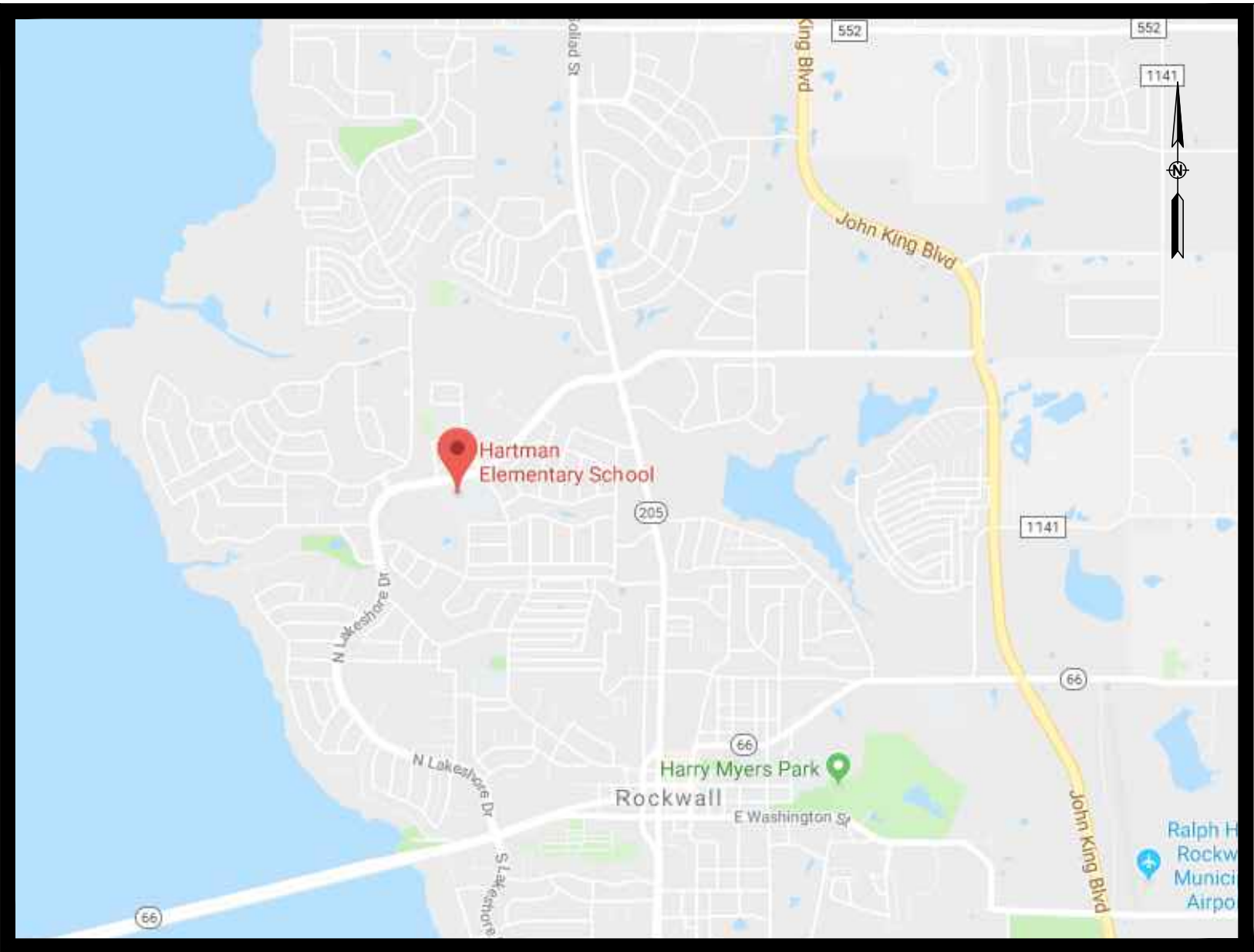


CONSTRUCTION PLANS FOR HARTMAN ELEMENTARY SCHOOL STORM SEWER EXTENSION

ROCKWALL INDEPENDENT SCHOOL DISTRICT
ROCKWALL, TEXAS
CSP# 1819-07.002



LOCATION MAP
MAPSCO PAGE 260-U
SCALE: NTS

ENGINEER:



**GLENN
ENGINEERING**

105 Decker Court, Suite 910
Irving, Texas 75062
(972) 717-5151

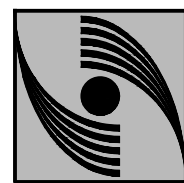
Contact Person: Mike Glenn, P.E.

JULY 2018

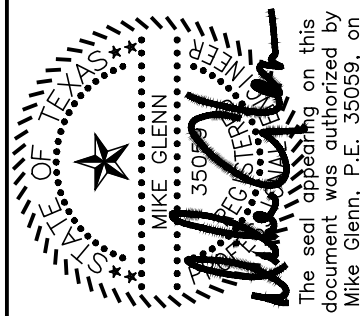
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ENGINEERING**



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**HARTMAN
ELEMENTARY SCHOOL
ROCKWALL, TEXAS
CSP# 1819-07.002**

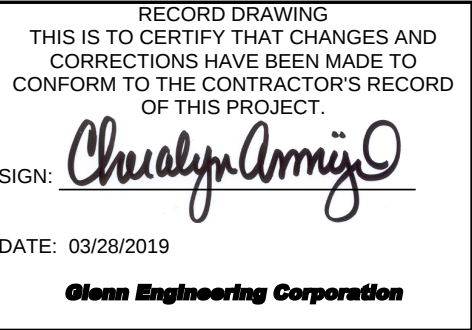
COVER SHEET

Revisions:		
1	7/17/18	Addendum #1
2	8/27/18	City Comments

Issue Dates:	
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Permit:	
Construction:	

Scale:	As Shown
Drawn By:	KKE
Checked By:	CMG
Project:	CSP # 1819-07.002

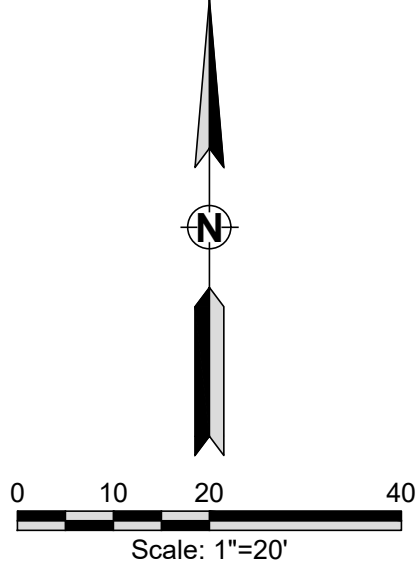
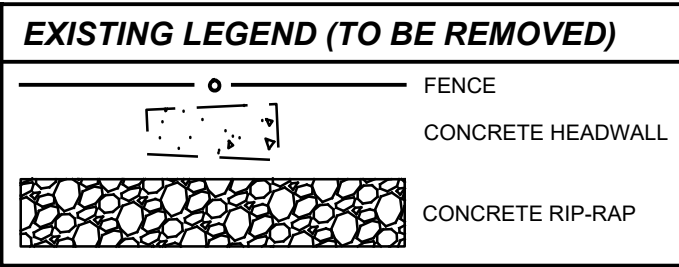
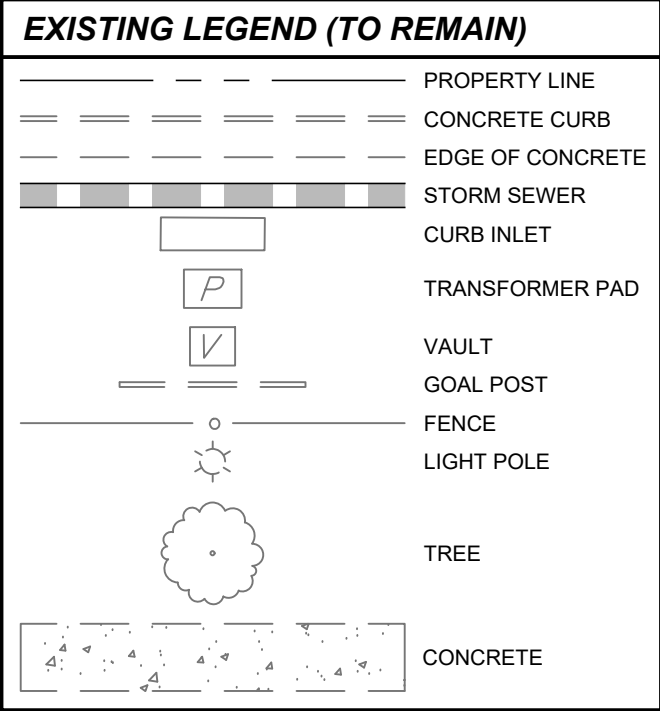
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C001



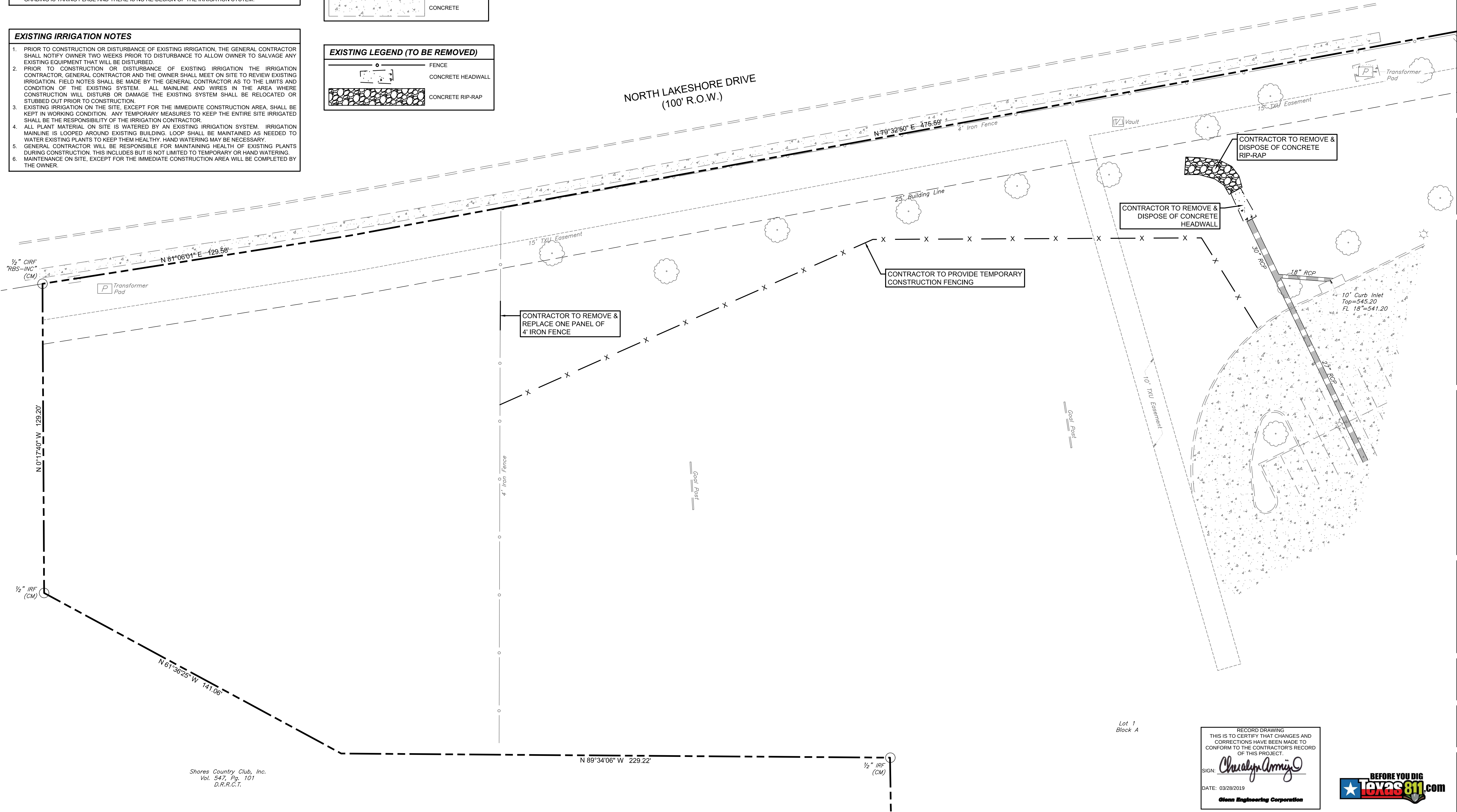
FILE LOCATION: \\MICHAEL-0\Projects\ROCKSDLA\VIEW\SUMMIT\N09\Civil\Lakeview Summit Add'l Storm-Eng.dwg SAVED: 02/20/2018 10:04 AM PLOTTED: 02/20/2019 10:15 AM

- IRRIGATION NOTES**
1. ALL LOCATIONS OF THE EXISTING IRRIGATION SHOWN ON THESE PLANS WERE DERIVED FROM FIELD INSPECTIONS AND EXISTING DESIGN DRAWINGS. THEY IN NO WAY GUARANTEE THE EXACT LOCATION OF ANY OF THE IRRIGATION EQUIPMENT OR LINES THAT EXIST ON THE SITE.
 2. THE EXISTING IRRIGATION SYSTEM SHALL NOT BE DISABLED FOR MORE THAN 48 HOURS FOR ANY REASON. IF THE EXISTING SYSTEM IS DISABLED FOR 48 HOURS, IT SHALL NOT BE DISABLED AGAIN DURING NORMAL WATERING SCHEDULE UNTIL IT HAS COMPLETED TWO FULL WATERINGS OF THE ENTIRE SITE. IT MAY BE INTERRUPTED FOR A SHORTER AND MORE FREQUENT INTERVAL BUT THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THAT THE NORMAL WATERING SCHEDULE IS COMPLETED.
 3. IRRIGATION CONTRACTOR IS RESPONSIBLE FOR PROPERLY REPAIRED AND FUNCTIONING IRRIGATION SYSTEM IN ALL AREAS IN OR ADJACENT TO CONSTRUCTION AND CONTROLLERS. ALL DISTURBED IRRIGATION AREAS WILL BE REPAIRED OR COMPLETELY REPLACED TO PROVIDE FULL IRRIGATION FOR THE AREAS SHOWN ON THE PLANS.
 4. ALL REPAIRED AND REPLACED IRRIGATION SHALL BE INSTALLED PER THE SPECIFICATIONS.
 5. ANY DEVIATION FROM THE SPECIFICATIONS AND PLANS WILL REQUIRE THE IRRIGATION CONTRACTOR TO OBTAIN APPROVAL FROM THE OWNER.
 6. IF THE IRRIGATION SYSTEM IS DAMAGED DURING THE CONSTRUCTION PROCESS THE GENERAL CONTRACTOR AND IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING AND RESTORING THE EXISTING SYSTEM TO WORKING STATUS WITHIN 24 HOURS OF WHEN THE DAMAGED OCCURRED.
 7. IRRIGATION CONTRACTOR IS RESPONSIBLE FOR RAISING OR LOWERING HEADS IN AREAS WHERE GRADING IS TAKING PLACE AND THERE IS NO RE-DESIGN OF THE IRRIGATION SYSTEM.

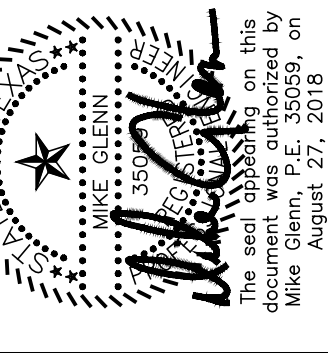
- EXISTING IRRIGATION NOTES**
1. PRIOR TO CONSTRUCTION OR DISTURBANCE OF EXISTING IRRIGATION, THE GENERAL CONTRACTOR SHALL NOTIFY OWNER TWO WEEKS PRIOR TO DISTURBANCE TO ALLOW OWNER TO SALVAGE ANY EXISTING EQUIPMENT THAT WILL BE DISTURBED.
 2. PRIOR TO CONSTRUCTION OR DISTURBANCE OF EXISTING IRRIGATION THE IRRIGATION CONTRACTOR, GENERAL CONTRACTOR AND THE OWNER SHALL MEET ON SITE TO REVIEW EXISTING IRRIGATION, FIELD NOTES SHALL BE MADE BY THE GENERAL CONTRACTOR AS TO THE LIMITS AND CONDITION OF THE EXISTING SYSTEM. ALL MAINLINE AND WIRES IN THE AREA WHERE CONSTRUCTION WILL DISTURB OR DAMAGE THE EXISTING SYSTEM SHALL BE RELOCATED OR STUBBED OUT PRIOR TO CONSTRUCTION.
 3. EXISTING IRRIGATION ON THE SITE, EXCEPT FOR THE IMMEDIATE CONSTRUCTION AREA, SHALL BE KEPT IN WORKING CONDITION. ANY TEMPORARY MEASURES TO KEEP THE ENTIRE SITE IRRIGATED SHALL BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR.
 4. ALL PLANT MATERIAL ON SITE IS WATERED BY AN EXISTING IRRIGATION SYSTEM. IRRIGATION MAINLINE IS LOOPED AROUND EXISTING BUILDING. LOOP SHALL BE MAINTAINED AS NEEDED TO WATER EXISTING PLANTS TO KEEP THEM HEALTHY. HAND WATERING MAY BE NECESSARY.
 5. GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR MAINTAINING HEALTH OF EXISTING PLANTS DURING CONSTRUCTION. THIS INCLUDES BUT IS NOT LIMITED TO TEMPORARY OR HAND WATERING. MAINTENANCE ON SITE, EXCEPT FOR THE IMMEDIATE CONSTRUCTION AREA WILL BE COMPLETED BY THE OWNER.
 6. MAINTENANCE ON SITE, EXCEPT FOR THE IMMEDIATE CONSTRUCTION AREA WILL BE COMPLETED BY THE OWNER.



NOTE: NO TREES WILL BE DISTURBED DURING THE CONSTRUCTION OF THE PROPOSED STORM SEWER EXTENSION.



