

SANITARY SEWER IMPROVEMENTS

LIFT STATION NO. 10

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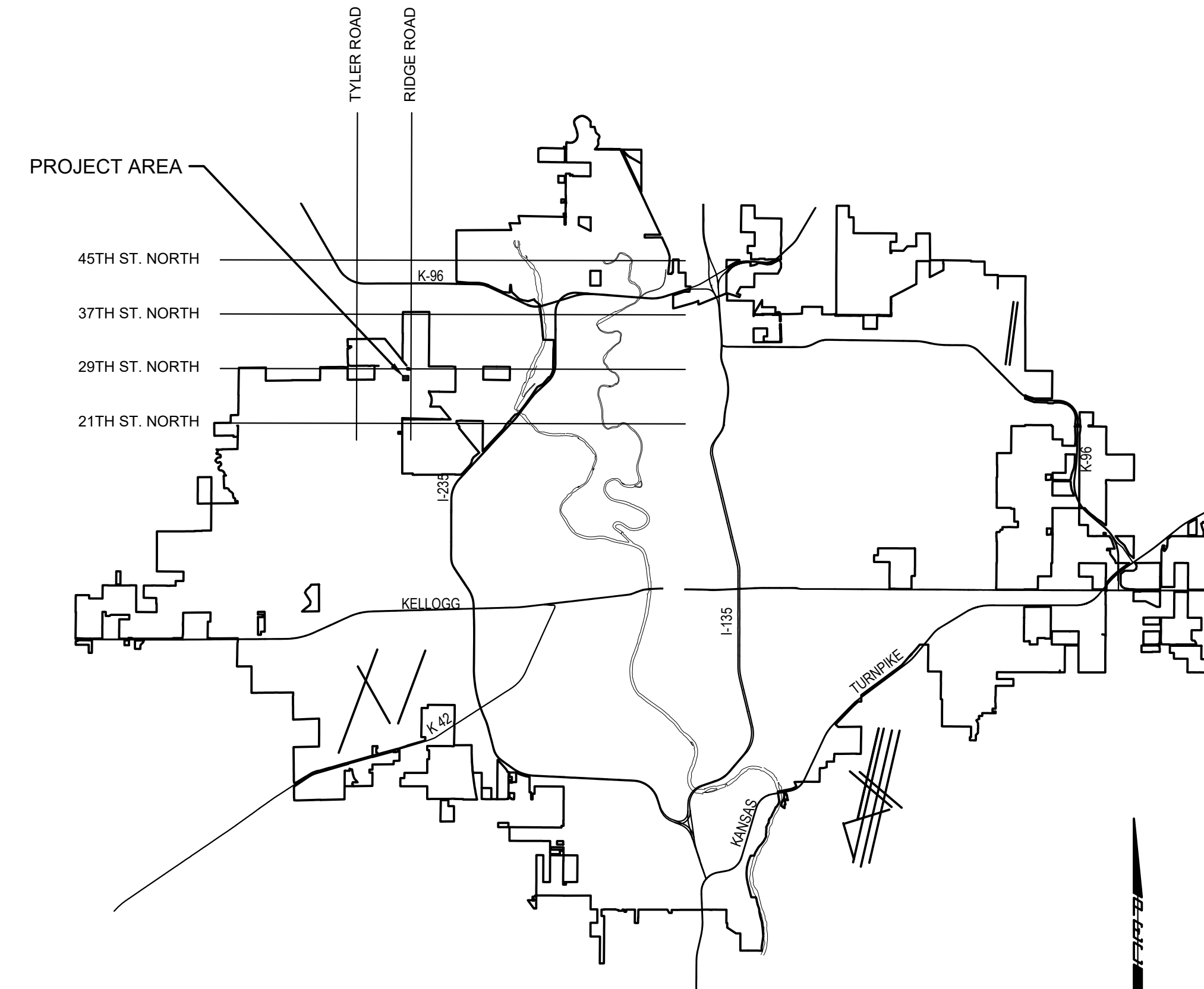
LATERAL 21 AND LATERAL 22, MAIN 15 OF THE SOUTHWEST INTERCEPTOR SEWER

CITY OF WICHITA ENGINEERING PROJECT NO. 468-2025-012671

ORG CODE S2009, MUNIS NO. 53200222

CITY OF WICHITA, KANSAS

PAUL GUNZELMAN, P.E. - CITY ENGINEER



LOCATION MAP

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COW LIFT STATION NO. 10
IMPROVEMENTS

PAUL GUNZELMAN, P.E. - CITY ENGINEER
CITY OF WICHITA PROJECT NO. 468-2025-012671

Issue:	

JOB NO.	237043-009
DATE	SEPTEMBER 2025
PM	RWG
DESIGNED BY	TBK
DRAWN BY	CAE
CHECKED BY	RWG

TITLE SHEET

CU001

SAVED 8/29/2025 3:16:57 PM BY KURTIS DEKAT
PLOTTED 8/29/2025 3:25:04 PM BY KURTIS DEKAT
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GENERAL NOTES

- ALL CONSTRUCTION AND MATERIALS TO COMPLY WITH CITY OF WICHITA STANDARD CONSTRUCTION SPECIFICATIONS AND DETAILS, UNLESS OTHERWISE INCLUDED IN THE CONTRACT DOCUMENTS.
- EACH BIDDER SHALL VISIT THE SITE OF THE PROJECT BEFORE SUBMITTING THE PROPOSAL FOR THIS WORK SO THAT THEY WILL BE FULLY INFORMED OF THE EXISTING FIELD CONDITIONS AND THE OBSTACLES WHICH MIGHT BE ENCOUNTERED. UPON AWARD OF THE CONTRACT THE CONTRACTOR WILL NOT BE GRANTED ANY ADDITIONAL COMPENSATION WITH REGARDS TO TIME AND MONEY FOR CONDITIONS THAT MAY HAVE BEEN EVALUATED DURING ANY INSPECTION OF THE SITE.
- THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 72 HOURS PRIOR TO BEGINNING CONSTRUCTION TO ADVISE THEM OF THE INTENDED WORK AND OF THEIR PROPOSED SCHEDULE:

CITY OF WICHITA
SEWAGE TREATMENT
GENERAL SUPERVISOR
MR. MIKE CARROLL
OFFICE: (316) 303-8719
CELL: (316) 641-6622
- AT LEAST 72 HOURS PRIOR TO BEGINNING ANY EXCAVATION (EXCLUDING WEEKENDS AND HOLIDAYS), THE CONTRACTOR SHALL CONTACT THE KANSAS ONE-CALL SYSTEM, A UTILITY LOCATION SERVICE, AT (316)-687-2470 OR 811 TO REQUEST THE LOCAL UTILITY COMPANIES TO LOCATE ANY EXISTING LINES WITHIN THE PROJECT AREA.
- THE CONTRACTOR MUST NOTIFY THE FOLLOWING IN CASE OF AN EMERGENCY:

EMERGENCY DISPATCH: 911
COX COMMUNICATIONS: 888-249-3530
EVERGY: 800-383-1183
AT&T: 800-286-8313
KANSAS GAS SERVICE: 888-482-4950
- THE CONTRACTOR SHALL GIVE ALL PROPERTY OWNERS AND/OR TENANTS OF DEVELOPED PROPERTY DIRECTLY ABUTTING THE CONSTRUCTION OF THIS PROJECT A MINIMUM OF SEVEN (7) DAYS ADVANCE NOTICE PRIOR TO THE START OF CONSTRUCTION.
- THE CONTRACTOR SHALL NOT START WORK ON THE PROJECT UNTIL THE PROJECT INSPECTOR IS ASSIGNED AND IS PRESENT ON THE SITE. ANY WORK DONE WITHOUT INSPECTION WILL BE REQUIRED TO BE UNCOVERED FOR INSPECTION AT THE CONTRACTORS EXPENSE.
- ALL ELEVATIONS SHOWN ARE NAVD88 DATUM. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL RE-ESTABLISH CONTROL POINTS AND BENCH MARKS AND VERIFY THEIR ACCURACY.
- EXISTING UTILITIES AND THEIR LOCATION, AS SHOWN ON THE DRAWINGS, REPRESENT THE BEST INFORMATION OBTAINABLE FOR DESIGN. LOCATION INFORMATION HAS BEEN OBTAINED FROM THE VARIOUS UTILITY COMPANIES AND IS EITHER FROM COMPANY RECORD DRAWINGS OR COMPANY PROVIDED FIELD LOCATIONS. IT SHOULD BE NOTED THAT OTHER BURIED LINES AND CABLES MAY EXIST WHICH ARE NOT SHOWN ON THESE DRAWINGS. THE CONTRACTOR SHALL HAVE ALL BURIED LINES LOCATED AND FLAGGED IN THE FIELD PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL CONTACT THE ENGINEER AND REVIEW ANY BURIED LINES LOCATED IF CONFLICTS EXIST. THE CONTRACTOR WILL BE REQUIRED TO WORK AROUND EXISTING UTILITIES WITHIN THE RIGHT-OF-WAY WHICH DO NOT CONFLICT WITH PROPOSED CONSTRUCTION. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION DURING TRENCHING OPERATIONS TO AVOID DAMAGING THESE LINES. ANY LINES DAMAGED SHALL BE REPLACED OR REPAIRED IMMEDIATELY AS DIRECTED BY THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL EXPOSE AND VERIFY THE VERTICAL AND HORIZONTAL LOCATION OF EXISTING UTILITIES THAT ARE IN POTENTIAL CONFLICT WITH THE PROPOSED IMPROVEMENTS. THE UTILITY LOCATES SHALL BE PERFORMED PRIOR TO THE START OF CONSTRUCTION AND ANY DISCREPANCIES SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER.

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING PROPERTY IRONS. THE CONTRACTOR SHALL BE REQUIRED TO RE-ESTABLISH ANY PROPERTY IRONS WHICH ARE DAMAGED OR DESTROYED BY CONSTRUCTION OPERATIONS. SUCH IRONS SHALL BE RE-ESTABLISHED BY A LICENSED LAND SURVEYOR IN ACCORDANCE WITH STATE LAWS.
- EASEMENTS AND RIGHTS-OF-WAY PROVIDED BY THE OWNER FOR THE PROJECT ARE SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACQUISITION OF ANY ADDITIONAL TEMPORARY EASEMENTS OR RIGHTS-OF-WAY DESIRED TO USE IN COMPLETING THE WORK.
- THE CONTRACTOR SHALL CONTAIN THEIR OPERATIONS TO PERMIT LOCAL AND EMERGENCY TRAFFIC THROUGH AND ACROSS CONSTRUCTION AT ALL TIMES. THE CONTRACTOR SHALL UTILIZE WARNING SIGNS, FLASHING LIGHTS, BARRICADES, AND FLAGMEN IN COMPLIANCE WITH THE LATEST VERSION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
- RUBBLE FROM THE REMOVAL OF MISCELLANEOUS STRUCTURES INCLUDING ANY TREES REMOVED, TREE TRIMMINGS, AND EXCESS EXCAVATION WHICH IS TO BE WASTED SHALL BE DISPOSED OF ON SITES PROVIDED BY THE CONTRACTOR. THESE SITES SHALL ALSO BE APPROVED BY THE ENGINEER AS TO SUITABILITY, APPEARANCE, AND SITE LOCATION. LOCATIONS THAT, IN THE OPINION OF THE ENGINEER, WILL LEAVE AN UNSIGHTLY APPEARANCE WILL NOT BE APPROVED. ALL DISPOSAL SITES MUST BE APPROVED BY THE KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT. MATERIAL EITHER STOCKPILED OR DISPOSED OF IN A FLOOD PLAIN WILL REQUIRE A KANSAS STATE BOARD OF AGRICULTURE PERMIT. ANY MATERIAL DUMPED IN WATERS OF THE UNITED STATES, FLOODWAYS, OR WETLANDS IS SUBJECT TO U.S. CORPS OF ENGINEERS PERMITTING REGULATIONS. ANY MATERIAL BURIED OR STOCKPILED BEYOND APPROVED CONSTRUCTION LIMITS MAY REQUIRE ARCHAEOLOGICAL INVESTIGATIONS UNLESS BURIED IN A PREVIOUSLY APPROVED DISPOSAL LOCATION.
- THE CONTRACTOR SHALL AVOID REMOVAL OR TRIMMING OF ANY TREES OR SHRUBS WHERE POSSIBLE. WHERE THE CONTRACTOR BELIEVES THE REMOVAL OR TRIMMING IS UNAVOIDABLE, THIS WORK SHALL BE COORDINATED WITH THE ENGINEER. TREE TRIMMING/REMOVAL SHALL BE COMPLETED IN ACCORDANCE WITH U.S FISH AND WILDLIFE SERVICE, AND KANSAS DEPARTMENT OF WILDLIFE, PARKS, AND TOURISM RESTRICTIONS. FULL TREE REMOVAL SHALL BE NOTED ON THE PLANS AND SHALL BE BID AS "TREE REMOVED, LARGE", "TREE REMOVED, SMALL", OR "TREE ROW REMOVED".
- THE CONTRACTOR SHALL RESTORE ALL DITCHES, SWALES, ROAD SHOULDERS, AND BANKS TO THEIR ORIGINAL SLOPES AND GRADES EXCEPT AS SHOWN OTHERWISE. WHERE EXISTING ENTRANCE PIPE, DRAINAGE PIPE, SIGNS, FENCES, LANDSCAPING, ETC., CONFLICT WITH THE PROPOSED WORK HEREIN, THEY SHALL BE REMOVED AND REPLACED OR RESET, UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- THE CONTRACTOR SHALL INSTALL AND/OR MAINTAIN EROSION CONTROL METHODS AS SPECIFIED ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING EROSION CONTROL THROUGH THE COMPLETION OF THIS PROJECT. INSTALLATION OF THESE EROSION CONTROL DEVICES DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF ABATING SOIL EROSION. THE FOLLOWING QUANTITIES ARE ESTIMATED, AND SHOULD BE CONSIDERED THE MINIMUM EFFORT REQUIRED.

