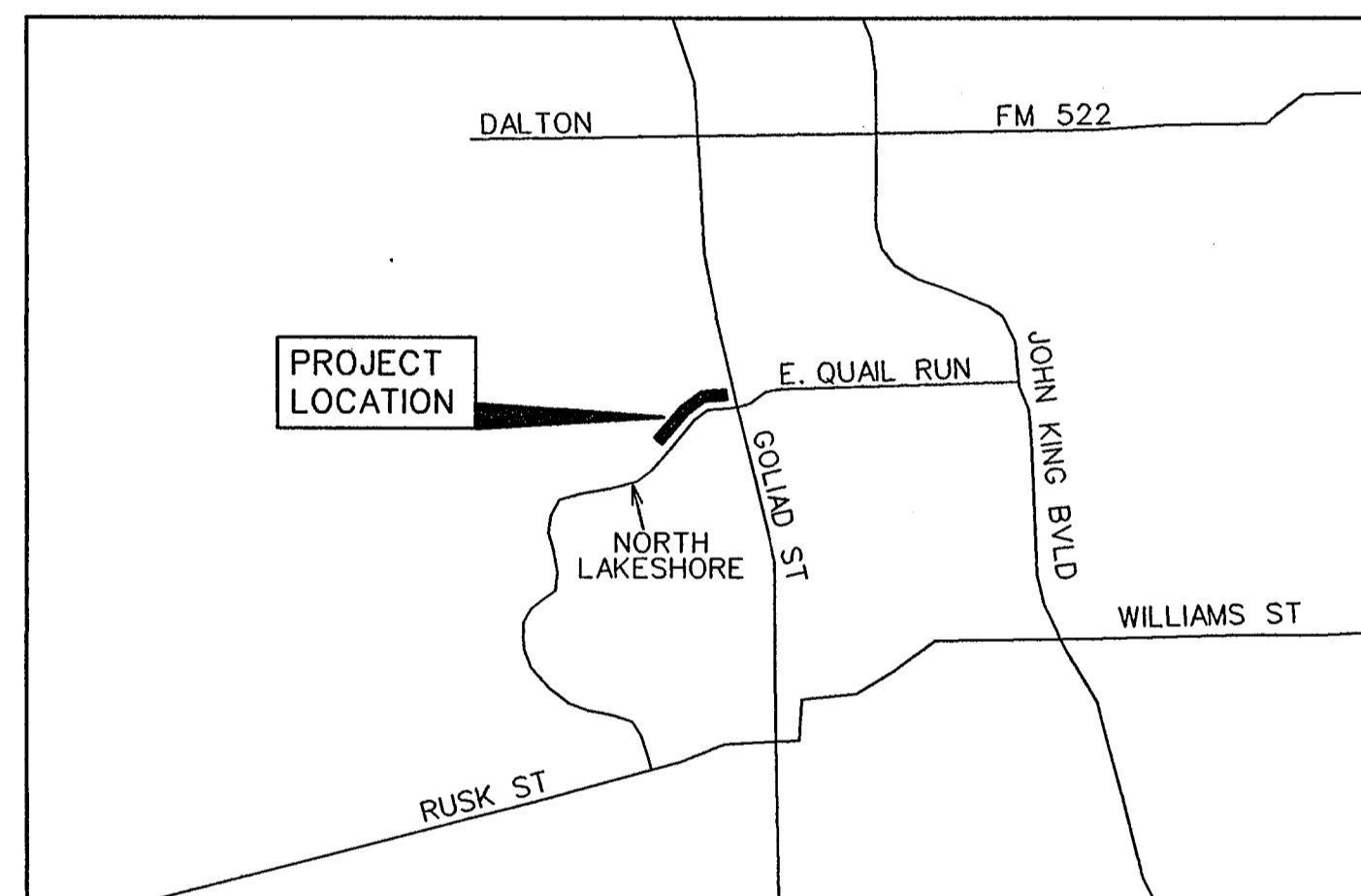


DEVELOPMENT PLANS FOR QUAIL RUN LIFT STATION FORCE MAIN UPGRADE

CITY OF ROCKWALL, TEXAS

QUAIL RUN LIFT STATION
FORCE MAIN UPGRADE
13088



VICINITY MAP
NOT TO SCALE

INDEX

- 1 FORCE MAIN PLAN & PROFILE STATION 1+00 - 10+00
- 2 FORCE MAIN PLAN & PROFILE STATION 10+00 - END
- 3 EROSION CONTROL PLAN
- TS1 TREE SURVEY AND MITIGATION PLAN

PREPARED FOR
BH PHASE 1 SF, LTD.
8214 WESTCHESTER DRIVE, SUITE 710 DALLAS, TEXAS 75225

CORWIN ENGINEERING, INC. — CONSULTING ENGINEERS

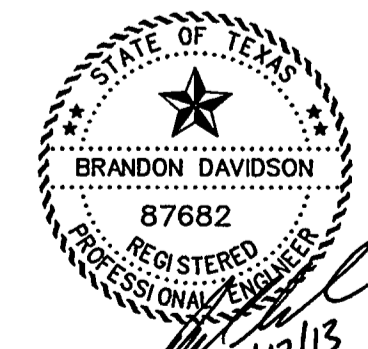
200 W. BELMONT, SUITE E

TBPE FIRM #5951

ALLEN, TEXAS 75013

NOTE:

CITY OF ROCKWALL STANDARDS
AND NCTCOG 3rd ADDITION STANDARDS
SHALL BE USED FOR REFERENCE.

