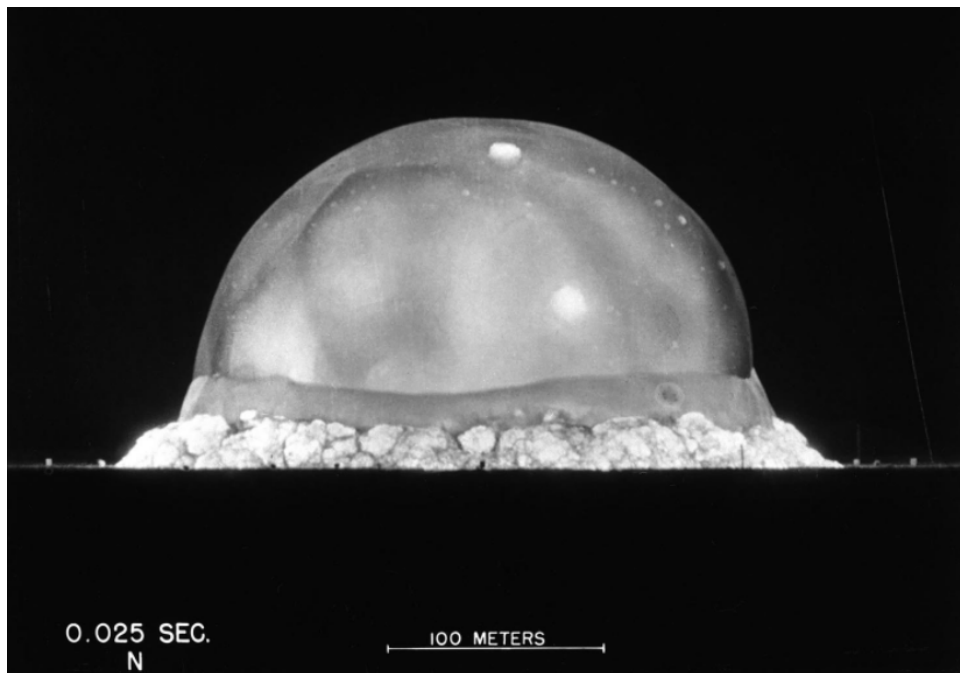


Trinity Plan:

A Roadmap for Filling Bechtel Fall of 2018

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1 Introduction

Bechtel is scheduled for opening in the fall of 2018. Currently, there are two parallel groups working on how best to fill Bechtel. On the student side, there is the Council on Undergraduate Caltech Housing (COUCH), composed of the ten members of the IHC complemented by six students. Each of the six additional students is running a “focus group” closely studying one of the following independent schemes:

1. All Freshman Housing
2. Sophomore Priority Housing
3. Themed (affinity) housing
4. New Houses
5. House affiliated suites (colonies)
6. Unaffiliated Housing

On the staff and administrative side, there is a panel of staff members also working on how to fill Bechtel. The staff groups working on the problem include but are not limited to: the Housing Office, RLCs, the Deans Office, the Counseling Center, Caltech Center for Diversity, and several other groups that fall under the Student Affairs umbrella.

The goal of this white paper is to present a relatively detailed plan and roadmap for how to fill Bechtel in the fall of 2018. The ideas presented here are those of the authors, and do not necessarily represent the ideas of the IHC, COUCH, or any other student group.

The Trinity Plan presented below is designed to be, above all, realistic and reasonable. It is also designed to be a concrete starting point so that different groups (staff and students) can critique the plan and offer input. There are several details left open by the plan, and all efforts are made to explain the rationale for each aspect discussed. The ideas presented below have been influenced by numerous interviews with staff members, discussions with COUCH members, and two surveys that garnered between 500-600 responses.

2 Guiding Principles

This white paper was written with the following guiding principles with regards to how the decision on Bechtel should be reached. These are *not* principles of what aspects of the current residential system should be preserved. Rather, these are broader, more general philosophies that influenced how the plan was shaped.

