

# ROCKWALL HIGH SCHOOL RENOVATIONS FOR ROCKWALL HIGH SCHOOL ROCKWALL I.S.D. 901 YELLOW JACKET LN, ROCKWALL, TX 75087

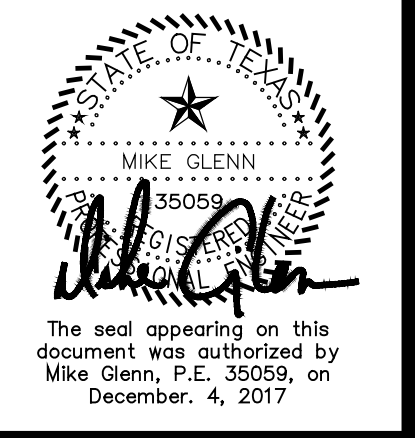
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ADDENDUM #1  
PC - REMOVE STORM FLUME AND PARKING  
PC - REMOVED STORM SEWER

Date  
11/22/2016  
09/11/2017  
12/04/2017

Revision /  
1  
2  
3

Project:  
ROCKWALL HIGH SCHOOL RENOVATIONS  
FOR  
ROCKWALL HIGH SCHOOL  
ROCKWALL I.S.D.  
901 YELLOW JACKET LN, ROCKWALL, TX 75087



CIVIL COVER SHEET

100% CD VOLUME

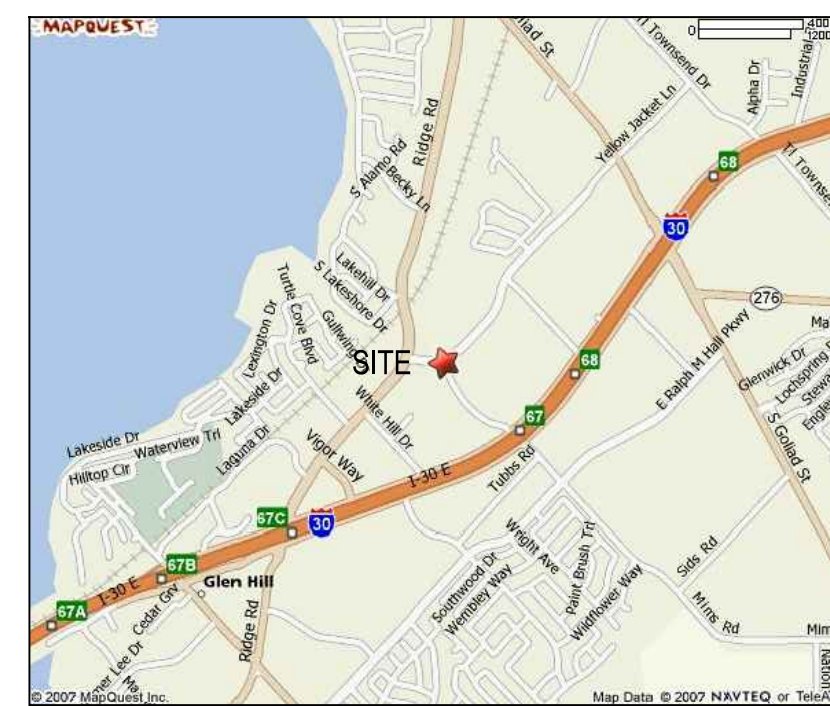
Job No. 1738-02-01 Sheet No. C 1.0

Drawn By: RAH

Date: 12-03-2016

GENERAL NOTE:

CONTRACTOR TO UTILIZE CITY APPROVED CONSTRUCTION PLANS FOR CONSTRUCTION OF ALL CIVIL RELATED FACILITIES. CONTRACTOR TO NOTIFY ARCHITECT/ENGINEER IMMEDIATELY OF ANY COST DISCREPANCIES BETWEEN THE CITY APPROVED SET AND BID SET WITH LATEST ADDENDUMS.



LOCATION MAP  
NTS

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**OWNER**

ROCKWALL I.S.D.  
1050 WILLIAMS STREET  
ROCKWALL, TEXAS 75087  
972-771-0605

**ARCHITECT**

HUCKABEE  
4521 S HULEN STREET, SUITE 220  
FORT WORTH, TEXAS 76109  
(817) 377-2969

NOVEMBER 2016

**ENGINEER**

GLENN ENGINEERING  
105 DECKER COURT, SUITE 910  
IRVING, TEXAS 75062  
(972) 717-5151

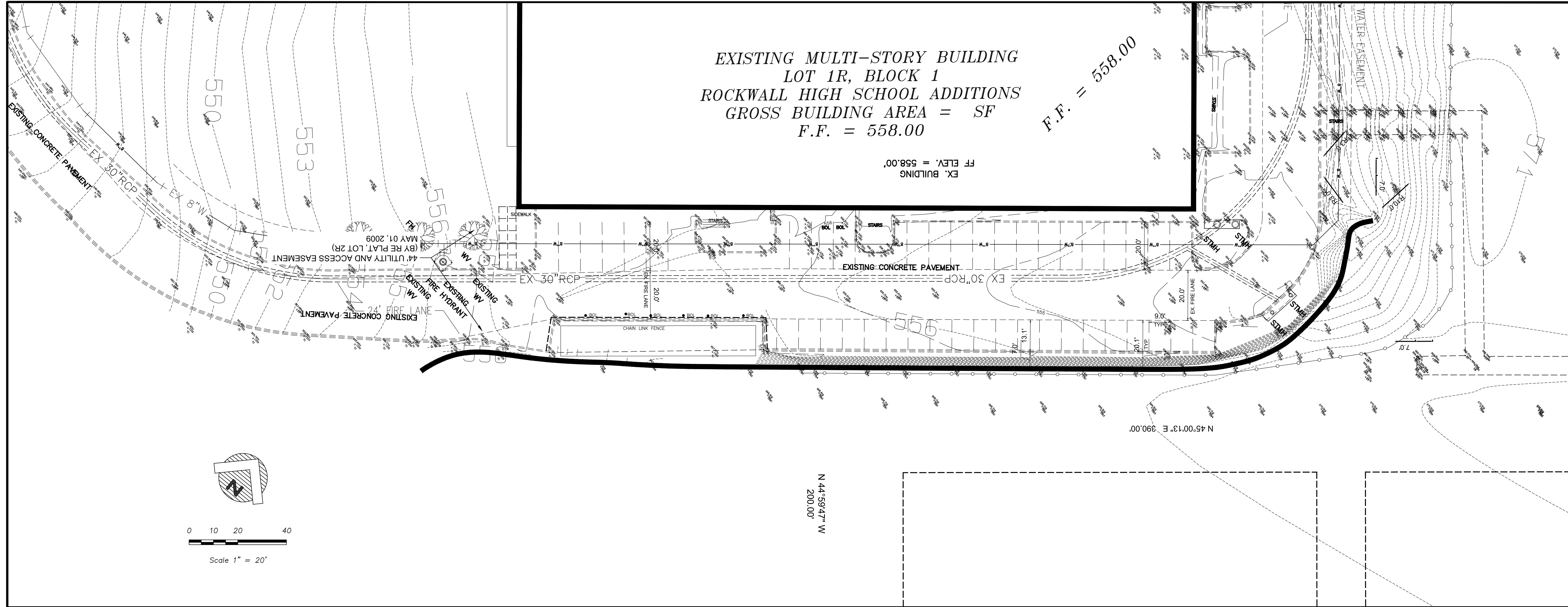
RECORD DRAWING

This is to certify that changes and corrections have been made to conform to the contractor's record of this project.

Signed: *Mike Glenn* Date: March 28, 2018  
Glenn Engineering Corporation

**GLENN ENGINEERING**

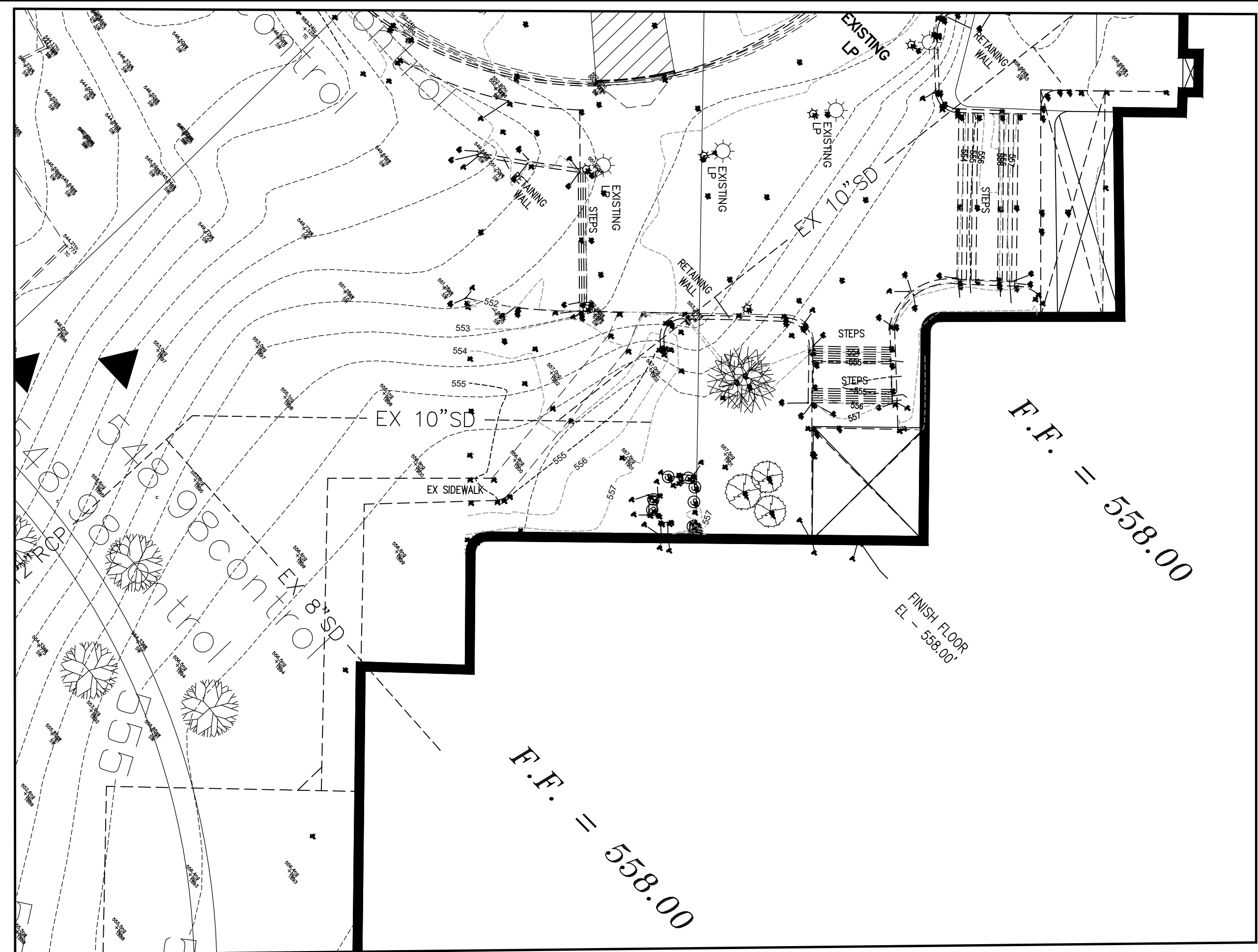
TEXAS REGISTRATION NUMBER: F-303  
PHONE 972-717-5151 FAX 972-717-2176  
105 DECKER COURT, SUITE 910  
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ENTRY RAMP  
 TOPOGRAPHIC  
 SURVEY

RETAINING WALL  
 TOPOGRAPHIC  
 SURVEY

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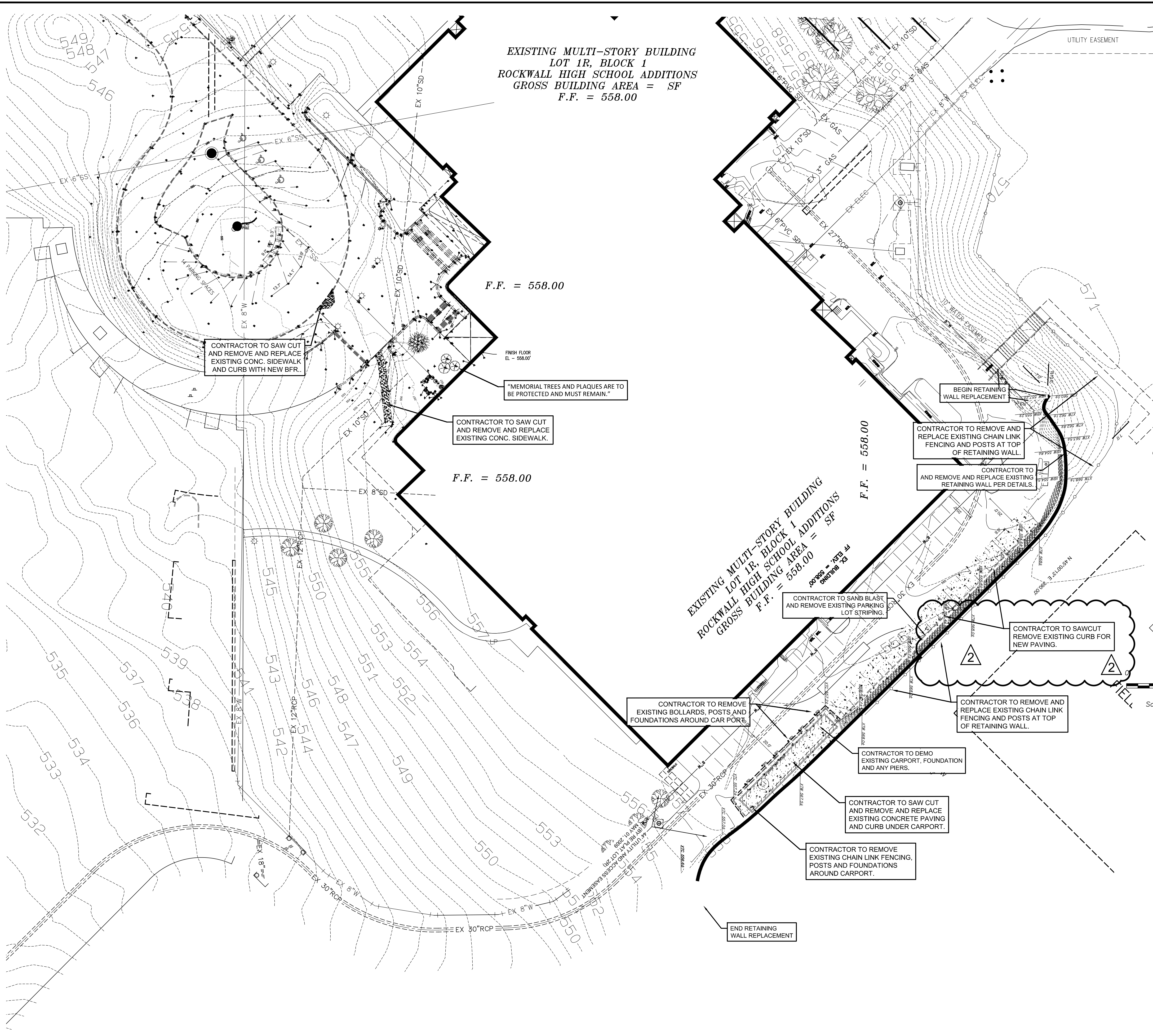
**NOTE**  
 UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE MAPS AND RECORDS AND THEREFORE THEIR LOCATIONS ARE APPROXIMATE ONLY. ELEVATIONS SHOWN ARE BASED ON FIELD MEASUREMENTS. THERE MAY BE OTHER UTILITIES, THE EXISTENCE OF WHICH ARE NOT KNOWN TO THE UNDERSIGNED. SIZE AND LOCATION OF ALL UNDERGROUND UTILITIES MUST BE VERIFIED PRIOR TO ANY CONSTRUCTION.



**FOR INFORMATION ONLY**

**GLENN ENGINEERING**  
 TEXAS REGISTRATION NUMBER: F-303  
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 105 DECKER COURT, SUITE 910  
 IRVING, TEXAS 75062

TOPOGRAPHIC SURVEY	
100% CD	VOLUME
Job No. 1738-02-01	Sheet No.
Drawn By: RAH	C 1.1
Date: 12-03-2016	



EXISTING MULTI-STORY BUILDING  
 LOT 1R, BLOCK 1  
 ROCKWALL HIGH SCHOOL ADDITIONS  
 GROSS BUILDING AREA = SF  
 F.F. = 558.00

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**DEMOLITION NOTES:**

1. CONTRACTOR SHALL CONSULT ALL UTILITY COMPANIES AND VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO DEMOLITION. REMOVAL AND RELOCATION OF ALL UTILITY LINES, METERS, VALVES, ETC. SHALL BE PERFORMED PER REQUIREMENTS OF THE CITY OF ROCKWALL AND UTILITY COMPANIES. ANY DAMAGE TO PUBLIC UTILITIES SHALL BE THE GENERAL CONTRACTOR'S RESPONSIBILITY TO CORRECT.
2. ALL DEMOLITION AND CONSTRUCTION TO BE KEPT WITHIN THE BOUNDARIES OF THE SITE OR AS DESIGNATED BY CONSTRUCTION ENGINEER. ANY DAMAGE BY CONTRACTOR TO ADJOINING PROPERTIES OR ITEMS NOT IN THE DESIGNATED DEMOLITION AREA SHALL BE THE GENERAL CONTRACTOR'S RESPONSIBILITY TO CORRECT.
3. REMOVE ALL EXISTING UNDERGROUND UTILITIES, CAP AS REQUIRED, BACK FILL AND COMPACT PER CITY OF ROCKWALL SPECIFICATIONS.
4. REMOVE SURFACE PAVING AS NEEDED TO COMPLETE PAVING PLAN.
5. REMOVE EXISTING SIGNAGE, INCLUDING POSTS AND FOUNDATIONS.
6. REMOVE ANY OTHER ITEMS NOT INDICATED ABOVE BUT WHICH MUST BE DEMOLISHED TO COMPLETE PROJECT AS DESIGNATED BY SITE PLAN.
7. DEMOLITION CONTRACTOR TO CONSULT WITH ARCHITECT OR OWNER ON SALVAGING OR RELOCATING ANY AND ALL EQUIPMENT AND BLEACHERS PRIOR TO REMOVING ITEM FROM THE SITE.
8. CONTRACTOR TO USE TREE PROTECTION ON ALL EXISTING TREES THAT ARE TO REMAIN.
9. CONTRACTOR SHALL REMOVE ALL SPRINKLER HEADS AND EQUIPMENT IN THE AREAS OCCUPIED BY THE CONSTRUCTION AND STAGING AREAS. TERMINATE/CAP OFF ALL LINES AS REQUIRED. ALL SPRINKLER HEADS AND EQUIPMENT SHALL BE GIVEN TO THE OWNER. THE CONTRACTOR IS RESPONSIBLE FOR MAKING ALL NECESSARY CHANGES TO THE IRRIGATION SYSTEM THAT ARE REQUIRED TO KEEP THE REMAINING AREAS OUTSIDE THE CONSTRUCTION AREAS IN WORKING ORDER. THIS INCLUDES RELOCATION OF ANY VALVES, PIPING, CONTROLS, ETC., TO OPERATE THE SYSTEM.
10. NO STRUCTURES MAY BE DEMOLISHED WITHOUT A PERMIT FROM THE BUILDING DEPARTMENT. A SEPARATE PERMIT IS REQUIRED FOR EACH STRUCTURE. PAVING, WALLS, FENCES, UTILITIES AND FLAT WORK CAN BE REMOVED WITHOUT A PERMIT. TREES MAY REQUIRE A PERMIT BASED ON THEIR DESIGNATION PER CITY'S TREE ORDINANCE.
11. ALL PIER TOPS SHOULD BE REMOVED A MINIMUM OF FIVE FEET BELOW PROPOSED FINISHED GRADES.
12. CONTRACTOR TO REMOVE ALL UTILITIES UNDER PROPOSED BUILDING. RE. CU 1.01 THRU CU 1.13 FOR PROPOSED UTILITY LOCATIONS AND LIMITS OF UTILITY REMOVAL.
13. CONTRACTOR SHALL ADJUST ALL IMPACTED UTILITIES TO NEW FINAL GRADE.

**DEMOLITION LEGEND:**

- EXISTING CONCRETE PAVING AND CURB TO BE REMOVED AND HAULED OFF.
- EXISTING SIDEWALK TO BE REMOVED AND HAULED OFF.
- EXISTING UNDERGROUND UTILITY OR OVERHEAD UTILITY TO BE REMOVED AND HAULED OFF.
- EXISTING BUILDING, FOUNDATION AND PIERS REMOVED AND HAULED OFF.
- EXISTING GRAVEL TO BE REMOVED AND HAULED OFF.

NOTE:  
 SEE LANDSCAPE PLAN FOR ALL TREE REMOVAL. TREES SHOWN ON THIS PLAN ARE FOR REFERENCE ONLY.

ALL CONSTRUCTION SHALL BE PER CITY OF ROCKWALL STANDARDS

CONTRACTOR SHALL VERIFY ALL EXISTING INVERTS AND ELEVATIONS PRIOR TO CONSTRUCTION.

**GENERAL NOTE:**

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NOTE:  
 Contractor shall remove all sprinkler heads and equipment in the areas occupied by the construction and staging areas. Terminate/cap off all lines as required. All sprinkler heads and equipment shall be given to the owner. The contractor is responsible for making all necessary changes to the irrigation system that are required to keep the remaining areas outside the construction areas in working order. This includes relocation of any valves, piping, controls, etc., to operate the system.

At the completion of the construction project, this contractor is responsible for installation of an irrigation system throughout the areas that were involved in the construction. Equipment installed shall be the same as that which was removed. Owner will provide the equipment that was removed back to the contractor. Any additional equipment required will be by the contractor.

**RECORD DRAWING**

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Signed: *Glenn* March 28, 2018  
 Date  
 Glenn Engineering Corporation

**GLENN ENGINEERING**  
 TEXAS REGISTRATION NUMBER: F-303  
 PHONE 972-717-5151 FAX 972-717-2176  
 105 DECKER COURT, SUITE 910  
 IRVING, TEXAS 75062

ADDENDUM #1  
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 PC - REMOVED STORM SEWER

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09/11/2017	2
12/04/2017	3

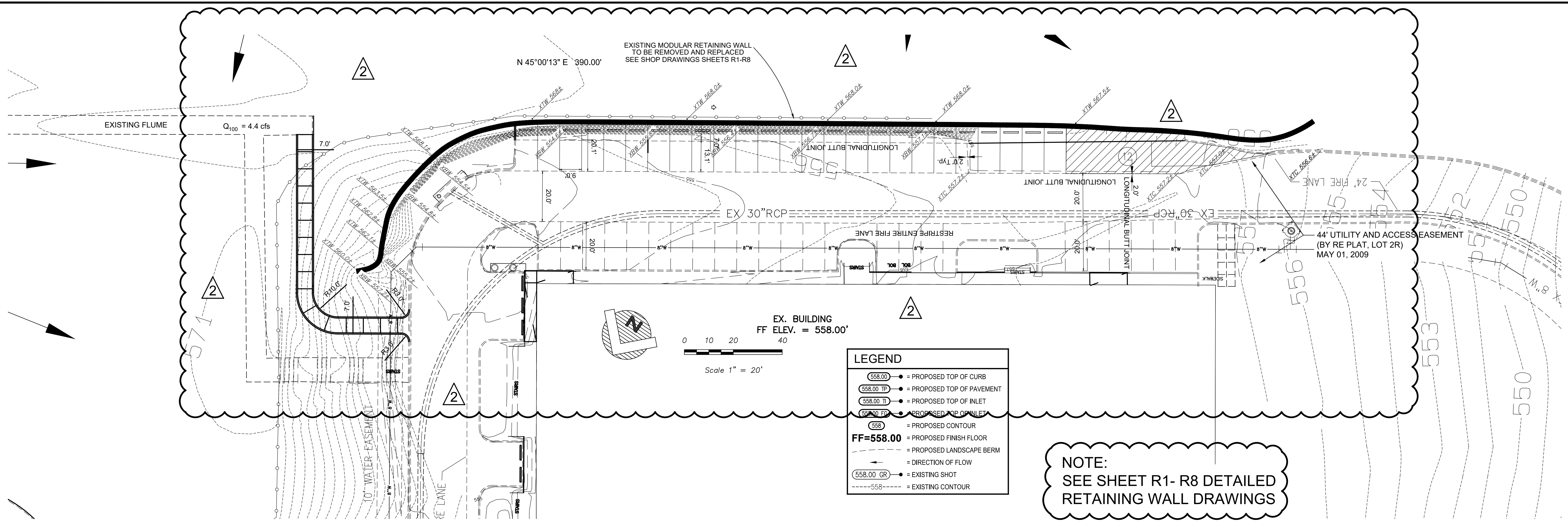
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 FOR  
 ROCKWALL HIGH SCHOOL  
 ROCKWALL I.S.D.  
 901 YELLOW JACKET LN, ROCKWALL, TX 75087

STATE OF TEXAS  
 MIKE GLENN  
 35059  
 The seal appearing on this document was authorized by Mike Glenn, P.E., 35059, on December 4, 2017.

