

VVTA RFP 2020-06 BARSTOW CNG STATION UPGRADE ADDENDUM NO. 2

Monday March 30, 2020

This addendum is provided to all known prospective proposers for clarification of the subject Request for Proposal (RFP).

The following are questions that have been posed, in anticipation of the scheduled job walk on Tuesday, April 7, 2020 at 11:00 AM (PDT) at 200 Sandstone Court, Barstow, CA 92311:

Q1. "Current Spec Section 2.02 CNG Compressor Skids; F. CNG compressor skid manufacturers: 1. ANGI Energy Systems Janesville, WI... Will substitutions be allowed?"

A1. No. The ANGI skids have been installed at the Hesperia site and VVTA has no intention of replacing this equipment. With VVTA's limited staff who maintain the facility, it does not make good business sense for VVTA to carry spare parts from multiple companies as well as the training for staff to maintain the equipment. It is VVTA's decision to stay with the ANGI products at this time.

Q2. "RE: Page 44 Section 134, Specification 2.07 D.1. Is it acceptable to propose the Master PLC to control the existing LCNG Pumps through dry relay contacts. The relay contacts could wire in series with an On/Off key switch to initiate or prevent a pump from starting. It would be suggested to also bring a running and faulted input back to the Master from each pump. Is this control concept acceptable means to have a new Master PLC control the incremental startup of the system? Is it possible to have any existing LCNG control schematic documentation provided to ensure a proper proposal?"

A2: The proposed arrangement appears acceptable but needs to be verified during design.

Q3: "RE: Page 44, Section 137, Specifications 2.07 D.2. If integration between the existing and new control systems are required, will the contractor be responsible for coordinating both existing and new controls personnel on site at the time of commissioning?"

A3: Yes, the contractor is responsible to verify functionality of existing LCNG system and new CNG subsystem.

Q4: "RE: Page 44, Section 137, Specifications 2.09, B.3. Please verify: The valve panel system will offer CNG supply to transit dispensers shall be one- bank configuration, supplied only by low bank. Drawing D-601 does not show any single bank transit dispensers.

A4: Disregard the indicated specification and comply with the configuration shown on drawing D-601. See RFP Document Exhibit 1 – Drawings.

Q5: "RE: Page 53, Section 134, Specifications 2.13, C. Please verify the Solid-State Reduced Voltage Motor Control section. The section is describing three options of Motor Starter Panel configurations, but it doesn't seem to match the project requirements. Is it

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acceptable for the proposal to offer (1) new MSP for the 250Hp Compressor. All the existing equipment would use the existing starting panels.”

A5: It is acceptable to provide (1) new MSP for the 250Hp Compressor. All the existing equipment would use the existing starting panels.

Q6: “RE: Page 61, Section 137, Specification 3.05 A. Time Fill CNG post are mentioned, but none are shown in the plans.”

A6: Omit requirement for time-fill.

Q7: “RE: Page 133, Section 137, Specification D-101. Key items 7 states "CNG Valve Panel with Priority and Time Fill. Please confirm that a time fill zone is desired.”

A7: Omit requirement for time-fill.

Q8: “RE: Page 134, Section 137, Specification D-501. Key item 7 mentions Fast Fill and Time Fill dispensers. Please confirm that a time fill zone is desired.”

A8: Omit requirement for time-fill.

Q9: RE: Page 135, Section 137, Specification D-601. The previous questions about a time fill zone are because no time fill zone is represented on this drawing, and no other plan drawings show time fill zone filling posts.

A9: Omit requirement for time-fill.

Q10: “ANGI / PT-100 CNG Valve Panel with 3 bank Priority with (suggested manufacture) custom design priority panel for your facility.

- a. We are an ASME certified shop
- b. We design/build/install/maintain our own CNG priority panels
- c. We are familiar with your existing LCNG station... we can provide custom integration with your existing.
- d. Our (suggested) style CNG 3 bank priority panel will provide true first in – first out CNG fueling and will allow us to closely integrate and control the existing LCNG station and the new CNG station.
- e. Our priority panel will allow zero disruption to CNG fueling which is not possible in the current design. We can start-up the new CNG compressor-based dispenser and get the new dispenser on-line, then connect the existing LCNG station to our new priority panel.

A10: Further to the response to question 1, VVTA is seeking an integrated system provided by its existing CNG-system packager, which includes the compressor skid and all key appurtenances, such as valve panel and communication module.

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Q11: "ANGI / CP-400 Remote Comm Panel (suggested equal) custom design remote communication and master control panel

- f. We are an UL-508 certified facility
- g. We design/build/install/maintain our remote communication and control panels using Allen Bradely PLC and HMI's
- h. We are familiar with your existing LCNG station... we can provide custom integration with your existing.
- i. Our priority panel will allow zero disruption to CNG fueling which is not possible in the current design.

A11: Further to the response to question 1, VVTA is seeking an integrated system provided by its existing CNG-system packager, which includes the compressor skid and all key appurtenances, such as valve panel and communication module.

Additional Drawings of the current facility are attached to this Addendum as Addendum Attachment 1.

All other terms and conditions of the RFP remain the same.

As stated in the RFP, all addenda must be acknowledged. Please use Attachment H of the RFP to acknowledge receipt of this addendum. Failure to acknowledge any addenda to this RFP may be cause to deem Bidder "Non-Responsive."

***** END OF ADDENDUM NO. 2 *****

VVTA RFP 2020-06
BARSTOW CNG STATION UPGRADE

ADDENDUM NO. 2
ATTACHMENT 1

ADDITIONAL DRAWINGS

DEVELOPER / OWNER

VICTOR VALLEY TRANSIT AUTHORITY
17150 SMOKETREE ST.
HESPERIA, CA 92345
760-995-3585

PROPERTY DESCRIPTION

PARCEL 3 OF PARCEL MAP 15451,
RECORDED ON 7/25/00 IN BOOK 190
PAGES 22 AND 23

DESIGN CONTACTS

MECHANICAL ENGINEER
GP STRATEGIES CORPORATION
2835 PROGRESS PLACE,
ESCONDIDO, CA. 92029
PHONE (760) 705-3452
FAX (760) 233-9881
CONTACT: MIKE MACKAY, PE

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CONTACT: KEN GILLETTE

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FAX (760) 233-9881

CONTACT - KEN GILLETTE

PROJECT DESCRIPTION

ADDITION OF A NEW CNG DISPENSER TO THE
EXISTING LNG CNG FUEL STATION.

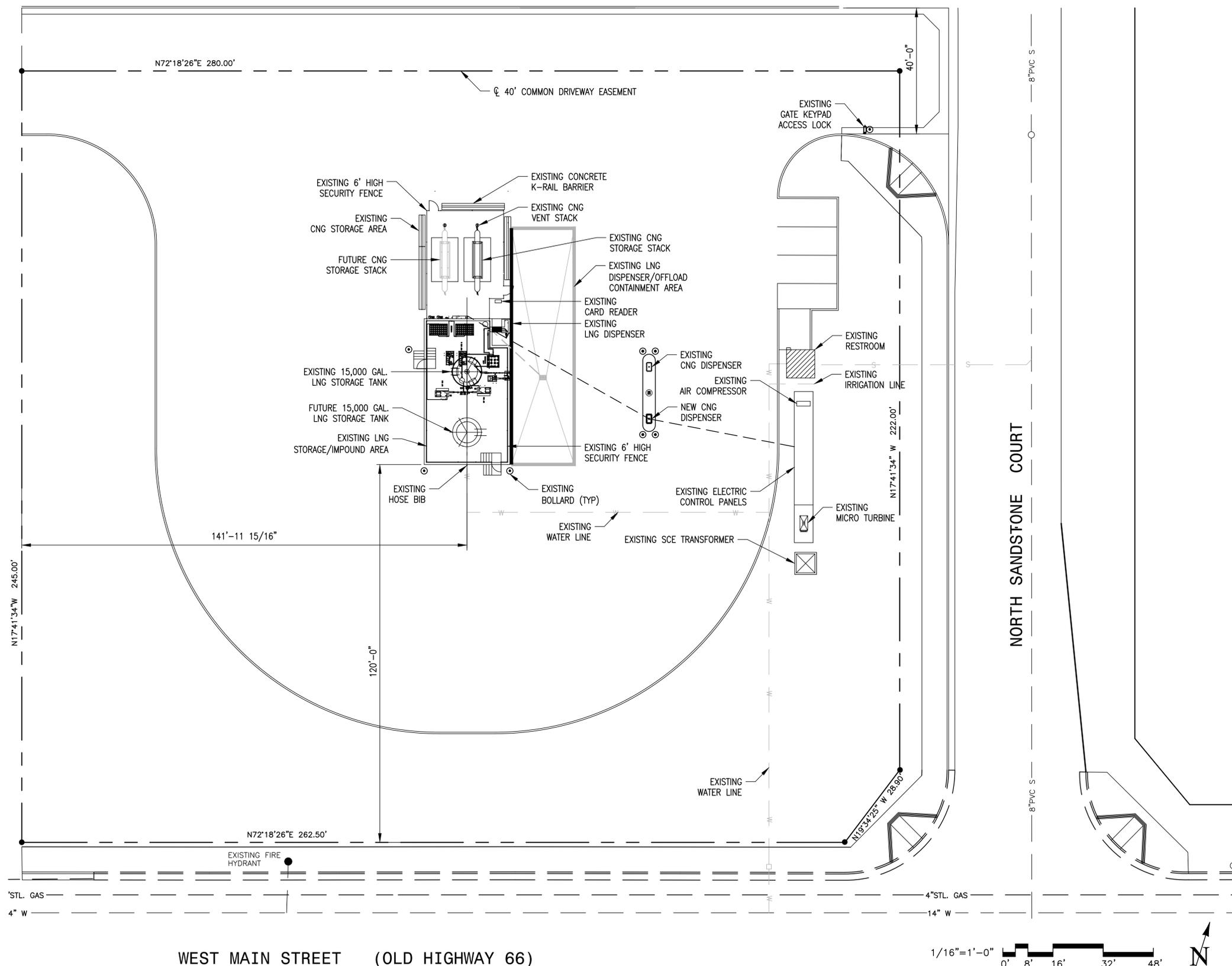
APPLICABLE CODES

2010 NFPA 52 VEHICULAR GASEOUS FUEL SYSTEMS CODE
2002 NFPA 57 LIQUEFIED NATURAL GAS (LNG) VEHICULAR FUEL SYSTEM CODE
ASME BOILER AND PRESSURE VESSEL CODE
ASME B31.3 PROCESS PIPING CODE

2011 NATIONAL ELECTRICAL CODE WITH LOCAL AMENDMENTS
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2009 INTERNATIONAL WILDLAND-URBAN INTERFACE CODE WITH LOCAL AMENDMENTS

Sheet List Table	
Sheet Number	Sheet Title
G01	SITE PLAN
M01	MECHANICAL PLAN
E01	ELECTRICAL PLAN
E02	ELECTRICAL CLASSIFIED AREA PLAN AND ELEVATION

CITY OF BARSTOW LNG CNG FUEL STATION EXPANSION



REV	DATE	DESCRIPTION
-	10/6/17	RELEASED FOR PLAN CHECK

SITE: VICTOR VALLEY TRANSIT AUTHORITY
17150 SMOKETREE ST.
HESPERIA, CA 92345

PROJECT: LNG CNG FUEL STATION EXPANSION

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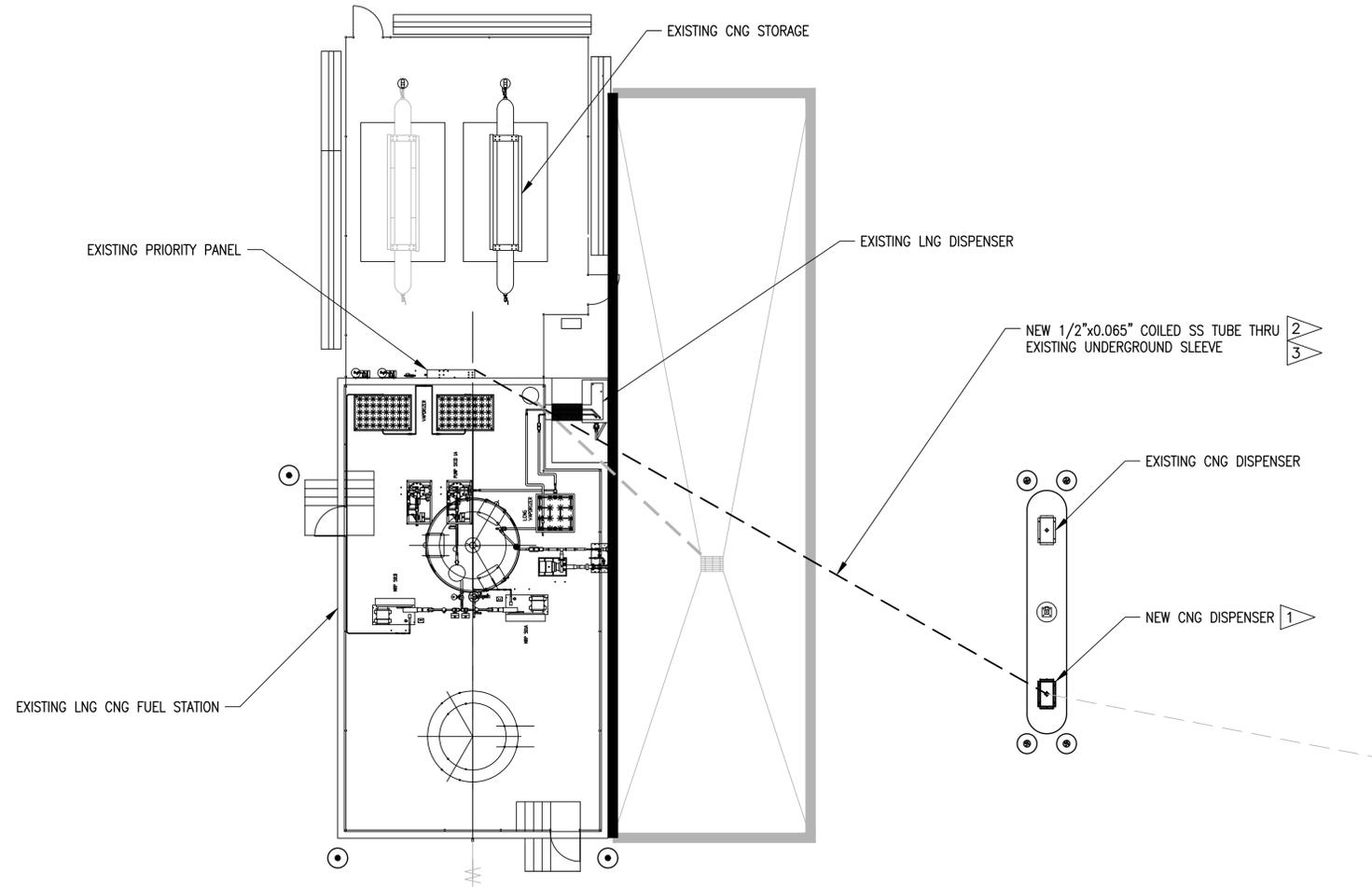
APPROVED

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TITLE: SITE PLAN

DRAWN	G. DUNHAM	DATE	10/5/17
CHECKED	K. GILLETTE	DATE	
APPROVED	M. MACKAY	DATE	10/5/17
APPROVED	K. GILLETTE	DATE	10/5/17
PSCM NO.	XXX001.001.001		
DRAWING	G01		

LNG TANKER



EXISTING PRIORITY PANEL

EXISTING CNG STORAGE

EXISTING LNG DISPENSER

NEW 1/2"x0.065" COILED SS TUBE THRU EXISTING UNDERGROUND SLEEVE

EXISTING CNG DISPENSER

NEW CNG DISPENSER 1

EXISTING LNG CNG FUEL STATION

EXISTING ELECTRIC CONTROL PANELS

N17°41'34" W 222.00'

SCOPE OF WORK

- 1. INSTALL NEW CNG DISPENSER ON EXISTING INFRASTRUCTURE.
- 2. PULL 1/2"x0.065 STAINLESS STEEL COILED TUBING FROM EXISTING PRIORITY PANEL TO CNG DISPENSER.
- 3. PRESSURE TEST TO ASME B31.3 PROCESS PIPE CODE SPECIFICATIONS.

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SITE VICTOR VALLEY TRANSIT AUTHORITY 17150 SMOKETREE ST. HESPERIA, CA 92345	
PROJECT LNG CNG FUEL STATION EXPANSION	

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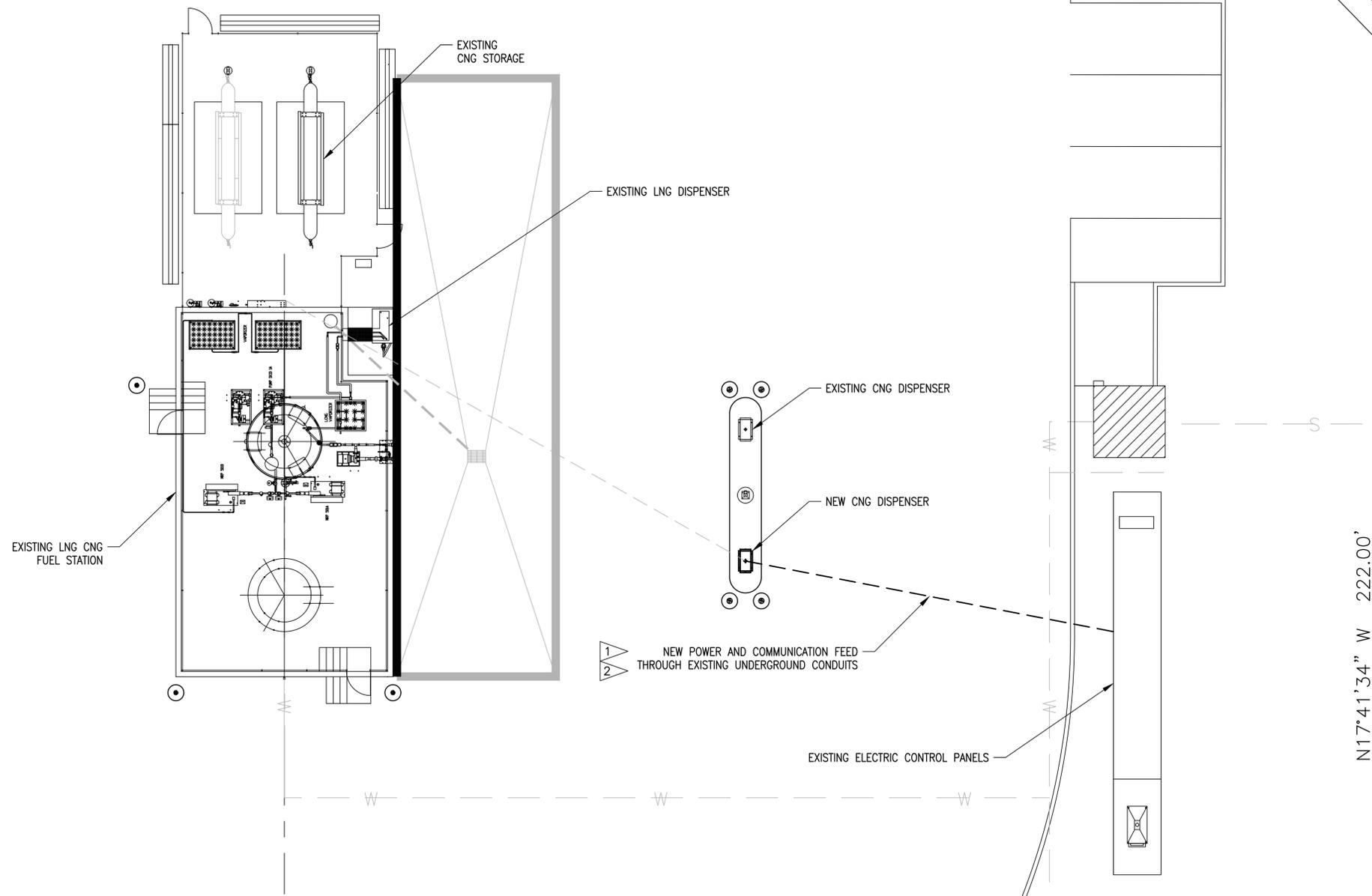
APPROVED

TITLE
MECHANICAL PLAN

DRAWN	G. DUNHAM	DATE	10/5/17
CHECKED	M. MACKEY	DATE	
APPROVED	M. MACKEY	DATE	10/5/17
APPROVED	K. GILLETTE	DATE	10/5/17
PSCM NO.	XXX001.001.001		

DRAWING
M01

LNG TANKER



SCOPE OF WORK

1. RUN POWER FEED FROM EXISTING 120V POWER DISTRIBUTION PANEL TO NEW CNG DISPENSER VIA EXISTING UNDERGROUND CONDUIT.
2. RUN COMMUNICATION FEED FROM EXISTING FUEL MANAGEMENT SYSTEM TO NEW CNG DISPENSER VIA EXISTING UNDERGROUND CONDUIT.

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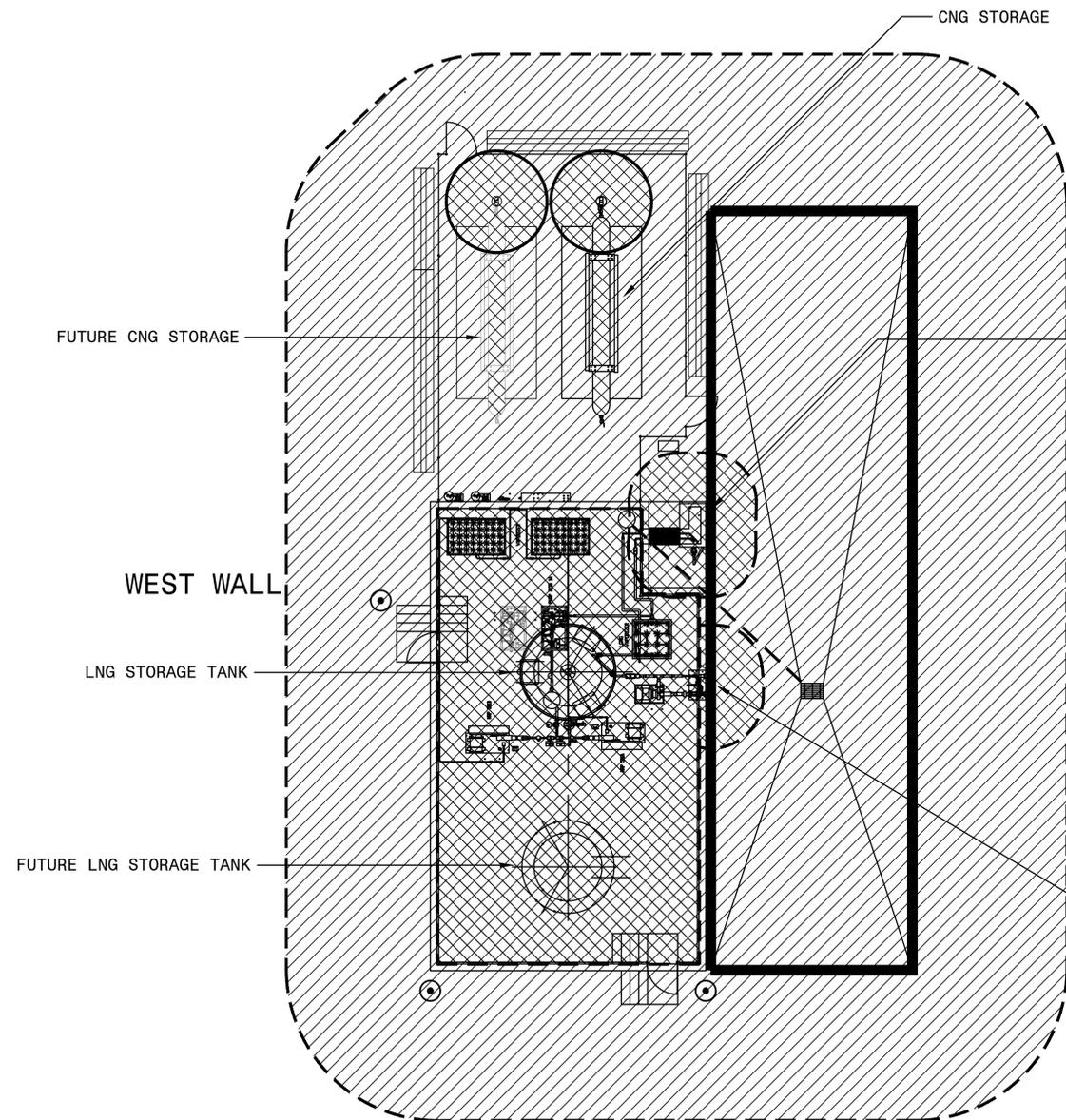
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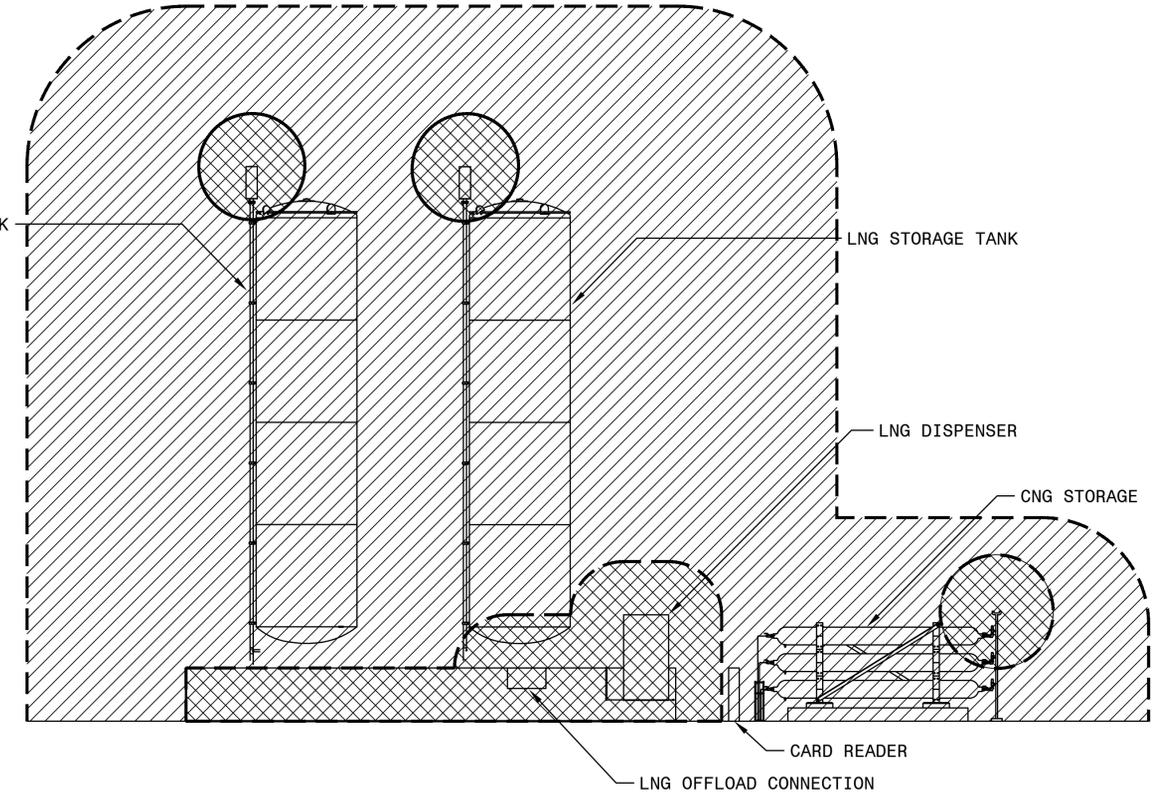
APPROVED

TITLE
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APPROVED	M. MACKEY	DATE	10/5/17
APPROVED	K. GILLETTE	DATE	10/5/17
PSCM NO.	XXX001.001.001		
DRAWING	E01		



FUELING AREA PLAN VIEW



EAST WALL ELEVATION VIEW

LEGEND

- UNCLASSIFIED
- CLASS 1, DIVISION 2, GROUP D
- CLASS 1, DIVISION 1, GROUP D

- NOTES:**
1. AREA CLASSIFICATION BASED ON NFPA 52 AND NFPA 57, 2002 EDITIONS.
 2. CLASS 1, DIVISION 1, GROUP D AREAS DEFINED AS WITHIN 5' OF LNG OFFLOAD/DISPENSING LOCATIONS OR RELIEF VALVE, AND WITHIN LNG SPILL CONTAINMENT.
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DRAWING
 E02

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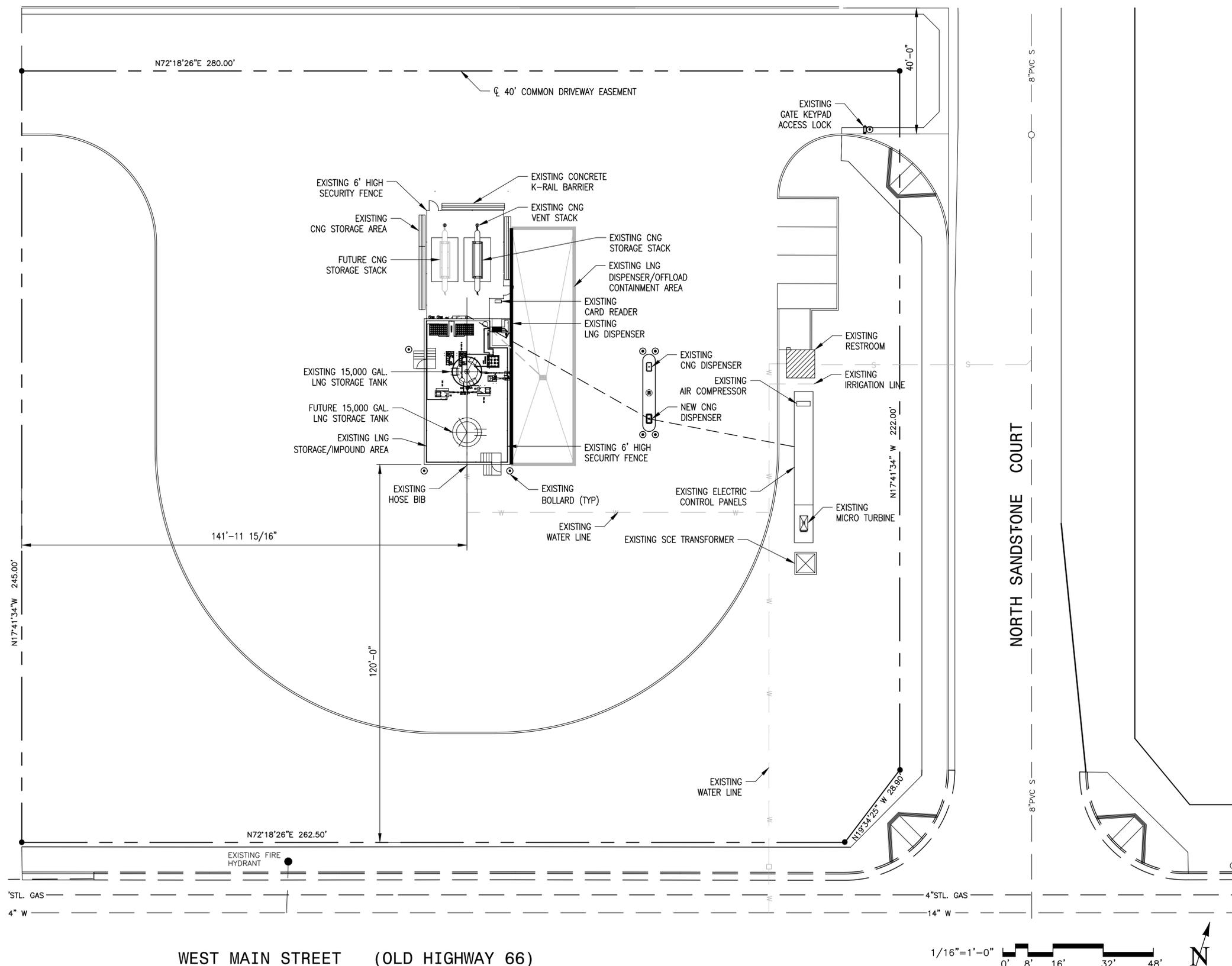
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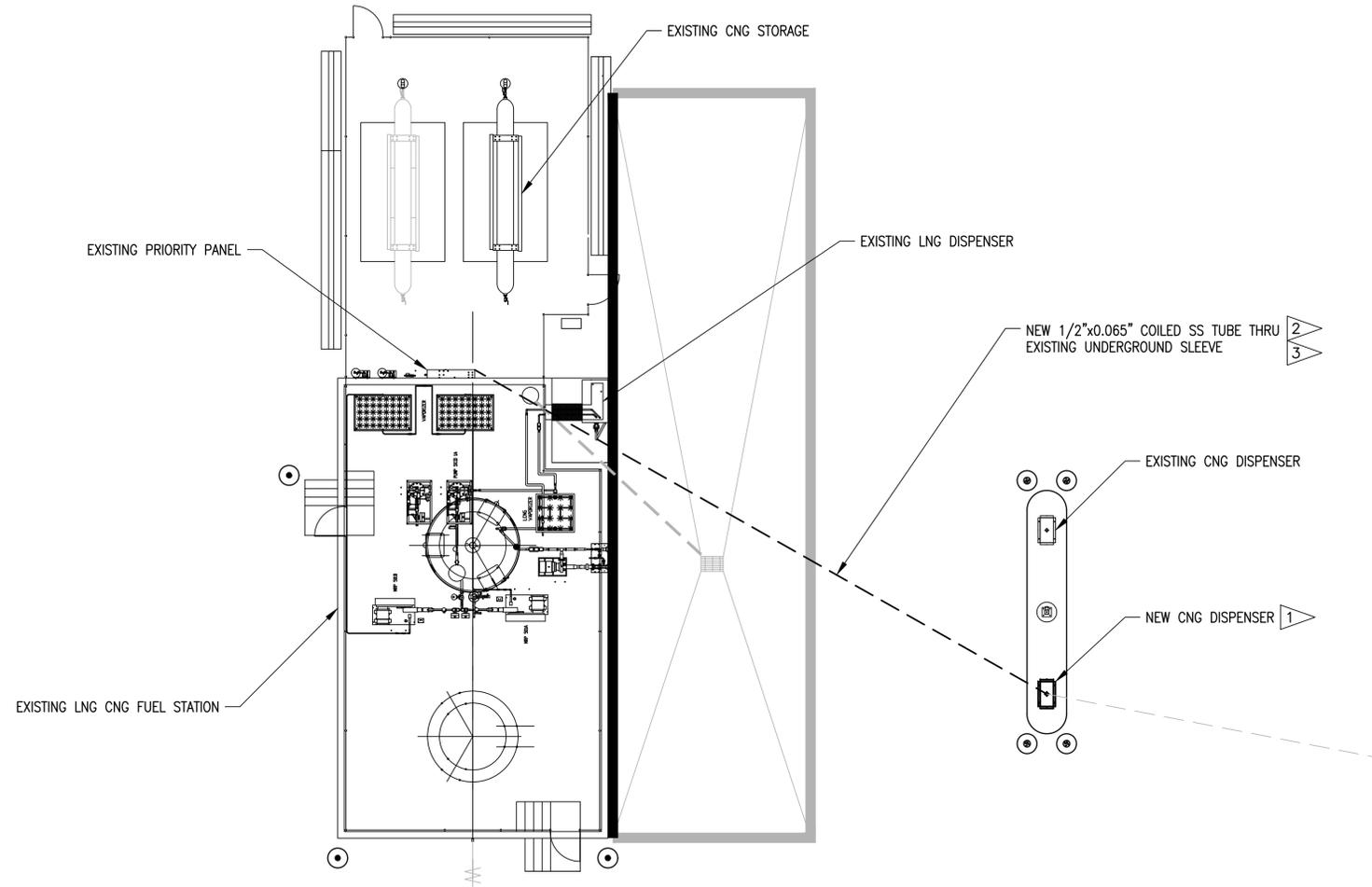
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M. MACKAY	10/5/17
APPROVED	DATE
K. GILLETTE	10/5/17
FSCM NO. XXX001.001.001	
DRAWING	
G01	

LNG TANKER



EXISTING PRIORITY PANEL

EXISTING CNG STORAGE

EXISTING LNG DISPENSER

NEW 1/2"x0.065" COILED SS TUBE THRU EXISTING UNDERGROUND SLEEVE

EXISTING CNG DISPENSER

NEW CNG DISPENSER 1

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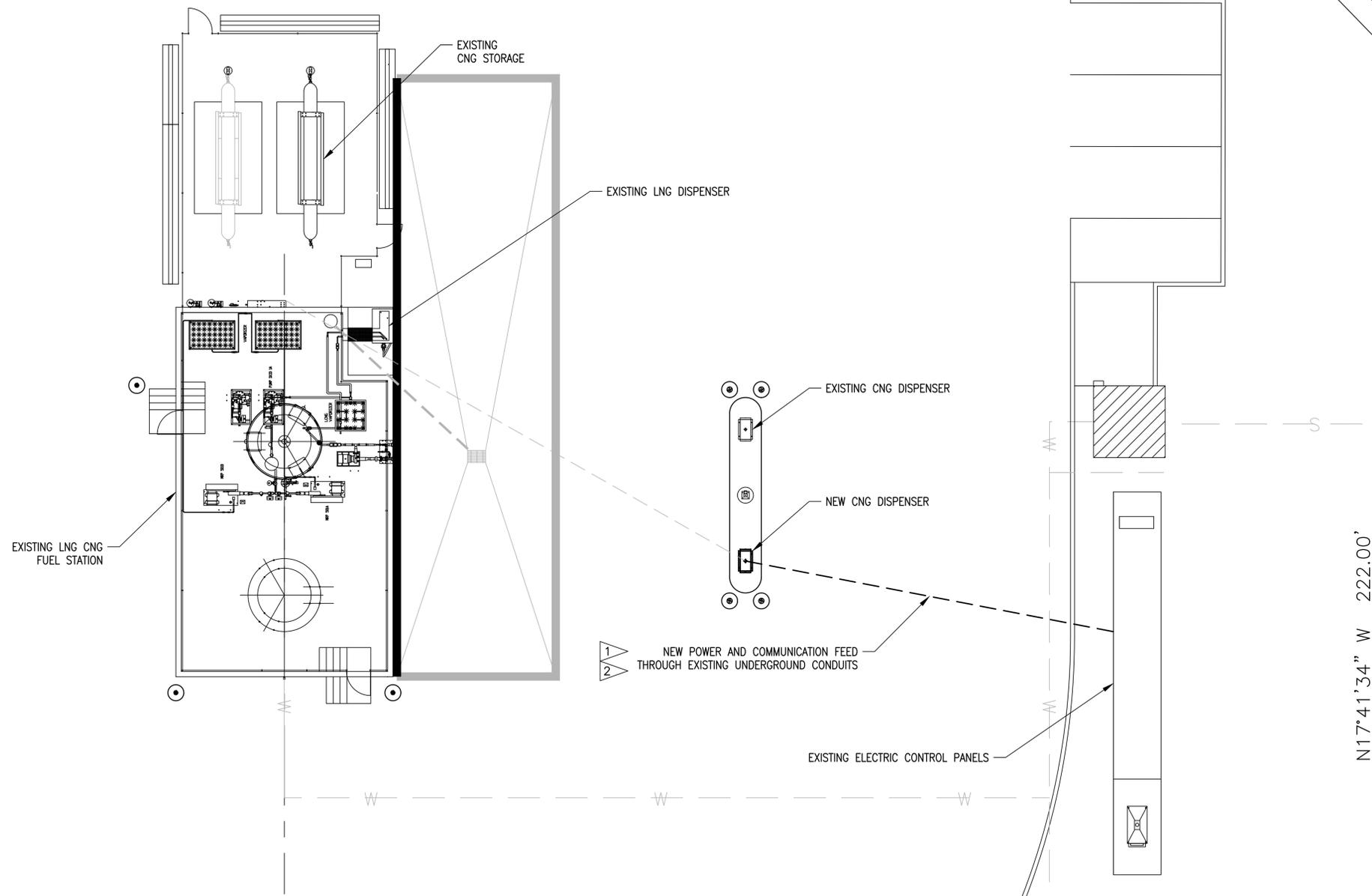
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PSCM NO.	XXX001.001.001

