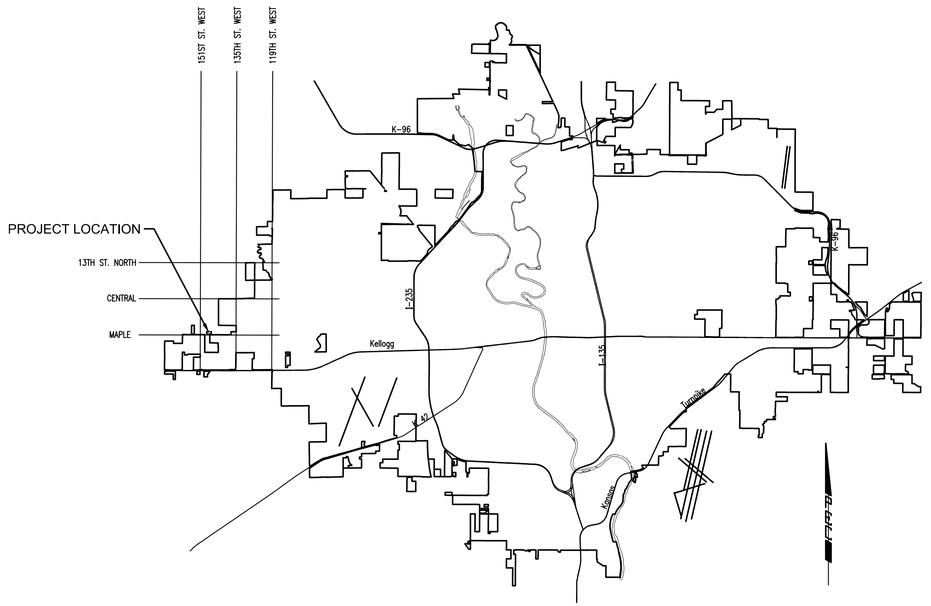
WICHITA MAPLE STREET BOOSTER PUMP STATION

CITY OF WICHITA ENGINEERING PROJECT NO. 448-2019-028875

W5033 54257025

CITY OF WICHITA, KANSAS

PAUL GUNZELMAN, P.E. - CITY ENGINEER



LOCATION MAP

Wichita-Sedgwick County
Metropolitan Area Building
and Construction Department

REVIEWED FOR CODE COMPLIANCE

CORRECTIONS OR COMMENTS MADE ON THESE DRAWINGS AND THIS DOCUMENT DURING THIS REVIEW DO NOT RELIEVE CONTRACTOR FROM COMPLIANCE WITH ALL REQUIREMENTS OF THE CODE OF THE MABCD, THE CITY OF WICHITA OR SEDGWICK COUNTY. THIS REVIEW IS ONLY FOR GENERAL CONFORMANCE OF THE CODE. THE CONTRACTOR IS RESPONSIBLE FOR CONFORMING AND CORRELATING ALL TECHNIQUES OF CONSTRUCTION. THIS APPROVAL IS SUBJECT TO PROVISIONS OF SECTION 107.4 OF THE 2012 INTERNATIONAL BUILDING CODE.

DATE: 04/22/25 BY: Gary Cox

PEC
PROFESSIONAL ENGINEERING CONSULTANTS
303 SOUTH TOPEKA
WICHITA, KS 67202
316-262-2691 www.pec1.com

CITY OF WICHITA

WILLIAM GLESSNER
LICENSED
23090
01/22/2025
KANSAS
PROFESSIONAL ENGINEER

WICHITA MAPLE STREET BOOSTER PUMP STATION

PAUL GUNZELMAN, P.E. - CITY ENGINEER
CITY OF WICHITA PROJECT NO. 448-2019-028875

Issue:		

JOB NO.	35-200810-001-0042
DATE	JANUARY 2025
PM	RWG
DESIGNED BY	LY
DRAWN BY	CAE
CHECKED BY	RWG

TITLE SHEET

GI001

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Wichita-Sedgwick County
Metropolitan Area Building
and Construction Department

MABCD REVIEWER:

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DATE 04/22/25 BY Gary Cox

PLANT CIVIL

GI001 TITLE SHEET
GI002 INDEX SHEET
GI101 OVERALL KEY MAP & PROJECT CONTROL
GI102 GENERAL NOTES
GI003 CODE PLAN

VF101 EXISTING CONDITIONS

CD101 SITE DEMOLITION PLAN

CS101 SITE PLAN
CS102 SITE PAVING PLAN
CS103 SITE FENCE PLAN
CS104 SITE JOINTING PLAN
CS501 PAVING DETAILS
CS502 FENCING DETAILS

CG101 SITE GRADING PLAN
CG201 ERU PLAN
CG501 EROSION CONTROL DETAILS 1
CG502 EROSION CONTROL DETAILS 2

CU101 UTILITY PLAN
CU102 WL 1 PLAN & PROFILE
CU103 WL 2 PLAN & PROFILE
CU501 STANDARD WATER ASSEMBLY DETAILS
CU502 STANDARD WATER SERVICE DETAILS
CU503 STANDARD VAULT DETAILS AND METER ASSEMBLIES
CU504 MISCELLANEOUS WATER DETAILS
CU505 VERTICAL RISER ASSEMBLY SEWER DETAIL

PLANT SCHEMATICS AND SCHEDULES

DI001 BOOSTER PUMP STATION CONTROLS P&ID

DI601 EQUIPMENT SCHEDULES

PLANT PROCESS

DP101 PUMP STATION PLAN
DP102 SECTIONS
DP103 SECTIONS

DP110 VALVE VAULT PLAN
DP111 VALVE VAULT SECTIONS

DP501 PROCESS DETAILS
DP502 PROCESS DETAILS

ARCHITECTURAL

A-101 SCHEDULES/ FRAME TYPES/ DETAILS/ FLOOR PLAN/ INTERIOR ELEVATIONS
A-102 REFLECTED CEILING PLAN / ROOF PLAN

A-201 EXTERIOR ELEVATIONS/ SECTIONS
A-202 WALL SECTIONS

STRUCTURAL

S-001 STRUCTURAL GENERAL NOTES
S-002 STRUCTURAL GENERAL NOTES
S-003 IBC INSPECTION TABLES

S-101 STRUCTURAL PLANS

S-501 TYPICAL FOUNDATION DETAILS
S-502 FOUNDATION DETAILS
S-521 FRAMING DETAILS

MECHANICAL

MP001 MECHANICAL COVER SHEET

P-101 FIRST FLOOR PLUMBING PLAN
P-501 PLUMBING DETAILS
P-701 PLUMBING SCHEDULES AND DETAILS

M-101 FIRST FLOOR HVAC PLAN
M-701 MECHANICAL SCHEDULES AND DETAILS

ELECTRICAL

E-001 ELECTRICAL GENERAL NOTES AND SYMBOLS

E-111 ELECTRICAL SITE PLAN
E-131 POWER PLAN
E-141 LIGHTING PLAN

E-501 ELECTRICAL DETAILS
E-502 ELECTRICAL DETAILS
E-503 ELECTRICAL DETAILS
E-504 ELECTRICAL DETAILS
E-505 ELECTRICAL DETAILS

E-601 ELECTRICAL ONE-LINE DIAGRAMS
E-611 LIGHTING FIXTURE SCHEDULES
E-612 ELECTRICAL SCHEDULES
E-620 ELECTRICAL CONTROLS

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CITY OF WICHITA

R.W. WILLIAM GLESSNER LICENSED 23090 04/03/2025 KANSAS PROFESSIONAL ENGINEER

WICHITA MAPLE STREET BOOSTER PUMP STATION

PAUL GUNZELMAN, P.E. - CITY ENGINEER
CITY OF WICHITA PROJECT NO. 448-2019-028875

Issue:		
1	MABCD COMMENTS	4/03/25

JOB NO.	35-200810-001-0042
DATE	JANUARY 2025
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DESIGNED BY	LY
DRAWN BY	CAE
CHECKED BY	RWG

INDEX SHEET

GI002

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Wichita-Sedgwick County
Metropolitan Area Building
and Construction Department

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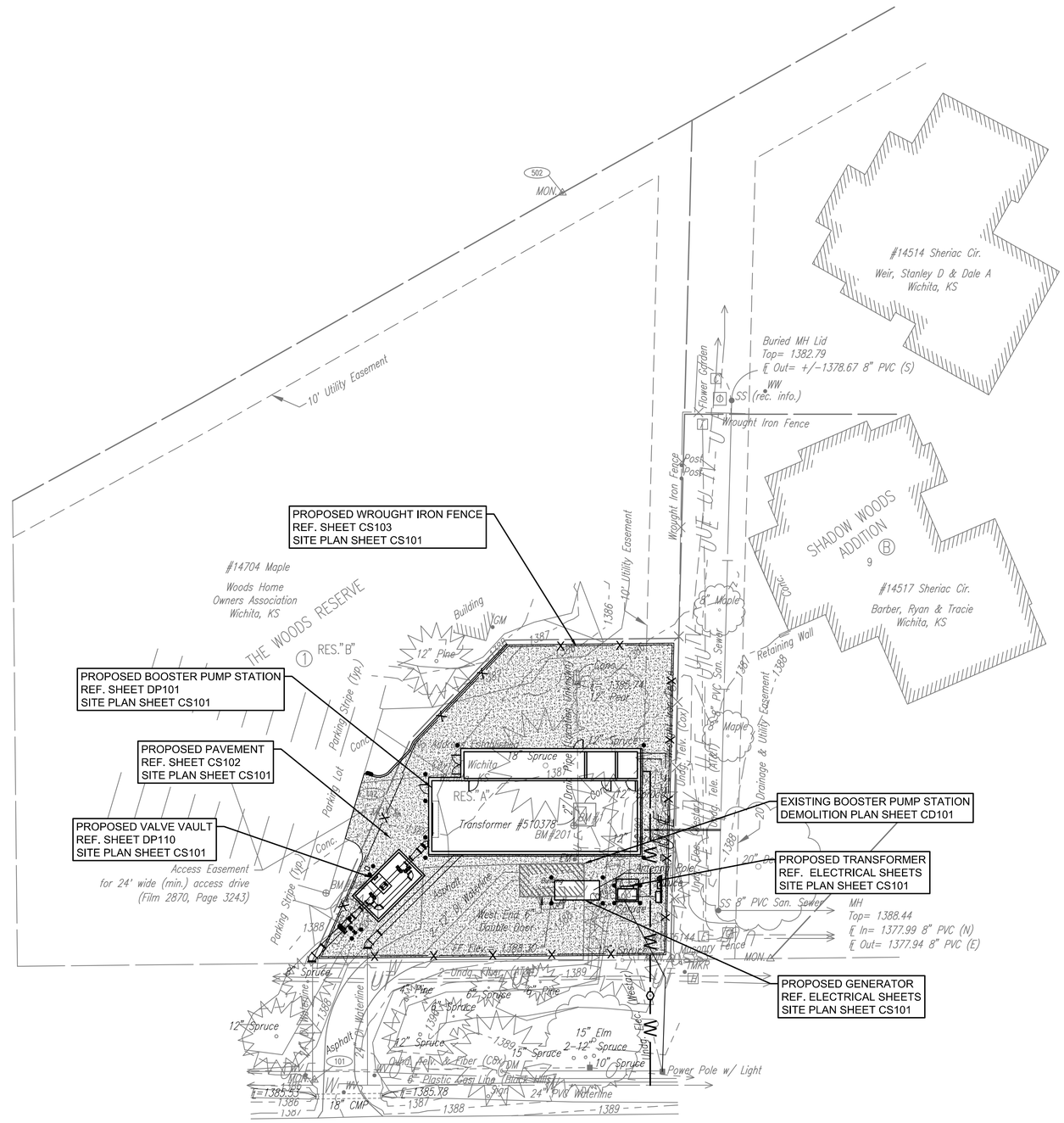

LEGEND

SCALE: 1" = 20'

0 20 40
SCALE IN FEET

	Coniferous Tree
	Deciduous Tree
BM	Benchmark
DM	Deadman
LP	Light Pole
	Power Pole
E	Electric Box
EM	Electric Meter
GM	Gas Meter
H	Handhole
△	Monument
	Transformer
WV	Water Valve
U E	Buried Electric
	Culvert
O E	Gas Line
UT	Overhead Electric
	Buried Telephone
	Waterline
	Sanitary Sewer
	Fence Types
1390	Contour Interval
1389	

BENCHMARK LIST BM #201

BM #201 – CHISELED SQUARE ON THE SOUTHWEST CORNER OF TRANSFORMER PAD, LOCATED 11' NORTH OF BOOSTER PUMP STATION BUILDING.
ELEV. = 1388.13 (NAVD 88)

BM #202 – CHISELED SQUARE ON THE SOUTHEAST CORNER OF THE PARKING LOT FOR THE POOL HOUSE, +/- 44' EAST SOUTHEAST OF THE BASKETBALL HOOP.
ELEV. = 1387.31 (NAVD 88)

CONTROL POINTS 101

Pt. No. 101
N: 1,682,376.1020, E: 1,598,569.3520
#4 BAR WITH PEC CONTROL POINT CAP, FLUSH WITH GROUND.
1. WEST SIDE OF DRIVEWAY, NEAR MAPLE STREET.
2. 8.6' EAST TO CENTERLINE OF DRIVEWAY.
3. 12.0' SOUTH TO NORTH EDGE OF PAVEMENT LINE.
4. 3.4' WEST TO CENTER OF WATER VALVE LID.

Pt. No. 102
N: 1,682,458.9390, E: 1,598,595.0960
#4 BAR WITH PEC CONTROL POINT CAP, FLUSH WITH GROUND.
1. IN LINE WITH CENTER LINE OF PARKING LOT.
2. 13.4' WEST NORTHWEST TO EDGE OF CONCRETE PARKING LOT.
3. 41.4' EAST SOUTHEAST TO NORTHWEST CORNER OF BOOSTER PUMP STATION BUILDING.
4. 33.2' SOUTH–SOUTHWEST TO CHISELED SQUARE IN CORNER OF CONCRETE.

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PAUL GUNZELMAN, P.E. - CITY ENGINEER
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OVERALL KEY MAP & PROJECT CONTROL

GI101

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GENERAL NOTES

1. ALL CONSTRUCTION AND MATERIALS TO COMPLY WITH CITY OF WICHITA STANDARD CONSTRUCTION SPECIFICATIONS, DETAILS AND SPECIAL PROVISIONS UNLESS OTHERWISE INCLUDED IN THE CONTRACT DOCUMENTS.

2. 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.

3. 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
   PUBLIC WORKS AND UTILITIES
   MIKE JACOBS
   (316) 269-4760

4. 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.

5. THE CONTRACTOR MUST NOTIFY THE FOLLOWING IN CASE OF AN EMERGENCY:

EMERGENCY DISPATCH:	911
KANSAS ONE-CALL	687-2470
COW WATER & SEWER	316-219-8921
COW STORMWATER	316-268-4090
COW TRAFFIC	316-268-4034
COX COMMUNICATIONS:	888-249-3530
EVERGY:	800-383-1183
AT&T:	800-286-8313
KANSAS GAS SERVICE:	888-482-4950

6. 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.

7. 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.

8. ALL ELEVATIONS SHOWN ARE NAVD88 DATUM. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL RE-ESTABLISH HORIZONTAL AND VERTICAL CONTROL POINTS AND VERIFY THEIR ACCURACY.

9. 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.

10. 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.

11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING PROPERTY IRONS AND SECTION CORNERS. THE CONTRACTOR SHALL BE REQUIRED TO RE-ESTABLISH ANY PROPERTY IRONS AND SECTION CORNERS WHICH ARE DAMAGED OR DESTROYED BY CONSTRUCTION OPERATIONS. SUCH IRONS AND SECTION CORNERS SHALL BE RE-ESTABLISHED BY A LICENSED LAND SURVEYOR IN ACCORDANCE WITH STATE LAWS.

12. 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.

13. 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).

14. 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.

15. 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.

16. 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.

17. 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.

18. ALL GRASSED AREAS DISTURBED BY CONSTRUCTION OF THE PROPOSED IMPROVEMENTS SHALL BE REPLANTED WITH GRASS AND FERTILIZED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. EXISTING GRASSED AREAS DISTURBED BY CONSTRUCTION SHALL BE REPLANTED WITH THE SAME TYPE OF GRASS AS WAS REMOVED, UNLESS OTHERWISE SPECIFIED.

19. 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.

20. CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTION STAKING, STAKING AND BENCH MARKS DESTROYED DURING CONSTRUCTION OPERATIONS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

21. CONTRACTOR SHALL MAINTAIN UNINTERRUPTED UTILITY SERVICE TO ADJACENT FACILITIES DURING CONSTRUCTION, UNLESS OTHERWISE APPROVED BY OWNER.

22. 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.

23. THE CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATION, TYPE, SIZE AND CLASS OF EXISTING WATERLINES PRIOR TO MAKING CONNECTIONS. EXISTING WATERLINE LOCATIONS AS SHOWN ON THE DRAWINGS ARE APPROXIMATE. CONTRACTOR SHALL MAKE ADJUSTMENTS AS REQUIRED. PROVISION AND INSTALLATION OF PIPE ADAPTORS, SHORT SECTION OF PIPE, AND COUPLERS SHALL BE AT NO ADDITIONAL COST TO THE PROJECT.

24. THE CONTRACTOR MUST SCHEDULE THE CONNECTIONS TO THE EXISTING WATER DISTRIBUTION SYSTEM WITH THE CITY SUCH THAT THERE IS MINIMUM DISRUPTION TO THE SYSTEM.

25. AS REQUIRED, THE CONTRACTOR SHALL INSTALL A TEMPORARY BLOW OFF AND/OR TEMPORARY CONNECTION TO THE EXISTING WATERLINE/SYSTEM PER AWWA C651 RECOMMENDATIONS TO FILL AND TEST THE NEW WATERLINE. AT THE CONTRACTOR'S OPTION, THE CONTRACTOR CAN INSTALL A TEMPORARY MAINLINE VALVE AT THE POINT OF CONNECTION. FOLLOWING ACCEPTANCE OF THE NEW WATERLINE, THE TEMPORARY CONNECTION/VALVE SHALL BE FULLY REMOVED AND THE FINAL CONNECTION TO THE EXISTING WATERLINE SHALL BE CONSTRUCTED. WATERLINE MATERIALS AT TIE-INS SHALL BE CONSTRUCTED WITH CLEAN, SWABBED PIPE AND FLUSHED UPON COMPLETION OF TIE-INS. ALL COSTS FOR TEMPORARY CONNECTIONS SHALL BE CONSIDERED SUBSIDIARY TO THE PROJECT.

26. WATERLINES SHALL HAVE A MINIMUM DEPTH OF BURY OF 42 INCHES, UNLESS SHOWN OTHERWISE.

27. THE CONTRACTOR SHALL NOT BURY VALVE BOXES OR FIRE HYDRANTS THAT HAVE ELEVATIONS WHICH ARE LOWER THAN EXISTING GROUND. AS DIRECTED BY THE ENGINEER THE CONTRACTOR SHALL ADJUST VALVE BOXES AND FIRE HYDRANTS TO MATCH EXISTING GROUND OR PROVIDE DRAINAGE AWAY FROM THESE VALVE BOXES AND FIRE HYDRANTS BY SLOPING THE GROUND AS REQUIRED. ALL COSTS FOR THIS WORK SHALL BE CONSIDERED SUBSIDIARY TO THE PROJECT.

28. THE CONTRACTOR SHALL LIMIT THE EXTENT OF TRENCH TO REMAIN OPEN OVERNIGHT AND WEEKENDS TO LESS THAN 50 FEET.

29. CONCRETE THRUST BLOCKING SHALL BE INSTALLED AT ALL HORIZONTAL AND VERTICAL DEFLECTIONS OF 11 1/4 DEGREES OR MORE, UNLESS OTHERWISE SPECIFIED. THRUST BLOCKING SHALL BE SIZED AS SHOWN IN THE DETAILS, OR OTHERWISE SPECIFIED. COSTS FOR CONCRETE THRUST BLOCKING SHALL BE CONSIDERED SUBSIDIARY TO THE PROJECT.

30. CONTRACTOR SHALL ABANDON THE EXISTING WATER MAIN TO THE LIMITS SHOWN ON THE PLAN SHEETS. ALL WATERLINES TO BE ABANDONED SHALL BE CUT AND CAPPED/PLUGGED AS APPROVED BY THE ENGINEER. ANY VALVES/FITTINGS TO BE ABANDONED IN PLACE SHALL BE PROPERLY PLUGGED.

31. CONTRACTOR SHALL FIELD VERIFY ALL SANITARY SEWER ELEVATIONS PRIOR TO WATERLINE CONSTRUCTION. SEWER CROSSINGS SHALL MEET SEPARATION REQUIREMENTS PER PROJECT SPECIFICATIONS.

32. THE CONTRACTOR SHALL MINIMIZE SERVICE DISRUPTION TO PROPERTY OWNERS AND SHALL PROVIDE 48 HOURS WRITTEN NOTICE TO ANY PROPERTY OWNERS THAT WILL HAVE A DISRUPTION OF SERVICE.

33. THE CONTRACTOR SHALL MAINTAIN EXISTING WATERLINES IN SERVICE UNTIL THE NEW LINE IS DISINFECTED AND ALL TESTING IS COMPLETE AND APPROVED. ALL SERVICES SHALL THEN BE CONNECTED TO THE NEWLY INSTALLED WATERLINE PRIOR TO ABANDONING THE EXISTING WATERLINE.