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IRVING, TEXAS 75062



**HARTMAN ELEMENTARY SCHOOL
ROCKWALL, TEXAS
CSP# 1819-07.002**

DEMOLITION PLAN

Revisions:		
1	7/17/18	Addendum #1
2	8/27/18	City Comments

Issue Dates:	
Review:	
Permit:	
Construction:	

Scale:	1"=20'
Drawn By:	KKE
Checked By:	CMG
Project:	CSP # 1819-07.002

Sheet
C002

RECORD DRAWING
THIS IS TO CERTIFY THAT CHANGES AND CORRECTIONS HAVE BEEN MADE TO CONFORM TO THE CONTRACTOR'S RECORD OF THIS PROJECT.
SIGN: *Charalyn Amigo*
DATE: 03/28/2019
Glenn Engineering Corporation

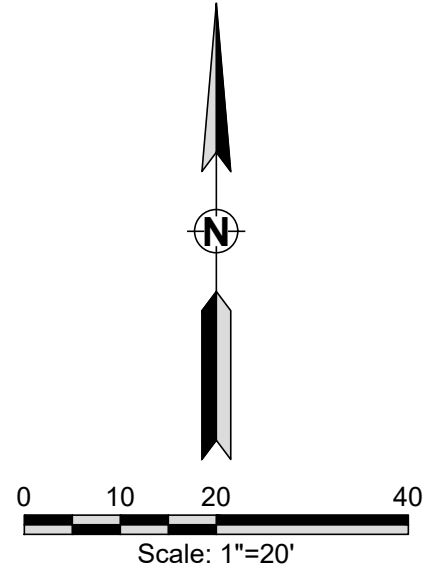


FILE LOCATION: \\MICHAEL-0\Projects\ROCKSD\LAKEVIEW\SUMMIT\N09\Civil\Lakeview Summit Add'l Storm-Eng.dwg
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- GENERAL GRADING AND DRAINAGE NOTES**
- ALL CONSTRUCTION TO BE IN ACCORDANCE WITH THESE PLANS AND CITY OF ROCKWALL STANDARDS AND SPECIFICATIONS.
 - 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.
 - ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE REQUIREMENTS AND STANDARDS OF THE LOCAL GOVERNING AUTHORITY.
 - IN THE EVENT AN ITEM IS NOT COVERED IN THE CITY OF ROCKWALL SPECIFICATIONS, THE CITY ENGINEER'S DECISION SHALL APPLY.
 - BARRICADING, TRAFFIC CONTROL, AND PROJECT SIGNS SHALL CONFORM TO "STATE DEPARTMENT OF HIGHWAYS AND PUBLIC TRANSPORTATION BARRICADING AND CONSTRUCTION STANDARDS".
 - THE GENERAL CONTRACTOR AND ALL SUB-CONTRACTORS 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, PAVING INSTALLED SHALL "FLUSH OUT" AT ANY JUNCTURE WITH EXISTING PAVING.
 - 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.
 - CONTRACTOR SHALL VERIFY ALL EXISTING INVERTS AND RIM ELEVATIONS PRIOR TO CONSTRUCTION.
 - ALL PROPOSED CONTOURS ARE APPROXIMATE. PROPOSED SPOT ELEVATIONS AND DESIGNATED GRADIENT ARE TO BE USED IN THE EVENT OF ANY DISCREPANCIES.
 - IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND/OR ESTABLISH A BENCHMARK (BASE UPON EXISTING CONDITION SHOWN ON THIS PLAN) PRIOR TO CONSTRUCTION.
 - NO GRADING SHALL BE PERFORMED IN AREAS WITH EXISTING TREES. CONTRACTOR TO MARK ALL EXISTING TREES AND FENCE AREA SO THAT THEY CAN BE PROTECTED.
 - ALL FILL SHALL BE COMPACTED TO A MINIMUM 95% WITH A SHEEP-FOOT ROLLER.

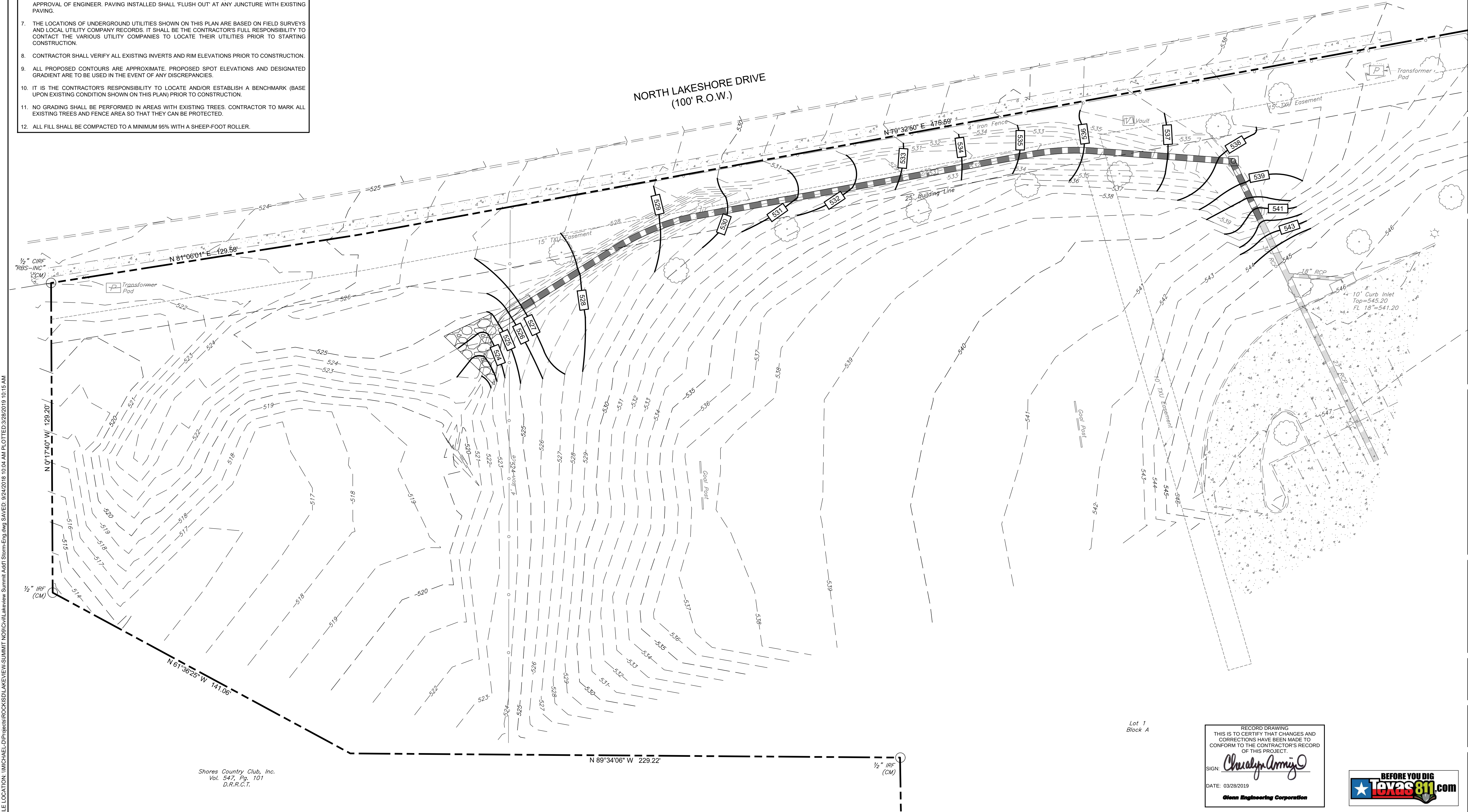
GRADING LEGEND

	MAJOR CONTOUR (NEW)
	MINOR CONTOUR (NEW)
	MAJOR CONTOUR (EXISTING)
	MINOR CONTOUR (EXISTING)
	CONCRETE CURB (EXISTING)
	EDGE OF CONCRETE (EXISTING)
	STORM SEWER (NEW)
	STORM SEWER (EXISTING)
	SLOPING INLET TYPE S (NEW)
	JUNCTION BOX (NEW)
	CURB INLET (EXISTING)



NOTE: 75%-80% OF ALL DISTURBED AREA TO BE COVERED WITH A MINIMUM 1" STAND OF GRASS (NOT WEEDS OR RYE) PRIOR TO CITY ACCEPTANCE.

NOTE: NO TREES WILL BE DISTURBED DURING THE CONSTRUCTION OF THE PROPOSED STORM SEWER EXTENSION.



GLENN ENGINEERING

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HARTMAN ELEMENTARY SCHOOL
ROCKWALL, TEXAS
CSP# 1819-07.002

GRADING PLAN

Revisions:

1	7/17/18	Addendum #1
2	8/27/18	City Comments

Issue Dates:

Review:	
Permit:	
Construction:	

Scale: 1"=20'

Drawn By: KKE

Checked By: CMG

Project: CSP # 1819-07.002

Sheet

C003

BEFORE YOU DIG
Texas 811.com

RECORD DRAWING
THIS IS TO CERTIFY THAT CHANGES AND CORRECTIONS HAVE BEEN MADE TO CONFORM TO THE CONTRACTOR'S RECORD OF THIS PROJECT.

SIGN: *Charles Amey*

DATE: 03/28/2019

Glenn Engineering Corporation

FILE LOCATION: \\MICHAEL-0\Projects\ROCKSDLA\VIEW\SUMMIT N09\Civil\Lateview Summit Add'l Storm-Eng.dwg
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PLOTTED: 02/28/2019 10:16 AM

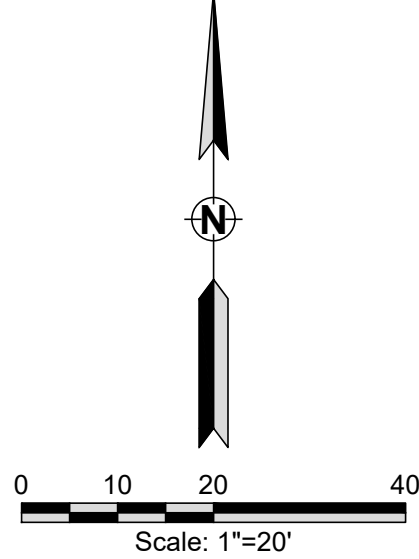
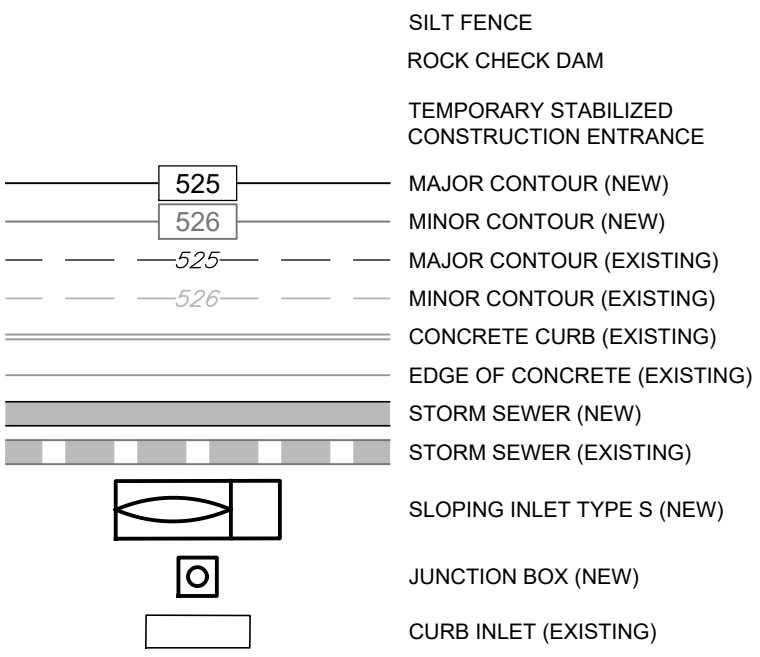
GENERAL EROSION CONTROL NOTES

GENERAL EROSION CONTROL NOTES

- ALL EROSION AND SEDIMENT PROTECTION MEASURES SHALL CONFORM TO THE LATEST EDITION OF THE NCTCOG ISWM TECHNICAL MANUAL 2010.
 - CONTRACTOR SHALL CONTROL SEDIMENT ACCUMULATION ON ALL STREETS SURROUNDING THE PROJECT. SEDIMENTS SHOULD NOT ENTER PUBLIC RIGHTS OF WAY, NOR SHOULD THEY ESCAPE THE SITE. SEDIMENTS THAT HAVE ESCAPED FROM THE SITE MUST BE REMOVED IMMEDIATELY.
 - MAINTAIN ALL FILTERS DURING CONSTRUCTION TO PREVENT ANY BLOCKAGES FROM ACCUMULATED SEDIMENT. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED DURING CONSTRUCTION AS SPECIFIED BY ENGINEER OR CITY INSPECTOR.
 - ALL PROPOSED PARKING AREAS TO BE PAVED AS SOON AS POSSIBLE AFTER SUBGRADE IS PREPARED.
 - TEMPORARY EROSION AND SEDIMENT CONTROLS SHOULD BE REMOVED AFTER ALL EXPOSED SOILS HAVE BEEN FINALLY STABILIZED, AND NON-CONCRETE AREAS HAVE A BACKGROUND VEGETATIVE COVER OF AT LEAST 70%.
 - ANY CONCRETE SAW CUT WASTE SHALL BE CAPTURED AND DISPOSED OF PROPERLY IN ACCORDANCE WITH ISWM RECOMMENDATIONS.
- GENERAL SILT FENCE NOTES
- 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.
 - THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWN SLOPE 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.
 - 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.
 - 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.
 - INSPECTION SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

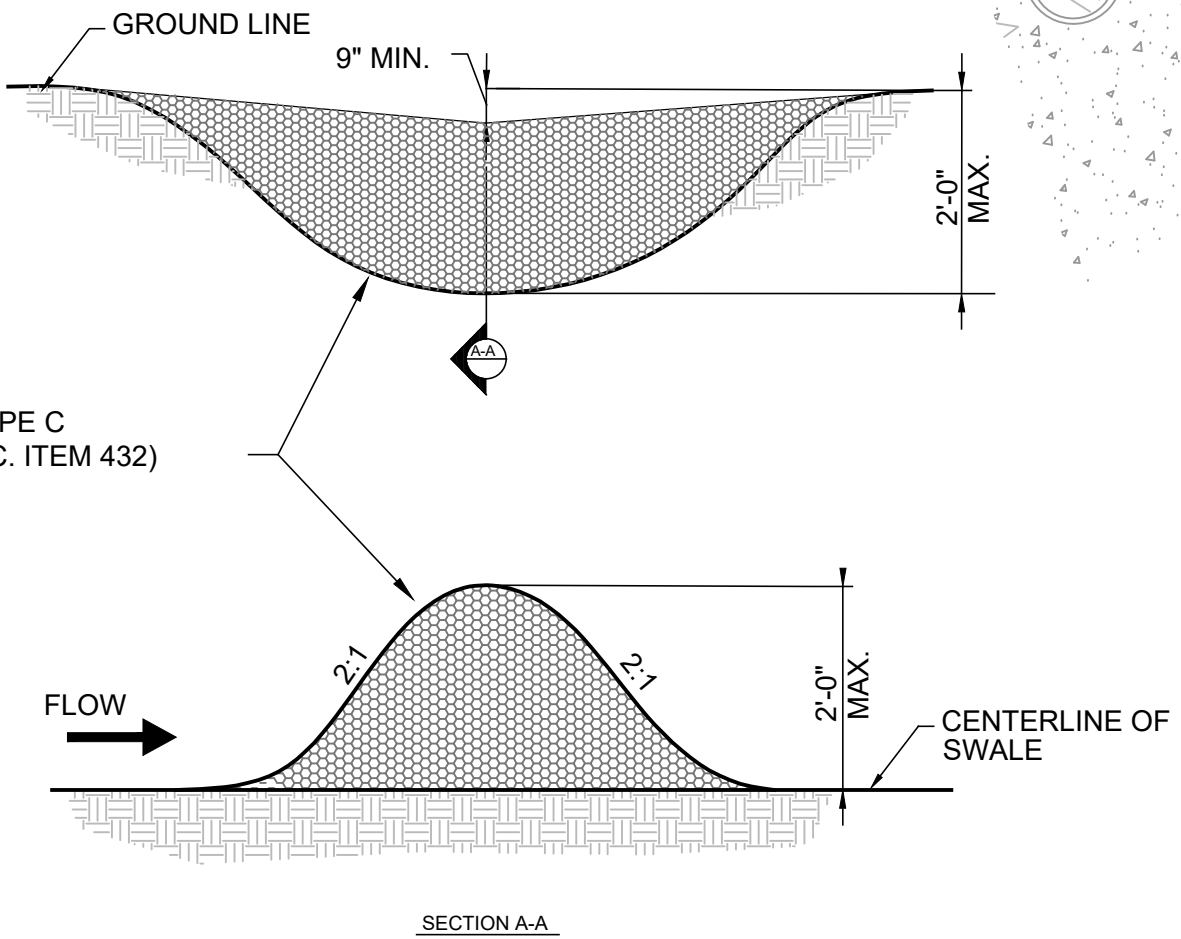
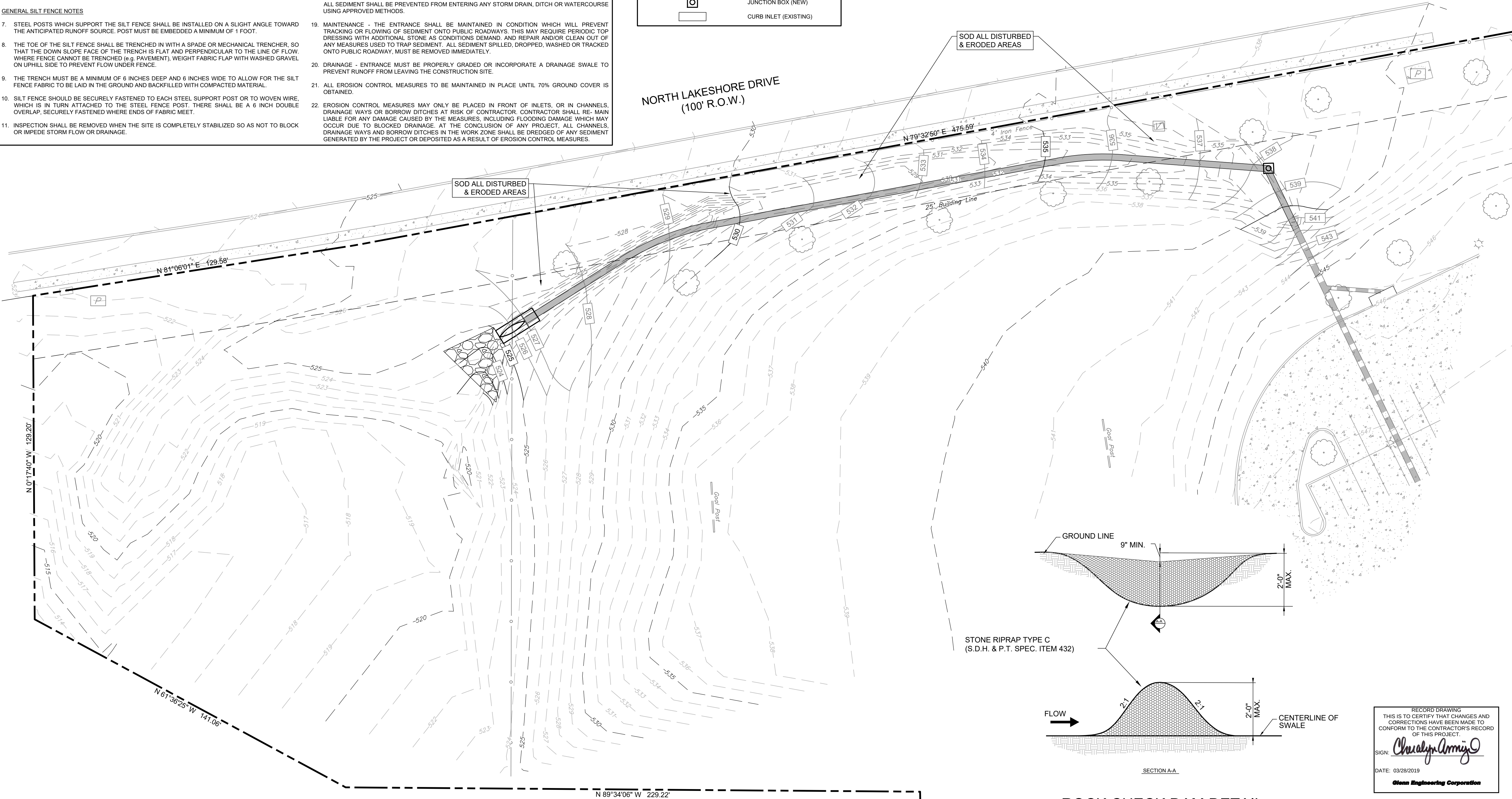
- ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 6 INCHES. THE SILT SHALL BE DISPOSED OF IN AN APPROVED SITE AND IN SUCH A MANNER AS TO NOT CONTRIBUTE TO ADDITIONAL SILTS.
 - STONE OVERFLOW STRUCTURES OR OTHER OUTLET CONTROL DEVICES SHALL BE INSTALLED AT ALL LOW POINTS ALONG THE SILT FENCE OR SPACED AT APPROXIMATELY 300 FEET IF THERE IS NO APPARENT LOW POINT.
- GENERAL STABILIZED CONSTRUCTION ENTRANCE NOTES
- STONE SIZE - 4 TO 6 INCHES CRUSHED ROCK. NO CRUSHED CONCRETE ALLOWED.
 - LENGTH - AS EFFECTIVE, BUT NOT LESS THAN 50 FEET, UNLESS DEPTH OF LOT IS LESS THAN 150 FEET FROM EDGE OF PAVEMENT WHERE LENGTH MUST ONLY BE 30 FEET.
 - THICKNESS - NOT LESS THAN 12 INCHES.
 - WIDTH - NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS.
 - 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.
 - 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 CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADWAY, MUST BE REMOVED IMMEDIATELY.
 - DRAINAGE - ENTRANCE MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.
 - ALL EROSION CONTROL MEASURES TO BE MAINTAINED IN PLACE UNTIL 70% GROUND COVER IS OBTAINED.
 - EROSION CONTROL MEASURES MAY ONLY BE PLACED IN FRONT OF INLETS, OR IN CHANNELS, DRAINAGE WAYS OR BORROW DITCHES AT RISK OF CONTRACTOR. CONTRACTOR SHALL BE MAIN LIABLE FOR ANY DAMAGE CAUSED BY THE MEASURES, INCLUDING FLOODING DAMAGE WHICH MAY OCCUR DUE TO BLOCKED DRAINAGE. AT THE CONCLUSION OF ANY PROJECT, ALL CHANNELS, DRAINAGE WAYS AND BORROW DITCHES IN THE WORK ZONE SHALL BE DREDGED OF ANY SEDIMENT GENERATED BY THE PROJECT OR DEPOSITED AS A RESULT OF EROSION CONTROL MEASURES.

