305

SUBMITTAL TO THE BOARD OF SUPERVISORS
COUNTY OF RIVERSIDE, STATE OF CALIFORNIA

FROM: Economic Development Agency

SUBMITTAL DATE: April 6, 2010

SUBJECT: Larry D. Smith Correctional Facility Expansion No. 3 - Change Order No. 14

RECOMMENDED MOTION: That the Board of Supervisors:

1. Authorize the payment of supplemental sewer fees for the City of Banning in the amount of $1,316,636 for sewer connection fees;
2. Ratify change order No.14, line item 1 in the amount of $194,698 to construct security ceiling modifications;
3. Ratify change order No. 14, line item 2 in the amount of $243,585 to install a radio antenna system;
4. Authorize the Assistant Executive Officer/EDA or designee to execute the change order on behalf of the county; and

(Commences on Page 2)

Christopher Hans

Robert Field
Assistant County Executive Officer/EDA

FINANCIAL DATA				
	Current F.Y. Total Cost:	$ 1,754,919	In Current Year Budget:	Yes
	Current F.Y. Net County Cost:	$ 1,754,919	Budget Adjustment:	No
	Annual Net County Cost:	$ 0	For Fiscal Year:	09/10

SOURCE OF FUNDS: 1985 County of Riverside Projects bond issue (85 ACES) accumulated interest earnings.

Positions To Be Deleted Per A-30 ☐

Requires 4/5 Vote ☒

C.E.O. RECOMMENDATION: APPROVE

County Executive Office Signature BY: Jennifer L. Sargent

MINUTES OF THE BOARD OF SUPERVISORS

On motion of Supervisor Buster, seconded by Supervisor Stone and duly carried, IT WAS ORDERED that the above matter is approved as recommended.

Ayes: Buster, Tavaglione, Stone and Benoit
Nays: None
Absent: Ashley
Date: June 29, 2010
xc: EDA, Auditor, CIP, CPRC, Sheriff

Kecia Harper-Ihem
Clerk of the Board
By: Deputy

Prev. Agn. Ref.: 3.19, 1/5/10; 3.21, 3/31/09 | **District:** 5 | **Agenda Number:** 3.37

ATTACHMENTS FILED
WITH THE CLERK OF THE BOARD

FISCAL PROCEDURES APPROVED
ROBERT E. BYRD, AUDITOR-CONTROLLER
BY SAMUEL WONG

Steve Thetford, Chief Deputy
Riverside County Sheriff's Department

Dep't Recomm.: ☐ Consent ☒ Policy
Per Exec. Ofc.: ☐ Consent ☒ Policy

BY: MARSHA T. VICTOR DATE 6/9/10

Rev'd by CPRC

RECOMMENDED MOTION: (Continued)

5. Approve a $1,754,919 increase to the project budget.

6. Allocate the 1985 ACES bond issue accumulated interest earnings of $2 million for the Smiths Correctional Facility project.

BACKGROUND:

On February 5, 2008 the Board of Supervisors approved the contract between Bernards Bros., Inc., and the County to construct a 582 bed expansion of the Larry D. Smith Correctional Facility in the City of Banning.

Before construction began on phase 3, an application was submitted to the City of Banning for sewer hookups. The city notified the county that sewer discharge fees for phases 1 and 2 had never been metered or paid. The city provided an estimate, in the amount of $2,231,586, for all three phases. Based on projected use rates, the city and county determined that $916,594 of the total amount would be attributable to phase 3 ($1,316,636 attributable to phases 1 and 2) and would be paid immediately, with the balance due determined by actual metered flow rates.

Also, in Housing Unit No. 16, three dayrooms were designed for mental health inmates. Safety cages were planned with inmates' safety in mind at the stairway leading to the upper tier and at the upper tier railing. During construction, it was discovered that the ceilings above the stairway cages were not secure, posing safety and security risks. Housing Unit 16 ceiling modifications are required to prevent injury or escape.

Finally, communication between Sheriff's staff is critical; however, radio communication in the new construction is poor, due to the number of concrete walls and steel construction. The department proposes to install a radio antenna system to improve radio communication.

Change Order No. 14 exceeds $150,000, so Board approval is required. The change order will compensate Bernards Bros., Inc., for security ceiling modifications and installation of a radio antenna system, in the amounts of $194,698 and $243,585, respectively. The total amount for work essential to make the facility secure and provide reliable communication throughout the new expansion is not to exceed $438,283.

An increase in the project budget, in the amount of $1,754,919, is needed to pay greater than anticipated sewer connection fees ($916,594) and change order No. 14 ($438,283).

The approximate allocation of the budget increase is as follows:

Original Project Budget	$78,867,500
Sewer Connection Fees	$1,316,636
Additional Construction Fees	$438,283
Revised Total Project Budget:	**$80,622,419**

Financial Impact:

Additional funding is necessary to complete the Larry D. Smith Correctional Facility Expansion No. 3, therefore, '85 ACES interest earnings are requested.

City of Banning
Public Works Department

March 10, 2010

Certified Mail#
7000 0520 0025 5839 0778

County of Riverside
Economic Development Agency
Tim Miller
3403 Tenth Street, Suite 300
Riverside, CA 92501

Subject: Larry D. Smith Correctional Facility Sewer Fees

Dear Mr. Miller,

The City is in receipt of your letter dated November 2, 2009 regarding Water and Sewer Fees for the Larry D. Smith Correctional Facility Industrial Wastewater Permit. To summarize the circumstances, Water and Sewer Fees for Phase 3 of the said facility were calculated by the City of Banning Water/Wastewater Department as described in the attached memorandum dated May 12, 2008.

In regard to the Water Fees, both parties agree that the County will pay the sum of $233,593.60 to the City of Banning for water fees associated with the Phase 3 expansion of the facility. Payment for this portion of the fees was received by the City on April 15, 2009 in its entirety.

In regard to the Sewer Fees, the City's calculation for Phase 3 amounts to $2,231,586.00. Both parties agree that the County will immediately pay a portion of this fee in the amount of $916,594.00. Once the actual sewer flow can be established for the facility, the County will pay the remaining balance owed based on the actual flow.

At this time, both parties have reached an agreement on determining future sewer fees. As part of the Phase 3 construction, a sampling manhole with a flow meter will be installed. This installed meter will capture sewer flow from the expanded facility only. Once the expanded facility is fully operational, the City of Banning in coordination with the County of Riverside will take actual sewer flow measurements to determine final costs.

99 E. Ramsey St. • P.O. Box 998 • Banning, CA 92220-0998 • (951) 922-3130 • Fax (951) 922-3141

Further, our records indicate sewer discharge fees for Phase 1 and Phase 2 of the Larry D. Smith Facility, that were previously constructed, were not collected by the City of Banning. Consequently, during the construction of Phase 3, the County of Riverside will set a second sewer flow meter downstream of the entire Larry D. Smith Correctional Facility. Measurements of the actual sewage flow will be taken at the same time the Phase 3 measurements are taken. The Phase 3 flow rate will be deducted from the facilities total flow rate in order to determine the amount owed by the County to the City for sewer discharge fees related to this portion of the project.

Please accept this as the City's request for payment. If you have any question please contact me at (951) 922-3130.

Sincerely,

Duane Burk
Director of Public Works

CC: Kirby Warner, Interim Finance Director
Art Vela, Assistant Civil Engineer
Jerome Bowen, Engineering Services Assistant

CITY OF BANNING

M E M O R A N D U M

GT 5/12/08

LARRY D. SMITH COORECTIONAL FACILITY PHASE III EXPANSION

	Inmates	Staff	Total
Existing	936	289	1,225
New	582	266	848
Total	1,518	555	2,073

848 New / 1225 Total Existing = 69.2% Increase Population of Expansion

Water Fees

Water Connection Fees

New 6" Water Meter = 32.3 EDU

32.3 EDU x $7,232.00 per EDU = $233,593.60

Water Frontage Fee Not Required (constructing a 10" water line)

6" water meter installation costs at Time and Materials during construction of water line.

Sewer Fees

Sewer Connection Fees

Present Discharge (Sept. 07) is 1,156.95 EDU

Future Discharge 1,157 EDU x 69.2% = 801 EDU

801 EDU x $2,786.00 per EDU = $2,231, 586.00

A Sampling Manhole with flow meter will be required as part of the construction. This will save user fees in the future.

Water Fees	$ 233,593.60
Sewer Fees	$2,231,586.00
Total	**$2,465,179.60**

Other Costs: 6" water meter Installation
10" water line Installation
Sampling Manhole with flow meter

Sewer EDU Formula:

$$\#\text{ EDUs} = \frac{Q}{225\text{ gpp/day}}\left[0.50 + 0.25\,\frac{BOD}{200\text{ mg/l}} + 0.25\,\frac{SS}{200\text{ mg/l}}\right]$$

Q = Monthly Flows from Prison 320 mg/l BOD from Prison 290 mg/l SS from Prison

$$\#\text{ EDUs} = \frac{Q}{225\text{ gpp/day}}\left[0.50 + 0.25\,\frac{320}{200\text{ mg/l}} + 0.25\,\frac{290}{200\text{ mg/l}}\right]$$

$$\#\text{ EDUs} = \frac{Q}{225\text{ gpp/day}}\,[0.50+ 0.40 + 0.36] = \frac{Q}{225\text{ gpp/day}}\,[1.26]$$

Monthly Water Consumption Road Camp Meters

Month	8"	(Cu. Ft.) 2"	1"	Sum	
Sept	755,000	51,900	21,700	828,600	x 7.48 g/cu ft = 6,197,928 gal

Sept EDUs = $\frac{6,197,928\text{ gal}}{225\text{ gpp x 30 days}}$ [1.26] = 1,156.95 EDU

NO. 10467

PUBLIC WORKS DEPARTMENT
INTEROFFICE CASH RECEIPT
99 E. RAMSEY ST., P.O. BOX 998
BANNING, CA 92220-0998
PHONE: (909) 922-3130 • FAX: (909) 922-3141

PURPOSE		ACCOUNT NO.	AMOUNT
PUBLIC WORKS PERMIT NO.: _____	U2	001-30-00-311-16-16	$ _____
OVERLOAD PERMIT NO.: _____	U2	001-30-00-311-16-16	$ _____
EXCAVATION PERMIT NO.: _____	U4	001-30-00-311-16-18	$ _____
ANNUAL EXCAVATION PERMIT NO.: _____	U4	001-30-00-311-16-18	$ _____
OVERTIME INSPECTION _____	U2	001-30-00-311-16-16	$ _____
RE-INSPECTION _____	U2	001-30-00-311-16-16	$ _____
PENALTY FOR WORK WITHOUT PERMIT _____	U2	001-30-00-311-16-16	$ _____
TENTATIVE TRACT MAP REVIEW NO.: _____	UF	001-30-00-351-35-58	$ _____
FINAL TRACT MAP & IMPROVEMENT PLAN CHECKING/			
SUBDIVISION INSPECTION TRACT NO.: _____	UB	001-30-00-351-35-55	$ _____
CONSULTANT PLAN CHECK REVIEW TRACT NO.: _____	UD	001-30-00-351-35-61	$ _____
MISC. IMPROVEMENT PLAN CHECKING _____	UA	001-30-00-351-35-54	$ _____
TENTATIVE PARCEL MAP REVIEW NO.: _____	UE	001-30-00-351-35-57	$ _____
FINAL PARCEL MAP PLAN CHECK NO.: _____	UE	001-30-00-351-35-57	$ _____
RV/TRAILER/MOBILE HOME PARK REVIEW _____	UC	001-30-00-351-35-56	$ _____
RECORD OF SURVEY/LOT LINE ADJUSTMENT REVIEW_____	U5	001-30-00-311-35-47	$ _____
TEMPORARY WATER JUMPER FEE _____	JP	660-63-00-356-38-12	$ _____
WATER METER _____	W1	660-63-00-366-44-03	$ _____
WATER CONNECTION FEE _____	W6	661-63-00-366-44-04	$ _____
WATER FRONTAGE FEE _____	WF	661-63-00-366-44-20	$ _____
SEWER CONNECTION FEE _____	W9	681-80-00-366-44-04	$ 916,594.00
SEWER FRONTAGE FEE _____	SF	681-80-00-366-44-20	$ _____
PLAN STORAGE AND MICROFILM _____	U7	001-30-00-351-35-50	$ _____
WILL SERVE/SERVICE LETTER _____	U6	001-30-00-351-35-48	$ _____
ENCROACHMENT PERMIT APPLICATION _____	U1	001-30-00-311-16-15	$ _____
SITE PLAN REVIEW _____	U3	001-30-00-311-16-17	$ _____
STREET/ALLEY EASEMENT ABANDONMENT REVIEW _____	U8	001-30-00-351-35-52	$ _____
R/W OR DEED PROCESSING _____	U9	001-30-00-351-35-53	$ _____
MAPS/XEROX COPIES/SPECIFICATIONS: _____	UH	001-30-00-351-35-60	$ _____
MISCELLANEOUS ENGINEERING FEES _____	UG	001-30-00-351-35-59	$ _____
MISCELLANEOUS/DEPOSIT _____	MP	_____	$ _____
		TOTAL:	$ 916,594.00

CHECK NO: _____

FOR: PHASE III LARRY D. SMITH CORRECTIONAL FACILITY SEWER FEES AS REQUESTED PER THE CITY OF BANNING LETTER DATED MARCH 10, 2010

Payee: COUNTY OF RIVERSIDE
(Name/Company)

Address: 3403 TENTH STREET, SUITE 300
RIVERSIDE, CA 92501

Telephone: ( ) _____ Fax: ( ) _____

Distribution: Eng./White
Address Folder/Canary
Cashier/Pink
Payee/Gold

Prepared By: J. BOWEN Date: 3-17-2010
Undersigned

April 1, 2009

City of Banning
Attn: Duane Burke
Director of Public Works
99 E. Ramsey St.
Banning, CA 92220-0998

RE: WATER AND SEWER FEES
LARRY D. SMITH PHASE 3 EXPANSION

Dear Mr. Burke,

The purpose of this letter is to formalize an understanding reached between the City of Banning and County of Riverside concerning water and sewer fees for the above referenced project.

Water Fees: Both parties agree that the County will pay the sum of $233,593.60 to the City of Banning for water fees for the project.

Sewer Fees: Both parties agree that the County will pay sewer capacity fees based on the Institutional Resident figure of 0.41 EDU (per person added to the facility as a result of the expansion--inmates and staff). Until actual sewer flow is measured for this project, the County will pay the sum of $916,594 to the City of Banning for sewer fees for the above project. The calculations for the $916,594 payment were determined per the data:

	Inmates	Staff	Total
Existing	936	289	1,225
New	582	266	848
Total	1,518	555	2,073

848 (new) X 0.41 EDU/person = 348 EDU increase

$\frac{348}{1,225}$ = 28.4 % EDU increase

3133 Mission Inn Avenue * Riverside, California 92507 * (951) 955-4897 * Fax (951) 955-4850

Sewer Connection Fees

Present Discharge (September 2007) is 1,156.95 EDU

Future Discharge = 1,157 X 28.4% = 329 EDU

329 EDU X $2,786.00 per EDU = $916,594

Final Resolution of Sewer Fees: Since the EDU increase figures used in the above calculations are estimates, the parties have reached the following agreement to determine sewer fees. As part of the construction, a Sampling Manhole with flow meter will be installed (see attached drawing for proposed meter location marked by red star). This proposed meter location will capture actual sewer flow from the expanded facility only. Once the expanded facility is fully operational, the County in coordination with the City of Banning shall take actual sewer flow measurements at the location proposed. If these measurements show an actual discharge of less than 329 EDU, the City of Banning will issue a credit to the County of Riverside for the difference between the two measurements, times the sewer capacity charge of $2,786 per EDU. If the measurements show an actual discharge of more than 329 EDU, the County of Riverside will pay the City of Banning for the difference between the two measurements, times the sewer capacity charge of $2,786 per EDU.

Please confirm that this basis of agreement is consistent with the City of Banning's understanding on this matter. If you have any questions or concerns, please contact me at (951) 955-4897.

Sincerely,

Charles Waltman
Deputy Director
Design & Construction

Enclosure

Cc: Brian Nakamura, City Manager
Jim Earhart, Public Utilities Director

3133 Mission Inn Avenue * Riverside, California 92507 * (951) 955-4897 * Fax (951) 955-4850

COPY

COUNTY OF RIVERSIDE
ECONOMIC DEVELOPMENT AGENCY

CHANGE ORDER NO. 14

Date: 3/17/2010

To Contractor:
Bernards Bros., Inc.
23461 South Pointe Drive, Suite 300
Laguna Hills, CA 92653

Project: Smith Correctional Facility Expansion #3

Project No.: FM08250003738

Distribution:

Project Manager	Construction Manager
Contractor	Inspector
Fiscal	Architect/Engineer

You are directed to make the following changes. Changes shall include labor, material and equipment; each item to include all charges or indirect arising out of this work:

1)	Ceiling Modifications at Dayrooms D, E and F at Building 16 per ASI#74R1 PCO #130	ADD	$	194,698.00
2)	800 MHz Public Safety Radio System (All Buildings) by TriPower PCO #138	ADD	$	243,585.00

The specifications, where pertinent, shall apply to these changes.

This Change Order provides for a time extension of	**33** **calendar days.**
Original Contract Duration (calendar days):	730
Prior Authorized Time Extension (calendar days):	17
Revised Construction Duration (calendar days):	780
Original Contract Completion Date:	2/25/2010
Revised Contract Completion Date:	4/16/2010

NOTE: This change order is not effective until approved by the Chair, Board of Supervisors, Assistant County Executive Officer EDA or designee, as indicated.

The undersigned contractor has given careful consideration to the change proposed, including its effect on other work already contracted for, and hereby agrees, if this change order is approved, that he will provide all equipment, furnish all materials, except as may otherwise be noted above, and perform all services necessary for the work above specified, and will accept as full payment for all costs related in any way thereto the prices shown above.

Contractor — Date 4/14/10

Assistant County Executive Officer EDA or Designee — Date 4/20/10

Architect — Date

Project Manager — Date 4/15/10

4/15/10

Pursuant to:
[ ] Board Policy B-11
[ ] M.O. and Date

Original Contract	$ 62,608,000.00
Prior Authorized [X] ADD [ ] DED	$ 258,635.00
Total Contract Prior to this Change	**$ 62,866,635.00**
Authorized Changes on this C.O.:	
Addition	$ 438,283.00
Deduction	$
NET: [X] Addition [ ] Deduction	$ 438,283.00
Amount of Contract Authorized Including this Change Order	**$ 63,304,918.00**

FORM APPROVED COUNTY COUNSEL
BY: MARSHA L. VICTOR — DATE 6/9/10

VANIR
Construction Management, Inc.

PROPOSED CHANGE ORDER

To Contractor:	Bernards Bros., Inc.	PCO No.:	130
From:	Vanir Construction Management, Inc.	Date:	January 20, 2010
Owner:	County of Riverside	Project No.:	20063738
Project:	Larry D. Smith Correctional Facility Exp. #3	Contract No.:	
Subject:	Ceiling Modifications at Dayrooms D, E and F at Building 16 per ASI#74-R1		

Please prepare and submit to the Construction Manager within 10 days an itemized proposal of cost and schedule impact for the following proposed change to the contract:

Proposed Change:

1. A cost has been provide to include all labor, material and equipment necessary to complete the ceiling modifications above the enclosed stairs at Dayrooms D, E and F at Building 16 per Architectural Supplemental Instruction #74-R1.
   a. Substantial Completion Date has been adjusted to March 31, 2010 for an additional 17 Calendar Days, without general conditions or liquidated damages assessed.
   b. Contract Completion Date has been adjusted to April 16, 2010 to include compensation for extended general conditions for an additional 16 Calendar Days.

Attachments:
Architectural Supplemental Instruction #74-R1 (Modifications for Ceilings Above Stairs at Dayrooms D,E and F for Bldg. 16), Dated January 20, 2010
Request for Information (RFI) – 529 (ASI#74R1 – Joist Attachment Details), dated 02/01/10
Request for Information (RFI) – 530 (ASI#74R1 – Fastener Schedule), dated 02/03/10
Request for Information (RFI) – 531 (ASI#74R1 – Closure Plate), dated 02/03/10
Request for Information (RFI) – 531R1 (ASI#74R1 – Closure Plate), dated 02/04/10

To Be Completed By Contractor:

Proposed Cost: $ 217,197.00 Requested Time Extension: 33 Calendar Days

Contractor: _____ Date: _____
Signature

To Be Completed Jointly By Vanir CM And Contractor:

Agreed Cost: $ 194,698.00 Agreed Time Extension: 33 Calendar Days

Contractor: _____ Date: 3-17-10
Signature

Construction Manager: _____ Date: 3-17-10
Signature

Signatures on this document do not constitute a change to the Contract or authorization to perform proposed work.

BERNARDS
BUILDERS • MANAGEMENT SERVICES

CHANGE ORDER REQUEST

COR No. 115-R001

Project: Larry D. Smith Correctional Facility

Date: 2/19/2010

DESCRIPTION OF WORK

ASI #74R-1: Modified Dayroom Ceilings Above Stairs at Building 16

SUMMARY OF COSTS

Item Description	Company	Amount Requested	
Subcontract Costs			
Final Re-Cleaning - 48 hours x $55.00/hour	CM Construction Clean Up	2,640 ✓	
Drywall - Framing, drywall, and scaffolding Fireproofing to be performed separately on a Time and Material basis	Sierra Lathing Company Inc	~~107,270~~	93,967
Acoustical Ceilings - Demolition of ceiling and reconfiguration of ceiling grid runners	Commercial Interiors Acoustics Inc	3,764 ✓	
Paint ceilings and touch up after scaffold removal	Pecoraro Inc	4,929 ✓	
Detention Equipment - Provide and install new security access doors total of 5 doors at $445.00 per door	Southern Folger Detention Equip Co	2,225 ✓	
Fire Protection - Re-cutting of sprinkler drops	J G. Tate Fire Protection Systems, Inc	2,857 ✓	
HVAC - Remove and re-install HVAC registers and duct Re-adjusting air balance	Athena Engineering, Inc	5,645 ✓	
Electrical - Removal and Relocation of Lights and FLS Equipment Order new fixtures	Champion Electric, Inc	14,110 ✓	
Security Systems - Relocate Speakers	Engineered Control Systems	900 ✓	
	Subtotal	~~144,340~~	131,037
Contractual % Costs			
1% Bond Mark-Up		~~2,150~~	1928
Field Implementation & Coordination -		~~5,104~~	5,929
~~Warranty 5%~~		~~9,652~~	
Extended General Conditions for 16 Calendar Days Past March 31st 2010 @ $2,914.00 per day		46,624	
5% OH & P Mark Up		~~10,240~~	9180
	Subtotal	~~72,857~~	63,661
	Total Change Order Request Amount:	~~217,197~~	194,698

"NEGOTIATED SETTLEMENT VALUE = $193,000" + TIME AND MATERIAL OF FIREPROOFING = $1,698.00

GRAND TOTAL = $194,698.00

QUALIFICATIONS

- Please note the exclusions by each subcontractor proposal included in the package.
- Please note that this scope will take 45 days to complete The date of substantial completion will be changed to March 31st 2010. No extended general conditions or liquidated damages will be assessed. After March 31st 2010 Bernards will be compensated for extended general conditions for an additional 16 calendar days at $2,914/day. This will take the date of Completion to April 16th 2010

~~The net impact of this Change Order Request will require an increase of 47 Calendar Day(s) to the Contract Time~~

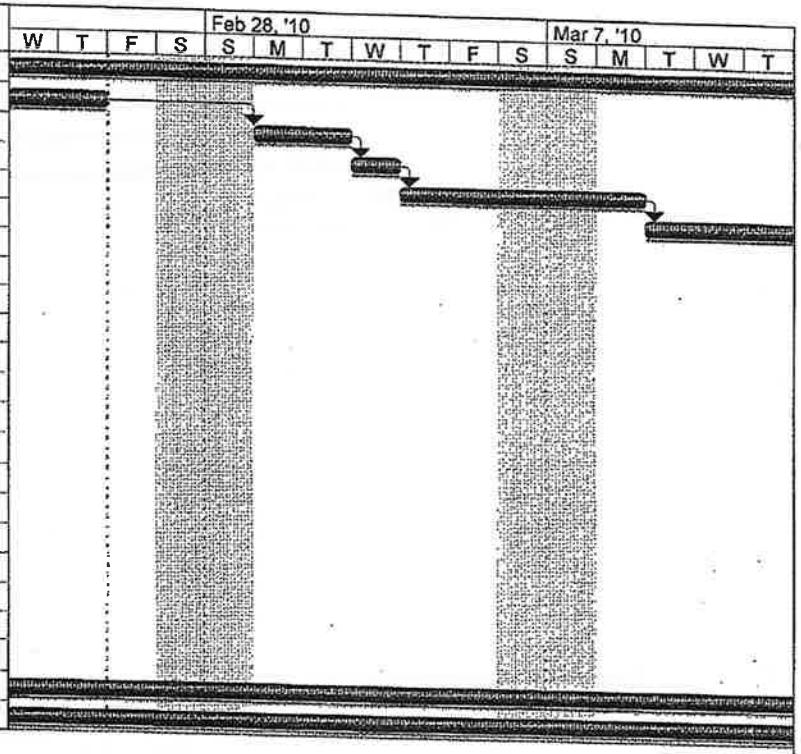
APPROVAL

(Please note that if this Change Order Request is not approved by 2/26/2010 additional costs and schedule impacts may result.)