DRAWING
 M01

LNG TANKER



SCOPE OF WORK

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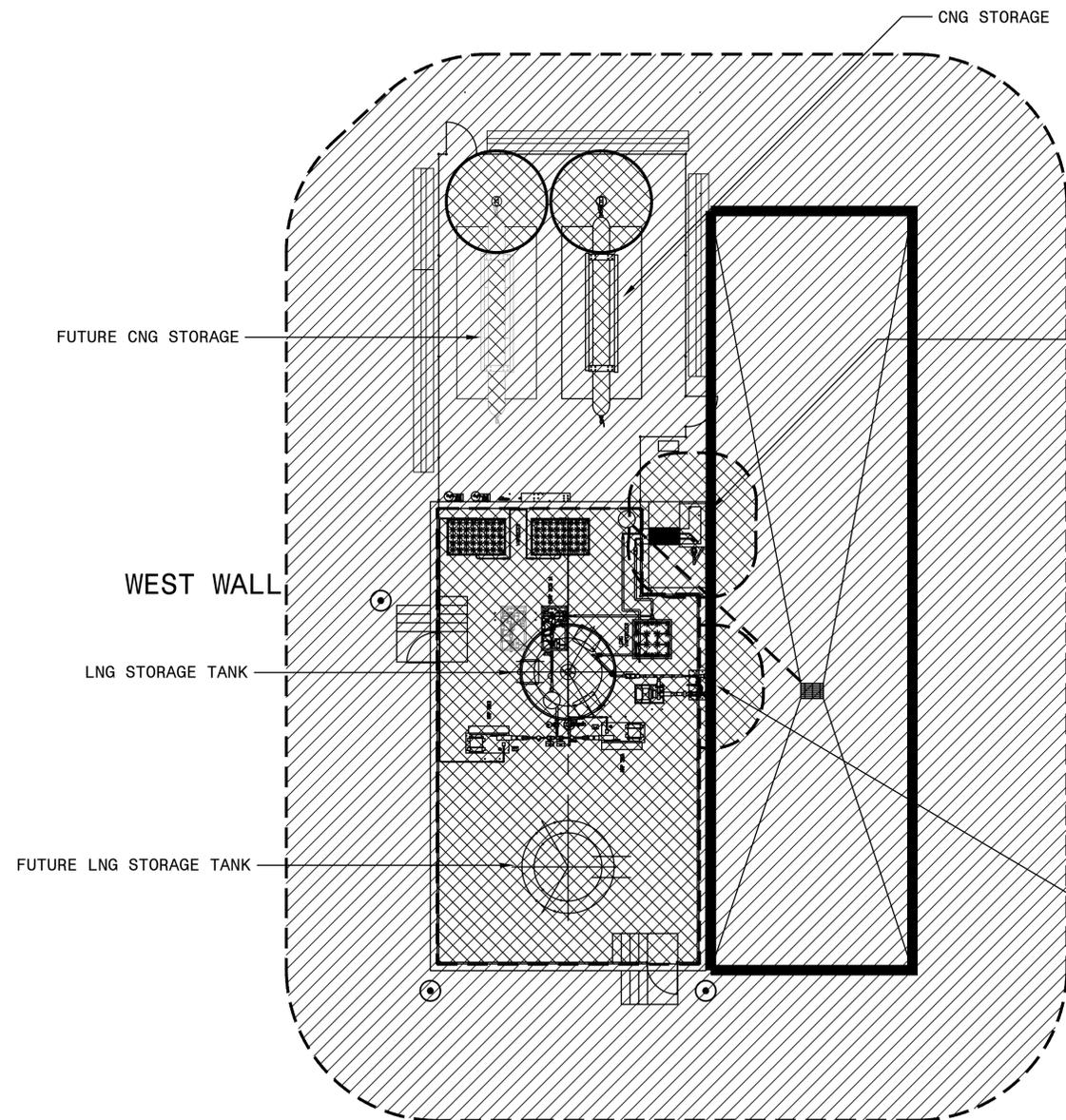
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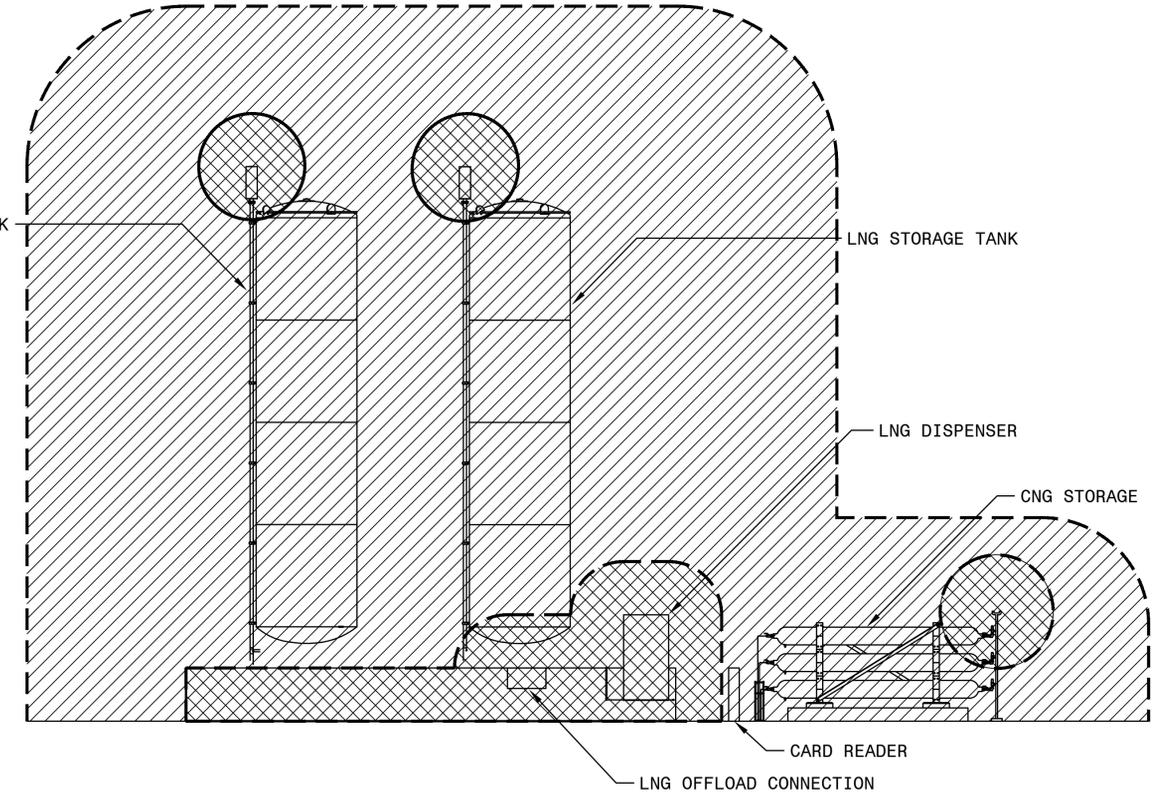
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TITLE
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DRAWING	E01		



FUELING AREA PLAN VIEW



EAST WALL ELEVATION VIEW

LEGEND

- UNCLASSIFIED
- CLASS 1, DIVISION 2, GROUP D
- CLASS 1, DIVISION 1, GROUP D

- NOTES:**
1. AREA CLASSIFICATION BASED ON NFPA 52 AND NFPA 57, 2002 EDITIONS.
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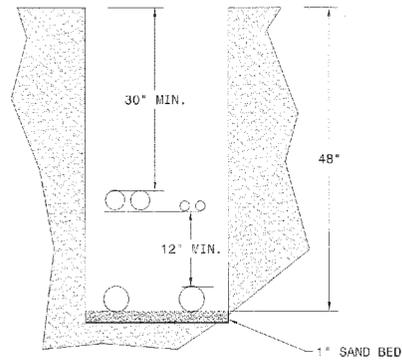
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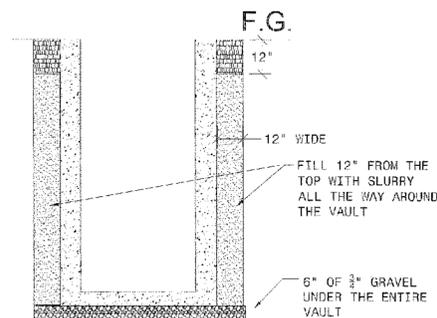
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DRAWING
E02



DETAIL A



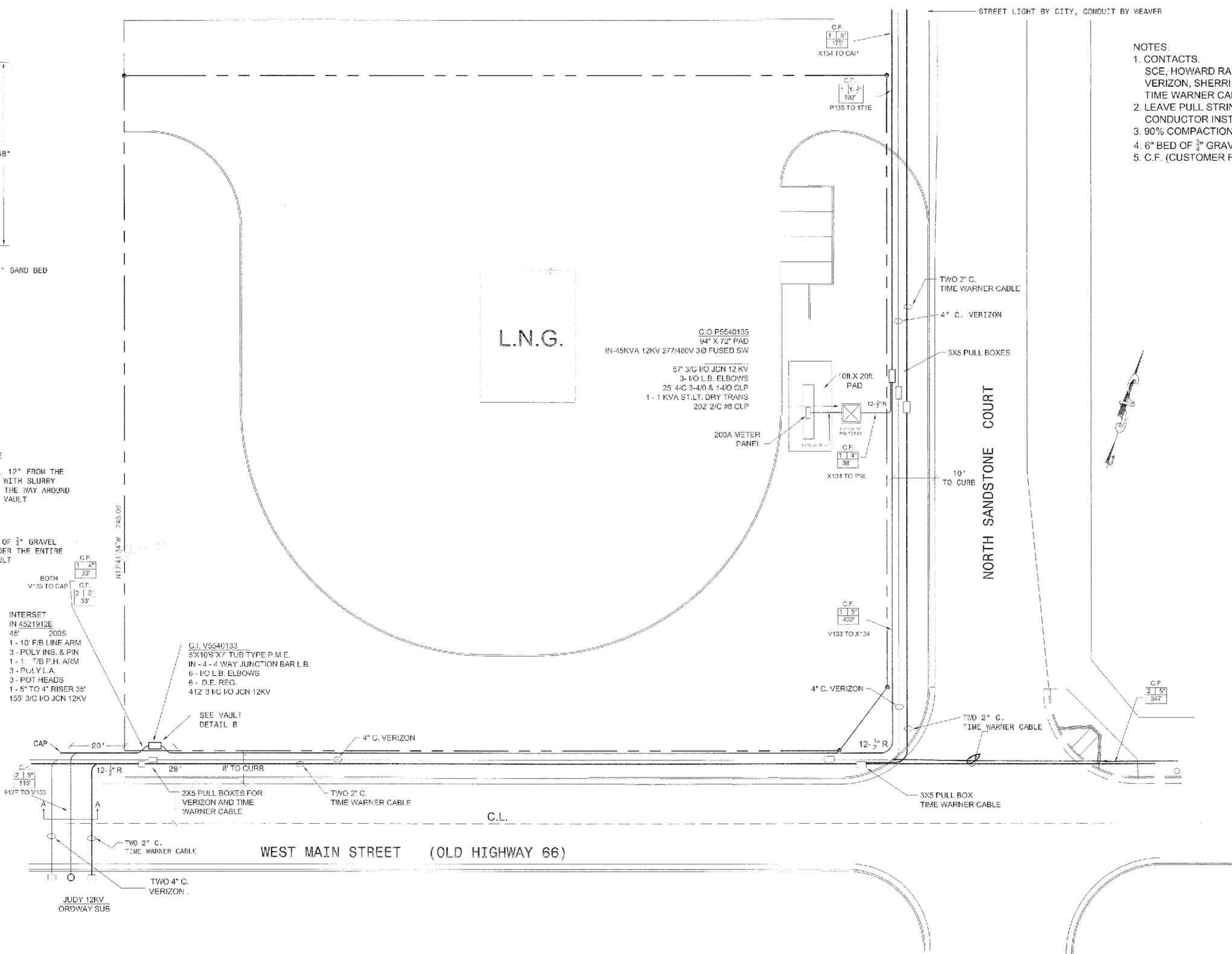
VAULT DETAIL B

BOTH
V-33 TO CAP
C.F. 1 1/2" x 2" x 3/8"
C.F. 2 1/2" x 5" x 3/8"
C.F. 2 1/2" x 3" x 3/8"

INTERSET
IN 4521912E
48" 200S
1 - 10' F/B LINE ARM
3 - POLY INS. & PIN
1 - 1" F/B P.H. ARM
3 - POLY L.A.
3 - POT HEADS
1 - 5" TO 4" RISER 38"
155' 3/C I/O JCN 12KV

C.I. V5540133
5X10'S X 7' TUB TYPE P.M.E.
IN - 4 - 4 WAY JUNCTION BAR L.B.
6 - 1/0 L.B. ELBOWS
6 - D.E. REG.
412' 3 I/O JCN 12KV

SEE VAULT
DETAIL B



- NOTES:
- CONTACTS:
SCE, HOWARD RAY (760) 252-6405
VERIZON, SHERRI SLEET (760) 245-0394
TIME WARNER CABLE, SONNY (760) 256-3526
 - LEAVE PULL STRINGS IN ALL CONDUITS FOR FUTURE CONDUCTOR INSTALLATIONS.
 - 90% COMPACTION ALL ALL BACK-FILL.
 - 6" BED OF 3/4" GRAVEL BENEATH ALL PULL BOXES
 - C.F. (CUSTOMER FINISH)

SCALE:

DRAWN BY	DATE
Shu	06-01-05
CHECKED BY	DATE

DATE	REVISIONS	REV. BY
06-01-05	Revise for Permit	Shu

Weaver Electric, Inc.

Weaver Incorporated
401C Cast La Palma
Anaheim, CA 92807
E-Mail: Weaver@weaver.com

Telephone: (714) 621-1165
Fax: (714) 987-5511

PROJECT:

**Barstow LNG-LCNG
Fueling Station**

100 North Sandstone Court
Barstow, CA 92311

SHEET NAME:

**UTILITIES
CONDUITS**

SHEET:

U-1

DO NOT REMOVE FROM JOB SITE

CITY OF BARSTOW

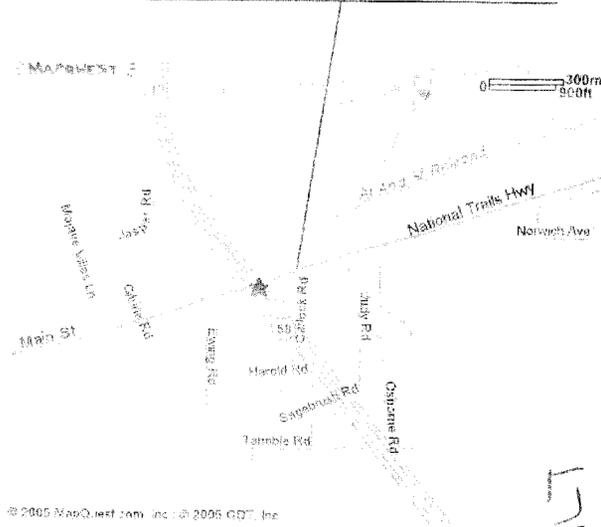
Barstow LNG-LCNG Fueling Station

100 North Sandstone Court Barstow, CA 92311

PROJECT NO. 2003-03

FEDERAL AID PROJECT NO. CML#5298(017)

PROJECT SITE



LIST OF DRAWINGS

- T-1 TOP COVER SHEET (This sheet)
- C-1 SITE PLAN
- C-2 GRADING PLAN
- C-3 STREET PLAN
- C-4 STORM DRAIN PLAN
- C-5 RESTROOM BUILDING
- C-6 LANDSCAPING PLAN
- C-7 IRRIGATION PLAN
- C-8 LNG IMPOUND AREA FOUNDATION DETAILS
- C-9 LNG IMPOUND AREA FOUNDATION DETAILS CONTINUED
- C-10 CNG STORAGE CONSTRUCTION DETAILS
- C-11 CNG DISPENSER ISLAND DETAILS
- C-12 CONCRETE EQUIPMENT PADS
- C-13 LNG IMPOUND AREA STAIRWAY DETAILS
- C-14 LNG IMPOUND AREA TANK PAD DETAILS
- E-1 ONE LINE & PANEL SCHEDULE W/LOAD CALCS
- E-2 ELECTRICAL CLASSIFIED AREAS
- E-3 ELECTRICAL CONDUIT STUB UPS CONTAINMENT AREA
- E-4 PANEL AREA ELEVATIONS
- E-5 CONDUIT TRENCHING
- E-6 TRENCHING DETAILS
- E-7 GROUNDING PLAN & DETAILS
- E-8 GROUNDING DETAILS

- M-1 SITE EQUIPMENT LAYOUT
- M-2 EQUIPMENT LAYOUT DETAILS
- M-3 EQUIPMENT LAYOUT ELEVATIONS
- M-4 FIRE & SAFETY SIGNAGE
- M-5 INGRESS/EGRESS AND LIGHTING
- M-6 DISPENSER DETAILS
- P-1 PIPING LEGENDS
- P-2 LNG PIPING & INSTRUMENT DIAGRAM
- P-3 LNG/LCNG PIPING & INSTRUMENT DIAGRAM
- P-4 LNG PIPE CONNECTIONS
- P-5 LNG PIPE CONNECTIONS
- P-6 LNG PIPE CONNECTIONS
- P-7 LNG PIPE CONNECTIONS
- P-8 LNG PIPE CONNECTIONS
- P-9 LNG PIPE CONNECTIONS
- P-10 LNG PIPE CONNECTIONS
- P-11 LNG PIPE CONNECTIONS
- P-12 LNG PIPE CONNECTIONS
- P-13 LNG PIPE CONNECTIONS
- F-18 GAS PANEL
- U-1 UTILITIES CONDUIT (INDICATED)
- SS-1 GAS FLAME DETECTOR LOCATIONS

EQUIPMENT SUPPLIER DRAWINGS

CODES AND STANDARDS

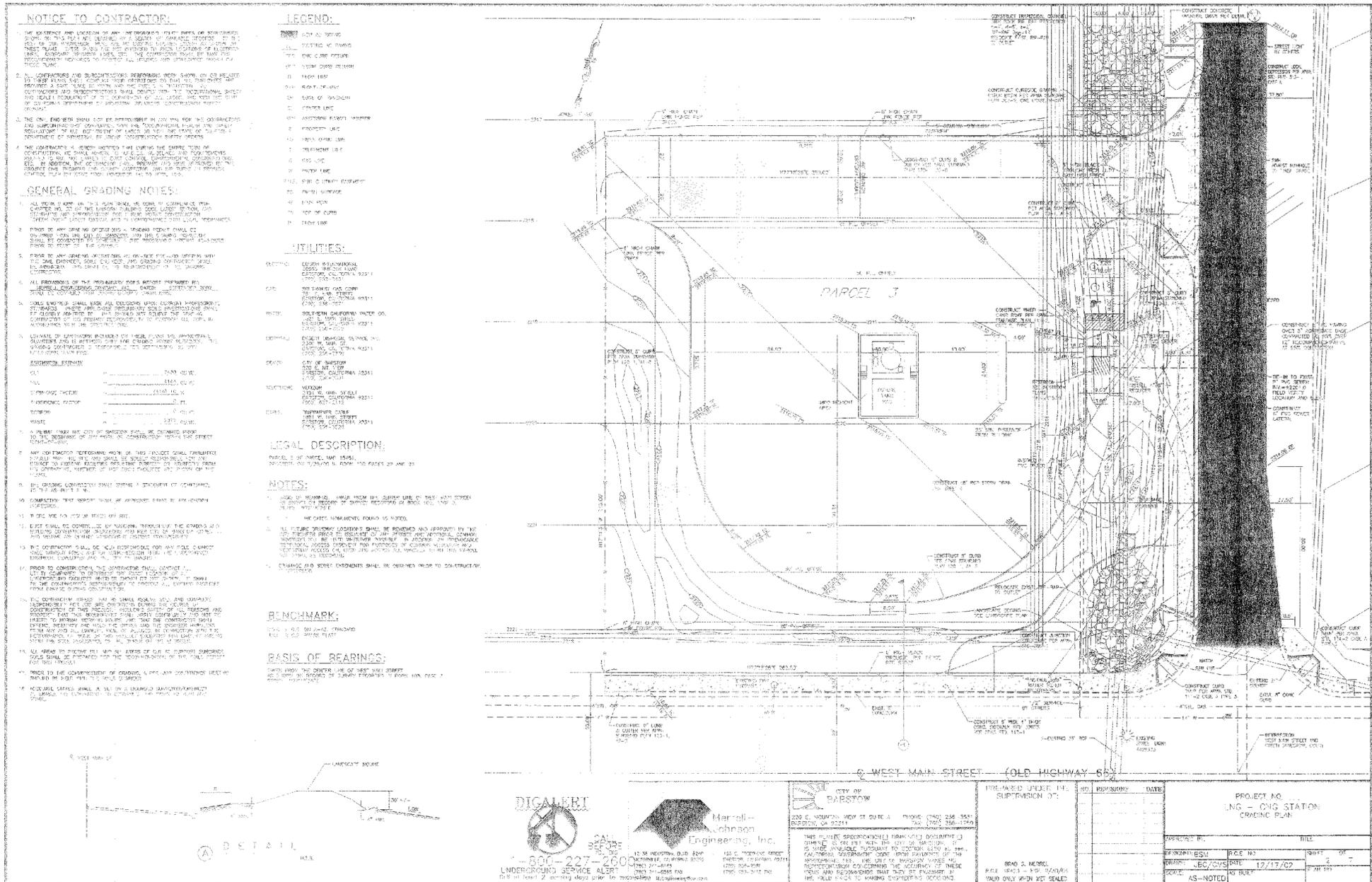
- NFPA 57 2002 Edition
- NFPA 52 2002 Edition (100% PIPING PNEUMATICALLY TESTED)
- UBC 1997 Edition
- 2001 California Fire Code Section, Article 52
- NFPA 70, N.E.C.
- ANSI B 31.3
- Cal OSHA DOSH Article 7, Title 8, Section 532 through 544
- AISC - STRUCTURAL STEEL
- ASME - MATERIALS AND MATERIAL TESTING
- AWS - WELDING
- ACI - CONCRETE
- California Building Code, 2001 Edition



AS-BUILT 11-29-05

DO NOT REMOVE FROM JOB SITE

LOWERED EXISTING ELEVATIONS (-2.4073) 1/22/02
 LOWERED PROPOSED ELEVATIONS (-2.4073) 7/22/02



NOTICE TO CONTRACTOR:

1. THE EXISTENCE AND LOCATION OF ALL UTILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES BY EXCAVATING AT THE LOCATIONS INDICATED ON THIS PLAN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES DISCOVERED DURING THE COURSE OF THE WORK.

2. ALL CONTRACTORS AND SUBCONTRACTORS PERFORMING WORK SHOWN ON OR RELATED TO THIS PLAN SHALL COMPLY WITH ALL ORDINANCES AND REGULATIONS OF THE CITY OF BARSTOW AND THE CALIFORNIA DEPARTMENT OF INDUSTRIAL RELATIONS AND THE CALIFORNIA DEPARTMENT OF INDUSTRIAL SAFETY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES DISCOVERED DURING THE COURSE OF THE WORK.

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES DISCOVERED DURING THE COURSE OF THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES DISCOVERED DURING THE COURSE OF THE WORK.

GENERAL GRADING NOTES:

1. ALL EXISTING ELEVATIONS ARE TO BE LOWERED TO THE ELEVATIONS SHOWN ON THIS PLAN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES DISCOVERED DURING THE COURSE OF THE WORK.

2. PRIOR TO ANY GRADING OR EXCAVATION WORK, THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES BY EXCAVATING AT THE LOCATIONS INDICATED ON THIS PLAN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES DISCOVERED DURING THE COURSE OF THE WORK.

3. ALL EXCAVATIONS SHALL BE PROTECTED BY SHIELDING OR SHIELDING SHALL BE PROVIDED AT ALL TIMES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES DISCOVERED DURING THE COURSE OF THE WORK.

LEGEND:

- 1. EXISTING ELEVATION
- 2. PROPOSED ELEVATION
- 3. CENTER LINE
- 4. PROPERTY LINE
- 5. ADJACENT PROPERTY
- 6. TELEPHONE LINE
- 7. GAS LINE
- 8. WATER LINE
- 9. SEWER LINE
- 10. STORM LINE

UTILITIES:

- 1. GAS: CALIFORNIA GAS COMPANY, 1000 W. MAIN STREET, BARSTOW, CA 92311, (951) 835-1111
- 2. WATER: SOUTHERN CALIFORNIA WATER CO., 1000 W. MAIN STREET, BARSTOW, CA 92311, (951) 835-1111
- 3. SEWER: CITY OF BARSTOW, 1000 W. MAIN STREET, BARSTOW, CA 92311, (951) 835-1111
- 4. STORM: CITY OF BARSTOW, 1000 W. MAIN STREET, BARSTOW, CA 92311, (951) 835-1111

LEGAL DESCRIPTION:

PARCEL 3 OF MAP 146 1541, PROJECT NO. 2000-01, 1000 W. MAIN STREET, BARSTOW, CA 92311

NOTES:

- 1. ALL EXISTING ELEVATIONS ARE TO BE LOWERED TO THE ELEVATIONS SHOWN ON THIS PLAN.
- 2. PRIOR TO ANY GRADING OR EXCAVATION WORK, THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES BY EXCAVATING AT THE LOCATIONS INDICATED ON THIS PLAN.
- 3. ALL EXCAVATIONS SHALL BE PROTECTED BY SHIELDING OR SHIELDING SHALL BE PROVIDED AT ALL TIMES.

BENCHMARK:

1000 W. MAIN STREET, BARSTOW, CA 92311, ELEVATION: 100.00

BASIS OF BEARINGS:

TRUE NORTH

SCALE:
 1" = 10'
 1/4" = 10'

SCALE: N.T.S.	
DRAWN BY	J.R.E.
Shu	05.26.05
CHECKED BY	DATE

DATE	REVISIONS	BY	CHK.
05.26.05	Initial Design	J.R.E.	Shu

Weaver Electric, Inc.

1300 W. MAIN STREET, BARSTOW, CA 92311
 (951) 835-1111
 FAX: (951) 835-1112

Barstow LNG-LCNG Fueling Station
 100 North Sandstone Court
 Barstow, CA 92311

GRADING PLAN

C-2

LEGAL DESCRIPTION:

PARCEL 4 IN MAPS 148 (1941),
RESERVED ON CHANAS PLATS 118 (1941) AND 119 (1941)

NOTES:

1. MARKS OF BENCHMARKS TAKEN FROM THE UNITED STATES OF AMERICA FROM THE SURVEY RECORDS OF SURVEY RECORDS IN BOOKS 40, 41 AND 42.
2. BENCHMARKS SHOWN AS NOTED.
3. ALL VERTICAL CURVES AND GRADES SHALL BE RECHECKED AND APPROVED BY THE CITY ENGINEER PRIOR TO BEING PLACED IN PLACE AND APPROVED. CONSTRUCTION SHALL BE UNDER THE CLOSE SUPERVISION OF THE CITY ENGINEER. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY ENGINEER'S ORDINANCES AND THE CITY ENGINEER SHALL BE RESPONSIBLE FOR THE ACCURACY OF THE DATA AND GRADES SHOWN ON THIS PLAN.
4. DRAINAGE AND SEWER LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY ENGINEER'S ORDINANCES.

NOTICE TO CONTRACTOR:

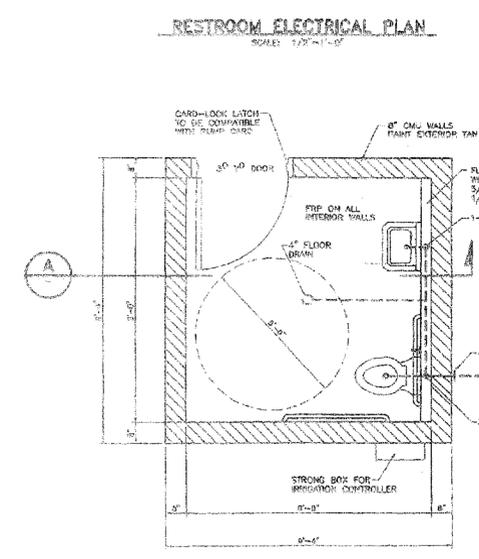
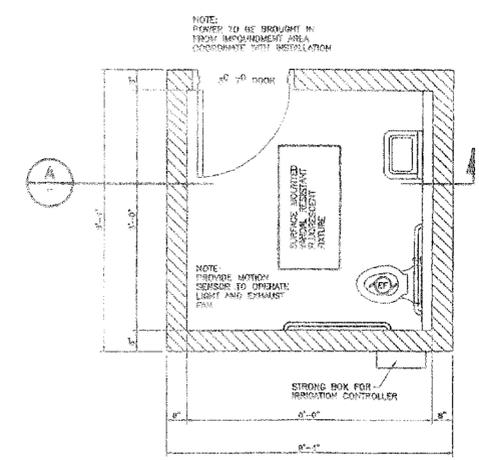
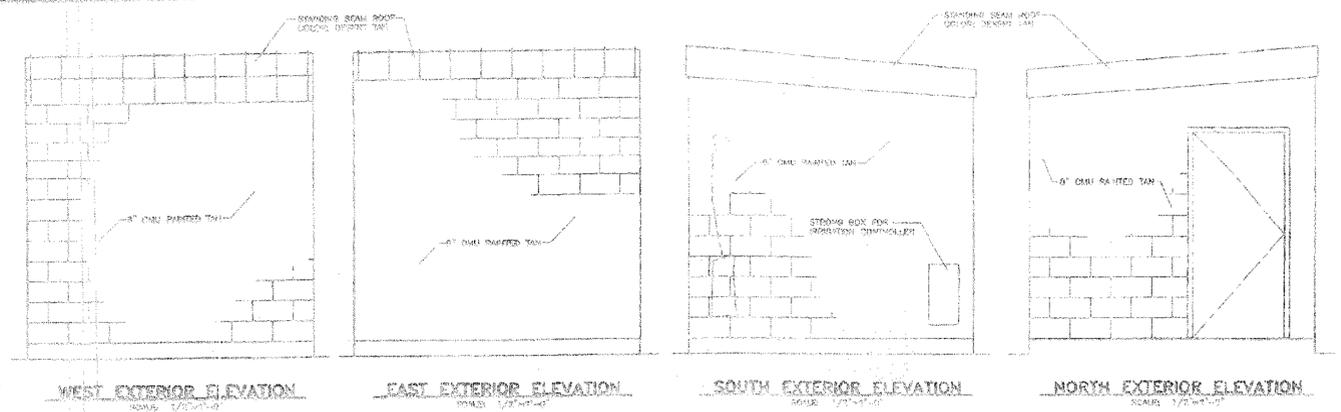
1. THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. THE BEST OF OUR KNOWLEDGE THESE UTILITIES SHOWN ON THIS PLAN ARE CORRECT. THESE UTILITIES SHOWN ON THIS PLAN ARE NOT TO BE CONSIDERED AS GUARANTEEING THE LOCATION, DEPTH OR CHARACTER OF ANY UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION.
2. ALL CONTRACTORS AND SUBCONTRACTORS PERFORMING WORK SHOWN ON OR RELATED TO THESE PLANS SHALL CONDUCT THEIR OPERATIONS SO THAT ALL UTILITIES ARE PROTECTED. A SAFE PLACE TO WORK AND THE PUBLIC IS PROTECTED. THE CONTRACTOR AND SUBCONTRACTORS SHALL COMPLY WITH THE CALIFORNIA SAFETY AND HEALTH REGULATIONS OF THE DEPARTMENT OF INDUSTRIAL LABOR AND EMPLOYMENT RELATIONS AND THE DEPARTMENT OF INDUSTRIAL LABOR AND EMPLOYMENT RELATIONS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY ENGINEER AND THE CALIFORNIA DEPARTMENT OF INDUSTRIAL LABOR AND EMPLOYMENT RELATIONS.
4. THE CONTRACTOR IS HEREBY ADVISED THAT THE CITY ENGINEER'S REVIEW OF THIS PLAN IS LIMITED TO THE TECHNICAL ASPECTS OF THE PLAN AND DOES NOT CONSTITUTE AN ENDORSEMENT OF THE PROJECT OR A GUARANTEE OF THE ACCURACY OF THE DATA AND GRADES SHOWN ON THIS PLAN.

CONSTRUCTION NOTES:

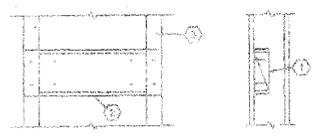
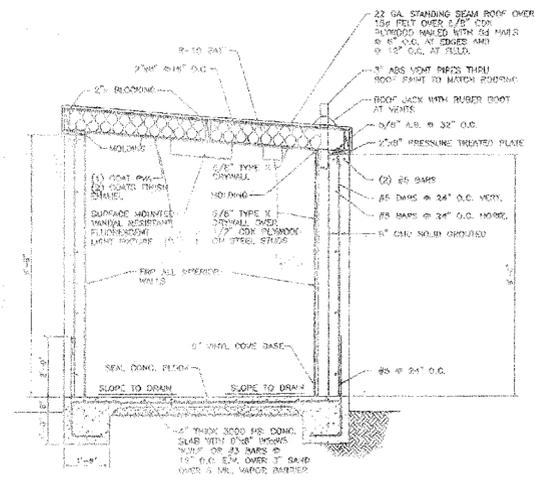
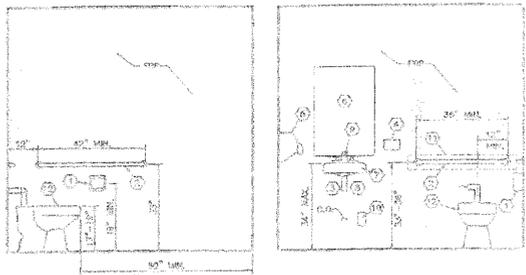
1. CONSTRUCT 18" RCP IN 24" SLOPE
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LEGEND:

- 18" RCP
- 12" RCP
- 6" RCP
- 4" RCP
- 3" RCP
- 2" RCP
- 1" RCP
- 1/2" RCP
- 1/4" RCP
- 1/8" RCP
- 1/16" RCP
- 1/32" RCP
- 1/64" RCP
- 1/128" RCP
- 1/256" RCP
- 1/512" RCP
- 1/1024" RCP
- 1/2048" RCP
- 1/4096" RCP
- 1/8192" RCP
- 1/16384" RCP
- 1/32768" RCP
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- 1/18707220955756749337993940024924



- KEYED NOTES O**
1. SURFACE FINISH WITH 1/2\"/>



- NOTES**
1. ALL ATTACHMENT TO WALL SHALL BE PROPERLY ANCHORED BEFORE FINISH IS INSTALLED. NO FINISH SLUVE ANCHORS WILL BE ALLOWED.
 2. PROVIDE SUBMITTALS ON ALL FINISHES AND ACCESSORIES TO CHANGE RESPONSIBILITY FOR APPROVAL PRIOR TO ORDERING.
 3. PROVIDE SUBMITTALS ON ALL EXTERIOR COLORS TO GET PRE-APPROVAL PRIOR TO ORDERING.
 4. SPECIAL INSPECTION ON 3000 PSI CONCRETE REQUIRED.
 5. NO HOT WATER TO BE PROVIDED IN RESTROOM.
 6. PROVIDE UNDER RESTROOM SINK AND VAN.

DIGALERT
CALL BEFORE YOU DIG
1-800-277-2600
UNDERGROUND SERVICE ALERT

Merrill-Johnson Engineering, Inc.
12110 HUNTING, SUITE 6000
MIRAMONTE, CALIFORNIA 92029
(951) 241-5140
(951) 241-3938 Fax
www.merrill-johnson.com

CITY OF BARSTOW
222 E. MOUNTAIN VIEW ST. SUITE A BARSTOW, CA 92311
PHONE: (760) 253-3331 FAX: (760) 253-1703

PREPARED UNDER THE SUPERVISION OF:
Professional Engineer Seal
R.C.E. 4445 - Exp. 9/30/04
WED ONLY WHEN WET SIGNED

NO.	REVISIONS	DATE

PROJECT NO.		TITLE	
LNG - LNG STATION		UNISFX RESTROOM BUILDING PLANS	
DESIGNED BY:		R.C.E. NO.	
DRAWN BY:		DATE:	
CHECKED BY:		SCALE:	

SCALE: N.T.S.

DRAWN BY:	DATE:
Shi	05-26-05
CHECKED BY:	DATE:

REV.	BY	DATE	DESCRIPTION

Weaver Electric, Inc.
10000 W. BROADWAY, SUITE 100, BARSTOW, CA 92311
TEL: (760) 253-1703 FAX: (760) 253-1703
WWW.WEAVERELECTRIC.COM

PROJECT: **Barstow LNG-LONG Fueling Station**
100 North Sandstone Court
Barstow, CA 92311

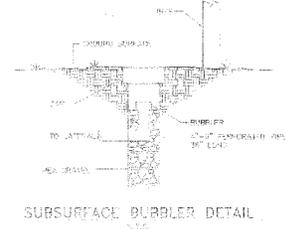
SHEET NAME: **RESTROOM BUILDING**

SHEET: **C-5**

NOTICE TO CONTRACTOR:

- THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITIES ARE NOT GUARANTEED BY THIS PLAN AND CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL UTILITIES PRIOR TO ANY EXCAVATION. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF BARSTOW AND THE CALIFORNIA DEPARTMENT OF WATER RESOURCES PRIOR TO ANY EXCAVATION.
- ALL CONTRACTORS AND SUBCONTRACTORS SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF BARSTOW AND THE CALIFORNIA DEPARTMENT OF WATER RESOURCES PRIOR TO ANY EXCAVATION.
- THE CONTRACTOR SHALL NOT BE RESPONSIBLE IN ANY WAY FOR THE CONSTRUCTION AND SUBCONTRACTOR COMPLIANCE WITH THE OCCUPATIONAL HEALTH AND SAFETY REGULATIONS OF THE DEPARTMENT OF INDUSTRIAL RELATIONS AND THE STATE OF CALIFORNIA.
- THE CONTRACTOR IS ADVISED THAT THE ENTIRE TERM OF THIS CONTRACT IS SUBJECT TO THE CITY OF BARSTOW'S DISCRETION TO MODIFY, SUSPEND, OR TERMINATE THIS CONTRACT AT ANY TIME WITHOUT NOTICE.

