



construction managers

general contractors

design builders

SUBMITTAL REVIEW

Date: August 25, 2017

Submittal # 1R REVISED PreCast Public Storm Boxes

Subm #33-4000-01-b

Subcontractor: Kat Excavation
Bart Fisher

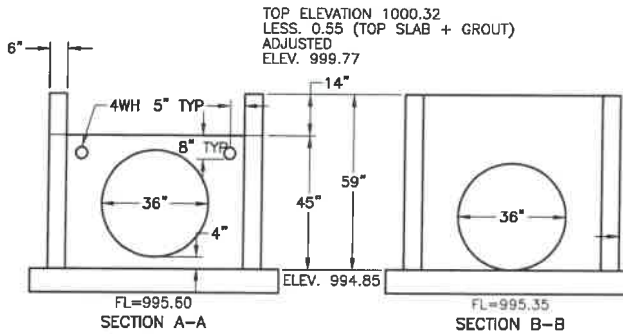
Project#: 417 The Residence at Echelon

Submit To: NSPJ Architects
Tim Hauschild
Clint Evans

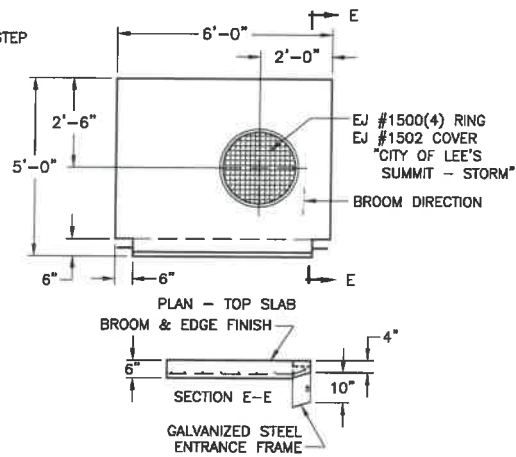
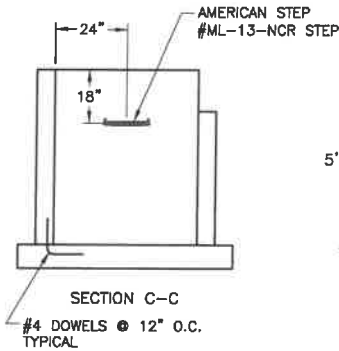
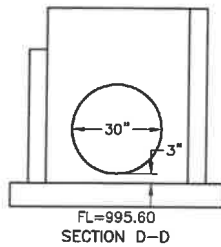
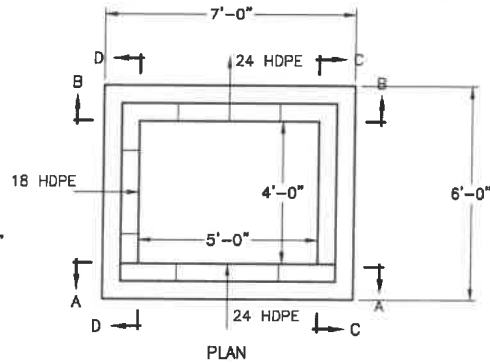
SUBMITTAL FOR APPROVAL	
Job Name/No: <u>417 The Residences at Echelon</u>	
☒ REVIEWED	☐ REVISE & RESUBMIT
☐ REVIEWED & NOTED	☐ REJECTED
Submittal received for general compliance with the Contract Documents. Contractor's review does not relieve sub/vendor of responsibility for dimension, quantities, accuracy or completion of submittals or from any responsibilities required by terms and conditions of Subcontract/PO with Luke Draily Construction Co., Inc.. Sub/Vendors shall follow all manufacturer installation instructions. Installing contractor shall be responsible to coordinate with trades for hookup, supports, routing, etc.	
By: <u>J Wilcox</u>	Date: <u>8-25-17</u>

Engineering Solutions	Shop Drawing Review
Project: <u>The Residence @ Echelon</u>	Date: <u>7/14/17</u>
Submittal #: _____	By: <u>ZPH</u>
☐ APPROVED	☐ REJECTED
☒ APPROVED AS NOTED	