Signature_____ **Date**_____

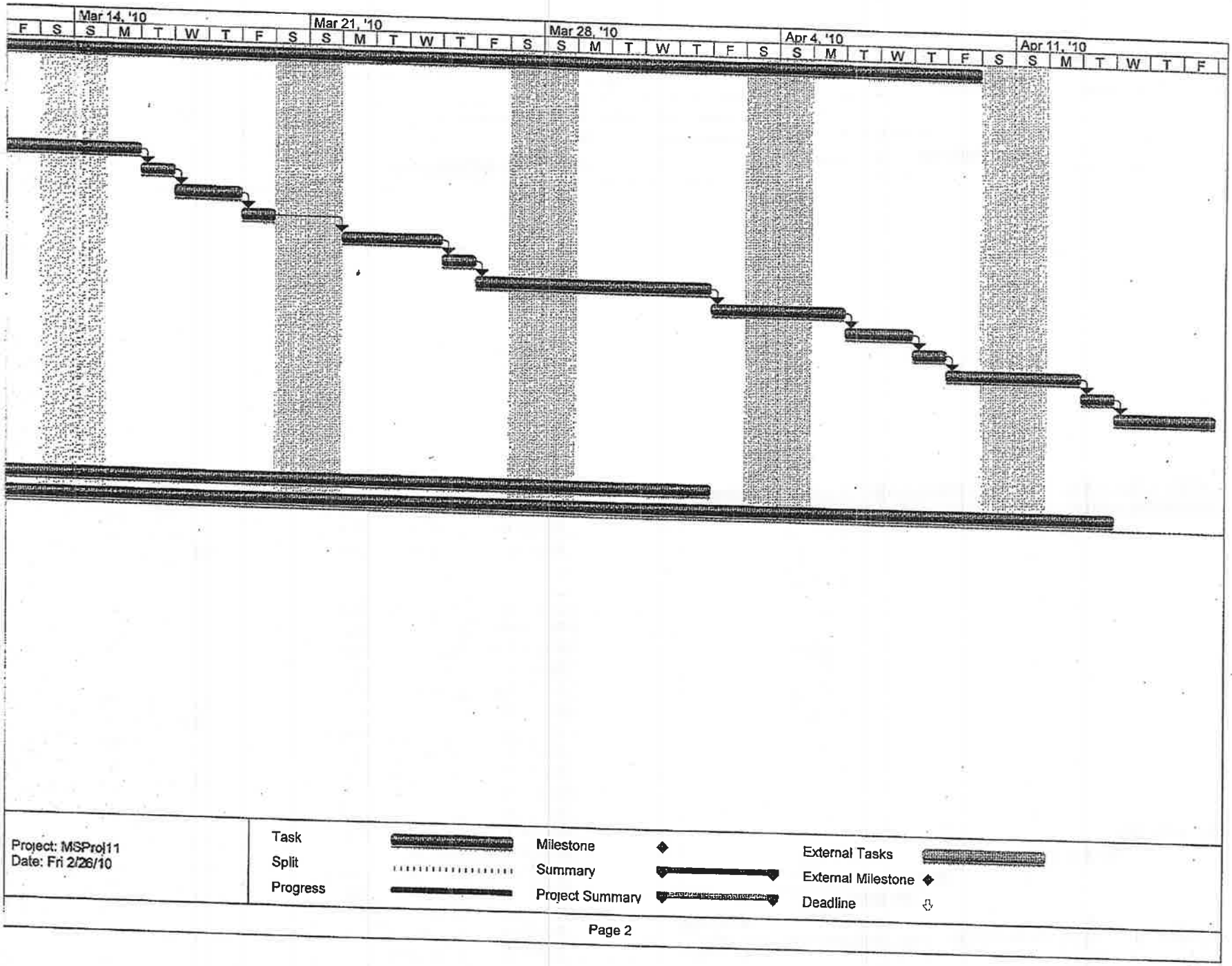
Company_____

ID	Task Name	Duration	Start	Finish	Predecessors
1	**ASI #74R1**	33 days?	Wed 2/24/10	Fri 4/9/10	
2	Remove MEP/AC Tile	2 days	Wed 2/24/10	Thu 2/25/10	
3	Scaffold	2 days	Mon 3/1/10	Tue 3/2/10	2
4	Layout/Remove Grid	1 day	Wed 3/3/10	Wed 3/3/10	3
5	Re-work HVAC	3 days	Thu 3/4/10	Mon 3/8/10	4
6	Frame Ceiling	5 days	Tue 3/9/10	Mon 3/15/10	5
7	Patch Fireproofing	1 day	Tue 3/16/10	Tue 3/16/10	6
8	Rough MEP	2 days	Wed 3/17/10	Thu 3/18/10	7
9	Inspection	1 day	Fri 3/19/10	Fri 3/19/10	8
10	Install Sec Mesh/Drywall	3 days	Mon 3/22/10	Wed 3/24/10	9
11	Inspection	1 day	Thu 3/25/10	Thu 3/25/10	10
12	Tape Drywall	5 days	Fri 3/26/10	Thu 4/1/10	11
13	Remove Scaffold	2 days	Fri 4/2/10	Mon 4/5/10	12
14	Install AC Grid/Tile	2 days	Tue 4/6/10	Wed 4/7/10	13
15	Paint	1 day	Thu 4/8/10	Thu 4/8/10	14
16	Finish MEP	2 days	Fri 4/9/10	Mon 4/12/10	15
17	Touch Up	1 day	Tue 4/13/10	Tue 4/13/10	16
18	Final Clean	3 days	Wed 4/14/10	Fri 4/16/10	17
19					
20					
21	**Long Lead Items**	1 day?	Fri 10/27/06	Fri 10/27/06	
22	Light Fixtures	40 days	Fri 2/5/10	Thu 4/1/10	
23	Access Doors	35 days	Wed 2/24/10	Tue 4/13/10	



Project: MSProj11
Date: Fri 2/26/10

Task
Split
Progress
Milestone
Summary
Project Summary
External Tasks
External Milestone
Deadline


Mar 14, '10
Mar 21, '10
Mar 28, '10
Apr 4, '10
Apr 11, '10
F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F
Project: MSProj11
Date: Fri 2/26/10
Task
Split
Progress
Milestone
Summary
Project Summary
External Tasks
External Milestone
Deadline

EXTENDED GENERAL CONDITIONS COSTS
LARRY D. SMITH CORRECTIONAL FACILITY, EXPANSION #3

REVISED 3/1/10

SUMMARY OF COSTS	LABOR	MATERIAL & EXPENSE	EQUIP & TRANS	SUB	TOTAL	Cost per Week	Cost per Day
TOTAL JOB SUPERVISION	528,414	0	106,240	0	634,654	6,102	1,220.49
TOTAL TEMPORARY FACILITIES	0	544,916	12,480	0	557,396	5,360	1,071.92
TOTAL TEMPORARY ELECTRIC	0	0	0	31,096	31,096	299	59.80
TOTAL SAFETY AND FIRST AID	0	37,960	0	0	37,960	365	73.00
TOTAL CLEAN UP	39,000	0	0	0	39,000	375	75.00
TOTAL OTHER COSTS	0	99,869	79,820	15,600	195,289	1,878	375.56
SUBTOTAL	567,414	682,745	198,540	46,696	1,495,395	14,379	2,875.76
ESCALATIONS:							
SUPERVISOR & PROJ MGR	19,816	0	0	0	19,816	191	38.11
CLERKS/ENGINEER	0	0	0	0	0	0	0.00
TOTAL ALL COSTS	587,230	682,745	198,540	46,696	19,816	191	38.11
GRAND TOTAL					1,515,211	14,569	2,914

JOB SUPERVISION	QUANTITY	UNIT	ADJ	Labor Unit	Mat'l & Exp. Unit	Equip & Trans Unit	Sub Unit	Total Labor	Total Mat'l & Exp.	Total Equip & Trans	Total Sub	TOTAL	Cost per Week TOTAL	Cost per Day TOTAL
Project Manager	62	WK	1	2,989.00				185,318	0	0	0	185,318	1,782	356.38
Assistant Project Manager								0	0	0	0	0	0	0.00
Proj. Manager's Car	62	WK	2			320.00		0	0	39,680	0	39,680	382	76.31
General Superintendent	104	WK	1	3,299.00				343,096	0	0	0	343,096	3,299	659.80
Assistant Superintendent								0	0	0	0	0	0	0.00
Project Engineer	0	WK	1	2,836.00	150.00			0	0	0	0	0	0	0.00
Office Engineer								0	0	0	0	0	0	0.00
Project Safety Engineer								0	0	0	0	0	0	0.00
Carpenter Foreman								0	0	0	0	0	0	0.00
General Laborer								0	0	0	0	0	0	0.00
Timekeeper								0	0	0	0	0	0	0.00
Job Clerk / Secretary								0	0	0	0	0	0	0.00
Clerk (LEED & Waste Manage)								0	0	0	0	0	0	0.00
Supervisory Transportation	104	WK	2			320.00		0	0	66,560	0	66,560	640	128.00
TOTAL JOB SUPERVISION								528,414	0	106,240	0	634,654	6,102	1,220.49

TEMPORARY FACILITIES	QUANTITY	UNIT	ADJ	Labor Unit	Mat'l & Exp. Unit	Equip & Trans Unit	Sub Unit	Total Labor	Total Mat'l & Exp.	Total Equip & Trans	Total Sub	TOTAL	Cost per Week TOTAL	Cost per Day TOTAL
Temporary Field Offices	0	Wks	4			175.00		0	0	0	0	0	0	0.00
Relocate / Reset-up	LS		1				5,000.00	0	0	0	0	0	0	0.00
Temporary Owner Office	0	Wks	1.5			175.00		0	0	0	0	0	0	0.00
Desk, 2 Chairs, File, Plan Table & Rack	104	Wks	1			75.00		0	0	7,800	0	7,800	75	15.00
Conference Room Furniture	104	Wks	1			45.00		0	0	4,680	0	4,680	45	9.00
Telephone (Hardline)	104	Wks	1		82.00			0	8,528	0	0	8,528	82	16.40
Telephone & DSL Service For Owner	104	Wks	1		82.00			0	8,528	0	0	8,528	82	16.40
Telephones (Cellular)	750	Man-Wks	1		50.00			0	37,500	0	0	37,500	361	72.12
Copy Machine, Maint. & Supplies	104	Wks	2		120.00			0	24,960	0	0	24,960	240	48.00
Typewriters & Adding Machine	0	Wks	1		12.00			0	0	0	0	0	0	0.00
Technology	104	Wks	1		120.00			0	12,480	0	0	12,480	120	24.00
Computer/Supplies	104	Wks	1		220.00			0	22,880	0	0	22,880	220	44.00
Digital Cameras	104	Wks	1		12.00			0	1,248	0	0	1,248	12	2.40
Fax Machine	104	Wks	2		20.00			0	4,160	0	0	4,160	40	8.00
Janitor Service	0	Wks	2		60.00			0	0	0	0	0	0	0.00
Office Drinking Water	104	Wks	2		30.00			0	6,240	0	0	6,240	60	12.00
Field Drinking Water & Ice	0	Wks	1	45.00	25.00			0	0	0	0	0	0	0.00
Office Supplies	104	Wks	1		150.00			0	15,600	0	0	15,600	150	30.00
Owners Office Equipment	0	Wks	1		100.00			0	0	0	0	0	0	0.00
Copy Paper	104	Wks	1		26.00			0	2,704	0	0	2,704	26	5.20
Postage / Delivery Services	104	Wks	2		100.00			0	20,800	0	0	20,800	200	40.00
Temporary Electrical	104	Wks	3		1,089.00			0	339,768	0	0	339,768	3,267	653.40
Temporary Toilets	104	Wks	8		30.00			0	24,960	0	0	24,960	240	48.00

Hand Wash Units	104 Wks	4		35.00			0	14,560	0	0	14,560	140	28.00
Maintain Temporary Road and Parking Area	0 Wks	1	120.00	350.00			0	0	0	0	0	0	0.00
Perimeter Fence Rental	0 Wks	1		450.00		150.00	0	0	0	0	0	0	0.00
Graffiti Control	0 Wks	1	3.61	2.50		1.75	0	0	0	0	0	0	0.00
TOTAL TEMPORARY FACILITIES							0	544,916	12,480	0	557,396	5,360	1,071.92

TEMPORARY ELECTRIC	QUANTITY	UNIT	ADJ	Labor Unit	Mat'l & Exp. Unit	Equip & Trans Unit	Sub Unit	Total Labor	Total Mat'l & Exp.	Total Equip & Trans	Total Sub	TOTAL	Cost per Week TOTAL	Cost per Day TOTAL
Main Service 400 Amp, Rental	104	Wks	1				177.00	0	0	0	18,408	18,408	177	35.40
Sub Panel (30,000 SF floor area each)	104	Wks	1				122.00	0	0	0	12,688	12,688	122	24.40
Temp Power Boxes and Cords	0	Wks	1		85.00			0	0	0	0	0	0	0.00
Temporary Lighting Rental	0	Wks	1				150.00	0	0	0	0	0	0	0.00
Relamp Lighting Maintenance	0	Wks	1	150.00	45.00			0	0	0	0	0	0	0.00
TOTAL TEMPORARY ELECTRIC								0	0	0	31,096	31,096	299	59.80

SAFETY AND FIRST AID	QUANTITY	UNIT	ADJ	Labor Unit	Mat'l & Exp. Unit	Equip & Trans Unit	Sub Unit	Total Labor	Total Mat'l & Exp.	Total Equip & Trans	Total Sub	TOTAL	Cost per Week TOTAL	Cost per Day TOTAL
Ladders, Stairs, Ramps	0	Wks	1	0.00	30.00	0.00		0	0	0	0	0	0	0.00
Stair Towers - Rental)	0	Wks	1	0.00	75.00			0	0	0	0	0	0	0.00
First Aid and Safety	104	Wks	1		100.00			0	10,400	0	0	10,400	100	20.00
Fire Equipment	104	Wks	1		15.00			0	1,560	0	0	1,560	15	3.00
Bi-Weekly Safety Inspections	104	Wks	1		250.00			0	26,000	0	0	26,000	250	50.00
Traffic Barricades	0	Wks	1		25.00			0	0	0	0	0	0	0.00
Street Sweeping	0	Wks	1		25.00			0	0	0	0	0	0	0.00
Traffic Control	0	Wks	1	25.00	1.00	3.75		0	0	0	0	0	0	0.00
TOTAL SAFETY AND FIRST AID								0	37,960	0	0	37,960	365	73.00

CLEAN UP	QUANTITY	UNIT	ADJ	Labor Unit	Mat'l & Exp. Unit	Equip & Trans Unit	Sub Unit	Total Labor	Total Mat'l & Exp.	Total Equip & Trans	Total Sub	TOTAL	Cost per Week TOTAL	Cost per Day TOTAL
Progressive	104	WK	2.5	150.00				39,000	0	0	0	39,000	375	75.00
TOTAL CLEAN UP								39,000	0	0	0	39,000	375	75.00

MISCELLANEOUS COSTS	QUANTITY	UNIT	ADJ	Labor Unit	Mat'l & Exp. Unit	Equip & Trans Unit	Sub Unit	Total Labor	Total Mat'l & Exp.	Total Equip & Trans	Total Sub	TOTAL	Cost per Week TOTAL	Cost per Day TOTAL
Jobsite Radios	104	Wks	1			25.00		0	0	2,600	0	2,600	25	5.00
Equipment Rental Allowance	104	Wks	1			350.00		0	0	36,400	0	36,400	350	70.00
Small Tools	104	Wks	1			392.50		0	0	40,820	0	40,820	393	78.50
Trucks - Flatrack - Dump	0	WK	1	84.00		65.13		0	0	0	0	0	0	0.00
Forklift Rental	0	WK	1	84.00		125.00		0	0	0	0	0	0	0.00
Fuel and Maintenance	0	Wks	1		125.00			0	0	0	0	0	0	0.00
Water Protection & Diversion	104	Wks	1				150.00	0	0	0	15,600	15,600	150	30.00
Survey Equipment, Calibration	0	Wks	1		85.00			0	0	0	0	0	0	0.00
Dust Pallition	0	Wks	1				350.00	0	0	0	0	0	0	0.00
Shaker Plate @ Entry	0	Wks	1				85.00	0	0	0	0	0	0	0.00
Photographs	104	Wks	1		35.00			0	3,640	0	0	3,640	35	7.00
Corp. Yard Support	104	Wks	1		236.50			0	24,596	0	0	24,596	237	47.30
Main Office Support	104	Wks	1		138.78			0	14,433	0	0	14,433	139	27.76
Travel Expenses	104	Wks	1		550.00			0	57,200	0	0	57,200	550	110.00
TOTAL MISCELLANEOUS COSTS								0	99,869	79,820	15,600	195,289	1,878	375.56

Sierra Lathing Company, Inc
1189 West Leiske Drive
Rialto CA 92376
909-421-0211
License: 198103

Change Order

Order#: 14

Order Date: 02/19/2010

To: Bernards
23461 So. Pointe Dr. #300
Laguna Hills CA 92653

Project: 2803
Larry D Smith Corr. Facility
350 Wesley Street
Banning CA 92220

The contractor agrees to perform and the owner agrees to pay for the following changes to this contract

Plans Attached ☐

Ordered By: 41 Raymond Lytle **Customer Order:** ASI#74R1

Specifications Attached ☐

Description of Work	**Amount**
Added ceiling per ASI#74	~~122,129.48~~
	Scaffold deduct <21,000>
	Fireproof deduct <8,859.00>
	$ 92,270.00

Notes
PLEASE SEE ATTACHED WORKSHEET

LABOR =$59,568.00
Material/Scaffold =46,631.55
15% OHP =15,929.93
total = $122,129 48

Qualify -
No caulking - only 2 access panels(D,E,F) - scaffold up for 45 days(calendar) a cost of $180.00 per CD after 45 days are used. - Our scope duration will need 21 calendar days per area (D,E,F) Any added detail not shown on ASI#74R1 will have added cost. Stock/clean-up in phases

Negative changes will lower the overall contract price requiring no additional payment by owner

Requested Amount of Change ~~122,129.48~~

The original Contract Sum was	1,052,000.00
Net change by previous Change Orders	157,351 00
The Contract Sum prior to this Change Order	1,209,351.00
The Contract Sum will be changed by this Change Order	122,129.48
The new Contract Sum including this Change Order will be	1,331,480 48
The Contract Time will be changed by	0 Days

Owner: _____ Date: _____

Contractor: _____ Date: _____

WORKSHEET
ASI#74R1

Items per details 1&2

$ 58.40

Dayroom D	Qty	UNIT	MAN HR prod rate	MAT,UNIT COST	TOTAL HRS	LABOR COST	MAT COST
Scaffold							$ 12,000.00
1- ledger							
6"x18gaxtrack		24 lf		$ 1.20	8	$ 467.20	$ 28.80
anchor bolts 1/4"		8 pcs		$ 1.50	4	$ 233.60	$ 12.00
2- Prerimeter							
6"x18gaxtrack		42 lf		$ 1.20	16	$ 934.40	$ 50.40
3-Joist							
6"x18ga std		360 lf		$ 1.40	32	$ 1,868.80	$ 504.00
4-Drops							
6"x18ga std 72lf		12 ea		$ 1.40	24	$ 1,401.60	$ 100.80
top connection							
3"x3"x16gax24" 16lf		12 ea		$ 1.20	24	$ 1,401.60	$ 19.20
scrap/patch fire proof		12 ea		$ 25.00	48	$ 2,803.20	$ 150.00
5-hat channel							
7/8" hatchannel x 20ga		96 lf		$ 0.40	8	$ 467.20	$ 38.40
6-head outs							
6"x18ga std		24 lf		$ 1.40	16	$ 934.40	$ 33.60
7-stock/clean above work					24	$ 1,401.60	$ 150.00
8-stock security mesh					16	$ 934.40	
9-Amico Security .50-13F		320 sf		$ 2.20	32	$ 1,868.80	$ 704.00
10-stock hi impact					16	$ 934.40	
11-Hi impact gyp							
5/8"		320 sf		$ 0.80	24	$ 1,401.60	$ 256.00
12- finish tape		320 sf		$ 0.30	24	$ 1,401.60	$ 96.00
13- clean-up prior to scaffold down					16	$ 934.40	$ 150.00
14-Access Panels		2 ea			8	$ 467.20	
						tax	$ 1,250.65
					340	$ 19,856.00	$ 15,543.85

WORKSHEET
ASI#74R1

Items per details 1&2

Dayroom E	Qty	UNIT	MAN HR prod rate	MAT,UNIT COST	TOTAL HRS	LABOR COST	MAT COST
						$ 58.40	
Scaffold							$ 12,000.00
1- ledger							
6"x18gaxtrack		24 lf		$ 1.20	8	$ 467.20	$ 28.80
anchor bolts 1/4"		8 pcs		$ 1.50	4	$ 233.60	$ 12.00
2- Prerimeter							
6"x18gaxtrack		42 lf		$ 1.20	16	$ 934.40	$ 50.40
3-Joist							
6"x18ga std		360 lf		$ 1.40	32	$ 1,868.80	$ 504.00
4-Drops							
6"x18ga std 72lf		12 ea		$ 1.40	24	$ 1,401.60	$ 100.80
top connection							
3"x3"x16gax24" 16lf		12 ea		$ 1.20	24	$ 1,401.60	$ 19.20
scrap/patch fire proof		12 ea		$ 25.00	48	$ 2,803.20	$ 150.00
5-hat channel							
7/8" hatchannel x 20ga		96 lf		$ 0.40	8	$ 467.20	$ 38.40
6-head outs							
6"x18ga std		24 lf		$ 1.40	16	$ 934.40	$ 33.60
7-stock/clean above work					24	$ 1,401.60	$ 150.00
8-stock security mesh					16	$ 934.40	
9-Amico Security .50-13F		320 sf		$ 2.20	32	$ 1,868.80	$ 704.00
10-stock hi Impact					16	$ 934.40	
11-Hi impact gyp							
5/8"		320 sf		$ 0.80	24	$ 1,401.60	$ 256.00
12- finish tape		320 sf		$ 0.30	24	$ 1,401.60	$ 96.00
13- clean-up prior to scaffold down					16	$ 934.40	$ 150.00
14-Access Panels		2 ea			8	$ 467.20	
					340	tax	$ 1,250.65
						$ 19,856.00	$ 15,543.85

WORKSHEET
ASI#74R1

Items per details 1&2

Dayroom F	Qty	UNIT	MAN HR prod rate	MAT,UNIT COST	TOTAL HRS	$ 58.40 LABOR COST	MAT COST
Scaffold							$ 12,000.00
1- ledger							
6"x18gaxtrack		24 lf		$ 1.20	8	$ 467.20	$ 28.80
anchor bolts 1/4"		8 pcs		$ 1.50	4	$ 233.60	$ 12.00
2- Prerimeter							
6"x18gaxtrack		42 lf		$ 1.20	16	$ 934.40	$ 50.40
3-Joist							
6"x18ga std		360 lf		$ 1.40	32	$ 1,868.80	$ 504.00
4-Drops							
6"x18ga std 72lf		12 ea		$ 1.40	24	$ 1,401.60	$ 100.80
top connection							
3"x3"x16gax24" 16lf		12 ea		$ 1.20	24	$ 1,401.60	$ 19.20
scrap/patch fire proof		12 ea		$ 25.00	48	$ 2,803.20	$ 150.00
5-hat channel							
7/8" hatchannel x 20ga		96 lf		$ 0.40	8	$ 467.20	$ 38.40
6-head outs							
6"x18ga std		24 lf		$ 1.40	16	$ 934.40	$ 33.60
7-stock/clean above work					24	$ 1,401.60	$ 150.00
8-stock security mesh					16	$ 934.40	
9-Amico Security .50-13F		320 sf		$ 2.20	32	$ 1,868.80	$ 704.00
10-stock hi impact					16	$ 934.40	
11-Hi impact gyp							
5/8"		320 sf		$ 0.80	24	$ 1,401.60	$ 256.00
12- finish tape		320 sf		$ 0.30	24	$ 1,401.60	$ 96.00
13- clean-up prior to scaffold down					16	$ 934.40	$ 150.00
14-Access Panels		2 ea			8	$ 467.20	
					340	tax	$ 1,250.65
						$ 19,856.00	$ 15,543.85

Sierra Lathing Company, Inc
1189 West Leiske Drive
Rialto CA 92376
909-421-0211
License: 198103

Change Order

Order#: 15

Order Date: 03/16/2010

To: Bernards
23461 So. Pointe Dr. #300
Laguna Hills CA 92653

Project: 2803
Larry D. Smith Corr. Facility
350 Wesley Street
Banning CA 92220

The contractor agrees to perform and the owner agrees to pay for the following changes to this contract.

