



Weaver

CONSTRUCTION MANAGEMENT

3679 S Huron Street, Suite 404 Englewood, Colorado 80110

Phone: (303) 789-4111 FAX: (303) 789-4310

SUBMITTAL TRANSMITTAL

April 17, 2012

Submittal No: 05500-013

PROJECT: **Harold Thompson Regional WRF**
Birdsall Rd.
Fountain, CO 80817
Job No. 2908

ENGINEER: **GMS, Inc.**
611 No. Weber St., #300
Colorado Springs, CO 80903
719-475-2935 Roger Sams

OWNER: **Lower Fountain Metropolitan
Sewage Disposal District**
901 S. Santa Fe Ave.
Fountain, CO 80817
719-382-5303 James Heckman

CONTRACTOR: **CSM Industrial Contractors**
614 Cliff Street
Westcliffe, CO 81252
719-783-2867

SUBJECT: P&D Building, NPW Room Stairs (Sheets 1-13) Replacement
Drawings/Submittal

SPEC SECTION: 05500 - Misc. Metals

PREVIOUS SUBMISSION DATES:

DEVIATIONS FROM SPEC: ___ YES X NO

CONTRACTOR'S STAMP: This submittal has been reviewed by Weaver Construction Management and, unless indicated otherwise, has been found to be in conformance with the intent of the contract documents.

Contractor's Stamp:

Date: 4/17/12

Reviewed by: Tyler Ammerman

(x) Reviewed Without Comments

() Reviewed With Comments

Engineer's Stamp:

ENGINEER'S

COMMENTS: _____

From: Dave Frisch [mailto:drfrisch@gmsengr.com]
Sent: Tuesday, April 03, 2012 10:39 AM
To: Tyler Ammerman
Cc: rjsams@gmsengr.com; mamorton@gmsengr.com
Subject: PD Stairs

Tyler

In a quick look at the submittal, it appears they may not have used the most recent PD-9 dwg that was issued on 01-25-12 to prep the submittal.

Please reference Sheet 2 of the submittal. A couple of things that will reject this submittal right off are the following:

- The rise of the steps is greater than 7" which is the maximum rise per code.
- The run on the step is at 10" where 11" is the minimum run per code.
- The dimension used of 15'-0" horizontally is incorrect, it is 16'-6".
- The elevation of the lower grate is shown as 5394.31 and the plan shows 5394.22 which changes the layout of the vertical rise.

It appears these drawings were assembled back in February so I question which set of drawings that were used. To save time - it may be best they modify the submittal to reflect the 01-25-12 dwg and we replace this shop submittal.

dave

David R. Frisch, PLS
GMS, Inc., Consulting Engineers
phone: 719-475-2935
fax: 719-475-2938
cell: 719-640-9692

At 10:02 AM 4/3/2012, Tyler Ammerman wrote:

Dave-

Can you give me an update on the PD stair submittal? My sub is asking for release so we can keep schedule.

Thanks.

Tyler Ammerman

Project Engineer

WEAVER Construction MANAGEMENT, INC.

CELL: 303-908-1229 FAX: 719.382.7910

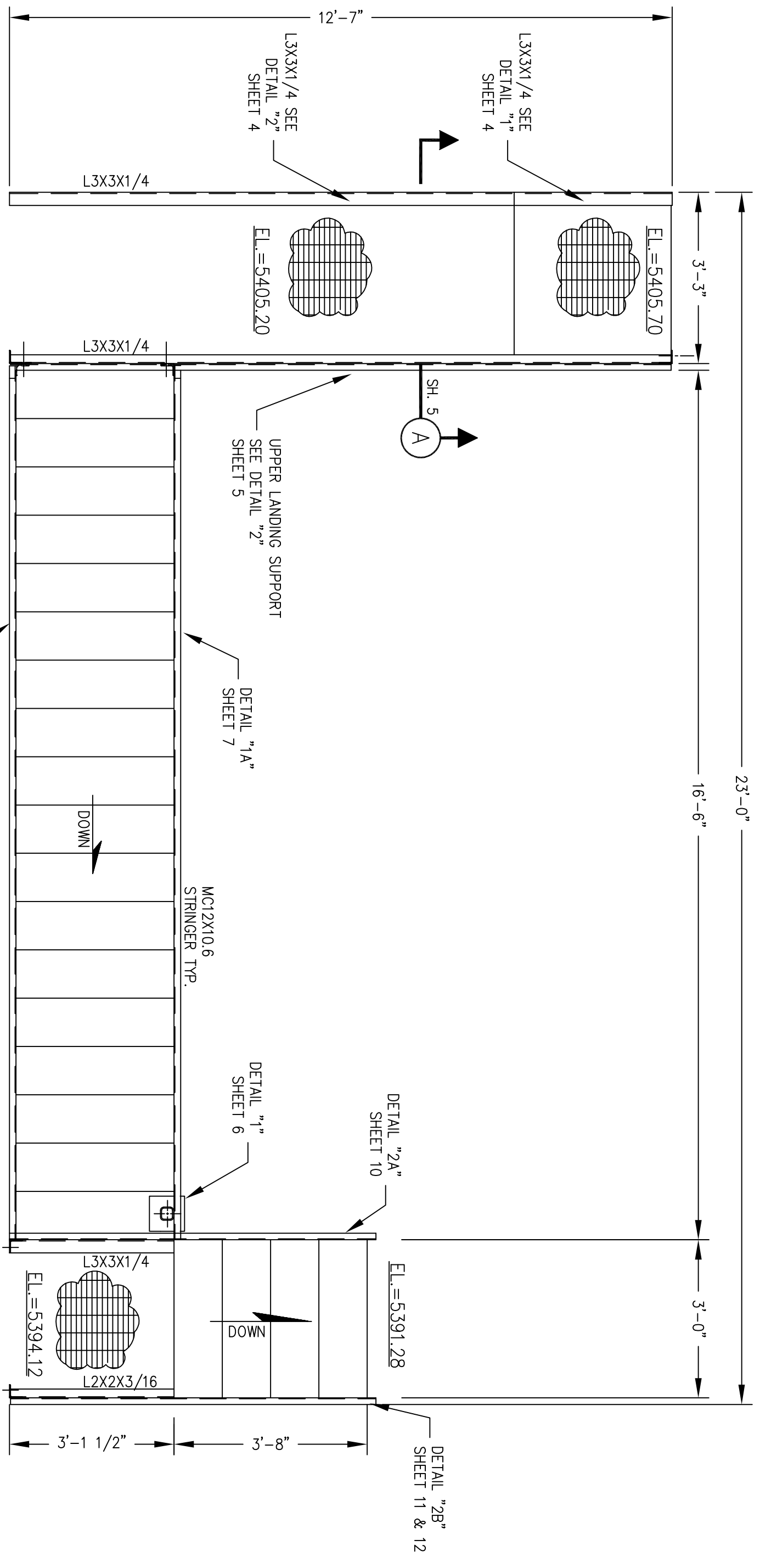
ADDRESS: 14611 Lower Fountain Heights, Fountain, CO 80817 WEAVERCM.COM



PROJECT: Fountain P&D Building, NPW Stairs

SHOP DRAWINGS DATED/VERSION: 04/11/2012, Rev. "A"

SHEET	1	Platform & Stairs @ NPW Room	Plan View	Framing Plan
SHEET	2	Platform & Stairs @ NPW Room	Elev. View	Stairway
SHEET	3	Platform & Stairs @ NPW Room	Detail	Upper Landing
SHEET	4	Platform & Stairs @ NPW Room	Detail	Upper Landing Support
SHEET	5	Platform & Stairs @ NPW Room	Detail	Upper Landing Sections
SHEET	6	Platform & Stairs @ NPW Room	Detail	Upper Stair Stringer "1A"
SHEET	7	Platform & Stairs @ NPW Room	Details	Misc.
SHEET	8	Platform & Stairs @ NPW Room	Detail	Upper Stair Stringer "1B"
SHEET	9	Platform & Stairs @ NPW Room	Detail	Upper Stair Stringer "1B"
SHEET	10	Platform & Stairs @ NPW Room	Detail	Lower Stair Stringer "2A"
SHEET	11	Platform & Stairs @ NPW Room	Detail	Lower Stair Stringer "2B"
SHEET	12	Platform & Stairs @ NPW Room	Detail	Lower Stair Stringer "2B"
SHEET	13	Platform & Stairs @ NPW Room	Detail	Stairway Grating Plan & Detail



REVISED NPW STAIR LAYOUT #2 - PLAN VIEW

GENERAL NOTES:

1. ALL STRUCTURAL COMPONENTS HOT DIPPED GALVANIZED OR AS NOTED.
2. ALL GRATING SECTIONS TO BE 1-1/2" ALUMINUM I-BAR WITH 1-1/2" X 3/16" BANDING.
3. FABRICATED STAIR TREADS TO BE 1-1/2" ALUMINUM I-BAR WITH CORRATED NOSING. SEE DETAIL "1" SHEET 3.