- **Form dictates function:** The way Bechtel can be filled is constrained by its layout (primarily large suite singles). Ideally, a decision over the function of the building (who lives there) should have preceded the form (physical structure). However, the time for this has long passed. The plan presented tries to work within the limitations of how Bechtel is being constructed.
- **Sooner the better:** There are dozens of pieces that must come together for Bechtel to successfully open in the fall of 2018 (board, peer advisors, RAs, etc.) Because of all of the different pieces and groups that must coordinate with each other, the sooner a decision on Bechtel can be made, the better. The decision should not be made hastily, but the later a decision is made the more difficult it will be coordinate all of the final details. This white paper was partly written to accelerate the decision making process.
- **Beware of unknown unknowns:** As stated above, many small details will need to be worked out for Bechtel to be opened on time. There are the known unknowns i.e. undecided details that people are aware of and are actively working to solve. However, there will also be unknown unknowns - aspects of details that no one has yet foreseen. Having time to address these unknown unknowns is critical for opening Bechtel on time.
- **Occupancy matters:** This white paper is sensitive to the fact that it is financially imperative that Bechtel have the highest occupancy rate possible. The plan does not sacrifice other principles for the sake of maximum occupancy. However, the ideas outlined below were influenced by the desire to fill Bechtel.
- **Community buy-in matters:** Another aspect of this plan is that it tries to satisfy as many stakeholders as possible. The plan has been influenced by discussions with staff members and students and attempts to cater to as many different groups as possible.
- **Sidestepping the chicken or egg dilemma:** Much of the discussion surrounding Bechtel is plagued by the chicken egg problem. Many of the details of Bechtel (how board will work, safety net, housing lottery) cannot be solved without knowing *how*

Bechtel will be filled. Simultaneously, the viability of different plans is dependent on how these details will be addressed. This white paper tries to circumvent this problem by offering a general enough plan that the specific details do not impact the viability of the plan.

- **Don't break anything:** Given the relatively short timeline before Bechtel will be opened, this plan is inherently conservative and does not attempt to radically reshape or overturn the existing system.

A final guiding principle is that this plan is not meant to be a final product. Different groups, both staff and student, should provide their input and modify, revise, and possibly completely replace this plan. Above all else, this plan is a starting point designed to kickstart more specific discussions.

3 Scope

This section details the scope of the plan. This white paper does not try to address every detail surrounding Bechtel. The intent is *not* to answer the philosophical question of what the “best” way to fill Bechtel is. Instead, the plan tackles the much more concrete, and imminent, questions of **how Bechtel can and should be filled by the fall of 2018** and what needs to be done between now and then. Ultimately, if the plan is implemented it does not need to be permanent. The way Bechtel is filled can be revisiting and tweaked later down the road after the first iteration. After Bechtel is opened, we will have the luxury of more time to figure out the “ideal” way to fill Bechtel.

The plan will give an outline for how Bechtel can be filled, how the housing lottery will be run, how rotation may be impacted, and what needs to take place between now and the fall of 2018. This white paper does not address the board plan and leaves the question of how peer advocates will populate the house mostly unanswered. However, these are seen as “minor” details that are easier to work out once an occupancy plan is in place.

4 The Plan

The proposal for filling Bechtel is a melding of three different focus group ideas, giving it the moniker the “Trinity Plan.” This section outlines how Bechtel will be filled. Each subsection comes with an estimate on what fraction of Bechtel will be filled by each scheme. The percentages are especially open to change, and likely will change as Bechtel and evolves. The following section will explain the justification behind the choices that were made.

4.1 Part 1: House Coordinated (but not House Affiliated) Suites (85%)

The majority of the suites in Bechtel will be unaffiliated and filled through the external lottery. None of the houses will have explicitly designated colonies (alleys). Students will pick into the suites as a group. Students will have to find a group large enough to occupy the suite, and priority will be granted based on occupancy rate (a group of 8 will have priority over a group of 7 for a 8 person suite). Beyond that, the individual external lottery numbers of group members will be combined in some fashion (highest number, average, average of top two, etc.) to determine priority.

The internal housing lottery numbers will have no bearing on who lives in Bechtel.

