exchange. Tenant covenants and agrees (a) to comply with all requirements of law relating to money laundering, anti-terrorism, trade embargos and economic sanctions, now or hereafter in effect, (b) to immediately notify Landlord in writing if any of the representations, warranties or covenants set forth in this Section 34.3 are no longer true or have been breached or if Tenant has a reasonable basis to believe that they may no longer be true or have been breached, (c) not to use funds from any Prohibited Person to make any payment due to Landlord under the Lease and (d) at the request of Landlord, to provide such information as may be requested by Landlord to determine Tenant's compliance with the terms hereof. Any breach by Tenant of the foregoing representations and warranties shall be deemed an Event of Default by Tenant under this Lease and shall be covered by the

indemnity provisions of Section 21.1 above. The representations and warranties contained in this subsection shall be continuing in nature and shall survive the expiration or earlier termination of this Lease.

34.4 Pursuant to California Civil Code Section 1938, Tenant is hereby notified that, as of the date hereof, the Project has not undergone an inspection by a "Certified Access Specialist." Tenant acknowledges that Landlord has made no representation regarding compliance of the Premises or the Building with accessibility standards.

ARTICLE 35

SEVERABILITY

35.1 This Lease shall be construed in accordance with the laws of the State of California. If any clause or provision of this Lease is illegal, invalid, or unenforceable under present or future laws effective during the Term, then it is the intention of the parties hereto that the remainder of this Lease shall not be affected thereby. It is also the intention of both parties that in lieu of each clause or provision that is illegal, or unenforceable, there is added as a part of this Lease a clause or provision as similar in terms to such illegal, invalid, or unenforceable clause or provision as may be possible and still be legal, valid, and enforceable.

ARTICLE 36

NOTICES

36.1 All notices, demands, designations, approvals or other communications (collectively, "Notices") given or required to be given by either party to the other hereunder or by law shall be in writing, shall be (i) sent by United States certified or registered mail, postage prepaid, return receipt requested ("Mail"), (ii) delivered by a nationally recognized overnight courier, or (iv) delivered personally. Any Notice shall be sent or delivered, as the case may be, to Tenant at the appropriate address set forth in the Basic Lease Information, or to such other place as Tenant may from time to time designate in a Notice to Landlord, or to Landlord at the addresses set forth in the Basic Lease Information, or to such other places as Landlord may from time to time designate in a Notice to Tenant. Any Notice will be deemed given (A) three (3) business days after the date it is posted if sent by Mail, (B) the date the overnight courier delivery is made, or (C) the date personal delivery is made. Any Notice given by an attorney on behalf of Landlord or by Landlord's managing agent shall be considered as given by Landlord and shall be fully effective.

ARTICLE 37

OBLIGATIONS OF, SUCCESSORS, PLURALITY, GENDER

37.1 Landlord and Tenant agree that all the provisions hereof are to be construed as covenants and agreements as though the words imparting such covenants were used in each paragraph hereof, and that, except as restricted by the provisions hereof, shall bind and inure to the benefit of the parties hereto, their respective heirs, legal representatives, successors, and assigns. If the rights of Tenant hereunder are owned by two or more parties, or two or more parties are designated herein as Tenant, then all such parties shall be jointly and severally liable for the obligations of Tenant hereunder. Whenever the singular or plural number, masculine or feminine or neuter gender is used herein, it shall equally include the other.

ARTICLE 38

ENTIRE AGREEMENT

38.1 This Lease and any attached addenda or exhibits constitute the entire agreement between Landlord and Tenant. No prior or contemporaneous written or oral leases or representations shall be binding. This Lease shall not be amended, changed, or extended except by written instrument signed by Landlord and Tenant.

38.2 THE SUBMISSION OF THIS LEASE BY LANDLORD, ITS AGENT OR REPRESENTATIVE FOR EXAMINATION OR EXECUTION BY TENANT DOES NOT CONSTITUTE AN OPTION OR OFFER TO LEASE THE PREMISES UPON THE TERMS AND CONDITIONS CONTAINED HEREIN OR A RESERVATION OF THE PREMISES IN FAVOR OF TENANT, IT BEING INTENDED HEREBY THAT THIS LEASE SHALL ONLY BECOME

EFFECTIVE UPON THE EXECUTION HEREOF BY LANDLORD AND DELIVERY OF A FULLY EXECUTED LEASE TO TENANT.

ARTICLE 39

CAPTIONS

39.1 Paragraph captions are for Landlord's and Tenant's convenience only, and neither limit nor amplify the provisions of this Lease.

ARTICLE 40

CHANGES

40.1 Should any mortgagee require a modification of this Lease, which modification will not bring about any increased cost or expense to Tenant or in any other way substantially and adversely change the rights and obligations of Tenant hereunder, then and in such event Tenant agrees that this Lease may be so modified.

ARTICLE 41

AUTHORITY

41.1 All rights and remedies of Landlord under this Lease, or those which may be provided by law, may be exercised by Landlord in its own name individually, or in its name by its agent, and all legal proceedings for the enforcement of any such rights or remedies, including distress for Rent, unlawful detainer, and any other legal or equitable proceedings may be commenced and prosecuted to final judgment and be executed by Landlord in its own name individually or in its name by its agent. Landlord and Tenant each represent to the other that each has full power and authority to execute this Lease and to make and perform the agreements herein contained, and Tenant expressly stipulates that any rights or remedies available to Landlord, either by the provisions of this Lease or otherwise, may be enforced by Landlord in its own name individually or in its name by its agent or principal.

ARTICLE 42

BROKERAGE

42.1 Tenant represents and warrants to Landlord that it has dealt only with Tenant's Broker and Landlord's Broker, in negotiation of this Lease. Landlord shall make payment of the brokerage fee due the Landlord's Broker pursuant to and in accordance with a separate agreement between Landlord and Landlord's Broker. Landlord's Broker shall pay a portion of its commission to Tenant's Broker pursuant to a separate agreement between Landlord's Broker and Tenant's Broker. Except for amounts owing to Landlord's Broker and Tenant's Broker, each party hereby agrees to indemnify and hold the other party harmless of and from any and all damages, losses, costs, or expenses (including, without limitation, all attorneys' fees and disbursements) by reason of any claim of or liability to any other broker or other person claiming through the indemnifying party and arising out of or in connection with the negotiation, execution, and delivery of this Lease. Additionally, except as may be otherwise expressly agreed upon by Landlord in writing, Tenant acknowledges and agrees that Landlord and/or Landlord's agent shall have no obligation for payment of any brokerage fee or similar compensation to any person with whom Tenant has dealt or may in the future deal with respect to leasing of any additional or expansion space in the Building or renewals or extensions of this Lease. Landlord and Tenant's Broker have entered into a Commission Agreement for Lease substantially in the form of Exhibit Q attached hereto (the "Tenant’s Broker Commission Agreement") with respect to this Lease. The obligations of "Owner" under the Tenant’s Broker Commission Agreement shall be binding on any successor in interest to Landlord under this Lease. Landlord and Tenant agree to substitute a facsimile copy of the executed Tenant’s Broker Commission Agreement for the form attached as Exhibit Q promptly after the full execution and delivery of the Tenant’s Broker Commission Agreement. Landlord and Landlord's Broker have entered into a commission agreement substantially in the form of Exhibit R attached hereto (the " Landlord's Broker Commission Agreement") with respect to this Lease. The obligations of "Owner" under the Landlord's Broker Commission Agreement shall be binding on any successor in interest to Landlord under this Lease. Landlord and Tenant agree to substitute a facsimile copy of the executed Landlord's Broker Commission Agreement for the form attached as Exhibit R promptly after the full execution and delivery of the Landlord's Broker Commission Agreement.

ARTICLE 43

EXHIBITS

43.1 Exhibits A through R are attached hereto and incorporated herein for all purposes and are hereby acknowledged by both parties to this Lease.

ARTICLE 44

APPURTENANCES

44.1 The Premises include the right of ingress and egress thereto and therefrom; however, Landlord reserves the right to make changes and alterations to any Buildings in which Tenant does not occupy the full Building, fixtures and equipment thereof, in the street entrances, doors, halls, corridors, lobbies, passages, elevators, escalators, stairways, toilets and other parts thereof which Landlord may deem necessary or desirable; provided that Tenant at all times has a means of access to the Premises (subject to a temporary interruption due to Force Majeure Events or necessary maintenance that cannot reasonably be performed without such interruption of access) and subject to the provisions of Section 6.8. Neither this Lease nor any use by Tenant of the Buildings or any passage, door, tunnel, concourse, plaza or any other area connecting the garages or other buildings with the Buildings, shall give Tenant any right or easement of such use and the use thereof may, without notice to Tenant, be regulated or discontinued at any time and from time to time by Landlord without liability of any kind to Tenant and without affecting the obligations of Tenant under this Lease.

ARTICLE 45

PREJUDGMENT REMEDY, REDEMPTION, COUNTERCLAIM, AND JURY

45.1 Tenant, for itself and for all persons claiming through or under it, hereby expressly waives any and all rights which are, or in the future may be, conferred upon Tenant by any present or future law to redeem the Premises, or to any new trial in any action for ejection under any provisions of law, after reentry thereupon, or upon any part thereof, by Landlord, or after any warrant to dispossess or judgment in ejection. If Landlord shall acquire possession of the Premises by summary proceedings, or in any other lawful manner without judicial proceedings, it shall be deemed a reentry within the meaning of that word as used in this Lease. In the event that Landlord commences any summary proceedings or action for nonpayment of Rent or other charges provided for in this Lease, Tenant shall not interpose any counterclaim of any nature or description in any such proceeding or action. Tenant and Landlord both waive a trial by jury of any or all issues arising in any action or proceeding between the parties hereto or their successors, under or connected with this Lease, or any of its provisions.

ARTICLE 46

RECORDING

46.1 Neither Landlord nor Tenant shall record this Lease, but upon request by either party, the other party shall execute and deliver to the requesting party, for the requesting party to record, at the requesting party's sole cost and expense, a Memorandum of Lease in the form attached hereto as Exhibit P (the "Memorandum"); provided that if Tenant is the requesting party, prior to the date of such recordation, Tenant has executed and delivered to Landlord (or to Landlord's counsel, as Landlord may direct), an executed and acknowledged Quitclaim Deed and escrow instructions for holding and recording the Quitclaim Deed in form and substance reasonably satisfactory to Landlord, which Quitclaim Deed may be recorded when the Lease has expired or terminated in accordance with its terms. If at the time the Lease expiries or is terminated, Landlord is not the same party as named in the Quitclaim Deed, then within 10 days after the expiration or earlier termination of this Lease, Tenant shall enter into such documentation as is reasonably required by Landlord to remove the Memorandum of record. The terms of this Section 46.1 shall survive the expiration or earlier termination of this Lease.

ARTICLE 47

MORTGAGEE PROTECTION

47.1 Tenant agrees to give any mortgagees and/or trust deed holders having a lien on Landlord's interest in the Project, by certified mail or overnight courier, a copy of any notice of default served upon Landlord, provided that prior to such notice Tenant has been notified, in writing of the address of such mortgagees and/or trust deed holders. Tenant further

agrees that if Landlord shall have failed to cure such default within the time provided for in this Lease, then such mortgagees and/or trust deed holders shall have an additional thirty (30) days within which to cure such default or if such default cannot be cured within that time, and provided that such party has notified Tenant of its interest to attempt to cure such default, then such additional time as may be necessary to cure such default (including but not limited to commencement of foreclosure proceedings, if necessary to effect such cure) in which event this Lease shall not be terminated while such remedies are being so diligently pursued.

ARTICLE 48

OTHER LANDLORD CONSTRUCTION

48.1 Tenant acknowledges that portions of the Project may be under construction following Tenant's occupancy of the Premises, and that such construction may result in levels of noise, dust, odor, obstruction of access, etc. which are in excess of that present in a fully constructed project. Except as set forth in Section 6.8, Tenant hereby waives any and all rent offsets or claims of constructive eviction which may arise in connection with such construction. If any excavation or construction is made adjacent to, upon or within the Building, or any part thereof, Tenant shall afford to any and all persons causing or authorized to cause such excavation or construction license to enter upon the Premises for the purpose of doing such work as such persons shall deem necessary to preserve the Buildings or any portion thereof from injury or damage and to support the same by proper foundations, braces and supports, without any claim for damages or indemnity or abatement of Rent (subject to the express provisions of this Lease), or of a constructive or actual eviction of Tenant.

48.2 It is specifically understood and agreed that Landlord has no obligation and has made no promises to alter, remodel, improve, renovate, repair or decorate the Premises, the Buildings, or any part thereof and that no representations respecting the condition of the Premises or the Buildings have been made by Landlord to Tenant except as specifically set forth herein or in the Tenant Work Letter. However, Tenant hereby acknowledges that Landlord is currently renovating or may during the Lease Term renovate, improve, alter, or modify (collectively, the "Renovations") the Project, the Buildings and/or the Premises. Tenant hereby agrees that such Renovations shall in no way constitute a constructive eviction of Tenant nor, except as set forth in Section 6.8, entitle Tenant to any abatement of Rent. Landlord shall have no responsibility and shall not be liable to Tenant for any injury to or interference with Tenant's business arising from the Renovations, nor shall Tenant be entitled to any compensation or damages from Landlord for loss of the use of the whole or any part of the Premises or of Tenant's personal property or improvements resulting from the Renovations, or for any inconvenience or annoyance occasioned by such Renovations.

ARTICLE 49

PARKING

49.1 The use by Tenant, its employees and invitees, of the parking facilities of the Project shall be on the terms and conditions set forth in Exhibit E attached hereto and by this reference incorporated herein and shall be subject to such other agreement between Landlord and Tenant as may hereinafter be established and to such other rules and regulations as Landlord may establish. Tenant, its employees and invitees shall use no more than the Maximum Parking Allocation. Tenant's use of the parking spaces shall be confined to the Project. If, in Landlord's reasonable business judgment, it becomes necessary, Landlord shall exercise due diligence to cause the creation of cross-parking easements and such other agreements as are necessary to permit Tenant, its employees and invitees to use parking spaces on properties and buildings which are separate legal parcels from the Project. Tenant acknowledges that other tenants of the Project and the tenants of the other buildings, their employees and invitees, may be given the right to park at the Project. Subject to Applicable Laws and the CC&R's, and further subject to the rights of any existing tenants of the Project, Tenant shall have the right to designate specific parking spaces within the Project for Tenant's exclusive use; provided Landlord shall have the right, in its reasonable discretion, to approve the specific location of any such exclusive use parking spaces.

ARTICLE 50

ELECTRICAL CAPACITY

50.1 Tenant covenants and agrees that at all times, its use of electric energy shall never exceed the capacity of the existing feeders to the Buildings or the risers of wiring installation. Any riser or risers to supply Tenant's electrical requirements in any multi-tenant Building in which a portion of the Premises is located shall, upon written request of Tenant, be installed by Landlord at the sole cost and expense of Tenant, if, in Landlord's good faith judgment, the same are necessary and will not cause or create a dangerous or hazardous condition or entail excess or unreasonable alterations, repairs or expense or interfere with or disrupt other tenants or occupants. In addition to the installation of such riser or risers, Landlord will also, at the sole cost and expense of Tenant, install all other equipment which is reasonably necessary in connection therewith subject to the aforesaid terms and conditions.

ARTICLE 51

OPTIONS TO EXTEND LEASE

51.1 Partial Renewal; Non-Renewed Space. In connection with Tenant's exercise of its Extension Options (defined below), Tenant shall have the right to reduce the size of the Premises and exercise the Extension Option only as to such reduced portion of the Premises (the "Partial Renewal"), in accordance with the terms of this Section 51.1. In the event Tenant desires to exercise its Partial Renewal right, the First Option Exercise Notice, Second Option Exercise Notice, and/or Third Option Exercise Notice (each as defined below) (as the case may be), shall describe the area of the Premises for which Tenant elects to renew the then-current Lease Term (the "Renewal Space") and the area of the Premises for which Tenant elects not to renew the then-current Term (the "Non-Renewed Space"). The following conditions shall apply to Tenant's exercise of the Partial Renewal right. The Renewal Space shall be determined by Tenant, subject to the satisfaction of the following conditions: (i) If Tenant leases all of the rentable area in any Building, the Renewal Space must include or exclude all of the rentable area in that Building at the time of Tenant's delivery of the applicable First Option Exercise Notice, Second Option Exercise Notice or Third Option Exercise Notice (as the case may be) in which Tenant is designating the Renewal Space, (ii) Tenant may not break up any full floor leased by Tenant, (iii) if Tenant leases space on a multi-tenant floor in a Building, the Renewal Space must include or exclude all space leased by Tenant on such floor, and (iv) Tenant shall pay to Landlord the reasonable costs incurred in restoring any internal stairwells previously constructed by or on behalf of Tenant included in the Non-Renewed Space; provided, however, Tenant shall not be required to restore any such stairwell to the extent the Renewal Space includes the floors affected by such stairwell. If Tenant elects to exercise the Partial Renewal right, then Landlord and Tenant shall be relieved of their respective obligations under this Lease with respect to the Non-Renewed Space as of the first (1st) day of the applicable Extension Period (defined below), except for those obligations set forth in this Lease which specifically survive the expiration or earlier termination of this Lease, including, without limitation, the payment by Tenant of all amounts owed by Tenant under this Lease, up to the first (1st) day of the applicable Extension Period, with respect to the Non-Renewed Space. In the event that Tenant fails to vacate, and surrender and deliver to Landlord exclusive possession of the Non-Renewed Space, free of all subleases, prior to the first (1st) day of the applicable Extension Period in the condition required by this Lease, and such failure continues for ten (10) business days after receipt of notice from Landlord, then the provisions of Article 31 of this Lease shall apply to the Non-Renewed Space which is not so delivered; provided that holdover in the Non-Renewed Space shall not void Tenant's exercise of its applicable Extension Option. In the event Tenant fails to specify in the applicable First Option Exercise Notice, Second Option Exercise Notice, or Third Option Exercise Notice (as the case may be) that Tenant is exercising its Partial Renewal right, then the renewal for the applicable Extension Period shall apply to all of the Premises then leased hereunder. As used herein: (i) the term "Extension Option" shall mean the First Extension Option, Second Extension Option, or Third Extension Option (each as defined below), as applicable, and (ii) the term "Extension Period" shall mean the First Extension Period, Second Extension Period, or Third Extension Period (each as defined below), as applicable.

51.2 First Extension Option. Tenant shall have the option to extend this Lease (the "First Extension Option") with respect to the Renewal Space or Premises (as applicable) for one additional term of five (5) years (the "First Extension Period"), upon the terms and conditions hereinafter set forth:

(a) If the First Extension Option is exercised, then the Base Rent per annum for such First Extension Period shall be an amount equal to the Fair Market Rental Value (as defined hereinafter) for the Renewal Space or Premises (as applicable) as of the commencement of the First Extension Option for such First Extension Period.

(b) The First Extension Option must be exercised by Tenant, if at all, only at the time and in the manner provided in this Section 51.2(b).

(i) If Tenant wishes to exercise the First Extension Option, Tenant must, on or before the date occurring nine (9) months before the expiration of the initial Lease Term (but not before the date that is twelve (12) months before the expiration of the initial Lease Term), exercise the First Extension Option by delivering written notice (the "First Option Exercise Notice") to Landlord. If Tenant timely and properly exercises its First Extension Option, the Lease Term shall be extended for the First Extension Period upon all of the terms and conditions set forth in the Lease, as amended, except that the Base Rent for the First Extension Period shall be as provided in Section 51.2(a) and Tenant shall have no further options to extend the Lease Term except for the Second Extension Option and Third Extension Option.

(ii) If Tenant fails to deliver a timely First Option Exercise Notice, Tenant shall be considered to have elected not to exercise the First Extension Option.

(c) It is understood and agreed that the First Extension Option hereby granted is personal to Tenant and is not transferable except to a Permitted Transferee in connection with an assignment of Tenant's entire interest in this Lease. In the event of any assignment of this Lease (other than to a Permitted Transferee in connection with an assignment of Tenant's entire interest in this Lease), the First Extension Option shall automatically terminate and shall thereafter be null and void. In addition, Tenant may not exercise the First Extension Option, and any attempted exercise of the First Extension Option shall be ineffective, if at the time Tenant delivers the First Option Exercise Notice the Subletting Threshold (as defined below) is exceeded. As used herein, "Subletting Threshold" means subleasing of forty-five percent (45%) or more of the Premises (excluding subleases to Permitted Transferees), either in a single transaction or, in the aggregate, following a series of transactions, for a term or terms expiring during the last year of the Term.

(d) Tenant's exercise of the First Extension Option shall, if Landlord so elects in its absolute discretion, be ineffective in the event that an Event of Default by Tenant remains uncured at the time of delivery of the First Option Exercise Notice (provided that Landlord must exercise such option to nullify the effectiveness of Tenant's exercise by notice delivered to Tenant within twenty (20) business days following the date of Tenant's delivery of Tenant's First Option Exercise Notice or Landlord will be deemed to have waived its right to nullify Tenant's exercise of the First Extension Option).

51.3 Second Extension Option. Tenant shall also have the option to extend this Lease (the "Second Extension Option") with respect to the Renewal Space or Premises (as applicable) for one additional term of five (5) years (the "Second Extension Period"), upon the terms and conditions hereinafter set forth:

(a) If the Second Extension Option is exercised, then the Base Rent per annum for such Second Extension Period shall be an amount equal to the Fair Market Rental Value for the Renewal Space or Premises (as applicable) as of the commencement of the Second Extension Option for such Second Extension Period.

(b) The Second Extension Option must be exercised by Tenant, if at all, only at the time and in the manner provided in this Section 51.3(b).

(i) If Tenant wishes to exercise the Second Extension Option, Tenant must, on or before the date occurring nine (9) months before the expiration of the First Extension Period (but not before the date that is twelve (12) months before the expiration of the First Extension Period), exercise the Second Extension Option by delivering written notice (the "Second Option Exercise Notice") to Landlord. If Tenant timely and properly exercises its Second Extension Option, the Lease Term shall be extended for the Second Extension Period upon all of the terms and conditions set forth in the Lease, as amended, except that the Base Rent for the Second Extension Period shall be as provided in Section 51.3(a) and Tenant shall have no further options to extend the Lease Term except for the Third Extension Option.

(ii) If Tenant fails to deliver a timely Second Option Exercise Notice, Tenant shall be considered to have elected not to exercise the Second Extension Option.

(c) It is understood and agreed that the Second Extension Option hereby granted is personal to Tenant and is not transferable except to a Permitted Transferee in connection with an assignment of Tenant's entire

interest in this Lease. In the event of any assignment of this Lease (other than to a Permitted Transferee in connection with an assignment of Tenant's entire interest in this Lease), the Second Extension Option shall automatically terminate and shall thereafter be null and void. In addition, Tenant may not exercise the Second Extension Option, and any attempted exercise of the Second Extension Option shall be ineffective, if at the time Tenant delivers the Second Option Exercise Notice the Subletting Threshold is exceeded.

(d) Tenant's exercise of the Second Extension Option shall, if Landlord so elects in its absolute discretion, be ineffective in the event that an Event of Default by Tenant remains uncured at the time of delivery of the Second Option Exercise Notice (provided that Landlord must exercise such option to nullify the effectiveness of Tenant's exercise by notice delivered to Tenant within twenty (20) business days following the date of Tenant's delivery of Tenant's Second Option Exercise Notice or Landlord will be deemed to have waived its right to nullify Tenant's exercise of the Second Extension Option).

51.4 Third Extension Option. Tenant shall also have the option to extend this Lease (the "Third Extension Option") with respect to the Renewal Space or Premises (as applicable) for one additional term of five (5) years (the "Third Extension Period"), upon the terms and conditions hereinafter set forth:

(a) If the Third Extension Option is exercised, then the Base Rent per annum for such Third Extension Period shall be an amount equal to the Fair Market Rental Value for the Renewal Space or Premises (as applicable) as of the commencement of the Third Extension Option for such Third Extension Period.

(b) The Third Extension Option must be exercised by Tenant, if at all, only at the time and in the manner provided in this Section 51.4(b).

(i) If Tenant wishes to exercise the Third Extension Option, Tenant must, on or before the date occurring nine (9) months before the expiration of the Second Extension Period (but not before the date that is twelve (12) months before the expiration of the Second Extension Period), exercise the Third Extension Option by delivering written notice (the "Third Option Exercise Notice") to Landlord. If Tenant timely and properly exercises its Third Extension Option, the Lease Term shall be extended for the Third Extension Period upon all of the terms and conditions set forth in the Lease, as amended, except that the Base Rent for the Third Extension Period shall be as provided in Section 51.4(a) and Tenant shall have no further options to extend the Lease Term.

(ii) If Tenant fails to deliver a timely Third Option Exercise Notice, Tenant shall be considered to have elected not to exercise the Third Extension Option.

(c) It is understood and agreed that the Third Extension Option hereby granted is personal to Tenant and is not transferable except to a Permitted Transferee in connection with an assignment of Tenant's entire interest in this Lease. In the event of any assignment of this Lease (other than to a Permitted Transferee in connection with an assignment of Tenant's entire interest in this Lease), the Third Extension Option shall automatically terminate and shall thereafter be null and void. In addition, Tenant may not exercise the Third Extension Option, and any attempted exercise of the Third Extension Option shall be ineffective, if at the time Tenant delivers the Third Option Exercise Notice the Subletting Threshold is exceeded.

(d) Tenant's exercise of the Third Extension Option shall, if Landlord so elects in its absolute discretion, be ineffective in the event that an Event of Default by Tenant remains uncured at the time of delivery of the Third Option Exercise Notice (provided that Landlord must exercise such option to nullify the effectiveness of Tenant's exercise by notice delivered to Tenant within twenty (20) business days following the date of Tenant's delivery of Tenant's Third Option Exercise Notice or Landlord will be deemed to have waived its right to nullify Tenant's exercise of the Third Extension Option).

51.5 Fair Market Rental Value. The provisions of this Section shall apply in any instance in which this Lease provides that the Fair Market Rental Value is to apply.

(a) "Fair Market Rental Value" means the annual amount per square foot that a willing tenant would pay and a willing landlord would accept in arm's length negotiations, without any additional inducements, for a lease of the applicable space on the applicable terms and conditions for the applicable period of time. Fair Market

Rental Value shall be determined by considering the most recent new direct leases (and market renewals and extensions, if applicable) in the Project and in Comparable Buildings (the "Comparison Leases").

(b) In determining the rental rate of comparable space, the parties shall include all escalations and take into consideration (1) the annual rental rates per square foot, (2) the standard of measurement by which the square footage is measured, (3) all free rent, granted at such time for such comparable space, (4) the length of the Extension Period compared to the lease term of the Comparison Leases; (5) rental structure, including additional rent, and taking into consideration any "base year" or "expense stops"; (6) the size of the Renewal Space or Premises, as applicable, compared to the size of the premises under the Comparison Leases; (7) location of the Renewal Space or Premises, as applicable, compared to the premises under the Comparison Leases; (8) the age and quality of construction of the Buildings; (9) the value of existing leasehold improvements, excluding any specialized tenant improvements constructed by Tenant in comparison to the value of existing improvements in any space that is the subject of Comparison Leases; (10) whether the Comparison Lease is a renewal of an existing lease or a new lease, (11) the financial condition and credit history of Tenant compared to the tenants under the Comparison Leases, and (12) tenant improvement or refurbishment allowances granted in Comparison Leases.

(c) If in determining the Fair Market Rental Value the parties determine that the economic terms of leases of comparable space include a tenant improvement allowance, Landlord may, at Landlord's sole option, elect to do the following:

(i) Grant some or all of the value of the tenant improvement allowance as an allowance for the refurbishment of the Premises; and

(ii) Reduce the Base Rent component of the Fair Market Rental Value to be an effective rental rate that takes into consideration the total dollar value of that portion of the tenant improvement allowance that Landlord has elected not to grant to Tenant (in which case that portion of the tenant improvement allowance evidenced in the effective rental rate shall not be granted to Tenant).

51.6 Determination of Fair Market Rental Value. The determination of Fair Market Rental Value shall be as provided in this Section 51.6.

(a) Negotiated Agreement. Landlord and Tenant shall diligently attempt in good faith to agree on the Fair Market Rental Value on or before the date (the "Outside Agreement Date") that is five (5) months prior to the date upon which the applicable Extension Period is to commence.

(b) Parties' Separate Determinations. If Landlord and Tenant fail to reach agreement on or before the Outside Agreement Date, Landlord and Tenant shall each make a separate determination of the Fair Market Rental Value and notify the other party of this determination within twenty-one (21) days after the Outside Agreement Date.

(iii) Two Determinations. If each party makes a timely determination of the Fair Market Rental Value, those determinations shall be submitted to arbitration in accordance with subsection (c).

(iv) One Determination. If Landlord or Tenant fails to make a determination of the Fair Market Rental Value within the 21-day period, that failure shall be conclusively considered to be that party's approval of the Fair Market Rental Value submitted within the five-day period by the other party.

(c) Arbitration. If both parties make timely individual determinations of the Fair Market Rental Value under subsection (b), the Fair Market Rental Value shall be determined by arbitration under this subsection (c).

(i) Scope of Arbitration. The determination of the arbitrators shall be limited to the sole issue of whether Landlord's or Tenant's submitted Fair Market Rental Value is the closest to the actual Fair Market Rental Value as determined by the arbitrators, taking into account the requirements of Section 51.5.

(ii) Qualifications of Arbitrator(s). The arbitrators must be licensed real estate brokers who have been active in the leasing of commercial multi-story properties in the Market Area over the five-year period ending on the date of their appointment as arbitrator(s).

(iii) Parties' Appointment of Arbitrators. Within fifteen (15) days after the Outside Agreement Date, Landlord and Tenant shall each appoint one arbitrator and notify the other party of the arbitrator's name and business address.

(iv) Appointment of Third Arbitrator. If each party timely appoints an arbitrator, the two (2) arbitrators shall, within ten (10) days after the appointment of the second arbitrator, agree on and appoint a third arbitrator (who shall be qualified under the same criteria set forth above for qualification of the initial two (2) arbitrators) and provide notice to Landlord and Tenant of the arbitrator's name and business address.

(v) Arbitrators' Decision. Within thirty (30) days after the appointment of the third arbitrator, the three (3) arbitrators shall decide whether the parties will use Landlord's or Tenant's submitted Fair Market Rental Value and shall notify Landlord and Tenant of their decision. The decision of the majority the three (3) arbitrators shall be binding on Landlord and Tenant.

(vi) If Only One Arbitrator is Appointed. If either Landlord or Tenant fails to appoint an arbitrator within fifteen (15) days after the Outside Agreement Date, the arbitrator timely appointed by one of them shall reach a decision and notify Landlord and Tenant of that decision within thirty (30) days after the arbitrator's appointment. The arbitrator's decision shall be binding on Landlord and Tenant.

(vii) If Only Two Arbitrators Are Appointed. If each party appoints an arbitrator in a timely manner, but the two (2) arbitrators fail to agree on and appoint a third arbitrator within the required period, the arbitrators shall be dismissed without delay and the issue of Fair Market Rental Value shall be submitted to binding arbitration under the real estate arbitration rules of JAMS, subject to the provisions of this section.

(viii) If No Arbitrator Is Appointed. If Landlord and Tenant each fail to appoint an arbitrator in a timely manner, the matter to be decided shall be submitted without delay to binding arbitration under the real estate arbitration rules of JAMS subject the provisions of this Section 51.6(c).

(d) Cost of Arbitration. The cost of the arbitration shall be paid by the party whose submitted Fair Market Rental Value is not selected by the arbitrators.

ARTICLE 52

TELECOMMUNICATIONS LINES AND EQUIPMENT

52.1 Tenant may install, maintain, replace, remove or use any electrical, communications or computer wires and cables (collectively, the "Lines") at the Buildings in or serving solely the Premises, provided that (i) Tenant shall obtain Landlord's prior written consent (not to be unreasonably withheld), use an experienced and qualified contractor approved in writing by Landlord, and comply with all of the other provisions of Articles 8 and 15 of this Lease, (ii) any multi-tenant Buildings in which a portion of the Premises is located an acceptable number of spare Lines and space for additional Lines shall be maintained for existing and future occupants of the Buildings, as determined in Landlord's reasonable opinion, (iii) the Lines therefor (including riser cables) shall be appropriately insulated to prevent excessive electromagnetic fields or radiation, and shall be surrounded by a protective conduit reasonably acceptable to Landlord, (iv) any new or existing Lines servicing the Premises shall comply with all applicable governmental laws and regulations, (v) as a condition to permitting the installation of new Lines, Landlord may require that Tenant remove existing Lines located in or serving such portion of the Premises and repair any damage in connection with such removal, and (vi) Tenant shall pay all costs in connection therewith. Landlord reserves the right to require that Tenant remove any Lines located in or serving the Premises which are installed in violation of these provisions, or which are at any time in violation of any laws or represent a dangerous or potentially dangerous condition. Landlord further reserves the right to require that Tenant remove any and all Lines located in or serving the Premises upon the expiration of the Term or upon any earlier termination of this Lease.

ARTICLE 53

ERISA

53.1 To induce Landlord to enter into this Lease, and in order to enable The Prudential Insurance Company of America ("Prudential") to satisfy its compliance with the Employee Retirement Income Security Act of 1974, as amended ("ERISA"), Tenant represents and warrants to Landlord and Prudential that: (a) Tenant is not an "employee benefit plan" as defined in Section 3(3) of ERISA, a "plan" as defined in Section 4975(e)(1) of the Internal Revenue Code of 1986, as amended (the "Code"), and does not hold "plan assets" (within the meaning of the U.S. Department of Labor regulation located at 29 C.F.R. 2510.3-101, as modified by Section 3(42) of ERISA ("Plan Asset Regulation")) of any such employee benefit plan or plan; (b) neither Tenant nor any person affiliated with Tenant (within the meaning of VI(c) of Prohibited Transaction Exemption 84-14, as amended, granted by the U.S. Department of Labor ("PTE 84-14")) exercised or has discretionary authority, control, responsibility, or influence with respect to either (i) the investment of ERISA plan assets in PRISA Separate Account or any of its subaccounts ("PRISA"), or (ii) the withdrawal of ERISA plan assets from PRISA; (c) Tenant (i) does not employ any employees covered by an ERISA plan invested in PRISA, (ii) is not an employee organization any of whose members are covered by an ERISA plan invested in PRISA, and (iii) does not have a relationship described in ERISA Sections 3(14)(E) – (I) with an entity described in clause (c)(i) or (c)(ii) above; and (d) Tenant confirms that it is not a "related party" (as defined in Section VI(h) of PTE 84-14) of Prudential or an "affiliate" (as defined in Section IV(b) of Prohibited Transaction Exemption 90-1 granted by the U.S. Department of Labor) of Prudential. Tenant's breach of any representation or covenant set forth in this Section shall constitute an Event of Default, entitling Landlord to any and all remedies hereunder, or at law or in equity. Tenant acknowledges and agrees that as a condition to effectiveness of any Transfer to the requirement for consent to Transfer by Landlord pursuant to Section 18, Tenant shall cause the transferee to reaffirm, on behalf of such transferee, the representations set forth in this Section 53, and it shall be reasonable for Landlord to refuse to consent to a Transfer in the absence of such reaffirmation.