34. THE WATERLINE PIPE LENGTHS REPRESENT TRUE PIPE LENGTHS AND DO NOT INCLUDE FITTINGS/APPURTENANCES. THE PIPE LENGTHS DO NOT DIRECTLY CORRESPOND WITH ALIGNMENT STATIONING. THE COST OF FITTINGS IS CONSIDERED SUBSIDIARY TO PIPE.

35. 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.

36. 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".

37. OPENING AND CLOSING WATER VALVES SHALL BE DONE SLOWLY TO PREVENT DAMAGE TO THE WATER DISTRIBUTION SYSTEM FROM WATER HAMMER. ALL VALVES CLOSED BY THE CONTRACTOR MUST BE REOPENED AS NEW CONSTRUCTION PERMITS. PROJECT INSPECTOR MUST ASCERTAIN THAT ANY VALVE CLOSED BY THE CONTRACTOR IS REOPENED. CONTRACTOR WILL BE PERMITTED TO OPERATE WATER VALVES ONLY WHEN THE PROJECT INSPECTOR ASSIGNED TO THE PROJECT IS PRESENT.

38. THE CONTRACTOR SHALL RESTRAIN ALL BENDS, VALVES, AND TEES THROUGH THE USE OF A RESTRAINED JOINT PIPE AS SPECIFIED, AT THE MINIMUM LENGTHS AS SHOWN IN THE PLANS. OTHER METHODS OF RESTRAINT MAY BE SUBMITTED FOR APPROVAL AT LEAST 14 DAYS PRIOR TO BIDDING. RESTRAINED JOINT DUCTILE IRON PIPE SHALL BE U.S. PIPE TR FLEX, AMERICAN FLEX RING, OR APPROVED EQUAL, IN ACCORDANCE WITH CITY OF WICHITA STANDARD SPECIFICATIONS. RESTRAINED JOINT PVC PIPE SHALL BE NORTH AMERICAN CERTA-LOK PIPE, OR APPROVED EQUAL, IN ACCORDANCE WITH CITY OF WICHITA STANDARD SPECIFICATIONS. THE CONTRACTOR MAY USE SIGMA PV-LOK SERIES PWM OR APPROVED EQUAL FOR RESTRAINT OF FITTINGS ON THE PROJECT. CLAMPING RING SHALL BE OF HIGH STRENGTH DUCTILE IRON AND SHALL CONFORM TO ASTM A536, GRADE 65-45-12. SIDE CLAMPING BOLT AND HEX NUTS SHALL BE A HIGH STRENGTH, LOW ALLOY STEEL AND SHALL CONFORM TO AWWA/ANSI C111/A21.11 AND PRORATE A MINIMUM 45,000 PSI YIELD AND 60,000 PSI TENSILE STRENGTH.

39. 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.

40. 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.

41. 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.

42. 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".

CONSTRUCTION SEQUENCE

1. THE CONTRACTOR SHALL CONSTRUCT NEW PUMP STATION AND INSTALL ALL WATERLINES UP TO THEIR TIE-IN LOCATIONS PRIOR TO TAKING THE EXISTING PUMP STATION OFFLINE.
2. THE NEW PUMP STATION SHALL BE STARTED UP, TESTED, AND PENDING SUCCESSFUL START UP AND TEST RESULTS, BE PLACED INTO SERVICE.
3. THE NEW PUMP STATION SHALL BE MONITORED FOR SUCCESSFUL OPERATION FOR A MINIMUM OF ONE WEEK. DURING THIS WEEK, THE EXISTING PUMP STATION SHALL REMAIN OPERATIONAL AND IN STANDBY IN THE EVENT THE NEW PUMP STATION DOES NOT OPERATE AS INTENDED.
4. FOLLOWING SUCCESSFUL TESTING AND WITH APPROVAL BY OWNER, THE NEW PUMP STATION SHALL BE PLACED INTO PERMANENT SERVICE.
5. ONCE THE NEW PUMP STATION HAS BEEN PLACED INTO PERMANENT SERVICE, THE EXISTING PUMP STATION SHALL BE DISCONNECTED FROM THE WATER SYSTEM AND REMOVE SLABS, FOUNDATIONS, PIPING ETC. FULLY. ALL EQUIPMENT REMOVAL SHALL BE COORDINATED WITH CITY STAFF AND ANY EQUIPMENT THAT THE CITY WOULD LIKE SALVAGED, SHALL BE DELIVERED TO A LOCATION IDENTIFIED BY CITY STAFF. ALL DEMOLISHED MATERIALS FROM THE PUMP STATION STRUCTURES AND UNSALVAGED EQUIPMENT SHALL BE DISPOSED OF BY THE CONTRACTOR.

Wichita-Sedgwick County
Metropolitan Area Building
and Construction Department
MABCD REVIEWER:
REVIEWED FOR CODE COMPLIANCE
CORRECTIONS OR COMMENTS MADE ON THESE DRAWINGS AND THIS DOCUMENT DURING THIS REVIEW DO NOT RELIEVE CONTRACTOR FROM COMPLIANCE WITH ALL REQUIREMENTS OF THE CODE OF THE MABCD, THE CITY OF WICHITA OR SEDGWICK COUNTY. THIS REVIEW IS ONLY FOR GENERAL CONFORMANCE OF THE CODE. THE CONTRACTOR IS RESPONSIBLE FOR CONFORMING AND CORRELATING ALL TECHNIQUES OF CONSTRUCTION. THIS APPROVAL IS SUBJECT TO PROVISIONS OF SECTION 107.4 OF THE 2012 INTERNATIONAL BUILDING CODE.
DATE: 04/22/25 BY: Gary Cox

PEC
PROFESSIONAL ENGINEERING CONSULTANTS
303 SOUTH TOPEKA
WICHITA, KS 67202
316-262-2691 www.pec1.com

CITY OF WICHITA

PAUL WILLIAM GUNZELMAN LICENSED 23090 01/22/2025 KANSAS PROFESSIONAL ENGINEER

WICHITA MAPLE STREET BOOSTER PUMP STATION

PAUL GUNZELMAN, P.E. - CITY ENGINEER
CITY OF WICHITA PROJECT NO. 448-2019-028875

Issue:		

JOB NO.	35-200810-001-0042
DATE	JANUARY 2025
PM	RWG
DESIGNED BY	LY
DRAWN BY	CAE
CHECKED BY	RWG

GENERAL NOTES

GI102

SAVED 2/8/2024 10:51:53 AM BY CHRIS.EPP
PLOTTED 1/20/2025 9:35:25 AM BY CHRIS EPP
U:\WICHITA-CIVIL\2020\200810\00\01\PEC\DRAWINGS\200810-001-GI102.DWG

CODE ANALYSIS SCHEDULE

	FIRST FLOOR	NOTES
Construction Type	I-A	
Classification Use Group	F-2	
Actual Number of Stories	1	
Maximum Stories, Height	UNLIMITED	
Fire Protection	N/A	TABLE 506.2
Actual Building Area	1,894 SF	
Allowable Area per Floor	UNLIMITED	
Total Occupant Load	8	
Exits Required	2	
Exits Provided	3	
Protection		
Exterior Bearing Walls	3 HR	
Exterior Non Bearing Walls	NOT RATED	
Interior Bearing Walls	3 HR	
Interior Non Bearing Walls	NOT RATED	
Structural Elements	3 HR	
Shaft Enclosures	NOT RATED	
Roof Ceiling Assemblies	1 1/2 HR	
Exit Passageways	NOT RATED	
Fire Walls	N/A	
Fire Barrier Walls	N/A	
Protected Exterior Openings	NOT RATED	
Plumbing Fixture Count		
Occupant Load	8	
Water Closets Required	1	
Water Closets Provided	1	
Lavatories Required	1	
Lavatories Provided	1	

GENERAL NOTES

GENERAL CONSTRUCTION: New construction; One story

SUBMITTAL REASON: New construction

FIRE SAFETY SYSTEM: Fire extinguishers; Exit lights; Emergency lights - battery back-up

ACCESSIBILITY: All entrances into the building; All toilet facilities; All drinking fountains

WATER SUPPLY: City of Wichita

SANITARY SEWER: City of Wichita

LOCAL BUILDING JURISDICTION: Metropolitan Area Building and Construction Department

COUNTY: Sedgwick

FIRE SERVICE: City of Wichita

THE SUBMITTED PLANS HAVE BEEN DESIGNED TO COMPLY WITH THE APPLICABLE REQUIREMENTS OR THE FOLLOWING REGULATORY AGENCIES:

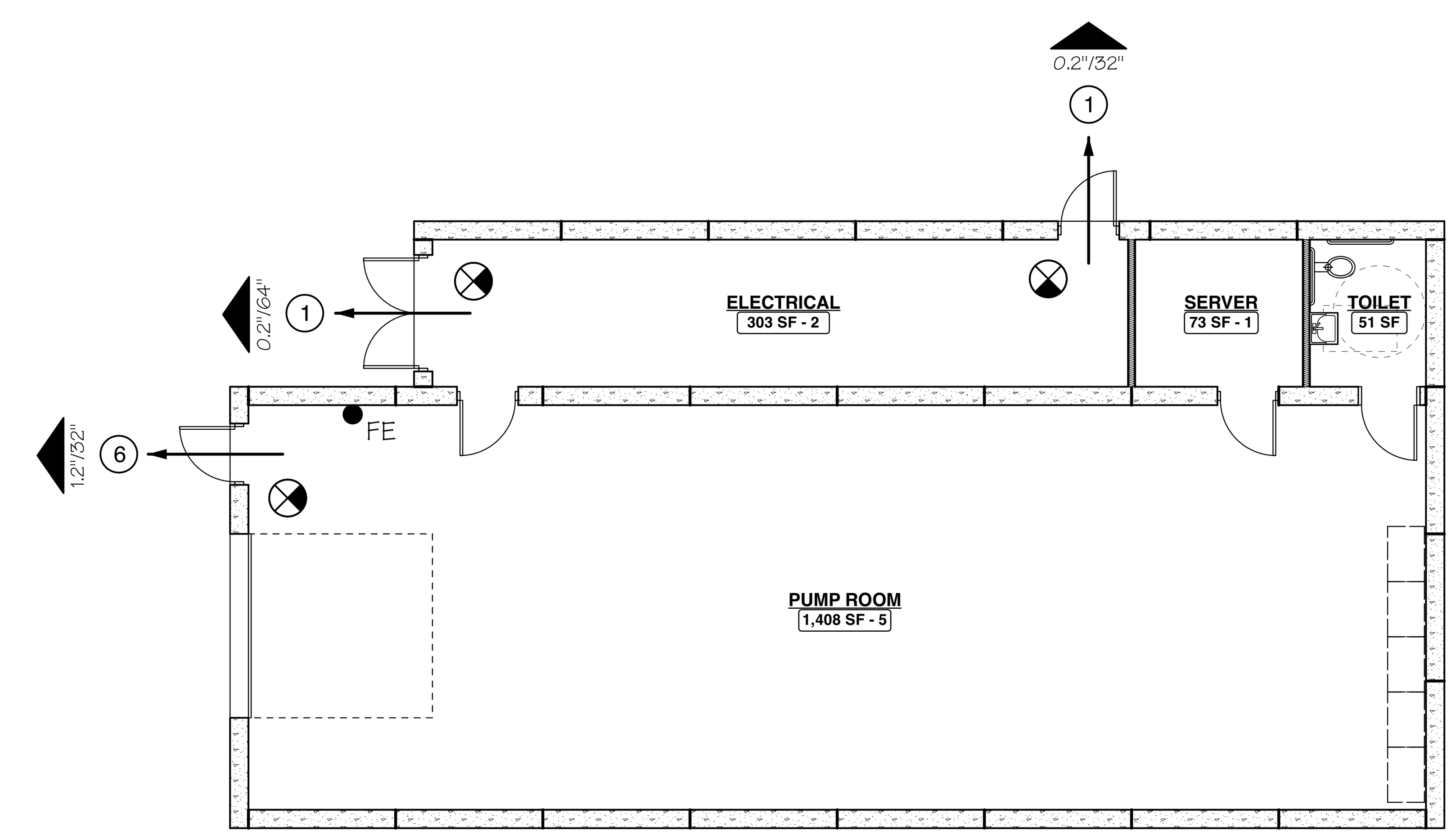
2024 International Building Code
2024 International Mechanical Code
2021 Uniform Plumbing Code
2024 International Fire Code
2023 National Electric Code
2010 ADA Americans w/ Disabilities Act

AUTHORITY HAVING JURISDICTION (AHJ):
Metropolitan Area Building and Construction Department

ARCHITECT:
Gravity::Works Architecture
101 S. Star Street
El Dorado, Kansas 67042
316-321-4774

LEGEND

12 / 8	EXIT PATH W/ ACCUMULATED OCCUPANCY LOADS
X"/32" (20)	WIDTH PROVIDED / REQ'D OCCUPANTS
ROOM 262 SF - 6	ROOM NAME SQ. FT. - OCCUPANT LOAD
FE	FIRE EXTINGUISHER
FACP	FIRE ALARM CONTROL PANEL
	EXIT LIGHT
	EMERGENCY EGRESS LIGHT
FDC	FIRE DEPARTMENT CONNECTION
FH	FIRE HYDRANT



CODE PLAN

Scale: 1/8" = 1'-0"

N

0 5 10 15 20 FT

1 ENTIRE SHEET

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CITY OF WICHITA

WICHITA MAPLE STREET BOOSTER PUMP STATION

PAUL GUNZELMAN, P.E - CITY ENGINEER
CITY OF WICHITA PROJECT NO. 448-2019-028875

Issue:		
1	MABCD COMMENTS	4/03/25

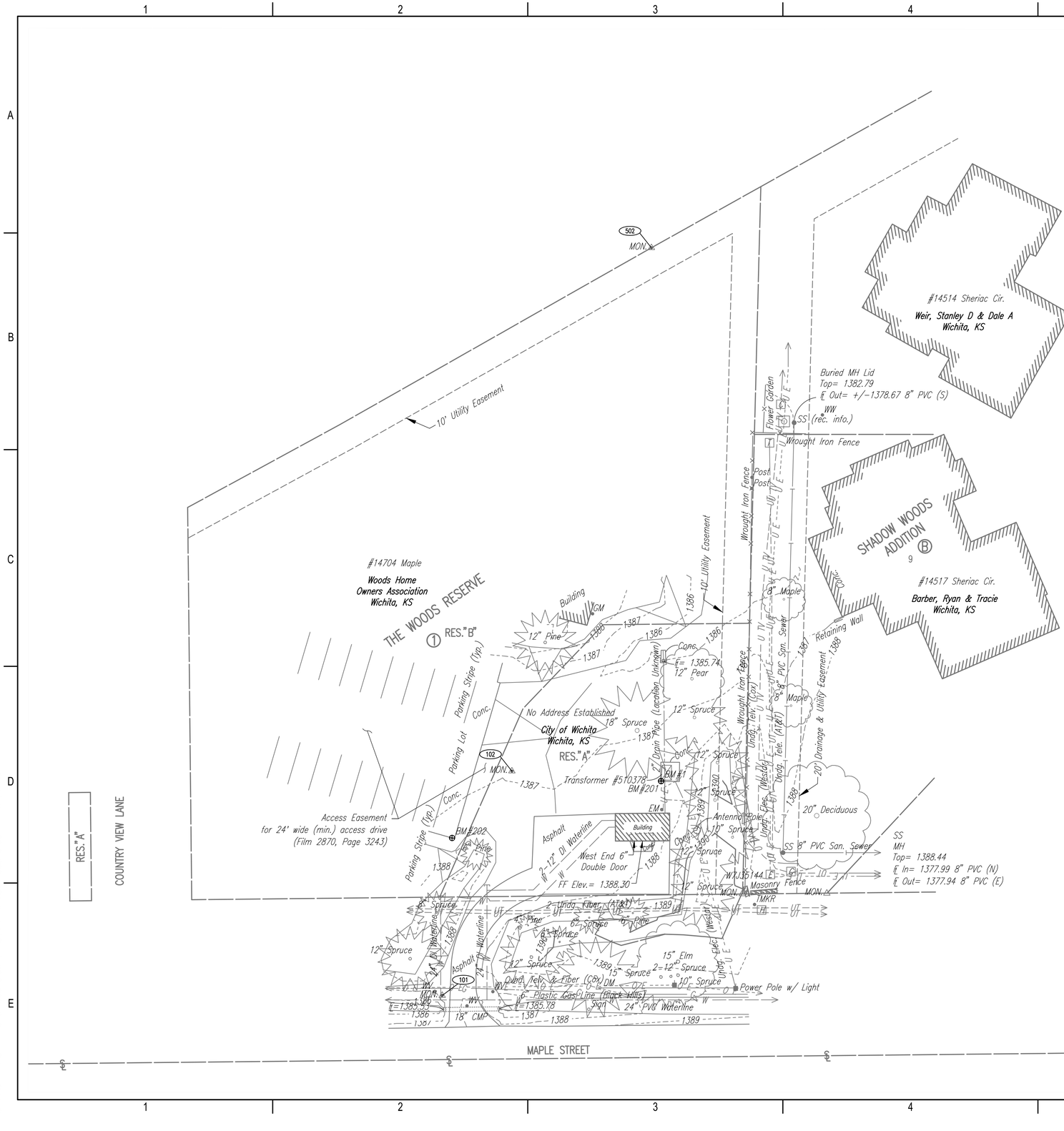
JOB NO.	35-200810-001-0042
DATE	JANUARY 2025
PM	VH
DESIGNED BY	VH
DRAWN BY	JL
CHECKED BY	VH

GRAVITY::WORKS ARCHITECTURE
101 S. Star Street, El Dorado, KS 67042
phone (316) 321 - 4774
www.gravityworks-architecture.com

G::W JOB NO. 22-1399

CODE PLAN

GI103



SCALE: 1" = 20'

0 20 40

SCALE IN FEET

LEGEND

- Coniferous Tree
- Deciduous Tree
- BM — Benchmark
- DM — Deadman
- LP — Light Pole
- Power Pole
- E — Electric Box
- EM — Electric Meter
- GM — Gas Meter
- H — Handhole
- Monument
- Transformer
- WV — Water Valve
- U E ----- U E ---- Buried Electric
- Culvert
- G — Gas Line
- O E ----- O E ---- Overhead Electric
- UT ------- UT ---- Buried Telephone
- W — Waterline
- Sanitary Sewer
- Fence Types
- 1390 — Contour Interval
- 1389

BENCHMARK LIST ⊕ BM #201

BM #201 – CHISELED SQUARE ON THE SOUTHWEST CORNER OF TRANSFORMER PAD, LOCATED 11' NORTH OF BOOSTER PUMP STATION BUILDING.
ELEV. = 1388.13 (NAVD 88)

BM #202 – CHISELED SQUARE ON THE SOUTHEAST CORNER OF THE PARKING LOT FOR THE POOL HOUSE, +/– 44' EAST SOUTHEAST OF THE BASKETBALL HOOP.
ELEV. = 1387.31 (NAVD 88)

CONTROL POINTS (101)

Pt. No. 101
N: 1,682,376.1020, E: 1,598,569.3520
#4 BAR WITH PEC CONTROL POINT CAP, FLUSH WITH GROUND.
1. WEST SIDE OF DRIVEWAY, NEAR MAPLE STREET.
2. 8.6' EAST TO CENTERLINE OF DRIVEWAY.
3. 12.0' SOUTH TO NORTH EDGE OF PAVEMENT LINE.
4. 3.4' WEST TO CENTER OF WATER VALVE LID.

Pt. No. 102
N: 1,682,458.9390, E: 1,598,595.0960
#4 BAR WITH PEC CONTROL POINT CAP, FLUSH WITH GROUND.
1. IN LINE WITH CENTER LINE OF PARKING LOT.
2. 13.4' WEST NORTHWEST TO EDGE OF CONCRETE PARKING LOT.
3. 41.4' EAST SOUTHEAST TO NORTHWEST CORNER OF BOOSTER PUMP STATION BUILDING.
4. 33.2' SOUTH–SOUTHWEST TO CHISELED SQUARE IN CORNER OF CONCRETE.

