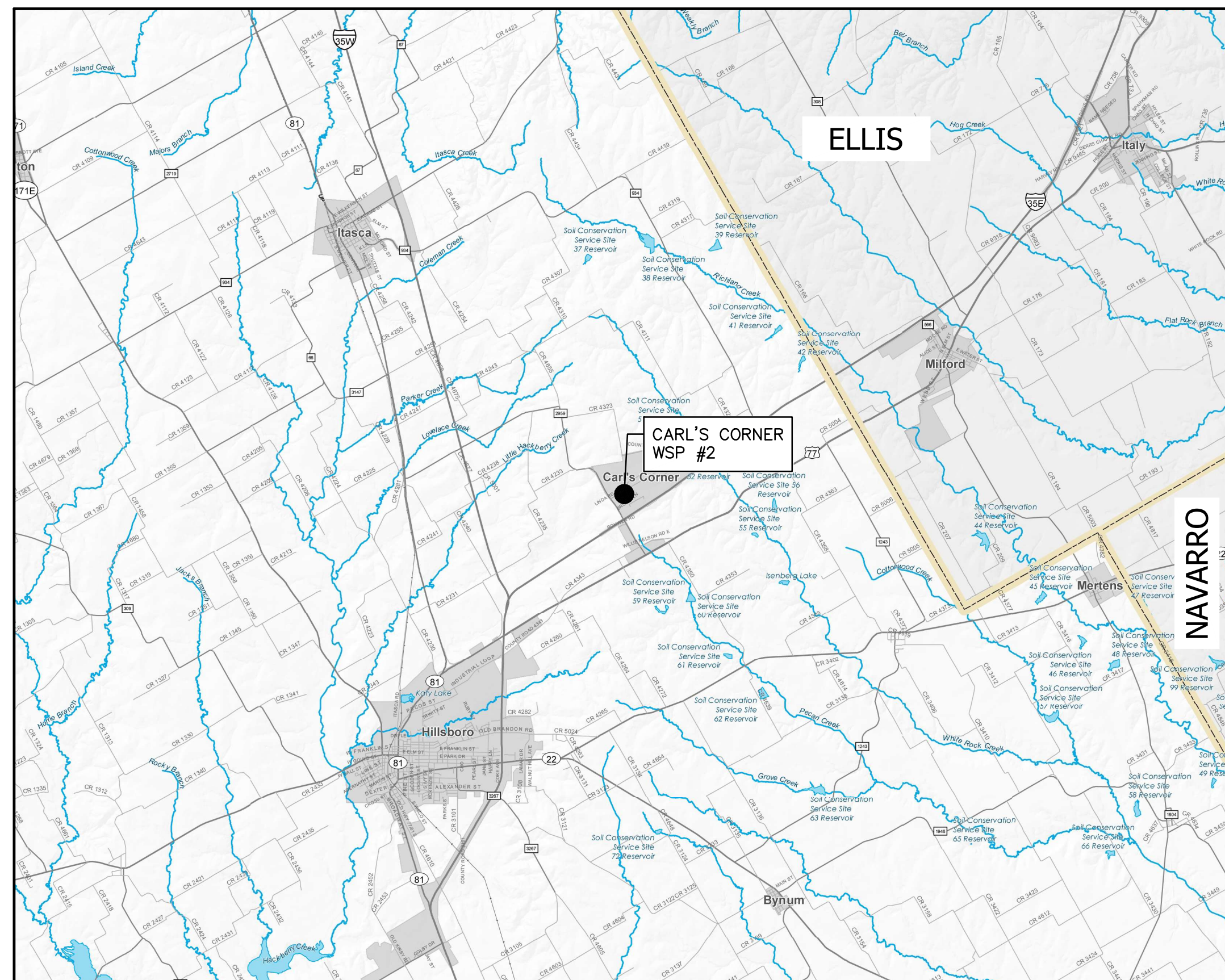


CONSTRUCTION PLANS  
 for  
**WATER SUPPLY PLANT #2**  
 serving the  
**THE CITY OF CARL'S CORNER**  
**HILL COUNTY, TEXAS**



**GENERAL LOCATION MAP**  
 NOT TO SCALE

Wasteline Engineering Project No. 21820

June 2026

Sheet Number	Sheet Title
-	COVER
-	GENERAL CONSTRUCTION NOTES
1	SITE PLAN
2	EROSION CONTROL PLAN
3	EROSION CONTROL NOTES
4	EROSION CONTROL DETAILS
5	YARD PIPING PLAN
6	GROUND STORAGE TANK DETAILS
7	FENCE LAYOUT PLAN
8	MISC DETAILS
9	CHAIN LINK FENCE DETAILS
E1	SITE ELECTRICAL PLAN
E2	ELECTRICAL RISER DIAGRAM
E3	ELECTRICAL DETAILS
E4	ELECTRICAL SPECIFICATIONS



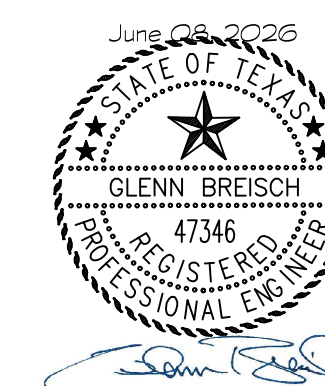
**WASTELINE  
 ENGINEERING, INC.**

5064 E I-20 Service Rd South (817) 441-1300  
 Willow Park, TX 76087 www.wasteline-eng.com

Texas Registered Engineering Firm #F-1669

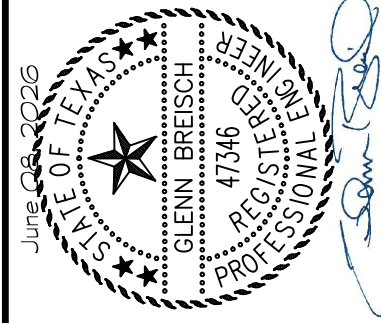


BEFORE YOU DIG CALL @ 1-800-344-8377





NOTES:  
 1. ALL PIPE LENGTHS ARE APPROXIMATE AND FOR REFERENCE ONLY. CONTRACTOR TO CONFIRM ALL DIMENSIONS IN THE FIELD BEFORE CONSTRUCTION BEGINS.



DATE: June, 2026  
 DESIGNED BY: G.B.  
 DRAWN BY: J.J.L.  
 CHECKED BY: G.B.

**LEGEND**

Over Head Electric =

Chain-Link Fence =

Barbed Wire =

Water Meter =

Electric Meter =

Power Pole =

Guy Anchor =

TBM 1/2" IR red cap "Control Point" =

NOTES:

1) ELEVATIONS DERIVED BY THE USE OF GPS EQUIPMENT NAVD88 - CONTROL POINTS/TEMPORARY BENCHMARKS AS SHOWN.

2) NO ATTEMPT WAS MADE TO LOCATE UNDERGROUND PIPELINES OR UTILITIES. THERE MAY BE UNDERGROUND UTILITY FEATURES NOT SHOWN ON THIS SURVEY.

3) THIS IS NOT A BOUNDARY SURVEY AND SHALL NOT BE USED AS SUCH.

4) THIS SURVEY IS BEING PROVIDED AND CERTIFIED FOR USE BY THE CURRENT PARTIES ONLY. USE OF THIS SURVEY FOR OTHER PURPOSES OR BY OTHER PARTIES SHALL BE AT THEIR OWN RISK.

5) TOPOGRAPHIC SURVEY FIELD WORK PERFORMED JUNE 10, 2025.

6) THIS TOPOGRAPHIC SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF AN ABSTRACT OF TITLE. THERE MAY BE EASEMENTS OR OTHER MATTERS OF RECORD NOT SHOWN. NO RECORD SEARCH OR ABSTRACTING WAS PERFORMED BY THE SURVEYOR IN THE COMPLETION OF THIS TOPOGRAPHIC SURVEY.

NO.	DATE	REVISION

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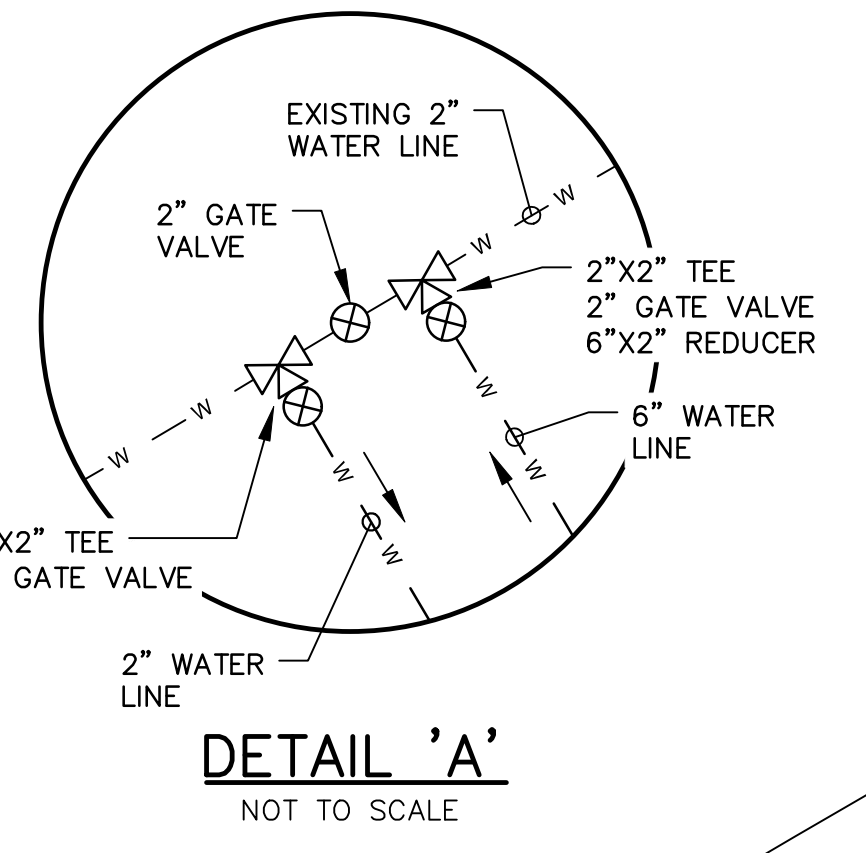
**WASTELINE ENGINEERING, INC.**  
 Texas Registered Engineering Firm #F-1669

WATER SUPPLY PLANT #2  
 THE CITY OF CARL'S CORNER

SITE PLAN

PROJECT NO.  
**21820**

DRAWING NO.  
**1 of 9**



CONNECT TO EXISTING WATER DISTRIBUTION SYSTEM.  
 2"X2" TEE  
 2" GATE VALVE  
 (GATE VALVE TO REMAIN CLOSED UNTIL THE WATER WELL IS CONSTRUCTED.)  
 N=6716895.88  
 E=2415703.12

CONNECT TO EXISTING WATER DISTRIBUTION SYSTEM.  
 2"X2" TEE  
 2" GATE VALVE  
 6"X2" REDUCER  
 (GATE VALVE TO REMAIN CLOSED UNTIL THE WATER WELL IS CONSTRUCTED.)  
 N=6716897.66  
 E=2415706.13

REFER TO THIS SHEET FOR DETAIL 'A'.

TBM CP 6603: 1/2" IR red cap  
 "Sandy Creek Surveying Control Point"  
 Elevation: 836.41'

PROPOSED CHAIN LINK FENCE, REFER TO SHEETS 7 & 9 FOR DETAILS.

FLOW METER BOX  
 EXISTING PRESSURE TANK

EXISTING METAL BUILDING  
 FF.=837.04'

EXISTING GENERATOR

EXISTING 23'X16' GROUND STORAGE TANK  
 (50,000 GALLON CAPACITY)

EXISTING POWER POLE

3"X3" TEE  
 3" GATE VALVE  
 3"X2" REDUCER

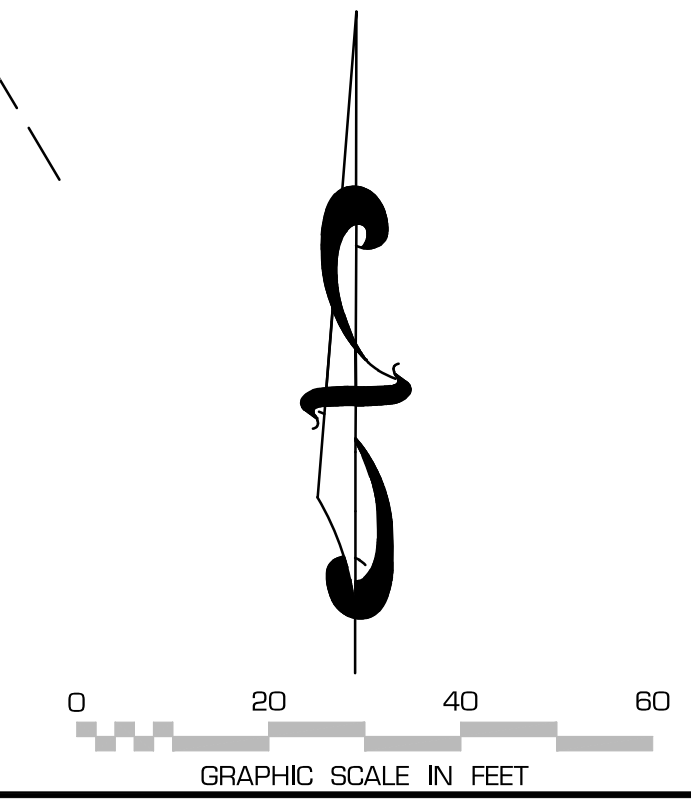
3" WATER WELL LINE

GROUND STORAGE TANK  
 (160,000 GALLON CAPACITY),  
 REFER TO SHEET 6 FOR DETAILS.  
 N=6716861.39  
 E=2415902.86

TBM CP 6602: 1/2" IR red cap  
 "Sandy Creek Surveying Control Point"  
 Elevation: 834.92'

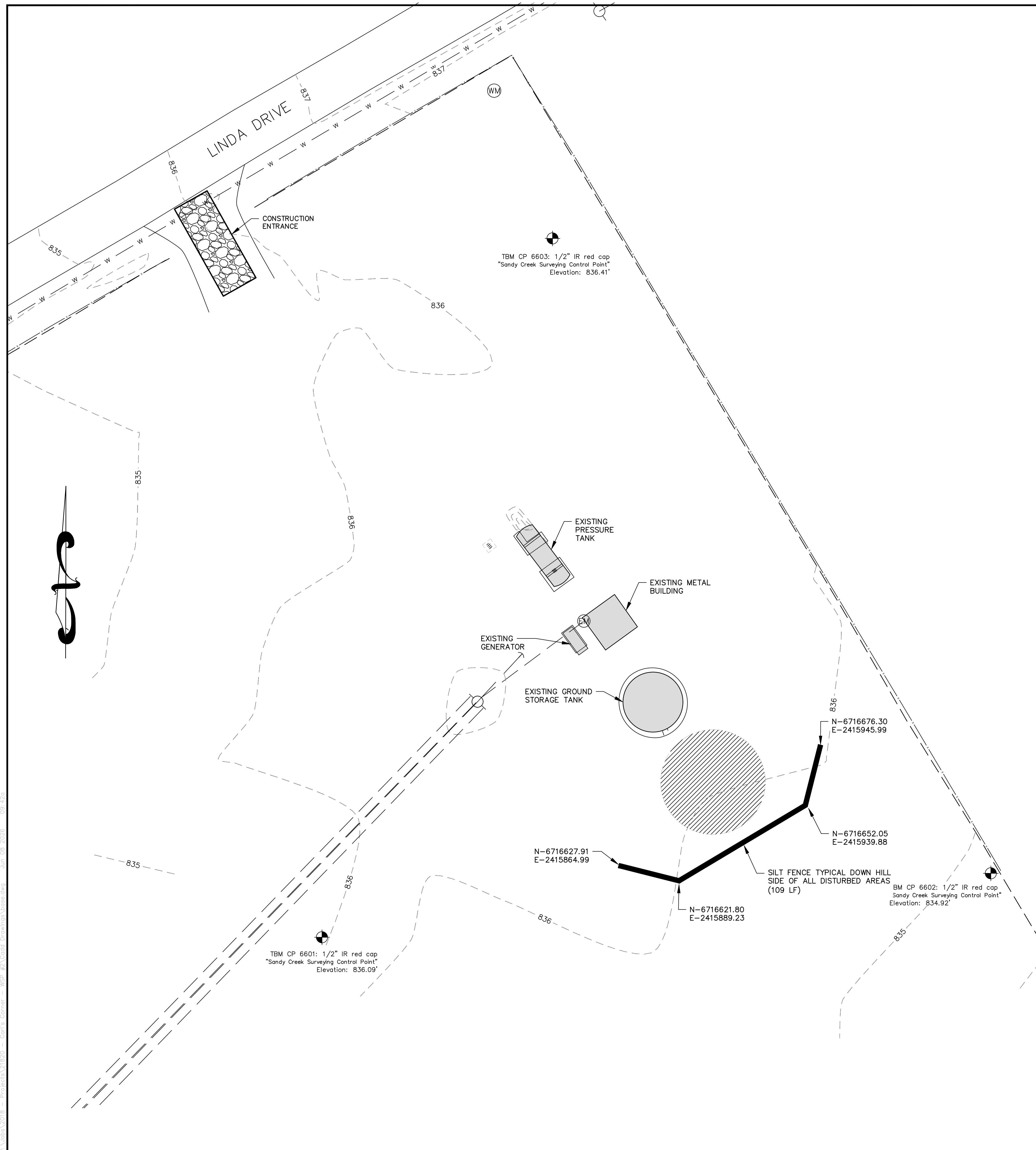
TBM CP 6601: 1/2" IR red cap  
 "Sandy Creek Surveying Control Point"  
 Elevation: 836.09'

LEGEND  
 - 800 - EXISTING CONTOURS  
 - 800 - PROPOSED CONTOURS



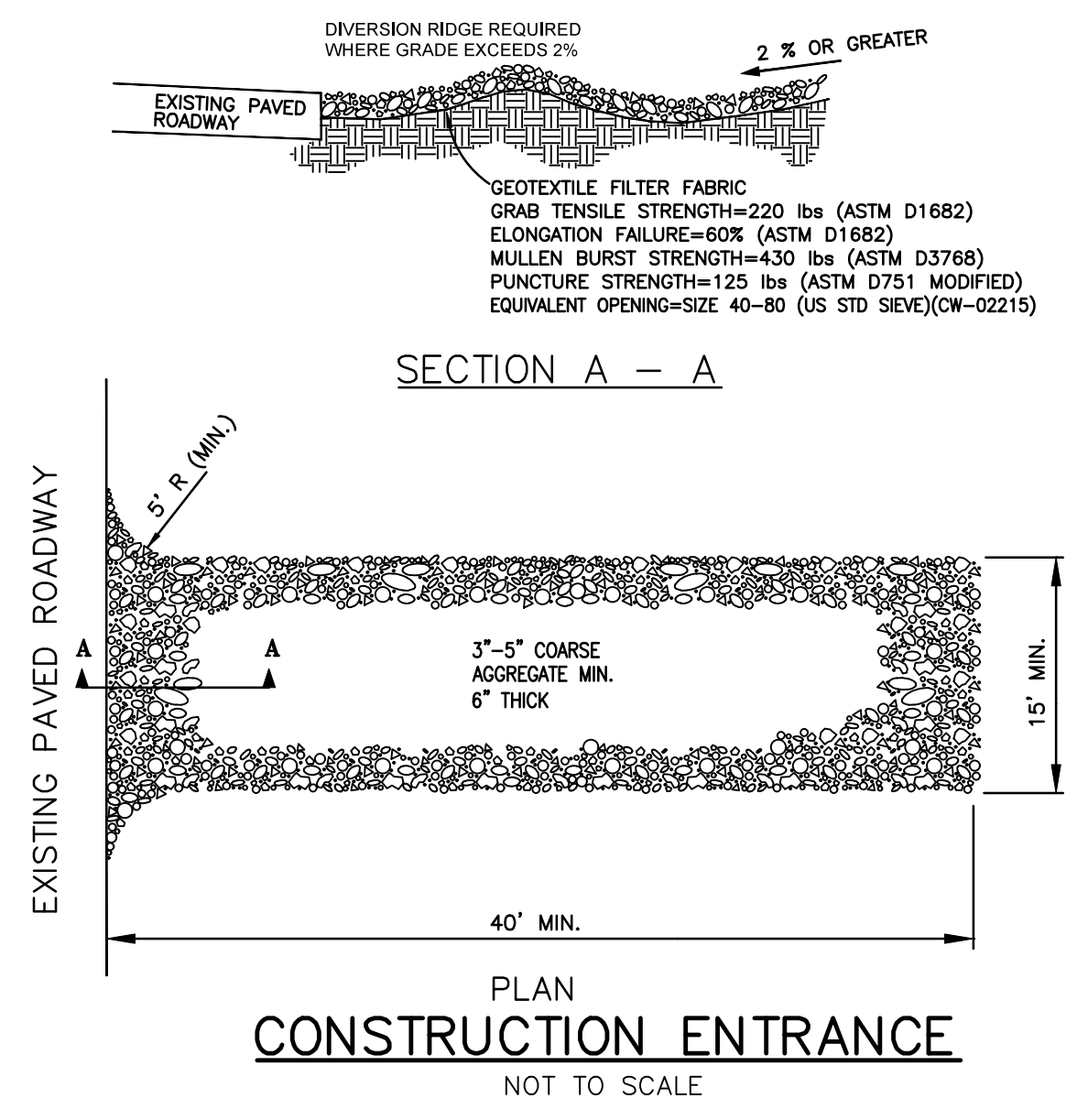
J.J. LEE SURVEY  
 A-543

J:\Projects\21820 - Wasteline\Drawings\Site Plan.dwg Jun 05 2026 09:42:00  
 P:\Projects\21820 - Wasteline\Drawings\Site Plan.dwg Jun 05 2026 09:42:00  
 J:\Projects\21820 - Wasteline\Drawings\Site Plan.dwg Jun 05 2026 09:42:00