REVISION	REVISION
2	1


 (719)-783-2867

PROJECT	FOUNTAIN CO METRO SEWER DIST
AREA	PLATFORM & STAIRS @ NPW RM.
DETAIL	FRAMING PLAN - PLAN VIEW
REF. DWG.	PD-9 & PD-9A
SCALE	1/2" = 1'-0"
SHEET	1

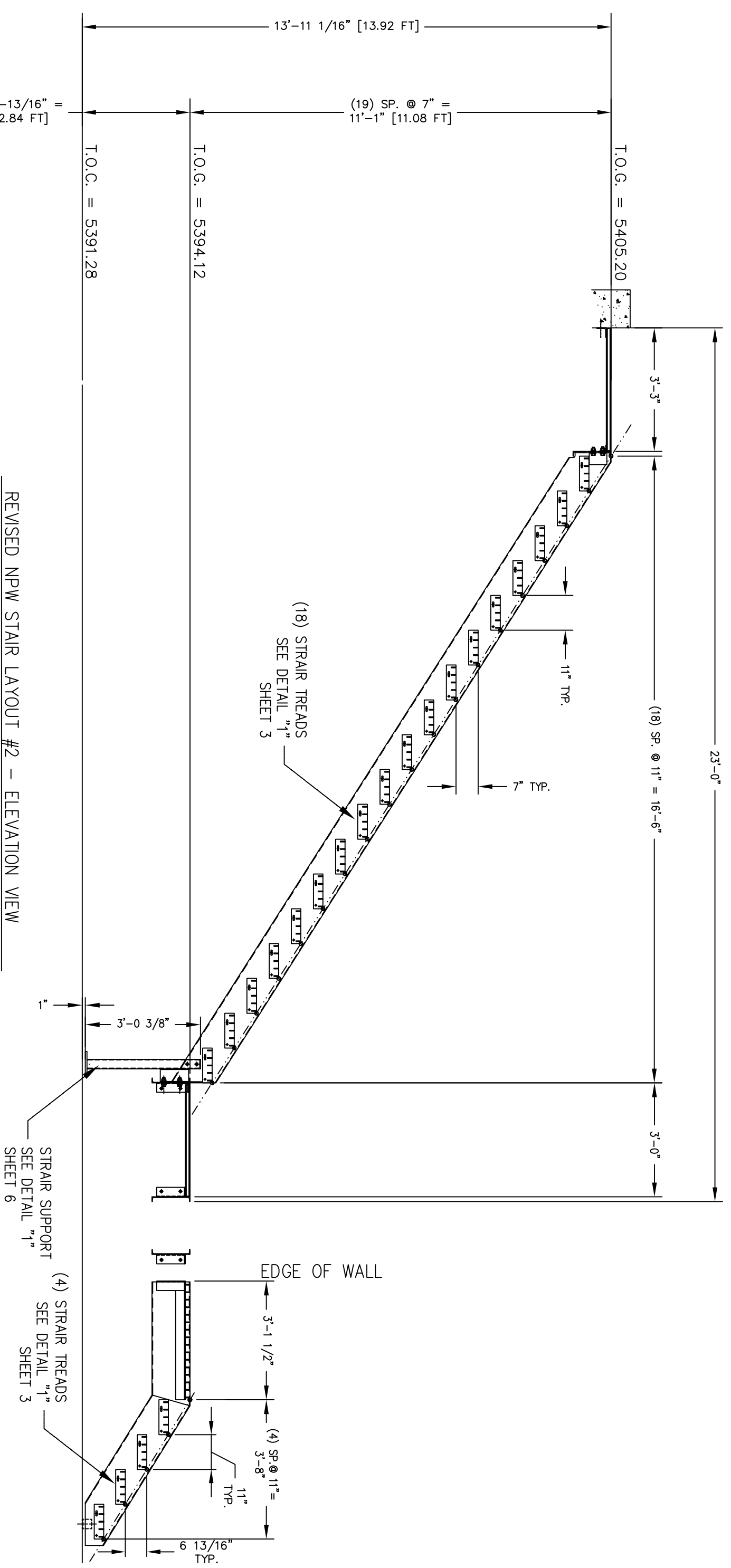
PROGRESS PRINT

NOT VALID FOR CONSTRUCTION

DATE: 4/11/2012 REV. NO. A

CSM INDUSTRIAL

DATE	2/2012
DRAWN BY	M. MURPHY
DWG.	



GENERAL NOTES:

1. ALL STRUCTURAL COMPONENTS HOT DIPPED GALVANIZED OR AS NOTED.
2. ALL GRATING SECTIONS TO BE 1-1/2" ALUMINUM I-BAR WITH 1-1/2" X 3/16" BANDING.
3. FABRICATED STAIR TREADS TO BE 1-1/2" ALUMINUM I-BAR WITH CORRATED NOSING. SEE DETAIL "1" SHEET 3

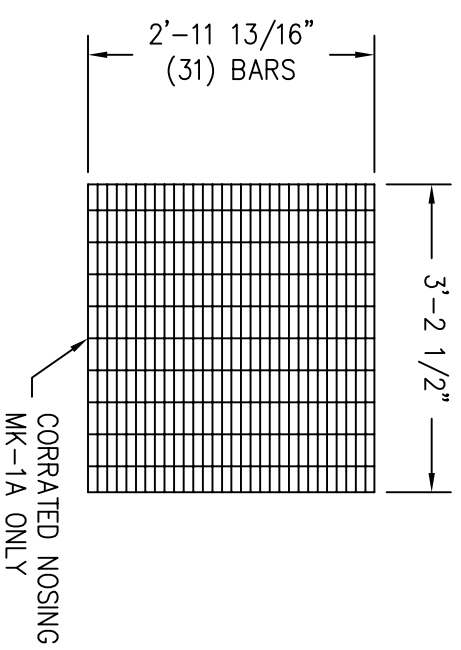
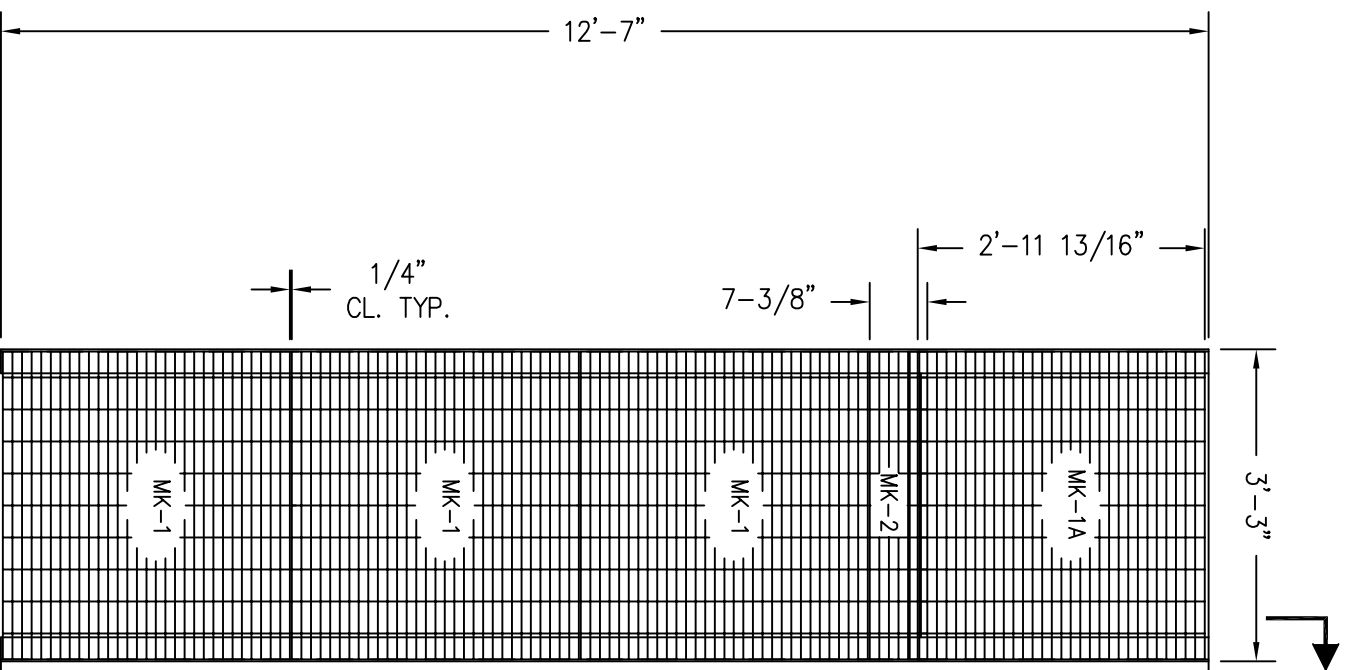
REVISED NPW STAIR LAYOUT #2 - ELEVATION VIEW

REVISION	DESCRIPTION
REVISION 2	
REVISION 1	

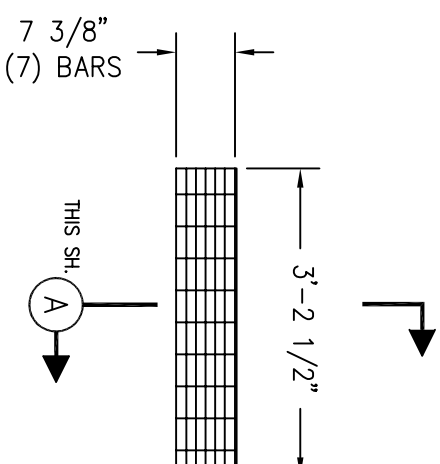
Industrial CSM Constructors
(719)-783-2867

PROJECT	FOUNTAIN CO METRO SEWER DIST	DATE	2/2012
AREA	PLATFORM & STAIRS @ NPW ROOM	DRWN BY	M. MURPHY
DETAIL	STAIRWAY ELEVATION VIEW	DWG.	
REF. DWG.	PD-9 & PD-9A	SCALE	3/8" = 1'-0"
		SHEET	2

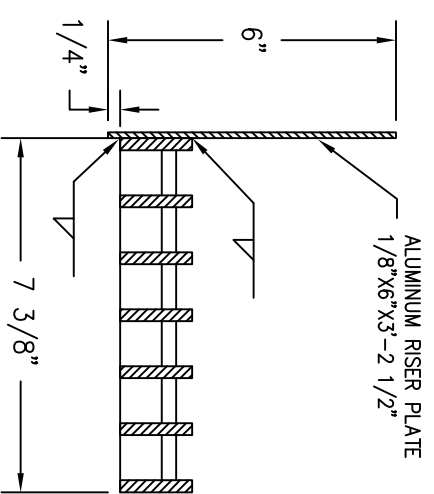
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NOT VALID FOR CONSTRUCTION
DATE: 4/11/2012 REV. NO. A
CSM INDUSTRIAL