- LEGAL DESCRIPTION:**
- TRACT 3 OF PARCEL MAP 15481, FILED FOR RECORD IN BOOK 05, PAGE 23, COUNTY OF SAN BERNARDINO, CALIFORNIA.
- LEGEND:**
- 1" = 1" INDICATES BARRER MODEL NO. 5004-PC AT TOTAL PRESSURE
 - 2" = 2" INDICATES BARRER MODEL NO. 1806 4500 ST. PORT-UP
 - 3" = 3" INDICATES 2 GAL. GPM. BARRER 14-16
 - 4" = 4" INDICATES 1 GAL. GPM. BARRER 14-16
 - 5" = 5" INDICATES 1 GAL. GPM. BARRER 14-16
 - 6" = 6" INDICATES 1 GAL. GPM. BARRER 14-16
 - 7" = 7" INDICATES 1 GAL. GPM. BARRER 14-16
 - 8" = 8" INDICATES 1 GAL. GPM. BARRER 14-16
 - 9" = 9" INDICATES 1 GAL. GPM. BARRER 14-16
 - 10" = 10" INDICATES 1 GAL. GPM. BARRER 14-16
 - 11" = 11" INDICATES 1 GAL. GPM. BARRER 14-16
 - 12" = 12" INDICATES 1 GAL. GPM. BARRER 14-16
 - 13" = 13" INDICATES 1 GAL. GPM. BARRER 14-16
 - 14" = 14" INDICATES 1 GAL. GPM. BARRER 14-16
 - 15" = 15" INDICATES 1 GAL. GPM. BARRER 14-16
 - 16" = 16" INDICATES 1 GAL. GPM. BARRER 14-16
 - 17" = 17" INDICATES 1 GAL. GPM. BARRER 14-16
 - 18" = 18" INDICATES 1 GAL. GPM. BARRER 14-16
 - 19" = 19" INDICATES 1 GAL. GPM. BARRER 14-16
 - 20" = 20" INDICATES 1 GAL. GPM. BARRER 14-16
- UTILITIES:**
- ELECTRIC: SOUTHERN CALIFORNIA EDISON COMPANY, BARSTOW, CALIFORNIA 92311, (760) 256-2222
 - WATER: SOUTHERN CALIFORNIA WATER CO., 220 E. MAIN STREET, BARSTOW, CALIFORNIA 92311, (760) 256-2222
 - TELEPHONE: SOUTHERN CALIFORNIA TELEPHONE COMPANY, BARSTOW, CALIFORNIA 92311, (760) 256-2222
 - CABLE: TIMEWARNER CABLE, 210 W. MAIN STREET, BARSTOW, CALIFORNIA 92311, (760) 256-2222



QUANT.	NOTES
1" x 1"	INDICATES BARRER MODEL NO. 5004-PC AT TOTAL PRESSURE
2" x 2"	INDICATES BARRER MODEL NO. 1806 4500 ST. PORT-UP
3" x 3"	INDICATES 2 GAL. GPM. BARRER 14-16
4" x 4"	INDICATES 1 GAL. GPM. BARRER 14-16
5" x 5"	INDICATES 1 GAL. GPM. BARRER 14-16
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7" x 7"	INDICATES 1 GAL. GPM. BARRER 14-16
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10" x 10"	INDICATES 1 GAL. GPM. BARRER 14-16
11" x 11"	INDICATES 1 GAL. GPM. BARRER 14-16
12" x 12"	INDICATES 1 GAL. GPM. BARRER 14-16
13" x 13"	INDICATES 1 GAL. GPM. BARRER 14-16
14" x 14"	INDICATES 1 GAL. GPM. BARRER 14-16
15" x 15"	INDICATES 1 GAL. GPM. BARRER 14-16
16" x 16"	INDICATES 1 GAL. GPM. BARRER 14-16
17" x 17"	INDICATES 1 GAL. GPM. BARRER 14-16
18" x 18"	INDICATES 1 GAL. GPM. BARRER 14-16
19" x 19"	INDICATES 1 GAL. GPM. BARRER 14-16
20" x 20"	INDICATES 1 GAL. GPM. BARRER 14-16

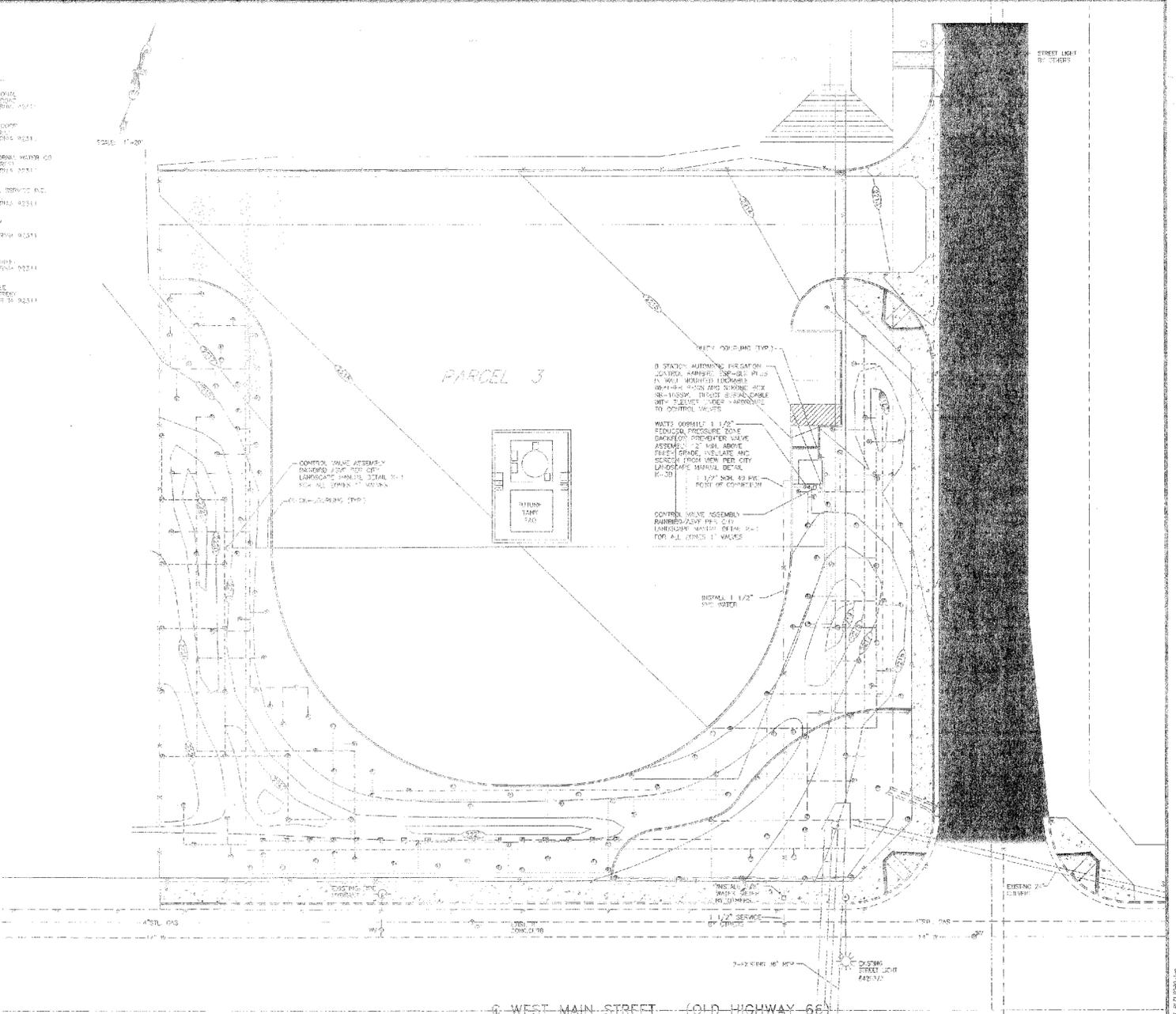
THE DRAWING SCHEDULES ONLY:

INSTALL ALL PLANT MATERIALS, INCLUDING BARRER AND LATERAL LINES PER CITY OF BARSTOW SPECIFICATIONS. (SEE CITY OF BARSTOW SPECIFICATIONS AND CITY ENGINEERING DEPARTMENT 110-010-100.)

IRRIGATION LATERAL LINES SHALL BE 200 P.S.I. ALL PRESSURE LINES TO BE 40 P.S.I. OR AS NOTED.

ALL IRRIGATION COMPONENTS SHALL BE COMMERCIAL GRADE, CONSTRUCTION QUALITY, APPROVED FOR USE FOR COMMERCIAL APPLICATIONS.

BARRER ASSEMBLY TO BE SCHEDULED FROM STOCK BY SPECIAL ORDER, TO BE DELIVERED BY TRUCK EQUIPMENT.



<p>DIGALERT</p> <p>CALL BEFORE YOU DIG</p> <p>1-800-227-2600</p> <p>UNDERGROUND SERVICE ALERT</p> <p>Call at least 2 working days prior to excavation.</p>	<p>Metrell-Johnson Engineering, Inc.</p> <p>2138 INDUSTRIAL BLVD. #200 BARSTOW, CALIFORNIA 92311 (760) 256-2222 (760) 256-2222 FAX</p> <p>125 E. SPANISH STREET BARSTOW, CALIFORNIA 92311 (760) 256-2222 (760) 256-2222 FAX</p>	<p>CITY OF BARSTOW</p> <p>220 E. MAIN STREET, SUITE A BARSTOW, CA 92311</p> <p>PHONE: (760) 256-2533 FAX: (760) 256-1700</p> <p>PREPARED UNDER THE SUPERVISION OF:</p>	<p>NO. REVISIONS</p> <p>DATE</p>	<p>PROJECT NO. _____</p> <p>LNG - LNG STATION IRRIGATION PLAN</p>
			<p>APPROVED BY:</p> <p>PREPARED BY:</p> <p>DATE: 12/17/02</p> <p>AS-NOTED</p>	<p>TITLE:</p> <p>SHEET 7 OF 7</p> <p>PLAN NO.</p>

SCALE: N.T.S.

DRAWN BY	DATE
Shu	05-24-05
CHECKED BY	DATE

DATE	REVISIONS	BY
05-26-05	Revise for Permit	Shu

Weaver Electric, Inc.

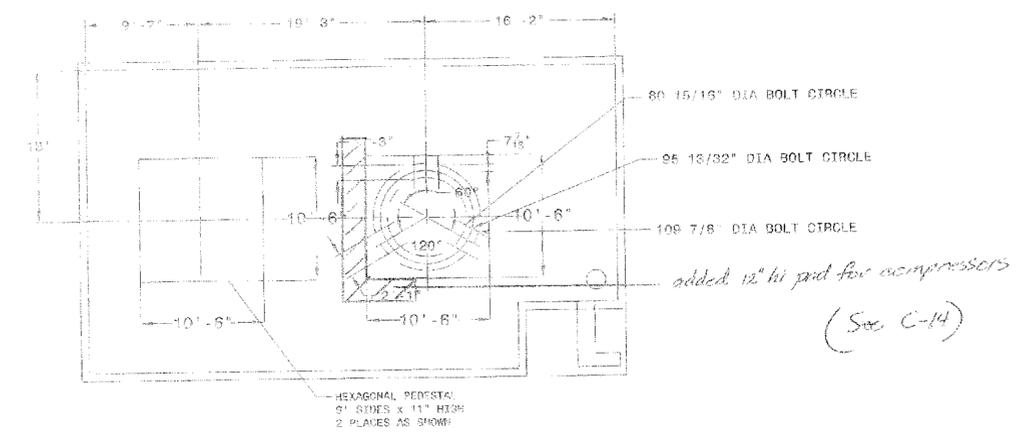
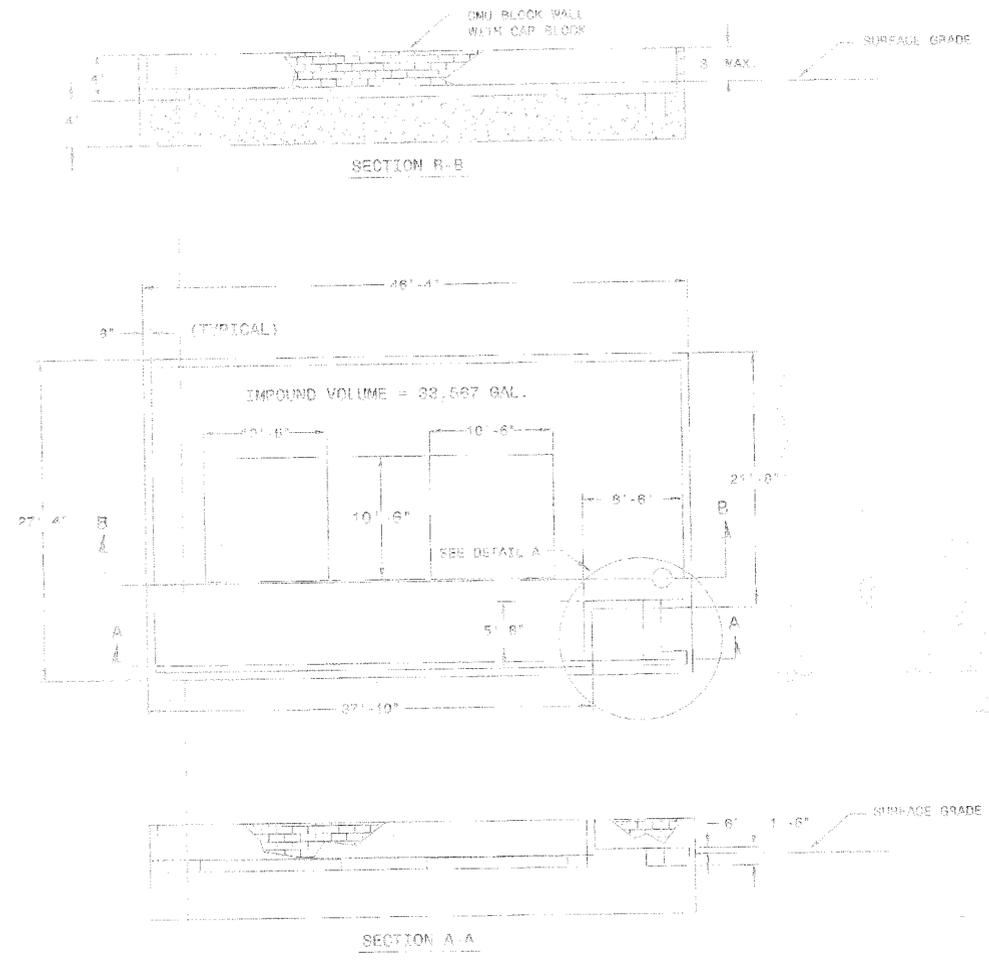
2138 INDUSTRIAL BLVD. #200
BARSTOW, CALIFORNIA 92311
(760) 256-2222
(760) 256-2222 FAX

125 E. SPANISH STREET
BARSTOW, CALIFORNIA 92311
(760) 256-2222
(760) 256-2222 FAX

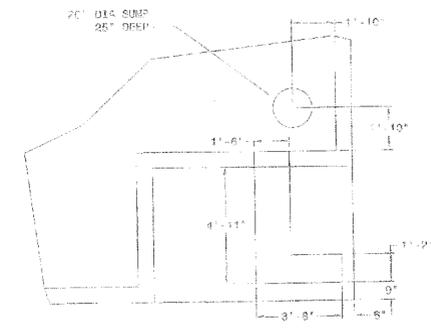
PROJECT: Barstow LNG-LONG Fueling Station
100 North Sandstone Court
Barstow, CA 92311

SHEET NAME: IRRIGATION PLAN

SHEET: C-7



LNG STORAGE TANK LOCATION DETAIL
SCALE: 3/16"=1'



DETAIL A
SCALE: 3/8"=1'

- NOTES:
1. HOLD-DOWN BOLTS TO BE TIED IN PLACE PRIOR TO CALLING FOR FOUNDATION INSPECTION.
 2. ANCHOR BOLTS TO BE PLACED ON ONE TANK PAD AS SHOWN USING TEMPLATES FOR LESS SUPPLIED BY TANK MANUFACTURER.
 3. SOAKAWAY 12" BELOW STRUCTURE AND RECOMPACTED TO 90% RELATIVE COMPACTION.
 4. HOLD-DOWN ANCHORS MUST BE TIED IN PLACE PRIOR TO CALLING FOR FOUNDATION INSPECTION.
 5. CLEARANCE DIMENSIONS SHOWN FROM FACE OF CONCRETE TO REBAR, AND REBAR.
 6. CONCRETE STRENGTH FOR FOUNDATIONS TO BE 3000 PSI X 28 DAYS.
 7. THIS DETAIL SUPERSEDES REVISION DRAWING N-3810CT0582.
 8. EXISTING SOIL TO BE EXCAVATED AND RECOMPACTED PER PROJECT SOILS REPORT.
 9. IMPOUND VOLUME EQUAL TO TWO (2) EACH 15,000 GALS. LNG TANKS.



SCALE	N.T.S.
DRAWN BY	DATE
Shu	05-25-05
CHECKED BY	DATE

DATE	REVISIONS	REV. BY
05-25-05	PERMITTED DRAWING	SHU

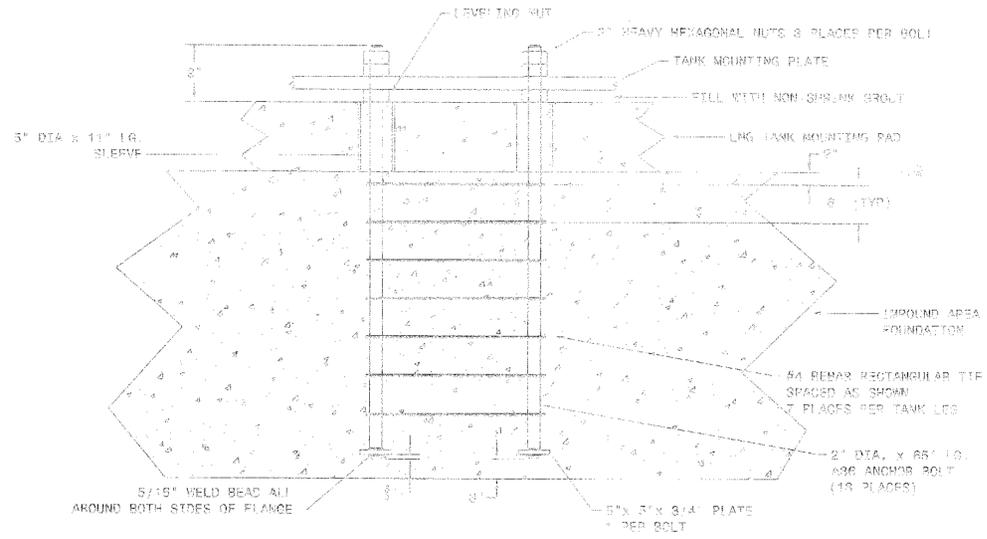
Weaver Electric, Inc.

Equal Opportunity Employer
M/F/V
EEO/AAE/DFW

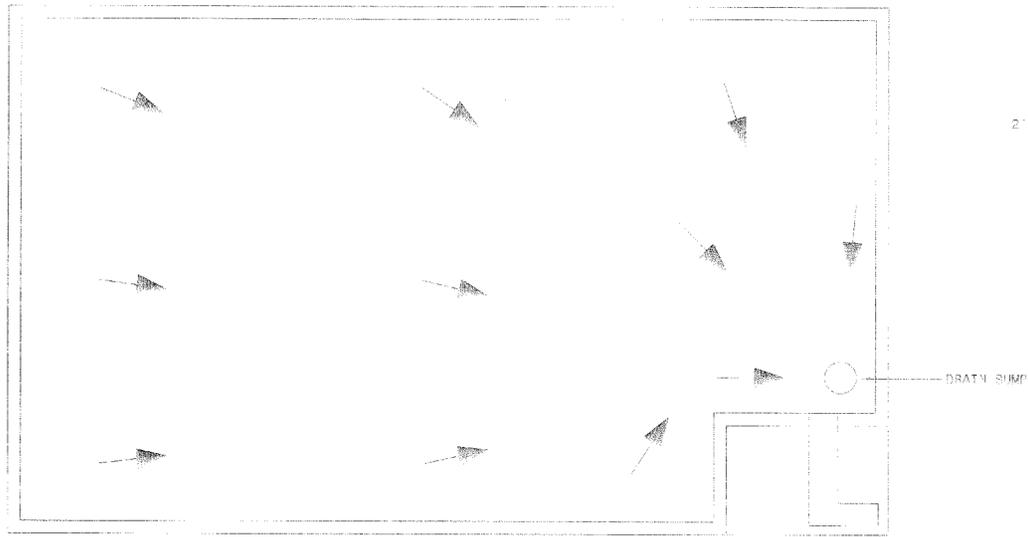
PROJECT: Barstow LNG-LCNG Fueling Station
100 North Sandstone Court
Barstow, CA 92311

SHEET NAME: LNG FOUNDATION DETAILS

SHEET: C-8

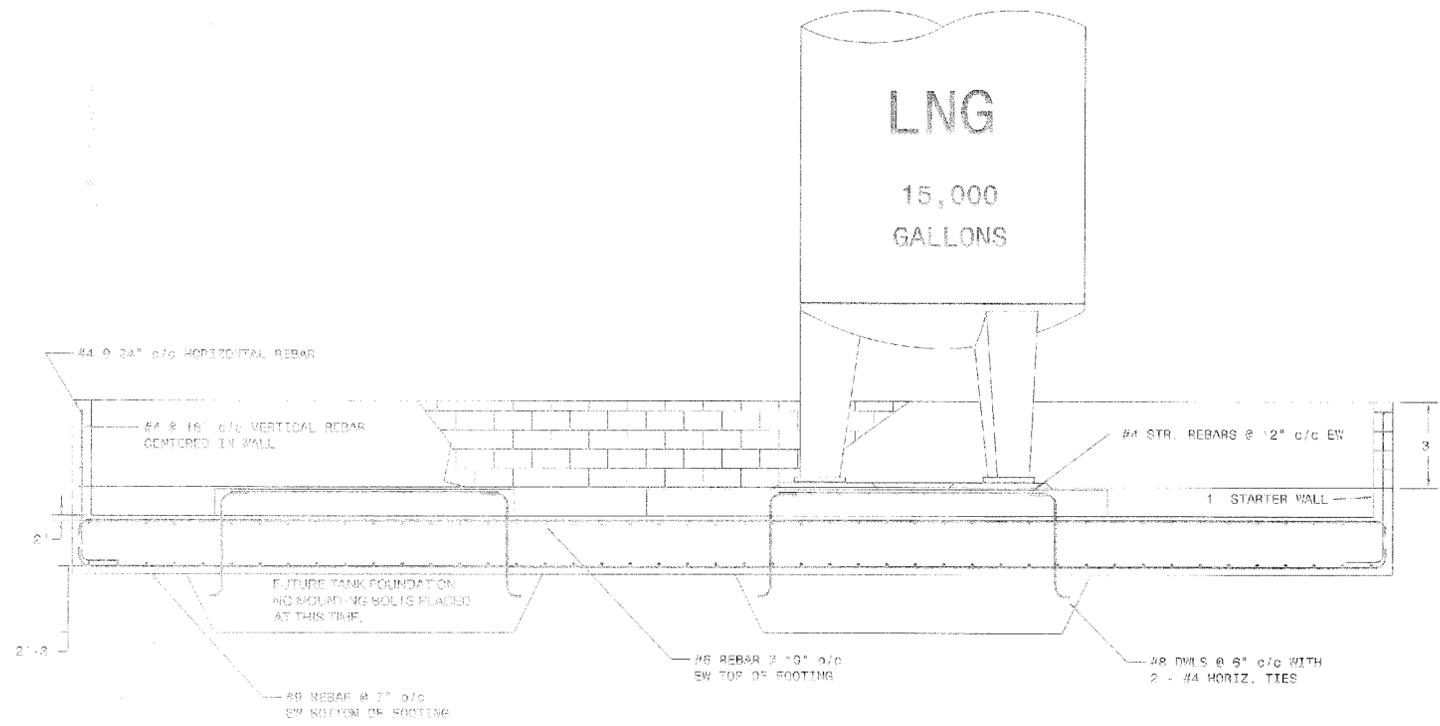


LNG TANK MOUNTING BOLT DETAIL
SCALE: 1"=1'

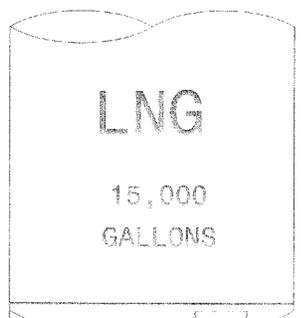


IMPOUND AREA TOP OF CONCRETE DRAINAGE
SCALE: 1/4"=1'

NOTES:
1. FINISH TOP OF CONCRETE WITH 1% SLOPE TO SUMP HOLE AS SHOWN.
2. CONTAINMENT AREA IMPOUND VOLUME TOTAL NOT LESS THAN 33,000 GALLONS.
3. FUTURE TANK FOUNDATION. NO MOUNTING BOLTS PLACE AT THIS TIME.



IMPOUND AREA REBAR
SCALE: 3/8"=1'



SCALE: N.T.S.	
DRAWN BY Shu	DATE 05-26-05
CHECKED BY	DATE

DATE	REVISIONS	REV. BY
05-26-05	Revised for Permit	Shu

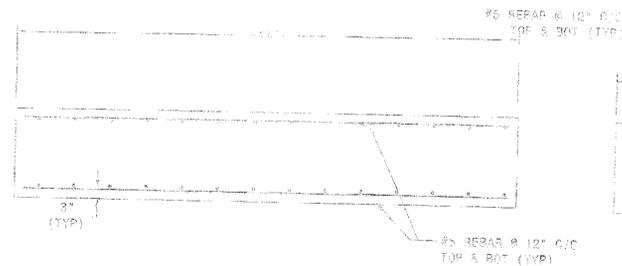
Weaver Electric, Inc.

1000 MILLER
CANTON, OHIO 44705
419-499-1100
Columbus, Ohio

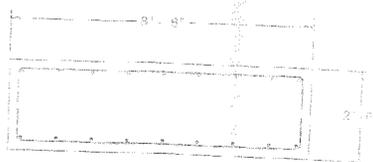
PROJECT: Barstow LNG-LCNG
Fueling Station
100 North Sandstone Court
Barstow, CA 92311

SHEET NAME: LNG AREA FOUNDATION
DETAILS CONTINUED

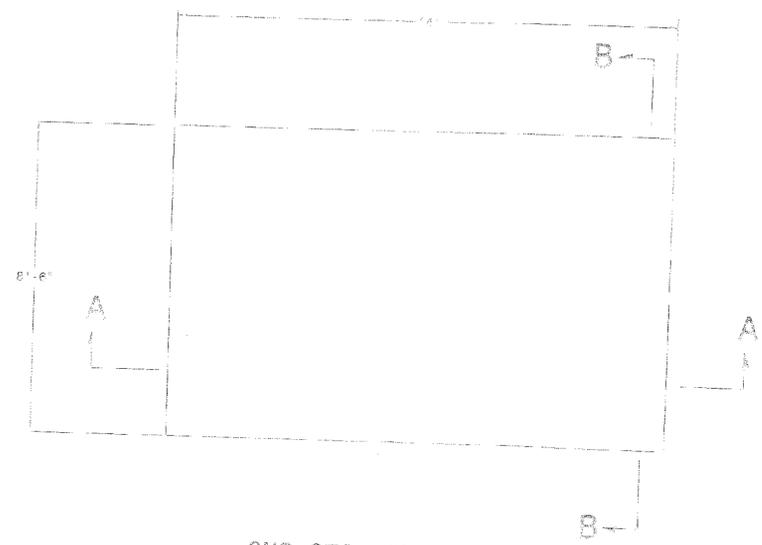
SHEET: C-9



SECTION A-A



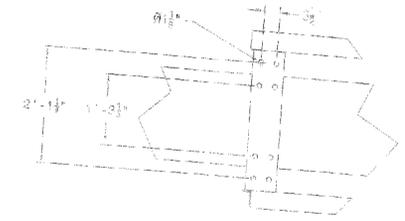
SECTION B-B



CNG STORAGE VESSEL PAD

SCALE: 1/2\"/>

- NOTES:
1. CONCRETE STRENGTH TO BE 2500 PSI @ 28 DAYS.
 2. ANCHOR BOLTS 1" Ø TO CONFORM TO AIST 30438.
 3. DUE TO MANUFACTURING TOLERANCES OF THE VESSELS AND THE SADDLES ALL MOUNTING HARDWARE MUST BE LAID OUT AFTER EQUIPMENT ARRIVES ON SITE.
 4. TO INSTALL, SET THE VESSELS IN PLACE. MARK THE LOCATION OF THE MOUNTING BOLTS, LIFT THE VESSELS, DRILL THE MOUNTING HOLES, INSTALL THE ANCHOR BOLTS, REINSTALL THE VESSELS, LEVEL, INSTALL 1" SHIM, AND TIGHTEN DOWN THE BOLTS.



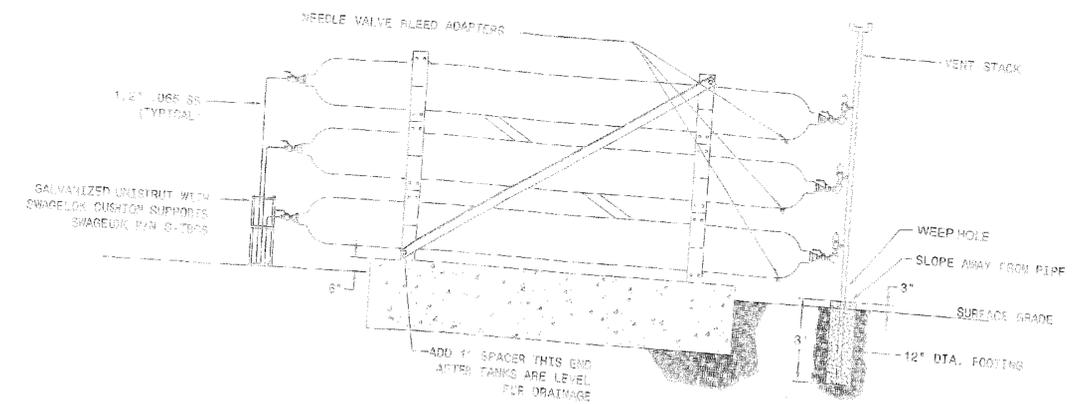
DETAIL-A

SCALE: 3/4\"/>

USE FOUR 1\"/>

W/12.5\"/>

EACH BRACKET, PER I.C.S.O. #5133



CNG STORAGE VESSEL STACK

SCALE: 3/8\"/>

DATE	REVISED
N.T.S.	
DRAWN BY	DATE
Stu	05-28-05
CHECKED BY	DATE

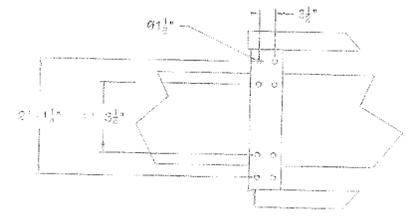
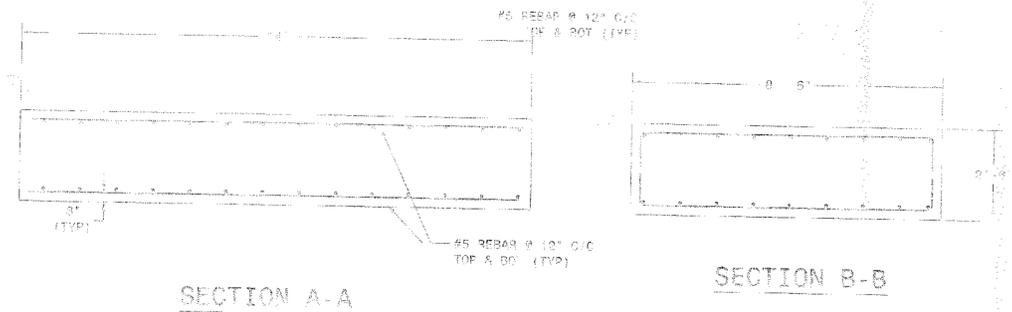
DATE	REVISIONS	REV. BY
05-28-05	Revised for permit	STU

Weaver Electric, Inc.

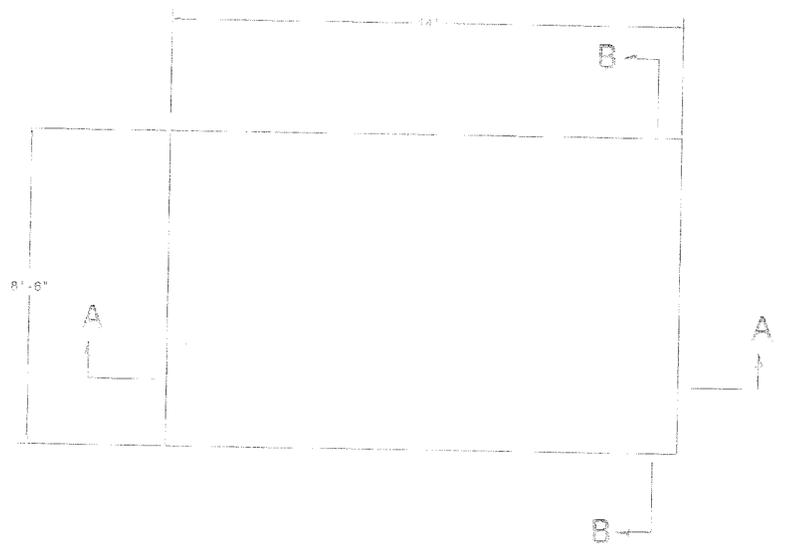
PROJECT: Barstow LNG-LCNG Fueling Station
100 North Sandstone Court
Barstow, CA 92311

SHEET NAME: CNG STORAGE CONSTRUCTION DETAILS

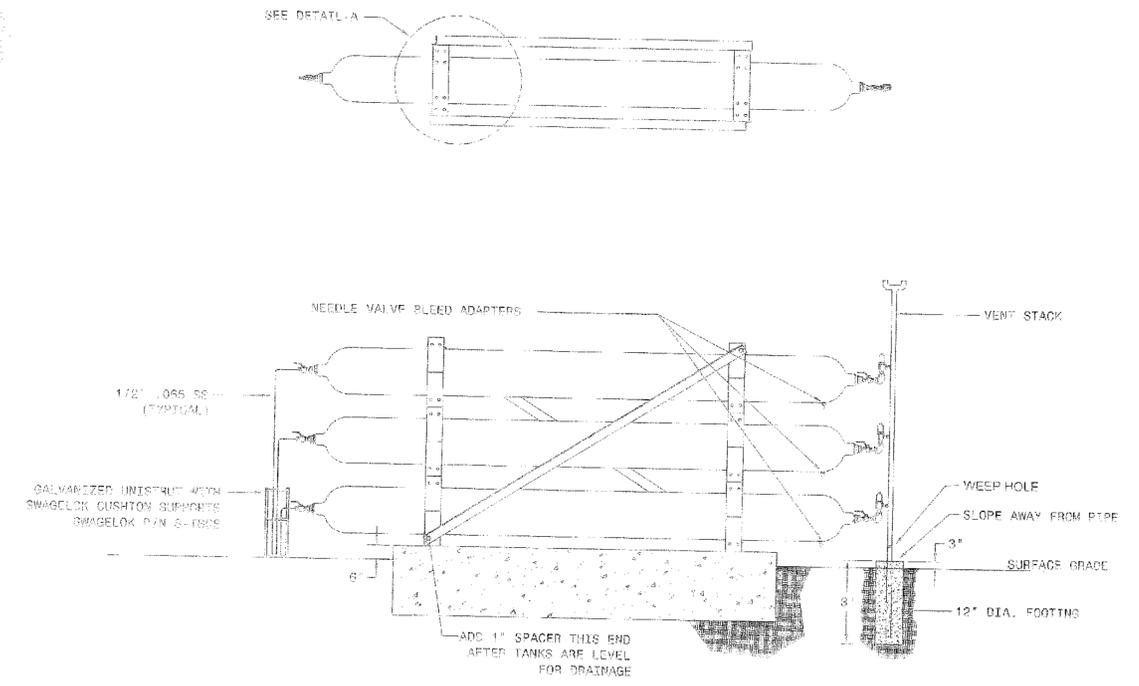
SHEET: C-10



DETAIL-A
SCALE: 3/4\"/>



CNG STORAGE VESSEL PAD
SCALE: 1/2\"/>



CNG STORAGE VESSEL STACK
SCALE: 3/8\"/>

- NOTES:**
1. CONCRETE STRENGTH TO BE 2500 PSI @ 28 DAYS.
 2. ANCHOR BOLTS 1" Ø TO CONFORM TO AISI 304SS.
 3. DUE TO MANUFACTURING TOLERANCES OF THE VESSELS AND THE SADDLES ALL MOUNTING HARDWARE MUST BE LAID OUT AFTER EQUIPMENT ARRIVES ON SITE.
 4. TO INSTALL, SET THE VESSELS IN PLACE, MARK THE LOCATION OF THE MOUNTING BOLTS, LIFT THE VESSELS, DRILL THE MOUNTING HOLES, INSTALL THE ANCHOR BOLTS, REINSTALL THE VESSELS, LEVEL, INSTALL 1" SHIM, AND TIGHTEN DOWN THE BOLTS.

SCALE: N.T.S.	
DRAWN BY Shu	DATE 05-26-05
CHECKED BY	DATE

DATE	REVISIONS	REV. BY
05-26-05	REVISED PER PERMIT	DNT

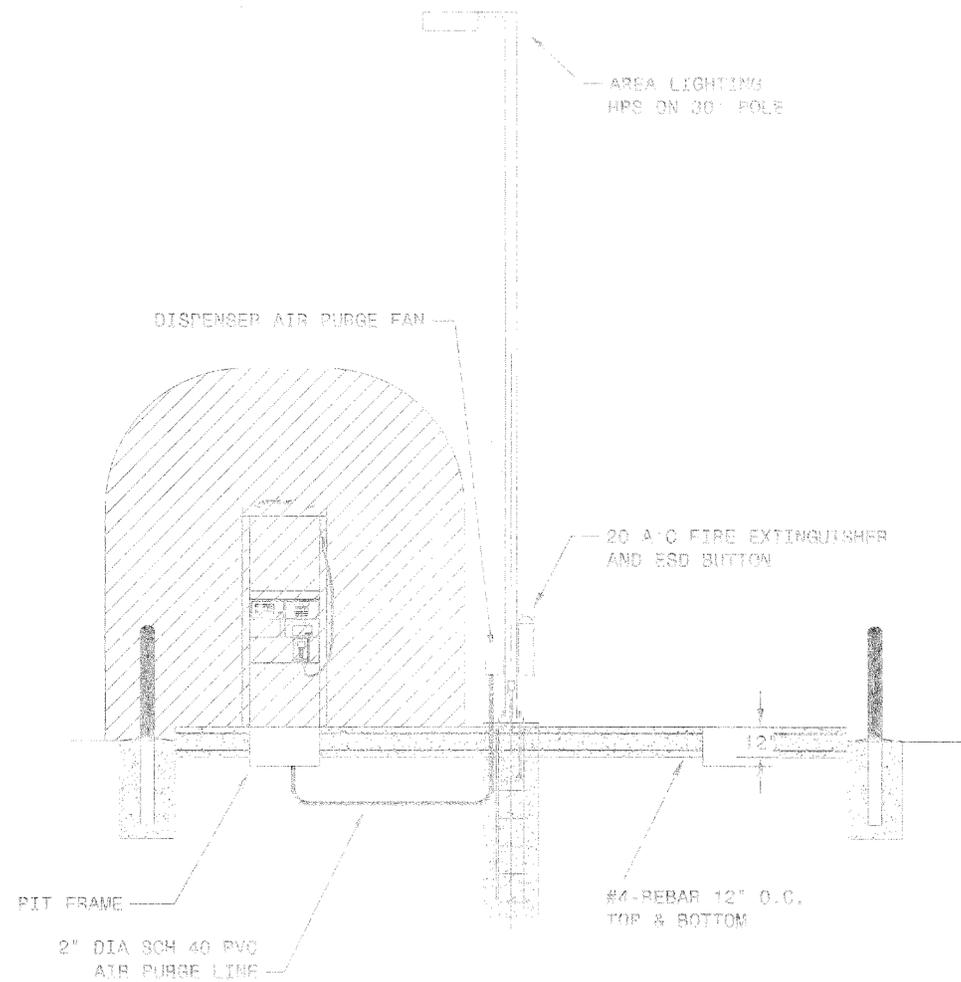
Weaver Electric, Inc.

