

Kentfield Learning Resource Center/ Student Center Programming

COLLEGE OF
MARIN

October 26, 2018



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The College of Marin enjoys distinct advantages, including a dramatic physical setting with commanding views, and well-regarded and highly-valued programs. This document identifies the specific needs of some of those programs and forms a basis for the building design that will follow. This Program establishes required areas, defines project scope and provides a conceptual cost model for the College's new combined Learning Resource Center and Student Services Building. Undertaken to confirm that programmatic needs have been met within an established budget, approval of the Program will enable the Design Team to carry forward the building design. The primary goals of the Program Phase include:

- Prepare a functional space program that identifies appropriate, code-compliant area requirements for the proposed project.
- Provide a cost model for construction that reconciles area requirements with the District's identified project budget.
- Describe functional and technical requirements for the library, cafeteria, classrooms, service and support spaces, and the academic and administrative offices that are needed to support the students and the curriculum, and accommodate existing programs.
- Identify program requirements and associated costs needed to develop the project site in accordance with the approved College Master Plan.
- Promote change in organizational structure and improvement in outcomes through flexible facilities for active learning and effective administrative operations.
- Evaluate existing department adjacencies and provide more efficient adjacencies for use by students and staff.

Building on collaborative and inclusive analysis, we hope to demonstrate that the positive impact and inspirational potential of the new facility is evident and sets expectations for design: to create a meaningful program in a highly memorable place that attracts students and staff to the campus and makes the campus more highly accessible for new and existing students.

PROJECT OVERVIEW

The new building benefits from the College's rich environment. This section examines the existing conditions, briefly summarizes proposed program components and describes influences on the design.

Program areas total about 55,000 assignable square feet. A majority of that area is dedicated to programs for the library and food services and includes support activities in Student Services as well. This total area accommodates relocation of existing programs from the existing buildings.

Building organization should follow a strong precept that emerged from the programming process. There was a strong preference for collaborative spaces that create well-defined zones for faculty and administrative offices and support spaces. These should form key nodal points for interaction including primarily providing a series of student-directed experiences along a primary intuitive circulation path.

SITE ANALYSIS

The new building joins a well established administrative and academic community and the Site Analysis extends to address campus-wide considerations. Specific plans or diagrams demonstrate conformance with Master Plan goals and broadly address the movement of people and services. The new building must connect to existing infrastructure. Tie-in points or likely routes for water supply, storm drainage, sewerage, gas, and data and electrical utilities are diagrammatically depicted.

Steep slopes throughout the campus require close attention to program assignment by floor level and create some challenges for site access. Despite these concerns, this is a very favorable site. This prominent hillside location with high visibility and superb views supports college and district goals for image and identity. The building will benefit from good solar exposure and, extending back and down-slope from the crest, will enjoy some protection from prevailing winds.

EXECUTIVE SUMMARY

SUSTAINABILITY

The District has recognized what has been called the “Triple Bottom Line” of sustainability - Economy, Equity, and Environment. This very broad definition places development in social and economic context and those factors have informed our planning. Achieving a high level of energy conservation and environmental contribution is however, most directly applicable to the design process. Well-established as a project goal, sustainable considerations for the Program phase are obtained through economies of scale, shared facilities, and right-sizing of systems.

Based on the District policy and specific project goals, sustainable performance will be assessed by third-party certification. With design still in the earliest stages of development, specific building features and conditioning systems have not been assigned.

BUILDING PROGRAM

The Building Program describes institutional requirements for programs and regulatory conditions for building development. Following expectations established by the College’s 2016 Master Plan, projections for institutional growth are taken to 2021.

Regulatory considerations are included at this stage to establish basic expectations and to identify issues that will be incorporated in the design phases that follow. For the Program phase, Code Analysis relates building areas to life safety considerations and appropriate construction methods.

ROOM PROGRAM

This section lists area requirements, functional needs and technical criteria for rooms in the building. This information defines design at a very basic level, as depicted in the sample adjacency diagrams. This information is also used to project overall building areas. These assumptions are then used to model anticipated costs and conformance with the established budget.

Room programming recognizes these critical factors but maintains primary focus on instructional needs and long-term operations. Design team members collaboratively defined these requirements with those faculty and staff most directly associated with the room’s intended use. Collected in separate sessions, previously gathered information is reviewed and progressively developed to greater levels of definition.

CAMPUS

As detailed in the 2016 - 2021 Facilities Master Plan, the College of Marin was originally constructed in 1926 as the Marin Junior College. Since then, buildings have been added and removed over the years. It is now time to again provide new facilities that will meet the current needs of the campus, create a new center, and prepare for anticipated and unanticipated changes in the future.

PROGRAMMING

Consistent with the requirements of shared governance, the planning and programming team made formal presentations to campus groups in a Town Hall meeting, at College Council meetings, with specific user groups in the buildings, and with the Associated Students. This was a highly inclusive process. Every campus office or organization in both the Learning Resource Center and the Student Services Building was represented in our meetings and provided input into the programming process. Findings and recommendations were presented at meetings and results provided to the broader campus community.

All affected faculty members and virtually all participants recognized pedagogical opportunity in developing the program plans. Room layouts and conceptual organization was validated through discussions about recent instructional programs and visits to relevant academic buildings. Building organization will follow a strong precept that emerged from the programming process. Collaborative spaces create well-defined zones for faculty and administrative offices and support spaces. These will form key nodal points for interaction - a series of active and collaborative learning experiences along the primary circulation path for students. This is an important focus of the movement through the registration and information gathering process for students.



KENTFIELD CAMPUS - MAIN





KENTFIELD CAMPUS - VILLAGE SQUARE



SITE ANALYSIS

The primary site area under consideration for this report is the zone of influence between and around the existing Learning Resource Center and the Student Services Building. The report looks at utility and infrastructure conditions, including water, gas, electricity, communications, irrigation, storm drainage, etc. We also understand that the Corps of Engineers has plans to further develop and expand the existing adjacent channel in the future.



College of Marin - Utility Study

This memo illustrates recommendations for the Utility System for the College of Marin Library Project. Recommendations are based off of as-built records and documents provided to us by WLC and the College of Marin Records.

Existing Buildings to Remain

Per the site walk and conversation with the College of Marin staff, the existing wet utilities have been to an extent, upgraded. The existing utilities will not be required to be relocated or upsized. New connections from main line to building should be replaced.



Improvements with New Building

With the replacement of the Library Building, the proposed building will require new service connections for both dry and wet utilities (water, fire, sewer, storm, gas, electric, and communications). Any utilities located within the new building footprint or that will be impacted during construction will need to be replaced with similar size and satisfy current code requirements. Per the schematic layout provided by WLC, the new library location will impact several Utility services and require regrading to ensure proper access to the site. See attached exhibits for locations of possible relocation of existing utility services. With the proposed location of the building the finished floor of the building will need to be 6" to 12" above the nearest sidewalk grade to ensure adequate drainage away from the building. The new building must maintain the necessary fire access clearances per the local fire authority.



- PRINCIPALS:**
- DOUGLAS HOHBACH S.E.
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- JOAQUIM ROBERTS S.E.
- ANTHONY LEE S.E.
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- MOHAMED IBRAHIM S.E.
- BRIAN HO S.E.

- CE DEPT MANAGER:**
- BILL HENN

Rough Engineer's Cost Estimate - Onsite Improvement

HOHBACH-LEWIN, INC.	<u>PROJECT:</u> College of Marin
College of Marin	<u>JOB NO:</u> #13096.31
835 College Ave, Kentfield, CA 94904	<u>LOCATION:</u> Kentfield, CA

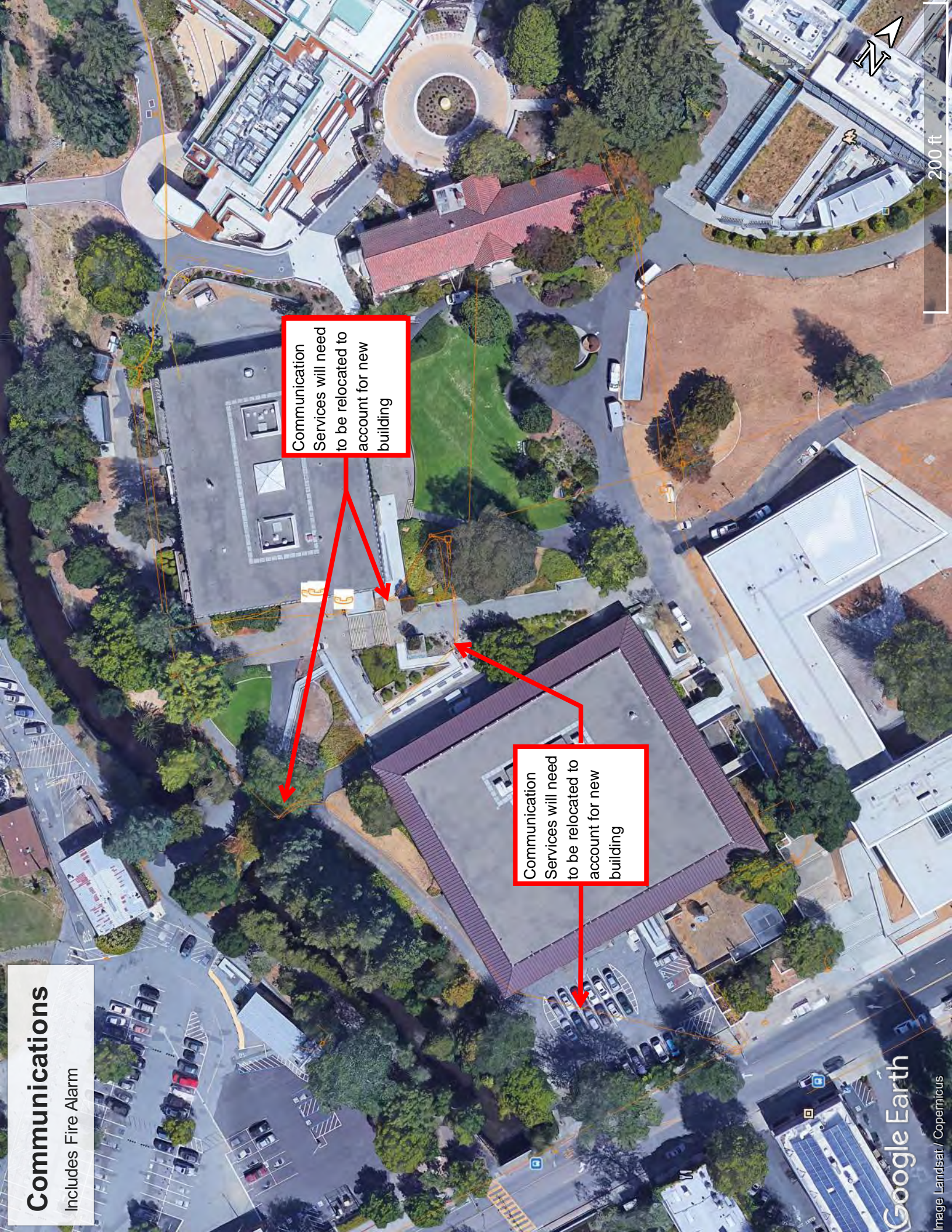
No.	Description	Quantity	Estimated Quantity	Unit Cost	Total
	DEMOLITION & TEMPORARY WORK				
1	Sawcut	LF	1500	\$5.00	\$7,500.00
2	Remove Sidewalk	SF	2500	\$10.00	\$25,000.00
3	Tree Removal	EA	10	\$200.00	\$2,000.00
4	Cearing and Grubbing	ACRE	1	500.00	\$500.00
5	Remove Existing Abandoned Utilities	LF	2000	25.00	\$50,000.00
6	Asphalt & Agg. Base Removal	SF	7500	\$5.00	\$37,500.00
7	Excavation Excess Material	CY	3500	\$30.00	\$105,000.00
	IMPROVEMENTS				
8	Rough Site Grading - Cut	CY	3500	\$30.00	\$105,000.00
9	AC Pavement with Agg. Base (2"/6" AB)	SF	7500	\$10.00	\$75,000.00
10	Concrete Sidewalk	SF	2500	\$20.00	\$50,000.00
11	Concrete Stairs & Handrails	SF	2500	\$50.00	\$125,000.00
12	Concrete Curb & Gutter	LF	100	\$30.00	\$3,000.00
13	Fine Site Grading	SF	15000	\$3.00	\$45,000.00
14	3/4" Water PVC	LF	750	\$35.00	\$26,250.00
15	2" Water PVC	LF	150	\$100.00	\$15,000.00
16	6" SS	LF	150	\$120.00	\$18,000.00
17	6" FS PVC	LF	200	\$130.00	\$26,000.00
18	6" SD	LF	150	\$160.00	\$24,000.00
19	8" SD PVC	LF	200	\$215.00	\$43,000.00
20	Cleanout to Grade	EA	20	\$500.00	\$10,000.00
21	6" Area Drain	EA	10	\$2,000.00	\$20,000.00
22	12"x12" Catch Basin	EA	10	\$3,500.00	\$35,000.00
23	24"x24" Catch Basin	EA	15	\$4,000.00	\$60,000.00
24	Storm/Sewer Manhole	EA	2	\$3,000.00	\$6,000.00
25	Joint Trench	LF	800	\$200.00	\$160,000.00
26	Fire Hydrant	EA	2	\$15,000.00	\$30,000.00
27	2" Backflow	EA	1	\$2,500.00	\$2,500.00
28	6" Backflow	EA	1	\$6,000.00	\$6,000.00
29	2" Water Meter	EA	1	\$1,500.00	\$1,500.00
30	2" Water Valve	EA	1	\$500.00	\$500.00
31	New Light Fixture	EA	4	\$ 5,000.00	\$ 20,000.00
32	Conduit & External Wiring	LF	500	\$ 35.00	\$ 17,500.00
	LANDSCAPE				
33	Tree protection at existing trees	EA	10	\$200.00	\$2,000.00
34	Irrigation System	SF	10000	\$3.00	\$30,000.00
				\$0.00	\$0.00
				Subtotal = \$1,183,750.00	
10% Contingency					\$11,837.50
				Total = \$1,195,587.50	

Communications

Includes Fire Alarm

Communication Services will need to be relocated to account for new building

Communication Services will need to be relocated to account for new building

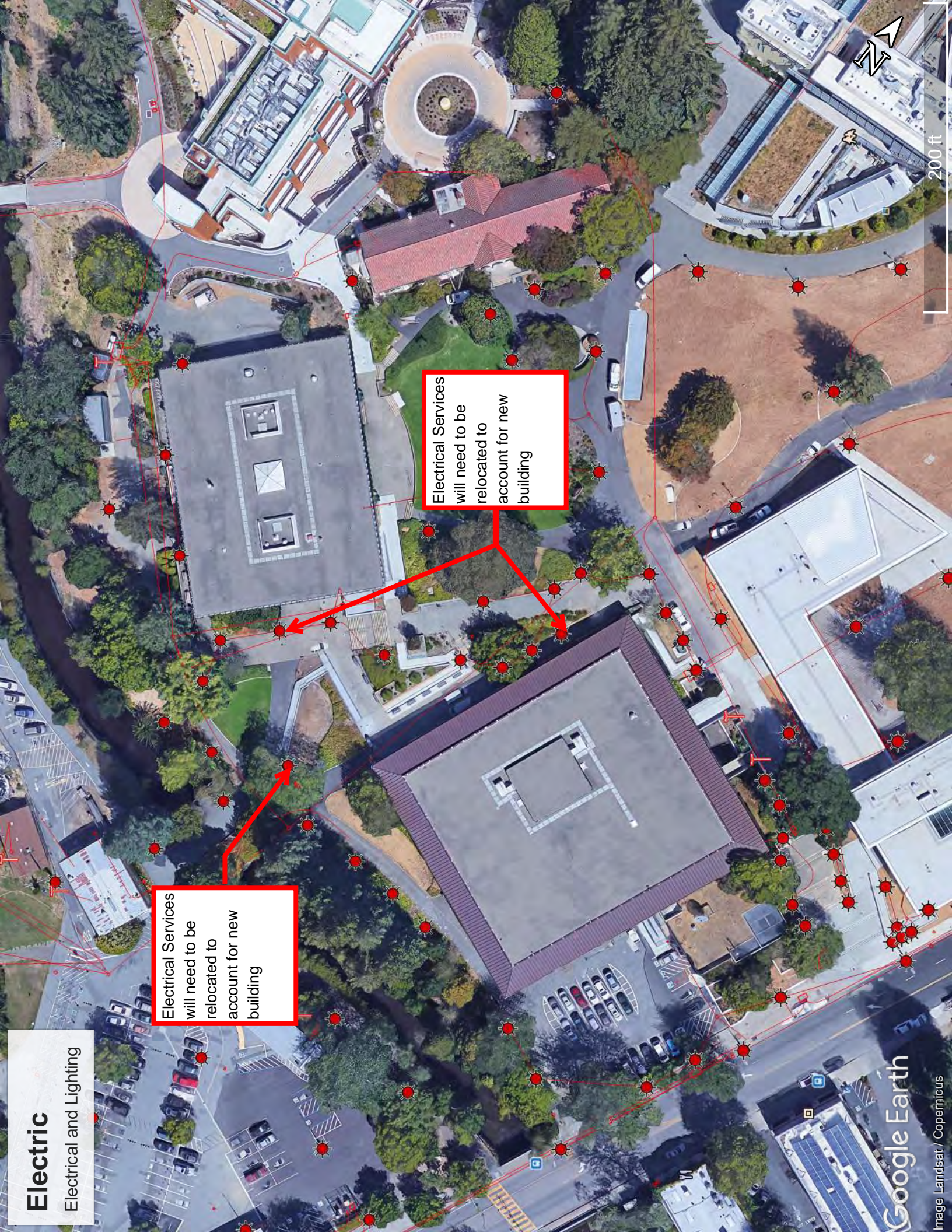


Electric

Electrical and Lighting

Electrical Services will need to be relocated to account for new building

Electrical Services will need to be relocated to account for new building



Gas

Gas Services will need to be relocated to account for new building

Gas Services will need to be relocated to account for new building



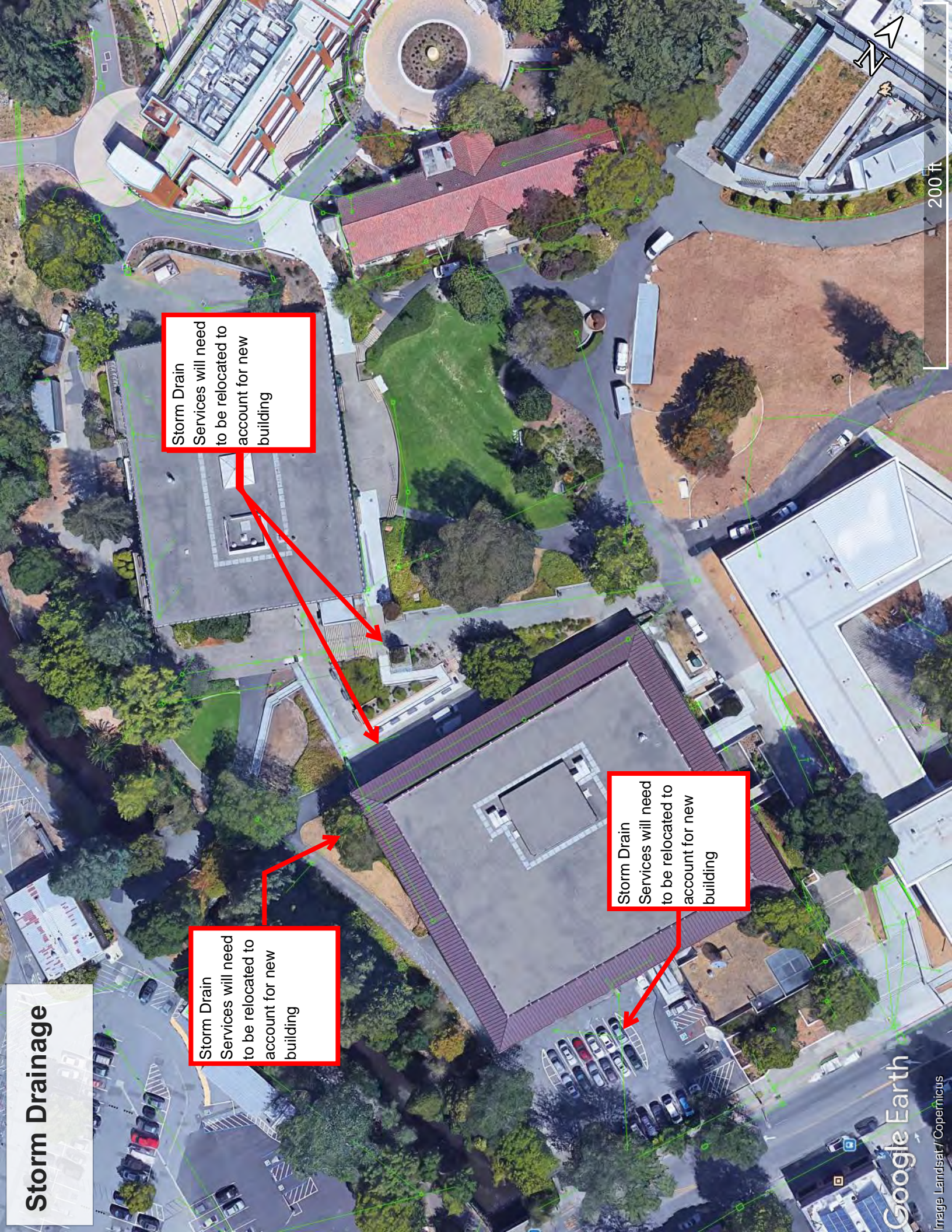
Storm Drainage

Storm Drain Services will need to be relocated to account for new building

Storm Drain Services will need to be relocated to account for new building

Storm Drain Services will need to be relocated to account for new building

200 ft



Water

Domestic, Fire, Hydronic

Water Services will need to be relocated to account for new building



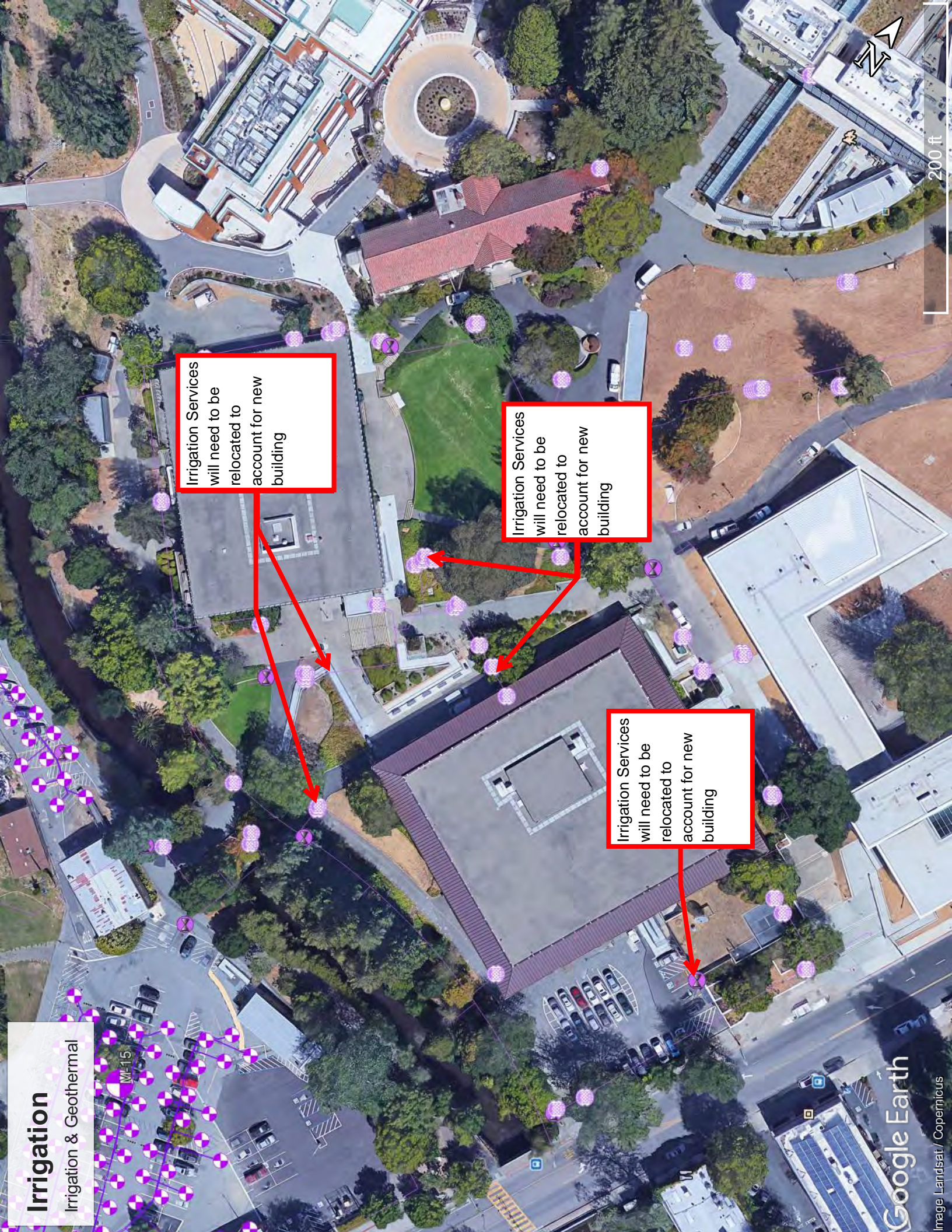
Irrigation

Irrigation & Geothermal

Irrigation Services will need to be relocated to account for new building

Irrigation Services will need to be relocated to account for new building

Irrigation Services will need to be relocated to account for new building



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LOCATION MAP
NO SCALE

GENERAL NOTES:

1. SEE SITE DRAWINGS FOR ACTUAL FLOOR ELEVATIONS. FOR DETAIL PURPOSES THE FINISH ADJCT. ELEVATION OF EXIST. BUILDING IS TO BE CONSIDERED TO BE ELEVATION + 0.00
2. ALL ROOF CONSTRUCTION, INCLUDING LAYING OF FINISHED ROOFING, SHALL BE COMPLETED BEFORE THE CONSTRUCTION OF ANY INTERIOR NON-BEARING PARTITIONING.
3. STRUCTURAL DRAWINGS GOVERN FOR SIZES, SPACING AND CONNECTIONS OF ALL STRUCTURAL MATERIALS & MEMBERS.
4. APPROVAL OF THE OFFICE OF ARCHITECTURE AND CONSTRUCTION APPLIED TO WORK UNDER THIS CONTRACT ONLY.

ABBREVIATIONS

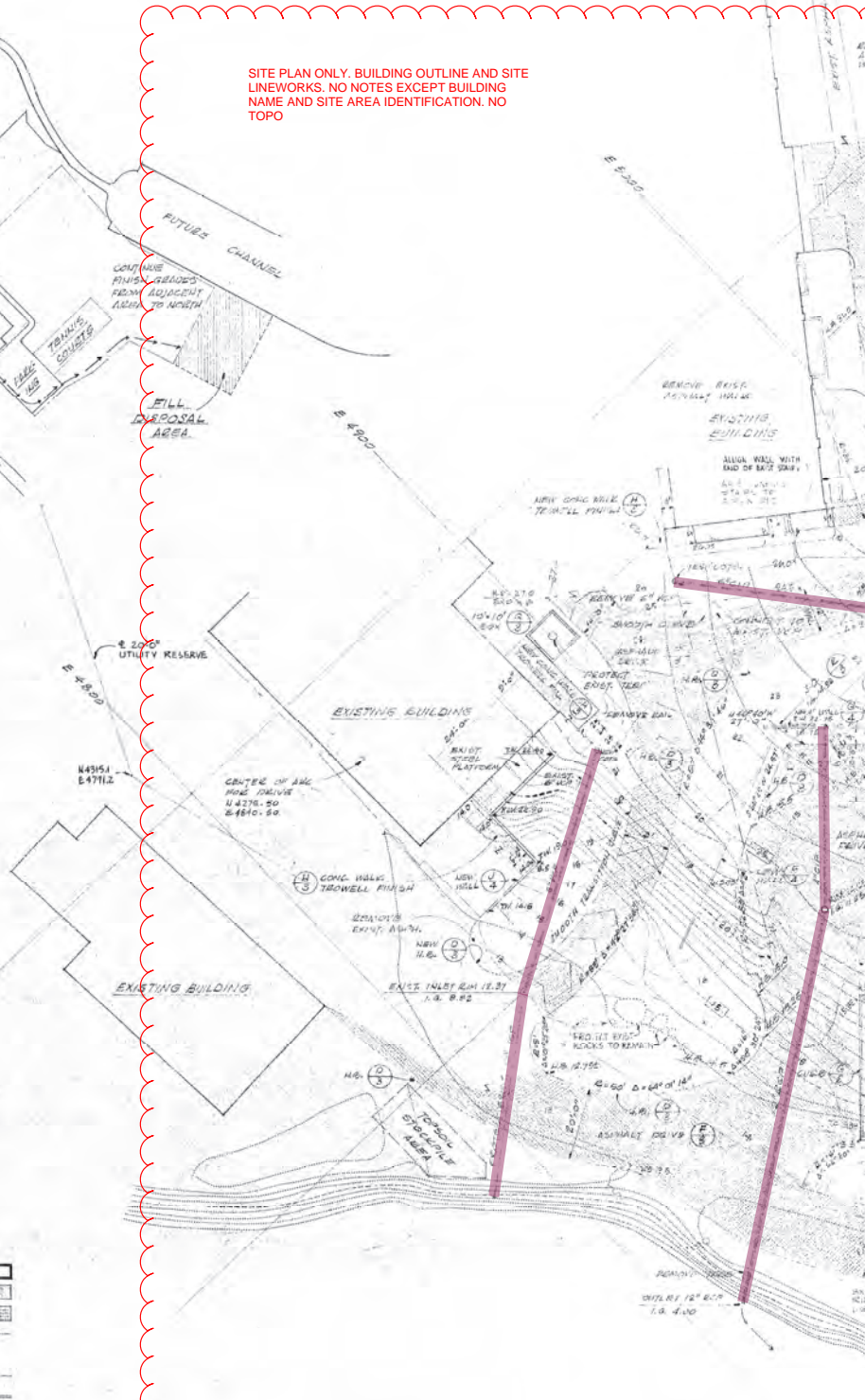
- DIK DIVIDER STEEP
- H.B. HEADER BEELD
- T.W. TOP OF WALL
- I.G. INVERT GRADE
- CONC. CONCRETE PIPE
- R.C.P. REINFORCED CONCRETE PIPE
- V.C.P. VITRIFIED CLAY PIPE
- S.D. SUB-DRAIN
- S.S.D. SEE STRUCTURAL DRAWINGS

- Storm Drain System
- Water System
- Sewer System
- Gas
- Telecommunications

SITE LEGEND

ITEM	EXISTING	NEW
BUILDINGS		
CONCRETE		
ASPHALT		
GRADE CONTOURS		
GRADE SPOT ELEVATIONS		
FLUSH SURFACES		
STORM DRAIN LINES		
SUBDRAINS		
STUB		
CATCHBASINS		
TREES		
TOP OF FACE OF SLOPE		
DIRECTION OF SLOPE		
TURF STRIP (SEE IRRIGATION DWGS.)		
HEADERBOARD		
EDGE OF PAVEMENT		

SITE PLAN ONLY. BUILDING OUTLINE AND SITE LINEWORKS. NO NOTES EXCEPT BUILDING NAME AND SITE AREA IDENTIFICATION. NO TOPO



NOTE: REFER TO DRAWINGS NUMBER 3 THRU 9 FOR THE TARD SPRINKLER SYSTEM AND EXTENT OF TOPSOIL.

STUDENT CENTER

AUSTIN SCIENCE BUILDING

COMMUNICATIONS
(APPROX. LOCATION)

PORTABLE BLDG.

Parking Area
(Asphalt)

COLLEGE

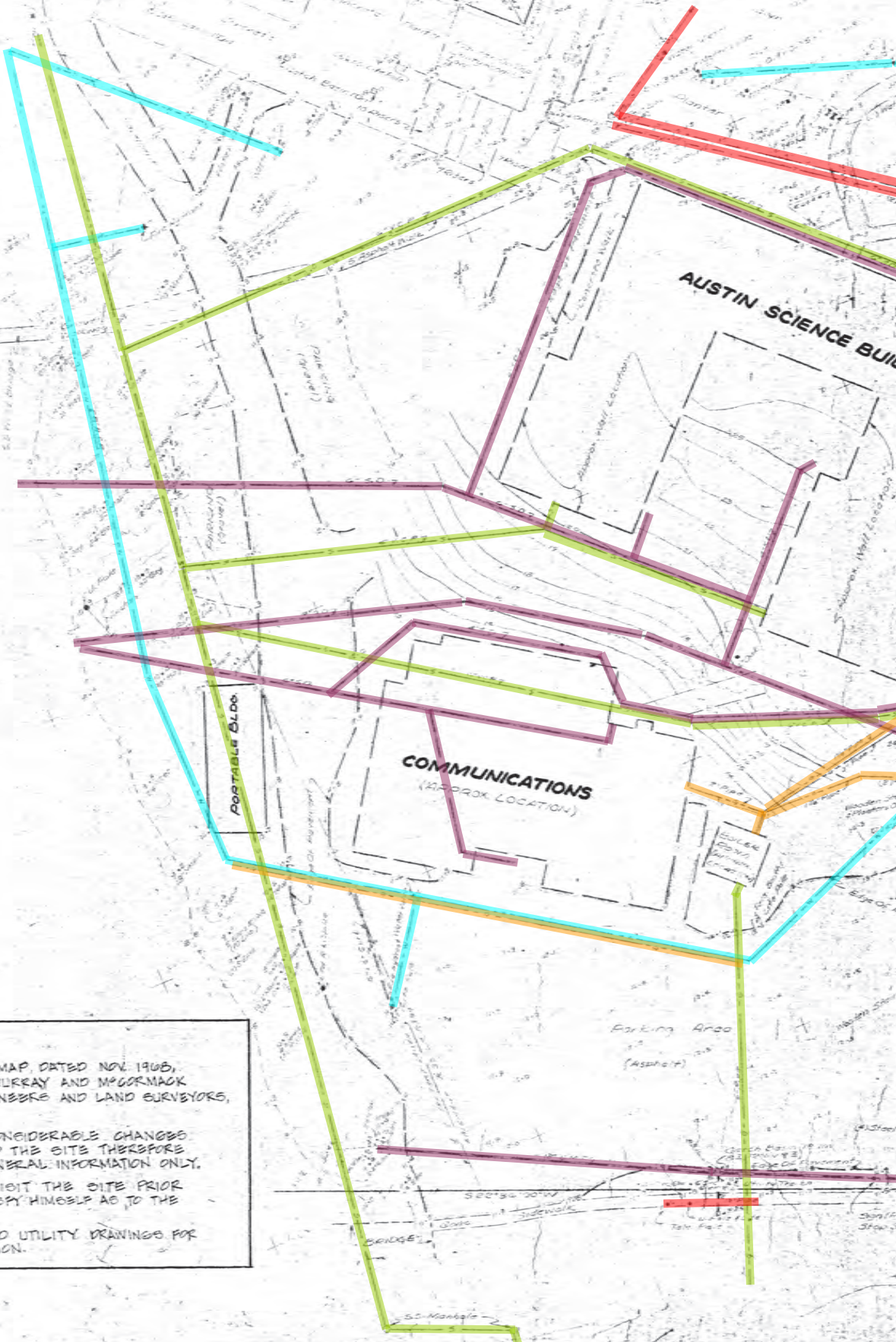
NOTE:

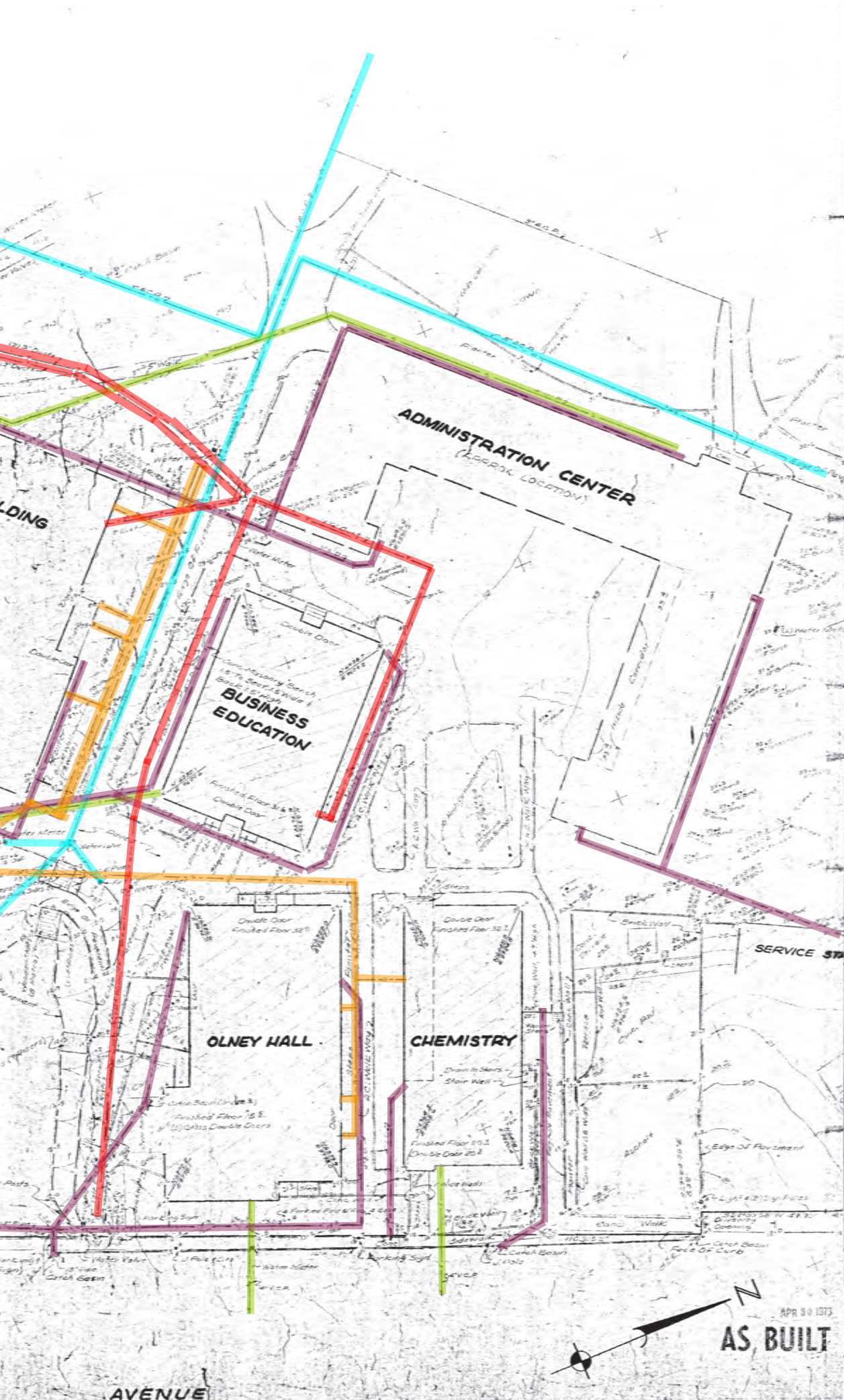
THIS TOPOGRAPHIC MAP, DATED NOV. 1908, WAS PREPARED BY MURRAY AND MOORMACK INC. CONSULTING ENGINEERS AND LAND SURVEYORS, NOVATO, CALIF.

SINCE THAT TIME CONSIDERABLE CHANGES HAVE BEEN MADE TO THE SITE THEREFORE THIS MAP IS FOR GENERAL INFORMATION ONLY.

CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING AND SATISFY HIMSELF AS TO THE ACTUAL CONDITIONS.

SEE OTHER SITE AND UTILITY DRAWINGS FOR ADDITIONAL INFORMATION.





CONTRACT DOCUMENTS
 CONTRACT
 BOARD OF TRUSTEES

NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF THE ARCHITECT.

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CORWIN BOOTH & ASSOCIATED ARCHITECTS
 100 HOWARD STREET, SAN FRANCISCO, CALIFORNIA 94102, TELEPHONE 415 398 1208

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SHEET TITLE
 EXISTING TOPOGRAPHY

SCALE AS SHOWN
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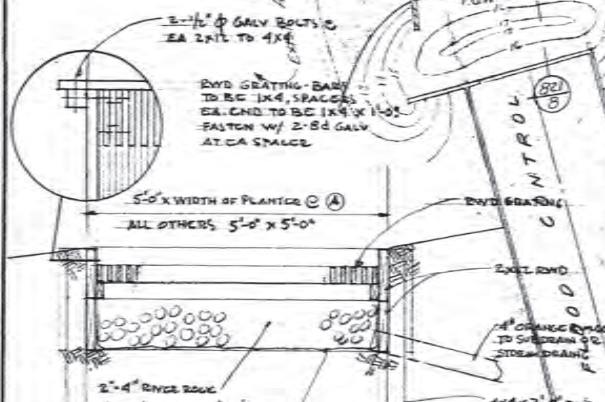
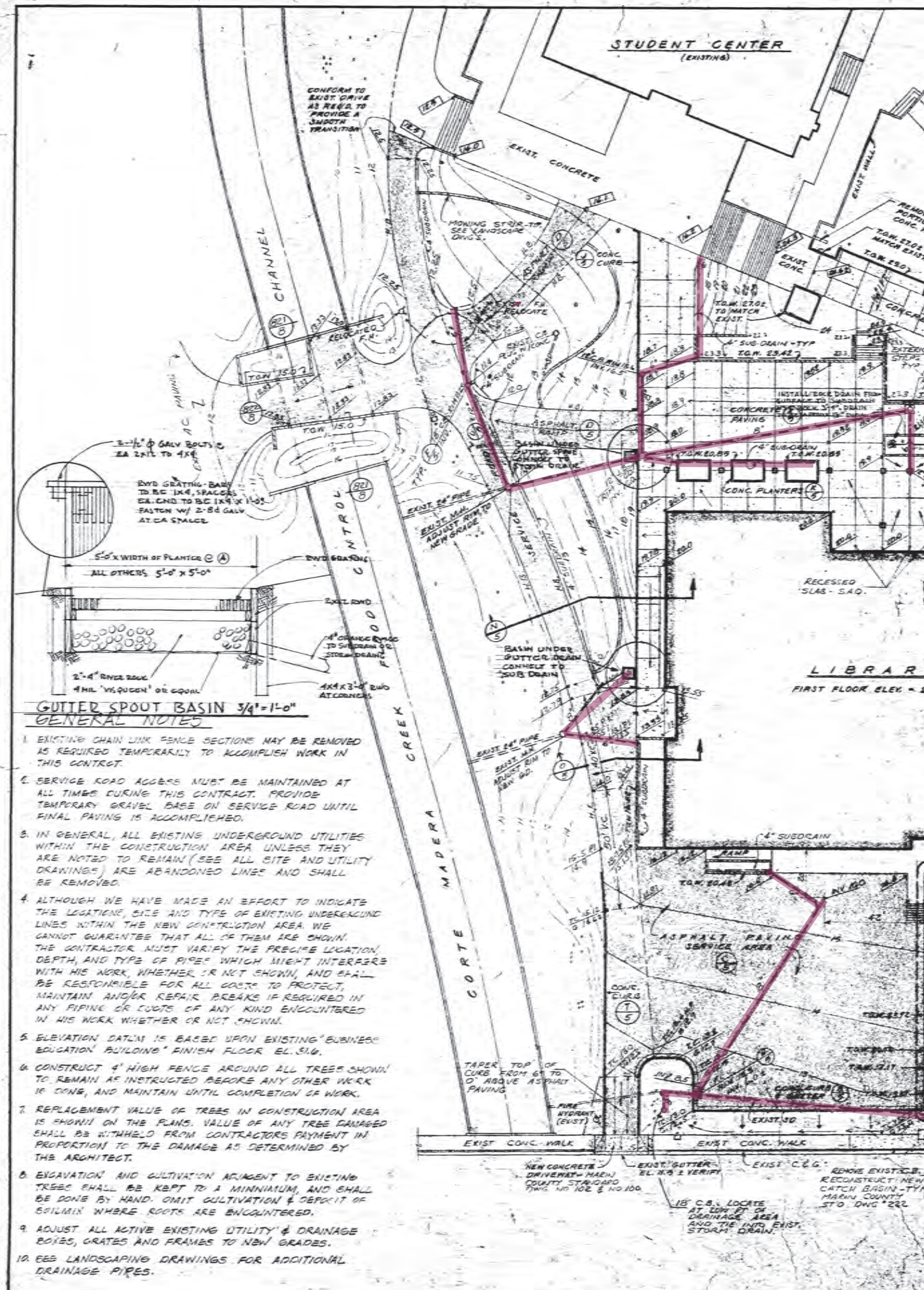
TRACING DATE
 PRINT DATE

DRAWING NO
 3

APR 30 1973

AS BUILT

AVENUE



GUTTER SPOUT BASIN 3/4"-1'-0"
GENERAL NOTES

1. EXISTING CHAIN LINK FENCE SECTIONS MAY BE REMOVED AS REQUIRED TEMPORARILY TO ACCOMPLISH WORK IN THIS CONTRACT.
2. SERVICE ROAD ACCESS MUST BE MAINTAINED AT ALL TIMES DURING THIS CONTRACT. PROVIDE TEMPORARY GRAVEL BASE ON SERVICE ROAD UNTIL FINAL PAVING IS ACCOMPLISHED.
3. IN GENERAL, ALL EXISTING UNDERGROUND UTILITIES WITHIN THE NEW CONSTRUCTION AREA UNLESS THEY ARE NOTED TO REMAIN (SEE ALL SITE AND UTILITY DRAWINGS) ARE ABANDONED LINES AND SHALL BE REMOVED.
4. ALTHOUGH WE HAVE MADE AN EFFORT TO INDICATE THE LOCATION, SIZE AND TYPE OF EXISTING UNDERGROUND LINES WITHIN THE NEW CONSTRUCTION AREA WE CANNOT GUARANTEE THAT ALL OF THEM ARE SHOWN. THE CONTRACTOR MUST VERIFY THE PRECISE LOCATION, DEPTH, AND TYPE OF PIPES WHICH MIGHT INTERFERE WITH HIS WORK, WHETHER OR NOT SHOWN, AND SHALL BE RESPONSIBLE FOR ALL COSTS TO PROTECT, MAINTAIN AND/OR REPAIR BREAKS IF REQUIRED IN ANY PIPING OR COUPE OF ANY KIND ENCOUNTERED IN HIS WORK WHETHER OR NOT SHOWN.
5. ELEVATION DATUM IS BASED UPON EXISTING BUSINESS EDUCATION FINISH FLOOR EL. 51.6.
6. CONSTRUCT 4' HIGH FENCE AROUND ALL TREES SHOWN TO REMAIN AS INSTRUCTED BEFORE ANY OTHER WORK IS DONE, AND MAINTAIN UNTIL COMPLETION OF WORK.
7. REPLACEMENT VALUE OF TREES IN CONSTRUCTION AREA IS SHOWN ON THE PLANS. VALUE OF ANY TREE DAMAGED SHALL BE WITHHELD FROM CONTRACTORS PAYMENT IN PROPORTION TO THE DAMAGE AS DETERMINED BY THE ARCHITECT.
8. EXCAVATION AND CULTIVATION AROUND EXISTING TREES SHALL BE KEPT TO A MINIMUM, AND SHALL BE DONE BY HAND. OMIT CULTIVATION & DEPOSIT OF SOIL MIX WHERE ROOTS ARE ENCOUNTERED.
9. ADJUST ALL ACTIVE EXISTING UTILITY & DRAINAGE BOXES, GRATES AND FRAMES TO NEW GRADES.
10. SEE LANDSCAPING DRAWINGS FOR ADDITIONAL DRAINAGE PIPES.

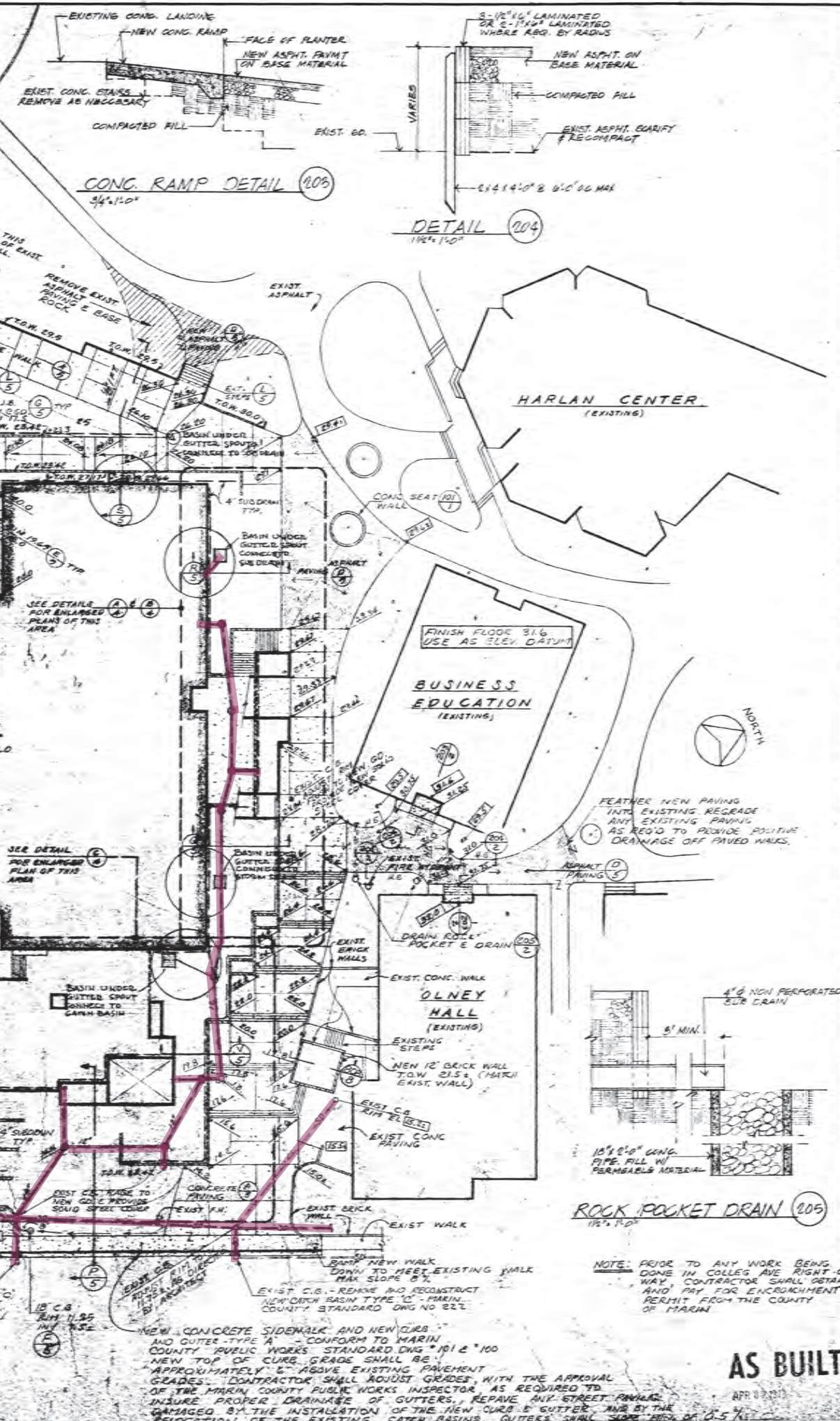
NEW CONCRETE DRIVEWAY - MAIN COUNTY STANDARD FING NO 102 E NO 100

EXIST. GUTTER EL. N.B. & VERIFY

EXIST. C.C.G.

REMOVE EXIST. C.C.G. RECONSTRUCT NEW CATCH BASIN - TYPE MAIN COUNTY STD DWG 222

18" C.B. LOCATE AT 100' FT OF DRAINAGE AREA AND THE INT. EXIST. STORM DRAIN



CONTRACT SIGNATURES
 CONTRACTOR
 BOARD OF TRUSTEES

APPROVE
 DATE
 DATE

APPROVED JUL 28 1971
 APPROVED JUL 28 1971
 APPROVED JUL 28 1971

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 10 HOWARD STREET, SAN FRANCISCO, CALIFORNIA 94102, TELEPHONE 415 391-2108

SHEET TITLE
GRADING PLAN

SCALE: 1" = 20'

FILE NUMBER
 26-1-50

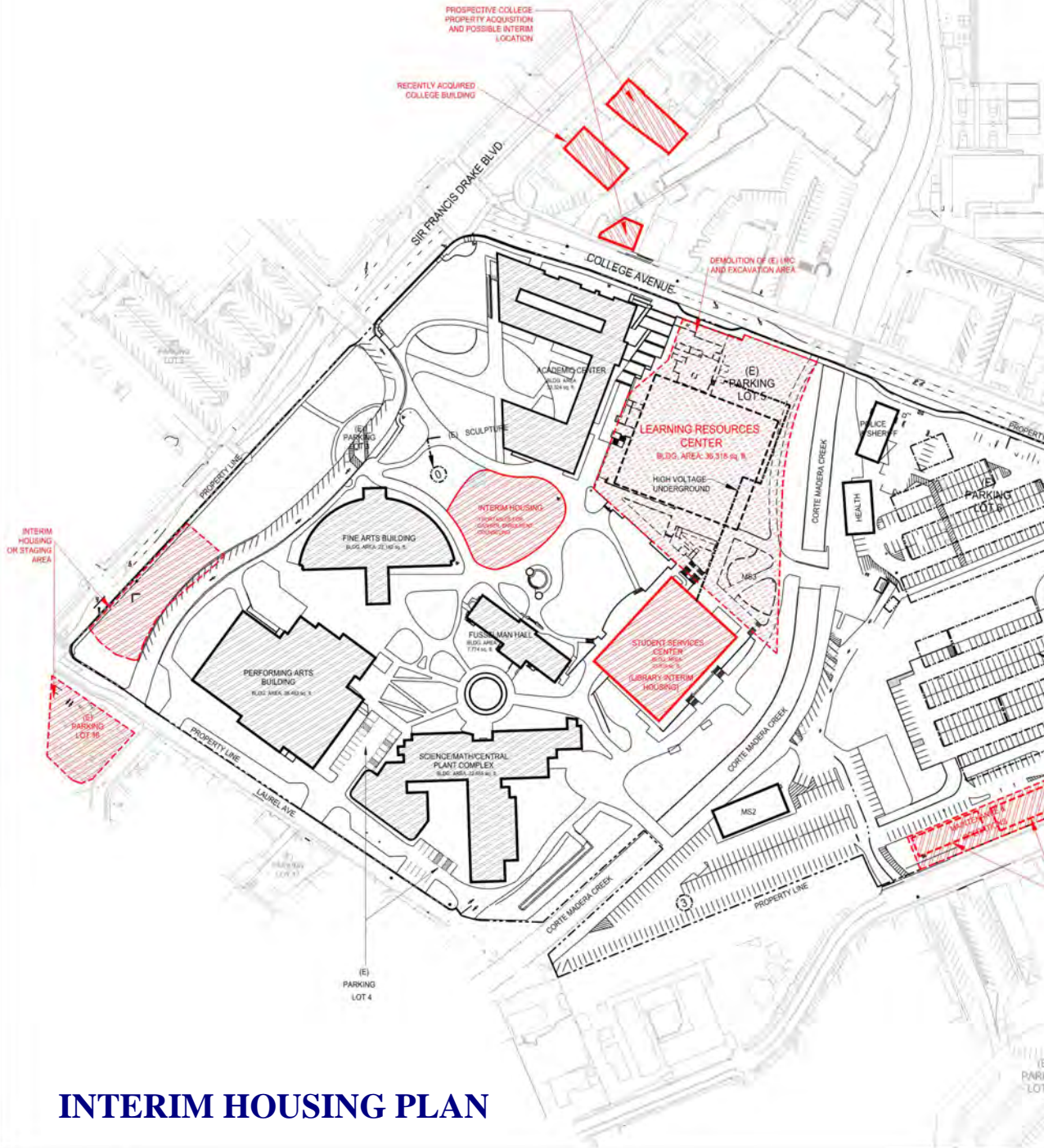
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PRINT DATE
 3/20/73

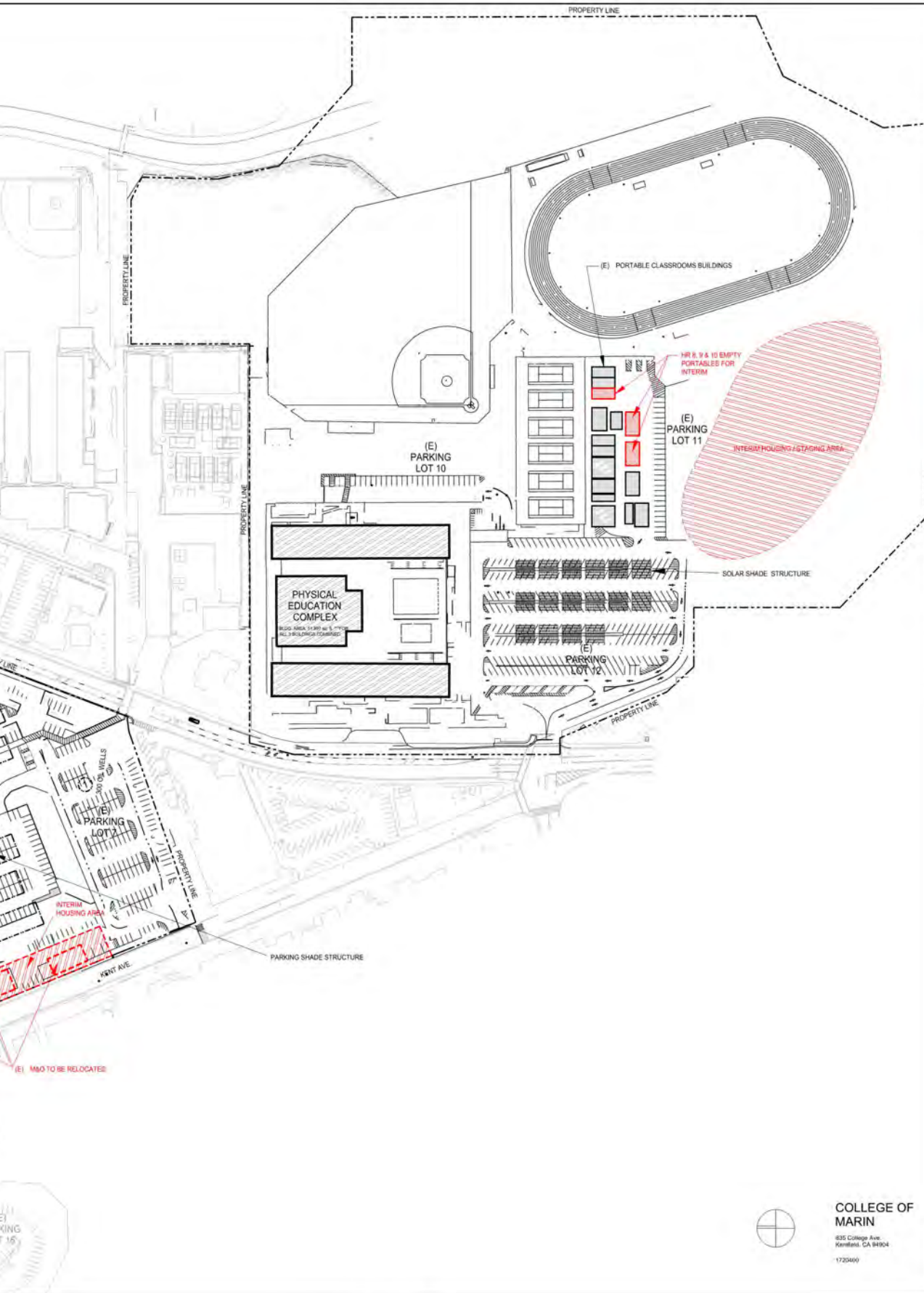
AS BUILT

INTERIM HOUSING

This interim housing plan outlines proposed locations on both sides of College Avenue where interim housing could be provided or placed during the demolition and construction phases of the project. It includes existing spaces that can be re-purposed as well as vacant areas where portable buildings can be placed. All of these locations were reviewed and considered as acceptable options by the District.



INTERIM HOUSING PLAN



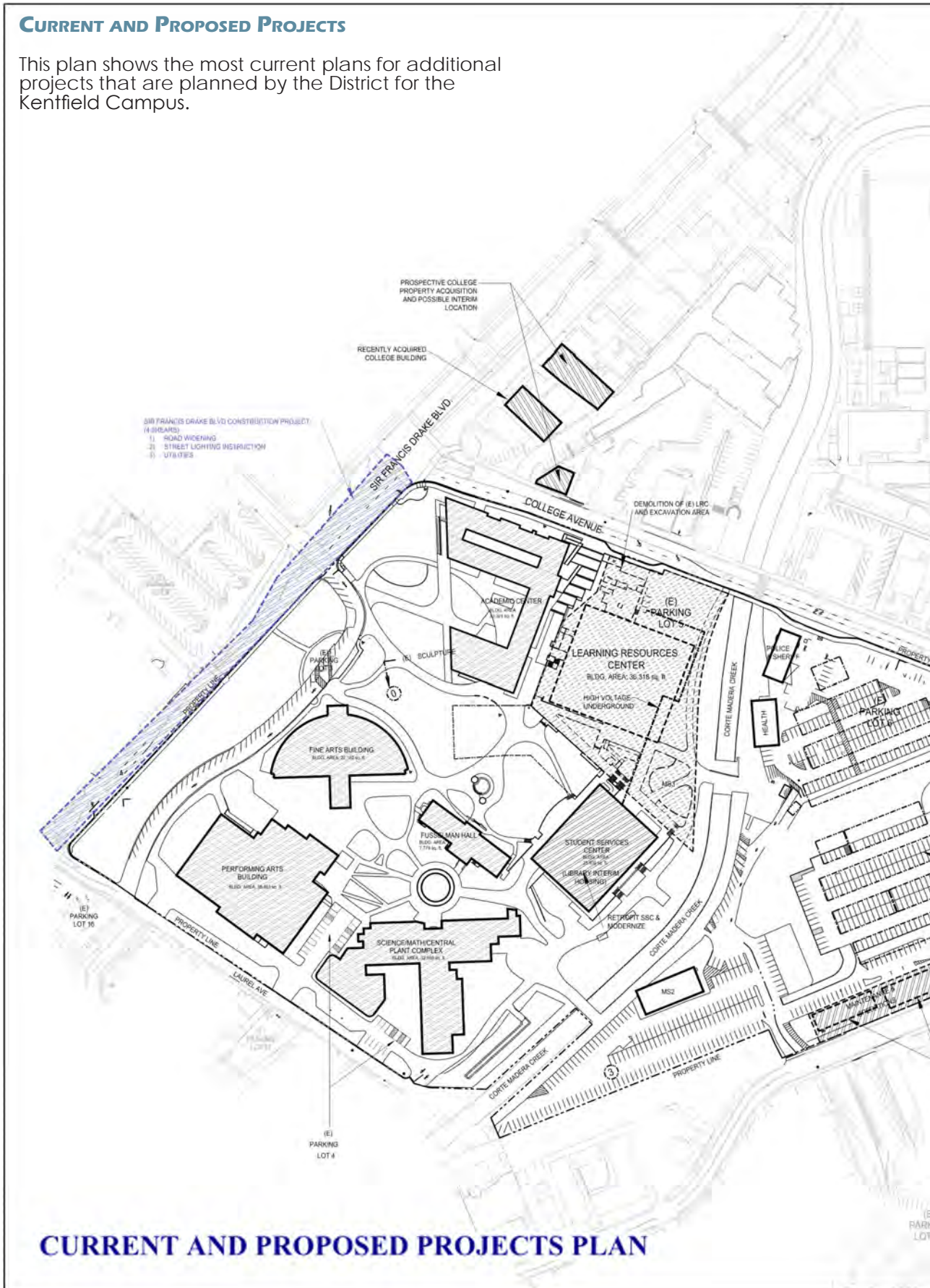
1" = 80'-0"



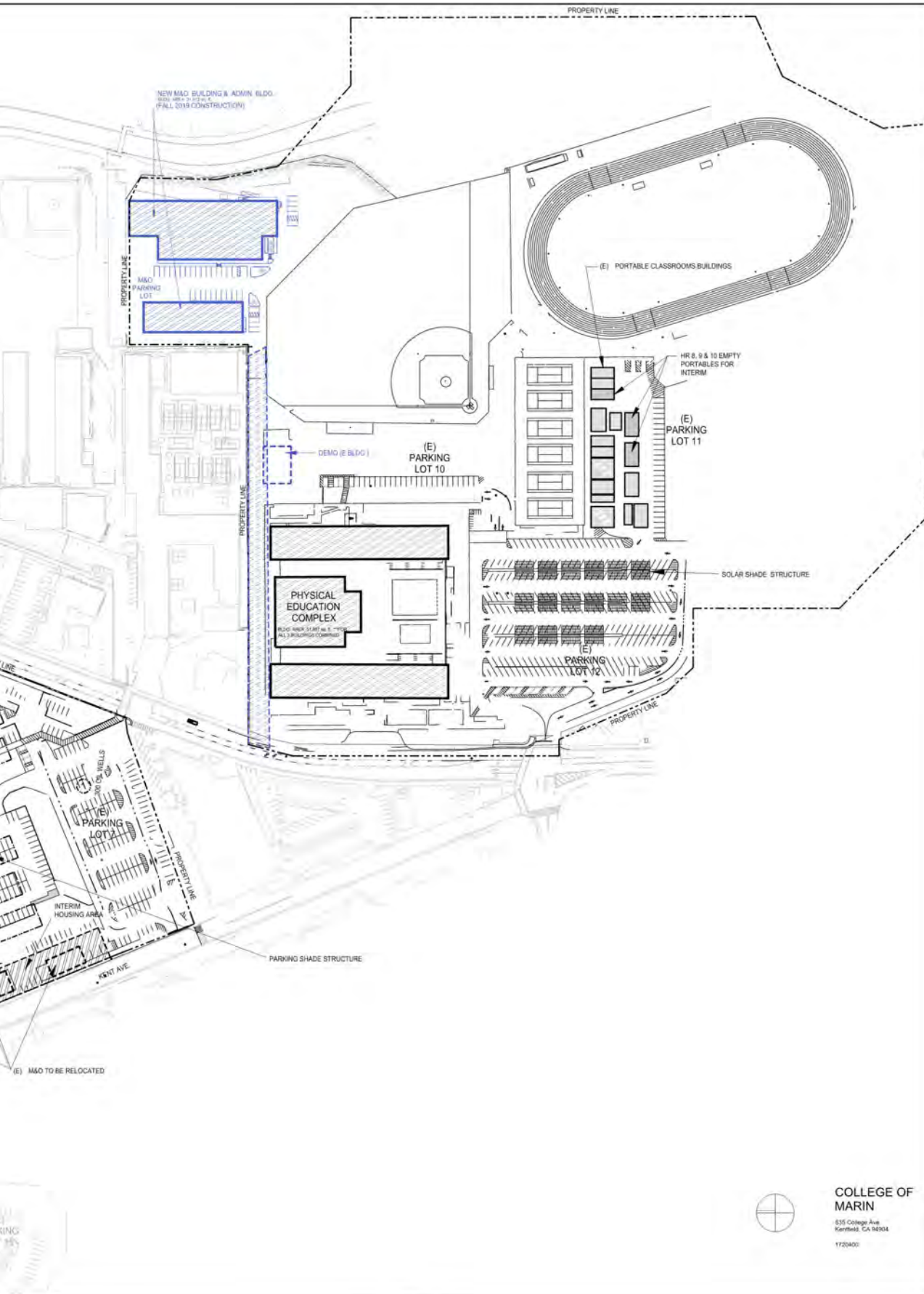
COLLEGE OF MARIN
835 College Ave.
Kentfield, CA 94904
1720400

CURRENT AND PROPOSED PROJECTS

This plan shows the most current plans for additional projects that are planned by the District for the Kentfield Campus.



CURRENT AND PROPOSED PROJECTS PLAN



1" = 80'-0"



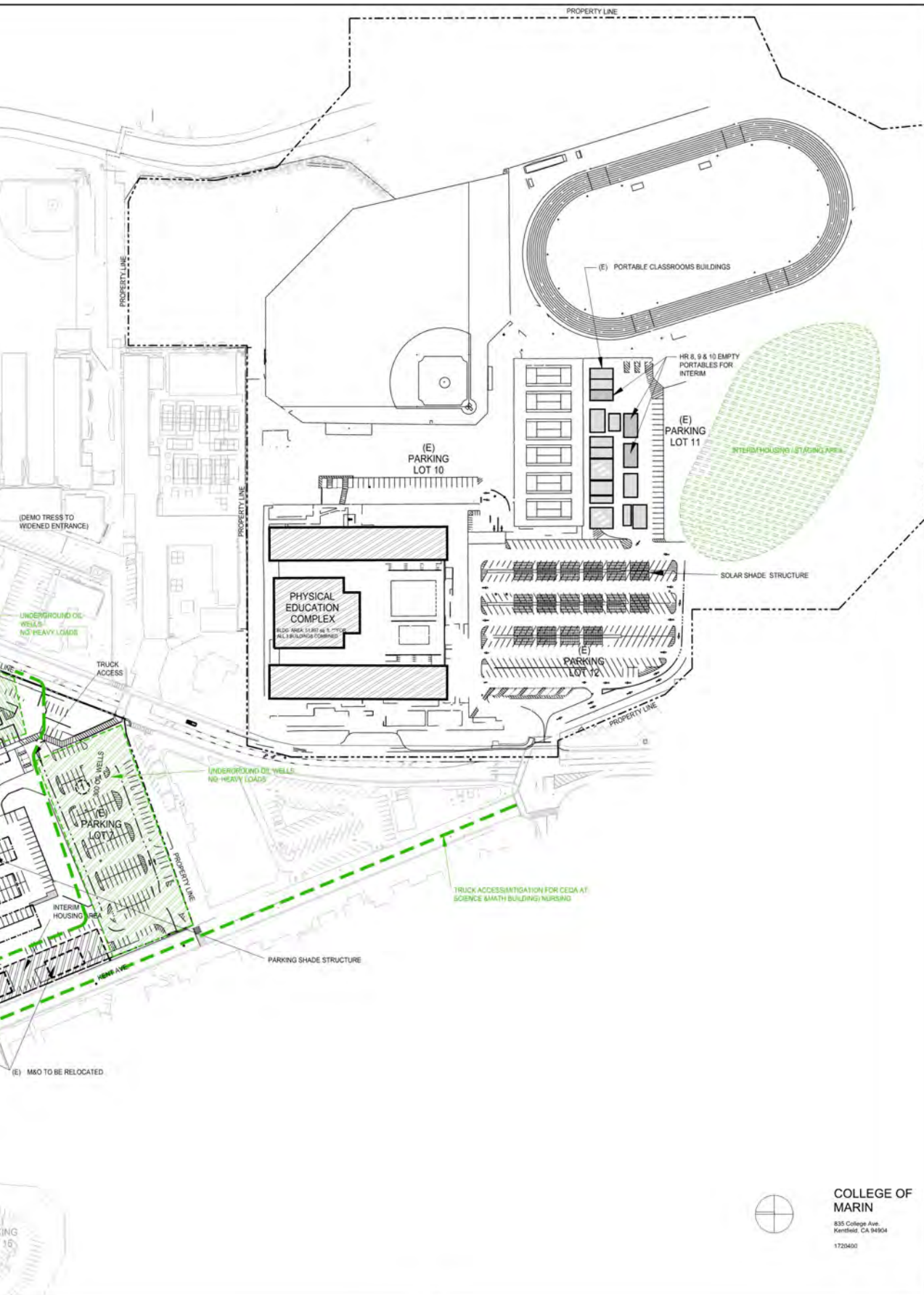
COLLEGE OF
MARIN
535 College Ave
Kentfield, CA 94904
1720400

CONSTRUCTION STAGING AND TRAFFIC PLAN

Based on the District's experience with past projects, this Plan was developed to provide the contractor with the District's assessment of where the optimal access points are for construction vehicles and some of the locations where the staging of construction materials could occur. Final locations will be discussed and agreed upon between the contractor and the District.

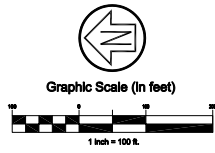


CONSTRUCTION STAGING AND TRAFFIC PLAN



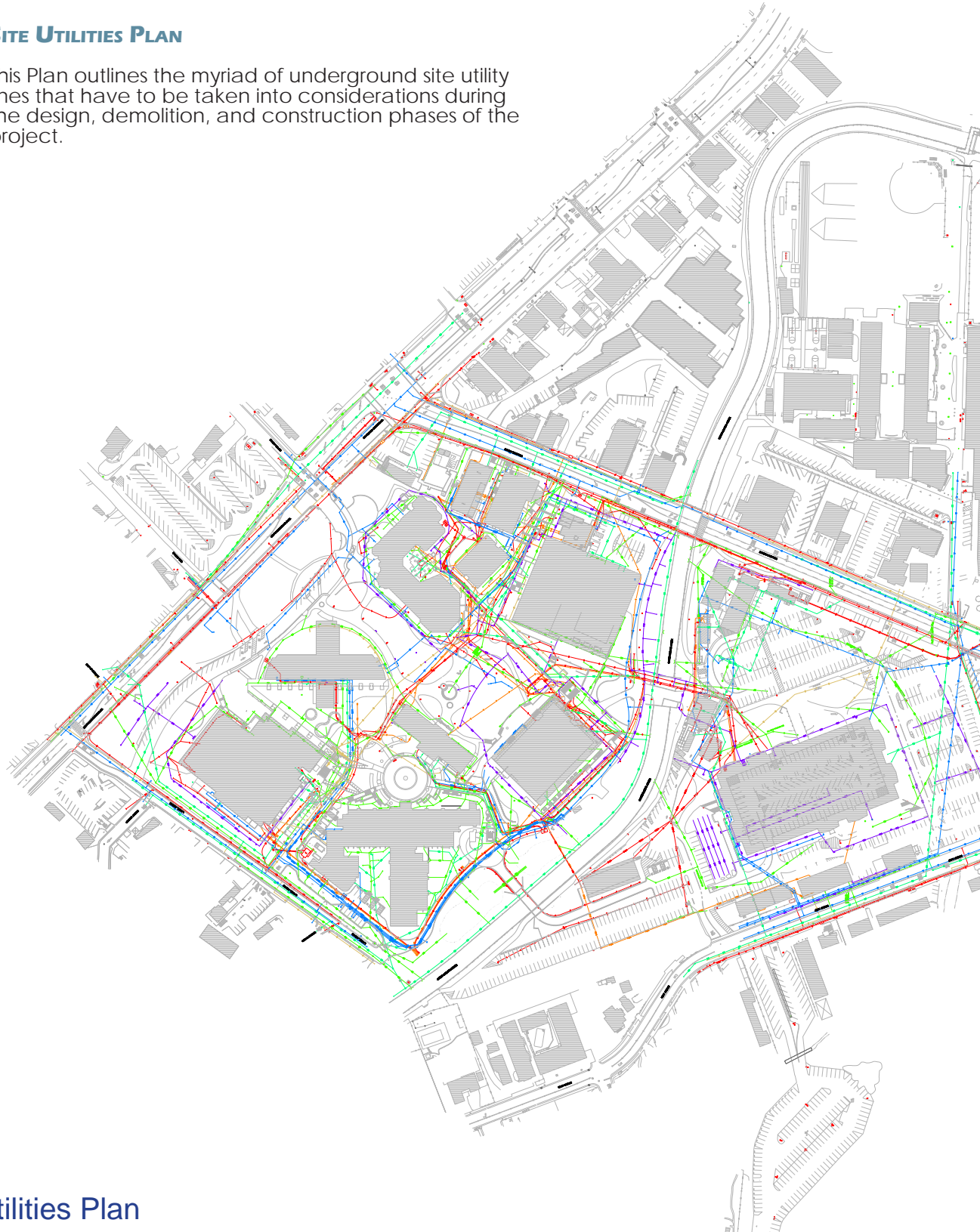
COLLEGE OF
MARIN
835 College Ave.
Kentfield, CA 94904
1720450

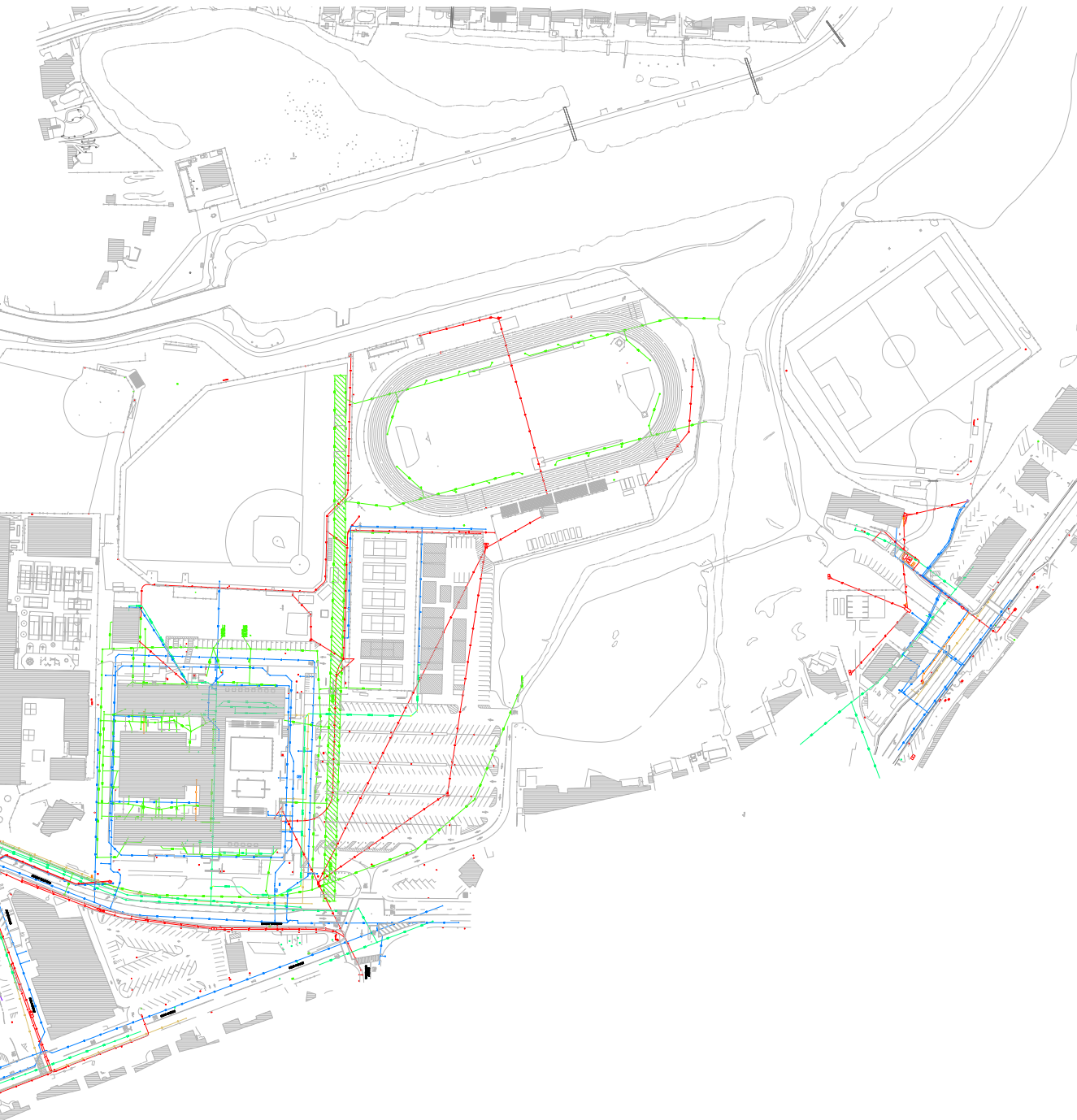
1" = 80'-0"



SITE UTILITIES PLAN

This Plan outlines the myriad of underground site utility lines that have to be taken into considerations during the design, demolition, and construction phases of the project.



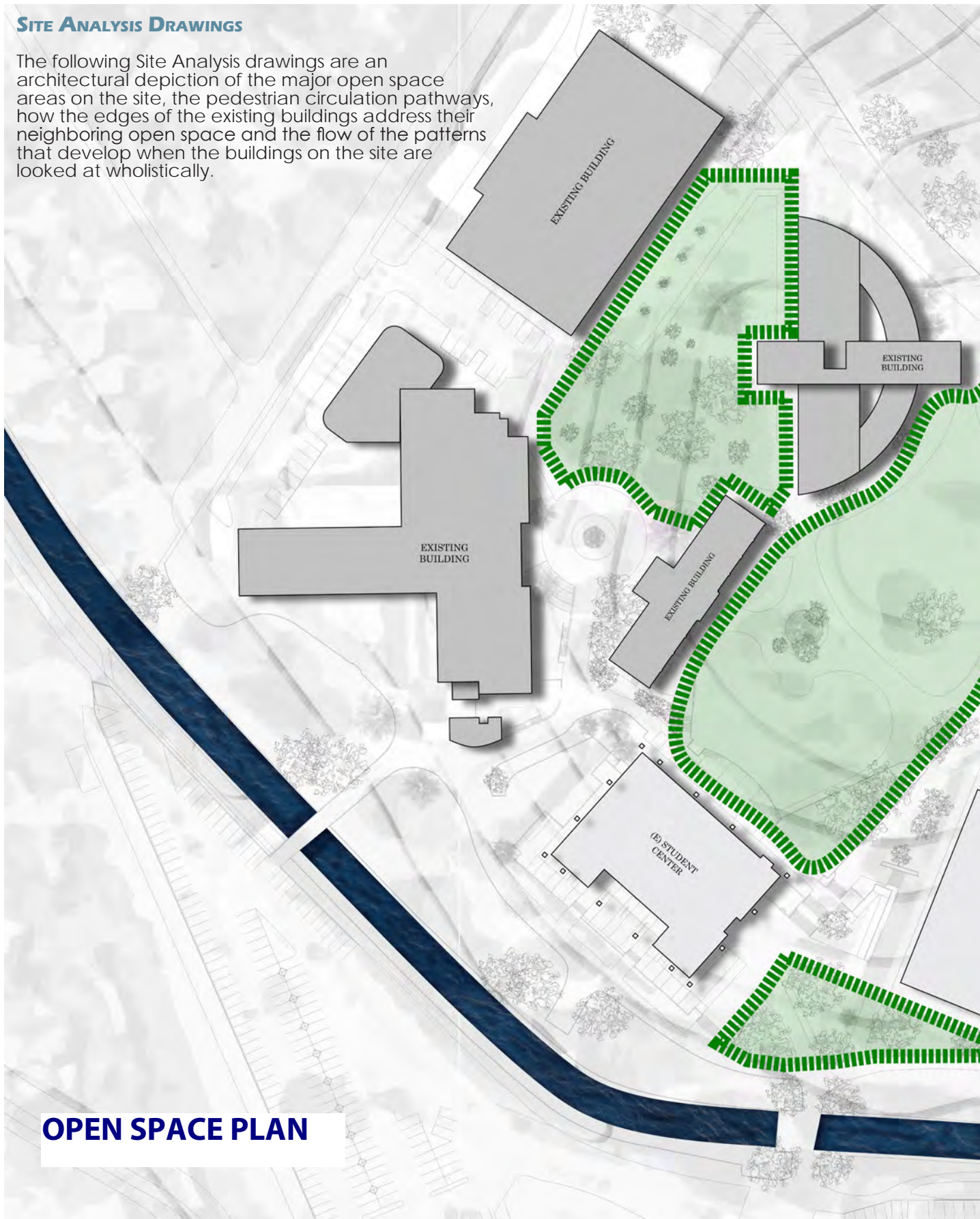


LEGEND:

	SEWER LINE
	WATER LINE
	STORM DRAIN
	TELECOM
	ELECTRICAL
	IRRIGATION

SITE ANALYSIS DRAWINGS

The following Site Analysis drawings are an architectural depiction of the major open space areas on the site, the pedestrian circulation pathways, how the edges of the existing buildings address their neighboring open space and the flow of the patterns that develop when the buildings on the site are looked at wholistically.