Plans Attached ☐

Ordered By: 41 Raymond Lytle **Customer Order:** PCO#298

Specifications Attached ☐

Description of Work	Amount
Fireproof patch hanger attachment at deck	1,600.01

Notes

ADDED FIREPROOF WORK PER pco#298 -WORK PERFORMED ON T&M

SEE ATTACHED T&M WORKSHEETS

LABOR =
FORMAN @ 61.40 - 11 HRS = $675.40
JY @ 58.40 - 9 HRS =$525.60
MATERIAL = 190.31
15% OHP =$ 208.70
TOTAL =$1,600.00

Negative changes will lower the overall contract price requiring no additional payment by owner.

Requested Amount of Change **1,600.01**

The original Contract Sum was	1,052,000.00
Net change by previous Change Orders	309,493.00
The Contract Sum prior to this Change Order	1,361,493.00
The Contract Sum will be changed by this Change Order	1,600.01
The new Contract Sum including this Change Order will be	1,363,093.01
The Contract Time will be changed by	0 Days

Owner: _____ Date: _____

Contractor: _____ Date: _____

Since 1952
TREA PAINTING COMPANY, INC.

Time & Material

Job No. 2803

Job Name Larry D. Smith

Work Direction Per (RFI,PCO,CO,FI, ?) PCO # 298

BLDG / Location of work Bldg #11 F @ ceiling

AUTHORIZED BY : Company Bernards

SIGN & Date Print Name

DESCRIPTION OF WORK PERFORMED : patching deck where Hangers attachment is conected-

THIS SIGNATURE VERIFIES TIME AND MATERIAL ONLY
~~THIS VERIFICATION IN NO WAY CONSTITUTES AN AGREEMENT~~
THAT THIS WORK IS ADDITIONAL CONTRACT SCOPE AND
IN NO WAY IS TO BE CONSTRUED AS AN ENTITLEMENT
~~FOR ADDITONAL COMPENSATION~~
BERNARDS: [signature] 3-4-10

Scope Of Work (frame -Drywall-Taping-Clean-up)

Material	QTY	HOURS	MEN	TOTAL	Scope	
blaze III	1 bag	Foreman	1	2 hrs	[illegible]	
		JY	1	2 hrs		

Equiptment [signature] 3/4/10

Work performed on (DATE) 3-4-10

Circle - WORK - Completed / Ongoing

TERRA LATHING COMPANY, INC.

Time & Material

Job No. 2803

Job Name Larry D Smith

Work Direction Per (RFI,PCO,CO,FI, ?) PCO #298

BLDG / Location of work H16 Playroom F

AUTHORIZED BY : Company Bernard's

SIGN & Date Print Name Dick Whiteman

DESCRIPTION OF WORK PERFORMED : Fire proofing patch at deck where strut is connected.

THIS SIGNATURE VERIFIES TIME AND MATERIAL ONLY
THIS VERIFICATION IN NO WAY CONSTITUTES AN AGREEMENT
THAT THIS WORK IS ADDITIONAL CONTRACT SCOPE AND
IN NO WAY IS TO BE CONSTRUED AS AN ENTITLEMENT
FOR ADDITONAL COMPENSATION
BERNARDS: KWA 3-5-10

Scope Of Work (frame-Drywall-Taping-Clean-up)

Material	QTY	HOURS	MEN	TOTAL	Scope	
Blaze II	2 bags	Foreman	1	2 Hrs	fire proof	
		FY	1	2 Hrs	fire proof	
BERNARDS:						
FOR ADDITIONAL COMPENSATION						
IN NO WAY IS TO BE CONSTRUED AS AN ENTITLEMENT						
THIS WORK IS ADDITIONAL CONTRACT SCOPE AND						
IS VERIFICATION IN NO WAY CONSTITUTES AN AGREEMENT						
THIS VERIFIES TIME AND MATERIAL ONLY						

Equiptment

Work performed on (DATE) 3 5 10

Circle - WORK - Completed / Ongoing

VERIFIED TIME 3/5/10

TERRA LAYERING COMPANY, INC.

Time & Material

Job No. 2803

Job Name Lacey D Smith

Work Direction Per (RFI,PCO,CO,FI, ?) pco #298

BLDG / Location of work H16 Dayroom E

AUTHORIZED BY : Company Bernard's

SIGN & Date Print Name

DESCRIPTION OF WORK PERFORMED : fire proof patching where struts are attached to deck

Scope Of Work (frame -Drywall-Taping-Clean-up)

Material	QTY	HOURS	MEN	TOTAL	Scope	
Blaze II	4 bags	Foreman	1	5 Hrs	fire proof patching	
		JY		5 Hrs	fire proof patching	

THIS SIGNATURE VERIFIES TIME AND MATERIAL ONLY
THIS VERIFICATION IN NO WAY CONSTITUTES AN AGREEMENT
THAT THIS WORK IS ADDITIONAL CONTRACT SCOPE AND
IN NO WAY IS TO BE CONSTRUED AS AN ENTITLEMENT
FOR ADDITONAL COMPENSATION.

Equipment on BERNARDS: KNW 3-8-10 Work performed on (DATE) 3 - 8 - 10

Circle - WORK - Completed / Ongoing

Name
3/8/10

SIERRA LATHING COMPANY, INC.

Time & Material

Job No. 2803

Job Name Larry D Smith

Work Direction Per (RFI,PCO,CO,FI,?) PCO 298

BLDG / Location of work H/a Dayroom D

AUTHORIZED BY : Company Bernard's

SIGN & Date Print Name

DESCRIPTION OF WORK PERFORMED : Line proof patching where strut is connected to the deck.

Vance: 3/10/10

Scope Of Work (frame -Drywall-Taping-Clean-up)

Material	QTY	HOURS	MEN	TOTAL	Scope	
Blaze II	1 Bag	Foreman	1	2 HRS	line proof patching	
		JY				

THIS SIGNATURE VERIFIES TIME AND MATERIAL ONLY.
THIS VERIFICATION IN NO WAY CONSTITUTES AN AGREEMENT
THAT THIS WORK IS ADDITIONAL CONTRACT SCOPE AND
IN NO WAY IS TO BE CONSTRUED AS AN ENTITLEMENT
FOR ADDITONAL COMPENSATION
BERNARDS: [signature] 3-11-10

Equipment:

Work performed on (DATE) 3 - 9 - 10

Circle - WORK - Completed / Ongoing

ACOUSTICAL CEILINGS

Ann Mitchell

From: tatecia@aol.com
Sent: Tuesday, February 16, 2010 3:44 PM
To: Ann Mitchell
Subject: Re: ASI #74-R1 - Modifications to ceilings above stairs in Day Rooms

Yhe estimate for this work is as follows:

48 hours to demo and install @ 54.65	$2623.20
misc materials at installation	$200.00
lift rental 1 week	$450.00
15% MU	$490.98
Total	$3764 18

----Original Message----
From: Ann Mitchell <amitchell@bernards.com>
To: rlytle@sierralathing.com; tatecia@aol com; estimating@lawsteel.com; engineering@lawsteel com; rgonzales@southernfolger.com; Shawn Tromp, Robert Reeves <rlreevesco@aol com>
Sent: Tue, Feb 16, 2010 10:19 am
Subject: FW: ASI #74-R1 - Modifications to ceilings above stairs in Day Rooms

My records indicate we have not received your response to ASI #74-R1. Please forward your response to my attention via fax or email by end of day today.

If you have any questions please call Ryan Hernandez at Bernards jobsite office.

Thank you,

Ann Mitchell
Project Administrator | BERNARDS

From: Ann Mitchell
Sent: Friday, January 22, 2010 2:23 PM
To: Ray Lytle (rlytle@sierralathing.com); 'tatecia@aol.com'; Kevin Shearer, Champion Electric; 'tshafer@championelec.com'; Rick Larsen (Rick.larsen@jgtate.com); 'estimating'; 'engineering@lawsteel.com'; Richard Chiera (richardc@athenaengineering.net); Shawn Tromp, Robert Reeves; 'Onofrio Pecoraro'
Subject: RE: ASI #74-R1 - Modifications to ceilings above stairs in Day Rooms

Please see the attached revised ASI #74-R1. (The Owner added one picture)

Ann Mitchell
Project Administrator | BERNARDS

From: Ann Mitchell
Sent: Thursday, January 21, 2010 9:49 AM
To: Ray Lytle (rlytle@sierralathing.com); 'tatecia@aol.com'; Kevin Shearer, Champion Electric; 'tshafer@championelec.com'; Rick Larsen (Rick.larsen@jgtate.com)
Cc: Sal Nol; Ryan Hernandez; Steven Chase; Richard Whiteman
Subject: ASI #74 - Modifications to ceilings above stairs in Day Rooms
Importance: High

PECORARO, INC.

PAINTING CONTRACTORS

January 29, 2010

BERNARDS
350 Wesley St
Banning, CA 92220

Attn: Ann Mitchell

Re: Larry D. Smith Correctional Facility
ASI#74

Dear Ann,

As requested is our proposal for ASI#74

Labor	58 ~~48~~ ~~104~~ ~~84~~ hr @ $ 47 51	$	~~3,991.00~~	4,941.00	~~$2,280.00~~	2756 —
Material	20 ~~70~~ ~~50~~ 35 Gal @ $ 19 00	$	~~665.00~~	~~750.00~~	$ ~~190.00~~	380 —
Misc. Masking	L.S	$	~~450.00~~	650.00	→	650 —
Equipment Scissor Lift	L.S	$	~~500.00~~	500	→	500 —
				~~7041.00~~	~~$3,120~~	4286 —
	15%	$	~~841.00~~	~~1,056.00~~	~~$468~~	643 —
	Total	$	~~6,447.00~~	~~$8,097~~	~~$3,588~~	Rev → 4,929

Breakdown of labor
- Set up 1 hr
- Masking 2 hrs
- Paint 2 hrs
- Clean up 2 hrs x2 (with Helper) = 16 hrs / dayroom

~~4931~~

Please call with any questions

Sincerely,
PECORARO, INC.

[signature] Erendira Maldonado for

Onofrio Pecoraro
CEO

501 W. Broadway Suite A PMB #398 • San Diego, CA 92101
P. (619) 236-1730 • F. (619) 236-8105
CA Lic # 868925 • AZ Lic#223538

J.G. TATE FIRE PROTECTION SYSTEMS, INC.

C10 C16 License #800609

Commercial & Residential Fire Sprinkler Systems

13691 Danielson Street, Suite C Poway, CA 92064

Phone (858) 486-0900 Fax (858) 486-0950

2/18/2010

Ryan Hernandez
Bernards
Larry D Smith Correctional Facility
350 Wesley Street
Banning, CA 92220
Phone: (951) 849-2589
Fax: (951) 849-9605
Email: rhernadez@bernards.com

Reference: **Larry D. Smith Correctional Facility Expansion #3 (C80523)**

Subject: **Change Order 005**

Below is a breakdown of the changes incurred at the above referenced project:

Change order description:

Per ASI 74-R1. Note price includes recutting drops not relocating the drops. It affects a total of 6 heads (two per room). Scaffolding to be provided by Bernards, no lifts are included in price.

Material (including tax):	$	240.00
Labor (32 hrs @ $68.00):	$	2,176.00
Design (1 hrs @ $68.00):	$	68.00
Subtotal:	$	2,484.00
Overhead & Profit (15%)	$	372.60
Total:	**$**	**2856.60**

J G Tate Fire Protection Systems, Inc

Rick Larsen

Bernards

Name, Title

JOB#: 1801

Change Estimate#: 15.1 DATE: 2/24/10

PROJECT: Larry D. Smith Correctional Institute
Architect Project# 60021802
-
-

RFI Ref: ASI#74r1

Customer Ref: ASI#74r1

TO: Sal Nol
Bernards Construction
350 Wesley street
Banning , CA 92220

Ph: (951) 849-2489
Fax: (951) 849-9605
Email: snol@bernards.com

FROM: ATHENA ENGINEERING INC.
456 East Foothill blvd.
San Dimas , CA. 91773

P.M: Richard D. Chiera
Ph: (909)599-0947 Ext. 501
Fax: (909)599-5018
Email: richardc@athenaengineering.net

DESCRIPTION OF WORK:

Move registers and ductwork to accommodate ceiling changes 3 locations for dayrooms. Preliminarily provide for 4 access door locations. The cost of the access doors or installation is not under our scope or pricing. The cost for providing a lift is not included in our pricing. the HVAC work needs access approximately 8' from the edge of the area of ceiling modification. Scaffold/lifts will be provided by others to allow safe working areas for the HVAC work. Re-balance of HVAC system is not included in this work and will not be provided. Ceiling work or repair is not included in this work and will not be provided.Paint/patching is not included in this work and will not be provided. Labor is reuired for set up removal and set up again for final positioning.

MATERIAL AND CHARGES

QUANTITY	DESCRIPTION	UNIT $	EXTENDED
3.00	Lot ductwork/per area	250.00	750.00
1.00	Lot Hangar material, screws,sealant, etc.	100.00	100.00
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TOTAL COST MATERIAL:		850.00
SALES TAX:	8.75%	74.38
GRAND TOTAL MATERIAL:		924.38

SUB-CONTRACTS

QUANTITY	DESCRIPTION	Break Down Attached	UNIT $	EXTENDED
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-			-	-

TOTAL COST SUB-CONTRACTS: 0.00

CHANGE ESTIMATE SUMMARY

LABOR	RATE	HOURS	TOTALS
General foreman	75.07	2.00	150.14
Foreman	72.76	8.00	582.08
Journeyman	66.31	48.00	3,182.88
Detailer	72.76	-	-
	-	-	-

Sub Total Labor		3,915.10
Labor Overhead	10.00%	391.51
Labor Profit	5.00%	215.33
Grand Total Labor Cost:		4,521.94

Material and Charges Cost:		924.38
Material and Charges Overhead	10.00%	92.44
Material and Charges Profit	5.00%	50.84
Grand Total Material and Charges Cost:		1,067.65

Sub-Contractor Cost:		-
Sub-Contractor Overhead	0.00%	-
Sub-Contractor Profit	5.00%	-
Grand Total Sub-Contractor Cost:		-

Total this Change Estimate:		5,589.59
Insurance	0.00%	-
SubTotal this Change Estimate:		5,589.59
Bond	1.00%	55.90
Total Cost:		5,645.49

PROJECT: Larry D. Smith Correctional Institute
Architect Project# 60021802

Grand Total Change Estimate# 15.1 $ 5,645.49

The total cost of this Change Estimate is a ☒ Add ☐ Deduct To the Contract amount

This Change Estimate will add 10 days to the project completion time.

THE SIGNATURE BELOW AUTHORIZES THE PERFORMANCE OF THE ABOVE STATED WORK AND PRICE ADJUSTMENT TO THE CONTRACT, BILLABLE AND PAYABLE IMMEDIATELY BASED UPON % OF COMPLETION.

Accepted By:

Print Name: _____ Title: _____

Signature: _____ Date: _____

CHAMPION ELECTRIC INC.
Believers In Excellence!

CHAMPION ELECTRIC INC.
3950 GARNER ROAD
RIVERSIDE, CA 92501
Telephone: 951-276-9619
Fax: 951-276-1460
Contact: Kevin Sheater
E-mail: kshearer@championelec com

COST PROPOSAL

Bernards Builders, Management Services
23461 South PointeDr. suite 300
Laguna Hills, CA 92653
Telephone: 949.461.3650
Fax: 949.461.3965
Contact: Ryan Hernandez
E-mail: rhernandez@bernards.com

REF #: PCO 040 ASI # 74 R-1
Date: ~~2/1/2010~~
Project Name: Larry Smith Correctional Fa
Page Number: 1

Revised

DETAILS OF PROPOSAL

Description of Change:
Provide price for Changes found in ASI #74 R-1

Price will not be adjusted after work is completed.

Demo will not start until all ceiling tiles are removed Rough will not start until all of the framing is complete
Finish will not start until all paint and drywall is complete

Fire Alarm cost is for Pryo-Comm to remove and replace smoke detectors.

~~Contract extension will be determined by the completion dates of the other trades.~~

Type C fixtures are $575.00 each

Qualifications:
Upon review of the above stated direction we have identified cost impacts that must be addressed. We are submitting this proposal for your acceptance in response to this direction. This proposal is valid for a period of thirty (30) days upon receipt. As part of this proposal a time extension of ten (10) working days are required to be added to our contract to mitigate impacts to the original contract schedule. If a time extension is not acceptable we reserve the right to void this proposal and resubmit a new cost that accounts for acceleration, trade stacking, delays and other issues as may be required. This proposal is based upon information provided by the owner to accomplish completion of this change and we accept no responsibility for inadequate engineering or incomplete information. Excluded from this quote is any demo, patching, repairing, and or painting of finished surfaces unless specifically stated otherwise. We reserve the right to re-evaluate this pricing if conditions or information changes from time of submission to notice to proceed. Upon acceptance of this proposal please expedite our notice to proceed so work may begin as soon as possible. Please contact the undersigned if there are any questions in regards to this proposal.

PROPOSAL TOTAL **$14,110.00**

Signature: Kevin Sh

ITEMIZED BREAKDOWN

Area	Material($)	Mat(%)	Labor Hrs	Lab(%)
|| DAYROOM D	1,813.76	33.33	20.90	33.07
|| DAYROOM E	1,813.76	33.33	20.90	33.07
|| DAYROOM F	1,813.76	33.33	21.40	33.86
Total	**5,441.28**	**100.00**	**63.20**	**100.00**

DAYROOM D

System	Material($)	Mat(%)	Labor Hrs	Lab(%)
|| DEMO	13.08	0.72	9.57	45.79
|| ROUGH	72.51	4.00	3.27	15.65
|| FINISH	1,728.17	95.28	8.06	38.56
Total	**1,813.76**	**100.00**	**20.90**	**100.00**

DAYROOM D / DEMO

Description	Qty	Net Price Unit	Labor Unit	Total Mat($)	Total Hours
3/4" STEEL FLEX	10.00	971.00 M	5.00 C	9.71	0.50
3/4" FLEX TO 3/4" FLEX CPLG	1.00	336.53 C	16.88 C	3.37	0.17
REMOVE TYPE D FIXTURES	5.00	0.00 E	1.00 E	0.00	5.00
REMOVE SMOKE DETECTORS	3.00	0.00 E	0.75 E	0.00	2.25
REMOVE DUCT DETECTOR LED	1.00	0.00 E	0.65 E	0.00	0.65
MOBILIZATION	1.00	0.00 E	1.00 E	0.00	1.00
Totals				**13.08**	**9.57**

DAYROOM D / ROUGH

Description	Qty	Net Price Unit	Labor Unit	Total Mat($)	Total Hours
4S DEEP BOX 3/4" KO	3.00	1,252.95 C	30.36 C	37.59	0.91
4" SQ 1G PL-RING 3/4" RISE	3.00	518.18 C	15.02 C	15.55	0.45
#10x 3/4" S-TAP SCREW P/H	28.00	9.24 C	2.50 C	2.59	0.70
TSGB16 ADJ BOX MTG BRKT	7.00	239.68 C	3.00 C	16.78	0.21
MOBILIZATION	1.00	0.00 E	1.00 E	0.00	1.00
Totals				**72.50**	**3.27**

DAYROOM D / FINISH

Description	Qty	Net Price Unit	Labor Unit	Total Mat($)	Total Hours
#14x1-1/2" S-TAP SCREW P/H	18.00	17.60 C	4.50 C	3.17	0.81
INSTALL TYPE C FIXTURE	3.00	575.00 E	1.25 E	1,725.00	3.75
INSTALL TYPE D FIXTURE	2.00	0.00 E	1.25 E	0.00	2.50
MOBILIZATION	1.00	0.00 E	1.00 E	0.00	1.00
Totals				**1,728.17**	**8.06**

DAYROOM E

System	Material($)	Mat(%)	Labor Hrs	Lab(%)
|| DEMO	13.08	0.72	9.57	45.79
|| ROUGH	72.51	4.00	3.27	15.65
|| FINISH	1,728.17	95.28	8.06	38.56
Total	**1,813.76**	**100.00**	**20.90**	**100.00**

DAYROOM E / DEMO

Description	Qty	Net Price Unit	Labor Unit	Total Mat($)	Total Hours
3/4" STEEL FLEX	10.00	971.00 M	5.00 C	9.71	0.50
3/4" FLEX TO 3/4" FLEX CPLG	1.00	336.53 C	16.88 C	3.37	0.17
REMOVE TYPE D FIXTURES	5.00	0.00 E	1.00 E	0.00	5.00

Description	Qty	Net Price Unit	Labor Unit	Total Mat($)	Total Hours
REMOVE SMOKE DETECTORS	3.00	0.00 E	0.75 E	0.00	2.25
REMOVE DUCT DETECTOR LED	1.00	0.00 E	0.65 E	0.00	0.65
MOBILIZATION	1.00	0.00 E	1.00 E	0.00	1.00
Totals				**13.08**	**9.57**

DAYROOM E / ROUGH

Description	Qty	Net Price Unit	Labor Unit	Total Mat($)	Total Hours
4S DEEP BOX 3/4" KO	3.00	1,252.95 C	30.36 C	37.59	0.91
4" SQ 1G PL-RING 3/4" RISE	3.00	518.18 C	15.02 C	15.55	0.45
#10x 3/4" S-TAP SCREW P/H	28.00	9.24 C	2.50 C	2.59	0.70
TSGB16 ADJ BOX MTG BRKT	7.00	239.68 C	3.00 C	16.78	0.21
MOBILIZATION	1.00	0.00 E	1.00 E	0.00	1.00
Totals				**72.50**	**3.27**

DAYROOM E / FINISH

Description	Qty	Net Price Unit	Labor Unit	Total Mat($)	Total Hours
#14x1-1/2" S-TAP SCREW P/H	18.00	17.60 C	4.50 C	3.17	0.81
INSTALL TYPE C FIXTURE	3.00	575.00 E	1.25 E	1,725.00	3.75
INSTALL TYPE D FIXTURE	2.00	0.00 E	1.25 E	0.00	2.50
MOBILIZATION	1.00	0.00 E	1.00 E	0.00	1.00
Totals				**1,728.17**	**8.06**

DAYROOM F

System	Material($)	Mat(%)	Labor Hrs	Lab(%)
|| DEMO	13.08	0.72	8.82	41.21
|| ROUGH	72.51	4.00	3.27	15.28
|| FINISH	1,728.17	95.28	9.31	43.50
Total	**1,813.76**	**100.00**	**21.40**	**100.00**

DAYROOM F / DEMO

Description	Qty	Net Price Unit	Labor Unit	Total Mat($)	Total Hours
3/4" STEEL FLEX	10.00	971.00 M	5.00 C	9.71	0.50
3/4" FLEX TO 3/4" FLEX CPLG	1.00	336.53 C	16.88 C	3.37	0.17
REMOVE TYPE D FIXTURES	5.00	0.00 E	1.00 E	0.00	5.00
REMOVE SMOKE DETECTORS	2.00	0.00 E	0.75 E	0.00	1.50
REMOVE DUCT DETECTOR LED	1.00	0.00 E	0.65 E	0.00	0.65
MOBILIZATION	1.00	0.00 E	1.00 E	0.00	1.00
Totals				**13.08**	**8.82**

DAYROOM F / ROUGH

Description	Qty	Net Price Unit	Labor Unit	Total Mat($)	Total Hours
4S DEEP BOX 3/4" KO	3.00	1,252.95 C	30.36 C	37.59	0.91
4" SQ 1G PL-RING 3/4" RISE	3.00	518.18 C	15.02 C	15.55	0.45
#10x 3/4" S-TAP SCREW P/H	28.00	9.24 C	2.50 C	2.59	0.70
TSGB16 ADJ BOX MTG BRKT	7.00	239.68 C	3.00 C	16.78	0.21
MOBILIZATION	1.00	0.00 E	1.00 E	0.00	1.00
Totals				**72.50**	**3.27**

DAYROOM F / FINISH

Description	Qty	Net Price Unit	Labor Unit	Total Mat($)	Total Hours
#14x1-1/2" S-TAP SCREW P/H	18.00	17.60 C	4.50 C	3.17	0.81
INSTALL TYPE C FIXTURE	3.00	575.00 E	1.25 E	1,725.00	3.75
INSTALL TYPE D FIXTURE	3.00	0.00 E	1.25 E	0.00	3.75
MOBILIZATION	1.00	0.00 E	1.00 E	0.00	1.00

Description	Qty	Net Price Unit	Labor Unit	Total Mat($)	Total Hours
Totals				1,728.17	9.31

SUMMARY

General Materials		5,441.23
MATERIAL TAX	(@ 8.750 %)	476.11
TOTAL MATERIAL		**5,917.34**
JM-RIV 1ST SHIFT	(63.20 Hrs @ $67.00)	4,234.40
TOTAL LABOR		**4,234.40**
SCISSOR LIFT		700.00
TOTAL GENERAL EXPENSES		**700.00**
MARKUP	(@ 15.000 %)	1,627.76
TOTAL MARKUP		**1,627.76**
SUB-TOTAL		**12,479.50**
FA SYSTEM	($1,500.00 + 0.000 % + 0.000 % + 0.000 %)	1,500.00
TOTAL SUBCONTRACTORS		**1,500.00**
SUBTOTAL		**13,979.50**
BOND	(@ 1.000 %)	139.80
FINAL ADJUSTMENT		-9.30
FINAL AMOUNT		**$14,110.00**

AECOM

999 Town & Country Rd.
Orange, CA 92868
(714) 567-2400 Fax: (714) 567-2729

ARCHITECT'S
SUPPLEMENTAL INSTRUCTIONS

DISTRIBUTION:

Owner:	☐	Contractor	☐
Architect:	☐	Field	☐
Construction Mgr.:	☒	Other	☐

PROJECT:	Larry D. Smith Correctional Facility Expansion #3	ARCHITECT'S SUPPLEMENTAL INSTRUCTION NO:	74-R1
OWNER:	County of Riverside	DATE OF ISSUANCE:	20-Jan-10
TO:	Jon Aldana Vanir Construction Management, Inc. 980 Ninth Street, Suite 900 Sacramento, CA 95814	ARCHITECT'S PROJECT NO:	60021802

The Work shall be carried out in accordance with the following supplemental instructions issued in accordance with the Contract Documents without change in Contract Sum or Contract Time. Prior to proceeding with these instructions, indicate your acceptance of these instructions for minor change to the Work as consistent with the Contract Documents and return a copy to the Architect.