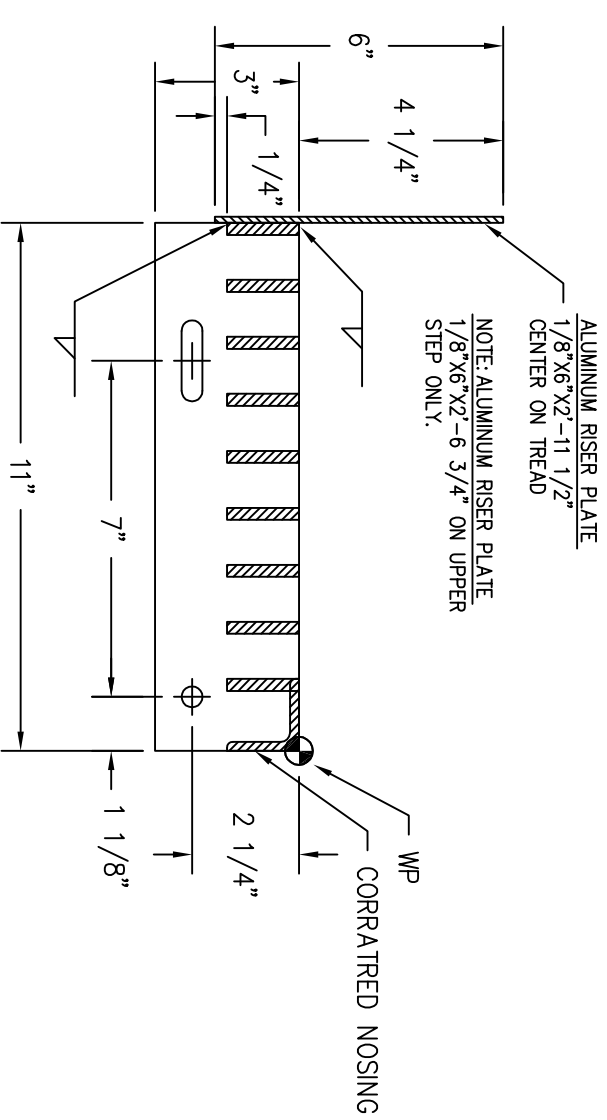
MK-1/MK-1A GRATING SECTION
 1-1/2" ALUMINUM I-BAR GRATING
 WITH 3/16"X1-3/16" BANDING ON
 EXPOSED EDGES
 MK-1 = (3) REQUIRED AS SHOWN
 MK-1A = (1) REQUIRED AS SHOWN WITH
 CORRATED NOSING ON ONE LONG EDGE



MK-2 GRATING SECTION
 1-1/2" ALUMINUM I-BAR GRATING
 WITH 3/16"X1-3/16" BANDING ON
 EXPOSED EDGES
 (1) REQUIRED



SECTION A
 3" = 1'-0" THIS SH.



ALUMINUM RISER PLATE
 1/8"X6"X2-11 1/2"
 CENTER ON TREAD
 NOTE: ALUMINUM RISER PLATE
 1/8"X6"X2-6 3/4" ON UPPER
 STEP ONLY.

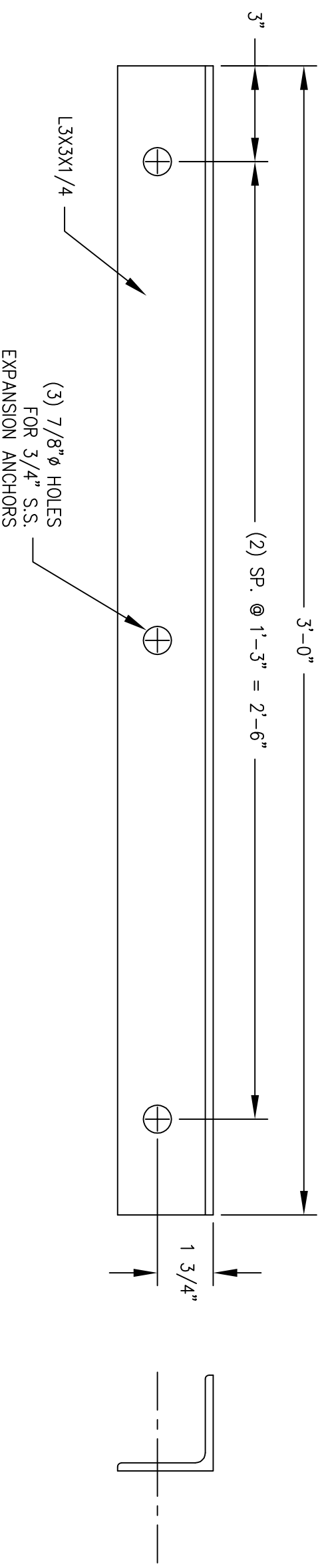
DETAIL 1
 3" = 1'-0" VARIOUS
 TYPICAL STAIR TREAD SECTION

GENERAL NOTES:
 1. ALL GRATING SECTIONS TO BE 1-1/2" ALUMINUM I-BAR
 WITH 3/16"X1-1/2" BANDING.

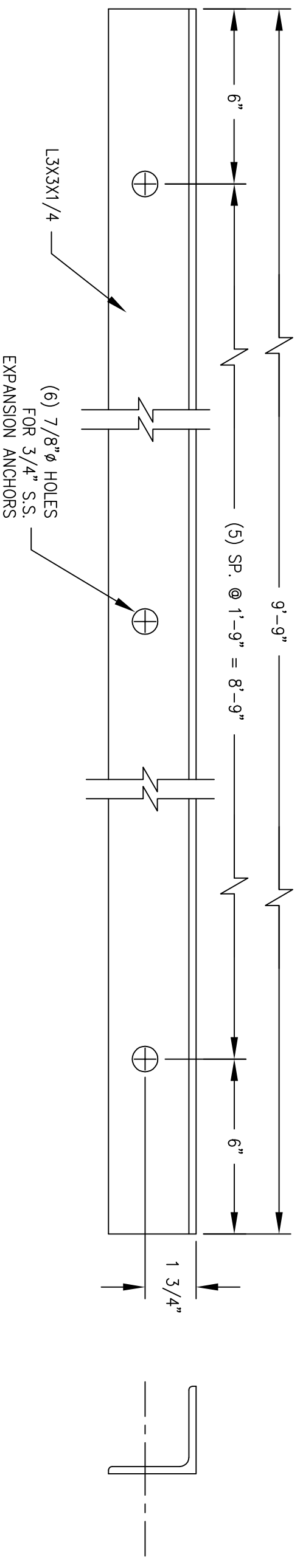
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CSM INDUSTRIAL

REVISION 2	REVISION 1

		PROJECT FOUNTAIN CO METRO SEWER DIST	DATE 2/2012
AREA PLATFORM & STAIRS @ NPW RM		DRWN BY M. MURPHY	
DETAIL UPPER LANDING GRATING DETAIL		DWG.	
REF. DWG. PD-9 & PD-9A	SCALE 1/2" = 1'-0"	SHEET 3	
(719)-783-2867			



DETAIL 1
 3" = 1'-0" SH. 5
 (1) REQUIRED



DETAIL 2
 3" = 1'-0" SH. 5
 (1) REQUIRED

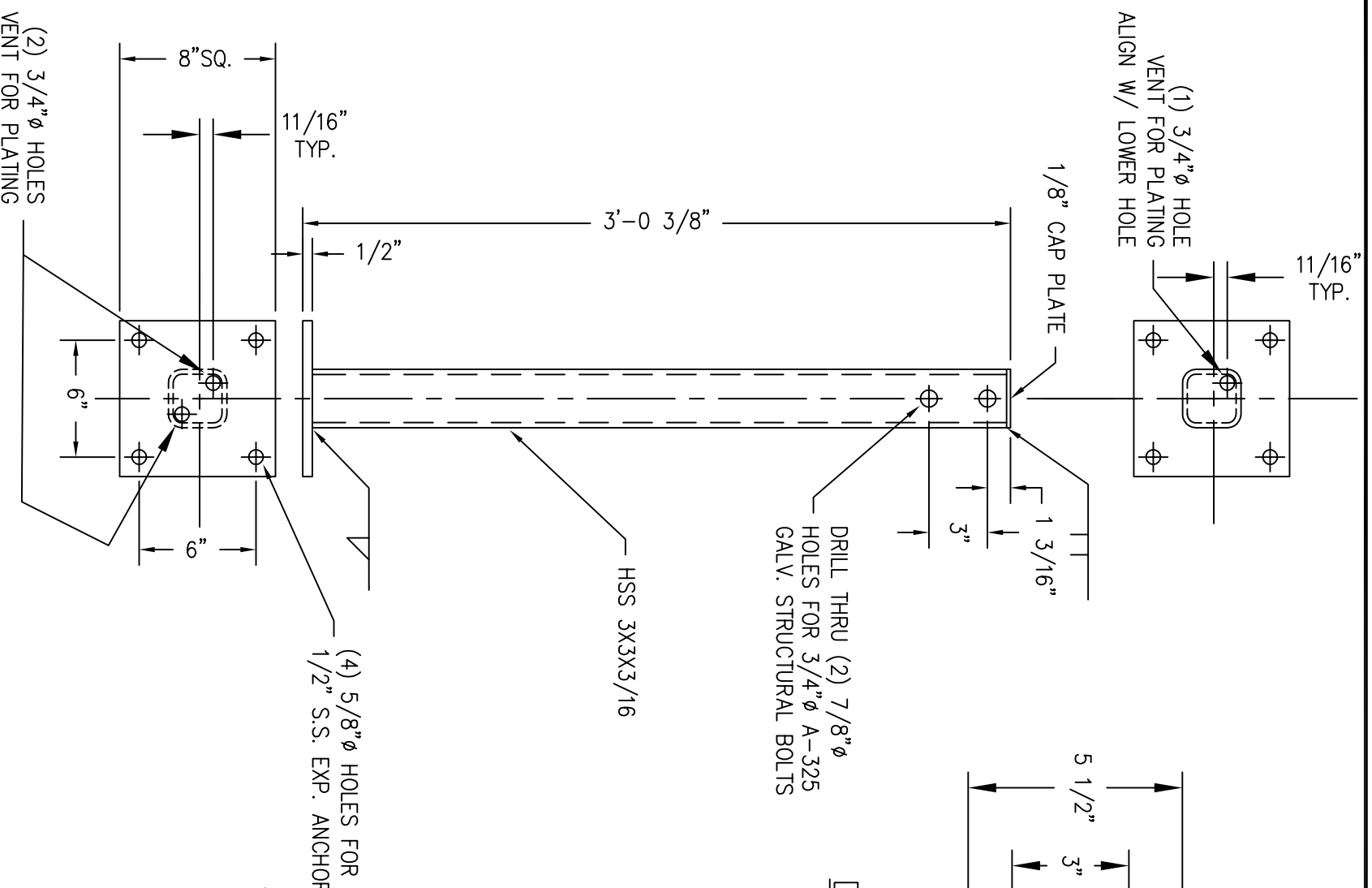
GENERAL NOTES:
 1. ALL MISC. CHANNELS AND ANGLES SHALL BE HOT DIPPED GALVANIZED UNLESS OTHERWISE NOTED.