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**DEMOLITION PLAN**

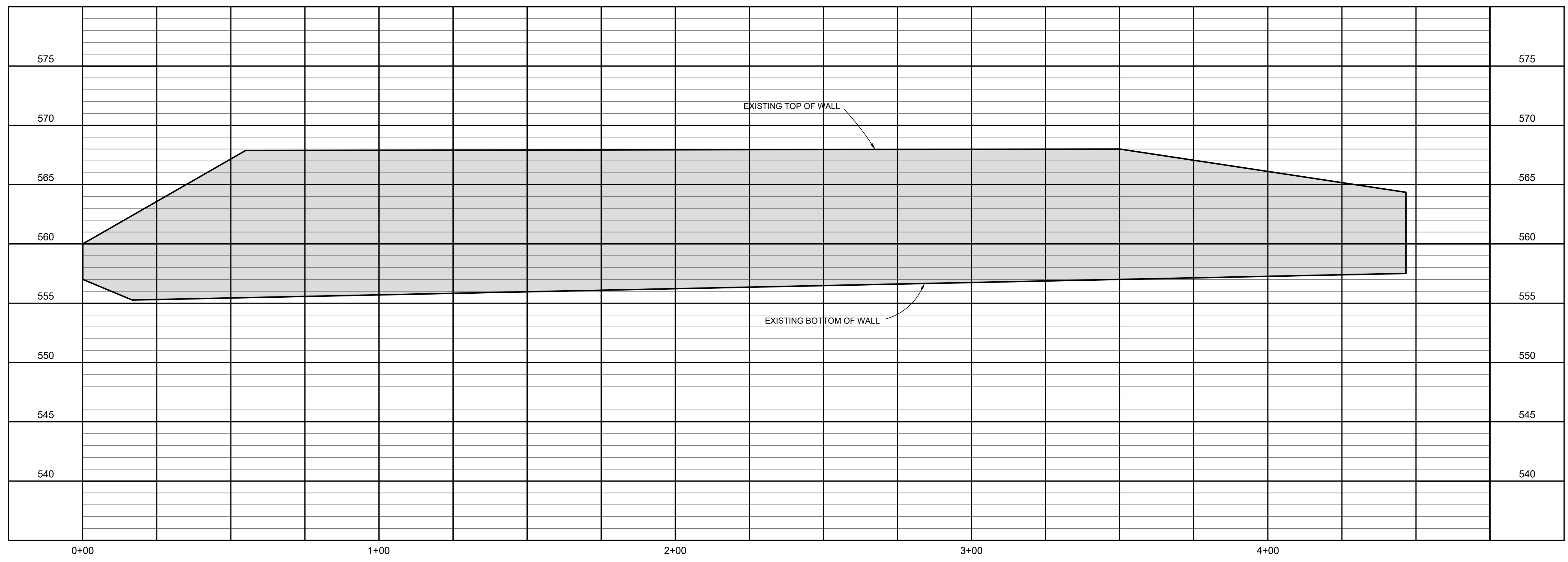
100% CD	VOLUME
Job No. 1738-02-01	Sheet No. CD
Drawn By: RAH	1.0
Date: 12-03-2016	



**LEGEND**

- (558.00) = PROPOSED TOP OF CURB
- (558.00 TP) = PROPOSED TOP OF PAVEMENT
- (558.00 TI) = PROPOSED TOP OF INLET
- (558.00 TR) = PROPOSED TOP OF INLET
- (558) = PROPOSED CONTOUR
- FF=558.00 = PROPOSED FINISH FLOOR
- = PROPOSED LANDSCAPE BERM
- = DIRECTION OF FLOW
- (558.00 GR) = EXISTING SHOT
- - - 558 - - - = EXISTING CONTOUR

**NOTE:**  
SEE SHEET R1- R8 DETAILED  
RETAINING WALL DRAWINGS



**NOTE:**  
SEE SHEET R1- R8 DETAILED  
RETAINING WALL DRAWINGS

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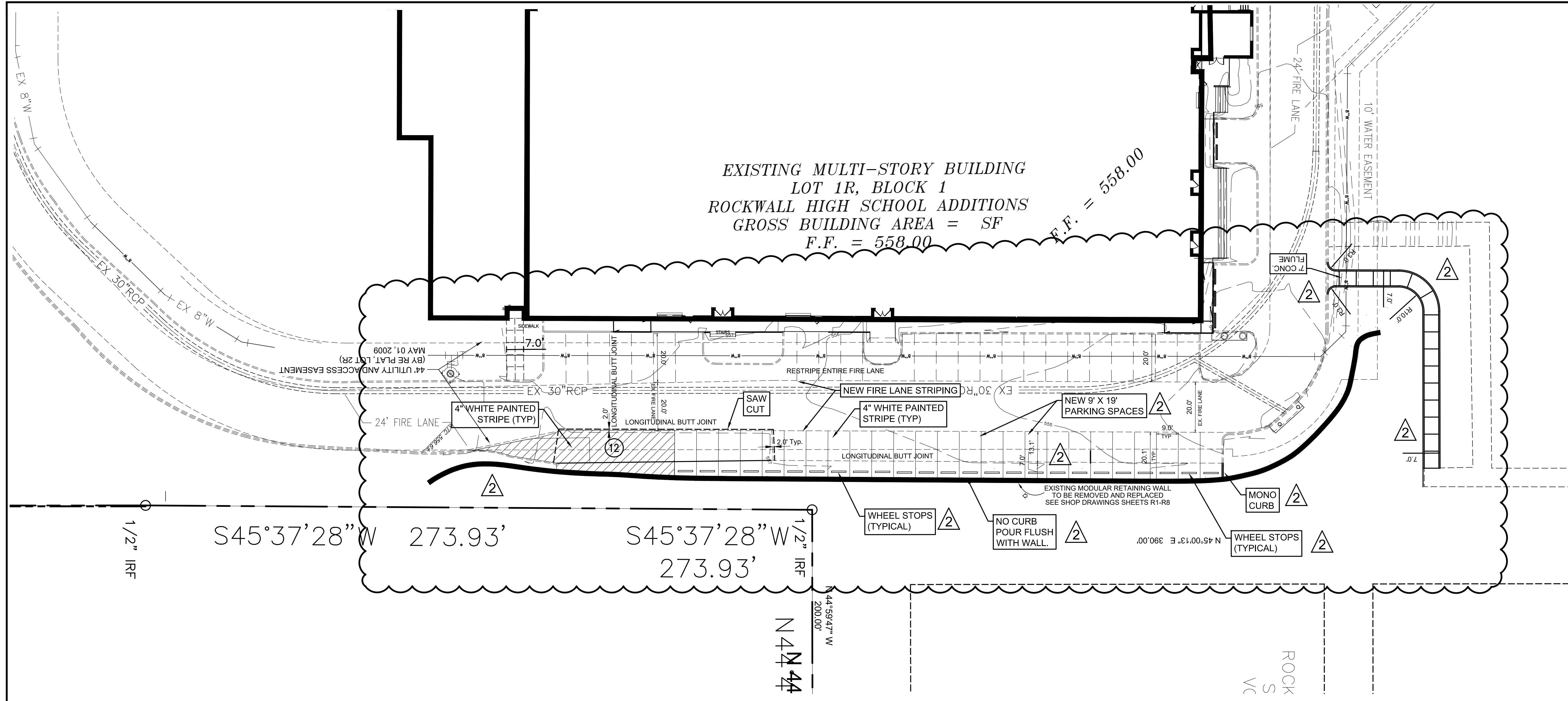
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STATE OF TEXAS  
MIKE GLENN  
35089  
*Mike Glenn*  
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**DETAILED RETAINING WALL SITE PLAN**  
100% CD VOLUME  
Job No. 1738-02-01  
Sheet No. **CS 1.1**  
Date: 12-03-2016

EXISTING MULTI-STORY BUILDING  
 LOT 1R, BLOCK 1  
 ROCKWALL HIGH SCHOOL ADDITIONS  
 GROSS BUILDING AREA = SF  
 F.F. = 558.00

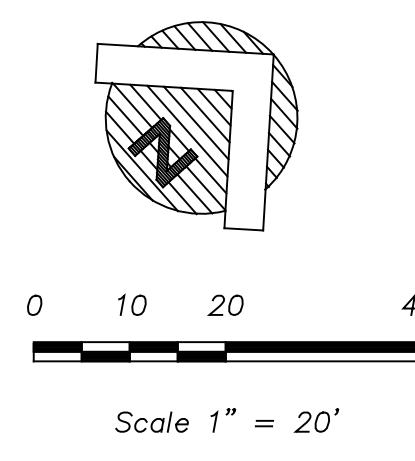


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Plotted: Apr 20, 2018, 8:58 AM by user: robert - Saved: 4/20/2018 by user: robert  
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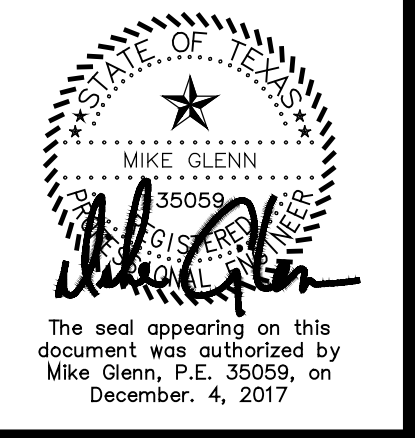


OVERALL SITE PLAN LEGEND	
	PROPOSED CONCRETE SIDEWALK
	EXISTING CURB
	PROPOSED CURB
	PROPOSED HC PARKING SPACE & STRIPING

- GENERAL NOTES:**
- STRIPING & SIGNAGE DIMENSIONS ARE FROM FACE OF CURB
  - ALL FIRE LANES, PARKING STRIPING, HD/CP PARKING STRIPING & SIGNAGE ARE TO BE IN ACCORDANCE WITH CITY OF ROCKWALL REQUIREMENTS, TYP.
  - PRIOR TO ANY CONSTRUCTION THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE CONTRACT DOCUMENTS AND SPECIFICATIONS, THE PLANS INCLUDING ALL NOTES, THE CITY OF ROCKWALL SPECIFICATIONS AND ANY OTHER APPLICABLE STANDARDS OR SPECIFICATIONS RELEVANT TO THE PROPER COMPLETION OF THE WORK SPECIFIED. FAILURE ON THE PART OF THE CONTRACTOR TO FAMILIARIZE HIMSELF WITH ALL STANDARDS OR SPECIFICATIONS PERTAINING TO THIS WORK SHALL IN NO WAY RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR PERFORMING THE WORK IN ACCORDANCE WITH ALL SUCH APPLICABLE STANDARDS AND SPECIFICATIONS.
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  - ALL WORK SHALL CONFORM TO THE CITY OF ROCKWALL SPECIFICATIONS, STANDARDS, AND DETAILS.
  - IF UNFORESEEN PROBLEMS OR CONFLICTS ARE ENCOUNTERED IN THE CONSTRUCTION, FOR WHICH AN IMMEDIATE SOLUTION IS NOT APPARENT, THE ENGINEER AND OWNER SHALL BE NOTIFIED IMMEDIATELY.
  - IT WILL BE THE RESPONSIBILITY OF EACH CONTRACTOR TO PROTECT ALL EXISTING PUBLIC AND PRIVATE UTILITIES THROUGHOUT THE CONSTRUCTION OF THIS PROJECT. CONTRACTOR SHALL CONTACT THE APPROPRIATE UTILITY COMPANIES FOR LINE LOCATIONS, PRIOR TO COMMENCEMENT OF CONSTRUCTION AND SHALL ASSUME FULL LIABILITY TO THOSE COMPANIES FOR ANY DAMAGES CAUSED TO THEIR FACILITIES.
  - CONTRACTORS SHALL BE RESPONSIBLE FOR FIELD LOCATING EXISTING UTILITIES AND IMPROVEMENTS PRIOR TO CONSTRUCTION.
  - TRENCH SAFETY DESIGN WILL BE THE RESPONSIBILITY OF THE UTILITY CONTRACTOR, CONTRACTOR SHALL SUBMIT DESIGN TO THE CITY OF ROCKWALL ENGINEERING DEPARTMENT FOR REVIEW.
  - MARK FIRE LANES TO CITY SPECIFICATION, "NO PARKING FIRE LANE" EVERY 25' WHITE 4" LETTERS ON A 6" RED STRIPED BACKGROUND.

**RECORD DRAWING**  
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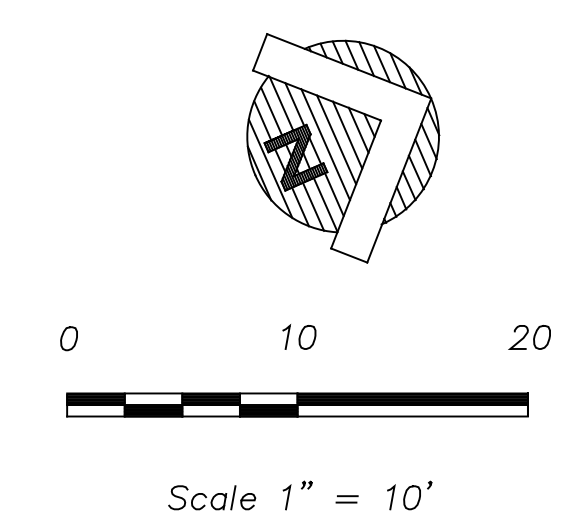
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**DETAILED PARKING LOT SITE PLAN**  
 100% CD  
 VOLUME 2  
 Job No. 1738-02-01  
 Drawn By: RAH  
 Date: 12-03-2016  
 Sheet No. CS 1.2

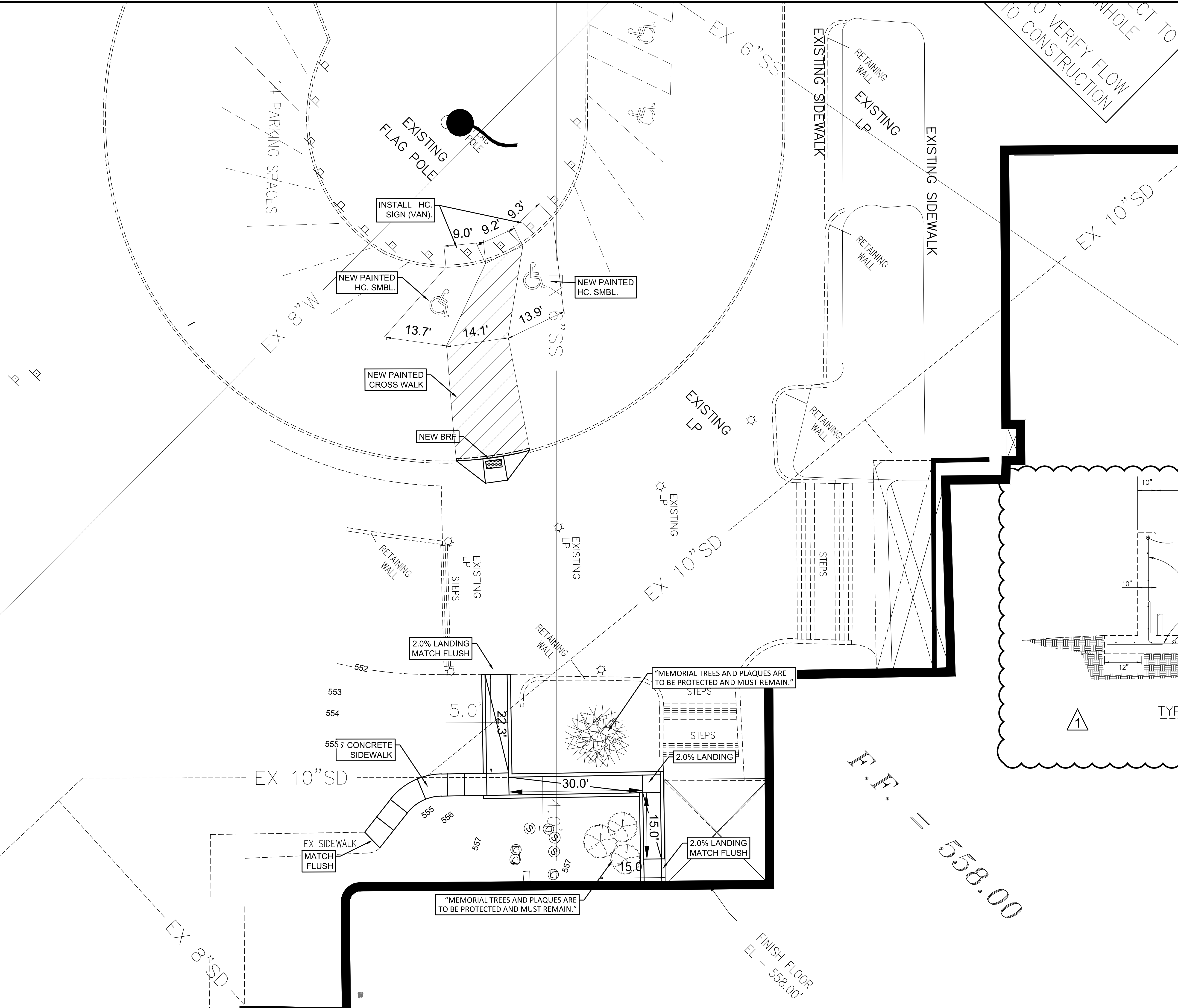
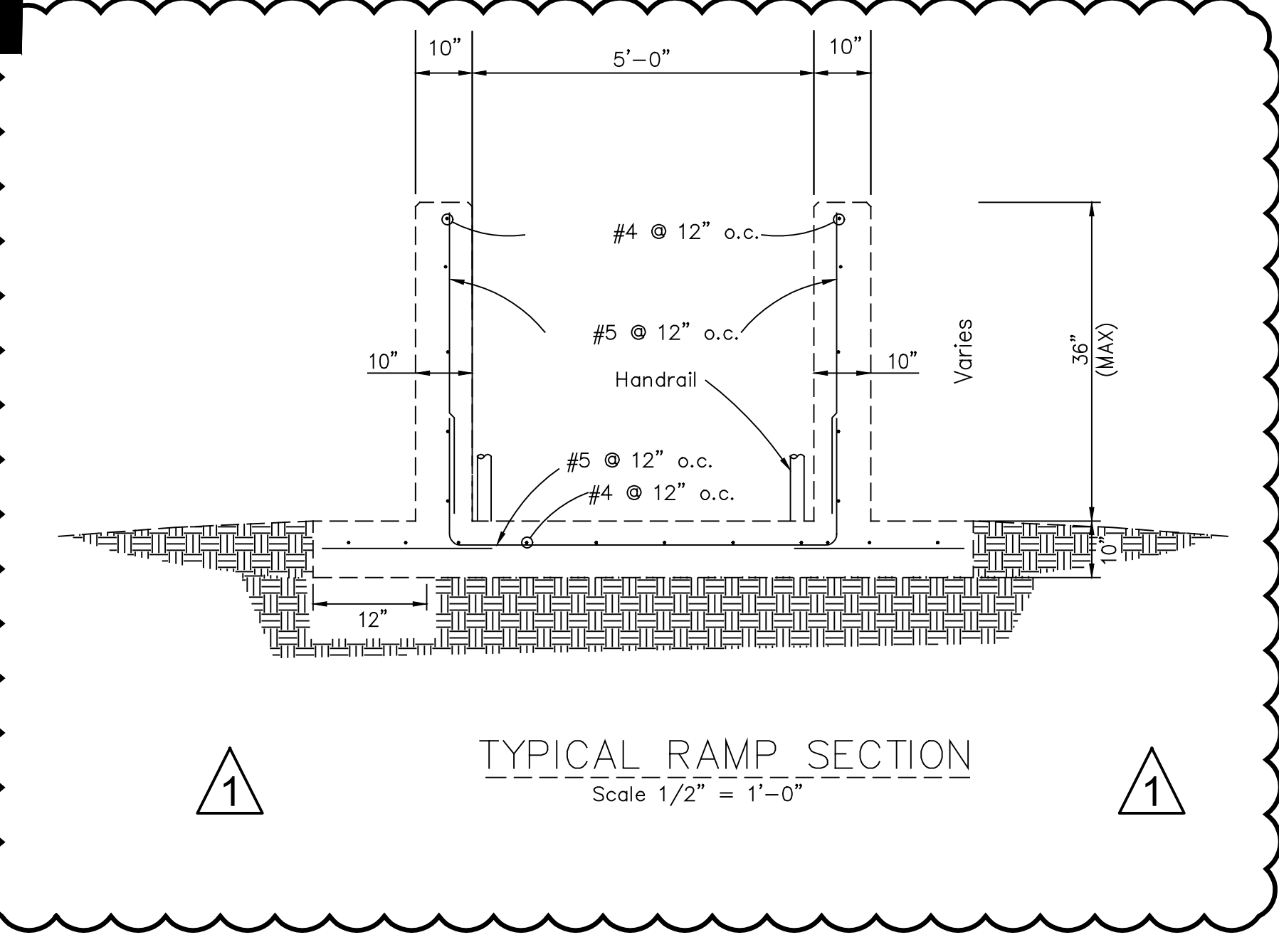
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**PC - REMOVED STORM SEWER**

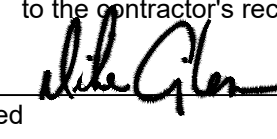
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 D:\Public\Bob's Projects\ROCKSD\High-School\2016 WALL REPAIR\BIDSET\2016 ROCKWALL-HS ENGS REV STORM FLUME.dwg

**Professional Engineer Seal:**  
 STATE OF TEXAS  
 MIKE GLENN  
 35089  
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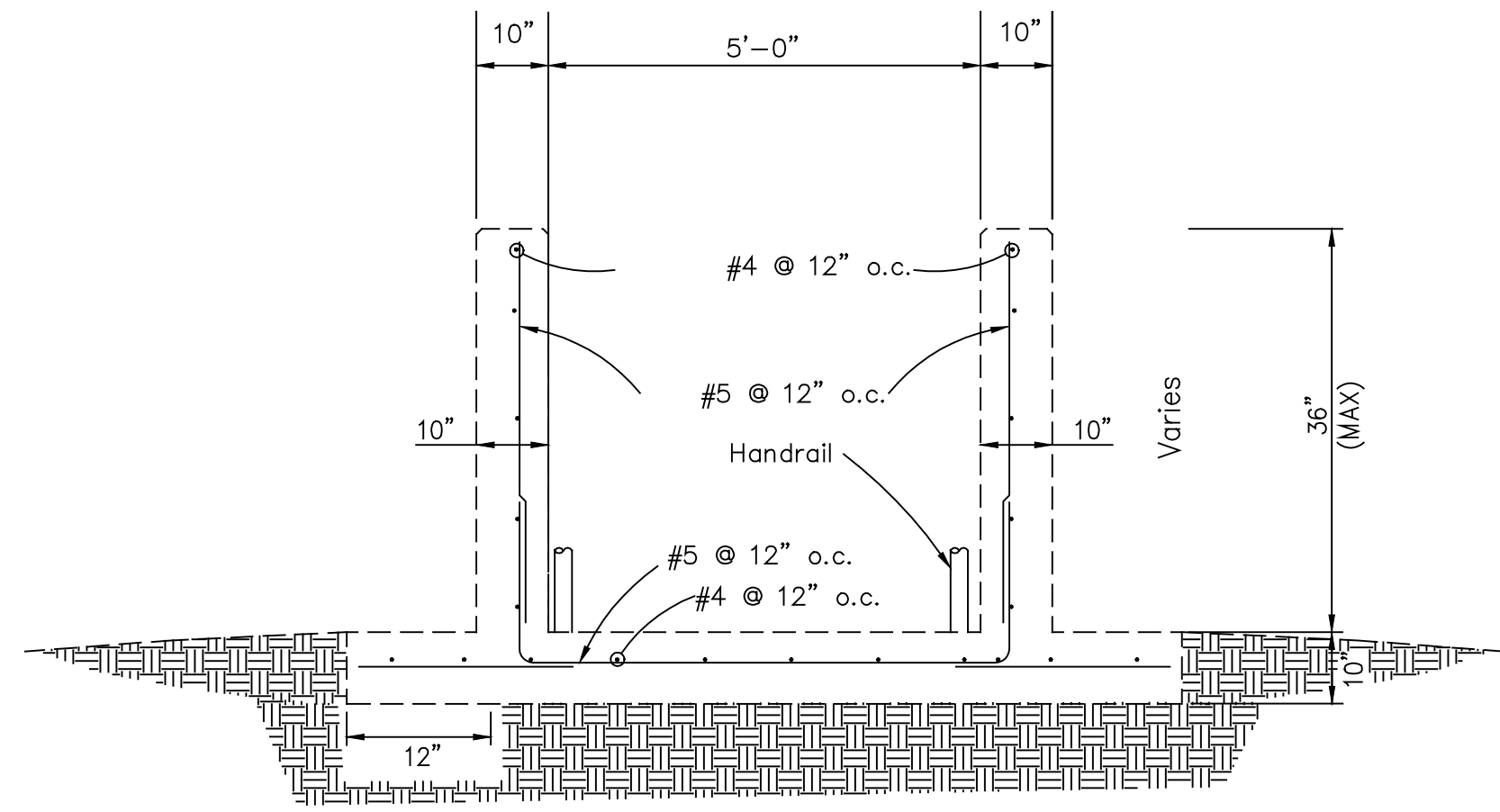
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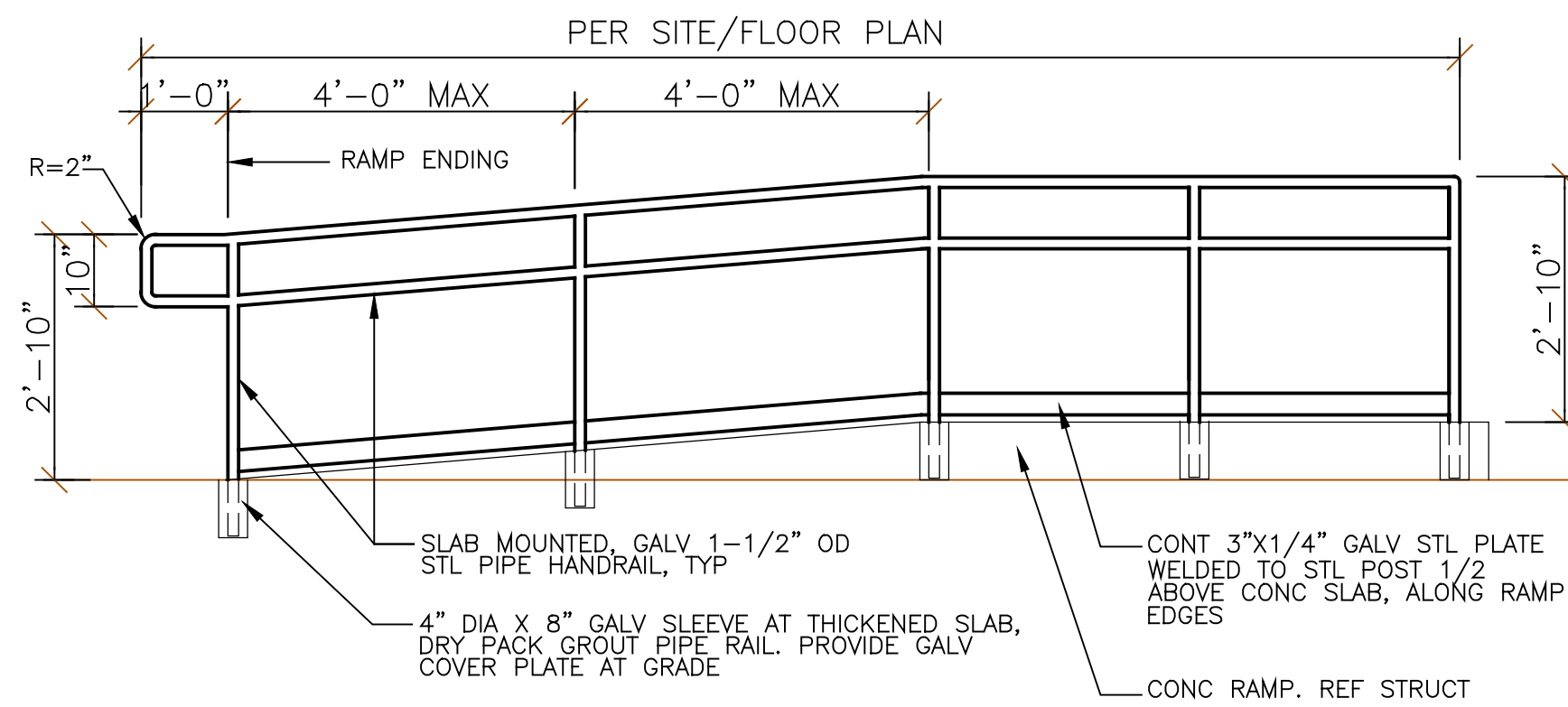
**DETAILED ENTRY RAMP PLAN**

