SSCL-SR-1053

SUPERCONDUCTING SUPER COLLIDER DRAFT FACILITIES PROGRAM

FINAL

August 20, 1990

PREPARED BY JFPA FOR RTK JOINT VENTURE

JOHNSON FAIN AND PEREIRA ASSOCIATES

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I. EXECUTIVE SUMMARY

INTRODUCTION

The SSCL draft facilities program is the outcome of an in-depth research and interview process conducted by Johnson Fain & Pereira Associates between March 19th and July 13th, 1990. Heads of all groups within each division were interviewed, in some cases several times to produce the material which is summarized in sections II.a. and VI. The document addresses both the June 1990 baseline population and facilities program for laboratories, offices and other facilities directly related to the experiment; and supplemental facilities necessary to the smooth running of an "around the clock" research campus such as recreation and day care needs.

Quantitative information for the baseline program is presented in Chapter VI and the Appendix. Qualitative descriptions of both baseline and supplemental facilities are presented in Chapters II, III, IV and V. These evolved from discussions with SSCL Director, Dr. Roy Schwitters regarding the nature of the SSCL research mission, the essential qualities of a campus, the specific character of the Texas landscape and the particulars of the Ellis County community. We consider the supplemental program elements essential to the daily life of the SSCL and have proposed minimum standards where feasible.

In all cases the SSCL draft facilities program addresses the proposed 1998-1999 start-up date in an operational mode.

EXECUTIVE SUMMARY

The following items are extracted from the document and listed here as primary issues for consideration.

Lab Wide Summaries

The Main Office Building, although shown as three separate areas in Summary 3, could be a single West Campus building.

Central Services is shown as a separate area. This is conceptual only. Central Service, e.g., process areas, copy centers, file rooms, kitchenettes, should be integrated into the Main Office Building on a group by group basis.

Total net area enumerated in this Draft is comparable to total net area (assignable) in the Preliminary Draft (May 21, 1990). Usable and gross areas are proportionately larger due to adjusted circulation and grossing factors.

Final population and area figures will require further refinement for closure of requested personnel and area with RD assumptions and June Baseline data.

Lab Wide Summaries (continued)

IRs currently house 801 personnel from the Physics Research, Experimental Facilities and Experimental Physics groups. Further study is required to confirm the number of personnel to be located in IR areas.

Baseline Buildings

The program assumes that 801 personnel will be located at the IRs. These include 500 visitors. Substantial increases in floor area for the West Campus office buildings will be required if the campus is fully centralized and the IRs manned by smaller staffs. The office component of the campus includes the most densely populated buildings. They will provide the critical mass necessary for an active, lively campus core.

The Visitors Center in the baseline program is an abbreviated version. Consisting of four classrooms, support offices and a small store, the facility may initially be incorporated into the Main Office Building. The Visitor Center facility should allow for substantial future expansion as funds become available. This may include more exhibit space, museum, and other amenities.

Warehousing needs vary substantially from the baseline assumption of 20,000 square feet. Approximately 120,000 to 160,000 square feet of warehousing was requested. Additional warehousing space may be provided by adaptive re-use of large volume buildings which become redundant after start-up, such as the Magnet Acceptance and Storage (MAAS).

The heavy works buildings, although not within the scope of this study, may provide opportunities for adaptive re-use of space, particularly at the IR areas. Their impact will be considerable due to their size.

Expanded Program

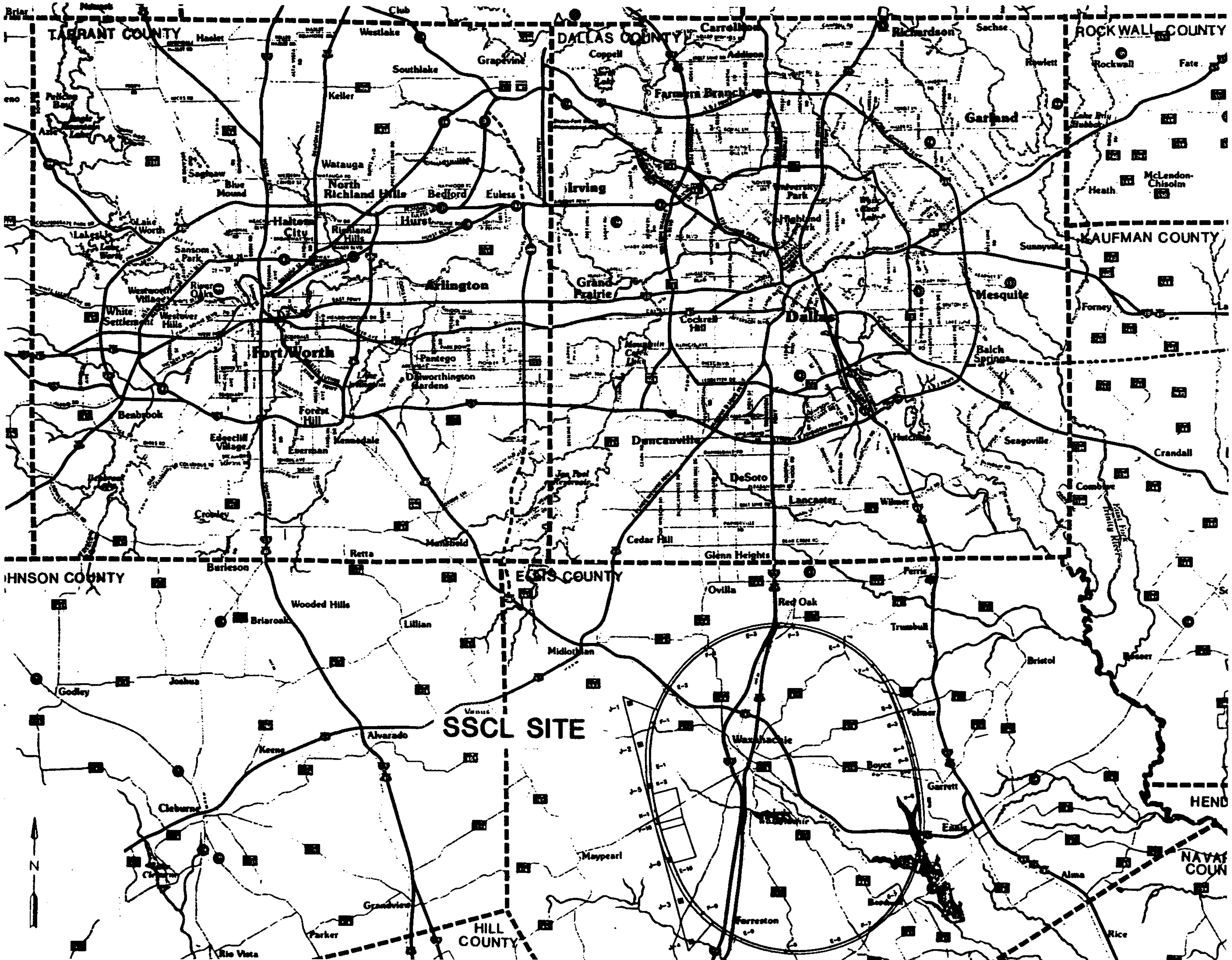
For the SSCL to operate as a true campus, it must provide program elements in addition to the baseline program. Funding and development strategies to implement these elements are important issues. Features of an expanded campus might include:

1. Temporary Housing
2. Day Care
3. Social Center
4. Recreation Center
5. Expanded Visitor Center

EXECUTIVE SUMMARY

REGIONAL LOCATION

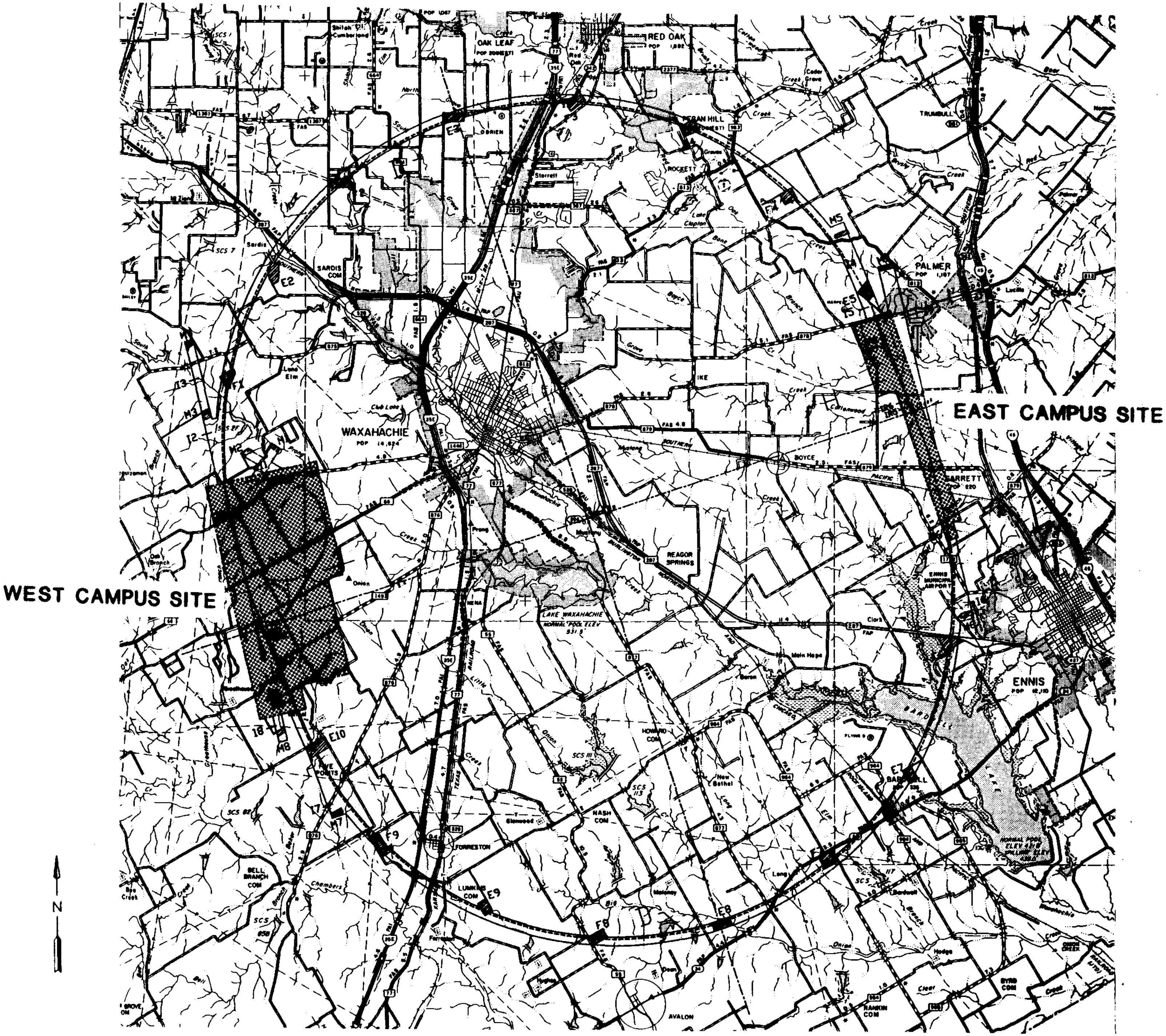
I.2.1

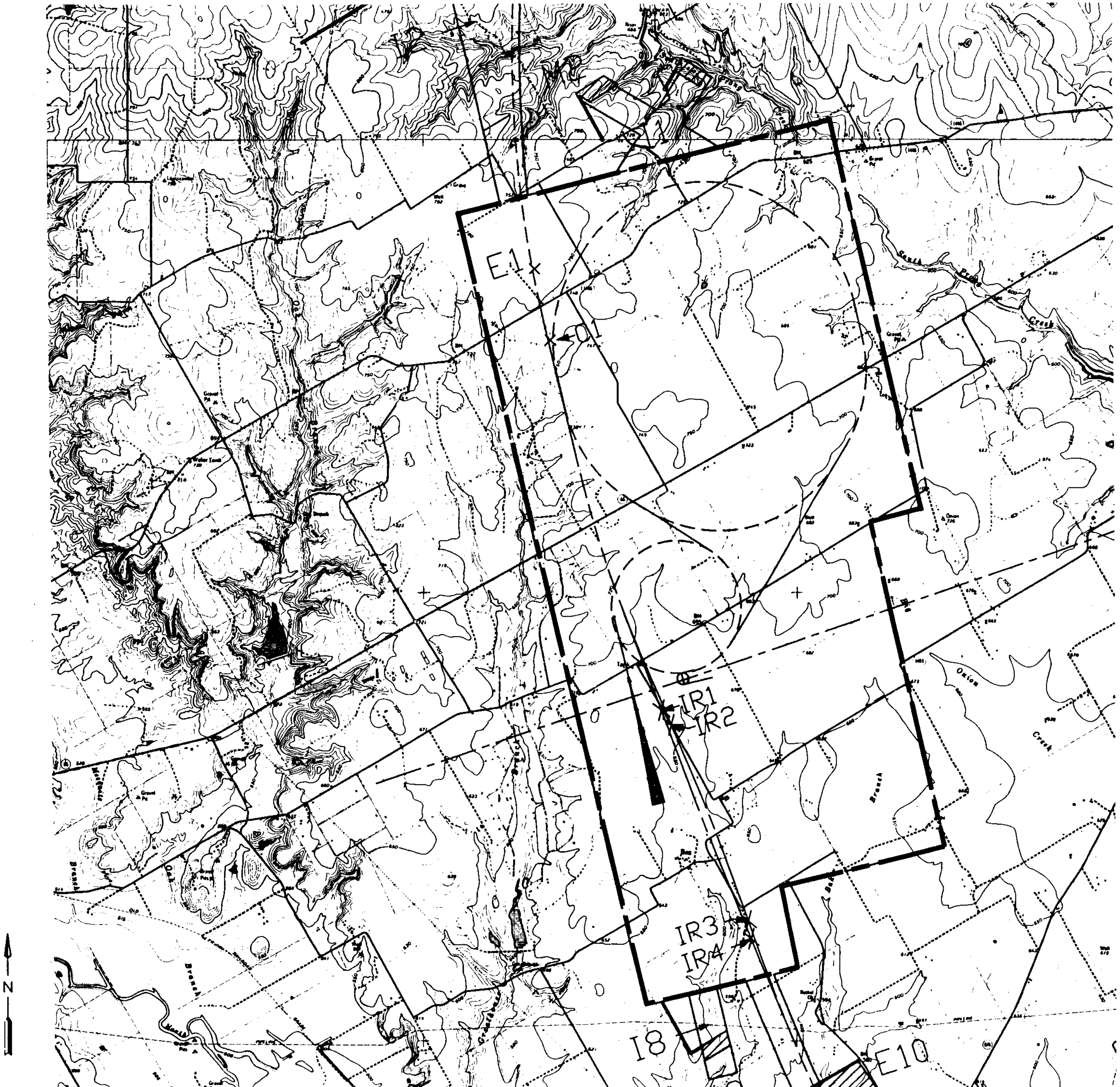


EXECUTIVE SUMMARY

SSCL SITE

I.2.2



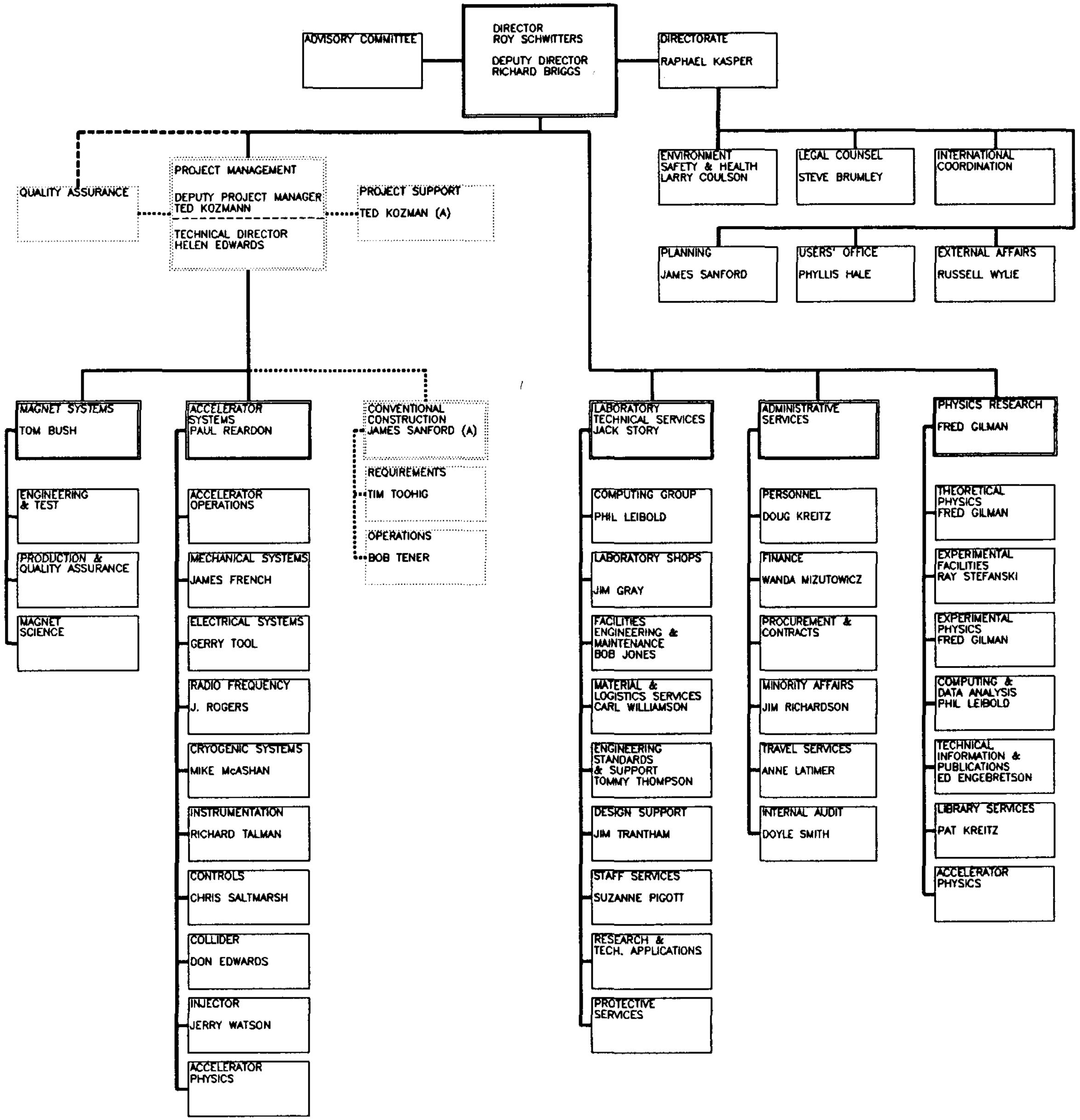

E1
IR1
IR2
IR3
IR4
I8
E10
N

EXECUTIVE SUMMARY
EAST CAMPUS SITE
1.2.4

EXECUTIVE SUMMARY

1998-1999 ORGANIZATION CHART

I.3



(A) = ACTING

DOTTED GROUPS CEASE TO EXIST AT START OF OPERATIONAL PHASE (1998).

SSCL GOALS

Roy F. Schwitters

September 1989

CREATE A PREMIER INTERNATIONAL HIGH ENERGY PHYSICS LABORATORY BY THE YEAR 2000

Plan, construct and operate accelerator and detector systems of high quality in a timely and cost effective manner.

Establish and maintain requirements that lead to the construction of a proton-proton collider and associated accelerator and detector systems that permit initial operations over a range of beam energies up to 20 TeV and a range of peak luminosities up to 10^{33} cm^{-2} s^{-1}, with at least four instrumented interaction regions.

Establish and meet schedule and cost objectives so that experimental activity can begin at the <u>earliest possible date</u>.

Provide program flexibility and future upgrade potential to assure that the Laboratory can respond aggressively to new scientific opportunities.

Assure reliability and predictability of operations.

Facilitate the full use of the Laboratory's technical resources by the international scientific community.

Recruit outstanding scientists, engineers and others and encourage the Laboratory staff to pursue innovative research in areas relevant to the Laboratory's mission.

Plan and provide excellent research tools such as library, computing and publications services.

CREATE A MAJOR NATIONAL AND INTERNATIONAL EDUCATIONAL RESOURCE

Promote and encourage the use of the Laboratory and its facilities, in both the construction phase and operational phase, to enhance public understanding of science and technology by establishing the Laboratory as a centerpiece of eduction and public outreach activity.

Provide opportunities to permit the Laboratory staff to participate in educational activities at all levels, including pre-college science education, undergraduate and graduate education and training, and general public information in broad areas of science.

Establish communications with parties interested in science education at the local, state and national level.

CREATE A LABORATORY WHOSE ACTIVITIES ARE CARRIED OUT IN A SAFE, RESPONSIBLE AND ENVIRONMENTALLY SOUND MANNER THAT RESPECTS HUMAN RIGHTS AND INDIVIDUAL DIGNITY

Respect the individual rights and personal safety of the Laboratory's neighbors, staff and visitors.

Assign high priority to protecting and enhancing the natural environment of the Laboratory site.

Hold all Laboratory employees personally responsible to the Director on all matters of safety and require timely reporting of any potential unsafe conditions.

Establish and maintain high ethical standards to apply across all aspects of Laboratory activity and to all employees and users of the facility.

Maintain an environment of free and open inquiry into all scientific and technical questions.*
Provide open access to visitors, except where safety or operational considerations would preclude such access.*

PROGRAM METHODOLOGY

The following methodology was employed in development and production of this document.

Goals

Identify and quantify personnel and physical space needs.

Generate an efficient program to accommodate essential operations and requirements.

Determine opportunities for adaptive reuse of appropriate buildings.

Expand base program to include potential supplementary/support uses appropriate to a campus community.

Recognize role of SSCL in expanded context.

Examination

"Internal Program." (Basic)

Interview select management personnel; reinterview.

Develop standards for work stations, conference, etc.

Compare stated needs to work-group mission and Baseline Program.

Research analogous facilities, as appropriate.

Resolve discrepancies and duplications.

Determine adjacencies.

Identify opportunities for public/visitor interface.

Expansion

"External Program." (Supplementary)

Determine uses and amenities available locally.

List potential supplemental uses desireable for the campus community as discerned from research and interviews.

Suggest possible supplemental uses for the campus otherwise unavailable or inconvenient.

Recommend items for further study, e.g. housing.

Characterization

Design Criteria.

Develop general sense of site and surroundings.

Built environment.

Natural Setting.

Suggest possible design approaches which are:

Responsive to surroundings.

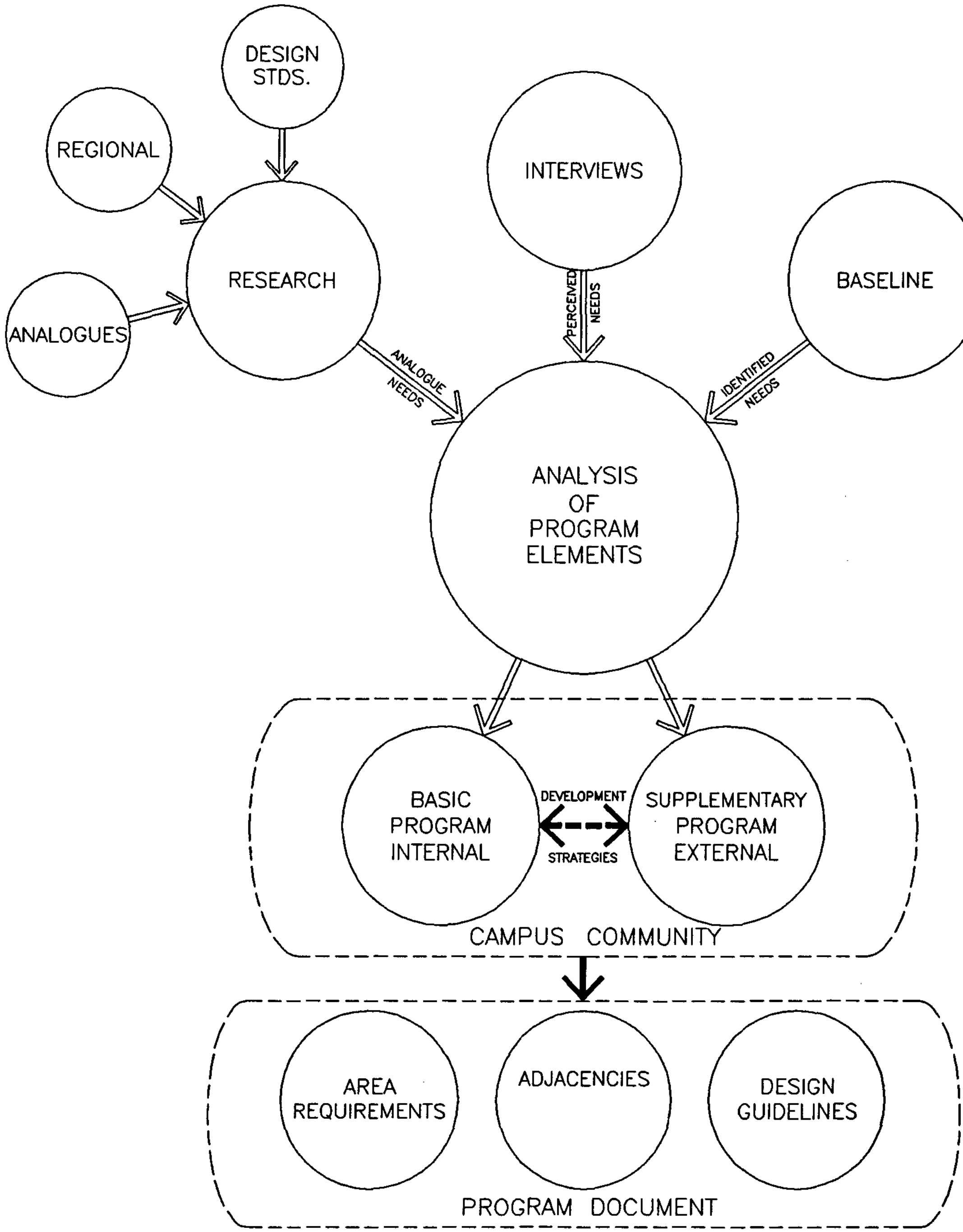
Reflect high quality design and planning practice.

Appropriate to activities and mission of the Laboratory.

EXECUTIVE SUMMARY

PROGRAM METHODOLOGY

1.5.3



PRIMARY ACTIVITIES

I.6

CONCENTRATION

● HEAVY

◉ MEDIUM

○ LIGHT

ACTIVITY / LOCATION	WEST CAMPUS	EAST CAMPUS	DISPERSED SITES	WAXAHACHIE	ELLIS COUNTY
RESEARCH	●	◉			
FABRICATION	◉	◉	○		
ADMINISTRATION	●				
RECREATIONAL FACILITIES	○			●	◉
TOURISM	●			●	
EDUCATION	●			◉	
PERMANENT HOUSING				◉	◉
TEMPORARY HOUSING	◉				

EXPANDED PROGRAM ELEMENTS APPROPRIATE TO A CAMPUS COMMUNITY

	RD PROGRAM	WAXAHACHIE	ELLIS COUNTY	UNKNOWN OR OTHER
HOUSING				
DORMITORIES	NO	NO	NO	DALLAS COLLEGES
YOUTH HOSTEL	NO	NO	NO	
GUEST HOUSE	NO	NO	NO	DALLAS
BED & BREAKFAST	NO	4 Rooms	NO	DALLAS
CAMPING FACILITIES	NO	permission of land owner	permission of land owner	DALLAS
FACULTY HOUSING	NO	NO	NO	DALLAS COLLEGES
HOTEL	NO	NO	NO	DALLAS
APARTMENTS	NO	600 units	200 units	DALLAS
MOTELS	NO	7	8	DALLAS
CONFERENCE FACILITIES	NO	NO	NO	DALLAS
AUDITORIUM - 300 Seats	NO	Dedham Ranch	NO	DALLAS
- 500 Seats	NO	High School	NO	DALLAS
- 700 Seats	NO	Chautaqua	NO	DALLAS
- 1000 Seats	YES	NO	NO	DALLAS

* These items are confirmed at Fermi Lab.

EXPANDED PROGRAM ELEMENTS APPROPRIATE TO A CAMPUS COMMUNITY (continued)

	RD PROGRAM	WAXAHACHIE	ELLIS COUNTY	UNKNOWN OR OTHERS
OUTDOOR AMPHITHEATER	NO	NO	Texas Metroplex seats 2,600	
RECREATION FACILITIES				
* PUBLIC SWIMMING POOLS	NO	2	NO	DALLAS
PRIVATE SWIMMING POOLS	NO	YMCA	NO	DALLAS
* TENNIS COURTS (lighted)	NO	8 Courts	NO	DALLAS
* HANDBALL/RACQUETBALL/SQUASH	NO	NO	NO	DALLAS
FITNESS CENTER/GYM/AEROBICS	NO	YES	YES	DALLAS
* NET GAMES	NO	YES	YES	DALLAS
* BASKETBALL	NO	YES	YES	DALLAS
BOWLING ALLEY	NO	YES	YES	DALLAS
POOL/BILLIARDS	NO	NO	NO	DALLAS
SKATING	NO	YES	NO	DALLAS
BASEBALL DIAMOND	NO	YES	YES	DALLAS
DINING ESTABLLISHMENTS				
RESTAURANTS	NO	12	6	DALLAS
COFFEE/SANDWICH SHOPS	NO	5	13	DALLAS
DRIVE-IN/BURGERS/PIZZA	NO	21	40+	DALLAS

* These items are confirmed at Fermi Lab.

EXPANDED PROGRAM ELEMENTS APPROPRIATE TO A CAMPUS COMMUNITY (continued)

	RD PROGRAM	WAXAHACHIE	ELLIS COUNTY	UNKNOWN OR OTHER
CAFETERIA	YES	NO	NO	DALLAS
COFFEE HOUSE	NO	NO	NO	DALLAS
PUB	NO	NO	NO	DALLAS
NIGHT CLUB	NO	NO	YES	DALLAS
RETAIL				
GENERAL STORE	NO	YES	YES	
BOOKSTORE	NO	Religious	used	DALLAS
FOREIGN NEWSPAPERS	NO	NO	NO	DALLAS
BARBER/BEAUTY SHOP	NO	YES	YES	DALLAS
MOVIE THEATER	NO	2	NO	DALLAS
VISITOR CENTER	NO	NO	NO	DALLAS
OMNI-MAX THEATER	NO	NO	NO	
CULTURAL FACILITIES				
HISTORY MUSEUM	NO	NO	NO	DALLAS
SCIENCE MUSEUM	NO	NO	NO	DALLAS
WORKING FARM MUSEUM	NO	NO	NO	OUTSIDE DALLAS

* These items are confirmed at Fermi Lab.

EXPANDED PROGRAM ELEMENTS APPROPRIATE TO A CAMPUS COMMUNITY (continued)

	RD PROGRAM	WAXAHACHIE	ELLIS COUNTY	UNKNOWN OR OTHER
ART GALLERY	NO	YES	NO	DALLAS
MUSIC PERFORMANCE	NO	Chautaqua	YES	DALLAS
GENERAL LIBRARY	NO	Sims Library	5 City Branches	DALLAS
* SCIENCE LIBRARY	YES	NO	NO	DALLAS COLLEGES
ARCHIVES	YES	Sims Library	NO	DALLAS COLLEGES
INFIRMARY	YES	YES	YES	DALLAS
* **FOUNDERS ROCK/SYMBOL**	NO	Courthouse	Courthouse	REUNION SPHERE
EDUCATIONAL FACILITIES				
DAY CARE/PRE-SCHOOL	NO	YES 2600 Spaces	28 Facilities	DALLAS
FOREIGN LANGUAGE LAB	NO	Adult Educ.	Adult Educ.	DALLAS

* These items are confirmed at Fermi Lab.

II. PROGRAM

BASELINE PROGRAM

II.a

The baseline program forms the focus of this study. The primary issues concerning baseline are summarized here. A detailed description of the organizational groups which occupy and use each building can be found in Chapter VI. Space plans and equipment layouts, when known are found in Chapter VII, Appendix 2.

Baseline Buildings

1. Lab-wide Summaries
2. Central Lab/Office Building
3. Cafeteria
4. Auditorium
5. Visitor's Center
6. Heavy Works Buildings
7. Shops
8. Support Buildings
9. Environmental Health Facilities
10. East Campus Buildings

Summary Notes

1. The Main Office Building, although shown as three separate areas in Summary 3, could be one building on the West Campus.
2. Central Services is shown as a separate area. This is conceptual only. Central Service, e.g., process areas, copy centers, file rooms, kitchenettes, should be integrated into the Main Office Building on a group by group basis.
3. Areas designated as Main Office Building, Central Services, Visitors Center and Auditorium can be considered as components of one building or one building cluster.
4. The Auditorium program accommodates 1,000 people, plus recommended ancillary areas.
5. The Visitors Center excludes the Museum but includes offices, four classrooms and a store.
6. Total net area enumerated in this Draft is comparable to total net area (assignable) in the Preliminary Draft (May 21, 1990). Usable and gross areas are proportionately larger due to adjusted circulation and grossing factors.
7. A circulation factor of 1.45 is used for office-related uses. (USF = NSF x 1.45) A grossing factor of 1.25 is used for all buildings and is the DOE standard for converting occupiable (usable) area to gross area. Final building efficiency will be a function of building design.
8. Final population and area figures will require further refinement for closure of requested personnel and area with RD assumptions and June Baseline data.
9. There are a total of 47 unstaffed offices in the campus area figures, 38 for visitors and vendors.
10. Contract personnel appear in summaries as FTEs and their numbers appear as part of the campus wide population. Individual contract personnel totals are called out in the notes.
11. A total of 500 visiting scientists are enumerated in the Physics Research Division personnel figures.
12. The Motor Pool is no longer under Staff Services. It is now included in the Laboratory Technical Services: Central Shops Machine Shop Figure. In actuality, it may be a separate building, providing equipment storage and maintenance for light and heavy vehicles. Maintenance services will also be contracted offsite.
13. Staff Services has been relocated from Administrative Services Division to Laboratory Technical Services.
14. Research and Technology Application has been relocated from the Directorate to Laboratory Technical Services.

Summary Notes

15. Safety Services has been relocated from Environment, Safety & Health in the Directorate Division to a new group called Protective Services in Laboratory Technical Services. Forty-four Safety Services personnel not counted in the June Baseline figures are now located in Laboratory Technical Services Protective Services. Also relocated to Protective Services are Fire Protection and Security from Facilities Engineering & Maintenance.

16. An Accelerator Physics group has been added to the Physics Research Division as part of the June Baseline. An Accelerator Physics group had formerly been in Physics Research, but was moved to the Accelerator Division, where it continues to be located. This requires confirmation.

17. The General Warehouse request for 160,000 GSF substantially exceeds the RD assumption of 20,000 GSF. The adaptive re-use of the decommissioned Magnet Acceptance and Storage (MAAS) should be considered for warehousing needs. Iron Works and Assembly Buildings may also be candidates for similar adaptive re-use.

18. IRs currently house 801 personnel from the Physics Research, Experimental Facilities and Experimental Physics groups. Further study is required to confirm the number of personnel to be located in IR areas.

19. Laboratory Technical Services Lab Shops include two mobile trailer shops and six satellite shops. Lab Shops personnel manning these shops are currently counted in the Machine Shop personnel total.

20. Area requirements for technical, lab and shop space in the Machine Shop, Facilities Engineering and Maintenance, Accelerator Shop (M/E), Accelerator Warehouse, Magnet Test Lab and Magnet Development Lab buildings are based upon information taken from or scaled off of preliminary layouts provided by interviewees and included in the Appendix. Office and office support areas in these buildings are based upon requirements enumerated in the group summaries.

21. Breakout rooms, Teleconferencing rooms and the Auditorium are shared facilities, but are enumerated in the Lab wide summaries under the Directorate.

22. The Project Management Group is not to be represented in the operations era program.

23. Conventional Construction personnel are reduced in number and incorporated into Laboratory Technical Services Facilities Engineering and Maintenance for the operations mode.

24. Buildings not given an area or personnel figure in the summaries are not within the scope of this study and will be programmed by others.

SUMMARY OF CHARTS

Summary 1 Accounts for areas and personnel by functional group and summarizes the data in Chapter VI, Group Summaries.

Summary 2A Distributes area from Summary 1 to account for the "home base" or location of each FTE.

Summary 2B Distributes personnel from Summary 1 to account for the "home base" or location of each FTE.

Summary 3 Lists total area and personnel for buildings addressed in the present programming scope, consistent with Summaries 1 and 2.

Summary 4 Lists totals for areas and personnel the IR Administration/Laboratory buildings on East and West Campuses.

Summary 5 Addresses the support components of Central Services, organized by the categories used in SSCL estimates.

Summary 6 Shows all conference and meeting room distribution by group, including auditorium and teleconferencing rooms. Includes assumptions of shared use based on defined adjacencies. These are uses in addition to the auditorium.

BASELINE BUILDINGS

LAB WIDE SUMMARIES

SUMMARY 1

ORGANIZATIONAL GROUP AREA & PERSONNEL

II.a.1.1

ORGANIZATION GROUP	AREA (USF)	AREA (GSF)	PERSONNEL (FTE)	NOTES
DIRECTORATE OFFICE	4,855	6,069	12	
ENVIRONMENT, SAFETY & HEALTH	2,198	2,748	9	
LEGAL COUNSEL	2,042	2,553	7	
INTERNATIONAL COORDINATION	708	885	4	
EXTERNAL AFFAIRS	8,253	10,316	14	
PLANNING	711	889	4	
USERS OFFICE	1,960	2,450	6	
Auditorium	14,805	18,506	0	
Breakout & Teleconf. Rooms	13,798	17,248	0	
Subtotal:	**49,330**	**61,663**	**56**	
MAGNET SYSTEMS				
Division Office	1,891	2,364	8	
Engineering & Test	104,528	130,660	50	Includes MTL Technical/Lab/Shop area.
Production & Quality Assurance	114,978	143,723	65	Includes MDL Technical/Lab/Shop area.
Magnet Science	348	435	2	
Subtotal:	**221,745**	**277,181**	**125**	
ACCELERATOR SYSTEMS				
Division Office	10,510	13,138	50	
Accelerator Operations	30,044	37,555	54	
Mechanical Systems	83,352	104,190	108	Includes M/E Technical/Lab/Shop area.
Electrical Systems	10,249	12,811	82	
Radio Frequency	3,932	4,915	40	
Cryogenic Systems	4,982	6,228	89	
Instrumentation	4,512	5,640	35	
Controls	8,062	10,078	63	
Collider	3,956	4,945	27	
Injector	5,614	7,018	38	
Accelerator Physics	2,134	2,668	14	May be double counted in Phy. Research.
Subtotal:	**167,347**	**209,184**	**600**	

SUMMARY 1: Page 2

	AREA (USF)	AREA (GSF)	PERSONNEL (FTE)	NOTES
LABORATORY TECHNICAL SERVICES				
Division Office	5,919	7,399	28	
Computing Group	120,451	150,564	173	Includes 27 contract personnel.
Lab Shops	66,393	82,991	115	
Facilities Engr. & Maintainance	21,370	26,713	118	Includes 36 contract personnel.
Material & Logistic Services	129,590	161,988	65	
Engineering Standards & Support	10,074	12,593	28	
Engineering Design Support	7,930	9,913	39	
Staff Services	46,098	57,623	69	Includes 20 contract personnel.
Research & Technology Applications	487	609	2	
Protective Services	14,850	18,563	102	Includes 37 contract personnel.
Subtotal:	**423,162**	**528,953**	**739**	Subtotal includes 120 contract personnel.
ADMINISTRATIVE SERVICES				
Division Office	789	986	3	
Personnel	5,655	7,069	27	
Finance	6,963	8,704	39	
Procurement & Contracts	5,933	7,416	29	
Minority Affairs	737	921	4	
Travel Services	2,906	3,633	13	Includes 8 contract personnel.
Internal Audit	676	845	4	
Subtotal:	**23,659**	**29,574**	**119**	Subtotal includes 8 contract personnel.
PHYSICS RESEARCH				
Division Office	4,382	5,478	25	Includes 10 visiting scientists.
Theoretical Physics	6,857	8,571	38	Includes 13 visiting scientists.
Experimental Facilities	133,881	167,351	390	
Experimental Physics	78,033	97,541	632	Includes 477 visiting scientists.
Computing & Data Analysis	10,654	13,318	63	
Tech. Information & Publications	8,288	10,360	32	
Library Services	19,578	24,473	24	
Accelerator Physics	2,332	2,915	17	May be double counted in Accel. Systems.
Subtotal:	**264,005**	**330,006**	**1221**	Subtotal includes 500 visiting scientists.
TOTAL USF	**1,149,248**			USF = 1.45 x NSF used as a planning factor.
TOTAL GSF		**1,436,560**		GSF = 1.25 x USF used as a planning factor.
TOTAL FTE			**2,860**	Total includes 128 contract personnel and 500 visiting scientists.

BASELINE BUILDINGS

LAB WIDE SUMMARIES

SUMMARY 2A

ORGANIZATION GROUPS' AREA BY BUILDING

II.a.1.2A

ORGANIZATION GROUP — **BUILDING AREA (USF)*** — **TOTAL AREA**

ORGANIZATION GROUP	MOB Personnel	MOB/CS Support	MOB/VC	MOB/A		USF	GSF
DIRECTORATE OFFICE	2,877	1,978				4,855	6,069
ENVIRONMENT, SAFETY & HEALTH	1,415	783				2,198	2,748
LEGAL COUNSEL	1,148	894				2,042	2,553
INTERNATIONAL COORDINATION	708					708	885
EXTERNAL AFFAIRS	1,566	901	5,786			8,253	10,316
PLANNING	638	73				711	889
USERS OFFICE	1,264	696				1,960	2,450
Auditorium				14,805		21,467	26,834
Breakout & Teleconf. Rooms		13,798				13,798	17,248
Subtotal	9,616	19,123	**5,786**	**14,805**		49,330	61,663

ORGANIZATION GROUP	MOB Personnel	MOB/CS Support	MTL	MDL	MAAS	USF	GSF
MAGNET SYSTEMS							
Division Office	1,137	754				1,891	2,364
Engineering & Test			101,535	2,993		104,528	130,660
Production & Quality Assurance			244	78,734	36,000	114,978	143,723
Magnet Science	348					348	435
Subtotal	1,485	754	**101,779**	**81,727**	**36,000**	221,745	277,181

ORGANIZATION GROUP	MOB Personnel	MOB/CS Support	M/E	STF	AW	USF	GSF
ACCELERATOR SYSTEMS							
Division Office	7,494	3,016				10,510	13,138
Accelerator Operations	1,218	28,826				30,044	37,555
Mechanical Systems			51,608	15,744	16,000	83,352	104,190
Electrical Systems	10,249					10,249	12,811
Radio Frequency			3,932			3,932	4,915
Cryogenic Systems			4,982			4,982	6,228
Instrumentation	4,512					4,512	5,640
Controls	8,062					8,062	10,078
Collider	3,956					3,956	4,945
Injector	5,614					5,614	7,018
Accelerator Physics	2,134					2,134	2,668
Subtotal	43,239	31,842	**60,522**	**15,744**	**16,000**	167,347	209,184

*Note: Building totals in bold.

SUMMARY 2A page 2

ORGANIZATION GROUP | **BUILDING AREA (USF)*** | **TOTAL AREA**

LABORATORY TECHNICAL SERVICE	**MOB** Personnel	**MOB/CS** Support	**MS**	**FSWC/EC**	**IB**	**FEM**	**W**	USF	GSF
Division Office	4,118	1,801						5,919	7,399
Computing Group	25,775	94,676						120,451	150,564
Lab Shops			66,393					66,393	82,991
Facilities Eng. & Maint.						21,370		21,370	26,713
Materiel & Log. Ser.	1,590						128,000	129,590	161,988
Engineering Stds. Support	1,844	8,230						10,074	12,593
Engineeging Design Support	3,434	4,496						7,930	9,913
Staff Services	1,937	44,161						46,098	57,623
Research & Tech. Applications	487							487	609
Protective Services	3,921	1,363		8,400	1,166			14,850	18,563
Subtotal	43,106	154,727	**66,393**	**8,400**	**1,166**	**21,370**	**128,000**	423,162	528,953

ADMINISTRATIVE SERVICES	**MOB** Personnel	**MOB/CS** Support						USF	GSF
Division Office	650	139						789	986
Personnel	4,257	1,398						5,655	7,069
Finance	5,417	1,546						6,963	8,704
Procurement & Contracts	4,083	1,850						5,933	7,416
Minority Affairs	603	134						737	921
Travel Services	2,053	853						2,906	3,633
Internal Audit	603	73						676	845
Subtotal	17,666	5,993						23,659	29,574

PHYSICS RESEARCH	**MOB** Personnel	**MOB/CS** Support	**IR 1** Admin/Lab	**IR 4** Admin/Lab	**IR 5** Admin/Lab	**IR 8** Admin/Lab		USF	GSF
Division Office	2,482	1,900						4,382	5,478
Theoretical Physics	4,698	2,159						6,857	8,571
Experimental Facilities	13,351	2,002	37,288	32,277	24,325	24,638		133,881	167,351
Experimental Physics	17,481	1,879	16,669	16,785	12,563	12,656		78,033	97,541
Computing & Data Analysis	8,723	1,931						10,654	13,318
Tech. Info. & Publications	3,631	4,657						8,288	10,360
Library Services	3,944	15,634						19,578	24,473
Accelerator Physics	2,332							2,332	2,915
Subtotal	56,642	30,162	**53,957**	**49,062**	**36,888**	**37,294**		264,005	330,006
Total (Building)	**171,754**	**242,601**							
Total (Campus)								1,149,248	1,436,560

*Note: Building totals in bold.

BASELINE BUILDINGS

LAB WIDE SUMMARIES

SUMMARY 2B

ORGANIZATION GROUPS' PERSONNEL BY BUILDING

II.a.1.2B

ORGANIZATION GROUP — **BUILDING PERSONNEL *** — **TOTAL PERSONNEL**

ORGANIZATION GROUP	MOB Personnel	MOB/CS Support	MOB/VC	MOB/A		TOTAL PERSONNEL
DIRECTORATE OFFICE	12					12
ENVIRONMENT, SAFETY & HEALTH	9					9
LEGAL COUNSEL	7					7
INTERNATIONAL COORDINATION	4					4
EXTERNAL AFFAIRS	9		5			14
PLANNING	4					4
USERS OFFICE	6					6
Auditorium						0
Breakout & Teleconf. Rooms						0
Subtotal	51	0	**5**	**0**		56

ORGANIZATION GROUP	MOB Personnel	MOB/CS Support	MTL	MDL	MAAS	TOTAL PERSONNEL
MAGNET SYSTEMS						
Division Office	8					8
Engineering & Test			31	19		50
Production & Quality Assurance			11	54		65
Magnet Science	2					2
Subtotal	10	0	**42**	**73**	**0**	125

ORGANIZATION GROUP	MOB Personnel	MOB/CS Support	M/E	STF	AW	TOTAL PERSONNEL
ACCELERATOR SYSTEMS						
Division Office	50					50
Accelerator Operations	8	46				54
Mechanical Systems			108			108
Electrical Systems	82					82
Radio Frequency			40			40
Cryogenic Systems			89			89
Instrumentation	35					35
Controls	63					63
Collider	27					27
Injector	38					38
Accelerator Physics	14					14
Subtotal	317	46	**237**	**0**	**0**	600

*Note: Building totals in bold.

SUMMARY 2B page 2

ORGANIZATION GROUP	BUILDING PERSONNEL *							TOTAL PERSONNEL
	MOB Personnel	MOB/CS Support	MS	FSWC/EC	IB	FEM	W	
LABORATORY TECHNICAL SERVICES								
Division Office	28							28
Computing Group	129	44						173
Lab Shops			115					115
Facilities Eng. & Maint.	4	3				111		118
Materiel & Log. Ser.	7						58	65
Engineering Stds. Support	15	13						28
Engineeging Design Support	28	11						39
Staff Services	28	41						69
Research & Tech. Applications	2							2
Protective Services	33	41		18	10			102
Subtotal	274	153	**115**	**18**	**10**	**111**	**58**	739

	MOB Personnel	MOB/CS Support						
ADMINISTRATIVE SERVICES								
Division Office	3							3
Personnel	27							27
Finance	39							39
Procurement & Contracts	28	1						29
Minority Affairs	4							4
Travel Services	13							13
Internal Audit	4							4
Subtotal	118	1						119

	MOB Personnel	MOB/CS Support	IR 1 Admin/Lab	IR 4 Admin/Lab	IR 5 Admin/Lab	IR 8 Admin/Lab		
PHYSICS RESEARCH								
Division Office	15							15
Visitors	10							10
Theoretical Physics	25							25
Visitors	13							13
Experimental Facilities	69		84	82	76	79		390
Experimental Physics	4		45	46	25	35		155
Visitors	148		90	90	81	68		477
Computing & Data Analysis	63							63
Tech. Info. & Publications	25	7						32
Library Services		24						24
Accelerator Physics	17							17
Subtotal	389	31	**219**	**218**	**182**	**182**		1,221
Total (Building)	**1,159**	**231**						
Total (Campus)								2,860

*Note: Building totals in bold.

BASELINE BUILDINGS

LAB WIDE SUMMARIES

SUMMARY 3

BUILDING AREA & OCCUPANCY

II.a.1.3

BUILDING	AREA (USF)	AREA (GSF)	PERSONNEL (FTE)	NOTES
WEST CAMPUS				
GENERAL				
Office Building (MOB)	57,251	71,564	386	Includes 17 Contract personnel.
Office Building (MOB)	57,251	71,564	386	Includes 46 unstaffed offices.
Office Building (MOB)	57,252	71,565	387	
Central Services (MOB/CS)	242,601	303,251	231	Includes 75 Contract Personnel.
Auditorium (MOB/A)	14,805	18,506	0	See program in Baseline Buildings.
Visitors Center (MOB/VC)	5,786	7,233	5	
Subtotal	**434,946**	**543,683**	**1,395**	Subtotal of MOB complex components.
Weld/Machine Shop (MS)	66,393	82,991	115	Includes Motor Pool.
Elec/Inst/Maint (FEM)	21,370	26,713	111	Includes 36 Contract personnel.
General Warehouse (W)	128,000	160,000	58	
Emergency Facility (FSWC)	4,200	5,250	9	
General Warehouse				
Radioactive Material Handling				
Radioactive Material Store				
Hazardous Waste Store				
Env Monitor Station				
Sample Analysis Facility				
Safety Inst Facility (IB)	1,166	1,458	10	
ACCELERATOR				
M.E./Cryo/Linac Shop (M/E)	60,522	75,653	237	
String Test Facility (STF)	15,744	19,680	0	
Accel Warehouse (AW)	16,000	20,000	0	
MAGNET				
Magnet Test Lab (MTL)	101,779	127,224	42	
Magnet Development Lab (MDL)	81,727	102,159	73	Includes 1 unstaffed office.
Magnet Acceptance & Stor. (MAAS)	36,000	45,000	0	

SUMMARY 3: Page 2

BUILDING	AREA (USF)	AREA (GSF)	PERSONNEL (FTE)	NOTES
PHYSICS RESEARCH				
WCA Admin (Oper)				Included in MOB.
Large Coil Assembly				
Industrial Assembly (2)				
EAST CAMPUS				
GENERAL				
Radioactive Material Handling				
Radioactive Material Store				
Hazardous Waste Store				
Emergency Faciliy (FSWC)	4,200	5,250	9	
PHYSICS RESEARCH				
EECA Admin/Office				Included in MOB.
Industrial Assembly				
PHYSICS RESEARCH WEST				
IR 1 (Formerly IR 2)				
IR 1 Utility Building				
IR 1 Headhouses (3)				
Admin/Lab Building	53,957	67,446	219	
IR 1 Ironworks Building				
IR 2 (Formerly IR 1)				
IR 2 Utility Building				
IR 2 Headhouses (2)				

BUILDING	AREA (USF)	AREA (GSF)	PERSONNEL (FTE)	NOTES
IR 4 (Formerly IR 3)				
IR 4 Utility Building				
IR 4 Headhouses (3)				
Admin/Lab Building	49,062	61,328	218	
IR 3 (Formerly IR 4)				
IR 3 Utility Building				
IR 3 Headhouses (2)				
PHYSICS RESEARCH EAST				
IR 5				
IR 5 Utility Building				
IR 5 Ironworks Building				
IR 5 Headhouses (3)				
Admin/Lab Building	36,888	46,110	182	
IR 8				
IR 8 Utility Building				
IR 8 Headhouses (2)				
Admin/Lab Building	37,294	46,618	182	
TEST BEAM				
Calibration Hall				
TOTAL USF	1,149,248			
TOTAL GSF		1,436,560		Area includes 47 unstaffed offices.
TOTAL CAMPUS POPULATION			2,860	Total includes 128 Contract personnel.

BASELINE BUILDINGS

LAB WIDE SUMMARIES

SUMMARY 4

IR BUILDINGS AREAS & PERSONNEL

II.a.1.4

BUILDING	SPACE	AREA (NSF)	AREA (USF)	AREA (GSF)	PERSONNEL (FTE)	NOTES
IR-1 ADMIN/LAB	Comp. Room	2,200	3,190	3,988		
	Office	17,112	24,812	31,016	206	Includes 90 visitors.
	Control Room	3,500	5,075	6,344	13	
	Electronics Room	6,000	8,700	10,875		
	Conference	2,000	2,900	3,625		
	Shop/Lab	6,400	9,280	11,600		
Subtotal		**37,212**	**53,957**	**67,447**	**219**	
IR-4 ADMIN/LAB	Comp. Room	2,200	3,190	3,988		
	Office	16,936	24,557	30,697	205	Includes 90 visitors.
	Control Room	3,500	5,075	6,344	13	
	Electronics Room	6,000	8,700	10,875		
	Conference	2,000	2,900	3,625		
	Shop/Lab	3,200	4,640	5,800		
Subtotal		**33,836**	**49,062**	**61,328**	**218**	
IR-5 ADMIN/LAB	Comp. Room	1,600	2,320	2,900		
	Office	13,440	19,488	24,360	169	Includes 81 visitors.
	Control Room	1,200	1,740	2,175	13	
	Electronics Room	4,000	5,800	7,250		
	Conference	2,000	2,900	3,625		
	Shop/Lab	3,200	4,640	5,800		
Subtotal		**25,440**	**36,888**	**46,110**	**182**	
IR-8 ADMIN/LAB	Comp. Room	1,600	2,320	2,900		
	Office	13,720	19,894	24,868	165	Includes 68 visitors.
	Control Room	1,200	1,740	2,175	17	
	Electronics Room	4,000	5,800	7,250		
	Conference	2,000	2,900	3,625		
	Shop/Lab	3,200	4,640	5,800		
Subtotal		**25,720**	**37,294**	**46,618**	**182**	
TOTAL		**122,208**	**177,202**	**221,502**	**801**	Includes 329 visitors.

BASELINE BUILDINGS

LAB WIDE SUMMARIES

SUMMARY 5

CENTRAL SERVICES

II.a.1.5

SPACE	NSF	USF	GSF	FTE	NOTES
Laboratory					Counted in other building areas.
Conference Rooms	13,178	19,108	23,885		Does not include IR site conference rooms.
Meeting Facilities	9,516	13,798	17,248		Includes Breakout and Teleconferencing rooms.
Computer Room	55,930	81,099	101,373	39	Includes Computing Group support areas.
Media Storage (Computer)	5,000	7,250	9,063		
Control Room	19,880	28,826	36,033	46	Includes Operators' Area and Computer room.
Cafeteria	14,900	21,605	27,006		Includes Executive Dining room.
Kitchen	5,280	7,656	9,570	21	
Infirmary	2,340	3,393	4,241	6	
Receiving/Storage	2,910	4,220	5,274	14	Includes Satellite stores, Mail Room & Central Records.
Maintenance					
Metrology Lab	5,500	7,975	9,969	13	Includes Inspection and Repair Lab.
AV Storage/Operations	2,600	3,770	4,713	5	Includes Video Studio and Video Teleconferencing.
Tech Serv/Info & Pubs	3,212	4,657	5,822	7	Includes Photo Lab, Printing Room, Storage.
Communications/Security	460	667	834	41	Includes Training Studio, Editing, Computer Training.
CADD	2,300	3,335	4,169	5	Includes Reproduction Storage.
Library	10,530	15,269	19,086	24	
Document Control	500	725	906	6	
Lobby	5,000	7,250	9,063	3	
Miscellaneous	8,275	11,999	14,999	1	Copy centers, kitchenettes, reception & file areas, group libraries, etc.
Total	**167,311**	**242,601**	**303,251**	**231**	

BASELINE BUILDINGS

LAB WIDE SUMMARIES

SUMMARY 6

CONFERENCE & MEETING ROOM SUMMARY CHART

II.a.1.6

ORGANIZATION GROUP — **ROOM TYPE** (Decimal represents shared space) — **NOTES**

ORGANIZATION GROUP	CONF. E 8 Person	CONF. F 12 Person	CONF. G 18 Person	CONF. H 26 Person	TELECONF. 26 Person	BREAKOUT 50 Person	IR CONF. 150 Person	AUDITOR. 1000 Person	NOTES 1.
DIRECTORATE				1	1				
ENVIRONMENT, SAFETY & HEALTH		0.33							2.
LEGAL COUNSEL		0.33							2.
INTERNATIONAL COORDINATION									
EXTERNAL AFFAIRS		2		0.5					4.
PLANNING									
USERS OFFICE		0.33				5			2.,3.
MAGNET SYSTEMS									
Division Office		1							
Engineering & Test		1							
Production & Qual. Assurance		1	1						
Magnet Science									
ACCELERATOR SYSTEMS									
Division Office	1	1		1					5.
Accelerator Operations									
Mechanical Systems	1	1		1					6.
Electrical Systems									
Radio Frequency									
Cryogenic Systems									
Instrumentation									
Controls									
Collider									
Injector									
Accelerator Physics									

ORGANIZATION GROUP	ROOM TYPE (Decimal represents shared space)								NOTES
	CONF. E 8 Person	CONF. F 12 Person	CONF. G 18 Person	CONF. H 26 Person	TELECONF. 26 Person	BREAKOUT 50 Person	IR CONF. 150 Person	AUDITOR. 1000 Person	
LABORATORY TECHNICAL SERVICE									
Division Office	2		1	0.25					7.
Computing Group		4		1					
Lab Shops		1							
Facilities Engin. & Maintenance	1		1						
Materiel & Logistic Services									
Engineering Standards & Support				0.25					7.
Engineering Design Support				0.25					7.
Staff Services				0.25					7.
Research & Tech. Applications									
Protective Services		1							
ADMINISTRATIVE SERVICES									
Division Office		0.4							8.
Personnel	1		0.4						9.
Finance		0.6	0.1						8.,9.
Procurement & Contracts	1	1							
Minority Affairs			0.1						9.
Travel Services			0.4						9.
Internal Audit									
PHYSICS RESEARCH					1				
Division Office	1		1	1					
Theoretical Physics				1		5			10.
Experimental Facilities	1			1			4		11.
Experimental Physics	1			1					
Computing & Data Analysis		1							
Technical Inform. & Publications									
Library Services				0.5					4.
Accelerator Physics									
West Campus General					1			1	
East Campus General					1				

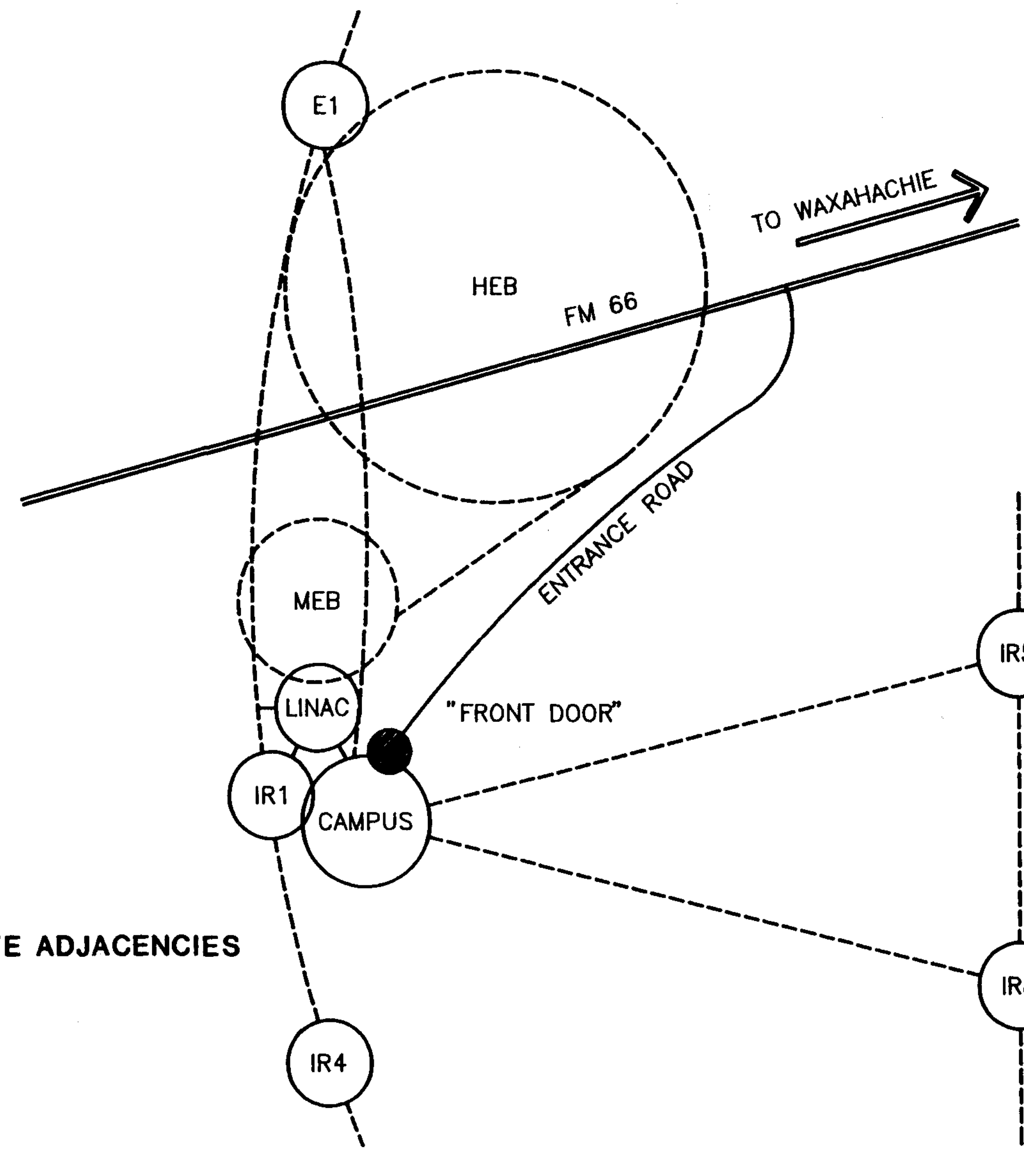
SUMMARY | **ROOM TYPE** | **TOTAL**

	CONF. E 8 Person	CONF. F 12 Person	CONF. G 18 Person	CONF. H 26 Person	TELECONF. 26 Person	BREAKOUT 50 Person	IR CONF. 150 Person	AUDITOR. 1000 Person	TOTAL
Total Rooms	10	17	5	10	4	10	4	1	**61**
Area of Room	196	240	420	504	504	750	2,000		
Total Area NSF	1,960	4,078	2,100	5,040	2,016	7,500	8,000		
Total Area USF	**2,842**	**5,913**	**3,045**	**7,308**	**2,923**	**10,875**	**11,600**	**14,805**	**59,311**
Seats per Room	8	12	18	26	26	50	150	1,000	
Total Seats	**80**	**204**	**90**	**260**	**104**	**500**	**600**	**1,000**	**2,838**

NOTES:

1. Teleconferencing rooms, Breakout rooms, and Auditorium are not enumerated in Group Summaries.
2. Share 'F' (ESH, Legal Counsel, Users Office).
3. Ten breakout rooms at 30-50 persons/room; share ten breakout rooms with Physics Research.
4. Share 'H' (External Affairs, Library Services).
5. Conference rooms shared by Accel. Div. groups in MOB.
6. Conference rooms shared by Accel. Div. groups in M/E building.
7. Share 'G' (Division Office, E.S.S.,E.D.S., Staff Services).
8. Share 'F' (Division Office, Finance).
9. Share 'G' (Personnel, Finance, Minority Affairs, Travel).
10. Two spaces for up to 200 persons each; share ten breakout room with Users' Office; utilize moveable partitions to create larger spaces.
11. One 150-200 person room at each of four IR sites.

