

DIVISION 33 - UTILITIES

33 00 00 - Utilities

PART 1: GENERAL

1.01 SCOPE OF STANDARD

- A. Texas State University recognizes that project conditions and requirements vary, thus precluding the absolute adherence to the items identified herein in all cases. However, unless there is adequate written justification, it is expected that these guidelines will govern the design and specifications for Texas State University projects.
- B. All utility connections to the various campus utility distribution systems shall be accurately located by dimensions or coordinates. Depth of piping shall be shown and inverts must be shown at manholes and other critical points.
- C. Record documents are the basis for the University's BIM to FM Program. The BIM program implements the required Construction Operations Building information exchange (COBie). COBie is the required process of data collection by the architect/engineer and the contractor to handoff a data file at project closeout that is consumable by the University's CMMS or CAFM software.
- D. All site utilities shall be included as part of the BIM(s). All site utilities shall be shown accurately in terms of size, depth and location.
- E. Verification of design to ensure the sanitary sewer system is not cross connected to stormwater, rainwater collection or guttering inside and outside of building

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Section 31 00 00 Earth Work
- B. Section 22 00 00 Plumbing
- C. Section 26 00 00 Electrical

PART 2: SCOPE OF WORK

2.01 SANITARY SEWER UTILITIES

- A. Refer to Section 22 00 00 – Plumbing General Systems Design

2.02 WATER UTILITIES

- A. Refer to Section 22 00 00 – Plumbing General Systems Design

2.03 STORM DRAINAGE UTILITIES

- A. Refer to Sections 22 00 00 – Plumbing and Section 31 00 00 Earth Work

2.04 ELECTRICAL DISTRIBUTION (Underground Ductbanks)

- A. Refer to Section 26 00 00 – Electrical

2.05 MANHOLE COVERS

- A. Texas State University has standardized utility manhole covers to be used on all underground utility access on campus. All new manhole cover installations must be heavy duty gray iron as manufactured by East Jordon Iron Work (EJ) or approved equal. Standard thickness is used for pedestrian and non-vehicular application. For manholes in vehicular traffic roadways and drives a DOT rated thickness is required.
- B. Locking system consisting of security driven bolt and spring loaded pistons required.
- C. Refer to the attached specification sheet for MANHOLE COVER MARKING STANDARDS.

PART 3: EXECUTION**3.01 N/A**



V1420Z1PT V1430APT Assembly

PRELIMINARY

Submittal Number

NPR14-1918C

Design Features

-Materials

Frame
Gray Iron (CL35B)

Cover
Gray Iron (CL35B)

-Design Load
Heavy Duty

-Open Area
n/a

-Coating
Undipped

-√ Designates Machined Surface

Certification

-ASTM A48

-Country of Origin: USA

Major Components

41420015

4143000XX

Drawing Revision

05/12/2014 Designer: MAH

Revised By:

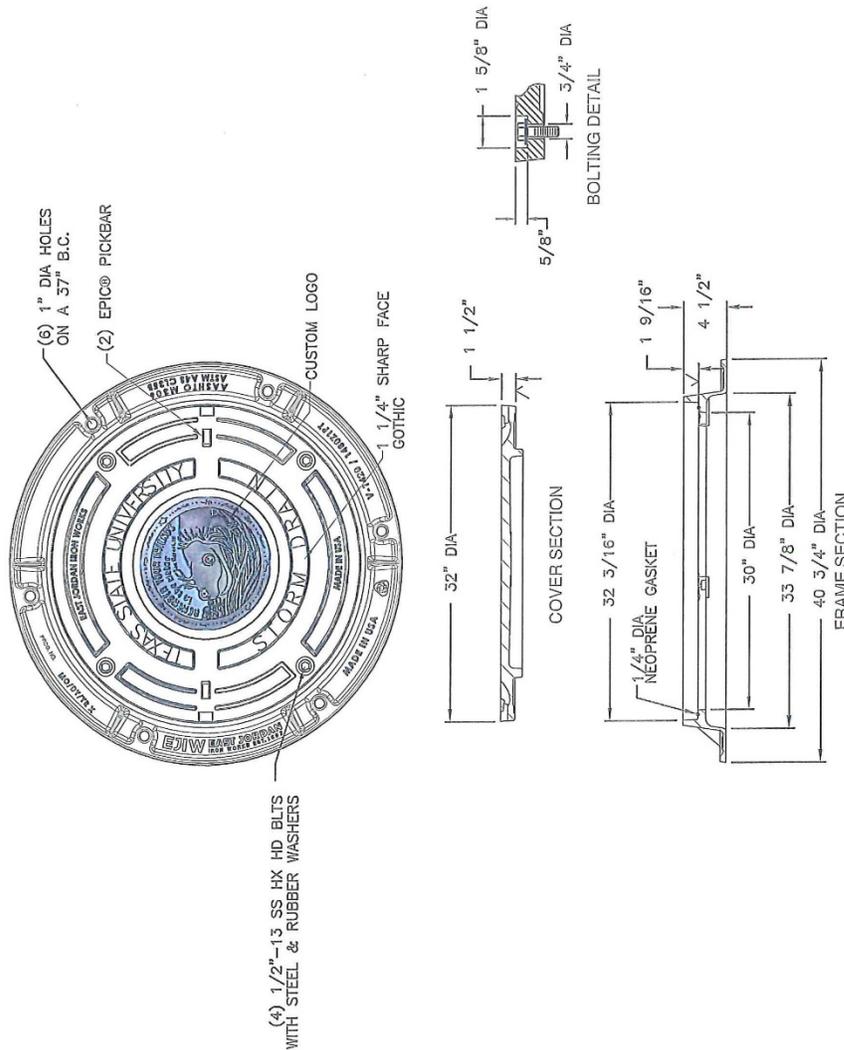
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PRELIMINARY