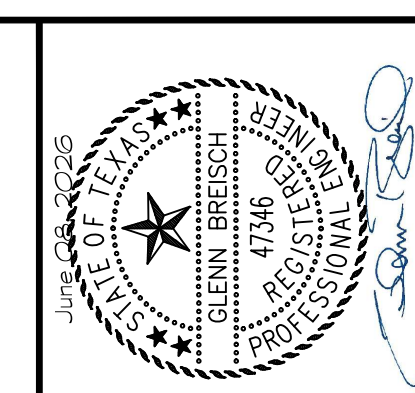


- EROSION AND POLLUTION CONTROL NOTES:**
- ALL CONTRACTORS SHALL COMPLY WITH THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS (NCTCOG) MANUAL FOR BEST MANAGEMENT PRACTICES FOR CONSTRUCTION AS IT RELATES TO PREVENTING POLLUTANTS IN STORM WATER DISCHARGE FROM CONSTRUCTION ACTIVITIES.
  - THE CONTRACTOR SHALL INSTALL EROSION AND POLLUTION CONTROL MEASURES AS INDICATED ON THE PLANS AND AS FIELD CONDITIONS WARRANT TO PREVENT OFFSITE MIGRATION OF SOILS OR OTHER POLLUTANTS BY VEHICULAR TRACKING OR IN STORM WATER RUNOFF. PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITY, INSTALLATION OF CONTROL MEASURES, REPAIRS OR MODIFICATIONS TO THE MEASURES WILL BE MADE BY THE CONTRACTOR IF THE CONTROL MEASURES PROVE INEFFECTIVE OR IF ADDITIONAL CONTROL MEASURES ARE NECESSARY.
  - THE CONTRACTOR SHALL CAUSE AN SWPPP TO BE PREPARED, SUBMITTED TO, AND APPROVED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ). A COPY OF THE APPROVED PLAN SHALL BE SUBMITTED TO THE OWNER AND THE ENGINEER.
  - THE CONTRACTOR SHALL INSTALL THE STABILIZED CONSTRUCTION EXIT AND SHALL TAKE APPROPRIATE MEASURES TO PREVENT TRACKING OF MUD AND/OR SOILS TO OFFSITE PAVEMENT. THE CONTRACTOR SHALL IMMEDIATELY REMOVE ANY OFFSITE TRACKING THAT OCCURS.
  - ALL STOCKPILED SOILS WILL BE SURROUNDED BY A SILT FENCE, SEDIMENT CONTROL SWALE OR EQUIVALENT MEASURE TO PROPERLY CONTROL SEDIMENT RUNOFF.
  - THE CONTRACTOR SHALL DESIGNATE A CONCRETE TRUCK WASHOUT AREA. WASTE CONCRETE AND ASSOCIATED WATER AND MATERIAL WILL BE PROPERLY DISPOSED OF IN ACCORDANCE WITH THE APPLICABLE REGULATIONS.
  - THE CONTRACTOR SHALL CONSTRUCT A BERM OR OTHER SPILL PROTECTION MEASURE FOR ANY TEMPORARY FUEL STORAGE TANK(S) ON SITE TO CONTAIN AT LEAST ONE HALF (1/2) OF THE CAPACITY OF EACH TANK.
  - IF SUMP PUMPS ARE USED TO REMOVE WATER FROM EXCAVATED AREAS, THE DISCHARGE SHALL BE FILTERED OR DISCHARGED TO A SETTLING BASIN TO REMOVE SEDIMENT AND OTHER POLLUTANTS BEFORE THE WATER ENTERS A STORM DRAIN OR LEAVES THE SITE.
  - AT A MINIMUM, PERIMETER CONTROLS SUCH AS SILT FENCE SHALL BE INSTALLED AT ALL DOWN SLOPE BOUNDARIES OF DISTURBED AREAS AND AS WARRANTED WHERE PAVEMENT REMOVAL, UTILITY CONSTRUCTION, GRADING OR OTHER CONSTRUCTION ACTIVITIES ARE TO BE PERFORMED. THE CONTRACTOR SHALL AT ALL TIMES TAKE SUCH MEASURES AS NECESSARY TO PREVENT OFFSITE MIGRATION OF SEDIMENT AND DEBRIS.
  - IF DISCHARGE OF SOIL OR OTHER POLLUTANTS OCCURS, THE CONTROL MEASURES SHALL BE EVALUATED AND CHANGES OR ADDITIONAL MEASURES IMPLEMENTED WITHIN SEVEN (7) DAYS TO PREVENT FUTURE DISCHARGES.
  - DAMAGE TO ADJACENT PROPERTY AND/OR TO RECEIVING WATER CAUSED BY IMPROPERLY INSTALLED OR POORLY MAINTAINED EROSION AND POLLUTION CONTROL MEASURES WILL BE THE RESPONSIBILITY OF THE CONTRACTOR. THIS RESPONSIBILITY INCLUDES REMOVAL AND DISPOSAL OF ANY SILTATION, DEBRIS OR OTHER POLLUTANTS CAUSED BY HIS/HER OPERATIONS AND/OR FAILURE OF THE CONTROL MEASURES. FAILURE TO ADDRESS THE CAUSES OF DAMAGES MAY RESULT IN A STOP WORK ORDER.

- ALL EROSION CONTROL DEVICES SHOWN ON THE PLANS RELEASED FOR CONSTRUCTION SHALL BE INSTALLED IN ACCORDANCE WITH THE PLAN SEQUENCING PRIOR TO COMMENCING ANY EARTH DISTURBING ACTIVITIES. FAILURE TO INSTALL THE EROSION CONTROL DEVICES BEFORE STARTING THE EARTH DISTURBING ACTIVITIES MAY RESULT IN SANCTIONS INCLUDING, BUT NOT LIMITED TO, WITHHOLDING OF RELEASE OF CONSTRUCTION PERMITS, INSPECTIONS, SUSPENSION OF CONSTRUCTION ACTIVITIES, OR CITATIONS. EROSION CONTROL DEVICES SHALL BE INSTALLED AND MAINTAINED IN COMPLIANCE WITH THE PROJECT PLANS, CITY STORM WATER ORDINANCE AND/OR SWPPP AND GENERAL PERMIT.
- THE CONTRACTOR SHALL REMOVE AND PROPERLY DISPOSE OF ACCUMULATED SEDIMENT IN ACCORDANCE WITH THE SWPPP, AND BEFORE IT REACHES A DEPTH OF SIX (6) INCHES OR IMPAIRS THE EFFECTIVENESS OF THE CONTROL MEASURE.
- ALL EROSION, SEDIMENT, AND WATER POLLUTION CONTROLS WILL BE MAINTAINED IN GOOD WORKING ORDER. THE CONTRACTOR AND OWNER WILL INSPECT THE ENTIRE PROJECT TO DETERMINE THE CONDITION OF THE CONTROL MEASURES USING ONE OF THE FOLLOWING INSPECTION SCHEDULES: (1) A RAIN GAUGE PROVIDED BY THE CONTRACTOR WILL BE LOCATED AT THE PROJECT SITE. INSPECTION WILL OCCUR EVERY FOURTEEN (14) CALENDAR DAYS, AND ALSO WITHIN 24-HOURS OF A RAINFALL EVENT OF 0.5-IN. OR MORE AS MEASURED BY THE PROJECT RAIN GAUGE. (2) INSPECTION WILL OCCUR AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS ON A SPECIFICALLY DEFINED DAY, REGARDLESS OF WHETHER OR NOT THERE HAS BEEN A RAINFALL EVENT SINCE THE PREVIOUS INSPECTION. A WRITTEN INSPECTION REPORT, SIGNED BY THE PERSON MAKING THE INSPECTION, WILL BE FILED WITH ONSITE POLLUTION CONTROL PLAN AND A COPY OF THE REPORT SENT TO THE CITY FOR THEIR RECORDS. THIS INSPECTION DOES NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR INSPECTION AND MAINTENANCE OF THE CONTROL MEASURES. FAILURE TO FILE REPORTS MAY RESULT IN A STOP WORK ORDER.
- THE CONTRACTOR SHALL STABILIZE, WITH SOME FORM OF GROUND COVER, ANY AREA WHERE CONSTRUCTION ACTIVITY IS TO BE CEASED (TEMPORARILY OR PERMANENTLY) FOR MORE THAN TWENTY-ONE (21) DAYS.
- AT THE CONCLUSION OF THE PROJECT, ALL CHANNELS, DRAINAGE WAY AND BORROW DITCHES IN THE WORK ZONE SHALL BE CLEARED OF ANY SEDIMENT AND DEBRIS GENERATED BY THE PROJECT OR DEPOSITED AS A RESULT OF THE EROSION AND POLLUTION CONTROL MEASURES.
- REVEGETATION OF ALL DISTURBED SOIL SHALL BE INITIATED WITHIN TWENTY-ONE (21) DAYS OF FINAL CONSTRUCTION OPERATIONS.
- IN ADDITION TO THE EROSION CONTROL MEASURES SHOWN, THE CONTRACTOR SHALL USE APPROPRIATE MEASURES AS NECESSARY TO COMPLY WITH SECTION 1.04 THIS SHEET.
- INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY.
- REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.
- SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.



- STABILIZED CONSTRUCTION ENTRANCE NOTES:**
- STONE SHALL BE 3 TO 5 INCH DIAMETER CRUSHED ROCK OR ACCEPTABLE CRUSHED PORTLAND CEMENT CONCRETE.
  - LENGTH SHALL BE SHOWN ON PLANS, WITH A MINIMUM LENGTH OF 30 FEET FOR LOTS WHICH ARE LESS THAN 150 FEET FROM EDGE OF PAVEMENT. THE MINIMUM DEPTH IN ALL OTHER CASES SHALL BE 50 FEET.
  - THE THICKNESS SHALL NOT BE LESS THAN 6 INCHES.
  - THE WIDTH SHALL BE NO LESS THAN THE FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS.
  - WHEN NECESSARY, VEHICLES SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO A PUBLIC ROADWAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WITH DRAINAGE FLOWING AWAY FROM BOTH THE STREET AND AND THE STABILIZED ENTRANCE. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATERCOURSE USING APPROVED METHODS.
  - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PAVED SURFACES. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PAVED SURFACES MUST BE REMOVED IMMEDIATELY.
  - THE ENTRANCE MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.



DATE:	June, 2026
DESIGNED BY:	G.B.
DRAWN BY:	J.I.R.
CHECKED BY:	G.B.

NO.	DATE BY	REVISION

5084 E I-20 Service Rd South  
 Willow Park, TX 76087  
 (817) 441-1300  
 www.wasteline-eng.com

**WASTELINE ENGINEERING, INC.**  
 Texas Registered Engineering Firm #F-1669

WATER SUPPLY PLANT #2  
 THE CITY OF CARL'S CORNER  
 EROSION CONTROL PLAN

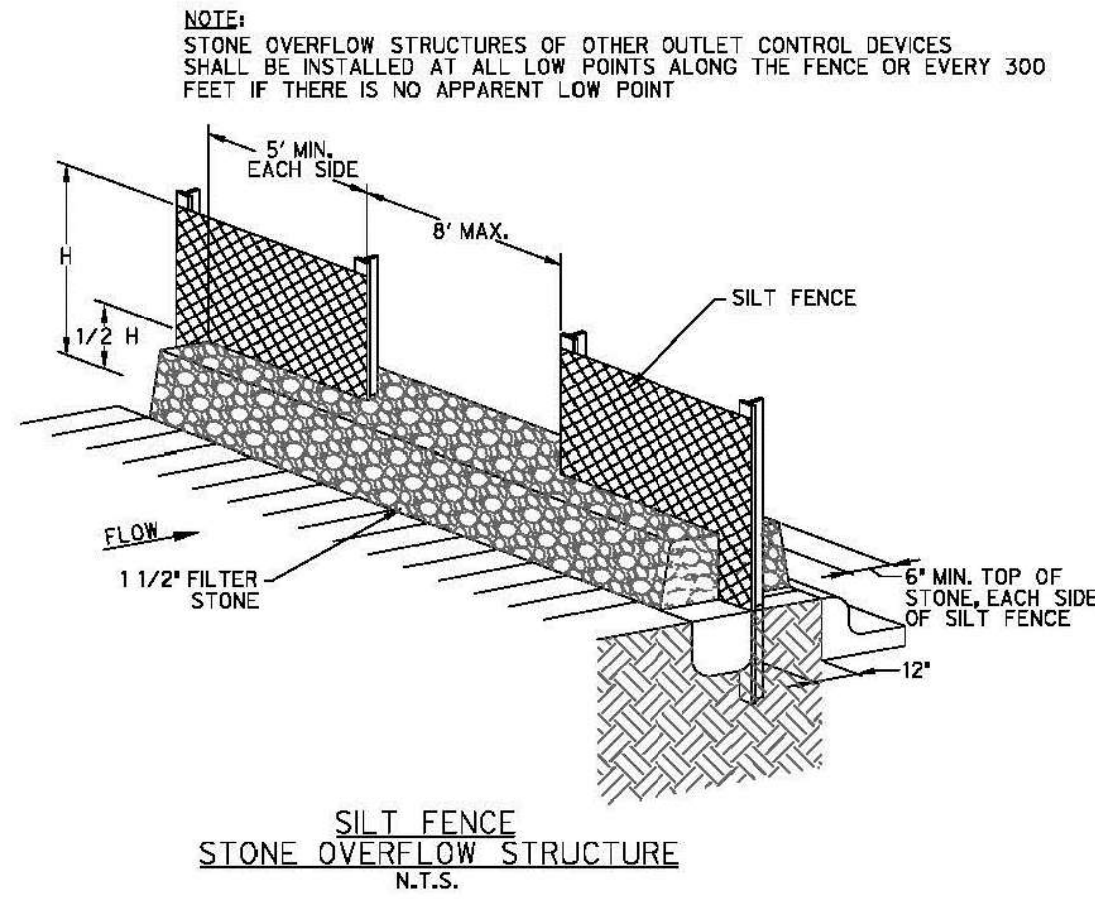
PROJECT NO.  
 21820

DRAWING NO.  
 2 of 9

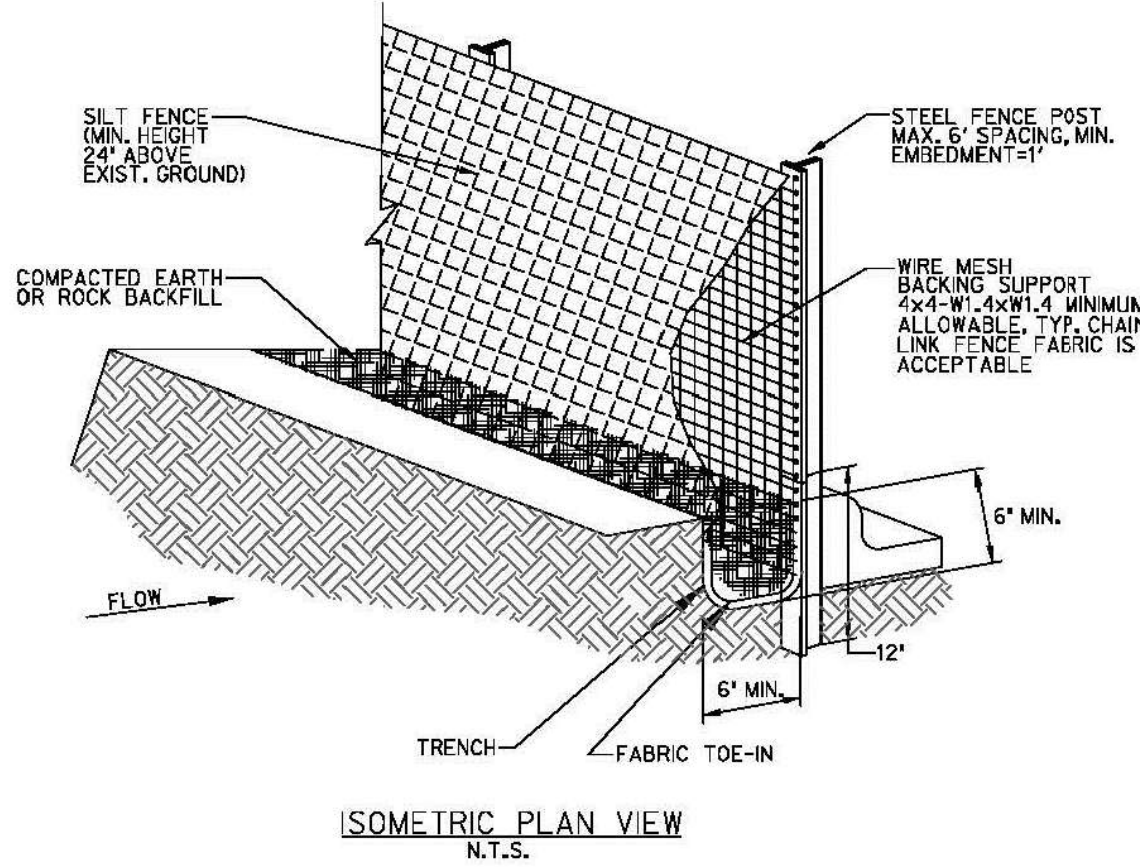


**SILT FENCE GENERAL NOTES**

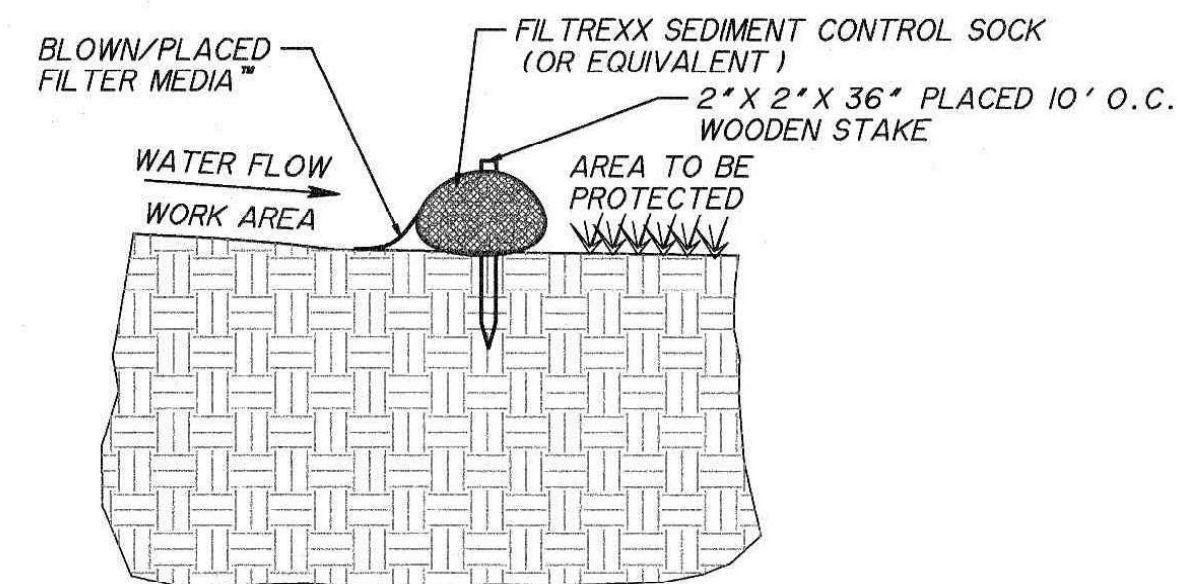
- (1) STEEL POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POSTS MUST BE EMBEDDED A MINIMUM OF ONE FOOT, AND HAVE SAFETY CAPS INSTALLED.
- (2) THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. WHERE FENCE CANNOT BE TRENCHED IN TO PAVEMENT, WEIGHT FABRIC FLAP WITH ROCK ON UPHILL SIDE TO PREVENT FLOW FROM SEEPING 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 IN TURN IS ATTACHED TO THE STEEL FENCE POST. THERE SHALL BE A 3 FOOT OVERLAP, SECURELY FASTENED WHERE ENDS OF FABRIC MEET.
- (5) INSPECTION SHALL BE MADE EVERY TWO WEEKS AND AFTER EACH 1/2" RAINFALL. REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
- (6) SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED, PER NOTE 1 ON THE EROSION CONTROL DETAILS (SHEET 2 OF 2), SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
- (7) ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF HALF THE HEIGHT OF THE FENCE. THE SILT SHALL BE DISPOSED OF AT AN APPROVED SITE AND IN SUCH A MANNER AS TO NOT CONTRIBUTE TO ADDITIONAL SILTATION.
- (8) CONTRACTOR IS FULLY RESPONSIBLE FOR ALL SWPPP, PERMITTING, APPROVAL, INSPECTIONS, MAINTENANCE, AND REMOVAL.