Member International Brotherhood of Electrical Workers
1000 North Main Street
Barstow, CA 92311
909-256-2244

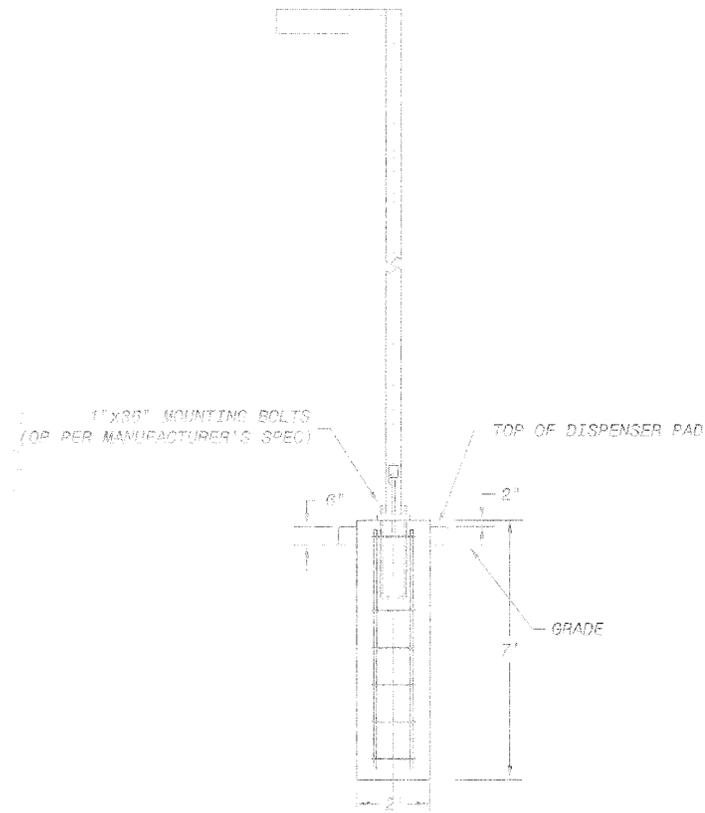
PROJECT: **Barstow LNG-LCNG Fueling Station**
100 North Sandstone Court
Barstow, CA 92311

SHEET NAME: **CNG STORAGE CONSTRUCTION DETAILS**

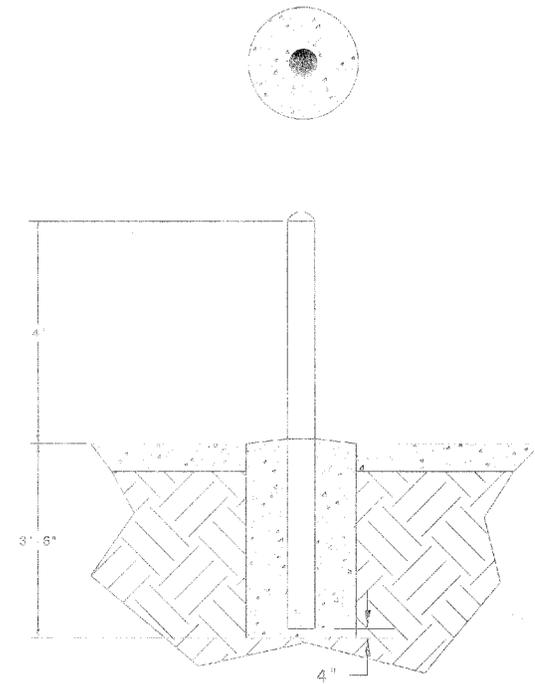
SHEET: **C-10**



CNG DISPENSER ISLAND LAYOUT



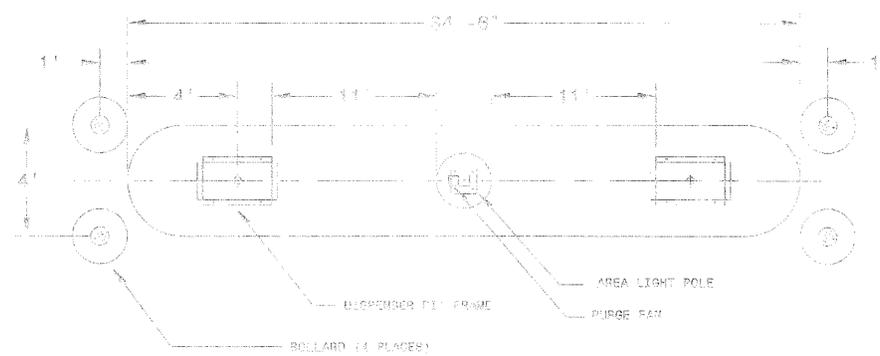
LIGHTING INSTALLATION PER MANUFACTURERS REQUIREMENTS



BOLLARD DETAIL

SCALE: 3/4"=1'

- BOLLARD NOTES:
- 6" DIA. CONCRETE FILLED CARBON STEEL PIPE, SCH 40.
 - PRIME EXTERIOR.
 - PAINT WITH SAFETY YELLOW.
 - ROUND ALL SHARP EDGES AT THE TOP OF BOLLARD.



AREA LIGHTING ELEVATION DETAIL

SCALE: 1/2"=1'

SCALE: N.T.S.	
DRAWN BY: SPH	DATE: 05-26-08
CHECKED BY: JAE	

DATE	REVISIONS	LOG
05-26-08	ISSUE FOR PERMIT	

Weaver Electric, Inc.

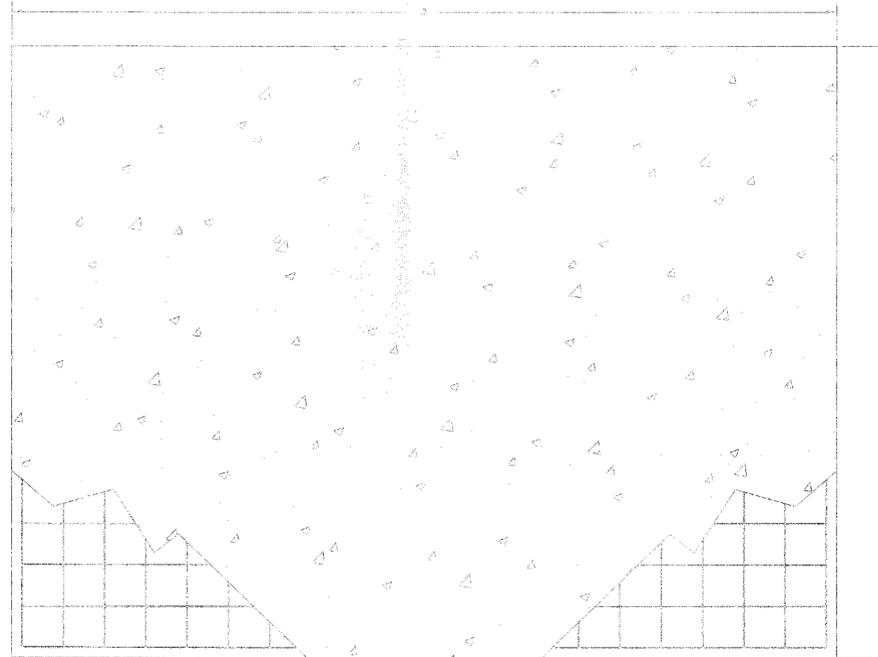
PROJECT: Barstow LNG-LCNG
Fueling Station
100 North Sandstone Court
Barstow, CA 92311

SHEET NAME:
CNG DISPENSER
ISLAND DETAILS

SHEET:
C-11

GENERAL NOTES:

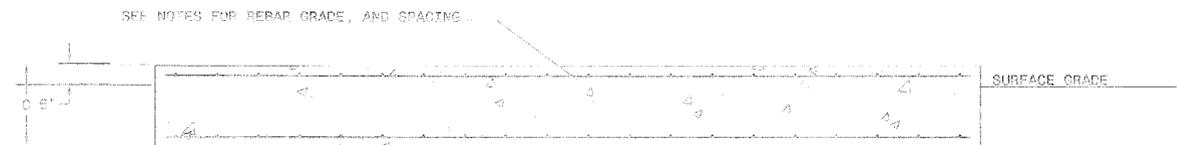
1. ALL EQUIPMENT WILL BE ANCHORED AFTER PLACEMENT. BE SURE REBAR DOES NOT INTERFERE WITHIN 3" OF ANCHOR BOLT LOCATION.
2. REBAR WILL BE POSITIONED NO CLOSER THAN 3" FROM EDGE.
3. CONCRETE STRENGTH TO BE 2500 P.S.I. @ 28 DAYS.
4. USE #4 REBAR PLACED ON 12" CENTER, DOUBLE MATTE, 24" OVERLAP ON SPLICES.



CONCRETE EQUIPMENT PAD PLAN VIEW

ELECTRICAL PAD LIST

(NOT USED)



ELECTRICAL EQUIPMENT PAD CROSS SECTION

ELECTRICAL PAD LIST

ID	DESCRIPTION	DIM 'A'	DIM 'B'	DIM 'C'	REBAR	FINISH	SLOPE
	ELECTRIC PANELS	20	10	24	#4 @ 12" O.C. Top & Bottom	LIGHTLY BROOM	1% AWAY FROM PANELS

SCALE:	
N.T.S.	
DRAWN BY:	DATE:
Shu	05-26-05
CHECKED BY:	DATE:

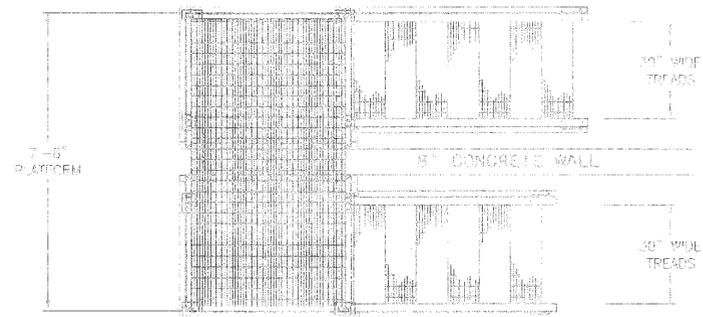
DATE	REVISIONS	REV. BY
05-26-05	Issue for Permit	SHU

Weaver Electric, Inc.

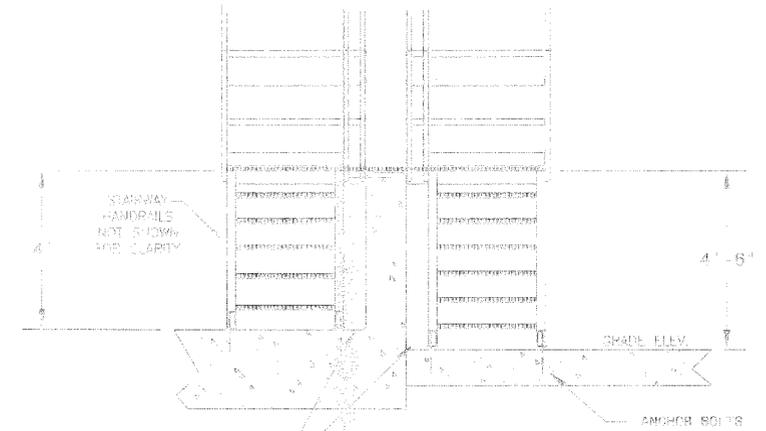
PROJECT: Barstow LNG-LCNG
Fueling Station
100 North Sandstone Court
Barstow, CA 92311

SHEET NAME: CONCRETE
EQUIPMENT
PADS

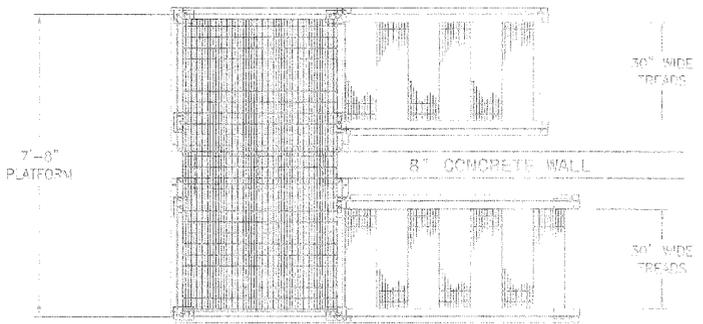
SHEET: C-12



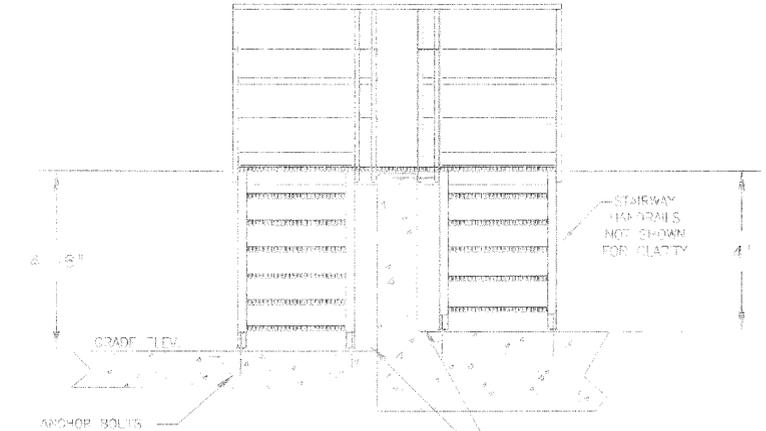
WEST WALL STAIRWAY



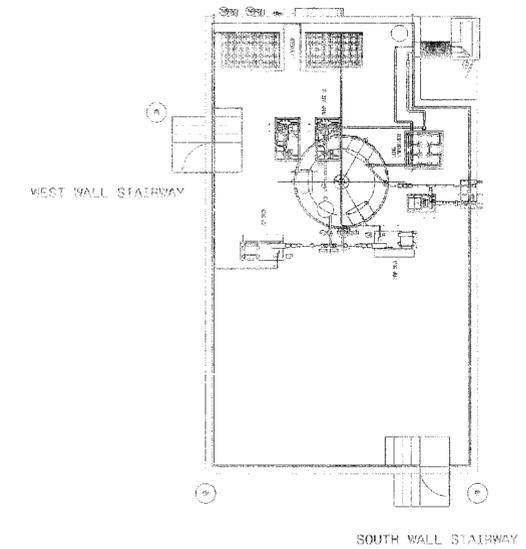
KEEP THESE AREAS OPEN FOR WALL MOUNTED PIPE & CONDUIT



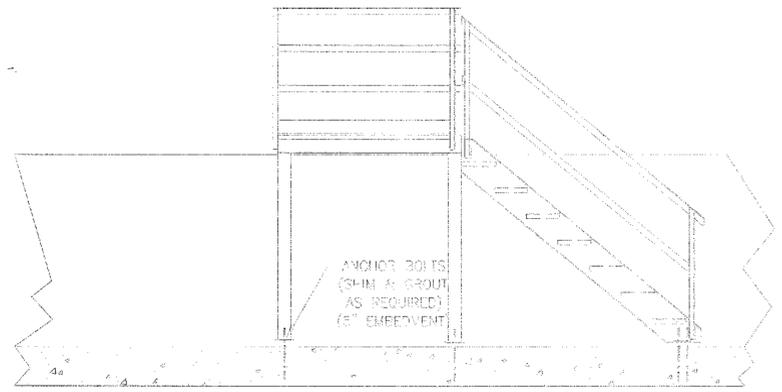
SOUTH WALL STAIRWAY



KEEP THESE AREAS OPEN FOR WALL MOUNTED PIPE & CONDUIT



LNG IMPOUND AREA



- GENERAL NOTES:
- DESIGN SHOWN FOR REFERENCE ONLY. MANUFACTURERS STANDARD DESIGN SHALL BE USED. ALL REQUIREMENTS OF 1997 UNIFIED BUILDING CODE, AND CALIFORNIA STATE CODES SHALL BE MET.
 - MATERIAL OF CONSTRUCTION SHALL BE ALUMINUM WITH STAINLESS STEEL BOLTING.
 - ALL DIMENSIONS SHOWN SHALL BE ±1".

SCALE:	
N.T.S.	
DRAWN BY:	DATE:
Shu	05-26-05
CHECKED BY:	DATE:

DATE	REVISIONS	BY	APP. NO.
05-26-05	Revise for Permit	Shu	

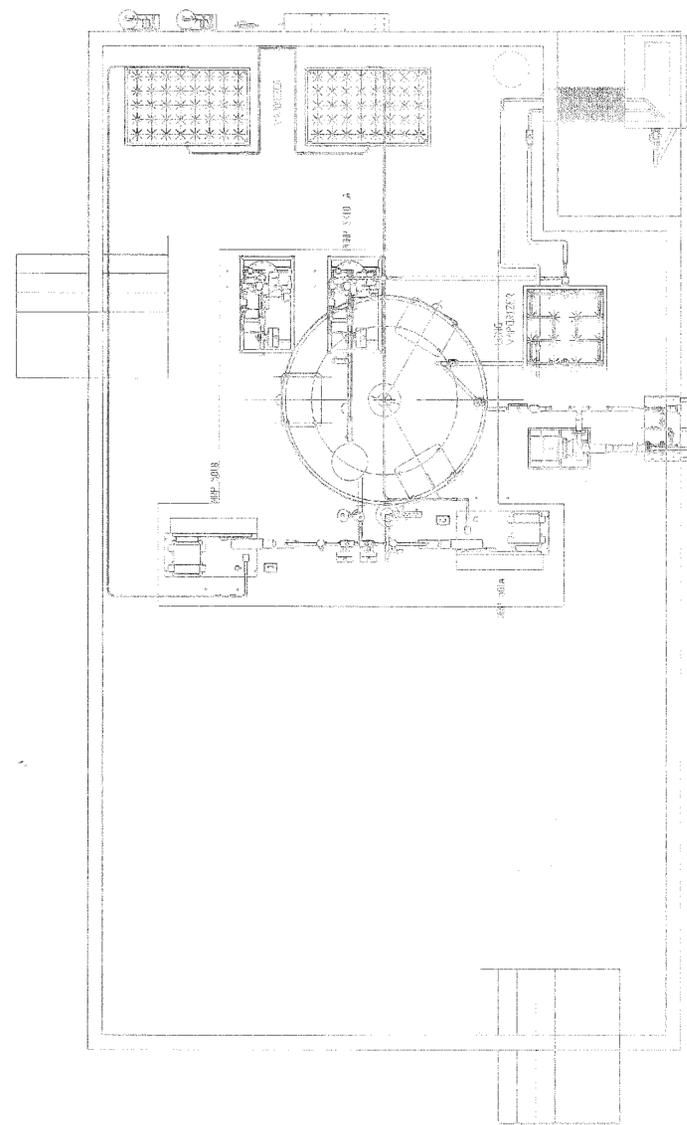
Weaver Electric, Inc.

2750 S. 10th St. Barstow, CA 92311
Tel: 951-251-7100 Fax: 951-251-7101

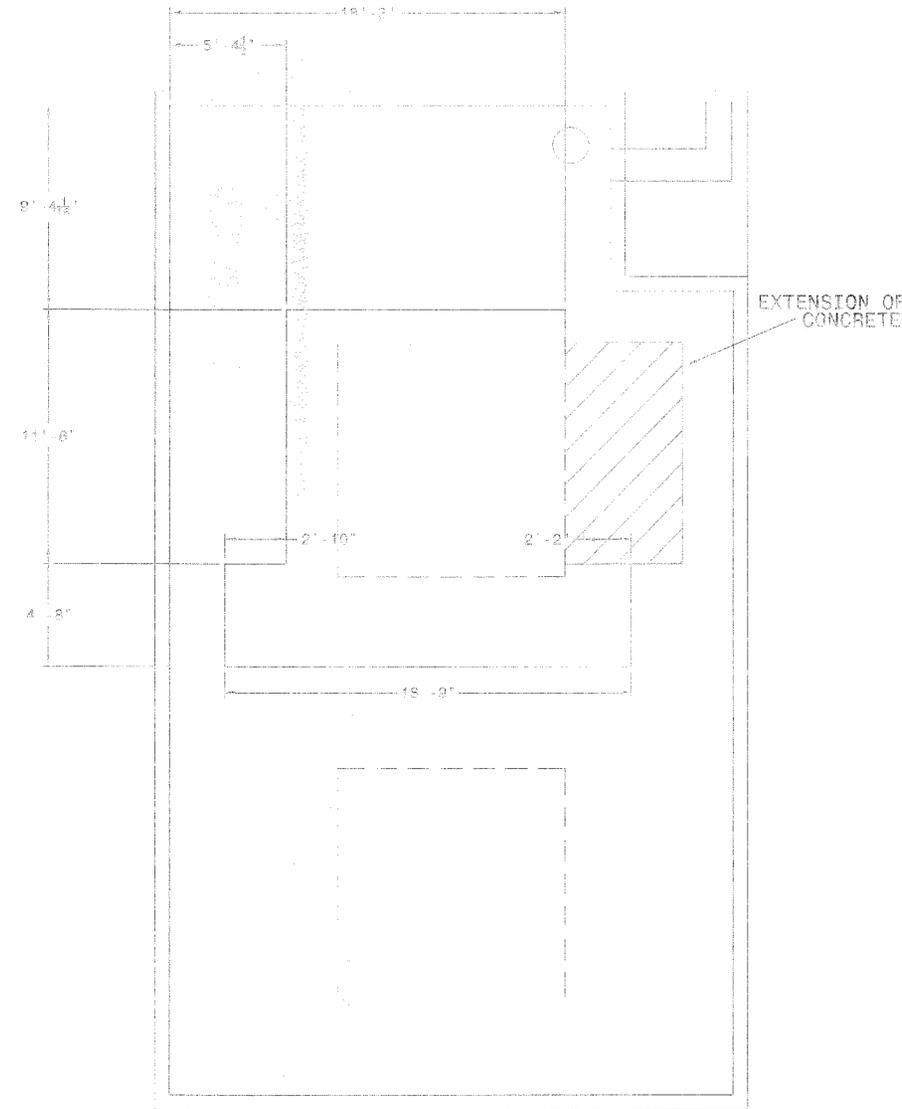
PROJECT: Barstow LNG-LCNG Fueling Station
100 North Sandstone Court
Barstow, CA 92311

SHEET NAME: LNG IMPOUND AREA STAIRWAY DETAILS

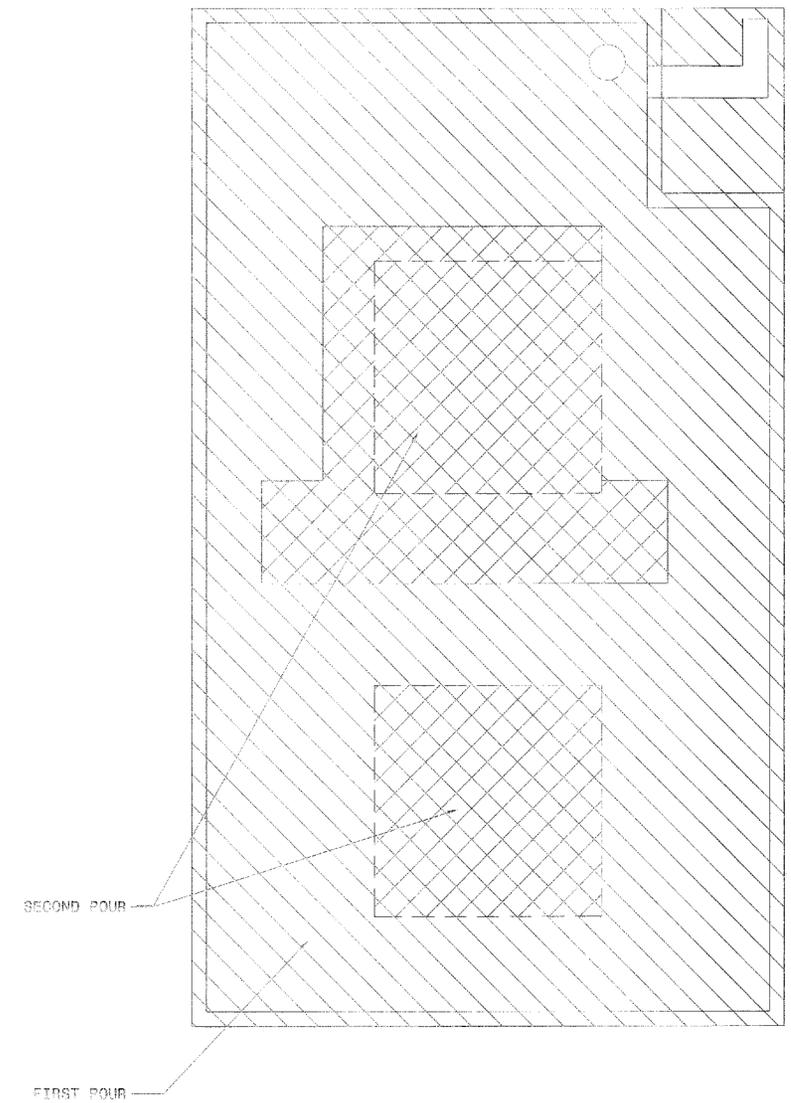
SHEET: C-13



TANK PAD W/EQUIPMENT
SCALE: 1/4"=1'



LNG STORAGE TANK PAD LAYOUT
SCALE: 1/4"=1'



FOUNDATION CONCRETE POUR SEQUENCE
SCALE: 1/4"=1'

NOTES:

SCALE: N.T.S.	
DRAWN BY Shu	DATE 05-25-05
CHECKED BY	DATE

DATE	REVISIONS	REV. BY
05-25-05	Change for permit	SHU

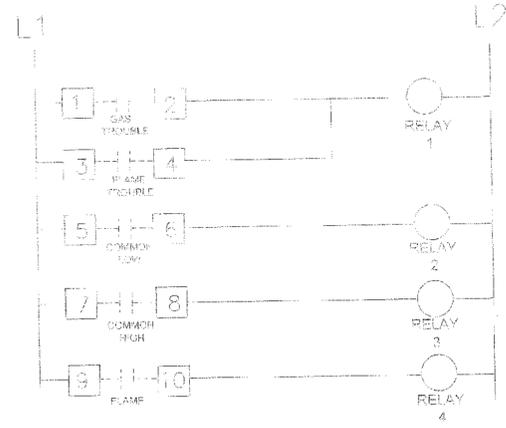
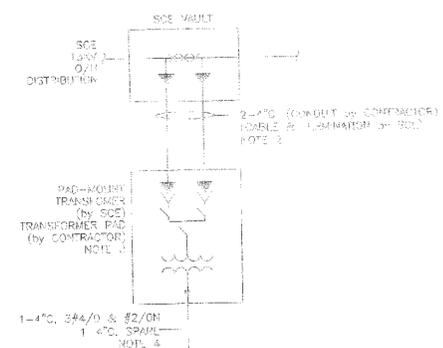
Weaver Electric, Inc.

1000 West 1st Street
 Barstow, CA 92311
 (909) 251-1111
 Fax: (909) 251-1112

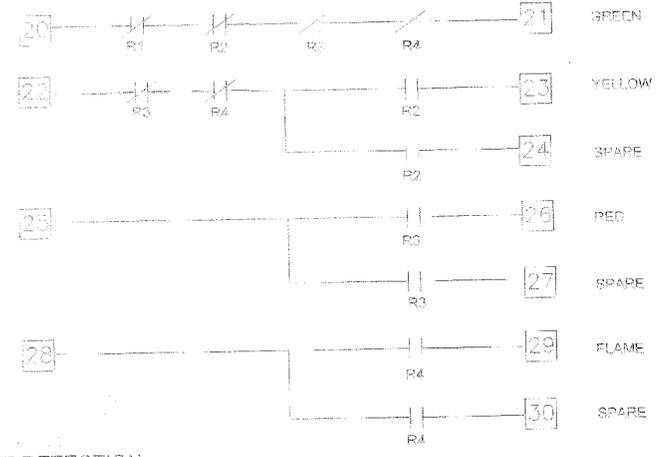
PROJECT: Barstow LNG-LCNG
Fueling Station
100 North Sandstone Court
Barstow, CA 92311

SHEET NAME: LNG IMPOUND AREA
TANK PAD DETAILS

SHEET: C-14

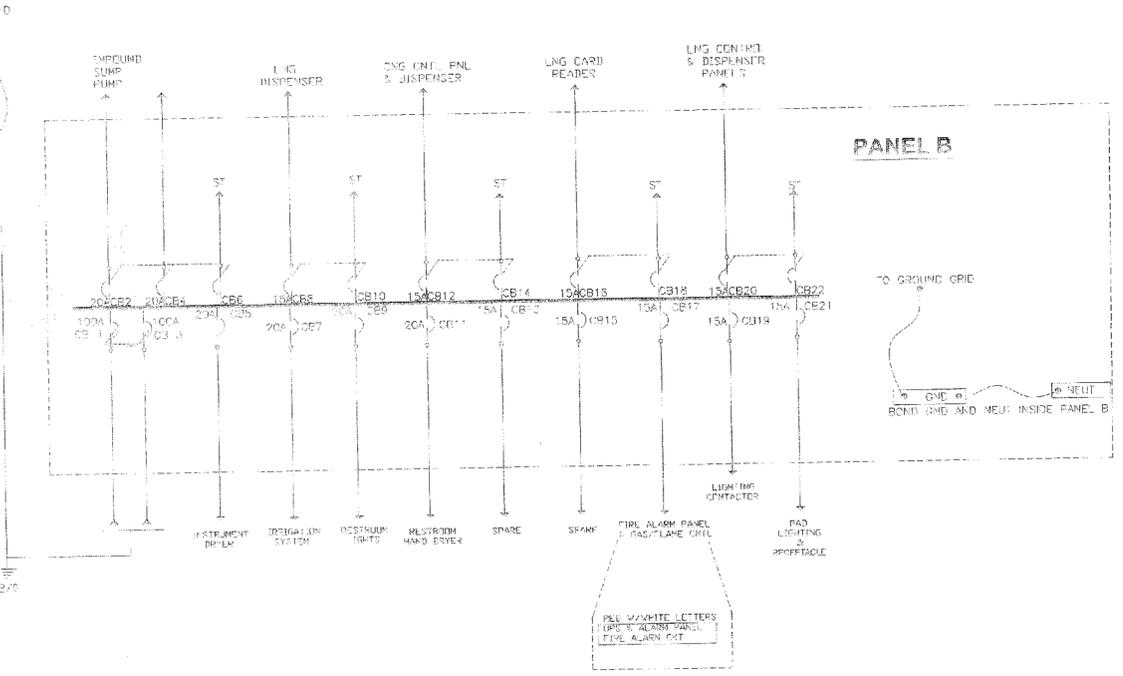
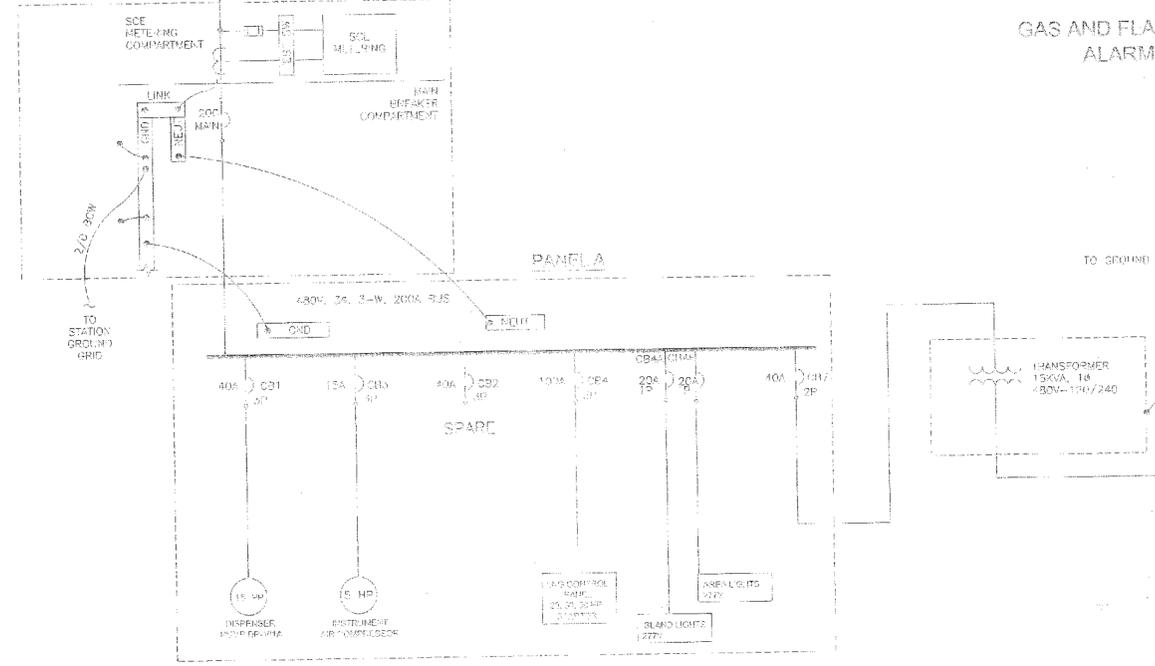


GAS AND FLAME DETECTION ALARM LOGIC



NOTES

- ELECTRIC SERVICE WILL BE BY SCE AND THE CONTRACTOR SHALL FURNISH AND INSTALL ALL MATERIALS AND APPURTENANCES REQUIRED FOR SCE SERVICE. THE CONTRACTOR SHALL FURNISH AND INSTALL THE SERVICE IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE AND THE LATEST EDITION OF THE NATIONAL FIRE ALARM CODE. SCE CONTACT WILL BE: SOUTHERN CALIFORNIA EDISON, ATTN: HOWARD RAY, PHONE: (714) 252-6405.
- CONTRACTOR SHALL FURNISH & INSTALL PRIMARY CONDUITS. PRIMARY CONDUITS SHALL BE ROUTED FROM THE PRIMARY SECTION OF THE NEW TRANSFORMER PAD TO THE EXISTING SCE SERVICE. REFER TO SCE ELECTRIC SERVICE REQUIREMENTS FOR SPECIFICATIONS AND DETAILS.
- CONTRACTOR SHALL FURNISH AND INSTALL PRE-CAST TRANSFORMER PAD. REFER TO SCE ELECTRIC SERVICE REQUIREMENTS FOR SPECIFICATIONS AND DETAILS.
- CONTRACTOR SHALL FURNISH AND INSTALL SECONDARY CONDUITS AND CABLES. CONDUITS SHALL BE ROUTED FROM TRANSFORMER PAD SECONDARY SECTION TO CONTRACTOR FURNISHED AND INSTALLED SCE METERING EQUIPMENT. SCE SHALL TERMINATE ALL SERVICE LATERAL CABLES. THE SPARE CONDUIT SHALL BE TERMINATED WITH REMOVABLE PLUGS AND PULL ROPE.
- CONDUITS AND WIRING SHALL BE ROUTED TO EACH LIGHT POLE AND LIGHT FIXTURE FROM THE LIGHTING CONTACTOR.
- LAYOUT IS CONCEPTUAL AND SHALL BE ADJUSTED TO SUIT ACTUAL EQUIPMENT FURNISHED.



PANEL BOARD "B"
100A MAIN, 100A BUS

LOAD DESCRIPTION	P	Trips	ckt	L1	L2	ckt	Trips	P	LOAD DESCRIPTION
MAIN BREAKER	2	100	1			2	20	3	IMPOUND SUMP PUMP
MAIN BREAKER			3			4			IMPOUND SUMP PUMP
INSTRUMENT AIR DRYER	1	20	5			6			SHUNT TRIP
IRRIGATION SYSTEM	1	20	7			8	15	2	LNG DISPENSER
RESTROOM LIGHTS	1	20	9			10			SHUNT TRIP
RESTROOM HAND DRYER	1	20	11			12	15	2	LNG CNTL PNL & DISPENSER
SPARE		15	13			14			SHUNT TRIP
SPARE	1	15	15			16	15	2	LNG CARD READER
FA PANEL & GAS/FLAME CNTL	1	15	17			18			SHUNT TRIP
LIGHTING CONTACTOR	1	15	19			20	15	1	LNG CNTL & DISP PANELS
PAD LIGHTING & RECEPTACLE	1	15	21			22			SHUNT TRIP

SCALE: N.T.S.	DATE: 05-27-05	REVISIONS: Revise for permit	REV. BY: Sht
DRAWN BY: SL	DATE: 11-16-04		
CHECKED BY:	DATE:		

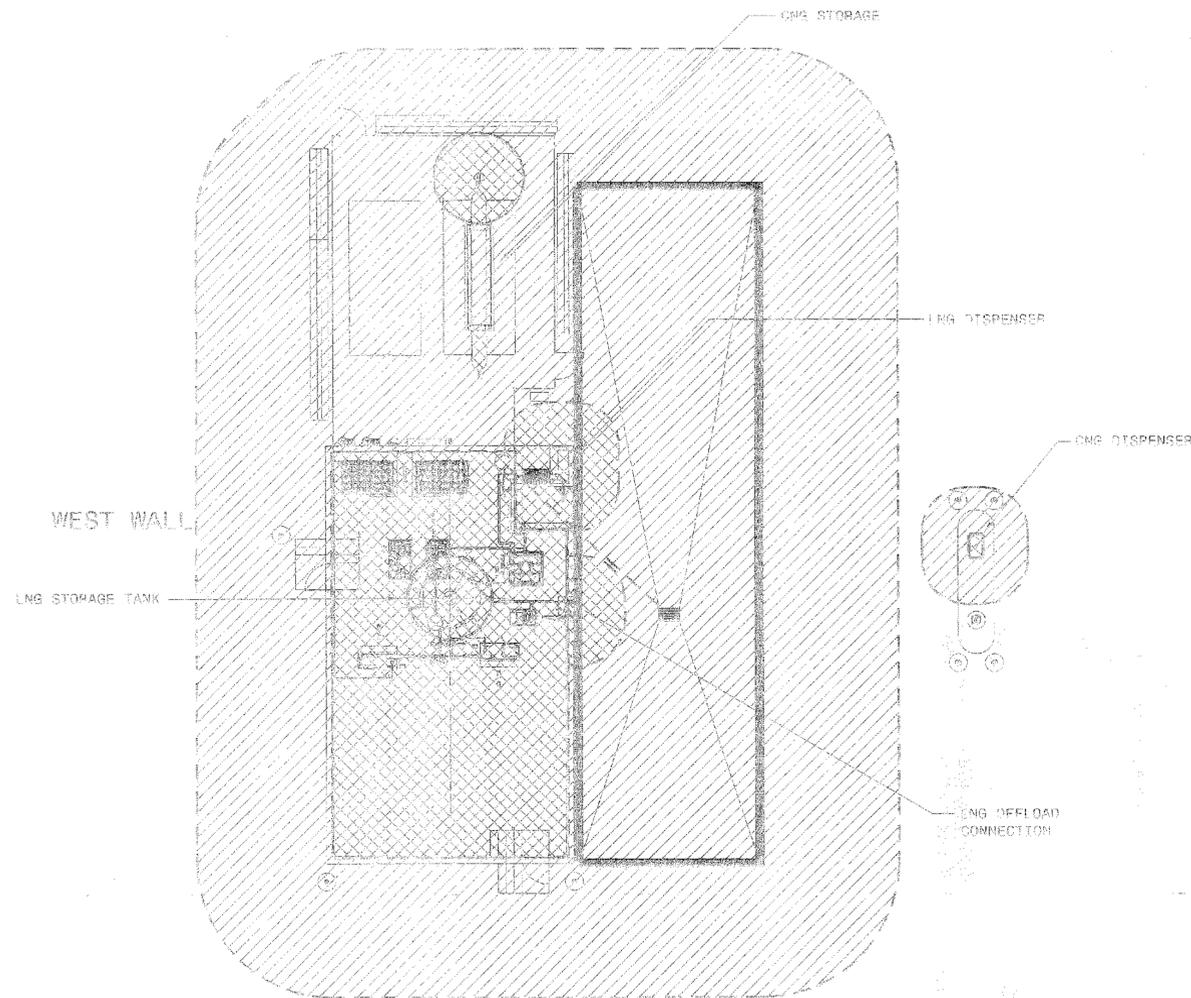
Weaver Electric, Inc.