However, the houses will not be bereft of a role. In order to facilitate filling Bechtel, the house secretaries and house presidents will be responsible for running a coordinated network across the eight houses. The purpose of the system to make it easier for people to form suite groups with multiple house members, especially if members don’t already know each other. In other words, if there are five Rudds and three Lloydies, the system will let these two groups find each other so they can form a complete suite group. The system is especially important for people who are loosely affiliated with a house and may struggle individually to form a complete suite group.

4.2 Part 2: Small Number of Themed Suites (10%)

A small portion of Bechtel will be dedicated to experimental themed housing.

Towards the end of winter term or the beginning of spring term 2018, the housing office will release an application for students interested in forming themed alleys. The application will

ask what the theme will be, what group members plan to do to make it a genuine themed alley, and what size suite the alley will need. All members interested in living in the tentative themed house must include their name on the application and effectively commit to live in the themed house.

The housing office, possibly in consultation with other groups, will select a number of theme groups from the applications. The exact number of theme chosen will depend on how many strong applications there are. In the first pilot year, the number of winning themes should be fairly small (likely no more than 3).

The decision on which themes are awarded an alley will be concluded before the start of any aspect of the general external lottery. In effect, students who apply to be part of a themed house and are granted approval will be the first to have a room in Bechtel.

No incoming frosh will be a part of the themed houses in the first year (only rising sophomores, juniors, seniors).

4.3 Part 3: Opt Out Freshman Housing (<5%)

A small number of the singles in Bechtel will be a dedicated opt out option for incoming frosh. These singles will replace the rooms currently reserved in Marks/Braun for freshman who wish to opt out of rotation. However, there will be more rooms available than are currently reserved in Marks/Braun.

The mechanism for being placed into Bechtel will bear similarity to anti-GAing. On the rotation guidelines, prefrosh will be informed that if they wish to opt out of rotation at any point and be placed into Bechtel they must talk to a house president, the IHC, an RA, or some combination of the above. Prefrosh who choose this option will move into Bechtel at the conclusion of rotation, unless special accommodations are made and prefrosh are placed directly into Bechtel prior to rotation. Freshman who complete rotation and live in Bechtel will still have full membership in a house, if they desire.

5 Justification

As stated earlier, this plan is designed to be inherently conservative. **The majority of Bechtel is dedicated to unaffiliated suites because this affords the greatest flexibility**, and is the most straightforward model for filling the residence. Each subsection below further explains each aspect of the proposal.

5.1 Justification: Unaffiliated Suites

The bulk of Bechtel will be unaffiliated suites, because this is the simplest model. Initially, a balance between house affiliated colonies and purely unaffiliated alleys was considered. However, the authors believe there are few benefits to tying specific suites to houses, and that doing so raises complications:

- If spaces open in the middle of the year, house colonies are more difficult to fill. Presently, the housing office will not place students into a house if they are not a member, even if there is space open. A similar principal is currently applied to House OCAs, which has led to several of the larger House OCAs going unfilled.
- House colonies restrict who can pick into the suites. By its nature, house colonies would mean only members of a house can live in a suite in Bechtel. However, this again makes it more challenging to fill the suites. If seven Flems and one Averite want to live together, the house colony structure would prevent them from claiming the Fleming colony in Bechtel.
- The role of internal lottery numbers is inelegant. Currently house OCAs are picked into via each house's internal lottery number. House colonies in Bechtel would likely follow the same principle. However, since each of the suites are identical, it is rather odd that the numbers generated by each house dictate who lives in Bechtel. Under the Trinity Plan, the internal lottery numbers will literally only apply for students living in the physical walls of a house (unlike currently, where internal lottery numbers can be applied for house OCAs). This revision to lottery numbers will streamline the room picks procedure.

In sum, house colonies only adds a constraint to filling Bechtel and complicates the situation. Finally, the main benefit of a *de jure* house affiliated colony structure is that members of the

same house will live together. However, this will *probably happen anyways* if the unaffiliated model is used instead. House colonies adds a layer of complexity without delivering many tangible gains.

The plan calls for the houses to still have a role in who lives in Bechtel. Many, if not most, of the unaffiliated suites will probably be claimed by members of the same house (which is fine). However, a good number of suites will need to be filled by mixed groups. Most of the arrangements can be done informally through word of mouth communication. Nonetheless, it may be helpful if the houses set up some sort of online system for coordinating members across houses.