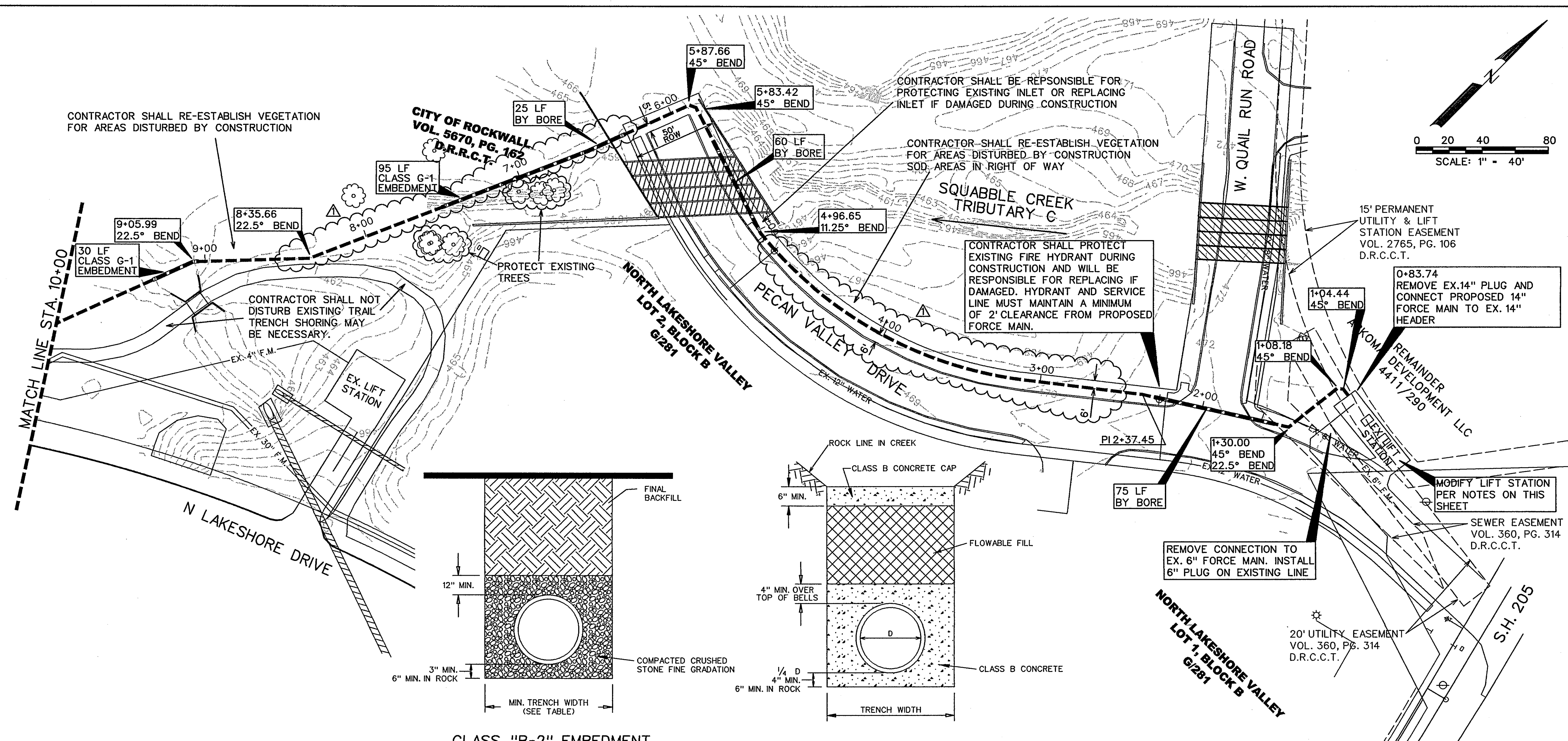


AS-BUILT DECEMBER 2013
BASED ON SURVEYING AT THE
SITE AND INFORMATION
PROVIDED BY THE CONTRACTOR

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this document was
authorized by
Brandon Davidson
P.E. 87682, on
December 17, 2013