100% CD	VOLUME
Job. No. 1738-02-01	Sheet No. CS
Drawn By: RAH	1.3
Date: 12-03-2016	

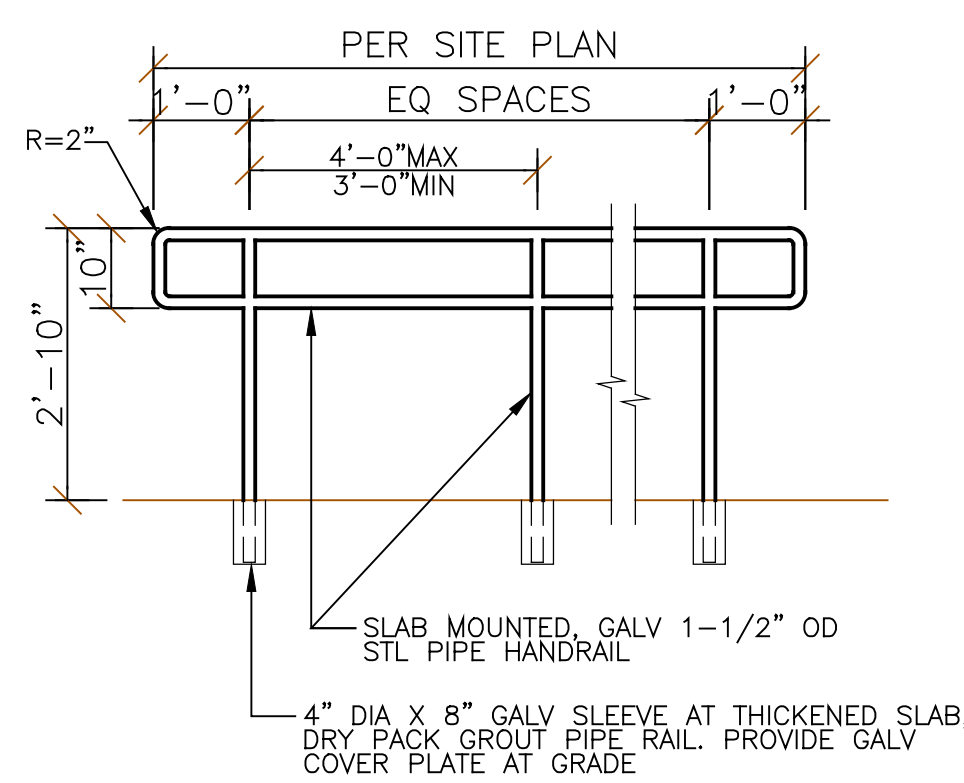
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TYPICAL RAMP SECTION  
Scale 1/2" = 1'-0"

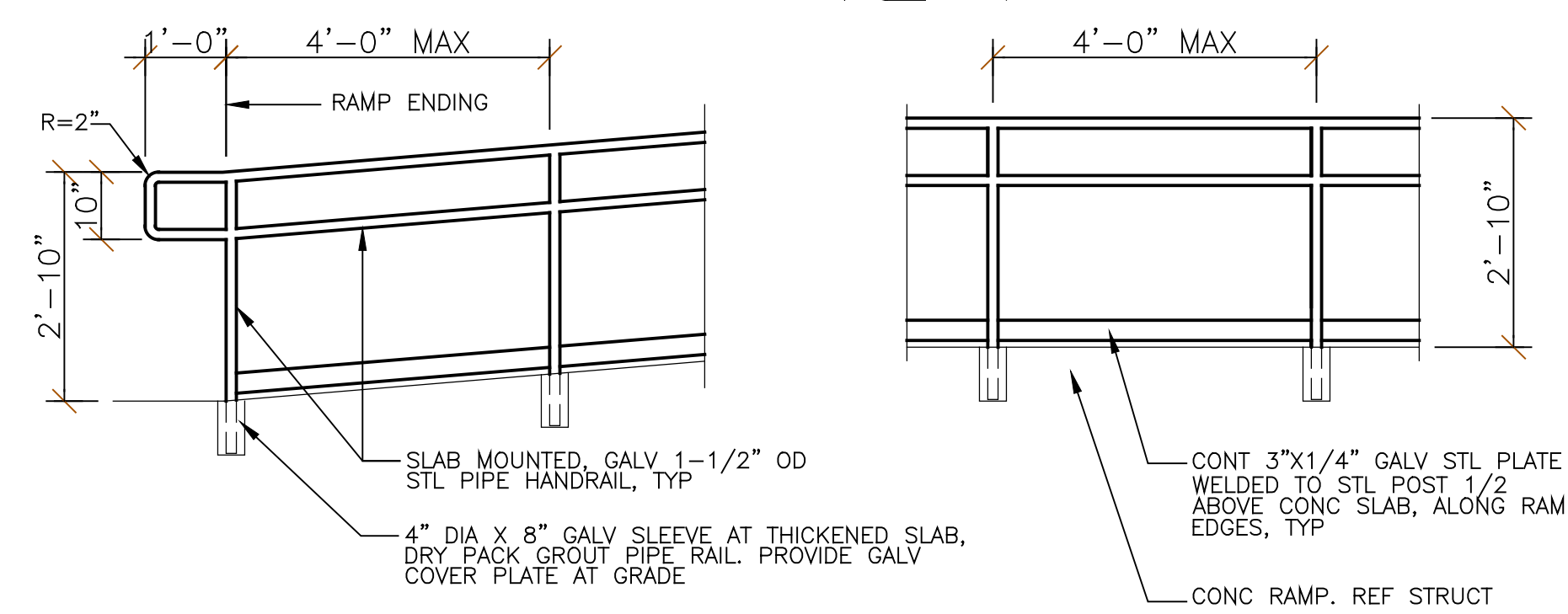


X SITE RAMP - HANDRAIL DETAIL  
1/2" = 1'-0"



NOTE: SET HANDRAIL 12" AWAY FROM CURB EDGE

X SITE HANDRAIL DETAIL  
1/2" = 1'-0"



TYP AT RAMP

TYP AT LANDING

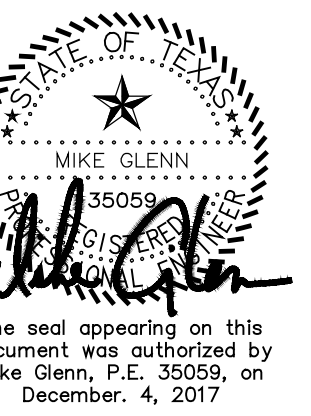
A1 TYP HANDRAIL DETAIL  
1/2" = 1'-0"

HANDRAIL DETAILS

ADDENDUM #1  
PC - REMOVE STORM FLUME AND PARKING  
PC - REMOVED STORM SEWER

Revision /	Date
1	11/22/2016
2	09/11/2017
3	12/04/2017

Project:  
ROCKWALL HIGH SCHOOL RENOVATIONS  
FOR  
ROCKWALL HIGH SCHOOL  
ROCKWALL I.S.D.  
901 YELLOW JACKET LN, ROCKWALL, TX 75087



**RECORD DRAWING**  
This is to certify that changes and corrections have been made to conform to the contractor's record of this project.  
Signed: *Mike Glenn* Date: March 28, 2018  
Glenn Engineering Corporation

**Huckabee**  
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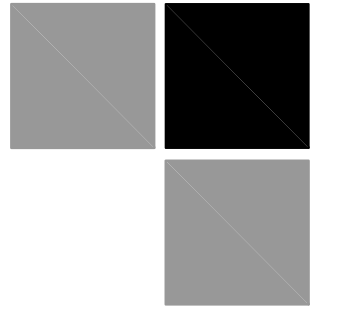
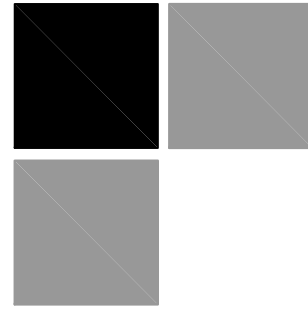
**GLENN ENGINEERING**  
TEXAS REGISTRATION NUMBER: F-303  
PHONE 972-717-5151 FAX 972-717-2176  
105 DECKER COURT, SUITE 910  
IRVING, TEXAS 75062

**RAMP DETAILS**

100% CD VOLUME

Job No. 1738-02-01 Sheet No. CS  
Drawn By: RAH  
Date: 12-03-2016

1.4



**SHOP DRAWINGS**  
**PRECAST MODULAR BLOCK RETAINING WALL**  
**ROCKWALL HIGH SCHOOL**  
**901 YELLOW JACKET LANE**  
**ROCKWALL, TEXAS**



STONE STRONG OF TEXAS  
P.O. BOX 2345  
DECATUR, TEXAS 76234  
940/389-7583

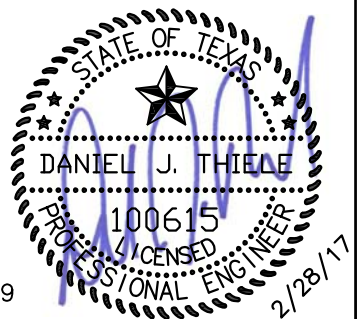
SHEET NUMBER

SHEET TITLE

R1	TITLE PAGE
R2	WALL LAYOUT PLAN
R3	WALL ELEVATION
R4	WALL ELEVATION (CONTINUED)
R5	DETAILS
R6	DETAILS (CONTINUED)
R7	COMPONENTS
R8	GENERAL NOTES

**NOTE:**  
LAYOUT AND ELEVATION ARE BASED UPON SITE/GRADING PLAN BY OTHERS.

UNDERGROUND UTILITY LOCATIONS SHOWN, IF ANY, ARE FROM INFORMATION PROVIDED TO US BY UTILITY COMPANIES AND BY OTHERS. THESE APPROXIMATE LOCATIONS ARE PROVIDED FOR GENERAL INFORMATION ONLY AND MAY BE NEITHER ACCURATE, NOR COMPLETE. FOR SPECIFIC LOCATIONS DURING CONSTRUCTION CONTACT STATE ONE-CALL CENTER PRIOR TO DIGGING.



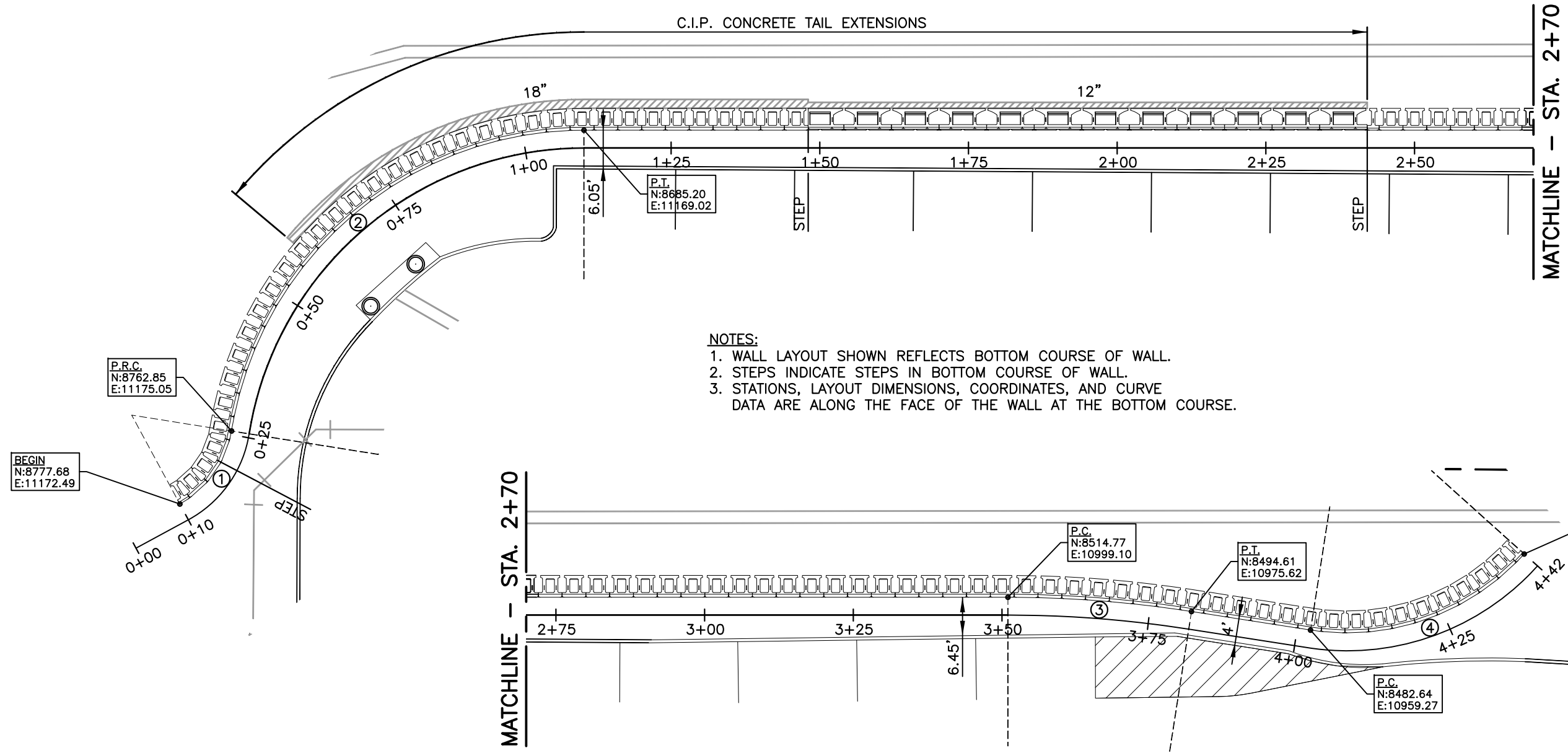
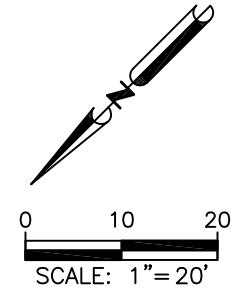
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REVISIONS: 2/28/17 REVISE TAIL EXTENSIONS FOR SELECT BACKFILL	<b>TITLE PAGE</b>	<b>ROCKWALL HIGH SCHOOL</b> <b>901 YELLOW JACKET LANE</b> ROCKWALL, TEXAS	 13478 CHANDLER ROAD OMAHA, NEBRASKA 68138 402/556-2171 www.thielegeotech.com GEOTECHNICAL ■ MATERIAL ■ ENVIRONMENTAL ■ ENGINEERING	<table border="1"> <tr> <td colspan="2">SHEET: R1</td> </tr> <tr> <td>DATE: 2/20/17</td> <td>JOB NO: 17051.00</td> </tr> <tr> <td>DB: MDS</td> <td>CB: ELO</td> </tr> </table>	SHEET: R1		DATE: 2/20/17	JOB NO: 17051.00	DB: MDS	CB: ELO
SHEET: R1										
DATE: 2/20/17	JOB NO: 17051.00									
DB: MDS	CB: ELO									



C.I.P. CONCRETE TAIL EXTENSIONS

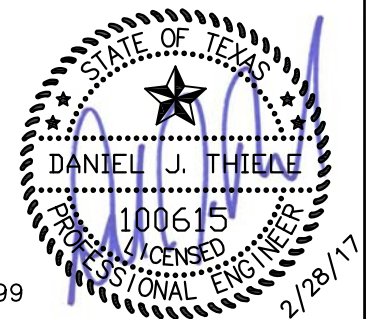


**NOTES:**

1. WALL LAYOUT SHOWN REFLECTS BOTTOM COURSE OF WALL.
2. STEPS INDICATE STEPS IN BOTTOM COURSE OF WALL.
3. STATIONS, LAYOUT DIMENSIONS, COORDINATES, AND CURVE DATA ARE ALONG THE FACE OF THE WALL AT THE BOTTOM COURSE.

**CURVE DATA**

<p>① RAD.=17.00' TAN.=8.39' ARC=15.58' LONG CHR.D.=15.04' Δ=52°30'44"</p>	<p>② RAD.=60.00' TAN.=51.20' ARC=84.77' LONG CHR.D.=77.89' Δ=80°56'50"</p>	<p>③ RAD.=200.00' TAN.=15.52' ARC=30.98' LONG CHR.D.=30.95' Δ=8°52'30"</p>	<p>④ RAD.=40.00' TAN.=21.59' ARC=39.75' LONG CHR.D.=38.14' Δ=56°56'19"</p>
---	--	--	--



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REVISIONS:  
2/28/17 REVISE TAIL EXTENSIONS FOR  
SELECT BACKFILL

**WALL LAYOUT PLAN**

**ROCKWALL HIGH SCHOOL**  
**901 YELLOW JACKET LANE**

ROCKWALL, TEXAS



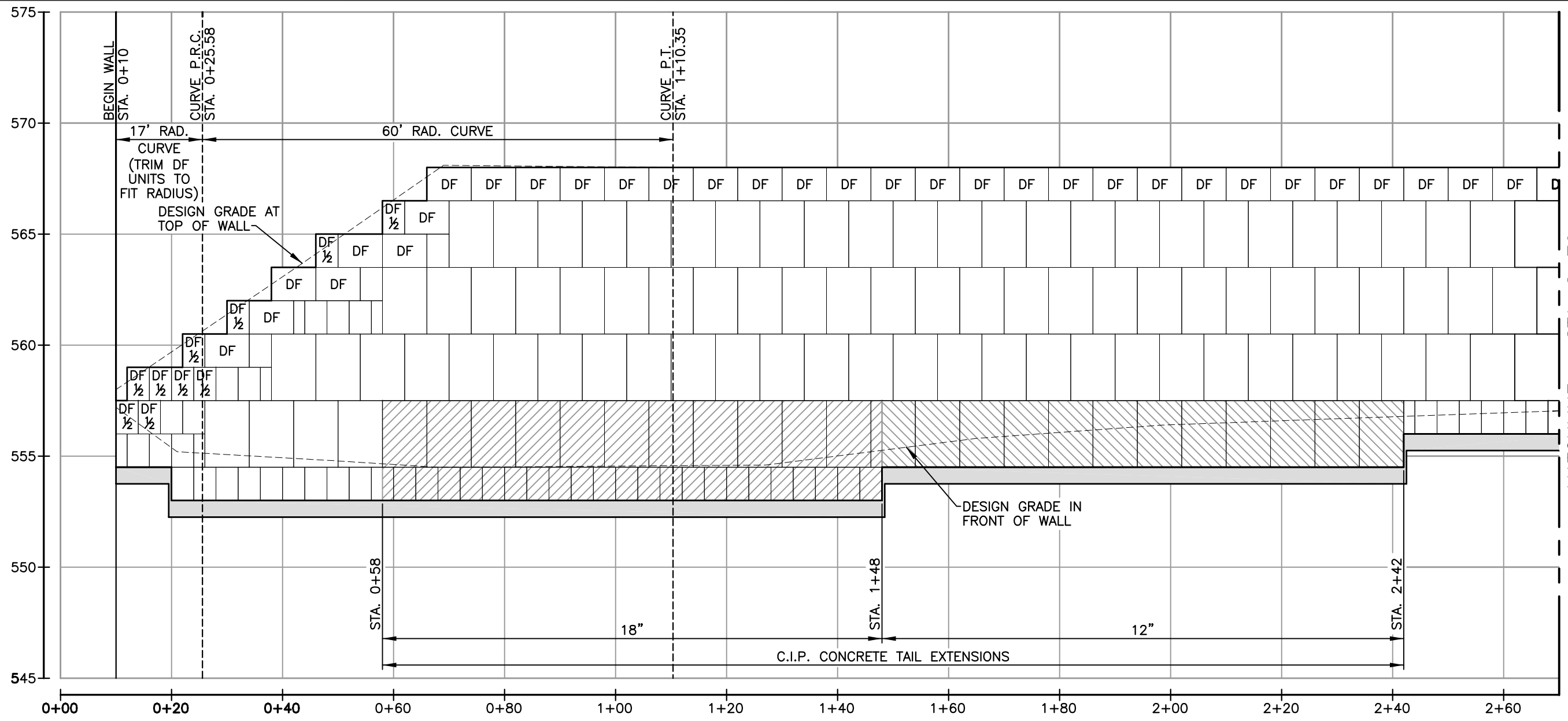
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SHEET: R2

DATE: 2/20/17  
JOB NO: 17051.00

DB: MDS      CB: ELO



MATCHLINE - STA. 2+70

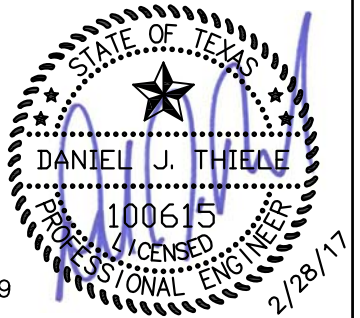
**ELEVATION LEGEND**

P.C. POINT OF CURVATURE  
P.R.C. POINT OF REVERSE CURVATURE  
P.T. POINT OF TANGENCY

**STONE STRONG BLOCK LEGEND:**

- 24 SF UNIT
- 6 SF UNIT
- 3 SF UNIT
- DUAL FACE UNIT
- DUAL FACE HALF UNIT
- DENOTES 18" C.I.P. TAIL EXTENSIONS
- DENOTES 12" C.I.P. TAIL EXTENSIONS

ELEVATION SCALES:  
HORIZ. - 1"=20'  
VERT. - 1"=5'



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**WALL ELEVATION**

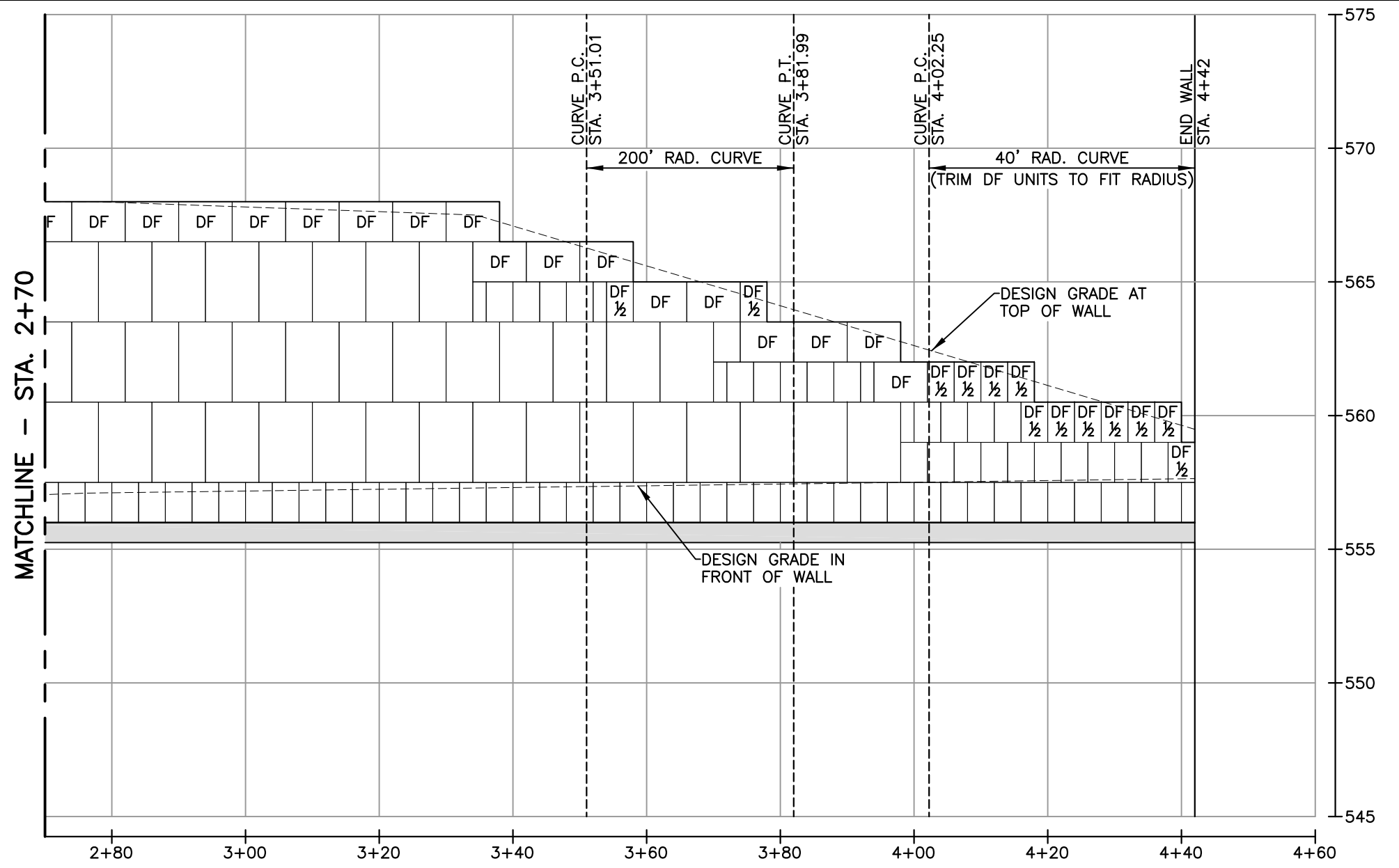
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SHEET: **R3**  
DATE: 2/20/17  
JOB NO: 17051.00  
DB: MDS CB: ELO

Facing Schedule			
Station	TOF Elev	Station	TOW Elev
0+10.0 to 0+20.0	554.50	0+10.0 to 0+12.0	557.50
0+20.0 to 1+48.0	553.00	0+12.0 to 0+22.0	559.00
1+48.0 to 2+42.0	554.50	0+22.0 to 0+30.0	560.50
2+42.0 to 4+42.0	556.00	0+30.0 to 0+38.0	562.00
		0+38.0 to 0+46.0	563.50
		0+46.0 to 0+58.0	565.00
		0+58.0 to 0+66.0	566.50
		0+66.0 to 3+38.0	568.00
		3+38.0 to 3+58.0	566.50
		3+58.0 to 3+78.0	565.00
		3+78.0 to 3+98.0	563.50
		3+98.0 to 4+18.0	562.00
		4+18.0 to 4+40.0	560.50
		4+40.0 to 4+42.0	559.00








Approximate Quantities		
Total Facing (SF)	4,938	
Block Type	# Units	Facing %
24 SF Units	144	70%
6 SF Units	118	14%
3 SF Units	12	1%
Dual Face Units	50	12%
Dual Face Half Units	23	3%



**ELEVATION LEGEND**

P.C. POINT OF CURVATURE  
P.R.C. POINT OF REVERSE CURVATURE  
P.T. POINT OF TANGENCY

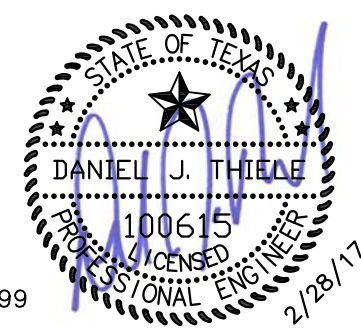
**STONE STRONG BLOCK LEGEND:**

 24 SF UNIT  
 6 SF UNIT  
 3 SF UNIT  
 DUAL FACE UNIT  
 DUAL FACE HALF UNIT  
 DENOTES 18" C.I.P. TAIL EXTENSIONS  
 DENOTES 12" C.I.P. TAIL EXTENSIONS