The drawback of the system is that it adds an additional role to the house secretaries and house presidents. However, leveraging the existing house infrastructure can make filling suites easier, and may be especially useful for people who otherwise can't find enough people to fill an entire suite.

One example case that was considered is the "ski trip problem." Each year, Ruddock house goes on a ski trip and books several cabins, which range in size from about 8-14 people (approximately the size of a Bechtel suite). Groups of Rudds will coordinate amongst themselves to create a cabin group that matches the capacity of a cabin. The ski trip problem is an example of a group of people forming smaller subgroups. Typically, about 90 Rudds go on skip trip.

Filling suites in Bechtel is a similar problem - you are asking a group of people each with their own network of connections to form smaller subgroups. However, the difference is that the number of people "going on ski trip" (living off campus in Bechtel) in each house is smaller (about 45 Rudds live off campus each year). Having people form suite groups only within houses will lead to a relatively large number of "fragments" - groups only composed of people from one house that aren't large enough to fill a suite.

This is a long a way of saying that cross house groups are inevitable, and that the houses can ease the process by having some system of coordinating. The exact shape of the system is unknown, and may even prove unnecessary. However, in the first year the house excomms should prepare to facilitate coordination between houses.

5.2 Justification: Themed Housing

A common refrain from certain staff members is that **Bechtel should include something new** and should not be a pure replication of the current system. Another frequently expressed desire is that students be given options for where to live.

Themed housing was included in the Trinity Plan because it is the least risky way to introduce novelty. At worst, the themed houses will “fail” and behave like any other suite of friends. However, the themed houses may also work really well. Themed housing at other schools can be popular, and gives students another group of people to identify with.

The themes for the houses will all be application based. This model is copied from Occidental, which has a “choose your own adventure” themed housing style where students decide their own themes and apply to have a themed house for a one year period.

For the first year (2018), the themed houses will only have a one year contract. Afterwards, the themes may choose to apply for longer periods of time. Since the first iteration is very much a pilot program, a one year contract makes most sense.

Themed alley applications will have to include which students will live there. This will guarantee that the themed suites will be filled. The application process is designed to choose the most viable themes that are least likely to devolve into a plain vanilla unaffiliated suite. Not having freshmen living in suites the first year will make the process simpler.

A big question is how popular the themed alleys option will be. A survey will be sent shortly, which will help to better gauge interest in themed housing. Having themed alleys selected before the rest of the external housing lottery let’s the housing option choose as many or as few themes that are deemed viable. Whatever remains can then be given over to the unaffiliated lottery.

5.3 Justification: Freshman Opt Out

“We tell freshmen that they can opt out of rotation, but they don’t really know what they’re opting out of and the social cost is so high that it’s not really a choice.”

The third and final piece of Bechtel is a *small* portion for freshmen to live in. In the first year, the number of dedicated rooms will be less than 10 rooms. The goal is provide a **genuine opt-out option for prefrosh** who don’t want to be a part of rotation or the house system.

Prefrosh will have to talk to some member of the IHC or an RA (or both) to be placed into Bechtel. They can either opt out at any point during rotation or ask to be placed into Bechtel if they can't be in one of their "top" choices (top being a very liberal term - something like top 5 or 6 houses).

In designing a freshman opt out area, there were two "rotation errors" that were considered:

5.3.1 Type I Error: Frosh stuck in a bad house

This scenario was often discussed by RAs, and currently happens at some small, but unknown rate. In this case, a freshman rotates into a house that they ranked low, or into a house that doesn't really want them. For one reason or another, the frosh gets stuck in a house that they don't like and is unable to leave, or the cost of leaving is too high. Some of the frosh in this scenario end up moving the Marks/Braun, but space is limited.