100 North Sandstone Court
Barstow, CA 92311

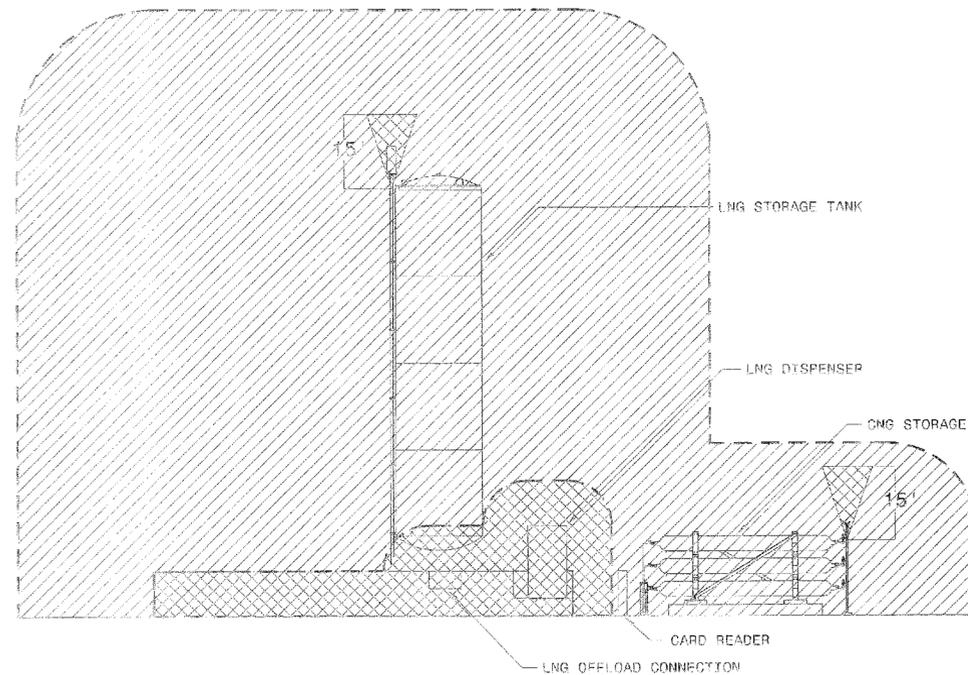
PROJECT:
Barstow LNG-LCNG
Fueling Station
100 North Sandstone Court
Barstow, CA 92311

SHEET NAME:
Electrical
Panel Schedule

SHEET:
E-1



FUELING AREA PLAN VIEW



EAST WALL ELEVATION VIEW



LEGEND

-  UNCLASSIFIED
-  CLASS 1, DIVISION 2, GROUP D
-  CLASS 1, DIVISION 1, GROUP D

- NOTES:
1. AREA CLASSIFICATION BASED ON NFPA 52 AND NFPA 57, 2002 EDITIONS.
 2. CLASS 1, DIVISION 1, GROUP D AREAS DEFINED AS WITHIN 5' OF LNG OFFLOAD/DISPENSING LOCATIONS OR RELIEF VALVE, AND WITHIN LNG SPILL CONTAINMENT.
 3. CLASS 1, DIVISION 2, GROUP D AREAS DEFINED AS WITHIN 15' OF LNG TANK WALLS, OFFLOAD/DISPENSING LOCATIONS OR RELIEF VALVE.

SCALE	
N.T.S.	
DRAWN BY	DATE
Shu	05-26-05
CHECKED BY	DATE

DATE	REVISIONS	REV. BY
05-26-05	Revised for Permit	Shu

Weaver Electric, Inc.

Weaver Electric, Inc.
100 North Sandstone Court
Barstow, CA 92311
951-248-9500

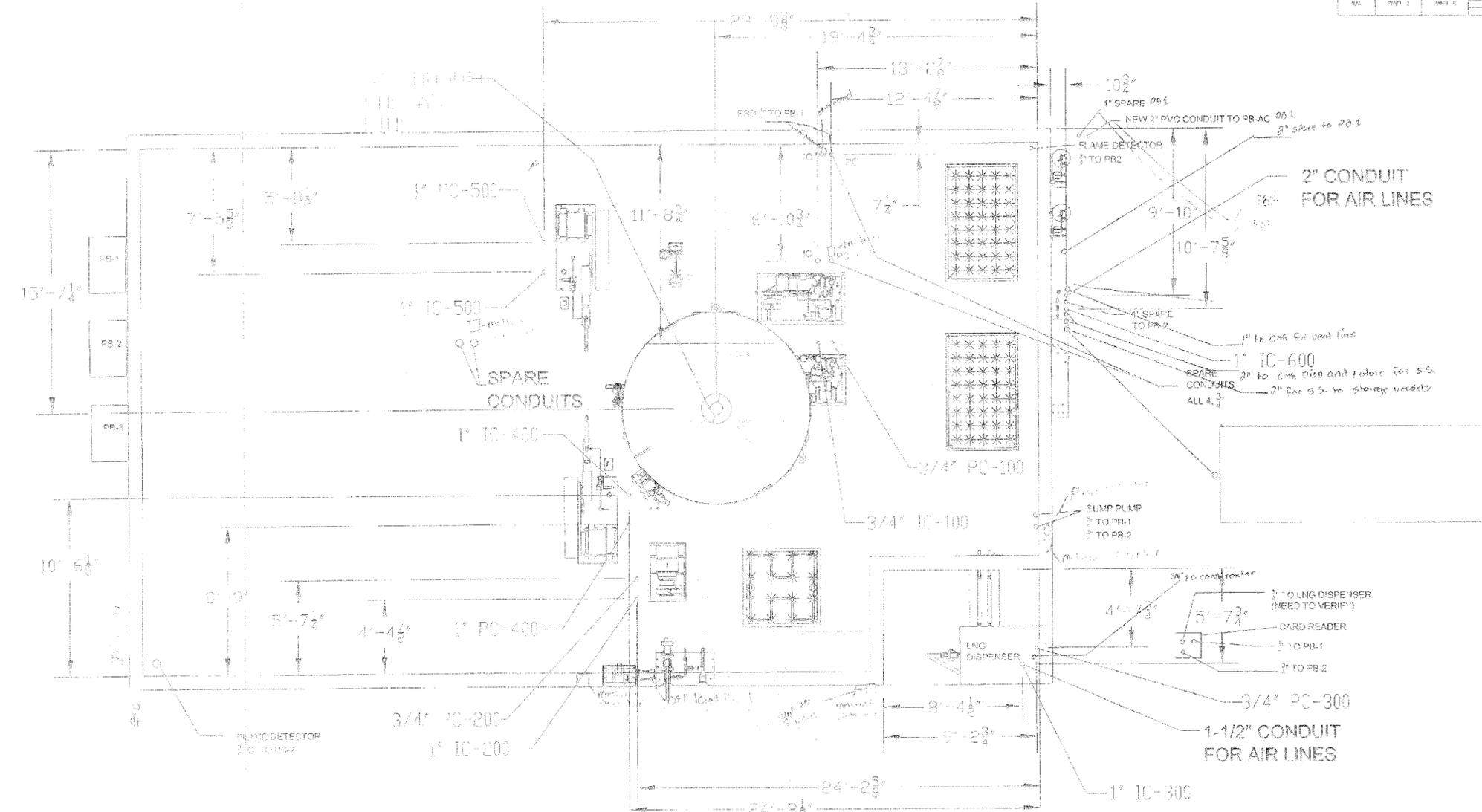
Barstow, CA 92311
951-248-9500

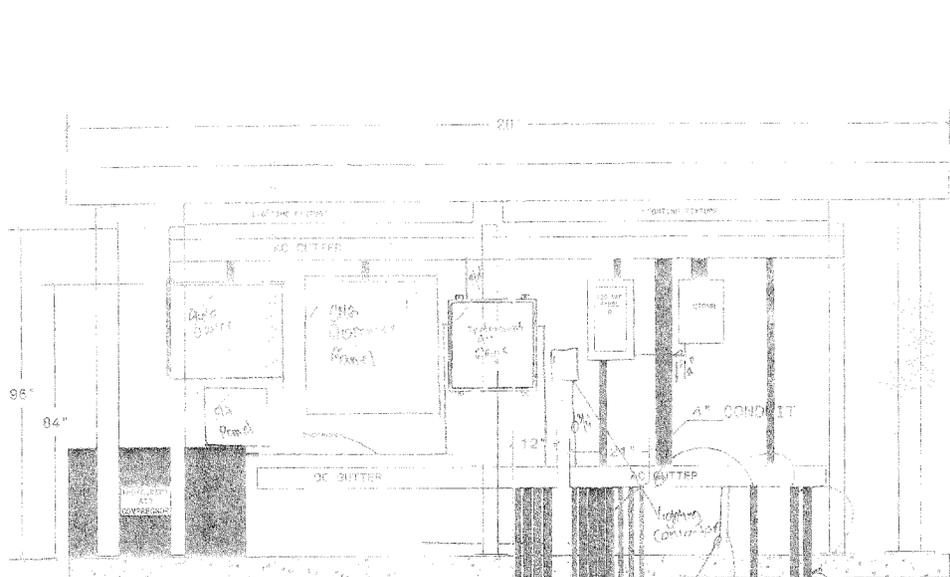
PROJECT: Barstow LNG-LCNG
Fueling Station
100 North Sandstone Court
Barstow, CA 92311

SHEET NAME: ELECTRICAL
CLASSIFIED
AREAS

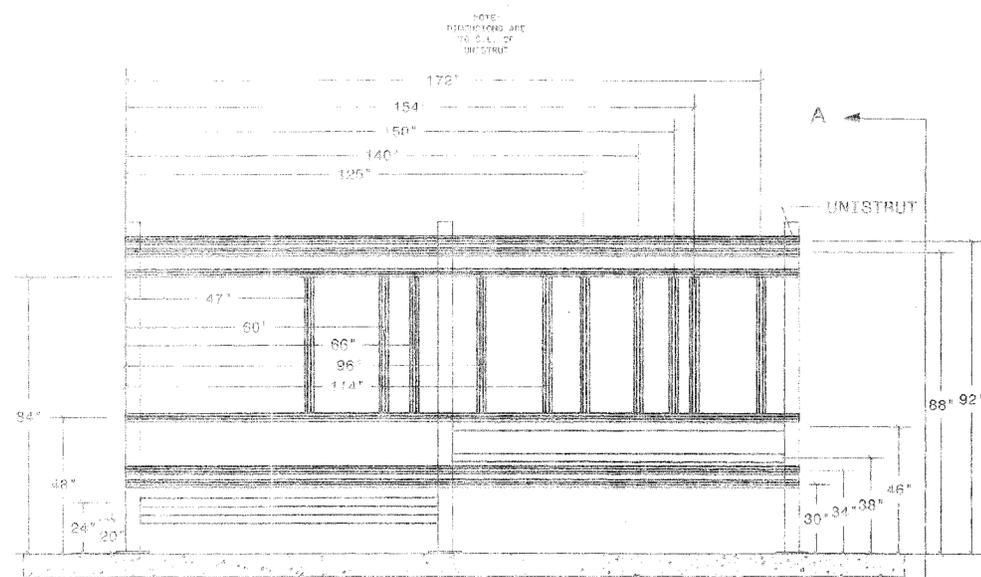
SHEET: E-2

WIRE PLAN DETAIL - INSTRUMENTATION						WIRE PLAN DETAIL - POWER					
NO.	FROM	TO	DATE	TYPE	NOTES	NO.	FROM	TO	DATE	TYPE	NOTES
1	BLK W/GR	BLK W/GR		1" PC-500		1	BLK W/GR	BLK W/GR		1" PC-500	
2	BLK W/GR	BLK W/GR		1" IC-500		2	BLK W/GR	BLK W/GR		1" IC-500	
3	BLK W/GR	BLK W/GR		1" PC-400		3	BLK W/GR	BLK W/GR		1" PC-400	
4	BLK W/GR	BLK W/GR		1" IC-400		4	BLK W/GR	BLK W/GR		1" IC-400	
5	BLK W/GR	BLK W/GR		3/4" PC-100		5	BLK W/GR	BLK W/GR		3/4" PC-100	
6	BLK W/GR	BLK W/GR		3/4" IC-100		6	BLK W/GR	BLK W/GR		3/4" IC-100	
7	BLK W/GR	BLK W/GR		1" PC-200		7	BLK W/GR	BLK W/GR		1" PC-200	
8	BLK W/GR	BLK W/GR		1" IC-200		8	BLK W/GR	BLK W/GR		1" IC-200	
9	BLK W/GR	BLK W/GR		3/4" PC-300		9	BLK W/GR	BLK W/GR		3/4" PC-300	
10	BLK W/GR	BLK W/GR		1-1/2" CONDUIT FOR AIR LINES		10	BLK W/GR	BLK W/GR		1-1/2" CONDUIT FOR AIR LINES	
11	BLK W/GR	BLK W/GR		1" IC-300		11	BLK W/GR	BLK W/GR		1" IC-300	
12	BLK W/GR	BLK W/GR		1" PC-500		12	BLK W/GR	BLK W/GR		1" PC-500	
13	BLK W/GR	BLK W/GR		1" IC-500		13	BLK W/GR	BLK W/GR		1" IC-500	
14	BLK W/GR	BLK W/GR		1" PC-400		14	BLK W/GR	BLK W/GR		1" PC-400	
15	BLK W/GR	BLK W/GR		1" IC-400		15	BLK W/GR	BLK W/GR		1" IC-400	
16	BLK W/GR	BLK W/GR		3/4" PC-100		16	BLK W/GR	BLK W/GR		3/4" PC-100	
17	BLK W/GR	BLK W/GR		3/4" IC-100		17	BLK W/GR	BLK W/GR		3/4" IC-100	
18	BLK W/GR	BLK W/GR		1" PC-200		18	BLK W/GR	BLK W/GR		1" PC-200	
19	BLK W/GR	BLK W/GR		1" IC-200		19	BLK W/GR	BLK W/GR		1" IC-200	
20	BLK W/GR	BLK W/GR		3/4" PC-300		20	BLK W/GR	BLK W/GR		3/4" PC-300	
21	BLK W/GR	BLK W/GR		1-1/2" CONDUIT FOR AIR LINES		21	BLK W/GR	BLK W/GR		1-1/2" CONDUIT FOR AIR LINES	
22	BLK W/GR	BLK W/GR		1" IC-300		22	BLK W/GR	BLK W/GR		1" IC-300	
23	BLK W/GR	BLK W/GR		1" PC-500		23	BLK W/GR	BLK W/GR		1" PC-500	
24	BLK W/GR	BLK W/GR		1" IC-500		24	BLK W/GR	BLK W/GR		1" IC-500	
25	BLK W/GR	BLK W/GR		1" PC-400		25	BLK W/GR	BLK W/GR		1" PC-400	
26	BLK W/GR	BLK W/GR		1" IC-400		26	BLK W/GR	BLK W/GR		1" IC-400	
27	BLK W/GR	BLK W/GR		3/4" PC-100		27	BLK W/GR	BLK W/GR		3/4" PC-100	
28	BLK W/GR	BLK W/GR		3/4" IC-100		28	BLK W/GR	BLK W/GR		3/4" IC-100	
29	BLK W/GR	BLK W/GR		1" PC-200		29	BLK W/GR	BLK W/GR		1" PC-200	
30	BLK W/GR	BLK W/GR		1" IC-200		30	BLK W/GR	BLK W/GR		1" IC-200	
31	BLK W/GR	BLK W/GR		3/4" PC-300		31	BLK W/GR	BLK W/GR		3/4" PC-300	
32	BLK W/GR	BLK W/GR		1-1/2" CONDUIT FOR AIR LINES		32	BLK W/GR	BLK W/GR		1-1/2" CONDUIT FOR AIR LINES	
33	BLK W/GR	BLK W/GR		1" IC-300		33	BLK W/GR	BLK W/GR		1" IC-300	
34	BLK W/GR	BLK W/GR		1" PC-500		34	BLK W/GR	BLK W/GR		1" PC-500	
35	BLK W/GR	BLK W/GR		1" IC-500		35	BLK W/GR	BLK W/GR		1" IC-500	
36	BLK W/GR	BLK W/GR		1" PC-400		36	BLK W/GR	BLK W/GR		1" PC-400	
37	BLK W/GR	BLK W/GR		1" IC-400		37	BLK W/GR	BLK W/GR		1" IC-400	
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42	BLK W/GR	BLK W/GR		3/4" PC-300		42	BLK W/GR	BLK W/GR		3/4" PC-300	
43	BLK W/GR	BLK W/GR		1-1/2" CONDUIT FOR AIR LINES		43	BLK W/GR	BLK W/GR		1-1/2" CONDUIT FOR AIR LINES	
44	BLK W/GR	BLK W/GR		1" IC-300		44	BLK W/GR	BLK W/GR		1" IC-300	
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53	BLK W/GR	BLK W/GR		3/4" PC-300		53	BLK W/GR	BLK W/GR		3/4" PC-300	
54	BLK W/GR	BLK W/GR		1-1/2" CONDUIT FOR AIR LINES		54	BLK W/GR	BLK W/GR		1-1/2" CONDUIT FOR AIR LINES	
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58	BLK W/GR	BLK W/GR		1" PC-400		58	BLK W/GR	BLK W/GR		1" PC-400	
59	BLK W/GR	BLK W/GR		1" IC-400		59	BLK W/GR	BLK W/GR		1" IC-400	
60	BLK W/GR	BLK W/GR		3/4" PC-100		60	BLK W/GR	BLK W/GR		3/4" PC-100	
61	BLK W/GR	BLK W/GR		3/4" IC-100		61	BLK W/GR	BLK W/GR		3/4" IC-100	
62	BLK W/GR	BLK W/GR		1" PC-200		62	BLK W/GR	BLK W/GR		1" PC-200	
63	BLK W/GR	BLK W/GR		1" IC-200		63	BLK W/GR	BLK W/GR		1" IC-200	
64	BLK W/GR	BLK W/GR		3/4" PC-300		64	BLK W/GR	BLK W/GR		3/4" PC-300	
65	BLK W/GR	BLK W/GR		1-1/2" CONDUIT FOR AIR LINES		65	BLK W/GR	BLK W/GR		1-1/2" CONDUIT FOR AIR LINES	
66	BLK W/GR	BLK W/GR		1" IC-300		66	BLK W/GR	BLK W/GR		1" IC-300	
67	BLK W/GR	BLK W/GR		1" PC-500		67	BLK W/GR	BLK W/GR		1" PC-500	
68	BLK W/GR	BLK W/GR		1" IC-500		68	BLK W/GR	BLK W/GR		1" IC-500	
69	BLK W/GR	BLK W/GR		1" PC-400		69	BLK W/GR	BLK W/GR		1" PC-400	
70	BLK W/GR	BLK W/GR		1" IC-400		70	BLK W/GR	BLK W/GR		1" IC-400	
71	BLK W/GR	BLK W/GR		3/4" PC-100		71	BLK W/GR	BLK W/GR		3/4" PC-100	
72	BLK W/GR	BLK W/GR		3/4" IC-100		72	BLK W/GR	BLK W/GR		3/4" IC-100	
73	BLK W/GR	BLK W/GR		1" PC-200		73	BLK W/GR	BLK W/GR		1" PC-200	
74	BLK W/GR	BLK W/GR		1" IC-200		74	BLK W/GR	BLK W/GR		1" IC-200	
75	BLK W/GR	BLK W/GR		3/4" PC-300		75	BLK W/GR	BLK W/GR		3/4" PC-300	
76	BLK W/GR	BLK W/GR		1-1/2" CONDUIT FOR AIR LINES		76	BLK W/GR	BLK W/GR		1-1/2" CONDUIT FOR AIR LINES	
77	BLK W/GR	BLK W/GR		1" IC-300		77	BLK W/GR	BLK W/GR		1" IC-300	
78	BLK W/GR	BLK W/GR		1" PC-500		78	BLK W/GR	BLK W/GR		1" PC-500	
79	BLK W/GR	BLK W/GR		1" IC-500		79	BLK W/GR	BLK W/GR		1" IC-500	
80	BLK W/GR	BLK W/GR		1" PC-400		80	BLK W/GR	BLK W/GR		1" PC-400	
81	BLK W/GR	BLK W/GR		1" IC-400		81	BLK W/GR	BLK W/GR		1" IC-400	
82	BLK W/GR	BLK W/GR		3/4" PC-100		82	BLK W/GR	BLK W/GR		3/4" PC-100	
83	BLK W/GR	BLK W/GR		3/4" IC-100		83	BLK W/GR	BLK W/GR		3/4" IC-100	
84	BLK W/GR	BLK W/GR		1" PC-200		84	BLK W/GR	BLK W/GR		1" PC-200	
85	BLK W/GR	BLK W/GR		1" IC-200		85	BLK W/GR	BLK W/GR		1" IC-200	
86	BLK W/GR	BLK W/GR		3/4" PC-300		86	BLK W/GR	BLK W/GR		3/4" PC-300	
87	BLK W/GR	BLK W/GR		1-1/2" CONDUIT FOR AIR LINES		87	BLK W/GR	BLK W/GR		1-1/2" CONDUIT FOR AIR LINES	
88	BLK W/GR	BLK W/GR		1" IC-300		88	BLK W/GR	BLK W/GR		1" IC-300	
89	BLK W/GR	BLK W/GR		1" PC-500		89	BLK W/GR	BLK W/GR		1" PC-500	
90	BLK W/GR	BLK W/GR		1" IC-500		90	BLK W/GR	BLK W/GR		1" IC-500	
91	BLK W/GR	BLK W/GR		1" PC-400		91	BLK W/GR	BLK W/GR		1" PC-400	
92	BLK W/GR	BLK W/GR		1" IC-400		92	BLK W/GR	BLK W/GR		1" IC-400	
93	BLK W/GR	BLK W/GR		3/4" PC-100		93	BLK W/GR	BLK W/GR		3/4" PC-100	
94	BLK W/GR	BLK W/GR		3/4" IC-100		94	BLK W/GR	BLK W/GR		3/4" IC-100	
95	BLK W/GR	BLK W/GR		1" PC-200		95	BLK W/GR	BLK W/GR		1" PC-200	
96	BLK W/GR	BLK W/GR		1" IC-200		96	BLK W/GR	BLK W/GR		1" IC-200	
97	BLK W/GR	BLK W/GR		3/4" PC-300		97	BLK W/GR	BLK W/GR		3/4" PC-300	
98	BLK W/GR	BLK W/GR		1-1/2" CONDUIT FOR AIR LINES		98	BLK W/GR	BLK W/GR		1-1/2" CONDUIT FOR AIR LINES	
99	BLK W/GR	BLK W/GR		1" IC-300		99	BLK W/GR	BLK W/GR		1" IC-300	
100	BLK W/GR	BLK W/GR		1" PC-500		100	BLK W/GR	BLK W/GR		1" PC-500	

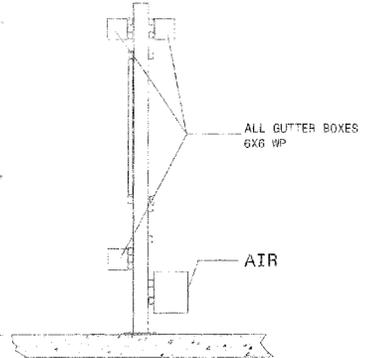




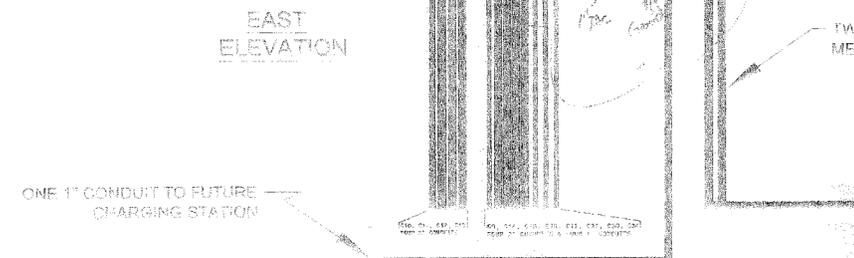
EAST ELEVATION



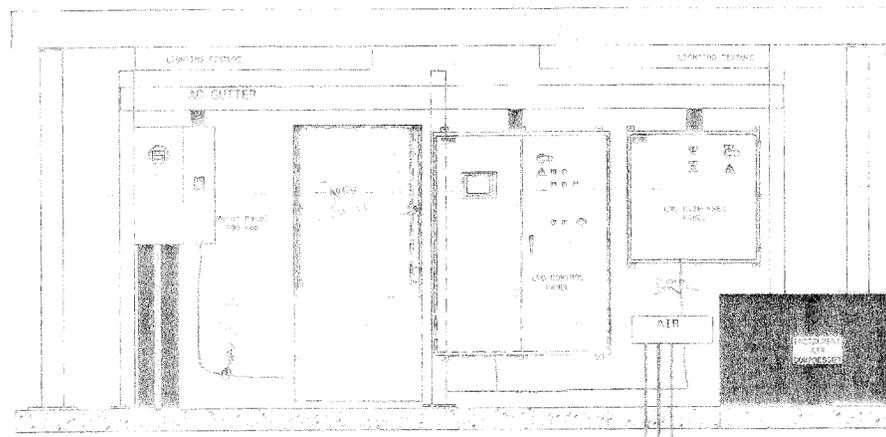
PANEL SUPPORT STRUCTURE EAST ELEVATION



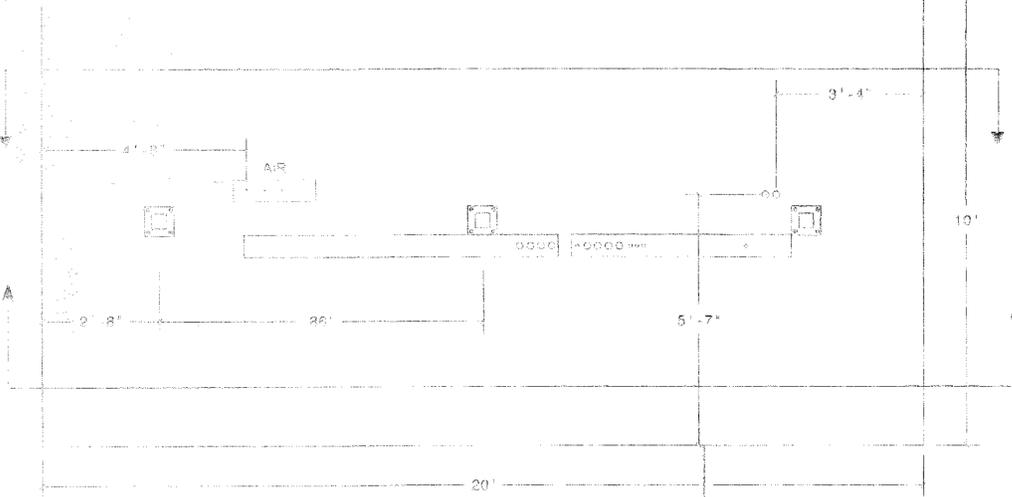
DETAIL A



INSTRUMENT AIR COMPRESSOR ON A 3' X 4' PAD



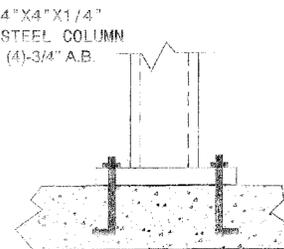
WEST ELEVATION



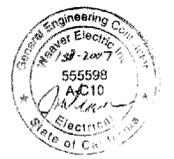
PLAN VIEW

WEST ELEVATION VIEW

EAST ELEVATION VIEW



PANEL SUPPORT



SCALE:	N.T.S.
DRAWN BY:	DATE
SHD	05-05-00
CHECKED BY:	DATE

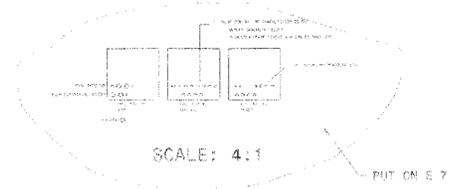
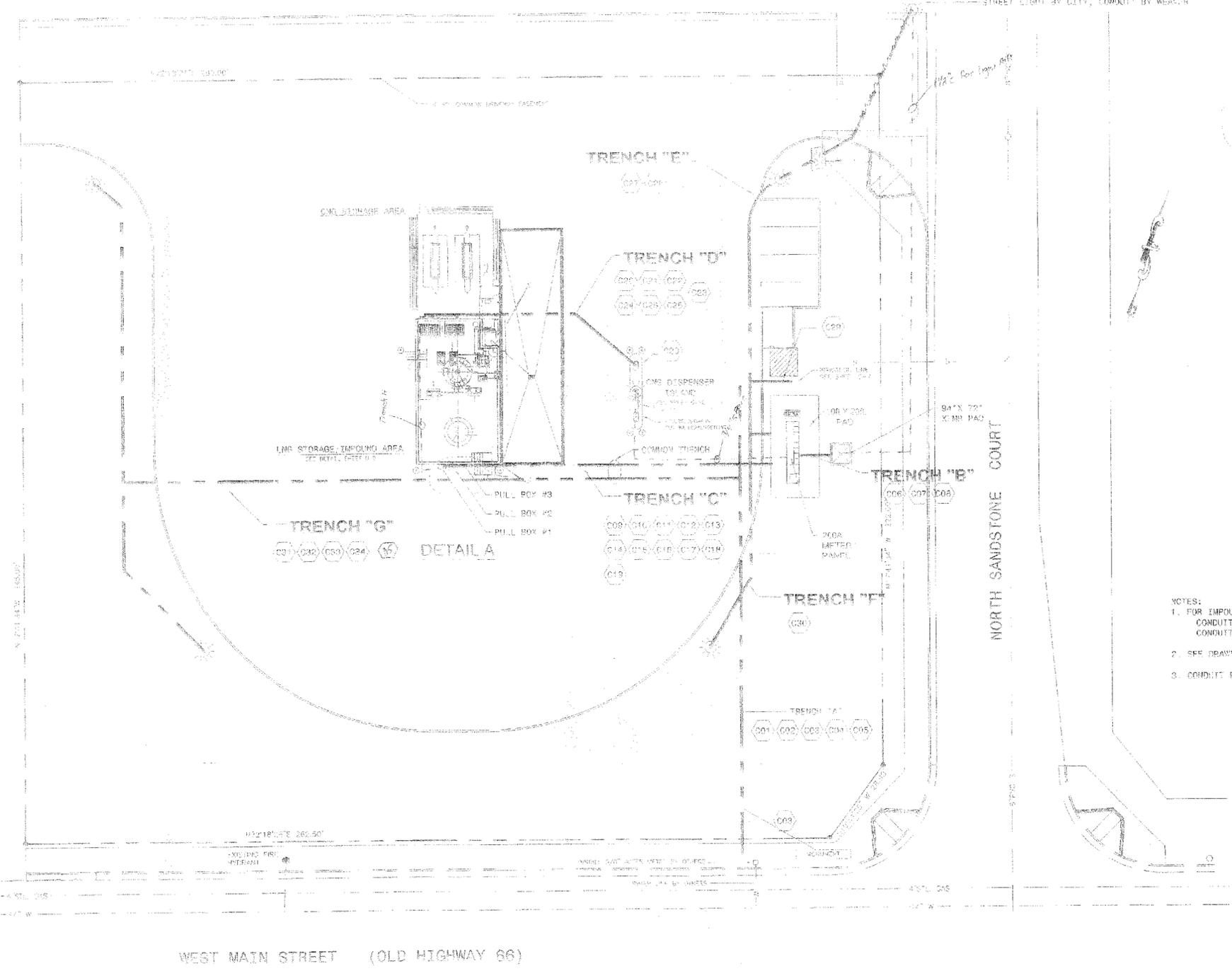
DATE	REVISIONS	BY	DL
10-20-00	Revised to meet requirements	SPU	

Weaver Electric, Inc.

PROJECT: Barstow LNG-LONG Fueling Station
100 North Sandstone Court
Barstow, CA 92311

SHEET NAME: Electric Panel Elevations

SHEET: E-4



DETAIL A
 PB-1 36X24X12
 PB-2 30X24X12
 AIR 24X24X12

PB-1 PB-2 AIR
 PULL BOX DETAIL

- NOTES:
1. FOR IMPOUND AREA CONDUIT LOCATIONS REFER TO NEXGEN DRAWING B-3810019E1:
 CONDUIT TAG NUMBERS IC:XXX GO TO PULL BOX #3
 CONDUIT TAG NUMBERS PC:XXX GO TO PULL BOX #2
 2. SEE DRAWING E-8 FOR TRENCH CONDUIT DETAILS
 3. CONDUIT REFERENCE DESIGNATOR: (C28)

WEST MAIN STREET (OLD HIGHWAY 66)

NORTH SANDSTONE COURT



SCALE:	
DRAWN BY:	DATE:
Shu	08-01-05
CHECKED BY:	DATE:

DATE:	REVISIONS:	REV. NO.
08-01-05	PROVISED FOR	1

Weaver Electric, Inc.

100 North Sandstone Court
 Barstow, CA 92311
 Phone: (951) 751-1100
 Fax: (951) 751-1101

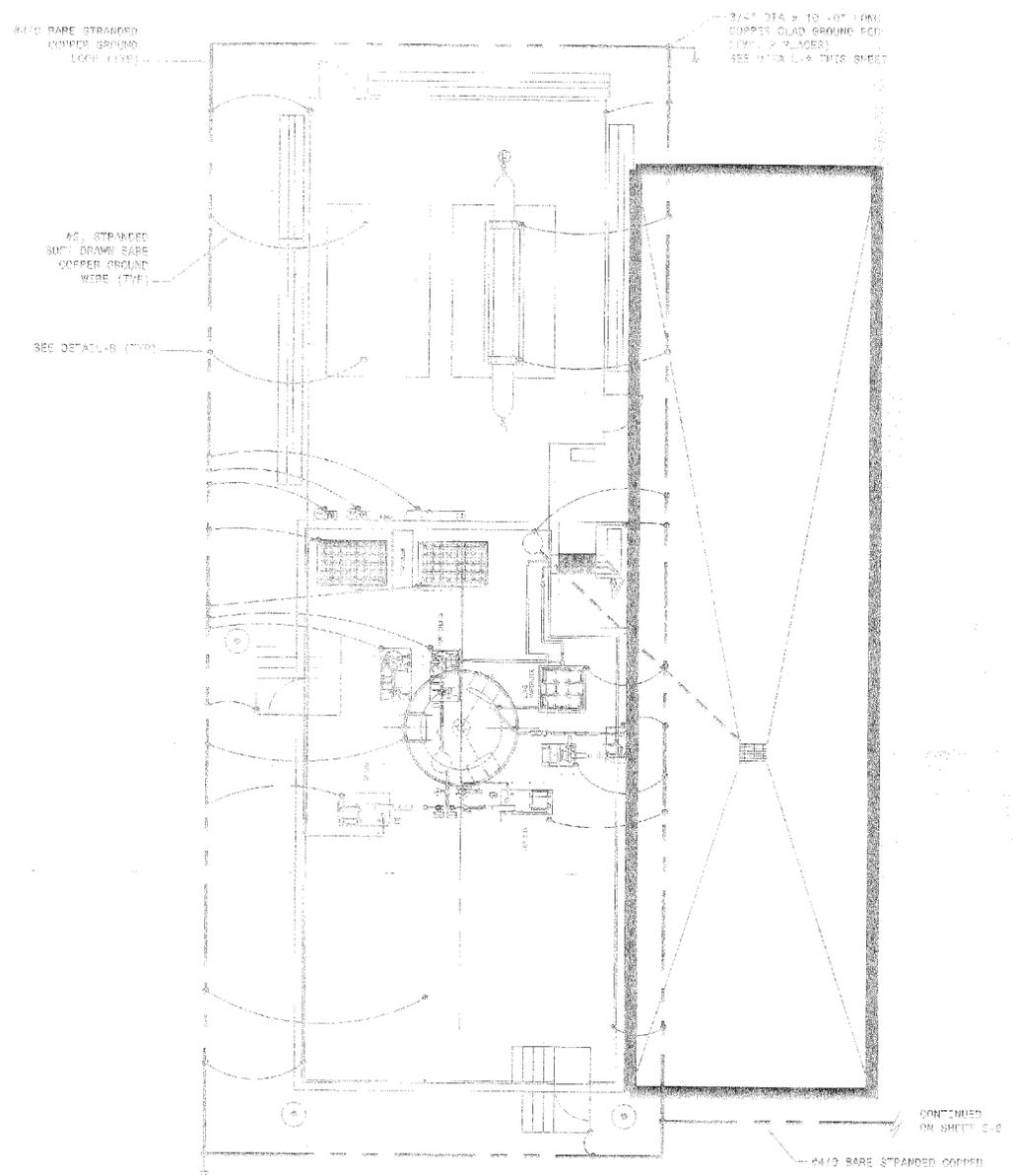
PROJECT: Barstow LNG-LCNG
 Fueling Station
 100 North Sandstone Court
 Barstow, CA 92311

SHEET NAME:
 CONDUIT
 TRENCHING

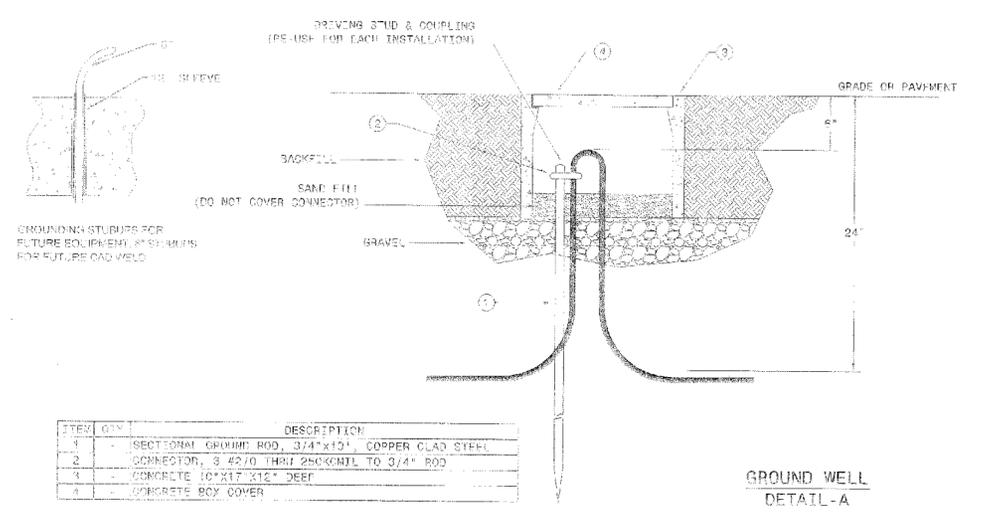
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E-5

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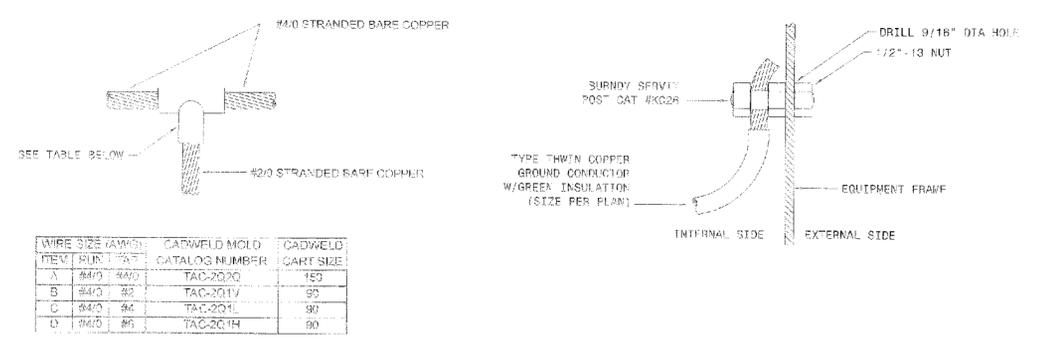
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- NOTES:
1. AVOID FOUNDATION FOOTINGS WHEN INSTALL GROUND LOOP.
 2. VERIFY SKID/EQUIPMENT GROUNDING POINT LOCATIONS BEFORE STUBBING UP GROUND CABLES.
 3. AVOID BALLAST FOOTINGS AND DEEPEN UNLIT TRENCH WHEN INSTALLING GROUND WIRE.