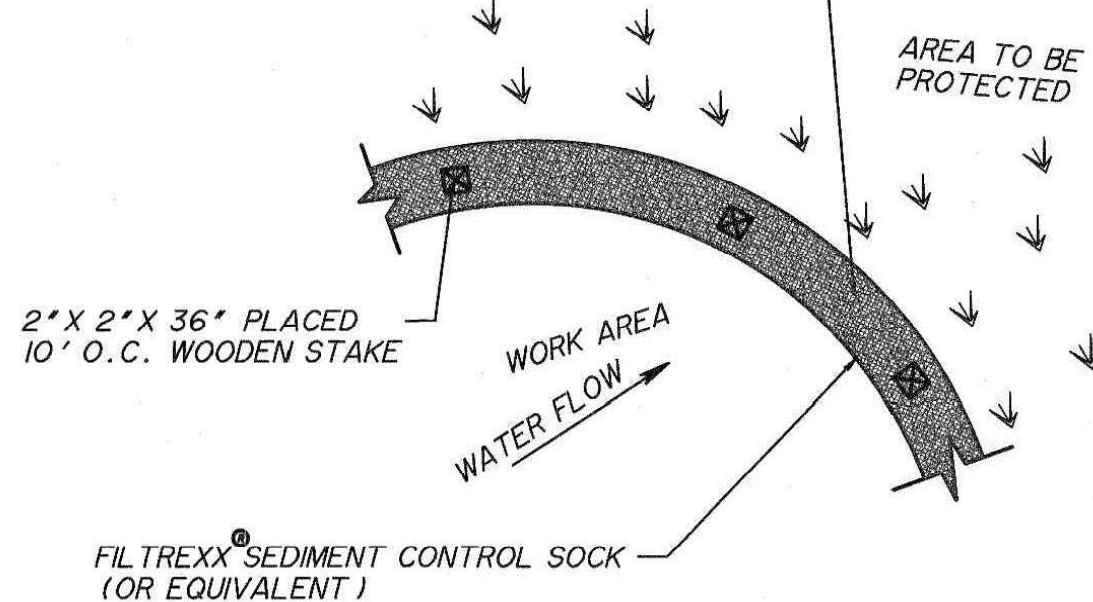
**SILT FENCE  
STONE OVERFLOW STRUCTURE  
N.T.S.**



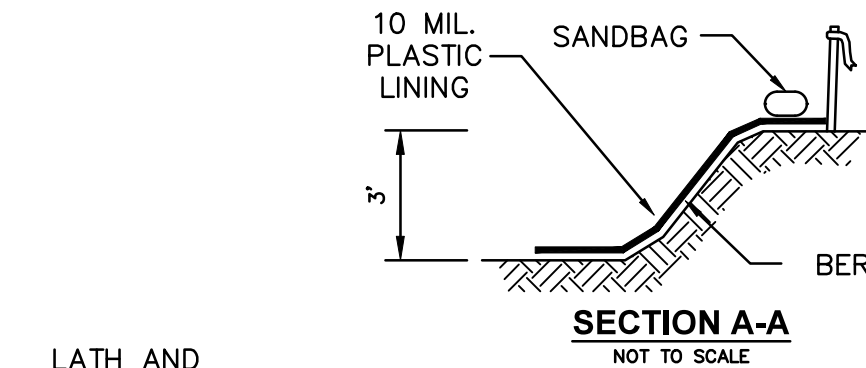
**ISOMETRIC PLAN VIEW  
N.T.S.**



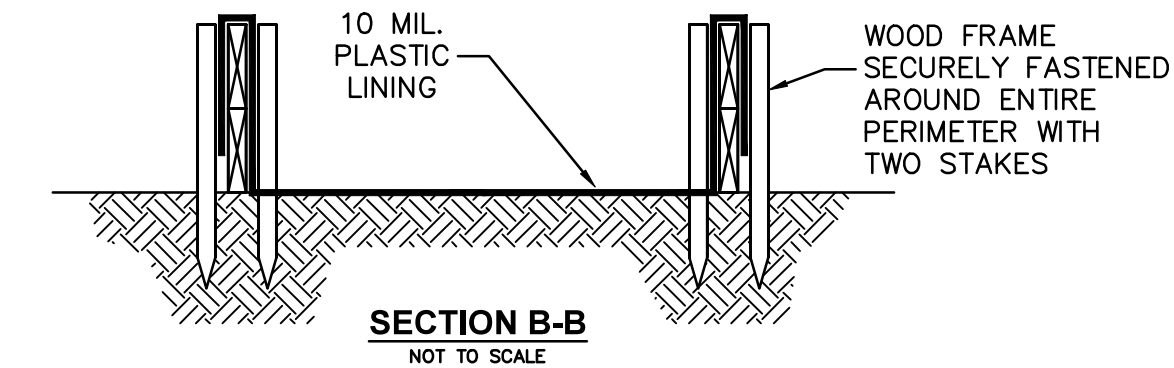
CONTRACTOR SHALL INSTALL FILTREXX® SEDIMENT CONTROL SOCK (OR EQUIVALENT) PER MANUFACTURER SPECIFICATIONS. FILTER SOCK SHALL BE MINIMUM 6.5\"/>



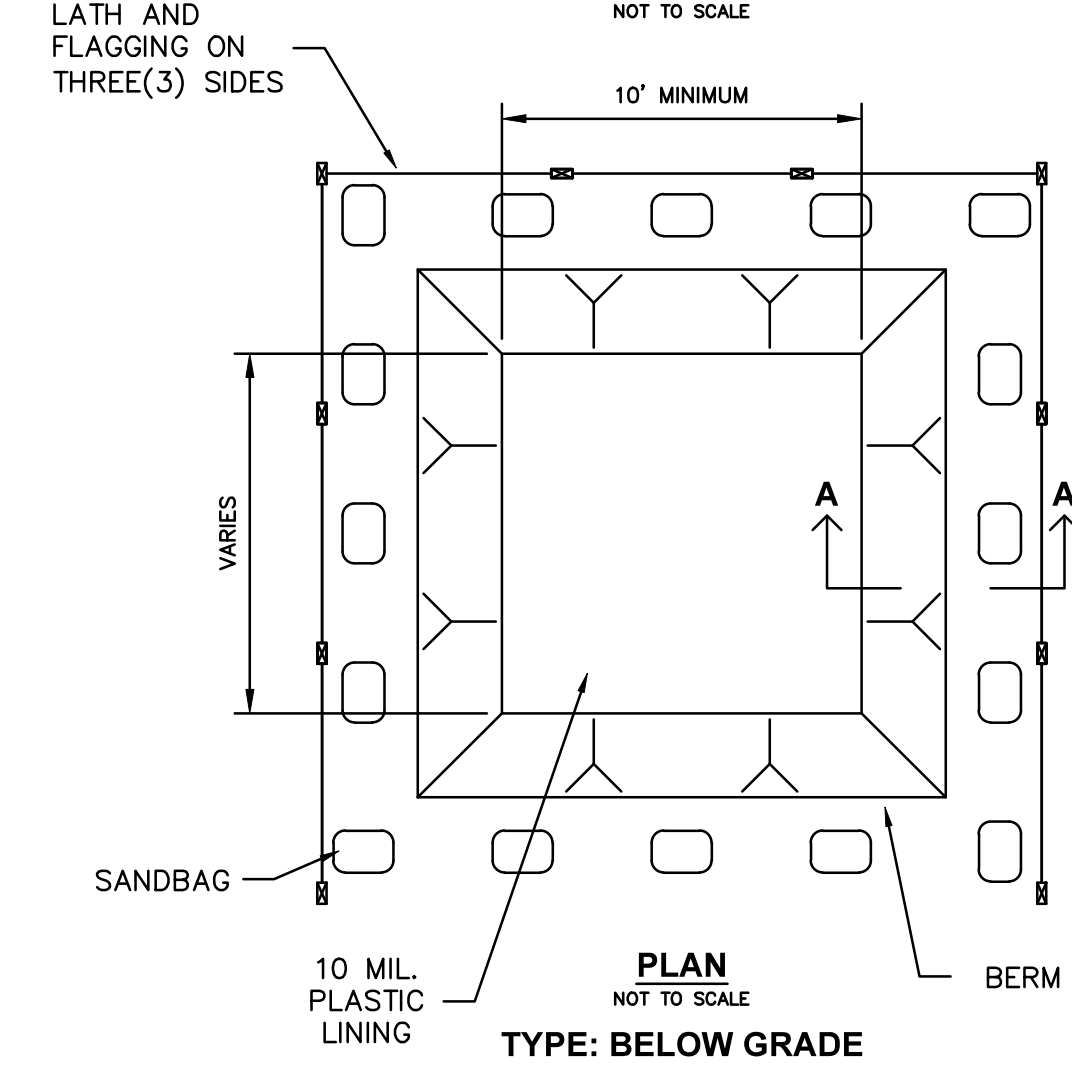
**SEDIMENT CONTROL  
FILTER SOCK**



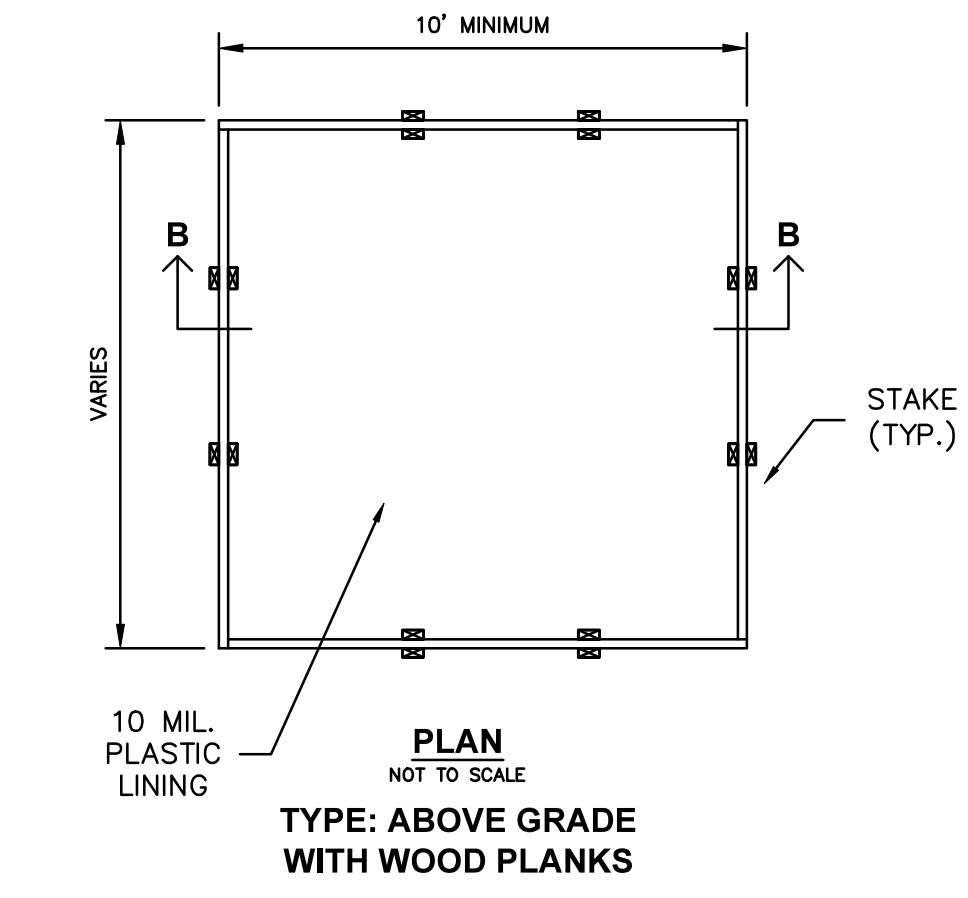
**SECTION A-A  
NOT TO SCALE**



**SECTION B-B  
NOT TO SCALE**



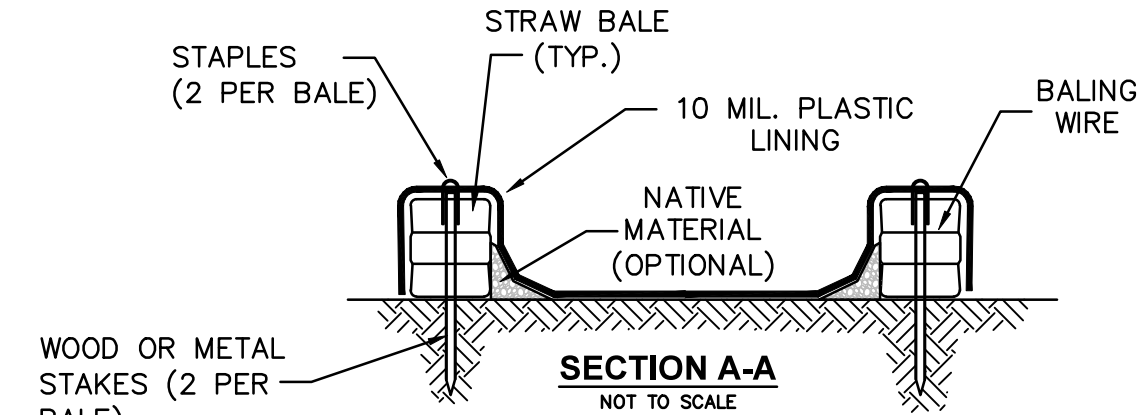
**PLAN  
NOT TO SCALE  
TYPE: BELOW GRADE**



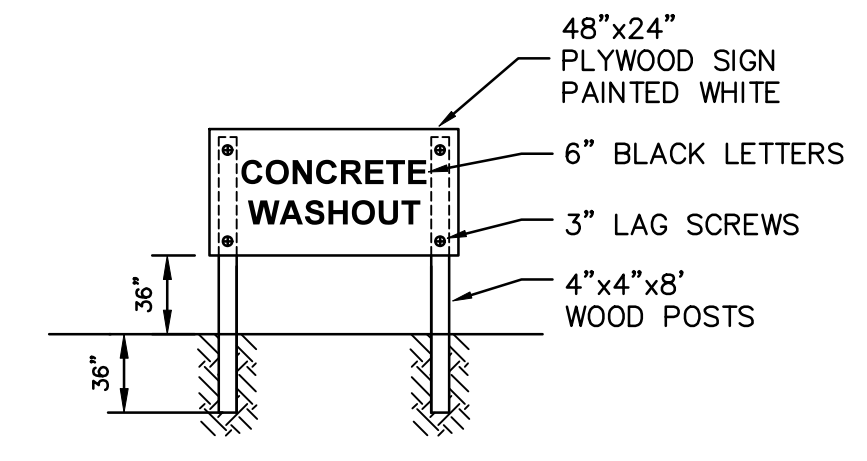
**PLAN  
NOT TO SCALE  
TYPE: ABOVE GRADE  
WITH WOOD PLANKS**

- NOTES**
1. ACTUAL LAYOUT DETERMINED IN THE FIELD.
  2. THE CONCRETE WASHOUT SIGN (SEE CONCRETE WASHOUT DETAIL #1) SHALL BE INSTALLED WITHIN 30 FEET OF THE TEMPORARY CONCRETE WASHOUT FACILITY.

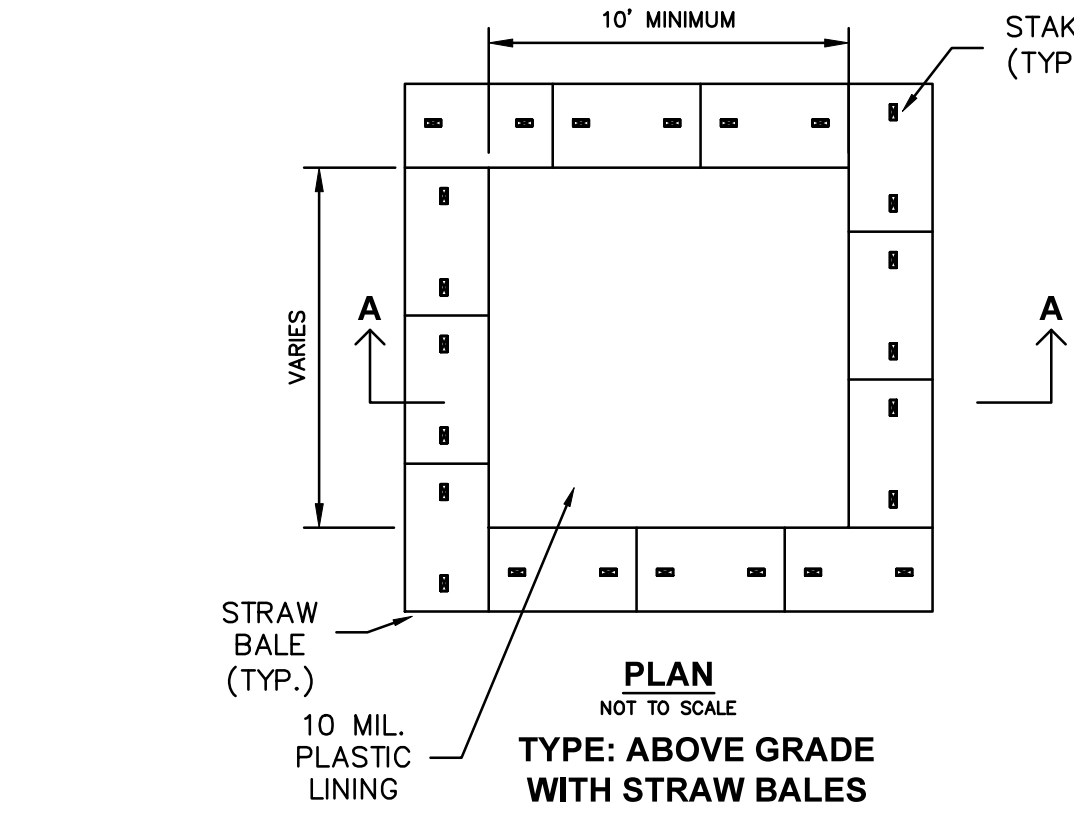
**CONCRETE WASHOUT DETAIL #2  
BELOW GRADE AND  
ABOVE GRADE WITH WOOD  
PLANK**



**SECTION A-A  
NOT TO SCALE**



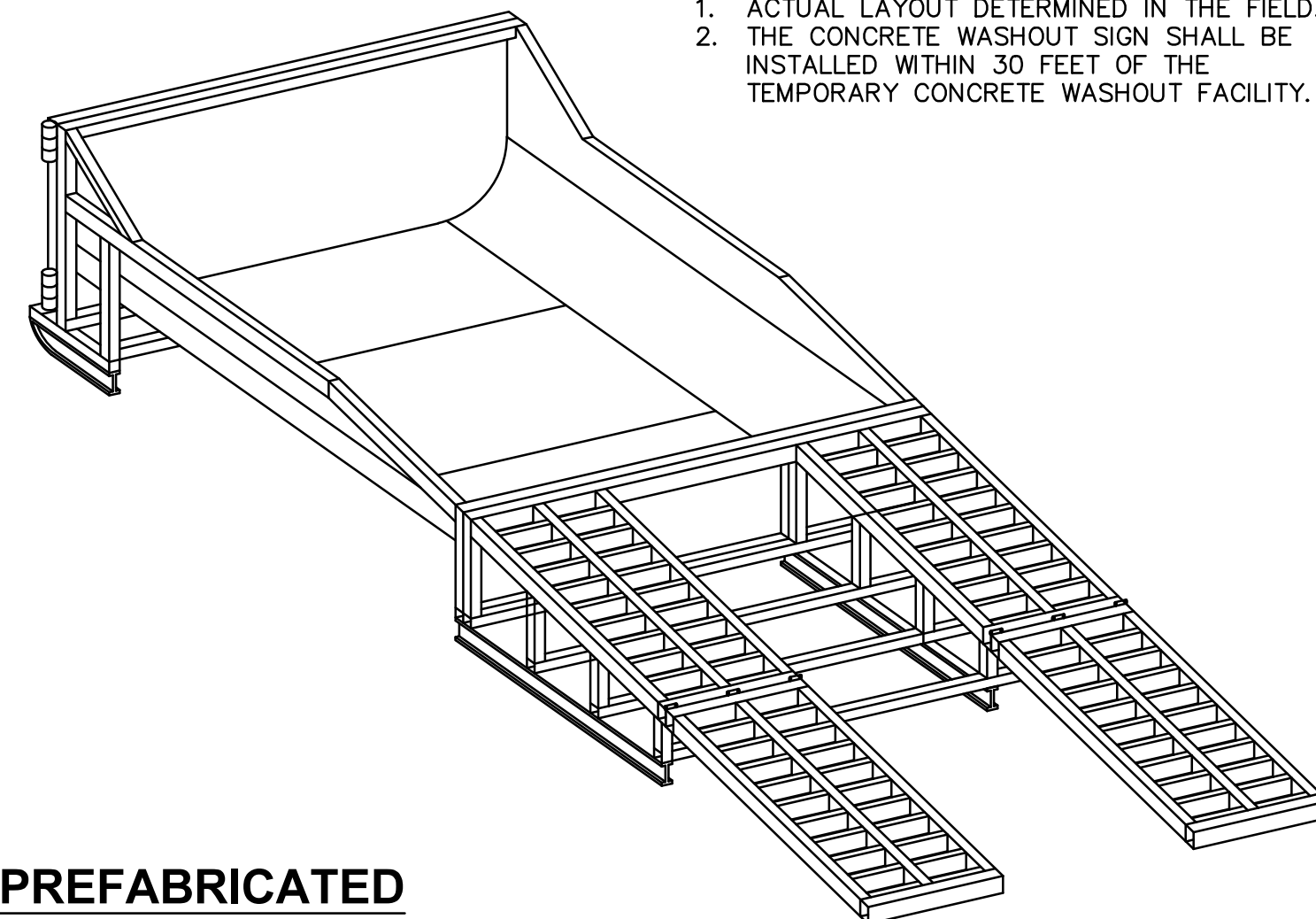
**CONCRETE WASHOUT  
SIGN DETAIL  
(OR EQUIVALENT)**



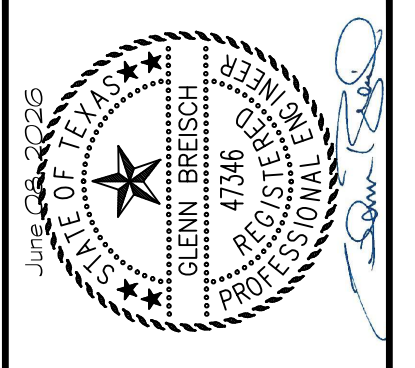
**PLAN  
NOT TO SCALE  
TYPE: ABOVE GRADE  
WITH STRAW BALES**

- NOTES**
1. ACTUAL LAYOUT DETERMINED IN THE FIELD.
  2. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30 FEET OF THE TEMPORARY CONCRETE WASHOUT FACILITY.