BASELINE BUILDINGS
LAB WIDE ADJACENCIES
II.a.1.7

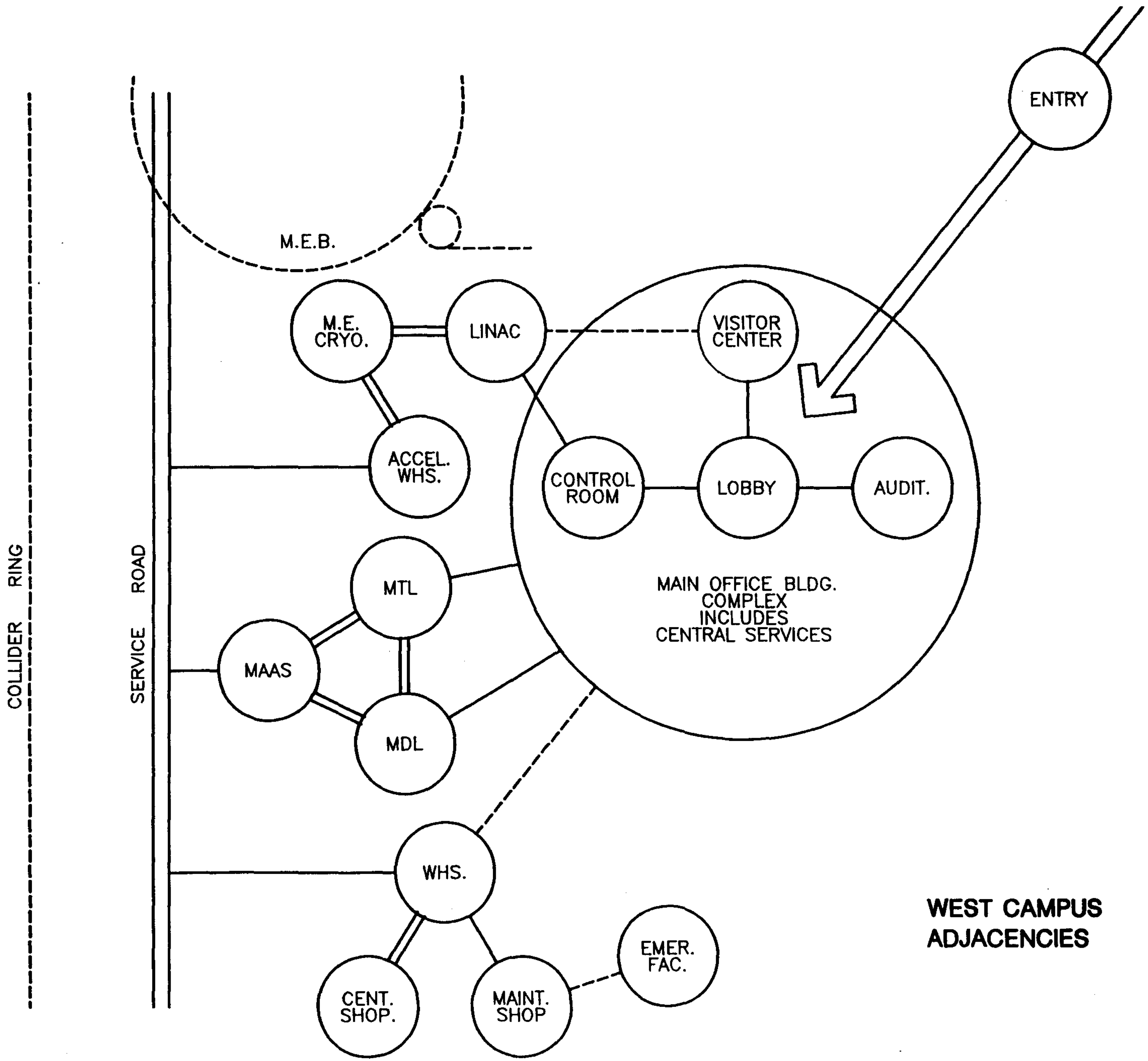


SSC SITE ADJACENCIES

BASELINE BUILDINGS

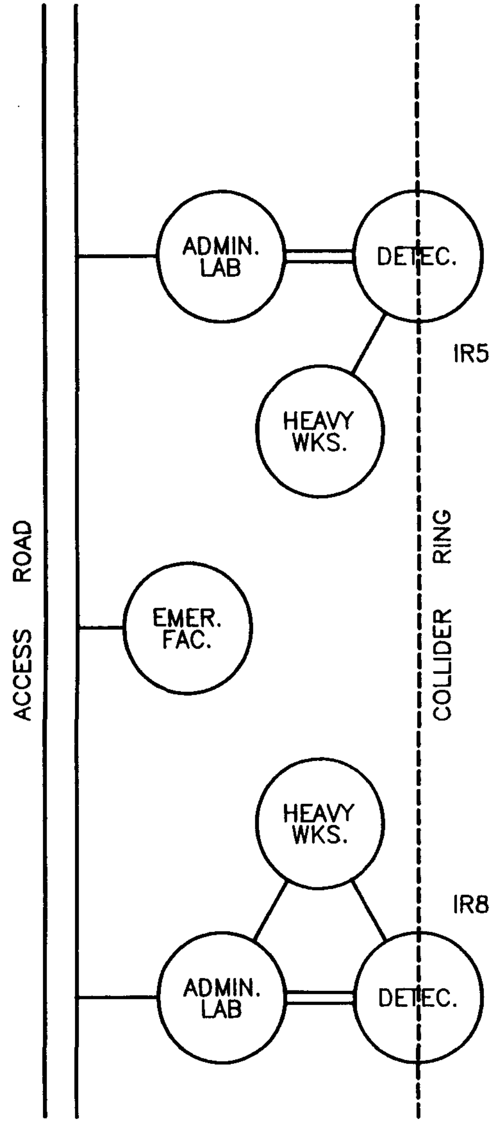
LAB WIDE ADJACENCIES

II.a.1.8



WEST CAMPUS ADJACENCIES

BASELINE BUILDINGS
LAB WIDE ADJACENCIES
II.a.1.9



EAST CAMPUS ADJACENCIES

OFFICE BUILDINGS

Issues

The program assumes that 881 personnel will be located at the IRs. These include 500 visitors (see Summary 4). Substantial increases in floor area for the west campus office buildings will be required if the campus is fully centralized and the IR's manned by a skeleton staff. The office component of the campus includes the most densely populated buildings. They will provide the critical mass necessary for an active, lively campus core.

Strategies

1. The offices can be appropriately contained in one or more buildings, especially if sited to follow the guidelines established in Chapter III.b. (Urban Design). Buildings should be configured with centralized common amenities such as the library, cafeteria and auditorium.

2. Building configuration should reinforce and remote active common open areas, such as plazas and courtyards.

3. The Central Services component, as elaborated in Summary 5, includes facilities and amenities which are an integral part of the office buildings. The separation of areas into Office Buildings and Central Services is conceptual only. The total Office Building area should, in fact, be the total of these two areas.

Issues

An institution the size of the SSCL needs several focal points for social interaction. The cafeteria serves an important practical role as well as providing an opportunity for social and intellectual intercourse, between staff as well as visitors to the campus.

Strategies

1. The cafeteria should be centrally located and closely associated with the campus Social Center (II.b.1. Supplemental Buildings).

2. An expanded program should be considered for the additional opportunities for interaction that it may afford.

3. Facility design should allow for multipurpose use. The kitchen should also serve the executive dining area and other catered functions.

4. Shaded outdoor dining should be incorporated.

Design Guidelines

The cafeteria space standards discussed below vary upwards from those presented in the Group Summaries, which are based on a Staff Services-consultant layout (Appendix 1).

TITLE	Pop.	Seats	Kitchen (SF)	Serving (SF)	Dining	TOTAL
1. Time Saver Building Standards, 1980 edition, recommends the following:	3,000	1,250	5,400	5,400	12-15 SF/per. (13.5 x 1,250 = 16,875)	27,665
2. Foodservice Facilities Planning, by E.A. Kazarian, 1989, recommends the following:	3,000	1,200 - 1,500	4,800- 9,000	4,800 9,000	12-16 SF/Per.	
3. Using the average of these figures, we arrive at the following totals:		1,350	6,750	6,750	18,900	32,400

Additionally, there is an assumption that the cafeteria will be available to tourists. If the assumption of 250,000 visitors a year is correct, then there will be an average of 650-700 tourists per day. If only 20% wish to eat at the cafeteria during lunch, there would need to be approximately 70 additional seats available, assuming two turns. This is an area that will need additional clarification.

Issues

The auditorium could become an intellectual focal point for the campus, as well as for Ellis County. Information exchange, press releases and major presentations to the larger community will be held here. Sharing of the facility if feasible would be welcomed by the residents of Waxahachie and Ellis County.

Strategies

1. A 1,000 seat auditorium is an essential component of the SSCL program. A 15,000 USF facility would provide a basic facility for lectures and conferences.
2. A 21,000 USF facility would provide additional amenities so that the auditorium could also be used for stage productions. As such it could be used by Ellis County as a community theater.
3. The auditorium, a scientific as well as cultural focal point for the SSCL could be located centrally and in such a way as to activate common open spaces.
4. The break-out rooms associated with the auditorium should be adjacent. Demountable walls, where appropriate, between rooms will allow the combined spaces for larger groups.

Guidelines

PROGRAM: BASIC 1,000 SEAT AUDITORIUM

Rooms	SF/Per	USF
Vestibule Gallery	1.50	1,500
Lobby	1.25	1,250
Ticket Office		65
Administration Office		350
Men's Toilet		350
Women's Toilet		350
Auditorium		7,000

PROGRAM: BASIC 1,000 SEAT AUDITORIUM (continued)

Rooms	USF
Projection Room	200
Spotlight Booth	400
Stage	2,800 (minimum)
Two (2) Dressing Rooms	240
Two (2) Stage Bathrooms	300
	14,805*

OPTIONAL

Coat Check	300
Lounge/Rehearsal Room	750
Stage Workshop	1,200
Scene Storage	1,000
Costume Workshop	300
Costume Storage & Dyeing	290
Additional Dressing Rms (4)	480
Make Up Room	130
Two (2) Chorus Rooms	440
Stage Manager	150
Class Room	750
	5,790

TOTAL USF **20,592 SF**

*From Time Saver Building Standards, 1980.

VISITORS CENTER

II.a.5

Issues

The Visitors Center in the baseline program is an abbreviated version in size. Consisting of four classrooms, support offices and a small store, the facility may initially be incorporated into the Main Office Building.

Strategies

1. The Visitors Center will be the first stop for visitors to the campus. It should be located within or adjacent to the Main Office Building. Guided or self-guided tours will commence at the Visitors Center.

2. The Visitor Center facility should allow for substantial future expansion as funds become available. This may include more exhibit space, a 10,000 sq. ft. museum, and other amenities as listed in Section II.b.9. Supplemental Buildings: On Campus.

3. A further strategy would be to set aside a parcel of land for the Visitors Center within the campus core for a possible future, self-contained facility.

HEAVY WORKS BUILDINGS

Issues

The heavy works buildings, although not within the scope of this study, may provide opportunities for adaptive re-use of space, particularly at the IR areas. Their impact will be considerable due to their size and bulk. Heavy works buildings will amount to approximately 70,000 square feet.

Strategies

1. The heavy works buildings, particularly at the IR sites, should be sited and considered for adaptive re-use after completion of detector fabrication. The large spaces could house conference facilities, computer rooms, labs storage or amenities, such as a gymnasium or education center.

2. The architecture of the heavy works buildings should be consistent with other campus buildings, and responsive to their immediate surroundings, whether the more urban precincts of the West Campus, or the rural setting of the other sites. (Design strategies and outlines can be found in Section III.b.5)

Issues

Shops will be distributed on the campus according to need. The current concept involves a central shop facility in the West Campus, "satellite" shops in the MDL, ME and at each of the IR sites, and two mobile trailer shops which can be moved to any active fabrication area.

Strategies

1. Satellite shops vary in size somewhat, but are approximately 4,000 square feet each. They are manned by personnel from the host divisions, but supervised by Lab Shops personnel.

2. The Accelerator shop may increase in size if conventional magnets are assembled and tested on site.

Issues

Warehousing needs vary substantially from the baseline assumption of 20,000 square feet. Approximately 120,000 to 160,000 square feet of warehousing was requested. Additional warehouseing space may be provided by adaptive re-use of large volume buildings which become redundant after start-up, such as the MAAS.

Strategies

1. All or part of the MAAS could be utilized for general or accelerator warehousing after start-up.

2. Heavy works buildings may provide warehousing opportunities, and in addition, warehouse space could be leased offsite.

3. Warehouse structures should be consistent in design to other campus buildings.. The architecture and materials palette should follow the strategies and guidelines in Section III.b.5.

Issues

Environmental Health Facilities are outside of the scope of this program. These facilities are significant in their sititng requirements, due to their environmental monitoring and hazardous materials requirements.

Strategies

1. Facilities should be located on the perimeter or well away from "inhabited areas", such as the campus core or office/lab buildings.

2. Siting of these facilities should minimize the risk of environmental pollution.

3. The facilities include the following buildings:

   Environmental Health Facilities - West Complex

   Radioactive material handling facility
   Radioactive material storage
   Hazardous waste storage facility
   Environmental monitoring stations (28)
   West complex environmental sample analysis facility
   West complex safety instrument facility

   Environmental Health Facilities - East Complex

   Radioactive material handling facility
   Radioactive material storage
   Hazardous waste storage facility

Issues

Population assumptions regarding the IR areas and the East Campus in particular, have not been resolved. The areas found in the lab-wide and Group summaries are based on technical space layouts provided by the respective divisions. These can be found in the Appendix. As of this writing, the following facilities are planned for the East Campus:

East Campus (IR 5,8)

Administration/Lab Buildings (including Control Room, Conference Rooms & Shops)
Heavy Works Buildings
Emergency Facility
Utility Buildings
Head Houses

ON CAMPUS

II.b

Expanded Program

For the SSCLL to operate as a true campus, it must provide program elements in addition to the baseline program. Funding and development strategies to implement these elements are important issues. Features of an expanded campus might include housing, a day-care center, a social center/union, and a recreation center.

The following section examines select supplemental facilities. Where appropriate, programs are recommended for consideration.

Supplemental Buildings: On Campus

1. Dormitory
2. Guest House
3. Day Care
4. Social Center
5. Education Center
6. Conference Center
7. Recreation Facility
8. Visitors Center
9. Amphitheater
10. Transportation Center

DORMITORY

II.b.1

Issues

In addition to the staff of the SSCL, there will be a variable number of short term visitors. These will include: visiting dignitaries and scholars; graduate, undergraduate and high school students; and science teachers.

One of the primary objectives of the SSCL is to be a major education resource. A summer internship program for high school and undergraduate students will allow them to work with SSCL scientists. A co-op program might bring undergraduates to the lab for alternating periods of work and study. In addition, high school teachers may participate in summer programs to enhance teaching methodologies.

These programs will require some dormitory facilities, particularly for high school students, and those undergraduates and science teachers requiring the convenience of campus living.

An on-campus dormitory might be useful to accommodate visiting scientists, scholars and graduate students from other nations.

Strategies

1. Build on-campus dormitory/hostel housing convenient to the social center and cafeteria. Ideally, a dormitory would accommodate high school students in quad rooms; college students in double rooms and graduate students and teachers in single rooms. A facility for high school students could be physically separate from the other facilities.

2. Campus housing should be within walking or biking distance of the central campus facilities.

Guidelines

According to space standards for academic housing, a typical program for this facility would be as follows:

	SF/Room	Subtotal
*32 rooms	100	3,200 SF
Bathing	20	640
Lounge	20	640
Kitchen/Dining	(Self-serve)	400
Laundry		120
TOTAL NET SF		**5,000 SF**

*This constitutes a typical classroom population. A larger dormitory could be based on multiples of this program.

SUPPLEMENTAL BUILDINGS: ON CAMPUS

GUEST HOUSE

II.b.2

Issues

The SSCL will be host to visiting scientists and dignitaries from around the world who will stay for a few days or a few weeks to conduct research or tour the campus facilities. Many of these visitors will wish to remain on campus, rather than rent a hotel room in Waxahachie or Dallas. Visitors from foreign countries may not wish to drive.

Strategies

1. Facilities should be provided for a portion of these individuals to stay on campus. Based on UCLA comparables, a guest house, accommodating 24 -30 persons with hotel-type rooms, lounge area and separate dining room, would be adequate.

2. A new facility could be built, or alternately, some of the 180 existing houses on the SSCL campus could be relocated and restored to be used as clustered guest housing.

Guidelines

24 rooms with private baths @ 300 square feet	7,200 SF
Lobby / waiting area / check-in desk	800
Reading / lounge - 2 @ 360 square feet	720
Private dining room for 24 @ 255 square feet	600
Kitchen / food storage	600
Housekeeping/Laundry	800
TOTAL NET SF	**10,720 SF**

DAY CARE

II.b.3

Issues

Day Care facilities have become an important worker amenity throughout the United States. The value to the employer of lowered worker absenteeism and increased productivity has been documented in several studies. Work schedules of SSCL parents may make regular day care facilities a necessity. Although facilities are available in Waxahachie, these may not meet be sufficiently convenient to the campus. Additionally, an SSCL facility could adjust its hours to meet demand.

Strategies

1. A facility for approximately 150 children should be considered as an on-campus amenity.

2. The Day Care facility should be located near enough the central campus facilities so that it is convenient for parents to visit their children during lunch hours, but far enough away so that work is not disrupted by the presence of children, and the children are not disturbed by visitors.

Guidelines

By reviewing various standards, including the National Association for Education of Young Children, the Los Angeles Community Redevelopment Agency, the Urban Land Institute, the State of Texas, and the Fermilab proposal for the SSCL, a program figure of 150 children was reached as a reasonable number for a population of 3,000 employees. A typical program for this facility would include:

Indoor Play Area	(35 SF per child)	5,250
Isolation Room	(1 bed per 25 children)	300
Kitchen		400
Office		120
Lobby/Parent Waiting Area		300
Boys Toilet		300
Girls Toilet		300
Staff Toilets (2)		50
Staff Lounge		200
Indoor Total		7,220
Outdoor Play Area	(75 SF per child)	11,250
TOTAL NET SF		**18,470**

SOCIAL CENTER

II.b.4

Issues

Because of the nature of the SSCL mission, the work environment will be both physically and mentally challenging. It will not be uncommon for many individuals to work nearly around the clock for several days while running experiments. Even during "normal" work periods, staff, scientists and students often put in 12 - 16 hour days. A campus social center would be an essential component of the program to ensure that the intensity of the work effort is balanced by intermittent periods of relaxation and socializing.

Strategies

1. A campus social center associated with the cafeteria would be an ideal place for staff, scientists and students to relax during work breaks. Similar to a Student Union, the facility would provide social and recreational amenities to the campus. SSCL personnel will be more likely to use facilities if they are conveniently on campus.

2. The social center should be centrally located on the campus and ideally would be associated with the cafeteria. In addition, it should possibly be "off-limits" to tourists and visitors who might be using the cafeteria facilities, in order to provide a special center for staff.

3. The facility could be operated as a concession, similar to many college campuses.

Guidelines

1. Locate the social center adjacent to the cafeteria.

2. After a study of analogous campus social centers, such as at University of Pennsylvania and Tulane University, the following minimum program elements are recommended:

Coffee House & Pub	1,500 SF
Book store	1,500
News stand	150
Games Room: Billiards, Pool, Ping Pong	2,000
Ham Radio Station	150
General Store	3,000
Barber Shop	300
TV/Music Listening Lounge	300
Reading/Quiet Room	450
TOTAL NET SF	**9,350 SF**

EDUCATION CENTER

II.b.5

Issues

One of the primary objectives of the SSCL is to become a major resource for science education in the United States. The mission will extend to high school and college students, as well as to their science teachers. Summer internship programs for high school and undergraduate students, cooperative work-study programs for undergraduate students and residential teacher training seminars will be offered on an ongoing basis. In addition, local science students could use the center on a regular basis to pursue advanced physics projects and groups of students from around the world could participate in week long residential seminars exploring special projects.

Strategies

1. An education center should be fully integrated with the activities of the SSCLL, yet should form a discreet unit within the system.

2. Classrooms, laboratories, lockers and supply rooms should be dedicated to the center.

3. The center should be centrally located, yet off limits to tourists.

4. The new facility at Fermilab with 11,300 square feet of program might serve as an appropriate model.

CONFERENCE CENTER

Issues

The SSCL, in its role as the preeminent physics research facility in the world, will be host to international conferences on a regular basis. Several conferences, lasting from three to five days in length will be held throughout the year. Adequate facilities must be provided on campus to accommodate from 50 to 1,000 short-term professional visitors, in addition to the on-going activities of the SSCL. Further study is required to determine if a separate facility, in addition to the auditorium and break-out rooms, is required. Location of the latter to accommodate future expansion is recommended.

Strategies

1. The community of Waxahachie (and other Ellis County towns) would benefit from being able to use the conference center for civic functions. Opening the facility for community use would facilitate relations between Ellis County citizens and the SSCL.

2. The conference center should be located convenient to, but not necessarily adjacent to, the central lab and office building. It should be adjacent to the 1,000 seat auditorium.

3. It should be designed to permit operating separately from the SSCL during the times it is being used by outside organizations.

RECREATION FACILITY

II.b.7

Issues

Convenient recreation facilities need to be provided for SSCL staff, scientists and students in order to provide physical release from work. Some facilities should be provided on campus, and be available throughout the day.

Strategies

1. A range of recreational facilities should be provided both on-campus and also at any SSCL housing developments off campus. On-campus recreation facilities might include a swimming pool, jogging trail/track, ball courts, net courts, picnic areas and a fitness center with lockers and showers.

2. Recreation facilities should be conveniently located to central office and laboratory facilities, but should be out of the view area of tourists and visitors.

Guidelines

A minimal on-campus recreation program should include:

25 meter pool
Two Volleyball Courts
Two Basketball Courts
Fitness Center
Showers/Lockers
Dressing Rooms and Toilets
(Mens & Womens)

VISITORS CENTER

II.b.8.1

Issues

The SSCL has the potential to become a tourist destination, particularly for families with children. It is estimated that as many as 250,000 tourists will visit annually, particularly during the summer months, when over 1,000 tourists per day might be expected. It is essential that adequate visitor services be provided, both to enrich their experience and to avoid over-use of facilities. The Souvenir/Bookstore component has the additional potential to be a very important sales outlet for physics books and student experimental equipment.

Strategies

1. A visitor center could include a range of activities, including an Omni-Max theater, exhibition areas, demonstration areas, computer terminals, physics book store and other educational activities.

2. It should have adequate space for storage, work and exhibit preparation.

3. It should be centrally located in relation to the areas of the campus that will be open to the public on self-guided tours.

4. The center should be designed for future expansion.

5. Expert attraction planning should be obtained to address this important function.

Guidelines

The Space and Rocket Center in Huntsville, Alabama has a visitor center of approximately 45,000 sq. ft. for 575,000 annual visitors. The Johnson Space Center in Houston, Texas will be opening a new 180,000 square foot center for 1,000,000 visitors (their current facility of approximately 10,000 square feet is inadequate). While the nature of these centers is different from the SSCL, they nonetheless indicate orders of scale. The following minimum program is suggested; however it is recommended that expert attraction-programming be obtained to address this function.

VISITORS CENTER

II.b.8.2

SUGGESTED PROGRAM

Exhibition space	4,000 - 6,000 SF
Exhibition preparation	1,000
Lobby and Front Desk	1,500
Storage	500
Omni-Max Theater (300 seat)	1,500
Administration Offices	2,500
Classrooms (4)	2,400
Volunteer and Staff Lounge	150
Mens Toilets	300
Womens Toilets	300
Vending machines	500
TOTAL NET SF	**15,150 - 17,150 SF**

AMPHITHEATRE

II.b.9

Issues

It would be desirable to provide an assembly place to accommodate the entire SSCL population on an occasional basis. An outdoor amphitheater could address this need with minimum expense. Furthermore, it could be used by residents of Ellis County for civic functions.

Strategies

1. A 3,000 seat outdoor amphitheater could be largely constructed from the spoils excavated from the SCCL tunnel. It would provide an arena for outdoor meetings for the entire SSCL population and be an amenity to citizens of Ellis County.

Guidelines

1. Provide maximum noise mitigation measures.

2. Additional parking would be required; for scoping purposes one space per 2.6 seats would generate a parking requirement of approximately 1100 spaces.

TRANSPORTATION CENTER

II.b.10

Issues

Extremes of weather will require a protected waiting area for taxi, shuttle and bus passengers, including SSCL staff, tourists and Ellis County residents.

Strategies

1. Seating should be provided in a covered waiting area, convenient to the campus core and vistor center.

Guidelines

1. Provide covered seating according to the demand profile determined by the attraction programming.

OFF-CAMPUS EXPANDED PROGRAM

II.c

While the scientific facilities must be located on campus, there are several campus functions that might be located in Waxahachie, thereby increasing involvement between campus and community. As a point of beginning, the following functions should be considered for the community.

Supplemental Buildings: Off Campus

1. Housing
2. Recreation Facility
3. Visitors Center
4. Conference Center
5. Transporation Center

HOUSING

II.c.1

Issues

Although a small portion of housing, such as a dormitory and Guest House, should be located on campus, the majority of housing should be located in the neighboring communities and Dallas. Several housing strategies might be considered from the following:

Strategies

1. Build a separate west campus village for SSCL families.

2. Build a separate SSCL housing village outside Waxahachie.

3. Build a separate SSCL housing village within Waxahachie.

4. Disperse new and restored housing throughout Waxahachie.

The first three strategies would tend to separate SSCL families from local residents thereby increasing an "us/them" mentality. Dispersal of new units, i.e. infill housing, and purchase and renovation of vacant units would encourage a blending of the two communities and give SSCL families more choices of where and how to live. This strategy might be less attractive to major developers, but it would perhaps better serve the SSCL community. It would encourage smaller developers to participate in providing SSCL housing.

Guidelines

1. Preserve existing housing stock in sound physical condition.

2. Existing housing stock on the SSCL campus should be considered for relocation to vacant in-town lots and restored, if feasible.

3. New housing stock, regardless of development strategy should use materials and imagery appropriate to the architectural heritage of the community.

4. Provide a variety of housing options including apartments, condominiums and single family residences as appropriate.

RECREATION FACILITY

II.c.2

Issues

Strategies for developing recreation facilities for the SSCL community are similar to those for housing. While some facilities need to be located on campus, (swimming pool, ball courts, net game courts), the majority of recreational facilities are required to be near housing.

Off campus facilities, associated with a housing complex will be necessary to provide for the recreational needs of families. Because Ellis County recreational facilities are limited (for example, only eight (8) lighted tennis courts for a population of 20,000 in Waxahachie), additional facilities must be provided. These might include a swimming pool, tennis, squash and racket courts, ball courts, barbecue pit and picnic areas, childrens playgrounds, soccer field, jogging track and a fitness center with lockers and showers.

Strategies

If the strategy of building a separate village is chosen, then the recreational facilities can be incorporated. However, if a strategy of dispersing housing development throughout the community is also included, the placement of a recreation center becomes more complex. Possibilities include:

1. Building smaller recreational components on scattered sites throughout the city. However, dispersal sites throughout the town may involve problems of maintenance, supervision and access.

2. Building a central facility convenient to the majority of SSCL families.

3. Develop recreational facilities in concert with the town of Waxahachie. Rather than building a recreation center solely for the use of SSCL families, dispersed or localized facilities could be available to the entire population. Since many public recreation facilities are minimal and over-used in Waxahachie, making SSCL recreational facilities available might be one way to increase community involvement.

4. Perhaps the TNRLC or other agency could help fund or supplement the development of the Waxahachie River Corridor Recreation proposal. This proposal provides for recreation facilities in a new 550 acre linear park to be located on the south bank of the Waxahachie River. The facilities would be for the use of all area residents.

VISITORS CENTER

II.c.3

Issues

The majority of visitors and tourists coming to the SSCL will pass through the town of Waxahachie. A visitor center located in town would be a valuable asset for the community as well as the SSCL. The Visitor Center could be the main embarkation point for tour buses to the SSCL, and could thereby enable the campus to provide less in the way of parking, shops and crowd control facilities.

Strategies

1. Provide a visitors' center, preferably near the historic courthouse square, that combines exhibits and information about the SSCL with the information about the town of Waxahachie and Ellis County.

2. Provide covered seating adjacent to a bus loading area as part of the visitor center.

3. Provide remote tour bus parking away from the historic downtown core.

CONFERENCE CENTER

Issues

The town of Waxahachie would benefit should SSCL require additional conference facilities. The presence of such a facility would provide an opportunity for the town to host a variety of income-producing events. "Down-time" could be used to advantage by the town for its own events.

Strategies

Locate some or all of the SSCL additional conference facilities, if required, in the town of Waxahachie.

TRANSPORTATION CENTER

II.c.5

Issues

Extremes of weather will require a protected waiting area for city and tour bus passengers visiting the SSCL.

Strategies

Provide seating in a covered waiting area convenient to the visitor center.

III. CAMPUS DESIGN GUIDELINES

The site of the new SSCL Campus is typical of the rolling "black land" prairies of north central Texas. It is characterized by rich soils supporting agricultural crops and grazing. The gentle terrain is punctuated with stands of trees and shrubs along natural water ways. The West Campus site is located approximately ten minutes from Waxahachie; the town, like hundreds of mid-nineteenth century Texas towns, was laid out according to the "Laws of the Indies," formulated in 1573 by Spanish colonists to the New World. These laws directed the placement of public squares, streets and major buildings and prescribed that the town grid should be oriented with the corners of the grid (rather than the sides) facing the cardinal directions. Buildings aligned on such a grid would deflect the strong north winds and provide greater southern exposure to the winter sun.

The architectural heritage of the region reflects the prosperity of the cotton industry that flourished here from 1890 to 1920. Hundreds of Victorian houses and shops still stand throughout the county. The architectural masterpiece is the Ellis County courthouse, located in Waxahachie. Built in 1895 of Texas pink granite, Texas gray granite and Pecos sandstone, it is considered one of the finest courthouses in Texas and the masterpiece of architect by J. Riely Gordon. The courthouse is located on the central block of the downtown area. The courthouse square is distinctive for its single, two, and three-story commercial buildings, primarily of brick construction. While the Romanesque Revival Courthouse is distinctly different from the majority of downtown buildings, a high level of visual harmony results from a nearly uniform scale, use of local building materials, and stylistic agreement. The architectural heritage is further enriched by the industrial buildings such as cotton gins, flour mills and storage sheds adjacent to the nearby railroad tracks. The tracks closely flank the downtown area on two sides and emphasize the agricultural basis of the city's prosperity.

The town of Waxahachie is a useful analogy, with implications for the SSCL campus. Siting takes advantage of solar and climate considerations. The use of the Texas "courthouse-square" grid effectively addresses issues of hierarchy, focal point, circulation and organization. While no two downtown buildings are alike, a remarkable harmony is achieved from this diversity by means of scale, building materials and style. Finally, the town clearly acknowledges its economic base through the integration of industrial and agricultural buildings close to the downtown core. Together these attributes respect the tradition of "place making" in Texas that responds to climate, geography, industry, history and landscape.

Architecture

1. Vocabulary
2. Material
3. Scale
4. Energy Consumption Management
5. Industrial Buildings
6. Analogies and Images

Issues

The SSCL provides a unique opportunity to explore a new architectural vocabulary particularly suited to an image of scientific research, the Ellis County community and the 21st century. It should respect the traditions of Texas vernacular architecture, the low scale of the Texas prairies and surrounding small towns, the needs of the scientific community, and modern construction and materials.

Strategies

1. The architectural style of the campus should acknowledge the unique traditions of North Central Texas buildings.
2. Designs should reflect the research, engineering and scientific functions of the SSCL.
3. The architectural approach should encourage a range of design solutions with the goal of both diversity and harmony.
4. Contemporary Texas architecture that combines straightforward classical forms and enduring materials with modern technologies and needs, can serve as appropriate models. Such examples include the De Menil Museum in Houston, the Kimball Museum in Forth Worth and the Herring Hall at Rice University.
5. An industrial vocabulary is encouraged, provided it does not dominate the landscape or adopt an "heroic image."

Guidelines

1. Incorporate elements of the North Central Texas building tradition, such as covered walkways, gallery porches, deep overhangs, pitched roofs, tall double-hung windows and standing-seam metal roofs.
2. Use local, Texas and man-made building materials together or separately to create a diverse, yet harmonious whole. These include ashlar masonry, vertical wood siding, Texas sandstone, concrete, brick, steel and glass.
3. Use articulated panelized industrial materials (concrete block, etc.) rather than large undifferentiated surfaces.

Issues

The goal of the SSCL is to understand the essential nature of matter and energy. Therefore the campus should respect and harmonize with its setting. In spite of the large scale of the SSCL, it should not dominate the landscape.

Strategies

1. Choose building materials that respect rather than dominate the landscape.
2. Choose colors that harmonize with and highlight natural colors rather than contrast or clash.
3. Choose materials that reduce the scale of the SSCL buildings.

Guidelines

1. Use local Ellis County and Texas materials such as brick, marble and granite as appropriate.
2. Use industrial materials, appropriate to warehouse, laboratories and shops for conventional buildings; panelize for scale.
3. Develop a palette of industrial and local materials that can be combined to respond to specific building conditions.
4. Use vision glass at pedestrian level to encourage views into and from buildings.
5. Avoid strip windows and business/industrial-park type windows.

Issues

The question of scale, both the scale of the campus buildings in relation to the Texas prairie landscape, and comprehension of the overall scale of the project are crucial issues. In spite of the large scale of the SSCL it should not dominate the landscape.

Strategies

1. The campus buildings should respect the integrity of the prairie through scale, materials, landscaping and orientation. A building tradition worth study in this regard is the prairie style architecture of Frank Lloyd Wright. Low buildings of brick and wood hug the rolling hills with deep overhanging roofs. The buildings defer to nature and use natural response as a major design element.

2. The campus of the University of Colorado at Boulder is another appropriate analogy. Here the buildings echo their majestic setting by means of scale, siting and use of indigenous materials.

Guidelines

1. Emphasize articulated building facades and pedestrian scale at the ground level.

2. A taller built element or an articulated open space, might be used as a landmark device or architectural focus.

ENERGY CONSUMPTION MANAGEMENT

Issues

Energy consumption management throughout campus should be a design priority. All energy management opportunities should be exploited.

Strategies

1. Building design parameters such as layout, orientation, envelope and configuration, have a direct bearing on energy demand. Mechanical systems for a given building are designed and operated as a response to this demand. Opportunities to manage energy in minimizing this demand will mean both lowered capital costs for the mechanical systems and less energy consumed in their operation. Climate control strategies should be established to achieve this goal.

Guidelines

1. Site buildings to receive maximum winter sun.
2. Site buildings to deflect strong northern winds.
3. Utilize solar energy where feasible.
4. Design area-specific heating and cooling systems in work areas.
5. Design task-specific lighting systems to decrease heat build-up.
6. Incorporate operable windows.
7. Use landscaping next to buildings to provide summer shade and reduce cooling needs.
8. Incorporate berming or underground construction if necessary to reduce energy needs for a particular building.
9. An appropriate vocabulary of shading devices exists in historic and contemporary Texas architecture, including covered sidewalks, deep eaves, loggias and porches. These features would also provide rain shelter.
10. Provide outdoor covered walkways between the core campus buildings.

INDUSTRIAL BUILDINGS

There will be several large scale industrial-type warehouse buildings on the campus, which may be out of scale with other campus buildings.

Strategies

1. Strategies should be developed to reduce their visual impact on the campus. These include underground or semi-subterranean buildings where appropriate. Architectural detailing can reduce scale into smaller units.

Guidelines

1. Articulate building exteriors to reduce scale.
2. Incorporate underground architecture or berming if appropriate.
3. Use color to integrate man-made materials into the landscape.

Urban Design

1. Campus Form
2. Siting and Orientation
3. Open Space
4. Parking
5. Roads and Paths
6. Public Access
7. Gateways
8. Landmarks
9. Lighting
10. Signage
11. Landscape
12. Land Banking
13. Service Areas
14. Security
15. Utilities
16. Prairie Restoration
17. Historic Preservation

Issues

At the SSCL, man will be "closer to nature than ever before" and therefore the physical form of the campus should defer to nature and the landscape. Interviews with key SSCL personnel emphasize the desire for a place that is "non-heroic", "modest", "humane", "comfortable", "reflective of the scientific community" and "appropriate to the rural Texas landscape". A formal structure must be developed that respects Texas heritage and traditions while acknowledging the unique mission of the SSCL community.

Strategies

The formal structure of the SSCL should reflect its campus-like nature. Each department will have its own needs and structure, but each will be part of a shared mission. This mission should be reflected in the organization of the campus. The following models might be considered:

1. **The Academic Village** (i.e. University of Virginia, Thomas Jefferson)

2. **The Small Town** (Texas courthouse square, Waxahachie)

3. **The Industrial/Research Campus** (i.e. Salk Institute, Louis Kahn, General Motors, Ero Saarinen)

SITING AND ORIENTATION

III.c.2

Issues

To site buildings to maximize functional relationships while respecting views, landscape, wetlands, historic structures, solar access, prevailing winds and precedent.

Strategies

1. An example for sitting and orientation can be derived from historic Texas town planning.
2. The town of Waxahachie provides an appropriate model for orientation of campus buildings within an overall structure.
3. Siting and orientation of campus buildings should respond to the particulars of the environment including: topography, climate, and history.
4. Site buildings to take advantage of views.
5. Site buildings to reflect a town/campus atmosphere, rather than that of a business or industrial park.
6. Site buildings to respect existing historic structures.
7. Site buildings to avoid existing wetlands.

Issues

A campus environment needs clearly defined and usable open space. Such areas, which may include hardscape plazas and patios, as well as lawns and gardens, can become focal points for social interaction, as well as settings for coordinated architecture.

Strategies

1. Open spaces should be coordinated and integrated with the architecture of the buildings they serve. Courts, plazas and patios should bear a strong relationship to adjacent buildings.

2. Some open spaces should read as "outdoor living rooms," serving a social function, and furnished accordingly.

Issues

To accommodate cars for 3,000 employees plus 1,000 visitors without dominating the campus or landscape.

Strategies

1. Parking areas should generally be buffered from buildings and roads with a combination of setbacks and plantings.

2. Parking lots should be set back from buildings, except for drop-off and loading areas.

3. Avoid overly large parking.

4. While a detailed parking program will be developed as part of the SSC master plan the following indicates the general order of magnitude of parking demand:

Parking Program	Population	Standard	Stalls
Staff (West Campus)	2,496	1.1/car[1.]	2,745
Staff (East Campus)	364	1.1/car[1.]	331
Amphitheater	3,000	2.6/car[2.]	1,154[3.]
Visitors	250,000 per annum	[(4.)]	234
	TOTAL PKG REQ.		4,133

Notes

1. Based on analogous Southern California Research and Technology Campus
2. Based on analogous Southern California attraction.
4. Based on a major Southern California Tourist attraction, the calculation is based on the following assumptions:

   Peak Day = .0064 x yearly (250,000) = 1,600 guests
   Peak Hour Parking = 1,600 x 76% (guests arriving by car) x 75% (daily cars on site at one time) / 3.9 persons/car

General Notes

3. Quantity assumes community use during work-day hours (peak demand). Staff spaces could significantly reduce this number during evenings and weekends.

ROADS AND PATHS

Issues

To provide adequate access to and within the campus incorporating existing topography.

Strategies

1. Size roads and paths appropriately. Do not over-size for the traffic anticipated.
2. Incorporate existing topography when siting roads and paths.
3. Major roads should have a significant landscape component, e.g., a parkway with landscaped median, a ceremonial boulevard, or adjacent wind-break, as appropriate.
4. Pedestrian walkways should be shaded with structure or deciduous canopy trees.
5. Paths and walkways provide an opportunity for over-all thematic treatment in the areas of design and materials.

Issues

The slated SSCL goals concerning education dictate that the facility be as open to and usable by the general public as possible.

Strategies

1. Public access to the site should be via the Visitors Center, leading to a guided or self-guided tour.

2. The facilities listed below are suggested items for probable interest to visitors. Observation decks, galleries and lounges, protected from potential hazards should be programmed into the relevant facilities.

3. **PUBLIC INTERACTION OPPORTUNITIES**

Guided or Self-Guided Tour Stops	<u>Other Options</u>
Accelerator and Detector Control Rooms	Museums
Linac Facility	Detector Halls (when possible)
Magnet Test Lab	Interactive TV Displays
Magnet Development Lab	Physics Models Displays
Assembly Buildings	Omnimax Theater
Heavy Works Facilities	
Collider Tunnel	
Computer Room	
Library	
Cafeteria	

GATEWAYS

III.c.7

Issues

To provide symbolic structure to mark the main and secondary entrances to the SSCL campus.

Strategies

1. A major gateway to the campus from State Highway 66 would be desirable to provide a "ceremonial" experience for the visitor. Each subsidiary entry to the campus could be marked by a themed gateway scaled according to its importance.

2. Landscape as well as man-made structures should be considered in gateway design.

LANDMARKS

Issues

While the bulk of development on the SSCL campus should be low scale and respectful of the topography and neighboring developments, the opportunity exists to create landmarks within the project. Visitors are easily disoriented and landmarks can help to orient them.

Strategies

1. An constructed landmark, such as a clock tower, sculpture or gateway, could physically mark and become its symbol, much like the Courthouse tower in Waxahachie.

2. Buildings should be articulated to have a distinct identity within the campus composition.

3. Infrastructure elements on the campus can also function as landmarks; for example, water towers, cooling towers and stacks.

Issues

The SSCL offers an opportunity to develop a coordinated campus lighting program. Lighting can also provide additional visual dimension to a building's character and appearance.

Strategies

1. Lighting should be designed as an integral part of the site and buildings.

2. The pattern of outdoor lighting should reinforce the formal structure of the campus.

3. Highway lights, street lights and pedestrian lights should have a common design vocabulary.

4. Lighting, whether for highways, streets or pedestrians should not distort the colors of landscape and buildings.

5. Lighting of building features, such as entrances, facades and distinctive elements should be employed where appropriate.

6. Use of the lowest practical lighting levels given security considerations should be used. In order to avoid a "corporation-yard" atmosphere, glare and competition between light sources ("visual noise") should be avoided.

Issues

Signage requirements, both on and off site, provide an opportunity to reinforce the identity established for the SSCL. SSCL signage should extend well beyond the confines of the immediate campus.

Strategies

1. All signs should have consistent theme.

2. Signage and graphic design of the SSCL should be distinctive, contemporary, and unlike commercial/retail designs.

3. Signs should be environmentally harmonious and defer to buildings and landscape.

4. Signage should meet the specific needs of tourists and visitors, and may include interpretive panels, pictograms, directional and locational signs in a tour oriented system.

5. Off campus signage may be used to mark ring locations under roads or paths, as part of a strategy to express the scale of the facility. The signage program might utilize the diagrammatic plan of the SSCL as a key design feature.

6. A distinctive logo, such as the ring plan could be used throughout the campus for signs, stationery, bus stops, badges and souvenirs.

Issues

The character of the existing site is a by-product of the rural landscape. That setting has been determined to be desirable and its landscape character to be preserved.

Strategies

1. Landscape design should reinforce the essential qualities of the setting; landscape should be consistent with indigenous elements.

2. Landscaping can serve as an intermediary and a foil to the built environment by means of massing, palette and location sympathetic to architecture.

3. Native plant material, such as bur oak, red oak, elm, myrtle and willow trees, shrubs such as hawthorn, and wild flowers such as blue bonnets and Indian Blanket, are recommended for consideration; exotic species should be used judiciously.

4. Use large canopy, deciduous trees in parking and public areas to provide shade.

5. Preserve and enhance significant natural site features, including all creek beds and wetlands.

6. Restrict the use of landscaped berms to buffers for unsightly uses, e.g. security fencing, outdoor storage and parking. Berms should not separate streets, walkways or paths from the buildings they serve.

7. Incorporate all water-impound areas, cooling ponds and detention basins into site landscape design; water can and should be a prominent feature of the landscape plan.

LAND BANKING

Issues

After startup, the SSCL's on-going role may be expanded in areas such as magnet research and related technologies. Although there is no scarcity of vacant land within the confines of the site, it would nevertheless be prudent to earmark parcels for facility expansion consistent with the nature of their districts or precincts. These parcels are effectively "banked" for future use.

Strategies

1. Banking should consider needs for future office, shop, conference and laboratory development, as components of a long-range (20-30 year) plan.

2. Parcels should be also be set aside for future parking needs, as well as amenities such as day care, visitor facilities, housing, recreation and leisure.

SERVICE AREAS

Issues

Service areas, although a necessary component of any building or complex, are often visually detrimental. Strategies should be developed to ameliorate these impacts.

Strategies

1. Locate service areas and loading docks away from entry courts, entrances and highly visible areas to lessen their impacts.

2. Use landscaping to screen or mitigate the impact of unsightly service areas.

Issues

The SSCL desires a campus with an attractive and accessible character. However, security remains an important issue, especially in areas containing hazardous materials or potentially dangerous fabrication or research activities.

Strategies

1. Security measures should be understated and covert.
2. Where possible, buildings should be open and freely accessible (at least visually) to the general public, with required security enhanced by building design.
3. Overt and intimidating security measures, such as guard posts at site entry points should be avoided.
4. Security should be provided at the buildings rather than at the site perimeter.
5. Internal spaces, such as lobbies, hallways and offices should be designed to read as public, semiprivate or private through configuration, material selection, lighting and signage, in order to reinforce other security measures.

Issues

Utility areas, like service areas are a necessary component of any building complex. Like service areas, they too present a number of visual problems with unsightly equipment. Noise emission may also be a factor.

Strategies

1. Utility areas should be located away from the campus core, as far from habitable areas as adjacency requirements permit.

2. Through the use of strategically designed architectural treatment consistent with other campus buildings, utility facilities can be better integrated into the natural and built environment.

3. Utility equipment and communication devices located on the grounds may require screening.

4. All utility lines, if possible, should be installed underground.

PRAIRIE RESTORATION

III.c.16

Issues

Tall grass prairies once stretched from Michigan and Ohio across the Midwest to the Dakotas and across Northern Texas. Nationally, less than one-tenth of one percent of the original blackland prairies remains intact. The destruction of the prairie has been accomplished primarily through agriculture and secondarily through urbanization in the SSCL campus area. The critically endangered little-bluestem Indian grass and imperiled gammergrass/switch grass both exist in these prairies. In addition, a micro-ecology of hogwallows and gilgai often appear in blackland prairies, and are threatened with extinction.

Strategies

1. An opportunity exists to return parts of the SSCL campus to blackland prairie. By designating an area within the campus for prairie restoration, the SSCL could provide a crucial natural resource to the Great Plains. For example, setting aside the approximately 815 acres within the HEB ring would increase the restored prairie inventory of Texas by 721%. This strategy is currently being employed at Fermilab, where 700 acres have already been restored and 1,500 additional acres are planned.

2. Follow the Texas state guidelines for prairie restoration.

3. Forbid any future development of any type within the area.

Issues

There are several buildings and building complexes of local, state or national architectural significance located in the area of the West Campus. Chief among these are the Dunaway House and the Boz Farming Complex as well as other structures. Each of these buildings is intimately tied to its site and derives much of its significance from its particular context. Local, state and national historic preservation groups are already expressing interest in monitoring the disposition of these buildings.

Strategies

1. The four buildings in the Boz Farming Complex date from approximately 1855. The buildings are in sound condition and offer the potential to be reused as either an Equestrian Center in conjunction with the Wheeler Cattle Ranch, a Farming Museum or a Visitors Center, among others.

2. The Dunaway House is in good physical condition and offers the potential to be reused as an Orientation Center for visiting scientists, a Social Center for SSCL staff or a Guest House for distinguished visitors.

3. Determine the most significant historic buildings on the West Campus site following local, Texas and national guidelines.

4. All campus facilities should be sited to preserve existing historic buildings and their physical relationship to each other and the landscape.

5. Develop a practical restoration program to retain and possibly reuse these buildings in situ.

6. Identify other historic buildings that may be moved if endangered.

IV. REGIONAL PLANNING

This chapter deals with issues of regional scale. Conditions and services that affect the SSCL site, Waxahachie and the rest of the County are addressed with strategies for their proposed resolution.

Regional Planning

1. Tourism
2. Transporation
3. Open Space
4. Earth Spoils
5. Wetlands and Ponds
6. Cattle Ranching
7. Agricultural Land Retetion
8. Scale

Issues

1. The SSCL education objectives require maximum tourist access to the SSCL campus without interfering with the research mission. It would be mutually beneficial to work with Ellis County to promote tourism for the entire county.

Strategies

1. Expand the program guidelines for the Visitor Center so that it can adequately and effectively deal with an anticipated 250,000 annual visitors.

2. Develop a comprehensive tourism program with Ellis County to encourage maximum benefits to both.

Issues

A comprehensive transportation system tying the SSCL campus to neighboring communities and Dallas/Fort Worth through buses, bike paths, train service and highways would help alleviate the anticipated problems of dramatically increased traffic in the area.

Strategies

1. Since it is likely many SSCL staff will live in Waxahachie and that many visiting scientists from other countries will not have cars, a shuttle bus service should be anticipated. The service could be run between the West Campus, through Waxahachie to the East Campus, Palmer and Ennis. The service could be used by the SSCL staff, residents, school children, and tourists visiting the SSCL. A viable shuttle bus service would decrease parking demands on the campus, reducing the number of parking spaces. Parking at in-town locations, particularly for tourists, would have to be increased.

2. Bike paths between the campus and town, on the campus itself and around the ring would be a useful amenity for residents and tourists.

3. Train service between Waxahachie and Fort Worth could be restored. This would be particularly valuable for handling the expected 250,000 annual tourists. Most will probably stay in Dallas/Fort Worth and make a day trip to the SSCL. Southern Pacific, the Waxahachie Chamber of Commerce and the SSCL could work together to promote this idea as a tourist package.

Issues

The preservation of open space will increasingly become an issue of vital concern in Ellis County. As development accompanies the SSCL, the impacts on open space will increase.

Strategies

1. Measures must be undertaken in both city and county level to prevent haphazard development. Areas of concern include highway design, parkways, sign ordinances, parcel size and setbacks, and "leapfrog" development.

EARTH SPOILS

Issues

There will be 1.2 million cubic yards of earth excavated from the SSC tunnels alone. To avoid the cost of exporting, alternative strategies should be investigated.

Strategies

1. Small scale projects that could re-use the earth include:

   a). Creation of an outdoor amphitheater for 3,000 people.

   b). Incorporating a major piece of environmental art that would incorporate spoils. The work of James Turrell and Michael Heizer were cited as examples of very large scale environmental art that might be appropriate to the mission and identity of the SSCL. This might be funded through a 1% for art program. These proposals deal only with a small portion of the excavated earth.

2. A broader plan needs to be developed for the remainder of the spoils. In order to maintain the integrity of the natural landscape, the distribution of spoils must be carefully planned to avoid creating incongruous berms, altering drainage patterns, or covering large areas of topsoil.

WETLANDS AND PONDS

IV.5

Issues

East and West Campus areas as well as E & F sites along the Ring, are crossed by many small streambeds and wetlands. These environments are home to numerous plants and animals and provide a vital link in the total area ecology.

Strategies

1. Follow Federal Guidelines regarding the retention of wetlands in order to prevent damage to the environment and costly mitigation procedures.

2. The creation of retention ponds for cooling at the F-sites provides an opportunity to augment recreational and aesthetic water resources in Ellis County. Depending on the methods chosen for construction of the ponds and filtering of water for cooling uses, aquatic plants and animals could establish micro-communities within the ponds. Additionally, the ponds could be used for recreational purposes depending on water treatment. In any case, the design of the ponds is crucial since it will have an aesthetic impact on the entire ring.

CATTLE RANCHING

IV.6

Issues

Cattle ranching is another key factor in the Texas economy. The opportunity exists on the SSCL Campus to retain this vital function.

Strategies

1. The Wheeler Ranch, located in the southwest corner of the West Campus, raises longhorn cattle. Careful site planning of campus buildings could enable this ranching activity to continue.

AGRICULTURAL LAND RETENTION

Issues

As development pressures increase in Ellis County due to the presence of the SSCL, the retention of prime agricultural land will become an issue of importance. The economic growth of North Central Texas has traditionally been linked to agriculture, and will continue to be in the future.

Strategies

1. The Master Plan for the campus and for Ellis County needs to address this as a key issue and insure that as much prime agricultural land as possible be retained. Of the prime land within the ring, most is located on the eastern half of the site.

SCALE

Issues

It is important to provide some means of understanding the scale of the SSC ring. Graphically it has been shown to encompass Manhattan or Dallas, but how can one comprehend the scale physically? How long would it take to walk, bike or drive around the ring? How high above the ground plane can one see the entire ring?

Strategies

1. The ring could be marked with thematic signs each time it is crossed by a road.
2. Observation towers could be built at regular intervals around the ring -- perhaps at E and F sites.
3. Bike paths and bridle paths could follow the ring.
4. The ring could be lighted with periodic beacons in order to be seen at night from the air.
5. An architectural or landscape device which reflects the scale of the ring should be considered.

V. IMPLEMENTATION

PROPOSALS FOR IMPLEMENTATION

V.1

Issues

The "vision" for the SSCL facility, its campus and environs is in the process of evolution. The qualitative component of this document begins to articulate the vision in order to form the basis for subsequent detailed design.

Strategies

1. The Draft Facilities Program document begins to establish design direction and standards. Design strategies and guidelines stated in this document should continue to evolve as directions and priorities are clarified.

2. Every architectural or planning commission should be developed in the context of the Architectural and Urban Design Guidelines.

DESIGN REVIEW BOARD

V.2

Issues

To ensure development of buildings and site consistent with the established "vision", by interpreting the design guidelines established during the programming and master planning processes.

Strategies

1. An Architectural Design Review Board could be established with authority to review architectural proposals for conventional buildings, to verify their conformity to the Master Plan and design guidelines, and to be a forum for recommendations to optimize site and building designs.

2. The Board could be composed of select SSCL executive personnel, staff, architects, and other parties to guide the character and quality of the campus and local environment.

3. Building designs should be reviewed at Conceptual/Schematic as well as later design stages. By means of early review, refinements and modifications can more easily be incorporated into final documents in a cost effective manner, permits the Board to affect design in its most formative stages.

ADAPTIVE REUSE

Issues

The constraints of a limited budget dictate the need for "recycling" of buildings which become redundant after startup. This process of adaptive reuse could provide the building stock for supplemental facilities at reduced architectural cost.

Strategies

1. The MAAS building, which will become redundant after startup, has already been identified as a candidate for adaptive reuse as warehousing. Other possible uses may be considered, preferably in the planning stages. These light include facilities outlined in the Supplemental Buildings section, such as the Visitors Center, Museum, Education Center or Recreation Center.

   An early determination of potential reuse can ensure compatible architectural design and siting.

2. The Heavy Works buildings, which become partly or wholly redundant after startup, may also provide opportunities for adaptive reuse of space, particularly at the IR areas. Upon completion of detector fabrication, thee large spaces could house conference facilities, or other supplemental amenities, such as a gymnasium.

SUPPLEMENTAL FUNDING

Issues

Alternate sources of funding for supplemental facilities outside of the baseline budget.

Strategies

1. The institutions listed below may provide additional funding for supplemental facilities, such as the Visitors Center, Day Care, Dormitories, Recreation Facilities and other amenities.

    State of Texas
    TNRLC
    Ellis County
    City of Waxahachie

2. Other sources might include: associated universities, for science and education related amenities; private foundations; citizens groups; private corporations; and endowments.

VI. GROUP SUMMARIES

The following summary charts and adjacency diagrams incorporate numerical and spatial data produced during a series of interviews conducted with each group leader between March 19th and July 13th, 1990

A breakdown of summary chart totals by building can be found in Section II.a.1, Lab Wide Summaries.

USE OF GROUP SUMMARY CHARTS

VI.

The group summary charts in the following section are organized by division. For each group, a function statement describes major activities, an adjacency diagram indicates key relationships between groups and areas, an organization chart shows group subdivisions, and the chart itself provides quantitative and locational information regarding personnel and facilities.

Personnel are organized by activity and role. Staff numbers are listed in the FTE (Full Time Equivalent) column.
Staff eliminated during the Management Review process are called out with notes.

The workstation type selected for each person and its assigned area are listed in the WSC and WSA columns respectively. The cumulative area for each position is listed in the NSF column, with subtotals and totals indicated in **BOLD**. Subtotals are Net Square Footage, and totals are expressed as Usable Square Feet with the 1.45 Circulation Factor applied to the NSF figure.

Total summaries are indicated on the top right corner of the page under Summary, where FTE and USF draft totals and the June baseline FTE information are available.

SUMMARY CHART CODES

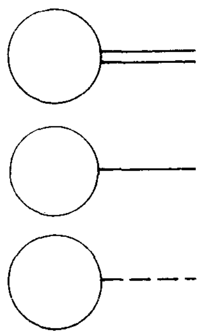
VI.

