

KEYNOTES:

- ① CONSTRUCT 7" DIA. MANHOLE PER DETAILS 1 OR 2, SHEET 31
- ④ CONSTRUCT 6" DIA. MANHOLE WITH CONCRETE BASE PER RWRD STANDARD DETAIL 200
- ⑤ CONSTRUCT CONCRETE COLLAR PER RWRD STANDARD DETAIL 212
- ⑥ CONSTRUCT CONCRETE COLLAR PER RWRD STANDARD DETAIL 213
- ⑦ PAVEMENT PATCH PER PAG STANDARD DETAIL 216. SEE DETAILS SHEET 25
- ⑨ CONSTRUCT 6" DIA. MANHOLE OVER EXISTING SEWER PER RWRD STANDARD DETAIL 303

NOTES:

1. ALL STATIONING IS ALONG CENTERLINE OF SEWER MAIN UNLESS OTHERWISE NOTED.
2. JACK & BORE METHODS FOR EACH BORING TO BE PER SPECIAL PROVISION PAGE 800. BORROW CONTRACTOR TO PROVIDE A DETAILED GEOPHYSICAL SURVEY TO DETERMINE THE BEST BORING METHOD TO REDUCE RISK TO EXISTING UTILITIES AND TO ACHIEVE LINE AND GRADE.
3. CONTRACTOR SHALL FIELD VERIFY ELEVATIONS PRIOR TO START OF PIPE CONSTRUCTION.

2380 GRADE 10+00 11+00 12+00 13+00 14+00

0+00 11+00 12+00 13+00 14+00

CONSTRUCTION

**PIMA COUNTY REGIONAL
WASTEWATER RECLAMATION
DEPARTMENT**

**SEWER AUGMENTATION SEWER
REPLACEMENT PROJECT
(3SER10)
OSBRE AVENUE
PLAN AND PROFILE SHEET**

G-2016-014
1010. FEBRUARY 29, 2016
SCALE: HORIZ. ± 1° = 60'
VERT. ± 1° = 6'
SHEET NO.: 22 of 50

2380 GRADE: 10+00 11+00 12+00 13+00 14+00

2380 10+00 11+00 12+00 13+00 14+00

2380

2370

2360

2350

2340

NEW MANHOLE STA. 140-0000
INV. E = 2355.21 INV. N = 2355.31 INV. S = 2355.39

8" SEWER STA. 140-0000 INV. E = 2355.81 INV. N = 2355.91 INV. S = 2356.11

EXISTING GRADE @ 8" SEWER MAIN

NEW MANHOLE STA. 140-0000 INV. E = 2355.81 INV. N = 2355.91 INV. S = 2356.11

SCOUR DEPTH 2' MIN 0.61'
1' MIN 0.51' DEPTH REMOVED

362.28 LF 8" SEWER @ 0.64% (367.78 LF MH-MH)

60 LF 18" CASING

6" BARE DP CPT LINED

44.32 LF 8" SEWER @ 0.64% (48.32 LF MH-MH)

2370

2360

2350

2340

NEW MANHOLE STA. 123-130.22
INV. SE = 2350.00
8" SEWER
INV. EL = 2360.6

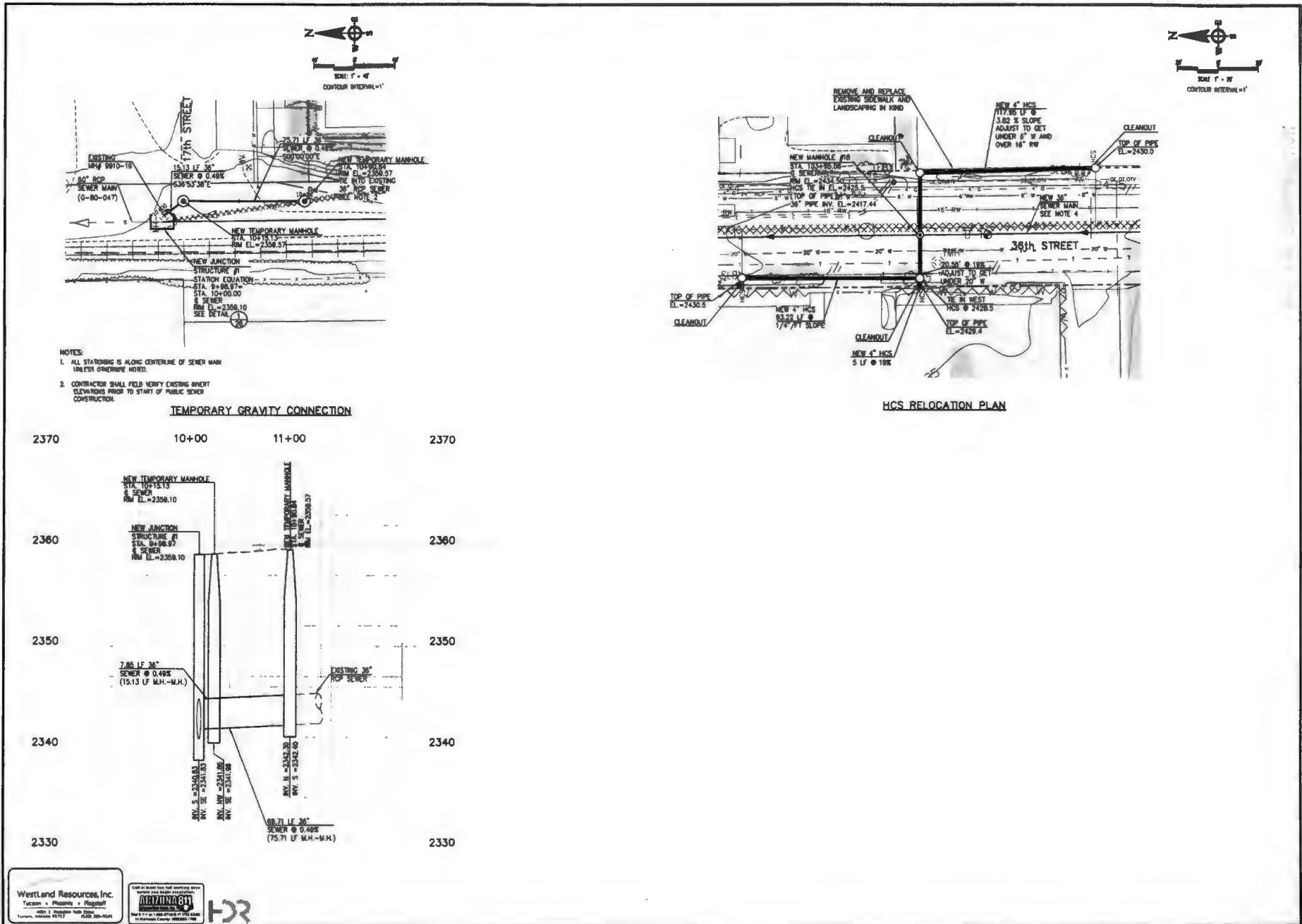
238.22 LF 8" SEWER @ 0.7% (2360.22 M.H.-M.H.)

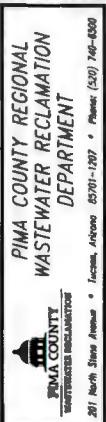
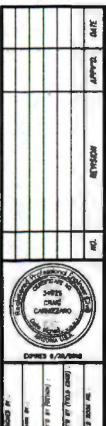
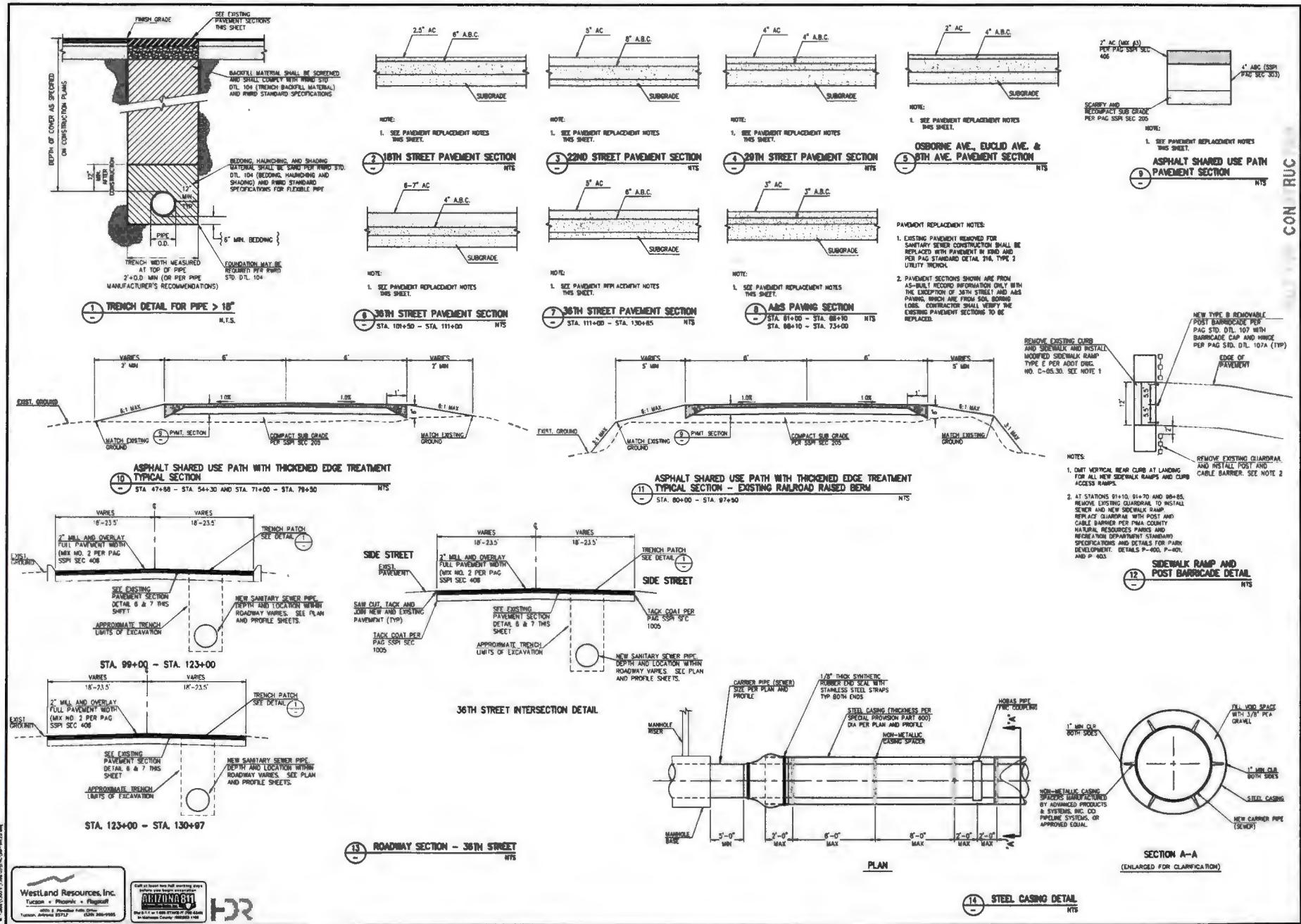
192.43 LF 6" SEWER @ 0.51%
(196.43 LF M.H.-M.H.)

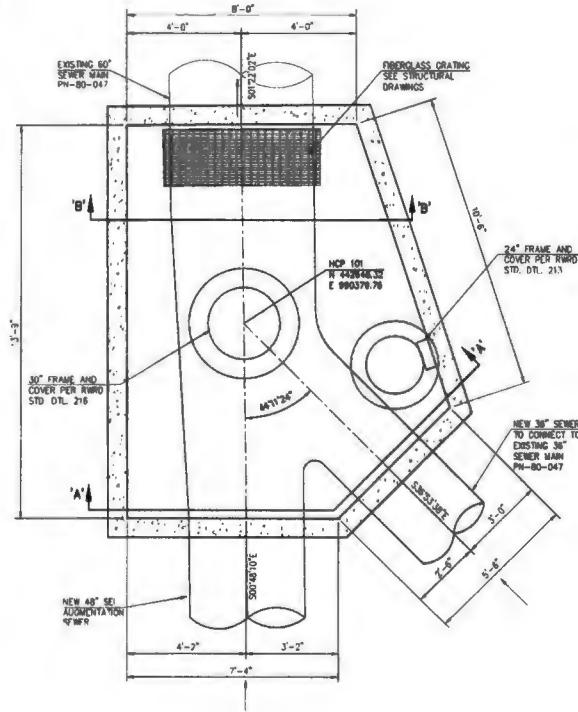
INV. SE = 2350.11

INV. SE = 2350.17

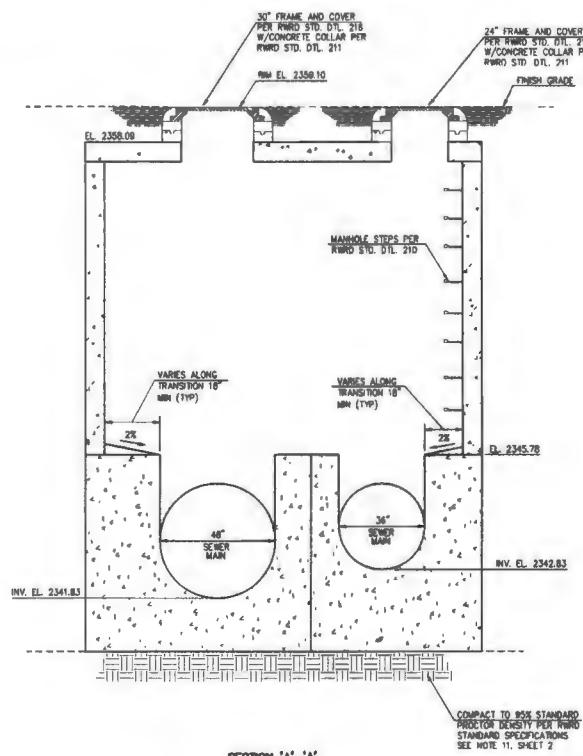
2370
2380
2390
2340



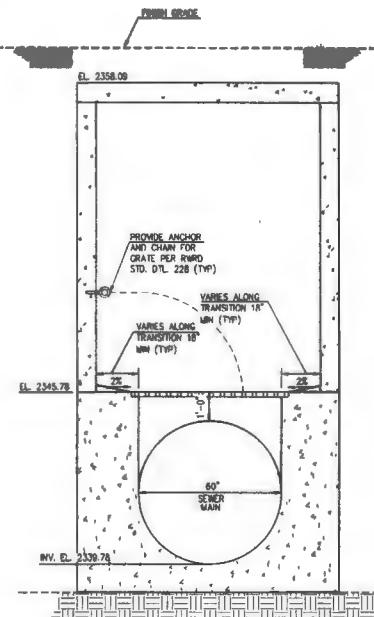




PLAN VIEW



SECTION 'A'-'A'