ELEVATION SCALES:  
HORIZ. - 1"=20'  
VERT. - 1"=5'

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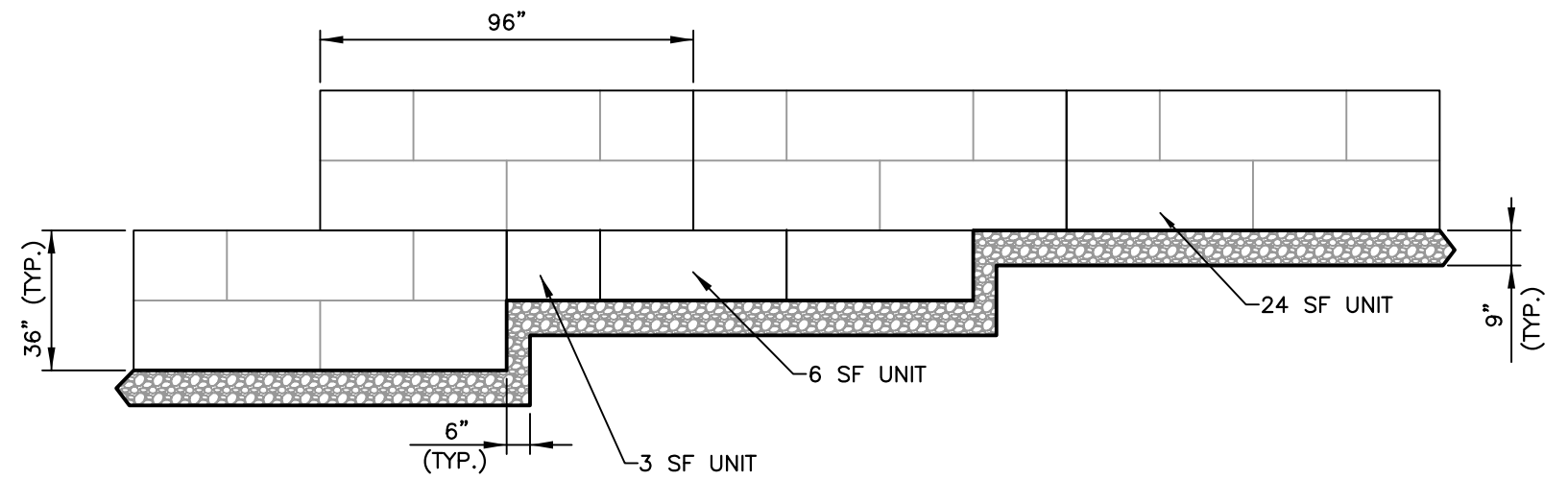
REVISIONS:  
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**WALL ELEVATION (CONTINUED)**

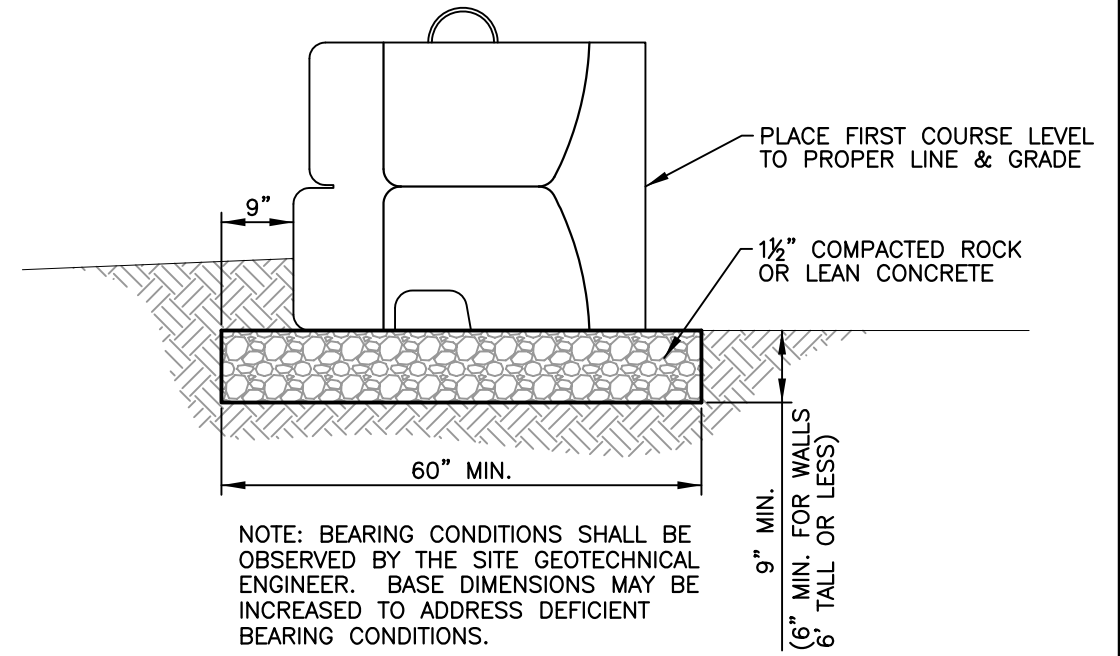
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**901 YELLOW JACKET LANE**  
ROCKWALL, TEXAS

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**SHEET: R4**  
**DATE: 2/20/17**  
**DB: MDS**  
**JOB NO: 17051.00**  
**CB: ELO**

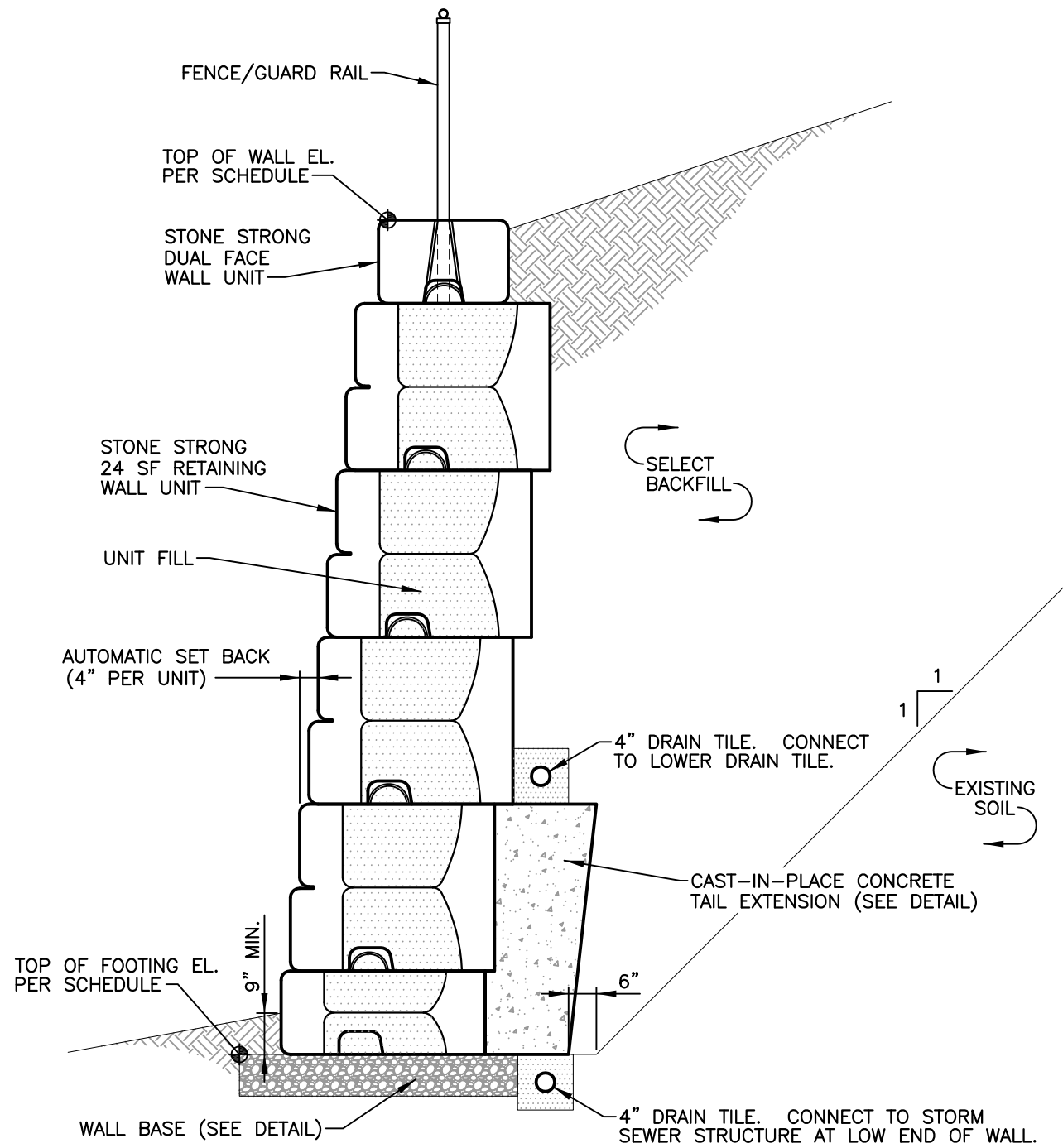


**WALL BASE STEP**  
NOT TO SCALE

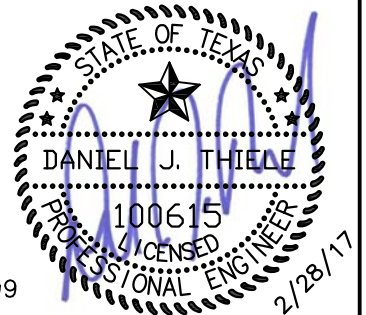


NOTE: BEARING CONDITIONS SHALL BE OBSERVED BY THE SITE GEOTECHNICAL ENGINEER. BASE DIMENSIONS MAY BE INCREASED TO ADDRESS DEFICIENT BEARING CONDITIONS.

**WALL BASE**  
NOT TO SCALE



**TYPICAL GRAVITY WALL CROSS SECTION**  
NOT TO SCALE



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2/28/17 REVISE TAIL EXTENSIONS FOR SELECT BACKFILL

**DETAILS**

**ROCKWALL HIGH SCHOOL**  
**901 YELLOW JACKET LANE**

ROCKWALL, TEXAS



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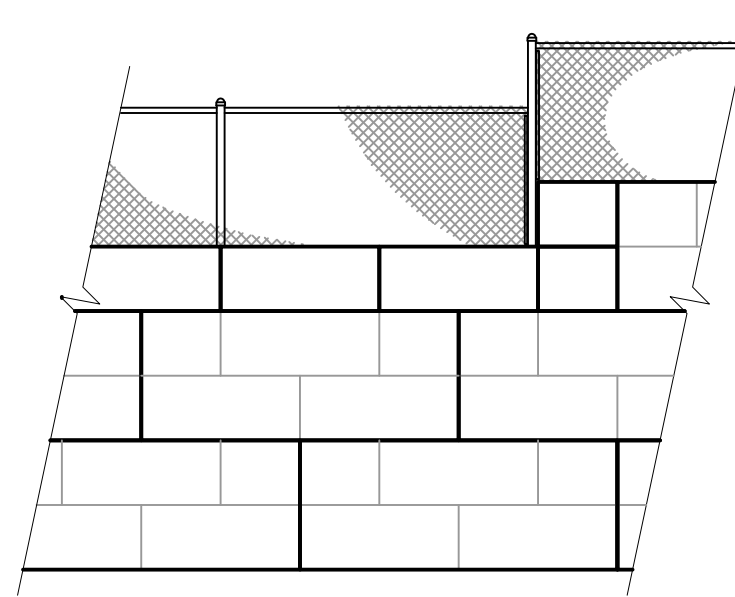
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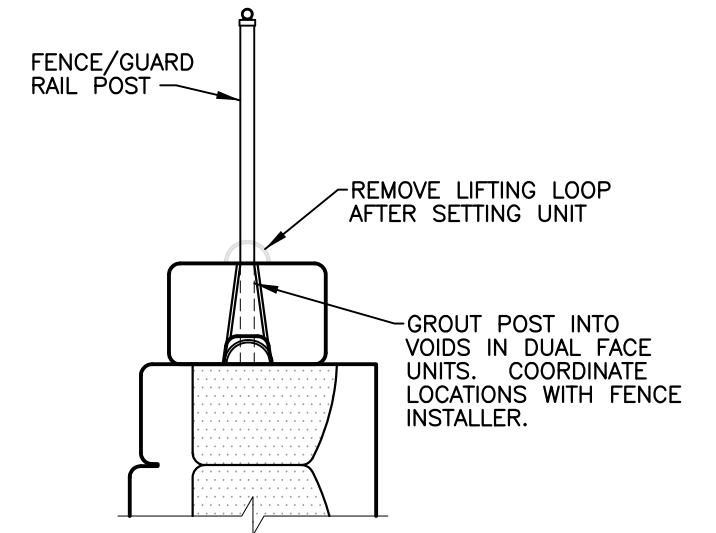
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JOB NO: 17051.00

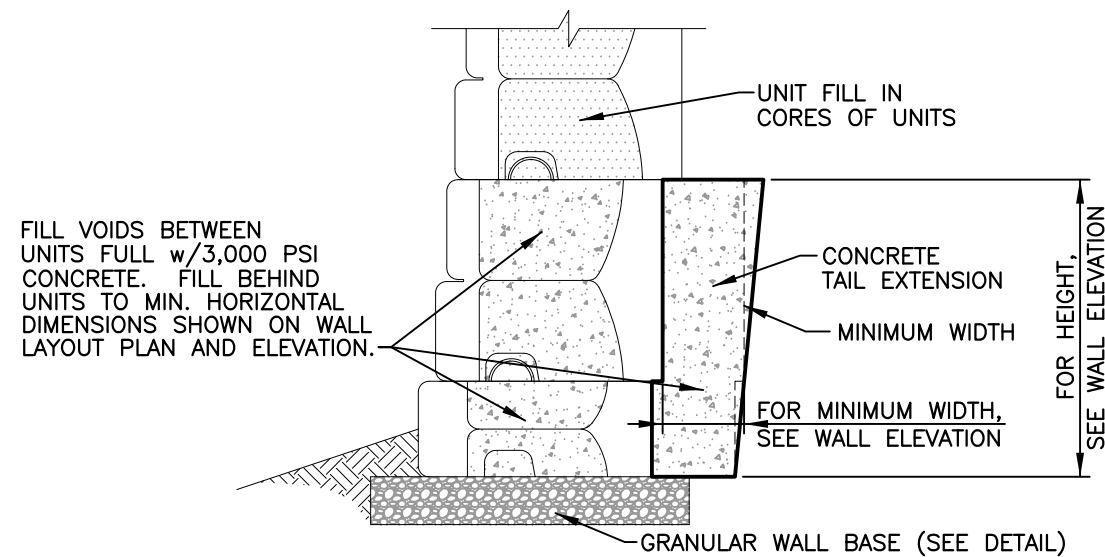
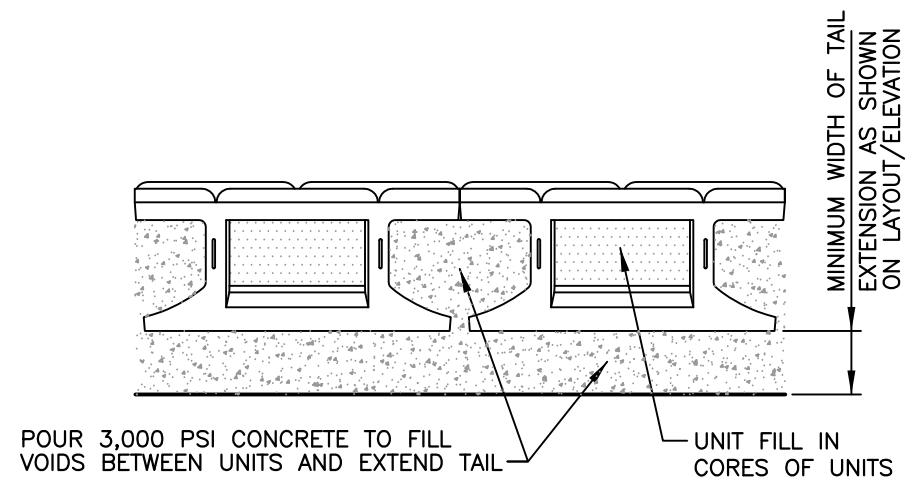
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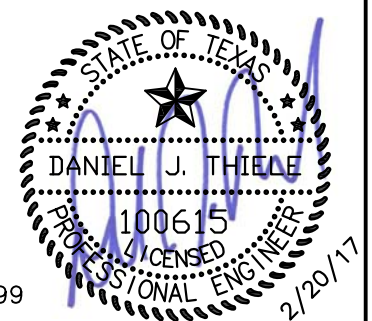
**TYPICAL FENCE CONFIGURATION**  
NOT TO SCALE



**DUAL FACE POST SETTING**  
NOT TO SCALE



**CONCRETE TAIL EXTENSION DETAIL (CAST-IN-PLACE)**  
NOT TO SCALE



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REVISIONS:

**DETAILS  
(CONTINUED)**

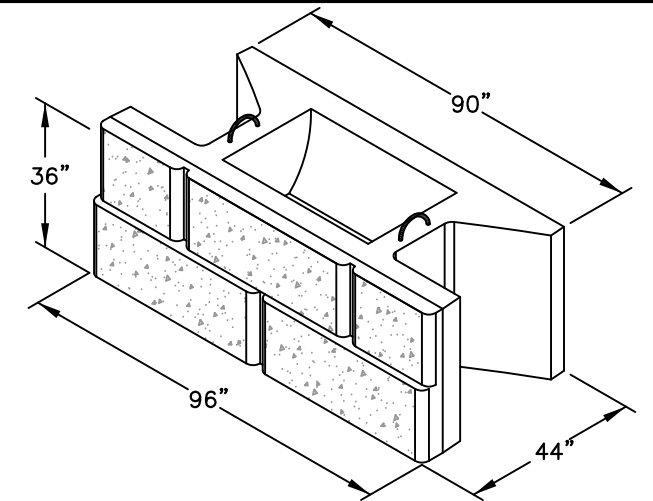
**ROCKWALL HIGH SCHOOL**  
**901 YELLOW JACKET LANE**  
ROCKWALL, TEXAS



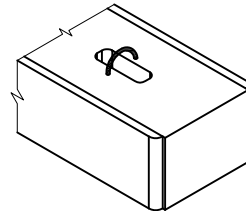
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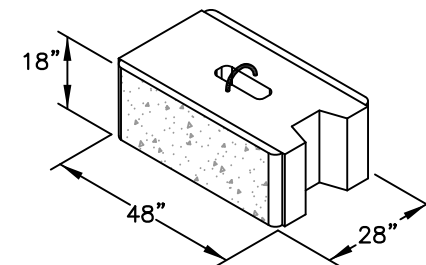
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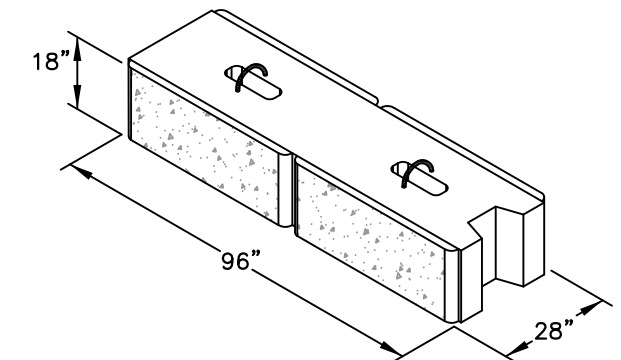
**STONE STRONG**  
**24 SF UNIT**  
NOT TO SCALE



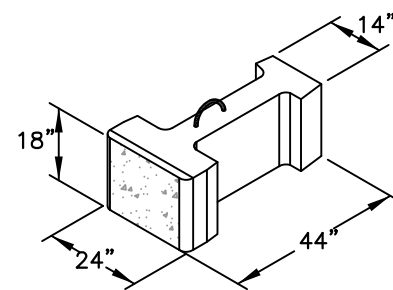
**ALTERNATE**  
**FINISHED END**  
NOT TO SCALE



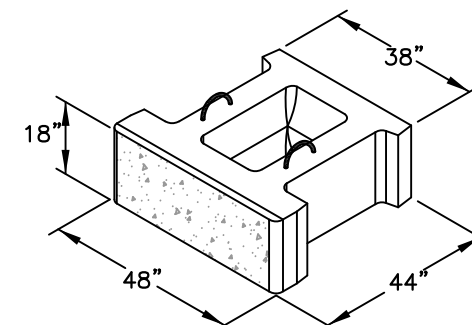
**STONE STRONG**  
**DUAL FACE HALF UNIT**  
NOT TO SCALE



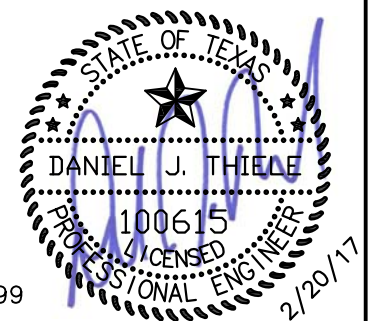
**STONE STRONG**  
**DUAL FACE UNIT**  
NOT TO SCALE



**STONE STRONG**  
**3 SF UNIT**  
NOT TO SCALE



**STONE STRONG**  
**6 SF UNIT**  
NOT TO SCALE



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REVISIONS:

**COMPONENTS**

**ROCKWALL HIGH SCHOOL**  
**901 YELLOW JACKET LANE**

ROCKWALL, TEXAS



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SHEET: R7

DATE: 2/20/17 JOB NO: 17051.00

DB: MDS CB: ELO

1. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION SITE SAFETY. THIELE GEOTECH, INC. (TG) SHALL NOT BE RESPONSIBLE FOR MEANS OR METHODS OF CONSTRUCTION OR FOR SAFETY OF WORKERS OR OF THE PUBLIC.

2. THIS DESIGN IS BASED ON THE FOLLOWING SOIL PROPERTIES:

PROPERTY	RETAINED SOIL	FOUNDATION SOIL	REINFORCED SOIL
FRICTION ANGLE - $\phi$	22°	22°	36°
UNIT WEIGHT - $\gamma$	120 PCF	120 PCF	125 PCF
COHESION - C	0	150 PSF	0
SOIL TYPE	FAT CLAY	FAT CLAY	SELECT BACKFILL

SOIL PROPERTIES ARE INTERPRETED FROM A GEOTECHNICAL REPORT PREPARED BY HUCKABEE, INC. (1/27/17).

3. THE WALL BASE DESIGN ASSUMES AN ALLOWABLE BEARING PRESSURE OF 2,500 PSF. THE THE SITE GEOTECHNICAL ENGINEER SHOULD OBSERVE THE BEARING CONDITIONS AND ADJUST THE THICKNESS OF THE GRANULAR BASE TO ACCOMMODATE SOFT CONDITIONS, IF NECESSARY.

4. THIS DESIGN IS FOR STABILITY OF THE PRECAST MODULAR RETAINING WALL SYSTEM ONLY. SITE STABILITY (GLOBAL STABILITY), IS THE RESPONSIBILITY OF THE SITE DESIGN ENGINEER OR SITE GEOTECHNICAL ENGINEER. WALL GEOMETRY AND GRADE ELEVATIONS ABOVE AND BELOW THE WALL GENERALLY CONFORM WITH SITE DESIGN PREPARED BY GLENN ENGINEERING (NOVEMBER 2016). IF ACTUAL SITE GRADES VARY SIGNIFICANTLY FROM THOSE SHOWN OR IF THE MINIMUM EMBEDMENT OR MAXIMUM BACKSLOPE DO NOT CONFORM, INSTALLATION SHALL NOT PROCEED UNTIL THE WALL DESIGN IS VERIFIED OR MODIFIED.

5. STATIONS AND LAYOUT DIMENSIONS ARE MEASURED ALONG THE FACE OF THE WALL AT THE BOTTOM COURSE.

6. PRECAST UNITS SHALL BE STONE STRONG RETAINING WALL UNITS MANUFACTURED UNDER LICENSE FROM STONE STRONG SYSTEMS. UNITS SHALL HAVE A CHISLED GRANITE FACE. THE BLOCKS MAY BE STAINED IN PLACE TO ACHEIVE THE DESIRED COLOR.

7. THE WALL BASE SHALL CONSIST OF COMPACTED CRUSHED ROCK OR RECYCLED CONCRETE AGGREGATE, WITH THE FOLLOWING GRADATION:

US STANDARD SIEVE SIZE	PERCENT PASSING
1-1/2"	80-100
3/4"	50-90
#4	0-40
#200	0-10

THE WALL BASE SHALL BE PLACED AS SHOWN ON THE DRAWINGS. THE BASE SHALL BE COMPACTED SO AS TO PROVIDE A LEVEL AND HARD SURFACE ON WHICH TO PLACE THE FIRST COURSE OF UNITS. GRANULAR BASE MATERIAL SHALL BE COMPACTED TO A MINIMUM 95 PERCENT OF MODIFIED PROCTOR (ASTM D1557). FOOTING SHALL BE SMOOTHED TO ENSURE COMPLETE CONTACT OF RETAINING WALL UNIT WITH BASE. SURFACE OF GRANULAR BASE MAY BE DRESSED WITH FINER AGGREGATE TO AID LEVELING. THE THICKNESS OF DRESSING LAYER SHOULD NOT EXCEED 3 TIMES THE MAXIMUM PARTICLE USED. THE CONTRACTOR MAY SUBSTITUTE LEAN CONCRETE WITH A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 2,500 PSI FOR THE GRANULAR BASE MATERIAL.

8. UNIT FILL SHALL BE A CLEAN, COARSE GRANULAR MATERIAL. UNIT FILL SHALL BE SCREENED CRUSHED ROCK OR RECYCLED CONCRETE, MEETING THE FOLLOWING GRADATION:

US STANDARD SIEVE SIZE	PERCENT PASSING
1-1/2"	100
3/4"	60-100
#4	0-40
#200	0-5

8. (CONTINUED). UNIT FILL SHALL FILL CAVITIES WITHIN AND BETWEEN THE UNITS, AND MAY EXTEND BEHIND THE FACING UNITS FOR THE CONTRACTOR'S CONVENIENCE.

9. GEOGRID SHALL BE SF 55 AND SF 110 MANUFACTURED BY SYNTEEN. VERIFY PROPER GEOGRID TYPE, ELEVATION, AND LENGTH AS SHOWN ON THE SCHEDULES. GEOGRID LENGTH IS MEASURED FROM THE FRONT FACE OF THE WALL. ORIENT THE STRONG AXIS (MACHINE DIRECTION) OF THE GEOGRID PERPENDICULAR TO THE WALL FACE. THE GEOGRID SOIL REINFORCEMENT SHALL BE LAID HORIZONTALLY ON COMPACTED BACKFILL AND OVER THE ALIGNMENT LOOPS OF THE FACING UNITS. PULL GEOGRID TAUT TO REMOVE ALL WRINKLES OR FOLDS BEFORE BACKFILLING. DO NOT ROLL GEOGRID OVER THE TOP OF THE FACING UNITS. GEOGRID DOES NOT NEED TO BE OVERLAPPED IN THE ACROSS THE ROLL DIRECTION. GEOGRID SHALL NOT BE SPLICED BY OVERLAPPING IN THE ROLL DIRECTION. ON OUTSIDE CURVES, PLACE 3 INCHES OF SOIL BETWEEN OVERLAPPING GEOGRIDS.

