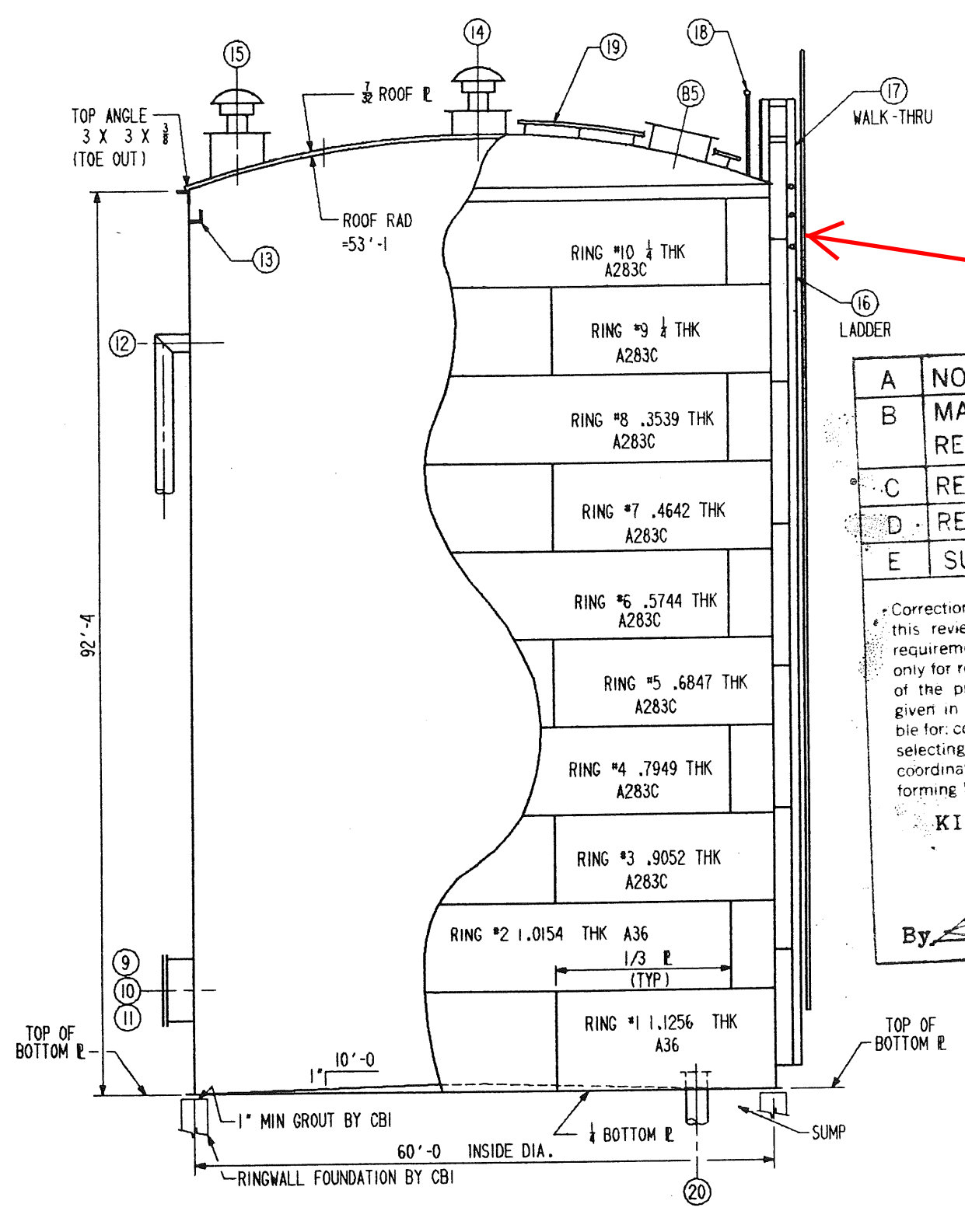


60th Avenue Standpipe
 1015 60th Ave SW
 Cedar Rapids, IA 52404

CUST MARK	NO. REQ'D	CBI DWG #	ELEVATION H	PROJECTION J	
	2	9	2'-6"	5"	24" DIA SHE
	2	10			DAVIT FOR 2
	1	11			NAMEPLATE ASSEMBLY
	1	12	84'-0"		12" DIA OVERFLOW WITH WEIR BOX
	1	13			PAINTERS ANGLE
	1	14			24" DIA ROOF MANHOLE WITH G4B ROOF VENT
	1	15			24" DIA ROOF MANHOLE WITH G4B ROOF VENT
	1	16			OUTSIDE SHELL LADDER WITH SAF-T-CLIMB
	1	17			LADDER WALK-THRU
	2	18			ROOF HANDRAILS AT WALK-THRU
	1	19			ROOF LADDER WITH SAF-T-CLIMB
	1	20			24" DIA PIPE BOTTOM CONNECTION
	1	20			20" DIA PIPE BOTTOM CONNECTION
	1	20			8" DIA PIPE BOTTOM CONNECTION
	1	R5-13			24" DIA ROOF HATCH



Replace existing pipe rail with cable style fall protection system on exterior ladder.

A	NO EXCEPTION TAKEN	1
B	MAKE CORRECTIONS NOTED & RESUBMIT CORRECTED COPIES	
C	REVISE AND RESUBMIT	
D	REJECTED	
E	SUBMIT SPECIFIED ITEM	

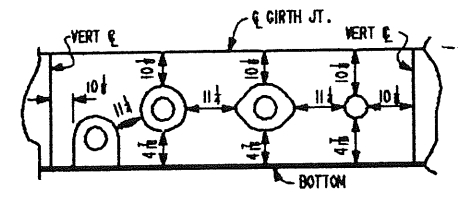
Corrections or comments made on the shop drawing during this review do not relieve contractor from compliance with requirements of the drawings and specifications. This check is only for review of general conformance with the design concept of the project and general compliance with the information given in the contract documents. The contractor is responsible for: confirming and correlating all quantities and dimensions; selecting fabrication processes and techniques of construction; coordinating his work with that of all other trades; and performing his work in a safe and satisfactory manner.