Wichita-Sedgwick County Metropolitan Area Building and Construction Department

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DATE 04/22/25 BY Gary Cox

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WICHITA, KS 67202
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CITY OF WICHITA

RYAN WILLIAM GLEISNER LICENSED 23090 01/22/2025 KANSAS PROFESSIONAL ENGINEER

WICHITA MAPLE STREET BOOSTER PUMP STATION

PAUL GUNZELMAN, P.E. - CITY ENGINEER
CITY OF WICHITA PROJECT NO. 448-2019-028875

Issue:		

JOB NO.	35-200810-001-0042
DATE	JANUARY 2025
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DESIGNED BY	LY
DRAWN BY	CAE
CHECKED BY	RWG

EXISTING CONDITIONS

VF101

SAVED 10/19/2023 8:36:42 AM BY CHRIS.EPP
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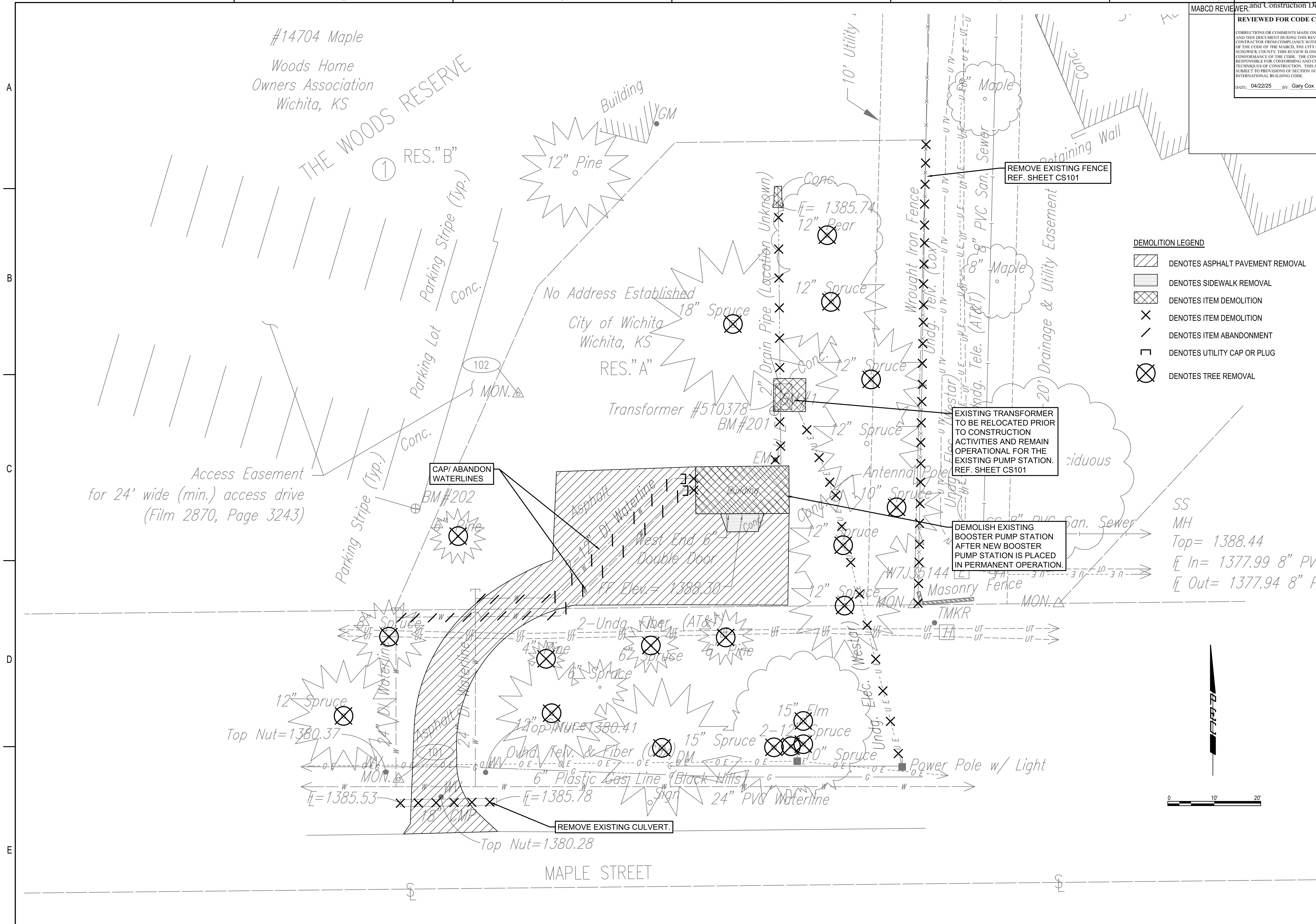

#14704 Maple
Woods Home
Owners Association
Wichita, KS
THE WOODS RESERVE
RES."B"
Building
YGM
12" Pine
No Address Established
City of Wichita
Wichita, KS
RES."A"
Transformer #510378
BM#201
18" Spruce
Parking Stripe (Typ.)
Parking Lot
Conc.
MON.
Access Easement
for 24' wide (min.) access drive
(Film 2870, Page 3243)
BM#202
CAP/ ABANDON WATERLINES
Asphalt
12" DI Waterline
West End 6" Double Door
FF Elev.= 1388.30
Building
10' Utility
Drain Pipe (Location Unknown)
FL= 1385.74
12" Pear
12" Spruce
Wrought Iron Fence
8" PVC San. Sewer
Maple
Retaining Wall
20' Drainage & Utility Easement
REMOVE EXISTING FENCE REF. SHEET CS101
EXISTING TRANSFORMER TO BE RELOCATED PRIOR TO CONSTRUCTION ACTIVITIES AND REMAIN OPERATIONAL FOR THE EXISTING PUMP STATION. REF. SHEET CS101
DEMOLISH EXISTING BOOSTER PUMP STATION AFTER NEW BOOSTER PUMP STATION IS PLACED IN PERMANENT OPERATION.
Antenna Pole
10" Spruce
Deciduous
SS
MH
Top= 1388.44
FL In= 1377.99 8" PVC
FL Out= 1377.94 8" P
Masonry Fence
TMKR
2-Undg. Fiber (AT&T)
8" Spruce
4" Pine
6" Spruce
6" Pine
12" Spruce
Top Nut=1380.37
24" DI Waterline
Top Nut=1380.41
15" Elm
2-12" Spruce
15" Spruce
10" Spruce
Ovhd. Telv. & Fiber
Power Pole w/ Light
6" Plastic Gas Line (Black Hills)
24" PVC Waterline
FL=1385.53
FL=1385.78
18" CMP
REMOVE EXISTING CULVERT.
Top Nut=1380.28
MAPLE STREET
DEMOLITION LEGEND
DENOTES ASPHALT PAVEMENT REMOVAL
DENOTES SIDEWALK REMOVAL
DENOTES ITEM DEMOLITION
DENOTES ITEM DEMOLITION
DENOTES ITEM ABANDONMENT
DENOTES UTILITY CAP OR PLUG
DENOTES TREE REMOVAL

Wichita-Sedgwick County
Metropolitan Area Building
and Construction Department

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PROFESSIONAL ENGINEERING CONSULTANTS
303 SOUTH TOPEKA
WICHITA, KS 67202
316-262-2691 www.pec1.com

CITY OF WICHITA

DARWIN R. CRONK LICENSED 14896 01/24/2025 KANSAS PROFESSIONAL ENGINEER

WICHITA MAPLE STREET BOOSTER PUMP STATION

PAUL GUNZELMAN, P.E. - CITY ENGINEER
CITY OF WICHITA PROJECT NO. 448-2019-028875

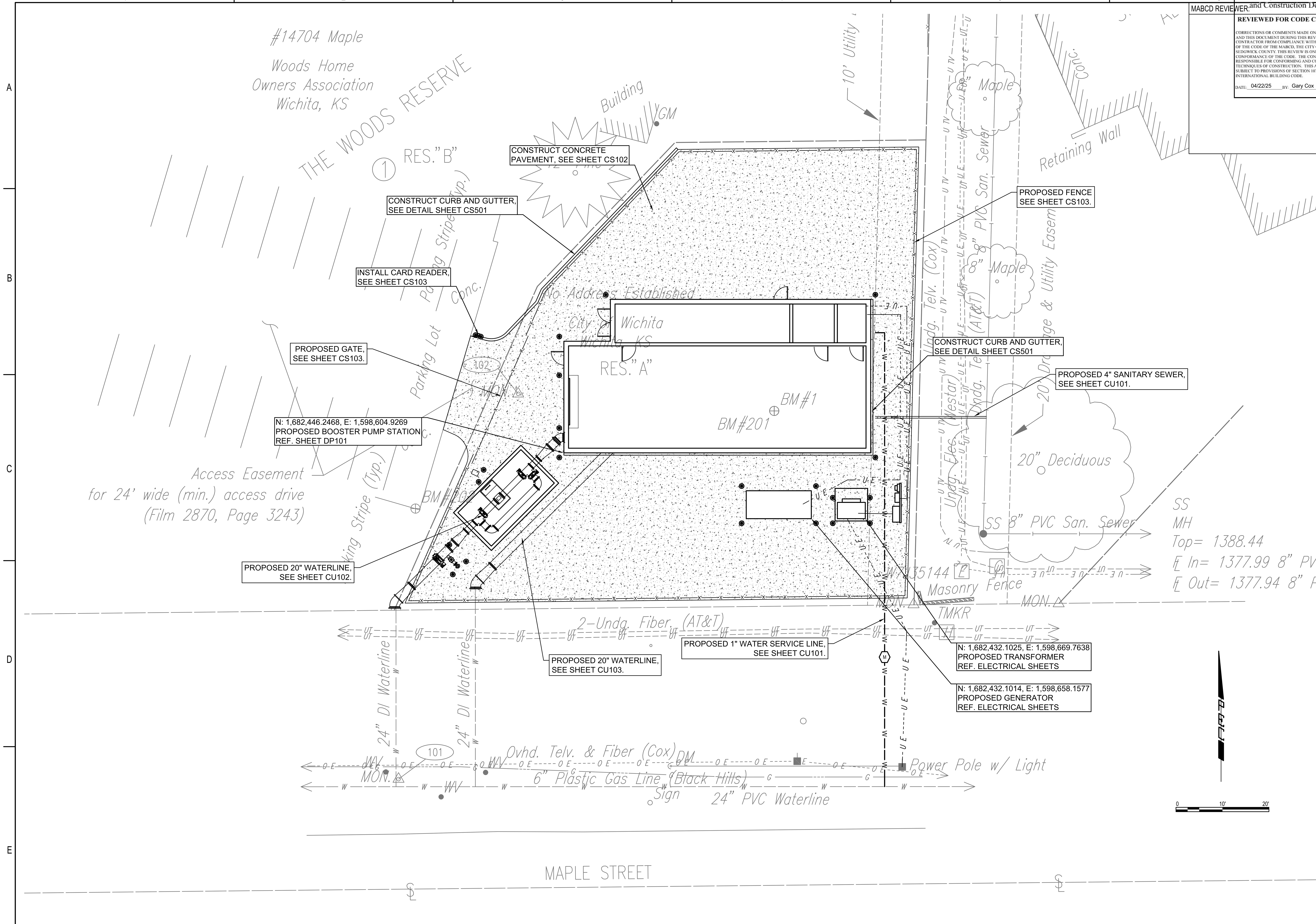
Issue:

JOB NO.	35-200810-001-0042
DATE	JANUARY 2025
PM	RWG
DESIGNED BY	LY
DRAWN BY	CAE
CHECKED BY	RWG

SITE DEMOLITION PLAN

CD101

SAVED 3/25/2024 2:26:52 PM BY CHRIS EPP
PLOTTED 1/20/2025 9:32:37 AM BY CHRIS EPP
U:\WICHITA-CIVIL\2020\200810\001\PEC\DRAWINGS\200810-001-CD101.DWG


#14704 Maple
Woods Home
Owners Association
Wichita, KS
THE WOODS RESERVE
RES."B"
Building
YGM
CONSTRUCT CONCRETE PAVEMENT, SEE SHEET CS102
CONSTRUCT CURB AND GUTTER, SEE DETAIL SHEET CS501
INSTALL CARD READER, SEE SHEET CS103
No Address Established
City of Wichita
Wichita, KS
RES."A"
BM #1
BM #201
PROPOSED GATE, SEE SHEET CS103.
N: 1,682,446.2468, E: 1,598,604.9269
PROPOSED BOOSTER PUMP STATION
REF. SHEET DP101
Access Easement
for 24' wide (min.) access drive
(Film 2870, Page 3243)
Parking Lot
Parking Stripe (Typ.)
Conc.
PROPOSED 20" WATERLINE, SEE SHEET CU102.
PROPOSED 20" WATERLINE, SEE SHEET CU103.
PROPOSED 1" WATER SERVICE LINE, SEE SHEET CU101.
10' Utility
PROPOSED FENCE SEE SHEET CS103.
Retaining Wall
Maple
8" PVC San. Sewer
Undg. Telv. (Cox)
Undg. Tel. (AT&T)
Undg. Elec. (Westar)
Drainage & Utility Easement
CONSTRUCT CURB AND GUTTER, SEE DETAIL SHEET CS501
PROPOSED 4" SANITARY SEWER, SEE SHEET CU101.
20" Deciduous
SS 8" PVC San. Sewer
SS MH
Top= 1388.44
℄ In= 1377.99 8" PVC
℄ Out= 1377.94 8" P
Masonry Fence
MON.
TMKR
2-Undg. Fiber (AT&T)
N: 1,682,432.1025, E: 1,598,669.7638
PROPOSED TRANSFORMER
REF. ELECTRICAL SHEETS
N: 1,682,432.1014, E: 1,598,658.1577
PROPOSED GENERATOR
REF. ELECTRICAL SHEETS
24" DI Waterline
24" DI Waterline
101
Ovhd. Telv. & Fiber (Cox)
6" Plastic Gas Line (Black Hills)
Power Pole w/ Light
Sign
24" PVC Waterline
MAPLE STREET
0 10' 20'

Wichita-Sedgwick County
Metropolitan Area Building
and Construction Department

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CITY OF WICHITA

DARWIN R. CRONK
LICENSED
14896
01/24/2025
KANSAS
PROFESSIONAL ENGINEER

WICHITA MAPLE STREET BOOSTER PUMP STATION

PAUL GUNZELMAN, P.E. - CITY ENGINEER
CITY OF WICHITA PROJECT NO. 448-2019-028875

Issue:		

JOB NO.	35-200810-001-0042
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CHECKED BY	RWG

SITE PLAN

CS101

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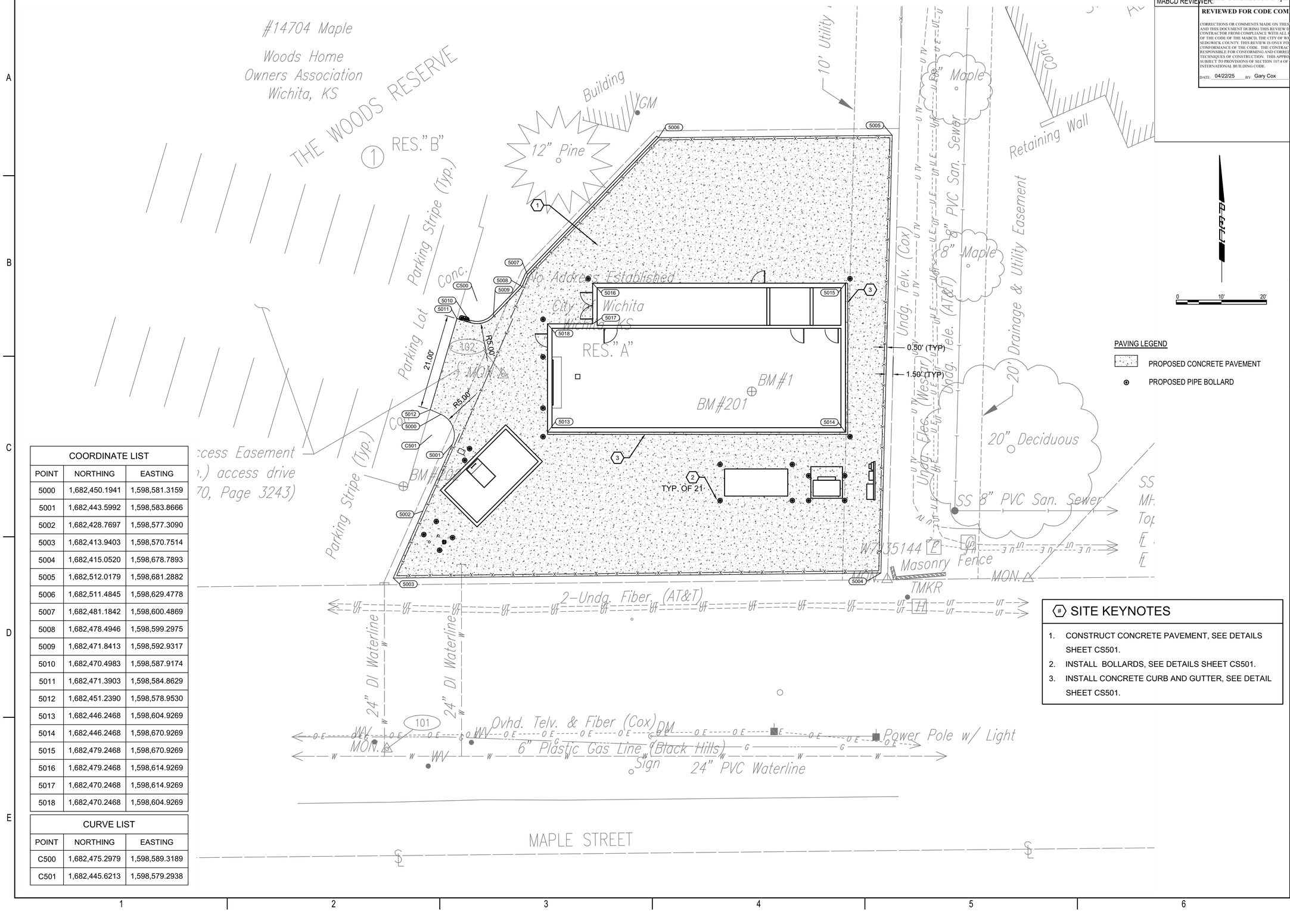

COORDINATE LIST		
POINT	NORTHING	EASTING
5000	1,682,450.1941	1,598,581.3159
5001	1,682,443.5992	1,598,583.8666
5002	1,682,428.7697	1,598,577.3090
5003	1,682,413.9403	1,598,570.7514
5004	1,682,415.0520	1,598,678.7893
5005	1,682,512.0179	1,598,681.2882
5006	1,682,511.4845	1,598,629.4778
5007	1,682,481.1842	1,598,600.4869
5008	1,682,478.4946	1,598,599.2975
5009	1,682,471.8413	1,598,592.9317
5010	1,682,470.4983	1,598,587.9174
5011	1,682,471.3903	1,598,584.8629
5012	1,682,451.2390	1,598,578.9530
5013	1,682,446.2468	1,598,604.9269
5014	1,682,446.2468	1,598,670.9269
5015	1,682,479.2468	1,598,670.9269
5016	1,682,479.2468	1,598,614.9269
5017	1,682,470.2468	1,598,614.9269
5018	1,682,470.2468	1,598,604.9269

CURVE LIST		
POINT	NORTHING	EASTING
C500	1,682,475.2979	1,598,589.3189
C501	1,682,445.6213	1,598,579.2938

SITE KEYNOTES

1. CONSTRUCT CONCRETE PAVEMENT, SEE DETAILS SHEET CS501.
2. INSTALL BOLLARDS, SEE DETAILS SHEET CS501.
3. INSTALL CONCRETE CURB AND GUTTER, SEE DETAIL SHEET CS501.

Wichita-Sedgwick County
Metropolitan Area Building
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CITY OF WICHITA

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WICHITA MAPLE STREET BOOSTER PUMP STATION

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Issue:		

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DATE	JANUARY 2025
PM	RWG
DESIGNED BY	DRC
DRAWN BY	DSB
CHECKED BY	JAG

SITE PAVING PLAN

CS102

SAVED 4/10/2024 3:49:07 PM BY DUSTIN.BILLINGSLEY
PLOTTED 1/20/2025 9:33:00 AM BY CHRIS EPP
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Wichita-Sedgwick County
Metropolitan Area Building
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DATE 04/22/25 BY Gary Cox

#14704 Maple
Woods Home
Owners Association
Wichita, KS

THE WOODS RESERVE
① RES." B"

Building
GM
12" Pine
10' Utility
Maple
Retaining Wall
Conc.
Parking Stripe (Typ.)
Parking Lot Conc.
8" PVC San. Sewer
8" Maple
Undg. Telv. (Cox)
Undg. Elec. (Westar)
Undg. Tele. (AT&T)
20' Drainage & Utility Easement
20" Deciduous

No Address Established
City of Wichita
Wichita, KS
RES." A"
BM#1
BM#201
BM#102
0.50' (TYP)
OPEN
MON.
102
101
1000
1001
1002
1003
1004
1005

Access Easement
for 24' wide (min.) access drive
(Film 2870, Page 3243)

SS
MH
Top= 1388.44
℄ In= 1377.99 8" PVC
℄ Out= 1377.94 8" P

W7135144
Masonry Fence
TMKR
2-Undg. Fiber (AT&T)
24" DI Waterline
24" DI Waterline
Ovhd. Telv. & Fiber (Cox)
6" Plastic Gas Line (Black Hills)
Sign
Power Pole w/ Light
24" PVC Waterline

MAPLE STREET

0 10' 20'

SITE LEGEND

PROPOSED SECURITY FENCE

FENCING KEYNOTES

1. INSTALL SLIDING 30 L.F (TOTAL) ORNAMENTAL GATE, SEE DETAILS SHEETS CS502.
2. INSTALL 340.1 LF (TOTAL) OF 8' ORNAMENTAL FENCE, SEE DETAILS SHEET CS502.
3. PROPOSED CARD READER, REFERENCE ELECTRICAL.
4. INSTALL SLIDE GATE OPERATOR, SEE DETAILS SHEET CS502.