1-3 - 24" HDPE, FL = 996.25
4-1 - 15" HDPE, FL = 997.75



SECTION B-B



Subm #33-4000-01-b

TOP SLAB REINFORCING	
#4 @ 6" O.C.E.W. WITH #4 DIAGONALS AROUND CASTING 1 1/2" CLEAR BOTTOM	
UNIT WEIGHTS	(LBS)
TOP SLAB	2,222
TOP SECTION	
MID SECTION 2	
MID SECTION 1	
BASE SECTION	5,355
BASE SLAB	4,148
TOTAL BASE WT	9,503

NOTES:
CEMENT TO BE PER ASTM C-150
REINFORCING TO BE PER ASTM A-615 GRADE 60
CONCRETE TO BE AIR ENTRAINMENT 4000 PSI @ 28 DAYS MINIMUM

BARBOUR CONCRETE COMPANY
21421 E. TRUMAN ROAD
INDEPENDENCE, MO 64056
(816) 796-3344
FAX (816) 796-3518

WALL REINFORCING:
PER DRAWING R1-A
#4 @ 12" O.C.E.W.

BASE REINFORCING:
#4 @ 6" O.C.E.W.

KAT EXCAVATING INC
THE RESIDENCES AT ECHELON - PUBLIC
LEE'S SUMMIT, MO

STRUCTURE 1-2
DATE 06/16/17
CHECKED DATE N/A

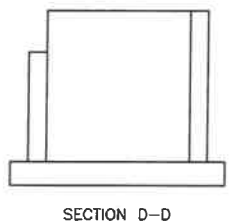
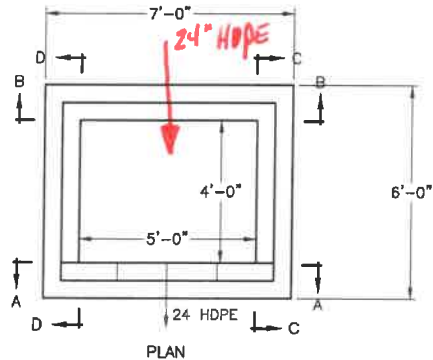
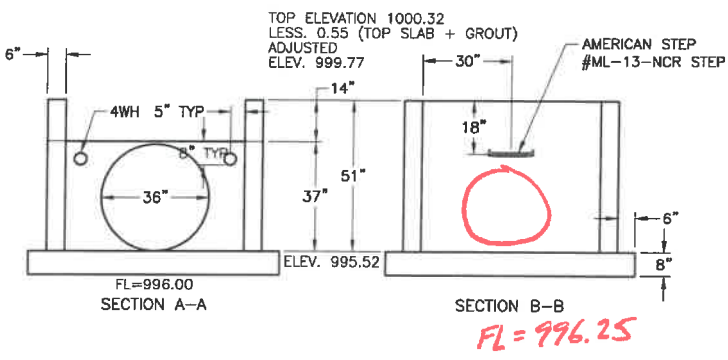
DESCRIPTION CURB INLET
SCALE NTS
MIX DESIGN 4000 PSI
SHR 1 OF 1

17-1315

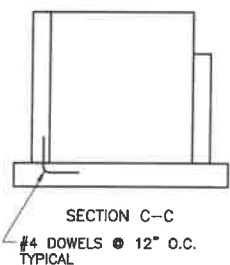
PLOT DATE: 6/16/2017

17-1315 NOT IN THE RESIDENCES AT ECHELON (STORM) - PUBLIC/NE RESIDENCES AT ECHELON (STORM) - PUBLIC/DWG

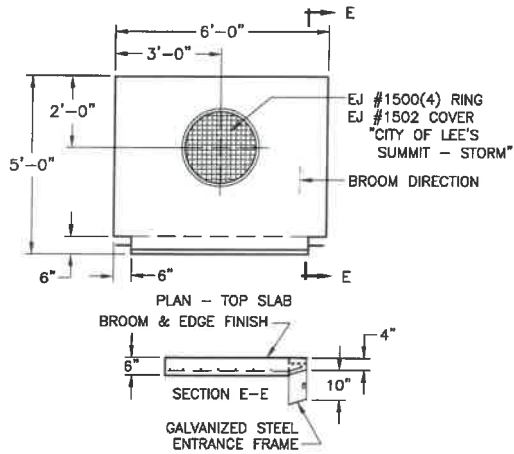
REVISIONS	
NO.	DESCRIPTION



SECTION D-D



SECTION C-C



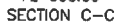
TOP SLAB REINFORCING	
#4 @ 6" O.C.E.W. WITH #4 DIAGONALS AROUND CASTING 1 1/2" CLEAR BOTTOM	
UNIT WEIGHTS	(LBS)
TOP SLAB	2,222
TOP SECTION	
MID SECTION 2	
MID SECTION 1	
BASE SECTION	5,254
BASE SLAB	4,148
TOTAL BASE WT	9,402

