

The City of Rockwall, Texas

Plans for

TRENCHLESS SEWER REHABILITATION

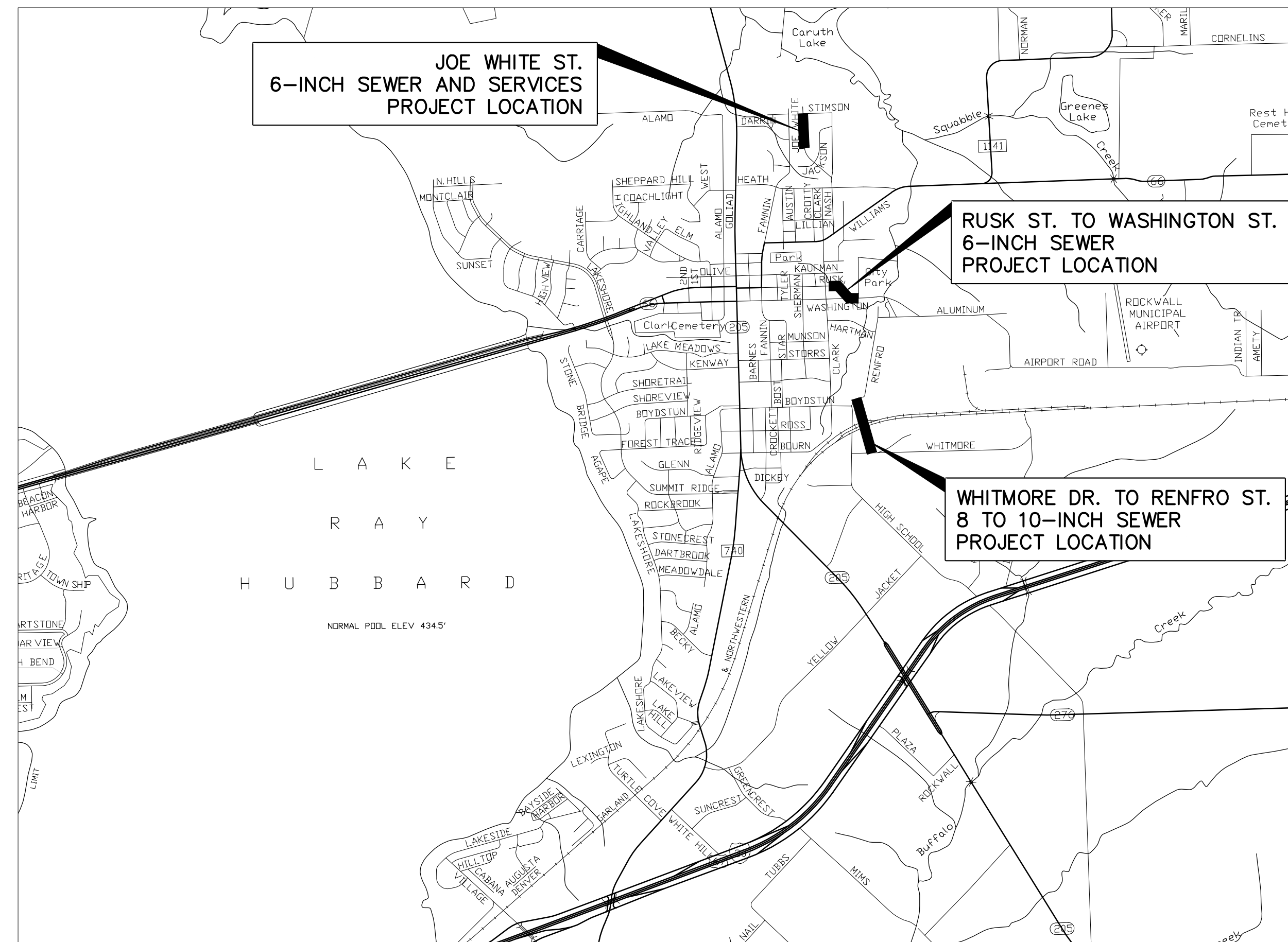


City Officials:

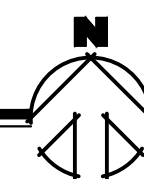
Mayor: David Sweet
City Council: David White, Mayor Pro Tem
 Jim Pruitt
 Bennie Daniels
 Dennis Lewis
 Scott Milder
 Mike Townsend

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LOCATION MAP



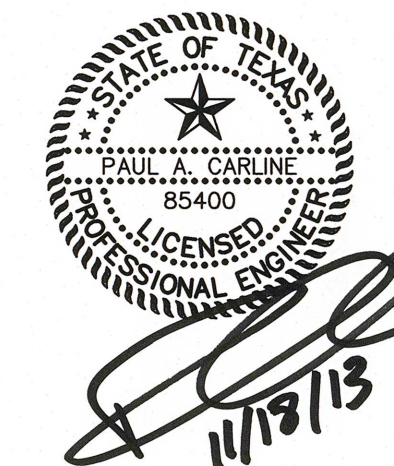
NOVEMBER 2013

RECORD DRAWINGS

JUNE 2014

"RECORD DRAWING"
 THIS DRAWING HAS BEEN REVISED TO SHOW THOSE CHANGES DURING THE CONSTRUCTION PROCESS REPORTED BY THE CONTRACTOR TO KIMLEY-HORN AND ASSOCIATES, INC. AND CONSIDERED TO BE SIGNIFICANT. THIS DRAWING IS NOT GUARANTEED TO BE "AS BUILT" BUT IS BASED ON THE INFORMATION MADE AVAILABLE.

DATE: 6/3/2014 BY: PAC



Kimley-Horn and Associates, Inc.
Texas Board of Professional Engineers Firm Registration Number: F-928
 12750 Merit Drive, Suite 1000, Dallas, TX 75251 972-770-1300

GENERAL NOTES

- CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE MEASURES FOR PREVENTING STORM WATER RUNOFF FROM ENTERING THE TRENCH DURING CONSTRUCTION.
- CONTRACTOR SHALL SECURE EXCAVATION AT THE END OF EACH DAY. THE OWNER MAY REQUIRE THAT NO TRENCHES BE LEFT OPEN OVERNIGHT IN STREETS OR POPULATED AREAS.
- TOPSOIL SHALL BE STOCKPILED AND REPLACED TO A MINIMUM DEPTH OF 12 INCHES AND DISC HARROWED TO A MINIMUM DEPTH OF 4 INCHES.
- FINISHED GROUND SHALL HAVE NO MORE ROCKS OVER 1 INCH THAN SURROUNDING UNDISTURBED GROUND.
- RESTORE GROUND TO ORIGINAL GRADE AND PREVENT PONDING OF STORM WATER RUNOFF ON ALL GROUND DISTURBED BY CONSTRUCTION ACTIVITIES.
- CONTRACTOR SHALL PROVIDE TEMPORARY SUPPORT OF ALL POWER AND TELEPHONE POLES AND GUY WIRES WITHIN 15 FEET OF PROPOSED FACILITIES AND SHALL REPAIR DAMAGED POLES AND GUY WIRES OR RELOCATE POLES AND GUY WIRES AS REQUIRED BY THE UTILITY OWNER AT NO ADDITIONAL COST TO THE OWNER. CONTRACTOR MUST CONTACT & COORDINATE ALL WORK AND FEES W/ UTILITY OWNER AT NO ADDITIONAL COST TO THE OWNER.
- TRIMMING OF TREES SHALL BE ACCOMPLISHED USING A SAW OR PRUNING SHEARS. ALL CUT LIMBS OVER 1 INCH IN DIAMETER SHALL BE PAINTED WITH TREE WOUND PAINT IMMEDIATELY AFTER TREE TRIMMING.
- CONTRACTOR SHALL REPLACE ANY TREES REMOVED OR DESTROYED WITHOUT THE OWNER'S PERMISSION OR SHALL PAY FAIR MARKET VALUE (AS DETERMINED BY THE OWNER) TO THE OWNER.
- ANY FENCES DAMAGED OR REMOVED BY CONSTRUCTION ACTIVITIES SHALL BE REPLACED AT THE SAME LOCATION WITH A FENCE OF EQUAL OR SUPERIOR QUALITY.
- TEMPORARY FENCING SHALL BE REQUIRED WHERE INDICATED ON THE DRAWINGS, WHERE THERE IS LIVESTOCK, AND WHERE DAMAGED OR REMOVED FENCES ARE NOT TO BE REPLACED BY END OF SAME WORK DAY, OR AS DIRECTED BY OWNER. CONTRACTOR TO VERIFY PRESENCE OF LIVESTOCK WITH LANDOWNER PRIOR TO ENTERING PROPERTY.
- CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO ORDERING PIPE AND SUFFICIENTLY IN ADVANCE OF THE CONSTRUCTION SO THAT IF IT IS NECESSARY TO CHANGE OR MOVE THE UTILITY, THE PROGRESS OF THE WORK WILL NOT BE DELAYED, & ALL COSTS INCURRED FOR UTILITY CONFLICTS WILL BE AT NO ADDITIONAL COST TO THE OWNER.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING SERVICE LINES CROSSED OR EXPOSED BY HIS CONSTRUCTION OPERATIONS. WHERE EXISTING SERVICE LINES ARE CUT, BROKEN OR DAMAGED THE CONTRACTOR SHALL IMMEDIATELY REPLACE THE SERVICE LINES IN KIND WITH LIKE OR BETTER MATERIALS.
- CONTRACTOR SHALL PROVIDE A STORM WATER POLLUTION PREVENTION PLAN AND PROVIDE ALL APPURTENANCES TO COMPLY WITH THE LATEST TCEQ STORM WATER POLLUTION PREVENTION REGULATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR FILING A NOTICE OF INTENT (NOI) AT THE START OF CONSTRUCTION WITH THE TCEQ AND A NOTICE OF TERMINATION (NOT) AT THE END, ALSO WITH THE TCEQ.
- CONTRACTOR SHALL PROVIDE ADEQUATE MEASURES FOR DEWATERING AS NECESSARY.
- CONTRACTOR SHALL REMOVE FENCES AS REQUIRED FOR CONSTRUCTION. BARBED WIRE, WROUGHT IRON, CHAIN AND CHAIN LINK FENCES SHALL BE REPLACED OR RECONSTRUCTED. NEW MATERIALS SHALL MATCH EXISTING FENCES. ALL WOOD FENCES SHALL BE REPLACED WITH NEW CEDAR WITH THE POSTS MATCHING THE MINIMUM CITY REQUIREMENTS. ANY FENCING REMOVED SHALL BE REPLACED IN KIND WITH LIKE OR BETTER MATERIALS, AND BE PAINTED OR STAINED TO MATCH EXISTING FENCE.
- CONTRACTOR SHALL PROTECT ALL UNDERGROUND IRRIGATION SYSTEMS (KNOWN AND UNKNOWN). ALL DAMAGE SHALL BE REPAIRED BY IRRIGATOR LICENSED IN THE STATE OF TEXAS.
- CONTRACTOR SHALL SUBMIT A WRITTEN PLAN AND SCHEDULE 14 DAYS IN ADVANCE OF CONSTRUCTION ACTIVITIES REQUIRING REPLACEMENT OR SUPPORT OF EXISTING SANITARY SEWER PIPE, WATER PIPE OR STORM DRAIN PIPE. THE PLAN SHALL DESCRIBE IN DETAIL THE METHOD FOR REPLACING OR SUPPORTING EXISTING PIPE AND ASSOCIATED SCHEDULE.
- CONTRACTOR SHALL PROVIDE THE OWNER AS-BUILT ELEVATIONS OF MANHOLE COVERS AND ELEVATION OR HEIGHT TO GRADE RINGS.
- FOLLOWING INSTALLATION OF FACILITIES ACROSS WATERWAYS, WATERWAY BOTTOM AND BANKS SHALL BE RESTORED TO THEIR ORIGINAL CONFIGURATION AND REVEGETATED.
- THE CONTRACTOR SHALL EMPLOY ADEQUATE METHODS TO MINIMIZE TURBIDITY IN WATERWAYS DURING ALL PHASES OF THE PROJECT. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE LAWS AND REGULATIONS CONCERNING WATER POLLUTION AND CONTROL OF EROSION.
- CONTRACTOR SHALL CLEAN THE RIGHT-OF-WAY OF ANY AND ALL TRASH.
- NO FIRES WILL BE ALLOWED. BRUSH AND CONSTRUCTION DEBRIS SHALL BE REMOVED FROM THE SITE.
- ANY EXISTING UTILITY DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED IMMEDIATELY WITH LIKE OR BETTER MATERIALS.
- CONTRACTOR SHALL NOT DAMAGE EXISTING TREES LARGER THAN 3 INCHES IN DIAMETER (MEASURED 4 FT. ABOVE THE GROUND) THAT ARE MORE THAN TWELVE FEET FROM CENTERLINE OF NEW INTERCEPTOR. THE CONTRACTOR MUST OBTAIN APPROVAL FROM THE OWNER'S REPRESENTATIVE BEFORE ANY TREES MORE THAN 10-FT FROM CENTERLINE OF INTERCEPTOR CAN BE REMOVED OR TRIMMED.
- CONTRACTOR SHALL BE REQUIRED TO INSTALL TEMPORARY TEST PLUGS FOR HYDROSTATIC TESTING AS NECESSARY AT NO ADDITIONAL COST TO THE OWNER.
- CONTRACTOR, AT HIS DISCRETION, MAY TUNNEL UNDER EXISTING UTILITIES OR ROADWAYS OTHER THAN THOSE CROSSINGS SPECIFICALLY SHOWN ON THE DRAWINGS, AT NO ADDITIONAL COST TO THE OWNER.
- IT SHALL BE THE COMPLETE RESPONSIBILITY OF THE CONTRACTOR TO REBUILD THE CONCRETE OR ASPHALT PAVEMENT REPLACEMENT SECTIONS TO THE SAME LINE AND GRADE AS WAS EXISTING PRIOR TO PIPELINE CONSTRUCTION.
- ALL NEW TREES REQUESTED BY THE OWNER SHALL BE PLANTED BY A NURSERYMAN LICENSED IN THE STATE OF TEXAS.
- SURVEY POINTS INDICATED AS "CONTROL POINT" (IRON ROD SETS, "X" IN CONC, AND 60D NAILS POINT") SHALL BE USED FOR HORIZONTAL AND VERTICAL SURVEY CONTROL FOR THE PROJECT.
- THE CONTRACTOR SHALL RESTORE AT HIS OWN EXPENSE, TEMPORARY ROADS AND CONSTRUCTION WORK AREAS.
- IN ACCORDANCE WITH TEXAS STATE LAW, AT LEAST 2 DAYS PRIOR TO BEGINNING EXCAVATION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING A TEXAS REGISTERED NOTIFICATION CENTER (I.E. TEXAS ONE CALL, DIG TESS, ETC.). IN ORDER TO HAVE EXISTING UTILITIES LOCATED. DIGTESS: 1-800-344-8377.
- BLASTING WILL NOT BE ALLOWED.
- CONSTRUCTION SURVEYING IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR INCLUDING BUT NOT LIMITED TO LIMITS OF PERMANENT EASEMENT, TEMPORARY EASEMENT, CENTERLINE, ETC. THE CONTRACTOR SHALL VERIFY ALL CONTROL MONUMENTATION PRIOR TO BEGINNING CONSTRUCTION.
- CLEARING AND GRUBBING MAY BEGIN NO SOONER THAN TWO WEEKS PRIOR TO PIPE TRENCHING OPERATIONS. PIPE STRINGING SHALL BE NO MORE THAN TWO WEEKS PRIOR TO PIPE LAYING. BACKFILL, CLEAN-UP, AND SURFACE RESTORATION SHALL BE COMPLETED NO MORE THAN TWO WEEKS AFTER PIPE LAYING AND NO MORE THAN 500 FEET FROM PIPE LAYING OPERATIONS. THE SITE SHALL BE KEPT CLEAN OF TRASH AT ALL TIMES. FAILURE TO COMPLY WITH THESE REQUIREMENTS MAY RESULT IN WITHHOLDING SOME OR ALL PAYMENT TO THE CONTRACTOR.
- CONTRACTOR SHALL MAINTAIN AT LEAST ONE LANE OF TRAFFIC ON ALL ROADS AT ALL TIMES, AND CONSTRUCT TEMPORARY BYPASS, IF NECESSARY, IF THE ROADWAY MUST BE CLOSED TO FACILITATE CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN TO THE OWNER AND THE RIGHT-OF-WAY OWNER FOR THE ROADWAY FOR APPROVAL NO LESS THAN 14 DAYS IN ADVANCE OF THE PROPOSED ROADWAY CLOSURE. ANY COMMENTS RECEIVED ON THE PLAN BY THE OWNER OR RIGHT-OF-WAY OWNER SHALL BE INCORPORATED INTO THE PLAN. THE PLAN SHALL BE PREPARED SPECIFICALLY FOR THIS PROJECT AND SHALL BE SEALED AND SIGNED BY AN ENGINEER LICENSED IN THE STATE OF TEXAS. THE COST TO PREPARE THE TRAFFIC CONTROL PLAN, WHEN REQUIRED, SHALL BE MADE INCIDENTAL TO THE PROJECT. IF AT ANYTIME DURING CONSTRUCTION THE CONTRACTOR'S PROPOSED PLAN OF OPERATION FOR HANDLING TRAFFIC DOES NOT PROVIDE FOR THE SAFE, COMFORTABLE MOVEMENT OF TRAFFIC, THE CONTRACTOR SHALL IMMEDIATELY CHANGE HIS OPERATIONS TO CORRECT THE UNSATISFACTORY CONDITIONS.
- CONTRACTOR SHALL PROVIDE APPROPRIATE SIGNAGE, BARRICADES, FLAGMEN, ETC. REQUIRED TO MAINTAIN SAFE TRAFFIC FLOW AT ALL TIMES FOR ANY WORK ACTIVITY ON OR ADJACENT TO ANY CITY, COUNTY OR TXDOT ROADWAY. ALL TRAFFIC CONTROL MEASURES SHALL BE IN ACCORDANCE WITH TXDOT'S MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
- CONTRACTOR'S OPERATIONS MUST STAY WITHIN THE PERMANENT AND TEMPORARY EASEMENTS AND CONTRACTOR'S WORK AREA DESIGNATED ON THE PLAN SHEETS. ANY DAMAGE OUTSIDE THESE OPERATIONS SHALL BE REPAIRED AND/OR REPLACED AT THE CONTRACTORS EXPENSE. ACCESS ROUTES OR OPERATIONS WHICH FALL OUTSIDE THE DESIGNATED AREAS WILL ONLY BE ALLOWED WITH PRIOR LANDOWNER CONSENT. CONTRACTOR SHALL PROVIDE THE OWNER WITH A COPY OF ANY AGREEMENTS MADE BETWEEN THE LANDOWNER AND THE CONTRACTOR.
- THE CONTRACTOR SHALL PROVIDE A VIDEO TAPE TO THE OWNER DOCUMENTING THE CONDITION OF THE PIPELINE ROUTE, INCLUDING THE RIGHT-OF-WAY, PERMANENT EASEMENT, TEMPORARY EASEMENT AND SURROUNDING AREA PRIOR TO THE START OF ANY CONSTRUCTION. VIDEO TO BE PROVIDED PRIOR TO FIRST PAYMENT TO CONTRACTOR.