Submittal Number
NPR14-1918E

Design Features

- Materials
Cover
Ductile Iron (70-50-05)

- Design Load
-Heavy Duty
- Open Area
n/a
- Coating
Undipped
- √ Designates Machined Surface

Certification

- ASTM A536
- Country of Origin: USA

Major Components

001854XX

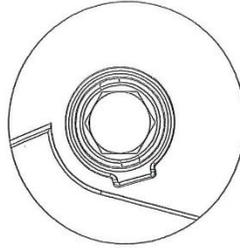
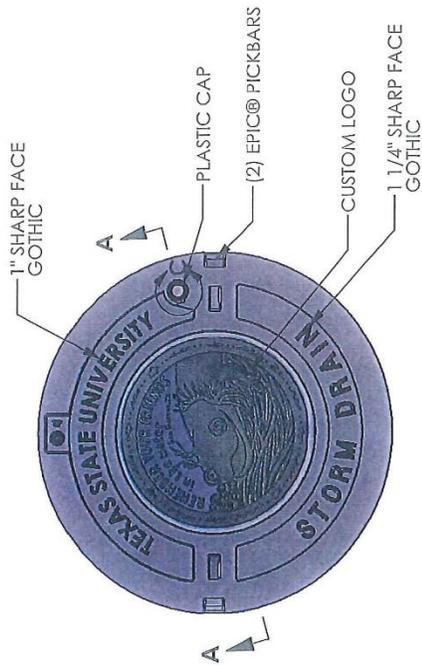
Drawing Revision

5/12/2014 Designer: MAH
Revised By:

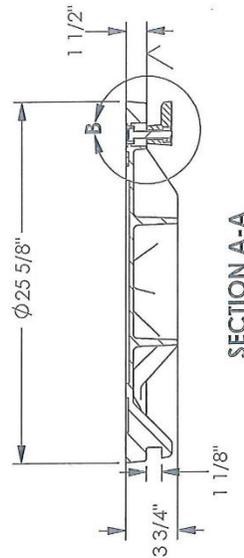
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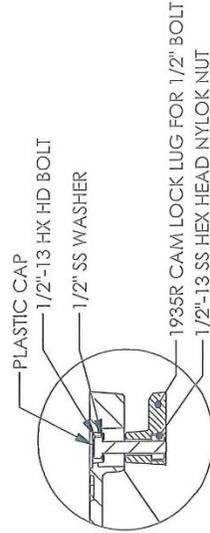
1854A4 Assembly



DETAIL C
SCALE 1:2



SECTION A-A



DETAIL B
SCALE 1:6



Product Number
41430121A01
Design Features
-Materials
Frame
Gray Iron (CL35B)
Cover
Gray Iron (CL35B)

-Design Load
Heavy Duty
-Open Area
n/a
-Coating
Undipped
-√ Designates Machined Surface