NOTES:
CEMENT TO BE PER ASTM C-150
REINFORCING TO BE PER ASTM A-615 GRADE 60
CONCRETE TO BE AIR ENTRAINMENT 4000 PSI @ 28 DAYS MINIMUM

 BARBOUR CONCRETE COMPANY 21421 E. TRUMAN ROAD INDEPENDENCE, MO 64256 (816) 796-3344 FAX (816) 796-3518	WALL REINFORCING: PER DRAWING R1-A #4 @ 12" O.C.E.W.	BASE REINFORCING: #4 @ 6" O.C.E.W.	KAT EXCAVATING INC THE RESIDENCES AT ECHELON - PUBLIC LEE'S SUMMIT, MO	STRUCTURE 1-3	DESCRIPTION CURB INLET	
	DATE 06/16/17	DATE 06/16/17		DATE 06/16/17	SCALE NTS	SCALE 4000 PSI
	CHECKED N/A	CHECKED N/A		CHECKED N/A	INSPECTION N/A	INSPECTION N/A

PLOT DATE: 6/16/2017

17-1315

[illegible]

TOP SLAB REINFORCING	
#4 @ 6" O.C.E.W. WITH #4 DIAGONALS AROUND CASTING 1 1/2" CLEAR BOTTOM	
UNIT WEIGHTS	(LBS)
TOP SLAB	2,222
TOP SECTION	
MID SECTION 2	
MID SECTION 1	
BASE SECTION	8,331
BASE SLAB	4,148
TOTAL BASE WT	12,480

NOTES:
CEMENT TO BE PER ASTM C-150
REINFORCING TO BE PER ASTM A-615 GRADE 60
CONCRETE TO BE AIR ENTRAINED 4000 PSI @ 28 DAYS MINIMUM



BARBOUR CONCRETE COMPANY

21421 E. TRUMAN ROAD
INDEPENDENCE, MO 64056

(816) 795-3344
FAX (816) 795-3518

WALL REINFORCING:

PER DRAWING R1-A
#4 @ 12" O.C.E.W.

BASE REINFORCING:

#4 @ 6" O.C.E.W.

KAT EXCAVATING INC
THE RESIDENCES AT ECHELON - PUBLIC
LEE'S SUMMIT, MO

STRUCTURE	2 2
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DRAWN	DATE
MB	05/16/17

CHECKED	DATE
N/A	N/A

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466
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SCALE _____ NTS _____