10. BACKFILL MATERIAL WITHIN THE REINFORCED MASS SHALL BE A RECYCLED CONCRETE OR OTHER SELECT GRANULAR MATERIAL, WITH THE FOLLOWING GRADATION:

US STANDARD SIEVE SIZE	PERCENT PASSING
1-1/2"	100
3/4"	60-100
#4	0-40
#200	0-5

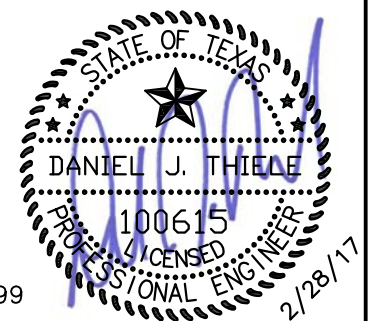
BACKFILL MATERIAL SHALL BE APPROVED BY THE SITE GEOTECHNICAL ENGINEER PRIOR TO USE. BACKFILL SHALL BE PLACED IN MAXIMUM 8 INCH LOOSE LIFTS AND COMPACTED TO A MINIMUM OF 95 PERCENT OF STANDARD PROCTOR (ASTM D698). BACKFILL SHALL BE PLACED, SPREAD, AND COMPACTED FROM FACING UNITS BACKWARD TO MINIMIZE THE DEVELOPMENT OF WRINKLES IN AND/OR MOVEMENT OF THE GEOGRID.

11. ENSURE EACH COURSE IS COMPLETELY FILLED AND BACKFILL IS PLACED TO THE SAME LEVEL PRIOR TO PROCEEDING TO NEXT COURSE. ENSURE ADJACENT UNITS ARE IN CONTACT SO THAT UNIT FILL MAY NOT ESCAPE THROUGH THE JOINT BETWEEN UNITS. GAPS GREATER THAN 1/4" BETWEEN THE UNITS SHALL NOT BE ALLOWED. AT INTERSECTIONS WITH STRUCTURES, CUT UNITS TO OBTAIN A NEAT FIT. PULL BLOCK UNITS FORWARD TO ENGAGE THE ALIGNMENT LOOPS ON THE UNIT BELOW.

12. MAINTAIN TEMPORARY GRADES TO DIVERT SURFACE WATER AWAY FROM THE RETAINING WALL EXCAVATION. SLOPE FINAL BACKFILL TO PROVIDE POSITIVE DRAINAGE AND TO ELIMINATE PONDING.

13. CONSTRUCTION EQUIPMENT SHALL NOT BE OPERATED DIRECTLY ON THE GEOGRID. A MINIMUM BACKFILL THICKNESS OF 6 INCHES IS REQUIRED PRIOR TO OPERATION OF EQUIPMENT OVER THE GEOGRID. TURNING SHOULD BE KEPT TO A MINIMUM TO PREVENT TRACKS FROM DISPLACING THE FILL AND DAMAGING THE GEOGRID.

14. COORDINATE LOCATION OF FENCE POST SLEEVES WITH FENCE INSTALLER. CUT GEOGRIDS AROUND THE SLEEVES. COORDINATE INSTALLATION OF THE UTILITIES IN REINFORCED ZONE BEFORE PLACING FINAL GRID LAYERS TO AVOID DAMAGE TO THE REINFORCING GRID. LONGITUDINAL CUTS MAY BE MADE IN THE GEOGRID TO INSTALL GRID AROUND OBSTRUCTIONS. DO NOT MAKE TRANSVERSE CUTS ACROSS THE STRONG FIBER OF THE GEOGRID.



TX FIRM F-10399

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REVISIONS:  
2/28/17 REVISE TAIL EXTENSIONS FOR SELECT BACKFILL

**GENERAL NOTES**

**ROCKWALL HIGH SCHOOL**  
**901 YELLOW JACKET LANE**

ROCKWALL, TEXAS



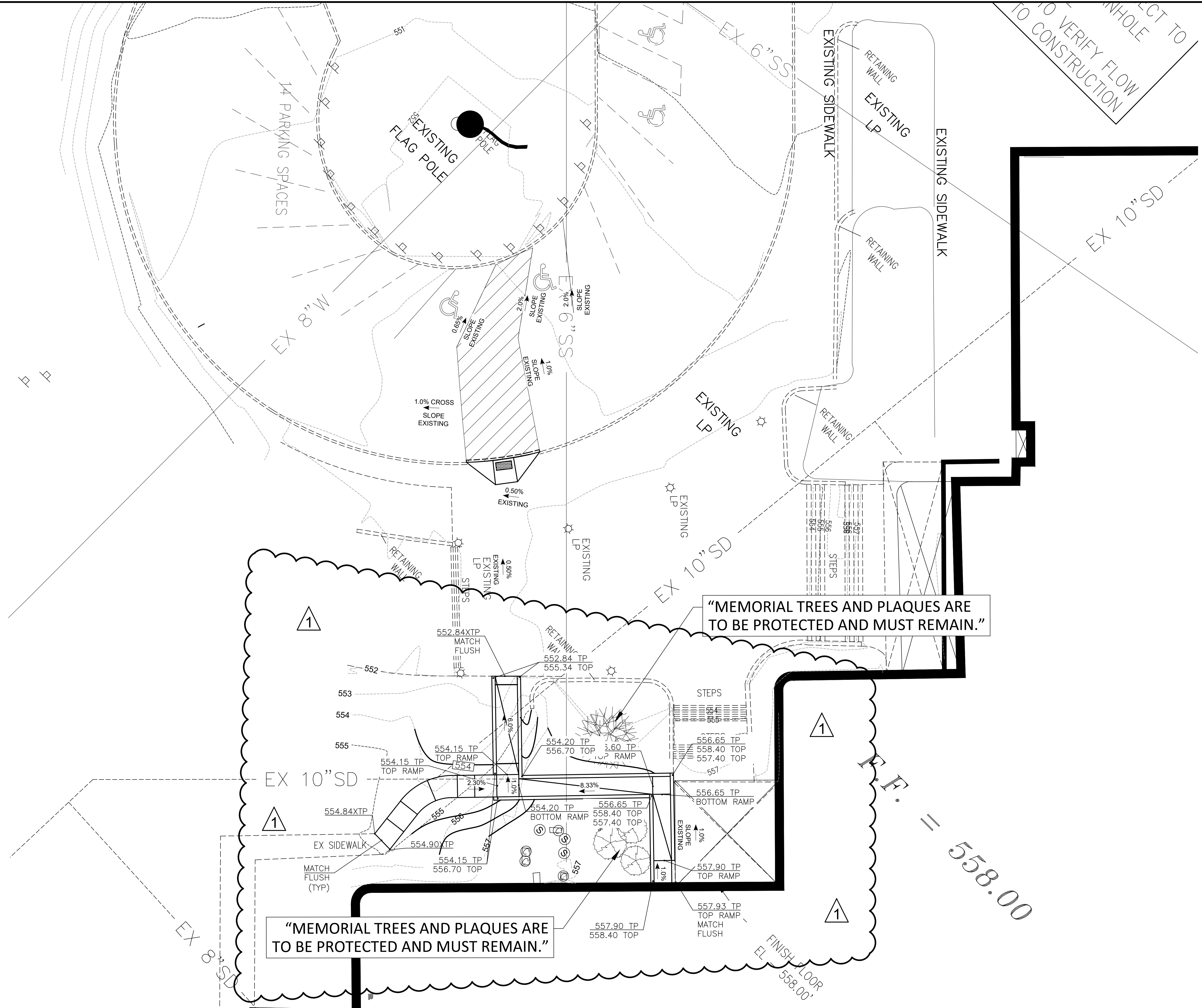
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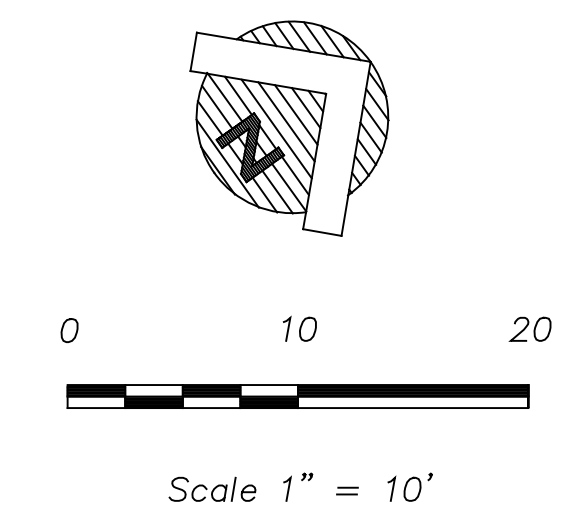
SHEET: R8

DATE: 2/20/17  
JOB NO: 17051.00

DB: MDS  
CB: ELO



- GENERAL NOTES**
- All work shall be in accordance with these plans and City of Rockwall Standards and Specifications.
  - All proposed contours are approximate. Proposed spot elevations and designated gradient are to be used in the event of any discrepancies.
  - The General Contractor and all subcontractors shall verify the suitability of all existing and proposed site conditions including grades and dimensions before commencement of any construction. In the event of any conflict and prior to commencement of any construction, immediately notify Engineer. Minor adjustments of finished grade to accomplish spot drainage are acceptable.
  - Positive drainage shall be provided away from all foundations and structures.
  - All spot elevations are top of pavement or gutter. To obtain top of curb elevation, add 0.5 feet.
  - Ground shall be scarified prior to placing any fill.
  - Fill shall be placed in accordance with the geotechnical investigation and soils report recommendations.
  - Any excess excavation shall be distributed as directed by the Owner or the Engineer.
  - It is the responsibility of the Contractor to locate and/or establish a benchmark prior to construction and maintain the benchmark during construction.
  - The locations of all utilities indicated on the plans are taken from available public records. The exact location and depth of all utilities indicated must be determined by the Contractor. It shall be the duty of the Contractor to ascertain whether any additional facilities other than those shown on the plans may be present.
  - It shall be the responsibility of the Contractor to protect all existing utilities in the construction of this project. Any utilities damaged during the construction of this project shall be repaired at the Contractor's expense.
  - "MEMORIAL TREES AND PLAQUES ARE TO BE PROTECTED AND MUST REMAIN"



**LEGEND**

- = PROPOSED TOP OF CURB
- = PROPOSED TOP OF PAVEMENT
- = PROPOSED TOP OF INLET
- = PROPOSED TOP OF INLET
- = PROPOSED CONTOUR
- FF=558.00** = PROPOSED FINISH FLOOR
- = PROPOSED LANDSCAPE BERM
- = DIRECTION OF FLOW
- = EXISTING SHOT
- = EXISTING CONTOUR

**ADDENDUM #1  
PC - REMOVE STORM FLUME AND PARKING  
PC - REMOVED STORM SEWER**

Revision /	Date
1	11/22/2016
2	09/11/2017
3	12/04/2017

**Project:** ROCKWALL HIGH SCHOOL RENOVATIONS  
FOR  
ROCKWALL HIGH SCHOOL  
ROCKWALL I.S.D.  
901 YELLOW JACKET LN, ROCKWALL, TX 75087

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800.687.1229

**RECORD DRAWING**  
This is to certify that changes and corrections have been made to conform to the contractor's record of this project.  
Signed: *Mike Glenn* Date: March 28, 2018  
Glenn Engineering Corporation

**GLENN ENGINEERING**  
TEXAS REGISTRATION NUMBER: F-303  
PHONE 972-717-5151 FAX 972-717-2176  
105 DECKER COURT, SUITE 910  
IRVING, TEXAS 75062

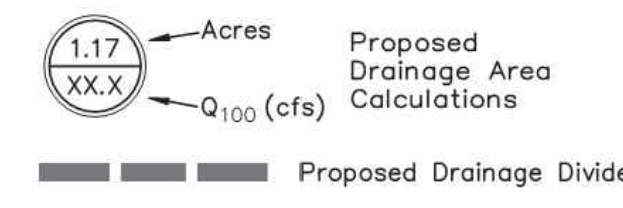
**DETAILED ENTRY GRADING PLAN**

100% CD	VOLUME
Job No. 1738-02-01	Sheet No. CG
Drawn By: RAH	1.0
Date: 12-03-2016	

Plotted: Apr 20, 2018, 9:55 AM by user: robert. Saved: 4/20/2018 by user: robert.  
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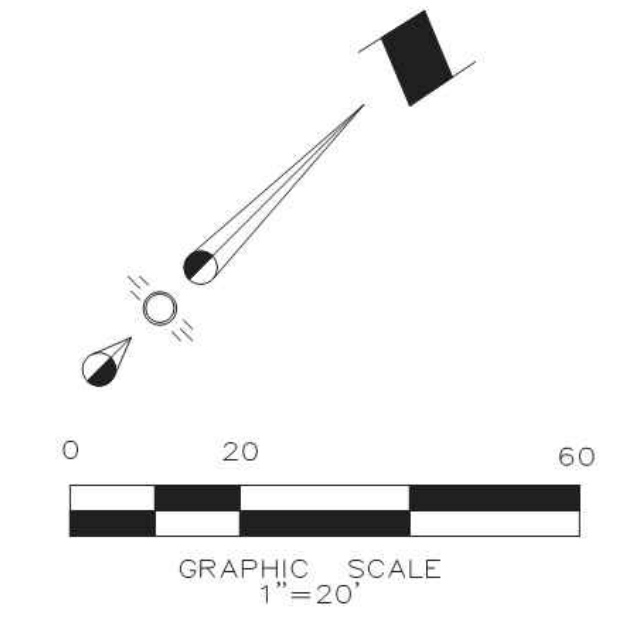


**CAUTION EXISTING UTILITIES!!!!**  
 All existing utilities and underground facilities that are indicated and shown on these plans are approximate, and are based on as-built plans and/or from reference information. Actual utility locations may differ from the as-built plans based on field observations. All utilities shall be field verified and located prior to any excavation or boring. It shall be the responsibility of the Contractor to verify both horizontally and vertically the location of such existing utilities prior to any construction.



**PROPOSED CONDITIONS DRAINAGE CALCULATIONS**

Area Designation	Area (Acres)	Runoff Coefficient	Time of Concentration (Min)	Rainfall Intensity (in/Hr)	100 Year Runoff Rate (CFS)
D.A. 1	1.17	0.85	10	9.8	9.7
D.A. 2	0.45	1.0	10	9.8	4.4

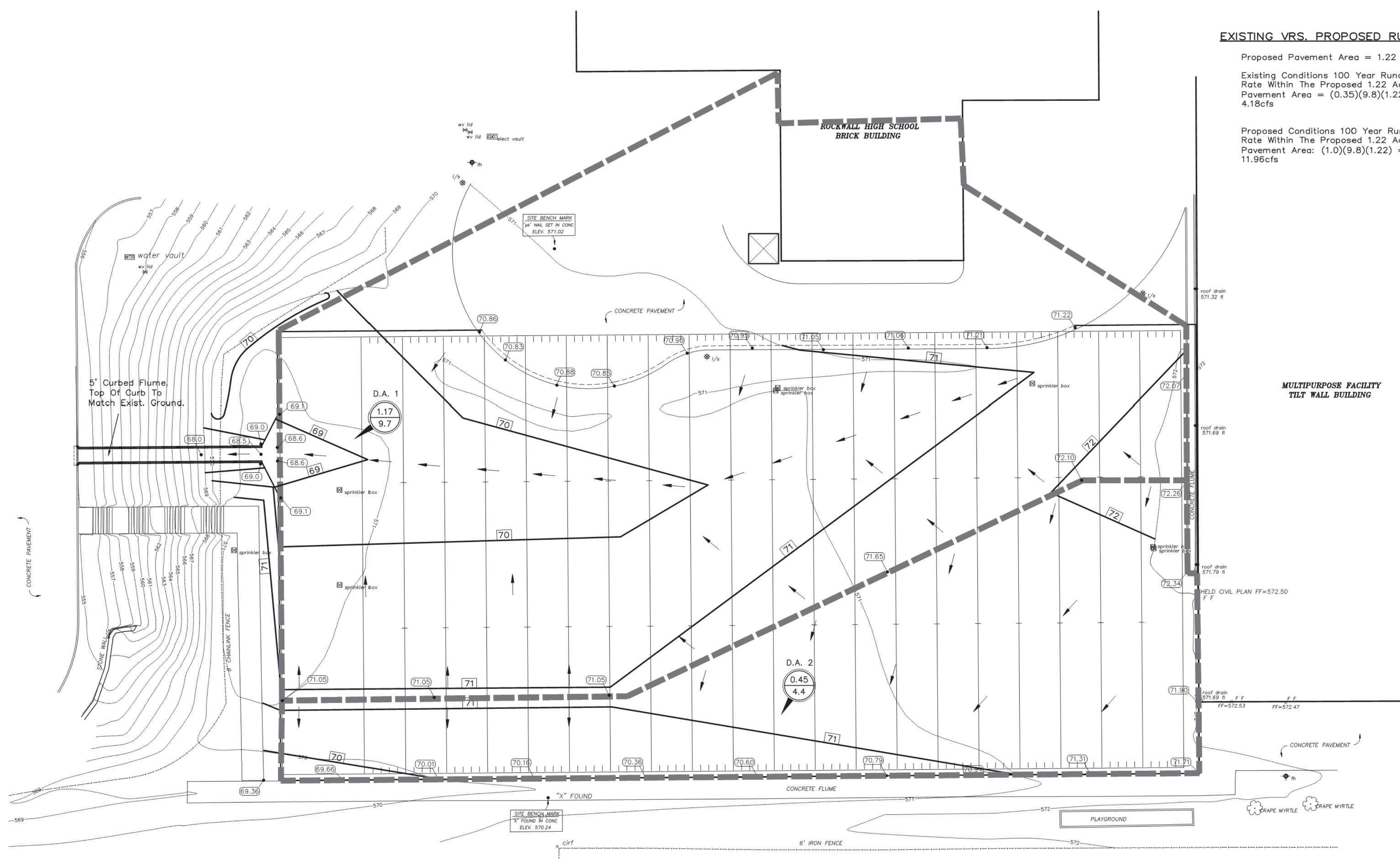


**EXISTING VRS. PROPOSED RUNOFF**

Proposed Pavement Area = 1.22 Acres  
 Existing Conditions 100 Year Runoff Rate Within The Proposed 1.22 Acre Pavement Area = (0.35)(9.8)(1.22) = 4.18cfs  
 Proposed Conditions 100 Year Runoff Rate Within The Proposed 1.22 Acre Pavement Area: (1.0)(9.8)(1.22) = 11.96cfs

**GRADING NOTES**

- All materials and construction shall conform to the City of Rockwall Standards and Specifications, and North Central Texas Council of Governments Standard Specifications for Public Works Construction, Latest Edition.
- Prior to starting construction, the Contractor shall make certain that all required permits and approvals have been obtained. No construction or fabrication shall begin until the Contractor has received and thoroughly reviewed all plans and other documents approved by all of the permitting authorities.
- In the event an item is not covered in the City's specs., the City Engineer's decision shall apply.
- Contractor shall meet O.S.H.A requirements for trench safety.
- Barricading, traffic control, and project signs shall conform To Texas Department of Transportation.
- The Contractor shall verify the suitability of all existing and proposed site conditions, including grades and dimensions before commencement of any construction. In the event of any conflict, and prior to commencement of any construction, immediately notify Engineer. Minor adjustments of finish grade to accomplish spot drainage are acceptable if necessary, upon prior approval of Engineer. All paving installed shall "flush out" at any juncture with existing paving. All islands shall be crowned to allow positive drainage over top of curb.
- The locations of underground utilities shown on this plan are based on field surveys and local utility company records. It shall be the Contractor's full responsibility to contact the various utility companies to locate their utilities prior to starting construction. Any damage to existing utilities is to be repaired at Contractor's expense.
- Proposed spot elevations are finished grade elevations.
- All subgrade preparation shall be as directed in accordance with the Geotechnical Report.
- All proposed grades in landscaped areas are finished grade elevations. Contractor to allow for sodding of these areas.
- Any damage to adjoining property during construction shall be repaired to pre construction conditions or better at the expense of the Contractor.
- Erosion control shall be in place prior to the disturbance of any existing surface.
- All sidewalk slopes including crosswalks, shall not exceed the following ADA requirements  
 1:20 longitudinal (along the walk)  
 1:50 per foot transverse (across the walk)
- All accessible parking space slopes including walks aisles, shall not exceed 2.0% or 1:50 in any direction.
- It shall be the Contractor's responsibility to remove excess earthwork material from the site at no additional cost to the owner.
- If additional earthwork material is required to achieve the grades indicated, it shall be imported by the Contractor at no additional cost to the owner.



**LEGEND**

XX.X	Proposed Spot Elevation
71.44	Existing Spot Elevation
71	Proposed Contour
571	Existing Contour
→	Direction of Flow

ADDENDUM #1  
 PC - REMOVE STORM FLUME AND PARKING  
 PC - REMOVED STORM SEWER

Date

11/22/2016
09/11/2017
12/04/2017

Revision /

1	2	3
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Project: **ROCKWALL HIGH SCHOOL RENOVATIONS FOR ROCKWALL HIGH SCHOOL ROCKWALL I.S.D. 901 YELLOW JACKET LN, ROCKWALL, TX 75087**



Apr 12, 2016, 4:37PM User: rcahney  
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MISC. INFORMATION	REVISION	DATE	DESCRIPTION
NOTE: Prior to beginning any construction or construction staking, it shall be the Contractor's responsibility to contact the civil engineer to insure that all parties are in possession of the most current set of construction documents.			

**RLK ENGINEERING, INC.**  
 111 West Main  
 Allen, Texas 75013  
 (972) 359-1733 Off  
 (972) 359-1833 Fax  
 Texas Registration No. 579



**GRADING & DRAINAGE PLAN**  
 ROCKWALL HIGH SCHOOL  
 ROCKWALL, TEXAS

SIGNED BY: RLK Engineering	TECH REVIEW: RLK	DRAWING FILE: 16028 GRAD.dwg	DRAWING SCALE: 1"=20'	SHEET: C 2 OF 4
DRAWN BY: RLK Engineering	PEER REVIEW: RLK	DRAWING DATE: 4-12-16	PROJECT NUMBER: RLK 16028	

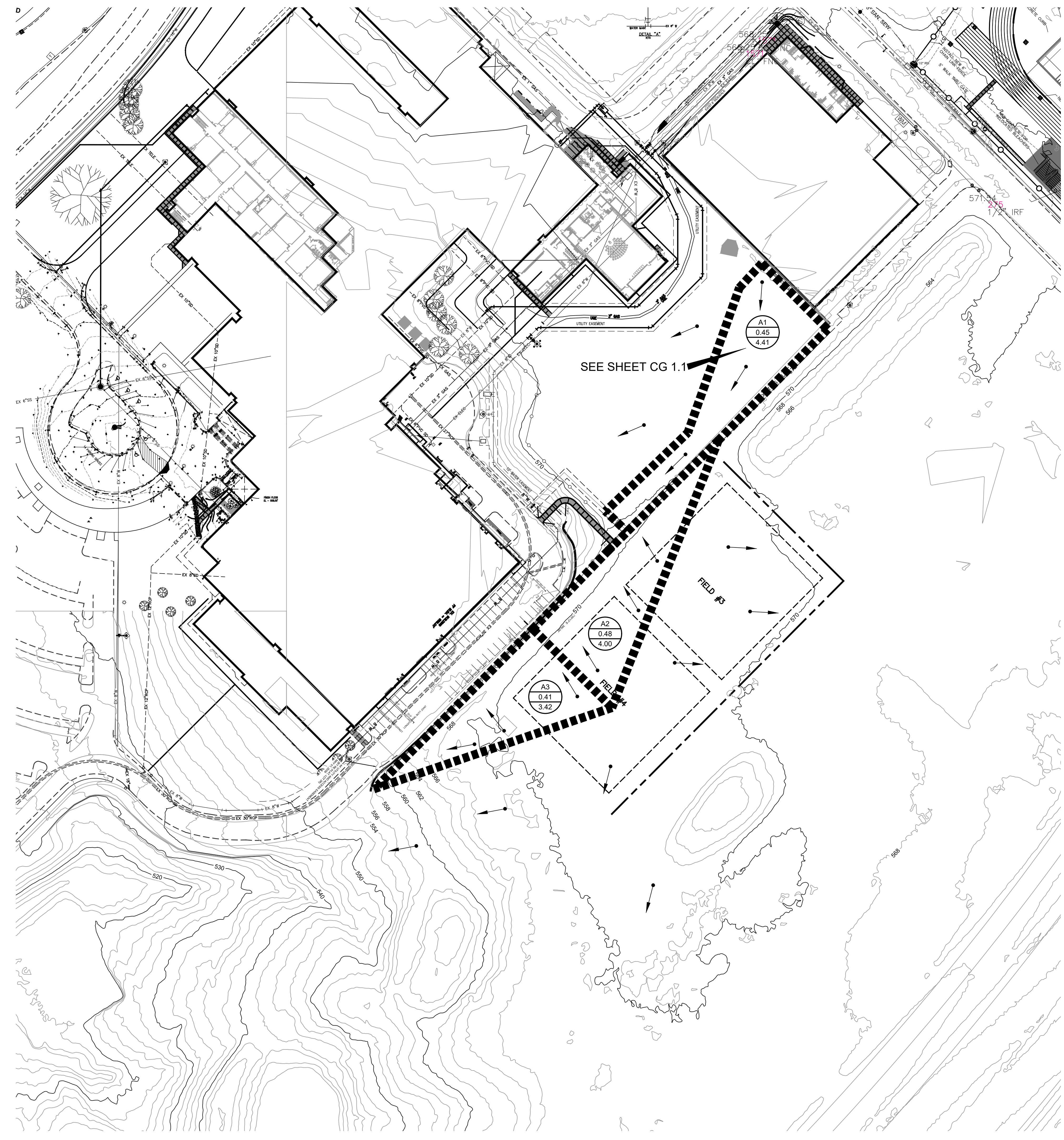
**FOR INFORMATION ONLY**

**RECORD DRAWING**  
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 Signed: *Mike Glenn* Date: March 28, 2018  
 Glenn Engineering Corporation