KIRKHAM, MICHAEL & ASSOCIATES
 ARCHITECTS - ENGINEERS

By: *[Signature]* Date: APR 15 1987

FOUNDATION — BY CBI NA-CON, INC
 CONSTRUCTION — BY CBI NA-CON, INC
 SERVICE — WATER STORAGE
 CAPACITY — 2 MILLION GALLONS
 SPECIFICATIONS — AWWA D100-84
 MATERIAL SPEC — PLATES — A283C & A36
 WIND — 100 MPH
 SEISMIC ZONE — 1-2.5%
 STRUCTURAL — A283C

CORROSION ALLOWANCE — N/A
 INSPECTION — MILL — NO
 SHOP — CBI
 FIELD — CBI & CUSTOMER
 SURFACE PREPARATION — SEE "P" SHEETS
 PAINTING — SEE "P" SHEETS



FITTINGS — TO BE LOCATED AS SHOWN ON DRAWING. IF FITTING LOCATIONS ARE NOT GIVEN, LOCATE IN FIELD TO SUIT CUSTOMER MAINTAINING MINIMUM SPACING SHOWN IN SKETCH ABOVE.
 FLANGE BOLT HOLES TO STRADDLE VERTICAL CENTERLINE.
 ALL ARC DIMENSIONS ARE GIVEN ON OUTSIDE 1ST SHELL RING. RAD = 30'-4"

TEST — DURING WATER TEST DO NOT FILL TANK ABOVE MAXIMUM HEIGHT OF 92'-4". OVER FILLING MAY CAUSE DAMAGE.

SEE DWG #2 FOR ORIENTATION

I CERTIFY THAT I HAVE PERSONALLY REVIEWED THIS ENGINEERING DOCUMENT WHICH WAS PREPARED BY OTHERS, THAT I ACCEPT RESPONSIBILITY FOR THE ADEQUACY OF THE DOCUMENT TO THE SAME DEGREE THAT I WOULD IF I HAD PREPARED IT, AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA.

Larry D. Franks 3/22/87
 LARRY D. FRANKS, P.E. DATE
 IOWA REG. NO. 10575

NO.	DATE	BY	REVISIONS

SUPPLIER'S/ PURCHASER'S NO. **D71511**

CBI

GENERAL ELEVATION
 60'-0" ID X 92'-4" HIGH DRT
 CITY OF CEDAR RAPIDS, IOWA

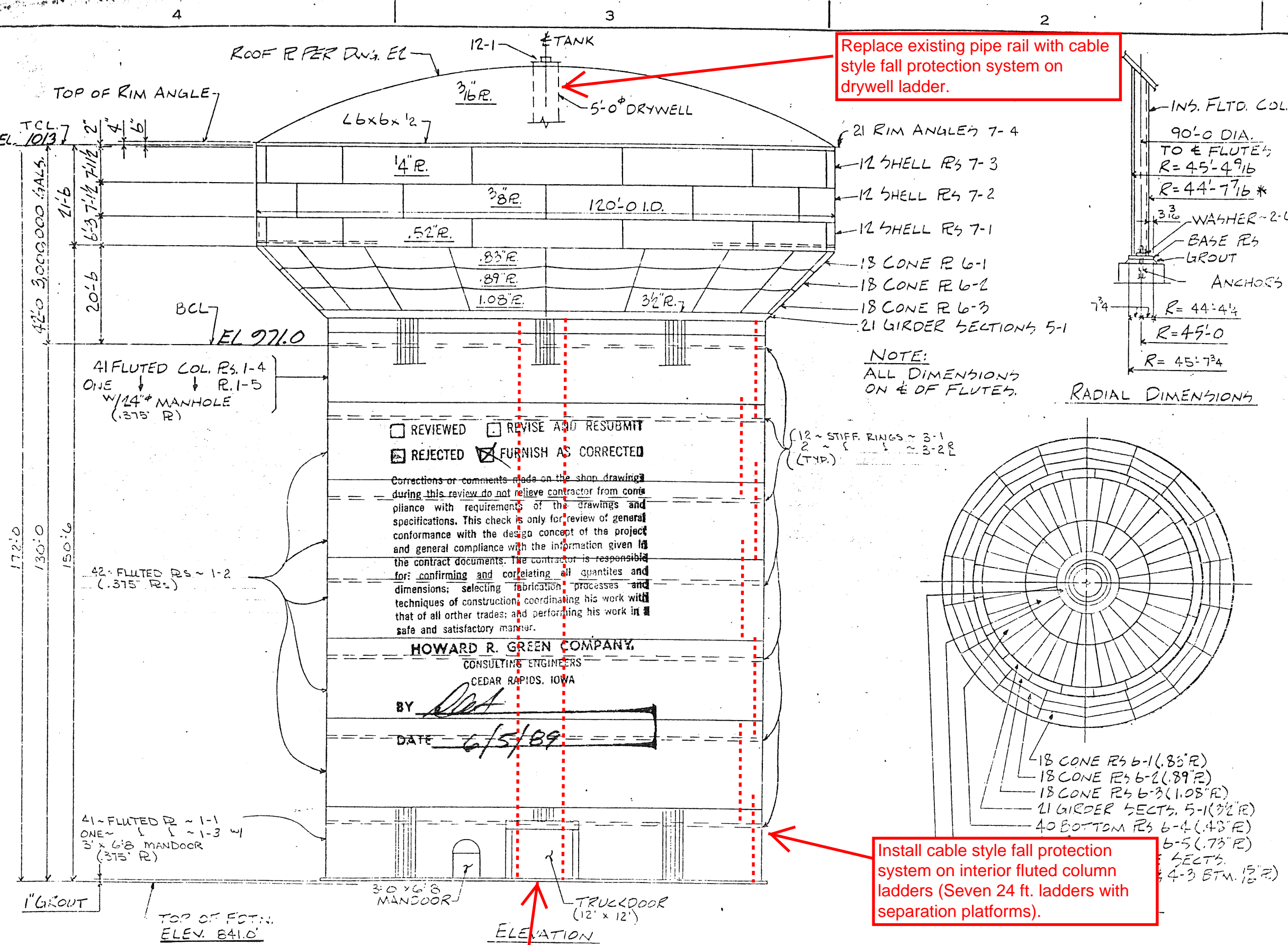
CUSTOMER'S NO. **C70608**
 CONTRACT NO. **C70608**

BY **RDB** CHKD **RTH** DATE **2-20-87**
 ENGINEERING SUPERVISOR **RAY AKIN** DWG I
 SHT I

THIS DRAWING HAS BEEN PREPARED FOR AND IS THE PROPERTY OF CBI AND IS TO BE USED ONLY IN CONNECTION WITH PERFORMANCE OF WORK BY CBI. REPRODUCTION IN WHOLE OR IN PART FOR ANY OTHER PURPOSE IS EXPRESSLY FORBIDDEN.