INSPECTION
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CLIP 34.57

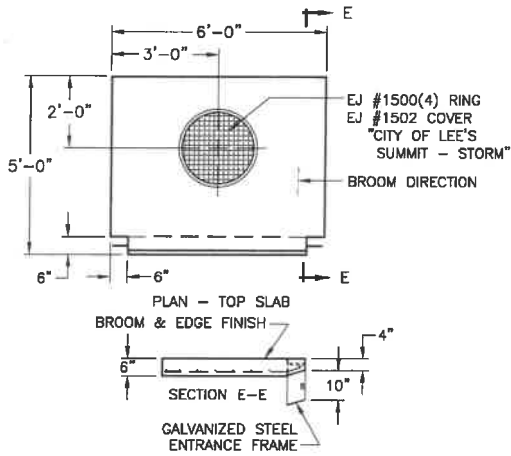
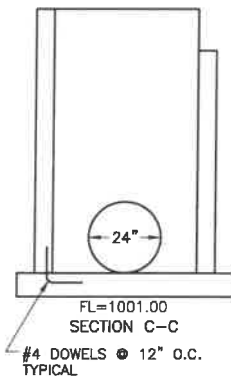
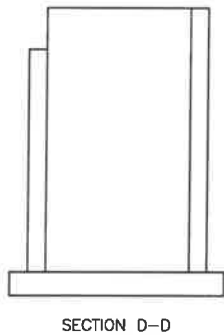
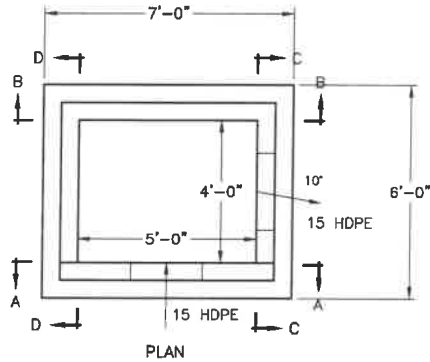
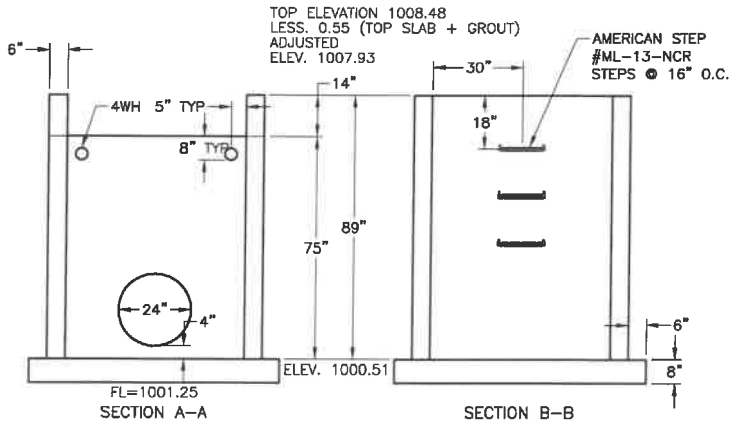
4000 PSI

SHT 1 OF 1

17-1315

PLOT DATE: 5/16/2017

17-1315 KAT	THE RESIDENCES AT ECHELON (STORM)	INDICES III	RESIDENCES AT ECHELON (STORM)	PUBLIC, PNC
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TOP SLAB REINFORCING	
#4 @ 6" O.C.E.W. WITH #4 DIAGONALS AROUND CASTING 1 1/2" CLEAR BOTTOM	
UNIT WEIGHTS	(LBS)
TOP SLAB	2,272
TOP SECTION	
MID SECTION 2	
MID SECTION 1	
BASE SECTION	10,004
BASE SLAB	4,146
TOTAL BASE WT	14,152

NOTES:
CEMENT TO BE PER ASTM C-150
REINFORCING TO BE PER ASTM A-615 GRADE 60
CONCRETE TO BE AIR ENTRAINED 4000 PSI @ 28 DAYS MINIMUM



BARBOUR CONCRETE COMPANY
21421 E. TRUMAN ROAD (816) 796-3344
INDEPENDENCE, MO 64056 FAX (816) 796-3518

WALL REINFORCING:
PER DRAWING R1-A
#4 @ 12" O.C.E.W.

BASE REINFORCING:
#4 @ 6" O.C.E.W.