CODES

AW	Accelerator Warehouse
CF	Circulation Factor (1.45 x)
BASELINE	June 1990
FSEC	Fire Station East Campus
FSWC	Fire Station West Campus
FTE	Full Time Equivalent (Employees)
GSF	Gross Square Feet
IB	Instrument Building
IRL	Inspection and Repair Lab (L.T.S. ES&S)
LOC	Location
MAAS	Magnet Acceptance and Storage
MDL	Magnet Development Lab
M/E	Accelerator Systems Shop/Cyro Building
ML	Metrology Lab (L.T.S. ES&S)
MOB	Main Office Building
MOB/A	Main Office Building/Auditorium
MOB/CS	Main Office Building/Central Services

MOB/VC	Main Office Building/Visitors Center
MS	Machine Shop
MTL	Magnet Test Lab
NSF	Net Square Feet
PRI	Degree of Privacy; P= Private: Fully enclosed and acoustically isolated S= Semi-private: Partitioned, low walls O= Open: No walls, integral part of larger space
SS	Satellite Shop
STF	String Test Facility
USE	Use of amenity expressed as percentage of 40-hour week
USF	Usable Square Feet (NSF x CF)
WSA	Work Station Area - NSF for work station as per Appendix 2 space
WSC	Work Station Code; description of work space required as per Appendix 2

PHYSICAL ADJACENCIES

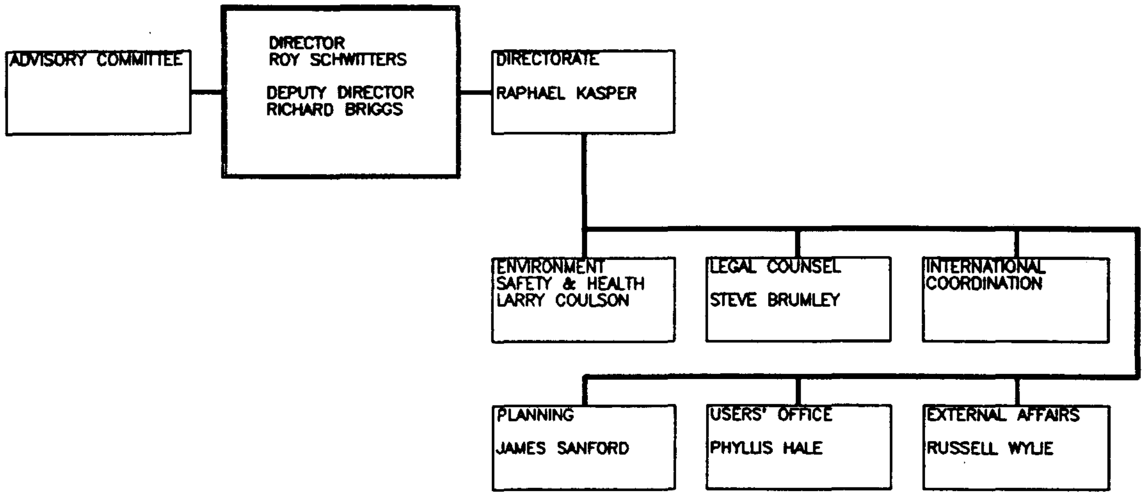


Primary Adjacency

Secondary Adjacency

Tertiary Adjacency

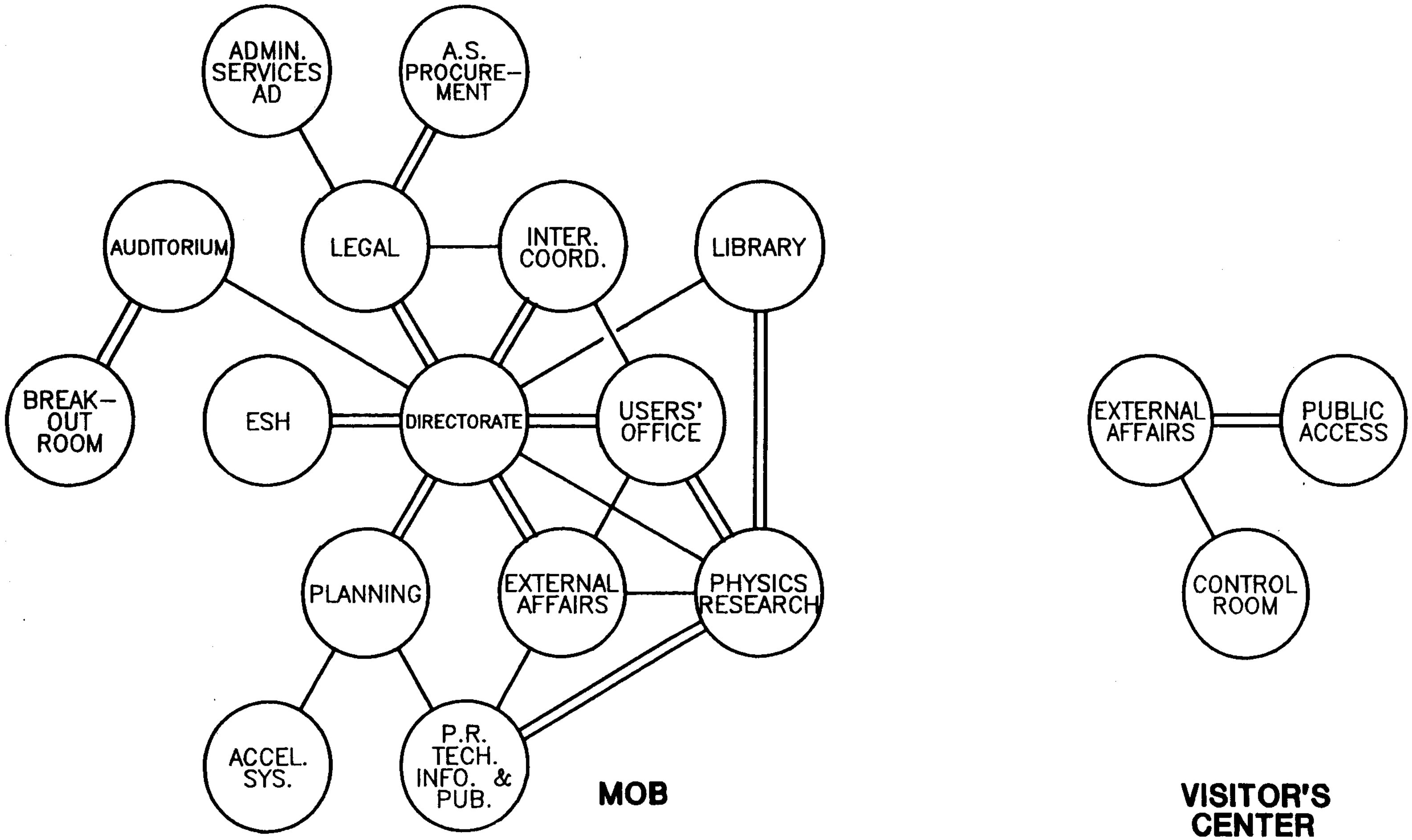
DIRECTORATE
GROUP SUMMARIES



SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

DIRECTORATE

ADJACENCIES



SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

DIRECTORATE

Directorate

The SSCL Directorate includes the Directorate Office, the Advisory Committees and Directorate groups which administer to the organizational needs of the SSCL. The Directorate, as an executive body, is responsible for the entire SSCL facility, in matters of safety, liability, productivity, education, and liaison with external groups. Collectively, the groups which comprise the Directorate are charged with the definition and development of the research program, the integration and close cooperation of all divisions, and representation of the SSCL to the public and international scientific community.

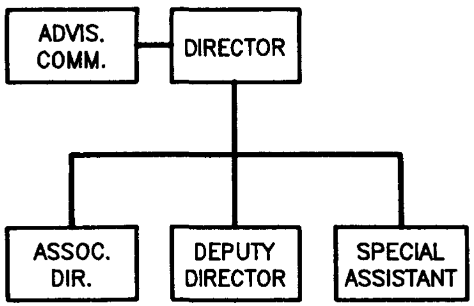
AREA BY BUILDING	MOB Personnel	MOB/CS Support	MOB/VC	MOB/A			USF	GSF
DIRECTORATE OFFICE	2,877	1,978					4,855	6,069
ENVIRONMENT, SAFETY & HEALTH	1,415	783					2,198	2,748
LEGAL COUNSEL	1,148	894					2,042	2,553
INTERNATIONAL COORDINATION	708						708	885
EXTERNAL AFFAIRS	1,566	901	5,786				8,253	10,316
PLANNING	638	73					711	889
USERS OFFICE	1,264	696					1,960	2,450
Subtotal	9,616	5,325	5,786				42,194	52,743
PERSONNEL BY BUILDING								FTE
DIRECTORATE OFFICE	12							12
ENVIRONMENT, SAFETY & HEALTH	9							9
LEGAL COUNSEL	7							7
INTERNATIONAL COORDINATION	4							4
EXTERNAL AFFAIRS	9		5					14
PLANNING	4							4
USERS OFFICE	6							6
Subtotal	51	0	5	0				56

Directorate Office

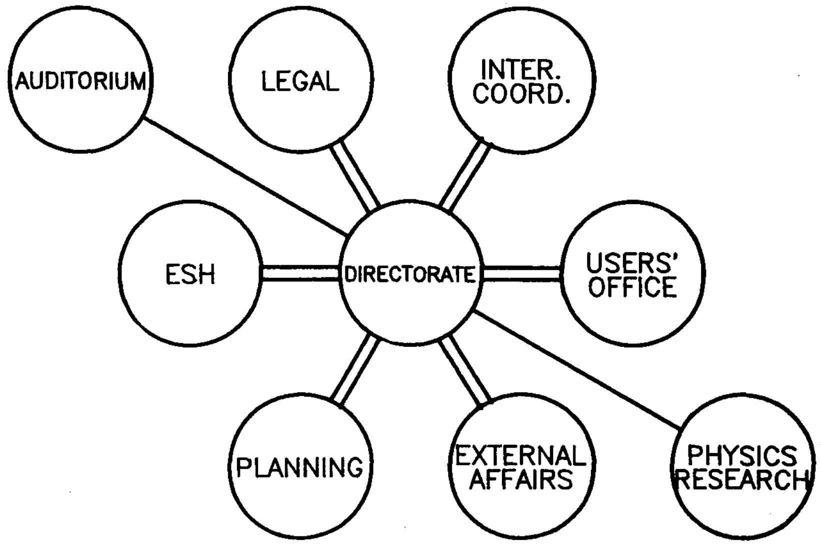
The SSCL Directorate Office includes the Laboratory Director, the Deputy Director, and their immediate staff. The Laboratory Director, through the Directorate Office, will be responsible for the full scope of the SSC laboratory's activities and operations. This includes all SSCL interfaces with DOE, other governmental bodies, the international scientific community, and the public. The director will be responsible for the definition of the research program, related areas of research development, pre-operations activities and on completion of construction, the establishment of the physics program and its integration with the operation of the accelerator system.

Reporting units to the Directorate Office include line organizations, advisory committees, and staff offices. Advisory committees will consist of four external groups which will convene occasionally at the SSCL. These include the Science Advisory Committee, Programs Advisory Committee, Citizens Advisory Committee, and Machine Advisory Committee.

ORGANIZATION



ADJACENCIES



MOB

SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

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DIRECTORATE
DIRECTORATE OFFICE: Raphael Kasper

SUMMARY	FTE	USF
Baseline	11	
Draft	12	4,855
Change	1	

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Advisory Committee		A2	80	P	160	MOB	1.
Director	1		400	P	400	MOB	2.,3.
Secretary	1	B2	80	P	80	MOB	4.
Special Assistant	1	C1	144	P	144	MOB	5.
Associate Director	1	C3	224	P	224	MOB	5.
Assistant	1	C1	144	P	144	MOB	6.,7.,8.
Secretary	2	B2	80	O	160	MOB	6.
Deputy Director	1	C3	224	P	224	MOB	
Secretary	1	B2	80	O	80	MOB	
Admin. Assistant	1	C1	144	P	144	MOB	
Senior Editor	1	C1	144	P	144	MOB	
Clerk	1	B1	80	O	80	MOB	4.
Subtotal	12				1,984		9.
USF (NSF X CF)					2,877		

SUPPORT AREAS	%USE	NSF	LOC	NOTES
Reception		500	MOB	1.
Conference Room H	100	504	MOB	2.,3.
Kitchenette		60	MOB	1.
Copy Center		150	MOB	
Filing Room		150	MOB	4.
Subtotal		1,364		
USF (NSF X CF)		1,978		

NOTES

1. Two offices for non-employee advisors/visitors.
2. Proximity to tele-conferencing room.
3. 4 x 8 white board.
4. Connecting door with Director.
5. 3 x 4 white board.
6. Adjacent to filing room.
7. Adjacent to reception area.
8. With small table.
9. Area includes one unstaffed office.

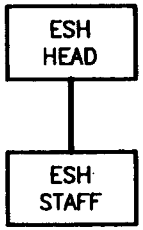
NOTES

1. Close to conference room.
2. Door to Director's office; adj. to kitchenette; adjacent to dining room.
3. Second row of seating against wall.
4. Secured; ten four drawer file cabinets.

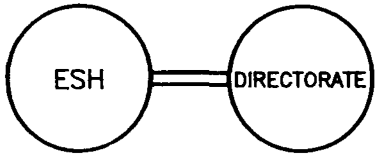
Environment Safety and Health

Primarily an oversight function of all SSC Laboratory activities, ES&H will assure the Director and DOE that the requirements of relevant DOE orders are followed and that all actions reflect appropriate concern for the Laboratory's impact on its neighbors and the local environment. The office will perform audits of the activities of the line organizations, this office will also be responsible for implementation of the National Environmental Policy Act (NEPA). Additional functions will include ongoing monitoring to ensure compliance with other environmental legislation and preparation of the annual environmental report to DOE.

ORGANIZATION



ADJACENCIES



MOB

SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

file: lc

DIRECTORATE
ENVIRONMENT SAFETY AND HEALTH: Larry Coulson

SUMMARY	FTE	USF
Baseline	9	
Draft	9	2,198
Change	0	

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Head	1	C4	168	P	168	MOB	1.
Assistant Head	1	C4	168	P	168	MOB	1.,2.
Admin. Assistant	1	B2	80	O	80	MOB	1.
Secretary	1	B2	80	O	80	MOB	
Physicist	1	B3	96	P	96	MOB	
Industrial Safety Sup.	1	B3	96	P	96	MOB	
Industrial Hygenist	1	B3	96	P	96	MOB	
Fire Protection Eng.	1	B3	96	P	96	MOB	
Environmental Eng.	1	B3	96	P	96	MOB	
Subtotal	**9**				**976**		
USF (NSF X CF)					**1,415**		

SUPPORT AREAS	%USE	NSF	LOC	NOTES
Conference Room F	33	80	MOB	1.
Regulations Library		120	MOB	2.
Storage		240	MOB	3.
Copy Center		100	MOB	
Subtotal		**540**		
USF (NSF X CF)		**783**		

NOTES

1. Four drawer file cabinet.
2. 3 x 4 white board.

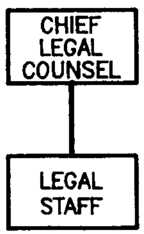
NOTES

1. Shared; NSF reflects percentage of conference room area proportionate to use.
2. Semi-open; small table; reference table; 4'x6'x18" cabinet.
3. Four 4' storage cabinets in Admin. area.

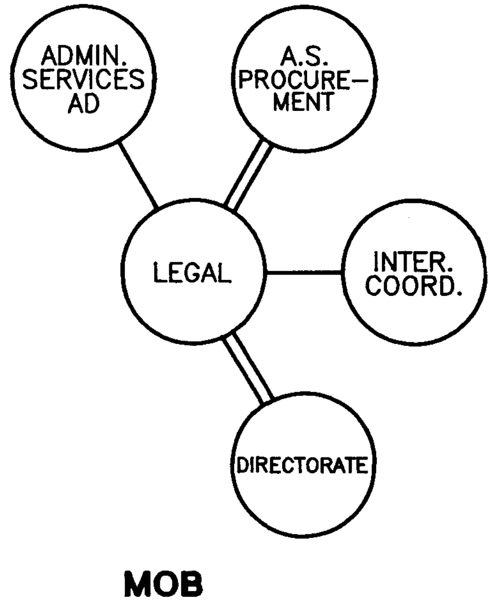
Legal Counsel

Legal Counsel will represent and advise the Laboratory Director, or other management as appropriate, in the legal aspects of all matters relating to the operation of the SSC Laboratory. Such advice will be given on a preventive law basis. Legal Counsel will interpret federal and state laws, regulations, rulings, and other pronouncements of governmental agencies and decisions of federal and state courts with pertinent boards as they affect SSCL's operations and contracts with DOE and with subcontractors. Specific areas of concern will be procurement and contract activities; copyright, patent, and licensing activities; organized labor developments; and other legal developments that affect human resources. Legal oversight of these specific areas will either be through expert staff lawyers or outside attorneys maintained under contract as the level of activities dictate.

ORGANIZATION



ADJACENCIES



SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

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DIRECTORATE
LEGAL COUNSEL: Steve Brumley

SUMMARY	FTE	USF
Baseline	3	
Draft	7	2,042
Change	4	

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Chief Legal Counsel	1	C4	168	P	168	MOB	1.
Staff Attorney	2	C1	144	P	288	MOB	1.
Procurement Officer							2.
Admin. Assistant	1	A3	96	S	96	MOB	
Secretary	3	B2	80	O	240	MOB	
Subtotal	**7**				**792**		
USF (NSF X CF)					**1,148**		

SUPPORT AREAS	%USE	NSF	LOC	NOTES
Conference Room F	33	80	MOB	1.
Legal Library		400	MOB	2.
File Area		36	MOB	3.
Copy Center	100	100	MOB	
Subtotal		**616**		
USF (NSF X CF)		**893**		

NOTES

1. 3 x 4 white board.
2. Eliminated in Management Review.

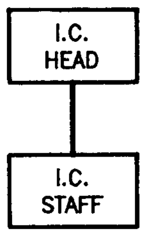
NOTES

1. Shared; NSF reflects percentage of conference room area proportionate to use.
2. Government Contracts Library or CD ROM w/ terminal & CD ROM reader.
3. Four 4 drawer cabinets x 36" wide.

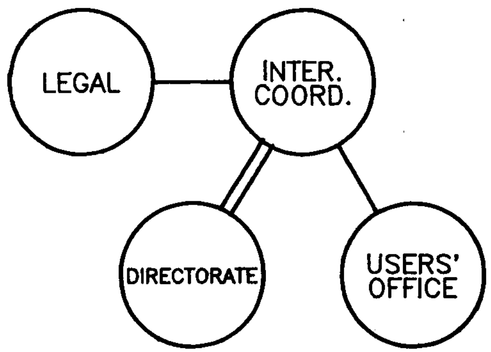
International Coordination

International Coordination will be responsible for coordinating the complex needs of the international aspects of the Laboratory's programs. These include negotiations for contributions in kind of accelerator systems and detector components, preparation of exchange agreements with foreign groups, and maintaining communications with the international high energy physics community and their support agencies.

ORGANIZATION



ADJACENCIES



MOB

SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

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DIRECTORATE
INTERNATIONAL COORDINATION

SUMMARY	**FTE**	**USF**
Baseline	3	
Draft	4	708
Change	1	

PERSONNEL	**FTE**	**WSC**	**WSA**	**PRI**	**NSF**	**LOC**	**NOTES**
Head	1	C4	168	P	168	MOB	
Staff Specialist	1	C1	144	P	144	MOB	
Admin. Assistant	1	B3	96	O	96	MOB	
Secretary	1	B2	80	O	80	MOB	
Subtotal	**4**				**488**		
USF (NSF X CF)					**708**		

SUPPORT AREAS	**%USE**	**NSF**	**LOC**	**NOTES**

NOTES

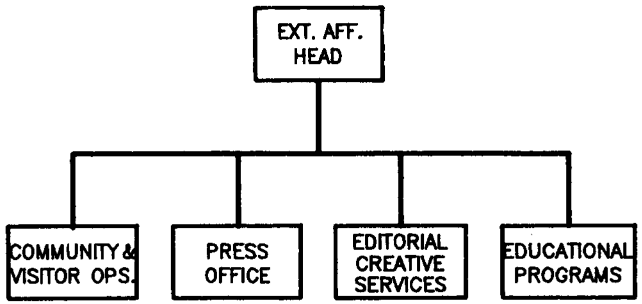
NOTES

External Affairs

External Affairs is the public relations arm of the SSCL and is responsible for presenting its story to the general public as well as the scientific community.

External Affairs will liaise with all communications media, organize exhibits, coordinate teacher training and physics school programs.

ORGANIZATION



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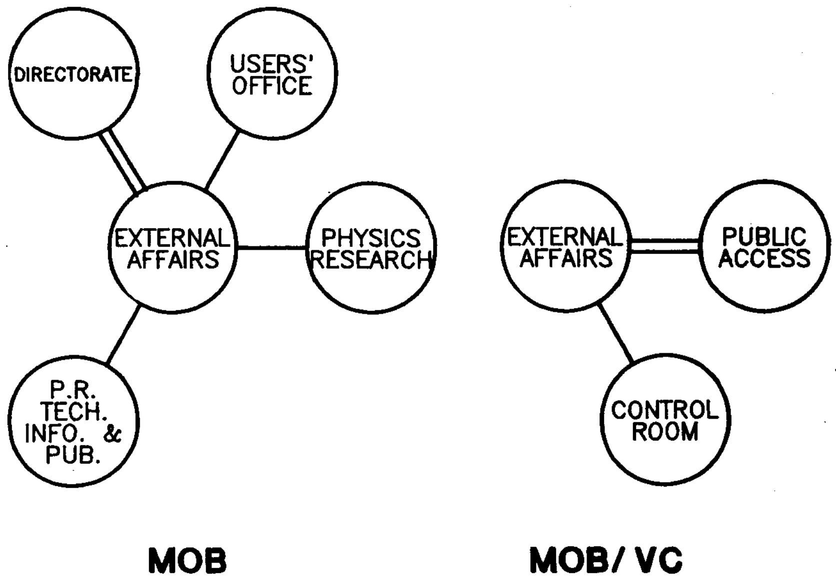

SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

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DIRECTORATE
EXTERNAL AFFAIRS: Russell Wylie

SUMMARY	**FTE**	**USF**
Baseline	8	
Draft	14	8,253
Change	6	

PERSONNEL	**FTE**	**WSC**	**WSA**	**PRI**	**NSF**	**LOC**	**NOTES**
Head	1	C4	168	P	168	MOB	1.
Secretary	1	B2	80	O	80	MOB	
Press Office							
Senior Press Officer	1	C1	144	P	144	MOB	2.
Secretary	1	B2	80	O	80	MOB	
Writer							3.
Elec. Comm. Specialist							3.
Edit. & Creative Services							
Manager	1	C2	168	P	168	MOB	
Secretary	1	B2	80	O	80	MOB	
Editor of Pubs.	1	C4	168	P	168	MOB	
Writer	1	B3	96	P	96	MOB	3.
Senior Writer	1	B3	96	P	96	MOB	

SUPPORT AREAS	**%USE**	**NSF**	**LOC**	**NOTES**
Museum (10,000 SF)				1.
Conference Room H	50	252	MOB	2.
Conference Room F	100	240	MOB	
Copy Center		50	MOB	
Waiting Area		80	MOB	3.

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Education Programs							
Manager	1	C1	144	P	144	MOB/VC	4.
Secretary	1	B2	80	O	80	MOB/VC	
Curriculum Specialist	1	B3	96	S	96	MOB/VC	
Program Specialist							3.
Visiting Teacher Office		B3	96	S	96	MOB/VC	5.
Community & Visitors Ops.							
Manager	1	C1	144	P	144	MOB/VC	
Secretary	1	B2	80	O	80	MOB/VC	
Subtotal	**14**				**1,720**		6.
USF (NSF X CF)					**2,494**		

SUPPORT AREAS	%USE	NSF	LOC	NOTES
Classrooms (24 x 25 SF/p)	(4)	2,400	MOB/VC	
Conference Room F	100	240	MOB/VC	
Storage (Ed Programs)		200	MOB/VC	
Storage (Information)		200	MOB/VC	
Copy Machine	50	50	MOB/VC	2.
Kitchenette		60	MOB/VC	
Store		200	MOB/VC	
Subtotal		**3,972**		
USF (NSF X CF)		**5,759**		

NOTES

1. Cable TV plug.
2. Two storage cabinets; table.
3. (1) Eliminated in Management Review.
4. Close to class rooms.
5. Share office.
6. Area includes one unstaffed office.

NOTES

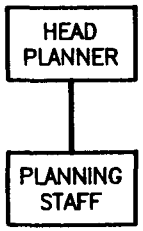
1. Eliminated in management review.
2. Shared; NSF reflects percentage of conference room area proportionate to use.
3. Adjacent to secretary.

Planning

Planning will have responsibility for developing and coordinating the long-range plans and activities of the SSC Laboratory for the Director. The major activity will be the planning and coordination of the experimental program, modifications and growth of the facilities.

In addition, the office will be responsible for preparing the institutional plan for the DOE. Planning will program the use of the collider facilities for a diverse range of users at a lab wide level.

ORGANIZATION



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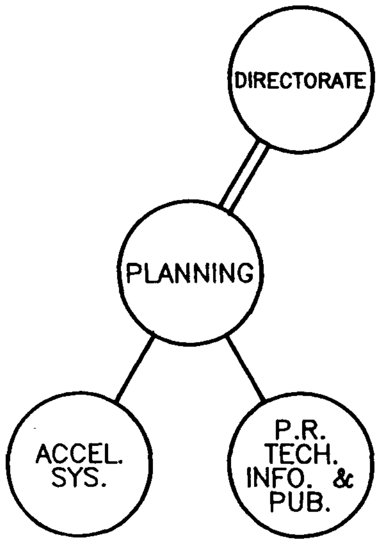


MOB

SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

file: js

DIRECTORATE
PLANNING: James Sanford

SUMMARY	FTE	USF
Baseline	4	
Draft	4	711
Change	0	

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Head	1	C4	168	P	168	MOB	1.,2.
Budget/Cost Analyst	1	B3	96	S	96	MOB	3.,4.
Schedule Analyst	1	B3	96	S	96	MOB	3.,4.
Secretary	1	B2	80	O	80	MOB	
Subtotal	**4**				**440**		
USF (NSF X CF)					**638**		

SUPPORT AREAS	%USE	NSF	LOC	NOTES
Copy Center		50	MOB	1.
Subtotal		**50**		
USF (NSF X CF)		**73**		

NOTES

1. 3 x 4 white board.
2. Two four drawer lateral files.
3. 4 x 6 white board.
4. Consider two terminals per office.

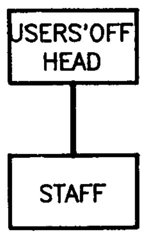
NOTES

1. Area can be added to Directorate's copy center; include plotter.

Users Office

The Users Office will serve as a focal point for interaction with the SSC Laboratory's international high energy physics user community, which will be composed primarily of physicists from outside the Laboratory. The Users Office will organize workshops to study various topics of physics interest.

ORGANIZATION



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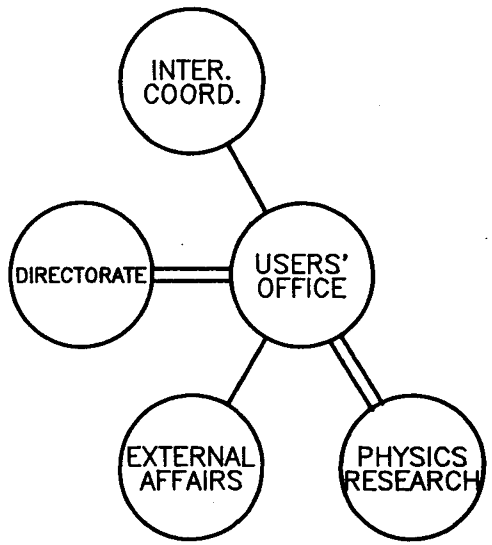


MOB

SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

file: ph

DIRECTORATE
USERS OFFICE: Phyllis Hale

SUMMARY	**FTE**	**USF**
Baseline	4	
Draft	6	1,960
Change	2	

PERSONNEL	**FTE**	**WSC**	**WSA**	**PRI**	**NSF**	**LOC**	**NOTES**
Head	1	C4	168	P	168	MOB	1.
Secretary	2	B2	80	O	160	MOB	
Systems Analyst	1	B2	80	S	80	MOB	
Data Entry Clerk	1	B2	80	S	80	MOB	
User Services Coord.	1	A3	96	P	96	MOB	2.
Visitor Office (2)		B2	80	S	160	MOB	3.
Visitor Office (2)		B1	64	S	128	MOB	3.
Subtotal	**6**				**872**		4.
USF (NSF X CF)					**1,264**		

SUPPORT AREAS	**%USE**	**NSF**	**LOC**	**NOTES**
Conference Room F	33	80	MOB	1.
File Area		180	MOB	2.
Copy Center		100	MOB	3.
Reception Area		120	MOB	4.
Break-out Room				5.
Subtotal		**480**		
USF (NSF X CF)		**696**		

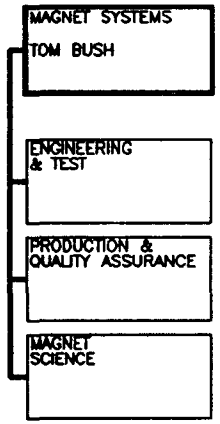
NOTES

1. 3 x 4 white board.
2. One file cabinet.
3. Visitors not included in campus population figures.
4. Area includes 4 unstaffed offices.

NOTES

1. Shared; NSF reflects percentage of conference room area proportionate to use.
2. 20 four drawer file cabinets.
3. Printer; paper cutter.
4. Table, couch, area for social interaction.
5. 6-10 breakout rooms for 25-50 persons each; soundproof. (Area counted in Central Services. See Summaries 5 & 6)

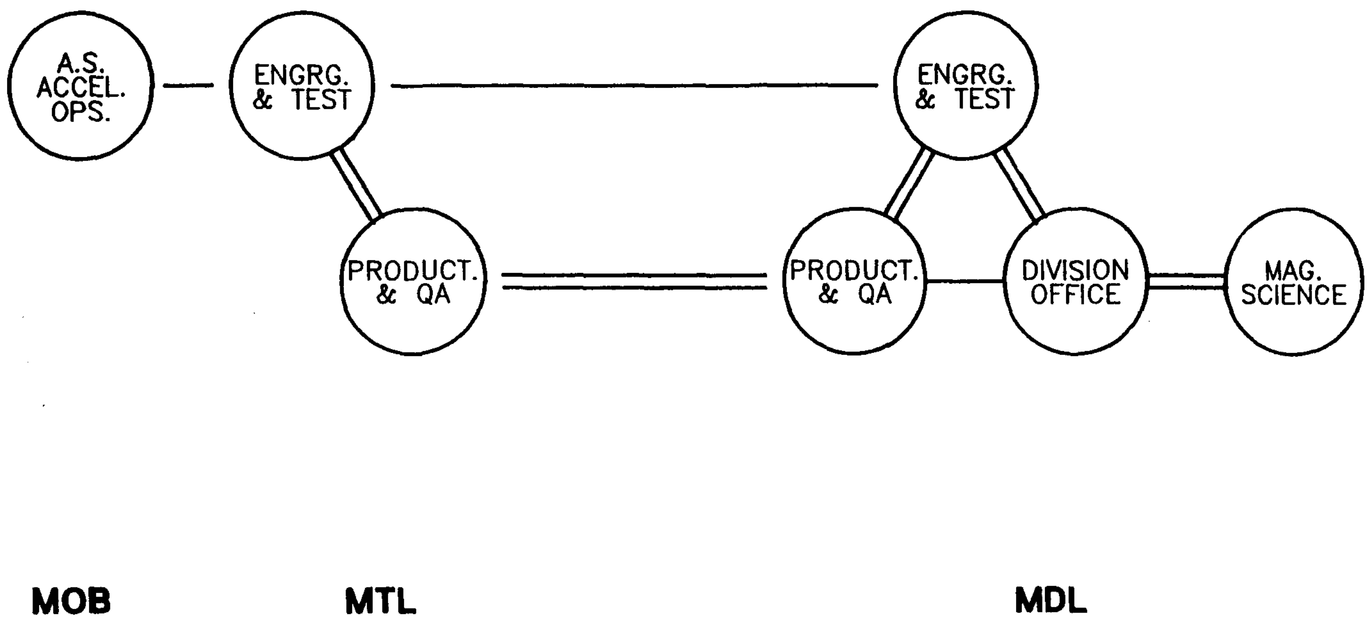
MAGNET SYSTEMS DIVISION
GROUP SUMMARIES



SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

MAGNET SYSTEMS

ADJACENCIES



Magnet Systems Division

The Magnet Systems Division will be responsible for the production, testing, engineering and quality assurance of all magnets, retrofits and new prototypes for the collider ring. The division, in addition to managing technical activities, budgets and contracts, also provides a scientific and theoretical component through staff physicists and visiting scientists who conduct research on magnet technology. The Magnet Systems Division works closely with the Accelerator Systems Division to ensure optimum collider effectiveness for ongoing physics research.

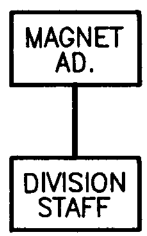
AREA BY BUILDING	**MOB** Personnel	**MOB/CS** Support	**MTL**	**MDL**	**MAAS**			USF	GSF
MAGNET SYSTEMS									
Division Office	1,137	754						1,891	2,364
Engineering & Test			101,535	2,993				104,528	130,660
Production & Quality Assurance			244	78,734	36,000			114,978	143,723
Magnet Science	348							348	435
Subtotal	1,485	754	**101,779**	**81,727**	**36,000**			221,745	277,181

PERSONNEL BY BUILDING									FTE
MAGNET SYSTEMS									
Division Office	8								8
Engineering & Test			31	19					50
Production & Quality Assurance			11	54					65
Magnet Science	2								2
Subtotal	10	0	**42**	**73**	**0**				125

Division Office

The Magnet Systems Division Office is responsible for the management of all budgets and contracts for the Magnet Systems Division.

ORGANIZATION



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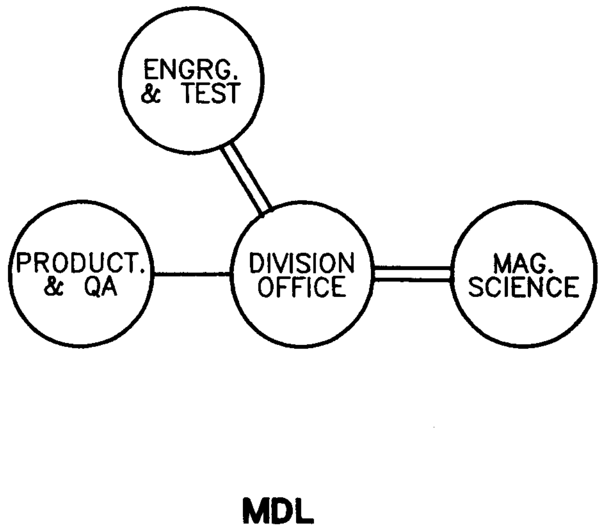

SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

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MAGNET SYSTEMS
DIVISION OFFICE: Tom Bush

SUMMARY	FTE	USF
Baseline	8	
Draft	8	1,891
Change	0	

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Division Head	1	C3	224	P	224	MDL	
Secretary	1	B2	80	O	80	MDL	
Cost/Schedule Analysts	3	B2	80	S	240	MDL	
Admin. Assistant	1	B2	80	S	80	MDL	
Clerk	1	B1	64	S	64	MDL	
Business Manager	1	B3	96	S	96	MDL	
Subtotal	**8**				**784**		
USF (NSF X CF)					**1,137**		

NOTES

SUPPORT AREAS	%USE	NSF	LOC	NOTES
Conference Room F	100	240	MDL	
Reception Area		80	MDL	
Copy Center		100	MDL	
Workroom		100	MDL	1.
Subtotal		**520**		
USF (NSF X CF)		**754**		

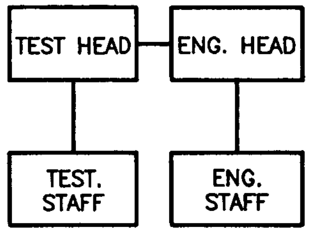
NOTES

1. Eight lateral files.

Engineering & Test

The Engineering group will be responsible for the retrofit of tunnel magnets, analysis of failure modes, and magnet upgrades. The Test group will program, execute and analyze magnet tests on a ongoing basis, as well as testing new magnet prototypes.

ORGANIZATION



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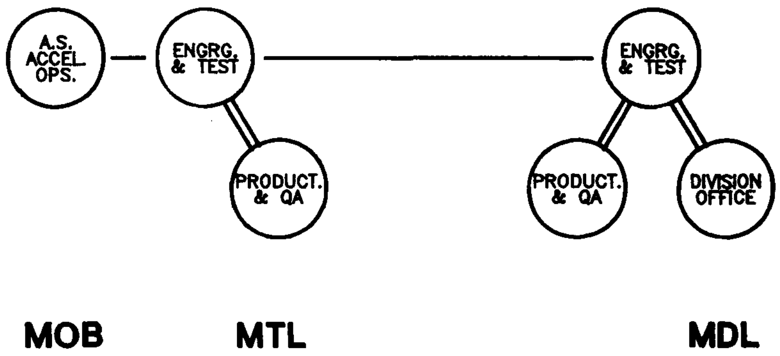

SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

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MAGNET SYSTEMS
ENGINEERING & TEST

SUMMARY	FTE	USF
Baseline	50	
Draft	50	104,528
Change	0	

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Test							
Group Leader	1	C4	168	P	168	MTL	
Test Operations Leader	1	C4	168	P	168	MTL	
Test Analyst/Data Mgr.	1	C1	144	P	144	MTL	
Physicist	2	D7	120	S	240	MTL	
Systems Programmer	1	D7	120	S	120	MTL	
Receptionist	1	B2	80	O	80	MTL	
Data Aide	1	D2	100	O	100	MTL	
Technician	11					MTL	1.
Engineering							
Head	1	C4	168	P	168	MDL	
Manager	3	C4	168	P	504	MDL	
Secretary	2	B2	80	O	160	MDL	
Engineer	12	A3	96	P	1152	MDL	
Spec. Writer	1	A2	80	S	80	MDL	
Technician	3					MTL	1.
Draftsmen	5	B2	80	S	400	MTL	
Change Controller	1	B2	80	S	80	MTL	
Programmer	2	A3	96	S	192	MTL	
Document Controller	1	A2	80	S	80	MTL	
Subtotal	**50**				**3,836**		
USF (NSF X CF)					**5,562**		

SUPPORT AREAS	%USE	NSF	LOC	NOTES
Conference Room F	100	240	MTL	
Library/File		160	MTL	1.
Copy Center		100	MTL	
Reception/ Lobby		500	MTL	
Peripheral Server		100	MTL	
Computer Room		625	MTL	
Break/ Lunch Room		500	MTL	
Subtotal		**2,225**		
USF (NSF X CF)		**3,226**		
MTL Technical/Lab/Shop (USF)		**95,740**	MTL	2.,3.,4.

NOTES
1. Area counted in MTL Technical/Lab/Shop total.

NOTES
1. Bookcases and three lateral files.
2. See appendix for preliminary layout.
3. Based on preliminary layout area noted as technical, lab, or shop space of 119,675 GSF divided by grossing factor of 1.25.
4. Total MTL area of 127,224 GSF exceeds RD figure of 73,500 GSF for MTL, Pump House and Cryo. Fac.

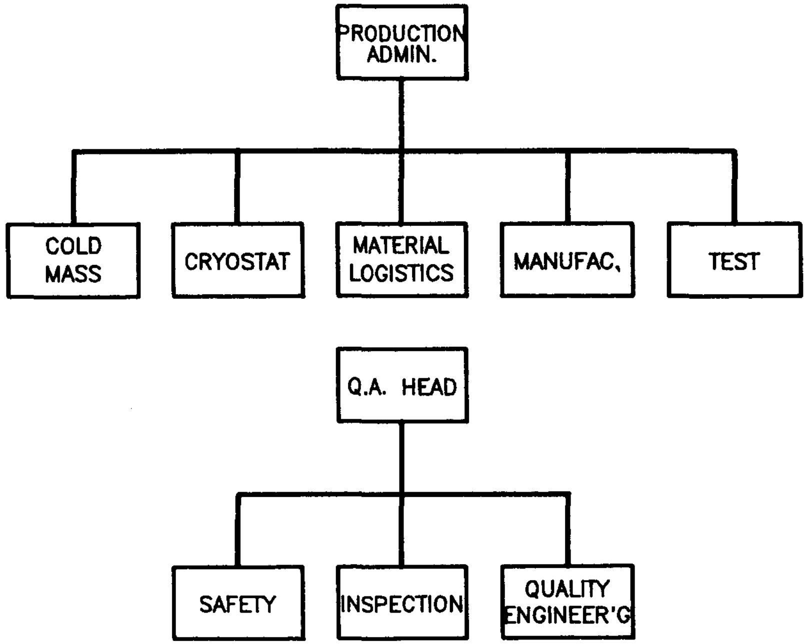
SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

MAGNET SYSTEMS
PRODUCTION & QUALITY ASSURANCE

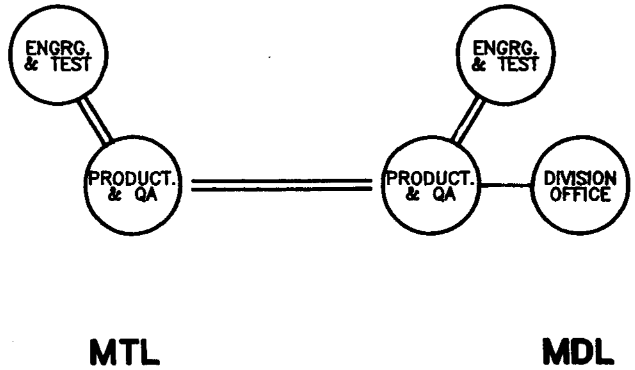
Production & Quality Assurance

Production will conduct research and development for the Magnet Division. They will also be responsible for the production of new magnet prototypes, and repair of collider ring magnets as necessary. The Quality Assurance group will have the ongoing responsibility of insuring that all new magnets introduced into the collider ring are operational.

ORGANIZATION



ADJACENCIES



SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

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MAGNET SYSTEMS
PRODUCTION & QUALITY ASSURANCE

SUMMARY	FTE	USF
Baseline	65	
Draft	65	114,978
Change	0	

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Production							
Administration							
Manager	2	C4	168	P	336	MDL	
Secretary	2	B2	80	S	160	MDL	
Cold Mass							
Manager	1	C4	168	P	168	MDL	
Engineer	7	B3	96	S	672	MDL	
Tool Designer	3	D2	100	S	300	MDL	
Cryostat							
Manager	1	C4	168	P	168	MDL	
Engineer	5	B3	96	S	480	MDL	
Material Logistics							
Shipping Receiving	2					MDL	1.
Manufacturing							
Manager	1	C4	168	P	168	MDL	
Supervisor	3	B3	96	S	288	MDL	
Nurse	1	C1	144	P	144	MDL	2.
Technician	20					MDL	1.
Test							
Manager	1	C4	168	P	168	MTL	
Technician	10					MTL	3.

SUPPORT AREAS	%USE	NSF	LOC	NOTES
Conference Room F	100	240	MDL	
Conference Room G	100	420	MDL	
Copy Center	(2)	200	MDL	
Filing		360	MDL	1.
Lobby/Reception		500	MDL	
Plotting Room		420	MDL	2.
Checking Room		200	MDL	3.
Break/Lunch Room		500	MDL	

PRODUCTION & QUALITY ASSURANCE

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Quality Assurance							
Head	1	C4	168	P	168	MDL	
Safety							
Engineer	1	B3	96	S	96	MDL	4.
Inspection							
Technician	3					MDL	1.
Quality Engineering							
Quality Control Eng.	1	B2	80	S	80	MDL	
Subtotal	**65**				**3,396**		
USF (NSF X CF)					**4,924**		

SUPPORT AREAS	%USE	NSF	LOC	NOTES
Subtotal		**2,840**		
USF (NSF X CF)		**4,118**		
MDL Technical/Lab/Shop (USF)		**69,936**	MDL	4.,5.,6.
Magnet Accept. & Storage (USF)		**36,000**	MAAS	7.

NOTES

1. Area counted in MDL Technical/Lab/Shop total.
2. Bed; files; desk.
3. Area counted in MTL Technical/Lab/Shop total.
4. Protective Services personnel (Safety Services).

NOTES

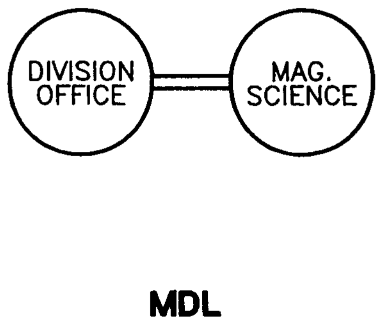
1. Ten Lateral Files.
2. Three flat file stacks; four plotters.
3. Two tables 30"x60".
4. See appendix for preliminary layout.
5. Based on preliminary layout area noted as technical, lab or shop space of 87,420 GSF divided by grossing factor of 1.25.
6. Total MDL area of 102,159 GSF is lower than RD figure of 105,500 GSF.
7. Based on RD figure of 45,000 GSF divided by grossing factor of 1.25.

Magnet Science

The Magnet Science group consists of visiting scientists working on special problems for a fixed period of time. They will give talks, write papers, and may or may not be on the SSCL payroll.

ORGANIZATION

ADJACENCIES



SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

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MAGNET SYSTEMS
MAGNET SCIENCE: Tom Bush

SUMMARY	FTE	USF
Baseline	2	
Draft	2	348
Change	0	

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Magnet Scientist	2	B2	80	P	160	MDL	1.
Visitor Office		B2	80	P	80	MDL	1.
Subtotal	**2**				**240**		2.
USF (NSF X CF)					**348**		

SUPPORT AREAS	%USE	NSF	LOC	NOTES
Subtotal		**0**		
USF (NSF X CF)		**0**		

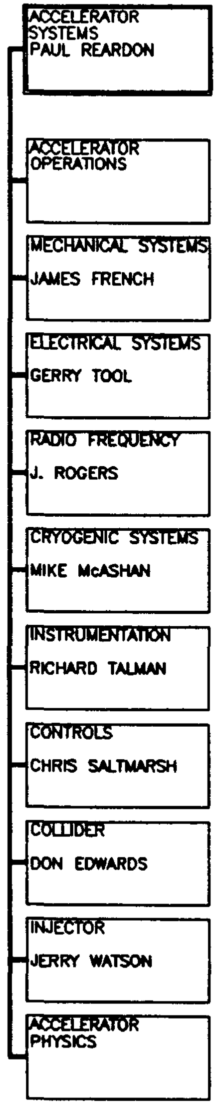
NOTES

1. Close to Division Office.
2. Area includes one unstaffed office.

NOTES

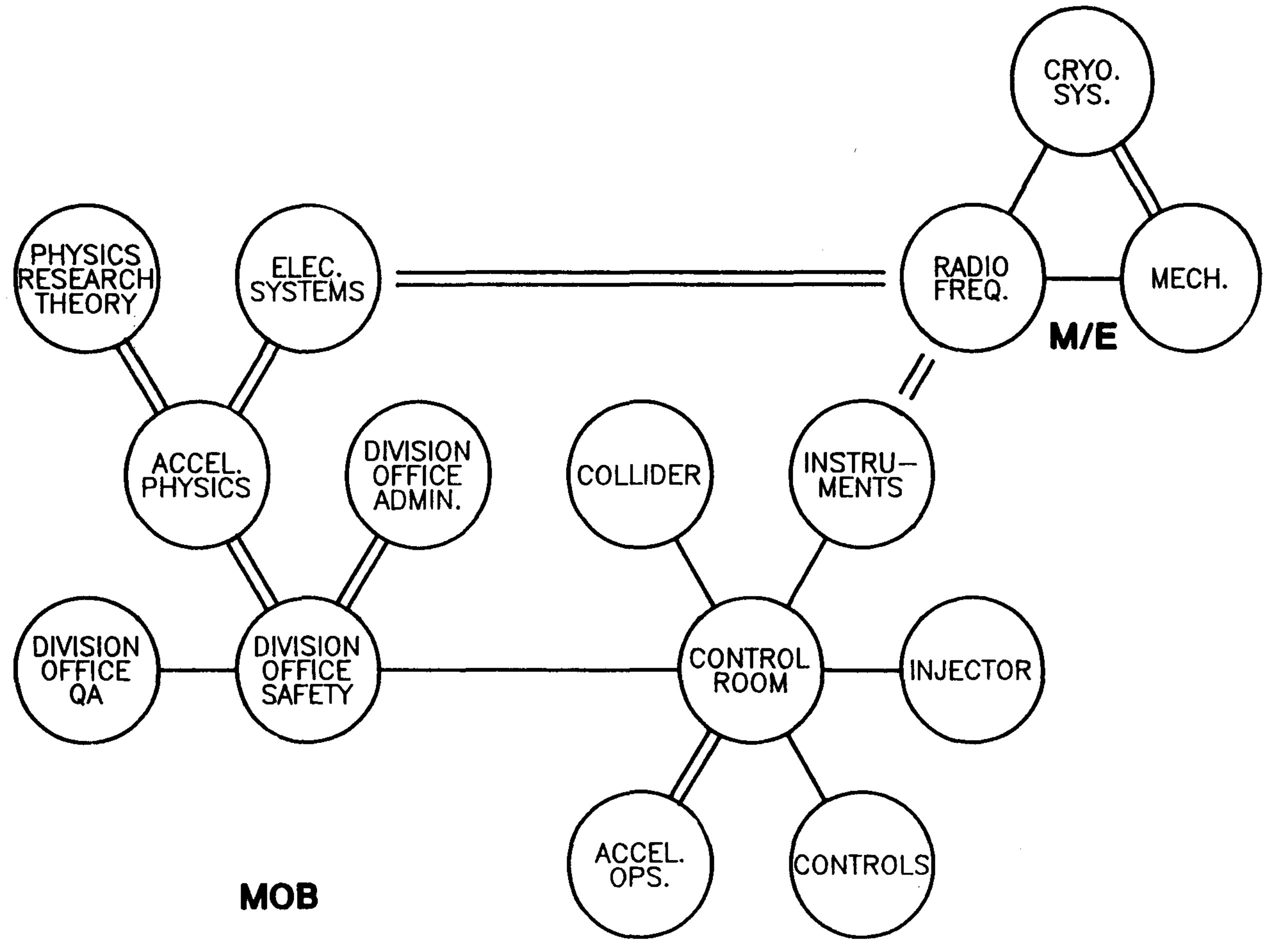
ACCELERATOR SYSTEMS DIVISION

GROUP SUMMARIES



ACCELERATOR SYSTEMS

ADJACENCIES



SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

ACCELERATOR SYSTEMS

Accelerator Systems Division

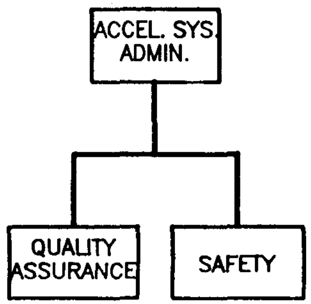
The Accelerator Systems Division is primarily responsible for the running and performance of the accelerator. This includes all electrical, cryogenic, mechanical and radio systems that are involved in the operation of the injector and the accelerator. The focal point for the division is the control room, where all operational systems are monitored. A scientific component composed of theoretical physicists is concerned with the design and analysis of accelerator developments and changes.

AREA BY BUILDING	MOB Personnel	MOB/CS Support	M/E	STF	AW	USF	GSF
ACCELERATOR SYSTEMS							
Division Office	7,494	3,016				10,510	13,138
Accelerator Operations	1,218	28,826				30,044	37,555
Mechanical Systems			51,608	15,744	16,000	83,352	104,190
Electrical Systems	10,249					10,249	12,811
Radio Frequency			3,932			3,932	4,915
Cryogenic Systems			4,982			4,982	6,228
Instrumentation	4,512					4,512	5,640
Controls	8,062					8,062	10,078
Collider	3,956					3,956	4,945
Injector	5,614					5,614	7,018
Accelerator Physics	2,134					2,134	2,668
Subtotal	43,239	31,842	60,522	15,744	16,000	167,347	209,184
PERSONNEL BY BUILDING							FTE
ACCELERATOR SYSTEMS							
Division Office	50						50
Accelerator Operations	8	46					54
Mechanical Systems			108				108
Electrical Systems	82						82
Radio Frequency			40				40
Cryogenic Systems			89				89
Instrumentation	35						35
Controls	63						63
Collider	27						27
Injector	38						38
Accelerator Physics	14						14
Subtotal	317	46	237	0	0		600

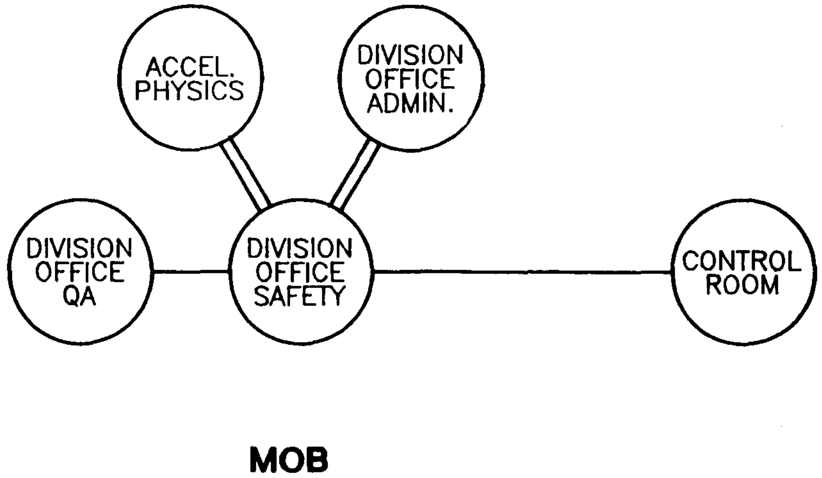
Division Office

The primary function of the Division Office group is to implement and coordinate economic as well as safety and quality assurance procedures amongst the entire Accelerator Systems Division.

ORGANIZATION



ADJACENCIES



SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

file: pr

ACCELERATOR SYSTEMS
¯¯'SION OFFICE: Paul Reardon

SUMMARY	FTE	USF
Baseline	50	
Draft	50	10,510
Change	0	

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Administration							
Associate Director	1	C3	224	P	224	MOB	
Manager	3	C4	168	P	504	MOB	
Engineer	5	B3	96	P	480	MOB	
Physicist	2	B3	96	P	192	MOB	
Clerk	3	B1	64	S	192	MOB	
Admin. Assistant	4	B2	80	S	320	MOB	
Quality Assurance							
Engineer	4	C4	168	P	672	MOB	
Technician	8	B3	96	S	768	MOB	
Admin. Assistant	1	D1	80	S	80	MOB	
Clerk	1	B2	80	S	80	MOB	
Safety							
Manager	1	C4	168	P	168	MOB	
Engineer	4	B3	96	P	384	MOB	
Physicist	4	B3	96	P	384	MOB	
Technician	8	B2	80	S	640	MOB	
Admin. Assistant	1	B2	80	S	80	MOB	
Subtotal	**50**				**5,168**		
USF (NSF X CF)					**7,494**		

SUPPORT AREAS	%USE	NSF	LOC	NOTES
Conference Room E	100	196	MOB	1.
Conference Room F	100	240	MOB	1.
Conference Room H	100	504	MOB	1.
File Area		720	MOB	1.
Copy Center	(3)	300	MOB	1.
Kitchenette	(2)	120	MOB	1.
Subtotal		**2,080**		
USF (NSF X CF)		**3,016**		

NOTES

NOTES

1. Areas to be shared among Accel. Div. depts. in MOB.

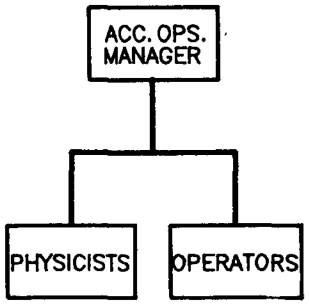
SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

ACCELERATOR SYSTEMS
ACCELERATOR OPERATIONS

Accelerator Operations

The Accelerator Operations group operates the control room and is responsible for the running and performance of the accelerator. It also controls entry and access of personnel and materials to the ring.

ORGANIZATION



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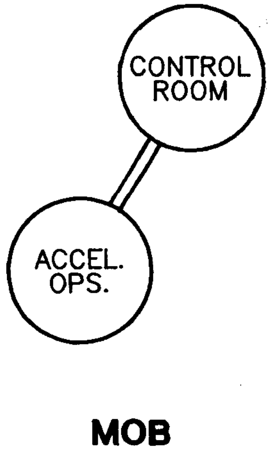


SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

file: ao

ACCELERATOR SYSTEMS
ACCELERATOR OPERATIONS

SUMMARY	FTE	USF
Baseline	54	
Draft	54	30,044
Change	0	

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Manager	1	C4	168	P	168	MOB	1.
Physicist	6	B3	96	P	576	MOB	1.
Clerk	1	B3	96	P	96	MOB	1.
Operator	46					MOB	2.
Subtotal	**54**				**840**		
USF (NSF X CF)					**1,218**		

SUPPORT AREAS	%USE	NSF	LOC	NOTES
Control Room		6,400	MOB	1.
Operators Area		10,000	MOB	
Computer Room		3,480	MOB	
Subtotal		**19,880**		
USF (NSF X CF)		**28,826**		

NOTES

1. Offices located in Control Room; office area counted in addition to Control Room area.
2. Area counted in Operations Area total.

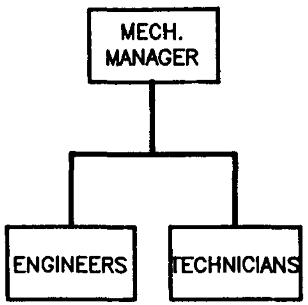
NOTES

1. Public viewing gallery.

Mechanical Systems

The Mechanical Systems group is responsible for the repair and maintenance of the conventional injector magnets, spool pieces, vacuum systems, water systems and structural components, as weell as surveying and aligning all magnets in the system.

ORGANIZATION



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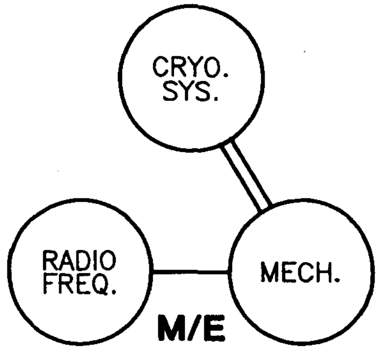


SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

file: jf

ACCELERATOR SYSTEMS
MECHNICAL SYSTEMS: James French

SUMMARY	FTE	USF
Baseline	108	
Draft	108	83,352
Change	0	

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Manager	1	C4	168	P	168	M/E	
Engineer	38	D2	100	P	3,800	M/E	
Technician	42	D1	80	S		M/E	1.
Senior Draftsman	1	D2	100	S	100	M/E	
Draftsman	24	D1	80	S	1,920	M/E	
Clerk	1	B1	64	S	64	M/E	
Admin. Assistant	1	B2	80	S	80	M/E	
Subtotal	**108**				**6,132**		
USF (NSF X CF)					**8,891**		

SUPPORT AREAS	%USE	NSF	LOC	NOTES
Conference Room E	100	196	M/E	1.
Conference Room F	100	240	M/E	1.
Conference Room H	100	504	M/E	1.
Lunch/Break Room		500	M/E	1.,2.
Copy Centers	(3)	300	M/E	1.
Kitchenettes	(2)	120	M/E	1.
Subtotal		**1,860**		
USF (NSF X CF)		**2,697**		
M/E Technical/Lab/Shop (USF)		**40,020**	M/E	3.,4.,5.
String Test Facility (USF)		**15,744**	STF	6.
Accelerator Warehouse (USF)		**16,000**	AW	3.,7.

NOTES

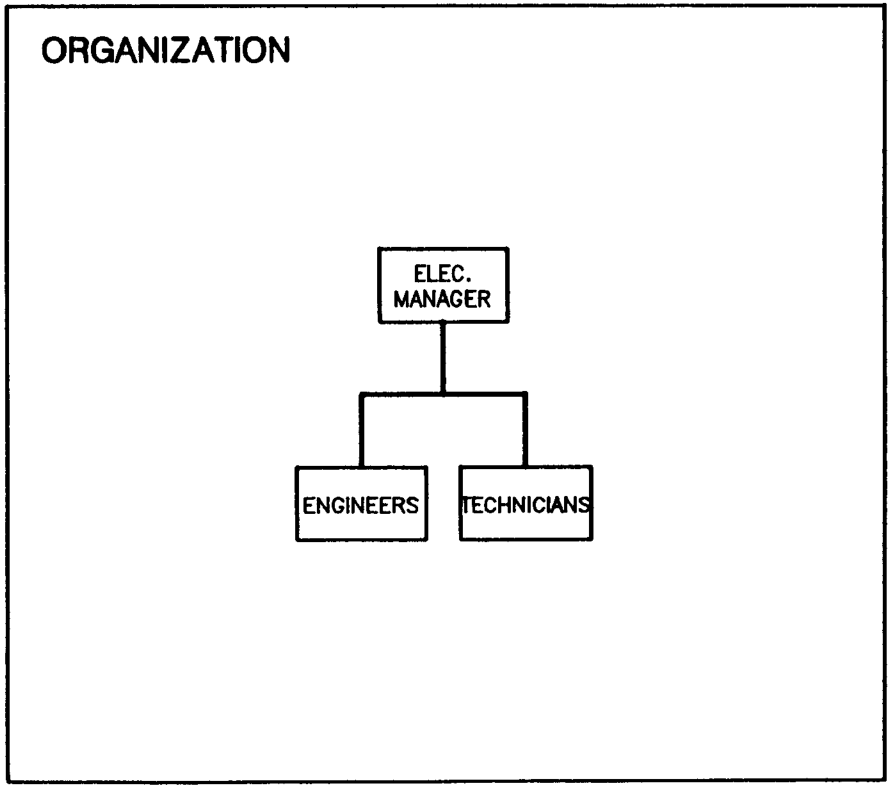
1. Area counted in M/E Technical/Lab/Shop total.

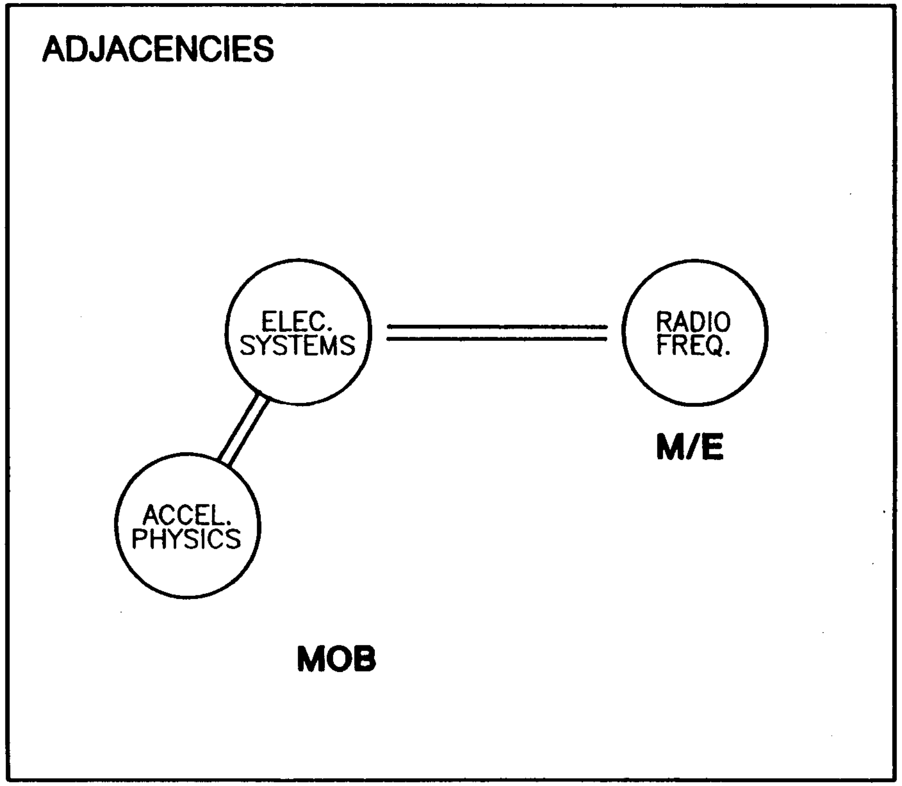
NOTES

1. Areas to be shared by Accel. Div. depts. in M/E building.
2. To be confirmed.
3. See appendix for preliminary layout.
4. Based on preliminary layout areas noted as technical, lab or shop space of 50,025 GSF divided by grossing factor of 1.25.
5. Total M/E area of 75,653 GSF exceeds RD figure of 70,650 GSF.
6. Based on RD figure of 19,680 GSF divided by grossing factor of 1.25.
7. Matches RD figure of 20,000 GSF divided by grossing factor of 1.25.