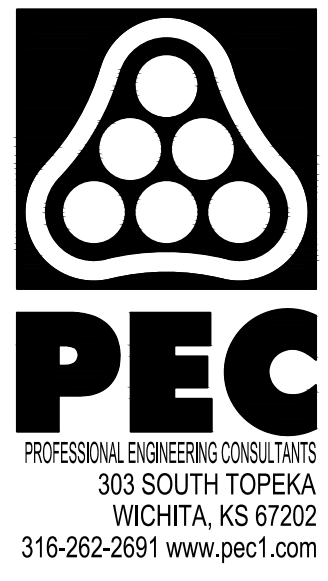
SILT FENCE BARRIER 30.0 L.F.
- THE CONTRACTOR SHALL TAKE CARE TO PREVENT SILT AND DEBRIS FROM ENTERING ANY STORM DRAINAGE SYSTEM DURING CONSTRUCTION. PIPES OR STRUCTURES WHICH CONTAIN MATERIALS FROM THE CONTRACTORS ACTIVITIES SHALL BE THOROUGHLY CLEANED BY THE CONTRACTOR, AT THEIR OWN EXPENSE, PRIOR TO THE FINAL INSPECTION.
- RECONSTRUCTION OF EROSION CONTROL MEASURES WHICH ARE DESTROYED BY WIND, FLOOD, FIRE, OR BY THE ACTIONS OF THE CONTRACTOR OR OTHERS SHALL BE PERFORMED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER AT NO ADDITIONAL COST. WHERE ADJUSTMENTS IN QUANTITIES ARE REQUIRED BY FIELD

- CONDITIONS, THERE SHALL BE NO ADJUSTMENT IN UNIT PRICE.
- ALL LAWN/TURF AREAS DISTURBED BY CONSTRUCTION OF THE PROPOSED IMPROVEMENTS SHALL BE RESTORED WITH THE SAME GRASS/SOD AS EXISTING. RESTORATION OF DISTURBED AREAS SHALL INCLUDE, BUT NOT BE LIMITED TO, TOP SOIL PREPARATION, SEEDING, MULCHING, AND/OR RE-SEEDING. ALL SEEDING/SODDING WORK SHALL BE IN ACCORDANCE WITH THE CITY OF WICHITA STANDARD SPECIFICATIONS AND THE CITY OF WICHITA ADMINISTRATIVE REGULATION NO. AR6.5 WHICH GOVERNS CLEANUP AND RESTORATION OR REPLACEMENT FOLLOWING CONSTRUCTION. ALL COSTS FOR THIS WORK SHALL BE SUBSIDIARY TO "SITE RESTORATION".
- THE CONTRACTOR SHALL SEED ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES WITH TEMPORARY RYE GRASS. RYE GRASS SEED SHALL BE PLANTED AT A MINIMUM RATE OF SIX (6) POUNDS PER ONE THOUSAND (1,000) SQUARE FEET. THIS TEMPORARY SEEDING MAY BE OMITTED ONLY IF PERMANENT SEEDING/SODDING IS APPLIED. TEMPORARY SEEDING OR PERMANENT SEEDING/SODDING SHALL BE APPLIED WITHIN 14 DAYS AFTER THE AREA HAS BEEN DISTURBED.
- OWNER SHALL BE RESPONSIBLE FOR CONSTRUCTION STAKING. STAKING AND BENCH MARKS DESTROYED DURING CONSTRUCTION OPERATIONS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL MAINTAIN UNINTERRUPTED UTILITY SERVICE TO ADJACENT FACILITIES DURING CONSTRUCTION, UNLESS OTHERWISE APPROVED BY OWNER.
- WRITTEN REQUEST TO THE OWNER WILL BE REQUIRED 72 HOURS PRIOR TO A SCHEDULED UTILITY OUTAGE. THE FIRE DEPARTMENT MUST BE NOTIFIED OF ANY FIRE HYDRANTS OR WATER MAINS TAKEN OUT OF SERVICE.
- ELECTRIC, COMMUNICATION AND MECHANICAL DEMOLITION ARE NOT SHOWN ON CIVIL SHEETS. REFERENCE SITE ELECTRICAL AND MECHANICAL PLANS FOR ELECTRICAL, COMMUNICATION, AND MECHANICAL DEMOLITION.
- THE CONTRACTOR SHALL COORDINATE WITH THE OWNER PRIOR TO DEMOLITION TO DETERMINE DEMOLITION ITEMS THAT ARE TO BE SALVAGED TO THE OWNER. SALVAGEABLE ITEMS ARE TO BE DELIVERED TO THE OWNER AT LOCATIONS DIRECTED BY THE OWNER. ALL NON-SALVAGED ITEMS ARE TO BE DISPOSED OFF-SITE BY THE CONTRACTOR. COORDINATE ALL SITE CONSTRUCTION WITH ELECTRICAL, MECHANICAL, LANDSCAPING, AND ARCHITECTURAL PLANS, AS WELL AS PRIVATE UTILITY COMPANIES.
- CONTRACTOR SHALL PROVIDE NECESSARY MEANS TO PROTECT THE PUBLIC AND TO PROHIBIT ACCESS TO CONSTRUCTION SITE WHILE MAINTAINING ACCESS TO EXISTING FACILITIES.
- CONTRACTOR SHALL PROVIDE NEAT SAW CUTS AT ALL EXISTING CONCRETE AND ASPHALT ABUTTING NEW PAVEMENT AND WHERE EXISTING PAVEMENT IS REMAINING IN PLACE. SAW CUTS IN CONCRETE PAVEMENT SHALL BE AT JOINT LOCATIONS.
- THE CONTRACTOR SHALL LIMIT THE EXTENT OF TRENCH TO REMAIN OPEN OVERNIGHT AND WEEKENDS TO LESS THAN 50 FEET.
- THE CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM ALL MANHOLE COVERS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING CONTINUOUS FLOW OF SEWAGE THROUGH CONSTRUCTION. CONTRACTOR'S PROPOSED METHOD FOR MAINTAINING SEWAGE FLOW SHALL BE SUBMITTED AND APPROVED BY THE ENGINEER PRIOR TO STARTING AND BY-PASSING OF SEWAGE FLOWS. THE PERMANENT MANHOLE AND BYPASS IMPROVEMENTS SHOULD BE COMPLETED FIRST AND THEN CAN BE UTILIZED FOR THE TEMPORARY BYPASSING REQUIRED TO COMPLETE THE WET WELL AND LIFT STATION REHABILITATION.
- THE CONTRACTOR SHALL PREVENT ANY CONSTRUCTION DEBRIS FROM ENTERING THE EXISTING SANITARY SEWER DURING CONSTRUCTION.

- CONTRACTOR SHALL NOT DIVERT ANY SEWAGE FLOW THROUGH NEW PIPE OR MANHOLES UNTIL TESTING HAS BEEN COMPLETED AND ACCEPTED.
- MAINTAIN A MINIMUM OF 10-FOOT HORIZONTAL SEPARATION BETWEEN ALL WATER LINES (MAINS, SERVICES, AND FIRE HYDRANTS) AND ALL SANITARY SEWER LINES (MAINS, SERVICES, AND MANHOLES). ALL SEPARATIONS DISTANCES ARE TO BE MEASURED FROM EDGE-TO-EDGE, AT THE CLOSEST POINT.
- MAINTAIN A MINIMUM OF 2-FOOT VERTICAL SEPARATION BETWEEN ALL WATER LINES (MAIN AND SERVICES) AND ALL GRAVITY SANITARY SEWER LINES (MAINS, SERVICES, AND MANHOLES) AT CROSSINGS. ALL SEPARATION DISTANCES ARE TO BE MEASURED FROM EDGE-TO-EDGE, AT THE CLOSEST POINT.
- MAINTAIN A MINIMUM OF 2-FOOT VERTICAL SEPARATION BETWEEN ALL WATER LINES (MAINS AND SERVICES) AND ALL PRESSURIZED SANITARY SEWER LINES (FORCE MAINS AND SERVICES) AT CROSSINGS. WATERLINES MUST ALWAYS BE PLACED ABOVE PRESSURIZED SANITARY SEWER LINES WHERE THEY CROSS. ALL SEPARATION DISTANCES ARE TO BE MEASURED FROM EDGE-TO-EDGE, AT THE CLOSEST POINT.

UTILITY CONTACTS

- DEB ARY
WICHITA SANITARY SEWER
8TH FLOOR - CITY HALL
455 N. MAIN
WICHITA, KS 67202
316-268-4614
- GREG LOLLEY
WICHITA WATER
8TH FLOOR - CITY HALL
455 N. MAIN
WICHITA, KS 67202
316-268-4334
- JOE HICKLE
WICHITA STORM SEWER
8TH FLOOR - CITY HALL
455 N. MAIN
WICHITA, KS 67202
316-268-4307
- PEDRO MALDONADO
EVERGY
1900 E. CENTRAL (3RD FLOOR)
PO BOX 208
WICHITA, KS 67201
316-261-6245
- SHANNON BRINKMEYER
AT&T WICHITA CENTRAL UNIT
154 N. BROADWAY, ROOM 210
WICHITA, KS 67202
316-268-2931
- SARA PROCTOR
KANSAS GAS SERVICE
1021 E. 26TH ST. NORTH
WICHITA, KS 67219
316-832-3178
- THERESA LANDRY
NUSTAR ENERGY
7340 W. 21ST STREET NORTH,
SUITE 200
WICHITA, KS 67205
316-721-7037



COW LIFT STATION NO. 10 IMPROVEMENTS

 PAUL GUNZELMAN, P.E. - CITY ENGINEER
 CITY OF WICHITA PROJECT NO. 468-2025-012671

Issue:		

JOB NO.	237043-009
DATE	SEPTEMBER 2025
PM	RWG
DESIGNED BY	TBK
DRAWN BY	CAE
CHECKED BY	RWG

GENERAL NOTES

CU002

SAVED 5/16/2025 3:19:46 PM BY CHRIS.EPP
 PLOTTED 8/29/2025 3:25:08 PM BY KURTIS DEKAT
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A PHOTO 1
N.T.S.