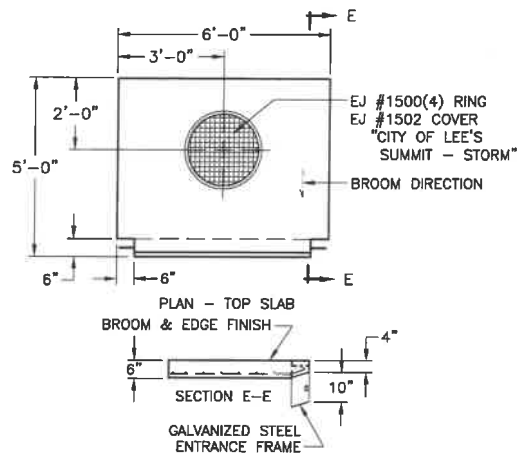
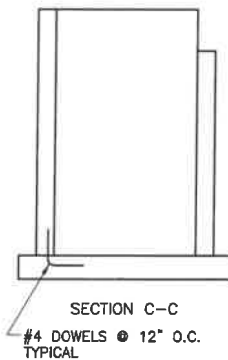
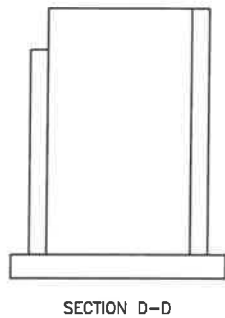
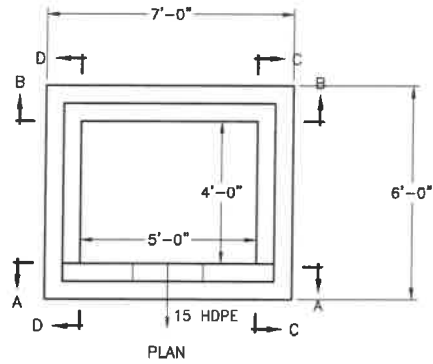
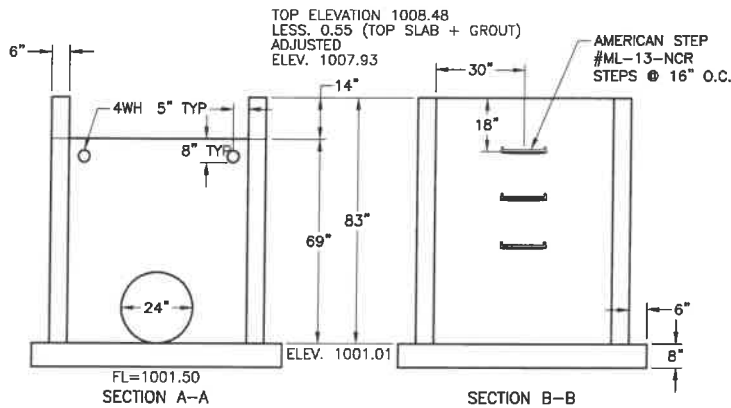
KAT EXCAVATING INC
THE RESIDENCES AT ECHELON - PUBLIC
LEE'S SUMMIT, MO

STRUCTURE: 2-3
MARK: VS DATE: 06/16/17
CHECKED: N/A DATE: N/A

DESCRIPTION: CURB INLET
SCALE: NTS
INSPECTION: N/A

WPA DESIGN: 4000 PSI
PROJECT NUMBER: 17-1315
SHT 1 OF 1

DATE: 6/16/2017



TOP SLAB REINFORCING	
#4 @ 6" O.C.E.W. WITH #4 DIAGONALS AROUND CASTING 1 1/2" CLEAR BOTTOM	
UNIT WEIGHTS	(LBS)
TOP SLAB	2,222
TOP SECTION	
WID SECTION 2	
WID SECTION 1	
BASE SECTION	9,496
BASE SLAB	4,146
TOTAL BASE WT	13,644

NOTES:
CEMENT TO BE PER ASTM C-150
REINFORCING TO BE PER ASTM A-615 GRADE 60
CONCRETE TO BE AIR ENTRAINED 4000 PSI @ 28 DAYS MINIMUM

B BARBOUR CONCRETE COMPANY
21421 E. TRUMAN ROAD (816) 796-3344
INDEPENDENCE, MO 64056 FAX (816) 796-3518

WALL REINFORCING:
PER DRAWING R1-A
#4 @ 12" O.C.E.W.

BASE REINFORCING:
#4 @ 6" O.C.E.W.

KAT EXCAVATING INC
THE RESIDENCES AT ECHELON - PUBLIC
LEE'S SUMMIT, MO

STRUCTURE		DESCRIPTION	
2-4		CURB INLET	
DESIGN	DATE	SCALE	WIX DE VERA
MB	05/16/17	NTS	4000 PSI
CHECKED	SHEET	INSPECTION	SHT 1 OF 1
N/A	N/A	N/A	

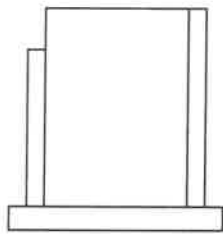
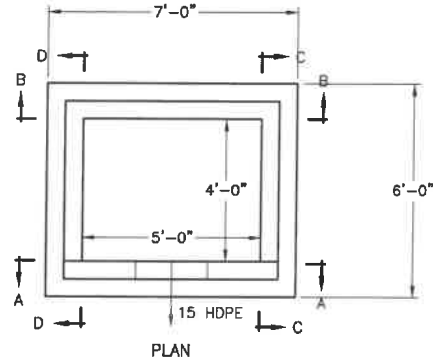
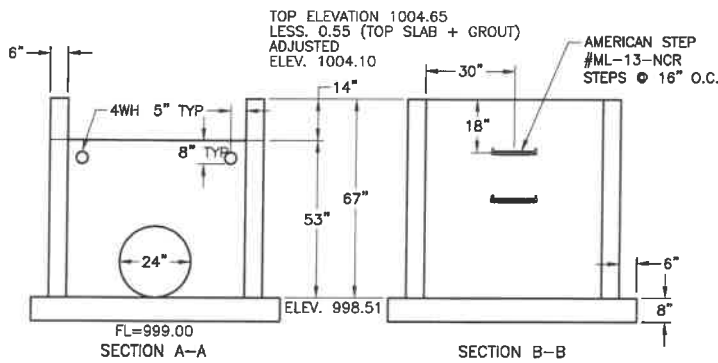
PLOT DATE: 6/15/2017