Electrical Systems

The Electrical Systems group is responsible for the development and maintenance of the accelerator transformers, power supplies, distribution systems, and other critical electrical components.





SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

file: gt

ACCELERATOR SYSTEMS
ELECTRICAL SYSTEMS: Gerry Tool

SUMMARY	FTE	USF
Baseline	82	
Draft	82	10,249
Change	0	

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Manager	1	C4	168	P	168	MOB	
Engineer	26	B3	96	P	2,496	MOB	
Technician	44	D1	80	S	3,520	MOB	
Senior Draftsman	1	D2	100	P	100	MOB	
Draftsmen	9	D1	80	S	720	MOB	
Clerk	1	A1	64	S	64	MOB	
Subtotal	**82**				**7,068**		
USF (NSF X CF)					**10,249**		

SUPPORT AREAS	%USE	NSF	LOC	NOTES
Subtotal		**0**		
USF (NSF X CF)		**0**		

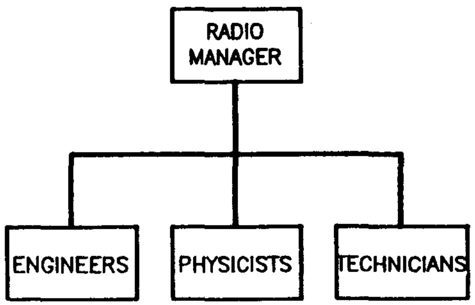
NOTES

NOTES

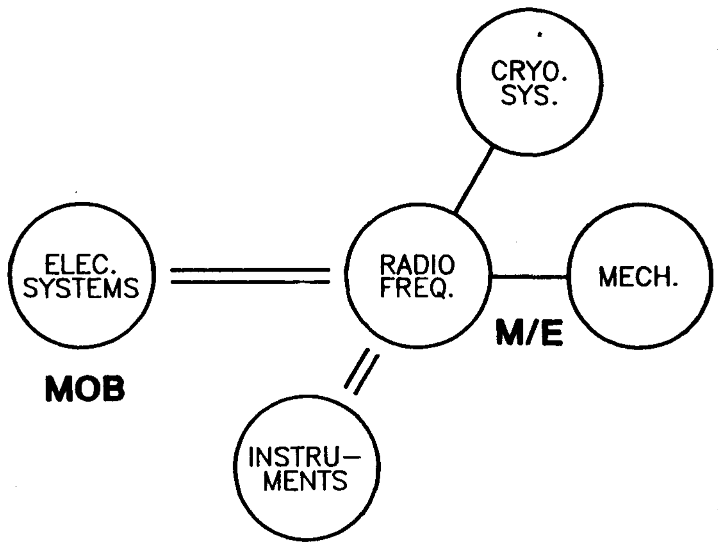
Radio Frequency

The Radio Frequency group is responsible for the development and maintenance of the radio frequency collider tunnel cavities and related power supplies.

ORGANIZATION



ADJACENCIES



SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

file: jr

ACCELERATOR SYSTEMS
RADIO FREQUENCY: J. Rogers

SUMMARY	FTE	USF
Baseline	40	
Draft	40	3,932
Change	0	

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Manager	1	C4	168	P	168	M/E	
Engineer	12	B3	96	P	1152	M/E	
Physicist	2	B3	96	P	192	M/E	
Draftsmen	14	D1	80	S	1120	M/E	
Technician	10	D1	80	S		M/E	1.
Admin. Assistant	1	A2	80	S	80	M/E	
Subtotal	**40**				**2,712**		
USF (NSF X CF)					**3,932**		

SUPPORT AREAS	%USE	NSF	LOC	NOTES
Subtotal		**0**		
USF (NSF X CF)		**0**		

NOTES

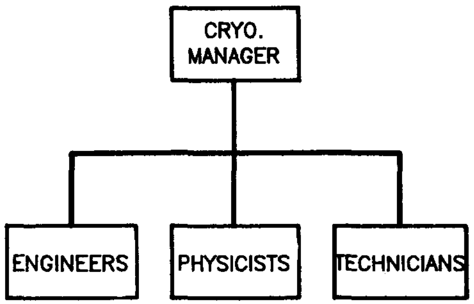
1. Area located in M/E Tech/Lab/Shop Total.

NOTES

Cryogenic Systems

The Cryogenic Systems group is responsible for the development and maintenance of helium and nitrogen plants, pumps and distribution systems and other critical cryogenic components.

ORGANIZATION



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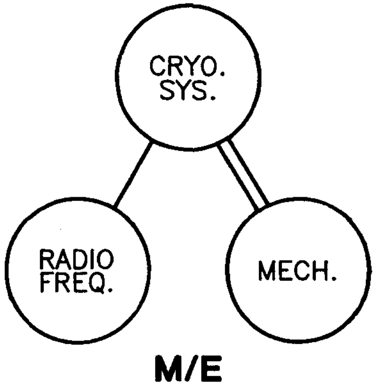


SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

file: mm

ACCELERATOR SYSTEMS
CRYOGENIC SYSTEMS: Mike McAshen

SUMMARY	FTE	USF
Baseline	89	
Draft	89	4,982
Change	0	

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Manager	1	C4	168	P	168	M/E	
Engineer	25	B3	96	P	2,400	M/E	
Physicist	3	B3	96	P	288	M/E	
Technician	53	D1	80	S		M/E	1.
Senior Draftsman	1	D2	100	S	100	M/E	
Draftsman	4	D1	80	S	320	M/E	
Clerk	1	A2	80	S	80	M/E	
Admin. Assistant	1	A2	80	S	80	M/E	
Subtotal	**89**				**3,436**		
USF (NSF X CF)					**4,982**		

SUPPORT AREAS	%USE	NSF	LOC	NOTES
Subtotal		**0**		
USF (NSF X CF)		**0**		

NOTES

1. Area counted in M/E Technical/Lab/Shop total.

NOTES

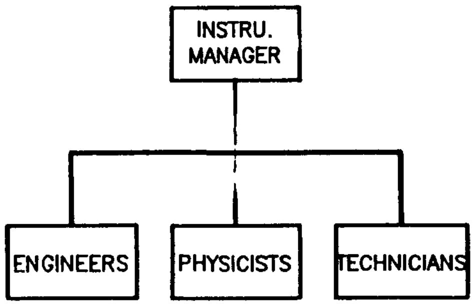
SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

ACCELERATOR SYSTEMS
INSTRUMENTATION & DIAGNOSTICS

Instrumentation & Diagnostics

The Instrumentation & Diagnostics group is responsible for ongoing monitoring of the beam tube. They will determine conditions such as speed of protons and perturbations about the centerline of the beam.

ORGANIZATION



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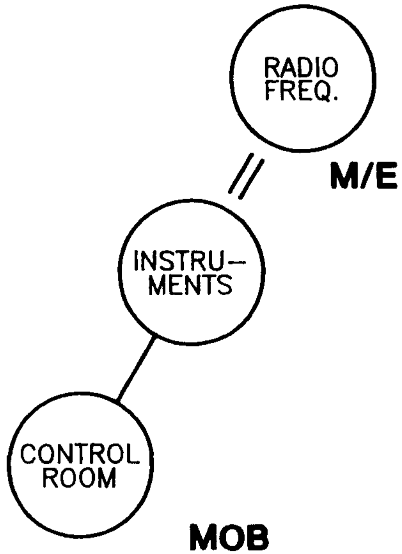


SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

file: rt

ACCELERATOR SYSTEMS
INSTRUMENTATION & DIAGNOSTICS: Richard Talmann

SUMMARY	**FTE**	**USF**
Baseline	35	
Draft	35	4,512
Change	0	

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Manager	1	C4	168	P	168	MOB	
Engineer	9	B3	96	P	864	MOB	
Physicist	6	B3	96	P	576	MOB	
Technician	18	D1	80	S	1440	MOB	
Clerk	1	A1	64	S	64	MOB	
Subtotal	**35**				**3,112**		
USF (NSF X CF)					**4,512**		

SUPPORT AREAS	%USE	NSF	LOC	NOTES
Subtotal		**0**		
USF (NSF X CF)		**0**		

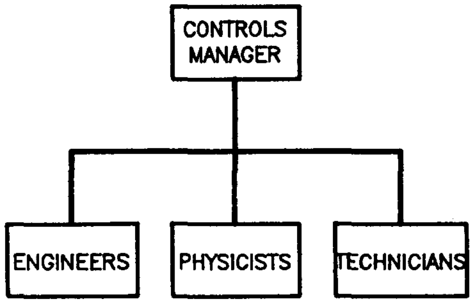
NOTES

NOTES

Controls

The Controls group monitors all signals delivered to the computer and is resopnsible for software development and data communications.

ORGANIZATION



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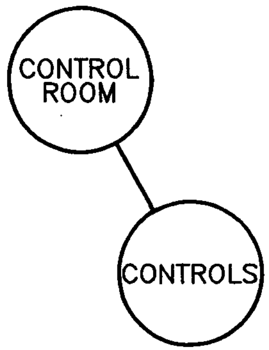

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SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

file: cs

ACCELERATOR SYSTEMS
CONTROLS: Chris Saltmarsh

SUMMARY	FTE	USF
Baseline	63	
Draft	63	8,062
Change	0	

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Manager	1	C4	168	P	168	MOB	
Engineer	24	B3	96	P	2304	MOB	
Physicist	4	B3	96	P	384	MOB	
Technician	33	D1	80	S	2640	MOB	
Clerk	1	A1	64	S	64	MOB	
Subtotal	**63**				**5,560**		
USF (NSF X CF)					**8,062**		

SUPPORT AREAS	%USE	NSF	LOC	NOTES
Subtotal		**0**		
USF (NSF X CF)		**0**		

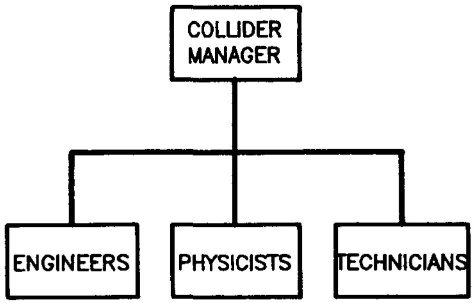
NOTES

NOTES

Collider

The Collider group has complete management control over all collider ring aspects, and oversees its operation and maintenance.

ORGANIZATION



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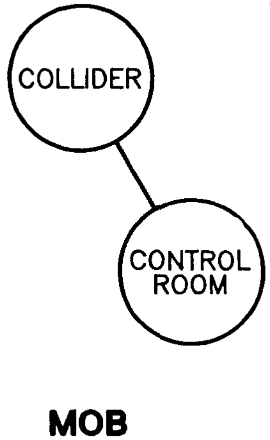


SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

file: de

ACCELERATOR SYSTEMS
COLLIDER: Don Edwards

SUMMARY	FTE	USF
Baseline	27	
Draft	27	3,956
Change	0	

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Manager	3	C4	168	P	504	MOB	
Engineer	3	B3	96	P	288	MOB	
Physicist	16	B3	96	P	1,536	MOB	
Technician	3	D1	80	S	240	MOB	
Admin. Assistant	1	A2	80	S	80	MOB	
Clerk	1	A2	80	S	80	MOB	
Subtotal	**27**				**2,728**		
USF (NSF X CF)					**3,956**		

SUPPORT AREAS	%USE	NSF	LOC	NOTES
Subtotal		**0**		
USF (NSF X CF)		**0**		

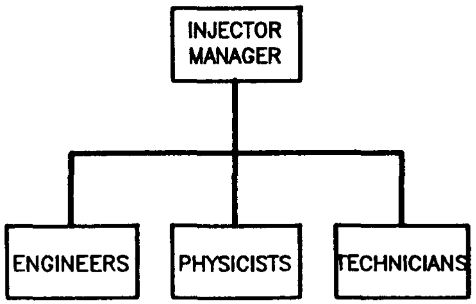
NOTES

NOTES

Injector

The Injector group is responsible for the operation and maintenance of the injector, linac, LEB, MEB, and HEB.

ORGANIZATION



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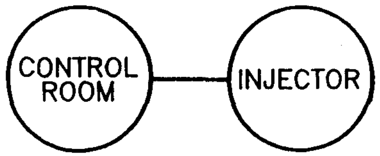


MOB

SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

file: jw

ACCELERATOR SYSTEMS
INJECTOR GROUP: Jerry Watson

SUMMARY	FTE	USF
Baseline	38	
Draft	38	5,614
Change	0	

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Manager	6	C4	168	P	1,008	MOB	
Engineer	5	B3	96	P	480	MOB	
Physicist	15	B3	96	P	1,440	MOB	
Technician	10	D1	80	S	800	MOB	
Admin. Assistant	1	A2	80	S	80	MOB	
Clerk	1	A1	64	S	64	MOB	
Subtotal	**38**				**3,872**		
USF (NSF X CF)					**5,614**		

SUPPORT AREAS	%USE	NSF	LOC	NOTES
Subtotal		**0**		
USF (NSF X CF)		**0**		

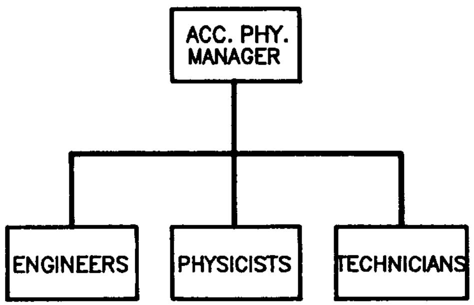
NOTES

NOTES

Accelerator Physics

The Accelerator Physics group, composed largely of theoretical physicists, determines magnet voltages and perturbations, and conducts dynamic analyses. The group is also concerned with the design and analysis of accelerator developments and changes.

ORGANIZATION



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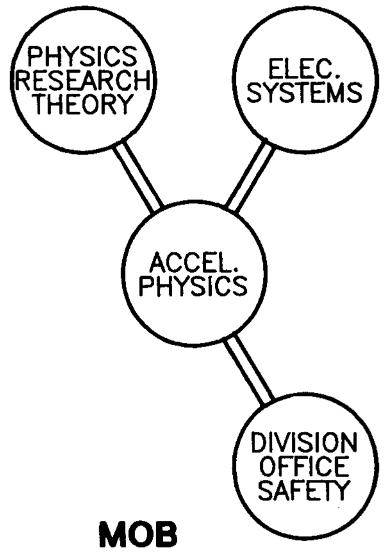


SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

file: ap

ACCELERATOR SYSTEMS
ACCELERATOR PHYSICS

SUMMARY	FTE	USF
Baseline	14	
Draft	14	2,134
Change	0	

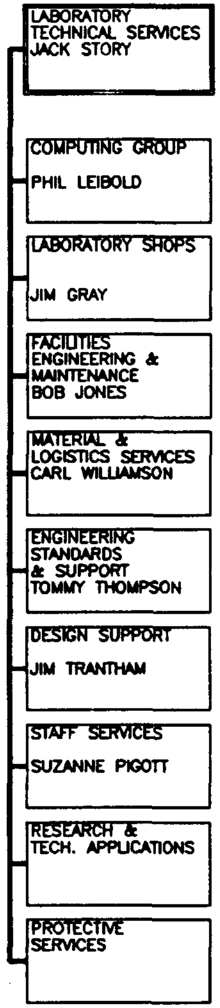
PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Manager	2	C4	168	P	336	MOB	
Engineer	1	B3	96	P	96	MOB	
Physicist	10	B3	96	P	960	MOB	
Technician	1	D1	80	S	80	MOB	
Subtotal	**14**				**1,472**		
USF (NSF X CF)					**2,134**		

SUPPORT AREAS	%USE	NSF	LOC	NOTES
Subtotal		**0**		
USF (NSF X CF)		**0**		

NOTES

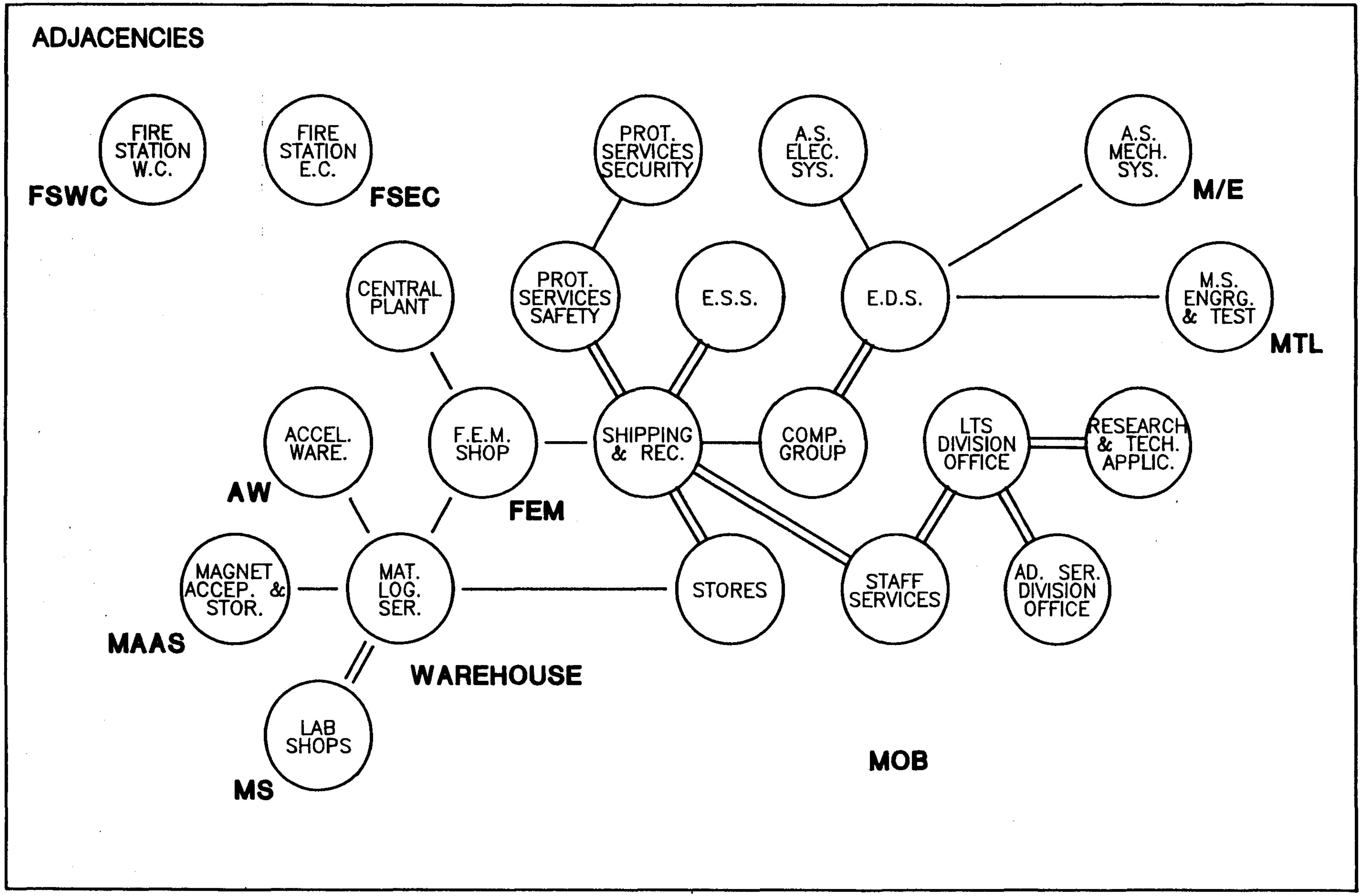
NOTES

LABORATORY TECHNICAL SERVICES DIVISION
GROUP SUMMARIES



SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

LABORATORY TECHNICAL SERVICES



Laboratory Technical Services Division

The Laboratory Technical Services Division provides technical support to the entire SSCL facility through the provision of lab shops, emergency, safety & security facilities, computing and communications resources, warehousing, staff services, buildings and grounds maintenance and engineering design support. The division is responsible for ensuring that all operational activities and are conducted in a safe and secure environment.

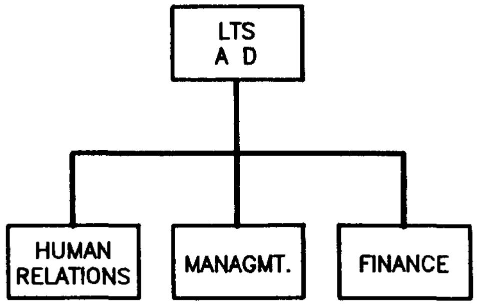
AREA BY BUILDING	MOB Personnel	MOB/CS Support	MS	FSWC/EC	IB	FEM	W	USF	GSF
LABORATORY TECHNICAL SERVICES									
Division Office	4,118	1,801						5,919	7,399
Computing Group	25,775	94,676						120,451	150,564
Lab Shops			66,393					66,393	82,991
Facilities Eng. & Maint.						21,370		21,370	26,713
Materiel & Log. Ser.	1,590						128,000	129,590	161,988
Engineering Stds. Support	1,844	8,230						10,074	12,593
Engineeging Design Support	3,434	4,496						7,930	9,913
Staff Services	1,937	44,161						46,098	57,623
Research & Tech. Applications	487							487	609
Protective Services	3,921	1,363		8,400	1,166			14,850	18,563
Subtotal	43,106	154,727	66,393	8,400	1,166	21,370	128,000	423,162	528,953

PERSONNEL BY BUILDING	MOB Personnel	MOB/CS Support	MS	FSWC/EC	IB	FEM	W	FTE
LABORATORY TECHNICAL SERVICES								
Division Office	28							28
Computing Group	129	44						173
Lab Shops			115					115
Facilities Eng. & Maint.	4	3				111		118
Materiel & Log. Ser.	7						58	65
Engineering Stds. Support	15	13						28
Engineeging Design Support	28	11						39
Staff Services	28	41						69
Research & Tech. Applications	2							2
Protective Services	33	41		18	10			102
Subtotal	274	153	115	18	10	111	58	739

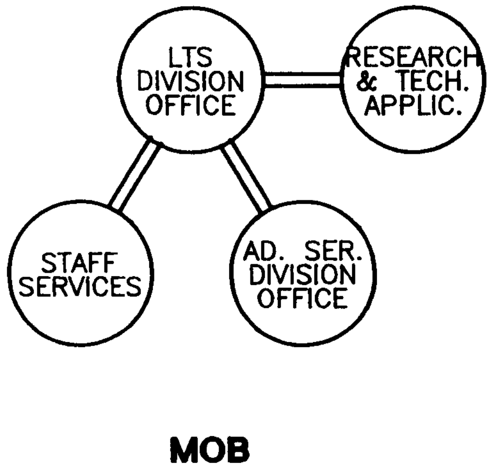
Division Office

The Laboratory Technical Services Division Office is responsible for the direction and coordination of all groups within the division. Programs, budgets and other operational activities will be controlled at an executive level within this office.

ORGANIZATION



ADJACENCIES



SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

file: jsa

LABORATORY TECHNICAL SERVICES
DIVISION OFFICE: Jack Story

SUMMARY	FTE	USF
Baseline	28	
Draft	28	5,919
Change	0	

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Management							
Associate Director	1	C3	224	P	224	MOB	1.
Deputy Asso. Director	1	C4	168	P	168	MOB	1.
Program Manager	1	B3	96	S	96	MOB	1.
Budgets Manager	1	B3	96	S	96	MOB	1.
Operations Manager	1	B3	96	S	96	MOB	1.
Secretary	2	B2	80	O	160	MOB	1.
Scheduler	1	B3	96	S	96	MOB	1.
Human Relations							
Section Head	1	C4	168	P	168	MOB	1.
Compensation Manager	1	B3	96	P	96	MOB	1.
Benefits Manager	1	B3	96	P	96	MOB	1.
Equal Emp. Ops. Manager	1	B3	96	P	96	MOB	
Personnel Administrator	4	A3	96	S	384	MOB	
Secretary	2	B2	80	O	160	MOB	
Finance							
Head	1	C4	168	P	168	MOB	1.
Controller & Head Acct.	1	B3	96	P	96	MOB	
Senior Accountant	4	B2	80	P	320	MOB	
Accountant	2	B2	80	S	160	MOB	
Secretary	2	B2	80	O	160	MOB	
Subtotal	**28**				**2,840**		
USF (NSF X CF)					**4,118**		

SUPPORT AREAS	%USE	NSF	LOC	NOTES
Management				
Conference Room E	(2)	392	MOB	
Conference Room G	100	420	MOB	
Conference Room H	25	126	MOB	1.
Filing Area		20	MOB	2.
Secure Room		24	MOB	3.
Copy Center		200	MOB	4.
Human Relations				
Filing Area		30	MOB	5.
Finance				
Filing Area		30	MOB	5.
Subtotal		**1,242**		
USF (NSF X CF)		**1,801**		

NOTES

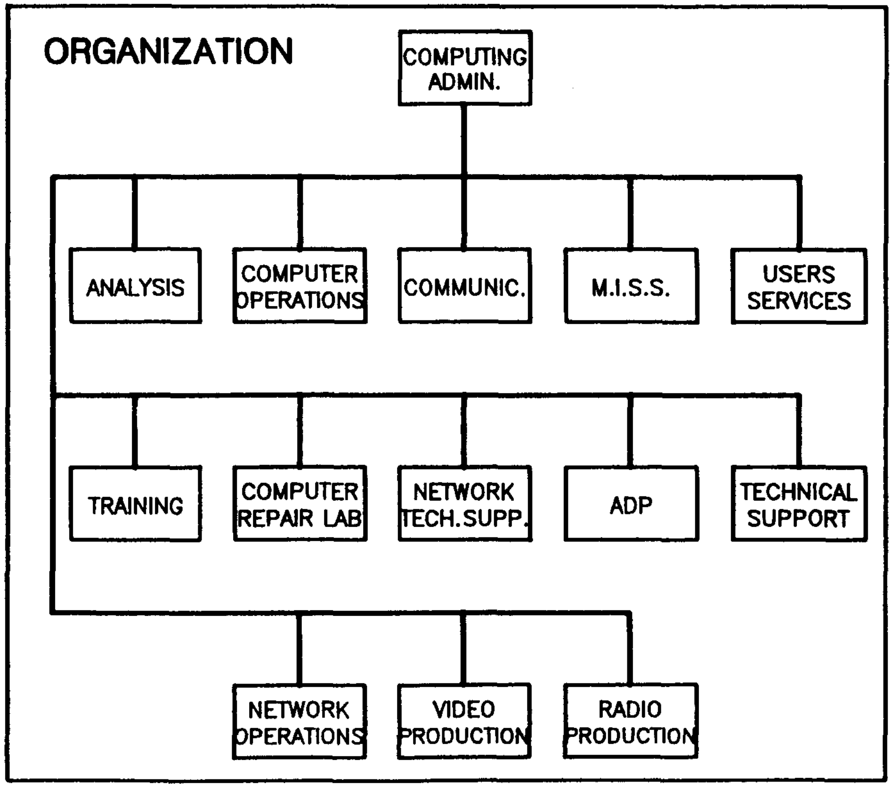
1. 4 X 8 white board.

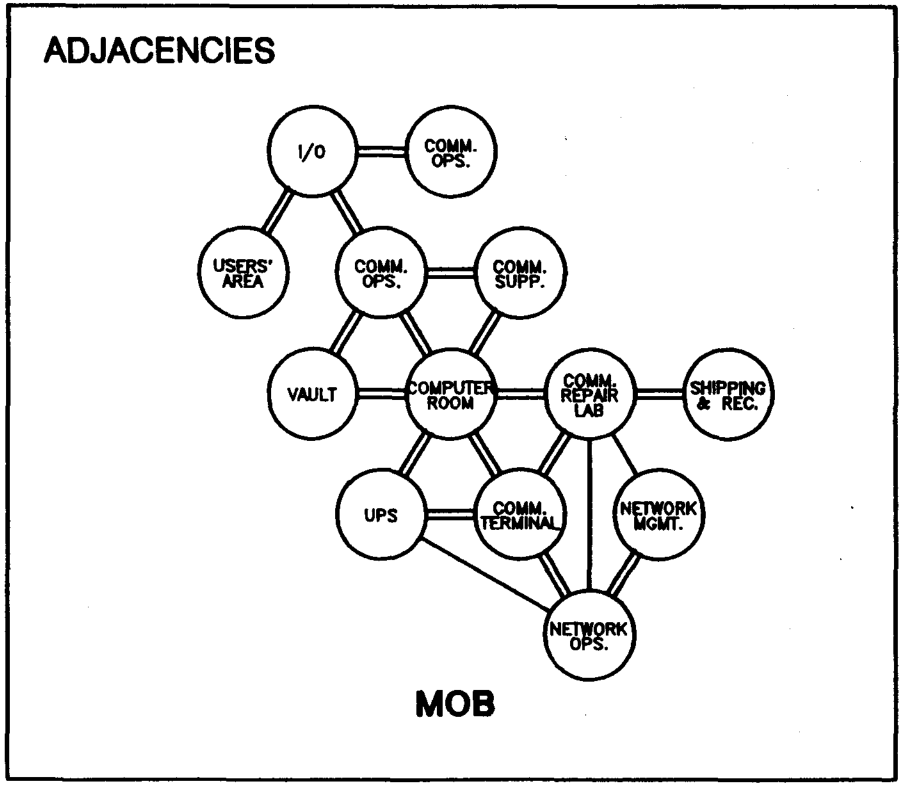
NOTES

1. Shared; NSF reflects percentage of conference room area proportionate to use.
2. Two four drawer lateral files.
3. 4' X 6'
4. Three copiers; fax; printer.
5. Three four drawer lateral files; secured.

Computing Group

The Computing Group is responsible for the support and operation of the SSC Laboratory's computing resources. These include both scientific computational facilities and data storage, management information systems, computer repair and training. All electronic communications resources, such as video, radio, telephones, etc., will also be managed by this group.





SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

file: pl

LABORATORY TECHNICAL SERVICES
COMPUTING GROUP: Phil Liebold

SUMMARY	FTE	USF
Baseline	146	
Draft	173	120,451
Change	27	

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Administration							
Manager		C3	224	P	224	MOB	1.
Assistant Manager		C4	168	P	168	MOB	1.
Secretary (2)		B2	80	O	160	MOB	1.
Computer Consultant (3)		C1	144	P	432	MOB	1.
MIS Manager	1	C4	168	P	168	MOB	
MIS Secretary	2	B2	80	O	160	MOB	
General Computing Manager	1	C4	168	P	168	MOB	
Temporary Clerk (2)		B2	80	O	160	MOB	1.
Communications Manager	1	C4	168	P	168	MOB	
Communications Assistant	1	C1	144	P	144	MOB	
Communications Secretary	2	B2	80	O	160	MOB	
Visitor Office (4)		D3	64	S	256	MOB	2.
Analysis							
Operations Manager	1	D6	180	P	180	MOB	
Systems Programmer	10	D5	140	S	1,400	MOB	
Document Specialist	2	A3	96	S	192	MOB	
Software Librarian	2	A2	80	S	160	MOB	
Data Analyst	2	A2	80	S	160	MOB	
Secretary	2	B2	80	O	160	MOB	
Contract Analyst	8	D5	140	P	1,120	MOB	3.
Vendor Office (6)		D3	64	S	384	MOB	2.
Visitor Office (2)		B2	80	P	160	MOB	2.
Computer Operations							
Computer Operator	8	D3	64	S	512	MOB	
Computer Operator (6)		D3	64	S	384	MOB	4.
Telecomm. Operator	6	D3	64	S	384	MOB	
Network Operator	2	D3	64	S	128	MOB	
Help Desk Operator	2	D3	64	S	128	MOB	

SUPPORT AREAS	%USE	NSF	LOC	NOTES
Administration				
Conference Room H	100	504	MOB	
Conference Room F	(4)	960	MOB	
Copy Center	(3)	300	MOB	
UPS Room		3,600	MOB	1.
Analysis				
Computer Science Lab		1,000	MOB	2.
Computer Operations				
Computer Room		30,000	MOB	3.,4.,5.
Communications Terminations		2,500	MOB	3.
Computer Operations		2,500	MOB	3.
Help Desk Storage		140	MOB	
I/O Area		1,000	MOB	2.
Media Vault		5,000	MOB	5.
Back-up Storage		1,000	OFF SITE	5.

COMPUTING GROUP page 2

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES	SUPPORT AREAS	%USE	NSF	LOC	NOTES
Communications												
Manager	1	D5	140	P	140	MOB		Communications Operations Center		600	MOB	
Clerk	1	A2	80	S	80	MOB						
Contract Technician	2	D3	64	S		MOB	3.,5.					
Management Info. Services Suppo												
Programmer/Analyst	15	D5	140	S	2,100	MOB						
Systems Analyst	4	D5	140	S	560	MOB						
Document Specialist	2	A3	96	S	192	MOB						
Section Head	3	D6	180	P	540	MOB						
Visitor Office (2)		D3	64	S	128	MOB	2.					
User Services												
Section Head	1	D5	140	P	140	MOB		Users' Area		1,000	MOB	2.
Computer Specialist	10	D5	140	S	1,400	MOB		Demonstration Area		900	MOB	2.
Document Specialist	1	A3	96	S	96	MOB						
Data Analyst	2	A3	96	S	192	MOB						
Training												
Section Head	1	D6	180	P	180	MOB		Training Rooms		1,440	MOB	2.,6.
Training Specialist	2	D5	140	S	280	MOB		Equipment Storage		250	MOB	
Assistant Trainer	1	A3	96	S	96	MOB						
Data Analyst	1	A2	80	S	80	MOB						
Computer Repair Lab												
Section Head	1	D6	180	S		MOB	6.	Computer Repair Lab		2,000	MOB	
Repair Technician	5	D3	64	O		MOB	6.	Lab Storage		1,000	MOB	
Data Analyst	1	D3	64	O		MOB	6.					
Network Technical Support												
Network Supervisor	2	D5	140	S		MOB	5.	Communications Repair Lab		4,500	MOB	
Network Technician	16	D3	64	O		MOB	5.					
Contract Comm. Tech.	15	D3	64	O		MOB	3.,5.					
Visitor Office (10)		D3	64	S	640	MOB	2.					
ADP Planning Stds & Procedures												
Section Head	1	D5	140	P	140	MOB						
Technical Proposals Specialist	2	A3	96	S	192	MOB						
Document Specialist	1	A2	80	S	80	MOB						
Visitor Office (1)		B2	80	P	80	MOB	2.					

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Technical Support							
Section Head	1	D5	140	P	140	MOB	
Programmer/Analyst	3	D5	140	S	420	MOB	
System Programmer	2	D5	140	S	280	MOB	
Document Specialist	1	D5	140	S	140	MOB	
Secretary	1	B2	80	O	80	MOB	
Visitor Office (2)		A2	80	S	80	MOB	2.
Network Operations							
Manager	1	D6	180	P	180	MOB	
Secretary	1	D4	80	O	80	MOB	
Analyst	5	D5	140	S	700	MOB	
Supervisor	1	D5	140	P	140	MOB	
Visitor Office (2)		B3	80	P	160	MOB	2.
Video Production							
Manager	1	D5	140	P	140	MOB	
Clerk	1	B2	80	S	80	MOB	
Video Technician	2					MOB	7.
Audio Technician	2					MOB	7.
Contract Technician	1					MOB	3.,7.
Radio Production							
Engineer	1	D5	140	P	140	MOB	
Supervisor	1	D5	140	P	140	MOB	
Technician	3	B2	80	S	240	MOB	
Contract Technician	1	B2	80	S	80	MOB	3.
Subtotal	**173**				**17,776**		8.
USF (NSF X CF)					**25,775**		

SUPPORT AREAS	%USE	NSF	LOC	NOTES
Network Operations Center		2,500	MOB	3.,5.
Video Studio		1,600	MOB	
Video Teleconferencing		600	MOB	
Audio Visual Stor. & Ops.		400	MOB	
Subtotal		**65,294**		
USF (NSF X CF)		**94,676**		

NOTES

1. Anticipated future hires (9 total) not counted in population figures.
2. Visitors and vendors not counted in campus population figures.
3. Contract personnel counted in campus population figures.
4. Personnel counted in Physics Research Computing & Data Analysis.
5. Area counted in Communications Repair Lab.
6. Area counted in Computer Repair Lab.
7. Area counted in Video Studio.
8. Area includes 38 unstaffed offices.

NOTES

1. Connected to back-up generator.
2. 18" raised floor.
3. 24" raised floor.
4. Includes telephone switch area.
5. Secured.
6. Two at 720 SF.

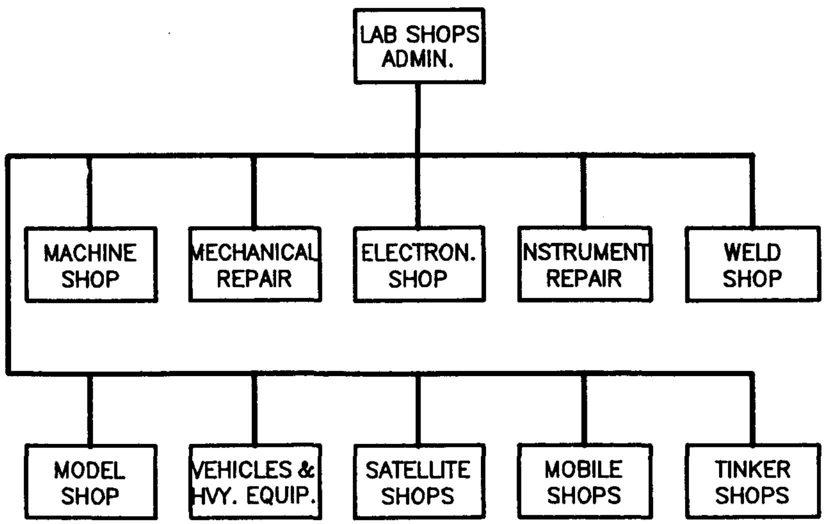
Lab Shops

The Lab Shops group will provide shop support to the SSCL through four categories of shops. These are: 1) Central Shop; centrally located in the West Campus and manned by Lab Shops staff; 2) Satellite Shops; located in the MDL, Accelerator Shop, West and East Campus IRs, managed by Lab Shops personnel but manned by respective division personnel; 3) Mobile Shops; two mobile trailers containing essential machines and materials storage manned by two Lab Shops technicians and transported to various locations as required; 4) Tinker Shops; are essentially benches outfitted with basic equipment dispersed around the laboratory for use by personnel from the host groups and divisions.

This group will also be responsible for the Motor pool, where SSCL vehicles and heavy equipment will be serviced and maintained.

The Lab Shops personnel will be responsible for maintaining safe standards for equipment and personnel as well as the maintenance and service of all shop equipment.

ORGANIZATION



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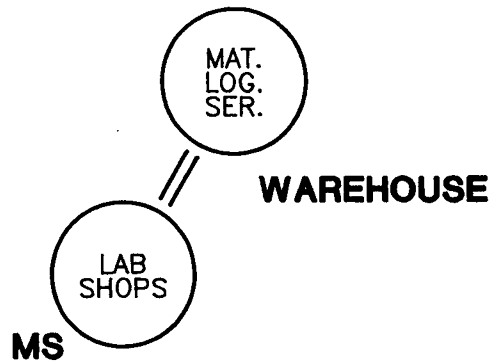


SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

file: jg

LABORATORY TECHNICAL SERVICES
LAB SHOPS: Jim Gray

SUMMARY	FTE	USF
Baseline	115	
Draft	115	66,393
Change	0	

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Central Shops (Cat. I)							
Administration							
Group Leader	1	C4	168	P	168	MS	
Secretary	1	B2	80	S	80	MS	
Shops Coordinator	1	A3	96	P	96	MS	
Manufacturing Engineer	1	A3	96	P	96	MS	
Machine Shop							
Manager	1	A3	96	P	96	MS	
Supervisor	2	A1	64	P	128	MS	
Technician	19					MS	1.,2.,3.
Mechnical Repair and Vacuum							
Supervisor	1	A1	64	P	64	MS	
Technician	9					MS	1.,2.,3.
Electronics Shop							
Manager	1	A3	96	P	96	MS	
Supervisor	1	A1	64	P	64	MS	
Technician	12					MS	1.,2.,4.
Inst. Repair & Inst. Loan							
Supervisor	1	A3	96	P	96	MS	
Logistics Clerk	1	A1	64	P	64	MS	
Technician	9					MS	1.,2.,4.
Weld Shop							
Supervisor	1	A1	64	P	64	MS	
Technician	5					MS	1.,2.,5.

SUPPORT AREAS	%USE	NFS	LOC	NOTES
Conference Room F	100	240	MS	
Reception Area		100	MS	1.
Copy Center		100	MS	
Filing Area		40	MS	2.
Kitchenette		60	MS	
Locker Rm/Break Rm		900	MS	
Subtotal		**1,440**		
USF (NSF X CF)		**2,088**		
Machine Shop		22,800	MS	3.
Cut-off Material Storage		3,600	MS	
Mechanical Repair		4,800	MS	
Tool Crib		1,500	MS	
Quality Control		3,200	MS	
Storage Area		1,000	MS	
Electronics Shop		13,200	MS	3.
Weld Shop		4,800	MS	3.

LAB SHOPS

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Model Shop							
Supervisor	1	A1	64	P	64	MS	
Technician	7					MS	2.,6.
Vehicles & Heavy Equipment							
Manager	1	C4	168	P		MS	7.
Admin. Asst.	1	A3	96	P		MS	7.
Operator	7					MS	7.
Mechanic	6					MS	7.
Dispatcher	1	A3	96	P		MS	7.
Master Mech.	1	A2	80	P		MS	7.
Satellite Shops (Cat. II)							
Supervisor	3					SS	8.
Technician	18					SS	2.,8.
Mobile Shops (Cat. III)							
Technician	2						9.
Tinker Shops (Cat. IV)							
(unmanned)							10.
Subtotal	**115**				**1176**		
USF (CF X NSF)					**1,705**		

SUPPORT AREAS	%USE	USF	LOC	NOTES
Model Shop		4,800	MS	3.
Motor Pool		2,900	MS	3.,4.
Vehicle Yard (1 acre)				5.
Satellite Shops			*West Campus*	
(Area counted in other Divisions)			IR1 M/E	
			IR4 MDL	
			East Campus	
			IR5	
			IR8	
2 Trailers				6.
(Area counted in other Divisions)			(several)	
USF Subtotal		**64,688**		7.

NOTES

1. Provide 3 X 5 workbench for each Technician.
2. Charge-back employees.
3. Area counted in Machine Shop total.
4. Area counted in Electronics Shop total.
5. Area counted in Weld Shop total.
6. Area counted in Model Shop total.
7. Area counted in Motor Pool Building total.
8. Central Shops' staff located in other Division's shop areas.
9. Located in mobile trailers.
10. Located in other Divisions; equipment maintained by Central Shops' staff on interim basis.

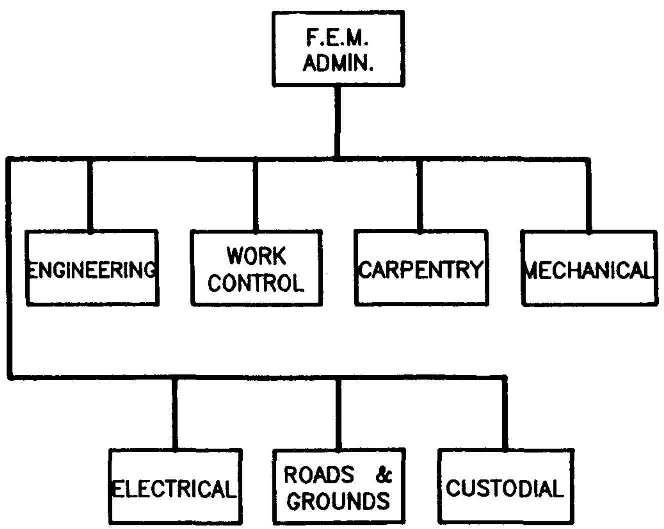
NOTES

1. Waiting for 3 - 4 people.
2. Four lateral files.
3. See appendix for preliminary layout.
4. Two repair bays.
5. Parking for approx. 100 autos and 15 heavy equipment vehicles.
6. Hookup facilities required at IR sites.
7. Total MS area of 82,991 GSF exceeds RD figure of 14,000 GSF.

Facilities Engineering and Maintenance

The Facilities Engineering & Maintenance group provides operational maintenance and repair of all laboratory facilities. They are also responsible for modifications and remodeling of facilities due to programmatic changes within the laboratory, as well as overall campus groundskeeping, and custodial services.

ORGANIZATION



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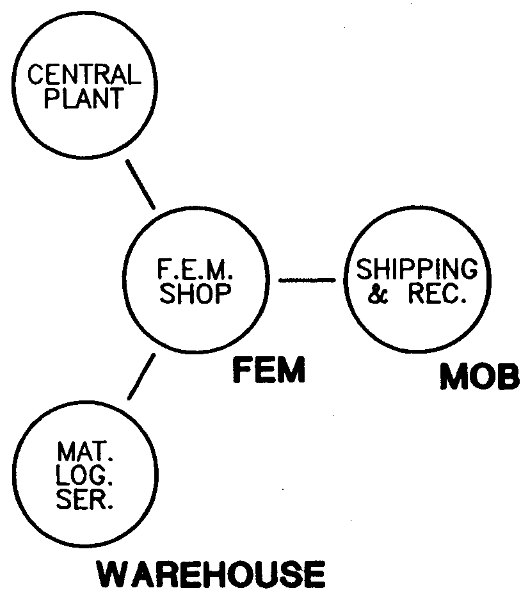


SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

file: bj

LABORATORY TECHNICAL SERVICES
FACILITIES ENGINEERING & MAINTENANCE: Bob Jones

SUMMARY	FTE	USF
Baseline	118	
Draft	118	21,370
Change	0	

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Administration							
Manager	1	C4	168	P	168	FEM	1.
Admin. Assistant	1	B3	96	S	96	FEM	1.
Engineering							
Landscape Architect	1	D2	100	P	100	FEM	
Civil Engineer	1	D2	100	P	100	FEM	
Architect/Planner	1	D2	100	P	100	FEM	
Mech./HVAC Engineer	1	D1	80	P	80	FEM	
Cryo./Mech. Engineer	1	D1	80	P	80	FEM	
Structural Engineer	1	D1	80	P	80	FEM	
Electrical Engineer	2	D1	80	P	160	FEM	
Draftsman	2	D1	80	P	160	FEM	
Space Planner	2	D1	80	P	160	FEM	
Estimator	2	D1	80	P	160	FEM	
Clerk	1	D1	80	S	80	FEM	
Receptionist	1	D1	80	O	80	FEM	
Secretary	1	B2	80	O	80	FEM	
Work Control and Administration							
Supervisor	1	C4	168	P	168	FEM	
Secretary	1	A2	80	O	80	FEM	
Clerk	5	B2	80	S	400	FEM	
Carpentry							
Supervisor	1					FEM	2.
Locksmith	1					FEM	2.
Painter	2					FEM	2.
Furniture Spec.	2					FEM	2.
Carpenter	5					FEM	2.

SUPPORT AREAS	%USE	NSF	LOC	NOTES
Conference Room E	100	196	FEM	
Conference Room G	100	420	FEM	
Work Area		390	FEM	
Plotter Room		200	FEM	
Lockers/Showers		800	FEM	
Lunchroom		200	FEM	1.,2.
Carpentry Shop		3,600	FEM	

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Mechanical							
Supervisor	1					FEM	3.
A/C Expert	3					FEM	3.
Specialized Systems	2					FEM	3.
Plumber	2					FEM	3.
Ventilation	1					FEM	3.
Heating	2					FEM	3.
Water/Sewer	4					FEM	3.
Electrical							
Supervisor	1					FEM	4.
High Voltage Electrician	4					FEM	4.
Low Voltage Electrician	5					FEM	4.
Elevator Specialist	1					FEM	4.
Electrical Expert	1					FEM	4.
Roads and Grounds							
Supervisor	1					FEM	5.
Groundsman	17					FEM	5.
Custodial							
Contract Janitors	36						6.,7.
Subtotal	**118**				**2,332**		
USF (NSF X CF)					**3,381**		

SUPPORT AREAS	%USE	NSF	LOC	NOTES
Mechanical Shop		3,600	FEM	
Electrical Shop		1,000	FEM	
Grounds Equipment		2,000	FEM	
Custodial Closets				3.
Subtotal		**12,406**		4.
USF (NSF X CF)		**17,989**		

NOTES

1. 4 X 6 white board.
2. Area counted in Carpentry Shop total.
3. Area counted in Mechanical Shop total.
4. Area counted in Electrical Shop total.
5. Area counted in Grounds Equipment total.
6. Contract personnel counted in campus population total.
7. Night staff located around campus.

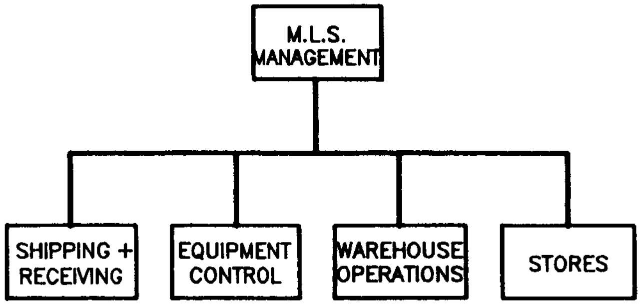
NOTES

1. Full Height, 12" wide locker per employee.
2. 80% men, 20% women.
3. Provide 150 SF/ 20,000 SF of office area throughout campus.
4. Total FEM area of 33,391 GSF exceeds
   RD figure of 14,000 GSF.

Materiel & Logistics Services

The Materiel & Logistics Services group is responsible for shipping and recieving of all property into and out of the SSC Laboratory, and warehousing and inventory control of all office supply stores, equipment and furniture.

ORGANIZATION



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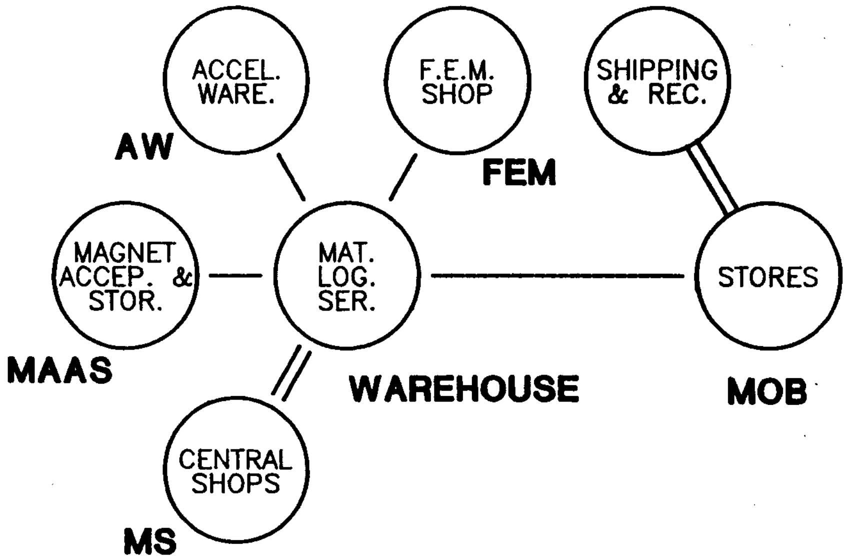


SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

file: cw

LABORATORY TECHNICAL SERVICES
MATERIEL & LOGISTICS SERVICES: Carl Williamson

SUMMARY	FTE	USF
Baseline	65	
Draft	65	129,590
Change	0	

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Management Group							
Property Manager	1	C4	168	P	168	W	
Warehouse Manager	1	C4	168	P	168	W	
Inventory Manager	1	C4	168	P	168	W	
Warehouse Supervisor	1	C4	168	P	168	W	
Property Supervisor	2	C4	168	P	336	W	
Secretary	2	B3	96	S	192	W	
Traffic Manager	1	A3	96	S	96	W	
Clerk	1	B2	80	S	80	W	
Shipping & Receiving							
Lead Supervisor	1	C4	168	P	168	W	
Supervisor	3	A3	96	S	288	W	
Store Keeper	9	A1	64	O	576	W	
Distribution Clerk	8	A1	64	O	64	W	1.
General Warehouseman	2	A1	64	O	128	W	2.
Equipment Control							
Supervisor	1	C4	168	P	168	W	
Lead	3	A3	96	S	288	W/MOB	3.,4.
Property Clerk	5	A1	64	O	320	W/MOB	3.,4.
Warehouse Operations							
Supervisor	2	C4	168	P	336	W	
Lead	4	A3	96	S	384	W	
Key Punch Clerk	5	B3	96	O	480	W	
Clerk	2	B2	80	O	160	W	

SUPPORT AREAS	%USE	NSF	LOC	NOTES
Lunchroom/Kitchenette		900	W	1.
Filing Area		250	W	
Sensitive Property Storage		1,000	W	
Copy Center		100	W	

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Stores							
Supervisor	1	A3	96	P	96	W	
Lead Store Keeper	3	A2	80	O	240	W	
Store Keeper	6	A2	80	O	160	W/MOB	1.,4.,5.,6.
Subtotal	**65**				**5,232**		
USF (NSF X CF)					**7,586**		

SUPPORT AREAS	%USE	NSF	LOC	NOTES
Satellite Store (3@200 SF)		600	MOB	2.
Subtotal		**2,850**		
USF (NSF X CF)		**4,133**		
Main Warehouse (USF)		**128,000**	W	3.,4.,5.,6.

NOTES

1. Share workstation.
2. (2) Eliminated in Management Review.
3. (2) Located in MOB.
4. Part of 1,590 USF located in MOB.
5. (3) Eliminated in Management Review.
6. (3) Located in MOB.

NOTES

1. Add tables and chairs to double as conference room.
2. Part of 1,590 USF located in MOB.
3. Four shipping docks with levelers.
4. Includes Office and Support areas enumerated above.
5. Total W area of 160,000 GSF exceeds RD figure of 20,000 GSF.
6. Based on requirement of 160,000 GSF divided by grossing factor of 1.25.

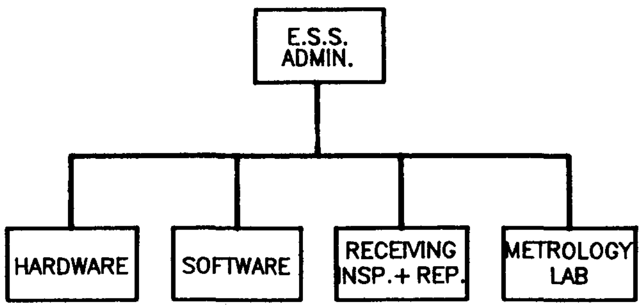
SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

LABORATORY TECHNICAL SERVICES
ENGINEERING STANDARDS & SUPPORT

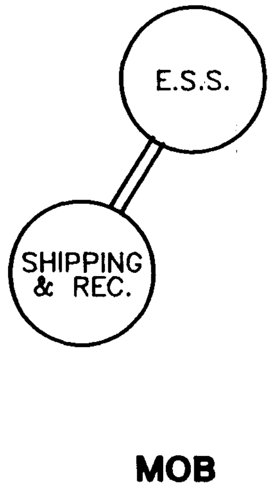
Engineering Standarts & Support

The Engineering Standards & Support group supports project management in deriving and revising engineering standards for the SSC Laboratory. They are involved in establishing conventions, manuals and operations policies and procedures for the operation of all components of the accelerator.

ORGANIZATION



ADJACENCIES



SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

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LABORATORY TECHNICAL SERVICES
ENGINEERING STANDARDS & SUPPORT: Tommy Thompson

SUMMARY	FTE	USF
Baseline	28	
Draft	28	10,074
Change	0	

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Administration							
Manager	1	C4	168	P	168	MOB	
Secretary	1	B2	80	O	80	MOB	
Hardware							
Draft Engineer	1	B2	80	S	80	MOB	
Mech. Engineer	1	B2	80	S	80	MOB	
Cryo. Engineer	1	B2	80	S	80	MOB	
Util./Power Engineer	1	B2	80	S	80	MOB	
Software							
Software Engineer	4	B2	80	S	320	MOB	
Receiving Insp. & Repair							
Supervisor	1	A3	96	S	96	MOB	
Clerk	1	A1	64	O	64	MOB	1.
Technician	7					MOB	2.,3.
Metrology Lab							
Supervising Engineer	1	A3	96	S	96	MOB	
Clerk	2	A1	64	O	128	MOB	
Technician	6					MOB	4.
Subtotal	28				1,272		
USF (NSF X CF)					1,844		

SUPPORT AREAS	%USE	NSF	LOC	NOTES
Conference Room H	25	126	MOB	1.
Library Storage		50	MOB	
Inspection & Repair Lab		1,000	MOB	2.
Metrology Lab		4,500	MOB	2.,3.,4.
Subtotal		5,676		
USF (NSF X CF)		8,230		

NOTES

1. Three shelf cabinet.
2. Area located in Inspection and Repair Lab total.
3. Two workbenches per technician.
4. Area located in Metrology Lab total.

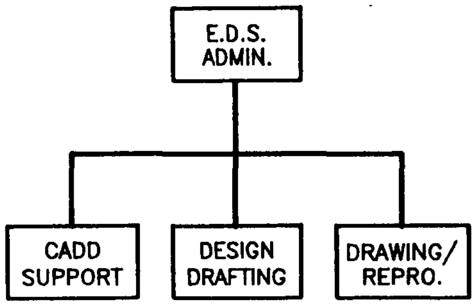
NOTES

1. Shared; NSF reflects percentage of conference room area proportionate to use.
2. Temperature, humidity, and vibration controlled area.
3. (18) Workbenches: (6) Dimentional Tolerances, (8) Electronic Tolerances, (4) Mass Tolerances.
4. Ten 6'x3'x18" storage cabinets.

Engineering Design Support

The Engineering Design Support group primarily serves customers in the Magnet Engineering and the Accelerator Mechanical and Electrical Systems groups. They provide CADD and design drafting support as well as drawing reproduction and document storage for all engineering components of the SSC Laboratory.

ORGANIZATION



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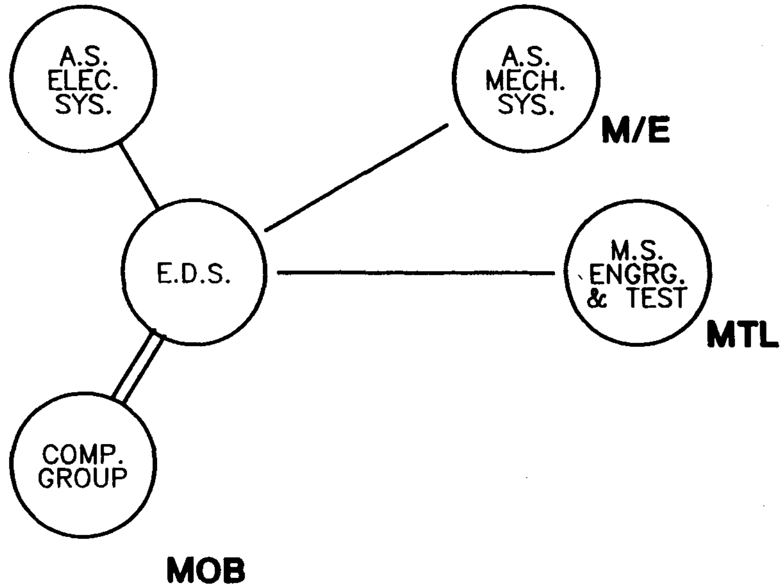


SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

file: jta

LABORATORY TECHNICAL SERVICES
ENGINEERING DESIGN SUPPORT: Jim Trantham

SUMMARY	FTE	USF
Baseline	39	
Draft	39	7,930
Change	0	

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Administration							
Manager	1	C4	168	P	168	MOB	1.
Secretary	1	B2	80	O	80	MOB	2.
Staff Assistant	1	B3	96	S	96	MOB	
Admin. Assistant	1	B3	96	S	96	MOB	
Supervisor	1	B3	96	P	96	MOB	
CADD Support							3.,4.
CADD Manager	1	B3	96	S	96	MOB	
Application Specialist	5	B2	80	S	400	MOB	
Programmer/Analyst	2	B2	80	S	160	MOB	
Data Base Professionals	2	B2	80	S	160	MOB	
Trainer	1	B2	80	S	80	MOB	
Operator	1	B1	64	O	64	MOB	
Design Drafting							
Supervisor	1	B3	96	P	96	MOB	5.
Design Draftsman	8	A1	64	S	512	MOB	5.
Drawing/Reproduction							
Document Manager	1	C4	168	P	168	MOB	
Document Analyst	1	B3	96	S	96	MOB	
Document Clerk	6					MOB	6.
Clerk	5					MOB	7.
Subtotal	**39**				**2,368**		
USF (NSF X CF)					**3,434**		

SUPPORT AREAS	%USE	NSF	LOC	NOTES
Conference Room H	25	126	MOB	1.
File Area		45	MOB	2.
Copy Center	50	50	MOB	1.
Reception Area		80	MOB	3.
Drawing/Reproduction Area		2,100		4.,5.
Document Management Room		500		6.,7.
Reproduction Storage		200		
Subtotal		**3,101**		
USF (NSF X CF)		**4,496**		

NOTES

1. 3 X 4 white board.
2. Adjacent to Reception Area.
3. Needs access to Computer Training Room.
4. Near Central Computer.
5. Near FEM personnel.
6. Area counted in Document Mgmt. Room total.
7. Area counted in Drawing/Repro. total.