B PHOTO 2
N.T.S.



C PHOTO 3
N.T.S.



**COW LIFT STATION NO. 10
IMPROVEMENTS**

PAUL GUNZELMAN, P.E. - CITY ENGINEER
CITY OF WICHITA PROJECT NO. 468-2025-012671

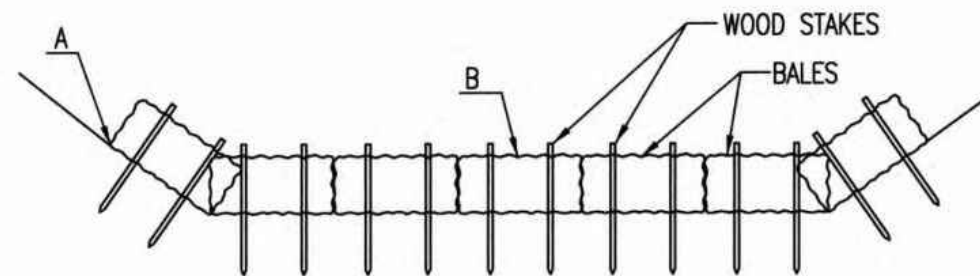
Issue:		

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PM	RWG
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DRAWN BY	CAE
CHECKED BY	RWG

EXISTING LIFT STATION PHOTOS

CU502

NOTE: POINT A MUST BE HIGHER THAN POINT B SO THAT WATER FLOWS OVER THE BALES AND NOT AROUND THEM.



STRAW BALE DITCH CHECKS

MATERIAL SPECIFICATION:

BALE DITCH CHECKS MAY BE CONSTRUCTED OF WHEAT STRAW, OAT STRAW, PRAIRIE HAY, OR BROMEGRASS HAY THAT IS FREE OF WEEDS DECLARED NOXIOUS BY THE KANSAS STATE BOARD OF AGRICULTURE. THE STAKES USED TO ANCHOR THE BALES SHOULD BE A HARDWOOD MATERIAL WITH THE FOLLOWING MINIMUM DIMENSIONS: 2" SQUARE (NOMINAL) BY 4' LONG. OPTIONAL: THE DOWNSTREAM SCOUR APRON SHOULD BE CONSTRUCTED OF A DOUBLE-NETTED STRAW EROSION-CONTROL BLANKET AT LEAST 6' WIDE. OPTIONAL: THE METAL LANDSCAPE STAPLES USED TO ANCHOR THE EROSION-CONTROL BLANKET SHOULD BE AT LEAST 8" LONG.

PLACEMENT:

BALE DITCH CHECKS SHOULD BE PLACED PERPENDICULAR TO THE FLOWLINE OF THE DITCH. THE DITCH CHECK SHOULD EXTEND FAR ENOUGH SO THAT THE GROUND LEVEL AT THE ENDS OF THE CHECK IS HIGHER THAN THE TOP OF THE LOWEST CENTER BALE. THIS PREVENTS WATER FROM FLOWING AROUND THE CHECK. STRAW BALE DITCH CHECKS SHOULD NOT BE PLACED IN DITCHES WHERE HIGH FLOWS ARE EXPECTED. ROCK CHECKS SHOULD BE USED INSTEAD. BALES SHOULD BE PLACED IN DITCHES WITH SLOPES OF 6% OR LESS. FOR SLOPES STEEPER THAN 6%, ROCK CHECKS SHOULD BE USED. THE FOLLOWING TABLE PROVIDES CHECK SPACING FOR A GIVEN DITCH GRADE:

DITCH GRADE (%)	CHECK SPACING (FEET)
0.5	200
1.0	200
2.0	100
3.0	65
4.0	50
5.0	40
6.0	30

PROPER INSTALLATION METHOD:

EXCAVATE A TRENCH PERPENDICULAR TO THE DITCH FLOWLINE THAT IS 4" DEEP AND A BALE'S WIDTH WIDE. EXTEND THE TRENCH IN A STRAIGHT LINE ALONG THE ENTIRE LENGTH OF THE PROPOSED DITCH CHECK. PLACE THE SOIL ON THE UPSTREAM SIDE OF THE TRENCH-IT WILL BE USED LATER. OPTIONAL: ON THE DOWNSTREAM SIDE OF THE TRENCH, ROLL OUT A LENGTH OF EROSION-CONTROL BLANKET (SCOUR APRON) EQUAL TO THE LENGTH OF THE TRENCH. PLACE THE UPSTREAM EDGE OF THE EROSION-CONTROL BLANKET ALONG THE BOTTOM UPSTREAM EDGE OF THE TRENCH. THE EROSION CONTROL BLANKET SHOULD BE ANCHORED IN THE TRENCH WITH ONE ROW OF 8" LANDSCAPE STAPLES PLACED ON 18" CENTERS. THE REMAINDER OF THE EROSION-CONTROL BLANKET (THE PORTION THAT IS NOT LYING IN THE TRENCH) WILL SERVE AS THE DOWNSTREAM SCOUR APRON. THIS SECTION OF THE BLANKET SHOULD BE ANCHORED TO THE GROUND WITH 8" LANDSCAPE STAPLES PLACED AROUND THE PERIMETER OF THE BLANKET ON 18" CENTERS. THE REMAINDER OF THE BLANKET SHOULD BE ANCHORED USING TWO EVENLY SPACED ROWS OF 8" LANDSCAPE STAPLES ON 18" CENTERS PLACED PERPENDICULAR TO THE FLOWLINE OF THE DITCH. PLACE THE BALES IN THE TRENCH, MAKING SURE THAT THEY ARE BUTTED TIGHTLY. TWO STAKES SHOULD BE DRIVEN THROUGH EACH BALE ALONG THE CENTERLINE OF THE DITCH CHECK, APPROXIMATELY 6" TO 8" IN FROM THE BALE ENDS. STAKES SHOULD BE DRIVEN AT LEAST 12" INTO THE GROUND. ONCE ALL THE BALES HAVE BEEN INSTALLED AND ANCHORED, PLACE THE EXCAVATED SOIL AGAINST THE UPSTREAM SIDE OF THE CHECK AND COMPACT IT. THE COMPACTED SOIL SHOULD BE NO MORE THAN 3" TO 4" DEEP AND EXTEND UPSTREAM NO MORE THAN 24".

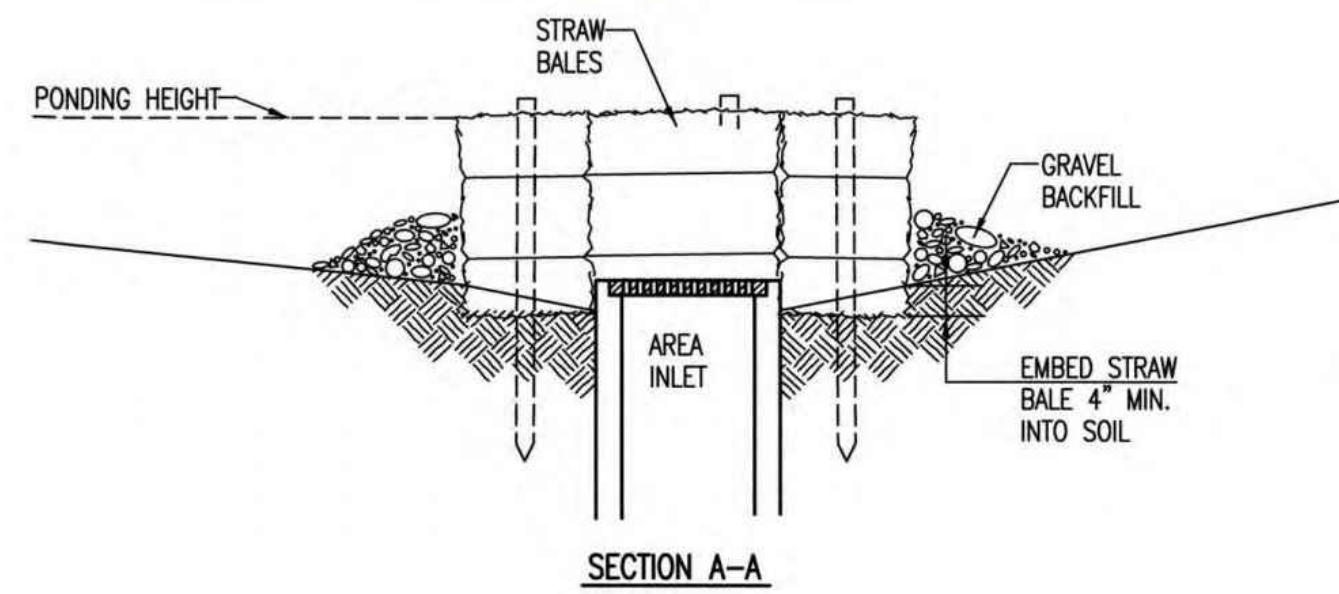
LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

DO NOT PLACE A BALE DITCH CHECK DIRECTLY IN FRONT OF A CULVERT OUTLET. IT WILL NOT STAND UP TO THE CONCENTRATED FLOW. DO NOT PLACE BALE DITCH CHECKS IN DITCHES THAT WILL LIKELY EXPERIENCE HIGH FLOWS. THEY WILL NOT STAND UP TO CONCENTRATED FLOW. FOLLOW PRESCRIBED DITCH-CHECK SPACING GUIDELINES. IF SPACING GUIDELINES ARE EXCEEDED, EROSION WILL OCCUR BETWEEN THE DITCH CHECKS. DO NOT ALLOW WATER TO FLOW AROUND THE DITCH CHECK. MAKE SURE THAT THE DITCH CHECK IS LONG ENOUGH SO THAT THE GROUND LEVEL AT THE ENDS OF THE CHECK IS HIGHER THAN THE TOP OF THE LOWEST CENTER BALE. DO NOT PLACE BALE DITCH CHECKS IN CHANNELS WITH SHALLOW SOILS UNDERLAIN BY ROCK. IF THE CHECK IS NOT ANCHORED SUFFICIENTLY, IT WILL WASH OUT. BALE DITCH CHECKS MUST BE DUG INTO THE GROUND. BALES AT GROUND LEVEL DO NOT WORK BECAUSE THEY ALLOW WATER TO FLOW UNDER THE CHECK.