EROSION CONTROL LEGEND



NOTE: 75%-80% OF ALL DISTURBED AREA TO BE COVERED WITH A MINIMUM 1" STAND OF GRASS (NOT WEEDS OR RYE) PRIOR TO CITY ACCEPTANCE.

NOTE: NO TREES WILL BE DISTURBED DURING THE CONSTRUCTION OF THE PROPOSED STORM SEWER EXTENSION.



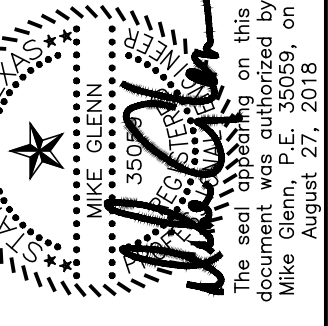
Shores Country Club, Inc.
Vol. 547, Pg. 101
D.R.R.C.T.

RECORD DRAWING
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SIGN: *Chualyn Amigo*
DATE: 03/28/2019
Glenn Engineering Corporation



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**HARTMAN ELEMENTARY SCHOOL
ROCKWALL, TEXAS
CSP# 1819-07.002**

EROSION CONTROL PLAN

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2	8/27/18	City Comments

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Drawn By: KKE
Checked By: CMG
Project: CSP # 1819-07.002

Sheet
C003A

INLET DESIGN CALCULATIONS			PROJECT NAME										BY		RAH	
			LINE NAME										DATE		6/27/01	
No.	Inlet Location	Design Storm Frequency (yrs.)	AREA RUNOFF Q = CIA					Carry-Over From Upstream Inlet (c.f.s.)	Total Gutter Flow (c.f.s.)	Gutter Capacity (c.f.s.)	Gutter Slope (ft./100ft.)	Crown Type	SELECTED INLET			Carry-Over To Downstream Inlet (c.f.s.)
			Time of Conc. (min.)	Intensity I (in./hr.)	Runoff Coeff. "C"	Area (ac.)	"Q" (c.f.s.)						Length "L" (Feet)	Inlet Capacity (c.f.s.)	Type	
1	2		4	5	6	7	8	9	10	11	12	13	14	15	16	17
A2	PARKING LOT	100	10	9.8	0.90	1.03	9.1	0		LOW	POINT	6" SLOPED	10'	20.0	C.I.	0
D1	EAST PARKING LOT	100	10	9.8	0.70	1.44	9.9	0	9.9	38.2	0.0250	6" SLOPED	10'	5.4	C.I.	4.5
D2	DRIVE	100	10	9.8	0.70	0.54	3.7	0	3.7	45.3	0.0350	6" SLOPED	10'	5.2	C.I.	0
D4	DRIVE	100	10	9.8	0.70	0.43	2.9	3.4	6.3	30.6	0.0160	6" SLOPED	10'	5.6	C.I.	1.07*
D5		100	10	9.8	0.70	0.73	5.0	0	N/A	N/A	N/A	N/A	4'x4'	47.4	"Y"	0
D6	EAST PARKING LOT	100	10	9.8	0.70	0.62	4.3	4.5	8.8	38.2	0.0250	6" SLOPED	10'	5.4	C.I.	3.4

*TO PETALUMA DRIVE

STORM WATER RUNOFF CALCULATIONS

AREA NO.	DRAINAGE AREA "A" (ACRES)	TIME OF CONCENTRATION (IN MINUTES)	RUNOFF COEFFICIENT "C"	K	INTENSITY "I" 1"100' (IN/HR)	DESIGN FLOW "Q" 1"100'	REMARKS
PREDEVELOPED CONDITIONS							
EX-1	9.50	20	0.35	10	8.3	27.6	NORTHWEST
EX-2	136	20	0.35	10	8.3	40	SOUTH-WEST
EX-3	422	20	0.35	10	8.3	123	NORTHEAST / EAST

STORM WATER RUNOFF CALCULATIONS

AREA NO.	DRAINAGE AREA "A" (ACRES)	TIME OF CONCENTRATION (IN MINUTES)	RUNOFF COEFFICIENT "C"	K	INTENSITY "I" 1"100' (IN/HR)	DESIGN FLOW "Q" 1"100'	REMARKS
A1	5.00	10	0.50	10	9.8	24.5	NORTHWEST
A2	1.03	10	0.90	10	9.8	9.1	10' CURB INLET
A3	0.05	10	0.90	10	9.8	0.4	AREA DRAINS
A4	1.76	10	0.90	10	9.8	15.5	ROOF DRAINS
A5	0.06	10	0.90	10	9.8	0.5	AREA DRAINS
A6	0.20	10	0.70	10	9.8	1.4	AREA DRAIN
A7	0.05	10	0.90	10	9.8	0.4	AREA DRAINS
A8	0.09	10	0.70	10	9.8	0.6	AREA DRAIN
A9	0.44	10	0.70	10	9.8	3.0	AREA DRAIN
A10	0.34	10	0.70	10	9.8	2.3	AREA DRAIN
B1	0.25	10	0.70	10	9.8	1.7	SOUTHWEST
C1	0.56	10	0.70	10	9.8	3.8	GEARY DRIVE / SOUTH
D1	1.44	10	0.70	10	9.8	9.9	10' CURB INLET
D2	0.54	10	0.70	10	9.8	3.7	10' CURB INLET
D3	0.77	10	0.70	10	9.8	5.3	TO BASIN
D4	0.43	10	0.70	10	9.8	2.9	10' CURB INLET
D5	0.73	10	0.70	10	9.8	5.0	4' WYE INLET
D6	0.62	10	0.70	10	9.8	4.3	10' CURB INLET
E1	0.63	10	0.70	10	9.8	4.3	PETALUMA DR. / NORTH LAKESHORE DR.
E2	0.01	10	0.70	10	9.8	0.1	PETALUMA DRIVE
E3	0.09	10	0.70	10	9.8	0.6	PETALUMA DRIVE

ROCKWALL ELEMENTARY #9
ROCKWALL INDEPENDENT SCHOOL DISTRICT
TEXAS
ROCKWALL,

FINAL PLANS FOR BIDDING AND CONSTRUCTION



RECORD DRAWING
THIS IS TO CERTIFY THAT CHANGES AND CORRECTIONS HAVE BEEN MADE TO CONFORM TO THE CONTRACTOR'S RECORD OF THIS PROJECT.
SIGN: *Charles Army*
DATE: 03/28/2019
Glenn Engineering Corporation

BENCH MARK:
BRASS CAP MONUMENT NO. 10 SET IN CONCRETE IN THE CENTER OF GRASS MEDIAN IN MASTERS DRIVE BETWEEN NORTH LAKESHORE DR. AND SHORES BLVD. ELEV. = 524.62

DRAINAGE AREA MAP
SCALE: 1" = 40'



GLENN
ENGINEERING
PHONE 972-770-0911
100 DECKER COURT - SUITE 280
IRVING, TEXAS 75062

FAX 972-770-4220

SHEET
NUMBER

C

OF

2.8

SET NUMBER

HARTMAN
ELEMENTARY SCHOOL
ROCKWALL, TEXAS
CSP# 1819-07.002

EXISTING DRAINAGE
AREA MAP

Revisions:

1	7/17/18	Addendum #1
2	8/27/18	City Comments

Issue Dates:

Review:	
Permit:	
Construction:	

Scale: As Shown

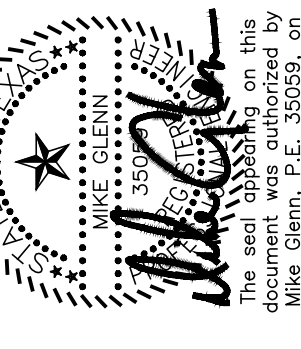
Drawn By: KKE

Checked By: CMG

Project: CSP # 1819-07.002

Sheet

C004



HARTMAN
ELEMENTARY SCHOOL
ROCKWALL, TEXAS
CSP# 1819-07.002

EXISTING DRAINAGE
AREA MAP

Revisions:

1	7/17/18	Addendum #1
2	8/27/18	City Comments

Issue Dates:

Review:	
Permit:	
Construction:	

Scale: As Shown

Drawn By: KKE

Checked By: CMG

Project: CSP # 1819-07.002

Sheet

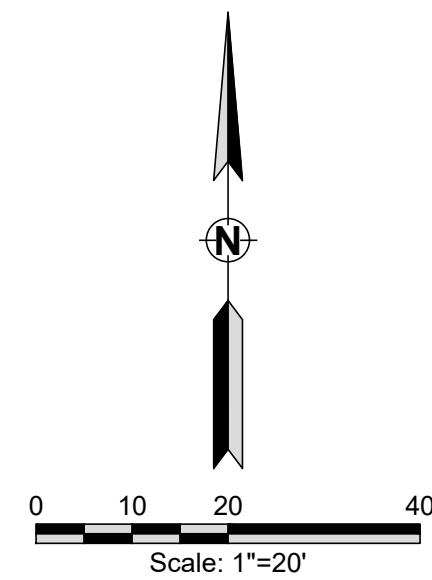
C004

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ENGINEERING
TEXAS REGISTRATION NUMBER: F-303
PHONE (972) 717-5151
105 DECKER COURT, SUITE 910
IRVING, TEXAS 75062

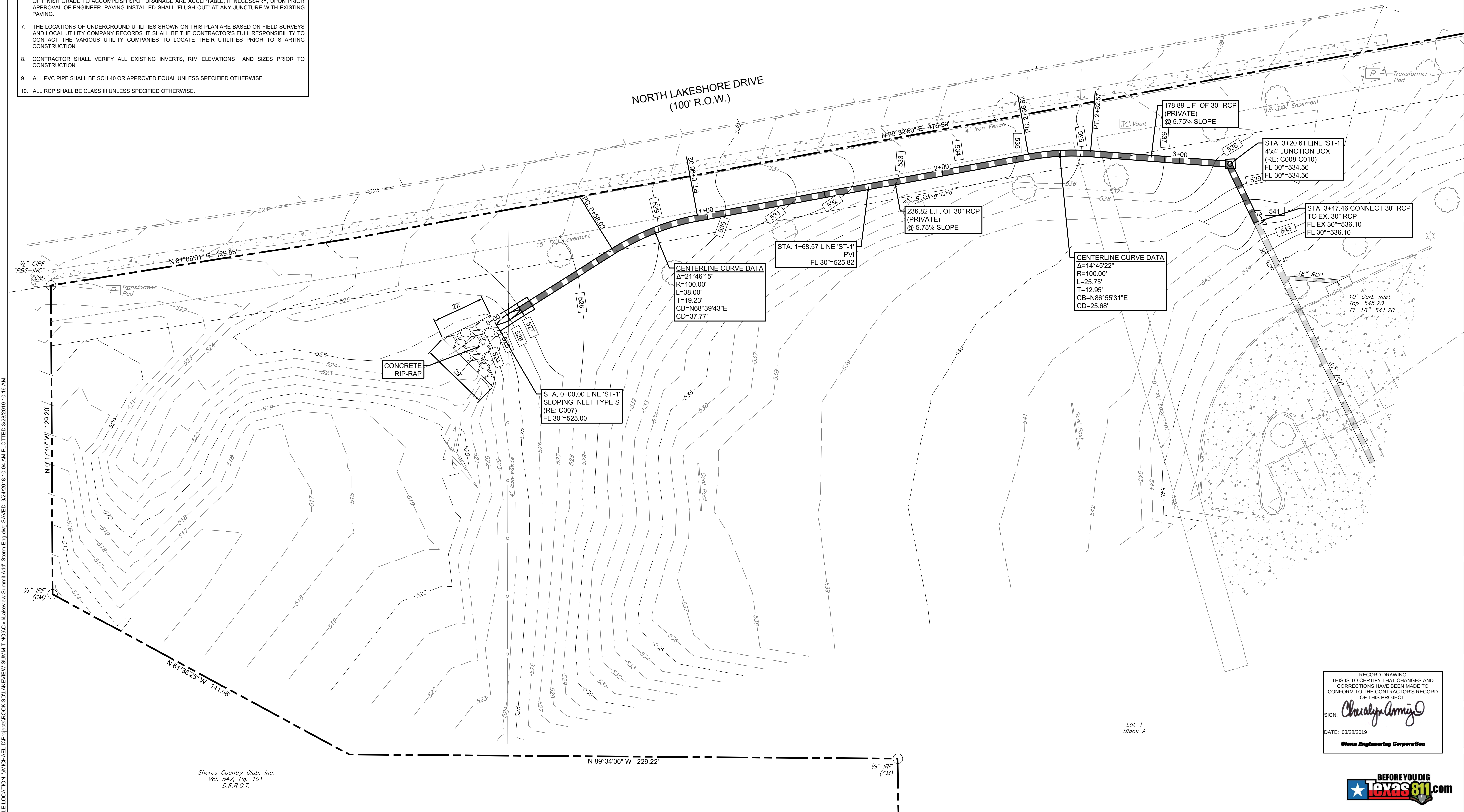
FAX (972) 717-2176

1. ALL CONSTRUCTION TO BE IN ACCORDANCE WITH THESE PLANS AND CITY OF ROCKWALL STANDARDS AND SPECIFICATIONS.
2. 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.
3. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE REQUIREMENTS AND STANDARDS OF THE LOCAL GOVERNING AUTHORITY.
4. IN THE EVENT AN ITEM IS NOT COVERED IN THE CITY OF ROCKWALL SPECIFICATIONS, THE CITY ENGINEER'S DECISION SHALL APPLY.
5. BARRICADING, TRAFFIC CONTROL, AND PROJECT SIGNS SHALL CONFORM TO "STATE DEPARTMENT OF HIGHWAYS AND PUBLIC TRANSPORTATION BARRICADING AND CONSTRUCTION STANDARDS".
6. THE GENERAL CONTRACTOR AND ALL SUB-CONTRACTORS 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 STOP DRAINAGE ARE ACCEPTABLE. IF NECESSARY, UPON PRIOR APPROVAL OF ENGINEER. PAVING INSTALLED SHALL "FLUSH OUT" AT ANY JUNCTURE WITH EXISTING PAVING.
7. 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.
8. CONTRACTOR SHALL VERIFY ALL EXISTING INVERTS, RIM ELEVATIONS AND SIZES PRIOR TO CONSTRUCTION.
9. ALL PVC PIPE SHALL BE SCH 40 OR APPROVED EQUAL UNLESS SPECIFIED OTHERWISE.
10. ALL RCP SHALL BE CLASS III UNLESS SPECIFIED OTHERWISE.