SECTION 'B'

COMPACT TO 95% STANDARD
PROCTOR DENSITY PER RWWD
STANDARD SPECIFICATIONS
SEI NOTE 11, SHEET 2

1 JUNCTION STRUCTURE (1)
- STA. 9+98.97 1" x 2"

NOTE:
FOR STRUCTURAL DESIGN SEE SHEET 30

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122

SEWER AUGMENTATION
REPLACEMENT PROJECT
(3SER3)
JUNCTION STRUCTURE #1
CONNECTION DETAILS

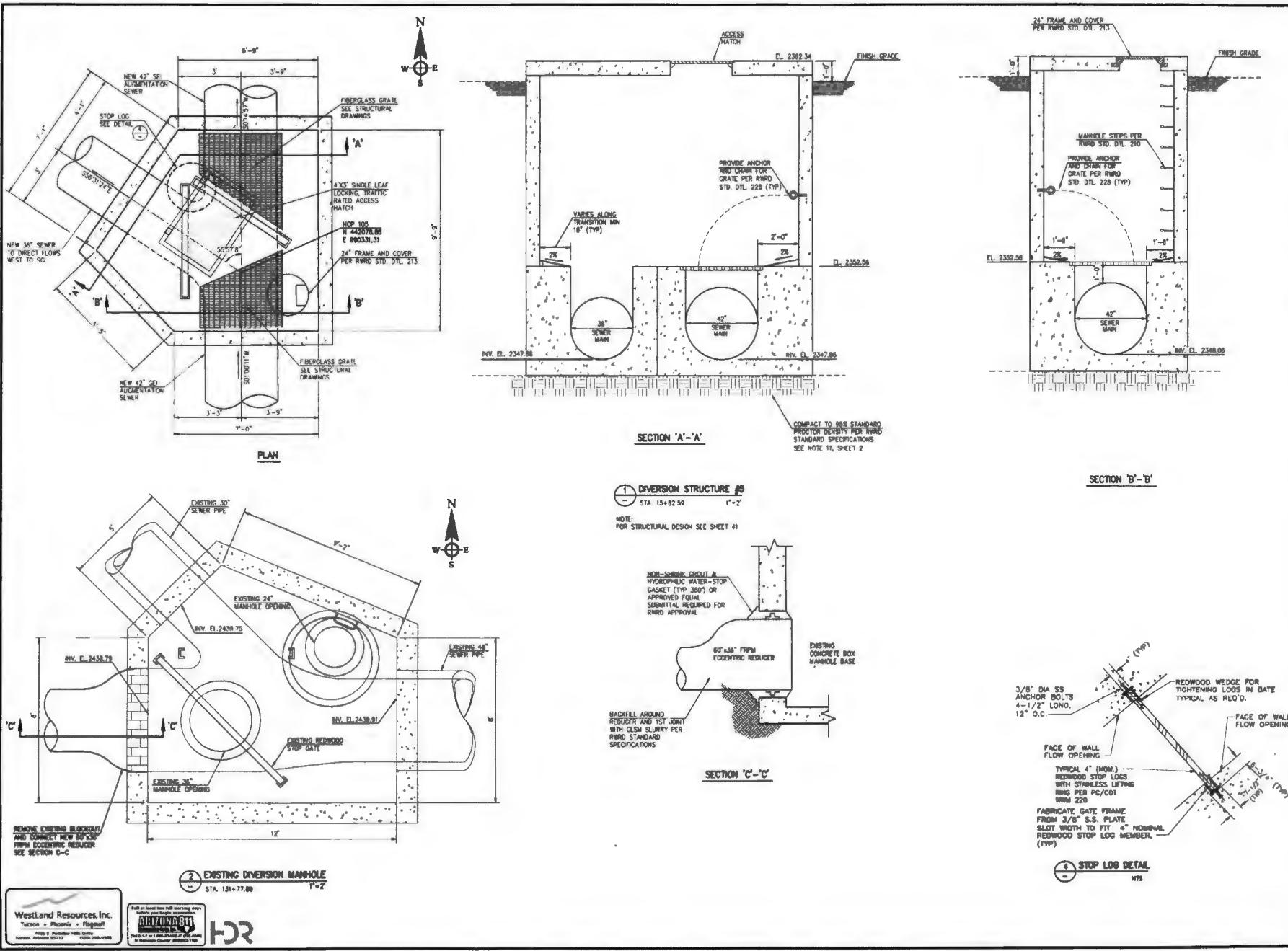
9-2018-014

Date: FEBRUARY 22, 2016

SC 1

VERT 2

26 or 50

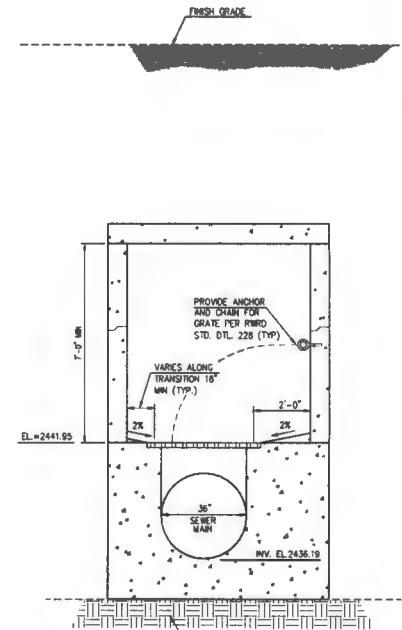
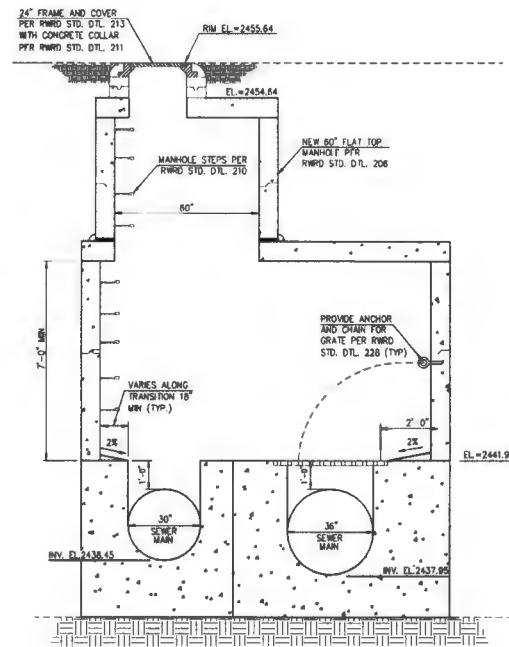
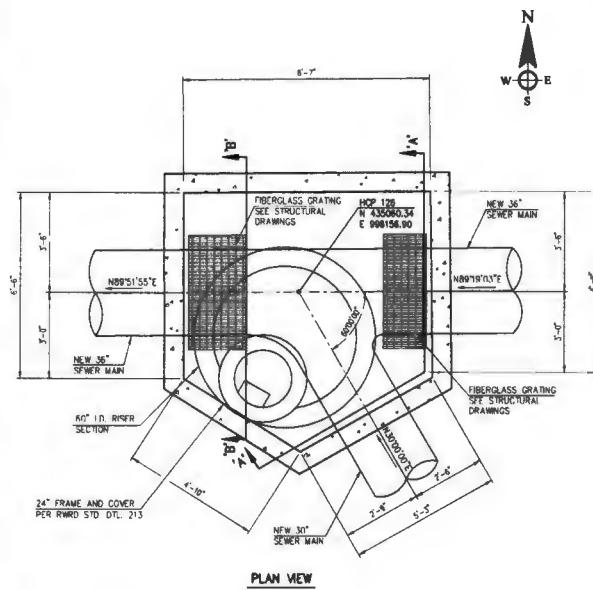


CONSTRUCTION

**PIMA COUNTY REGIONAL
WASTEWATER RECLAMATION
DEPARTMENT**

**SEI AUGMENTATION SEWAGE
REPLACEMENT PROJECT
(3SETS)
DIVERSION STRUCTURE
CONNECTION DETAILS**

G-2010-014	
Date: FEBRUARY 28, 2016	
Scale:	HORIZ. 1
	VERT. 1
SHEET NO.:	
28 of 50	



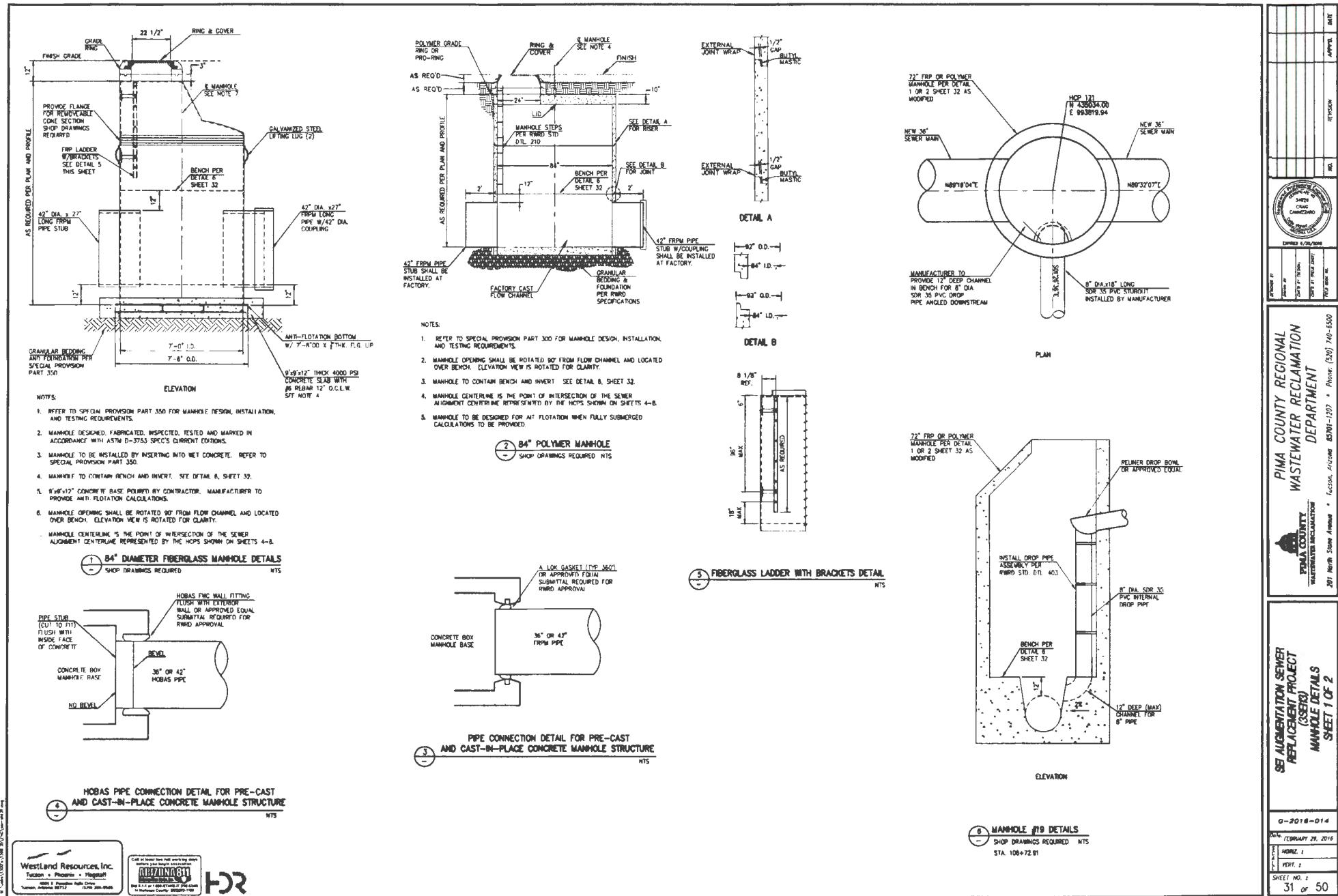
SECTION 'A'-'A'

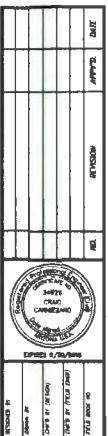
1 JUNCTION STRUCTURE #24
STA. 130+24.28 1' = 2'
NOTE: FOR STRUCTURAL DESIGN SEE SHEET 4