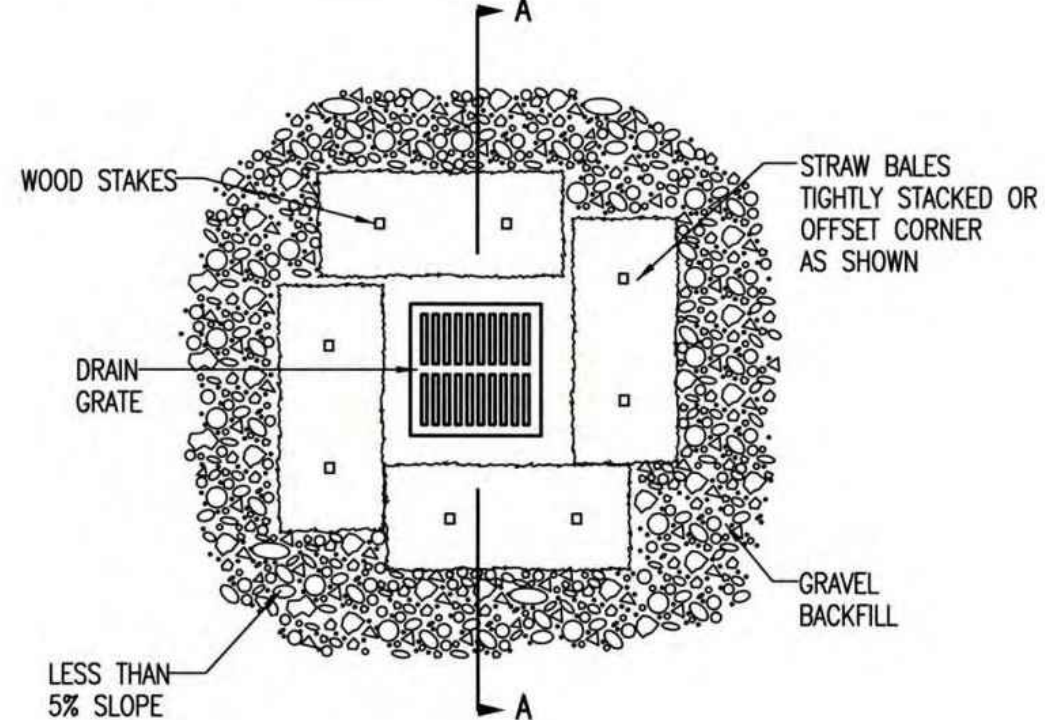
INSPECTION AND MAINTENANCE:

BALE DITCH CHECKS SHOULD BE INSPECTED EVERY 7 DAYS AND WITHIN 24 HOURS OF A RAINFALL OF 1/2" OR MORE. THE FOLLOWING IS A LIST OF QUESTIONS THAT SHOULD BE ADDRESSED DURING EACH INSPECTION:

- DOES WATER FLOW AROUND THE DITCH CHECK?
- DOES WATER FLOW UNDER THE DITCH CHECK?
- DOES WATER FLOW THROUGH SPACES BETWEEN ABUTTING BALES?
- ARE ANY BALES AND/OR SCOUR APRONS (OPTIONAL) DISLODGED?
- ARE BALES DECOMPOSING DUE TO AGE AND/OR WATER DAMAGE?
- DOES SEDIMENT NEED TO BE REMOVED FROM BEHIND THE DITCH CHECK?



SECTION A-A



STRAW BALE BARRIERS FOR AREA INLETS (INLET PROTECTION)

MATERIAL SPECIFICATION:

BALE AREA INLET BARRIERS SHOULD BE CONSTRUCTED OF WHEAT STRAW, OAT STRAW, PRAIRIE HAY, OR BROMEGRASS HAY THAT IS FREE OF WEEDS DECLARED NOXIOUS BY THE KANSAS STATE BOARD OF AGRICULTURE. THE STAKES USED TO ANCHOR THE BALES SHOULD BE A HARDWOOD MATERIAL WITH THE FOLLOWING MINIMUM DIMENSIONS: 2" SQUARE (NOMINAL) BY 4' LONG. TWINE SHOULD BE USED TO BIND BALES. THE USE OF WIRE BINDING IS PROHIBITED BECAUSE IT DOES NOT BIODEGRADE READILY.

PLACEMENT:

BALE AREA INLET BARRIERS SHOULD BE PLACED DIRECTLY AROUND THE PERIMETER OF A DROP INLET. WHEN A BALE AREA INLET BARRIER IS LOCATED NEAR AN INLET THAT HAS STEEP APPROACH SLOPES, THE STORAGE CAPACITY BEHIND THE BARRIER IS DRAMATICALLY REDUCED. TIMELY REMOVAL OF SEDIMENT MUST OCCUR FOR A BARRIER TO OPERATE PROPERLY IN THIS LOCATION.

PROPER INSTALLATION METHOD:

EXCAVATE A TRENCH AROUND THE PERIMETER OF THE AREA INLET THAT IS AT LEAST 4" DEEP BY A BALE'S WIDTH WIDE. PLACE THE BALES IN THE TRENCH, MAKING SURE THAT THEY ARE BUTTED TIGHTLY. SOME BALES MAY NEED TO BE SHORTENED TO FIT INTO THE TRENCH AROUND THE AREA INLET. TWO STAKES SHOULD BE DRIVEN THROUGH EACH BALE, APPROXIMATELY 6" TO 8" IN FROM THE BALE ENDS. STAKES SHOULD BE DRIVEN AT LEAST 12" INTO THE GROUND. ONCE ALL THE BALES HAVE BEEN INSTALLED AND ANCHORED, PLACE THE EXCAVATED SOIL AGAINST THE RECEIVING SIDE OF THE BARRIER AND COMPACT IT. THE COMPACTED SOIL SHOULD BE NO MORE THAN 3" TO 4" DEEP.

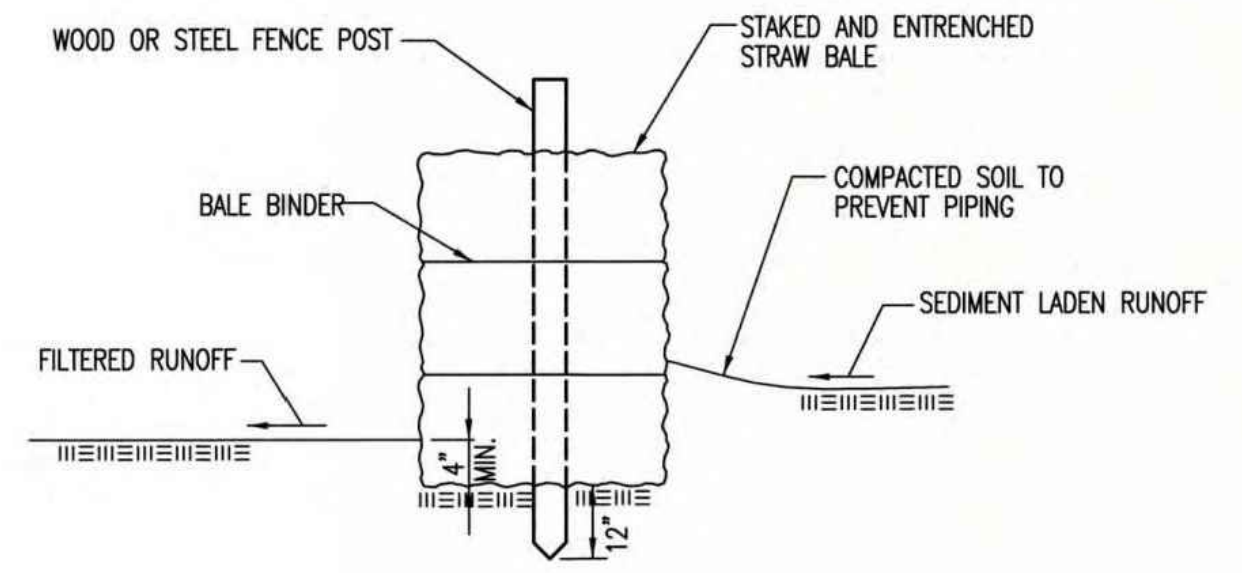
LIST OF COMMON PLACEMENT INSTALLATION MISTAKES TO AVOID:

BALES SHOULD BE PLACED DIRECTLY AGAINST THE PERIMETER OF THE AREA INLET. THIS ALLOWS OVERTOPPING WATER TO FLOW DIRECTLY INTO THE INLET INSTEAD OF ONTO NEARBY SOIL CAUSING SCOUR. BALE AREA INLET BARRIERS MUST BE DUG INTO THE GROUND. BALES AT GROUND LEVEL DO NOT WORK BECAUSE THEY ALLOW WATER TO FLOW UNDER THE BARRIER.

INSPECTION AND MAINTENANCE:

BALE AREA INLET BARRIERS SHOULD BE INSPECTED EVERY 7 DAYS AND WITHIN 24 HOURS OF A RAINFALL OF 1/2" OR MORE. THE FOLLOWING IS A LIST OF QUESTIONS THAT SHOULD BE ADDRESSED DURING EACH INSPECTION:

- DOES WATER FLOW UNDER THE AREA INLET BARRIER?
- DOES WATER FLOW THROUGH SPACES BETWEEN ABUTTING BALES?
- ARE ANY BALES DISLODGED?
- ARE BALES DECOMPOSING DUE TO AGE AND/OR WATER DAMAGE?
- DOES SEDIMENT NEED TO BE REMOVED FROM BEHIND THE AREA INLET BARRIER?



STRAW BALE BARRIERS

MATERIAL SPECIFICATION:

BALE SLOPE BARRIERS MAY BE CONSTRUCTED OF WHEAT STRAW, OAT STRAW, PRAIRIE HAY, OR BROMEGRASS HAY THAT IS FREE OF WEEDS DECLARED NOXIOUS BY THE KANSAS STATE BOARD OF AGRICULTURE. THE STAKES USED TO ANCHOR THE BALES SHOULD BE A HARDWOOD MATERIAL WITH THE FOLLOWING MINIMUM DIMENSIONS: 2" SQUARE (NOMINAL) BY 4' LONG. TWINE SHOULD BE USED TO BIND BALES. THE USE OF WIRE BINDING IS PROHIBITED BECAUSE IT DOES NOT BIODEGRADE READILY.

PLACEMENT:

A SLOPE BARRIER SHOULD BE USED AT THE TOE OF A SLOPE WHEN A DITCH DOES NOT EXIST. THE SLOPE BARRIER SHOULD BE PLACED ON NEARLY LEVEL GROUND 5' TO 10' AWAY FROM THE TOE OF A SLOPE. THE BARRIER IS PLACED AWAY FROM THE TOE OF THE SLOPE TO PROVIDE ADEQUATE STORAGE FOR SETTLING OUT SEDIMENT. WHEN PRACTICABLE, BALE SLOPE BARRIERS SHOULD BE PLACED ALONG CONTOURS TO AVOID A CONCENTRATION OF FLOW. BALE SLOPE BARRIERS CAN ALSO BE PLACED ALONG RIGHT-OF-WAY FENCE LINES TO KEEP SEDIMENT FROM CROSSING ONTO ADJACENT PROPERTY. WHEN PLACED IN THIS MANNER, THE SLOPE BARRIER WILL NOT LIKELY FOLLOW CONTOURS.

PROPER INSTALLATION METHOD:

EXCAVATE A TRENCH THE LENGTH OF THE PLANNED SLOPE BARRIER THAT IS 4" DEEP AND A BALE'S WIDTH WIDE. MAKE SURE THAT THE TRENCH IS EXCAVATED ALONG A SINGLE CONTOUR. WHEN PRACTICABLE, SLOPE BARRIERS SHOULD BE PLACED ALONG CONTOURS TO AVOID A CONCENTRATION OF FLOW. PLACE THE SOIL ON THE UPSLOPE SIDE OF THE TRENCH FOR LATER USE. PLACE THE BALES IN THE TRENCH, MAKING SURE THAT THEY ARE BUTTED TIGHTLY. TWO STAKES SHOULD BE DRIVEN THROUGH EACH BALE ALONG THE CENTERLINE OF THE DITCH CHECK, APPROXIMATELY 6" TO 8" IN FROM THE BALE ENDS. STAKES SHOULD BE DRIVEN AT LEAST 12" INTO THE GROUND. ONCE ALL THE BALES HAVE BEEN INSTALLED AND ANCHORED, PLACE THE EXCAVATED SOIL AGAINST THE UPSLOPE SIDE OF THE CHECK AND COMPACT IT. THE COMPACTED SOIL SHOULD BE NO MORE THAN 3" TO 4" DEEP.

LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

WHEN PRACTICAL, DO NOT PLACE BALE SLOPE BARRIERS ACROSS CONTOURS. SLOPE BARRIERS SHOULD BE PLACED ALONG CONTOURS TO AVOID A CONCENTRATION OF FLOW. CONCENTRATED FLOW OVER A SLOPE BARRIER CREATES A SCOUR HOLE ON THE DOWNSLOPE SIDE OF THE BARRIER. THE SCOUR HOLE EVENTUALLY UNDERMINES THE BALES AND THE BARRIER FAILS. DO NOT PLACE BALE SLOPE BARRIERS IN AREAS WITH SHALLOW SOILS UNDERLAIN BY ROCK. IF THE BARRIER IS NOT ANCHORED SUFFICIENTLY, IT WILL WASH OUT. BALE SLOPE BARRIERS MUST BE DUG INTO THE GROUND. BALES AT GROUND LEVEL DO NOT WORK BECAUSE THEY ALLOW WATER TO FLOW UNDER THE BARRIER.