Certification
-ASTM A48

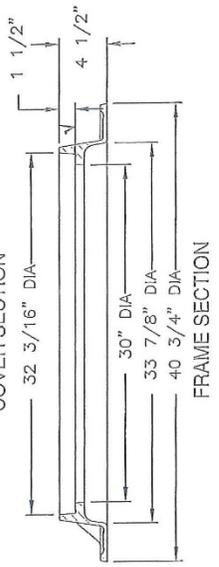
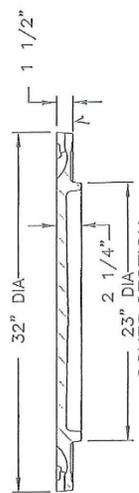
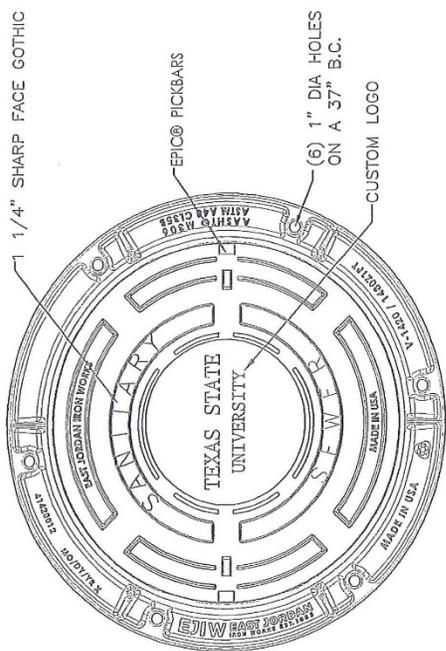
-Country of Origin: USA

Major Components
41420012
41430121

Drawing Revision
10/19/2011 Designer: JJJ
5/6/2013 Revised By: DJH

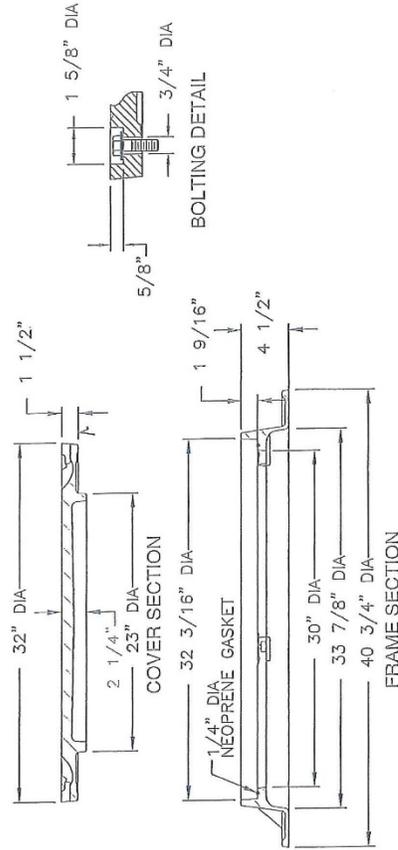
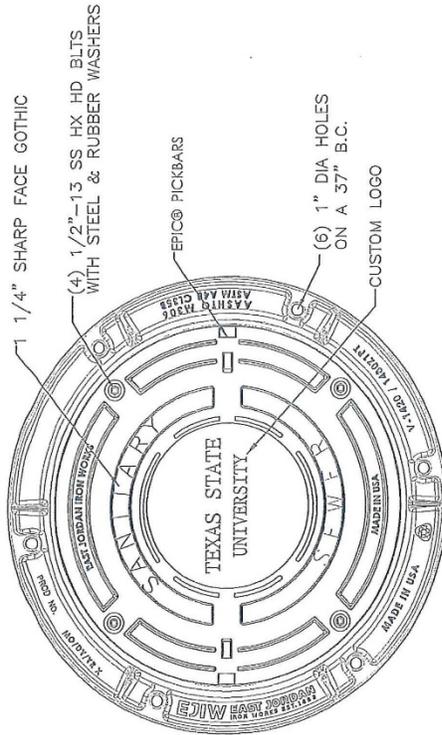
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V1420 V1430 Assembly





V1420 V1430 Assembly



Product Number
41430122W/01

Design Features
-Materials
Frame
Gray Iron (CL35B)
Cover
Gray Iron (CL35B)

-Design Load
Heavy Duty
-Open Area
n/a
-Coating
Undipped
-√ Designates Machined Surface

Certification
-ASTM A48

-Country of Origin: USA

Major Components
41420015
41430122

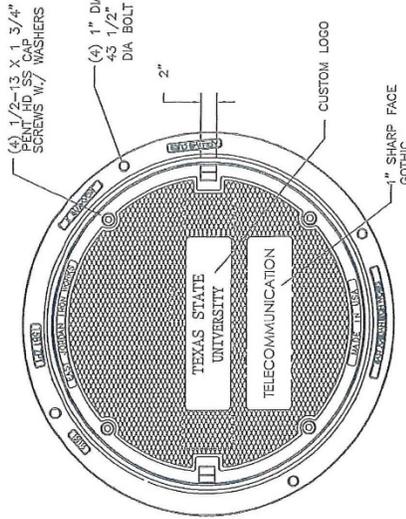
Drawing Revision
10/19/2011 Designer: JU
5/6/2013 Revised By: DJH