142







AUGMENTATION SEWER
REPLACEMENT PROJECT
(3SETS)
MANHOLE DETAILS
SHEET 2 OF 2

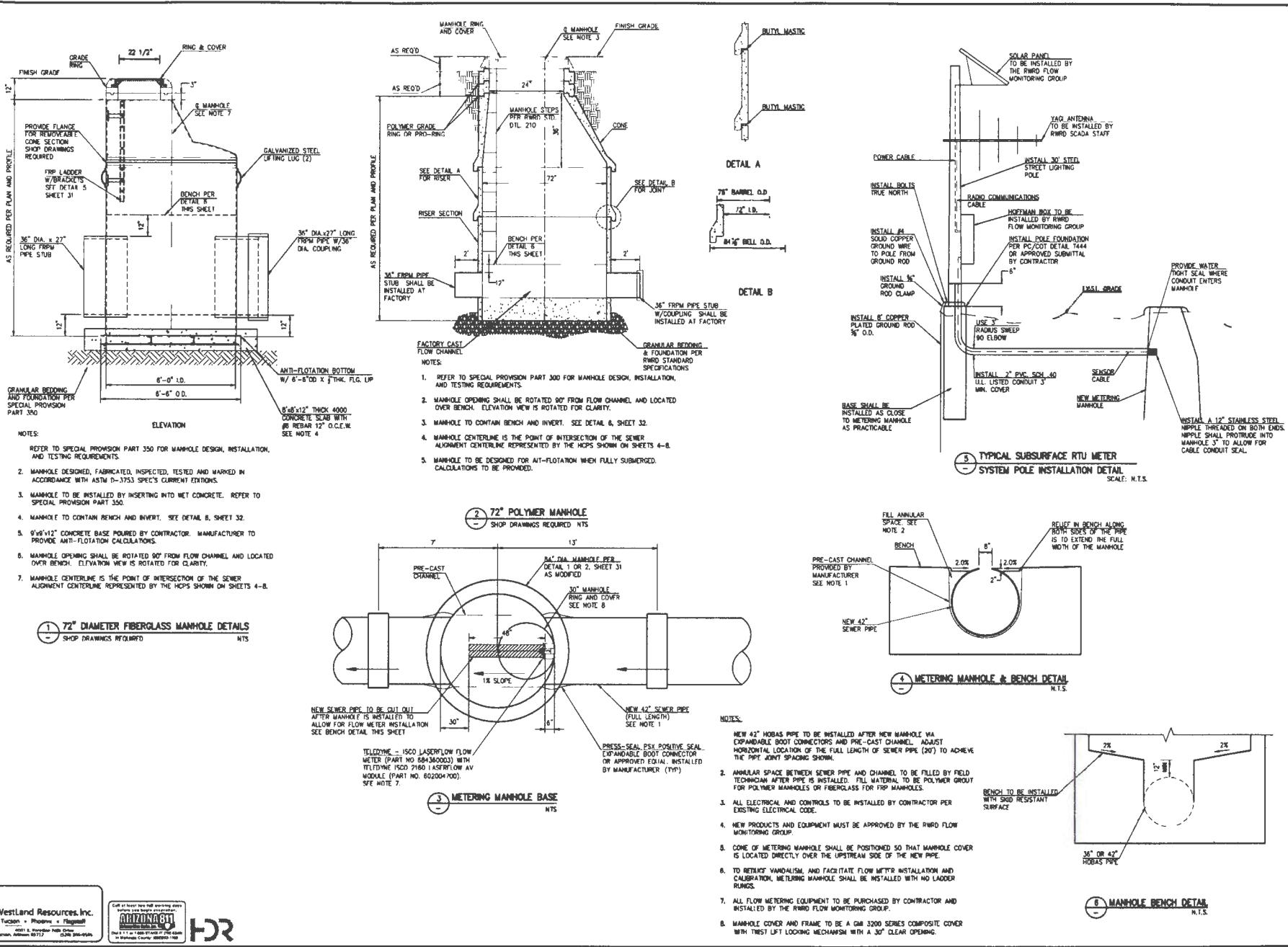
G-2014-014

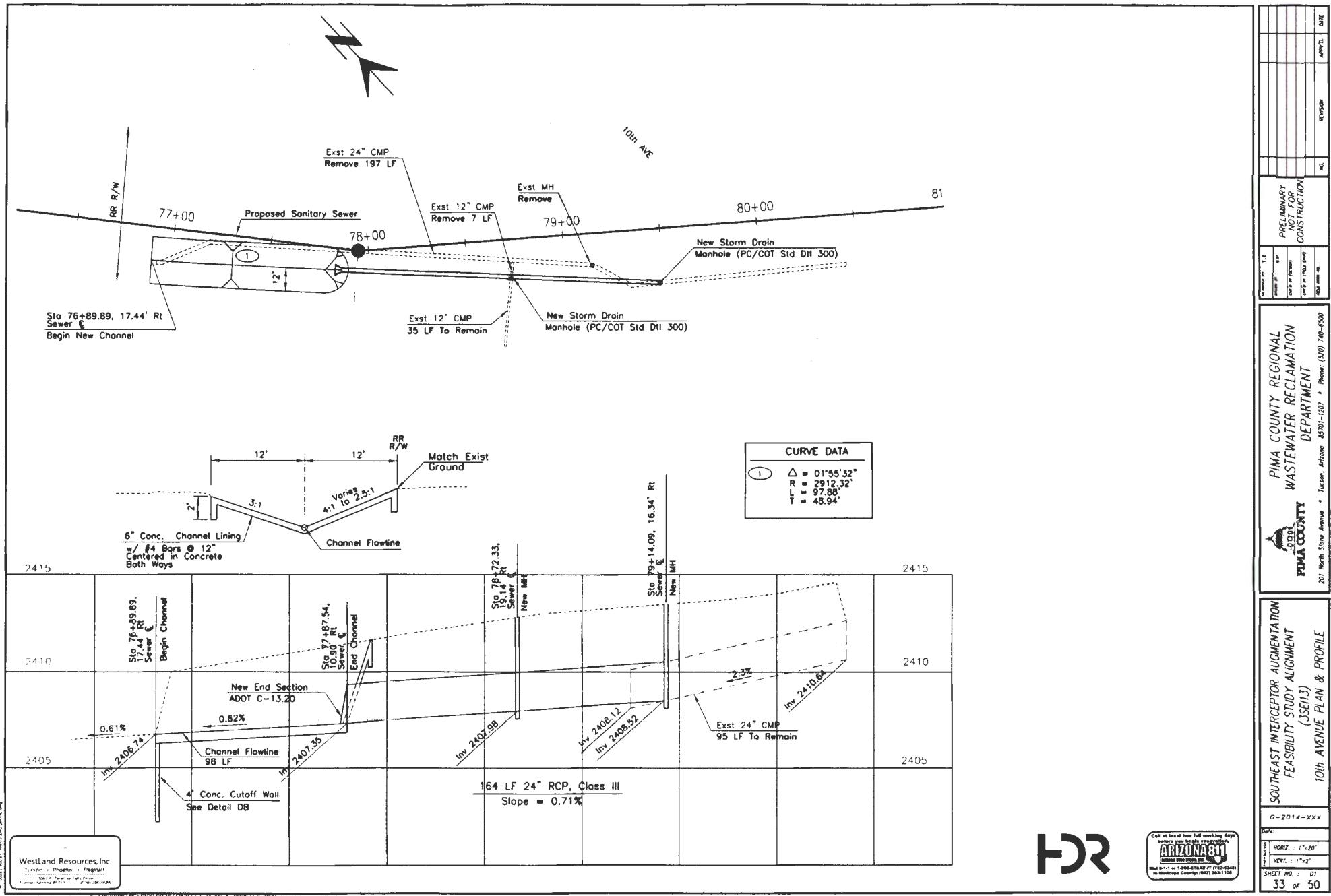
Date: FEBRUARY 29, 2016

MORIZ

SHEET NO.

32 or 50



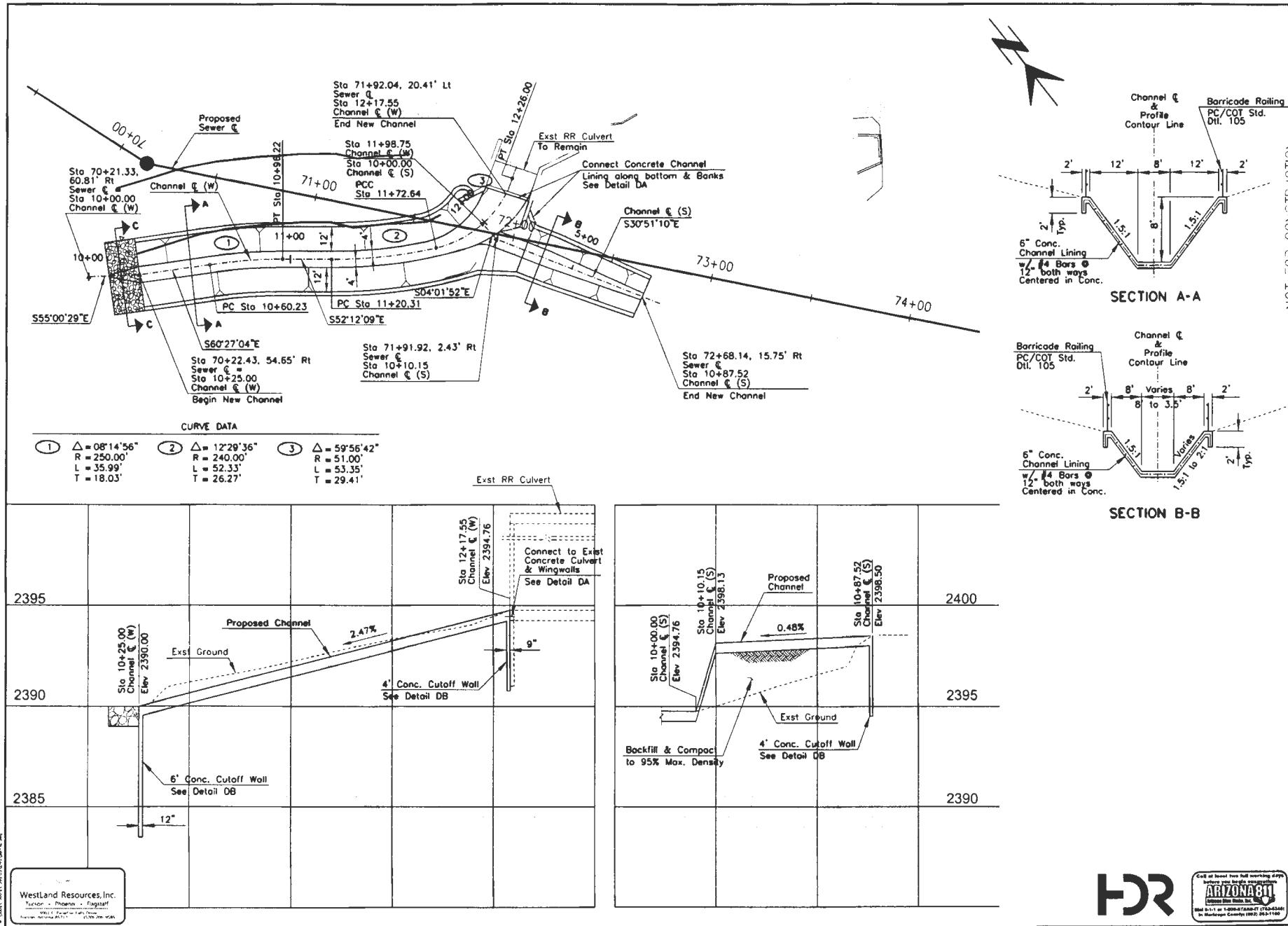


13



EAST INTERCEPTOR AUGMENTATION FEASIBILITY STUDY ALIGNMENT (3SE13)

10TH AVENUE PLAN & PROFILE



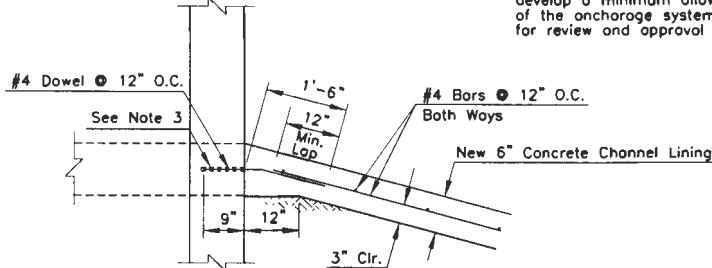
Section	Length	Width	Depth	Material	Notes
A-A	12'	8'	12'	PC/COT Std. Dtl. 105	90 %

Section	Length	Width	Depth	Material	Notes
B-B	8'	8' to 3.5'	1.5' to 2'	PC/COT Std. Dtl. 105	90 %

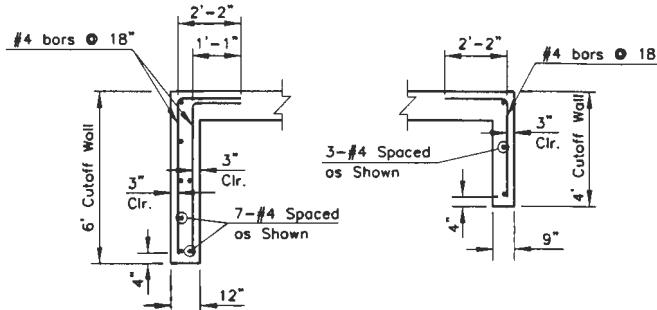
Section	Length	Width	Depth	Material	Notes
SE	12'	8'	12'	PC/COT Std. Dtl. 105	90 %

NOTES:

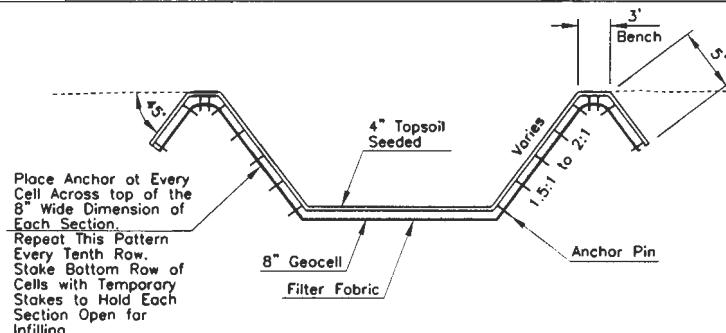
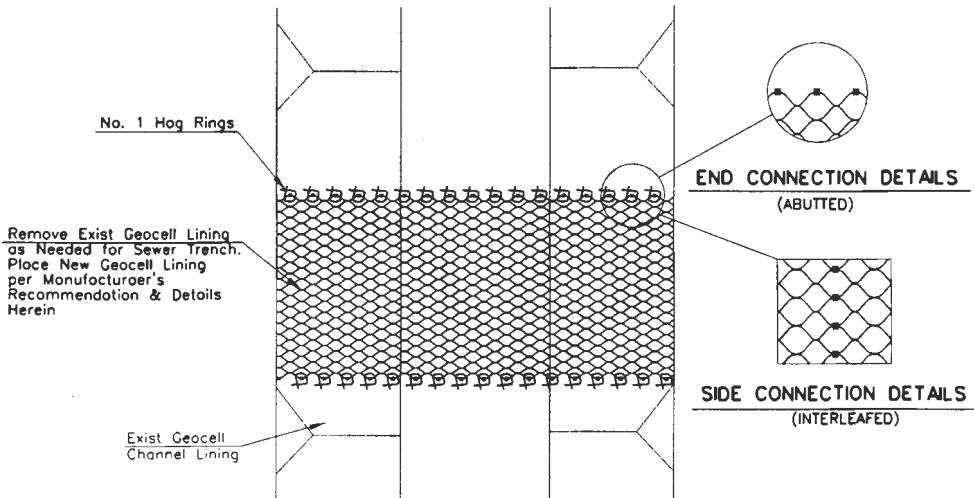
1. All reinforcing steel shall conform to ASTM A615, Grade 60.
2. Channel lining dowel shall be included in the bid price for the concrete channel lining.
3. Dowels shall be epoxy grouted into clean holes using approved epoxy and shall be installed in accordance with the epoxy manufacturer's recommendations. Epoxy grouted dowels shall develop a minimum allowable tension value of 4,800 lbs. Details of the anchorage system shall be submitted to the Engineer for review and approval prior to installation.