NO.	REVISIONS	BY	DATE

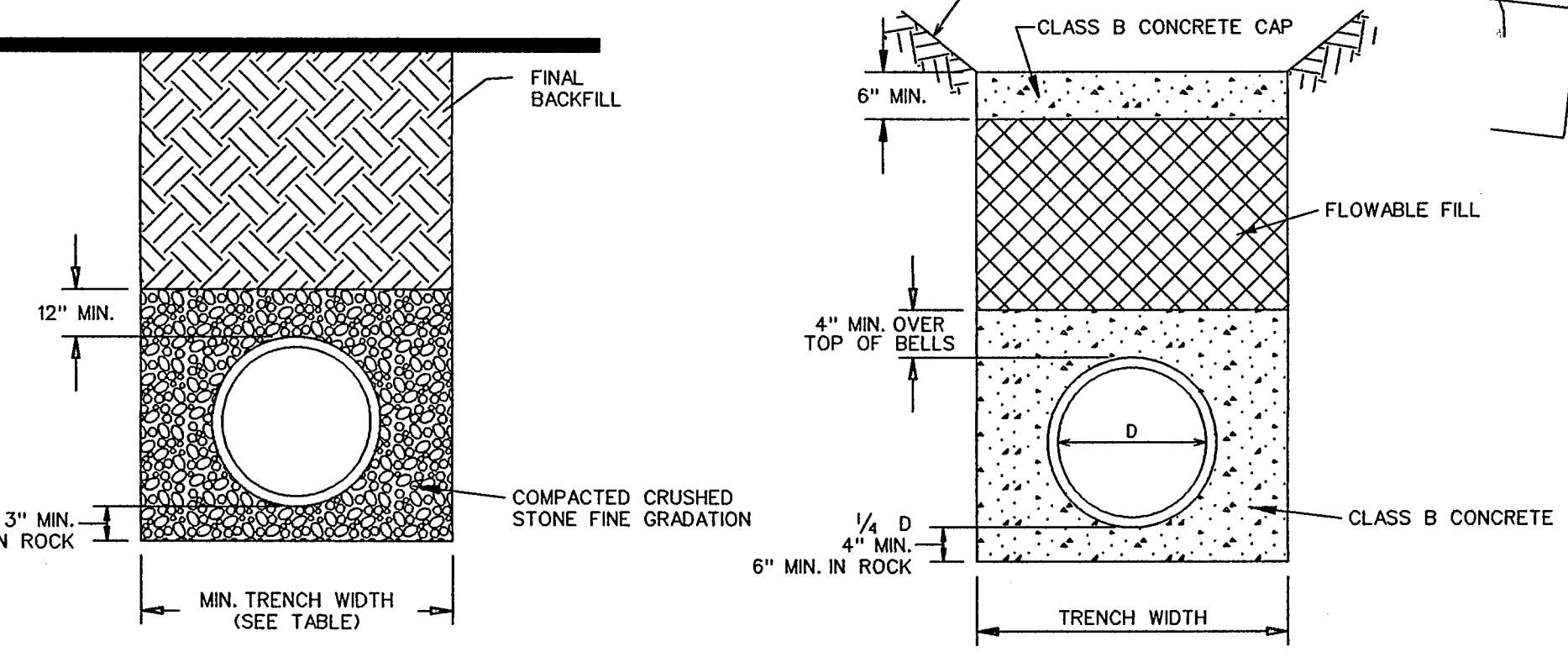
SEPTEMBER 2013



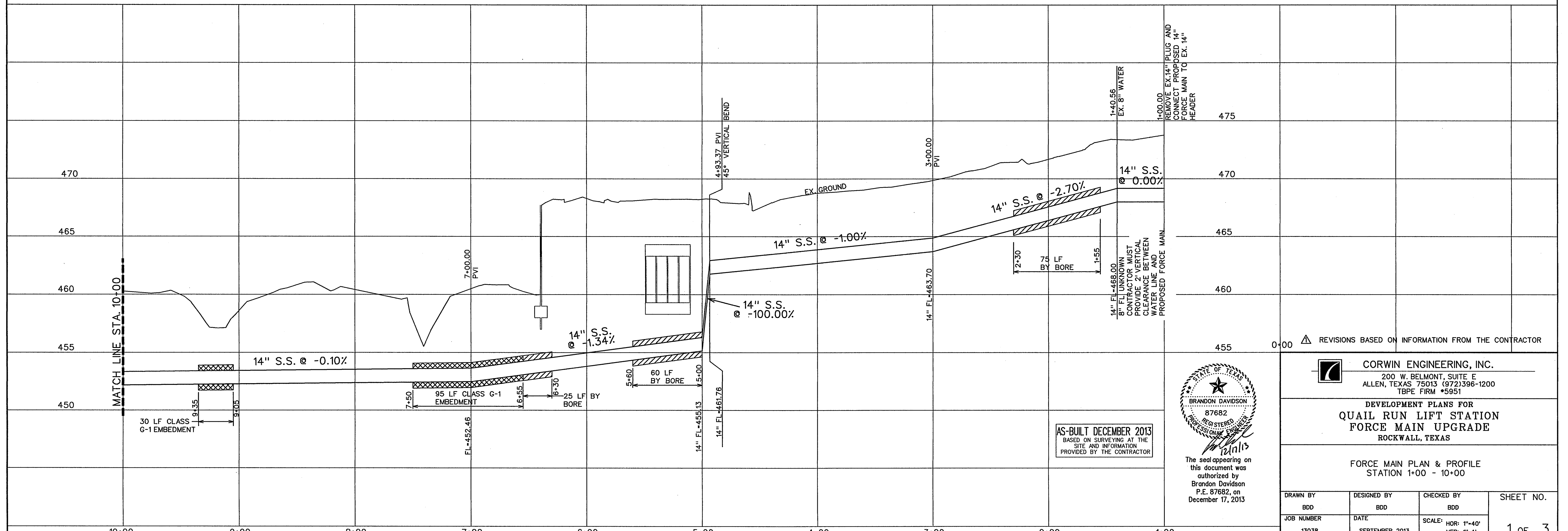
- LIFT STATION MODIFICATIONS REQUIRED
1. ALL PUMP IMPROVEMENTS AND OPERATIONS OF THE LIFT STATION SHALL BE COORDINATED WITH THE CITY OF ROCKWALL.
 2. REPLACE IMPELLERS IN EACH OF TWO EXISTING FLYGT (XYLEM) CP3201 PUMPS WITH IMPELLERS RATED TO PRODUCE 2760 GPM AT 32 FEET TDH (335 mm NOMINAL IMPELLER DIAMETER) TO BE VERIFIED BY PUMP MANUFACTURER).
 3. IMPELLER REPLACEMENT ON FIRST PUMP SHALL OCCUR IMMEDIATELY BEFORE PLACING NEW FORCE MAIN IN SERVICE.
 4. ONLY ONE PUMP AT A TIME MAY BE TAKEN OUT OF SERVICE FOR A MAXIMUM OF 8 HOURS EACH FOR IMPELLER REPLACEMENT.
 5. VERIFY THAT FIRST PUMP MODIFIED OPERATES SATISFACTORILY FOR 48 HOURS BEFORE TAKING SECOND PUMP OUT OF SERVICE FOR IMPELLER REPLACEMENT.
- NOTE:

EXISTING UTILITIES SHOWN ARE A GRAPHICAL REPRESENTATION OF THE LOCATION BASED ON AS-BUILT DRAWINGS. ACTUAL LOCATION AND ELEVATION MAY BE DIFFERENT. CONTRACTOR MUST VERIFY ALL EXISTING UTILITIES FOR LOCATION AND ELEVATION PRIOR TO CONSTRUCTION.