Description: Modifications to ceilings above stairs in Dayrooms H16-D, H-16-E and H-16-F. Change from suspended acoustical tile ceilings to high impact gypsum board over security mesh and steel framing system.

Reference: Photos Dayroom D, E, and F and Drawings 1 and 2.

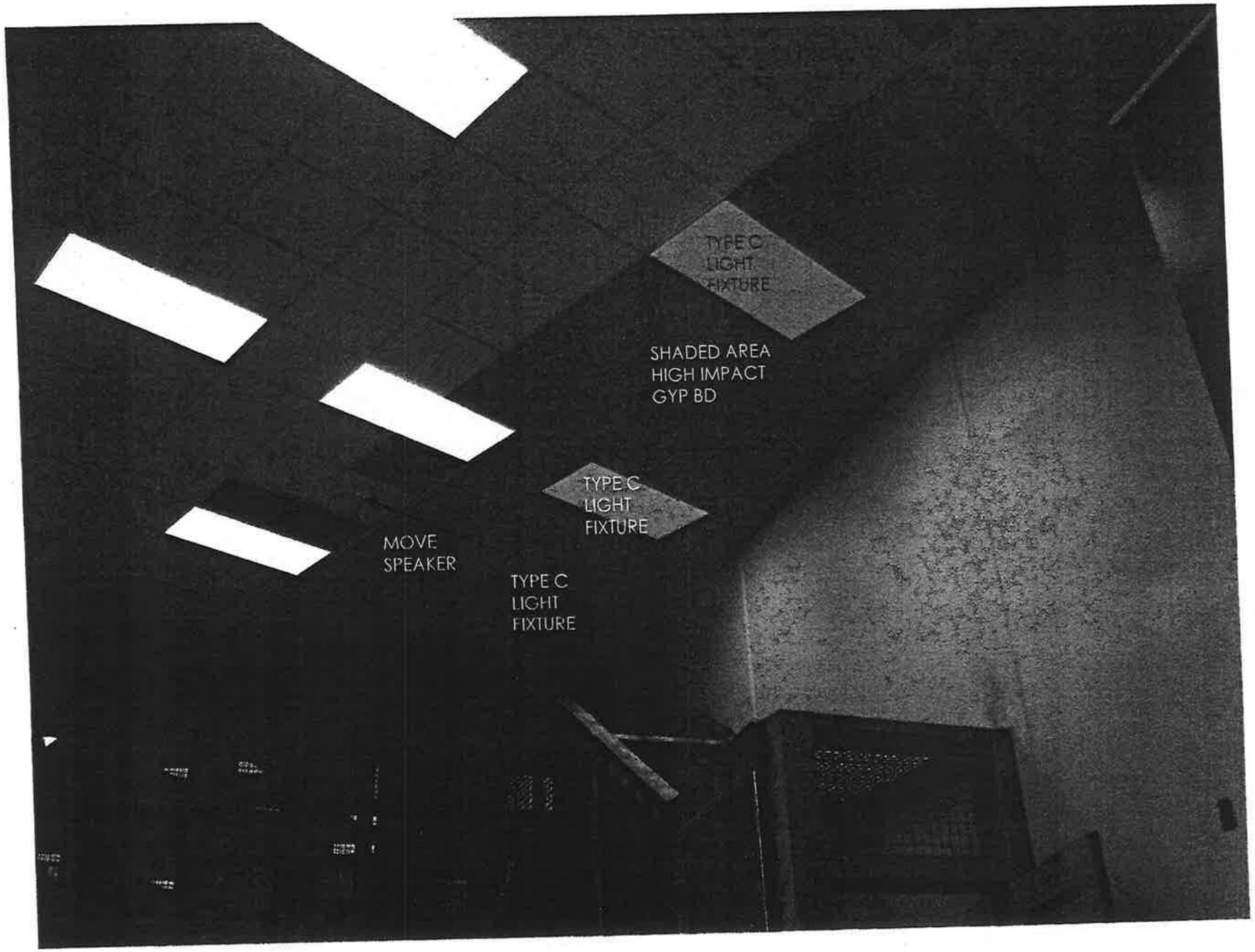
Clarification: Modify ceiling areas as identified in the attached photos and drawings as follows:
1. Remove and replace suspended acoustical ceiling and Type D light fixtures.
2. Install new high impact ceiling consisting of 5/8" National Gypsum Hi-Impact XP board over Amico Security Mesh ASM .50-13F and steel fraiming system. Framing and ceiling edge details shown in Drawings 1and 2.
3. Paint gypsum board per the requirements of Section 09910. Finish to be Level 4.
4. If the new hard ceiling restricts necessary access to existing dampers or other devices requiring adjustment, include lockable high-security access doors per Section 08315 Access Doors And Frames.
5. Install new Type C light fixtures at the same location as Type D light fixtures. (Re-use 2 surplus Type C light fixtures).
6. All other ceiling devices are to be maintained.

Revised Text:

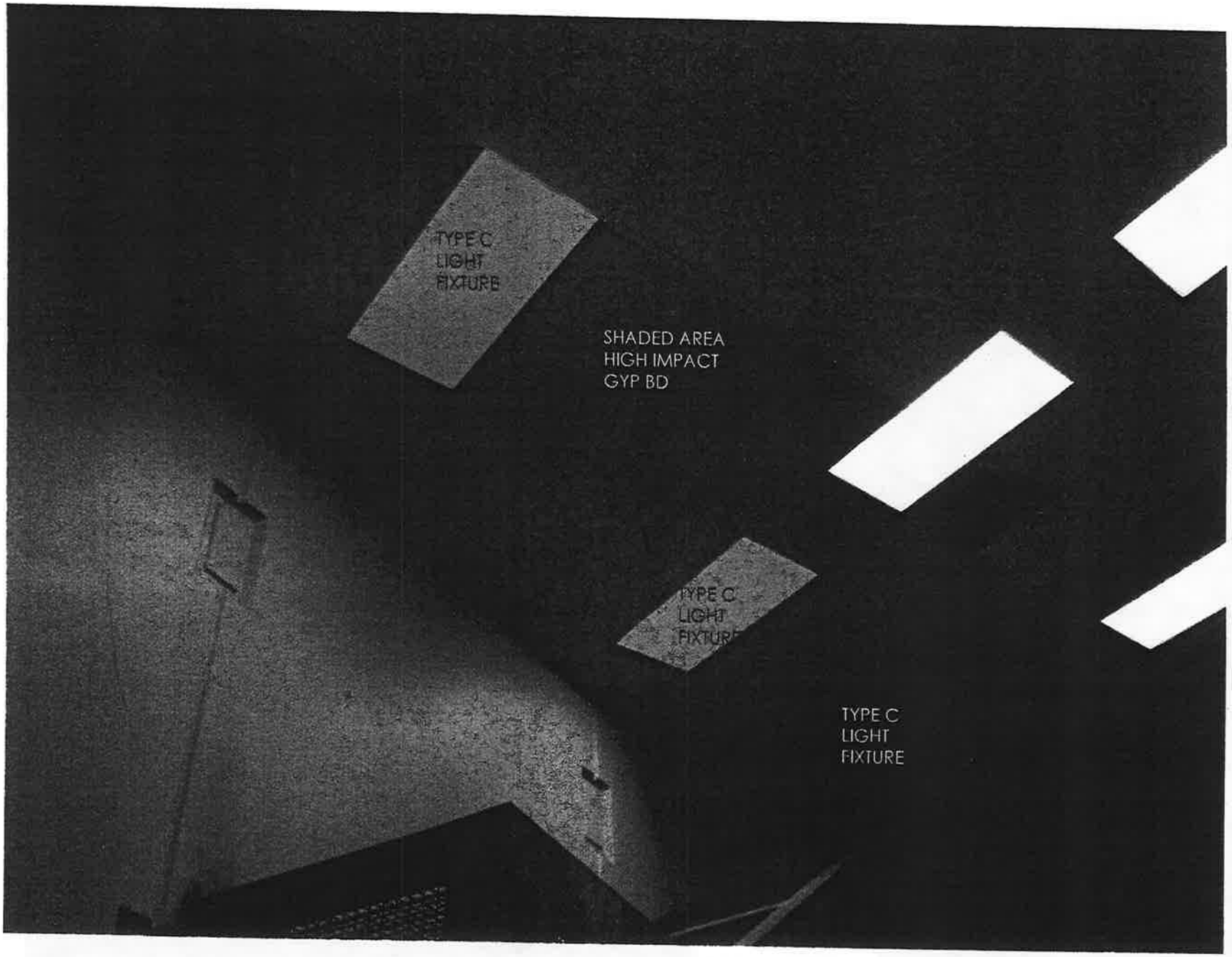
Attachments: Drawing1.pdf, Drawing2.pdf, DayroomD.pdf, DayroomE.pdf, DayroomF.pdf

ISSUED:	ACCEPTED:	ACCEPTED:	ACCEPTED:
BY	BY	BY	BY

Henry Chang
Designer
AECOM


TYPE C
LIGHT
FIXTURE
SHADED AREA
HIGH IMPACT
GYP BD
TYPE C
LIGHT
FIXTURE
MOVE
SPEAKER
TYPE C
LIGHT
FIXTURE

DAYROOM D


TYPE C
LIGHT
FIXTURE
SHADED AREA
HIGH IMPACT
GYP BD
TYPE C
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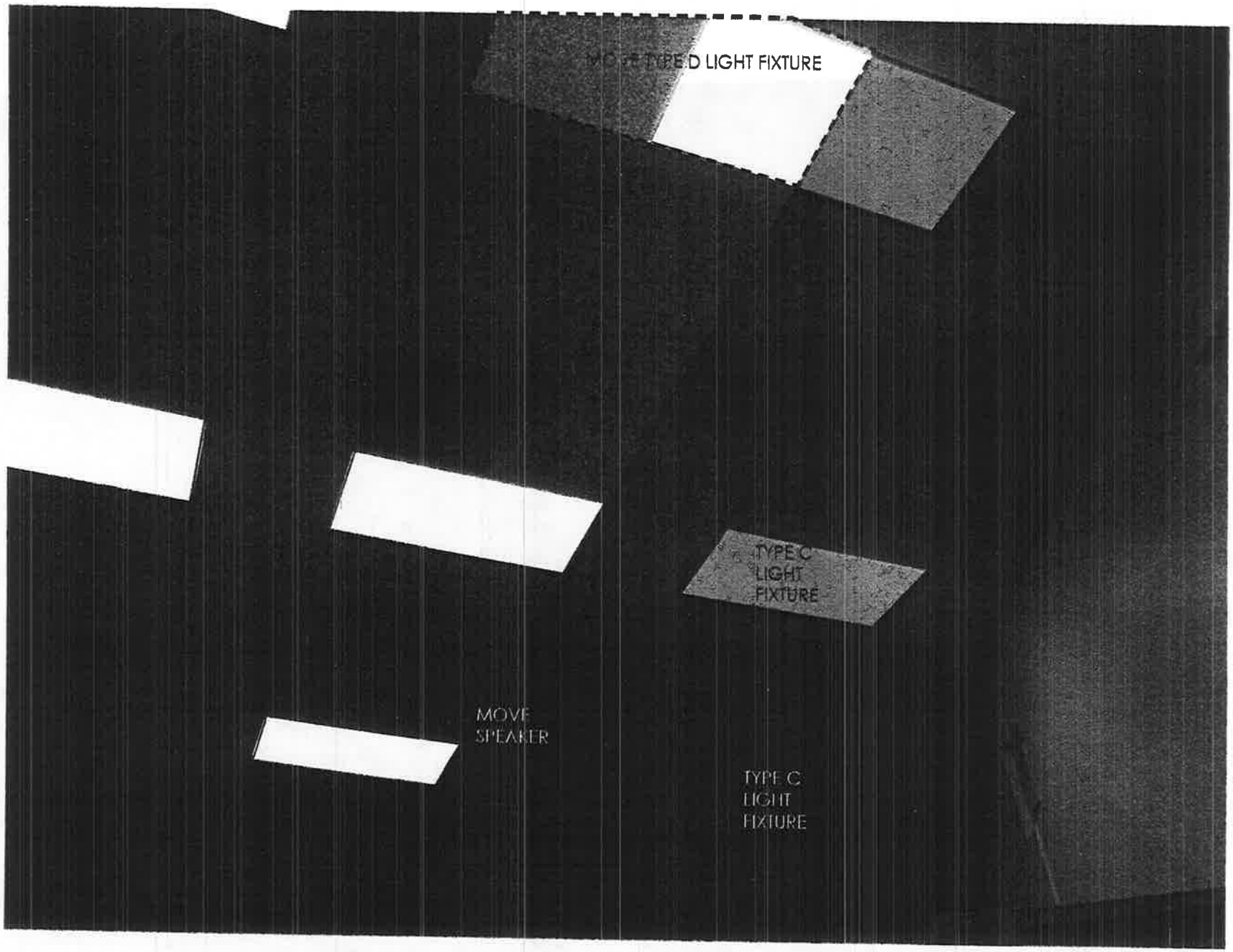
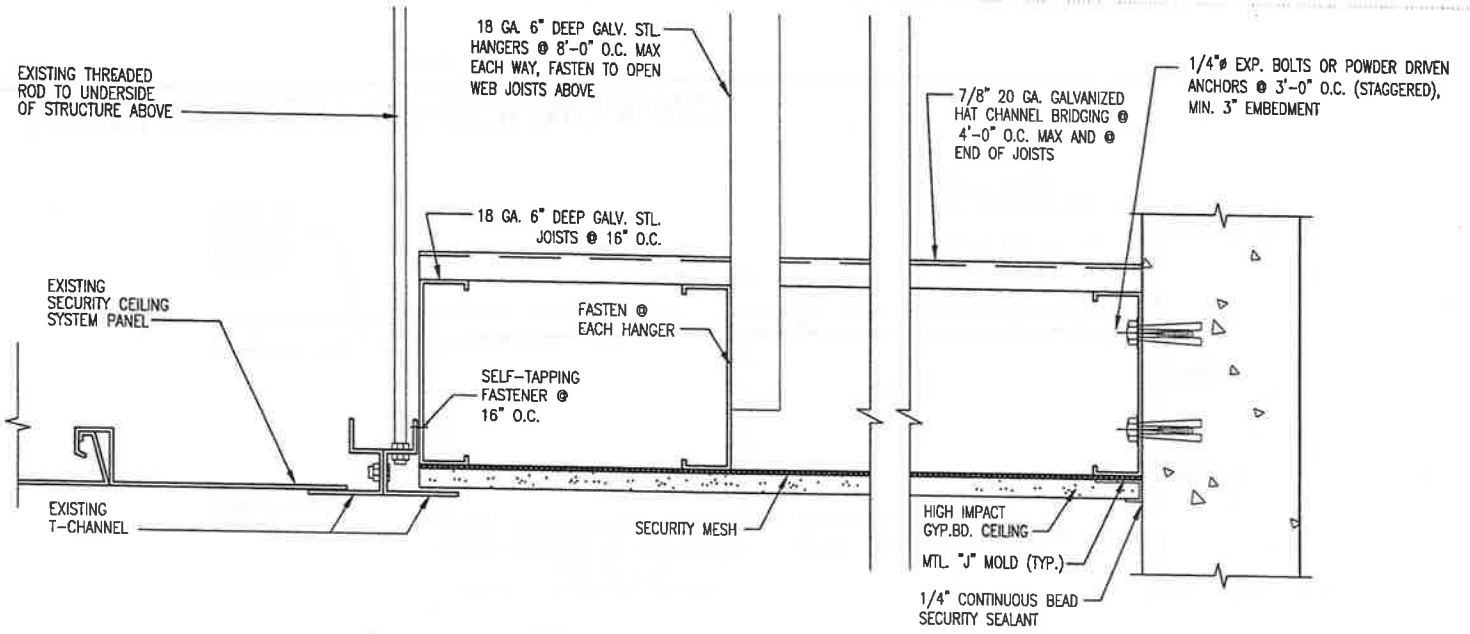
FIXTURE
TYPE C
LIGHT
FIXTURE

DAYROOM E


MOVE TYPE D LIGHT FIXTURE
TYPE C LIGHT FIXTURE
MOVE SPEAKER
TYPE C LIGHT FIXTURE

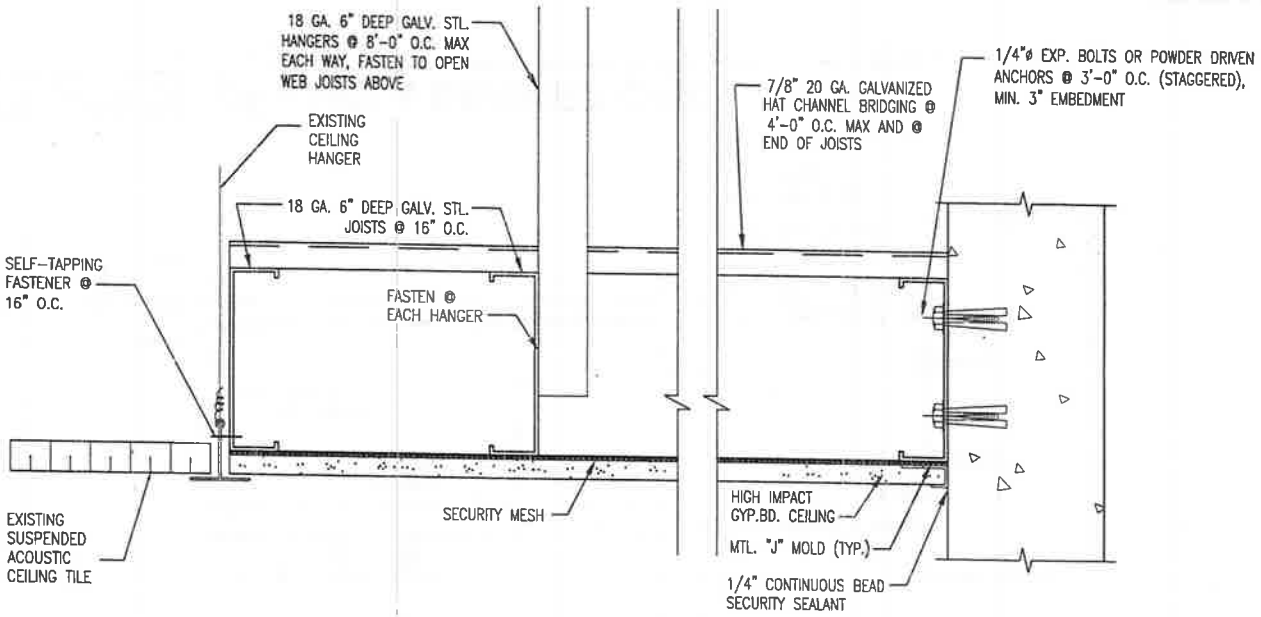
DAYROOM F



1 SECURITY GYP BD CEILING & BARRIER DEK

ASI 74

SCALE: 3"=1'-0"



2 SECURITY GYP BD CEILING & ACT

ASI 74

SCALE: 3"=1'-0"

BERNARDS
BUILDERS • MANAGEMENT SERVICES

REQUEST FOR INFORMATION
FOR DESIGNER REVIEW

RFI No.: 531 -R1

To: Jon Aldana
Company: Vanir Construction Management Inc.
Project: Larry D. Smith Correctional Facility

Date: January 28, 2010
Discipline: Structural
Importance: 3 - Normal

Subject: ASI# 74R1 - Closure Plate

Response Requested By: February 04, 2010

DRAWING & SPECIFICATION REFERENCES

Drawing Sheet / Specification	Detail / Sub Section	Comments

QUESTION

Is a closure plate required at the open ends of the joist? If so, what is required.

ANSWER

Clarification:

Frame entire perimeter of the hard ceilings with track, joist or angle.

Response Provided By: D. Voda/M. Gerardot 2/4/10 (Name) AECOM (Company)

QUESTION INITIATED BY: Steve Chase with Bernards - Author Number: As noted above.

BERNARDS
BUILDERS • MANAGEMENT SERVICES

REQUEST FOR INFORMATION
FOR DESIGNER REVIEW

RFI No.: 531

To: Jon Aldana
Company: Vanir Construction Management Inc.
Project: Larry D. Smith Correctional Facility

Date: January 28, 2010
Discipline: Structural
Importance: 3 - Normal

Subject: ASI# 74R1 - Closure Plate

Response Requested By: February 04, 2010

DRAWING & SPECIFICATION REFERENCES

Drawing Sheet / Specification	Detail / Sub Section	Comments

QUESTION

Is a closure plate required at the open ends of the joist? If so, what is required.

ANSWER

Clarification:

Steel framing is at 16" O.C., as well as framing the perimeter of the hard ceilings. No closure plate required.

Response Provided By: D. Voda/M. Gerardot 2/3/10 (Name) AECOM (Company)

QUESTION INITIATED BY: Steve Chase with Bernards - Author Number: As noted above.

BERNARDS
BUILDERS • MANAGEMENT SERVICES

REQUEST FOR INFORMATION
FOR DESIGNER REVIEW

RFI No.: 530

To: Jon Aldana
Company: Vanir Construction Management Inc.
Project: Larry D. Smith Correctional Facility

Date: January 28, 2010
Discipline: Structural
Importance: 3 - Normal

Subject: ASI# 74R1 - Fastener Schedule

Response Requested By: February 04, 2010

DRAWING & SPECIFICATION REFERENCES

Drawing Sheet / Specification	Detail / Sub Section	Comments

QUESTION

Please provide a fastener schedule for all fastener types, sizes, spacing and quantities for all connections.

ANSWER

Clarification:

Use 2 #10 SMS, staggered at the bottom of each vertical steel hanger.

Use 2 #10 SMS, 1 top and 1 bottom at steel joist to perimeter framing.

All other fasteners shown to be #10 SMS.

Response Provided By: D. Voda/M. Gerardot 2/3/10 (Name) AECOM (Company)

QUESTION INITIATED BY: Steve Chase with Bernards - Author Number: As noted above.

BERNARDS
BUILDERS • MANAGEMENT SERVICES

REQUEST FOR INFORMATION
FOR DESIGNER REVIEW

RFI No.: 529

To: Jon Aldana
Company: Vanir Construction Management Inc.
Project: Larry D. Smith Correctional Facility

Date: January 28, 2010
Discipline: Structural
Importance: 1 - Urgent

Subject: ASI# 74R1 - Joist Attachment Details

Response Requested By: February 04, 2010

DRAWING & SPECIFICATION REFERENCES

Drawing Sheet / Specification	Detail / Sub Section	Comments

QUESTION

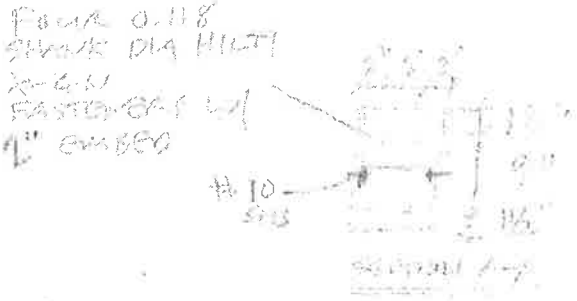
Please furnish attachment details of steel stud ceiling supports to open web joist. Inclusive but not limited to type and quantity of fastners, location on joist, and reinforcement of joist if neccessary.

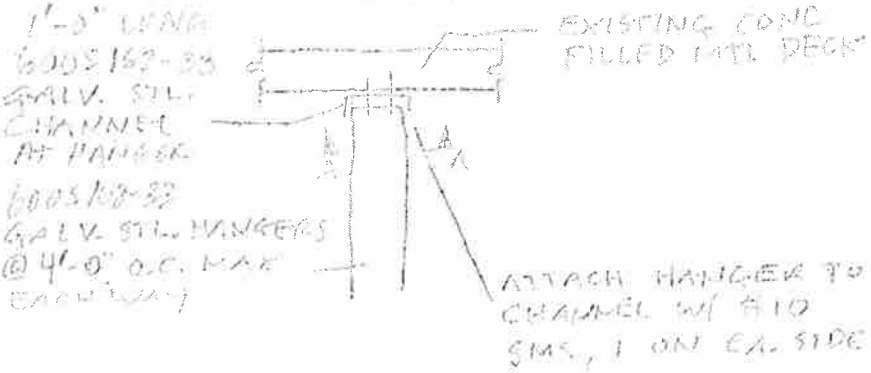
ANSWER

See attached Drawing 1. Hangers can be attached to deck to ease installation of ceiling framing.