CAD FILE: C7060801

Boyson Tank
 575 Boyson Rd. NE
 Cedar Rapids, IA 52402



Replace existing pipe rail with cable style fall protection system on drywell ladder.

Install cable style fall protection system on interior fluted column ladders (Seven 24 ft. ladders with separation platforms).

Replace existing pipe rail with cable style fall protection system on center column ladder.

- GENERAL NOTES
- WELDING
 - A) WELD SPECS: AWWA D100-84
 - B) ALL CONNECTIONS WELDED EXCEPT AS LISTED ON FIELD BOLT LIST FBI.
 - C) ALL WELDS ON ERECTION DWGS. ARE FIELD WELDS.
 - D) ALL FIELD WELDS ARE PER WPS 50-39 (E6010) UN.
 - E) ALL FIELD WELDS QUALIFIED BY: WPS 50-39 (E6010), 74-65 (E7018), 75-34 (NR311), 71-64 (NR202), 51-139 (E7014), 78-108 (L61/980 FLUX)
 - F) WELD SYMBOL "CP" = COMPLETE PENET.
 - TANK TESTING AFTER PAINTING
 - A) 5FOT X-RAY PER AWWA & PDM RT-2
 - B) HYDROTEST WATER FOR HYDROTEST FURNISHED IN TANK AND DISPOSED OF BY OTHERS. TEST PER PDM HT-1
 - C) HYDROTEST AFTER PAINTING.
 - SUBLET ITEMS (ALL MATL. AND LABOR)
 - A) FOUNDATION
 - B) FIELD PAINTING & STERILIZATION
 - C) ELECTRICAL
 - D) TRUCKDOOR & MANDOCOR
 - E) FENCE
 - F) CATHODIC PROTECTION
 - DRAWING LIST
 - D1 - STERILIZATION
 - P1 - PAINTING INSTRUCTIONS
 - F1 - FOUNDATION
 - E1 - MAIN ERECTION
 - E3 - WELDING DIAGRAM & GROUND SUB-ASSY.
 - E4 - ORIENTATION
 - E5 - TOWER LADDER & HANDRAIL ERECTION.
 - EL - RISER, DRYWELL & PLATFORM ERECTION.
 - E7 - OVERFLOW ERECTION.
 - E8 - DOOR ERECTION
 - E9 - INLET. ERECTION
 - E10 - ELECTRICAL
 - E2 - ROOF ERECTION
 - E11 - MISCELLANEOUS ERECTION
 - FOREMAN'S NOTE
 - SEE DWG. E33 FOR SUB-ASSY. COMMENTS & DOCUMENTATION BEFORE BEGINNING CONSTRUCTION.

REVIEWED REVISE AND RESUBMIT
 REJECTED FURNISH AS CORRECTED

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HOWARD R. GREEN COMPANY,
 CONSULTING ENGINEERS
 CEDAR RAPIDS, IOWA

BY *[Signature]*
 DATE 6/5/89

FLUT DES MOINES, INC.	DATE	BY

OPEN HOLES	NA
ERECTION REF	
WELD SPECS	AWWA D100-84
EIS	NA

NO	REVISION DESCRIPTION	BY	DATE	CHK	DATE

PITTSBURGH, INC. ENGINEERS - FABRICATORS - CONTRACTORS	
BOYSON ROAD TANK 3000 GAL. HYDROPILLAR CEDAR RAPIDS, IA MAIN ERECTION	
DATE PREPARED AT	DATE INDICATED AT
BY	DATE
DRAWN: MB	5-16-89 DRAWING: E-1
CHECKED: PB	4-22-89 CONTRACT: E9016