	STORM SEWER (NEW)
	STORM SEWER (EXISTING)
	CONCRETE CURB (EXISTING)
	EDGE OF CONCRETE (EXISTING)
	MAJOR CONTOUR (NEW)
	MINOR CONTOUR (NEW)
	MAJOR CONTOUR (EXISTING)
	MINOR CONTOUR (EXISTING)
	SLOPING INLET TYPE S (NEW)
	JUNCTION BOX (NEW)
	CURB INLET (EXISTING)



NOTE: NO TREES WILL BE DISTURBED DURING THE CONSTRUCTION OF THE PROPOSED STORM SEWER EXTENSION.



Shores Country Club, Inc.
Vol. 547, Pg. 101
D.R.R.C.T.

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CONFORM TO THE CONTRACTOR'S RECORD
OF THIS PROJECT.

SIGN: Cheryl Annis

DATE: 03/28/2019

Glenn Engineering Corporation

BEFORE YOU DIG
Texas 811.com



The seal of the State of Texas is visible in the background of the document. It features a five-pointed star in the center, surrounded by the words "STATE OF TEXAS". The number "35059" is printed on the seal, and the name "MIKE GLENN" is also visible.

**HARTMAN
ELEMENTARY SCHOOL
ROCKWALL, TEXAS
CSP# 1819-07.002**

STORM SEWER PLAN

Revisions:		
1	7/17/18	Addendum #1
2	8/27/18	City Comments

<i>Issue Dates:</i>
<i>Review:</i>
<i>Permit:</i>
<i>Construction:</i>

Scale:	1"=20'
Drawn By:	KKE
Checked By:	CMG
Project :	CSP # 1819-07.002

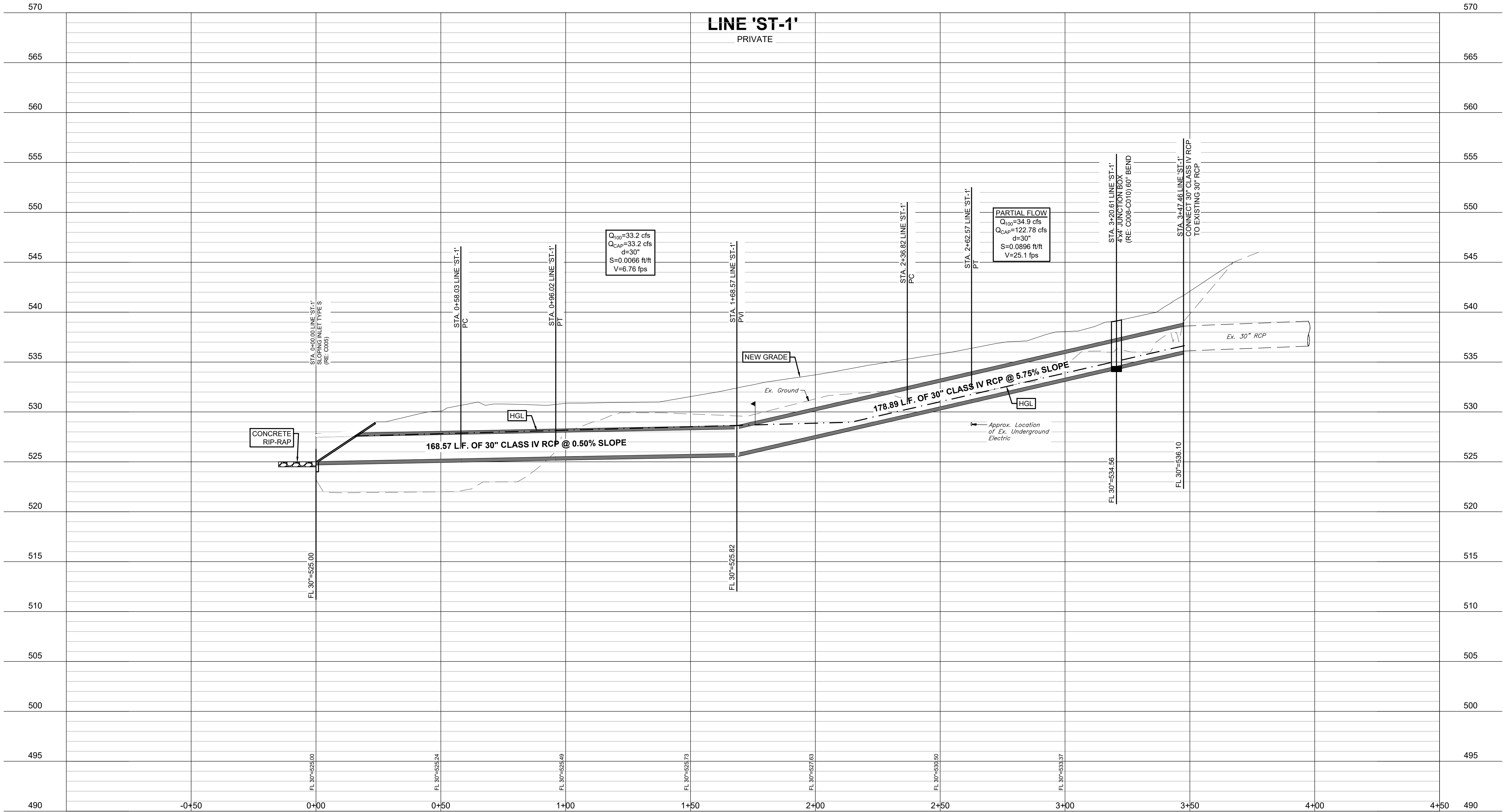
Sheet

C005

PHONE (972) 717-5151
105 DECKER COURT, SUITE 910
IRVING, TEXAS 75062
FAX (972) 717-2176

**GLENN
ENGINEERING**

FILE LOCATION: \\MICHAEL-0\Projects\ROCKSDALE\VIEW\SUMMIT\N09\Civil\Lateview Summit Add'l Storm-Eng.dwg SAVED: 8/24/2018 10:04 AM PLOTTED: 3/22/2019 10:16 AM

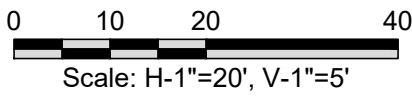


RECORD DRAWING
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CORRECTIONS HAVE BEEN MADE TO
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OF THIS PROJECT.

SIGN: *Chris Army*

DATE: 03/28/2019

Glenn Engineering Corporation



Revisions:		
1	7/17/18	Addendum #1
2	8/27/18	City Comments

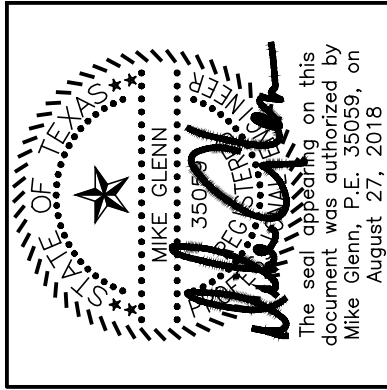
Issue Dates:	
Review:	
Permit:	
Construction:	

Scale:	H-1"=20', V-1"=5'
Drawn By:	KKE
Checked By:	CMG
Project:	CSP # 1819-07.002

Sheet

C006

HARTMAN
ELEMENTARY SCHOOL
ROCKWALL, TEXAS
CSP# 1819-07.002



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ENGINEERING

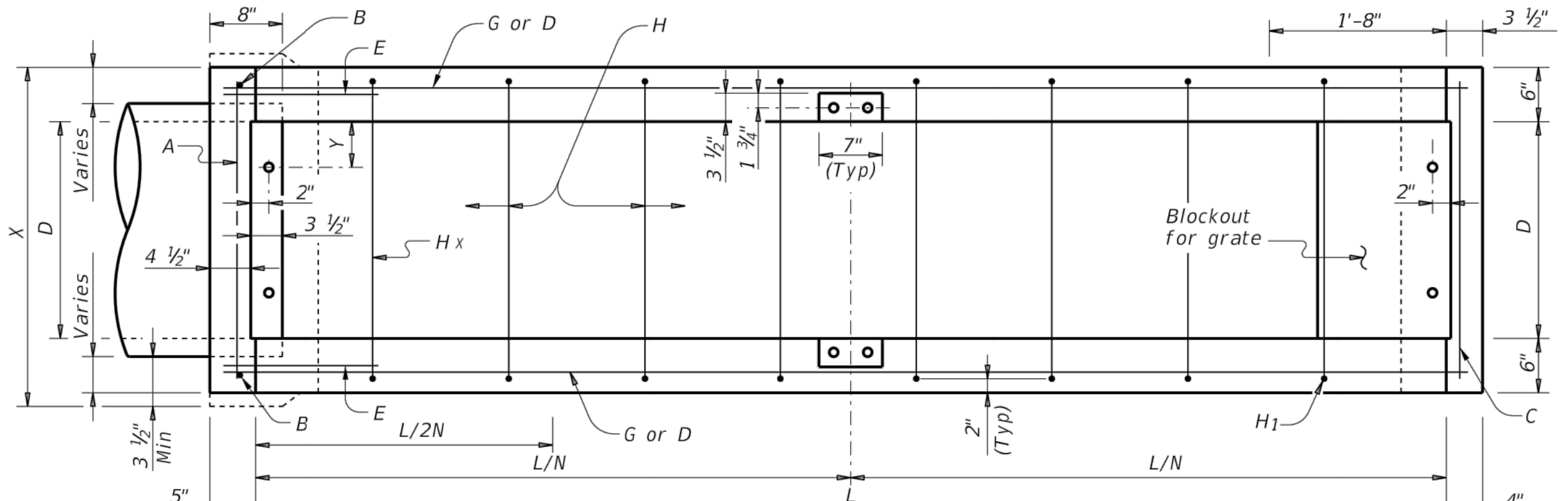
TEXAS REGISTRATION NUMBER: F-303
PHONE (972) 717-5151
105 DECKER COURT, SUITE 910
IRVING, TEXAS 75062

FAX (972) 717-2176

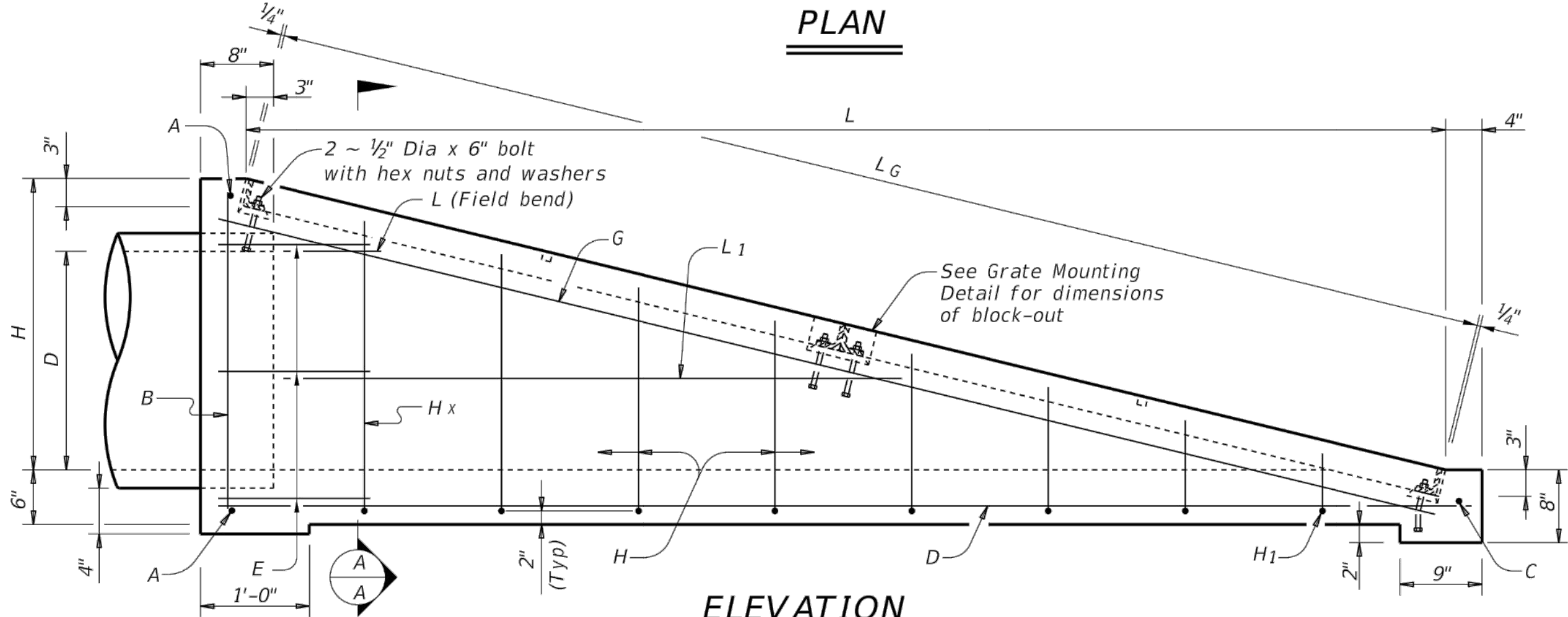
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FILE:

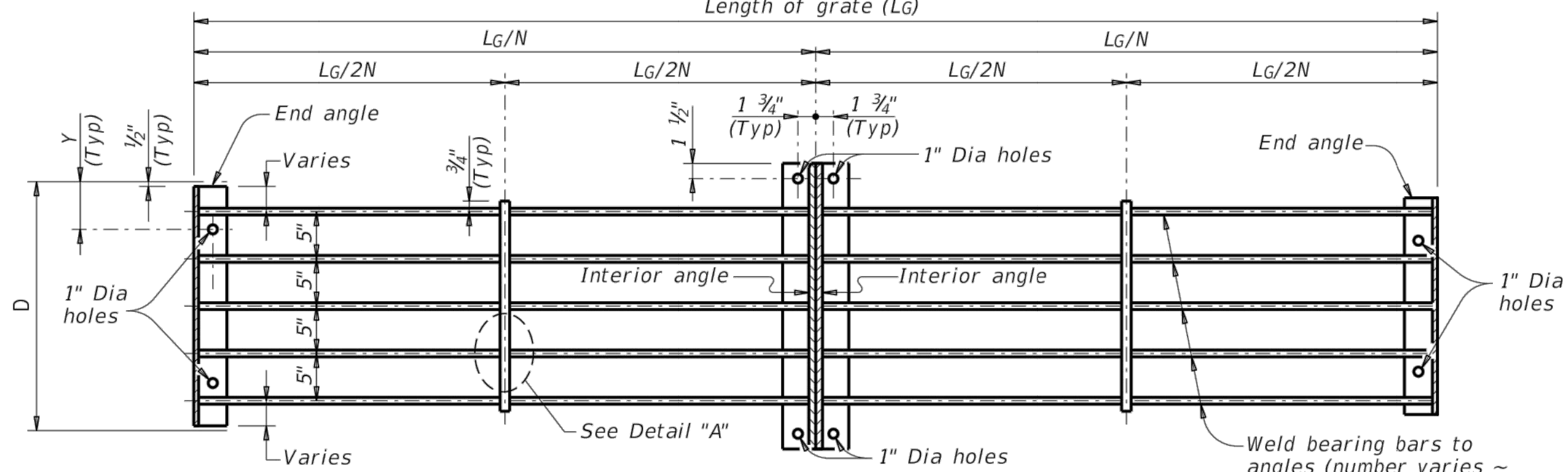
SLOPE	Y	N	DIA OF PIPE = D	TABLE OF DIMENSIONS			BILL OF REINFORCING STEEL																														TOTAL QUANTITIES							
							BARS A				BARS B				BARS C				BARS D				BARS E				BARS G				BARS H Av				BARS L				BARS L ₁ Av				STEEL	CONC
				X	H	L	No.	Spa	Length	Wgt	No.	Spa	Length	Wgt	No.	Spa	Length	Wgt	No.	Spa	Length	Wgt	No.	Spa	Length	Wgt	No.	Spa	Length	Wgt	No.	Spa	Length	Wgt	No.	Spa	Length	Wgt	Lb	CY				
6:1	4 ½"	2	18"	2'-6"	2'-1 ½"	12'-9"	2	~	2'- 3"	3	2	~	2'- 5"	3	1	~	2'- 3"	2	3	12" ±	13'- 3"	27	6	12" ±	2'- 6"	10	2	~	13'- 5"	18	12	12" ±	4'- 5"	35	2	12" ±	2'- 0"	3	2	12" ±	6'-10"	9	110	1.1
6:1	5"	2	24"	3'-0"	2'-8"	16'-0"	2	~	2'-10"	4	2	~	3'- 0"	4	1	~	2'- 9"	2	4	12" ±	16'- 6"	44	8	12" ±	2'- 6"	13	2	~	16'- 9"	22	15	12" ±	5'- 6"	55	2	12" ±	2'- 0"	3	2	12" ±	9'-10"	13	160	1.7
6:1	5 ½"	3	30"	3'-6"	3'-2 ½"	19'-3"	2	~	3'- 5"	5	2	~	3'- 7"	5	1	~	3'- 3"	2	4	12" ±	19'- 9"	53	8	12" ±	2'- 6"	13	2	~	20'- 0"	27	19	12" ±	6'- 6"	83	2	12" ±	2'- 0"	3	4	12" ±	10'- 1"	27	218	2.4
6:1	6"	3	36"	4'-0"	3'-9"	22'-6"	2	~	4'- 0"	5	2	~	4'- 2"	5	1	~	3'- 9"	3	5	12" ±	23'- 0"	77	10	12" ±	2'- 6"	17	2	~	23'- 3"	31	22	12" ±	7'- 7"	111	2	12" ±	2'- 0"	3	6	12" ±	13'- 9"	55	307	3.3
6:1	6 ½"	3	42"	4'-6"	4'-3 ½"	25'-9"	2	~	4'- 7"	6	2	~	4'- 9"	6	1	~	4'- 3"	3	5	12" ±	26'- 3"	88	10	12" ±	2'- 6"	17	2	~	26'- 8"	36	25	12" ±	8'- 7"	143	2	12" ±	2'- 0"	3	6	12" ±	13'-10"	55	357	4.4
6:1	4 ½"	4	48"	5'-0"	4'-10"	29'-0"	2	~	5'- 2"	7	2	~	5'- 4"	7	1	~	4'- 9"	3	6	12" ±	29'- 6"	118	12	12" ±	2'- 6"	20	2	~	29'-10"	40	29	12" ±	9'- 7"	186	2	12" ±	2'- 0"	3	8	12" ±	14'- 5"	77	461	5.7