GENERAL NOTES (CONTINUED)

- PROVIDE ACCESS FOR LANDOWNERS AT EXISTING ROADS AND DRIVES AT ALL TIMES.
- WHERE IT IS NECESSARY FOR LANDOWNERS TO MOVE TRAILERS, SHEDS, OR OTHER FACILITIES OR IMPROVEMENTS, OR WHEN THE CONTRACTOR INTENDS TO MOVE SUCH FACILITIES OR IMPROVEMENTS, CONTRACTOR SHALL NOTIFY THE LAND OWNER AND THE OWNER NO LESS THAN 14 DAYS PRIOR TO MOVING THE FACILITIES OR IMPROVEMENTS.
- WHERE NOT OTHERWISE NOTED BY GRADING PLAN RESTORE GROUND TO ORIGINAL GRADE AND PREVENT PONDING OF STORM WATER RUNOFF ON ALL GROUND DISTURBED BY CONSTRUCTION ACTIVITIES.
- CONTRACTOR SHALL PROTECT ALL TREES, LANDSCAPING AND STRUCTURES LOCATED WITHIN THE RIGHT-OF-WAY AND EASEMENTS. TREES, LANDSCAPING AND STRUCTURES NOT INDICATED FOR REMOVAL OR TRANSPLANT ON THE PLANS SHALL NOT BE REMOVED OR TRANSPLANTED WITHOUT RECEIVING WRITTEN APPROVAL FROM THE OWNER.
- PIPE USED FOR PIPE BURSTING REPLACEMENT OF EXISTING PIPE SHALL BE HDPE. SEE TECHNICAL SPECIFICATIONS.
- REHABILITATION OF EXISTING MANHOLES SHALL BE ACCOMPLISHED USING RAVEN LINING 405 APPLIED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. LINED MANHOLES SHALL BE SPARK AND PRESSURE TESTED.
- CONTRACTOR SHALL PROVIDE, OPERATE & MAINTAIN BYPASS PUMPING THROUGHOUT DURATION OF PROJECT. (NO PAY ITEM).
- ALL CONSTRUCTION SHALL COMPLY WITH THE CITY OF ROCKWALL STANDARD CONSTRUCTION DETAILS AND THE NCTCOG 3RD EDITION REVISIONS.
- CONTRACTOR SHALL REPLACE ALL GRASS DAMAGED IN ASSOCIATION WITH CONSTRUCTION WITH SOLID BLOCK SODDING. SOLID BLOCK SODDING SHALL MATCH EXISTING ADJACENT GRASS TYPE. (NO PAY ITEM).
- PVC GRAVITY SEWER PIPE SHALL BE SDR 35, PS 46, ASTM D3034.

LEGEND

☒	ROOF DRAIN	✉	MAIL BOX
TV	CABLE TV BOX	NT	NEWS STAND
⊙	CABLE TV HANDHOLE	☎	PHONE BOOTH
TV	CABLE TV MANHOLE	☒	SECURITY CAMERA
TV	CABLE TV MARKER FLAG	♻	TRASH BIN
△	CABLE TV MARKER SIGN	SI	SANITARY SEWER BOX
TV	CABLE TV VAULT	○	SANITARY SEWER CLEAN OUT
☒	COMMUNICATIONS BOX	⊙	SANITARY SEWER HANDHOLE
⊙	COMMUNICATIONS HANDHOLE	⬆	SANITARY SEWER LIFT STATION
⊙	COMMUNICATIONS MANHOLE	⊙	SANITARY SEWER METER
⊙	COMMUNICATIONS MARKER FLAG	⊙	SANITARY SEWER MANHOLE
⊙	COMMUNICATIONS MARKER SIGN	⊙	SANITARY SEWER MARKER FLAG
⊙	COMMUNICATIONS VAULT	⊙	SANITARY SEWER MARKER SIGN
⬆	ELEVATION BENCHMARK	⊙	SANITARY SEWER SEPTIC TANK
←	FLOW DIRECTION	SI	SANITARY SEWER VAULT
☒	FIBER OPTIC BOX	DI	STORM SEWER BOX
⊙	FIBER OPTIC HANDHOLE	HI	STORM SEWER DRAIN
⊙	FIBER OPTIC MANHOLE	⊙	STORM SEWER HANDHOLE
⊙	FIBER OPTIC MARKER FLAG	⊙	STORM SEWER METER
⊙	FIBER OPTIC MARKER SIGN	⊙	STORM SEWER MANHOLE
⊙	FIBER OPTIC VAULT	⊙	STORM SEWER MARKER FLAG
▽	MONITORING WELL	⊙	STORM SEWER MARKER SIGN
⊙	FUEL TANK	DI	STORM SEWER VAULT
☒	GAS BOX	⊙	TRAFFIC BARRIER
⊙	GAS HANDHOLE	⊙	TRAFFIC BOLLARD
⊙	GAS METER	☒	TRAFFIC BOX
⊙	GAS MANHOLE	⊙	CROSS WALK SIGNAL
⊙	GAS MARKER FLAG	⊙	TRAFFIC HANDHOLE
⊙	GAS SIGN	⊙	TRAFFIC MANHOLE
⊙	GAS TANK	⊙	TRAFFIC MARKER SIGN
☒	GAS VAULT	☒	TRAFFIC CAMERA
☒	GAS VALVE	☒	TRAFFIC SENSOR
⊙	GAS WELL	⊙	TRAFFIC SIGNAL
☒	TELEPHONE BOX	☒	TRAFFIC VAULT
⊙	TELEPHONE HANDHOLE	☒	UNIDENTIFIED BOX
⊙	TELEPHONE MANHOLE	⊙	UNIDENTIFIED HANDHOLE
⊙	TELEPHONE MARKER FLAG	⊙	UNIDENTIFIED METER
⊙	TELEPHONE MARKER SIGN	⊙	UNIDENTIFIED MANHOLE
☒	TELEPHONE VAULT	⊙	UNIDENTIFIED MARKER FLAG
☒	PIPELINE BOX	⊙	UNIDENTIFIED MARKER SIGN
⊙	PIPELINE HANDHOLE	⊙	UNIDENTIFIED POLE
⊙	PIPELINE METER	⊙	UNIDENTIFIED TANK
⊙	PIPELINE MANHOLE	☒	UNIDENTIFIED VAULT
⊙	PIPELINE MARKER FLAG	☒	UNIDENTIFIED VALVE
⊙	PIPELINE MARKER SIGN	⊙	TREE
☒	PIPELINE VAULT	☒	WATER BOX
☒	PIPELINE VALVE	⊙	FIRE DEPT. CONNECTION
☒	ELECTRIC BOX	⊙	WATER HAND HOLE
☒	FLOOD LIGHT	⊙	FIRE HYDRANT
→	GUY ANCHOR	⊙	WATER METER
⊙	GUY ANCHOR POLE	⊙	WATER MANHOLE
⊙	ELECTRIC HANDHOLE	⊙	WATER MARKER FLAG
⊙	LIGHT STANDARD	⊙	WATER MARKER SIGN
⊙	ELECTRIC METER	⊙	WATER TANK
⊙	ELECTRIC MANHOLE	☒	WATER VAULT
⊙	ELECTRIC MARKER FLAG	☒	WATER VALVE
⊙	ELECTRIC MARKER SIGN	☒	AIR RELEASE VALVE
⊙	UTILITY POLE	⊙	WATER WELL
⊙	ELECTRIC SWITCH	G.M.	CONTROL LING MONUMENT
⊙	ELECTRIC TRANSFORMER	IRSC S"	IRON ROD W/ "KHA" CAP SET
☒	ELECTRIC VAULT	IRFC	IRON ROD WITH CAP FOUND
☒	HANDICAPPED PARKING	PKS	PK NAIL SET
☒	PARKING METER	PKF	PK NAIL FOUND
☒	RAILROAD BOX	IRF	IRON ROD FOUND
☒	RAILROAD HANDHOLE	XS	"X" CUT IN CONCRETE SET
☒	RAILROAD SIGNAL	XF	"X" CUT IN CONCRETE FOUND
☒	RAILROAD VAULT	P.O.B.	POINT OF BEGINNING
☒	RAILROAD VAULT	P.O.C.	POINT OF COMMENCING
☒	SIGN		
☒	MARQUEE/BILLBOARD		
⊙	A/C UNIT		
☒	BASKET BALL GOAL		
⊙	BORE LOCATION		
⊙	FLAG POLE		
⊙	GOAL POST		
⊙	GREASE TRAP		
⊙	IRRIGATION VALVE		

EXISTING UTILITY OWNERS

NORTH TEXAS MUNICIPAL WATER DISTRICT	BRUCE COLE	(972) 442-5405	
CITY OF ROCKWALL - ENGINEERING	TIM TUMULTY	(972) 771-7746	CITY ENGINEER
CITY OF ROCKWALL - WATER & WASTEWATER	-	(972) 771-7730	
COMCAST	-	(800) 252-1133	
RCH WSC	DWIGHT LINDOP	(972) 670-9091	
SOUTHWESTERN BELL TELEPHONE	-	(800) 395-0440 (800) 545-6005	
TCI CABLE	-	(214) 328-5000	
TEXAS ONE CALL SYSTEM	-	(800) 245-4545	
TEXAS EXCAVATION SAFETY SYSTEM	-	(800) 344-8377	
ONCOR	RICHARD BREWSTER	(214) 486-4245	
ATMOS ENERGY	LINE LOCATE EMERGENCY BEN CURTIS RONNEY LINTON	(800) 344-8377 (800) 917-8090 (800) 344-8377 (469) 261-2023	
LEVEL 3 FIBER OPTIC	-	(877) 366-8344	
METRO MEDIA FIBER OPTIC	-	(972) 771-7746	DIG/EMERGENCY

LINE TYPE LEGEND

—	BOUNDARY LINE
---	EASEMENT LINE
----	BUILDING LINE
W	WATER LINE
SS	SANITARY SEWER LINE
---	STORM SEWER LINE
---	UNDERGROUND GAS LINE
---	OVERHEAD UTILITY LINE
---	UNDERGROUND ELECTRIC LINE
---	UNDERGROUND TELEPHONE LINE
---	FENCE
---	CONCRETE PAVEMENT
---	ASPHALT PAVEMENT

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Kimley-Horn
and Associates, Inc.



City of Rockwall
Trenchless Sewer
Rehabilitation

GENERAL NOTES

DATE: NOVEMBER 2013

DESIGN: PAC

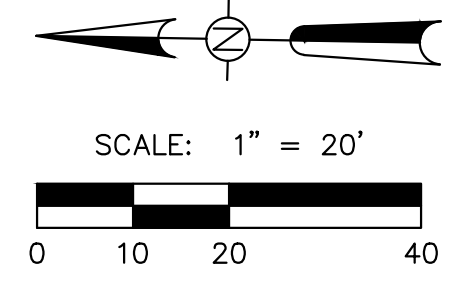
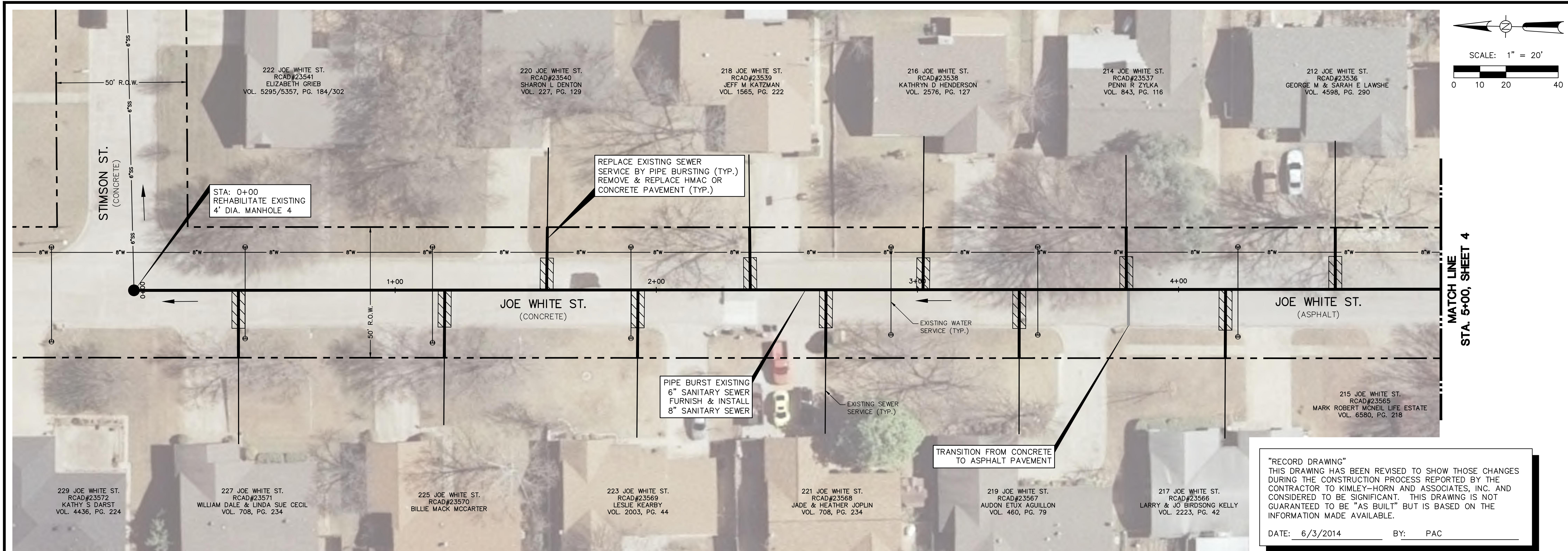
DRAWN: JAS