5.3.2 Type II Error: Frosh opts out when they would have liked their house.

Given how few rooms are dedicated for opting out of the house system, this error is probably very rare. If there are more opt out rooms, then there may be frosh who opt out of the house system because they're placed into a house that they don't think they'll like, but would have been better off in the house. This error depends on "house wisdom" - the idea that houses have a better idea which prefrosh will like the house than the prefrosh do. Prefrosh are encouraged to give the house they rotate into a chance, even if it's not their first choice. Under the current system, most prefrosh who are discontent have no choice but to hope it works out. However, adding more opt our housing could lead to the opposite problem: freshmen leaving the house system prematurely, before they've given it a chance.

In this proposal, the frosh opt out portion was designed to eliminate Type I error without accidentally promoting Type II error. Type I error is alleviated by increasing the number of rooms left open for frosh to opt out to. In effect, instead of forcing frosh into houses that they ranked low, these frosh will be collected and placed into Bechtel. The system intentionally has some friction to limit the number of Type II errors. Prefrosh must talk to RAs and/or IHC members to be placed into Bechtel, and the option will be made known but not promoted or advertised. To some degree, having a small opt out option will push the house system to be more appealing since they are competing against a Bechtel option.

The tentative plan is for the freshmen to be placed into the handful of pure singles in Bechtel. One consequence of this system is that some of the houses will have to lose at most one freshman room for the fall of 2018.

6 Modifications and Alternatives

There are several alternative plans or changes that can be made that preserve the spirit of the Trinity Plan. Some of the alternatives were considered, but ultimately shelved.

6.1 Increasing Size of Themed Housing

The 85-10-5 breakdown of the Trinity Plan is flexible. The most likely change to the mix is to increase the fraction dedicated to themed housing. This is strongly dependent on how many viable applications for themed housing are submitted.

One advantage is that the size of themed housing can be flexible. Each theme will occupy a complete suite, but the number of suites and the number of themes can be decided after applications are submitted.

6.2 Limited House Affiliated Colonies

Instead of purely unaffiliated suites, a small number could be designated as House Affiliated Colonies. Each house would be allocated one or at most two suites, and the suites will be filled in the process analogous to how current house OCAs are filled.

For reasons discussed above, this plan was rejected because it makes the system more complicated. If house colonies are very popular, it may be worth revisiting. However, it's not clear how house colonies will in practice be different from unaffiliated suites, which will likely end up being mostly filled by students from the same house.

6.3 Sophomore Wing

Giving sophomores priority in picking into Bechtel is probably unnecessary. The residence is large enough that it is unlikely there will be a shortage of beds. One alternative is to allocate part of Bechtel as a “sophomore wing” where only sophomores, or almost entirely sophomores, reside.

Many of the suites in Bechtel will probably be filled by members of a single house. However, placing suites with students in the same year adjacent to each other may make it easier to form cross-house and cross-suite connections. Sophomores take many of the same courses together (pseudo-core) and students from the same year are more likely to know each other, even if they are from different houses.

If part of Bechtel is designated a sophomore wing, the wing should be fairly large, between a quarter and a half of Bechtel. The advantages and networking effects of placing sophomores together will likely be too weak if the population isn’t large enough. Suite groups picking into the sophomore wing should be composed primarily of sophomores, but prohibiting other upperclassmen from living in the wing at all is unnecessarily draconian and adds a layer of complication. A ceiling could be placed on the maximum number of juniors/seniors per suite so that the wing is still predominantly sophomores.

6.4 Picking into Individual Singles in Suites

The Trinity Plan calls for the suites to be filled by suite groups. A group of students with enough members to fill a suite will collectively pick into a single suite, allowing students to choose who they live with.

Organizing every student wishing to live in Bechtel into a suite sized group is a very demanding task. Both a “top-down” approach (assignment by higher authority) and a “bottom-up” approach (asking groups to self organize) will likely lead to some left over students unable to form a complete suite group. Some of these individual students will likely live in Marks or Braun, but others may wish to live in Bechtel.

The cross-house filling mechanism was proposed to alleviate this problem. The mechanism is meant to benefit all students, including those who are unaffiliated, and help fill suites. Another option is to let students pick into the individual singles in the suites, rather than picking in as suite groups. There will likely be enough complete suite groups to fill many

of the suites. However, the remaining suites will be easier to fill if the requirement that an entire suite group pick in is relaxed. Some number of spaces in the suites, on the order of 20-40 beds, could be treated like singles in the external lottery. This will be especially helpful for students unable to organize a large enough suite group.