COORDINATE LIST		
POINT	NORTHING	EASTING
1000	1,682,480.8990	1,598,600.9075
1001	1,682,510.9867	1,598,629.6935
1002	1,682,511.5126	1,598,680.7750
1003	1,682,415.5470	1,598,678.3019
1004	1,682,414.4483	1,598,571.5227
1005	1,682,445.9719	1,598,585.4626

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CITY OF WICHITA

DARWIN R. CROOK
LICENSED
14896
01/24/2025
KANSAS
PROFESSIONAL ENGINEER

WICHITA MAPLE STREET BOOSTER PUMP STATION

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SITE FENCE PLAN

CS103

SAVED 4/10/2024 9:57:05 AM BY DUSTIN.BILLINGSLEY
PLOTTED 1/20/2025 9:33:08 AM BY CHRIS EPP
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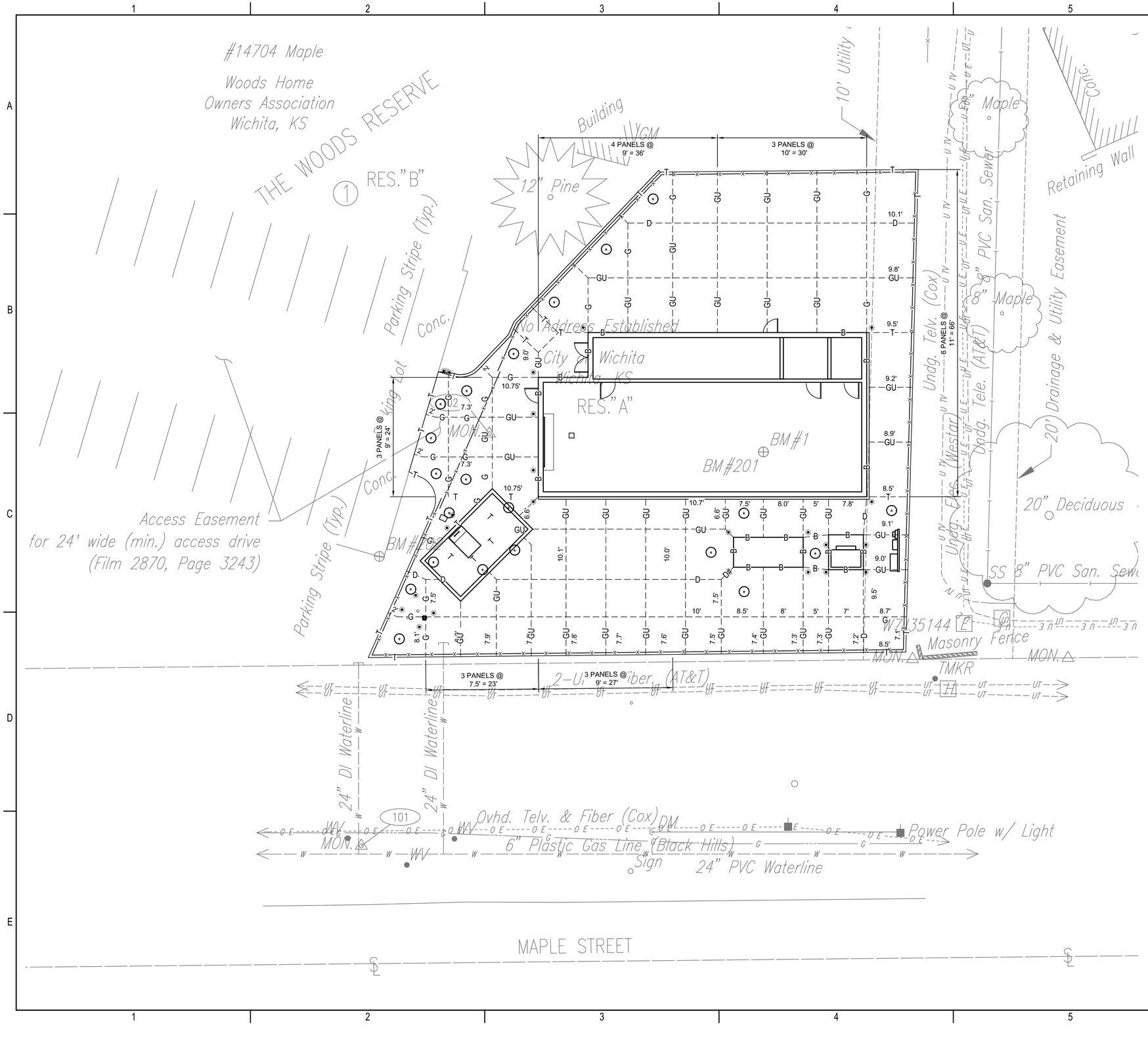

Wichita-Sedgwick County
Metropolitan Area Building
and Construction Department

MABCD REVIEWER:

REVIEWED FOR CODE COMPLIANCE

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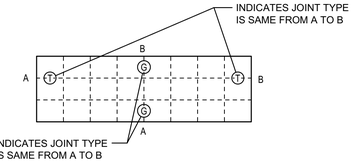
DATE: 04/22/25 BY: Gary Cox

PAVEMENT JOINT LEGEND

T	THICKENED EDGE JOINT
B	BUTT JOINT
D	DOWELED CONSTRUCTION JOINT
G	SAWED CONTRACTION JOINT (TIED)
GU	SAWED CONTRACTION JOINT (UNTIED)
———	EXPANSION JOINT
- - - - -	PAVEMENT JOINT
#	OMIT DOWEL OR TIE BAR
⊙	PANEL TO BE REINFORCED



JOINT CALL-OUT CONVENTIONS

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CITY OF WICHITA

DARWIN R. CRONK LICENSED 14896 01/24/2025 KANSAS PROFESSIONAL ENGINEER

WICHITA MAPLE STREET BOOSTER PUMP STATION

PAUL GUNZELMAN, P.E. - CITY ENGINEER
CITY OF WICHITA PROJECT NO. 448-2019-028875

Issue:		

JOB NO.	35-200810-001-0042
DATE	JANUARY 2025
PM	RWG
DESIGNED BY	DRC
DRAWN BY	DSB
CHECKED BY	JAG

SITE JOINTING PLAN

CS104

SAVED 4/10/2024 3:49:21 PM BY DUSTIN.BILLINGSLEY
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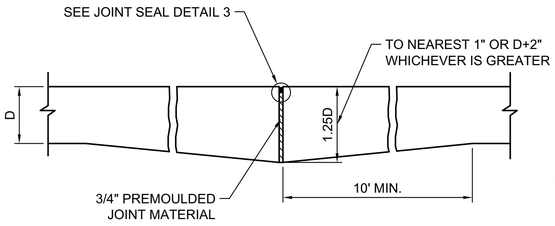
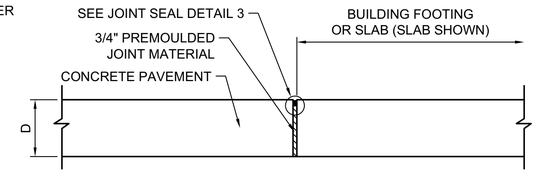


THICKENED EDGE JOINT DETAIL (T)
NOT TO SCALE



BUTT JOINT DETAIL (B)
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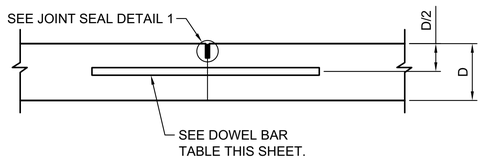

DOWELED CONSTRUCTION JOINT DETAIL (D)
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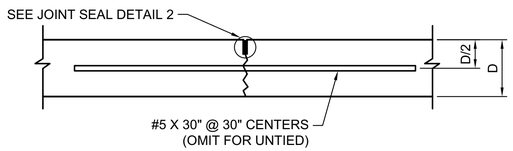
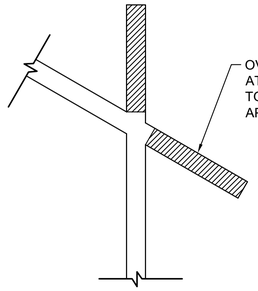
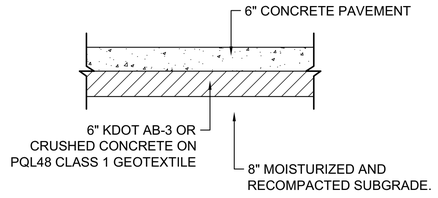


SAWED CONTRACTION JOINT DETAIL (G, GU)
NOT TO SCALE

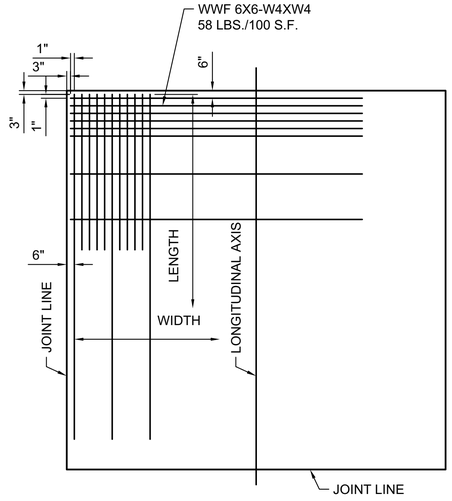


KERF DETAIL
NOT TO SCALE

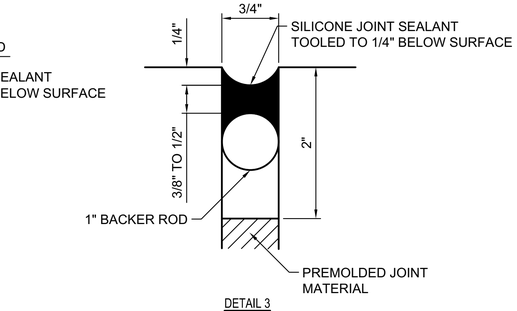


TYPICAL CONCRETE PAVEMENT SECTION
NOT TO SCALE

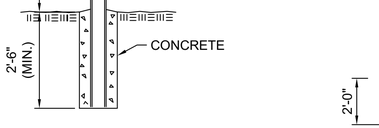
DOWEL BAR TABLE			
D	DIA.	L	S
5-7 IN	3/4 IN	18 IN	12 IN
7.5-12 IN	1 IN	18 IN	12 IN
12.5-16 IN	1-1/4 IN	20 IN	15 IN



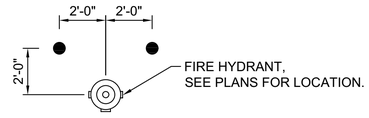
WELDED WIRE FABRIC



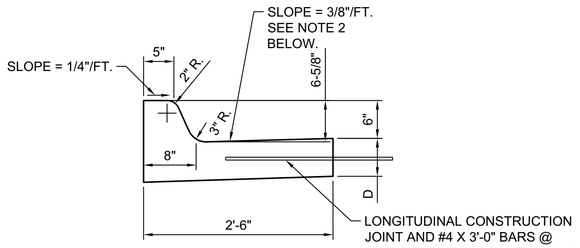
JOINT SEAL DETAILS
NOT TO SCALE



PIPE BOLLARD DETAIL
NOT TO SCALE



PIPE BOLLARD SPACING DETAIL
NOT TO SCALE



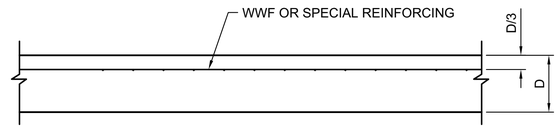
CURB AND GUTTER NOTES

1. D = THICKNESS OF ADJACENT PAVEMENT.
2. SLOPE SAME AS ADJACENT PAVEMENT. CONTRACTOR SHALL VERIFY DIRECTION OF SLOPE WITH FINAL GRADING.
3. CONTRACTOR MAY OMIT BARS AND CONSTRUCTION JOINT FOR CURB AND GUTTER IF POURED MONOLITHIC WITH ADJACENT CONCRETE PAVEMENT.
4. JOINTS SHALL BE SAW-CUT AT RIGHT ANGLES TO THE CURB TO A DEPTH OF 1-1/4" (MIN.) AND HAVE A WIDTH NO GREATER THAN 3/8". SEALING OF JOINTS IS NOT REQUIRED. EXPANSION JOINTS SHALL BE CONSTRUCTED AT CURVE RETURNS AND AT A MAXIMUM SPACING OF 250' ON STRAIGHT RUNS. JOINT SPACING SHALL MATCH ADJACENT CONCRETE PAVEMENT.

STANDARD COMBINED CURB AND GUTTER (6")
NOT TO SCALE

WELDED WIRE FABRIC NOTES

1. REINFORCING FABRIC SHALL BE FURNISHED IN SHEETS. THE CONTRACTOR MAY PROVIDE A DIFFERENT PATTERN OF FABRIC AS LONG AS MINIMUM OF 0.08 SQ. IN./FT. OF REINFORCING IS PROVIDED IN EACH DIRECTION.
2. WELDED WIRE FABRIC SHALL BE CUT IN THE FIELD AS REQUIRED TO CONFORM TO THE SHAPE OF THE PANEL TO BE REINFORCED.
3. FABRIC SHEETS SHALL BE OVERLAP SPLICED AS APPLICABLE AND AS DETAILED BELOW.



SECTION THRU PAVEMENT

TYPICAL SLAB REINFORCING DETAIL
NOT TO SCALE

DARWIN R. CRONK LICENSED 14898 01/24/2025 KANSAS PROFESSIONAL ENGINEER

WICHITA MAPLE STREET BOOSTER PUMP STATION

PAUL GUNZELMAN, P.E. - CITY ENGINEER
CITY OF WICHITA PROJECT NO. 448-2019-028875

Issue:		

JOB NO.	35-200810-001-0042
DATE	JANUARY 2025
PM	RWG
DESIGNED BY	DRC
DRAWN BY	DSB
CHECKED BY	JAG

PAVING DETAILS

CS501

SAVED 4/4/2024 9:52:34 AM BY CHANCE.SWANEY
PLOTTED 1/20/2025 9:33:19 AM BY CHRIS EPP
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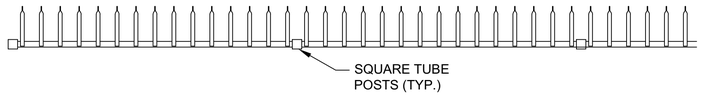
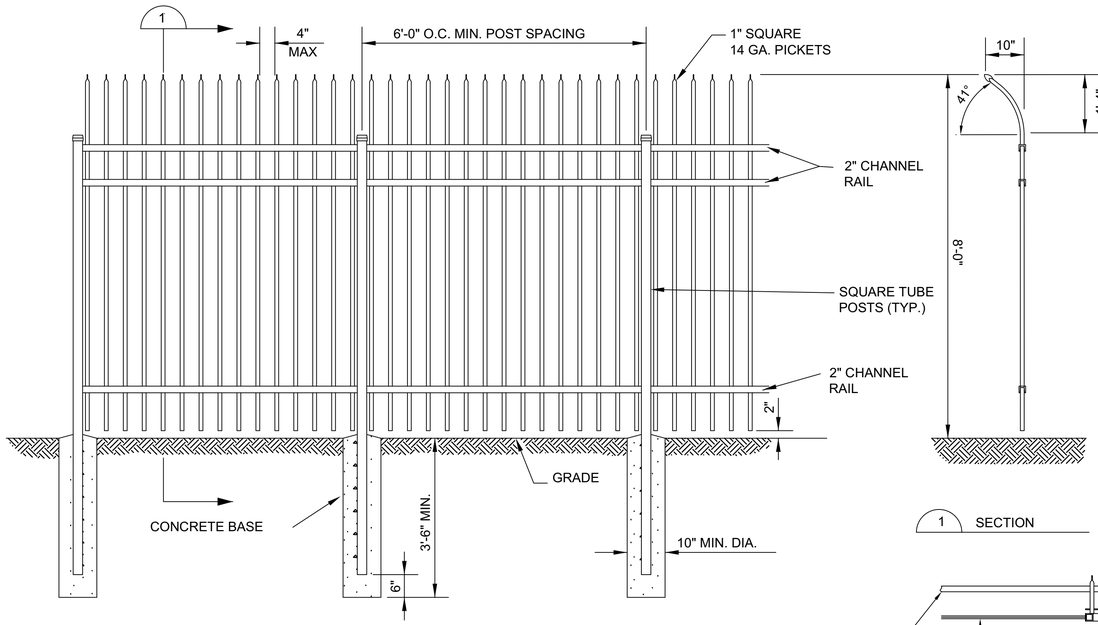


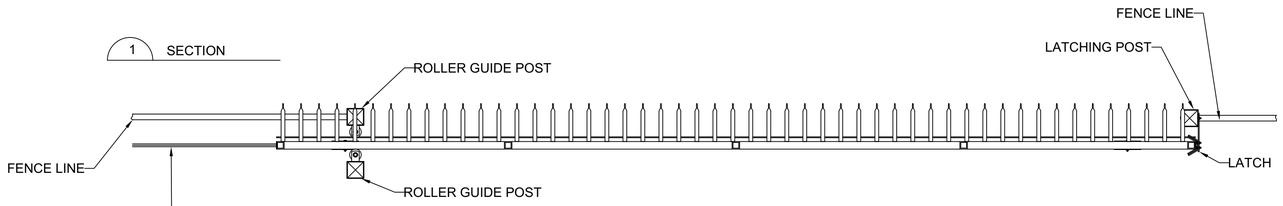
PLAN

NOTES
1. FENCE POSTS SHALL BE 2-1/2" X 2-1/2" OR 3" X 3" SQUARE TUBE. THE MINIMUM WALL THICKNESS SHALL BE 12 GAGE.
2. PICKETS SHALL BE UNIFORMLY SPACED. THE MAXIMUM ALLOWABLE PICKET SPACING SHALL BE 5" O.C.
3. CHANNEL RAIL DIMENSIONS SHALL CONFORM TO THE MANUFACTURER'S RECOMMENDATIONS.



ELEVATION

1 SECTION



ORNAMENTAL STEEL FENCE DETAILS
NO SCALE

ELECTRIC SLIDE GATE OPERATORS:

A. THE ELECTRIC SLIDE GATE OPERATORS SHALL BE 480/60/1 AND BE CAPABLE OF OPERATING THE GATES AS SHOWN ON THE SITE FENCING PLAN, COMPLETE WITH CONCRETE PAD AND WEATHER-PROOF HOUSING. THE GATE OPERATOR SHALL CONFORM TO ASTM F2200-02, UL325, AND UL991. THE GATE OPERATORS SHALL BE DOOR KING 9150 OR EQUAL.

B. THE UNIT SHALL BE ENCLOSED IN AN ALL GALVANIZED STEEL, WEATHER RESISTANT CABINET WITH WELDED SEAMS AND BLACK POWDER COATED FINISH. CABINET DOOR SHALL BE HINGED, GASKETED AND KEY LOCKABLE. THE HOUSING SHALL BE LARGE ENOUGH TO CONTAIN CONTROL PANEL AND ALL ACCESSORIES.

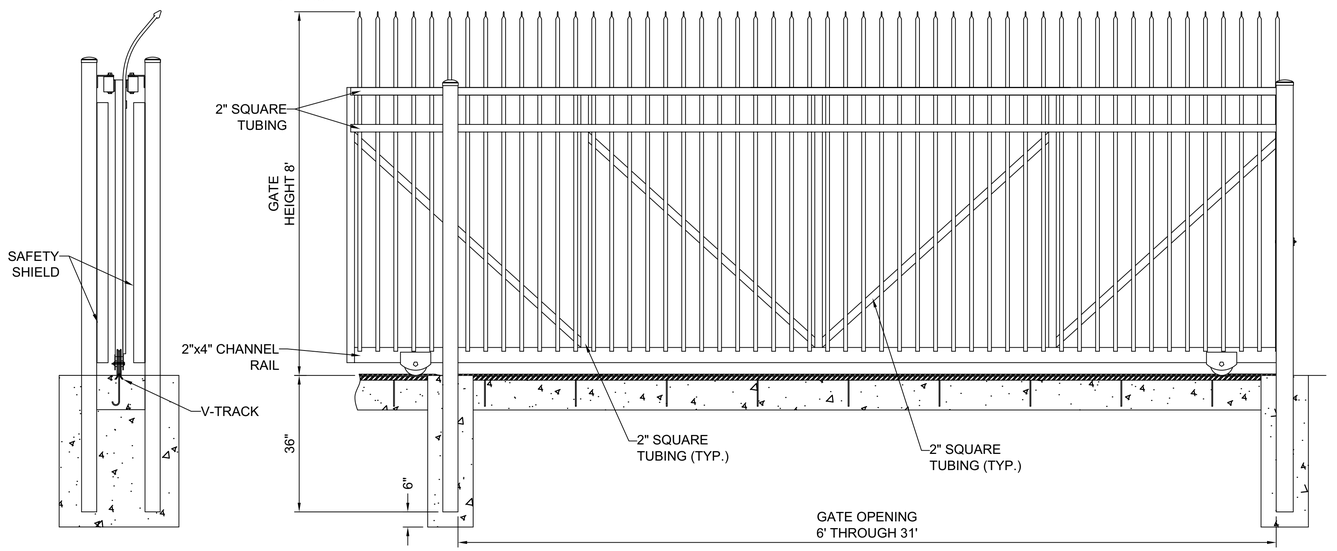
C. THE UNIT SHALL BE SELF ADJUSTING, HAVE FAIL-SAFE OPERATION, PARTIAL OPEN FEATURE, AND ANTI-TAILGATING FEATURE. VEHICLE DETECTION SHALL BE FACILITATED BY BEA H100 LZR LASER VEHICLE SENSOR OR APPROVED EQUAL.

D. MOTOR SHALL BE 1 HP, STARTER SHALL BE A CONTACTOR TYPE MAGNETIC REVERSING WITH MECHANICAL INTERLOCKS. STARTER SHALL BE COMPLETELY PRE-WIRED. MOTOR OVERLOAD PROTECTION SHALL BE PROVIDED. LIMIT SWITCHES SHALL BE CAM TYPE TO LIMIT TRAVEL TO BETWEEN THE FULLY OPEN AND FULLY CLOSED POSITIONS. LIMIT SWITCHES SHALL BE FULL PRECISION TYPE. A 3 BUTTON CONTROL MARKED "OPEN-CLOSE-STOP" SHALL BE FURNISHED. OPERATOR SHALL HAVE OPEN-OVERRIDE CIRCUIT. SEQUENCE OF OPERATION SHALL BE SUCH THAT IF A BUTTON IS ACTIVATED WHEN CLOSING, GATE WILL PAUSE AND REVERSE TO OPEN POSITION. A PHOTOELECTRIC CONTROL WILL BE PROVIDED FOR PEDESTRIAN PROTECTION.