**CONCRETE WASHOUT DETAIL #1  
ABOVE GRADE STRAW BALE**



**PREFABRICATED  
CONCRETE CONTAINER WASHOUT WITH RAMP**



DATE: June, 2026  
DESIGNED BY: G.B.  
DRAWN BY: J.I.R.  
CHECKED BY: G.B.

NO.	DATE	REVISION

5064 E I-20 Service Rd South  
Willow Park, TX 76087  
(817) 441-1300  
www.wasteline-eng.com

**WASTELINE  
ENGINEERING, INC.**

Texas Registered Engineering Firm #F-1669

WATER SUPPLY PLANT #2  
THE CITY OF CARL'S CORNER

**EROSION CONTROL DETAILS**

PROJECT NO.  
**21820**

DRAWING NO.  
**4 of 9**



FLOW METER BOX, OLDCASTLE  
POLYMER 132-18 W/ LID.  
BADGER METER, RECORDALL  
TURBO SERIES METER MODEL 200  
N-6716756.10  
E-2415813.21

6"X6" TEE  
6" GATE  
VALVE  
N-6716750.71  
E-2415817.28

ADD AIR RITE,  
MODEL 610 HP

6" WATER LINE TO  
DISTRIBUTION SYSTEM  
(248 LF)

2" WATER LINE FROM  
DISTRIBUTION SYSTEM  
(267 LF)

EXISTING GENERATOR

SIGHT GLASS INSIDE  
EXISTING BUILDING

EXISTING  
METAL  
BUILDING

90° 6" BEND  
N-6716728.95  
E-2415875.64

REFER  
NOTE #2.

REFER  
NOTE #2.

6"X6" TEE  
N-6716720.41  
E-2415881.71

6" 90°  
BEND  
N-6716709.14  
E-2415866.26

6" WATER LINE  
(27 LF)

6" 90° BEND  
N-6716709.32  
E-2415848.59

CONNECT TO  
EXISTING 6"  
GATE VALVE

6" WATER LINE  
(64 LF)

EXISTING OVERHEAD  
POWER LINES

2" WATER  
LINE

CONNECT TO  
EXISTING  
6" GATE VALVE  
6"X3" REDUCER

EXISTING GROUND  
STORAGE  
TANK

CONNECT TO EXISTING  
6" GATE VALVE  
6"X3" REDUCER

EXISTING 4"  
DRAIN W/  
GATE VALVE

6" GATE  
VALVE

45° 6" BEND  
N-6716685.04  
E-2415906.85

3"X3" TEE  
2" AUTOMATED BUTTERFLY INLET  
VALVE - McMASTER-CARR  
MODEL 2521N11 OR EQUAL  
3"X2" REDUCER  
N-6716683.00  
E-2415864.13

EXISTING 6"  
OVERFLOW

3" WATER LINE  
(36 LF)

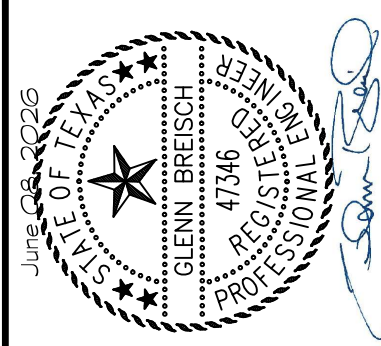
45° 3" BEND  
N-6716664.71  
E-2415877.97

3" GATE  
VALVE

GROUND  
STORAGE  
TANK

- NOTES:
1. ALL PIPE LENGTHS ARE APPROXIMATE AND FOR REFERENCE ONLY. CONTRACTOR TO CONFIRM ALL DIMENSIONS IN THE FIELD BEFORE CONSTRUCTION BEGINS.
  2. CONTRACTOR TO VERIFY LOCATION OF PIPE OPENING AT BUILDING, BOTH FOR INLET AND OUTLET.
  3. CONTRACTOR TO VERIFY LOCATION OF NEW SITE GLASS, PUMPS ARE NOT WIRED IN OR PLUMBED AT INLET OR OUTLET.
  4. CONTRACTOR TO USE EITHER PVC OR HDPE FOR YARD PIPING MATERIAL. REFER TO SHEET 'GENERAL CONSTRUCTION NOTES' FOR WATER NOTES.

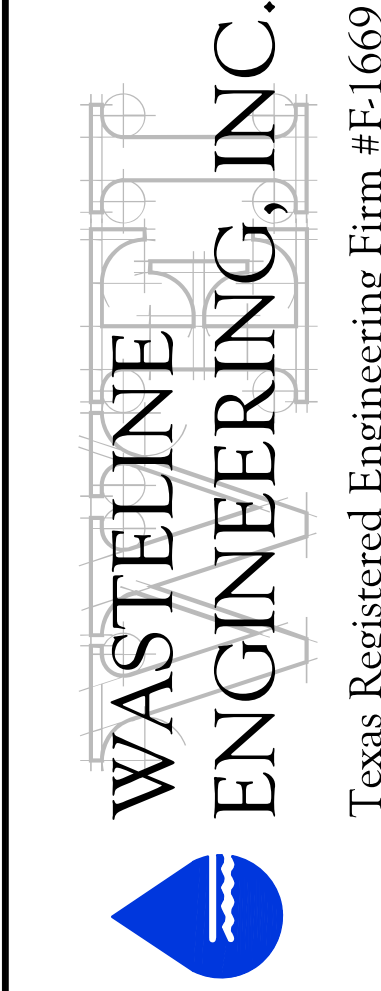
LEGEND  
--- 800 --- EXISTING CONTOURS  
--- 800 --- PROPOSED CONTOURS



DATE:	June, 2026
DESIGNED BY:	G.B.
DRAWN BY:	J.I.R.
CHECKED BY:	G.B.

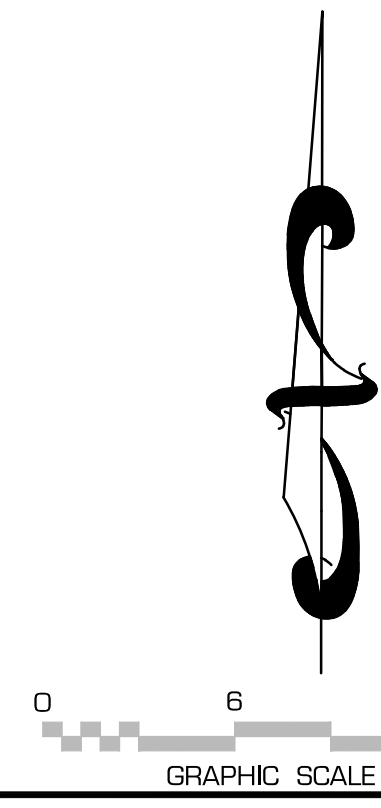
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No.	DATE BY

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WATER SUPPLY PLANT #2  
THE CITY OF CARL'S CORNER  
YARD PIPING PLAN

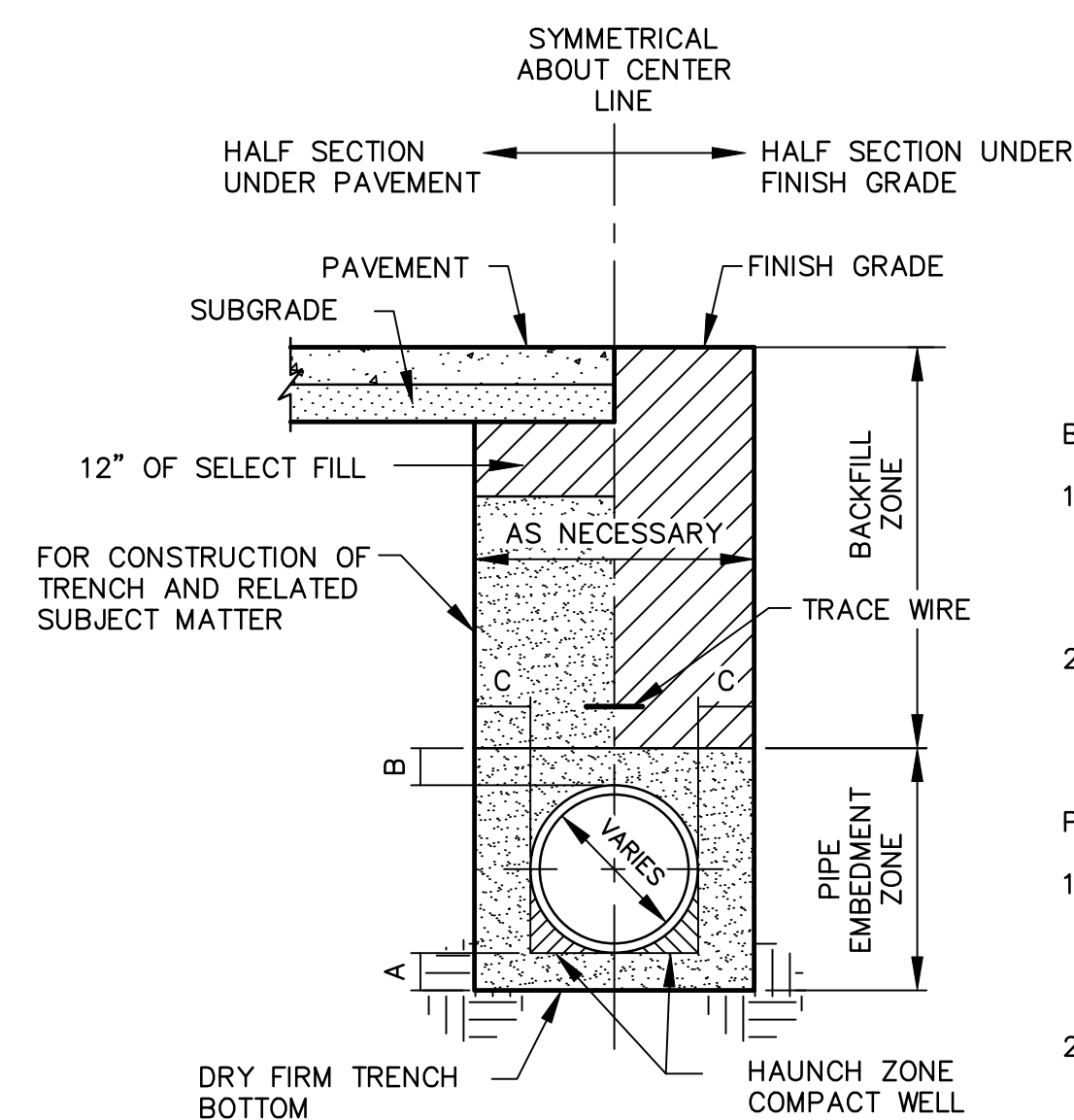
PROJECT NO.	21820
DRAWING NO.	5 of 9



05/20/2016 10:52 AM Project: 21820 - Carl's Corner 1052 - J.I.R. Checked: 05/20/2016 10:52 AM DWG: 422







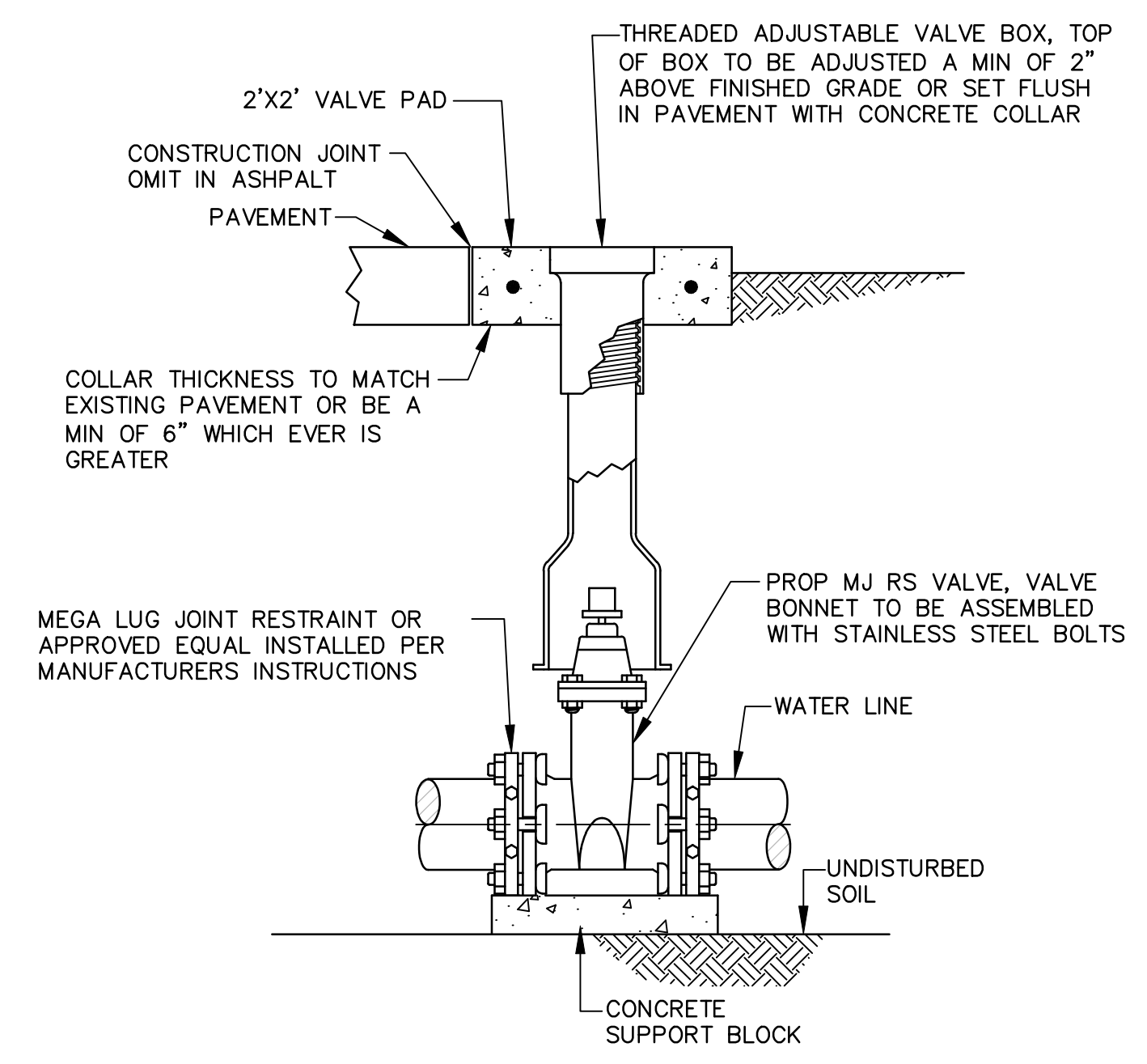
**DIMENSIONAL REQUIREMENTS**

PIPE SIZE	A	B	C
20" AND SMALLER	6"	12"	9"
21" THRU 48"	6"	12"	12"
54" THRU 66"	9"	12"	15"
72" AND LARGER	12"	18"	15"

- MATERIAL REQUIREMENTS**
- BACKFILL ZONE**
- IN PAVED AREAS, USE CEMENT STABILIZED SAND, PLACE IN 6" LIFTS AND COMPACT TO 95% STANDARD PROCTOR DENSITY, TO WITHIN 12" OF SUBGRADE.
  - IN UNPAVED AREAS, USE SOIL EXCAVATED FROM TRENCH, PLACE IN 6" LIFTS AND COMPACT TO 95% STANDARD PROCTOR DENSITY.
- PIPE EMBEDMENT ZONE**
- FOR STORM AND SANITARY SEWERS, USE CEMENT STABILIZED SAND, PLACE IN 6" LIFTS AND COMPACT TO 95% STANDARD PROCTOR DENSITY.
  - FOR WATER LINES, USE SAND, PLACE IN 6" LIFTS AND COMPACT TO 95% STANDARD PROCTOR DENSITY.

**SPECIAL NOTE:**  
ANY EXCAVATION WITHIN 3' OR LESS OF HIGHWAY PAVEMENT EDGE OR CITY STREET SHALL REQUIRE 1-1/2 SACK CEMENT STABILIZED BACKFILL UP TO ROAD BASE. COMPACTED IN 8" LIFTS WITH VIBRATORY PLATE.

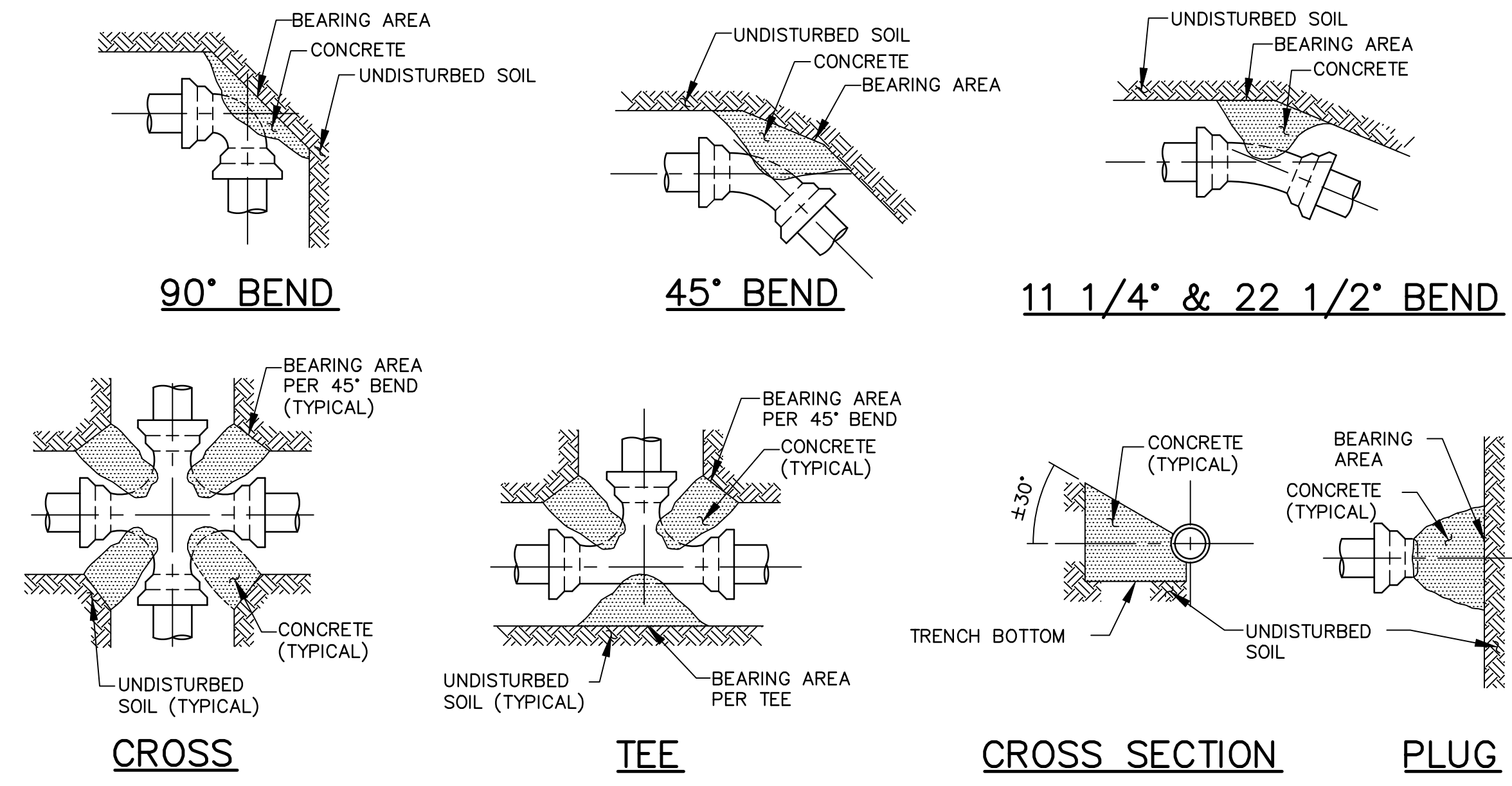
**BEDDING & BACKFILL FOR DRY STABLE TRENCH**  
NOT TO SCALE



**WATER VALVE AND BOX DETAIL**  
NOT TO SCALE

90° BEND		45° BEND		22 1/2° BEND		11 1/4° BEND		TEE		PLUG	
PIPE SIZE	BEARING AREA	PIPE SIZE	BEARING AREA	PIPE SIZE	BEARING AREA	PIPE SIZE	BEARING AREA	PIPE SIZE	BEARING AREA	PIPE SIZE	BEARING AREA
4"	2 S.F.	4"	1 S.F.	4"	1 S.F.	4"	1 S.F.	4"	2 S.F.	4"	2 S.F.
6"	4 S.F.	6"	3 S.F.	6"	1 S.F.	6"	1 S.F.	6"	3 S.F.	6"	3 S.F.
8"	8 S.F.	8"	4 S.F.	8"	1 S.F.	8"	1 S.F.	8"	5 S.F.	8"	5 S.F.
10"	12 S.F.	10"	6 S.F.	10"	3 S.F.	10"	2 S.F.	10"	8 S.F.	10"	8 S.F.
12"	16 S.F.	12"	9 S.F.	12"	5 S.F.	12"	2 S.F.	12"	12 S.F.	12"	12 S.F.
14"	22 S.F.	14"	12 S.F.	14"	6 S.F.	14"	3 S.F.	14"	15 S.F.	14"	15 S.F.
16"	29 S.F.	16"	16 S.F.	16"	8 S.F.	16"	4 S.F.	16"	20 S.F.	16"	20 S.F.
18"	36 S.F.	18"	20 S.F.	18"	10 S.F.	18"	5 S.F.	18"	25 S.F.	18"	25 S.F.
20"	44 S.F.	20"	24 S.F.	20"	12 S.F.	20"	6 S.F.	20"	32 S.F.	20"	32 S.F.
24"	64 S.F.	24"	36 S.F.	24"	18 S.F.	24"	9 S.F.	24"	45 S.F.	24"	45 S.F.
30"	100 S.F.	30"	54 S.F.	30"	28 S.F.	30"	12 S.F.	30"	71 S.F.	30"	71 S.F.
36"	103 S.F.	36"	72 S.F.	36"	38 S.F.	36"	15 S.F.	36"	77 S.F.	36"	77 S.F.