6.5 Stronger Freshman Opt Out Option: Pluto

As a conservative measure, the third leg of the Trinity Plan was intentionally designed to mirror the current opt out system. Several stronger options for freshman opt out housing were also considered. At least for the first year, these ideas were turned down to minimize the risk of generating Type II rotation errors. There should be some barrier for freshman to opt out of the House System, but the strength of the barrier can be tuned.

A specific alternative scheme is the Pluto plan. Instead of ranking eight houses, prefrish would rank 8 houses AND Bechtel, giving nine options. In effect, Bechtel will be a ninth “house” except it’s a house mostly populated by frosh who chose to opt out of rotation.

The elegance of the solution is that it fits cleanly with the current rotation. The upperclassmen in Bechtel wouldn’t be throwing events or hosting dinner for prefrish, but interested prefrish would still “rotate” through and see Bechtel. The point of the Pluto scheme is to make a genuine opt out of rotation and opt out of the houses system option for freshmen. Prefrsh could also opt out of rotation at any point and choose to live in Bechtel instead of going through the process. In effect, this scheme would preclude frosh being rotated into a house they ranked low. Instead of being put into a house they ranked low, prefrish would go to the plain vanilla Bechtel option.

A lot of the problems with this scheme are problems that already exist. The prefrish sorted into Bechtel could feel like no house wanted them, just like how prefrish sorted into a house they don’t like sometimes feel unwanted. Guessing how many prefrish will want to live in Bechtel is another sticky problem, and a mismatch could be troublesome. But this is another problem that already exists. From survey data the fraction of students who feel they would have been happier not living in their rotated house is around 8%. The absolute minimum bound is 5%, since the response rate was around 60%. A good guess is that the size should be 15-25 frosh.

Modifications to Pluto would be to make ranking Bechtel optional, or require prefrish interested in Pluto to discuss their choice with the IHC or RAs.

Pluto is a poor man's version of all frosh housing, and it loses many of the advantages of putting all the frosh together. It is unclear how the frosh in Pluto will congeal and whether they will form their own community. Another unknown is how the frosh will interact with the upperclassmen occupying the bulk of Bechtel. At least for the first year, it may be advisable not to implement the Pluto plan, but to reconsider it after the fall of 2018.

7 Rejected Proposals

Six focus groups were formed to study six individual proposals. The Trinity Plan incorporates features of several options. Three options - sophomore priority, all freshman housing, and new houses - were effectively rejected by the Trinity Plan. This section details why these three were rejected, given the guiding principles behind the plan.

7.1 All Freshman Housing

All freshman housing is a more viable option than most students believe. The option has support amongst certain staff members, and has several appealing advantages. In short, freshman housing can facilitate a tighter freshman class, and allows a more coherent first year experience to be crafted. Another advantage of all freshman housing is that it is the option that most cleanly purges the House System of its flaws.

The authors have studied the all freshman housing option the most closely of the six proposals. Although all freshman housing is *probably* a viable option, it was rejected for several reasons.

The first is a logistical reason. Bechtel is too small. There are only 212 beds in Bechtel, and some of the beds will have to go to health advocates, peer advocates, and other upperclassmen. Roughly a sixth of the frosh class will need to be placed somewhere else, most like in Alley 1 and Alley 5 of Avery. Being forced to split the freshman class negates several of the strong advantages of all freshman housing.

Numerous staff members noted that all freshman housing at other schools came with a suite of targeted programming. Classes, programming, support, and mentorship were all carefully crafted to form a unified freshman experience. Currently, virtually none of these programs exist. Even the peer advocacy system that will be implemented in Bechtel is untested and in its infancy. **Of all the options, all freshman housing demands the most additional support and infrastructure**, much of which will need to be created in short order.

The size problem is one that will never go away, and will always hamper Bechtel if it is turned into a frosh house. The programming challenge is one that *could* be solved. However, implementing effective programs by the fall of 2018, almost all of them untested, would be a very demanding task.