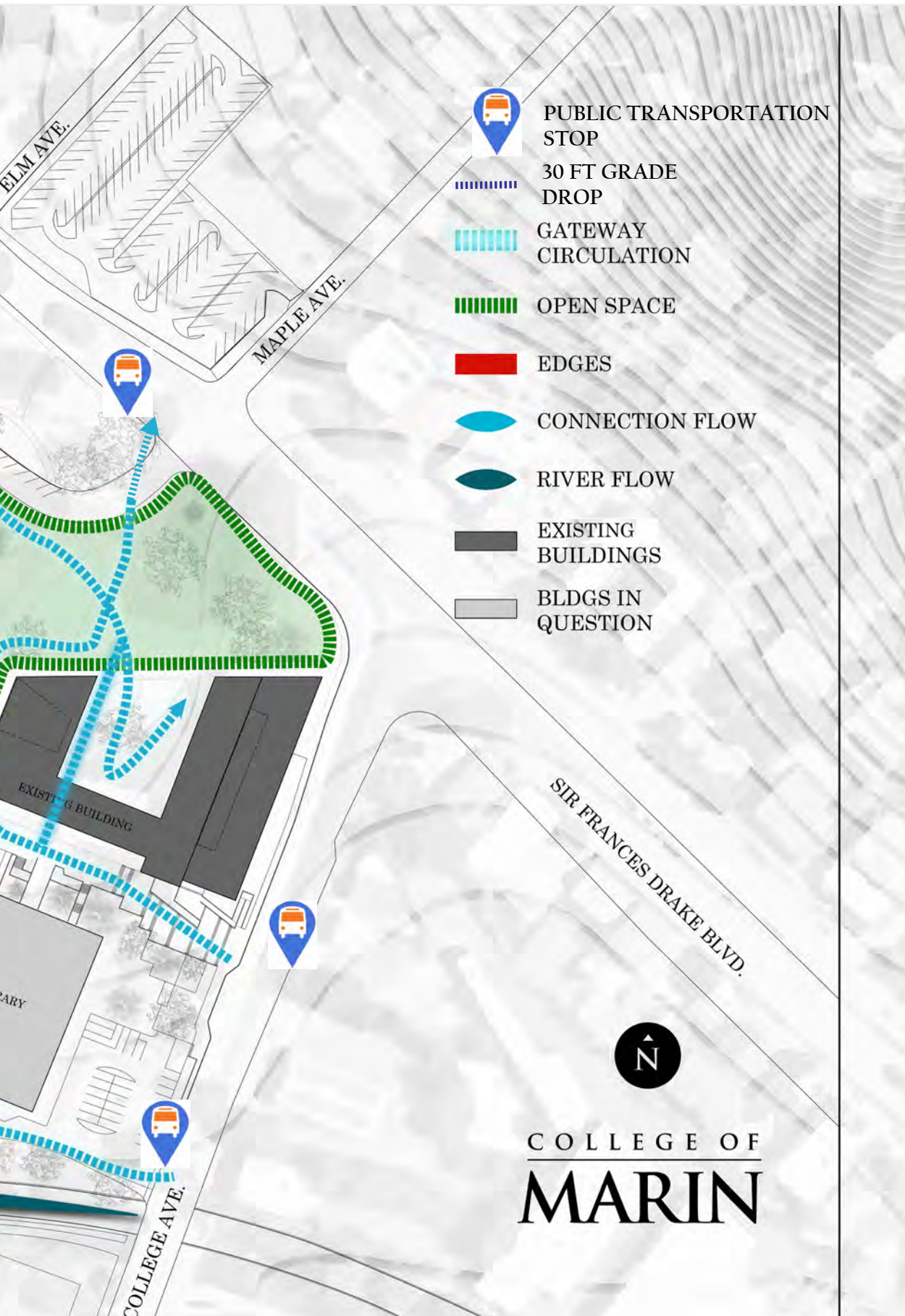
OPEN SPACE PLAN

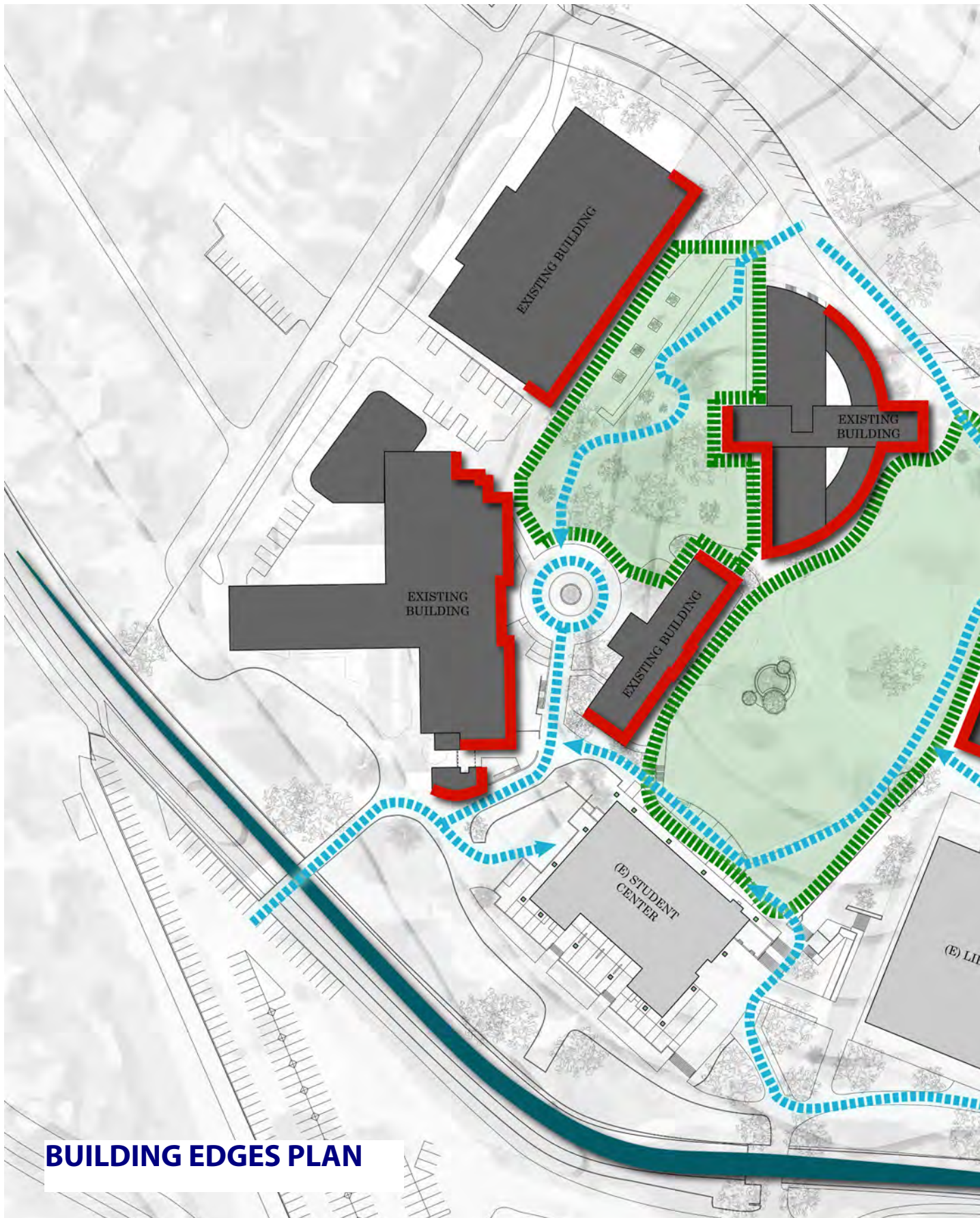


COLLEGE OF
MARIN

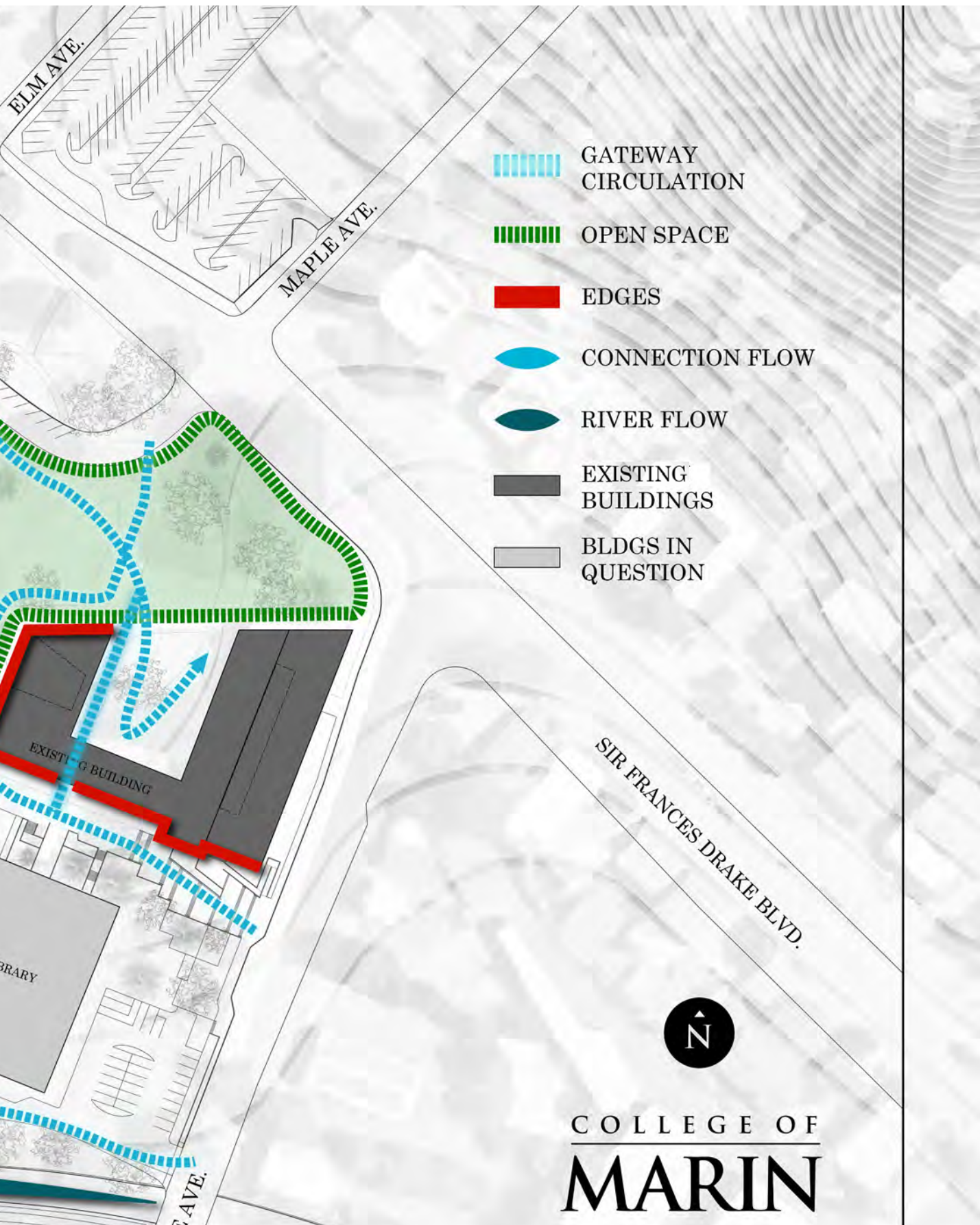


PEDESTRIAN CIRCULATION PLAN



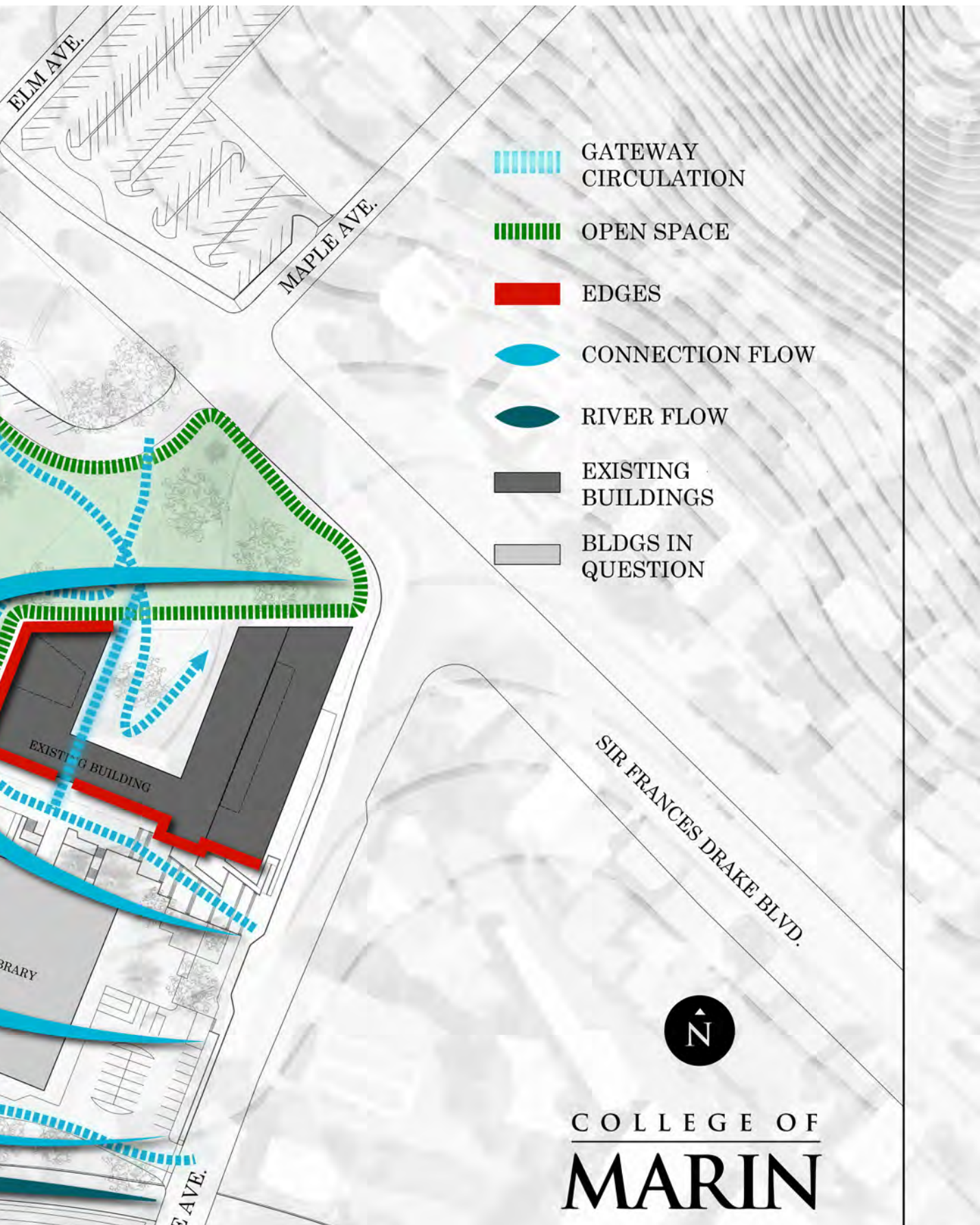


BUILDING EDGES PLAN





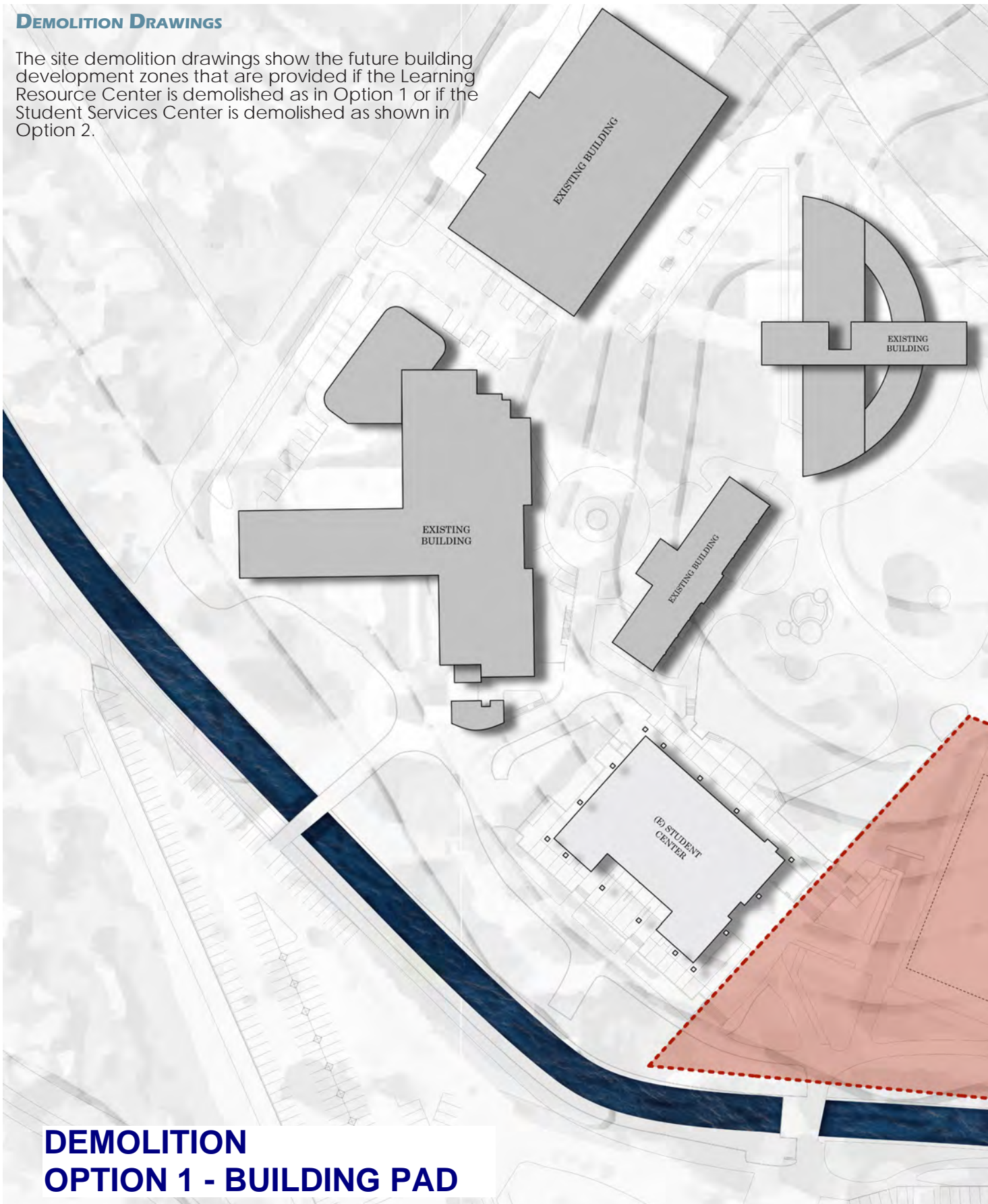
BUILDING SITING PATTERNS



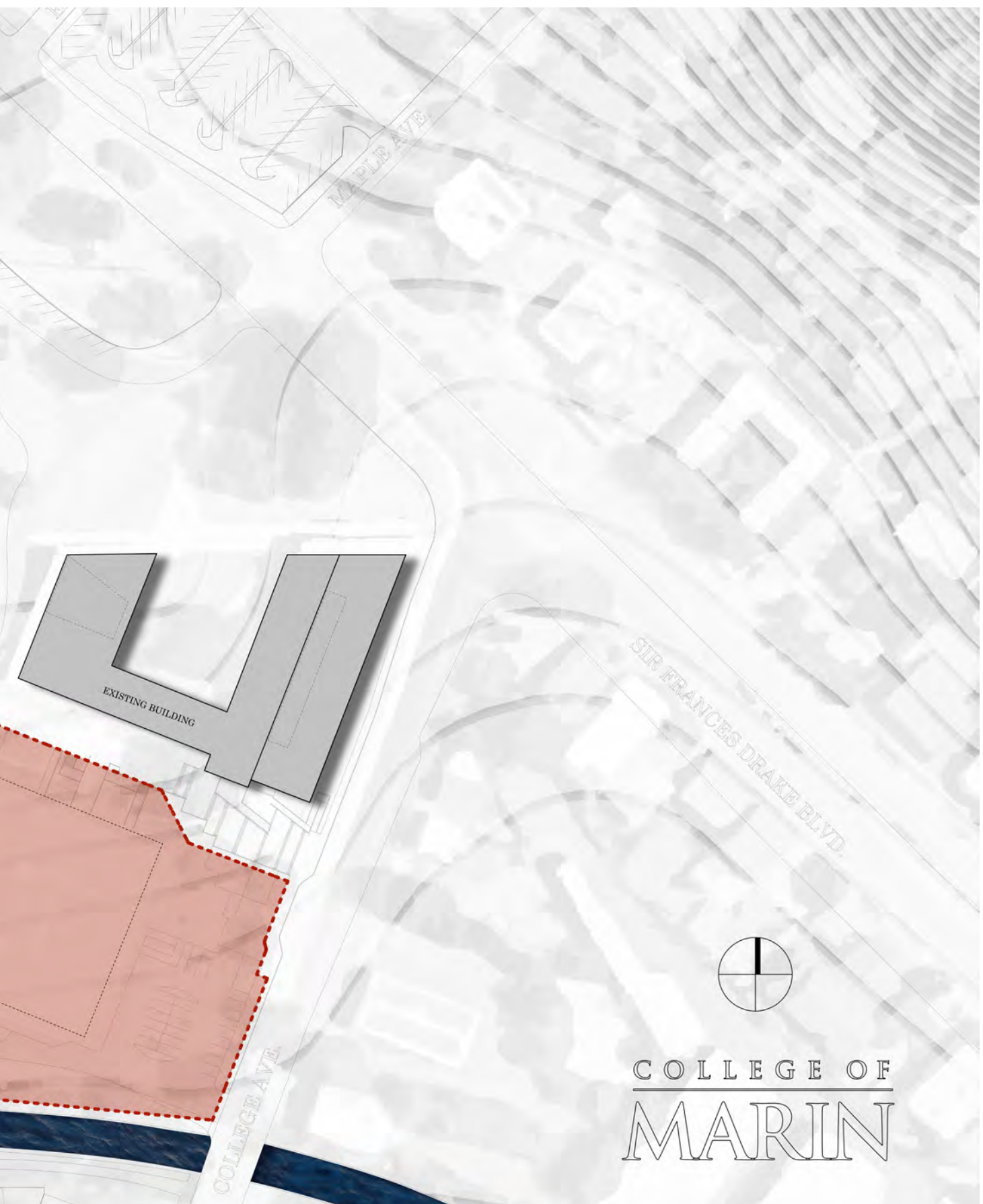
SITE ANALYSIS

DEMOLITION DRAWINGS

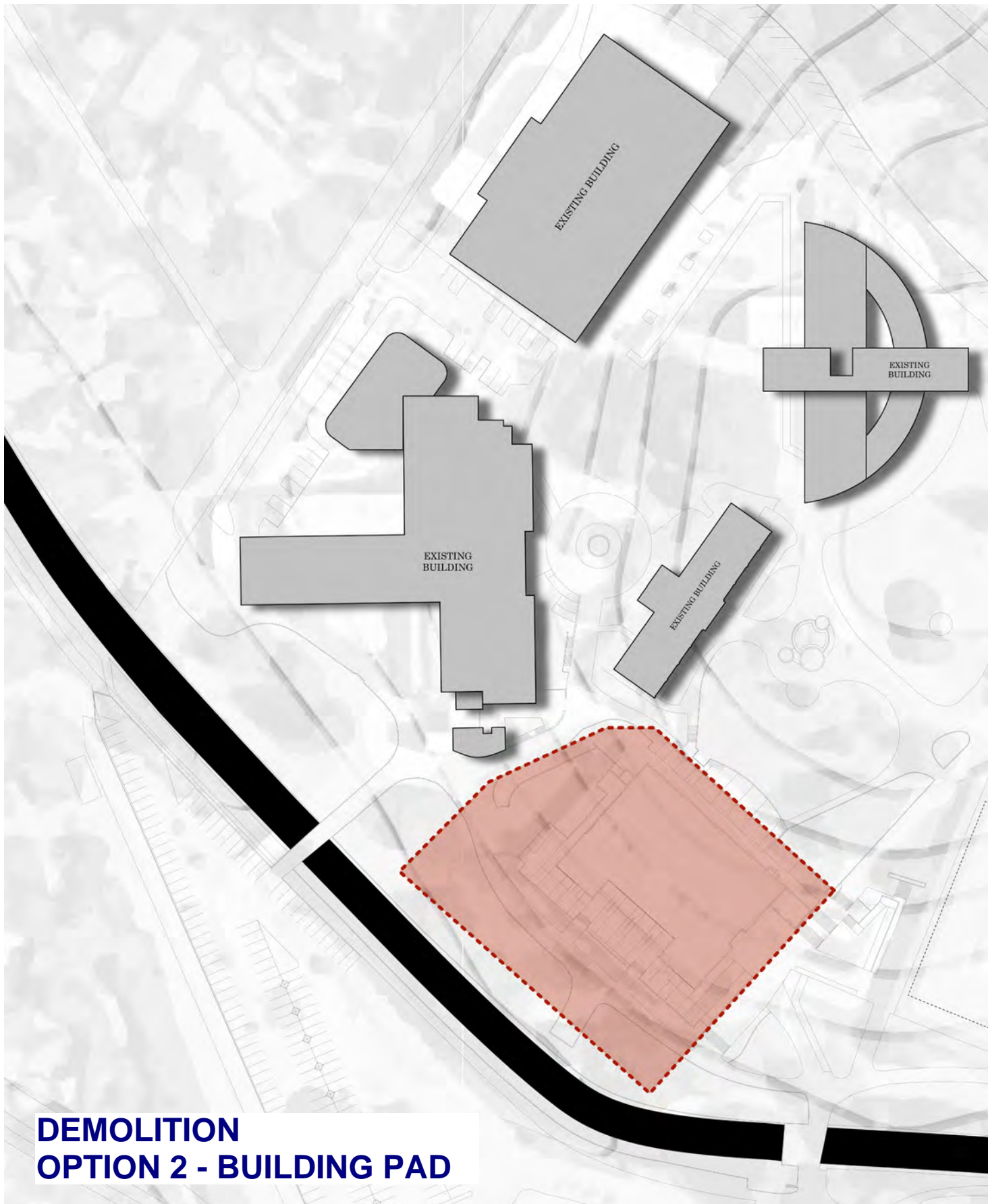
The site demolition drawings show the future building development zones that are provided if the Learning Resource Center is demolished as in Option 1 or if the Student Services Center is demolished as shown in Option 2.



**DEMOLITION
OPTION 1 - BUILDING PAD**



COLLEGE OF
MARIN



**DEMOLITION
OPTION 2 - BUILDING PAD**



COLLEGE OF
MARIN

EXISTING BUILDING ANALYSIS

BUILDING ANALYSIS REPORTS

The following reports are an analysis of the structural, mechanical, electrical, plumbing, fire alarm, and associated systems of the existing Student Services Building and Learning Resource Center buildings.

FACILITY CONDITION ASSESSMENT

Prepared for

WLC Architects, Inc.
2600 Tenth Street, Suite 500
Berkeley, California 94710-2597



PREPARED BY:

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EMG PROJECT #:

132825.18R000-002.354

DATE OF REPORT:

November 5, 2018

ONSITE DATE:

June 27, 2018

FACILITY CONDITION ASSESSMENT

OF

MARIN COLLEGE-LIBRARY
835 COLLEGE AVENUE
KENTFIELD, CALIFORNIA 94904



engineering | environmental | capital planning | project management

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1. Executive Summary

Property Information and General Physical Condition

The property information is summarized in the table below. More detailed descriptions may be found in the various sections of the report and in the Appendices.

Property Information	
Address:	835 College Avenue, Kentfield, Marin County, California 94904
Year Constructed/Renovated:	1973
Current Occupants:	College of Marin
Percent Utilization:	100%
Management Point of Contact:	Mr. Leopold Ray-Lynch 510.450.1999 phone lraylynch@wlcarchitects.com email
Property Type:	Library, Classrooms, Store, TV studio
Site Area:	15 acres
Building Size:	66,855 SF
Number of Stories:	Two
Building Construction:	Reinforced concrete columns, steel beams and concrete slabs
Façade:	Cast in place concrete and brick veneer with aluminum windows
Roof:	Primary: Flat construction with modified bituminous finish Secondary: Mansard construction with Cor-Ten steel
Heating, Ventilation and Air Conditioning:	Central system with boiler, chiller, air handlers, and cooling tower feeding fan coil Supplemental components: ductless split-systems
Fire Suppression & Alarm:	Suppression: Wet pipe system covering mechanical and janitor rooms only, hydrants, fire extinguishers, hose cabinets Alarm: Alarm panel, smoke detectors, alarms, pull stations, back-up emergency lights, and exit signs.
Key Issues & Findings:	Building lacks fire suppression, aged electrical infrastructure, outdated fire alarm system

Unit Allocation

All 66,855 square feet of the building are occupied by the College of Marin. The spaces are a combination of library, offices, classrooms, and a student store with supporting restrooms, and mechanical and other utility spaces.

Areas Observed

Most of the interior spaces were observed in order to gain a clear understanding of the property's overall condition. Other areas accessed included the site within the property boundaries, the exterior of the property, and the roof. All areas of the property were available for observation during the site visit.

Assessment Information	
Dates of Visit:	June 27, 2018
On-Site Point of Contact (POC):	Jesse Hoffman
Assessment and Report Prepared by:	Kay van der Have
Reviewed by:	Alex Israel, Technical Report Reviewer for Matt Anderson Program Manager manderson@emgcorp.com 800.733.0660 x7613

Significant/Systemic Findings or Deficiencies

Historical Summary: The building was built in 1977.

Architectural: The two story library building was constructed in 1973. The façade of exposed, cast-in place concrete and brick veneer is original, as are the windows. Typical lifecycle interior finish and roof replacements are budgeted and anticipated.

Mechanical, Electrical, Plumbing & Fire (MEPF): Much of the MEPF systems are original to the 1977 construction. The HVAC system is currently working on an temporary basis. The chiller failed in 2017 and a temporary unit is located in the parking lot. Permanent relocation of the chiller and replacement of HVAC componemts is anticipated. Much of the electrical infrastructure is original, modernization is anticipated. The plumbing system is generally in good working order with no major expenditures anticipated in the short term. The facility lacks a fire suppression system, and although the building is likely 'grandfathered', a full fire sprinkler system retrofit is highly recommended.

Site: The parking lot has been periodically repaved and sectionally replaced as-needed over the years. The sidewalks are generally in good condition.

Recommended Additional Studies: No additional studies recommended at this time.

Immediate Repairs

See Following Immedate Repairs Table.

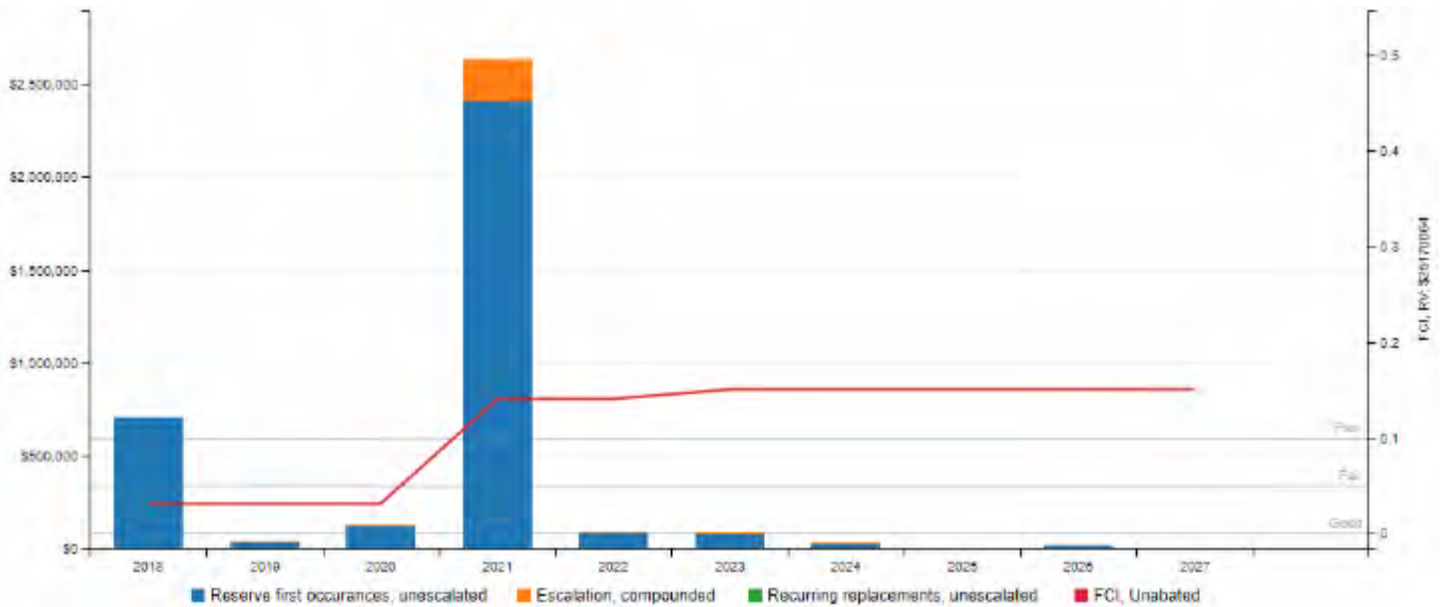
Immediate Repairs Report
Library
7/12/2018



Location NameID	Cost Description	Quantity	Unit	Unit Cost * Subtotal	Deficiency Repair Estimate *
Library	964987 Exterior Wall, Concrete, 1-2 Stories, Repair	100	SF	\$30.43 \$3,043	\$3,682
Library	964976 Interior Stair/Ramp Rails, Metal, Replace	170	LF	\$53.50 \$9,095	\$11,005
Library	965232 Elevator Controls, Automatic, 1 or 2 Car Cluster, Repair	1	EA	\$1,000.00 \$1,000	\$1,210
Library	965426 Sprinkler System, Full Retrofit, Office (per SF), Renovate	66855	SF	\$8.56 \$572,186	\$692,345
Immediate Repairs Total					\$708,243

* Location Factor included in totals.

Facility Condition Index (FCI)



One of the major goals of the FCA is to calculate the FCI, which gives an indication of a building's overall condition. Two FCI ratios are calculated and presented, the Current Year and Ten-Year. The Current Year FCI is the ratio of Immediate Repair Costs to the building's Current Replacement Value. Similarly, the Ten-Year FCI is the ratio of anticipated Capital Reserve Needs over the next ten years to the Current Replacement Value.

FCI Rating	
Description	Percentage Value
In new or well-maintained condition, with little or no visual evidence of wear or other deficiencies.	0 to 5%
Subjected to wear but is still in a serviceable and functioning condition.	> than 5% to 10%
Subjected to hard or long-term wear. Nearing the end of its useful or serviceable life.	> than 10% to 60%
Has reached the end of its useful or serviceable life. Renewal is now necessary.	> than 60%

The graphs above and tables below represent summary-level findings for the FCA. The deficiencies identified in this assessment can be combined with potential new construction requirements to develop an overall strategy that can serve as the basis for a portfolio-wide capital improvement funding strategy. Key findings from the assessment include

Key Finding	Metric
Current Year Facility Condition Index (FCI) $FCI = (IR)/(CRV)$	2.8%
10-Year Facility Condition Index (FCI) $FCI = (RR)/(CRV)$	15%
Current Replacement Value (CRV)	66,855 SF * \$383.69 / SF = \$25,170,064
Year 1 Current Year - Immediate Repairs (IR)	\$708,243
Years 1-10 – Replacement Reserves (RR)	\$3,037,394



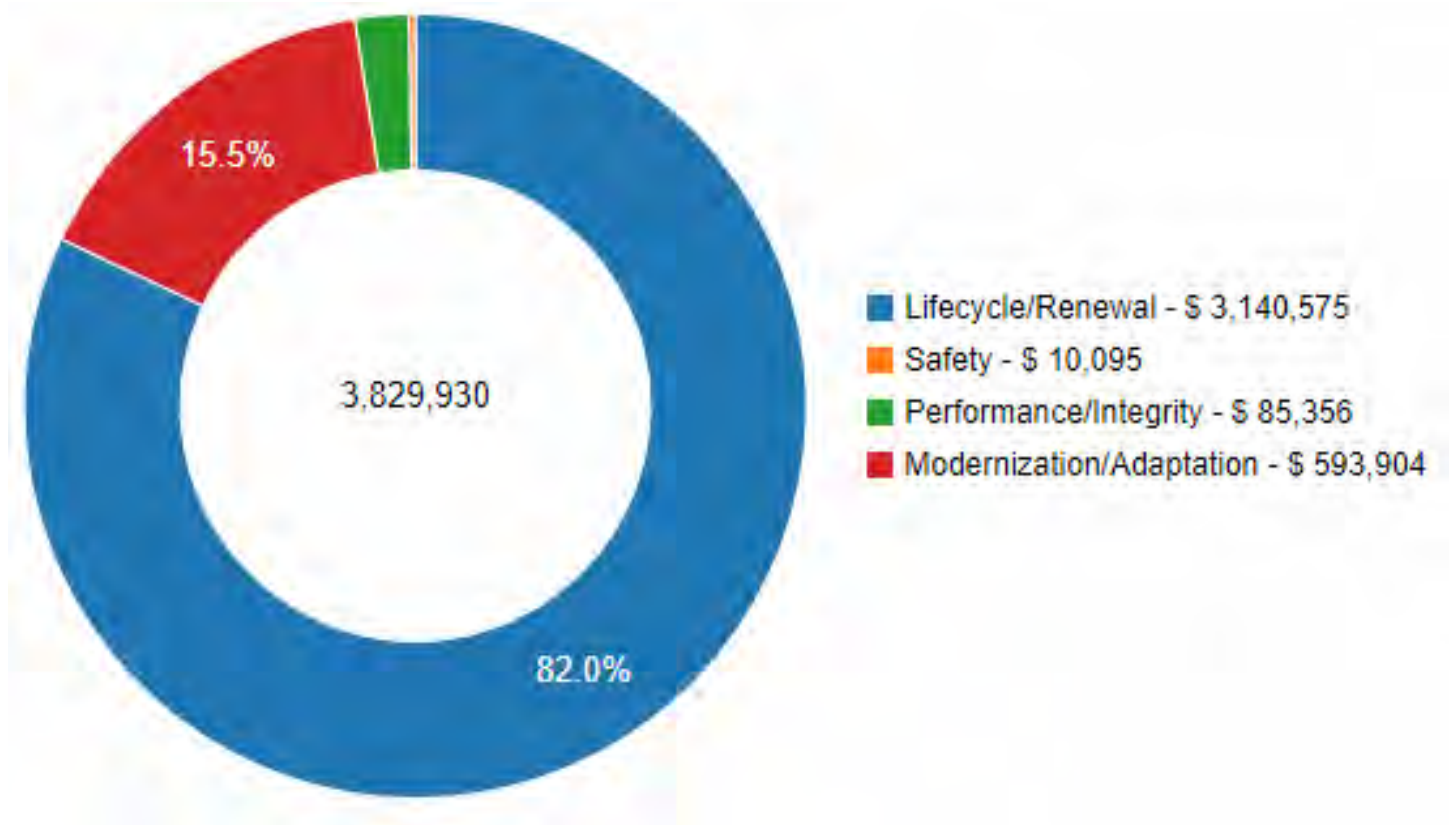
System Expenditure Forecast

System Expenditure Forecast

July 12th 2018

System	Immediate	Short Term (yr 2-3)	Near Term (yr 4-5)	Med Term (yr 6-10)	Long Term (yr 11-20)	20 year total
Facade (Escalated)	\$3,043	-	\$1,727	\$2,471	\$20,317	\$82,769
Roofing (Escalated)	-	\$55,673	\$3,196	-	-	\$495,532
Interiors (Escalated)	\$9,095	\$24,690	\$78,446	\$25,752	\$407,801	\$759,877
Elevators (Escalated)	\$1,000	\$3,405	\$195	-	\$213,700	\$218,106
Plumbing (Escalated)	-	-	-	-	\$87,241	\$134,465
Fire Suppression (Escalated)	\$572,186	-	-	-	-	\$572,186
HVAC (Escalated)	-	-	\$119,682	\$18,712	\$463,158	\$1,699,636
Electrical (Escalated)	-	-	\$48,793	-	\$34,754	\$646,551
Fire Alarm & Comm (Escalated)	-	\$23,041	\$16,974	-	\$35,897	\$243,376
Site (Escalated)	-	\$895	\$895	-	-	\$30,730
TOTALS (Escalated)	\$585,324	\$137,540	\$2,252,379	\$120,324	\$1,787,660	\$4,883,228
TOTALS, Cumulative (Escalated)	\$585,324	\$722,864	\$2,975,243	\$3,095,567	\$4,883,228	

Plan Type Distribution



2. Building Structure

A10 Foundations

Building Foundation		
Item	Description	Condition
Foundation	Piers	Fair
Under Grade Area	Concrete slab and concrete walls	Fair

Anticipated Lifecycle Replacements:

- No components of significance

Actions/Comments:

- The foundation systems are concealed. There are no significant signs of settlement, deflection, or movement
- The subterranean walls have isolated areas of efflorescence along the wall adjoining the mechanical room. It was reported that the leakage has been stopped.

B10 Superstructure

B1010 Floor Construction and B1020 Roof Construction		
Item	Description	Condition
Framing / Load-Bearing Walls	Cast-in-place concrete	Fair
Ground Floor	Concrete slab	Fair
Upper Floor Framing	Concrete beams	Fair
Upper Floor Decking	Concrete, cast-in-place	Fair
Roof Framing	Steel beams or girders	Fair
Roof Decking	Metal decking with concrete topping	Fair

B1010 Balcony Construction		
Item	Description	Condition
Balcony Framing	None	--
Balcony Decking	None	--
Balcony Deck Toppings	NA	--
Balcony Guardrails	NA	--

Maintenance Issues					
Observation	Location	Exists at Site	Observation	Location	Exists at Site
Caulk minor cracking	--	<input type="checkbox"/>	Monitor cracking for growth	--	<input type="checkbox"/>

Anticipated Lifecycle Replacements:

- No components of significance

Actions/Comments:

- The superstructure is exposed in some locations, which allows for limited observation. Walls and floors appear to be plumb, level, and stable. There are no significant signs of deflection or movement.

B1080 Stairs					
Type	Description	Riser	Handrail	Balusters	Condition
Building Exterior Stairs	None	--	--	--	--
Building Interior Stairs	Concrete stairs	Closed	Metal	Metal	Fair

Anticipated Lifecycle Replacements:

- No components of significance

Actions/Comments:

- Ongoing periodic maintenance is highly recommended.
- The spacing of the balusters and bottom rail is greater than four inches and presents a safety hazard to small children and others and does not comply with current standards and code. Modification of the stair and balcony handrails and guardrails to reduce this spacing to four inches or less is highly recommended.

3. Building Envelope

B20 Exterior Vertical Enclosures

B2010 Exterior Walls		
Type	Location	Condition
Primary Finish	Raw concrete	Fair
Secondary Finish	Painted and unpainted brick	Fair
Accented with	Concrete fins	Fair
Soffits	Exposed	Fair
Building sealants	Between dissimilar materials, at joints, around windows and doors	--

Maintenance Issues					
Observation	Location	Exists at Site	Observation	Location	Exists at Site
Graffiti	--	<input type="checkbox"/>	Efflorescence	--	<input type="checkbox"/>
Repair concrete fin	Northwest corner	<input checked="" type="checkbox"/>	other	--	<input type="checkbox"/>

Anticipated Lifecycle Replacements:

- Exterior paint

Actions/Comments:

- Part of an exterior concrete fin has fallen off, exposing the fin's rebar. Repair of the damaged fin is recommended. In addition, a close inspection of the remaining fins to forestall any future damage of this nature is recommended.
- Ongoing periodic maintenance, including patching repairs, graffiti removal, and recaulking, is highly recommended. Future lifecycle replacements of the components listed above will be required.

B2020 Exterior Windows		
Window Framing	Glazing	Condition
Aluminum-framed, operable	Single glaze	Fair
Aluminum-framed, fixed	Single glaze	Fair
Aluminum-framed storefront	Single glaze	Fair

B2050 Exterior Doors		
Main Entrance Doors	Door Type	Condition
	Fully glazed, metal framed	Fair
Secondary Entrance Doors	Fully glazed, metal framed	Fair
Service Doors	Metal, hollow	Fair



B2050 Exterior Doors		
Main Entrance Doors	Door Type	Condition
	Fully glazed, metal framed	Fair
Overhead Doors	None	--

Anticipated Lifecycle Replacements:

- Exterior entry doors
- Exterior service doors

Actions/Comments:

- The windows are antiquated, energy-inefficient units with single-pane glazing. Window replacement is recommended.
- Ongoing periodic maintenance is highly recommended. Future lifecycle replacements of the components listed above will be required.

B30 Exterior Horizontal Enclosures (Roofs)

B3010 Primary Roof (Main Building)			
Finish	Modified Bitumen with stones	Coatings	None
Type / Geometry	Flat	Installation Year	Estimated 2007
Flashing	Built-up base and edge flashing	Warranties	Unlikely (based on age)
Parapet Copings	None	Roof Drains	Internal drains
Fascia	Precast concrete	Insulation	Indeterminable
Soffits	Concealed soffits	Skylights	Yes
Attics	None	Ventilation Source-1	None
Roof Condition	Fair	Ventilation Source-2	NA

B3010 Secondary Roof (Main Building)			
Finish	CorTen steel	Coatings	None
Type / Geometry	Mansard	Installation Year	Estimated 1973
Flashing	None	Warranties	Unlikely (based on age)
Parapet Copings	CorTen steel	Roof Drains	Edge drainage to ground
Fascia	Precast concrete	Insulation	Indeterminable
Soffits	Concealed soffits	Skylights	No
Attics	None	Ventilation Source-1	None
Roof Condition	Fair	Ventilation Source-2	NA

B3010 Secondary Roof (Mechanical Building)			
Finish	Unknown, "green roof"	Coatings	None
Type / Geometry	Flat	Installation Year	Estimated 1990
Flashing	Unknown	Warranties	Unlikely (based on age)
Parapet Copings	None	Roof Drains	Gutters and downspouts
Fascia	None	Insulation	None
Soffits	None	Skylights	No
Attics	None	Ventilation Source-1	None
Roof Condition	Fair	Ventilation Source-2	NA

Maintenance Issues					
Observation	Location	Exists at Site	Observation	Location	Exists at Site
Drainage components broken/missing	--	<input type="checkbox"/>	Vegetation/fungal growth	--	<input type="checkbox"/>
Blocked drains	--	<input type="checkbox"/>	Debris	--	<input type="checkbox"/>

Degradation Issues			
Observation	Exists at Site	Observation	Exists at Site
Evidence of roof leaks	<input checked="" type="checkbox"/>	Significant ponding	<input type="checkbox"/>
Excessive patching or repairs	<input type="checkbox"/>	Blistering or ridging	<input type="checkbox"/>

Anticipated Lifecycle Replacements:

- Modified bitumen roof finish
- Roof flashings (included as part of overall roof replacement)

Actions/Comments:

- The roof finishes vary in age and appear to be more than 10 years old. Information regarding roof warranties or bonds was not available.
- There is no evidence of roof deck or insulation deterioration. The roof substrate and insulation should be inspected during any future roof repair or replacement work.
- Roof drainage appears to be adequate. Clearing and minor repair of drain system components should be performed regularly as part of the property management's routine maintenance and operations program.
- The attics are not accessible, and it could not be determined if there is moisture, water intrusion, or excessive daylight in the attics.
- During severe wind storms, roofing aggregate (ballast) may become wind-borne and may harm nearby persons or may damage surrounding properties or building or site elements of the subject property. National, regional, and local building codes vary widely in the treatment of this issue and should be consulted during any future roofing repairs or replacements.
- Within the past year, roof leaks have occurred at the green roof over the mechanical building. There has been an effort to patch the roof within the past year, yet the leaks may remain active. In addition to the leak, there has been efflorescence in the library office that adjoins the mechanical building (Office 31). In light of the apparent age of the roof, replacement is recommended.

4. Interiors

C10 Interior Construction

C1030 Interior Doors		
Item	Type	Condition
Interior Doors – Type 1	Solid-core wood	Fair
Interior Doors – Type 2	Fully glazed, wood framed	Fair
Door Framing	Metal	Fair
Fire Doors (90+ Minutes)	--	--
Closet Doors	None	--

Maintenance Issues					
Observation	Location	Exists at Site	Observation	Location	Exists at Site
Improperly adjusted door closures	--	<input type="checkbox"/>	Damaged/loose door hardware	--	<input type="checkbox"/>

C20 Interior Finishes

The following table generally describes the locations and typical conditions of the interior finishes within the facility:

Interior Finishes - Library

Location	Component / Description / Action	Quantity	Unit	RUL	Est Cost
Throughout	C3012 Interior Wall Finish, Generic Surface, Prep & Paint	11000	SF	6	\$17,067
Throughout	C3012 Interior Wall Finish, Generic Surface, Prep & Paint	15000	SF	2	\$23,273
Original Restrooms	C3024 Interior Floor Finish, Terrazzo, Replace	370	SF	3	\$4,773
Throughout	C3025 Interior Floor Finish, Carpet Tile Commercial-Grade, Replace	20000	SF	3	\$149,006
Throughout	C3032 Interior Ceiling Finish, Suspended Acoustical Tile (ACT), Replace	16000	SF	4	\$53,260
Throughout	C3032 Interior Ceiling Finish, Suspended Acoustical Tile (ACT), Replace	15000	SF	16	\$49,932

Maintenance Issues					
Observation	Location	Exists at Site	Observation	Location	Exists at Site
Loose carpeting/flooring	--	<input type="checkbox"/>	Minor areas of stained ceiling tiles	--	<input type="checkbox"/>
Minor paint touch-up	--	<input type="checkbox"/>	Areas of damaged/missing baseboard	--	<input type="checkbox"/>

Anticipated Lifecycle Replacements:

- Carpet
- Terrazzo



- Interior paint
- Suspended acoustic ceiling tile
- Interior doors

Actions/Comments:

- Interior renovations happen on an as-needed basis.
- No significant actions are identified at the present time. Ongoing periodic maintenance is highly recommended. Future lifecycle replacements of the components listed above will be required.

5. Services (MEPF)

D10 Conveying Systems

D1030 Vertical Conveying (Building Elevators) – Building 1			
Manufacturer	United States Elevator	Machinery Location	Ground floor or basement adjacent to shaft
Safety Stops	Electronic	Emergency Communication Equipment	<input checked="" type="checkbox"/>
Cab Floor Finish	Sheet rubber	Cab Wall Finish	Plastic-laminated wood
Cab Finish Condition	Fair	Elevator Cab Lighting	T-8
Hydraulic Elevators	One car at 2,000 LB		
Overhead Traction Elevators	None		
Freight Elevators	None		
Machinery Condition	Fair	Controls Condition	Poor
Other Conveyances	Wheelchair Lifts	Other Conveyance Condition	Good

Maintenance Issues					
Observation	Location	Exists at Site	Observation	Location	Exists at Site
Inspection certificate not available	--	<input type="checkbox"/>	Inspection certificate expired	--	<input type="checkbox"/>
Service call needed	Stops	<input checked="" type="checkbox"/>	Minor cab finish repairs	--	<input type="checkbox"/>

Anticipated Lifecycle Replacements:

- Elevator controls
- Hydraulic machinery
- Elevator cab finishes

Actions/Comments:

- The elevator does not provide adequate service. The doors open while the cab is still moving. Repair is required.
- The elevator is serviced by Kone on a routine basis. The elevator machinery and controls appear to be more than 12 years old. The elevators will require continued periodic maintenance.
- The elevator is inspected on an annual basis by the State of California, and a certificate of inspection is displayed in each elevator cab.



- The emergency communication equipment in the elevator cab appears to be functional. Equipment testing is not within the scope of the work.
- The finishes in the elevator cab will require replacement.

D20 Plumbing

D2010 Domestic Water Distribution		
Type	Description	Condition
Water Supply Piping	Copper	Fair

Domestic Water Heaters or Boilers	
Components	Boilers
Fuel	Natural gas
Boiler or Water Heater Condition	Fair
Supplementary Storage Tanks	<input type="checkbox"/>
Adequacy of Hot Water	Adequate
Adequacy of Water Pressure	Adequate

D2020 Sanitary Drainage		
Type	Description	Condition
Waste/Sewer Piping	Cast iron	Fair
Vent Piping	Cast iron	Fair

Maintenance Issues					
Observation	Location	Exists at Site	Observation	Location	Exists at Site
Hot water temperature too hot or cold	--	<input type="checkbox"/>	Minor/isolated leaks	--	<input type="checkbox"/>

Plumbing Systems - Library

Location	Component / Action	Quantity	Unit	RUL	Est Cost
Restrooms	D2011 Toilet, Tankless (Water Closet), Replace	14	EA	10	\$12,628
Restrooms	D2012 Urinal, Vitreous China, Replace	6	EA	12	\$7,662
Restrooms	D2014 Sink/Lavatory, Porcelain Enamel, Cast Iron, Replace	14	EA	10	\$17,486
Mechanical room	D2023 Water Heater, Electric, Commercial, 30 to 80 GAL, Replace	1	EA	13	\$7,451
Mechanical room	D2023 Domestic Boiler, Gas, 801 to 1,400 MBH, Replace	1	EA	12	\$45,853
Mechanical Room	D2091 Air Compressor, 0.75 HP, Replace	1	EA	10	\$5,026

Anticipated Lifecycle Replacements:

- Boiler

- Circulation pumps
- Toilets
- Urinals
- Sinks

Actions/Comments:

- The plumbing systems appear to be well maintained and functioning adequately. The water pressure appears to be sufficient. No significant repair actions or short term replacement costs are required. Routine and periodic maintenance is recommended. Future lifecycle replacements of the components or systems listed above will be required.

D30 Building Heating, Ventilating, and Air Conditioning (HVAC)

Building Central Heating System	
Primary Heating System Type	Hydronic system served by domestic boiler
Heating Fuel	Natural gas
Location of Major Equipment	Mechanical rooms
Space Served by System	Entire building

Building Central Cooling System	
Primary Cooling System Type	Water-cooled chillers, scroll
Refrigerant	R-134A
Cooling Tower	Galvanized steel
Location of Major Equipment	Mechanical rooms
Space Served by System	Entire building

Distribution System	
HVAC Water Distribution System	Four-pipe
Air Distribution System	Constant volume
Location of Air Handlers	Mechanical rooms
Terminal Units	None
Quantity and Capacity of Terminal Units	--
Location of Terminal Units	--

Supplemental/Secondary Components	
Supplemental Component #1	Split system heat pumps
Location / Space Served	Cooling tower area
Supplemental Component #2	Ductless split systems
Location / Space Served	Computer room

Controls and Ventilation

HVAC Control System	BAS, pneumatic controls and digital controls
Building Ventilation	Central AHU, with fresh air intake

Maintenance Issues

Observation	Location	Exists at Site	Observation	Location	Exists at Site
Ductwork/grills need cleaned	--	<input type="checkbox"/>	Minor control adjustments needed	--	<input type="checkbox"/>
Leaking condensate lines	--	<input type="checkbox"/>	Poor mechanical area access	--	<input type="checkbox"/>

Degradation Issues

Observation	Exists at Site	Observation	Exists at Site
Heating, cooling or ventilation is not adequate	<input type="checkbox"/>	Major system inefficiencies	<input type="checkbox"/>
HVAC controls pneumatic or antiquated	<input checked="" type="checkbox"/>	Obsolete refrigerants: R11, R12, R22, R123, R502	<input type="checkbox"/>

Mechanical Systems - Library

Location	Component / Action	Quantity	Unit	RUL	Est Cost
Outside the mechanical room	D3031 Chiller, Air-Cooled, 151 to 200 Ton, Replace	1	EA	19	\$247,734
LC 40F	D3032 Ductless Split System, Single Zone, 1.5 to 2 Ton, Replace	1	EA	10	\$4,786
Mechanical area	D3032 Ductless Split System, Single Zone, 2.5 to 3 Ton, Replace	1	EA	8	\$8,682
Mechanical room	D3041 Air Handler, Interior, 65,001 to 100,000 CFM, Replace	1	EA	3	\$350,353
Mechanical room	D3041 Air Handler, Interior, 65,001 to 100,000 CFM, Replace	1	EA	3	\$350,353
Mechanical room	D3044 Distribution Pump, Heating Water, 12.5 to 15 HP, Replace	1	EA	3	\$7,341
Mechanical room	D3044 Distribution Pump, Heating Water, 7.5 HP, Replace	1	EA	6	\$6,460
Exterior, by TV studio	D3052 Heat Pump, Packaged (RTU), 6 to 10 Ton, Replace	1	EA	4	\$16,398
Throughout	D3068 HVAC Controls, Building Automation System (BAS), Upgrade	66855	SF	3	\$383,606

Anticipated Lifecycle Replacements:

- Chiller
- Air handler fan motors
- Distribution pumps and motors
- Split system heat pump
- Rooftop exhaust fan

Actions/Comments:

- Records and other on-site evidence suggest the HVAC systems and components have been regularly maintained since the property was first occupied. The HVAC systems are maintained by both outside contractors and in house staff.
- The HVAC equipment varies in age. HVAC equipment is replaced on an as-needed basis.
- The chiller located in the mechanical room failed roughly a year ago. The College of Marin rented an air-cooled chiller to replace the failed chiller temporarily. According to the POC, the College of Marin has now purchased the air-cooled chiller. It is not known what the final resolution will be, though it seems likely that a future chiller will be water-cooled and the existing geothermal system will be utilized.

- The HVAC system appears to be functioning adequately overall. No chronic problems were reported and an overall sense of satisfaction with the systems was conveyed. However, due to the inevitable failure of parts and components over time, some of the equipment will require replacement.
- The air handlers are original to the 1973 construction and appear to be functioning adequately. However, many of the fan motors are also original and as-needed replacements are anticipated. High-efficiency motor replacements are recommended.
- Parts of the HVAC controls still use an outdated pneumatic system supplied by an air compressor. The remainder of the system is controlled electronically, though it is not addressable. For modernization, reliability, and increased control, full conversion to a web-based direct digital control (DDC) platform is highly recommended.

D40 Fire Protection

Item	Description					
Sprinkler System & Suppression Components	Wet-pipe system	<input checked="" type="checkbox"/>	Dry-pipe system	<input type="checkbox"/>	No sprinklers	<input checked="" type="checkbox"/>
	Standpipes	<input type="checkbox"/>	Backflow preventer	<input type="checkbox"/>	Siamese connections	<input type="checkbox"/>
	Hose cabinets	<input checked="" type="checkbox"/>	Fire pump	<input type="checkbox"/>	Fire extinguishers	<input checked="" type="checkbox"/>
Sprinkler System Condition	Fair					
Fire Extinguishers	Last Service Date			Servicing Current?		
	October 11, 2017			Yes, serviced within last year		
Hydrant Location	North of building					
Siamese Location	Parking lot					
Special Systems	Kitchen Suppression System		<input type="checkbox"/>	Computer Room Suppression System		<input type="checkbox"/>

Maintenance Issues					
Observation	Location	Exists at Site	Observation	Location	Exists at Site
Extinguisher tag expired	--	<input type="checkbox"/>	Riser tag expired (five-year)	--	<input type="checkbox"/>

Anticipated Lifecycle Replacements:

- No components of significance

Actions/Comments:

- The vast majority of the building is not protected by fire suppression; sprinkler heads are currently limited to mechanical and janitorial spaces. Due to its construction date, the facility is most likely “grandfathered” by code and the installation of fire sprinklers not required until major renovations are performed. Regardless of when or if installation of facility-wide fire suppression is required by the governing municipality, EMG recommends a retrofit be performed. A budgetary cost is included.

D50 Electrical

Distribution and Lighting			
Electrical Lines	Underground	Transformer	Pad-mounted
Main Service Size	1600 Amps	Volts	277/480 Volt, three-phase



Distribution and Lighting			
Meter Location	Electrical room	Branch Wiring	Copper
Conduit	Metallic	Step-Down Transformers	Yes
Main Distribution Condition	Fair		
Secondary Panel and Transformer Condition	Fair		
Interior Lighting Fixtures & Lamps	Most Prevalent: T-8 Supplemental/Accent: halogen, incandescent		
Interior Lighting Condition	Fair		

Maintenance Issues					
Observation	Location	Exists at Site	Observation	Location	Exists at Site
Improperly stored material in electrical room	--	<input type="checkbox"/>	Unsecured high voltage area	--	<input type="checkbox"/>

Anticipated Lifecycle Replacements:

- Circuit breaker panels
- Main switchgear
- Switchboards
- Step-down transformers

Actions/Comments:

- The onsite electrical systems up to the meters are owned and maintained by the utility company.
- The electrical service and capacity appear to be adequate for the property's demands.
- The panels, switchboards, step-down transformers are mostly original 1973 components. The electrical service appears to be adequate for the facility's needs. However, due to the age of the panels' switchboards, step-down transformers and increasing difficulty of obtaining replacement parts over time, lifecycle replacements are recommended.

D60 Communications

Not applicable. There are no public address systems.

D70 Electronic Safety and Security

D7010 Access Control and Intrusion Detection / D7050 Detection and Alarm						
Item	Description					
Access Control and Intrusion Detection	Exterior Camera	<input type="checkbox"/>	Interior Camera	<input type="checkbox"/>	Front Door Camera Only	<input type="checkbox"/>
	Cameras Monitored	<input type="checkbox"/>	Security Personnel On-Site	<input type="checkbox"/>	Intercom/Door Buzzer	<input type="checkbox"/>



D7010 Access Control and Intrusion Detection / D7050 Detection and Alarm						
Item	Description					
Fire Alarm System	Central Alarm Panel	<input checked="" type="checkbox"/>	Battery-Operated Smoke Detectors	<input type="checkbox"/>	Alarm Horns	<input checked="" type="checkbox"/>
	Annunciator Panels	<input checked="" type="checkbox"/>	Hard-Wired Smoke Detectors	<input type="checkbox"/>	Strobe Light Alarms	<input type="checkbox"/>
	Pull Stations	<input checked="" type="checkbox"/>	Emergency Battery-Pack Lighting	<input checked="" type="checkbox"/>	Illuminated Exit Signs	<input checked="" type="checkbox"/>
Fire Alarm System Condition	--					
Central Alarm Panel	Location			Installation Date		
	Mechanical room			Unknown		

Anticipated Lifecycle Replacements:

- Central alarm panel
- Alarm devices and system
- Exit signs
- Emergency light fixtures

Actions/Comments:

- The fire alarm systems appear somewhat antiquated and not up to current standards. Deficiencies include lack of strobes, audio alarms only, insufficient pull stations, system not fully addressable. Due to the age of the components and apparent shortcomings, a full modernization project is recommended. A budgetary cost is included.
- The central alarm panel appears to be appears to be more than 15 years old. Based on its age and because replacement parts and components for this type of equipment may be obsolete, the alarm panel requires replacement.

6. Equipment and Furnishings

E10 Equipment

Not applicable. There is no commercial kitchen or commercial laundry equipment present.

F10 Special Construction

Not applicable. There is no special construction present at the site.

7. Sitework

G20 Site Improvements

G2020 Parking Lots and G2030 Pedestrian Walkways		
Item	Material	Condition
Entrance Driveway Apron	Concrete	Fair
Parking Lot	Asphalt	Fair
Drive Aisles	None	--
Service Aisles	None	--
Sidewalks	Concrete	Fair
Curbs	Concrete	Fair
Pedestrian Ramps	Cast-in-place concrete	Good
Ground Floor Patio or Terrace	Concrete	Fair

Parking Count				
Open Lot	Carport	Private Garage	Subterranean Garage	Freestanding Parking Structure
15	0	0	0	0
Total Parking Spaces			15	
Total Number of ADA Compliant Spaces			5	
Number of ADA Compliant Spaces for Vans			1	

Site Stairs			
Location	Material	Handrails	Condition
North of the building	Concrete stairs	Metal	Fair
Southeast side of the building	Concrete stairs	Metal	Good
West side of the building	Concrete stairs	Metal	Good

Maintenance Issues					
Observation	Location	Exists at Site	Observation	Location	Exists at Site
Pavement oil stains	--	<input type="checkbox"/>	Vegetation growth in joints	--	<input type="checkbox"/>
Stair/ramp rails loose	--	<input type="checkbox"/>	Stair/ramp rail needs scraped and painted	--	<input type="checkbox"/>

Degradation Issues			
Observation	Exists at Site	Observation	Exists at Site
Potholes/depressions	<input type="checkbox"/>	Alligator cracking	<input checked="" type="checkbox"/>
Concrete spalling	<input type="checkbox"/>	Trip hazards (settlement/heaving)	<input type="checkbox"/>

Anticipated Lifecycle Replacements:

- Asphalt seal coating
- Asphalt pavement

Actions/Comments:

- The asphalt pavement exhibits isolated areas of failure and deterioration, such as alligator cracking and extensive raveling and along the south end of the parking lot. The most severely damaged areas of paving must be cut and patched in order to maintain the integrity of the overall pavement system.

G2060 Site Development	
Property Signage	
Property Signage	None
Street Address Displayed?	NA

Dumpster Enclosures			
Dumpster Locations	Surface	Enclosure	Condition
Parking areas	Asphalt paving	No enclosures.	--

Other Site Amenities			
	Description	Location	Condition
Playground Equipment	None	--	--
Tennis Courts	None	--	--
Basketball Court	None	--	--

Anticipated Lifecycle Replacements:

- No components of significance

Actions/Comments:

- No significant actions are identified at the present time. Ongoing periodic maintenance is highly recommended.

G2080 Landscaping		
Drainage System and Erosion Control		
System	Exists at Site	Condition
Surface Flow	<input checked="" type="checkbox"/>	Fair
Inlets	<input checked="" type="checkbox"/>	Fair
Swales	<input type="checkbox"/>	--
Detention pond	<input type="checkbox"/>	--
Lagoons	<input type="checkbox"/>	--
Ponds	<input type="checkbox"/>	--
Underground Piping	<input checked="" type="checkbox"/>	Fair
Pits	<input type="checkbox"/>	--
Municipal System	<input checked="" type="checkbox"/>	Fair
Dry Well	<input type="checkbox"/>	--

Anticipated Lifecycle Replacements:

- No components of significance

Actions/Comments:

- There is no evidence of storm water runoff from adjacent properties. The storm water system appears to provide adequate runoff capacity. There is no evidence of major ponding or erosion.

Item	Description						
Site Topography	Slopes gently down from the east side to the west						
Landscaping	Trees	Trees	Trees	Trees	Trees	Trees	Trees
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Landscaping Condition	Fair						
Irrigation	Automatic Underground	Automatic Underground	Automatic Underground	Automatic Underground	Automatic Underground	Automatic Underground	Automatic Underground
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Irrigation Condition	Fair						

Retaining Walls		
Type	Location	Condition
Concrete	North, west, and east sides of the building	Good

Anticipated Lifecycle Replacements:

- Landscaping materials

Actions/Comments:

- The topography and adjacent uses do not appear to present conditions detrimental to the property. There are no significant areas of erosion.



G30 Liquid and Gas Site Utilities

G3060 Site Fuel Distribution			
	Meter or Tank Location	Pipe Material	Condition
Natural Gas	Along exterior wall/s	Malleable steel (black iron)	Good
Propane Tanks	NA	NA	--

Anticipated Lifecycle Replacements:

- No components of significance

Actions/Comments:

- The pressure and quantity of gas appear to be adequate.
- The gas meter and regulator appears to be functioning adequately. These components are owned by the utility company and are the utility company's responsibility.
- Only limited observation of the gas distribution piping can be made due to hidden conditions.

G40 Electrical Site Improvements

G4050 Site Lighting					
Site Lighting	None	Pole Mounted	Bollard Lights	Ground Mounted	Parking Lot Pole Type
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fair					
Building Lighting	None		Wall Mounted		Soffit
	<input type="checkbox"/>		<input type="checkbox"/>		<input checked="" type="checkbox"/>
Fair					

Maintenance Issues					
Observation	Location	Exists at Site	Observation	Location	Exists at Site
Isolated bulb/lamp replacement	--	<input type="checkbox"/>	Discolored/dirty lens cover	--	<input type="checkbox"/>

Anticipated Lifecycle Replacements:

- Exterior lighting

Actions/Comments:

- No significant actions are identified at the present time. Ongoing periodic maintenance is highly recommended. Future lifecycle replacements of the components listed above will be required.



8. Ancillary Structures

Not applicable. There are no major accessory structures.

9. Opinions of Probable Costs

Cost estimates are attached throughout this report, with the Replacement Reserves in the appendix.

These estimates are based on Invoice or Bid Document/s provided either by the Owner/facility and construction costs developed by construction resources such as *R.S. Means*, *CBRE Whitestone*, and *Marshall & Swift*, EMG's experience with past costs for similar properties, city cost indexes, and assumptions regarding future economic conditions.

Opinions of probable costs should only be construed as preliminary, order of magnitude budgets. Actual costs most probably will vary from the consultant's opinions of probable costs depending on such matters as type and design of suggested remedy, quality of materials and installation, manufacturer and type of equipment or system selected, field conditions, whether a physical deficiency is repaired or replaced in whole, phasing or bundling of the work (if applicable), quality of contractor, quality of project management exercised, market conditions, use of subcontractors, and whether competitive pricing is solicited, etc. Certain opinions of probable costs cannot be developed within the scope of this guide without further study. Opinions of probable cost for further study should be included in the FCA.

Methodology

Based upon site observations, research, and judgment, along with referencing Expected Useful Life (EUL) tables from various industry sources, EMG opines as to when a system or component will most probably necessitate replacement. Accurate historical replacement records, if provided, are typically the best source of information. Exposure to the elements, initial quality and installation, extent of use, the quality and amount of preventive maintenance exercised, etc., are all factors that impact the effective age of a system or component. As a result, a system or component may have an effective age that is greater or less than its actual chronological age. The Remaining Useful Life (RUL) of a component or system equals the EUL less its *effective age*, whether explicitly or implicitly stated. Projections of Remaining Useful Life (RUL) are based on continued use of the Property similar to the reported past use. Significant changes in occupants and/or usage may affect the service life of some systems or components.

Where quantities could not be or were not derived from an actual construction document take-off or facility walk-through, and/or where systemic costs are more applicable or provide more intrinsic value, budgetary square foot and gross square foot costs are used. Estimated costs are based on professional judgment and the probable or actual extent of the observed defect, inclusive of the cost to design, procure, construct and manage the corrections.

Immediate Repairs

Immediate repairs are opinions of probable costs that require immediate action as a result of: (1) material existing or potential unsafe conditions, (2) failed or imminent failure of mission critical building systems or components, or (3) conditions that, if not addressed, have the potential to result in, or contribute to, critical element or system failure within one year or will most probably result in a significant escalation of its remedial cost.

Replacement Reserves

Replacement Reserves (more commonly referenced throughout AssetCALC as Lifecycle/Renewals) are for recurring probable renewals or expenditures, which are not classified as operation or maintenance expenses. The replacement reserves should be budgeted for in advance on an annual basis. Replacement Reserves are reasonably predictable both in terms of frequency and cost. However, Replacement Reserves may also include components or systems that have an indeterminable life but, nonetheless, have a potential for failure within an estimated time period.

Replacement Reserves generally exclude systems or components that are estimated to expire after the reserve term and are not considered material to the structural and mechanical integrity of the subject property. Furthermore, systems and components that are not deemed to have a material effect on the use of the Property are also excluded. Costs that are caused by acts of God, accidents, or other occurrences that are typically covered by insurance, rather than reserved for, are also excluded.

Replacement costs are solicited from ownership/property management, EMG's discussions with service companies, manufacturers' representatives, and previous experience in preparing such schedules for other similar facilities. Costs for work performed by the ownership's or property management's maintenance staff are also considered.

EMG's reserve methodology involves identification and quantification of those systems or components requiring capital reserve funds within the assessment period. The assessment period is defined as the effective age plus the reserve term. Additional information concerning system's or component's respective replacement costs (in today's dollars), typical expected useful lives, and remaining useful lives were estimated so that a funding schedule could be prepared. The Replacement Reserves Schedule presupposes that all required remedial work has been performed or that monies for remediation have been budgeted for items defined in the Immediate Repair Cost Estimate.

10. Purpose and Scope

Purpose

EMG was retained by the client to render an opinion as to the Property's current general physical condition on the day of the site visit.

Based on the observations, interviews and document review outlined below, this report identifies significant deferred maintenance issues, existing deficiencies, and material code violations of record, which affect the Property's use. Opinions are rendered as to its structural integrity, building system condition and the Property's overall condition. The report also notes building systems or components that have realized or exceeded their typical expected useful lives.

CONDITIONS:

The physical condition of building systems and related components are typically defined as being in one of five conditions: Excellent, Good, Fair, Poor, Failed or a combination thereof. For the purposes of this report, the following definitions are used:

Excellent	=	New or very close to new; component or system typically has been installed within the past year, sound and performing its function. Eventual repair or replacement will be required when the component or system either reaches the end of its useful life or fails in service.
Good	=	Satisfactory as-is. Component or system is sound and performing its function, typically within the first third of its lifecycle. However, it may show minor signs of normal wear and tear. Repair or replacement will be required when the component or system either reaches the end of its useful life or fails in service.
Fair	=	Showing signs of wear and use but still satisfactory as-is, typically near the median of its estimated useful life. Component or system is performing adequately at this time but may exhibit some signs of wear, deferred maintenance, or evidence of previous repairs. Repair or replacement will be required due to the component or system's condition and/or its estimated remaining useful life.
Poor	=	Component or system is significantly aged, flawed, functioning intermittently or unreliably; displays obvious signs of deferred maintenance; shows evidence of previous repair or workmanship not in compliance with commonly accepted standards; has become obsolete; or exhibits an inherent deficiency. The present condition could contribute to or cause the deterioration of contiguous elements or systems. Either full component replacement is needed or repairs are required to restore to good condition, prevent premature failure, and/or prolong useful life.
Failed	=	Component or system has ceased functioning or performing as intended. Replacement, repair, or other significant corrective action is recommended or required.
Not Applicable	=	Assigning a condition does not apply or make logical sense, most commonly due to the item in question not being present.

Throughout sections 2 through 8 of this report, each report section will typically contain three subsections organized in the following sequence:

- A descriptive table (and/or narrative), which identifies the components assessed, their condition, and other key data points.
- A simple bulleted list of Anticipated Lifecycle Replacements, which lists components and assets typically in Excellent, Good, or Fair condition at the time of the assessment but that will require replacement or some other attention once aged past their estimated useful life. These listed components are typically included in the associated inventory database with costs identified and budgeted beyond the first several years.
- A bulleted cluster of Actions/Comments, which include more detailed narratives describing deficiencies, recommended repairs, and short term replacements. The assets and components associated with these bullets are/were typically problematic and in Poor or Failed condition at the time of the assessment, with corresponding costs included within the first few years.

PLAN TYPES:

Each line item in the cost database is assigned a Plan Type, which is the primary reason or rationale for the recommended replacement, repair, or other corrective action. This is the “why” part of the equation. A cost or line item may commonly have more than one applicable Plan Type; however, only one Plan Type will be assigned based on the “best” fit, typically the one with the greatest significance. The following Plan Types are listed in general weighted order of importance:

Safety	=	An observed or reported unsafe condition that if left unaddressed could result in an injury; a system or component that presents a potential liability risk.
Performance/Integrity	=	Component or system has failed, is almost failing, performs unreliably, does not perform as intended, and/or poses a risk to overall system stability.
Accessibility	=	Does not meet ADA, UFAS, and/or other handicap accessibility requirements.
Environmental	=	Improvements to air or water quality, including removal of hazardous materials from the building or site.
Modernization/Adaptation	=	Conditions, systems, or spaces that need to be upgraded in appearance or function to meet current standards, facility usage, or client/occupant needs.
Lifecycle/Renewal	=	Any component or system in which future repair or replacement is anticipated beyond the next several years and/or is of minimal substantial early-term consequence.

DEFINITION OF EXCEEDINGLY AGED:

A fairly common scenario encountered during the assessment process, and a frequent source of debate, occurs when classifying and describing “very old” systems or components that are still functioning adequately and do not appear in any way deficient. To help provide some additional intelligence on these items, such components will be tagged in the database as *Exceedingly Aged*. This designation will be reserved for systems or components that have aged well beyond their industry standard lifecycles (typically at least 15 years beyond and/or twice their EUL) but are not otherwise apparently deficient. In tandem with this designation, these items will be assigned an RUL not less than 2 but not greater than 1/3 of their standard EUL. As such the recommended replacement time for these components will reside outside the typical *Immediate Repair* window but will not be pushed ‘irresponsibly’ (too far) into the future.

Scope

The standard scope of the Facility Condition Assessment includes the following:

- Visit the Property to evaluate the general condition of the building and site improvements, review available construction documents in order to familiarize ourselves with, and be able to comment on, the in-place construction systems, life safety, mechanical, electrical, and plumbing systems, and the general built environment.
- Identify those components that are exhibiting deferred maintenance issues and provide cost estimates for Immediate Costs and Replacement Reserves based on observed conditions, maintenance history and industry standard useful life estimates. This will include the review of documented capital improvements completed within the last five-year period and work currently contracted for, if applicable.
- Provide a full description of the Property with descriptions of in-place systems and commentary on observed conditions.
- Provide a high-level categorical general statement regarding the subject Property’s compliance to Title III of the Americans with Disabilities Act. This will not constitute a full ADA survey, but will help identify exposure to issues and the need for further review.
- Obtain background and historical information about the facility from a building engineer, property manager, maintenance staff, or other knowledgeable source. The preferred methodology is to have the client representative or building occupant complete a Pre-Survey Questionnaire (PSQ) in advance of the site visit. Common alternatives include a verbal interview just prior to or during the walk-through portion of the assessment.
- Review maintenance records and procedures with the in-place maintenance personnel.
- Observe a representative sample of the interior spaces/units, including vacant spaces/units, to gain a clear understanding of the property’s overall condition. Other areas to be observed include the exterior of the property, the roofs, interior common areas, and the significant mechanical, electrical and elevator equipment rooms.
- Provide recommendations for additional studies, if required, with related budgetary information.
- Provide an Executive Summary at the beginning of this report, which highlights key findings and includes a Facility Condition Index as a basis for comparing the relative conditions of the buildings within the portfolio.

11. ADA Accessibility

Generally, Title III of the Americans with Disabilities Act (ADA) prohibits discrimination by entities to access and use of “areas of public accommodations” and “commercial facilities” on the basis of disability. Regardless of its age, these areas and facilities must be maintained and operated to comply with the Americans with Disabilities Act Accessibility Guidelines (ADAAG).

Buildings completed and occupied after January 26, 1992 are required to comply fully with the ADAAG. Existing facilities constructed prior to this date are held to the lesser standard of compliance to the extent allowed by structural feasibility and the financial resources available. As an alternative, a reasonable accommodation pertaining to barrier removal must be made.

During the FCA, EMG performed a limited high-level accessibility review of the facility non-specific to any local regulations or codes. The scope of the visual observation was limited to those areas and categories set forth in the tables throughout this report. It is understood by the Client that the limited observations described herein do not comprise a full ADA Compliance Survey, and that such a survey is beyond the scope of EMG’s undertaking. Only a representative sample of areas was observed and actual measurements were not taken to verify compliance.

The facility was originally constructed in 1973. The facility has undergone several accessibility related renovations. Complaints about accessibility issues have been received by the property management.

While performing the FCA, EMG performed a high-level accessibility review of the facility non-specific to any local regulations or codes. A summary of the findings is provided below.

Accessibility Issues			
Category	Major Issues (ADA Study Recommended)	Moderate Issues (ADA Study Recommended)	Minor/No Issues
Parking	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Exterior Accessible Route	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Interior Accessible Route	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Public Use Restrooms	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Elevators	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

A full ADA Compliance Survey has been previously performed at the site. The associated recommendations appear to have been addressed in full.

Removal of barriers to accessibility should be addressed from a liability standpoint in order to comply with federal law, but the barriers may or may not be building code violations. The Americans with Disabilities Act Accessibility Guidelines are part of the ADA federal civil rights law pertaining to the disabled and are not a construction code. State and local jurisdictions have adopted the ADA Guidelines or have adopted other standards for accessibility as part of their construction codes.



12. Certification

Marin College(the Client) retained EMG to perform this Facility Condition Assessment in connection with its retainage for a feasibility study of Learning Resources Center, 835 College Avenue, Kentfield, California 94904, the "Property". It is our understanding that the primary interest of the Client is to locate and evaluate materials and building system defects that might significantly affect the value of the property and to determine if the present Property has conditions that will have a significant impact on its continued operations.

The conclusions and recommendations presented in this report are based on the brief review of the plans and records made available to our Project Manager during the site visit, interviews of available property management personnel and maintenance contractors familiar with the Property, appropriate inquiry of municipal authorities, our Project Manager's walk-through observations during the site visit, and our experience with similar properties.

This report has been prepared for and is exclusively for the use and benefit of the Client identified on the cover page of this report. The purpose for which this report shall be used shall be limited to the use as stated in the contract between the client and EMG.

This report, or any of the information contained therein, is not for the use or benefit of, nor may it be relied upon by any other person or entity, for any purpose without the advance written consent of EMG. Any reuse or distribution without such consent shall be at the client's or recipient's sole risk, without liability to EMG.

No testing, exploratory probing, dismantling or operating of equipment or in-depth studies were performed unless specifically required under the *Purpose and Scope* section of this report. This assessment did not include engineering calculations to determine the adequacy of the Property's original design or existing systems. Although walk-through observations were performed, not all areas may have been observed (see Section 1 for specific details). There may be defects in the Property, which were in areas not observed or readily accessible, may not have been visible, or were not disclosed by management personnel when questioned. The report describes property conditions at the time that the observations and research were conducted.

This report has been prepared on behalf of and exclusively for the use of the Client for the purpose stated within the *Purpose and Scope* section of this report. The report, or any excerpt thereof, shall not be used by any party other than the Client or for any other purpose than that specifically stated in our agreement or within the *Purpose and Scope* section of this report without the express written consent of EMG.

Any reuse or distribution of this report without such consent shall be at the Client and the recipient's sole risk, without liability to EMG.

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13. Appendices

- Appendix A: Photographic Record
- Appendix B: Site Plan
- Appendix C: Supporting Documentation
- Appendix D: ADA Checklist
- Appendix E: Pre-Survey Questionnaire
- Appendix F: Replacement Reserves

Appendix A: Photographic Record



#1: WEST ELEVATION



#2: NORTH ELEVATION



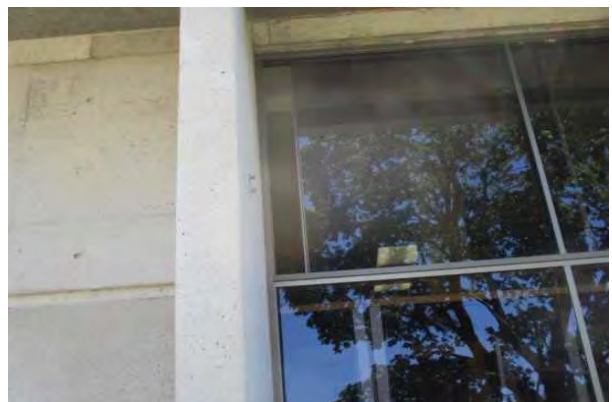
#3: PARTIAL WEST ELEVATION



#4: PARTIAL WEST ELEVATION



#5: EAST ELEVATION



#6: WINDOW, ALUMINUM



#7:

EXTERIOR WALLS



#8:

EXTERIOR DOOR, STEEL



#9:

EXTERIOR DOORS



#10:

EXTERIOR DOORS, FULLY-GLAZED ALUMINUM-FRAMED SWINGING



#11:

EXTERIOR WALL, BROKEN CONCRETE FIN



#12:

MAIN ROOF, MODIFIED BITUMINOUS



#13:

SECONDARY ROOFS, COR-TEN AND GREEN



#14:

INTERIOR DOOR, WOOD SOLID-CORE



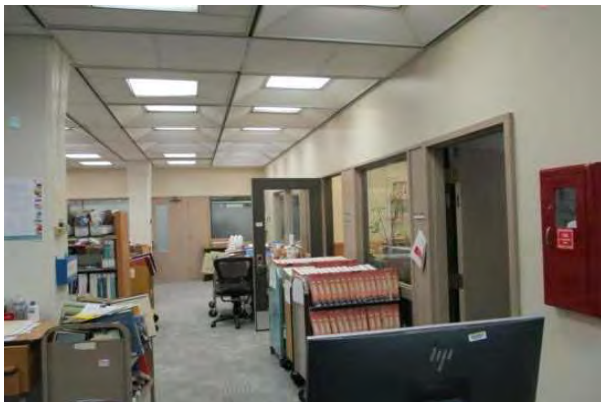
#15:

INTERIOR STAIR



#16:

INTERIOR FLOOR FINISH, TERRAZZO



#17:

INTERIOR CEILING FINISH, SUSPENDED ACOUSTICAL TILE



#18:

INTERIOR WALL FINISH



#19: ELEVATOR CONTROLS, DOOR OPENS BEFORE FLOORS ARE LEVEL



#20: ELEVATOR CAB FINISHES, STANDARD



#21: ELEVATOR EQUIPMENT, HYDRAULIC



#22: WHEELCHAIR LIFT



#23: WATER HEATER, ELECTRIC, COMMERCIAL



#24: DOMESTIC BOILER



#25:

DISTRIBUTION PUMP, HEATING WATER



#26:

SINK/LAVATORY



#27:

URINAL, VITREOUS CHINA



#28:

TOILET, TANKLESS (WATER CLOSET)



#29:

HVAC CONTROLS, BUILDING AUTOMATION SYSTEM (BAS)



#30:

CHILLER, AIR-COOLED



#31: DUCTLESS SPLIT SYSTEM



#32: AIR HANDLER, INTERIOR



#33: VARIABLE FREQUENCY DRIVE (VFD)



#34: DUCTLESS SPLIT SYSTEM,



#35: HEAT PUMP, PACKAGED



#36: SWITCHBOARD



#37: SWITCHBOARD



#38: SECONDARY TRANSFORMER, DRY



#39: DISTRIBUTION PANEL



#40: DISTRIBUTION PANEL



#41: FIRE ALARM CONTROL PANEL, ADDRESSABLE



#42: FLUORESCENT LIGHTING FIXTURE

Appendix B: Site Plan

SITE PLAN

MARIN COLLEGE-LIBRARY

EMG PROJECT NO.: 132825.18R000-002.354



SOURCE:
Client



ON-SITE DATE:
June 27, 2018



Appendix D: ADA Checklist

ADA CHECKLIST

Date Completed: June 30, 2018

Property Name: Marin College-Library

EMG Project Number: 132825.18R000-002.354

Building History		Yes	No	Unk	Comments
1	Has an ADA survey previously been completed for this property?	✓			
2	Have any ADA improvements been made to the property?	✓			
3	Do a Transition Plan / Barrier Removal Plan exist for the property?	✓			DSA
4	Has building ownership or management received any ADA related complaints that have not been resolved?			✓	
5	Is any litigation pending related to ADA issues?			✓	
Parking		Yes	No	NA	Comments
1	Are there sufficient accessible parking spaces with respect to the total number of reported spaces?	✓			With 15 total parking spaces, one accessible space is the minimum required, 5 are provided
2	Are there sufficient van-accessible parking spaces available?	✓			One is required, one is provided
3	Are accessible spaces marked with the International Symbol of Accessibility? Are there signs reading "Van Accessible" at van spaces?	✓	✓		Two accessible spaces are missing signs
4	Is there at least one accessible route provided within the boundary of the site from public transportation stops, accessible parking spaces, passenger loading zones, if provided, and public streets and sidewalks?	✓			
5	Do curbs on the accessible route have depressed, ramped curb cuts at drives, paths, and drop-offs?	✓			
6	If required does signage exist directing you to accessible parking and an accessible building entrance?	✓			
Ramps		Yes	No	NA	Comments
1	Do all ramps along accessible path of travel appear to meet slope requirements? (1:12 or less)	✓			
2	Are ramps that appear longer than 6 FT complete with railings on both sides?	✓			

ADA CHECKLIST

Ramps		Yes	No	NA	Comments
3	Does the width between railings appear at least 36 inches?	✓			
4	Is there a level landing for approximately every 30 FT horizontal length of ramp, at the top and at the bottom of ramps and switchbacks?	✓			
Entrances/Exits		Yes	No	NA	Comments
1	Do all required accessible entrance doorways appear at least 32 inches wide and not a revolving door?	✓			
2	If the main entrance is inaccessible, are there alternate accessible entrances?			✓	
3	Is the door hardware easy to operate (lever/push type hardware, no twisting required and not higher than approximately 48 inches above the floor)?	✓			
Paths of Travel		Yes	No	NA	Comments
1	Are all paths of travel free of obstruction and wide enough for a wheelchair (appear at least 36 inches wide)?	✓			
2	Are wheelchair-accessible facilities (toilet rooms, exits, etc.) identified with signage?	✓			
3	Is there a path of travel that does not require the use of stairs?	✓			
Elevators		Yes	No	NA	Comments
1	Do the call buttons have visual and audible signals to indicate when a call is registered and answered when car arrives?	✓			
2	Are there visual and audible signals inside cars indicating floor change?	✓			
3	Are there standard raised and Braille marking on both jambs of each hoist way entrance as well as all cab/call buttons?	✓			
4	Do elevator doors have a reopening device that will stop and reopen a car door if an object or a person obstructs the door?	✓			
5	Are elevator controls low enough to be reached from a wheelchair (appears to be between 15 and 48 inches)?	✓			
6	If a two-way emergency communication system is provided within the elevator cab, is it usable without voice communication?	✓			

ADA CHECKLIST

	Toilet Rooms	Yes	No	NA	Comments
1	Are common area public restrooms located on an accessible route?	✓			
2	Are pull handles push/pull or lever type?	✓			
3	Are there audible and visual fire alarm devices in the toilet rooms?		✓		No visual alarms
4	Are toilet room access doors wheelchair-accessible (appear to be at least 32 inches wide)?	✓			
5	Are public restrooms large enough to accommodate a wheelchair turnaround (appear to have 60" turning diameter)?	✓			
6	In unisex toilet rooms, are there safety alarms with pull cords?		✓		No safety alarms with pull cords
7	Are toilet stall doors wheelchair accessible (appear to be at least 32" wide)?			✓	Accessible restrooms are single use
8	Are grab bars provided in toilet stalls?	✓			
9	Are sinks provided with clearance for a wheelchair to roll under (appear to have 29" clearance)?	✓			
10	Are sink handles operable with one hand without grasping, pinching, or twisting?	✓			
11	Are exposed pipes under sink sufficiently insulated against contact?	✓			

Appendix E: Pre-Survey Questionnaire



FCA (Commercial) Pre-Survey Questionnaire

This questionnaire must be completed by the property owner, the owner's designated representative, or someone knowledgeable about the subject property. If the form is not completed, EMG's Project Manager will require **additional time** during the on-site visit with such a knowledgeable person in order to complete the questionnaire. During the site visit, EMG's Field Observer may ask for details associated with selected questions. This questionnaire will be utilized as an exhibit in EMG's final report.