REVISIONS

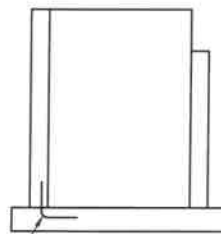
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THE RESIDENCES AT ECHELON (STORM) - PUBLIC.DWG

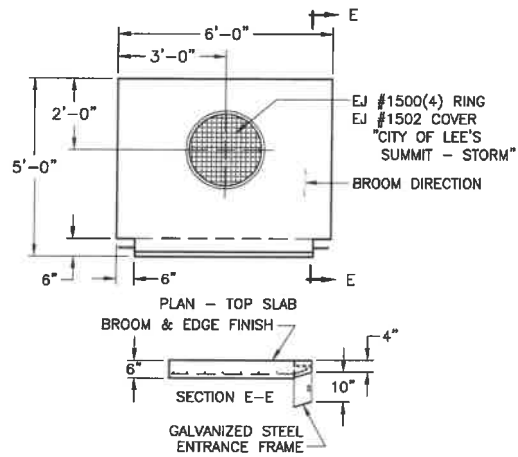
17-1315



SECTION D-D



SECTION C-C
#4 DOWELS @ 12" O.C.
TYPICAL



TOP SLAB REINFORCING	
#4 @ 6" O.C.E.W. WITH #4 DIAGONALS AROUND CASTING 1 1/2" CLEAR BOTTOM	
UNIT WEIGHTS	(LBS)
TOP SLAB	2,222
TOP SECTION	
WID SECTION 2	
WID SECTION 1	
BASE SECTION	7,520
BASE SLAB	4,148
TOTAL BASE WT	11,669

NOTES:
CEMENT TO BE PER ASTM C-150
REINFORCING TO BE PER ASTM A-615 GRADE 60
CONCRETE TO BE AIR ENTRAINED 4000 PSI @ 28 DAYS MINIMUM



BARBOUR CONCRETE COMPANY
21421 E. TRUMAN ROAD
INDEPENDENCE, MO 64056
(816) 796-3344
FAX (816) 796-3518

WALL REINFORCING:
PER DRAWING R1-A
#4 @ 12" O.C.E.W.

BASE REINFORCING:
#4 @ 6" O.C.E.W.

KAT EXCAVATING INC
THE RESIDENCES AT ECHELON - PUBLIC
LEE'S SUMMIT, MO

SIGNATURE
3-1
DATE
06/15/17

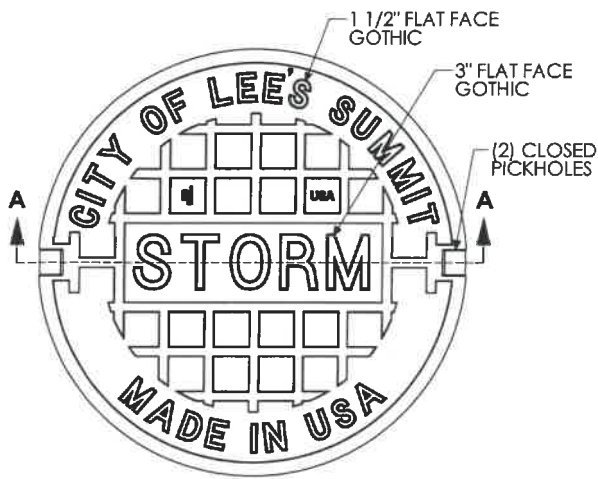
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CURB INLET
WIDENING
4000 PSI
SHEET NUMBER
17-1315