ARTICLE 54

TENANT'S RIGHT OF FIRST OFFER TO PURCHASE

54.1 Attached hereto as Exhibit I are the terms of Tenant's opportunity to purchase the Project ("Option to Purchase") which are hereby incorporated by reference as if set forth in full herein.

ARTICLE 55

TENANT'S RIGHT OF FIRST OFFER TO LEASE

55.1 As used herein, "Offer Space" means (a) any portion of the Must-Take Space which has not been added to the Premises by the end of the tenth (10^{th}) year of the initial Lease Term (i.e., any space which becomes available after the expiration of such tenth (10th) year but would have been considered Must-Take Space if it had become available during such ten (10) year period) and (b) any Early Must-Take Space. Landlord may from time to time give Tenant a written notice (the "Availability Notice") identifying the particular Offer Space (the "Specific Offer Space") that is Available (as defined below). As used herein, "Available" means that the space (i) is not part of the Premises, (ii) is not then subject to a lease, (iii) is not then subject to any rights of tenant to renew their lease or expand their premises as set forth in their lease, and (iv) is not then subject to any negotiations between Landlord and an existing tenant.

55.2 Tenant may inform Landlord (the "Request Notice") not more than once in any twelve (12) month period and not within six (6) months after receipt of an Availability Notice that Tenant desires to lease additional space. Landlord shall, within ten (10) business days of receiving the properly given Request Notice, deliver to Tenant an Availability Notice identifying Specific Offer Space that is Available or that Landlord in good faith determines will become Available during the twelve (12) month period after the Request Notice.

55.3 The location and configuration of the Specific Offer Space shall be determined by Landlord in its reasonable discretion; provided that Landlord shall have no obligations to designate Specific Offer Space that would result in any space not included in the Specific Offer Space being not Configured For Leasing (as defined below). For purposes of this Lease, "Configured For Leasing" means the applicable space must have convenient access to the central corridor on the applicable floor and must have a size and configuration that complies with all applicable building codes and other laws and is such that Landlord judges, in its reasonable discretion, that Landlord will be able to lease such space to a third party. The Availability Notice shall:

(a) Describe the particular Specific Offer Space (including rentable area, usable area and location and configuration);

(b) Include an attached floor plan identifying such space; and

(c) State the date (the "Specific Offer Space Delivery Date") the space will be available for delivery to Tenant for occupancy or the construction of improvements therein. For purposes of this Article 55, the actual Specific Offer Space Delivery Date shall be the later of (i) the date specified in the Availability Notice and (ii) the date upon which the County of Alameda shall have accepted the decommissioning of any laboratory space (other than laboratory space installed by or on behalf of Tenant) in the Specific Offer Space described in that Availability Notice as and to the extent required under Applicable Laws

55.4 If Tenant wishes to exercise Tenant's rights set forth in this Article 55 with respect to the Specific Offer Space, then within fifteen (15) days of delivery of the Availability Notice to Tenant, Tenant shall deliver irrevocable notice to Landlord (the "First Offer Exercise Notice") offering to lease the Specific Offer Space on the terms and conditions as may be specified by Landlord in the Availability Notice for a term which is coterminous with the Term.

55.5 In the event Tenant fails to give a First Offer Exercise Notice in response to any Availability Notice, Tenant shall have no further rights to receive an Availability Notice with respect to the particular Specific Offer Space set forth therein, and Tenant's rights under this Article 55 with respect to such Specific Offer Space shall terminate and Landlord shall be free to lease the applicable Specific Offer Space to anyone on any terms at any time during the Term, without any obligation to provide Tenant with any further right to lease that Specific Offer Space; provided that if Landlord fails to lease such space within six (6) months following the date Tenant declines (or is deemed to decline) to lease such space, Landlord will once again be obligated to include such space as "Available" in any Availability Notice; and, provided further, Landlord shall not lease any Early Must-Take Space to anyone other than Tenant for a term that extends beyond the Must Take Space Commencement Date for that Early Must-Take Space pursuant to Section 1.4.

55.6 If Tenant timely and validly gives the First Offer Exercise Notice, then beginning on the Specific Offer Space Delivery Date and continuing for the balance of the Term (including any extensions thereof) or, in the case of the leasing of any Early Must-Take Space pursuant to this Article 55, continuing until the day prior to the Must Take Space Commencement Date for that Early Must-Take Space pursuant to Section 1.4:

(a) The Specific Offer Space shall be part of the Premises under this Lease (so that the term "Premises" in this Lease shall refer to the space in the Premises immediately before the Specific Offer Space Delivery Date plus the Specific Offer Space);

(b) Tenant's Building Percentage shall be adjusted to reflect the increased rentable area of the Premises.

(c) Base Rent for the Specific Offer Space shall be equal to the then applicable Base Rent payable under this Lease with respect to the then existing Premises, including applicable increases thereto on each anniversary of the Initial Commencement Date.

(d) The Security Deposit shall be increased in accordance with Section 4.3 with respect to the applicable Specific Offer Space.

(e) Tenant's lease of the Specific Offer Space shall be on the same terms and conditions as affect the original Premises from time to time, except as otherwise provided in this Article 55. Tenant's obligation to pay Rent with respect to the Specific Offer Space shall begin on the date that is one hundred fifty (150) days following the Specific Offer Space Delivery Date (such one hundred fifty (150) day period to be subject to delay on a day for day basis for each day of Landlord Delay), and Tenant shall not be entitled to any rental abatement period with respect to any Specific Offer Space. The Specific Offer Space shall be leased to Tenant in its "as-is" condition and Landlord shall not be required to construct improvements in, or contribute any tenant improvement allowance for, the Specific Offer Space. Tenant's construction of any improvements in the Specific Offer Space shall comply with the terms of this Lease concerning alterations.

(f) If requested by Landlord or Tenant, Landlord and Tenant shall confirm in writing the addition of the Specific Offer Space to the Premises on the terms and conditions set forth in this section, but Tenant's

failure to execute or deliver such written confirmation shall not affect the enforceability of the First Offer Exercise Notice.

55.7 Tenant's rights and Landlord's obligations under this Article 55 are expressly subject to and conditioned upon there not existing an Event of Default by Tenant under this Lease, either at the time of delivery of the First Offer Exercise Notice or at the time the Specific Offer Space is to be added to the Premises.

55.8 It is understood and agreed that Tenant's rights under this Article 55 are personal to Tenant and not transferable except to an assignee of Tenant's interest in this Lease pursuant to a Permitted Transferee that succeeds to Tenant's interest in and to the Lease of the entire Premises. In the event of any assignment of Tenant's interest in this Lease to any party other than pursuant to a Permitted Transfer, this expansion right shall automatically terminate and shall thereafter be null and void. Additionally, if at any time that, and for so long as, more than thirty five percent (35%) of the rentable area of the Premises is subleased to any party other than a Permitted Transferee, Tenant shall have no right of first offer pursuant to the provisions of this Article 55.

ARTICLE 56

TENANT'S ROOFTOP RIGHTS

56.1 Right to Install and Maintain Rooftop Equipment. During the Lease Term and subject to the terms of this Article 56, Tenant may install on the roof of any Buildings telecommunications antennae, microwave dishes or other communication equipment, and solar panels, as necessary or desirable for the operation of Tenant's business within the Premises located within such Building, including any cabling or wiring necessary to connect this rooftop equipment to such Premises (collectively, the "Rooftop Equipment"). If Tenant wishes to install any Rooftop Equipment, Tenant shall first notify Landlord in writing, which notice shall fully describe the Rooftop Equipment, including, without limitation, its purpose, weight, size and desired location on the roof of the applicable Building and its intended method of connection to the applicable Premises. All of Tenant's Rooftop Equipment must be located within locations reasonably approved by Landlord prior to any installation. Landlord also reserves the right to reasonably restrict the number and size of dishes, antennae and other Rooftop Equipment installed on the roof of the Buildings.

56.2 Additional Charges for Rooftop Equipment. Tenant will be solely responsible, at Tenant's sole expense, for the installation, maintenance, repair and removal of the Rooftop Equipment, and Tenant shall at all times maintain the Rooftop Equipment in good condition and repair. Landlord agrees that the named Tenant hereunder (as well as any Affiliate assignee) shall not pay any rental charge for Tenant's use of the rooftop pursuant to the terms of this Article 56 for the Rooftop Equipment, provided, however, if any successor to the named Tenant (other than an Affiliate which succeeds to Tenant's interest in and to this Lease and the entire Premises) wishes to utilize rooftop space, Landlord reserves the right to impose a charge for such use, which shall be consistent with market rates.

56.3 Conditions of Installation. The installation of the Rooftop Equipment shall constitute an alteration and shall be performed in accordance with and subject to the provisions of Article 15 of this Lease. Tenant shall comply with all applicable laws, rules and regulations relating to the installation, maintenance and operation of Rooftop Equipment at the Buildings (including, without limitation, all construction rules and regulations) and will pay all costs and expenses relating to such Rooftop Equipment, including the cost of obtaining and maintaining any necessary permits or approvals for the installation, operation and maintenance thereof in compliance with applicable laws, rules and regulations. Without limiting the foregoing, in connection with the installation, maintenance and operation of the Rooftop Equipment, Tenant shall be responsible for insuring that any warranties with respect to the roof are not violated and that no leaks are created. The installation, operation and maintenance of the Rooftop Equipment at the Buildings shall not adversely affect the structure or operating systems of the Buildings or the business operations of any other tenant or occupant at the Buildings. For purposes of determining Landlord's and Tenant's respective rights and obligations with respect to the use of the roof, the portion of the roof affected by the Rooftop Equipment shall be deemed to be a portion of the applicable Premises (provided that such portion shall not be measured for purposes of determining the area of such portion of the Premises); consequently, all of the provisions of this Lease respecting Tenant's obligations hereunder shall apply to the installation, use and maintenance of the Rooftop Equipment, including without limitation provisions relating to compliance with requirements as to insurance, indemnity, repairs and maintenance. Tenant may install cabling and wiring through the applicable Building interior conduits, risers, and pathways of such Building(s) in accordance with Article 56 in order to connect Rooftop Equipment with the applicable Premises in such Building(s).

56.4 Non-Exclusive Right. Tenant's right to install and maintain Rooftop Equipment is non-exclusive as to any Building in which Tenant does not lease all of the leasable area and is subject to termination or revocation as set forth herein, including pursuant to Section 22.2(b) of this Lease. Landlord shall be entitled to all revenue from use of the roof other than revenue from the Rooftop Equipment installed by Tenant. Subject to the terms set forth below in this Section 56.4, Landlord at its election may require the relocation, reconfiguration or removal of the Rooftop Equipment, if in Landlord's reasonable judgment the Rooftop Equipment is interfering with the use of the rooftop for the helipad or other Building operations (including without limitation maintenance, repairs and replacements of the roof) or the business operations of other tenants or occupants of a Building, causing damage to a Building or if Tenant otherwise fails to comply with the terms of this Article 56. If relocation or reconfiguration becomes necessary due to interference difficulties, Landlord and Tenant will reasonably cooperate in good faith to agree upon an alternative location or configuration that will permit the operation of the Rooftop Equipment for Tenant's business at the applicable Premises without interfering with other operations at the applicable Building or communications uses of other tenants or occupants. If removal is required due to any breach or default by Tenant under the terms of this Article 56, Tenant shall remove the Rooftop Equipment upon thirty (30) days' written notice from Landlord. Any relocation, removal or reconfiguration of the Rooftop Equipment as provided above shall be at Tenant's sole cost and expense. In addition to the other rights of relocation and removal as set forth herein, Landlord reserves the right to require relocation of Tenant's Rooftop Equipment at any time at its election at Landlord's cost (but not more frequently than once per year) so long as Tenant is able to continue operating its Rooftop Equipment in substantially the same manner as it was operated prior to its relocation. In connection with any relocation of Tenant's Rooftop Equipment at the request of or required by Landlord (other than in the case of a default by Tenant hereunder), Landlord shall provide Tenant with at least thirty (30) days' prior written notice of the required relocation and will conduct the relocation in a commercially reasonable manner and in such a way that will, to the extent reasonably possible, prevent interference with the normal operation of Tenant's Rooftop Equipment. In connection with any relocation, Landlord further agrees to work with Tenant in good faith to relocate Tenant's Rooftop Equipment to a location that will permit its normal operation for Tenant's business operations. Landlord acknowledges that relocation of Tenant's Rooftop Equipment may be disruptive to Tenant's business and, without limiting its rights to require such removal, confirms that it will not exercise its rights hereunder in a bad faith manner or for the purpose of harassing or causing a hardship to Tenant.

56.5 Costs and Expenses. If Tenant fails to comply with the terms of this Article 56 within thirty (30) days following written notice by Landlord (or such longer period as may be reasonably required to comply so long as Tenant is diligently attempting to comply), Landlord may take such action as may be necessary to comply with these requirements. In such event, Tenant agrees to reimburse Landlord for all costs incurred by Landlord to effect any such maintenance, removal or other compliance subject to the terms of this Article 56, including interest on all such amounts in accordance with the rate set forth in Section 4.5, accruing from the date which is ten (10) days after the date of Landlord's demand until the date paid in full by Tenant, with all such amounts being Additional Rent under this Lease.

56.6 Indemnification; Removal. Subject to Section 13.4, Tenant agrees to indemnify Landlord, its partners, agents, officers, directors, employees and representatives from and against any and all liability, expense, loss or damage of any kind or nature from any suits, claims or demands, including reasonable attorneys' fees, arising out of Tenant's installation, operation, maintenance, repair, relocation or removal of the Rooftop Equipment, except to the extent any such liability, expense, loss or damage results from the gross negligence or intentional misconduct of Landlord or its agents, partners, officers, directors, employees, contractors or representatives. At the expiration or earlier termination of the Lease, Tenant may and, upon request by Landlord, shall remove all of the Rooftop Equipment, including any wiring or cabling relating thereto, at Tenant's sole cost and expense and will repair at Tenant's cost any damage resulting from such removal. If Landlord does not require such removal, any Rooftop Equipment remaining at any of the Buildings after the expiration or earlier termination of this Lease which is not removed by Tenant shall be deemed abandoned and shall become the property of Landlord.

56.7 Roof Access; Rules and Regulations. Subject to compliance with the construction rules for the Buildings and Landlord's reasonable and nondiscriminatory rules and regulations regarding access to the roof and, upon receipt of Landlord's prior written consent to such activity (which shall not be unreasonably withheld, conditioned or delayed), Tenant and its representatives shall have access to and the right to go upon the roof of the Buildings, on a seven (7) day per week, twenty-four (24) hour basis, to exercise its rights and perform its obligations under this Article 56. Tenant acknowledges that, except in the case of an emergency or when a Building engineer is not made available to Tenant in sufficient time to allow Tenant to avoid or minimize interruption of use of the Rooftop Equipment, advance notice is required and a Building engineer must accompany all persons gaining access to the rooftop. Tenant may install Rooftop Equipment at the Buildings only in connection with its business operations at the Premises, and may not lease or license any rights or equipment to third parties or allow the use of any rooftop equipment by any party other than Tenant. Tenant acknowledges that Landlord has made no representation or warranty as to Tenant's ability to operate Rooftop Equipment at the Buildings and Tenant acknowledges that helicopters, other equipment installations and other structures and activities at or around the Buildings may result in

interference with Tenant's Rooftop Equipment. Except as set forth in this Article 56, Landlord shall have no obligation to prevent, minimize or in any way limit or control any existing or future interference with Tenant's Rooftop Equipment.

ARTICLE 57

ENERGY USE DISCLOSURE

Pursuant to California Resources Code Section 25402.10, attached hereto as Exhibit "O" are copies of the Data Verification Checklists for the improvements on the Buildings generated by the U.S. Environmental Protection Agency's ENERGY STAR program online tool for managing building energy use data (the "Energy Use Disclosure"). Tenant agrees that the Energy Use Disclosure is confidential information of Landlord and shall not be disclosed without Landlord's prior written consent. By executing this Lease, Tenant represents that Tenant received the Energy Use Disclosure more than 24 hours prior to Tenant's execution of this Lease.

IN WITNESS WHEREOF, Landlord and Tenant, acting herein through duly authorized individuals, have caused these presents to be executed as of the Effective Date.

TENANT:

PENUMBRA, INC., a Delaware corporation

By: /s/ Robert D. Evans

Robert D. Evans; General Counsel and Secretary
[Printed Name and Title]

By: /s/ Adam Elsesser

Adam Elsesser; CEO
[Printed Name and Title]

If Tenant is a corporation, this instrument must be executed by the chairman of the board, the president or any vice president and the secretary, any assistant secretary, the chief financial officer or any assistant financial officer or any assistant treasurer of such corporation, unless the bylaws or a resolution of the board of directors shall otherwise provide, in which case the bylaws or a certified copy of the resolution, as the case may be, must be attached to this instrument.

Tenant's NAICS Code: 339112

LANDLORD:

SKS HARBOR BAY ASSOCIATES, LLC,
a Delaware limited liability company

By: THE PRUDENTIAL INSURANCE
COMPANY OF AMERICA, a New Jersey
corporation, acting solely on behalf of and for the benefit of,
and with its liability limited to the assets of, its insurance
company separate account, WCOT, its member
By: /s/ Steven G. Vittorio Steven G. Vittorio, VP
[Printed Name and Title]

EXHIBIT A

THE PROJECT

EXHIBIT A

The land referred to is situated in the County of Alameda, City of Alameda, State of California, and is described as follows:

1301 HARBOR BAY PARKWAY:

PARCEL ONE-A:

Building/Unit 1301, as such unit is shown on the Condominium Plan ("Plan") made part of the certain Tract Map 7063 filed November 27, 1996, in Book 227 of Maps, at pages 57 through 64, inclusive, Alameda County Records.

PARCEL TWO-A:

An undivided 14.68% interest as Tenants in Common in and to the land lying within Tract 7063, shown as "Common Area" on the Plan and defined as such in the Declaration of Covenants, Conditions and Restrictions for Empire Parkway Centre ("Declaration"), recorded December 12, 1996, under Recorder's Serial Number 96-316279, Alameda County Records.

EXCEPTING THEREFROM:

(A) Units 1301, 1311, 1321, 1351, 1401, 1411, 1431 and 1451, all as shown on the Plan.

(A) Exclusive use Common Area for possession, use and enjoyment of those areas designated on the Plan as "Exclusive Use Common Area" (Storage)" and "Exclusive Use Common Area, Loading Ramp".

(B) Excepting therefrom, a non-exclusive easement for use, enjoyment, ingress, egress and support in and to said Common Area within said Tract 7063.

PARCEL THREE-A:

A non-exclusive easement for use, enjoyment, ingress, egress and support in and to said Common Area as defined in the Declaration.

EXCEPTING THEREFROM, THE FOLLOWING:

All overlaying and other water rights, including, without limitation, the right to appropriate water and distribute it to other properties, without any right to the use of or rights in or to any portion of the surface of said land. The owner of the reserved water rights however covenants that it will not exercise the rights reserved over the surface of the property described above, or within the subsurface of such property, above the depth of 100 feet below the surface of said property. Breach of the foregoing covenant shall not, however, terminate or forfeit the rights so reserved, but injunctive relief may be sought and obtained to prevent or remedy any such breach. Also excepting, further, all oil, gas, mineral, geothermal and hydrocarbon substances in and under, or that may be produced below a depth of 500 feet below the surface of said property, without any right of entry upon the surface of said land for the purpose of mining, drilling, exploring or extracting such oil, gas, mineral, geothermal or hydrocarbon substances; and, except as provided above with respect to water rights, without any right to the use of or rights in and to any portion of the surface of said land, to a depth of 500 feet below the surface thereof, as reserved in the Deed from Harbor Bay Isle Associates, a California General Partnership, recorded June 30, 1983, in Official Records, under Recorder's Serial Number 83- 115190.

1311 HARBOR BAY PARKWAY:

PARCEL ONE-B:

Building/Unit 1311, as such unit is shown on the Condominium Plan ("Plan") made part of the certain Tract Map 7063 filed November 27, 1996, in Book 227 of Maps, at pages 57 through 64, inclusive, Alameda County Records.

PARCEL TWO-B:

An undivided 6.29% interest as Tenants in Common in and to the land lying within Tract 7063, shown as "Common Area" on the Plan and defined as such in the Declaration of Covenants, Conditions and Restrictions for Empire Parkway Centre ("Declaration"), recorded December 12, 1996, under Recorder's Serial Number 96-316279, Alameda County Records.

EXCEPTING THEREFROM:

(A) Units 1301, 1311, 1321, 1351, 1401, 1411, 1431 and 1451, all as shown on the Plan.

(A) Exclusive use Common Area for possession, use and enjoyment of those areas designated on the Plan as "Exclusive Use Common Area" (Storage)" and "Exclusive Use Common Area, Loading Ramp".

(B) xcepting therefrom, a non-exclusive easement for use, enjoyment, ingress, egress and support in and to said Common Area within said Tract 7063.

PARCEL THREE-B:

A non-exclusive easement for use, enjoyment, ingress, egress and support in and to said Common Area as defined in the Declaration.

EXCEPTING THEREFROM, THE FOLLOWING:

All overlaying and other water rights, including, without limitation, the right to appropriate water and distribute it to other properties, without any right to the use of or rights in or to any portion of the surface of said land. The owner of the reserved water rights however covenants that it will not exercise the rights reserved over the surface of the property described above, or within the subsurface of such property, above the depth of 100 feet below the surface of said property. Breach of the foregoing covenant shall not, however, terminate or forfeit the rights so

reserved, but injunctive relief may be sought and obtained to prevent or remedy any such breach. Also excepting, further, all oil, gas, mineral, geothermal and hydrocarbon substances in and under, or that may be produced below a depth of 500 feet below the surface of said property, without any right of entry upon the surface of said land for the purpose of mining, drilling, exploring or extracting such oil, gas, mineral, geothermal or hydrocarbon substances; and, except as provided above with respect to water rights, without any right to the use of or rights in and to any portion of the surface of said land, to a depth of 500 feet below the surface thereof, as reserved in the Deed from Harbor Bay Isle Associates, a California General Partnership, recorded June 30, 1983, in Official Records, under Recorder's Serial Number 83- 115190.

1401 HARBOR BAY PARKWAY:

PARCEL ONE-C:

Building/Unit 1401, as such unit is shown on the Condominium Plan ("Plan") made part of the certain Tract Map 7063 filed November 27, 1996, in Book 227 of Maps, at pages 57 through 64, inclusive, Alameda County Records.

PARCEL TWO-C:

An undivided 10.40% interest as Tenants in Common in and to the land lying within Tract 7063, shown as "Common Area" on the Plan and defined as such in the Declaration of Covenants, Conditions and Restrictions for Empire Parkway Centre ("Declaration"), recorded December 12, 1996, under Recorder's Serial Number 96-316279, Alameda County Records.

EXCEPTING THEREFROM:

(A) Units 1301, 1311, 1321, 1351, 1401, 1411, 1431 and 1451, all as shown on the Plan.

(A) Exclusive use Common Area for possession, use and enjoyment of those areas designated on the Plan as

"Exclusive Use Common Area" (Storage)" and "Exclusive Use Common Area, Loading Ramp".

(B) Excepting therefrom, a non-exclusive easement for use, enjoyment, ingress, egress and support in and to said Common Area within said Tract 7063.

PARCEL THREE-C:

A non-exclusive easement for use, enjoyment, ingress, egress and support in and to said Common Area as defined in the Declaration.

EXCEPTING THEREFROM, THE FOLLOWING:

All overlaying and other water rights, including, without limitation, the right to appropriate water and distribute it to other properties, without any right to the use of or rights in or to any portion of the surface of said land. The owner of the reserved water rights however covenants that it will not exercise the rights reserved over the surface of the property described above, or within the subsurface of such property, above the depth of 100 feet below the surface of said property. Breach of the foregoing covenant shall not, however, terminate or forfeit the rights so reserved, but injunctive relief may be sought and obtained to prevent or remedy any such breach. Also excepting, further, all oil, gas, mineral, geothermal and hydrocarbon substances in and under, or that may be produced below a depth of 500 feet below the surface of said property, without any right of entry upon the surface of said land for the purpose of mining, drilling, exploring or extracting such oil, gas, mineral, geothermal or hydrocarbon substances; and, except as provided above with respect to water rights, without any right to the use of or rights in and to any portion of the surface of said land, to a depth of 500 feet below the surface thereof, as reserved in the Deed from Harbor Bay Isle Associates, a California General Partnership, recorded June 30, 1983, in Official Records, under Recorder's Serial Number 83- 115190.

1431 HARBOR BAY PARKWAY: PARCEL ONE-D:
Building/Unit 1431, as such unit is shown on the Condominium Plan ("Plan") made part of the certain Tract Map 7063 filed November 27, 1996, in Book 227 of Maps, at pages 57 through 64, inclusive, Alameda County Records.

PARCEL TWO-D:

An undivided 14.81% interest as Tenants in Common in and to the land lying within Tract 7063, shown as "Common Area" on the Plan and defined as such in the Declaration of Covenants, Conditions and Restrictions for Empire Parkway Centre ("Declaration"), recorded December 12, 1996, under Recorder's Serial Number 96-316279, Alameda County Records.

EXCEPTING THEREFROM:

(A) Units 1301, 1311, 1321, 1351, 1401, 1411, 1431 and 1451, all as shown on the Plan.

(A) Exclusive use Common Area for possession, use and enjoyment of those areas designated on the Plan as "Exclusive Use Common Area" (Storage)" and "Exclusive Use Common Area, Loading Ramp".

(B) xcepting therefrom, a non-exclusive easement for use, enjoyment, ingress, egress and support in and to said Common Area within said Tract 7063.

PARCEL THREE-D:

A non-exclusive easement for use, enjoyment, ingress, egress and support in and to said Common Area as defined in the Declaration.

PARCEL FOUR-D:
Exclusive easement appurtenant to Parcel One-A above for possession, use and enjoyment of that area designated on the Plan as "Exclusive Common Area (Storage)".

EXCEPTING THEREFROM, THE FOLLOWING:

All overlaying and other water rights, including, without limitation, the right to appropriate water and distribute it to other properties, without any right to the use of or rights in or to any portion of the surface of said land. The owner of the reserved water rights however covenants that it will not exercise the rights reserved over the surface of the property described above, or within the subsurface of such property, above the depth of 100 feet below the surface of said property. Breach of the foregoing covenant shall not, however, terminate or forfeit the rights so reserved, but injunctive relief may be sought and obtained to prevent or remedy any such breach. Also excepting, further, all oil, gas, mineral, geothermal and hydrocarbon substances in and under, or that may be produced below a depth of 500 feet below the surface of said property, without any right of entry upon the surface of said land for the purpose of mining, drilling, exploring or extracting such oil, gas, mineral, geothermal or hydrocarbon substances; and, except as provided above with respect to water rights, without any right to the use of or rights in and to any portion of the surface of said land, to a depth of 500 feet below the surface thereof, as reserved in the Deed from Harbor Bay Isle Associates, a California General Partnership, recorded June 30, 1983, in Official Records, under Recorder's Serial Number 83- 115190.

EXHIBIT B-1

1301 HARBOR BAY GROUND FLOOR PREMISES

(See Attached)

Exhibit B-1
1301 HARBOR BAY PARKWAY, 1ST FLOOR
Multi-Tenant Plan

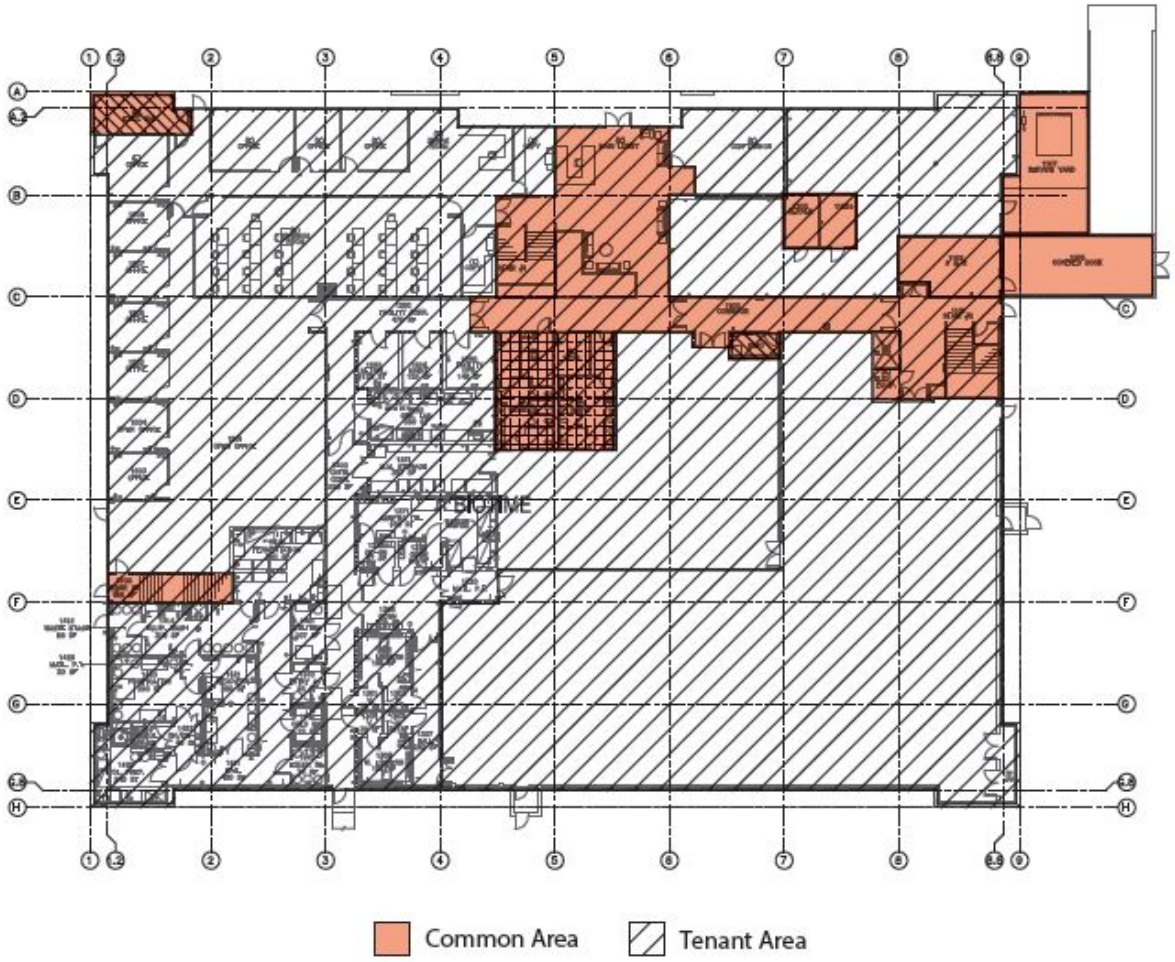


EXHIBIT B-2

1301 HARBOR BAY SECOND FLOOR PREMISES

(See Attached)