REVISION	2	REVISION	1



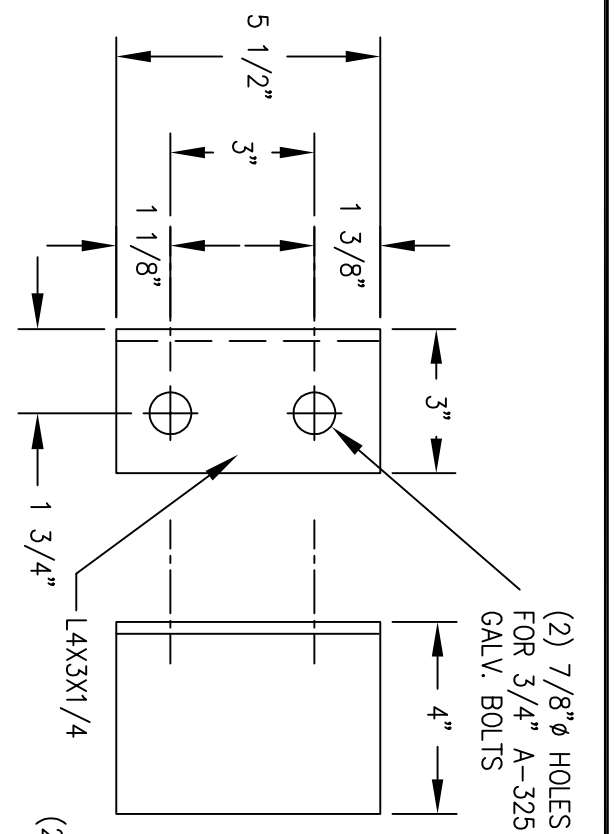
PROJECT	FOUNTAIN CO METRO SEWER DIST	DATE	2/2012
AREA	PLATFORM & STAIRS @ NPW ROOM	DRWN BY	M. MURPHY
DETAIL	UPPER LANDING SUPPORT DETAILS	DWG.	
REF. DWG.	PD-9 & PD-9A	SCALE	5/8" = 1'-0"
		SHEET	4

PROGRESS PRINT
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 DATE: 4/11/2012 REV. NO. A
 CSM INDUSTRIAL



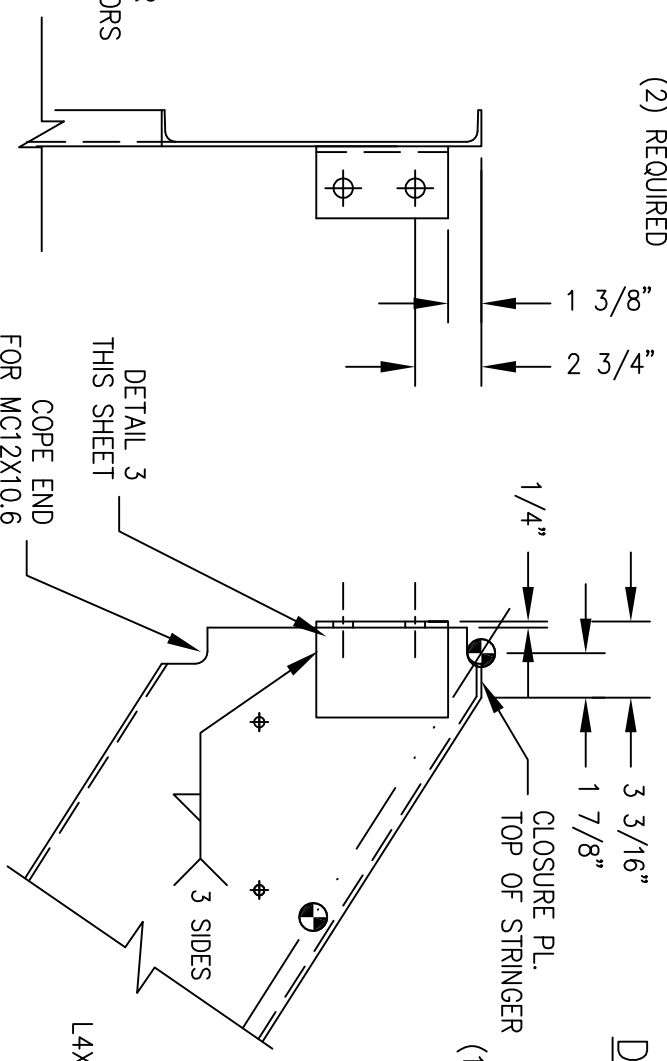
DETAIL 1
1-1/2" = 1'-0"
SH. 1

SUPPORT LEG FOR NPW ROOM STAIR LANDING
(1) REQUIRED



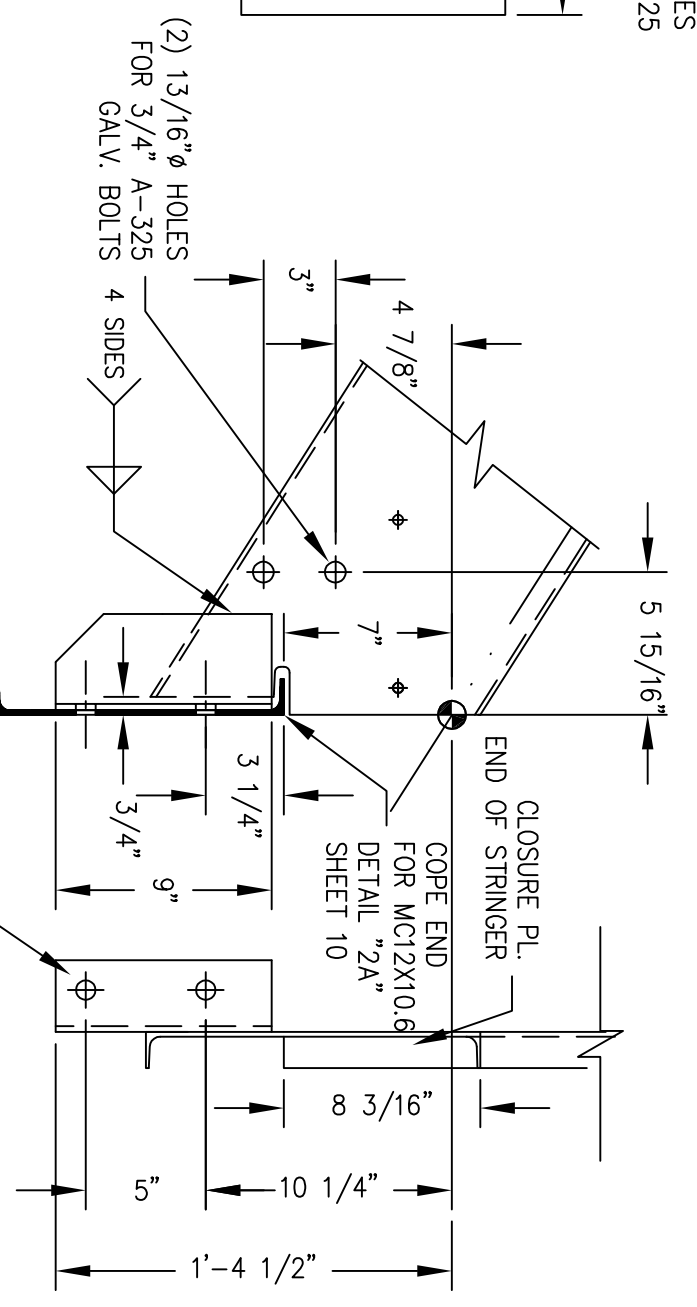
DETAIL 3
3" = 1'-0"
THIS SH.

(2) REQUIRED



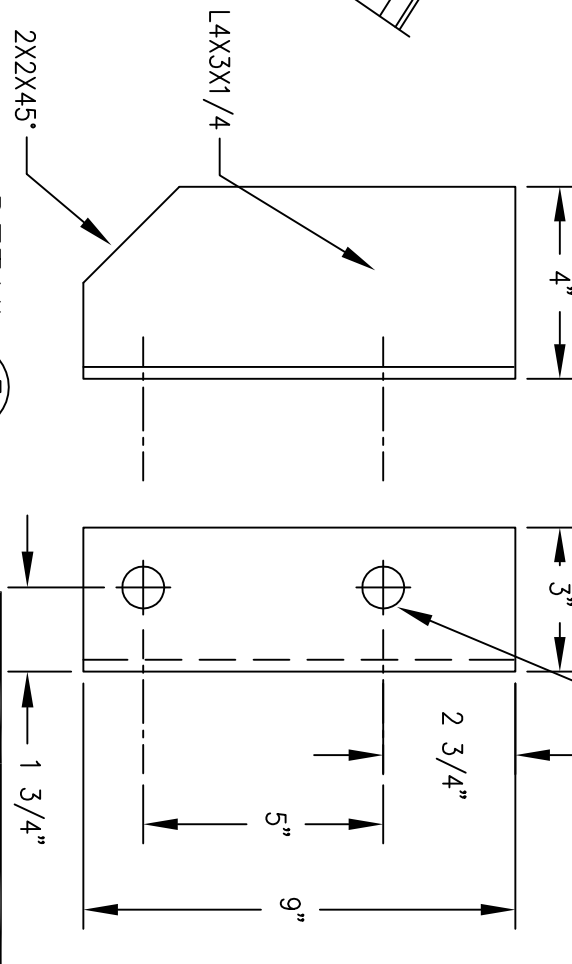
DETAIL 2
1-1/2" = 1'-0"
SH. 7 & 8

TYP. (2) PLACES
(1) AS SHOWN - SHEET 6
(1) OPPOSITE HAND AS SHOWN - SHEET 7



DETAIL 4
3" = 1'-0"
SH. 7 & 8

TYP. (2) PLACES
(1) AS SHOWN - SHEET 6
(1) OPPOSITE HAND AS SHOWN - SHEET 7



DETAIL 5
3" = 1'-0"
THIS SH.