INSPECTION AND MAINTENANCE:

BALE SLOPE BARRIERS SHOULD BE INSPECTED EVERY 7 DAYS AND WITHIN 24 HOURS OF A RAINFALL OF 1/2" OR MORE. THE FOLLOWING IS A LIST OF QUESTIONS THAT SHOULD BE ADDRESSED DURING EACH INSPECTION:

- ARE THERE ANY POINTS ALONG THE SLOPE BARRIER WHERE WATER IS CONCENTRATING?
- DOES WATER FLOW UNDER THE SLOPE BARRIER?
- DOES WATER FLOW THROUGH SPACES BETWEEN ABUTTING BALES?
- ARE ANY BALES DISLODGED?
- ARE BALES DECOMPOSING DUE TO AGE AND/OR WATER DAMAGE?
- DOES SEDIMENT NEED TO BE REMOVED FROM BEHIND THE SLOPE BARRIER?

REVISION DATE: MAY 2013

STRAW BALE DITCH CHECK AND BARRIER DETAILS

CITY ENGINEER
GARY JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
CITY ENGINEER'S OFFICE		SHEET
CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501		



COW LIFT STATION NO. 10 IMPROVEMENTS
 PAUL GUNZELMAN, P.E. - CITY ENGINEER
 CITY OF WICHITA PROJECT NO. 468-2025-012671

Issue:	

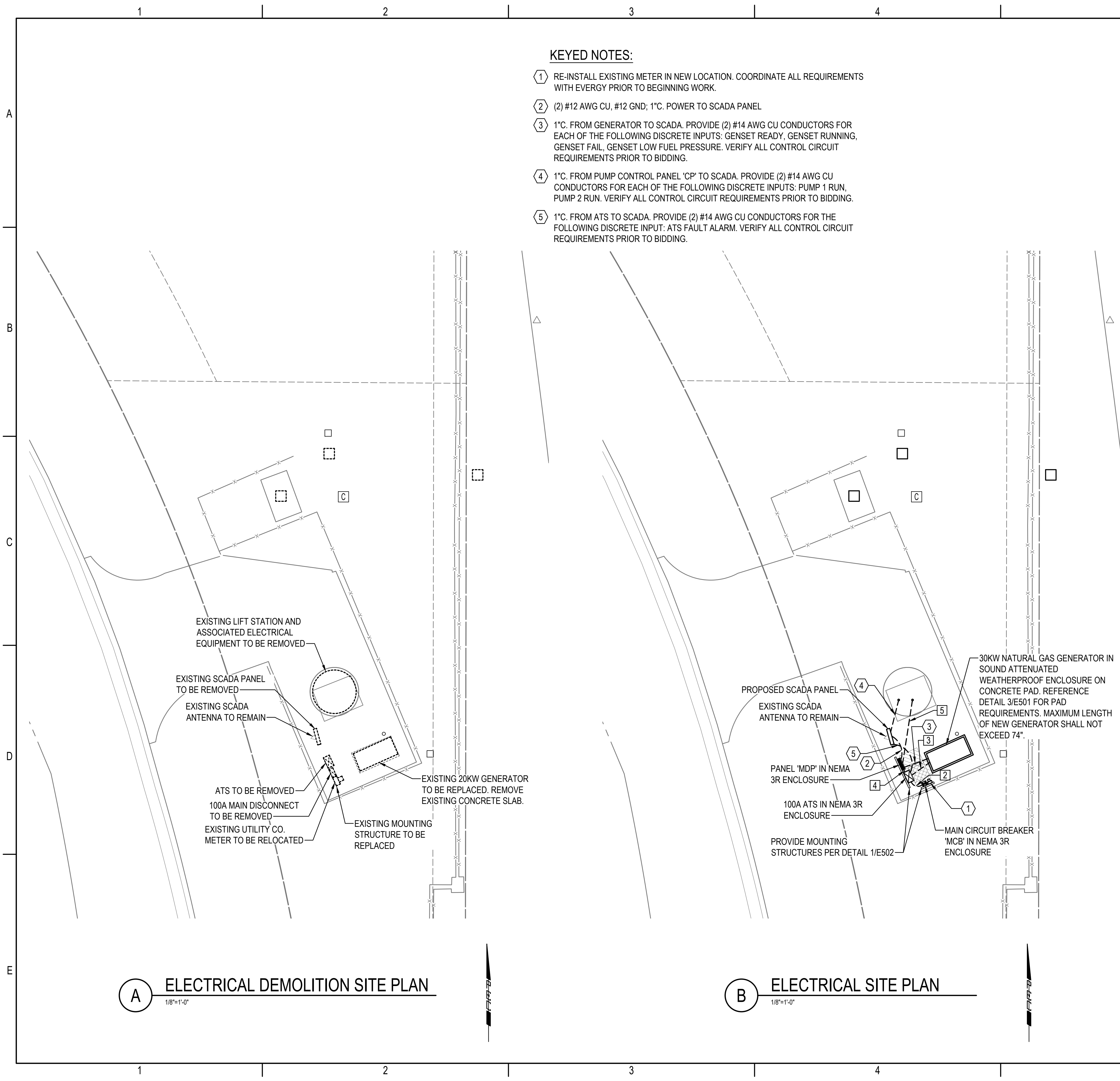
JOB NO.	237043-009
DATE	SEPTEMBER 2025
PM	RWG
DESIGNED BY	TBK
DRAWN BY	CAE
CHECKED BY	RWG

EROSION CONTROL DETAILS

CU505

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 PLOTTED 8/29/2025 3:25:50 PM BY KURTIS DEKAT
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SAVED 9/3/2025 8:24:16 AM BY HADLEY WAMPLER
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 U:\WICHITA-CIVIL\2023\23704309\ELECTRICAL\DRAWINGS\E101 ELECTRICAL SITE PLANS.DWG



A ELECTRICAL DEMOLITION SITE PLAN
 1/8"=1'-0"

B ELECTRICAL SITE PLAN
 1/8"=1'-0"

KEYED NOTES:

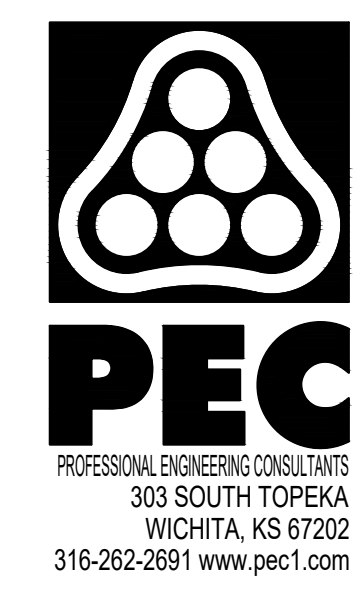
- ① RE-INSTALL EXISTING METER IN NEW LOCATION. COORDINATE ALL REQUIREMENTS WITH EVERGY PRIOR TO BEGINNING WORK.
- ② (2) #12 AWG CU, #12 GND; 1" C. POWER TO SCADA PANEL
- ③ 1" C. FROM GENERATOR TO SCADA. PROVIDE (2) #14 AWG CU CONDUCTORS FOR EACH OF THE FOLLOWING DISCRETE INPUTS: GENSET READY, GENSET RUNNING, GENSET FAIL, GENSET LOW FUEL PRESSURE. VERIFY ALL CONTROL CIRCUIT REQUIREMENTS PRIOR TO BIDDING.
- ④ 1" C. FROM PUMP CONTROL PANEL 'CP' TO SCADA. PROVIDE (2) #14 AWG CU CONDUCTORS FOR EACH OF THE FOLLOWING DISCRETE INPUTS: PUMP 1 RUN, PUMP 2 RUN. VERIFY ALL CONTROL CIRCUIT REQUIREMENTS PRIOR TO BIDDING.
- ⑤ 1" C. FROM ATS TO SCADA. PROVIDE (2) #14 AWG CU CONDUCTORS FOR THE FOLLOWING DISCRETE INPUT: ATS FAULT ALARM. VERIFY ALL CONTROL CIRCUIT REQUIREMENTS PRIOR TO BIDDING.

DEMOLITION NOTES:

- 1. DEMOLITION PLANS SHOW THE GENERAL EXTENT OF THE ELECTRICAL DEMOLITION WORK. THE ELECTRICAL CONTRACTOR SHALL DISCONNECT ELECTRICAL SERVICES TO ALL EQUIPMENT BEING REMOVED. SEE MECHANICAL PLANS. OWNER SHALL HAVE THE OPTION TO RETAIN REUSABLE ITEMS, SUCH AS COVERPLATES, RECEPTACLES, LIGHTS, PANELS, ETC. NOT BEING USED IN THE FINISHED WORK. COORDINATE WITH OWNER PRIOR TO STARTING DEMOLITION. PROPERLY AND LEGALLY DISPOSE OF ALL EQUIPMENT AND MATERIALS BEING REMOVED.
- 2. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR PATCHING ALL OPENINGS IN EXISTING CONSTRUCTION AFTER REMOVAL OF EQUIPMENT, RACEWAY SYSTEMS, OUTLET BOXES, ETC.
- 3. WHERE EQUIPMENT AND OTHER DEVICES ARE BEING REMOVED, THE CIRCUITING SHALL BE REMOVED, IF POSSIBLE, BACK TO POINT OF SUPPLY. WHERE REQUIRED, CIRCUITING SHALL BE EXTENDED TO MAINTAIN CONTINUITY OF THE CIRCUIT OR OPERATION OF THE SYSTEM.
- 4. ALL DEVICES SHOWN DASHED ON THE DEMOLITION PLAN(S) SHALL BE REMOVED, UNLESS NOTED OTHERWISE.
- 5. FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO BEGINNING WORK.

ELECTRICAL SITE PLAN NOTES:

- 1. UNLESS OTHERWISE NOTED, ALL CONDUIT ROUTED ON SITE SHALL BE 1" MINIMUM.
- 2. ALL RISERS SHALL BE PVC COATED RIGID GALVANIZED STEEL (RGS) ALL ELLS BELOW GRADE SHALL BE PVC COATED RIGID GALVANIZED STEEL (RGS). PROVIDE WITH PVC TO STEEL ADAPTER(S) AS NECESSARY. (THIS REQUIREMENT SHALL NOT APPLY TO FIXTURE POLE BASES)
- 3. ALL ELECTRICAL WORK AND FEES ASSOCIATED WITH UTILITIES SHALL BE VERIFIED AND COORDINATED WITH LOCAL SERVICE PROVIDER PRIOR TO BID.
- 4. CONTRACTOR SHALL REFERENCE ALL RELATED CONTRACT DOCUMENTS, SITE SURVEY, AND OTHER RESOURCES FOR POSSIBLE CONFLICTS WITH OTHER UNDERGROUND UTILITIES. AT UTILITY CROSSINGS, CONTRACTOR SHALL VERIFY UTILITY DEPTHS AND COORDINATE CONDUIT ROUTING AS NECESSARY.
- 5. CONTRACTOR SHALL VERIFY AND COORDINATE EXISTING CONDITIONS OF PROJECT SITE PRIOR TO BID.