DETAIL DA
CONCRETE CHANNEL LINING TIE



DETAIL DB
CONCRETE CUTOFF WALLS



GEOCELL NOTES:

1. Adjacent sections of Geocell are fastened together using 1/2" galvanized staples or No. 1 hog rings.
2. The top edges of adjacent cell walls should be held flush when fastening.
3. Side connections between expanded Geocell sections should be interleaved as shown in side connection. Welded edge seams should be aligned when fastening.
4. End connections between Geocell sections should be butted as shown in end connection detail. The longitudinal centerlines of abutting external cells should be aligned and fastened at the cell wall contact point.
5. Use a No. 4 rebar stake with plastic hook cap to anchor the Geocell section to slope.
6. Geocell cells are to be filled with riprap, D50=4". Replace topsoil and seed.

DETAIL DC
GEOCELL DETAIL

SOUTHEAST INTERCEPTOR AUGMENTATION
FEASIBILITY STUDY ALIGNMENT
(3SE13)
DRAINAGE DETAILS

G-2014-XXX
Date:
HORZ. : 1"=20'
VERT. : 1"=2'
SHEET NO. : 03
35 of 50



Call or email your full working day
before you begin investigation
ARIZONA 811
Arizona 811 Inc.
811 or 1-800-811-8111
Pima County (520) 745-1100

WestLand Resources, Inc.
Tucson • Phoenix • Flagstaff
800-1-Flagstaff 1-800-8111
Tucson 800-1-8111
Phoenix 800-1-8111

Page	1-12	13-24	25-36	37-48
			90 %	

NOT FOR CONSTRUCTION

Page	1-12	13-24	25-36	37-48

PIMA COUNTY REGIONAL
WASTEWATER RECLAMATION
DEPARTMENT
PIMA COUNTY
1201 North Stone Avenue • Tucson, Arizona 85701-1201 • Phone: (520) 745-4500
201 North Stone Avenue • Tucson, Arizona 85701-1201 • Phone: (520) 745-4500

RECTANGULAR OPENING DETAIL

CIRCULAR OPENING DETAIL

VERTICAL ELL

VERTICAL TEE

FLAT TEE

VERTICAL CROSS

FLAT CROSS

FLAT ELL

NOTES:

1. PROVIDE ADDITIONAL REINFORCING THE SAME SIZE AS DISCONTINUOUS REINFORCING. THE NUMBER OF TYPICAL BARS IN EACH DIRECTION SHALL BE EQUAL TO OR ONE GREATER THAN THE NUMBER OF DISCONTINUOUS BARS. PLACE 1/2" OF ADDITIONAL REINFORCING 3" FROM THE CENTER OF THE OPENING. PLACE ADDITIONAL REINFORCEMENT AT 3" C/C (TYPICAL BARS) IN THE TWO LAYERS OF REINFORCEMENT. STAY FIRST BAR 2" CLEAR TO OPENING.
2. EXTEND ADDITIONAL REINFORCING BEYOND EDGE OF OPENING AS SHOWN ABOVE. ADDITIONAL BARS MAY TERMINATE AT THE END OF THE WALL WITH A STANDARD HOOK WHERE THE LENGTH OF THE WALL WILL NOT PERMIT BARS TO EXTEND AS SHOWN ABOVE.
3. TYPICAL WALL OR SLAB REINFORCING NOT SHOWN FOR CLARITY. TERMINATE TYPICAL REINFORCING 2" CLEAR TO OPENING.
4. THIS DETAIL SHALL BE USED WHENEVER THE OPENING IS LARGER THAN THE REINFORCING SPACING.
5. UNLESS SHOWN OTHERWISE ON DRAWINGS, PROVIDE EXTRA REINFORCING AROUND OPENINGS AS SHOWN AND INDICATED ABOVE.
6. PROVIDE ADDITIONAL SPACERS PER NOTE 1 ABOVE FOR ALL OPENINGS NEAR THE FLOOR SLAB, BASE SLAB, OR CORNERS.

ADDITIONAL REINFORCING AT OPENINGS IN CONCRETE SLABS OR WALLS

SHOP, FABRICATED WATERSTOP

REINFORCING HOOK SCHEDULE

REINFORCING LAP DETAILS

ADHESIVE ANCHOR DETAILS & SCHEDULE

ADHESIVE ANCHOR SCHEDULE

BAR SIZE	ADHESIVE ANCHOR		ANCHOR BOLTS/RODS
	EMBED LENGTH (L)	DA (W)	
#3	6"	3/8"	5"
#4	9"	1/2"	6"
#5	9"	5/8"	7"
#7	8"	7/8"	8"
#9	9"	1"	10"
#10	10"		

NOTES:

1. ADHESIVE TYPE IS SUBJECT TO APPROVAL OF THE ENGINEER OF RECORD.
2. EMBEDMENT LENGTHS SHOWN ARE MINIMUM. PROVIDE MANUFACTURER'S RECOMMENDATIONS FOR INSTALLATION.
3. FOR ADDITIONAL REQUIREMENTS SEE GENERAL STRUCTURAL NOTES ON SHEET 81.

VERTICAL APPLICATION

HORIZONTAL APPLICATION

NOTES:

ADHESIVE ANCHOR DETAILS & SCHEDULE

ADHESIVE ANCHOR SCHEDULE

BAR SIZE	ML	HW	TL	TYPICAL OR 4.5 KSI LBS.	
				D	L
#3	6"	3"	3"	2 1/4"	6"
#4	8"	4"	4 1/2"	3"	7"
#5	10"	5"	5"	3 3/4"	9"
#6	11-0"	6"	6"	4 1/2"	10"
#7	11-2"	7"	7"	5 1/4"	12"
#8	11-4"	8"	8"	6"	14"
#9	11-7"	11 3/4"	10 1/2"	9 1/2"	15"
#10	11-10"	11-1/4"	11 1/2"	10 3/4"	17"
#11	2-0"	2 3/4"	1-1"	12"	18"

NOTES:

REINFORCING HOOK SCHEDULE

REINFORCING LAP DETAILS

NOTES:

1. PROVIDE MINIMUM LAP SPLICING LENGTHS AND EMBEDMENTS PER TABLE UNLESS NOTED OTHERWISE. EMBEDMENT LENGTH EQUALS THE LAP SPLICING LENGTH UNLESS OTHERWISE NOTED.
2. BAR SPACING AT LAP SPlice IS THE MINIMUM CLEARANCE BETWEEN LAPPED BARS PLUS ONE BAR DIAMETER.
3. ALL SPLICES TO BE CONTACT SPLICES AND WIRED TOGETHER UNLESS OTHERWISE APPROVED BY ENGINEER.

PIMA COUNTY REGIONAL WASTEWATER RECLAMATION DEPARTMENT

PIMA COUNTY

SEI AUGMENTATION WATER MAIN RELOCATIONS (SEI)

STANDARD STRUCTURAL DETAILS 1

0-2010-014

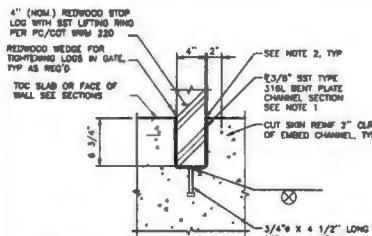
DATE: MARCH 01, 2010

HORIZ. : 1/4

VERT. : 1/4

SHEET NO. 1 52

37 OF 50

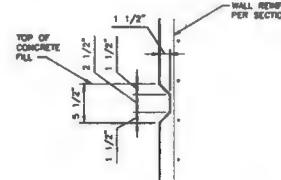


NOTES:

1. SST BENT PLATE CHANNEL SHALL BE MIGRED AND WELDED AT CORNERS FOR CONTINUITY. FABRICATE GATE FRAME SLOT WIDTH TO 4" NOMINAL REDWOOD STOP LOG.
2. CONCRETE PROTECTION CONCRETE MANUFACTURER SHALL SUBMIT DETAILS FOR SEALING JOINTS BETWEEN CONCRETE AND SST BENT PLATE CHANNEL FOR ENGINEER'S APPROVAL PRIOR TO CONSTRUCTION.

EMBEDDED CHANNEL FOR STOP LOGS

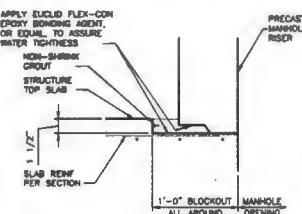
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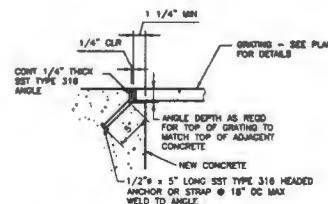
NOTES:

1. SEE SECTION FOR T/CONC ELEVATION FOR CONCRETE FILL.

REF ID: 2



REF ID: 3



NOTES:

1. GRATING SIZE PER CONTRACT DOCUMENTS.
2. ALL EHDs AND OPENINGS SHALL BE BANDED.
3. ATTACH GRATING TO ALL SUPPORT ANGLES WITH BOLTED CLIPS, SPACED AT 2'-0" MAX CENTERS, MIN 2 PER PANEL.

GRATING AND SUPPORT DETAIL

REF ID: 4

REF ID	SECTION	SECTION	SECTION	SECTION

PIMA COUNTY REGIONAL
WASTEWATER RECLAMATION
DEPARTMENT
PIMA COUNTY
201 North Stone Avenue • Tucson, Arizona 85701-1207 • Phone: (520) 740-5500

SEI AUGMENTATION WATER MAIN RELOCATIONS (SEI's) STANDARD STRUCTURAL DETAILS

G-2010-014

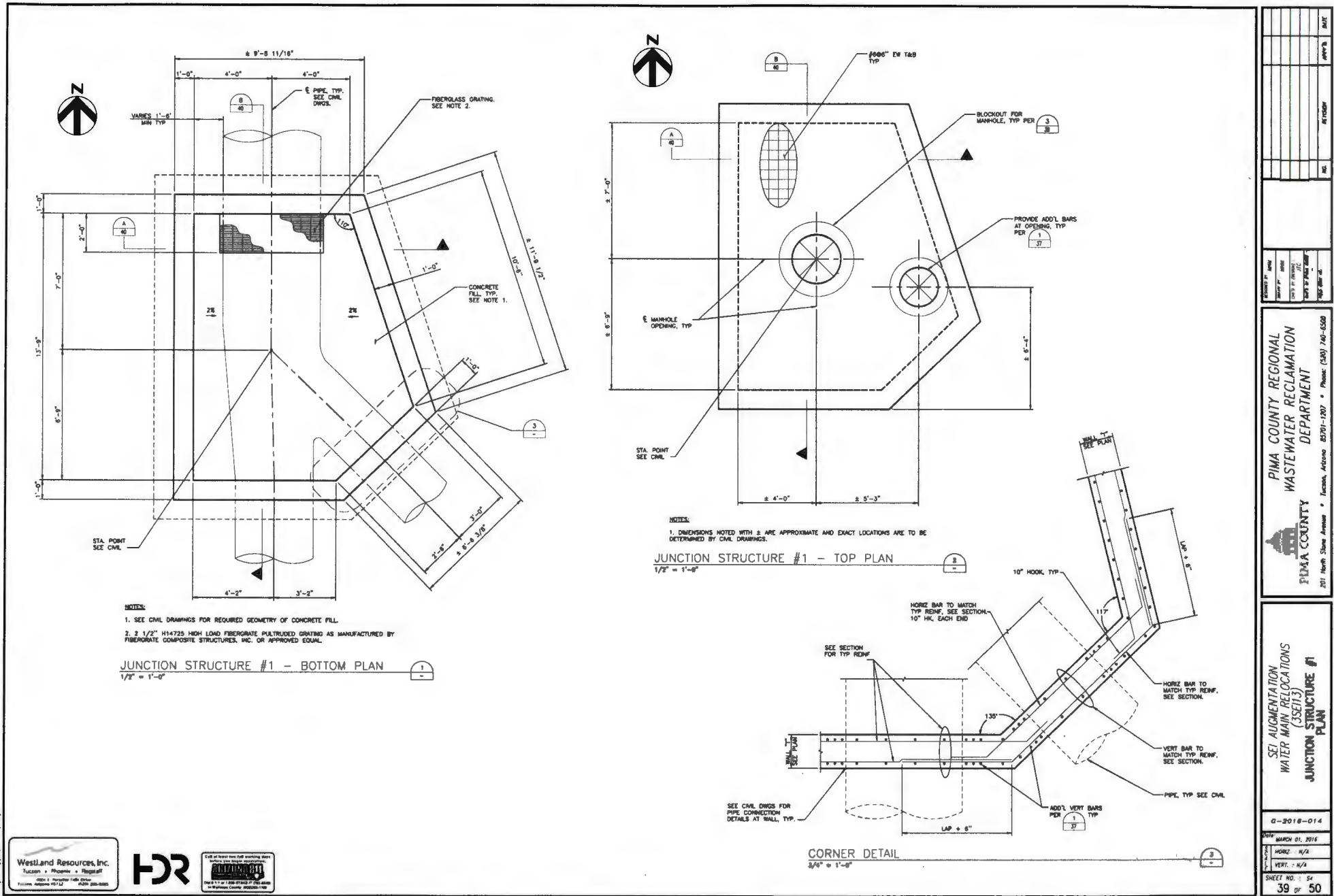
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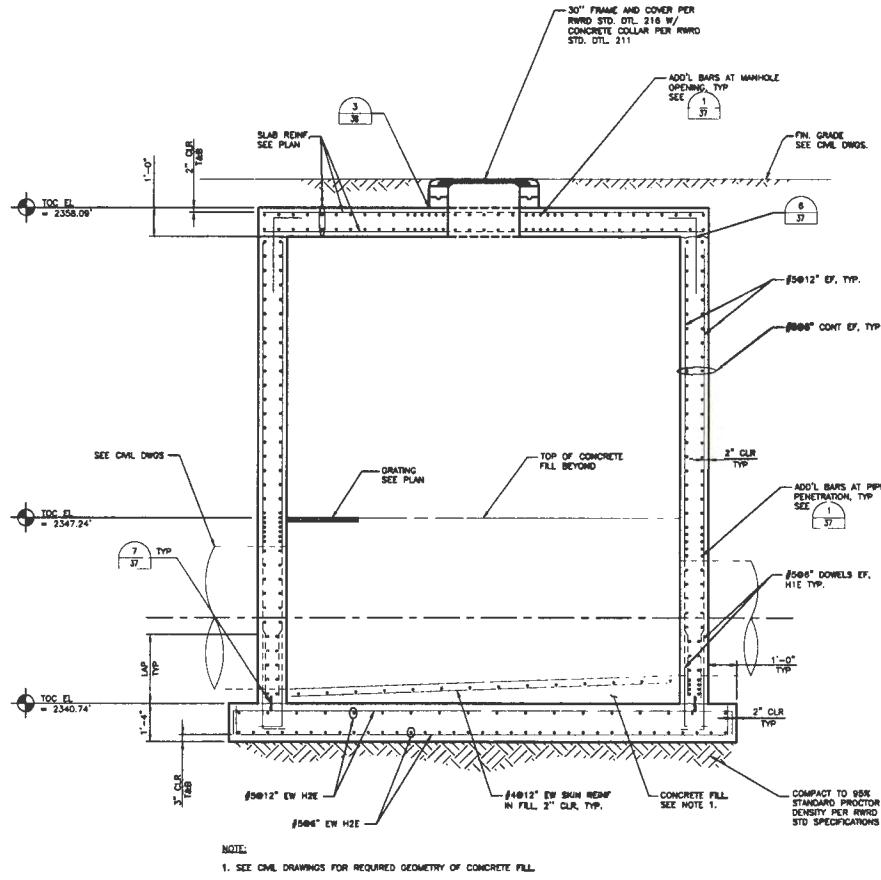
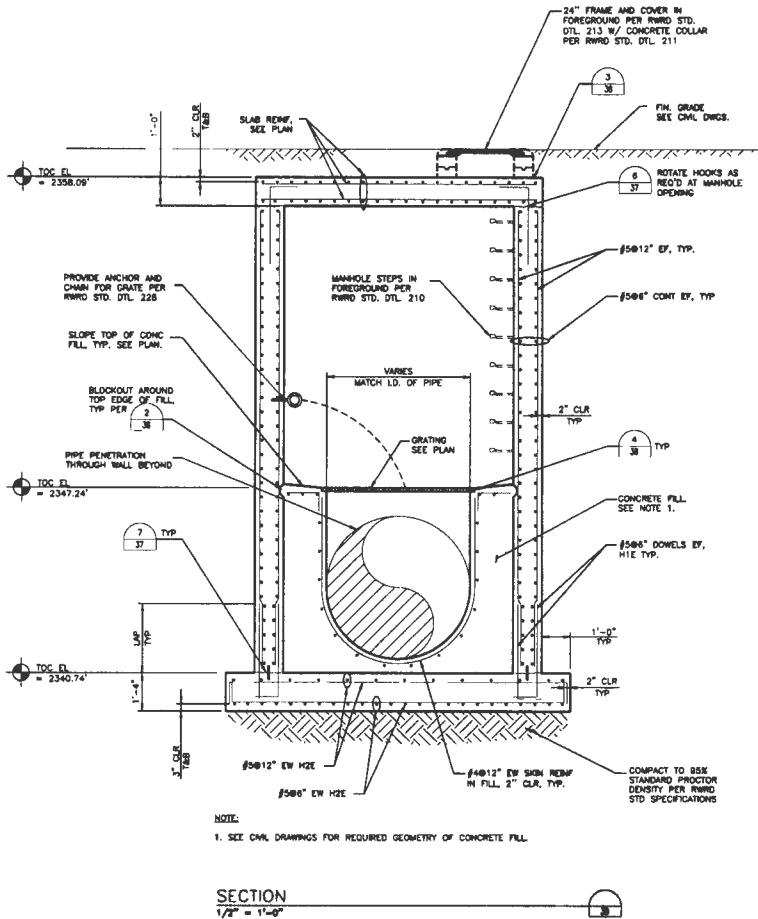
MODEL: 8/4