(2) REQUIRED

PROGRESS PRINT

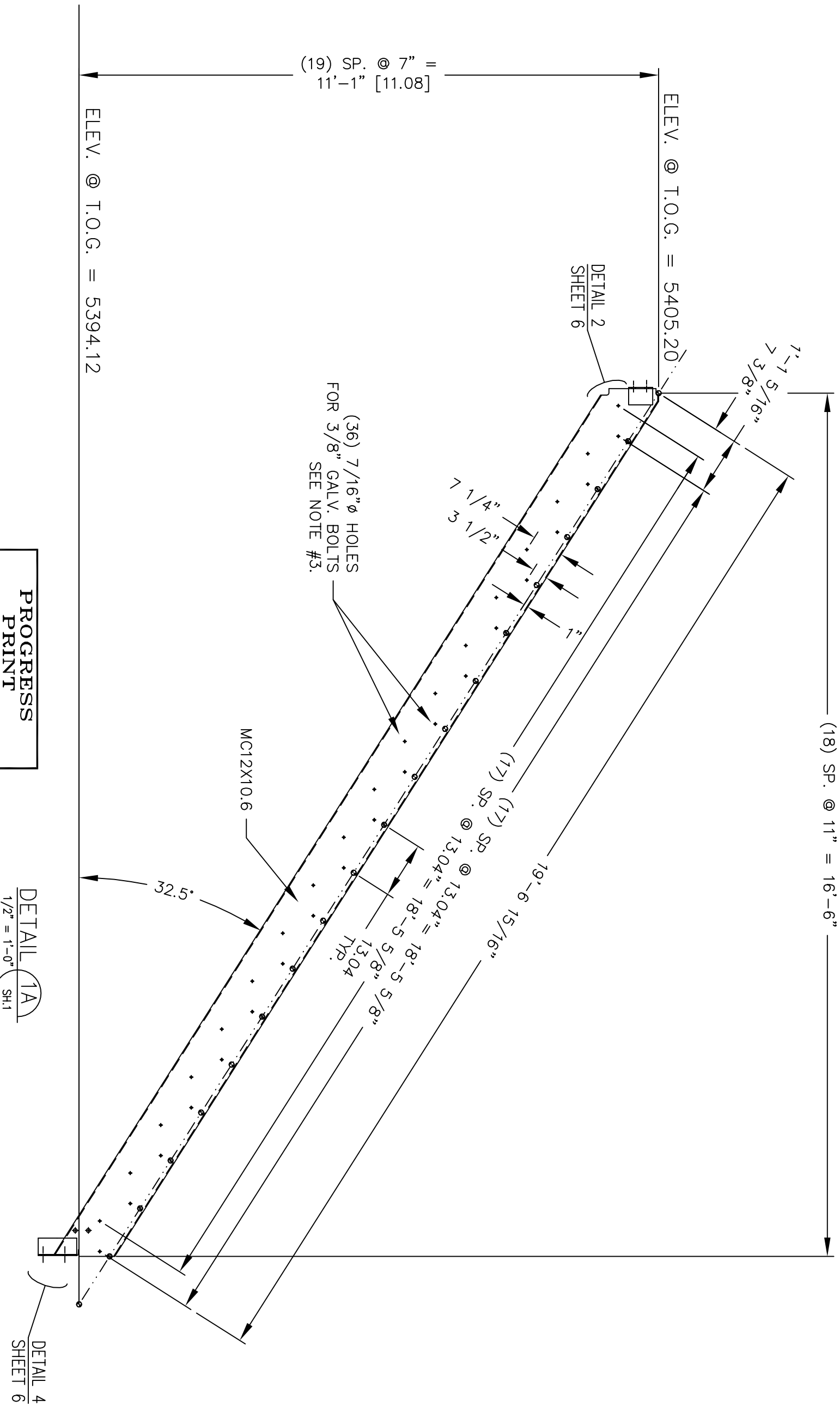
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CSM INDUSTRIAL

REVISION 2	REVISION 1

Industrial Constructors CSM
(719)-783-2867

PROJECT: FOUNTAIN CO METRO SEWER DIST
AREA: PLATFORMS & STAIRS @ NPW RM.
DETAIL MISC. DETAILS
REF. DWG. PD-9 & PD-9A
SCALE: 1-1/2" = 1'-0"
SHEET: 6

DATE: 2/2012
DRAWN BY: M. MURPHY
DWG.



(19) SP. @ 7" =
11'-1" [11.08]

ELEV. @ T.O.G. = 5405.20

ELEV. @ T.O.G. = 5394.12

(18) SP. @ 11" = 16'-6"

(36) 7/16" Ø HOLES
FOR 3/8" GALV. BOLTS
SEE NOTE #3.

MC12X10.6

32.5'

DETAIL 1A
1/2" = 1'-0" SH.1

DETAIL 4
SHEET 6

DETAIL 2
SHEET 6

- GENERAL NOTES:
1. ALL STRUCTURAL COMPONENTS HOT DIPPED GALVANIZED OR AS NOTED.
 2. ALL GRATING SECTIONS TO BE 1-1/2" ALUMINUM I-BAR WITH 1-1/2" X 3/16" BANDING.
 3. FABRICATED STAIR TREADS TO BE 1-1/2" ALUMINUM I-BAR WITH CORRATED NOSING. SEE DETAIL "1" SHEET 3

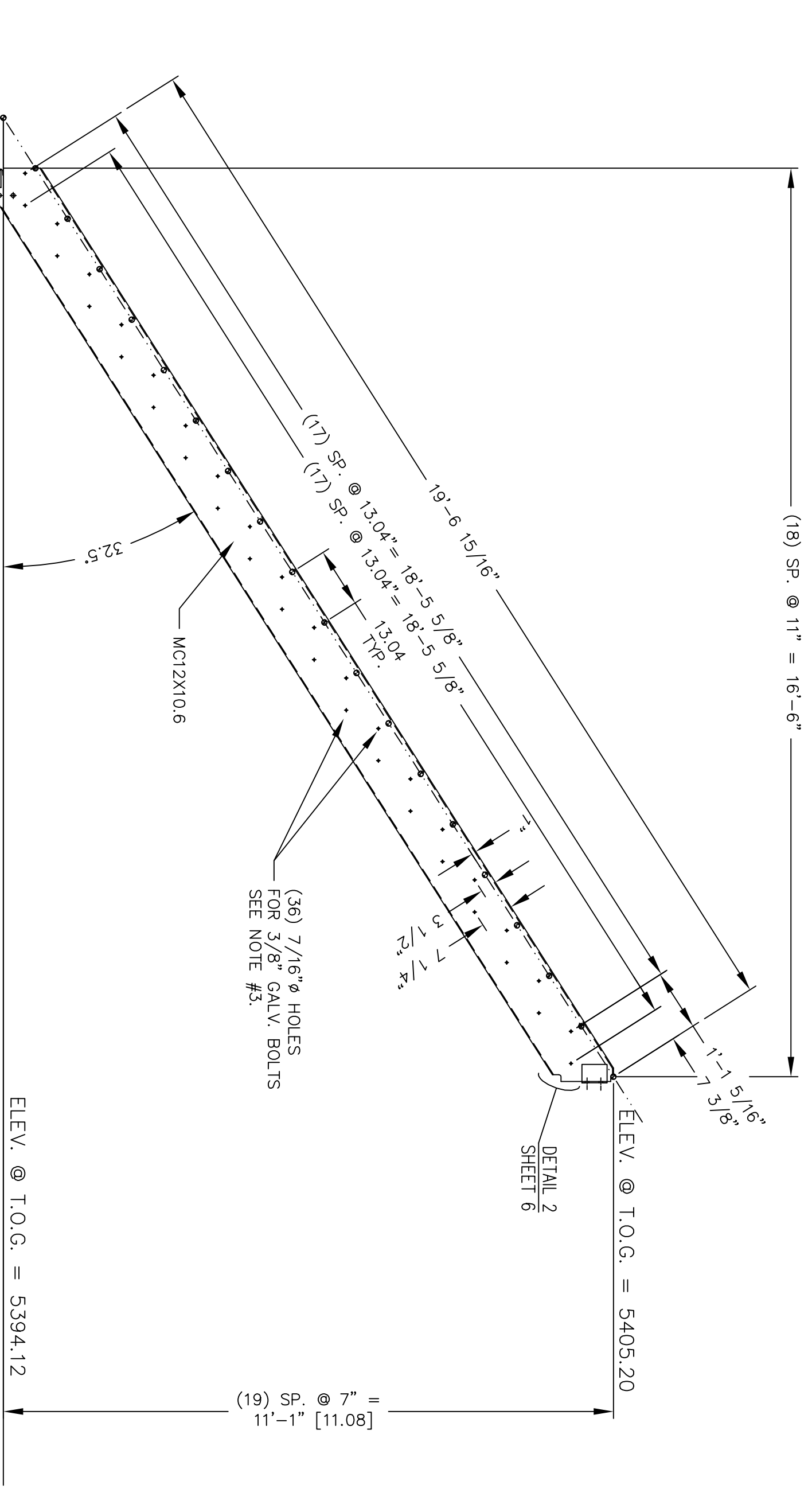
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NOT VALID FOR CONSTRUCTION	REV. NO. A
DATE: 4/11/2012	
CSM INDUSTRIAL	