Exhibit B-2
1301 HARBOR BAY PARKWAY, 2ND FLOOR

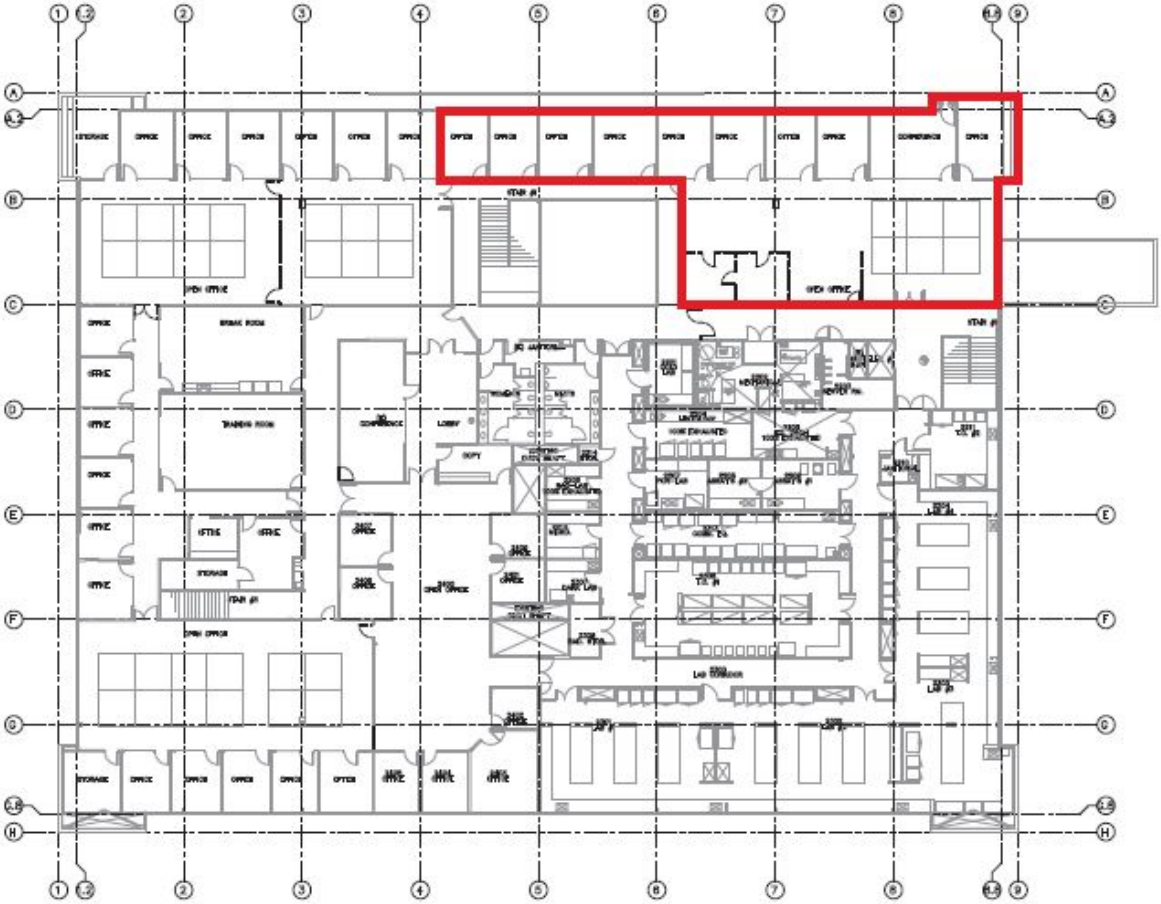
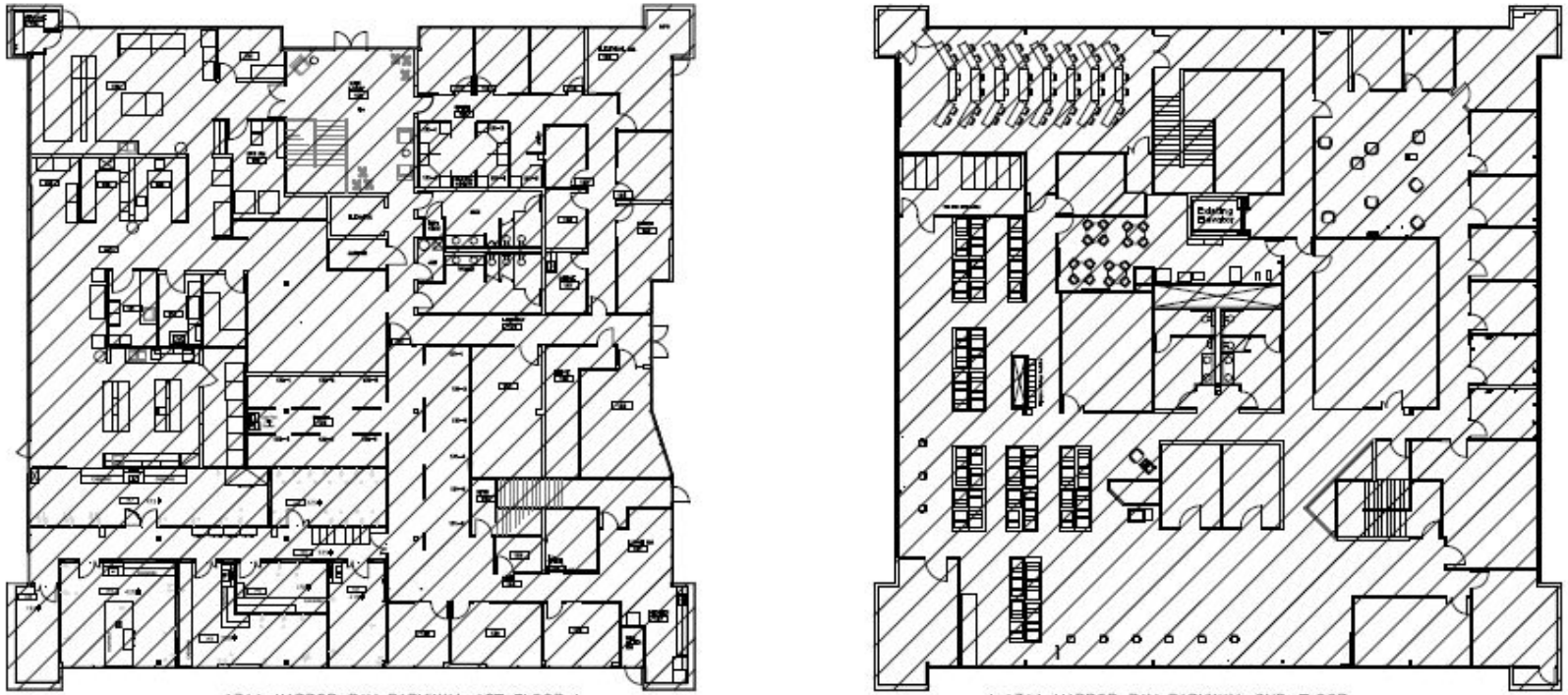


EXHIBIT B-3

1311 HARBOR BAY PREMISES

(See Attached)



1311 HARBOR BAY PARKWAY, 1ST FLOOR

1311 HARBOR BAY PARKWAY, 2ND FLOOR

1311 HARBOR BAY PARKWAY

EXHIBIT B-4

1401 HARBOR BAY GROUND FLOOR PREMISES

(See Attached)

Exhibit B-4
1401 HARBOR BAY PARKWAY, 1ST FLOOR

Balance of Floor
±15,882 SF

Suite 100
±8,600 SF

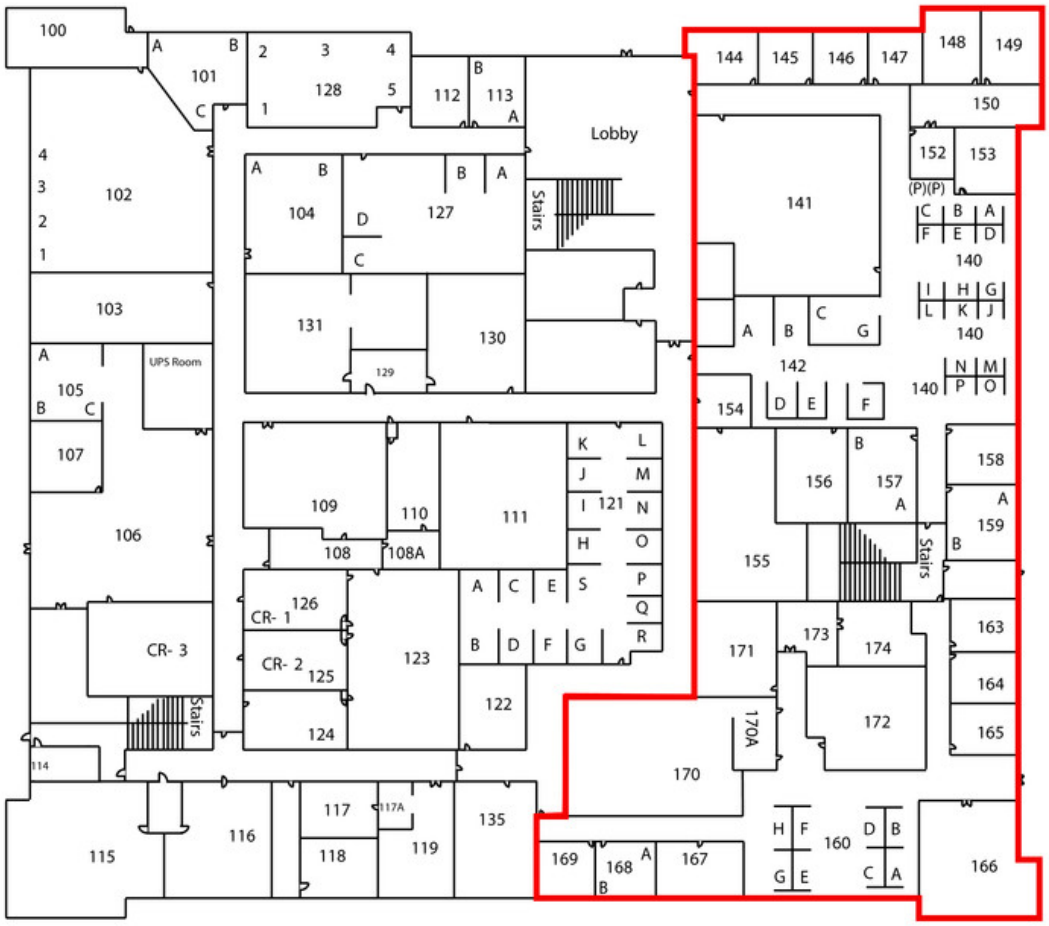


EXHIBIT B-5

1401 HARBOR BAY SECOND FLOOR PREMISES

(See Attached)

Exhibit B-5
1401 HARBOR BAY PARKWAY, 2ND FLOOR

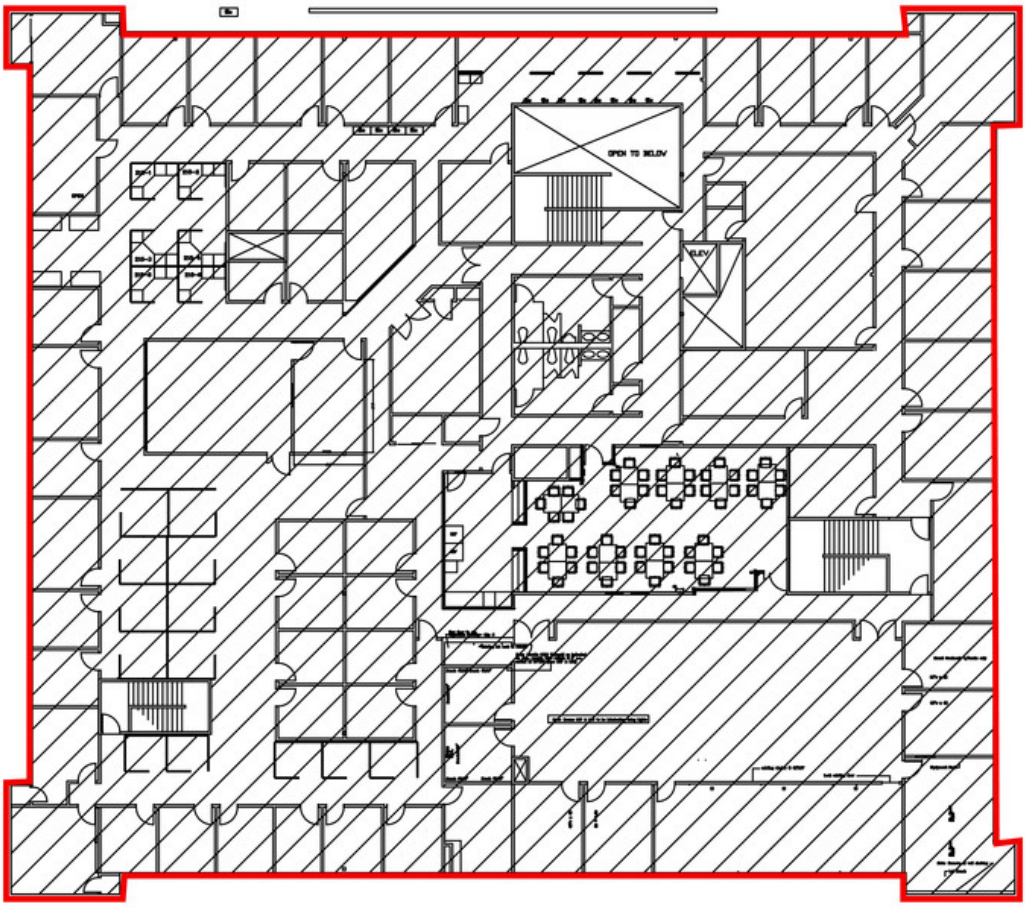
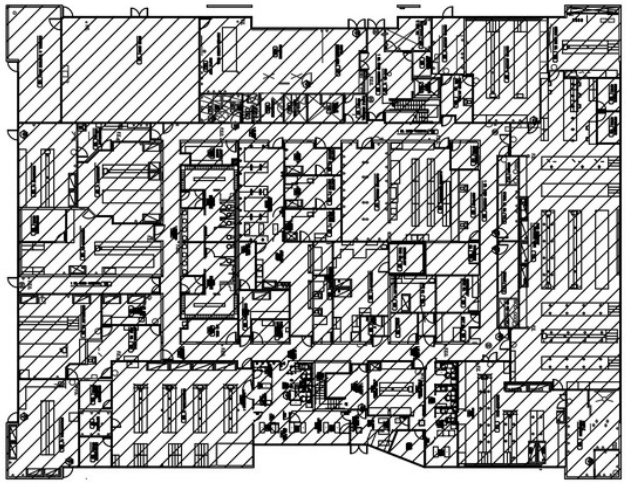
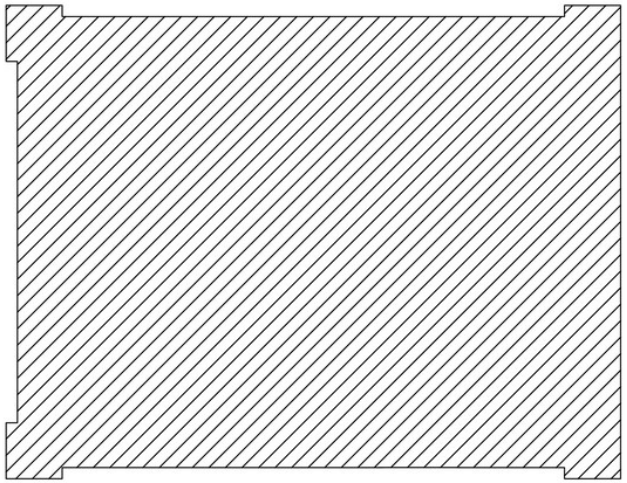


EXHIBIT B-6

1431 HARBOR BAY BUILDING

(See Attached)





1431 HARBOR BAY PARKWAY, 1ST FLOOR
GROSS FLOOR AREA = 34,450 SQUARE FEET

1431 HARBOR BAY PARKWAY, 2ND FLOOR
GROSS FLOOR AREA = 35,060 SQUARE FEET

1431 HARBOR BAY PARKWAY
GROSS FLOOR AREA TOTAL = 69,510 SQUARE FEET

EXHIBIT C

TENANT WORK LETTER

This Tenant Work Letter ("Tenant Work Letter") shall set forth the terms and conditions relating to the construction of the Premises. All references in this Tenant Work Letter to "the Lease" shall mean the relevant portions of the Lease to which this Tenant Work Letter is attached as Exhibit C.

SECTION 1

BASE, SHELL AND CORE

Landlord has previously constructed the base, shell, and core (i) of the Premises and (ii) of the floor(s) of the Buildings on which the Premises are located (collectively, the "Base, Shell, and Core"), and Tenant shall accept the Base, Shell and Core and the Premises in their current "As-Is" condition existing as of the date of the Lease and the applicable Commencement Date, subject to any express representations and warranties of Landlord set forth in Article 2 of the Lease. Tenant shall install in the Premises certain "Tenant Improvements" (as defined below) pursuant to the provisions of this Tenant Work Letter. Except for Landlord's obligation to disburse the Tenant Improvement Allowance as described below, and except for the Common Area Improvements, Landlord shall not be obligated to make or pay for any alterations or improvements to the Premises, the Buildings or the Project.

SECTION 2

TENANT IMPROVEMENTS

2.1 Tenant Improvement Allowance. Tenant shall be entitled to a tenant improvement allowance (the "Tenant Improvement Allowance") in the total amount of up to, but not exceeding $31.25 per rentable square foot of the Premises (including the Initial Premises and any Must-Take Space added to the Premises during the initial ten (10) years of the Term), for the costs relating to the initial design and construction of Tenant's improvements which are permanently affixed to the Premises (the "Tenant Improvements"); provided, however, that Landlord shall have no obligation to disburse all or any portion of the Tenant Improvement Allowance to Tenant unless Tenant makes a request for disbursement pursuant to the terms and conditions of Section 2.2 below prior to that date which is twelve (12) months after the applicable Commencement Date for the applicable portion of the Premises (as applicable with respect to each portion of the Premises, the "Outside Allowance Date"); the Outside Allowance Date shall be delayed, on a day for day basis, for each day that the design or construction of the Tenant Improvements within such portion of the Premises is delayed due to Force Majeure Events or Landlord Delay. In no event shall Landlord be obligated to make disbursements pursuant to this Tenant Work Letter in a total amount which exceeds the Tenant Improvement Allowance. Tenant shall not be entitled to receive any cash payment or credit against Rent or otherwise for any unused portion of the Tenant Improvement Allowance which is not used to pay for the Tenant Improvement Allowance Items (as such term is defined below). In no event shall the Tenant Improvement Allowance be used for purposes of constructing improvements in the Premises for purposes of offering space for sublease or for the benefit of a subtenant.

2.2 Disbursement of the Tenant Improvement Allowance.

2.2.1 Tenant Improvement Allowance Items. Except as otherwise set forth in this Tenant Work Letter, the Tenant Improvement Allowance shall be disbursed by Landlord only for the following items and costs (collectively, the "Tenant Improvement Allowance Items"):

(a) Payment of the fees of the "Architect" and the "Engineers," as those terms are defined in Section 3.1 of this Tenant Work Letter and other consultants (including any construction manager) retained by or on behalf of Tenant in connection with space planning and design of the Tenant Improvements (the "Tenant Retained Consultants"), and payment of the fees incurred by, and the cost of documents and materials supplied by, Landlord and Landlord's consultants in connection with the preparation and review of the "Construction Drawings," as that term is defined in Section 3.1 of this Tenant Work Letter; provided that the portion of the Tenant Improvement Allowance paid to Tenant Retained Consultants shall not exceed an amount equal to 5% of the Tenant Improvement Allowance;

(b) The payment of plan check, permit and license fees relating to construction of the Tenant Improvements;

(c) The cost of construction of the Tenant Improvements, including, without limitation, all materials and labor to complete the Tenant Improvements, contractors' fees and general conditions, testing and inspection costs, costs of utilities, trash removal, parking and hoists.

(d) The cost of any changes in the Base, Shell and Core work when such changes are required by the Construction Drawings (including if such changes are due to the fact that such work is prepared on an unoccupied basis), such cost to include all direct architectural and/or engineering fees and expenses incurred in connection therewith;

(e) The cost of any changes to the Construction Drawings or Tenant Improvements required by applicable laws and building codes (collectively, "Code");

(f) Sales and use taxes and Title 24 fees;

(g) The "Coordination Fee," as that term is defined in Section 4.2.2.2 of this Tenant Work Letter;

(h) The costs and expenses associated with complying with all national, state and local codes, including California Energy Code, Title 24, including, without limitation, all costs associated with any lighting or HVAC retrofits required thereby; and

(i) All other reasonable, actual and documented out-of-pocket costs expended by Landlord in connection with the design, permitting and construction of the Tenant Improvements, excluding (i) the costs set forth in Section 6.4 below and (ii) any supervision or management fee, profit or overhead payable to Landlord (except for the Landlord's construction supervision fee expressly provided in Section 4.2.2.2 below).

2.2.2 Disbursement of Tenant Improvement Allowance. Subject to Section 2.1 above, during the design and construction of the Tenant Improvements, Landlord shall make monthly disbursements of the Tenant Improvement Allowance for Tenant Improvement Allowance Items for the benefit of Tenant and shall authorize the release of monies for the benefit of Tenant as follows:

(i) Monthly Disbursements. With respect to the Tenant Improvements for any particular portion of the Premises, on or before the twenty-fifth (25th) day of each calendar month during the design and construction of such Tenant Improvements (or such other date as Landlord may designate), Tenant shall deliver to Landlord: (i) a request for payment of the "Contractor," as that term is defined in Section 4.1 below, approved by Tenant, on AIA forms G702 or G703 (or comparable forms reasonably approved by Landlord), showing the schedule, by trade, of percentage of completion of the Tenant Improvements in the applicable Premises, detailing the portion of the work completed and the portion not completed, and demonstrating that the relationship between the cost of the work completed and the cost of the work to be completed complies with the terms of the "Final Costs Statement," as that term is defined in Section 4.2.1 below; (ii) invoices from all of "Tenant's Agents," as that term is defined in Section 4.1.2 below, for labor rendered and materials delivered to the applicable Premises; (iii) executed mechanic's lien releases from all of Tenant's Agents which shall comply with the appropriate provisions, of California Civil Code Sections 8132, 8134, 8136 or 8138; and (iv) all other information reasonably requested by Landlord by notice to Tenant delivered within five (5) business days after the delivery of the items described in clauses (i), (ii) and (iii) above; provided, however, that with respect to fees and expenses of the Architect, or construction or project managers or other similar consultants, and/or any other pre-construction items for which the payment scheme set forth in items (i) through (iii), above, is not applicable (collectively, the "Non-Contribution Items"), Tenant shall only be required to deliver to Landlord an invoice of the cost for the applicable Non-Contribution Items and proof of payment. Tenant's request for payment shall as between Landlord and Tenant only, be deemed Tenant's acceptance and approval of the work furnished and/or the materials supplied as described in Tenant's payment request. On or before the last day of the following calendar month, Landlord shall deliver a check to Tenant made jointly payable to Contractor and Tenant in payment of the lesser of (A) the amounts so requested by Tenant, as set forth in this Section 2.2.2.1, above, less a ten percent (10%) retention (the aggregate amount of such retentions to be known as the "Final Retention") and (B) the balance of any remaining available portion of the Tenant Improvement Allowance (not including the Final Retention), provided that Landlord does not dispute any request for payment based on non-compliance of any work with the "Approved Working Drawings", as that term is defined in Section 3.4 below, or due to any substandard work, or for any other commercially reasonable reason and provided further, however, that (x) no such retention shall be applicable to the fees of the Architect, Engineers, or Tenant's project manager and consultants, and (y) with respect to payment requests in connection with the construction of the Tenant Improvements only, Landlord's payment of such amounts

shall not be deemed Landlord's approval or acceptance of the work furnished or materials supplied as set forth in Tenant's payment request.

(ii) Final Retention. Subject to the provisions of this Tenant Work Letter, a check for the Final Retention payable jointly to Tenant and Contractor shall be delivered by Landlord to Tenant following the completion of construction of the Tenant Improvements in any particular portion of the Premises, provided that (i) Tenant delivers to Landlord properly executed mechanics lien releases in compliance with both California Civil Code Section 8134 and either Section 8136 or Section 8138, and (ii) Landlord, in Landlord's reasonable good faith judgment, has determined that no substandard work exists which adversely affects the mechanical, electrical, plumbing, heating, ventilating and air conditioning, life-safety or other systems of any Building, the curtain walls of any Building, the structure or exterior appearance of any Building, or any other tenant's use of such other tenant's leased premises in any Building (provided that the condition in this clause (ii) shall apply only if Landlord notifies Tenant such substandard work exists no later than thirty (30) days following receipt of notice of completion from Tenant).

(iii) Other Terms. Landlord shall only be obligated to make disbursements from the Tenant Improvement Allowance to the extent costs are incurred by Tenant for Tenant Improvement Allowance Items.

(iv) Disputes. To the extent that a dispute shall arise as to whether certain amounts of the Tenant Improvement Allowance are due and/or payable to Tenant, any amounts which are not the subject of such dispute shall be disbursed by Landlord.

2.2.3 Specifications for Building Standard Components. Landlord may from time to time reasonably establish specifications (the "Specifications") for the Building standard components to be used in the construction of the Tenant Improvements in the portion of the Premises located in Buildings were Tenant does not lease all of the rentable area. Unless otherwise agreed to by Landlord, the Tenant Improvements shall comply with the Specifications; provided, however, that in no event will Tenant be required to modify its design for any Tenant Improvements to accommodate Specifications (established or changed) by Landlord following Landlord's approval of the Construction Drawings (defined below) therefor. Landlord may make changes to the Specifications from time to time.

2.3 Failure to Disburse Tenant Improvement Allowance. If Landlord fails to timely fulfill its obligation to fund any portion of the Tenant Improvement Allowance, Tenant shall be entitled to deliver notice (the "Payment Notice") thereof to Landlord and to any mortgage or trust deed holder of the Building whose identity and address have been previously provided to Tenant. If Landlord still fails to fulfill any such obligation within twenty (20) business days after Landlord's receipt of the Payment Notice from Tenant and if Landlord fails to deliver a notice to Tenant within such twenty (20) business day period explaining Landlord's reasons that Landlord believes that the amounts described in Tenant's Payment Notice are not due and payable by Landlord ("Refusal Notice"), Tenant shall be entitled to offset the amount so owed to Tenant by Landlord but not paid by Landlord (or if Landlord delivers a Refusal Notice but only with respect to a portion of the amount set forth in the Payment Notice and Landlord fails to pay such undisputed amount as required by the next succeeding sentence, the undisputed amount so owed to Tenant), together with interest at the interest rate provided for in Section 4.5 of the Lease from the date that the amount was originally due and payable until the date of offset against Tenant's next obligations to pay Rent. However, if Tenant is in default under the Lease beyond applicable notice and cure periods at the time that such offset would otherwise be applicable, Tenant shall not be entitled to such offset until such default is cured. Notwithstanding the foregoing, Landlord hereby agrees that if Landlord delivers a Refusal Notice disputing a portion of the amount set forth in Tenant's Payment Notice, Landlord shall pay to Tenant, concurrently with the delivery of the Refusal Notice, the undisputed portion of the amount set forth in the Payment Notice. If Landlord delivers a Refusal Notice, and if Landlord and Tenant are not able to agree on the disputed amounts to be so paid by Landlord, if any, within ten (10) days after Tenant's receipt of a Refusal Notice, Tenant may submit such dispute to arbitration in accordance with Article 12 of the Lease. If Tenant prevails in any such arbitration, Tenant shall be entitled to apply such award as a credit against Tenant's obligations to pay Rent.

SECTION 3

CONSTRUCTION DRAWINGS

3.1 Selection of Architect/Construction Drawings. Tenant shall retain an architect/space planner (the "Architect") approved by Landlord, which approval shall not be unreasonably withheld, to prepare the Construction Drawings for each particular portion of the Premises. Tenant shall retain (or shall cause the Architect or, if Landlord approves construction on a design-build basis, the Contractor to retain) the engineering consultants selected by Tenant and reasonably approved by Landlord (the "Engineers") to prepare all plans and engineering working drawings relating to the structural, mechanical, electrical, plumbing, HVAC, lifesafety, and sprinkler work in the applicable portion of the Premises. The plans and drawings to

be prepared by Architect and the Engineers hereunder shall be known collectively as the "Construction Drawings." All Construction Drawings shall comply with the commercially reasonable drawing format and specifications reasonably required by Landlord, and shall be subject to Landlord's approval. Tenant and Architect shall verify, in the field, the dimensions and conditions as shown on the relevant portions of the base building plans, and Tenant and Architect shall be solely responsible for the same, and Landlord shall have no responsibility in connection therewith. Landlord's review of the Construction Drawings as set forth in this Section 3, shall be for its sole purpose and shall not imply Landlord's review of the same, or obligate Landlord to review the same, for quality, design, Code compliance or other like matters. Accordingly, notwithstanding that any Construction Drawings are reviewed by Landlord or its space planner, architect, engineers and consultants, and notwithstanding any advice or assistance which may be rendered to Tenant by Landlord or Landlord's space planner, architect, engineers, and consultants, Landlord shall have no liability whatsoever in connection therewith and shall not be responsible for any omissions or errors contained in the Construction Drawings.

3.2 Final Space Plan. Tenant shall supply Landlord with four (4) copies signed by Tenant and a CAD set of its final space plan for each portion of the Premises before any architectural working drawings or engineering drawings have been commenced. Each such final space plan (a "Final Space Plan") shall include a layout and designation of all offices, rooms and other partitioning, their intended use, and the equipment anticipated to be contained therein. Landlord may request clarification or more specific drawings for special use items not included in a Final Space Plan. Landlord shall advise Tenant within five (5) business days after Landlord's receipt of a Final Space Plan for any particular portion of the Premises if the same is unsatisfactory or incomplete in any respect, in which event Landlord shall include in its notice of disapproval a reasonably detailed explanation as to which items are not satisfactory or complete and the reason(s) therefor. Landlord shall not unreasonably withhold its consent to the Final Space Plan. If Tenant is so advised by Landlord that the Final Space Plan is not satisfactory or complete, Tenant shall promptly cause the Final Space Plan to be revised to correct any deficiencies or other matters Landlord may reasonably require and deliver such revised Final Space Plan to Landlord. If Landlord disapproves the Final Space Plan, Tenant may resubmit the proposed Final Space Plan to Landlord at any time, and Landlord shall approve or disapprove of the resubmitted Final Space Plan, based upon the criteria set forth in this Section 3.2, within five (5) business days after Landlord receives such resubmitted Final Space Plan. Such procedure shall be repeated until the Final Space Plan is approved. If Landlord fails to notify Tenant of Landlord's approval or disapproval of such Final Space Plans within such five (5) business day period, Tenant shall have the right to provide Landlord with a second written request for approval (a "Second Request") that specifically identifies the applicable Final Space Plans and contains the following statement in bold and capital letters: "THIS IS A SECOND REQUEST FOR APPROVAL OF FINAL SPACE PLANS PURSUANT TO THE PROVISIONS OF SECTION 3.2 OF THE WORK LETTER. IF LANDLORD FAILS TO RESPOND WITHIN FIVE (5) BUSINESS DAYS AFTER RECEIPT OF THIS NOTICE, THEN LANDLORD SHALL BE DEEMED TO HAVE APPROVED THE FINAL SPACE PLANS DESCRIBED HEREIN." If Landlord fails to respond to such Second Request within five (5) business days after receipt by Landlord, the Final Space Plans in question shall be deemed approved by Landlord.

3.3 Final Working Drawings. After a Final Space Plan has been approved by Landlord and Tenant, Tenant shall cause the Architect and the Engineers to complete the architectural and engineering drawings for the applicable portion of the Premises, and cause the Architect to compile a fully coordinated set of architectural, structural, mechanical, electrical and plumbing working drawings in a form which is complete to allow subcontractors to bid on the work and to obtain all applicable permits for the applicable Tenant Improvements for such portion of the Premises (collectively, with respect to each particular portion of the Premises, the "Final Working Drawings"), and shall submit the same to Landlord for Landlord's approval. Tenant shall supply Landlord with four (4) copies signed by Tenant of such Final Working Drawings for each particular portion of the Premises for Landlord's approval, which approval shall not be unreasonably withheld. Landlord shall advise Tenant within five (5) business days after Landlord's receipt of the Final Working Drawings for each particular portion of the Premises if the same is unsatisfactory or incomplete in any respect, or disapproved, in which event Landlord shall include in its notice of disapproval a reasonably detailed explanation as to which items are not satisfactory or complete and the reason(s) therefor. If Tenant is so advised that the Final Working Drawings are not satisfactory or complete, Tenant shall promptly revise the Final Working Drawings in accordance with such review and any disapproval of Landlord in connection therewith, and Landlord shall approve or disapprove the resubmitted Final Working Drawings, based upon the criteria set forth in this Section 3.3, within five (5) business days after Landlord receives such resubmitted Final Working Drawings. Such procedure shall be repeated until the Final Working Drawings are approved. Landlord will notify Tenant concurrently with Landlord's initial review of the Final Work Drawings whether any new elements of the Tenant Improvements identified in the Final Working Drawings and not previously shown in the Final Space Plan constitute Specialty Alterations be required to be removed (for avoidance of doubt, Landlord may not specify any item which was identified in the Final Space Plan but not so noted by Landlord during Landlord's review of the Final Space Plan unless Landlord reasonably demonstrates that the Final Space Plan described such items in insufficient detail to allow Landlord to make a determination as to whether such item was a Specialty Alteration).

3.4 Approved Working Drawings. Final Working Drawings shall be approved by Landlord (with respect to each particular portion of the Premises, the "Approved Working Drawings") prior to the commencement of construction of Tenant Improvements on any particular portion of the Premises by Tenant. After approval by Landlord of the Final Working Drawings, Tenant shall submit such Approved Working Drawings for all applicable building permits. Tenant hereby agrees that neither Landlord nor Landlord's consultants shall be responsible for obtaining any building permit or certificate of occupancy for any portion of the Premises and that obtaining the same shall be Tenant's responsibility; provided, however, that Landlord shall provide to Tenant such path-of-travel documentation as Landlord may have in its possession regarding each Multi-Tenant Building (without any representation or warranty of any kind) and shall cooperate with Tenant in executing permit applications and performing other ministerial acts reasonably necessary to enable Tenant to obtain any such permit or certificate of occupancy. No changes, modifications or alterations in any Approved Working Drawings may be made without the prior written consent of Landlord, which consent shall not be unreasonably withheld, conditioned or delayed.

3.5 Change Orders. In the event Tenant desires to materially change the Approved Working Drawings, Tenant shall deliver notice (the "Drawing Change Notice") of the same to Landlord, setting forth in detail the changes (the "Tenant Change") Tenant desires to make to the Approved Working Drawings. Landlord shall, within ten (10) business days of receipt of a Drawing Change Notice, either (i) approve the Tenant Change, or (ii) disapprove the Tenant Change and deliver a notice to Tenant specifying in reasonably sufficient detail the reasons for Landlord's disapproval. Any additional costs which arise in connection with such Tenant Change shall be paid by Tenant pursuant to this Tenant Work Letter; provided, however, that to the extent the Tenant Improvement Allowance has not been fully disbursed, such payment shall be made out of the Tenant Improvement Allowance subject to the terms of this Tenant Work Letter.

3.6 Design Problem. Notwithstanding anything to the contrary in this Tenant Work Letter, Landlord shall be deemed to have acted reasonably in disapproving plans or designs if Landlord determines in good faith that the matter disapproved constitutes or would create a Design Problem (as defined below). As used herein, a "Design Problem" shall mean (i) adverse effect on the structural integrity of the applicable Building; (ii) possible damage to the applicable Building Systems; (iii) non-compliance with applicable codes; (iv) adverse effect on the exterior appearance of the applicable Building; (v) creation of the potential for unusual expenses to be incurred upon the removal of the alteration or improvement and the restoration of the Premises upon termination of this Lease, unless Tenant agrees to pay for the incremental removal costs caused by the non-typical alterations; (vi) creation of the potential for unusual expenses to be incurred in connection with the maintenance by Landlord of the alteration or improvement, unless Tenant agrees to pay for the incremental maintenance costs caused by the non-typical alterations, (vii) a material adverse effect any other tenant or occupant of the applicable Building, (viii) creation of an obligation to make other alterations, additions or improvements to the Premises or Common Areas in order to comply with applicable laws (including, without limitation, the Americans with Disabilities Act) or (ix) adverse effect on any then-current LEED rating of the applicable Building.

SECTION 4

CONSTRUCTION OF THE TENANT IMPROVEMENTS

4.1 Tenant's Selection of Contractor and Tenant's Agents.

4.1.1 The Contractor. A general contractor shall be retained by Tenant to construct the Tenant Improvements for each particular portion of the Premises. Such general contractor ("Contractor") shall be selected by Tenant and approved by Landlord (such approval not to be unreasonably withheld). Landlord's approval of the Contractor shall not be unreasonably withheld. Landlord shall notify Tenant of Landlord's approval or disapproval of such Contractor within five (5) business days following notice to Landlord of Tenant's selection. Tenant shall deliver to Landlord notice of its selection of the Contractor upon such selection.

4.1.2 Tenant's Agents. All subcontractors, laborers, materialmen, and suppliers used by Tenant in connection with the Tenant Improvements together with the Contractor, shall be known collectively as "Tenant's Agents"). Subcontractors in major trades must be approved in writing by Landlord, which approval shall not be unreasonably withheld or delayed. If requested by Landlord, Tenant's Agents shall all be union labor in compliance with the master labor agreements existing between trade unions and the local chapter of the Associated General Contractors of America.