ITEM	QTY	DESCRIPTION
1		SECTIONAL GROUND ROD, 3/4" x 10', COPPER CLAD STEEL
2		CONNECTOR, 3 4/20 THRU 250GWHL TO 3/4" ROD
3		CONCRETE 10'x11'x12" DEEP
4		CONCRETE BOX COVER



WIRE SIZE (AWG)	CATWELD MOLD	CADWELD
REV	REV	REV
A	4/0	TAC-2020
B	4/0	TAC-201V
C	4/0	TAC-201H
D	4/0	TAC-201H

SCALE:	N.T.S.
DRAWN BY:	DA L
CHECKED BY:	JAH

DATE	REVISIONS	REV. BY
05-03-05	Revised for Permit	Shu

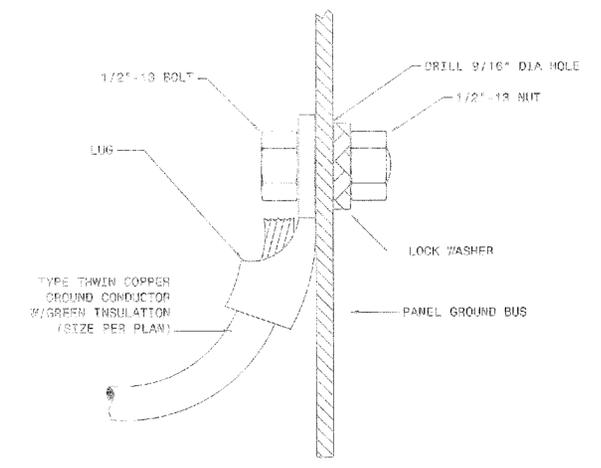
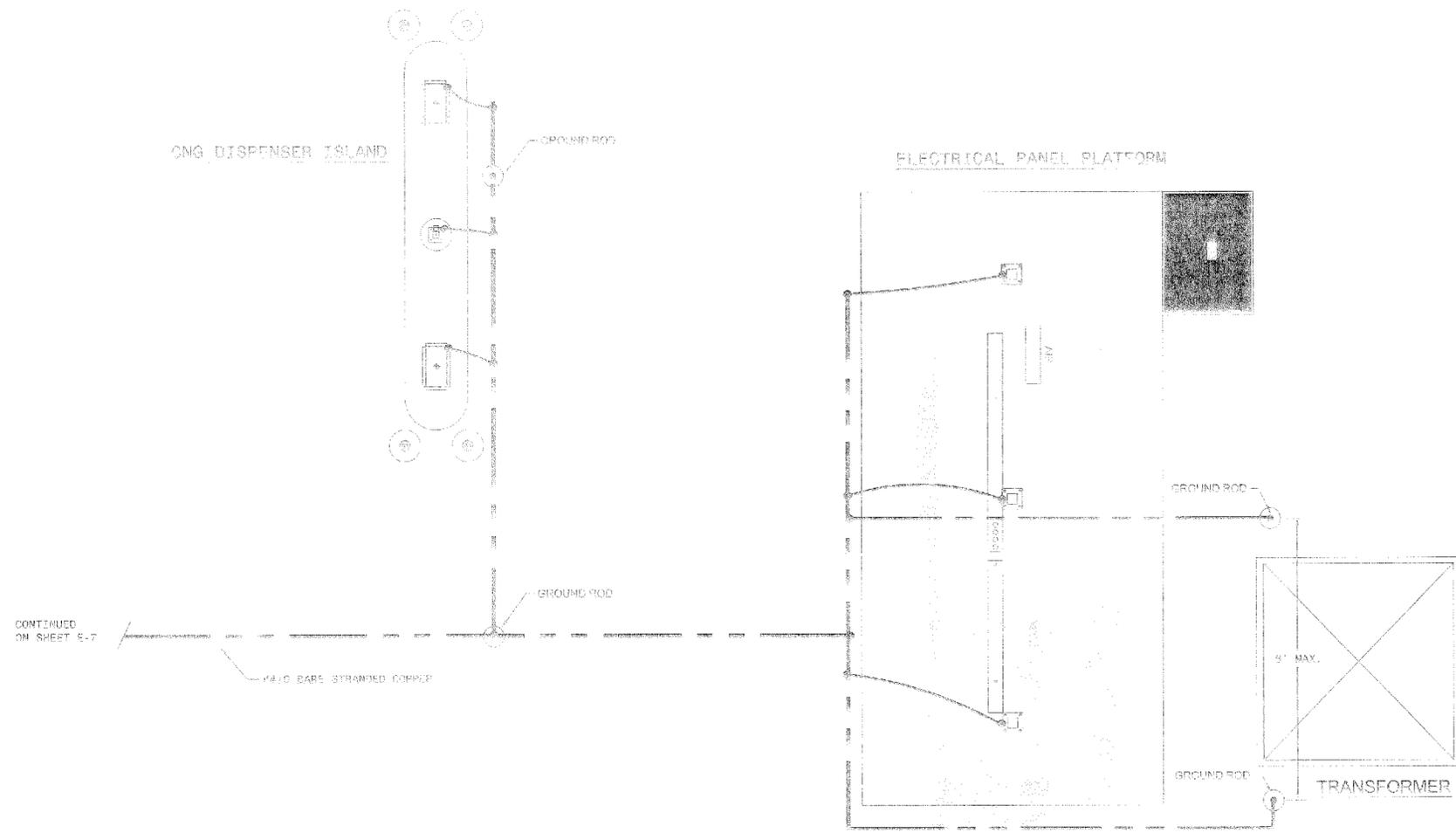
Weaver Electric, Inc.

4950 E. Highway 99
 Fresno, CA 93720
 558-1100

PROJECT:
**Barstow LNG-LCNG
 Fueling Station**
 100 North Sandstone Court
 Barstow, CA 92311

SHEET NAME:
**GROUNDING
 PLAN DETAILS**

SHEET:
E-7

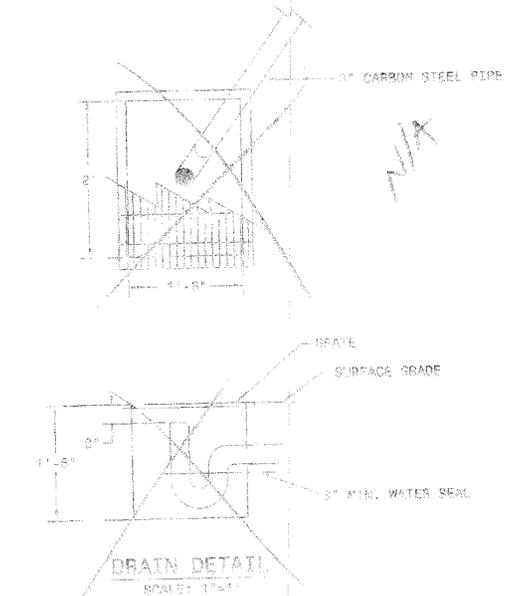
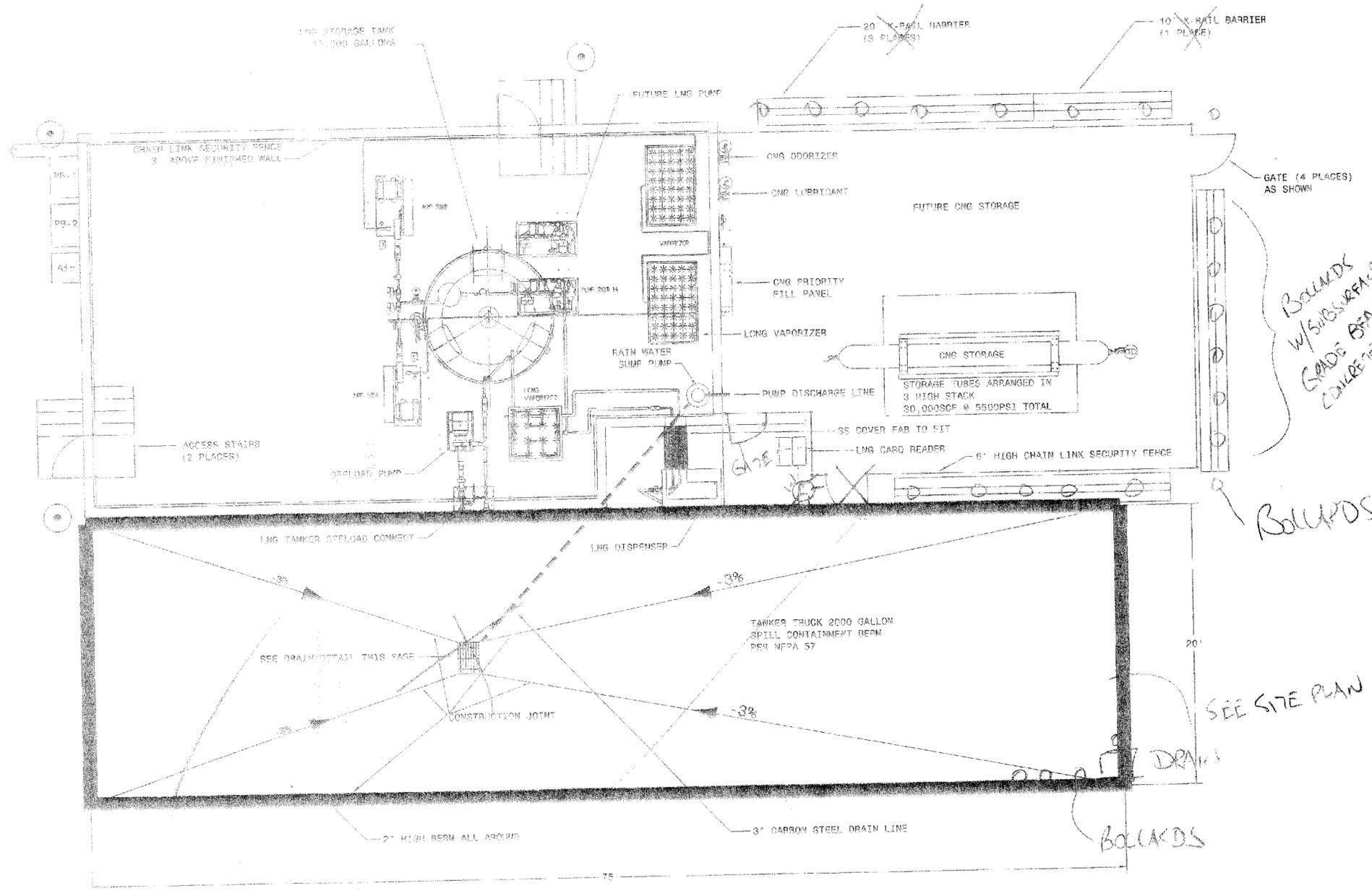


ITEM	QTY	DESCRIPTION
1	1	LUG #4/0 CABLE COMPRESSION TYPE
2	1	BOLT 1/2" - 13 X 1" LG. SILICON BRONZE
3	1	LOCKWASHER, 1/2" SILICON BRONZE
4	1	HEX NUT, 1/2"-13 SILICON BRONZE

ELECTRIC PANEL GROUND BOLTING

- NOTES:
1. AVOID FOUNDATION FOOTINGS WHEN INSTALLING GROUND CABLE.
 2. VERIFY SKID/EQUIPMENT GROUNDING POINT LOCATIONS BEFORE STIRRING UP GROUND CABLES.
 3. AVOID BALLAST FOOTINGS WHEN INSTALLING GROUND CABLE.

SCALE N.T.S.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>DATE</th> <th>REVISIONS</th> <th>REV. BY</th> </tr> </thead> <tbody> <tr> <td>06-06-05</td> <td>Revise to Permit</td> <td>SPJ</td> </tr> </tbody> </table>	DATE	REVISIONS	REV. BY	06-06-05	Revise to Permit	SPJ	<h2 style="margin: 0;">Weaver Electric, Inc.</h2> <p style="font-size: small; margin: 0;"> 22500 Highway 99, Suite 100 Barstow, CA 92311 Telephone: 951-831-1111 Fax: 951-831-1111 </p>	PROJECT: Barstow LNG-LONG Fueling Station 100 North Sandstone Court Barstow, CA 92311	SHEET NAME: GROUNDING PLAN	SHEET: <h1 style="margin: 0;">E-8</h1>
DATE	REVISIONS	REV. BY									
06-06-05	Revise to Permit	SPJ									



- NOTES:
1. DRAIN BOX CONSTRUCTED WITH CONCRETE AND GRATED COVER CAPABLE OF SUPPORTING TWENTY-TON HEAVY DUTY AXLE LOADS.
 2. SOIL UNDER DRAIN BOX SHALL BE COMPACTED TO 95%.
 3. DRAIN SEAL TO BE FILLED WITH WATER UPON COMPLETION OF PROJECT.
 4. TANKER SPILL CONTAINMENT CAPACITY 2,000 GALS. PER NFPA 57.

BOLLARDS w/ SUBS BEAMS GRADE BEAM CONCRETE

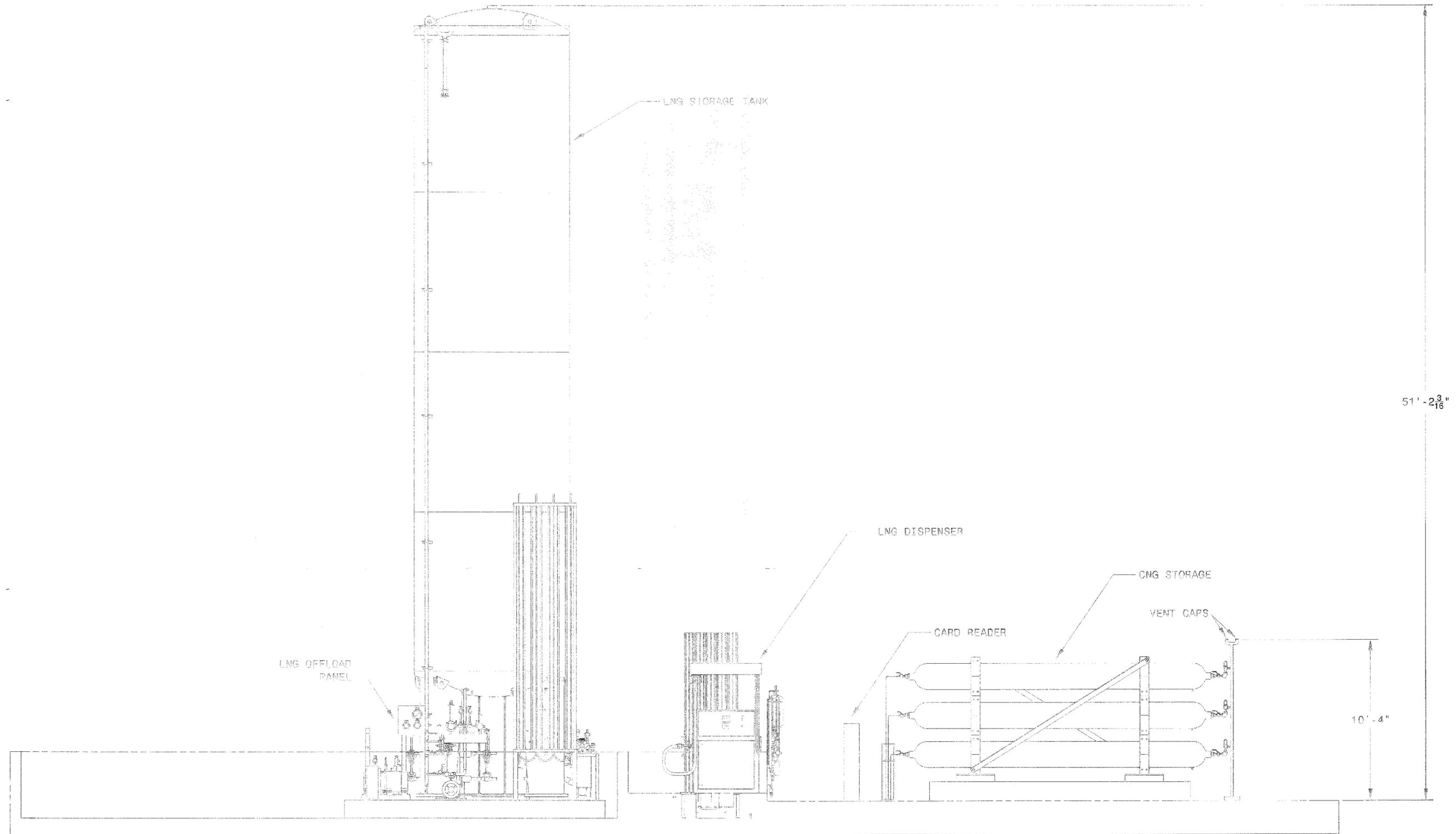
BOLLARDS

SEE SITE PLAN

SEE DRAIN
BOLLARDS



SCALE: N.T.S.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>DATE</th> <th>REVISIONS</th> <th>REV. BY</th> </tr> </thead> <tbody> <tr> <td>05-28-05</td> <td>DESIGN TO DRAWING</td> <td>SHJ</td> </tr> <tr> <td>06-17-05</td> <td></td> <td>JL</td> </tr> </tbody> </table>	DATE	REVISIONS	REV. BY	05-28-05	DESIGN TO DRAWING	SHJ	06-17-05		JL	<h2 style="margin: 0;">Weaver Electric, Inc.</h2>	PROJECT: Barstow LNG-LCNG Fueling Station 100 North Sandstone Court Barstow, CA 92311	SHEET NAME: Equipment Layout Detail	SHEET: <h1 style="margin: 0;">M-2</h1>
DATE	REVISIONS	REV. BY												
05-28-05	DESIGN TO DRAWING	SHJ												
06-17-05		JL												



SCALE: N.T.S.

DRAWN BY	DATE
Shu	06-06-05
CHECKED BY	DATE

DATE	REVISIONS	REV. BY
06-06-05	Revise for Permit	Shu

Weaver Electric, Inc.

10000 W. 10th St. Suite 100
 Westminster, CO 80040
 (303) 426-1100
 FAX: (303) 426-1101

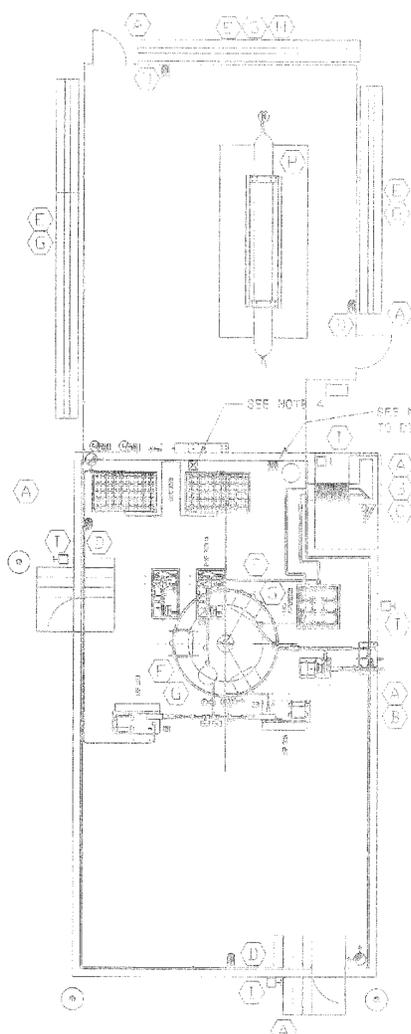
PROJECT: Barstow LNG-LCNG
 Fueling Station
 100 North Sandstone Court
 Barstow, CA 92311

SHEET NAME:
 EQUIPMENT
 ELEVATIONS

SHEET:
M-3

ENTRY GATE

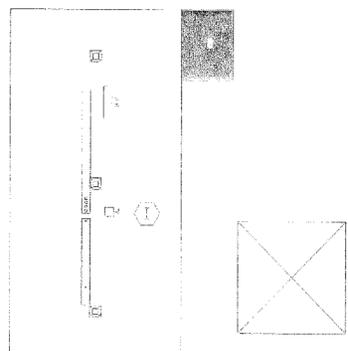
LNG-LONG FUEL STORAGE AREA



LONG DISPENSER ISLAND

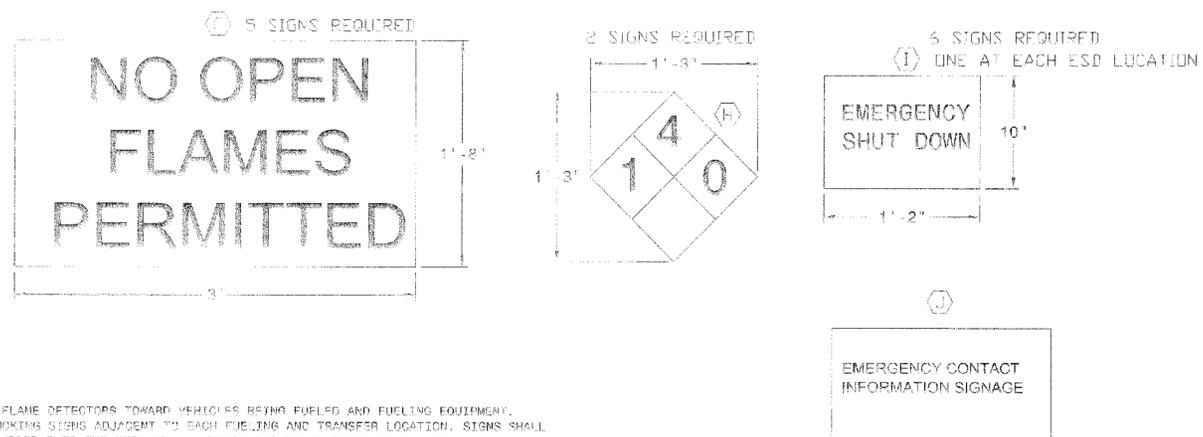
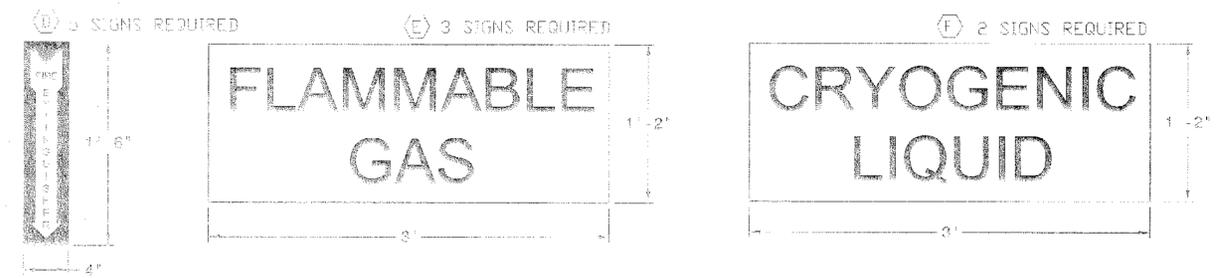
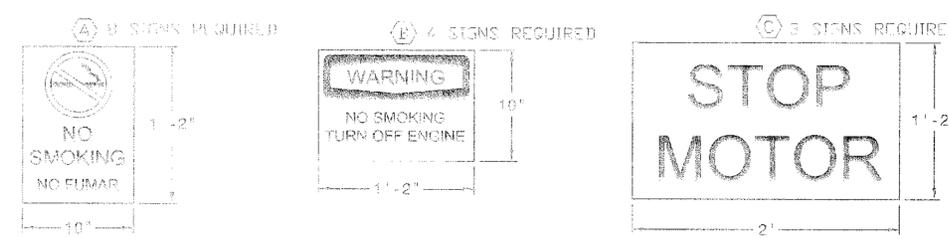


ELECTRICAL PANELS PAD & CANOPY



LEGEND

- ☉ DRY CHEMICAL EXTINGUISHER
- ☒ GAS DETECTOR
- ☒ FLAME DETECTOR (U/WT)
- ☒ LOW TEMP DETECTOR
- ☒ ALARM
- ☒ BEACON
- ☒ ESD



NOTES:

1. DIRECT UV/IR FLAME DETECTORS TOWARD VEHICLES BEING FUELED AND FUELING EQUIPMENT.
2. INSTALL NO SMOKING SIGNS ADJACENT TO EACH FUELING AND TRANSFER LOCATION. SIGNS SHALL BE CLEARLY VISIBLE TO THE INDIVIDUAL PERFORMING THE FUELING OR TRANSFER FUNCTION.
3. LOCATE THE LOW TEMPERATURE DETECTOR AT THE SUMP.
4. LOCATE ONE (1) GAS DETECTOR (MINIMUM) ABOVE THE UNDEPIEZED LNG AREA.
5. EMERGENCY ALARM BORN AND BEACON SHALL BE VISIBLE AND AUDIBLE FROM EACH FUELING/TRANSFER STATION.
6. ALL SIGNS EXCEPT "1" ARE RED LETTERS ON A WHITE BACKGROUND.
7. SIGN "1" USE BLACK LETTERS ON A STANDARD HIGH COLORED BLANK.

SCALE: N.T.S.

DRAWN BY	DATE
Shu	06-06-05
CHECKED BY	DATE

DATE	REVISIONS	REV. BY
05-08-05	Revised to match	Shu

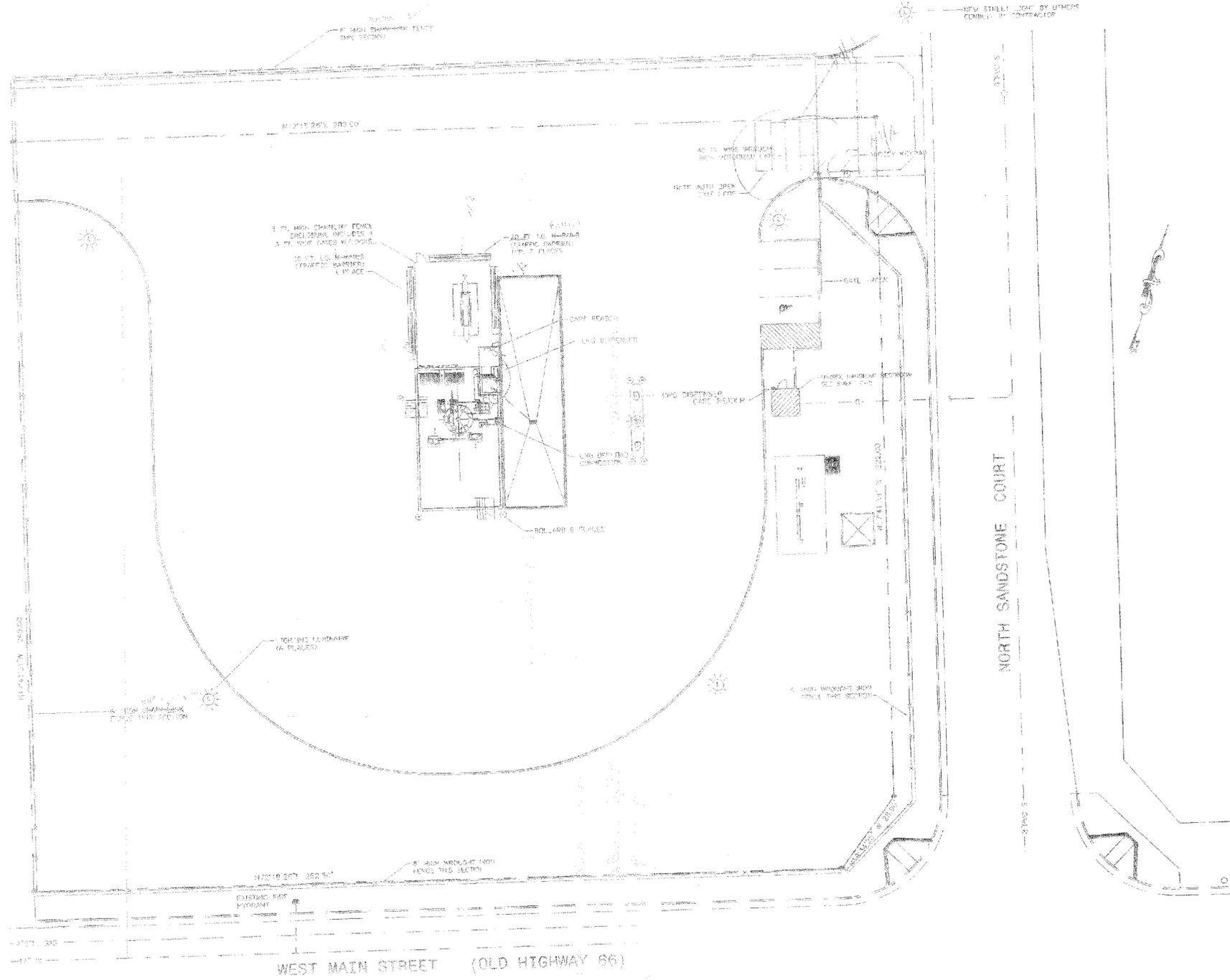
Weaver Electric, Inc.

Weaver Electric, Inc.
100 North Sandstone Court
Barstow, CA 92311
Phone: 909/258-1100
Fax: 909/258-1101
E-Mail: weaver@weaver-electric.com

PROJECT: Barstow LNG-LCNG Fueling Station
100 North Sandstone Court
Barstow, CA 92311

SHEET NAME: FIRE SAFETY EQUIPMENT AND SIGNAGE

SHEET: M-4



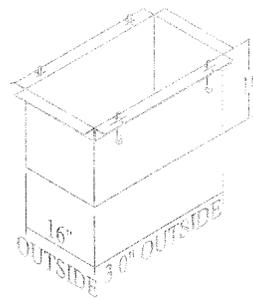
NOTES:
 For the specs on the chain link fence refer to the 2003 Green Book section 206.6. The wrought iron fence shall be 6' high black fence with 2" X 3" posts that are 5/16" thick, 1 1/2" square horizontals and 3/4" square pickets.



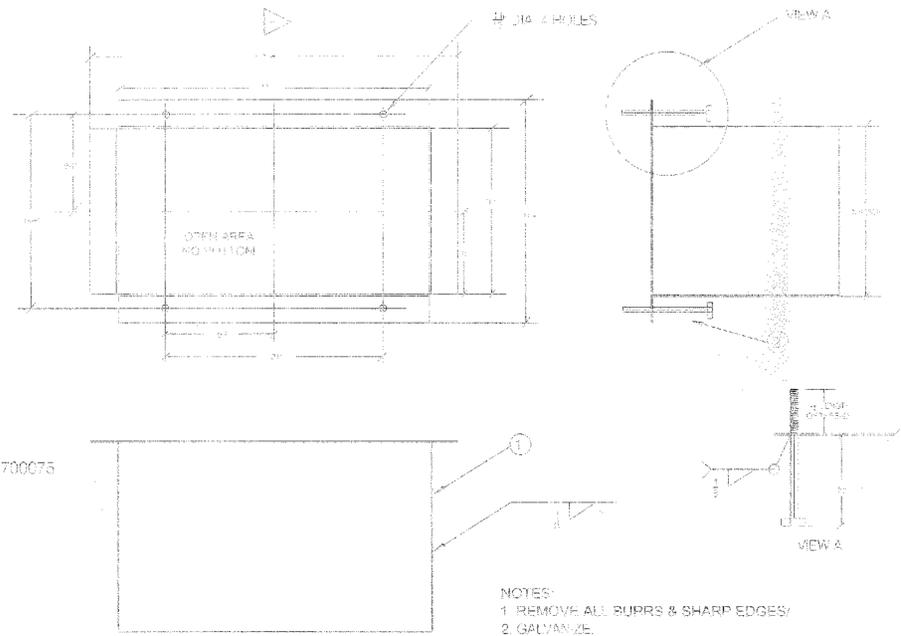
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06-18-05	Change by Owner	010									

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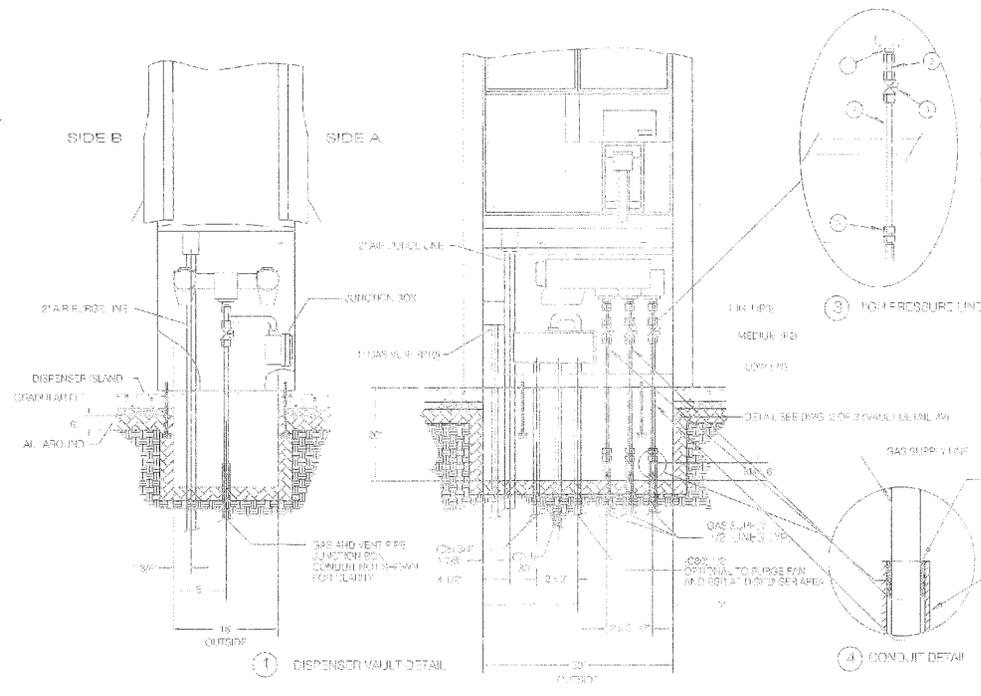
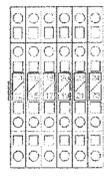
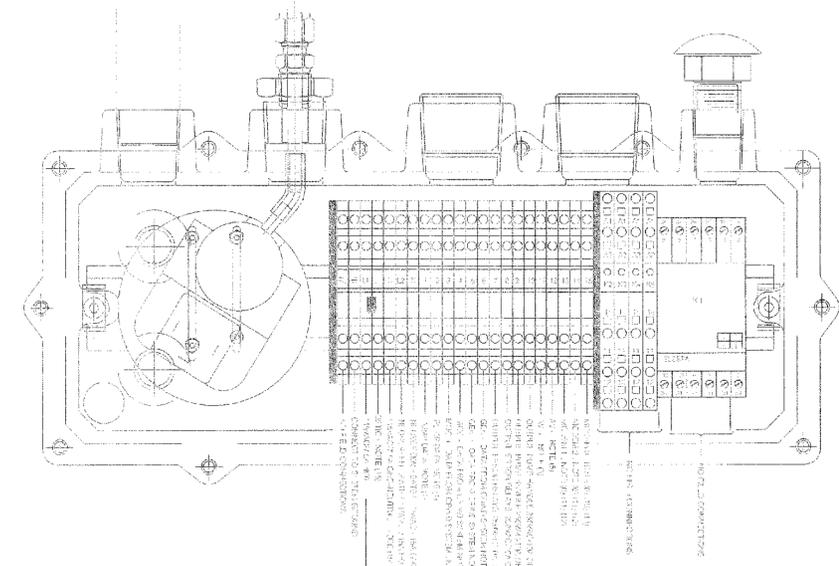


4V TYPICAL PIT BOX DETAIL
PIT BOX IS AN OPTIONAL ITEM. GreenField PN 700075

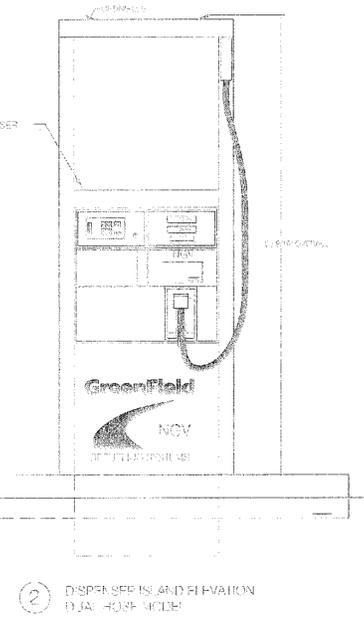


- NOTES:
1. REMOVE ALL BURRS & SHARP EDGES/
2. GALVANIZE

- NOTES:
(1) LEAVE ALL SHIELDS AT DEVICE END (CONTROL PANEL)
(2) USE MIN #18 AWG REFCB
(3) USE #18 AWG REFCB NOT BOTH
(4) TO GILBARCO UNIVERSAL L BOX
(5) TO GILBARCO UNIVERSAL AND BOX
(6) SEE DATA WIRING TO ACQUA SYSTEM REF DWG 80000 2004
(7) PHONE LINE (ELECTRIC) CUSTOMER SUPPLIED
(8) ALL WIRES CSA CERTIFIED TYPE TW AWG 27 MCM
(9) DATA FROM FOUNDATION (CONDUIT, ETC)
(10) DATA FROM FOUNDATION (MAJOR OH COMPANY (MCC))
(11) APPROXIMATE POWER - ALL TERMINALS: 14 FT IS
(12) MOTION OPTION - USE IT TERMINALS (1, 14 LANE) PHONE LINE HERE
(13) STANDARD ONE-CELL CONTROL PANELS DO NOT SUPPORT
THE ADDITIONAL POWER REQUIREMENTS FOR THE REF (OPTIONAL HEATER).
A SEPARATE POWER SOURCE WILL HAVE TO BE SUPPLIED BY CUSTOMER.
(14) OPTIONAL CONDUIT FOR 1/2" NPT PIPE.



- DETENSER HIGH PRESSURE LINE INSTALLATION KIT
P/N: 70130 DMS 9003-2577
1. BRANCH DISCONNECT 1/2" NPT x 1/2" SEAL CON
 2. SW. SPOOL CONNECTOR WITH 90° BEND
 3. SERVICE BALL VALVE 1/2" NPT x 1/2" NPT SEAL CON
 4. TUBE WITH FITTINGS
 5. UNION (OPTIONAL) 1/2" DISCONNECT FITTINGS



SCALE: N.T.S.	DATE: 06-05-05	REVISIONS: Revised for permit	REV. BY: SM
DRAWN BY: Siu	DATE: 05-19-05		
CHECKED BY:	DATE:		

Weaver Electric, Inc.

1200 E. 1st Street
Tulsa, OK 74103
(918) 436-1111

PROJECT: Barstow LNG-LONG
Fueling Station
100 North Sandstone Court
Barstow, CA 92311

SHEET NAME:
**DISPENSER
DETAILS**

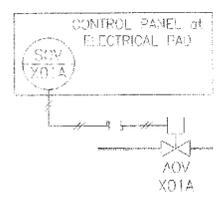
SHEET:
M-6

LEGEND

- AOV - Air Operated Valve (spring return - fail safe) see NOTE 1
 - C - Connection point
 - CV - Check Valve
 - DPT - Differential Pressure Transmitter
 - DT - Density Transmitter
 - F - Filter
 - HCV - Manual (Hand) Valve
 - LI - Level Indicator
 - LT - Level Transmitter
 - M - Meter
 - P - Pump
 - PI - Pressure Indicator
 - PSE - Pressure Safety Element (rupture disk)
 - PT - Pressure Transmitter
 - PSH - Pressure Switch High
 - PSL - Pressure Switch Low
 - PSV - Pressure Safety Valve
 - PT - Pressure Transmitter
 - S - Strainer
 - SC - Surge Chamber (LONG Pump)
 - SOV - Solenoid Valve (for AOV) see Note 1
 - TE - Temperature Element
 - TSH - Temperature Switch High
 - TSL - Temperature Switch Low
 - TSV - Temperature Safety Valve (hydrostatic relief)
 - TT - Temperature Transmitter
 - VAP - Vaporizer Module (ambient)
 - VP - Vacuum Pumpout Port
 - VR - Vacuum Gage Tube
- INDICATES Process Instrumentation (Field Mounted)
 INDICATES Process Instrumentation (Panel Mounted)
 INDICATES Process Instrumentation (Behind-Panel Devices)
- *- INDICATES Tubing to Vent Stack
 INDICATES Pneumatic Tubing to AOV'S
 INDICATES Electrical Signal

NOTES

1. All AOV's are controlled by an SOV (solenoid valve) with the corresponding number. All SOV's are located in the control panels (at the Electrical Pad) with pneumatic tubing, run individually, to each AOV.
2. Components enclosed in dashed box, (i.e. pump skid, dispenser) will be factory assembled skids, installed in the field.