REVISION 2	REVISION 1



 (719)-783-2867

PROJECT	FOUNTAIN CO METRO SEWER DIST	DATE	2/2012
AREA	PLATFORM & STAIRS @ NPW RM	DRWN.BY	M.MURPHY
DETAIL	UPPER STAIR STRINGER "1A"	DWG.	
REF.DWG.	PD-9 & PD-9A	SCALE	1/2" = 1'-0"
		SHEET	7



DETAIL 4
SHEET 6

DETAIL 2
SHEET 6

PROGRESS PRINT
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DATE: 4/11/2012 REV. NO. A
C/S INDUSTRIAL

NOTE: SEE SHEET 9 FOR ADDITIONAL DETAILS NOT SHOWN ON THIS SHEET DUE TO SPACE RESTRICTIONS

(1B) DETAIL
SH.1 1/2" = 1'-0"

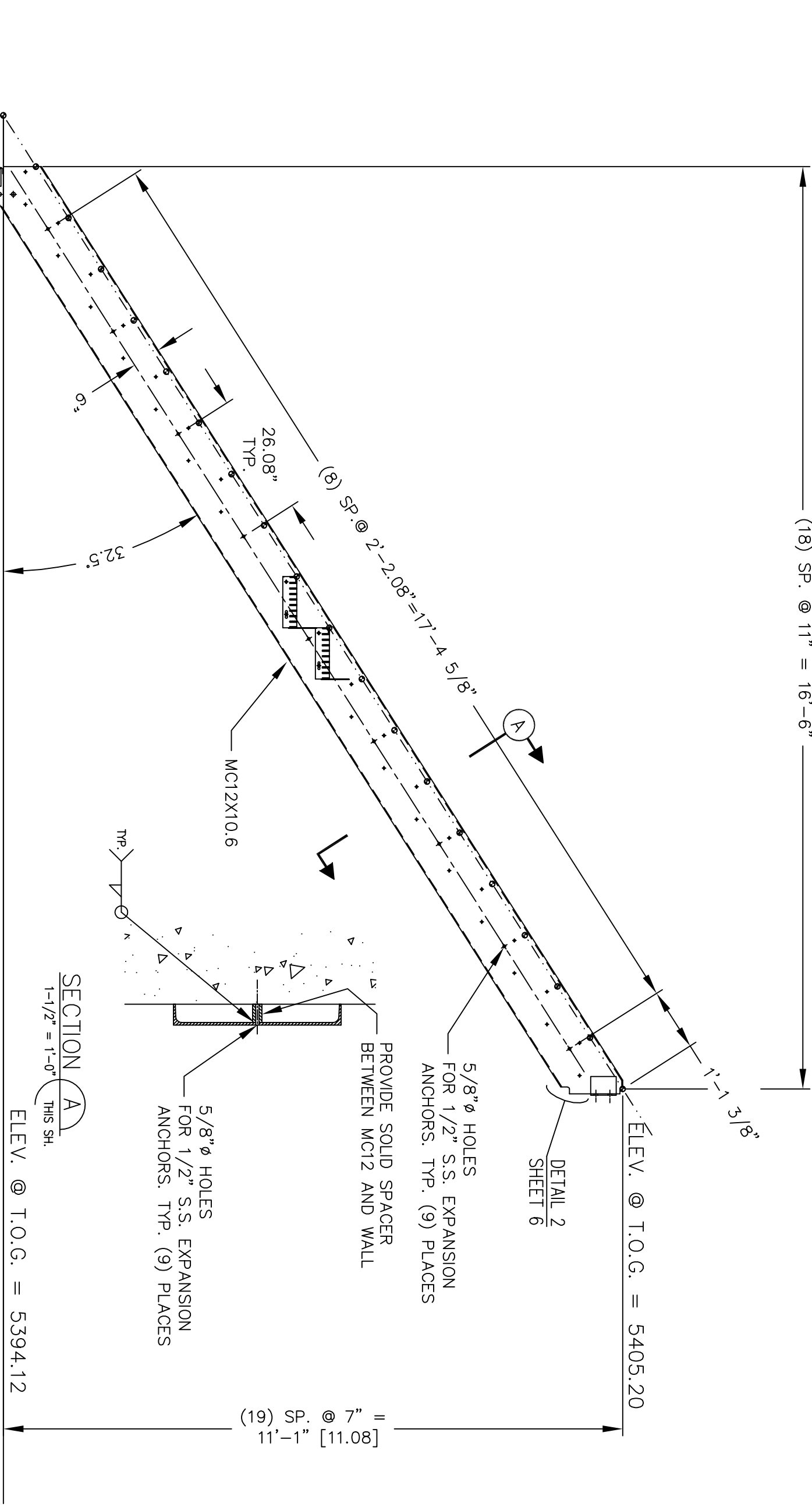
- GENERAL NOTES:
1. ALL STRUCTURAL COMPONENTS HOT DIPPED GALVANIZED OR AS NOTED.
 2. ALL GRATING SECTIONS TO BE 1-1/2" ALUMINUM I-BAR WITH 1-1/2" X 3/16" BANDING.
 3. FABRICATED STAIR TREADS TO BE 1-1/2" ALUMINUM I-BAR WITH CORRATED NOSING. SEE DETAIL "1" SHEET 3

REVISION 2	REVISION 1

C/S Industrial Constructors
(719)-783-2867

PROJECT	FOUNTAIN CO METRO SEWER DIST	DATE	2/2012
AREA	PLATFORM & STAIRS @ NPW RM	DRWN BY	M. MURPHY
DETAIL	UPPER STAIR STRINGER "1B"	DWG.	
REF. DWG.	PD-9 & PD-9A	SCALE	1/2" = 1'-0"
		SHEET	8

(18) SP. @ 11" = 16'-6"



DETAIL 4
SHEET 6

DETAIL 2
SHEET 6

SECTION A
1'-1/2" = 1'-0"
THIS SH.

DETAIL 1B
1/2" = 1'-0"
SH.1

NOTE: THIS SHEET SHOWS ADDITIONAL
DETAILS NOT SHOWN ON SHEET 8 DUE
TO SPACE RESTRICTIONS

**PROGRESS
PRINT**
NOT VALID FOR CONSTRUCTION
DATE: 4/11/2012 REV. NO. A
CSM INDUSTRIAL

- GENERAL NOTES:
1. ALL STRUCTURAL COMPONENTS HOT DIPPED GALVANIZED OR AS NOTED.
 2. ALL GRATING SECTIONS TO BE 1-1/2" ALUMINUM I-BAR WITH 1-1/2" X 3/16" BANDING.
 3. FABRICATED STAIR TREADS TO BE 1-1/2" ALUMINUM I-BAR WITH CORRATED NOSING. SEE DETAIL "1" SHEET 3

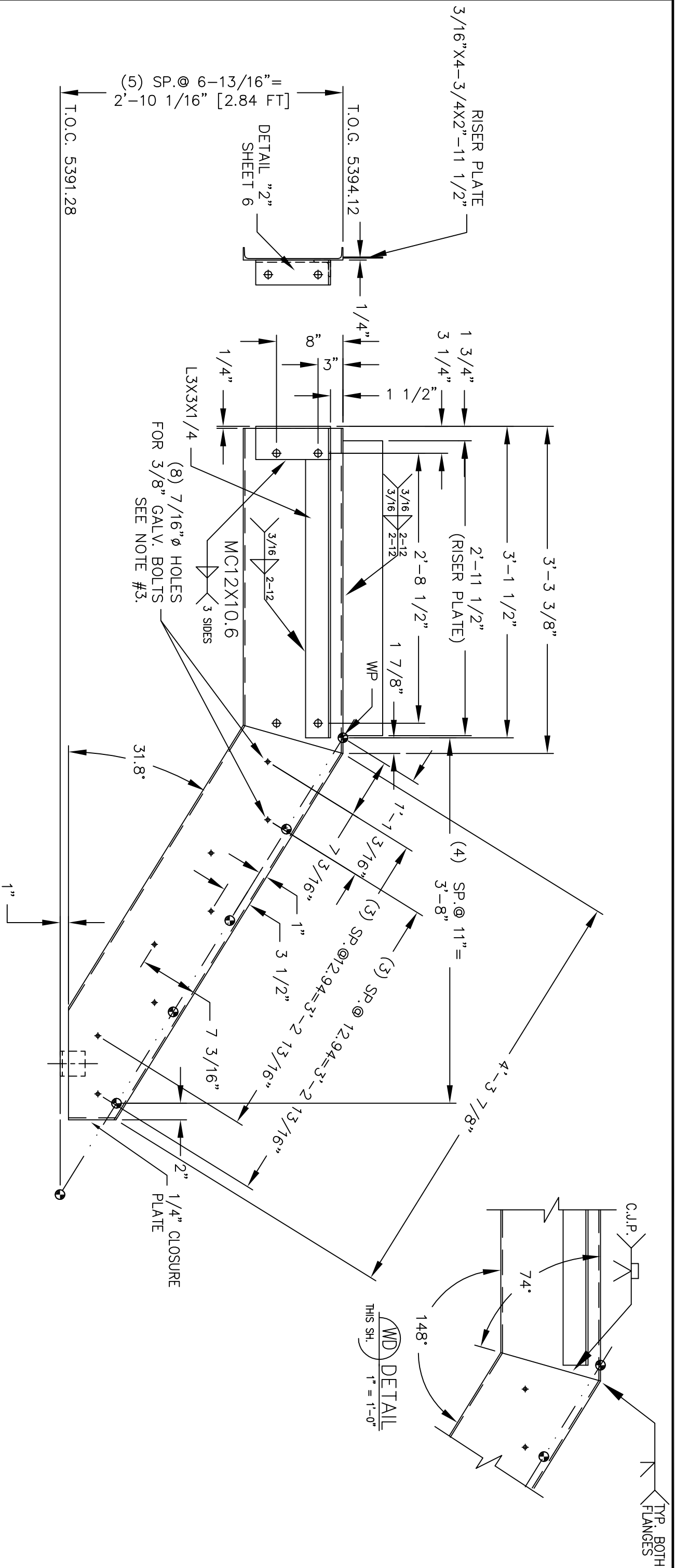
REVISION 2

REVISION 1

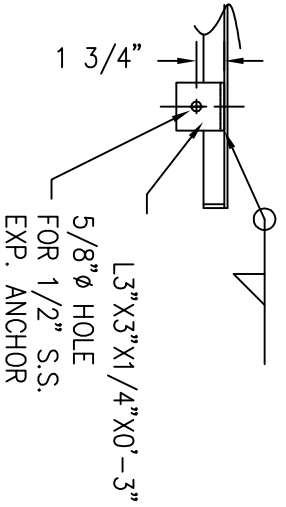


(719)-783-2867

PROJECT	FOUNTAIN CO METRO SEWER DIST	DATE	2/2012
AREA	PLATFORM & STAIRS @ NPW RM	DRWN BY	M. MURPHY
DETAIL	UPPER STAIR STRINGER "1B"	DWG.	
REF. DWG.	PD-9 & PD-9A	SCALE	1/2" = 1'-0"
		SHEET	9