Mt. Vernon Tank
4328 Mt. Vernon Rd. SE
Cedar Rapids, IA 52402

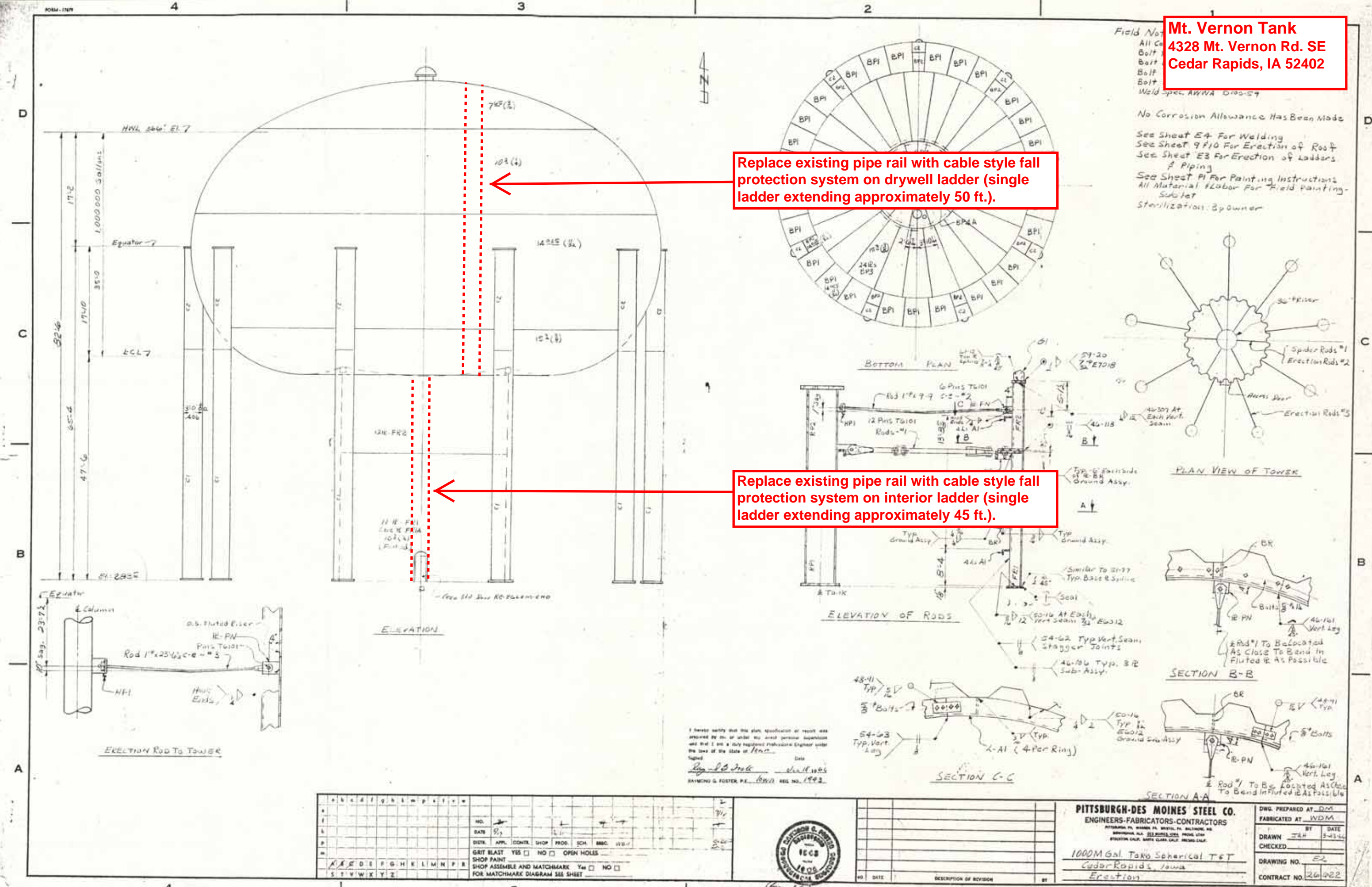
Field Note
All Co.
Bolt
Bolt
Bolt
Bolt
Weld spec. AWSA D100-59

No Corrosion Allowance Has Been Made

See Sheet E4 For Welding
See Sheet 9 F10 For Erection of Roof
See Sheet E3 For Erection of Ladders
& Piping
See Sheet P1 For Painting Instructions
All Material Labor For Field Painting
Submit
Sterilization: By owner

Replace existing pipe rail with cable style fall protection system on drywell ladder (single ladder extending approximately 50 ft.).

Replace existing pipe rail with cable style fall protection system on interior ladder (single ladder extending approximately 45 ft.).



NO.	DATE	BY	APP.	CONTR.	SHOP	PROD.	SCH.	REC.	REV.
<input type="checkbox"/> GRIT BLAST <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> OPEN HOLES <input checked="" type="checkbox"/> SHOP PAINT <input type="checkbox"/> SHOP ASSEMBLE AND MATCHMARK <input type="checkbox"/> Y/N <input type="checkbox"/> NO <input type="checkbox"/> FOR MATCHMARK DIAGRAM SEE SHEET									



PITTSBURGH-DES MOINES STEEL CO.
ENGINEERS-FABRICATORS-CONTRACTORS
PITTSBURGH, PA. BRANCO, PA. BRANCO, PA. BRANCO, PA.
BIRMINGHAM, ALA. BRANCO, ALA. BRANCO, ALA. BRANCO, ALA.
STOCKTON, CALIF. SANTA CLARA, CALIF. BRANCO, CALIF.

1000M Gal. Tank Spherical T&T
Cedar Rapids, Iowa
Erection

DWG. PREPARED AT WDM
FABRICATED AT WDM
BY JFH DATE 5-28-84
DRAWN
CHECKED
DRAWING NO. E2
CONTRACT NO. 26122

GENERAL NOTES:

1. WELDING
 - A. WELD SPECS: AWWA D100-84.
 - B. ALL FIELD CONNECTIONS WELDED EXCEPT AS LISTED ON FIELD BOLT LIST FBI.
 - C. ALL WELDS ON ERECTION DWGS. ARE FIELD WELDS.
 - D. SEE DWG. E3AB FOR WPS'S.
2. TANK TESTING
 - A. SPOT X-RAY PER AWWA D100-84
 - B. HYDROTEST AFTER PAINTING PER HT-1. UNLESS OTHERWISE STATED IN THE CONTRACT, THE SUPPLY AND DISPOSAL OF THE TEST WATER SHALL BE THE RESPONSIBILITY OF THE PURCHASER. HYDROTEST AFTER PAINTING.
3. SUBLET ITEMS (ALL MATERIAL AND LABOR)
 - A. FOUNDATION
 - B. FIELD PAINTING & DISINFECTION
 - C. ELECTRICAL
 - D. OVERHEAD DOOR
 - E. FENCE
 - F. CATHODIC PROTECTION

4. DRAWING LIST
 - F1 - FOUNDATION
 - E1 - MAIN ERECTION
 - E2 - ROOF ERECTION
 - E3 - WELDING DIAGRAM AND GROUND SUB-ASSEMBLIES
 - E4 - ORIENTATION
 - E5 - TOWER LADDER AND HANDRAIL ERECTION
 - E6 - WALKWAY, DRYWELL AND BOTTOM MANHOLE ERECTION
 - E7 - OVERFLOW ERECTION
 - E8 - INLET ERECTION
 - E9 - DOOR ERECTION