Name of Institution:	Marin Community College District		
Name of Building: Learning Resources Center	Building #:13		
Name of person completing questionnaire: Klaus Christiansen			
Length of Association With the Property: 1.5 years	Phone Number: 415-485-9449		

Site Information	
Year of Construction?	1973
No. of Stories?	
Total Site Area?	
Total Building Area?	

Inspections	Date of Last Inspection	List of Any Outstanding Repairs Required
1. Elevators	2/2018	
2. HVAC Mechanical, Electric, Plumbing?		
3. Life-Safety/Fire?	5/2018	
4. Roofs?	2/2018	

Key Questions	Response
Major Capital Improvements in Last 3 yrs.	
Planned Capital Expenditure For Next Year?	
Age of the Roof?	
What bldg. Systems Are Responsibilities of Tenants? (HVAC/Roof/Interior/Exterior/Paving)	

Mark the column corresponding to the appropriate response. Please provide additional details in the Comments column, or backup documentation for any <i>Yes</i> responses. (NA indicates "Not Applicable", Unk indicates "Unknown")					
QUESTION	Y	N	Unk	NA	COMMENTS
ZONING, BUILDING DESIGN & LIFE SAFETY ISSUES					
1			X		
2		X			
3	X				Primary chiller down. Temporary chiller in it's place. HVAC controls work marginally
4		X			
5			X		



FCA (Commercial) Pre-Survey Questionnaire

Mark the column corresponding to the appropriate response. Please provide additional details in the Comments column, or backup documentation for any *Yes* responses. (**NA** indicates "Not Applicable", **Unk** indicates "Unknown")

QUESTION	Y	N	Unk	NA	COMMENTS
6		X			
7		X			
8			X		
GENERAL SITE					
9		X			
10		X			
BUILDING STRUCTURE					
11			X		
12	X				
13		X			
BUILDING ENVELOPE					
14			X		Waiting on rain to see if repairs are holding
15			X		Waiting on rain to see if repairs are holding
16		X			
17	X				Single pane windows, limited insulation in building by todays standards
18			X		
19		X			



FCA (Commercial) Pre-Survey Questionnaire

Mark the column corresponding to the appropriate response. Please provide additional details in the Comments column, or backup documentation for any *Yes* responses. (**NA** indicates "Not Applicable", **Unk** indicates "Unknown")

	QUESTION	Y	N	Unk	NA	COMMENTS
BUILDING HVAC AND ELECTRICAL						
20	Are there any leaks or pressure problems with natural gas service?		X			
21	Does any part of the electrical system use aluminum wiring?			X		
22	Do Residential units have a less than 60-Amp service?				X	
23	Do Commercial units have less than 200-Amp service?				X	
24	Are there any problems with the utilities, such as inadequate capacities?		X			
ADA						
25	Has the management previously completed an ADA review?	X				
26	Have any ADA improvements been made to the property?	X				
27	Does a Barrier Removal Plan exist for the property?	X				
28	Has the Barrier Removal Plan been approved by an arms-length third party?	X				DSA
29	Has building ownership or management received any ADA related complaints?	X				Parking related
30	Does elevator equipment require upgrades to meet ADA standards?		X			
PLUMBING						
31	Is the property served by private water well?		X			
32	Is the property served by a private septic system or other waste treatment systems?		X			
33	Is polybutylene piping used?		X			
34	Are there any plumbing leaks or water pressure problems?		X			



FCA (Commercial) Pre-Survey Questionnaire

Additional Issues or Concerns That EMG Should Know About?	
1.	
2.	
3.	

Items Provided to EMG Auditors				
	Yes	No	N/A	Additional Comments?
Access to All Mechanical Spaces	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Access to Roof/Attic Space	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Access to Building As-Built Drawings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Site plan with bldg., roads, parking and other features	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Contact Details for Mech, Elevator, Roof, Fire Contractors:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
List of Commercial Tenants in the property	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Previous reports pertaining to the physical condition of property.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
ADA survey and status of improvements implemented.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Current / pending litigation related to property condition.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Any brochures or marketing information.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Signature of person Interviewed or completing form

Date

On the day of the site visit, provide EMG's Field Observer access to all of the available documents listed below. Provide copies if possible.

<p>INFORMATION REQUIRED</p> <ol style="list-style-type: none"> 1. All available construction documents (blueprints) for the original construction of the building or for any tenant improvement work or other recent construction work. 2. A site plan, preferably 8 1/2" X 11", which depicts the arrangement of buildings, roads, parking stalls, and other site features. 3. For commercial properties, provide a tenant list which identifies the names of each tenant, vacant tenant units, the floor area of each tenant space, and the gross and net leasable area of the building(s). 4. For apartment properties, provide a summary of the apartment unit types and apartment unit type quantities, including the floor area of each apartment unit as measured in square feet. 5. For hotel or nursing home properties, provide a summary of the room types and room type quantities. 6. Copies of Certificates of Occupancy, building permits, fire or health department inspection reports, elevator inspection certificates, roof or HVAC warranties, or any other similar, relevant documents. 7. The names of the local utility companies which serve the property, including the water, sewer, electric, gas, and phone companies. 	<ol style="list-style-type: none"> 8. The company name, phone number, and contact person of all outside vendors who serve the property, such as mechanical contractors, roof contractors, fire sprinkler or fire extinguisher testing contractors, and elevator contractors. 9. A summary of recent (over the last 5 years) capital improvement work which describes the scope of the work and the estimated cost of the improvements. Executed contracts or proposals for improvements. Historical costs for repairs, improvements, and replacements. 10. Records of system & material ages (roof, MEP, paving, finishes, furnishings). 11. Any brochures or marketing information. 12. Appraisal, either current or previously prepared. 13. Current occupancy percentage and typical turnover rate records (for commercial and apartment properties). 14. Previous reports pertaining to the physical condition of property. 15. ADA survey and status of improvements implemented. 16. Current / pending litigation related to property condition.
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Your timely compliance with this request is greatly appreciated.

Appendix F: Cost Tables

System	Immediate	Short Term (3 yr)	Near Term (5 yr)	Med Term (10 yr)	Long Term (20 yr)	TOTAL
Facade	\$4,868	\$32,368	\$58,173	\$4,204	\$32,940	\$132,553
Roofing	-	\$88,532	-	\$699,473	-	\$788,005
Interiors	\$14,463	\$359,396	\$95,324	\$90,684	\$648,490	\$1,208,357
Elevators	\$1,701	\$5,414	-	-	\$339,829	\$346,944
Plumbing	-	-	-	\$75,092	\$138,730	\$213,822
Fire Suppression	-	\$994,275	-	-	-	\$994,275
HVAC	-	\$1,896,938	\$29,348	\$40,214	\$736,522	\$2,703,022
Electrical	-	\$914,335	\$58,800	-	\$55,261	\$1,028,396
Fire Alarm & Comm	-	\$329,936	-	-	\$57,084	\$387,020
Site	-	\$48,867	-	-	-	\$48,867
TOTALS	\$21,032	\$4,670,061	\$241,645	\$909,667	\$2,008,856	\$7,851,261

College or Marin Library**Immediate Repair Needs**

Location	Uniformat Code	Description	Condition	Plan Type	Cost
Stair	C2011	Interior Stair/Ramp Rails, Metal, Replace	Poor	Safety	\$14,463
Exterior	B2011	Exterior Wall, Concrete, 1-2 Stories, Repair	Poor	Performance/Integrity	\$4,868
Elevator	D1011	Elevator Controls, Automatic, 1 or 2 Car Cluster, Repair	Poor	Safety	\$1,701

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Replacement Reserves Report

Library

This report tracks estimated costs for replacement of building materials and systems. The estimated year of completion is included along with a total cost for the year at the base of the table.

11/5/2018

Uniformat Code	Location Description	Cond	Cost Description	Lifespan (EUL)	EAge	RUL	Quantity	Unit	Unit Cost *	Subtotal	2018	2019	2020
B2011	Northwest corner	Poor	Exterior Wall, Concrete, 1-2 Stories, Repair	0	0	0	100	SF	\$47.47	\$4,747	\$4,747		
B2011	Painted brick	Fair	Exterior Wall, Painted Surface, 1-2 Stories, Prep & Paint	10	3	7	700	SF	\$4.88	\$3,419			
B2021	Throughout	Fair	Window, Aluminum Double-Glazed 24 SF, 1-2 Stories, Replace	30	27	3	20	EA	\$1,481.10	\$29,622			
B2031	Throughout	Fair	Exterior Door, Fully-Glazed Aluminum-Framed Swinging, Replace	30	25	5	14	EA	\$3,584.41	\$50,182			
B2032	Studio doors	Fair	Exterior Door, Steel Insulated, Replace	25	11	14	2	EA	\$3,656.77	\$7,314			
B2032	Throughout	Fair	Exterior Door, Steel, Replace	25	10	15	6	EA	\$1,616.67	\$9,700			
B3011	Mechanical Room	Poor	Roof, Green w/ Hot-Applied Rubberized Asphalt, Replace	20	18	2	3454	SF	\$24.16	\$83,450			\$83,450
B3011	Main roof	Fair	Roof, Modified Bituminous, Replace	20	10	10	34000	SF	\$15.31	\$520,475			
C1021	Throughout	Fair	Interior Door, Wood Solid-Core, Replace	20	17	3	20	EA	\$2,421.49	\$48,430			
C1021	Room 160	Fair	Interior Door, Fully-Glazed Wood-Framed, Replace	15	7	8	2	EA	\$3,372.97	\$6,746			
C1021	Throughout	Fair	Interior Door, Wood Solid-Core, Replace	20	8	12	20	EA	\$2,421.49	\$48,430			
C2011	Central stair	Poor	Interior Stair/Ramp Rails, Metal, Replace	30	30	0	170	LF	\$85.08	\$14,464	\$14,464		
C3012	Throughout	Fair	Interior Wall Finish, Generic Surface, Prep & Paint	8	6	2	15000	SF	\$2.47	\$37,008			\$37,008
C3012	Throughout	Fair	Interior Wall Finish, Generic Surface, Prep & Paint	8	2	6	11000	SF	\$2.47	\$27,140			
C3024	Original Restrooms	Fair	Interior Floor Finish, Terrazzo, Replace	50	47	3	370	SF	\$20.51	\$7,590			
C3025	Throughout	Fair	Interior Floor Finish, Carpet Tile Commercial-Grade, Replace	10	7	3	20000	SF	\$11.85	\$236,953			
C3032	Throughout	Fair	Interior Ceiling Finish, Suspended Acoustical Tile (ACT), Replace	20	16	4	16000	SF	\$5.29	\$84,696			
C3032	Throughout	Fair	Interior Ceiling Finish, Suspended Acoustical Tile (ACT), Replace	20	4	16	15000	SF	\$5.29	\$79,402			
D1011	Elevator	Poor	Elevator Controls, Automatic, 1 or 2 Car Cluster, Repair	20	20	0	1	EA	\$1,701.54	\$1,702	\$1,702		
D1011	Elevator	Fair	Elevator, Hydraulic, 1500 to 2500 LB, 2 Floors, Renovate	30	15	15	1	EA	\$185,118.02	\$185,118			
D1013	TV studio	Good	Wheelchair Lift, Renovate	25	10	15	1	EA	\$28,335.39	\$28,335			
D1019	Elevator	Fair	Elevator Cab Finishes, Standard w/out Stainless Steel Doors, Replace	10	8	2	1	EA	\$5,104.62	\$5,105			\$5,105
D2011	Restrooms	Fair	Toilet, Tankless (Water Closet), Replace	20	10	10	14	EA	\$1,434.34	\$20,081			
D2012	Restrooms	Fair	Urinal, Vitreous China, Replace	20	8	12	6	EA	\$2,030.69	\$12,184			
D2014	Restrooms	Fair	Sink/Lavatory, Porcelain Enamel, Cast Iron, Replace	20	10	10	14	EA	\$1,986.18	\$27,807			
D2023	Mechanical room	Fair	Domestic Boiler, Gas, 801 to 1,400 MBH, Replace	22	10	12	1	EA	\$72,916.74	\$72,917			
D2023	Mechanical room	Good	Water Heater, Electric, Commercial, 30 to 80 GAL, Replace	15	2	13	1	EA	\$11,848.23	\$11,848			
D2091	Mechanical Room	Fair	Air Compressor, 0.75 HP, Replace	20	10	10	1	EA	\$7,991.74	\$7,992			
D3031	Outside the mechanical room	Good	Chiller, Air-Cooled, 151 to 200 Ton, Replace	25	6	19	1	EA	\$393,953.23	\$393,953			
D3032	Mechanical area	Fair	Ductless Split System, Single Zone, 2.5 to 3 Ton, Replace	15	7	8	1	EA	\$13,218.66	\$13,219			
D3032	LC 40F	Good	Ductless Split System, Single Zone, 1.5 to 2 Ton, Replace	15	5	10	1	EA	\$7,611.18	\$7,611			
D3041	Mechanical room	Fair	Air Handler, Interior, 65,001 to 100,000 CFM, Replace	30	27	3	1	EA	\$557,139.81	\$557,140			
D3041	Mechanical room	Fair	Air Handler, Interior, 65,001 to 100,000 CFM, Replace	30	27	3	1	EA	\$557,139.81	\$557,140			
D3044	Mechanical room	Fair	Distribution Pump, Heating Water, 12.5 to 15 HP, Replace	20	17	3	1	EA	\$11,673.83	\$11,674			
D3044	Mechanical room	Fair	Distribution Pump, Heating Water, 7.5 HP, Replace	20	14	6	1	EA	\$10,273.03	\$10,273			
D3052	Exterior, by TV studio	Fair	Heat Pump, Packaged (RTU), 6 to 10 Ton, Replace	15	11	4	1	EA	\$26,076.56	\$26,077			
D3068	Throughout	Fair	HVAC Controls, Building Automation System (BAS), Upgrade	20	17	3	66855	SF	\$9.12	\$610,019			
D4019	Throughout	NA	Sprinkler System, Full Retrofit, Office (per SF), Renovate	50	50	0	66855	SF	\$13.61	\$909,904			\$909,904

D5012	Rm 120	Fair	Distribution Panel, 208 Y, 120 V, 225 Amp, Replace	30	27	3	1 EA	\$13,528.94	\$13,529			
D5012	Rm 115	Fair	Distribution Panel, 208 Y, 120 V, 225 Amp, Replace	30	27	3	1 EA	\$13,528.94	\$13,529			
D5012	TV studio	Fair	Distribution Panel, 208 Y, 120 V, 225 Amp, Replace	30	27	3	1 EA	\$13,528.94	\$13,529			
D5012	Reprographics	Fair	Distribution Panel, 208 Y, 120 V, 225 Amp, Replace	30	27	3	1 EA	\$13,528.94	\$13,529			
D5012	Rm 35	Fair	Distribution Panel, 208 Y, 120 V, 225 Amp, Replace	30	27	3	1 EA	\$13,528.94	\$13,529			
D5012	Mechanical room	Fair	Distribution Panel, 208 Y, 120 V, 225 Amp, Replace	30	27	3	1 EA	\$13,528.94	\$13,529			
D5012	rm 135	Fair	Distribution Panel, 208 Y, 120 V, 225 Amp, Replace	30	27	3	1 EA	\$13,528.94	\$13,529			
D5012	Mechanical room	Fair	Building/Main Switchgear, 480 Y, 277 V, 1600 Amp, Replace	30	27	3	1 EA	\$486,500.58	\$486,501			
D5012	Computer Lab	Fair	Distribution Panel, 208 Y, 120 V, 225 Amp, Replace	30	27	3	1 EA	\$13,528.94	\$13,529			
D5012	Reprographics	Fair	Distribution Panel, 208 Y, 120 V, 225 Amp, Replace	30	27	3	1 EA	\$13,528.94	\$13,529			
D5012	Reprographics	Fair	Distribution Panel, 208 Y, 120 V, 400 Amp, Replace	30	27	3	1 EA	\$16,143.96	\$16,144			
D5012	Mechanical room	Fair	Switchboard, 1,200 Amp, Replace	30	27	3	1 EA	\$44,906.48	\$44,906			
D5012	SE Section	Fair	Distribution Panel, 480 Y, 277 V, 225 Amp, Replace	30	27	3	1 EA	\$16,636.05	\$16,636			
D5012	110	Fair	Distribution Panel, 208 Y, 120 V, 225 Amp, Replace	30	27	3	1 EA	\$13,528.94	\$13,529			
D5012	Computer Lab	Fair	Distribution Panel, 480 Y, 277 V, 225 Amp, Replace	30	27	3	1 EA	\$16,636.05	\$16,636			
D5012	Rm 135	Fair	Distribution Panel, 480 Y, 277 V, 225 Amp, Replace	30	27	3	1 EA	\$16,636.05	\$16,636			
D5012	Rm 115	Fair	Distribution Panel, 480 Y, 277 V, 225 Amp, Replace	30	27	3	1 EA	\$16,636.05	\$16,636			
D5012	Office	Fair	Distribution Panel, 208 Y, 120 V, 225 Amp, Replace	30	27	3	1 EA	\$13,528.94	\$13,529			
D5012	Janitor's room	Fair	Distribution Panel, 480 Y, 277 V, 225 Amp, Replace	30	27	3	1 EA	\$16,636.05	\$16,636			
D5012	Mechanical room	Fair	Distribution Panel, 480 Y, 277 V, 200 Amp, Replace	30	27	3	1 EA	\$16,636.05	\$16,636			
D5012	rm 110	Fair	Distribution Panel, 208 Y, 120 V, 225 Amp, Replace	30	27	3	1 EA	\$13,528.94	\$13,529			
D5012	Student Store	Fair	Distribution Panel, 208 Y, 120 V, 225 Amp, Replace	30	27	3	1 EA	\$13,528.94	\$13,529			
D5012	Rm 53	Fair	Distribution Panel, 208 Y, 120 V, 225 Amp, Replace	30	27	3	1 EA	\$13,528.94	\$13,529			
D5012	Mechanical room	Fair	Secondary Transformer, Dry, 300 kVA, Replace	30	25	5	1 EA	\$47,147.22	\$47,147			
D5012	Mechanical room	Fair	Variable Frequency Drive (VFD), 15 HP Motor, Replace	20	7	13	1 EA	\$13,686.81	\$13,687			
D5012	Mechanical room	Fair	Variable Frequency Drive (VFD), 7.5 HP Motor, Replace	20	7	13	1 EA	\$9,593.78	\$9,594			
D5012	Rm 136	Fair	Distribution Panel, 208 Y, 120 V, 225 Amp, Replace	30	15	15	1 EA	\$13,528.94	\$13,529			
D5012	TV Studio	Fair	Distribution Panel, 208 Y, 120 V, 225 Amp, Replace	30	10	20	1 EA	\$13,528.94	\$13,529			
D5012	TV studio	Fair	Secondary Transformer, Dry, 75 kVA, Replace	30	10	20	1 EA	\$15,050.04	\$15,050			
D5022	Building exterior	Fair	Fluorescent Lighting Fixture, 160 W, Replace	20	15	5	8 EA	\$446.96	\$3,576			
D5037	Mechanical room	Fair	Fire Alarm Control Panel, Addressable, Replace	15	13	2	1 EA	\$34,537.16	\$34,537			\$34,537
D5037	Throughout	Fair	Fire Alarm System, Office Building, Install	20	17	3	6685 SF	\$4.01	\$268,408			
G2022	Parking area east of building	Poor	Parking Lots, Asphalt Pavement, Mill & Overlay	25	24	1	8500 SF	\$5.58	\$47,445		\$47,445	
Totals, Unescalated									\$20,912	\$47,445	\$1,070,005	
Totals, Escalated (3.0% inflation, compounded annually)									\$20,912	\$48,868	\$1,134,205	
* Markup/LocationFactor (1.233) has been included in unit costs. Markup includes a 7% Design and Permits, 6% Contractor General Requirements, 9% Contractor OH and P, 1% Bond, 5% College Administration												

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		\$3,576																	\$3,576
														\$34,537					\$69,074
\$268,408																			\$268,408
																			\$47,445
\$3,163,748	\$110,772	\$100,905	\$37,413	\$3,419	\$19,965	\$0	\$620,973	\$0	\$138,635	\$272,082	\$34,453	\$236,682	\$79,402	\$37,956	\$37,008	\$420,030	\$30,281	\$6,482,086	
\$3,457,113	\$124,675	\$116,976	\$44,673	\$4,205	\$25,291	\$0	\$834,536	\$0	\$197,661	\$399,561	\$52,113	\$368,743	\$127,417	\$62,736	\$63,004	\$736,525	\$54,690	\$7,903,828	

ion Costs, and 10% Estimating Contingency factors applied to the location adjusted unit cost.

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FACILITY CONDITION ASSESSMENT

Prepared for

WLC Architects, Inc.
2600 Tenth Street, Suite 500
Berkeley, California 94710-2597



PREPARED BY:

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EMG PROJECT #:

132825.18R000-001.354

DATE OF REPORT:

July 16, 2018

ONSITE DATE:

June 26, 2018

FACILITY CONDITION ASSESSMENT

OF

MARIN COLLEGE-STUDENT SERVICES BUILDING
835 COLLEGE AVENUE
KENTFIELD, CALIFORNIA 94904



engineering | environmental | capital planning | project management

EMG Corporate Headquarters 10461 Mill Run Circle, Suite 1100, Owings Mills, MD 21117 www.EMGCorp.com p 800.733.0660

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1. Executive Summary

Property Information and General Physical Condition

The property information is summarized in the table below. More detailed descriptions may be found in the various sections of the report and in the Appendices.

Property Information	
Address:	835 College Avenue, Kentfield, Marin County, California 94904
Year Constructed/Renovated:	1966 Roof bracing installed in the mid 1980s
Current Occupants:	College of Marin
Percent Utilization:	100%
Management Point of Contact:	Mr. Leopold Ray-Lynch 510.450.1999 phone lraylynch@wlcarchitects.com
Property Type:	Student Services; classrooms, offices, dining
Site Area:	15 acres
Building Size:	33,431 SF
Number of Stories:	Two
Building Construction:	Reinforced concrete columns, steel beams and concrete slabs
Façade:	Brick veneer with aluminum windows
Roof:	Primary: Flat construction with built-up finish Secondary: Flat construction with liquid applied waterproofing
Heating, Ventilation and Air Conditioning:	Central system with a boiler, chiller, air handlers Supplemental components: through the wall AC units
Fire Suppression & Alarm:	Suppression: Wet-pipe sprinkler system; hydrants, fire extinguishers, hose cabinets, kitchen hood system Alarm: Central alarm panel, smoke detectors, alarms, strobes, pull stations, back-up emergency lights, and exit signs.
Key Issues & Findings:	Inadequate HVAC delivery to building as currently configured, building lacks fire suppression, aged electrical infrastructure, outdated fire alarm system

Unit Allocation

All 33,431 square feet of the building are occupied by the College of Marin. The spaces are a combination of offices, classrooms, kitchen and dining spaces with supporting restrooms, and mechanical and other utility spaces.

Areas Observed

Most of the interior spaces were observed in order to gain a clear understanding of the property's overall condition. Other areas accessed included the site within the property boundaries, the exterior of the property, and the roof. All areas of the property were available for observation during the site visit.

Assessment Information	
Dates of Visit:	June 26, 2018
On-Site Point of Contact (POC):	Jesse Hoffman
Assessment and Report Prepared by:	Kay van der Have
Reviewed by:	Alex Israel, Technical Report Reviewer for Matt Anderson Program Manager manderson@emgcorp.com 800.733.0660 x7613

Significant/Systemic Findings or Deficiencies

Historical Summary:

The Student Services Building was completed in 1966. There was a structural upgrade with the addition of K-braces completed at some time in the early 1980s. The current floor plans deviate significantly from the original floor plans. It appears the changes were made incrementally.

Architectural:

The exterior finishes appear to be original and have been well maintained. All fenestration is single glazed and likely non-tempered; replacement near doors is highly recommended. Replacement throughout should be considered for energy savings as well as safety reasons. It is anticipated that within 10 years the roof will need replacement. The interior finishes are of different ages with various levels of wear. Replacements are anticipated and budgeted.

Mechanical, Electrical, Plumbing & Fire (MEPF):

The original floor plans for the Student Services Building consist of a central atrium and mostly open areas around the atrium. Over time, the open areas have been enclosed with glass or gypsum board partitions. The enclosed areas include offices and classrooms. Although much of the mechanical system is modern, the HVAC delivery system has not changed to accommodate the new equipment. Occupants have frequent comfort complaints. It was noted that self-closing doors in fire-rated assemblies are propped open. Designing and installing new infrastructure according to the current floor plan is recommended. The electrical system is original and at the end of its anticipated lifecycle. The facility lacks a fire suppression system, and although the building is likely 'grandfathered', a full fire sprinkler system retrofit is highly recommended.

Site:

The sidewalks have been periodically repaved and sectionally replaced as-needed. Significant amounts of the wood dividing strips between the patio pavers of exposed aggregate concrete sections has rotted away. Repair or replacement is recommended.

Recommended Additional Studies:

A mechanical engineering study is recommended to determine necessary changes to HVAC distribution to accommodate changes to the floor plan.

Immediate Repairs

See Following Immediate Repair Table.

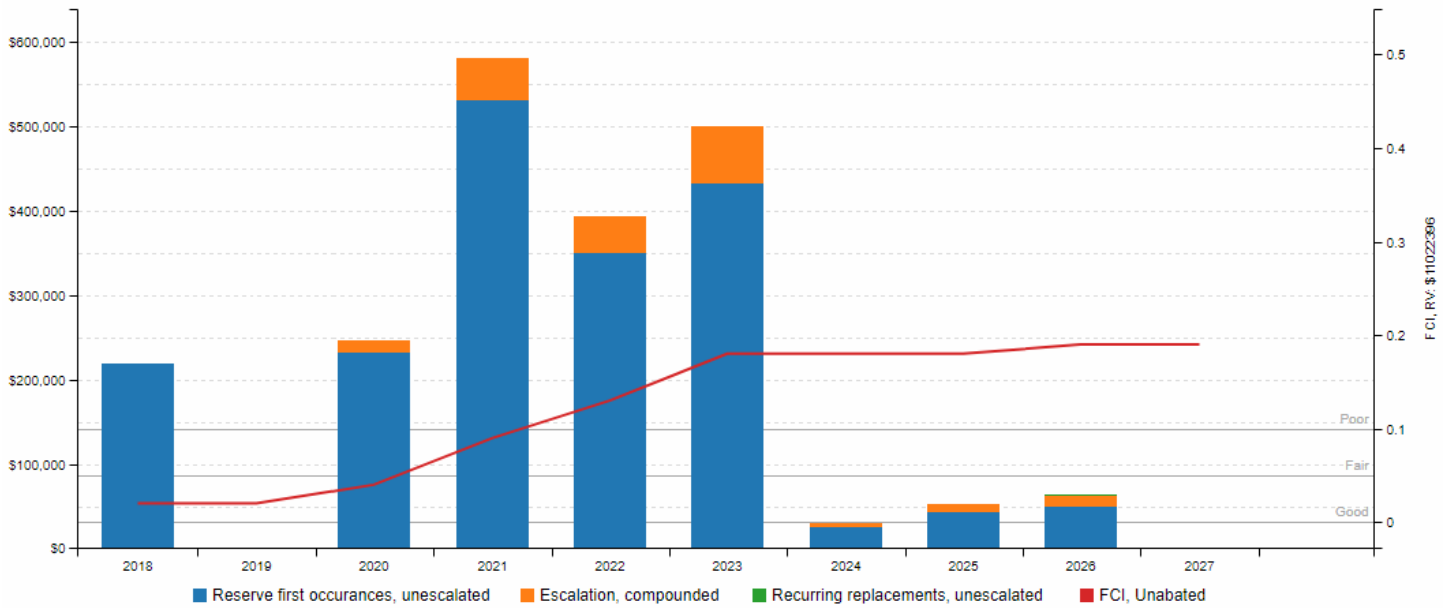
**Immediate Repairs Report
Student Services Building
7/16/2018**



Location Name	ID	Cost Description	Quantity	Unit	Unit Cost *	Subtotal	Deficiency Repair Estimate *	
Student Services Building	962371	Roof, Modified Bituminous, Repair	50	SF	\$25.00	\$1,250	\$1,513	
Student Services Building	964610	Interior Floor Finish, Quarry Tile, Repair	8	SF	\$25.15	\$201	\$243	
Student Services Building	967719	Fire Alarm System, School, Install	33431	SF	\$3.35	\$112,025	\$135,550	
Student Services Building	964375	Fire Alarm Control Panel, Addressable, Replace	1	EA	\$21,718.42	\$21,718	\$26,279	
Student Services Building	964669	Commercial Kitchen, Walk-In Refrigerator, Replace	1	EA	\$13,112.85	\$13,113	\$15,867	
Student Services Building	964728	Pedestrian Pavement, Sidewalk, Concrete Sections Replace Expansion Joints, Replace	150	SF	\$20.33	\$3,050	\$3,690	
Student Services Building	961599	Interior Stairs, Handrails, Metal, Modify	450	LF	\$53.50	\$24,075	\$29,131	
Student Services Building	963695	Engineer, HVAC System, Controls Re-Balance, Evaluate/Report	1	EA	\$5,350.00	\$5,350	\$6,474	
Immediate Repairs Total								\$218,746

* Location Factor included in totals.

Facility Condition Index (FCI)



One of the major goals of the FCA is to calculate the FCI, which gives an indication of a building's overall condition. Two FCI ratios are calculated and presented, the Current Year and Ten-Year. The Current Year FCI is the ratio of Immediate Repair Costs to the building's Current Replacement Value. Similarly, the Ten-Year FCI is the ratio of anticipated Capital Reserve Needs over the next ten years to the Current Replacement Value.

FCI Rating

Description	Percentage Value
In new or well-maintained condition, with little or no visual evidence of wear or other deficiencies.	0 to 5%
Subjected to wear but is still in a serviceable and functioning condition.	> than 5% to 10%
Subjected to hard or long-term wear. Nearing the end of its useful or serviceable life.	> than 10% to 60%
Has reached the end of its useful or serviceable life. Renewal is now necessary.	> than 60%

The graphs above and tables below represent summary-level findings for the FCA. The deficiencies identified in this assessment can be combined with potential new construction requirements to develop an overall strategy that can serve as the basis for a portfolio-wide capital improvement funding strategy. Key findings from the assessment include:

Key Finding	Metric
Current Year Facility Condition Index (FCI) $FCI = (IR)/(CRV)$	2.0%
10-Year Facility Condition Index (FCI) $FCI = (RR)/(CRV)$	19%
Current Replacement Value (CRV)	33,431 SF * \$348.81 / SF = \$11,022,396
Year 1 Current Year - Immediate Repairs (IR)	\$218,746
Years 1-10 – Replacement Reserves (RR)	\$1,861,721



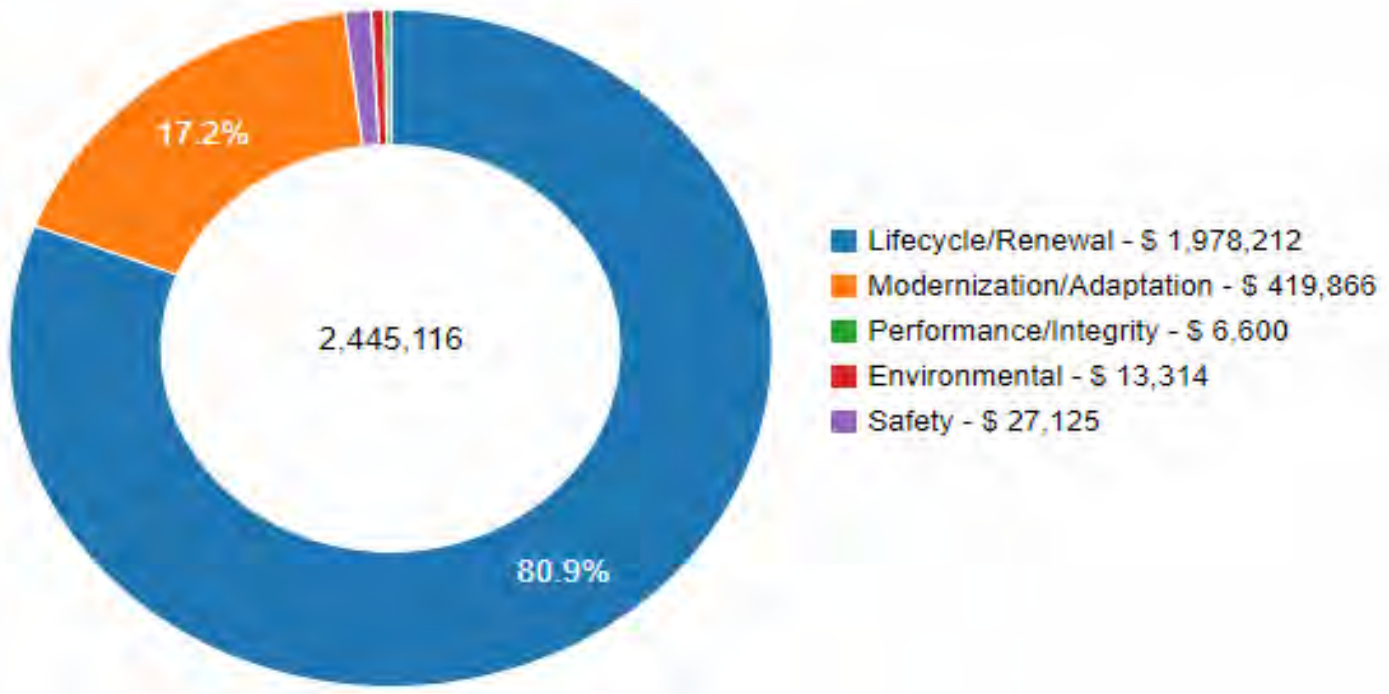
System Expenditure Forecast

System Expenditure Forecast

July 12th 2018

System	Immediate	Short Term (yr 2-3)	Near Term (yr 4-5)	Med Term (yr 6-10)	Long Term (yr 11-20)	20 year total
Facade (Escalated)	-	-	\$14,287	\$5,404	\$28,333	\$207,998
Roofing (Escalated)	\$1,250	-	-	-	-	\$289,408
Interiors (Escalated)	\$201	-	\$504	\$6,484	\$118,369	\$387,436
Elevators (Escalated)	-	-	-	\$10,221	\$181,363	\$205,908
Plumbing (Escalated)	-	-	\$198	-	\$33,386	\$133,542
Fire Suppression (Escalated)	-	-	\$322,034	-	-	\$322,034
HVAC (Escalated)	-	\$203,505	\$38,213	\$10,869	\$542,731	\$1,175,941
Electrical (Escalated)	-	-	\$789	\$17,092	-	\$118,477
Fire Alarm & Comm (Escalated)	\$133,743	-	-	-	\$33,837	\$167,580
Equipment/Special (Escalated)	\$13,113	-	\$1,216	\$68,901	\$47,185	\$178,637
Site (Escalated)	\$27,125	-	\$106	\$1,442	\$3,610	\$45,628
Follow-up Studies (Escalated)	\$5,350	-	-	-	-	\$5,350
TOTALS (Escalated)	\$180,782	\$203,505	\$803,787	\$531,321	\$1,518,543	\$3,237,938
TOTALS, Cumulative (Escalated)	\$180,782	\$384,286	\$1,188,074	\$1,719,394	\$3,237,938	

Plan Type Distribution



2. Building Structure

A10 Foundations

Building Foundation		
Item	Description	Condition
Foundation	Drilled caissons	Fair
Under Grade Area	Concrete slab and concrete walls	Fair

Anticipated Lifecycle Replacements:

- No components of significance

Actions/Comments:

- The foundation systems are concealed. There are no significant signs of settlement, deflection, or movement.

B10 Superstructure

B1010 Floor Construction and B1020 Roof Construction		
Item	Description	Condition
Framing / Load-Bearing Walls	Cast-in-place concrete	Fair
Ground Floor	Concrete slab	Fair
Upper Floor Framing	Concrete beams	Fair
Upper Floor Decking	Concrete, cast-in-place	Fair
Roof Framing	Steel beams or girders	Fair
Roof Decking	Metal decking with concrete topping	Fair

B1010 Balcony Construction		
Item	Description	Condition
Balcony Framing	None	--
Balcony Decking	None	--
Balcony Deck Toppings	NA	--
Balcony Guardrails	NA	--

Maintenance Issues					
Observation	Location	Exists at Site	Observation	Location	Exists at Site
Caulk minor cracking	--	<input type="checkbox"/>	Monitor cracking for growth	--	<input type="checkbox"/>
Clean exposed rebar and parge	Exterior columns	<input checked="" type="checkbox"/>	Other	--	<input type="checkbox"/>

Anticipated Lifecycle Replacements:

- No components of significance

Actions/Comments:

- The superstructure is exposed in some locations, which allows for limited observation. Walls and floors appear to be plumb, level, and stable. There are no significant signs of deflection or movement.

B1080 Stairs					
Type	Description	Riser	Handrail	Balusters	Condition
Building Exterior Stairs	Cast in place concrete	Closed	Metal	Metal	Fair
Building Interior Stairs	Steel-framed with wood treads	Open	Metal	Metal	Fair

Anticipated Lifecycle Replacements:

- No components of significance

Actions/Comments:

- The spacing of the interior balusters is greater than four inches, presents a safety hazard to small children and others, and does not comply with current standards and code. Modification of the stair and balcony handrails and guardrails to reduce this spacing to four inches or less is highly recommended.



3. Building Envelope

B20 Exterior Vertical Enclosures

B2010 Exterior Walls		
Type	Location	Condition
Primary Finish	Brick	Fair
Secondary Finish	Raw concrete	Fair
Accented with	None	--
Soffits	Concealed	Fair
Building sealants	Between dissimilar materials, at joints, around windows and doors	Fair

Maintenance Issues					
Observation	Location	Exists at Site	Observation	Location	Exists at Site
Graffiti	--	<input type="checkbox"/>	Efflorescence	--	<input type="checkbox"/>

Anticipated Lifecycle Replacements:

- Caulking

Actions/Comments:

- No significant actions are identified at the present time. Ongoing periodic maintenance, including patching repairs, graffiti removal, and recaulking, is highly recommended. Future lifecycle replacements of the components listed above will be required.

B2020 Exterior Windows		
Window Framing	Glazing	Condition
Aluminum-framed storefront	Single glaze	Fair

B2050 Exterior Doors		
Main Entrance Doors	Door Type	Condition
	Fully glazed, metal framed	Good
Secondary Entrance Doors	Fully glazed, metal framed	Good
Service Doors	Metal, hollow	Fair
Overhead Doors	None	--

Anticipated Lifecycle Replacements:

- Storefront glazing
- Exterior doors
- Exterior service doors

Actions/Comments:

- The windows are antiquated, energy-inefficient units with single-pane glazing. Window replacement is recommended.
- Ongoing periodic maintenance is highly recommended. Future lifecycle replacements of the components listed above will be required.

B30 Exterior Horizontal Enclosures (Roofs)

B3010 Primary Roof (Main Building)			
Finish	Modified Bitumen with stones	Coatings	None
Type / Geometry	Flat	Installation Year	Estimated 2007
Flashing	Sheet metal	Warranties	Unlikely (based on age)
Parapet Copings	None	Roof Drains	Internal drains
Fascia	Precast concrete	Insulation	Indeterminable
Soffits	Concealed soffits	Skylights	Yes
Attics	None	Ventilation Source-1	None
Roof Condition	Fair	Ventilation Source-2	NA

B3010 Secondary Roof (Mechanical Room)			
Finish	Liquid applied waterproofing	Coatings	Elastomeric
Type / Geometry	Flat	Installation Year	Estimated 2013
Flashing	None	Warranties	Unlikely (based on age)
Parapet Copings	Liquid applied waterproofing	Roof Drains	Edge drainage to ground
Fascia	None	Insulation	None
Soffits	None	Skylights	No
Attics	None	Ventilation Source-1	None
Roof Condition	Fair	Ventilation Source-2	NA

Maintenance Issues					
Observation	Location	Exists at Site	Observation	Location	Exists at Site
Drainage components broken/missing	--	<input type="checkbox"/>	Vegetation/fungal growth	--	<input type="checkbox"/>
Blocked drains	--	<input type="checkbox"/>	Debris	--	<input type="checkbox"/>



Degradation Issues			
Observation	Exists at Site	Observation	Exists at Site
Evidence of roof leaks	<input checked="" type="checkbox"/>	Significant ponding	<input type="checkbox"/>
Excessive patching or repairs	<input type="checkbox"/>	Blistering or ridging	<input type="checkbox"/>

Anticipated Lifecycle Replacements:

- Roof finishes
- Liquid applied elastomeric roof finish
- Roof flashings (included as part of overall roof replacement)
- Skylights

Actions/Comments:

- The roof finishes vary in age appear to be more than 10 years old. Information regarding roof warranties or bonds was not available. The roofs are maintained by an outside contractor.
- According to the POC, there are no active roof leaks. Roof leaks have occurred in the past year. The leaks have since been repaired, and no active roof leaks are evident.
- There is no evidence of roof deck or insulation deterioration. The roof substrate and insulation should be inspected during any future roof repair or replacement work.
- Roof drainage appears to be adequate. Clearing and minor repair of drain system components should be performed regularly as part of the property management's routine maintenance and operations program.
- The attics are not accessible, and it could not be determined if there is moisture, water intrusion, or excessive daylight in the attics.
- During severe wind storms, roofing aggregate (ballast) may become wind-borne and may harm nearby persons or may damage surrounding properties or building or site elements of the subject property. National, regional, and local building codes vary widely in the treatment of this issue and should be consulted during any future roofing repairs or replacements.
- A roof leak occurred within the past year. It occurred around the chimney for the open fireplace at the second floor student lounge. The fireplace has been removed and the chimney has been wrapped in tarps with some temporary roof patching. In order to forestall future leakage and damage, it is recommended to remove the chimney and roof over the opening.



4. Interiors

C10 Interior Construction

C1030 Interior Doors		
Item	Type	Condition
Interior Doors – Type 1	Solid-core wood	Fair
Interior Doors – Type 2	Partially glazed, wood framed	Fair
Interior Doors – Type 3	Fully glazed, metal framed	Fair
Door Framing	Metal	--
Fire Doors (90+ Minutes)	--	--
Closet Doors	None	--

Maintenance Issues					
Observation	Location	Exists at Site	Observation	Location	Exists at Site
Improperly adjusted door closures	--	<input type="checkbox"/>	Damaged/loose door hardware	--	<input type="checkbox"/>

C20 Interior Finishes

The following table generally describes the locations and typical conditions of the interior finishes within the facility:

Interior Finishes - Student Services Building

Location	Component / Description / Action	Quantity	Unit	RUL	Est Cost
Throughout	C3012 Interior Wall Finish, Generic Surface, Prep & Paint	3500	SF	3	\$5,430
Throughout	C3012 Interior Wall Finish, Generic Surface, Prep & Paint	3500	SF	6	\$5,430
Original restrooms	C3012 Interior Wall Finish, Ceramic Tile, Replace	2000	SF	5	\$35,426
Mechanical Room Roof	C3021 Interior Floor Finish, Elastomeric Coating, Prep & Paint	3500	SF	5	\$48,498
Kitchen	C3024 Interior Floor Finish, Quarry Tile, Repair	8	SF	0	\$201
Original restrooms	C3024 Interior Floor Finish, Ceramic Tile, Replace	900	SF	5	\$15,172
Throughout	C3032 Interior Ceiling Finish, Suspended Acoustical Tile (ACT), Replace	10000	SF	5	\$33,288

Maintenance Issues					
Observation	Location	Exists at Site	Observation	Location	Exists at Site
Loose carpeting/flooring	--	<input type="checkbox"/>	Minor areas of stained ceiling tiles	--	<input type="checkbox"/>
Minor paint touch-up	--	<input type="checkbox"/>	Areas of damaged/missing baseboard	--	<input type="checkbox"/>

Anticipated Lifecycle Replacements:

- Carpet
- Ceramic tile
- Interior paint
- Suspended acoustic ceiling tile
- Interior doors

Actions/Comments:

- It appears that the interior finishes have been replaced as new interior partitions are constructed.
- The quarry tile finish in the kitchen is missing in an area of 2' x 4' with several cracked tiles around the area. Health code requires wall, floor, and ceiling finishes that are smooth and easy to clean. Immediate repair is recommended.
- Ongoing periodic maintenance is highly recommended. Future lifecycle replacements of the components listed above will be required.
- Throughout the building there are isolated areas of cracked ceiling tiles. The damaged ceiling tiles need to be replaced. The cost to replace the damaged finishes is relatively insignificant and the work can be performed as part of the property management's routine maintenance program.

5. Services (MEPF)

D10 Conveying Systems

D1030 Vertical Conveying (Building Elevators) – Building 1

Manufacturer	Dover	Machinery Location	Ground floor or basement adjacent to shaft
Safety Stops	Electronic	Emergency Communication Equipment	<input checked="" type="checkbox"/>
Cab Floor Finish	Carpet	Cab Wall Finish	Plastic-laminated wood
Cab Finish Condition	Fair	Elevator Cab Lighting	T-8
Hydraulic Elevators	One car 2,500 LB		
Overhead Traction Elevators	None		
Freight Elevators	None		
Machinery Condition	Fair	Controls Condition	Good
Other Conveyances	None	Other Conveyance Condition	--

Maintenance Issues

Observation	Location	Exists at Site	Observation	Location	Exists at Site
Inspection certificate not available	--	<input type="checkbox"/>	Inspection certificate expired	--	<input type="checkbox"/>
Service call needed	--	<input type="checkbox"/>	Minor cab finish repairs	Base of cab walls	<input checked="" type="checkbox"/>

Anticipated Lifecycle Replacements:

- Elevator controls
- Hydraulic machinery
- Elevator cab finishes

Actions/Comments:

- The elevator appears to provide adequate service. The elevator is serviced by Kone on a routine basis. The elevator machinery and controls were upgraded in 1992. The elevators will require continued periodic maintenance..
- The elevators are inspected on an annual basis by the State of California, and a certificate of inspection is displayed in each elevator cab.

- The emergency communication equipment in the elevator cabs appears to be functional. Equipment testing is not within the scope of the work.
- The finishes in the elevator cabs will require replacement.

D20 Plumbing

D2010 Domestic Water Distribution		
Type	Description	Condition
Water Supply Piping	Copper	Fair

Domestic Water Heaters or Boilers	
Components	Boiler
Fuel	Natural gas
Boiler or Water Heater Condition	Fair
Supplementary Storage Tanks	<input checked="" type="checkbox"/>
Adequacy of Hot Water	Adequate
Adequacy of Water Pressure	Adequate

D2020 Sanitary Drainage		
Type	Description	Condition
Waste/Sewer Piping	Cast iron	Fair
Vent Piping	Cast iron	Fair

Maintenance Issues					
Observation	Location	Exists at Site	Observation	Location	Exists at Site
Hot water temperature too hot or cold	--	<input type="checkbox"/>	Minor/isolated leaks	--	<input type="checkbox"/>



Plumbing Systems - Student Services Building

Location	Component / Action	Quantity	Unit	RUL	Est Cost
Kitchen area restrooms	D2011 Toilet, Flush Tank (Water Closet), Replace	2	EA	5	\$2,110
Restrooms	D2011 Toilet, Tankless (Water Closet), Replace	12	EA	15	\$10,824
Restrooms	D2012 Urinal, Vitreous China, Replace	6	EA	17	\$7,662
Restrooms	D2014 Sink/Lavatory, Porcelain Enamel, Cast Iron, Replace	12	EA	5	\$14,988
ADA restrooms	D2014 Sink/Lavatory, Porcelain Enamel, Cast Iron, Replace	2	EA	17	\$2,335
Mechanical room	D2023 Water Storage Tank, 80 to 150 GAL, Replace	1	EA	3	\$2,141
Mechanical room	D2023 Domestic Boiler, Gas, 801 to 1,400 MBH, Replace	1	EA	5	\$67,280

Anticipated Lifecycle Replacements:

- Boiler
- Toilets
- Urinals
- Sinks

Actions/Comments:

- The domestic boiler also serves the hydronic heating system.
- The plumbing systems appear to be well maintained and functioning adequately. The water pressure appears to be sufficient. No significant repair actions or short term replacement costs are required. Routine and periodic maintenance is recommended. Future lifecycle replacements of the components or systems listed above will be required.

D30 Building Heating, Ventilating, and Air Conditioning (HVAC)**Building Central Heating System**

Primary Heating System Type	Hydronic system served by domestic boiler
Heating Fuel	Natural gas
Location of Major Equipment	Mechanical Room
Space Served by System	Entire Building

Building Central Cooling System

Primary Cooling System Type	Water-cooled chiller, centrifugal
Refrigerant	R-134A
Cooling Towers	None, geothermal heat rejection
Location of Major Equipment	Separate building
Space Served by System	Student Services Building and Fusselman Hall

Return water is cooled via a geothermal system. Two 20 HP pumps have been abandoned in place.

Distribution System

HVAC Water Distribution System	Two-pipe
Air Distribution System	Constant volume

Distribution System	
Location of Air Handlers	Mechanical rooms
Terminal Units	None
Quantity and Capacity of Terminal Units	--
Location of Terminal Units	--

Supplemental/Secondary Components	
Supplemental Component #1	Through-wall air conditioners
Location / Space Served	IT/Mechanical room

Controls and Ventilation	
HVAC Control System	BAS, pneumatic controls
Building Ventilation	Central AHU, with fresh air intake

Maintenance Issues					
Observation	Location	Exists at Site	Observation	Location	Exists at Site
Ductwork/grills need cleaned	Ground level staff room	<input checked="" type="checkbox"/>	Minor control adjustments needed	--	<input type="checkbox"/>
Leaking condensate lines	--	<input type="checkbox"/>	Poor mechanical area access	--	<input type="checkbox"/>

Degradation Issues			
Observation	Exists at Site	Observation	Exists at Site
Heating, cooling or ventilation is not adequate	<input checked="" type="checkbox"/>	Major system inefficiencies	<input type="checkbox"/>
HVAC controls pneumatic or antiquated	<input checked="" type="checkbox"/>	Obsolete refrigerants: R11, R12, R22, R123, R502	<input type="checkbox"/>



Mechanical Systems - Student Services Building

Location	Component / Action	Quantity	Unit	RUL	Est Cost
Chiller building	D3031 Chiller, Centrifugal, 251 to 300 Ton, Replace	1	EA	16	\$330,318
Mechanical room, H&V 3 & 4	D3041 Air Handler, Interior, 6,501 to 8,000 CFM, Replace	2	EA	10	\$55,676
Mechanical Room HV 1 & 2	D3041 Air Handler, Interior, 5,201 to 6,500 CFM, Replace	2	EA	10	\$47,450
Throughout	D3041 HVAC System Ductwork, Sheet Metal, Replace	15000	SF	3	\$240,750
Roof	D3042 Exhaust Fan, Centrifugal, 100 to 250 CFM, Replace	1	EA	3	\$890
Roof	D3042 Exhaust Fan, Centrifugal, 100 to 250 CFM, Replace	1	EA	4	\$890
Roof	D3042 Exhaust Fan, Centrifugal, 251 to 800 CFM, Replace	1	EA	3	\$2,022
Roof	D3042 Exhaust Fan, Centrifugal, 100 to 250 CFM, Replace	1	EA	3	\$890
Roof	D3042 Exhaust Fan, Centrifugal, 100 to 250 CFM, Replace	1	EA	3	\$890
Roof	D3042 Exhaust Fan, Centrifugal, 100 to 250 CFM, Replace	1	EA	4	\$890
Roof	D3042 Exhaust Fan, Centrifugal, 100 to 250 CFM, Replace	1	EA	4	\$890
Roof	D3042 Exhaust Fan, Centrifugal, 251 to 800 CFM, Replace	1	EA	6	\$2,022
Chiller Bldg	D3045 Distribution Pump, Chiller & Condenser Water, 10 HP, Replace	1	EA	8	\$6,674
Chiller bldg	D3045 Distribution Pump, Chiller & Condenser Water, 10 HP, Replace	1	EA	3	\$6,674
Throughout	D3068 HVAC Controls, Building Automation System (BAS), Upgrade	33431	SF	2	\$191,823
Kitchen	D3094 Air Curtain, 1,000 CFM, Replace	1	EA	3	\$1,597

Anticipated Lifecycle Replacements:

- Chiller
- Air handler fan motors
- Distribution pumps and motors
- Rooftop exhaust fans

Actions/Comments:

- Records and other on-site evidence suggest the HVAC systems and components have been regularly maintained since the property was first occupied. The HVAC systems are maintained by both outside contractors and in house staff.
- The HVAC equipment varies in age. HVAC equipment is replaced on an as-needed basis.
- Four pumps are in the chiller building; two 20 HP pumps and two 10 HP pumps. The 20 HP pumps and their associated VFD controls have been abandoned in place.
- Inadequate conditioned air distribution was observed. The original interior layout consisted mainly of large open spaces. During the inventing 50 years the spaces have been enclosed and many small offices have been built. It does not appear that the conditioned air delivery layout has been changed to accommodate the changed floor plans. Some associated engineering design services are necessary.
- The air handlers are original to the 1966 construction and appear to be functioning adequately. However, many of the fan motors are also original and replacements are anticipated. High-efficiency motor replacements are recommended.
- The air handler fan motors lack variable frequency drives (VFDs). As the motors are fairly substantial in size, the overall system would benefit from the utilization of VFDs to reduce full-speed usage and improve efficiency. Installation of VFDs is highly recommended in tandem with high-efficiency motor replacements.
- Parts of the facility's HVAC is still controlled using an outdated pneumatic system supplied by an air compressor. The remainder of the system is controlled electronically, though it is not addressable. For modernization, reliability, and increased control, full conversion to a web-based direct digital control (DDC) platform is highly recommended.

D40 Fire Protection

Mechanical and janitorial rooms have fire sprinklers.

Item	Description					
Sprinkler System & Suppression Components	Wet-pipe system	<input checked="" type="checkbox"/>	Dry-pipe system	<input type="checkbox"/>	No sprinklers	<input type="checkbox"/>
	Standpipes	<input type="checkbox"/>	Backflow preventer	<input type="checkbox"/>	Siamese connections	<input checked="" type="checkbox"/>
	Hose cabinets	<input checked="" type="checkbox"/>	Fire pump	<input type="checkbox"/>	Fire extinguishers	<input checked="" type="checkbox"/>
Sprinkler System Condition	Fair					
Fire Extinguishers	Last Service Date			Servicing Current?		
	October 11, 2017			Yes, serviced within last year		
Hydrant Location	Southeast corner of building					
Siamese Location	West side of building					
Special Systems	Kitchen Suppression System		<input checked="" type="checkbox"/>	Computer Room Suppression System		<input type="checkbox"/>

Maintenance Issues					
Observation	Location	Exists at Site	Observation	Location	Exists at Site
Extinguisher tag expired	--	<input type="checkbox"/>	Riser tag expired (five-year)	--	<input type="checkbox"/>

Anticipated Lifecycle Replacements:

- Sprinkler heads

Actions/Comments:

- The vast majority of the building is not protected by fire suppression; sprinkler heads are currently limited to mechanical and janitorial spaces. Due to its construction date, the facility is most likely “grandfathered” by code and the installation of fire sprinklers not required until major renovations are performed. Regardless of when or if installation of facility-wide fire suppression is required by the governing municipality, EMG recommends a retrofit be performed. A budgetary cost is included.

D50 Electrical

Distribution and Lighting			
Electrical Lines	Underground	Transformer	Underground vault
Main Service Size	2000 Amps	Volts	120/208 Volt, three-phase
Meter Location	Mechanical Room	Branch Wiring	Copper
Conduit	Metallic	Step-Down Transformers	No
Main Distribution Condition	Fair		
Secondary Panel and Transformer Condition	Fair		



Distribution and Lighting	
Interior Lighting Fixtures & Lamps	Most Prevalent: T-8 Supplemental/Accent: CFL, incandescent
Interior Lighting Condition	Fair

Maintenance Issues					
Observation	Location	Exists at Site	Observation	Location	Exists at Site
Improperly stored material in electrical room	--	<input type="checkbox"/>	Unsecured high voltage area	--	<input type="checkbox"/>

Anticipated Lifecycle Replacements:

- Circuit breaker panels
- Main switchgear
- Switchboards

Actions/Comments:

- The onsite electrical systems up to the meters are owned and maintained by the utility company.
- The electrical service and capacity appear to be adequate for the property's demands.
- Many of the electrical components within the building, including the circuit breaker panels, transformers, and wiring, are original to the 1966 construction. A full modernization/upgrade is recommended to the aging interior electrical infrastructure. In addition to the component-by-component replacements listed above, an additional overall budgetary allowance is included to account for some corresponding wiring and sub-feed replacements and upgrades. Increasing the number of receptacles is included in this upgrade, so that plug strips will no longer be plugged into other plug strips.
- The light fixtures throughout most of the facility utilize older, inefficient T-8 lamps. During the next lighting retrofit project, replacement with newer LED fixtures is highly recommended.

D60 Communications

Not applicable. There are no public-address systems.

D70 Electronic Safety and Security

D7010 Access Control and Intrusion Detection / D7050 Detection and Alarm						
Item	Description					
Access Control and Intrusion Detection	Exterior Camera	<input type="checkbox"/>	Interior Camera	<input type="checkbox"/>	Front Door Camera Only	<input type="checkbox"/>
	Cameras Monitored	<input type="checkbox"/>	Security Personnel On-Site	<input type="checkbox"/>	Secure All, door controls	<input checked="" type="checkbox"/>



D7010 Access Control and Intrusion Detection / D7050 Detection and Alarm						
Item	Description					
Fire Alarm System	Central Alarm Panel	<input checked="" type="checkbox"/>	Battery-Operated Smoke Detectors	<input checked="" type="checkbox"/>	Alarm Horns	<input checked="" type="checkbox"/>
	Annunciator Panels	<input checked="" type="checkbox"/>	Hard-Wired Smoke Detectors	<input type="checkbox"/>	Strobe Light Alarms	<input checked="" type="checkbox"/>
	Pull Stations	<input checked="" type="checkbox"/>	Emergency Battery-Pack Lighting	<input checked="" type="checkbox"/>	Illuminated Exit Signs	<input checked="" type="checkbox"/>
Fire Alarm System Condition	Fair					
Central Alarm Panel	Location			Installation Date		
	Mechanical Room			1998		

Anticipated Lifecycle Replacements:

- Central alarm panel
- Alarm devices and system

Actions/Comments:

- The fire alarm systems appear somewhat antiquated and not up to current standards. The system has insufficient pull stations, older exit signs and is not fully addressable. Due to the age of the components and apparent shortcomings, a full modernization project is recommended. A budgetary cost is included.
- The central alarm panel appears to be more than 15 years old. Based on its age and because replacement parts and components for this type of equipment may be obsolete, the alarm panel requires replacement.
- The building has a Secure All system. Each person has an individual fob and it is required to open any door in the building. The system records whom and at what time a person goes into each door.



6. Equipment and Furnishings

E10 Equipment

The cafeteria kitchen includes the following major appliances, fixtures, and equipment:

E1030 Commercial Kitchen Equipment		
Appliance	Comment	Condition
Refrigerators	Walk-in & Up-right	Fair
Freezers	Up-right	Fair
Ranges	Gas	Fair
Ovens	Gas	Fair
Griddles / Grills	Gas	Fair
Fryers	Electric	Fair
Hood	Exhaust ducted to exterior	Fair
Dishwasher	Owner	Fair
Microwave	<input checked="" type="checkbox"/>	Fair
Ice Machines	<input type="checkbox"/>	--
Steam Tables	<input checked="" type="checkbox"/>	Fair

Anticipated Lifecycle Replacements:

- Cooking Range
- Convection oven
- Dishwasher
- Walk-in cooler
- Fryer
- Grill

Actions/Comments:

- The interior finishes in the walk-in refrigerator are plywood and brick. The concrete floor has a large crack. These finishes do not appear to comply with the requirement that the finishes be smooth and easy to clean. The walk-in refrigerator is recommended for replacement.

F10 Special Construction

Not applicable. There is no special construction present at the site.

7. Sitework

G20 Site Improvements

G2020 Parking Lots and G2030 Pedestrian Walkways

Item	Material	Condition
Entrance Driveway Apron	None	--
Parking Lot	None	--
Drive Aisles	None	--
Service Aisles	None	--
Sidewalks	Concrete	Good
Curbs	None	--
Pedestrian Ramps	Cast-in-place concrete	Good
Ground Floor Patio or Terrace	Concrete	Poor

Parking Count

Open Lot	Carport	Private Garage	Subterranean Garage	Freestanding Parking Structure
--	--	--	--	--
Total Parking Spaces		No dedicated parking		
Total Number of ADA Compliant Spaces		0		
Number of ADA Compliant Spaces for Vans		0		

Site Stairs

Location	Material	Handrails	Condition
South and east side of building	Concrete stairs	Metal	Good
East side of building	Concrete stairs	Metal	Fair

Maintenance Issues

Observation	Location	Exists at Site	Observation	Location	Exists at Site
Pavement oil stains	--	<input type="checkbox"/>	Vegetation growth in joints	--	<input type="checkbox"/>
Stair/ramp rails loose	--	<input type="checkbox"/>	Stair/ramp rail needs scraped and painted	--	<input type="checkbox"/>

Degradation Issues			
Observation	Exists at Site	Observation	Exists at Site
Potholes/depressions	<input type="checkbox"/>	Alligator cracking	<input type="checkbox"/>
Concrete spalling	<input type="checkbox"/>	Trip hazard	<input checked="" type="checkbox"/>

Anticipated Lifecycle Replacements:

- No components of significance

Actions/Comments:

- The concrete sidewalks, and patios have wood expansion strips which have rotted out. The resulting ½" gap is a trip hazard. The expansion strips require replacement.

G2060 Site Development	
Property Signage - NA	
Property Signage	None
Street Address Displayed?	--

Dumpster Enclosures			
Dumpster Locations	Surface	Enclosure	Condition
Service area near kitchen	Asphalt paving	None	Fair

Other Site Amenities			
	Description	Location	Condition
Playground Equipment	None	--	--
Tennis Courts	None	--	--
Basketball Court	None	--	--

Anticipated Lifecycle Replacements:

- Asphalt paving

Actions/Comments:

- No significant actions are identified at the present time. Ongoing periodic maintenance is highly recommended. Future lifecycle replacements of the components listed above will be required.

G2080 Landscaping		
Drainage System and Erosion Control		
System	Exists at Site	Condition
Surface Flow	<input checked="" type="checkbox"/>	Fair
Inlets	<input checked="" type="checkbox"/>	Fair
Swales	<input type="checkbox"/>	--
Detention pond	<input type="checkbox"/>	--
Lagoons	<input type="checkbox"/>	--
Ponds	<input type="checkbox"/>	--
Underground Piping	<input type="checkbox"/>	--
Pits	<input type="checkbox"/>	--
Municipal System	<input checked="" type="checkbox"/>	Fair
Dry Well	<input type="checkbox"/>	--

Anticipated Lifecycle Replacements:

- No components of significance

Actions/Comments:

- There is no evidence of storm water runoff from adjacent buildings. The storm water system appears to provide adequate runoff capacity. There is no evidence of major ponding or erosion.

Item	Description						
Site Topography	Slopes gently down from the east side to the west						
Landscaping	Trees	Grass	Flower Beds	Planters	Drought Tolerant Plants	Decorative Stone	None
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Landscaping Condition	Fair						
Irrigation	Automatic Underground		Drip		Hand Watering		None
	<input checked="" type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
Irrigation Condition	Fair						

Retaining Walls		
Type	Location	Condition
Concrete	Along service area	Good

Anticipated Lifecycle Replacements:

- No components of significance



Actions/Comments:

- The topography and adjacent uses do not appear to present conditions detrimental to the property. There are no significant areas of erosion.

G30 Liquid and Gas Site Utilities

G3060 Site Fuel Distribution			
	Meter or Tank Location	Pipe Material	Condition
Natural Gas	Along exterior wall/s	Malleable steel (black iron)	Good
Propane Tanks	NA	NA	--

Anticipated Lifecycle Replacements:

- No components of significance

Actions/Comments:

- The pressure and quantity of gas appear to be adequate.
- The gas meter and regulator appears to be functioning adequately. These components are owned by the utility company and are the utility company's responsibility.
- Only limited observation of the gas distribution piping can be made due to hidden conditions.

G40 Electrical Site Improvements

G4050 Site Lighting					
Site Lighting	None	Pole Mounted	Bollard Lights	Ground Mounted	Parking Lot Pole Type
		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fair					
Building Lighting	None		Wall Mounted	Recessed Soffit	
	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>	
--					

Maintenance Issues					
Observation	Location	Exists at Site	Observation	Location	Exists at Site
Isolated bulb/lamp replacement	--	<input type="checkbox"/>	Discolored/dirty lens cover	--	<input type="checkbox"/>

Anticipated Lifecycle Replacements:

- Exterior lighting

Actions/Comments:

- No significant actions are identified at the present time. Ongoing periodic maintenance is highly recommended.



8. Ancillary Structures

Other Ancillary Structures			
Type	Chiller structure	Location	West of student services
Item	Material	Item	Material
Exterior Walls	CMU	Roof Finishes	EPDM
Interior Finishes	Floor: Unfinished concrete Ceiling: Exposed Walls: CMU	MEPF	See Tables in Section 5
Overall Building Condition			--

Anticipated Lifecycle Replacements:

- No components of significance

Actions/Comments:

- No significant actions are identified at the present time. Ongoing periodic maintenance is highly recommended.

9. Opinions of Probable Costs

Cost estimates are attached throughout this report, with the Replacement Reserves in the appendix.

These estimates are based on Invoice or Bid Document/s provided either by the Owner/facility and construction costs developed by construction resources such as *R.S. Means*, *CBRE Whitestone*, and *Marshall & Swift*, EMG's experience with past costs for similar properties, city cost indexes, and assumptions regarding future economic conditions.

Opinions of probable costs should only be construed as preliminary, order of magnitude budgets. Actual costs most probably will vary from the consultant's opinions of probable costs depending on such matters as type and design of suggested remedy, quality of materials and installation, manufacturer and type of equipment or system selected, field conditions, whether a physical deficiency is repaired or replaced in whole, phasing or bundling of the work (if applicable), quality of contractor, quality of project management exercised, market conditions, use of subcontractors, and whether competitive pricing is solicited, etc. Certain opinions of probable costs cannot be developed within the scope of this guide without further study. Opinions of probable cost for further study should be included in the FCA.

Methodology

Based upon site observations, research, and judgment, along with referencing Expected Useful Life (EUL) tables from various industry sources, EMG opines as to when a system or component will most probably necessitate replacement. Accurate historical replacement records, if provided, are typically the best source of information. Exposure to the elements, initial quality and installation, extent of use, the quality and amount of preventive maintenance exercised, etc., are all factors that impact the effective age of a system or component. As a result, a system or component may have an effective age that is greater or less than its actual chronological age. The Remaining Useful Life (RUL) of a component or system equals the EUL less its *effective age*, whether explicitly or implicitly stated. Projections of Remaining Useful Life (RUL) are based on continued use of the Property similar to the reported past use. Significant changes in occupants and/or usage may affect the service life of some systems or components.

Where quantities could not be or were not derived from an actual construction document take-off or facility walk-through, and/or where systemic costs are more applicable or provide more intrinsic value, budgetary square foot and gross square foot costs are used. Estimated costs are based on professional judgment and the probable or actual extent of the observed defect, inclusive of the cost to design, procure, construct and manage the corrections.

Immediate Repairs

Immediate repairs are opinions of probable costs that require immediate action as a result of: (1) material existing or potential unsafe conditions, (2) failed or imminent failure of mission critical building systems or components, or (3) conditions that, if not addressed, have the potential to result in, or contribute to, critical element or system failure within one year or will most probably result in a significant escalation of its remedial cost.

Replacement Reserves

Replacement Reserves (more commonly referenced throughout AssetCALC as Lifecycle/Renewals) are for recurring probable renewals or expenditures, which are not classified as operation or maintenance expenses. The replacement reserves should be budgeted for in advance on an annual basis. Replacement Reserves are reasonably predictable both in terms of frequency and cost. However, Replacement Reserves may also include components or systems that have an indeterminable life but, nonetheless, have a potential for failure within an estimated time period.

Replacement Reserves generally exclude systems or components that are estimated to expire after the reserve term and are not considered material to the structural and mechanical integrity of the subject property. Furthermore, systems and components that are not deemed to have a material effect on the use of the Property are also excluded. Costs that are caused by acts of God, accidents, or other occurrences that are typically covered by insurance, rather than reserved for, are also excluded.

Replacement costs are solicited from ownership/property management, EMG's discussions with service companies, manufacturers' representatives, and previous experience in preparing such schedules for other similar facilities. Costs for work performed by the ownership's or property management's maintenance staff are also considered.

EMG's reserve methodology involves identification and quantification of those systems or components requiring capital reserve funds within the assessment period. The assessment period is defined as the effective age plus the reserve term. Additional information concerning system's or component's respective replacement costs (in today's dollars), typical expected useful lives, and remaining useful lives were estimated so that a funding schedule could be prepared. The Replacement Reserves Schedule presupposes that all required remedial work has been performed or that monies for remediation have been budgeted for items defined in the Immediate Repair Cost Estimate.

10. Purpose and Scope

Purpose

EMG was retained by the client to render an opinion as to the Property's current general physical condition on the day of the site visit.

Based on the observations, interviews and document review outlined below, this report identifies significant deferred maintenance issues, existing deficiencies, and material code violations of record, which affect the Property's use. Opinions are rendered as to its structural integrity, building system condition and the Property's overall condition. The report also notes building systems or components that have realized or exceeded their typical expected useful lives.

CONDITIONS:

The physical condition of building systems and related components are typically defined as being in one of five conditions: Excellent, Good, Fair, Poor, Failed or a combination thereof. For the purposes of this report, the following definitions are used:

Excellent	=	New or very close to new; component or system typically has been installed within the past year, sound and performing its function. Eventual repair or replacement will be required when the component or system either reaches the end of its useful life or fails in service.
Good	=	Satisfactory as-is. Component or system is sound and performing its function, typically within the first third of its lifecycle. However, it may show minor signs of normal wear and tear. Repair or replacement will be required when the component or system either reaches the end of its useful life or fails in service.
Fair	=	Showing signs of wear and use but still satisfactory as-is, typically near the median of its estimated useful life. Component or system is performing adequately at this time but may exhibit some signs of wear, deferred maintenance, or evidence of previous repairs. Repair or replacement will be required due to the component or system's condition and/or its estimated remaining useful life.
Poor	=	Component or system is significantly aged, flawed, functioning intermittently or unreliably; displays obvious signs of deferred maintenance; shows evidence of previous repair or workmanship not in compliance with commonly accepted standards; has become obsolete; or exhibits an inherent deficiency. The present condition could contribute to or cause the deterioration of contiguous elements or systems. Either full component replacement is needed or repairs are required to restore to good condition, prevent premature failure, and/or prolong useful life.
Failed	=	Component or system has ceased functioning or performing as intended. Replacement, repair, or other significant corrective action is recommended or required.
Not Applicable	=	Assigning a condition does not apply or make logical sense, most commonly due to the item in question not being present.

Throughout sections 2 through 8 of this report, each report section will typically contain three subsections organized in the following sequence:

- A descriptive table (and/or narrative), which identifies the components assessed, their condition, and other key data points.
- A simple bulleted list of Anticipated Lifecycle Replacements, which lists components and assets typically in Excellent, Good, or Fair condition at the time of the assessment but that will require replacement or some other attention once aged past their estimated useful life. These listed components are typically included in the associated inventory database with costs identified and budgeted beyond the first several years.
- A bulleted cluster of Actions/Comments, which include more detailed narratives describing deficiencies, recommended repairs, and short term replacements. The assets and components associated with these bullets are/were typically problematic and in Poor or Failed condition at the time of the assessment, with corresponding costs included within the first few years.

PLAN TYPES:

Each line item in the cost database is assigned a Plan Type, which is the primary reason or rationale for the recommended replacement, repair, or other corrective action. This is the “why” part of the equation. A cost or line item may commonly have more than one applicable Plan Type; however, only one Plan Type will be assigned based on the “best” fit, typically the one with the greatest significance. The following Plan Types are listed in general weighted order of importance:

Safety	=	An observed or reported unsafe condition that if left unaddressed could result in an injury; a system or component that presents a potential liability risk.
Performance/Integrity	=	Component or system has failed, is almost failing, performs unreliably, does not perform as intended, and/or poses a risk to overall system stability.
Accessibility	=	Does not meet ADA, UFAS, and/or other handicap accessibility requirements.
Environmental	=	Improvements to air or water quality, including removal of hazardous materials from the building or site.
Modernization/Adaptation	=	Conditions, systems, or spaces that need to be upgraded in appearance or function to meet current standards, facility usage, or client/occupant needs.
Lifecycle/Renewal	=	Any component or system in which future repair or replacement is anticipated beyond the next several years and/or is of minimal substantial early-term consequence.

DEFINITION OF EXCEEDINGLY AGED:

A fairly common scenario encountered during the assessment process, and a frequent source of debate, occurs when classifying and describing “very old” systems or components that are still functioning adequately and do not appear in any way deficient. To help provide some additional intelligence on these items, such components will be tagged in the database as *Exceedingly Aged*. This designation will be reserved for systems or components that have aged well beyond their industry standard lifecycles (typically at least 15 years beyond and/or twice their EUL) but are not otherwise apparently deficient. In tandem with this designation, these items will be assigned an RUL not less than 2 but not greater than 1/3 of their standard EUL. As such the recommended replacement time for these components will reside outside the typical *Immediate Repair* window but will not be pushed ‘irresponsibly’ (too far) into the future.

Scope

The standard scope of the Facility Condition Assessment includes the following:

- Visit the Property to evaluate the general condition of the building and site improvements, review available construction documents in order to familiarize ourselves with, and be able to comment on, the in-place construction systems, life safety, mechanical, electrical, and plumbing systems, and the general built environment.
- Identify those components that are exhibiting deferred maintenance issues and provide cost estimates for Immediate Costs and Replacement Reserves based on observed conditions, maintenance history and industry standard useful life estimates. This will include the review of documented capital improvements completed within the last five-year period and work currently contracted for, if applicable.
- Provide a full description of the Property with descriptions of in-place systems and commentary on observed conditions.
- Provide a high-level categorical general statement regarding the subject Property’s compliance to Title III of the Americans with Disabilities Act. This will not constitute a full ADA survey, but will help identify exposure to issues and the need for further review.
- Obtain background and historical information about the facility from a building engineer, property manager, maintenance staff, or other knowledgeable source. The preferred methodology is to have the client representative or building occupant complete a Pre-Survey Questionnaire (PSQ) in advance of the site visit. Common alternatives include a verbal interview just prior to or during the walk-through portion of the assessment.
- Review maintenance records and procedures with the in-place maintenance personnel.
- Observe a representative sample of the interior spaces/units, including vacant spaces/units, to gain a clear understanding of the property’s overall condition. Other areas to be observed include the exterior of the property, the roofs, interior common areas, and the significant mechanical, electrical and elevator equipment rooms.
- Provide recommendations for additional studies, if required, with related budgetary information.
- Provide an Executive Summary at the beginning of this report, which highlights key findings and includes a Facility Condition Index as a basis for comparing the relative conditions of the buildings within the portfolio.

11. ADA Accessibility

Generally, Title III of the Americans with Disabilities Act (ADA) prohibits discrimination by entities to access and use of “areas of public accommodations” and “commercial facilities” on the basis of disability. Regardless of its age, these areas and facilities must be maintained and operated to comply with the Americans with Disabilities Act Accessibility Guidelines (ADAAG).

Buildings completed and occupied after January 26, 1992 are required to comply fully with the ADAAG. Existing facilities constructed prior to this date are held to the lesser standard of compliance to the extent allowed by structural feasibility and the financial resources available. As an alternative, a reasonable accommodation pertaining to barrier removal must be made.

During the FCA, EMG performed a limited high-level accessibility review of the facility non-specific to any local regulations or codes. The scope of the visual observation was limited to those areas and categories set forth in the tables throughout this report. It is understood by the Client that the limited observations described herein do not comprise a full ADA Compliance Survey, and that such a survey is beyond the scope of EMG’s undertaking. Only a representative sample of areas was observed and actual measurements were not taken to verify compliance.

The facility was originally constructed in 1966. It appears that the facility has undergone several renovations since it was constructed. Complaints about accessibility issues have been sporadically received by the property management. The property has associated prior litigation related to existing barriers or previously removed barriers.

While performing the FCA, EMG performed a high-level accessibility review of the facility non-specific to any local regulations or codes. A summary of the findings is provided below.

Accessibility Issues			
Category	Major Issues (ADA Study Recommended)	Moderate Issues (ADA Study Recommended)	Minor/No Issues
Parking	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Exterior Accessible Route	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Interior Accessible Route	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Public Use Restrooms	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Elevators	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Kitchens/Kitchenettes	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

A full ADA Compliance Survey has been previously performed at the site. The associated recommendations appear to have been addressed in full.

Removal of barriers to accessibility should be addressed from a liability standpoint in order to comply with federal law, but the barriers may or may not be building code violations. The Americans with Disabilities Act Accessibility Guidelines are part of the ADA federal civil rights law pertaining to the disabled and are not a construction code. State and local jurisdictions have adopted the ADA Guidelines or have adopted other standards for accessibility as part of their construction codes.

12. Certification

WLC Architects (the Client) retained EMG to perform this Facility Condition Assessment in connection with its continued operation of Marin College-Student Services Building, 835 College Avenue, Kentfield, California 94904 the "Property". It is our understanding that the primary interest of the Client is to locate and evaluate materials and building system defects that might significantly affect the value of the property and to determine if the present Property has conditions that will have a significant impact on its continued operations.

The conclusions and recommendations presented in this report are based on the brief review of the plans and records made available to our Project Manager during the site visit, interviews of available property management personnel and maintenance contractors familiar with the Property, appropriate inquiry of municipal authorities, our Project Manager's walk-through observations during the site visit, and our experience with similar properties.

No testing, exploratory probing, dismantling or operating of equipment or in-depth studies were performed unless specifically required under the *Purpose and Scope* section of this report. This assessment did not include engineering calculations to determine the adequacy of the Property's original design or existing systems. Although walk-through observations were performed, not all areas may have been observed (see Section 1 for specific details). There may be defects in the Property, which were in areas not observed or readily accessible, may not have been visible, or were not disclosed by management personnel when questioned. The report describes property conditions at the time that the observations and research were conducted.

This report has been prepared on behalf of and exclusively for the use of the Client for the purpose stated within the *Purpose and Scope* section of this report. The report, or any excerpt thereof, shall not be used by any party other than the Client or for any other purpose than that specifically stated in our agreement or within the *Purpose and Scope* section of this report without the express written consent of EMG.

Any reuse or distribution of this report without such consent shall be at the Client and the recipient's sole risk, without liability to EMG.

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13. Appendices

- Appendix A: Photographic Record
- Appendix B: Site Plan
- Appendix C: Supporting Documentation
- Appendix D: ADA Checklist
- Appendix E: Pre-Survey Questionnaire
- Appendix F: Replacement Reserves

Appendix A: Photographic Record



#1:	EAST ELEVATION
-----	----------------



#2:	EAST ENTRY
-----	------------



#3:	NORTH ELEVATION
-----	-----------------



#4:	NORTH ENTRY
-----	-------------



#5:	WEST ELEVATION
-----	----------------



#6:	SOUTH ELEVATION
-----	-----------------



#7: SOUTH ELEVATION



#8: EXTERIOR STAIRS



#9: EXISTING SINGLE GLAZED WINDOWS



#10: EXTERIOR WALL, BRICK VENEER



#11: ROOF



#12: ROOF SKYLIGHT, GLASS SINGLE UNIT



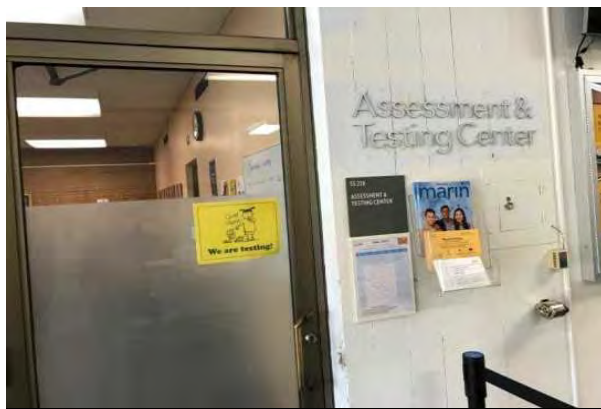
#13:	LEAKING CHIMNEY
------	-----------------



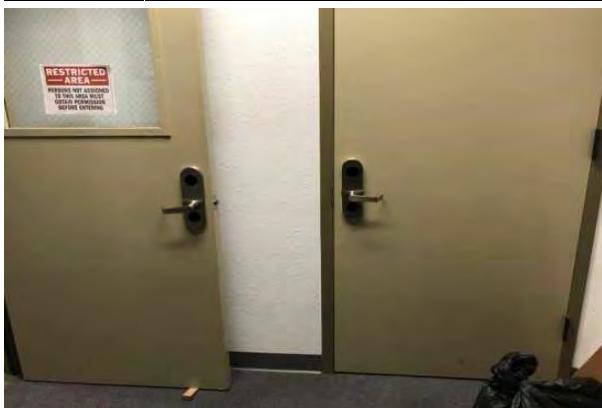
#14:	ELASTOMERIC COATING
------	---------------------



#15:	STOREFRONT, METAL-FRAMED DOORS ONLY
------	-------------------------------------



#16:	INTERIOR DOOR, FULLY-GLAZED ALUMINUM-FRAMED
------	---



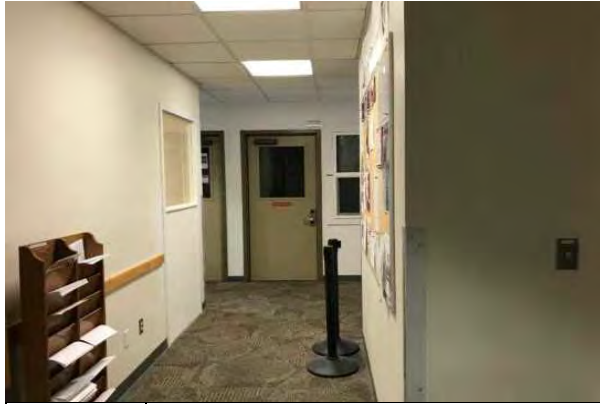
#17:	INTERIOR DOOR, WOOD SOLID-CORE & SOLID CORE W/ SAFETY GLASS
------	---



#18:	KITCHEN QUARRY TILE, CRACKED AND BROKEN
------	---



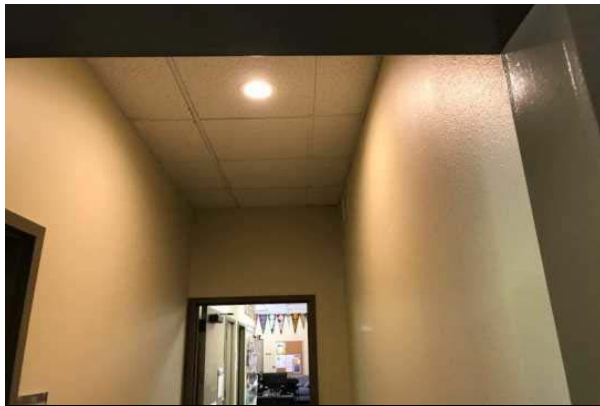
#19: INTERIOR WALL FINISH, PAINT



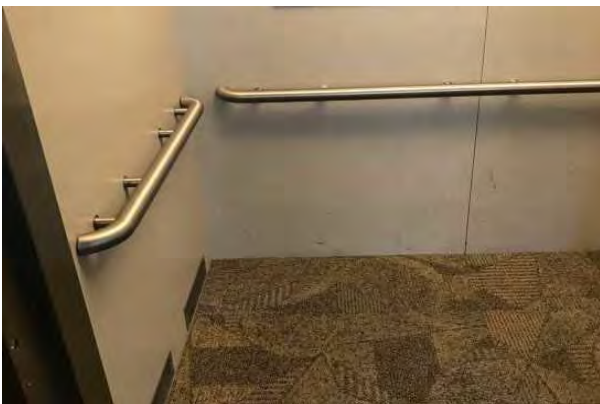
#20: CARPET



#21: CERAMIC TILE, FLOOR & WALL



#22: INTERIOR CEILING FINISH, SUSPENDED ACOUSTICAL TILE



#23: ELEVATOR CAB FINISHES



#24: INTERIOR FINISHES, WALK-IN REFRIGERATOR



#25: ELEVATOR EQUIPMENT



#26: SINK/LAVATORY



#27: TOILET



#28: URINAL



#29: BOILER, GAS, DOMESTIC & HEATING



#30: INDIRECT WATER HEATER



#31: CHILLER, CENTRIFUGAL



#32: VARIABLE FREQUENCY DRIVE (VFD)



#33: HVAC CONTROLS, PART PNEUMATIC, AIR COMPRESSOR



#34: AIR HANDLER, INTERIOR



#35: DISTRIBUTION PUMP, CHILLER & CONDENSER WATER



#36: EXHAUST FAN, CENTRIFUGAL



#37:	FIRE ALARM CONTROL PANEL
------	--------------------------



#38:	BUILDING/MAIN SWITCHGEAR
------	--------------------------



#39:	DISTRIBUTION PANEL
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#40:	REFRIGERATOR, 2-DOOR REACH-IN
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#41:	DEEP FRYER
------	------------



#42:	AIR CURTAIN
------	-------------



#43:	CONVECTION OVEN, DOUBLE
------	-------------------------



#44:	GRIDDLE
------	---------



#45:	COMMERCIAL KITCHEN, RANGE/OVEN, 6-BURNER W/ GRIDDLE
------	---



#46:	WALK-IN REFRIGERATOR
------	----------------------



#47:	ROTTED WOOD EXPANSION STRIPS
------	------------------------------



#48:	ROADWAYS, ASPHALT PAVEMENT
------	----------------------------



#49:	RETAINING WALL
------	----------------



#50:	CHILLER ENCLOSURE
------	-------------------

Appendix B: Site Plan

SITE PLAN

MARIN COLLEGE-STUDENT SERVICES BUILDING

EMG PROJECT NO: 132824.18R000-001.354



SOURCE:
Client



ON-SITE DATE:
June 26, 2018

Appendix C: Supporting Documentation

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Appendix D: ADA Checklist

ADA CHECKLIST

Date Completed: June 27, 2018

Property Name: Marin College-Student Services Building

EMG Project Number: 132825.18R000-001.354

Building History		Yes	No	Unk	Comments
1	Has an ADA survey previously been completed for this property?	✓			
2	Have any ADA improvements been made to the property?	✓			
3	Do a Transition Plan / Barrier Removal Plan exist for the property?	✓			DSA
4	Has building ownership or management received any ADA related complaints that have not been resolved?			✓	
5	Is any litigation pending related to ADA issues?			✓	
Parking		Yes	No	NA	Comments
1	Are there sufficient accessible parking spaces with respect to the total number of reported spaces?			✓	No parking associated with the building
2	Are there sufficient van-accessible parking spaces available?			✓	No parking associated with the building
3	Are accessible spaces marked with the International Symbol of Accessibility? Are there signs reading "Van Accessible" at van spaces?			✓	No parking associated with the building
4	Is there at least one accessible route provided within the boundary of the site from public transportation stops, accessible parking spaces, passenger loading zones, if provided, and public streets and sidewalks?			✓	No parking associated with the building
5	Do curbs on the accessible route have depressed, ramped curb cuts at drives, paths, and drop-offs?			✓	No parking associated with the building
6	If required does signage exist directing you to accessible parking and an accessible building entrance?			✓	No parking associated with the building
Ramps		Yes	No	NA	Comments
1	Do all ramps along accessible path of travel appear to meet slope requirements? (1:12 or less)	✓			
2	Are ramps that appear longer than 6 FT complete with railings on both sides?	✓			

ADA CHECKLIST

Ramps		Yes	No	NA	Comments
3	Does the width between railings appear at least 36 inches?	✓			
4	Is there a level landing for approximately every 30 FT horizontal length of ramp, at the top and at the bottom of ramps and switchbacks?	✓			
Entrances/Exits		Yes	No	NA	Comments
1	Do all required accessible entrance doorways appear at least 32 inches wide and not a revolving door?	✓			
2	If the main entrance is inaccessible, are there alternate accessible entrances?	✓			
3	Is the door hardware easy to operate (lever/push type hardware, no twisting required and not higher than approximately 48 inches above the floor)?	✓			
Paths of Travel		Yes	No	NA	Comments
1	Are all paths of travel free of obstruction and wide enough for a wheelchair (appear at least 36 inches wide)?	✓			
2	Are wheelchair-accessible facilities (toilet rooms, exits, etc.) identified with signage?	✓			
3	Is there a path of travel that does not require the use of stairs?	✓			
Elevators		Yes	No	NA	Comments
1	Do the call buttons have visual and audible signals to indicate when a call is registered and answered when car arrives?	✓			
2	Are there visual and audible signals inside cars indicating floor change?	✓			
3	Are there standard raised and Braille marking on both jambs of each hoist way entrance as well as all cab/call buttons?	✓			
4	Do elevator doors have a reopening device that will stop and reopen a car door if an object or a person obstructs the door?	✓			
5	Are elevator controls low enough to be reached from a wheelchair (appears to be between 15 and 48 inches)?	✓			
6	If a two-way emergency communication system is provided within the elevator cab, is it usable without voice communication?	✓			

ADA CHECKLIST

	Toilet Rooms	Yes	No	NA	Comments
1	Are common area public restrooms located on an accessible route?	✓			
2	Are pull handles push/pull or lever type?	✓			
3	Are there audible and visual fire alarm devices in the toilet rooms?	✓			
4	Are toilet room access doors wheelchair-accessible (appear to be at least 32 inches wide)?	✓			
5	Are public restrooms large enough to accommodate a wheelchair turnaround (appear to have 60" turning diameter)?	✓			
6	In unisex toilet rooms, are there safety alarms with pull cords?		✓		No safety alarm with pull cord
7	Are toilet stall doors wheelchair accessible (appear to be at least 32" wide)?			✓	Single use restroom, no stall
8	Are grab bars provided in toilet stalls?	✓			
9	Are sinks provided with clearance for a wheelchair to roll under (appear to have 29" clearance)?	✓			
10	Are sink handles operable with one hand without grasping, pinching, or twisting?	✓			
11	Are exposed pipes under sink sufficiently insulated against contact?	✓			

Appendix E: Pre-Survey Questionnaire



FCA (Commercial) Pre-Survey Questionnaire

This questionnaire must be completed by the property owner, the owner's designated representative, or someone knowledgeable about the subject property. If the form is not completed, EMG's Project Manager will require **additional time** during the on-site visit with such a knowledgeable person in order to complete the questionnaire. During the site visit, EMG's Field Observer may ask for details associated with selected questions. This questionnaire will be utilized as an exhibit in EMG's final report.