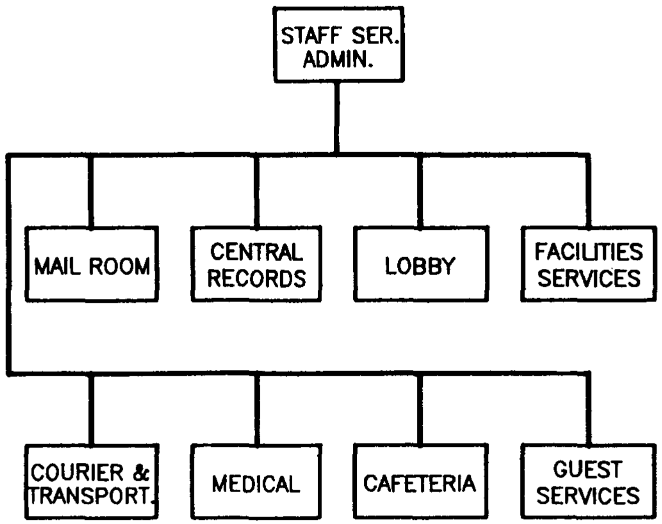
NOTES

1. Shared; NSF reflects percentage of conference room area proportionate to use.
2. Three lateral files.
3. Waiting area for Vendors and Suppliers.
4. Micro-film machine; satellite plotter/server.
5. Secured from general office personnel.
6. Five stacks of flat files.
7. Need for 2500 gigabytes of electronic data storage in computer room.

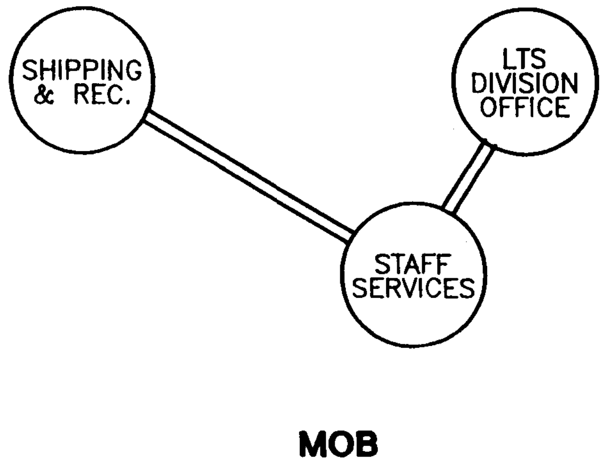
Staff Services

Staff Services will maintain a variety of services required for an organization of the size projected for the SSC. These services include the cafeteria, public information office, travel office, mail room and records keeping. The support level of some of these functions will be subcontracted to outside firms with Staff Services maintaining management oversight.

ORGANIZATION



ADJACENCIES



SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

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LABORATORY TECHNICAL SERVICES
STAFF SERVICES: Suzanne Pigott

SUMMARY	FTE	USF
Baseline	55	
Draft	69	46,098
Change	14	

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Head	1	C4	168	P	168	MOB	1.
Budget/Staff Assistant	1	C1	144	P	144	MOB	
Secretary	1	B3	96	O	96	MOB	2.
Training Office		A1	64	S	64	MOB	3.
Mail Room							
Supervisor	1	A3	96	P		MOB	4.
Runner	3	A1	64	O		MOB	4.,5.
Clerk	2	A1	64	O		MOB	4.
Central Records							
Records Administrator	1	C4	168	P	168	MOB	
Chief Clerk	1	B3	96	P	96	MOB	
File Clerk	3	B1	64	O		MOB	6.
Lobby							
Receptionist	3	B3	80	O		MOB	7.
Facilities Support							
Section Head	1	C4	168	P	168	W	8.
Secretary	1	B2	80	O	80	W	8.
Mover	9	A1	64	O	64	W	8.,9.
Courier & Transportation							
Dispatcher	1	A3	96	P	96	MOB	
Courier	5	A3	96	P	96	MOB	9.
Driver	6	A3	96	P	96	MOB	9.

SUPPORT AREAS	%USE	NSF	LOC	NOTES
Conference Room H	25	126	MOB	1.
Break Room		500	MOB	
Mail Room		1,590	MOB	2.
Central Records		720	MOB	2.
Lobby		5,000	MOB	3.

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Medical							
Medical Director	1					MOB	10.
Physician	1					MOB	10.
Secretary	1					MOB	10.
Nurse	3					MOB	5.,10.
Cafeteria/Food Service							
Supervisor	1	B3	96	P		MOB	11.
Contract Cafeteria Staff	20					MOB	11.,12.
Guest Services							
Guest Service Worker	2					GH	13.
Subtotal	**69**				**1,336**		14.
USF (NSF X CF)					**1,937**		

SUPPORT AREAS	%USE	NSF	LOC	NOTES
Medical Clinic		2,340	MOB	2.
Kitchen		5,280	MOB	3.
Dining (1200p x 12 SF/p)		14,400	MOB	4.
Exec. Din. (25p x 20 SF/p)		500	MOB	5.
Vending Area			MOB	6.
Supply Room/Laundry			GH	7.
Subtotal		**30,456**		
USF (NSF X CF)		**44,161**		

NOTES

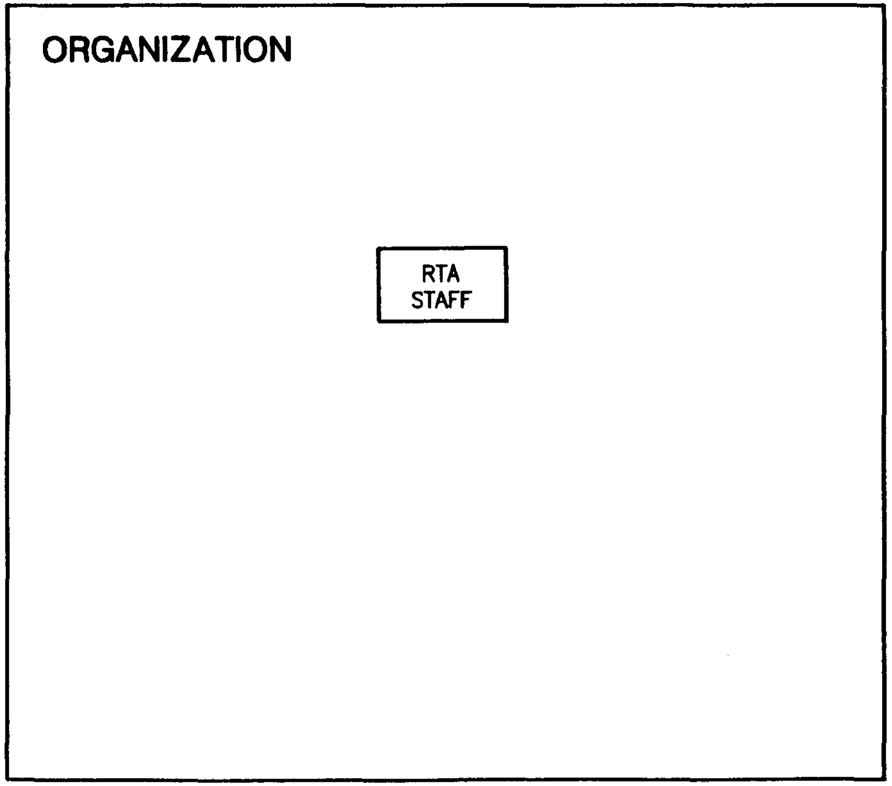
1. Tackable walls and 4x8 whiteboard.
2. Five drawer file cabinet.
3. Secretarial Pool employee training office.
4. Area counted in Mail Room total.
5. (1) Eliminated in Management review.
6. Area counted in Central Records total.
7. Area counted in Lobby total.
8. Area counted in Warehouse total.
9. Share one office.
10. Area counted in Medical Clinic total.
11. Area counted in Kitchen total.
12. Contract employees included in campus population total.
13. Area to be counted in future Guest House.
14. Area includes one unstaffed office.

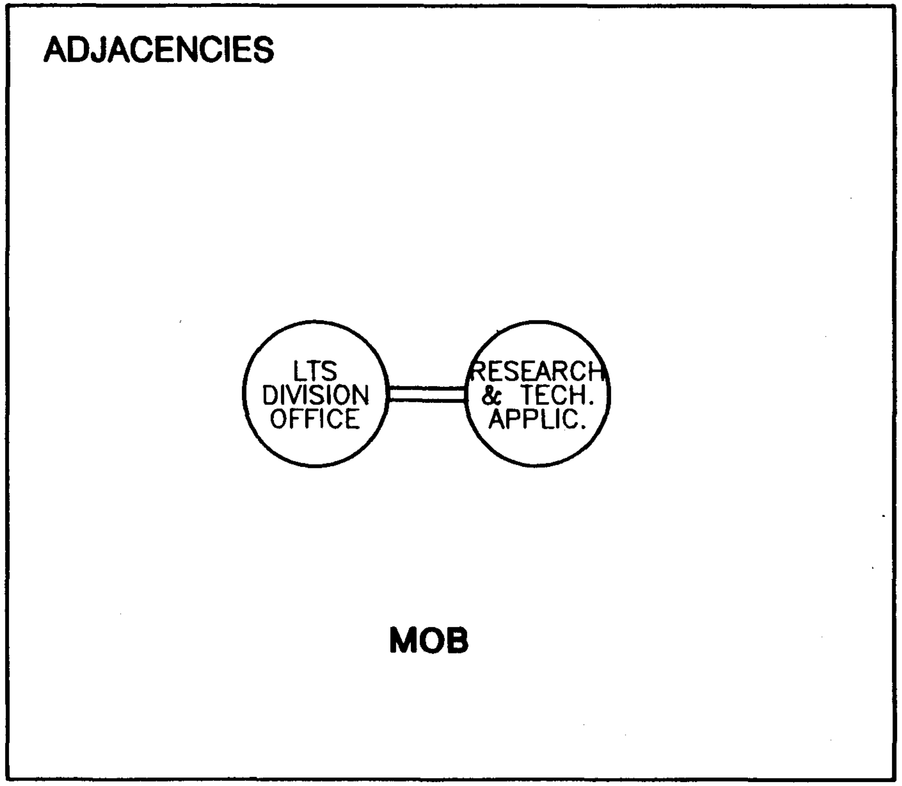
NOTES

1. Shared; NSF reflects percentage of conference room area propoptionate to use.
2. See appendix for preliminary layout; needs to be confirmed by further study.
3. Functions as formal and informal meeting area.
4. Assumptions: 60% usage factor; 2.5 sittings/meal; 75% efficiency; excess capacity for tourist use.
5. Breakout rooms to act as additional private dining rooms.
6. Vending areas to be included in individual buildings.
7. Commercial washers (2); dryers (2); sinks (2); folding tables; Guest House is part of supplementary program.

Research and Technology Application

The Research and Technology Application office will be responsible for the SSC Laboratory technology transfer effort. Technology transfer is not a single, well defined activity but rather requires a number of different approaches. URA has implemented a multi-faceted approach to technology transfer at Fermilab, and will draw on that experience for the SSC Laboratory.





SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

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LABORATORY TECHNICAL SERVICES
RESEARCH AND TECHNOLOGY APPLICATION

SUMMARY	FTE	USF
Baseline	0	
Draft	2	487
Change	2	

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Staff	2	C4	168	P	336	MOB	1.
Subtotal	**2**				**336**		
USF (NSF X CF)					**487**		

SUPPORT AREAS	%USE	NSF	LOC	NOTES
Subtotal		**0**		
USF (NSF X CF)		**0**		

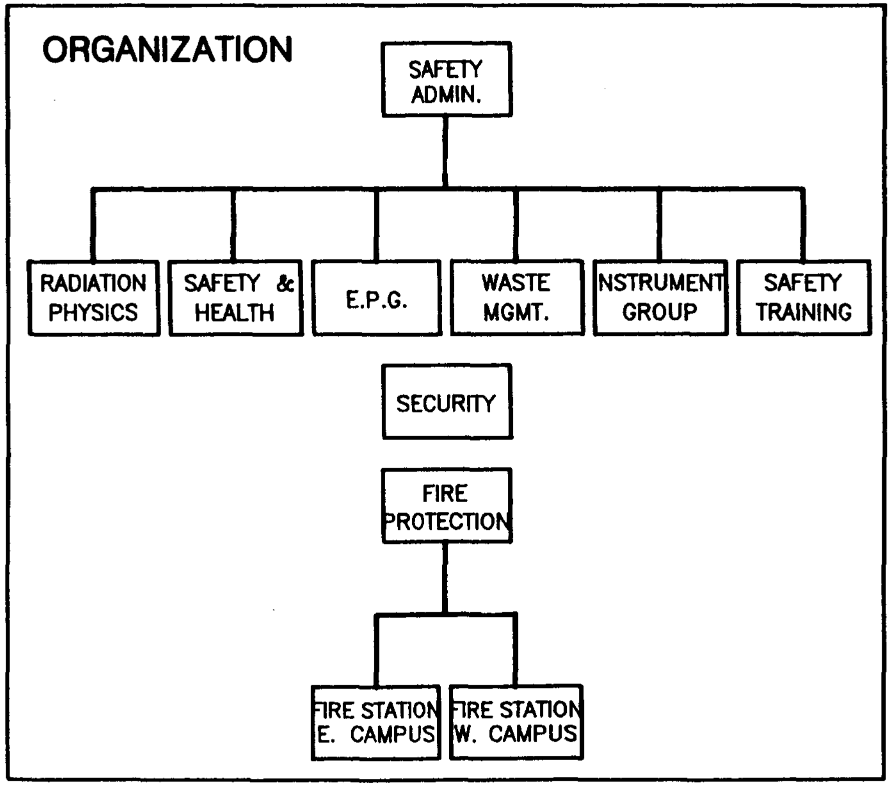
NOTES

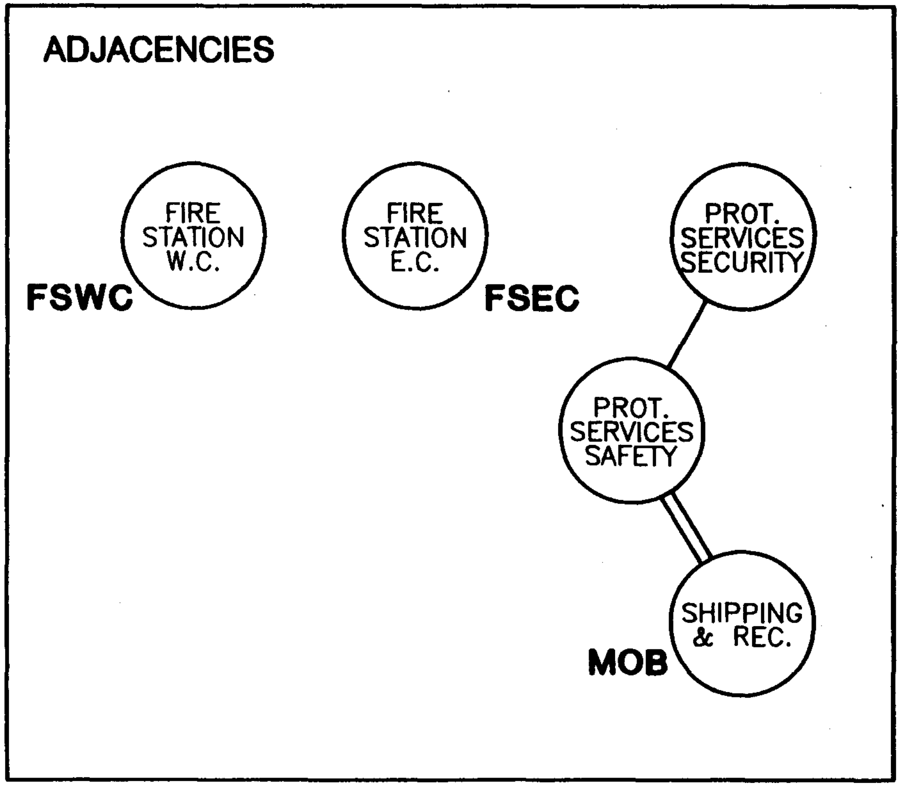
1. To be confirmed.

NOTES

Protective Services

The Protective Services group is composed of three departments: Safety Services will provide site wide safety instrumentation controlled from a central location, Security will oversee security services stationed throughout the Laboratory, and Fire Protection will staff two fire stations, one at each campus.





SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

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LABORATORY TECHNICAL SERVICES
PROTECTIVE SERVICES

SUMMARY	FTE	USF
Baseline	54	
Draft	102	14,850
Change	48	

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES	SUPPORT AREAS	%USE	NSF	LOC	NOTES
Safety Services												
Administration												
Supervisor	1	C4	168	P	168	MOB		Conference Room F	100	240	MOB	
Admin. Assistant	1	B1	64	O	64	MOB		Storage & Filing		240	MOB	1.
Radiation Physicists												
Group Leader	1	B3	96	O	96	MOB						
Staff	3	B3	96	O	288	MOB						
Clerk	1	B2	80	O	80	MOB	1.					
Technicians	4	A1	64	O	256	MOB	2.,3.					
Safety & Health												
Group Leader	1	B3	96	O	96	MOB						
Staff	1	B3	96	O	96	MOB						
Technicians	2	A1	64	O	128	MOB						
Environmental Protection Group												
Group Leader	1	B3	96	O	96	MOB						
Staff	1	B3	96	O	96	MOB						
Technicians	5	A1	64	O	320	MOB	4.					
Waste Management												
Group Leader	1	B3	96	O	96	MOB						
Assistant Leader	1	B3	96	O	96	MOB						
Technicians	6	A1	64	O	384	MOB						
Instrument Group												
Staff	2	B3	96	S	192	IB		Calibration Area		100	IB	2.
Technicians	8	A1	64	O	512	IB	5.,6.,7.,8.					
Safety Training												
Staff	4					MOB	9.	Training Studio		300	MOB	3.
								Video Editing		80	MOB	4.
								Computer Training		80	MOB	4.

Personnel	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Security							
Security Supervisor	1	C4	168	P	168	MOB	
Assistant Supervisor	1	B3	96	S	96	MOB	
Dispatcher	1	A2	80	O	80	MOB	
Contract Security Guards	37						10.,11.
Fire Protection							
Fire Station West Campus							
Permanent Staff	9					FSWC	12.
Fire Station East Campus							
Permanent Staff	9					FSEC	13.
Subtotal	**102**				**3,408**		
USF (NSF X CF)					**4,942**		

SUPPORT AREAS	%USE	NSF	LOC	NOTES
Subtotal		**1,040**		
USF (NSF X CF)		**1,508**		
West Campus Fire Station (USF)		**4,200**	FSWC	5.
East Campus Fire Station (USF)		**4,200**	FSEC	5.
USF Subtotal		**9,908**		

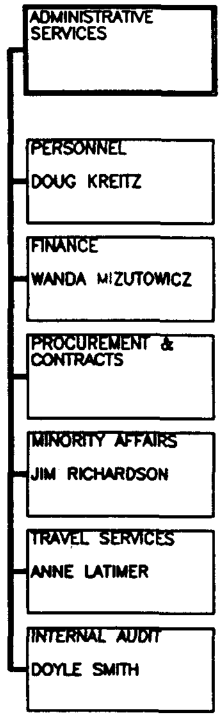
NOTES

1. Workstation in filing room.
2. Two drawer file cabinet.
3. Two 6' storage cabinets/technician.
4. One 6' storage cabinet/technician.
5. Open area for allowance of cart movement.
6. Access to vanport & eight dedicated parking spaces.
7. Twenty 6'x4'x18" storage cabinets.
8. Workbenches.
9. Area counted in Training Studio total.
10. Located around campuses.
11. Contract personnel counted in campus population total.
12. Area counted in West Campus Fire Station total.
13. Area counted in East Campus Fire Station total.

NOTES

1. Ten filing cabinets; work table.
2. Fixed test stations.
3. Includes storage of audio visual equipment.
4. Closed area.
5. See appendix for preliminary layout; needs to be confirmed by further study.

ADMINISTRATIVE SERVICES DIVISION
GROUP SUMMARIES



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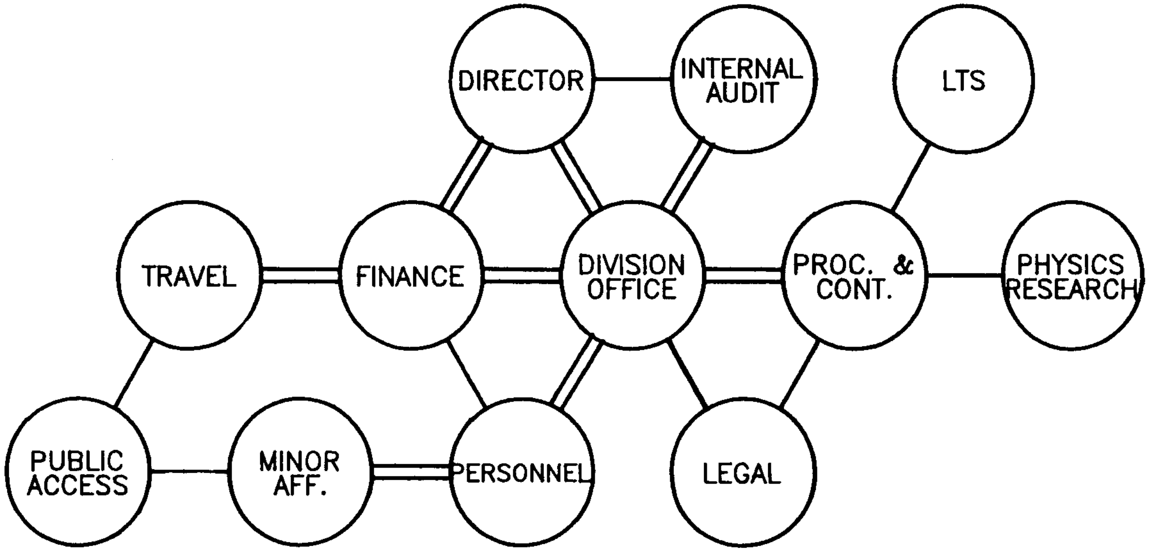


MOB

Administrative Services Division

The Administrative Services Division provides the administrative support required to operate the SSC Laboratory as a user facility. The Division will also serve as the day-to-day interface between DOE and the SSC Laboratory on administrative matters.

The Administrative Services Division will be responsible for such matters as financial administration, auditing, personnel issues and minority affairs as well as a number of staff services for SSCL community.

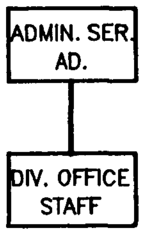
AREA BY BUILDING	MOB Personnel	MOB/CS Support					USF	GSF
ADMINISTRATIVE SERVICES								
Division Office	650	139					789	986
Personnel	4,257	1,398					5,655	7,069
Finance	5,417	1,546					6,963	8,704
Procurement & Contracts	4,083	1,850					5,933	7,416
Minority Affairs	603	134					737	921
Travel Services	2,053	853					2,906	3,633
Internal Audit	603	73					676	845
Subtotal	17,666	5,993					23,659	29,574

PERSONNEL BY BUILDING							FTE
ADMINISTRATIVE SERVICES							
Division Office	3						3
Personnel	27						27
Finance	39						39
Procurement & Contracts	28	1					29
Minority Affairs	4						4
Travel Services	13						13
Internal Audit	4						4
Subtotal	118	1					119

Division Office

The Administrative Services Division Office will ensure the administrative support required to operate the SSC Laboratory as a user facility, and will serve as the day-to-day interface between DOE and the SSC Laboratory on administrative matters. The Division Office will be the central coordinating body for all the groups within the division.

ORGANIZATION



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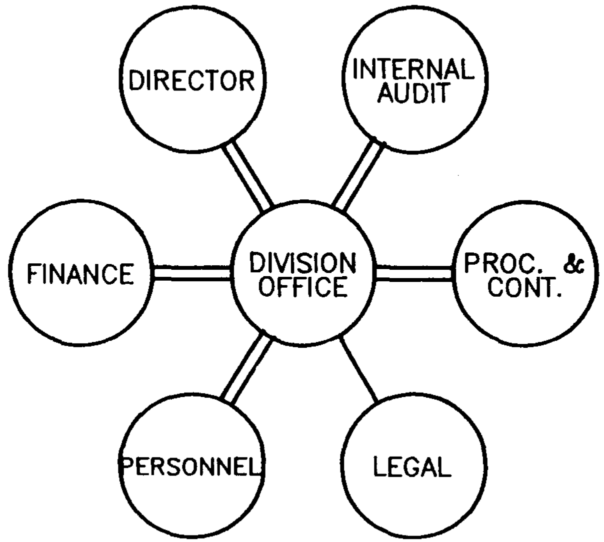

MOB

SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

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ADMINISTRATIVE SERVICES
DIVISION OFFICE

SUMMARY	FTE	USF
Baseline	3	
Draft	3	789
Change	0	

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Associate Director	1	C3	224	P	224	MOB	
Executive Assistant	1	C1	144	P	144	MOB	
Secretary	1	B2	80	O	80	MOB	1.
Subtotal	**3**				**448**		
USF (NSF X CF)					**650**		

SUPPORT AREAS	%USE	NSF	LOC	NOTES
Conference Room F	40	96	MOB	1.
Copy Center	share			2.
Subtotal		**96**		
USF (NSF X CF)		**139**		

NOTES

1. Four lateral files.

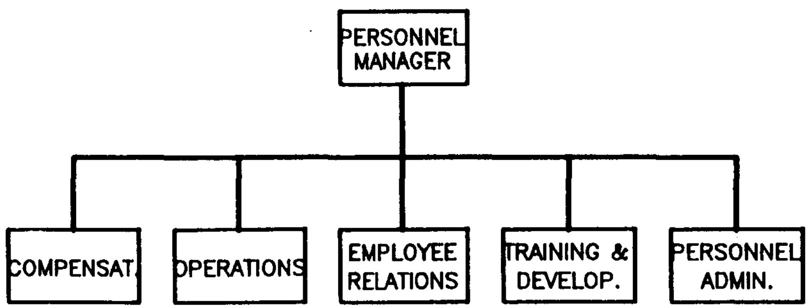
NOTES

1. Shared; NSF reflects percentage of conference room area proportionate to use.
2. FAX and laser printer.

Personnel

Personnel will be responsible for employee recruitment, compensation, personnel records, and benefits administration. Further, the group will provide EEO administration, employee counseling, aid to foreign nationals conducting research at the SSC Laboratory, and administration of employee training/development programs.

ORGANIZATION



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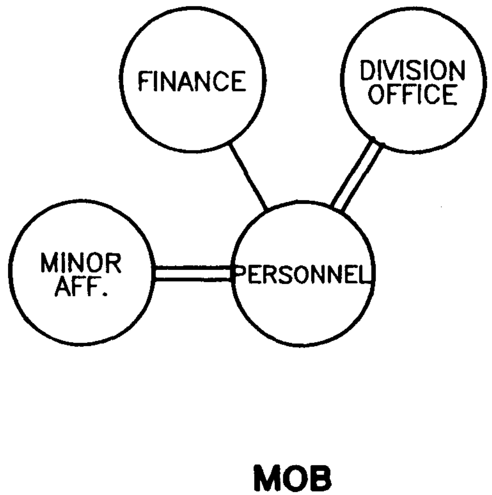

SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

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ADMINISTRATIVE SERVICES
PERSONNEL: Doug Kreitz

SUMMARY	FTE	USF
Baseline	24	
Draft	27	5,655
Change	3	

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Personnel Manager	1	C4	168	P	168	MOB	1.,2.
Secretary	1	B3	96	S	96	MOB	
Receptionist	1	A2	80	O	80	MOB	
Compensation							
Head	1	C4	168	P	168	MOB	
Administrator	4	A3	96	P	384	MOB	
Secretary	2	B3	96	S	192	MOB	
Operations							
Head	1	C4	168	P	168	MOB	
Secretary	2	B3	96	S	192	MOB	3.
Administrator	2	A3	96	P	192	MOB	
Admin. Assistant	2	A3	96	S	192	MOB	
Employee Relations							
Head	1	C4	168	P	168	MOB	4.
Secretary	1	B3	96	S	96	MOB	
Administrator	1	A3	96	P	96	MOB	
Training & Development							
Head	1	C4	168	P	168	MOB	
Secretary	1	B3	96	S	96	MOB	
Administrators	1	A3	96	P	96	MOB	

SUPPORT AREAS	%USE	NSF	LOC	NOTES
Conference Room E	100	196	MOB	
Conference Room G	40	168	MOB	1.
Reception		200	MOB	2.
Group Records Store		240	MOB	3.
Copy Center		100	MOB	4.
Kitchenette		60	MOB	

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Personnel Administration							
P.A.(Accel. Systems)	1	A3	96	P	96	MOB	5.,6.
P.A.(Phys. Research)	1	A3	96	P	96	MOB	5.,6.
P.A.(Tech. Services)	1	A3	96	P	96	MOB	5.,6.
P.A.(Magnet Systems)	1	A3	96	P	96	MOB	5.,6.
Subtotal	**27**				**2,936**		
USF (NSF X CF)					**4,257**		

NOTES

1. 4 x 8 white board.
2. Adjacent to Compensation & Operations.
3. One workstation in Records Storage.
4. Adjacent to Training & Development.
5. To be located in division indicated.
6. 3 x 4 white board.

SUPPORT AREAS	%USE	NSF	LOC	NOTES
Subtotal		**964**		
USF (NSF X CF)		**1,398**		

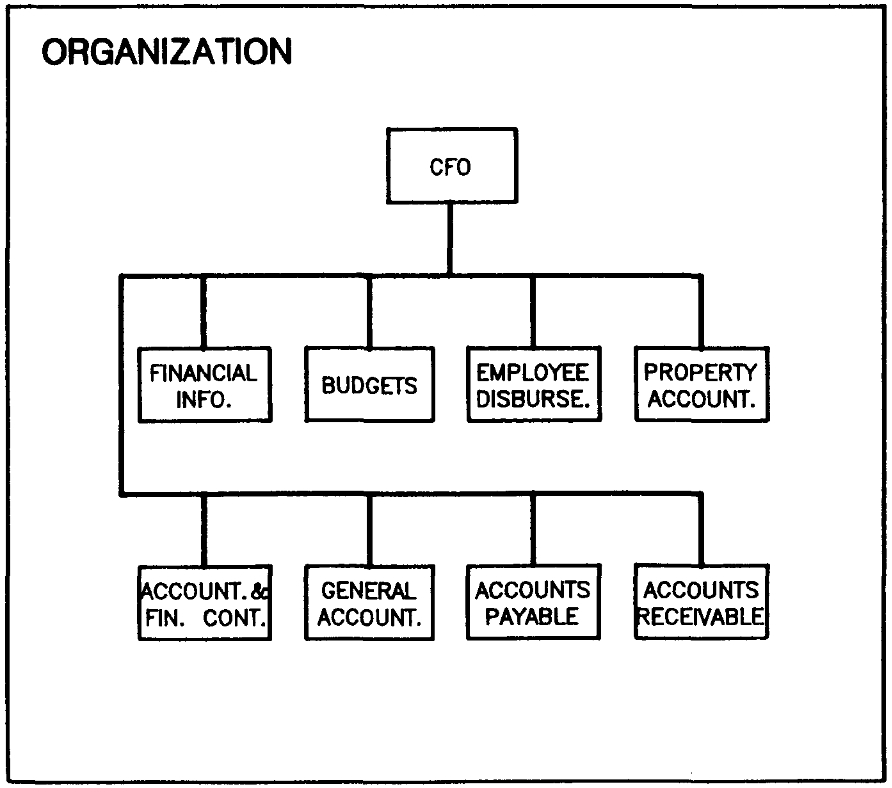
NOTES

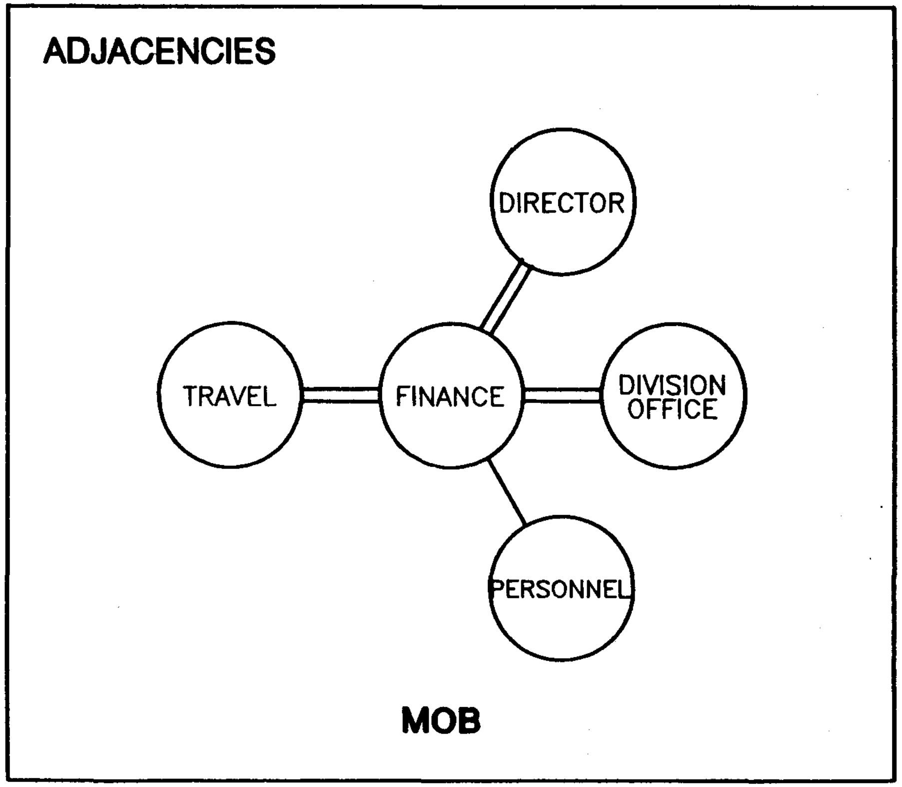
1. Share; NSF reflects percentage of conference room area proportionate to use.
2. Waiting for 6 people.
3. Secure room w/heavy floor loading,
   Electriver (4'd x 10'w x 8'h), FAX, one sec. workstation.
4. Shredder.

Finance

Finance will plan and monitor the budget for the SSC Laboratory. Accounting will document the actual costs in comparison to the planned budget. Finance will also provide general accounting, asset accounting, payroll, cost accounting cashier services, accounts receivables and payables, and special inventories accounting. The accounting system will be interfaced with the DOE system as specified in the URA-DOE contract.

Finance will ensure that the SSCL will comply with prime contract requirements, and that a financial activity records and services comply with all pertinent regulations.





SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

file: wm

ADMINISTRATIVE SERVICES
FINANCE: Wanda Mizutowicz

SUMMARY	FTE	USF
Baseline	35	
Draft	39	6,963
Change	4	

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Chief Financial Officer	1	C3	224	P	224	MOB	1.,2.,3.
Secretary							4.
Receptionist	1	B2	80	O	80	MOB	5.
Financial Info. Services							
Manager	1	C4	168	P	168	MOB	1.,2.
Admin. Assistant	1	B2	80	S	80	MOB	2.
Budgets							
Manager	1	C4	168	P	168	MOB	2.
Secretary	1	B2	80	S	80	MOB	
Analyst	1	B3	96	P	96	MOB	4.
Clerk	1	B2	80	O	80	MOB	4.,6.
Employee Disbursements							
Supervisor	1	B3	96	P	96	MOB	2.
Travel Assoc. Supervisor	1	B3	96	O	96	MOB	
Travel Clerk	3	B2	80	O	240	MOB	7.
Payroll Asso. Supervisor	1	B3	96	P	96	MOB	
Clerk	5	B2	80	O	400	MOB	8.
Property Accounting							
Supervisor	1	B3	96	P	96	MOB	2.
Staff Accountant	1	B2	80	O	96	MOB	7.
Clerk							7.
Accounting & Fin. Cont.							
Manager	1	C4	168	P	168	MOB	
Secretary	1	B3	96	S	96	MOB	
Fin. Policy & Procedures	1	B3	96	S	96	MOB	
Admin. Assistant	1	B3	96	S	96	MOB	

SUPPORT AREAS	%USE	NSF	LOC	NOTES
Conference Room F	60	144	MOB	1.
Conference Room G	10	42	MOB	1.
Group Records Storage		500	MOB	2.
Production Room	(2)	200	MOB	3.,4.
Reception Area		80	MOB	5.
Copy Room		100	MOB	

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
General Accounting							
Supervisor	1	B3	96	P	96	MOB	2.,9.
Senior Accountant	1	B3	96	P	96	MOB	2.
Staff Accountant	1	B2	80	O	80	MOB	2.,4.
Clerk	2	B2	80	O	160	MOB	7.
Accounts Payable							
Supervisor	1	B3	96	P	96	MOB	2.,9
Staff Accountant	1	B2	80	O	80	MOB	4.
Clerk	3	B2	80	O	240	MOB	6.,8.,10.,11.
Accounts Recievable							
Supervisor	1	B3	96	P	96	MOB	
Clerk	3	B2	80	O	240	MOB	
Subtotal	**39**				**3,736**		
USF (NSF X CF)					**5,417**		

SUPPORT AREAS	%USE	NSF	LOC	NOTES
Subtotal		**1,066**		
USF (NSF X CF)		**1,546**		

NOTES

1. Two 4' x 6' bookcases.
2. 3 x 4 white board.
3. Adjacent to Financial Info. Serv., Budgets, Employee Disbursements.
4. (1) Eliminated in Management review.
5. FAX
6. Include small copier.
7. (2) Eliminated in Management review.
8. All can be in one private area.
9. Four drawer file cabinet.
10. (4) Eliminated in Management review.
11. Twelve six drawer file cabinets.

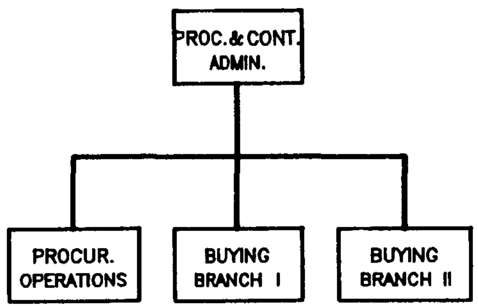
NOTES

1. Shared; NSF reflects percentage of conference room area proportionate to use.
2. Area assumes electronic data storage; (400 personnel files / month created).
3. Check burster, check signing mach., printer, typewriter, impact printer.
4. Acoustically isolated room.
5. 4 persons waiting.

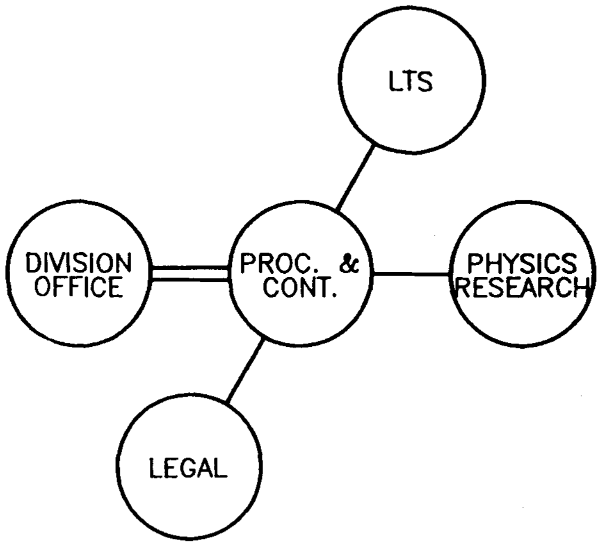
Procurement & Contracts

Procurement & Contracts will award all purchase orders and contracts for materials and services required for the SSC construction project and for the SSC laboratory during its operation. This group will have the role of ensuring that lowest prices are paid for quality materials and services, that required acquisition procedures as specified in the URA-DOE contract are followed, and that subcontractor change orders are fully justified and formally executed.

ORGANIZATION



ADJACENCIES



MOB

SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

file: ew

ADMINISTRATIVE SERVICES
PROCUREMENT & CONTRACTS

SUMMARY	FTE	USF
Baseline	29	
Draft	29	5,933
Change	0	

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Administration							
Procurements Manager	1	C4	168	P	168	MOB	
Secretaries	2	B2	80	S	160	MOB	
Policy & Proc. Mgr.	1	C4	168	P	168	MOB	
Receptionist	1	A2	80	O	80	MOB	
Procurement Operations							
Manager	1	B3	96	P	96	MOB	
Cost Price Analyst	2	B3	96	P	192	MOB	
Systems Analyst	1	B2	80	S	80	MOB	
Central File Clerk	1					MOB	1.
File & Data Entry Clerk	2	B2	80	S	160	MOB	
Buying Branch I							
Manager	1	C4	168	P	168	MOB	
Buyer	5	B3	96	S	480	MOB	
Clerk	2	B2	80	S	160	MOB	
Buying Branch II							
Manager	1	C4	168	P	168	MOB	
Buyers	6	B3	96	S	576	MOB	
Clerks	2	B2	80	S	160	MOB	
Subtotal	**29**				**2,816**		
USF (NSF X CF)					**4,083**		

SUPPORT AREAS	%USE	NSF	LOC	NOTES
Conference Room E	100	196	MOB	
Conference Room F	100	240	MOB	
Copy Center		100	MOB	
Source Selection Room		120	MOB	1.
Reception Area		120	MOB	2.
File Room		500	MOB	3.,4.
Subtotal		**1,276**		
USF (NSF X CF)		**1,850**		

NOTES

1. Area counted in File Room total.

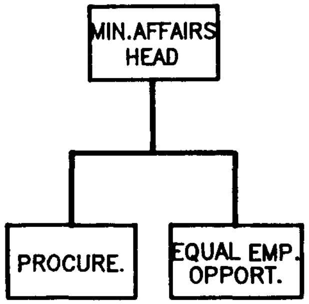
NOTES

1. Tackable walls.
2. Waiting for 8 people.
3. Lectriver Machine.
4. Includes vendor catalouges.

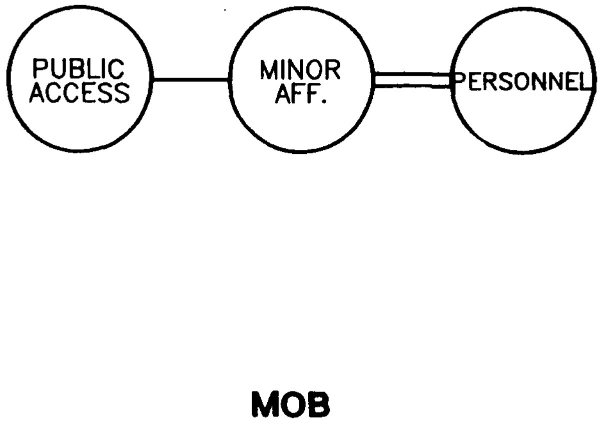
Minority Affairs

Minority Affairs will be responsible for implementing two major programs: 1) Affirmative Action/EEO function and 2) minority procurement promotion and monitoring of laboratory procurement actions. These two functions will respond to DOE requirements for complying with legislative language as to procurement set asides involving small business, disadvantaged business, and women-owned business as well as insuring an adequate representation of minority and female employees within the SCC Lab work force.

ORGANIZATION



ADJACENCIES



SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

file: jra

ADMINISTRATIVE SERVICES
MINORITY AFFAIRS: Jim Richardson

SUMMARY	FTE	USF
Baseline	4	
Draft	4	737
Change	0	

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Head	1	C1	144	O	144	MOB	1.
Procurements							
SADBU Manager						MOB	2.
Business Dev. Specialist	1	B3	96	S	96	MOB	1.,2.
Secretary	1	B2	80	O	80	MOB	2.,3.
Equal Emp. Opportunities							
Manager							4.
Case Analyst	1	B3	96	P	96	MOB	
Secretary						MOB	2.
Subtotal	**4**				**416**		
USF (NSF X CF)					**603**		

SUPPORT AREAS	%USE	NSF	LOC	NOTES
Conference Room G	10	42	MOB	1.
Copy Center	50	50	MOB	
Subtotal		**92**		
USF (NSF X CF)		**133**		

NOTES

1. 3 X 4 white board.
2. (1) Eliminated in Management Review.
3. Two four drawer file cabinets.
4. (1) Eliminated in June Baseline review.

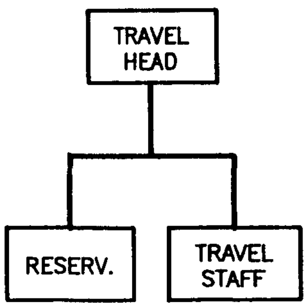
NOTES

1. Shared; NSF reflects percentage of conference room area proportionate to use.

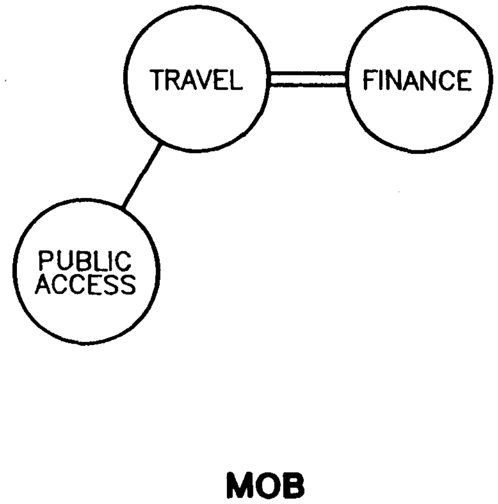
Travel Services

Travel Services will provide all travel related services to the SSC Laboratory employees and anyone visiting the laboratory. Included in these services will be negotiated rates with airlines, hotels, car rentals, and shuttle services within the Dallas area and nationally. There will be an on-site travel agency to provide reservation assistance and ticketing. The travel management system will provide up-to-date information on all laboratory travel for the accounting department and all divisions in reference to their budgets and status of travellers.

ORGANIZATION



ADJACENCIES



SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

file: al

ADMINISTRATIVE SERVICES
TRAVEL SERVICES: Anne Latimer

SUMMARY	FTE	USF
Baseline	3	
Draft	13	2,906
Change	10	

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Head	1	C4	168	P	168	MOB	1.,2.,3.
Assistant							4.
Clerk	1	B1	64	S	64	MOB	
Secretary/Recept.	1	B1	64	O	64	MOB	
Reservations							
Contract Reservationist	8	A1	64	O	960	MOB	5.,6.,7.,8.
Courier						MOB	4.
Foreign Travel Spec.	1	A2	80	S	80	MOB	4.
Seminars and Conf. Spec.	1	B2	80	S	80	MOB	9.
Subtotal	**13**				**1,416**		
USF (NSF X CF)					**2,053**		

SUPPORT AREAS	%USE	NSF	LOC	NOTES
Conference Room G	40	168	MOB	1.
File Area		90	MOB	2.
Storage		100	MOB	3.,4.
Ticket Printing Office		150	MOB	5.,6.
Reception Area		80	MOB	7.
Subtotal		**588**		
USF (NSF X CF)		**853**		

NOTES

1. Adjacent to Asst. & Sec.
2. Needs airline terminal.
3. 2 drawer lateral file.
4. (1) Eliminated in Management Review.
5. Contract personnel counted in campus population total.
6. Adjacent to Sec. & Clerk.
7. Needs floor safe.
8. 4 l.f. shelving/station.
9. Adjacent to Reservationists.

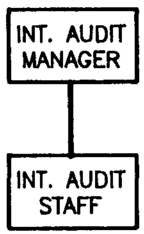
NOTES

1. Shared; NSF reflects percentage of conference room area proportionate to use.
2. Ten 4 drawer lateral files.
3. 2 door cabinet.
4. Copy machine, shredder, laser printer.
5. 4 printers, 1 computer, 4 drawer vertical file cab.
6. 2 Reservationists stations located inside.
7. Waiting for 3-4 people.

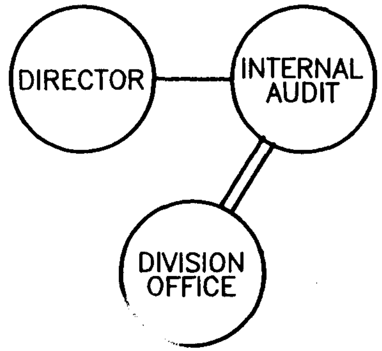
Internal Audit

The Internal Audit staff will conduct audits of the Laboratory operations from both a financial and an internal control perspective to assure the Director of adherence to all requirements of DOE orders, generally accepted accounting principles, and contract provisions. The head of Internal Audit will also report the results of these audits to the URA President and the URA-SSC Board of Overseers. He will also serve as a point of contact for the URA independent auditors and all government groups that will be involved in auditing URA-SSC activities.

ORGANIZATION



ADJACENCIES



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SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

file: ds

ADMINISTRATIVE SERVICES
INTERNAL AUDIT: Doyle Smith

SUMMARY	FTE	USF
Baseline	2	
Draft	4	676
Change	2	

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Manager	1	C1	144	P	144	MOB	
Secretary	1	B2	80	O	80	MOB	1.
Auditors	2	B3	96	S	192	MOB	2.,3.,4.,5.
Subtotal	**4**				**416**		
USF (NSF X CF)					**603**		

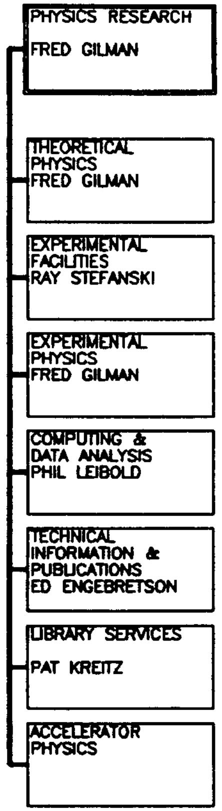
SUPPORT AREAS	%USE	NSF	LOC	NOTES
Copy Center	50	50	MOB	
Subtotal		**50**		
USF (NSF X CF)		**73**		

NOTES
1. 4 drawer lateral file.
2. Eliminated in Management Review.
3. 3 X 4 white board.
4. 60 l.f. Shelving
5. With door.

NOTES

PHYSICS RESEARCH DIVISION

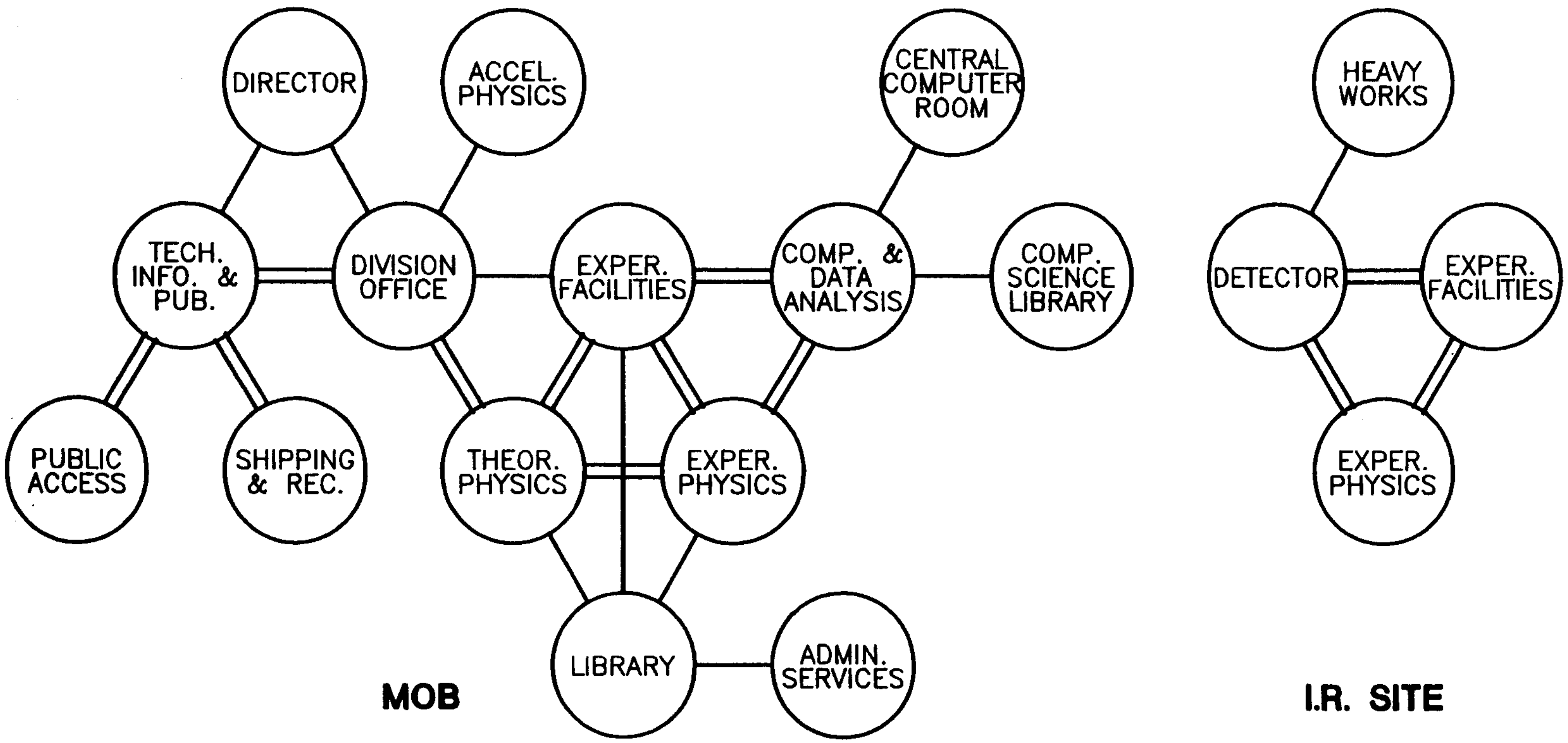
GROUP SUMMARIES



SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

PHYSICS RESEARCH

ADJACENCIES



Physics Research Division

In collaboration with members of the international community of theoretical and experimental physicists, the Physics Research Division will initiate and/or support the high energy physics experimental and theoretical mission of the SSC Laboratory.

The Physics Research Division will also house the SSC Library, which will be the most sophisticated physics research library in the world and a focal point for the international research community. The Division also contains the technical publications arm of the SSC Laboratory.

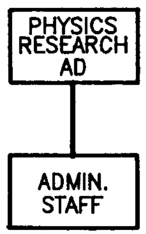
AREA BY BUILDING	MOB Personnel	MOB/CS Support	IR 1 Adm./Lab	IR 4 Adm./Lab	IR 5 Adm./Lab	IR 8 Adm./Lab	USF	GSF
PHYSICS RESEARCH								
Division Office	2,482	1,900					4,382	5,478
Theoretical Physics	4,698	2,159					6,857	8,571
Experimental Facilities	13,351	2,002	37,288	32,277	24,325	24,638	133,881	167,351
Experimental Physics	17,481	1,879	16,669	16,785	12,563	12,656	78,033	97,541
Computing & Data Analysis	8,723	1,931					10,654	13,318
Tech. Info. & Publications	3,631	4,657					8,288	10,360
Library Services	3,944	15,634					19,578	24,473
Accelerator Physics	2,332						2,332	2,915
Subtotal	56,642	30,162	53,957	49,062	36,888	37,294	264,005	330,006

PERSONNEL BY BUILDING	MOB Personnel	MOB/CS Support	IR 1 Adm./Lab	IR 4 Adm./Lab	IR 5 Adm./Lab	IR 8 Adm./Lab	FTE
PHYSICS RESEARCH							
Division Office	15						15
Visitors	10						10
Theoretical Physics	25						25
Visitors	13						13
Experimental Facilities	69		84	82	76	79	390
Experimental Physics	4		45	46	25	35	155
Visitors	148		90	90	81	68	477
Computing & Data Analysis	63						63
Tech. Info. & Publications	25	7					32
Library Services		24					24
Accelerator Physics	17						17
Subtotal	389	31	219	218	182	182	1,221

Division Office

The Physics Research Division Office will prepare and administer budgets and provide the logistical support for the scientific components of the division, as well as serve as home base for several visiting scientists.

ORGANIZATION



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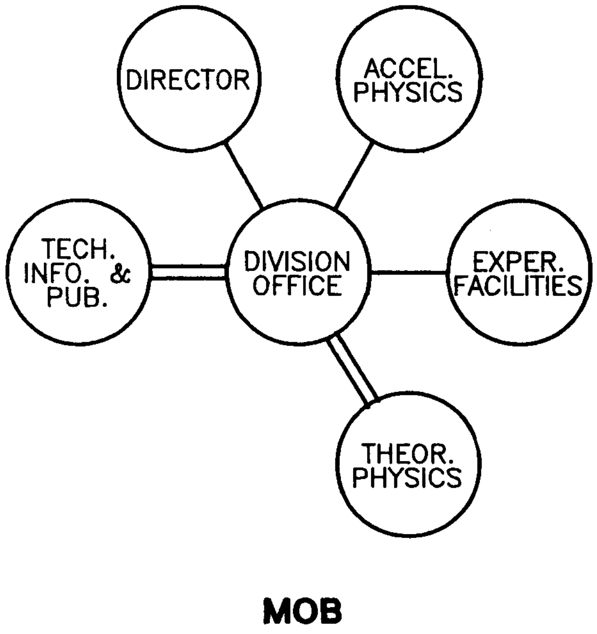


SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

file: msa

PHYSICS RESEARCH
DIVISION OFFICE: Fred Gilman

SUMMARY	FTE	USF
Baseline	25	
Draft	25	4,382
Change	0	

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTE
Associate Director	1	C3	224	P	224	MOB	1.
Budget Coordinator	1	B3	96	P	96	MOB	2.
Executive Assistant	2	B3	96	P	192	MOB	3.
Admin. Assistant	3	B2	80	S	240	MOB	2.
Secretary (Class 3)	3	B1	64	O		MOB	4.
Secretary (Class 2)	3	B1	64	O	192	MOB	4.
Clerk (Class 2)	2	B1	64	O	128	MOB	
Visitor	10	B1	64	O	640	MOB	5.
Subtotal (Incl. 10 visitors)	**25**				**1,712**		
USF (NSF X CF)					**2,482**		

SUPPORT AREAS	%USE	NSF	LOC	NOTE
Conference Room E	100	196	MOB	
Conference Room G	100	420	MOB	
Conference Room H	100	504	MOB	
File Area		90	MOB	1.
Copy Center		100	MOB	2.
Subtotal		**1,310**		
USF (NSF X CF)		**1,900**		

NOTES

1. Ten 4 drawer vertical files.
2. Printer.
3. Five drawer vertical files.
4. Two lateral files.
5. Locate visitors in open area with one B1 private workstation.

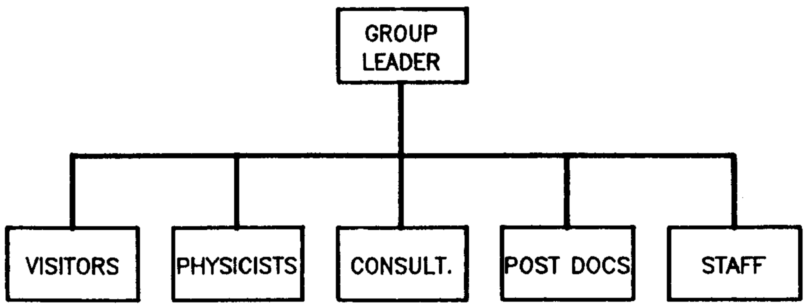
NOTES

1. Ten 4 drawer lateral files.
2. Work surfaces.

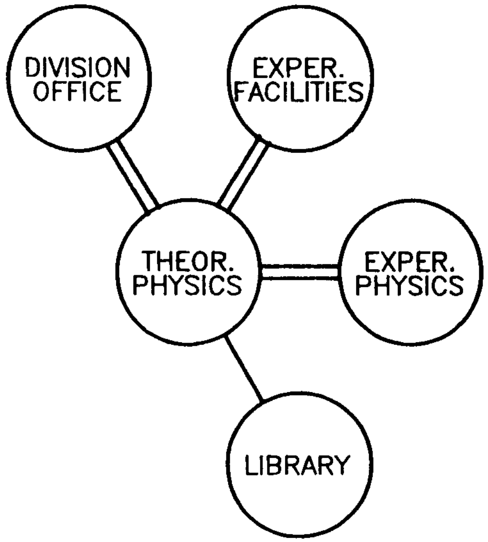
Theoretical Physics

Theoretical Physics will support theoretical investigations germane to the scientific mission of the SSC Laboratory and support the development of theoretical and phenomenological tools to assist in the analysis of data from experiments at the SSC Laboratory.