- NOTES:
- ALL FORCE MAIN TO BE AWWA C-905 PIPE DR18, COLORED GREEN.
 - INSTALL GREEN SANITARY SEWER MARKER PAD-EMS APPROX. EVERY 250 FEET AND AT EVERY CHANGE IN DIRECTION ABOVE FORCE MAIN.
 - DETECTOR TAPE SHALL BE REQUIRED ALONG FORCE MAIN. SEE TCEQ 217.66
 - FORCE MAIN SHALL BE INSTALLED WITH CLASS "B-4" IMBEDMENT EXCEPT WHERE NOTED OTHERWISE.
 - ALL PIPE FITTINGS SHALL USE RESTRAINED JOINTS
 - ALL NEWLY INSTALLED PIPE SHALL BE TESTED AS REQUIRED BY THE CITY OF ROCKWALL STANDARDS OF DESIGN AND CONSTRUCTION.
 - ALL BORES WILL REQUIRE STEEL ENCASMENT PIPE AND SPACERS



CLASS "B-2" EMBEDMENT CLASS "C-1" EMBEDMENT



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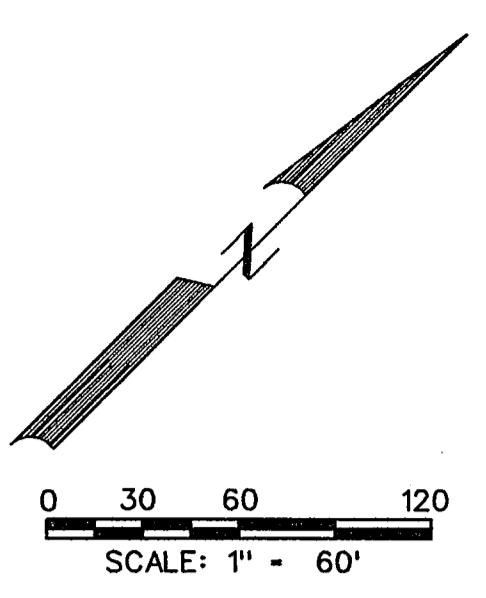
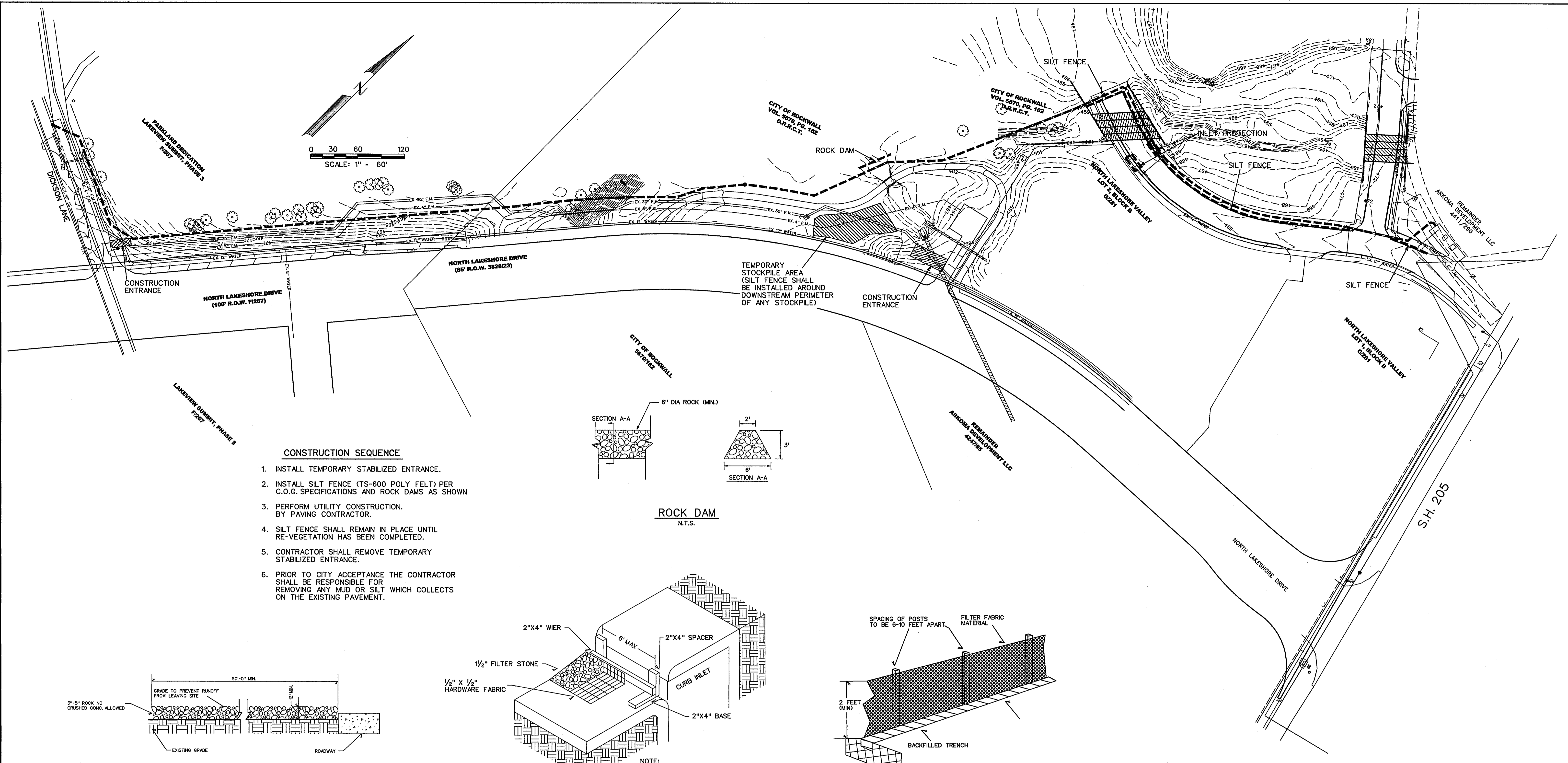
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CORWIN ENGINEERING, INC.
 200 W. BELMONT, SUITE E
 ALLEN, TEXAS 75013 (972)396-1200
 TBPE FIRM #5951