Name of Institution:	Marin Community College District		
Name of Building: Student Services	Building #:9		
Name of person completing questionnaire: Klaus Christiansen			
Length of Association With the Property: 1.5 years	Phone Number: 415-485-9449		

Site Information	
Year of Construction?	1966
No. of Stories?	
Total Site Area?	
Total Building Area?	

Inspections	Date of Last Inspection	List of Any Outstanding Repairs Required
1. Elevators	2/2018	
2. HVAC Mechanical, Electric, Plumbing?	Ongoing	
3. Life-Safety/Fire?	5/2018	
4. Roofs?	2/2018	

Key Questions	Response
Major Capital Improvements in Last 3 yrs.	
Planned Capital Expenditure For Next Year?	
Age of the Roof?	
What bldg. Systems Are Responsibilities of Tenants? (HVAC/Roof/Interior/Exterior/Paving)	

Mark the column corresponding to the appropriate response. Please provide additional details in the Comments column, or backup documentation for any *Yes* responses. (NA indicates "Not Applicable", Unk indicates "Unknown")

QUESTION	Y	N	Unk	NA	COMMENTS
ZONING, BUILDING DESIGN & LIFE SAFETY ISSUES					
1 Are there any unresolved building, fire, or zoning code issues?			X		
2 Is there any pending litigation concerning the property?		X			
3 Are there any other significant issues/hazards with the property?	X				HVAC controls work marginally, uneven heating and cooling throughout building
4 Are there any unresolved construction defects at the property?		X			
5 Has any part of the property ever contained visible suspect mold growth?			X		



FCA (Commercial) Pre-Survey Questionnaire

Mark the column corresponding to the appropriate response. Please provide additional details in the Comments column, or backup documentation for any *Yes* responses. (NA indicates "Not Applicable", Unk indicates "Unknown")

QUESTION	Y	N	Unk	NA	COMMENTS
6		X			
7		X			
8	X				Reports of mold by staff, air analysis showed higher concentrations of mold outside the building than inside
GENERAL SITE					
9		X			
10		X			
BUILDING STRUCTURE					
11			X		
12		X			
13		X			
BUILDING ENVELOPE					
14		X			
15		X			
16		X			
17	X				Single pane windows, limited insulation in building by todays standards
18			X		
19		X			



FCA (Commercial) Pre-Survey Questionnaire

Mark the column corresponding to the appropriate response. Please provide additional details in the Comments column, or backup documentation for any *Yes* responses. (NA indicates "Not Applicable", Unk indicates "Unknown")

QUESTION	Y	N	Unk	NA	COMMENTS
BUILDING HVAC AND ELECTRICAL					
20		X			
21			X		
22				X	
23				X	
24		X			
ADA					
25	X				
26	X				
27	X				
28	X				DSA
29	X				Parking
30		X			
PLUMBING					
31		X			
32		X			
33		X			
34		X			



FCA (Commercial) Pre-Survey Questionnaire

Additional Issues or Concerns That EMG Should Know About?	
1.	
2.	
3.	

Items Provided to EMG Auditors				
	Yes	No	N/A	Additional Comments?
Access to All Mechanical Spaces	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Access to Roof/Attic Space	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Access to Building As-Built Drawings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Site plan with bldg., roads, parking and other features	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Contact Details for Mech, Elevator, Roof, Fire Contractors:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
List of Commercial Tenants in the property	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Previous reports pertaining to the physical condition of property.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
ADA survey and status of improvements implemented.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Current / pending litigation related to property condition.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Any brochures or marketing information.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Signature of person Interviewed or completing form

Date

On the day of the site visit, provide EMG's Field Observer access to all of the available documents listed below. Provide copies if possible.

INFORMATION REQUIRED

1. All available construction documents (blueprints) for the original construction of the building or for any tenant improvement work or other recent construction work.
2. A site plan, preferably 8 1/2" X 11", which depicts the arrangement of buildings, roads, parking stalls, and other site features.
3. For commercial properties, provide a tenant list which identifies the names of each tenant, vacant tenant units, the floor area of each tenant space, and the gross and net leasable area of the building(s).
4. For apartment properties, provide a summary of the apartment unit types and apartment unit type quantities, including the floor area of each apartment unit as measured in square feet.
5. For hotel or nursing home properties, provide a summary of the room types and room type quantities.
6. Copies of Certificates of Occupancy, building permits, fire or health department inspection reports, elevator inspection certificates, roof or HVAC warranties, or any other similar, relevant documents.
7. The names of the local utility companies which serve the property, including the water, sewer, electric, gas, and phone companies.

8. The company name, phone number, and contact person of all outside vendors who serve the property, such as mechanical contractors, roof contractors, fire sprinkler or fire extinguisher testing contractors, and elevator contractors.
9. A summary of recent (over the last 5 years) capital improvement work which describes the scope of the work and the estimated cost of the improvements. Executed contracts or proposals for improvements. Historical costs for repairs, improvements, and replacements.
10. Records of system & material ages (roof, MEP, paving, finishes, furnishings).
11. Any brochures or marketing information.
12. Appraisal, either current or previously prepared.
13. Current occupancy percentage and typical turnover rate records (for commercial and apartment properties).
14. Previous reports pertaining to the physical condition of property.
15. ADA survey and status of improvements implemented.
16. Current / pending litigation related to property condition.

Your timely compliance with this request is greatly appreciated.



Appendix F: Replacement Reserves

Replacement Reserves Report

Student Services Building

7/16/2018

Location	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Student Services Building	\$218,746	\$0	\$246,241	\$579,286	\$393,297	\$497,198	\$29,674	\$52,617	\$63,410	\$0
GrandTotal	\$218,746	\$0	\$246,241	\$579,286	\$393,297	\$497,198	\$29,674	\$52,617	\$63,410	\$0

ID	Cost Description	Lifespan (EUL)	EAge	RUL	Quantity	Unit	Unit Cost	w/ Markup *	Subtotal	2018
961801	Exterior Wall, Joint Caulking 0" to 1/2", 1-2 Stories, Replace	10	4	6	1500	LF	\$2.82	\$3.65	\$5,477	
961803	Storefront, Metal-Framed Windows w/out Door(s), Replace	30	27	3	3000	SF	\$48.00	\$62.15	\$186,437	
964605	Storefront, Metal-Framed 3' x 7' Swinging Door Only, Replace	30	15	15	6	EA	\$2,106.57	\$2,727.38	\$16,364	
961804	Exterior Door, Steel, Replace	25	20	5	5	EA	\$950.12	\$1,230.12	\$6,151	
962371	Roof, Modified Bituminous, Repair	0	1	0	50	SF	\$25.00	\$30.25	\$1,513	\$1,513
962253	Roof, Modified Bituminous, Replace	20	10	10	18950	SF	\$9.00	\$12.74	\$241,356	
962258	Roof Skylight, Glass Single Unit, Replace	30	20	10	300	SF	\$46.57	\$60.29	\$18,087	
964606	Interior Door, Wood Solid-Core, Replace	20	10	10	30	EA	\$1,423.11	\$1,842.51	\$55,275	
964607	Interior Door, Wood Solid-Core w/ Safety Glass, Replace	20	10	10	15	EA	\$1,928.03	\$2,496.22	\$37,443	
964608	Interior Door, Fully-Glazed Aluminum-Framed Swinging, Replace	30	15	15	5	EA	\$2,106.57	\$2,727.38	\$13,637	
964614	Interior Wall Finish, Generic Surface, Prep & Paint	8	5	3	3500	SF	\$1.45	\$1.88	\$6,571	
964613	Interior Wall Finish, Ceramic Tile, Replace	25	20	5	2000	SF	\$16.55	\$21.43	\$42,865	
964615	Interior Wall Finish, Generic Surface, Prep & Paint	8	2	6	3500	SF	\$1.45	\$1.88	\$6,571	
962257	Roof Finish, Elastomeric Coating, Prep & Paint	10	5	5	3500	SF	\$12.95	\$16.77	\$58,682	
964610	Interior Floor Finish, Quarry Tile, Repair	0	0	0	8	SF	\$25.15	\$30.43	\$243	\$243
964612	Interior Floor Finish, Ceramic Tile, Replace	50	45	5	900	SF	\$15.76	\$20.40	\$18,358	
964611	Interior Ceiling Finish, Suspended Acoustical Tile (ACT), Replace	20	15	5	10000	SF	\$3.11	\$4.03	\$40,278	
963059	Elevator Controls, Automatic, 1 or 2 Car Cluster, Modernize	20	15	5	1	EA	\$11,547.25	\$14,950.22	\$14,950	
963058	Elevator Cab Finishes, Standard w/ Stainless Steel Doors, Replace	15	9	6	1	EA	\$8,000.00	\$10,357.60	\$10,358	
963060	Elevator, Hydraulic, 1500 to 2500 LB, 2 Floors, Renovate	30	15	15	1	EA	\$108,794.40	\$140,856.11	\$140,856	
963417	Toilet, Flush Tank (Water Closet), Replace	20	15	5	2	EA	\$1,055.15	\$1,276.74	\$2,553	
963414	Toilet, Tankless (Water Closet), Replace	20	5	15	12	EA	\$842.97	\$1,091.39	\$13,097	
963418	Urinal, Vitreous China, Replace	20	3	17	6	EA	\$1,193.44	\$1,545.15	\$9,271	
963419	Sink/Lavatory, Porcelain Enamel, Cast Iron, Replace	20	15	5	12	EA	\$1,167.28	\$1,511.28	\$18,135	
963423	Sink/Lavatory, Porcelain Enamel, Cast Iron, Replace	20	3	17	2	EA	\$1,167.28	\$1,412.41	\$2,825	
963409	Water Storage Tank, 80 to 150 GAL, Replace	20	17	3	1	EA	\$2,140.56	\$2,590.07	\$2,590	
963407	Domestic Boiler, Gas, 801 to 2,400 MBH, Replace	22	17	5	1	EA	\$42,853.38	\$81,408.57	\$81,409	
964338	Chiller, Centrifugal, 200 Ton, Replace	25	9	16	1	EA	\$308,707.96	\$399,684.20	\$399,684	
963696	HVAC System Ductwork, Sheet Metal, Replace	30	27	3	15000	SF	\$15.00	\$19.42	\$291,308	
964617	Air Handler, Interior, 6,501 to 8,000 CFM, Replace	30	20	10	2	EA	\$26,016.62	\$33,683.72	\$67,367	
964618	Air Handler, Interior, 5,201 to 6,500 CFM, Replace	30	20	10	2	EA	\$22,172.97	\$28,707.34	\$57,415	
963700	Exhaust Fan, Centrifugal, 100 to 250 CFM, Replace	15	12	3	1	EA	\$889.90	\$1,076.78	\$1,077	
963703	Exhaust Fan, Centrifugal, 251 to 800 CFM, Replace	15	12	3	1	EA	\$2,021.87	\$2,446.46	\$2,446	
963701	Exhaust Fan, Centrifugal, 100 to 250 CFM, Replace	15	12	3	1	EA	\$889.90	\$1,076.78	\$1,077	
963698	Exhaust Fan, Centrifugal, 100 to 250 CFM, Replace	15	12	3	1	EA	\$889.90	\$1,076.78	\$1,077	
964043	Exhaust Fan, Centrifugal, 100 to 250 CFM, Replace	15	11	4	1	EA	\$889.90	\$1,076.78	\$1,077	
964049	Exhaust Fan, Centrifugal, 100 to 250 CFM, Replace	15	11	4	1	EA	\$889.90	\$1,076.78	\$1,077	
964038	Exhaust Fan, Centrifugal, 100 to 250 CFM, Replace	15	11	4	1	EA	\$889.90	\$1,076.78	\$1,077	
963702	Exhaust Fan, Centrifugal, 251 to 800 CFM, Replace	15	9	6	1	EA	\$2,021.87	\$2,446.46	\$2,446	

ID	Cost Description	Lifespan (EUL)	EAge	RUL	Quantity	Unit	Unit Cost	w/ Markup *	Subtotal	2018
964345	Distribution Pump, Chiller & Condenser Water, 10 HP, Replace	20	17	3	1	EA	\$6,237.69	\$8,075.94	\$8,076	
964343	Distribution Pump, Chiller & Condenser Water, 10 HP, Replace	20	12	8	1	EA	\$6,237.69	\$8,075.94	\$8,076	
963686	HVAC Controls, Building Automation System (BAS), Upgrade	20	18	2	33431	SF	\$5.36	\$6.94	\$232,106	
964379	Air Curtain, 1,000 CFM, Replace	20	17	3	1	EA	\$1,597.24	\$1,932.66	\$1,933	
964377	Sprinkler System, Full Retrofit, Office (per SF), Renovate	50	46	4	33431	SF	\$8.00	\$10.36	\$346,209	
964478	Distribution Panel, 208 Y, 120 V, 225 Amp, Replace	30	27	3	1	EA	\$7,951.00	\$10,294.16	\$10,294	
964480	Distribution Panel, 208 Y, 120 V, 100 Amp, Replace	30	25	5	1	EA	\$5,079.93	\$6,576.99	\$6,577	
964450	Distribution Panel, 208 Y, 120 V, 225 Amp, Replace	30	25	5	1	EA	\$7,951.00	\$10,294.16	\$10,294	
964619	Switchboard, 2,000 Amp, Replace	30	25	5	1	EA	\$29,404.36	\$38,069.83	\$38,070	
964460	Distribution Panel, 208 Y, 120 V, 225 Amp, Replace	30	25	5	1	EA	\$7,951.00	\$10,294.16	\$10,294	
964454	Distribution Panel, 208 Y, 120 V, 225 Amp, Replace	30	25	5	1	EA	\$7,951.00	\$10,294.16	\$10,294	
964458	Distribution Panel, 208 Y, 120 V, 225 Amp, Replace	30	25	5	1	EA	\$7,951.00	\$10,294.16	\$10,294	
964452	Distribution Panel, 208 Y, 120 V, 225 Amp, Replace	30	25	5	1	EA	\$7,951.00	\$10,294.16	\$10,294	
964616	Variable Frequency Drive (VFD), 10 HP Motor, Replace	20	12	8	2	EA	\$6,304.96	\$8,163.03	\$16,326	
967719	Fire Alarm System, School, Install	20	20	0	33431	SF	\$3.13	\$4.05	\$135,550	\$135,550
964375	Fire Alarm Control Panel, Addressable, Replace	15	15	0	1	EA	\$20,297.59	\$26,279.29	\$26,279	\$26,279
964669	Commercial Kitchen, Walk-In Refrigerator, Replace	20	20	0	1	EA	\$12,255.00	\$15,866.55	\$15,867	\$15,867
964395	Commercial Kitchen, Walk-In Refrigerator, Replace	20	17	3	1	EA	\$12,255.00	\$15,866.55	\$15,867	
964398	Commercial Kitchen, Dishwasher, Replace	10	5	5	1	EA	\$19,661.82	\$25,456.16	\$25,456	
964391	Commercial Kitchen, Convection Oven, Double, Replace	10	5	5	1	EA	\$8,643.00	\$11,190.09	\$11,190	
964389	Commercial Kitchen, Range/Oven, 6-Burner w/ Griddle, Replace	15	8	7	1	EA	\$9,288.00	\$12,025.17	\$12,025	
964392	Commercial Kitchen, Griddle, Replace	15	8	7	1	EA	\$6,344.00	\$8,213.58	\$8,214	
964386	Commercial Kitchen, Refrigerator, 2-Door Reach-In, Replace	15	8	7	3	EA	\$4,256.00	\$5,510.24	\$16,531	
964387	Commercial Kitchen, Freezer, 2-Door Reach-In, Replace	15	8	7	1	EA	\$4,644.00	\$6,012.59	\$6,013	
964394	Commercial Kitchen, Freezer, 3-Door Reach-In, Replace	15	7	8	2	EA	\$6,192.00	\$8,016.78	\$16,034	
964390	Commercial Kitchen, Deep Fryer, Replace	15	7	8	1	EA	\$6,367.00	\$8,243.35	\$8,243	
964740	Parking Lots, Asphalt Pavement, Seal	5	2	3	3000	SF	\$0.38	\$0.46	\$1,378	
964739	Parking Lots, Asphalt Pavement, Mill & Overlay	25	20	5	3000	SF	\$3.28	\$4.25	\$12,741	
964728	Pedestrian Pavement, Sidewalk, Concrete Sections Replace Expansion Joints, Replace	30	30	0	150	SF	\$19.00	\$24.60	\$3,690	\$3,690
961599	Interior Stairs, Handrails, Metal, Modify	25	25	0	450	LF	\$50.00	\$64.74	\$29,131	\$29,131
963695	Engineer, HVAC System, Controls Re-Balance, Evaluate/Report	0	0	0	1	EA	\$5,000.00	\$6,473.50	\$6,474	\$6,474
Totals, Unescalated										\$218,746
Totals, Escalated (3.0% inflation, compounded annually)										\$218,746

* Markup/LocationFactor (1.21) has been included in unit costs. Markup includes a and 7% Design and Permits factors applied to the location adjusted unit cost.

2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	:	Estimate					
		\$8,076												\$8,076					
							\$8,076							\$8,076					
	\$232,106													\$232,106					
		\$1,933												\$1,933					
			\$346,209											\$346,209					
		\$10,294												\$10,294					
				\$6,577										\$6,577					
				\$10,294										\$10,294					
				\$38,070										\$38,070					
				\$10,294										\$10,294					
				\$10,294										\$10,294					
				\$10,294										\$10,294					
				\$10,294										\$10,294					
							\$16,326							\$16,326					
														\$135,550					
										\$26,279				\$52,559					
														\$15,867					
		\$15,867												\$15,867					
				\$25,456						\$25,456				\$50,912					
				\$11,190						\$11,190				\$22,380					
						\$12,025								\$12,025					
						\$8,214								\$8,214					
						\$16,531								\$16,531					
						\$6,013								\$6,013					
						\$16,034								\$16,034					
						\$8,243								\$8,243					
		\$1,378				\$1,378				\$1,378		\$1,378		\$5,510					
				\$12,741										\$12,741					
														\$3,690					
														\$29,131					
														\$6,474					
\$0	\$232,106	\$530,129	\$349,439	\$428,887	\$24,851	\$42,782	\$50,056	\$0	\$476,944	\$6,571	\$0	\$1,378	\$6,571	\$305,562	\$405,161	\$12,096	\$7,054	\$9,801	\$3,108,132
\$0	\$246,241	\$579,286	\$393,297	\$497,198	\$29,674	\$52,617	\$63,410	\$0	\$640,973	\$9,095	\$0	\$2,023	\$9,939	\$476,055	\$650,164	\$19,992	\$12,010	\$17,186	\$3,917,905

EXISTING BUILDING ANALYSIS

STUDENT SERVICES BUILDING STRUCTURAL REPORT

The following 31 pages is the Structural Assessment Report for the Student Services Center, prepared by Hohbach-Lewin, Inc.

Structural Assessment Report

Student Service Center

College of Marin, Kentfield Campus

Kentfield, Marin County, CA



Prepared for:
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By



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July 31, 2018

Project No: 13096E

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1.0 INTRODUCTION

1.1 General

The objective of this report is to present the results of the structural engineering evaluation for the Student Service Center building, located on the College of Marin Campus in Kentfield, CA.

1.2 Scope of Work

We have provided the following structural engineering services associated with the evaluation of the subject building:

- 1) Reviewed available design drawings.
- 2) Visited the subject building to observe existing structural conditions.
- 3) Performed a limited qualitative evaluation of the building's existing gravity and lateral force resisting systems. Non-structural features were not necessarily addressed.
- 4) Written this report covering the following items:
 - a) Assessment of structural condition.
 - b) Evaluation of the existing building's seismic force resisting capacity.

Assessments, conclusions, and/or recommendations contained within this report are based upon observations made during our site visits on May 24, 2018 and June 22, 2018, review of available construction drawings, and our experience evaluating other structures of similar configuration, construction type, age and location. We have performed a cursory review of the building's existing gravity and lateral system; minimal calculations have been performed.

1.3 Review of Documentation

The design documents reviewed consisted of the original building drawings, geotechnical reports and structural assessment reports as follows:

1. "College of Marin, Student Center, Kentfield, CA", architectural drawings A-1 through A-18 by Falk & Booth, 1964. Structural drawings S-1 through S-8 by Falk & Booth, 1964.
2. "Baseline Geologic Hazards Study, College of Marin, Kentfield Campus, Kentfield, Marin County, California" by Fugro West, Inc. dated December 15, 2005.
3. "Geotechnical Investigation and Geologic Hazards Study, New Academic Center, College of Marin Kentfield Campus, Marin County, California" by A3GEO dated January 18, 2012.

1.4 Limitations

Services associated with the preparation of this report were performed by Hohbach-Lewin in a manner consistent with the level of care and skill ordinarily exercised by members of the structural engineering profession currently practicing under similar conditions. No other warranty, expressed or implied, is made. The report is based on a limited review of the building and was prepared solely for the use of WLC Architects. No third party shall have the right to rely on opinions expressed herein without both WLC Architect's and Hohbach-Lewin, Inc.'s written consent. The actual structural characteristics of the

building could not be fully assessed since limited calculations were performed. In addition, architectural finishes conceal many features of the structure throughout. Information not available under these conditions to Hohbach-Lewin and hidden construction quality conditions could alter the structural characteristics of the building from what is inferred in this report.

1.5 Reference Documents

ASCE/SEI 41-13 American Society of Civil Engineers – Seismic Evaluation and Retrofit of Existing Buildings, 2013

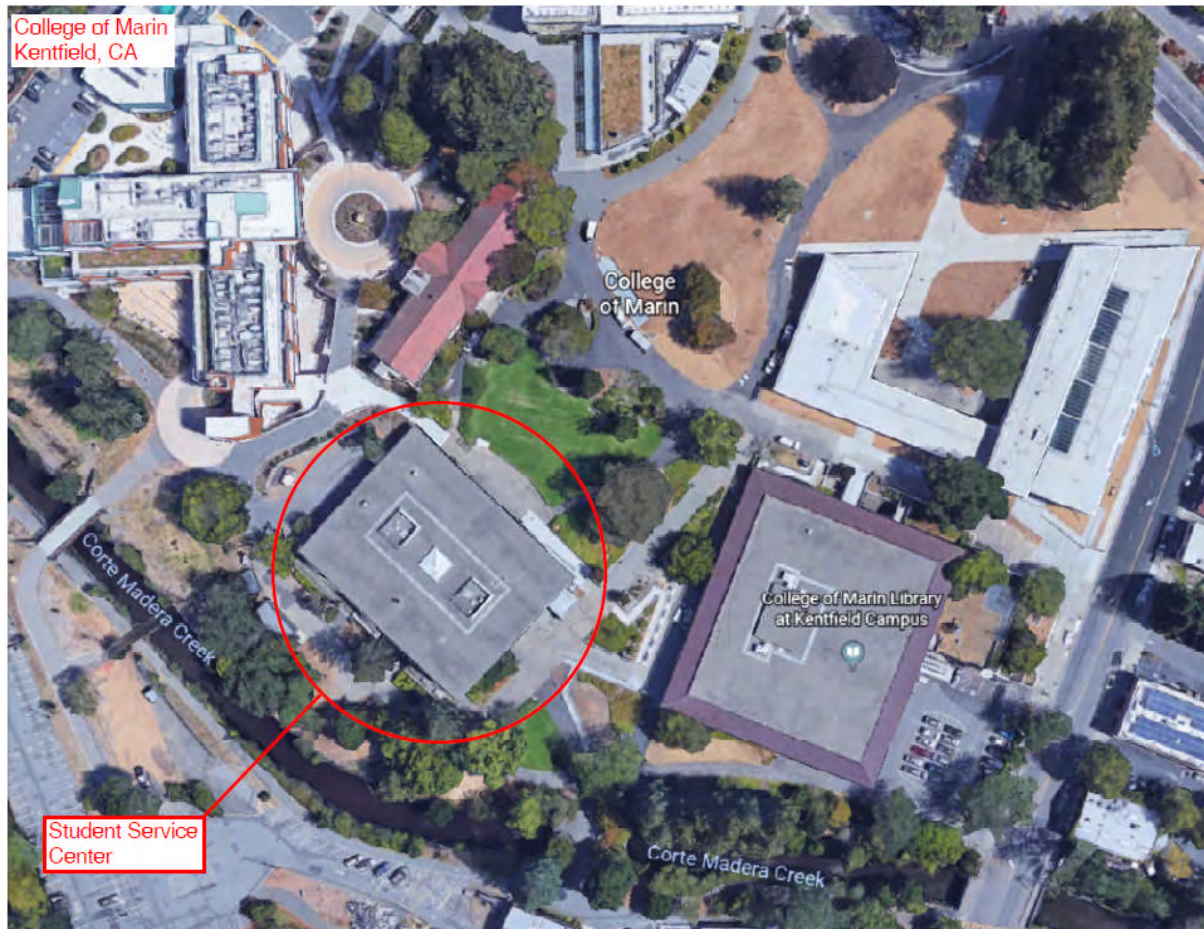


Figure 1.1 – Vicinity Map

2.0 BUILDING DESCRIPTION

2.1 General

The subject building is located on the College of Marin campus south of Sir Francis Drake Boulevard and between the Science/Math/Central Plant Complex and Learning Resource Center with the south side of the building following Corte Madera Creek. The two story structure was originally constructed around 1966 with dimensions of approximately 160 feet by 120 feet in plan. The structure is steel and concrete construction from the roof to the second floor with masonry shear walls and steel retrofit braces in each direction. From the second floor to the foundation, the structure is reinforced concrete construction with masonry and concrete shear walls in each direction.

The site generally slopes down from the north side of the building to the south to Corte Madera Creek.

2.2 Site Visit Report

The observed in-place construction appeared to generally match the design documents reviewed except for the following differences: two 2-story elevators, new skylight at center of the roof, and chevron braces from the second floor to roof around the exterior masonry walls and at the above the walls near the stairs. Most of the roof and floor framing in the areas readily accessible were concealed by finishes. The exposed exterior concrete framing and masonry walls appeared to be in good condition considering the age of the structure.

2.3 Gravity System Description

The structural flat roof is insulating concrete on a 3" metal deck on structural steel beams spanning to steel girders running in the east west direction. The steel girders are supported on steel stub columns embedded in reinforced concrete columns that extend from the foundation to 7'-3" above the second floor. The steel stub columns are encased in the concrete columns below and surrounded by precast concrete capitals at the roof level. The steel framing members spanning over the exterior masonry walls are anchored to the top of the wall. At the center of the roof, there is an opening for a new skylight that was not part of the original roof design.

The second floor framing for the building is reinforced concrete construction with a 2½" topping slab over precast pre-stressed tee sections spanning in the east-west direction from the exterior masonry walls to interior masonry walls and steel beams spanning to steel columns.

The first floor is reinforced concrete construction with a 4" thick slab on grade.

The concrete columns, walls, and masonry walls supporting the structure above bears on a foundation system of reinforced spread footings except below the masonry shear walls along the south wall of the building which are connected to reinforced concrete caissons at each end of the wall segment.

2.4 Lateral System Description

Seismic forces will be generated by ground accelerations acting on the structure. The forces acting on the building will be resisted primarily by the horizontal diaphragms distributing the forces to the vertical lateral force resisting elements. The vertical lateral force resisting elements for the structure are a combination of reinforced concrete and masonry shear walls supported on reinforced spread footings. Review of the original design drawings and current building conditions indicate that a large length of masonry shear wall along the west wall at the second story has been removed. We were unable to obtain drawings or calculations related to this work nor of the steel chevron braced frames visible at the second story on all sides of the building.

The roof metal deck is expected to act as a flexible diaphragm and deliver lateral forces to the reinforced masonry shear walls and braces below. The thickness of the existing reinforced masonry walls that are expected to act as shear walls are 11". It is unclear if the braces are adequately connected to the roof diaphragm and second floor level for seismic force transfer. More information is needed regarding the retrofit work that has already been performed to accurately analyze the structure in the current condition.

The second floor reinforced concrete topping slab is expected to act as a rigid diaphragm and deliver the lateral forces to the reinforced concrete or masonry shear walls below. The thickness of the existing reinforced concrete and masonry walls that are expected to act as shear walls are 11".

3.0 SITE SOILS AND SEISMICITY

3.1 Geotechnical Conditions

Geotechnical and Geologic Hazard reports for the site by Fugro West, Inc. dated December 2005 and by A3GEO dated January 2012. Per the reports the area around the site is underlain by sandstone and shale rock. However, no borings were taken near the existing structure. Since the site is near Corte Madera Creek, additional geotechnical and geological testing is required to accurately determine the site's specific soil composition and geologic hazard potential.

3.2 Seismicity

The site is located in a region of high seismic risk due to its proximity to several major faults. Per the procedures outlined in ASCE-41 the Basic Performance Objective for Existing Buildings (BPOE) for Risk Category III, Tier 1 evaluations require checks for the Life Safety Structural Performance Level at the BSE-1E Seismic Hazard Level which is the seismic event with a return interval of 225 years, or a 20 percent probability of exceedance in 50 years. Per USGS for the site location $S_s = 1.500g$ and $S_1 = 0.601g$ which for site soil classification Class D the design short-period spectral response acceleration parameter, $S_{xs} = 0.962g$, and the design spectral response acceleration parameter at a 1-second period, $S_{x1} = 0.566g$. The USGS site specific parameters are used to seismically evaluate the building per ASCE-41 criteria.

3.3 Local Seismic Hazards

Local seismic hazards play a large role in the degree to which strong motions from earthquakes actually affect the subject property location. These local hazards consist of fault rupture, soil amplification, soil liquefaction, and landslide susceptibility.

The State of California has undertaken an ongoing effort to map areas of potential surface fault rupture for the purposes of restricting future construction for human occupancy. These maps are maintained by the California Geological Survey (CGS) and are called Earthquake Fault Zone (formerly known as Alquist-Priolo Special Studies Zone) Maps. Earthquake Fault Zones (EFZ) delineate areas that have experienced fault displacement in the last 11,000 years (i.e. Holocene time). Properties within these zones are at risk from additional damage due to surface displacements. There are no zoned active faults within the USGS 7.5 minute quadrangle and at the present time no CGS Seismic Hazard Zone map for the area, therefore the building site is not located within an identified Earthquake Fault Zone. At present, there is no restriction to site usage or development due to local fault surface rupture hazard.

Seismic energy is transmitted by the earth's brittle crust and then upward through the soil layers on top of the earth's crust until it reaches the surface. According to the stratigraphy of the soils beneath the subject property location, arriving energy waves may be amplified -- thereby increasing the intensity of shaking at the surface. In general, deep alluvial soil, thick muddy deposits, and areas of un-engineered fills tend to significantly amplify earthquake energy. Firmer soils or shallow alluvial soils tend to only moderately amplify earthquake energy. Hard soil or rocky outcroppings tend to produce little or no amplification of earthquake energy.

The California Department of Conservation has developed Seismic Hazard Zone maps for identifying where potential liquefaction and earthquake-induced landslides may occur in the event of a major seismic event. These maps are used to indicate where the liquefaction and landslide risks should be evaluated on a site-specific basis.

Per the geotechnical report the site of the subject property lies within a potential liquefaction zone as defined by the California Geologic Survey (CGS) Seismic Hazard Zones Map for the West San Jose Quadrangle. The 2005 geotechnical report by Fugro includes a liquefaction evaluation and analysis for the campus. Based on the evaluation the conclusion was that the potential for hazards associated with liquefaction at the campus is relatively low. However, no boring were taken near the structure's site. Additional geological test of the site specific area is required to verify the likelihood of liquefaction occurring.

Per the Seismic Hazard Zone maps developed by California Department of Conservation, the subject site does not occur in an area with a risk of landslides nor is it situated on or in close proximity to any significant slopes or hillsides. The structure is located in a valley adjacent to the Corte Madera Creek which is subject to flooding during periods of high rainfall.

4.0 LATERAL ANALYSIS

4.1 ASCE 41-13 Analysis

An ASCE/SEI 41-13 Tier 1 screening was performed, utilizing the evaluation statements applicable to a, "Life Safety" performance objective. A, "Life Safety", performance objective is defined by accepting moderate post-earthquake damage to structural elements. The expected damage is defined in ASCE 41-13, Table C2-3 as follows:

"Some residual strength and stiffness left in all stories. Gravity-load-bearing elements function. No out-of-plane failure of walls. Some permanent drift. Damage to partitions. Continued occupancy might not be likely before repair. Building might not be economical to repair."

The material strengths and properties were not listed on the design drawings reviewed. For the purposes of this review and assessment, the strengths and properties used were based on the values from ASCE-41 for buildings built in the same time period. Material testing was not performed.

The building was classified as: "Reinforced Masonry Bearing Walls with Flexible Diaphragms (RM1)", "Concrete Shear Walls with Stiff Diaphragms (C2)" and "Reinforced Masonry Bearing Walls with Stiff Diaphragms (RM2)" based on the construction type and predominant elements of the lateral force resisting systems. These worksheets require that fundamental elements of the lateral force resisting system (LFRS) be identified as "Compliant" (C) or "Non-Compliant" (NC). Compliant statements identify issues that are acceptable according to the criteria of the ASCE 41. Non-compliant statements identify issues that require further investigation. For some items the checklist will be marked Not Applicable (N/A) or Unknown (U) as appropriate to the structure. The ASCE 41 checklists are included in Appendix A of this report.

Due to the general nature, the checklists only identify potential deficiencies. Furthermore, the checklists do not address every possible deficiency. An ASCE-41 checklist is included in Appendix A. The following ASCE 41-13 defined deficiencies were found for the subject building:

1. Load Path: The connections of the steel deck roof diaphragm and second floor topping slab over precast concrete tee do not appear to have the capacity to transfer the in-plane wall forces to the masonry and concrete shear walls. See Figure 2 and Figure 3.
2. Wall Anchorage: The connections of the masonry wall appear to have the connection capacity to transfer the out-of-plane wall force to the roof framing. However preliminary calculations indicate the top of the masonry wall does not have the capacity to span horizontally to transfer out-of-plane wall loads to the anchors and roof framing. See Figure 3, Figure 8 and Figure 9.
3. Geometry: There is more than 30% additional masonry shear wall length for the first story seismic force resisting system compared to the second story in each direction. Additional Tier 2 analysis is required.
4. Torsion: The second story does not appear to be torsionally irregular since the metal deck should act as a flexible diaphragm and the shear walls are approximately equal on the opposing sides of the building. The second floor diaphragm seems to be torsionally irregular in the east-west direction because the north shear wall is more rigid than the

south shear walls causing the center of rigidity to be more than 20% of the building width from the building's center of mass. See Figure 1 and Figure 4.

5. Shear Stress: The second story reinforced masonry shear walls appear to be overstressed in each orthogonal direction. The first story reinforced masonry shear walls appear to be overstressed in the east-west direction. See Figure 1 and Figure 4.
6. Topping Slab: Preliminary calculations indicate the second floor topping slab does not have the shear capacity to resist the diaphragm forces. See Figure 2.
7. Transfer to Shear Walls: For each story, the in-plane diaphragm to masonry shear wall connections do not appear to have the capacity to transfer the seismic forces to the masonry shear walls. See Figure 2, Figure 3, and Figure 5-Figure 9.
8. Topping Slab to Walls or Frames: The second floor reinforced topping slab diaphragm does not appear have the shear capacity to transfer the seismic forces to the masonry walls. See Figure 2, and Figure 5-Figure 7.
9. Openings at shear walls: The second floor interior reinforced masonry shear walls between lines B and C are directly adjacent to a diaphragm opening for the complete length of the wall. See Figure 2, and Figure 5-Figure 7.
10. Cross Ties: For the roof, there are continuous cross-ties in the north-south direction. For the east-west direction, it does not appear to have adequate continuous cross-ties pending additional calculation. See Figure 3.

The most serious of the noted deficiencies is the lack of shear wall at the roof in both directions, lack of shear wall at the second floor in the east-west direction, inadequate in plane anchorage of the concrete and masonry walls to the structures' diaphragms, shear capacity of the second floor diaphragm, and a lack of continuous cross ties at the roof.

If the deficiencies identified by ASCE 41-13 are mitigated, particularly the in-plane wall anchorage at the roof and second floor diaphragms, cross ties at the flexible roof diaphragm, shear capacity of the second floor diaphragm, and shear capacity at the roof and second floor shear walls along with additional tier 2 and tier 3 analysis, this building could be strengthened to a life safety performance level in a major seismic event.

4.2 Stability Assessment

This building may not remain stable under the seismic loading resulting from a 475 year return period earthquake (a current code level design earthquake) due to the inadequate in-plane wall anchorage at the roof diaphragm and inadequate transfer capacity at the roof to shear wall connections.

4.3 Regulatory Issues

Community Colleges in California are currently required to meet the provisions of the 2016 California Building Code. Existing Buildings must conform to the 2016 California Existing Building Code.

In addition to the deficiencies noted above, there are numerous features of the building that do not conform to current code, including the reinforcement detailing in most element, triggering a requirement for conformance to current code would be problematic.

4.4 Seismic Retrofit Recommendations

- We recommend installing new in plane and out of plane wall anchorage at all of the masonry walls adjacent to the steel roof and in plane wall anchor at concrete and masonry walls to

second floor concrete diaphragms. Additionally, we recommend that all existing wall anchorage be verified when finishes and/or ceilings are removed during construction. See Figure 2, Figure 3, and Figure 5-Figure 9.

- We request additional information on the steel chevron brace retrofit work to determine if additional strengthening is required at the roof and second floor levels. We recommend increasing the lateral force resisting capacity of the exterior wall at the second floor at the south end of the building. Adding additional lateral force resisting capacity to the south side of the building at the second floor will help alleviate torsional irregularities as well as strengthen the seismic resisting system in the east-west direction. See Figure 1 and Figure 4.
- We recommend pouring a concrete slab over the topping slab or strengthen the rigid floor diaphragm in some other less obtrusive manner. See Figure 2, and Figure 5-Figure 7.
- Additional strengthening work could be made to the structure to improve seismic performance, but those efforts are considered of secondary importance.

APPENDIX C SUMMARY DATA SHEET

BUILDING DATA

Building Name: Student Service Center Date: 6/20/2018
 Building Address: College of Marin, Kentfield, CA
 Latitude: 37.95499 Longitude: -122.55016 By: DAW
 Year Built: 1966 Year(s) Remodeled: _____ Original Design Code: 1961 UBC
 Area (sf): _____ Length (ft): 160 ft Width (ft): 120 ft
 No. of Stories: 2 storys Story Height: 12'-3" Total Height: 24'-6"

USE Industrial Office Warehouse Hospital Residential Educational Other: _____

CONSTRUCTION DATA

Gravity Load Structural System: Roof: Metal deck over steel framing; Floor: topping slab over precast tee section supported by wall and columns
 Exterior Transverse Walls: Reinforced Masonry Wall and Reinforced Concrete Walls Openings? _____
 Exterior Longitudinal Walls: Reinforced Masonry Wall and Reinforced Concrete Walls Openings? _____
 Roof Materials/Framing: Metal deck over steel framing
 Intermediate Floors/Framing: Topping slab over precast tee section supported by wall and columns
 Ground Floor: Slab on grade
 Columns: Roof: steel columns; Floor: concrete columns Foundation: Spread footing
 General Condition of Structure: Good
 Levels Below Grade? None
 Special Features and Comments: Braces were added to the roof seismic force resisting system.

LATERAL-FORCE-RESISTING SYSTEM

	Longitudinal	Transverse
System:	<u>Reinf. conc. and masonry shear walls and braces for both direction</u>	
Vertical Elements:	<u>Shear walls</u>	<u>Shear walls</u>
Diaphragms:	<u>Roof: metal deck; Floor: topping slab</u>	<u>Roof: metal deck; Floor: topping slab</u>
Connections:	<u>Rebar and anchor bolts</u>	<u>Rebar and anchor bolts</u>

EVALUATION DATA

BSE-1N Spectral Response Accelerations: $S_{DN} =$ 1.000g $S_{D1} =$ 0.601g
 Soil Factors: Class = D $F_s =$ 1.0 $F_1 =$ 1.5
 BSE-1E Spectral Response Accelerations: $S_{N1} =$ 0.962g $S_{X1} =$ 0.556g
 Level of Seismicity: High Performance Level: Life-safety
 Building Period: $T =$ 0.220 sec
 Spectral Acceleration: $S_s =$ 0.962
 Modification Factor: $C_m C_1 C_2 =$ 1.2 Building Weight: $W =$ 6023 kips
 Pseudo Lateral Force: $V =$ _____
 $C_m C_1 C_2 S_s W =$ 6953 kips

BUILDING CLASSIFICATION: Roof: RM1; Floor: RM2 and C2

REQUIRED TIER 1 CHECKLISTS

	Yes	No
Basic Configuration Checklist	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Building Type <u>→</u> Structural Checklist	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Nonstructural Component Checklist	<input type="checkbox"/>	<input checked="" type="checkbox"/>

FURTHER EVALUATION REQUIREMENT: Yes. Obtain information on previous alterations and retrofit work.

Project: Student Service Center

Location: 835 College Ave, Kentfield, CA

Completed by: DAW

Date: 6/20/2018

TIER 1 CHECKLISTS

16.1 BASIC CHECKLIST

Very Low Seismicity

Structural Components

- C (NC) N/A U LOAD PATH: The structure shall contain a complete, well-defined load path, including structural elements and connections, that serves to transfer the inertial forces associated with the mass of all elements of the building to the foundation. (Commentary: Sec. A.2.1.1, Tier 2; Sec. 5.4.1.1)
- C (NC) N/A U WALL ANCHORAGE: Exterior concrete or masonry walls that are dependent on the diaphragm for lateral support are anchored for out-of-plane forces at each diaphragm level with steel anchors, reinforcing dowels, or straps that are developed into the diaphragm. Connections shall have adequate strength to resist the connection force calculated in the Quick Check procedure of Section 4.5.3.7. (Commentary: Sec. A.5.1.1, Tier 2; Sec. 5.7.1.1) MASONRY WALL CANNOT DELIVER THE OUT-OF-PLANE FORCES TO THE ANCHOR BOLTS AT ROOF.

Project: Student Service Center

Location: 835 College Ave, Kentfield, CA

Completed by: DAW

Date: 6/20/2018

16.1.2LS LIFE SAFETY BASIC CONFIGURATION CHECKLIST

Low Seismicity

Building System

General

- C (NC) N/A U LOAD PATH: The structure shall contain a complete, well defined load path, including structural elements and connections, that serves to transfer the inertial forces associated with the mass of all elements of the building to the foundation. (Commentary: Sec. A.2.1.1. Tier 2: Sec. 5.4.1.1)
- (C) NC N/A U ADJACENT BUILDINGS: The clear distance between the building being evaluated and any adjacent building is greater than 4% of the height of the shorter building. This statement shall not apply for the following building types: W1, W1a, and W2. (Commentary: Sec. A.2.1.2. Tier 2: Sec. 5.4.1.2)
- C NC (N/A) U MEZZANINES: Interior mezzanine levels are braced independently from the main structure or are anchored to the seismic-force-resisting elements of the main structure. (Commentary: Sec. A.2.1.3. Tier 2: Sec. 5.4.1.3)

Building Configuration

- (C) NC N/A U WEAK STORY: The sum of the shear strengths of the seismic-force-resisting system in any story in each direction is not less than 80% of the strength in the adjacent story above. (Commentary: Sec. A.2.2.2. Tier 2: Sec. 5.4.2.1)
- (C) NC N/A U SOFT STORY: The stiffness of the seismic-force-resisting system in any story is not less than 70% of the seismic-force-resisting system stiffness in an adjacent story above or less than 80% of the average seismic-force-resisting system stiffness of the three stories above. (Commentary: Sec. A.2.2.3. Tier 2: Sec. 5.4.2.2)
- (C) NC N/A U VERTICAL IRREGULARITIES: All vertical elements in the seismic-force-resisting system are continuous to the foundation. (Commentary: Sec. A.2.2.4. Tier 2: Sec. 5.4.2.3)
- C (NC) N/A U GEOMETRY: There are no changes in the net horizontal dimension of the seismic-force-resisting system of more than 30% in a story relative to adjacent stories, excluding one-story penthouses and mezzanines. (Commentary: Sec. A.2.2.5. Tier 2: Sec. 5.4.2.4)
- (C) NC N/A U MASS: There is no change in effective mass more than 50% from one story to the next. Light roofs, penthouses, and mezzanines need not be considered. (Commentary: Sec. A.2.2.6. Tier 2: Sec. 5.4.2.5)
- C (NC) N/A U TORSION: The estimated distance between the story center of mass and the story center of rigidity is less than 20% of the building width in either plan dimension. (Commentary: Sec. A.2.2.7. Tier 2: Sec. 5.4.2.6)
IN EAST-WEST DIRECTION AT FIRST STORY

Moderate Seismicity: Complete the Following Items in Addition to the Items for Low Seismicity.

Geologic Site Hazards

- (C) NC N/A U LIQUEFACTION: Liquefaction-susceptible, saturated, loose granular soils that could jeopardize the building's seismic performance shall not exist in the foundation soils at depths within 50 ft under the building. (Commentary: Sec. A.6.1.1. Tier 2: 5.4.3.1)
- (C) NC N/A U SLOPE FAILURE: The building site is sufficiently remote from potential earthquake-induced slope failures or rockfalls to be unaffected by such failures or is capable of accommodating any predicted movements without failure. (Commentary: Sec. A.6.1.2. Tier 2: 5.4.3.1)
- (C) NC N/A U SURFACE FAULT RUPTURE: Surface fault rupture and surface displacement at the building site are not anticipated. (Commentary: Sec. A.6.1.3. Tier 2: 5.4.3.1)

High Seismicity: Complete the Following Items in Addition to the Items for Low and Moderate Seismicity.

Foundation Configuration

- (C) NC N/A U OVERTURNING: The ratio of the least horizontal dimension of the seismic-force-resisting system at the foundation level to the building height (base/height) is greater than $0.6S_p$. (Commentary: Sec. A.6.2.1. Tier 2: Sec. 5.4.3.3)
- (C) NC N/A U TIES BETWEEN FOUNDATION ELEMENTS: The foundation has ties adequate to resist seismic forces where footings, piles, and piers are not restrained by beams, slabs, or soils classified as Site Class A, B, or C. (Commentary: Sec. A.6.2.2. Tier 2: Sec. 5.4.3.4)

Project: Student Service Center

Location: 858 College Ave, Kentfield, CA

Completed by: DAW

Date: 6/20/2018

16.15LS LIFE SAFETY STRUCTURAL CHECKLIST FOR BUILDING TYPES RM1: REINFORCED MASONRY BEARING WALLS WITH FLEXIBLE DIAPHRAGMS AND RM2: REINFORCED MASONRY BEARING WALLS WITH STIFF DIAPHRAGMS

Low and Moderate Seismicity

Seismic-Force-Resisting System

- C NC N/A U REDUNDANCY: The number of lines of shear walls in each principal direction is greater than or equal to 2. (Commentary: Sec. A.3.2.1.1, Tier 2; Sec. 5.5.1.1)
- C NC N/A U SHEAR STRESS CHECK: The shear stress in the reinforced masonry shear walls, calculated using the Quick Check procedure of Section 4.5.3.3, is less than 70 lb/in.². (Commentary: Sec. A.3.2.4.1, Tier 2; Sec. 5.5.3.1.1)
- C NC N/A U REINFORCING STEEL: The total vertical and horizontal reinforcing steel ratio in reinforced masonry walls is greater than 0.002 of the wall with the minimum of 0.0007 in either of the two directions; the spacing of reinforcing steel is less than 48 in., and all vertical bars extend to the top of the walls. (Commentary: Sec. A.3.2.4.2, Tier 2; Sec. 5.5.3.1.3)

Stiff Diaphragms

- C NC N/A U TOPPING SLAB: Precast concrete diaphragm elements are interconnected by a continuous reinforced concrete topping slab. (Commentary: Sec. A.4.5.1, Tier 2; Sec. 5.6.4) **DIAPHRAGM SHEAR FORCE IS GREATER THAN DIAPHRAGM SHEAR CAPACITY AT FIRST STORY**
- Connections**
- C NC N/A U WALL ANCHORAGE: Exterior concrete or masonry walls that are dependent on the diaphragm for lateral support are anchored for out-of-plane forces at each diaphragm level with steel anchors, reinforcing dowels, or straps that are developed into the diaphragm. Connections shall have adequate strength to resist the connection force calculated in the Quick Check procedure of Section 4.5.3.7. (Commentary: Sec. A.5.1.1, Tier 2; Sec. 5.7.1.1) **MASONRY WALL CANNOT DELIVER OUT-OF-PLANE FORCES TO A, B AT ROOF**
- C NC N/A U WOOD LEDGERS: The connection between the wall panels and the diaphragm does not induce cross-grain bending or tension in the wood ledgers. (Commentary: Sec. A.5.1.2, Tier 2; Sec. 5.7.1.3)
- C NC N/A U TRANSFER TO SHEAR WALLS: Diaphragms are connected for transfer of seismic forces to the shear walls. (Commentary: Sec. A.5.2.1, Tier 2; Sec. 5.7.2)
- C NC N/A U TOPPING SLAB TO WALLS OR FRAMES: Reinforced concrete topping slabs that interconnect the precast concrete diaphragm elements are doweled for transfer of forces into the shear wall or frame elements. (Commentary: Sec. A.5.2.3, Tier 2; Sec. 5.7.2)
- C NC N/A U FOUNDATION DOWELS: Wall reinforcement is doweled into the foundation. (Commentary: Sec. A.5.3.5, Tier 2; Sec. 5.7.3.4)
- C NC N/A U GIRDER-COLUMN CONNECTION: There is a positive connection using plates, connection hardware, or straps between the girder and the column support. (Commentary: Sec. A.5.4.1, Tier 2; Sec. 5.7.4.1)

High Seismicity: Complete the Following Items in Addition to the Items for Low and Moderate Seismicity.

Stiff Diaphragms

- C NC N/A U OPENINGS AT SHEAR WALLS: Diaphragm openings immediately adjacent to the shear walls are less than 25% of the wall length. (Commentary: Sec. A.4.1.4, Tier 2; Sec. 5.6.1.3) **AT FIRST STORY**
- C NC N/A U OPENINGS AT EXTERIOR MASONRY SHEAR WALLS: Diaphragm openings immediately adjacent to exterior masonry shear walls are not greater than 8 ft long. (Commentary: Sec. A.4.1.6, Tier 2; Sec. 5.6.1.3)

Flexible Diaphragms

- C NC N/A U CROSS TIES: There are continuous cross ties between diaphragm chords. (Commentary: Sec. A.4.1.2, Tier 2; Sec. 5.6.1.2) **IN EAST-WEST DIRECTION AT ROOF.**
- C NC N/A U OPENINGS AT SHEAR WALLS: Diaphragm openings immediately adjacent to the shear walls are less than 25% of the wall length. (Commentary: Sec. A.4.1.4, Tier 2; Sec. 5.6.1.3)
- C NC N/A U OPENINGS AT EXTERIOR MASONRY SHEAR WALLS: Diaphragm openings immediately adjacent to exterior masonry shear walls are not greater than 8 ft long. (Commentary: Sec. A.4.1.6, Tier 2; Sec. 5.6.1.3)

- C NC (N/A) U STRAIGHT SHEATHING: All straight sheathed diaphragms have aspect ratios less than 2-to-1 in the direction being considered. (Commentary: Sec. A.4.2.1, Tier 2: Sec. 5.6.2)
- C NC (N/A) U SPANS: All wood diaphragms with spans greater than 24 ft consist of wood structural panels or diagonal sheathing. (Commentary: Sec. A.4.2.2, Tier 2: Sec. 5.6.2)
- C NC (N/A) U DIAGONALLY SHEATHED AND UNBLOCKED DIAPHRAGMS: All diagonally sheathed or unblocked wood structural panel diaphragms have horizontal spans less than 40 ft and aspect ratios less than or equal to 4-to-1. (Commentary: Sec. A.4.2.3, Tier 2: Sec. 5.6.2)
- (C) NC N/A U OTHER DIAPHRAGMS: The diaphragm shall not consist of a system other than wood, metal deck, concrete, or horizontal bracing. (Commentary: Sec. A.4.7.1, Tier 2: Sec. 5.6.5)

Connections

- C NC (N/A) U STIFFNESS OF WALL ANCHORS: Anchors of concrete or masonry walls to wood structural elements are installed taut and are stiff enough to limit the relative movement between the wall and the diaphragm to no greater than 1/8 in. before engagement of the anchors. (Commentary: Sec. A.5.1.4, Tier 2: Sec. 5.7.1.2)

Project: Student Service Center

Location: 835 College Ave, Kentfield

Completed by: DAW

Date: 6/20/2018

16.10LS LIFE SAFETY STRUCTURAL CHECKLIST FOR BUILDING TYPES C2: CONCRETE SHEAR WALLS WITH STIFF DIAPHRAGMS AND C2A: CONCRETE SHEAR WALLS WITH FLEXIBLE DIAPHRAGMS

Low and Moderate Seismicity

Seismic-Force-Resisting System

- C NC N/A U COMPLETE FRAMES: Steel or concrete frames classified as secondary components form a complete vertical-load-carrying system. (Commentary: Sec. A.3.1.6.1, Tier 2; Sec. 5.5.2.5.1)
- C NC N/A U REDUNDANCY: The number of lines of shear walls in each principal direction is greater than or equal to 2. (Commentary: Sec. A.3.2.1.1, Tier 2; Sec. 5.5.1.1)
- C NC N/A U SHEAR STRESS CHECK: The shear stress in the concrete shear walls, calculated using the Quick Check procedure of Section 4.5.3.3, is less than the greater of 100 lb/in.^2 or $2\sqrt{f'_c}$. (Commentary: Sec. A.3.2.2.1, Tier 2; Sec. 5.5.3.1.1)
- C NC N/A U REINFORCING STEEL: The ratio of reinforcing steel area to gross concrete area is not less than 0.0012 in the vertical direction and 0.0020 in the horizontal direction. (Commentary: Sec. A.3.2.2.2, Tier 2; Sec. 5.5.3.1.3)

Connections

- C NC N/A U WALL ANCHORAGE AT FLEXIBLE DIAPHRAGMS: Exterior concrete or masonry walls that are dependent on flexible diaphragms for lateral support are anchored for out-of-plane forces at each diaphragm level with steel anchors, reinforcing dowels, or straps that are developed into the diaphragm. Connections have adequate strength to resist the connection force calculated in the Quick Check procedure of Section 4.5.3.7. (Commentary: Sec. A.5.1.1, Tier 2; Sec. 5.7.1.1)
- C NC N/A U TRANSFER TO SHEAR WALLS: Diaphragms are connected for transfer of seismic forces to the shear walls. (Commentary: Sec. A.5.2.1, Tier 2; Sec. 5.7.2)
- C NC N/A U FOUNDATION DOWELS: Wall reinforcement is doweled into the foundation with vertical bars equal in size and spacing to the vertical wall reinforcing immediately above the foundation. (Commentary: Sec. A.5.3.5, Tier 2; Sec. 5.7.3.4)

High Seismicity: Complete the Following Items in Addition to the Items for Low and Moderate Seismicity.

Seismic-Force-Resisting System

- C NC N/A U DEFLECTION COMPATIBILITY: Secondary components have the shear capacity to develop the flexural strength of the components. (Commentary: Sec. A.3.1.6.2, Tier 2; Sec. 5.5.2.5.2)
- C NC N/A U FLAT SLABS: Flat slabs or plates not part of the seismic-force-resisting system have continuous bottom steel through the column joints. (Commentary: Sec. A.3.1.6.3, Tier 2; Sec. 5.5.2.5.3)
- C NC N/A U COUPLING BEAMS: The stirrups in coupling beams over means of egress are spaced at or less than $d/2$ and are anchored into the confined core of the beam with hooks of 135 degrees or more. The ends of both walls to which the coupling beam is attached are supported at each end to resist vertical loads caused by overturning. (Commentary: Sec. A.3.2.2.3, Tier 2; Sec. 5.5.3.2.1)

Connections

- C NC N/A U UPLIFT AT PILE CAPS: Pile caps have top reinforcement, and piles are anchored to the pile caps. (Commentary: Sec. A.5.3.8, Tier 2; Sec. 5.7.3.5)

Diaphragms (Flexible or Stiff)

- C NC N/A U DIAPHRAGM CONTINUITY: The diaphragms are not composed of split-level floors and do not have expansion joints. (Commentary: Sec. A.4.1.1, Tier 2; Sec. 5.6.1.1)
- C NC N/A U OPENINGS AT SHEAR WALLS: Diaphragm openings immediately adjacent to the shear walls are less than 25% of the wall length. (Commentary: Sec. A.4.1.4, Tier 2; Sec. 5.6.1.3)

Flexible Diaphragms

- C NC (N/A) U CROSS TIES: There are continuous cross ties between diaphragm chords. (Commentary: Sec. A.4.1.2. Tier 2: Sec. 5.6.1.2)
- C NC (N/A) U STRAIGHT SHEATHING: All straight sheathed diaphragms have aspect ratios less than 2-to-1 in the direction being considered. (Commentary: Sec. A.4.2.1. Tier 2: Sec. 5.6.2)
- C NC (N/A) U SPANS: All wood diaphragms with spans greater than 24 ft consist of wood structural panels or diagonal sheathing. (Commentary: Sec. A.4.2.2. Tier 2: Sec. 5.6.2)
- C NC (N/A) U DIAGONALLY SHEATHED AND UNBLOCKED DIAPHRAGMS: All diagonally sheathed or unblocked wood structural panel diaphragms have horizontal spans less than 40 ft and aspect ratios less than or equal to 4-to-1. (Commentary: Sec. A.4.2.3. Tier 2: Sec. 5.6.2)
- C NC (N/A) U OTHER DIAPHRAGMS: The diaphragm does not consist of a system other than wood, metal deck, concrete, or horizontal bracing. (Commentary: Sec. A.4.7.1. Tier 2: Sec. 5.6.5)



1. East Elevation at North End



2. South Elevation looking West



3. South Elevation looking East



4. West Elevation looking North



5. West Elevation



6. Steel Bracing at Northwest Corner



7. North Elevation



8. Steel Bracing at West Side of Atrium



9. Steel Bracing at East Side of Atrium



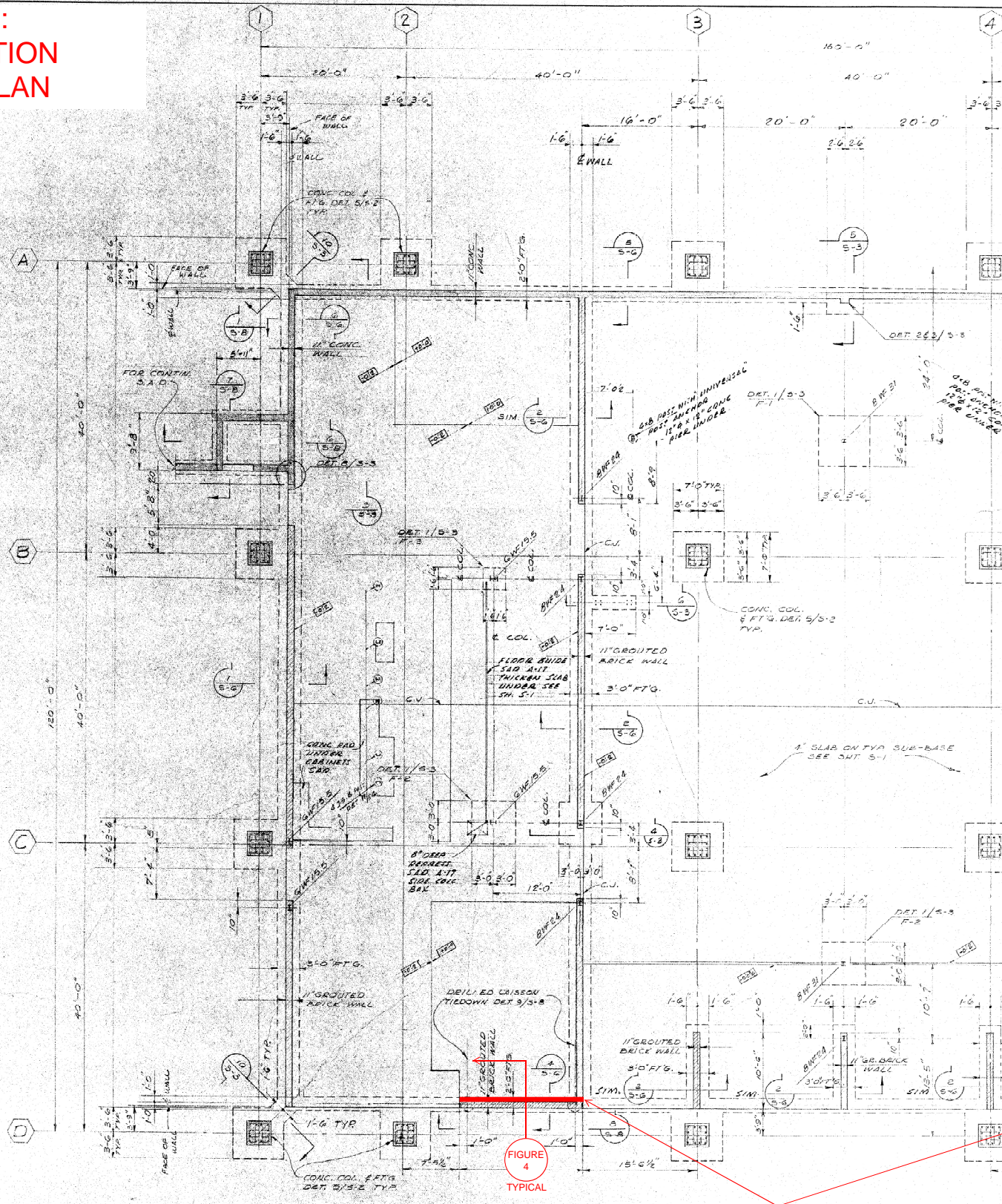
10.Elevator and Skylight at Atrium



11.East Elevation

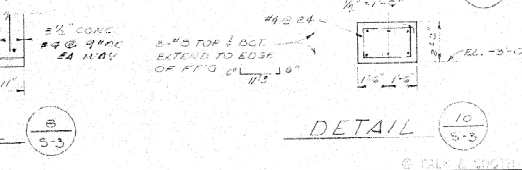
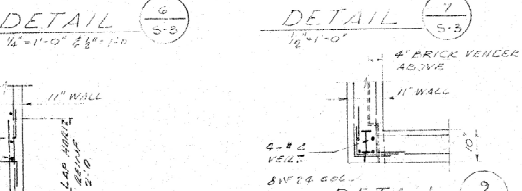
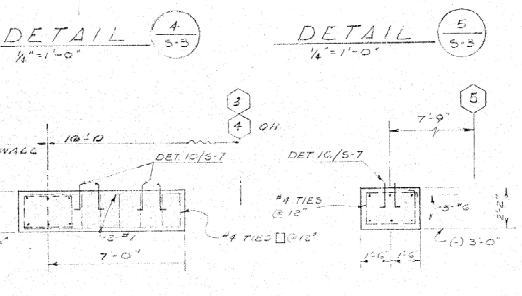
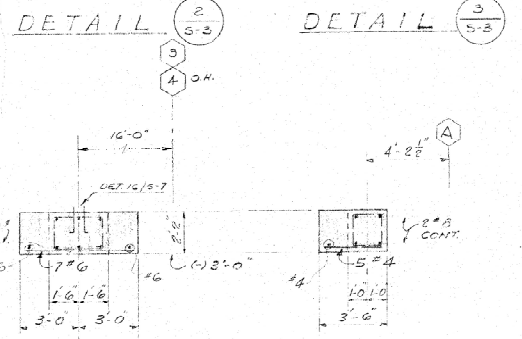
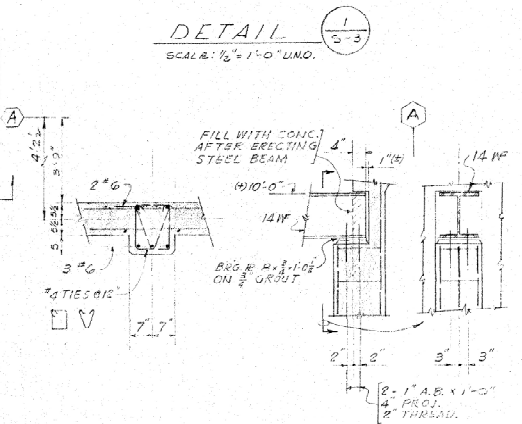
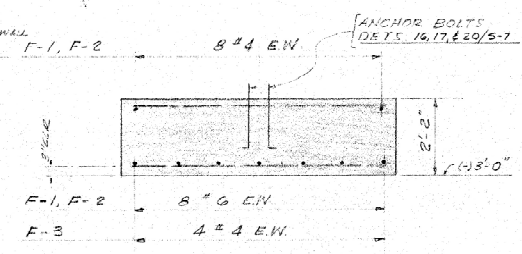
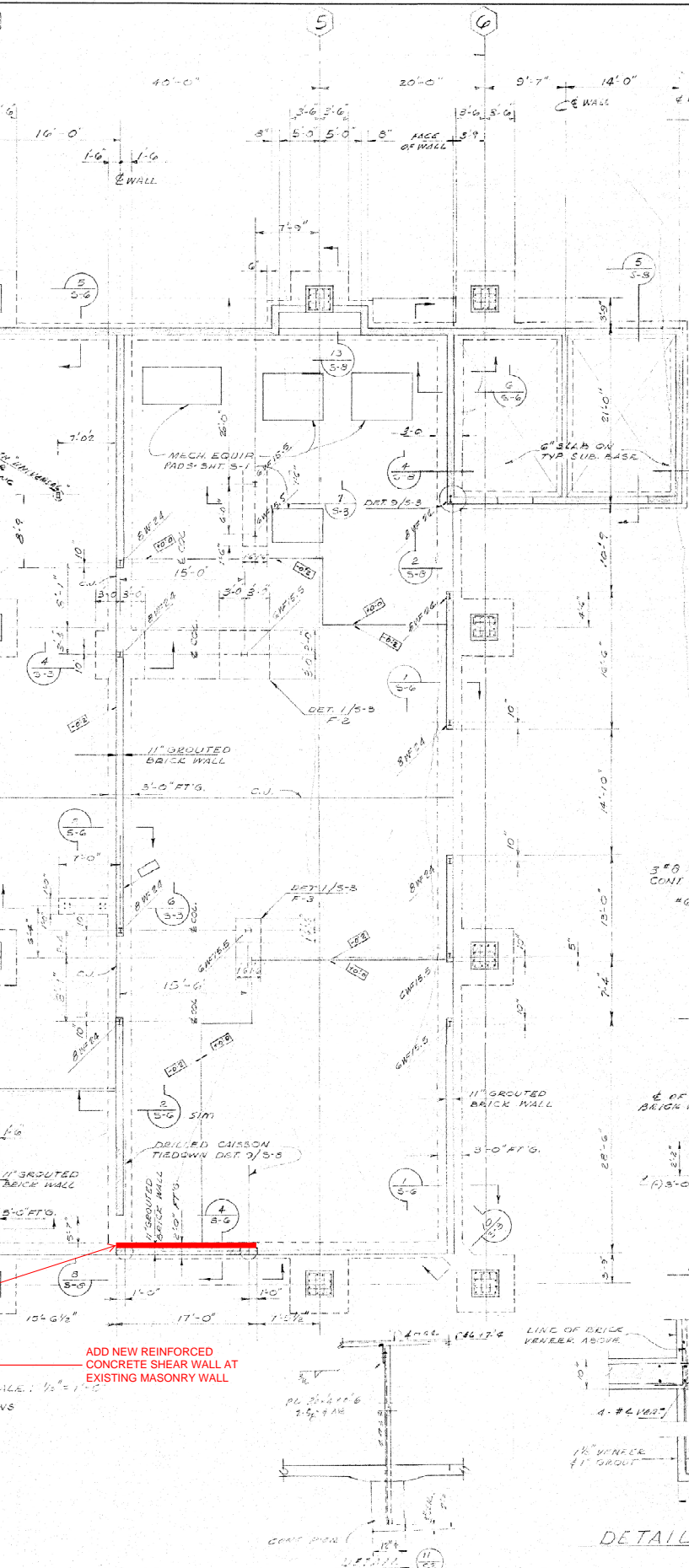
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**FIGURE 1:
FOUNDATION
FLOOR PLAN**



**FIGURE 4
TYPICAL**

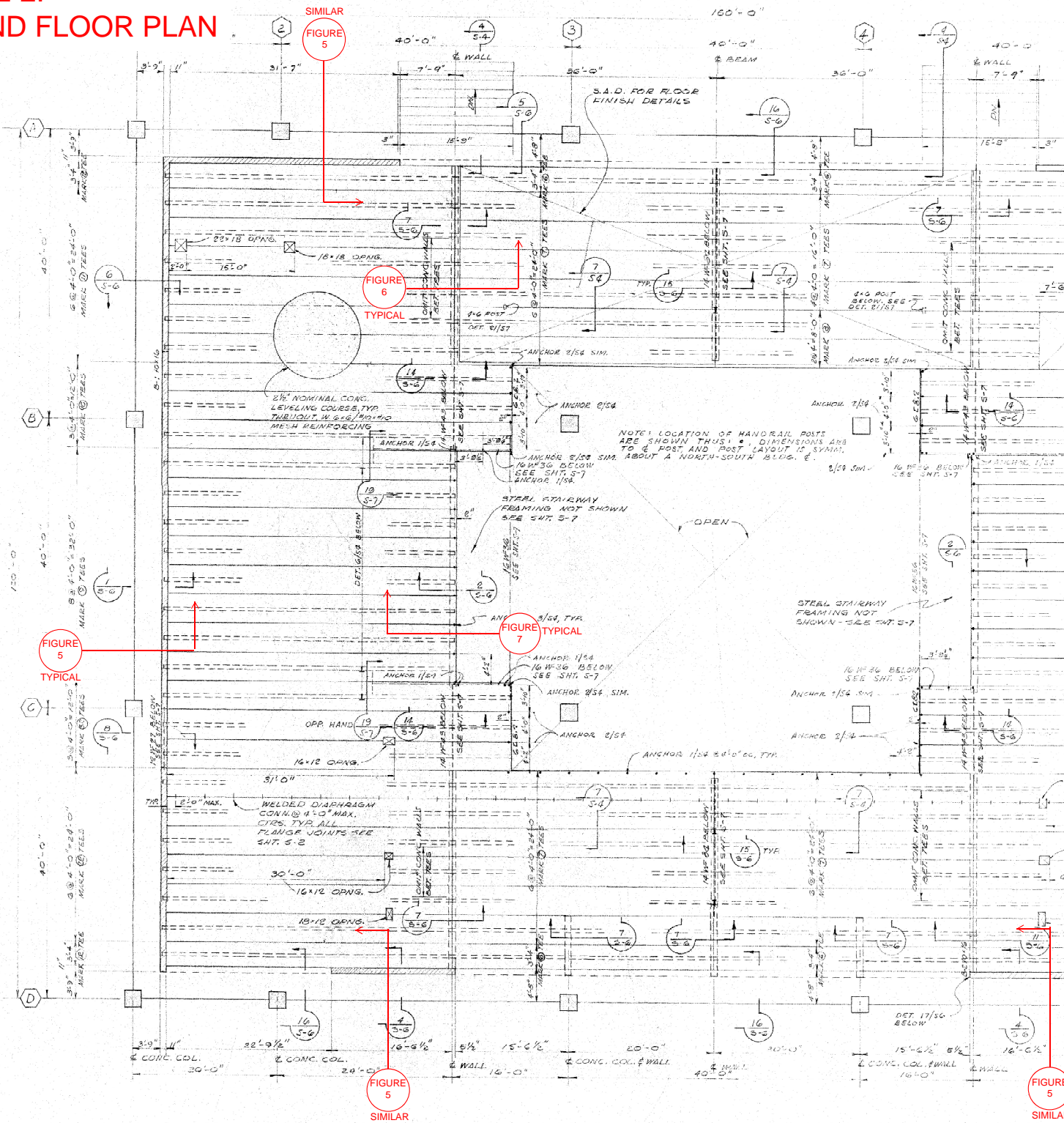
FLOOR & FOUNDATION PLAN 80
NOTE: S.A.D. FOR SLAB FINISHES & DEPRESSIONS



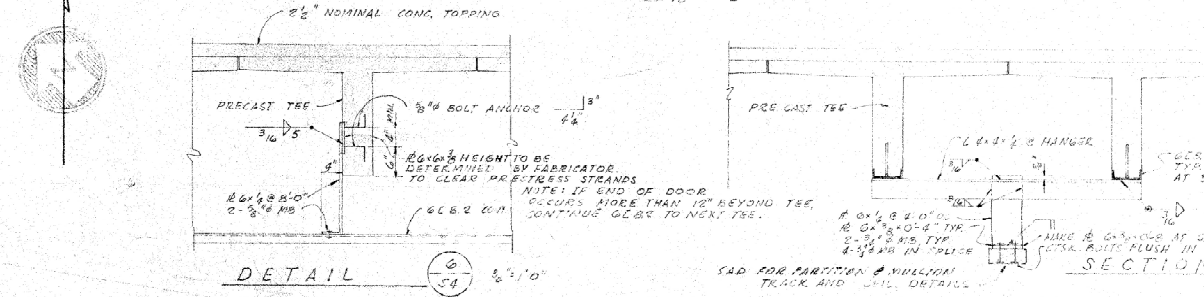
ADD NEW REINFORCED CONCRETE SHEAR WALL AT EXISTING MASONRY WALL

CONTRACT SIGNATURES CONTRACTOR: _____ BOARD OF TRUSTEES BOARD OF TRUSTEES STATE OF CALIFORNIA	
SUPERINTENDENT OF SCHOOLS APPROVED: _____ DATE: _____	BOARD OF TRUSTEES APPROVAL OF PLANS & SPECIFICATIONS BY RESOLUTION JAN. 9, 1964
STATE DIVISION OF ARCHITECTURE APPROVED: _____ DATE: _____	APPROVED: STATE FIRE MARSHAL STATE OF CALIFORNIA
COLLEGE OF MARIN KENTFIELD MARIN COUNTY CALIFORNIA STUDENT CENTER	
CORWIN BOOTH • ARCHITECT MARK FALK • STRUCTURAL ENGINEER SAN FRANCISCO (5) EX 2-2708	
WESLEY F. HULL • PLANNING CONSULTANT	
SHEET TITLE FOUNDATION PLAN AND DETAILS	FILE NUMBER DRAWING NO.
TRACING DATE PRINT DATE	38

**FIGURE 2:
SECOND FLOOR PLAN**



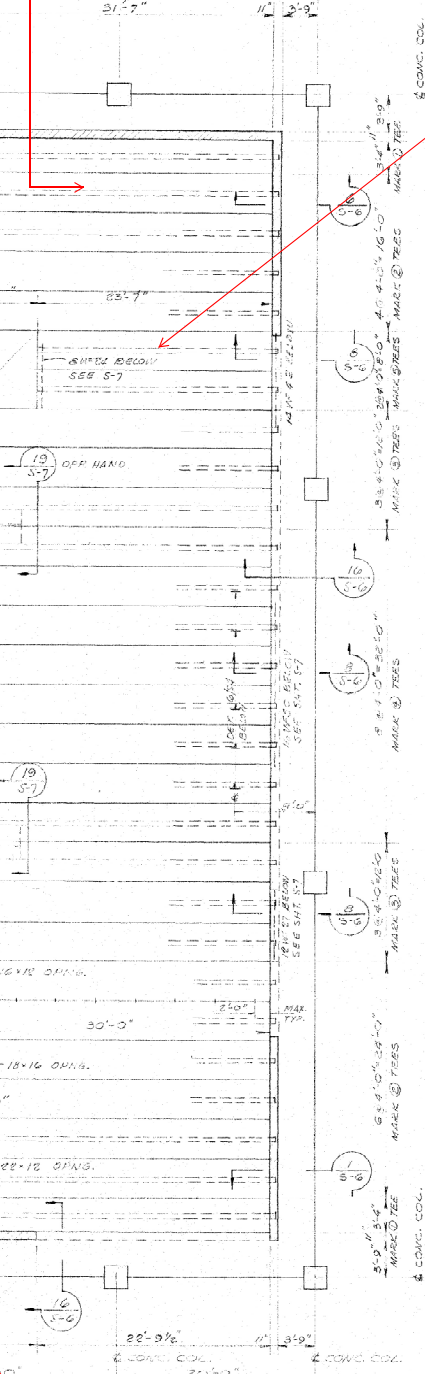
SECOND FLOOR FRAMING PLAN
SCALE 1/8" = 1'-0"



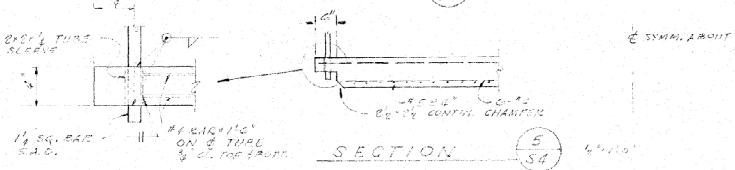
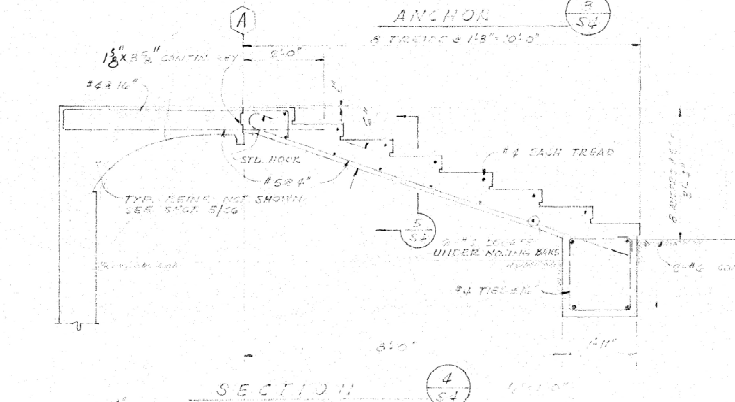
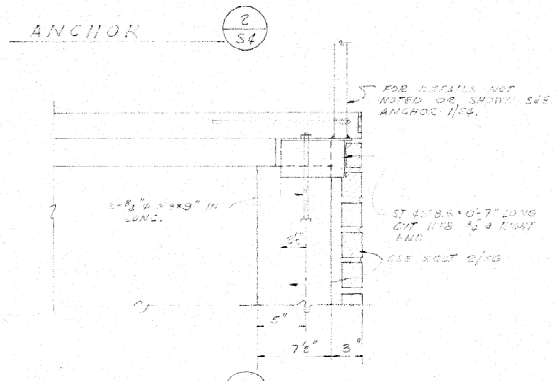
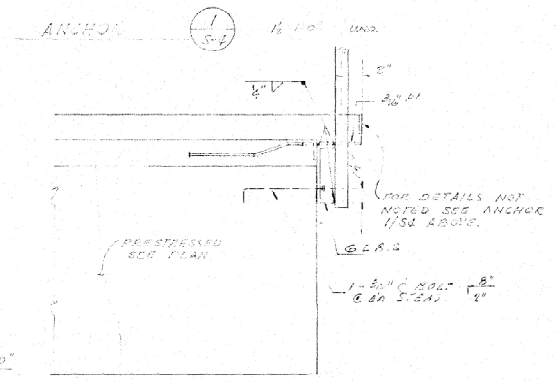
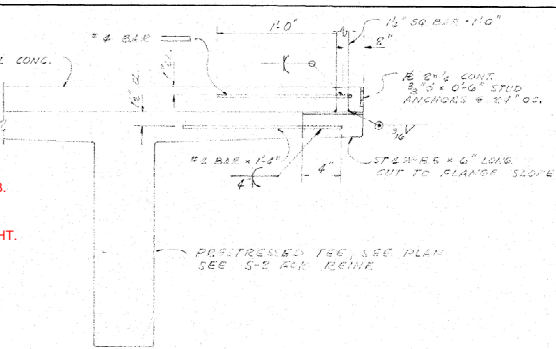
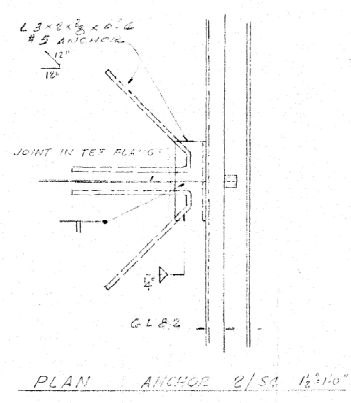
DETAIL

FIGURE 5
SIMILAR

SIMILAR
FIGURE
5



ADD NEW REINFORCED CONCRETE TOPPING SLAB. REQUIRES CHECK OF SUPPORTING ELEMENTS BELOW FOR ADDED WEIGHT.