COW LIFT STATION NO. 10 IMPROVEMENTS

PAUL GUNZELMAN, P.E. - CITY ENGINEER
 CITY OF WICHITA PROJECT NO. 468-2025-012671

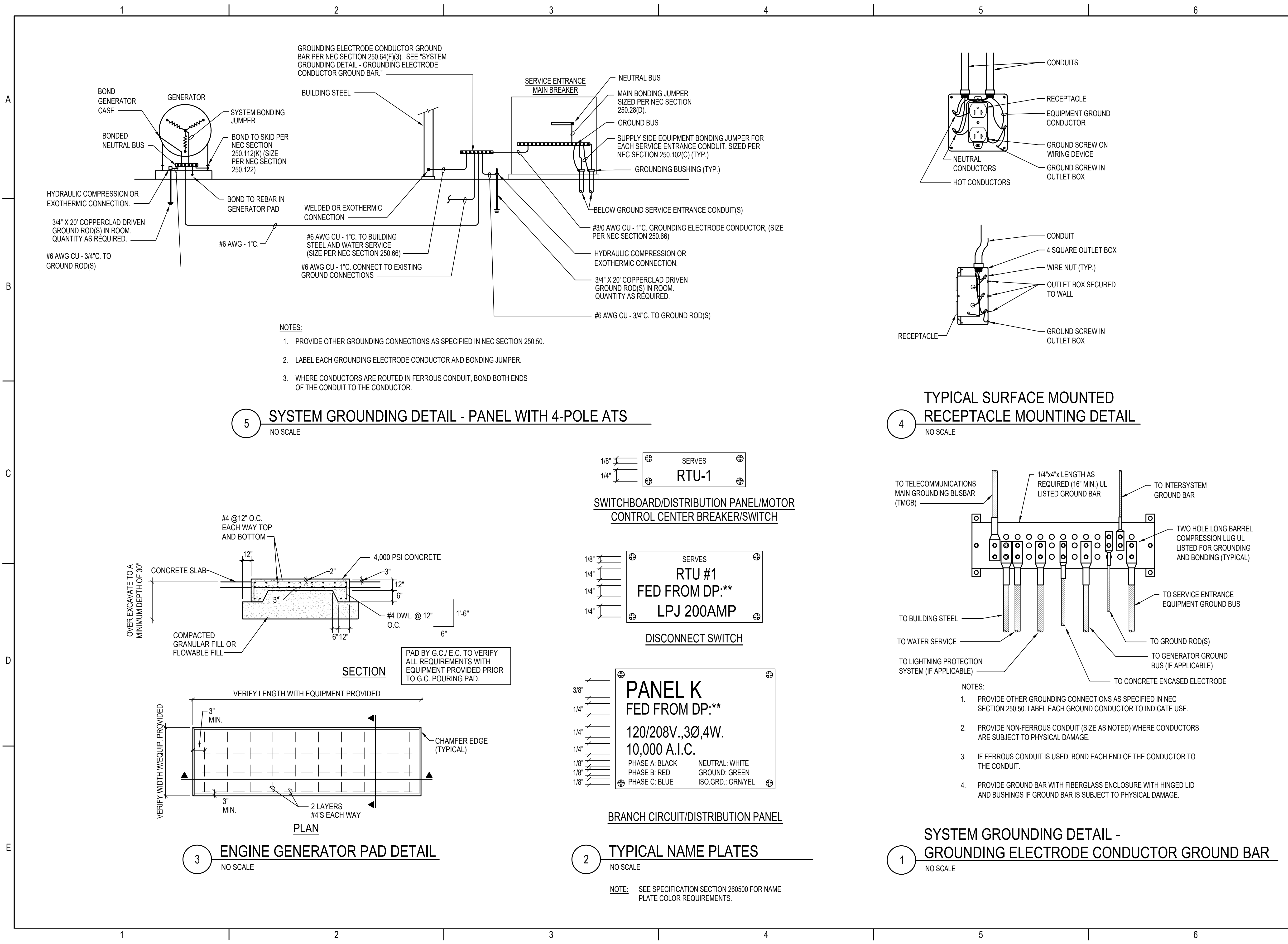
Issue:		
1	SENT FOR REVIEW	2/22/17

JOB NO.	237043-009
DATE	SEPTEMBER 2025
PM	RWG
DESIGNED BY	DCG
DRAWN BY	BAC
CHECKED BY	RWW

ELECTRICAL SITE PLANS

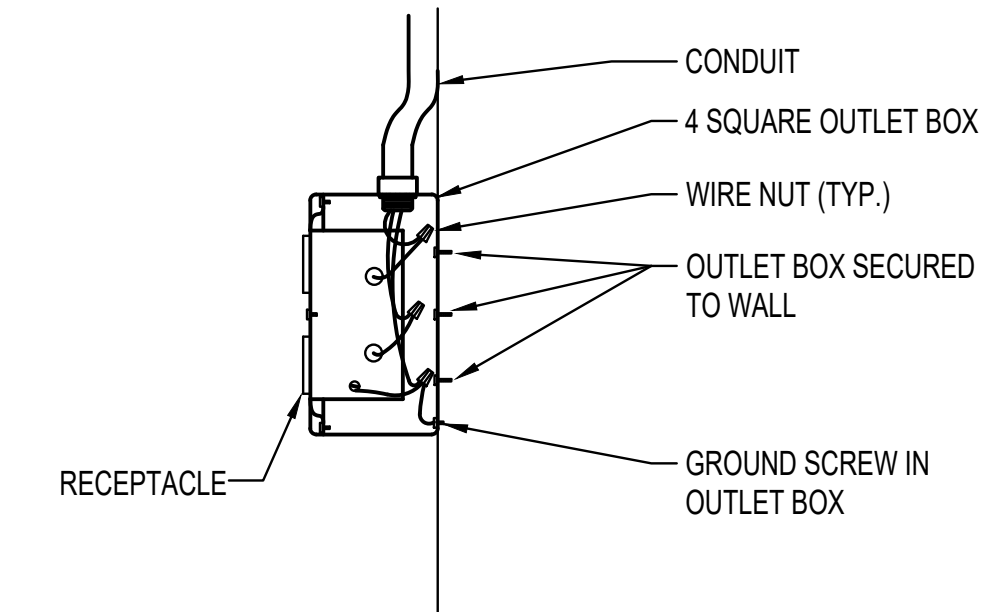
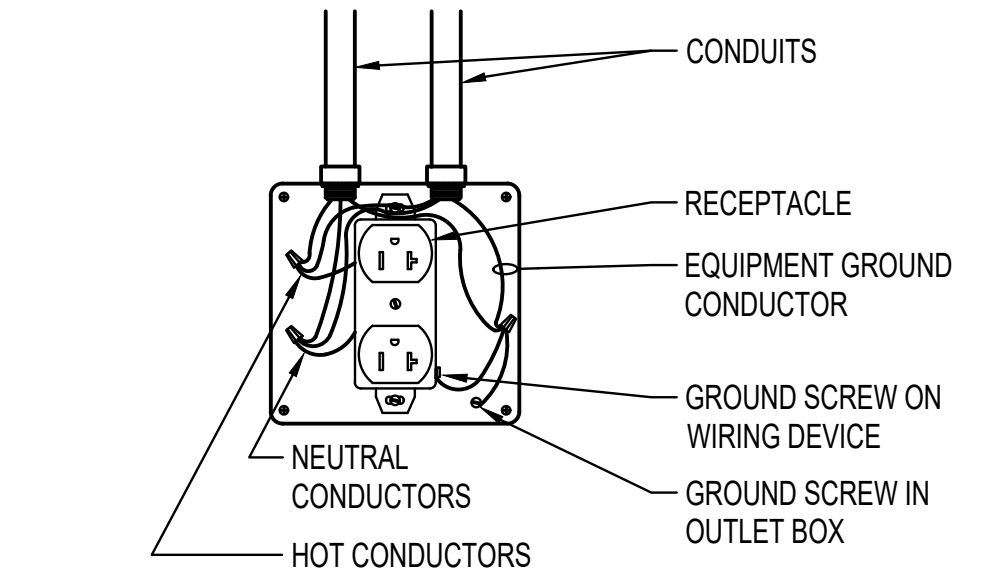
E101

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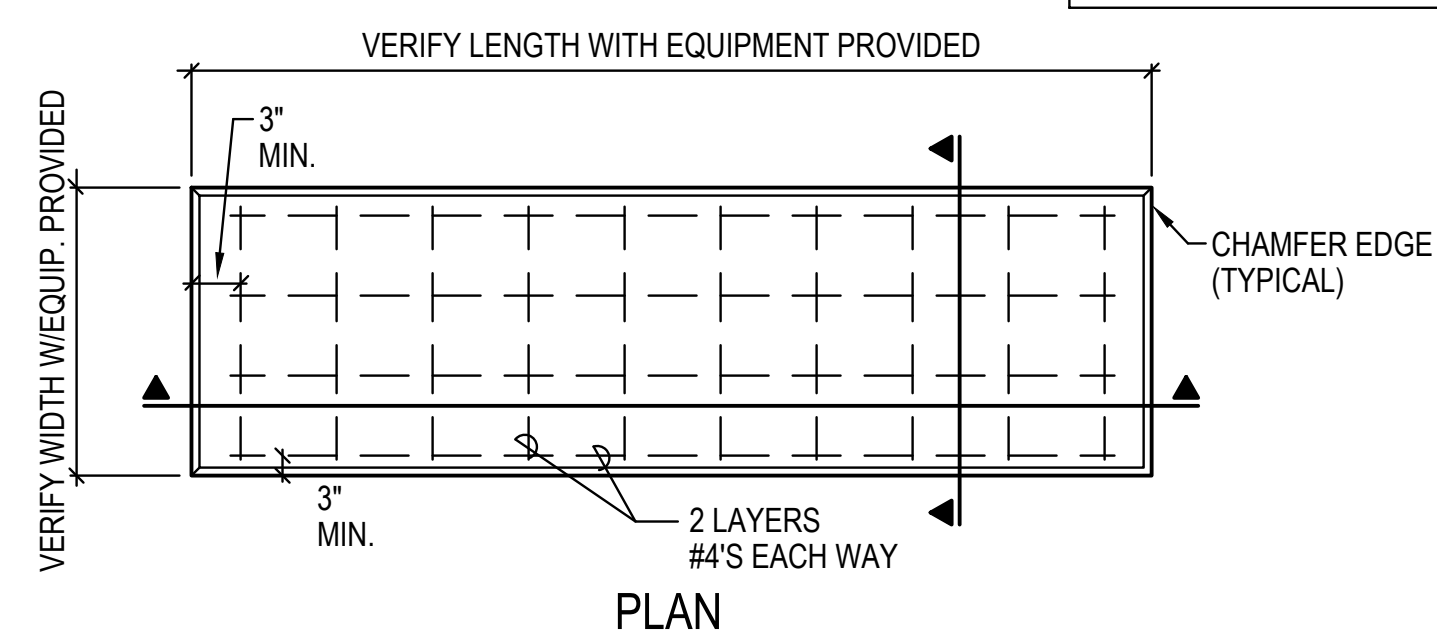
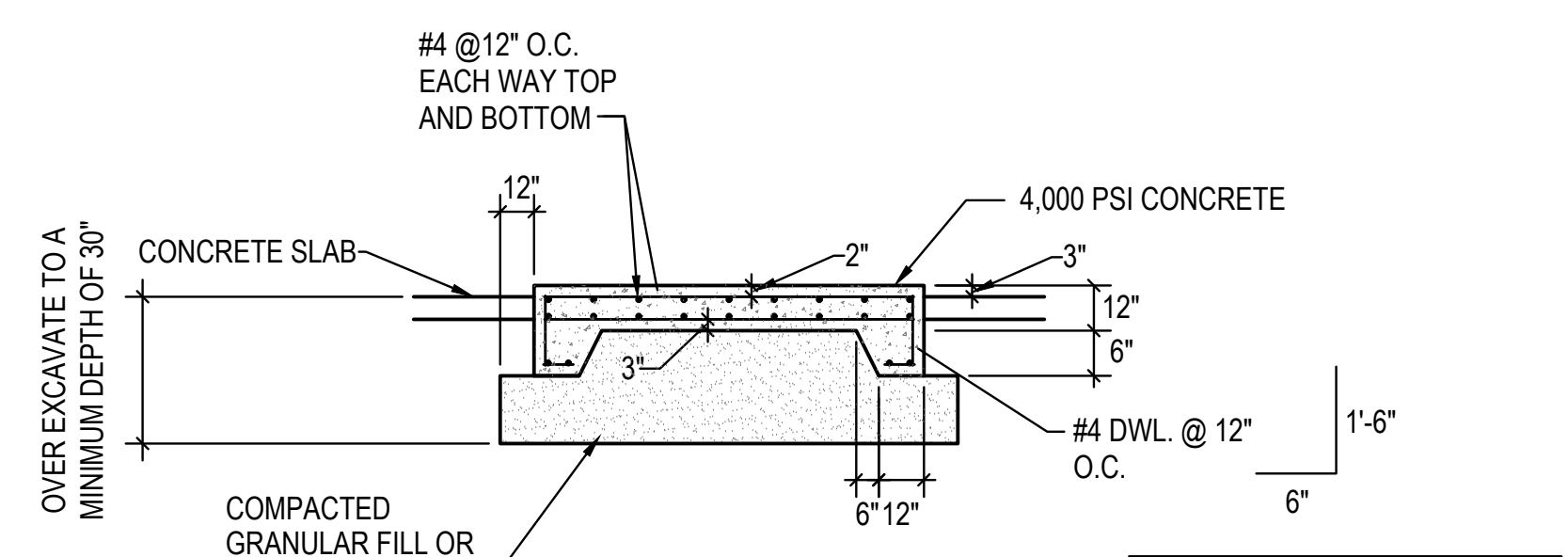