ORGANIZATION



ADJACENCIES



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SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

file: fgb

PHYSICS RESEARCH
THEORETICAL PHYSICS: Fred Gilman

SUMMARY	FTE	USF
Baseline	25	
Draft	38	6,857
Change	13	

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Group Leader	1	C4	168	P	168	MOB	1.
Senior Physicist	9	A3	96	P	864	MOB	2
Consultant	8	A3	96	P	768	MOB	
Post. Doc.	5	B2	80	P	400	MOB	
Admin. Assistant	1	B2	80	S	80	MOB	
Secretary	1	B2	80	O	80	MOB	
Visitor	2	A3	96	P	192	MOB	3.
Visitor	3	B2	80	P	240	MOB	
Visitor	8	BB		P	448	MOB	
Subtotal (incl. 13 Visitors)	**38**				**3,240**		
USF (NSF X CF)					**4,698**		

SUPPORT AREAS	%USE	NSF	LOC	NOTE
Conference Room H	100	504	MOB	
Kitchenettte/Lounge		200	MOB	1.
Filing Area		135	MOB	2.
Copy Center		100	MOB	
Computer Resource Area		550	MOB	3.
Subtotal		**1,489**		
USF (NSF X CF)		**2,159**		

NOTES

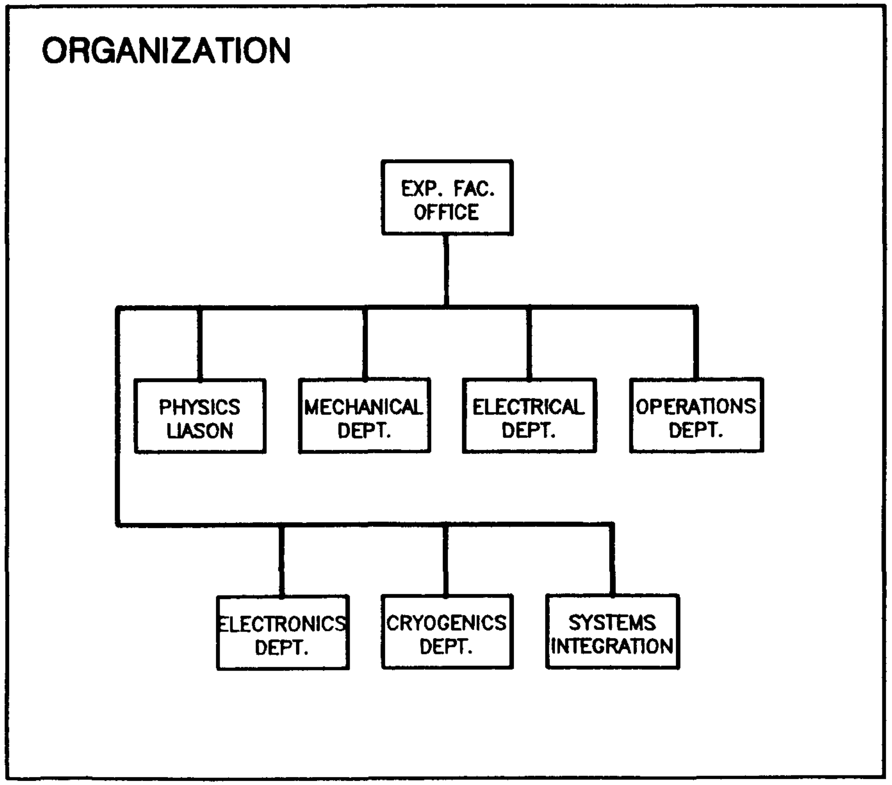
1. Wall to wall white board.
2. Group adjacent to Exp Physics, Library, Directorate
3. Total of 13 visitors.

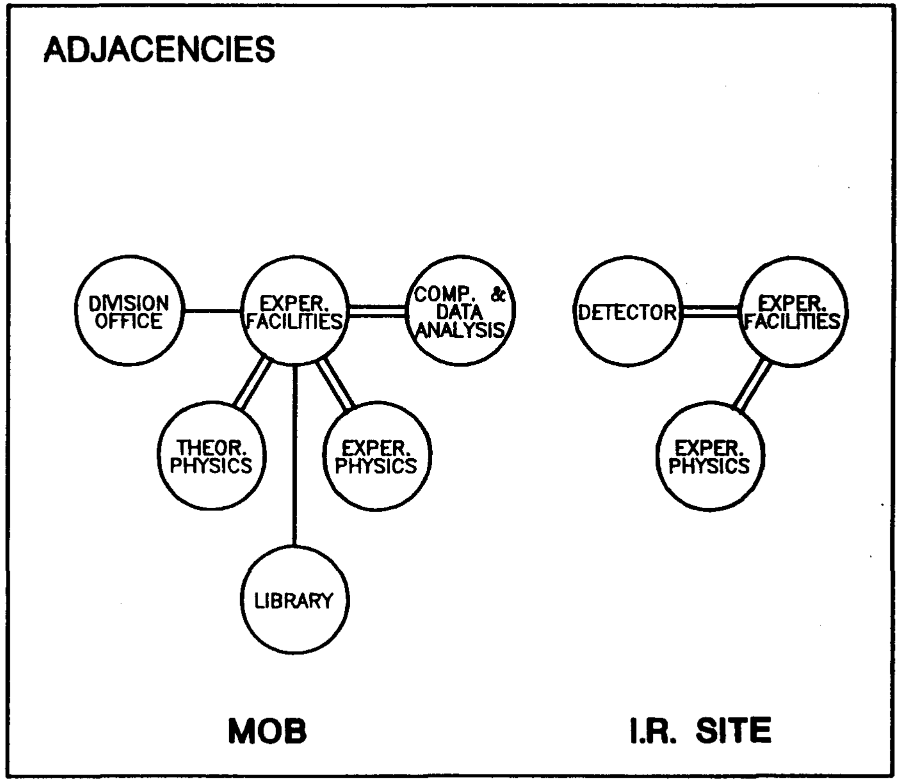
NOTES

1. Area with mailboxes and white boa ds.
2. 15 - 4 drawer lateral files.
3. 10+ computer terminals in open area.

Experimental Facilities

Experimental Facilities will conduct, and also sponsor in other institutions, research on and development of advanced detector technology for potential use in SSC experiments. This group will also determine the nature of the support facilities for SSC experiments, in collaboration with other SSC Divisions and design, construct, operate and analyze experiments at the SSC, in collaboration with physicists and engineers from the international scientific community.





SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

file: rs

PHYSICS RESEARCH
EXPERIMENTAL FACILITIES: Ray Stefanski

SUMMARY	FTE	USF
Baseline	390	
Draft	390	133,881
Change	0	

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Main Office Building							
Department Office							
EA3 Group Leader	1	C3	224	P	224	MOB	
NE3 Admin. Assistant	1	B3	96	P	96	MOB	
NE2 Secretary	1	B2	80	O	80	MOB	
EA1 Budget/Business Manager	1	B3	96	P	96	MOB	
Subtotal	**4**				**496**		
USF (NSF X CF)					**719**		

SUPPORT AREAS	%USE	NSF	LOC	NOTES

NOTES

NOTES

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Main Office Building							
Physics Liason							
EA3 Group Leader	1	C3	224	P	224	MOB	
EA2 Assistant Head	3	C4	168	P	504	MOB	
NE3 Admin. Assistant	1	B3	96	P	96	MOB	
NE2 Secretary	1	B2	80	O	80	MOB	
NE1 Secretary	1	B2	80	O	80	MOB	
EA1 Budget/Business Manag	1	B3	96	P	96	MOB	
EA3 Physicist	2	C4	168	P	336	MOB	
Subtotal	**10**				**1,416**		
USF (NSF X CF)					**2,053**		

SUPPORT AREAS	%USE	NSF	LOC	NOTES
Conference Room H	100	504	MOB	1.
Conference Room E	100	196	MOB	1.
Copy Centers (2)		200	MOB	1.
Peripheral Comp. Area		480	MOB	1.
Subtotal		**1,380**		
USF (NSF X CF)		**2,001**		

NOTES

NOTES

1. Shared by all Exp. Phy. groups at MOB.

EXPERIMENTAL FACILITIES page 2

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
IR 1,2							
Physics Liason							
EA3 Physicist	1	C4	168	P	168	IR1,2	
EA2 Engineer	1	B3	96	S	96	IR1,2	
EA2 Technician	1	D3	64	S	64	IR1,2	
EA1 Engineer	1	D3	64	S	64	IR1,2	
EA1 Technician	1	D3	64	S	64	IR1,2	
EA1 Technician	2	BB	56	S	112	IR1,2	
Subtotal	**7**				**568**		
USF (NSF X CF)					**824**		

NOTES

SUPPORT AREAS	%USE	NSF	LOC	NOTES
Shop/Lab		6,400	IR1,2	1.
Control Room		3,500	IR1,2	1.
Computer Room		2,200	IR1,2	1.
Electronics Room		6,000	IR1,2	1.
Meeting Room		2,000	IR1,2	1.
Subtotal		**20,100**		
USF (NSF X CF)		**29,145**		

NOTES

1. Shared by all Exp. Phy. groups at IR1,2.

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
IR 3,4							
Physics Liason							
EA3 Physicist	1	C4	168	P	168	IR3,4	
EA2 Designer	1	B3	96	S	96	IR3,4	
EA2 Technician	1	D3	64	S	64	IR3,4	
E1A Designer	1	D3	64	S	64	IR3,4	
EA1 Technician	1	D3	64	S	64	IR3,4	
NE2 Technician	2	BB	56	S	112	IR3,4	
Subtotal	**7**				**568**		
USF (NSF X CF)					**824**		

NOTES

SUPPORT AREAS	%USE	NSF	LOC	NOTES
Shop/Lab		3,200	IR3,4	1.
Control Room		3,500	IR3,4	1.
Computer Room		2,200	IR3,4	1.
Electronics Room		6,000	IR3,4	1.
Meeting Room		2,000	IR3,4	1.
Subtotal		**16,900**		
USF (NSF X CF)		**24,505**		

NOTES

1. Shared by all Exp. Phy. groups at IR3,4.

EXPERIMENTAL FACILITIES page 3

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
IR 5,6							
Physics Liason							
EA2 Engineer	1	B3	96	S	96	IR5,6	
EA2 Designer	1	B3	96	S	96	IR5,6	
EA1 Engineer	1	D3	64	S	64	IR5,6	
EA1 Technician	1	D3	64	S	64	IR5,6	
NE3 Designer	1	D3	64	S	64	IR5,6	
NE2 Technician	1	BB	56	S	56	IR5,6	
NE1 Technician	1	BB	56	S	56	IR5,6	
Subtotal	**7**				**496**		
USF (NSF X CF)					**719**		

NOTES

SUPPORT AREAS	%USE	NSF	LOC	NOTES
Shop/Lab		3,200	IR5,6	1.
Control Room		1,200	IR5,6	1.
Computer Room		1,600	IR5,6	1.
Electronics Room		4,000	IR5,6	1.,2.
Meeting Room		2,000	IR5,6	1.
Subtotal		**12,000**		
USF (NSF X CF)		**17,400**		

NOTES

1. Shared by all Exp. Phy. groups at IR5,6.
2. Extrapolated from appendix information on IR1 and IR4.

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
IR7,8							
Physics Liason							
EA2 Physicist	1	B3	96	S	96	IR7,8	
EA2 Designer	1	B3	96	S	96	IR7,8	
EA2 Technician	1	D3	64	S	64	IR7,8	
EA1 Designer	1	D3	64	S	64	IR7,8	
EA1 Technician	1	D3	64	S	64	IR7,8	
NE2 Technician	2	BB	56	S	112	IR7,8	
Subtotal	**7**				**496**		
USF (NSF X CF)					**719**		

NOTES

SUPPORT AREAS	%USE	NSF	LOC	NOTES
Shop/Lab		3,200	IR7,8	1.
Control Room		1,200	IR7,8	1.
Computer Room		1,600	IR7,8	1.
Electronics Room		4,000	IR7,8	1.,2.
Meeting Room		2,000	IR7,8	1.
Subtotal		**12,000**		
USF (NSF X CF)		**17,400**		

NOTES

1. Shared by all Exp. Phy. groups at IR7,8.
2. Extrapolated from appendix information on IR1 and IR4.

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Main Office Building							
Mechnical Department							
EA3 Group Leader	1	C3	224	P	224	MOB	
EA2 Assistant Head	3	C4	168	P	504	MOB	
NE3 Admin. Assistant	1	B3	96	P	96	MOB	
NE2 Secretary	1	B2	80	O	80	MOB	
NE2 Secretary	1	B2	80	O	80	MOB	
EA1 Budget/Business Manag	1	B3	96	P	96	MOB	
Subtotal	**8**				**1,080**		
USF (NSF X CF)					**1,566**		

NOTES

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
IR 1,2							
Mechanical Department							
EA3 Chief Engineer	1	C4	168	P	168	IR1,2	
EA2 Designer	1	B3	96	S	96	IR1,2	
EA2 Technician	1	D3	64	S	64	IR1,2	
EA1 Designer	1	D3	64	S	64	IR1,2	
EA1 Technician	1	D3	64	S	64	IR1,2	
NE2 Designer	1	BB	56	S	56	IR1,2	
NE2 Technician	1	BB	56	S	56	IR1,2	
NE1 Technician	3	BB	56	S	168	IR1,2	
Subtotal	**10**				**736**		
USF (NSF X CF)					**1,067**		

NOTES

EXPERIMENTAL FACILITIES page 5

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
IR 3,4							
Mechanical Department							
EA2 Engineer	1	B3	96	S	96	IR3,4	
EA2 Designer	1	B3	96	S	96	IR3,4	
EA2 Technician	1	D3	64	S	64	IR3,4	
EA1 Designer	1	D3	64	S	64	IR3,4	
EA1 Technician	1	D3	64	S	64	IR3,4	
NE2 Technician	2	BB	56	S	112	IR3,4	
NE1 Technician	3	BB	56	S	168	IR3,4	
Subtotal	**10**				**664**		
USF (NSF X CF)					**963**		

NOTES

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
IR 5,6							
Mechanical Department							
EA2 Engineer	1	B3	96	S	96	IR5,6	
EA2 Technician	1	B1	64	S	64	IR5,6	
EA1 Engineer	1	D3	64	S	64	IR5,6	
EA1 Technician	1	BB	56	S	56	IR5,6	
NE2 Designer	1	BB	64	S	64	IR5,6	
NE2 Technician	1	BB	56	S	56	IR5,6	
NE1 Technician	2	BB	56	S	112	IR5,6	
Subtotal	**8**				**512**		
USF (NSF X CF)					**742**		

NOTES

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
IR 7,8							
Mechanical Department							
EA2 Engineer	1	B3	96	S	96	IR7,8	
EA2 Designer	1	B3	96	S	96	IR7,8	
EA1 Engineer	1	D3	64	S	64	IR7,8	
EA1 Technician	1	D3	64	S	64	IR7,8	
NE3 Technician	1	BB	56	S	56	IR7,8	
NE2 Technician	1	BB	56	S	56	IR7,8	
NE1 Technician	2	BB	56	S	112	IR7,8	
Subtotal	**8**				**544**		
USF (NSF X CF)					**789**		

NOTES

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Main Office Building							
Electrical Department							
EA3 Group Leader	1	C3	224	P	224	MOB	
EA2 Assistant Head	3	C4	168	P	504	MOB	
NE3 Admin. Assistant	1	B3	96	P	96	MOB	
NE2 Secretary	1	B2	80	O	80	MOB	
NE1 Secretary	1	B2	80	O	80	MOB	
EA1 Budget/Business Manag	1	B3	96	P	96	MOB	
Subtotal	**8**				**1,080**		
USF (NSF X CF)					**1,566**		

NOTES

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
IR 1,2							
Electrical Department							
EA2 Engineer	1	B3	96	S	96	IR1,2	
EA2 Designer	1	B3	96	S	96	IR1,2	
EA2 Technician	1	D3	64	S	64	IR1,2	
EA1 Designer	1	D3	64	S	64	IR1,2	
EA1 Technician	1	D3	64	S	64	IR1,2	
NE2 Designer	1	BB	56	S	56	IR1,2	
NE2 Technician	1	BB	56	S	56	IR1,2	
NE1 Technician	3	BB	56	S	168	IR1,2	
Subtotal	**10**				**664**		
USF (NSF X CF)					**963**		

NOTES

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
IR 2,3							
Electrical Department							
EA2 Engineer	1	B3	96	S	96	IR3,4	
EA2 Designer	1	B3	96	S	96	IR3,4	
EA1 Engineer	1	D3	64	S	64	IR3,4	
EA1 Designer	1	D3	64	S	64	IR3,4	
EA1 Technician	1	D3	64	S	64	IR3,4	
NE2 Technician	2	BB	56	S	112	IR3,4	
NE1 Technician	2	BB	56	S	112	IR3,4	
Subtotal	**9**				**608**		
USF (NSF X CF)					**882**		

NOTES

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
IR 5,6							
Electrical Department							
EA2 Designer	1	B3	96	S	96	IR5,6	
EA2 Technician	1	D3	64	S	64	IR5,6	
EA1 Technician	1	D3	64	S	64	IR5,6	
NE2 Designer	1	BB	56	S	56	IR5,6	
NE2 Technician	1	BB	56	S	56	IR5,6	
NE1 Technician	3	BB	56	S	168	IR5,6	
Subtotal	**8**				**504**		
USF (NSF X CF)					**731**		

NOTES

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
IR 7,8							
Electrical Department							
EA2 Engineer	1	B3	96	S	96	IR7,8	
EA2 Technician	1	D3	64	S	64	IR7,8	
EA1 Engineer	1	D3	64	S	64	IR7,8	
EA1 Technician	1	D3	64	S	64	IR7,8	
NE3 Technician	1	BB	56	S	56	IR7,8	
NE2 Technician	1	BB	56	S	56	IR7,8	
NE1 Technician	3	BB	56	S	168	IR7,8	
Subtotal	**9**				**568**		
USF (NSF X CF)					**824**		

NOTES

NOTES

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Main Office Building							
Operations Department							
EA3 Group Leader	1	C3	224	P	224	MOB	
EA2 Assistant Head	3	C4	168	P	504	MOB	
NE3 Admin. Assistant	1	B3	96	P	96	MOB	
NE2 Secretary	1	B2	80	O	80	MOB	
NE1 Secretary	1	B2	80	O	80	MOB	
EA1 Budget/Business Manag	1	B3	96	P	96	MOB	
EA3 Chief Engineer	1	C4	168	P	168	MOB	
EA2 Physicist	4	B3	96	S	384	MOB	
Subtotal	**13**				**1,632**		
USF (NSF X CF)					**2,366**		

NOTES

IR 1,2							
Operations Department							
EA2 Engineer	1	B3	96	S	96	IR1,2	
EA2 Designer	1	B3	96	S	96	IR1,2	
EA2 Technician	1	D3	64	S	64	IR1,2	
EA1 Engineer	1	D3	64	S	64	IR1,2	
EA1 Designer	1	D3	64	S	64	IR1,2	
EA1 Technician	2	D3	64	S	128	IR1,2	
NE3 Technician	1	BB	56	S	56	IR1,2	1.
NE2 Technician	10	BB	56	S	560	IR1,2	1.
NE1 Technician	2	BB	56	S	112	IR1,2	1.
Subtotal	**20**				**1,240**		
USF (NSF X CF)					**1,798**		

NOTES

1. Offices located in Control Room.

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
IR 3,4							
Operations Department							
EA2 Engineer	1	B3	96	S	96	IR3,4	
EA2 Designer	1	B3	96	S	96	IR3,4	
EA2 Technician	1	D3	64	S	64	IR3,4	
EA1 Engineer	1	D3	64	S	64	IR3,4	
EA1 Designer	1	D3	64	S	64	IR3,4	
EA1 Technician	2	D3	64	S	128	IR3,4	
NE2 Designer	1	BB	56	S	56	IR3,4	1.
NE2 Technician	10	BB	56	S	560	IR3,4	1.
NE1 Technician	2	BB	56	S	112	IR3,4	1.
Subtotal	**20**				**1,240**		
USF (NSF X CF)					**1,798**		

NOTES

1. Offices located in Control Room.

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
IR 5,6							
Operations Department							
EA2 Designer	1	B3	96	S	96	IR5,6	
EA2 Technician	1	D3	64	S	64	IR5,6	
EA1 Engineer	1	D3	64	S	64	IR5,6	
EA1 Designer	1	D3	64	S	64	IR5,6	
EA1 Technician	1	D3	64	S	64	IR5,6	
NE2 Technician	12	BB	56	S	672	IR5,6	
NE1 Technician	1	BB	56	S	56	IR5,6	
Subtotal	**18**				**1,080**		
USF (NSF X CF)					**1,566**		

NOTES

1. Offices located in Control Room.

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
IR 7,8							
Operations Department							
EA2 Engineer	1	B3	96	S	96	IR7,8	
EA2 Technician	2	D3	64	S	128	IR7,8	
EA1 Engineer	1	D3	64	S	64	IR7,8	1.
EA1 Designer	1	D3	64	S	64	IR7,8	1.
EA1 Technician	1	D3	64	S	64	IR7,8	1.
NE2 Designer	1	BB	56	S	56	IR7,8	1.
NE2 Technician	11	BB	56	S	616	IR7,8	1.
NE1 Technician	2	BB	56	S	112	IR7,8	1.
Subtotal	**20**				**1,200**		
USF (NSF X CF)					**1,740**		

NOTES

1. Offices located in Control Room.

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Main Office Building							
Electronics Department							
EA3 Group Leader	1	C3	224	P	224	MOB	
EA2 Assistant Head	3	C4	168	P	504	MOB	
NE3 Admin. Assistant	1	B3	96	P	96	MOB	
NE2 Secretary	1	B2	80	O	80	MOB	
NE1 Secretary	1	B2	80	O	80	MOB	
EA1 Budget/Business Manager	1	B3	96	P	96	MOB	
EA3 Chief Engineer	1	C4	168	P	168	MOB	
EA2 Engineer	1	B3	96	S	96	MOB	
Subtotal	**10**				**1,344**		
USF (NSF X CF)					**1,949**		

NOTES

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
IR 1,2							
Electronics Department							
EA2 Engineer	1	B3	96	S	96	IR1,2	
EA2 Designer	1	B3	96	S	96	IR1,2	
EA1 Engineer	1	D3	64	S	64	IR1,2	
EA1 Technician	1	D3	64	S	64	IR1,2	
NE3 Technician	1	BB	56	S	56	IR1,2	
NE2 Designer	1	BB	56	S	56	IR1,2	
NE2 Technician	2	BB	56	S	112	IR1,2	
NE2 Technician	9	BB	56	S	504	IR1,2	
Subtotal	**17**				**1,048**		
USF (NSF X CF)					**1,520**		

NOTES

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
IR 3,4							
Electronics Department							
EA2 Engineer	1	B3	96	S	96	IR3,4	
EA2 Technician	1	D3	64	S	64	IR3,4	
EA1 Engineer	1	D3	64	S	64	IR3,4	
EA1 Technician	1	D3	64	S	64	IR3,4	
NE2 Designer	1	BB	56	S	56	IR3,4	
NE2 Technician	3	BB	56	S	168	IR3,4	
NE1 Technician	9	BB	56	S	504	IR3,4	
Subtotal	**17**				**1,016**		
USF (NSF X CF)					**1,473**		

NOTES

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
IR 5,6							
Electronics Department							
EA2 Designer	1	B3	96	S	96	IR5,6	
EA2 Technician	1	D3	64	S	64	IR5,6	
EA1 Designer	1	D3	64	S	64	IR5,6	
EA1 Technician	1	D3	64	S	64	IR5,6	
NE2 Designer	1	BB	56	S	56	IR5,6	
NE2 Technician	3	BB	56	S	168	IR5,6	
NE1 Technician	9	BB	56	S	504	IR5,6	
Subtotal	**17**				**1,016**		
USF (NSF X CF)					**1,473**		

NOTES

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
IR 7,8							
Electronics Department							
EA2 Designer	1	B3	96	S	96	IR7,8	
EA2 Technician	1	D3	64	S	64	IR7,8	
EA1 Designer	1	D3	64	S	64	IR7,8	
EA1 Technician	1	D3	64	S	64	IR7,8	
NE2 Designer	1	BB	56	S	56	IR7,8	
NE2 Technician	3	BB	56	S	168	IR7,8	
NE1 Technician	9	BB	56	S	504	IR7,8	
Subtotal	**17**				**1,016**		
USF (NSF X CF)					**1,473**		

NOTES

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Main Office Building							
Cryogenics							
EA3 Group Leader	1	C3	224	P	224	MOB	
EA2 Assistant Head	3	C4	168	P	504	MOB	
NE3 Admin. Assistant	1	B3	96	P	96	MOB	
NE2 Secretary	1	B2	80	O	80	MOB	
NE1 Secretary	1	B2	80	O	80	MOB	
EA1 Budget/Business Manag	1	B3	96	P	96	MOB	
Subtotal	**8**				**1,080**		
USF (NSF X CF)					**1,566**		

NOTES

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
IR 1,2							
Cryogenics							
EA2 Engineer	1	B3	96	S	96	IR1,2	
EA2 Designer	1	B3	96	S	96	IR1,2	
EA2 Technician	1	D3	64	S	64	IR1,2	
EA1 Designer	1	D3	64	S	64	IR1,2	
EA1 Technician	1	D3	64	S	64	IR1,2	
NE2 Technician	2	BB	56	S	112	IR1,2	
NE1 Technician	3	BB	56	S	168	IR1,2	
Subtotal	**10**				**664**		
USF (NSF X CF)					**963**		

NOTES

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
IR 3,4							
Cryogenics							
EA2 Engineer	1	B3	96	S	96	IR3,4	
EA2 Designer	1	B3	96	S	96	IR3,4	
EA1 Engineer	1	D3	64	S	64	IR3,4	
EA1 Technician	1	D3	64	S	64	IR3,4	
NE3 Technician	1	BB	56	S	56	IR3,4	
NE2 Technician	1	BB	56	S	56	IR3,4	
NE1 Technician	4	BB	56	S	224	IR3,4	
Subtotal	**10**				**656**		
USF (NSF X CF)					**951**		

NOTES

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
IR 5,6							
Cryogenics							
EA2 Designer	1	B3	96	S	96	IR5,6	
EA2 Technician	1	D3	64	S	64	IR5,6	
EA1 Designer	1	D3	64	S	64	IR5,6	
EA1 Technician	1	D3	64	S	64	IR5,6	
NE2 Designer	1	BB	56	S	56	IR5,6	
NE2 Technician	1	BB	56	S	56	IR5,6	
NE1 Technician	4	BB	56	S	224	IR5,6	
Subtotal	**10**				**624**		
USF (NSF X CF)					**905**		

NOTES

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
IR 7,8							
Cryogenics							
EA2 Engineer	1	B3	96	S	96	IR7,8	
EA2 Technician	1	D3	64	S	64	IR7,8	
EA1 Engineer	1	D3	64	S	64	IR7,8	
EA1 Technician	1	D3	64	S	64	IR7,8	
NE2 Designer	1	BB	56	S	56	IR7,8	
NE2 Technician	1	BB	56	S	56	IR7,8	
NE1 Technician	4	BB	56	S	224	IR7,8	
Subtotal	**10**				**624**		
USF (NSF X CF)					**905**		

NOTES

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Main Office Building							
Systems Integration Department							
EA3 Group Leader	1	C3	224	P	224	MOB	
EA2 Assistant Head	3	C4	168	P	504	MOB	
NE3 Admin. Assistant	1	B3	96	P	96	MOB	
NE2 Secretary	1	B2	80	O	80	MOB	
NE1 Secretary	1	B2	80	O	80	MOB	
EA1 Budget/Business Manag	1	B3	96	P	96	MOB	
Subtotal	**8**				**1,080**		
USF (NSF X CF)					**1,566**		

NOTES

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
IR 1,2							
System Integration Department							
EA2 Engineer	3	B3	96	S	288	IR1,2	
EA1 Engineer	2	D3	64	S	128	IR1,2	
NE2 Technician	2	BB	56	S	112	IR1,2	
NE1 Technician	3	BB	56	S	168	IR1,2	
Subtotal	**10**				**696**		
USF (NSF X CF)					**1,009**		

NOTES

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
IR 3,4							
System Integration Department							
EA2 Engineer	2	B3	96	S	192	IR3,4	
EA1 Engineer	2	D3	64	S	128	IR3,4	
NE3 Designer	1	D3	64	S	64	IR3,4	
NE2 Technician	1	BB	56	S	56	IR3,4	
NE1 Technician	3	BB	56	S	168	IR3,4	
Subtotal	**9**				**608**		
USF (NSF X CF)					**882**		

NOTES

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
IR 5,6							
System Integration Department							
EA2 Engineer	2	B3	96	S	192	IR5,6	
EA1 Engineer	2	D3	64	S	128	IR5,6	
NE2 Designer	1	BB	56	S	56	IR5,6	
NE2 Technician	1	BB	56	S	56	IR5,6	
NE1 Technician	2	BB	56	S	112	IR5,6	
Subtotal	**8**				**544**		
USF (NSF X CF)					**789**		

NOTES

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
IR 7,8							
System Integration Department							
EA2 Engineer	2	B3	96	S	192	IR7,8	
EA1 Engineer	2	D3	64	S	128	IR7,8	
NE2 Designer	1	BB	56	S	56	IR7,8	
NE2 Technician	1	BB	56	S	56	IR7,8	
NE1 Technician	2	BB	56	S	112	IR7,8	
Subtotal	**8**				**544**		
USF (NSF X CF)					**789**		

NOTES

EXPERIMENTAL FACILITIES page 19

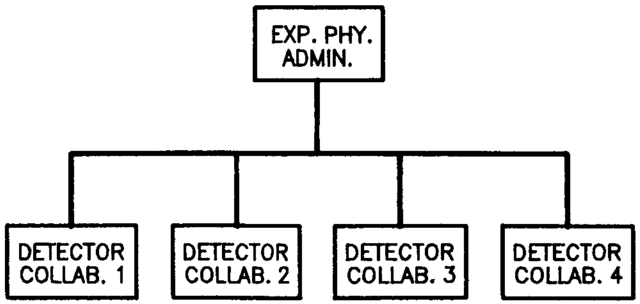
PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Subtotal	69				9,208	MOB	
USF (NSF X CF)					13,352	MOB	
Subtotal	84				5,616	IR1,2	
USF (NSF X CF)					8,143	IR1,2	
Subtotal	82				5,360	IR3,4	
USF (NSF X CF)					7,772	IR3,4	
Subtotal	76				4,776	IR5,6	
USF (NSF X CF)					6,925	IR5,6	
Subtotal	79				4,992	IR7,8	
USF (NSF X CF)					7,238	IR7,8	
USF TOTAL	390				43,430		

SUPPORT AREAS	%USE	NSF	LOC	NOTES
Subtotal		1,380	MOB	
USF (NSF X CF)		2,001	MOB	
Subtotal		20,100	IR1,2	
USF (NSF X CF)		29,145	IR1,2	
Subtotal		16,900	IR3,4	
USF (NSF X CF)		24,505	IR3,4	
Subtotal		12,000	IR5,6	
USF (NSF X CF)		17,400	IR5,6	
Subtotal		12,000	IR7,8	
USF (NSF X CF)		17,400	IR7,8	
USF TOTAL		90,451		

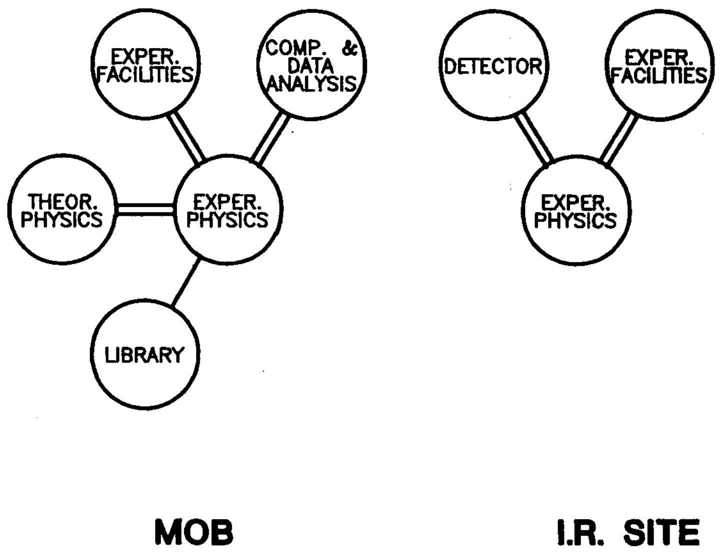
Experimental Physics

Experimental Physics' primary role is to collect and process data generated by the detectors during collider experiments. They are responsible for the screening and selection of data from the detector sites as well as its interpretation and dissemination. The group is divided into four "Detector" groups corresponding to active experiments.

ORGANIZATION



ADJACENCIES



SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

file: fga

PHYSICS RESEARCH
EXPERIMENTAL PHYSICS: Fred Gilman

SUMMARY	FTE	USF
Baseline	632	
Draft	632	78,033
Change	0	

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Administration							
Department Head	1	C3	224	P	224	MOB	
Admin. Assistant	1	C4	168	P	168	MOB	
Budget Officer	1	B3	96	P	96	MOB	
Secretary	1	B2	80	O	80	MOB	
Subtotal	**4**				**568**		
USF (NSF X CF)					**824**		
Detector Collaboration 1							
Group Leader	1	C3	224	P	224	IR1	
Assistant Head	3	C4	168	P	504	IR1	
Admin. Assistant	1	B3	96	P	96	IR1	
Secretary	2	B2	80	O	160	IR1	
Budget Manager	1	B3	96	P	96	IR1	
Senior Physicist	28	A3	96	P	2,688	IR1	1.
Post Doc.	9	A2	80	P	720	IR1	
Visitors							
Collaboration Leader	1	C4	168	P	168	MOB	
Assistant Leader	3	B3	96	P	288	MOB	
Physicist	30	B2	80	P	2,400	MOB	
Post Doc.	13	BB	56	S	728	MOB	
Assistant Leader	6	B3	96	P	576	IR1	
Physicist	62	B2	80	P	5,200	IR1	
Post Doc.	22	BB	56	S	1,232	IR1	
Subtotal (137 Visitors)	**182**				**15,080**		
USF (NSF X CF)					**21,866**		

SUPPORT AREAS	%USE	NSF	LOC	NOTES
Conference Room H	100	504	MOB	
Conference Room E	100	196	MOB	
Collaborator's Reference Room	100	240	MOB	
Copy Center	100	100	MOB	
Peripheral Computer Areas		256	MOB	1.
Break-out Room (2)				2.
Subtotal		**1,296**		
USF (NSF X CF)		**1,879**		

NOTES

1. Four Areas of 64 SF each.
2. Two rooms to hold 150 to 200 persons each. (Area counted in Central Services).

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Detector Collaboration 2							
Group Leader	1	C3	224	P	224	IR4	
Assistant Head	3	C4	168	P	504	IR4	
Admin. Assistant	1	B3	96	P	96	IR4	
Secretary	2	B2	80	O	160	IR4	
Budget Manager	1	B3	96	P	96	IR4	
Senior Physicist	28	A3	96	P	2,688	IR4	1.
Post Doc.	10	A2	80	P	800	IR4	
Visitors							
Collaboration Leader	1	C4	168	P	168	MOB	
Assistant Leader	3	B3	96	P	288	MOB	
Physicist	30	B2	80	P	2,400	MOB	
Post Doc.	13	BB	56	S	728	MOB	
Assistant Leader	6	B3	96	P	576	IR4	
Physicist	62	B2	80	P	5,200	IR4	
Post Doc.	22	BB	56	S	1,232	IR4	
Subtotal (incl. 137 Visitors)	**183**				**15,160**		
USF (NSF X CF)					**21,982**		
Detector Collaboration 3							
Group Leader	1	C3	224	P	224	IR5	
Assistant Head	2	C4	168	P	336	IR5	
Admin. Assistant	1	B3	96	P	96	IR5	
Secretary	2	B2	80	O	160	IR5	
Budget Manager	1	B3	96	P	96	IR5	
Senior Physicist	14	A3	96	P	1,344	IR5	1.
Post Doc.	4	A2	80	P	320	IR5	
Visitors							
Collaboration Leader	1	C4	168	P	168	MOB	
Assistant Leader	2	B3	96	P	192	MOB	
Physicist	20	B2	80	P	1,600	MOB	
Post Doc.	6	BB	56	S	336	MOB	
Assistant Leader	6	B3	96	P	576	IR5	
Physicist	48	B2	80	P	4,000	IR5	
Post Doc.	27	BB	56	S	1,512	IR5	
Subtotal (incl. 110 Visitors)	**135**				**10,960**		
USF (NSF X CF)					**15,892**		

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Detector Collaboration 4							
Group Leader	1	C3	224	P	224	IR8	
Assistant Head	2	C4	168	P	336	IR8	
Admin. Assistant	1	B3	96	P	96	IR8	
Secretary	2	B2	80	O	160	IR8	
Budget Manager	1	B3	96	P	96	IR8	
Senior Physicist	22	A3	96	P	2,112	IR8	1.
Post Doc.	6	A2	80	P	480	IR8	
Visitor							
Collaboration Leader	1	C4	168	P	168	MOB	
Assistant Leader	2	B3	96	P	192	MOB	
Physicist	18	B2	80	P	1,440	MOB	
Post Doc.	4	BB	56	S	224	MOB	
Assistant Leader	5	B3	96	P	480	IR8	
Physicist	44	B2	80	P	3,680	IR8	
Post Doc.	19	BB	56	S	1,064	IR8	
Subtotal (incl. 93 Visitors)	**128**				**10,752**		
USF (NSF X CF)					**15,590**		
Subtotal (incl. 93 Visitors)	**152**				**12,056**	MOB	
USF (NSF X CF)					**17,481**	MOB	
Subtotal (incl. 93 Visitors)	**135**				**11,496**	IR1,2	
USF (NSF X CF)					**16,669**	IR1,2	
Subtotal (incl. 93 Visitors)	**136**				**11,576**	IR3,4	
USF (NSF X CF)					**16,785**	IR3,4	
Subtotal (incl. 93 Visitors)	**106**				**8,664**	IR5,6	
USF (NSF X CF)					**12,563**	IR5,6	
Subtotal (incl. 93 Visitors)	**103**				**8,728**	IR7,8	
USF (NSF X CF)					**12,656**	IR7,8	
Total (USF)	**632**				**76,154**		

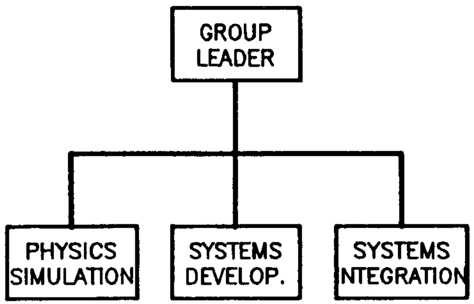
NOTES

1. Includes 5 Consultants.

Computing & Data Analysis Group

The Computing and Data Analysis Group will provide the computational and software resources for theoretical investigations germane to the scientific mission of the SSC laboratory, for design of SSC experiments, and for analysis of data from SSC experiments. This group will also provide computational and software resources, where appropriate, for accelerator physics studies by other SSC Divisions.

ORGANIZATION



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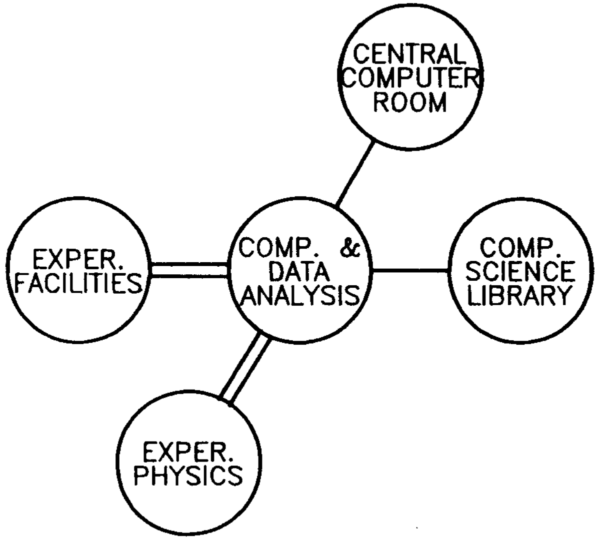

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SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

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PHYSICS RESEARCH
COMPUTING AND DATA ANALYSIS: Phil Liebold

SUMMARY	FTE	USF
Baseline	63	
Draft	63	10,654
Change	0	

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Group Leader	1	C3	224	P	224	MOB	
Admin. Assistant	1	A3	96	P	96	MOB	
Budget Manager	1	A3	96	P	96	MOB	
Secretary	1	A2	80	O	80	MOB	
Physics Simulation & Analysis							
Section Leader	1	C4	168	P	168	MOB	
Assistant Leader	1	C4	168	P	168	MOB	
Phys./Comp. Scientists	35	B3	96	S	3,360	MOB	1.
Systems Development							
Section Leader	1	C4	168	P	168	MOB	
Assistant Leader	1	C4	168	P	168	MOB	
Phys./Comp. Scientists	8	B3	96	S	768	MOB	1.
Systems Intergration							
Section Leader	1	C4	168	P	168	MOB	
Assistant Leader	1	C4	168	P	168	MOB	
Phys./Comp. Scientists	4	B3	96	S	384	MOB	
Comp. Operators	6						1.
Subtotal	**63**				**6,016**		
USF					**8,723**		

SUPPORT AREAS	%USE	NSF	LOC	NOTES
Conference Room F	100	240	MOB	1.
Local Server Room		400	MOB	
Copy Center		100	MOB	
Documentation Room		400	MOB	
Computer Peripheral Rooms		192	MOB	2.
Subtotal		**1,332**		
USF		**1,931**		

NOTES

1. Area allocated in LTS computing group.

NOTES

1. Three rooms distributed amongst personnel.
2. Four @ 64 SF each.

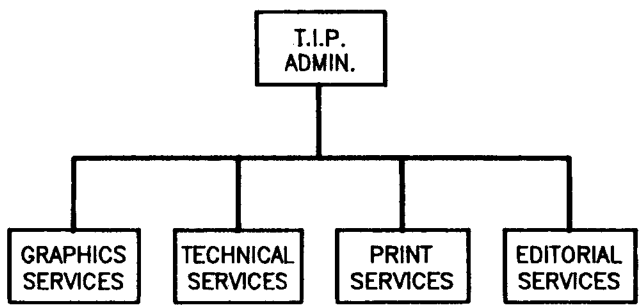
SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

PHYSICS RESEARCH
TECHNICAL INFORMATION AND PUBLICATIONS

Technical Information and Publications

Technical Information and Publications will provide service to the SSC Laboratory in the area of graphics, technical services, editorial and printing. It is their responsibility to ensure that all material produced by the lab is of high quality. Reports, brochures, research papers and any other type of publication for either internal or external use will be produced by this group.

ORGANIZATION



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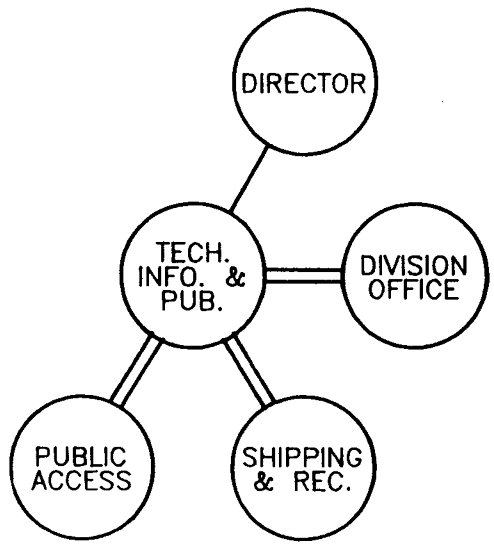

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SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

PHYSICS RESEARCH
TECHNICAL INFORMATION & PUBLICATIONS: Ed Engebretsen

SUMMARY	FTE	USF
Baseline	32	
Draft	32	8,288
Change	0	

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Group Administration							
Manager	1	C4	168	P	168	MOB	1.
Secretary	1	B2	80	S	80	MOB	
Clerk	1	A1	80	O	80	MOB	
Graphics Services							
Manager	1	C4	168	P	168	MOB	
Graphics Artist	5	D2	100	S	500	MOB	
Tech. Illustrator	2	D2	100	S	200	MOB	
Photo Lab Tech.	3					MOB	2.
Technical Services							
Supervisor	1	C4	168	P	168	MOB	3.
Publications Specialist	5	A3	96	S	480	MOB	
Report Coordinator	2	B1	64	O	128	MOB	
Typesetter	1	D2	100	O	100	MOB	
Print Services							
Manager	1	A3	96	P	96	MOB	
Printing/Duplication Clerk	4					MOB	4.
Editorial Services							
Manager	1	A3	96	P	96	MOB	3.
Editors/Writer	3	B2	80	S	240	MOB	
Subtotal	**32**				**2,504**		
USF (NSF X CF)					**3,631**		

NOTES

1. Should be accesible by public & adjacent to shipping & receiving.
2. Located in Photo Lab.
3. Include reference table.
4. Located in Printing Area.

SUPPORT AREAS	%USE	NSF	LOC	NOTES
Reception/Storage		120	MOB	1.,2.
Photo Lab		1,092	MOB	1.
Report Storage		500	MOB	1.
Printing Room		1,500	MOB	1.
Subtotal		**3,212**		
USF (NSF X CF)		**4,657**		

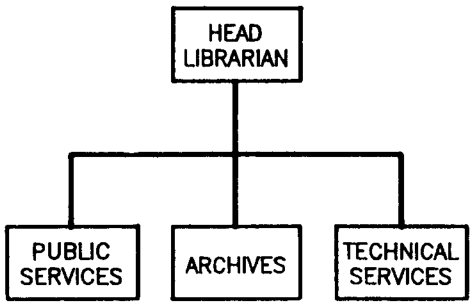
NOTES

1. See appendix for preliminary layout.
2. Should be accesible by public & adjacent to shipping & receiving.

Library Services

Library Services will be responsible for the management of the SSCL library, which is to become the premier physics library in the world. The group will be responsible for acquisitions, archival materials, dissemination of publications and information and maintaining textural and electronic information.

ORGANIZATION



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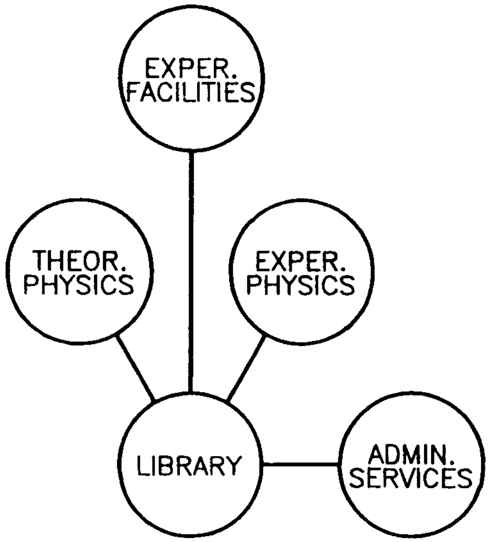

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SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

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PHYSICS RESEARCH
LIBRARY SERVICES: Pat Krietz

SUMMARY	FTE	USF
Baseline	24	
Draft	24	19,578
Change	0	

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Public Service							
Librarian	1	C4	168	P	168	MOB	
Preprint Specialist	1	B3	96	O	96	MOB	1.
Clerk	1	B2	80	O	80	MOB	1.
Cir./Illust. Manager	1	B3	96	O	96	MOB	1.
Circulation Clerk	1	B1	64	O	64	MOB	1.
Illustration Clerk (1)	1	B2	80	O	80	MOB	1.
Data Base Librarian	1	B3	96	O	96	MOB	
Software Clerk	1	B2	80	O	80	MOB	
Archives							
Manager	1	C2	168	P	168	MOB	
Assistant	1	B3	96	P	96	MOB	
Media Specialist (1)	1	B3	96	O	96	MOB	
Conservator (1)	0.5	B2	80	O	80	MOB	2.
Librarian	1	C4	168	P	168	MOB	3.
Administrator	1	C1	144		144	MOB	
Technical Services							
Head	1	C4	168	P	168	MOB	
Serials Librarian (1)	0.5	A3	96	O	96	MOB	
Serials Clerk	1	B2	80	O	80	MOB	
Acquisitions Librarian (1)	0.5	A3	96	O	96	MOB	
Acquisitions Clerk	1	B2	80	O	80	MOB	4.
Acquisitions Clerk	1	B1	64	O	64	MOB	
Catalogue Head	1	A3	96	O	96	MOB	
Cataloguer	3	B2	80	O	240	MOB	
Catalogue Manager (1)	0.5	B2	80	O	80	MOB	
Materials Clerk	1	B2	80	O	80	MOB	
Intern (2)	0	B1	64	O	128	MOB	
Subtotal	**24**				**2,720**		
USF (NSF X CF)					**3,944**		

SUPPORT AREAS	%USE	NSF	LOC	NOTES
Conference Room H	50	252	MOB	1
Mail Sorting		100	MOB	2.
Book Processing		150	MOB	3.
Work Tables		350	MOB	
Conservator's Area		350	MOB	4.
Serials Processing		100	MOB	
Microfilm/fiche Room		200	MOB	
Reading Room		3,000	MOB	5.
Stacks		6,000	MOB	6.
Circulation/Ref. Desk Area		100	MOB	
Equipment Room (copy)		120	MOB	
Kitchenette		60	MOB	
Subtotal		**10,782**		
USF (NSF X CF)		**15,634**		

NOTES

1. Adjacent to equipment room.
2. Clean area, standing sink, away from dust, fume hood.
3. Visual access to public, files and bookcases.
4. Two computer terminals.

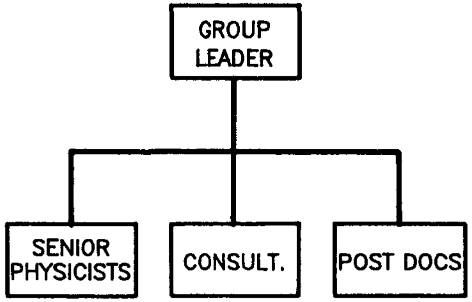
NOTES

1. Shared; NSF reflects percentage of conference room area proportionate to use.
2. Message board.
3. Includes one computer work station.
4. Temperature & humidity control.
5. Seating for 5% of Physics population.
6. Space for 50,000 volumes & periodicals, study carrels, growth.

Accelerator Physics

Accelerator Physics is composed largely of theoretical physicists and determines magnet voltages and perturbations, as well as conduct dynamic analyses. It is also concerned with the design and analysis of accelerator developments and changes.

ORGANIZATION



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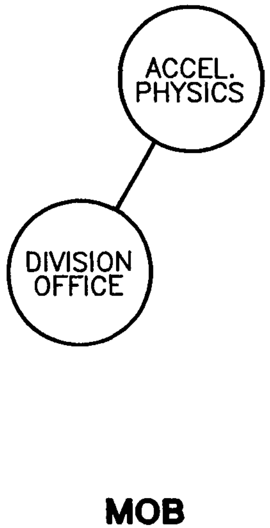

SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

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PHYSICS RESEARCH
ACCELERATOR PHYSICS

SUMMARY	FTE	USF
Baseline	17	
Draft	17	2,332
Change	0	

PERSONNEL	FTE	WSC	WSA	PRI	NSF	LOC	NOTES
Group Leader	1	C4	168	P	168	MOB	
Senior Physicist	5	B3	96	P	480	MOB	
Consultant	5	B3	96	P	480	MOB	
Post Doc.	5	A2	80	S	400	MOB	
Secretary	1	A2	80	O	80	MOB	
Subtotal	**17**				**1,608**		
USF (NSF X CF)					**2,332**		

SUPPORT AREAS	%USE	NSF	LOC	NOTES
Subtotal		**0**		
USF (NSF X CF)		**0**		

NOTES

NOTES

VII. APPENDIX

WORKSTATION TYPES

VII.1

This section sets forth the requirements of each work station/space. They are identified by the same letter designation used in the interview space charts.

Work station/space sizes were developed from an investigation of the furniture and equipment required for each function. Dimensions are not based on any specific furniture system, and the space allotted does not relate to any specific building module. These will be developed by the design architects.

The work station/space layouts included are not intended as design solutions. They are developed to establish square foot requirements based on functions. Actual configurations will be developed during the design phase of each building. Work station areas shown are net square feet.

AREA DEFINITIONS

NSF = Net Square Feet
Area allocated to a specific use

CF = Circulation Factor
Accounts for circulation to assignable areas and layout efficiency

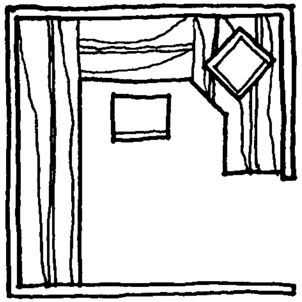
CF = 1.45

USF = Usable Square Feet
NSF x CF

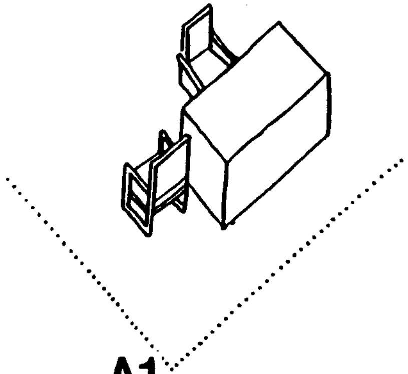
GSF = Gross Square Feet (1.25 x USF)

SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

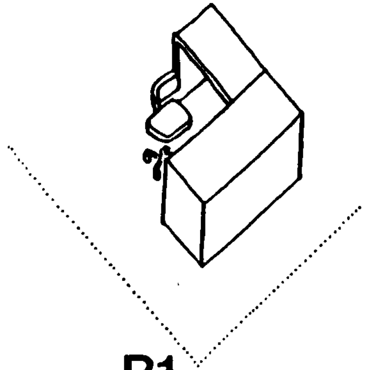
WORKSTATION TYPES



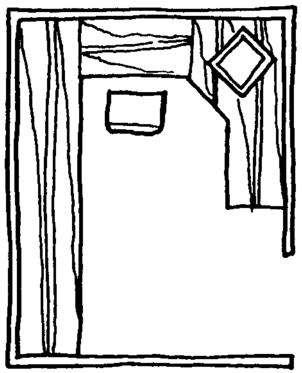
A1/B1
64 sf



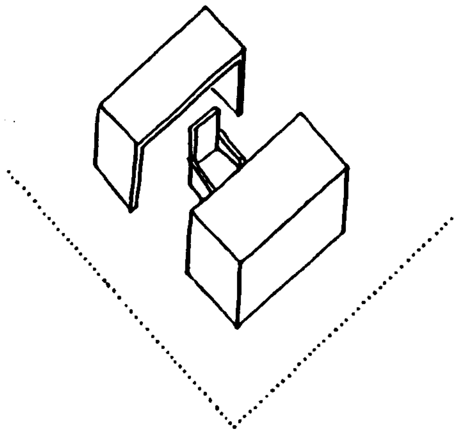
A1



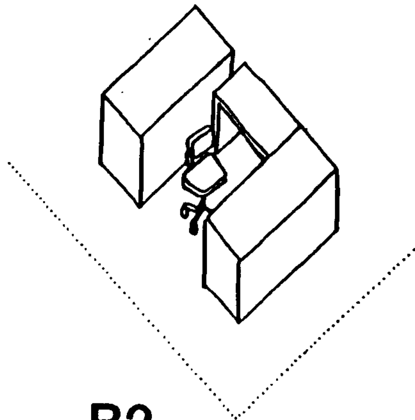
B1



A2/B2
80 sf



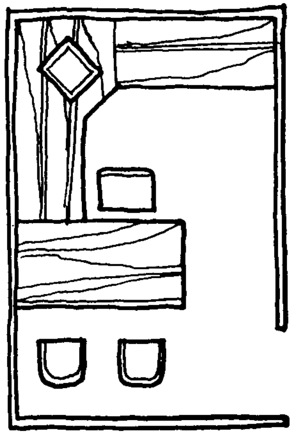
A2



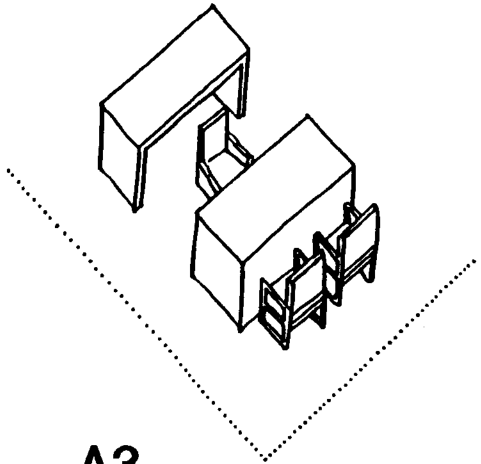
B2

SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

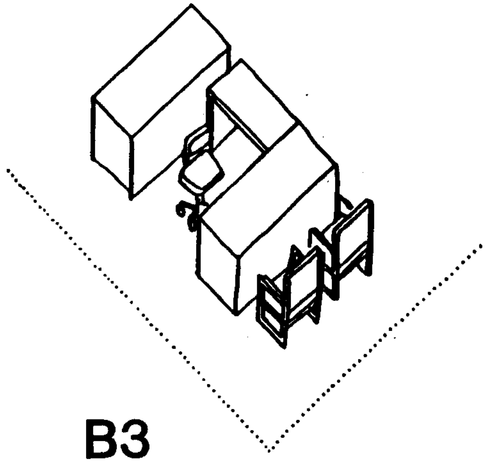
WORKSTATION TYPES



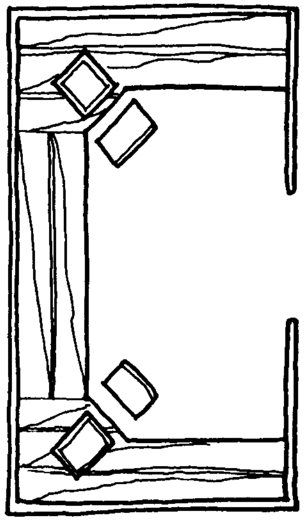
A3/B3
96 sf



A3



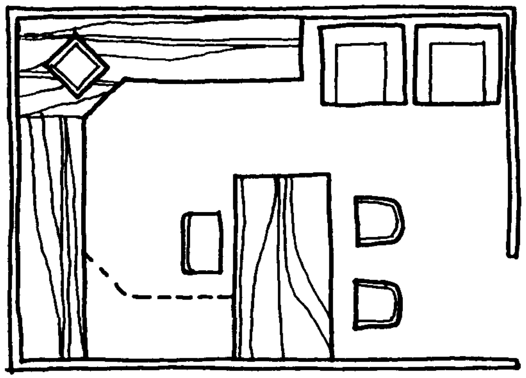
B3



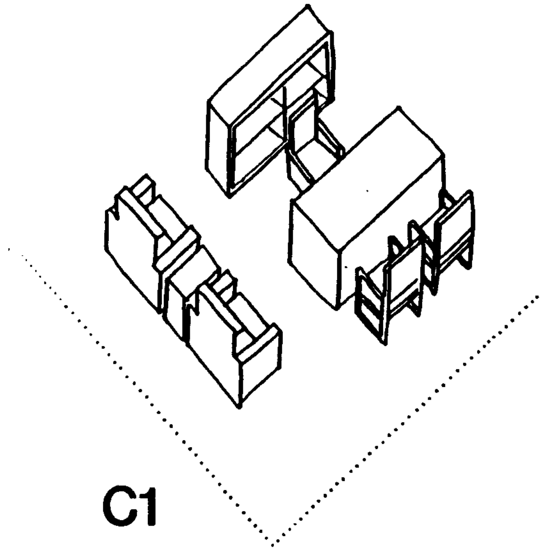
BB
112 sf

SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

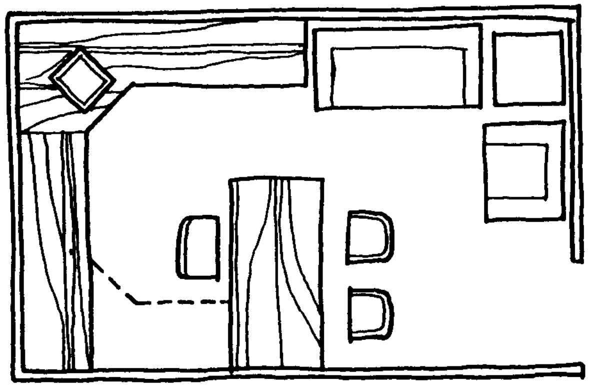
WORKSTATION TYPES



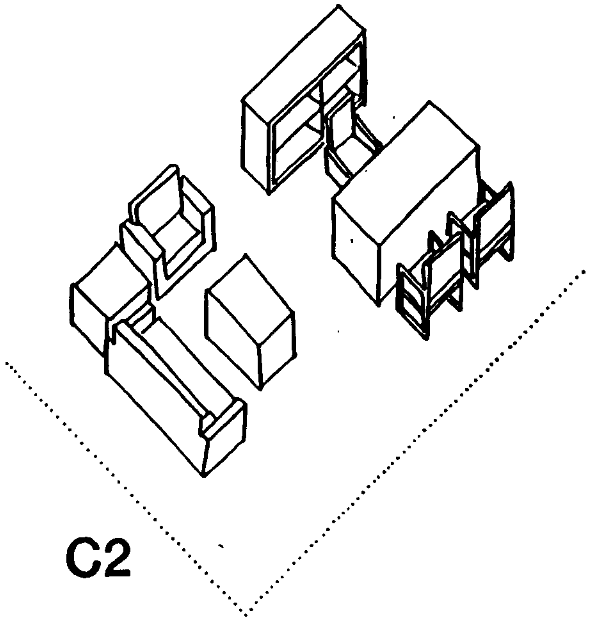
C1
144 sf



C1



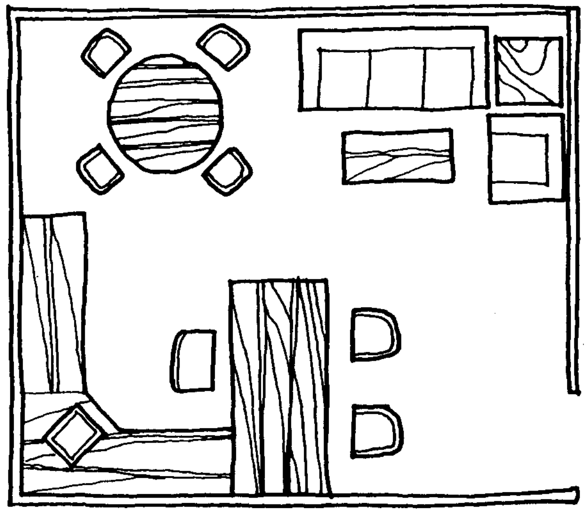
C2
168 sf

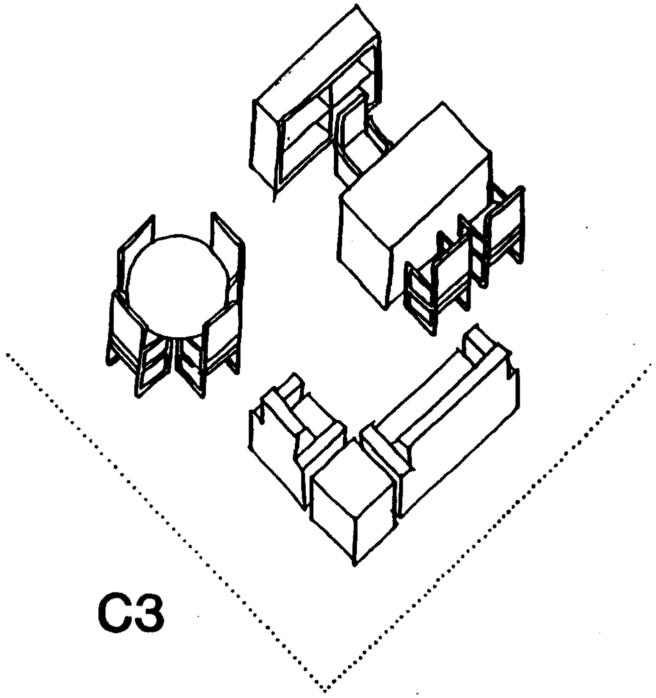


C2

SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

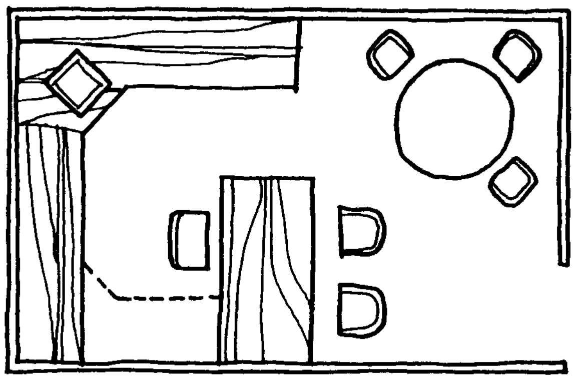
WORKSTATION TYPES

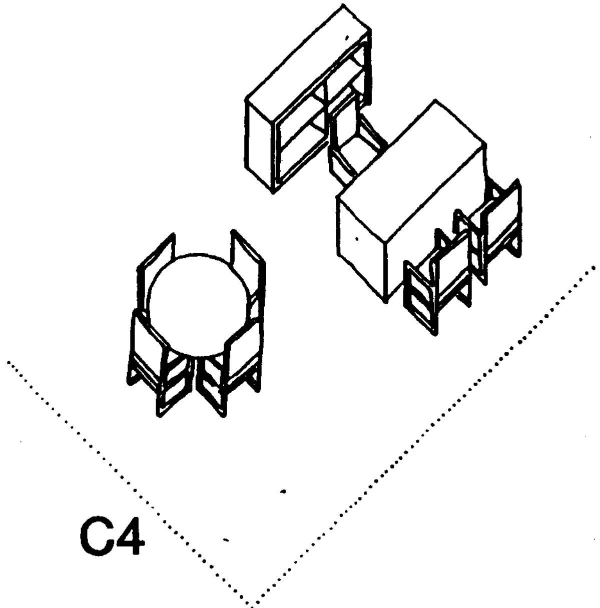




C3
224 sf

C3



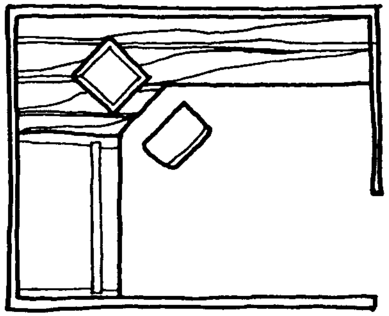


C4
168 sf

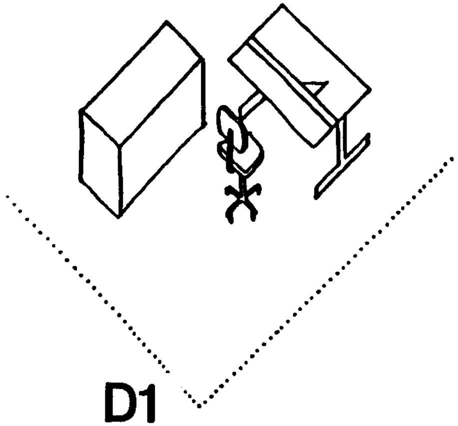
C4

SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

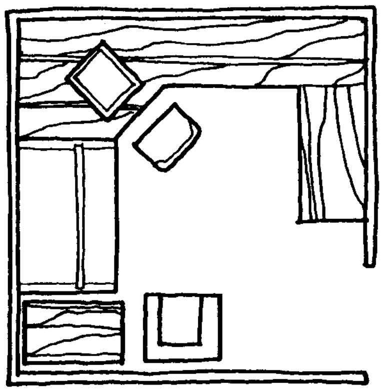
WORKSTATION TYPES



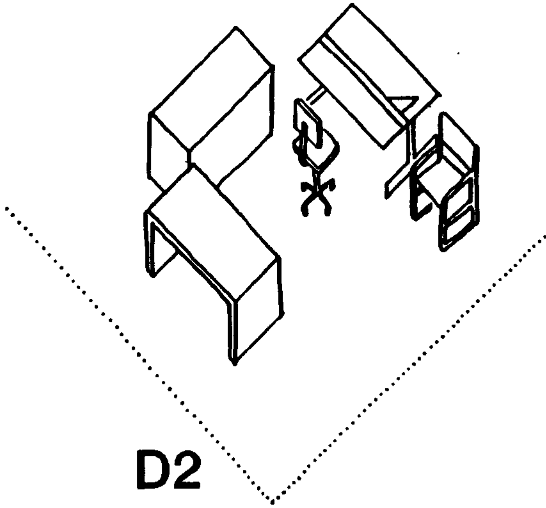
D1
80 sf



D1

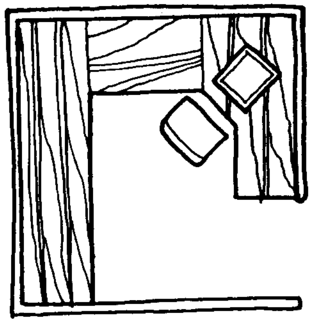


D2
100 sf

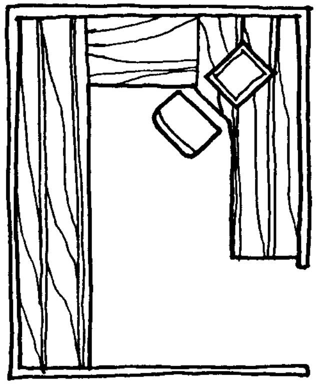


D2

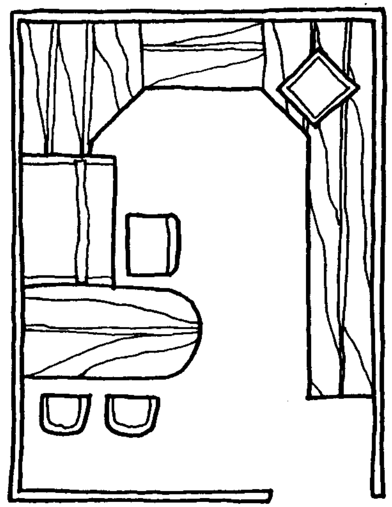
WORKSTATION TYPES



D3
64 sf



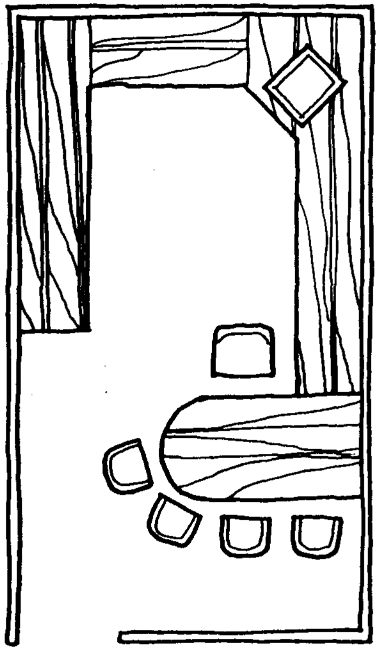
D4
80 sf



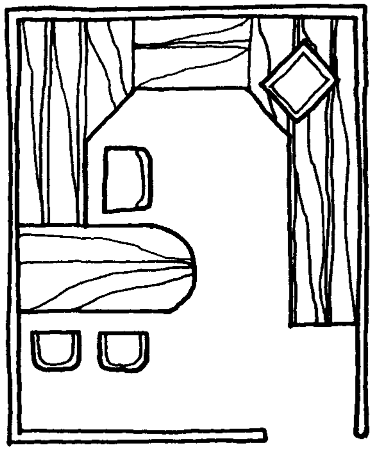
D5
140 sf

SUPERCONDUCTING SUPER COLLIDER
DRAFT FACILITIES PROGRAM

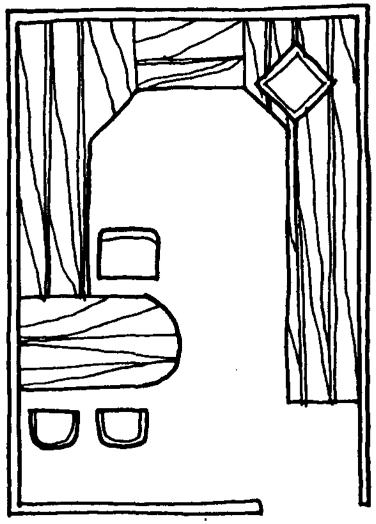
WORKSTATION TYPES



D6
180 sf

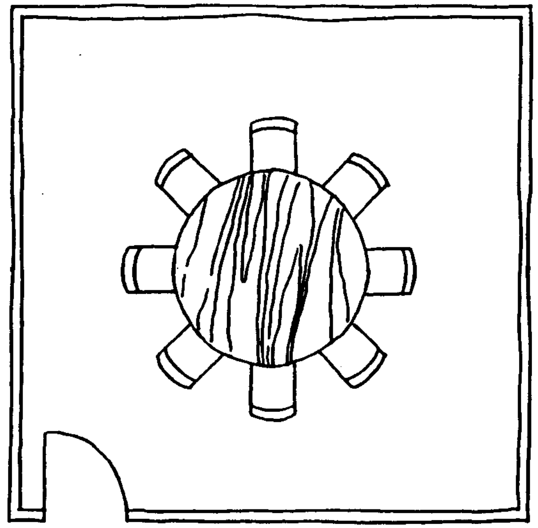


D7
120 sf



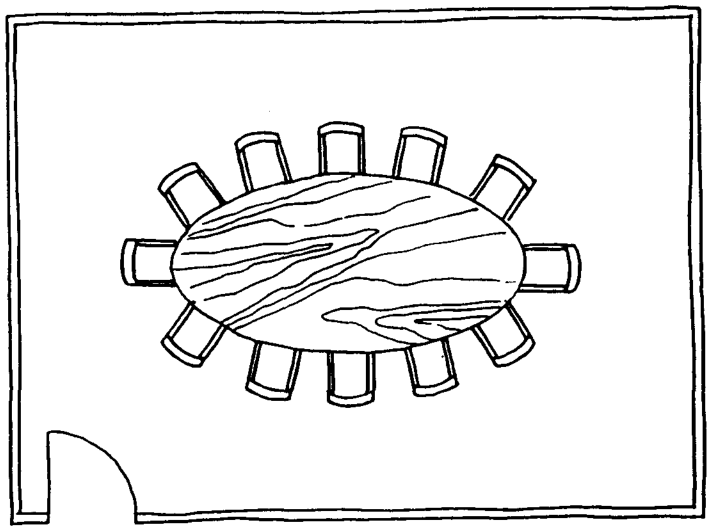
D8
140 sf

CONFERENCE ROOMS



E
196 sf

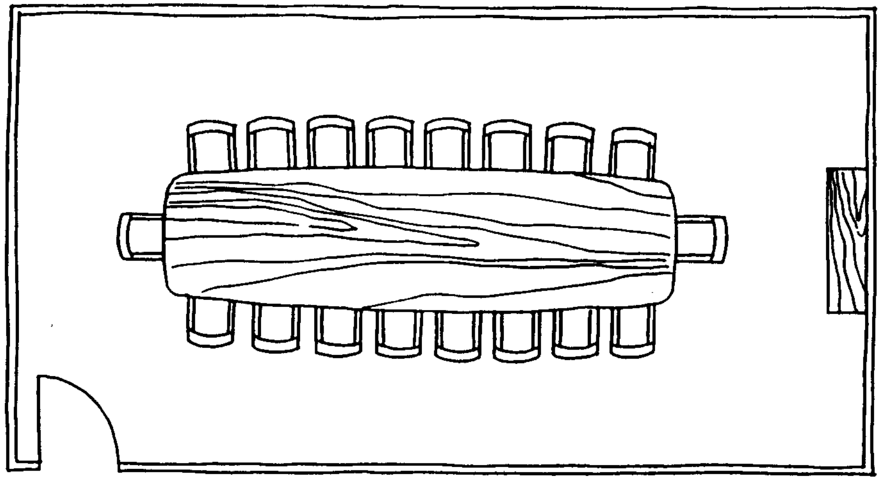
Seating: 8



F
240 sf

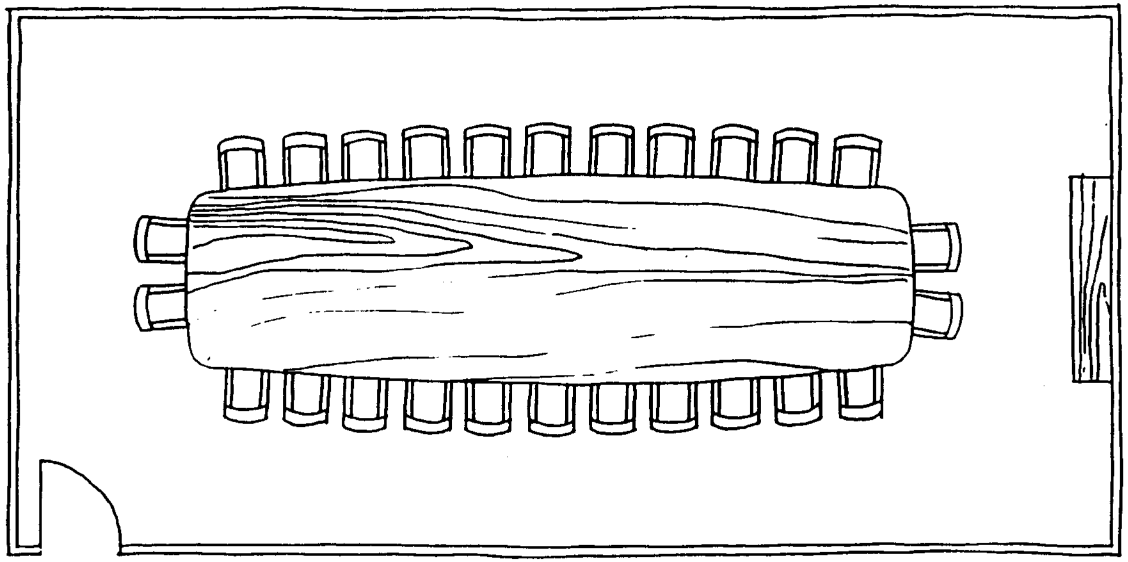
Seating: 12

CONFERENCE ROOMS



G
420 sf

Seating: 18



H
504 sf

Seating: 26

NON STANDARD WORK AREA DOCUMENTATION

VII.2

The following plans form the basis for support work areas designated in the group summaries. These drawings were provided by SSCL department heads or extracted from the Supplemental Conventional Design Report.

MAGNET BUILDING ADJACENCIES

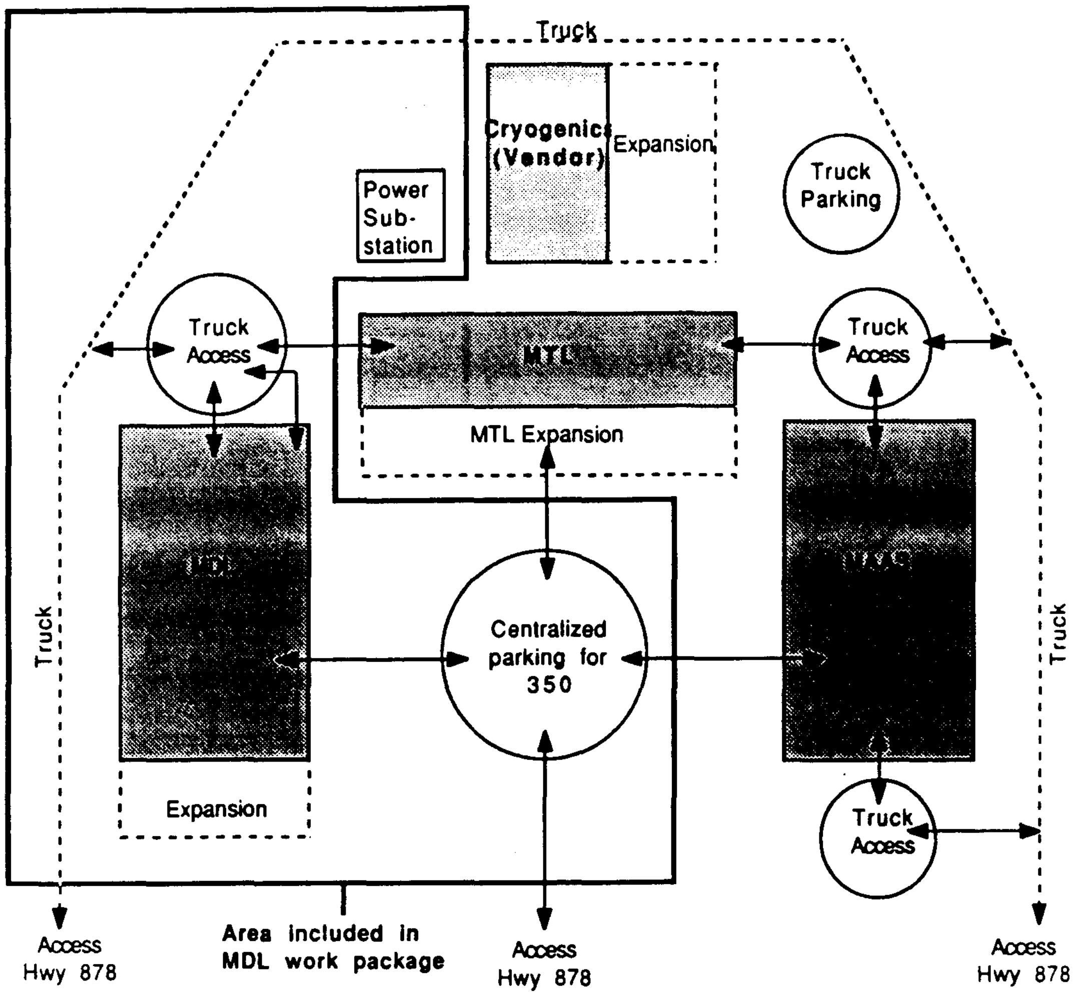


Figure 1.3. Schematic Site Plan - Magnet Support Facilities Complex

MDL DES. REQ. WKS. FEB 1990

SUPERCONDUCTING SUPER COLLIDER

MAGNET LOGISTIC FLOWS

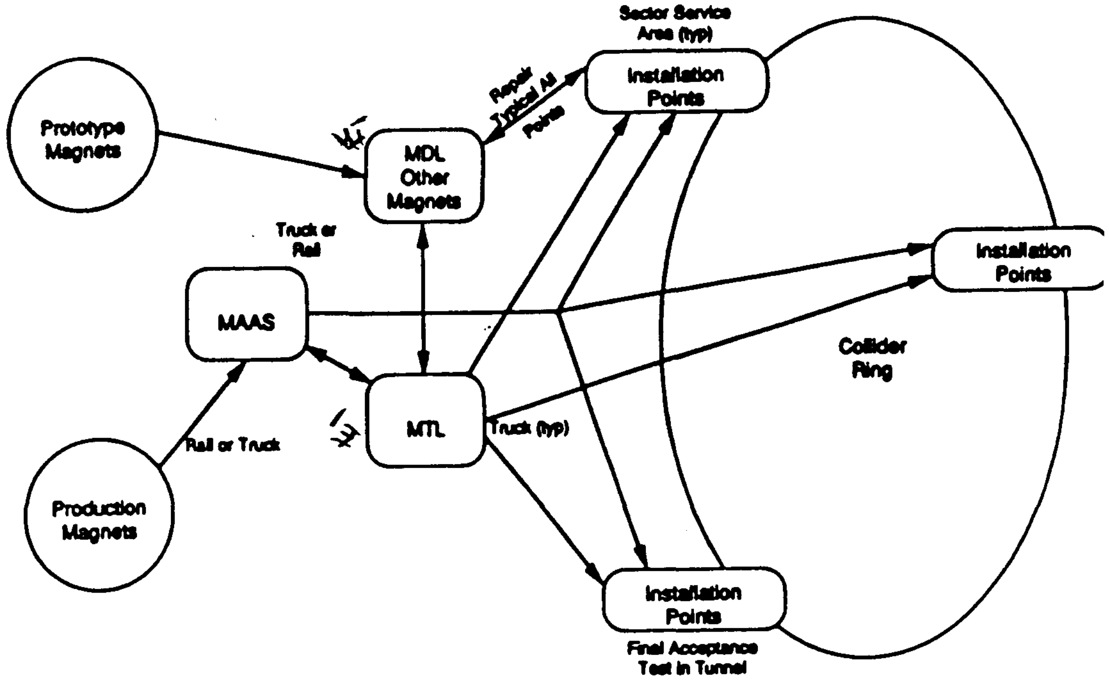


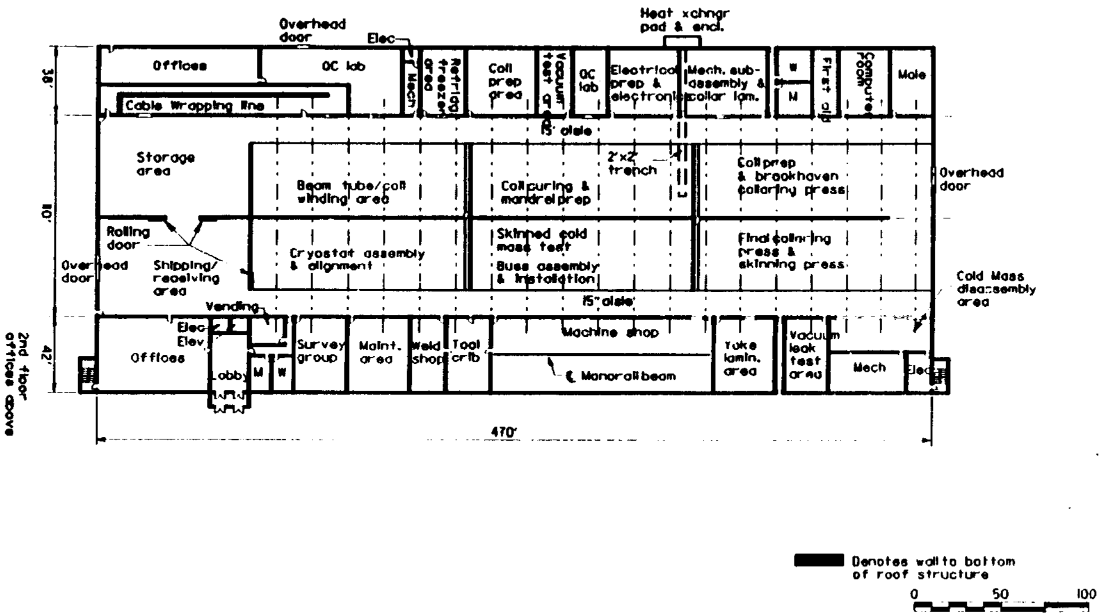
Figure 3.1. Magnet Logistics Flow

MDL DES. REQ. WKS.
FEB 1990

SUPERCONDUCTING SUPER COLLIDER

MAGNET DEVELOPMENT LAB

SSC Laboratory Conventional Construction



MAGNET DEVELOPMENT LABORATORY

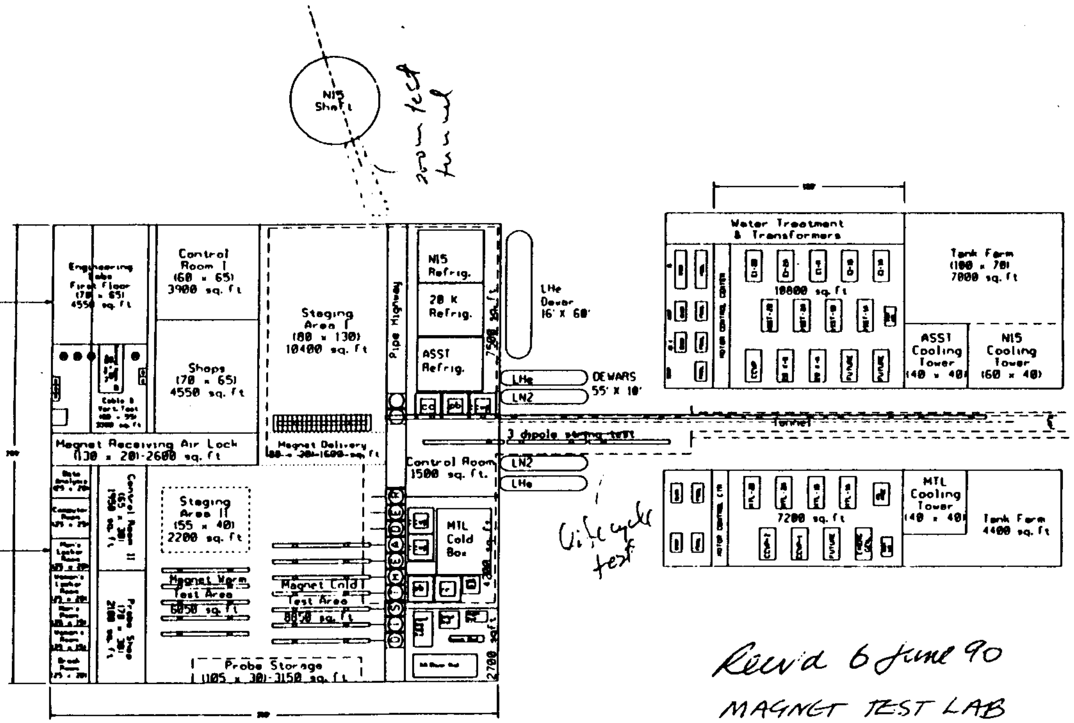
* BASIS FOR COSTING, NOT CONCEPT DESIGN

FIGURE 6.2.2-13

6/13/90rws

SUPERCONDUCTING SUPER COLLIDER

MAGNET TEST LAB



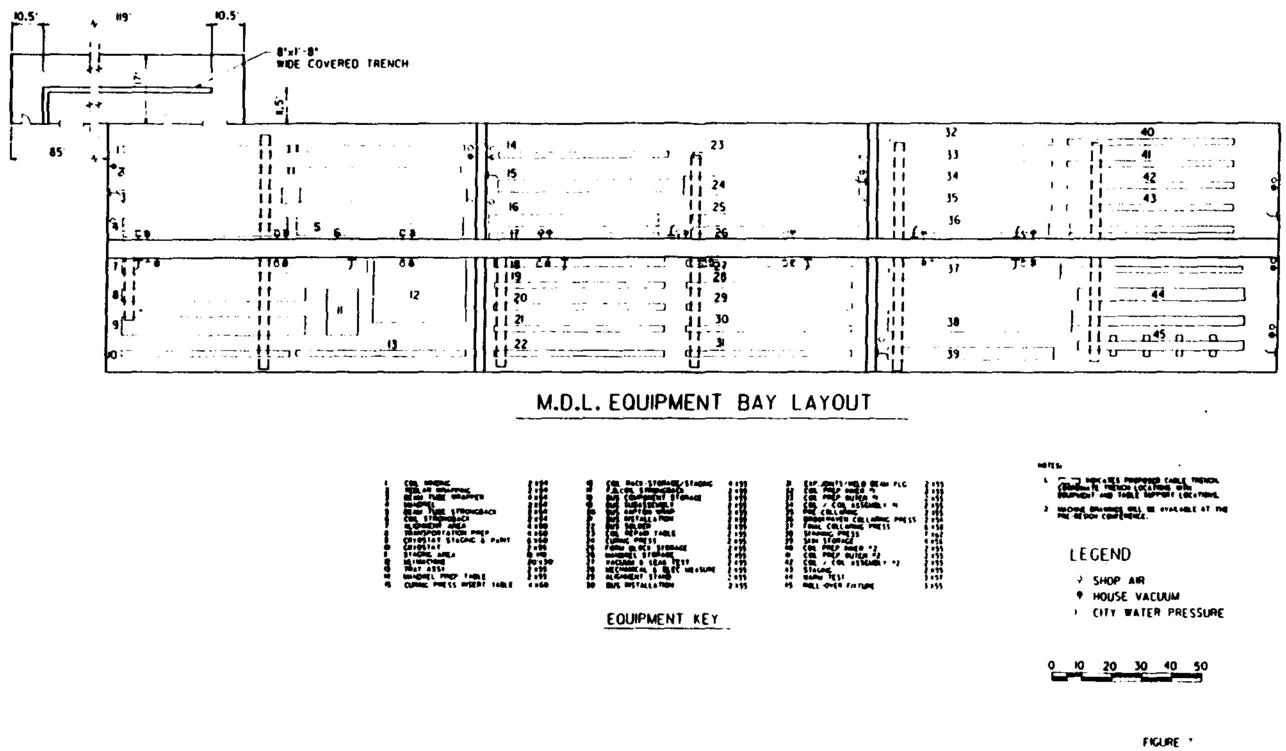
Rec'd 6 June 90
MAGNET TEST LAB

6/4 3:15

SUPERCONDUCTING SUPER COLLIDER

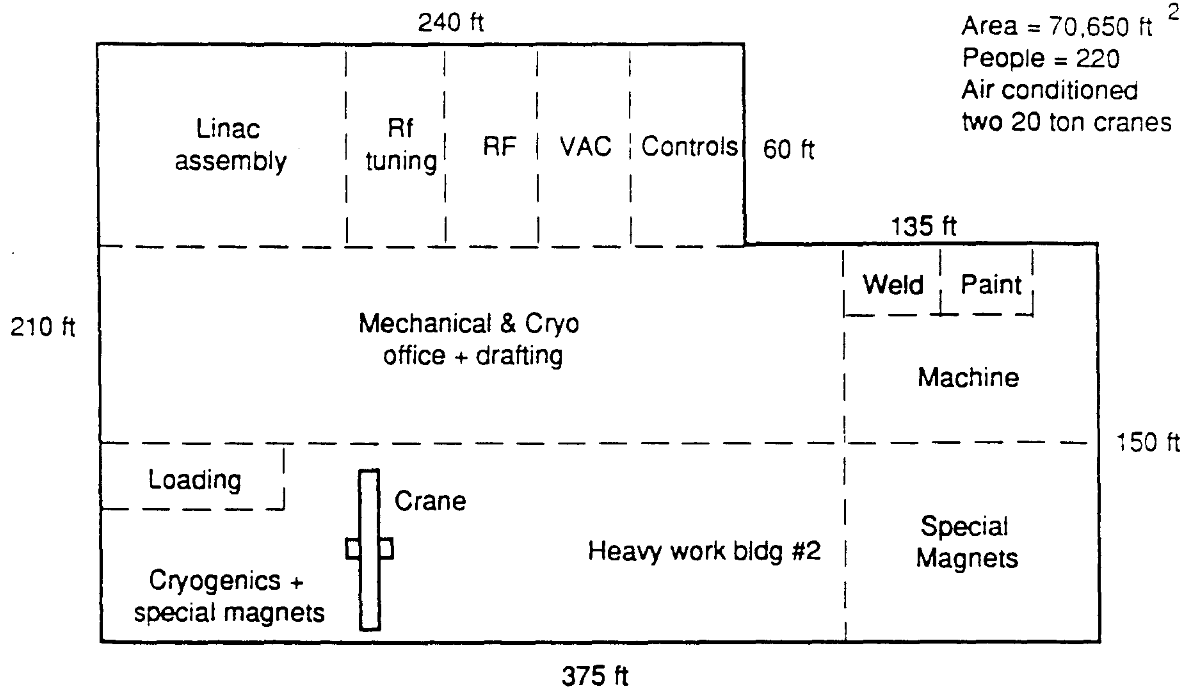
MDL EQUIPMENT BAY

SSC Laboratory **Conventional Construction**



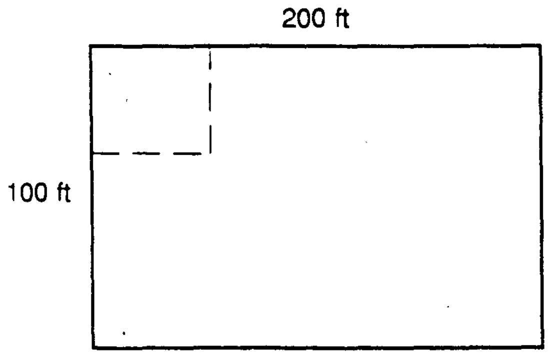
SUPERCONDUCTING SUPER COLLIDER

A.S. SHOP/ CRYO. BUILDING



Area = 70,650 ft^2
People = 220
Air conditioned
two 20 ton cranes

ACCEL. WAREHOUSE

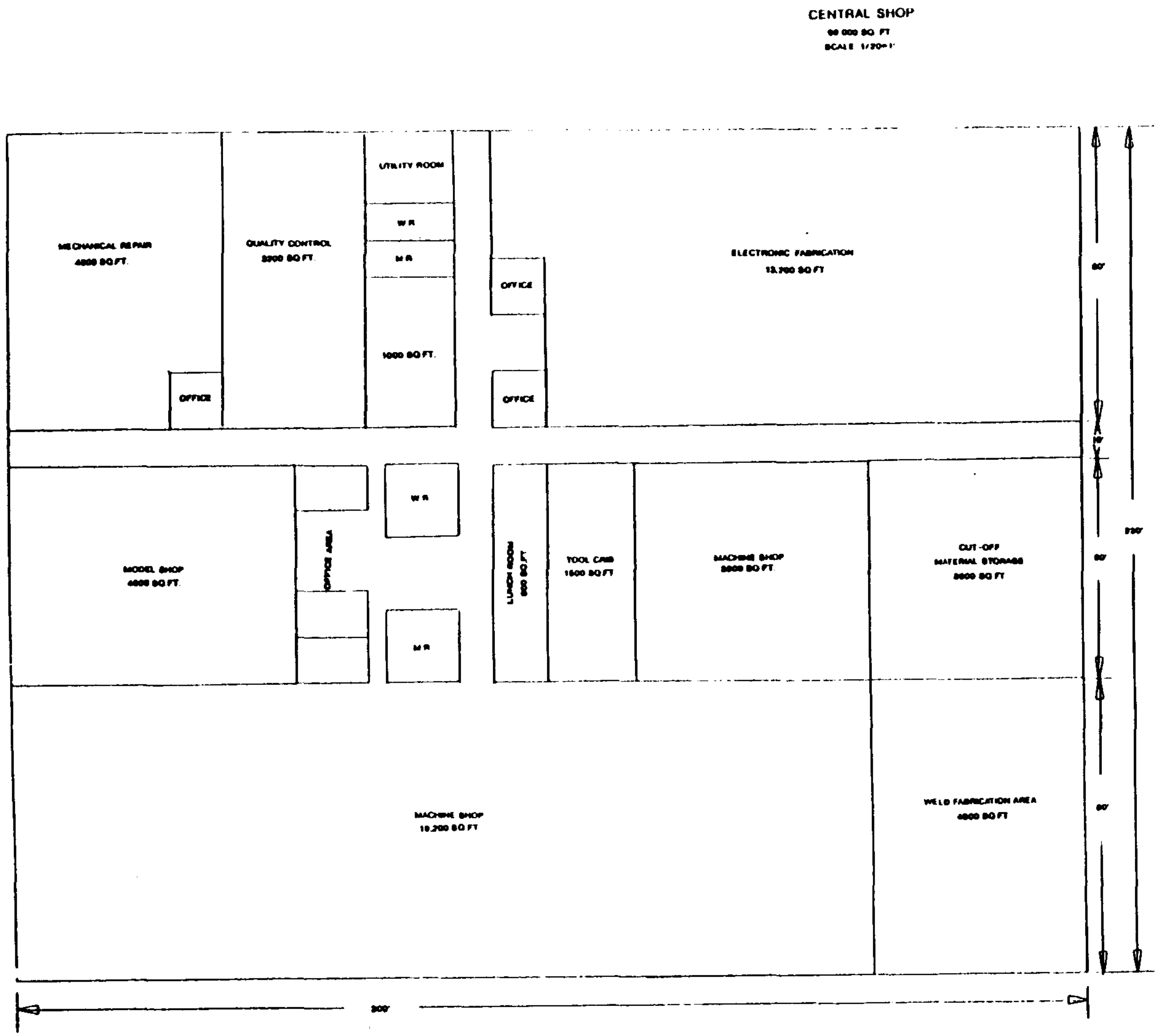


Area = 20,000 ft^2
Air conditioned space = 1,500 ft^2
otherwise vent & heat
People = 6

TIP-00215

SUPERCONDUCTING SUPER COLLIDER

LTS CENTRAL SHOP

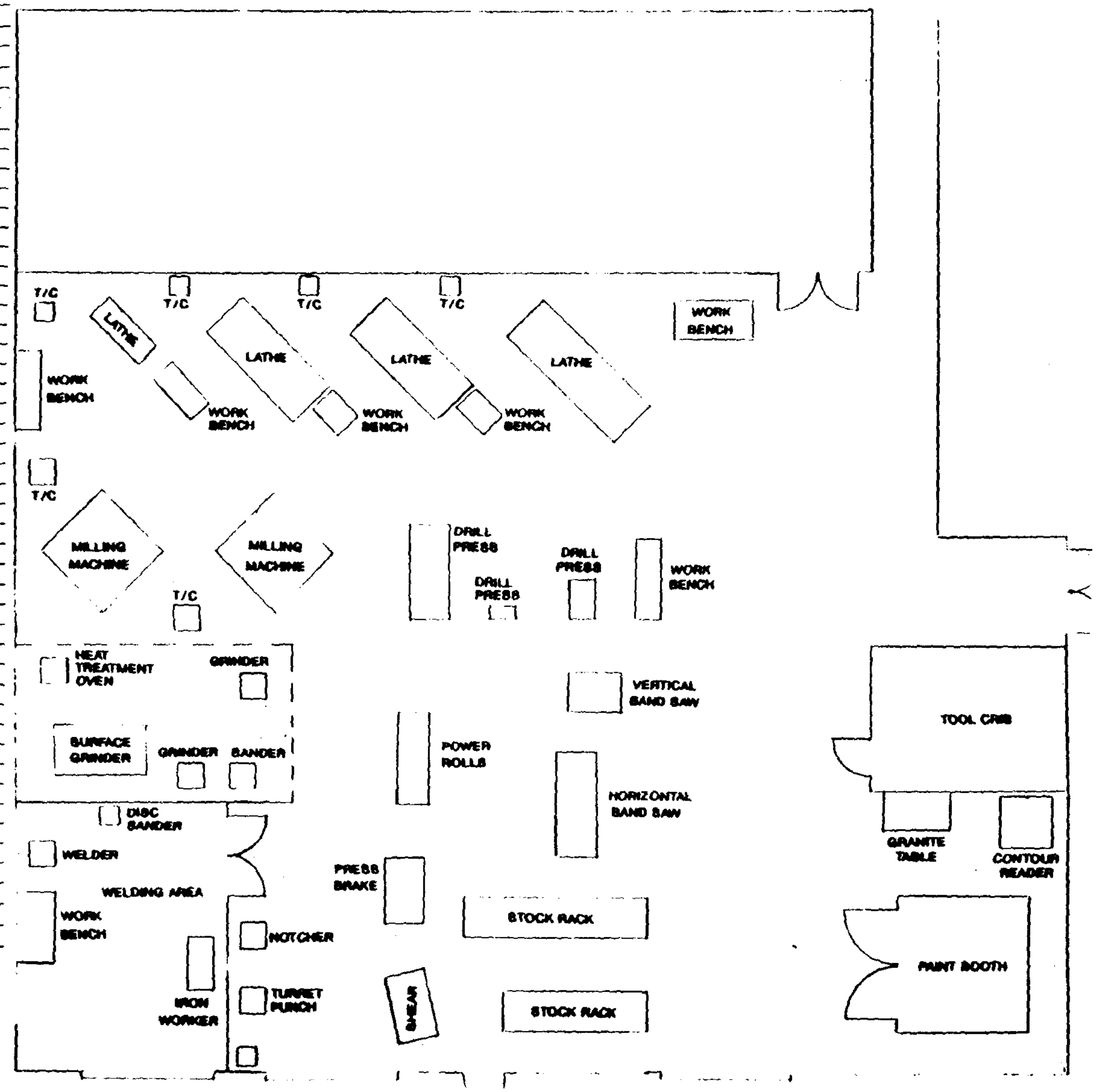


Central Electr[illegible]orication Shop	
Precision Voltage Source	10K
TEK 5006 Mainframe w/Insert	17K
Digital Voltage Meter (2 each)	14K
Oscilloscope (2 each)	36K
Pulse Generator (2 each)	20K
Computer w/Printer	13K
Microscope (2 each)	10K
Polish Wheel (3 each)	6.0K
Curing Oven (2 each)	10K
Optical TDR (OTDR)	30K
Fiber Splicer	35K
Inspection Station	100K
Fiber Timer	70K
Laser Set-up	30K
Attenuation Measurement Set-up	50K
Transmitter/Receiver Characterization	210K
Manual Wire Bonder (Ultrasonic)	71K
Manual Wire Bonder (Au or Al)	68K
Manual Wire Bonder (Hybrid Epoxy Die)	61K
Cermet Printer (18 x18)	23K
Cermet Printer (12 x 12)	17K
Cermet Printer (9 x 9)	6.0K
Air / Atmospheric Fired Furnace	27K
SMT Furnace	35K
Hydrogen Torch	5.0K
Package Sealing Equipment	41K
Mercury Printer	4.0K
Camera for Printer	10K
Pick & Place Machine	120K
Lead Cutting Equipment	10K
Epoxy Dispenser	10K
Injection Stations	15K
Chemical Process Tank	15K
Signal Generator	15K
Computer w/Printer	10K
Semi-clean room	100K
Environment controlled wet bench with	10K
drain that is capable of handling	
chemical waste.	
Manual Wire Bonder	61K
Microscope	5.0K
Polish Wheel	2.0K
Optical TDR (OTDR)	30K
Fiber Splicer	35K
Inspection Station	100K
Attenuation Measurement Set-up	50K
Microscope (4 each)	20K
Polish Wheel (5 each)	10K
Optical TDR (OTDR) (2 each)	60K
Fiber Spliter (2 each)	70K
Inspection Station	100K
Attenuation Measurement Set-up	50K
Laser Set-up	30K
Transmitter/Receiver Characterization	210K

SUPERCONDUCTING SUPER COLLIDER

LTS CENTRAL SHOP

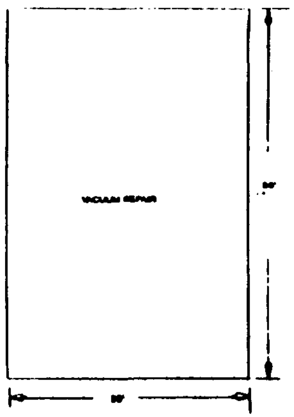
This equipment will be shifted to the Central Shop system after it is located on Campus	
Lathe (1) 11" Swing x 30" Between Center	27K
(2) 15" Swing x 54" Between Center	60K
(1) 19" Swing x 96" Between Center	34K
Milling Machine (Bridgeport type) Series II (2)	86K
Verticle Band Saw	26K
Horizontal Band Saw	26K
Belt Driven Drill Press	2.7K
Gear Driven Drill Press	9.0K
Hydraulic Shear	17K
Hydraulic Press Brake	20K
Plate Bending Rolls	20K
Granite Table	2.5K
Bench Grinder	3.5K
Sander	2.0K
Turret Type Punch	4.5K
Notcher	5.0K
Small Cabinet Sandblaster	4.0K
Heat Treat Oven	7.0K
Contour Reader	15K
Iron Worker	15K
Small Radial Drill Press	25K
Paint Booth	10K
Portable Hydraulic Crane	10K
Surface Grinder	17K
	448.2K
Mechanical Repair Shop	
Ultra Sonic Cleaning Equipment	16K
Test Equipment	15K
Bead Blaster	4.0K
Shop Press	8.0K
Portable Leak Detector (2 each)	36K
Portable Pumping System	17K
Instrumentation, Read-out Equipment	5.0K
	101K
Welding Shop	
TIG Welder	4.0K
MIG Welder	2.0K
Disc Sander	3.0K
Fabrication Table	2.5K
	11.5K

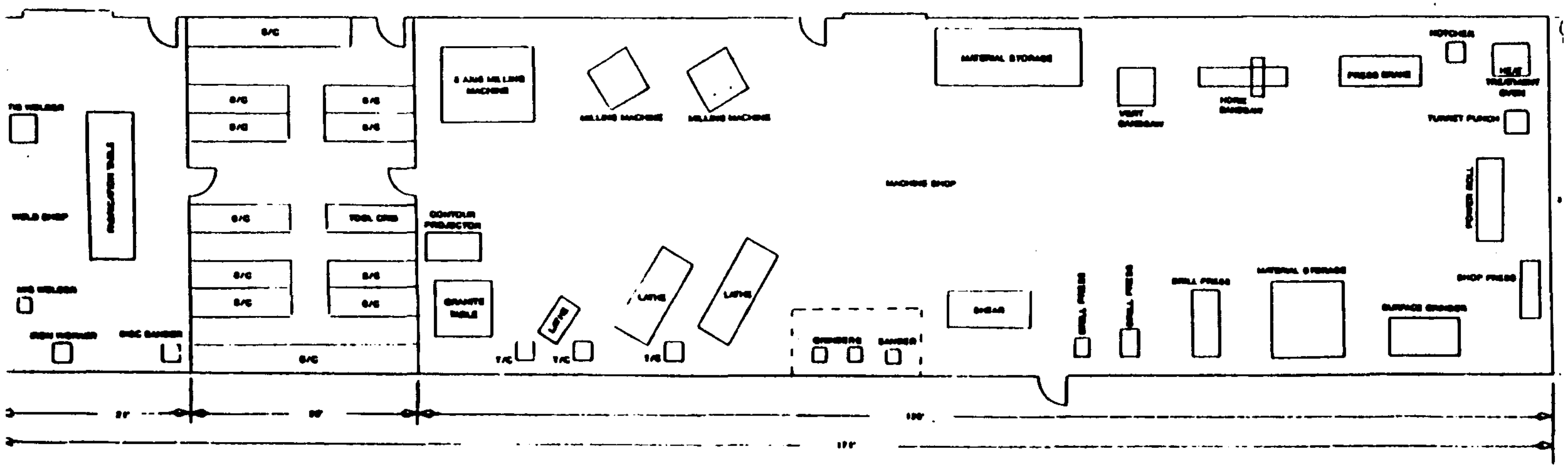


SUPERCONDUCTING SUPER COLLIDER

LTS CENTRAL SHOP

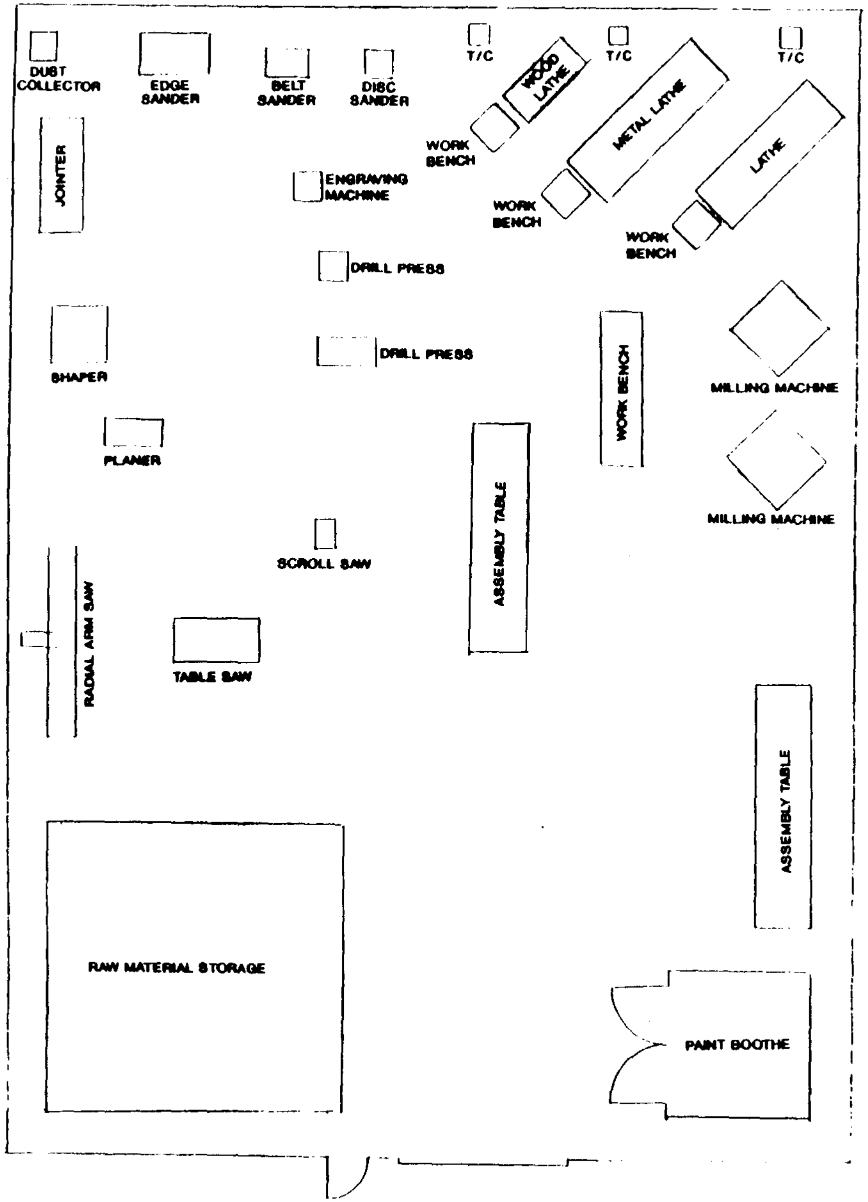
	A	B
1	Available Equipment　　　roposed ..op	
2		
3	Type of equipment available in this proposed shop	
4		
5	Machine Shop	
6	Lathes 19" swing x 96" between center	35K
7	15" swing x 54" between center	30K
8	11" swing x 18" between center	27K
9	Milling Machines Bridgeport Type	
10	Series I	17K
11	Series II	43K
12	Surface Grinder	17K
13	Vertical Band Saw	16K
14	Horizontal Band Saw	17K
15	Belt Driven Drill Press	2.8K
16	Gear Driven Drill Press	9.1K
17	Turret Punch Press	4.5K
18	Box and Pan Brake	3.5K
19	Hydraulic Shear	18K
20	Notcher	3.5K
21	Slip Rolls and Stand	3.5K
22	Shop Press	9.0K
23	Sander Belt / Disc	2.5K
24	Industrial Grinder	4.0K
25	Related Tool Cabinets, Work Benches,	
26	Precision Tool, Assembly Table, etc.	7.0K
27	Iron Worker	17K
28		356K
29	Welding Area	
30	TIG Welding Unit	4.0K
31	MIG Welding Unit	2.7K
32	Disc Sander	1.8K
33	Fabrication Table	4.5K
34		13K





SUPERCONDUCTING SUPER COLLIDER

LTS MODEL SHOPS

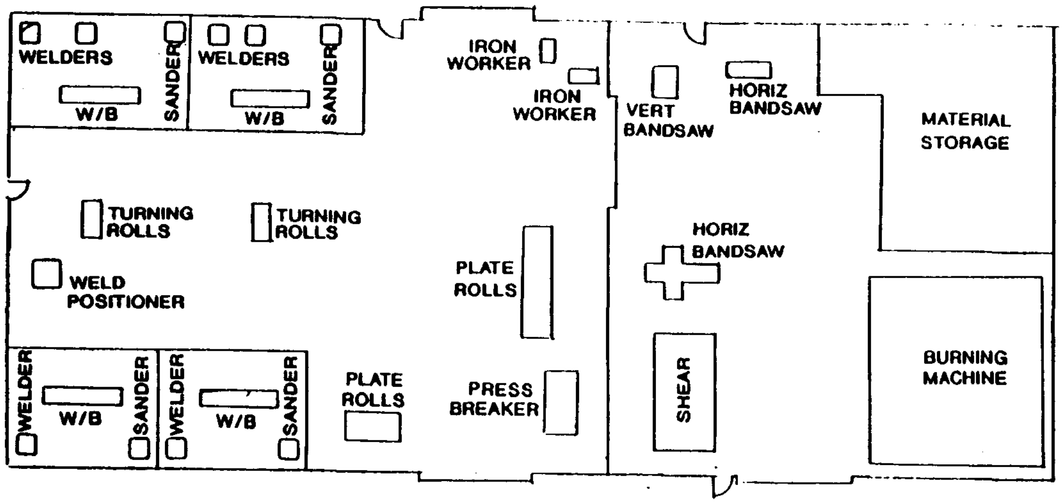


Central Model Shop	
Table Saw	3.0K
Radial Arm Saw	2.6K
Shaper	3.0K
Planer	8.0K
Jointer	4.0K
Router	6.0K
Wood Lathe	10K
Metal Lathe	27K
Milling Machine	17K
Paint Booth	6.0K
Belt Driven Drill Press	2.8K
Gear Driven Drill Press	9.0K
Sander (Disc & Belt)	4.0K
Band Saw	15K
Scroll Saw	1.5K
Assembly Tables	10K
Dust Recover System	7.0K
Tooling	7.5K
Painting Equipment	1.2K
Lathe Metal 30" Swing x 8' Between Center	50K
Milling Machine	17K
Large Assembly Table, Cabinets, etc.	8.0K
Engraving Machine	6.0K

MODEL SHOP
60'X 80'
SCALE 1/8"=1'

SUPERCONDUCTING SUPER COLLIDER

LTS WELD SHOP

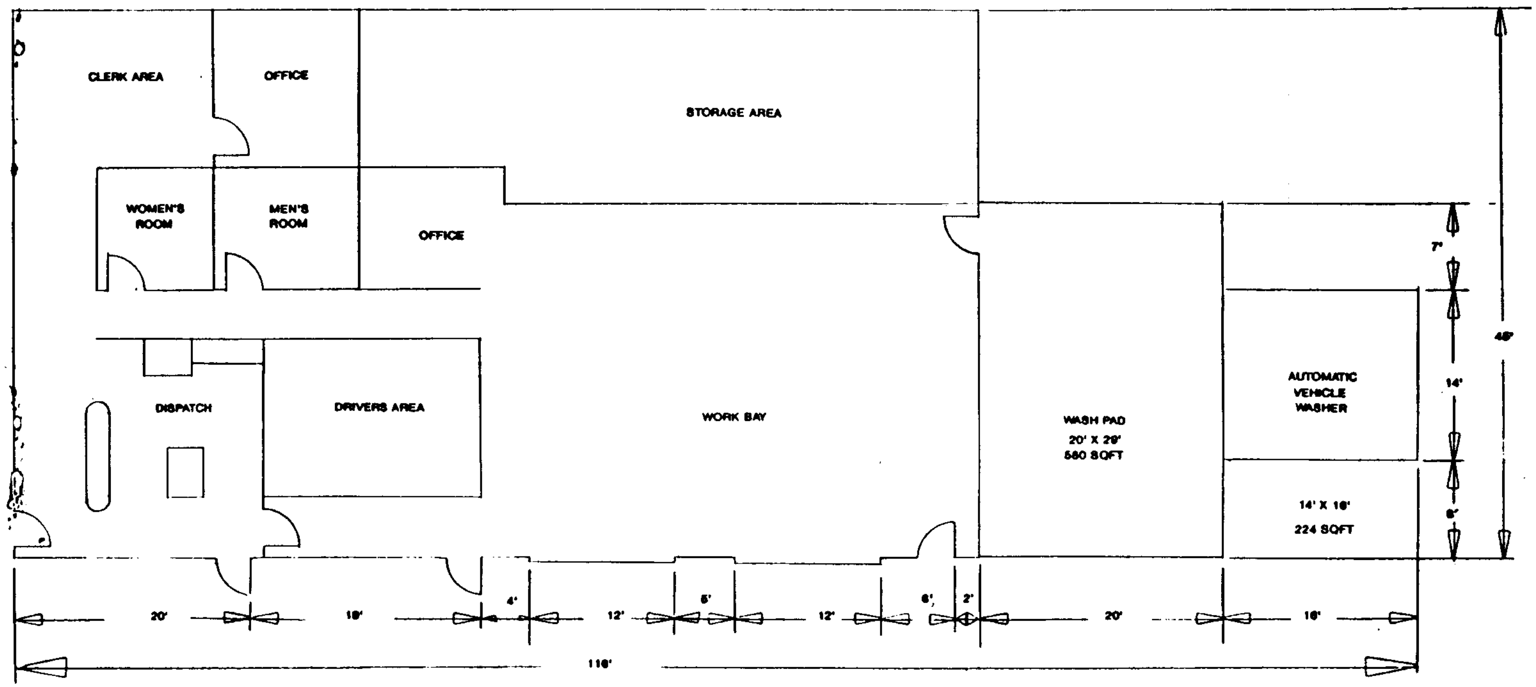


Central Weld Shop	
TIG Welding Unit (2 each)	8.0K
MIG Welding Unit (2 each)	9.0K
Stick Electrode Welding unit (2 each)	2.5K
Fabrication Table (2 each)	8.0K
Disc Sander	4.5K
Welding Positioner	40K
Cylinder Rolling System	15K
Hydraulic Iron Worker	27K
Assorted Power & Hand Tools	10K
Work Bench, Log-out Table, Bottle Racks, etc	8K
CNC Burning Machine with Plasma	225K
Plate Power Rolls	35K
Power Shear 1/2" x 12' Capacity	60K
Power Rolls 3/4" x 12' Capacity	130K
Press Brake 350 Ton Capacity 1/2" x 12'	71K
General Tooling	50K