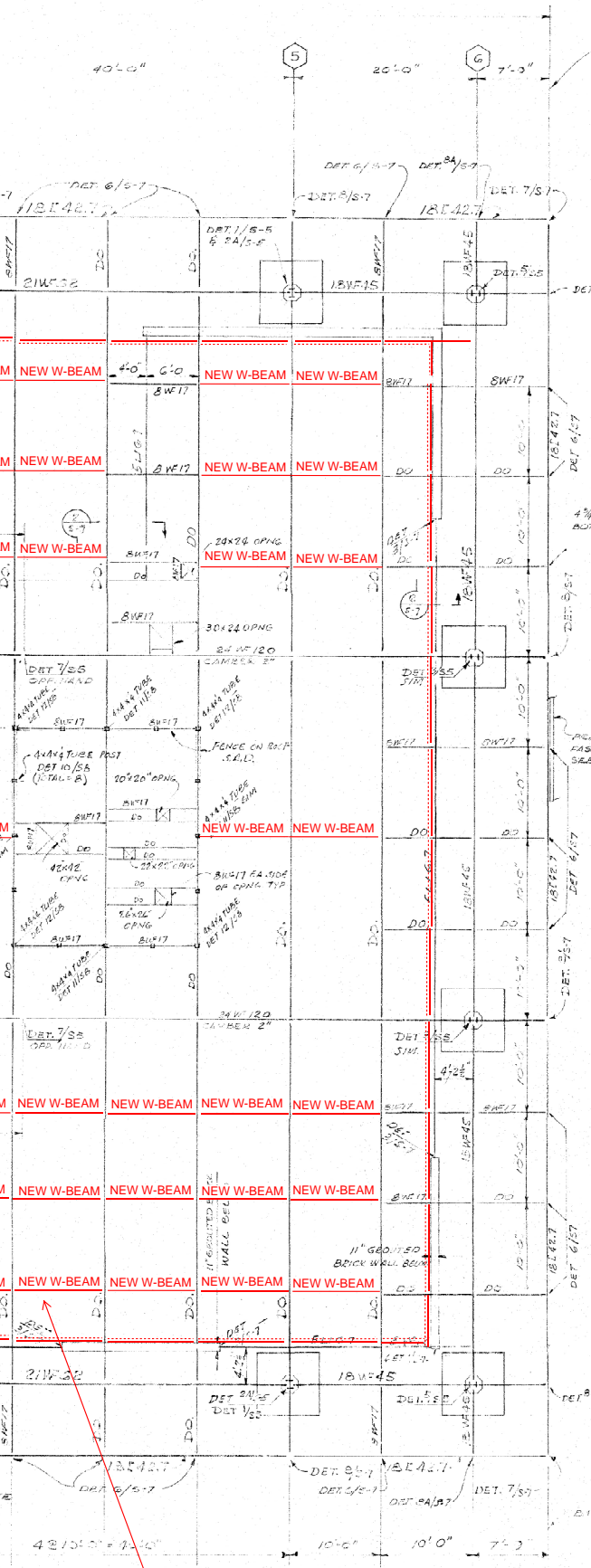


CONC. TYP. 1/2
#6 REIN. AVAILING
TO BE ATD EACH JOINT. SEE DET. 01/17
FOR END CONDITION
SEE DET. 01/17

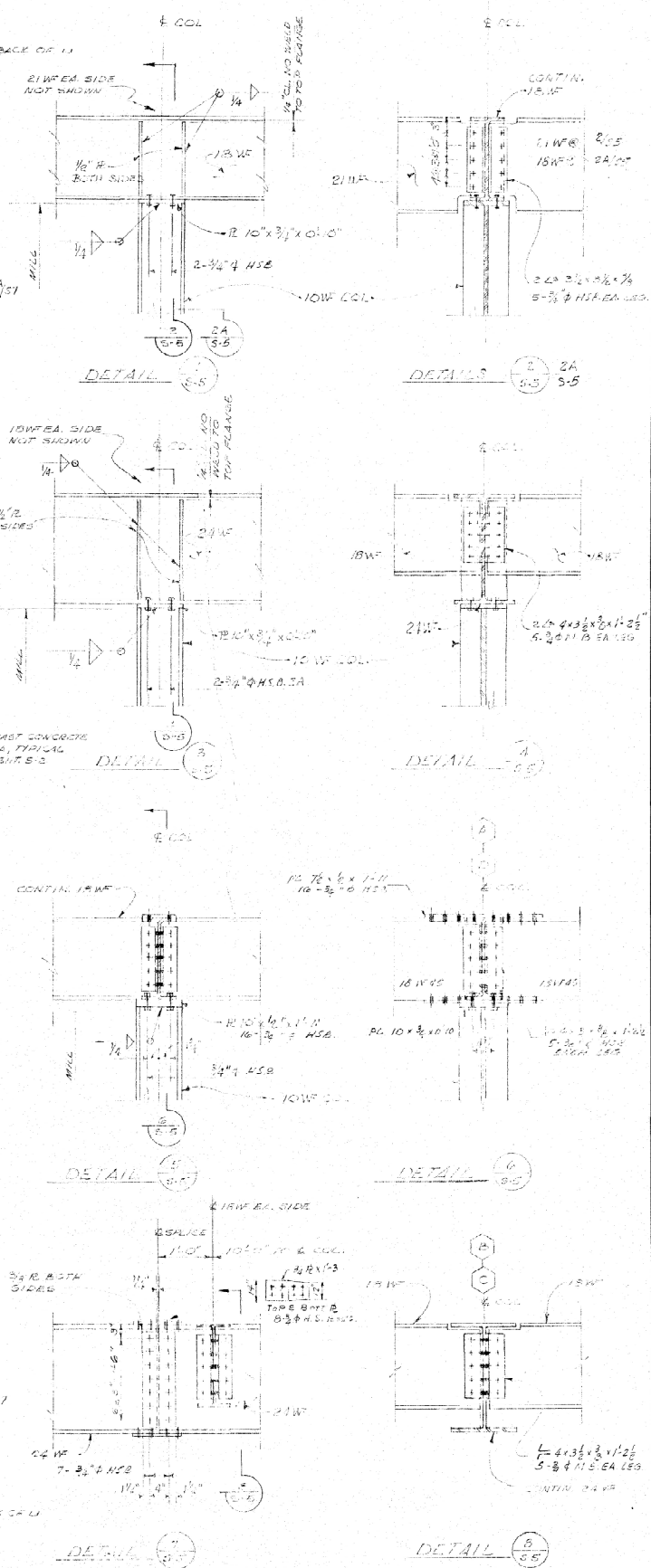
CONTRACT SIGNATURES CONTRACTOR	BOARD OF TRUSTEES APPROVAL OF PLANS & SPECIFICATIONS BY LETTER APR 2 1964	SUPERINTENDENT OF SCHOOLS BY LETTER APR 2 1964	STATE DIVISION OF ARCHITECTURE APPROVED STATE FIRE MARSHAL STATE OF CALIFORNIA	DATE:
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COLLEGE OF MARIN BERNARDI MORGAN CENTER STUDENT CENTER	CORWIN BOOTH - ARCHITECT MARK FALK - STRUCTURAL ENGINEER SAN FRANCISCO (5) EX 2-2708	WESLEY F. HULL - PLANNING CONSULTANT
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SHEET TITLE SECOND FLOOR FRAMING PLAN AND DETAILS	
FILE NUMBER 6318	DRAWING NO. S4
TRACING DATE JAN. 4, 1964	
PRINT DATE	



MORE IN-DEPTH CALCULATIONS ARE NEEDED TO VERIFY IF NEW W-BEAMS ARE NECESSARY



NOTE: DETAIL SCALE 1/4"=1'-0" UNLESS OTHERWISE NOTED.

CONTRACT SIGNATURES CONTRACTOR	
BOARD OF TRUSTEES APPROVAL OF PLANS & SPECIFICATIONS	
SUPERINTENDENT OF SCHOOLS APPROVED	
STATE DIVISION OF ARCHITECTURE APPROVED - STATE FIRE MARSHAL STATE OF CALIFORNIA	
FILE NUMBER 0310	DRAWING NO. 55
TRACING DATE JAN. 8, 1954	DATE:
PRINT DATE	DATE:

CORWIN BOOTH ARCHITECT
MARK FALK STRUCTURAL ENGINEER
SAN FRANCISCO (31) EX 2-2708
WESLEY F. PULL PLANNING CONSULTANT

SHEET TITLE
ROOF FRAMING PLAN AND DETAILS

**FIGURE 4:
SECTION THROUGH NEW
REINFORCED CONCRETE
SHEAR WALL**

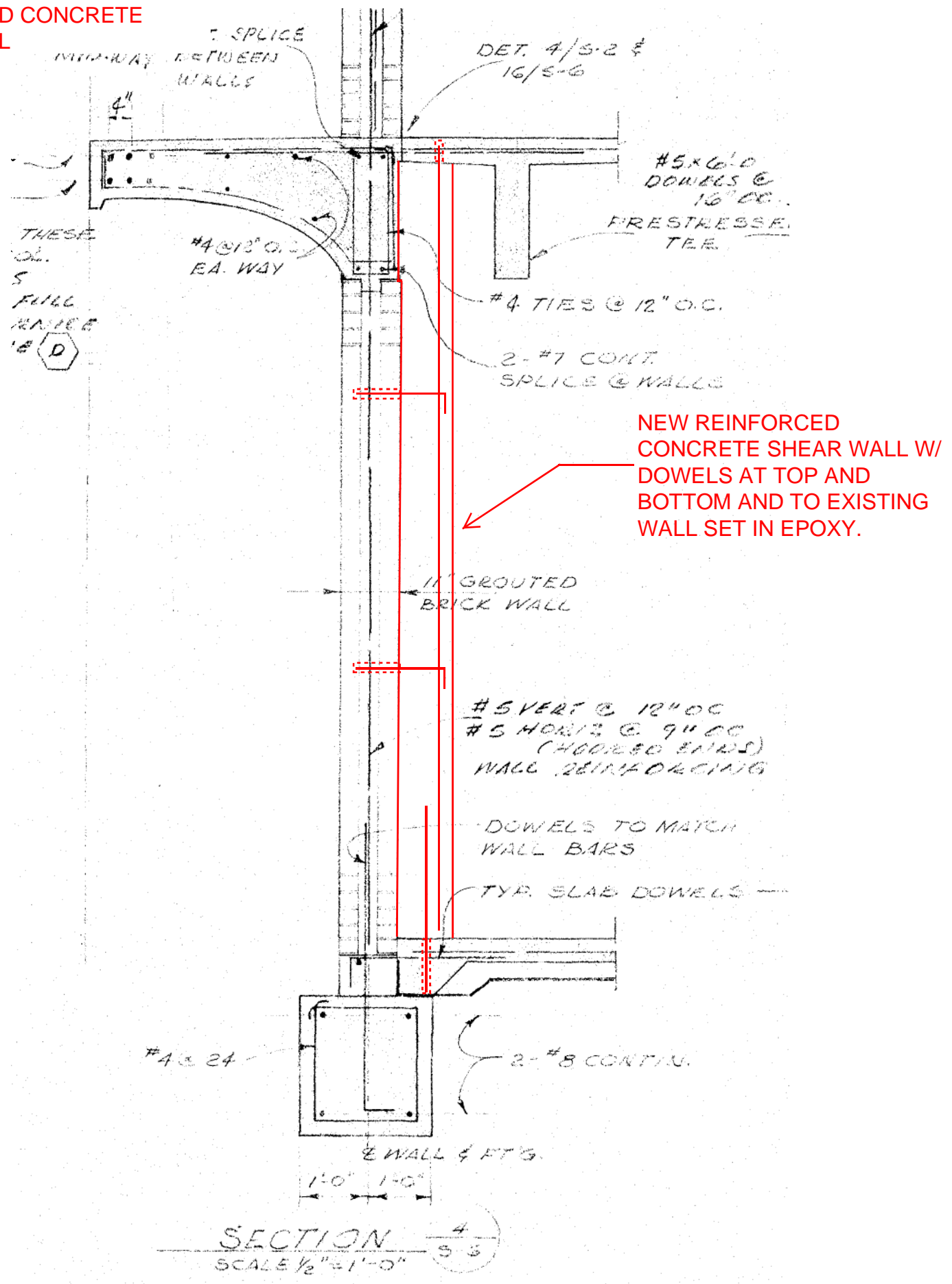
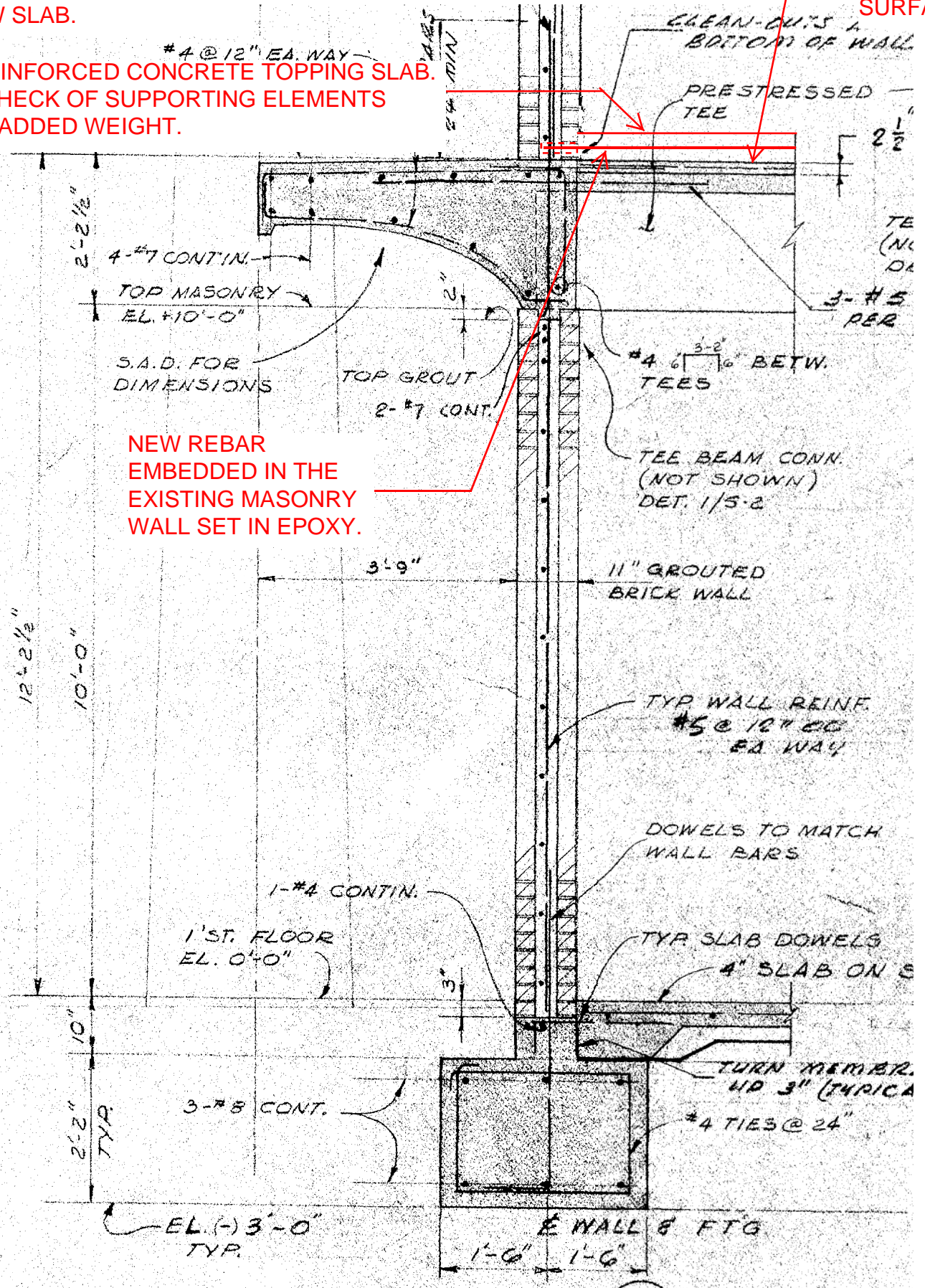


FIGURE 5:
SECTION THROUGH EXTERIOR
WALL AT NEW SLAB.

CLEAN AND
ROUGHEN
SURFACE

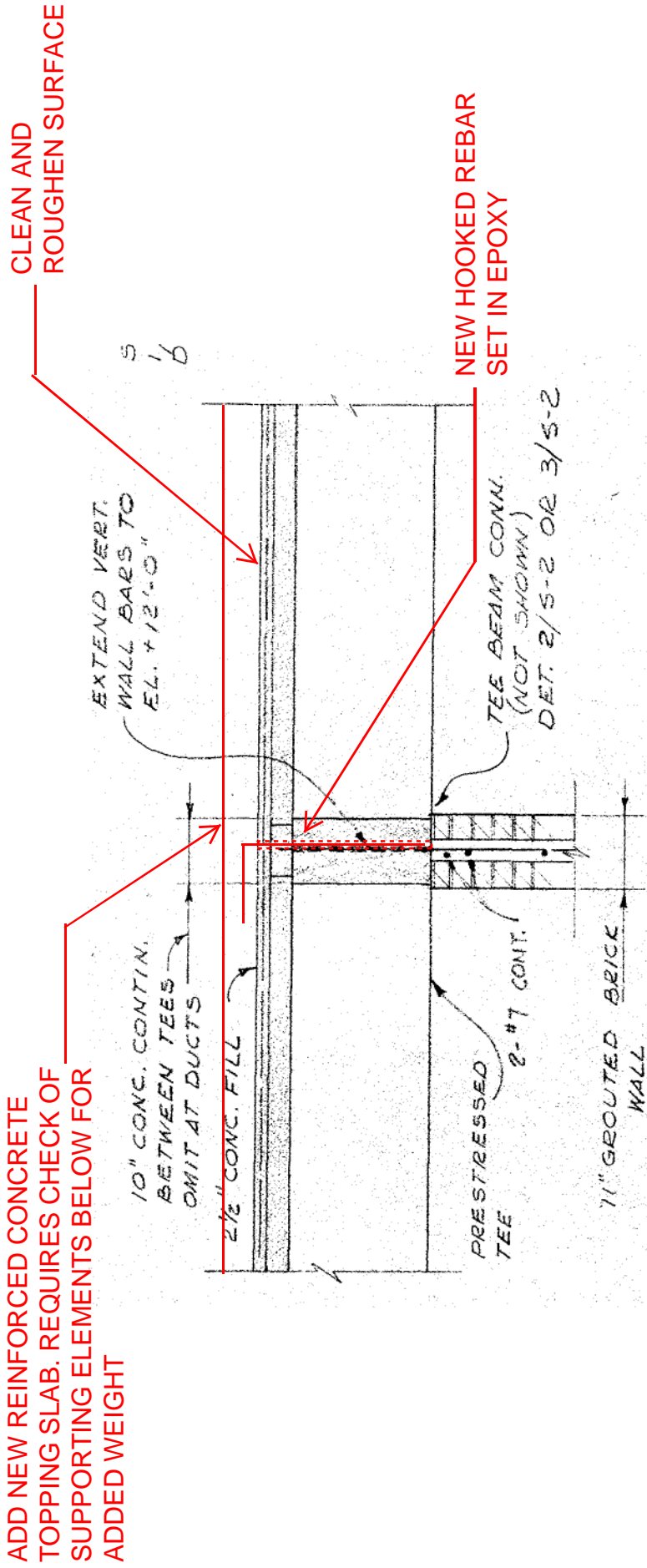
ADD NEW REINFORCED CONCRETE TOPPING SLAB.
REQUIRES CHECK OF SUPPORTING ELEMENTS
BELOW FOR ADDED WEIGHT.



NEW REBAR
EMBEDDED IN THE
EXISTING MASONRY
WALL SET IN EPOXY.

SECTION 1/5-6
SCALE 1/8" = 1'-0"

FIGURE 6:
SECTION THROUGH INTERIOR
WALL AT NEW SLAB



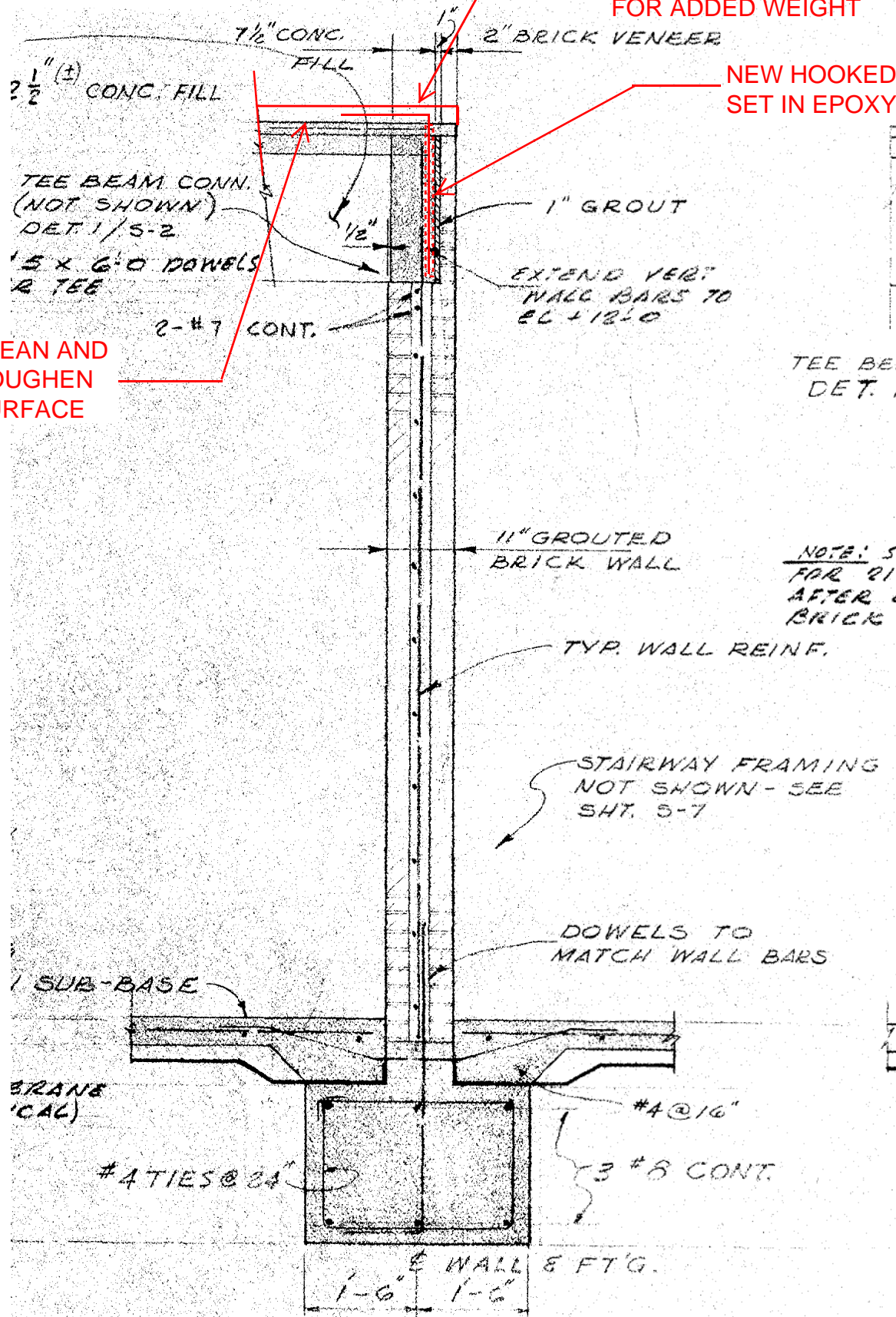
SECTION $\frac{7}{5-6}$
SCALE 1/2" = 1'-0"

FIGURE 7:
SECTION THROUGH INTERIOR
WALL AT OPENNING.

ADD NEW REINFORCED CONCRETE
TOPPING SLAB. REQUIRES CHECK
OF SUPPORTING ELEMENTS BELOW
FOR ADDED WEIGHT

NEW HOOKED REBAR
SET IN EPOXY

CLEAN AND
ROUGHEN
SURFACE



NOTE: 5
FOR 91
AFTER
BRICK

SECTION 2
SCALE 1/2" = 1'-0" 5'-0"

FIGURE 8:
SECTION THROUGH THE WALL
AT ROOF FRAMING

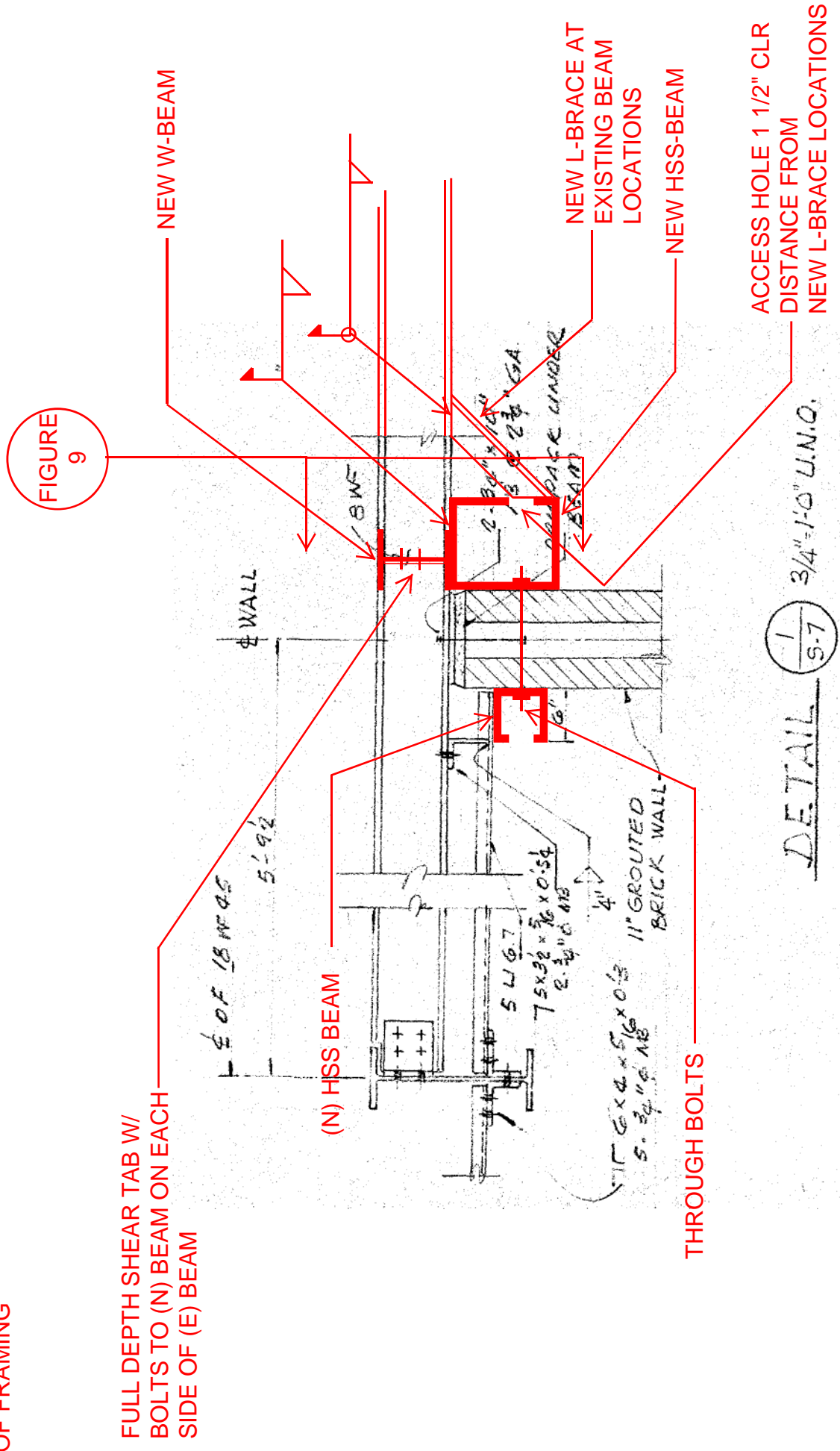
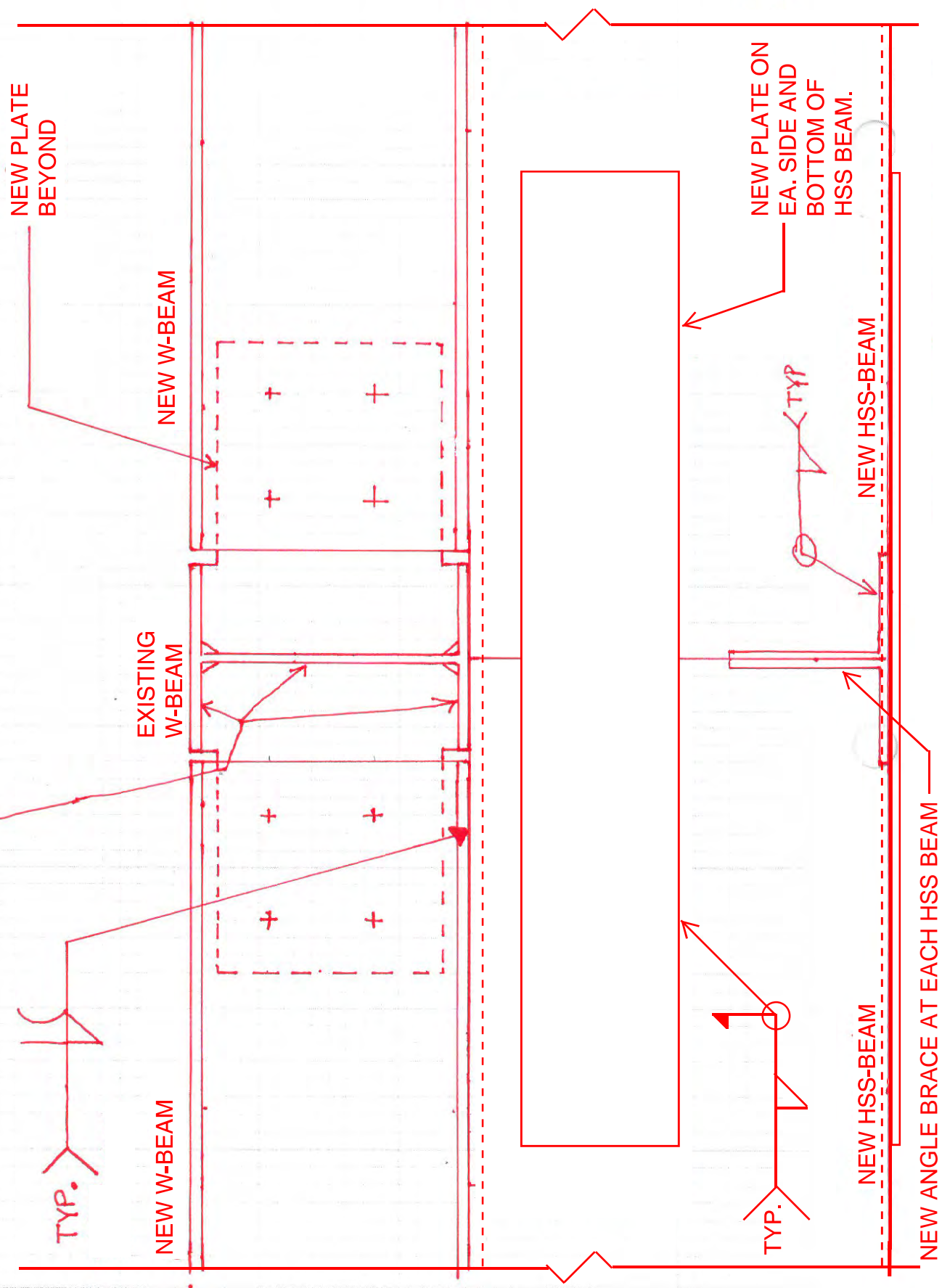


FIGURE 9:
SECTION THROUGH EXISTING
ROOF FRAMING AT COLLECTOR
BEAM



EXISTING BUILDING ANALYSIS

LEARNING RESOURCE CENTER STRUCTURAL REPORT

The following 33 pages is the Structural Assessment Report for the Learning Resources Center, prepared by Hohbach-Lewin, Inc.

Structural Assessment Report

Learning Resources Center

College of Marin, Kentfield Campus

Kentfield, Marin County, CA



Prepared for:

WLC Architects, Inc.
2600 Tenth Street, Suite 500
Berkeley, CA 94710

By



HOHBACH-LEWIN, INC.
STRUCTURAL ENGINEERS

545 Sansome Street, Suite 850
San Francisco, CA 94111
Phone: (415) 318-8520

July 23, 2018

Project No: 13096E

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3.0 Site Soils and Seismicity

- 3.1 Geotechnical Conditions
- 3.2 Seismicity
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4.0 Lateral Analysis

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- 4.4 Seismic Retrofit Recommendations

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Appendix C – As Built Structural Plans, Elevations and Sections

1.0 INTRODUCTION

1.1 General

The objective of this report is to present the results of the structural engineering evaluation for the Learning Resources Center building (original Library building), located on the College of Marin Campus in Kentfield, CA.

1.2 Scope of Work

We have provided the following structural engineering services associated with the evaluation of the subject building:

- 1) Reviewed available design drawings.
- 2) Visited the subject building to observe existing structural conditions.
- 3) Performed a limited qualitative evaluation of the building's existing gravity and lateral force resisting systems. Non-structural features were not necessarily addressed.
- 4) Written this report covering the following items:
 - a) Assessment of structural condition.
 - b) Evaluation of the existing building's seismic force resisting capacity.

Assessments, conclusions, and/or recommendations contained within this report are based upon observations made during our site visits on May 24, 2018 and June 22, 2018, review of available construction drawings, and upon our experience evaluating other structures of similar configuration, construction type, age and location. We have performed a cursory review of the building's existing gravity and lateral system; minimal calculations have been performed.

1.3 Review of Documentation

The design documents reviewed consisted of original building drawings, geotechnical reports, structural assessment reports and strengthening drawings as follows:

1. "College of Marin, Library, Kentfield, CA", architectural drawings A-1 through A-28 by Corwin Booth & Associated Architects, 1971. Structural drawings S-1 through S-30 by Wong and Tuan, Civil and Structural Engineers, 1971.
2. "Baseline Geologic Hazards Study, College of Marin, Kentfield Campus, Kentfield, Marin County, California" by Fugro West, Inc. dated December 15, 2005.
3. Report from "Existing Facilities Structural Assessment Report" for Learning Resource Center, Kentfield, California" By Degenkolb Engineers dated March, 2006 (12 pages).
4. "Supplemental Structural Assessment Report, Learning Resource Center, Kentfield, California" By Degenkolb Engineers dated September 1, 2006 (14 pages).
5. "Geotechnical Investigation and Geologic Hazards Study, New Academic Center, College of Marin Kentfield Campus, Marin County, California" by A3GEO dated January 18, 2012.

- 6. "Geotechnical Investigation and Geologic Hazards Study, Learning Resource Center, College of Marin, Kentfield Campus, Marin County, California" by A3GEO dated January 30, 2014.
- 7. "Learning Resource Center, Voluntary Seismic Upgrade" dated April 16, 2014 by Degenkolb Engineers, DSA Appl. #01-114129 dated March 17, 2015 (9 Sheets).

1.4 Limitations

Services associated with the preparation of this report were performed by Hohbach-Lewin in a manner consistent with the level of care and skill ordinarily exercised by members of the structural engineering profession currently practicing under similar conditions. No other warranty, expressed or implied, is made. The report is based on a limited review of the building and was prepared solely for the use of WLC Architects. No third party shall have the right to rely on opinions expressed herein without both WLC Architect's and Hohbach-Lewin, Inc.'s written consent. The actual structural characteristics of the building could not be fully assessed since limited calculations were performed. In addition, architectural finishes conceal many features of the structure throughout. Information not available under these conditions to Hohbach-Lewin and hidden construction quality conditions could alter the structural characteristics of the building from what is inferred in this report.

1.5 Reference Documents

ASCE/SEI 41-13 American Society of Civil Engineers – Seismic Evaluation and Retrofit of Existing Buildings, 2013

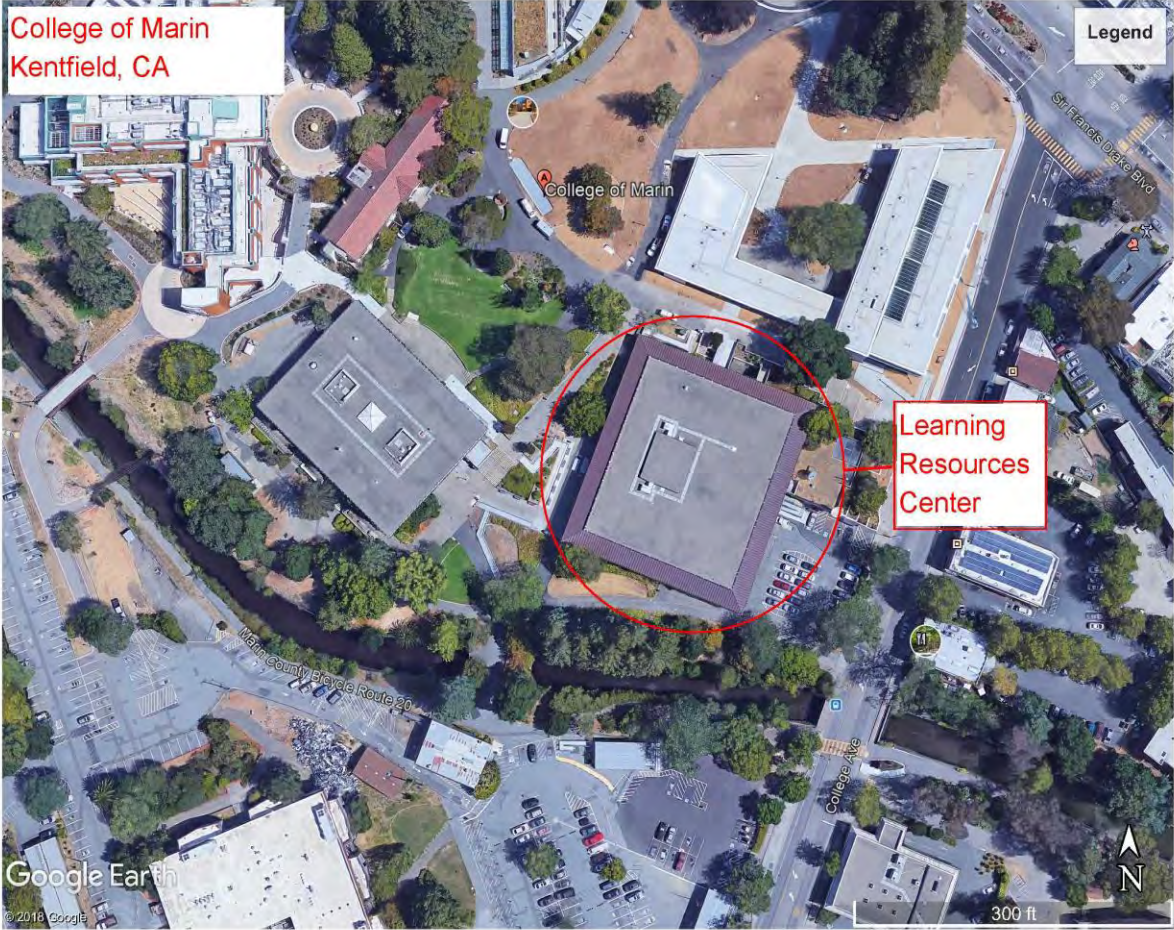


Figure 1.1 – Vicinity Map

2.0 BUILDING DESCRIPTION

2.1 General

The subject building is located on the College of Marin campus south of Sir Francis Drake Boulevard and west of College Avenue with the Corte Madera Creek extending along the south side of the building. The main two story structure was originally constructed around 1973 with dimensions of approximately 200 feet by 180 feet in plan. There is a one story mechanical room extending east approximately 60 feet by 70 feet maximum in the orthogonal direction. The structure is reinforced concrete construction from the roof to the foundation with reinforced masonry shear walls in each direction at the first story. The main building and mechanical room are connected and appear as a single building. The first floor drops 6'-4" in elevation on part of the south side to match grade.

The site generally slopes down from the northwest corner of the building to the south and east to Corte Madera Creek. The lateral force resisting system has vertical discontinuity and lateral irregularity due to the location of the concrete and masonry shear walls.

2.2 Site Visit Report

The observed in-place construction appeared to generally match the design documents reviewed. Most of the roof and floor framing in the areas readily accessible were concealed by finishes. The exposed exterior concrete framing and masonry walls appeared to be in good condition considering the age of the structure.

2.3 Gravity System Description

The structural flat roof is reinforced concrete construction with a 5" slab spanning from exterior walls to interior beams supported on tapered "struts" cantilevering from columns spaced on a 22'-6" grid in each direction. There is a raised clerestory roof area above the interior second floor stair opening.

The second floor framing for the building is reinforced concrete construction similar to the roof with a 6" slab spanning from exterior walls to interior beams supported on tapered struts cantilevering from columns spaced on the 22'-6" grid in each direction. The exterior concrete walls above the second floor are supported on the floor beams which cantilever beyond the struts, columns and exterior walls below the second floor.

The first floor is reinforced concrete construction with areas of 7.5" and 9.5" thick slab supported on grade below. There are two horizontal side by side concrete shafts below the first floor that run from the mechanical room to vertical shafts on the north and south sides of the lobby. The shafts extend up to the main roof level.

The concrete columns, walls and masonry walls supporting the structure above bear on a foundation system of reinforced concrete spread footings and grade beams spanning to concrete piers. The spread footings support the columns and walls along the north and east sides of the building with the bottoms of the footings shown from 3 feet to 7 feet below the first floor slab.

The grade beams and piers support the south and east sides including the mechanical room along with most of the interior columns. The pier bottoms are scheduled on the original design drawings to extend from 14 to 54 feet below the first floor slab for estimating purposes. The actual lengths are noted to be determined in the field by the soils engineer based on loads and actual soil conditions. The deepest piers are located in the south east corner of the building. The pier longitudinal and spiral reinforcing is indicated to extend a maximum of 15 feet below the top of the piers.

2.4 Lateral System Description

Seismic forces will be generated by ground accelerations acting on the structure. The forces acting on the building will be resisted primarily by the horizontal diaphragms distributing the forces to the vertical lateral force resisting elements. The vertical lateral force resisting elements for the structure are a combination of reinforced concrete and masonry shear walls supported on reinforced spread footings, grade beams and piers.

The reinforced concrete roof slab is expected to act as a rigid diaphragm and deliver lateral forces to the reinforced concrete shear walls below on all four sides of the building. The thickness of the existing reinforced concrete walls that are expected to act as shear walls are 8".

The second floor reinforced concrete slab and beams are expected to act as a rigid diaphragm and deliver lateral forces to the reinforced masonry shear walls below. The thickness of the existing reinforced masonry walls that are expected to act as shear walls are 11.5". The masonry shear walls are offset 9'-8" to the interior from the concrete shear walls above at the south, east and west walls.

The first floor reinforced concrete slab is expected to act as a rigid diaphragm and deliver lateral forces to the reinforced concrete spread footings, grade beams and piers below the masonry shear walls.

3.0 SITE SOILS AND SEISMICITY

3.1 Geotechnical Conditions

Geotechnical and Geologic Hazard reports for the site by Fugro West, Inc. dated December 2005 and by A3GEO dated January 2012 and January 2014 were reviewed. Per the reports the site is underlain by layers of shallow near surface top soil and fill on natural deposits of alluvium over bedrock. Fill of various types was present in the upper 4 to 7 feet with alluvial soils below the fill from 22 to greater than 41 feet, generally falling off to the southeast corner of the site. The water table was detected at 14.0 to 19.3 feet below the ground surface.

3.2 Seismicity

The site is located in a region of high seismic risk due to its proximity to several major faults. Per the procedures outlined in ASCE-41 the Basic Performance Objective for Existing Buildings (BPOE) for Risk Category III, Tier 1 evaluations require checks for the Life Safety Structural Performance Level at the BSE-1E Seismic Hazard Level which is the seismic event with a return interval of 225 years, or a 20 percent probability of exceedance in 50 years. Per USGS for the site location $S_s = 0.881g$ and $S_1 = 0.467g$ which for site soil classification Class D the design short-period spectral response acceleration parameter, $S_{XS} = 0.882g$, and the design spectral response acceleration parameter at a 1-second period, $S_{X1} = 0.467g$. The USGS site specific parameters are used to seismically evaluate the building per ASCE-41 criteria.

3.3 Local Seismic Hazards

Local seismic hazards play a large role in the degree to which strong motions from earthquakes actually affect the subject property location. These local hazards consist of fault rupture, soil amplification, soil liquefaction, and landslide susceptibility.

The State of California has undertaken an ongoing effort to map areas of potential surface fault rupture for the purposes of restricting future construction for human occupancy. These maps are maintained by the California Geological Survey (CGS) and are called Earthquake Fault Zone (formerly known as Alquist-Priolo Special Studies Zone) Maps. Earthquake Fault Zones (EFZ) delineate areas that have experienced fault displacement in the last 11,000 years (i.e. Holocene time). Properties

within these zones are at risk from additional damage due to surface displacements. There are no zoned active faults within the USGS 7.5 minute quadrangle and at the present time no CGS Seismic Hazard Zone map for the area, therefore the building site is not located within an identified Earthquake Fault Zone. At present, there is no restriction to site usage or development due to local fault surface rupture hazard.

Seismic energy is transmitted by the earth's brittle crust and then upward through the soil layers on top of the earth's crust until it reaches the surface. According to the stratigraphy of the soils beneath the subject property location, arriving energy waves may be amplified -- thereby increasing the intensity of shaking at the surface. In general, deep alluvial soil, thick muddy deposits, and areas of un-engineered fills tend to significantly amplify earthquake energy. Firmer soils or shallow alluvial soils tend to only moderately amplify earthquake energy. Hard soil or rocky outcroppings tend to produce little or no amplification of earthquake energy.

The California Department of Conservation has developed Seismic Hazard Zone maps for identifying where potential liquefaction and earthquake-induced landslides may occur in the event of a major seismic event. These maps are used to indicate where the liquefaction and landslide risks should be evaluated on a site-specific basis.

Per the geotechnical report the site of the subject property lies within a potential liquefaction zone as defined by the California Geologic Survey (CGS) Seismic Hazard Zones Map for the West San Jose Quadrangle. The 2014 geotechnical report by A3GEO includes a liquefaction evaluation and analysis for the site. Based on the evaluation the conclusion was that the potential for hazards associated with liquefaction at the site is high with recommendations for soil strengthening.

Per the Seismic Hazard Zone maps developed by California Department of Conservation, the subject site does not occur in an area with a risk of landslides nor is it situated on or in close proximity to any significant slopes or hillsides. The structure is located in a valley adjacent to the Corte Madera Creek which is subject to flooding during periods of high rainfall.

4.0 LATERAL ANALYSIS

4.1 ASCE 41-13 Analysis

An ASCE/SEI 41-13 Tier 1 screening was performed, utilizing the evaluation statements applicable to a, "Life Safety" performance objective. A, "Life Safety", performance objective is defined by accepting moderate post-earthquake damage to structural elements. The expected damage is defined in ASCE 41-13, Table C2-3 as follows:

"Some residual strength and stiffness left in all stories. Gravity-load-bearing elements function. No out-of-plane failure of walls. Some permanent drift. Damage to partitions. Continued occupancy might not be likely before repair. Building might not be economical to repair."

The material strengths and properties were not listed on the design drawings reviewed. For the purposes of this review and assessment, the strengths and properties used were based on the values from ASCE-41 for buildings built in the same time period. Material testing was not performed.

The building was classified as: "Concrete Shear Walls with Stiff Diaphragms (C2)" and "Reinforced Masonry Bearing Walls with Stiff Diaphragms (RM2)" based on the construction type and predominant elements of the lateral force resisting systems. These worksheets require that fundamental elements of the lateral force resisting system (LFRS) be identified as "Compliant" (C) or "Non-Compliant" (NC). Compliant statements identify issues that are acceptable according to the criteria of the ASCE 41. Non-compliant statements identify issues that require further investigation. For some items the checklist will be marked Not Applicable (N/A) or Unknown (U) as appropriate to the structure. The ASCE 41 checklists are included in Appendix A of this report.

Due to the general nature and limited calculations required, the checklists only identify potential deficiencies. Furthermore, the checklists do not address every possible deficiency. The following ASCE 41-13 defined deficiencies were identified for the subject building. A copy of the ASCE-41 checklist for the building is included in Appendix A.:

1. Vertical Irregularities: Second story reinforced concrete shear walls along the east, west and south sides of the structure are supported on cantilever concrete beams that extend beyond the first story columns and shear walls (see photos in Appendix B). During seismic events the shear walls will try and overturn as they resist the lateral forces along the wall. The cantilever beams may not have the capacity to resist these forces.
2. Liquefaction: Per the Geologic Hazards and Geotechnical Reports provided the site is highly susceptible to liquefaction and lateral spreading. Buildings subjected to liquefaction and lateral spreading may experience amplified seismic forces, loss of vertical and lateral support from the soil at the foundation level.
3. Coupling Beams: Concrete beams over means of egress may suffer significant degradation and damage to the point that material may fall to the floor below.

If the deficiencies identified by ASCE 41-13 are mitigated, this building should perform acceptably in a major seismic event.

4.2 Stability Assessment

This building may not remain stable under the seismic loading resulting from a 475 year return period earthquake (a current code level design earthquake) due to the discontinuous shear walls and site susceptibility to liquefaction and lateral spreading.

4.3 Regulatory Issues

Community Colleges in California are currently required to meet the provisions of the 2016 California Building Code. Existing Buildings must conform to the 2016 California Existing Building Code.

In addition to the deficiencies noted above, there are numerous features of the building that do not conform to current code, including the reinforcement detailing in most elements, triggering a requirement for conformance to current code would be problematic.

4.4 Seismic Retrofit Recommendations

- Install new reinforced concrete columns on deep foundations directly below the ends of the discontinuous second story shear walls as previously recommended by others.
- Provide ground improvement by deep soil mixing to improve the soil vertical and lateral stability of the soil during future seismic events as previously recommended.
- Provide additional evaluation or protection from falling debris along means of egress.
- Additional strengthening work could be made to the structure to improve seismic performance, but those efforts are considered of secondary importance.

APPENDIX C SUMMARY DATA SHEET

BUILDING DATA

Building Name: LEARNING RESOURCE CENTER Date: 6/20/2018
 Building Address: COLLEGE OF MARIN, KENTFIELD, CA
 Latitude: 37.95484 Longitude: -122.5491 By: PMD
 Year Built: 1973 Year(s) Remodeled: _____ Original Design Code: 1970 UBC
 Area (sf): _____ Length (ft): 202 Width (ft): 120
 No. of Stories: 2 1st Story Height: 16 FT. Total Height: 30 FT.

USE Industrial Office Warehouse Hospital Residential Educational Other: _____

CONSTRUCTION DATA

Gravity Load Structural System: CONCRETE SLAB ON CONCRETE FRAMES
 Exterior Transverse Walls: CONCRETE OVER MASONRY Openings? YES
 Exterior Longitudinal Walls: CONCRETE OVER MASONRY Openings? YES
 Roof Materials/Framing: CONCRETE SLAB ON BEAMS
 Intermediate Floors/Framing: _____
 Ground Floor: CONCRETE FLAT SLAB SUPPORTED ON COLS. & FTGS.
 Columns: CONCRETE Foundation: PIERS & SPREAD FTGS.
 General Condition of Structure: GOOD
 Levels Below Grade? NONE
 Special Features and Comments: CANTILEVER SUPPORT OF 2ND STORY

LATERAL-FORCE-RESISTING SYSTEM

	Longitudinal	Transverse
System:	<u>CONC. SHEAR WALLS OVER MASONRY SHEAR WALLS</u>	
Vertical Elements:	<u>COLS. AND WALL BOUNDARIES</u>	
Diaphragms:	<u>CONC. SLAB</u>	<u>CONC. SLAB</u>
Connections:	<u>REINF. STEEL DOWELS</u>	

EVALUATION DATA

BSE-1N Spectral Response Accelerations:	$S_{D1} =$ <u>1.09</u>	$S_{D1} =$ <u>0.5219</u>
Soil Factors:	Class = <u>C</u>	$F_a =$ <u>1.0</u> $F_v =$ <u>1.3</u>
BSE-1E Spectral Response Accelerations:	$S_{X1} =$ <u>0.801</u>	$S_{X1} =$ <u>0.467</u>
Level of Seismicity:	<u>HIGH</u>	Performance Level: <u>LIFE-SAFETY</u>
Building Period:	$T =$ <u>0.255</u>	
Spectral Acceleration:	$S_a =$ <u>0.801</u>	
Modification Factor:	$C_m, C_1, C_2 =$ <u>1.2</u>	Building Weight: $W =$ <u>10150 K</u>
Pseudo Lateral Force:	$V =$ _____	
	$C_m, C_1, C_2, S_a, W =$ <u>10730 K</u>	

BUILDING CLASSIFICATION: C2 & RM2

REQUIRED TIER 1 CHECKLISTS

	Yes	No
Basic Configuration Checklist	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Building Type _____ Structural Checklist	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Nonstructural Component Checklist	<input type="checkbox"/>	<input checked="" type="checkbox"/>

FURTHER EVALUATION REQUIREMENT: _____

Project: L.R.C.
Completed by: PMD

Location: KENTFIELD, CA
Date: 6/20/2018

TIER 1 CHECKLISTS

16.1 BASIC CHECKLIST

Very Low Seismicity

Structural Components

- NC N/A U LOAD PATH: The structure shall contain a complete, well-defined load path, including structural elements and connections, that serves to transfer the inertial forces associated with the mass of all elements of the building to the foundation. (Commentary: Sec. A.2.1.1, Tier 2: Sec. 5.4.1.1)
- NC N/A U WALL ANCHORAGE: Exterior concrete or masonry walls that are dependent on the diaphragm for lateral support are anchored for out-of-plane forces at each diaphragm level with steel anchors, reinforcing dowels, or straps that are developed into the diaphragm. Connections shall have adequate strength to resist the connection force calculated in the Quick Check procedure of Section 4.5.3.7. (Commentary: Sec. A.5.1.1, Tier 2: Sec. 5.7.1.1)

Project: L.R.C.
Completed by: PMP

Location: KENTFIELD, CA
Date: 6/20/2019

16.1.2LS LIFE SAFETY BASIC CONFIGURATION CHECKLIST

Low Seismicity

Building System

General

- C NC N/A U LOAD PATH: The structure shall contain a complete, well defined load path, including structural elements and connections, that serves to transfer the inertial forces associated with the mass of all elements of the building to the foundation. (Commentary: Sec. A.2.1.1, Tier 2: Sec. 5.4.1.1)
- C NC N/A U ADJACENT BUILDINGS: The clear distance between the building being evaluated and any adjacent building is greater than 4% of the height of the shorter building. This statement shall not apply for the following building types: W1, W1a, and W2. (Commentary: Sec. A.2.1.2, Tier 2: Sec. 5.4.1.2)
- C NC N/A U MEZZANINES: Interior mezzanine levels are braced independently from the main structure or are anchored to the seismic-force-resisting elements of the main structure. (Commentary: Sec. A.2.1.3, Tier 2: Sec. 5.4.1.3)

Building Configuration

- C NC N/A U WEAK STORY: The sum of the shear strengths of the seismic-force-resisting system in any story in each direction is not less than 80% of the strength in the adjacent story above. (Commentary: Sec. A.2.2.2, Tier 2: Sec. 5.4.2.1)
- C NC N/A U SOFT STORY: The stiffness of the seismic-force-resisting system in any story is not less than 70% of the seismic-force-resisting system stiffness in an adjacent story above or less than 80% of the average seismic-force-resisting system stiffness of the three stories above. (Commentary: Sec. A.2.2.3, Tier 2: Sec. 5.4.2.2)
- C NC N/A U VERTICAL IRREGULARITIES: All vertical elements in the seismic-force-resisting system are continuous to the foundation. (Commentary: Sec. A.2.2.4, Tier 2: Sec. 5.4.2.3)
- C NC N/A U GEOMETRY: There are no changes in the net horizontal dimension of the seismic-force-resisting system of more than 30% in a story relative to adjacent stories, excluding one-story penthouses and mezzanines. (Commentary: Sec. A.2.2.5, Tier 2: Sec. 5.4.2.4)
- C NC N/A U MASS: There is no change in effective mass more than 50% from one story to the next. Light roofs, penthouses, and mezzanines need not be considered. (Commentary: Sec. A.2.2.6, Tier 2: Sec. 5.4.2.5)
- C NC N/A U TORSION: The estimated distance between the story center of mass and the story center of rigidity is less than 20% of the building width in either plan dimension. (Commentary: Sec. A.2.2.7, Tier 2: Sec. 5.4.2.6)

Moderate Seismicity: Complete the Following Items in Addition to the Items for Low Seismicity.

Geologic Site Hazards

- C NC N/A U LIQUEFACTION: Liquefaction-susceptible, saturated, loose granular soils that could jeopardize the building's seismic performance shall not exist in the foundation soils at depths within 50 ft under the building. (Commentary: Sec. A.6.1.1, Tier 2: 5.4.3.1)
- C NC N/A U SLOPE FAILURE: The building site is sufficiently remote from potential earthquake-induced slope failures or rockfalls to be unaffected by such failures or is capable of accommodating any predicted movements without failure. (Commentary: Sec. A.6.1.2, Tier 2: 5.4.3.1)
- C NC N/A U SURFACE FAULT RUPTURE: Surface fault rupture and surface displacement at the building site are not anticipated. (Commentary: Sec. A.6.1.3, Tier 2: 5.4.3.1)

High Seismicity: Complete the Following Items in Addition to the Items for Low and Moderate Seismicity.

Foundation Configuration

- C NC N/A U OVERTURNING: The ratio of the least horizontal dimension of the seismic-force-resisting system at the foundation level to the building height (base/height) is greater than $0.6S_w$. (Commentary: Sec. A.6.2.1, Tier 2: Sec. 5.4.3.3)
- C NC N/A U TIES BETWEEN FOUNDATION ELEMENTS: The foundation has ties adequate to resist seismic forces where footings, piles, and piers are not restrained by beams, slabs, or soils classified as Site Class A, B, or C. (Commentary: Sec. A.6.2.2, Tier 2: Sec. 5.4.3.4)

Project: L.R.C.
Completed by: PMD

Location: KONTFIELD, CA
Date: 8/20/2018

16.10LS LIFE SAFETY STRUCTURAL CHECKLIST FOR BUILDING TYPES C2: CONCRETE SHEAR WALLS WITH STIFF DIAPHRAGMS AND C2A: CONCRETE SHEAR WALLS WITH FLEXIBLE DIAPHRAGMS

Low and Moderate Seismicity

Seismic-Force-Resisting System

- C NC N/A U COMPLETE FRAMES: Steel or concrete frames classified as secondary components form a complete vertical-load-carrying system. (Commentary: Sec. A.3.1.6.1, Tier 2; Sec. 5.5.2.5.1)
- C NC N/A U REDUNDANCY: The number of lines of shear walls in each principal direction is greater than or equal to 2. (Commentary: Sec. A.3.2.1.1, Tier 2; Sec. 5.5.1.1)
- C NC N/A U SHEAR STRESS CHECK: The shear stress in the concrete shear walls, calculated using the Quick Check procedure of Section 4.5.3.3, is less than the greater of 100 lb/in.^2 or $2\sqrt{f'_c}$. (Commentary: Sec. A.3.2.2.1, Tier 2; Sec. 5.5.3.1.1)
109 psi
- C NC N/A U REINFORCING STEEL: The ratio of reinforcing steel area to gross concrete area is not less than 0.0012 in the vertical direction and 0.0020 in the horizontal direction. (Commentary: Sec. A.3.2.2.2, Tier 2; Sec. 5.5.3.1.3)

Connections

- C NC N/A U WALL ANCHORAGE AT FLEXIBLE DIAPHRAGMS: Exterior concrete or masonry walls that are dependent on flexible diaphragms for lateral support are anchored for out-of-plane forces at each diaphragm level with steel anchors, reinforcing dowels, or straps that are developed into the diaphragm. Connections have adequate strength to resist the connection force calculated in the Quick Check procedure of Section 4.5.3.7. (Commentary: Sec. A.5.1.1, Tier 2; Sec. 5.7.1.1)
- C NC N/A U TRANSFER TO SHEAR WALLS: Diaphragms are connected for transfer of seismic forces to the shear walls. (Commentary: Sec. A.5.2.1, Tier 2; Sec. 5.7.2)
- C NC N/A U FOUNDATION DOWELS: Wall reinforcement is doweled into the foundation with vertical bars equal in size and spacing to the vertical wall reinforcing immediately above the foundation. (Commentary: Sec. A.5.3.5, Tier 2; Sec. 5.7.3.4)

High Seismicity: Complete the Following Items in Addition to the Items for Low and Moderate Seismicity.

Seismic-Force-Resisting System

- C NC N/A U DEFLECTION COMPATIBILITY: Secondary components have the shear capacity to develop the flexural strength of the components. (Commentary: Sec. A.3.1.6.2, Tier 2; Sec. 5.5.2.5.2)
- C NC N/A U FLAT SLABS: Flat slabs or plates not part of the seismic-force-resisting system have continuous bottom steel through the column joints. (Commentary: Sec. A.3.1.6.3, Tier 2; Sec. 5.5.2.5.3)
- C NC N/A U COUPLING BEAMS: The stirrups in coupling beams over means of egress are spaced at or less than $d/2$ and are anchored into the confined core of the beam with hooks of 135 degrees or more. The ends of both walls to which the coupling beam is attached are supported at each end to resist vertical loads caused by overturning. (Commentary: Sec. A.3.2.2.3, Tier 2; Sec. 5.5.3.2.1)
COUPLING BEAM STIRRUPS DO NOT HAVE 135° HOOKS

Connections

- C NC N/A U UPLIFT AT PILE CAPS: Pile caps have top reinforcement, and piles are anchored to the pile caps. (Commentary: Sec. A.5.3.8, Tier 2; Sec. 5.7.3.5)

Diaphragms (Flexible or Stiff)

- C NC N/A U DIAPHRAGM CONTINUITY: The diaphragms are not composed of split-level floors and do not have expansion joints. (Commentary: Sec. A.4.1.1, Tier 2; Sec. 5.6.1.1)
- C NC N/A U OPENINGS AT SHEAR WALLS: Diaphragm openings immediately adjacent to the shear walls are less than 25% of the wall length. (Commentary: Sec. A.4.1.4, Tier 2; Sec. 5.6.1.3)

Flexible Diaphragms

- C NC **N/A** U CROSS TIES: There are continuous cross ties between diaphragm chords. (Commentary: Sec. A.4.1.2, Tier 2; Sec. 5.6.1.2)
- C NC **N/A** U STRAIGHT SHEATHING: All straight sheathed diaphragms have aspect ratios less than 2-to-1 in the direction being considered. (Commentary: Sec. A.4.2.1, Tier 2; Sec. 5.6.2)
- C NC **N/A** U SPANS: All wood diaphragms with spans greater than 24 ft consist of wood structural panels or diagonal sheathing. (Commentary: Sec. A.4.2.2, Tier 2; Sec. 5.6.2)
- C NC **N/A** U DIAGONALLY SHEATHED AND UNBLOCKED DIAPHRAGMS: All diagonally sheathed or unblocked wood structural panel diaphragms have horizontal spans less than 40 ft and aspect ratios less than or equal to 4-to-1. (Commentary: Sec. A.4.2.3, Tier 2; Sec. 5.6.2)
- C NC **N/A** U OTHER DIAPHRAGMS: The diaphragm does not consist of a system other than wood, metal deck, concrete, or horizontal bracing. (Commentary: Sec. A.4.7.1, Tier 2; Sec. 5.6.5)

Project: L.R.C.
Completed by: PMD

Location: KONTFIELD, CA
Date: 6/20/2019

16.15LS LIFE SAFETY STRUCTURAL CHECKLIST FOR BUILDING TYPES RM1: REINFORCED MASONRY BEARING WALLS WITH FLEXIBLE DIAPHRAGMS AND RM2: REINFORCED MASONRY BEARING WALLS WITH STIFF DIAPHRAGMS

Low and Moderate Seismicity

Seismic-Force-Resisting System

- NC N/A U REDUNDANCY: The number of lines of shear walls in each principal direction is greater than or equal to 2. (Commentary: Sec. A.3.2.1.1. Tier 2: Sec. 5.5.1.1)
- NC N/A U SHEAR STRESS CHECK: The shear stress in the reinforced masonry shear walls, calculated using the Quick Check procedure of Section 4.5.3.3, is less than 70 lb/in.². (Commentary: Sec. A.3.2.4.1. Tier 2: Sec. 5.5.3.1.1)
- NC N/A U REINFORCING STEEL: The total vertical and horizontal reinforcing steel ratio in reinforced masonry walls is greater than 0.002 of the wall with the minimum of 0.0007 in either of the two directions; the spacing of reinforcing steel is less than 48 in., and all vertical bars extend to the top of the walls. (Commentary: Sec. A.3.2.4.2. Tier 2: Sec. 5.5.3.1.3)

Stiff Diaphragms

- C NC N/A U TOPPING SLAB: Precast concrete diaphragm elements are interconnected by a continuous reinforced concrete topping slab. (Commentary: Sec. A.4.5.1. Tier 2: Sec. 5.6.4)

Connections

- NC N/A U WALL ANCHORAGE: Exterior concrete or masonry walls that are dependent on the diaphragm for lateral support are anchored for out-of-plane forces at each diaphragm level with steel anchors, reinforcing dowels, or straps that are developed into the diaphragm. Connections shall have adequate strength to resist the connection force calculated in the Quick Check procedure of Section 4.5.3.7. (Commentary: Sec. A.5.1.1. Tier 2: Sec. 5.7.1.1)
- C NC N/A U WOOD LEDGERS: The connection between the wall panels and the diaphragm does not induce cross-grain bending or tension in the wood ledgers. (Commentary: Sec. A.5.1.2. Tier 2: Sec. 5.7.1.3)
- NC N/A U TRANSFER TO SHEAR WALLS: Diaphragms are connected for transfer of seismic forces to the shear walls. (Commentary: Sec. A.5.2.1. Tier 2: Sec. 5.7.2)
- C NC N/A U TOPPING SLAB TO WALLS OR FRAMES: Reinforced concrete topping slabs that interconnect the precast concrete diaphragm elements are doweled for transfer of forces into the shear wall or frame elements. (Commentary: Sec. A.5.2.3. Tier 2: Sec. 5.7.2)
- NC N/A U FOUNDATION DOWELS: Wall reinforcement is doweled into the foundation. (Commentary: Sec. A.5.3.5. Tier 2: Sec. 5.7.3.4)
- C NC N/A U GIRDER-COLUMN CONNECTION: There is a positive connection using plates, connection hardware, or straps between the girder and the column support. (Commentary: Sec. A.5.4.1. Tier 2: Sec. 5.7.4.1)

High Seismicity: Complete the Following Items in Addition to the Items for Low and Moderate Seismicity.

Stiff Diaphragms

- NC N/A U OPENINGS AT SHEAR WALLS: Diaphragm openings immediately adjacent to the shear walls are less than 25% of the wall length. (Commentary: Sec. A.4.1.4. Tier 2: Sec. 5.6.1.3)
- NC N/A U OPENINGS AT EXTERIOR MASONRY SHEAR WALLS: Diaphragm openings immediately adjacent to exterior masonry shear walls are not greater than 8 ft long. (Commentary: Sec. A.4.1.6. Tier 2: Sec. 5.6.1.3)

Flexible Diaphragms

- C NC N/A U CROSS TIES: There are continuous cross ties between diaphragm chords. (Commentary: Sec. A.4.1.2. Tier 2: Sec. 5.6.1.2)
- C NC N/A U OPENINGS AT SHEAR WALLS: Diaphragm openings immediately adjacent to the shear walls are less than 25% of the wall length. (Commentary: Sec. A.4.1.4. Tier 2: Sec. 5.6.1.3)
- C NC N/A U OPENINGS AT EXTERIOR MASONRY SHEAR WALLS: Diaphragm openings immediately adjacent to exterior masonry shear walls are not greater than 8 ft long. (Commentary: Sec. A.4.1.6. Tier 2: Sec. 5.6.1.3)

- C NC (N/A) U STRAIGHT SHEATHING: All straight sheathed diaphragms have aspect ratios less than 2-to-1 in the direction being considered. (Commentary: Sec. A.4.2.1, Tier 2; Sec. 5.6.2)
- C NC (N/A) U SPANS: All wood diaphragms with spans greater than 24 ft consist of wood structural panels or diagonal sheathing. (Commentary: Sec. A.4.2.2, Tier 2; Sec. 5.6.2)
- C NC (N/A) U DIAGONALLY SHEATHED AND UNBLOCKED DIAPHRAGMS: All diagonally sheathed or unblocked wood structural panel diaphragms have horizontal spans less than 40 ft and aspect ratios less than or equal to 4-to-1. (Commentary: Sec. A.4.2.3, Tier 2; Sec. 5.6.2)
- C NC (N/A) U OTHER DIAPHRAGMS: The diaphragm shall not consist of a system other than wood, metal deck, concrete, or horizontal bracing. (Commentary: Sec. A.4.7.1, Tier 2; Sec. 5.6.5)

Connections

- C NC (N/A) U STIFFNESS OF WALL ANCHORS: Anchors of concrete or masonry walls to wood structural elements are installed taut and are stiff enough to limit the relative movement between the wall and the diaphragm to no greater than 1/8 in. before engagement of the anchors. (Commentary: Sec. A.5.1.4, Tier 2; Sec. 5.7.1.2)



1. West Elevation at North End



2. West Elevation at South End



3. North Elevation at West



4. North Elevation at Centre



5. North Elevation at East End



6. Northeast Corner Looking South



7. East Elevation at South End



8. East Elevation at Mechanical Room



9. Southeast Corner



10. South Elevation looking West



11. Corridor along East Side looking North

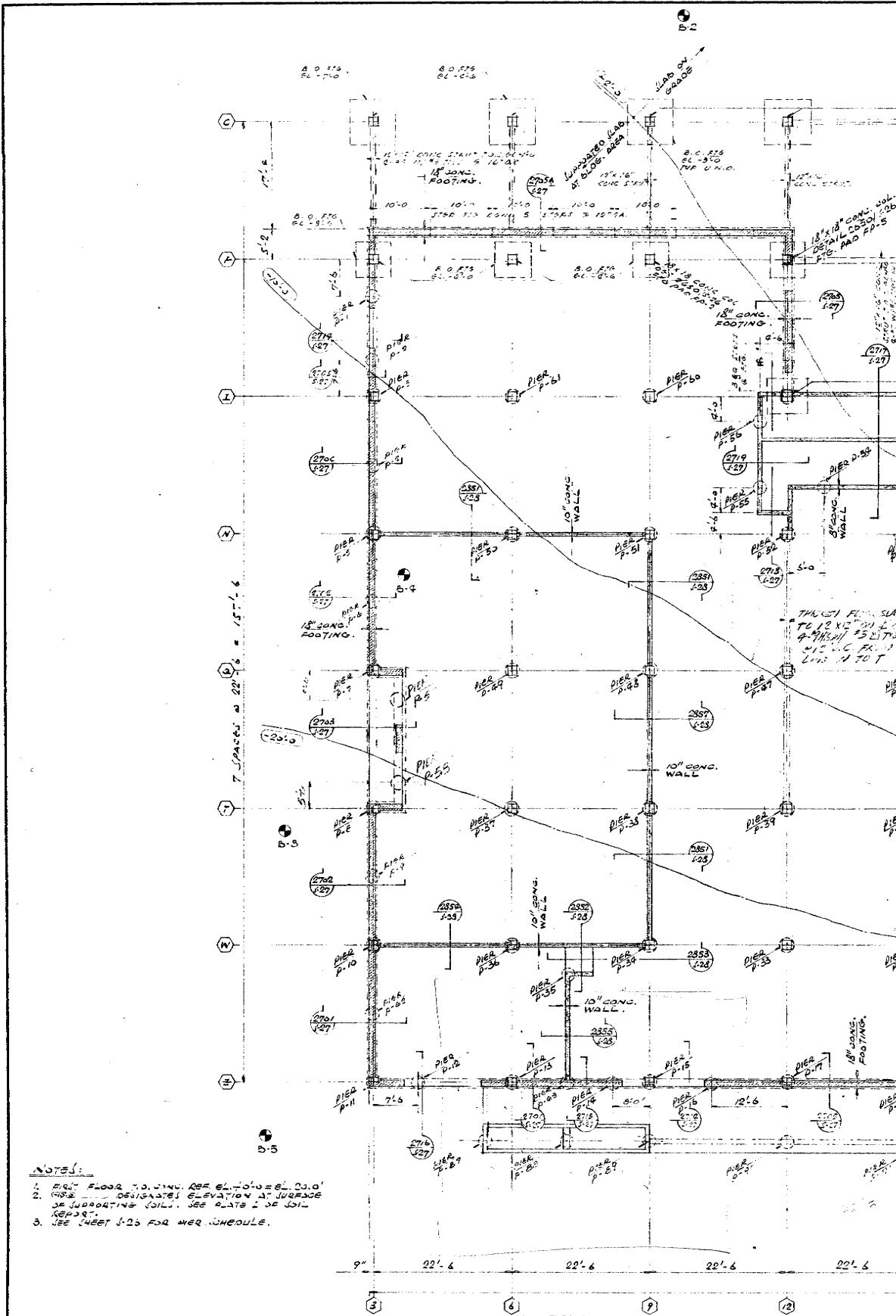


12. South Side looking East



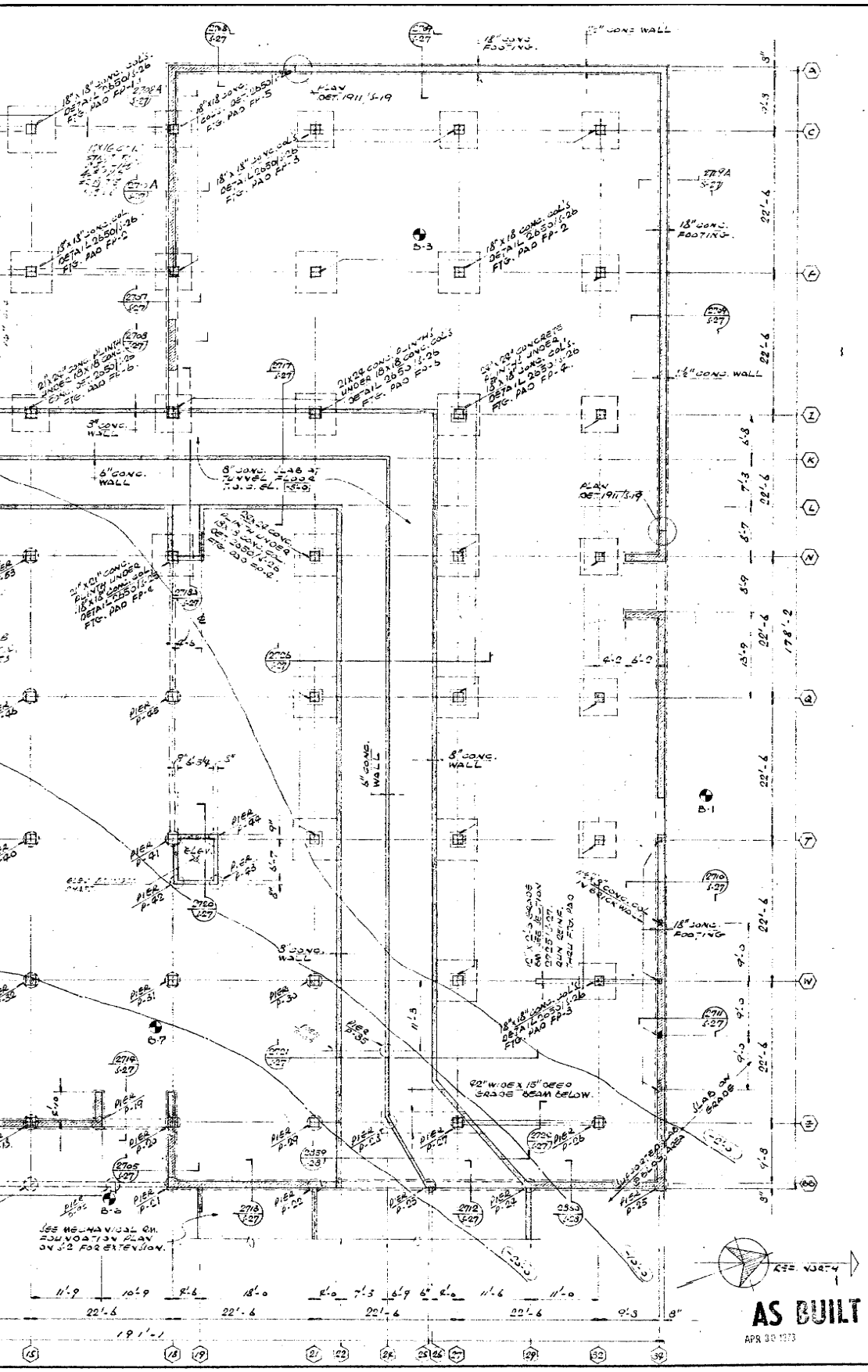
13. West Elevation looking North

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NOTES:

1. FIRST FLOOR T.O. FIN. REF. EL. TO 0' = EL. 101.0'
2. CHS. DESIGNATES ELEVATION AT SURFACE OF SUPPORTING SOIL. SEE PLATE 2 OF SOIL REPORT.
3. SEE SHEET J-23 FOR MEMBER SCHEDULE.



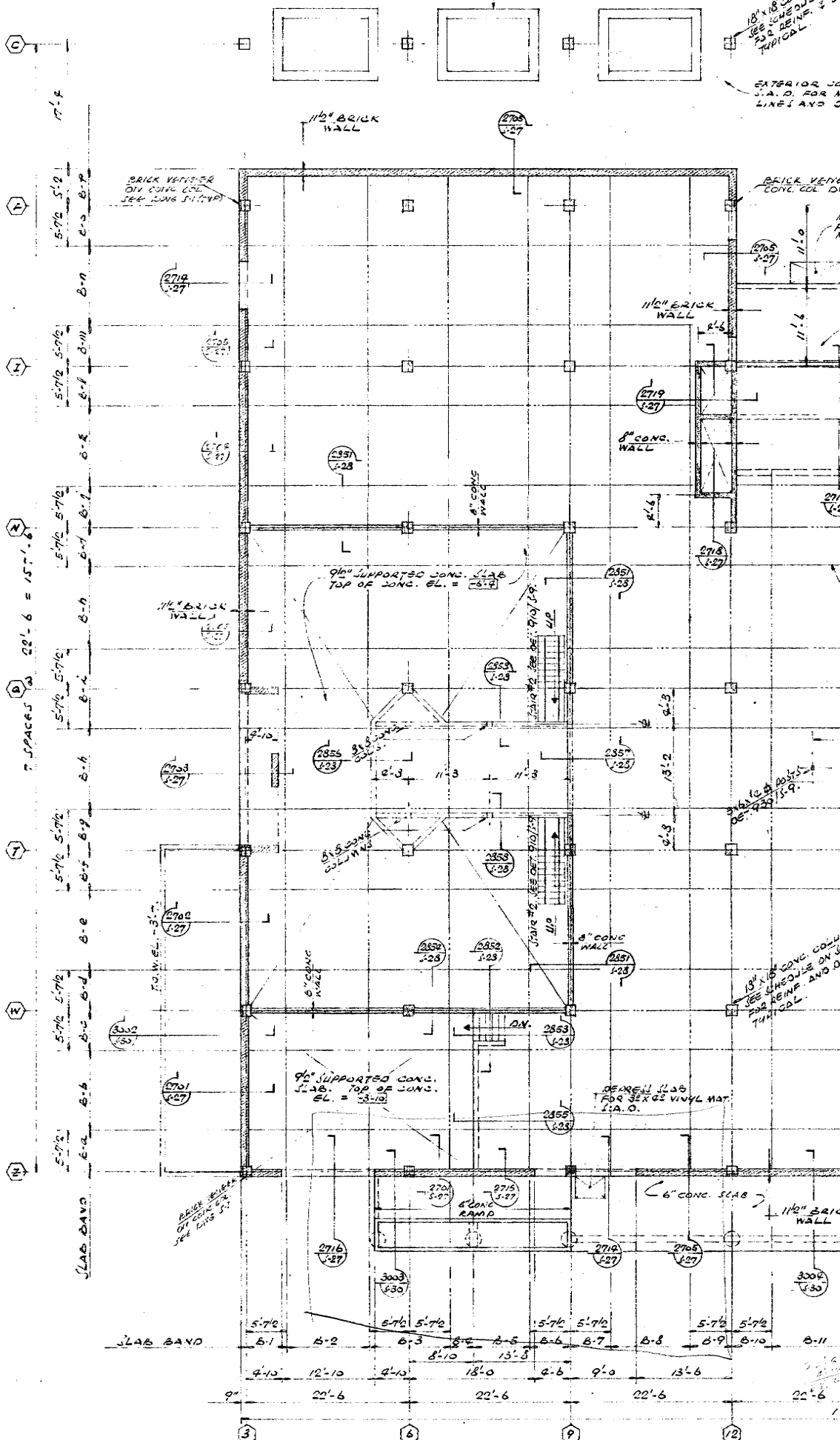
CONTRACT SIGNATURES CONTRACTOR BOARD OF TRUSTEES	
WORD AND TALK CONSULTANTS, ENGINEERS 107 MARKET ST., SAN FRANCISCO, CALIF. 94102	
1937 The Corporation shall make all arrangements for the construction of the project and shall be responsible for the completion of the project and shall be responsible for the payment of the project. The Corporation shall not be liable for the project.	
COLLEGE OF MARIN MENDOCINO COUNTY CALIFORNIA LIBRARY	
CORWIN BOOTH & ASSOCIATED ARCHITECTS 101 ADAMS STREET, SAN FRANCISCO, CALIFORNIA 94102	
SHEET TITLE FOUNDATION PLAN 30.18' x 10'	
FILE NUMBER 46-1-1	TRACKING DATE 1973
PRINT DATE APR 30 1973	S-3 DRAWING NO

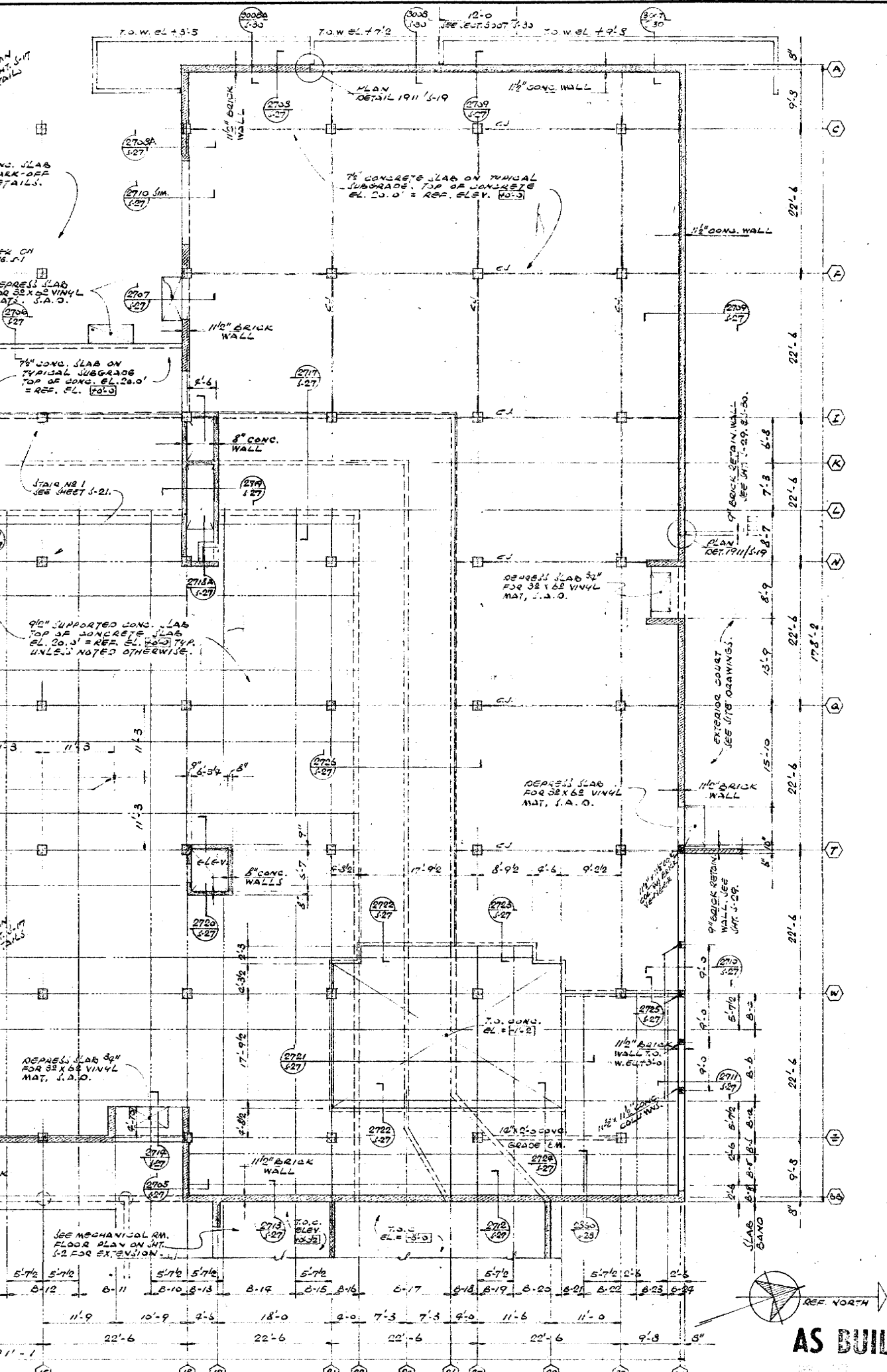
AS BUILT
APR 30 1973

SEE SITE OUTLINES, TWO.

18" X 18" CONC. COLUMN
SEE SCHEDULE ON DRAWING
FOR REINFORCING AND DE
TYPICAL

EXTERIOR JOINT
S.A.O. FOR M
LINES AND JO





CONTRACT SIGNATURES
 CONTRACTOR

BOARD OF TRUSTEES

WONG AND TUAN CIVIL STRUCTURAL ENGINEERS
 847 HOWARD ST., SAN FRANCISCO, CALIF. 94104

NOTE: The Contractor shall check all dimensions of the job and shall be responsible for all discrepancies between the drawings and the actual construction. The Contractor shall be held responsible for all errors and omissions. The Architect shall be held responsible for all errors and omissions. The Architect shall be held responsible for all errors and omissions.