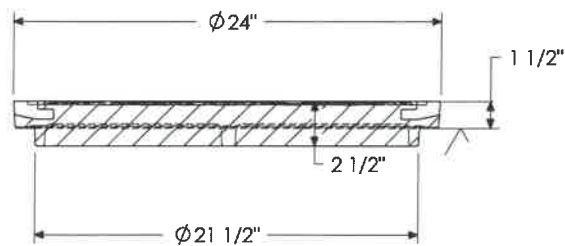
PLOT DATE: 5/16/2017



1502A Cover



BOTTOM VIEW



SECTION A-A

Product Number

00150246

Design Features

- Materials
Gray Iron (CL35B)
- Design Load
Heavy Duty
- Open Area
n/a
- Coating
Undipped
- √ Designates Machined Surface

Certification

- ASTM A48
- Country of Origin: USA

Drawing Revision

9/8/2011 Designer: JIJ
7/31/2013 Revised By: DAE

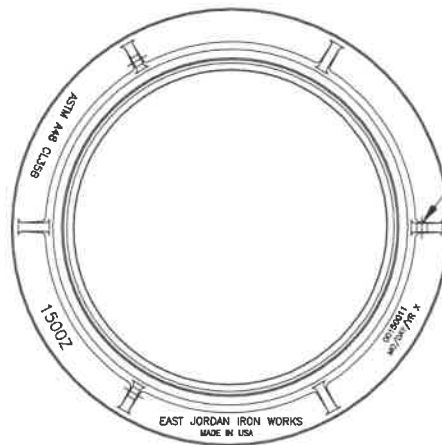
Disclaimer

Weights (lbs/kg), dimensions (inches/mm) and drawings provided for your guidance. We reserve the right to modify specifications without prior notice.

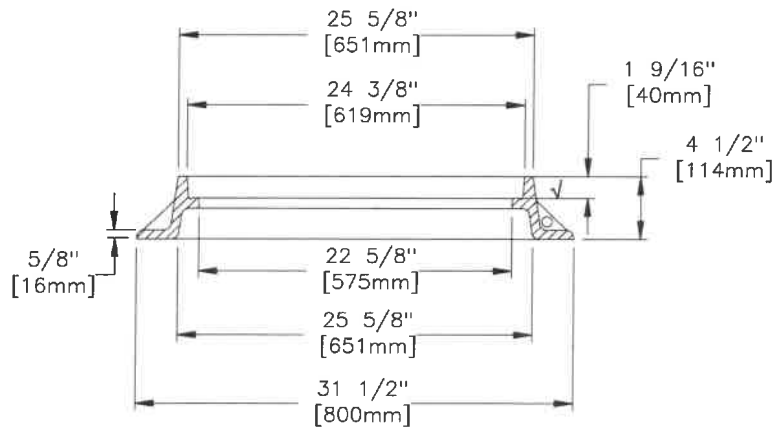
CONFIDENTIAL This drawing is the property of EJ Group, Inc. and embodies confidential information, registered marks, patents, trade secret information, and/or know how that is the property of EJ Group, Inc. Copyright © 2012 EJ Group, Inc. All rights reserved.

Contact

800 626 4653
ejco.com



PLAN VIEW



SECTION VIEW

CONFIDENTIAL: This drawing is the property of East Jordan Iron Works, Inc. and embodies confidential information, trade secret information, and/or know how that is the property of East Jordan Iron Works, Inc. © Copyright 2006 East Jordan Iron Works, Inc.