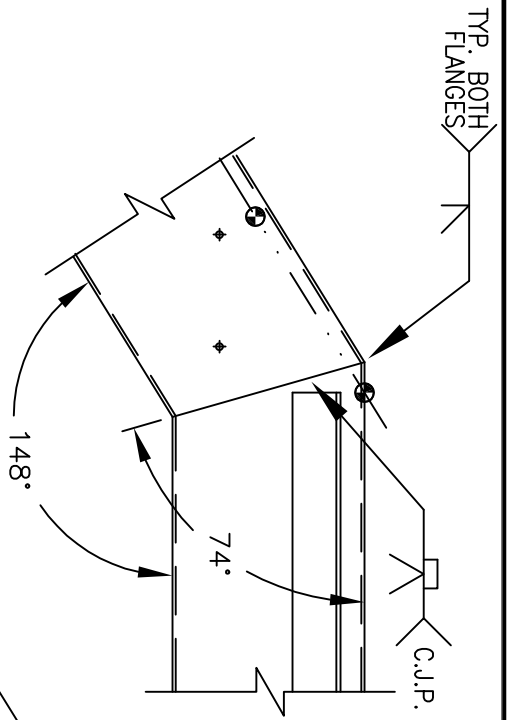
DETAIL 2A
1/2" = 1'-0" SH.1



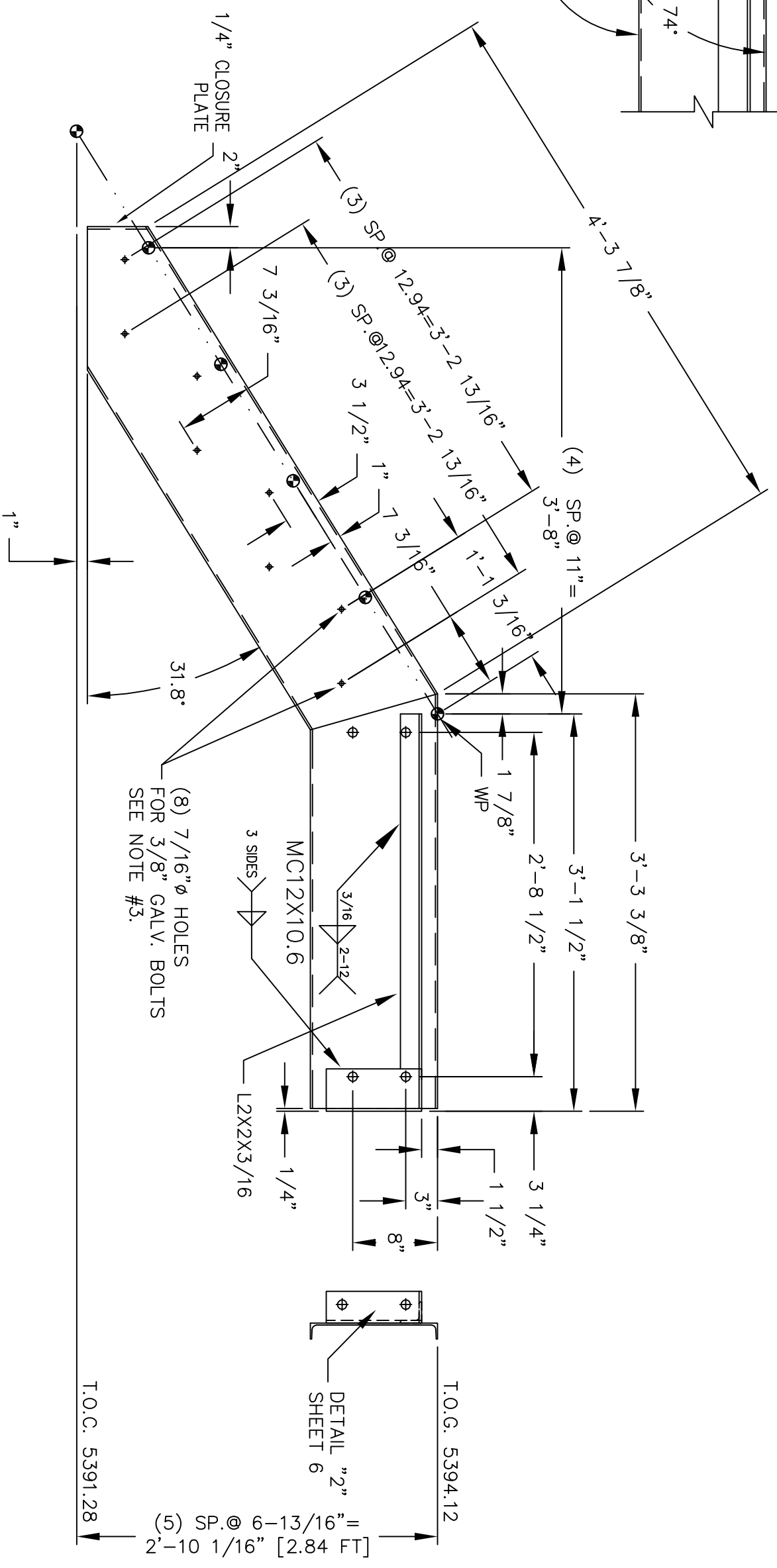
PROGRESS PRINT
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DATE: 4/11/2012 REV. NO. A
CSM INDUSTRIAL

- GENERAL NOTES: TYP. WELD DETAIL OF ALL STRUCTURAL COMPONENTS TO BE DIPPED GALVANIZED OR AS NOTED.
1. ALL STRUCTURAL COMPONENTS TO BE 1-1/2" ALUMINUM I-BAR WITH 1-1/2" X 3/16" BANDING.
 2. ALL GRATING SECTIONS TO BE 1-1/2" ALUMINUM I-BAR WITH 1-1/2" X 3/16" BANDING.
 3. FABRICATED STAIR TREADS TO BE 1-1/2" ALUMINUM I-BAR WITH CORRATED NOSING. SEE DETAIL "1" SHEET 3

REVISION 2	REVISION 1		PROJECT	FOUNTAIN CO METRO SEWER DIST	DATE	2/2012	
			AREA	PLATFORM & STAIRS @ NPW RM	DRWN BY	M. MURPHY	
		DETAIL	LOWER STAIR STRINGER "2A"	DWG.			
		REF. DWG.	PD-9 & PD-9A	SCALE	1" = 1'-0"	SHEET	10
			(719)-783-2867				



DETAIL (WD)
THIS SH.
1" = 1'-0"



(8) 7/16" Ø HOLES
FOR 3/8" GALV. BOLTS
SEE NOTE #3.

DETAIL (2B)
SH.1
1/2" = 1'-0"

NOTE: SEE SHEET 12 FOR ADDITIONAL
DIMENSIONS NOT SHOWN ON THIS SHEET
DUE TO SPACE RESTRICTIONS

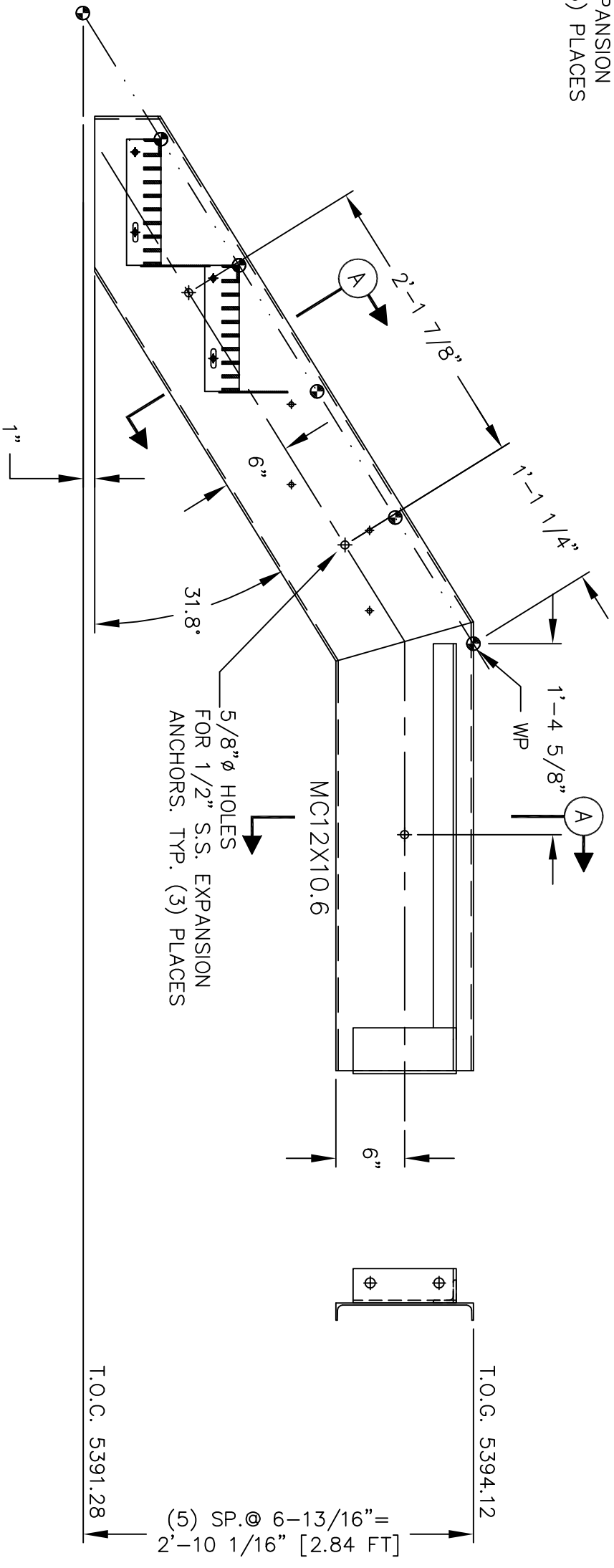
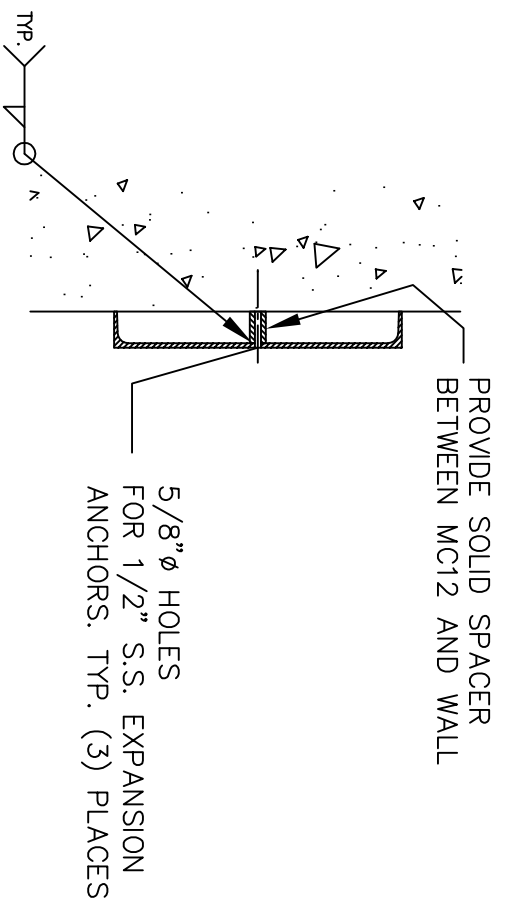
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DATE: 4/11/2012 REV. NO. A
CSM INDUSTRIAL