VERT: 8/4

SHEET NO. 53

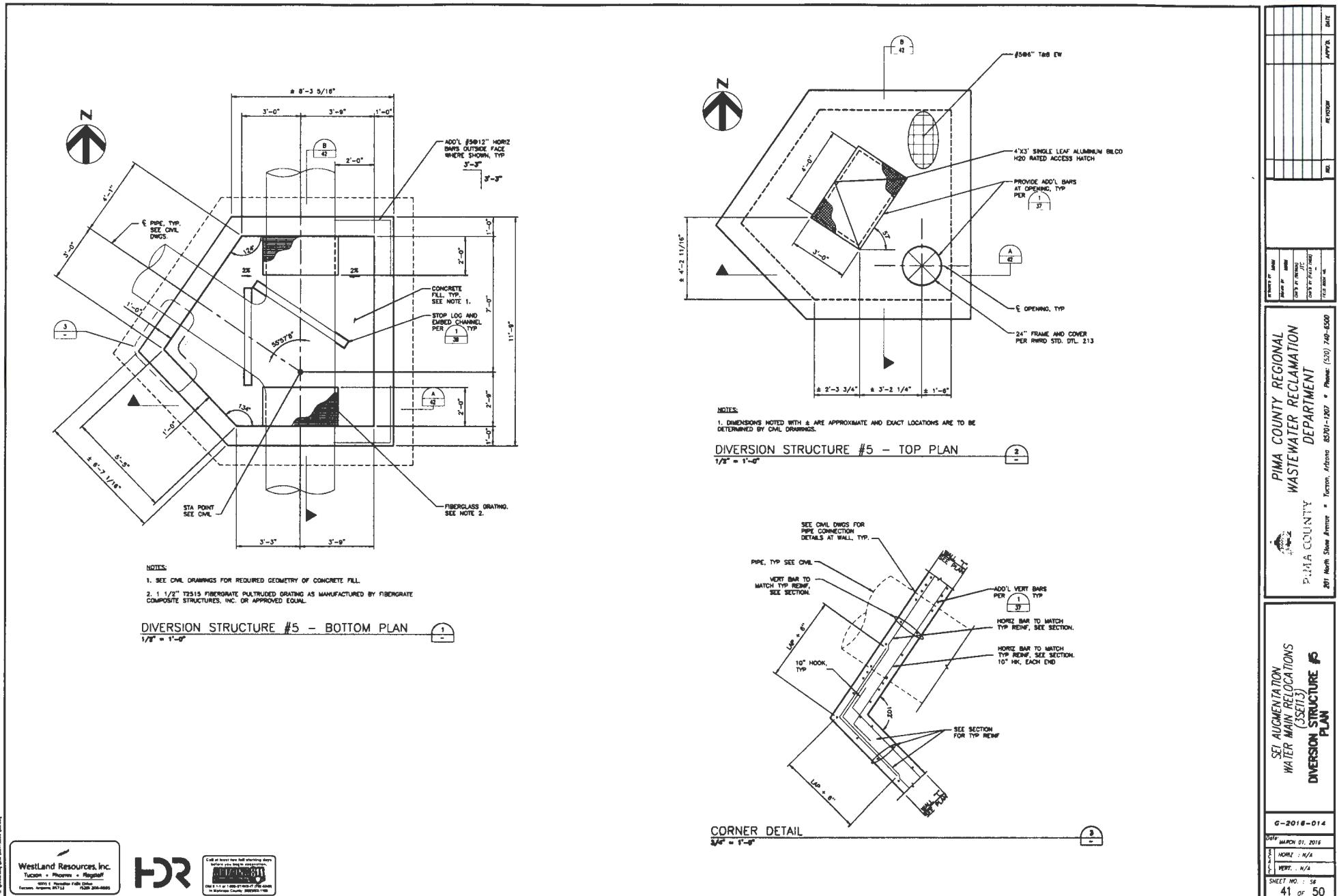
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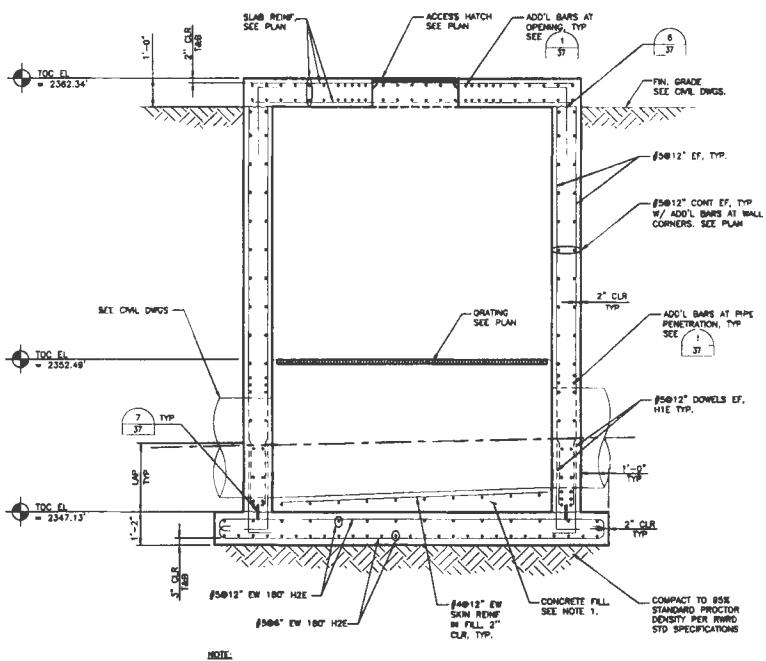
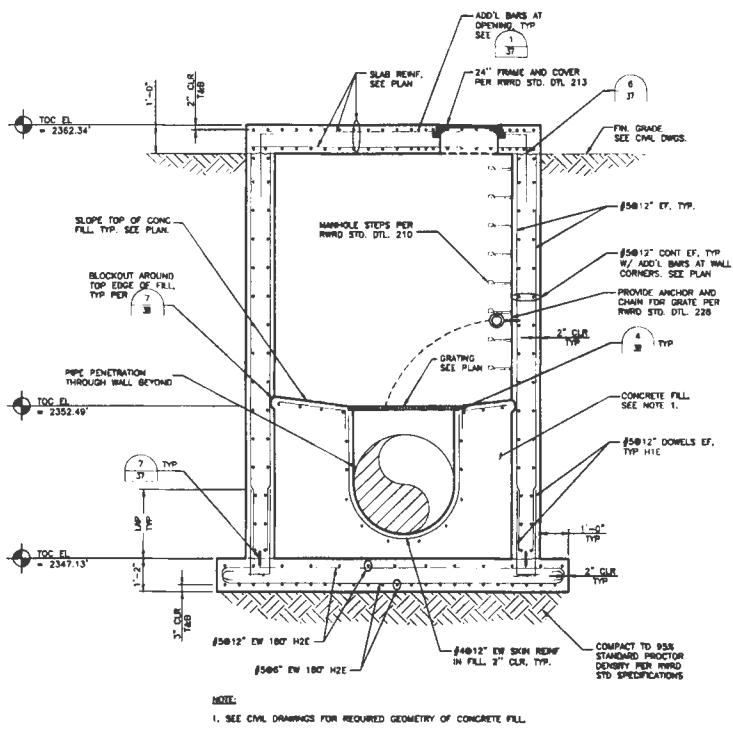




SEI AUGMENTATION WATER MAIN RELOCATIONS (3SEI13) JUNCTION STRUCTURE #1 SECTIONS

**PIMA COUNTY REGIONAL
WASTEWATER RECLAMATION
DEPARTMENT**

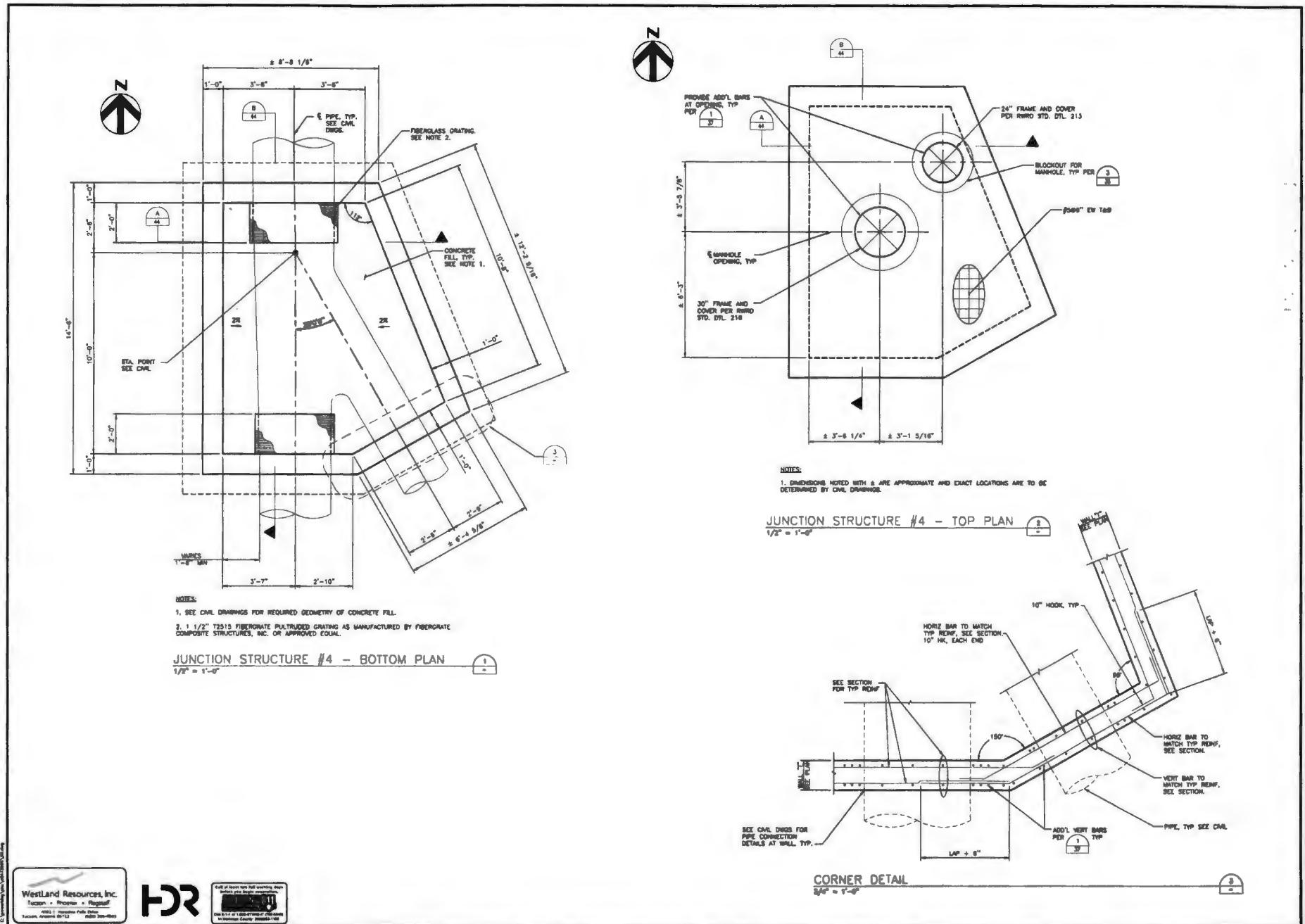




**SEI AUGMENTATION
WATER MAIN RELOCATIONS
(3SE113)**

**DIVERSION STRUCTURE #5
SECTIONS**

0-3016-014
MARCH 01, 2016
HORI. : N/A
VERT : N/A
SHEET NO. : 57
42 OF 50



SECTION NO.	DATE	APPROVAL	DATE
SECTION NO. 4-1	DATE 03/01/2016	APPROVAL	DATE
SECTION NO. 4-2	DATE 03/01/2016	APPROVAL	DATE
SECTION NO. 4-3	DATE 03/01/2016	APPROVAL	DATE
SECTION NO. 4-4	DATE 03/01/2016	APPROVAL	DATE