CHECKED: MSP

KHA NO.: 064420904

SHEET

2



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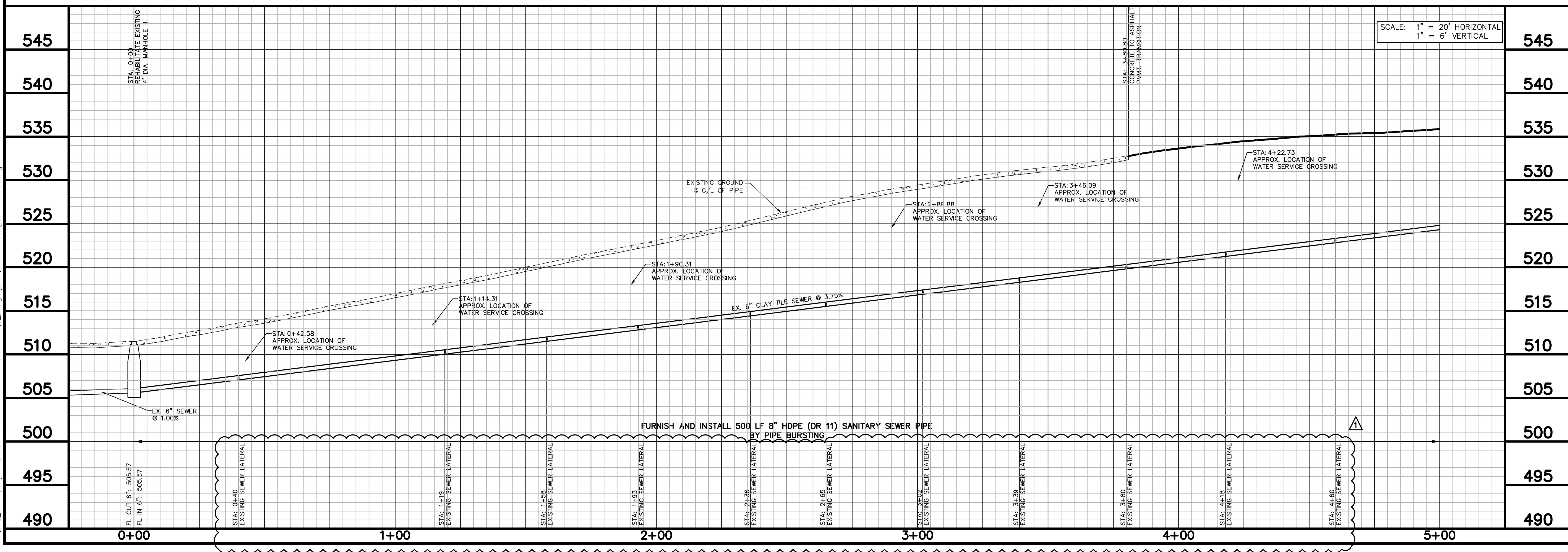
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Kimley-Horn and Associates, Inc.
 12750 Merit Drive, Suite 1000, Dallas, TX 75221 972-770-1500
 www.kimley-horn.com

NO.	1	REVISION	RECORD DRAWINGS
BY	PAC	DATE	6/3/14



**City of Rockwall
 Trenchless Sewer Rehabilitation**



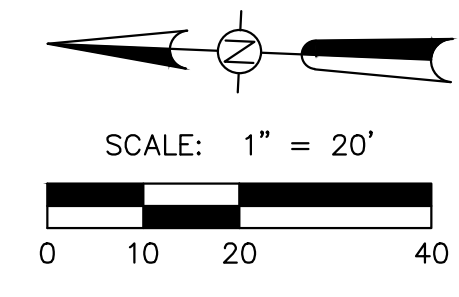
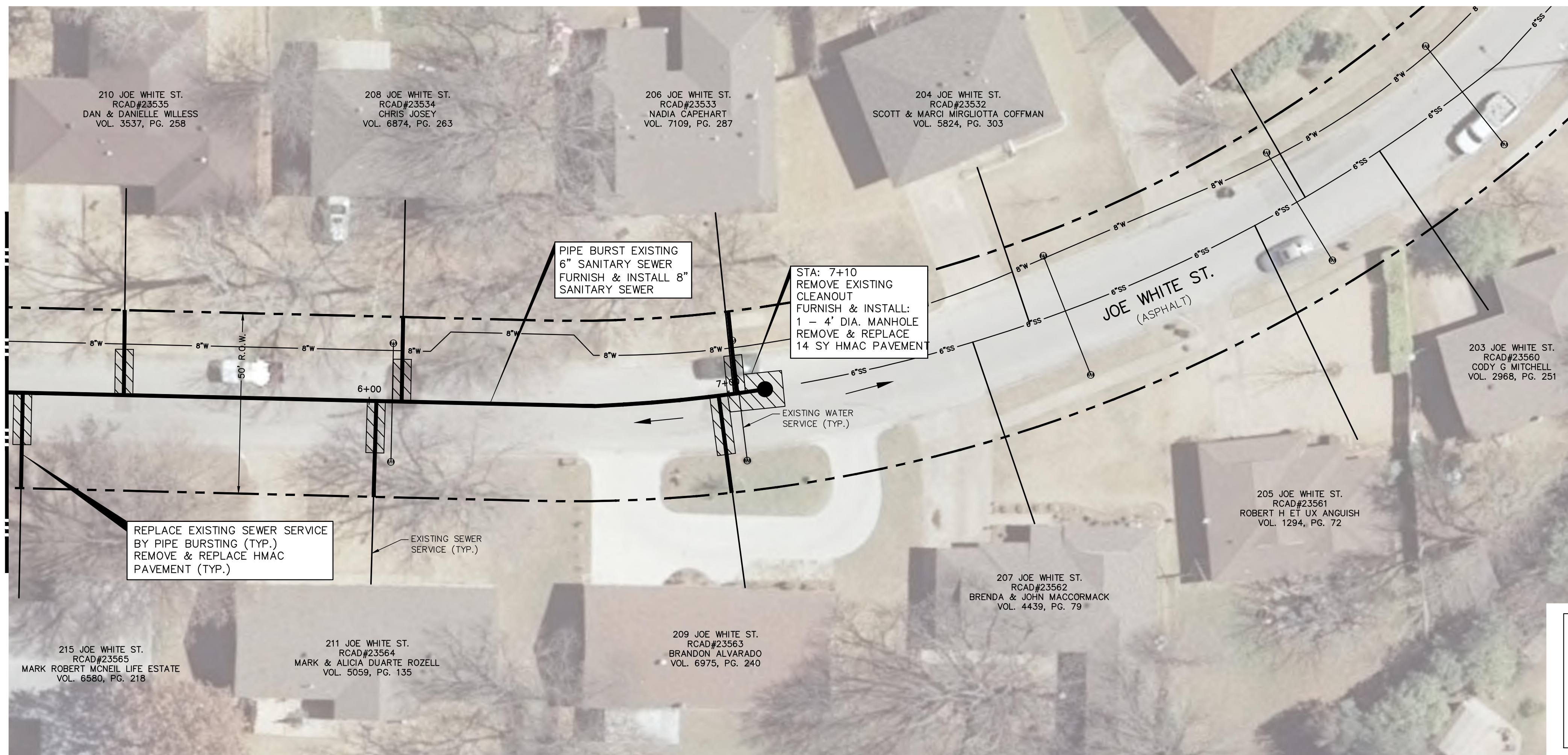
SCALE: 1" = 20' HORIZONTAL
 1" = 6' VERTICAL

**JOE WHITE STREET
 SEWER & SERVICES
 PLAN & PROFILE**

DATE:	NOVEMBER 2013
DESIGN:	PAC
DRAWN:	JAS
CHECKED:	MSP
KHA NO.:	064420904

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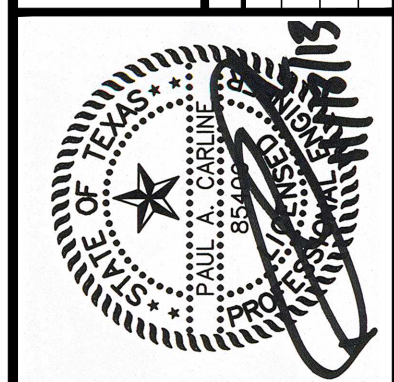
MATCH LINE
STA. 5+00, SHEET 3

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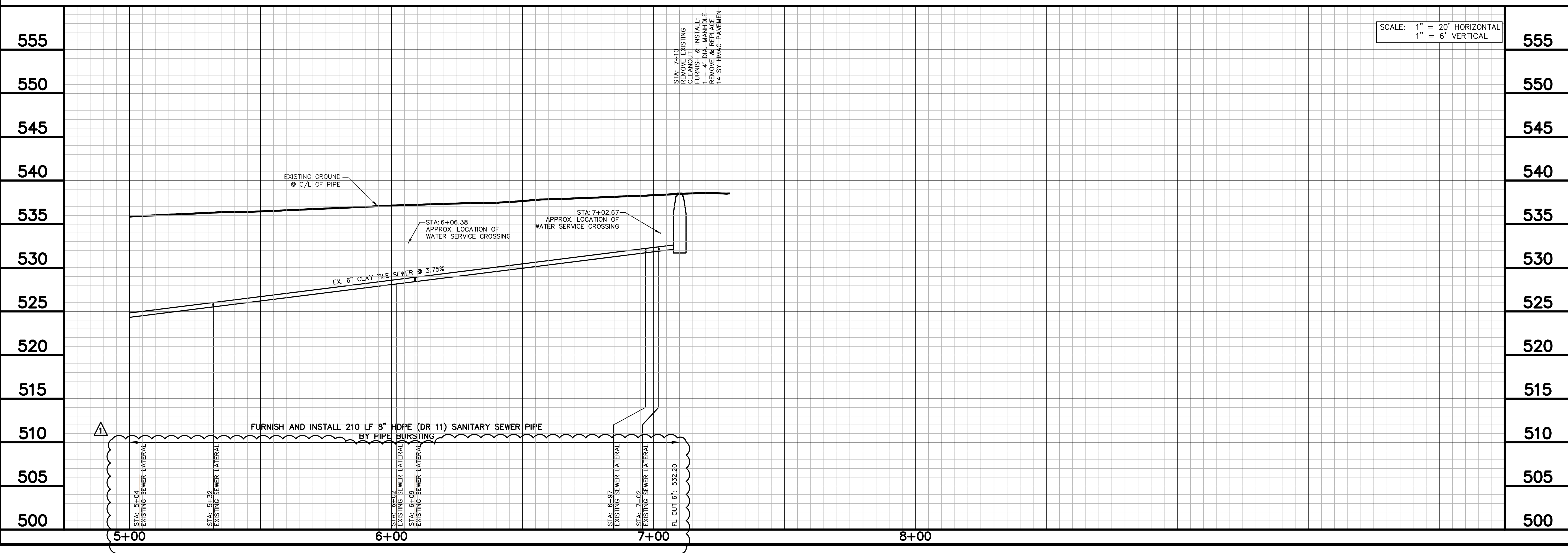
Kimley-Horn and Associates, Inc.
State Board of Professional Engineers, No. 17416
 12750 Merit Drive, Suite 1000, Dallas, TX 75251 972-770-1300

BY	Date
PAC	6/3/14

REVISION
1 RECORD DRAWINGS



**City of Rockwall
Trenchless Sewer
Rehabilitation**

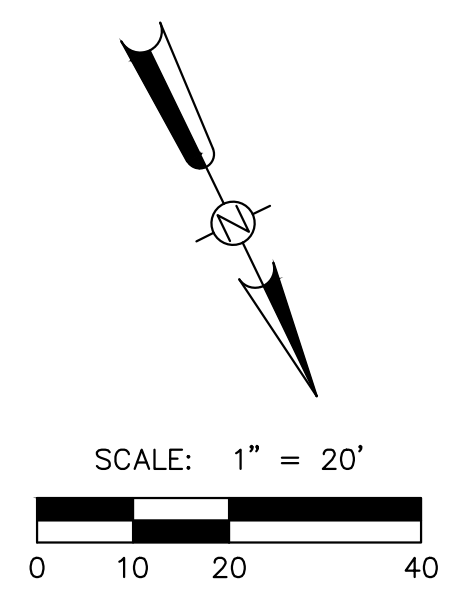
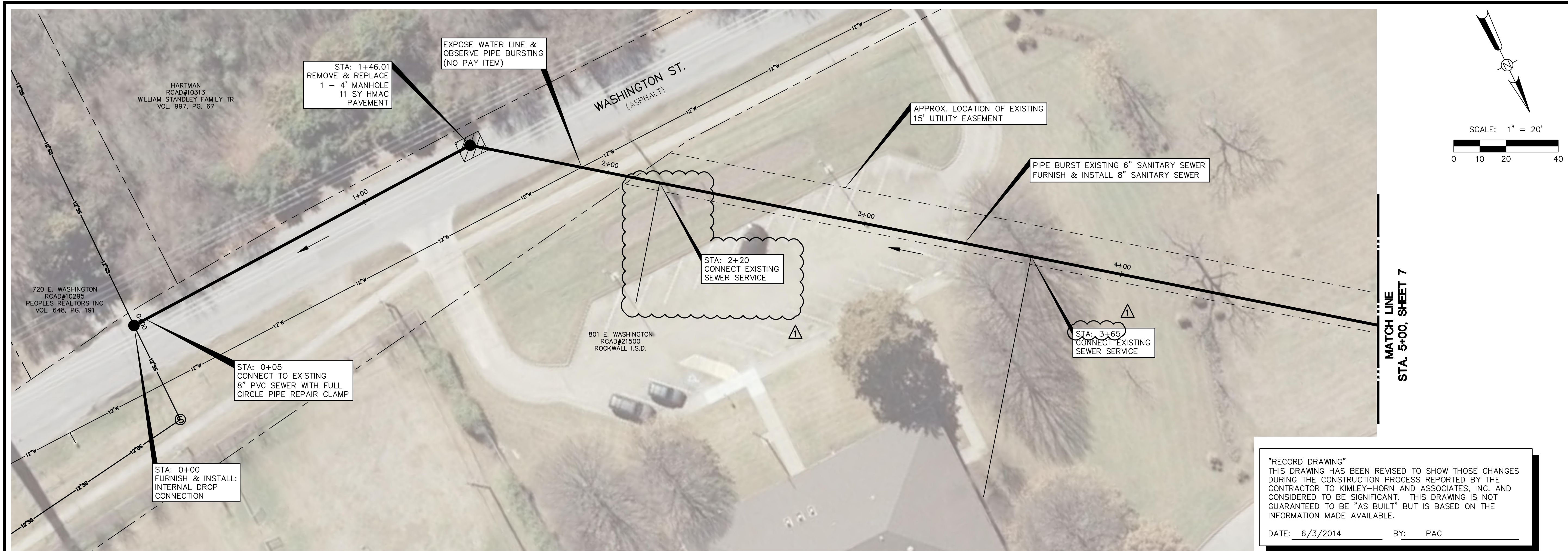


SCALE: 1" = 20' HORIZONTAL
1" = 6' VERTICAL

**JOE WHITE STREET
SEWER & SERVICES
PLAN & PROFILE**

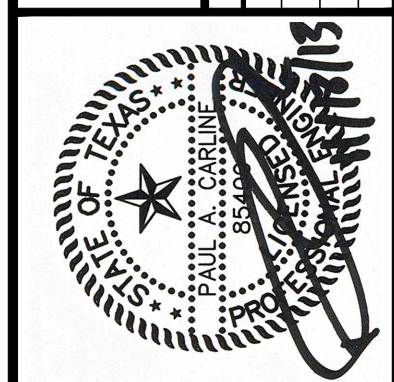
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SHEET
4

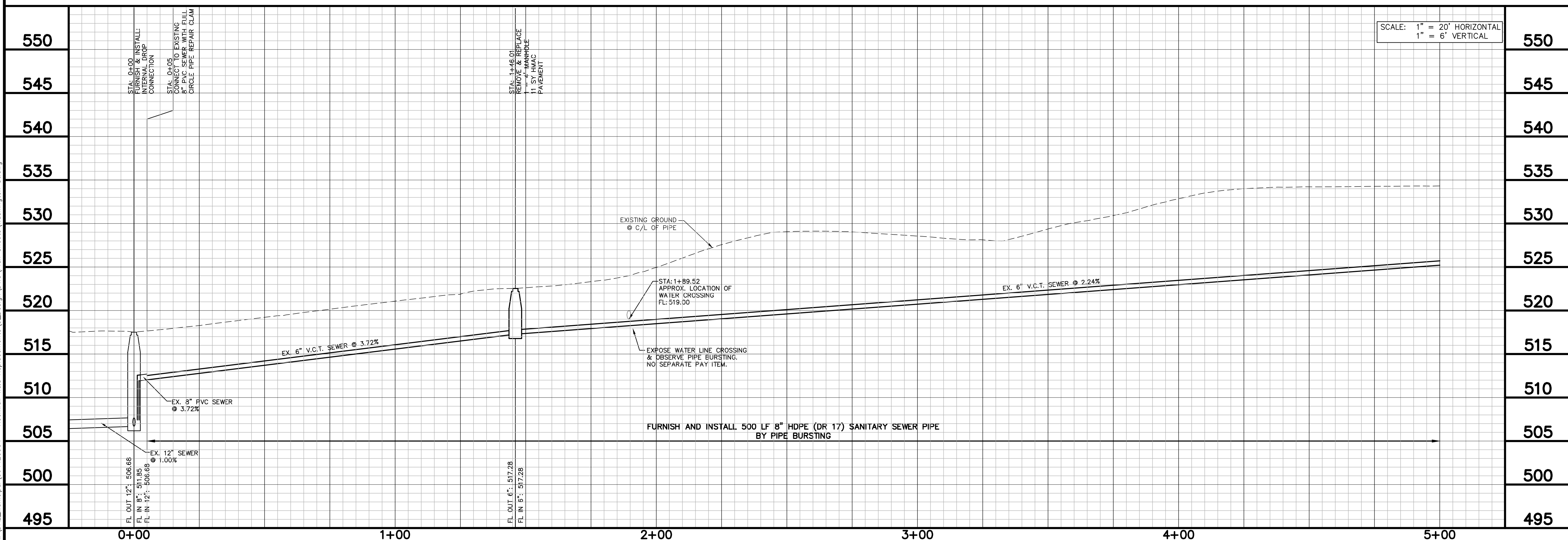


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By: PAC	Date: 6/3/14
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**City of Rockwall
 Trenchless Sewer
 Rehabilitation**