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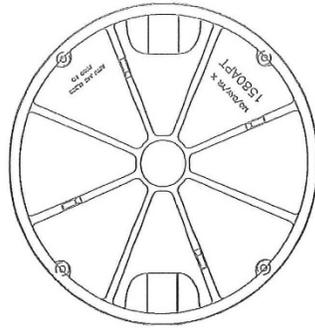
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1581ZPT 1580APT Assembly



(4) 1 1/2" x 3/4" CAP SCREWS W/ WASHERS
 (4) 1" DIA HOLES ON 43 1/2" DIA BOLT CIRCLE.
 2"

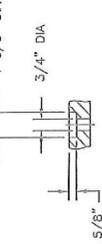


Product Number
00158287W01

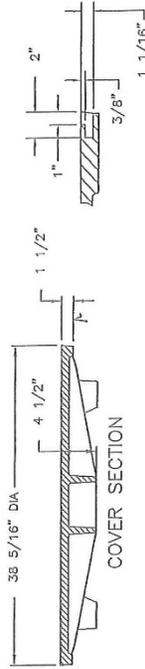
Design Features

- Materials
Frame Gray Iron (CL35B)
Cover Gray Iron (CL35E)

- Design Load
Heavy Duty
- Open Area
n/a
- Coating
Undipped
- √ Designates Machined Surface

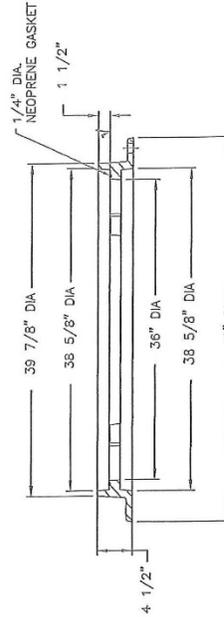


BOLTHOLE DETAIL



COVER SECTION

PICKHOLE DETAIL



GROOVE DETAIL

Certification

- ASTM A48
- Country of Origin: USA

Major Components

001583115
00158287

Drawing Revision SDC
05/21/2012 Designer: SDC
05/06/2013 Revised By: DUH

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Product Number
00158288401
Design Features
-Materials
Frame
Gray Iron (CL355)
Cover
Gray Iron (CL355)

-Design Load
Heavy Duty
-Open Area
0/6
-Coating
Undipped
-√ Designates Machined Surface

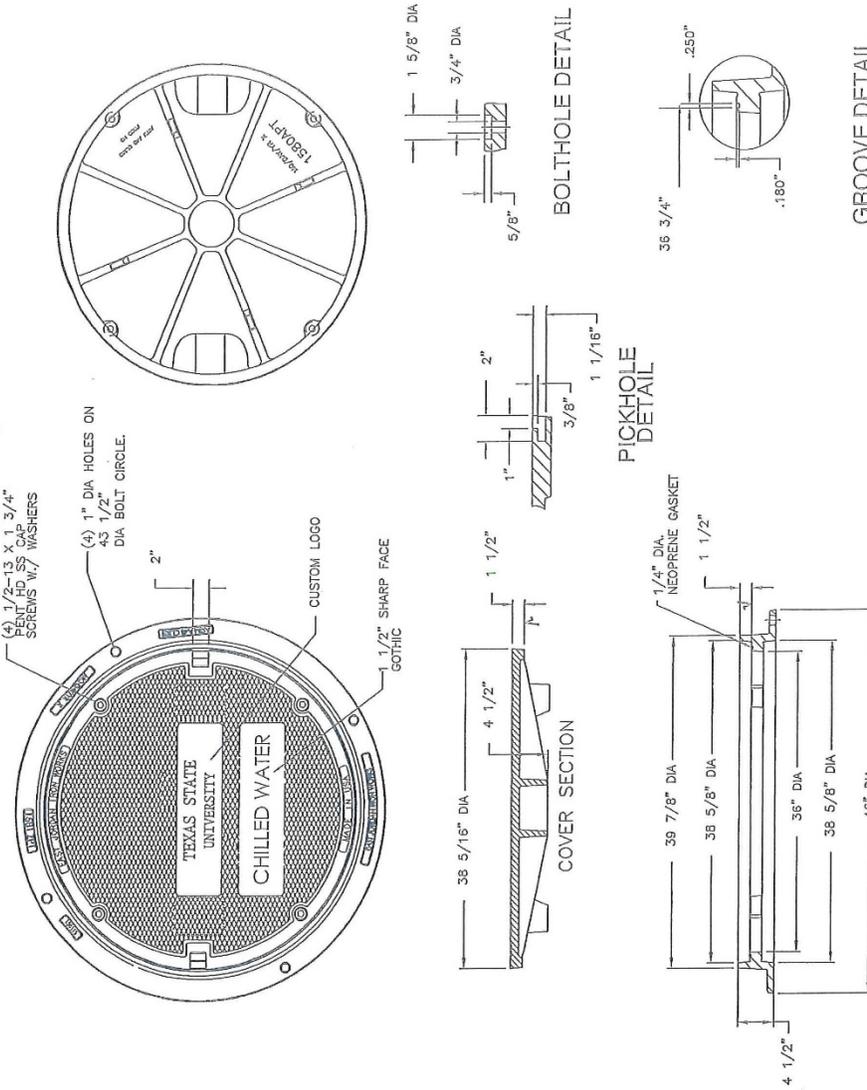
Certification
-ASTM A48
-Country of Origin: USA
Major Components
00158115
00158288