- GENERAL NOTES: TYP. WELD DETAIL OF DIPPED GALVANIZED OR AS NOTED.
1. ALL STRUCTURAL COMPONENTS TO BE 1-1/2" ALUMINUM I-BAR WITH 1-1/2" X 3/16" BANDING.
 2. ALL GRATING SECTIONS TO BE 1-1/2" ALUMINUM I-BAR WITH 1-1/2" X 3/16" BANDING.
 3. FABRICATED STAIR TREADS TO BE 1-1/2" ALUMINUM I-BAR WITH CORRATED NOSING. SEE DETAIL "1" SHEET 3

REVISION 2	REVISION 1



PROJECT	FOUNTAIN CO METRO SEWER DIST	DATE	2/2012
AREA	PLATFORM & STAIRS @ NPW RM	DRWN BY	M. MURPHY
DETAIL	LOWER STAIR STRINGER "2B"	DWG.	
REF. DWG.	PD-9 & PD-9A	SCALE	1" = 1'-0"
		SHEET	11



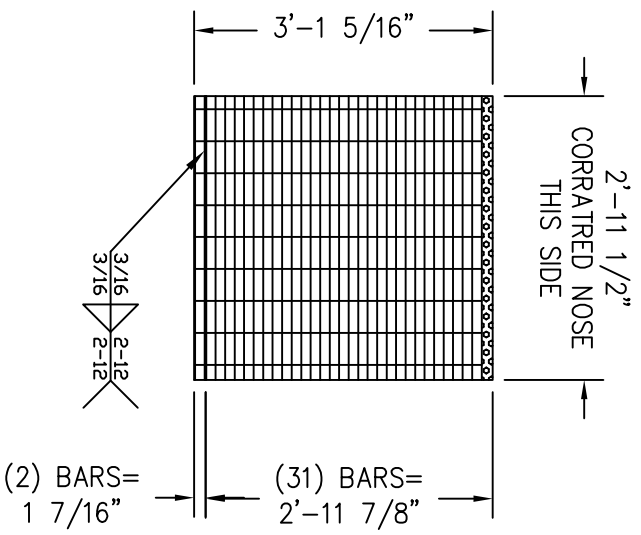
NOTE: THIS SHEET SHOWS ADDITIONAL DETAILS NOT SHOWN ON SHEET 11 DUE TO SPACE RESTRICTIONS

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- GENERAL NOTES:**
1. ALL STRUCTURAL COMPONENTS HOT DIPPED GALVANIZED OR AS NOTED.
 2. ALL GRATING SECTIONS TO BE 1-1/2" ALUMINUM I-BAR WITH 1-1/2" X 3/16" BANDING.
 3. FABRICATED STAIR TREADS TO BE 1-1/2" ALUMINUM I-BAR WITH CORRATED NOSING. SEE DETAIL "1" SHEET 3

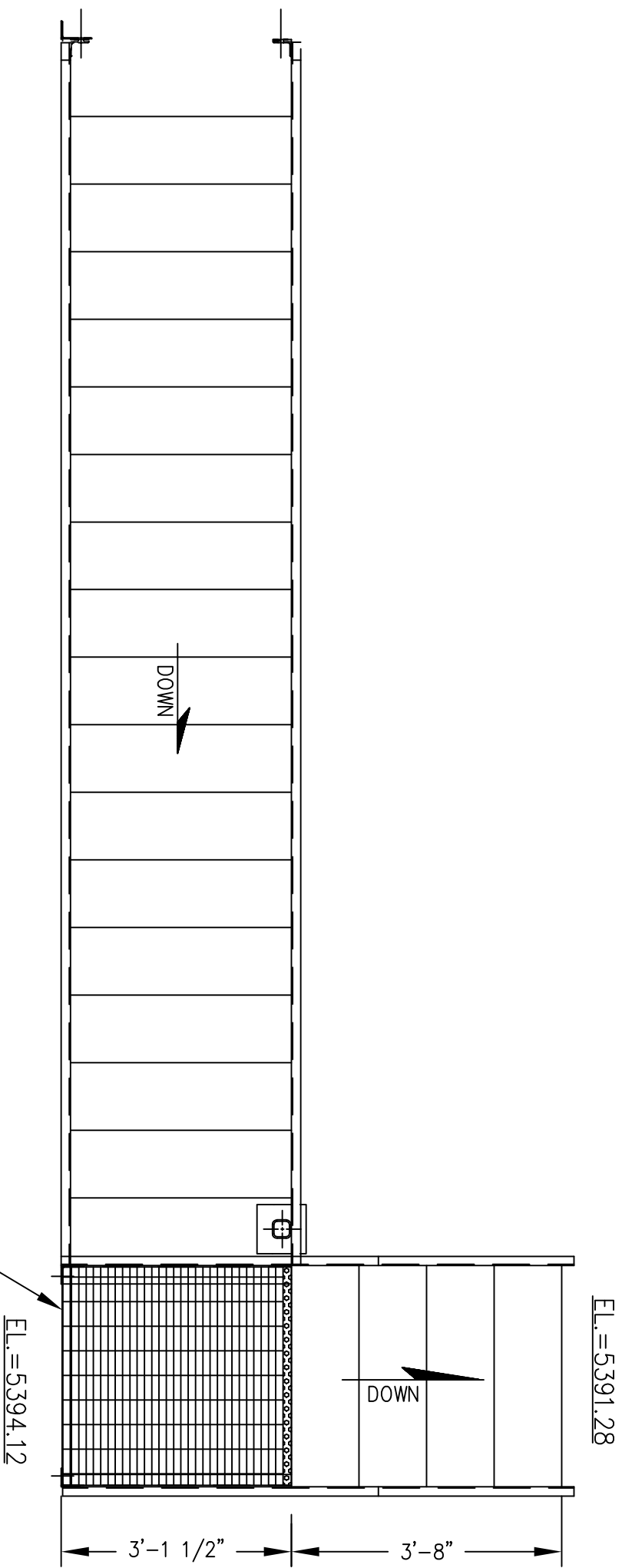
REVISION	DESCRIPTION
REVISION 2	
REVISION 1	

PROJECT	FOUNTAIN CO METRO SEWER DIST	DATE	2/2012
AREA	PLATFORM & STAIRS @ NPW RM	DRWN BY	M. MURPHY
DETAIL	LOWER STAIR STRINGER "2B"	DWG.	
REF. DWG.	PD-9 & PD-9A	SCALE	1" = 1'-0"
		SHEET	12



MK-1 GRATING SECTION
 1-1/2" ALUMINUM I-BAR GRATING
 WITH 3/16"X1-3/16" BANDING ON
 EXPOSED EDGES
 (1) REQUIRED

REVISED NPW STAIR LAYOUT #2 - PLAN VIEW



- GENERAL NOTES:**
1. ALL STRUCTURAL COMPONENTS HOT DIPPED GALVANIZED OR AS NOTED.
 2. ALL GRATING SECTIONS TO BE 1-1/2" ALUMINUM I-BAR WITH 1-1/2" X 3/16" BANDING.
 3. FABRICATED STAIR TREADS TO BE 1-1/2" ALUMINUM I-BAR WITH CORRATED NOSING. SEE DETAIL "1" SHEET 3.
 4. ATTACH GRATING WITH DREXEL TYPE DX-2 SADDLE ANCHORS OR APPROVED EQUAL.

NPW ROOM STAIRWAY &
 PLATFORM GRATING PLAN

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 CSM INDUSTRIAL

REVISION	REVISION
2	1

		PRODUCT	DATE
		FOUNTAIN CO METRO SEWER DIST	2/2012
AREA	DRWN BY		
PLATFORM & STAIRS @ NPW RM.	M. MURPHY		
DETAIL	DWG.		
STAIRWAY GRATING PLAN & DET.			
REF. DWG.	SCALE	SHEET	
PD-9 & PD-9A	1/2" = 1'-0"	13	

(719)-783-2867