- THRUST BLOCKING NOTES:**
- PLACE CONCRETE AGAINST UNDISTURBED SOIL AND FITTING ONLY, CLEAR OF THE JOINT.
  - ALL IRON FITTINGS SHALL BE WRAPPED WITH POLYETHYLENE FILM 8 MILS MIN THICKNESS MEETING ANSI 21-5 (AWWA C105) WITH ALL EDGES AND LAPS TAPED SECURELY TO PROVIDE A CONTINUOUS AND WATERTIGHT WRAP.
  - DIMENSIONS ARE BASED ON 150 PSI TEST PRESSURE AND SAFE SOIL BEARING LOAD OF 1100 PSI.



**HORIZONTAL THRUST BLOCKING DETAILS**  
NOT TO SCALE



DATE:	June, 2026
DESIGNED BY:	G.B.
DRAWN BY:	J.I.R.
CHECKED BY:	G.B.

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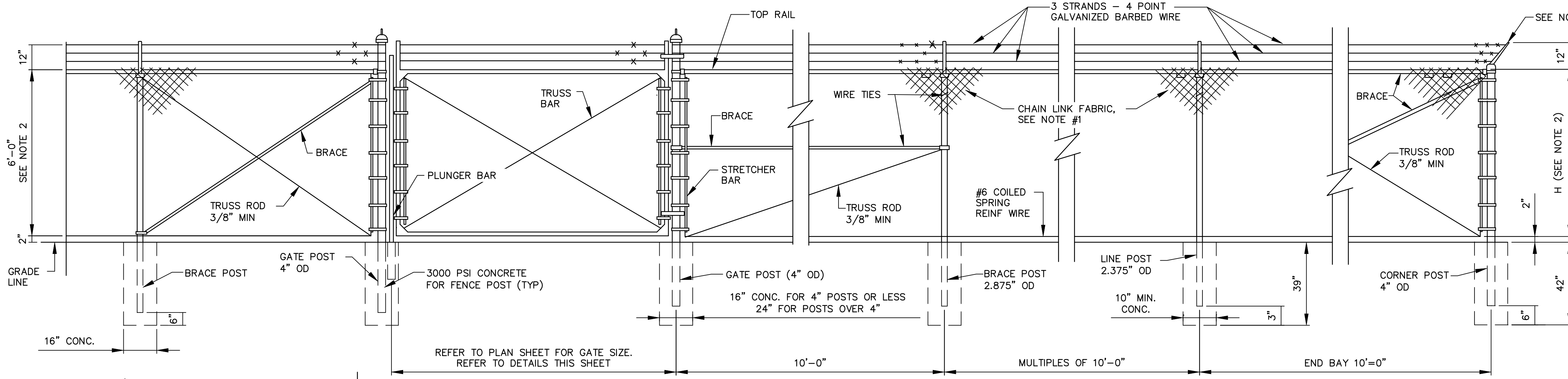
**WASTELINE ENGINEERING, INC.**  
Texas Registered Engineering Firm #F-1669

WATER SUPPLY PLANT #2  
THE CITY OF CARL'S CORNER

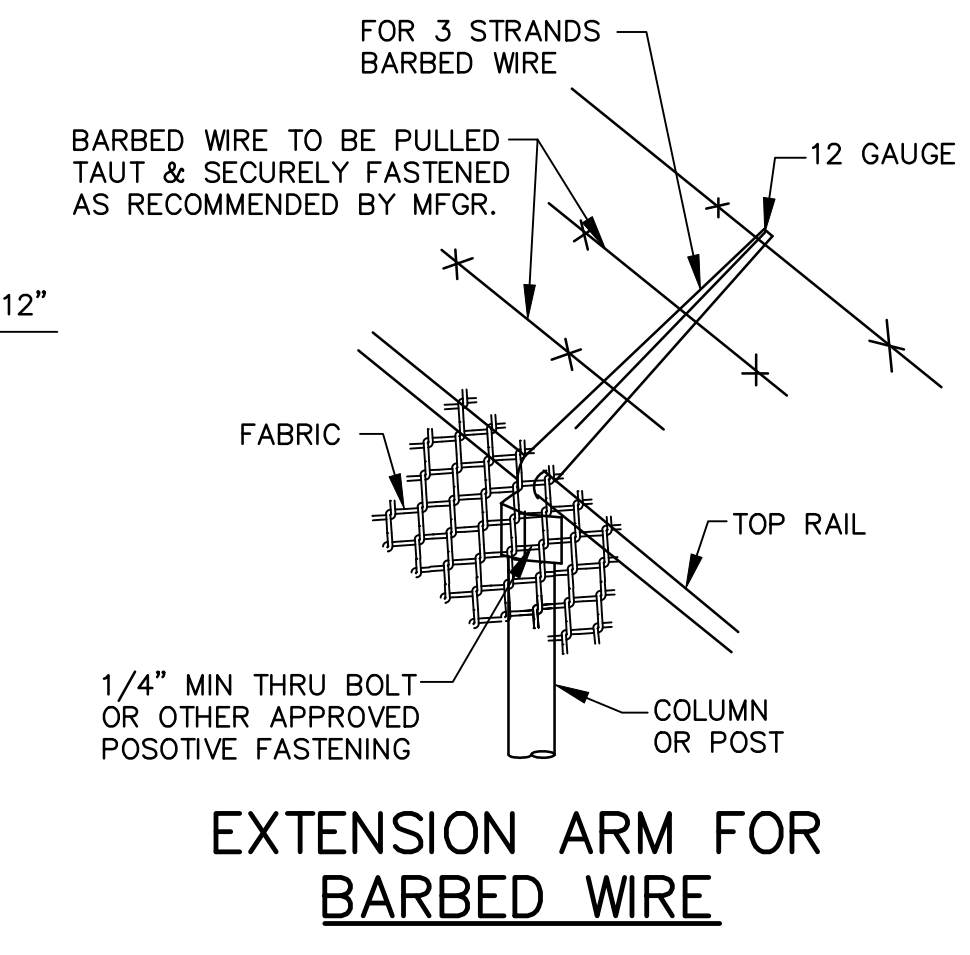
MISC DETAILS

PROJECT NO.	21820
DRAWING NO.	8 of 9



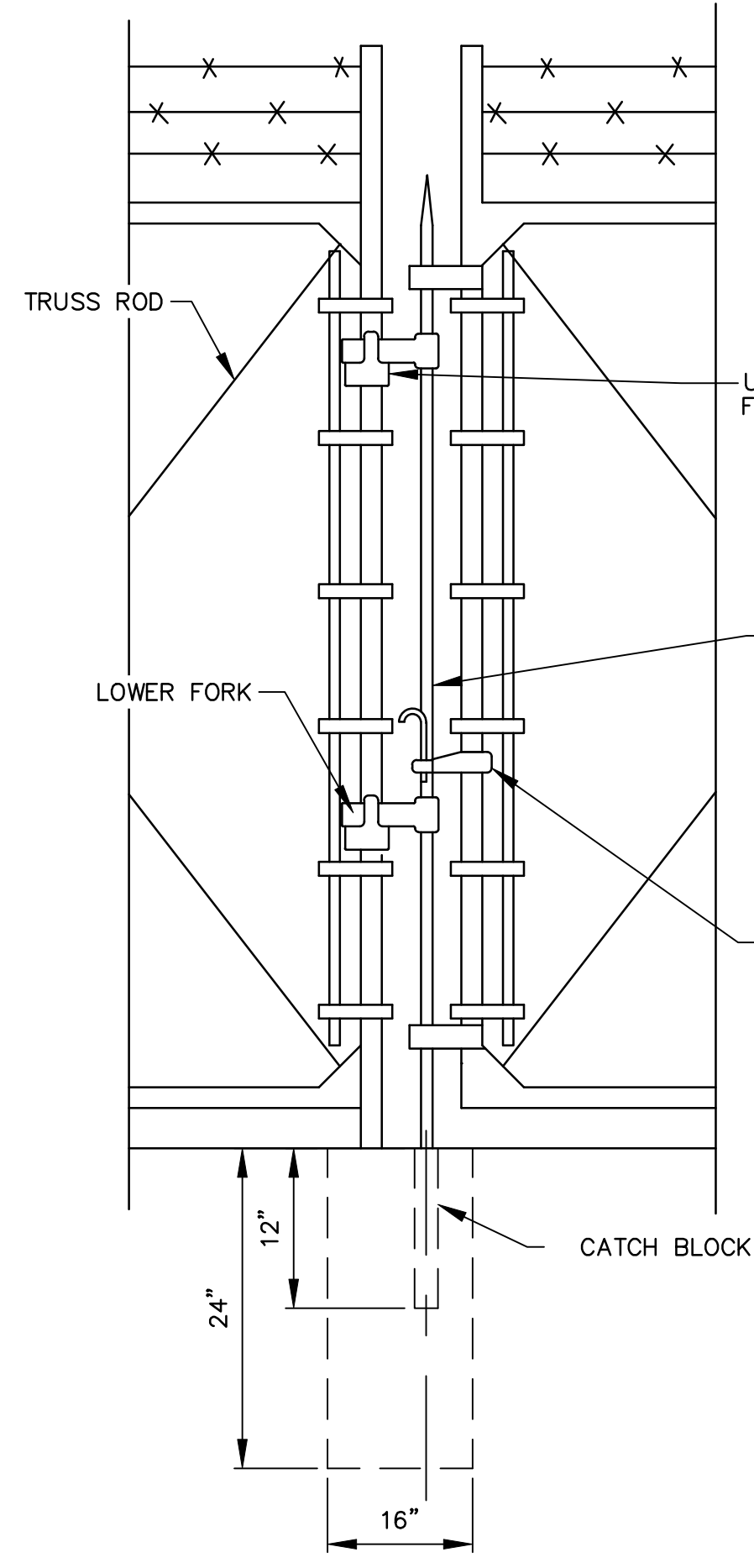


SECTION



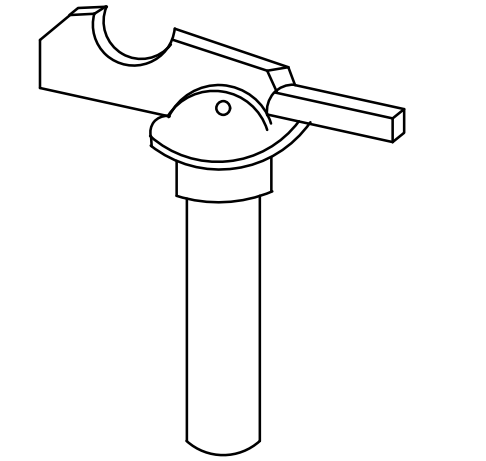
EXTENSION ARM FOR BARBED WIRE

CHAIN LINK FABRIC FENCE  
NOT TO SCALE

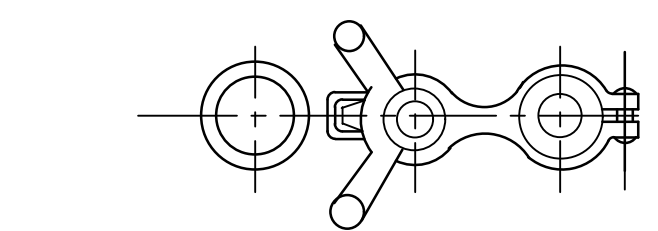


ELEVATION

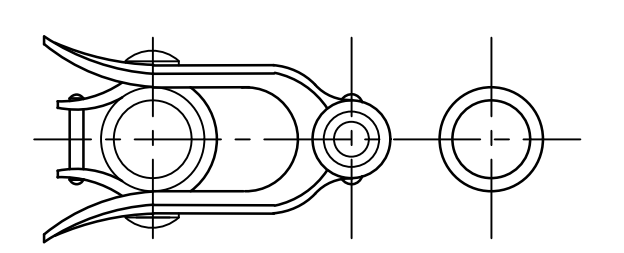
SWING GATE DETAILS



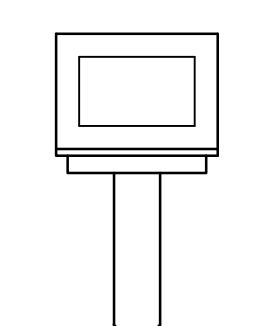
GATE KEEPER  
(TO HOLD GATE OPEN)