4.2 Construction of Tenant Improvements by Tenant's Agents.

4.2.1 Construction Contract; Cost Budget. Prior to Tenant's execution of any construction contract and general conditions with a Contractor (the "Contract"), Tenant shall submit the applicable Contract to Landlord for its approval,

which approval shall not be unreasonably withheld and will be granted or withheld within fifteen (15) days following delivery of the Contract to Landlord. Prior to the commencement of the construction of any Tenant Improvements, and after Tenant has accepted all bids for such Tenant Improvements, Tenant shall provide Landlord with a written detailed cost breakdown (the "Final Costs Statement"), by trade, of the final costs to be incurred, or which have been incurred, as set forth more particularly in Section 2.2.1.(a) through 2.2.1.(i) above, in connection with the design and construction of the applicable Tenant Improvements to be performed by or at the direction of Tenant or the Contractor which costs form a basis for the amount of the Contract, if any (with respect to each particular portion of the Premises, the "Final Costs"). Prior to the commencement of construction of any Tenant Improvements, Tenant shall identify the amount (the "Over-Allowance Amount") by which the applicable Final Costs exceed the applicable Tenant Improvement Allowance (less any portion thereof already disbursed by Landlord, or in the process of being disbursed by Landlord, on or before the commencement of construction of the Tenant Improvements). In the event that the Final Costs are greater than the amount of the Improvement Allowance (the "Anticipated Over-Allowance Amount"), then Tenant shall pay a percentage of each amount requested by the Contractor or otherwise to be disbursed under this Tenant Work Letter, which percentage shall be equal to the Anticipated Over-Allowance Amount divided by the amount of the Final Costs (after deducting from the Anticipated Costs any amounts expended in connection with the preparation of the Construction Drawings, and the cost of all other Tenant Improvement Allowance Items incurred prior to the commencement of construction of the Tenant Improvements), and such payments by Tenant (the "Over-Allowance Payments") shall be a condition to Landlord's obligation to pay any amounts from the Tenant Improvement Allowance. After Tenant's initial determination of the Final Costs, Tenant shall advise Landlord from time to time as such Final Costs are further refined or determined or otherwise change, and the Anticipated Over-Allowance Amount and the Over-Allowance Payments shall be recalculated and adjusted such that the disbursement and the Over-Allowance Payments by Tenant shall accurately reflect the then-current amount of Final Costs.

4.2.2 Tenant's Agents.

4.2.2.1 Landlord's General Conditions for Tenant's Agents and Tenant Improvement Work. Tenant's and Tenant's Agents' construction of any Tenant Improvements shall comply with the following: (i) the Tenant Improvements shall be constructed in material accordance with the applicable Approved Working Drawings, subject to minor field changes and approved Tenant Changes that are reflected in the final "as-built" plans delivered to Landlord pursuant Section 4.3, below and (ii) Tenant shall abide by all commercially reasonable rules made by Landlord with respect to the use of freight, loading dock and service elevators, storage of materials, coordination of work with the contractors of other tenants, and any other matter in connection with this Tenant Work Letter, including, without limitation, the construction of any Tenant Improvements.

4.2.2.2 Coordination Fee. For each particular Tenant Improvement project in a Building in which Tenant does not lease all of the leasable space, Tenant shall pay a logistical coordination fee (the "Coordination Fee") to Landlord in an amount equal to the lesser of (a) $25,000.00, and (b) product of (i) three percent (3%), and (ii) the sum of the applicable Tenant Improvement Allowance, the applicable Over-Allowance Amount, as such amount may be increased hereunder, and any other amounts expended by Tenant in connection with the design and construction of such Tenant Improvements, which Coordination Fee shall be for services relating to the coordination of the construction of such Tenant Improvements.

4.2.2.3 Indemnity. Tenant's indemnity of Landlord and Landlord's indemnity of Tenant, as set forth in this Lease shall also apply with respect to any and all costs, losses, damages, injuries and liabilities related in any way to any act or omission of Tenant or Tenant's Agents, or anyone directly or indirectly employed by any of them, or in connection with Tenant's or Landlord's, as the case may be, non-payment of any amount arising out of the Tenant Improvements and/or Tenant's or Landlord's, as the case may be, disapproval of all or any portion of any request for payment. The foregoing indemnity shall not apply to claims caused by the negligence or willful misconduct of the other party, its member partners, shareholders, officers, directors, agents, employees, and/or contractors, or the other party's violation of this Lease.

4.2.2.4 Insurance Requirements.

4.2.2.4.1 General Coverages. All of Tenant's Agents shall carry worker's compensation insurance covering all of their respective employees, and shall also carry public liability insurance, including property damage, all with limits, in form and with companies as are required to be carried by Tenant as set forth in the Lease (provided that the limits of liability to be carried by Tenant's Agents and Contractor shall be in amounts reasonably required by Landlord, which shall be reasonably commensurate with the levels of coverage required by owners of Comparable Buildings).

4.2.2.4.2 Special Coverages. During construction of the Tenant Improvements, Tenant shall carry "Builder's All Risk" insurance in an amount reasonably approved by Landlord (but in no event greater than one hundred percent (100%) of the completed insurable value of the Tenant Improvements) covering the construction of the Tenant Improvements (at Tenant's option, Tenant shall cause Contractor to carry such Builder's All Risk insurance), and such other insurance as Landlord may reasonably require commensurate with the types of insurance and levels of coverage required by owners of Comparable Buildings; it being understood and agreed that the Tenant Improvements shall be insured by Tenant pursuant to this Lease immediately upon completion thereof.

4.2.2.4.3 General Terms. Certificates for all insurance carried pursuant to this Section 4.2.2 (other than Workers' Compensation coverage) shall be delivered to Landlord before the commencement of construction of any Tenant Improvements and before the Contractor's equipment is moved onto the site. All such policies of insurance must contain a provision that the company writing said policy will give Landlord thirty (30) days prior written notice of any cancellation or lapse of the effective date or any reduction in the amounts of such insurance. In the event that the Tenant Improvements are damaged by any cause during the course of the construction thereof, Tenant shall immediately repair the same at Tenant's sole cost and expense. All policies carried under this Section 4.2.2.4 shall insure Landlord and Tenant, as their interests may appear, as well as Contractor and Tenant's Agents, and shall name as additional insureds Landlord's project manager, Landlord's asset manager, and all mortgagees and ground lessors of the Project. All insurance, except Workers' Compensation, maintained by Tenant's Agents shall preclude subrogation claims by the insurer against anyone insured thereunder. Such insurance shall provide that it is primary insurance as respects the owner and that any other insurance maintained by owner is excess and noncontributing with the insurance required hereunder. The requirements for the foregoing insurance shall not derogate from the provisions for indemnification of Landlord by Tenant under Section 4.2.2.3 of this Tenant Work Letter.

4.2.3 Governmental Compliance. All Tenant Improvements shall comply in all respects with the following: (i) the CC&R's and all state, federal, city or quasi-governmental laws, codes, ordinances and regulations, as each may apply according to the rulings of the controlling public official, agent or other person; (ii) applicable standards of the American Insurance Association (formerly, the National Board of Fire Underwriters) and the National Electrical Code; and (iii) building material manufacturer's specifications.

4.2.4 Inspection by Landlord. Landlord shall have the right to inspect the Tenant Improvements at all times, provided however, that Landlord will use reasonable efforts not to unduly interfere with the construction of the Tenant Improvements and Landlord's failure to inspect any Tenant Improvements shall in no event constitute a waiver of any of Landlord's rights hereunder nor shall Landlord's inspection of any Tenant Improvements constitute Landlord's approval of the same. Should Landlord reasonably disapprove any portion of any Tenant Improvements, Landlord shall notify Tenant in writing of such disapproval and shall specify the items disapproved. Any defects or deviations in, and/or disapproval by Landlord of, the applicable Tenant Improvements shall be rectified by Tenant at no expense to Landlord, provided however, that in the event Landlord determines that a defect or deviation exists or disapproves of any matter in connection with any portion of the Tenant Improvements and such defect, deviation or matter might adversely affect the mechanical, electrical, plumbing, heating, ventilating and air conditioning or life-safety systems of the Buildings, the structure or exterior appearance of the Buildings or any other tenant's use of such other tenant's leased premises, and Tenant fails to commence and thereafter diligently carry out the correction of such item within five (5) business days of written notice from Landlord, then Landlord may, take such action as Landlord deems necessary, at Tenant's expense and without incurring any liability on Landlord's part, to correct any such defect, deviation and/or matter, including, without limitation, causing the cessation of performance of the construction of the applicable Tenant Improvements until such time as the defect, deviation and/or matter is corrected to Landlord's satisfaction. Landlord shall perform any such correction in a diligent and timely manner so as to minimize any delay in the construction of the Tenant Improvements.

4.2.5 Meetings. Tenant shall hold regular meetings at a reasonable time, with the applicable Architect and the applicable Contractor regarding the progress of the preparation of the applicable Construction Drawings and the construction of the applicable Tenant Improvements, which meetings shall be held at a location designated by Tenant and reasonably approved by Landlord, and Landlord and/or its agents shall receive prior notice of, and shall have the right to attend, all such meetings, and, upon Landlord's request, certain of Tenant's Agents shall attend such meetings. In addition, minutes shall be taken at all such meetings, a copy of which minutes shall be promptly delivered to Landlord. During the construction of Tenant Improvements, one such meeting each month shall include the review of Contractor's current request for payment.

4.3 Notice of Completion; Copy of "As Built" Plans. Within fifteen (15) days after completion of construction of any Tenant Improvements, Tenant shall cause a Notice of Completion to be recorded in the office of the Recorder of the County in which the Buildings are located in accordance with Section 8182 of the Civil Code of the State of California or any successor statute, and shall furnish a copy thereof to Landlord upon such recordation. If Tenant fails to do so, Landlord may execute and

file the same on behalf of Tenant as Tenant's agent for such purpose, at Tenant's sole cost and expense. At the conclusion of any construction, (i) Tenant shall cause the applicable Architect and Contractor (A) to update the applicable Approved Working Drawings as necessary to reflect all changes made to the applicable Approved Working Drawings during the course of construction, (B) to certify to the best of their knowledge that the "record-set" of as-built drawings are true and correct, (C) to deliver to Landlord two (2) sets of sepias of such as-built drawings within ninety (90) days following issuance of a certificate of occupancy for the applicable portion of the Premises, and (D) to deliver to Landlord a computer disk containing the applicable Approved Working Drawings in AutoCAD format, and (ii) Tenant shall deliver to Landlord a copy of all warranties, guaranties, and operating manuals and information relating to the improvements, equipment, and systems in the applicable portion of the Premises.

4.4 Coordination by Tenant's Agents with Landlord. Upon Tenant's delivery of the applicable Contract to Landlord under Section 4.2.1 of this Tenant Work Letter, Tenant shall furnish Landlord with a schedule setting forth the projected date of the completion of the applicable Tenant Improvements related thereto and showing the critical time deadlines for each phase, item or trade relating to the construction of such Tenant Improvements.

SECTION 5

LANDLORD DELAY

5.1 Landlord Delay. As used herein, "Landlord Delay" shall mean actual delays in the design or construction of Tenant Improvements to the extent resulting from the acts or revisions of Landlord or Landlord's agents, employees or contractors, including without limitations (i) the failure of Landlord to timely approve or disapprove any Construction Drawings; (ii) interference (when judged in accordance with industry custom and practice) by Landlord, its agents or Landlord Parties (except as otherwise allowed under this Tenant Work Letter) with the Substantial Completion of the Tenant Improvements (including the impairment of Tenant's contractors' or vendors' or employees' access to the Premises, failure to provide reasonable access to the Building's loading docks or other facilities necessary for the construction of the Tenant Improvements and/or the movement of materials and personnel to the Premises for such purpose) and which objectively preclude or delay the construction of improvements in the Building by any person, which interference relates to access by Tenant, or Tenant's Agents to the Building; or (iii) delays due to the acts or failures to act of Landlord or Landlord Parties with respect to payment of the Tenant Improvement Allowance (except as otherwise allowed under this Tenant Work Letter) but Tenant shall have a right to suspend its design and construction of its Tenant Improvements if Landlord fails to reimburse Tenant all or any part of the Tenant Improvement Allowance when due. Tenant will be entitled to one (1) day's abatement in Base Rent payable for the applicable portion of the Premises for each day Tenant is delayed in Substantial Completion of the Tenant Improvements (as defined below) therein due to Landlord Delay.

5.2 Determination of Landlord Delay. If Tenant contends that a Landlord Delay has occurred, Tenant shall notify Landlord in writing of the event which constitutes such Landlord Delay. Such notice may be via electronic mail to Landlord's construction representative described below, provided that if Tenant notifies Landlord's construction representative via electronic mail, then Tenant must also deliver notice to Landlord's other notice addresses required under the Lease within one(1) Business Day after delivery of such electronic mail. Tenant will additionally use reasonable efforts to mitigate the effects of any Landlord Delay through the re-sequencing or re-scheduling of work, if feasible, but this sentence will not be deemed to require Tenant to incur overtime or after-hours costs unless Landlord agrees in writing to bear such costs. If such actions, inaction or circumstance described in the Notice set forth in (i) above of this Section 5.2 of this Work Letter (the "Delay Notice") are not cured by Landlord within one (1) business day of Landlord's receipt of the Delay Notice and if such action, inaction or circumstance otherwise qualify as a Landlord Delay, then a Landlord Delay shall be deemed to have occurred commencing as of the date of Landlord's receipt of the Delay Notice and ending as of the date such delay ends; notwithstanding the foregoing, if, solely as a result of a Landlord Delay, and notwithstanding Tenant's mitigation efforts described above, the date of Substantial Completion of the Tenant Improvements is delayed for a longer period than the actual length of the Landlord Delay (due to the need to reschedule subcontractors or suppliers and/or resequence elements of work, or to other reasons arising as a result of such Landlord Delay to the extent each such reason was specifically described in the Delay Notice), then, for the purposes of determining the abatement to be afforded Tenant resulting from such Landlord Delay, the Landlord Delay will be deemed to be the number of days Tenant's Substantial Completion of the Tenant Improvements is delayed as a result of such Landlord Delay. If and to the extent Tenant incurs increased costs of design or construction of the Tenant Improvements as a direct result of any Landlord Delay, Landlord will be responsible for such increased costs.

5.3 Definition of Substantial Completion of the Tenant Improvements. For purposes of this Section 5, "Substantial Completion of the Tenant Improvements" shall mean completion of construction of the Tenant Improvements in

the applicable part of the Premises pursuant to the Approved Working Drawings, with the exception of any punch list items that would not have a material adverse effect on Tenant's use of the Premises.

SECTION 6

MISCELLANEOUS

6.1 Tenant's Representative. Tenant has designated Ryan Powers [rpowers@penumbrainc.com] as its sole representative with respect to the matters set forth in this Tenant Work Letter, who, until further notice to Landlord, shall have full authority and responsibility to act on behalf of the Tenant as required in this Tenant Work Letter.

6.2 Landlord's Representative. Landlord has designated Rebecca Foust [Rebecca.Foust@CBRE.com] as its sole representative with respect to the matters set forth in this Tenant Work Letter, who, until further notice to Tenant, shall have full authority and responsibility to act on behalf of the Landlord as required in this Tenant Work Letter.

6.3 Time of the Essence in This Tenant Work Letter. Unless otherwise indicated, all references herein to a "number of days" shall mean and refer to calendar days. If any item requiring approval is timely disapproved by Landlord, the procedure for preparation of the document and approval thereof shall be repeated until the document is approved by Landlord.

6.4 Miscellaneous Charges. During the construction of the Tenant Improvements, and subject to compliance with Landlord's reasonable and customary construction rules and regulations applicable to the Building, and if and to the extent reasonably available, Tenant may use the following items, free of charge, during such times as are reasonably necessary to Tenant's construction schedule, furniture and equipment delivery and relocation activities, on a nonexclusive basis, and in a manner and to the extent reasonably necessary to perform the Tenant Improvements: freight elevators and loading docks; provided, however, Tenant acknowledges that there may be an after-hours charge to reimburse Landlord for its actual costs with respect to the use of the Building's freight elevator and/or loading docks during hours other than normal construction hours, but only to the extent that such use requires Landlord to engage elevator operations or security personnel. Notwithstanding the foregoing, if Tenant or Contractor or other agents require any of the foregoing in connection with any use reasonably unrelated to Tenant's construction and/or installation of the Tenant Improvements, Tenant shall pay the applicable cost of such service. In no event shall Tenant store construction materials or other property at or in the elevators or loading docks of the Building. Tenant shall pay the cost of all utilities used, all building engineers and all security personnel required in connection with the construction of the Tenant Improvements or other occupancy or use of the Premises by Tenant or Tenant's Agents

6.5 Tenant's Lease Default. Notwithstanding any provision to the contrary contained in the Lease, if an Event of Default by Tenant occurs at any time on or before the substantial completion of any particular Tenant Improvements, then (i) in addition to all other rights and remedies granted to Landlord pursuant to the Lease, at law and/or in equity, Landlord shall have the right to withhold payment of all or any portion of the applicable Tenant Improvement Allowance and/or Landlord may cause the applicable Contractor to cease the construction of the applicable Tenant Improvements (in which case, Tenant shall be responsible for any delay in the substantial completion of the applicable Premises caused by such work stoppage), and (ii) all other obligations of Landlord under the terms of this Tenant Work Letter shall be forgiven until such time as such default is cured pursuant to the terms of the Lease (in which case, Tenant shall be responsible for any delay in the substantial completion of the applicable Premises caused by such inaction by Landlord). In addition, if the Lease is terminated prior to the Commencement Date for any particular portion of the Premises, for any reason due to an Event of Default by Tenant, then in addition to any other remedies available to Landlord under the Lease, at law and/or in equity, Tenant shall pay to Landlord, as Additional Rent under the Lease, within five (5) days of receipt of a statement therefor, any and all costs (if any) incurred by Landlord (including any portion of the Tenant Improvement Allowance disbursed by Landlord) and not reimbursed or otherwise paid by Tenant through the date of such termination in connection with the Tenant Improvements to the extent planned, installed and/or constructed as of such date of termination, including, but not limited to, any costs related to the removal of all or any portion of the Tenant Improvements and restoration costs related thereto. Notwithstanding the foregoing, if an Event of Default by Tenant is cured, forgiven or waived, Landlord's suspended obligations shall be fully reinstated and resumed, effective immediately.

EXHIBIT D

RULES AND REGULATIONS

Tenant shall faithfully observe and comply with the following Rules and Regulations:

1. Except in connection with Tenant's work (if any) under Exhibit C, Tenant shall not alter any locks or install any new or additional locks or bolts on any doors or windows of the Premises without obtaining Landlord's prior written consent. Tenant shall bear the cost of any lock changes or repairs required by Tenant and Tenant shall promptly deliver any new keys to Landlord.

2. All doors opening to public corridors shall be kept closed at all times except for normal ingress and egress to the Premises. Tenant shall assume any and all responsibility for protecting the Premises from theft, robbery and pilferage, which includes keeping doors locked and other means of entry to the Premises closed.

3. Tenant, its employees and agents must be sure that the entry doors to the Premises are securely closed and locked when leaving the Premises if it is after the normal hours of business of the Project. Tenant, its employees, agents or any other persons entering or leaving the Project at any time when it is so locked, or any time when it is considered to be after normal business hours for the Project, may be required to sign the Project register. Access to the Project may be refused unless the person seeking access has proper identification or has a previously received authorization for access to the Project. Landlord and its agents shall in no case be liable for damages for any error with regard to the admission to or exclusion from the Project of any person. In case of invasion, mob, riot, public excitement, or other commotion, Landlord reserves the right to prevent access to the Project during the continuance thereof by any means it deems appropriate for the safety and protection of life and property.

4. Landlord reserves the right, in the event of an emergency in Landlord's reasonable discretion, to close or limit access to the Project and/or the Premises, from time to time, due to damage to the Project and/or the Premises, to ensure the safety of persons or property or due to government order or directive, and Tenant agrees to immediately comply with any such reasonable decision by Landlord. If Landlord closes or limits access to the Project and/or the Premises for the reasons described above, Landlord's actions shall not constitute a breach of the Lease.

5. Tenant shall not disturb, solicit, or canvass any occupant of the Project and shall cooperate with Landlord and its agents to prevent the same. Tenant, its employees and agents shall not loiter in or on the entrances, corridors, sidewalks, lobbies, halls, stairways, elevators, or any Common Areas for the purposes of smoking tobacco products or for any other purpose, nor in any way obstruct such areas, and shall use them only as a means of ingress and egress for the Premises. Smoking shall not be permitted in the Common Areas.

6. The toilet rooms, urinals and wash bowls shall not be used for any purpose other than that for which they were constructed, and no foreign substance of any kind whatsoever shall be thrown therein. The expense of any breakage, stoppage or damage resulting from the violation of this rule shall be borne by the tenants who, or whose employees or agents, shall have caused it.

7. Except for vending machines intended for the sole use of Tenant's employees and invitees, no vending machine or machines other than fractional horsepower office machines shall be installed, maintained or operated upon the Premises without the written consent of Landlord. Tenant shall not permit its vendors or other persons visiting the Premises to solicit other tenants of the Project.

8. Tenant shall not use or keep in or on the Premises or the Project any kerosene, gasoline or other inflammable or combustible fluid or material, except as otherwise permitted in the Lease. Tenant shall not bring into or keep within the Premises or the Project any animals, birds or vehicles (other than passenger vehicles, forklifts or bicycles).

9. Tenant shall not use, keep or permit to be used or kept, any noxious gas or substance in or on the Premises or permit or allow the Premises to be occupied or used in a manner offensive or objectionable to Landlord or other occupants of the Project by reason of noise, odors, or vibrations, or to otherwise unreasonably interfere with the use of the Project by other tenants.

10. No cooking shall be done or permitted on the Premises nor shall the Premises be used for the storage of merchandise, for loading or for any improper, objectionable or immoral purposes. Notwithstanding the foregoing,

Underwriters' Laboratory approved equipment and microwave ovens may be used in the Premises for heating food and brewing coffee, tea, hot chocolate and similar beverages for employees and visitors of Tenant, provided that such use is in accordance with all applicable federal, state and city laws, codes, ordinances, rules and regulations; and provided further that such cooking does not result in odors escaping from the Premises.

11. Landlord reserves the right to exclude or expel from the Project any person who, in the judgment of Landlord, is intoxicated or under the influence of liquor or drugs, or who shall in any manner do any act in violation of any of these Rules and Regulations.

12. No material shall be placed in the trash boxes or receptacles if such material is of such nature that it may not be disposed of in the ordinary and customary manner of removing and disposing of trash in the vicinity of the Project without violation of any law or ordinance governing such disposal. All trash, garbage and refuse disposal shall be made only through entry-ways and elevators provided for such purposes at such times as Landlord shall designate.

13. Tenant shall comply with all safety, fire protection and evacuation procedures and regulations established by Landlord or any governmental agency.

14. Tenant acknowledges that the local fire department has previously required Landlord to participate in a fire and emergency preparedness program or may require Landlord and/or Tenant to participate in such a program in the future. Tenant agrees to take all actions reasonably necessary to comply with the requirements of such a program including, but not limited to, designating certain employees as "fire wardens" and requiring them to attend any necessary classes and meetings and to perform any required functions.

15. Tenant and its employees shall comply with all federal, state and local recycling and/or resource conservation laws and shall take all actions reasonably requested by Landlord in order to comply with such laws. Tenant shall comply with and participate in any program for metering or otherwise measuring the use of utilities and services, including, without limitation, programs requiring the disclosure or reporting of the use of any utilities or services. Tenant shall also cooperate and comply with, participate in, and assist in the implementation of (and take no action that is inconsistent with, or which would result in Landlord, the Building and/or the Project failing to comply with the requirements of) any conservation, sustainability, recycling, energy efficiency, and waste reduction programs, environmental protection efforts and/or other programs that are in place and/or implemented from time to time at the Building and/or the Project, including, without limitation, any required reporting, disclosure, rating or compliance system or program (including, but not limited to any LEED [Leadership in Energy and Environmental Design] rating or compliance system, including those currently coordinated through the U.S. Green Building Council).

Landlord reserves the right at any time to change or rescind any one or more of these Rules and Regulations, or to make such other and further reasonable Rules and Regulations as in Landlord's judgment may from time to time be necessary for the management, safety, care and cleanliness of the Premises, Building, the Common Areas and the Project, and for the preservation of good order therein, as well as for the convenience of other occupants and tenants therein. Landlord may waive any one or more of these Rules and Regulations for the benefit of any particular tenants, but no such waiver by Landlord shall be construed as a waiver of such Rules and Regulations in favor of any other tenant, nor prevent Landlord from thereafter enforcing any such Rules or Regulations against any or all tenants of the Project. Tenant shall be deemed to have read these Rules and Regulations and to have agreed to abide by them as a condition of its occupancy of the Premises.

EXHIBIT D-1

PARKING RULES

1. Parking areas shall be used only for parking by vehicles no longer than full size, passenger automobiles, pickup trucks and sport utility vehicles. Tenant and its employees shall park automobiles within the lines of the parking spaces.

2. Tenant shall not permit or allow any vehicles that belong to or are controlled by Tenant or Tenant's employees, suppliers, shippers, customers, or invitees to be loaded, unloaded, or parked in areas other than those designated by Landlord for such activities. Users of the parking area will obey all posted signs and park only in the areas designated for vehicle parking.

3. Parking stickers and parking cards, if any, shall be the property of Landlord and shall be returned to Landlord by the holder thereof upon termination of the holder's parking privileges. Landlord may require Tenant and each of its employees to give Landlord a commercially reasonable deposit when a parking card or other parking device is issued. Landlord shall not be obligated to return the deposit unless and until the parking card or other device is returned to Landlord. Tenant will pay such replacement charges as is reasonably established by Landlord for the loss of such devices. Loss or theft of parking identification stickers or devices from automobiles must be reported to the parking operator immediately. Any parking identification stickers reported lost or stolen found on any unauthorized car will be confiscated and the illegal holder will be subject to prosecution.

4. Unless otherwise instructed, every person using the parking area is required to park and, lock his own vehicle. Landlord will not be responsible for any damage to vehicles, injury to persons or loss of property, all of which risks are assumed by the party using the parking area.

5. The maintenance, washing, waxing or cleaning of vehicles in the parking structure or Common Areas is prohibited.

6. Tenant shall be responsible for seeing that all of its employees, agents and invitees comply with the applicable parking rules, regulations, laws, and agreements. Parking area managers or attendants, if any, are not authorized to make or allow any exceptions to these Parking Rules and Regulations. Landlord reserves the right to terminate parking rights for any person or entity that willfully refuses to comply with these rules and regulations.

7. Every driver is required to park his or her own car. Tenant agrees that all responsibility for damage to cars or the theft of or from cars is assumed by the driver, and further agrees that Tenant will hold Landlord harmless for any such damages or theft.

8. No vehicles shall be parked in the parking areas overnight. The parking area shall only be used for daily parking and no vehicle or other property shall be stored in a parking space.

9. Any vehicle parked by Tenant, its employees, contractors or visitors in a reserved parking space or in any area of the parking area that is not designated for the parking of such a vehicle may, at Landlord's option, and without notice or demand, be towed away by any towing company selected by Landlord, and the cost of such towing shall be paid for by Tenant and/or the driver of said vehicle.

Landlord reserves the right at any time to reasonably change or rescind any one or more of these Rules and Regulations, or to make such other and further reasonable and nondiscriminatory Rules and Regulations as in Landlord's judgment may from time to time be necessary for the management, safety, care and cleanliness of the Project, and for the preservation of good order therein, as well as for the convenience of other occupants and tenants therein. Landlord may waive any one or more of these Rules and Regulations for the benefit of any particular tenant, but no such waiver by Landlord shall be construed as a waiver of such Rules and Regulations in favor of any other tenant, nor prevent Landlord from thereafter enforcing any such Rules or Regulations against any or all tenants of the Project. Landlord, however, shall apply such Rules and Regulations in a nondiscriminatory manner. Tenant shall be deemed to have read these Rules and Regulations and to have agreed to abide by them.

EXHIBIT E

FORM OF TENANT'S ESTOPPEL CERTIFICATE

The undersigned, as Tenant under that certain Office Lease (the "Lease") made and entered into as of _____, 201__ by and between _____, as Landlord, and the undersigned, as Tenant, for certain Premises described in the Lease and located in those certain buildings commonly known as _____, Alameda, California, certifies as follows:

1. Attached hereto as Exhibit A is a true and correct copy of the Lease and all amendments and modifications thereto. The documents contained in Exhibit A represent the entire agreement between the parties as to the Premises.

2. The undersigned currently occupies the Premises described in the Lease, the Lease Term commenced on _____, and the Lease Term expires on _____, and the undersigned has no option to terminate or cancel the Lease (other than in connection with casualty or condemnation) or to purchase all or any part of the Premises, the Building and/or the Project except as expressly set forth in Article 54 of the Lease.

3. Base Rent became payable on _____.

4. The Lease is in full force and effect and has not been modified, supplemented or amended in any way except as provided in Exhibit A.

5. Tenant has not transferred, assigned, or sublet any portion of the Premises nor entered into any license or concession agreements with respect thereto except as follows: _____.

6. All monthly installments of Base Rent, all Additional Rent and all monthly installments of estimated Additional Rent have been paid when due through _____. The current monthly installment of Base Rent is $_____.

7. To Tenant's knowledge, all conditions of the Lease to be performed by Landlord as of the date of this certificate necessary to the enforceability of the Lease have been satisfied and Landlord is not in default thereunder. In addition, the undersigned has not delivered any notice to Landlord regarding a default by Landlord thereunder.

8. Except with respect to the pre-payment of Monthly Rent required by Section 4.3 of the Lease, no rental has been paid more than thirty (30) days in advance and no security has been deposited with Landlord except the Security Deposit in the current amount of $_____ as provided in the Lease.

9. As of the date hereof, to Tenant's knowledge, there are no existing defenses or offsets, or, to the undersigned's knowledge, claims or any basis for a claim, that the undersigned has against Landlord.

10. If Tenant is a corporation, limited liability company, partnership or limited liability partnership, each individual executing this Estoppel Certificate on behalf of Tenant hereby represents and warrants that Tenant is a duly formed and existing entity qualified to do business in California and that Tenant has full right and authority to execute and deliver this Estoppel Certificate and that each person signing on behalf of Tenant is authorized to do so.

11. There are no actions pending against the undersigned under the bankruptcy or similar laws of the United States or any state.

12. Other than in compliance with all applicable laws and incidental to the ordinary course of the use of the Premises, the undersigned has not used or stored any hazardous substances in the Premises.

13. All tenant improvement work to be performed by Landlord under the Lease has been completed in accordance with the Lease and has been accepted by the undersigned and all reimbursements and allowances due to the undersigned under the Lease in connection with any tenant improvement work have been paid in full.

The undersigned acknowledges that this Estoppel Certificate may be delivered to Landlord or to a prospective mortgagee or prospective purchaser, and acknowledges that said prospective mortgagee or prospective purchaser will be relying

upon the statements contained herein in making the loan or acquiring the property of which the Premises are a part and that receipt by it of this certificate is a condition of making such loan or acquiring such property; however, in no event will this Estoppel Certificate be deemed to amend or revise the express terms of the Lease.

Executed at _____ on the ____ day of _____, 201__.

"Tenant":

,

a __

By: __
Its: __

By: __
Its: __

EXHIBIT F

COMMENCEMENT DATE MEMORANDUM

With respect to that certain lease ("Lease") dated _____, 2015 between SKS HARBOR BAY ASSOCIATES, LLC, a Delaware limited liability company ("Landlord"), and _____ ("Tenant"), whereby Landlord leased to Tenant and Tenant leased from Landlord approximately _____ rentable square feet of those certain office buildings located at _____, California (as described more completely in the Lease, the "Initial Premises"), Tenant hereby acknowledges and certifies to Landlord as follows:

(1) Landlord delivered possession of the Initial Premises to Tenant on _____.

(2) The Lease commenced on _____ ("Initial Commencement Date").

(3) The Initial Premises contain _____ rentable square feet of space.

(4) Tenant has accepted and is currently in possession of the Initial Premises and the Initial Premises are acceptable for Tenant's use.

(5) Tenant's Building Percentage is _____.

(6) The Base Rent per month is _____

IN WITNESS WHEREOF, this Commencement Date Memorandum is executed this day of _____.

"Tenant"_____
_____

By: _____
Its: _____

By: _____
Its: _____

EXHIBIT G

STANDARDS FOR UTILITIES AND SERVICES

The following Standards for Utilities and Services are in effect with respect to Multi-Tenant Buildings. Landlord reserves the right to adopt nondiscriminatory modifications and additions hereto:

As long as no Event of Default on the part of Tenant exists, Landlord shall:

(a) On Monday through Friday, except holidays, from 8 A.M. to 6 P.M. (and other times for a reasonable additional charge to be fixed by Landlord), ventilate the Premises and furnish air conditioning or heating on such days and hours, when in the judgment of Landlord it may be required for the comfortable occupancy of the Premises and commensurate with the standards prevailing in Comparable Buildings. The air conditioning system achieves maximum cooling when the window coverings are closed. Landlord shall not be responsible for room temperatures if Tenant does not keep all window coverings serving windows with direct solar exposure in the Premises closed whenever the system is in operation. Tenant agrees to reasonably cooperate at all times with Landlord, and to abide by all reasonable regulations and requirements which Landlord may prescribe for the proper function and protection of said air conditioning system. Tenant agrees not to connect any apparatus, device, conduit or pipe to the Building chilled and hot water air conditioning supply lines without the prior written consent of Landlord. Tenant further agrees that neither Tenant nor its servants, employees, agents, visitors, licensees or contractors shall at any time enter mechanical installations or facilities of the Building or adjust, tamper with, touch or otherwise in any manner affect said installations or facilities. The cost of maintenance and service calls to adjust and regulate the air conditioning system shall be charged to Tenant if the need for maintenance work results from either Tenant's adjustment of room thermostats or Tenant's failure to comply with its obligations under this section, including keeping window coverings closed as needed. Such work shall be charged at hourly rates equal to then current journeymen's wages for air conditioning mechanics

(b) Landlord shall furnish to the Premises at all times, electric current sufficient for normal office use, electricity in an amount not less than 1.0 watts per rentable square foot for lighting at 277 volts and 5.0 watts per rentable square foot for 120 volt lighting and convenience power. Tenant agrees, should its electrical installation or electrical consumption in any Building where the Premises is not separately metered or sub-metered for electrical consumption, be in excess of the aforesaid quantity or extend described in Section (a) above, to reimburse Landlord monthly for the measured consumption at the average cost per kilowatt hour charged to the Building during the period. In any Building in which Tenant does not lease all of the rentable area and all or any portion of the Premises is not separately metered for electricity, Tenant shall install at Tenant's sole cost and expense one or more "emon demon" or comparable meters to measure electrical usage of the Premises in that Building. Tenant shall keep such meters in good working order and repair at Tenant's own cost and expense. Said estimates to be reviewed and adjusted quarterly. Tenant agrees not to use any apparatus or device in, or upon, or about the Premises which may increase the amount of such services usually furnished or supplied to said Premises beyond the capacity for which such services are designed, and Tenant further agrees not to connect any apparatus or device with wires, conduits or pipes, or other means by which such services are supplied, for the purpose of using additional or unusual amounts of such services without written consent of Landlord. Should Tenant use the same to excess, the refusal on the part of Tenant to pay upon demand of Landlord the amount established by Landlord for such excess charge shall constitute a breach of the obligation to pay Rent under this Lease and shall entitle Landlord to the rights therein granted for such breach. At all times Tenant's use of electric current shall never exceed the capacity of the feeders to the Building or the risers or wiring installation and Tenants shall not install or use or permit the installation or use of any high-demand computer, larger than personal computer, or high-demand electronic data processing equipment in the Premises, without the prior written consent of Landlord. If Tenant is billed directly by a public utility with respect to Tenant's electrical usage at the Premises, upon request from time to time, Tenant shall provide monthly electrical utility usage for the Premises to Landlord for the period of time requested by Landlord (in electronic or paper format) or, at Landlord's option, provide any written authorization or other documentation required for Landlord to request information regarding Tenant's electricity usage with respect to the Premises directly from the applicable utility company.