REVIEWED ELECTRICAL DIAGRAM AND RESUBMIT DISINFECTION INSTRUCTIONS
 PRECEPTING INSTRUCTIONS CORRECTED

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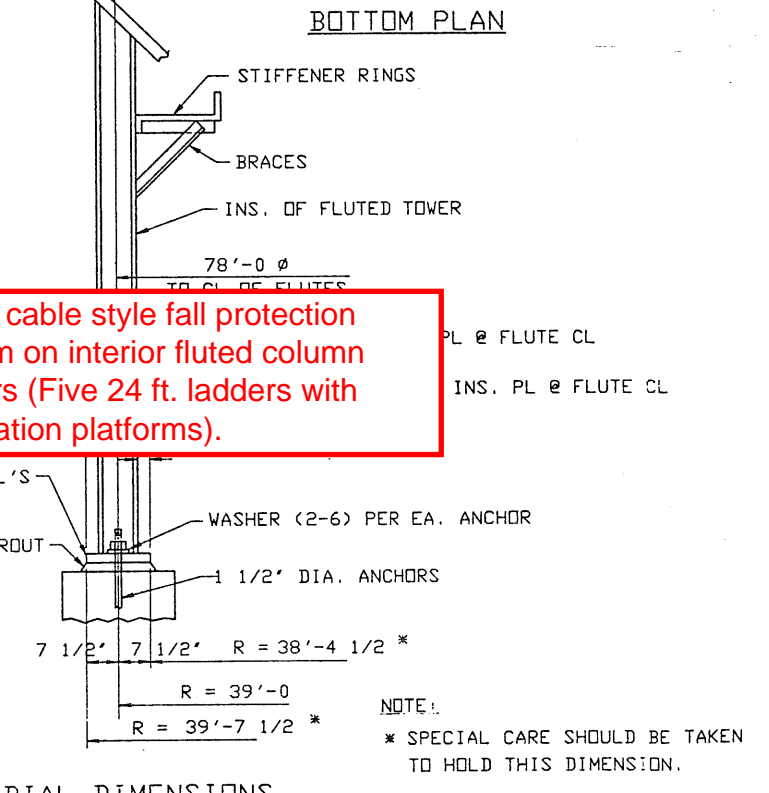
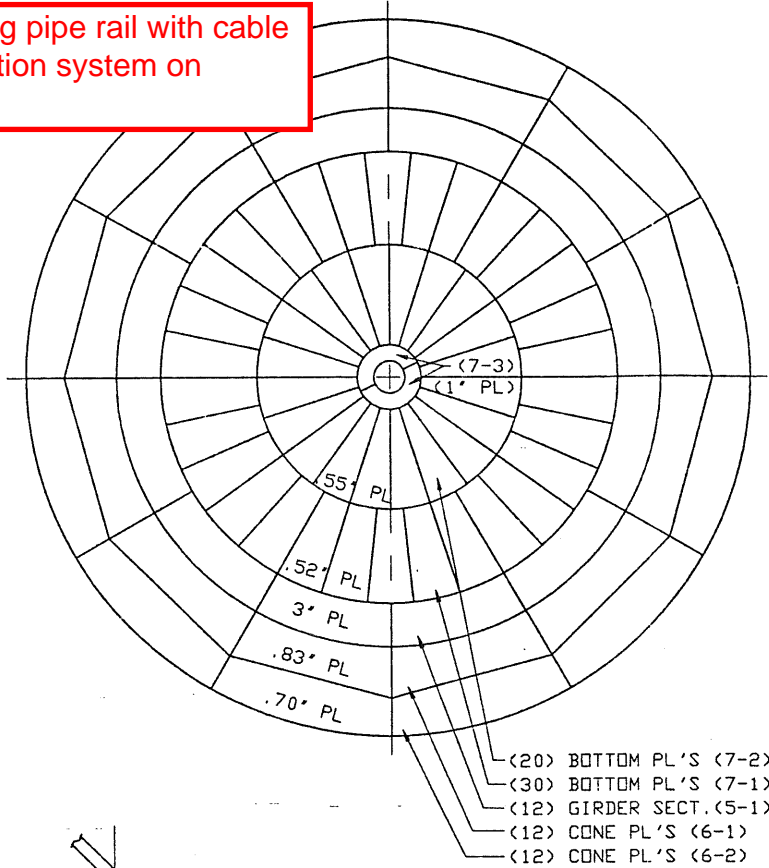
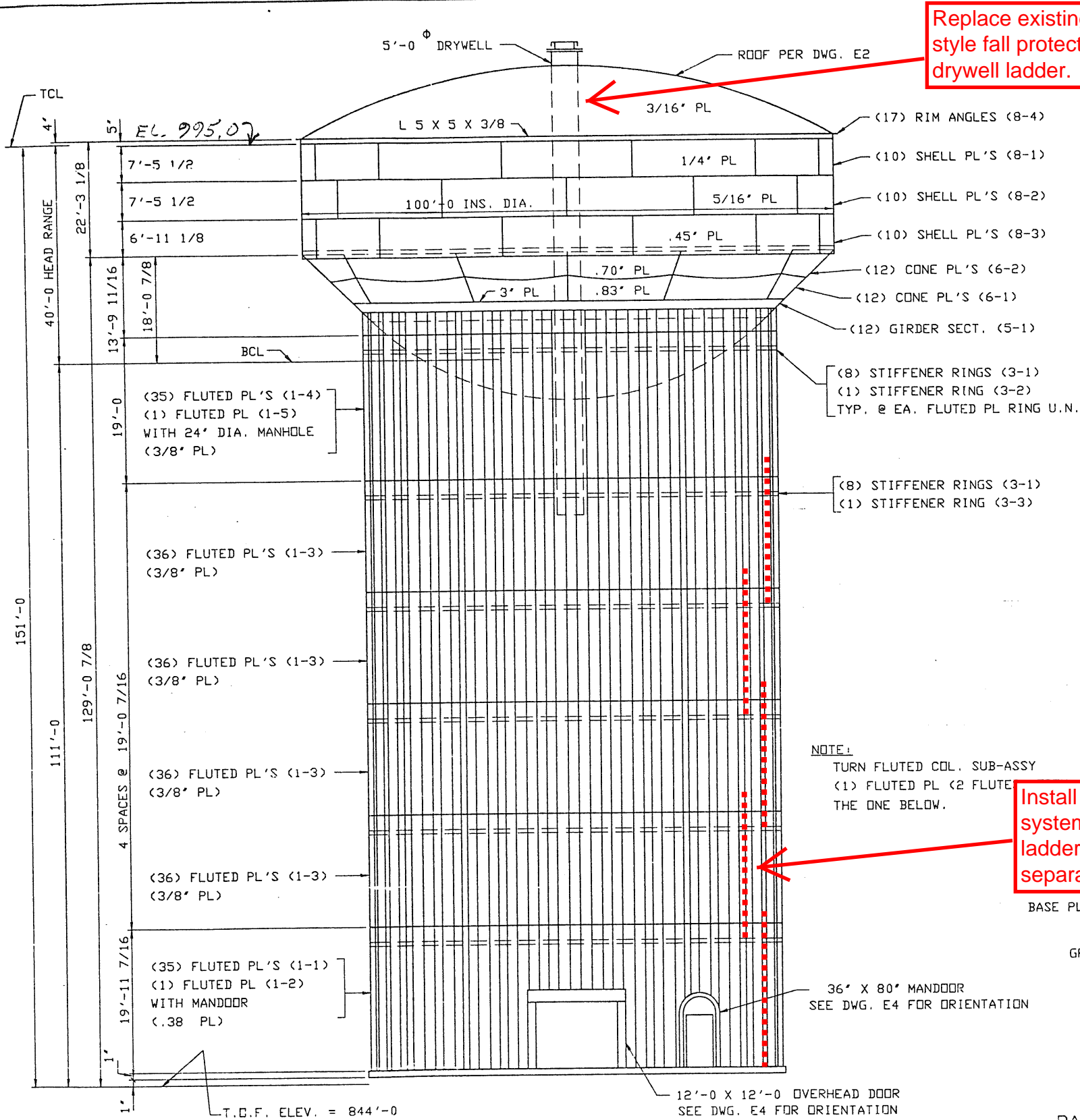
5. FOREMAN NOTE: SEE DWG. E3B FOR SUB-ASSEMBLY COMMENTS & DOCUMENTATION BEFORE BEGINNING CONSTRUCTION