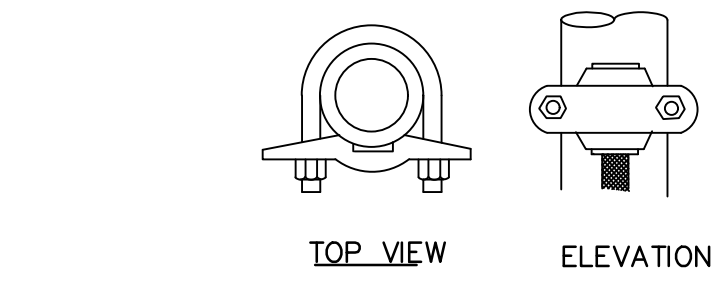
PLAN AT LOCK KEEPER



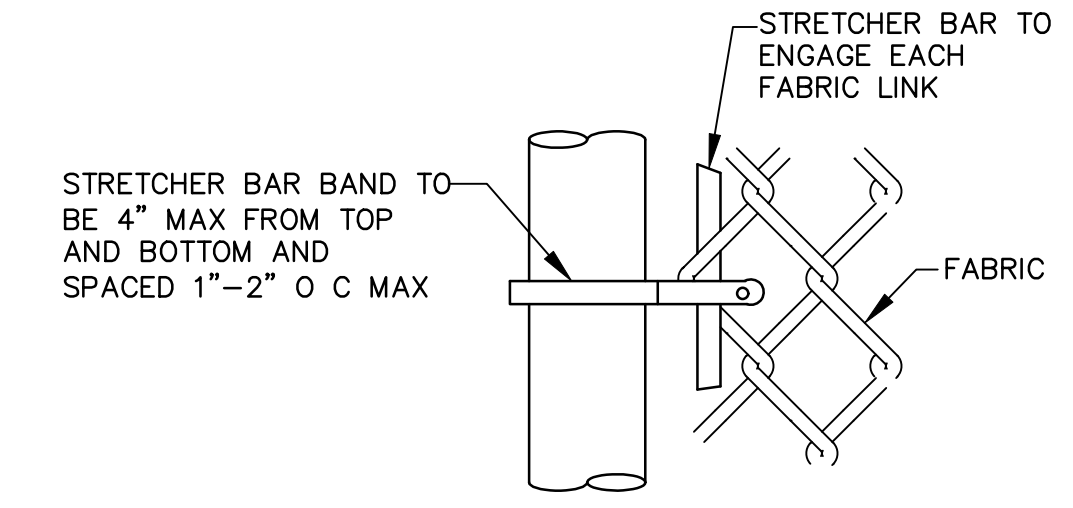
PLAN AT FORK



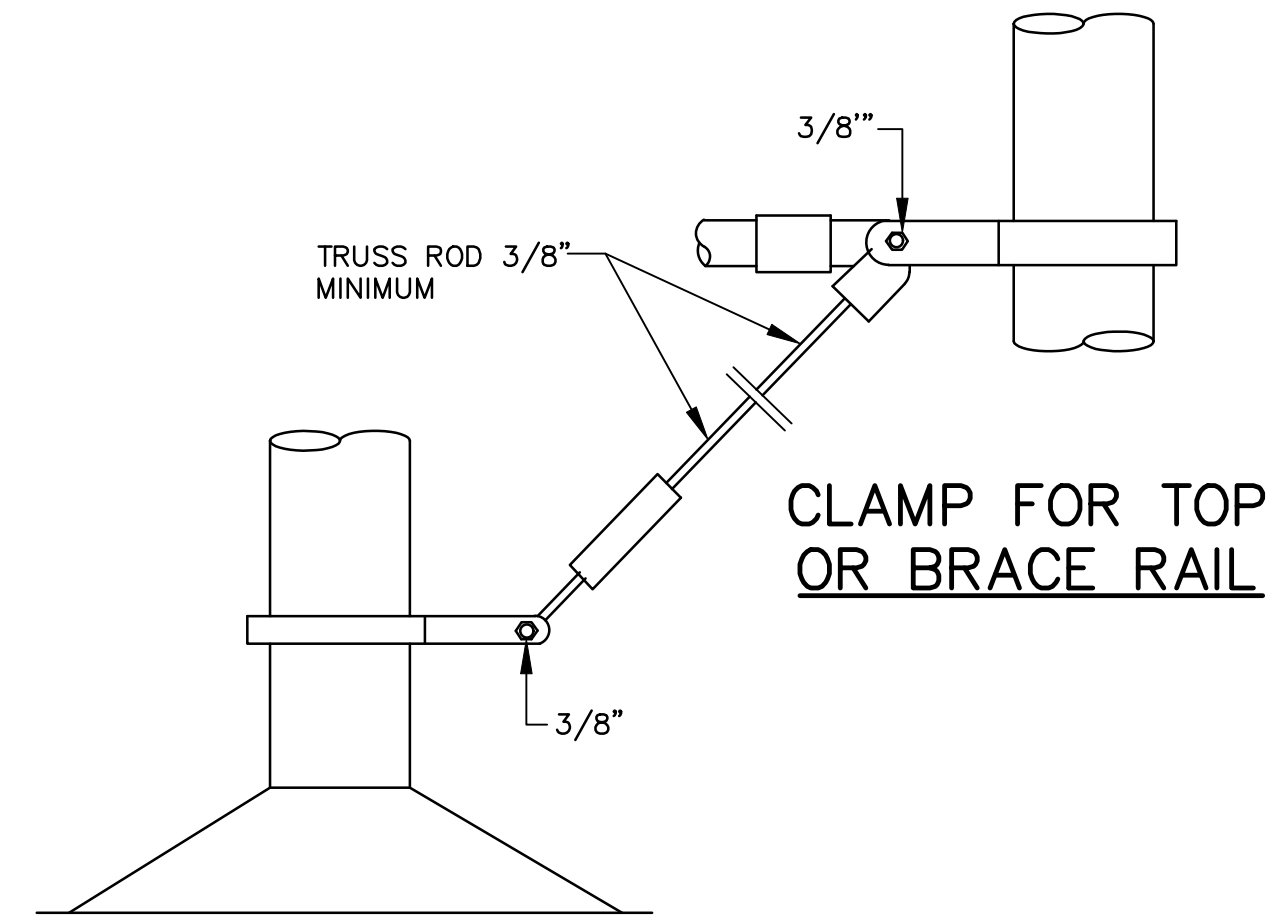
CATCH BLOCK



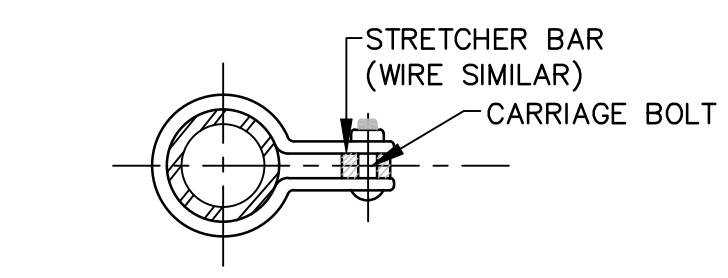
DETAIL OF BONDING GATE FRAMES TO SUPPORTING POST



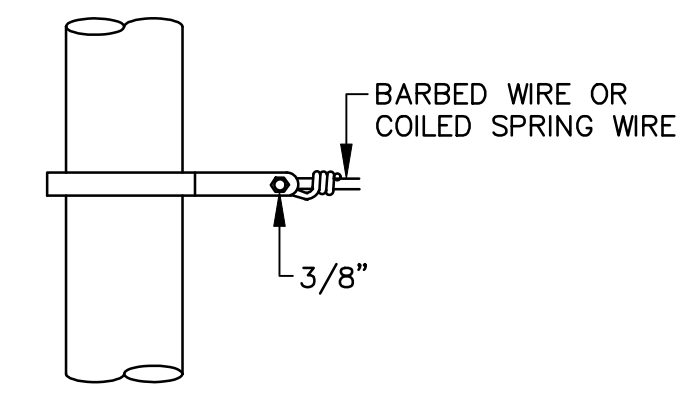
DETAIL-END OR GATE POST



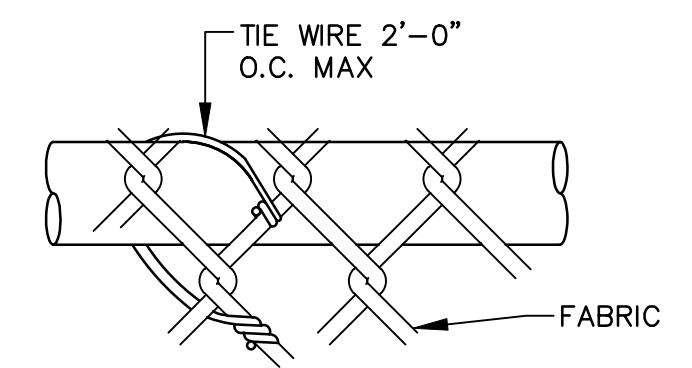
CLAMP FOR TOP OR BRACE RAIL



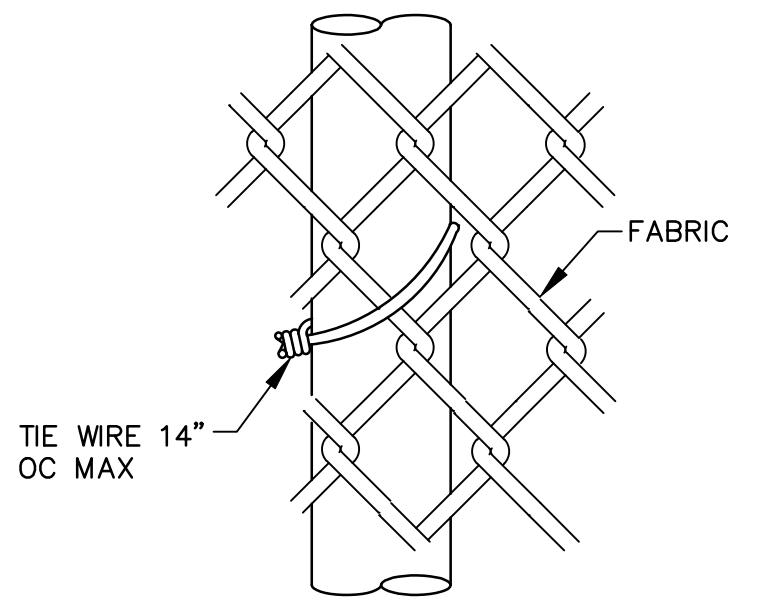
PLAN @ BANDS



BAND FOR WIRE STRETCHING

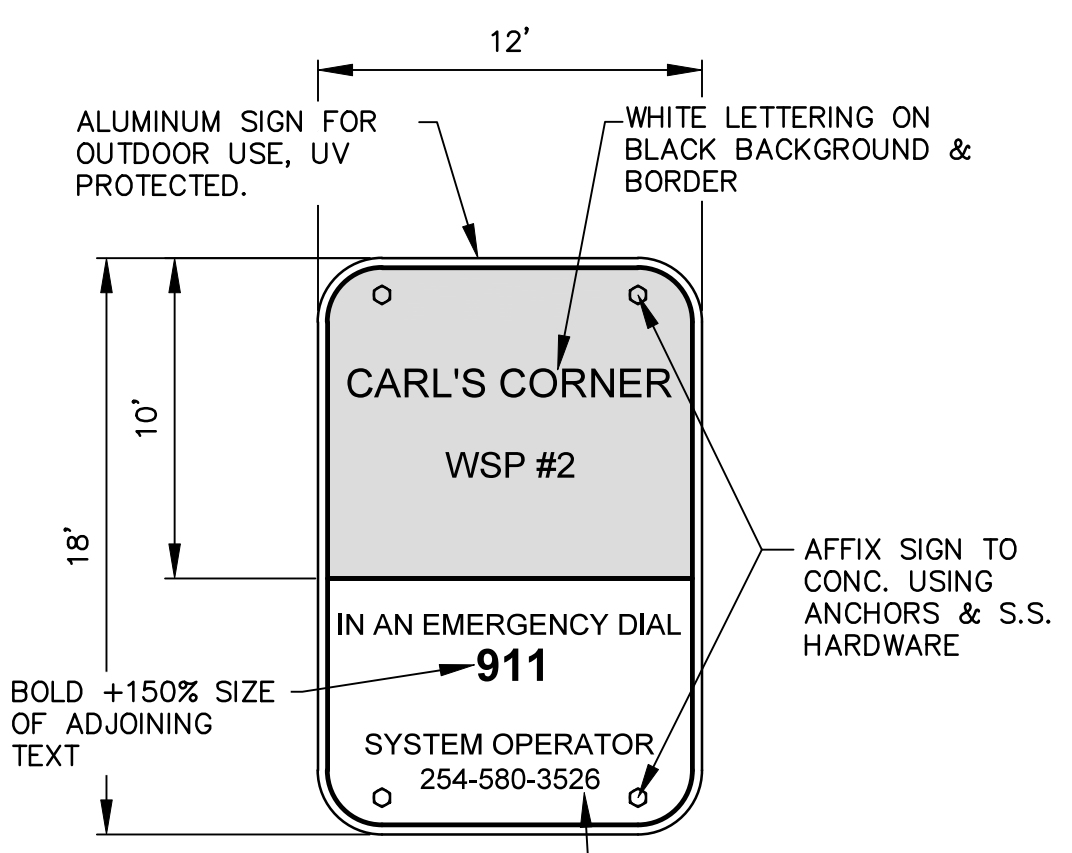


WIRE TIES FOR TOP RAIL OR BRACE RAIL

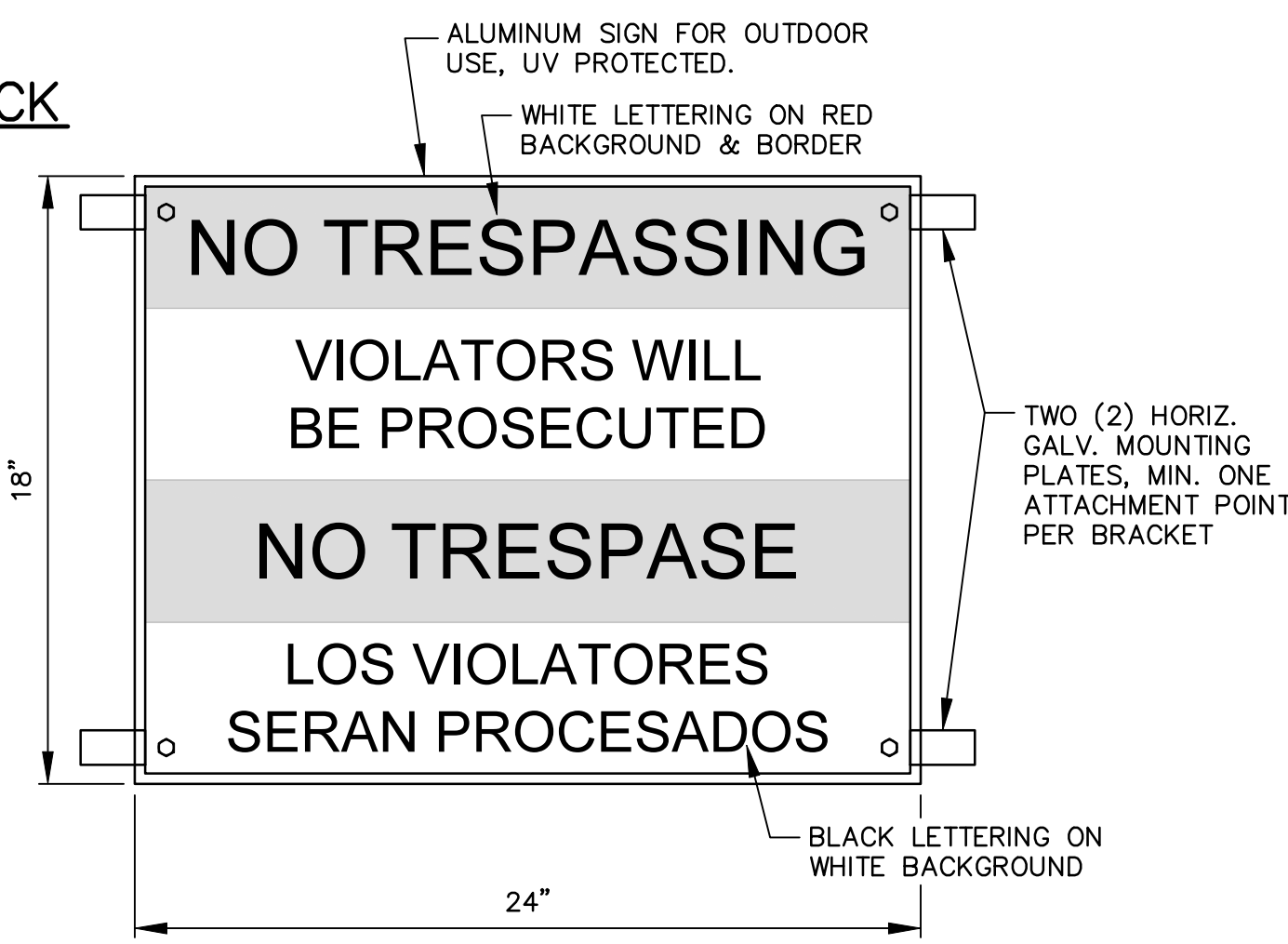


WIRE TIES FOR POST

FASTENING DETAILS - SIMILAR FOR TUBULAR POST OR H COLUMNS

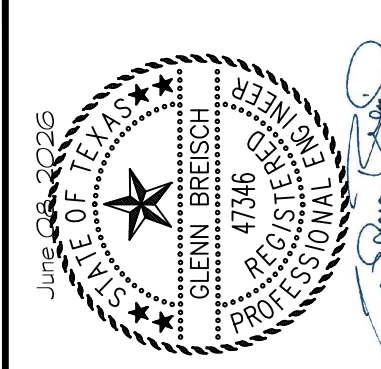


EMERGENCY CONTACT SIGN  
NOT TO SCALE



NO TRESPASSING SIGN  
NOT TO SCALE

- GENERAL NOTES:
- ALL FABRIC TO BE #9 GAGE WIRE, WOVEN IN A 2" MESH. TOP AND BOTTOM EDGES TO BE TWISTED AND BANDED.
  - HEIGHT (H) OF FENCE TO BE 6'-0" WITH 3 STRANDS OF 4 POINT BARBED WIRE SECURELY ATTACHED TO SINGLE EXTENSION ARMS ALONG TOP OF FENCE, TOP STRAND TO BE 1'-0" ABOVE.
  - SINGLE EXTENSION ARMS SHALL POINT OUTWARD AT AN ANGLE OF 45.



DATE: June, 2026  
DESIGNED BY: G.B.  
DRAWN BY: J.I.R.  
CHECKED BY: G.B.

NO.	DATE	REVISION

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Willow Park, TX 76087  
(817) 441-1300  
(817) 441-1033 fax

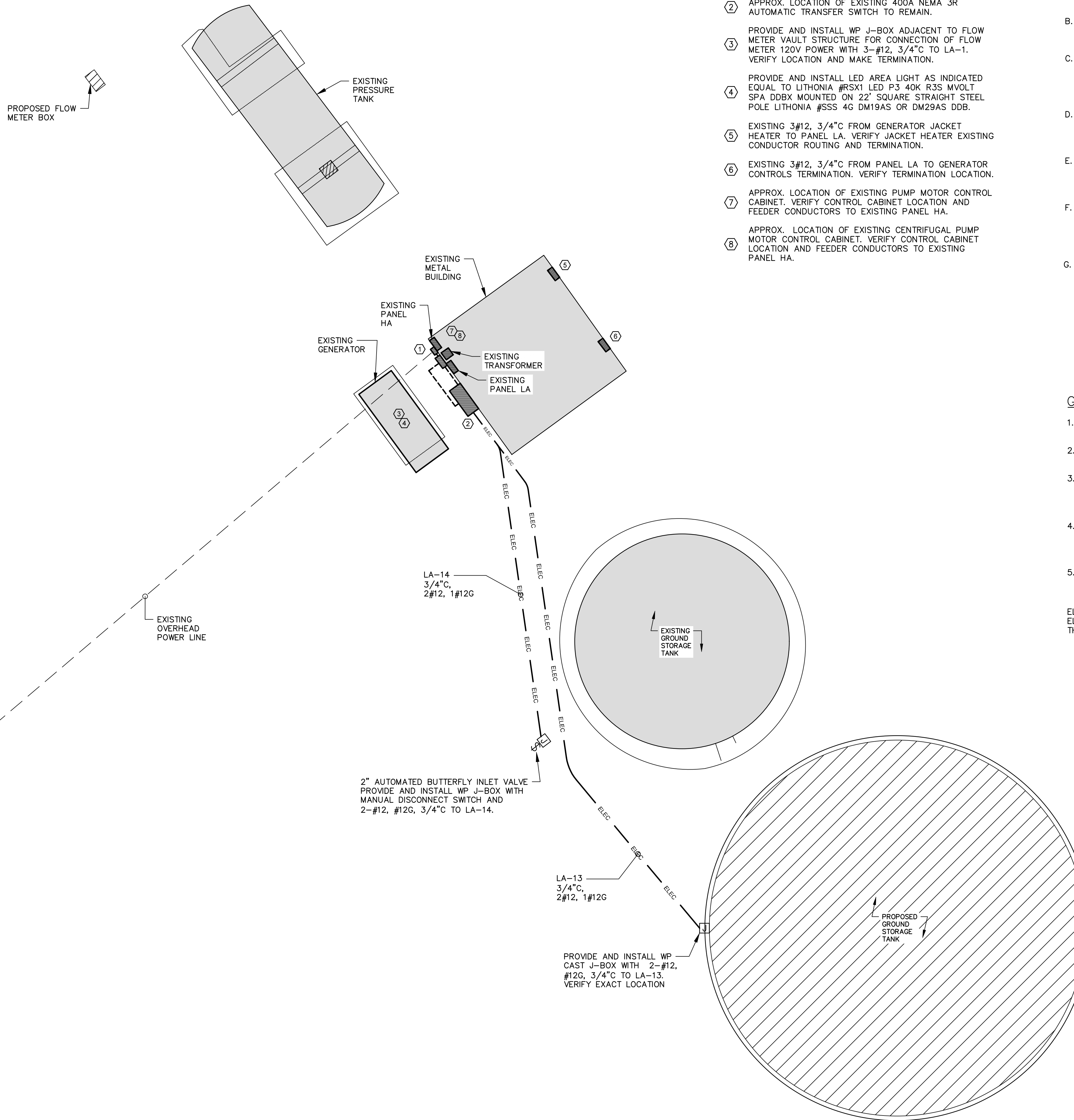
**WASTELINE ENGINEERING, INC.**  
Texas Registered Engineering Firm #F-1669

WATER SUPPLY PLANT #2  
THE CITY OF CARL'S CORNER  
CHAIN LINK FENCE DETAILS

PROJECT NO.  
21820

DRAWING NO.  
9 of 9





**NOTES BY SYMBOL**

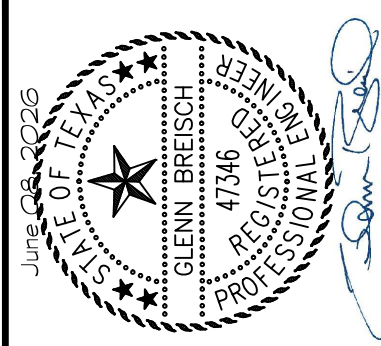
- ① APPROX. LOCATION OF EXISTING SERVICE EQUIPMENT MAIN DISCONNECT AND SERVICE METER
- ② APPROX. LOCATION OF EXISTING 400A NEMA 3R AUTOMATIC TRANSFER SWITCH TO REMAIN.
- ③ PROVIDE AND INSTALL WP J-BOX ADJACENT TO FLOW METER VAULT STRUCTURE FOR CONNECTION OF FLOW METER 120V POWER WITH 3-#12, 3/4" C TO LA-1. VERIFY LOCATION AND MAKE TERMINATION.
- ④ PROVIDE AND INSTALL LED AREA LIGHT AS INDICATED EQUAL TO LITHONIA #RSX1 LED P3 40K R35 MVOLT SPA DDBX MOUNTED ON 22' SQUARE STRAIGHT STEEL POLE LITHONIA #SSS 4G DM19AS OR DM29AS DDB.
- ⑤ EXISTING 3#12, 3/4" C FROM GENERATOR JACKET HEATER TO PANEL LA. VERIFY JACKET HEATER EXISTING CONDUCTOR ROUTING AND TERMINATION.
- ⑥ EXISTING 3#12, 3/4" C FROM PANEL LA TO GENERATOR CONTROLS TERMINATION. VERIFY TERMINATION LOCATION.
- ⑦ APPROX. LOCATION OF EXISTING PUMP MOTOR CONTROL CABINET. VERIFY CONTROL CABINET LOCATION AND FEEDER CONDUCTORS TO EXISTING PANEL HA.
- ⑧ APPROX. LOCATION OF EXISTING CENTRIFUGAL PUMP MOTOR CONTROL CABINET. VERIFY CONTROL CABINET LOCATION AND FEEDER CONDUCTORS TO EXISTING PANEL HA.

**GENERAL DEMOLITION NOTES:**

- A. PROVIDE ALL WORK REQUIRED FOR THE REMOVAL AND/OR RELOCATON OF ELECTRICAL EQUIPMENT AND ASSOCIATED CONDUCTORS, CONDUIT, BOXES, ETC. TO PROVIDE A COMPLETE AND OPERABLE SYSTEM UPON COMPLETION OF THE PROJECT.
- B. WHERE DEVICES OR EQUIPMENT ARE INDICATED OR REQUIRED TO BE REMOVED, THE ASSOCIATED BOXES, CONDUIT, AND CONDUCTORS SHALL BE REMOVED BACK TO THEIR SOURCE.
- C. WHERE DEVICES OR EQUIPMENT ARE INDICATED OR REQUIRED TO BE RELOCATED, THE ASSOCIATED BOXES, CONDUIT, AND CONDUCTORS SHALL BE REMOVED BACK TO A CONCEALED J-BOX AND NEW PRODUCTS SHALL BE USED TO EXTEND THE SERVICE TO THE NEW LOCATION.
- D. WHERE THE REMOVAL OF DEVICES OR EQUIPMENT RENDERS EQUIPMENT DOWNSTREAM INOPERABLE, SERVICE SHALL BE EXTENDED TO THE DOWNSTREAM DEVICE OR EQUIPMENT SO THAT THE DEVICE OR EQUIPMENT IS LEFT IN OPERATING CONDITION.
- E. ALL EXISTING ELECTRICAL EQUIPMENT, CONDUIT AND WIRING REMOVED DURING CONSTRUCTION NO LONGER REQUIRED AS PART OF AN ACTIVE SYSTEM AND NOT TO BE REUSED SHALL BE REMOVED FROM THE JOB SITE AND PROPERLY RETURNED TO THE OWNER.
- F. EXISTING EQUIPMENT IS TO BE RELOCATED, EXTREME CARE SHALL BE TAKEN TO PREVENT DAMAGE DURING THE REMOVAL AND REINSTALLATION. WHERE DAMAGE OCCURS, THE EQUIPMENT SHALL BE REPLACED OR REPAIRED TO THE SATISFACTION AND APPROVAL OF THE ENGINEER AT NO ADDITIONAL COST TO THE OWNER.
- G. EXISTING DEVICES AND/OR EQUIPMENT TO BE REUSED SHALL BE CLEANED AND REPAIRED AT THE DISCRETION OF THE ENGINEER WHERE APPLICABLE.

**GENERAL SITE NOTES:**

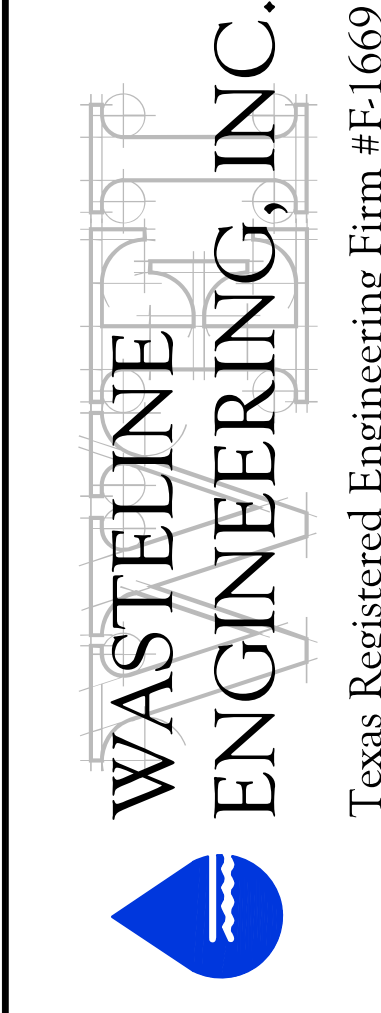
- 1. ALL CONSTRUCTION SHALL COMPLY WITH CITY & STATE STANDARD SPECIFICATIONS.
  - 2. IT IS RECOMMENDED THAT THE CONTRACTOR VISIT THE JOB SITE PRIOR TO BIDDING.
  - 3. THE CONTRACTOR SHALL PROTECT ALL EXISTING PRIVATE AND PUBLIC FEATURES/UTILITIES FROM DAMAGES. THE CONTRACTOR SHALL BE HELD FINANCIALLY RESPONSIBLE FOR ANY DAMAGE DONE BY HIS CONSTRUCTION.
  - 4. THE CONTRACTOR SHALL MAINTAIN THE FLOW OF TRAFFIC AT ALL TIMES AND PROVIDE ACCESS TO ALL DRIVES. A TRAFFIC CONTROL PLAN TO BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO ANY CONSTRUCTION.
  - 5. INSTALL LONG SWEEP 90° ELBOWS ON PHONE LINES. MAINTAIN A MINIMUM OF 24" SEPARATION BETWEEN POWER LINES AND PHONE LINES. BURY PHONE LINES A MINIMUM OF 24" DEEP.
- ELECTRICAL CONTRACTOR SHALL COORDINATE ELECTRICAL SERVICE WITH ELECTRIC COMPANY, VERIFY COST METERING AND WHAT IS SUPPLIED BY THE POWER CO.