(c) Water will be available in public areas for drinking and lavatory purposes only, but if Tenant requires, uses or consumes water for any purposes in addition to ordinary drinking and lavatory purposes, Landlord may install a water meter and thereby measure Tenant's water consumption for all purposes. Tenant shall pay Landlord for the cost of the meter and the cost of the installation thereof and throughout the duration of Tenant's occupancy Tenant shall keep said meter and installation equipment in good working order and repair at Tenant's own cost and expense, in default of which Landlord may cause such meter and equipment to be replaced or repaired and collect the cost thereof from Tenant. Tenant agrees to pay for water consumed, as shown on said meter, as and when bills are rendered, and on default in making such payment, Landlord may pay

such charges and collect the same from Tenant. Any such costs or expenses incurred, or payments made by Landlord for any of the reasons or purposes hereinabove stated shall be deemed to be additional rent payable by Tenant and collectible by Landlord as such.

(d) Landlord reserves the right to stop service of the elevator, plumbing, ventilation, air conditioning and electric systems, when necessary, by reason of accident or emergency or for repairs, alterations or improvements, in the judgment of Landlord desirable or necessary to be made, until said repairs, alterations or improvements shall have been completed, and shall further have no responsibility or liability for failure to supply elevator facilities, plumbing, ventilating, air conditioning or electric service, when prevented from so doing by strike or accident or by any cause beyond Landlord's reasonable control, or by laws, rules, orders, ordinances, directions, regulations or requirements of any federal, state, county or municipal authority or failure of gas, oil or other suitable fuel supply or inability by exercise of reasonable diligence to obtain gas, oil or other suitable fuel. It is expressly understood and agreed that any covenants on Landlord's part to furnish any service pursuant to any of the terms, covenants, conditions, provisions or agreements of this Lease, or to perform any act or thing for the benefit of Tenant, shall not be deemed breached if Landlord is unable to furnish or perform the same by virtue of a strike or labor trouble or any other cause whatsoever beyond Landlord's control.

EXHIBIT H

[INTENTIONALLY OMITTED]

EXHIBIT I

FIRST OPPORTUNITY TO PURCHASE

1. First Opportunity to Purchase. Subject to the other terms and conditions of this Exhibit I, Tenant shall have a first opportunity (the "First Opportunity to Purchase") to purchase the Project if Landlord elects to sell, transfer or otherwise convey the Project to any party other than an "Landlord Affiliate" or a "Foreclosure Owner" (defined below), whether or not such Landlord Affiliate or Foreclosure Owner purchases or otherwise acquires a direct or indirect, or partial or total, interest in the Project or any entity directly or indirectly owning all or a part of the Project; provided, however, in no event shall an ownership interest in a portion of the Project be transferred to or retained by a Landlord Affiliate or Foreclosure Owner as a subterfuge for the sale, transfer or conveyance of the Project to another party. For purposes of this Exhibit I, a "Landlord Affiliate" shall mean (A) an entity which is Controlled by, Controls or is under common Control with Landlord, or (B) an entity which merges with or acquires or is acquired by Landlord or a parent, subsidiary or member of Landlord, or (C) a transferee of substantially all of the assets or stock of Landlord. For purposes of this Exhibit I, a "Foreclosure Owner" shall be an entity or person which becomes the owner of the Project through a foreclosure by trustee's power of sale, judicially or otherwise, or as a purchaser at a foreclosure sale or by deed in lieu.

1.1 Procedure for Offer. If Landlord determines at any time in its sole discretion that it desires to sell the Project, Landlord shall notify Tenant ("First Opportunity Notice") of that desire and therein offer to sell to Tenant the Project at the purchase price at which Landlord is willing to sell the Project (the "Offered Purchase Price").

1.2 Procedure for Acceptance. If Tenant wishes to exercise the First Opportunity to Purchase, Tenant shall notify Landlord in writing ("Tenant's Exercise Notice") on or before 4:00 p.m. Pacific Time on the thirtieth (30th) day following Tenant's receipt of the First Opportunity Notice, or if such 30th day falls on a weekend or state or national holiday, then the next business day (the "Tenant's Notice Period"), of Tenant's exercise of the First Opportunity to Purchase at the Offered Purchase Price. Upon Landlord's receipt of Tenant's Exercise Notice, Landlord and Tenant shall use their reasonable good faith efforts to sign and deliver a purchase and sale agreement (the "Purchase Agreement") within fifteen (15) business days of Tenant's delivery of the Tenant's Exercise Notice. If (i) Tenant does not timely deliver Tenant's Exercise Notice within the Tenant's Notice Period, or (ii) Tenant timely delivers Tenant's Exercise Notice within the Tenant's Notice Period but Landlord and Tenant fail, working in good faith, to sign and deliver a Purchase Agreement within fifteen (15) business days following the delivery Tenant's Exercise Notice, then Landlord shall thereafter be free to sell the Project to any party thereafter on any terms elected by Landlord in its sole discretion.

1.3 Term/Termination of First Opportunity to Purchase. The term of the First Opportunity to Purchase granted under this Section 1 shall commence upon the full, unconditional, execution and delivery of this Lease and shall terminate upon any of the following.

1.3.1 The termination of this Lease for any reason.

1.3.2 The transfer of legal title to the Project to a Foreclosure Owner.

1.3.3 In the event Tenant timely elects to exercise the First Opportunity to Purchase, but, thereafter Tenant fails to purchase the Project in connection with the terms set forth in the Purchase Agreement.

1.3.4 Tenant's failure to timely exercise the First Opportunity to Purchase as set forth in Section 1.2 above, and, thereafter, the sale of the Project to a party other than an Landlord Affiliate.

1.3.5 Upon the sale of the Project by Landlord to a party, other than a Landlord Affiliate, following Tenant's failure to elect and/or complete the purchase of the Project as hereinabove provided.

1.3.6 The occurrence of any Event of Default by Tenant.

1.4 Quitclaim by Tenant. Within five (5) business days following the termination of the First Opportunity to Purchase pursuant to Section 1.3 above, Tenant shall execute, acknowledge and deliver to Landlord a standard quitclaim deed relinquishing the opportunity of Tenant to purchase the Project pursuant to this Section 1.

2. Opportunity Personal to Tenant. The First Opportunity to Purchase set forth herein shall be deemed to apply only to the original Tenant named above in the Lease and shall therefore not be exercisable by any transferee (including an

assignee, sublessee or other transferee) of Tenant's interest in this Lease other than an Affiliate that succeeds to Tenant's interest in and to the Lease of the entire Premises. In the event of any assignment or subletting of the Premises or any part thereof to any party other than an Affiliate, the First Opportunity to Purchase shall automatically terminate and shall thereafter be null and void.

3. Subordination. This Exhibit I shall be subject and subordinate to the lien of any mortgages or trust deeds, now or hereafter in force against Project, if any, and/or renewals, extensions, modifications, consolidations and replacements thereof, and to all advances made or hereafter to be made upon the security of such mortgages or trust deeds. Tenant, shall within ten (10) business days following receipt of the request of Landlord, execute a subordination agreement relating to the opportunity of Tenant under this Exhibit I, in favor of mortgage holders of Landlord who later come into existence at any time prior to the expiration or earlier termination of the Lease.

4. Estoppel. Within ten (10) business days following a request in writing by Landlord, Tenant shall execute (or make good faith corrective comments to), acknowledge and deliver to Landlord an estoppel certificate indicating therein to what extent Tenant's First Opportunity to Purchase may exist at that time or that such opportunity has been waived or terminated, as applicable, and shall also contain any other information reasonably requested by Landlord or any mortgagee or transferee of the Project. Any such certificate may be relied upon by any prospective mortgagee or transferee of all or any portion of the Project. Tenant shall execute and deliver whatever other instruments may be reasonably required for such purposes. Failure of Tenant to timely execute, acknowledge and deliver such estoppel certificate or other instruments shall constitute an acknowledgment by Tenant that statements included in the estoppel certificate are true and correct, without exception.

5. Purchase Agreement. The terms of any Purchase Agreement entered into between Landlord and Tenant pursuant to the exercise of Tenant's First Opportunity to Purchase shall be as mutually agreed upon by Landlord and Tenant, working in good faith, within the time period limitations set forth above, provided that: (i) the purchase price for the Project shall be the Offered Purchase Price, (ii) upon the opening of escrow, Tenant shall deposit into escrow an amount equal to 1% of the purchase price as an earnest money deposit, (iii) Tenant shall have thirty (30) days after execution of the Purchase Agreement to complete all due diligence with respect to the Project, (iv) at the end of the due diligence period, Tenant shall deposit into escrow an additional amount equal to 4% of the purchase price has an additional earnest money deposit and the earnest money deposits shall be nonrefundable and retained by Landlord as liquidated damages if the closing does not occur for any reason other than a Landlord default under the Purchase Agreement or the failure of an express condition for the benefit of Tenant under the Purchase Agreement; (v) the closing shall occur within thirty (30) days after the end of such due diligence period, (vi) the Project shall be purchased in its then AS-IS condition with Tenant relying on its own due diligence and without any representations or warranties from Landlord with respect to the physical, legal (including title), or other aspects of the Project, (vii) Tenant shall provide Landlord with full and complete releases and waivers of all claims related to the Project, including a waiver of unknown claims in full accordance with the requirements of California laws, (viii) the Lease shall remain in effect until the closing and Tenant shall remain obligated to pay and perform all of its obligations under the Lease, including without limitation the obligation to pay rent, through the closing; and (ix) upon the closing, Landlord shall be released from all obligations and liabilities under the Lease arising from and after the date of the closing.

EXHIBIT J

COMMON AREA IMPROVEMENTS

NOTES

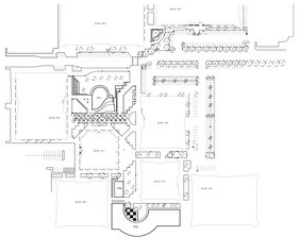
REMOVAL OF TWO FOUNTAINS. SURFACE REFINISHING FOR THE THIRD FOUNTAIN TO REMAIN.

REMOVAL OF LARGE GRASS KNOLLS. TO BE REPLACED WITH FLAT PLANT AREAS WITH DROUGHT-TOLERANT PLANTS.

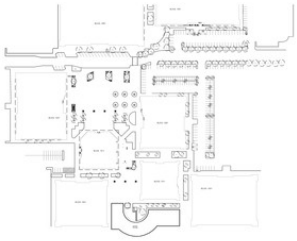
NEW CONCRETE TO MATCH EXISTING. OPTIONS CAN BE PROVIDED UPON REQUEST FOR STONE PLACEMENT OR STAMPED CONCRETE LOCATIONS TO ADD VISUAL EFFECT.

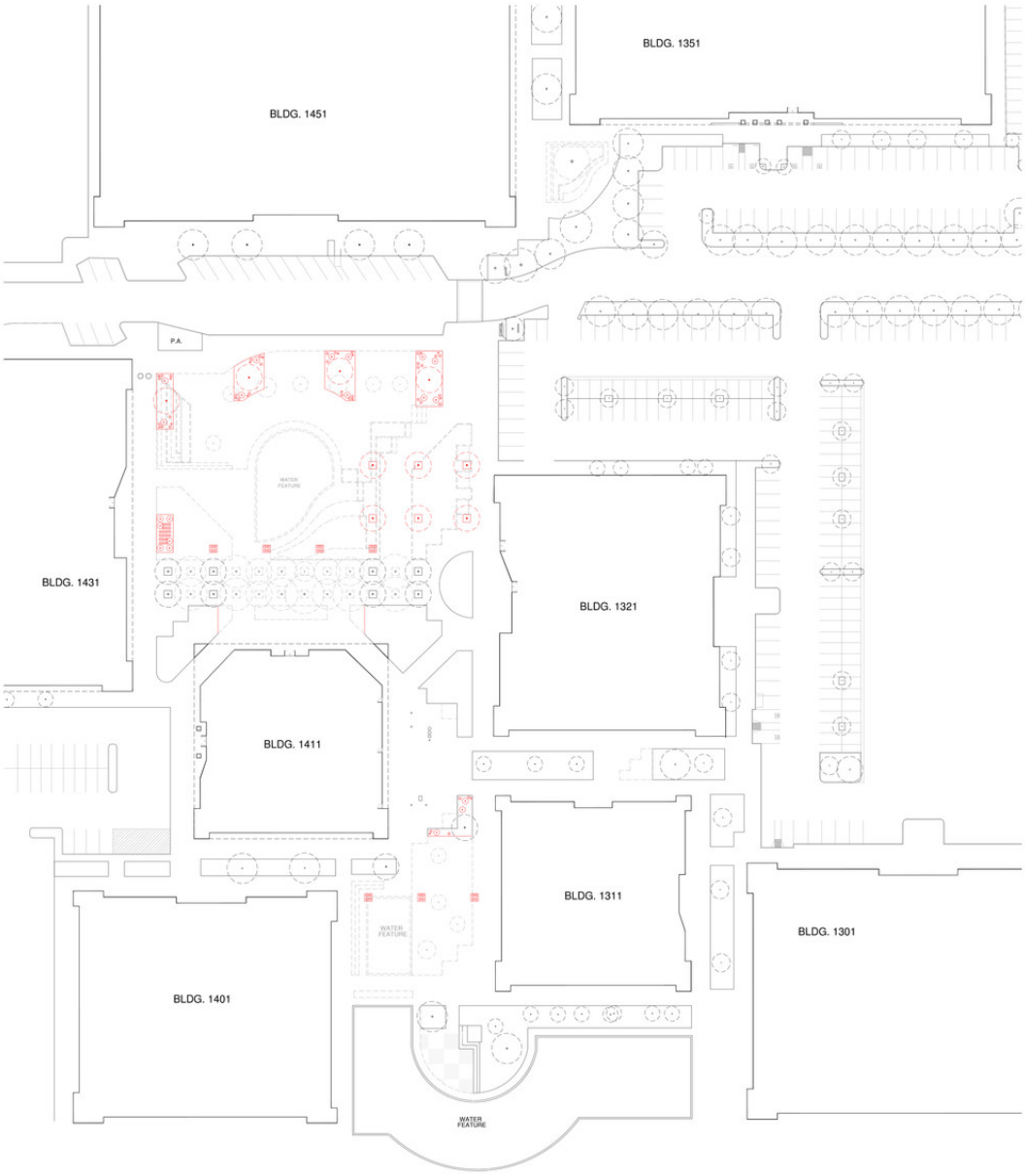
LIGHTING, SIGNAGE AND TRASH CANS REPLACED THROUGHOUT GROUNDS.

EXISTING PLAN



PROPOSED PLAN





COMMON SPACE
EXISTING / DEMO / PROPOSED

BUSINESS PARK COMMON SPACE
ONE PENUMBRA PLACE
ALAMEDA, CA

COLOR CODE
BLACK: EXISTING TO STAY
GREY: EXISTING TO DEMO
RED: PROPOSED LANDSCAPE

DATE: 10 . 13 . 15

KATIE KIHNEMAN
INTERIOR DESIGNER
SAN DIEGO, CA
katiekihneman@gmail.com
858.229.2815

EXHIBIT K

[INTENTIONALLY OMITTED]

EXHIBIT L

EXISTING LEASE EXPIRATION DATES
(MUST-TAKE SPACE)

1. 1431 Harbor Bay Building: GSA (FDA). January 31, 2017, subject to extension to January 31, 2019.

2. Suite 200, 1301 Harbor Bay Building: All Cells. May 31, 2018 subject to two (2) five-year options to extend.

3. Ground Floor 1401 Optional Space: Celera. April 30, 2016, subject to early termination by mutual agreement of Landlord and Celera.

EXHIBIT M

SIGN PLAN

(None)

EXHIBIT N

FORM OF NON-DISCLOSURE AGREEMENT

NON-DISCLOSURE AGREEMENT

This NON-DISCLOSURE AGREEMENT (this "Agreement") is entered into as of _____ (the "Effective Date"), and is by and between Penumbra, Inc., a Delaware corporation, having an address at One Penumbra Place, Alameda, CA 94502 ("Penumbra"), and _____, a _____ corporation, having an address at _____ ("Recipient"). Affiliates of a party are included in the definition of a party.

WHEREAS, Penumbra desires to disclose, and Recipient desires to receive, Penumbra Confidential Information (as defined below); and

WHEREAS, Recipient acknowledges that the Penumbra Confidential Information has been acquired at great expense and investment and is a valuable business asset of Penumbra; and

WHEREAS, Recipient recognizes that the unauthorized disclosure of Penumbra Confidential Information will cause substantial injury to Penumbra;

NOW, THEREFORE, in consideration of the mutual promises and other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the parties agree as follows:

1. **Confidentiality Obligation**. Recipient shall:

   (a) receive, hold and maintain the Penumbra Confidential Information in strict confidence;

   (b) take the same degree of care that it uses to protect its own confidential and/or proprietary information and materials of similar nature and importance (but in no event less than reasonable care) to protect confidentiality and to avoid unauthorized use, disclosure, publication or dissemination of the Penumbra Confidential Information;

   (c) use the Penumbra Confidential Information solely for the purposes of evaluating whether to enter into a subsequent business relationship or performing its obligations under an existing or future business relationship, and shall not use or exploit the Penumbra Confidential Information for its own benefit or the benefit of a third party; and

   (d) not disclose, distribute, reproduce, reverse engineer, transfer or transmit, directly or indirectly, the Penumbra Confidential Information without the prior written consent of Penumbra.

2. **Penumbra Confidential Information**. Penumbra Confidential Information means, without limitation, any information disclosed by Penumbra to Recipient or obtained by Recipient through inspection or observation of Penumbra's property or facilities. Such information may be provided in writing or electronically, orally or visually, and will be marked as "confidential" or "proprietary" or, if disclosed orally or visually, will be identified as confidential and/or proprietary at the time of such disclosure. Additionally, where the confidential and/or proprietary nature of the information disclosed is, or reasonably should be, apparent based on the type of information and/or the context in which it is disclosed, such information will be considered Penumbra Confidential Information. Penumbra Confidential Information includes but is not limited to drawings, designs, notes, reports, presentations, data, and know-how that relates to Penumbra's business, including but not limited to, pricing strategy and financial data, plans, models and forecasts; products and/or services; research and development projects and activities; clinical trials; manufacturing techniques, processes and operations; policies; vendors; customers; sales; marketing; software and hardware; technology; and the like. Additionally, Penumbra Confidential Information includes any reports or documents created by Recipient that include, summarize, refer to or use the Penumbra Confidential Information.

3. **Exclusions**. Penumbra Confidential Information shall not include information that:

(a) was in the lawful possession of Recipient prior to disclosure by Penumbra, as demonstrated by competent evidence;

(b) is, at the time of disclosure, already available in the public domain or becomes publicly available through no act or omission of Recipient in breach of this Agreement;

(c) is disclosed to Recipient by a third party not under an obligation of confidentiality to Penumbra; or

(d) is or has been independently developed by Recipient without breach of this Agreement, as demonstrated by competent evidence.

Recipient shall bear the burden of establishing any of the foregoing exclusions.

4. Permitted Access to Penumbra Confidential Information. Penumbra Confidential Information shall only be disclosed to persons who are under a duty of confidentiality to Recipient at least as stringent as the duties set forth herein. Recipient shall advise its employees who may have access to the Penumbra Confidential Information of its confidential nature and the obligations set forth in this Agreement. In the event of an inadvertent disclosure of the Penumbra Confidential Information, Recipient shall immediately notify Penumbra and shall take all measures practicable to limit and/or prevent further disclosure.

5. Required Disclosure. Notwithstanding any provision herein to the contrary, in the event that Recipient is required by judicial, administrative or governmental order to disclose the Penumbra Confidential Information or any portion thereof, Recipient may disclose the Penumbra Confidential Information without liability hereunder; provided, however, that Recipient shall first notify Penumbra of such requirement in advance of such planned disclosure so that Penumbra has an opportunity to take any available lawful actions to prevent or minimize the extent of disclosure of the Penumbra Confidential Information, including but not limited to seeking a protective order.

6. Ownership; No License. The Penumbra Confidential Information, including any modification or enhancement thereto or any information based on or derived therefrom, is and shall remain the property of Penumbra. Nothing in this Agreement shall be construed as creating an express or implied license or right to the Penumbra Confidential Information or to any patent, trademark, copyright or other intellectual property of Penumbra.

7. No Warranty. Except as may otherwise be agreed to in writing by the parties, no warranties or representations of any kind, whether express or implied, including but not limited to accuracy or completeness, are given by Penumbra with respect to the Penumbra Confidential Information or use thereof. The Penumbra Confidential Information is provided on an "AS IS" basis. Penumbra shall not be liable for any damages arising out of the use of the Penumbra Confidential Information by Recipient.

8. Term. The term of this Agreement shall be two (2) years from the Effective Date, unless terminated earlier in writing by either party; provided, however, in the event the parties enter or have entered, into a business relationship or other arrangement, the term of this Agreement shall be for two (2) years from the date of termination or expiration of such business relationship or other arrangement. Notwithstanding the termination or expiration of this Agreement, Sections 1, 2, 3, 4, 5, 6, 10 and 13 remain in effect indefinitely or until one of the exceptions set forth in Section 3 applies.

9. Return of Penumbra Confidential Information. Upon termination or expiration of this Agreement or written request of Penumbra, Recipient shall return or destroy, at the option of Penumbra, all Penumbra Confidential Information, including without limitation any written or electronic copies, summaries and other documents containing the Penumbra Confidential Information; provided, however, that Recipient may retain one (1) copy of such Penumbra Confidential Information solely for archival purposes to ensure compliance with this Agreement. Notwithstanding the foregoing, Recipient may retain Confidential Information to the extent required by law and such Penumbra Confidential Information shall be held on a confidential basis. In addition, Recipient may retain electronic files containing the Penumbra Confidential Information created pursuant to automatic archiving and backup procedures or maintain pursuant to internal or regulatory document retention policies so long as such electronic files are kept confidential in accordance with the terms of this Agreement.

10. Remedies. Recipient hereby acknowledges and agrees that any violation or threat of violation of this Agreement will result in irrevocable harm to Penumbra for which damages would be an inadequate remedy and that Penumbra shall be entitled to seek injunctive or other equitable relief. The foregoing remedy of equitable relief shall not be the sole or exclusive remedy available to Penumbra.

11. Assignment. This Agreement shall be binding upon and inure to the benefit of the parties and their respective heirs, successors, and assignees. Except for an assignment to a successor-in-interest that acquires a party by merger or acquisition, this Agreement shall not be assigned by either party without the prior written consent of the other party.

12. Notices. Any notices required hereunder shall be in writing and sent to a party at its address set forth above, or to such other address as may subsequently be designated in writing. Such notice must be delivered in person, sent by first class mail or overnight courier, or transmitted by facsimile or through email.

13. Governing Law. This Agreement shall be governed, construed and enforced in accordance with the laws of the State of California, without application of conflicts of law, and both parties consent to the jurisdiction of the federal and state courts located within the State of California.

14. Entire Agreement. This Agreement sets forth the entire understanding between the parties as to the subject matter herein, and supersedes all previous or contemporaneous understandings, commitments or agreements, whether written or oral, regarding confidentiality. If the parties mutually agree to enter into or continue a business relationship or other arrangement and do not enter into a new confidentiality agreement, the terms and conditions set forth herein shall apply to such business relationship or other arrangement, unless otherwise set forth in writing by the parties. Any amendment or modification to this Agreement must be in writing and signed by authorized representatives of both parties. Nothing in this Agreement shall be construed to create an obligation of the parties to negotiate or enter into any subsequent agreement.

15. Waiver; Severability. Failure of a party to insist upon the performance of the other party of any provision of this Agreement shall not be treated as a modification of this Agreement, nor shall such failure or election be treated as a waiver of the right of such party at any later time to insist upon strict performance of such provision. If any provision of this Agreement is declared void or unenforceable, such provision shall be severed from this Agreement, which shall otherwise remain in full force and effect.

16. Counterparts. This Agreement may be signed in any number of counterparts with the same effect as if the signature on each counterpart were on the same instrument. All signatures may be transmitted by facsimile or a PDF attachment to an email, and such facsimile or attachment will, for all purposes, be deemed to be an original signature.

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement by their duly authorized representatives as of the Effective Date set forth above.

Penumbra, Inc.	Recipient: Xxxxxx
Signature: _____	Signature: _____
Printed Name: Robert D. Evans	Printed Name:
Title: Executive Vice President and General Counsel	Title:
Date: September _____, 2015	Date:

EXHIBIT O

DATA VERIFICATION CHECKLISTS

(See Attached)

ENERGY STAR® Data Verification Checklist

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1

ENERGY STAR ® Score[1]

SKS Harbor Bay Associates LLC-1401

Registry Name: SKS Harbor Bay Associates LLC-1401
Primary Function: Office
Gross Floor Area (ft²): 47,777
Built: 1986

For Year Ending: 08/31/2015
Date Generated: 12/05/2015

1. The ENERGY STAR score is a 1-to-100 assessment of a building's energy efficiency as compared with similar building nationwide, adjusting for climate and business activity.

Property & Contact Information

Property Address	Property Owner	Primary Contact
SKS Harbor Bay Associates LLC-1401 1401 Harbor Bay Parkway Alameda, California 94502	_____ , (___)___-_____	___ _____ , (___)___-_____ _____

Property ID: 3603288

1. Review of Whole Property Characteristics

Basic Property Information

1) **Property Name:** SKS Harbor Bay Associates LLC-1401 ☐ Yes ☐ No
Is this the official name of the property?

If "No", please specify: _____

2) **Primary Function:** Office ☐ Yes ☐ No
Is this an accurate description of the primary use of this property?

3) **Location:** ☐ Yes ☐ No
1401 Harbor Bay Parkway
Alameda, California 94502

Is this correct and complete?

4) **Gross Floor Area:** 47,777 ft² ☐ Yes ☐ No

Does this represent the entire property? (i.e., no part of the building/property was excluded/subtracted from the total) If "no" please specify what space has been excluded.

5) **Average Occupancy:** 100

Is this occupancy accurate for the entire 12 month period being assessed? ☐ Yes ☐ No

6) **Number of Buildings:** 1

Does this number accurately represent all structures? ☐ Yes ☐ No

Notes:

Indoor Environmental Standards

1) **Ventilation for Acceptable Indoor Air Quality**

Does this property meet the ASHRAE Standard 62 for ventilation for acceptable indoor air quality? ☐ Yes ☐ No

2) **Acceptable Thermal Environmental Conditions**

Does this property meet the ASHRAE Standard 55 for thermal comfort? ☐ Yes ☐ No

3) **Adequate Illumination**

Does this property adhere to the IESNA Lighting Handbook for lighting quality? ☐ Yes ☐ No

Notes:

2. Review of Property Use Details

Office: Celera

☆ This Use Detail is used to calculate the 1-100 ENERGY STAR Score.

★ 1) **Gross Floor Area:** 47,777 ft²

Is this the total size, as measured between the principal exterior surfaces of the enclosing fixed walls of the building(s)? This includes all areas inside the building(s) such as: occupied tenant areas, common areas, meeting areas, break rooms, ☐ Yes ☐ No

restrooms, elevator shafts, mechanical equipment areas, and storage rooms. Gross Floor Area should not include interstitial plenum space between floors, which may house pipes and ventilation. Gross Floor Area is not the same as rentable, but rather includes all area inside the building(s). Leasable space would be a sub-set of Gross Floor Area. In the case where there is an atrium, you should count the Gross Floor Area at the base level only. Do not increase the size to accommodate open atrium space at higher levels. The Gross Floor Area should not include any exterior spaces such as balconies or exterior loading docks and driveways.

2) Weekly Operating Hours: 40

Is this the total number of hours per week that the property is occupied by the majority of the employees? It does not include hours when the property is occupied only by maintenance, security, or other support personnel. The Weekly Operating Hours is not the same as the hours during which the HVAC equipment is run, but rather should be based on the hours during which your property is actually occupied by the majority of the tenants. It is possible that these hours may correspond to hours specified within a lease, during which the owner is required to provide the leasee with conditioned space. However, this number should never include additional HVAC startup or shutdown time. For properties with a schedule that varies during the year, Weekly Operating Hours refers to the schedule most often followed.

☐ Yes ☐ No

3) Number of Workers on Main Shift: 100

Is this the total number of workers present during the primary shift? This is not a total count of workers, but rather a count of workers who are present at the same time. For example, if there are two daily eight hour shifts of 100 workers each, the Number of Workers on Main Shift value is 100. Number of Workers on Main Shift may include employees of the property, sub-contractors who are onsite regularly, and volunteers who perform regular onsite tasks. Number of Workers should not include visitors to the buildings such as clients, customers, or patients.

☐ Yes ☐ No

4) Number of Computers: 100

Is this the total number of computers, laptops, and data servers at the property? This number should not include tablet computers, such as iPads, or any other types of office equipment.

☐ Yes ☐ No

5) Percent That Can Be Heated: 100

Is this the total percentage of the property that can be heated by mechanical equipment?

☐ Yes ☐ No

6) Percent That Can Be Cooled: 100

Is this the total percentage of the property that can be cooled by mechanical equipment? This includes all types of cooling from central air to individual window units.

☐ Yes ☐ No

Notes:

3. Review of Energy Consumption

Data Overview

Site Energy Use Summary		National Median Comparison	
Natural Gas (kBtu)	4,780,099.8 (40%)	National Median Site EUI (kBtu/ft²)	69.3
Electric - Grid (kBtu)	7,188,340.9 (60%)	National Median Source EUI (kBtu/ft²)	159.7
Total Energy (kBtu)	11,968,440.7	% Diff from National Median Source EUI	261.6%
Energy Intensity			
Site (kBtu/ft²)	250.5	**Emissions** (based on site energy use)	
Source (kBtu/ft²)	577.5	Greenhouse Gas Emissions (Metric Tons CO2e)	840

Power Generation Plant or Distribution Utility:
Pacific Gas & Electric Co

Note: All values are annualized to a 12-month period. Source Energy includes energy used in generation and transmission to enable an equitable assessment.

Summary of All Associated Meters

The following meters are associated with the property, meaning that they are added together to get the total energy use for the property. Please see additional tables in this checklist for the exact meter consumption values.

Meter Name	Fuel Type	Start Date	End Date	Associated With
Electric-C1329	Electric	11/20/2011	In Use	SKS Harbor Bay Associates LLC-1401
Natural Gas	Natural Gas	04/28/1900	In Use	SKS Harbor Bay Associates LLC-1401

Total Energy Use

Do the meters shown above account for the total energy use of this property during the reporting period of this application?

☐ Yes ☐ No

Additional Fuels

Do the meters above include all fuel *types* at the property? That is, no additional fuels such as district steam, generator fuel oil have been excluded.

☐ Yes ☐ No

On-Site Solar and Wind Energy

Are all on-site solar and wind installations reported in this list (if present)? All on-site systems must be reported.

☐ Yes ☐ No

Notes:

Electric Meter: Electric-C1329 (kWh (thousand Watt-hours))

Associated With: SKS Harbor Bay Associates LLC-1401

Start Date	End Date	Usage	Green Power?
08/22/2014	09/23/2014	207,072	No
09/23/2014	10/23/2014	184,320	No
10/23/2014	11/23/2014	195,552	No
11/23/2014	12/23/2014	163,872	No
12/23/2014	01/23/2015	177,696	No
01/23/2015	02/23/2015	176,832	No
02/23/2015	03/23/2015	139,104	No
03/23/2015	04/23/2015	162,144	No
04/23/2015	05/23/2015	189,792	No
05/23/2015	06/23/2015	128,448	No
06/23/2015	07/23/2015	194,400	No
07/23/2015	08/23/2015	194,400	No
08/23/2015	09/23/2015	199,296	No
	Total Consumption (kWh (thousand Watt-hours)):		2,312,928
	Total Consumption (kBtu (thousand Btu)):		7,891,710.3

Total Energy Consumption for this Meter

Do the fuel consumption totals shown above include consumption of all energy tracked through this meter that affect energy calculations for the reporting period of this application (i.e., do the entries match the utility bills received by the property)?

☐ **Yes** ☐ **No**

Notes:

Natural Gas Meter: Natural Gas (therms)

Associated With: SKS Harbor Bay Associates LLC-1401

Start Date	End Date	Usage
08/28/2014	09/28/2014	2,788

Start Date	End Date	Usage
09/28/2014	10/28/2014	3,060
10/28/2014	11/28/2014	4,277
11/28/2014	12/28/2014	5,441
12/28/2014	01/28/2015	6,591
01/28/2015	02/28/2015	4,327
02/28/2015	03/28/2015	3,917
03/28/2015	04/28/2015	4,285
04/28/2015	05/28/2015	4,354
05/28/2015	06/28/2015	3,398
06/28/2015	07/28/2015	2,687
07/28/2015	08/28/2015	2,732
08/28/2015	09/28/2015	2,354
	Total Consumption (therms):	50,211
	Total Consumption (kBtu (thousand Btu)):	5,021,100

Total Energy Consumption for this Meter

Do the fuel consumption totals shown above include consumption of all energy tracked through this meter that affect energy calculations for the reporting period of this application (i.e., do the entries match the utility bills received by the property)?

☐ **Yes** ☐ **No**

Notes:

4. Signature & Stamp of Verifying Licensed Professional

_____ (Name) visited this site on _____ (Date). Based on the conditions observed at the time of the visit to this property, I verify that the information contained within this application is accurate and in accordance with the Licensed Professional Guide.

Signature: _____ Date: _____

Licensed Professional

____ _____
,
(____)____-_____
_____

NOTE: When applying for the ENERGY STAR, the signature of the Verifying Professional must match the stamp.