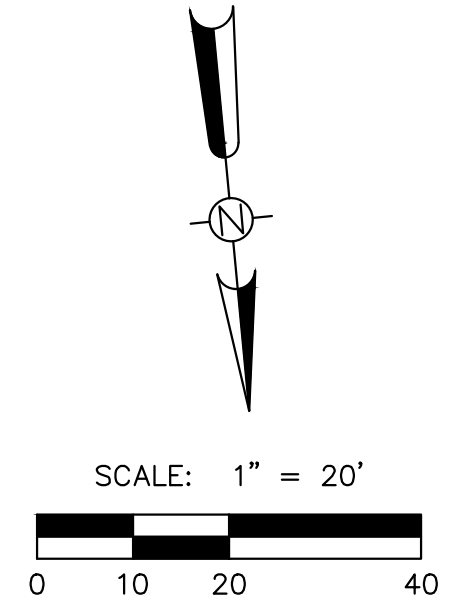
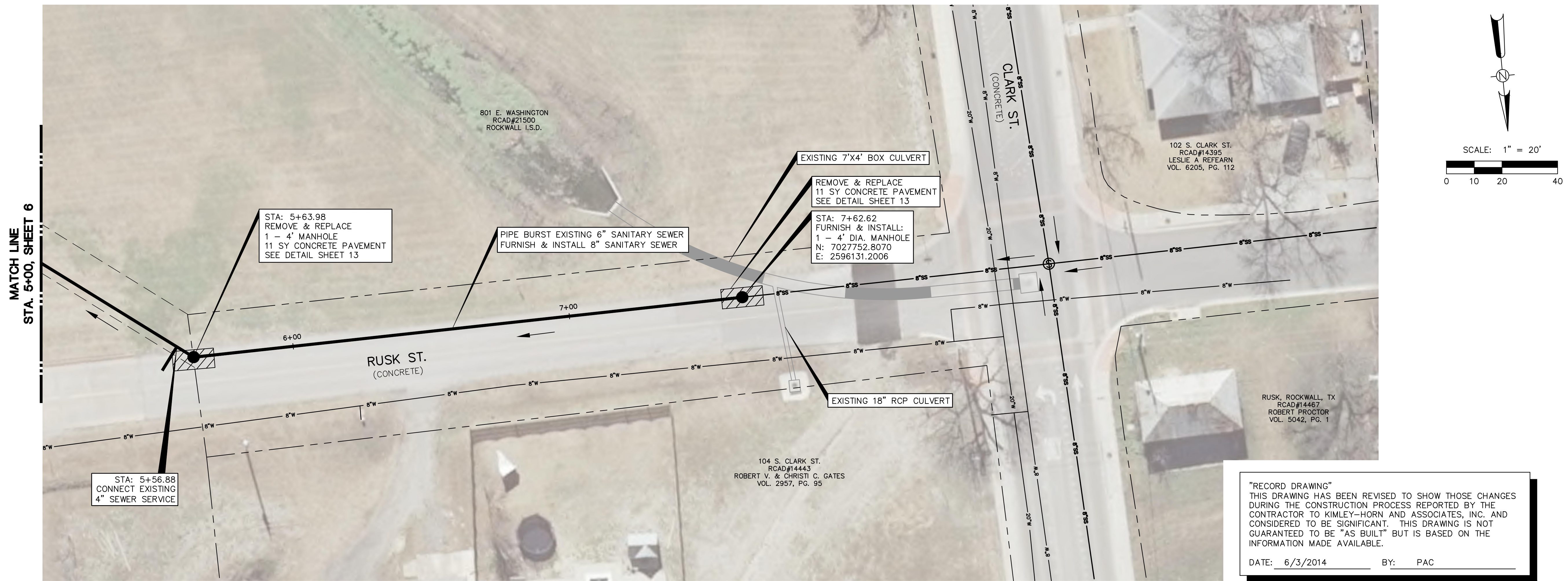
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**RUSK STREET TO
 WASHINGTON STREET
 SEWER PIPE BURSTING
 PLAN & PROFILE**

DATE: NOVEMBER 2013
DESIGN: PAC
DRAWN: JAS
CHECKED: MSP
KHA NO.: 064420904

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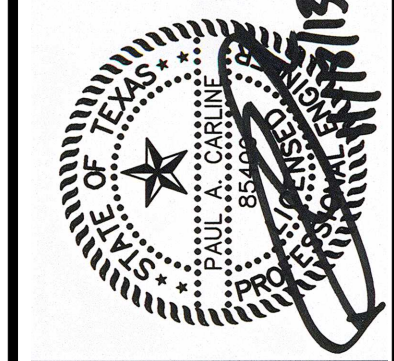
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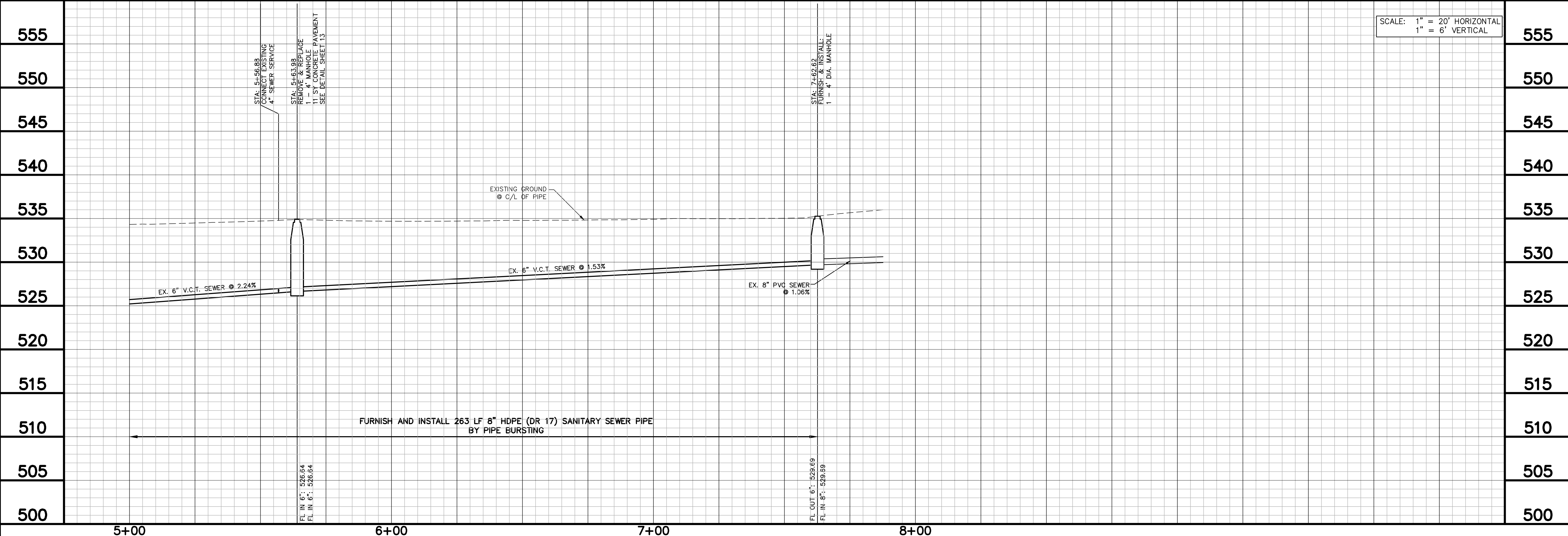
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Date	
Revision	
No.	