DATE:	June, 2026
DESIGNED BY:	G.B.
DRAWN BY:	J.I.R.
CHECKED BY:	G.B.

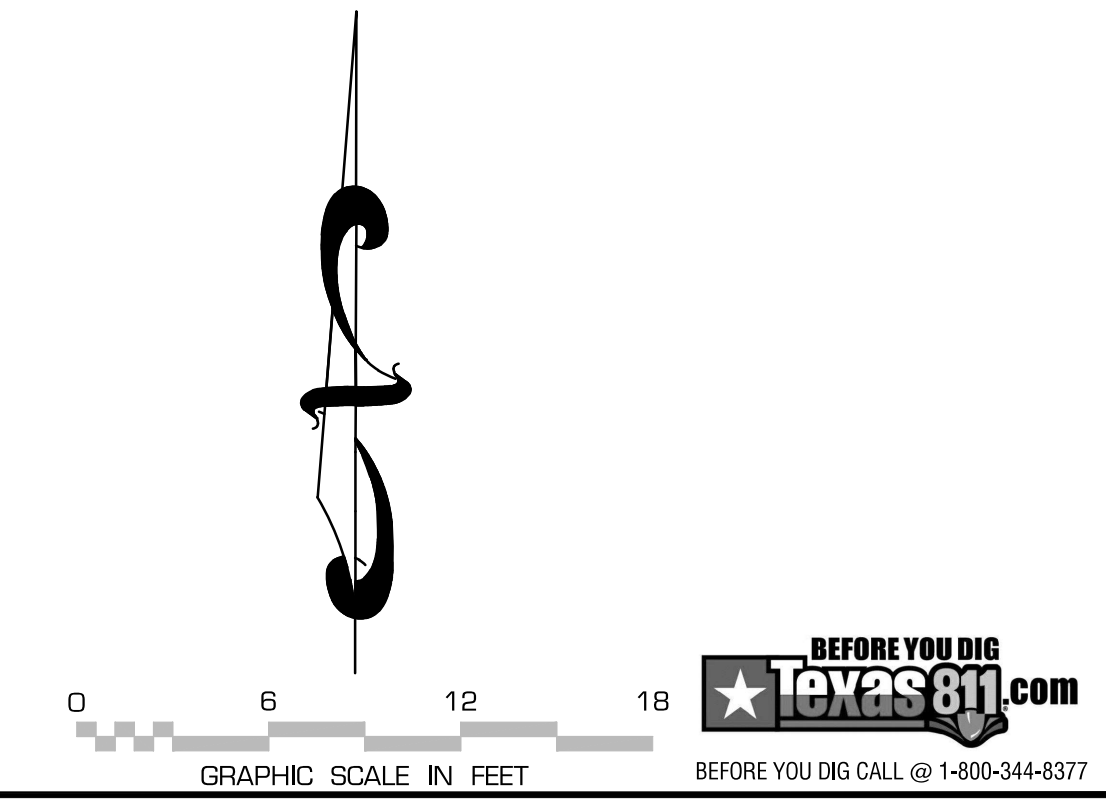
NO.	DATE	REVISION

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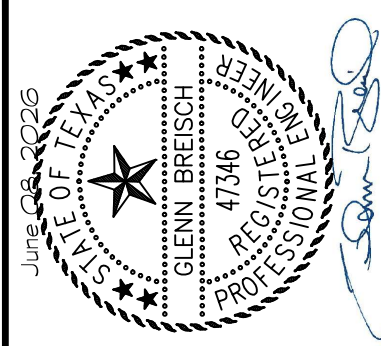


WATER SUPPLY PLANT #2  
 THE CITY OF CARL'S CORNER  
 SITE ELECTRICAL PLAN

PROJECT NO.	21820
DRAWING NO.	E1



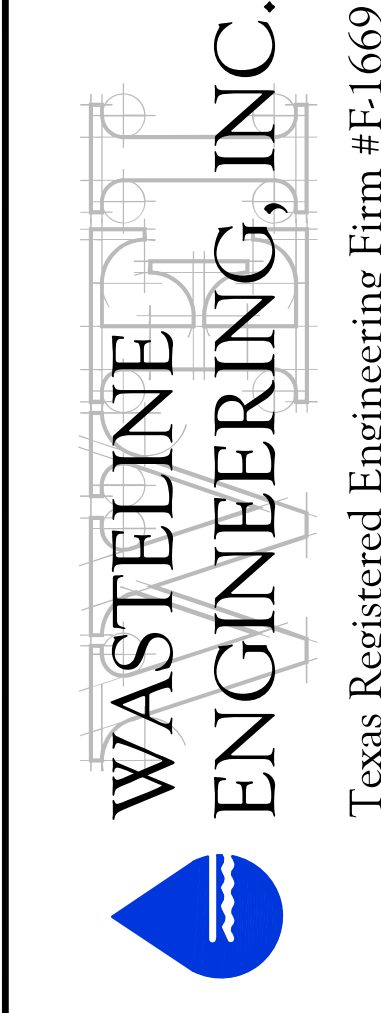
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DATE: June, 2026  
 DESIGNED BY: G.B.  
 DRAWN BY: J.I.R.  
 CHECKED BY: G.B.

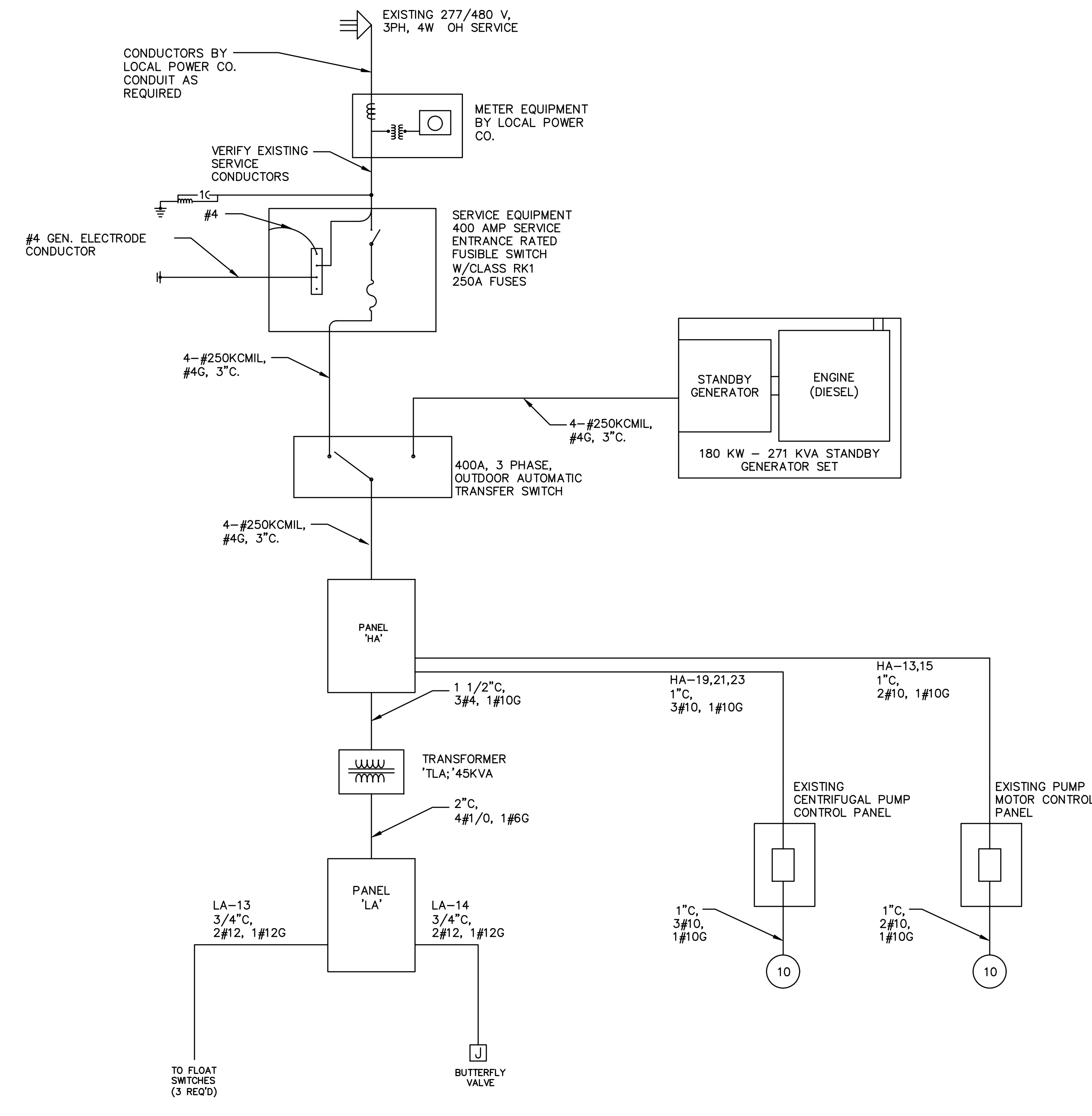
NO.	DATE	REVISION

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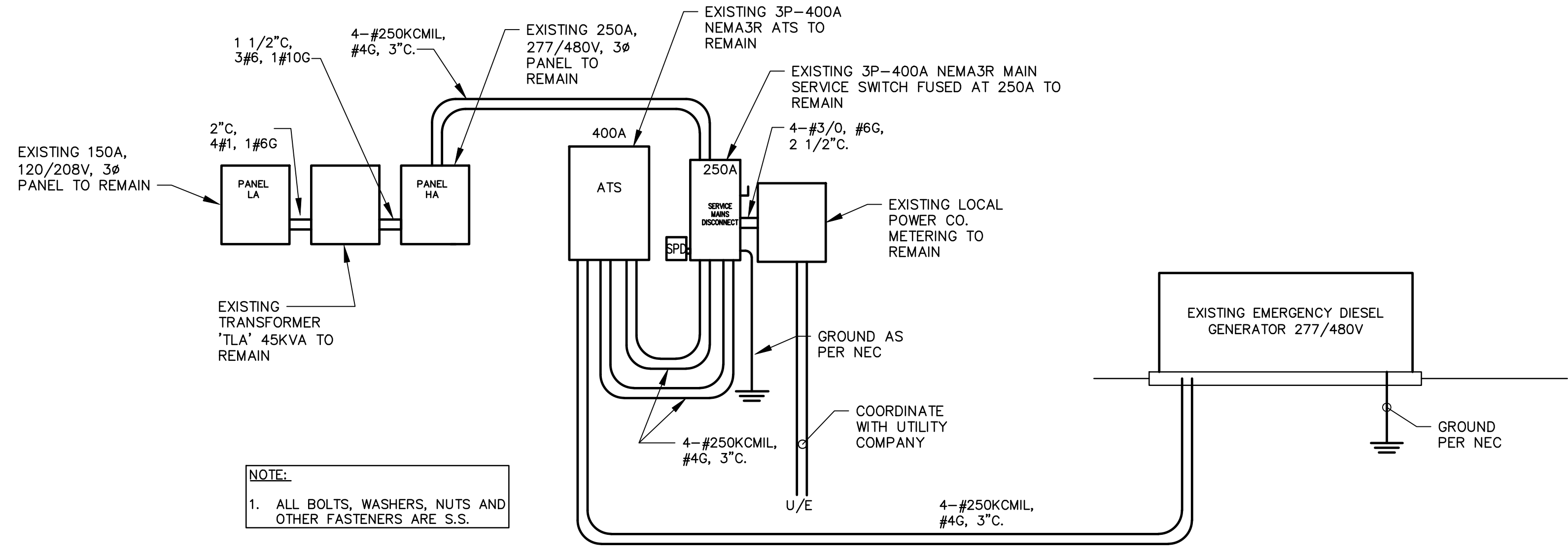


WATER SUPPLY PLANT #2  
 THE CITY OF CARL'S CORNER  
 ELECTRICAL RISER DIAGRAM

PROJECT NO.  
 21820  
 DRAWING NO.  
 E2

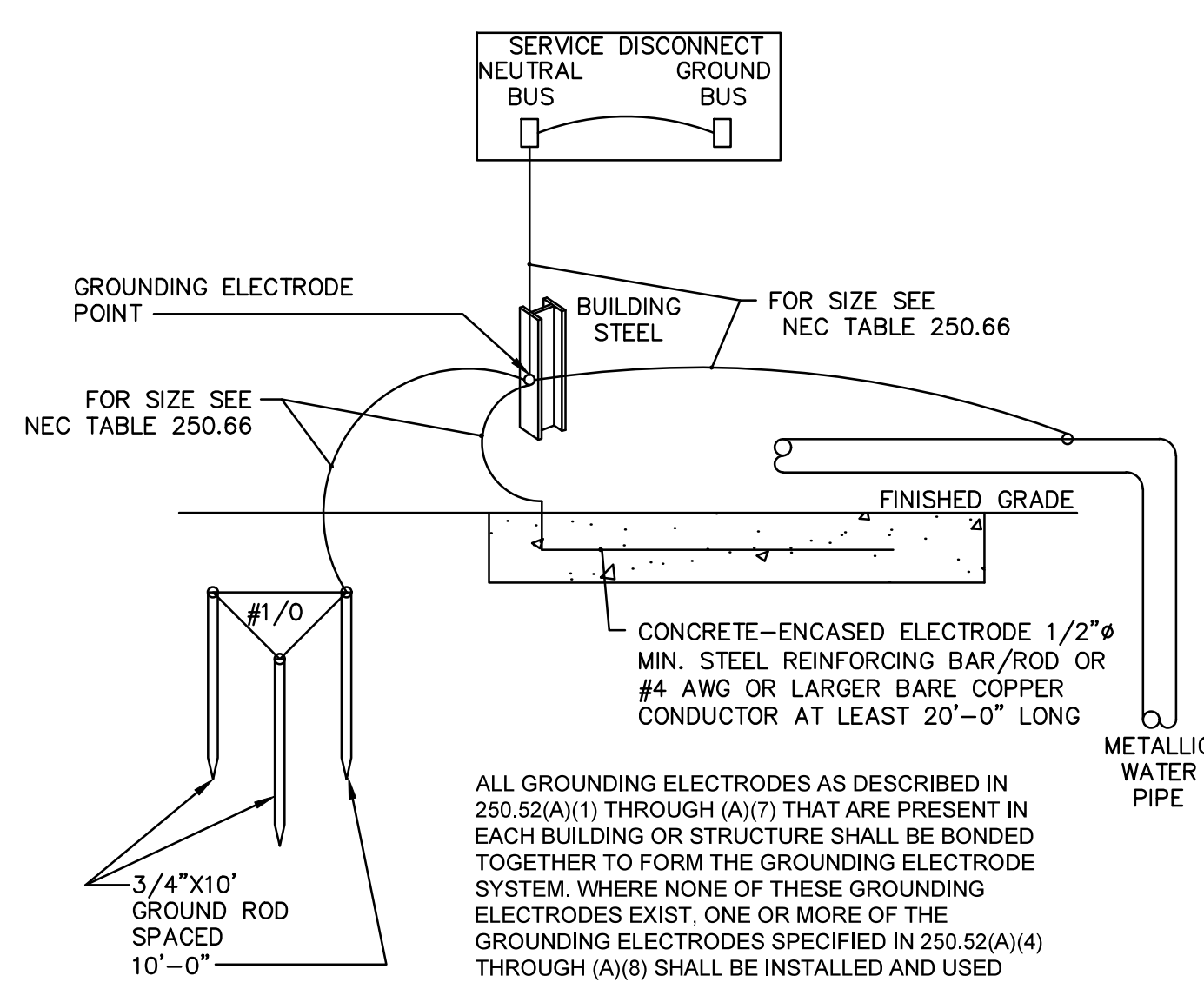


1 ELECTRICAL RISER DIAGRAM  
 E2 NO SCALE



NOTE:  
 1. ALL BOLTS, WASHERS, NUTS AND OTHER FASTENERS ARE S.S.

3 ELECTRICAL SERVICE DETAIL  
 E2 NO SCALE



2 SERVICE ENTRANCE GROUNDING DETAIL  
 E2 NO SCALE

TABLE 250.66 GROUNDING ELECTRODE CONDUCTOR FOR ALTERNATING-CURRENT SYSTEMS

SIZE OF LARGEST UNGROUND SERVICE-ENTRANCE CONDUCTOR OR EQUIVALENT AREA FOR PARALLEL CONDUCTORS*(AWG/kcmil)	SIZE OF GROUNDING ELECTRODE CONDUCTOR (AWG/kcmil)	
	COPPER OR COPPER-CLAD ALUMINUM	ALUMINUM OR COPPER-CLAD ALUMINUM
2 OR SMALLER	1/0 OR SMALLER	6
1 OR 1/0	2/0 OR 3/0	4
2/0 OR 3/0	4/0 OR 250	2
OVER 3/0 THRU 350	OVER 250 THRU 500	1/0
OVER 350 THRU 600	OVER 500 THRU 900	3/0
OVER 600 THRU 1100	OVER 900 THRU 1750	2/0
OVER 1100	OVER 1750	4/0
		250

NOTES:  
 1. IF MULTIPLE SETS OF SERVICE-ENTRANCE CONDUCTORS CONNECT DIRECTLY TO A SERVICE DROP, SET OF OVERHEAD SERVICE CONDUCTORS, SET OF UNDERGROUND SERVICE CONDUCTORS, OR SERVICE LATERAL, THE EQUIVALENT SIZE OF THE LARGEST SERVICE-ENTRANCE CONDUCTOR SHALL BE DETERMINED BY THE LARGEST SUM OF THE AREA OF THE CORRESPONDING CONDUCTORS OF EACH SET.  
 2. WHERE THERE ARE NO SERVICE-ENTRANCE CONDUCTORS, THE GROUNDING ELECTRODE CONDUCTOR SIZE SHALL BE DETERMINED BY THE EQUIVALENT SIZE OF THE LARGEST SERVICE-ENTRANCE CONDUCTOR REQUIRED FOR THE LOAD TO BE SERVED.  
 \* THIS TABLE ALSO APPLIES TO THE DERIVED CONDUCTORS OF SEPARATELY DERIVED AC SYSTEMS.  
 \* SEE INSTALLATION RESTRICTIONS IN 250.64(A)

15/06/2018 10:52:00 AM Project: 21820 - Carl's Corner - WSP #2 - Electrical - 21820-000.dwg User: G. Breisch Date: 06/26/2026





**ELECTRICAL – GENERAL REQUIREMENTS**

**GENERAL:**  
CONTRACTOR SHALL FURNISH ALL MATERIALS AND LABOR AS INDICATED ON PLANS AND AS REQUIRED FOR A COMPLETE LIGHTING AND POWER SYSTEM.

**EXAMINATION OF PREMISES:**  
CONTRACTOR SHALL VISIT THE JOB SITE AND BE AWARE OF CONDITIONS UNDER WHICH HE MUST WORK.

**PERMITS AND FEES:**  
CONTRACTOR SHALL OBTAIN ALL PERMITS AND PAY ALL FEES.

**CODES:**  
ALL WORK SHALL BE EXECUTED AND INSPECTED IN ACCORDANCE WITH THE LATEST APPROVED EDITION OF THE NATIONAL ELECTRIC CODE, THE CODES OF O.S.H.A. BARRIER FREE, A.D.A. AND ALL LOCAL AUTHORITIES HAVING JURISDICTION.

**UTILITY COMPANY REQUIREMENTS:**  
COMPLY WITH CONSTRUCTION STANDARDS AND RULES OF LOCAL UTILITY COMPANIES. CONTRACTOR SHALL CONTACT UTILITY COMPANIES AND VERIFY ALL SERVICE REQUIREMENTS. INCLUDE IN BASE BID, ALL UTILITY COMPANY CHARGES.

**GROUNDING:**  
CABINETS, MOTOR FRAMES, STARTERS, CONDUIT SYSTEMS, PANELS, ETC., SHALL BE GROUNDED IN ACCORDANCE WITH THE LATEST N.E.C. AND LOCAL CODES. PROVIDE SERVICE GROUND AND GROUND MAT AT PAD MOUNTED TRANSFORMER.

**MATERIALS:**  
MATERIALS SHALL BE NEW AND BEAR THE U.L. LABEL OR LISTING, WHEREVER STANDARDS HAVE BEEN ESTABLISHED.

**AS-BUILT DRAWINGS:**  
CONTRACTOR SHALL PREPARE AND MAINTAIN ACCURATE RECORD DRAWINGS OF ALL UNDERGROUND AND CONCEALED WORK AND SHALL SUBMIT THESE DRAWINGS TO OWNER UPON FINAL ACCEPTANCE OF THE WORK OR UPON OWNER'S REQUEST.