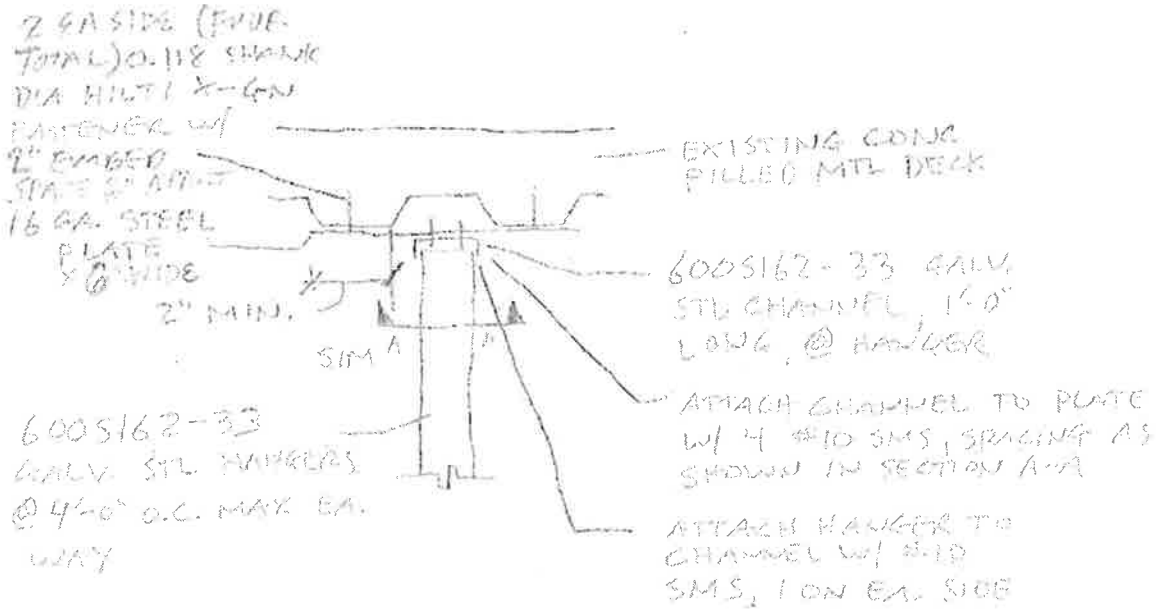
Response Provided By: Henry Chang 2/1/10 (Name) AECOM (Company)

QUESTION INITIATED BY: Steve Chase with Bernards - Author Number: As noted above.





WALL PERPENDICULAR TO RIBS



WALL PARALLEL TO DECK RIBS

DRAWING 1

VANIR
Construction Management, Inc.

PROPOSED CHANGE ORDER

To Contractor:	Bernards Builders Management Services	PCO No.:	138
From:	Vanir Construction Management, Inc.	Date:	February 22, 2010
Owner:	County of Riverside	Project No.:	20063738
Project:	Larry D. Smith Correctional Facility Exp. #3	Contract No.:	
Subject:	800 MHz Public Safety Radio System (All Buildings) by TRI POWER		

Please prepare and submit to the Project Manager within 10 days an itemized proposal of cost and schedule impact for the following proposed change to the contract:

Proposed Change:

1. Provide a cost to include all design, labor, material and equipment necessary to turn up an in building system that will re-amplify and distribute the 800MHz County of Riverside system and the on campus 800MHz repeated channel radio signals throughout the interior of the Larry D. Smith Correctional Facility Expansion #3.

   The project coverage area includes: Buildings 15/16/17 - Complete Building Coverage for both floors including:

   1. Cells
   2. Dayroom Areas
   3. Recreation Yard Areas
   4. Control Rooms (and Control Room Corridors)
   5. Outer Perimeter Corridors ("Chases")
   6. "Inter-pod" Connection Corridors
   7. Visitation Areas

   The project coverage area includes: Support Building - Complete Building Coverage for both floors including:

   1. Holding Cells
   2. Offices
   3. Inmate Examination and Consultation Rooms
   4. Storage/Property Rooms and Areas
   5. Utility/Equipment Rooms
   6. Stairwells and Elevators

Attachments:

- Tri Power Project Pricing and Plan Proposal Cost for Complete Design and Installation of 800 MHz Public Safety Radio System at LDS#3, Dated, March 15, 2010

To Be Completed By Contractor:

Proposed Cost: $ 243,585.00 Requested Time Extension: 0

Contractor: _____ Date: _____
Signature

To Be Completed Jointly By Vanir CM And Contractor:

Agreed Cost: $ 243,585.00 Agreed Time Extension: 0

Contractor: _____ Date: 3-18-10
Signature

Project Manager: _____ Date: 3-17-10
Signature

Signatures on this document do not constitute a change to the Contract or authorization to perform proposed work.

BERNARDS
BUILDERS • MANAGEMENT SERVICES

CHANGE ORDER REQUEST

COR No. 124

Project: Larry D. Smith Correctional Facility

Date: 3/17/2010

DESCRIPTION OF WORK

VCM CCD #26 – 800 MHz Public Safety Radio Systems

SUMMARY OF COSTS

Item Description	Company	Amount Requested
Subcontract Costs		
Construction Change Directive #26 – 800 MHz Public Safety Radio Systems		225,189
	Subtotal	225,189
Direct Work Cost		
Field Implementation/Coordination		4,500
	Subtotal	4,500
Contractual % Costs		
1% Bond Mark-Up		2,412
5% OH & P Mark Up		11,484
	Subtotal	13,896
	Total Change Order Request Amount:	**243,585**

APPROVAL

(Please note that if this Change Order Request is not approved by 3/24/2010, additional costs and schedule impacts may result.)

Signature_____ **Date**_____

Company_____

VANIR
Construction Management, Inc.

350 Wesley Street
Banning, CA 92220
TEL 951-849-5358
FAX 951-849-8978
www.vanir.com

March 15, 2010

Ryan Hernandez
Bernards Builders Management Services
350 Wesley Street
Banning, CA 92250

PROJECT: LARRY D. SMITH CORRECTIONAL FACILITY EXPANSION #3

SUBJECT: Construction Change Directive #26 – 800 MHz Public Safety Radio Systems

Ryan,

In an effort to advance the project in the most timely and efficient manner, regarding the installation of a new 800 MHz Public Safety Radio System installed throughout the Expansion #3 buildings. Bernards is hereby directed to proceed with the Scope of Work as described in Tri Power's Initial Conceptual Design and Proposal dated March 15, 2010. The Total amount for this Scope of Work (Work) is $225,189.00, not including Bernards' allowable mark-up, the cost for electrical requirements and cored holes necessary for a complete system.

As previously discussed between Bernards, the Riverside County Economic Development Agency (EDA) and Vanir, Bernards will be granted an exemption from Liquidated Damages and the County of Riverside shall be exempt from any General Conditions relating to any extension of time beyond the established completion date of April 16, 2010 for this Work.

Bernards is relieved of liability relating to the aforementioned Work as self-performed by Tri Power. The County of Riverside has eliminated the requirement for Tri Power to provide a Bond to cover the Work identified above with the exception of Tri Power's subcontractor Teldata. Teldata will be required to provide a Bond for their installation of the infrastructure required for the new radio system.

The new 800 MHz radio system will be included within the next Contract Change Order for final approval. Vanir and the EDA will incorporate any additional mutually approved terms of liability at that time.

We trust that this is the information you require to start and complete the aforementioned Scope of Work. If there are questions regarding this matter, please call me.

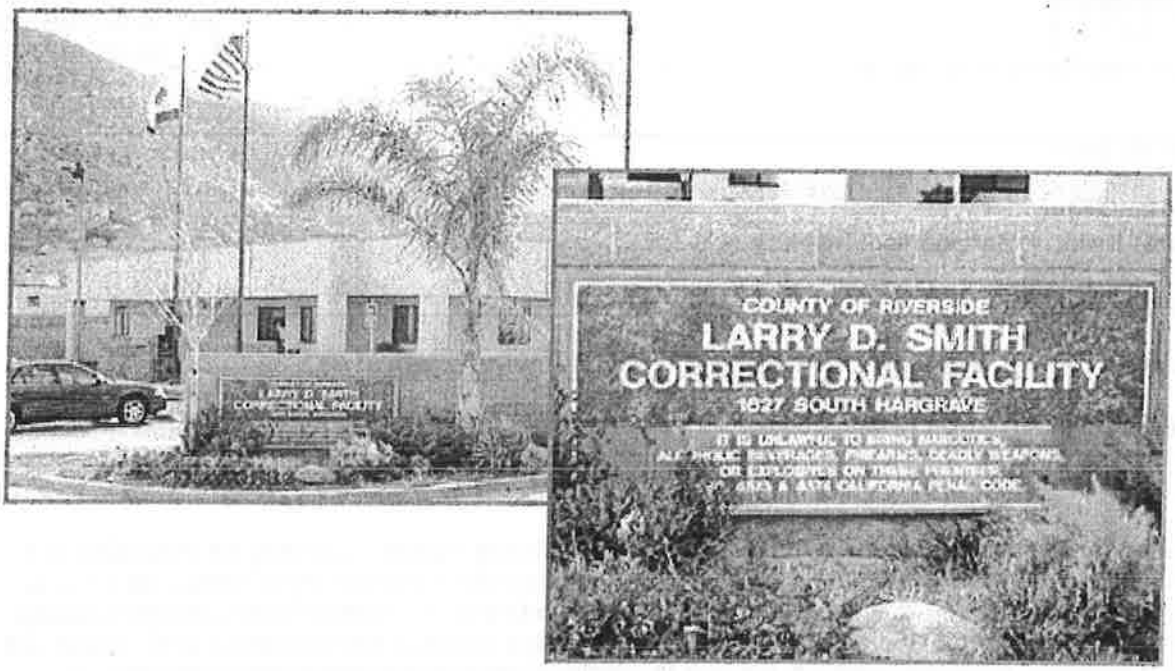
Yours truly,
Vanir Construction Management, Inc.

Jon Aldana

Jon Aldana,
Construction Manager

Enclosures:
- Tri Power Project Pricing and Plan for 800 MHz County Wide Radio DAS for Smith Correctional Facility Expansion #3, Dated March 15, 2010

Cc: C. Waltman (EDA), F. Gonzales (EDA), M. Gerardot (AECOM), P. Watts (Vanir), D. Henry (TriPower), File



Project Pricing and Plan

800MHz County Wide Radio DAS for Smith Correctional Facility (600 Bed Expansion) Banning, CA

March 15, 2010

Prepared for:
Lt. Jennifer McConville – Riverside County Sheriff's Department
Howard Newton – Riverside County IT
Moe Raissdana – Riverside County IT

POWER

TRIPOWER

March 15, 2010

Lieutenant Jennifer McConville – Riverside County Sheriff's Department
Mr. Howard Newton – Riverside County IT
Mr. Moe Raissdana - Riverside County IT

Subject: PROJECT PRICING for:

Smith Correctional Facility - 1627 South Hargrave Street Banning, CA 92220

- 800MHz Riverside county wide and on-campus radio in-building coverage enhancement system for 600 bed expansion new facility

Thank you for the opportunity to provide in building coverage for the SCF new expansion facility.

This document defines our understanding of the project, the scope of work to be performed and presents our pricing calculations for the project. This Scope of Work and Pricing is based upon the information given to us to date, the results of our on-site examinations of the property, and our experience and our understanding of the necessary deliverables to provide a turn-key, guaranteed coverage Distributed Antenna System.

TriPower has an extensive history and track record in helping developers and building owners in meeting their in-building coverage requirements. Some of our directly relevant projects in California include:

- LAPD Metro Detention Center (UHF)
- Athens Sheriff's Station (UHF)
- Los Angeles Port Police Administration Building (UHF)
- Regency Tower Riverside DA headquarters (UHF and 700/800MHz)
- Alameda County Jail (800MHz)
- Santa Rita County Jail (800MHz)
- San Bruno County Jail (800MHz)

In addition, TriPower has designed and installed Public Safety DAS systems at Avalon Bay at Anaheim, Hyatt Classic Residence in La Jolla, Americana at Brand in Glendale, Worldmark Towers in Anaheim, and the Plaza in Irvine. In addition, TriPower has provided in building coverage for Avalon Bay Meydenbauer and has completed very large scale projects on multiple Kaiser Permanente hospitals, and Kemper Development's Lincoln Square in Bellevue, Washington. *(Reference account lists are attached to this proposal package.)*

1. Project Scope

Design, install, and turn up an in building system that will re-amplify and distribute the 800MHz county of Riverside system and the on campus 800MHz repeated channel radio signals throughout the interior of the 600 bed expansion new facility.

The project coverage area includes:

- Prisoner housing buildings ("pods") 15, 16 and 17 - complete building coverage for both floors including:
  - ✓ Cells
  - ✓ Dayroom areas
  - ✓ Recreation yard areas
  - ✓ Control rooms (and control room corridors)
  - ✓ Outer perimeter corridors ("chases")
  - ✓ "Inter-pod" connecting corridors

- Support building – complete building coverage for both floors including:
  - ✓ Holding cells
  - ✓ Offices
  - ✓ Inmate examination and consultation rooms
  - ✓ Storage/property rooms and areas
  - ✓ Currently shelled areas
  - ✓ Utility/equipment rooms
  - ✓ Stairwells and elevators

(NOTE: see attached DAS Proposal and Pricing document for complete Scope and Bill of Materials)

2. Pricing Proposal

Upon approval and notice to proceed, TriPower will conduct a full system design, including propagation predictions, and build out plan.

DAS Proposal and Pricing documents attached to this proposal package.

3. Assumptions/Qualification/Exclusions/Terms

Please refer to the attached DAS Proposal and Pricing document for detailed list of Assumptions, Qualifications, Exclusions, and Terms.

4. TriPower "Guaranteed Coverage / Guaranteed Cost" Protection Plan

Even after full engineering analysis and full system design, and an agreed upon contract price - once installation begins there is a chance that difficulties could be encountered that would result in increased equipment and material costs, and/or installation costs. In addition, there is also the chance that, upon final testing, additional components may be needed to provide the required coverage

This Tri-Power Protection Plan guarantees you in that in the event there are additional costs incurred (that are not a result of requested changes of scope of work), these costs are fully covered by TriPower – there would be no change order or other add on charges to Riverside county.

Lt. McConville, Howard and Moe – we thank you very much for this opportunity. We look forward to working with your team. Please give me a call if you have any questions concerning our approach to meet your Public Safety requirements.

Sincerely,

Don Henry
TriPower Account Manager – Southwest US

Attachments: DAS Proposal and Pricing
Single line drawings; conceptual design antenna placement diagrams
Product specification sheets
TriPower Reference Accounts

Smith Correctional Facility Expansion 800 MHz DAS

Client:	Bernard Brothers Construction	**Date:**	March 15, 2010
Prepared For:	Ryan Hernandez	**Prepared By:**	Don Henry
Project Name:	Smith Correctional Facility - 600 Bed Expansion	**Job #:**	TBD
Project Location:	Banning, CA	**Start Date Estimate:**	March 22, 2010
Coverage Scope:	FULL FACILITY - ALL AREAS		

Item #	Description	Price	Total
	800 MHz County Wide Public Safety In Building Distributed Antenna System		
1	Propagation Study and Full Design; Contruction Drawings; Pre-con site walk	$31,862.00	**$31,862.00**
2	Equipment and Materials	$121,821.19	**$121,821.00**
3	Shipping charges	$2,006.30	**$2,006.00**
4	Sales tax	$10,659.35	**$10,660.00**
5	System Installation	$46,170.21	**$46,170.00**
6	System Commissioning and Acceptance Testing; Deliver CAD As-builts and close out package	$12,670.00	**$12,670.00**
		Project Subtotal:	**$225,189.00**
7	OCIP credit		$4,891.00
		PROJECT TOTAL:	**$220,298.00**

COMMENTS:

1. See attached Proposal Summary
2. Equipment and Materials = Active components (TX/RX BDA, SOLiD Technologies Fiber Distribution equipment, APC UPS power supplies, coax, donor antenna, distribution antennas, splitter/couplers, etc.
3. Pricing includes performance bond costs for Low Voltage installation work.

Approved By: **Name:** _____

Smith Correctional Facility Expansion 800 MHz DAS

TRIPOWER

Client:	Bernard Brothers Construction	**Date:**	March 15, 2010
Prepared For:	Ryan Hernandez	**Prepared By:**	JMC - Sale Eng
Project Name:	Smith Correctional Facility - 600 Bed Expansion	**Job #:**	TBD
Project Location:	Banning, CA	**Start Date Estimate:**	March 22, 2010
Coverage Scope:	FULL FACILITY - ALL AREAS		

Scope of Work

1 **Summary** - Provide materials, equipment and professional services for a 800 MHz Public Safety radio system.
800 MHz radio and SOLID headend located in Support Bldg - supporting both Riverside county wide and on campus services.

2 **Project physical summary**
2 story facility housing criminal inmates.
Approximately 120,000 square feet.
4 interconnected buildings, comprising of a Support Building that connects/joins three detention buildings.
Detention buildings have a perimeter corridor (both levels) that requires PS radio service also.

3 **Wireless Services Scope**
Public Safety - 800MHz (=>-95 RSSI at 95% Coverage)

4 **Professional Services**
Provide all installation and professional services for the installation.
Provide project management for the DAS installation from design to project close out.
Provide TX/RX 800 MHz radio and donor antenna.
Provide SOLID Technologies fiber based DAS equipment, coaxial cable and antennas to support 800 MHz public safety.
Battery backup (UPS) included for headend (BDA and SOLID equipment) and SOLID remote equipment. 30 minute runtime.
Provide optimization service of 800 MHz public safety signals (county wide and on campus).
Provide final test results and warranty documentation on the system and its components.
Provide final drawings (As-Builts) based off the red-line drawings developed during the DAS construction.
Perform site survey and data collection of existing RF environment for propagation predicstions, final DAS design and IM study.
Provide final test results from ATP to Riverside IT Dept.

Assumptions & Qualifications

1 Target date for completion of system installation and optimization is April 9, 2010
2 TriPower assumes all project related on-site work shall be conducted Mon-Fri (0800-1600 hours).
3 Utilize existing equipment mounting boards or install as necessary.
4 Assume remote closet DAS components can be wall mounted.
5 Assume BDA/headend location to be located in Support Bldg, Level 2, Room 202.
6 Assume 800 MHz cable run to donor signal source 200' until formal site survey conducted.
7 Assumes -75 dBm or better Public Safety donor signal available at donor antenna rooftop location.
8 Assumes Line of Site (LOS) exists between donor site and macro site.
9 Assumes in-building vertical cable path exists between headend and rooftop.
10 Assumes multimode fiber is present from IT Room 202 to each Guard Tower telco closet on Level 2.
9 Assumes power will be readily available at BDA/headend/remote location(s).
12 Assume asbestos abatement has been completed.
13 TriPower will not be responsible for lack of coverage in areas outside of the specifically targeted locations.
14 DAS components and infrastructure damaged after installation are not the responsibility of TriPower.
15 Assume that the 800MHz on campus and 800MHz simulcast services will be optimized simultaneously.
16 Assume space for secure storage will be made available in mutually agreed upon location.
17 Assume electrical power will be provided.
18 Shipping costs for equipment and materials listed.
19 Amplifier Delivery can take as long as 6-8 weeks ARO.

Exclusions

1 Raceways, grounding bars and cable trays.
2 Conduit/innerduct (any conduit/innerduct provided by the client will include pull-string).
3 Fiber Optic; cable, patch panels, terminations.
4 Coring is excluded.
5 Premium labor / union labor, overtime, weekends and holidays.
6 Power outlets and all electrical work.
7 Inspection, permit or review fees as required by code or other Authority Having Jurisdiction.

Terms

1 Net 30 days for each change order billing
2 Past due accounts will incur interest charges at 1.5% per month. (annual rate of 18%)
3 In the event of collection activity, all related fees, including legal and collection costs, shall be the responsibility of the client.
4 Proposal valid for 90 days from date listed above.

Smith Correctional Facility Expansion 800 MHz DAS

TRIPOWER

PRELIMINARY BILL OF MATERIALS

Client:	Bernard Brothers Construction	**Date:**	March 15, 2010
Prepared For:	Ryan Hernandez	**Prepared By:**	Don Henry
Project Name:	Smith Correctional Facility - 600 Bed Expansion	**Job #:**	TBD
Project Location:	Banning, CA	**Estimated Start Date:**	March 22, 2010
Coverage Scope:	FULL FACILITY - ALL AREAS		

Line Item #	Part Number	Description	Qty
1	BIU C	Base Interface Unit - Chassis	1
2	BIU_Blk	Base Interface Unit - Blank Module	3
3	MDBU_800PS	MDBU 800PS	1
4	ODU_C	Optical Distribution Unit - Chassis	1
5	ODU_OM_4	Optical Distribution Unit - 4 Port Optic Module	1
6	ODU_B (Blank Module)	ODU - 4 Port Blank Module	1
9	ROU_C	Remote Optic Unit - Chassis	4
10	RDU_800PS	RDU - 800PS	4
11	ROU_B (Blank Module)	RDU - Blank module - ROU	8
12	800MHz BDA	TXRX 800MHz Signal Booster	1
13	LDF4RN-50	Coax, 50ohm - 1/2" Black Riser	200
14	AL-4RPV-50	Coax 50 Ohm - 1/2" Plenum 1MHz-8.8GHz	3,925
15	NMP01250	50 Ohm - 1/2" N-Type Coaxial Connectors	142
16	RG142	Jumper - 3' NM-NM	32
17	Non-Pen Antenna Roof Mount + Bricks/Mat	Antenna Mount, Cement Blocks, and Rubberized Roof Mats	1
18	221213	Weatherproofing Kit	1
19	Polyphaser USXL-D	700/800MHz Polyphaser	1
20	CSI-AY/746-896/11	746-896 MHz Yagi	1
21	Grounding Kit	Grounding Kit - coaxial cable	1
22	D2-69FN	2:1 Power Divider	16
23	D3-69FN	3:1 Power Divider	1
24	D4-69FN	4:1 Power Divider	1
25	812-4-1.500V	12:1 Power Divider	3
26	CK16-N	6dB Coupler 700-2700MHz	6
27	CK17-N	10dB Coupler 700-2700MHz	4
28	CK19-N	30dB Coupler 700-2700MHz	1
29	HRA018-00 SC/APC-03M	3m fiber jumper, simplex MMF	8
30	AP 698_2.5_7-10	Directional panel antenna 698-894 / 1700-2200 MHz / 3dBi	30
31	A0-700-2.5_3	Omni-Directional antenna 700-960 / 1710-2500 MHz / 3dBi	38
32	APC - SUA1500RM2U	Uniteruptable Power Supply - UPS - Remote	1
33	APC - SMT750	Uniteruptable Power Supply - UPS - Headend	4
34		**Spares not included in BOM at this time**	

Smart-UPS

APC Smart-UPS 1500VA USB & Serial RM 2U 120V

SUA1500RM2U
Price *: $719.00
Add to Cart
Add Options

Email Technical Specifications
Printer Friendly

More Images

APC Smart-UPS, 980 Watts / 1440 VA,Input 120V / Output 120V, Interface Port DB-9 RS-232, SmartSlot, USB, Rack Height 2 U

Includes: CD with software, Rack Mounting brackets, Rack Mounting support rails, Smart UPS signalling RS-232 cable, USB cable, User Manual

Standard Lead Time: Usually in Stock

Average Customer Review 4.5

2 of **2** (100%) customers would recommend this product to a friend.