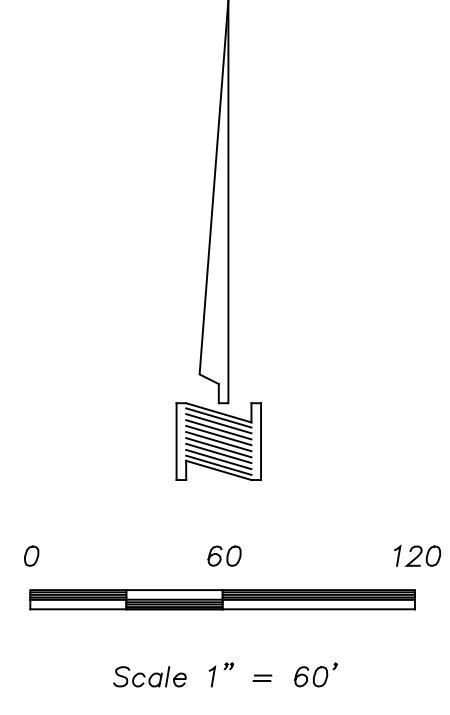
**GLENN ENGINEERING**  
 TEXAS REGISTRATION NUMBER: F-303  
 PHONE 972-717-5151 FAX 972-717-2176  
 105 DECKER COURT, SUITE 910  
 IRVING, TEXAS 75062

**EXISTING DA MAP**

100% CD	VOLUME
Job No. 1738-02-01	Sheet No. CG
Drawn By: RAH	1.1
Date: 12-03-2016	



DRAINAGE CALCULATIONS						
DRAINAGE AREA	AREA (Acres)	RUNOFF COEFF "C"	Tc (min)	INTENSITY (in/hr) (1 100)	DESIGN FLOW (Q 100)	COMMENTS
A1	0.45	1.00	10.00	9.80	4.41	LINE 12" THRU FLUME
A2	0.48	0.85	10.00	9.80	4.00	LINE 12" THRU FLUME
A3	0.41	0.85	10.00	9.80	3.42	
Total Area					Total Q 100	
	1.34				11.82	



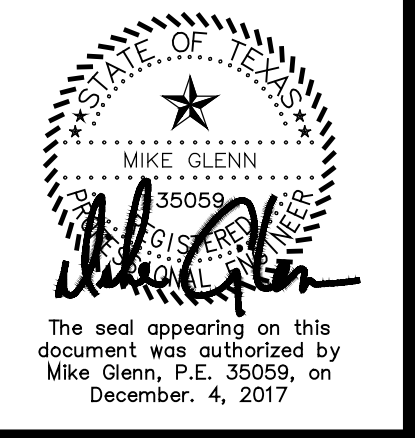
DRAINAGE STUDY LEGEND	
	DRAINAGE DIVIDE (NEW)
	DRAINAGE AREA (NEW)
	NUMBER OF ACRES (NEW)
	DESIGN FLOW (NEW)
	MAJOR CONTOUR (NEW)
	MINOR CONTOUR (NEW)
	MAJOR CONTOUR (EXISTING)
	MINOR CONTOUR (EXISTING)
	STORM SEWER (NEW)
	AREA DRAIN (NEW)
	STORM SEWER (EXISTING)
	CURB INLET (EXISTING)
	RETAINING WALL (NEW)
	DIRECTION OF FLOW

ADDENDUM #1  
PC - REMOVE STORM FLUME AND PARKING  
PC - REMOVED STORM SEWER

Date  
11/22/2016  
09/11/2017  
12/04/2017

Revision /  
1  
2  
3

Project:  
ROCKWALL HIGH SCHOOL RENOVATIONS  
FOR  
ROCKWALL HIGH SCHOOL  
ROCKWALL I.S.D.  
901 YELLOW JACKET LN, ROCKWALL, TX 75087



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Signed Date March 28, 2018  
Glenn Engineering Corporation

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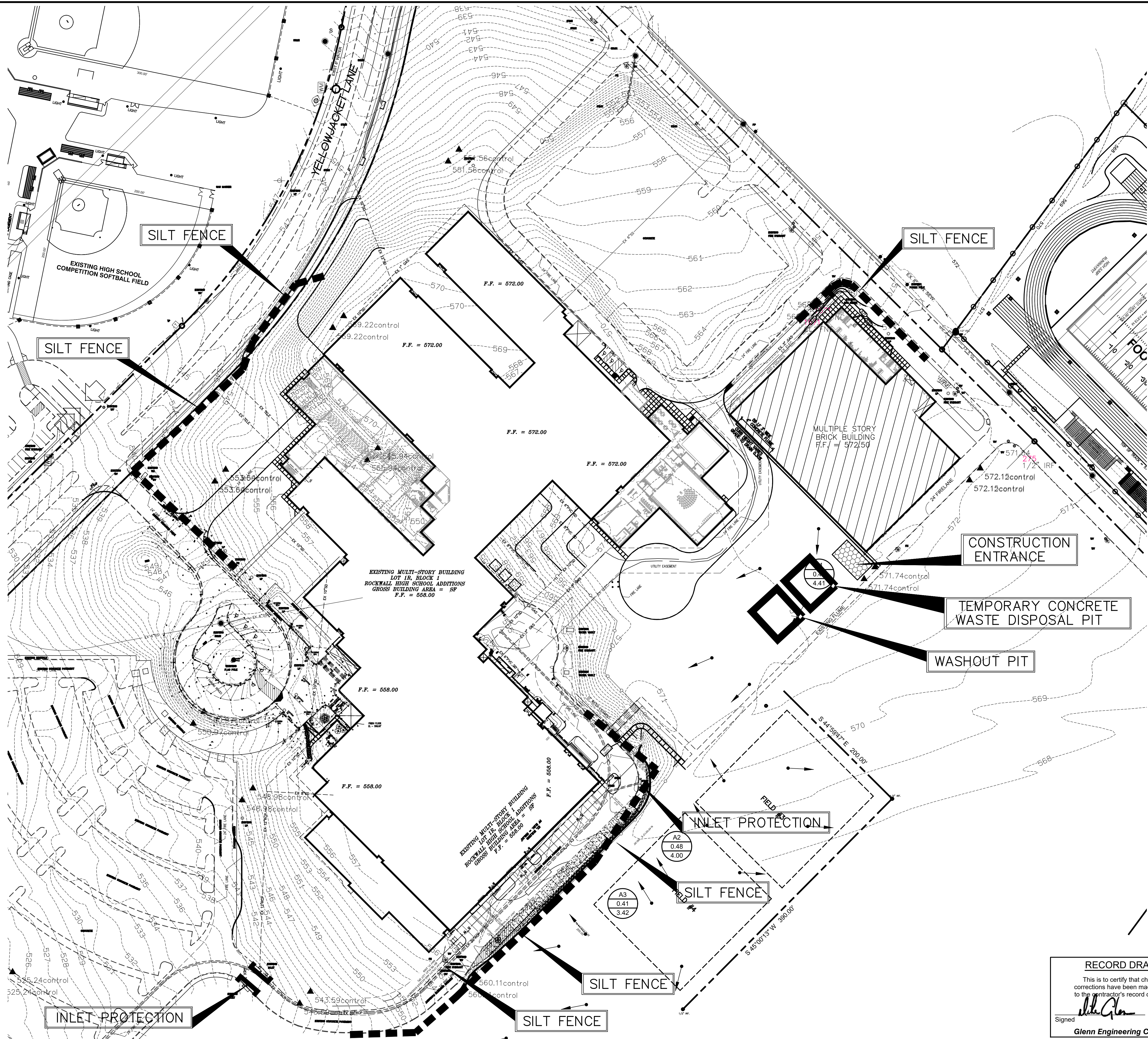
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105 DECKER COURT, SUITE 910  
IRVING, TEXAS 75062

PROPOSED  
DA MAP

100% CD VOLUME

Job No. 1738-02-01  
Drawn By: RAH  
Date: 12-03-2016

Sheet No. CG 1.1A



**GENERAL SILT FENCE NOTES**

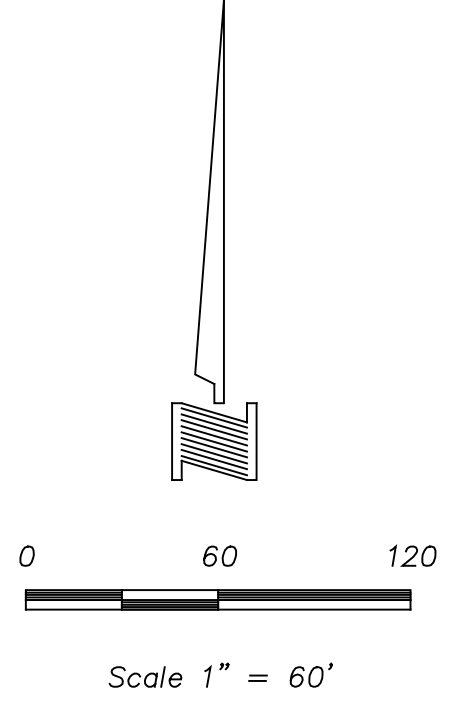
1. STEEL POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF 1 FOOT.
2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. WHERE FENCE CANNOT BE TRENCHED (e.g. PAVEMENT), WEIGHT FABRIC FLAP WITH WASHED GRAVEL ON UPHILL SIDE TO PREVENT FLOW UNDER FENCE.
3. THE TRENCH MUST BE A MINIMUM OF 6 INCHES DEEP AND 6 INCHES WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.
4. SILT FENCE SHOULD BE SECURELY FASTENED TO EACH STEEL SUPPORT POST OR TO WOVEN WIRE WHICH IS IN TURN ATTACHED TO THE STEEL FENCE POST. THERE SHALL BE A 6 INCH DOUBLE OVERLAP, SECURELY FASTENED WHERE ENDS OF FABRIC MEET.
6. INSPECTION SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 6 INCHES. THE SILT SHALL BE DISPOSED OF IN AN APPROVED SITE AND IN SUCH A MANNER AS TO NOT CONTRIBUTE TO ADDITIONAL SILTATION.

**GENERAL EROSION CONTROL NOTES**

1. CONTRACTOR SHALL CONTROL MUD ACCUMULATION ON ALL STREETS SURROUNDING THE PROJECT. NO MUD ACCUMULATION WILL BE ALLOWED IN PUBLIC STREETS.
2. MAINTAIN ALL FILTERS DURING CONSTRUCTION TO PREVENT ANY BLOCKAGES FROM ACCUMULATED SEDIMENT. ADDITIONAL HAY BALES MAY BE REQUIRED DURING CONSTRUCTION AS SPECIFIED BY ENGINEER OR CITY INSPECTOR.
3. ALL PROPOSED PARKING AREAS TO BE PAVED AS SOON AS POSSIBLE AFTER SUBGRADE IS PREPARED.
4. CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROLS ONLY WHEN THERE IS A SUFFICIENT GROWTH OF GRASS COVER TO PREVENT FURTHER EROSION.
5. PROJECT WILL NOT BE ACCEPTED UNTIL 75%-80% OF ALL DISTURBED AREAS HAVE A MINIMUM OF 1" STAND OF GRASS ESTABLISHED.

**GENERAL STABILIZED CONST ENTRANCE NOTES**

1. STONE SIZE - 4 TO 6 INCHES CRUSHED ROCK, (NO CRUSHED CONCRETE)
2. LENGTH - AS EFFECTIVE, BUT NOT LESS THAN 90 FEET, UNLESS DEPTH OF LOT IS LESS THAN 150 FEET FROM EDGE OF PAVEMENT WHERE LENGTH MUST ONLY BE 30 FEET.
3. THICKNESS - NOT LESS THAN 12 INCHES.
4. WIDTH - NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS.
5. WASHING - WHEN NECESSARY, WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC ROADWAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATERCOURSE USING APPROVED METHODS.
6. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADWAYS. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADWAY, MUST BE REMOVED IMMEDIATELY.
7. DRAINAGE - ENTRANCE MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.
7. CONTRACTOR TO COORDINATE EXACT LOCATION.



**NOTE:**  
SEE SEDIMENT CONTROL DETAIL SHEET

**LEGEND**

- = INSTALL SILT FENCE
- = INSTALL ROCK CHECK DAM
- = INSTALL CURB INLET PROTECTION
- = INSTALL AREA DRAIN INLET PROTECTION
- = INSTALL SEDIMENT POND AT CURB INLET, WYE INLET OR AREA DRAIN

**RECORD DRAWING**

This is to certify that changes and corrections have been made to conform to the contractor's record of this project.

*Mike Glenn*  
Signed \_\_\_\_\_ Date March 28, 2018  
Glenn Engineering Corporation

**GLENN ENGINEERING**

TEXAS REGISTRATION NUMBER: F-303  
PHONE 972-717-5151 FAX 972-717-2176  
105 DECKER COURT, SUITE 910  
IRVING, TEXAS 75062

**ADDENDUM #1**  
PC - REMOVE STORM FLUME AND PARKING  
PC - REMOVED STORM SEWER

Date	Revision /
11/22/2016	1
09/11/2017	2
12/04/2017	3

**Project:**  
ROCKWALL HIGH SCHOOL RENOVATIONS  
FOR  
ROCKWALL HIGH SCHOOL  
ROCKWALL I.S.D.  
901 YELLOW JACKET LN, ROCKWALL, TX 75087

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**S.W.P.P PLAN**

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Drawn By: RAH	1.2
Date: 12-03-2016	

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## SITE DESCRIPTION

**PROJECT NAME & LOCATION:** ROCKWALL HIGH SCHOOL  
901 YELLOW JACKET LANE  
ROCKWALL, TEXAS 75032

**OWNER NAME & ADDRESS:** ROCKWALL ISD  
1050 WILLIAMS STREET  
ROCKWALL, TEXAS 75087

**PROJECT DESCRIPTION:** RENOVATIONS

**SEQUENCE OF MAJOR ACTIVITIES:** PLACEMENT OF EROSION CONTROL DEVICES  
DENUDE SITE  
INSTALLATION OF UTILITY LINES  
INSTALLATION OF TANKS  
START FOUNDATION OF BUILDINGS  
PLACEMENT OF CONCRETE PAVEMENT  
COMPLETE BUILDINGS  
PLACEMENT OF LANDSCAPE AND GRASS  
REMOVAL OF EROSION CONTROL DEVICES

**MAJOR SOIL DISTURBING ACTIVITIES:** DENUDE SITE  
INSTALLATION OF UTILITY LINES  
PLACEMENT OF LANDSCAPE AND GRASS

**PRE-DEVELOPMENT RUNOFF COEFFICIENT:** 0.30

**FINAL RUNOFF COEFFICIENT AFTER CONSTRUCTION:** 0.90

**TOTAL PROJECT AREA:** 5 ACRES

**TOTAL AREA TO BE DISTURBED:** 5 ACRES

**DESCRIPTION OF EXISTING SOIL:** CLAY SOILS

**DESCRIPTION OF STABILIZATION OF EXISTING DRAINAGE WAYS:**  
SILT FENCE  
INLET PROTECTION

**DESCRIPTION OF EXISTING QUALITY OF STORM WATER DISCHARGE FOR SITE (IF AVAILABLE):**

**NAME OF RECEIVING WATERS:**  
LAKE RAY HUBBARD

**ADDITIONAL COMMENTS:**

**ESTIMATED PROJECT START DATE:** FEBRUARY 2008

**ESTIMATED PROJECT END DATE:** DECEMBER 2008

### SEQUENCE AND TIMING OF INDICATED EROSION CONTROL PRACTICES AND/OR FEATURES

(INCLUDE TREATMENT OF STOCKPILED DIRT FOR FUTURE USE)

**PRIOR TO STARTING CONSTRUCTION:**  
PLACEMENT OF SILT FENCES  
INSTALLATION OF INLET PROTECTION FOR STREET INLETS

**DURING CONSTRUCTION:**  
INSPECTION AND MAINTENANCE OF SILT FENCES  
INSTALLATION OF INLET PROTECTION FOR ON-SITE PAVING

**COMPLETION OF SITE:**  
INSTALLATION OF LANDSCAPE AND GRASS  
REMOVAL OF EROSION CONTROL DEVICES

SITE RATING FACTOR UTILIZING INDICATED EROSION CONTROL & MEASURES = 0.70  
(MUST BE 0.70 OR LARGER)

## EROSION AND SEDIMENT CONTROLS

### STABILIZATION PRACTICES

DISTURBED AREAS ON WHICH CONSTRUCTION ACTIVITY HAS CEASED (TEMPORARILY OR PERMANENTLY) SHALL BE STABILIZED WITHIN 14 DAYS UNLESS ACTIVITIES ARE SCHEDULED TO RESUME WITHIN 21 DAYS.

TEMPORARY	PERMANENT	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	SEED OR SOD
<input type="checkbox"/>	<input checked="" type="checkbox"/>	VEGETATION OTHER THAN SEED OR SOD
<input type="checkbox"/>	<input type="checkbox"/>	EROSION CONTROL MATS
<input type="checkbox"/>	<input type="checkbox"/>	PRESERVATION OF NATURAL VEGETATION
<input type="checkbox"/>	<input type="checkbox"/>	OTHER (DESCRIBE)

ADDITIONAL COMMENTS:

### STRUCTURAL PRACTICES

TEMPORARY	PERMANENT	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	SILT FENCE
<input type="checkbox"/>	<input type="checkbox"/>	HAY BALES
<input type="checkbox"/>	<input type="checkbox"/>	ROCK BERMS
<input type="checkbox"/>	<input type="checkbox"/>	DIVERSION, INTERCEPTOR, OR PERIMETER DIKES
<input type="checkbox"/>	<input type="checkbox"/>	DIVERSION, INTERCEPTOR, OR PERIMETER SWALES
<input type="checkbox"/>	<input type="checkbox"/>	PIPE SLOPE DRAIN
<input type="checkbox"/>	<input type="checkbox"/>	TRIANGULAR SEDIMENT FILTER DIKE
<input checked="" type="checkbox"/>	<input type="checkbox"/>	INLET PROTECTION
<input type="checkbox"/>	<input type="checkbox"/>	STONE OUTLET SEDIMENT TRAP
<input type="checkbox"/>	<input type="checkbox"/>	SEDIMENT BASIN (REQUIRED FOR 10 ACRES OR LARGER WHERE ATTAINABLE)
<input type="checkbox"/>	<input type="checkbox"/>	CHECK DAM
<input type="checkbox"/>	<input type="checkbox"/>	TEMPORARY SEDIMENT TANK
<input checked="" type="checkbox"/>	<input type="checkbox"/>	STABILIZED CONSTRUCTION ENTRY
<input type="checkbox"/>	<input type="checkbox"/>	SANDBAG BERM
<input type="checkbox"/>	<input type="checkbox"/>	OTHER (DESCRIBE):

ADDITIONAL COMMENTS:

### OTHER ADDITIONAL STORM WATER MANAGEMENT FEATURES

PERMANENT	
<input checked="" type="checkbox"/>	CURB & GUTTER
<input checked="" type="checkbox"/>	STORM SEWER INLETS
<input checked="" type="checkbox"/>	STORM SEWER
<input type="checkbox"/>	CULVERTS
<input type="checkbox"/>	STORM WATER DETENTION POND
<input type="checkbox"/>	VELOCITY DISSIPATION DEVICES
<input type="checkbox"/>	OTHER (DESCRIBE):

ADDITIONAL COMMENTS:

## EROSION AND SEDIMENT CONTROLS

### MAINTENANCE/INSPECTION PROCEDURES

- THE CONTRACTOR SHALL PROVIDE AND MAINTAIN A RAIN GAUGE UTILIZING MIN. 0.1 INCH INCREMENTS AT THE PROJECT SITE.
  - CONTROL MEASURES WILL BE INSPECTED AT LEAST ONCE A WEEK OR WITHIN 24 HOURS OF ANY STORM EVENT OF 0.5 INCH OR GREATER. IF A REPAIR IS NECESSARY IT WILL BE DONE AT THE EARLIEST PRACTICABLE DATE.
  - INSPECTION WILL BE PERFORMED BY THE OWNERS REPRESENTATIVE AT LEAST ONCE A WEEK AS WELL AS AFTER EVERY 0.5 INCH OF RAIN OR GREATER. AN INSPECTION AND MAINTENANCE REPORT WILL BE MADE FOR EACH INSPECTION AND KEPT AT THE PROJECT SITE. THE INSPECTION SHOULD USE THE OPERATOR INSPECTION FORM IN THE NCTCOG CONSTRUCTION BMP MANUAL OR OTHER FORM APPROVED BY THE CITY.
  - THE CONTRACTOR SHALL KEEP RECORDS OF THE CONSTRUCTION ACTIVITY ON THE SITE.
- OTHER (DESCRIBE)

### OTHER BEST MANAGEMENT (HOUSEKEEPING) PRACTICES


THE FOLLOWING INDICATED PRACTICES SHALL BE FOLLOWED:

- LIME STABILIZATION**
- ATTACHED BMP S-11 FROM NCTCOG CONSTRUCTION BMP MANUAL
  - OTHER (DESCRIBE):
- SOLID WASTE MANAGEMENT**
- ATTACHED BMP W-1 FROM NCTCOG CONSTRUCTION BMP MANUAL
  - OTHER (DESCRIBE):
- HAZARDOUS WASTE MANAGEMENT**
- ATTACHED BMP W-2 FROM NCTCOG CONSTRUCTION BMP MANUAL
  - STORAGE AREAS (DESCRIBE):
  - OTHER (DESCRIBE):
- CONCRETE WASTE MANAGEMENT**
- ATTACHED BMP W-3 FROM NCTCOG CONSTRUCTION BMP MANUAL
  - OTHER (DESCRIBE):
- SANDBLASTING WASTE MANAGEMENT**
- ATTACHED BMP W-4 FROM NCTCOG CONSTRUCTION BMP MANUAL
  - OTHER (DESCRIBE):
- DUST REDUCTION MEASURES**
- DISTURBED AREAS DAMPENED PERIODICALLY FOR DUST CONTROL
  - EXCESS DIRT ON ADJACENT ROADS REMOVED DAILY
  - OTHER (DESCRIBE):

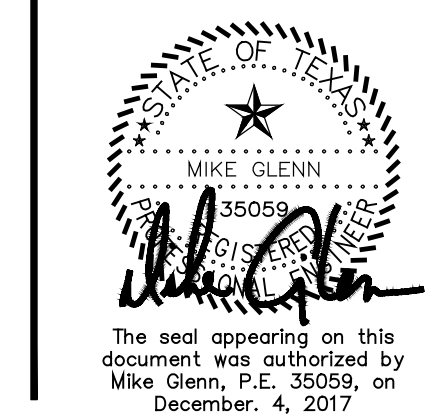
## ALLOWABLE NON-STORM WATER DISCHARGES

- DISCHARGES FROM FIRE FIGHTING ACTIVITIES.
- FIRE HYDRANT FLUSHINGS. \*
- WATER USED TO WASH VEHICLES OR CONTROL DUST.
- POTABLE WATER SOURCES (INCLUDING WATERLINE FLUSHINGS CONTAINING LESS THAN 1000 GALLONS). \*
- UNCONTAMINATED GROUND WATER (INCLUDING DEWATERING GROUNDWATER INFILTRATION).
- FOUNDATION OR FOOTING DRAINS WHERE FLOWS ARE NOT CONTAMINATED WITH PROCESS MATERIALS SUCH AS SOLVENTS.
- SPRINGS, RIPARIAN HABITATS, WETLANDS AND UNCONTAMINATED GROUNDWATER.
- IRRIGATION WATER.
- EXTERIOR BUILDING WASH DOWN WITHOUT DETERGENTS.
- PAVEMENT WASH WATERS WHERE SPILLS OR LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE NOT OCCURRED (UNLESS ALL SPILL MATERIAL HAS BEEN REMOVED) AND WHERE DETERGENTS ARE NOT USED.
- AIR CONDITIONING CONDENSATE.

\* HEAVILY CHLORINATED WATER (3.5 MG/L OR GREATER FREE CHLORINE) RESULTING FROM WATER LINE STERILIZATION SHALL BE DIRECTED UNDER PERMIT TO THE SANITARY SEWER UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL APPLY TO THE ENGINEERING DEPARTMENT FOR A SANITARY SEWER DISCHARGE PERMIT AFTER THE MANDATORY CHLORINE RETENTION TIME (USUALLY 24 HOURS). THE HEAVILY CHLORINATED WATER MAY BE DISCHARGED TO THE SANITARY SEWER, BEGINNING TWO WORKING DAYS AFTER PERMIT APPLICATION.

RECORD DRAWING	
This is to certify that changes and corrections have been made to conform to the contractor's record of this project.	
	March 28, 2018
Signed	Date
Glenn Engineering Corporation	

 **GLENN ENGINEERING**  
TEXAS REGISTRATION NUMBER: F-303  
PHONE 972-717-5151 FAX 972-717-2176  
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IRVING, TEXAS 75062



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S.W.P.P.P. DETAILS	
100% CD	VOLUME
Job No. 1738-02-01	Sheet No. CG
Drawn By: RAH	1.3
Date: 12-03-2016	

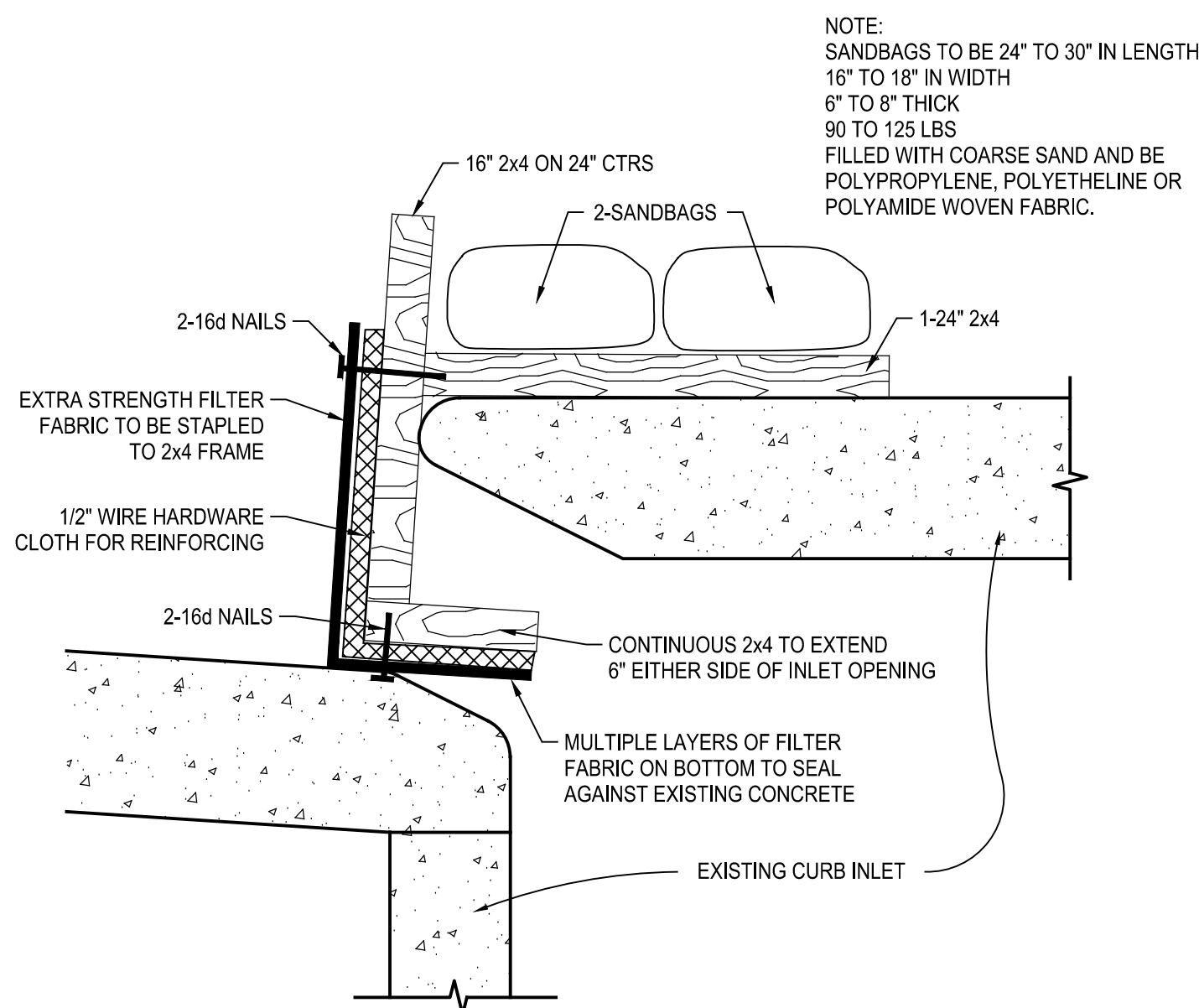
Project:  
**ROCKWALL HIGH SCHOOL RENOVATIONS**  
FOR  
**ROCKWALL HIGH SCHOOL**  
**ROCKWALL I.S.D.**  
**901 YELLOW JACKET LN, ROCKWALL, TX 75087**

Revision /	Date
1	11/22/2016
2	09/11/2017
3	12/04/2017

ADDENDUM #1  
PC - REMOVE STORM FLUME AND PARKING  
PC - REMOVED STORM SEWER

# EROSION CONTROL PLAN

## SEE SEDIMENT CONTROL PLAN



NOTE:  
SANDBAGS TO BE 24" TO 30" IN LENGTH  
16" TO 18" IN WIDTH  
6" TO 8" THICK  
90 TO 125 LBS  
FILLED WITH COARSE SAND AND BE  
POLYPROPYLENE, POLYETHYLENE OR  
POLYAMIDE WOVEN FABRIC.