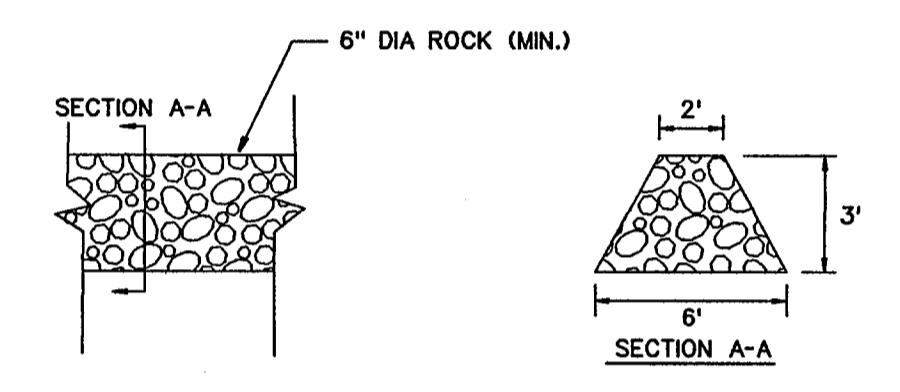
DEVELOPMENT PLANS FOR
**QUAIL RUN LIFT STATION
 FORCE MAIN UPGRADE**
 ROCKWALL, TEXAS

FORCE MAIN PLAN & PROFILE
 STATION 1+00 - 10+00

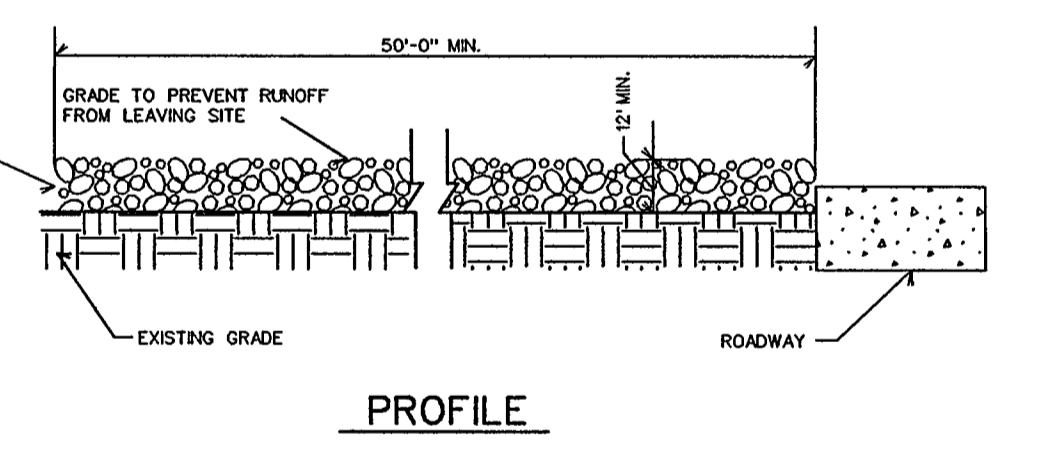
DRAWN BY BDD	DESIGNED BY BDD	CHECKED BY BDD	SHEET NO. 1 OF 3
JOB NUMBER 13038	DATE SEPTEMBER 2013	SCALE: HOR: 1"=40' VER: 1"=4'	