PIMA COUNTY REGIONAL WASTEWATER RECLAMATION DEPARTMENT

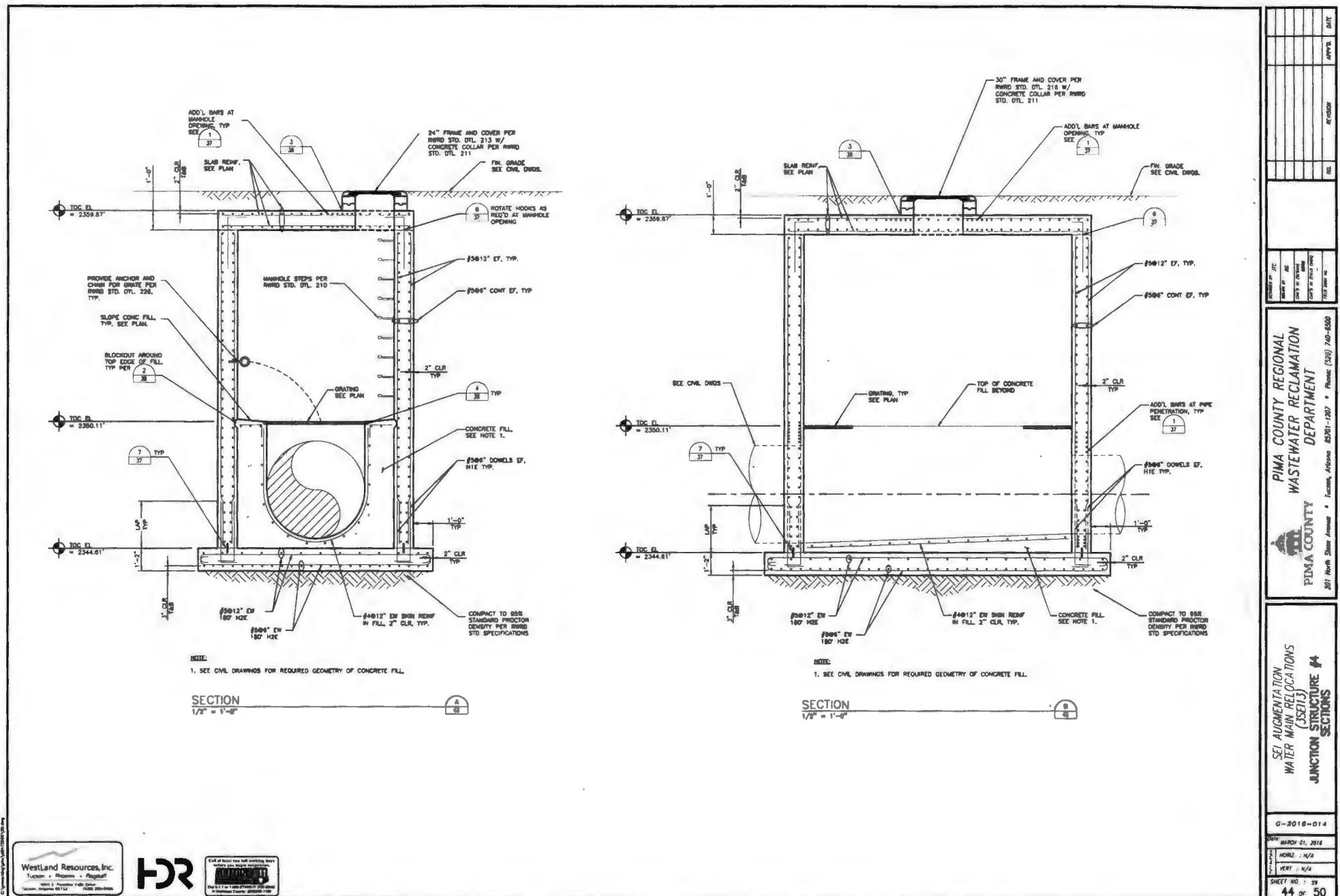
201 North Stone Avenue • Tucson, Arizona 85701-1207 • Phone: (520) 748-6500

SECTION NO. 4-1

SECTION NO. 4-2

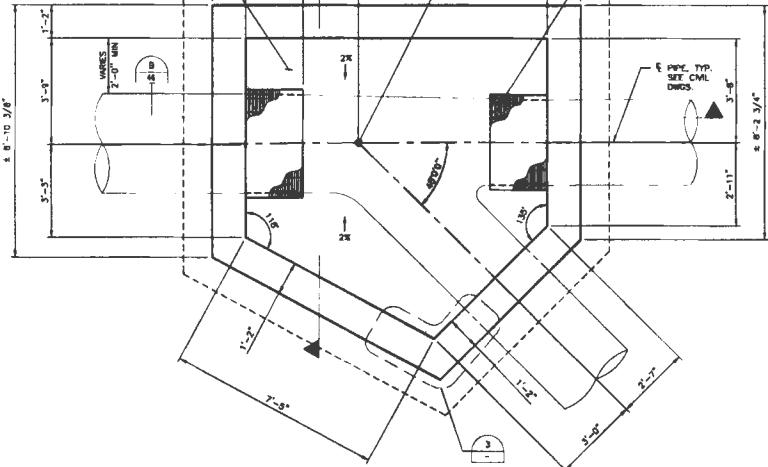
SECTION NO. 4-3

SECTION NO. 4-4



SEI AUGMENTATION
 WATER MAIN RELOCATION
 (JSET13)
 JUNCTION STRUCTURE #4
 SECTION

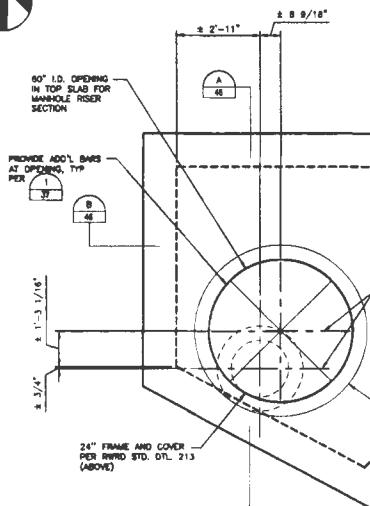
G-2016-014
 DRAFT MARCH 01, 2016
 HORIZ. : N/A
 VERT. : N/A
 SHEET NO. : 39
 44 OF 50



MOULS

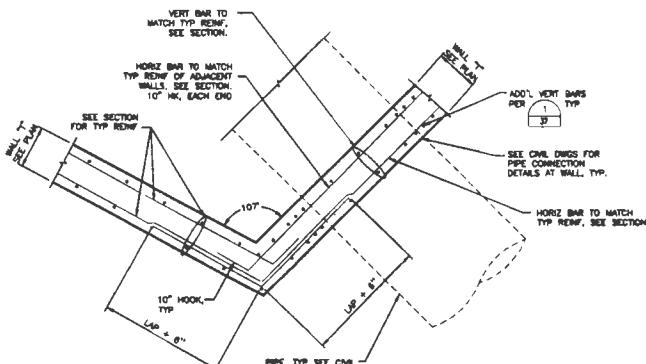
1. SEE CIVIL DRAWINGS FOR REQUIRED GEOMETRY OF CONCRETE FILL.
2. 1 1/2" T2515 FIBERGRATE PULTRUDED GRATING AS MANUFACTURED BY FIBERGRATE COMPOSITE STRUCTURES, INC. OR APPROVED EQUAL.

JUNCTION STRUCTURE #23 - BOTTOM PLAN

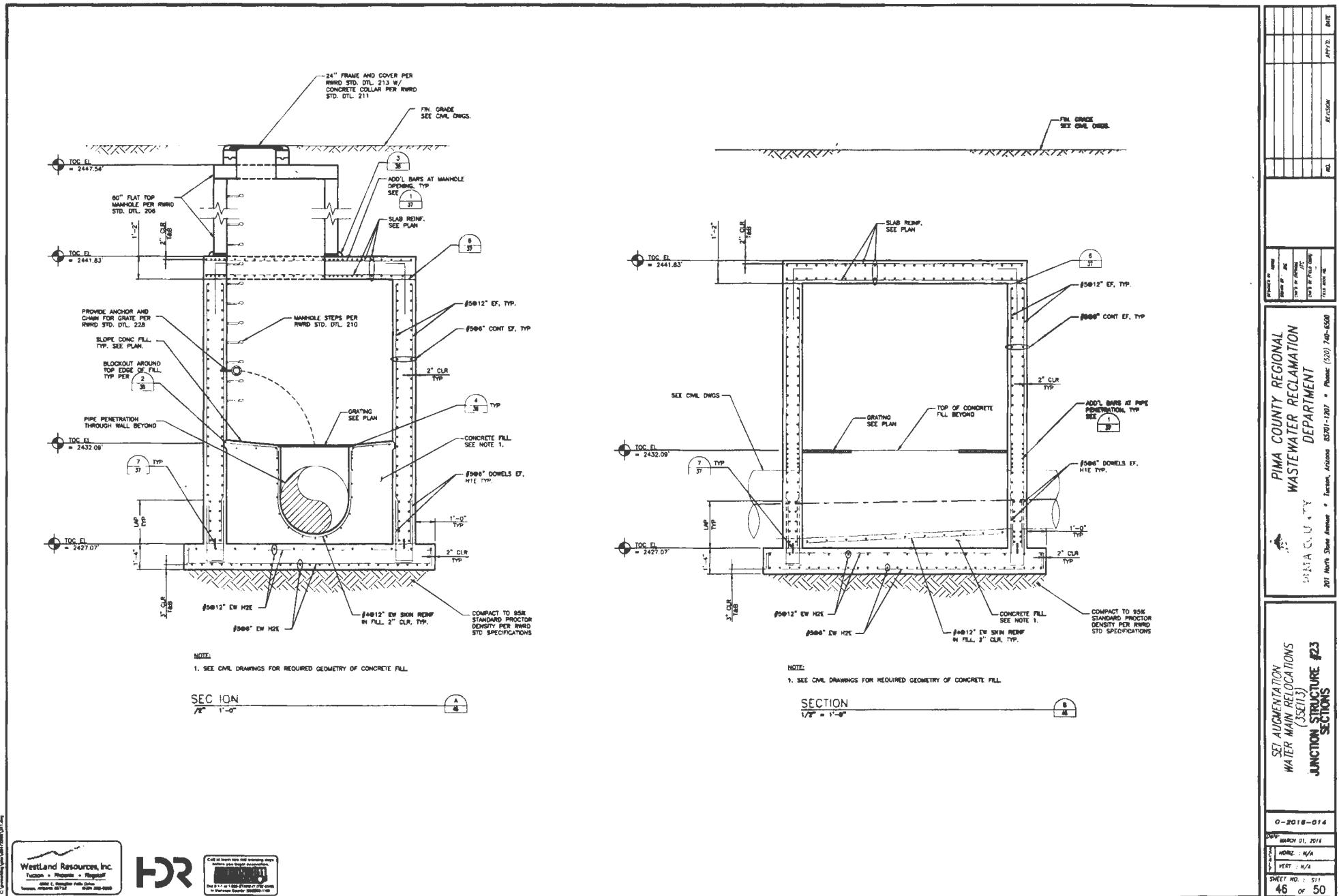


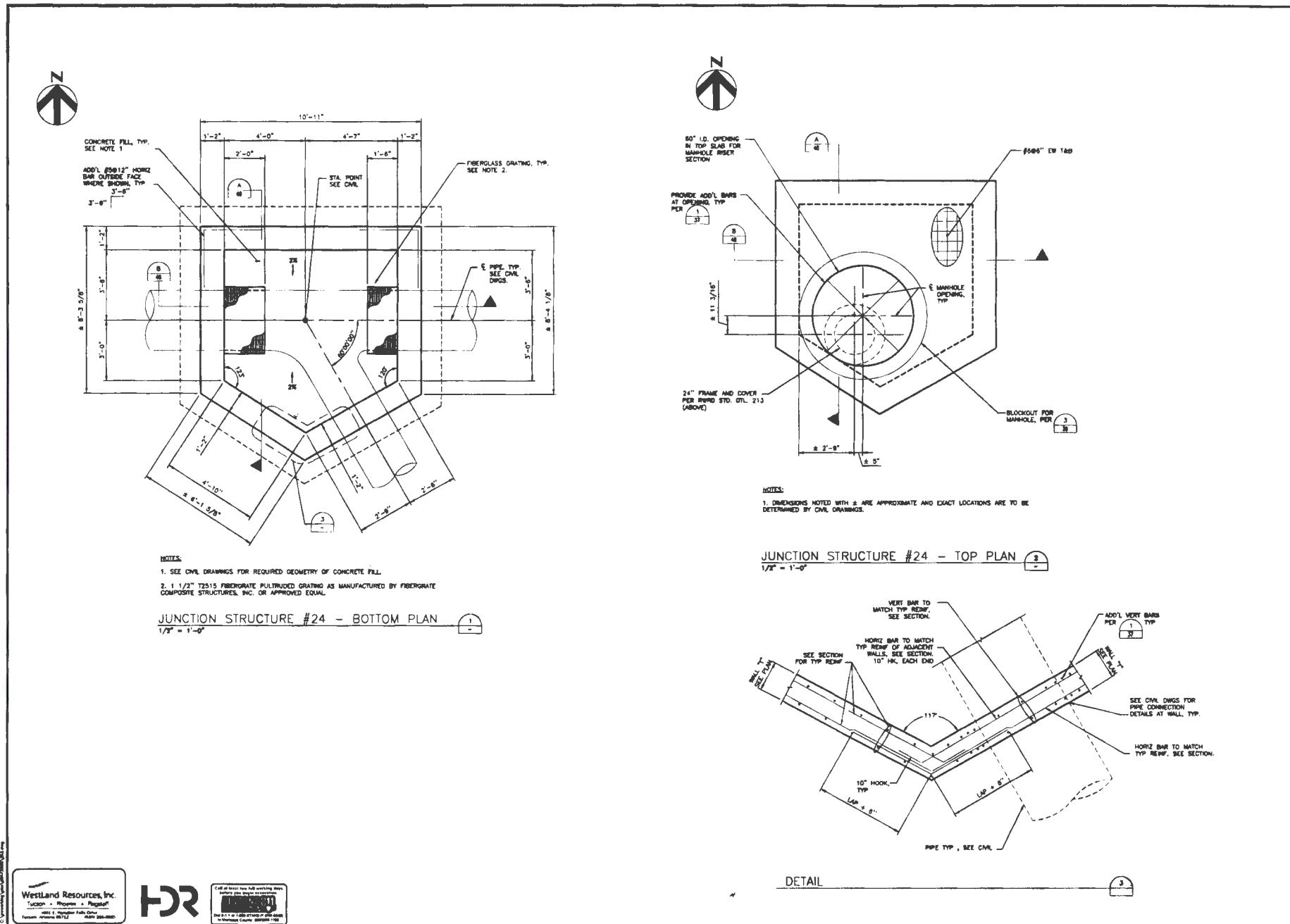
NOTES:
1. DIMENSIONS NOTED WITH * ARE APPROXIMATE AND EXACT LOCATIONS ARE TO BE DETERMINED BY CIVIL DRAWINGS.