E. MAIN ENTRANCE GATE SHALL BE CAPABLE OF BEING OPERATED BY KEY PAD MOUNTED ON TRUCK HEIGHT PEDESTAL. GATE SHALL HAVE THREE (3) LOOP DETECTORS (OR EQUIVALENT CAMERA EYE) TO PREVENT GATE CLOSING ON VEHICLES AND OBSTRUCTIONS AND TO PROVIDE FOR GATE OPENING UPON EXIT OF VEHICLES. GATE SHALL ALSO BE OPERATED BY REMOTE OPENER. PROVIDE FIVE (5) REMOTE OPENERS.

F. PROVIDE DETAILED SHOP DRAWINGS OF ALL OPERATOR AND CONTROL ELEMENTS FOR ENGINEER TO REVIEW PRIOR TO INSTALLATION. TOTAL INSTALLATION, LABOR AND MATERIALS SHALL HAVE A ONE (1) YEAR WARRANTY FROM DATE OF FINAL ACCEPTANCE OF THE PROJECT.

G. THE CONTRACTOR SHALL PROVIDE ALL WARNING SIGNS AS REQUIRED BY UL325 AND UL991.



ORNAMENTAL SLIDE GATES DETAILS
NO SCALE

Wichita-Sedgwick County Metropolitan Area Building and Construction Department

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DATE: 04/22/25 BY: Gary Cox

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CITY OF WICHITA

DARWIN R. CRONK LICENSED 14896 01/24/2025 KANSAS PROFESSIONAL ENGINEER

WICHITA MAPLE STREET BOOSTER PUMP STATION

PAUL GUNZELMAN, P.E. - CITY ENGINEER
CITY OF WICHITA PROJECT NO. 448-2019-028875

Issue:		

JOB NO.	35-200810-001-0042
DATE	JANUARY 2025
PM	RWG
DESIGNED BY	DRC
DRAWN BY	DSB
CHECKED BY	JAG

FENCING DETAILS

CS502

SAVED 4/10/2024 2:25:12 PM BY DUSTIN.BILLINGSLEY
PLOTTED 1/20/2025 9:33:23 AM BY CHRIS EPP
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EROSION CONTROL LEGEND

PROPOSED SILT FENCE

EROSION CONTROL NOTES

1. CONTRACTOR SHALL INSTALL AND MAINTAIN EROSION PROTECTION THROUGHOUT THE ENTIRE PROJECT. THE FOLLOWING QUANTITIES ARE FOR INFORMATION ONLY, AND SHALL BE INCLUDED IN THE EROSION CONTROL LUMP SUM BID ITEMS. EROSION PROTECTION SHALL BE INCLUDED IN THE BID AS FOLLOWS:

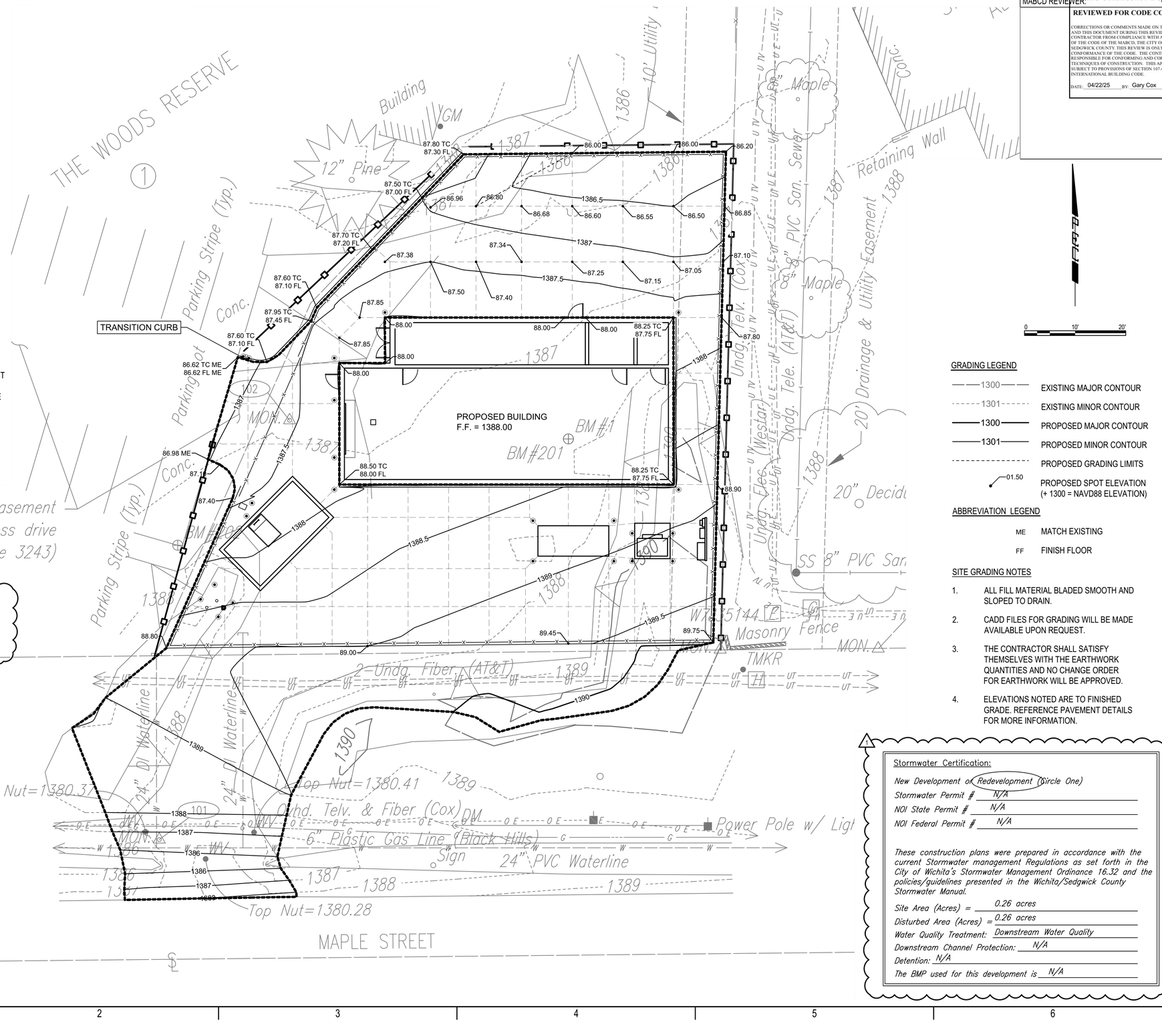
   SILT FENCE BARRIER = 262 L.F.

2. THE EROSION CONTROL DEVICES SHOWN ON THIS SHEET ARE CONSIDERED MINIMUM STANDARDS. WHENEVER SEDIMENT ENTERS THE STREETS, STORM SEWERS, DITCHES, OR PONDS, CONTRACTOR WILL INSTALL ADDITIONAL DEVICES, AS NEEDED, TO CORRECT THE PROBLEM.

3. THE EROSION CONTROL DEVICES SHOWN HEREON MUST BE IN PLACE AT ALL TIMES DURING CONSTRUCTION UNTIL SUCH TIME AS THE SITE IS REESTABLISHED WITH PAVING OR GRASS. TEMPORARY OR PERMANENT SEEDING AND MULCH WILL BE INSTALLED WHEN EARTHWORK ACTIVITIES CEASE IN AN AREA FOR 14 DAYS OR MORE.

4. ANY MUD INADVERTENTLY TRACKED ONTO ANY STREET SHALL BE CLEANED UP BY THE CONTRACTOR, AT THE END OF EACH DAY'S WORK, OR AS DIRECTED BY THE FIELD ENGINEER.

5. CONTRACTOR TO FURNISH A TRUCK WASH-OUT PIT TO BE PLACED AT A CONVENIENT LOCATION THAT DOES NOT CONFLICT WITH CONSTRUCTION. CONTRACTOR SHALL CLEAN OUT AND BACKFILL PIT PRIOR TO FINAL INSPECTION. LOCATION SHALL BE APPROVED BY THE FIELD ENGINEER.



SITE GRADING WILL NOT CAUSE ADDITIONAL ADVERSE DRAINAGE IMPACTS ONTO NEIGHBORING PROPERTIES.

GRADING LEGEND

- 1300 — EXISTING MAJOR CONTOUR
- 1301 — EXISTING MINOR CONTOUR
- 1300 — PROPOSED MAJOR CONTOUR
- 1301 — PROPOSED MINOR CONTOUR
- PROPOSED GRADING LIMITS
- 01.50 — PROPOSED SPOT ELEVATION (+ 1300 = NAVD88 ELEVATION)

ABBREVIATION LEGEND

ME	MATCH EXISTING
FF	FINISH FLOOR

SITE GRADING NOTES

1. ALL FILL MATERIAL BLADED SMOOTH AND SLOPED TO DRAIN.
2. CADD FILES FOR GRADING WILL BE MADE AVAILABLE UPON REQUEST.
3. THE CONTRACTOR SHALL SATISFY THEMSELVES WITH THE EARTHWORK QUANTITIES AND NO CHANGE ORDER FOR EARTHWORK WILL BE APPROVED.
4. ELEVATIONS NOTED ARE TO FINISHED GRADE. REFERENCE PAVEMENT DETAILS FOR MORE INFORMATION.

Stormwater Certification:

New Development or Redevelopment (Circle One)
Stormwater Permit # N/A
NOI State Permit # N/A
NOI Federal Permit # N/A

These construction plans were prepared in accordance with the current Stormwater management Regulations as set forth in the City of Wichita's Stormwater Management Ordinance 16.32 and the policies/guidelines presented in the Wichita/Sedgwick County Stormwater Manual.

Site Area (Acres) = 0.26 acres
Disturbed Area (Acres) = 0.26 acres
Water Quality Treatment: Downstream Water Quality
Downstream Channel Protection: N/A
Detention: N/A
The BMP used for this development is N/A

Wichita-Sedgwick County
Metropolitan Area Building
and Construction Department

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CITY OF WICHITA

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WICHITA MAPLE STREET BOOSTER PUMP STATION

PAUL GUNZELMAN, P.E. - CITY ENGINEER
CITY OF WICHITA PROJECT NO. 448-2019-028875

Issue:		
1	MABCD COMMNETS	4/03/25

JOB NO.	35-200810-001-0042
DATE	JANUARY 2025
PM	RWG
DESIGNED BY	DRC
DRAWN BY	DSB
CHECKED BY	JAG

SITE GRADING PLAN

CG101

SAVED 3/31/2025 3:57:58 PM BY ANDREW.SHERIDAN
PLOTTED 3/31/2025 3:58:35 PM BY ANDREW SHERIDAN
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ENTIRE SHEET

0 10' 20'

- EXISTING IMPERVIOUS AREA
- PROPOSED IMPERVIOUS AREA

EXISTING IMPERVIOUS AREA = 2,218 S.F. (0.05 AC)
PROPOSED IMPERVIOUS AREA = 8,526 S.F. (0.20 AC)

Wichita-Sedgwick County
Metropolitan Area Building
and Construction Department

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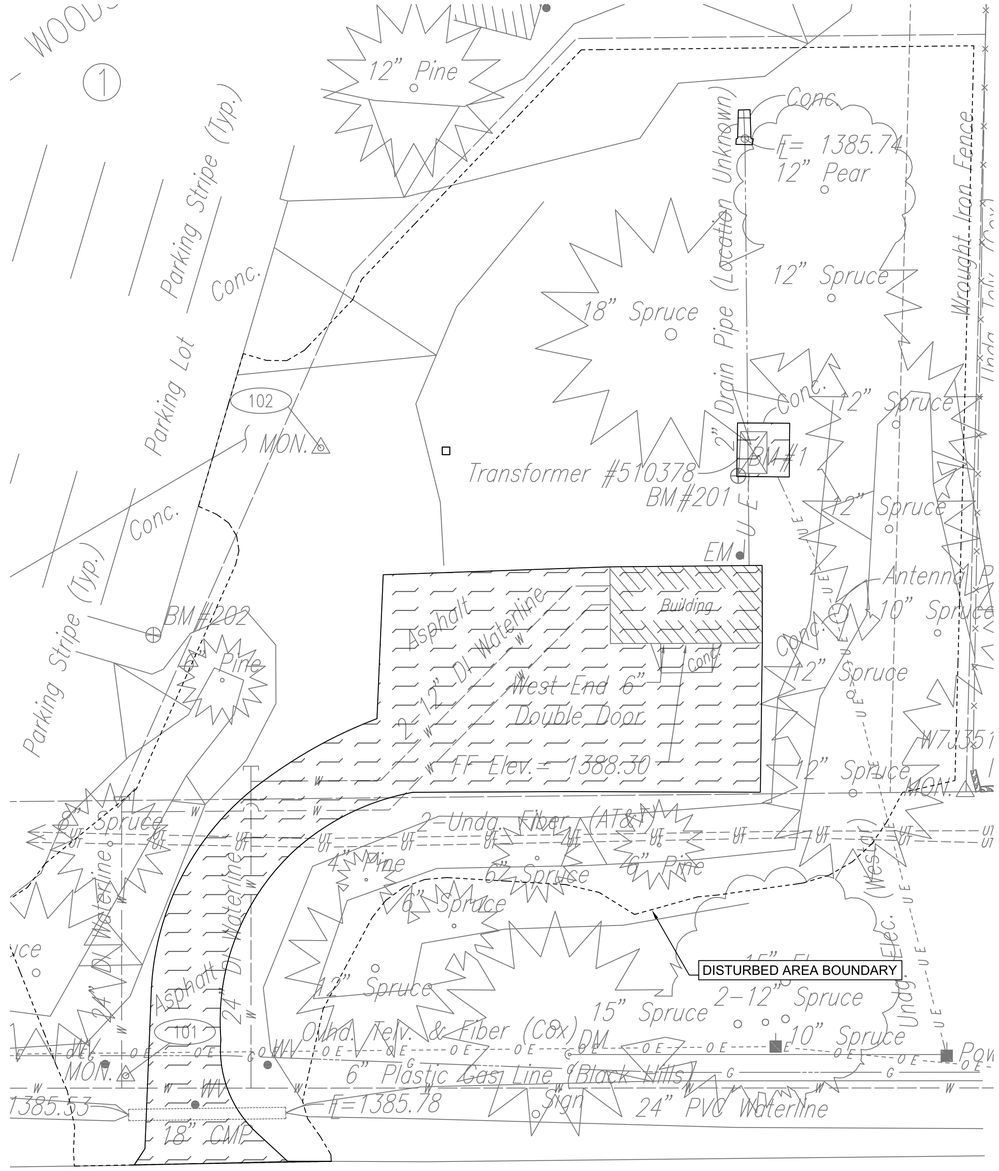
DATE 04/22/25 BY Gary Cox



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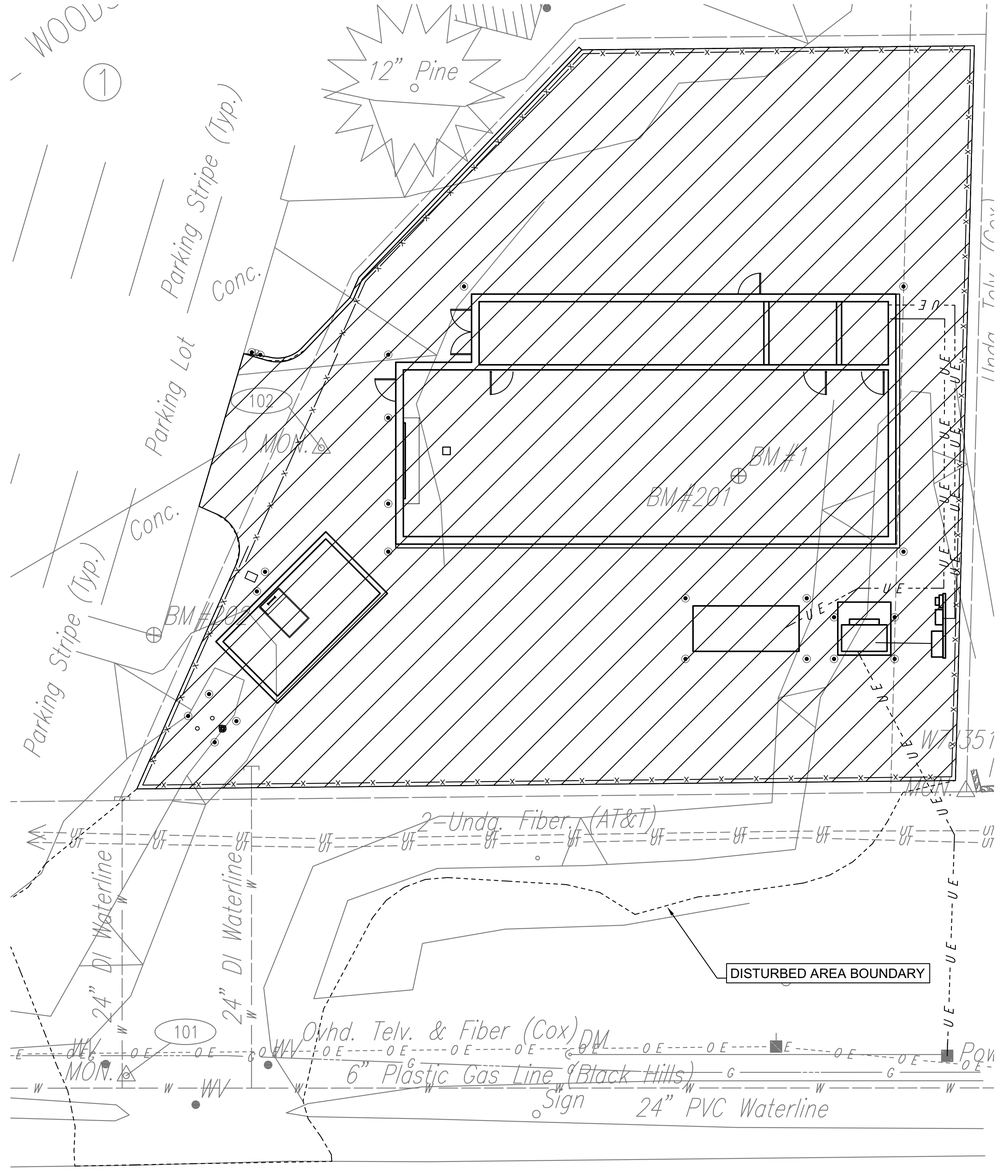

PROPOSED

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ERU PLAN

CG201

SAVED 3/31/2025 3:56:53 PM BY ANDREW.SHERIDAN
PLOTTED 3/31/2025 3:58:45 PM BY ANDREW SHERIDAN
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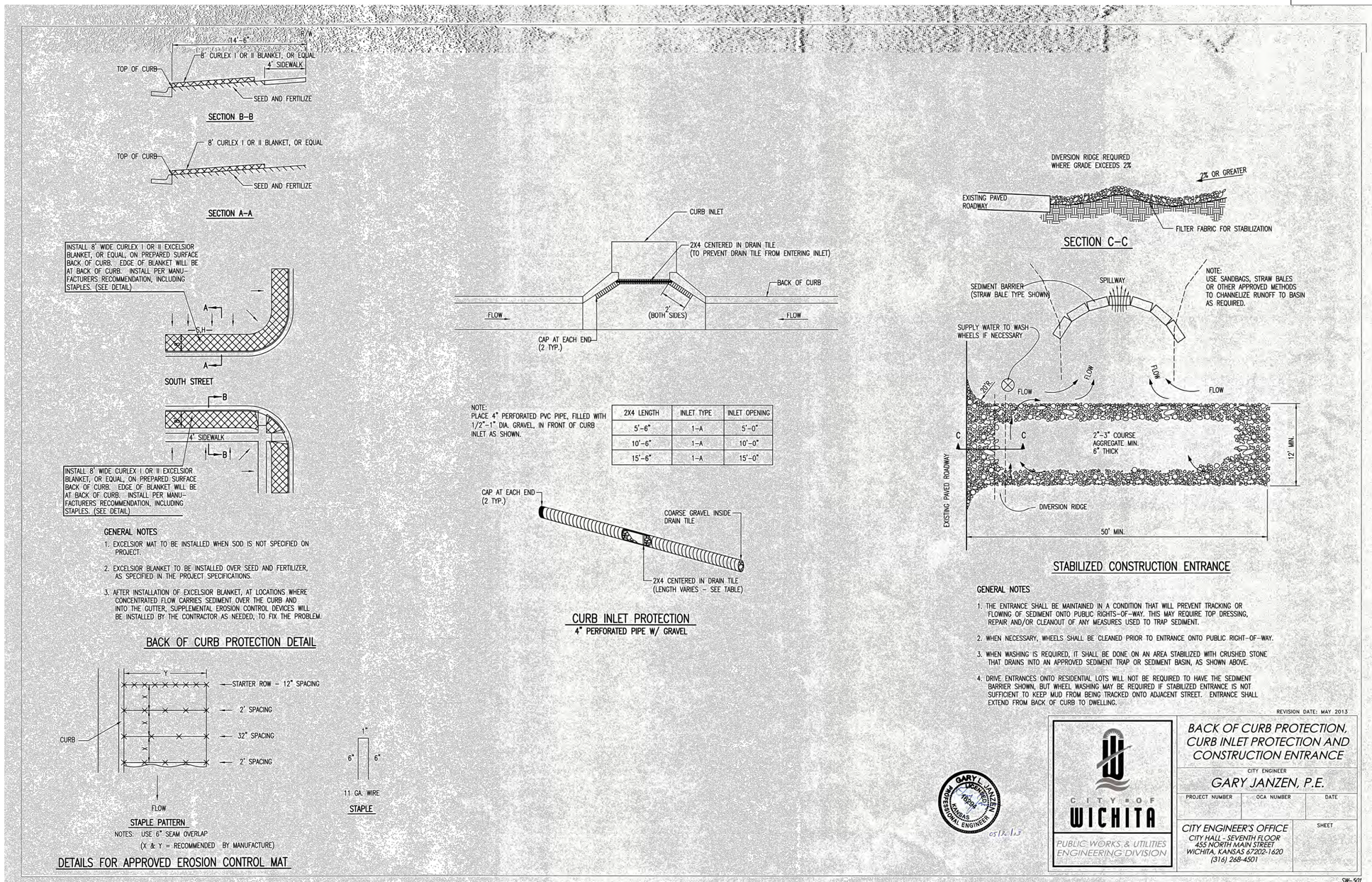