**City of Rockwall
 Trenchless Sewer
 Rehabilitation**



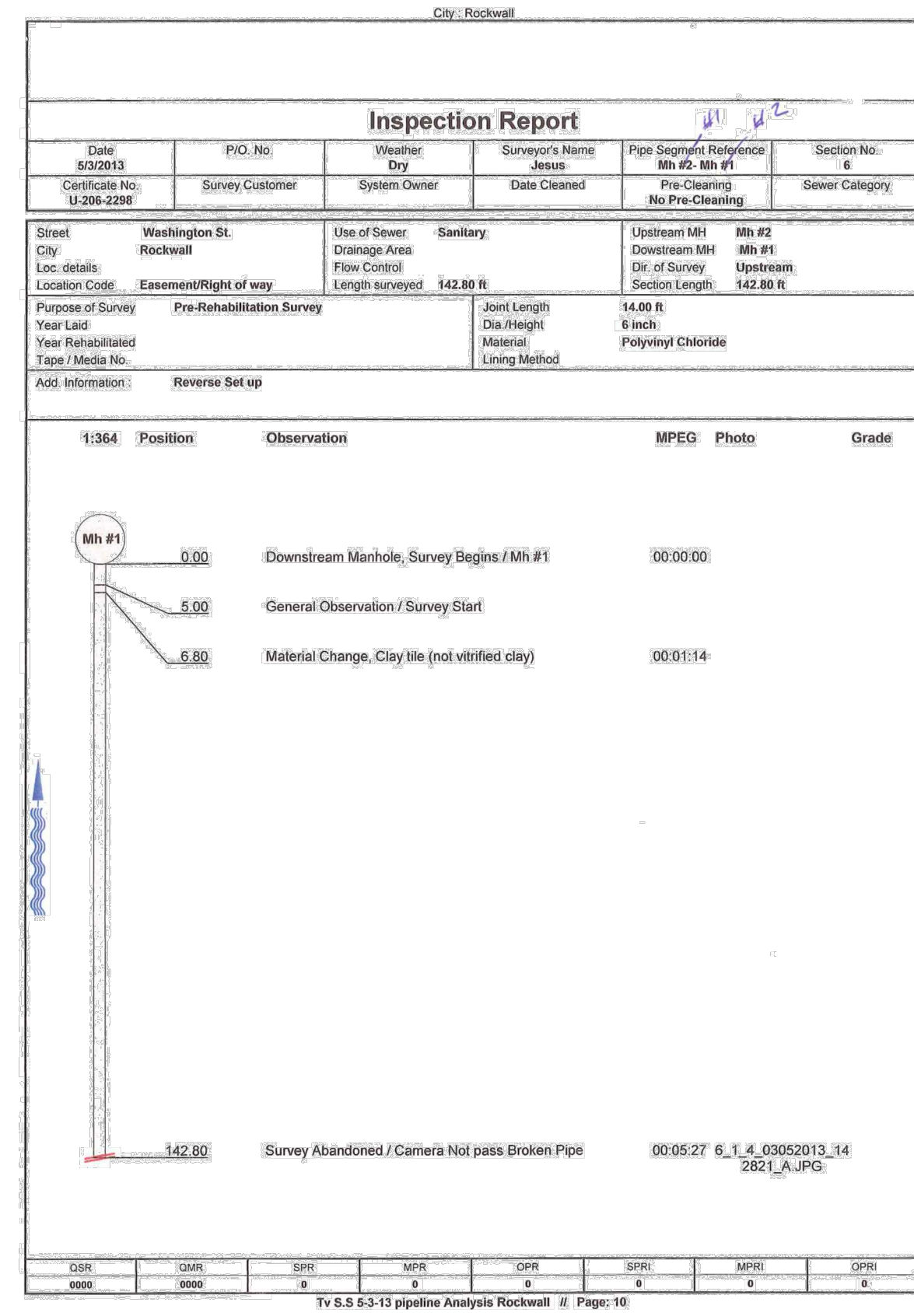
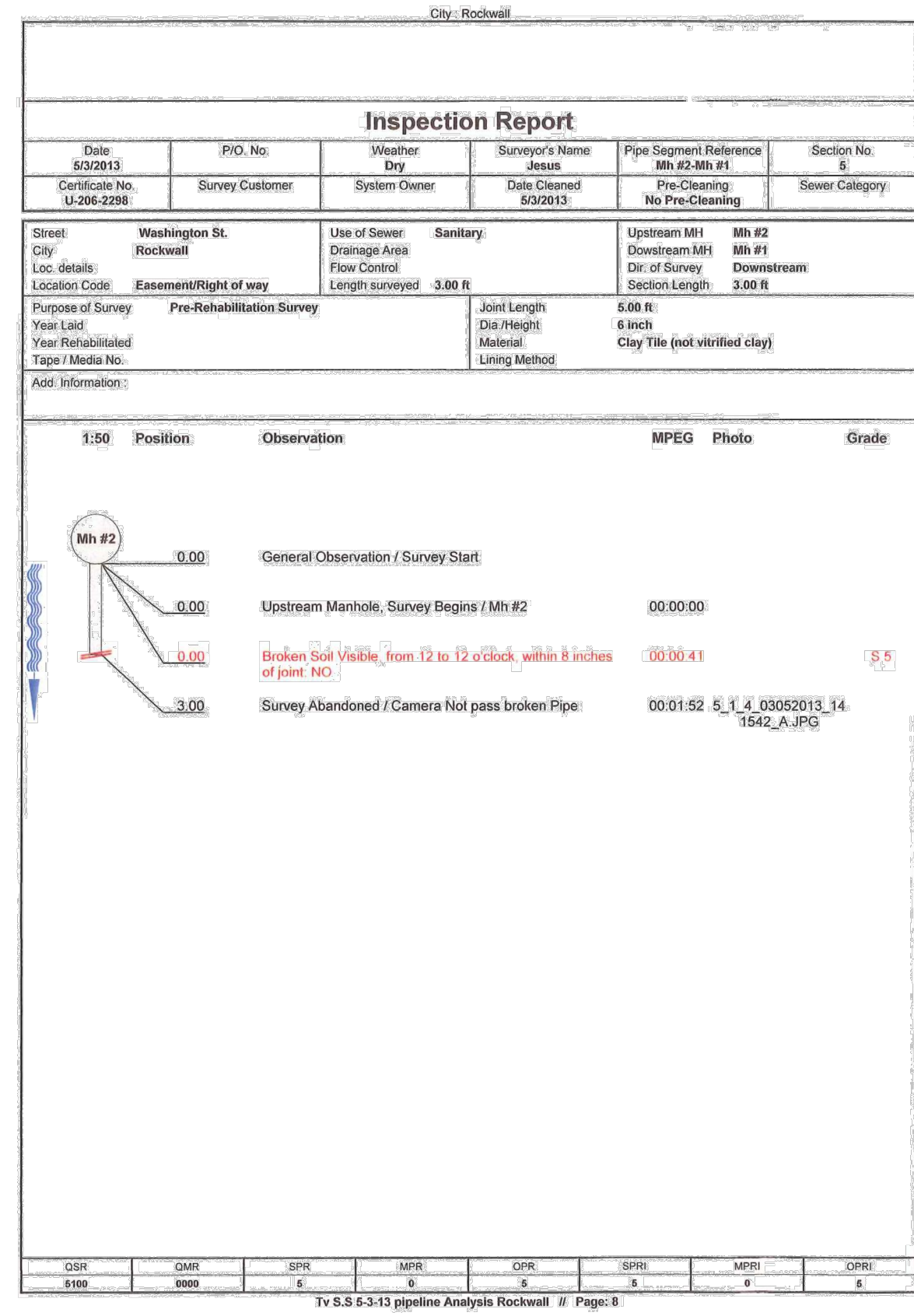
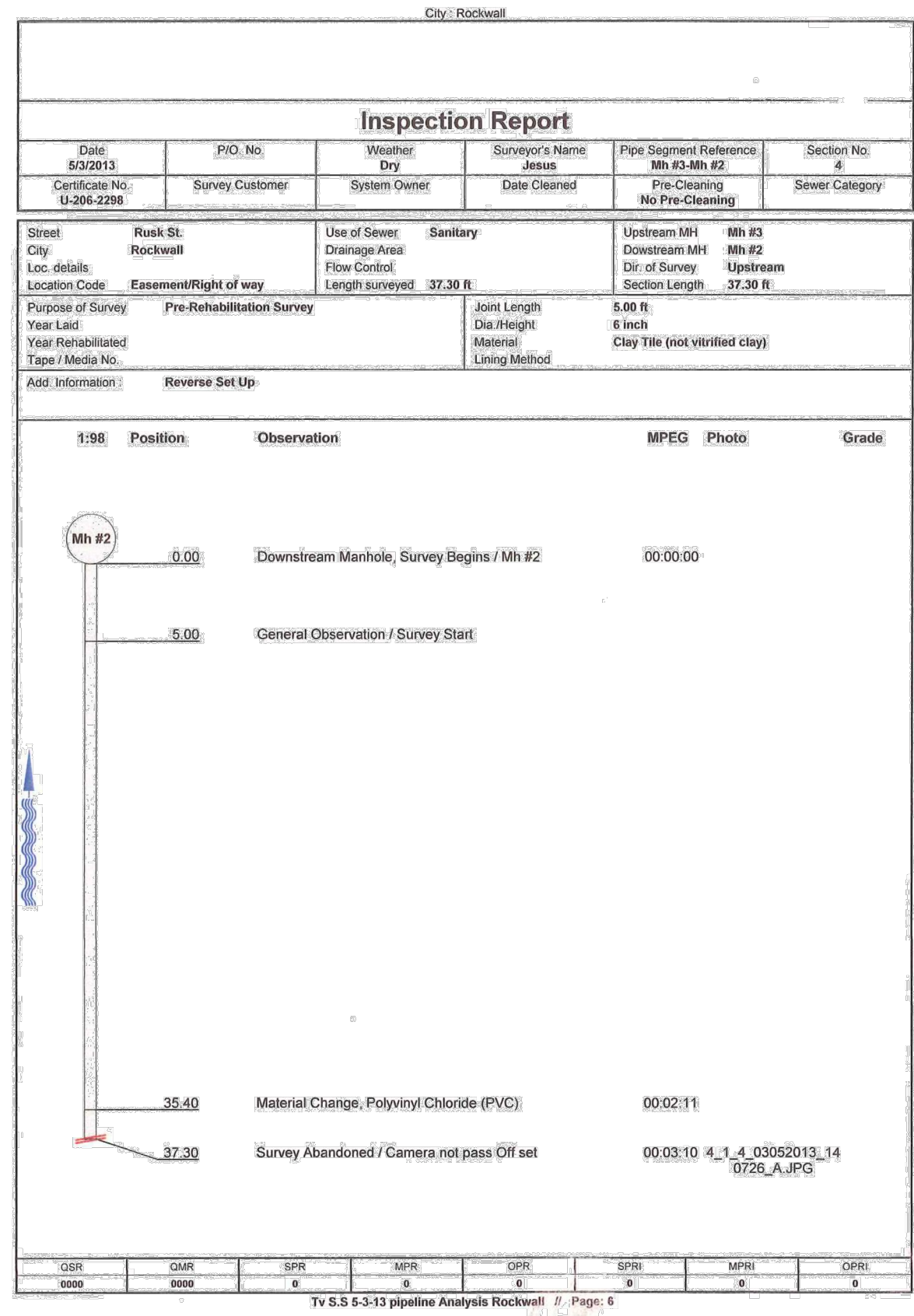
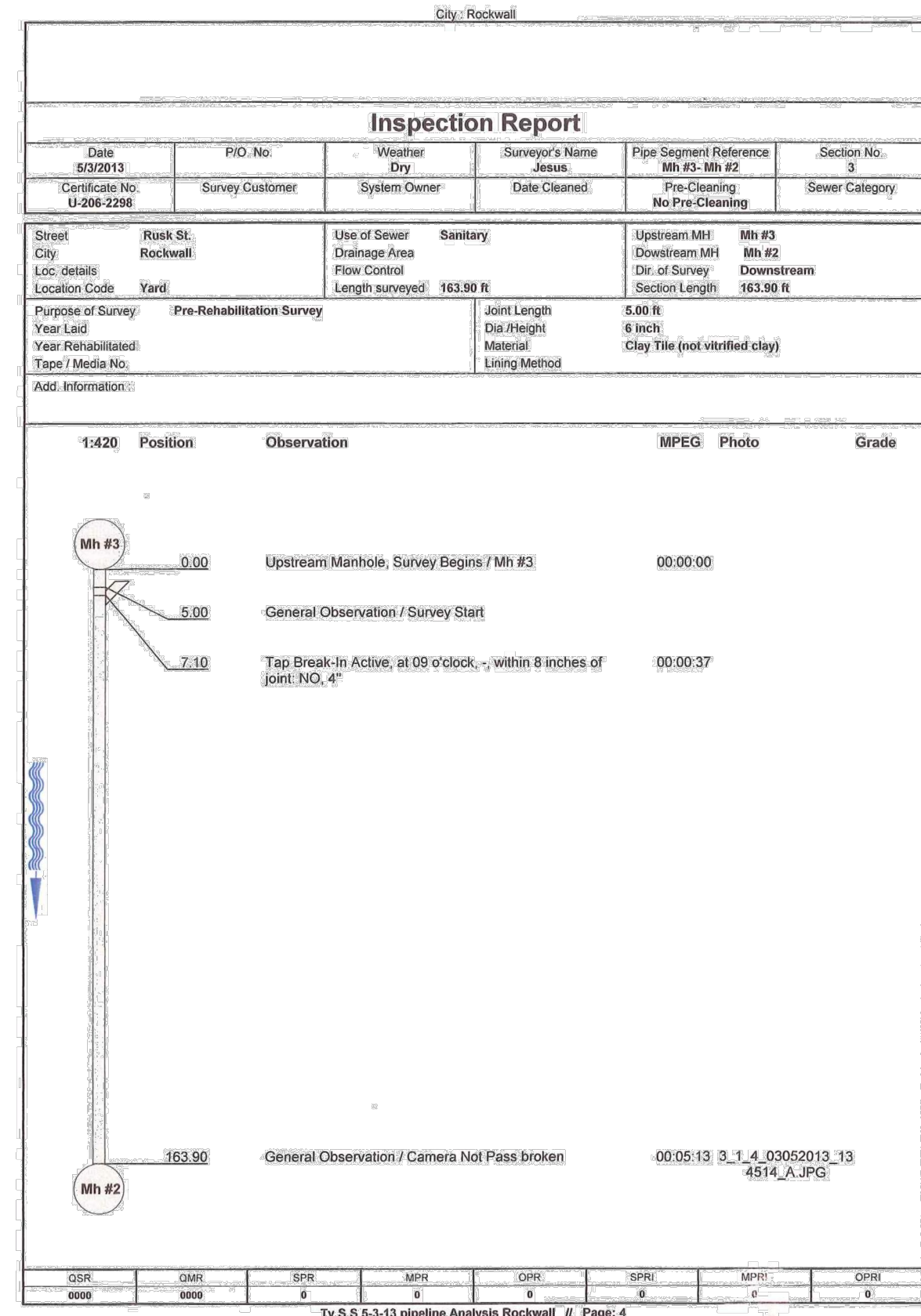
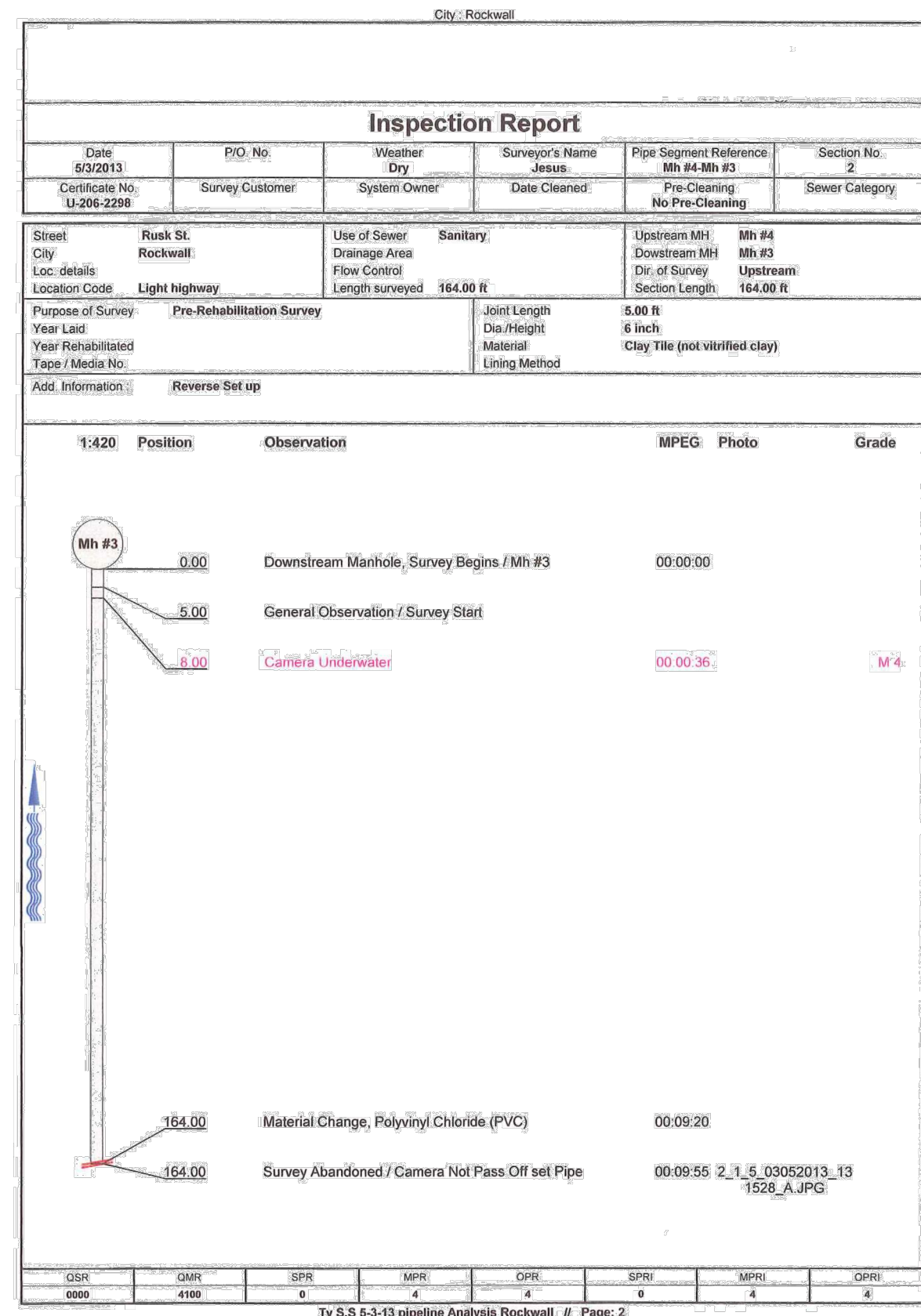
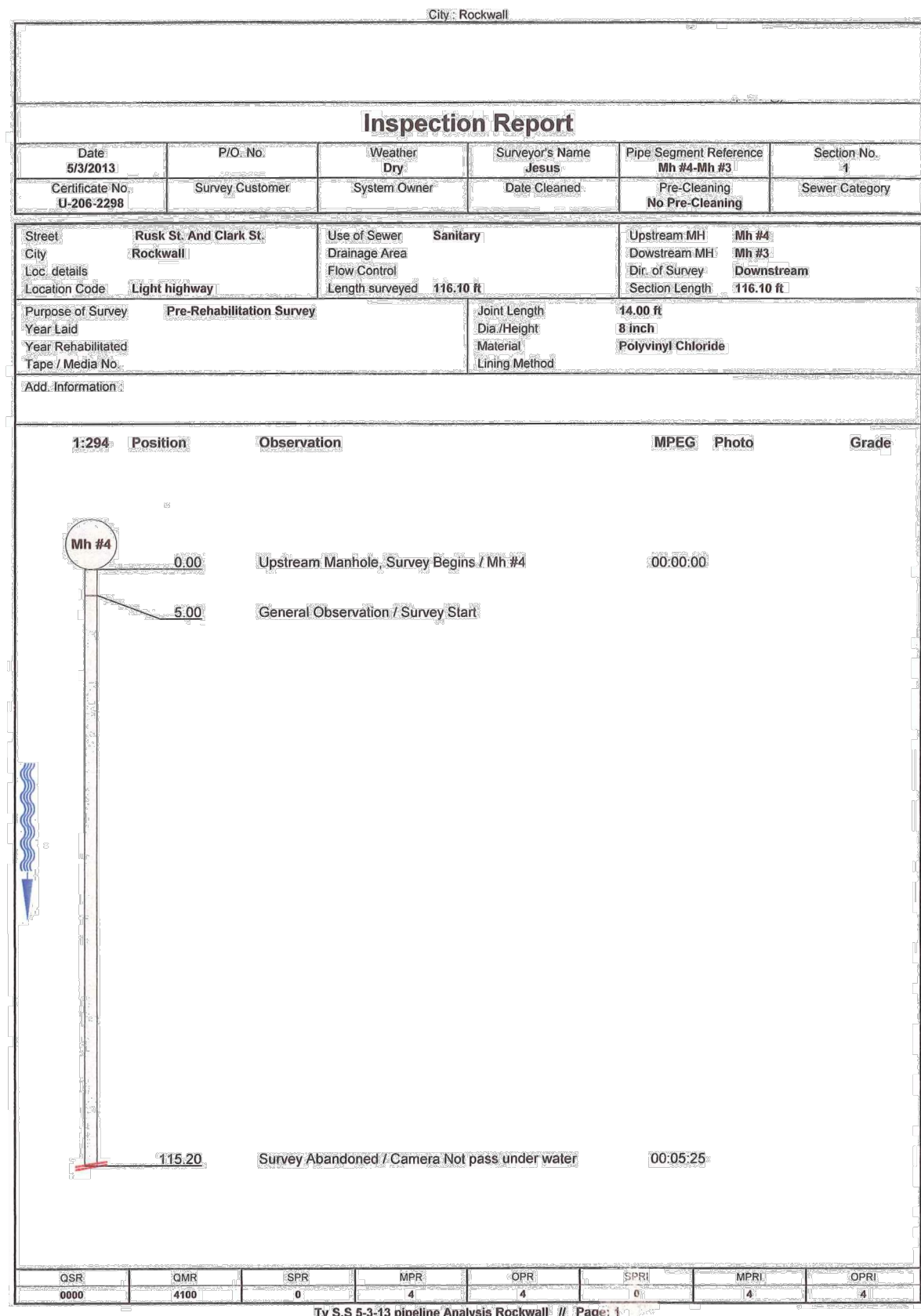
SCALE: 1" = 20' HORIZONTAL
 1" = 6' VERTICAL

**RUSK STREET TO
 WASHINGTON STREET
 SEWER PIPE BURSTING
 PLAN & PROFILE**

DATE:	NOVEMBER 2013
DESIGN:	PAC
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CHECKED:	MSP
KHA NO.:	064420904

SHEET
7

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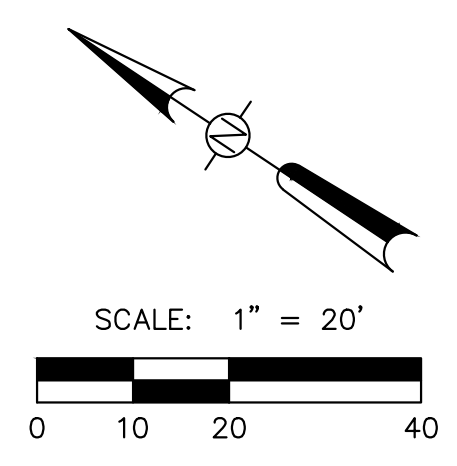
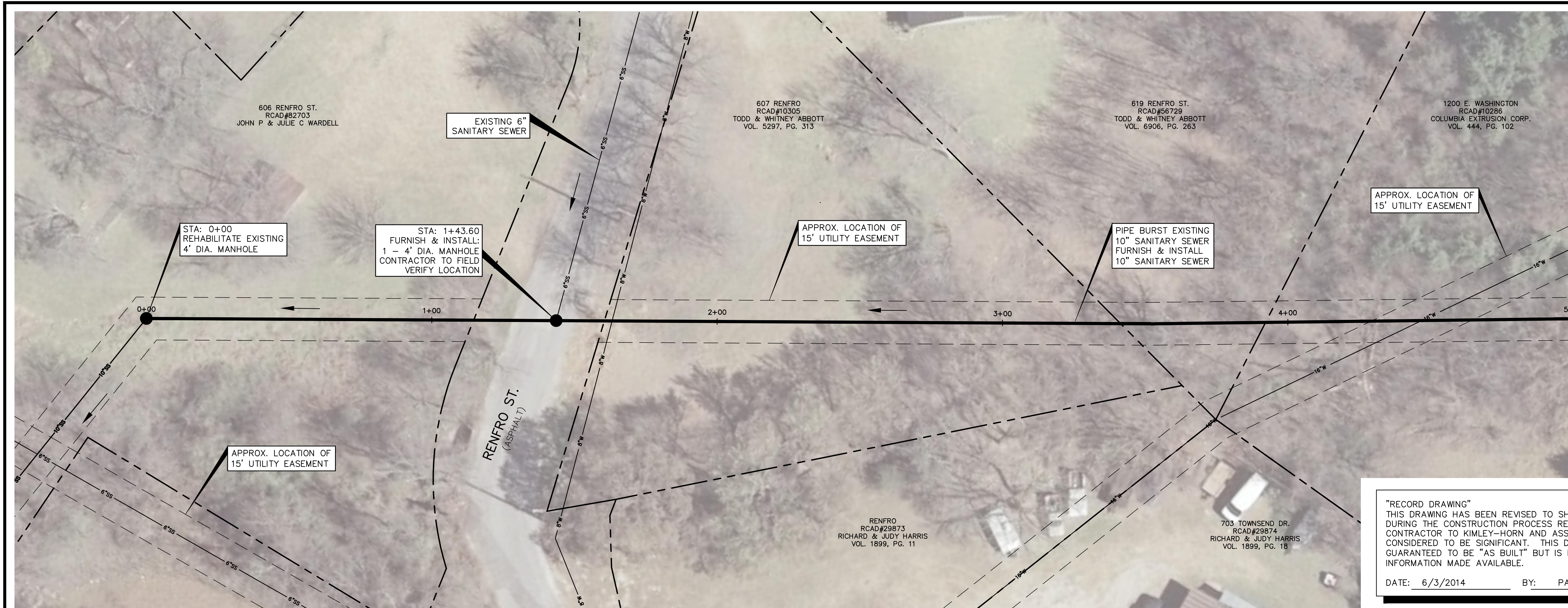
**City of Rockwall
 Trenchless Sewer
 Rehabilitation**