Drawing Revision
05/21/2012 Designer: SOC
03/08/2013 Revised By: DJH

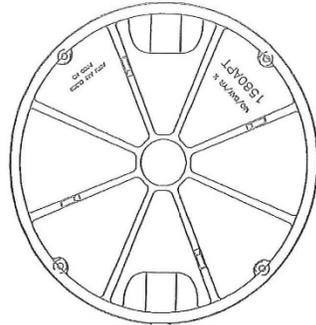
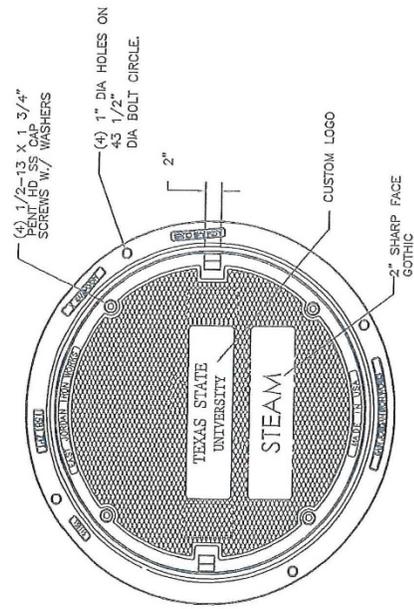
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1581ZPT 1580APT Assembly

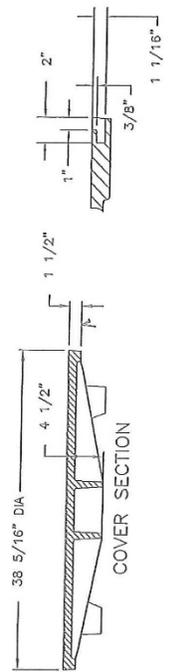
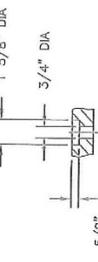


1581ZPT 1580APT Assembly

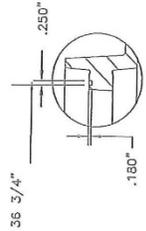
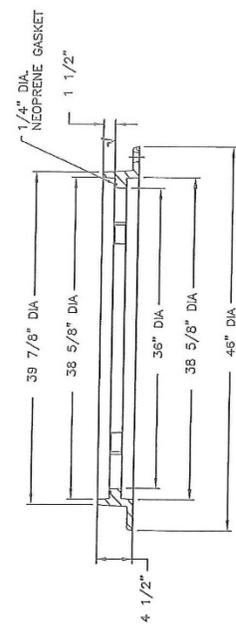


Product Number
 00158289W01
 Design Features
 -Materials
 Frame
 Cover
 Gray Iron (CL35B)
 Gray Iron (CL35B)

-Design Load
 Heavy Duty
 -Open Area
 n/a
 -Coating
 Undipped
 -√ Designates Machined Surface



PICKHOLE DETAIL



Certification
 -ASTM A48
 -Country of Origin: USA
 Major Components
 00158115
 00158289

Drawing Revision
 05/21/2012 Designer: SDC
 05/06/2013 Revised By: DJH

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