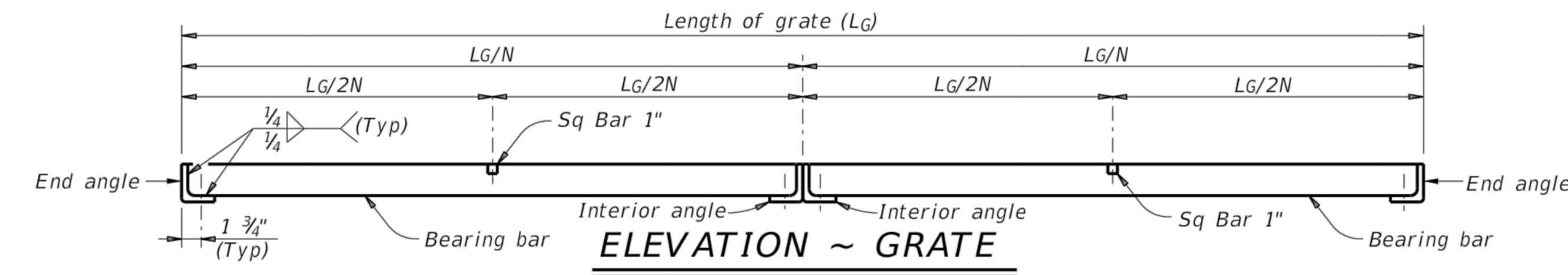
PLAN



ELEVATION



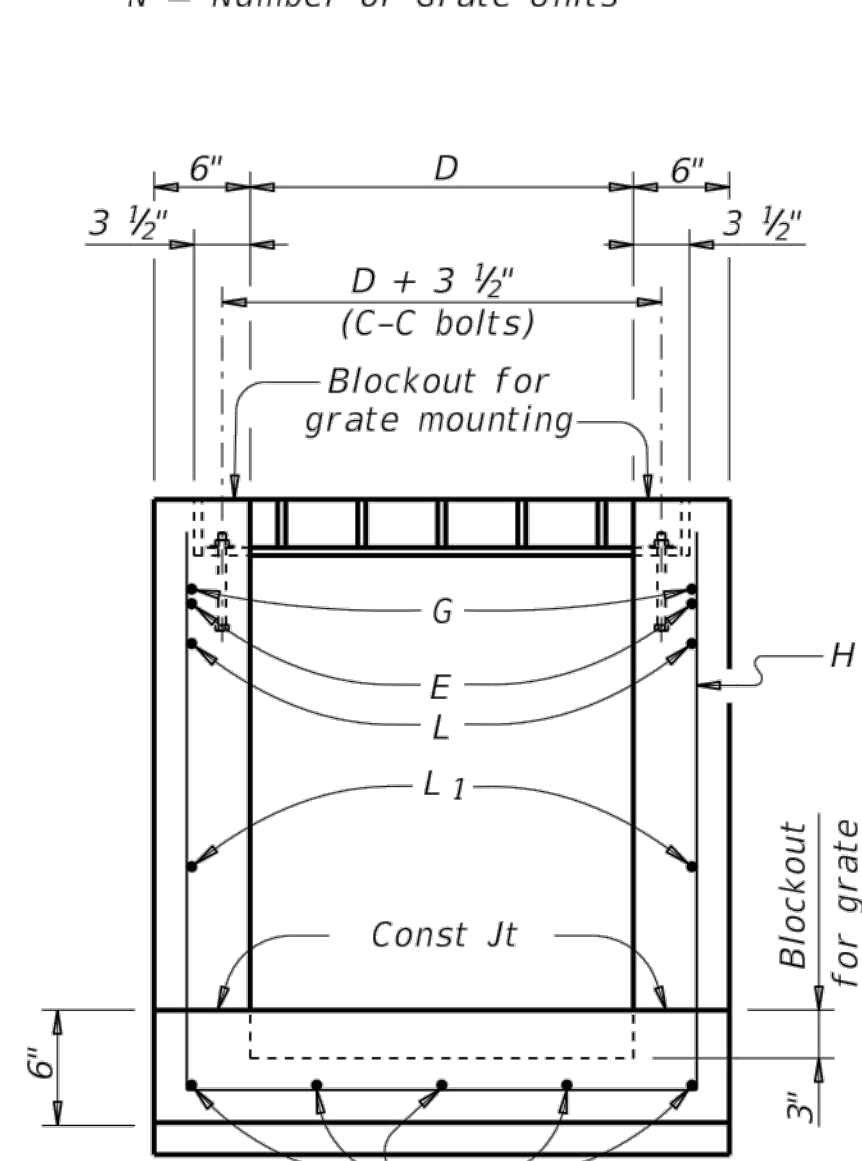
PLAN ~ GRATE



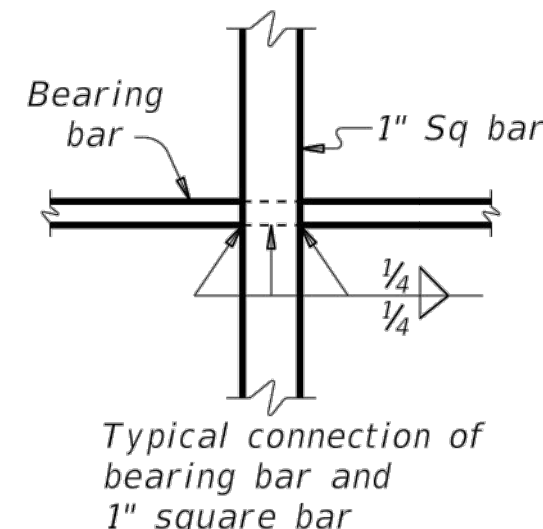
ELEVATION ~ GRATE

SLOPE	Y	N	DIA OF PIPE = D	GRATE QUANTITIES															TOTAL WEIGHT	
				BEARING BARS at 5" C-C				INTERIOR ANGLES				END ANGLES				1" SQUARE BARS				
				No.	Size	Lg/N	Wgt	No.	Size	Length	Wgt	No.	Size	Length	Wgt	No.	Length	Wgt	Lb	
6:1	4 1/2"	2	18"	8	2 1/2"x 1/2"	6'-5 5/8"	220	2	3"x 3"x 1/2"	2'-0 1/2"	38	2	3"x 3"x 1/2"	1'- 5"	27	2	1'-4 1/2"	9	294	
6:1	5"	2	24"	10	2 1/2"x 1/2"	8'-1 3/8"	345	2	3"x 3"x 1/2"	2'-6 1/2"	48	2	3"x 3"x 1/2"	1'-11"	36	2	1'-9 1/2"	12	441	
6:1	5 1/2"	3	30"	18	2 1/2"x 1/2"	6'-6 1/8"	498	4	3"x 3"x 1/2"	3'-0 1/2"	114	2	3"x 3"x 1/2"	2'- 5"	45	3	2'-2 1/2"	23	680	
6:1	6"	3	36"	21	2 1/2"x 1/2"	7'-7 1/4"	679	4	3"x 3"x 1/2"	3'-6 1/2"	133	2	3"x 3"x 1/2"	2'-11"	55	3	2'-7 1/2"	27	894	
6:1	6 1/2"	3	42"	24	2 1/2"x 1/2"	8'-8 3/8"	888	4	3"x 3"x 1/2"	4'-0 1/2"	152	2	3"x 3"x 1/2"	3'- 5"	64	3	3'-0 1/2"	31	1,135	
6:1	4 1/2"	4	48"	40	2 1/2"x 1/2"	7'-4 1/8"	1249	6	3"x 3"x 1/2"	4'-6 1/2"	256	2	3"x 3"x 1/2"	3'-11"	74	4	3'-10 1/2"	53	1,632	

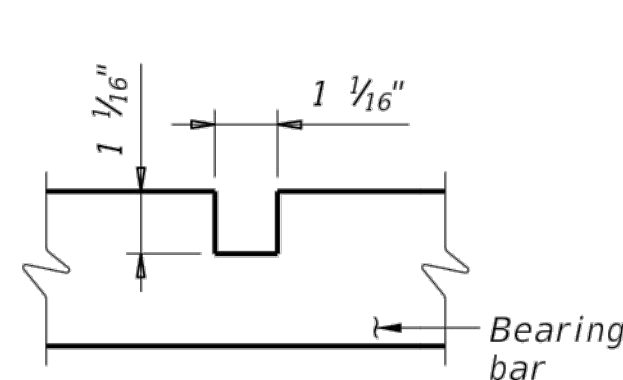
Note: For pipe sizes of 21", 27" and 33" use inlets for pipe sizes 24", 30" and 36", respectively.
N = Number of Grate Units



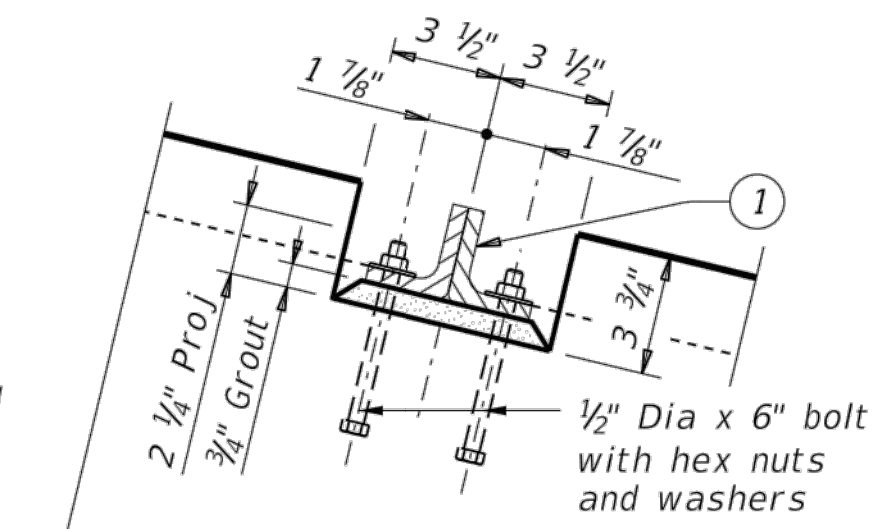
SECTION A-A



DETAIL "A"



GRATE DETAILS



GRATE MOUNTING DETAIL

① Interior angles with 4 ~ 1/2" dia x 6" bolts, hex nuts, and washers

GENERAL NOTES:

Quantities shown are for one end of one pipe culvert.
Quantities shown are for Contractor's information only.
Unless otherwise shown in the plans, payment will be made for each inlet of the type specified.

When approved, precast inlets with equivalent structural capacity may be furnished. Submit sealed engineering calculations and drawings for precast inlets for approval prior to construction.

Shop drawings will not be required.
In areas of conflict between reinforcing steel, blockouts, pipes, anchor bolts or other reinforcing steel, bend or adjust reinforcement to clear as directed by the Engineer.

Provide structural steel for grates conforming to the requirements of ASTM A36.
Provide bolts conforming to the requirements of ASTM A307. Hex nuts must conform to ASTM A563.

Provide (#4) reinforcing steel unless otherwise noted.
Galvanize steel components except reinforcing, after fabrication, in accordance with Item 445 "Galvanizing."

Repair galvanizing damaged during transport or construction in accordance with the specifications.
Provide Class "A" concrete (f'c = 3,000 psi).

Cover dimensions are clear dimensions, unless noted otherwise.
Reinforcing bar dimensions shown are out-to-out of bar.