CORWIN BOOTH & ASSOCIATED ARCHITECTS
 101 HOWARD STREET, SAN FRANCISCO, CALIFORNIA 94105, TELEPHONE 415 771-1700

COLLEGE OF MARIN
 KENTFIELD MARIN COUNTY CALIFORNIA
 LIBRARY

FILE NUMBER
 1664-50

SHEET TITLE
 FIRST FLOOR PLAN
 1/2" = 1'-0"

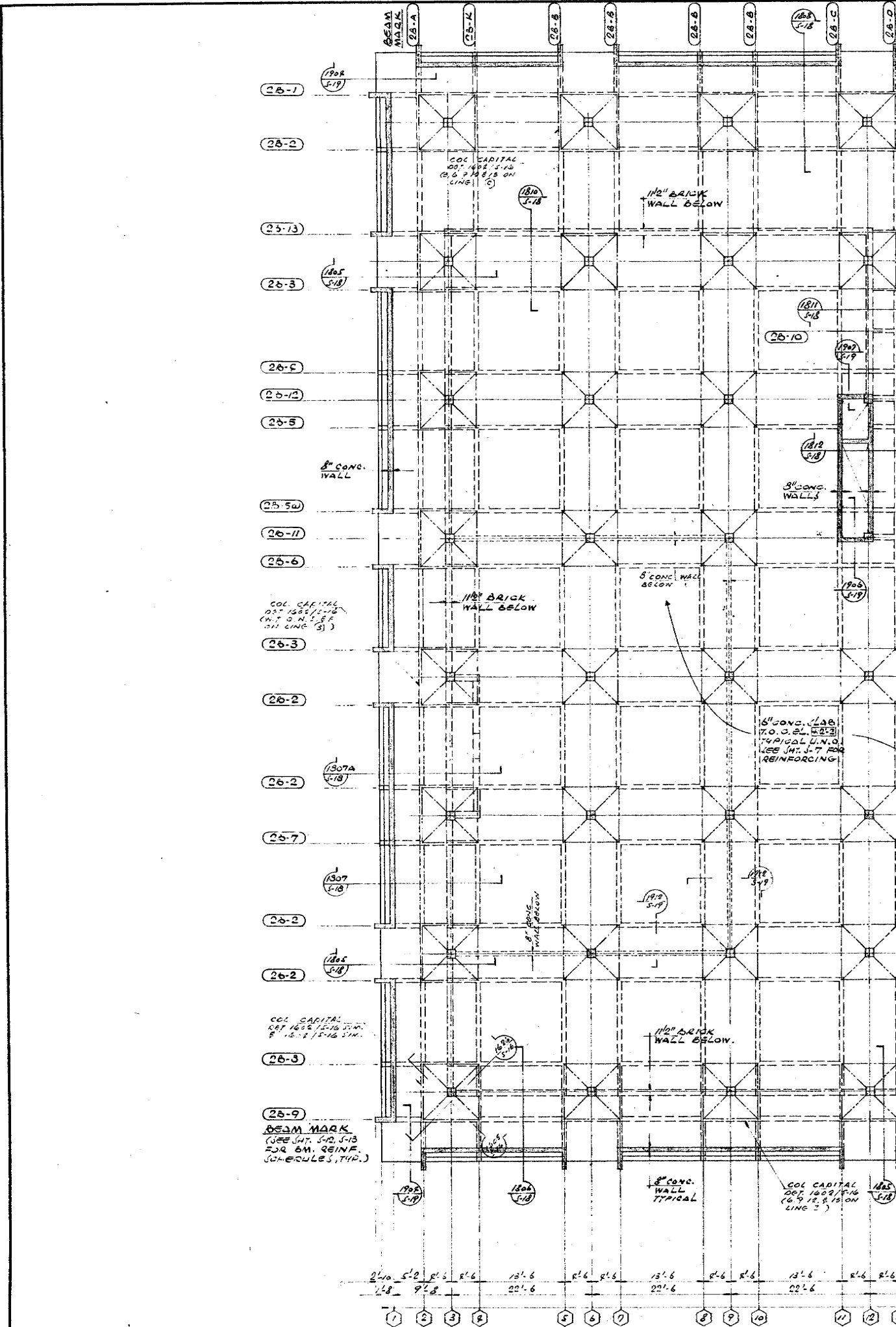
TRACING DATE
 FEB 1 1971

PRINT DATE

AS BUILT

S-4

DRAWING NO



2B-1
 2B-2
 2B-13
 2B-3
 2B-6
 2B-12
 2B-5
 2B-5w
 2B-11
 2B-6
 2B-3
 2B-2
 2B-2
 2B-7
 2B-2
 2B-2
 2B-3
 2B-9

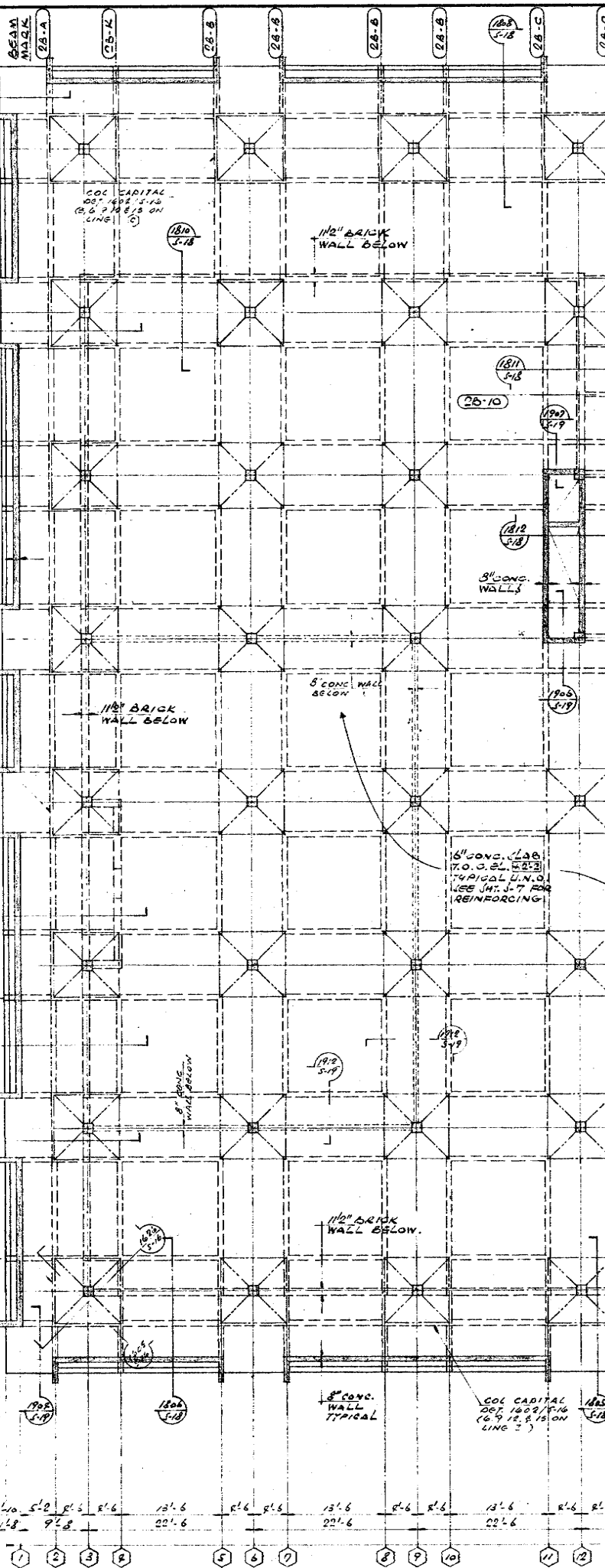
COL CAPITAL
 DET 1802 S-18
 (6" x 6" x 6" ON
 LINE 3)

COL CAPITAL
 DET 1802 S-18
 (6" x 6" x 6" ON
 LINE 3)

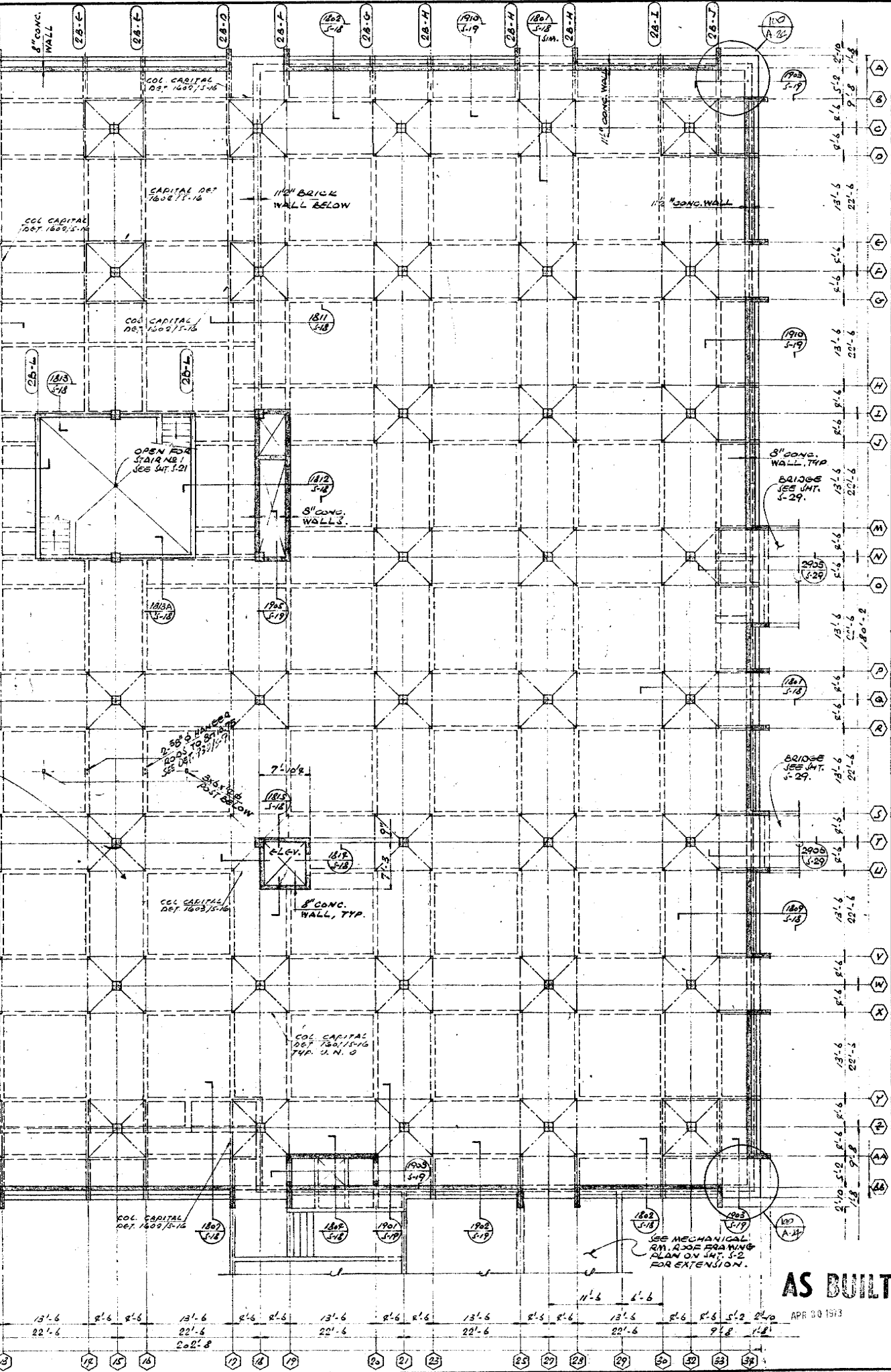
COL CAPITAL
 DET 1802 S-18
 (6" x 6" x 6" ON
 LINE 3)

BEAM MARK
 (SEE INT. S-13
 FOR BM REINF.
 SCHEDULES, TYP.)

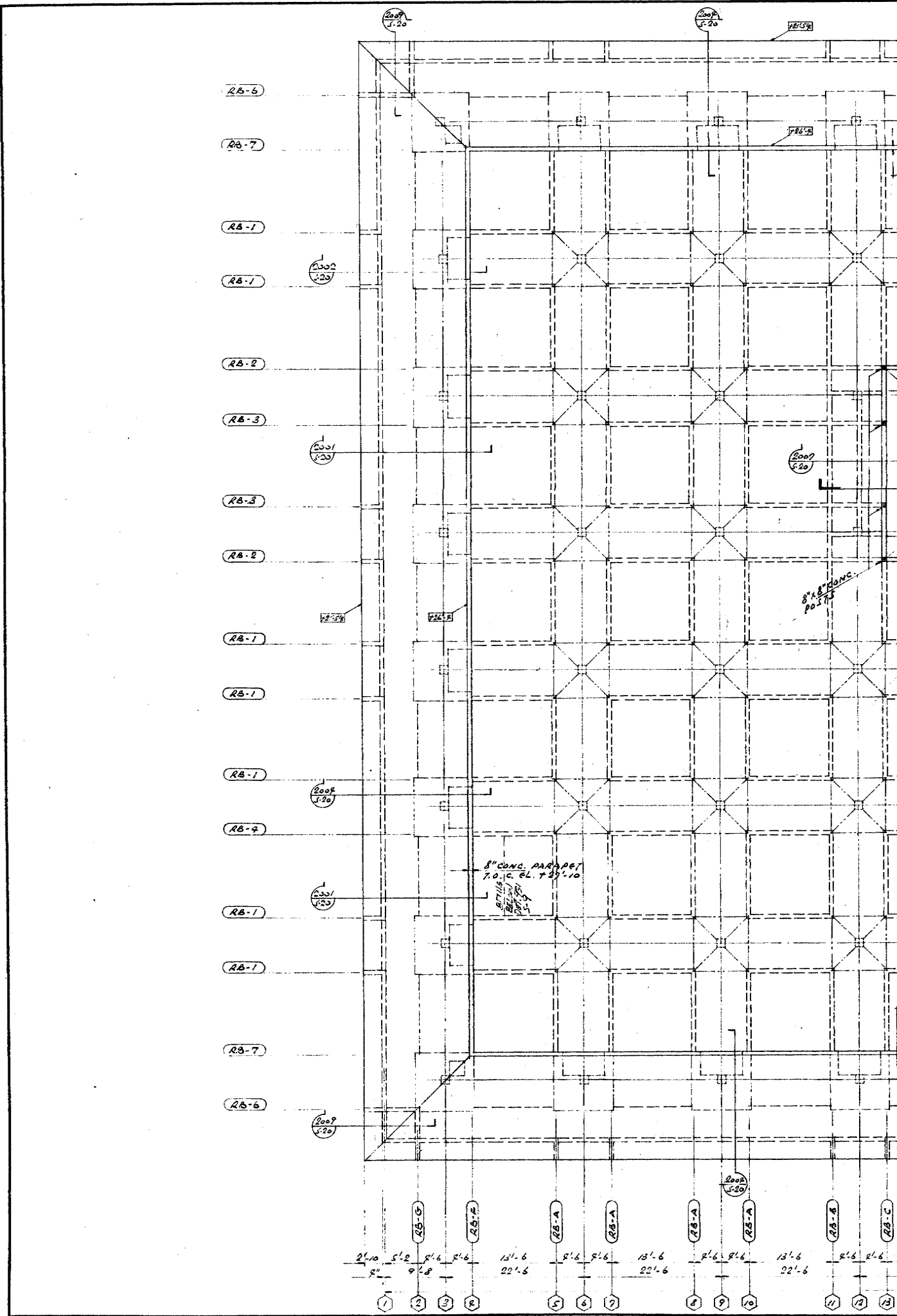
COL CAPITAL
 DET 1802 S-18
 (6" x 6" x 6" ON
 LINE 3)



2'-0"	5'-2"	8'-5"	8'-6"	13'-6"	8'-6"	8'-6"	13'-6"	8'-6"	8'-6"	13'-6"	8'-6"	8'-6"
1'-8"	9'-8"	22'-6"		22'-6"		22'-6"		22'-6"		22'-6"		22'-6"
1	2	3	4	5	6	7	8	9	10	11	12	



<p>CONTRACT SIGNATURES</p> <p>CONTRACTOR</p>	<p>BOARD OF TRUSTEES</p>	<p>WONG AND TIAN CIVIL STRUCTURAL ENGINEERS 847 HOWARD ST. SAN FRANCISCO, CALIF. 94102-2074</p>	<p>NOTE: The Contractor shall verify all dimensions of the job and shall be responsible for all discrepancies between drawings or between drawings and actual conditions. The Contractor shall also be fully responsible for all property damage or injury to persons or property caused by the work.</p>	<p>S. CORWIN BOOTH & ASSOCIATED ARCHITECTS 107 HOWARD STREET, SAN FRANCISCO, CALIFORNIA 94102, TELEPHONE 415 397-7708</p>
<p>COLLEGE OF MARIN KENTFIELD MARIPOSA COUNTY CALIFORNIA LIBRARY</p>				
<p>SHEET TITLE</p> <p>SECOND FLOOR DRAWING PLAN</p> <p>Scale 1/8" = 1'-0"</p>		<p>FILE NUMBER</p> <p>26-1-50</p>		
<p>TRACING DATE</p> <p>FEB 4 1971</p>		<p>PRINT DATE</p> <p>S-5</p>		
<p>AS BUILT</p> <p>APR 20 1973</p>				
<p>DRAWING NO</p>				



RB-6

RB-7

RB-1

RB-1

RB-2

RB-3

RB-3

RB-2

RB-1

RB-1

RB-1

RB-4

RB-1

RB-1

RB-7

RB-6

200# F-20

200# F-20

200# F-20

200# F-20

200# F-20

200# F-20

200# F-20

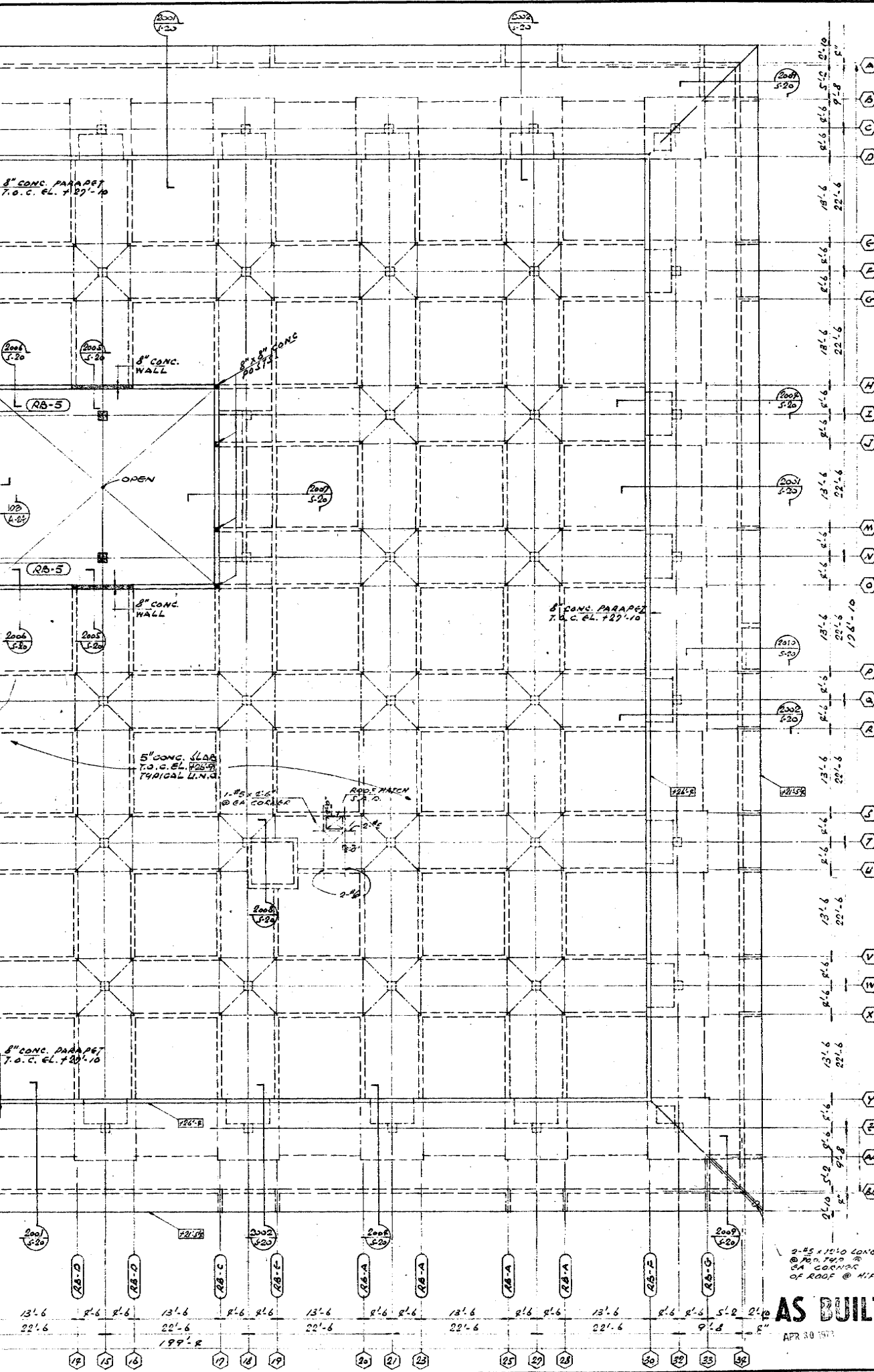
200# F-20

200# F-20

8" CONC. PARAPET
7.0' C. EL. + 25'-10"
5'-11 1/2"
5'-7"

8" x 8" CONC.
POLE

	RB-G	RB-F	RB-A	RB-A	RB-A	RB-A	RB-A	RB-C				
2'-0"	5'-2"	2'-6"	2'-6"	13'-6"	2'-6"	2'-6"	13'-6"	2'-6"	2'-6"			
8"	9'-8"			22'-6"			22'-6"					
1	2	3	4	5	6	7	8	9	10	11	12	13



CONTRACTOR SIGNATURES
 CONTRACTOR

BOARD OF TRUSTEES

WONG AND TSIANG CIVIL & STRUCTURAL ENGINEERS
 847 HOWARD ST., SAN FRANCISCO, CALIF. 94102

NOTE: The Contractor shall check all dimensions of the job and shall be responsible for all discrepancies between the drawings and the actual construction. The Contractor shall also be held responsible for all errors in the drawings. The Contractor shall be held responsible for all errors in the drawings. The Contractor shall be held responsible for all errors in the drawings.

CORWIN BOOTH & ASSOCIATE ARCHITECTS

COLLEGE OF MARIN
 KENTFIELD MARIN COUNTY CALIFORNIA
 LIBRARY

CORWIN BOOTH & ASSOCIATED ARCHITECTS
 151 HOWARD STREET, SAN FRANCISCO, CALIFORNIA 94102, TELEPHONE 415 397-7388

SHEET TITLE
ROOF
FRAMING PLAN
 Sc. 1/8" = 1'-0"

FILE NUMBER
 20-1-50

TRACING DATE
 FEB 4 1971

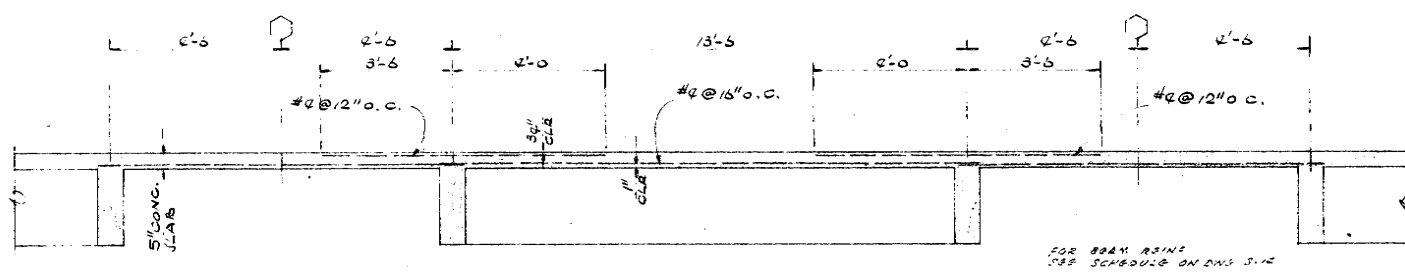
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AS BUILT

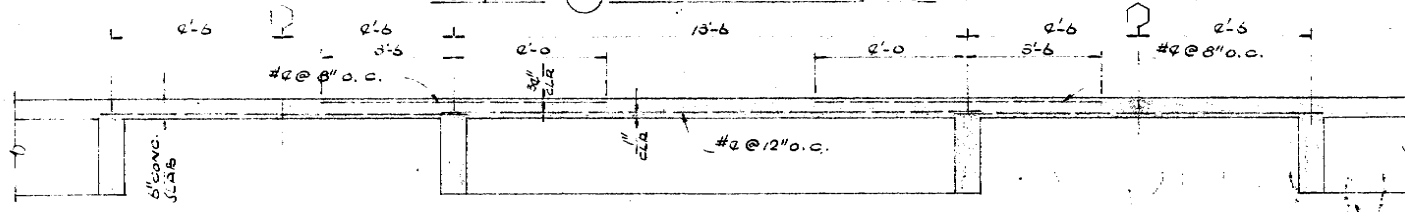
APR 30 1971

S-6

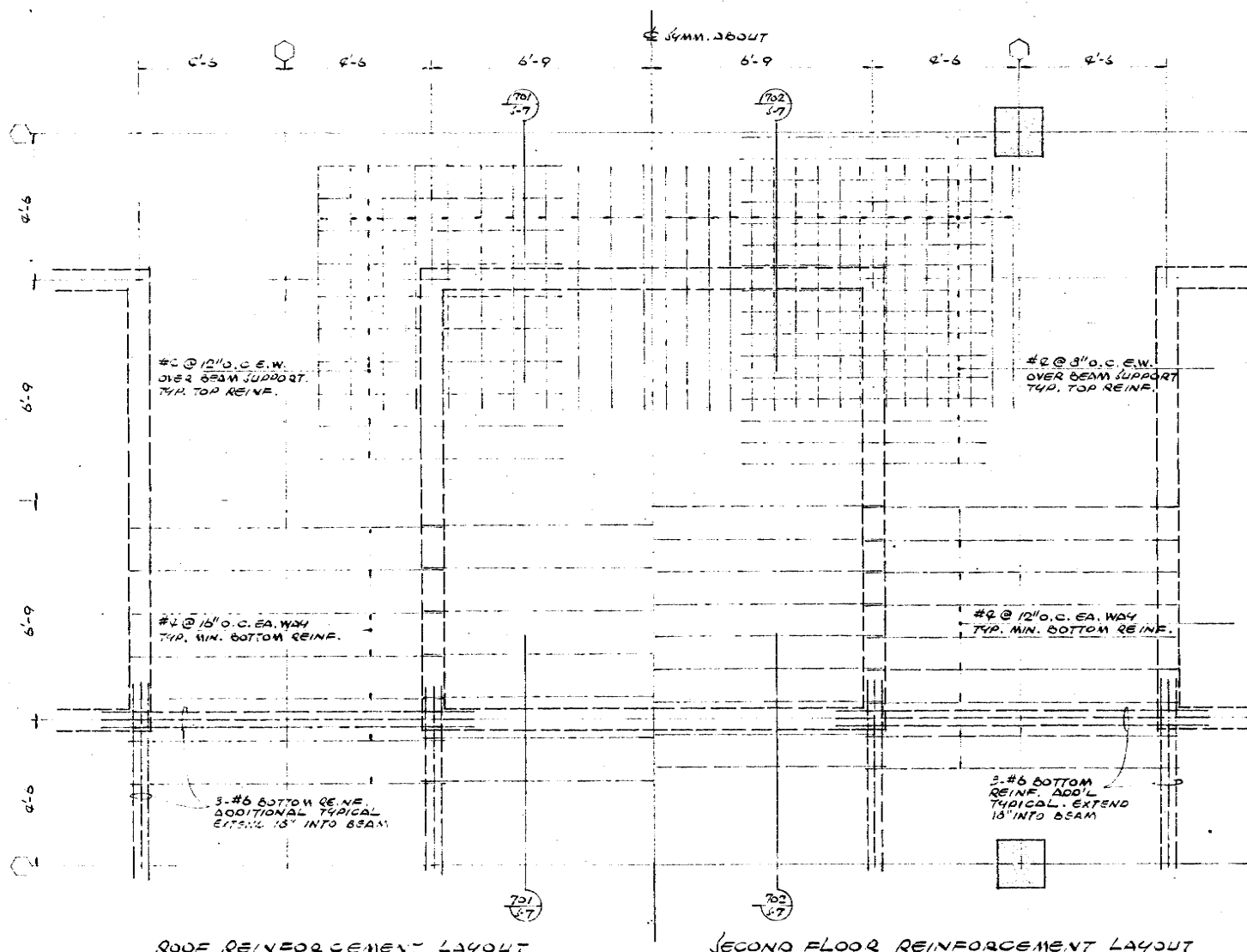
DRAWING NO



SECTION 731 TYPICAL ROOF SLAB (CLASS V CONCRETE)



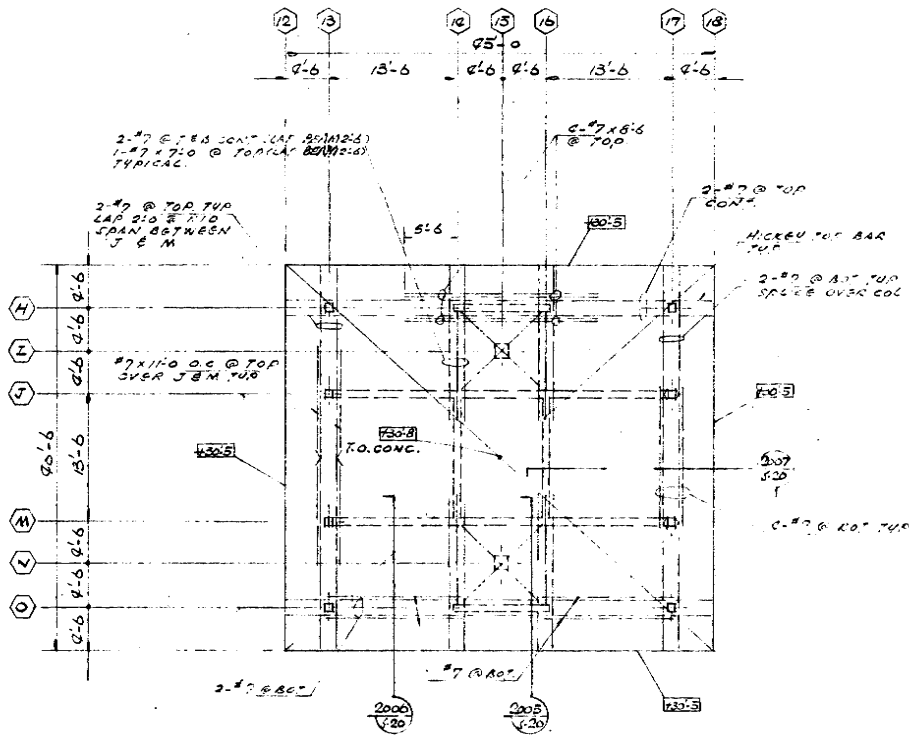
SECTION 732 TYPICAL SECOND FLOOR SLAB (CLASS V CONCRETE)



ROOF REINFORCEMENT LAYOUT

SECOND FLOOR REINFORCEMENT LAYOUT

PLAN 700 TYPICAL SLAB REINFORCEMENT — SECOND FLOOR & ROOF S.C. 1/2" = 1'-0"



HIGH ROOF FRAMING PLAN SC. 13' = 1" = 0

NOTE: REIN. RUNNING IN N.S. DIRECTION TO HAVE 1" CLEAR @ BOT. ETC. 30" CLR @ TOP

CONTRACT SIGNATURES
CONTRACTOR

BOARD OF TRUSTEES

WONG AND TUNG CIVIL & STRUCTURAL ENGINEERS
347 HOWARD ST. SAN FRANCISCO, CALIF. 94102

CORWIN BOOTH & ASSOCIATED ARCHITECTS
151 HOWARD STREET, SAN FRANCISCO, CALIFORNIA 94102, TELEPHONE 415 397-2728

COPY FILED IN
CIVIL ENGINEERING
LIBRARY

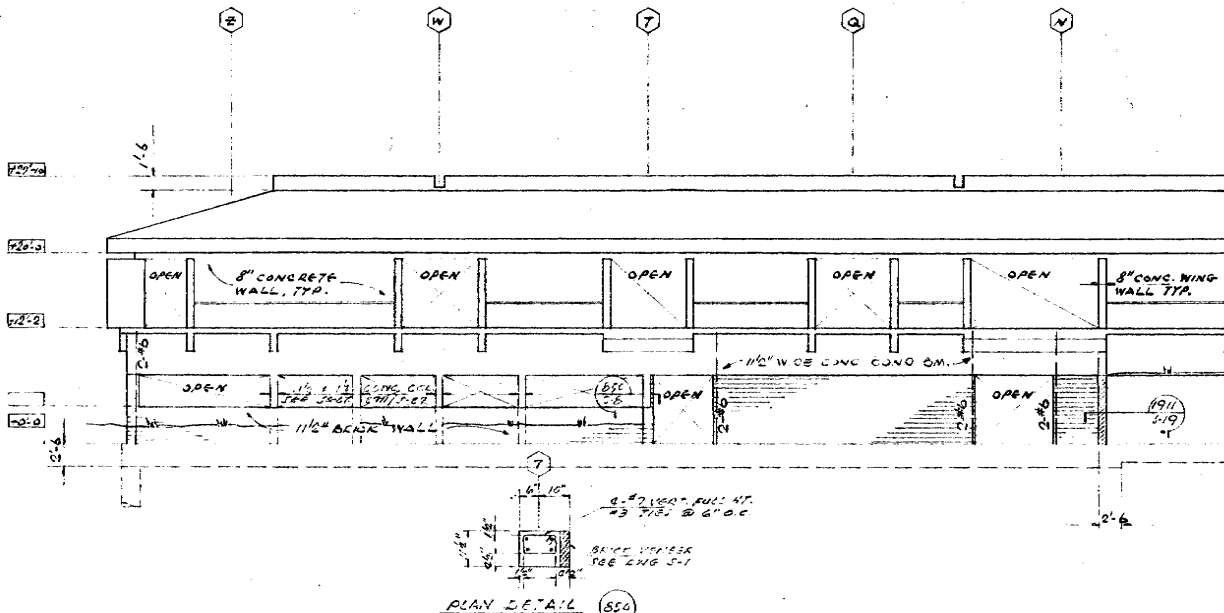
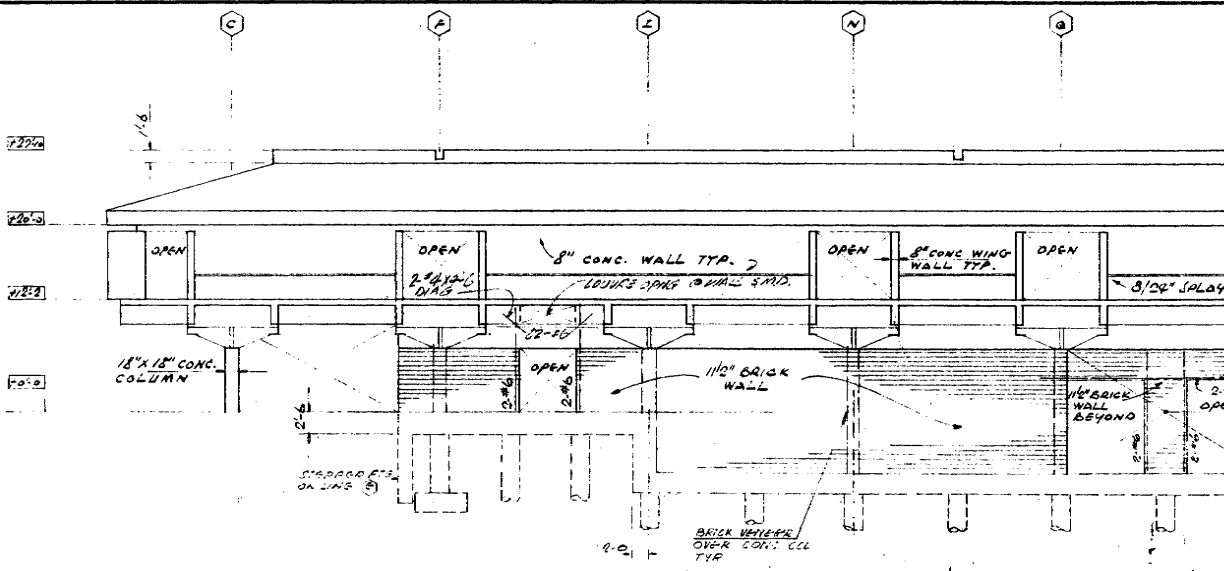
SHEET TITLE
HIGH ROOF FRAMING PLAN
AND
TYPICAL SLAB REIN. DETAILS

FILE NUMBER
CG-1-50

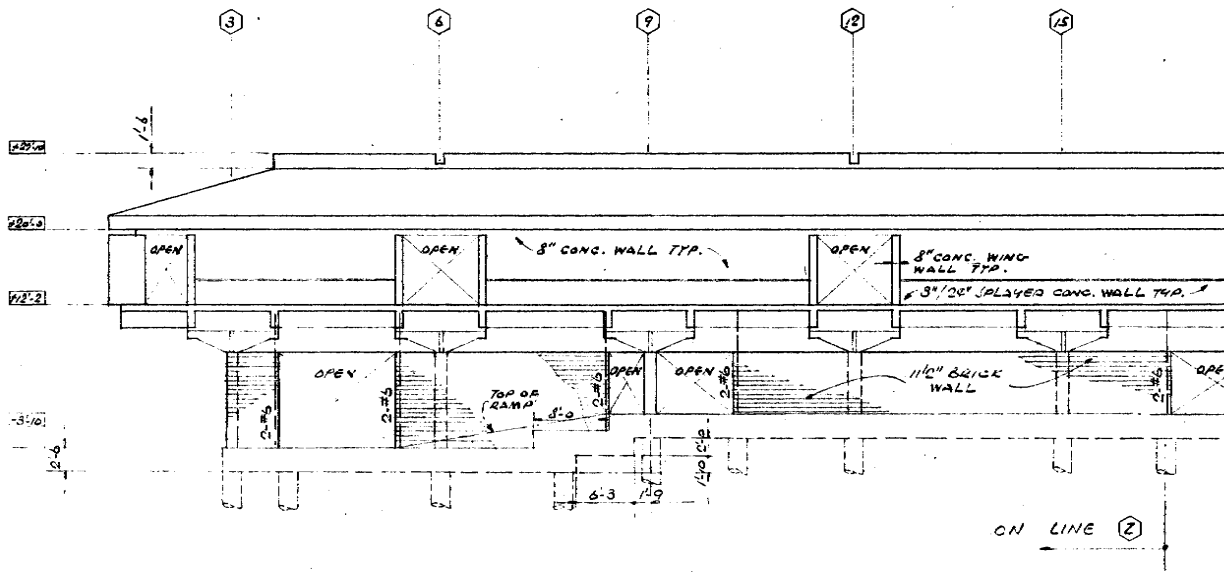
TRACING DATE
PRINT DATE

S-7
DRAWING NO

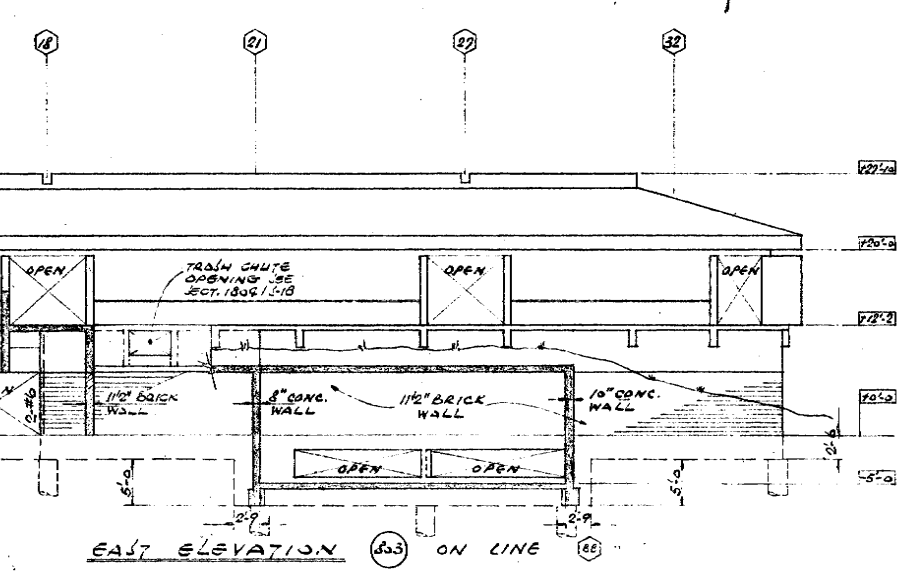
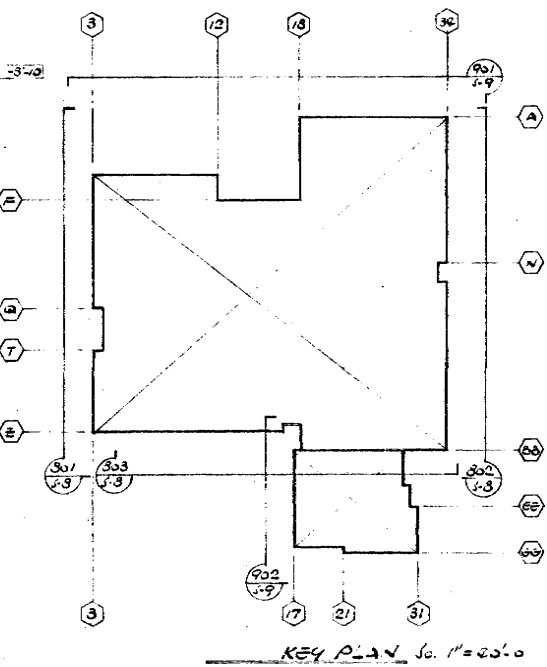
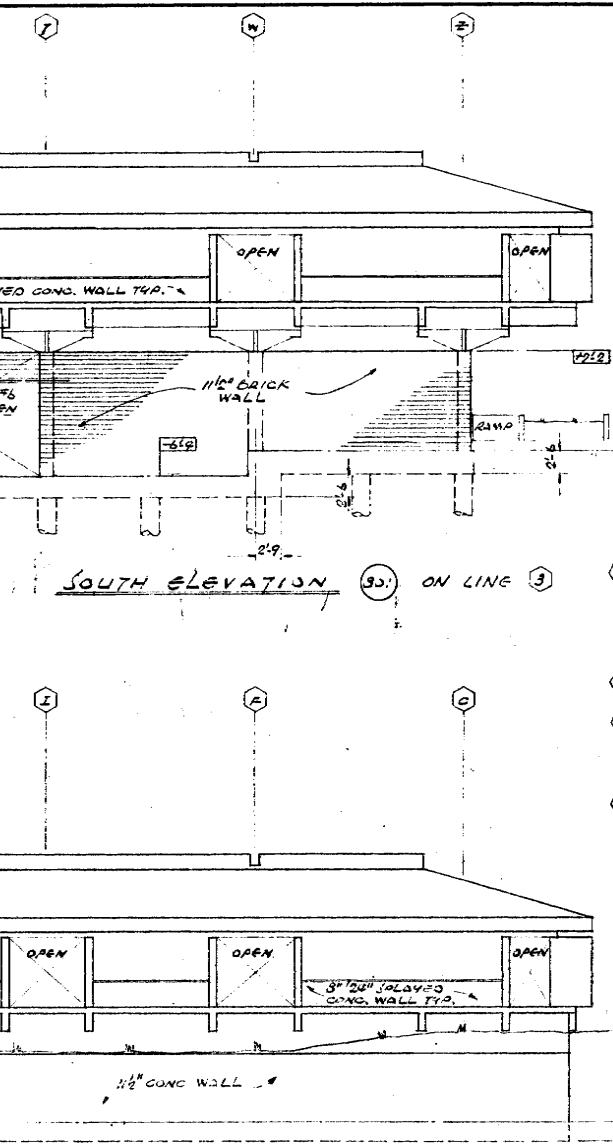
AS BUILT



PLAN DETAIL (550)



ON LINE (2)



CONTRACT SIGNATURES
CONTRACTOR

BOARD OF TRUSTEES

WONG AND YUAN CIVIL & STRUCTURAL ENGINEERS
BY HOWARD W. SAN FRANCISCO, CAL. 1941-1974

NOTE: The Contractor shall check all dimensions at the job and shall be responsible for all discrepancies between the drawings and the actual dimensions of the work. The Contractor shall also be held responsible for all errors in the drawings. The Contractor shall be held responsible for all errors in the drawings. The Contractor shall be held responsible for all errors in the drawings.

CORWIN BOOTH & ASSOCIATED ARCHITECTS
101 HOWARD STREET, SAN FRANCISCO, CALIFORNIA 94102, TELEPHONE 415 392-2208

COLLEGE OF MATH
LIBRARY

CB
AA

SHEET TITLE
EXTERIOR
ELEVATIONS
S. 18"=1'-0"

FILE NUMBER
26-1-50

TRACING DATE
FEB 1974

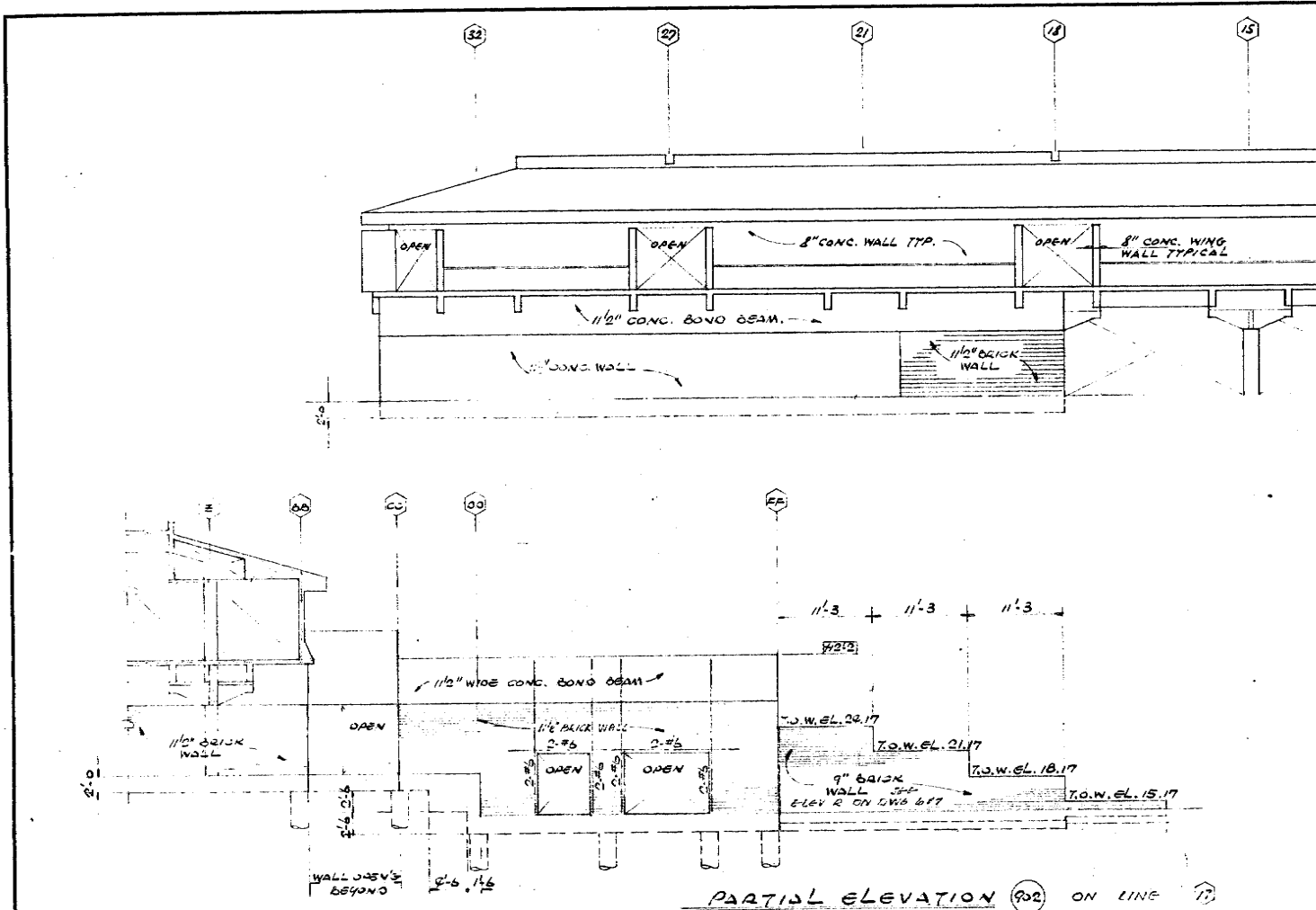
PRINT DATE

S-8

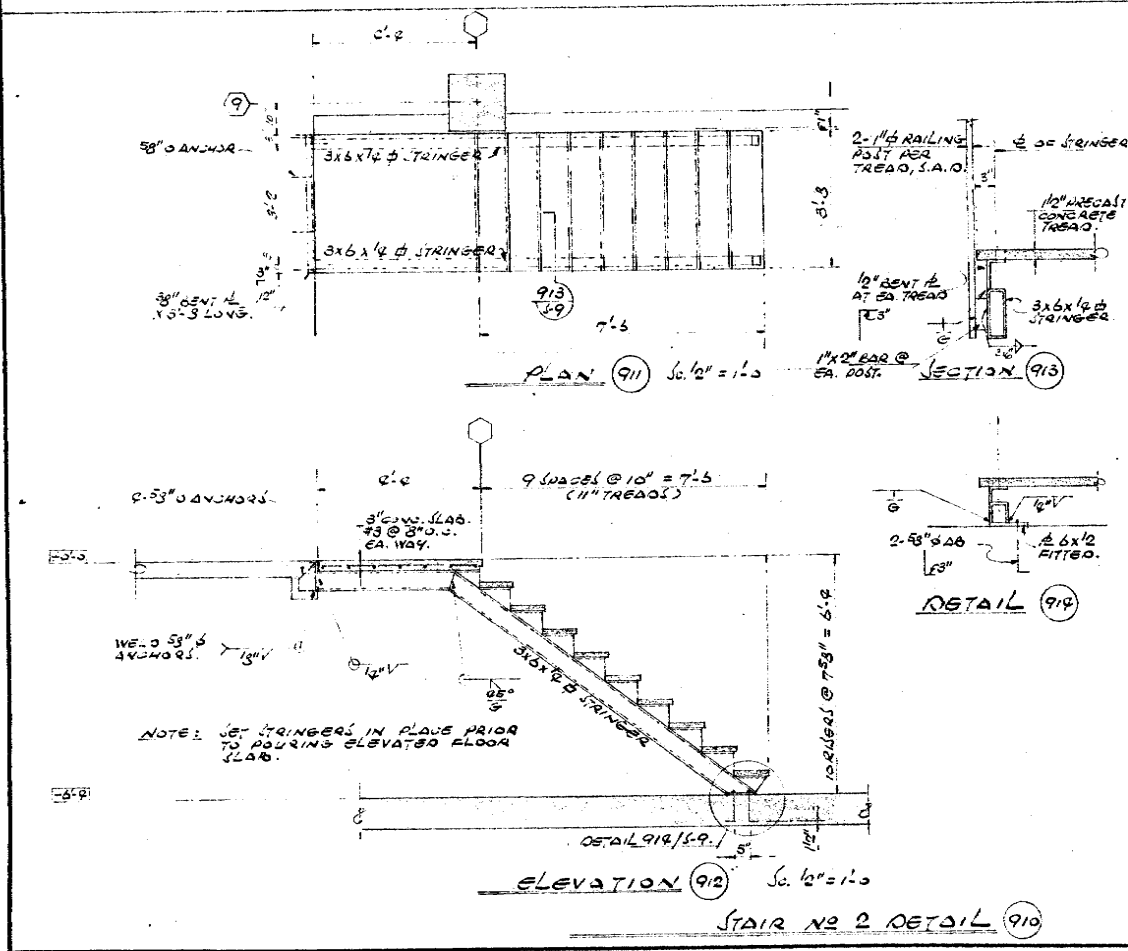
DRAWING NO

AS BUILT

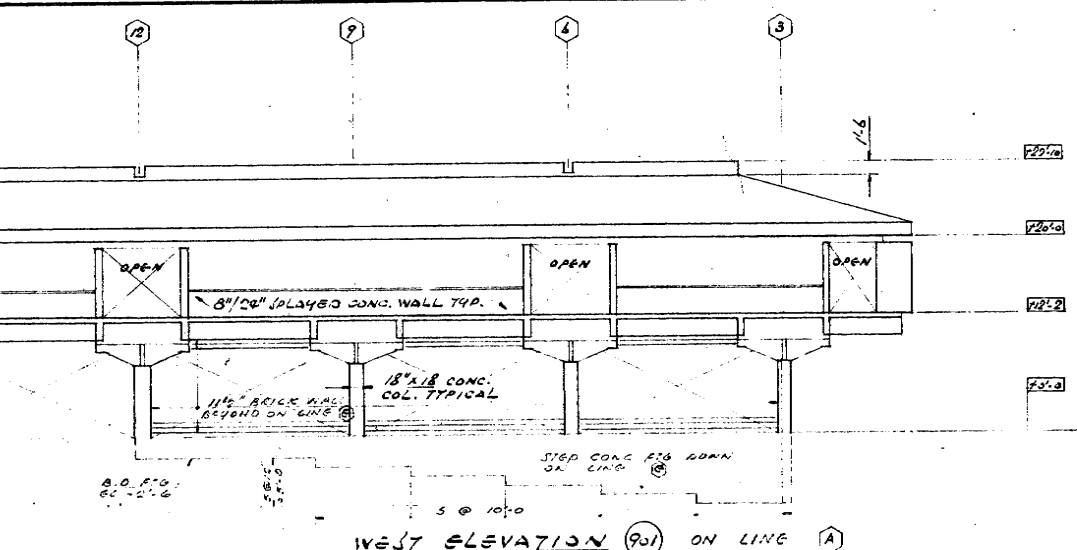
APR 29 1973



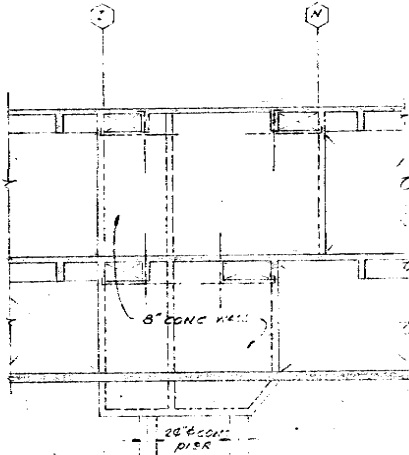
PARTIAL ELEVATION 902 ON LINE 17



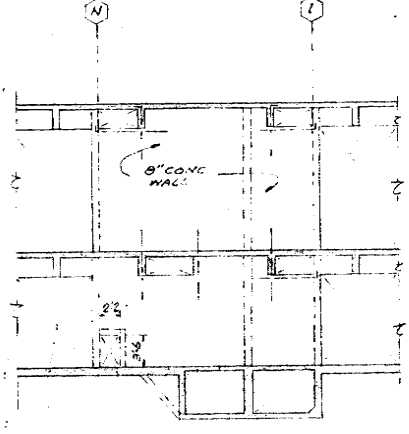
ELEVATION 912 St. 1/2" = 1'-0"
STAIR NO 2 DETAIL 910



WEST ELEVATION (901) ON LINE (A)

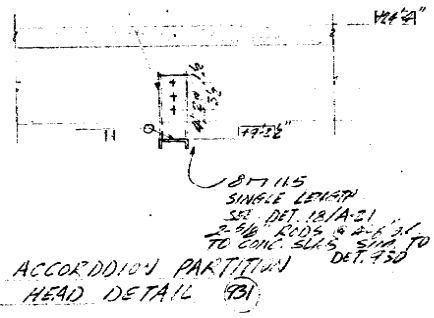


ELEVATION 905 ON LINE (H)

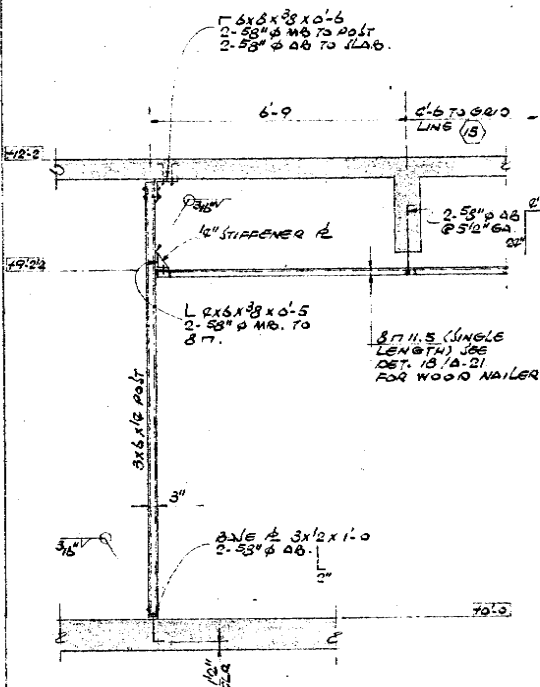


ELEVATION (906) ON LINE (H)

86 115 TO EA 65 111
3-3/2" x 16 7 1/2"



ACCORDION PARTITION HEAD DETAIL (931)



ACCORDION PARTITION SUPPORT FRAME (930)

CONTRACT SIGNATURES
CONTRACTOR

BOARD OF TRUSTEES

WONG AND TEAM CIVIL STRUCTURAL ENGINEERS
BY HOWARD BY SAN FRANCISCO, CAL. 888 8074

NOT: The Contractor shall be responsible for all arrangements between the architect and the contractor for the construction of the building. The Contractor shall be held responsible for all arrangements between the architect and the contractor for the construction of the building.

COLLEGE OF MARIN
MARIETTA COUNTY
LIBRARY

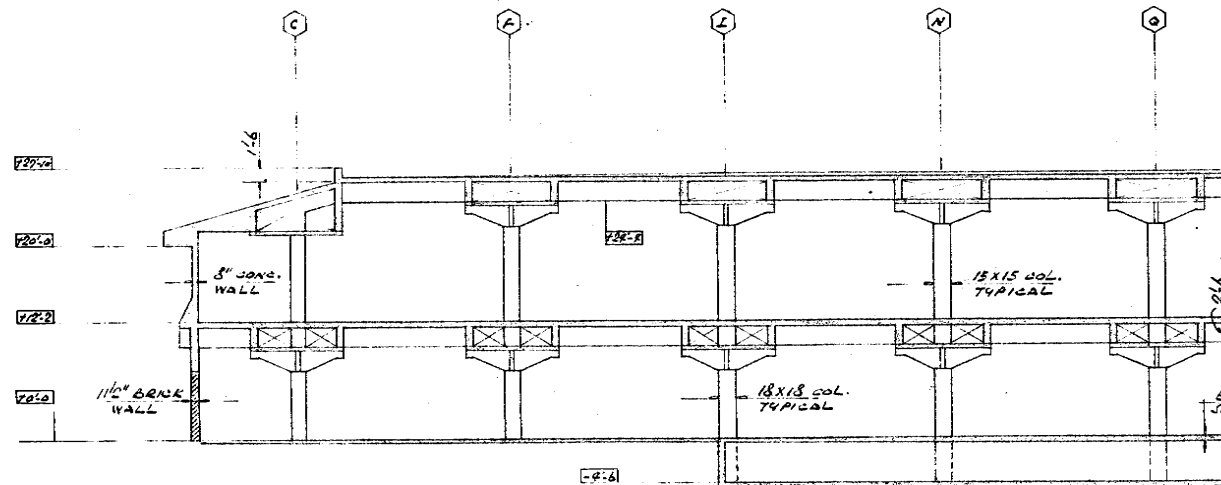
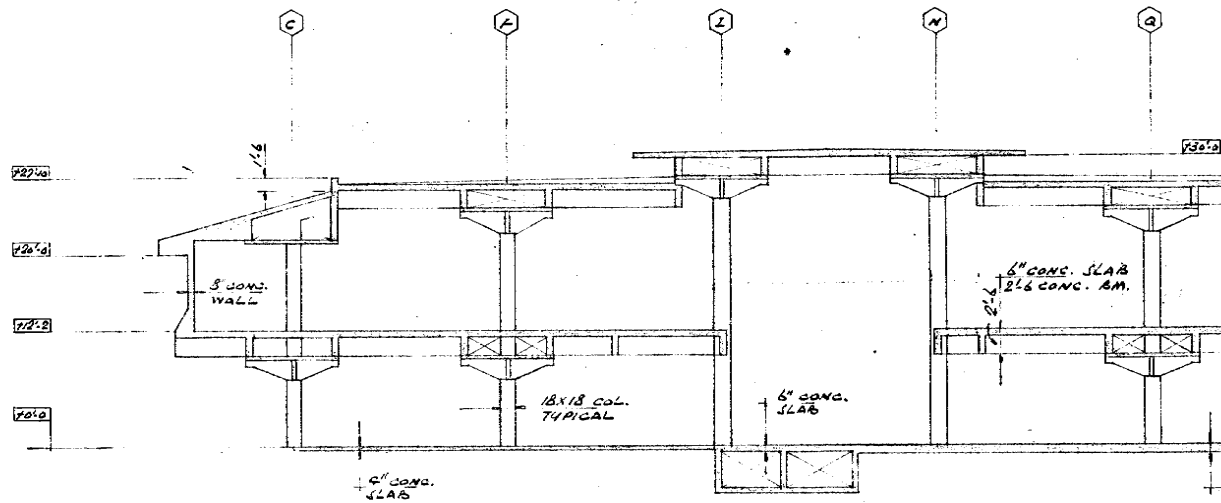
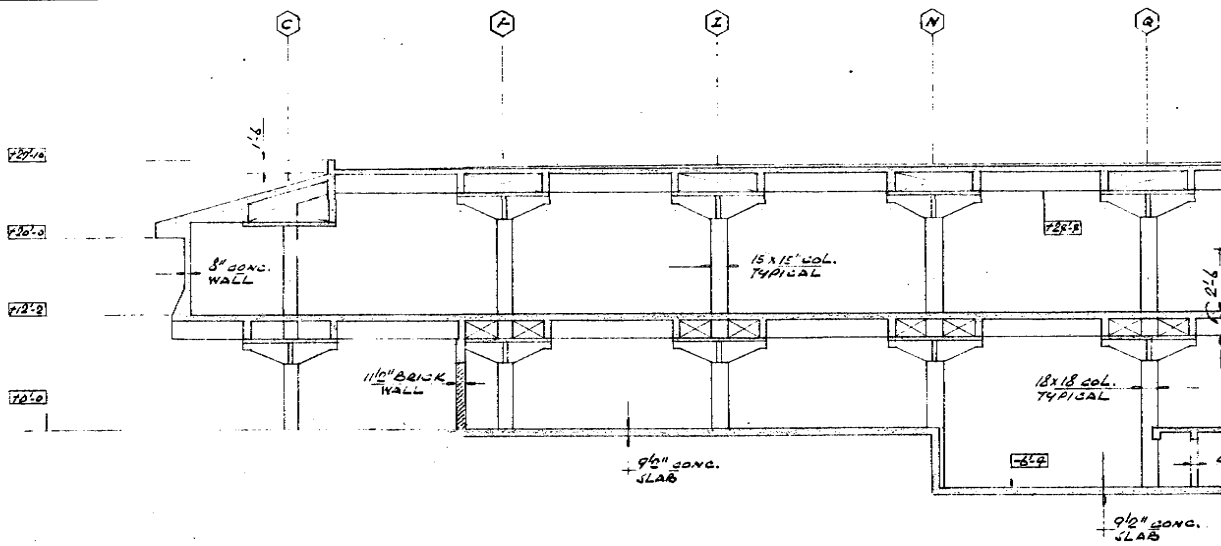
CORWIN BOOTH & ASSOCIATED ARCHITECTS
101 HOWARD STREET, SAN FRANCISCO, CALIFORNIA 94105, TELEPHONE 415 392-2708

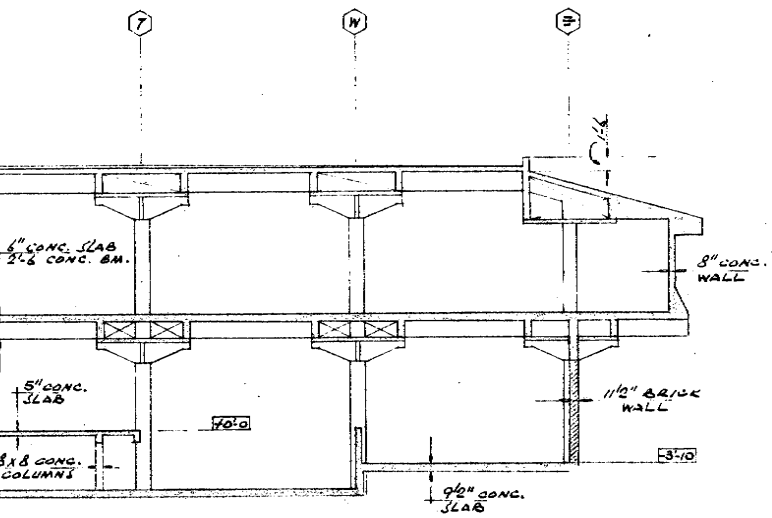
CIB
AIA

SHEET TITLE
EXTERIOR ELEVATIONS
SC. 1/4" = 1'-0"

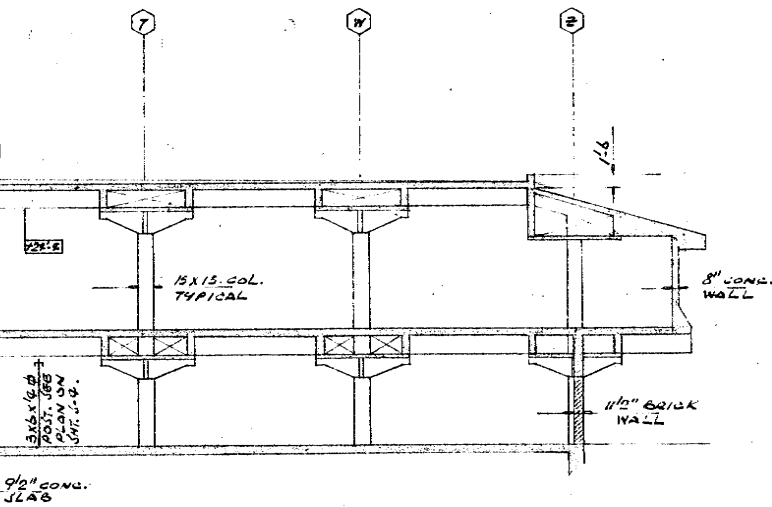
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20-1-50

TRACING DATE
FEB 4 1971
PRINT DATE
S-9
DRAWING NO

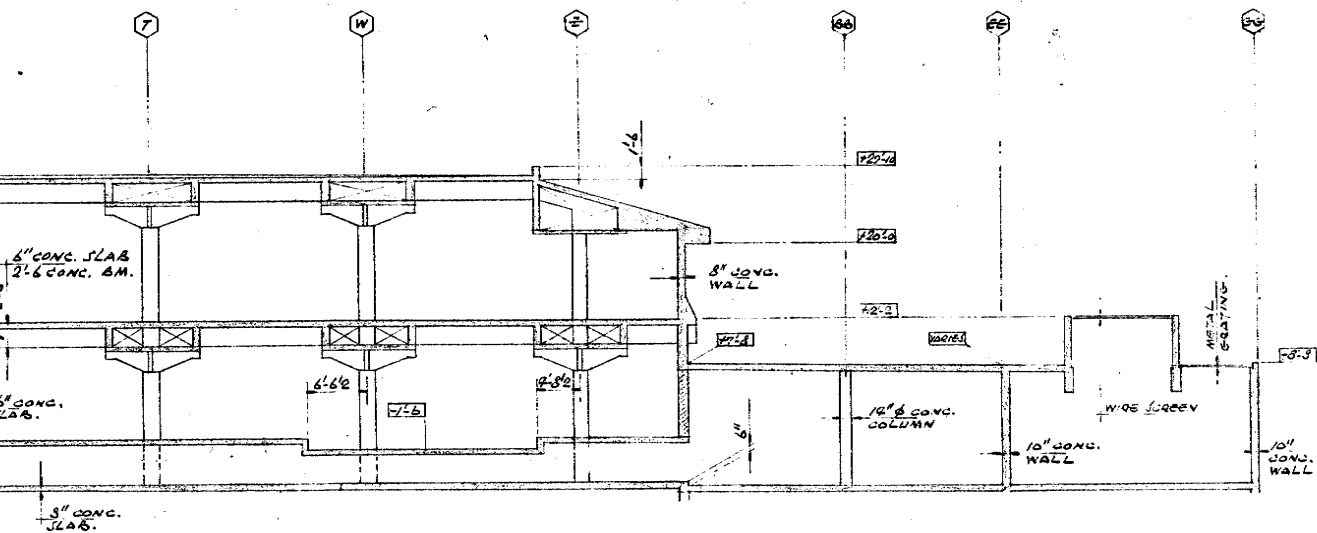




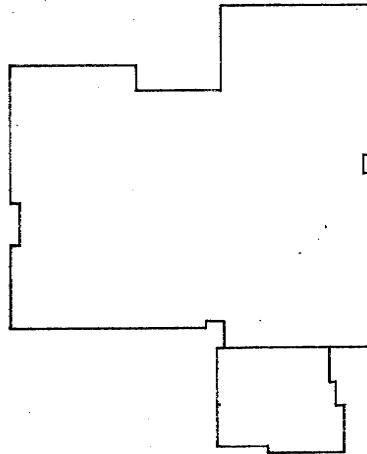
SECTION 1001 ON LINE 6



SECTION 1002 ON LINE 15



SECTION 1003 ON LINE 10D



CONTRACT SIGNATURES
CONTRACTOR

BOARD OF TRUSTEES

NOTE: The Contractor shall be responsible for all dimensions shown and shall be responsible for all dimensions between dimensions of the steel work and shop plates in the drawings. The Contractor shall be responsible for all quantities of material to be furnished and shall be responsible for all material used in the work.

COLLEGE OF MARIN LIBRARY

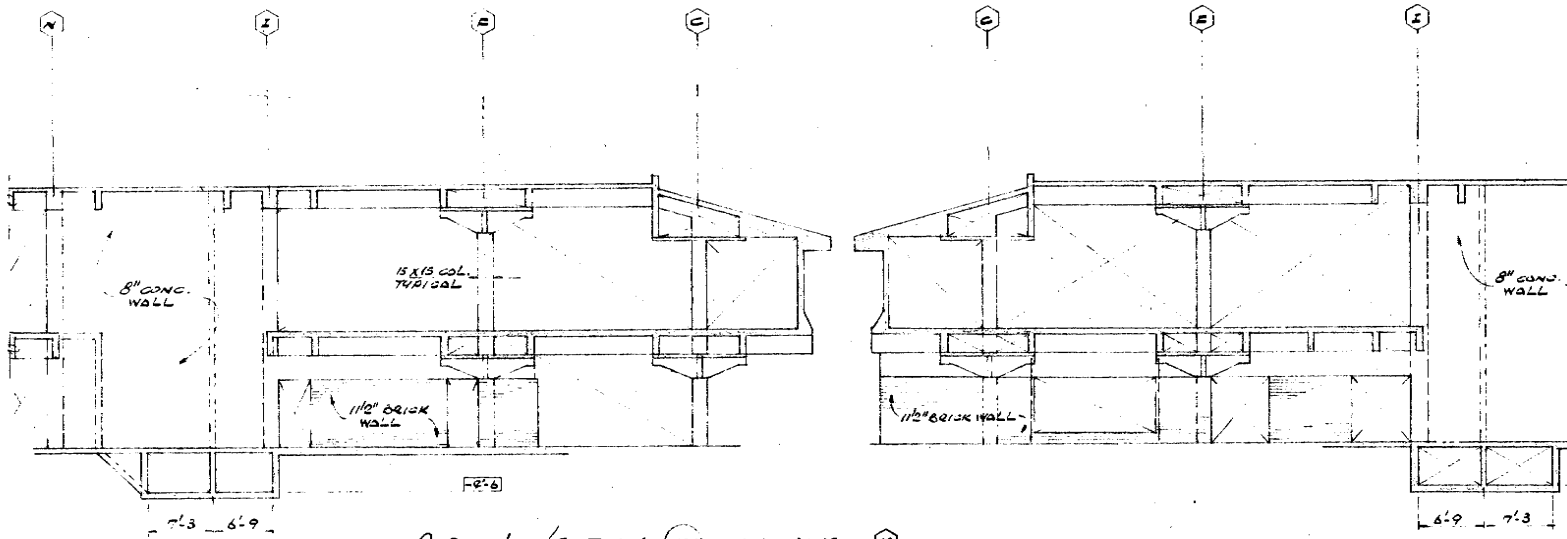
CORWIN BOOTH & ASSOCIATED ARCHITECTS
181 HOWARD STREET, SAN FRANCISCO, CALIFORNIA 94103, TELEPHONE 435 331-3708

CIB
AA

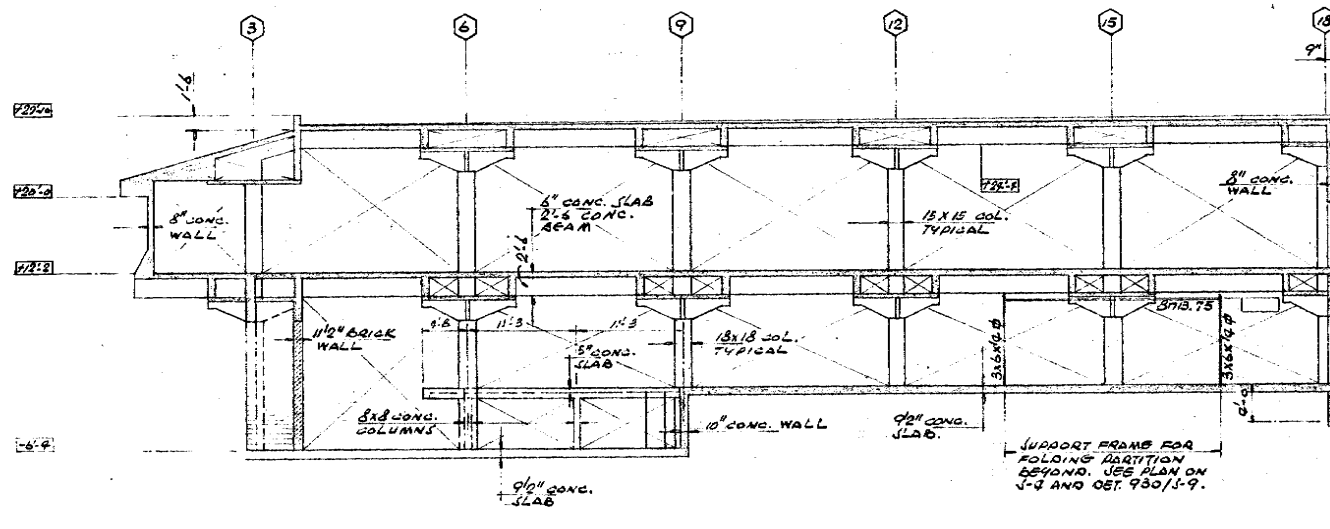
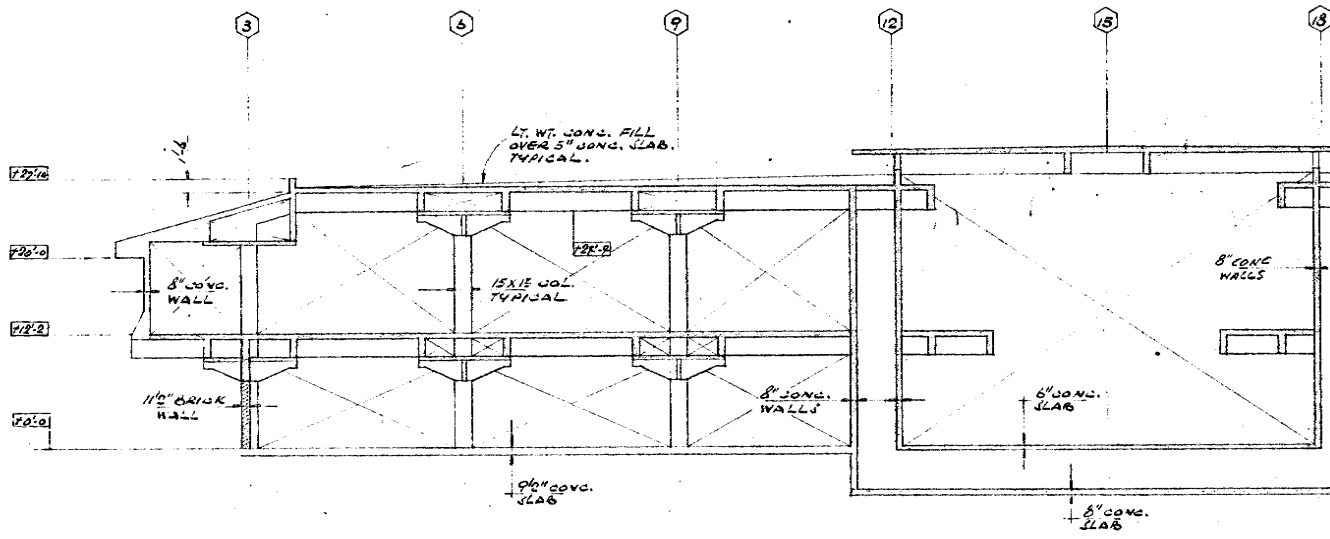
SHEET TITLE
BUILDING
SECTIONS
Scale = 1/2"

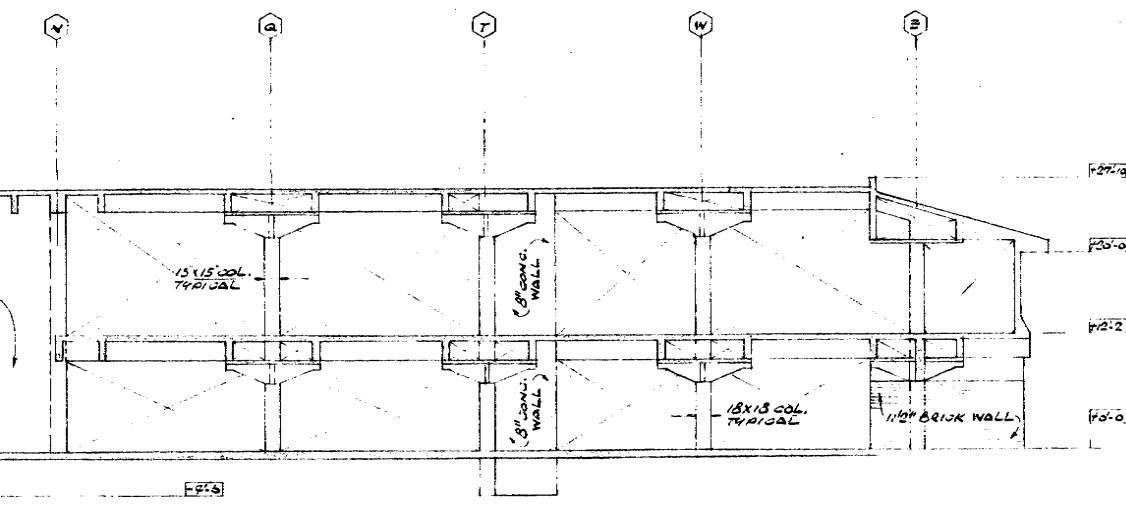
FILE NUMBER
20-1-50

TRACING DATE
PRINT DATE
S-10
DRAWING NO

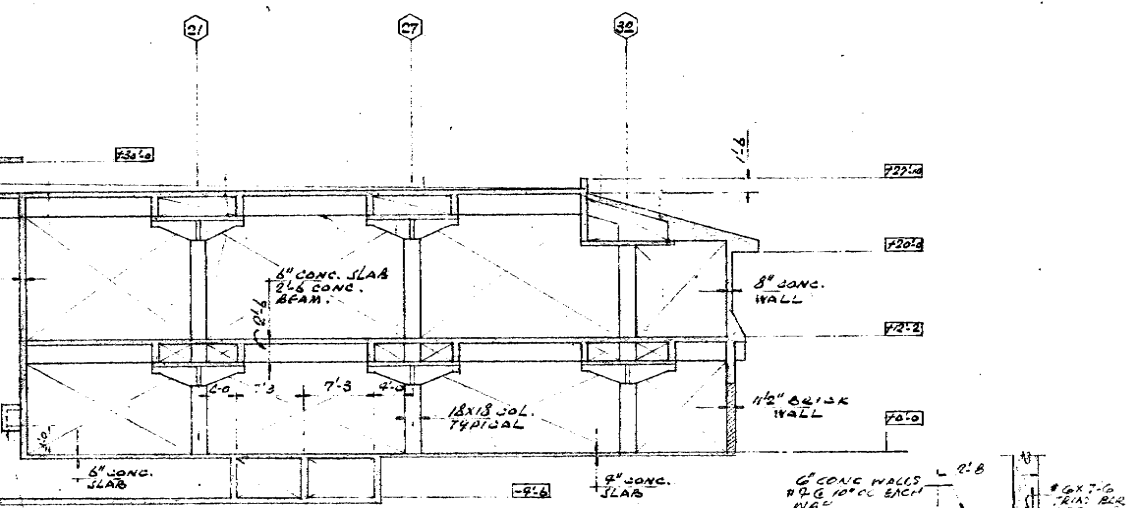


PARTIAL SECTION (101) ON LINE (12)

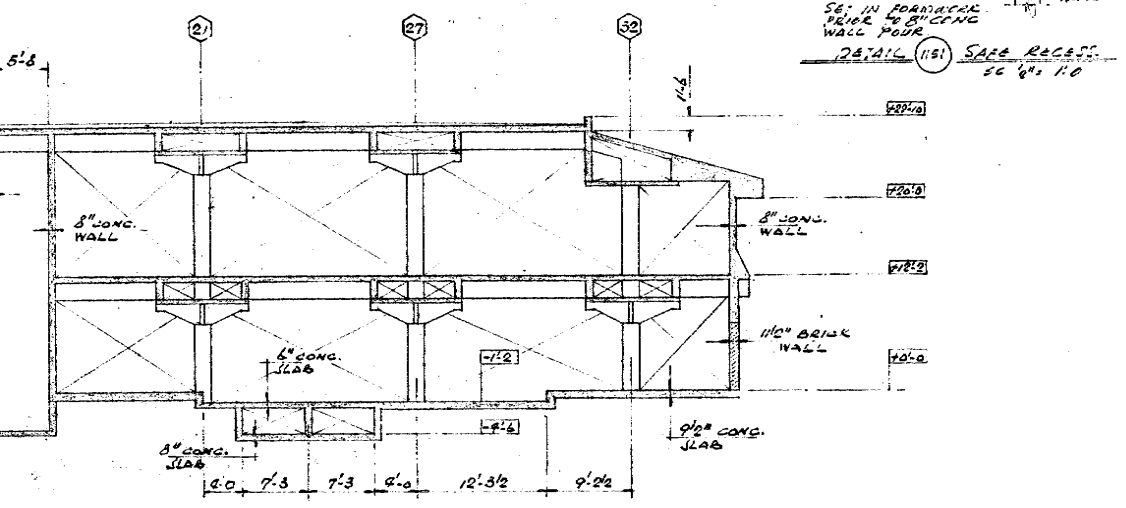
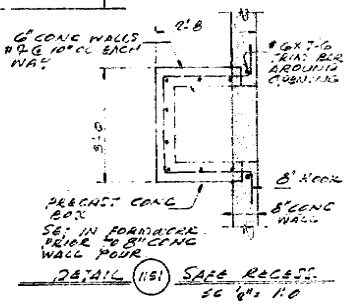




SECTION 1102 ON LINE B



SECTION 1103 ON LINE K



SECTION 1104 BETWEEN LINE T & G

CONTRACT SIGNATURES
 CONTRACTOR
 BOARD OF TRUSTEES

WONG AND YUAN CIVIL & STRUCTURAL ENGINEERS
 837 HOWARD ST. SAN FRANCISCO CAL. 94102

NOTE: The Contractor shall advise all interested parties of the date of the completion of the work and the date of the occupancy of the building. The Architect's responsibility for the design of the building shall terminate on the date of the occupancy of the building. The Architect's responsibility for the design of the building shall terminate on the date of the occupancy of the building.

CORWIN BOOTH & ASSOCIATES ARCHITECTS
 101 HOWARD STREET, SAN FRANCISCO, CALIFORNIA 94102, TELEPHONE 415-332-3704

SHEET TITLE
BUILDING SECTIONS
 S.C. 18"=1'-0"

FILE NUMBER
 26-1-50

TRACING DATE
 PRINT DATE
S-11
 DRAWING NO.

EXISTING BUILDING ANALYSIS

ACCESSIBILITY ANALYSIS

Introduction

The Americans with Disabilities Act (ADA) is a civil rights law that mandates equal opportunity for individuals with disabilities. The ADA prohibits discrimination in access to jobs, public accommodations, government services, public transportation, and telecommunications. College of Marin has undertaken ADA upgrades by which individuals with disabilities may have access to the campus facilities. This report describes the current site accessibility in the campus.

Federal Accessibility Requirements:

College of Marin is obligated to observe all requirements of Title I in its employment practices; Title II in its policies, programs, and services; any parts of Titles IV and V that apply to the College and its programs, services, or facilities; and all requirements specified in the ADA Accessibility Guidelines (ADAAG).

State of California Accessibility Requirements:

The California Code of Regulations, Title 24, Part 2 mandates that all publicly funded buildings, structures, walks, curb ramps, and related facilities shall be accessible to and usable by persons with disabilities. These regulations, often referred to as Title 24, pertain to College of Marin buildings, parking facilities, walks, and curb ramps that were constructed using state, county, or municipal funds or that are owned, leased, rented, contracted, or sublet by the College.

The Americans with Disabilities Act (ADA) is a comprehensive civil rights law for persons with disabilities in both employment and the provision of goods and services. The ADA states that its purpose is to provide a "clear and comprehensive national mandate for the elimination of discrimination against individuals with disabilities." Congress emphasized that the ADA seeks to dispel stereotypes and assumptions about disabilities and to assure equality of opportunity, full participation, independent living, and economic self-sufficiency for people with disabilities.

This report describes the process by which the College of Marin facilities were evaluated for compliance with Title II of the ADA; and presents the findings of that evaluation.

ADA upgrade is a requirement of the federal regulations implementing the Rehabilitation Act of 1973, which requires that all organizations receiving federal funds make their programs available without discrimination toward people with disabilities. Section 504 of the Rehabilitation Act, which has become known as the "civil rights act" of persons with disabilities, states that:

"No otherwise qualified handicapped individual in the United States shall, solely by reason of handicap, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance."

This federal legislative mandate, therefore, prohibits College of Marin from, either directly or through contractual arrangements:

- Denying persons with disabilities the opportunity to participate in services, programs, or activities that are not separate or different from those offered others, even if the College offers permissibly separate or different activities.
- In determining the location of programs and services, making selections that have the effect of excluding or discriminating against persons with disabilities.