Professional Engineer Stamp
(if applicable)

ENERGY STAR® Data Verification Checklist

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N/A

ENERGY STAR ® Score[1]

SKS Harbor Bay Associates, LLC

Registry Name: SKS Harbor Bay Associates, LLC
Primary Function: Office
Gross Floor Area (ft²): 65,476
Built: 1984

For Year Ending: 09/30/2015
Date Generated: 12/05/2015

1. The ENERGY STAR score is a 1-to-100 assessment of a building's energy efficiency as compared with similar building nationwide, adjusting for climate and business activity.

Property & Contact Information

Property Address	Property Owner	Primary Contact
SKS Harbor Bay Associates, LLC 1301 Harbor Bay Parkway Alameda, California 94502	_____ , (___)___-_____	___ _____ , (___)___-_____ _____

Property ID: 2785418

1. Review of Whole Property Characteristics

Basic Property Information

1) **Property Name:** SKS Harbor Bay Associates, LLC ☐ Yes ☐ No
Is this the official name of the property?
If "No", please specify: _____

2) **Primary Function:** Office ☐ Yes ☐ No
Is this an accurate description of the primary use of this property?

3) **Location:** ☐ Yes ☐ No
1301 Harbor Bay Parkway
Alameda, California 94502
Is this correct and complete?

4) **Gross Floor Area:** 65,476 ft² ☐ Yes ☐ No

Does this represent the entire property? (i.e., no part of the building/property was excluded/subtracted from the total) If "no" please specify what space has been excluded.

5) **Average Occupancy:** 75

Is this occupancy accurate for the entire 12 month period being assessed? ☐ Yes ☐ No

6) **Number of Buildings:** 1

Does this number accurately represent all structures? ☐ Yes ☐ No

Notes:

Indoor Environmental Standards

1) **Ventilation for Acceptable Indoor Air Quality**

Does this property meet the ASHRAE Standard 62 for ventilation for acceptable indoor air quality? ☐ Yes ☐ No

2) **Acceptable Thermal Environmental Conditions**

Does this property meet the ASHRAE Standard 55 for thermal comfort? ☐ Yes ☐ No

3) **Adequate Illumination**

Does this property adhere to the IESNA Lighting Handbook for lighting quality? ☐ Yes ☐ No

Notes:

2. Review of Property Use Details

Office: Occupied

☆ This Use Detail is used to calculate the 1-100 ENERGY STAR Score.

★ 1) **Gross Floor Area:** 26,542.1 ft²

Is this the total size, as measured between the principal exterior surfaces of the enclosing fixed walls of the building(s)? This includes all areas inside the building(s) such as: occupied tenant areas, common areas, meeting areas, break rooms, ☐ Yes ☐ No

restrooms, elevator shafts, mechanical equipment areas, and storage rooms. Gross Floor Area should not include interstitial plenum space between floors, which may house pipes and ventilation. Gross Floor Area is not the same as rentable, but rather includes all area inside the building(s). Leasable space would be a sub-set of Gross Floor Area. In the case where there is an atrium, you should count the Gross Floor Area at the base level only. Do not increase the size to accommodate open atrium space at higher levels. The Gross Floor Area should not include any exterior spaces such as balconies or exterior loading docks and driveways.

NOTE: *This use detail was changed during the year ending 09/30/2015. The value above represents a time-weighted average of the values over this timeframe. The following table outlines the history of the changes resulting in the value displayed above:*

Timeframe	Value
10/01/2014 – 07/09/2015	25,691 ft²
07/10/2015 – 09/30/2015	29,434 ft²

2) Weekly Operating Hours: 50

Is this the total number of hours per week that the property is occupied by the majority of the employees? It does not include hours when the property is occupied only by maintenance, security, or other support personnel. The Weekly Operating Hours is not the same as the hours during which the HVAC equipment is run, but rather should be based on the hours during which your property is actually occupied by the majority of the tenants. It is possible that these hours may correspond to hours specified within a lease, during which the owner is required to provide the leasee with conditioned space. However, this number should never include additional HVAC startup or shutdown time. For properties with a schedule that varies during the year, Weekly Operating Hours refers to the schedule most often followed.

☐ Yes ☐ No

3) Number of Workers on Main Shift: 20

Is this the total number of workers present during the primary shift? This is not a total count of workers, but rather a count of workers who are present at the same time. For example, if there are two daily eight hour shifts of 100 workers each, the Number of Workers on Main Shift value is 100. Number of Workers on Main Shift may include employees of the property, sub-contractors who are onsite regularly, and volunteers who perform regular onsite tasks. Number of Workers should not include visitors to the buildings such as clients, customers, or patients.

☐ Yes ☐ No

4) Number of Computers: 25

Is this the total number of computers, laptops, and data servers at the property? This number should not include tablet computers, such as iPads, or any other types of office equipment.

☐ Yes ☐ No

5) Percent That Can Be Heated: 100

Is this the total percentage of the property that can be heated by mechanical equipment?

☐ Yes ☐ No

6) Percent That Can Be Cooled: 100

Is this the total percentage of the property that can be cooled by mechanical equipment? This includes all types of cooling from central air to individual window units.

☐ Yes ☐ No

Notes:

Office: Vacant

This Use Detail is used to calculate the 1-100 ENERGY STAR Score.

1) Gross Floor Area: 17,051.9 ft²

Is this the total size, as measured between the principal exterior surfaces of the enclosing fixed walls of the building(s)? This includes all areas inside the building(s) such as: occupied tenant areas, common areas, meeting areas, break rooms, restrooms, elevator shafts, mechanical equipment areas, and storage rooms. Gross Floor Area should not include interstitial plenum space between floors, which may house pipes and ventilation. Gross Floor Area is not the same as rentable, but rather includes all area inside the building(s). Leasable space would be a sub-set of Gross Floor Area. In the case where there is an atrium, you should count the Gross Floor Area at the base level only. Do not increase the size to accommodate open atrium space at higher levels. The Gross Floor Area should not include any exterior spaces such as balconies or exterior loading docks and driveways.

☐ Yes ☐ No

NOTE: *This use detail was changed during the year ending 09/30/2015. The value above represents a time-weighted average of the values over this timeframe. The following table outlines the history of the changes resulting in the value displayed above:*

Timeframe	Value
10/01/2014 – 07/09/2015	17,903 ft²
07/10/2015 – 09/30/2015	14,160 ft²

2) Weekly Operating Hours: 0

Is this the total number of hours per week that the property is occupied by the majority of the employees? It does not include hours when the property is occupied only by maintenance, security, or other support personnel. The Weekly Operating Hours is not the same as the hours during which the HVAC equipment is run, but rather should be based on the hours during which your property is actually occupied by the majority of the tenants. It is possible that these hours may correspond to hours specified within a lease, during which the owner is required to provide the leasee with conditioned space. However, this number should never include additional HVAC startup or shutdown time. For properties with a schedule that varies during the year, Weekly Operating Hours refers to the schedule most often followed.

☐ Yes ☐ No

3) Number of Workers on Main Shift: 0

Is this the total number of workers present during the primary shift? This is not a total count of workers, but rather a count of workers who are present at the same time. For example, if there are two daily eight hour shifts of 100 workers each, the Number of Workers on Main Shift value is 100. Number of Workers on Main Shift may include employees of the property, sub-contractors who are onsite regularly, and volunteers

☐ Yes ☐ No

who perform regular onsite tasks. Number of Workers should not include visitors to the buildings such as clients, customers, or patients.

4) Number of Computers: 0

Is this the total number of computers, laptops, and data servers at the property? This number should not include tablet computers, such as iPads, or any other types of office equipment. ☐ Yes ☐ No

5) Percent That Can Be Heated: 100

Is this the total percentage of the property that can be heated by mechanical equipment? ☐ Yes ☐ No

6) Percent That Can Be Cooled: 100

Is this the total percentage of the property that can be cooled by mechanical equipment? This includes all types of cooling from central air to individual window units. ☐ Yes ☐ No

Notes:

Other: Lab Space

This Use Detail is used to calculate the 1-100 ENERGY STAR Score.

1) Gross Floor Area: 21,882 ft²

Is this the total size, as measured between the principal exterior surfaces of the enclosing fixed walls of the building(s)? This includes all areas inside the building(s) such as: occupied tenant areas, common areas, meeting areas, break rooms, restrooms, elevator shafts, mechanical equipment areas, and storage rooms. Gross Floor Area should not include interstitial plenum space between floors, which may house pipes and ventilation. Gross Floor Area is not the same as rentable, but rather includes all area inside the building(s). Leasable space would be a sub-set of Gross Floor Area. In the case where there is an atrium, you should count the Gross Floor Area at the base level only. Do not increase the size to accommodate open atrium space at higher levels. The Gross Floor Area should not include any exterior spaces such as balconies or exterior loading docks and driveways. ☐ Yes ☐ No

2) Weekly Operating Hours: 168

Is this the total number of hours per week that the property is occupied by the majority of the employees? It does not include hours when the property is occupied only by maintenance, security, or other support personnel. The Weekly Operating Hours is not the same as the hours during which the HVAC equipment is run, but rather should be based on the hours during which your property is actually occupied by the majority of the tenants. For properties with a schedule that varies during the year, Weekly Operating Hours refers to the schedule most often followed. ☐ Yes ☐ No

3) Number of Workers on Main Shift: 17

Is this the total number of workers present during the primary shift? This is not a total count of workers, but rather a count of workers who are present at the same time. For ☐ Yes ☐ No

example, if there are two daily eight hour shifts of 100 workers each, the Number of Workers on Main Shift value is 100. Number of Workers on Main Shift may include employees of the property, sub-contractors who are onsite regularly, and volunteers who perform regular onsite tasks. Number of Workers should not include visitors to the buildings such as clients, customers, or patients.

4) Number of Computers: 0

Is this the total number of computers, laptops, and data servers at the property? This number should not include tablet computers, such as iPads, or any other types of office equipment. ☐ **Yes** ☐ **No**

Notes:

3. Review of Energy Consumption

Data Overview

Site Energy Use Summary		**National Median Comparison**	
Natural Gas (kBtu)	4,569,351.1 (41%)	National Median Site EUI (kBtu/ft²)	64.7
Electric - Grid (kBtu)	6,652,167.8 (59%)	National Median Source EUI (kBtu/ft²)	148.1
Total Energy (kBtu)	11,221,519	% Diff from National Median Source EUI	165%
Energy Intensity			
Site (kBtu/ft²)	171.4	**Emissions** (based on site energy use)	
Source (kBtu/ft²)	392.3	Greenhouse Gas Emissions (Metric Tons CO2e)	785.1

Power Generation Plant or Distribution Utility: Pacific Gas & Electric Co

Note: All values are annualized to a 12-month period. Source Energy includes energy used in generation and transmission to enable an equitable assessment.

Summary of All Associated Meters

The following meters are associated with the property, meaning that they are added together to get the total energy use for the property. Please see additional tables in this checklist for the exact meter consumption values.

Meter Name	Fuel Type	Start Date	End Date	Associated With
Electricity - C1601	Electric	12/31/2009	In Use	SKS Harbor Bay Associates, LLC
Gas - 51996538	Natural Gas	01/01/2010	In Use	SKS Harbor Bay Associates, LLC

Total Energy Use ☐ **Yes** ☐ **No**

Do the meters shown above account for the total energy use of this property during the reporting period of this application?	
Additional Fuels Do the meters above include all fuel *types* at the property? That is, no additional fuels such as district steam, generator fuel oil have been excluded.	☐ Yes ☐ No
On-Site Solar and Wind Energy Are all on-site solar and wind installations reported in this list (if present)? All on-site systems must be reported.	☐ Yes ☐ No

Notes:

Electric Meter: Electricity - C1601 (kWh (thousand Watt-hours))

Associated With: SKS Harbor Bay Associates, LLC

Start Date	End Date	Usage	Green Power?
09/23/2014	10/22/2014	158,700	No
10/22/2014	11/21/2014	170,100	No
11/21/2014	12/22/2014	141,000	No
12/22/2014	01/22/2015	148,200	No
01/22/2015	02/23/2015	153,600	No
02/23/2015	03/20/2015	123,900	No
03/20/2015	04/16/2015	147,300	No
04/16/2015	05/18/2015	163,500	No
05/18/2015	06/11/2015	127,800	No
06/11/2015	07/13/2015	177,300	No
07/13/2015	08/13/2015	185,700	No
08/13/2015	09/10/2015	183,300	No
09/10/2015	10/13/2015	177,600	No
	Total Consumption (kWh (thousand Watt-hours)):		2,058,000
	Total Consumption (kBtu (thousand Btu)):		7,021,896

Total Energy Consumption for this Meter	
Do the fuel consumption totals shown above include consumption of all energy tracked through this meter that affect energy calculations for the reporting period of this application (i.e., do the entries match the utility bills received by the property)?	☐ Yes ☐ No

Notes:

Natural Gas Meter: Gas - 51996538 (therms)

Associated With: SKS Harbor Bay Associates, LLC

Start Date	End Date	Usage
09/27/2014	10/27/2014	2,889
10/28/2014	11/25/2014	3,680
11/26/2014	12/26/2014	4,144
12/26/2014	01/27/2015	4,470
01/28/2015	02/26/2015	4,210
02/27/2015	03/27/2015	4,070
03/28/2015	04/28/2015	4,418
04/29/2015	05/28/2015	4,145
05/28/2015	06/26/2015	3,591
06/27/2015	07/27/2015	3,651
07/27/2015	08/27/2015	3,643
08/27/2015	09/25/2015	2,774
09/26/2015	10/26/2015	2,364
	Total Consumption (therms):	48,049
	Total Consumption (kBtu (thousand Btu)):	4,804,900

Total Energy Consumption for this Meter	
Do the fuel consumption totals shown above include consumption of all energy tracked through this meter that affect energy calculations for the reporting period of this application (i.e., do the entries match the utility bills received by the property)?	☐ Yes ☐ No

Notes:

4. Signature & Stamp of Verifying Licensed Professional

_____ (Name) visited this site on _____ (Date). Based on the conditions observed at the time of the visit to this property, I verify that the information contained within this application is accurate and in accordance with the Licensed Professional Guide.

Signature: _____ Date: _____

Licensed Professional

____ _____
,
(____)____-_____
_____

NOTE: When applying for the ENERGY STAR, the signature of the Verifying Professional must match the stamp.

Professional Engineer Stamp
(if applicable)

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1

ENERGY STAR ® Score[1]

SKS Harbor Bay Associates LLC-1311

Registry Name: SKS Harbor Bay Associates LLC-1311
Primary Function: Office
Gross Floor Area (ft²): 27,745
Built: 1985

For Year Ending: 08/31/2015
Date Generated: 12/05/2015

1. The ENERGY STAR score is a 1-to-100 assessment of a building's energy efficiency as compared with similar building nationwide, adjusting for climate and business activity.

Property & Contact Information

Property Address	Property Owner	Primary Contact
SKS Harbor Bay Associates LLC-1311 1311 Harbor Bay Parkway Alameda, California 94502	_____ , (___)___-_____	___ _____ , (___)___-_____ _____

Property ID: 3603262

1. Review of Whole Property Characteristics

Basic Property Information

1) **Property Name:** SKS Harbor Bay Associates LLC-1311 ☐ Yes ☐ No
Is this the official name of the property?

If "No", please specify: _____

2) **Primary Function:** Office ☐ Yes ☐ No
Is this an accurate description of the primary use of this property?

3) **Location:** ☐ Yes ☐ No
1311 Harbor Bay Parkway
Alameda, California 94502

Is this correct and complete?

4) **Gross Floor Area:** 27,745 ft² ☐ Yes ☐ No

Does this represent the entire property? (i.e., no part of the building/property was excluded/subtracted from the total) If "no" please specify what space has been excluded.

5) **Average Occupancy:** 100

Is this occupancy accurate for the entire 12 month period being assessed? ☐ Yes ☐ No

6) **Number of Buildings:** 1

Does this number accurately represent all structures? ☐ Yes ☐ No

Notes:

Indoor Environmental Standards

1) **Ventilation for Acceptable Indoor Air Quality**

Does this property meet the ASHRAE Standard 62 for ventilation for acceptable indoor air quality? ☐ Yes ☐ No

2) **Acceptable Thermal Environmental Conditions**

Does this property meet the ASHRAE Standard 55 for thermal comfort? ☐ Yes ☐ No

3) **Adequate Illumination**

Does this property adhere to the IESNA Lighting Handbook for lighting quality? ☐ Yes ☐ No

Notes:

2. Review of Property Use Details

Office: Celera

☆ This Use Detail is used to calculate the 1-100 ENERGY STAR Score.

★ 1) **Gross Floor Area:** 27,745 ft²

Is this the total size, as measured between the principal exterior surfaces of the enclosing fixed walls of the building(s)? This includes all areas inside the building(s) such as: occupied tenant areas, common areas, meeting areas, break rooms, ☐ Yes ☐ No

restrooms, elevator shafts, mechanical equipment areas, and storage rooms. Gross Floor Area should not include interstitial plenum space between floors, which may house pipes and ventilation. Gross Floor Area is not the same as rentable, but rather includes all area inside the building(s). Leasable space would be a sub-set of Gross Floor Area. In the case where there is an atrium, you should count the Gross Floor Area at the base level only. Do not increase the size to accommodate open atrium space at higher levels. The Gross Floor Area should not include any exterior spaces such as balconies or exterior loading docks and driveways.

2) Weekly Operating Hours: 40

Is this the total number of hours per week that the property is occupied by the majority of the employees? It does not include hours when the property is occupied only by maintenance, security, or other support personnel. The Weekly Operating Hours is not the same as the hours during which the HVAC equipment is run, but rather should be based on the hours during which your property is actually occupied by the majority of the tenants. It is possible that these hours may correspond to hours specified within a lease, during which the owner is required to provide the leasee with conditioned space. However, this number should never include additional HVAC startup or shutdown time. For properties with a schedule that varies during the year, Weekly Operating Hours refers to the schedule most often followed.

☐ Yes ☐ No

3) Number of Workers on Main Shift: 55

Is this the total number of workers present during the primary shift? This is not a total count of workers, but rather a count of workers who are present at the same time. For example, if there are two daily eight hour shifts of 100 workers each, the Number of Workers on Main Shift value is 100. Number of Workers on Main Shift may include employees of the property, sub-contractors who are onsite regularly, and volunteers who perform regular onsite tasks. Number of Workers should not include visitors to the buildings such as clients, customers, or patients.

☐ Yes ☐ No

4) Number of Computers: 40

Is this the total number of computers, laptops, and data servers at the property? This number should not include tablet computers, such as iPads, or any other types of office equipment.

☐ Yes ☐ No

5) Percent That Can Be Heated: 100

Is this the total percentage of the property that can be heated by mechanical equipment?

☐ Yes ☐ No

6) Percent That Can Be Cooled: 100

Is this the total percentage of the property that can be cooled by mechanical equipment? This includes all types of cooling from central air to individual window units.

☐ Yes ☐ No

Notes:

3. Review of Energy Consumption

Data Overview

Site Energy Use Summary	
Natural Gas (kBtu)	4,410,835.7 (39%)
Electric - Grid (kBtu)	6,866,590.5 (61%)
Total Energy (kBtu)	11,277,426.3

Energy Intensity	
Site (kBtu/ft²)	406.5
Source (kBtu/ft²)	944

National Median Comparison	
National Median Site EUI (kBtu/ft²)	57.2
National Median Source EUI (kBtu/ft²)	132.9
% Diff from National Median Source EUI	610.5%

Emissions (based on site energy use)	
Greenhouse Gas Emissions (Metric Tons CO2e)	794.2

Power Generation Plant or Distribution Utility:
Pacific Gas & Electric Co

Note: All values are annualized to a 12-month period. Source Energy includes energy used in generation and transmission to enable an equitable assessment.

Summary of All Associated Meters

The following meters are associated with the property, meaning that they are added together to get the total energy use for the property. Please see additional tables in this checklist for the exact meter consumption values.

Meter Name	Fuel Type	Start Date	End Date	Associated With
Natural Gas-2716548X	Natural Gas	12/28/2011	In Use	SKS Harbor Bay Associates LLC-1311
Electric -C0670	Electric	10/20/2012	In Use	SKS Harbor Bay Associates LLC-1311
Electric- C1503	Electric	10/20/2012	In Use	SKS Harbor Bay Associates LLC-1311
Electric C-0669	Electric	10/20/2012	In Use	SKS Harbor Bay Associates LLC-1311

Total Energy Use ☐ Yes ☐ No

Do the meters shown above account for the total energy use of this property during the reporting period of this application?

Additional Fuels ☐ Yes ☐ No

Do the meters above include all fuel *types* at the property? That is, no additional fuels such as district steam, generator fuel oil have been excluded.

On-Site Solar and Wind Energy ☐ Yes ☐ No

Are all on-site solar and wind installations reported in this list (if present)? All on-site systems must be reported.

Notes:

Natural Gas Meter: Natural Gas-2716548X (therms)

Associated With: SKS Harbor Bay Associates LLC-1311

Start Date	End Date	Usage
08/26/2014	09/26/2014	3,163
09/26/2014	10/26/2014	3,348
10/26/2014	11/26/2014	5,330
11/26/2014	12/26/2014	3,901
12/26/2014	01/26/2015	4,928
01/26/2015	02/26/2015	6,008
02/26/2015	03/26/2015	1,934
03/26/2015	04/26/2015	5,173
04/26/2015	05/26/2015	2,048
05/26/2015	06/26/2015	2,778
06/26/2015	07/26/2015	1,437
07/26/2015	08/26/2015	4,059
08/26/2015	09/26/2015	3,170
	Total Consumption (therms):	47,277
	Total Consumption (kBtu (thousand Btu)):	4,727,700

Total Energy Consumption for this Meter

Do the fuel consumption totals shown above include consumption of all energy tracked through this meter that affect energy calculations for the reporting period of this application (i.e., do the entries match the utility bills received by the property)?

☐ **Yes** ☐ **No**

Notes:

Electric Meter: Electric -C0670 (kWh (thousand Watt-hours))

Associated With: SKS Harbor Bay Associates LLC-1311

Start Date	End Date	Usage	Green Power?
08/22/2014	09/22/2014	1,344	No
09/22/2014	10/22/2014	1,248	No
10/22/2014	11/22/2014	1,152	No
11/22/2014	12/22/2014	1,344	No
12/22/2014	01/22/2015	1,344	No
01/22/2015	02/22/2015	1,344	No
02/22/2015	03/22/2015	1,056	No
03/22/2015	04/22/2015	1,248	No
04/22/2015	05/22/2015	1,152	No
05/22/2015	06/22/2015	1,152	No
06/22/2015	07/22/2015	1,056	No
07/22/2015	08/22/2015	960	No
08/22/2015	09/22/2015	1,056	No
	Total Consumption (kWh (thousand Watt-hours)):	15,456	
	Total Consumption (kBtu (thousand Btu)):	52,735.9	

Total Energy Consumption for this Meter

Do the fuel consumption totals shown above include consumption of all energy tracked through this meter that affect energy calculations for the reporting period of this application (i.e., do the entries match the utility bills received by the property)?

☐ Yes ☐ No

Notes:

Electric Meter: Electric- C1503 (kWh (thousand Watt-hours))

Associated With: SKS Harbor Bay Associates LLC-1311

Start Date	End Date	Usage	Green Power?
08/22/2014	09/22/2014	165,120	No
09/22/2014	10/22/2014	156,960	No
10/22/2014	11/22/2014	144,320	No
11/22/2014	12/22/2014	147,040	No

Start Date	End Date	Usage	Green Power?
12/22/2014	01/22/2015	132,800	No
01/22/2015	02/22/2015	128,160	No
02/22/2015	03/22/2015	119,040	No
03/22/2015	04/22/2015	142,080	No
04/22/2015	05/22/2015	129,600	No
05/22/2015	06/22/2015	140,000	No
06/22/2015	07/22/2015	146,560	No
07/22/2015	08/22/2015	129,120	No
08/22/2015	09/22/2015	140,480	No
	Total Consumption (kWh (thousand Watt-hours)):		1,821,280
	Total Consumption (kBtu (thousand Btu)):		6,214,207.4

Total Energy Consumption for this Meter

Do the fuel consumption totals shown above include consumption of all energy tracked through this meter that affect energy calculations for the reporting period of this application (i.e., do the entries match the utility bills received by the property)?

☐ **Yes** ☐ **No**

Notes:

Electric Meter: Electric C-0669 (kWh (thousand Watt-hours))

Associated With: SKS Harbor Bay Associates LLC-1311

Start Date	End Date	Usage	Green Power?
08/22/2014	09/22/2014	43,920	No
09/22/2014	10/22/2014	39,312	No
10/22/2014	11/22/2014	26,064	No
11/22/2014	12/22/2014	26,640	No
12/22/2014	01/22/2015	21,600	No
01/22/2015	02/22/2015	23,760	No
02/22/2015	03/22/2015	23,760	No
03/22/2015	04/22/2015	31,248	No
04/22/2015	05/22/2015	22,464	No
05/22/2015	06/22/2015	25,200	No
06/22/2015	07/22/2015	23,184	No

Start Date	End Date	Usage	Green Power?
07/22/2015	08/22/2015	24,768	No
08/22/2015	09/22/2015	23,472	No
	Total Consumption (kWh (thousand Watt-hours)):		355,392
	Total Consumption (kBtu (thousand Btu)):		1,212,597.5

Total Energy Consumption for this Meter

Do the fuel consumption totals shown above include consumption of all energy tracked through this meter that affect energy calculations for the reporting period of this application (i.e., do the entries match the utility bills received by the property)?

☐ **Yes** ☐ **No**

Notes:

4. Signature & Stamp of Verifying Licensed Professional

_____ (Name) visited this site on _____ (Date). Based on the conditions observed at the time of the visit to this property, I verify that the information contained within this application is accurate and in accordance with the Licensed Professional Guide.

Signature: _____ Date: _____

Licensed Professional

____ _____
,
(____)____-_____
_____

NOTE: When applying for the ENERGY STAR, the signature of the Verifying Professional must match the stamp.

Professional Engineer Stamp
(if applicable)

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1

ENERGY STAR ® Score[1]

SKS Harbor Bay Associates LLC-1431

Registry Name: SKS Harbor Bay Associates LLC-1431
Primary Function: Office
Gross Floor Area (ft²): 68,711
Built: 1985

For Year Ending: 12/31/2014
Date Generated: 12/06/2015

1. The ENERGY STAR score is a 1-to-100 assessment of a building's energy efficiency as compared with similar building nationwide, adjusting for climate and business activity.

Property & Contact Information

Property Address	Property Owner	Primary Contact
SKS Harbor Bay Associates LLC-1431 1431 Harbor Bay Parkway Alameda, California 94502	_____ , (___)___-_____	____ _____ , (___)___-_____ _____

Property ID: 3603295
U.S. Federal Real Property Unique Identifier: GSA-09B-91730

1. Review of Whole Property Characteristics

Basic Property Information

1) **Property Name:** SKS Harbor Bay Associates LLC-1431
Is this the official name of the property? ☐ Yes ☐ No

If "No", please specify: _____

2) **Primary Function:** Office
Is this an accurate description of the primary use of this property? ☐ Yes ☐ No

3) **Location:**
1431 Harbor Bay Parkway
Alameda, California 94502
Is this correct and complete? ☐ Yes ☐ No

4) **Gross Floor Area:** 68,711 ft²

Does this represent the entire property? (i.e., no part of the building/property was excluded/subtracted from the total) If "no" please specify what space has been excluded.

☐ Yes ☐ No

5) **Average Occupancy:** 100

Is this occupancy accurate for the entire 12 month period being assessed?

☐ Yes ☐ No

6) **Number of Buildings:** 1

Does this number accurately represent all structures?

☐ Yes ☐ No

Notes:

Indoor Environmental Standards

1) **Ventilation for Acceptable Indoor Air Quality**

Does this property meet the ASHRAE Standard 62 for ventilation for acceptable indoor air quality?

☐ Yes ☐ No

2) **Acceptable Thermal Environmental Conditions**

Does this property meet the ASHRAE Standard 55 for thermal comfort?

☐ Yes ☐ No

3) **Adequate Illumination**

Does this property adhere to the IESNA Lighting Handbook for lighting quality?

☐ Yes ☐ No

Notes:

2. Review of Property Use Details

Office: GSA-FDA

☆ This Use Detail is used to calculate the 1-100 ENERGY STAR Score.

★ 1) **Gross Floor Area:** 68,711 ft²

☐ Yes ☐ No

Is this the total size, as measured between the principal exterior surfaces of the enclosing fixed walls of the building(s)? This includes all areas inside the building(s) such as: occupied tenant areas, common areas, meeting areas, break rooms, restrooms, elevator shafts, mechanical equipment areas, and storage rooms. Gross Floor Area should not include interstitial plenum space between floors, which may house pipes and ventilation. Gross Floor Area is not the same as rentable, but rather includes all area inside the building(s). Leasable space would be a sub-set of Gross Floor Area. In the case where there is an atrium, you should count the Gross Floor Area at the base level only. Do not increase the size to accommodate open atrium space at higher levels. The Gross Floor Area should not include any exterior spaces such as balconies or exterior loading docks and driveways.

2) Weekly Operating Hours: 40

Is this the total number of hours per week that the property is occupied by the majority of the employees? It does not include hours when the property is occupied only by maintenance, security, or other support personnel. The Weekly Operating Hours is not the same as the hours during which the HVAC equipment is run, but rather should be based on the hours during which your property is actually occupied by the majority of the tenants. It is possible that these hours may correspond to hours specified within a lease, during which the owner is required to provide the leasee with conditioned space. However, this number should never include additional HVAC startup or shutdown time. For properties with a schedule that varies during the year, Weekly Operating Hours refers to the schedule most often followed.

☐ Yes ☐ No

3) Number of Workers on Main Shift: 130

Is this the total number of workers present during the primary shift? This is not a total count of workers, but rather a count of workers who are present at the same time. For example, if there are two daily eight hour shifts of 100 workers each, the Number of Workers on Main Shift value is 100. Number of Workers on Main Shift may include employees of the property, sub-contractors who are onsite regularly, and volunteers who perform regular onsite tasks. Number of Workers should not include visitors to the buildings such as clients, customers, or patients.

☐ Yes ☐ No

4) Number of Computers: 130

Is this the total number of computers, laptops, and data servers at the property? This number should not include tablet computers, such as iPads, or any other types of office equipment.

☐ Yes ☐ No

5) Percent That Can Be Heated: 100

Is this the total percentage of the property that can be heated by mechanical equipment?

☐ Yes ☐ No

6) Percent That Can Be Cooled: 100

Is this the total percentage of the property that can be cooled by mechanical equipment? This includes all types of cooling from central air to individual window units.

☐ Yes ☐ No

Notes:

3. Review of Energy Consumption

Data Overview

Site Energy Use Summary		National Median Comparison	
Electric - Grid (kBtu)	9,460,731.5 (41%)	National Median Site EUI (kBtu/ft²)	86.6
Natural Gas (kBtu)	13,423,029.6 (59%)	National Median Source EUI (kBtu/ft²)	165.8
Total Energy (kBtu)	22,883,761	% Diff from National Median Source EUI	284.5%
Energy Intensity		**Emissions** (based on site energy use)	
Site (kBtu/ft²)	333	Greenhouse Gas Emissions (Metric Tons CO2e)	1,484.3
Source (kBtu/ft²)	637.5		

Power Generation Plant or Distribution Utility: Pacific Gas & Electric Co

Note: All values are annualized to a 12-month period. Source Energy includes energy used in generation and transmission to enable an equitable assessment.

Summary of All Associated Meters

The following meters are associated with the property, meaning that they are added together to get the total energy use for the property. Please see additional tables in this checklist for the exact meter consumption values.

Meter Name	Fuel Type	Start Date	End Date	Associated With
Electric Grid Meter	Electric	06/01/1900	In Use	SKS Harbor Bay Associates LLC-1431
Natural Gas	Natural Gas	06/01/1900	In Use	SKS Harbor Bay Associates LLC-1431

Total Energy Use

Do the meters shown above account for the total energy use of this property during the reporting period of this application? ☐ Yes ☐ No

Additional Fuels

Do the meters above include all fuel *types* at the property? That is, no additional fuels such as district steam, generator fuel oil have been excluded. ☐ Yes ☐ No

On-Site Solar and Wind Energy

Are all on-site solar and wind installations reported in this list (if present)? All on-site systems must be reported. ☐ Yes ☐ No

Notes:

Electric Meter: Electric Grid Meter (kWh (thousand Watt-hours))

Associated With: SKS Harbor Bay Associates LLC-1431

Start Date	End Date	Usage	Green Power?
01/01/2014	01/31/2014	228,600	No
02/01/2014	02/28/2014	226,400	No
03/01/2014	03/31/2014	197,000	No
04/01/2014	04/30/2014	218,800	No
05/01/2014	05/31/2014	228,800	No
06/01/2014	06/30/2014	271,200	No
07/01/2014	07/31/2014	211,000	No
08/01/2014	08/31/2014	248,200	No
09/01/2014	09/30/2014	253,200	No
10/01/2014	10/31/2014	237,000	No
11/01/2014	11/30/2014	246,800	No
12/01/2014	12/31/2014	196,800	No
12/31/2014	01/22/2015	197,600	No
	Total Consumption (kWh (thousand Watt-hours)):		2,961,400
	Total Consumption (kBtu (thousand Btu)):		10,104,296.8

Total Energy Consumption for this Meter

Do the fuel consumption totals shown above include consumption of all energy tracked through this meter that affect energy calculations for the reporting period of this application (i.e., do the entries match the utility bills received by the property)?

☐ **Yes** ☐ **No**

Notes:

Natural Gas Meter: Natural Gas (cf (cubic feet))

Associated With: SKS Harbor Bay Associates LLC-1431

Start Date	End Date	Usage
01/01/2014	01/31/2014	1,556,947
02/01/2014	02/28/2014	1,422,796
03/01/2014	03/31/2014	1,087,176
04/01/2014	04/30/2014	1,259,642
05/01/2014	05/31/2014	977,178
06/01/2014	06/30/2014	980,961
07/01/2014	07/31/2014	878,141
08/01/2014	08/31/2014	847,780
09/01/2014	09/30/2014	788,513
10/01/2014	10/31/2014	903,943
11/01/2014	11/30/2014	1,090,959
12/01/2014	12/31/2014	1,288,839
	Total Consumption (cf (cubic feet)):	13,082,875
	Total Consumption (kBtu (thousand Btu)):	13,423,029.8

Total Energy Consumption for this Meter

Do the fuel consumption totals shown above include consumption of all energy tracked through this meter that affect energy calculations for the reporting period of this application (i.e., do the entries match the utility bills received by the property)?