Bridge Division Standard

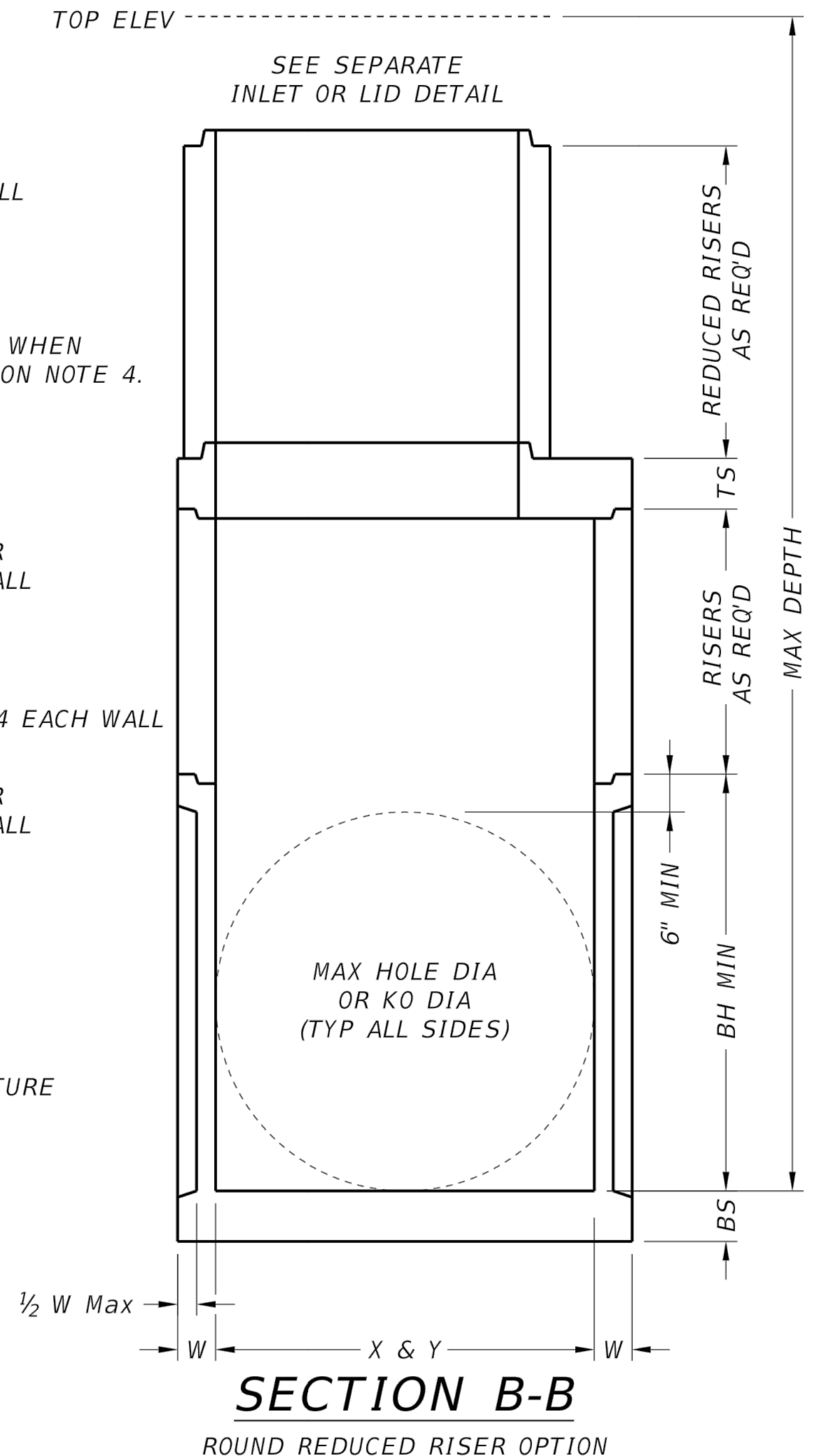
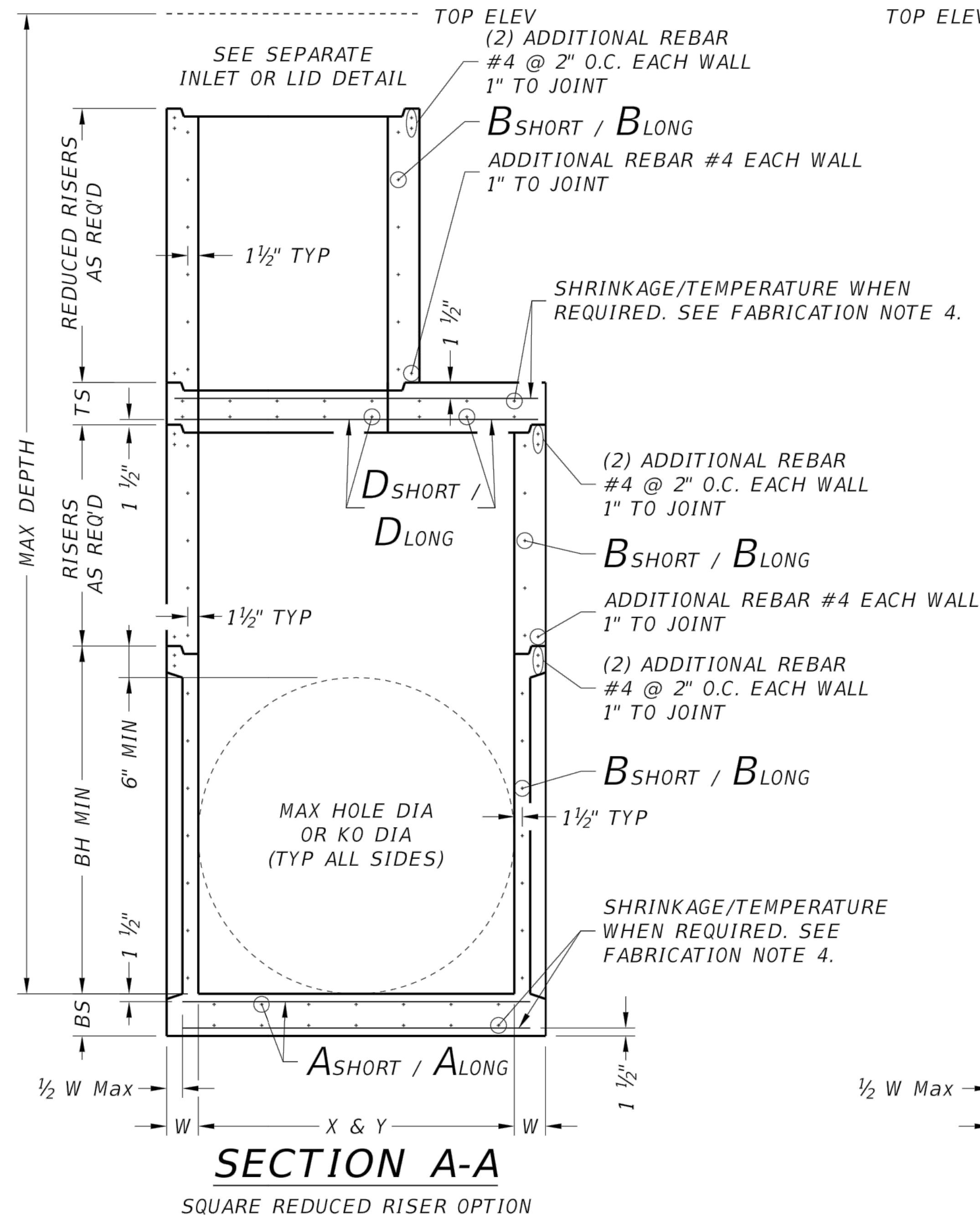
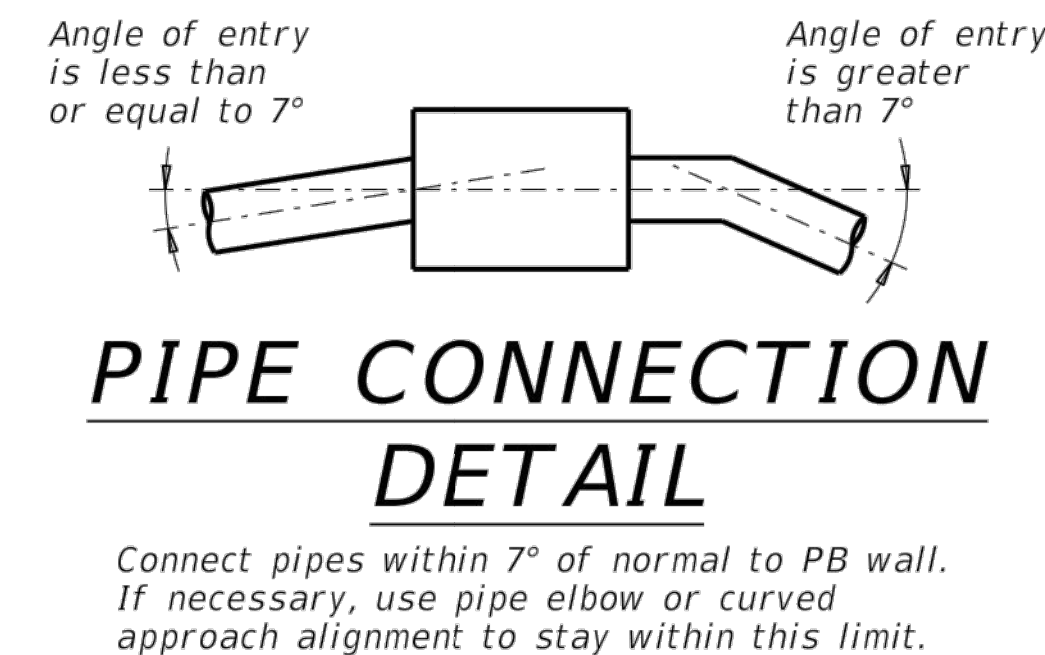
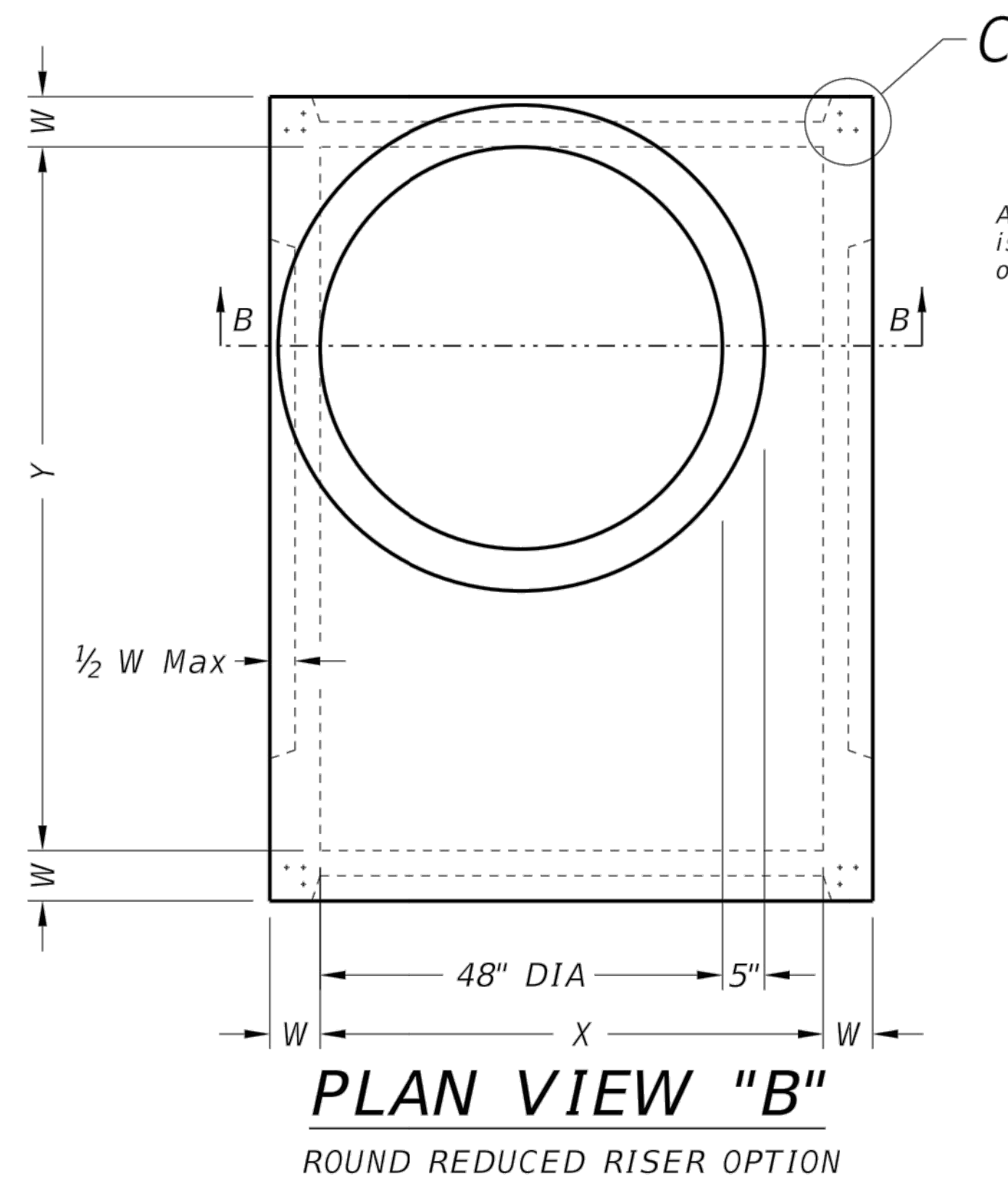
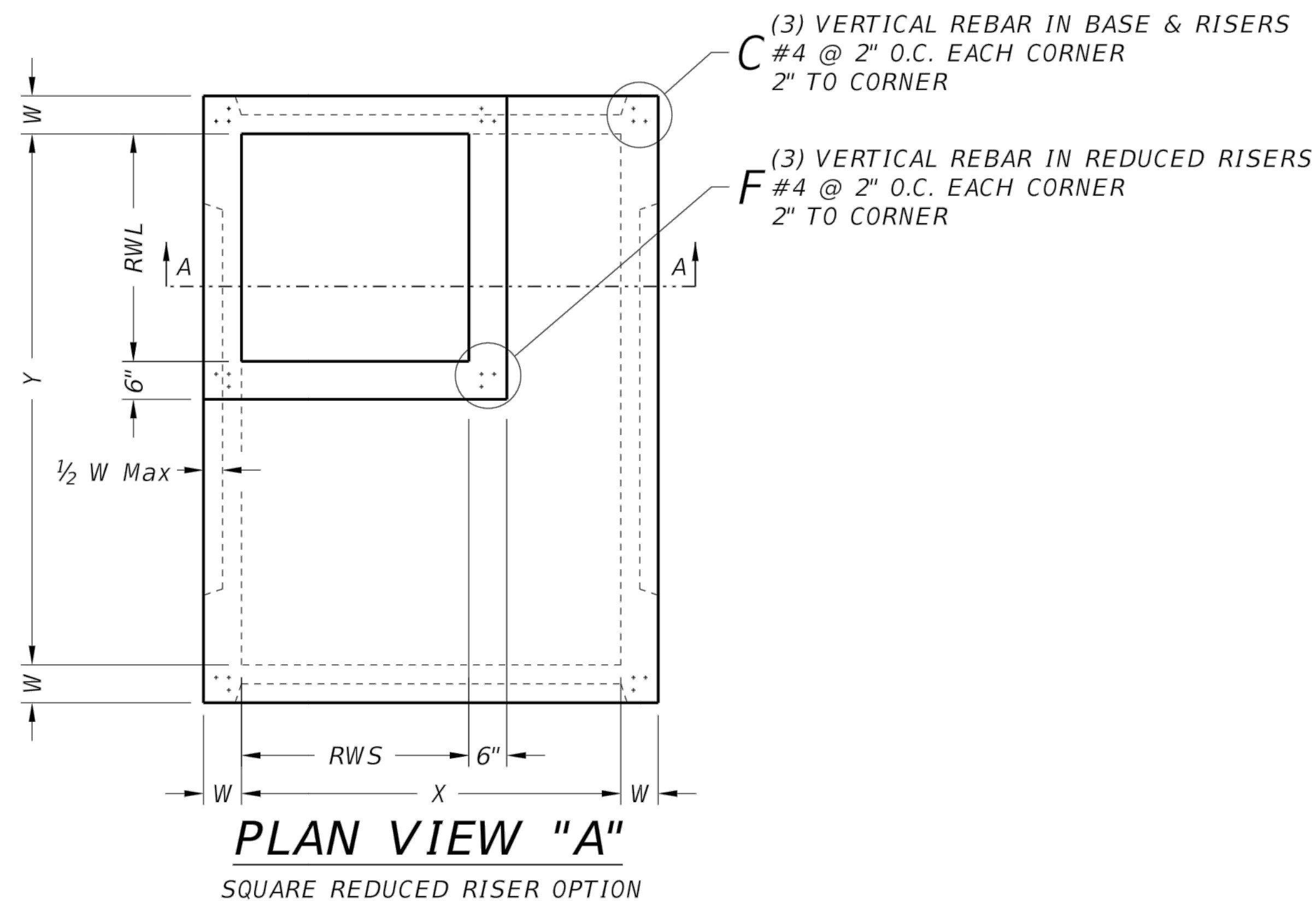
SLOPING INLET TYPE S
(18" to 48" PIPES)

IL-S

FILE: il-sstd-e-16.dgn	DN: TxDOT	CK: TER	DW: MCB	CK: TER/GAF
©TxDOT February 2010	CONT	SECT	JOB	HIGHWAY
REVISIONS				
10-16: Pipe Connection Notes.	DIST	COUNTY		SHEET NO. C007

RECORD DRAWING
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SIGN: *Chadley Amigo*
DATE: 03/28/2019
Glenn Engineering Corporation

DATE: _____
FILE: _____



Cover dimensions are clear dimensions, unless noted otherwise.

FABRICATION NOTES:

1. Provide Class "H" concrete in accordance with Item 421 and having a minimum compressive strength of 5,000 psi.
2. Provide Grade 60 reinforcing steel or equivalent area of WWR.
3. Provide typical clear cover of 1 1/2" to reinforcing steel at interior or exterior walls.
4. Walls or slabs with a thickness of 8" or greater require shrinkage and temperature reinforcing steel. Provide steel area = 0.11 in²/ft each way.
5. No substitution is allowed for vertical and horizontal #4 bars in corners.
6. Manufacture base and risers to nearest 3" increment.
7. Design tongue and groove joints for full closure on both shoulders. Minimum spigot depth is 3/4".
8. Provide lifting devices in conformance with Manufacturer's recommendations.
9. See sheet PDD for sizes, dimensions, and reinforcing steel not shown.

INSTALLATION NOTES:

1. Inverts (benching) to be provided by Contractor. Concrete or mortar used for invert is subsidiary to specified inlet or manhole.
2. Seal tongue and groove joints with preformed or bulk mastic in conformance with Manufacturer's recommendations. Tongue and groove joints may be grouted no more than 1" between each section, or 1/2 the joint depth, whichever is greater.
3. Do not grout rubber gasket joints without Manufacturer's recommendation.
4. For rigid pipe, cut hole in thin wall panel (KO) 4" Max, 2" Min larger than pipe OD.
5. For flexible pipe, consult boot/seal Manufacturer's specification for placement tolerance and hole size. Center pipe in hole and install boot/seal per Manufacturer's specification.

GENERAL NOTES:

1. Precast Base consists of base slab, base unit, risers (as required), reducing slab (as required), and reduced risers (as required). See sheet PDD for sizes.
2. Designed according to ASTM C913.
3. Payment for precast base is subsidiary to the specified inlet, per Item 465, "Junction Boxes, Manholes, and Inlets."

RECORD DRAWING
THIS IS TO CERTIFY THAT CHANGES AND
CORRECTIONS HAVE BEEN MADE TO
CONFORM TO THE CONTRACTOR'S RECORD
OF THIS PROJECT.

SIGN: Cheryl Ann

DATE: 03/28/2019

Glenn Engineering Corporation

HL93 LOADING					Texas Department of Transportation		Bridge Division Standard				
PRECAST BASE											
PB											
FILE: prestd01.dgn				DN: TxDOT		CK: TxDOT		DW: TxDOT		CK: TxDOT	
©TxDOT January 2015				CONT SECT		JOB		HIGHWAY			
REVISIONS				DIST		COUNTRY		SHEET NO.			
								C008			

DATE: _____
FILE: _____



1. Precast Junction Box consists of base slab, base unit, risers (as required), and below grade slab. See sheet PDD for sizes.
2. Designed according to ASTM C913.
3. Payment for junction box is per Item 465 "Junction Boxes, Manholes, and Inlets" by type and size.



Cover dimensions are clear dimensions, unless noted otherwise.

FILE:	prest09.dgn		DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
©TxDOT	January 2015		CONT	SECT	JOB	HIGHWAY
REVISIONS						
	DIST	COUNTY			SHEET NO.	
					C009	

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DATE:
FILE:

	Size	MAX DEPTH = 15 ft. to top of BASE SLAB										MAX DEPTH = 25 ft. to top of BASE SLAB										Min Height (See Gen Note 3)	Max HOLE DIA (See Fab Note 2)	Max KO DIA (See Fab Note 2)
		Base Slab			Base Unit or Riser Walls			Below Grade Slab (w/PJB) Reducing Slab (w/PB)				Base Slab			Base Unit or Riser Walls			Below Grade Slab (w/PJB) Reducing Slab (w/PB)						
		Short Span Reinf Steel Area	Long Span Reinf Steel Area	Thickness	Short Span Reinf Steel Area	Long Span Reinf Steel Area	Thickness	Reduced Riser Size	Short Span Reinf Steel Area	Long Span Reinf Steel Area	Thickness	Short Span Reinf Steel Area	Long Span Reinf Steel Area	Thickness	Short Span Reinf Steel Area	Long Span Reinf Steel Area	Thickness	Reduced Riser Size	Short Span Reinf Steel Area	Long Span Reinf Steel Area	Thickness			
		X x Y	Ashort	Along	BS	Bshort	Blong	W	RWSxRWL or ID	Dshort	Dlong	TS	Ashort	Along	BS	Bshort	Blong	W	RWSxRWL or ID	Dshort	Dlong			
	ft.	in ² /ft	in ² /ft	in.	in ² /ft	in ² /ft	in.	ft. **	in ² /ft	in ² /ft	in.	in ² /ft	in ² /ft	in.	in ² /ft	in ² /ft	in.	ft. **	in ² /ft	in ² /ft	in.	ft.	in.	in.
Precast Junction Box (PJB)	3x3	0.23	0.23	6	0.19	0.19	6	N/A	0.37	0.37	9	0.29	0.29	6	0.24	0.24	6	N/A	0.37	0.37	9	3.5	36	36
	4x4	0.29	0.29	6	0.24	0.24	6	N/A	0.41	0.41	9	0.47	0.47	6	0.38	0.38	6	N/A	0.41	0.41	9	4.5	48	48
	3x5	0.29	0.18	6	0.19	0.35	6	N/A	0.48	0.48	9	0.39	0.18	6	0.23	0.59	6	N/A	0.48	0.48	9	3.5	36/60	36/60
	4x5	0.36	0.18	6	0.22	0.34	6	N/A	0.42	0.42	9	0.53	0.26	6	0.39	0.59	6	N/A	0.42	0.42	9	4.5	48/60	48/60
	5x5	0.36	0.36	6	0.34	0.34	6	N/A	0.43	0.43	9	0.62	0.62	6	0.59	0.59	6	N/A	0.43	0.43	9	5.5	60	60
	5x6	0.27	0.27	9	0.34	0.45	6	N/A	0.48	0.48	9	0.47	0.45	9	0.38	0.54	8	N/A	0.48	0.48	9	5.5	60/72	60/72
	6x6	0.27	0.27	9	0.45	0.45	6	N/A	0.56	0.56	9	0.52	0.52	9	0.54	0.54	8	N/A	0.56	0.56	9	6.5	72	72
	8x8	0.46	0.46	9	0.51	0.51	8	N/A	0.45	0.45	12	0.87	0.87	9	0.59	0.59	10	N/A	0.45	0.45	12	8.5	96	72
Precast Base (PB)	3x3	0.23	0.23	6	0.19	0.19	6	N/A	N/A	N/A	N/A	0.29	0.29	6	0.24	0.24	6	N/A	N/A	N/A	N/A	3.5	36	36
	4x4	0.29	0.29	6	0.24	0.24	6	N/A	N/A	N/A	N/A	0.47	0.47	6	0.38	0.38	6	N/A	N/A	N/A	N/A	4.5	48	48
	3x5	0.29	0.18	6	0.19	0.35	6	3x3	0.30	0.34	9	0.39	0.18	6	0.23	0.59	6	3x3	0.40	0.40	9	3.5	36/60	36/60
	4x5	0.36	0.18	6	0.22	0.34	6	3x3	0.30	0.30	9	0.53	0.26	6	0.39	0.59	6	3x3	0.46	0.37	9	4.5	48/60	48/60
	4x5	0.36	0.18	6	0.22	0.34	6	4x4	0.30	0.30	9	0.53	0.26	6	0.39	0.59	6	4x4	0.39	0.39	9	4.5	48/60	48/60
	4x5	0.36	0.18	6	0.22	0.34	6	48"	0.39	0.39	9	0.53	0.26	6	0.39	0.59	6	48"	0.47	0.47	9	4.5	48/60	48/60
	4x5	0.36	0.18	6	0.22	0.34	6	3x5	0.33	0.40	9	0.53	0.26	6	0.39	0.59	6	3x5	0.48	0.48	9	4.5	48/60	48/60
	5x5	0.36	0.36	6	0.34	0.34	6	3x3	0.34	0.34	9	0.62	0.62	6	0.59	0.59	6	3x3	0.53	0.53	9	5.5	60	60
	5x5	0.36	0.36	6	0.34	0.34	6	4x4	0.36	0.36	9	0.62	0.62	6	0.59	0.59	6	4x4	0.64	0.64	9	5.5	60	60
	5x5	0.38	0.38	6	0.34	0.34	6	48"	0.36	0.36	9	0.62	0.62	6	0.59	0.59	6	48"	0.64	0.64	9	5.5	60	60
	5x5	0.36	0.36	6	0.34	0.34	6	3x5	0.34	0.40	9	0.62	0.62	6	0.59	0.59	6	3x5	0.53	0.53	9	5.5	60	60
	5x6	0.31	0.31	9	0.34	0.45	6	3x3	0.34	0.34	9	0.47	0.45	9	0.38	0.54	8	3x3	0.61	0.50	9	5.5	60/72	60/72
	5x6	0.27	0.27	9	0.34	0.45	6	4x4	0.36	0.45	9	0.47	0.45	9	0.38	0.54	8	4x4	0.74	0.57	9	5.5	60/72	60/72
	5x6	0.29	0.29	9	0.34	0.45	6	48"	0.36	0.45	9	0.47	0.45	9	0.38	0.54	8	48"	0.74	0.57	9	5.5	60/72	60/72
	5x6	0.29	0.29	9	0.34	0.45	6	3x5	0.45	0.45	9	0.47	0.45	9	0.38	0.54	8	3x5	0.61	0.61	9	5.5	60/72	60/72
	6x6	0.29	0.29	9	0.45	0.45	6	3x3	0.41	0.41	9	0.52	0.52	9	0.54	0.54	8	3x3	0.74	0.74	9	6.5	72	72
	6x6	0.27	0.27	9	0.45	0.45	6	4x4	0.45	0.45	9	0.52	0.52	9	0.54	0.54	8	4x4	0.87	0.87	9	6.5	72	72
	6x6	0.29	0.29	9	0.45	0.45	6	48"	0.45	0.45	9	0.52	0.52	9	0.54	0.54	8	48"	0.87	0.87	9	6.5	72	72
	6x6	0.29	0.29	9	0.45	0.45	6	3x5	0.45	0.45	9	0.52	0.52	9	0.54	0.54	8	3x5	0.87	0.87	9	6.5	72	72
	8x8	0.52	0.52	9	0.51	0.51	8	3x3	0.61	0.61	12	0.91	0.91	9	0.70	0.70	10	3x3	0.85	0.85	12	8.5	96	72
	8x8	0.52	0.52	9	0.51	0.51	8	4x4	0.70	0.70	12	0.87	0.87	9	0.70	0.70	10	4x4	1.01	1.01	12	8.5	96	72
	8x8	0.52	0.52	9	0.51	0.51	8	48"	0.70	0.70	12	0.87	0.87	9	0.70	0.70	10	48"	1.01	1.01	12	8.5	96	72
	8x8	0.52	0.52	9	0.51	0.51	8	3x5	0.70	0.85	12	0.87	0.87	9	0.70	0.70	10	3x5	1.01	1.01	12	8.5	96	72

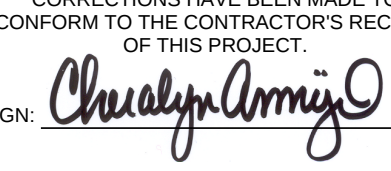
** Unless otherwise indicated.

FABRICATION NOTES:

- Maximum spacing of reinforcement is 8".
- At manufacturer's option, provide cast or cored holes or thin wall panels (KO) to the maximum diameter shown for each. When no penetration is required, it is acceptable to provide a wall with no sectional reduction.

GENERAL NOTES:

- Precast Junction Box consists of base slab, base unit, risers (as required), and below grade slab. See sheet PJB for details.
- Precast Base consists of base slab, base unit, risers (as required), reducing slab (as required), and reduced risers (as required). See sheet PB for details.
- Min Height shown is for stock base units. Use stock base units whenever practical. Smaller height base units can be used in special installation circumstances, when noted elsewhere in the plans. Absolute minimum height of base units is 2'-6".

RECORD DRAWING
THIS IS TO CERTIFY THAT CHANGES AND CORRECTIONS HAVE BEEN MADE TO CONFORM TO THE CONTRACTOR'S RECORD OF THIS PROJECT.

SIGN:
DATE: 03/28/2019
Glenn Engineering Corporation

HL93 LOADING

Texas Department of Transportation

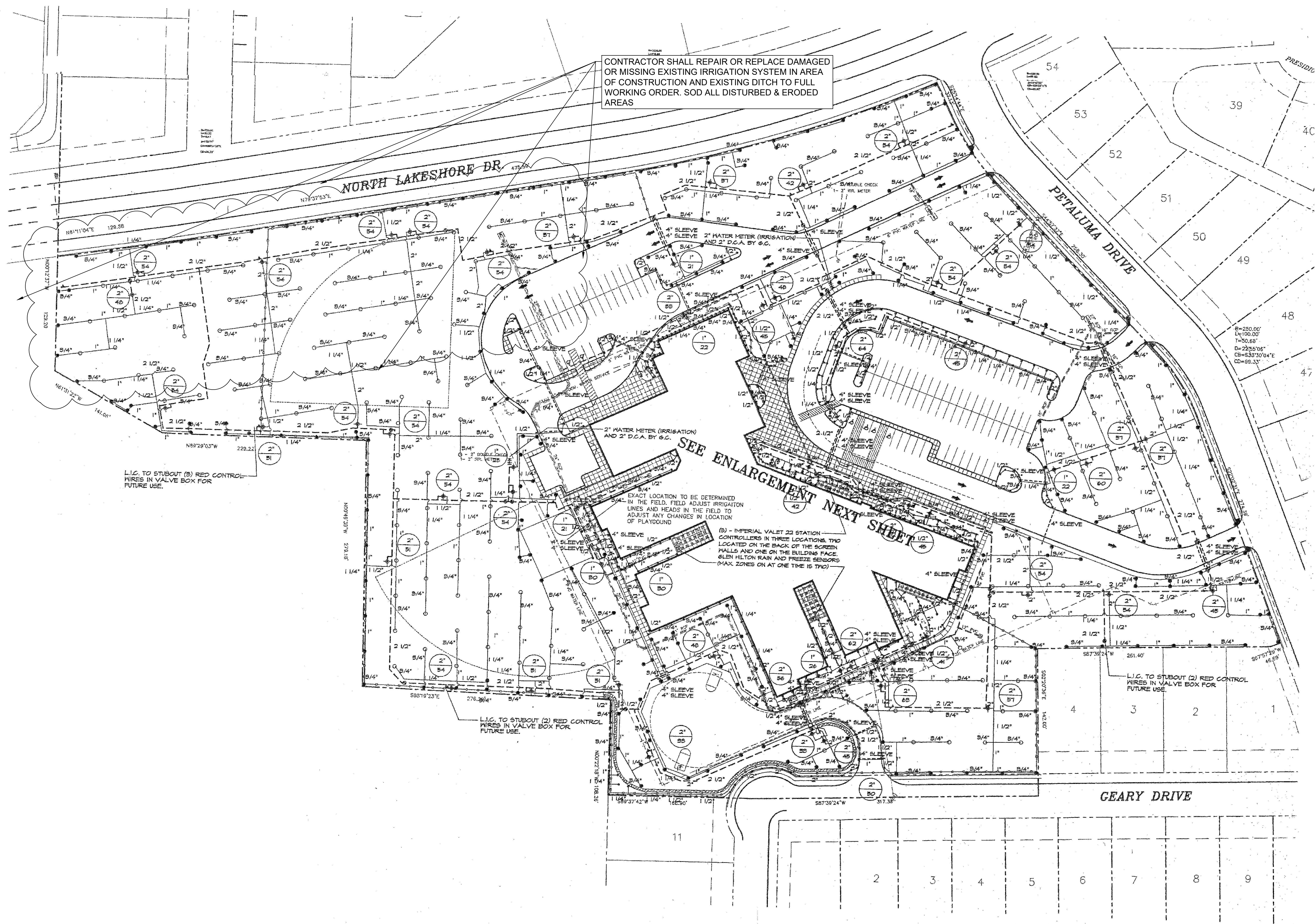
Bridge Division Standard

DESIGN DATA FOR
PRECAST BASE AND
JUNCTION BOX

PDD

FILE: prestd10.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
©TxDOT January 2015	CONT	SECT	JOB	HIGHWAY
REVISIONS				
	COUNTY			SHEET NO.
				C010

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SAVED: 02/21/2018 10:04 AM
PLOTTED: 02/28/2019 10:17 AM



CONTRACTOR SHALL REPAIR OR REPLACE DAMAGED OR MISSING EXISTING IRRIGATION SYSTEM IN AREA OF CONSTRUCTION AND EXISTING DITCH TO FULL WORKING ORDER. SOD ALL DISTURBED & ERODED AREAS

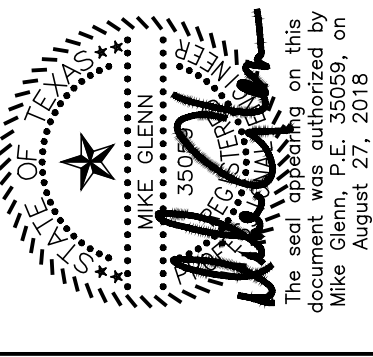
IRRIGATION NOTES

1. ALL LOCATIONS OF THE EXISTING IRRIGATION SHOWN ON THESE PLANS WERE DERIVED FROM FIELD INSPECTIONS AND EXISTING DESIGN DRAWINGS. THEY IN NO WAY GUARANTEE THE EXACT LOCATION OF ANY OF THE IRRIGATION EQUIPMENT OR LINES THAT EXIST ON THE SITE.
2. THE EXISTING IRRIGATION SYSTEM SHALL NOT BE DISABLED FOR MORE THAN 48 HOURS FOR ANY REASON. IF THE EXISTING SYSTEM IS DISABLED FOR 48 HOURS, IT SHALL NOT BE DISABLED AGAIN DURING NORMAL WATERING SCHEDULE UNTIL IT HAS COMPLETED TWO FULL WATERINGS OF THE ENTIRE SITE. IT MAY BE INTERRUPTED FOR A SHORTER AND MORE FREQUENT INTERVAL BUT THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THAT THE NORMAL WATERING SCHEDULE IS COMPLETED.
3. IRRIGATION CONTRACTOR IS RESPONSIBLE FOR PROPERLY REPAIRED AND FUNCTIONING IRRIGATION SYSTEM IN ALL AREAS IN OR ADJACENT TO CONSTRUCTION AND CONTROLLERS. ALL DISTURBED IRRIGATION AREAS WILL BE REPAIRED OR COMPLETELY REPLACED TO PROVIDE FULL IRRIGATION FOR THE AREAS SHOWN ON THE PLANS.
4. ALL REPAIRED AND REPLACED IRRIGATION SHALL BE INSTALLED PER THE SPECIFICATIONS.
5. ANY DEVIATION FROM THE SPECIFICATIONS AND PLANS WILL REQUIRE THE IRRIGATION CONTRACTOR TO OBTAIN APPROVAL FROM THE OWNER.
6. IF THE IRRIGATION SYSTEM IS DAMAGED DURING THE CONSTRUCTION PROCESS THE GENERAL CONTRACTOR AND IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING AND RESTORING THE EXISTING SYSTEM TO WORKING STATUS WITHIN 24 HOURS OF WHEN THE DAMAGED OCCURRED.
7. IRRIGATION CONTRACTOR IS RESPONSIBLE FOR RAISING OR LOWERING HEADS IN AREAS WHERE GRADING IS TAKING PLACE AND THERE IS NO RE-DESIGN OF THE IRRIGATION SYSTEM.

EXISTING IRRIGATION NOTES

1. PRIOR TO CONSTRUCTION OR DISTURBANCE OF EXISTING IRRIGATION, THE GENERAL CONTRACTOR SHALL NOTIFY OWNER TWO WEEKS PRIOR TO DISTURBANCE TO ALLOW OWNER TO SALVAGE ANY EXISTING EQUIPMENT THAT WILL BE DISTURBED.
2. PRIOR TO CONSTRUCTION OR DISTURBANCE OF EXISTING IRRIGATION THE IRRIGATION CONTRACTOR, GENERAL CONTRACTOR AND THE OWNER SHALL MEET ON SITE TO REVIEW EXISTING IRRIGATION. FIELD NOTES SHALL BE MADE BY THE GENERAL CONTRACTOR AS TO THE LIMITS AND CONDITION OF THE EXISTING SYSTEM. ALL MAINLINE AND WIRES IN THE AREA WHERE CONSTRUCTION WILL DISTURB OR DAMAGE THE EXISTING SYSTEM SHALL BE RELOCATED OR STUBBED OUT PRIOR TO CONSTRUCTION.
3. EXISTING IRRIGATION ON THE SITE, EXCEPT FOR THE IMMEDIATE CONSTRUCTION AREA, SHALL BE KEPT IN WORKING CONDITION. ANY TEMPORARY MEASURES TO KEEP THE ENTIRE SITE IRRIGATED SHALL BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR.
4. ALL PLANT MATERIAL ON SITE IS WATERED BY AN EXISTING IRRIGATION SYSTEM. IRRIGATION MAINLINE IS LOOPED AROUND EXISTING BUILDING. LOOP SHALL BE MAINTAINED AS NEEDED TO WATER EXISTING PLANTS TO KEEP THEM HEALTHY. HAND WATERING MAY BE NECESSARY.
5. GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR MAINTAINING HEALTH OF EXISTING PLANTS DURING CONSTRUCTION. THIS INCLUDES BUT IS NOT LIMITED TO TEMPORARY OR HAND WATERING. MAINTENANCE ON SITE, EXCEPT FOR THE IMMEDIATE CONSTRUCTION AREA WILL BE COMPLETED BY THE OWNER.

GLENN ENGINEERING
TEXAS REGISTRATION NUMBER: F-303
PHONE (972) 717-5151
105 DECKER COURT, SUITE 970
IRVING, TEXAS 75062
FAX (972) 717-2176



HARTMAN ELEMENTARY SCHOOL
ROCKWALL, TEXAS
CSP# 1819-07.002

IRRIGATION REPAIRS

Revisions:

1	7/17/18	Addendum #1
2	8/27/18	City Comments

Issue Dates:

Review:	
Permit:	
Construction:	

Scale:	As Shown
Drawn By:	KKE
Checked By:	CMG
Project:	CSP # 1819-07.002

Sheet

C011

RECORD DRAWING
THIS IS TO CERTIFY THAT CHANGES AND CORRECTIONS HAVE BEEN MADE TO CONFORM TO THE CONTRACTOR'S RECORD OF THIS PROJECT.