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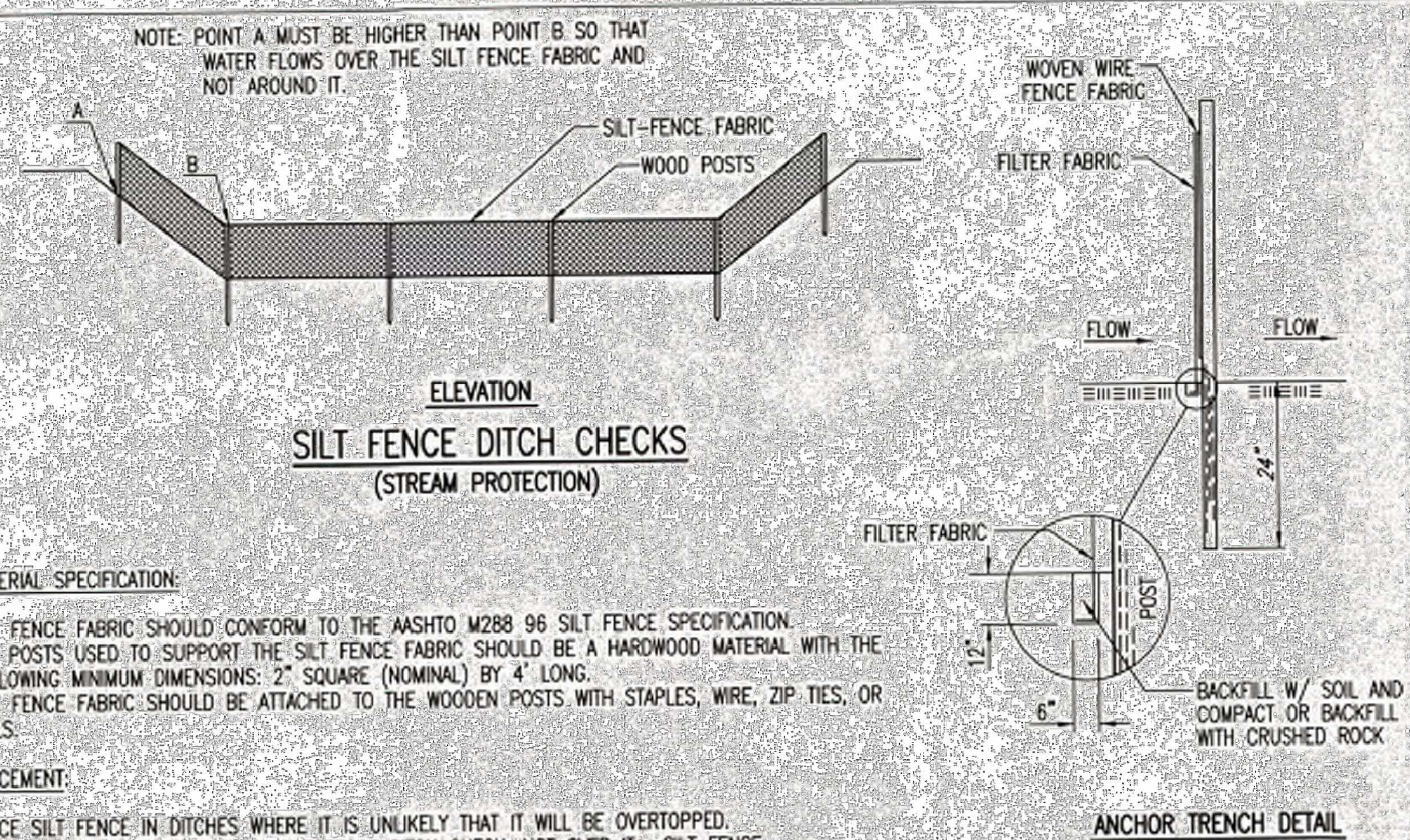
EROSION CONTROL DETAILS 1

CG501

SAVED 12/8/2023 9:55:51 AM BY BENJAMIN.BOCKOVER
PLOTTED 1/20/2025 9:33:46 AM BY CHRIS EPP
U:\WICHITA-CIVIL\2020\200810\001\PEC\DRAWINGS\200810-001-CG501.DWG



ELEVATION

SILT FENCE DITCH CHECKS
(STREAM PROTECTION)

ANCHOR TRENCH DETAIL

MATERIAL SPECIFICATION:

SILT FENCE FABRIC SHOULD CONFORM TO THE AASHTO M288 96 SILT FENCE SPECIFICATION.
THE POSTS USED TO SUPPORT THE SILT FENCE FABRIC SHOULD BE A HARDWOOD MATERIAL WITH THE FOLLOWING MINIMUM DIMENSIONS: 2" SQUARE (NOMINAL) BY 4' LONG.
SILT FENCE FABRIC SHOULD BE ATTACHED TO THE WOODEN POSTS WITH STAPLES, WIRE, ZIP TIES, OR NAILS.

PLACEMENT:

PLACE SILT FENCE IN DITCHES WHERE IT IS UNLIKELY THAT IT WILL BE OVERTOPPED.
WATER SHOULD FLOW THROUGH A SILT FENCE DITCH CHECK, NOT OVER IT. SILT FENCE DITCH CHECKS OFTEN FAIL WHEN OVERTOPPED.
SILT FENCE DITCH CHECKS SHOULD BE PLACED PERPENDICULAR TO THE FLOWLINE OF THE DITCH.
THE SILT FENCE SHOULD EXTEND FAR ENOUGH SO THAT THE GROUND LEVEL AT THE ENDS OF THE FENCE IS HIGHER THAN THE TOP OF THE LOW POINT OF THE FENCE. THIS PREVENTS WATER FROM FLOWING AROUND THE CHECK.
SILT FENCE DITCH CHECKS SHOULD NOT BE PLACED IN DITCHES WHERE HIGH FLOWS ARE EXPECTED. ROCK CHECKS SHOULD BE USED INSTEAD.
SILT FENCE 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 CHECK DITCH GRADE (%)	SPACING 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 AT LEAST 12" DEEP BY 6" 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 FOR LATER USE.
ROLL OUT A CONTINUOUS LENGTH OF SILT FENCE FABRIC ON THE DOWNSTREAM SIDE OF THE TRENCH. PLACE THE EDGE OF THE FABRIC IN THE TRENCH STARTING AT THE TOP UPSTREAM EDGE OF THE TRENCH. LINE TWO SIDES OF THE TRENCH WITH THE FABRIC AS SHOWN ON DETAIL. BACKFILL OVER THE FABRIC IN THE TRENCH WITH THE EXCAVATED SOIL AND COMPACT. AFTER FILLING THE TRENCH, APPROXIMATELY 24" TO 36" OF SILT FENCE FABRIC SHOULD REMAIN EXPOSED.
LAY THE EXPOSED SILT FENCE ON THE UPSTREAM SIDE OF THE TRENCH TO CLEAR AN AREA FOR DRIVING IN THE POSTS. JUST DOWNSTREAM OF THE TRENCH, DRIVE POSTS INTO THE GROUND TO A DEPTH OF AT LEAST 24". PLACE POSTS NO MORE THAN 4' APART.
ATTACH THE SILT FENCE TO THE ANCHORED POST WITH STAPLES, WIRE, ZIP TIES, OR NAILS.

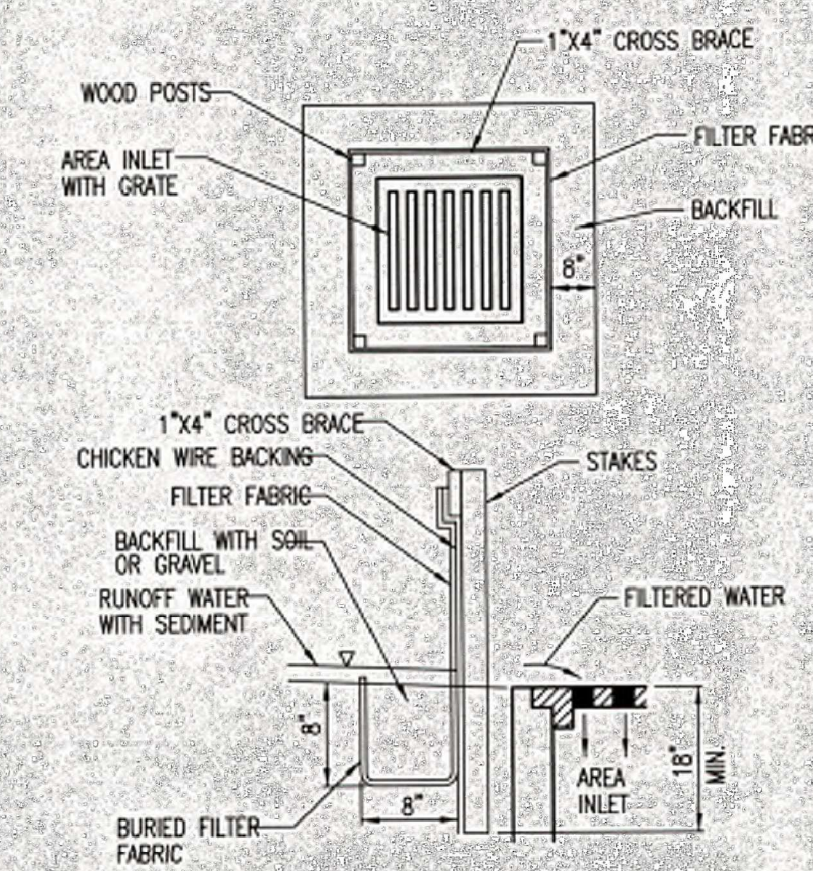
LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

WATER SHOULD FLOW THROUGH A SILT FENCE DITCH CHECK—NOT OVER IT. PLACE SILT FENCE IN DITCHES WHERE IT IS UNLIKELY THAT IT WILL BE OVERTOPPED. SILT FENCE INSTALLATIONS QUICKLY DETERIORATE WHEN WATER OVERTOPS THEM.
DO NOT PLACE SILT FENCE POSTS ON THE UPSTREAM SIDE OF THE SILT FENCE FABRIC. IN THIS CONFIGURATION, THE FORCE OF THE WATER IS NOT RESTRICTED BY THE POSTS, BUT ONLY BY THE STAPLES (WIRE, ZIP TIES, NAILS, ETC.). THE SILT FENCE WILL RIP AND FAIL.
DO NOT PLACE A SILT FENCE DITCH CHECK DIRECTLY IN FRONT OF A CULVERT OUTLET. IT WILL NOT STAND UP TO THE CONCENTRATED FLOW.
DO NOT PLACE SILT FENCE 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 FENCE IS HIGHER THAN THE LOW POINT ON THE TOP OF THE FENCE.
DO NOT PLACE SILT FENCE DITCH CHECKS IN CHANNELS WITH SHALLOW SOILS UNDERLAIN BY ROCK. IF THE CHECK IS NOT ANCHORED SUFFICIENTLY, IT WILL WASH OUT.

INSPECTION AND MAINTENANCE:

SILT FENCE 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 THE SILT FENCE SAG EXCESSIVELY?
HAS THE SILT FENCE TORN OR BECOME DETACHED FROM THE POSTS?
DOES SEDIMENT NEED TO BE REMOVED FROM BEHIND THE DITCH CHECK?



SILT FENCE BARRIERS FOR AREA INLETS
(INLET PROTECTION)

MATERIAL SPECIFICATION:

SILT FENCE FABRIC SHOULD CONFORM TO THE AASHTO M288 96 SILT FENCE SPECIFICATION.
THE WIRE OR POLYMERIC MESH BACKING USED TO HELP SUPPORT THE SILT FENCE FABRIC SHOULD CONFORM TO THE AASHTO M288 96 SILT FENCE SPECIFICATION.
THE POSTS USED TO SUPPORT THE SILT FENCE FABRIC SHOULD BE A HARDWOOD MATERIAL WITH THE FOLLOWING MINIMUM DIMENSIONS: 2" SQUARE (NOMINAL) BY 4' LONG.
THE MATERIAL USED TO FRAME THE TOPS OF THE POSTS SHOULD BE 1" BY 4" BOARDS.
SILT FENCE FABRIC AND SUPPORT BACKING SHOULD BE ATTACHED TO THE WOODEN POSTS AND FRAME WITH STAPLES, WIRE, ZIP TIES, OR NAILS.

PLACEMENT:

PLACE A SILT FENCE DROP INLET BARRIER IN A LOCATION WHERE IT IS UNLIKELY TO BE OVERTOPPED.
WATER SHOULD FLOW THROUGH SILT FENCE, NOT OVER IT. SILT FENCE BARRIERS FOR AREA INLETS OFTEN FAIL WHEN REPEATEDLY OVERTOPPED.
WHEN USED AS A BARRIER FOR AREA INLETS, SILT FENCE FABRIC AND POSTS MUST BE SUPPORTED AT THE TOP BY A WOODEN FRAME.
WHEN A SILT FENCE BARRIER FOR AREA INLETS IS LOCATED NEAR AN INLET THAT HAS STEEP APPROACH SLOPES, THE STORAGE CAPACITY BEHIND THE BARRIER IS DRASTICALLY 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 8" DEEP BY 8" WIDE.
DRIVE POSTS TO A DEPTH OF AT LEAST 18" AROUND THE PERIMETER OF THE AREA INLET.
THE DISTANCE BETWEEN POSTS SHOULD BE 4' OR LESS. IF THE DISTANCE BETWEEN TWO ADJACENT CORNER POSTS IS MORE THAN 4', ADD ANOTHER POST(S) BETWEEN THEM.
CONNECT THE TOPS OF ALL THE POSTS WITH A WOODEN FRAME MADE OF 1" BY 4" BOARDS. USE NAILS OR SCREWS FOR FASTENING.
ATTACH THE WIRE OR POLYMERIC-MESH BACKING TO THE OUTSIDE OF THE POST/FRAME STRUCTURE WITH STAPLES, WIRE, ZIP TIES, OR NAILS.
ROLL OUT A CONTINUOUS LENGTH OF SILT FENCE FABRIC LONG ENOUGH TO WRAP AROUND THE PERIMETER OF THE AREA INLET. ADD MORE LENGTH FOR OVERLAPPING THE FABRIC JOINT. PLACE THE EDGE OF THE FABRIC IN THE TRENCH, STARTING AT THE OUTSIDE EDGE OF THE TRENCH. LINE ALL THREE SIDES OF THE TRENCH WITH THE FABRIC. BACKFILL OVER THE FABRIC IN THE TRENCH WITH THE EXCAVATED SOIL AND COMPACT. AFTER FILLING THE TRENCH, APPROXIMATELY 24" TO 36" OF SILT FENCE FABRIC SHOULD REMAIN EXPOSED.
ATTACH THE SILT FENCE TO THE OUTSIDE OF THE POST/FRAME STRUCTURE WITH STAPLES, WIRE, ZIP TIES, OR NAILS. THE JOINT SHOULD BE OVERLAPPED TO THE NEXT POST.

NOTE: WHEN A SILT FENCE BARRIER FOR AREA INLET IS PLACED IN A SHALLOW MEDIAN DITCH, MAKE SURE THAT THE TOP OF THE BARRIER IS NOT HIGHER THAN THE PAVED ROAD. IN THIS CONFIGURATION, WATER MAY SPREAD ONTO THE ROADWAY CAUSING A HAZARDOUS CONDITION.

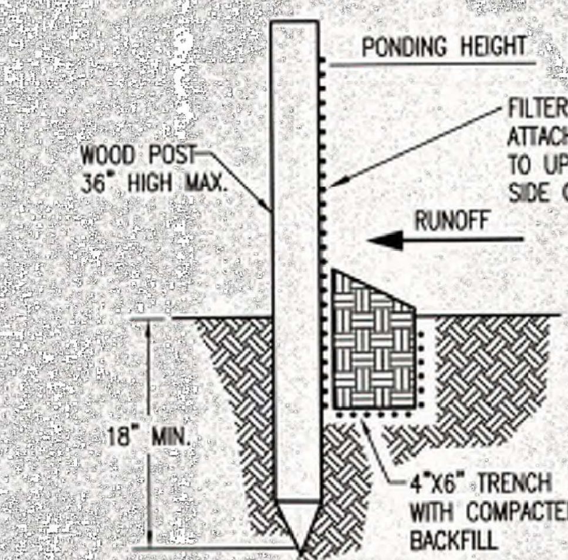
LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

WATER SHOULD FLOW THROUGH A SILT FENCE BARRIER FOR AREA INLET—NOT OVER IT. PLACE A SILT FENCE BARRIER FOR AREA INLET IN A LOCATION WHERE IT IS UNLIKELY TO BE OVERTOPPED. SILT FENCE BARRIER FOR AREA INLETS OFTEN FAIL WHEN REPEATEDLY OVERTOPPED.
DO NOT PLACE POSTS ON THE OUTSIDE OF THE SILT FENCE BARRIER FOR AREA INLET. IN THIS CONFIGURATION, THE FORCE OF THE WATER IS NOT RESISTED BY THE POSTS, BUT ONLY BY THE STAPLES (WIRE, ZIP TIES, NAILS, ETC.). THE SILT FENCE WILL RIP AND FAIL.
DO NOT INSTALL SILT FENCE BARRIER FOR AREA INLETS WITHOUT FRAMING THE TOP OF THE POSTS. THE CORNER POSTS AROUND AREA INLETS ARE STRESSED IN TWO DIRECTIONS WHEREAS A NORMAL SILT FENCE IS ONLY STRESSED IN ONE DIRECTION. THIS ADDED STRESS REQUIRES MORE SUPPORT.

INSPECTION AND MAINTENANCE:

SILT FENCE BARRIER FOR AREA INLETS 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 SILT FENCE?
DOES THE SILT FENCE SAG EXCESSIVELY?
HAS THE SILT FENCE TORN OR BECOME DETACHED FROM THE POSTS?
DOES SEDIMENT NEED TO BE REMOVED FROM BEHIND THE AREA INLET BARRIER?



SILT FENCE BARRIERS

MATERIAL SPECIFICATION:

SILT FENCE FABRIC SHOULD CONFORM TO THE AASHTO M288 96 SILT FENCE SPECIFICATION.
THE POSTS USED TO SUPPORT THE SILT FENCE FABRIC SHOULD BE A HARDWOOD MATERIAL WITH THE FOLLOWING MINIMUM DIMENSIONS: 2" SQUARE (NOMINAL) BY 4' LONG.
SILT FENCE FABRIC SHOULD BE ATTACHED TO THE WOODEN POSTS WITH STAPLES, WIRE, ZIP TIES, OR NAILS.

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, SILT FENCE SLOPE BARRIERS SHOULD BE PLACED ALONG CONTOURS TO AVOID A CONCENTRATION OF FLOW.
SILT FENCE 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 6" DEEP BY 4" 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.
ROLL OUT A CONTINUOUS LENGTH OF SILT FENCE FABRIC ON THE DOWNSLOPE SIDE OF THE TRENCH. PLACE THE EDGE OF THE FABRIC IN THE TRENCH STARTING AT THE TOP UPSLOPE EDGE. LINE ALL THREE SIDES OF THE TRENCH WITH THE FABRIC. BACKFILL OVER THE FABRIC IN THE TRENCH WITH THE EXCAVATED SOIL AND COMPACT. AFTER FILLING THE TRENCH, APPROXIMATELY 24" TO 36" OF SILT-FENCE FABRIC SHOULD REMAIN EXPOSED.
LAY THE EXPOSED SILT FENCE UPSLOPE OF THE TRENCH TO CLEAR AN AREA FOR DRIVING IN THE POSTS. JUST DOWNSLOPE OF THE TRENCH, DRIVE POSTS INTO THE GROUND TO A DEPTH OF AT LEAST 18". PLACE POSTS NO MORE THAN 4' APART.
ATTACH THE SILT FENCE TO THE ANCHORED POST WITH STAPLES, WIRE, ZIP TIES, OR NAILS.

LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

WHEN PRACTICABLE, DO NOT PLACE SILT FENCE SLOPE BARRIERS ACROSS CONTOURS. SLOPE BARRIERS SHOULD BE PLACED ALONG CONTOURS TO AVOID A CONCENTRATION OF FLOW. WHEN THE FLOW CONCENTRATES, IT OVERTOPS THE BARRIER AND THE SILT FENCE SLOPE BARRIER QUICKLY DETERIORATES.
DO NOT PLACE SILT-FENCE POSTS ON THE UPSLOPE SIDE OF THE SILT FENCE FABRIC. IN THIS CONFIGURATION, THE FORCE OF THE WATER IS NOT RESTRICTED BY THE POSTS, BUT ONLY BY THE STAPLES (WIRE, ZIP TIES, NAILS, ETC.). THE SILT FENCE WILL RIP AND FAIL.
DO NOT PLACE SILT FENCE SLOPE BARRIERS IN AREAS WITH SHALLOW SOILS UNDERLAIN BY ROCK. IF THE BARRIER IS NOT SUFFICIENTLY ANCHORED, IT WILL WASH OUT.
SILT FENCE SLOPE BARRIERS MUST BE DUG INTO THE GROUND-SILT FENCE AT GROUND LEVEL DOES NOT WORK BECAUSE WATER WILL FLOW UNDERNEATH.

INSPECTION AND MAINTENANCE:

SILT FENCE 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?
DO THE SILT FENCES SAG EXCESSIVELY?
HAS THE SILT FENCE TORN OR BECOME DETACHED FROM THE POSTS?
DOES SEDIMENT NEED TO BE REMOVED FROM BEHIND THE SLOPE BARRIER?

REVISION DATE: MAY 2013

CITY OF WICHITA
PUBLIC WORKS & UTILITIES ENGINEERING DIVISION

SILT FENCE DITCH CHECK AND BARRIER DETAILS

CITY ENGINEER
GARY JANZEN, P.E.

PROJECT NUMBER | OCA NUMBER | DATE

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

SHEET

SW-502

GARY L. JANZEN LICENSED PROFESSIONAL ENGINEER KANSAS

PEC
PROFESSIONAL ENGINEERING CONSULTANTS
303 SOUTH TOPEKA
WICHITA, KS 67202
316-262-2691 www.pec1.com

CITY OF WICHITA

WICHITA MAPLE STREET BOOSTER PUMP STATION

PAUL GUNZELMAN, P.E. - CITY ENGINEER
CITY OF WICHITA PROJECT NO. 448-2019-028875

Issue:

JOB NO.	35-200810-001-0042
DATE	JANUARY 2025
PM	RWG
DESIGNED BY	DRC
DRAWN BY	DSB
CHECKED BY	JAG

EROSION CONTROL DETAILS 2

CG502

SAVED 12/8/2023 9:55:22 AM BY BENJAMIN.BOCKOVER
PLOTTED 1/20/2025 9:33:55 AM BY CHRIS EPP
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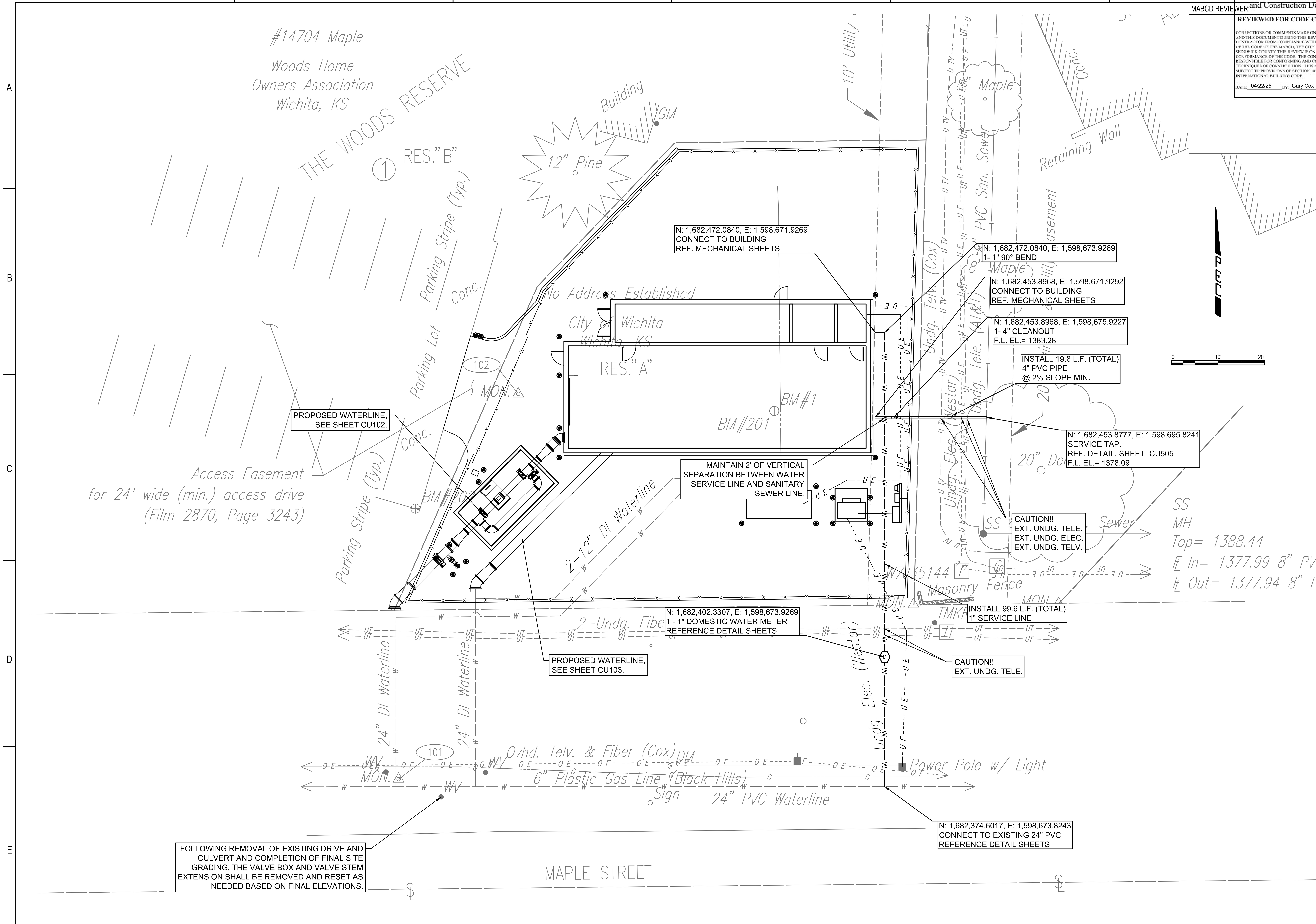

#14704 Maple
Woods Home
Owners Association
Wichita, KS
THE WOODS RESERVE
RES."B"
12" Pine
Building
YGM
10' Utility
Maple
Retaining Wall
PVC San. Sewer
No Address Established
City of Wichita
Wichita, KS
RES."A"
BM#1
BM#201
Parking Stripe (Typ.)
Parking Lot
Conc.
MON.
Access Easement
for 24' wide (min.) access drive
(Film 2870, Page 3243)
N: 1,682,472.0840, E: 1,598,671.9269
CONNECT TO BUILDING
REF. MECHANICAL SHEETS
N: 1,682,472.0840, E: 1,598,673.9269
1- 1" 90° BEND
N: 1,682,453.8968, E: 1,598,671.9292
CONNECT TO BUILDING
REF. MECHANICAL SHEETS
N: 1,682,453.8968, E: 1,598,675.9227
1- 4" CLEANOUT
F.L. EL.= 1383.28
INSTALL 19.8 L.F. (TOTAL)
4" PVC PIPE
@ 2% SLOPE MIN.
N: 1,682,453.8777, E: 1,598,695.8241
SERVICE TAP.
REF. DETAIL, SHEET CU505
F.L. EL.= 1378.09
PROPOSED WATERLINE,
SEE SHEET CU102.
MAINTAIN 2' OF VERTICAL
SEPARATION BETWEEN WATER
SERVICE LINE AND SANITARY
SEWER LINE.
CAUTION!!
EXT. UNDG. TELE.
EXT. UNDG. ELEC.
EXT. UNDG. TELV.
2-12" DI Waterline
20" Dec.
SS
MH
Top= 1388.44
In= 1377.99 8" PVC
Out= 1377.94 8" P
Masonry Fence
Undg. Telv. (Cox)
Undg. Tele.
Undg. Elec. (Westar)
N: 1,682,402.3307, E: 1,598,673.9269
1 - 1" DOMESTIC WATER METER
REFERENCE DETAIL SHEETS
INSTALL 99.6 L.F. (TOTAL)
1" SERVICE LINE
2-Undg. Fiber
PROPOSED WATERLINE,
SEE SHEET CU103.
CAUTION!!
EXT. UNDG. TELE.
24" DI Waterline
24" DI Waterline
Undg. Elec. (Westar)
Ovhd. Telv. & Fiber (Cox)
6" Plastic Gas Line (Black Hills)
Power Pole w/ Light
24" PVC Waterline
Sign
MON.
N: 1,682,374.6017, E: 1,598,673.8243
CONNECT TO EXISTING 24" PVC
REFERENCE DETAIL SHEETS
FOLLOWING REMOVAL OF EXISTING DRIVE AND
CULVERT AND COMPLETION OF FINAL SITE
GRADING, THE VALVE BOX AND VALVE STEM
EXTENSION SHALL BE REMOVED AND RESET AS
NEEDED BASED ON FINAL ELEVATIONS.
MAPLE STREET
0 10' 20'

MABCD REVIEWER:

Wichita-Sedgwick County
Metropolitan Area Building
and Construction Department

REVIEWED FOR CODE COMPLIANCE

CORRECTIONS OR COMMENTS MADE ON THESE DRAWINGS AND THIS DOCUMENT DURING THIS REVIEW DO NOT RELIEVE CONTRACTOR FROM COMPLIANCE WITH ALL REQUIREMENTS OF THE CODE OF THE MABCD, THE CITY OF WICHITA OR SEDGWICK COUNTY. THIS REVIEW IS ONLY FOR GENERAL CONFORMANCE OF THE CODE. THE CONTRACTOR IS RESPONSIBLE FOR CONFORMING AND CORRELATING ALL TECHNIQUES OF CONSTRUCTION. THIS APPROVAL IS SUBJECT TO PROVISIONS OF SECTION 107.4 OF THE 2012 INTERNATIONAL BUILDING CODE.

DATE: 04/22/25 BY: Gary Cox

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WICHITA, KS 67202
316-262-2691 www.pec1.com

CITY OF WICHITA

ADAM WILLIAM GLESSNER
LICENSED
23090
01/22/2025
KANSAS
PROFESSIONAL ENGINEER

WICHITA MAPLE STREET BOOSTER PUMP STATION

PAUL GUNZELMAN, P.E. - CITY ENGINEER
CITY OF WICHITA PROJECT NO. 448-2019-028875

Issue:

JOB NO.	35-200810-001-0042
DATE	JANUARY 2025
PM	RWG
DESIGNED BY	LY
DRAWN BY	CAE
CHECKED BY	RWG

UTILITY PLAN

CU101

SAVED 3/27/2024 3:32:51 PM BY CHRIS.EPP
PLOTTED 1/20/2025 9:35:44 AM BY CHRIS.EPP
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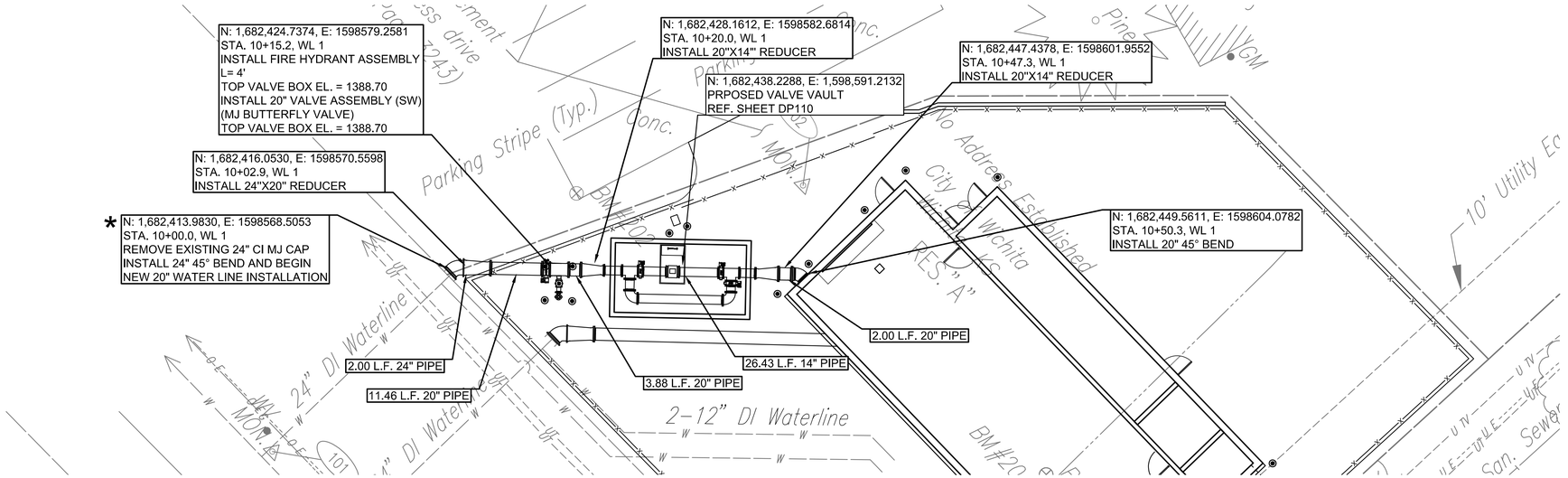

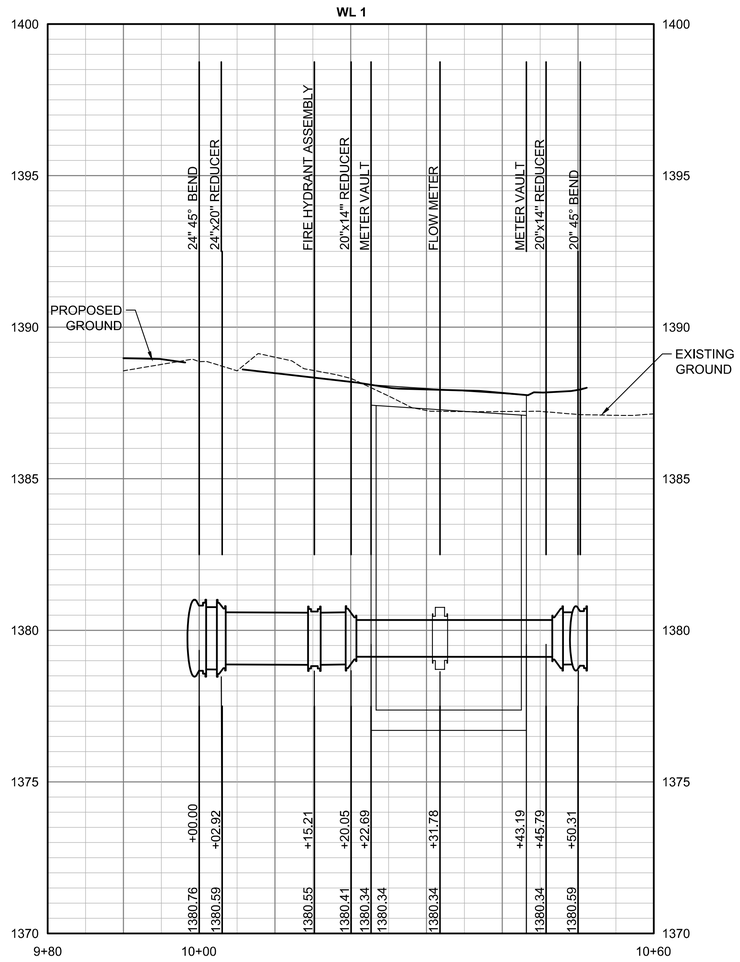

* PRIOR TO BEGINNING CONSTRUCTION OR ORDERING MATERIALS, THE CONTRACTOR SHALL EXCAVATE THE EXISTING WATERLINE TO VERIFY ITS PIPE SIZE, MATERIAL, FITTINGS, AND HORIZONTAL AND VERTICAL LOCATION. THE FINDINGS SHALL BE REPORTED TO THE ENGINEER SO THAT ANY NECESSARY PLAN MODIFICATIONS CAN BE MADE. ANY ADDITIONAL LABOR OR MATERIALS NECESSARY TO COMPLETE THE CONNECTION SHALL BE CONSIDERED SUBSIDIARY TO THE PROJECT.

Wichita-Sedgwick County
Metropolitan Area Building
and Construction Department

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REVIEWED FOR CODE COMPLIANCE

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DATE: 04/22/25 BY: Gary Cox

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CITY OF WICHITA

RYAN WILLIAM GLESSNER
LICENSED
23090
01/22/2025
KANSAS
PROFESSIONAL ENGINEER

WICHITA MAPLE STREET BOOSTER PUMP STATION

PAUL GUNZELMAN, P.E. - CITY ENGINEER
CITY OF WICHITA PROJECT NO. 448-2019-028875

Issue:		

JOB NO.	35-200810-001-0042
DATE	JANUARY 2025
PM	RWG
DESIGNED BY	RWG
DRAWN BY	CAE
CHECKED BY	SCU

WL 1 PLAN & PROFILE

CU102

SAVED 1/20/2025 9:04:58 AM BY CHRIS.EPP
PLOTTED 1/20/2025 9:35:58 AM BY CHRIS EPP
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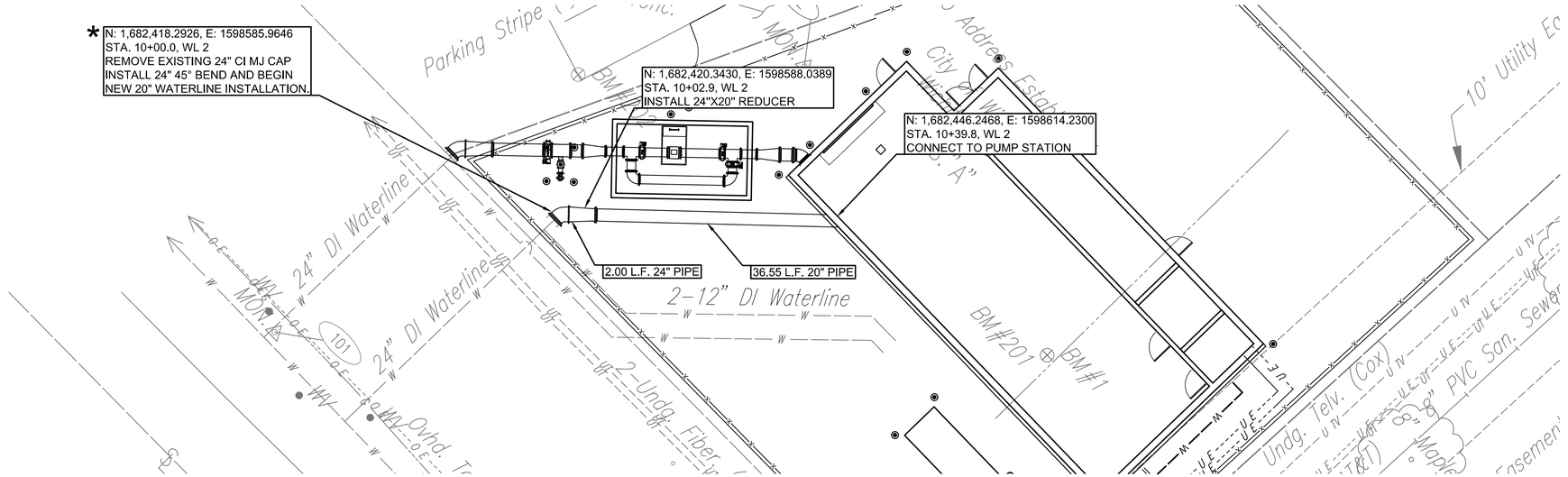

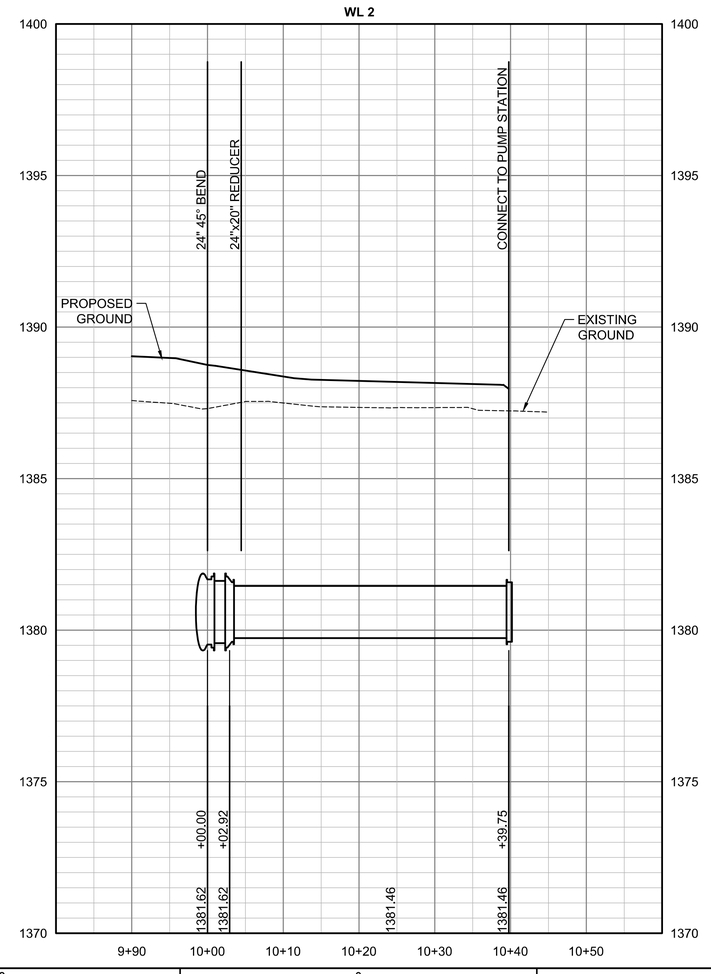

* PRIOR TO BEGINNING CONSTRUCTION OR ORDERING MATERIALS, THE CONTRACTOR SHALL EXCAVATE THE EXISTING WATERLINE TO VERIFY ITS PIPE SIZE, MATERIAL, FITTINGS, AND HORIZONTAL AND VERTICAL LOCATION. THE FINDINGS SHALL BE REPORTED TO THE ENGINEER SO THAT ANY NECESSARY PLAN MODIFICATIONS CAN BE MADE. ANY ADDITIONAL LABOR OR MATERIALS NECESSARY TO COMPLETE THE CONNECTION SHALL BE CONSIDERED SUBSIDIARY TO THE PROJECT.