One of the guiding principles of the Trinity Plan is to answer what Bechtel can be in the fall of 2018, not what it Bechtel ideally should be. **Frosh housing is too demanding and too risky** of a plan to implement, at least in the fall of 2018 and possibly ever. It is possible that five years down the road, Bechtel *could* be converted into a successful all freshman house, but only if done very intentionally and deliberately. The current timeline makes this infeasible for the fall of 2018.

7.2 New Houses

Turning Bechtel into new houses to add to the existing 8 was rejected fairly quickly from the Trinity Plan. The authors perceived that there was little support from staff, and that support from students was tepid at best.

New houses also poses certain challenges, and bears some similarities to the all freshman proposal. New houses is, like all freshman housing, an “all or nothing” approach. Using only part of Bechtel as a new house is inelegant, or worse impractical. There are logistical challenges with how to seed new houses, but these problems have been solved before and are not show stoppers. In coming years, Bechtel *could* organically evolve into one or several new houses. However, there are few compelling reasons for opening Bechtel as a new house in the fall of 2018.

7.3 Sophomore Priority Housing

The third rejected plan was sophomore priority. In this scheme, Bechtel would either house all of the sophomores, or sophomores would have priority in Bechtel. The motivation for sophomore priority is the pattern that sophomores are the cohort most likely to be “kicked out” of the house system for lack of space.

There aren't major flaws with the sophomore priority plan, but the size of Bechtel will probably make giving priority to sophomores unnecessary. In addition, survey data suggests that there will not be overwhelming demand for Bechtel, which again makes giving priority to sophomores unnecessary. The Trinity Plan will likely have enough space to house all the sophomores who wish to live in Bechtel.

One drawback with sophomore priority is that, like house colonies, it adds an artificial constraint on who can live in Bechtel. Sophomores may naturally form suite groups amongst

themselves, but there is little reason to prohibit a junior from also living in the same suite.

However, while a pure sophomore priority house is not necessary, the idea has its merits. There may be benefits to grouping sophomores together in part of Bechtel. For details, see Modifications and Alternatives.

8 Known Unknowns

The Trinity Plan focuses on how to fill Bechtel. There are a myriad number of additional questions that are left unsolved. However, the goal of the Trinity Plan is to provide enough detail for the remaining unknowns to be filled in. This section discusses some of the questions that remain to be answered.

8.1 Board

One large question is what form the board plan will take. The dining hall may go underutilized if the building is occupied mostly by upperclassmen; students may choose to return to their houses for house dinner. Board as a whole may need to be revamped, but this is largely beyond the scope of the Trinity Plan.

8.2 Peer Advocate Program

A second piece is what form the peer advocate program will take. There are two sub-problems:

1. Ensuring there are enough peer advocates willing to live in Bechtel
2. Ensuring the peer advocates can get a room in Bechtel

The first problem will probably have to be solved by actively recruiting peer advocates willing to live in Bechtel. Prospective peer advocates may enter agreements where they declare intent to live in Bechtel. It is unknown how challenging finding enough PAs for Bechtel will be.

In some houses, ensuring that UCCs have a room in the house is a problem. Houses will sometimes guarantee room picks or even pick order to UCCs, but the suite style of Bechtel makes this challenging. An alternative is to guarantee a pick but not a pick order to groups with peer advocates. In this scheme, suite groups will note how many prospective peer advocates are in the suite group. The suite groups with peer advocates will not have priority in the room picks. The suites in Bechtel will first be filled based solely on numbers. Eventually, a point will be reached where the number of suites remaining is equal to the number of suite groups with peer advocates that have yet to pick. At this point, the suite groups without peer advocates will be “locked out” and only groups with peer advocates will be able to pick.

The lockout procedure guarantees there are enough peer advocates in Bechtel. At the same time, since there is no pick order guaranteed students are not incentivized to be a peer advocate solely for pick priority. However, this entire problem may turn out to be a non issue if demand for beds does not exceed supply.

A similar scheme can also be implemented for health advocates.