SUPERCONDUCTING SUPER COLLIDER

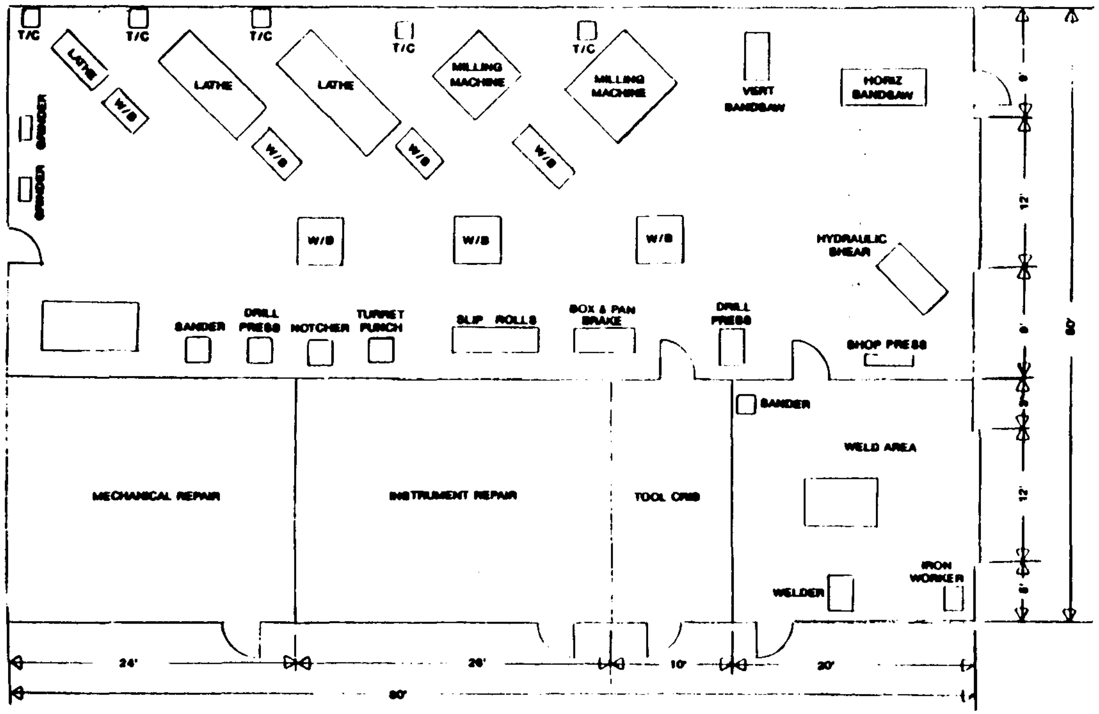
LTS MOTOR POOL

MOTOR POOL
OFFICE AND GARAGE
45' X 80'
3600 SQFT



SUPERCONDUCTING SUPER COLLIDER

LTS AREA SHOP

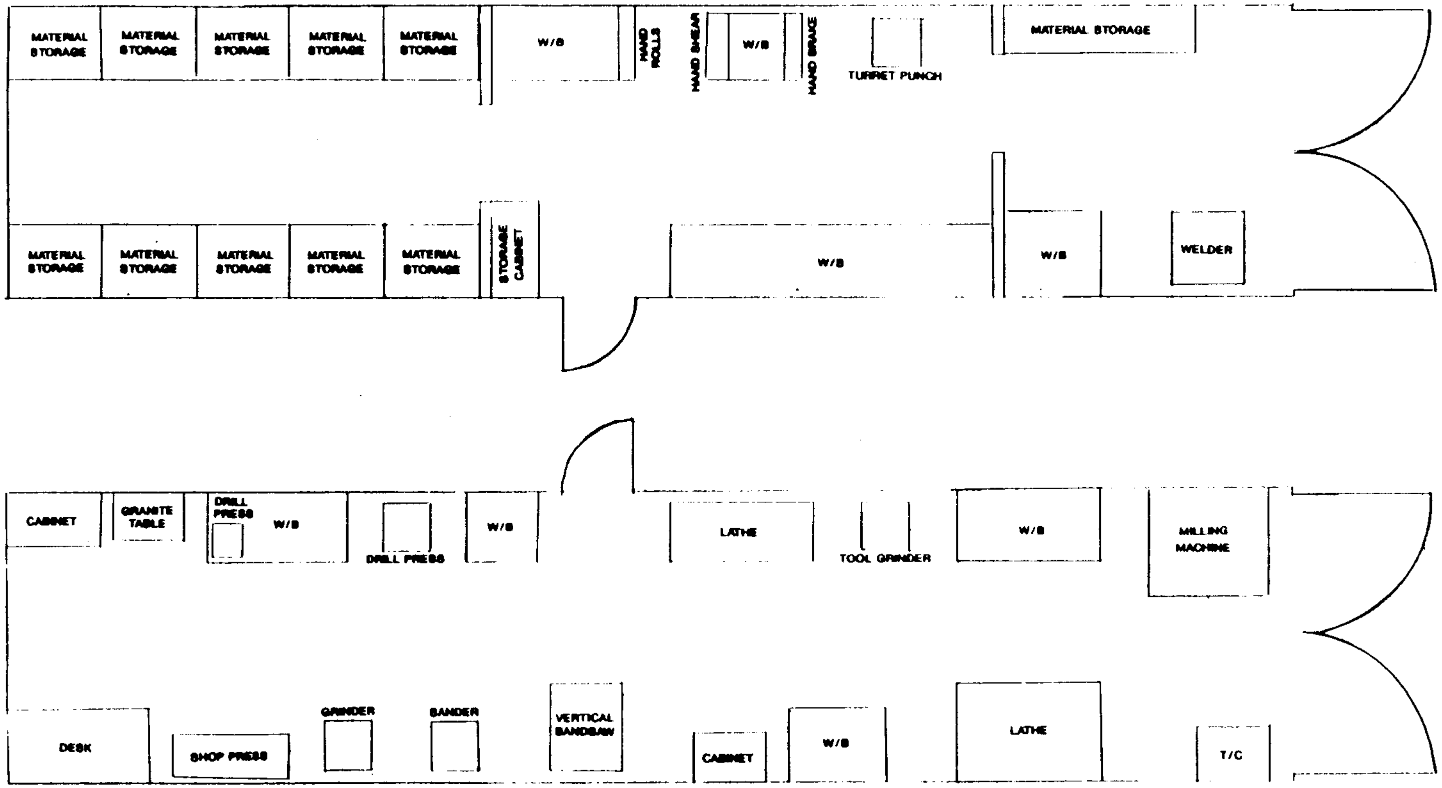


AREA SHOP
50' X 80' 4000 SQ. FT

	A	B
1	Available Equipment posed Shop	
2	4000 Sq	
3	Type of equipment available in this proposed shop	
4		
5	Machine Shop	
6	Lathes 19" swing x 96" between center	35K
7	15" swing x 54" between center	30K
8	11" swing x 18" between center	27K
9	Milling Machines Bridgeport Type	
10	Series I	17K
11	Series II	43K
12	Surface Grinder	17K
13	Vertical Band Saw	16K
14	Horizontal Band Saw	17K
15	Belt Driven Drill Press	2.8K
16	Gear Driven Drill Press	9.1K
17	Turret Punch Press	4.5K
18	Box and Pan Brake	3.5K
19	Hydraulic Shear	18K
20	Notcher	3.5K
21	Slip Rolls and Stand	3.5K
22	Shop Press	9.0K
23	Sander Belt / Disc	2.5K
24	Industrial Grinder	4.0K
25	Related Tool Cabinets, Work Benches,	
26	Precision Tool, Assembly Table, etc.	7.0K
27	Iron Worker	17K
28		356K
29	Welding Area	
30	TIG Welding Unit	4.0K
31	MIG Welding Unit	2.7K
32	Disc Sander	1.8K
33	Fabrication Table	4.5K
34		13K

SUPERCONDUCTING SUPER COLLIDER

LTS MOBILE SHOPS



Mobil Shop	
Trailer Shells (2 each)	180K
Trailer Build-out (2 each)	240K
Machine Tools:	
Lathes; 30" Swing Sliding Gap Type	50K
10" Swing x 30" Between Center	15K
Milling Machine	17K
Vertical Band Saw	17K
Gear Driven Drill Press	9.0K
Belt Driven Drill Press	2.7K
Shop Press	8.0K
Tool Grinder	1.8K
Industrial Grinder	1.2K

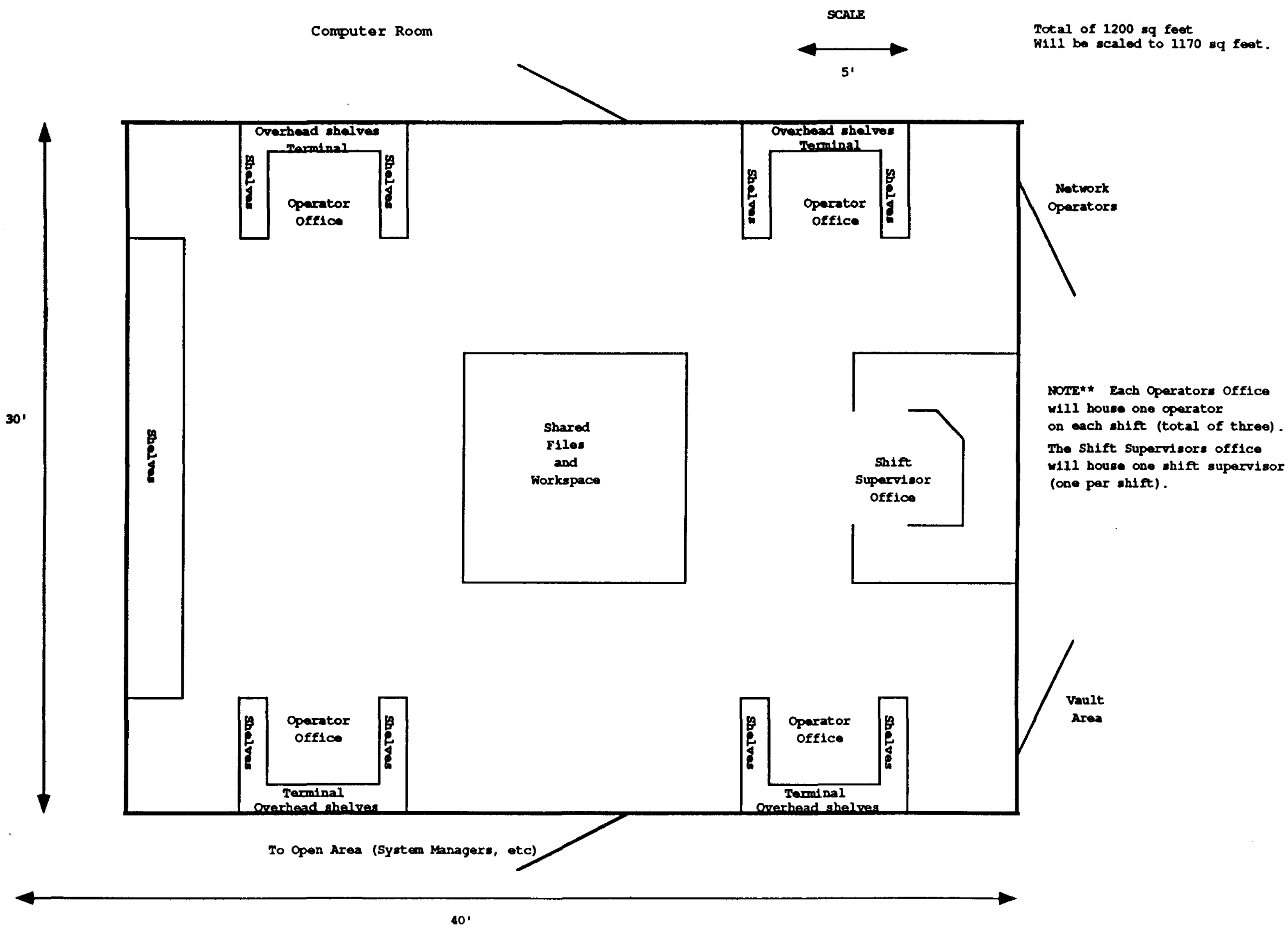
Belt Sander	1.4K
Granite Table	2.5K
Turret Punch	4.0K
Hand Operated Shear	3.0K
Hand Brake	3.5K
TIG Welding Unit	4.0K
Cabinets, Drawers, Shelving	70k
General Supply	65K
Shop Compressor	3.0K
	700K

TWO TRAILER
(MOBILE SHOP)
12' X 84' SCALE 1/8"=1'

SUPERCONDUCTING SUPER COLLIDER

LTS COMPUTER OPERATIONS AREA

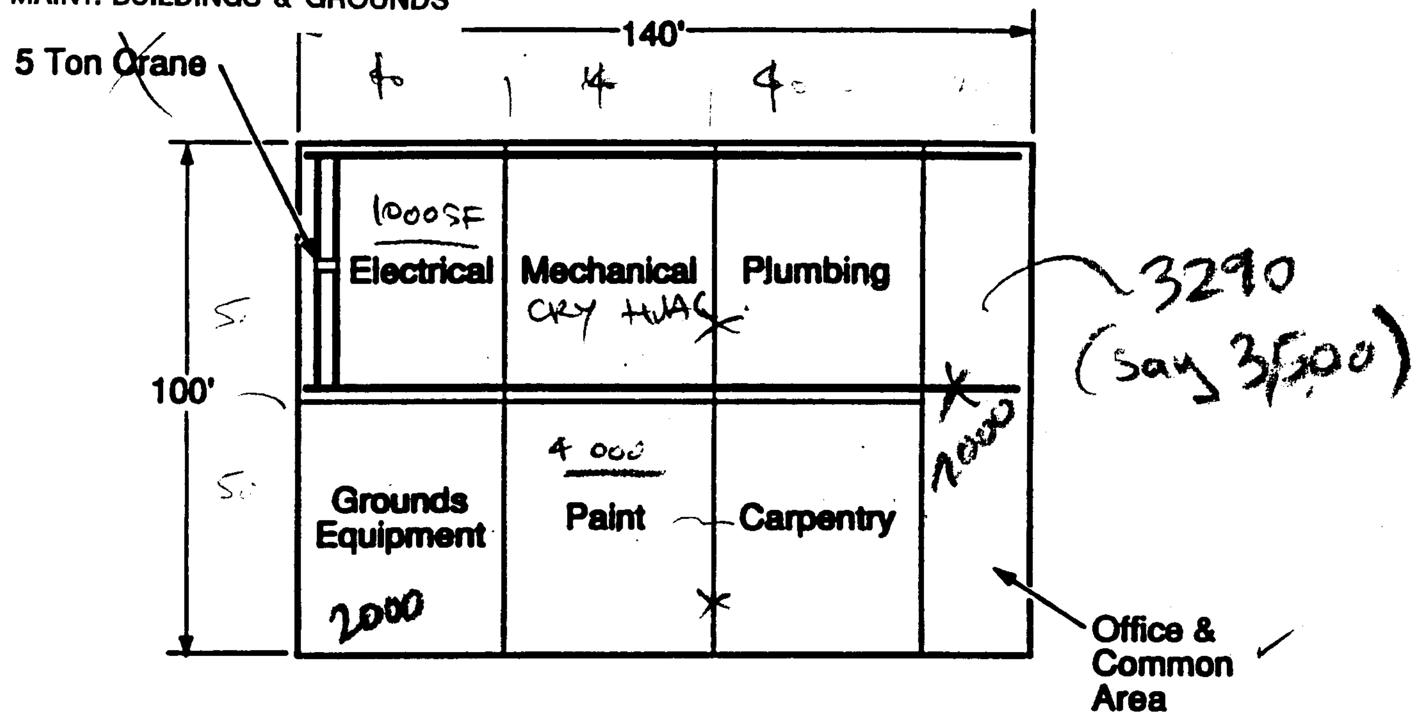
Prepared by Brenda Ramsey
20-apr-1990



NOTE** Each Operators Office will house one operator on each shift (total of three).
The Shift Supervisors office will house one shift supervisor (one per shift).

SUPERCONDUCTING SUPER COLLIDER

LTS FAC. ENG. & MAINT. BUILDINGS & GROUNDS



Facil Eng & Maint.

14' ceiling

13,000
1,500
14,500

SUPERCONDUCTING SUPER COLLIDER

LTS FAC. ENG. & MAINT. FIRE STATION

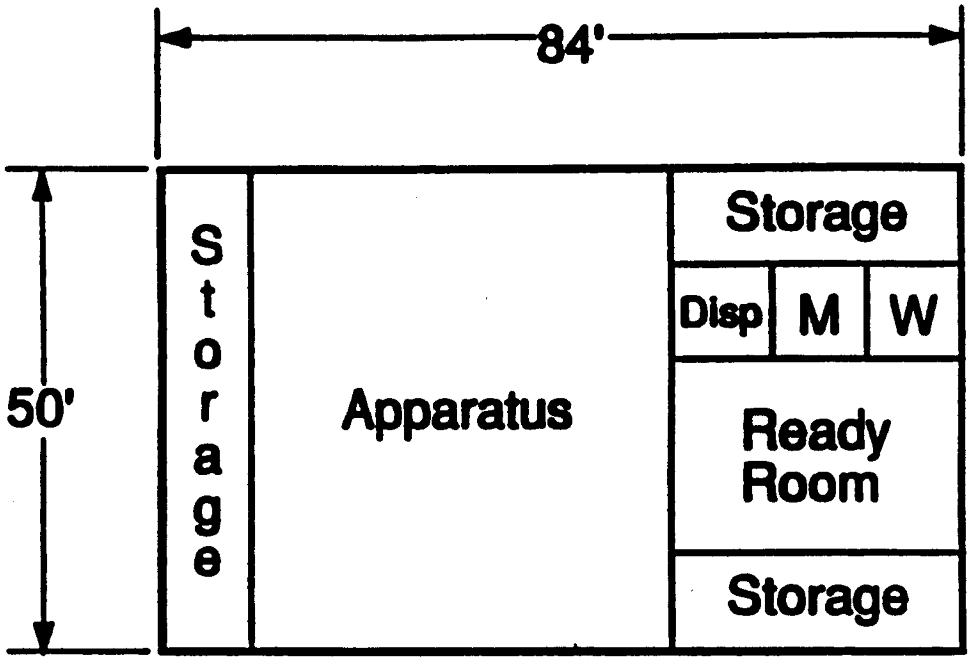


FIG. 6.2.2 - 7

FIRE STATION. x2

4200 x 2

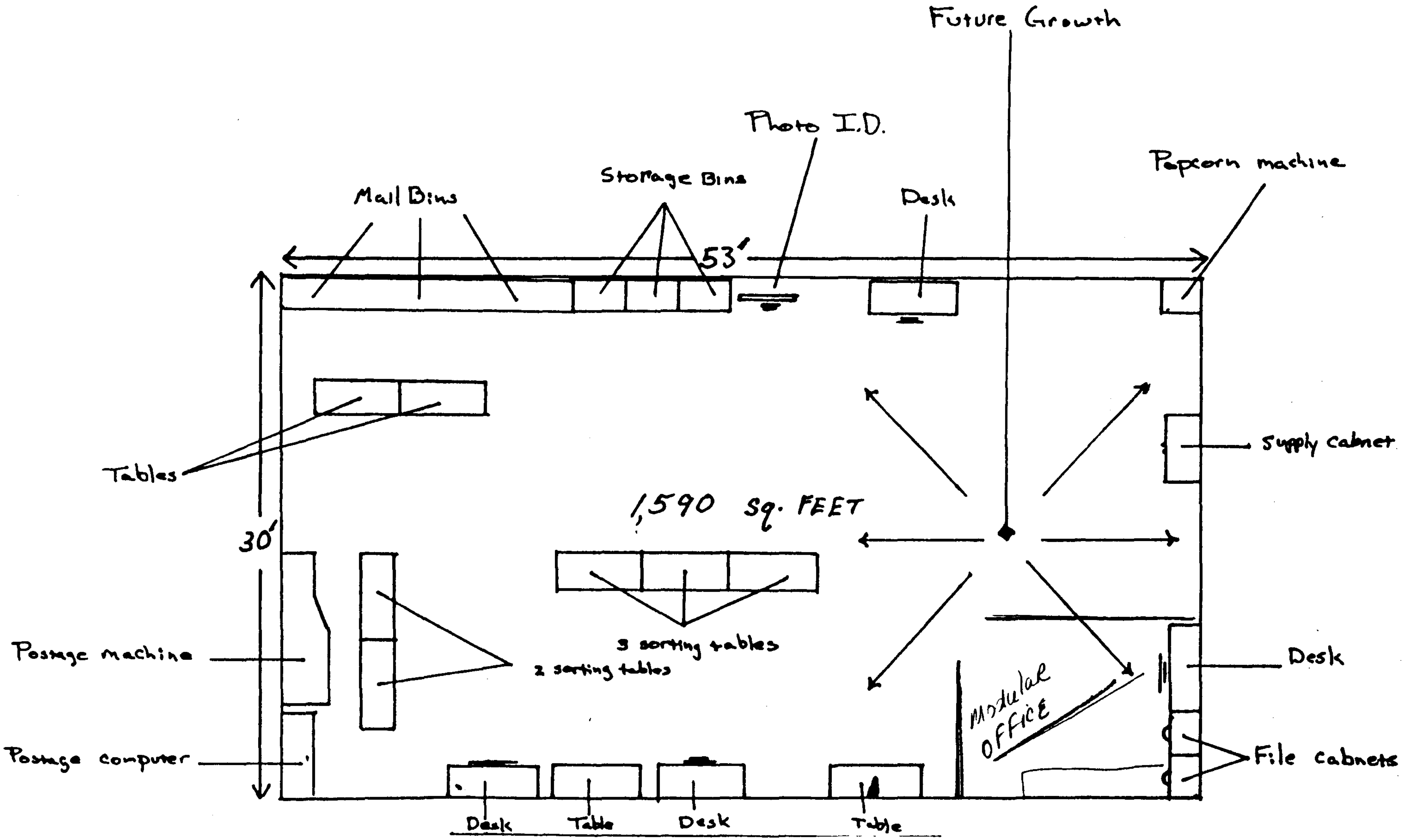
8400 NET

AREAS TO BE CONFIRMED BY FURTHER STUDY

SUPERCONDUCTING SUPER COLLIDER

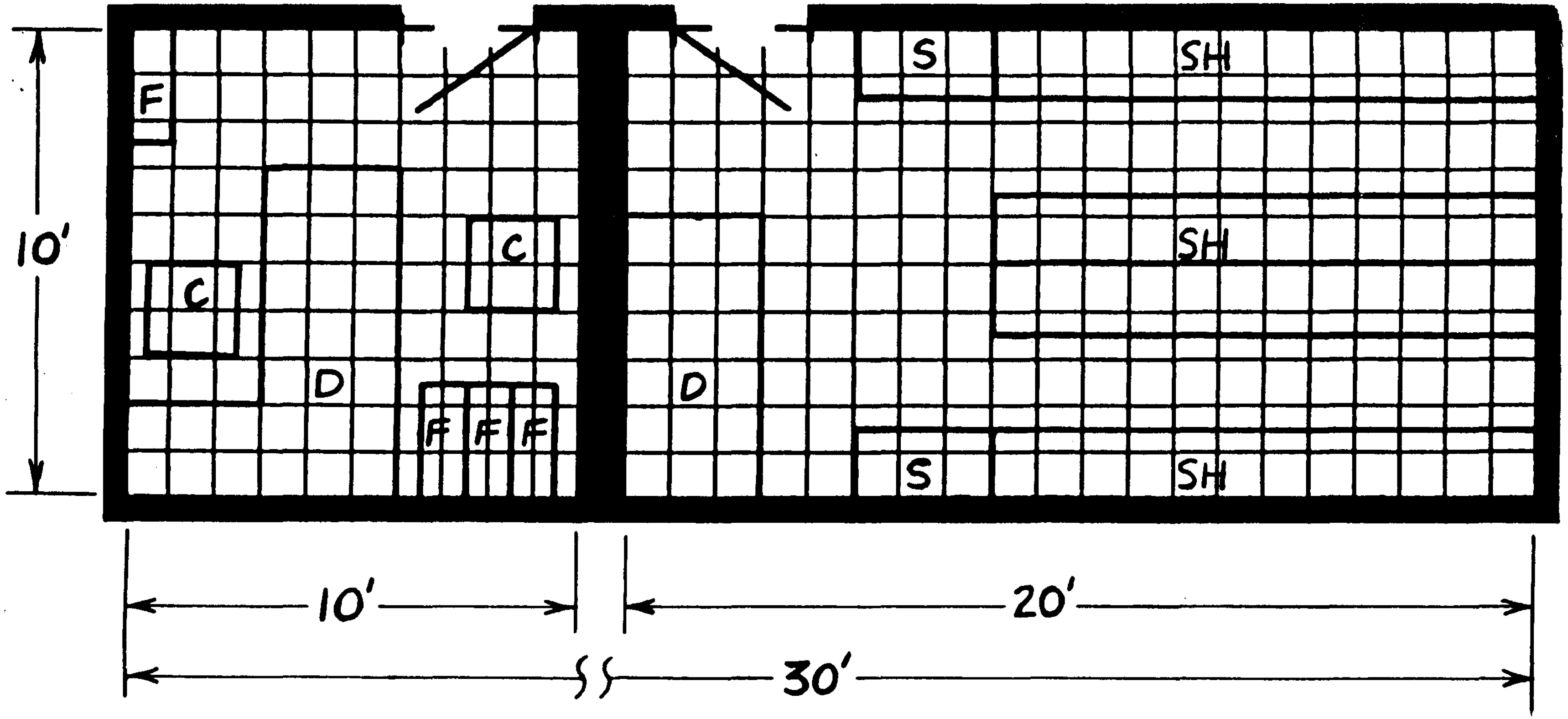
A.S. STAFF SERVICES MAIL ROOM

AREAS TO BE CONFIRMED BY FURTHER STUDY



SUPERCONDUCTING SUPER COLLIDER

A.S. STAFF SERVICES RECORDS DEPARTMENT



Proposed

RECORDS DEPARTMENT (Support Services)

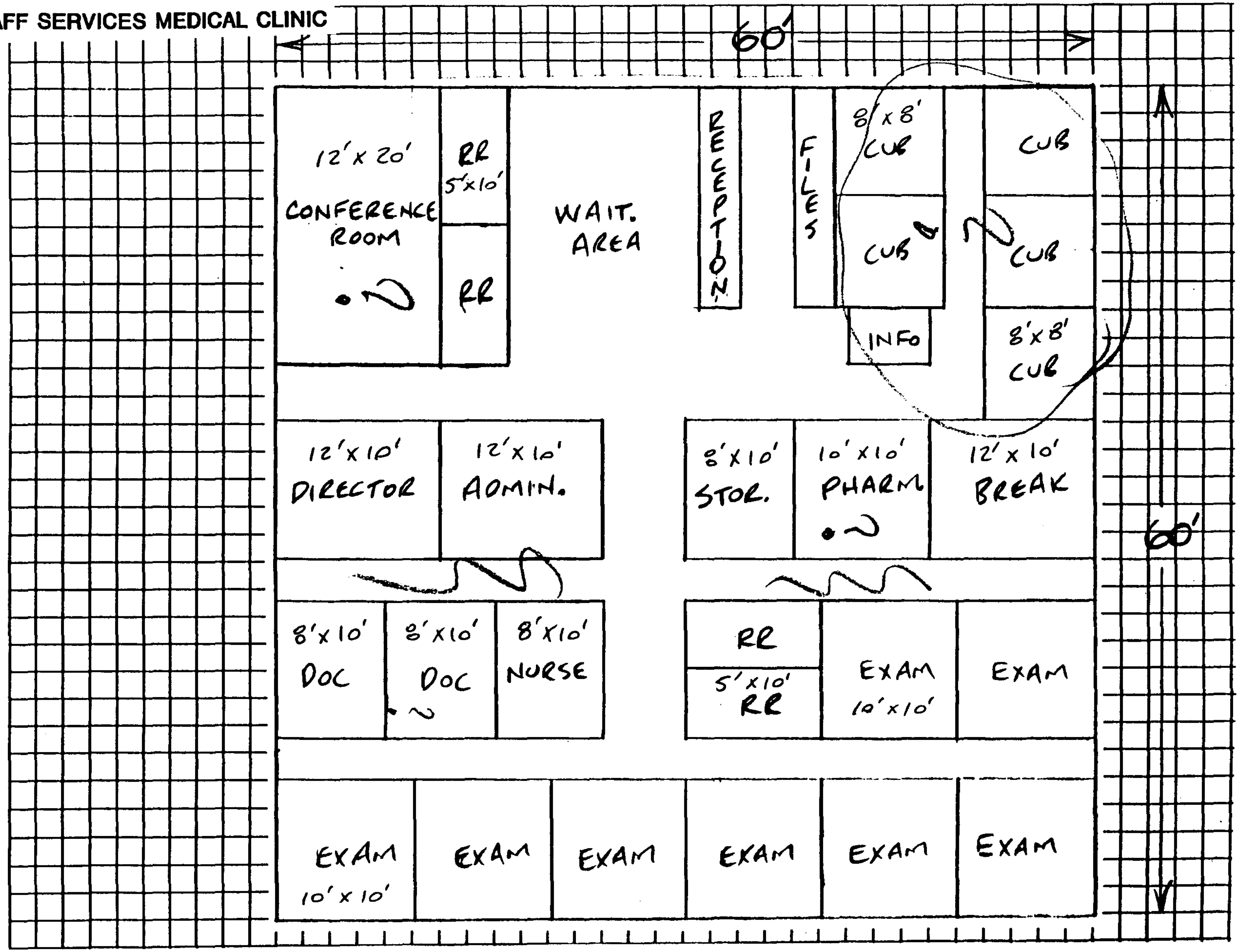
Records Administrator's Office and Records Holding Area

Notes: Deminsions are measured inside rooms.
F = Filing cabinets SH = Shelving
D = Desks C = Chairs
S = Fire-proof Storage cabinets

AREAS TO BE CONFIRMED BY FURTHER STUDY

SUPERCONDUCTING SUPER COLLIDER

A.S. STAFF SERVICES MEDICAL CLINIC



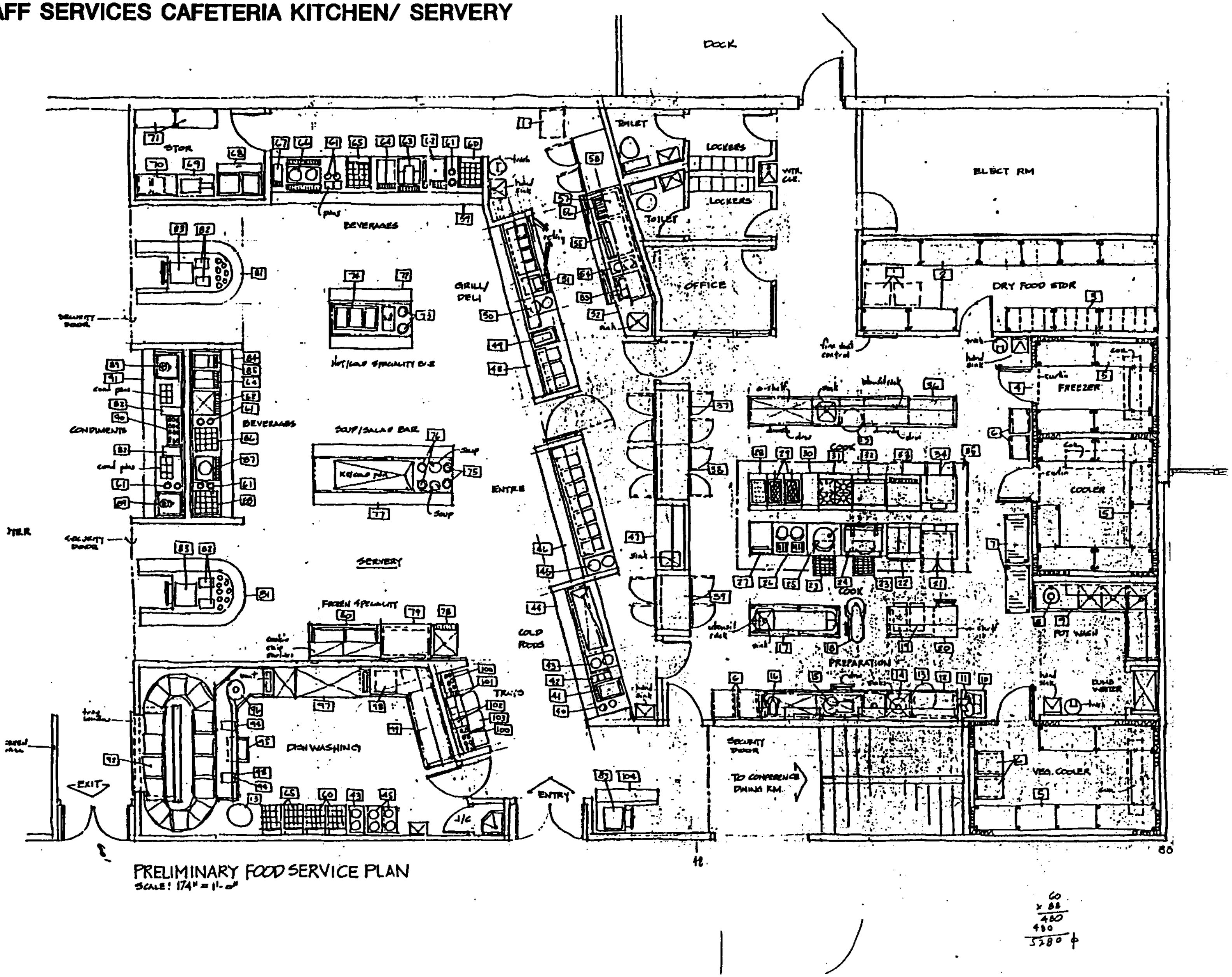
AREAS TO BE CONFIRMED BY FURTHER STUDY

1 Box = 4 FT^2

MEDICAL CLINIC LAYOUT

SUPERCONDUCTING SUPER COLLIDER

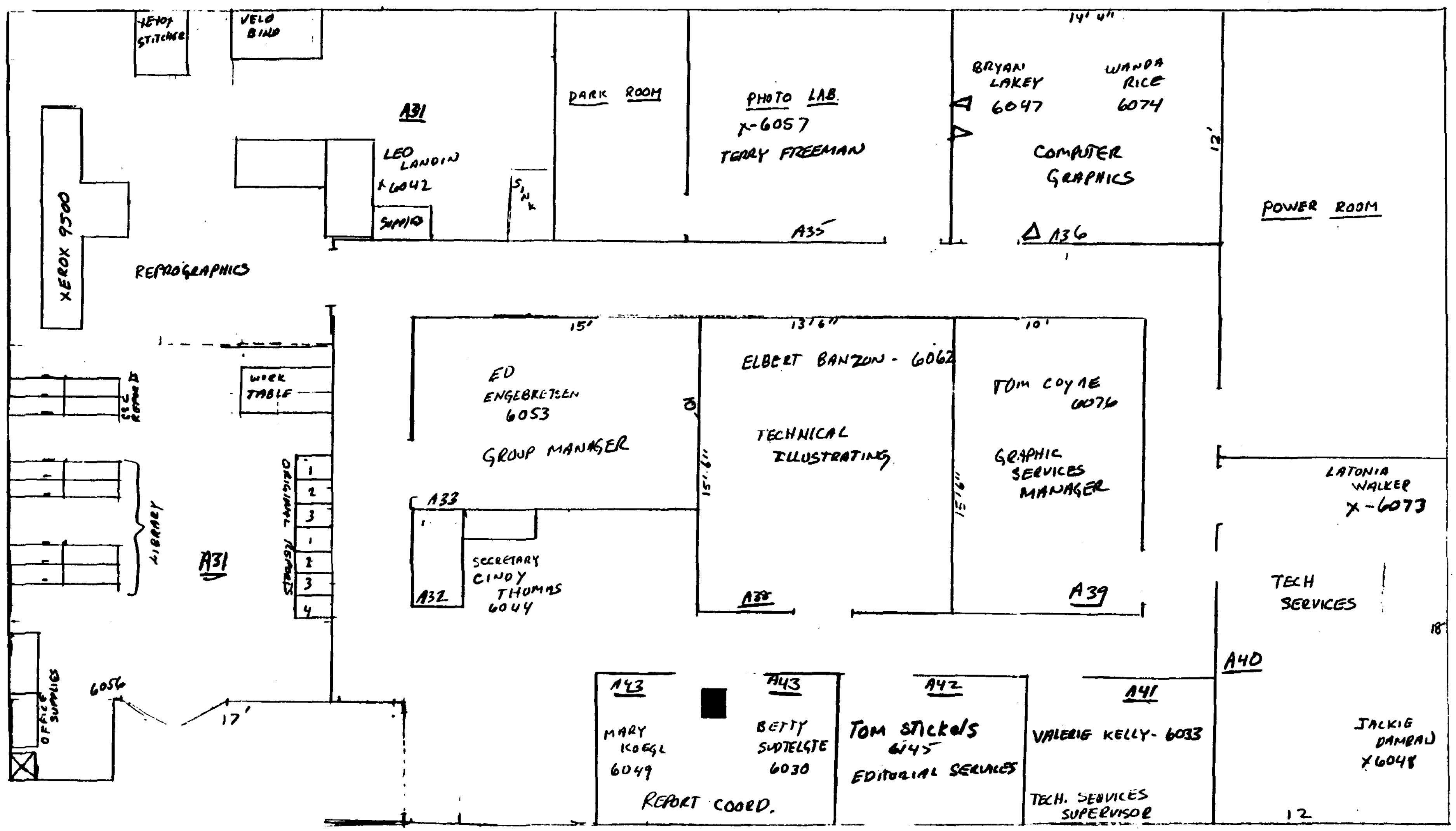
A.S. STAFF SERVICES CAFETERIA KITCHEN/ SERVERY



PRELIMINARY FOOD SERVICE PLAN
SCALE: 1/4" = 1'-0"

SUPERCONDUCTING SUPER COLLIDER

P.R. TECH. INFO. & PUBS.



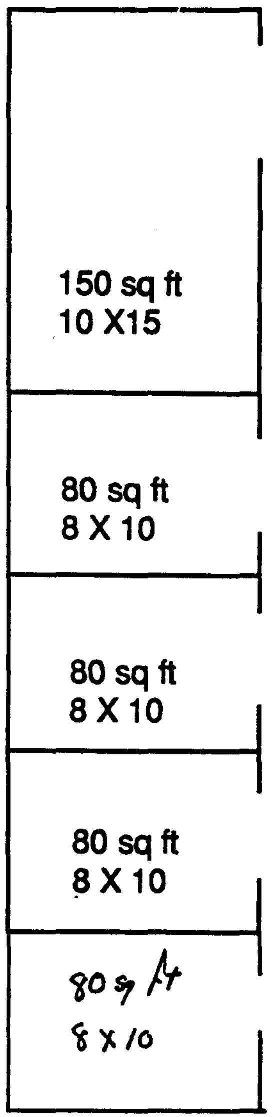
TECHNICAL INFORMATION AND PUBLICATIONS

SCALE 1/8" = 1'0" BLDG 4

SUPERCONDUCTING SUPER COLLIDER

P.R. TECH. INFO. & PUBS.

Editorial Services Space and Equipment Requirements



Scale 1/8" = 1ft

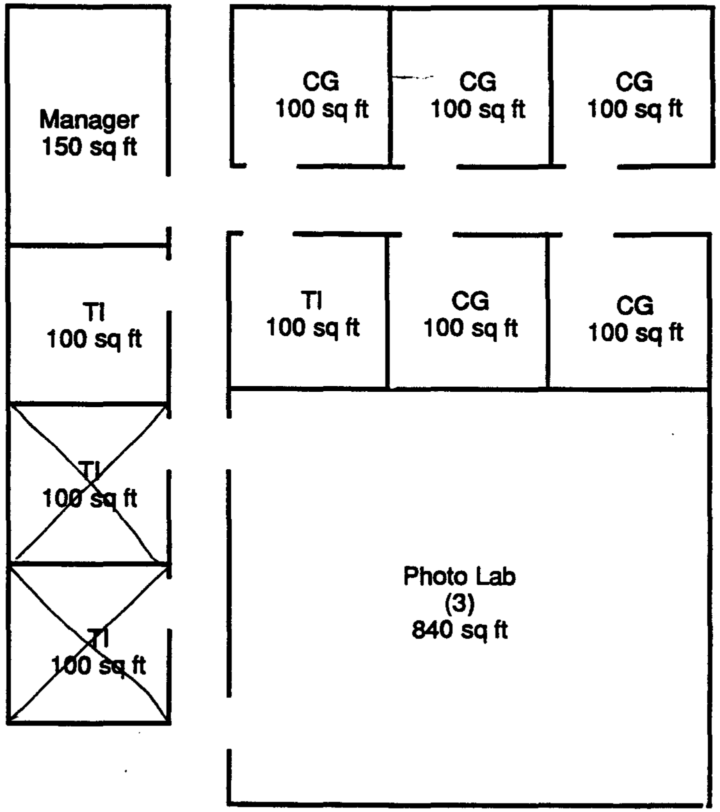
390 sq ft required for layout

- 1 Manager - 1 desk, 1 ref table, 2 bookcases, 4 chairs
- ~~3~~ 4 Editor//Writers -3 desks, 3 ref tables, 9 chairs 3 bookcases

SUPERCONDUCTING SUPER COLLIDER

P.R. TECH. INFO. & PUBS.

Graphic Services Space Requirements (scale 1/8"= 1')



1890 sq ft required for layout,
1885 sq ft allocated

- 1 Manager - 1 desk, 1 ref table / drawing board, 2 bookcases, 3 chairs
- 5 Computer Artists - 5 desks, 5 ref tables, 5 bookcases, 5 chairs
- ~~4~~ 2 Tech Illustrators - 4 desks, 4 ref table / drawing boards, 4 bookcases, 4 chairs
- 1 Photo Leader - 1 desk, 1 ref table, 2, bookcases, 2 chairs
- 2 Photo Personnel - 2 desks, 2 ref tables, 2 bookcases, 2 chairs
- Camera Room - 1 stat camera, 1 camera processor, 1 sink, 1 paper cutter, 1 drymount press, 1 film processor, 1 ref table, 1 light table, 1 flat file, 1 supply cabinet, 2 book shelves, 1 file cabinet

11
Employees

SUPERCONDUCTING SUPER COLLIDER

P.R. LIBRARY PROGRAM

(April 1990)

Public Space Requirements for Library at SSC Campus

1. **General Collection**
   Monographs: (20 years) Project a 10,000 vol collection with 67% of collection actually on library shelves at any time. 7,000 volumes @30 vol/shelf-230 shelves-700 linear feet. (shelves are generally 36" long, 13" deep stacked 6 high)

   Newspapers: Project 16 titles Flip up style racks to display and store approx. 1wks worth. Rack is 36" long, 18" deep stack 5 high.

   Serials:
   Current Journal Shelving : project 1000 titles. One display section(flip up style, as above)for 15 titles-70 sections needed.
   Bound Journals: Approx 600 shelves-1800 linear ft(stack type book shelving). Based on 500 titles remaining bound, and considers that some other journals will be in electronic or microformats.

   Reference: expect 1000 vol (@20 vol/shelf)- 50 shelves Shelf requirements are 36"x13" stacked 3 shelves high(for easy consultation of material). Need approx 16 shelves longx 3 high. Atlas case-3'x2'. Map case-3.5'x2.5'.

   Preprints:Project to receive 150 preprints/week(7800/yr) Estimate 56 linear ft/yr. If use file cabinet as storage then estimate 100 file cabinets(15"x27" 4 high) over 20 years. Takes loosely into account weedings for antipreprints. Preprints received in other format(online, paper) are taken into consideration for microfiche space and terminal needs.

   Microformat
   Standards and Specifications : Approx 2000 16mm cartridges . If use regular shelf space with cartridge holder, then need approx. 40 shelves(regular stack shelving)
   If use carousels as supplied by IHS then need approx 25 sq. ft. floor space.
   Other publications in micro: Approx. 40 shelves
   (Two public photocopiers would be situated close by in sound-deadened area).

2. **Reference/Circulation Desk**: Approx. 60 sq. ft. Project to hold 3 terminals(circ, pub, oclc/rlin), and all basic desk supplies for ref/ILL/circ functions, includes phone

3. **Terminal Space**: Three to access cd-rom a/o other online systems
   in house or remote.
   One public catalog.
   Floor space approx. 6.5 sq. ft. eachx 4-26sq.ft.
   Printer space add 6.5
   total- 33 sq.ft.

4. **Public Seating**: Based on population of 3000. Provide space for 2.5% .(plus additional individual study space)
   Quiet group meeting table-10
   At terminals, fiche equip-5
   Table seating , 4 for 6 persons-24
   4 for 4 -16
   Carrels- 18
   Couch for 3 persons
   Lounge chairs -6
   TOTAL-82

5. **Display Area:**
   400 sq.ft. vertical wall space. Projected for conference announcements,, other poster type info, library and lab news/articles
   Lockable display case-24 sq.ft.
   T.V. monitor display area-16 sq.ft.

6. **Equipment Rooms (Two Rooms)**
   The copy room will house the following: two copiers, one fax, one laser printer, adequate space for work surfaces plus storage space.

   (10ft. by 12ft)

   The microfiche/film room will house two microfilm reader printers, two microfiche reader printers, one laser printer plus one media storage cabinet.

   (14ft. by 16ft.)

7. **Training/Quiet Room**
   This multipurpose quiet area will provide an area for training of staff, one-on-one reference consultation, group training for the public, staff meeting area and as a secured area for users to spread out material and leave material locked if it is necessary for them to leave. This area wil house one terminal, a projection screen, marker boards and storage cabinets to store training materials and supplies. This room will need to be visually connected to the reference desk.

   (14ft. by 16ft.)

SSC LIBRARY SPACE PLANNING FOR STAFF

1. **Staff Area**
   Work area should be a minimum of 175 square feet per staff member according to Richard Boff, <u>Information Technologies and Space Planning for Libraries and Information Centers</u>. Existing formulas recognize that staff in libraries work with materials and must have more space than regular office workers. A minimum of 140 square feet is well established, although some formulas provide as much as 225 square feet. With the advent of information technologies, larger desks are needed (30 X 72 inches) and additional consoled equipment may be installed. Adequate space must be provided for traffic flow of staff performing various tasks such as transporting books from one area to another. Large pieces of equipment are often necessary in the work area. Therefore, a minimum of 150 square feet per staff member (4,200) is required for the SSC Library.

   (150 sq.ft. times 28 staff members - 4,200sq. ft.)

SUPERCONDUCTING SUPER COLLIDER

P.R. LIBRARY PROGRAM

2. **Technical Processing Area**
Technical processing of acquisitions, cataloging, binding and repair of library materials constitutes the behind-the-scenes operations of the library. Library material must flow easily from receiving and mailing to acquisitions to cataloging and finally to the book shelves. Technical processing activities can be accommodated in one large open area divided by shelving. The area must have a sink with running water, counter tops and work tables to spread out needed work materials, bookshelves and terminals and workspace for OCLC operations. It will also be necessary for this area to have the security of locked doors.

(Approximately 1,800 sq. ft.)

3. **Mail Area** (Receiving/Shipping/Storage)
According to Keyes D. Metcalf, Planning Academic and Research Library Buildings, the library receives more mail than any other area in an organization. This is definitely true at the SSC Laboratory. Presently the library is already receiving more mail than other departments. This area will receive and sort all mail received for the library. A large portion of this will be boxes of books and almost 1000 periodicals, that will be received monthly. Therefore, it is, and will continue to be critical for this area to have adequate space.

(16ft. by 10ft.)

Library Archives Space Requirements:

A. Proximity.

1. Staff desk areas are calculated into the total count for the Library staff desk areas. All Library/Archive staff need to have desks in the same area because some staff will have dual assignments between the Library and the Archives.

2. Archive storage area must be adjacent to the Library and ideally, should be adjacent to (but able to be locked separately from) the Central Files so that they can share the same temperature/fire/humidity/security control systems thus reducing costs.

3. Archive processing space must be secure and separate from Library processing space. The processing space could be included within the Archive storage space.

B. Space Needs:

1. **Standard** (in a Lab environment)is that 10 cu. ft. of documents needing storage for part of their life cycle will be generated per employee=30,000 cu. ft. of documents. Storage space is calculated based on 4 cu. ft.= 1 sq. ft. of floor space.

2. Estimate that 3,000 cu. ft. (or 10% of the Lab's documents) will be archived permanently at the site and 27,000 cu. ft. at the National Archives in Fort Worth.

3. Archive Storage Requirement = 750 sq. ft.

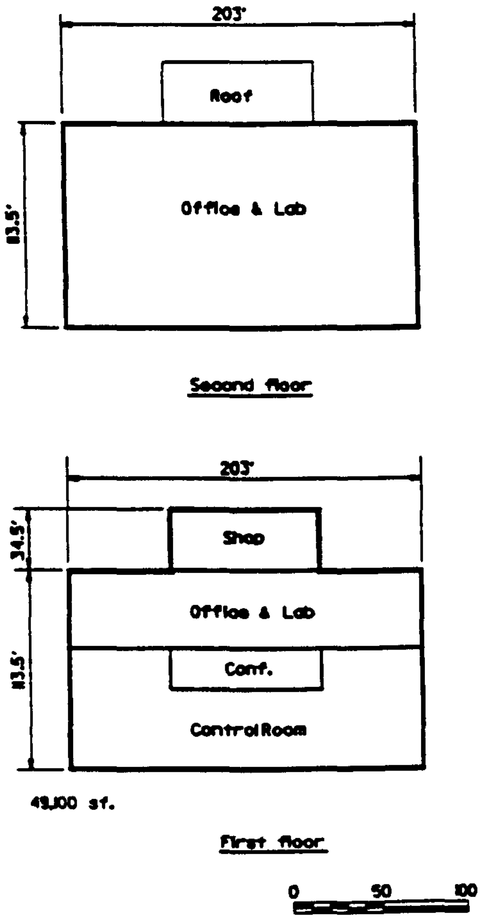
4. Archive Processing Space = 1,000 sq. ft. (standard req. is 200 sq. ft. per staff member doing processing) This includes space for sinks, fume hood, storage & supply cabinets, microformat readers, processing tables, xerox, laser printer, file cabinets, etc. (Does not include desks for staff, see Library staff space est.)

5. Archives Public Use Area: (does not include est. for traffic paths, etc.
   a). 500 sq. ft. for tables for users.
   b). Display areas to allow 1 vertical display case 1 ft. deep by 6 ft. long and two horizontal display areas 2 ft. wide by 4 ft. long.
   c). Separate viewing room with space to accomodate viewing of slides, video and listening to audio tapes by up to four users at a time.
   d). Public area will need room for two computer terminals and a laser printer. Will need a small public service desk (6' long would do). No xerox will be put in public area.

SUPERCONDUCTING SUPER COLLIDER

IR ADMIN/LAB BUILDING

SSC Laboratory — **Conventional Construction**

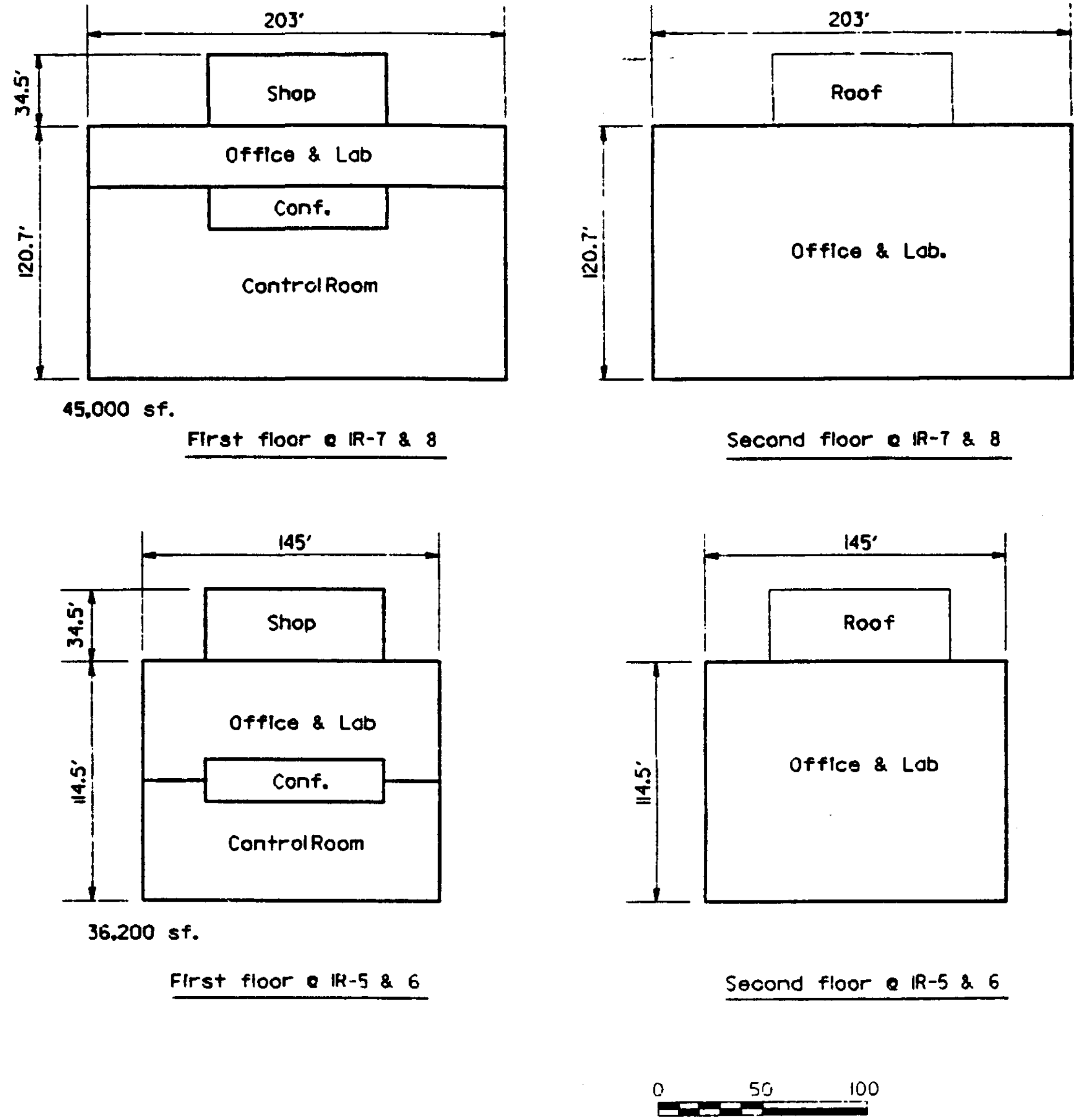


WBS 2.2.1.3.1.1 IR-1 & 2 ADMIN/LAB BUILDING

WBS 2.2.2.3.1.1 IR-3 & 4 ADMIN/LAB BUILDING

SUPERCONDUCTING SUPER COLLIDER

IR ADMIN/ LAB BUILDINGS



IR-5&6 and IR-7&8

Administrative/lab buildings

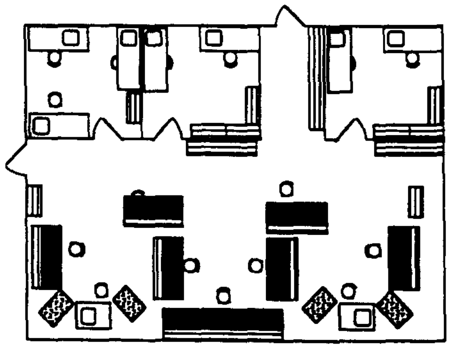
SUPERCONDUCTING SUPER COLLIDER

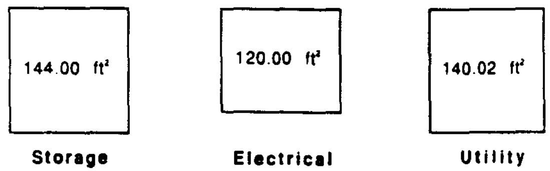
IR OFFICES & TECHNICAL SUPPORT

SSC Laboratory **Conventional Construction**

Model B IR-1 or 4

Offices and Technical 1300 sq.ft.





Operations	2220
Computer/Ranch	2200
Electronics	6000
Offices/Technical	1300
Storage	144
Electrical	120
Utility	140
Total	12104

Problems:
Tape Storage?
Storage in general?

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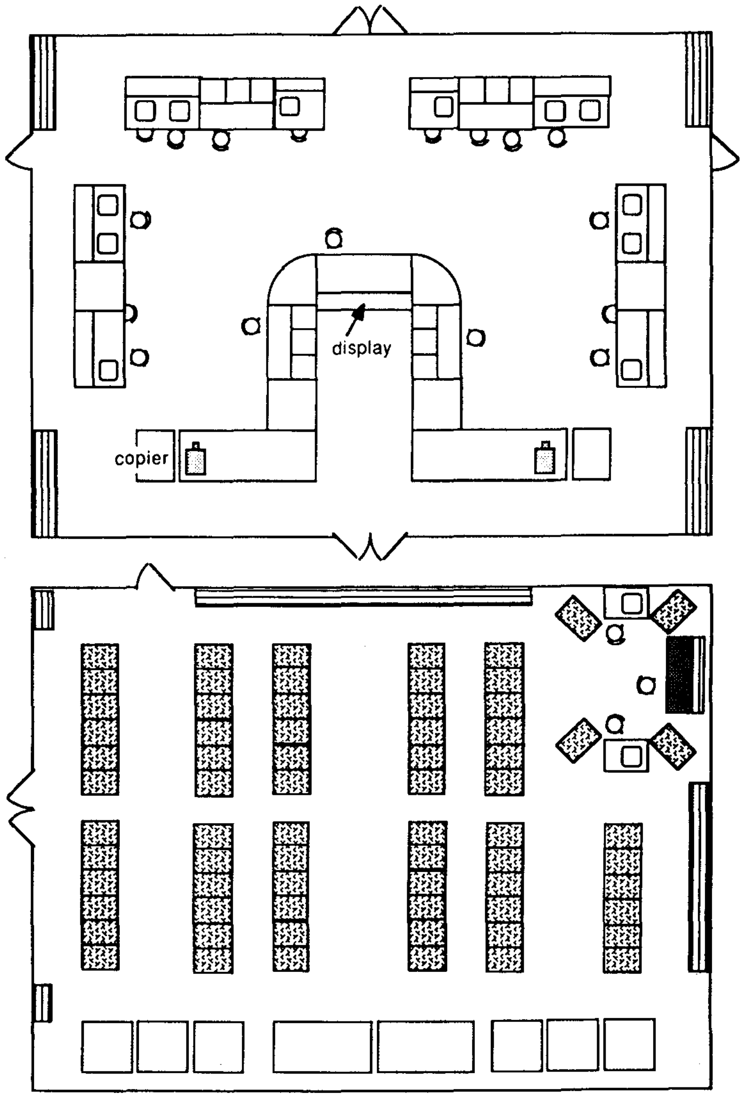
SUPERCONDUCTING SUPER COLLIDER

IR CONTROL & COMPUTER ROOMS

IR-1 or 4

Control Room 2200 sq.ft.



Computer Room/Farmhouse 2200 sq.ft.

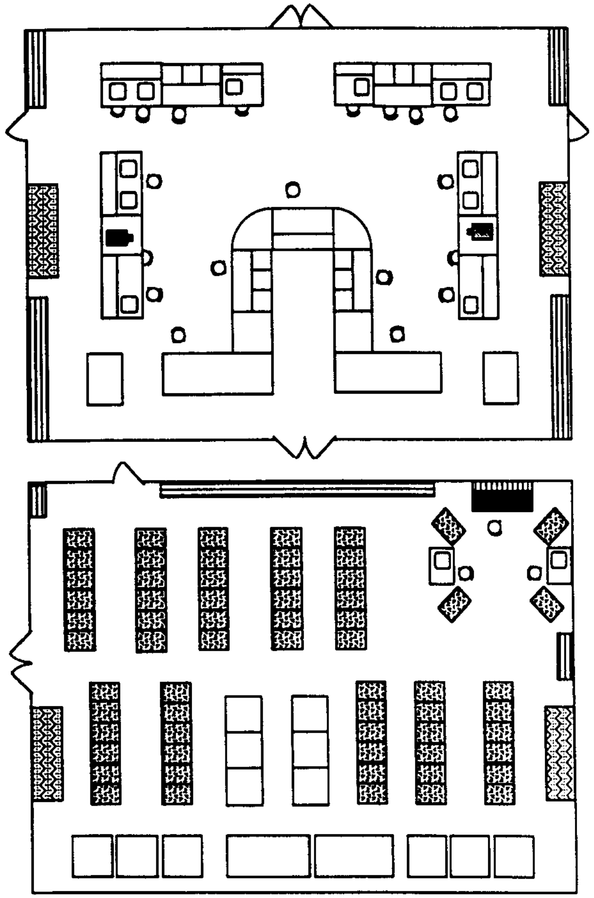
SUPERCONDUCTING SUPER COLLIDER

IR OPERATIONS & COMPUTER ROOMS

SSC Laboratory — Conventional Construction

Model B IR-1 or 4

Operations Room 2200 sq.ft.



Computer Room/Ranch house 2200 sq.ft.

6-18-90rws

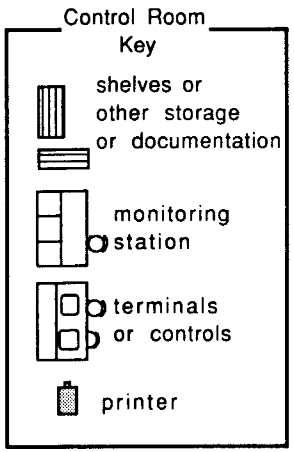
SUPERCONDUCTING SUPER COLLIDER

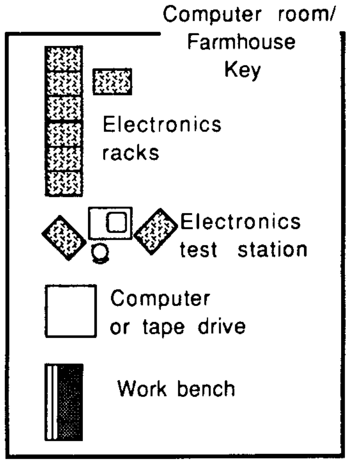
IR CONTROL ROOMS

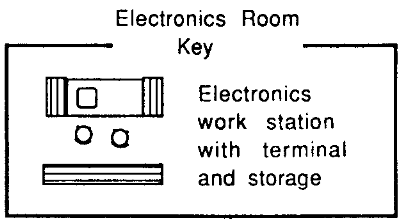
IR-1 or 4 Model B Control Room Requirements

Control Room	2220
Computer/Farmhouse	2200
Electronics	6000
Offices/Technical	1300
Support Services	300
Total	12000

Problems:
Tape Storage?
Storage in general?







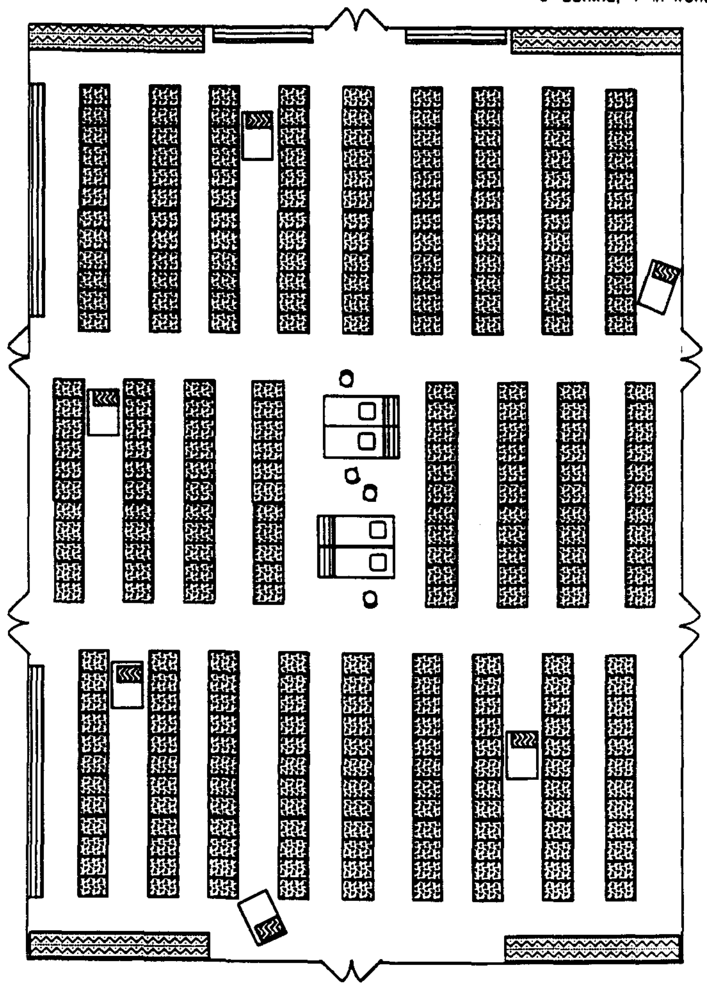
@ CDF @ Fermi
3 areas hi density electronics room (w/small control area)
main control room adj. to trigger area
computer room

SUPERCONDUCTING SUPER COLLIDER

IR ELECTRONICS ROOM

SSC Laboratory Conventional Construction

Model B IR-1 or 4 **Electronics Room 6000 sq. ft.** 304 racks
3' behind, 4' in front



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