EJIW EAST JORDAN
IRON WORKS EST. 1883

800-626-4653
www.ejiw.com
MADE IN USA

PRODUCT NUMBER

00150011

CATALOG NUMBER

1500Z

FRAME

LOAD RATING

HEAVY DUTY

COATING

UNDIPPED

ESTIMATED WEIGHT

FRAME: 120 LBS 55kg

MATERIAL SPECIFICATION

FRAME - GRAY IRON
ASTM A48 CL35B

OPEN AREA
N/A

DESIGNATES MACHINE SURFACE

DRAWN
TCL

DATE
04/08/02

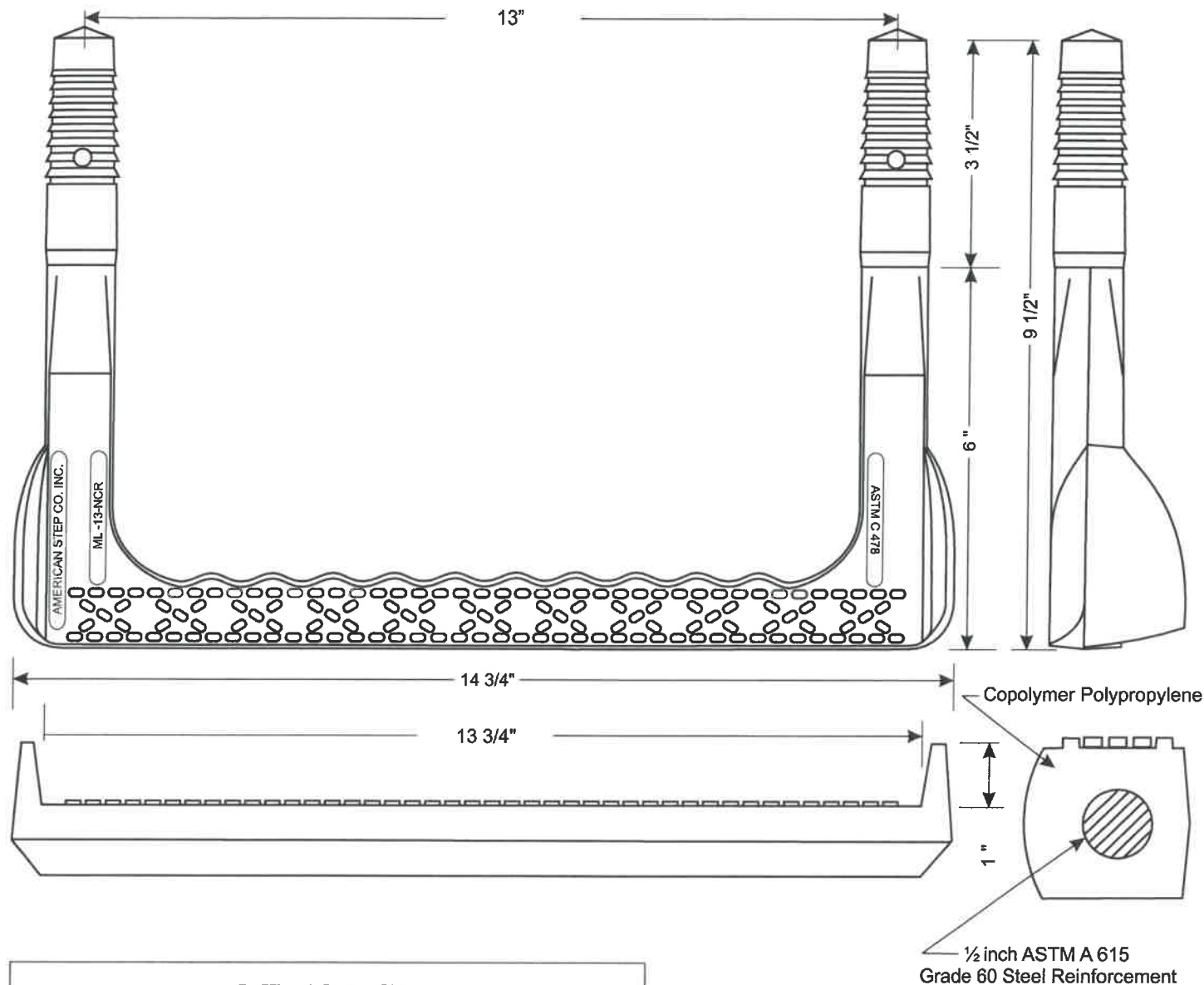
LAST REVISED
SMH

DATE
09/15/06

REFERENCE INFORMATION

00150011

ML-13-NCR



ML-13-NCR

Mechanical Lock Installation Methods
Minimum Concrete Strength Must Be 3000 psi.

Preformed Holes

Two preformed holes on 13" centers
Holes must be parallel
Diameter of holes are 1.1" tapering to 7/8" in 3 1/2" of depth

Drilled Holes

Drill two 1" holes on 13" centers with a minimum depth of 3 3/4"
Use 1" masonry bit for drilling.
Holes must be parallel.

Drive step with sledge hammer until both legs are completely seated

*This step meets or exceeds ASTM C 478 and OSHA Standards
when properly installed.*



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