**DRAWINGS AND MEASUREMENTS:**  
THE DRAWINGS ARE PARTLY DIAGRAMMATIC AND ARE NOT INTENDED TO BE SCALED FOR ROUGH-IN, MEASUREMENTS, OR TO SERVE AS SHOP DRAWINGS. FIELD MEASUREMENTS NECESSARY FOR ORDERING MATERIALS AND FITTING THE INSTALLATION TO THE BUILDING CONSTRUCTION AND ARRANGEMENT SHALL BE TAKEN BY THIS CONTRACTOR.

**SHOP DRAWINGS:**  
COMPLETE SHOP DRAWINGS FOR ALL ELECTRICAL WORK SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW BEFORE FABRICATION OF THE WORK. SEVEN (7) COPIES OF SHOP DRAWINGS SHALL BE SUBMITTED ON ALL ITEMS OF ELECTRICAL EQUIPMENT, PANELS, LIGHT FIXTURES, SPECIALTIES, ETC.

**CLEANING AND FINISHING:**  
AFTER ALL TESTS HAVE BEEN MADE THE CONTRACTOR SHALL CAREFULLY MAKE A THOROUGH INSPECTION OF THE ENTIRE INSTALLATION AND HAVE THE ENTIRE WORK THOROUGHLY CLEANED, ALL RUBBISH REMOVED, AND LEAVE ALL WORK SATISFACTORY TO THE OWNER.

**COORDINATION WITH OTHER WORK:**  
CONSULT THE PLANS COVERING THE WORK FOR THE VARIOUS OTHER TRADES, THE FIELD LAYOUTS OF THE CONTRACTORS FOR THESE TRADES, AND THEIR SHOP DRAWINGS. THE CONTRACTOR SHALL BE AWARE AND RESPONSIBLE IN LAYING OUT THE ELECTRICAL WORK.

**DAMAGE TO OTHER WORK:**  
THE ELECTRICAL CONTRACTOR WILL BE HELD RESPONSIBLE FOR DAMAGE TO WORK CAUSED BY HIS WORK OR THROUGH THE NEGLIGENCE OF HIS WORKMEN. ALL PATCHING AND REPAIRING OF DAMAGED WORK SHALL BE DONE BY THE GENERAL CONTRACTOR, BUT THE COST OF SAME SHALL BE PAID BY THE CONTRACTOR RESPONSIBLE FOR THE DAMAGE.

**TESTING:**  
AFTER ALL ELECTRICAL WORK HAS BEEN COMPLETED, THE CONTRACTOR SHALL DEMONSTRATE TO THE ENGINEER THAT THE ENTIRE INSTALLATION IS IN WORKING ORDER. ANY DEFECTIVE WORK OR EQUIPMENT, OR ANY WORK THAT IS NOT IN COMPLIANCE WITH THE SPECIFICATIONS, SHALL BE PROMPTLY CORRECTED BY THE CONTRACTOR.

**CUTTING AND PATCHING:**  
CUTTING, CORE DRILLING, INSERTS AND CONDUIT OR CABLE SLEEVES AND PATCHING REQUIRED IN THE GENERAL CONSTRUCTION FOR COMPLETION OF THE WORK, SPECIFIED HEREIN, SHALL BE FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR.

**CONDUIT SLEEVES:**  
PROVIDE CONDUIT SLEEVES WHERE CONDUITS PASS THRU FLOORS, WALLS, ETC. AS REQUIRED. ALL VOIDS BETWEEN SLEEVES OR HOLES AND CONDUITS PASSING THRU SHALL BE FIRESTOPPED. SPECSEAL 100 FIRE STOP SEALANT OR EQUAL.

**EXCAVATION AND BACK FILLING:**  
ALL EXCAVATING, TRENCHING AND BACK FILLING TO INSTALL ELECTRICAL WORK SHALL BE BY THE ELECTRICAL CONTRACTOR.

**EQUIPMENT FOUNDATIONS:**  
CONCRETE BASES SHALL BE PROVIDED FOR SITE LIGHTING FIXTURES. CONCRETE PADS SHALL BE PROVIDED FOR UTILITY COMPANY PAD MOUNTED TRANSFORMER. CONCRETE HOUSEKEEPING PAD SHALL BE PROVIDED FOR FREE STANDING PANELS.

**MOUNTING HEIGHTS:**

LIGHTING SWITCHES	4'-0" TO CENTERLINE
RECEPTACLES	1'-6" TO BOTTOM
TELEPHONE/DATA	1'-6" TO BOTTOM
LIGHTING PANELS	6'-6" TO TOP
DISTRIBUTION PANELS	7'-0" TO TOP
MOTOR STARTERS/DISCONNECTS	5'-6" TO TOP

**CERTIFICATE OF APPROVAL:**  
WHEN THE JOB IS COMPLETED, THE CONTRACTOR SHALL PROVIDE THE ARCHITECT/ENGINEER WITH CERTIFICATE OF APPROVAL FROM THE LOCAL ELECTRICAL INSPECTION AUTHORITY. THE CONTRACTOR SHALL GIVE THE OWNER A WRITTEN GUARANTEE THAT HE WILL MAKE GOOD, AT HIS OWN EXPENSE, ANY DEFECTS IN MATERIALS OR WORKMANSHIP WHICH MAY DEVELOP WITHIN ONE (1) YEAR FROM THE DATE OF FINAL ACCEPTANCE.

**ELECTRICAL – BASIC MATERIALS**

**WIRING:**  
FEEDERS SHALL BE TYPE "THWN" OR "XHHW". BRANCH CIRCUIT WIRING SHALL BE TYPE "THWN/THHN", #12 MINIMUM. ALL WIRE SHALL BE COPPER, HAVE 600 VOLT INSULATION AND BE INSTALLED IN CONDUIT.

SECONDARY SERVICE FEEDERS SHALL BE TYPE "XHHW", PER UTILITY COMPANY REQUIREMENTS.

**GROUNDING:**  
PROVIDE GROUND MAT AT PAD MOUNTED TRANSFORMER PER UTILITY COMPANY REQUIREMENTS.

PROVIDE GROUND RODS AT SERVICE ENTRANCE (3-3/4"x10' LG.) AND CONNECT TO COLD WATER SERVICE. USE #3/0 CU. GRD. CONDUCTOR.

CABINETS, MOTOR FRAMES, STARTERS, CONDUIT SYSTEMS, PANELS, ETC., SHALL BE GROUNDED IN ACCORDANCE WITH THE LATEST N.E.C. AND LOCAL CODES.

PROVIDE SEPARATE FULL SIZE GROUND WIRE IN ALL CONDUITS SERVING ALL PANELS, LIGHTING, MOTORS, AND RECEPTACLES.

**CONDUIT:**  
CONDUIT SHALL BE MC, THINWALL (EMT) R.G.S. OR PVC CONDUIT INSTALLED IN OR UNDER FLOOR SHALL BE 3/4" MINIMUM, R.G.S. OR PVC. CONDUIT INSTALLED IN FINISHED AREAS SHALL BE CONCEALED.

PRIMARY SERVICE, TELEPHONE SERVICE AND SITE LIGHTING CONDUITS SHALL BE PVC HEAVY WALL SCHEDULE 40.

SECONDARY SERVICE CONDUIT SHALL BE RIGID GALVANIZED STEEL.

FLEXIBLE METAL CONDUIT WITH GROUND WIRE SHALL BE USED FOR FINAL CONNECTION TO LIGHTING FIXTURES, MOTORS, ETC., 1/2" MINIMUM.

MC CABLE MAY BE USED IN PARTITION WALL OR ABOVE ACCESSIBLE CEILINGS.

NO PVC CONDUIT WILL BE ALLOWED IN BUILDING. ALL CONDUITS TURNING UP FROM UNDERGROUND SHALL BE STEEL ELLS.

**SWITCHES:**  
SWITCHES SHALL BE 20A., 120/277V., 1 POLE, 3 AND 4 WAY AS INDICATED, IVORY FINISH, HUBBELL #1221-1 SERIES, COOPER WIRING DEVICES OR LEVITON.

**MOTION SENSORS:**  
WALL MOUNTED MOTION SENSORS SHALL BE 1200 VA, 277 VOLT OR 800 VA, 120 VOLT FOR UP TO 300 SQUARE FEET COVERAGE, 15 SECOND TO 30 MINUTE TIME ADJUSTMENT, ZERO CROSSING TECHNOLOGY, SELF ADJUSTING SENSITIVITY. NOVITAS #01-250, (SUPERSWITCH MINI WALL SWITCH), OR WATT STOPPER.

**RECEPTACLES:**  
RECEPTACLES SHALL BE DUPLEX, GROUNDING TYPE 20A., 125V., IVORY FINISH, HUBBELL #9362-1 OR EQUAL. SPECIAL PURPOSE RECEPTACLES 30A., 40A., 50A., 2P. OR 3P., ETC., SHALL BE SPECIFICATION GRADE, HUBBELL, COOPER WIRING DEVICES, OR LEVITON.

G.F.I. RECEPTACLES SHALL BE DUPLEX GROUNDING TYPE, 20A., 125V, HUBBELL #GF5362-1, COOPER WIRING DEVICES OR LEVITON.

WEATHERPROOF COVER. THE ENCLOSURE SHALL HAVE CORD PORTS CAPABLE OF ALLOWING AN ELECTRICAL CORD TO PASS THROUGH WHEN COVER IS CLOSED, TAYMAC #20310 OR EQUAL.

**WALL PLATES:**  
WALL PLATES FOR SWITCHES, AND RECEPTACLE OUTLETS SHALL BE SUPER STAINLESS STEEL, ANSI 302, HUBBELL #97000 SERIES, COOPER WIRING DEVICES, OR LEVITON.

**OUTLETS:**  
OUTLET BOXES FOR CONCEALED WORK SHALL BE PRESSED STEEL BOXES, GALVANIZED, #12 GAUGE. WALL OR CEILING BOXES SHALL BE 4" ROUND OR OCTAGONAL, AS REQUIRED. SURFACE MOUNTED BOXES SHALL BE CAST TYPE "FS" OR "FD".

**MOTOR STARTERS:**  
SINGLE PHASE MOTOR STARTERS SHALL HAVE MANUAL TOGGLE SWITCH WITH THERMAL OVERLOADS, FLUSH MOUNTED WITH PILOT LIGHT, SQUARE D, CLASS 2510, CUTLER HAMMER, G.E., OR SIEMENS I.T.E.

THREE PHASE MOTOR STARTERS SHALL BE MAGNETIC TYPE, WITH FUSED CONTROL TRANSFORMER WITH 3 OVERLOADS, HAND-OFF AUTO SWITCH, AUXILIARY CONTACTS AND PILOT LIGHT AS REQUIRED, SQUARE D, CLASS 8536, CUTLER HAMMER, G.E., OR SIEMENS I.T.E.

COMBINATION THREE PHASE MOTOR STARTERS SHALL BE THE SAME AS ABOVE EXCEPT WITH NON-FUSED DISCONNECT.

**DISCONNECT SWITCHES:**  
DISCONNECT SWITCHES SHALL BE HEAVY DUTY, 250 VOLT OR 480 VOLT, FUSED OR NON-FUSED AS INDICATED, IN A NEMA 1 ENCLOSURE. DISCONNECT SWITCHES INSTALLED OUTDOORS SHALL BE IN A NEMA 3R ENCLOSURE. SQUARE D, CUTLER HAMMER, G.E., OR SIEMENS I.T.E.

**FUSES:**  
601 AMPERE AND LARGER SHALL BE PROTECTED BY CURRENT LIMITING BUSSMANN HI-CAP TIME DELAY FUSES KRP-C, 250 VOLT OR 480 VOLT.

0 TO 600 AMPERE SHALL BE PROTECTED BY CURRENT LIMITING BUSSMANN LOW-PEAK DUAL ELEMENT FUSES LPN/LPS, 250 VOLT OR 480 VOLTS.

MOTOR CIRCUITS SHALL BE PROTECTED BY BUSSMANN LOW-PEAK DUAL-ELEMENT FUSES LPN/LPS, 250 VOLT OR 480 VOLTS.

**MAIN DISTRIBUTION PANEL:**  
MAIN DISTRIBUTION PANEL SHALL BE 277/480V., 3 PHASE, 4 WIRE CIRCUIT BREAKER TYPE, CLASS I CONSTRUCTION, BRACED FOR 50,000 A.I.C., SERVICE ENTRANCE LABELED, SQUARE D, CUTLER HAMMER, G.E. OR SIEMENS I.T.E.

**LIGHTING PANELS:**  
PANELS SHALL BE 277/480V., 3 PHASE, 4 WIRE, WITH BOLT-ON CIRCUIT BREAKERS, RATED 25,000 A.I.C., SWITCH DUTY RATED, 20" WIDE CABINET MINIMUM. SQUARE D "NEHB", CUTLER HAMMER, G.E. OR SIEMENS I.T.E. PROVIDE TYPEWRITTEN DIRECTORY INDICATING EACH ITEM SERVED.

**BRANCH CIRCUIT PANELS:**  
PANELS SHALL BE 277/480V., 3 PHASE, 4 WIRE, WITH BOLT-ON CIRCUIT BREAKERS RATED 25,000 A.I.C. SWITCH DUTY RATED, 20" WIDE CABINET MINIMUM. SQUARE D "NQOD", CUTLER HAMMER, G.E. OR SIEMENS I.T.E. PROVIDE TYPEWRITTEN DIRECTORY INDICATING EACH ITEM SERVED.

**STEP DOWN TRANSFORMERS:**  
STEP DOWN TRANSFORMERS SHALL BE DRY TYPE, 115' C. RISE, CLASS 220 INSULATION WITH ELECTROSTATIC SHIELD (K4), 480V., 3 PHASE, 3 WIRE, (6) 2-1/2% TAPS (2 ABOVE AND 4 BELOW NORMAL). SQUARE D 7400 NL, CUTLER HAMMER, G.E. OR SIEMENS I.T.E.

**NAMEPLATES:**  
PROVIDE NAMEPLATES ON EACH INDIVIDUAL SAFETY SWITCH, CONTROL STATION, PANEL BOARD, MOTOR STARTER, ETC. NAMEPLATES SHALL BE WHITE LAMINATED PLASTIC WITH BLACK ENGRAVED LETTERS AND A SELF-ADHESIVE BACK.

**LIGHTING**

**LAMPS:**  
THE LED DRIVER SHALL:  
1. BE CONTAINED INSIDE THE LUMINAIRE.  
2. BE RATED FOR A MIN. LIFE EXPECTANCY EQUAL TO OR GREATER THAN THE MIN. OPERATION LIFE OF THE LUMINAIRE.  
3. NOT HAVE ITS CASE TEMPERATURE RISE BY MORE THAN 10° C WITH NO ADDITIONAL HEAT SINKS.

**SYSTEMS**

**TELEPHONE SERVICE (IF REQUIRED):**  
PROVIDE TELEPHONE SERVICE AS REQUIRED, INCLUDING PLYWOOD BACKBOARD, OUTLETS, COVERPLATES, CONDUITS WITH PULL WIRES, ETC., FOR A COMPLETE INSTALLATION.

TELEPHONE AND DATA OUTLETS SHALL CONSIST OF A SINGLE GANG OUTLET BOX WITH A 3/4" CONDUIT STUBBED INTO AN ACCESSIBLE CEILING SPACE. PROVIDE AND INSTALL BLANK STAINLESS STEEL COVERPLATES FOR ALL FUTURE TELEPHONE AND DATA OUTLETS NOT USED.

**DATA SYSTEMS (IF REQUIRED):**  
ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL HANDI-BOX WITH FOR DATA TERMINATION. IF METAL STUDS ARE USED A 1/2" CONDUIT SHALL EXTEND INTO THE ATTIC SPACE, THE END OF WHICH SHALL BE PROTECTED WITH A PLASTIC GROMMET.

CATEGORY 6 DATA WIRE SHALL BE INSTALLED EQUAL TO STANDARDS ANSI/TIA/EIA-568-B.2-1, FOR USE IN 1000BASE-T SYSTEMS.

ELECTRICAL CONTRACTOR SHALL INSTALL DATA WIRE AND LEAVE 18" LOOSE IN HANDI-BOX AND 3" LOOSE AT DATABOARD. FINAL TERMINATIONS OF DATAWIRE SHALL BE PERFORMED BY THE OWNNER'S I.T. PROFESSIONAL.

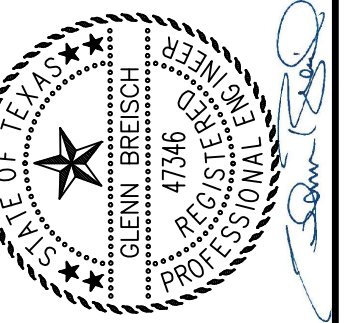
**EMERGENCY GENERATOR:**  
QUALITY ASSURANCE:  
EXISTING DIESEL GENERATOR TO REMAIN WITH SERVICE BY A LOCAL REPRESENTATIVE WITH FACTORY-TRAINED SERVICEMAN. THE LOCAL GENERATOR DISTRIBUTOR SHALL HAVE BEEN IN BUSINESS A MINIMUM OF TEN (10) YEARS IN THE STATE OF THE PROJECT LOCATION.

**MANUFACTURERS:**  
BASIS OF DESIGN –BLUE STAR POWER SYSTEM INC.  
ENGINE GENERATOR:  
THE ENGINE GENERATOR SET SHALL BE VOLTAGE AS INDICATED, 3-PHASE, 4-WIRE, .8 POWER FACTOR CONTINUOUSLY FOR STAND-BY POWER APPLICATIONS. VIBRATION ISOLATORS SHALL BE PROVIDED FOR THE ENGINE/GENERATOR.

GENERATOR: EXISTING BLUE STAR POWER SYSTEMS INC. PD180-01

**CONTROLLER:**  
VERIFY EXISTING CONTROLLER WITH MICROPROCESSOR BASED DIGITAL DISPLAY FOR MONITORING LEVEL 1 NFPA1110 SAFETIES, UL-508 LISTED, DIGITAL AND ANALOG AC VOLTMETER, AC AMPMETER, PHASE SELECTOR SWITCH, VOLTAGE ADJUSTING BUMO SWITCH PLUS/MINUS 5 PERCENT FREQUENCY, METER, RUNNING TIME METER, AUTOMATIC BATTERY LOAD TEST SYSTEM, FULLY PROGRAMMABLE MOLDED CASE CIRCUIT BREAKER. THE CONTROL/PROTECTION SYSTEM SHALL MONITOR THE CURRENT LEVEL AND VOLTAGE. THE CONTROLS SHALL SHUT DOWN AND LOCK OUT THE GENERATOR SET WHEN OUTPUT CURRENT LEVELS APPROACHES THE THERMAL DAMAGE POINT OF THE ALTERNATOR (SHORT CIRCUIT SHUTDOWN) WITH KEY TYPE RUN-OFF-AUTO SWITCH, RFI SHIELDED CONTROL IN ACCORDANCE WITH MIL-STD 461C PART 9 FOR RADIATED EMISSIONS. COMPLETE TWO WIRE START/STOP CONTROL WHICH SHALL OPERATE ON CLOSURE OF A REMOTE CONTACT. CRANKING CYCLER WITH TEN SECOND ON AND OFF CRANKING PERIODS. CIRCUITRY TO SHUT DOWN THE ENGINE WHEN SIGNAL FOR HIGH COOLANT TEMPERATURE, LOW OIL PRESSURE, OR OVER SPEED ARE RECEIVED. INDICATING LIGHTS TO SIGNAL: SWITCH "OFF"-FLASHING RED, OVERCRANK-RED, EMERGENCY STOP-RED, HIGH WATER TEMPERATURE-RED, OVER SPEED-RED, LOW OIL PRESSURE-RED, HIGH BATTERY VOLTAGE-RED, AND LOW BATTERY VOLTAGE-RED. ALARM HORN WITH SILENCER SWITCH.

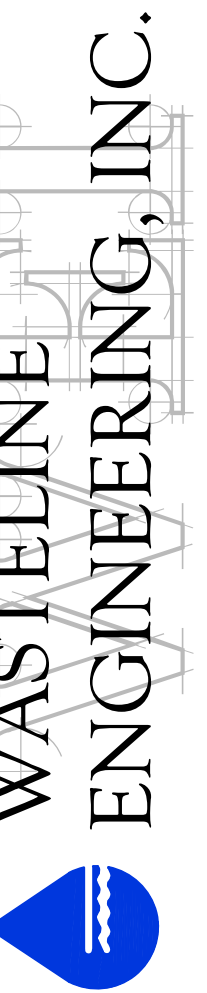
**ACCESSORIES:**  
EXISTING AUTOMATIC TRANSFER SWITCH TO REMAIN.



DATE:	June, 2026
DESIGNED BY:	G.B.
DRAWN BY:	J.L.R.
CHECKED BY:	G.B.

NO.	DATE BY	REVISION

5064 E I-20 Service Rd South  
Willow Park, TX 76087  
(817) 441-1300  
www.wasteline-eng.com



Texas Registered Engineering Firm #F-1669

WATER SUPPLY PLANT #2  
THE CITY OF CARL'S CORNER  
ELECTRICAL SPECIFICATIONS

PROJECT NO.  
21820

DRAWING NO.  
E4



BEFORE YOU DIG CALL @ 1-800-344-8377