CONTROL PANEL DESIGNATION

- CP - LNG CONTROL PANEL
- DP101A - LNG DISPENSER PANEL 101A
- DP101B - LNG DISPENSER PANEL 101B

SCALE:	
N.T.S.	
DRAWN BY:	DATE:
Chu	06 06 95
CHECKED BY:	DATE:

DATE	REV	SPINS	REV. BY
06-06-95		REVISED FOR PRINTING	SRP

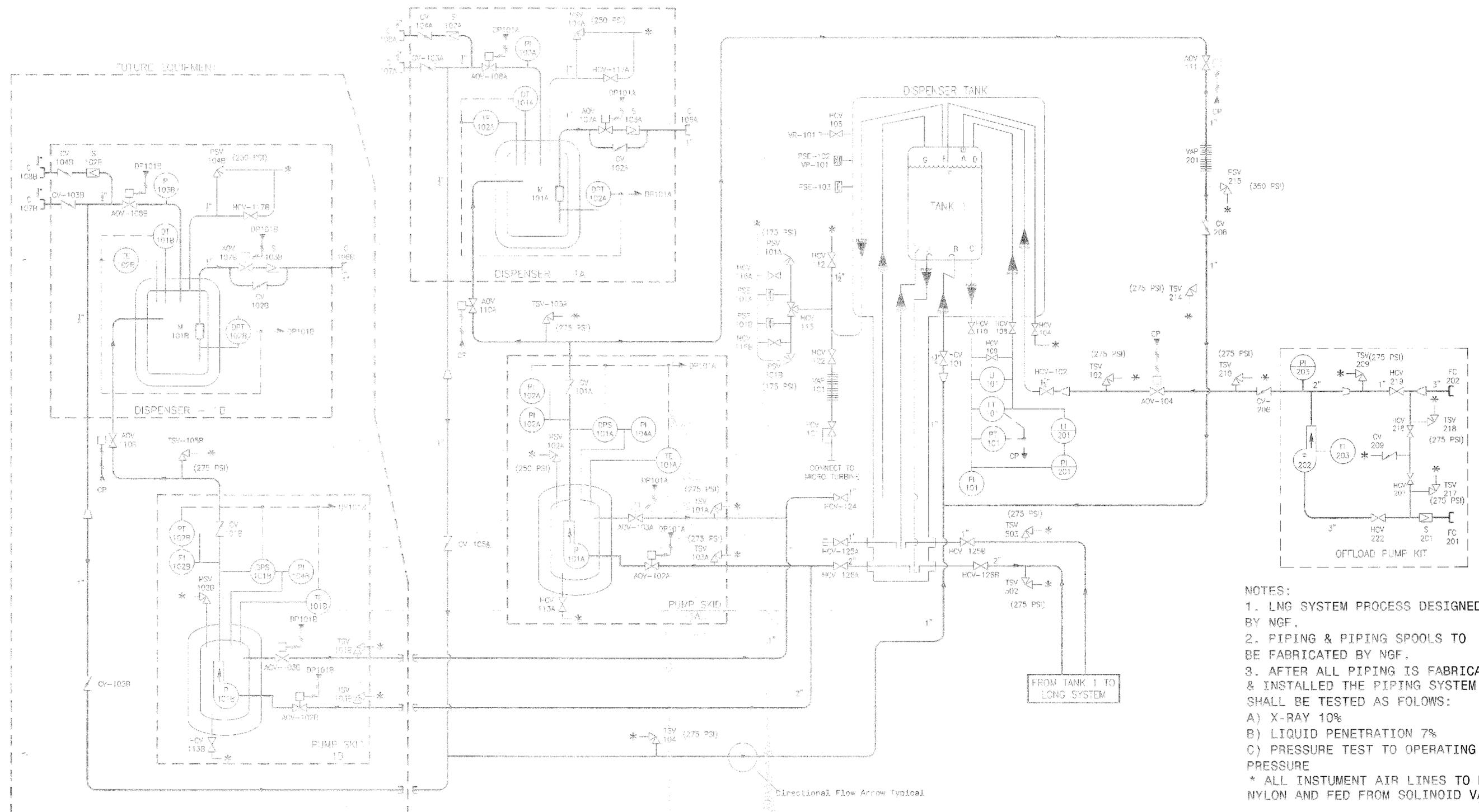
Weaver Electric, Inc.

Quality Instrumentation
Engineering & Construction
100 North Sandstone Court
Barstow, CA 92311
Tel: 909-251-1100
Fax: 909-251-1101

PROJECT: Barstow LNG-LONG
Fueling Station
100 North Sandstone Court
Barstow, CA 92311

SHEET NAME:
**PIPING
LEGEND**

SHEET:
P-1



- NOTES:
1. LNG SYSTEM PROCESS DESIGNED BY NGF.
 2. PIPING & PIPING SPOOLS TO BE FABRICATED BY NGF.
 3. AFTER ALL PIPING IS FABRICATED & INSTALLED THE PIPING SYSTEM SHALL BE TESTED AS FOLLOWS:
 - A) X-RAY 10%
 - B) LIQUID PENETRATION 7%
 - C) PRESSURE TEST TO OPERATING PRESSURE
- * ALL INSTRUMENT AIR LINES TO BE NYLON AND FED FROM SOLINOID VALVES.

SCALE:	
N.T.S.	
DRAWN BY:	DATE:
Shu	08-06-05
CHECKED BY:	DATE:

DATE	REVISIONS	REV. BY
06-05-05	Revised for Permit	SHU

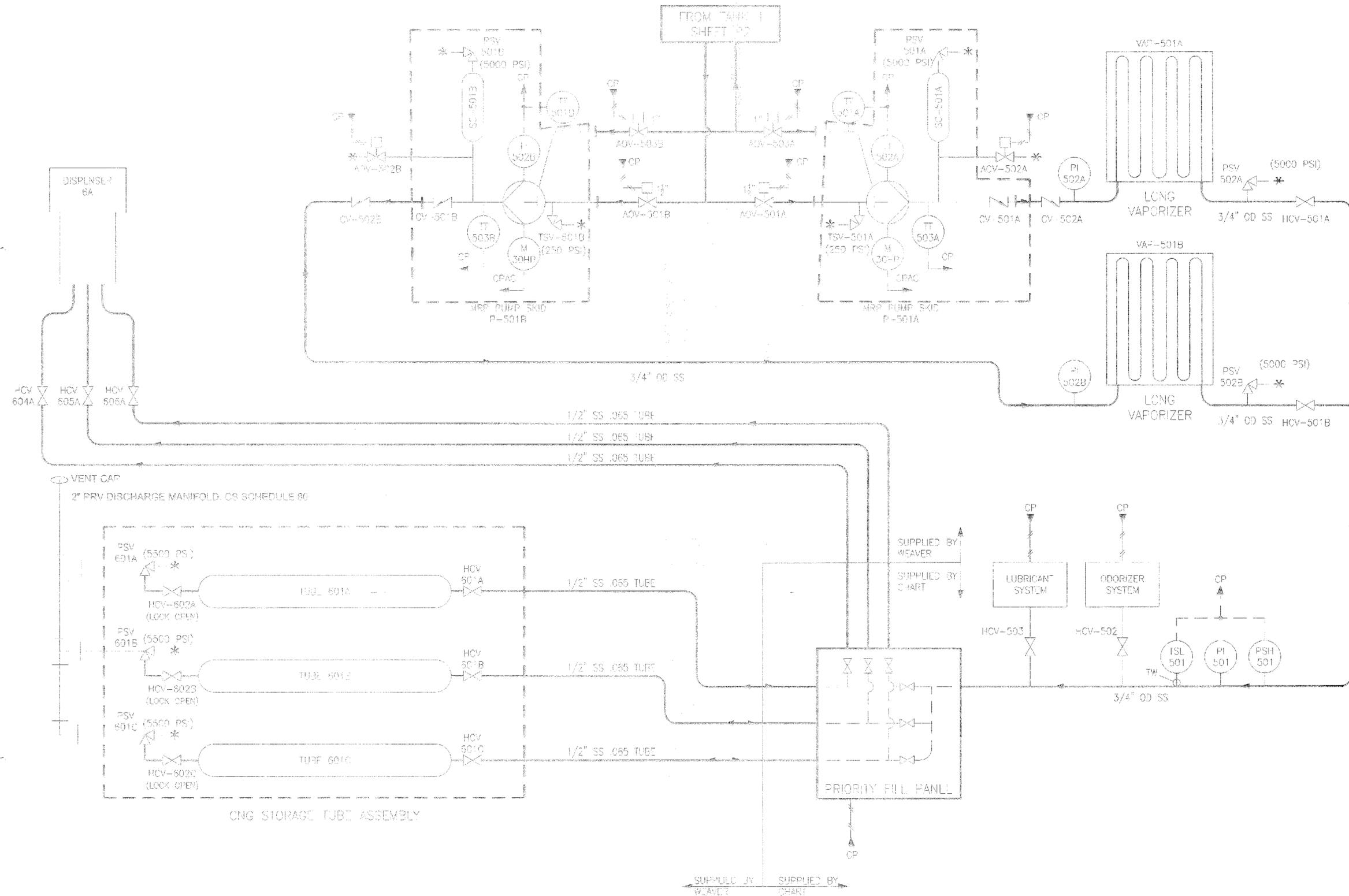
Weaver Electric, Inc.

Weaver Electric, Inc.
40150 1st Street
Barstow, CA 92311
951-790-1100

PROJECT: Barstow LNG-LCNG Fueling Station
100 North Sandstone Court
Barstow, CA 92311

SHEET NAME: PIPING AND INSTRUMENTATION

SHEET: P-2



SCALE: N.T.S.		DATE: 06-08-05	REVISIONS: REV. BY: DATE:
DRAWN BY: Shu	CHECKED BY: DATE:	DATE: 06-08-05	REV. BY: SM

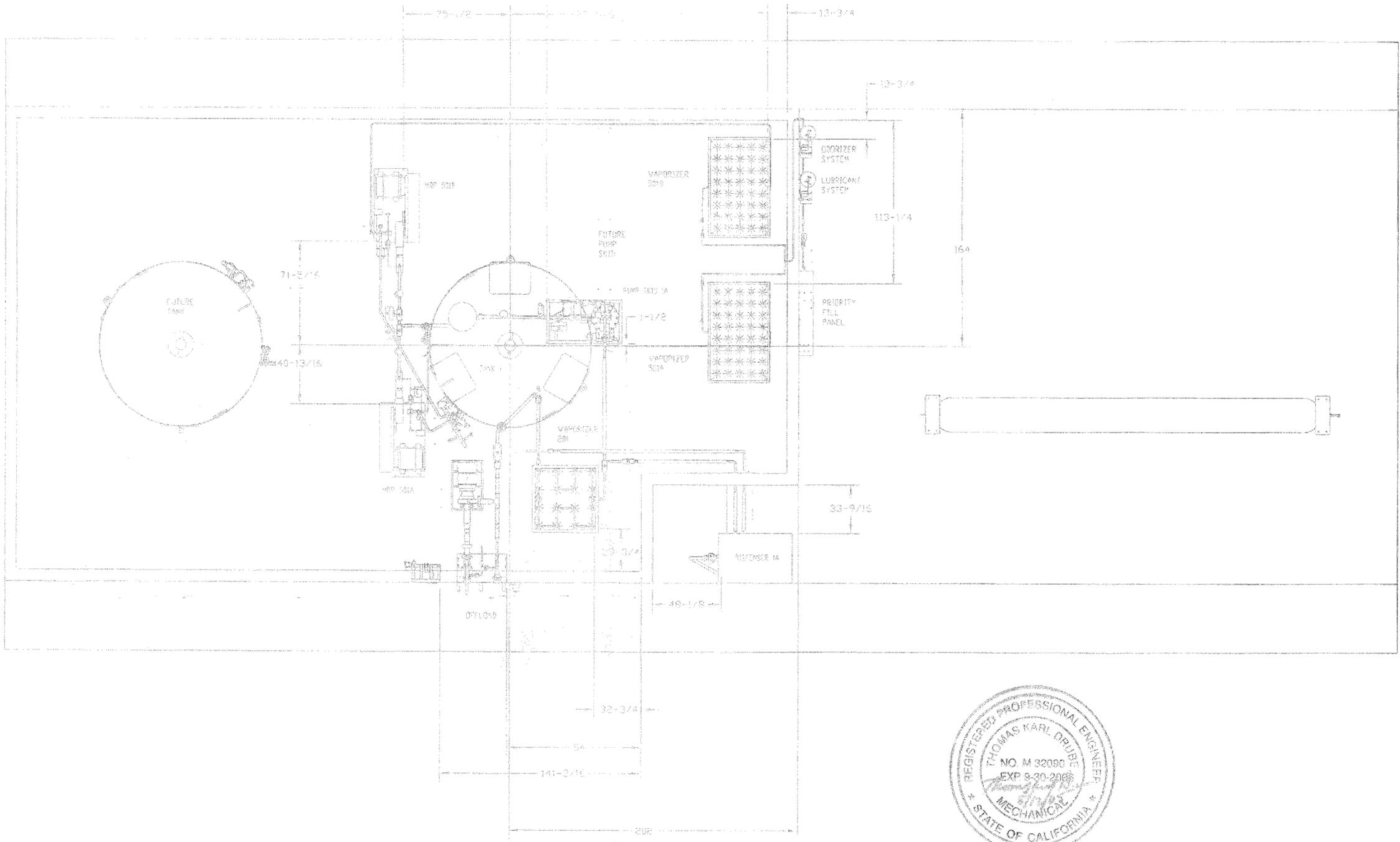
Weaver Electric, Inc.

100 North Sandstone Court
Barstow, CA 92311

PROJECT: **Barstow LNG-LCNG Fueling Station**
100 North Sandstone Court
Barstow, CA 92311

SHEET NAME:
PIPING AND INSTRUMENTATION

SHEET:
P-3



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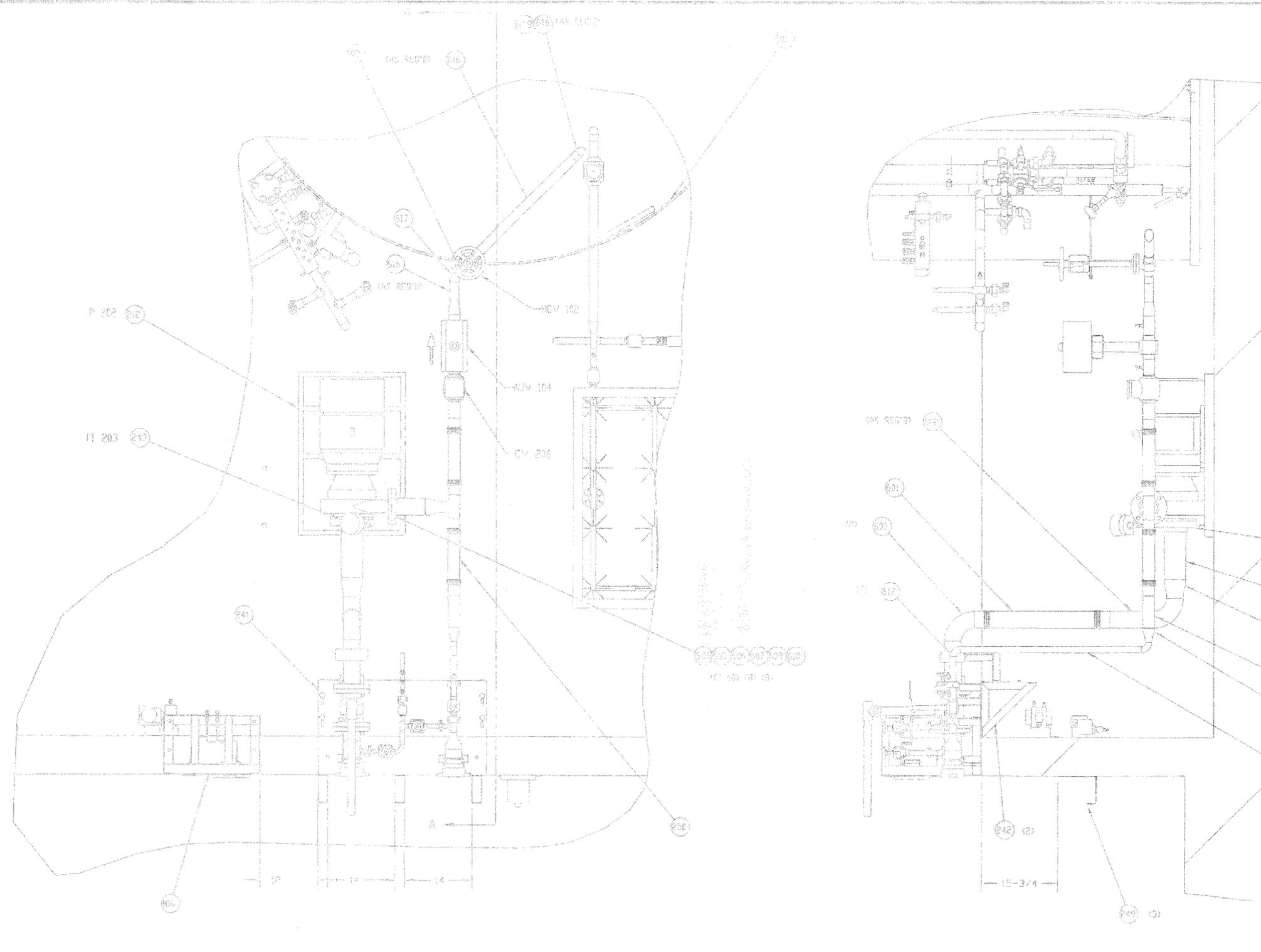
Weaver Incorporated
 4610 East La Palma
 Anaheim, CA 92850
 Telephone: (714) 977-1188
 FAX: (714) 977-8811
 www.wi-inc.net

CITY OF BARSTOW
 226 E. MOUNTAIN VIEW ST SUITE A BARSTOW, CA 92311
 PHONE (760) 258-3631
 FAX (760) 258-1780
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PREPARED UNDER THE SUPERVISION OF:
 Herbert E. Surratt

NO.	REVISIONS	DATE

PROJECT NO. 2003-03 LNG FUELING Station LNG Pipe Connections 1		
APPROVED BY: Michael B. Stewart	TITLE: CITY ENGR	
DESIGNED BY: RCE	PROJECT NO: 24246	SHEET OF: P-4 7
DRAWN: MMK	DATE: 5/10/05	PLAN NO: 3061
SCALE: NONE	AS BUILT	



BALLOON #	PART #	DESCRIPTION	QNTY	KIT
212	11659901	PUMP LNG GROUND ACB AC-30	1	200
241	11927442	MDL OFFLOAD CONN	1	200
242	11739955	BRACKET OFFLOAD CONN	2	200
243	11321101	FLANGE ASSY W/ PROBE	1	200
249	11817420	HANGER TRANSFER HOSE	3	200
250	11927477	MDL PUMP TO TANK CONNECTION	1	200
103	10925459	VALVE GATE SS 1-1/2IPS BW	1	100
101	11006954	FNL VS-150000 175-500	1	100
106	12896478	GAUGE PANEL	1	100
600	1410621	ELBOW SS 90D 3PS SCH 5 BW	2	600
601	11498246	FLEX HOSE SS ASSY	1	600
602	3310361	PIPE SS 3.00IPS SCH 10 BW	AS REQ'D	600
603	10562971	RBCR SS 4PSX3PS SCH 10 BW	1	600
604	2310301	PIPE SS 4.00IPS SCH 10 BW	AS REQ'D	600
605	2912101	WASHER LOCK SS 5/8 18-8	16	600
606	2910261	WASHER FLAT SS 5/8 18-8	16	600
607	2920941	BOLT HEX SS 5/8-11X3-1/2 LG	16	600
608	4410641	FLANGE SS SD 3.00PS FF H150	1	600
609	292749	NUT HEX SILICON BRZ 5/8-11NC	8	600
610	11932461	GASKET 063 X3IPS CL 150 FF	1	600
611	11934247	GASKET SS 4NPS CL 150 CGI	1	600
612	1410961	ELBOW SS 90D 1PS SCH 5 BW	2	600
613	3310071	PIPE SS 1NPS SCH 5 WLD	AS REQ'D	600
614	1413741	RBCR SS 2PSX1PS SCH 10 BW	1	600
615	3310151	PIPE SS 2.00IPS SCH 5 WLD	AS REQ'D	600
616	3310131	PIPE SS 1-1/2IPS SCH 5 WLD	AS REQ'D	600
617	1410571	ELBOW SS 45D 1-1/2IPS SCH 5 BW	1	600
618	1410051	ELBOW 90D SS 1-1/2 PS SCH 5	1	600



DEFINITION
SCALE 1/8"=1'-0"

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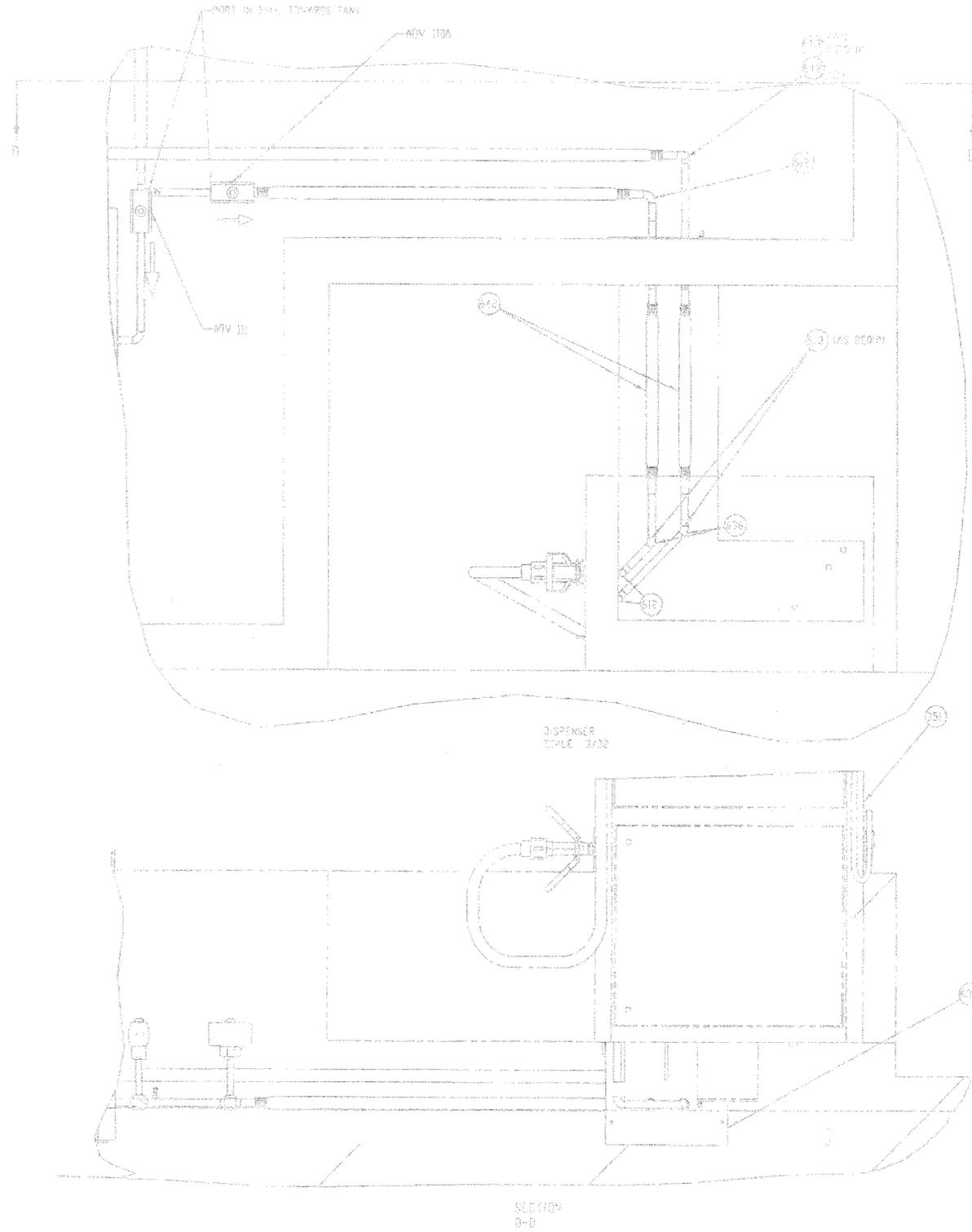
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4210 South La Paloma
Anaheim, CA 92807
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FAX: (714) 917-9011
weaverinc.com

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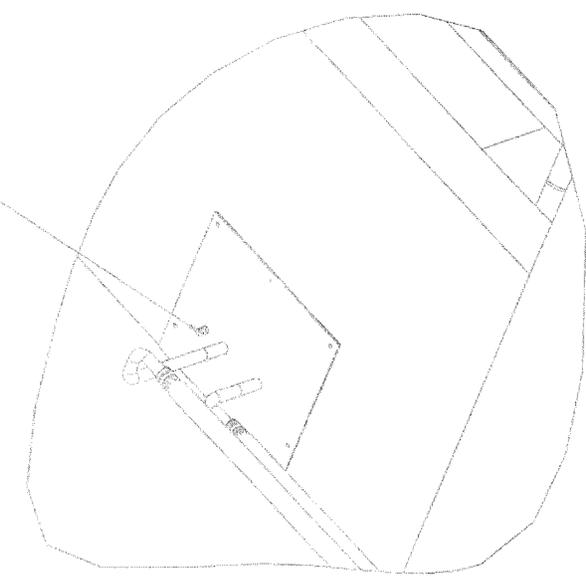
NO	REVISIONS	DATE	APPROVED BY	TITLE
			Michael B. Stewart	CITY ENGR
			DESIGNED BY	FILE NO 24246
			DRAWN	DATE: 5/10/05
			SCALE	AS BUILT
				SHEET OF P-5 7
				PLAN NO 3061

PROJECT NO. 2003-03
LNG-LNG Fueling Station
LNG Pipe Connections 1



BALLOON #	PART #	DESCRIPTION	QNTY	KIT
612	1410661	ELBOW SS 90° 1/2" SCH 5 WLD BW	5	600
651	11722196	MOD DISPENSER WTR	1	350
635	12888145	PLATE ASSY MOUNTING SS TRENCH	1	600
611	1310071	PIPE SS 1/2" SCH 5 WLD	AS REQ'D	600
636	1410661	ELBOW SS 45° 1/2" SCH 5 WLD BW	2	600
642	11726633	FML PYTHON 1"x2' 3 FT LG	2	600
661	2760201	TUBE SS 1/2" DIA - 8494 WLD	AS REQ'D	630

PUMP TO LOW PRESSURE RELIEF STACK WITH ITEM # 661 AS REQ'D



TRENCH PASS THRU DETAIL
SCALE 1/8"



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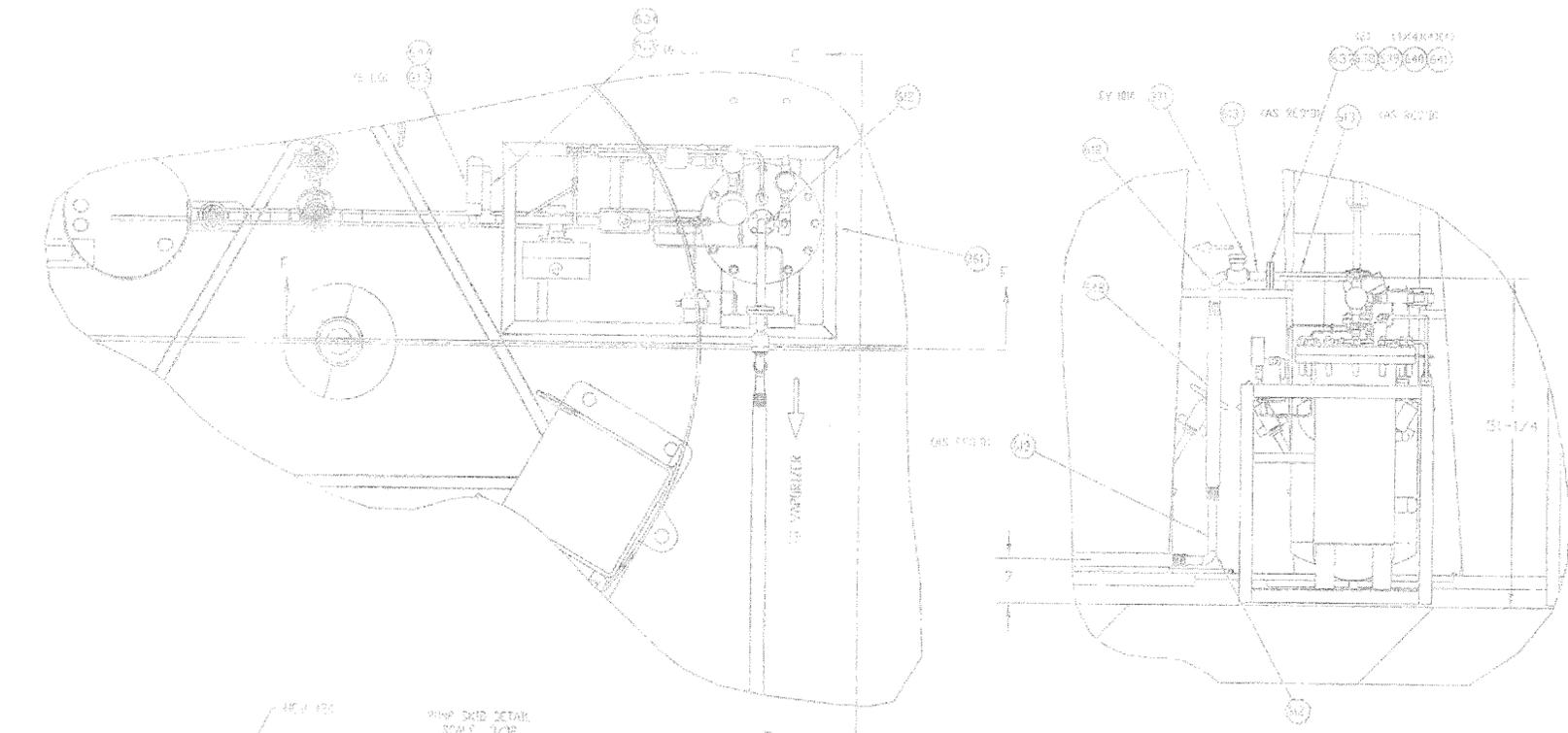
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FAX: (714) 917-8011
weaverinc.com

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FAX: (760) 256-1750
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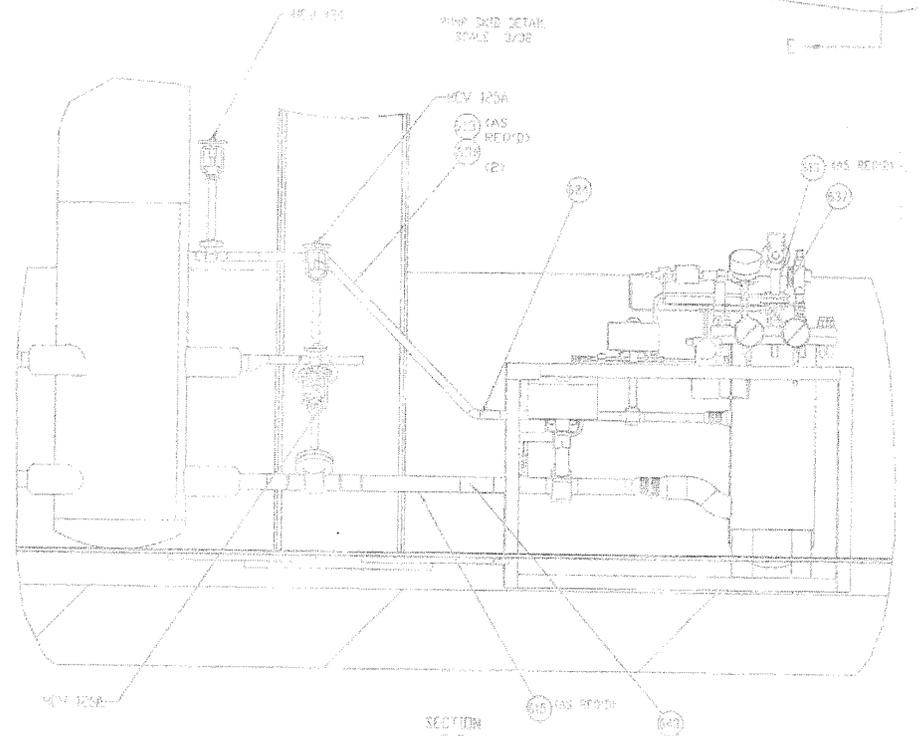
PREPARED UNDER THE SUPERVISION OF:
Herbert Burnett

NO.	REVISIONS	DATE

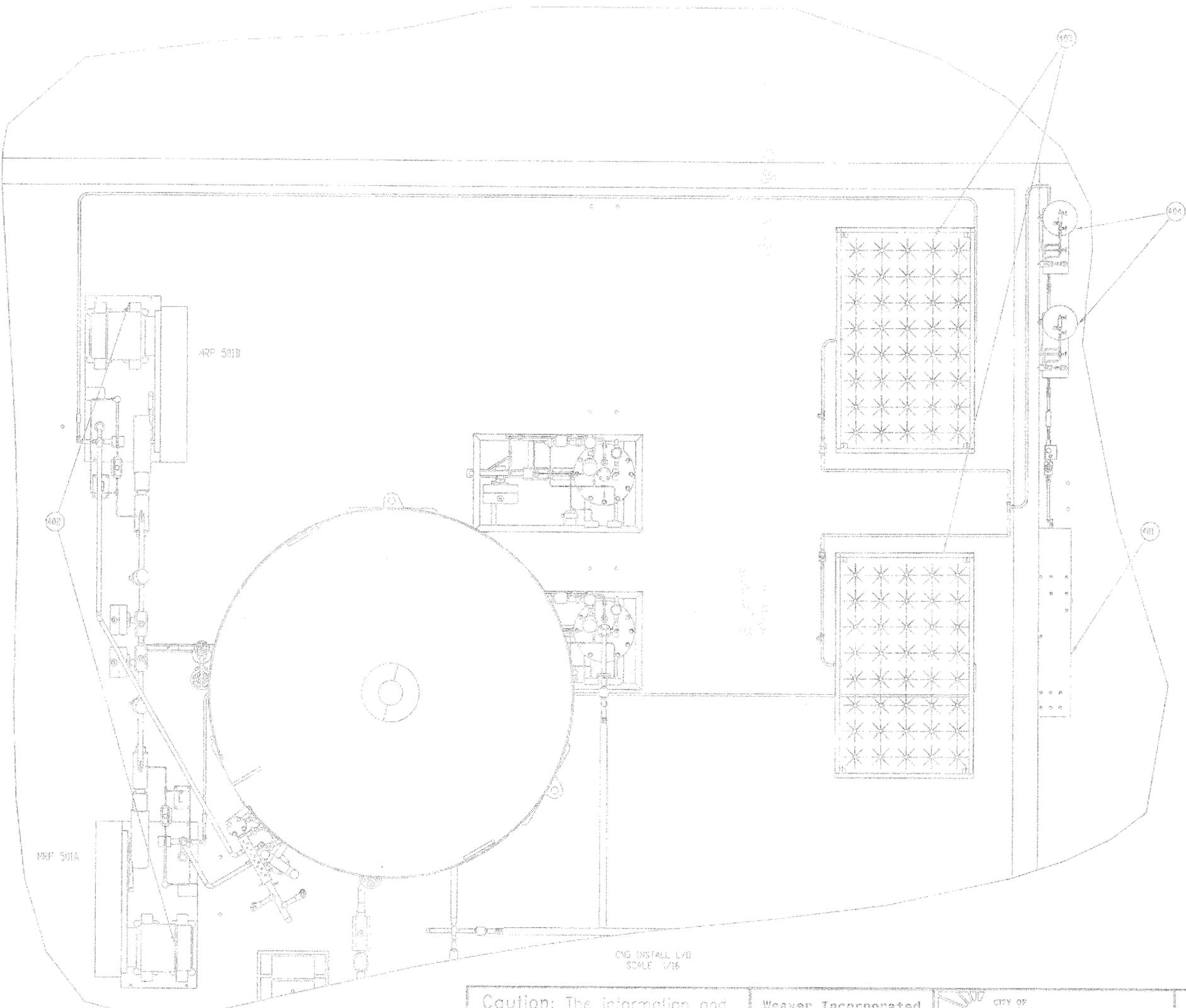
PROJECT NO. 2003-03		TITLE: CITY ENGR	
LNG-LNG Filling Station		SHEET OF	
LNG Pipe Connections 1		P-7 7	
APPROVED BY: Michael B. Stewart	DATE: 5/10/05	SCALE: NONE	PLAN NO: 3061
ASSIGNED TO: RZE AG 2424B	DATE: 5/10/05	SCALE: NONE	PLAN NO: 3061



CALL OUT #	PART #	DESCRIPTION	QNTY	KIT
261	1106904	PUMP SKID 1740 SINGLE FUNCTION	1	352
271	11701486	VALVE SWING CHECK SS 1NPS SV	1	352
512	1400861	ELBOW SS 90D 1PS SCH 5 WLD BW	3	600
613	3300271	PIPE SS 100NPS SCH 5 WLD	AS REQ'D	600
637	4412301	FLANGE SS 3/4" BORE CL 150	3	600
638	11934167	GASKET SS 1NPS CL 150 CGI	1	600
639	298050	BOLT HEX SS 3/8-13NC-2-1/4 LG	4	600
640	698720	NUT HEX SULCIBN B7Z 1/2-13NC	4	600
641	691161	WASHER LOCK SS 1/2 ID 3	4	600
642	11733533	FLR PYTHW 1/2" BPT LG	1	600
643	140114	TEE SS 1PS SCH 5 BW WLD	1	600
644	141121	TEE SS 2PS SCH 5 BW WLD	1	600
644	141438	CAP PIPE SS 1PS SCH 5 BW	1	600
644	1400221	CAP PIPE SS 2PS SCH 5 BW	1	600
645	330151	PIPE SS 200NPS SCH 5 WLD	AS REQ'D	600
646	1400261	ELBOW SS 45D 1PS SCH 5 WLD BW	2	600
648	1937229	HEADER VENT	1	600
648	11812653	NIPPLE TEE SS 1NPTX2 SCH 80	1	600
647	11667897	NIPPLE SS 3/4NPTX2 SCH 80	1	600
656	1211951	PLUG SS SOLID 250MPT	5	600
657	11495168	RV BSZ 1/2NPTX3/4PT 350PSI	1	600
658	1212101	UNION SS 1/2PT 3080P	1	600
659	10304342	CONN SS 3/4CD 1/2EMPT	2	600
660	10501917	CONN SS 1/2BOTH/2EMPT	2	600



BALLOON #	PAGE #	DESCRIPTION	QNTY	KIT
401	11839167	ENG PRIORITY PANEL	1	400
402	11542343	PUMP CRYOGENIC LP ENG	2	400
403	11555177	VAPORIZER AMBIENT 3000 SCFH	2	400
404	11655926	CHEMICAL INJECTOR	2	400