JUNCTION STRUCTURE #23 - TOP PLAN



ORDER DETAIL





PIMA COUNTY REGIONAL
WASTEWATER RECLAMATION
DEPARTMENT

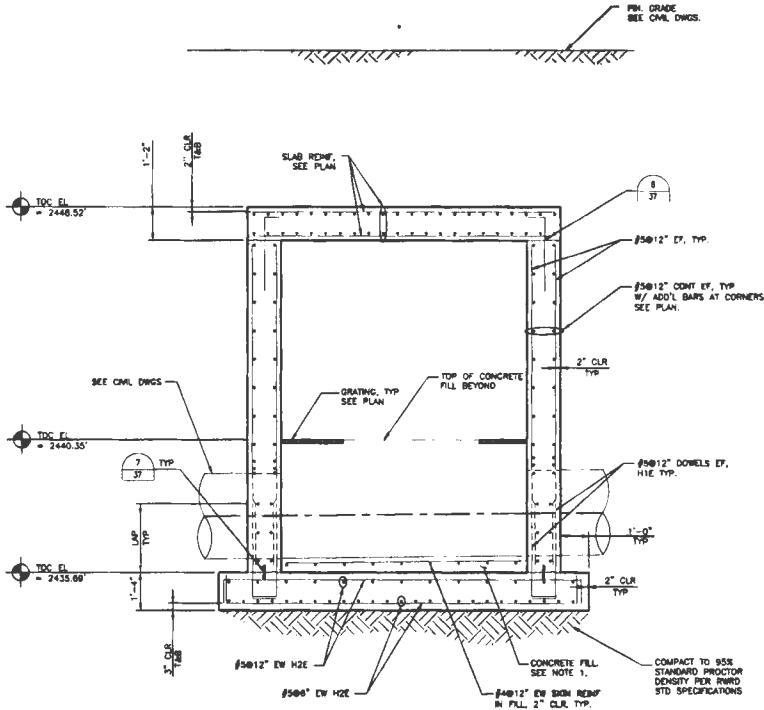
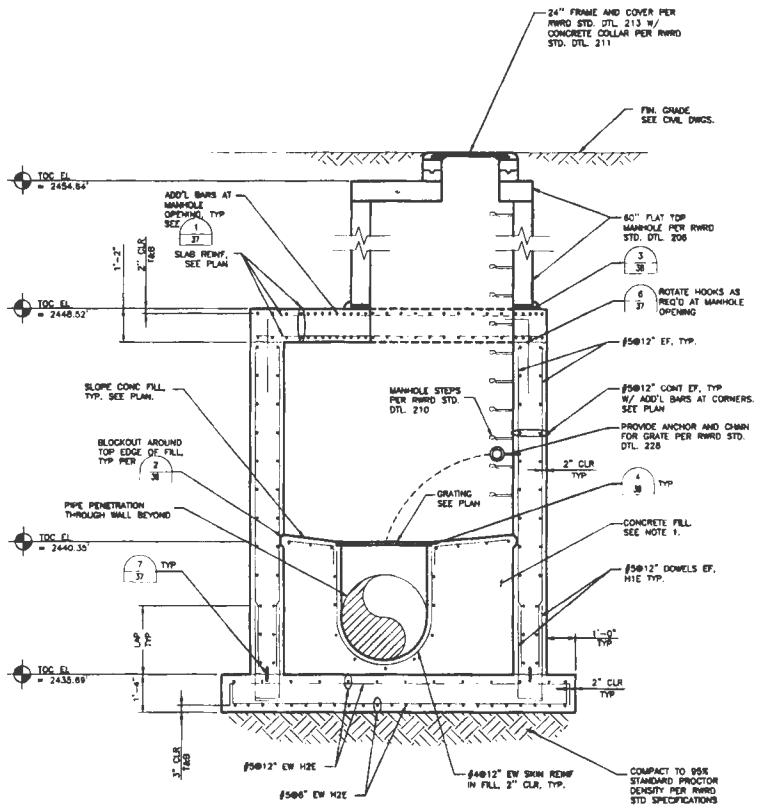
201 North Stone Avenue •

٢٠٢١ North Stone Avenue

201

SEI AUGMENTATION WATER MAIN RELOCATIONS (3SE113) JUNCTION STRUCTURE #24 PLAN

C-2016-014	
Date:	MARCH 01, 2016
S	HORIZ : N/A
S	VERT : N/A
E	
A	
T	
SHEET NO. : 512	
47 OF 50	



NOTE: 1. SEE CIVIL DRAWINGS FOR REQUIRED GEOMETRY OF CONCRETE FILL.

NOTE:

SECTION
1/2" = 1'-0"

SECTION

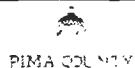


SER AUGMENTATION WATER MAIN RELOCATIONS (55E15)	
JUNCTION STRUCTURE #4 SECTION	
G-2016-014	
DRAFT: MARCH 01, 2016	
WATER	N/A
WELL	N/A
SHEET NO. 1 OF 55	
48 OF 50	



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SEI AUGMENTATION
WATER MAIN RELOCATIONS
(3SE113)
NEW MANHOLE #25, #37, #38
PLANS



PIMA COUNTY REGIONAL
WASTEWATER RECLAMATION
DEPARTMENT

2021 North Stone Avenue, # 5000, Phoenix, Arizona 85201-1307, 800 Phone: (520) 240-6500

STATION OF NAME				
STATION OF NAME				
CDN'S PT PERSON				
CDN'S PT FIELD CODE				
TEST BOOK NO.	AGL	REVISION	APPLY'D.	DATE



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SEI AUGMENTATION
WATER MAIN RELOCATIONS
(3SE113)
NEW MANHOLE #25, #37, #38
SECTIONS



 **PIMA COUNTY REGIONAL
WASTEWATER RECLAMATION
DEPARTMENT**

SEARCHED BY	INDEXED BY	FILED BY	SEARCHED BY	INDEXED BY	FILED BY	
SEARCHED BY	INDEXED BY	FILED BY	SEARCHED BY	INDEXED BY	FILED BY	
SEARCHED BY (REASON)						
SEARCHED BY (FIELD USED)						
FILED UNDER						
	NO.	REVISION	APP'D.	DATE		

ARIZONA STATUTORY PERFORMANCE BOND
PURSUANT TO TITLE 34, ARIZONA REVISED STATUTES
(Penalty of this bond must be 100% of the Contract amount)

Bond No. 106497679

KNOW ALL MEN BY THESE PRESENTS THAT: KE&G Construction, Inc.
(hereinafter "Principal"), as Principal, and Travelers Casualty and Surety Company of America
(hereinafter "Surety"), a corporation organized and existing under the laws of the State of CT,
with its principal office in the City of Hartford, CT, holding a certificate of authority to
transact surety business in Arizona issued by the Director of Insurance pursuant to Title 20,
Chapter 2, Article 1, as Surety, are held and firmly bound unto Pima County, Arizona,
(hereinafter "Obligee") in the amount of Fifteen Million One Hundred Fifty Thousand Five Hundred*,
for the payment whereof, Principal and Surety bind themselves, and their heirs, administrators,
executors, successors and assigns, jointly and severally, firmly by these presents.

* Seventy-Seven and 13/100 (\$15,150,577.13)

WHEREAS, the Principal has entered into a certain written contract with the Obligee, dated
April 25, 2016 for Construction Manager At Risk Services for Southeast Interceptor Sewer
Augmentation – Project No. 3SEI13, which contract is hereby referred to and made a part hereof as
fully and to the same extent as if copied at length herein.

NOW, THEREFORE, THE CONDITION OF THE OBLIGATION IS SUCH, that if the Principal
faithfully performs and fulfills all of the undertakings, covenants, terms, conditions and
agreements of the contract during the original term of the contract and any extension of the
contract, with or without notice to the Surety, and during the life of any guaranty required under
the contract, and also performs and fulfills all of the undertakings, covenants, terms, conditions
and agreements of all duly authorized modifications of the contract that may hereafter be made,
notice of which modifications to the Surety being hereby waived, the above obligation is void.
Otherwise it remains in full force and effect.

PROVIDED, HOWEVER, that this bond is executed pursuant to the provisions of Title 34,
Chapter 2, Article 2, Arizona Revised Statutes, and all liabilities on this bond shall be
determined in accordance with the provisions of Title 34, Chapter 2, Article 2, Arizona Revised
Statutes, to the same extent as if it were copies at length in this agreement.

The prevailing party in a suit on this bond shall recover as part of the judgment reasonable
attorney fees that may be fixed by a judge of the court.

Witness our hands this 25th day of April, 2016.

KE&G Construction, Inc.

Principal

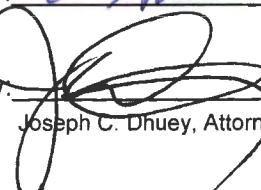
Travelers Casualty and Surety Company of America

Surety

By:



By:



Joseph C. Dhuey, Attorney-In-Fact

ARIZONA STATUTORY PAYMENT BOND
PURSUANT TO TITLE 34, ARIZONA REVISED STATUTES
(Penalty of this bond must be 100% of the Contract amount)

Bond No. 106497679

KNOW ALL MEN BY THESE PRESENTS THAT: KE&G Construction, Inc.
(hereinafter "Principal"), as Principal, and Travelers Casualty and Surety Company of America
(hereinafter "Surety"), a corporation organized and existing under the laws of the State of CT,
with its principal office in the City of Hartford, CT, holding a certificate of authority to
transact surety business in Arizona issued by the Director of Department of Insurance pursuant
to Title 20, Chapter 2, Article 1, as Surety, are held and firmly bound unto Pima County, Arizona,
(hereinafter "Obligee") in the amount of Fifteen Million One Hundred Fifty Thousand Five Hundred*,
for the payment whereof, Principal and Surety bind themselves, and their heirs, administrators,
executors, successors and assigns, jointly and severally, firmly by these presents.

* Seventy-Seven and 13/100 (\$15,150,577.13)

WHEREAS, the Principal has entered into a certain written contract with the Obligee, dated
April 25, 2016 for Construction Manager At Risk Services for Southeast Interceptor Sewer
Augmentation – Project No. 3SEI13, which contract is hereby referred to and made a part hereof as
fully and to the same extent as if copied at length herein.

NOW, THEREFORE, THE CONDITION OF THE OBLIGATION IS SUCH, that if the Principal
promptly pays all monies due to all persons supplying labor or materials to the Principal or the
Principal's subcontractors in the prosecution of the work provided for in the contract, this
obligation is void. Otherwise it remains in full force and effect.

PROVIDED, HOWEVER, that this bond is executed pursuant to the provisions of Title 34,
Chapter 2, Article 2, Arizona Revised Statutes, and all liabilities on this bond shall be
determined in accordance with the provisions, conditions and limitations of Title 34, Chapter 2,
Article 2, Arizona Revised Statutes, to the same extent as if it were copied at length in this
agreement.

The prevailing party in a suit on this bond shall recover as part of the judgment reasonable
attorney fees that may be fixed by a judge in the court.

Witness our hands this 25th day of April, 2016.

KE&G Construction, Inc.

Principal

Travelers Casualty and Surety Company of America

Surety

By:

By:

Joseph C. Phuey, Attorney-In-Fact



POWER OF ATTORNEY

Farmington Casualty Company
 Fidelity and Guaranty Insurance Company
 Fidelity and Guaranty Insurance Underwriters, Inc.
 St. Paul Fire and Marine Insurance Company
 St. Paul Guardian Insurance Company

St. Paul Mercury Insurance Company
 Travelers Casualty and Surety Company
 Travelers Casualty and Surety Company of America
 United States Fidelity and Guaranty Company

Attorney-In Fact No. 230030

Certificate No. 006619208

KNOW ALL MEN BY THESE PRESENTS: That Farmington Casualty Company, St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company are corporations duly organized under the laws of the State of Connecticut, that Fidelity and Guaranty Insurance Company is a corporation duly organized under the laws of the State of Iowa, and that Fidelity and Guaranty Insurance Underwriters, Inc., is a corporation duly organized under the laws of the State of Wisconsin (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint

Joseph C. Dhuey, Tina K. Nierenberg, Tina Marie Berger, and Patrick Howey

of the City of Tucson, State of Arizona, their true and lawful Attorney(s)-in-Fact, each in their separate capacity if more than one is named above, to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

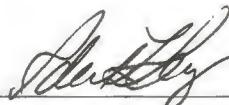
IN WITNESS WHEREOF, the Companies have caused this instrument to be signed and their corporate seals to be hereto affixed, this 2nd day of February, 2016.

Farmington Casualty Company
 Fidelity and Guaranty Insurance Company
 Fidelity and Guaranty Insurance Underwriters, Inc.
 St. Paul Fire and Marine Insurance Company
 St. Paul Guardian Insurance Company

St. Paul Mercury Insurance Company
 Travelers Casualty and Surety Company
 Travelers Casualty and Surety Company of America
 United States Fidelity and Guaranty Company



State of Connecticut
 City of Hartford ss.

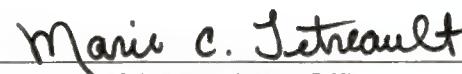
By: 

Robert L. Raney, Senior Vice President

On this the 2nd day of February, 2016, before me personally appeared Robert L. Raney, who acknowledged himself to be the Senior Vice President of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

In Witness Whereof, I hereunto set my hand and official seal.
 My Commission expires the 30th day of June, 2016.