In addition to federal legislation, the California Code of Regulations (CCR), Title 24, Part 2 mandates that all publicly funded buildings, structures, sidewalks, curbs and related facilities in California shall be accessible to and usable by persons with disabilities. These regulations, often referred to as Title 24, pertain to College of Marin buildings, parking facilities and lots, walks, and curb ramps that were constructed using state, county, or municipal funds or that are owned, leased, rented, contracted, or sublet by the College. Title 24 requires that persons with disabilities may approach, enter, and exit buildings. This includes access to restrooms, drinking fountains, and telephones and applies to new construction and specific areas of existing buildings when remodeled. Title 24 requirements regarding the accessibility of parking lots and structures include the following:

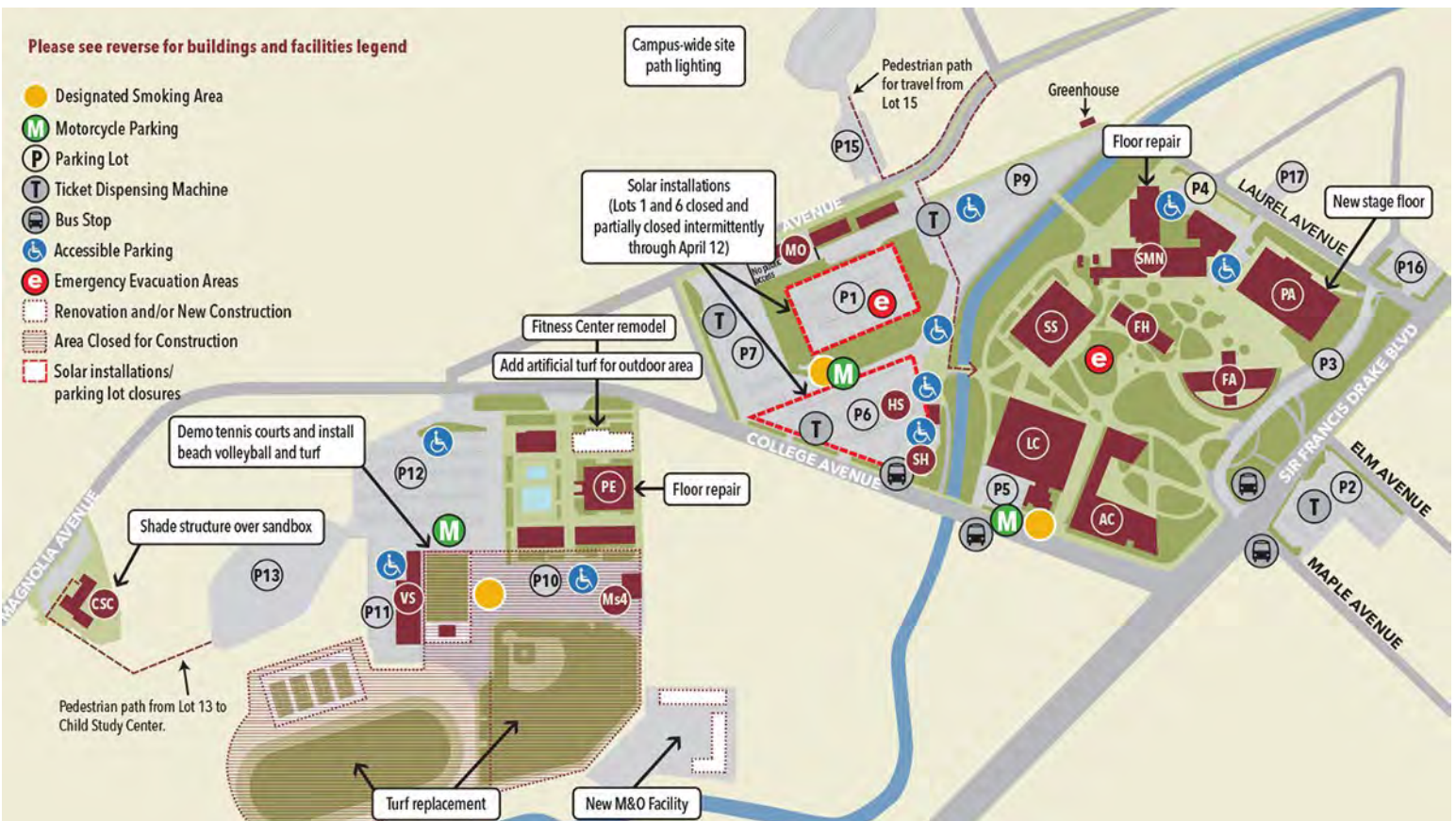
- In the aggregate, where parking is provided for the public as clients, or guests of employees, the required number of accessible disabled parking stalls shall be provided;
- When a parking facility does not serve a particular building, accessible parking shall be located on the shortest route to an accessible pedestrian entrance of the parking facility; and

- In buildings with multiple accessible entrances with adjacent parking, accessible spaces should be dispersed and located closest to accessible entrances.

College of Marin Accessibility Services

Student Accessibility Services (formerly DSPS) provides services and accommodations that provide equal access to education at the College of Marin (COM). These may consist of in-classroom services and/or outside the classroom services such as mobility or testing accommodations. Services and accommodations must be requested and approved by an SAS Counselor every semester at COM. An accommodation is an adjustment to the way a student receives, retains or demonstrates knowledge to allow him or her equal access to education. Accommodations are prescribed based on the educational limitations or barriers that are directly caused by the disability, diagnosis or medical condition. Accommodations cannot fundamentally change academic requirements for degrees, certificates, programs, courses or assignments. Accommodations and other services vary semester to semester depending on the institutional requirements

of the class or classes and must be requested each and every semester. Accommodations must be approved by an SAS Counselor, Director or Learning Disabilities Specialist. Early requests for testing and other accommodations are appreciated and recommended especially during finals week. Late requests for accommodations may result in delays due to availability. (Excerpt from COM website "what we offer").



EXISTING BUILDING ANALYSIS

Site

Overall the campus is generally accessible. Construction of an ADA ramp between the Student Services Center and Learning Resource Center was done in 2014. This was a major improvement for better accessibility between the two buildings. There is also accessibility signage installed that is visible to the public.



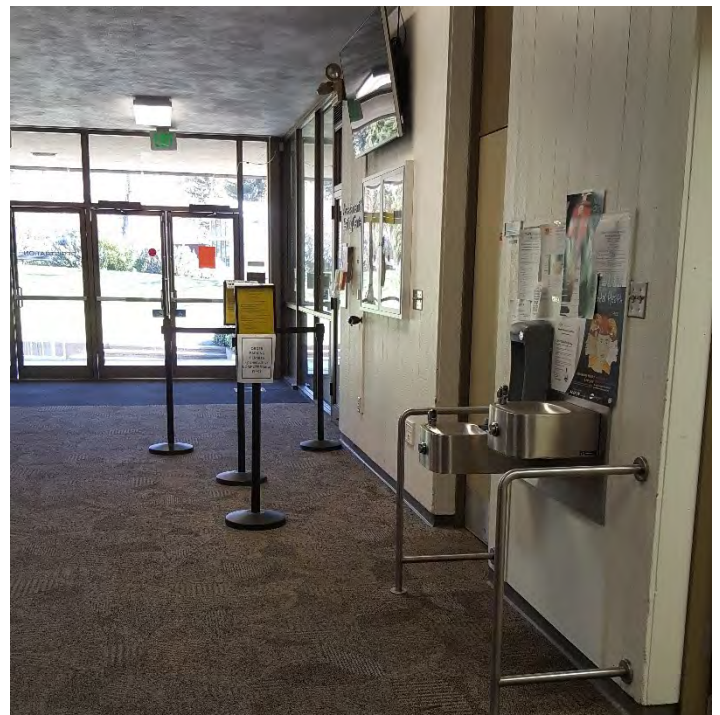


EXISTING BUILDING ANALYSIS



Buildings

The buildings have compliant ramps at entrances and elevators to access all levels. The Student Services and the Learning Resources Center were built during the 1970s and have been partially upgraded for ADA compliance. Not all restrooms are accessible, but the newly constructed accessible restrooms have automatic door openers, wheelchair turn around clearance and are compliant in lavatory height, restroom accessories height, grab bars, and door threshold.





Sustainability: Seven Ideas for a Twenty First Century School

- Reduction of Energy costs
- Daylighting where possible
- Indoor air quality (IAQ)
- Maximizing landscape and site design
- Conserve natural resources
- Integrated with technology
- Facilities as teaching tools

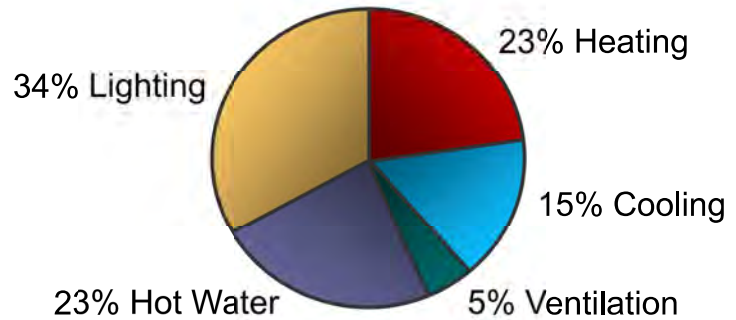
Planning for the 21st Century

- Student-centered design
- Facility flexibility and agility
- Community involvement and access
- Safety and security
- Sustainable design
- Environmental quality – light, acoustics, etc.
- Cost effective design
- Technology integration and implementation
- Improved student performance

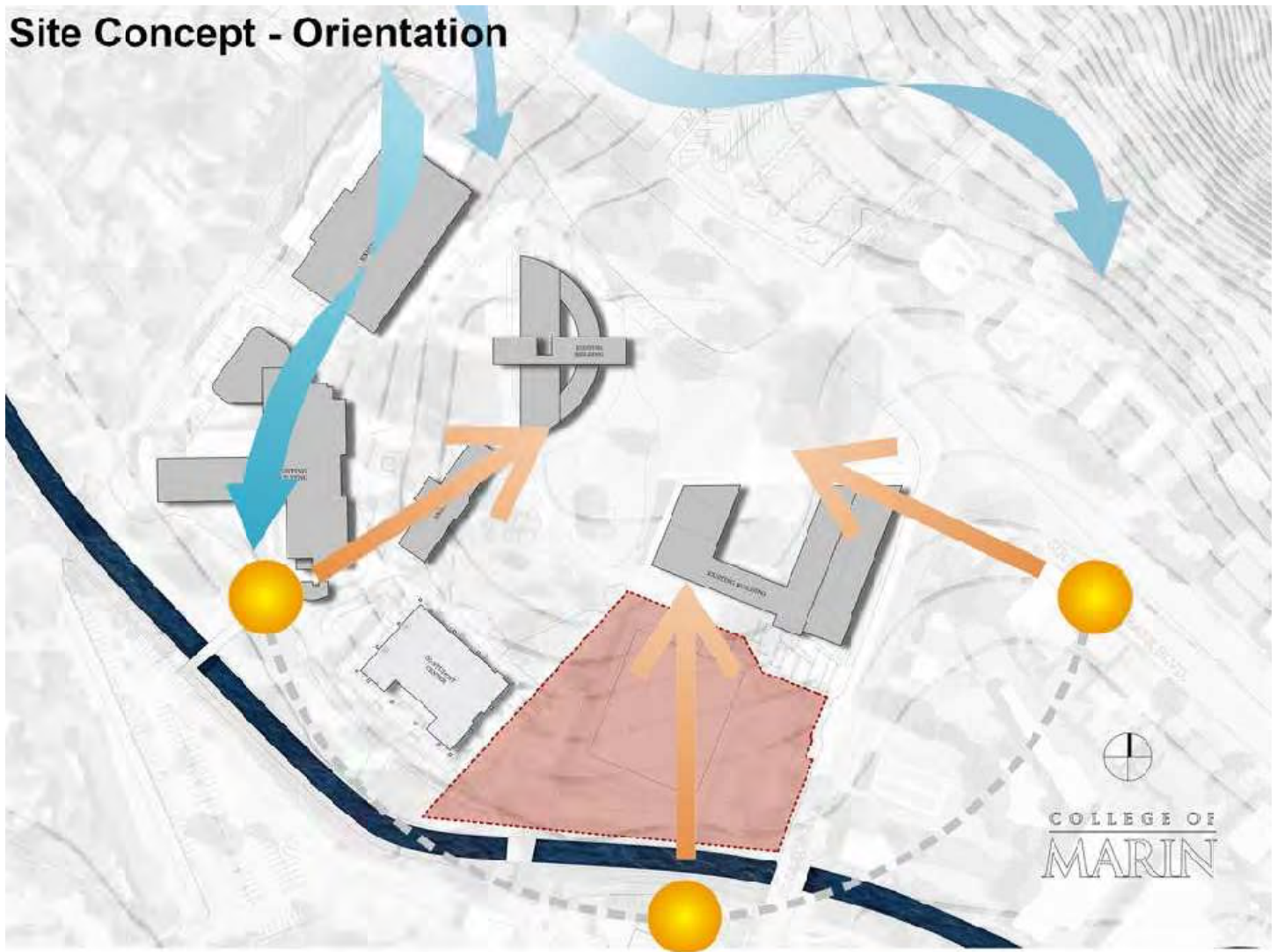


Sustainable Design Response

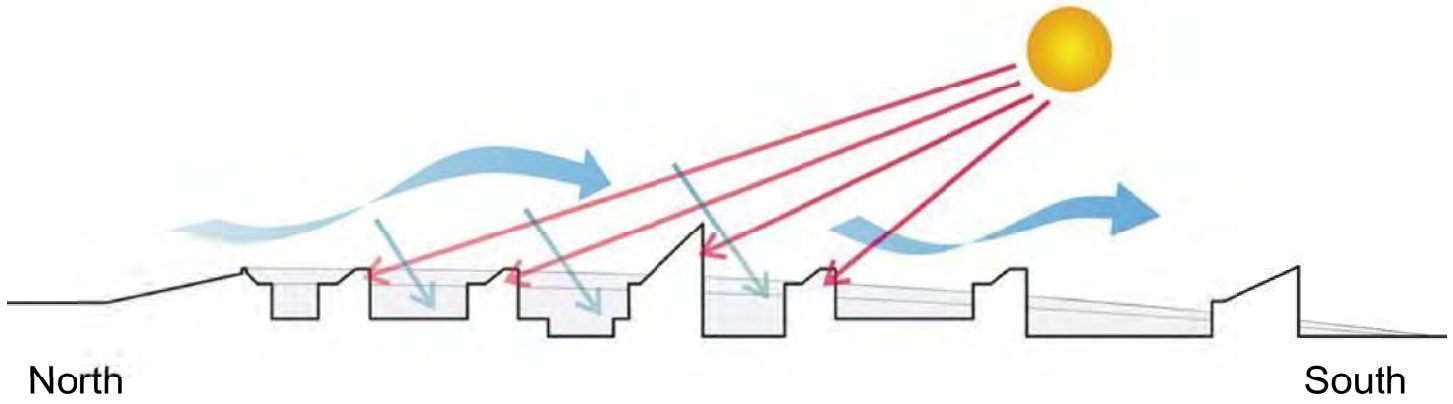
- Climate response
- Maximizes use of free energy
- Efficient MEP systems
- Integrated approach to landscape, ecology and building
- Provision of controllable, effective and appropriate internal environment



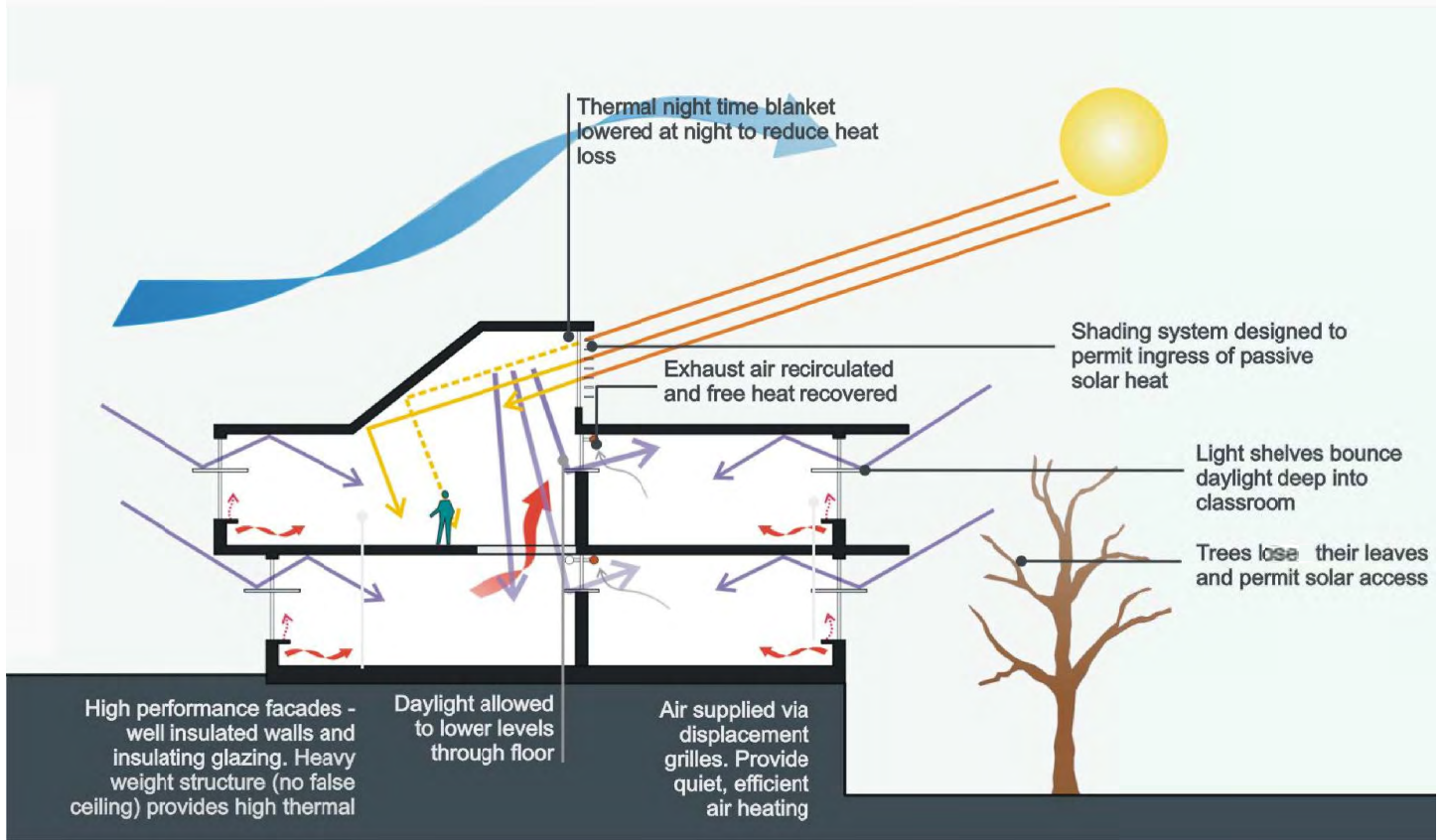
Site Concept - Orientation



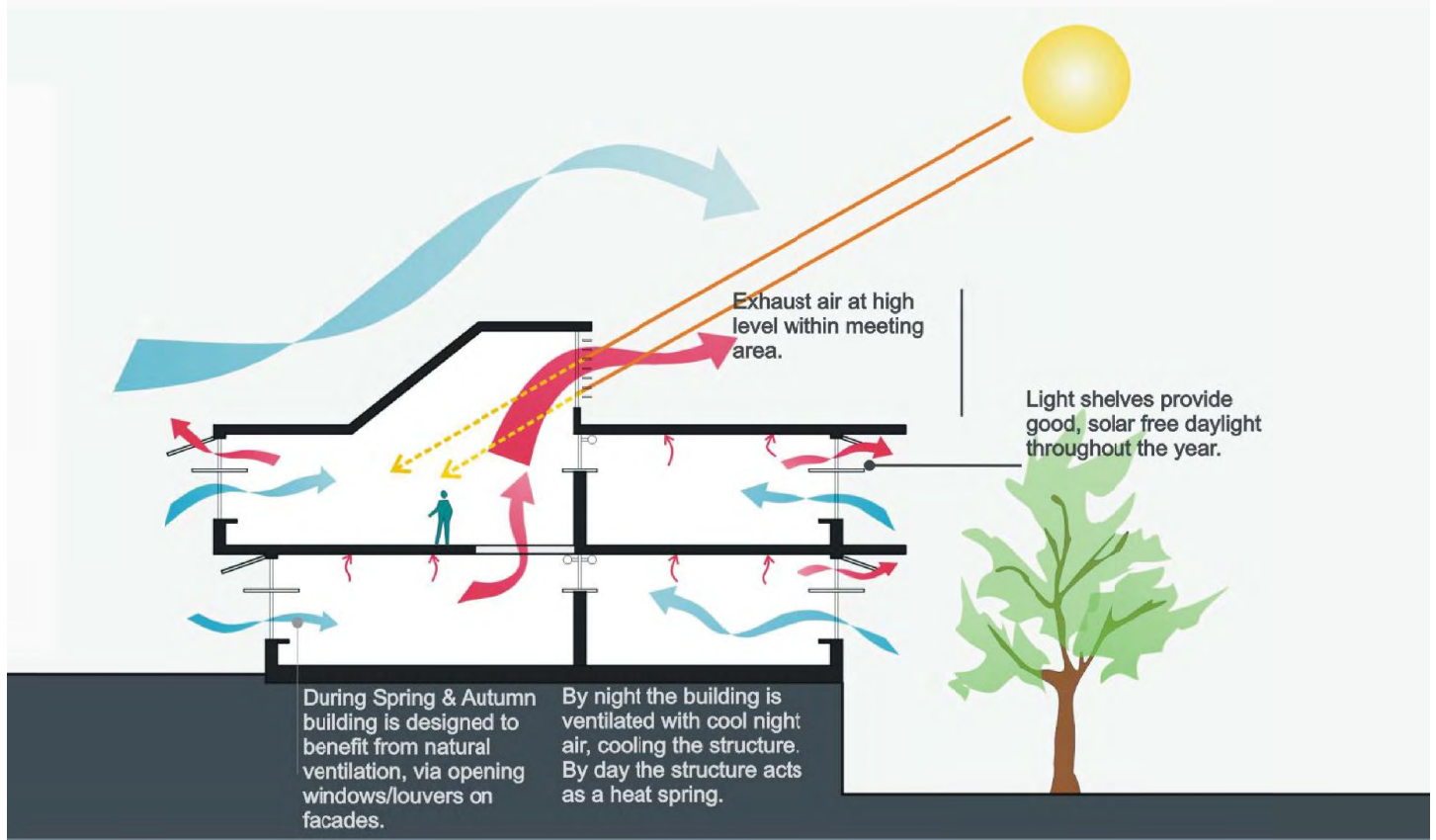
Daylighting and Winter Wind Protection



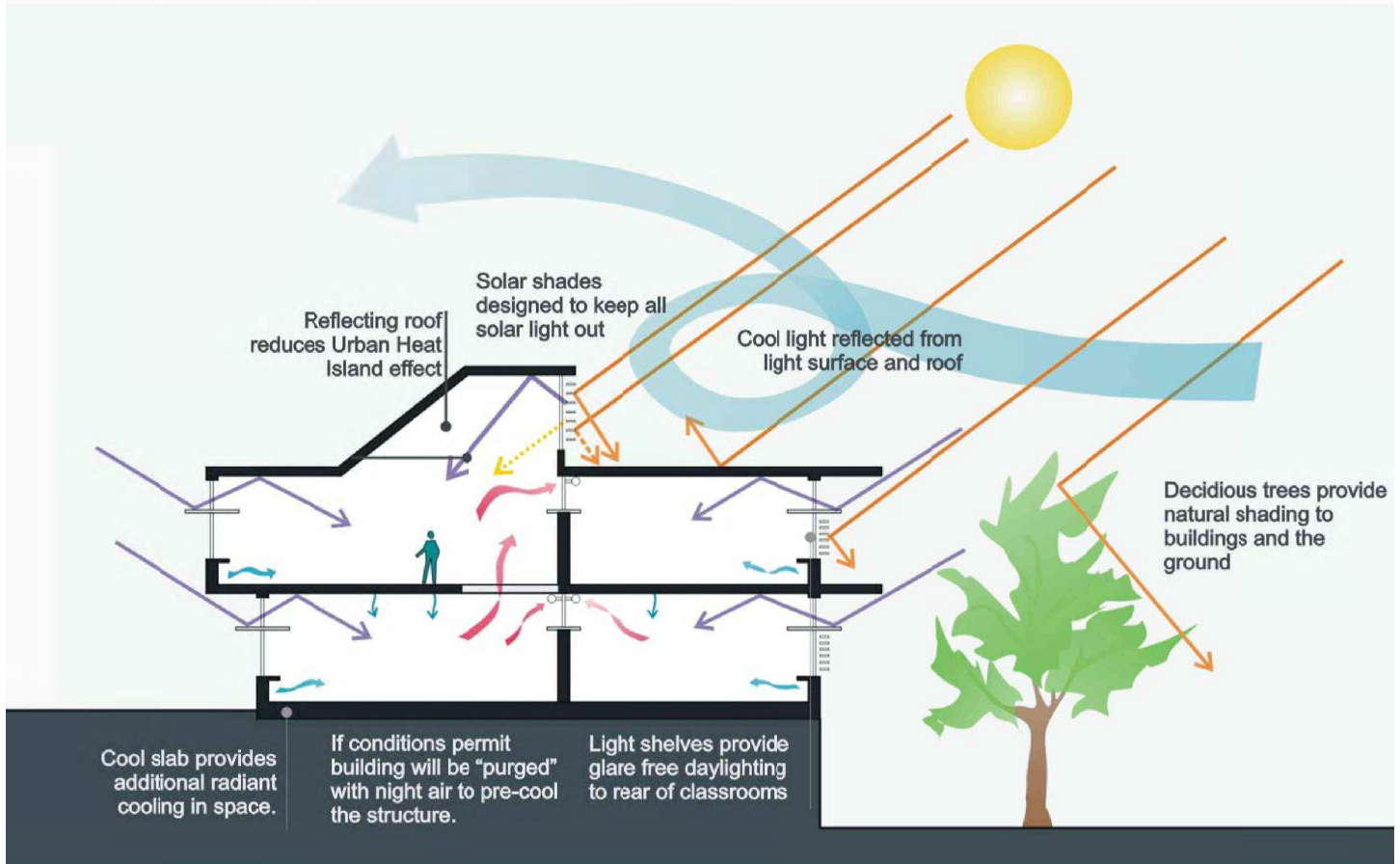
Winter Operation



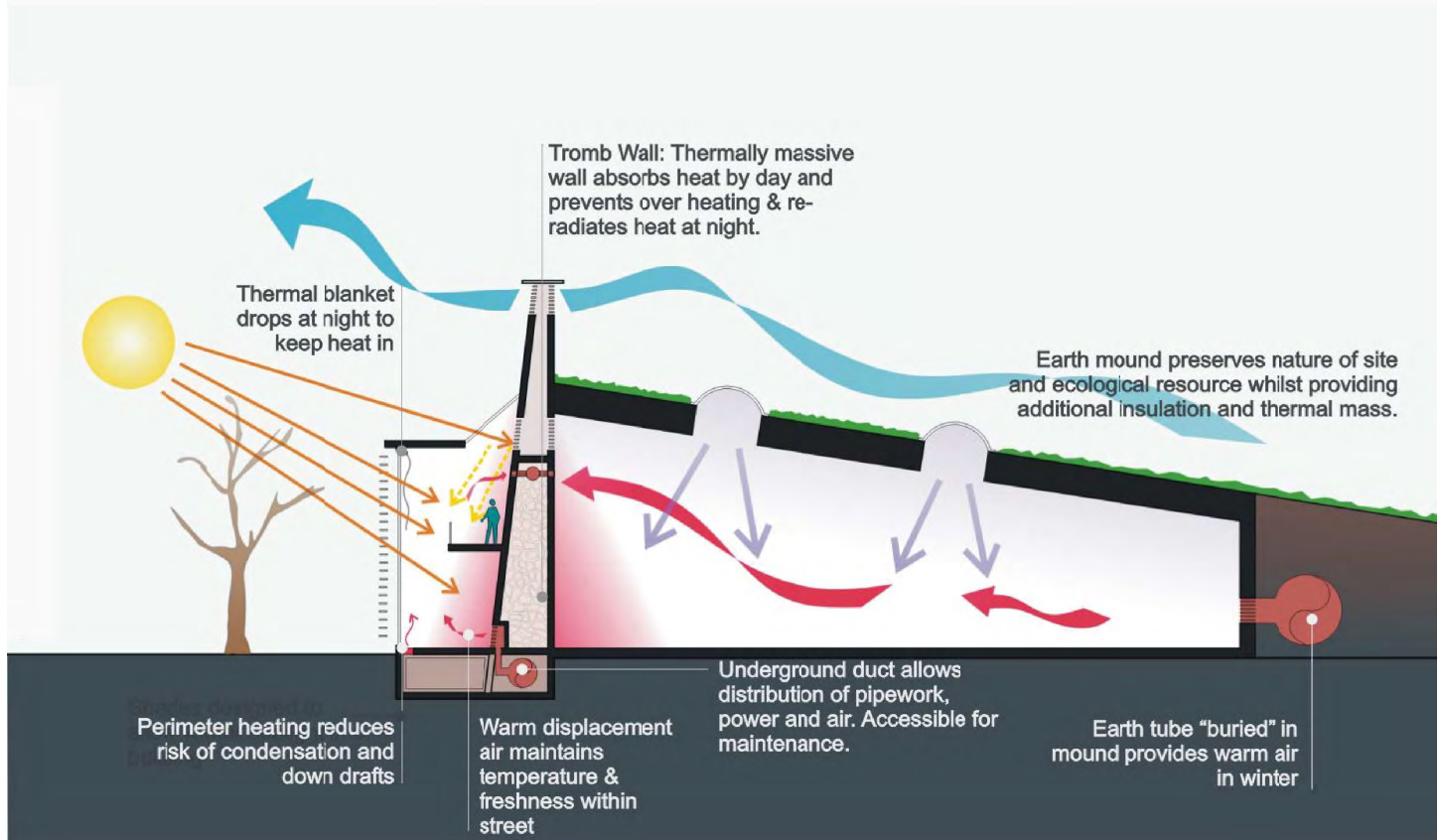
Midseason Operation



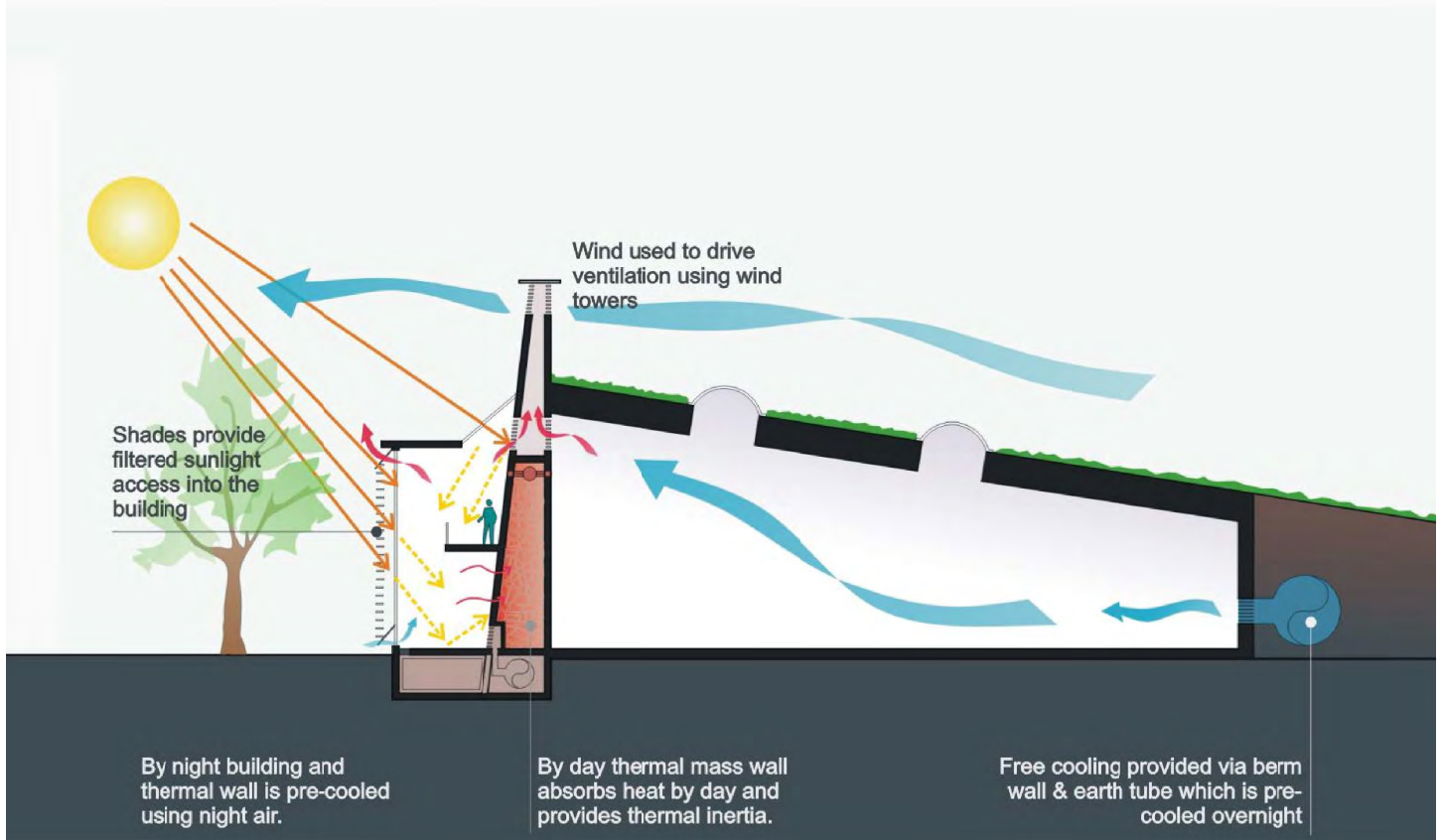
Summer Operation



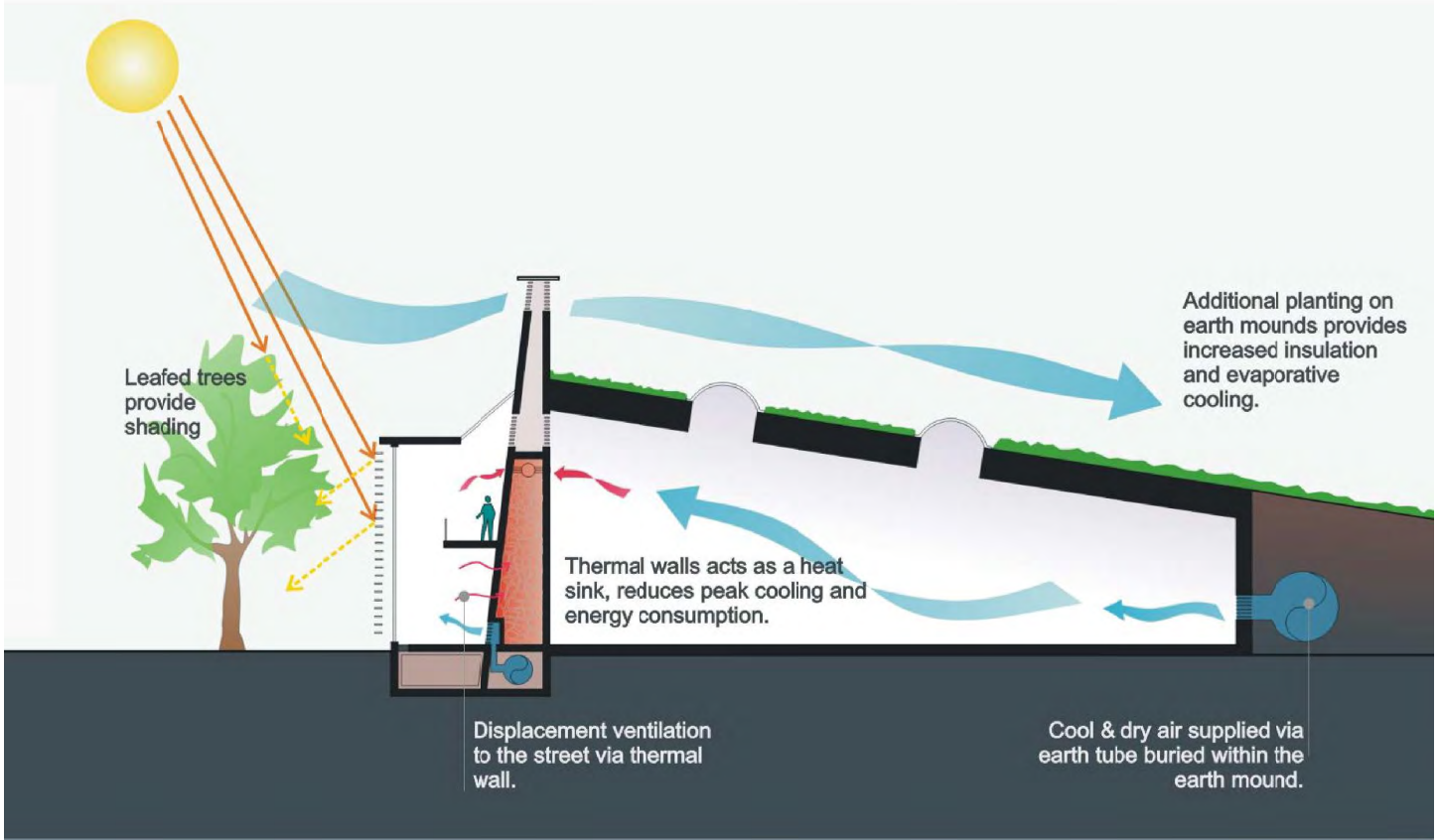
Winter Operation



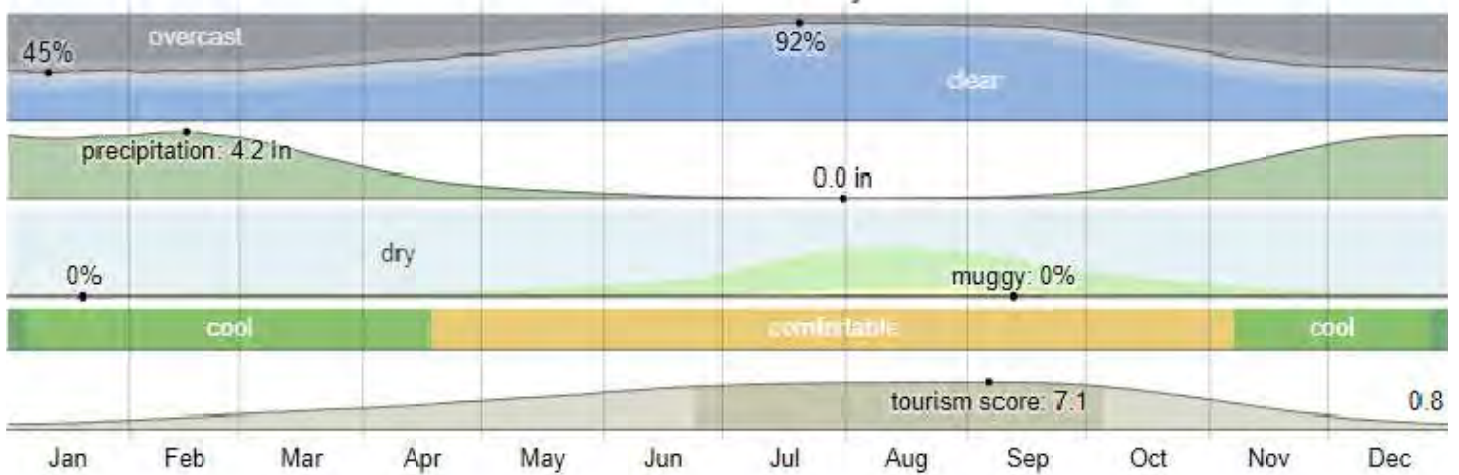
Midseason Operation



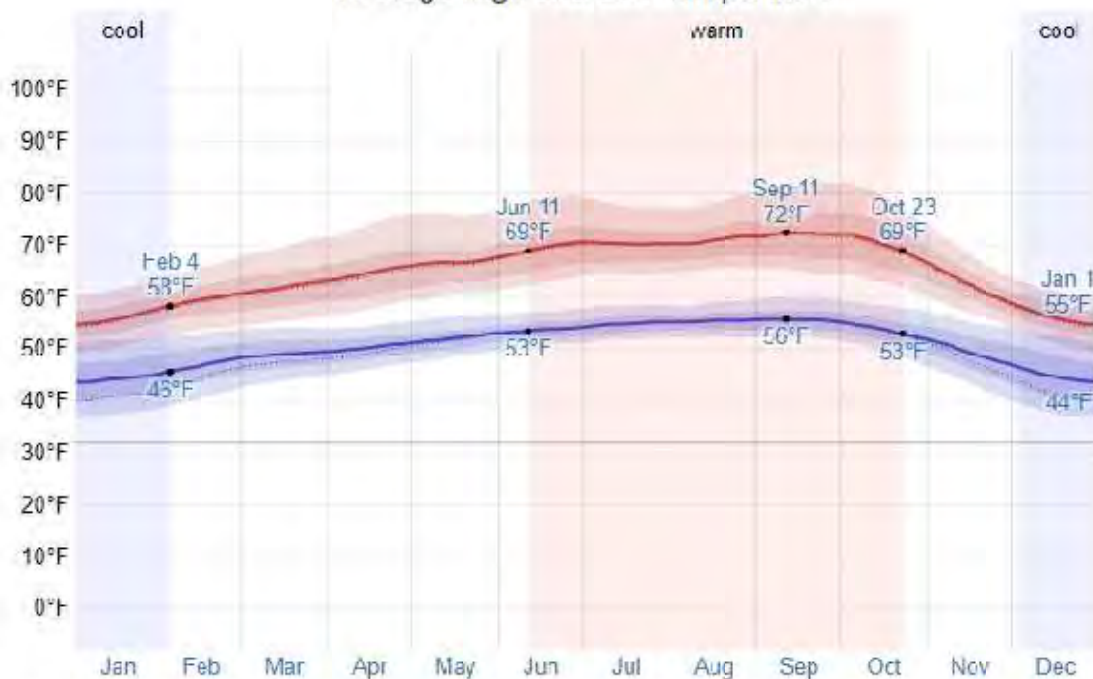
Summer Operation



Climate Summary

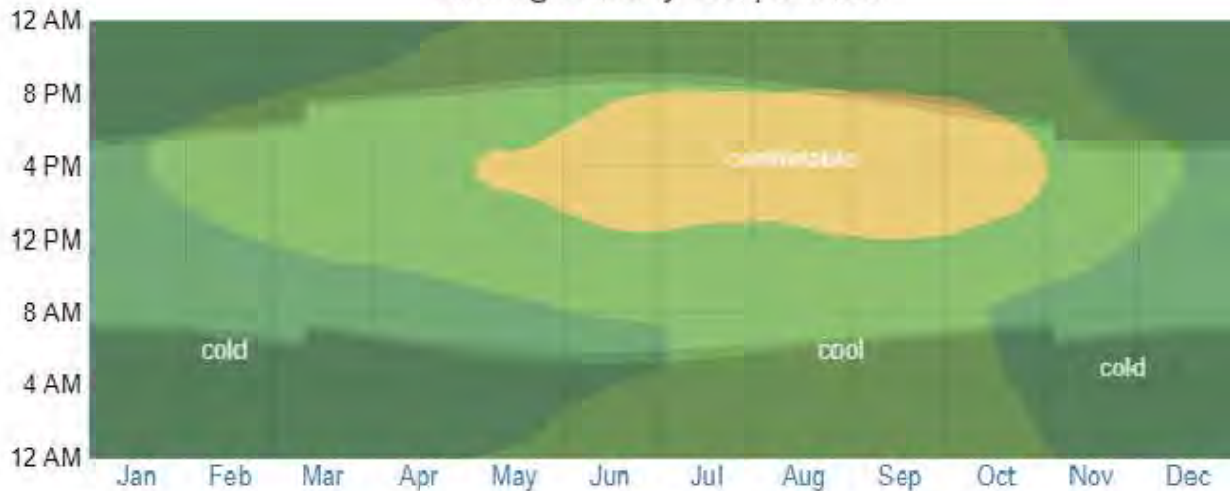


Average High and Low Temperature



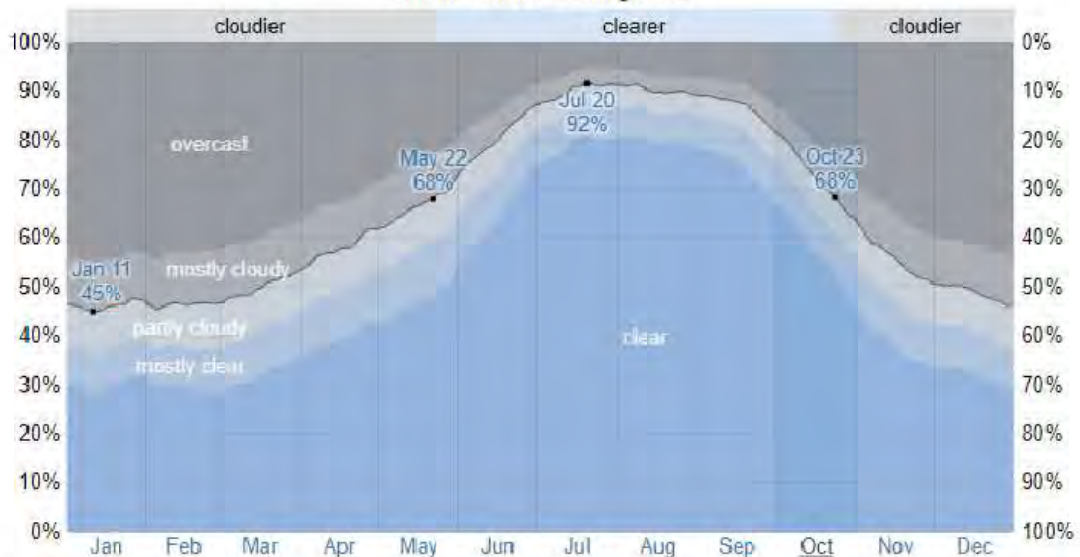
the daily average high (red line) and low (blue line) temperature, with 25th to 75th and 10th to 90th percentile bands. the thin dotted lines are the corresponding average perceived temperatures.

Average Hourly Temperature



The average hourly temperature, color coded into bands: frigid < 15°F < freezing < 32°F < very cold < 45°F < cold < 55°F < cool < 65°F < comfortable < 75°F < warm < 85°F < hot < 95°F < sweltering. The shaded overlays indicate night and civil twilight.

Cloud Cover Categories



The percentage of time spent in each cloud cover band, categorized by the percentage of the sky covered by clouds: clear < 20% < mostly clear < 40% < partly cloudy < 60% < mostly cloudy < 80% < overcast.

Daily Chance of Precipitation



The percentage of days in which various types of precipitation are observed, excluding trace quantities: rain alone, snow alone, and mixed (both rain and snow fell in the same day).

Average Monthly Rainfall



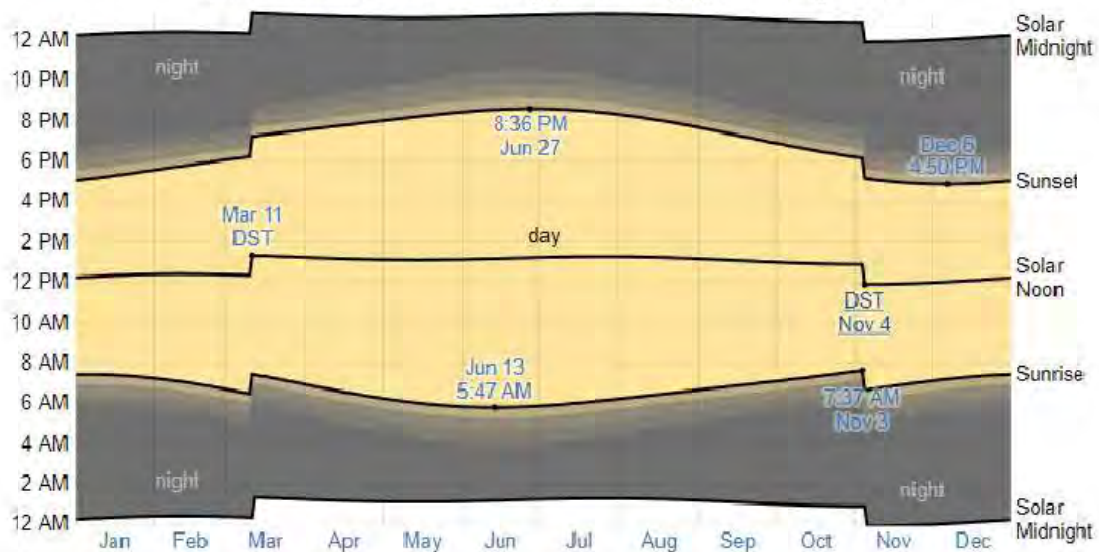
The average rainfall (solid line) accumulated over the course of a sliding 31-day period centered on the day in question, with 25th to 75th and 10th to 90th percentile bands. The thin dotted line is the corresponding average liquid-equivalent snowfall.

Hours of Daylight and Twilight



The number of hours during which the Sun is visible (black line). From bottom (most yellow) to top (most gray), the color bands indicate: full daylight, twilight (civil, nautical, and astronomical), and full night.

Sunrise & Sunset with Twilight and Daylight Saving Time



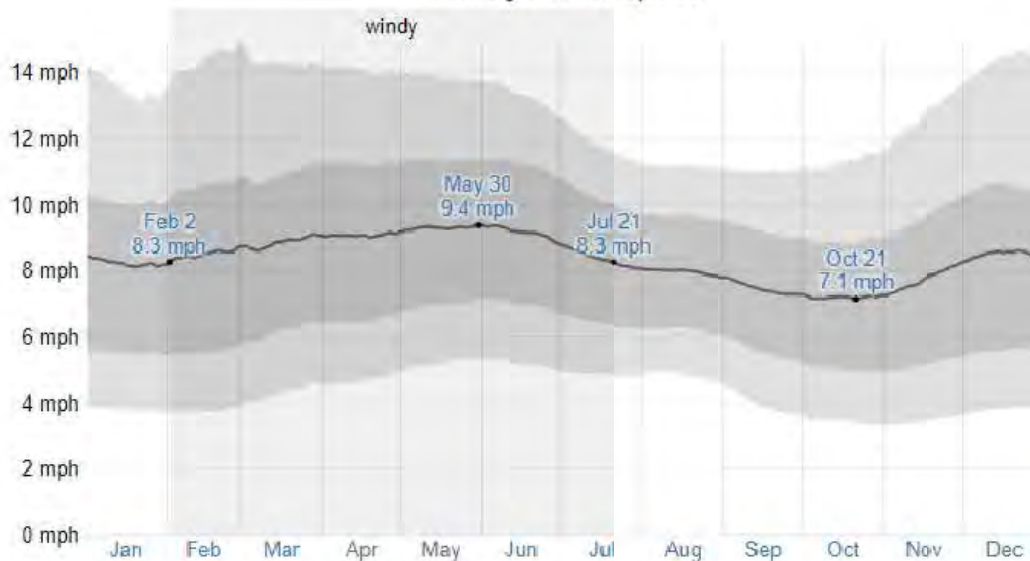
The solar day over the course of the year 2018. From bottom to top, the black lines are the previous solar midnight, sunrise, solar noon, sunset, and the next solar midnight. The day, twilights (civil, nautical, and astronomical), and night are indicated by the color bands from yellow to gray. The transitions to and from daylight saving time are indicated by the 'DST' labels.

Humidity Comfort Levels

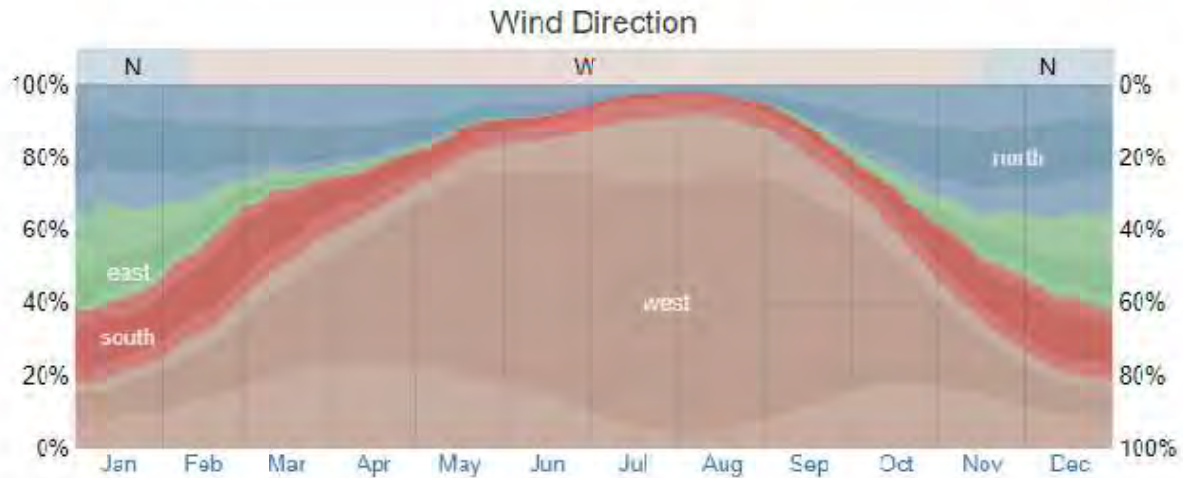


The percentage of time spent at various humidity comfort levels, categorized by dew point: dry < 55°F < comfortable < 60°F < humid < 65°F < muggy < 70°F < oppressive < 75°F < miserable.

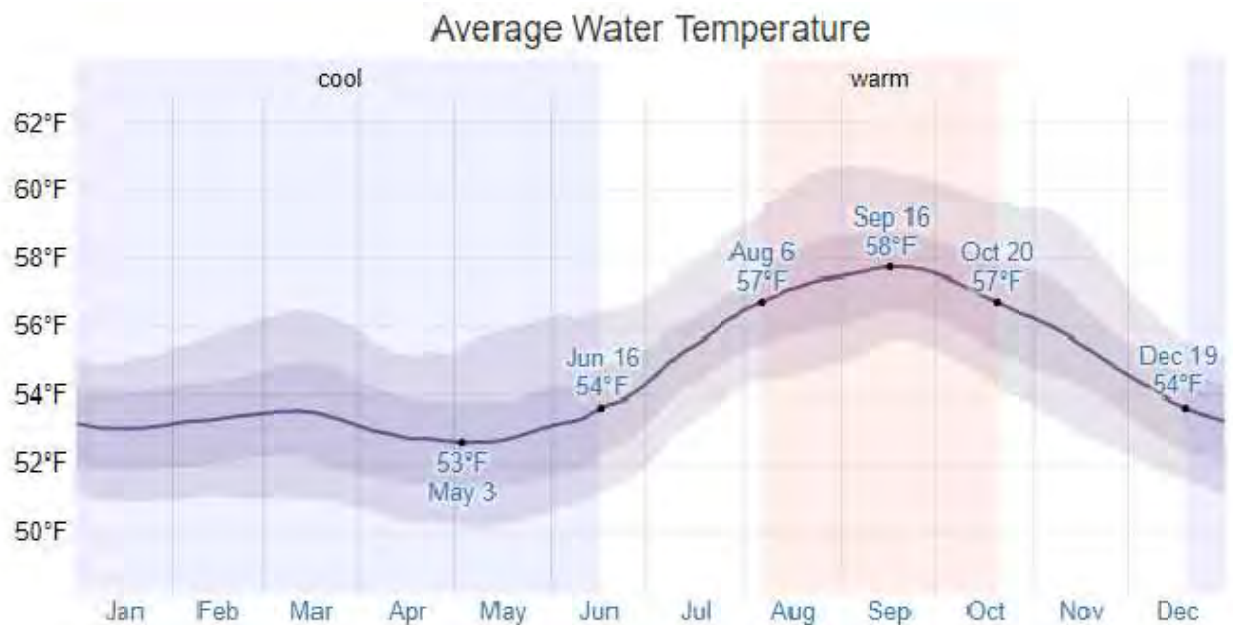
Average Wind Speed



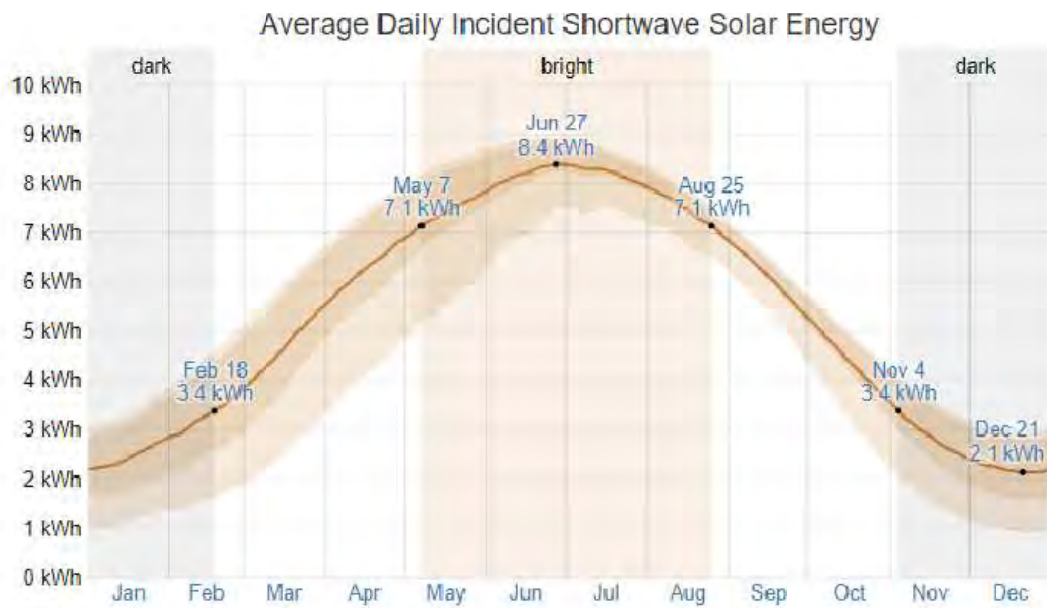
The average of mean hourly wind speeds (dark gray line), with 25th to 75th and 10th to 90th percentile bands.



The percentage of hours in which the mean wind direction is from each of the four cardinal wind directions (north, east, south, and west), excluding hours in which the mean wind speed is less than 1 mph. The lightly tinted areas at the boundaries are the percentage of hours spent in the implied intermediate directions (northeast, southeast, southwest, and northwest).



The daily average water temperature (purple line), with 25th to 75th and 10th to 90th percentile bands.



The average daily shortwave solar energy reaching the ground per square meter (orange line), with 25th to 75th and 10th to 90th percentile bands.

SUMMARY AND RECOMMENDATIONS

Key Objectives:

- To be climate responsive (Sun, Wind, Rain, Temperature).
- Reflect its surroundings and sense of place.
- Increase bio-diversity and have ecological benefits.
- Have a role in education.
- Integrate water as an active element of the sustainable approach to the site.
- Low maintenance and appropriate planting technologies.
- Complimentary to existing landscape on site.

Hardscape

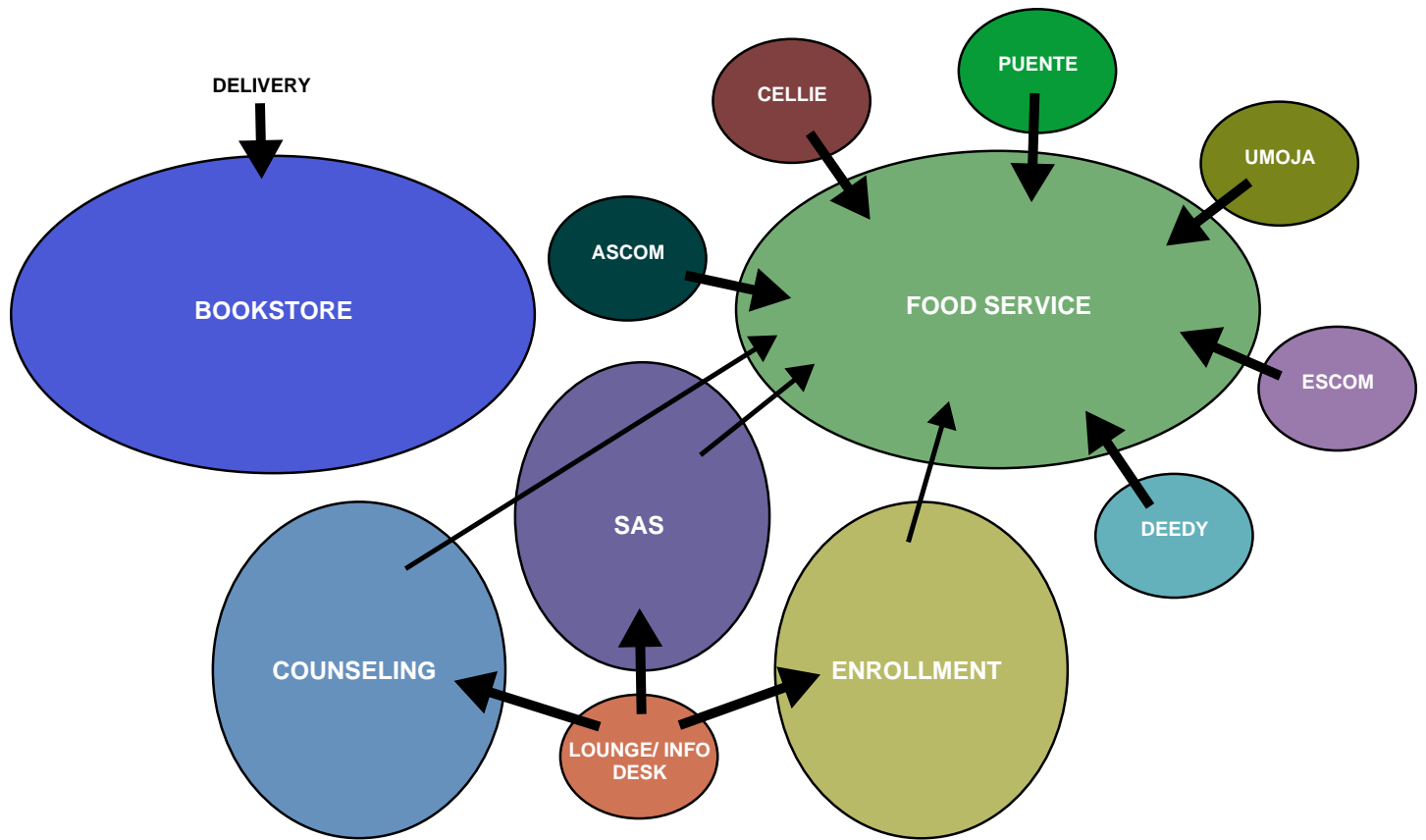
- New walkways to connect new buildings to existing.
- Accessible path from parking to building that is comfortable and unobstructive in landscape.
- Accessible pathway from parking to upper campus that integrates into the landscape.

Summary:

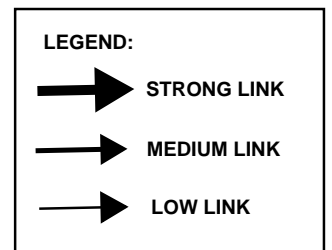
Many factors need to be considered for a sustainable design. Exterior and interior environments are both needed to carry the sustainable approach. The site and building should be integrated to achieve and maximize available principles and technology for efficiency. These include construction materials selection and mechanical and electrical systems. Another important factor is the implementation of management systems and participation of end users for ongoing operation. Reduction of energy costs can be achieved by daylighting and using Energy Management Systems (EMS). This system monitors and electronically controls the building's energy consumption by integrating the mechanical and electrical systems. The College has installed a solar power source and thermal energy which are major factors in energy savings and maximizing free energy. The campus is also rich in botanical collection which is also an important factor in sustainability. Orientation of the building shown in the diagram "site concept-orientation" illustrates that consideration of the sun and wind can contribute to energy efficiency by reducing heat infiltration along the solar path. Installation of a shading system designed to permit ingress of passive solar heat should be utilized. Providing entry breeze ways and openings through landscape and site design can be very beneficial as well. These the are many pertinent factors in the 21st century sustainable design but ultimately they must be maintained by day-to-day operations.

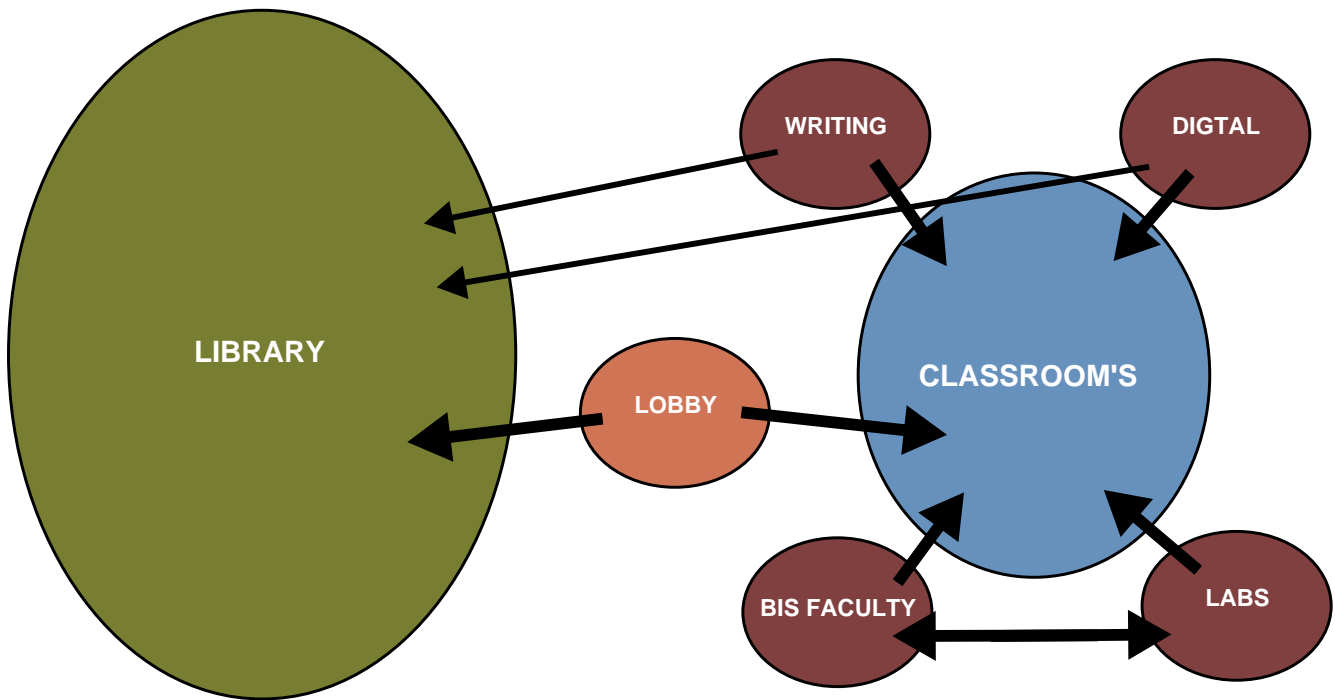
ADJACENCY DIAGRAMS

The following adjacency diagrams show the connections between the various departments, offices, classrooms, etc. that are in the existing buildings. They depict the overlap and collaboration between users that will be incorporated in the final building design.

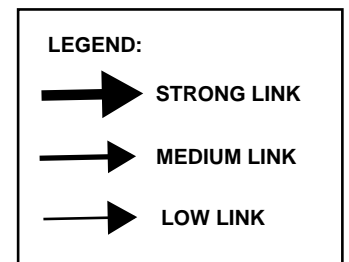


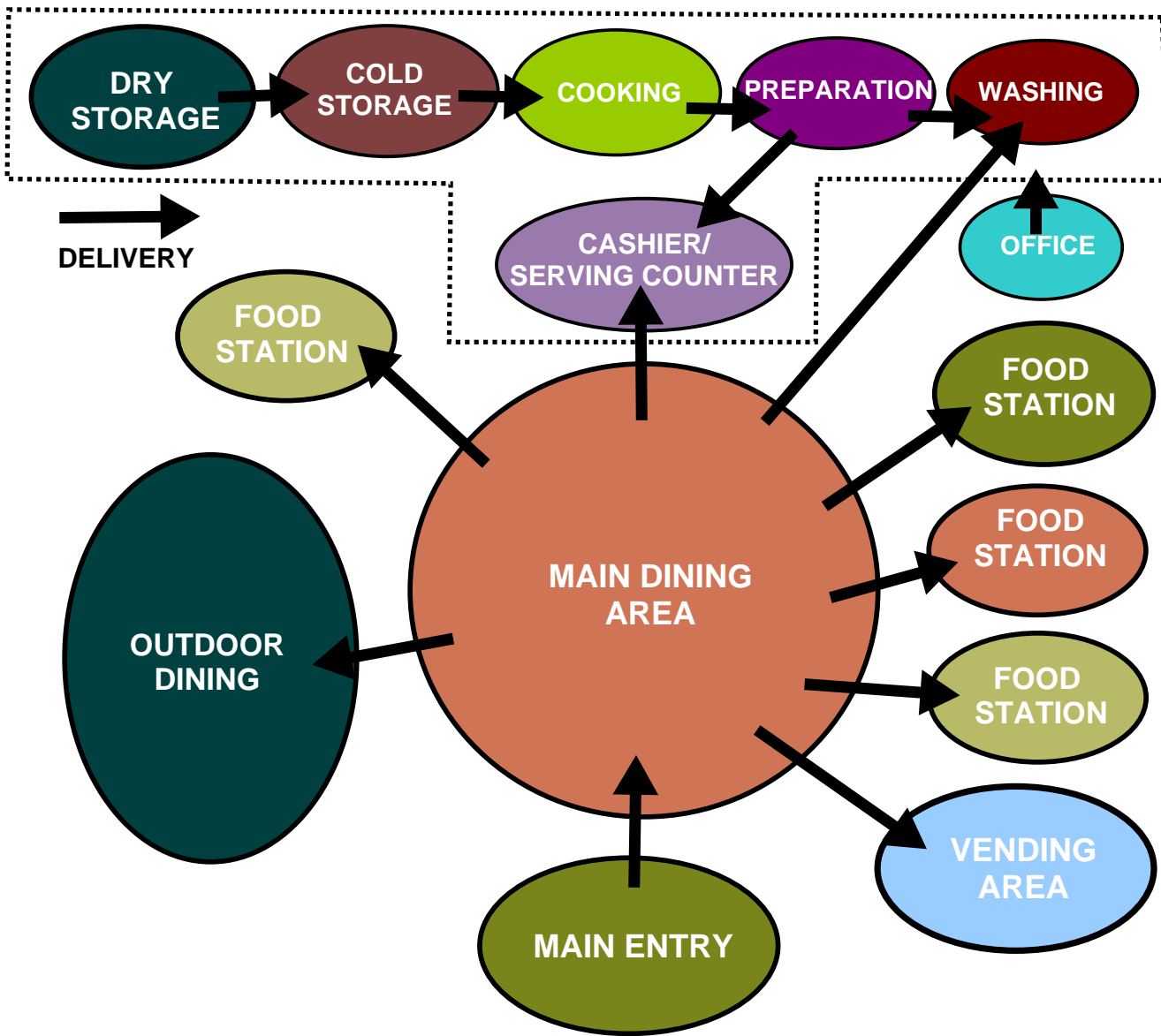
SSC/LRC NEW BUILDING - GROUND FLOOR



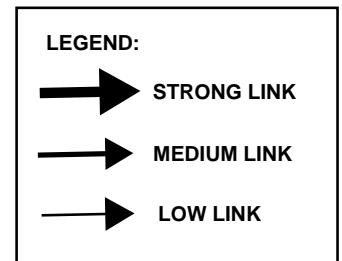


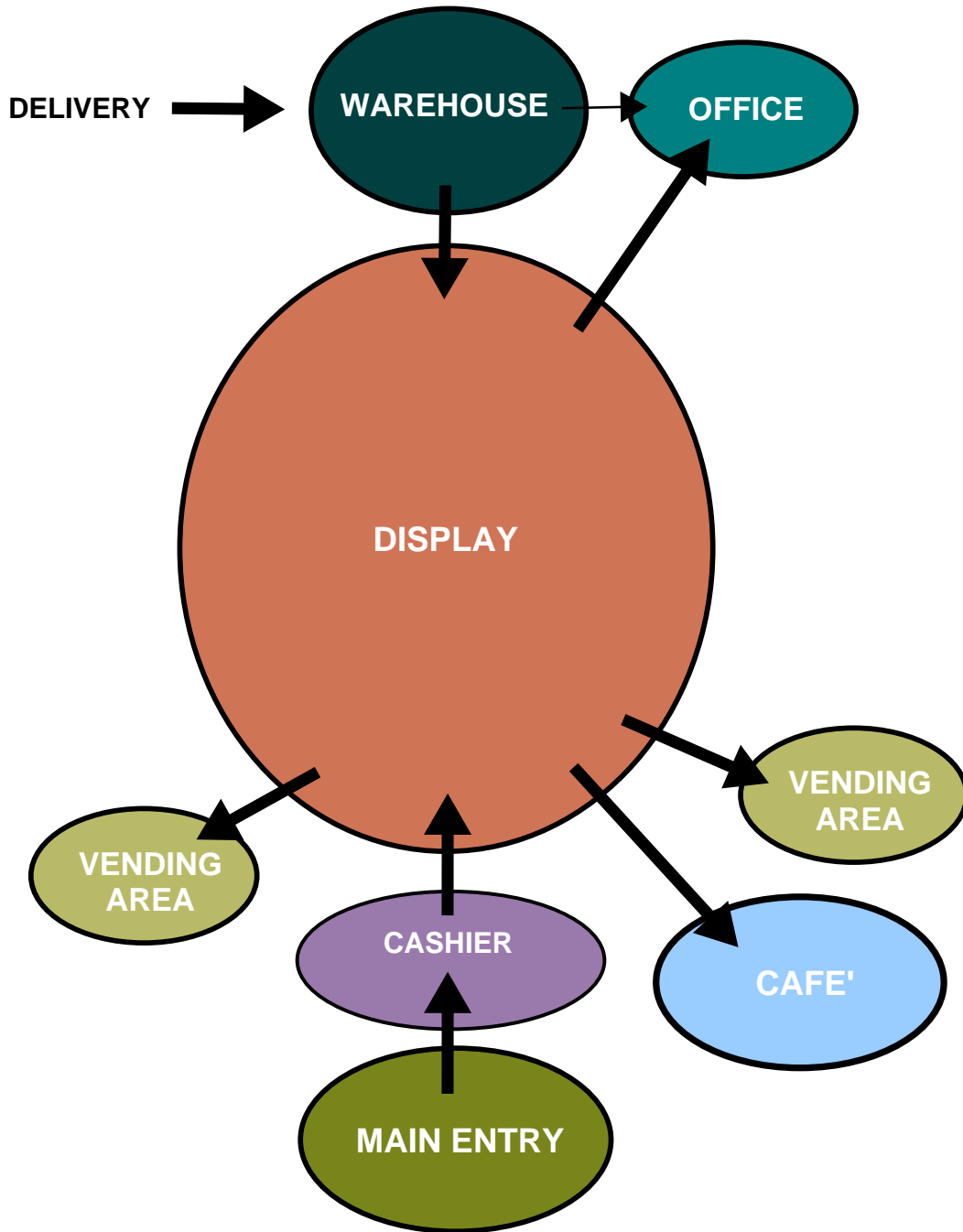
SSC/LRC NEW BUILDING - SECOND FLOOR



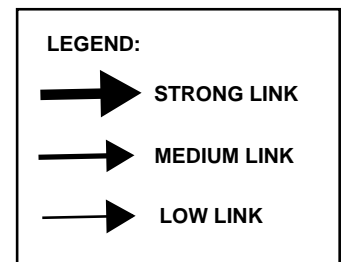


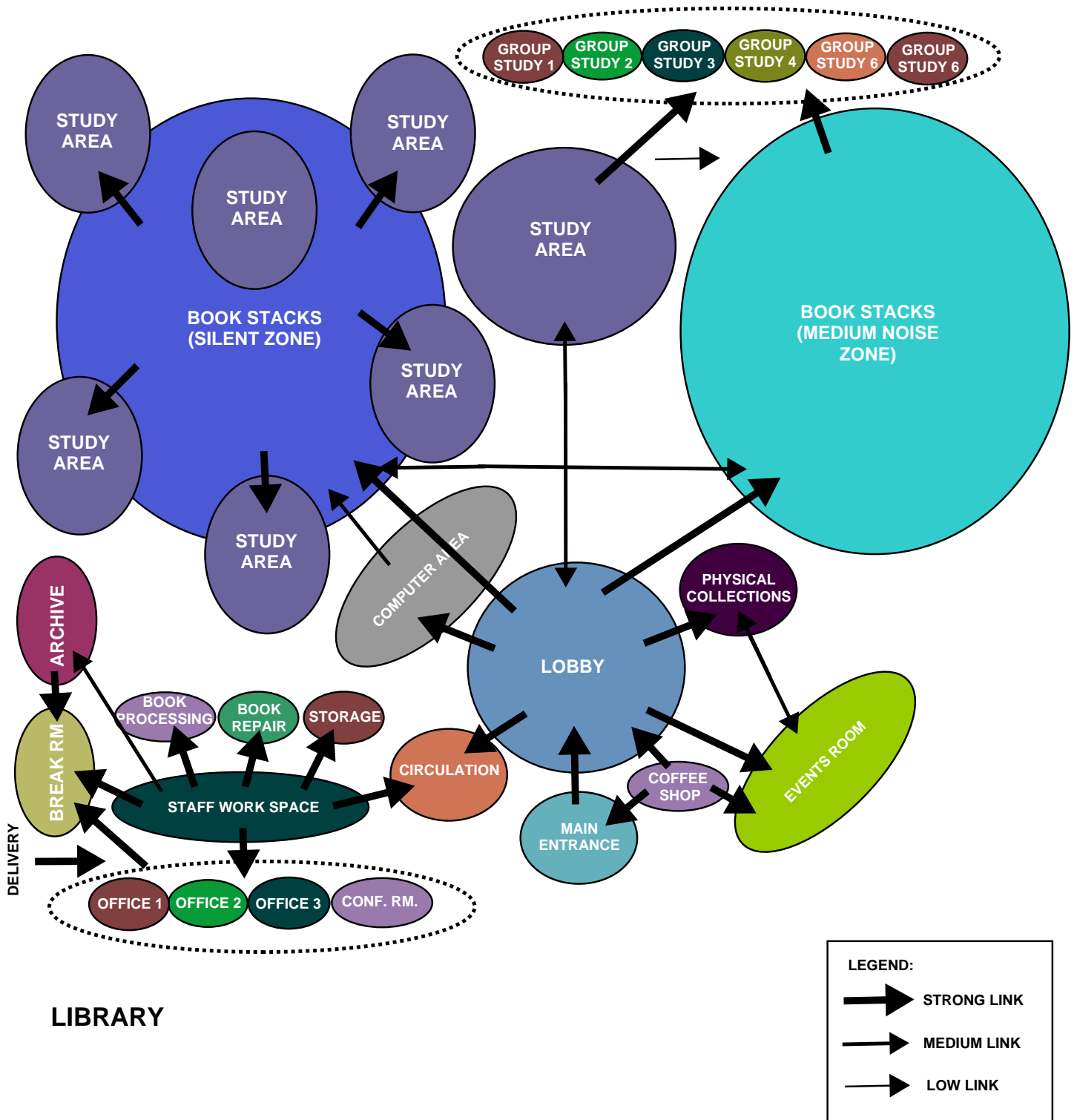
FOOD SERVICE

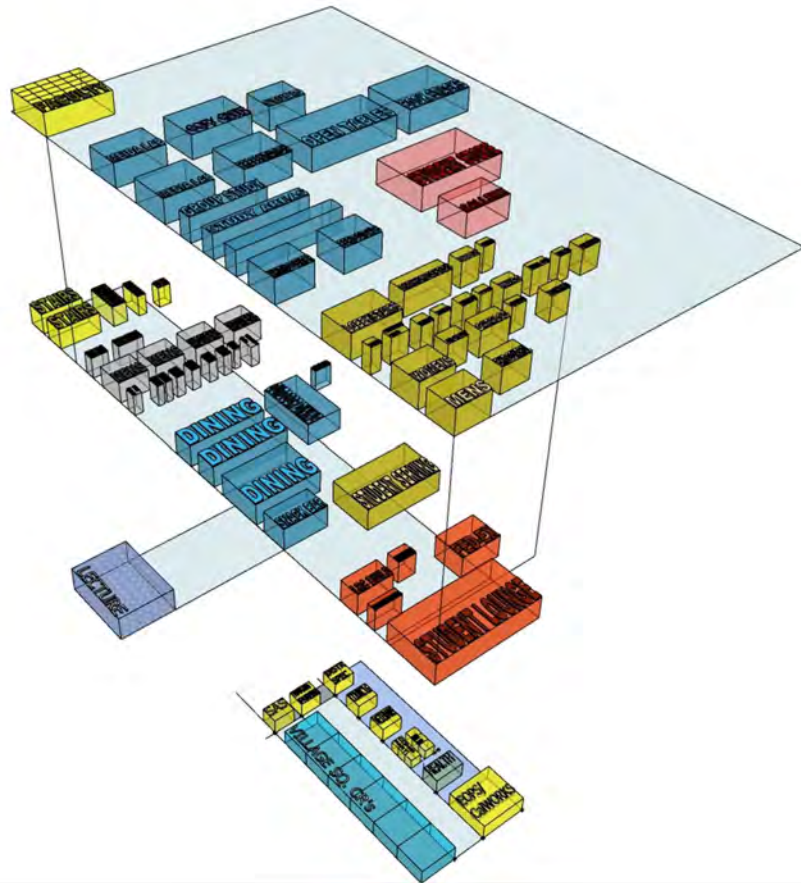


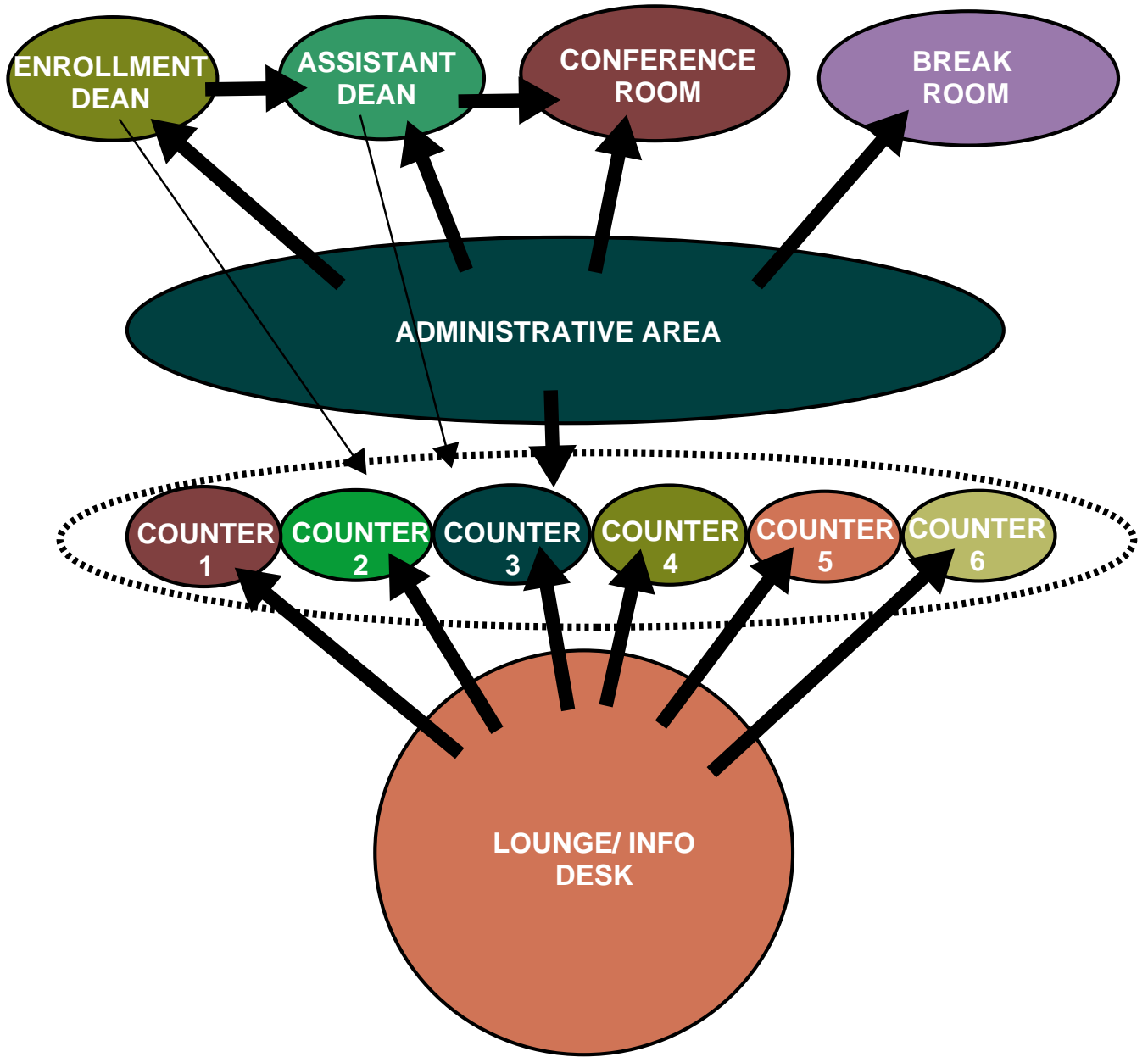


BOOKSTORE

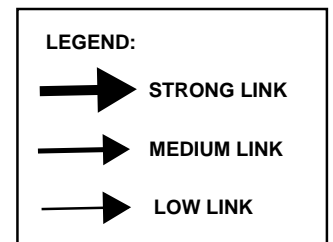


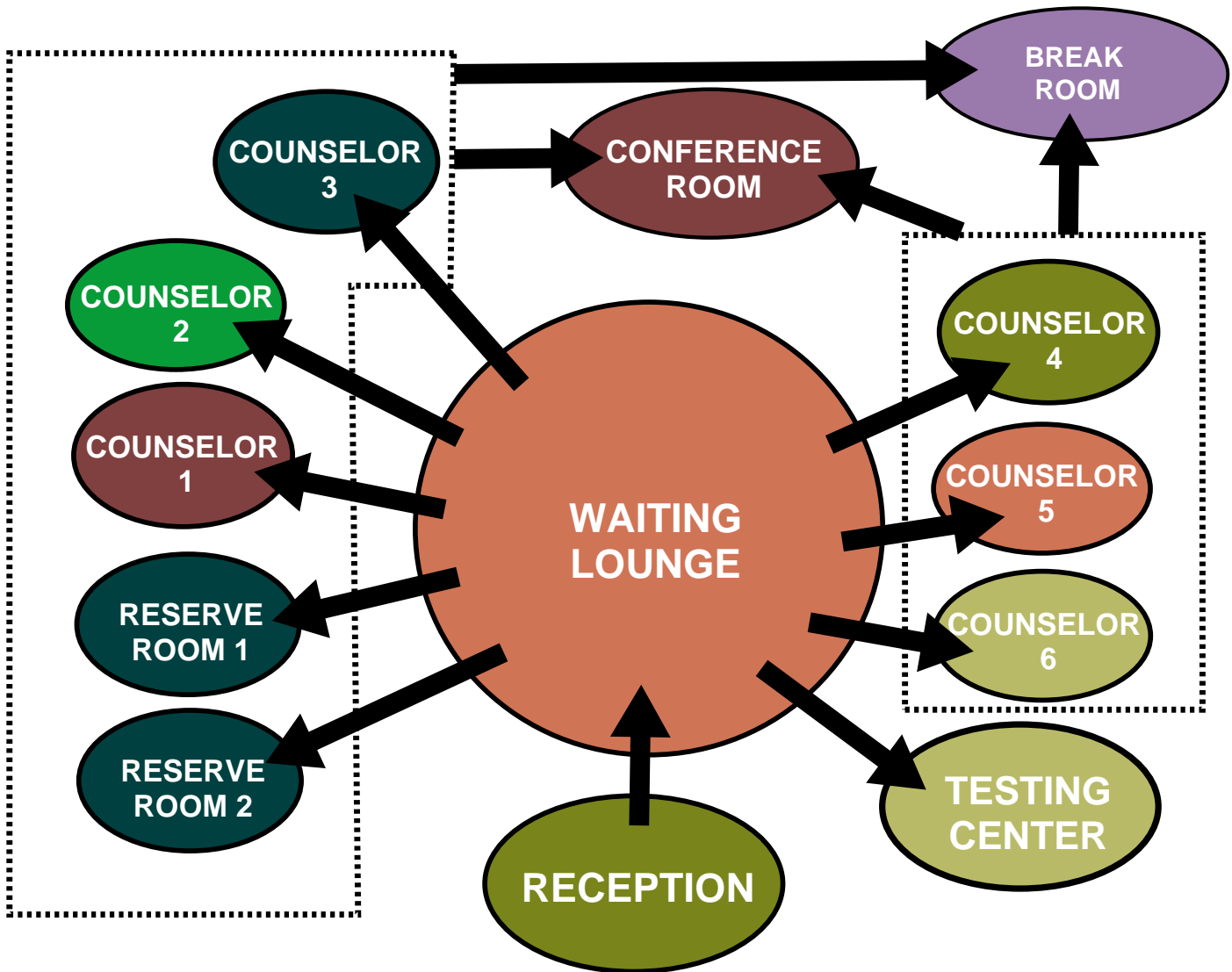




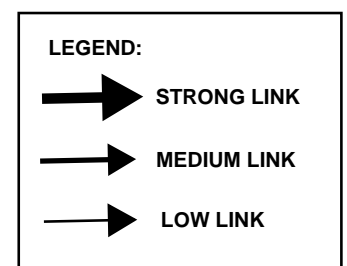


ENROLLMENT SERVICES





STUDENT ACCESSIBILITY SERVICES

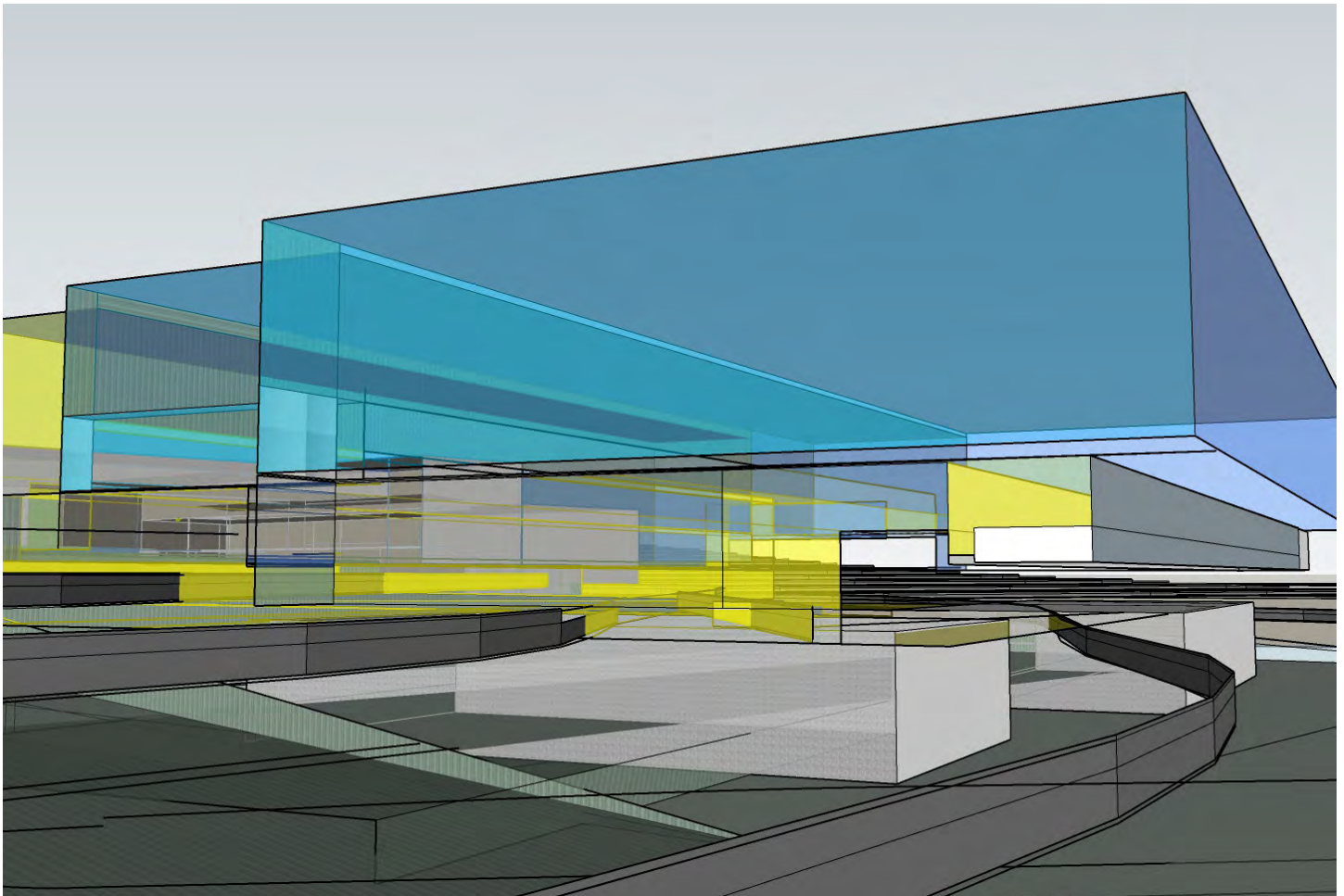


BUILDING PROGRAM

PROGRAM SUMMARY

The following program summary is the conclusion of a collaborative process incorporating over 20 staff and faculty programming meetings, detailed discussions with the District and College Administration along with a close alignment with the proposed project budget. The program went through multiple iterations before it was finally agreed upon in the attached final version. Central to the vision of developing the space definition is ensuring that the academic goals and missions are achieved. The resultant blend of space represents the current and future growth anticipated for the Learning Resource Center and Student Services buildings.