☐ **Yes** ☐ **No**

Notes:

4. Signature & Stamp of Verifying Licensed Professional

_____ (Name) visited this site on _____ (Date). Based on the conditions observed at the time of the visit to this property, I verify that the information contained within this application is accurate and in accordance with the Licensed Professional Guide.

Signature: _____ Date: _____

Licensed Professional

____ _____
,
(____)____-_____
_____

NOTE: When applying for the ENERGY STAR, the signature of the Verifying Professional must match the stamp.

Professional Engineer Stamp
(if applicable)

EXHIBIT P

FORM OF MEMORANDUM OF LEASE

(See Attached)

Recording Requested by
And When Recorded Mail To:

Sheppard, Mullin, Richter & Hampton LLP
333 South Hope Street, 43rd Floor
Los Angeles, California 90071
Attention: James A. Lonergan, Esq.

MEMORANDUM OF LEASE
AND RIGHT OF FIRST OFFER TO PURCHASE

This Memorandum of Lease and Option to Purchase ("Memorandum") is entered into as of _____, by and between SKS HARBOR BAY ASSOCIATES, LLC, a Delaware limited liability company ("Landlord"), and PENUMBRA, INC., a Delaware corporation ("Tenant").

1. Leased Premises. Landlord and Tenant have entered into that certain Lease Agreement dated _____-, pursuant to which Landlord leased to Tenant and Tenant leased from Landlord, and Landlord hereby leases to Tenant and Tenant hereby leases from Landlord, that certain real property situated in the City of Alameda, State of California, as more particularly described in Exhibit "A" attached hereto and incorporated herein by this reference (the "Premises").

2. Term. The initial term of the Lease commences on _____, and expires on _____.

3. Right of First Offer to Purchase. Tenant may, at Tenant's option in accordance with the terms of the Lease, purchase the Premises, as more particularly set forth in the Lease.

4. Incorporation of Lease. This Memorandum is a memorandum of the Lease. The purpose of this Memorandum is to give notice of the rights and obligations of the parties hereto under the Lease, and all of the terms and conditions of the Lease are incorporated herein by reference as if they were fully set forth herein. In the event of any inconsistency between the terms of this Memorandum and the terms of the Lease, the terms of the Lease shall prevail.

5. Successors. Subject to the terms of the Lease, this Memorandum shall be binding upon and inure to the benefit of the respective successors in interest and assigns of the parties hereto.

IN WITNESS WHEREOF, Landlord and Tenant have caused this Memorandum to be duly executed as of the date first above written.

LANDLORD:

SKS HARBOR BAY ASSOCIATES, LLC, ,
a Delaware limited liability company

By: THE PRUDENTIAL INSURANCE COMPANY OF AMERICA, a New Jersey corporation, acting solely on behalf of and for the benefit of, and with its liability limited to the assets of, its insurance company separate account, WCOT, its member

By:_____

_____
[Printed Name and Title]

TENANT:

PENUMBRA, INC., a Delaware corporation

By:_____

_____
[Printed Name and Title]

By:_____

_____
[Printed Name and Title]

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
County of _____)

On _____, before me, _____, a Notary Public, personally appeared _____, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
County of _____)

On _____, before me, _____, a Notary Public, personally appeared _____, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____

EXHIBIT Q

TENANT'S BROKER COMMISSION AGREEMENT

(See Attached)

COMMISSION AGREEMENT
FOR LEASE

On this ___ day of December 2015, SKS Harbor Bay Associates, LLC (referred to herein as "Landlord" or "Owner") and Cushman & Wakefield of California, Inc. ("C&W") agree that Landlord will pay C&W a commission as set forth below in the event Landlord and Penumbra, Inc. (Penumbra or its designated affiliate is hereinafter for convenience referred to as "Tenant") enter into a lease for all or any portion of the real property commonly known as Harbor Bay Park ("**Project**"), which Project consists of (i) one two-story building located at 1301 Harbor Bay Parkway ("**Building 1**"), (ii) one two-story building located at 1311 Harbor Bay Parkway ("**Building 2**"), (iii) one two-story building located at 1401 Harbor Bay Parkway ("**Building 3**"), and (iv) one two-story building located at 1431 Harbor Bay Parkway ("**Building 4**").

1. Commission. As it relates to Tenant's initial leasing of the Project this Agreement shall be in effect for one year from and after the date hereof (the "Term"). If during the Term, Landlord and Tenant sign and unconditionally deliver a lease for all or any portion of the Project (the "Lease""), C&W shall earn, and Landlord will pay to C&W, a commission, which shall be computed and payable in accordance with the attached Schedule of Commissions, for both the Initial Premises and the Must-Take Space. Landlord shall have the absolute right to decline or reject the terms of any proposal with Tenant. If the Lease is not executed during the Term, then this Agreement shall terminate, and no commission, compensation or other fee shall be payable to C&W, notwithstanding the subsequent execution of the Lease between Landlord and Tenant. It is initially contemplated that Tenant will lease up to a total of approximately 217,293 RSF (which reflects the adjustment to the rentable area of Building 1 as described in clause (c) below) in phases as follows:

(a) Approximately 36,953 RSF located in Building 1 (approximately 32,306 RSF on the Ground Floor and 4,647 RSF on the Second Floor); Approximately 29,849 RSF located in Building 2 (entire building); and Approximately 33,166 RSF located in Building 3; totaling in the aggregate approximately 99,968 RSF (the "**Initial Premises**");

(b) Approximately 28,522 RSF located on the Second Floor in Building 1; Approximately 15,882 RSF on the ground floor of Building 3; and Approximately 69,510 RSF located in Building 4 (entire building); totaling in the aggregate approximately 113,914 RSF ("**Must-Take Space**"); and

(c) Pursuant to the Lease, from and after the date Tenant commences leasing the balance of the second floor of Building 1, the rentable area of Building 1 shall be deemed to be 68,886 RSF.

All references to rentable square feet (RSF) herein are approximate and for purposes of computing C&W's commission, the rentable square footage set forth in the Lease will be used. No commission is payable under this Agreement with respect to a sale of the Project or any other transfer of Landlord's interest in the Project other than the Lease. Subject to the terms and conditions of this Agreement, C&W agrees to accept the commission provided for herein as full and complete compensation for its services rendered to Tenant in connection with the Lease. Notwithstanding the extent to which negotiations may commence or continue, there will be no commission or other compensation due or payable to C&W, and C&W agrees to not make a claim against Landlord, if any of the conditions to payment of a commission as set forth herein are not satisfied for any reason, including without limitation, either party's arbitrary refusal or inability to execute and deliver the Lease.

2. Authority. Landlord represents that it is the owner of the Project and has the right to lease the Project to Tenant. The individuals signing this agreement represent that they are authorized to sign this agreement on behalf of Landlord and C&W.

3. Fees and Expenses. If either party institutes legal action to enforce its rights hereunder, the prevailing party will be entitled to recover its reasonable attorneys' fees and other costs incurred. Any portion of a commission not paid to C&W when due will bear interest from the due date until paid at the legal rate of interest.

4. OFAC. Each party warrants and represents to the other party that: (a) to its actual knowledge, it is not, and shall not become, a person or entity with whom a party is restricted from doing business with under regulations of the Office of Foreign Asset Control ("OFAC") of the Department of the Treasury (including, but not limited to, those named on OFAC's Specially Designated and Blocked Persons list) or under any statute, executive order (including, but not limited to, the September 24, 2001, Executive Order 13224 Blocking Project and Prohibiting Transactions with Persons Who Commit, Threaten to Commit, or Support Terrorism), or other governmental action; and (b) it is not knowingly engaged in, and shall not knowingly engage in, any dealings or transactions or be otherwise associated with such persons or entities described in clause (a) above.

5. Miscellaneous. This agreement shall be governed by the laws of the State of California, without giving effect to principles of conflicts of law. This agreement shall benefit and be binding upon the parties and their respective successors and assigns. This agreement may be signed and delivered (including by facsimile, "pdf" or other electronic transmission) in counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same agreement.

6. Entire Agreement. This agreement is the entire agreement between the parties regarding the subject matter herein, and no amendments, changes or modifications may be made to this agreement without the written consent of both Landlord and C&W.

7. Agency Disclosure. To the extent that Landlord is not represented by a real estate broker in this transaction, Landlord acknowledges that it has received a copy of C&W's Disclosure Regarding Real Estate Agency Relationship and that Landlord has returned a signed copy thereof to C&W.

Date: December ___, 2015

CUSHMAN & WAKEFIELD OF CALIFORNIA, INC.

By:_____
Name:_____
Title:_____

Date: December ___, 2015

SKS HARBOR BAY ASSOCIATES, LLC,
a Delaware limited liability company

By: THE PRUDENTIAL INSURANCE COMPANY OF AMERICA, a New Jersey corporation, acting solely on behalf of and for the benefit of, and with its liability limited to the assets of, its insurance company separate account, WCOT, its member

By:_____
Caitlin O'Connor, Vice President

SMRH:473574044.7

[Schedule of Commissions Follows]

SCHEDULE OF COMMISSIONS FOR LEASE

LEASE:

$1.50 per RSF per year for the first five (5) years of the Lease term of the applicable space, plus

$0.75 per RSF per year for the second five (5) years of the Lease term of the applicable space,

Not To Exceed An Aggregate Of $10.00 Per RSF of the applicable space.

Renewals; Extensions; Expansions: If the lease contains an option or other right to renew or extend the term or to lease additional space (other than space leased by Tenant as Must-Take Space pursuant to the Lease), and if the Lease is renewed or extended or if the Tenant leases additional space, whether or not strictly pursuant to the option or right contained in the lease, and provided C&W represents Tenant on an exclusive basis at the time of such renewal, extension or expansion, Owner shall pay to C&W an additional commission at the above rate for the renewal or extension term, or for such additional space, which shall be paid (i) fifty percent (50%) no later than thirty (30) days after (a) the exercise of the option or right to renew in the case of an exercise of an option and the satisfaction of any contingencies to the effectiveness thereof including without limitation payment of the security deposit, or (b) upon the execution and exchange of the lease or lease amendment by both Owner and Tenant for the lease of additional space not pursuant to an option and the satisfaction of any contingencies to the effectiveness thereof including without limitation payment of the security deposit, and (ii) fifty percent (50%) upon commencement of the extension term or the term with respect to the expansion space.

Cancellation Clauses: C&W will be paid a commission based upon the entire Lease term notwithstanding any right of Owner to cancel the Lease. If the Tenant has a right to cancel the lease after the term has commenced (and for reasons unrelated to casualty, condemnation, default and the like), the commission will initially be based upon the noncancellable portion of the Lease term plus the amount of any cancellation payment payable by Tenant; if such right is not thereafter exercised, Owner will promptly pay C&W the balance of the commission. The Lease will be deemed canceled only if Tenant vacates the Project. If the Lease is terminated or amended and Tenant remains under a new or different arrangement, C&W shall be paid the balance of its commission. If a cancellation payment includes the unamortized commission, then C&W will be paid a full commission as if no right of cancellation existed.

Time of Payment:

- One half of C&W's commission for the Initial Premises shall be paid on January 4, 2016. The balance of the commission for the Initial Premises shall be paid no later than fifteen (15) days the Initial Commencement Date (as defined in the Lease) of the Lease with respect to the first portion of the Initial Premises leased by Tenant.

- C&W's commission for the Must-Take Space shall be paid (i) 50% no later than thirty (30) days after execution and delivery of an amendment to the Lease (or another binding instrument other than the Lease itself) memorializing the commencement date and other material terms applicable Must-Take Space Commencement Date (as such term is defined and set forth in the Lease); and (ii) 50% no later than thirty (30) days after the date Tenant accepts possession of the applicable Must-Take Space.

Sale by Owner: In the event of a sale, conveyance or other disposition of all or any portion of Owner's interest in the Project at which the Lease is made, Owner shall obtain from the grantee of its interest and deliver to C&W an agreement whereby the grantee assumes Owner's commission obligations hereunder. Upon the assumption of Owner's commission obligations hereunder by the grantee, Owner shall be released from all obligations under this Agreement. Owner's obligation to pay any commissions hereunder shall be incorporated into the Lease and be binding on any successors in interest to the Lease. Accordingly, Owner agrees to include language substantially in the form of the following in the Lease: "Landlord and Tenant's Broker have entered into a Commission Agreement for Lease substantially in the form of Exhibit Q attached hereto (the "Commission Agreement") with respect to this Lease. The obligations of "Owner" under the Commission Agreement shall be binding on any successor in interest to Landlord under this Lease. Landlord and Tenant agree to substitute a facsimile copy of the executed Commission Agreement for the form attached as Exhibit Q promptly after the full execution and delivery of the Commission Agreement."

Broker Regulatory or Statutory Provisions: The following provisions must be included in brokerage agreements in the State of California:

- It is illegal for either party to discriminate against any person because of one's membership in a protected class (e.g., race, color, religion, national origin, sex, ancestry, age, marital status, physical or mental handicap, familial status, or any other class protected by law).
- Owner acknowledges receipt of a copy of Notice to Owners, Buyers and Tenants Regarding Environmental Matters, Americans With Disabilities Act and Related Laws, Flood Disclosure, Zoning/Use Disclosure and Alquist-Priolo Special Earthquake Fault Zoning Act.
- Owner acknowledges receipt of a copy of the Agreement and this Schedule of Commissions.

NOTICE TO OWNERS, BUYERS AND TENANTS REGARDING ENVIRONMENTAL MATTERS, AMERICANS WITH DISABILITIES ACT AND RELATED LAWS, FLOOD DISCLOSURE, ZONING/USE DISCLOSURE AND ALQUIST-PRIOLO SPECIAL EARTHQUAKE FAULT ZONING ACT

ENVIRONMENTAL MATTERS

It is essential that all parties to real estate transactions be aware of the health, liability and economic impact of environmental factors on real estate. Cushman & Wakefield does not conduct investigations or analyses of environmental matters and, accordingly, urges the parties to a real estate transaction to retain qualified environmental professionals to determine whether hazardous or toxic wastes or substances (such as asbestos, PCBs and other contaminants or petro-chemical products stored in underground tanks) or other undesirable materials or conditions are present at the property and, if so, whether any health danger or other liability exists. Such substances may have been used in the construction or operation of buildings or may be present as a result of previous activities at the property.

Various laws and regulations have been enacted at the federal, state and local levels dealing with the use, storage, handling, removal, transport and disposal of toxic or hazardous wastes and substances. Depending upon past, current and proposed uses of the property, it may be prudent to retain an environmental expert to conduct a site investigation and/or building inspection. If hazardous or toxic substances exist or are contemplated to be used at the property, special governmental approvals or permits may be required. In addition, the cost of removal and disposal of such materials may be substantial. Consequently, legal counsel and technical experts should be consulted where these substances are or may be present.

AMERICANS WITH DISABILITIES ACT AND RELATED LAWS

As an Owner or tenant of real property, you may be subject to the Americans with Disabilities Act (the ADA), a Federal law codified at 42 USC Section 12101 et seq. Among other requirements of the ADA that could apply to your property, Title III of the ADA requires Owners and tenants of "public accommodations" to remove barriers to access by disabled persons and provide auxiliary aids and services for hearing, vision or speech impaired persons by January 26, 1992. The regulations under Title III of the ADA are codified at 28 CFR Part 36.

We recommend that you and your attorney review the ADA and the regulations, and, if appropriate, your proposed lease or purchase agreement, to determine if this law would apply to you, and the nature of the requirements. These are legal issues. Cushman & Wakefield cannot give you legal advice on these issues.

Furthermore, all California commercial leases regardless of size executed on or after July 1, 2013 must contain a provision disclosing whether the premises have been inspected by a government-approved Certified Access Specialist (CASp) and if so, whether the premises have been determined to be in compliance with all applicable construction-related disability accessibility standards. The law (California *Civil Code* §1938) does not require a landlord to conduct a CASp inspection of the property; however,

it does require that the landlord disclose whether or not an inspection has been completed and if so, whether the property meets the applicable accessibility standards.

FLOOD DISCLOSURE

If the premises is located in a Federally Designated Flood Zone, the Tenant's real and personal property situated on or in the premises is not protected by the hazard insurance policy for the property carried by the Owner. The Tenant is responsible for investigating the Flood Zone status of the premises and obtaining insurance to cover the Tenant's property if it so desires.

ZONING/USE DISCLOSURE

Prior to executing a lease, the Tenant is responsible for determining that the zoning applicable to the property allows the Tenant to use the premises for the Tenant's intended use, and that all building codes, parking requirements, and other governmental requirements, improvements required, and permits necessary have been met or are available to Tenant. Cushman & Wakefield has made no representations, except in writing, if any, concerning the zoning and allowable use of the premises and any requirements that may be imposed upon the Tenant by any governmental agency. If the Tenant's use of the premises requires a Use Permit or other permits from a governmental authority it could take several months to obtain same, and Tenant may still be responsible for the payment of rent and other charges whether or not such permits are ultimately obtained.

ALQUIST-PRIOLO SPECIAL EARTHQUAKE FAULT ZONING ACT

The property may be situated in an Earthquake Fault Zone as designated under the Alquist-Priolo Earthquake Fault Zoning Act, Sections 2621-2630 inclusive, of the California *Public Resources* Code; and, as such the construction of development on the property of any structure for human occupancy may be subject to the findings of a geologic report prepared by a geologist registered with the State of California, unless such report is waived by the city or county under the terms of that Act. No representations on this subject are made by Cushman & Wakefield or its agents or employees, and the Tenant/Purchaser is advised to make its own inquiry into this situation prior to entering into a lease or sale agreement.

By your signature below, you acknowledge that you have read and understand this disclosure and have received a copy:

Received on December ___, 2015.

SKS HARBOR BAY ASSOCIATES, LLC,
a Delaware limited liability company

By: THE PRUDENTIAL INSURANCE COMPANY OF AMERICA, a New Jersey corporation, acting solely on behalf of and for the benefit of, and with its liability limited to the assets of, its insurance company separate account, WCOT, its member

By:_____
Caitlin O'Connor, Vice President

EXHIBIT R

LANDLORD'S BROKER COMMISSION AGREEMENT

(See Attached)

EXCLUSIVE LEASING AGREEMENT

THIS AGREEMENT (the "Agreement"), effective as of January 1, 2010, between SKS HARBOR BAY ASSOCIATES, LLC, a Delaware limited liability company (hereinafter "Owner"), and KIDDER MATHEWS OF NORTHERN CALIFORNIA, INC., a California corporation dba GVA Kidder Mathews (hereinafter "Broker"), with respect to the following facts and circumstances:

A. Owner is the owner of the office buildings located at 1301, 1311, 1401 and 1431 Harbor Bay Parkway, Alameda, California (hereinafter referred to collectively as the "Project"). For purposes of this Agreement, the term "Project" excludes any space offered for lease by Owner for retail purposes or as storage space.

B. Owner desires to appoint Broker as Owner's exclusive leasing representative for office space in the Project and Broker desires to accept said appointment on the terms set forth in this Agreement.

NOW, THEREFORE, in consideration of the mutual undertakings, terms and conditions set forth in this Agreement, Owner and Broker agree as follows:

ARTICLE 1.

BROKER'S APPOINTMENT STATUS

1.1 Owner hereby appoints Broker as Owner's exclusive leasing representative for office space in the Project and Broker hereby accepts that appointment.

1.2 Owner and Broker expressly understand and agree that Broker shall perform all services under this Agreement as an independent contractor in the business of real estate brokerage and not as an employee or agent of Owner. All persons employed by Broker to perform its obligations under this Agreement shall at all times be solely the employees of, or independent contractors licensed by, Broker. Therefore, Broker shall be solely responsible for complying with all applicable laws and regulations with respect to its employees, including without limitation, workers' compensation, hours of work, wages, social security, vacation time, sick leave and working conditions.

1.3 Broker shall submit to Owner a certificate of insurance evidencing (a) Workers' Compensation Insurance and Employer's Liability Insurance with respect to Broker's employees assigned to the Project and (b) Commercial General Liability Insurance in amounts and with companies satisfactory to Owner.

ARTICLE 2.

BROKER'S DUTIES AND RESPONSIBILITIES

2.1 During the term of this Agreement, Broker shall:

(a) diligently investigate and develop all offers to lease and inquiries to lease with respect to the Project which are referred to Broker by Owner or third parties, including other brokers;

(b) exert its commercially reasonable efforts to canvass other buildings and otherwise solicit and develop offers to lease space in the Project;

(c) submit to Owner monthly reports of Project leasing activity, in the form annexed hereto as Exhibit A;

(d) participate in lease negotiations on behalf of Owner, to the extent requested by Owner, and follow the Leasing Guidelines set forth in Exhibit B hereto attached when negotiating a new lease, a lease renewal or a lease modification covering additional space to be taken by an existing Project tenant;

(e) make reasonable efforts to obtain from prospective Project tenants all references reasonably required by Owner (including at least one bank reference) and a financial statement from each prospective Project tenant and promptly provide lease proposals to Owner, including the information set forth at Exhibit E attached hereto;

(f) suggest advertising and marketing plans and promotional materials to further the leasing of the Project and, upon Owner's approval of form, content and budget, advertise the available space in the Project by newspaper advertisements, brochures, direct solicitation, mail campaigns and other forms of advertising and promotion;

(g) assign to the Project James Bennett, Rico Cheung and Eric Bluestein (the "Leasing Team") (or such other individuals as Owner may select) and cause the same to devote sufficient time to the leasing of the Project to enable Broker to fulfill its duties and obligations under this Agreement;

(h) at least monthly, prepare adequate rental listings of vacant Project space and promptly distribute the listings to all reputable real estate brokers active in the San Francisco area and notify Owner of the brokers to whom the listings are distributed;

(i) comply fully with all federal, state and local laws, ordinances, regulations and orders governing or applicable to the leasing of space in the Project;

(j) cooperate fully with Owner's Project manager, who shall be responsible for managing, operating and maintaining the Project;

(k) cooperate fully with outside brokers in the leasing of the Project;

(l) establish and strictly adhere to a cooperating broker registration policy reasonably satisfactory to Owner, including but not limited to written acknowledgment of receipt by such brokers of a copy of the commission schedule for outside brokers on a form reasonably satisfactory to Owner, it being understood that Owner shall have no responsibility for commissions which exceed those calculated as set

forth in Exhibit D or to any broker which has not fully complied with the cooperating broker registration policy;

(m) cooperate fully with Owner and any broker involved with the sale of the Project;

(n) arrange for prospective tenants to deliver promptly to Owner (or Owner's Project manager, if so requested by Owner) first month's rent, security deposit and insurance certificate for each new lease of space in the Project;

(o) refer promptly to Owner all enquiries and offers to purchase the Project;

(p) perform other similar leasing functions upon Owner's request;

(q) provide Owner with marketing updates and related information requested by Owner; and

(r) carefully maintain records on all prospective tenants for the joint use of Broker and Owner. Such records shall be owned by Owner.

ARTICLE 3.

TERM OF THIS AGREEMENT

3.1 The term of this Agreement shall be for a period commencing as of January 1, 2010 and expiring December 31, 2010. Notwithstanding the foregoing term, either Owner or Broker may elect to terminate this Agreement without cause upon at least thirty (30) days' prior written notice to the other. Owner may elect to terminate this Agreement immediately upon notice for cause. This Agreement shall automatically terminate on the sale of any part (with respect only to the part sold) or all of the Project (if all of the Project is sold) as of the date of delivery of deed to the new owner and Owner shall notify Broker in writing of such sale. In the event a proceeding is filed by or against Broker under any provision or chapter of the Federal Bankruptcy Act or in the event Broker shall make an assignment for the benefit of creditors or take advantage of any insolvency act or other legislation providing protection from creditors, this Agreement shall terminate immediately.

3.2 After termination of this Agreement by either Owner or Broker, Owner shall pay Broker an appropriate commission under Article 4 with respect to any lease executed and delivered after the effective termination date, if at the time Broker or Owner receives the other's notice of termination, Broker is involved in Pending and Active Negotiations (as defined below) for a lease of any part of the Project and the lease is executed and delivered between Owner and prospective tenant within one hundred twenty (120) days after Owner's or Broker's receipt of a notice of termination from the other.

3.3 Within fifteen (15) days after Owner's or Broker's receipt of a notice of termination, Broker shall submit to Owner a list of prospective tenants with whom Broker claims to have had Pending and Active Negotiations during the sixty (60) day period prior to Broker's

receipt of a notice of termination. "Pending and Active Negotiations" means that after having (a) shown the Project to the prospective tenant and (b) had at least one (1) other meeting with the prospective tenant to discuss the essential business terms and conditions of the proposed lease, Broker has (x) submitted a written proposal for a lease to that prospective tenant, with Owner's approval, and (y) received written confirmation from that prospective tenant of its interest in the proposal or (z) have received a bona fide written proposal from a prospective tenant or its agents. Broker shall, upon Owner's request, provide descriptions and documentation regarding Pending and Active Negotiations with prospective tenants.

3.4 If, within one hundred eighty (180) days after the termination of this Agreement, a lease is not executed and delivered between Owner and the prospective tenant with whom Broker claims to have Pending and Active Negotiations, then Owner shall have no obligation to pay Broker a commission with respect to such transaction or tenant and thereafter Owner shall be free to negotiate with any such prospective tenant on its own behalf or through another broker free of any obligations to Broker for a commission.

3.5 In addition to any other termination right provided for in this Agreement, Owner may terminate this Agreement immediately upon notice to Broker at any time after James Bennett ceases to be employed by Broker or to actively participate in performing Broker's services under this Agreement.

ARTICLE 4.

LEASING COMMISSIONS

4.1 With respect to new leases, Lease Renewals (as defined below) and Lease Expansions (as defined below), Owner shall pay Broker leasing commissions in accordance with Exhibit D attached hereto. As used in this Agreement, the term "Lease Renewal" means a renewal pursuant to an option to renew contained in an existing tenant's lease and a negotiated renewal with an existing tenant. Lease Renewals may be in the form of an execution of a new lease or a lease modification agreement, or other appropriate form. As used in this Agreement, the term "Lease Expansion" means expansion pursuant to a negotiated expansion with an existing tenant, whether or not the space is contiguous to the Tenant's existing space. A Lease Expansion may be in the form of an execution of a new lease, a lease modification agreement, or other appropriate form. Without Owner's prior written consent, Broker shall not commence negotiation of a Lease Renewal with an existing Project tenant sooner than one (1) year before the expiration date of that tenant's lease.

4.2 Broker expressly understands and agrees that Owner shall not be obligated to pay Broker or any outside broker a commission with respect to any lease of space in the Project to Owner, Owner's parent corporation or any one of Owner's subsidiary or affiliate corporations, unless previously approved, in writing, by Owner.

4.3 Unless a lease specifically includes a penalty provision to include reimbursement to Owner of unamortized brokerage commissions, Broker expressly understands and agrees that Owner shall not be obligated to pay Broker or any outside broker a commission with respect to time periods or space leased where the tenant has an option to terminate unless

and until the option expires or is waived in writing by the tenant. Any commission payable with respect to the portion of the term or space which is subject to a right of termination in a lease which does not contain a specific penalty provision will be recalculated and paid in accordance with Paragraph IV.B of Exhibit D.

4.4 Broker expressly understands and agrees that Owner shall not be obligated to pay Broker or outside broker a commission with respect to any portion of any lease term in excess of ten (10) years.

ARTICLE 5.

AUTHORITY OF OWNER AND BROKER

5.1 Owner shall have the exclusive right and authority to execute and deliver new leases, Lease Renewals, Lease Expansions, lease modifications, lease terminations, and all other agreements with respect to the Project. Owner shall have the unqualified right, in its sole discretion, to reject any proposed tenant or lease agreement. Broker acknowledges that it has absolutely no authority to enter into any agreements of any kind or nature with a prospective tenant or others that would bind Owner or subject Owner to any obligations or liabilities of any kind or nature and Broker shall not represent that it has any such authority. Without limiting the foregoing, Broker is not authorized by Owner to represent that the leased space or the building in which the space is located is (a) free from contamination by hazardous or toxic materials, (b) suitable for any particular use, (c) in compliance with any applicable laws or codes, (d) free of construction defects. All leased space is to be marketed "as is" with Owner's responsibility limited to payment for or construction of agreed tenant improvements.

5.2 Broker shall only have authority to meet with prospective tenants and, subject to Owner's approval, negotiate the terms and conditions of a new lease. The terms and conditions must be stated in a written proposal which shall expressly recite that the terms and conditions are subject to Owner's approval and which shall contain such other conditions and acknowledgments as Owner may require. Broker acknowledges that all matters regarding setting the rental rates of the Project, marketing strategies and terms of leases are subject to the prior approval of Owner, including separate approvals by Owner's Corporate Office and the Owner's Board of Directors which has the absolute right in all events to modify, approve or disapprove any and all leasing proposals regarding the Project in its sole discretion. No commission shall be paid with respect to transactions that are not consummated, notwithstanding Broker's procurement of a ready, willing, and able tenant. Broker acknowledges that Owner's policies and procedures, including the making of decisions relative to pricing, marketing strategies and lease terms with which Broker does not agree, may adversely affect Broker's ability to secure a tenant and earn a commission. However, Broker agrees to fully cooperate with Owner so as to achieve Owner's objectives and Owner shall have no liability to Broker hereunder or otherwise if Owner refuses to accept any or all offers to lease. During the term of this Agreement and thereafter, Owner reserves the right, in its sole and unfettered discretion, to adjust the listing terms and conditions, including but not limited to, the adjustment of the rental rates for the Project upward or downward. Owner further reserves the right, in its sole unfettered discretion, to withdraw the Project from leasing at any time during the term of this Agreement or thereafter.

ARTICLE 6.

OUTSIDE BROKERS' COMMISSIONS

6.1 In the event that prior to execution of a lease, Broker presents evidence satisfactory to Owner that a broker other than Broker is responsible for procurement of a tenant that executes and delivers a new lease of space in the Project, Owner shall pay said broker and Broker commissions in accordance with Exhibit D.

ARTICLE 7.

INDEMNIFICATION

7.1 Broker hereby agrees to indemnify, protect, defend by an attorney approved by Owner, which approval shall not be unreasonably withheld, and hold Owner harmless from any and all claims, demands, causes of action, losses, damages, fines, penalties, liabilities, costs and expenses, including attorneys' fees and court costs, sustained and incurred by or asserted against Owner by reason of or arising out of (i) Broker's material breach of or material failure to perform properly the duties and obligations required of Broker under this Agreement, (ii) Broker's misrepresentations or activities outside the scope of this Agreement, including, without limitation, claims for commissions by outside brokers in excess of the amounts set forth in Exhibit D, (iii) any incorrect material information regarding the Project supplied by Broker to any tenant or prospective tenant and not received from Owner or an affiliate thereof, and/or, (iv) Broker's intentionally withholding from any tenant or prospective tenant any material information regarding the Project of which Broker has actual knowledge.

7.2 Should any claims, demands, suits or other legal proceedings be made or instituted against Owner with respect to the leasing of the Project, Broker agrees to give Owner all necessary information and assistance in the defense or other disposition thereof. The obligations of Broker under this Article 8 shall survive the expiration or earlier termination of this Agreement.

ARTICLE 8.

ASSIGNMENT

8.1 Without the prior written consent of the other, neither Owner nor Broker shall assign this Agreement. Notwithstanding the foregoing, Owner may assign this Agreement to a parent, subsidiary or affiliate corporation, or a partnership of which Owner or an affiliate of Owner is a general partner, or a limited liability company of which Owner or an affiliate of Owner is a member, without the consent of but upon notice to Broker. Upon sale of the Project, Broker will release Owner in writing from all responsibility to pay remaining commission obligations from completed transactions as well as future or contingent leasing commissions to Broker, provided the purchaser of the Project has agreed in writing to assume all responsibility for the payment of such remaining commission obligations and future or contingent commissions.

ARTICLE 9.

BOOKS AND RECORDS

9.1 Broker shall keep adequate books and records of all matters contemplated by this Agreement and shall also allow a representative of Owner, during normal business hours, to examine said books and records and any relevant correspondence pertaining to this Agreement. Those books and records shall be owned by Owner.

9.2 In the event of termination of this Agreement, Broker agrees to deliver to Owner copies of all such books, records and correspondence pertaining to this Agreement immediately upon request by Owner.

ARTICLE 10.

NOTICES

10.1 All notices under this Agreement shall be in writing and shall be served either personally or by registered or certified mail, return receipt requested, or by Federal Express or other reliable express courier service addressed to Owner and Broker as follows:

To Owner:	c/o SKS Investments, LLC 601 California Street, Suite 1300 San Francisco, California 94104 Attn: Paul Stein
With a copy to:	c/o The Prudential Insurance Company of America 8 Campus Drive, 4th Floor Parsippany, New Jersey 07054 Attn: Daniel McKeever
With a copy to:	The Prudential Insurance Company of America 8 Campus Drive, 4th Floor Parsippany, New Jersey 07054 Attn: The Legal Department
To Broker:	GVA Kidder Mathews Two Transamerica Center 505 Sansome Street, Suite 300 San Francisco, California 94111 Attn: James K. Bennett

10.2 All notices shall be deemed delivered:

(a) If personally delivered, upon receipt thereof by Owner or Broker, as the case may be;

(b) If by registered or certified mail, three (3) business days after the notice or demand is mailed by registered or certified mail, deposited enclosed in a securely closed post-paid wrapper, in a United States Government general or branch post office or official post office depository; or

(c) If sent by Federal Express or other reliable express courier service for next day delivery, on the next business day after delivery to that express courier service.

Any notice signed by an attorney for a party will be valid.

ARTICLE 11.

MISCELLANEOUS PROVISIONS

11.1 This Agreement represents the entire understanding between Owner and Broker and supersedes all prior negotiations, representations and agreements between them, both written and oral. This Agreement may only be modified pursuant to a written agreement signed by both parties.

11.2 This Agreement and the rights and obligations of Owner and Broker shall be interpreted, construed and enforced in accordance with the laws of the State of California.

11.3 If either party files an action or brings any proceeding against the other arising out of this Agreement, the prevailing party shall be entitled to recover, as costs of suit and not damages, reasonable attorneys' fees as fixed by the court or other arbiter. The "prevailing party" shall be the party entitled to recover its costs of suit, whether or not suit proceeds to final judgment. No sum for attorneys' fees shall be considered in calculating the amount of a judgment for purposes of determining whether a party is entitled to its cost of suit.

11.4 Broker represents that it is licensed as a real estate broker in the State of California. Broker shall immediately notify Owner in the event Broker or any members of the Listing Team becomes the subject of any investigation or proceeding brought by the licensing authority responsible for licensing of Broker as a real estate broker in the State of California. Broker acknowledges that Owner is entering this Agreement in reliance on Broker's reputation for ethical and professional conduct. In the event that Owner determines that Broker has acted unprofessionally or unethically, whether or not in connection with the leasing of the Project, Owner shall be entitled to terminate this Agreement for cause, in addition to any other remedies available to Owner.