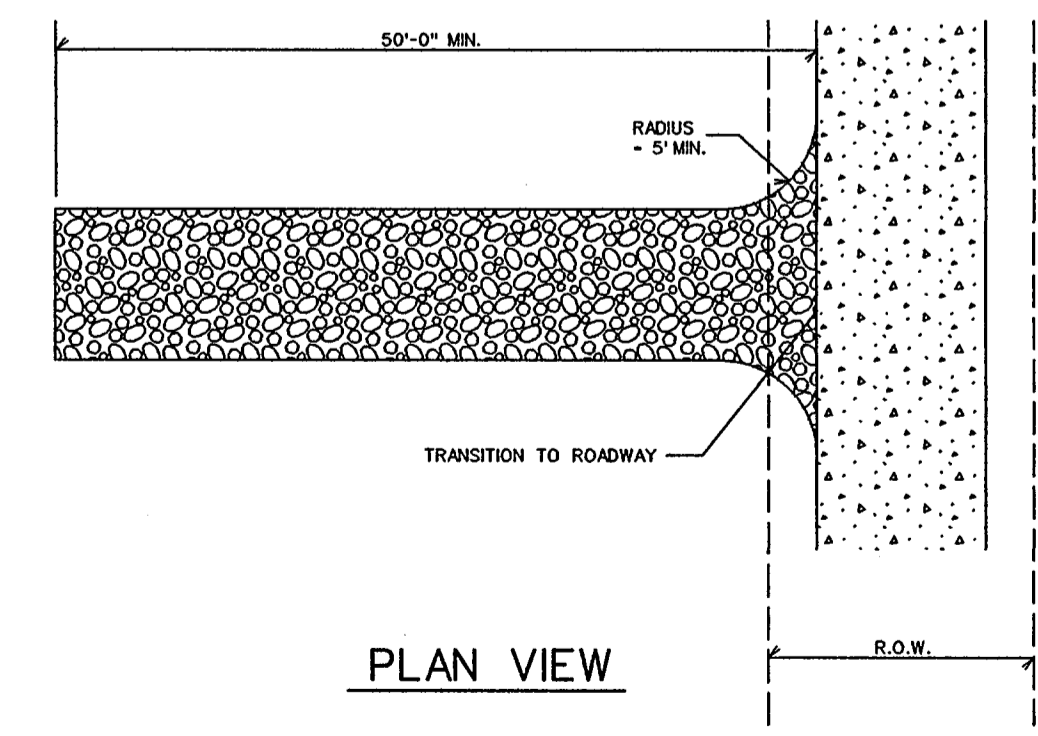
- CONSTRUCTION SEQUENCE**
1. INSTALL TEMPORARY STABILIZED ENTRANCE.
 2. INSTALL SILT FENCE (TS-600 POLY FELT) PER C.O.G. SPECIFICATIONS AND ROCK DAMS AS SHOWN.
 3. PERFORM UTILITY CONSTRUCTION BY PAVING CONTRACTOR.
 4. SILT FENCE SHALL REMAIN IN PLACE UNTIL RE-VEGETATION HAS BEEN COMPLETED.
 5. CONTRACTOR SHALL REMOVE TEMPORARY STABILIZED ENTRANCE.
 6. PRIOR TO CITY ACCEPTANCE THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ANY MUD OR SILT WHICH COLLECTS ON THE EXISTING PAVEMENT.



ROCK DAM
N.T.S.