### CURB INLET PROTECTION

NTS

### Solid Waste Management

**DESCRIPTION**  
Large volumes of solid waste are often generated at construction sites including: packaging, pallets, wood waste, concrete waste, soil, electrical wiring, cuttings, and a variety of other materials. The solid waste management practice lists techniques to minimize the potential of storm water contamination from solid waste through appropriate storage and disposal practices.

**PRIMARY USE**  
These practices should be a part of all construction practices. By limiting the trash and debris on site, storm water quality is improved along with reduced clean up requirements at the completion of the project.

**APPLICATIONS**  
The solid waste management practice for construction sites is based on proper storage and disposal practices by construction workers and supervisors. Key elements of the program are education and modification of improper disposal habits. Cooperation and vigilance is required on the part of supervisors and workers to ensure that the recommendations and procedures are followed. Following are lists describing the targeted materials and recommended procedures:

- Targeted Solid Waste Materials**
- Paper and cardboard containers
  - Plastic packaging
  - Styrofoam packing and forms
  - Insulation materials (non-hazardous)
  - Wood pallets
  - Wood cuttings
  - Pipe and electrical cuttings
  - concrete, brick, and mortar waste
  - Shingle cuttings and waste
  - Roofing tar
  - Steel (cuttings, nails, rust residue)
  - Gypsum board cuttings and waste
  - Sheeting cuttings and waste
  - Miscellaneous cuttings and waste
  - Food waste
  - Demolition waste

- Storage Procedures**
- Wherever possible, minimize production of solid waste materials.
  - Designate a foreman or supervisor to oversee and enforce proper solid waste procedures.
  - Instruct construction workers in proper solid waste procedures.
  - Segregate potentially hazardous waste from non-hazardous construction site debris.
  - Keep solid waste materials under cover in either a closed dumpster or other enclosed trash container that limits contact with rain and runoff.
  - Store waste materials away from drainage ditches, swales and catch basins.
  - Do not allow trash materials to overflow.
  - Do not allow waste materials to accumulate on the ground.
  - Prohibit littering by workers and visitors.
  - Police area daily for litter and debris.
  - Enforce solid waste handling and storage procedures.

- Disposal Procedures**
- If feasible, segregate recyclable wastes from non-recyclable waste materials and dispose of property.
  - General construction debris may be hauled to a licensed construction debris landfill (typically less expensive than a sanitary landfill).
  - Use waste facilities approved by local jurisdiction.
  - Runoff which comes into contact with unprotected waste shall be directed into structural dirt treatment such as silt fence to remove debris.

- Education**
- Educate all workers on solid waste storage and disposal procedures.
  - Instruct workers in identification of solid waste and hazardous waste.
  - Have regular meetings to discuss and reinforce disposal procedures (incorporate in regular safety seminars).
  - Clearly mark all solid waste containers which materials are acceptable.

- Quality Control**
- Foreman and/or construction supervisor shall monitor on-site solid waste storage and disposal procedures.
  - Discipline workers who repeatedly violate procedures.

- Requirements**
- Job-site waste handling and disposal education and awareness program.
  - Commitment by management to implement and enforce Solid Waste Management Program.
  - Compliance by workers.
  - Sufficient and appropriate waste storage containers.
  - Timely removal of stored solid waste materials.
  - Possible modest cost impact for additional waste storage containers.
  - Minimal overall cost impact.

- LIMITATIONS**
- Only addresses non-hazardous solid waste.
  - One part of a comprehensive construction site management program.

### Applications

- Perimeter Control
- Slope Protection
- Sediment Trapping
- Channel Protection
- Temporary Stabilization
- Permanent Stabilization
- Waste Management
- Housekeeping Practices

### Targeted Constituents

- Sediment
- Nutrients
- Toxic Materials
- Oil & Grease
- Floatable Materials
- Other Construction Wastes

### Implementation Requirements

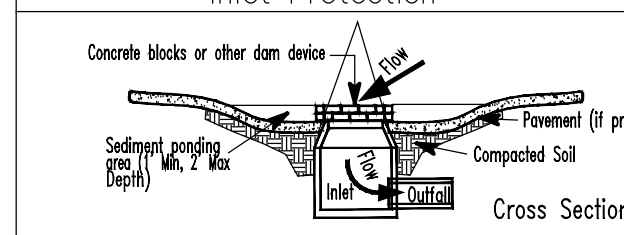
- Capital Costs
- Maintenance
- Training
- Suitability for Slopes > 5%

### Legend

- Significant Impact
- Medium Impact
- Low Impact
- Unknown or Questionable Impact

W-1

### Inlet Protection



**DESCRIPTION**  
Inlet protection consists of a variety of methods of intercepting sediment at low point inlets through the use of stone filter fabric and other materials. This is normally located at the inlet, providing either detention or filtration to reduce sediment and floatable materials in storm water.

**PRIMARY USE**  
Inlet protection is normally used as a secondary defense in site erosion control due to the limited effectiveness and applicability of the techniques. It is normally used in new developments that include new inlets or roads with new curb inlets or during major repairs to existing roadways. Inlet protection has limited use in developed areas due to the potential for flooding, traffic safety and pedestrian safety and maintenance problems. Inlet protection can reduce sediment in storm sewer system by serving as a back up system to on-site controls or by reducing sediment loads from controls with limited effectiveness such as straw bale dikes.

**APPLICATIONS**  
Different variations are used for different conditions as follows:

- Filter barrier protection (similar to a silt fence barrier around the inlet) is appropriate when the drainage area is less than five (5) percent. This type of protection is not applicable in paved areas. (See details, Section 5)**
- Block and gravel (crushed stone, recycled concrete is also appropriate) protection is used when flows exceed 0.5 cfs and it is necessary to allow for overtopping to prevent flooding. (See sketch at top of fact sheet)**
- Wire mesh and gravel protection (crushed stone, recycled concrete is also appropriate) is used when flows exceed 0.5 cfs and construction traffic may occur over the inlet. This form of protection may be used with both curb and drop inlets. (See details Section 5)**
- Excavated impoundment protection around a drop inlet may be used for protection against sediment entering a storm drain system. With this method, it is necessary to install weep holes to allow the impoundment to drain completely. The impoundment shall be sized such that the volume of excavation shall be equal to 1800 to 3600 cubic feet per acre of contributing drainage area entering the inlet for full effectiveness. Smaller volumes can be used for reduced effectiveness. (SEE details Section 5)**

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- Filter fabric protection shall be designed and maintained in a manner similar to silt fence and pedestrian traffic.**
- Positive drainage is critical in the design of inlet protection. If overflow is not provided for the inlet, flows which exceed the capacity of the inlet protection system shall be routed through established swales, streets or other watercourses to minimize damage due to ponding and to provide for public safety.**

- LIMITATIONS**
- Ponding will occur at the inlet with possible flooding as a result.
  - Inlet protection is only viable at low point inlets. Inlets which are on a slope cannot be effectively protected because storm water will bypass the inlet and continue downstream, causing an overtop condition at inlets beyond.

- MAINTENANCE REQUIREMENTS**
- Inspections should be made on a weekly basis, especially after large (>0.5 inches) storm events. When silt fence is used and the fabric becomes clogged, it should be cleaned or, if necessary, replaced. Also, sediment should be removed when it reaches approximately one-half the height of the fence. If a pump is used, sediment should be removed when the volume of the basin is reduced by 50%.

- For systems using stone filters, when the stone filter becomes clogged with sediment, the stones must be pulled away from the inlet and cleaned or replaced. Since cleaning of a clogged stone filter may be difficult, an alternative approach would be to use the cleaned stone as fill material and put new stone around the inlet.**

Fe=0.67-0.75  
S-4

### Concrete Waste Management

**DESCRIPTION**  
Concrete waste at construction sites comes in two forms: 1) excess fresh concrete mix including truck and equipment washings, and 2) concrete dust and concrete debris resulting from demolition. Both forms have the potential to impact water quality through storm water runoff contact with the waste.

**PRIMARY USE**  
Concrete waste is present at most construction sites. This BMP should be utilized at sites in which concrete waste is present.

**APPLICATIONS**  
A number of water quality parameters can be affected by introduction of concrete - especially fresh concrete. Concrete affects the pH of runoff, causing significant chemical changes in water bodies and harming aquatic life. Suspended solids in the form of both cement and aggregate dust are also generated from both fresh and demolished concrete waste.

**Current Unacceptable Waste Concrete Disposal Practices**

- dumping in vacant areas on the job-site,
- illegal dumping off-site,
- dumping into ditches or drainage facilities.

**Recommended Disposal Practices**

- Avoid unacceptable disposal practices listed above.
- Develop pre-determined, safe concrete disposal areas.
- Provide a washout area with a minimum of 6 cubic feet of containment area volume for every 10 cubic yards of concrete poured.
- Never dump waste concrete illiquid or without property owners knowledge and consent.
- Treat runoff from storage areas through the use of structural controls as required.

**Education**

- Drivers and equipment operators should be instructed on proper disposal and equipment washing practices (see above).
- Supervisors must be made aware of the potential environmental consequences of improperly handled concrete waste.

**Enforcement**

- The construction site manager or foreman must ensure that employees and pre-mix companies follow proper procedures for concrete disposal and equipment washing.
- Employees violating disposal or equipment cleaning directives must be re-educated or disciplined if necessary.

**Demolition Practices**

- Monitor weather and wind direction to ensure concrete dust is not entering drainage structures and surface waters.
- Where appropriate, construct sediment traps or other types of sediment detention devices downstream of demolition activities.

**Requirements**

- Use pre-determined disposal sites for waste concrete.
- Prohibit dumping waste concrete anywhere but pre-determined areas.
- Assign pre-determined truck and equipment washing areas.
- Educate drivers and operators on proper disposal and equipment cleaning procedures.

**Education**

- Minimal cost impact for training and monitoring.
- Concrete disposal cost depends on availability and distance to suitable disposal areas.
- Additional costs involved in equipment washing could be significant.

**LIMITATIONS**

- This concrete waste management program is one part of a comprehensive construction site waste management program.

### Targeted Constituents

- Sediment
- Nutrients
- Toxic Materials
- Oil & Grease
- Floatable Materials
- Other Construction Wastes

### Implementation Requirements

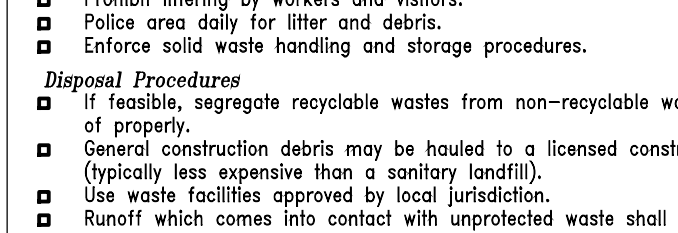
- Capital Costs
- Maintenance
- Training
- Suitability for Slopes > 5%

### Legend

- Significant Impact
- Medium Impact
- Low Impact
- Unknown or Questionable Impact

W-3

### Stabilized Construction Entrance



**DESCRIPTION**  
A stabilized construction entrance consists of a pad consisting of gravel, crushed stone, and CRUSHED OR RECYCLED CONCRETE, on top of geotextile filter cloth to facilitate the wash down and removal of sediment and other debris from construction equipment prior to exiting the construction site. For added effectiveness, a wash rack area can be incorporated into the design to further reduce sediment tracking. For long term projects, cattle guards or other type of permanent rock system can be used in conjunction with a wash rack. This directly addresses the problem of silt and mud deposition in roadways used for construction site access.

**PRIMARY USE**  
Stabilized construction entrances are used primarily for sites in which significant truck traffic occurs on a daily basis. It reduces the need to remove sediment from streets. If used properly, it also directs the majority of traffic to a single location, reducing the number and quantity of disturbed areas on the site and providing protection for other structural controls through traffic control.

**APPLICATIONS**  
Stabilized construction entrances are a required part of the erosion control plan for all site developments larger than 5 acres and a recommended practice for all construction sites. It is not suitable for long, linear projects. If possible, small entrances should be incorporated into small lot construction due to the large percentage of disturbed area on the site and the high potential for off-site tracking of silt and mud.

**DESIGN CRITERIA**

- Stabilized construction entrances are to be constructed such that drainage across the entrance is directed to a controlled, stabilized outlet on site with provisions for storage, proper filtration and removal of wash water.
- The entrance must be properly graded so that storm water is not allowed to leave the site and enter roadways.
- Minimum width of entrance shall be 20 feet, but in no case shall the width be less than that of the entry way to be used.
- Minimum depth of entrance shall be 12 inches for the entire length of the control.
- Minimum dimensions for entrances of total areas less than 1 acre shall be an average lot depth of 100 feet with a minimum entrance width of 15 feet and a minimum entrance depth of 20 feet.

**LIMITATIONS**

- Selection of the construction entrance location is critical in that to be effective, it must be used exclusively.
- Stabilized entrances are rather expensive considering that it must be installed in combination with one or more other sediment control techniques, but it may be cost effective compared to labor intensive street cleaning.

**MAINTENANCE REQUIREMENTS**

- Inspections should be made on a regular basis and after large storm events in order to ascertain whether or not sediment and pollution are being effectively detained on site.
- When sediment has substantially clogged the void area between the rocks, the aggregate mat must be washed down or replaced.
- Periodic re-grading and top dressing with additional stone must be done to keep the efficiency of the entrance from diminishing.

Fe=N/A  
S-9

### Applications

- Perimeter Control
- Slope Protection
- Sediment Trapping
- Channel Protection
- Temporary Stabilization
- Permanent Stabilization
- Waste Management
- Housekeeping Practices

### Targeted Constituents

- Sediment
- Nutrients
- Toxic Materials
- Oil & Grease
- Floatable Materials
- Other Construction Wastes

### Implementation Requirements

- Capital Costs
- Maintenance
- Training
- Suitability for Slopes > 5%

### Legend

- Significant Impact
- Medium Impact
- Low Impact
- Unknown or Questionable Impact

Fe=0.75  
S-1

### Legend

- Silt Fence
- Limits of Construction
- Property Boundary
- Elevation Contours
- Building Foot Print
- Covered Trash
- Direction of Storm Water Runoff Flow
- Covered Storage
- Vegetated/Preserved Buffer Strip
- Concrete Wash Area
- Inlet Protection
- North Arrow
- Stabilized Construction Entrance
- Rock
- Swale
- Daily Mulch
- Other (Specify)
- Erosion Mat

### MAINTENANCE AND INSPECTION PROCEDURES; CONTROL MEASURES WILL BE INSPECTED AT LEAST ONCE A WEEK OR WITHIN 24 HOURS OF ANY STORM EVENT OR 0.5 INCHES OR GREATER. IF A REPAIR IS NECESSARY IT WILL BE DONE AT THE EARLIEST PRACTICABLE DATE BUT WITHIN 48 HOURS.

### RECORD DRAWING

This is to certify that changes and corrections have been made to conform to the contractor's record of this project.

Signed: *Mike Glenn* Date: March 28, 2018

Glenn Engineering Corporation

ADDENDUM #1  
PC - REMOVE STORM FLUME AND PARKING  
PC - REMOVED STORM SEWER

Date  
11/22/2016  
09/11/2017  
12/04/2017

Revision /  
1  
2  
3

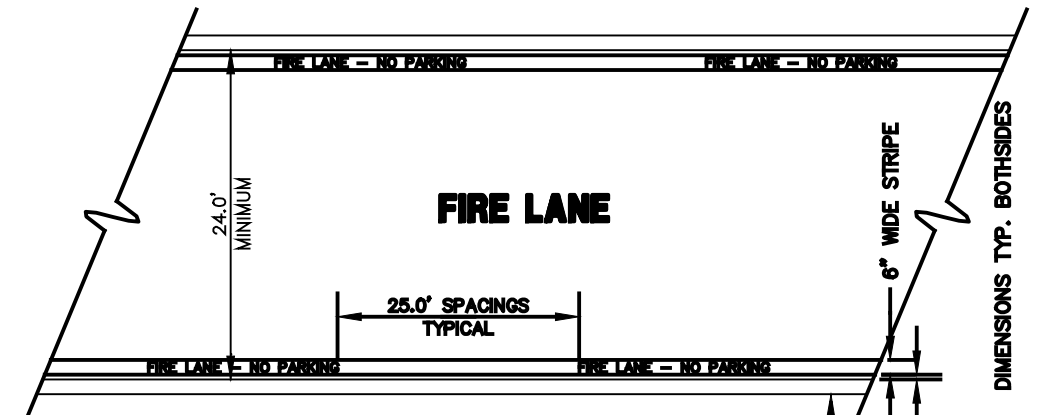
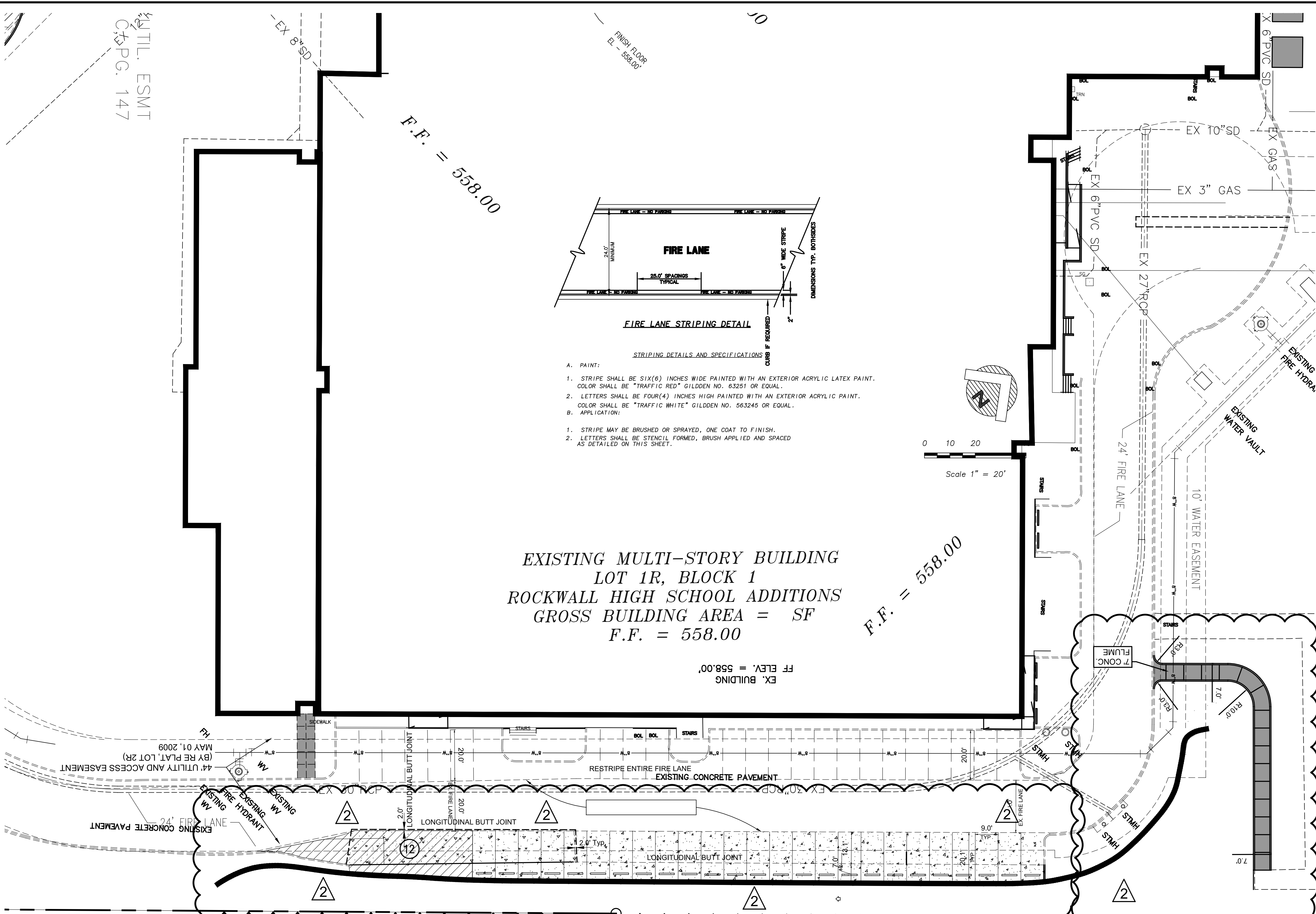
ROCKWALL HIGH SCHOOL RENOVATIONS  
FOR  
ROCKWALL HIGH SCHOOL  
ROCKWALL I.S.D.  
901 YELLOW JACKET LN, ROCKWALL, TX 75087

THE STATE OF TEXAS  
COUNTY OF TARRANT  
I, MIKE GLENN  
35089  
The seal appearing on this document was authorized by Mike Glenn, P.E., 35089, on December 4, 2017.

**Huckabee**  
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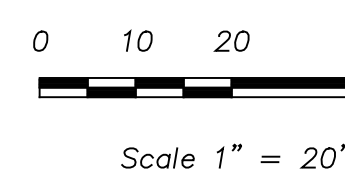
S.W.P.P.P.  
DETAILS  
100% CD VOLUME  
Job No. 1738-02-01  
Drawn By: RAH  
Date: 12-03-2016  
Sheet No. CG 1.4

**GLENN ENGINEERING**  
TEXAS REGISTRATION NUMBER: F-303  
PHONE 972-717-5151 FAX 972-717-2716  
105 DECKER COURT, SUITE 910  
IRVING, TEXAS 75062



FIRE LANE STRIPING DETAIL

- STRIPING DETAILS AND SPECIFICATIONS**
- A. PAINT:**
1. STRIPE SHALL BE SIX(6) INCHES WIDE PAINTED WITH AN EXTERIOR ACRYLIC LATEX PAINT. COLOR SHALL BE "TRAFFIC RED" GILDDEN NO. 63251 OR EQUAL.
  2. LETTERS SHALL BE FOUR(4) INCHES HIGH PAINTED WITH AN EXTERIOR ACRYLIC PAINT. COLOR SHALL BE "TRAFFIC WHITE" GILDDEN NO. 563245 OR EQUAL.
- B. APPLICATION:**
1. STRIPE MAY BE BRUSHED OR SPRAYED, ONE COAT TO FINISH.
  2. LETTERS SHALL BE STENCIL FORMED, BRUSH APPLIED AND SPACED AS DETAILED ON THIS SHEET.



Scale 1" = 20'

**PAVING NOTES**

The initial soil test and report by Fugro South, Inc project no 0702-1263 and any and all subsequent reports prepared for this project by Fugro South, Inc or by other firm, agency or entity, even though contained in the plans and/or specifications for this project, are made a part of this plan. A copy can be obtained through the architect or engineer.

I. Pavement sub grade for A & B, below:

The clay soils encountered near the existing ground surface will probably constitute the sub-grade for most of the parking and drive areas. Therefore, it is recommended that these soils be improved prior to construction of the pavements.

It is recommended that the existing clay soils in drive and parking areas be excavated to achieve final sub-grade elevation. The exposed surface of the days should be scarified to a depth of at least 6 inches and mixed with an estimated 7 percent of hydrated lime (by dry unit weight) in conformance with Texas Highway Department Item 260. Assuming an in-place unit weight of 100 pcf for the pavement sub-grade soils, this percentage of lime equates to about 32 lbs of lime per sq yard of sub-grade treated. The actual amount of lime required should be determined by additional laboratory tests. It is recommended that the lime stabilization procedures extend at least 4 ft beyond the edge of the pavement to minimize the effects of seasonal shrinking upon the extreme edges of the pavement. The soil-lime mixture should then be compacted to at least 95 percent of standard proctor maximum dry density (ASTM D998) within 3 percentage points of the optimum moisture content. In all areas where hydrated lime is used to stabilize the sub-grade soils, routine atterberg-limit tests should be performed to assure that the resulting plasticity index of the soil-lime mixture is at or below 15. (NO SAND PERMITTED UNDER PAVING)

The client should be aware that mechanical lime stabilization of the pavement sub-grade soils will not prevent deep seated movement of the underlying untreated materials. Future maintenance of pavements should be expected over the life of the structure.

**II. Paving**

A. Concrete driveways

Sub grade shall be as indicated in section I.

Concrete driveway approaches shall be a minimum of 6 inches thick. Concrete driveway approaches shall have a rise of not less than 6 inches nor more than 9 inches from the flow line of the gutter to a point 10 feet behind the face of the gutter. Concrete for driveways shall be a minimum of 3,600 psi - 6.5 sack in 28 days concrete with 4-6 percent entrained air. The grade below the driveway, including 4 foot outside of the outer edge of the driveway shall be compacted to 95% standard proctor density, and as indicated in the "pavement sub-grade notes". Driveways shall have a bedding of 2 inches compacted. Driveways shall have contraction joints not more than 15 feet apart, both transversely and longitudinally one-half inch expansion joint shall be placed on the property lines between the approach and the driveways. The joints shall be filled with pre-molded gray bituminous expansion joint filler and shall extend the entire depth and length of the concrete sections. (NO SAND PERMITTED UNDER PAVING)

Finishing shall be as indicated in section III.