A critical component to the success of the project will be to leverage the ability to share common spaces for teaching and learning and for interaction and collaborative exchange. To this end, rather than providing multiple dedicated spaces, the program is suggesting a shared resource model where common functions can be provided in spaces to be used by all building occupants. Taking a campus-wide perspective it is also envisaged that this project will serve as a hub to promote collaboration and connections for the entire campus community.



PROGRAM SPACES

Spaces	Proposed	Existing	Variance
Umoja	1,000	2,500	-1,500
Puente	750	650	100
Enrollment*	3,100	4,100	-1,000
Counseling**	3,000	3,550	-550
Lounge/Info Desk***	700	850	-150
Dining	6,000	6,900	-900
ASCOM***	1,450	1,580	-130
Cellie	1,000	1,025	-25
Deedy (Conf. Room, etc.)	1,000	1,375	-375
OIM	Relocate	950	-950
SAS	2,700	4,000	-1,300
Digital Journalism	3,000	3,350	-350
Classrooms (5)	5,000	4,950	50
Labs	2,250	2,350	-100
Writing	3,000	4,000	-1,000
Tutoring	Co-Locate	1,650	-1,650
Bookstore	4,500	5,800	-1,300
Mail Room	500	650	-150
BIS Faculty Offices (10)	1,100	1,425	-325
Library	15,000	17,500	-2,500
ESCOM	750	900	-150
	55,800	70,055	-14,255

Includes:

*Includes Testing, Veterans, Bursar, Outreach

**Includes Counseling, Transfer, Dean's Office

***Includes ASCOM/Conduct Office/Activities

Items not included in Program Space square footage equal an additional 17%.

- Circulation
- Mechanical Rooms
- Restrooms
- Utility Rooms

PROJECT BUDGET

OPTION 1

EXISTING STUDENT SERVICES BUILDING PROGRAM AREAS

EXISTING LRC/SS BUILDING AREA:

1. Existing Student Center	30,155 sf
2. Existing Library (LRC)	66,394 sf
	<hr/>
	96,549 sf
3. Health Services (1 Portable)	960 sf
	<hr/>
	97,509 sf
4. "Village Center" Classroom Replacement	6,800 sf
	<hr/>
	104,309 sf
5. Multi-Purpose/Lecture Space	4,200.00 sf
	<hr/>
	108,509 sf
6. Proposed New Building Construction	65,000 sf
	<hr/>
	39,309 sf
	Building Area Reduction
a. New LRC Building Program Area	35,000 sf
b. New SRC Building Program Area	30,000 sf
	<hr/>
Total New Building Construction Area	65,000 sf/gross

OPTION 1

- New Building Construction
- Existing Student Services Building - Modernization
- Utilization of Existing Campus Spaces

PROJECT BUDGET ANALYSIS

BOND PROJECTS FUNDING:

1. Student Services Project	\$ 51,380,000
2. Learning Resources Center Project	32,300,000
	<u>\$ 83,680,000</u>
3. Village Square Classrooms Replacement	\$ 3,600,000
	<u>\$ 87,280,000</u>
4. Multi-Purpose/Lecture Community Space	\$ 6,050,000
	<u>\$ 93,330,000</u>
5. Projected Soft Costs	12% \$ 11,199,600
6. Construction Budget	\$ 82,130,400

CONSTRUCTION ESTIMATE:

1. Site Construction:	\$ 6,000,000	
▪ Service Site/Building Demolition		
▪ Excavation/Recompaction		
▪ Interim Housing		
▪ Utilities/Infrastructure		
2. New Building Construction	65,000 sf	
	\$ 800 \$/sf allowance	\$ 52,000,000
3. Multi-Purpose/Lecture	4,200 sf	
69,200 sf	\$ 650 \$/sf allowance	\$ 2,730,000
		New Building Construction
4. Existing Building Modernization	8,000 sf	
	\$ 425 \$/sf allowance	\$ -
		Building Modernization
5. General Site Improvements		\$ 1,500,000
6. Furniture and Equipment:		
▪ New Building	68,000 sf	\$ 1,000,000
▪ Modernization	25,000 sf	-
	<u>Subtotal</u>	<u>\$ 63,230,000</u>
7. Cost Escalation	12% 2 years	\$ 7,587,600
		<u>\$ 70,817,600</u>
8. Contingency	18%	\$ 12,747,168
	Total Cost	<u>\$ 83,564,768</u>
		Delta: \$ (1,434,368)
		-1.7%

PROJECT BUDGET

OPTION 2

EXISTING STUDENT SERVICES BUILDING PROGRAM AREAS

EXISTING LRC/SS BUILDING AREA:

1. Existing Student Center	30,155 sf
2. Existing Library	66,394 sf
	<hr/>
	96,549 sf
3. Health Services (1 Portable)	960 sf
	<hr/>
	97,509 sf
4. "Village Center" Classroom Replacement	6,800 sf
	<hr/>
	104,309 sf
5. Multi-Purpose/Lecture	4,200
	<hr/>
	108,509 sf
6. Proposed New Building Construction	62,000 sf
Building Area Reduction	42,309 sf
7. New LRC Building Program Area	33,000 sf
8. New SC Building Program Area	29,000 sf
Total New Building Construction Area	62,000 sf/gross

OPTION 2

- New Building Construction
- Existing Student Services Building - Modernization
- Utilization of Existing Campus Spaces

PROJECT BUDGET ANALYSIS

BOND PROJECTS FUNDING:

1. Student Services Project		\$	51,380,000	
2. Learning Resources Center Project			32,300,000	
		\$	83,680,000	
3. Village Square Classrooms Replacement		\$	3,600,000	
		\$	87,280,000	
4. Multi-Purpose/Lecture Community Space		\$	6,050,000	
		\$	93,330,000	
5. Projected Soft Costs	12%	\$	11,199,600	
6. Construction Budget		\$	82,130,400	
7. Phase 1-Site Demolition/Building Demolition:		\$	6,000,000	
▫ Service Site/Building Demolition				
▫ Excavation/Recompaction				
▫ Interim Housing				
▫ Utilities/Infrastructure				
8. New Building Construction				
	62,000 sf			
	\$ 830 \$/sf allowance	\$	51,460,000	
9. Multi-Purpose/Lecture				
	4,200 sf	\$	2,730,000	New Building Construction
	\$ 650 \$/sf			
10. Existing Building Modernization				
	10,000 sf	\$	2,750,000	Building Modernization
	\$ 275 \$/sf allowance			
11. General Site Improvements		\$	1,500,000	
12. Furniture and Equipment:				
▫ New Building	68,000 sf	\$	1,000,000	
▫ Modernization	25,000 sf		-	
	Subtotal	\$	65,440,000	
13. Cost Escalation	12% 2 years	\$	7,852,800	
		\$	73,292,800	
14. Contingency		18%	\$ 13,192,704	Delta:
	Total Cost	\$	86,485,504	\$ (4,355,104)

PROJECT SCHEDULE

TASK	TIME REQUIRED
Programming	Current - November 2018
RFP Process (Contractor Selection)	November 2018 - March 2019
Bid and Approval	April 2019
AOR Design	April 2019 - December 2019
DSA Submittal and Plan Check	December 2019 - May 2020
Back Check and Final Approvals	June 2020
Construction Phase	July 2020 - April 2022
Substantial Completion and Punch List	May 2022 - June 2022
Move-In	July 2022 - August 2022

California Building Standards

2016 CALIFORNIA BUILDING STANDARDS
ADMINISTRATIVE CODE CALIFORNIA CODE OF
REGULATIONS (CCR) TITLE 24, PART 1

2016 CALIFORNIA BUILDING CODE (CBC)
CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24,
PART 2

2016 CALIFORNIA ELECTRICAL CODE (CEC)
CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24,
PART 3

2016 CALIFORNIA MECHANICAL CODE (CMC)
CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24,
PART 4

2016 CALIFORNIA PLUMBING CODE (CPC)
CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24,
PART 5

2016 CALIFORNIA ENERGY CODE
CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24,
PART 6

2016 CALIFORNIA HISTORICAL BUILDING CODE
CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24,
PART 8

2016 CALIFORNIA FIRE CODE (CFC)
CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24,
PART 9

2016 CALIFORNIA EXISTING BUILDING CODE
CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24,
PART 10

2016 CALIFORNIA GREEN BUILDING STANDARDS CODE
(CGBSC)
CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24,
PART 11

2016 CALIFORNIA REFERENCED STANDARDS CODE
CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24,
PART 12

CALIFORNIA ELEVATOR SAFETY CODE CALIFORNIA
CODE OF REGULATIONS (CCR) TITLE 8

Applicable NFPA Standards

- NFPA 13 - AUTOMATIC SPRINKLER SYSTEMS,
2016 EDITION
- NFPA 14 - STANDPIPE SYSTEMS, 2013 EDITION
- NFPA 17 - DRY CHEMICAL EXTINGUISHING SYSTEMS,
2013 EDITION
- NFPA 17A - WET CHEMICAL SYSTEMS, 2013 EDITION
- NFPA 20 - STATIONARY PUMPS, 2016 EDITION
- NFPA 22 - WATER TANKS FOR PRIVATE FIRE
PROTECTION, 2013 EDITION
- NFPA 24 - PRIVATE FIRE MAINS, 2016 EDITION
- NFPA 72 - NATIONAL FIRE ALARM CODE,
2016 EDITION
- NFPA 80 - FIRE DOORS AND OTHER OPENING
PROTECTIVES, 2016 EDITION
- NFPA 92 - STANDARD FOR SMOKE CONTROL
SYSTEMS, 2015 EDITION
- NFPA 253 - CRITICAL RADIANT FLUX OF FLOOR
COVERINGS, 2015 EDITION
- NFPA 2001 - CLEAN AGENT FIRE EXTINGUISHING
SYSTEMS, 2015 EDITION
- ICC 300 - ICC STANDARDS FOR BLEACHERS,
FOLDING AND TELESCOPIC SEATING,
AND GRANDSTANDS, 2012 EDITION
- UL 300 - FIRE TESTING OF FIRE EXTINGUISHING
SYSTEMS FOR PROTECTION OF
COMMERCIAL RESTAURANT COOKING
AREAS, 2005 EDITION
- UL 464 - AUDIBLE SIGNAL APPLIANCES,
2003 EDITION
- UL 521 - HEAT DETECTORS FOR FIRE PROTECTIVE
SIGNALING SYSTEMS, 1999 EDITION

NOTE: ALL NFPA STANDARDS AS LISTED ARE TO
CONFORM TO THE EDITION AS LISTED
WITH THE LATEST CALIFORNIA
AMENDMENTS. REFERENCE THE 2016
CBC, TITLE 24, PART 2 - CHAPTER 35 FOR
ADDITIONAL APPLICABLE NFPA, UL,
STANDARDS AND ANY CALIFORNIA
AMENDMENTS TO NFPA STANDARDS.
(2015 INTERNATIONAL BUILDING CODE
(IBC) WITH CALIFORNIA AMENDMENTS)

GOVERNING CODES AND REGULATIONS

(2014 NATIONAL ELECTRIC CODE (NEC)
W/ CALIFORNIA AMENDMENTS)

(2015 UNIFORM MECHANICAL CODE (UMC)
W/ CALIFORNIA AMENDMENTS)

(2015 UNIFORM PLUMBING CODE (UPC)
W/ CALIFORNIA AMENDMENTS)

(2015 INTERNATIONAL FIRE CODE (IFC)
W/ CALIFORNIA AMENDMENTS)

(2015 INTERNATIONAL EXISTING BUILDING CODE (IEBC)
W/ CALIFORNIA AMENDMENTS)

1990 STATE FIRE MARSHAL REGULATIONS
(AS AMENDED TO DATE) CALIFORNIA CODE OF
REGULATIONS (CCR) TITLE 19

2010 AMERICANS WITH DISABILITIES ACT (ADA)
STANDARDS FOR ACCESSIBLE DESIGN (ADAS)

The process utilized for this programming study was a process that followed shared governance. The WLC Team met with every constituent group that is currently located in the Learning Resource Center and Student Services Center. We interfaced with the President's Cabinet, the college council, the campus Dean's committee, and received input from the greater campus community during flex week.

We met with the buildings users multiple times and received extensive input regarding what worked well, what needed improvement and where they say their departments and the campus community is going in the future. These meetings provided us with excellent recommendations for programming and planning for the new facility. Design charette sessions were held to receive input on adjacencies, vital program connections and how the buildings elements might stack in a multi-story scheme.

All of this input guided and informed our recommendations for the new LRC/SS facility.

Based on campus input and consultant analysis of the existing facility, we recommend that the existing Learning Resource Center be demolished and the new facility be built on the site where the LRC has been removed.

The Student Center can be used as a swing space for the project and can also receive modernization work that will enable it to be re-purposed for other uses. The existing ramp between the buildings should also be demolished and reconfigured based on the final site and building design that is developed.

The new facility should be multi-story and zoned to facilitate student movement throughout the facility. There needs to be an information/concierge desk that serves to direct students and visitors. The building should be easily accessible and easy to move intuitively to the various departments. It should have spaces for students to engage individually or in small groups and be a place that attracts student and staff interaction. It will serve as the new entry to the campus from the parking lot and continue the urban edge on College Avenue that was started with the Academic Center Building.

MEETING MINUTES

The meeting minutes provided a cross-section of the constituent groups that we met with, outlines the topics of discussion and provides a road map for the elements that each of the groups wanted to see in the new facility.

The programming team had 25 meetings with all of the identified stakeholder groups for both the LRC and the SS buildings. Some of the key recommendations that came up consistently in many of the meetings were:

1. More collaborative spaces to foster better communication between students and staff.
2. More collaborative spaces to foster better communication and coordination between staff offices. Staff spaces that are located with adjacencies based on work flow and student experience.
3. A more defined and logical flow of spaces to facilitate wayfinding and provide a more efficient enrollment and/or information gathering experience for the students.
4. A new facility that becomes the "front door" to the campus from both College Avenue and the primary parking lot.
5. A new facility that ties the campus together and creates a new "center" for the campus.
6. Provide a student friendly experience throughout the new facility.
7. Provide more comfortable, efficient, and appropriately sized staff work areas.
8. Universal agreement that the LRC and SS were inefficient, functionally obsolete, and unable to adequately house the functions that are currently in each building. The LRC was viewed as the most inefficient and most difficult to re-purpose.
9. An information/concierge desk that services as the one-stop location where all students, staff, and visitors can get information about the campus and be directed to the operations in the building.



ARCHITECTS CLIENT FOCUSED. PASSION DRIVEN.

February 8, 2018

MEETING MINUTES

College of Marin Meeting 1
Kentfield LRC and Student Center Programming
Project 1720400.01

MEETING DATE: December 13, 2017

ATTENDEES

Christine L. Leimer, Executive Director of P.R.I.E., College of Marin
Gregory W. Nelson, VP of Finance and Operations, College of Marin
Patrick Ekoue-Totou, Director of IT, College of Marin
Linda Frank, Executive Director of Development, College of Marin
David W. Coon, Superintendent/President, Marin Community College District
Kristina A. Combs, Executive Director of HR and LR, College of Marin
Jonathan Eldridge, Senior VP, Student Learning/Student Services, College of Marin
Timothy McBrian, Measure B Program Manager, Gilbane Building Company
Wendell Vaughn, Architect, AIA, LEED™ AP BD+C, Director of Design, Principal, WLC Architects, Inc.
Leopold Ray-Lynch, Architect, AIA, NOMA, Principal, WLC Architects, Inc.

ITEMS DISCUSSED

1. Meeting agenda prepared by WLC Architects (WLC).
 - a. Review of College Mission.
 - b. Preliminary programming planning teams:
 - (1) **Leadership** - President's Cabinet
 - (2) **Steering Committee** - TBD
 - (3) **Planning Committee** - Senior Vice President, Department Deans, Representatives (16-19) User Groups
 - c. Project Process Outline to be drafted by WLC for College review, edit, and input.
 - d. Project Schedule to be drafted by WLC for College review, edit, and input.
 - e. Brief review of the College of Marin Facilities Master Plan.

- f. Board of Trustees Values and Principles as previously provided by Dr. David Coon, President.
 - g. Project Scope-of-Services WLC:
 - (1) Complete project program.
 - (2) Project Planning - set buildings and site planning.
 - (3) Schematic Design (100%). Requested by the Cabinet.
 - (4) Design Development (approximately 50%) for the initial Design/Bridging Documents if Design Build Project delivery is utilized. Requested by the Cabinet.
 - h. Project delivery alternatives to be reviewed along with the development of the design.
 - (1) The Board of Trustees has not made a decision on the project delivery method.
 - i. Project Planning Considerations.
 - j. Project Vision and Goals.
 - k. 2014 Strategic Plan Analysis Report - Fall 2018 an update of this document will be initiated.
 - (1) Seismic Analysis of some of the existing campus building was completed in 2014.
 - (2) Soils and Liquefaction Analysis.
 - l. Project design and construction alternatives shall be assessed and basis for Design Documents.
2. Planning and Design Goals and considerations.
- a. Create a welcoming and interactive outside space (court) for the campus.
 - b. Design "New Campus Front Door" (site and building design).
 - c. Design communal spaces within and between the building and campus site.
 - d. Design an inviting campus entry for the student parking area.

- e. Program Spaces to include and address:
 - (1) Student study spaces
 - (2) Position and design for welcoming for enrollment services.
- f. Primary Campus/College Goal, "Students looking ahead for continued education with the feeling of opportunity and support by the College. The new project design shall "display this to students everyday" with the feeling of a university environment and campus.
- g. Scope of the "new building or buildings' will be defined during the Programming and Planning phases.
- h. "Guided Pathways Program" as outlined by the Chancellor's Office.
- i. Potential renovation and/or reconstruction of the existing buildings will be studied in the Programming and Planning Phase.
- j. Existing 600 seat Theatre, 100 person 'Black box', 300 seat theatre space for new building to be considered.
- k. Creek widening is currently designated for 5'-0" on both sides. To be confirmed.
- l. Executive Student Services to be programmed within the design and construction scope.
- m. Outline list of student services within the new Space Program.
- n. Configuration of staff spaces and interaction.
- o. Off-hour use by "Distance Education" students.
- p. The community comes to the campus for a variety of functions now.
- q. "Synchronized" Lecture Hall utilization.
- r. Reinforce and support staff development, interaction, and support.
- s. Variety of types and program sizes including Visual Media operations and space.
- t. Food Services program spaces will be reviewed and defined.
- u. Jonathan shared the example of "Orange Box" Manufacture Company for consideration of the furniture and equipment to be located in the project supporting 'self-contained learning' opportunities.

Meeting Minutes
College of Marin Meeting 1
College of Marin Kentfield LRC/Student Center Programming
Project 1720400.01
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- v. Primary function of the new building(s) will be to support and house "Supplemental Learning" programs and spaces.
- w. Planning Committee will review example projects to assist in establishing the specific design of his project.
- x. A traditional Library space will be discussed with respect to current and future design and utilizations of this space(s).

INITIAL PROGRAM SUMMARY SPACES

Executive Student Services
Student Union/Media Center
Health Center
"Supplemental Learning" programs and spaces.
Student Study spaces
Enrollment Services
Guided Pathways Program
Staff Development
Visual Media

Reprographics to be relocated (existing (6) six portables)
Exiting Health Services to be relocated (existing (2) two portables)

END OF MINUTES

The above represents my best interpretation of the spirit and content of the discussions. Please let me know of any requested modifications or corrections within seven days of receipt of these minutes.

Prepared by,



WENDELL VAUGHN
Architect, AIA
LEED™ AP BD+C
Director of Design
Principal

WV:jg
P01720400x1-mm

cc: Attendees



April 27, 2018

MEETING MINUTES

Tutoring
College of Marin Kentfield LRC/Student Center Programming
Project 1720400.01

MEETING DATE: April 9, 2018

ATTENDEES

Cari Torres-Benavides, Assistant Vice President, College of Marin
Becky Reetz, Director of EOPS, CARE, CalWorks, College of Marin
Oksana Pensabene, Tutoring Coordinator, College of Marin
Jon Horinek, Dean of Enrollment Management, College of Marin
Tonya Hersch, Director of Basic Skills Programs, College of Marin
Leopold Ray-Lynch, Architect, AIA, NOMA, Principal, WLC Architects, Inc.

ITEMS DISCUSSED

1. Serve all students on campus.
2. Natural light into space.
3. Study rooms and areas for one-on-one study – glazed.
4. Vibrant learning spaces for students to gather.
5. Covers all subjects.
 - a. Uses peer tutors.
 - b. Coordinator needs office with visual supervision.
6. Future: two offices.
7. A large classroom for groups.
8. Round tables with chair leg space.
9. Kitchen/break area.
10. Hours: M/W/F 9:00 a.m. – 4:30 p.m. - T/TH 9:00 a.m. – 6:00 p.m.
11. Adjacencies desired:
 - a. EOPS close
 - b. Veteran's Resource Center

- c. IS
 - d. Writing Center
12. Good visual to see students working.
 13. A control system for checking in – swipe their card.
 14. An outdoor patio area for studying.
 15. More computers and laptops (15 to 20 desktops).
 - a. Connectivity in floor or from above.
 16. ± 75 students capacity now – need space for ± 100.
 17. Examples
 - a. American River College
 - b. Butte College
 - c. Santa Rosa Junior College
 - d. College of the Canyons – Very large spaces, setup
 - e. Skyline College
 18. LSCHE – Learning Center Resource Center

END OF MINUTES

The above represents my best interpretation of the spirit and content of the discussions. Please let me know of any requested modifications or corrections within seven days of receipt of these minutes.

Prepared by,



LEOPOLD RAY-LYNCH
Architect, AIA
NOMA, Principal

LRL:jg/P01720400x4-mm

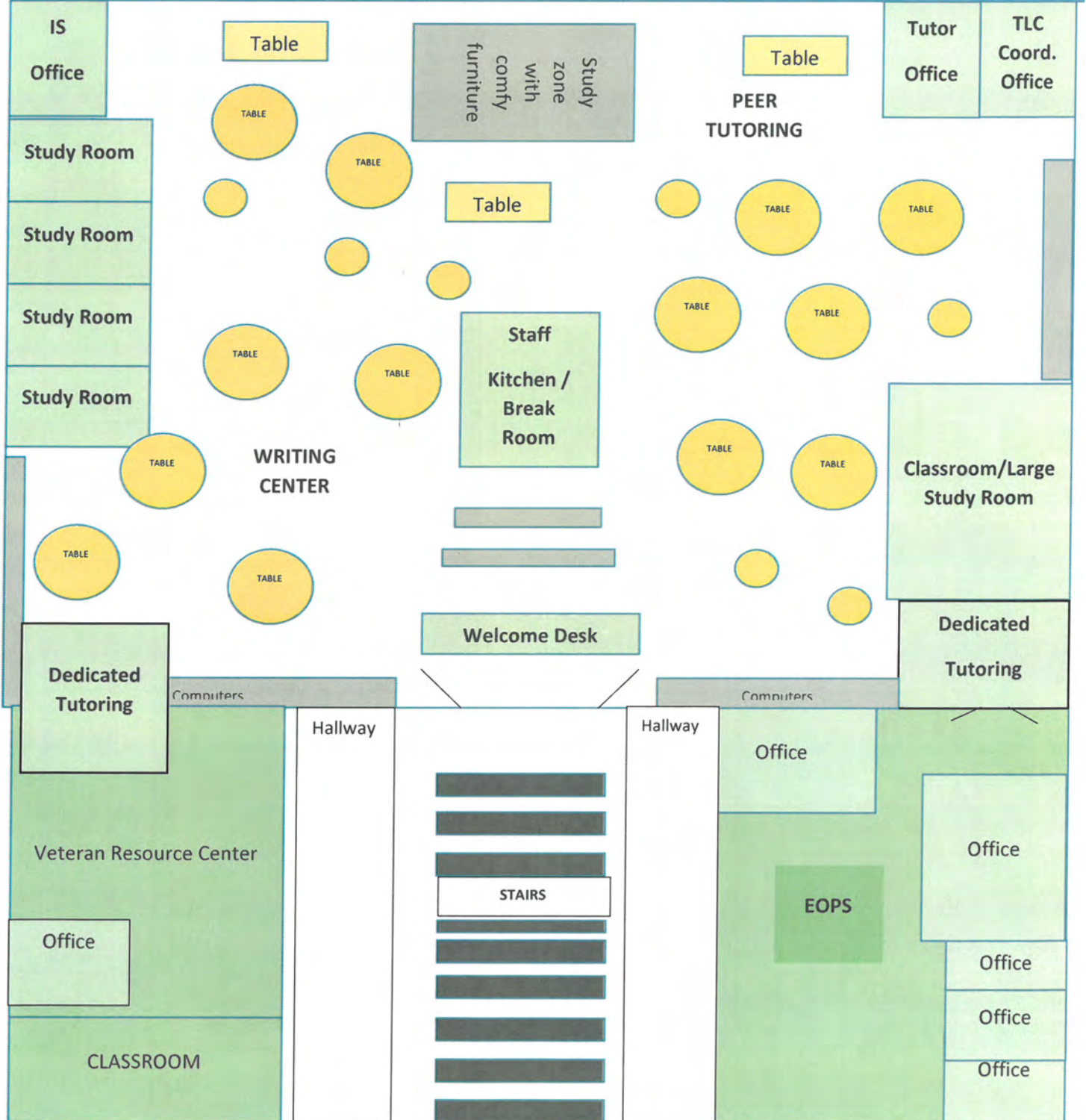
cc: Attendees

Top floor LRC

4/9/18



Mt. Tam





April 27, 2018

MEETING MINUTES

IS/Writing Center/English Skills Lab
College of Marin Kentfield LRC/Student Center Programming
Project 1720400.01

MEETING DATE: April 10, 2018

ATTENDEES

David Snyder, Dean, Arts and Humanities, College of Marin
Cari Torres-Benavides, Assistant Vice President, College of Marin
Tonya Hersch, Director of Basic Skills Programs, College of Marin
Beth Sheofsky, English Instructor, College of Marin
Barbara Bonander, English Professor, College of Marin
Lucas Drisdell, English Instructor, College of Marin
Jeff Cady, English Instructor, College of Marin
Blaze Woodlief, English Instructor, College of Marin
Debbie Warren, English Instructor, College of Marin
Rowena Southard, English Instructor, College of Marin
Trine Miller, English Instructor, College of Marin
Caitlin Rolston, Adjunct ESL Instructor, College of Marin
Leopold Ray-Lynch, Architect, AIA, NOMA, Principal, WLC Architects, Inc.

ITEMS DISCUSSED

1. Existing lab has horrible location.
 - a. Wi-Fi difficulties and bad acoustics due to concrete walls, floors, etc.
 - b. Need adjacent rooms for meetings – small rooms.
 - c. Larger rooms for workshops – classroom size.
 - d. 2 rooms – one with computers and one without.
2. Need more classroom space.

3. Need flexible space.
 - a. Acoustics control for a quiet lab and a collaborative space.
4. Need space with services.
5. Like adjacency to Library.
 - a. Central reception desk/orientation area to direct students.
6. Need wiring – technology infrastructure.
 - a. Reading nook.
 - b. Charging stations.
 - c. Natural light/large windows/views of Mt. Tam.
 - d. Ability for indoor and outdoor use.
 - e. Need adjacent indoor social/work place.
 - f. Lunch room/break room with cubbies for staff.
7. Private conference spaces.
 - a. +/- 4 small spaces.
 - b. +/- 2 larger spaces.
 - c. One room for records and files.
8. Currently space for +/- 25 students and is overcrowded.
 - a. Writing center – staff sits next to students to assist them.
9. Students – some come for computer access, others come for assistance.
 - a. +/- 75 students total capacity in space.
10. American River College – sample of similar space.
11. Important to be adjacent to tutoring center.
12. Need space for computers and flexibility for future technology needs.

Meeting Minutes
IS/Writing Center/English Skills Lab
College of Marin Kentfield LRC/Student Center Programming
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13. Study carrels with power.
14. Lab designed in zones rather than large open space.

END OF MINUTES

The above represents my best interpretation of the spirit and content of the discussions. Please let me know of any requested modifications or corrections within seven days of receipt of these minutes.

Prepared by,



LEOPOLD RAY-LYNCH
Architect, AIA
NOMA
Principal

LRL:af
P01720400x5-mm

cc: Attendees



April 27, 2018

MEETING MINUTES

Distance Ed/Teaching and Learning/Professional Development
College of Marin Kentfield LRC/Student Center Programming
Project 1720400.01

MEETING DATE: April 11, 2018

ATTENDEES

Cari Torres-Benavides, Assistant Vice President, College of Marin
Kathleen Smyth, HED KIN DE Coordinator, College of Marin
Tonya Hersch, Director of Basic Skills Programs, College of Marin
Stacy Lince, Instructional Technologist, College of Marin
Beth Patel, ESL/Professional Development, College of Marin
Leopold Ray-Lynch, Architect, AIA, NOMA, Principal, WLC Architects, Inc.

ITEMS DISCUSSED

1. Coordinated by Stacy Lince.
2. Instructional design.
 - a. Spaces for professional development and distance education.
 - b. Should be close together.
 - c. Should be near Library.
3. Provides professional development and training for the faculty and staff.
4. Sample space:
 - a. "The Loft" at San Diego Mesa College.
5. Distance Education – faculty assistance occurs.
 - a. Generally sees two people at a time ± five people once per week.
6. A studio for filming professors providing lectures – green screen, etc.
 - a. Space to record video and audio.
7. Space for faculty to work.
 - a. Currently two work stations.
 - (1) Ideally ± two Macs and two PCs.

- (2) Ideally area to work with \pm 15 people - a flexible space with moveable furniture.
- 8. Wants an open space – easy to free flow in and out – a visible space.
- 9. A kitchen is needed in area.
- 10. Professional Development
 - a. Before school starts – uses classrooms and labs.
 - b. Current PD work is done in various spaces available on campus.
 - c. Would like a space for permanent use.
 - d. Example:
 - (1) Butte College PD program space (see sample plan).
- 11. Large space for \pm 50 people – for faculty/staff use.
 - a. Can be used for new faculty orientation.
 - b. Faculty work/gathering space.
- 12. Lots of light.
- 13. Technology throughout.
- 14. Need to build a PD Library.

END OF MINUTES

The above represents my best interpretation of the spirit and content of the discussions. Please let me know of any requested modifications or corrections within seven days of receipt of these minutes.

Prepared by,



LEOPOLD RAY-LYNCH
Architect, AIA
NOMA, Principal

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cc: Attendees



ARCHITECTS CLIENT FOCUSED. PASSION DRIVEN.

April 27, 2018

MEETING MINUTES

Counselors/Transfer Center
College of Marin Kentfield LRC/Student Center Programming
Project 1720400.01

MEETING DATE: April 17, 2018, 12:30 p.m.

ATTENDEES

Cari Torres-Benavides, Assistant Vice President, College of Marin
Gina Cullen, Department Chair, Counseling, College of Marin
Sofia Janney-Roberts, Transfer and Career Coordinator, College of Marin
Luz Briceño-Moreno, Counselor/Co-coordinator, College of Marin
Alexandra Rivera, Counselor, College of Marin
Kristin Perrone, Counselor, College of Marin
Chelsey Perez, Administrative Assistant, College of Marin
Brian King, Psychologist, College of Marin
Luna Finlayson, SAS, Counselor, College of Marin
Karen F. Robinson, Counselor, College of Marin
Caitlin Escobar, Counselor, College of Marin
Leopold Ray-Lynch, Architect, AIA, NOMA, Principal, WLC Architects, Inc.

ITEMS DISCUSSED

General Counseling:

1. Class planning.
2. Educational planning.
3. Career counseling.
4. Two psychologists and assistant – individual and couples counseling.
5. Students with disabilities have two counselors.
6. Welcome desk – One admin and two to three students.
7. College reps come in intermittently +/- two per week.

Transfer and Career Center

1. One internship coordinator.
2. Meet with potential transfers.
3. Students come in to use computers.
4. Transfer club meets there.
5. Have workshops for +/- 25 to 30 students – currently done in same space.
6. Need larger screen to project info in separate workshops/computer lab space. Joint use space.
7. Need a self-check-in area for computer use and have reception area with glass counter that can be closed off.

Counseling

1. Have individual offices +/- 14 (currently very small).
 - a. Need +/- 16 offices.
2. Psychologists – need to be in an area without having traffic walking by with combined waiting area to avoid separation.
3. Computers outside space to do applications or registration.
4. Need a welcome center area with ambassadors to answer easy questions – similar to Berkeley City College entry.
5. Community College of Denver – logical flow of spaces and shown on floor plan.
 - a. Large visual board with frequently asked questions displayed.
6. Other departments that should be close in proximity.
 - a. Enrollment.
 - b. Assessment.

- c. Cashier.
 - d. SAS (Student Accessibility Services)
 - e. Tutoring.
 - f. EOPS
7. Need a large conference space.
 8. Need a large classroom with moveable wall.
 9. Need a break room.
 10. Need a work room for confidential docs, printers, etc.
 11. Current Employees:
 - a. 11 – Full time
 - b. 4 – Part time
 - c. 3 – Psychologists
 - d. 2 – Transfer Department
 - e. 1 – Admin + two to three Students
 - f. 3 – Students (need desk)
 12. SAS Employees:
 - a. 5 – Full time
 - b. 5 – Part time
 - c. 1 – Student
 - d. 1 – Learning Disability
 - e. A Tutoring Center – a lab
 13. Need confidential printing.

Future

1. Counseling via Skype or Zoom.
2. Majority of counseling is still done face-to-face.
3. Reception area to check-in with a kiosk using student card – needs to see both areas.
4. Office space for students and parents.
5. Small meeting room.
6. More will be done online.
7. Two screens to share with student or swivel screen to assist students.
8. Windows for offices (operable).
9. Improve movement through space – simplify student flow.
10. Important to have a welcome point.
11. Current layout of spaces so that staff can't exit.
12. Current layout is not secure.
13. Transfer center.
 - a. Visible presence for center.
 - b. Office with sliding glass doors.
 - c. Want to be open for students.
 - d. Need to have check-in for some students.
14. Display wall in offices to give notices, tackable wall and/or markerboard wall.
15. TV screen in waiting area.
16. Area to put out flyers, info, business cards, etc.
17. Guided pathways may require more counseling staff.

Meeting Minutes
Counselors/Transfer Center
College of Marin Kentfield LRC/Student Center Programming
Project 1720400.01
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18. Larger offices.
19. Prefer one building.
20. Need a quad for campus.
21. Request for large space +/- 200 to 300 people.

END OF MINUTES

The above represents my best interpretation of the spirit and content of the discussions. Please let me know of any requested modifications or corrections within seven days of receipt of these minutes.

Prepared by,



LEOPOLD RAY-LYNCH
Architect, AIA
NOMA
Principal

LRL:af
P01720400x8-mm

cc: Attendees



CLIENT FOCUSED. PASSION DRIVEN.

April 27, 2018

MEETING MINUTES

Student Activities and Advocacy
College of Marin Kentfield LRC/Student Center Programming
Project 1720400.01

MEETING DATE: April 17, 2018, 3:30 p.m.

ATTENDEES

Sadika Sulaiman Hara, Director, Student Activities and Advocacy, College of Marin
Matthew Kent, Student Conduct Officer, College of Marin
Vickie Lamke, Administrative Assistant, College of Marin
Leopold Ray-Lynch, Architect, AIA, NOMA, Principal, WLC Architects, Inc.

ITEMS DISCUSSED

Includes

1. Student clubs.
2. Student government.
3. Program events.
4. Student conduct – stalkers, fights, harassment, etc.
5. Student activities.
6. Need private spaces – for grievances and student issues.
 - a. All functions need to be in the same space.
7. Currently three staff and one coming.
 - a. Currently four work study students without workstations.
8. Need to be closer to student traffic areas – counseling, tutoring.
9. Need private offices for Director and conduct office
 - a. Security is a concern – irate students.
 - b. Need line of sight to offices.

Future

1. For conduct meetings: - students to check-in with Administrative Assistant.
 - a. Small office suite.
 - b. Need a community building space.
 - (1) Location for students to hang out.
 - c. Student government board room – can be shared.
 - d. Student lounge areas with views.
 - e. Student government partition offices and area for clubs.
 - f. Multiple spaces.
2. They are a liaison to community organizations
 - a. Existing spaces downstairs for:
 - (1) Food insecurity.
 - (2) Domestic violence.
 - (3) Financial coaching.
 - (4) Need them in a future space – near counseling would be best.
 - (5) Food pantry should be located with student activities.
3. COM cupboard – needs to be in one space.
 - a. Tuesday – Pop-up Pantry.
 - b. Wednesday – Farmer's Market.
 - c. Food Pantry
4. A common kitchen for staff and student events.
5. Conference rooms particularly for larger conduct meeting.
 - a. Need visual privacy.
 - b. Meetings with families, lawyers, etc.
 - c. Need waiting area.

Meeting Minutes
Student Activities and Advocacy
College of Marin Kentfield LRC/Student Center Programming
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6. Storage – currently in sheds behind building.
 - a. Need a welcome center.
 - b. Need to be associated with learning communities.
 - c. Information kiosk – areas to post info.
 - d. Outdoor display kiosk or location for info display.

Student Activities

1. Way to put things undercover
2. Outdoor programming space – to do events and activities.
3. Space between LRC and SS is the heart of the campus but is not useable.
4. Concern: Noise from activities affecting classrooms and student services like enrollment, etc.

END OF MINUTES

The above represents my best interpretation of the spirit and content of the discussions. Please let me know of any requested modifications or corrections within seven days of receipt of these minutes.

Prepared by,



LEOPOLD RAY-LYNCH
Architect, AIA
NOMA
Principal

LRL:af
P0172040010-mm

cc: Attendees



July 30, 2018

MEETING MINUTES

President's Meeting Notes
College of Marin Kentfield LRC/Student Center Programming
Project 1720400.01

MEETING DATE: May 24, 2018

ATTENDEES

David Coon, Superintendent/President, Marin Community College District
Greg Nelson, Vice President for Finance and College Operations, Marin Community College District
Jonathan Eldridge, Senior VP, Student Learning/Student Services, College of Marin
Bill Henn, Project Manager, Hohbach-Lewin, Inc.
Dennis Honrubia, Project Manager, WLC Architects, Inc.
Wendell Vaughn, Architect, AIA, LEED BD+C, Director of Design, Principal, WLC Architects, Inc.
Leopold Ray-Lynch, Architect, AIA, NOMA, Principal, WLC Architects, Inc.
Kevin MacQuarrie, Architect, AA, Chairman of the Board, Principal, WLC Architects, Inc.

ITEMS DISCUSSED

1. Dr. Coon asked if we received a copy of the recent seismic report. I confirmed that we have received all that was requested by our consultants. He also emphasized that the result of the seismic report was the reason the project was put on hold, but now it is time to move forward.
2. Jonathan Eldridge suggests cycling back with the previous user group meetings to re-evaluate things and have more focused interviews.
3. Jonathan suggests sitting down with him next week to block out all constituent meetings. Thursdays are a good day to meet. (Schedule a meeting next week).
4. Focus on remaining user group meetings in June.
5. Loop back from previous meetings in July.
6. Mix or shared spaces will be together, based on programming presented.
7. Possible full day, 2 hours each group for the feedback from constituent's group meetings.
8. Better translation of spaces to create a final plan.
9. Circle back to everyone to be clear of the final solution.

10. Greg Nelson commented that summertime will be a great opportunity to schedule community group input. He can coordinate the meetings as there are some other concerns that will be brought up. This will be the final stage of all interviews. Please note that the College is closed on Fridays during the summertime. (Follow up with Greg about the summer community input meeting(s)).
11. Creek issues and Core of Engineers' 10-foot easement requirements.
12. Parking to be evaluated.
13. Sir Francis Drake Boulevard improvements are scheduled to occur at the end of summer.
14. Demolition vibration is a consideration for neighbors.
15. Make sure that everyone is clear about what is being proposed.
16. Jonathan commented on Cafeteria space – he is open to ideas for outside partnerships from food vendors, food trucks, or kiosk setup. Maybe they need to send out an RFQ during the programming process just to get some ideas.
17. Dr. Coon commented on the Cafeteria, stating that even if outside vendors are incorporated into the plan, he still prefers the College to have its own food service for special events.
18. WLC will set up a field trip for different schools or facilities with similar services and brainstorm ideas.
19. Greg said that the total existing Learning Resource Center (LRC) and Student Resource Center (SRC) Buildings are approximately 100,000 sf. The student population has gone down, the spaces are not utilized, and future buildings will be smaller. He is also anticipating a plan for the interim housing to be in trailers for Counseling, Student Services, Enrollment Services, and the Library. He is expecting around a \$3 million expense. It will be a major undertaking and the whole project cost can reach \$100 million which will include everything. He said that this will be the biggest project for the school.
20. Greg stated there will be a 16 percent escalation from October of 2018 until September of 2020.
21. Wendell said 85,000 sf will be utilized.
22. Jonathan commented that our list of spaces is incomplete. Personal note: our spaces are based on record drawings and it is possible that they have changed the use of the rooms.
23. Greg said that his actual renovation cost for the college is \$404 dollars per sf.

Meeting Minutes
President's Meeting Notes
College of Marin Kentfield LRC/Student Center Programming
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24. Jonathan stressed the importance of the campus' main services being located near front doors such as Enrollment Services and other pertinent spaces.
25. Wendell discussed different construction delivery methods and stressed the importance of selecting carefully. Kevin reinforced the idea of the benefits of the Lease-Lease Back Agreement. The consensus that the Architect and Contractor come up with a beneficial solution for the Owner is a great idea.

END OF MINUTES

The above represents my best interpretation of the spirit and content of the discussions. Please let me know of any requested modifications or corrections within seven days of receipt of these minutes.

Prepared by,



DENNIS HONRUBIA
Project Manager

LRL:DH:af
P0172040012-mm

cc: Attendees



CLIENT FOCUSED. PASSION DRIVEN.

June 7, 2018

MEETING MINUTES

Site Walk Notes

College of Marin Kentfield LRC/Student Center Programming
Project 1720400.01

MEETING DATE: May 24, 2018

ATTENDEES

Bill Henn, Project Manager, Hohbach-Lewin, Inc.

Greg Nelson, Vice President for Finance and College Operations, Marin Community College District

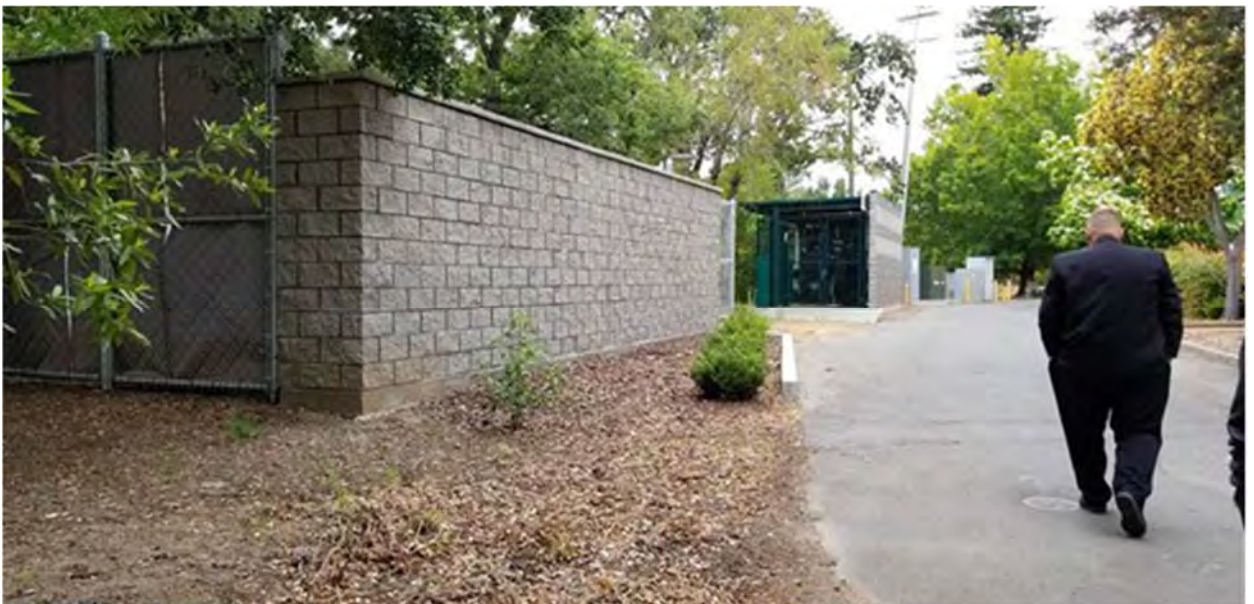
Dennis Honrubia, Project Manager, WLC Architects, Inc.

Wendell Vaughn, Architect, AIA, LEED BD+C, Director of Design, Principal, WLC Architects, Inc.

Leopold Ray-Lynch, Architect, AIA, NOMA, Principal, WLC Architects, Inc.

ITEMS DISCUSSED

1. Geothermal was completed in 2008. CSW completed the geomap for all utilities and they are properly identified with tags. Unfortunately, there was no current invert information available. The system is beneficial to the campus providing efficiency and back-up power.



2. There are liquefaction issues beneath both the Learning Resource Center (LRC) and Student Service Building. The LRC has higher level of concerns. Water table is high, possibly because of the creek proximity between the two buildings. The Core of Engineers require a 5 foot easement, plus an additional 5 foot bike path with a total of 10 feet on both sides (see photo below where Greg is standing approximately). Flood scale 1 = 500 sf. Flood water flows toward the South, which is a downgrade slope towards the parking lot and is now referred to as the flood bowl.



3. There are two historical fronts on the Campus. Now the Campus does not have a major front entry point.
4. Heavy hydraulic equipment will be used during the construction of the Science building.
5. Greg thinks that the LRC and Student Services (SS) have too much space not being utilized and is also considering decreasing the number of enrollment in the new program; should we lower in square footage?
6. Greg suggests trying to maintain the existing building footprints for the reason of grandfathering the setback requirements.
7. Greg commented that existing Student Services (SS) High Voltage Room is an overkill, considering that it only supplies power to site lighting.
8. The campus has a total of 650 species and is considered an arboretum. Careful analysis for demolition is necessary.

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9. LRC is sprinkled, but not the SRC. Hydra map information is available and there is a yearly flow test performed by the local Fire Department.
10. Student Services (SS) was partially retrofitted for structural reasons back in 2001 and 2002. Greg will send drawings to WLC and consultants for further studies and for reference.
11. Back of the Napkin Items: Mail Room, Cafeteria, Bookstore, and Services.
12. Greg reiterates the ZERO WASTE POLICY of the campus. They have recycled demolished concretes in the campus.
13. Strong demolition vibrations can cause problems for the neighbors. Organize a meeting with Greg to mark-up entire campus site for utilization. Bring big drawings and markers.

END OF MINUTES

The above represents my best interpretation of the spirit and content of the discussions. Please let me know of any requested modifications or corrections within seven days of receipt of these minutes.

Prepared by,



DENNIS HONRUBIA
Project Manager

LRL:af
P0172040011-mm

cc: Attendees



ARCHITECTS CLIENT FOCUSED. PASSION DRIVEN.

July 30, 2018

MEETING MINUTES

Community Education/Life Long Learning
College of Marin Kentfield LRC/Student Center Programming
Project 1720400.01

MEETING DATE: June 11, 2018

ATTENDEES

Valene Marckwordt, Program Specialist, College of Marin
Beth Thompson, Program Administrator, College of Marin
Sheherazade Arasnia, Administrative Assistant, College of Marin
Cheryl Carlson, Communication Education and Services Program Specialist, College of Marin
Leopold Ray-Lynch, Architect, AIA, NOMA, Principal, WLC Architects, Inc.
Dennis Honrubia, Project Manager, WLC Architects, Inc.

ITEMS DISCUSSED

1. Community Education/Life Long Learning.
 - a. On both sides of entry to existing Student Services.
 - b. Not for credit programs at college.
 - c. 500 classes per year.
 - d. Ages 14 to 90 / two-thirds of students over 55.
 - e. +/- 4,000 students per year.
2. ESCOM – Emeritus Students of College of Marin.
3. Similar program at Indian Valley Campus.
4. Need staff that registers students to be forward facing – have own registration separate from College.
5. Need to be adjacent to regular registration.
 - a. Need to be easily accessible from parking lot to buildings.
6. Need easier navigation of campus for students.
 - a. Want a central information booth (Welcome Center) with a person.
 - b. Obvious main door with multiple entries.

7. Want to be adjacent to ESCOM but separate physically.
 - a. Meeting spaces for six to eight people.
8. Work with faculty to develop new classes.
9. To review documents, VISA status, etc. (need private space)
10. International student space.
 - a. Office for international advisor space.
11. Mailboxes for faculty.
12. Will increase to 6,000 students by 2021.
13. Space Needs:

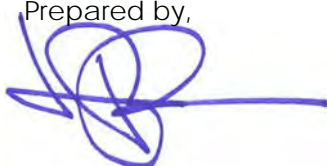
	<u>Space Needs</u>	<u>Now</u>	<u>Future</u>
a.	Administrative Assistant	Office	Office
b.	Director	Office	Office
c.	Program Specialist	Cubicle	Office
d.	Program Administration	Cubicle	Office

14. Need an office suite
15. Spaces that encourage collaboration.

END OF MINUTES

The above represents my best interpretation of the spirit and content of the discussions. Please let me know of any requested modifications or corrections within seven days of receipt of these minutes.

Prepared by,



LEOPOLD RAY-LYNCH
Architect, AIA
NOMA, Principal

LRL:af
P0172040015-mm

cc: Attendees



ARCHITECTS CLIENT FOCUSED. PASSION DRIVEN.

July 30, 2018

MEETING MINUTES

Community Education Registration
College of Marin Kentfield LRC/Student Center Programming
Project 1720400.01

MEETING DATE: June 11, 2018

ATTENDEES

Heather Peitz, Enrollment Services, College of Marin
Sarah L. Smith, Enrollment Services, College of Marin
Leopold Ray-Lynch, Architect, AIA, NOMA, Principal, WLC Architects, Inc.
Dennis Honrubia, Project Manager, WLC Architects, Inc.

ITEMS DISCUSSED

1. ESA: Enrollment Services Associate.
 - a. Registration, class counseling.
 - b. Need office for refunds, cancellations (private space, not visible).
 - c. Safety concern – Where to keep checks, credit card info, etc.
 - d. Registration is at a desk and needs interaction with students. Many over 55 have disabilities.
 - e. Good signage and wayfinding.
 - (1) A map with directory.
 - f. Students looking for counseling, admissions, testing center, etc.

END OF MINUTES

The above represents my best interpretation of the spirit and content of the discussions. Please let me know of any requested modifications or corrections within seven days of receipt of these minutes.

Prepared by,

A handwritten signature in blue ink, consisting of several loops and a horizontal line extending to the right.

LEOPOLD RAY-LYNCH
Architect, AIA
NOMA, Principal

LRL:af
P0172040016-mm

cc: Attendees



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July 30, 2018

MEETING MINUTES

International Education
College of Marin Kentfield LRC/Student Center Programming
Project 1720400.01

MEETING DATE: June 11, 2018

ATTENDEES

Alison Brier Welch, International Student Advisor, College of Marin
Leopold Ray-Lynch, Architect, AIA, NOMA, Principal, WLC Architects, Inc.
Wendell Vaughn, Architect, AIA, LEED BD+C, Director of Design, Principal, WLC Architects, Inc.
Dennis Honrubia, Project Manager, WLC Architects, Inc.

ITEMS DISCUSSED

1. Work with F-1 international students – full-time students.
2. Provide advisement to all international students.
 - a. J-1 Students work here and are students.
3. Do recruitment for international students.
4. Center for International Education.
 - a. Reception area to direct students and schedule meetings.
 - b. Lounge area for students.
 - c. Conference Room
 - d. Office

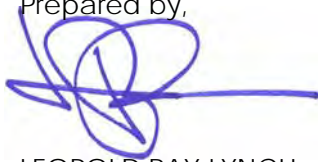
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5. Currently +/- 30 countries on campus with +/- 100 students.
 - a. Goal of 500 students.
6. Goal to have a larger international program on campus
 - a. "Internationalize the campus"

END OF MINUTES

The above represents my best interpretation of the spirit and content of the discussions. Please let me know of any requested modifications or corrections within seven days of receipt of these minutes.

Prepared by,



LEOPOLD RAY-LYNCH
Architect, AIA
NOMA, Principal

LRL:af
P0172040014-mm

cc: Attendees



July 30, 2018

MEETING MINUTES

Career, Technical, and Workforce Education
College of Marin Kentfield LRC/Student Center Programming
Project 1720400.01

MEETING DATE: June 18, 2018

ATTENDEES

Elizabeth Pratt, Dean of Career and Technical Education, College of Marin
Vivian Olsen, Administrative Assistant, College of Marin
Maula Allen, Math Instructor, College of Marin
Nancy Willet, Business Instructor, College of Marin
Norm Pacula, Business Instructor, College of Marin
Mike Cairns, Adjunct Faculty, College of Marin
Leopold Ray-Lynch, Architect, AIA, NOMA, Principal, WLC Architects, Inc.
Wendell Vaughn, Architect, AIA, LEED BD+C, Director of Design, Principal, WLC Architects, Inc.
Dennis Honrubia, Project Manager, WLC Architects, Inc.

ITEMS DISCUSSED

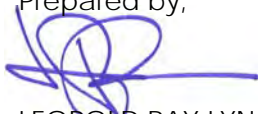
1. All Instructors' Offices are in LRC – Lower Level (6 offices)
 - a. Four full-time offices.
 - b. One lab office.
 - c. One part-time office (+/- 20 part-time).
 - d. Two classrooms.
 - e. One computer lab (+/- 30 stations).
 - f. Administration – in Fusselman.
 - g. Sonoma State office/space.
 - h. Classes in other buildings on campus.
 - i. Lab in Room AC116.
 - j. Classes in Village Square, P.E, AC Building, and Science Building.
2. Future
 - a. A space and furniture that facilitates group work.
 - b. Accommodates technology.

- c. Space for students to meet and collaborate.
 - d. Need own area for department.
 - e. Space for faculty to meet.
 - f. Both computer labs in the same area.
 - g. Larger classroom that could be divided.
 - h. Furniture on wheels that can be reconfigured.
 - i. Power requirements.
3. Class sizes currently from 12 to 32. Need up to 40
- a. Central space with breakout spaces.
 - b. More glass.
 - c. Indoor/outdoor options.
4. Prime teaching Monday through Thursday 9 a.m. to 1 p.m. / 6 p.m. to 9 p.m.
- a. Ideally four classrooms being taught at one time.
 - b. Adjunct instructor spaces near classrooms.
 - c. Create spaces for students (nooks).
 - d. Need to bring business students together.
 - e. +/- 800 students in the program per semester.
5. Have relationship with Sonoma State for degree program

END OF MINUTES

The above represents my best interpretation of the spirit and content of the discussions. Please let me know of any requested modifications or corrections within seven days of receipt of these minutes.

Prepared by,



LEOPOLD RAY-LYNCH
Architect, AIA
NOMA, Principal

LRL:af/P0172040013-mm

cc: Attendees



July 30, 2018

MEETING MINUTES

Enrollment Services
College of Marin Kentfield LRC/Student Center Programming
Project 1720400.01

MEETING DATE: June 18, 2018

ATTENDEES

Anna Pilloton, Director, School and Community Partnerships, College of Marin
Jon Horinek, Dean of Enrollment Management, College of Marin
Julian Solis, School and Community Partner Program Coordinator, College of Marin
Emy Bagtas, Assistant Director, Enrollment Services, College of Marin
Leslie Barker, Senior Accountant, College of Marin
Marilou Fragata, Staff Accountant, College of Marin
Ruby Reyes, Enrollment Services, College of Marin
Gina Longo, Testing Center Coordinator, College of Marin
Sally Wong, Testing Center Coordinator, College of Marin
Leopold Ray-Lynch, Architect, AIA, NOMA, Principal, WLC Architects, Inc.
Dennis Honrubia, Project Manager, WLC Architects, Inc.

ITEMS DISCUSSED

1. Enrollment Services.
 - a. +/- 13 staff +2 work study students.
 - b. Admissions.
 - c. Records/Transcripts.
 - d. Financial Aid.
 - e. Four windows (use three consistently).
2. School and Community Partnerships (Outreach).
 - a. K-12 recruitment/campus tours.
 - b. Four staff + Ten student ambassadors.
 - c. Work with chambers of commerce/CDCs
 - d. Dual enrollment.


3. Cashiering.
 - a. Four staff – Three windows and one office.
 - b. Collect payments.
 - c. Have a safe room for depositing payments.
4. Testing.
 - a. Placement tests.
 - b. Proctor exams.
 - c. Area with 15 computers and space for six people to take tests on paper.
 - d. Best to be near counseling.
 - e. Needs sound isolation.
5. Veterans.
 - a. One office.
 - b. One student resource/lounge area.
6. Needs.
 - a. A welcome desk to orient students and visitors.
 - (1) Counseling should be adjacent.
 - b. Welcome Center – Could be part of outreach.
 - c. Enrollment Services – Counseling – Testing – Cashiering.
 - (1) A back office for cashiering to manage accounts.
 - (2) Computer stations available to apply – can be dispersed.
 - (3) Need a few conference/meeting rooms.
 - d. Instead of all windows some carrels for conversations re:
 - (1) Financial aid conversations in an office.
 - e. Need spaces for private meetings/conversations.
 - f. Enrollment Services – Inviting waiting space without standing in line.

- g. Refer a lot of students to ESL, Student Accessibility Services.
 - h. Welcome Center to be in line of sight from bridge from parking lot – Welcome Center at main entry.
7. New Building.
- a. On College Avenue – Easy to find, distinct color or materials, a clear entrance, and signage with logical flow for students and visitors.
8. A Break Room.
- a. Employee restrooms and student restrooms.
9. Testing.
- a. Needs an area to check-in students and wait with separate testing area, as well as an office area.
 - b. Need an area to leave backpacks, cellphones, etc.
10. Outreach.
- a. A counter with three or four student ambassadors.
 - b. Designated area for staff to work.
 - c. A small conference area.
11. Area to do student IDs and take photos for ID.

END OF MINUTES

The above represents my best interpretation of the spirit and content of the discussions. Please let me know of any requested modifications or corrections within seven days of receipt of these minutes.

Prepared by,



LEOPOLD RAY-LYNCH
Architect, AIA
NOMA, Principal

LRL:af
P0172040017-mm

cc: Attendees



July 30, 2018

MEETING MINUTES

ESCOM

College of Marin Kentfield LRC/Student Center Programming
Project 1720400.01

MEETING DATE: June 18, 2018

ATTENDEES

Anne Pearson, ESCOM President, College of Marin
Marian Mermel, ESCOM Organizational Liaison, College of Marin
Carol Hildebrand, Director of Community Education, College of Marin
Luanne Mullin, ESCOM Vice President, College of Marin
Leopold Ray-Lynch, Architect, AIA, NOMA, Principal, WLC Architects, Inc.
Dennis Honrubia, Project Manager, WLC Architects, Inc.

ITEMS DISCUSSED

1. ESCOM.
 - a. Emeritus College – Started in 1973.
 - b. “College within a college” to serve seniors.
 - c. Intergenerational learning.
 - d. All volunteers.
 - e. +/- 30 clubs associated with the group.
2. Worked hard to get a designated space.
 - a. Have a trust.
 - b. 25% of Marin County is over 60 years old.
 - c. +/- 5,000 full-time students
 - d. +/- 4,000 community education.
 - e. +/- 1,600 to 1,800 members.

3. Existing +/- 828 sf – Member Council.
 - a. 16 members at conference table and meeting space.
 - b. Reading room.
 - c. Volunteer staff desk.
 - d. Desk for leadership.
 - e. Art display.
4. Need an additional space for clubs to meet.
5. Need a sink and counter.
6. Divide the space with a moveable wall.
 - a. Sound isolation and good natural light.
7. Proximity to the parking lot and being on the ground floor is important.
 - a. Good adjacency to Community Education and Cafeteria (allows for intergenerational contact).
8. Would like to see more windows and wood.
9. Come to space for meeting and club activities.
10. Relationship to Library, Bookstore, Cafeteria, and ESCOM.
11. Existing buildings have been “plopped down” – no master planning.
12. Community Education sells ESCOM membership.

END OF MINUTES

The above represents my best interpretation of the spirit and content of the discussions. Please let me know of any requested modifications or corrections within seven days of receipt of these minutes.

Prepared by,



LEOPOLD RAY-LYNCH
Architect, AIA
NOMA, Principal

LRL:af/P0172040018-mm

cc: Attendees



July 30, 2018

MEETING MINUTES

Facilities Planning Team Meeting
College of Marin Kentfield LRC/Student Center Programming
Project 1720400.01

MEETING DATE: June 25, 2018

ATTENDEES

Klaus Christiansen, Director, Facilities Planning and Maintenance/Operations, College of Marin
Greg Nelson, Vice President for Finance and College Operations, College of Marin
Isidro Farias, Director, Capital Projects, College of Marin
Ellen Clements, Senior Program Manager, Gilbane Building Company
Kevin A. MacQuarrie, Architect, AIA, Chairman of the Board, Principal, WLC Architects, Inc.
Leopold Ray-Lynch, Architect, AIA, NOMA, Principal, WLC Architects, Inc.
Wendell Vaughn, Architect, AIA, LEED BD+C, Director of Design, Principal, WLC Architects, Inc.
Dennis Honrubia, Project Manager, WLC Architects, Inc.

ITEMS DISCUSSED

1. Floating slab on top of existing piles and slab for LRC.
2. BMAT – College of Marin cost estimating system.
3. Interim Housing +/- 3 years.
4. Construction time +/- 2 years.
5. Community Meetings.
 - a. Kentfield Planning Advisory Board.
 - b. Kent-Woodlands Neighborhood Association.
 - c. Grant Park.
 - d. Friends of Kentfield.
6. Bookstore and Library.
 - a. Follet does own TI for bookstore.
7. Cafeteria.
 - a. Installed by campus – run by vendor, currently Fresh and Natural.

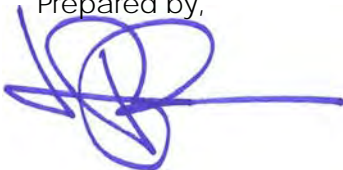
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8. Delivery Method.
 - a. Design-build with Bridging Documents (schematic).
 - b. Design-build without Bridging Documents.
9. Provide cost to modernize SS at +/- \$700.00 per sf and LRC.
10. Two community meetings (upcoming).
11. Site logistics – during construction – provide options.
12. Interim housing portables where Maintenance and Operations is located.

END OF MINUTES

The above represents my best interpretation of the spirit and content of the discussions. Please let me know of any requested modifications or corrections within seven days of receipt of these minutes.

Prepared by,



LEOPOLD RAY-LYNCH
Architect, AIA
NOMA, Principal

LRL:af
P0172040019-mm

cc: Attendees



July 30, 2018

MEETING MINUTES

Constituent Group Meeting – Credit/Non-Credit Students
College of Marin Kentfield LRC/Student Center Programming
Project 1720400.01

MEETING DATE: June 28, 2018, 12:30 p.m. – 1:30 p.m.

ATTENDEES

Ismail Azam, Student President, College of Marin
Kai Konishi-Gray, Student Treasurer, College of Marin
Liam Campbell, Student, College of Marin
Leslie Marroquin, Student, College of Marin
Fitry Rahmadianty, Student, College of Marin
Hellen Sigaran, Student, College of Marin
Bryan Rodriguez, Student, College of Marin
Laurie Pennisi, Student, College of Marin
Leopold Ray-Lynch, Architect, AIA, NOMA, Principal, WLC Architects, Inc.
Dennis Honrubia, Project Manager, WLC Architects, Inc.

ITEMS DISCUSSED

1. Introduction of attendees.
2. Leo gave an overview of the project and questions to be asked.
3. WLC: How is the navigation and the flow for both Student Services (SS) and Learning Resource Center (LRC)? How do we make the new building a better experience?
 - a. Students: All services preferably in one building.
 - (1) Cashier and Enrollment Services should be in one building.
 - (2) Student organizations such as Puente and others should be in one place.
4. New functions will replace existing facility.
5. One of the buildings will be demolished for sure; either SS or LRC for this project.
6. The functions of both buildings will go to the new facility.

7. Students: How tall is the building?
 - a. WLC: The height will not be taller than the existing buildings.
 - b. The size of the building will be determined by the programming and is still undetermined. One of them may be repurposed.
8. Students: Is there a reason why the two buildings are being compacted into one building? Is the campus getting smaller?
 - a. WLC: No, we're not compacting the services, but we will just be placing them into a new facility/facilities. We are doing structural and architectural analysis for the two buildings. The decision has been made to replace the Library and Student Services buildings.
9. Students: Is there going to be a basement if we cannot make the building taller?
 - a. WLC: Existing liquefaction issues are limiting the structure to go deeper.
10. Students: Is there going to be enough space for the new facility? The existing student services based on survey does not have enough.
 - a. WLC: The existing facility is not fully utilized and so the new building space will be programmed to cater to those needs. For example, the existing LRC has a huge area just full of staircases and it is not a very useful space other than just transition space and students are not fully benefiting from it. The cafeteria as well is not fully utilized. The new structure will be totally different.
11. Students: Is the new cafeteria going to be more open?
 - a. WLC: Please tell us what you would like to see.
 - b. Preferably better outdoor space for eating.
12. Students: Berkeley City College has all one building and it's good and bad because it's compact. Good because it is easier to collaborate and accessible to all services. He wishes for a community college experience. College of Marin has some challenges; for example, when there is a big event it needs to happen in the cafeteria. It is utilized for multiple things. It is hard when there is an event while people are eating and studying all in one place. It is also a challenge to do those outside sometimes because of weather. It is hard to attract all the people at the same time because the facility is not a good platform for marketing and spreading the news. There is an email system but not all are reading emails and so the information is not properly disseminated. Having a campus where all spaces are properly combined will be very beneficial. Whether one or two buildings, it needs to have a large space where people can hold events and have more focus. Also get rid of the cafeteria and do food trucks but not sure if possible.

- a. WLC: Food trucks have been discussed. Our scope includes not only SS/LRC programming but also including the Village Square and seating capacity for an additional 250 to 300 people for events.
13. Students: LRC should be bigger and SS can be transferred over, then there will be more open space.
 - a. WLC: It has been discussed but no final decision yet. At a minimum, one of the buildings will be demolished. No determinations have been made but will be based on the existing investigations.
14. Students: One big building may not be a bad idea. A lot of existing spaces are not fully utilized.
15. Students: Library use is a challenge to go to different spaces for studying. It will be nice if they are all adjacent. There are a lot of disconnected spaces in the campus. People are eating either at LRC or SS. LRC is more popular, but they both serve overlapping functions. It will be good to combine them both.
16. WLC: Students are studying at the SS as opposed to the LRC. What is your preference?
 - a. Student: Art building is poorly designed, for there is no outdoor space with proper lighting.
 - b. Students: Outdoor space with shades where students can hang out, study, or eat.
 - c. WLC: Existing exterior space is underutilized. Spaces are not designed properly for people to use.
17. Students: Concave campus with a sun roof. Everything is catered and functions with a wall.
18. Students: There is not a lot of space for studying. If there is space it is a challenge to study because of improper acoustics. SS is a second option but not very good either. Depends on the students because some of them want privacy but some want noise. The acoustics in SS are bad. The big open space creates noise all the way to the second floor.
 - a. WLC: The existing structure needs to be replaced. The new structure will serve properly for a longer period of time.
 - b. WLC: The enrollment population will be relatively flat for the next few years because the community is aging, and the cost of living is increasing. The question is, how do you expand the enrollment?
19. Students: Are there going to be portable classrooms located in the parking area?
 - a. WLC: No information about that.

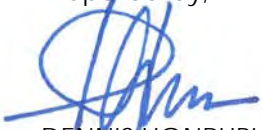
20. Students: Since we are building for the future is there going to be room for expansion?
 - a. WLC: Combined square footage of the two buildings plus Village Square will result in the new building being smaller. The demolished space can be used for future expansion.
21. Students: The idea of one building is useful because of centrality, as well as the main entry serving as a welcome center. Students have difficulty navigating the campus, especially when attending events.
 - a. WLC: There is a need for one centralized building for adjacency. The welcome center has been brought up a few times in different constituent meetings.
22. Students: What are we planning to do for student safety in times of active shooting?
 - a. WLC: most of the schools have security concerns because they are open and not having exact perimeters and so many options to enter the campus. Reliable security can be done in communication systems.
 - b. Students: Could there be an electric sign for communications?
 - c. WLC: Possibly.
23. Students: Implementation of College Hour is finally happening in 2019. This is a small campus with 13,000 enrolled and 7,000 are only credit students. It is very difficult to do one meeting at the same time because of the complex schedule. College Hour is one hour of the day with the exemption of the Nursing program; it is in the middle of the day from 12:45 p.m. to 1:30 p.m. allowing students and professors to come together outside of scheduled classes. This implementation can be used for the new programming. It is amazing, very important, and makes the college exciting.
24. Students: Creating a fence in the campus is not good. How do you address the security without creating a fence?
 - a. WLC: Communication systems. One of the things that was done is to control the buildings individually and provide communication between those buildings via visual or audio systems, utilizing PA systems, or sending messages to student cellphones for security alerts. Whether lockdown or vacate, staff must be trained for those events because unfortunately tragic events have happened in schools.
25. Students: Will the bridge be widened? Will there be a staircase and a bridge that goes straight to the building?
 - a. WLC: The creek and the bridge are under the jurisdiction of the Federal Corps of Engineers and not by the campus. There will be deepening and widening. The campus has requested to widen the bridge.

- b. Students: An overlooking patio will be nice. Will there be a Student Lounge? More of a community place and not study with game tables and couches. There is only one couch in the cafeteria but only one or two people can use it. The big chair in the library that looks out the window is nice. Pods are good and facing the window. Open spaces with bean bags. Cafeteria has a lot of events like Bingo.
 - c. WLC: There are Emeritus students with 30 plus clubs that use the cafeteria. They realize that there are conflicts with the students trying to study.
 - d. Students: Sound proof glass can be a good idea of separation.
 - e. WLC: Part of the challenge is how do we find space that can be divided and combined?
26. WLC: A nice board room for the students will be nice.

END OF MINUTES

The above represents my best interpretation of the spirit and content of the discussions. Please let me know of any requested modifications or corrections within seven days of receipt of these minutes.

Prepared by,



DENNIS HONRUBIA
Project Manager

DH:af
P0172040022-mm

cc: Attendees



July 12, 2018

MEETING MINUTES

Constituent Group Meeting – Credit/Non-Credit Students
College of Marin Kentfield LRC/Student Center Programming
Project 1720400.01

MEETING DATE: June 28, 2018, 12:30 p.m. – 1:30 p.m.

ATTENDEES

Ismail Azam, Student President, College of Marin
Kai Konishi-Gray, Student Treasurer, College of Marin
Liam Campbell, Student, College of Marin
Leslie Marroquin, Student, College of Marin
Fitry Rahmadianty, Student, College of Marin
Hellen Sigaran, Student, College of Marin
Bryan Rodriguez, Student, College of Marin
Laurie Pennisi, Student, College of Marin
Leopold Ray-Lynch, Architect, AIA, NOMA, Principal, WLC Architects, Inc.
Dennis Honrubia, Project Manager, WLC Architects, Inc.

ITEMS DISCUSSED

1. Introduction of names.
2. Leo gave an overview of the project and questions to be asked.
3. WLC: How is the navigation and the flow for both Student Services (SS) and Learning Resource Center (LRC)? How do we make the new building a better experience?
 - a. Students: All services preferably in one building.
 - (1) Cashier and Enrollment Services should be in one building.
 - (2) Student organizations such as Puente and others should be in one place.
4. New functions will replace existing facility.
5. One of the buildings will be demolished for sure; either SS or LRC for this project.
6. The functions of both buildings will go to the new facility.

7. Students: How tall is the building?
 - a. WLC: The height will not be taller than the existing building.
 - b. The size of the building will be determined by the programming and is still undetermined. One of them will be repurposed.
8. Students: Is there a reason why the two buildings are being compacted into one building? Is the campus getting smaller?
 - a. WLC: No, we're not compacting the services, but we will just be placing them into a new facility/facilities. We are doing structural and architectural analysis for the two buildings. The decision has been made to replace the Library and Student Services buildings.
9. Students: Is there going to be a basement if we cannot make the building taller?
 - a. WLC: Existing liquefaction issues are limiting the structure to go deeper.
10. Students: Is there going to be enough space for the new facility? The existing student services based on survey does not have enough.
 - a. WLC: The existing facility is not fully utilized and so the new building space will be programmed to cater to those needs. For example, the existing LRC has a huge area just full of staircases and it is not a very useful space than just transition space and students are not fully benefiting from it. The cafeteria as well is not fully utilized. The new structure will be totally different.
11. Students: Is the new cafeteria going to be more open?
 - a. WLC: Please tell us what you would like to see.
 - b. Preferably better outdoor space for eating.
12. Students: Berkeley City College has all one building and it's good and bad because it's compact. Good because it is easier to collaborate and accessible to all services. He wishes for a community college experience. College of Marin has some challenges; for example, when there is a big event it needs to happen in the cafeteria. It is utilized for multiple things. It is hard when there is an event while people are eating and studying all in one place. It is also a challenge to do those outside sometimes because of weather. It is hard to attract all the people at the same time because the facility is not a good platform for marketing and spreading the news. There is an email system but not all are reading emails and so the information is not properly disseminated. Having a campus where all spaces are properly combined will be very beneficial. Whether one or two buildings, it needs to have a large space where people can hold events and have more focus. Also get rid of the cafeteria and do food trucks but not sure if possible.

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- a. WLC: Food trucks have been discussed. Our scope includes not only SS/LRC programming but also including the Village Square and seating capacity for an additional 250 to 300 people for events.
13. Students: LRC should be bigger and SS can be transferred over then there will be more open space.
 - a. WLC: It has been discussed but no final decision yet. Minimum of the building will be demolished. No determinations have been made but will be based on the existing investigations.
14. Students: One big building may not be a bad idea. A lot of existing spaces are not fully utilized.
15. Students: Library use is a challenge to go to different spaces for studying. It will be nice if they are all adjacent. There are a lot of disconnected spaces in the campus. People are eating either at LRC or SS. LRC is more popular, but they both serve overlapping functions. It will be good to combine them both.
16. WLC: Students are studying at the SS as opposed to the LRC. What is your preference?
 - a. Student: Art building is poorly designed, for there is no outdoor space with proper lighting.
 - b. Students: Outdoor space with shades where students can hang out, study, or eat.
 - c. WLC: Existing exterior space is underutilized. Spaces are not designed properly for people to use.
17. Students: Concave campus with a sun roof. Everything is catered and functions with a wall.
18. Students: There is not a lot of space for studying. If there is space it is a challenge to study because of improper acoustics. SS is a second option but not very good either. Depends on the students because some of them want privacy but some want noise. The acoustics in SS are bad. The big open space creates a noise all the way to the second floor.
 - a. WLC: The existing structure needs to be replaced. The new structure will serve properly for a longer period of time. Decreased enrollment.
 - b. WLC: The enrollment population will be relatively flat for the next few years because the community is aging, and the cost of living is increasing. The question is, how do you expand the enrollment?
19. Students: Are there going to be portable classrooms located in the parking area?
 - a. WLC: No information about that.

20. Students: Since we are building for the future is there going to be room for expansion?
 - a. WLC: Combined square footage of the two buildings plus Village Square will result in the new building being smaller. The demolished space can be used for future expansion.
21. Students: The idea of one building is useful because of centrality, as well as the main entry serving as a welcome center. Students have difficulty navigating the campus, especially when attending events.
 - a. WLC: There is a need for one centralized building for adjacency. The welcome center has been brought up a few times in different constituent meetings.
22. Students: What are we planning to do for student safety in times of active shooting?
 - a. WLC: most of the schools have security concerns because they are open and not having exact perimeters and so many options to enter the campus. Reliable security can be done in communication systems.
 - b. Students: Could there be an electric sign for communications?
 - c. WLC: Possibly.
23. Students: Implementation of College Hour is finally happening in 2019. This is a small campus with 13,000 enrolled and 7,000 are only credit students. It is very difficult to do one meeting at the same time because of the complex schedule. College Hour is one hour of the day with the exemption of the Nursing program; it is in the middle of the day from 12:45 p.m. to 1:30 p.m. allowing students and professors to come together outside of scheduled classes. This implementation can be used for the new programming. It is amazing, very important, and makes the college exciting.
24. Students: Creating a fence in the campus is not good. How do you address the security without creating a fence?
 - a. WLC: Communication systems. One of the things that was done is to control the buildings individually and provide communication between those buildings via visual or audio systems, utilizing PA systems, or sending messages to student cellphones for security alerts. Whether lockdown or vacate, staff must be trained for those events because unfortunately tragic events have happened in schools.
25. Students: Will the bridge be widened? Will there be a staircase and a bridge that goes straight to the building?
 - a. WLC: The creek and the bridge are under the jurisdiction of the Federal Corps of Engineers and not by the campus. There will be deepening and widening. The campus has requested to widen the bridge.

- b. Students: An overlooking patio will be nice. Will there be a Student Lounge? More of a community place and not study with game tables and couches. There is only one couch in the cafeteria but only one or two people can use it. The big chair in the library that looks out the window is nice. Pods are good and facing the window. Open spaces with bean bags. Cafeteria has a lot of events like Bingo.
 - c. WLC: There are Emeritus students with 30 plus clubs that use the cafeteria. They realize that there are conflicts with the students trying to study.
 - d. Students: Sound proof glass can be a good idea of separation.
 - e. WLC: Part of the challenge is how do we find space that can be divided and combined?
26. WLC: A nice board room for the students will be nice.

END OF MINUTES

The above represents my best interpretation of the spirit and content of the discussions. Please let me know of any requested modifications or corrections within seven days of receipt of these minutes.

Prepared by,



DENNIS HONRUBIA
Project Manager

DH:af
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cc: Attendees



CLIENT FOCUSED. PASSION DRIVEN.

July 30, 2018

MEETING MINUTES

Summer Bridge Students Meeting
College of Marin Kentfield LRC/Student Center Programming
Project 1720400.01

MEETING DATE: June 29, 2018

ATTENDEES

Leopold Ray-Lynch, Architect, AIA, NOMA, Principal, WLC Architects, Inc.
Wendell Vaughn, Architect, AIA, LEED BD+C, Director of Design, Principal, WLC Architects, Inc.
Dennis Honrubia, Project Manager, WLC Architects, Inc.

ITEMS DISCUSSED

1. School lacks a main entrance.
2. Financial aid and registration should be closer.
3. More open concept.
4. Better to have one building with enrollment and Library.
5. Enrollment services and cashier close together.
6. 10,000 degrees – more natural light in cafeteria.
7. Specific areas for tutoring.
8. More space for EOPS.
9. Rooftop patio.
 - a. Area for murals and display of student work.
10. More color or wood.
11. Two buildings preferred due to noise (Library as specific space).
 - a. Nap pods for students.

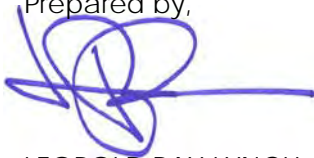
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12. Outdoor amphitheater.
 - a. Flexible chairs and couches.
 - b. Outlets outside.

END OF MINUTES

The above represents my best interpretation of the spirit and content of the discussions. Please let me know of any requested modifications or corrections within seven days of receipt of these minutes.

Prepared by,



LEOPOLD RAY-LYNCH
Architect, AIA
NOMA, Principal

LRL:af
P0172040020-mm

cc: Attendees