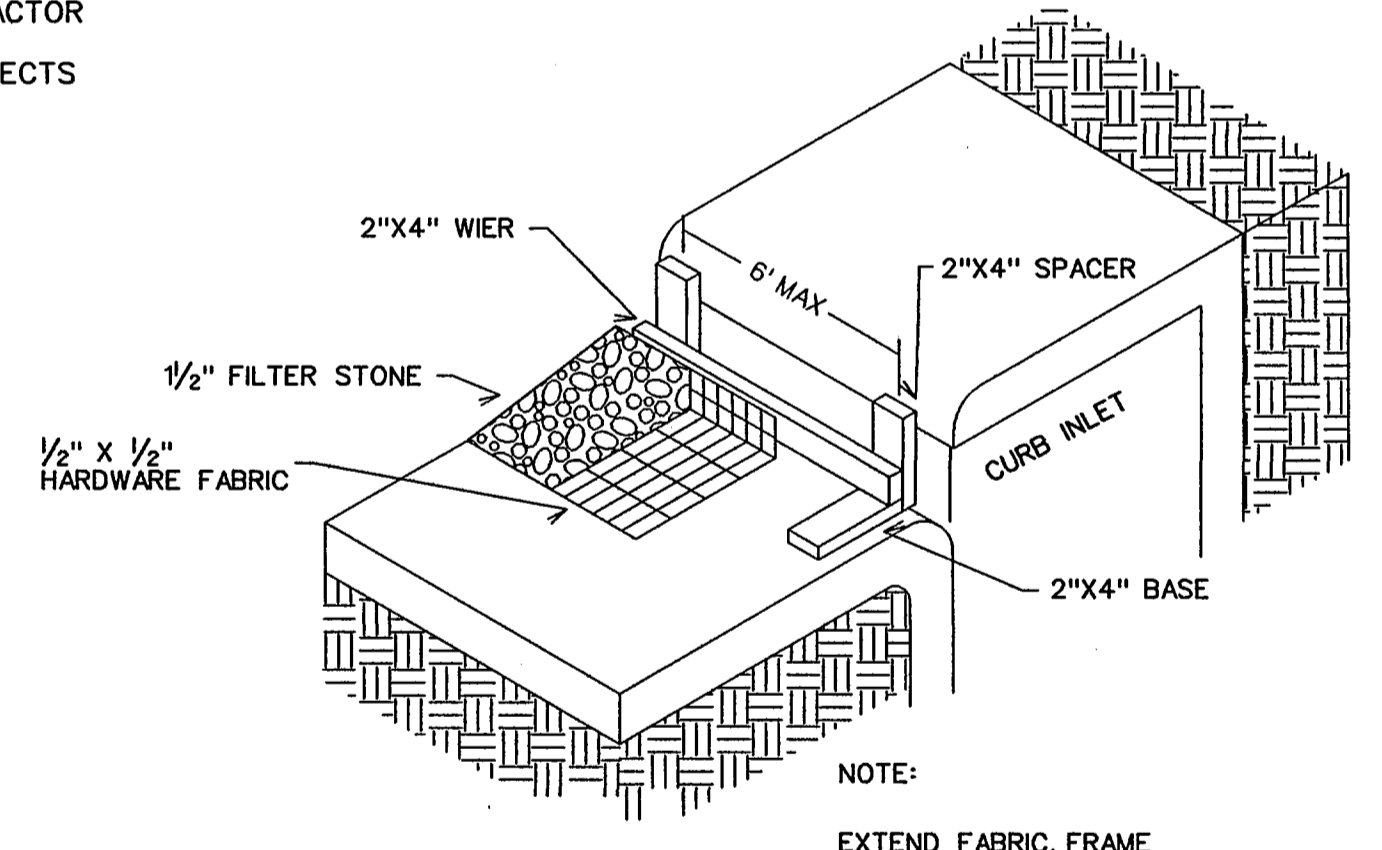


PROFILE

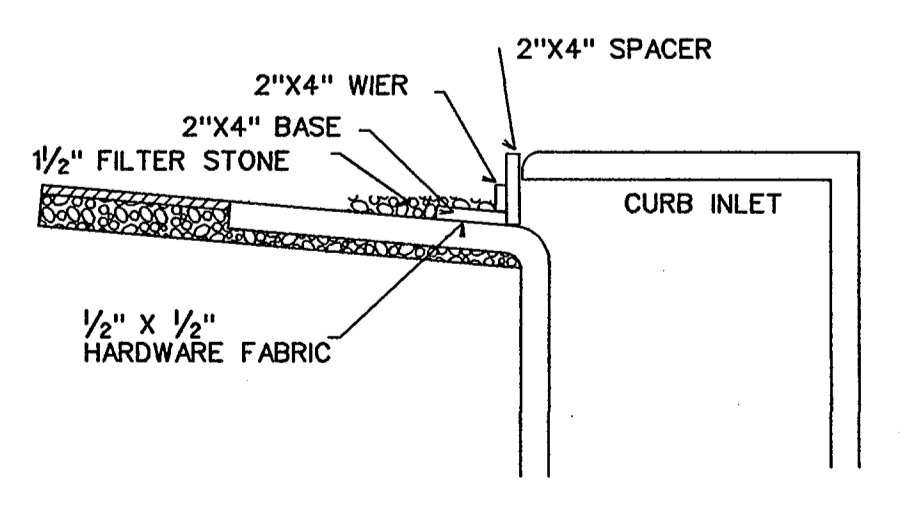


PLAN VIEW

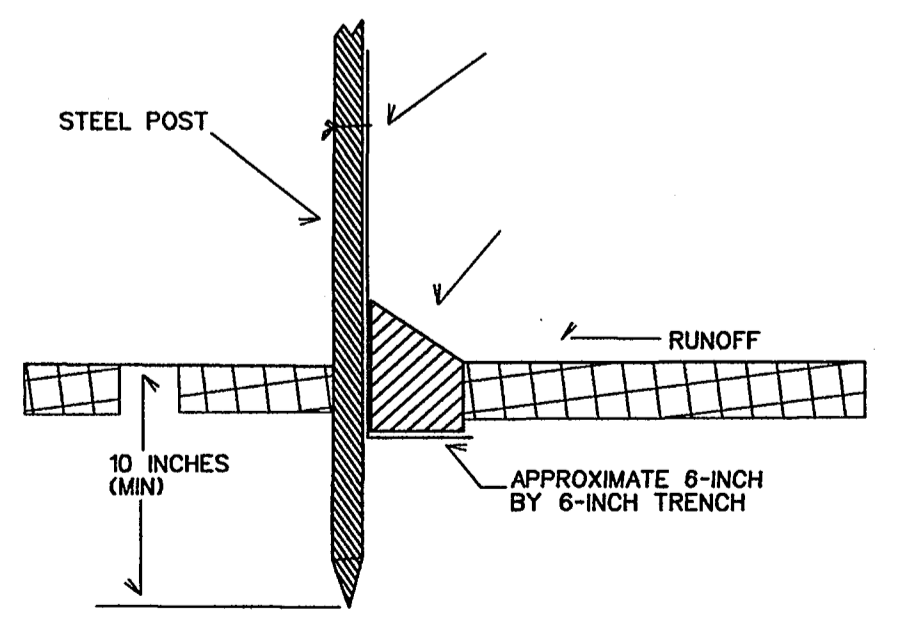
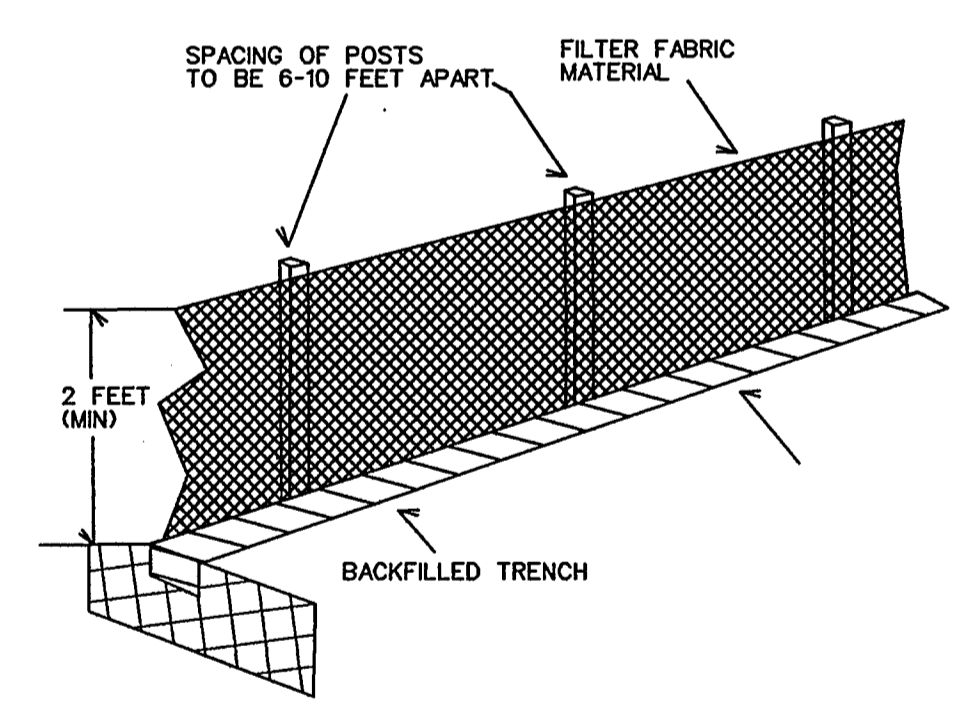
STABILIZED ENTRANCE DETAIL