**RUSK STREET TO
 WASHINGTON STREET
 INSPECTION REPORT & NOTES**

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REVISION
 By
 Date

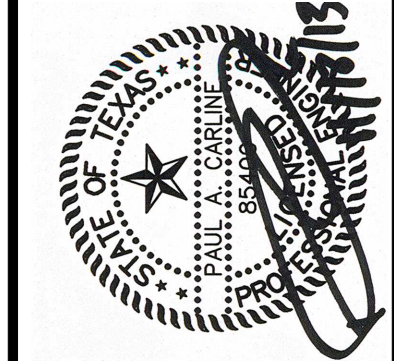
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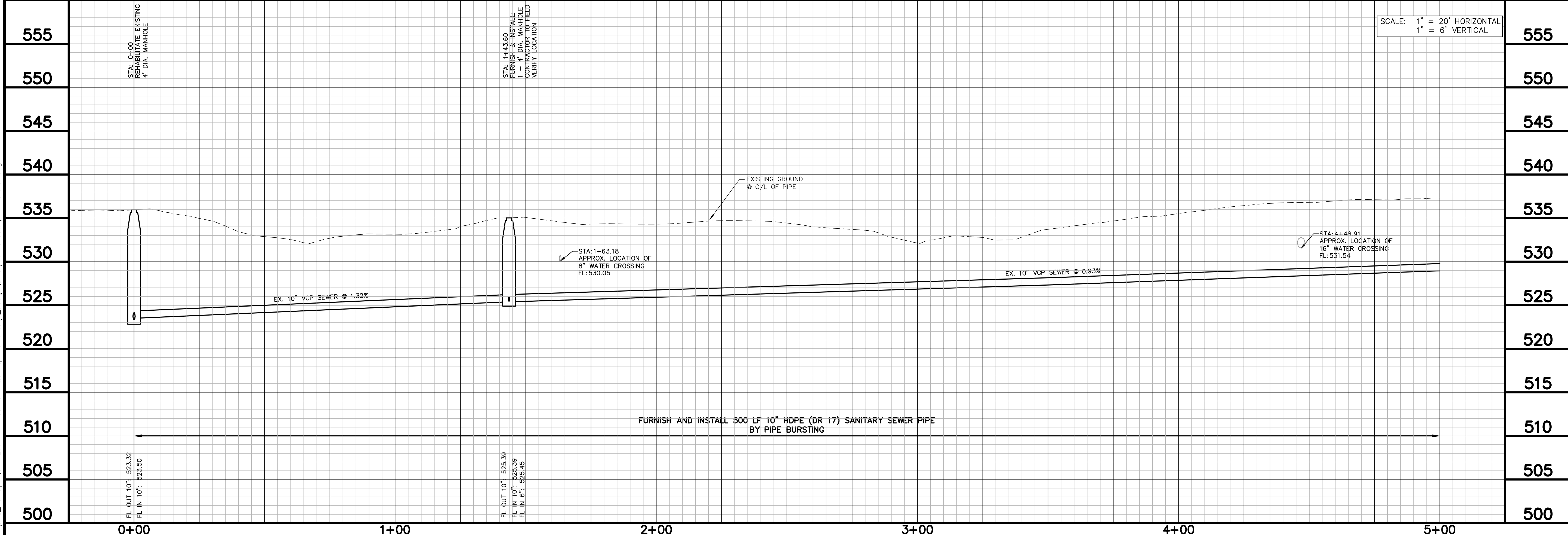
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**City of Rockwall
 Trenchless Sewer Rehabilitation**



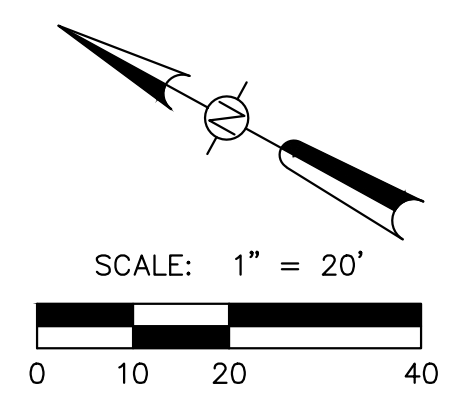
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 1" = 6' VERTICAL

**WHITMORE DRIVE TO
 RENFRO STREET
 SEWER
 PLAN & PROFILE**

DATE: NOVEMBER 2013
DESIGN: PAC
DRAWN: JAS
CHECKED: MSP
KHA NO.: 064420904

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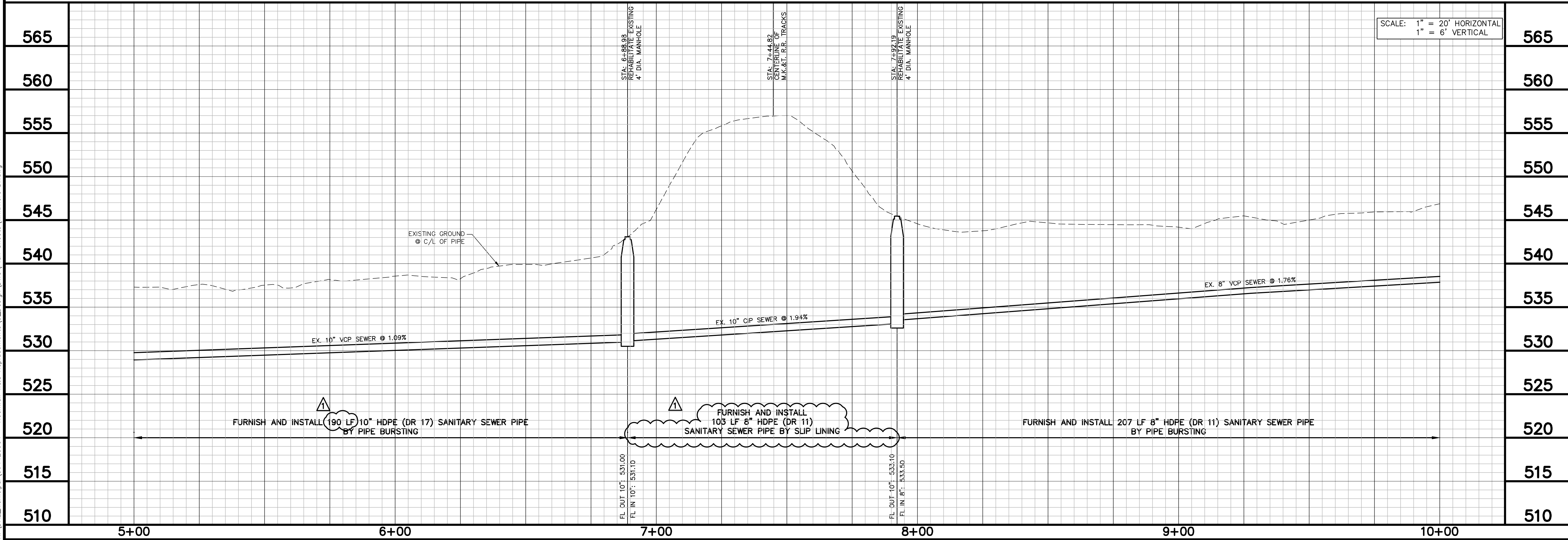
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PAC	6/3/14

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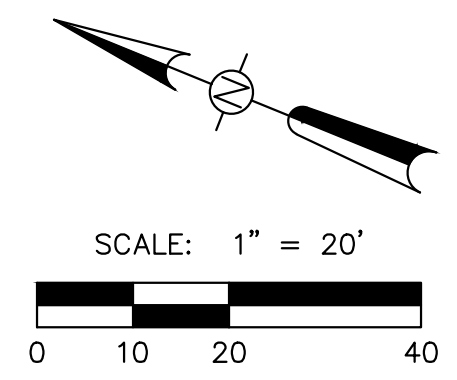
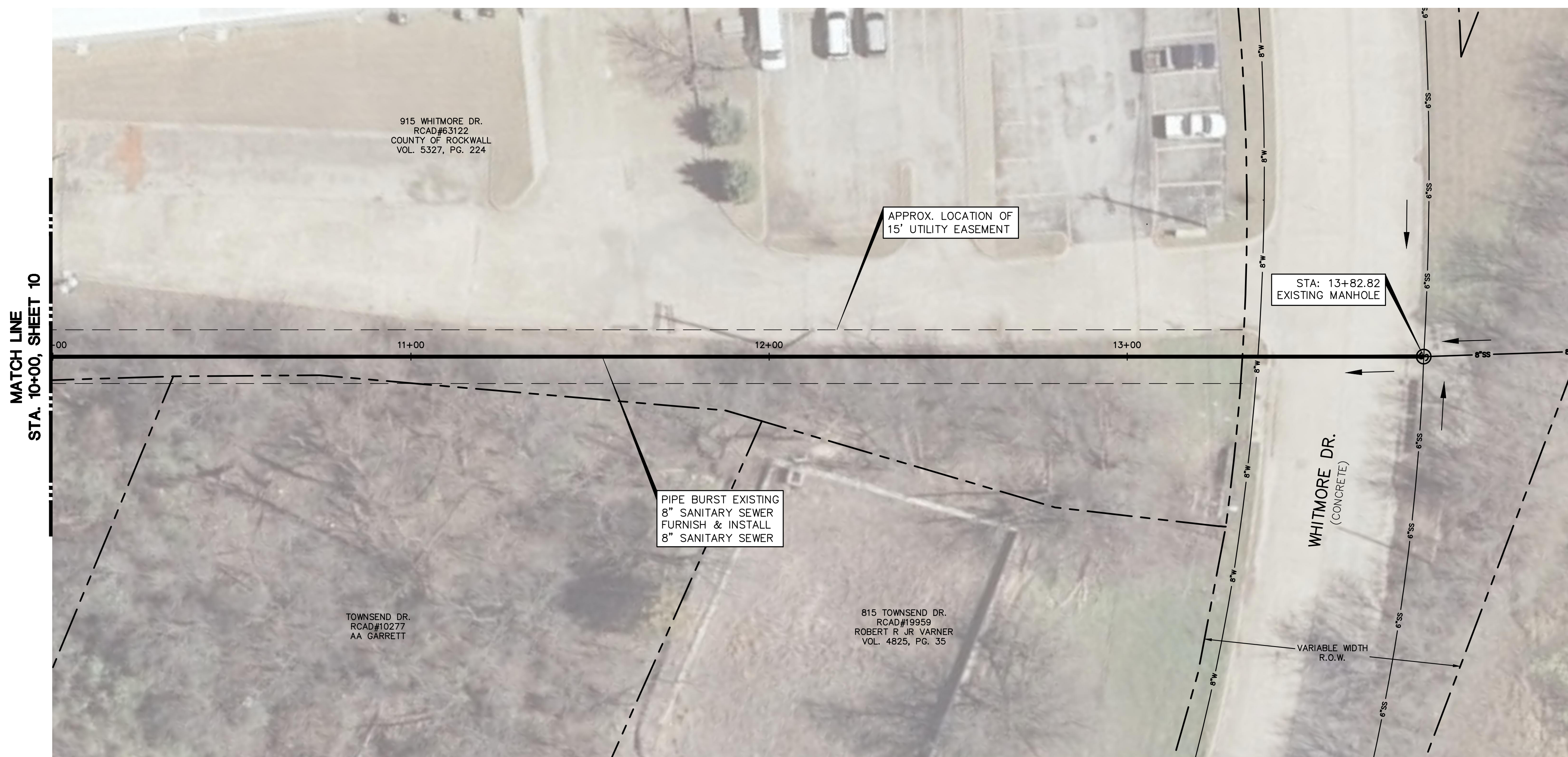
**City of Rockwall
 Trenchless Sewer Rehabilitation**



WHITMORE DRIVE TO RENFRO STREET SEWER PLAN & PROFILE

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SHEET
10



- NOTES:**
1. MAINLINE SHALL BE CLEANED AND PRE-CONSTRUCTION VIDEO INSPECTED BY CONTRACTOR. CONTRACTOR SHALL THEN MEET WITH CITY STAFF TO DETERMINE WHICH MAINLINE SEGMENTS NEED TO BE REPLACED BY OPEN CUT POINT REPAIR AND WHICH SEGMENTS ARE CANDIDATES FOR PIPE BURSTING.
 2. ACCESS TO EXISTING SANITARY SEWER SHALL BE THROUGH EXISTING EASEMENT ONLY. CONTRACTOR SHALL INCLUDE IN THEIR BID TREE REMOVAL AND DISPOSAL OF TREES IN EASEMENT NECESSARY TO ACCESS SANITARY SEWER. (NO PAY ITEM). CONTRACTOR SHALL FLAG TREES PROPOSED FOR REMOVAL AND MEET WITH CITY STAFF ON SITE FOR APPROVAL OF FLAGGED TREES PRIOR TO REMOVAL.
 3. CONTRACTOR SHALL NOT USE RAILROAD RIGHT-OF-WAY TO ACCESS SANITARY SEWER.