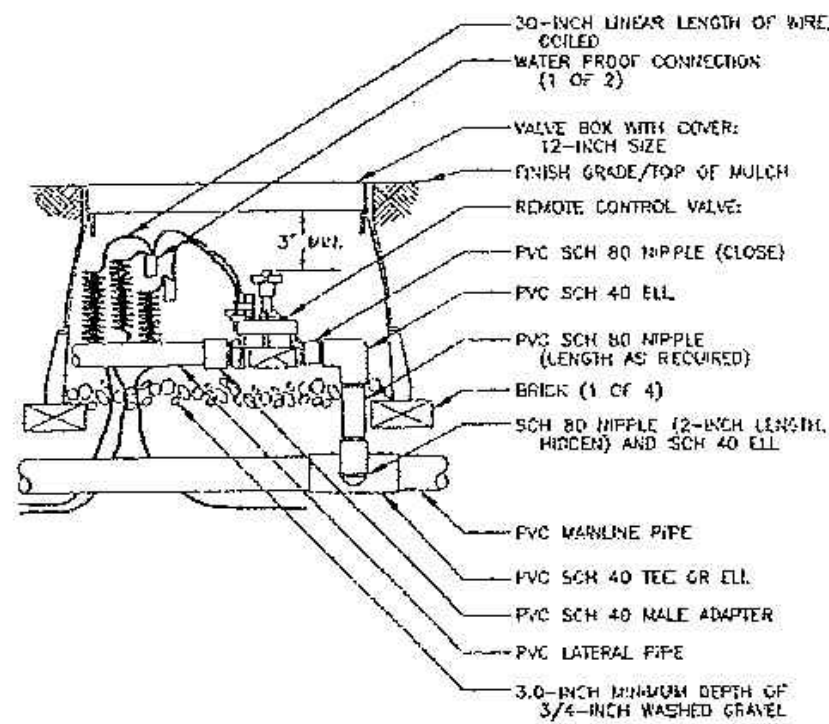
SIGN: *Cheryl Amey*

DATE: 03/28/2019

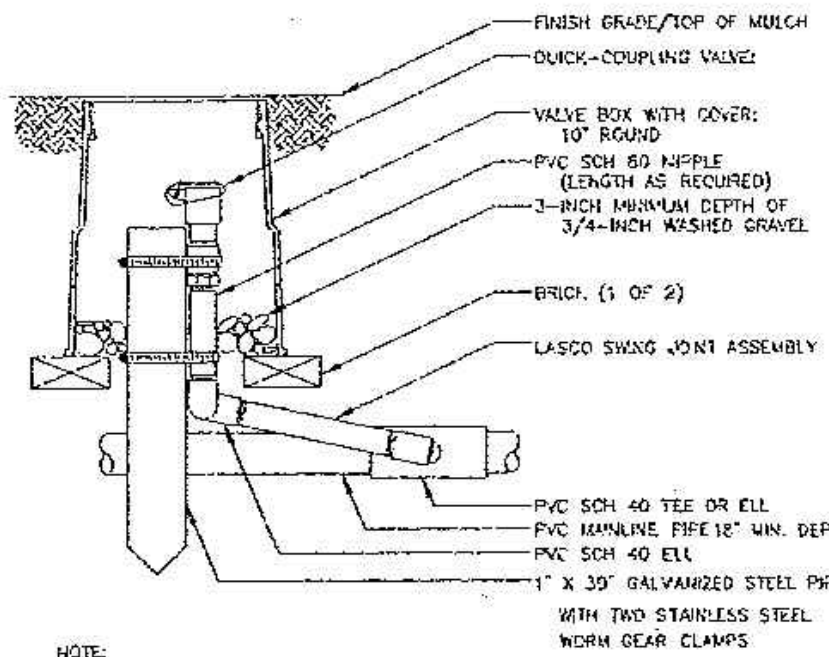
Glenn Engineering Corporation

THIS SHEET IS FOR REFERENCE ONLY

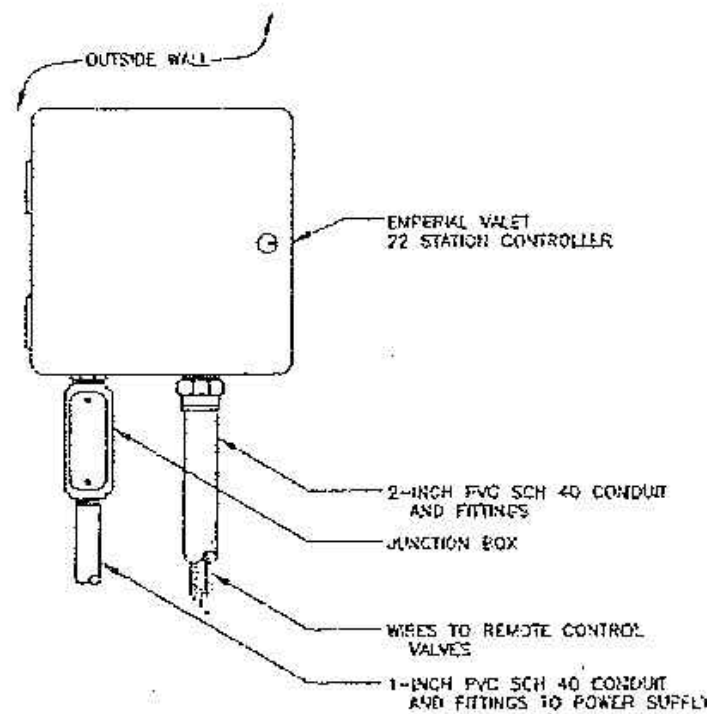
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PLOTTED: 03/28/2019 10:18 AM



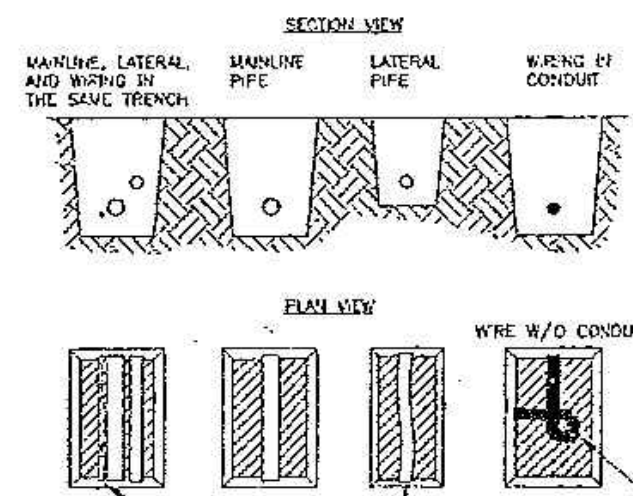
REMOTE CONTROL VALVE



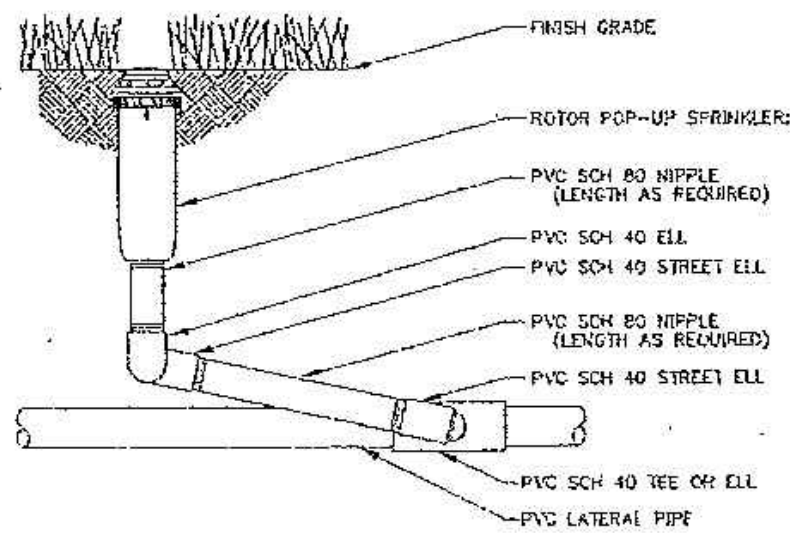
QUICK COUPLING VALVE



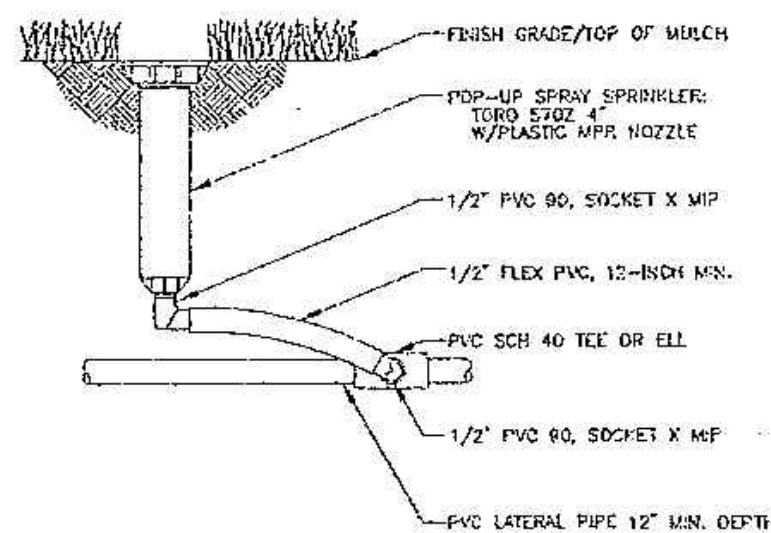
CONTROLLER



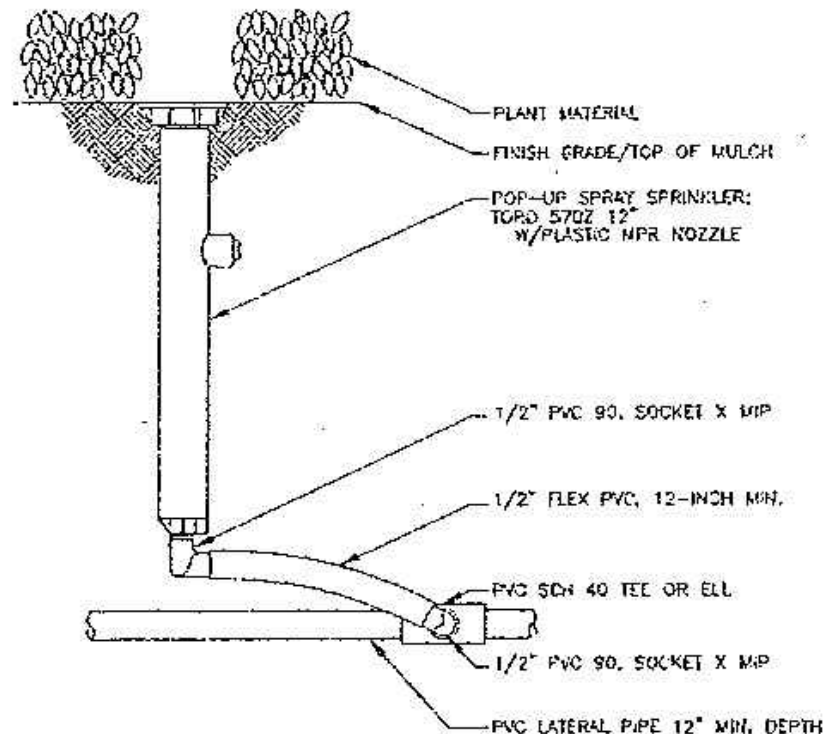
TRENCH DETAIL



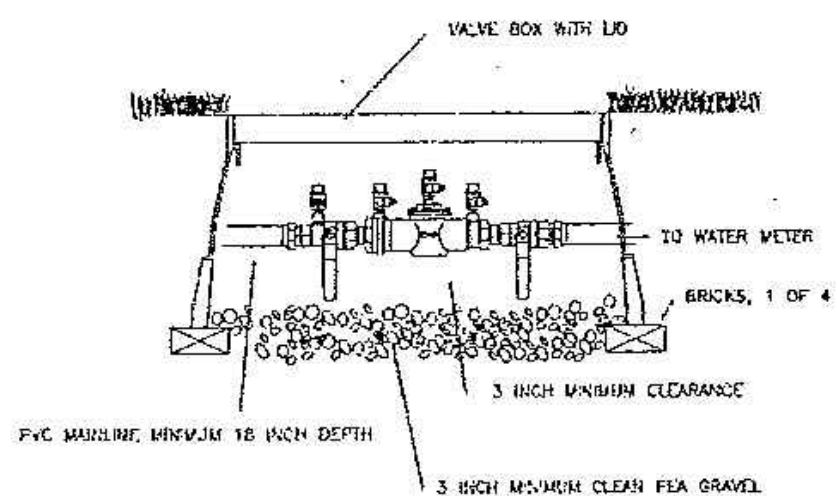
ROTOR POP-UP SPRINKLER



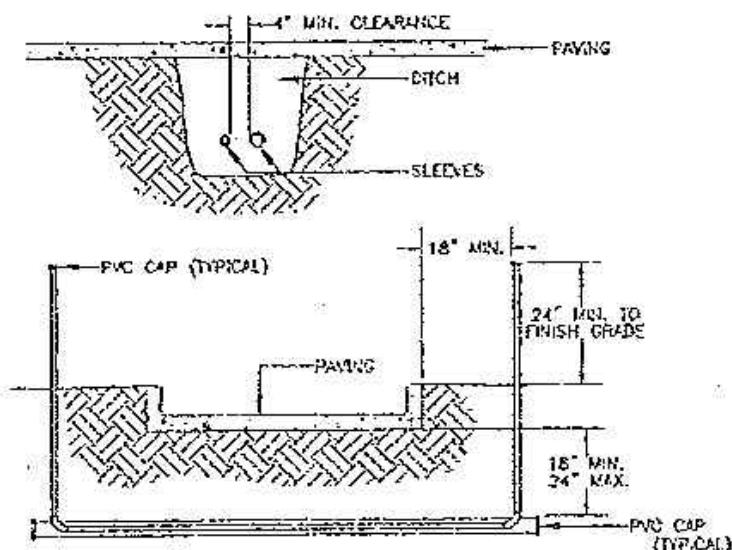
POP-UP SPRAY HEAD



HIGH POP-UP SPRAY HEAD



BACKFLOW PREVENTOR



- NOTES:
1. ALL PVC IRRIGATION SLEEVES TO BE CLASS 200 PIPE
 2. ALL JOINTS TO BE SOLVENT WELDED AND WATERPROOFED
 3. WHERE THERE IS MORE THAN ONE SLEEVE, EXTEND THE SMALLER SLEEVE TO 24-INCHES MINIMUM ABOVE FINISH GRADE.
 4. MECHANICALLY TAMP TO 95% PROCTOR.

SLEEVING

INSTALLATION NOTES

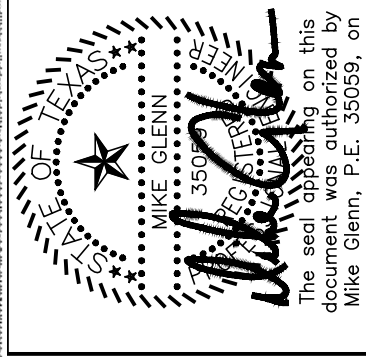
1. COORDINATE IRRIGATION INSTALLATION WITH PLANTING PLAN AND SITE CONDITIONS TO PROVIDE COMPLETE COVERAGE WITH MINIMUM OVERSPRAY. THE IRRIGATION CONTRACTOR SHALL MAKE MINOR ADJUSTMENTS TO ENSURE PROPER COVERAGE AT NO ADDITIONAL COST TO THE OWNER.
2. CONFIRM STATIC WATER PRESSURE OF 65 PSI AT LEAST 7 DAYS BEFORE BEGINNING WORK. IF STATIC WATER PRESSURE IS LESS THAN STATED ABOVE, DO NOT PROCEED UNTIL DIRECTED SO BY THE LANDSCAPE ARCH.
3. THE IRRIGATION CONTRACTOR WILL SECURE ALL REQUIRED PERMITS AND PAY ALL ASSOCIATED FEES UNLESS OTHERWISE NOTED. ALL LOCAL CODES SHALL PREVAIL OVER ANY DISCREPANCIES HEREIN.
4. LATERAL PIPE SHALL BE INSTALLED AT A MINIMUM DEPTH OF 12 INCHES. MAINLINE PIPE AND WIRES SHALL BE INSTALLED AT A MINIMUM DEPTH OF 18 INCHES.
5. UNSLEEVED PIPES MAY BE SHOWN UNDER PAVEMENT FOR GRAPHIC CLARITY ONLY. INSTALL THESE PIPES IN ADJACENT LANDSCAPED AREAS.
6. ELECTRIC POWER SHALL BE PROVIDED WITHIN FIVE FEET OF CONTROLLER LOCATION BY GENERAL CONTRACTOR. I.E. TO PROVIDE FINAL HARD-WIRE TO CONTROLLER.
7. 24 VOLT VALVE WIRE SHALL BE A MINIMUM OF #14 GAUGE, U.P. APPROVED FOR DIRECT BURIAL, SINGLE CONDUCTOR 'IRRIGATION WIRE'. WIRE SPLICES SHALL BE ENCASED IN A WATERPROOF COMPOUND OR GEL. (KINS 470) ALL FIELD SPLICES SHALL BE LOCATED IN A ROUND VALVE BOX OF SUFFICIENT SIZE TO ALLOW INSPECTION.
8. VALVE BOXES SHALL BE INSTALLED FLUSH WITH GRADE; SUPPORTED BY BRICKS IF NEEDED, WITH 3 INCHES OF CLEAN FEA GRAVEL LOCATED BELOW THE VALVE. USE 10" ROUND VALVE BOXES FOR ELECTRIC VALVES AND QUICK COUPLING VALVES UNLESS NOTED OTHERWISE. D.C.A.S SHALL BE BOXED ACCORDING TO LOCAL CODES.
9. USE LASCO O-RING SWING JOINT ASSEMBLIES TO CONNECT ALL ROTARY HEADS AND QUICK COUPLERS.
10. ALL SPRAY HEADS SHALL BE CONNECTED WITH A 12" MINIMUM LENGTH OF 1/2" FLEX PVC. THE FLEX PVC SHALL BE SOLVENT WELDED TO SCHEDULE 40 PVC FITTINGS WITH WELD-ON #145 SOLVENT AND #P-10 PRIMER.
11. CONTRACTOR IS TO CONTACT APPROPRIATE AUTHORITIES AND LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION.

LEGEND

- TORO 5702 4" POP UP SPRAY HEAD
- ▼ TORO 5702 12" HIGH POP UP SPRAY HEAD
- HUNTER P&P 4" POP UP ROTARY HEAD, PART CIRCLE
- HUNTER P&P 4" POP UP ROTARY HEAD, FULL CIRCLE
- ⊕ RICHDEL 200B SERIES ELECTRIC REMOTE CONTROL VALVE
- ⊙ ISOLATION BALL VALVE, LINE SIZE
- ▲ TORO 3/4" QUICK COUPLER IV SWING JOINT, IN 10" VALVE BOX
- ⊞ FIBCO 803Y 2" D.C.A. INSTALLED PER CITY CODE
- IMPERIAL "VALET" SERIES AUTOMATIC CONTROLLER WITH PENN A-14 FREEZE SENSOR AND MINI-CLICK RAIN SENSOR FOR EACH
- CLASS 200 PVC MAINLINE PIPE, 2 1/2" UNLESS NOTED OTHERWISE
- CLASS 200 (EXCEPT 1/2 INCH BOIS) PVC LATERAL PIPE
- CLASS 200 SLEEVE PIPES, 4" & 2" UNLESS NOTED OTHERWISE

RECORD DRAWING
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CORRECTIONS HAVE BEEN MADE TO
CONFORM TO THE CONTRACTOR'S RECORD
OF THIS PROJECT.
SIGN: *Cheryl Amey*
DATE: 03/28/2019
Glenn Engineering Corporation

**GLENN
ENGINEERING**
TEXAS REGISTRATION NUMBER: F-303
PHONE (972) 717-5151
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105 DECKER COURT, SUITE 970
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**HARTMAN
ELEMENTARY SCHOOL
ROCKWALL, TEXAS
CSP# 1819-07.002**

IRRIGATION DETAILS

Revisions:

1	7/17/18	Addendum #1
2	8/27/18	City Comments

Issue Dates:

Review:

Permit:

Construction:

Scale: As Shown

Drawn By: KKE

Checked By: CMG

Project: CSP # 1819-07.002

Sheet

C012

THIS SHEET IS FOR REFERENCE ONLY