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 FAX: (760) 256-1740

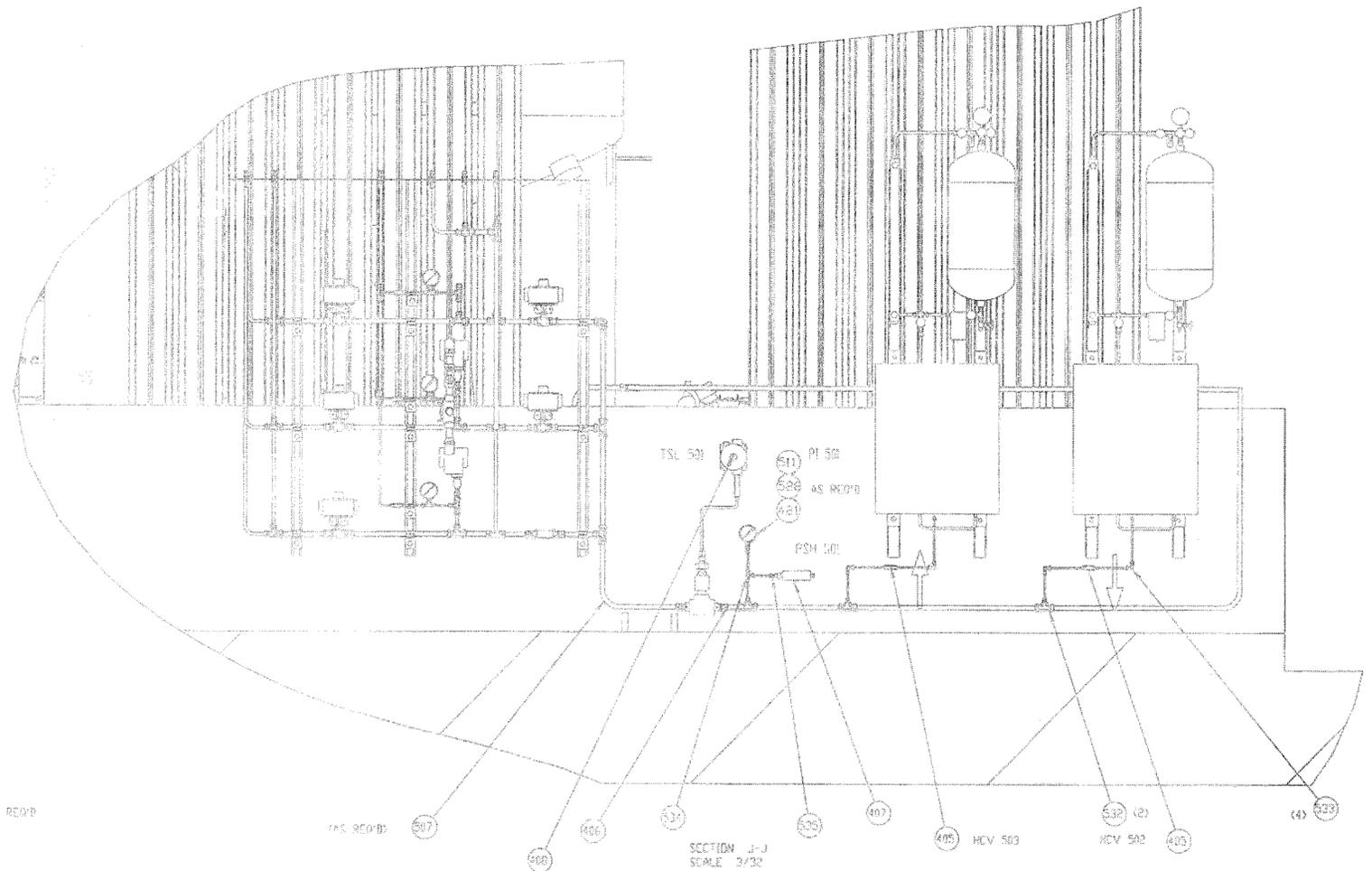
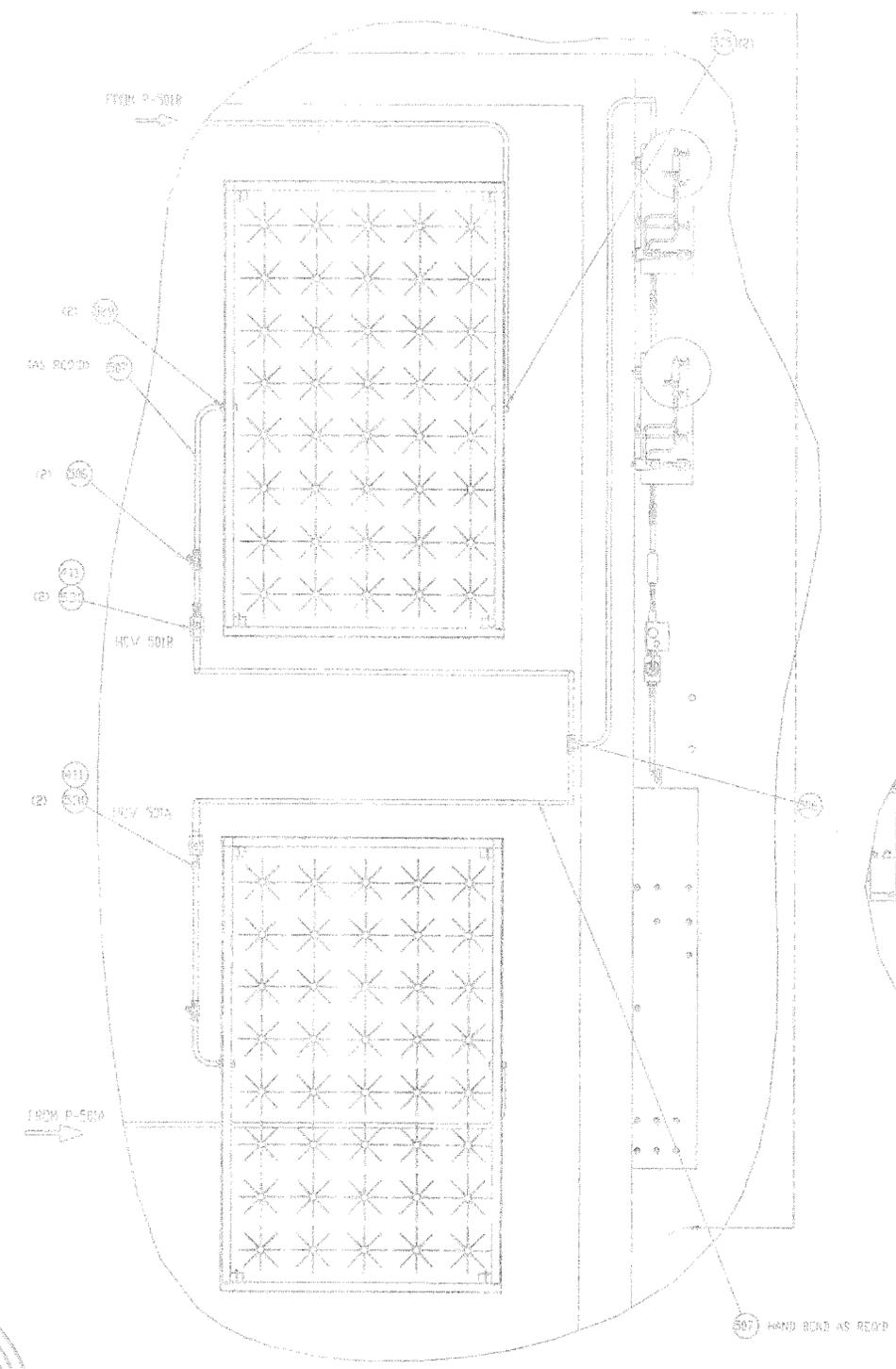
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PREPARED UNDER THE SUPERVISION OF:
Herbert Burnett

NO.	REVISIONS	DATE

PROJECT NO. 2003-03		TITLE: CITY ENGR	
LNG-LUM Fueling Station		SHEET OF	
LNG Pipe Connections 1		P-9 7	
APPROVED BY: Michael B. Stewart	TITLE: CITY ENGR	DESIGNED BY: KTD	DATE: 5/13/05
DRAWN: MMK	DATE: 5/13/05	SCALE: NONE	PLAN NO: 3061
ES BUILT			

BALLOON #	PART #	DESCRIPTION	QNTY	KIT
509	10591559	CONN SS 3/4ODT*3/4MPT	2	500
505	10499917	ELBOW SS 90D 3/4ODT*3/4MPT	2	500
506	11707351	TEE SS UNION 3/4ODT	3	500
411	11894979	VALVE BALL SS 1/2"PT NPT 90	2	400
500	10504042	CONN SS 3/4ODT*1/2MPT	4	500
507	10946367	TUBE SS 7560D 100W SMLS	AS REQ'D	500
501	10379710	UNION SS 3/4ODT x 3/4ODT	4	500
532	11700969	TEE SS 3/4ODT*3/4ODT*1/4ODT	2	500
533	11700662	ELBOW SS 90D 1/4ODT UNION	4	500
405	11771343	VALVE BALL SS 1/4ODT 6000PSI	2	400
406	11734827	HDL LONG INSTRUMENTATION PLMB	1	400
400	11059876	SWITCH TEMPERATURE -50 TO 150F	1	400
407	11739839	SWITCH PRESSURE 2000-6000 PSI	1	400
421	11734835	PG 2-1/32" DIAL 0-5000 PSI	1	400
520	10501052	CONN SS 1/4ODT*1/4PT	1	500
511	272004	TUBE SS 250'OD 649W WLD	AS REQ'D	500
534	10501714	TEE SS UNION 1/4ODT	1	500
535	10501247	CONN SS 1/4ODT*1/4MPT	1	500



LNG VAPORIZER INSTALL
SCALE 3/32

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120 E. MOUNTAIN VIEW ST SUITE A BARSTOW, CA 92311
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PREPARED UNDER THE SUPERVISION OF:
Herbert Burnett

NO.	REVISIONS	DATE

PROJECT NO. 2003-03
LNG/LCNG Fueling Station
LNG Pipe Connections 1

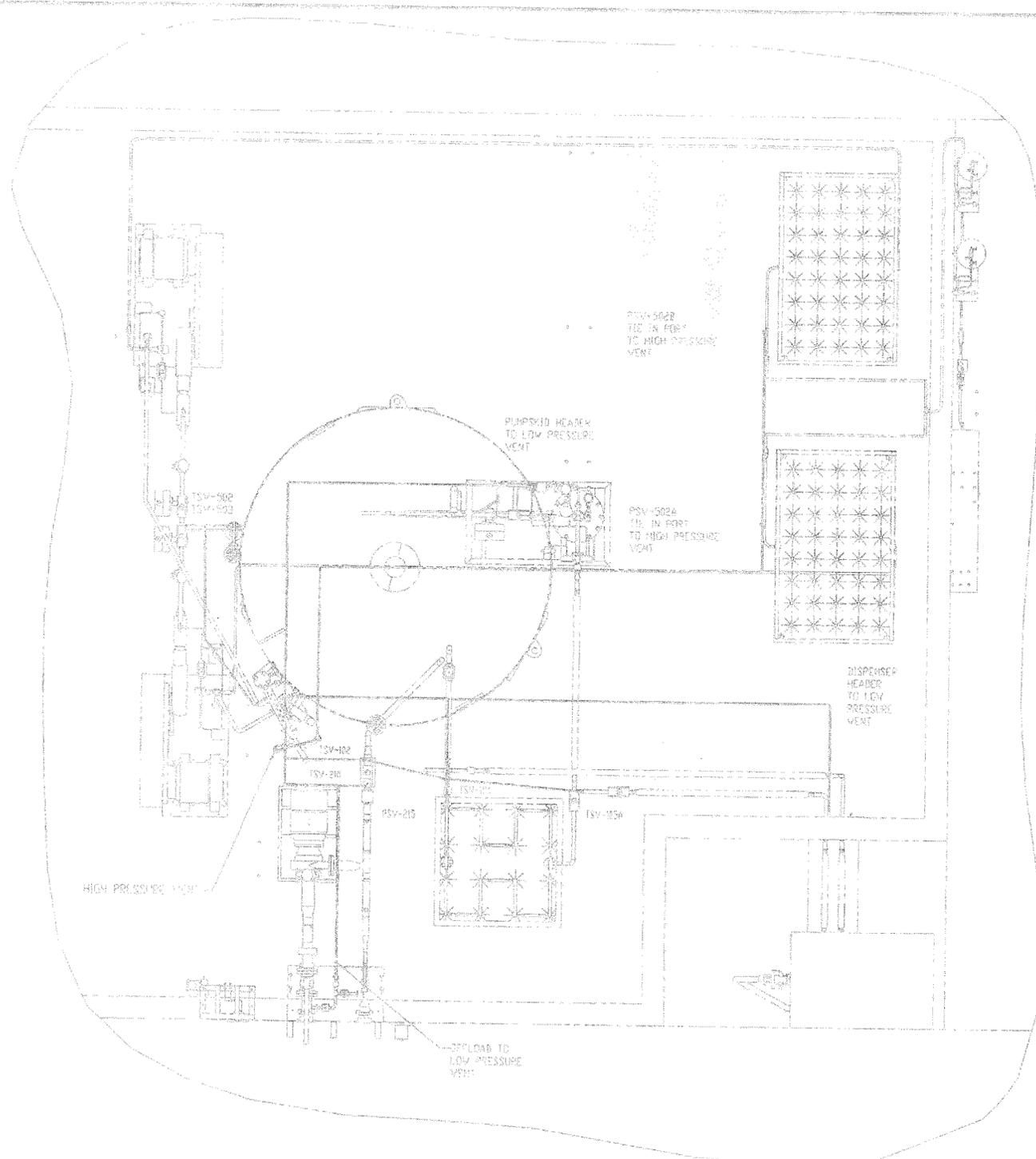
APPROVED BY: Michael B. Stewart TITLE: CITY ENGR

DESIGNED: JKD DATE: 5/10/05 SHEET: 11 OF 17

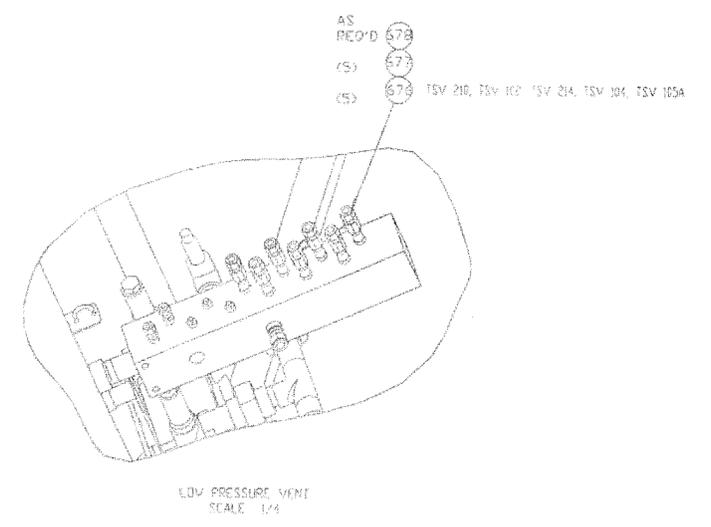
DRAWN: MMK DATE: 5/10/05 PLAN NO: 3061

SCALE: NONE AS BUILT

BALLOON #	PART #	DESCRIPTION	QNTY	KIT
104	11495084	TRANSMITTER PRES 2 3/8-232 PSIG	1	100
105	11495062	TRANSMITTER DP 64-640T HED	1	100
660	11791389	BRACKET TRANSMITTER UNIVERSAL	1	600
663	10501298	COUPLER SS 1/2 BODTY/HPPT	3	600
674	10501714	TEE SS UNION 1/4 GDT	1	600
665	10501191	UNION SS 1/4 GDT	2	600
666	2710051	TUBE SS 2502-100W WLD	AS REQ'D	600
675	10093379	KIT LABEL BARSTOW	1	670
676	1011261	RV SS 1/4 SET	5	600
677	10091482	TUBA SS 2502-100W WLD	5	600
678	2710048	TUBE SS 375-1049 W WLD	AS REQ'D	600



- GENERAL NOTE:
- ATTACH ITEMS # 104, QNTY 1 AND #105, QNTY 1 TO INSIDE OF CONTAINMENT WALL NEAR OFFLOAD CONNECTION. CONNECT WITH ITEM #662 QNTY 1, ITEM #663, QNTY 3, ITEM #664, QNTY 1, #665, QNTY 2 AND #666 AS REQ'D.
 - PLACE SUPPORTS APPROXIMATELY EVERY 10 FEET, SEE ITEMS USE ITEMS #67, #68, #69, #70, #71, #72, #73, #74, #75, AND #80.
 - USE ITEM # 670 AND #80 TO BOLT MAJOR EQUIPMENT.
 - TAG EQUIPMENT WITH ITEM #675 LABEL KIT.



SUGGESTS SOLVE VALVE ROUTING
SCALE: 3/4"

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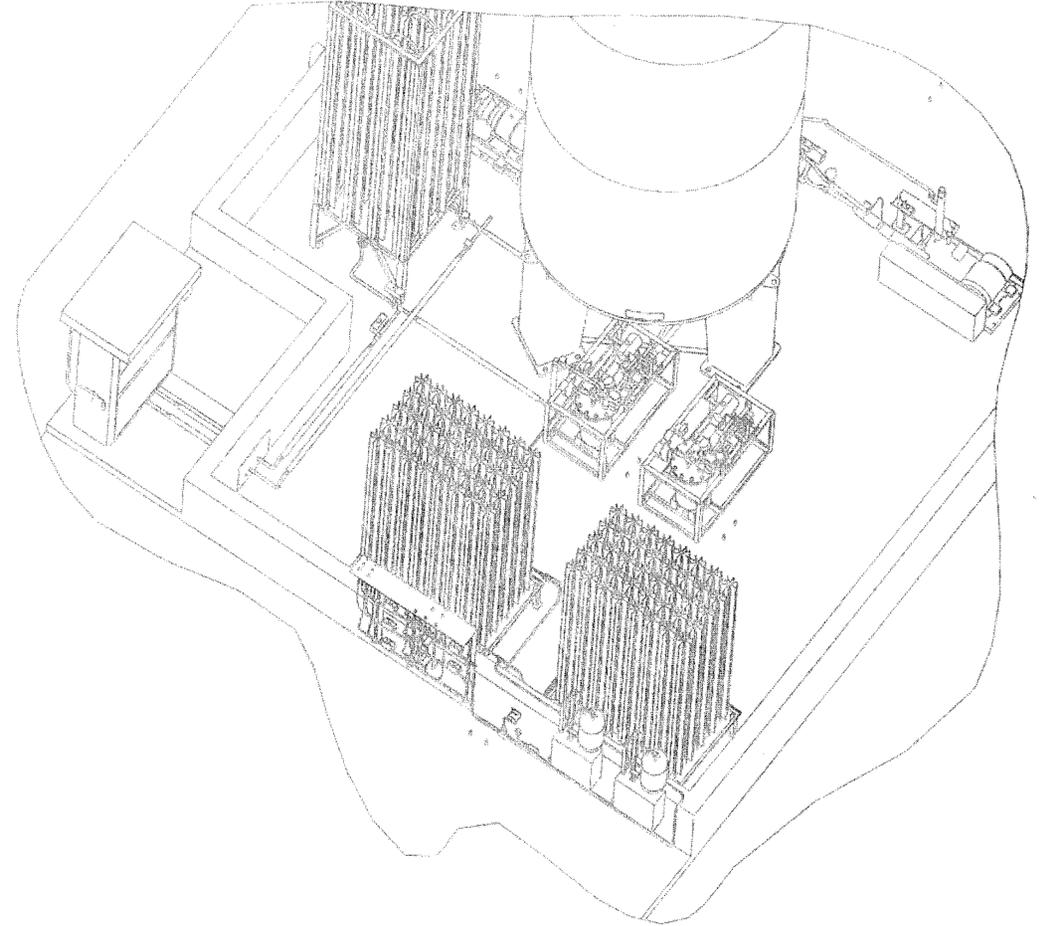
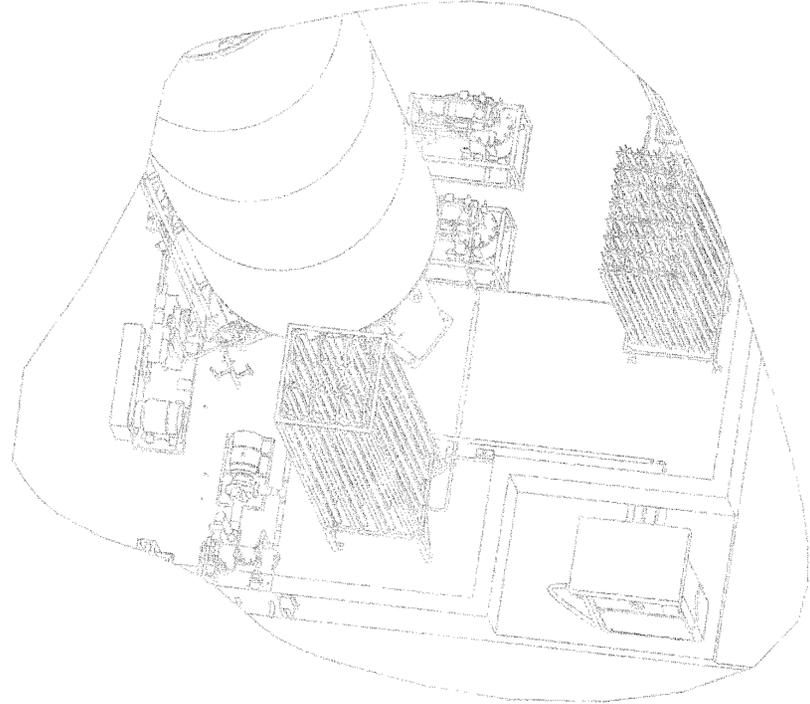
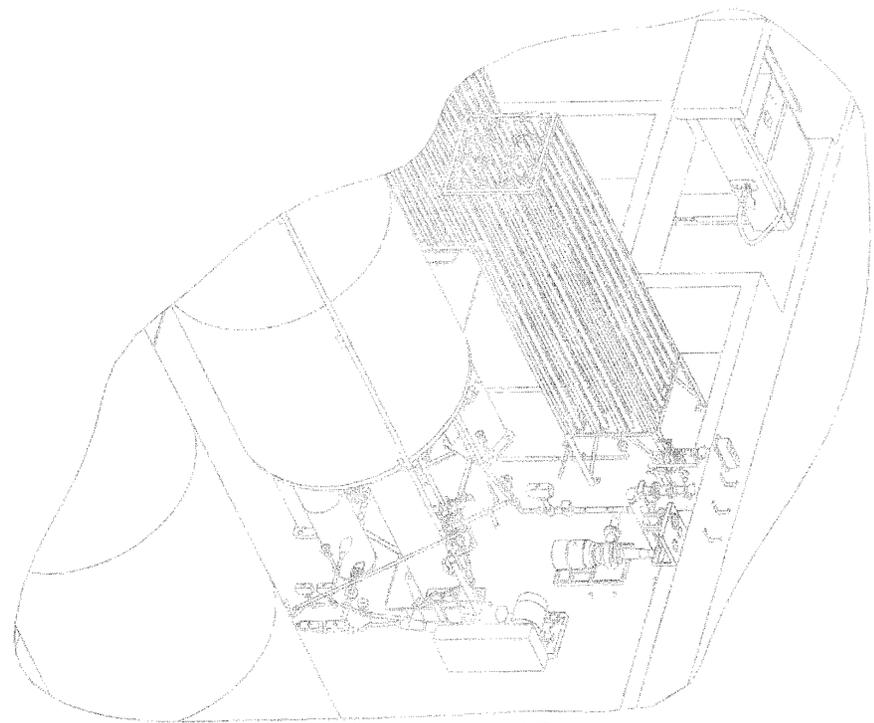
Weaver Incorporated
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PREPARED UNDER THE SUPERVISION OF:
Herbert Burdett

NO.	REVISIONS	DATE

PROJECT NO. 2003-03 LNG-LCNG Fueling Station LNG Pipe Connections 1	
APPROVED BY: Michael B. Stewart	TITLE: CITY ENGR
DESIGNED BY: TKD	PCN NO: 24245
DRAWN BY: MARK	DATE: 5/10/05
SCALE: NONE	AS BUILT
SHEET OF: P-127	PLAN NO: 3061



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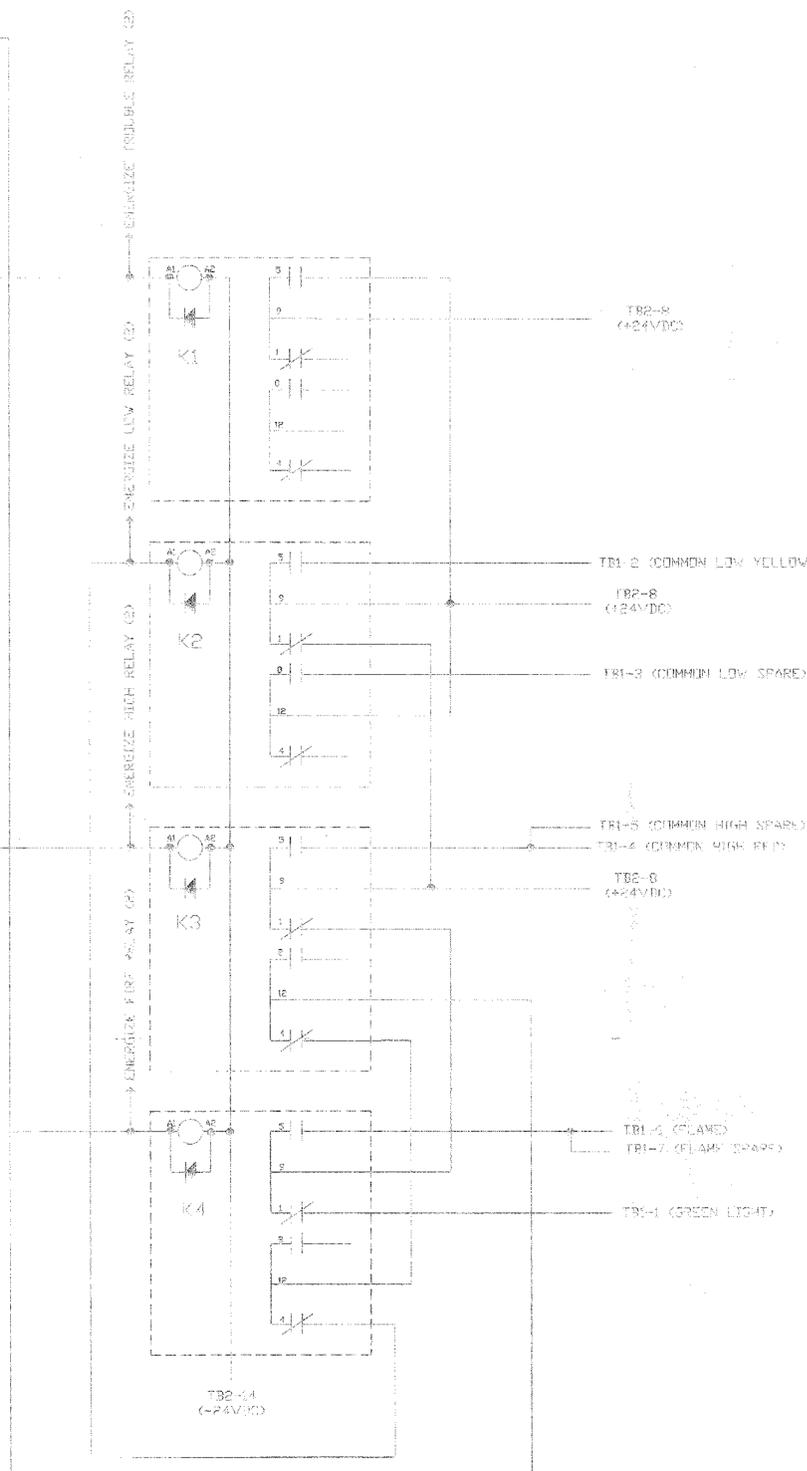
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PREPARED UNDER THE SUPERVISION OF:
 Herbert Burnett

NO.	REVISIONS	DATE

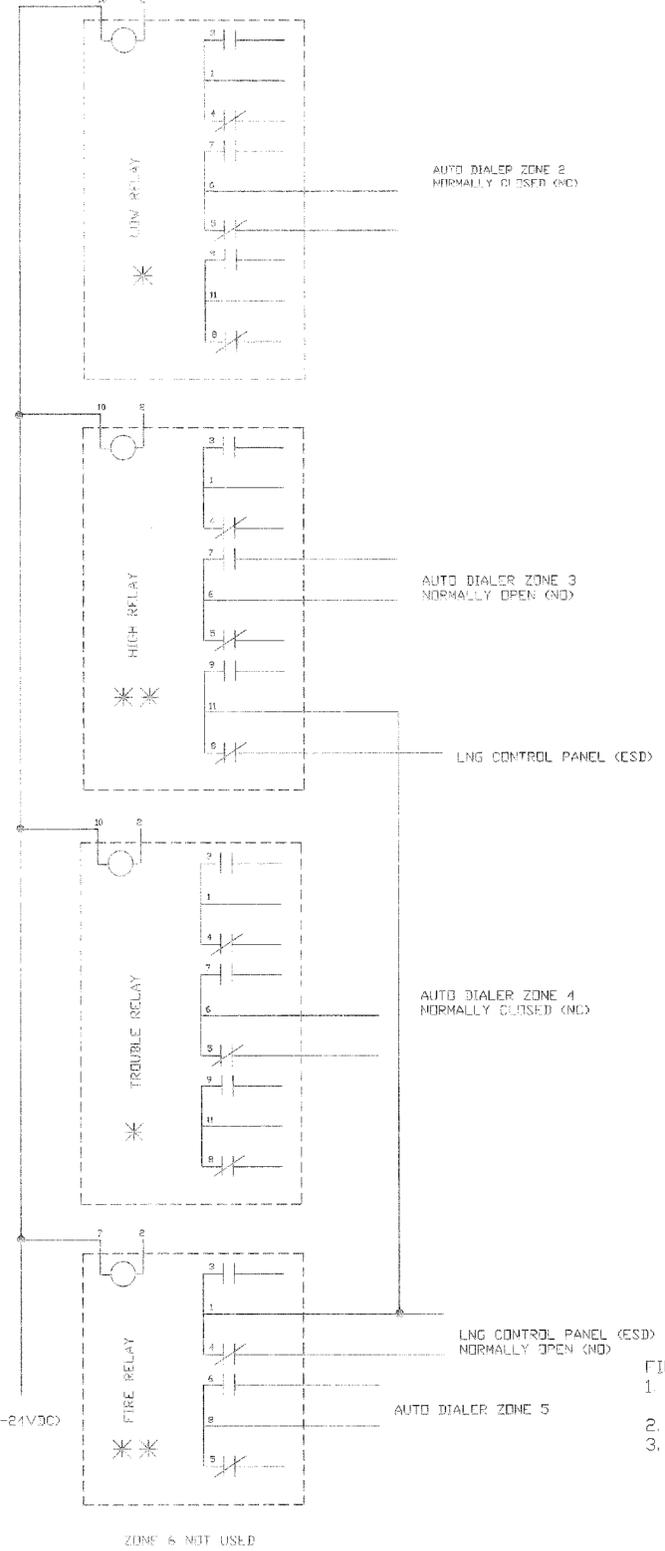
PROJECT NO. 2003-03		TITLE	
LNG LADING Fueling Station		CITY ENGR	
LNG Pipe Connections 1		SHEET OF	
DESIGNED BY: TKD	PROJ. NO. 24246	DATE: 5/10/05	PLAN NO. 3061
DRAWN BY: MMK	SCALE: AS SHOWN		
APPROVED BY: Michael B. Stewart			

- Common Low Alarm
- Common High Alarm
- Gas Trouble
- Flame
- Flame Trouble



** LOCAL FIRE AUTHORITY
 (951) 256-6999 MIKE LYNCH
 (661) 312-2307 JAY CHUNG
 (626) 536-2085 DOUG DAWSON
 (714) 917-1165 WEAVER

* RESPONDERS
 (951) 256-6999 MIKE LYNCH
 (661) 312-2307 JAY CHUNG
 (626) 536-2085 DOUG DAWSON
 (714) 917-1165 WEAVER



LOW GAS LEL
 1. CALL THE STATION
 MAINTENANCE SUPERVISOR

HIGH GAS LEL
 1. CALL THE STATION
 MAINTENANCE SUPERVISOR
 2. CALL THE FIRE DEPARTMENT
 3. SHUT DOWN THE STATION

TROUBLE (GAS AND FIRE DETECTORS)
 1. CALL THE STATION
 MAINTENANCE SUPERVISOR

FIRE DETECTED
 1. CALL THE STATION
 MAINTENANCE SUPERVISOR
 2. CALL THE FIRE DEPARTMENT
 3. SHUT DOWN THE STATION

SCALE:	
DRAWN BY:	DATE:
SHUMAKER	11-01-05
CHECKED BY:	DATE:

DATE	REVISIONS	REV. BY
11-28-05	TERMINATION AS-BUILT	MENULIZA

Weaver Electric, Inc.

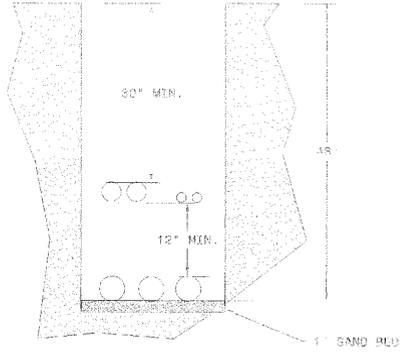
PROJECT:
 RIVERSIDE TRANSIT AUTHORITY
 CNG FACILITY
 1825 3RD STREET
 RIVERSIDE, CA 92517

SHEET NAME:
GAS PANEL AS BUILT

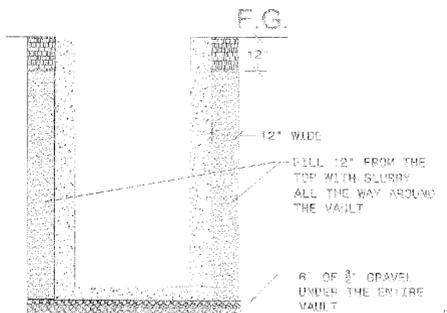
SHEET:
F-18

STREET LIGHT BY CITY, CONDUIT BY WEAVER

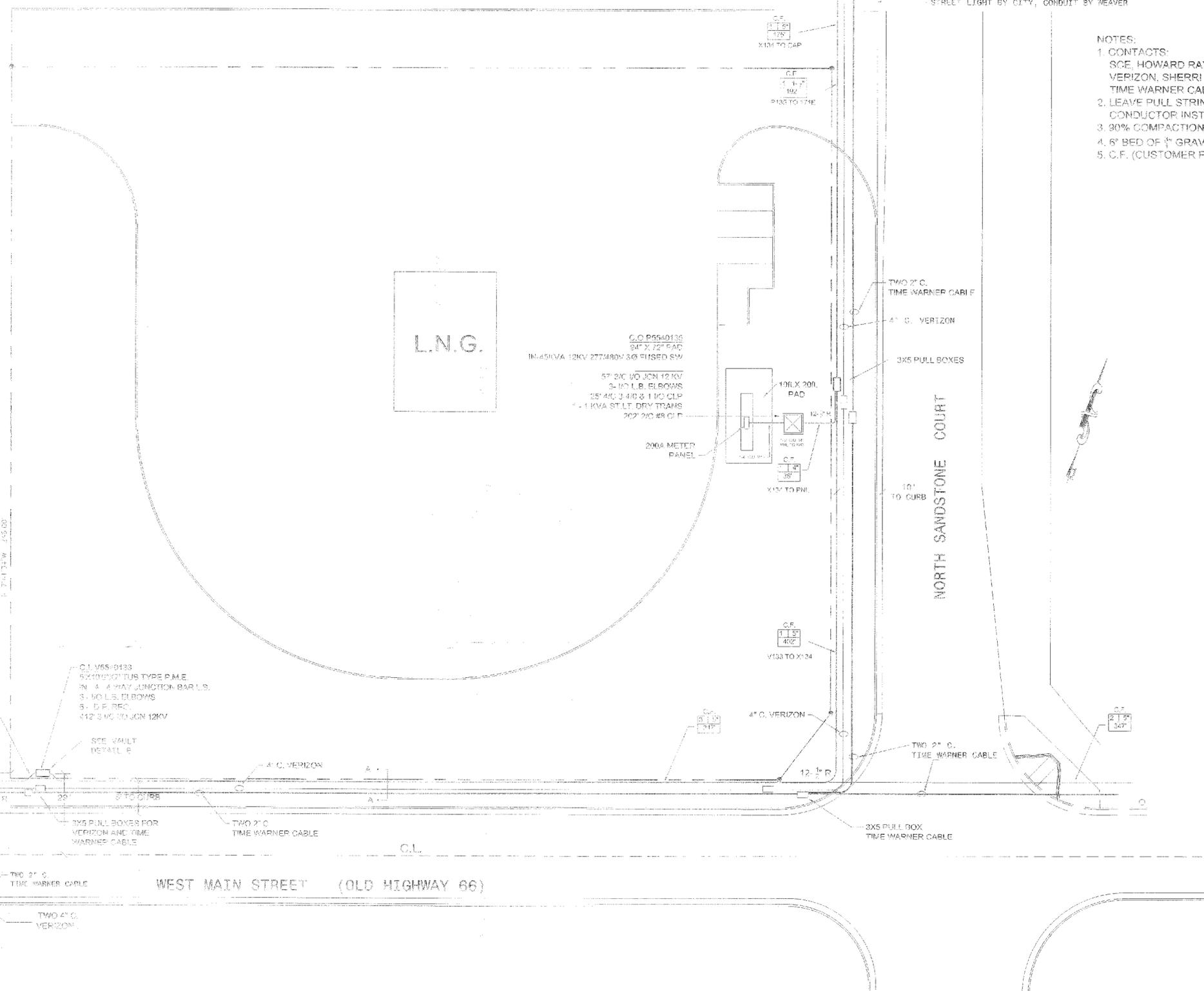
- NOTES:
- CONTACTS:
SCE, HOWARD RAY (760) 252-6405
VERIZON, SHERRI SLEET (760) 245-0394
TIME WARNER CABLE, SONNY (760) 256-3526
 - LEAVE PULL STRINGS IN ALL CONDUITS FOR FUTURE CONDUCTOR INSTALLATIONS
 - 90% COMPACTION ALL ALL BACK-FILL
 - 6" BED OF 1/2" GRAVEL BENEATH ALL PULL BOXES
 - C.F. (CUSTOMER FINISH)



DETAIL A



VAULT DETAIL B



INTERSECT
IN 45219125
45' 200S
1- 10' FIB LINE ARM
3- POLY INS. A PIN
1- 10' FIB H.H. ARM
2- POLY L.A.
2- POT HEADS
1- 6" TO 4" RISER 36"
15S 3/4" JOI 12KV

C.I. V6510133
6X100X20" TYP E P.M.E.
IN 4- 4 WAY JUNCTION BAR L.S.
3- 90 L.S. ELBOWS
5- D.F. REC.
412 3/4" JOI 12KV

C.O. P6540133
34" X 12" PAD
IN 45KVA 12KV 277/480V 3Ø FUSED SW
57 3/4" JOI 12KV
2- 90 L.S. ELBOWS
2S 4/4" 3 4/8 & 1 9/16 CLP
4- 1 KVA ST.LT. DRY TRANS
202 2/4" 48 C.I.F.

SCALE:	
DRAWN BY:	DATE:
Shu	06-01-05
CHECKED BY:	DATE:

DATE	REVISIONS	REV.	BY
06-01-05	Revised for Permit		SPD

Weaver Electric, Inc.

100 North Sandstone Court
Barstow, CA 92311

Telephone: (760) 256-3526
Fax: (760) 256-3527

PROJECT: Barstow LNG-LCNG
Fueling Station
100 North Sandstone Court
Barstow, CA 92311

SHEET NAME: UTILITIES
CONDUITS

SHEET: U-1