Read all reviews | Write a review

Share this Product:

Technical Specifications

- Product Overview
- Documentation
- Options
- Compare Models
- Ratings and

Reviews

Output

Output Power Capacity
980 Watts / 1440 VA
Max Configurable Power
980 Watts / 1440 VA
Nominal Output Voltage
120V
Efficiency at Full Load
95%
Output Voltage Distortion
Less than 5% at full load
Output Frequency (sync to mains)
47 - 53 Hz for 50 Hz nominal,57 - 63 Hz for 60 Hz nominal
Crest Factor
up to 5 : 1
Waveform Type
Sine wave
Output Connections
(6) NEMA 5-15R

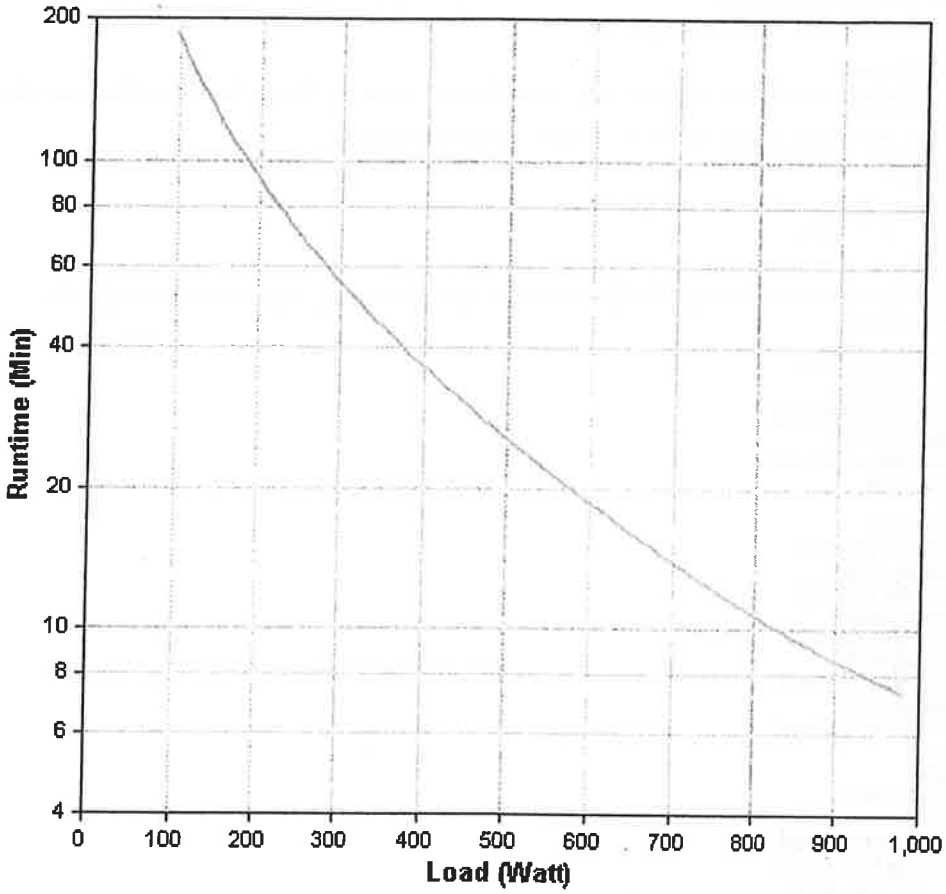
Input

Nominal Input Voltage
120V
Input Frequency
50/60 Hz +/- 3 Hz (auto sensing)
Input Connections
NEMA 5-15P

Cord Length
8 feet (2.44 meters)
Input voltage range for main operations
82 - 144V
Input voltage adjustable range for mains operation
75 - 154V

Batteries & Runtime

Battery Type
Maintenance-free sealed Lead-Acid battery with suspended electrolyte : leakproof
Typical recharge time
3 hour(s)
Replacement Battery
RBC24
RBC™ Quantity
1
Runtime Graph

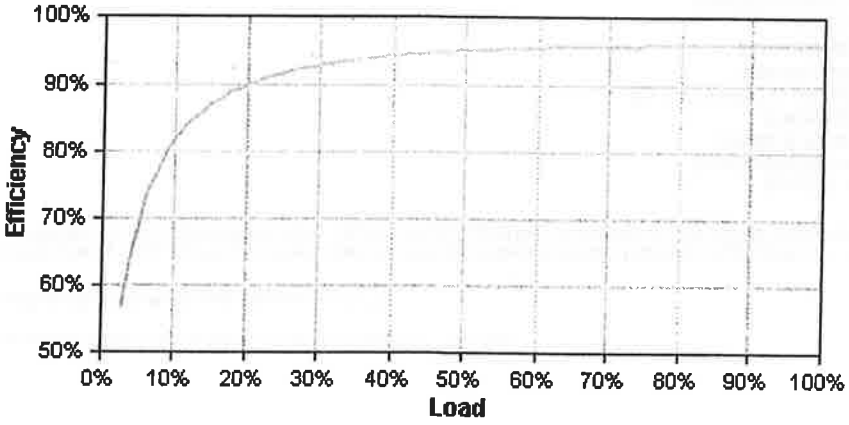


Hover over the line on the graph above to view the runtime at any desired load

Curve fit to measured runtime data. All measurements taken with new, fully charged batteries, at typical environmental conditions, with no electrical input and balanced resistive load (PF = 1.0) output.

View Enlarged Graph | View Runtime Chart

Energy Use/Efficiency



Hover over the line on the graph above to view the efficiency at any desired load

Curve fit to measured runtime data. All measurements taken with new, fully charged batteries, at typical environmental conditions, with no electrical input and balanced resistive load (PF = 1.0) output.

View Enlarged Chart

Communications & Management

Interface Port(s)

DB-9 RS-232,SmartSlot,USB
Available SmartSlot™ Interface Quantity
1
Control panel
LED status display with load and battery bar-graphs and On Line : On Battery : Replace Battery : and Overload Indicators
Audible Alarm
Alarm when on battery : distinctive low battery alarm : configurable delays
Emergency Power Off (EPO)
Optional

Surge Protection and Filtering

Surge energy rating
459 Joules
Filtering
Full time multi-pole noise filtering : 0.3% IEEE surge let-through : zero clamping response time : meets UL 1449

Physical

Maximum Height
3.50 inches (89 mm)
Maximum Width
17.00 inches (432 mm)
Maximum Depth
18.00 inches (457 mm)
Rack Height
2U
Net Weight
63.00 lbs. (28.64 kg)
Shipping Weight
70.20 lbs. (31.91 kg)
Shipping Height
9.88 inches (251 mm)
Shipping Width
23.38 inches (594 mm)
Shipping Depth
23.75 inches (603 mm)
Color
Black
Units per Pallet
16.00

Environmental

Operating Environment
32 - 104 °F (0 - 40 °C)
Operating Relative Humidity
0 - 95%
Operating Elevation
0-10000 feet (0-3000 meters)
Storage Temperature
5 - 113 °F (-15 - 45 °C)
Storage Relative Humidity
0 - 95%
Storage Elevation
0-50000 feet (0-15000 meters)
Audible noise at 1 meter from surface of unit
46.00 dBA
Online Thermal Dissipation
171.00 BTU/hr

Conformance

Regulatory Approvals
CSA,FCC Part 15 Class A,UL 1778
Standard Warranty
2 years repair or replace
Equipment protection policy
Lifetime : $150000

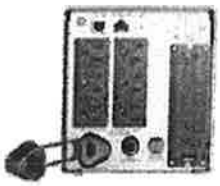
*Except where noted, all prices are Estimated Resale Price (ERP) - Without Tax/VAT. Pricing in other locations and sites may vary.
**The time to recharge to 90% of full battery capacity following a discharge to shutdown using a load rated for 1/2 the full load rating of the UPS.

Smart-UPS
APC Smart-UPS 750VA LCD 120V

SMT750
Price * :
$319.99
Add to Cart
Add Options

Email
Technical
Specifications
Printer
Friendly

RoHS



More images

APC Smart-UPS, 500 Watts / 750 VA,Input 120V / Output 120V, Interface Port DB-9 RS-232, Smart-Slot, USB

Includes: CD with software, Documentation CD, Smart UPS signalling RS-232 cable, USB cable

Standard Lead Time: Usually Ships within 2 Weeks

Be the first to write a review.

Technical Specifications

- Product Overview
- Documentation
- Software &

Firmware
- Options
- Compare Models
- Ratings and Reviews

Output

Output Power Capacity
500 Watts / 750 VA
Max Configurable Power
500 Watts / 750 VA
Nominal Output Voltage
120V
Output Voltage Distortion
Less than 5% at full load
Output Frequency (sync to mains)
47 - 53 Hz for 50 Hz nominal,57 - 63 Hz for 60 Hz nominal
Crest Factor
up to 5 : 1
Waveform Type
Sine wave
Output Connections
(6) NEMA 5-15R

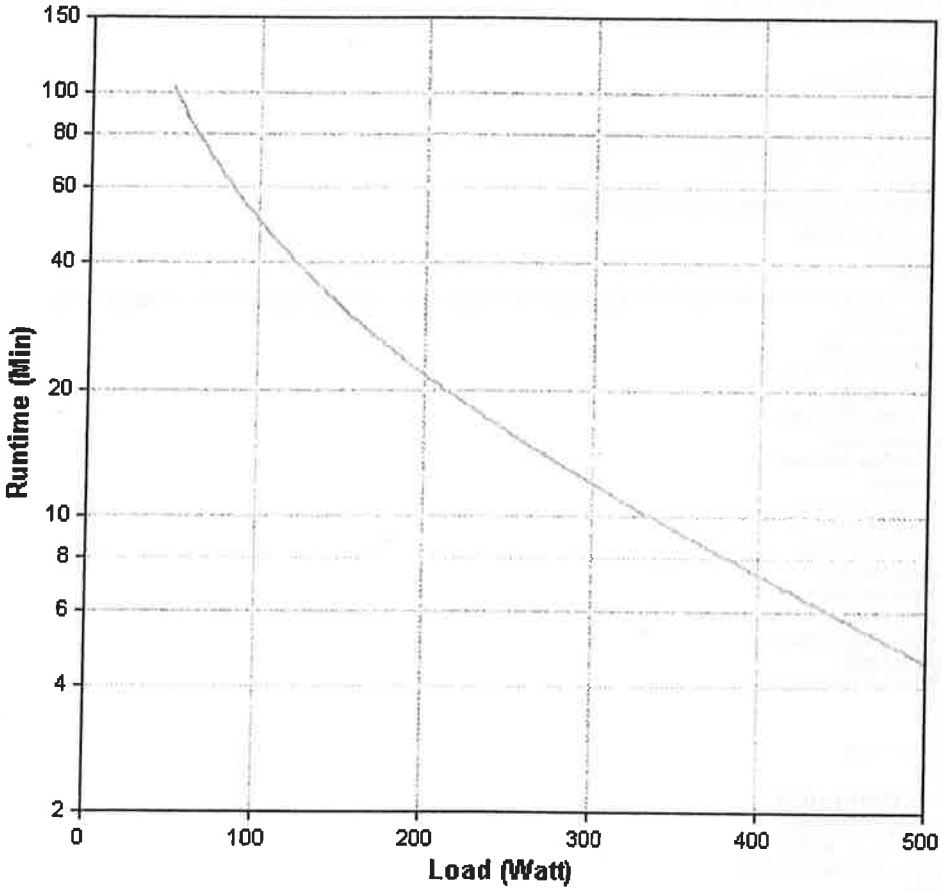
Input

Nominal Input Voltage
120V
Input Frequency
50/60 Hz +/- 3 Hz (auto sensing)
Input Connections
NEMA 5-15P

Cord Length
6 feet (1.83 meters)
Input voltage range for main operations
82 - 144V
Input voltage adjustable range for mains operation
75 - 154V

Batteries & Runtime

Battery Type
Maintenance-free sealed Lead-Acid battery with suspended electrolyte : leakproof
Typical recharge time
3 hour(s)
Replacement Battery
RBC48
RBC™ Quantity
1
Runtime Graph



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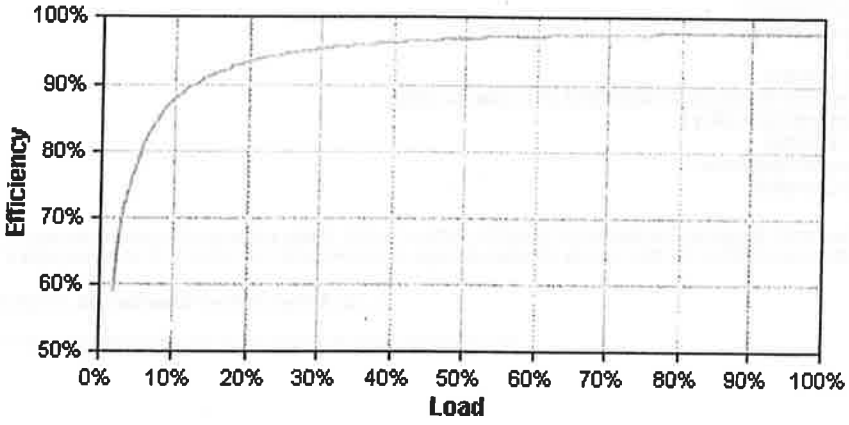
Curve fit to measured runtime data. All measurements taken with new, fully charged batteries, at typical environmental conditions, with no electrical input and balanced resistive load (PF = 1.0) output.

View Enlarged Graph | View Runtime Chart

Energy Use/Efficiency



Hover over the line on the graph above to view the efficiency at any desired load

Curve fit to measured runtime data. All measurements taken with new, fully charged batteries, at typical environmental conditions, with no electrical input and balanced resistive load (PF = 1.0) output.

View Enlarged Chart

Communications & Management

Interface Port(s)

DB-9 RS-232,Smart-Slot,USB
Available SmartSlot™ Interface Quantity
1
Control panel
Multi-function LCD status and control console
Audible Alarm
Alarm when on battery : distinctive low battery alarm : configurable delays
Emergency Power Off (EPO)
Optional

Surge Protection and Filtering

Surge energy rating
540 Joules
Filtering
Full time multi-pole noise filtering : 0.3% IEEE surge let-through : zero clamping response time : meets UL 1449

Physical

Maximum Height
6.20 inches (157 mm)
Maximum Width
5.40 inches (137 mm)
Maximum Depth
14.10 inches (358 mm)
Net Weight
29.00 lbs. (13.18 kg)
Shipping Weight
32.00 lbs. (14.55 kg)
Shipping Height
11.42 inches (290 mm)
Shipping Width
10.63 inches (270 mm)
Shipping Depth
19.69 inches (500 mm)
Color
Black
Units per Pallet
40.00

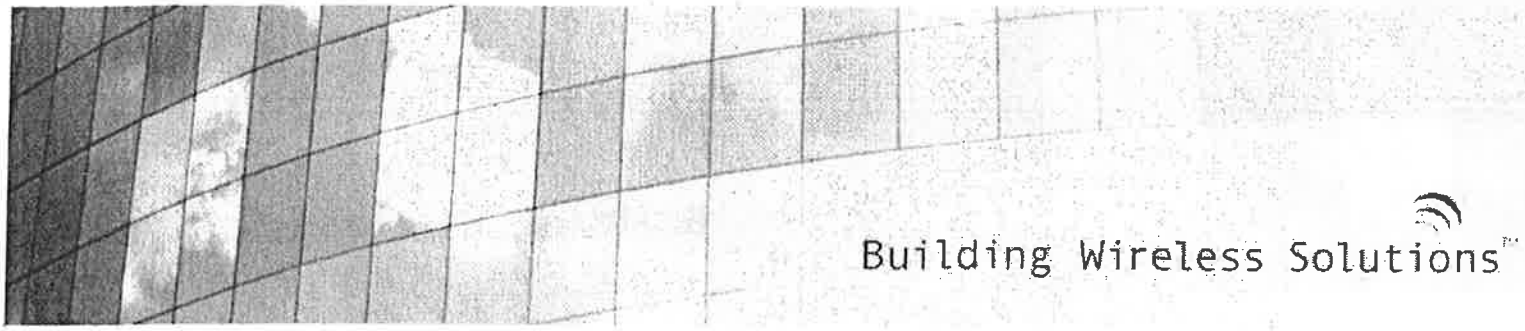
Environmental

Operating Environment
32 - 104 °F (0 - 40 °C)
Operating Relative Humidity
0 - 95%
Operating Elevation
0-10000 feet (0-3000 meters)
Storage Temperature
5 - 113 °F (-15 - 45 °C)
Storage Relative Humidity
0 - 95%
Storage Elevation
0-50000 feet (0-15000 meters)
Audible noise at 1 meter from surface of unit
55.00 dBA
Online Thermal Dissipation
90.00 BTU/hr

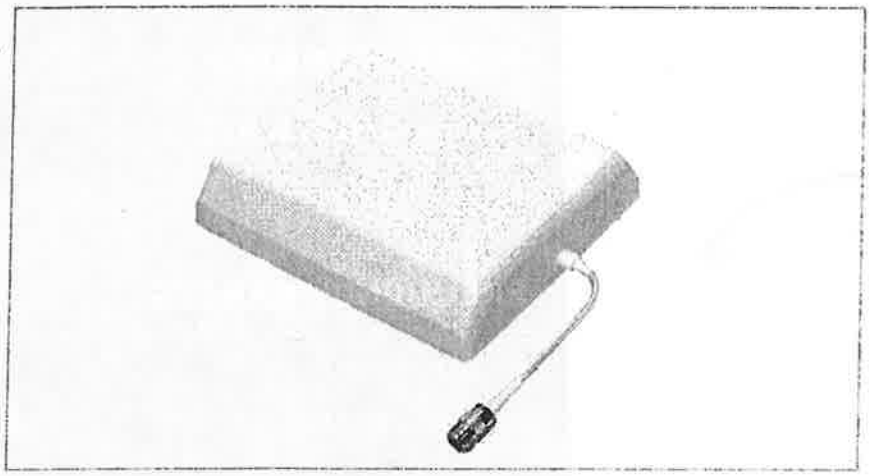
Conformance

Regulatory Approvals
UL 1778
Standard Warranty
3 years repair or replace (excluding battery) and 2 year for battery
Equipment protection policy
Lifetime : $150000
Environmental Compliance
RoHS 7b Exemption

*Except where noted, all prices are Estimated Resale Price (ERP) - Without Tax/VAT. Pricing in other locations and sites may vary.
**The time to recharge to 90% of full battery capacity following a discharge to shutdown using a load rated for 1/2 the full load rating of the UPS.



Building Wireless Solutions™



>> INDOOR / OUTDOOR QUAD BAND PANEL ANTENNA

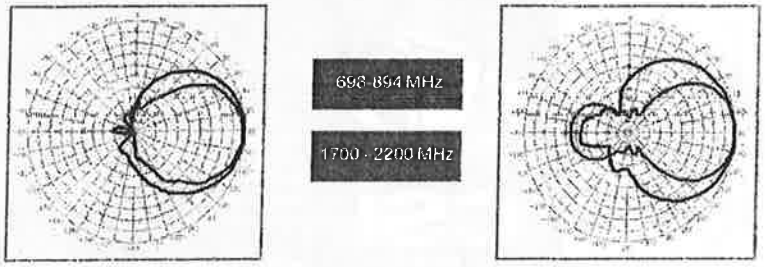
Mechanical Specifications

Materials	
Case	Aluminum Alloy
Installation Kits	Stainless Steel
Operation Temperature	-55°C to +65°C
Dimensions	8.19" x 7.00" x 1.73" (208.01 x 177.8 x 43.9 mm)
Antenna Weight	1.32 lbs (0.598 Kg)
Mounting Hardware Weight	1.3 lbs (0.589 Kg)
Connectors	N-Female

Electrical Specifications

Horizontal Beamwidth	70° (698-894 MHz); 60° (1700-2200 MHz)
Vertical Beamwidth	50° (698-894 MHz); 45° (1700-2200 MHz)
Gain	7 dBi (698-894 MHz); 10 dBi (1700-2200 MHz)
Polarization	Vertical
Electrical Downtilt	0°
Passband Ripple	<0.3 dB
Impedance	50 Ohm
VSWR	<1.5: 1
Maximum Input Power	100 Watts
Lightning Protection	Direct Ground

Radiation Patterns



MODEL NUMBER

>> CSI-AP/698/2.2K/7-10

FREQUENCY RANGES

>> 698-894 MHz

>> 1700-2200 MHz

FEATURES & BENEFITS

>> Gain 7dBi (698-894 MHz)
Gain 10 dBi (1700-2200 mHz)

>> Multi-Band Design

>> Wall or Pole Mount Bracket Included

>> Flat Low Profile Enclosure

>> Clean Pattern

>> Weather Resistant Radome

csi cellular specialties, inc.

670 North Commercial Street
Manchester, NH 03101
603.626.6677
Toll Free (USA): 1.877.844.4274
International: +1.603.626.6677
Fax: 603.626.6042

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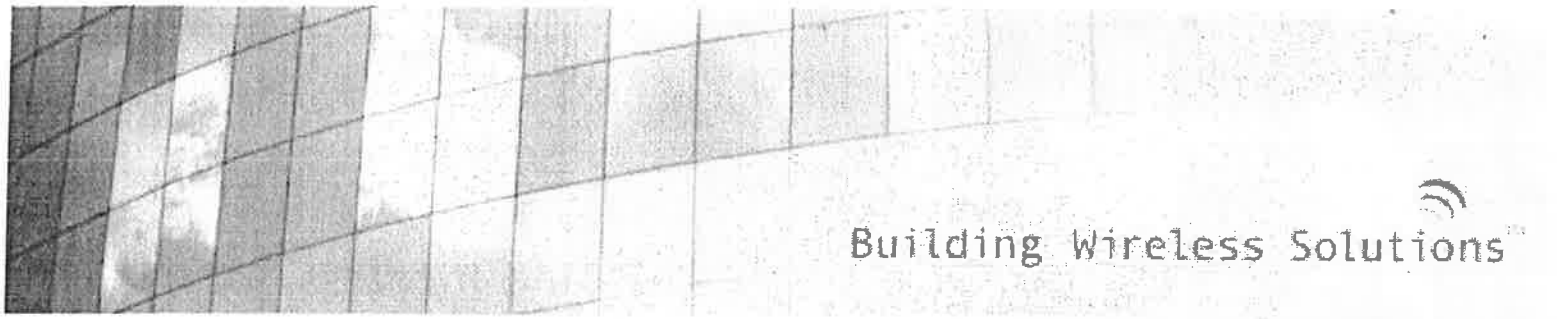
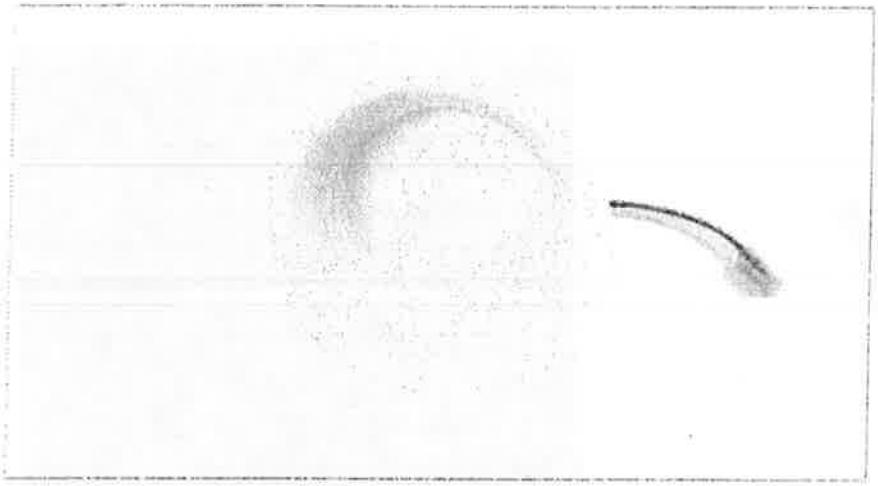




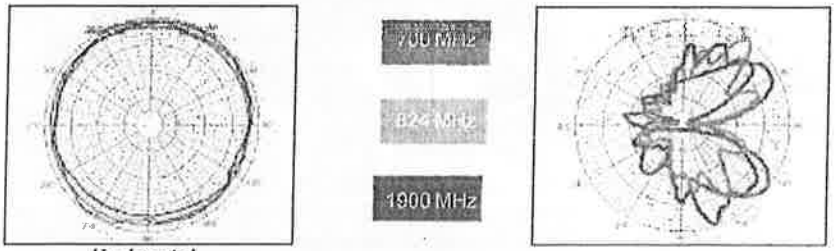
>> OMNIDIRECTIONAL ANTENNA / Quad-Band

Specifications

Gain	3 dBi
VSWR (700-960MHz)	<2.0 : 1
VSWR (1710-2500MHz)	<1.5 : 1
E-Plane (3 dB beamwidth)	30°
H-Plane (3 dB beamwidth)	Omnidirectional
Polarization	Vertical
Power	50 Watts
Dimensions	8.13"D x 5.34"H / (206.38mm x 135.62mm)
Weight	.33 lb. / (0.15 Kg)
Connector	N-Female
Standard Mounting Style	Ceiling
Enclosure	ABS
IM 3RD Order(2X43dBm)	< -150 dBc
Lighting Protection	Direct Ground

Universal L-bracket included for additional mounting options (U-bolt compatible)

Radiation Patterns



Data represents a ceiling mounted antenna

MODEL NUMBER

>> CSI-AO/700/2.5K/3

FREQUENCY RANGES

>> 700-960 MHz

>> 1710-2500 MHz

FEATURES & BENEFITS

>> 3 dBi Gain

>> Clean Pattern

>> Ceiling or Wall Mountable

>> Paintable Housing

CSI
cellular specialties, inc.