HOWARD R. GREEN COMPANY
 CONSULTING ENGINEERS
 CEDAR RAPIDS, IOWA

BY: *[Signature]*
 DATE: 8-31-89

Replace existing pipe rail with cable style fall protection system on drywell ladder.

Install cable style fall protection system on interior fluted column ladders (Five 24 ft. ladders with separation platforms).



NOTE:
 TURN FLUTED COL. SUB-ASSY (1) FLUTED PL (2 FLUTE THE ONE BELOW.

NOTE:
 * SPECIAL CARE SHOULD BE TAKEN TO HOLD THIS DIMENSION.

ELEVATION

RADIAL DIMENSIONS

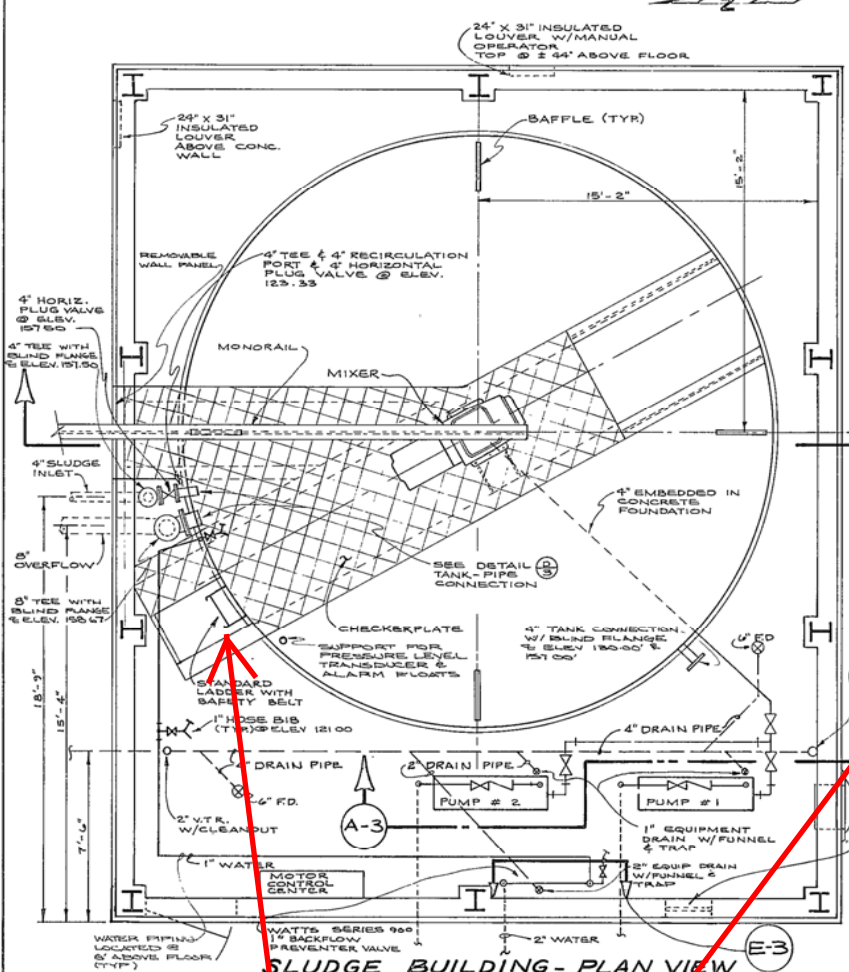
OPEN HOLES					
ERECTION REF.					
WELD SPECS. AWWA D100-84					
EIS-					
CERTIFIED FOR CONFORMANCE TO PLANS AND SPECIFICATIONS BY <i>Mike Anush</i> P.E.					
STATE IA NO. 2174					
DATE 8-9-89					
NO	REVISION DESCRIPTION	BY	DATE	CHK	DATE