NOTE:
EXTEND FABRIC, FRAME AND FILTER STONE 12' BEYOND END OF INLET ON BOTH ENDS.



INLET SECTION
TYPE B CURB INLET PROTECTION



FILTER FABRIC FENCE DETAIL

- LEGEND**
- SILT FENCE (BEFORE CONSTRUCTION) - - - - -
 - INLET PROTECTION [Symbol]



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AS-BUILT DECEMBER 2013
BASED ON SURVEYING AT THE SITE AND INFORMATION PROVIDED BY THE CONTRACTOR

<p>CORWIN ENGINEERING, INC. 200 W. BELMONT, SUITE E ALLEN, TEXAS 75013 (972)396-1200 TBPPE FIRM #5951</p>			
<p>DEVELOPMENT PLANS FOR QUAIL RUN LIFT STATION FORCE MAIN UPGRADE ROCKWALL, TEXAS</p>			
<p>EROSION CONTROL PLAN</p>			
DRAWN BY BDD	DESIGNED BY BDD	CHECKED BY BDD	SHEET NO.
JOB NUMBER 13038	DATE SEPTEMBER 2013	SCALE: 1"=60'	3 OF 3



TREE ID NO.	TREE CALIPER SIZE	TREE TYPE COMMON NAME	CONDITION OF TREE	SAVED OR REMOVED	MITIGATION CALCULATIONS	MITIGATION REQUIRED
B200	10"	ASH	GOOD	SAVED		
B201	5"	AMERICAN ELM	GOOD	SAVED		
B202	6' M.T.	CEDAR ELM	GOOD	SAVED		
B203	39"	PECAN	GOOD	SAVED		
B204	8"	AMERICAN ELM	GOOD	SAVED		
B205	13"	MAPLE	GOOD	SAVED		
B206	11"	HACKBERRY	GOOD	SAVED		
B207	6"	CEDAR ELM	GOOD	SAVED		
B208	28"	POST OAK	GOOD	SAVED		
B209	18' M.T.	ASH	GOOD	SAVED		
B210	30"	PECAN	GOOD	SAVED		
B211	27' M.T.	PECAN	GOOD	SAVED		
B212	6"	MULBERRY	GOOD	SAVED		
B213	8"	ASH	GOOD	SAVED		
B214	28"	COTTON WOOD	GOOD	SAVED		
B215	34"	COTTON WOOD	GOOD	SAVED		
B216	6"	ASH	GOOD	SAVED		
B217	6"	ASH	GOOD	SAVED		
B218	6"	ASH	GOOD	SAVED		
B219	6"	ASH	GOOD	SAVED		
B220	6"	ASH	GOOD	SAVED		
B221	8"	ASH	GOOD	SAVED		
B222	10"	ASH	GOOD	SAVED		
B223	14"	ASH	GOOD	SAVED		
B224	10"	ASH	GOOD	SAVED		
B225	8"	ASH	GOOD	SAVED		
B226	11"	ASH	GOOD	SAVED		
B227	8"	ASH	GOOD	SAVED		
B228	6"	ASH	GOOD	SAVED		
B229	8"	ASH	GOOD	SAVED		
B230	9' M.T.	AMERICAN ELM	GOOD	SAVED		
B231	4"	AMERICAN ELM	GOOD	SAVED		
B232	5"	ASH	GOOD	SAVED		
B233	5"	AMERICAN ELM	GOOD	SAVED		
B234	5"	AMERICAN ELM	GOOD	SAVED		
B235	11"	CEDAR	GOOD	SAVED		
B236	8"	CEDAR	GOOD	SAVED		
B237	8"	CEDAR	GOOD	SAVED		

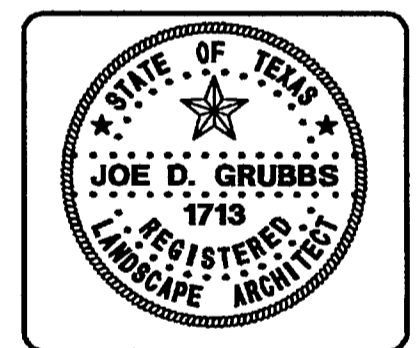
TOTAL MITIGATION REQUIRED 0 INCHES

Date:	
Revisions:	
#	

Issued For:
CONSTRUCTION
Job No.
13129
Scale
1"=50'-0"
Drawn By:
JDS
Date
8-30-2013

North Lakeshore Drive Force Main

Rockwall Texas



Tree Survey & Mitigation Plan

Sheet Number:
TS1
of TS1 Sheets