11.5 The failure of either party to insist in any one or more instances upon the strict performance of any one or more of the obligations of this Agreement, or to exercise any right herein contained, shall not be construed as a waiver or relinquishment for the future of the performance of such one or more obligations of this Agreement or of the right to exercise such right, but the same shall continue and remain in full force and effect with respect to any subsequent breach, act or omission.

11.6 Owner expects that Broker will market the Project directly to Broker's current and potential tenant clients as well as marketing it through cooperating brokers. In the event any member of the Listing Team represents a prospective tenant, such dual representation of Owner and the prospective tenant shall be subject to Owner's prior consent, which shall not be unreasonably withheld.

11.7 In matters relating to all newspaper publicity or other advertising, Broker agrees to cooperate with Owner to the end that each party shall keep the other informed of any publicity releases and shall jointly coordinate the same. All publicity must be approved in writing by Owner before release.

11.8 Broker acknowledges that any information heretofore or hereafter furnished to Broker with respect to the Project, specifically designated by Owner as confidential information (the "Confidential Information"), has been and will be so furnished on the condition that Broker maintain the confidentiality thereof. Accordingly, Broker shall hold, and shall cause its partners and members and the officers, directors, employees, agents and representations of Broker, its partners and members to hold, in strict confidence, and not disclose to any other person without the prior written consent of Owner, any of the Confidential Information with respect to the Project delivered to Broker whether by agents, consultants, employees or representatives of Broker or by Owner or any of its agents, representatives or employees, including without limitation any information as to the terms of existing or future leases in the Project, Owner's leasing plans, or any rent roll. The provisions of this Section 12.8 shall survive any termination of this Agreement.

11.9 Broker hereby acknowledges that Owner has informed Broker of the following: (i) funds invested by The Prudential Insurance Company of America ("Prudential") in the Project come from a pooled separate account (a "Separate Account") of Prudential, (ii) the assets of the Separate Account are deemed plan assets under ERISA, (iii) each of the "employee benefit plans" (as defined in Section 3(3) of ERISA) whose interest in the Separate Account exceeds 10% of the total assets of the Separate Account (the "Plans") has been disclosed to Broker, and (iv) this Agreement is subject to the prohibited transaction restrictions of ERISA and the Internal Revenue Code, prohibiting certain transactions between a plan and a "party in interest" (or "disqualified person") as those terms are defined in Section 3(14) of ERISA, or Section 4975(e)(2) of the Internal Revenue Code, respectively. Broker hereby warrants and represents to Prudential that it is not a "party in interest" to the Plans. Broker agrees to keep the identity of said Plans confidential, except to the extent that the undersigned may be required to disclose such information as a result of (y) legal process or (z) compliance with ERISA or other laws or regulations governing Broker. In addition, Broker represents and warrants to Prudential that none of Broker's equity interests are held by (a) "employee benefit plans" as that term is defined in Section 3(3) of ERISA, which are subject to Title I of ERISA or plans subject to Section 4975 of the Internal Revenue Code of 1986, as amended (collectively, "ERISA Plans"), or (b) any entity whose underlying assets include "plan assets" by reason of any such ERISA Plan investment in such entity, or (c) a "governmental plan" within the meaning of Section 3(32) of ERISA and Broker and such interests are not owned by such a governmental plan or otherwise subject to state statutes regulating investments of and fiduciary obligations with respect to governmental plans.

11.10 As an inducement to Owner to enter into this Agreement, Broker hereby represents and warrants that: (i) Broker is not, nor is it owned or controlled directly or indirectly by, any person, group, entity or nation named on any list issued by the Office of Foreign Assets Control of the United States Department of the Treasury ("OFAC") pursuant to Executive Order 13224 or any similar list or any law, order, rule or regulation or any Executive Order of the President of the United States as a terrorist, "Specially Designated National and Blocked Person" or other banned or blocked person (any such person, group, entity or nation being hereinafter referred to as a "Prohibited Person"); (ii) Broker is not (nor is it owned or controlled, directly or indirectly, by any person, group, entity or nation which is) acting directly or indirectly for or on behalf of any Prohibited Person; and (iii) neither Broker (nor any person, group, entity or nation which owns or controls Broker, directly or indirectly) has conducted or will conduct business or has engaged or will engage in any transaction or dealing with any Prohibited Person or the making or receiving of any contribution of funds, goods or services to or for the benefit of a Prohibited Person. Broker covenants and agrees (a) to comply with all requirements of law relating to money laundering, anti-terrorism, trade embargos and economic sanctions, now or hereafter in effect, (b) to immediately notify Owner in writing if any of the representations, warranties or covenants set forth in this Section 11.10 are no longer true or have been breached or if Broker has a reasonable basis to believe that they may no longer be true or have been breached, (c) not to use funds from any Prohibited Person to make any payment due to Owner under the Agreement and (d) at the request of Owner, to provide such information as may be requested by Owner to determine Broker's compliance with the terms hereof. Any breach by Broker of the foregoing representations and warranties shall be deemed an Event of Default by Broker under this Agreement. The representations and warranties contained in this subsection shall be continuing in nature and shall survive the expiration or earlier termination of this Agreement.

IN WITNESS WHEREOF, this Agreement has been executed as of the day and year first above written.

"OWNER"

SKS HARBOR BAY ASSOCIATES, LLC,
a Delaware limited liability company

By: The Prudential Insurance Company
of America, a New Jersey corporation,
its authorized member

By: Daniel McKeever

Daniel McKeever, Vice President
[Printed Name and Title]

"BROKER"

KIDDER MATHEWS OF NORTHERN CALIFORNIA, INC., a California corporation dba GVA Kidder Mathews

By: James K. Bennett

Senior Vice President

[Printed Name and Title]

By: _____

_____

[Printed Name and Title]

This instrument must be executed by BOTH (i) the chairman of the board, the president or any vice president, AND (ii) the secretary, any assistant secretary, the chief financial officer or any assistant financial officer or any assistant treasurer of Broker, unless the bylaws or a resolution of the board of directors shall otherwise provide, in which case the bylaws or a certified copy of the resolution, as the case may be, must be attached to this instrument.

EXHIBIT A

MARKETING REPORT

(To be Determined)

EXHIBIT B

LEASING GUIDELINES

1. All new leases, Lease Renewals and Lease Expansions shall be executed by Owner, and shall be prepared by Owner on Owner's standard form of lease for the Project. Any proposed changes, additions or deletions in the standard form of lease shall be subject to the prior written approval of Owner. Owner shall not have any obligations to lease until it has executed a lease.

2. All new leases, Lease Renewals and Lease Expansions shall provide for at least the minimum annual rental specified in the most recent rental schedule approved by Owner and shall also provide for annual increases in minimum annual rental of 3%, unless Owner otherwise directs.

3. No new lease, Lease Renewal or Lease Expansion having a term of less than three (3) years or more than five (5) years shall be negotiated with tenants without the prior written consent of Owner. Any new lease, Lease Renewal or Lease Expansion with a term exceeding five (5) years and consented to by Owner shall provide for an adjustment in annual rental to market rent.

4. Options to renew, options to add space and rights of first refusal, termination or space reduction shall not be offered to tenants without the prior written consent of Owner.

5. All new leases, Lease Renewals and Lease Expansions shall contain Owner's standard clauses for reimbursement for tenant's share of common area maintenance, fire and related insurance, other Project operating expenses, and real estate taxes.

6. Owner will not assume a prospective tenant's obligation under an existing lease of space in another building.

7. Prior to the execution by Owner of a new lease, Lease Renewal, or Lease Expansion, it shall be necessary for Broker to obtain approval by Owner of the credit of the tenant, in writing, based on financial statements and bank references obtained by Broker.

8. Each new lease, Lease Renewal and Lease Expansion shall provide for a security deposit in the amount of approximately one (1) month's rent.

9. Broker shall arrange for the tenant or tenant's agents to provide the security deposit, first month's rent and insurance certificate upon the execution and delivery of each new lease, Lease Renewal and Lease Expansion.

10. Without limiting Broker's obligation to include Owner in all negotiations of all proposed leases, Lease Renewals and Lease Expansions, Broker acknowledges that appropriate officials of Owner's corporate headquarters must authorize any proposed lease, Lease Renewal or Lease Expansion. Broker shall promptly inform Owner when Broker is negotiating

such lease so that, if Owner decides to proceed with the transaction, such approval can be sought in a timely manner.

11. Broker acknowledges that all new leases, Lease Renewals and Lease Expansions shall be drafted by Owner's attorneys and that Owner's attorneys shall not be contacted by Broker or directed to proceed with leases, Lease Renewals or Lease Expansions until Owner has approved the terms of the proposed transaction in writing.

12. In the event Broker is participating in delivering final execution copies of a lease, Lease Renewal or Lease Expansion, the execution copies shall not be delivered to the prospective tenant or tenants for execution until Owner has approved that release in writing by executing the Lease Summary and Consent Form prepared by Broker and/or Owner's property management firm.

EXHIBIT C

REMOVED INTENTIONALLY

EXHIBIT D

LEASING COMMISSIONS

I. NEW LEASE AND LEASE EXPANSIONS

A. For transactions in which a new tenant is procured directly by Broker, i.e., no cooperating broker, the commission rate will be $1.50 psf per year of the area leased pursuant to the new lease or Lease Expansion (as applicable) for the first five years of the lease term, and $0.75 psf per year of the area leased pursuant to the new lease or Lease Expansion (as applicable) for the second five years of the lease term, not to exceed $10 psf.

B. Owner shall pay the commission in two (2) equal installments as follows:

(1) One-half (1/2) within 30 days after the execution and delivery of the lease or Lease Expansion (as applicable) between Owner and the new tenant (or existing tenant, in the case of a Lease Expansion); and

(2) One-half (1/2) within 30 days after the occurrence of the latter of:

(i) the commencement date of the lease or Lease Expansion (as applicable); or

(ii) the date the new tenant (or existing tenant, in the case of a Lease Expansion) accepts possession.

C. With respect to each new lease of space and Lease Expansion in the Project which is consummated with a tenant represented by an outside broker, Broker shall be paid a leasing commission equal to one-half (1/2) of the commission payable pursuant to Paragraph I.A, above, and the outside broker, including non-Leasing Team members of GVA Kidder Mathews, shall be paid a leasing commission in accordance with Paragraph 1.A, above. Each such commission shall be payable in two equal installments, at the times stated in Paragraph I.B, above. Broker shall indemnify, defend and hold Owner harmless from any and all outside brokers arising out of or in connection with any lease of space and Lease Expansion in the Project, or the delivery of a leasing commission to any outside broker; provided that the foregoing indemnity shall not apply to any claim arising solely from an outside broker's direct dealings with Owner (unless the claim arises from Broker's failure to pay the outside broker a commission that was (i) due the outside broker under this Agreement and (ii) paid to Broker by Owner for further payment to that outside broker).

II. LEASE RENEWALS

A. With respect to each Lease Renewal which is originated solely by Broker, Owner shall pay Broker a leasing commission based on the term of the Lease Renewal (i.e., the period of time beyond the expiration of the term under the Tenant's lease

as it existed prior to the Lease Renewal (such additional term being referred to herein as the "Renewal Term")), computed as follows:

(1) For transactions in which a Lease Renewal is procured directly by Broker, i.e., no cooperating broker, the commission rate will be $1.50 psf per year for the first five years of the lease term and $0.75 psf per year for the second five years of the lease term, not to exceed $10 psf.

B. Owner shall pay the commission with respect to a Lease Renewal upon execution and delivery of the final documents creating the Lease Renewal.

C. With respect to each Lease Renewal in the Project which is consummated with a tenant represented by an outside broker, Broker shall be paid a leasing commission equal to one-half (1/2) of the commission payable pursuant to Paragraph II.A, above, and the outside broker, including non-Leasing Team members of GVA Kidder Mathews, shall be paid a leasing commission in accordance with Paragraph II.A, above. Each such commission shall be payable at the time stated in Paragraph II.B, above. Broker shall indemnify, defend and hold Owner harmless from any and all outside brokers arising out of or in connection with any Lease Renewal in the Project, or the delivery of a leasing commission to any outside broker; provided that the foregoing indemnity shall not apply to any claim arising solely from an outside broker's direct dealings with Owner (unless the claim arises from Broker's failure to pay the outside broker a commission that was (i) due the outside broker under this Agreement and (ii) paid to Broker by Owner for further payment to that outside broker).

III. ACCELERATED PAYMENT OPTION

A. Notwithstanding the provisions of Paragraph I.B and I.C above, Owner may, at its sole option, elect to accelerate the payment to Broker or the outside broker of any one or all of the remaining commission installments.

IV. COMPUTATIONS OF COMMISSIONS

A. Notwithstanding any provisions of this Agreement or any lease to the contrary, commissions under Paragraphs I and II above shall be computed on the term of the lease or the Renewal Term, as applicable, but in no event for a term exceeding ten (10) years.

B. If any lease or Lease Renewal grants to tenant an option to cancel, the commission shall be calculated and paid only up to the date when such option to cancel may first be exercised. If the tenant does not exercise its option to cancel, then the commission shall then be recalculated through the earlier of the end of the initial lease term or Renewal Term, as the case may be (which in no event shall exceed ten years) or the date when any succeeding option to cancel may first be exercised and the additional commission amount, if any, shall thereafter be paid according to the term of this Agreement. However, if a lease or Lease

renewal specifically includes a cancellation penalty provision to include reimbursement to Owner of unamortized brokerage commissions, then the commission will be paid over the full lease term, including any termination option periods.

EXHIBIT E

REQUIRED PROSPECTIVE TENANT INFORMATION

1. The full name, address and other identifying data for each proposed tenant.
2. Current (not over six (6) months old) financial statement of proposed tenant.
3. Current Dun & Bradstreet report on proposed tenant.
4. References, including at least one (1) bank reference, for proposed tenant.
5. List of officers or principals and major stockholders, if any, of proposed tenant.
6. If lease is to be guaranteed by a third party, submit items 1-5 for proposed guarantor.
7. Diagram of space to be leased.
8. All other information generally provided on Owner's property lease proposal form.

Kidder Mathews

February 19, 2014

SKS Harbor Bay Associates, LLC
c/o Prudential Real Estate Investors
7 Giralda Farms
Madison, New Jersey 07940

Attention: Patricia Stiles

Re: Exclusive Listing Agreement for 1301, 1311, 1401, 1431 Harbor Bay Parkway, Alameda, CA
Dated January 1, 2010

Dear Pat:

This is to confirm that the Term of the above agreement is extended to December 31, 2014 and is by and between SKS Harbor Bay Associates, LLC and Kidder Mathews of California Inc. Please note that the former entity Kidder Mathews Northern California, Inc, a California corporation dba Kidder Mathews has been changed effective January 1, 2014 to Kidder Mathews of California, Inc. and a letter further explaining the change and new W-9 are also attached.

I would appreciate your confirming our agreement by countersigning below and returning a copy to me for our files.

Best regards

KIDDER MATHEWS OF CALIFORNIA INC.

James K. Bennett
Partner
Executive Vice President, Life Sciences

Confirmed and Agreed

SKS Harbor Bay Associates, LLC

By: The Prudential Insurance Company of America, a New Jersey corporation, its authorized member

By _____

Its: Vice President

Dated: 2/20/14

Accepted:

Kidder Mathews of California Inc, a California corporation dba Kidder Mathews

By _____

Its: Executive Vice President

Dated: February 19, 2014

Kidder Mathews

February 24, 2015

SKS Harbor Bay Associates, LLC
c/o Prudential Real Estate Investors
Four Embarcadero Center, 27th Floor
San Francisco, CA 94111

Attention: Caitlin O'Connor

Re: Exclusive Listing Agreement for 1301, 1311, 1401, 1431 Harbor Bay Parkway, Alameda, CA
Dated January 1, 2010

Dear Caitlin:

This is to confirm that the Term of the above agreement, by and between SKS Harbor Bay Associates, LLC and Kidder Mathews of California Inc., is extended to December 31, 2015.

I would appreciate your confirming our agreement by countersigning below and returning a copy to me for our files.

Best regards

KIDDER MATHEWS OF CALIFORNIA INC.

James K. Bennett
Partner
Executive Vice President, Life Sciences

Confirmed and Agreed

SKS Harbor Bay Associates, LLC

By: The Prudential Insurance Company of America, a New Jersey corporation, its authorized member

By _____

Its: Vice President

Dated: 4/29/15

Accepted:

Kidder Mathews of California Inc, a California corporation dba Kidder Mathews

By _____

Its: Executive Vice President

Dated: February 24, 2015

THIRD AMENDMENT TO
EXCLUSIVE LEASING AGREEMENT

THIS THIRD AMENDMENT TO EXCLUSIVE LEASING AGREEMENT (the "Agreement"), effective October 19, 2015, is entered into by and between SKS HARBOR BAY ASSOCIATES, LLC a Delaware limited liability company ("Owner"), and KIDDER MATHEWS OF CALIFORNIA, INC., a California corporation dba Kidder Mathews ("Broker") with respect to the following facts and circumstances:

A. Owner is the owner of the office buildings located at 1301, 1311, 1401 and 1431 Harbor Bay Parkway, Alameda, California (the "Project").

B. Owner and Broker previously entered into that certain Exclusive Leasing Agreement, effective as of January 1, 2010, as amended by a letter agreement extending the term of the Exclusive Leasing Agreement dated January 19, 2011, as amended by a letter agreement extending the term of the Exclusive Leasing Agreement dated January 25, 2012, as amended by a letter agreement extending the term of the Exclusive Leasing Agreement dated February 19, 2014 and a letter agreement extending the Exclusive Leasing Agreement dated February 24, 2015 (collectively the "Leasing Agreement"), appointing Broker as Owner's exclusive leasing representative for office space in the Project. Capitalized terms used and not otherwise defined herein shall have the meanings given those terms in the Leasing Agreement.

C. Owner and Cushman & Wakefield of California, Inc., ("Tenant's Broker") have entered into that certain Commission Agreement for Lease dated December___, 2015 (the "Tenant Broker Commission Agreement") pursuant to which Owner has agreed to pay a commission to Tenant's Broker in the event that Penumbra, Inc., ("Tenant") enters into a lease for all or any portion of the Project on the terms and conditions contained in the Tenant Broker Commission Agreement.

D. Owner and Broker desire to amend the Leasing Agreement to allow for direct payment of the commission to Tenant's Broker and make other modifications on the terms and conditions contained herein.

IT IS, THEREFORE, agreed as follows:

1. Notwithstanding anything to the contrary in the Leasing Agreement, if Tenant enters into a lease, Lease Renewal or Lease Expansion for all or any portion of the Project, then (a) Owner will pay any leasing commissions due pursuant to the Tenant Broker Commission Agreement directly to Tenant's Broker, (b) the commission payable to Broker under the Leasing Agreement shall be determined based on the transaction being consummated with a tenant represented by an outside broker, (c) no amounts shall be payable under the Leasing Agreement to Tenant's Broker and (d) no amounts shall be payable under the Leasing Agreement to Broker for purposes of Broker paying Tenant's Broker any amounts.

2. In the event of a sale, conveyance or other disposition of all or any portion of Owner's interest in the Project, Owner shall obtain from the grantee of its interest and deliver to Broker an agreement whereby the grantee assumes Owner's commission obligations under the Leasing Agreement. Upon the assumption of Owner's commission obligations under the Leasing Agreement by the grantee, Owner shall be released from all obligations under the Leasing Agreement. Owner's obligation to pay any commissions under the Leasing Agreement with respect to the proposed lease between Owner and Penumbra, Inc. (the "Lease") shall be incorporated into the Lease and will be binding on any successors in interest to the Lease. Accordingly, Owner agrees to include language substantially in the form of the following in the Lease: "Landlord and Landlord's Broker have entered into an Exclusive Leasing Agreement substantially in the form of Exhibit xx attached hereto (the "Exclusive Leasing Agreement") with respect to this Lease. The obligations of "Owner" under the Exclusive Leasing Agreement shall be binding on any successor in interest to Landlord under this Lease. Landlord and Tenant agree to substitute a facsimile copy of the executed Exclusive Leasing Agreement for the form attached as Exhibit xx promptly after the full execution and delivery of the Exclusive Leasing Agreement."

3. Except as and to the extent amended hereby, the Leasing Agreement is unmodified and unamended and is in full force and effect.

IN WITNESS WHEREOF, this Agreement was executed as of the date first above written.

"OWNER:"

SKS HARBOR BAY ASSOCIATES, LLC,
a Delaware limited liability company

By: The Prudential Insurance Company
of America, a New Jersey Corporation,
its authorized member

By: _____

_____
[Printed Name and Title]

"BROKER:"

KIDDER MATHEWS OF
CALIFORNIA, INC., a California corporation
dba Kidder Mathews

By:_____

Name:_____

Title:_____

Exhibit 10.9

PENUMBRA, INC.

AMENDED AND RESTATED 2014 EQUITY INCENTIVE PLAN

RESTRICTED STOCK UNIT AGREEMENT

Unless otherwise defined herein, the terms defined in the Amended and Restated 2014 Equity Incentive Plan (the "***Plan***") shall have the same defined meanings in this Restricted Stock Unit Agreement (this "***Agreement***").

I. NOTICE OF GRANT OF RESTRICTED STOCK UNITS

Name:

Address:

The undersigned Participant has been granted a Restricted Stock Unit ("***RSU***") Award, subject to the terms and conditions of the Plan and this Agreement, as follows:

Date of Grant: __

Vesting Commencement Date: __

Total Number of RSUs Granted: __

Vesting Schedule:

Subject to any accelerated vesting provisions in the Plan, twenty-five percent (25%) of the RSUs shall vest on each of the one (1) year, two (2) year, three (3) year and four (4) year anniversaries of the Vesting Commencement Date, subject to Participant continuing to be a Service Provider through each such date.

Upon vesting, the RSUs will automatically be converted into Shares of Common Stock on a 1:1 basis, subject to adjustment as provided in the Plan.

In the event of a Change in Control, and subject to Participant continuing to be a Service Provider through the date of such Change in Control, the Participant will fully vest in all of the RSUs granted under this Agreement.

Any of the RSUs granted under this Agreement which have not yet vested as of a given time are referred to herein as "***Unvested RSUs***." The Shares of Common Stock underlying any vested RSUs shall be delivered to Participant in accordance with the terms of this Agreement (see Section 2 of Part II of this Agreement).

II. AGREEMENT

1. Grant of Restricted Stock Units. The Company hereby grants to the person named in the Notice of Grant of Restricted Stock Units in Part I of this Agreement ("***Participant***") under the Plan for services performed and to be performed by Participant for the Company and as a separate incentive in connection with his or her services and not in lieu of any salary or other compensation for his or her services, the number of RSUs set forth in the Notice of Grant of Restricted Stock Units, subject to all of the terms and conditions in this Agreement and the Plan, which is incorporated herein by reference. Subject to Section 20(c) of the Plan, in the event of a conflict between the terms and conditions of the Plan and this Agreement, the terms and conditions of the Plan shall prevail.

2. Book-Entry Registration of the Shares; Delivery of Stock. If and when a Vesting Date occurs with respect to Unvested RSUs or any Unvested RSUs otherwise become vested in accordance with the Vesting Schedule or otherwise pursuant to this Agreement, provided the Unvested RSUs have not been forfeited pursuant to Section 8, the Company or the Administrator will take all steps necessary to accomplish the transfer of Shares of Common Stock underlying such vested RSUs to Participant. The Company will determine the form of delivery (e.g., electronic entry evidencing such shares) and may deliver such Shares on Participant's behalf electronically to the Company's designated stock plan administrator or such other broker-dealer as the Company

may choose at its sole discretion, within reason. The Company may provide a reasonable delay in the issuance or delivery of Shares as it determines appropriate to address tax withholding (to the extent applicable) and other administrative matters.

3. Lock-Up Period. Participant hereby agrees that Participant shall not offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend, or otherwise transfer or dispose of, directly or indirectly, any Common Stock (or other securities) of the Company or enter into any swap, hedging or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of any Common Stock (or other securities) of the Company held by Participant (other than those included in the registration) for a period specified by the representative of the underwriters of Common Stock (or other securities) of the Company not to exceed one hundred and eighty (180) days following the effective date of any registration statement of the Company filed under the Securities Act of 1933, as amended (or such other period as may be requested by the Company or the underwriters to accommodate regulatory restrictions on (i) the publication or other distribution of research reports and (ii) analyst recommendations and opinions, including, but not limited to, the restrictions contained in NASD Rule 2711(f)(4) or NYSE Rule 472(f)(4), or any successor provisions or amendments thereto).

Participant agrees to execute and deliver such other agreements as may be reasonably requested by the Company or the underwriters which are consistent with the foregoing or which are necessary to give further effect thereto. In addition, if requested by the Company or the representative of the underwriters of Common Stock (or other securities) of the Company, Participant shall provide, within ten (10) days of such request, such information as may be required by the Company or such representative in connection with the completion of any public offering of the Company's securities pursuant to a registration statement filed under the Securities Act of 1933, as amended. The obligations described in this Section 3 shall not apply to a registration relating solely to employee benefit plans on Form S-1 or Form S-8 or similar forms that may be promulgated in the future, or a registration relating solely to a Commission Rule 145 transaction on Form S-4 or similar forms that may be promulgated in the future. The Company may impose stop-transfer instructions with respect to the shares of Common Stock (or other securities) subject to the foregoing restriction until the end of said one hundred and eighty (180) day (or other) period. Participant agrees that any transferee of the RSU Award or Shares acquired pursuant to the RSU Award shall be bound by this Section 3.

4. Non-Transferability of RSUs. This RSU Award may not be transferred in any manner otherwise than by will or by the laws of descent or distribution.

5. Tax Consequences. Participant has reviewed with Participant's own tax advisors the federal, state, local and foreign tax consequences of this investment and the transactions contemplated by this Agreement. Participant is relying solely on such advisors and not on any statements or representations of the Company or any of its agents. Participant understands that Participant (and not the Company) shall be responsible for Participant's own tax liability that may arise as a result of the transactions contemplated by this Agreement.

6. Tax Withholding. Pursuant to such procedures as the Administrator may specify from time to time, the Company shall withhold the minimum amount required to be withheld for the payment of income, employment and other taxes which the Company determines must be withheld (the "***Withholding Taxes***") upon each vesting date, by, in the Administrator's discretion: (i) withholding otherwise deliverable Shares having a Fair Market Value equal to the amount of such Withholding Taxes, (ii) withholding the amount of such Withholding Taxes from Participant's paycheck(s), (iii) requiring Participant to make appropriate arrangements with the Company (or the Parent or Subsidiary employing or retaining Participant) for the satisfaction of all Withholding Taxes, or (iv) a combination of the foregoing. The Company shall not retain fractional Shares to satisfy any portion of the Withholding Taxes. Accordingly, if any withholding is done through the withholding of Shares, Participant shall pay to the Company an amount in cash sufficient to satisfy the remaining Withholding Taxes due and payable as a result of the Company not retaining fractional Shares. Should the Company be unable to procure such cash amounts from Participant, Participant agrees and acknowledges that Participant is giving the Company permission to withhold from Participant's paycheck(s) an amount equal to the remaining Withholding Taxes due and payable as a result of the Company not retaining fractional Shares. Participant acknowledges and agrees that the Company may refuse to honor the exercise and refuse to deliver the Shares if such withholding amounts are not delivered at the time they are due.

7. No Guarantee of Continued Service. PARTICIPANT ACKNOWLEDGES AND AGREES THAT THE VESTING OF THE RSUs PURSUANT TO THE VESTING SCHEDULE HEREOF IS EARNED ONLY BY CONTINUING AS A SERVICE PROVIDER AT THE WILL OF THE COMPANY (OR THE PARENT OR SUBSIDIARY EMPLOYING OR RETAINING PARTICIPANT) AND NOT THROUGH THE ACT OF BEING HIRED, BEING GRANTED THIS RSU AWARD OR ACQUIRING SHARES HEREUNDER. PARTICIPANT FURTHER ACKNOWLEDGES AND AGREES THAT THIS AGREEMENT, THE TRANSACTIONS CONTEMPLATED HEREUNDER AND THE VESTING SCHEDULE SET FORTH HEREIN DO NOT CONSTITUTE AN EXPRESS OR IMPLIED PROMISE OF CONTINUED ENGAGEMENT AS A SERVICE

PROVIDER FOR THE VESTING PERIOD, FOR ANY PERIOD, OR AT ALL, AND SHALL NOT INTERFERE IN ANY WAY WITH PARTICIPANT'S RIGHT OR THE RIGHT OF THE COMPANY (OR THE PARENT OR SUBSIDIARY EMPLOYING OR RETAINING PARTICIPANT) TO TERMINATE PARTICIPANT'S RELATIONSHIP AS A SERVICE PROVIDER AT ANY TIME, WITH OR WITHOUT CAUSE.

8. Forfeiture Upon Termination as a Service Provider. Notwithstanding any contrary provision of this Agreement or the Notice of Grant of Restricted Stock Units, if Participant terminates service as a Service Provider for any or no reason prior to vesting, the then Unvested RSUs awarded by this Agreement will thereupon be forfeited and automatically transferred to and reacquired by the Company at no cost to the Company upon the date of such termination and Participant will have no further rights thereunder.

9. Restriction on Transfer. Participant understands and agrees that the RSUs may not be sold, given, transferred, assigned, pledged, encumbered or otherwise disposed of in any way by the holder.

10. No Shareholder Rights. Participant will have no voting or other rights of a shareholder with respect to such Shares underlying RSUs until the RSUs have vested and underlying Shares have been issued.

11. Address for Notices. Any notice to be given to the Company under the terms of this Agreement will be addressed to the Company at 1 Penumbra Place, 1351 Harbor Bay Parkway, Alameda, CA 94502, or at such other address as the Company may hereafter designate in writing.

12. Electronic Delivery. The Company may, in its sole discretion, decide to deliver any documents related to the RSUs awarded under the Plan or future RSUs that may be awarded under the Plan by electronic means or request Participant's consent to participate in the Plan by electronic means. Participant hereby consents to receive such documents by electronic delivery and agrees to participate in the Plan through any on-line or electronic system established and maintained by the Company or another third party designated by the Company.

13. No Waiver. Either party's failure to enforce any provision or provisions of this Agreement shall not in any way be construed as a waiver of any such provision or provisions, nor prevent that party from thereafter enforcing each and every other provision of this Agreement. The rights granted both parties herein are cumulative and shall not constitute a waiver of either party's right to assert all other legal remedies available to it under the circumstances.

14. Successors and Assigns. The Company may assign any of its rights under this Agreement to single or multiple assignees, and this Agreement shall inure to the benefit of the successors and assigns of the Company. Subject to the restrictions on transfer herein set forth, this Agreement shall be binding upon Participant and his or her heirs, executors, administrators, successors and assigns. The rights and obligations of Participant under this Agreement may only be assigned with the prior written consent of the Company.

15. Interpretation. The Administrator will have the power to interpret the Plan and this Agreement and to adopt such rules for the administration, interpretation and application of the Plan as are consistent therewith and to interpret or revoke any such rules (including, but not limited to, the determination of whether or not any RSUs have vested). All actions taken and all interpretations and determinations made by the Administrator in good faith will be final and binding upon Participant, the Company and all other interested persons. Neither the Administrator nor any person acting on behalf of the Administrator will be personally liable for any action, determination or interpretation made in good faith with respect to the Plan or this Agreement.

16. Additional Documents. Participant agrees upon request to execute any further documents or instruments necessary or desirable to carry out the purposes or intent of this Agreement.

17. Governing Law; Severability. This Agreement is governed by the internal substantive laws, but not the choice of law rules, of California. In the event that any provision hereof becomes or is declared by a court of competent jurisdiction to be illegal, unenforceable or void, this Agreement shall continue in full force and effect.

18. Entire Agreement. The Plan is incorporated herein by reference. The Plan and this Agreement (including the exhibits referenced herein) constitute the entire agreement of the parties with respect to the subject matter hereof and supersede in their entirety all prior undertakings and agreements of the Company and Participant with respect to the subject matter hereof, and may not be modified adversely to the Participant's interest except by means of a writing signed by the Company and Participant.

[*SIGNATURE PAGE FOLLOWS*]

Participant acknowledges receipt of a copy of the Plan and represents that he or she is familiar with the terms and provisions thereof, and hereby accepts this Agreement subject to all of the terms and provisions thereof. Participant has reviewed the Plan and this Agreement in their entirety, has had an opportunity to obtain the advice of counsel prior to executing this Agreement and fully understands all provisions of this Agreement. Participant hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Administrator upon any questions arising under the Plan or this Agreement. Participant further agrees to notify the Company upon any change in the residence address indicated below.

PARTICIPANT	PENUMBRA, INC.
Signature	By
Print Name	Print Name
	Title
Residence Address	

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statement No. 333-207007 on Form S-8 of our report dated March 8, 2016, relating to the financial statements of Penumbra, Inc. (which report expresses an unqualified opinion and includes an explanatory paragraph relating to the early adoption of Financial Accounting Standards Board Accounting Standards Update No. 2015-17, Balance Sheet Classification of Deferred Taxes) appearing in this Annual Report on Form 10-K of Penumbra, Inc. for the year ended December 31, 2015.

/s/ DELOITTE & TOUCHE LLP

San Francisco, California
March 8, 2016

Exhibit 31.1

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER
PURSUANT TO RULE 13a-14(a) AND 15d-14(a) OF THE SECURITIES EXCHANGE ACT, AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Adam Elsesser, certify that:

1. I have reviewed this Annual Report on Form 10-K of Penumbra, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) (Omitted pursuant to Exchange Act Rule 13a-14);

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 8, 2016

/s/ Adam Elsesser

Adam Elsesser

Chairman, Chief Executive Officer and President

Exhibit 31.2

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER
PURSUANT TO RULE 13a-14(a) AND 15d-14(a) OF THE SECURITIES EXCHANGE ACT, AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Sri Kosaraju, certify that:

1. I have reviewed this Annual Report on Form 10-K of Penumbra, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) (Omitted pursuant to Exchange Act Rule 13a-14);

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 8, 2016

/s/ Sri Kosaraju

Sri Kosaraju

Chief Financial Officer and Head of Strategy

Exhibit 32.1

PENUMBRA, INC.

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Penumbra, Inc. (the "Company") on Form 10-K for the fiscal year ended December 31, 2015, as filed with the Securities and Exchange Commission (the "Report"), Adam Elsesser, Chairman, Chief Executive Officer and President of the Company, and Sri Kosaraju, Chief Financial Officer and Head of Strategy of the Company, respectively, do each hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

- The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- The information in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 8, 2016

/s/ Adam Elsesser

Adam Elsesser

Chairman, Chief Executive Officer and President

/s/ Sri Kosaraju

Sri Kosaraju

Chief Financial Officer and Head of Strategy