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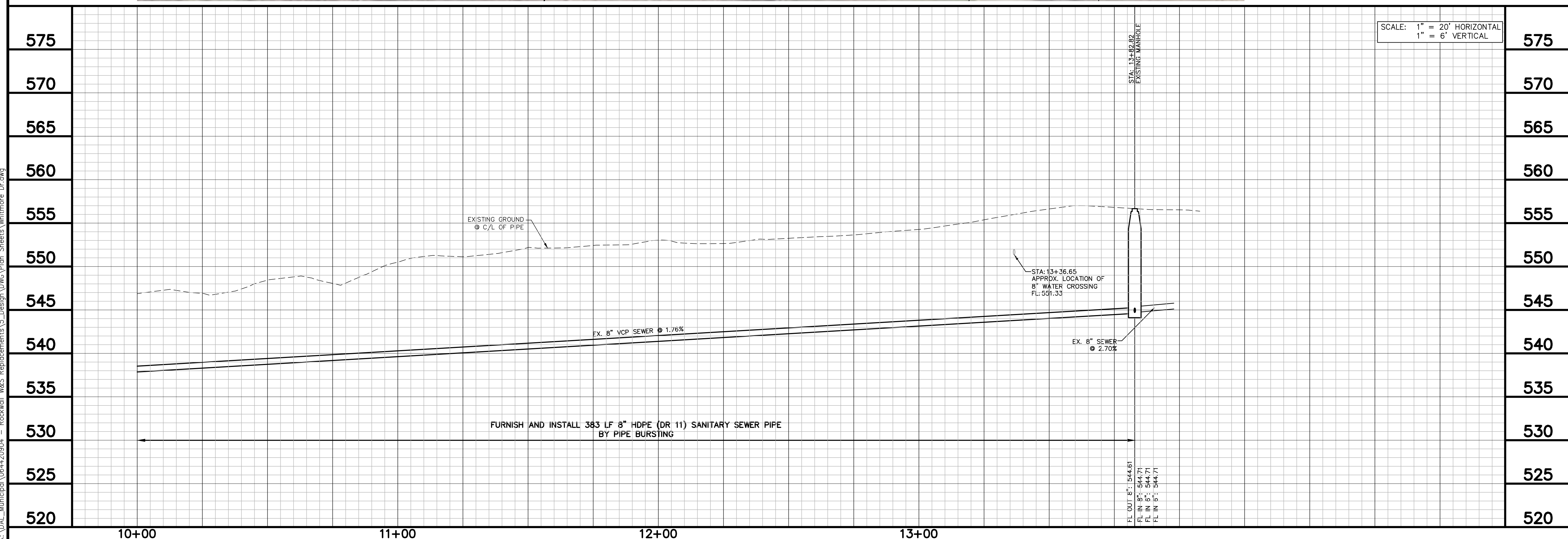
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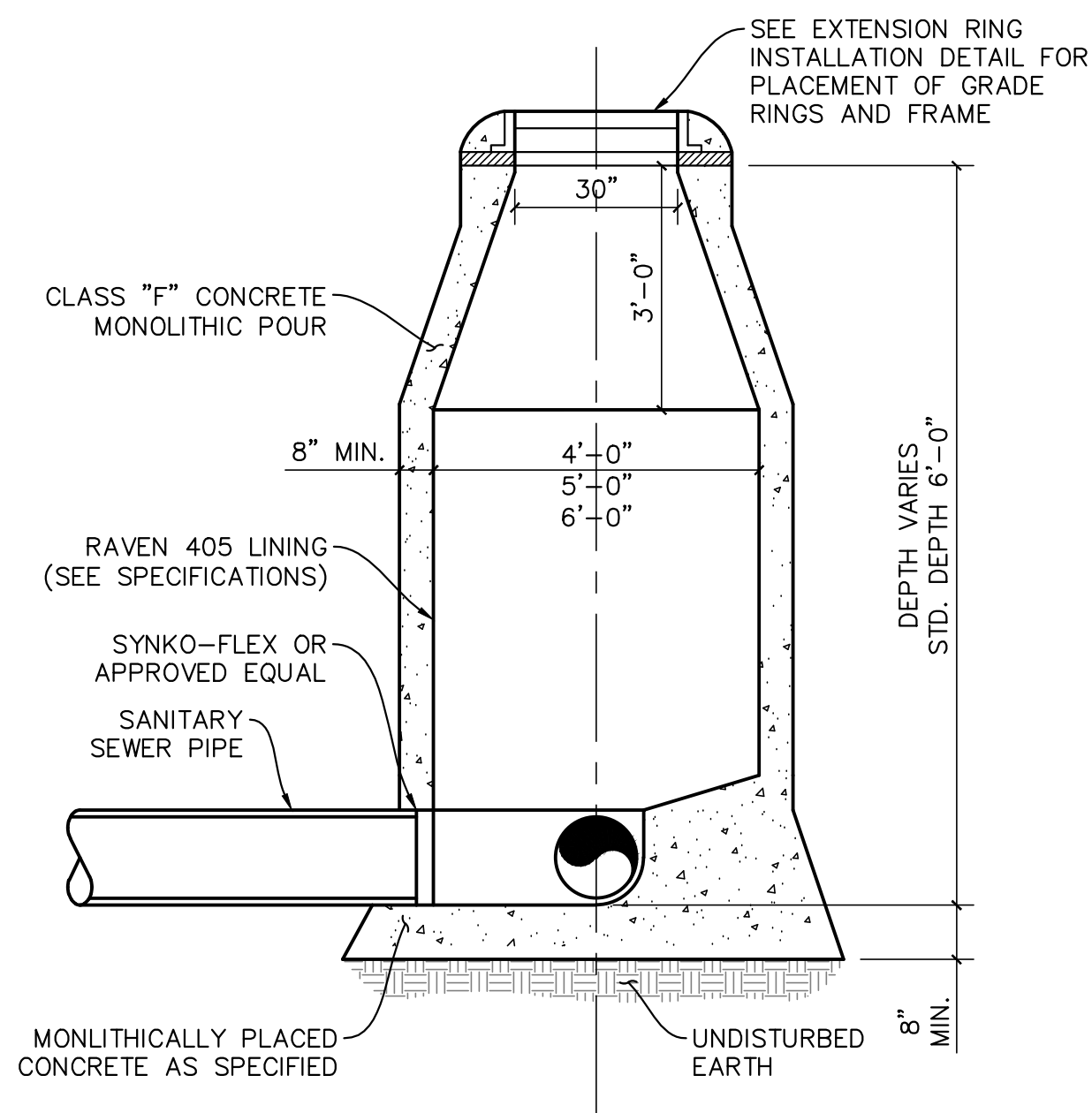
**City of Rockwall
Trenchless Sewer
Rehabilitation**



**WHITMORE DRIVE TO
RENFRO STREET
SEWER
PLAN & PROFILE**

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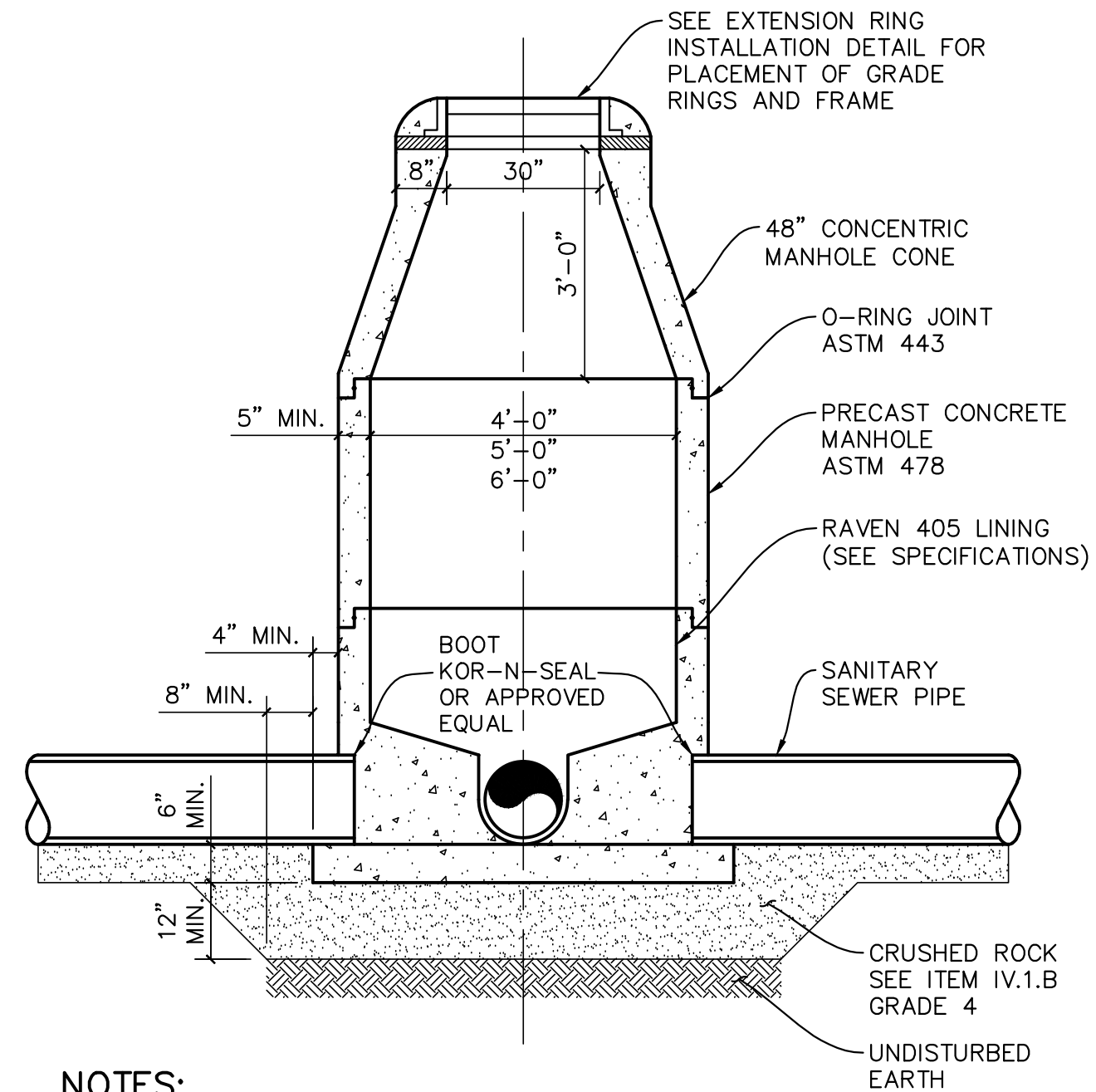


NOTES:

1. MAXIMUM CHIMNEY HEIGHT SHALL BE 24".
2. MANHOLES SHALL BE CONCENTRIC UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
3. INVERTS SHALL BE EQUAL TO OR GREATER THAN THE PIPE DIAMETER.
4. FOR MANHOLE DEPTHS GREATER THAN 12 FEET, ADD AN ADDITIONAL 4 INCHES OF CONCRETE TO THE WALL THICKNESS FOR EACH ADDITIONAL 6 FEET OF DEPTH.

**Cast-in-Place Sanitary Sewer Manhole
DETAIL**

1
12 SCALE: NOT TO SCALE

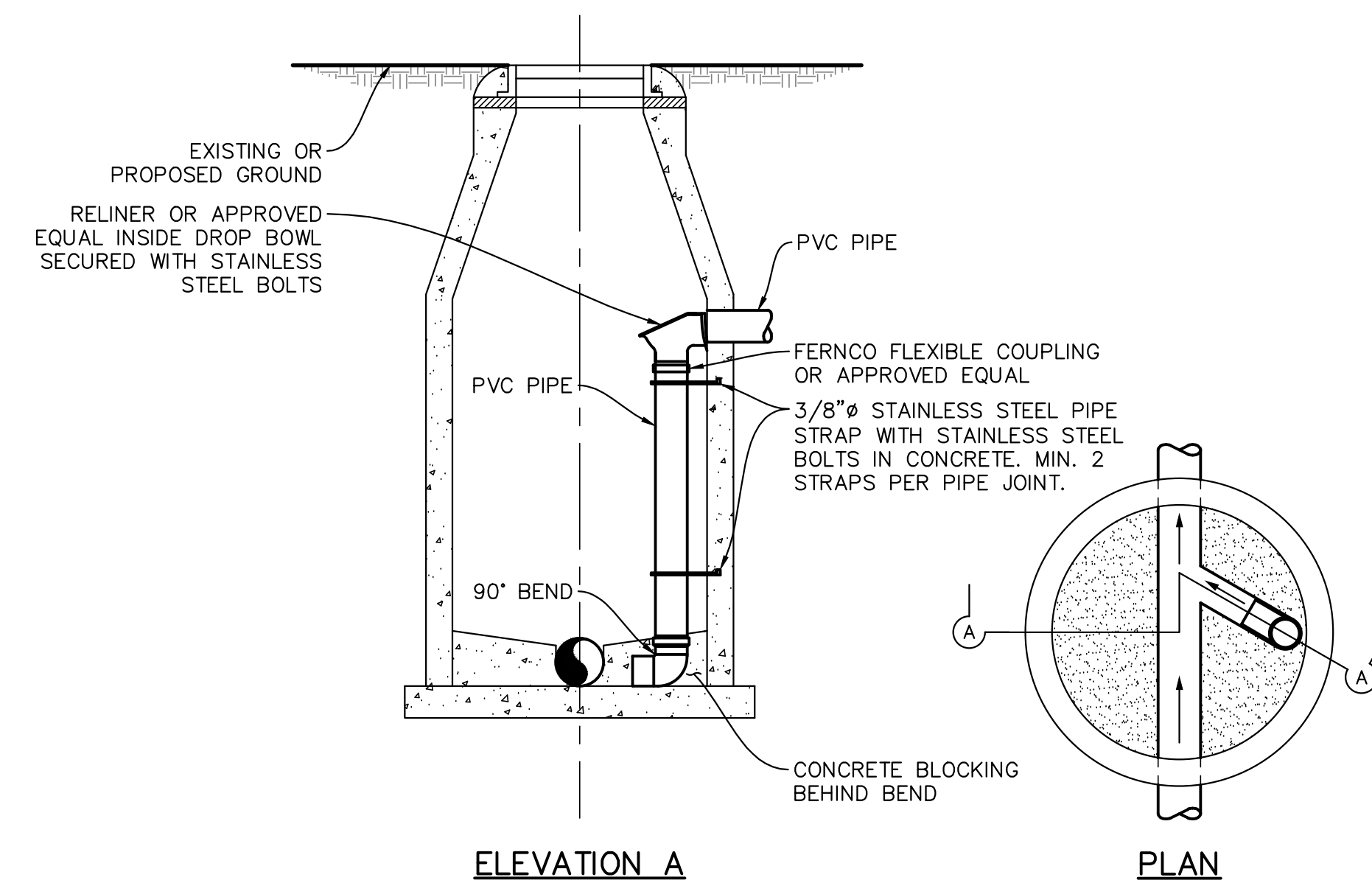


NOTES:

1. MAXIMUM CHIMNEY HEIGHT SHALL BE 24".
2. MANHOLES SHALL BE CONCENTRIC UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
3. TRANSITIONS TO 5' AND 6' BARREL DIAMETERS SHALL OCCUR JUST BELOW THE CONE SECTION.
4. INVERTS SHALL BE EQUAL TO OR GREATER THAN THE PIPE DIAMETER.

**Precast Sanitary Sewer Manhole
DETAIL**

2
12 SCALE: NOT TO SCALE



ELEVATION A

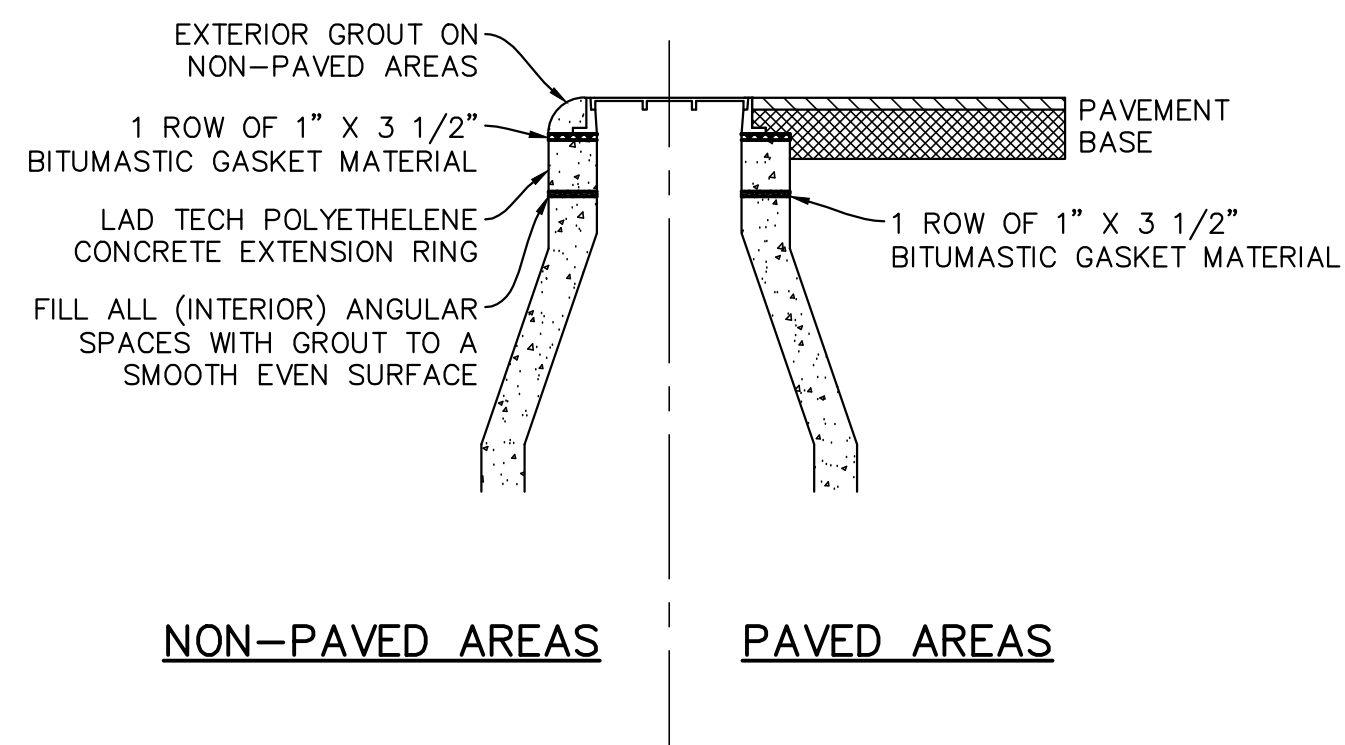
PLAN

NOTES:

1. PVC PIPE WITHIN MANHOLE SHALL BE SDR-35 FOR DEPTHS LESS THAN 10 FEET.
2. PVC PIPE WITHIN MANHOLE SHALL BE SDR-26 FOR DEPTHS 10 FEET AND GREATER.
3. MANHOLE MAY BE EITHER PRECAST OR MONOLITHIC TYPE.
4. INSIDE PIPE SHALL NOT BE PLACED IN CONE AREA AND SHALL MATCH INCOMING PIPE SIZE.