670 North Commercial Street
Manchester, NH 03101
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Toll Free (USA): 1.877.844.4274
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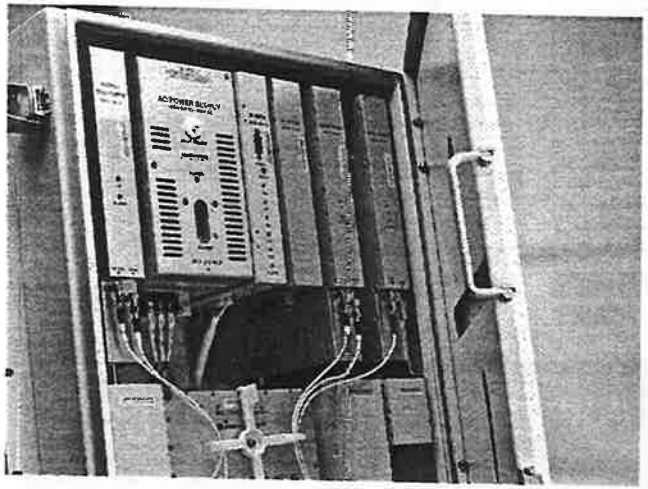
SOLiD FIBER DAS PLATFORM SPECIFICATIONS

1900MHz PCS

NO	ITEM		SPECIFICATION	REMARKS
1	Frequency Range	TX	1930–1985MHz	BW:25MHz
		RX	1850–1915MHz	
2	Output Power	TX	30dBm / Total	
		RX	0dBm / Total	
3	Input Power	TX	-10 – 10dBm /Total	
		RX	≤ -25dBm / Total with AGC	
4	Gain	TX	31–50dB ± 2dB	
		RX	30–50dB ± 2dB	
5	Gain Control Range / Step	TX	25dB / 1dB	
		RX	20dB / 1dB	
6	Gain Step Accuracy	TX/RX	± 1dB	
7	System Delay	TX/RX	< 8usec	
8	Frequency Error	TX/RX	≤ 0.05ppm	
9	Spurious Emission	TX	≤ -13dBm @9kHz–150KHz,	
			≤ -13dBm @150KHz–30MHz	
			≤ -13dBm @30MHz–1GHz,	
			≤ -13dBm @1G–5GHz	
10	Passband Ripple	TX/RX	5dBp_p	
11	Spurious Emissions	TX	≤ -45dBc @fc ±885KHz	
			≤ -50dBc @fc± 1.98MHz	
12	Noise figure	RX	8dB Max	Max/min Gain
13	ALC Function		21–25dBm, within setting value ±2dB	
14	Optic Link Loss		Max 6dB o	Compensable optic cable loss
15	Optical Connectors		SC-APC (Single Mode Fiber)	
16	Optic Wavelength (TX/RX)		1310nm/1550nm with WDM	

1700 & 2100 MHz AWS-1

NO	ITEM		SPECIFICATION	REMARKS
1	Frequency Range	TX	2110–2155MHz	BW:45MHz
		RX	1710–1755MHz	
2	Output Power	TX	30dBm / Total	
		RX	0dBm / Total	
3	Input Power	TX	-10 – 10dBm /Total	
		RX	≤ -25dBm / Total with AGC	
4	Gain	TX	31–50dB ± 2dB	
		RX	30–50dB ± 2dB	
5	Gain Control Range / Step	TX	25dB / 1dB	
		RX	20dB / 1dB	
6	Gain Step Accuracy	TX/RX	± 1dB	
7	System Delay	TX/RX	< 8usec	
8	Frequency Error	TX/RX	≤ 0.05ppm	
9	Spurious Emission	TX	≤ -13dBm @9kHz–150KHz,	
			≤ -13dBm @150KHz–30MHz	
			≤ -13dBm @30MHz–1GHz,	
			≤ -13dBm @1G–5GHz	
10	Passband Ripple	TX/RX	5dBp_p	
11	Spurious Emission Mask	TX	≤ -22dBm/30k @±2.5MHz	
			≤ -34dBm/30k @±3.5MHz	
			≤ -21dBm/1M @±2.5MHz	
			≤ -25dBm/1M @±5MHz	
12	Noise figure	RX	8dB Max	Max/min Gain
13	ALC Function		21–25dBm, within setting value ±2dB	
14	Optic Link Loss		Max 8dB o	Compensable optic cable loss
15	Optical Connectors		SC-APC (Single Mode Fiber)	
16	Optic Wavelength (TX/RX)		1310nm/1550nm with WDM	



ROU (Remote Unit)

- Supports multi-band/ multi-carrier solutions
- Additional Ports for VHF and UHF Land Mobile Radio (LMR)
- Detachable door hinge for ease of maintenance.
- 15"W x 20.8" H x 10.16 D
- Maximum Weight 75 lbs.

SOLiD TECHNOLOGIES

888.409.9997 / www.solidtech.us

SOLiD FIBER DAS PLATFORM SPECIFICATIONS

Now offering Public Safety, 3G, 4G and WiFi on a converged platform in any sequence or combination – SOLiD Technologies presents the most comprehensive Fiber DAS Platform ever built.

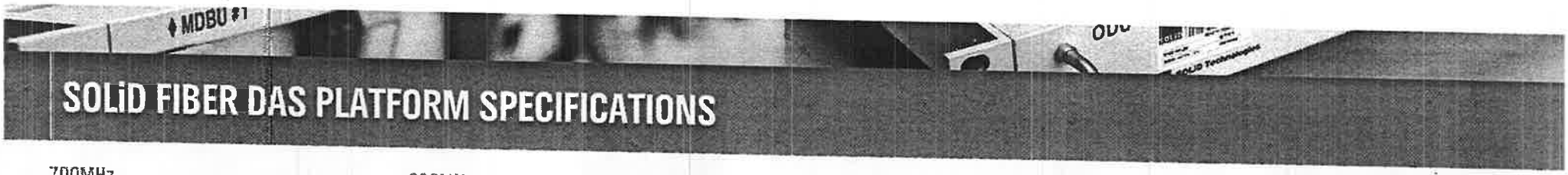
SOLiD's Fiber DAS Platform has a number of beneficial features:

- Modular design permits easy, cost-effective expansion
- Up to 1 watt of Output Power
- All cellular and public safety frequencies supported including 700 MHz and AWS
- Requires only 1 strand of fiber to each remote
- Advanced filtering technology for precise frequency control
- Waterproof, dust proof NEMA 4 compliant remote enclosure
- Sophisticated Operation and Monitoring System for precise control
- Very competitively priced

Contact us to learn more about how SOLiD Technologies is setting the new standard for in-building wireless coverage solution.

SOLiD TECHNOLOGIES

"The New Standard"



SOLiD FIBER DAS PLATFORM SPECIFICATIONS

700MHz

NO	ITEM		SPECIFICATION	REMARKS
1	Frequency Range	TX	734–746MHz	BW:12MHz
		RX	704–716MHz	
2	Output Power	TX	24dBm / Total	
		RX	0dBm / Total	
3	Input Power	TX	-10 – 10dBm /Total	
		RX	≤-25dBm / Total with AGC	
4	Gain	TX	28–53dB ± 2dB	
		RX	30–55dB ± 2dB	
5	Gain Control Range / Step	TX	25dB / 1dB	
		RX	25dB / 1dB	
6	Gain Step Accuracy	TX/RX	±1dB	
7	System Delay	TX/RX	< 5usec	
8	Frequency Error	TX/RX	≤ 0.05ppm	
9	Spurious Emission	TX	≤-13dBm @9kHz~150KHz,	
			≤-13dBm @150KHz~30MHz	
			≤-13dBm @30MHz~1GHz,	
			≤-13dBm @1G~5GHz	
10	IMD	TX	50dBc	
11	Passband Ripple	TX/RX	4dBp_p	
12	Out of Band Attenuation	TX/RX	≤45dB @F_edge± 1MHz offset	
13	Noise Figure	RX	5dB Max	Max/min Gain
14	ALC Function		18–23dBm, within setting value ±2dB	
15	Optic Link Loss		Max 5dBo	Compensable optic cable loss
16	Optical Connectors		SC-APC (Single Mode Fiber)	
17	Optic Wavelength (TX/RX)		1310nm/1550nm with WDM	

800MHz

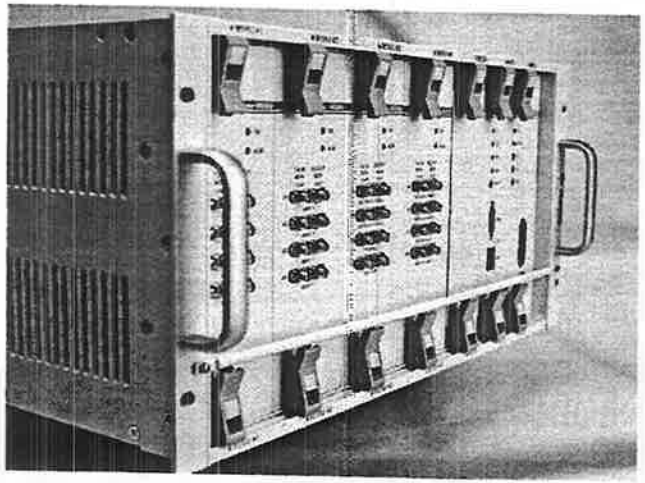
NO	ITEM		SPECIFICATION	REMARKS
1	Frequency Range	TX	851–869MHz	BW:18MHz
		RX	806–824MHz	
2	Output Power	TX	25dBm / Total	
		RX	0dBm / Total	
3	Input Power	TX	-10 – 10dBm /Total	
		RX	≤-25dBm / Total with AGC	
4	Gain	TX	28–53dB ± 2dB	
		RX	30–55dB ± 2dB	
5	Gain Control Range / Step	TX	25dB / 1dB	
		RX	25dB / 1dB	
6	Gain Step Accuracy	TX/RX	±1dB	
7	System Delay	TX/RX	< 5usec	
8	Frequency Error	TX/RX	≤ 0.05ppm	
9	Spurious Emission	TX	≤-13dBm @9kHz~150KHz,	
			≤-13dBm @150KHz~30MHz	
			≤-13dBm @30MHz~1GHz,	
			≤-13dBm @1G~5GHz	
10	IMD	TX	50dBc	
11	Passband Ripple	TX/RX	4dBp_p	
12	Out of Band Attenuation	TX/RX	≤45dB @F_edge± 1MHz offset	
13	Noise Figure	RX	5dB Max	Max/min Gain
14	ALC Function		18–23dBm, within setting value ±2dB	
15	Optic Link Loss		Max 5dBo	Compensable optic cable loss
16	Optical Connectors		SC-APC (Single Mode Fiber)	
17	Optic Wavelength (TX/RX)		1310nm/1550nm with WDM	

850MHz

NO	ITEM		SPECIFICATION	REMARKS
1	Frequency Range	TX	869–894MHz	BW:25MHz
		RX	824–849MHz	
2	Output Power	TX	28dBm / Total	
		RX	0dBm / Total	
3	Input Power	TX	-10 – 10dBm /Total	
		RX	≤-25dBm / Total with AGC	
4	Gain	TX	28–53dB ± 2dB	
		RX	30–55dB ± 2dB	
5	Gain Control Range / Step	TX	25dB / 1dB	
		RX	25dB / 1dB	
6	Gain Step Accuracy	TX/RX	±1dB	
7	System Delay	TX/RX	< 5usec	
8	Frequency Error	TX/RX	≤ 0.05ppm	
9	Spurious Emission	TX	≤-13dBm @9kHz~150KHz,	
			≤-13dBm @150KHz~30MHz	
			≤-13dBm @30MHz~1GHz,	
			≤-13dBm @1G~5GHz	
10	Passband Ripple	TX/RX	4dBp_p	
11	Out of Band Attenuation	TX/RX	≤45dB @F_edge± 1MHz offset	
12	Spurious Emissions	TX	≤ -45dBc @Fc± 750KHz	
			≤ -55dBc @Fc± 2.98MHz	
13	Noise figure	RX	5dB Max	Max/min Gain
14	ALC Function		18–23dBm, within setting value ±2dB	
15	Optic Link Loss		Max 5dBo	Compensable optic cable loss
16	Optical Connectors		SC-APC (Single Mode Fiber)	
17	Optic Wavelength (TX/RX)		1310nm/1550nm with WDM	

900MHz IDEN + Paging

NO	ITEM		SPECIFICATION	REMARKS
1	Frequency Range	TX	928–941MHz	BW: TX-->12MHz RX-->8MHz
		RX	896–902MHz	
2	Output Power	TX	25dBm / Total	
		RX	0dBm / Total	
3	Input Power	TX	-10 – 10dBm /Total	
		RX	≤-25dBm / Total with AGC	
4	Gain	TX	28–53dB ± 2dB	
		RX	30–55dB ± 2dB	
5	Gain Control Range / Step	TX	25dB / 1dB	
		RX	20dB / 1dB	
6	Gain Step Accuracy	TX/RX	±1dB	
7	System Delay	TX/RX	< 5usec	
8	Frequency Error	TX/RX	≤ 0.05ppm	
9	Spurious Emission	TX	≤-13dBm @9kHz~150KHz,	
			≤-13dBm @150KHz~30MHz	
			≤-13dBm @30MHz~1GHz,	
			≤-13dBm @1G~5GHz	
10	IMD	TX	50dBc	
11	Passband Ripple	TX/RX	4dBp_p	
12	Out of Band Attenuation	TX/RX	≤45dB @F_edge± 1MHz offset	
13	Noise Figure	RX	5dB Max	Max/min Gain
14	ALC Function		18–23dBm, within setting value ±2dB	
15	Optic Link Loss		Max 5dBo	Compensable optic cable loss
16	Optical Connectors		SC-APC (Single Mode Fiber)	
17	Optic Wavelength (TX/RX)		1310nm/1550nm with WDM	



BIU (Base Interface Unit)

- BTS/BDA interface for multi-band support
- Signal distribution to 39 remote units
- Full system alarming
- 19"W x 8.75" H x 17.7" D
- Maximum Weight 49 lbs.

SOLiD TECHNOLOGIES

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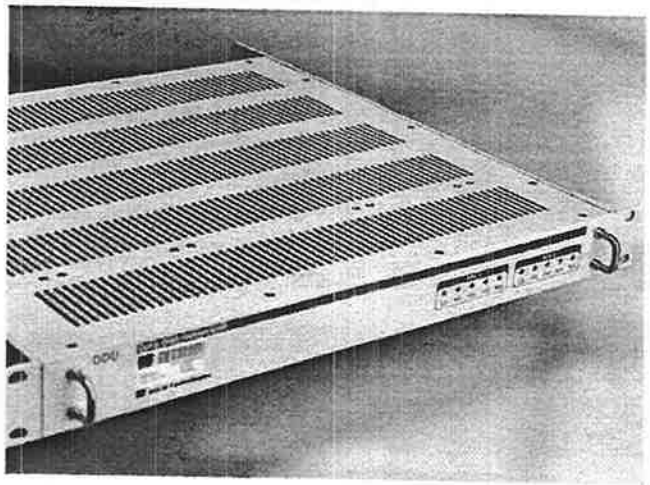

ODU (Optical Distribution Unit)

- Range of 100 MHZ to 2.4 GHZ on a single strand of fiber
- RF to Optic conversion
- Connects BIU with 8 ROUs
- 19"W x 1.72" H x 17.7" D
- Maximum Weight 12.5 lbs.

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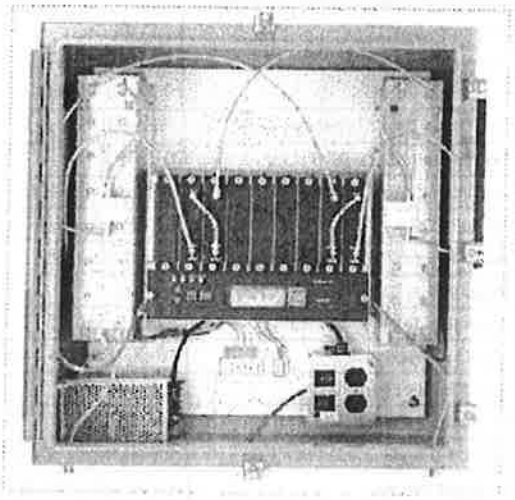
SIGNAL BOOSTER II
800 MHz Series



Mission Critical Reliability for In-building Coverage . . .
The *New* **Signal Booster II** provides Public Safety grade reliability and coverage in disadvantaged RF locations for First Responders, Public Safety/Governmental agencies and Private System Users. Reliable RF coverage is gained in basements, parking garages, correctional facilities, courthouses, hospitals, malls and schools. Other challenging environments covered by the **Signal Booster II** product include subways and rapid transit systems, airports, stadiums/ arenas, high-rise buildings and large private enterprise facilities and campuses.

Whether you are on the front line and depend on a reliable communication system or you are the systems integrator responsible for implementing a dependable system, this new compact design facilitates installation and system optimization for rock solid operation via a simple man-machine interface. Imbedded features for ease of initial setup include decoupled test points for signal level detection, menu driven gain setting, front panel LED monitors for amplifier and power status, and an at-a-glance LED bar graph to indicate relative level of Output Level Control (OLC). Additionally, this product offers a unique on-board OLC DataLog feature that archives a User Signal Profile to facilitate optimum system configuration and performance.

Output Level Control (OLC) Circuit Monitors and Controls RF Output Power
- Maintains maximum required output power while preventing damage and excessive emissions per FCC requirements
- Easy-to-read LED bar graph
- Unique OLC DataLog feature facilitates system maintenance and optimization

Decoupled RF Test Points For Simplified Service
- Allow fast system measurements in both uplink and downlink directions
- Monitor signals for performance optimization
- Integrated design facilitates non-intrusive measurements

Secure, Non-Vented NEMA Enclosure Suitable for Extreme Indoor and Outdoor Environments

Simple Setup is Achieved Via an Integral, Man-Machine Interface
- No Tools Required

Optional Features Available
- Comm Card II for remote communications and control
- Fiber optic link interface
- Redundant PA configuration
- -48 VDC input

DC Backup Interface Accepts +24 to +27 VDC and optional -48 VDC

Microprocessor Controlled Fault Monitoring and Alarming Ensures Reliable Operation and Flexible Configuration
- Control system continuously monitors parameters including voltage, current, temperature and OLC activity
- LEDs on each module quickly annunciate source of fault
- Simple, back-lit liquid crystal display (LCD) and switch control
- Fault triggers annunciation on panel, alarm contact closure and internal recording of failed subsystem

Card Cage Modularity
- Easy "slide-in" replacement process
- Facilitates ease of service and system configuration

High Performance Bandpass Filters
- Configured to customer requirements and addresses many specifications requiring custom passbands
- Models available with passbands that range from 3 MHz (NPSPAC with excellent out-of-band rejection) to 18 MHz for full band coverage

Programmable Gain Setting
- Ease of initial configuration via front panel
- When used in conjunction with OLC DataLog, simplifies post installation adjustments

Three Major Gain Ranges Available
Low:+ 45 dB, Medium:+ 60 dB, High:+ 80 dB

RF Measurement and Management in Your World

www.bird-technologies.com **440.248.1200/866.695.4569** sales@bird-technologies.com
398-SBII800-DS06062008

SIGNAL BOOSTER

SPECIFICATIONS 806 - 869 MHz

	Low Gain (In-Line) Booster	Medium Gain Booster	High Gain (Head-End) Booster
Minimum Gain* **	+45 dB	+60 dB	+80 dB
Gain Adjustment	Programmable attenuation, 0-30 dB, 0.5 dB steps	Programmable attenuation, 0-30 dB, 0.5 dB steps	Programmable attenuation, 0-30 dB, 0.5 dB steps
3rd Order Output Intercept Point	+55 dBm minimum, with no attenuation	+55 dBm minimum, with no attenuation	+55dBm minimum,with no attenuation
Maximum Input Level	0 dBm	0 dBm	0 dBm
Maximum Output Power	+30 dBm (single carrier)	+30 dBm (single carrier)	+30 dBm (single carrier)
RF Sampler	PA Output sampler ports	PA Output sampler ports	PA Output sampler ports
Noise Figure (without attenuation)* **	6.5 dB maximum,	3.5 dB maximum,	3.5 dB maximum,
Propagation Delay* **	<1 µs	<1 µs	<1 µs
Operating Temperature Range	-30°C to +50° C	-30°C to +50° C	-30°C to +50° C
Nominal Impedance	50 ohms, <1.5:1 VSWR	50 ohms, <1.5:1 VSWR	50 ohms, <1.5:1 VSWR
Input/Output connectors	N female	N female	N female
RF Sampler Connectors	BNC female	BNC female	BNC female
AC Power Input	100-240 VAC; 50-60 Hz	100-240 VAC; 50-60 Hz	100-240 VAC; 50-60 Hz
DC Input Voltage	+24 to +27 VDC,-48 VDC optional	+24 to +27 VDC -48 VDC optional	+24 to +27 VDC -48 VDC optional
Unit Power Consumption (AC/DC)	<100 VA	<100 VA	<100 VA
Housing*	See Model Matrix Below	See Model Matrix Below	See Model Matrix Below
Nominal size	24" x 24" x 8"	24" x 24" x 8"	24" x 24" x 8"
Net weight	< 85 lbs.	< 85 lbs.	< 85 lbs.
FCC Certification**	EZZ5PI031202	EZZ5PI031202	EZZ5PI031202
Industry Canada Certification**	1940A-PI031202	1940A-PI031202	1940A-PI031202

*** For NPSPAC unit: Propagation delay: <1.5 µs; Gain: +77 dB for High Gain unit; Max NF: 10 dB for low gain units, 8 dB for High and Mid Gain unit
**** Class B Type Booster. Certification under FCC Rules Part 90 and Industry Canada Certification Part RSS-131.

800 MHz Signal Booster II Model Matrix

Model Number*	Passbands	Gain
61-89A-50-A03-XX	**NPSPAC 3MHz BW (Customer defined)	77 dB
61-89A-50-B03-XX	**NPSPAC 3MHz BW (Customer defined)	60 dB
61-89A-50-C03-XX	**NPSPAC 3MHz BW (Customer defined)	45 dB
61-89A-50-A05-XX	5 MHz BW (Customer defined)	80 dB
61-89A-50-B05-XX	5 MHz BW (Customer defined)	60 dB
61-89A-50-C05-XX	5 MHz BW (Customer defined)	45 dB
61-89A-50-A06-XX	6 MHz BW (Customer defined)	80 dB
61-89A-50-B06-XX	6 MHz BW (Customer defined)	60 dB
61-89A-50-C06-XX	6 MHz BW (Customer defined)	45 dB
61-89A-50-A10-XX	10 MHz BW (Customer defined)	80 dB
61-89A-50-B10-XX	10 MHz BW (Customer defined)	60 dB
61-89A-50-C10-XX	10 MHz BW (Customer defined)	45 dB
61-89A-50-A15-XX	15 MHz BW (Customer defined)	80 dB
61-89A-50-B15-XX	15 MHz BW (Customer defined)	60 dB
61-89A-50-C15-XX	15 MHz BW (Customer defined)	45 dB
61-89A-50-A18-XX	18 MHz BW (806-824 / 851-869 MHz)	80 dB
61-89A-50-B18-XX	18 MHz BW (806-824 / 851-869 MHz)	60 dB
61-89A-50-C18-XX	18 MHz BW (806-824 / 851-869 MHz)	45 dB

* Housing Options = XX: G1:Painted Steel NEMA 4, G2:Stainless Steel NEMA 4X, RM:19 inch Rack Mount (Frequencies MUST be provided with order.)
**NPSPAC downlink filter provides >38 dB of rejection ±1 MHz from the passband edge (either side).

Please consult factory 716.549.4700 for non-standard configurations with custom frequency windows, bandwidths or enclosures.

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www.bird-technologies.com **440.248.1200/866.695.4569** sales@bird-technologies.com

Southern California Public Safety REFERENCE ACCOUNTS

450MHz projects:

Americana at Brand – Glendale, CA
Contact: Peter Hayden (Caruso Affiliated)
Telephone: (323) 900-8100

Athen's Sheriff Station – Los Angeles, CA
Contact: Ted Pao (Los Angeles County Communications)
Telephone: (323) 821-0189

LAPD Metro Detention Center - Los Angeles, CA (in progress)

LA Port Authority Harbor Police Administration Building – San Pedro, CA (in progress)

LAPD West 77th Street Jail – Los Angeles, CA (in progress)

800MHz projects:

Wyndham Vacation Resorts, Inc. – Redmond, WA
Wyndham Resort and Hotel - Oceanside, CA
Contact: Josh Frantz (Davis Reed Construction)
Telephone: 760-802-3103

Classic Residence by Hyatt – Chicago, IL
La Jolla Towers - San Diego, CA
Contacts: Jas Podgurski - Director of Engineering
Telephone: 858-646-3465
Corporate Contact: Akanni Salaka - Senior IT systems manager
Telephone: 312-404-9592

Hanover West, Inc. – Burbank, CA
Platinum Centre Project - Anaheim, CA
Contact: Jorge Morales - Superintendent
Telephone: 714-448-1674

Lennar – Aliso Viejo, CA
Central Park West - Belvedere and Lennox – Irvine, CA
Contact: Gary Hildabrand - Director of Urban Development
Telephone: 949-349-8158

Avalon Bay Communities – Newport Beach, CA
Anaheim Stadium – Anaheim, CA
Contact: John Severino - Sr. Project Manager
Telephone: 949-955-6211

OWR Construction – Irvine, CA
The Plaza at Irvine I and II – Opus West – Irvine, CA
Contact: Brian Knochenhauer – Project Manager
Telephone: 949-250-0147

Swinerton Builders – Irvine, CA
Worldmark Tower – Anaheim, CA
Contact: Sumesh Behl – Project Manager
Telephone: 949-622-7000

Regency Tower (Riverside County District Attorney headquarters) – Riverside, CA
(450MHz, 700MHz and 800MHz)
Contact: Jason Rich – Senior Project Manager (Snyder-Langston Construction)
Telephone: (951) 683-6331

TRIPOWER

REFERENCE PROJECTS

Tri-Power has installed more than 800 Distributed Antenna Systems (DAS) providing over 200 million square feet of extended wireless coverage to indoor environments insufficiently serviced by existing networks. We work with public safety officials, building owners, businesses and wireless carriers to create seamless coverage for cellular, PCS, 802.11a/b/g and Public Safety where it's needed most.