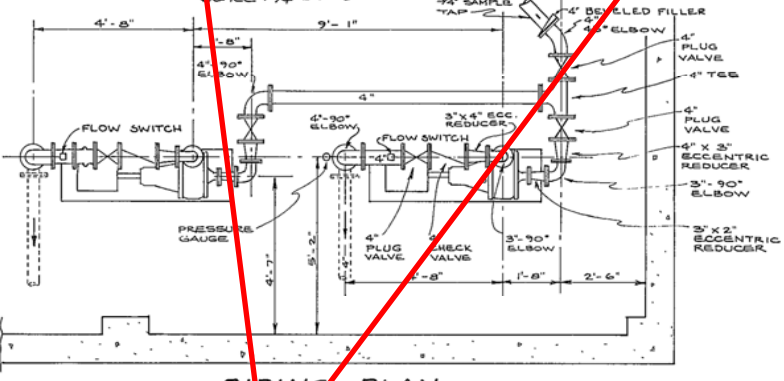
PITT-DES MOINES, INC. ENGINEERS - FABRICATORS - CONTRACTORS	
WILSON AVE. TANK	
2000 M GAL. HYDROPILLAR	
CEDAR RAPIDS, IA.	
MAIN ERECTION	
DWG. PREPARED AT 31	FABRICATED AT 32
BY	DATE
DRAWN: M.B.	6-28-89
CHECKED: P.B.	8-8-89
DRAWING	E1
CONTRACT	59017

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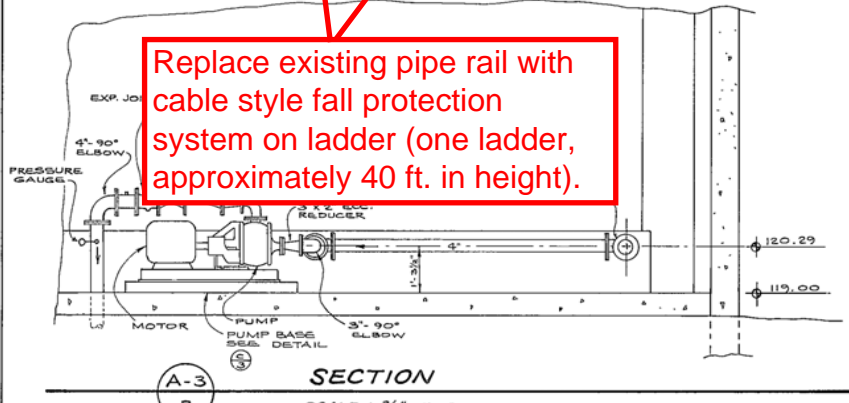
**J Avenue Water Treatment Plant -
Lime Sludge Tank
761 J Ave NE
Cedar Rapids, IA 52402**



SLUDGE BUILDING - PLAN VIEW
SCALE: 1/4" = 1'-0"

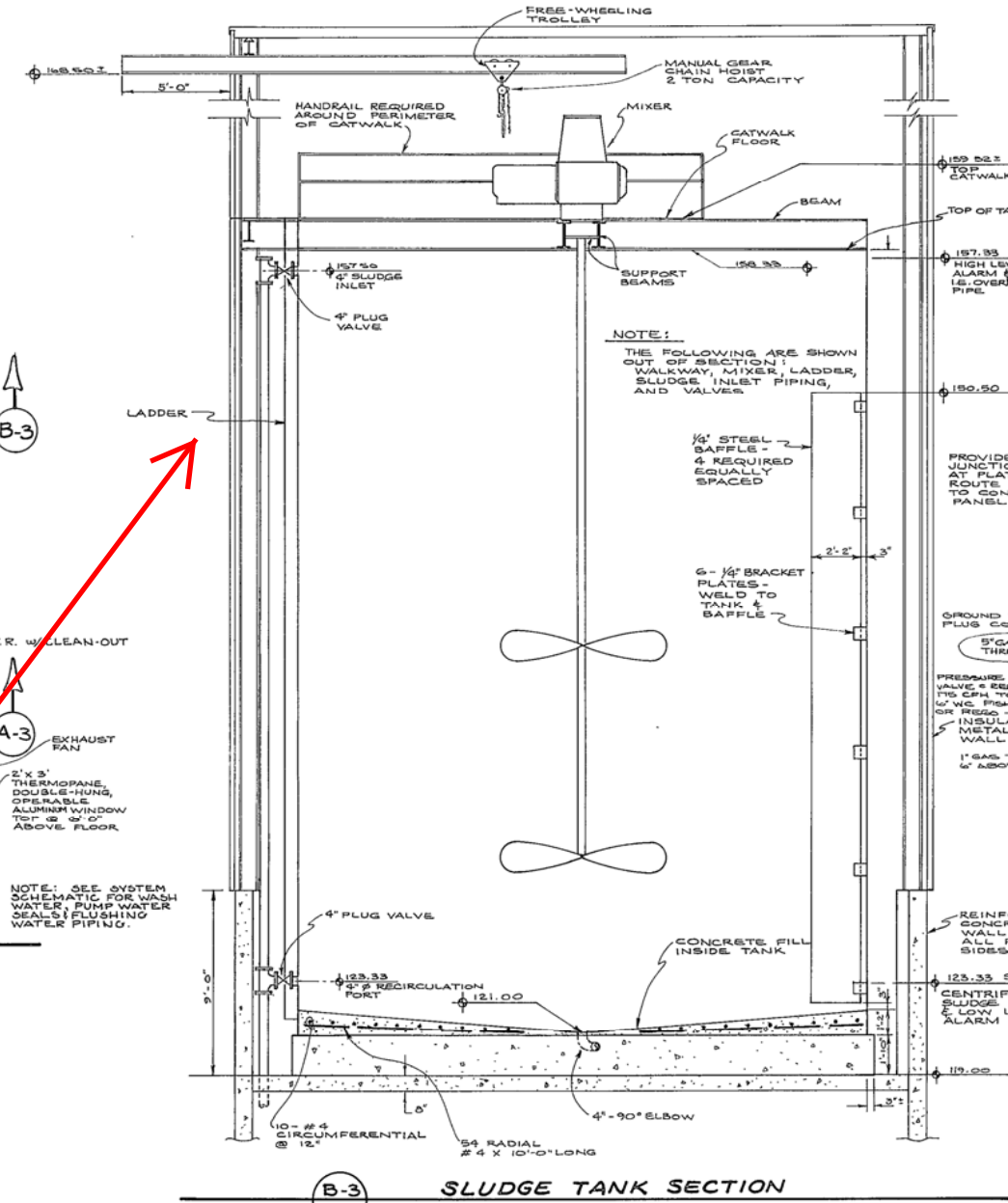


PIPING PLAN
SCALE: 3/8" = 1'-0"