**Sanitary Sewer Drop Connection
DETAIL**

3
12 SCALE: NOT TO SCALE

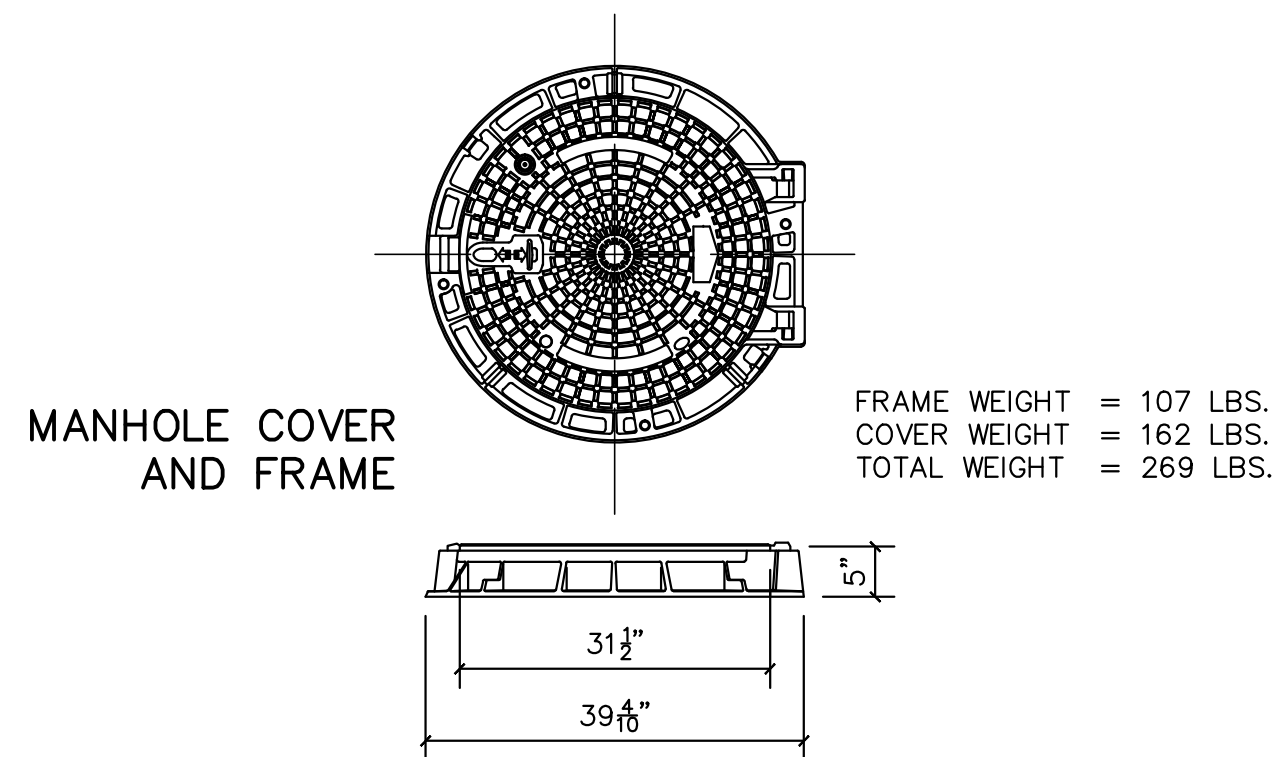


NOTES:

1. NO GAPS WILL BE ALLOWED IN BITUMASTIC GASKET.
2. THERE SHALL BE SMOOTH TRANSITION BETWEEN THE FRAME AND CONE OR GRADE RING, OR THE GRADE RING AND THE CONE.
3. LAD TECH OR CONCRETE EXTENSION RINGS MAY BE PRECAST OR CAST-IN-PLACE. BRICK EXTENSION RINGS WILL NOT BE ALLOWED.
4. LAD TECH RISERS NEED TO BE THE 30-INCH RISERS. RE: MANHOLE ADJUSTMENT RING FLAT DESIGN FOR DIMENSIONS.
5. STANDARD EXTENSIONS SHALL BE 2-INCH, 3-INCH, 4-INCH, 6-INCH, AND 12-INCH. EXTENSIONS SHALL BE SIZED TO MINIMIZE THE NUMBER REQUIRED TO RAISE THE MANHOLE. NO MORE THAN 1 - 2-INCH EXTENSION WILL BE ALLOWED ON ANY MANHOLE.

**Extension Ring Installation
DETAIL**

4
12 SCALE: NOT TO SCALE



NOTES:

1. MANHOLE COVER AND FRAME SHALL BE PAMREX, OR APPROVED EQUAL. COVER AND FRAME SHALL BE MANUFACTURED FROM DUCTILE IRON.
2. COVERS SHALL BE Dually Hinged and incorporate a 90° blocking system to prevent accidental closure. Covers shall be one man operable using standard tools and shall be capable of withstanding a test load of 80,000 pounds.
3. ALL COMPONENTS SHALL BE COATED BLACK.
4. NO WATERTIGHT MANHOLE INSERT IS REQUIRED WITH THIS LID.
5. COVERS FOR WATER APPURTENANCES SHALL CONTAIN THE WORD "WATER". COVERS FOR SANITARY SEWER MANHOLES SHALL CONTAIN THE WORD "SEWER".
6. FRAMES SHALL BE CIRCULAR, INCORPORATE A SEATING RING AND A FITTED PLUG IN EACH HINGE HOUSING, AND BE AVAILABLE IN A 32-INCH CLEAR OPENING. THE FRAME DEPTH SHALL NOT EXCEED 5 INCHES, AND THE FLANGE SHALL INCORPORATE BEDDING SLOTS, BOLT HOLES, AND LIFTING EYES.

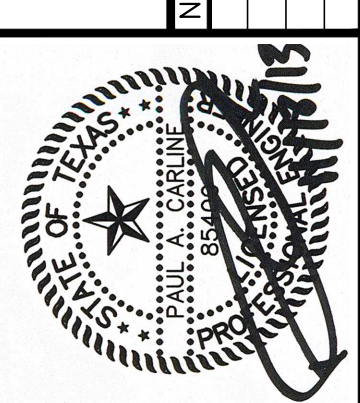
**Manhole Cover & Frame
DETAIL**

5
12 SCALE: NOT TO SCALE

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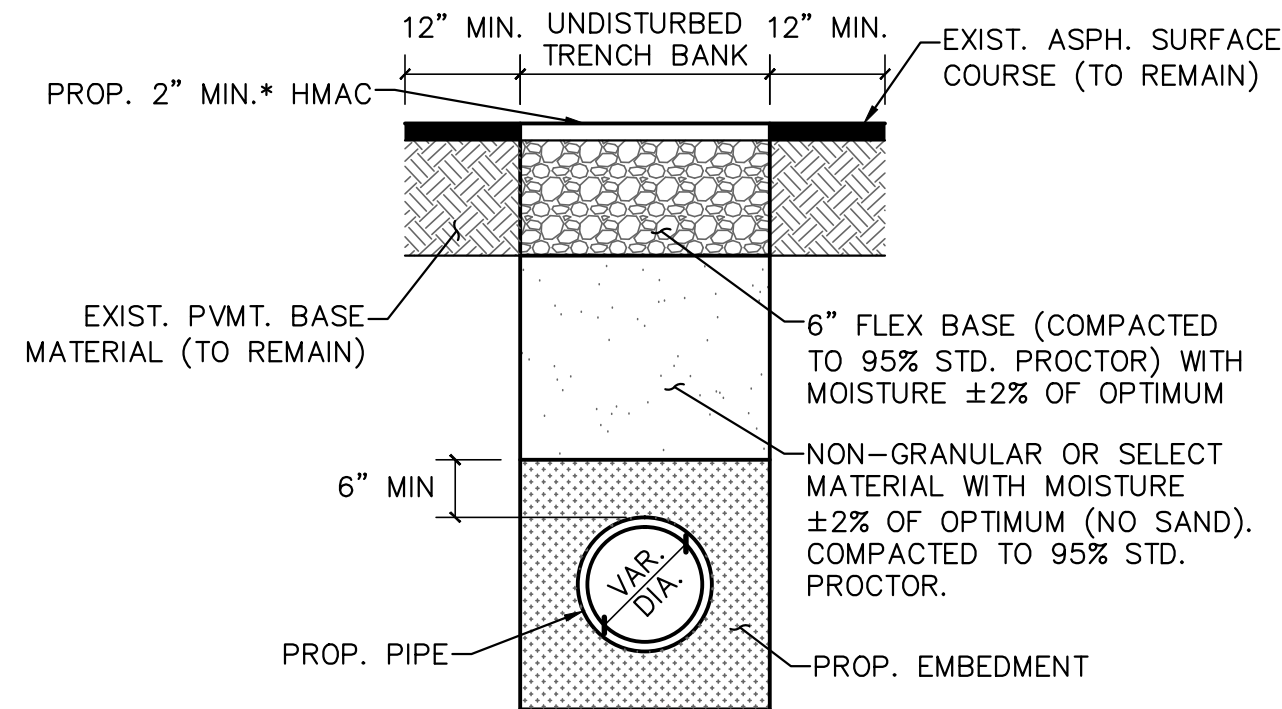
**City of Rockwall
Trenchless Sewer
Rehabilitation**

DETAILS

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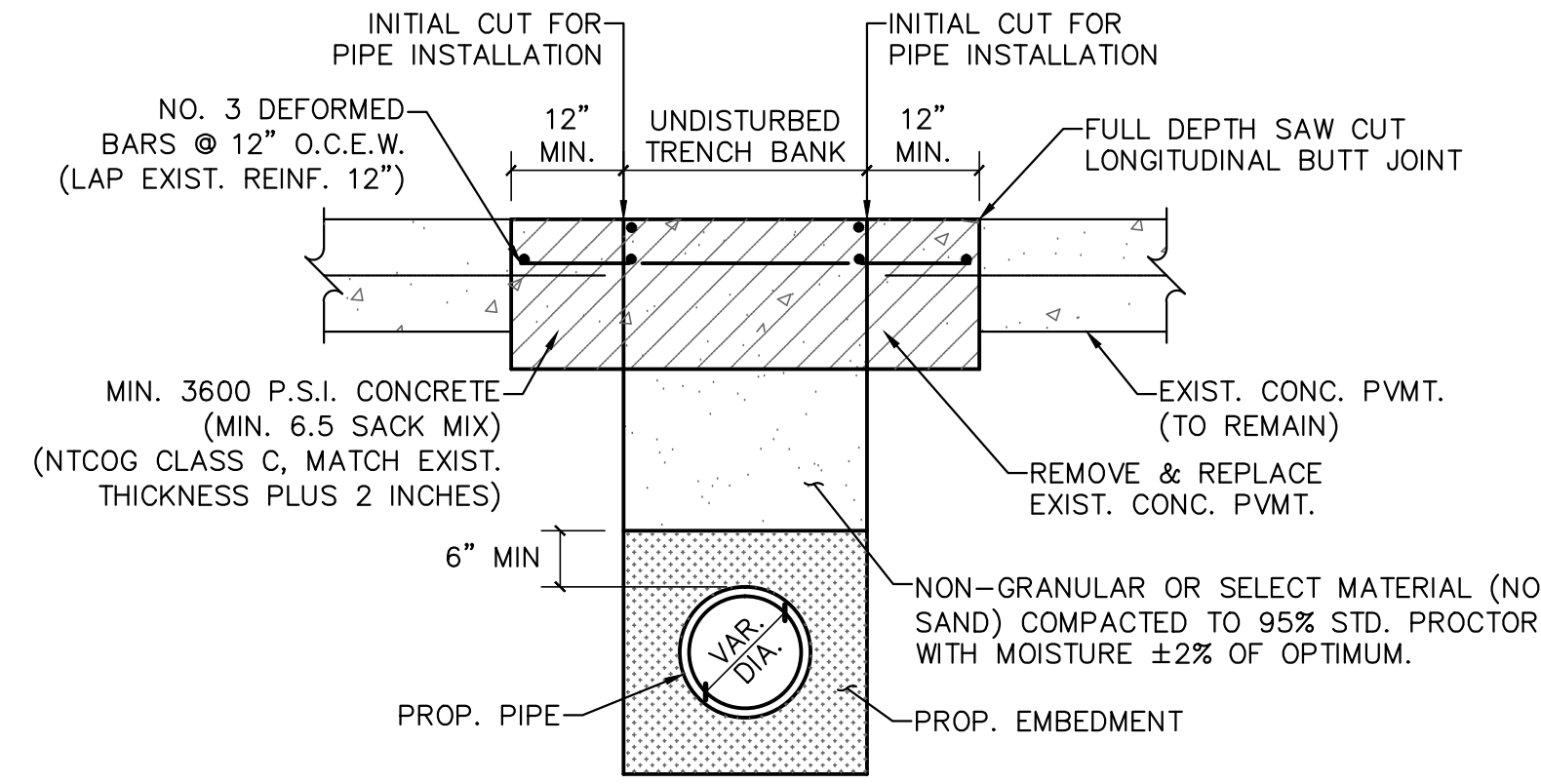


* HMAC REPLACEMENT THICKNESS SHALL MATCH EXISTING HMAC OR 2" WHICHEVER IS GREATER.

**Pavement Repair - Asphalt
DETAIL**

1
13

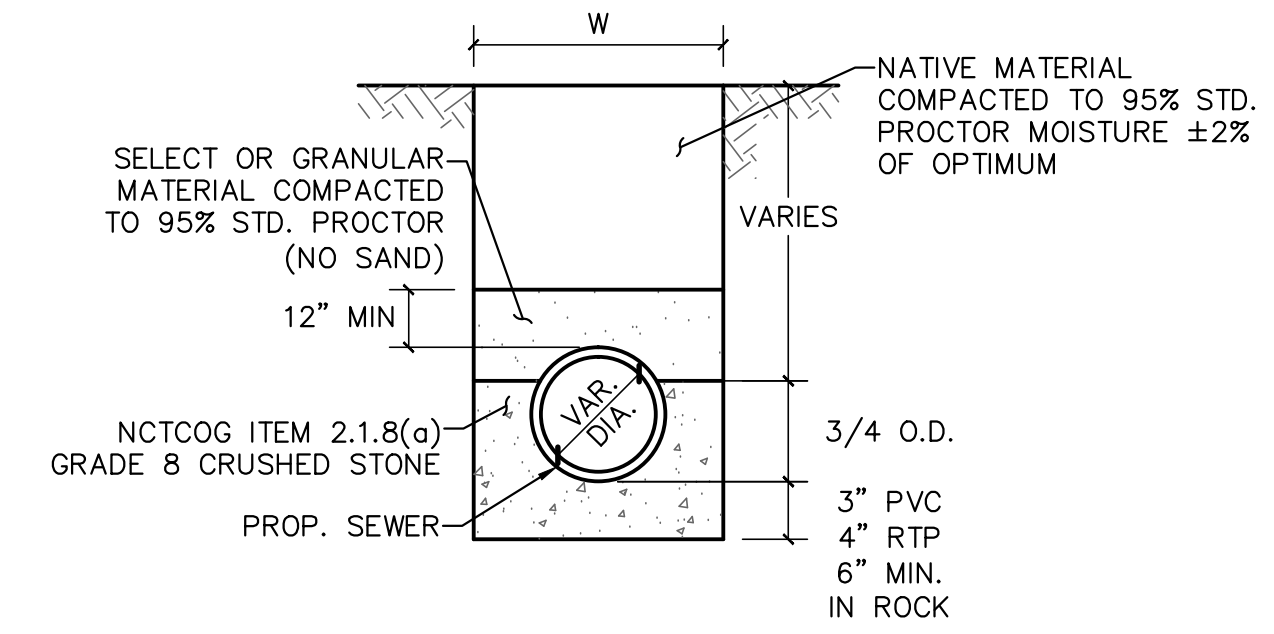
SCALE: NOT TO SCALE



**Pavement Repair - Concrete
DETAIL**

2
13

SCALE: NOT TO SCALE



**Embedment - Class B-2
DETAIL**

3
13

SCALE: NOT TO SCALE

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City of Rockwall
Trenchless Sewer
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DETAILS

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13