- NOTES:**
1. PROVIDE OTHER GROUNDING CONNECTIONS AS SPECIFIED IN NEC SECTION 250.50.
 2. LABEL EACH GROUNDING ELECTRODE CONDUCTOR AND BONDING JUMPER.
 3. WHERE CONDUCTORS ARE ROUTED IN FERROUS CONDUIT, BOND BOTH ENDS OF THE CONDUIT TO THE CONDUCTOR.

5 SYSTEM GROUNDING DETAIL - PANEL WITH 4-POLE ATS
NO SCALE



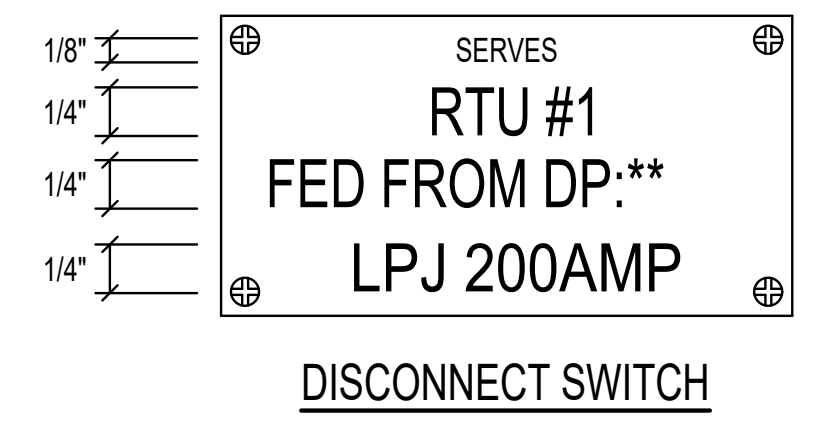
4 TYPICAL SURFACE MOUNTED RECEPTACLE MOUNTING DETAIL
NO SCALE



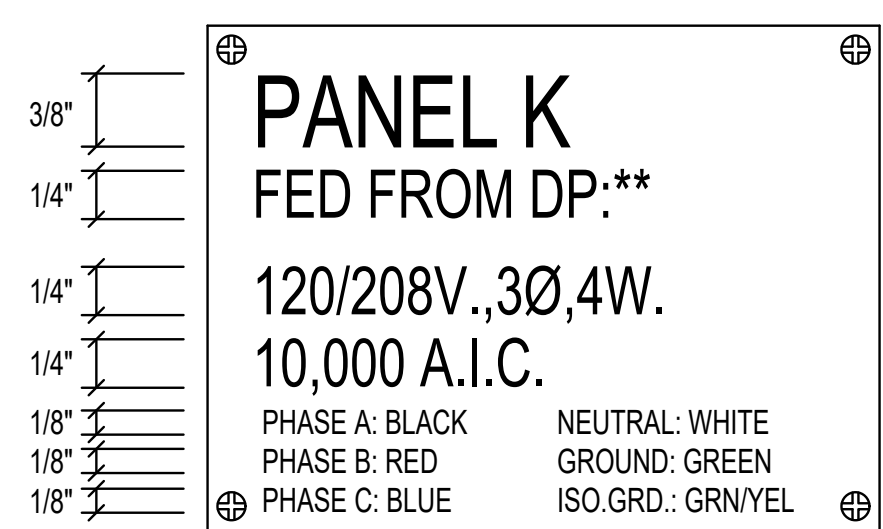
3 ENGINE GENERATOR PAD DETAIL
NO SCALE



SWITCHBOARD/DISTRIBUTION PANEL/MOTOR CONTROL CENTER BREAKER/SWITCH



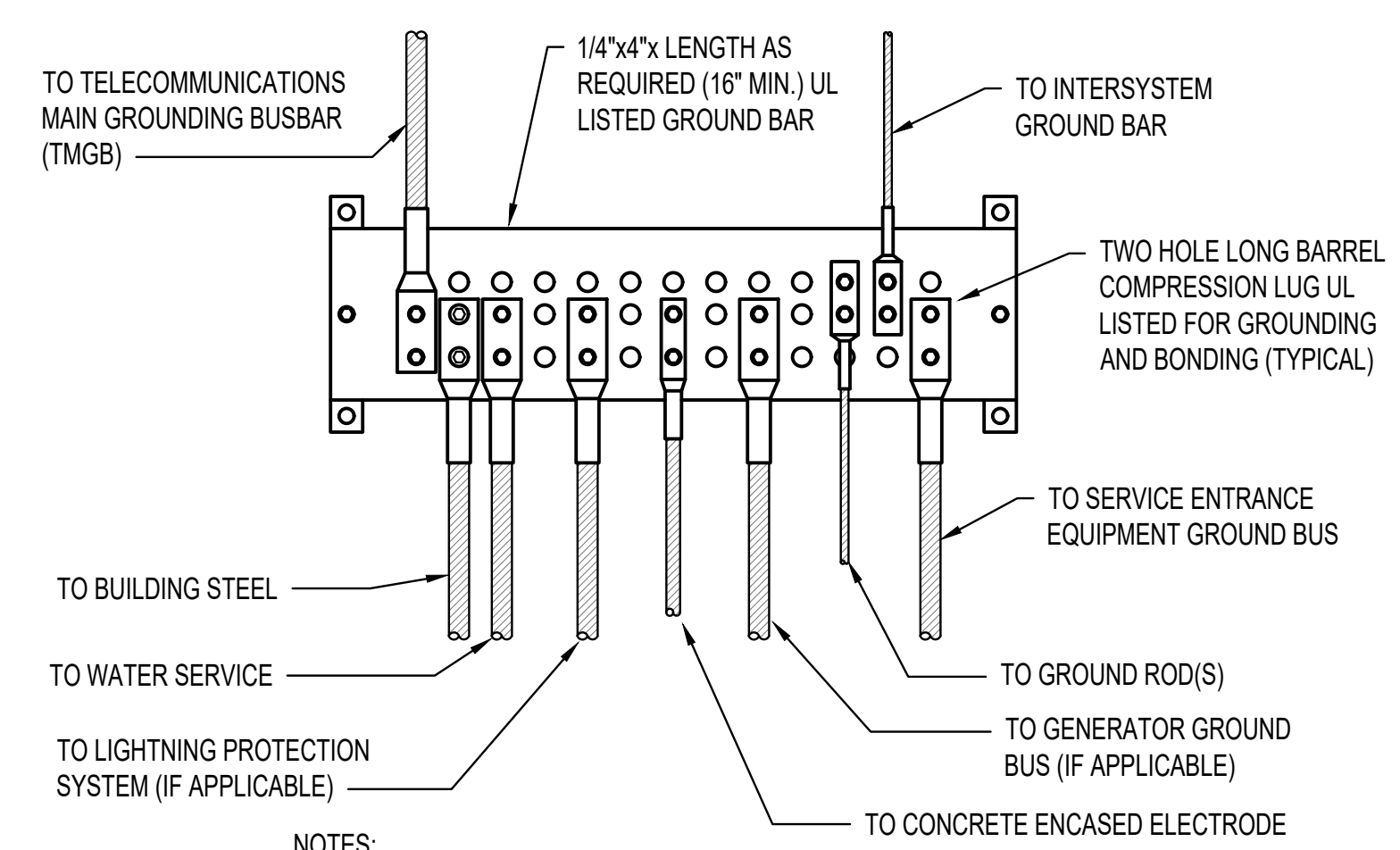
DISCONNECT SWITCH



BRANCH CIRCUIT/DISTRIBUTION PANEL

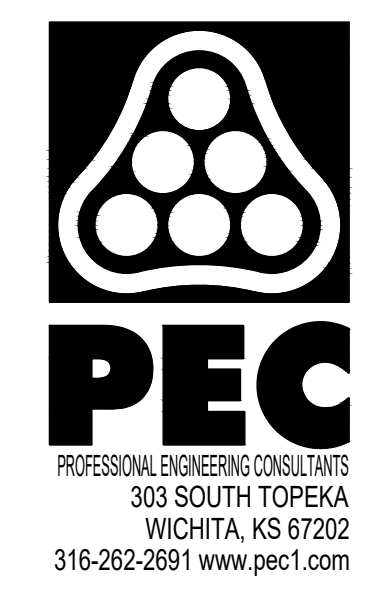
2 TYPICAL NAME PLATES
NO SCALE

NOTE: SEE SPECIFICATION SECTION 260500 FOR NAME PLATE COLOR REQUIREMENTS.



- NOTES:**
1. PROVIDE OTHER GROUNDING CONNECTIONS AS SPECIFIED IN NEC SECTION 250.50. LABEL EACH GROUND CONDUCTOR TO INDICATE USE.
 2. PROVIDE NON-FERROUS CONDUIT (SIZE AS NOTED) WHERE CONDUCTORS ARE SUBJECT TO PHYSICAL DAMAGE.
 3. IF FERROUS CONDUIT IS USED, BOND EACH END OF THE CONDUCTOR TO THE CONDUIT.
 4. PROVIDE GROUND BAR WITH FIBERGLASS ENCLOSURE WITH HINGED LID AND BUSHINGS IF GROUND BAR IS SUBJECT TO PHYSICAL DAMAGE.