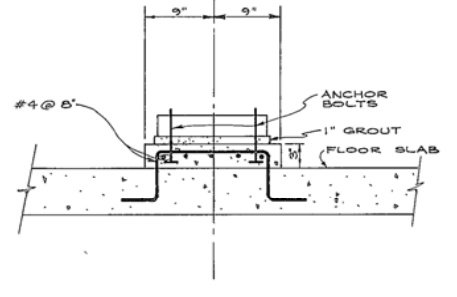


SECTION
SCALE: 3/8" = 1'-0"

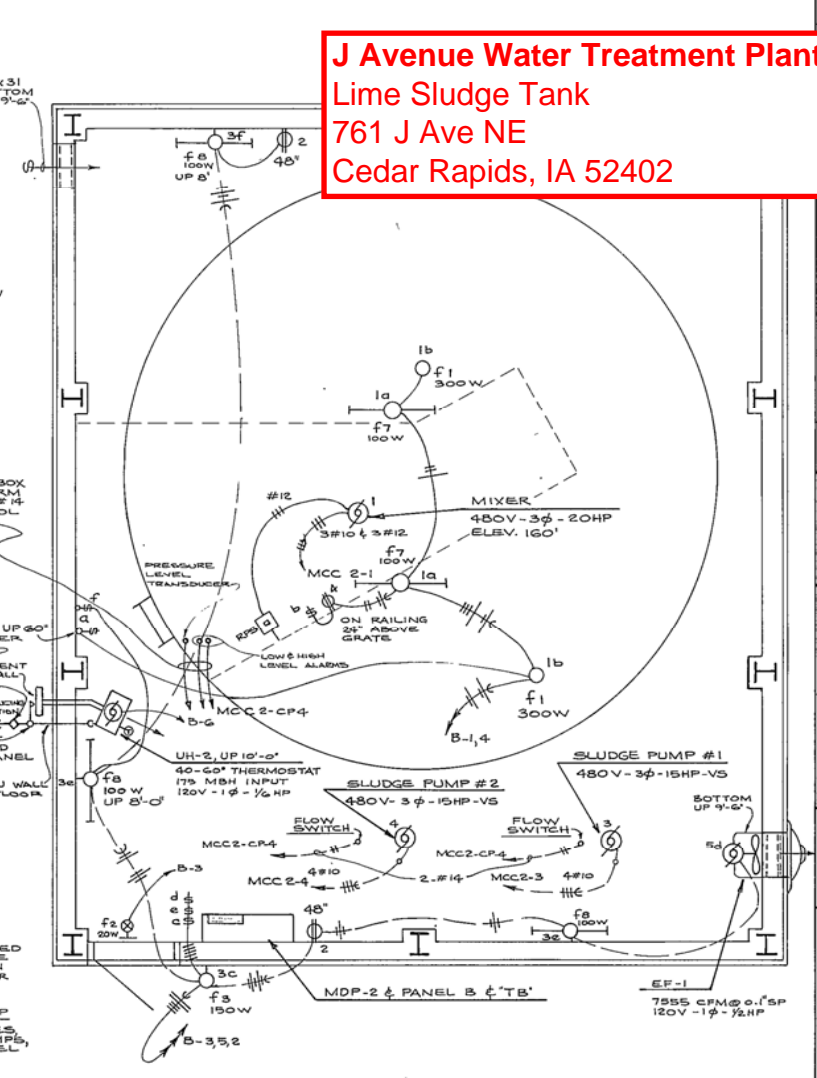
Replace existing pipe rail with cable style fall protection system on ladder (one ladder, approximately 40 ft. in height).



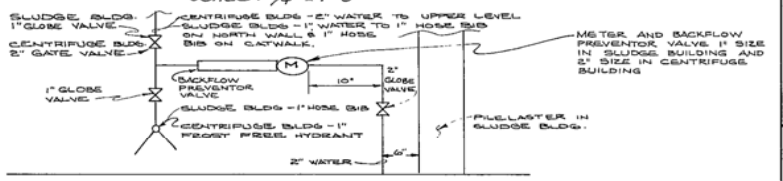
SLUDGE TANK SECTION
SCALE: 1/4" = 1'-0"



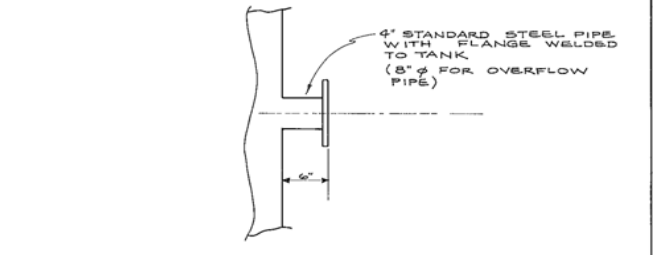
PUMP BASE DETAIL
SCALE: 1" = 1'-0"



SLUDGE BUILDING - ELECTRICAL
SCALE: 1/4" = 1'-0"



WATER PIPING
NO SCALE



TANK-PIPE CONNECTION DETAIL
NO SCALE

Drawn: JAK	Date: 8-25-79	Field Book No.	AS NOTED
Checked: PL	Date: 8-25-79	Rev. No.	Scale
Reviewed: A.R.B.	Date: 8-28-79		
Shive - Hattery & Associates Consulting Engineers Cedar Rapids - Iowa City - Des Moines Dubuque - Ft. Madison - Varian			
Drawing Title: SLUDGE BUILDING & MECHANICAL DETAILS LIME SLUDGE DEWATERING FACILITIES WATER PURIFICATION PLANT CEDAR RAPIDS, IOWA			
Sheet No.	3		
of 15	Dwg. No.		
277346-6			