8.3 External Lottery

The external housing lottery has already been discussed in some detail, though there are several attributes that are left undetermined. An application for themed housing will be released first, before the unaffiliated lottery numbers are released. The form of the application and the composition of the committee reading the applications can be decided at a later date. After themes are selected, the normal lottery proceeds. One small detail is how the lottery numbers of the individuals will be used to determine the filling order. This detail is fairly unimportant, and can be worked out later.

8.4 Cross-house Filling Mechanism

An interhouse coordination network for linking cross-house suite groups has been alluded to several times. The intent of the network is to facilitate forming suite groups with multiple house members who may not know each other. The system will be run by the houses, but the exact way it will work is unknown. One scheme is for small groups that are not large enough form a suite group to be entered into a database. The database could be public, and subgroups can use it to look for other subgroups that are large enough to form a suite groups.

In the current system, students unable to find roommates are sometimes forced to find roommates during the external housing lottery. The cross house network would effectively allow this to take place in the weeks leading up to the housing lottery and will hopefully help streamline the picks process. The house governance structure will be leveraged to run the network, but the system will be open to all students, regardless of affiliation. An interesting possibility is to run “simulations” and perform trial runs on the system with students before the actual housing lottery.

If this network is implemented, many of the finer details will still need to be worked out. Alternatively, it may prove to be unnecessary. Nonetheless, houses (or another student group such as ASCIT) should prepare to aid students with forming cross-house suite groups, especially in the first year.

9 Roadmap Fall 2018

This section details some of the specific steps that will need to take place for the Trinity Plan to be implemented. The steps are presented in approximately chronological order, and the dates are approximate time windows. The list is non-exhaustive and will need to be more thoroughly fleshed out.

1. **Winter 2018 - Development of cross house filling mechanism begins** - The IHC, house secretaries, and possibly donut team begin developing how to facilitate cross house suites and evaluating if the system is necessary.
2. **March 2018 - Themed alley application opens** - The application for themed houses goes live. Students will have several weeks to form prospective themed alleys and submit applications.
3. **Early April 2018 - Themed alleys selected** - The housing office announces which themed alleys will be granted a suite in Bechtel. This will also set the number of suites in Bechtel available to the general lottery.
4. **Early April 2018 - Size of freshman opt out finalized** - The number of rooms allocated to the freshman opt out alley is finalized. Discussion on this topic should begin several months prior.
5. **April 2018 - Internal house lotteries**
6. **May 2018 - External unaffiliated lottery**
7. **Summer 2018 - Opt out mechanism established** - The method for placing freshman into Bechtel is finalized by the IHC in consultation with other groups.
8. **September 2018 - Rotation** - Freshmen are formally notified about the Bechtel opt out option.

10 Conclusion

The goal of the Trinity Plan is to present a feasible plan for filling Bechtel. Bechtel will likely change after it is first opened, but this plan focuses on what will need to happen between now and September 2018. This is not meant to be a finalized or polished proposal. Instead, it is designed to be tentative proposal that is specific enough for different interest groups to provide input and modify the plan, which will need to be heavily revised.

The three core parts of the Trinity Plan are:

1. Unaffiliated suites (85%)
2. Themed alleys (10%)
3. Freshman Opt Out (< 5%)

Above all, the Trinity Plan tries to minimize disruption while introducing new elements to Caltech housing. The plan attempts to answer the question of what to do with Bechtel in the *first year*. What Bechtel should become afterwards is left unanswered, and this white paper intentionally does not attempt to address the challenges to the House System. However it is worth noting that one of the commonly cited drawbacks of the House System - relative isolation between houses - may be diminished by the Trinity Plan. The plan was developed with a recognition that the short timeline and form of Bechtel limits what can be done with the residence. The plan is also designed to appeal to both staff and student groups, and was designed with input from both groups in mind.

The Trinity Plan reflects the thoughts only of the authors and not that of any student group. The authors recognize that the plan is colored by our own personal experiences, and that critical considerations may have been overlooked.

11 About the Authors

Tim is a rising senior studying electrical engineering, and the leader of the all freshman housing focus group. He rotated into Ruddock and has lived in Ruddock, Avery, Marks, and Braun. Tom is a rising senior studying chemistry. He also rotated into Ruddock and has lived in Ruddock, a Ruddock OCA, and Avery.