Marie C. Tetreault, Notary Public

This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, which resolutions are now in full force and effect, reading as follows:

RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President, any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary may appoint Attorneys-in-Fact and Agents to act for and on behalf of the Company and may give such appointee such authority as his or her certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognition, or conditional undertaking, and any of said officers or the Board of Directors at any time may remove any such appointee and revoke the power given him or her; and it is

FURTHER RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President may delegate all or any part of the foregoing authority to one or more officers or employees of this Company, provided that each such delegation is in writing and a copy thereof is filed in the office of the Secretary; and it is

FURTHER RESOLVED, that any bond, recognition, contract of indemnity, or writing obligatory in the nature of a bond, recognition, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary and duly attested and sealed with the Company's seal by a Secretary or Assistant Secretary; or (b) duly executed (under seal, if required) by one or more Attorneys-in-Fact and Agents pursuant to the power prescribed in his or her certificate or their certificates of authority or by one or more Company officers pursuant to a written delegation of authority; and it is

FURTHER RESOLVED, that the signature of each of the following officers: President, any Executive Vice President, any Senior Vice President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary, and the seal of the Company may be affixed by facsimile to any Power of Attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such Power of Attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding on the Company in the future with respect to any bond or understanding to which it is attached.

I, Kevin E. Hughes, the undersigned, Assistant Secretary, of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 25th day of April, 2016.



Kevin E. Hughes, Assistant Secretary



To verify the authenticity of this Power of Attorney, call 1-800-421-3880 or contact us at www.travelersbond.com. Please refer to the Attorney-In-Fact number, the above-named individuals and the details of the bond to which the power is attached.



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
4/20/2016

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFRS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Lovitt & Touché - Tucson 7202 E. Rosewood Dr. #200 Tucson AZ 85710	CONTACT NAME: Cherie Pijanowski, Account Manager	
	PHONE (A/C. No. Ext): 520-722-3000 E-MAIL ADDRESS: cpijanowski@lovitt-touche.com	FAX (A/C. No): 520-722-7245
INSURED KE&G Construction, Inc. 5100 S Alvernon Tucson AZ 85706-1976	INSURER(S) AFFORDING COVERAGE INSURER A: Indian Harbor Insurance Company	NAIC #
	INSURER B: Zurich American Ins Co	16535
	INSURER C: National Union Fire Ins Co of Pitts	19445
	INSURER D:	
	INSURER E:	
	INSURER F:	

COVERAGE

CERTIFICATE NUMBER: 1084692607

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSD WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
B	X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR	Y Y	GLA008422701	1/1/2016	1/1/2017	EACH OCCURRENCE	\$1,000,000
						DAMAGE TO RENTED PREMISES (Ea occurrence)	\$500,000
						MED EXP (Any one person)	\$10,000
						PERSONAL & ADV INJURY	\$1,000,000
						GENERAL AGGREGATE	\$2,000,000
						PRODUCTS - COMP/OP AGG	\$2,000,000
							\$
B	AUTOMOBILE LIABILITY X ANY AUTO ALL OWNED AUTOS X HIRED AUTOS	Y Y	GLA008422701	1/1/2016	1/1/2017	COMBINED SINGLE LIMIT (Ea accident)	\$1,000,000
						BODILY INJURY (Per person)	\$
						BODILY INJURY (Per accident)	\$
						PROPERTY DAMAGE (Per accident)	\$
							\$
C	UMBRELLA LIAB X OCCUR X EXCESS LIAB CLAIMS-MADE	Y Y	BE010338358	1/1/2016	1/1/2017	EACH OCCURRENCE	\$10,000,000
						AGGREGATE	\$10,000,000
							\$
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N N	WC008422801	1/1/2016	1/1/2017	X PER STATUTE E.L. EACH ACCIDENT	OTHR- \$500,000
						E.L. DISEASE - EA EMPLOYEE	\$500,000
						E.L. DISEASE - POLICY LIMIT	\$500,000
A	Pollution Liability		PEC002923906	1/1/2016	1/1/2017	Each Pollution Condit Pollution Aggregate Selfinsured Retention	\$2,000,000 \$2,000,000 \$25,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

COVERAGE IS SUBJECT TO ALL POLICY TERMS, CONDITIONS, DEFINITIONS, EXCLUSIONS, FORMS & ENDORSEMENTS.
APPLICABLE ENDORSEMENTS ARE ATTACHED WITH REGARD TO THE FOLLOWING (If required by written contract):

NOTE: Excess Liability Coverage shown above is excess limits over the general liability, auto liability and employers liability coverage limits.

Forms Listing & Project Information (If Applicable) follows on page #2 (Acord 101):
See Attached...

CERTIFICATE HOLDER	CANCELLATION
Pima County Regional Wastewater Reclamation Department 201 N Stone Ave Tucson AZ 85701	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE 

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ADDITIONAL REMARKS SCHEDULE

AGENCY Lovitt & Touché - Tucson		NAMED INSURED KE&G Construction, Inc. 5100 S Alvernon Tucson AZ 85706-1976	
POLICY NUMBER			
CARRIER		NAIC CODE	EFFECTIVE DATE:

ADDITIONAL REMARKS

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,
FORM NUMBER: 25 FORM TITLE: CERTIFICATE OF LIABILITY INSURANCE

GENERAL LIABILITY:

1. Automatic Additional Insured-Ongoing and Completed Operations including Primary/NonContributory coverage per form UGL1175FCW 04/13 attached.
2. Blanket Waiver of Subrogation if required by written contract per form CG2404 05/09 attached.
3. Per Project Aggregate is included in the general liability coverage form.

AUTOMOBILE

1. Automatic Additional Insured including Primary/NonContributory coverage if required by written contract per form CA2048 10/13 attached.
2. Blanket Waiver of Subrogation if required by written contract per form CA0444 10/13 attached.

WORKERS' COMPENSATION

1. Blanket Waiver of Subrogation if required by written contract per form WC000313 04/84 attached.

PROJECT: RWRD Project 3SEI13-SEI Sewer Augmentation, Contract number is CT-WW-15000000000000000532.



ZURICH

Additional Insured – Automatic – Owners, Lessees Or Contractors

Policy No.	Eff. Date of Pol.	Exp. Date of Pol.	Eff. Date of End.	Producer No.	Add'l. Prem	Return Prem.
GLA-0084227-01	01-01-16	01-01-17	01-01-16			

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

Named Insured: KE&G Construction Inc

Address (including ZIP Code):

This endorsement modifies insurance provided under the:

Commercial General Liability Coverage Part

A. Section II – Who Is An Insured is amended to include as an additional insured any person or organization whom you are required to add as an additional insured on this policy under a written contract or written agreement. Such person or organization is an additional insured only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by:

1. Your acts or omissions; or
2. The acts or omissions of those acting on your behalf,

in the performance of your ongoing operations or "your work" as included in the "products-completed operations hazard", which is the subject of the written contract or written agreement.

However, the insurance afforded to such additional insured:

1. Only applies to the extent permitted by law; and
2. Will not be broader than that which you are required by the written contract or written agreement to provide for such additional insured.

B. With respect to the insurance afforded to these additional insureds, the following additional exclusion applies:

This insurance does not apply to:

"Bodily injury", "property damage" or "personal and advertising injury" arising out of the rendering of, or failure to render, any professional architectural, engineering or surveying services including:

- a. The preparing, approving or failing to prepare or approve maps, shop drawings, opinions, reports, surveys, field orders, change orders or drawings and specifications; or
- b. Supervisory, inspection, architectural or engineering activities.

This exclusion applies even if the claims against any insured allege negligence or other wrongdoing in the supervision, hiring, employment, training or monitoring of others by that insured, if the "occurrence" which caused the "bodily injury" or "property damage", or the offense which caused the "personal and advertising injury", involved the rendering of or the failure to render any professional architectural, engineering or surveying services.

C. The following is added to Paragraph 2. Duties In The Event Of Occurrence, Offense, Claim Or Suit of Section IV – Commercial General Liability Conditions:

The additional insured must see to it that:

1. We are notified as soon as practicable of an "occurrence" or offense that may result in a claim;
2. We receive written notice of a claim or "suit" as soon as practicable; and
3. A request for defense and indemnity of the claim or "suit" will promptly be brought against any policy issued by another insurer under which the additional insured may be an insured in any capacity. This provision does not apply to insurance on which the additional insured is a Named Insured if the written contract or written agreement requires that this coverage be primary and non-contributory.

D. For the purposes of the coverage provided by this endorsement:

1. The following is added to the Other Insurance Condition of Section IV – Commercial General Liability Conditions:

Primary and Noncontributory Insurance

This insurance is primary to and will not seek contribution from any other insurance available to an additional insured provided that:

- a. The additional insured is a Named Insured under such other insurance; and
- b. You are required by written contract or written agreement that this insurance be primary and not seek contribution from any other insurance available to the additional insured.

2. The following paragraph is added to Paragraph 4.b. of the Other Insurance Condition of Section IV – Commercial General Liability Conditions:

This insurance is excess over:

Any of the other insurance, whether primary, excess, contingent or on any other basis, available to an additional insured, in which the additional insured on our policy is also covered as an additional insured on another policy providing coverage for the same "occurrence", offense, claim or "suit". This provision does not apply to any policy in which the additional insured is a Named Insured on such other policy and where our policy is required by a written contract or written agreement to provide coverage to the additional insured on a primary and non-contributory basis.

E. This endorsement does not apply to an additional insured which has been added to this policy by an endorsement showing the additional insured in a Schedule of additional insureds, and which endorsement applies specifically to that identified additional insured.

F. With respect to the insurance afforded to the additional insureds under this endorsement, the following is added to Section III – Limits Of Insurance:

The most we will pay on behalf of the additional insured is the amount of insurance:

1. Required by the written contract or written agreement referenced in Paragraph A. of this endorsement; or
2. Available under the applicable Limits of Insurance shown in the Declarations,
whichever is less.

This endorsement shall not increase the applicable Limits of Insurance shown in the Declarations.

All other terms and conditions of this policy remain unchanged.

WAIVER OF TRANSFER OF RIGHTS OF RECOVERY AGAINST OTHERS TO US

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART
PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART

SCHEDULE

Name Of Person Or Organization:

Any Person or Organization that requires You to waive your Rights of Recovery, in a written contract or agreement with the Named Insured that is executed prior to the accident or loss.

Information required to complete this Schedule, if not shown above, will be shown in the Declarations.

The following is added to Paragraph 8. Transfer Of
Rights Of Recovery Against Others To Us of
Section IV – Conditions:

We waive any right of recovery we may have against the person or organization shown in the Schedule above because of payments we make for injury or damage arising out of your ongoing operations or "your work" done under a contract with that person or organization and included in the "products-completed operations hazard". This waiver applies only to the person or organization shown in the Schedule above.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

DESIGNATED INSURED FOR COVERED AUTOS LIABILITY COVERAGE

This endorsement modifies insurance provided under the following:

AUTO DEALERS COVERAGE FORM
BUSINESS AUTO COVERAGE FORM
MOTOR CARRIER COVERAGE FORM

With respect to coverage provided by this endorsement, the provisions of the Coverage Form apply unless modified by this endorsement.

This endorsement identifies person(s) or organization(s) who are "insureds" for Covered Autos Liability Coverage under the Who Is An Insured provision of the Coverage Form. This endorsement does not alter coverage provided in the Coverage Form.

This endorsement changes the policy effective on the inception date of the policy unless another date is indicated below.

Named Insured: KE&G Construction Inc

Endorsement Effective Date: 01-01-16

SCHEDULE

Name Of Person(s) Or Organization(s): Any person and / or organization to whom or which you are required to provide additional insured status or additional insured status on a primary, non-contributory basis, in a written contract or written agreement executed prior to loss, except where such contract or agreement is prohibited by law.

Information required to complete this Schedule, if not shown above, will be shown in the Declarations.

Each person or organization shown in the Schedule is an "insured" for Covered Autos Liability Coverage, but only to the extent that person or organization qualifies as an "insured" under the Who Is An Insured provision contained in Paragraph A.1. of Section II – Covered Autos Liability Coverage in the Business Auto and Motor Carrier Coverage Forms and Paragraph D.2. of Section I – Covered Autos Coverages of the Auto Dealers Coverage Form.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

WAIVER OF TRANSFER OF RIGHTS OF RECOVERY AGAINST OTHERS TO US (WAIVER OF SUBROGATION)

This endorsement modifies insurance provided under the following:

AUTO DEALERS COVERAGE FORM
BUSINESS AUTO COVERAGE FORM
MOTOR CARRIER COVERAGE FORM

With respect to coverage provided by this endorsement, the provisions of the Coverage Form apply unless modified by the endorsement.

This endorsement changes the policy effective on the inception date of the policy unless another date is indicated below.

Named Insured: KE&G Construction Inc

Endorsement Effective Date: 01-01-16

SCHEDULE

Name(s) Of Person(s) Or Organization(s): ALL PERSONS AND / OR ORGANIZATIONS THAT ARE REQUIRED BY WRITTEN CONTRACT OR AGREEMENT WITH THE INSURED, EXECUTED PRIOR TO THE ACCIDENT OR LOSS, THAT WAIVER OF SUBROGATION BE PROVIDED UNDER THIS POLICY.

Information required to complete this Schedule, if not shown above, will be shown in the Declarations.

The Transfer Of Rights Of Recovery Against Others To Us condition does not apply to the person(s) or organization(s) shown in the Schedule, but only to the extent that subrogation is waived prior to the "accident" or the "loss" under a contract with that person or organization.

WAIVER OF OUR RIGHT TO RECOVER FROM OTHERS ENDORSEMENT

We have the right to recover our payments from anyone liable for an injury covered by this policy. We will not enforce our right against the person or organization named in the Schedule. (This agreement applies only to the extent that you perform work under a written contract that requires you to obtain this agreement from us.)

This agreement shall not operate directly or indirectly to benefit anyone not named in the Schedule.

Schedule

ALL PERSONS AND / OR ORGANIZATIONS THAT ARE REQUIRED BY WRITTEN CONTRACT OR AGREEMENT WITH THE INSURED, EXECUTED PRIOR TO THE ACCIDENT OR LOSS, THAT WAIVER OF SUBROGATION BE PROVIDED UNDER THIS POLICY FOR WORK PERFORMED BY YOU FOR THAT PERSON AND / OR ORGANIZATION.

This endorsement changes the policy to which it is attached and is effective on the date issued unless otherwise stated.

(The information below is required only when this endorsement is issued subsequent to preparation of the policy.)

Endorsement

Effective Policy No. WC-0084228-01

Endorsement No.

Insured KE&G Construction Inc

Premium \$

Insurance Company Zurich American Insurance Company

Countersigned by