Note: No concrete shall be placed for driveways until the sub-grade, reinforcement placement has been inspected and approved by the city or state (whichever is applicable).

**B. Parking lots**

Parking lot sub-grade shall be as indicated in Section I.

Paving shall be 6" reinforced concrete

3,600 psi - 6.5 sack in 28 days concrete with 4-6 percent entrained air and reinforced with #4 bars at 24" O.C.E.W. supported with proper support chairs. Expansion joints shall be at 60' maximum O.C. and sawcut contraction joints at maximum 15' O.C. All joints to be cleaned and filled with hot poured rubber (gray). (NO SAND PERMITTED UNDER PAVING)

Finishing shall be as indicated in section III.

**C. On-site sidewalks**

Concrete sidewalks shall be a width as designated on site plan and a minimum of 4 inches thick, constructed of 3,600 psi - 6.5 sack, in 28 days concrete with 4-6 percent entrained air and reinforced with #4 bars at 24" O.C.E.W. supported with proper support chairs. Expansion joints shall be at 60' maximum O.C. and sawcut contraction joints at maximum 15' O.C. All joints to be cleaned and filled with hot poured rubber (gray) with #3 bars at 18" O.C.E.W. Toolled construction joints shall be 5'-0" O.C. one-half inch expansion joint shall be placed every 40 feet and where new work is constructed adjacent to other concrete work (walls, foundation, curb, etc.). The joints shall be filled with 1/2-inch pre-molded gray bituminous expansion joint filler and shall extend the entire depth and width of the concrete section. (NO SAND PERMITTED UNDER PAVING)

Finish of sidewalks shall be with a broom finish per engineer. Walks shall have tooled curb edges & tooled joints.

Walks shall have tooled curb edges & tooled joints.

**III. Finishing for concrete driveway, parking lot and street curbs**

The exposed surfaces of driveways and parking lot shall have a monolithic finish by trowling with a wooden flat until a slight excess of sand appears on the surfaces. In no case shall the surface be left slick or with a glossy finish. Exposed surfaces of sidewalks shall have a monolithic finish by trowling with a steel trowel and brushed lightly with an approved broom. The edge of all concrete shall be neatly rounded to the required radii with an edging tool.

The exposed surface of curbs and curbs with gutter shall be shaped with a "mule" and brushed with a wet brush at right angle to the line of the curb to produce a uniform textured surface. The edges shall be neatly rounded off to the required radii. Use of groll over a rough finished texture will not be allowed.

**RECORD DRAWING**

This is to certify that changes and corrections have been made to conform to the contractor's record of this project.

Signed: *Mike Glenn* Date: March 28, 2018

**Glenn Engineering Corporation**

Professional Engineer Seal for Mike Glenn, No. 35059, State of Texas, expires December 4, 2017.

Contractor to use standard City of Rockwall and NCTCOG 3rd Addition Standards and details.

**PAVING LEGEND**

- PROPOSED 6" REINFORCED CONCRETE PAVEMENT 3,600 P.S.I. CONCRETE, 6 1/2 SACK HAND FINISH 6 SACK MACHINE FINISH ( FIRE LANE ) WITH #4 REBARS ON 24" CENTERS EACH WAY.
- PROPOSED 4" REINFORCED CONCRETE SIDEWALK WITH #3 REBARS ON 24" CENTERS EACH WAY

**Huckabee**

ASSIST - DALLAS - FORT WORTH - HOUSTON - WACO

www.huckabee-inc.com 800.687.1229

**GLENN ENGINEERING**

TEXAS REGISTRATION NUMBER: F-303

PHONE 972-717-5151 FAX 972-717-2176

105 DECKER COURT, SUITE 910 IRVING, TEXAS 75062

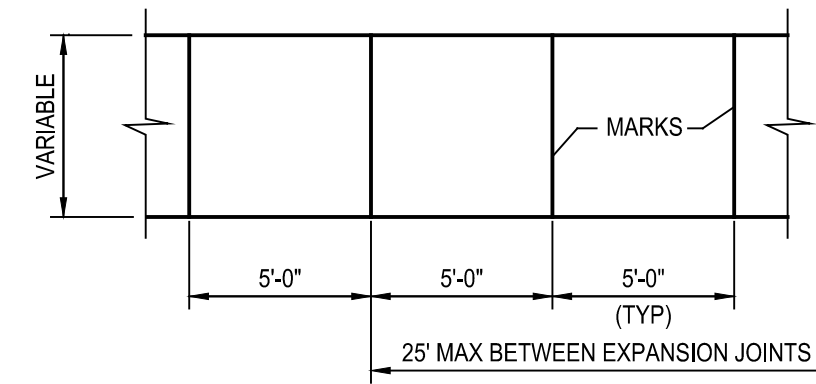
**PAVING PLAN**

100% CD VOLUME

Job No. 1738-02-01 Sheet No. CP 1.0

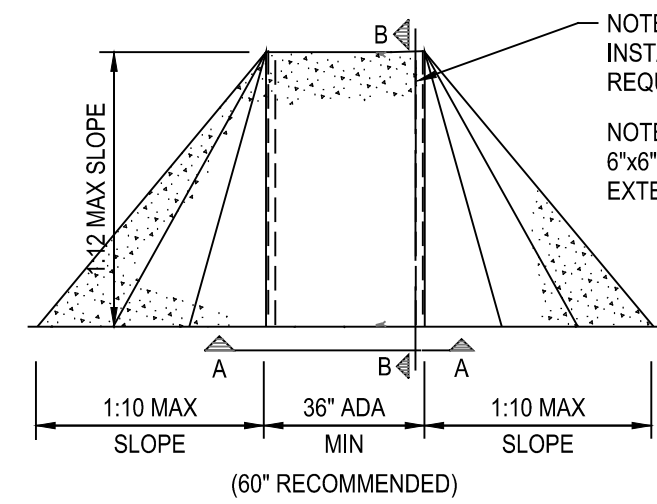
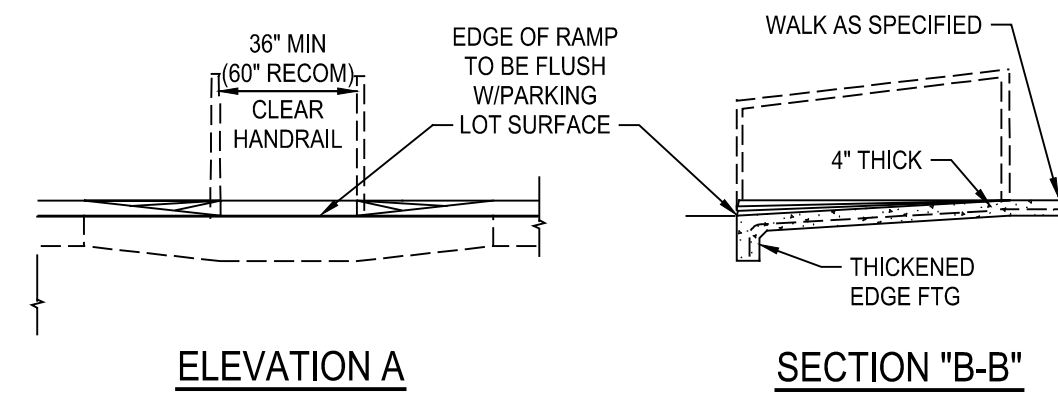
Drawn By: RAH Date: 12-03-2016

Plotted: Apr 20, 2018, 9:09 AM by user: robert. Saved: 4/20/2018 by user: robert. D:\Public\Bob's Projects\Rockwall\Rockwall-HS-ENG REV STORM FLUME.dwg

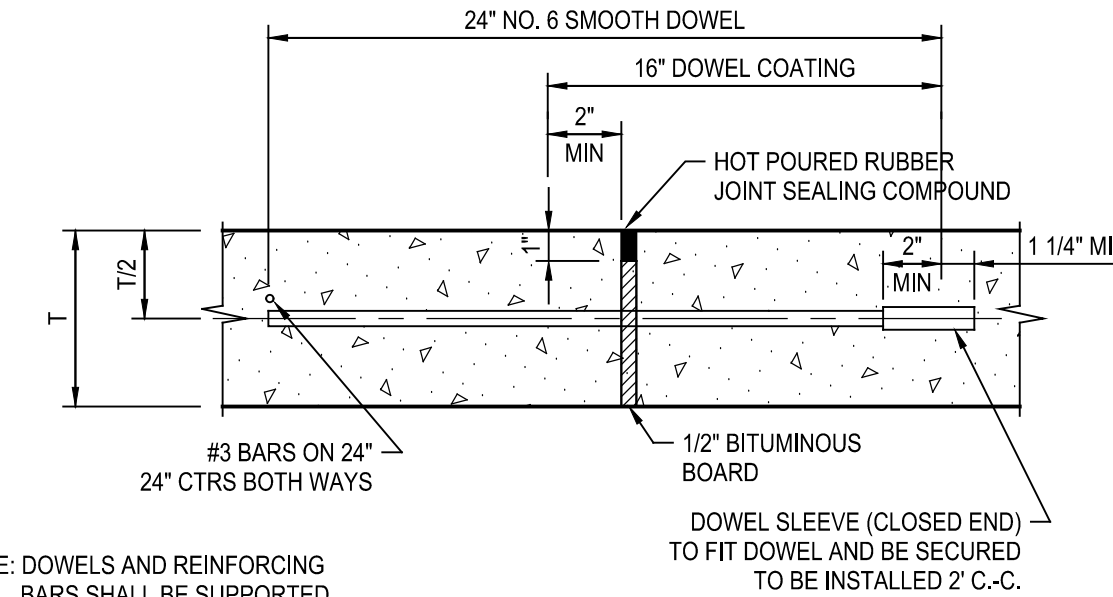


- NOTES:
- AT MARKINGS THE CONCRETE SHALL BE A TOOLED JOINT 3/4" DEEP, FOLLOWED BY GROOVING TOOL. STRENGTH SHALL BE 3000 p.s.i. WITH #3 BARS @ 24" O.C.
  - SIDEWALKS ADJACENT TO BUILDING TO BE PLACED ON LIME TREATED SUBGRADE THE SAME AS PAVING ALL OTHER SIDEWALKS TO BE PLACED OVER 2" COMPACTED SAND. (P1 < 15)

**SIDEWALK PLAN**  
NTS

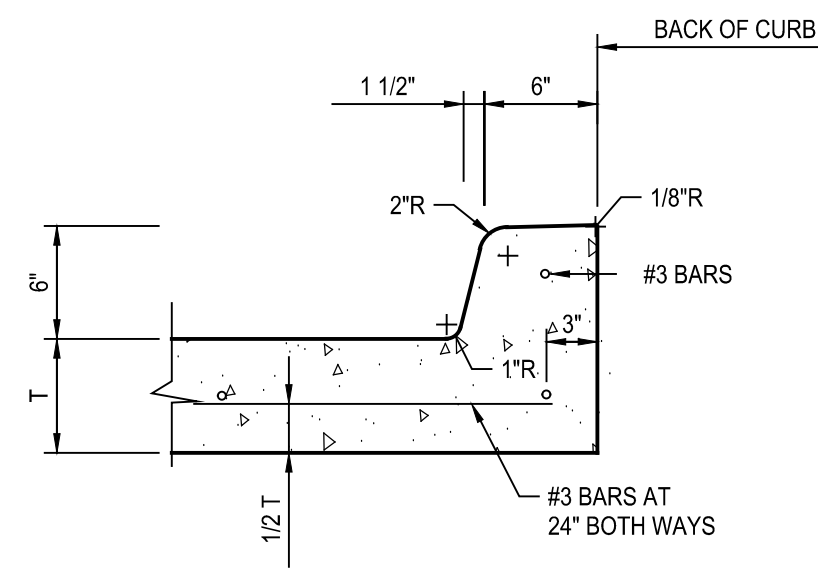


**CONCRETE RAMP-INTERNAL**  
SCALE: 1/4"=1'-0"

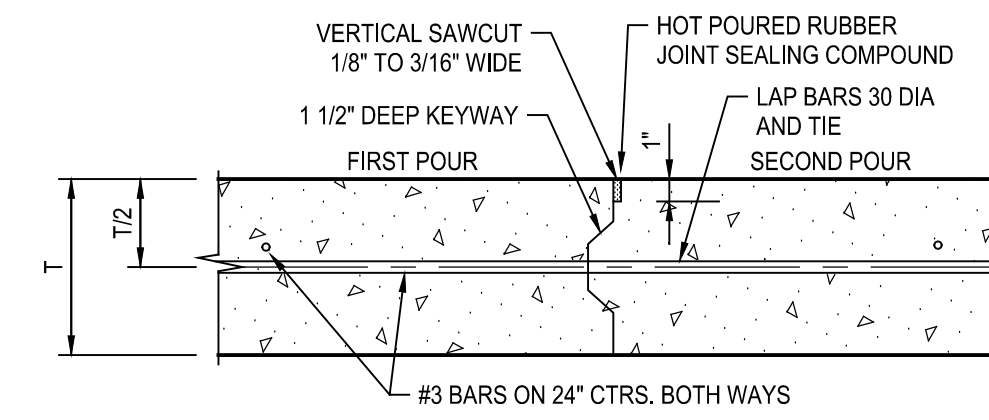


NOTE: DOWELS AND REINFORCING BARS SHALL BE SUPPORTED BY AN APPROVED DEVICE

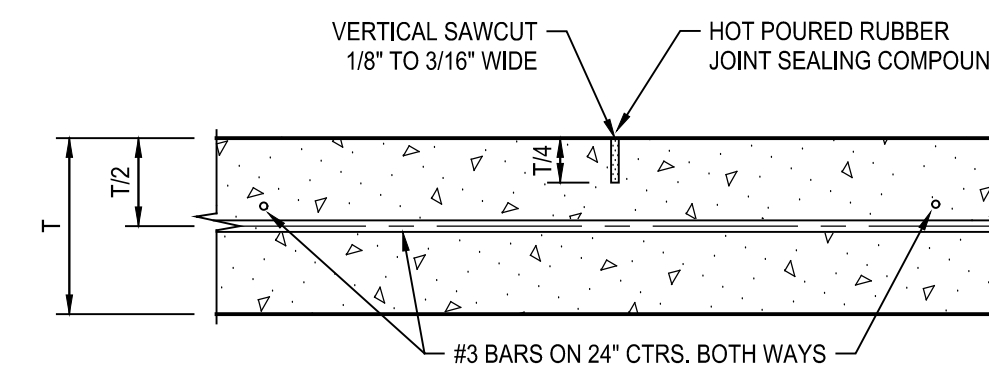
**EXPANSION JOINT DETAIL**  
NTS MAXIMUM SPACING = 150 FEET



**INTEGRAL CURB & GUTTER**  
NTS

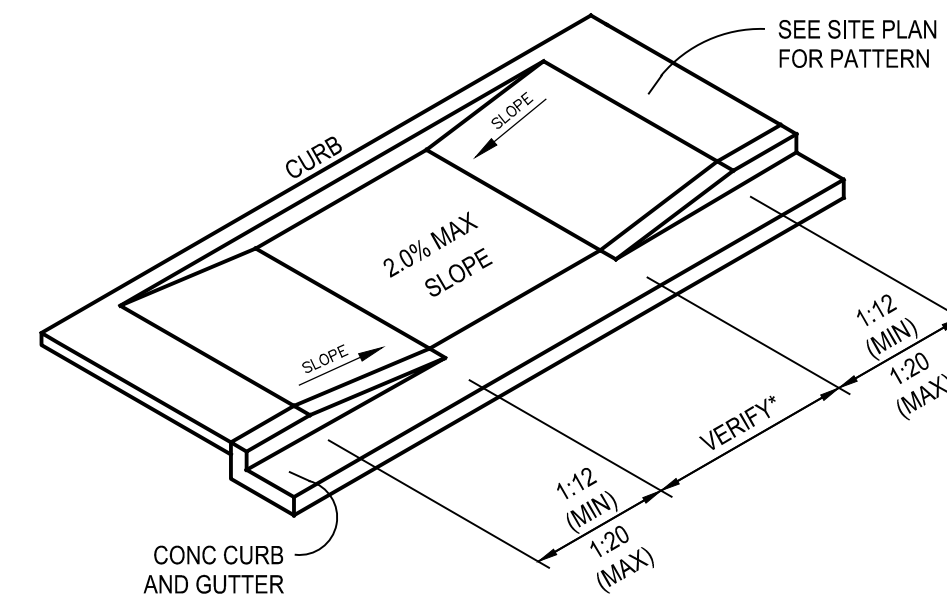


**CONSTRUCTION JOINT DETAIL (L)**  
NTS



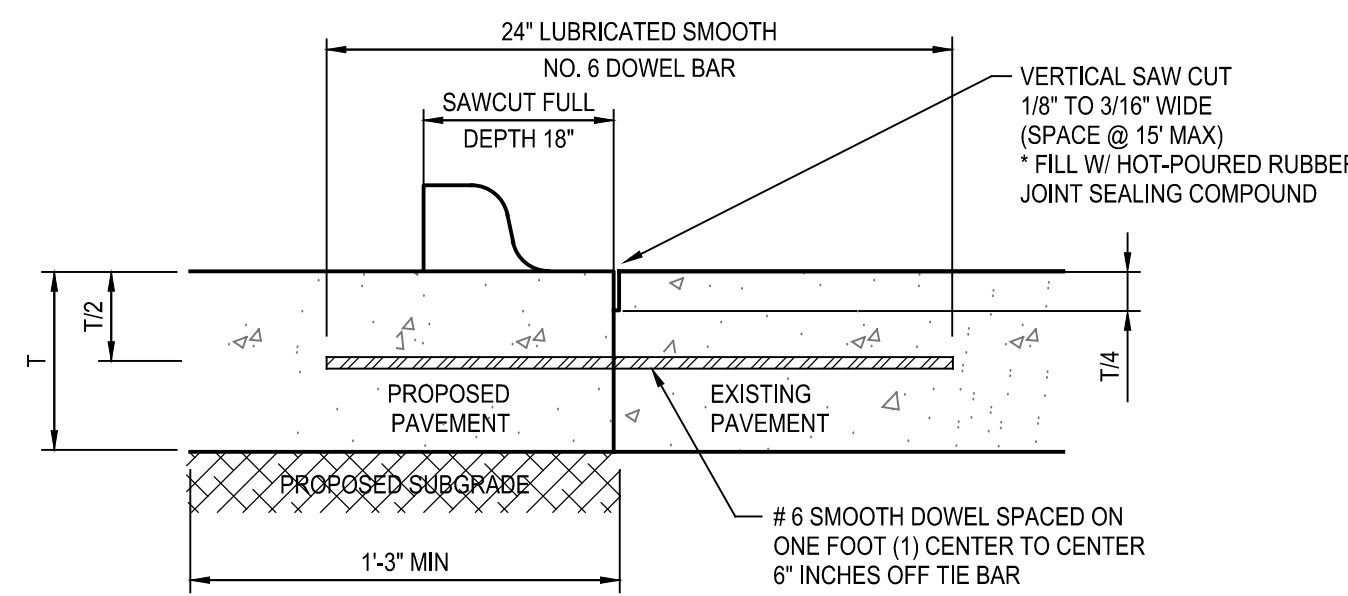
NTS MAXIMUM SPACING = 15 FEET

**SAWED DUMMY JOINT DETAIL (T)**



**HANDICAP RAMP DETAIL**  
NTS

NOTE: NO SAND WILL BE PERMITTED UNDER PAVEMENT.

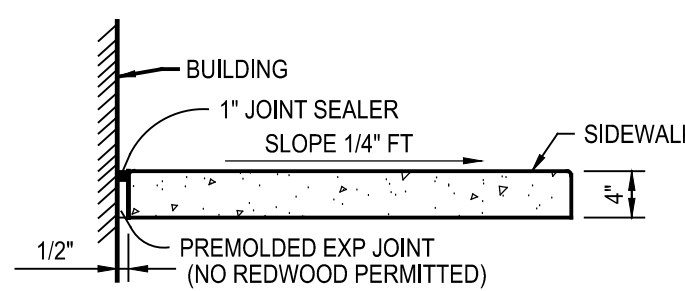


\* HOT-POURED RUBBER JOINT SEALING COMPOUND PER S.D.H.P.T. ITEM 360, SECTION 360.2 (8)(C), CLASS 2 (GREY)

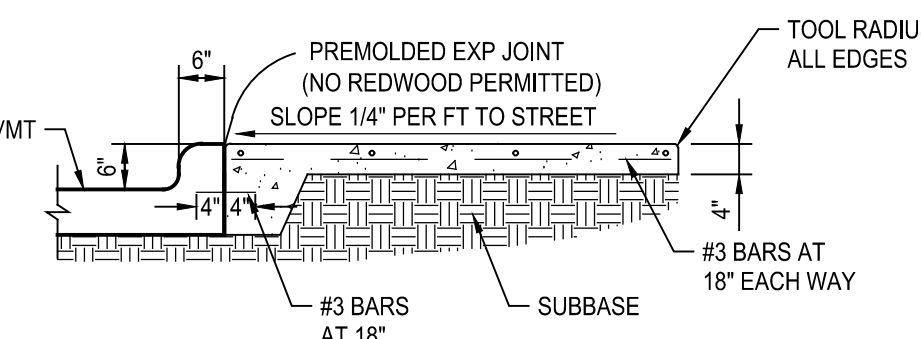
TO BE USED WHERE PROPOSED CONCRETE PAVEMENT MEETS EXISTING CONCRETE PAVEMENT

- NOTES:
- NO. 5 SMOOTH DOWEL BAR MAY BE USED IN 5', 6" AND 7" PAVEMENT THICKNESS.
  - LONGITUDINAL BUTT CONSTRUCTION MAY BE UTILIZED IN PLACE OF LONGITUDINAL HINGED (KEYWAY) JOINT AT CONTRACTOR'S OPTION.
  - DOWEL BARS SHALL BE DRILLED INTO PAVEMENT HORIZONTALLY BY USE OF A MECHANICAL RIG. DRILLING BY HAND IS NOT APPLICABLE. PUSHING DOWEL BARS INTO GREEN CONCRETE IS NOT ACCEPTABLE.

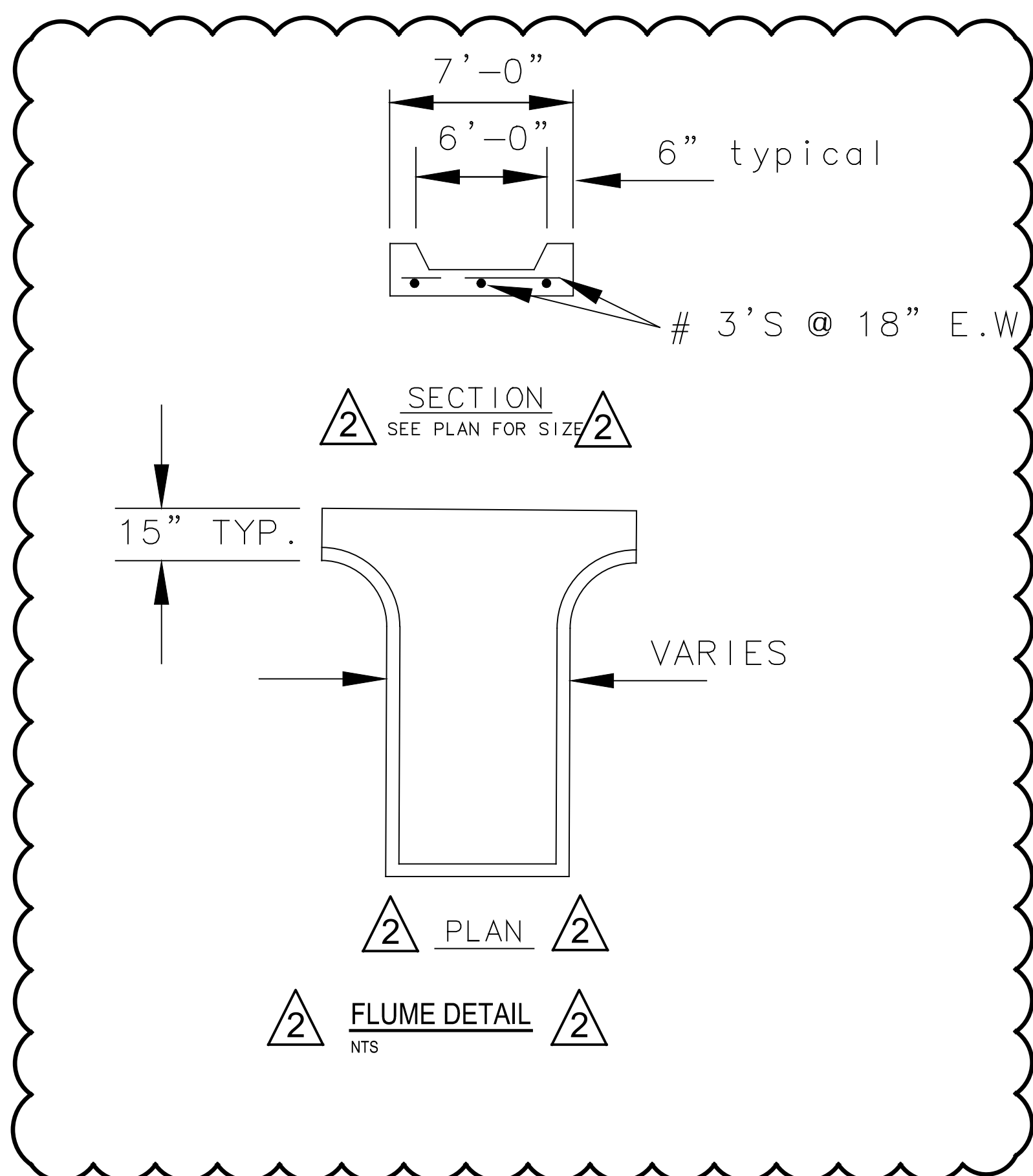
**LONGITUDINAL BUTT DETAIL**  
NTS



**WALK/BUILDING/CURB INTERFACE**  
NTS



**INTERIOR SIDEWALK TYPICAL SECTION**  
NTS



Plotted: Apr 20, 2018, 9:10 AM by user: robert - Saved: 4/20/2018 by user: robert  
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ADDENDUM #1  
PC - REMOVE STORM FLUME AND PARKING  
PC - REMOVED STORM SEWER

Date	11/22/2016
Revision /	09/11/2017
1	12/04/2017
2	
3	

Project: **ROCKWALL HIGH SCHOOL RENOVATIONS FOR ROCKWALL HIGH SCHOOL ROCKWALL I.S.D. 901 YELLOW JACKET LN, ROCKWALL, TX 75087**



**RECORD DRAWING**  
This is to certify that changes and corrections have been made to conform to the contractor's record of this project.  
Signed: *Mike Glenn* Date: March 28, 2018  
Glenn Engineering Corporation

**GLENN ENGINEERING**  
TEXAS REGISTRATION NUMBER: F-303  
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IRVING, TEXAS 75062

PAVING DETAILS	
100% CD	VOLUME
Job No. 1738-02-01	Sheet No. CP 1.1
Drawn By: RAH	Date: 12-03-2016