1 SYSTEM GROUNDING DETAIL - GROUNDING ELECTRODE CONDUCTOR GROUND BAR
NO SCALE



COW LIFT STATION NO. 10 IMPROVEMENTS

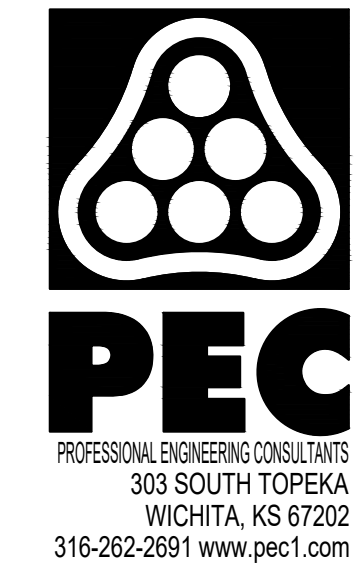
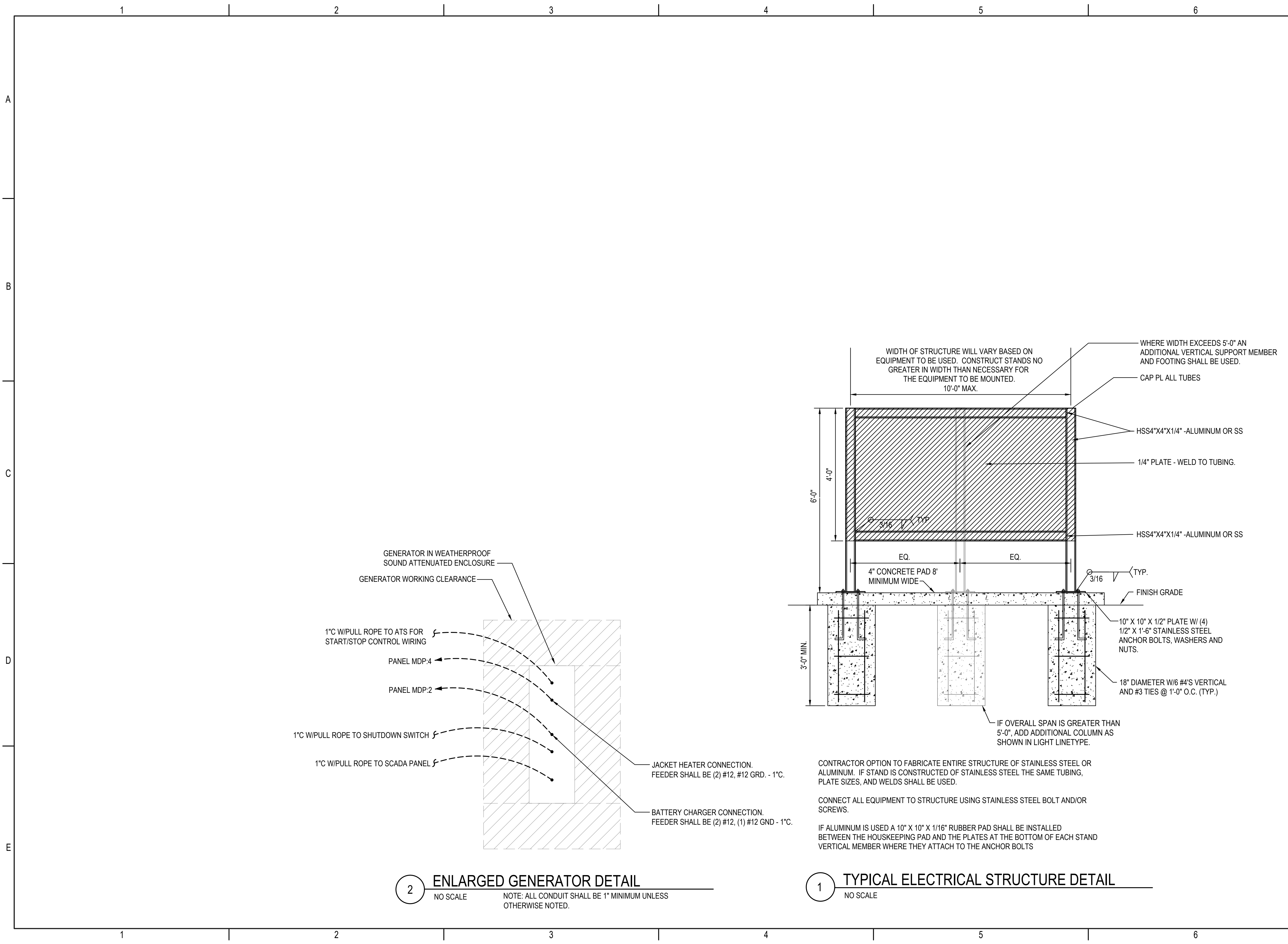
PAUL GUNZELMAN, P.E. - CITY ENGINEER
 CITY OF WICHITA PROJECT NO. 468-2025-012671

Issue:		
JOB NO.	237043-009	
DATE	SEPTEMBER 2025	
PM	RWG	
DESIGNED BY	DCG	
DRAWN BY	BAC	
CHECKED BY	RWW	

ELECTRICAL DETAILS

E501

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 PLOTTED 9/3/2025 8:28:00 AM BY HADLEY WAMPLER
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COW LIFT STATION NO. 10
 IMPROVEMENTS

PAUL GUNZELMAN, P.E. - CITY ENGINEER
 CITY OF WICHITA PROJECT NO. 468-2025-012671

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JOB NO.	237043-009
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PM	RWG
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CHECKED BY	RWW

ELECTRICAL DETAILS

E502

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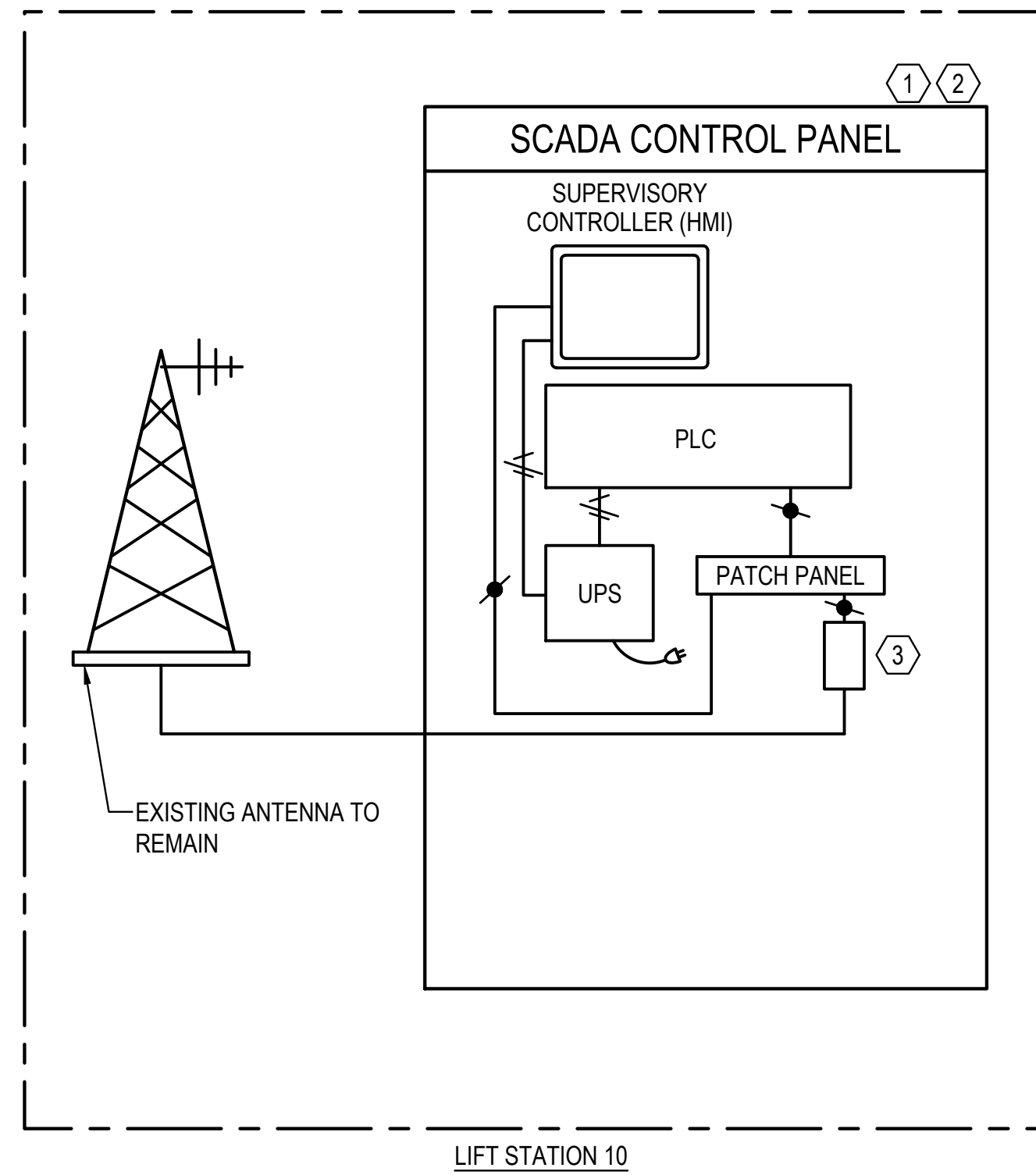
SCADA CONTROL PANEL										LOCATION: LIFT STATION		
CIRCUIT NO.	EQUIPMENT SERVED/ MARK	CONNECT			DESCRIPTION/FUNCTION	CONDUCTORS IN CABLE	DISCRETE	ANALOG	DIGITAL	INPUT	OUTPUT	REMARKS
		DEVICE	CTL. PNL	STARTER								
1	GEN-1	-	X	-	GENSET READY	2 #14	X	-	-	X	-	FROM GENERATOR CONTROL PANEL AT UNIT
2	GEN-1	-	X	-	GENSET RUNNING	2 #14	X	-	-	X	-	FROM GENERATOR CONTROL PANEL AT UNIT
3	GEN-1	-	X	-	GENSET FAIL	2 #14	X	-	-	X	-	FROM GENERATOR CONTROL PANEL AT UNIT
4	GEN-1	-	X	-	GENSET LOW FUEL PRESSURE	2 #14	X	-	-	X	-	FROM GENERATOR CONTROL PANEL AT UNIT
5	GEN-1	-	X	-	GENERATOR BREAKER STATUS	2 #14	X	-	-	X	-	FROM GENERATOR CONTROL PANEL AT UNIT
6	ATS	-	X	-	ATS POSITION	2 #14	X	-	X	X	-	FROM ATS
7	CP	-	X	-	FAULT ALARM	2 #14	X	-	-	X	-	FROM LIFT STATION CONTROL PANEL
8	P-1	-	X	-	P-1 STATUS	2 #14	X	-	-	X	-	FROM LIFT STATION CONTROL PANEL
9	P-2	-	X	-	P-2 STATUS	2 #14	X	-	-	X	-	FROM LIFT STATION CONTROL PANEL

CONTROL PANEL NOTES:

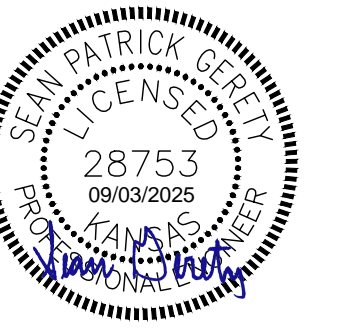
- CONDUIT FOR ANALOG CABLES SHALL TERMINATE IN EQUIPMENT ENCLOSURE AS CLOSE AS POSSIBLE TO THE TERMINALS. ANALOG CABLES SHALL NOT PASS NEAR TO CABLES OR EQUIPMENT OPERATING OVER 24V.
- INTERNAL AND EXTERNAL I/O SHALL BE LANDED ON TERMINAL STRIPS.
- I/O IDENTIFIED ON CONTROL DIAGRAM SHEETS ARE FOR INPUTS AND OUTPUTS EXTERNAL TO THE EQUIPMENT CONTROL PANEL. I/O NECESSARY FOR THE COMPLETE FUNCTIONALITY OF THE EQUIPMENT (INTERNAL I/O) SHALL BE PROVIDED BY THE EQUIPMENT MANUFACTURER. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL CONDUIT AND WIRING AS REQUIRED FOR COMPLETE FUNCTIONALITY OF EQUIPMENT AS SPECIFIED AND AS IDENTIFIED BY THE MANUFACTURER. COORDINATE FIELD WIRING REQUIREMENTS WITH EQUIPMENT MANUFACTURER.

KEY NOTES:

- BY SYSTEMS INTEGRATOR.
- CONTROL PANEL SHALL BE PROVIDED WITH AN ETHERNET PORT FOR CONNECTION OF A LAPTOP COMPUTER.
- RADIO MODEM.



1 CONTROLS SCHEMATIC AND SCHEDULE



COW LIFT STATION NO. 10
 IMPROVEMENTS

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CONTROLS SCHEMATIC AND SCHEDULE

E602