Kemper Development Company
Lincoln Square (Bellevue, WA)
800 MHz Public Safety, Sprint-Nextel & WiFi
1.5 million sq. ft.

Peace Health
Sacred Heart Medical Center (Eugene, OR)
800 MHz Public Safety, Cellular/PCS & WiFi
1.4 million sq. ft.

Dept. of Veteran Affairs Hospitals
Sacramento, Reno, Fresno and Travis AFB
800 MHz Nextel
1.0 million sq. ft.

City and County of San Francisco
County Jail #3 (San Bruno, CA)
800 MHz Public Safety
350,000 sq. ft.

John Muir Medical
Hospital Buildings (Walnut Creek, CA)
800 MHz Nextel and Sprint
300,000 sq. ft.

Bay Area Regional Transit
BART Stations & Tunnels (San Francisco, CA)
Cellular/PCS coverage
1.0 million sq. ft.

State of Utah
The Capitol Building (Salt Lake City, UT)
Public Safety, Cellular/PCS & WiFi (802.11 b/g)
150,000 sq. ft.

Washoe School District
Six Middle and High Schools (Reno, NV)
800 MHz Public Safety
550,000 sq. ft

UC Davis
Veterinary Hospital and Vet Med 2 (Davis, CA)
800 MHz Nextel & WiFi
150,000 sq. ft.

Alameda County Medical Center
Emergency Area (Oakland, CA)
800 MHz Nextel
400,000 sq. ft.

Laguna Honda Hospital
San Francisco, CA
Outdoor Channelized Repeater
800 MHz Nextel

Santa Clara Valley Medical Center
San Jose, CA
800 MHz Nextel coverage
75,000 sq. ft.

Kaiser Permanente
1550 Edgemont Facility (Los Angeles, CA)
800 MHz Nextel, Sprint, Verizon and
450MHz Public Safety
250,000 sq. ft.

Kaiser Permanente
100 S Los Robles Facility (Pasadena, CA)
800 MHz Nextel
50,000 sq. ft.

Kaiser Permanente
700 Lawrence Expressway (Santa Clara, CA)
Nextel, Sprint, Verizon, paging and 1st Responder
650,000 sq. ft.

Kaiser Permanente
501 Sand Creek Road (Antioch, CA)
VHF Public Safety, Nextel, Sprint and Verizon
570,000 sq. ft.

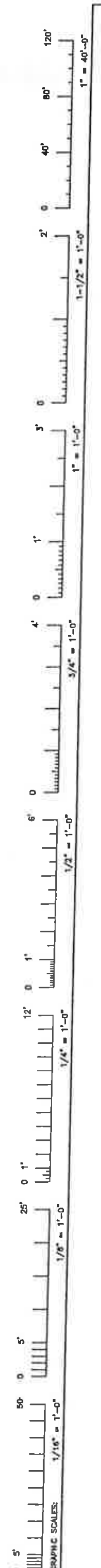
Americana at Brand
Glendale, CA
450MHz Public Safety
178,000 sq. ft.

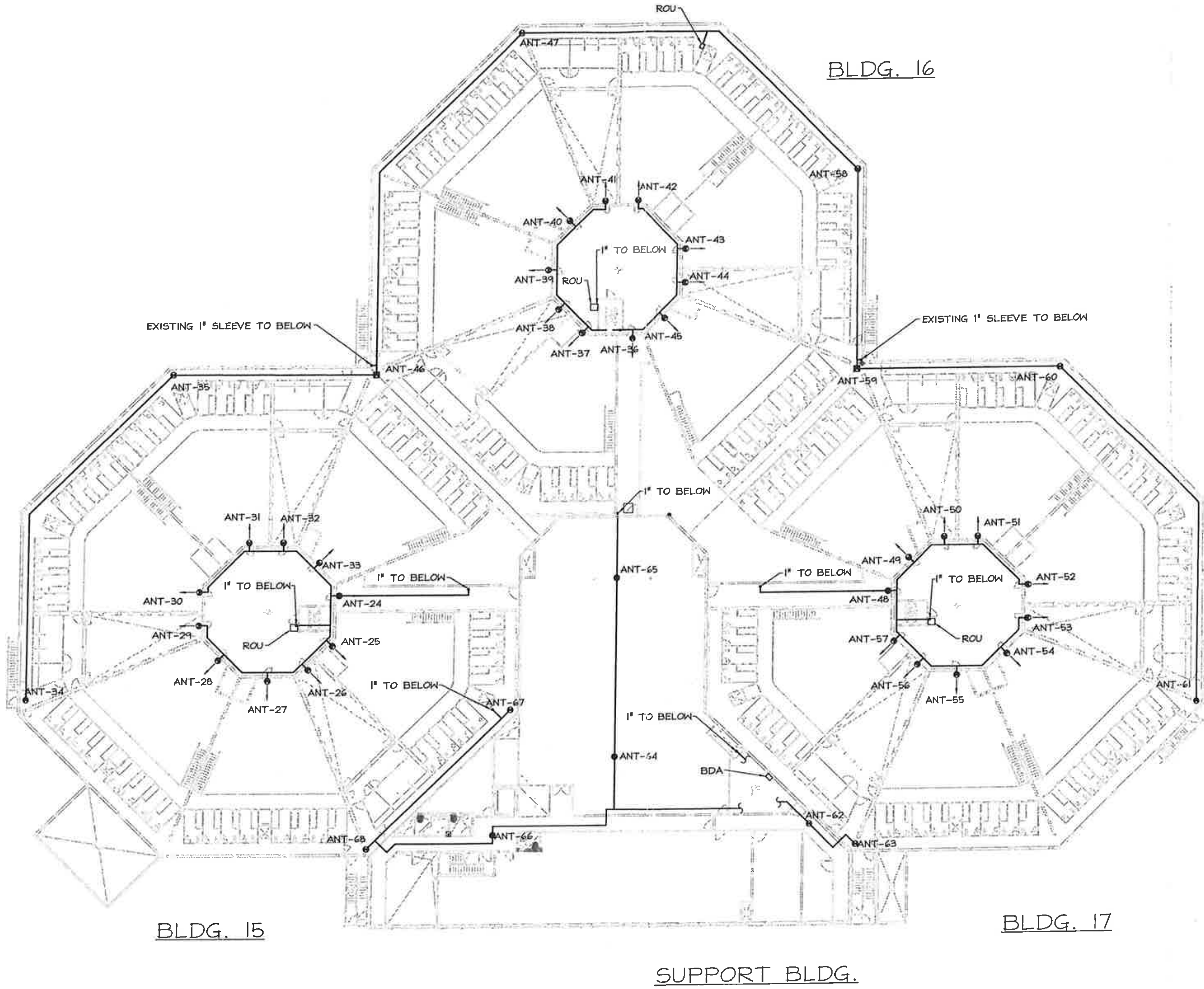
Worldmark
Anaheim, CA
800 MHz Public Safety
280,000 sq. ft.

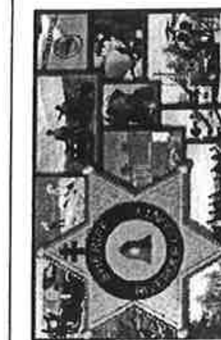
Hyatt Classic Residence
La Jolla, CA
800MHz Public Safety, Sprint-Nextel, T-Mobile, Verizon, AT&T, and WiFi
439,000 sq. Ft.

The Plaza (Opus)
Irvine, CA
800MHz Public Safety
240,000 sq. ft.

Pacific Life
Aliso Viejo, CA
800MHz Public Safety
5,000 sq. ft.







Revisions

No.	Revision	Date
	Pre-Design	00/00/000

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Facility
Larry D. Smith
Correctional Facility
1627 S. Hargrave Street
Banning, CA 92220

Project
Larry D. Smith
600 Bed Expansion
Distributed Antenna System

Sheet Title
Second Floor
Overall

Scale	1" = 10'-0"	Tri-Power Job No.:	–
Drwn By	–	Sheet	DAS-201
Chkd By	–		
Plot Date	2/23/2010	4 of	Sheets

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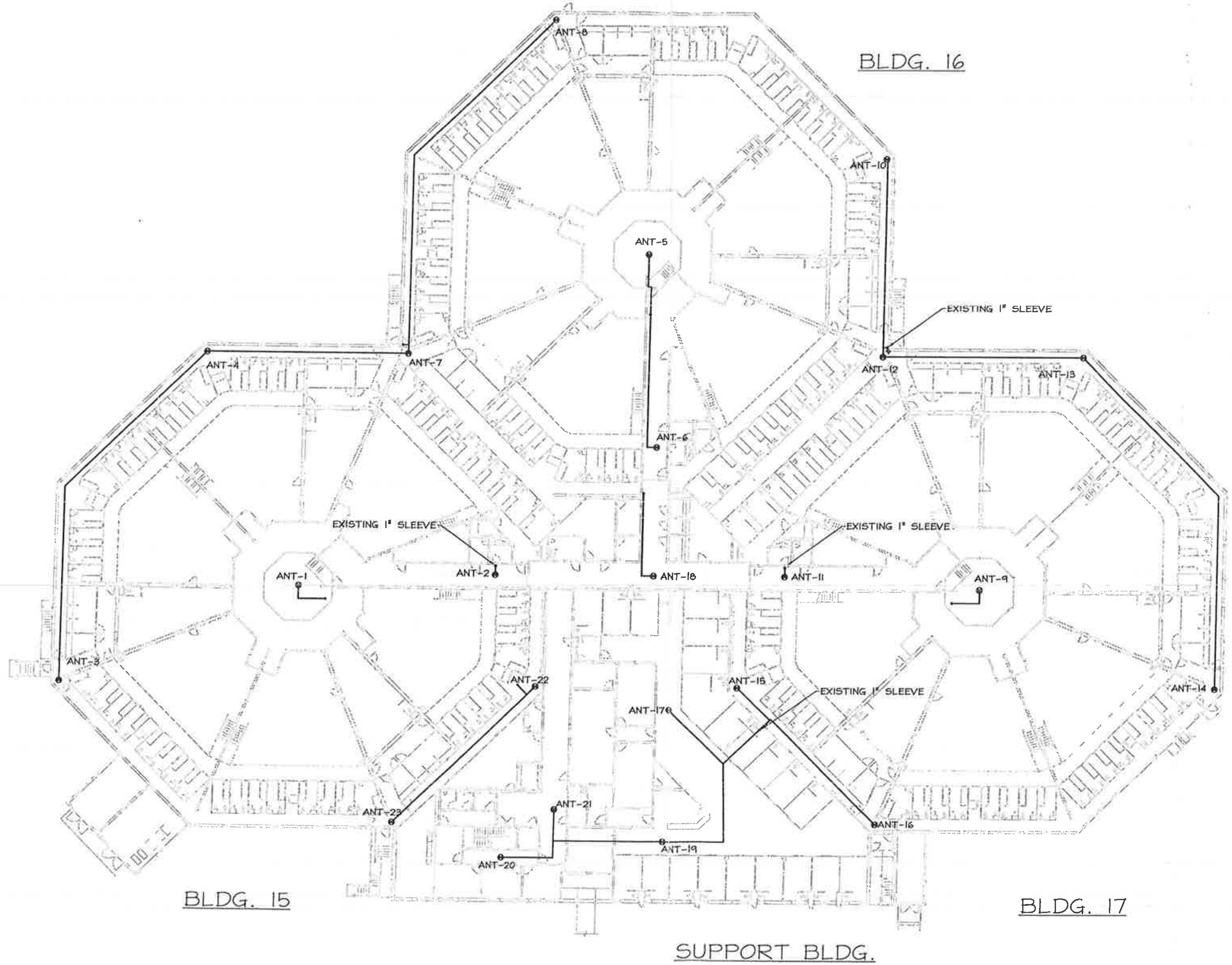

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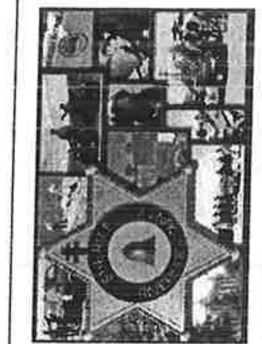

No.	Revision	Date
	Pre-Design	00/00/000

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EXPIRES: N/A
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Facility
Larry D. Smith Correctional Facility
1627 S. Hargrave Street
Banning, CA 92220

Project
Larry D. Smith 600 Bed Expansion Distributed Antenna System

Sheet Title
First Floor Overall

Scale	1" = 15'-0"	Tri-Power Job No.:	-
Drwn By	-	Sheet	
Chkd By	-	DAS-200	
Plot Date	2/23/2010	3 Of 8 Sheets	

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LARRY D. SMITH CORRECTIONAL FACILITY 600 BED EXPANSION DISTRIBUTED ANTENNA SYSTEM

NOT FOR CONSTRUCTION OR SUBMITTAL

THESE PLANS ARE FOR REVIEW PROPOSAL ONLY

THIS IS A 95% CONSTRUCTION DELIVERABLE

GENERAL NOTES

1. THE FACILITY IS AN UNOCCUPIED CORRECTIONAL FACILITY..
2. PLANS ARE NOT TO BE SCALED AND ARE INTENDED TO BE A SCHEMATIC OUTLINE ONLY, UNLESS NOTED OTHERWISE.
3. PRIOR TO THE SUBMISSION OF PRE-CONSTRUCTION DRAWINGS, THE CONTRACTORS SHALL VISIT THE JOB SITE AND BE RESPONSIBLE FOR ALL FIELD CONDITIONS AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF TRIPOWER'S SITE REPRESENTATIVE AND PRIOR TO PROCEEDING WITH THE WORK.
4. THE CONTRACTOR SHALL RECEIVE AUTHORIZATION TO PROCEED BEFORE STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED OR IDENTIFIED BY THE CONTRACT DOCUMENTS.
5. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY INDICATED OTHERWISE OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE.
6. ALL WORK PERFORMED AND MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. MECHANICAL AND ELECTRICAL SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS, AND LOCAL AND STATE JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
7. THE GENERAL CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK, USING THE BEST SKILLS AND ATTENTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK WITH THE SITE REPRESENTATIVE AND WITH THE LANDLORD'S AUTHORIZED REPRESENTATIVE.
8. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL LOCAL AND STATE BUILDING CODES REGARDING EARTHQUAKE PIPING, LIGHT FIXTURES, CEILING GRID, INTERIOR PARTITIONS AND MECHANICAL EQUIPMENT. ALL WORK MUST BE IN ACCORDANCE WITH LOCAL EARTHQUAKE CODES AND REGULATIONS.
9. DETAILS ARE INTENDED TO SHOW END RESULT OF DESIGN. MINOR MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS, AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF THE WORK.
10. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, PAVING, CURBING, VEGETATION, GALVANIZED SURFACES EXTERIOR BUILDING WALL SURFACES, EXISTING ROOF TOP SURFACE/S, ETC.. AND UPON COMPLETION OF WORK REPAIR ANY DAMAGE THAT OCCURRED DURING CONSTRUCTION TO THE SATISFACTION OF THE PROPERTY OWNER.
11. KEEP GENERAL AREA CLEAN, HAZARD FREE, AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. LEAVE PREMISES IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST OR SMUDGES OF ANY NATURE.
12. PENETRATIONS OF ROOF MEMBRANES SHALL BE PATCHED/FLASHED AND MADE WATERTIGHT USING LIKE MATERIALS IN ACCORDANCE WITH NRCA ROOFING STANDARDS AND DETAILS. CONTRACTOR SHALL USE APPROVED PROPERTY OWNER ROOFING CONTRACTOR.
13. CONTRACTOR TO PROVIDE (1) 120V 10A POWER CIRCUITS TO BACKBOARD AT STRUCTURE TELECOM FOR POWERED EQUIPMENT.
14. CONTRACTOR TO PLACE 4'X8' FIRE RETARDANT EQUIPMENT BACKBOARD, PAINTED AT EQUIPMENT HEAD-END.
15. CONTRACTOR TO PROVIDE #2 BCW GROUND TAIL MIN. 5' AT HEAD-END EQUIPMENT LOCATION, ELECTRICALLY CONTINUOUS TO MAIN BUILDING GROUND.
16. CUSTOMER/CONTRACTOR TO PROVIDE SUFFICIENT PATHWAY BETWEEN FLOORS FOR VERTICAL RISERS FROM EQUIPMENT CLOSETS TO ANTENNA RACEWAYS.
17. ADEQUATE STRAPPING OF ½" COAX CABLING SHALL BE ACHIEVED AT 4' MIN. INTERVALS WHEN NOT ENCASED WITHIN CONDUIT.
18. TOTAL CABLE LENGTHS ARE CRITICAL TO SYSTEM PERFORMANCE AND SHALL NOT EXCEED 200'. ANY COAXIAL CABLE LENGTH THAT EXCEEDS 200' SHALL BE APPROVED BY A TRIPOWER ENGINEER BEFORE CONTINUING INSTALL AND FINALIZING THAT SPECIFIC CABLE RUN.
19. ALL CABLE RUNS SHALL BE MEASURED AND NOTED BY THE CONTRACTOR AND SUBMITTED TO TRIPOWER AFTER INSTALLATION IS COMPLETE.
20. ALL RACEWAYS TO BE INSTALLED WITH GREENLEE 'TRU TAPE' (OR EQUAL) WITH FOOTAGE'S VERIFIED SO AS NOT TO EXCEED THOSE CALLED OUT IN DESIGN DRAWINGS.
21. CONTINUOUS RACEWAY NOT TO EXCEED 270 DEGREES COMPOSITE BEND OR 200' BETWEEN PULL POINTS.
22. BEND RADIUS OF ½" COAX CABLING MIN. 10".
23. ANTENNA PLACEMENT AND CABLE ROUTING IS SCHEMATIC ONLY. ACTUAL ANTENNA PLACEMENT TO BE WITHIN 5' RADIUS OF DESIGN DRAWING AND IN SUCH A WAY THAT LINE-OF-SIGHT SHALL BE UNIMPEDED 360 DEGREES ON HORIZONTAL PLANE AND A MAX OF 15 DEGREES FROM BASE OF ANTENNA ON VERTICAL.
24. ALL SLEEVES/CHASES OR PENETRATIONS THROUGH A FIRE RATED WALL SHALL BE SEALED WITH HILTI FIRESTOP ASSEMBLY OR EQUIVALENT.
25. DESIGN INFRASTRUCTURE ACCOMMODATES 800 MHz..
26. TERMINATE ALL 5/8" COAXIAL ANTENNA RUNS WITHIN 24" OF WALL MOUNTED EQUIPMENT.

SITE PHOTOS

SHEET INDEX

EQUIP./ PARTS LEGEND

- ROU
- ODU
- BIU
- OMNI ANTENNA
- OMNI ANTENNA
- DIRECTIONAL ANTENNA
- FIBER OPTIC CABLE
- COAXIAL CABLE
- LC FIBER CONNECTOR
- LC FIBER ANGLE POLISHED CONNECTOR
- SC FIBER CONNECTOR
- SMA CONNECTOR (MALE)
- TNC CONNECTOR (MALE)
- N-FEMALE CONNECTOR
- N-MALE CONNECTOR
- 2:1 SPLITTER
- 3:1 SPLITTER
- 4:1 SPLITTER
- 6:1 SPLITTER
- 6dB/10dB COUPLER

PART ID LEGEND

- A ANTENNA
- S SPLITTER / COUPLER
- CJ COAXIAL JUMPER
- C COAXIAL CABLE
- R REMOTE OPTICAL UNIT (ROU)

CONTACT INFO.

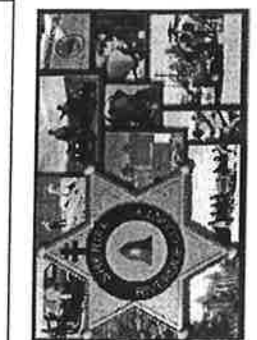
Tri-Power Group
2301 Armstrong Street
Suite 101
Livermore, CA 94551
925-583-8200 Direct
Contact:

VICINITY MAP

Larry D. Smith
Correctional Facility
1627 S. Hargrave Street
Banning, CA 9220

PROJECT DESCRIPTION

BUILDING ID LEGEND



Revisions

No.	Revision	Date
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Banning, CA 92220

Project
Larry D. Smith
600 Bed Expansion
Distributed Antenna System

Sheet Title
TITLE SHEET

Scale	N/A	Tri-Power Job No.: -
Drwn By	-	Sheet
Chkd By		DAS-000
Plot Date	2/23/2010	— of — Sheets

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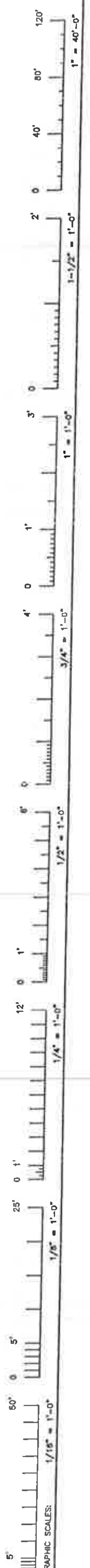
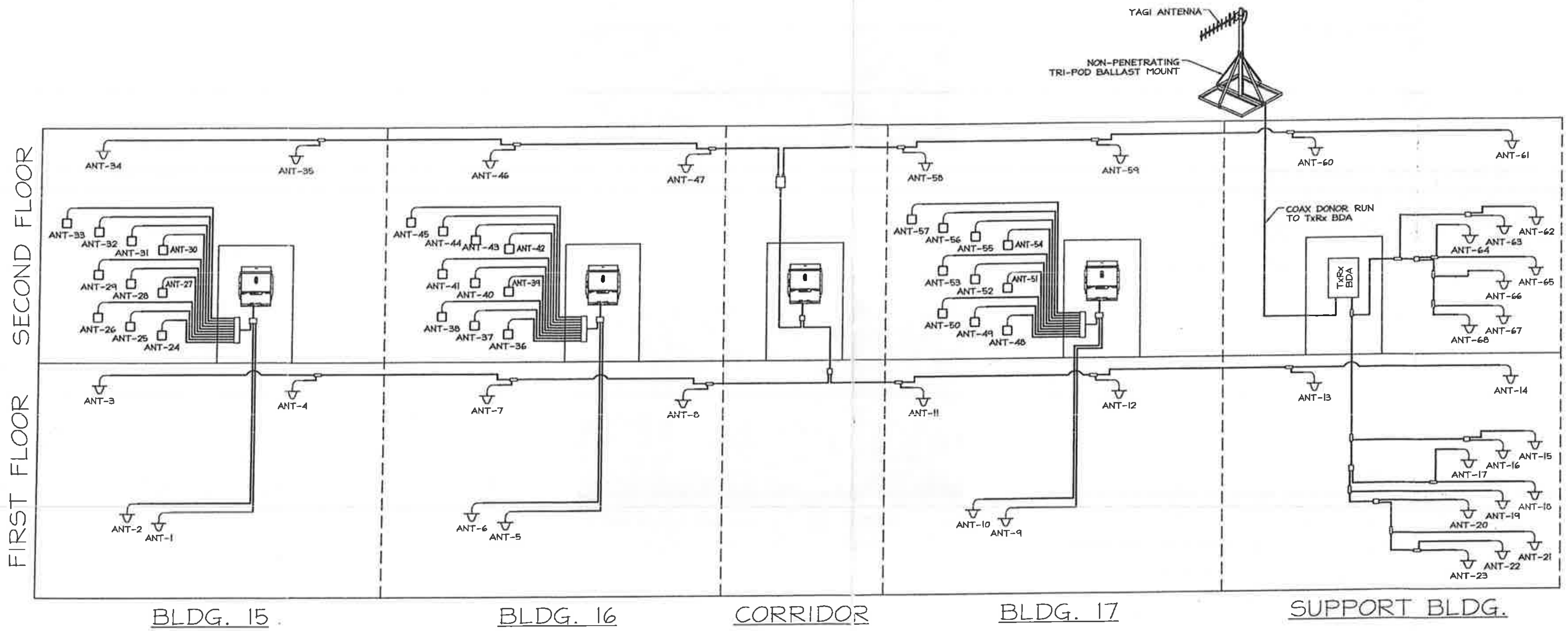
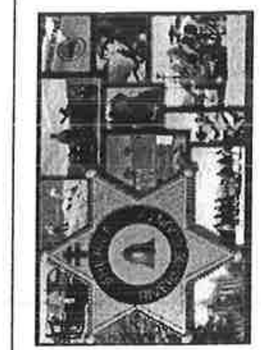
GRAPHIC SCALES: 1" = 40'-0", 2" = 1'-0", 1-1/2" = 1'-0", 1" = 1'-0", 3/4" = 1'-0", 1/2" = 1'-0", 1/4" = 1'-0", 1/8" = 1'-0", 1/16" = 1'-0"







Revisions

No.	Revision	Date
	Pre-Design	00/00/000

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Project
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Sheet Title

Coaxial Riser Diagram

Scale	1" = 15'-0"	Tri-Power Job No:	-
Drwn By	-	Sheet	
Chkd By	-	DAS-100	
Plot Date	2/23/2010	2 Of [illegible] Sheets	

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