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DATE: 04/22/25 BY: Gary Cox

PLAN: LAT. & LONG. 0 5' 10' 20'
PROFILE: HORIZ. SAME AS ABOVE
VERT: 5' 0

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PROFESSIONAL ENGINEERING CONSULTANTS
303 SOUTH TOPEKA
WICHITA, KS 67202
316-262-2691 www.pec1.com

CITY OF WICHITA

RYAN WILLIAM GLESSNER
LICENSED
23090
01/22/2025
KANSAS
PROFESSIONAL ENGINEER

WICHITA MAPLE STREET BOOSTER PUMP STATION

PAUL GUNZELMAN, P.E. - CITY ENGINEER
CITY OF WICHITA PROJECT NO. 448-2019-028875

Issue:		

JOB NO.	35-200810-001-0042
DATE	JANUARY 2025
PM	RWG
DESIGNED BY	RWG
DRAWN BY	CAE
CHECKED BY	SCU

WL 2 PLAN & PROFILE

CU103

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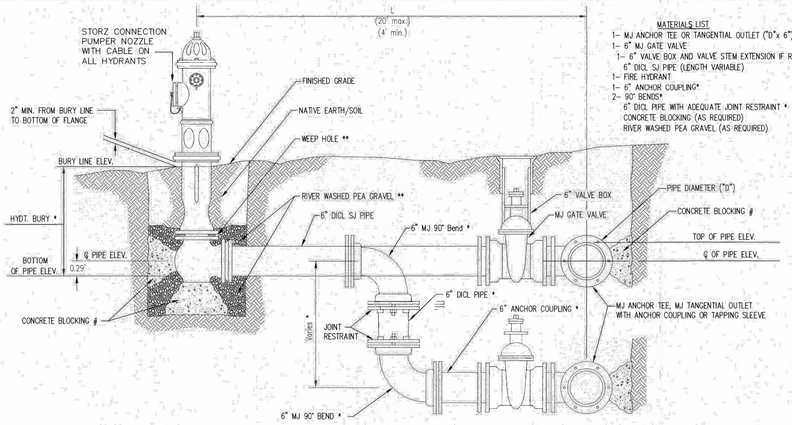


MATERIALS LIST
1- MJ ANCHOR TEE OR TANGENTIAL OUTLET ("D"x 6")
1- 6" MJ GATE VALVE
1- 6" VALVE BOX AND VALVE STEM EXTENSION IF REQUIRED *
6" DICL SJ PIPE (LENGTH VARIABLE)
1- FIRE HYDRANT
1- 6" ANCHOR COUPLING*
2- 90° BENDS*
6" DICL PIPE WITH ADEQUATE JOINT RESTRAINT *
CONCRETE BLOCKING (AS REQUIRED)
RIVER WASHED PEA GRAVEL (AS REQUIRED)

FIRE HYDRANTS REQUIRED

STATION	BURY LINE ELEVATION	TOP OF PIPE ELEVATION	FIRE HYDRANT BURY REQUIRED*	VALVE STEM EXT. REQUIRED (ft)*

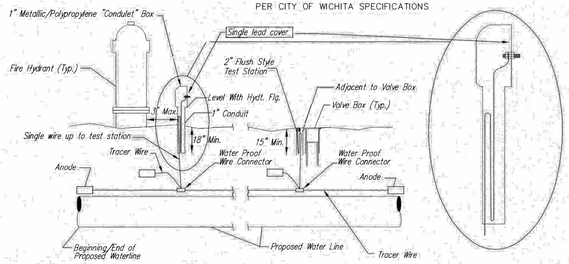
* IF THE REQUIRED HYDRANT BURY IS IN EXCESS OF 5', BUT LESS THAN 7', CONTRACTOR SHALL USE STANDARD 5' HYDRANT BURY AND HYDRANT BARREL EXTENSIONS AS NECESSARY. IF THE REQUIRED HYDRANT BURY IS GREATER THAN 7', CONTRACTOR SHALL USE 5' HYDRANT BURY, 2-MJ 90° BENDS, 6" ANCHOR COUPLING AND 6" DICL PIPE AS NECESSARY FOR VERTICAL ADJUSTMENT. THE CONTRACTOR SHALL PROVIDE ADEQUATE THRUST BLOCKING AT HYDRANT AND MEGALUGS, OR SIMILAR RESTRAINT BETWEEN 90° BENDS TO SECURE ALL FITTINGS DURING TESTING AND OPERATION. THE CONTRACTOR SHALL PROVIDE A VALVE STEM EXTENSION PER DETAIL THIS SHEET.

** CAUTION: WEEP HOLES TO BE KEPT CLEAR DURING CONSTRUCTION AND BACKFILL. CONCRETE FOR THRUST BLOCKING SHALL NOT OBSTRUCT WEEP HOLES. PLACE 1 CUBIC FOOT OF RIVER WASHED PEA GRAVEL AROUND EACH WEEP HOLE.

\# CONCRETE THRUST BLOCKING SHALL BE KEPT CLEAR OF BOLTS, NUTS, AND MJ ACCESSORIES.

FIRE HYDRANT ASSEMBLY

PER CITY OF WICHITA SPECIFICATIONS



TRACER WIRE
Conductive type pipe locator/tracer wire shall be install to locate all waterline pipe regardless of pipe material. The wire shall extend the entire length of the proposed pipe. The wire shall be taped to the waterline and pulled with the pipe. A waterproof connector shall be used at splice locations. A complete list of approved tracer wire and waterproof connectors can be found on the City of Wichita's website at www.wichita.gov.

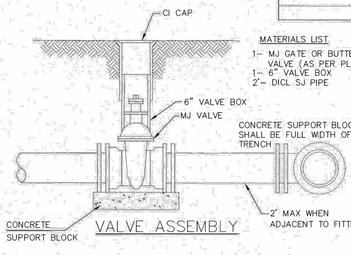
WIRE
The tracer wire shall be Blue No. 12 AWG CCS with 45 mil HDPE insulation. To allow for grade adjustment, a minimum of 12" of excess wire shall be coiled at the bottom of the test station for all wires. Wire connectors shall be installed per manufacturer recommendations. Contractor shall attach wire being installed with proposed water main to any tracer wire installed with adjacent waterline projects.

TEST STATIONS
*The test station for fire hydrant application shall be a 1" "conduiet" style station as manufactured by AGRA Industries with a removable solid cover having a single lead extending from the face or approved equal. The "conduiet" style test station shall be attached to a 1" rigid galvanized conduiet with a minimum length of 36" and plastic end bushing. The flush style shall have the word "WATER" stamped or molded into the lid. The test station for valve applications shall be a 2" flush style test station with wire connector on lid. Model # T2PH7B1LP Handley Industries or CD14*TP SnakePit as manufactured by Copperhead Industries or approved equal. The flush style shall have the word "WATER" stamped or molded into the lid. All test stations shall be manufactured using molded blue tops or sufficiently coated with blue enamel paint. The tracer wire and the anode wire shall be install to allow 12" of wire within the test station. The location of all test stations shall be recorded, and shown in the as-built drawings. Flush style test stations shall not be installed in pavement or sidewalk unless approved by the Engineer. Contractor shall extend tracer wire & move flush mount test station to nearest location out of pavement or sidewalk.*

ANODES
The anodes shall be 3 lb. bare zinc or magnesium. The anodes shall be buried at the same elevation as the waterline at each test station. The anodes shall be connected to 12 AWG CCS which shall be extended to the test station.

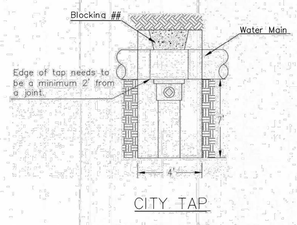
TRACER WIRE DETAIL

COST IS SUBSIDIARY TO PIPE INSTALLATION



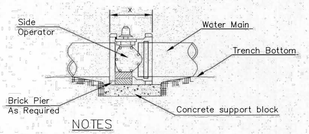
MATERIALS LIST
1- MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
2'- DICL SJ PIPE
1- 6" VALVE BOX

VALVE ASSEMBLY



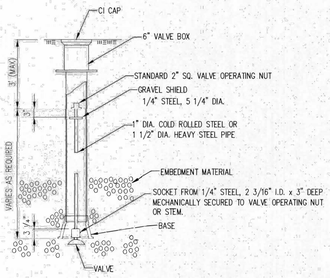
CITY TAP

When the City of Wichita makes tap, blocking is to be done by Contractor

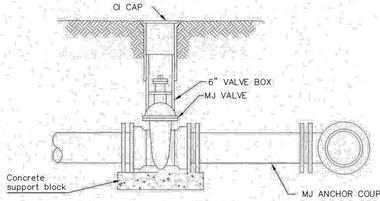


NOTES
1. This detail covers Butterfly Valve installation, inclusive, regardless of type of pipe or joint used. 24" and larger lines to be detailed on plans.
2. 6" Valve Box and Cover required per City of Wichita Std. Specifications.
3. Conc. Support Block to be full width of trench.

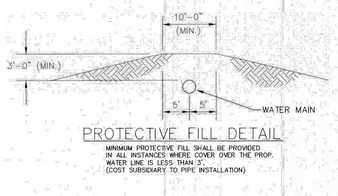
CONCRETE SUPPORT BLOCKING FOR BUTTERFLY VALVE INSTALLATION



MATERIALS LIST
1-MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
1-MJ ANCHOR COUPLING (12" OR SMALLER)
1-6" VALVE BOX
CONCRETE SUPPORT BLOCK SHALL BE FULL WIDTH OF THE TRENCH



ANCHORED VALVE ASSEMBLY



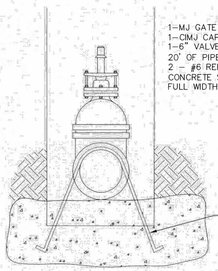
PROTECTIVE FILL DETAIL

MINIMUM PROTECTIVE FILL SHALL BE PROVIDED IN ALL INSTANCES WHERE COVER OVER THE PROP. WATER LINE IS LESS THAN 3'. (COST SUBSIDIARY TO PIPE INSTALLATION)

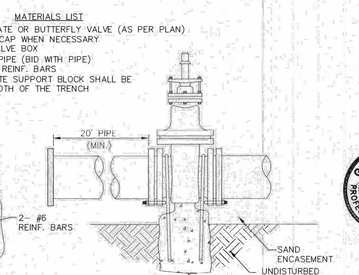
VALVE STEM EXTENSION DETAIL

NOTE: ONE VALVE STEM EXTENSION FOR EACH VALVE BURIED GREATER THAN 5'.

MATERIALS LIST
1-6" VALVE BOX
1-CIMJ CAP
1-2"x6" BRASS NIPPLE
1-2" IPT VALVE
2" T HEAD/OPERATING NUT
1-GALV. STREET EL.
2" GALV. PIPE (AS REQUIRED)
1-2" GALV. COUPLING
1-2" GALV. PLUG (HAND TIGHTENED)



MATERIALS LIST
1-MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
1-CIMJ CAP WHEN NECESSARY
1-6" VALVE BOX
20' OF PIPE (BID WITH PIPE)
2 - #6 REINF. BARS
CONCRETE SUPPORT BLOCK SHALL BE FULL WIDTH OF THE TRENCH



Notes:
1. Concrete Block at Valve to have sufficient bearing in undisturbed soil to prevent thrust movement as shown in table at right. Field Engineer to determine thrust loading of undisturbed soil and final size of thrust block.
2. The thrust block shall be constructed such that bolts, nuts, and other MJ accessories are kept clear of concrete.
3. All valves at dead ends and at other locations as called out on the plans shall be blocked as shown here.

THRUST AT VALVES

VALVE	THRUST AT 150 #/in²
4"	1809 lbs.
6"	4245 lbs.
8"	7540 lbs.
12"	16965 lbs.

ANCHORED VALVE ASSEMBLY, SPECIAL

GARY L. JANZEN LICENSED 16284 KANSAS PROFESSIONAL ENGINEER
10/27/16

2" BLOWOFF ASSEMBLY

REVISED: OCTOBER 2016

CITY OF WICHITA
PUBLIC WORKS & UTILITIES ENGINEERING DIVISION

STANDARD WATER ASSEMBLY DETAIL

CITY ENGINEER
GARY JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE

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

SHEET

WL-101

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CITY OF WICHITA

WICHITA MAPLE STREET BOOSTER PUMP STATION

PAUL GUNZELMAN, P.E. - CITY ENGINEER
CITY OF WICHITA PROJECT NO. 448-2019-028875

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DATE	JANUARY 2025
PM	RWG
DESIGNED BY	LY
DRAWN BY	CAE
CHECKED BY	RWG

STANDARD WATER ASSEMBLY DETAIL

CU501

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CONTROL PANEL 'CP'

LOCATION: 37TH STREET

CIRCUIT NO.	EQUIPMENT SERVED/ MARK	CONNECT: DEVICE	CONNECT: CTL PNL	CONNECT: STARTER	CONNECT: VFD	DESCRIPTION/FUNCTION	CONDUCTORS IN CABLE	DISCRETE	ANALOG	DIGITAL	INPUT	OUTPUT	REMARKS
1	P-1	-	-	-	X	DRIVE RUN INDICATION	2	X	-	-	X	-	
2		-	-	-	X	DRIVE HAND INDICATION	2	X	-	-	X	-	
3		-	-	-	X	DRIVE OFF INDICATION	2	X	-	-	X	-	
4		-	-	-	X	DRIVE REMOTE INDICATION	2	X	-	-	X	-	
5		-	-	-	X	DRIVE START/STOP R.C.	2	X	-	-	-	X	
6		-	-	-	X	DRIVE FAIL ALARM	2	X	-	-	X	-	
7		-	-	-	X	DRIVE SPEED CONTROL	TSPR	-	X	-	-	X	
8		-	-	-	X	DRIVE SPEED INDICATION	TSPR	-	X	-	X	-	
9		-	-	-	X	DRIVE CURRENT POWER CONSUMPTION	TSPR	-	X	-	X	-	
10		-	-	-	X	MOTOR FAILURE	2	X	-	-	X	-	
11	P-2	-	-	-	X	DRIVE RUN INDICATION	2	X	-	-	X	-	
12		-	-	-	X	DRIVE HAND INDICATION	2	X	-	-	X	-	
13		-	-	-	X	DRIVE OFF INDICATION	2	X	-	-	X	-	
14		-	-	-	X	DRIVE REMOTE INDICATION	2	X	-	-	X	-	
15		-	-	-	X	DRIVE START/STOP R.C.	2	X	-	-	-	X	
16		-	-	-	X	DRIVE FAIL ALARM	2	X	-	-	X	-	
17		-	-	-	X	DRIVE SPEED CONTROL	TSPR	-	X	-	-	X	
18		-	-	-	X	DRIVE SPEED INDICATION	TSPR	-	X	-	X	-	
19		-	-	-	X	DRIVE CURRENT POWER CONSUMPTION	TSPR	-	X	-	X	-	
20		-	-	-	X	MOTOR FAILURE	2	X	-	-	X	-	
21	P-3	-	-	-	X	DRIVE RUN INDICATION	2	X	-	-	X	-	
22		-	-	-	X	DRIVE HAND INDICATION	2	X	-	-	X	-	
23		-	-	-	X	DRIVE OFF INDICATION	2	X	-	-	X	-	
24		-	-	-	X	DRIVE REMOTE INDICATION	2	X	-	-	X	-	
25		-	-	-	X	DRIVE START/STOP R.C.	2	X	-	-	-	X	
26		-	-	-	X	DRIVE FAIL ALARM	2	X	-	-	X	-	
27		-	-	-	X	DRIVE SPEED CONTROL	TSPR	-	X	-	-	X	
28		-	-	-	X	DRIVE SPEED INDICATION	TSPR	-	X	-	X	-	
29		-	-	-	X	DRIVE CURRENT POWER CONSUMPTION	TSPR	-	X	-	X	-	
30		-	-	-	X	MOTOR FAILURE	2	X	-	-	X	-	
31	P-4	-	-	-	X	DRIVE RUN INDICATION	2	X	-	-	X	-	
32		-	-	-	X	DRIVE HAND INDICATION	2	X	-	-	X	-	
33		-	-	-	X	DRIVE OFF INDICATION	2	X	-	-	X	-	
34		-	-	-	X	DRIVE REMOTE INDICATION	2	X	-	-	X	-	
35		-	-	-	X	DRIVE START/STOP R.C.	2	X	-	-	-	X	
36		-	-	-	X	DRIVE FAIL ALARM	2	X	-	-	X	-	
37		-	-	-	X	DRIVE SPEED CONTROL	TSPR	-	X	-	-	X	
38		-	-	-	X	DRIVE SPEED INDICATION	TSPR	-	X	-	X	-	
39		-	-	-	X	DRIVE CURRENT POWER CONSUMPTION	TSPR	-	X	-	X	-	
40		-	-	-	X	MOTOR FAILURE	2	X	-	-	X	-	
41	P-5	-	-	-	X	DRIVE RUN INDICATION	2	X	-	-	X	-	
42		-	-	-	X	DRIVE HAND INDICATION	2	X	-	-	X	-	
43		-	-	-	X	DRIVE OFF INDICATION	2	X	-	-	X	-	
44		-	-	-	X	DRIVE REMOTE INDICATION	2	X	-	-	X	-	
45		-	-	-	X	DRIVE START/STOP R.C.	2	X	-	-	-	X	
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47		-	-	-	X	DRIVE SPEED CONTROL	TSPR	-	X	-	-	X	
48		-	-	-	X	DRIVE SPEED INDICATION	TSPR	-	X	-	X	-	
49		-	-	-	X	DRIVE CURRENT POWER CONSUMPTION	TSPR	-	X	-	X	-	
50		-	-	-	X	MOTOR FAILURE	2	X	-	-	X	-	
51	CV-1	X	-	-	-	CV-1 BYPASS LINE	2	X	-	-	X	-	
52	CV-2	X	-	-	-	P-1 CHECK VALVE - LIMIT SWITCH	2	X	-	-	X	-	
53	CV-3	X	-	-	-	P-2 CHECK VALVE - LIMIT SWITCH	2	X	-	-	X	-	
54	CV-4	X	-	-	-	P-3 CHECK VALVE - LIMIT SWITCH	2	X	-	-	X	-	
55	CV-5	X	-	-	-	P-4 CHECK VALVE - LIMIT SWITCH	2	X	-	-	X	-	
56	CV-6	X	-	-	-	P-5 CHECK VALVE - LIMIT SWITCH	2	X	-	-	X	-	
57	PE-1	X	-	-	-	PRESSURE	TSPR	-	X	-	X	-	
58		X	-	-	-	HIGH PRESSURE SWITCH	2	X	-	-	X	-	
59		X	-	-	-	LOW PRESSURE SWITCH	2	X	-	-	X	-	
60	PE-2	X	-	-	-	PRESSURE	TSPR	-	X	-	X	-	
61		X	-	-	-	HIGH PRESSURE SWITCH	2	X	-	-	X	-	
62		X	-	-	-	LOW PRESSURE SWITCH	2	X	-	-	X	-	
63	PE-3	X	-	-	-	PRESSURE	TSPR	-	X	-	X	-	
64		X	-	-	-	HIGH PRESSURE SWITCH	2	X	-	-	X	-	
65		X	-	-	-	LOW PRESSURE SWITCH	2	X	-	-	X	-	
66	PE-4	X	-	-	-	PRESSURE	TSPR	-	X	-	X	-	
67		X	-	-	-	HIGH PRESSURE SWITCH	2	X	-	-	X	-	
68		X	-	-	-	LOW PRESSURE SWITCH	2	X	-	-	X	-	
69	PE-5	X	-	-	-	PRESSURE	TSPR	-	X	-	X	-	
70		X	-	-	-	HIGH PRESSURE SWITCH	2	X	-	-	X	-	
71		X	-	-	-	LOW PRESSURE SWITCH	2	X	-	-	X	-	
72	PE-6	X	-	-	-	PRESSURE	TSPR	-	X	-	X	-	
73		X	-	-	-	HIGH PRESSURE SWITCH	2	X	-	-	X	-	
74		X	-	-	-	LOW PRESSURE SWITCH	2	X	-	-	X	-	
75	PE-7	X	-	-	-	PRESSURE	TSPR	-	X	-	X	-	
76		X	-	-	-	HIGH PRESSURE SWITCH	2	X	-	-	X	-	
77		X	-	-	-	LOW PRESSURE SWITCH	2	X	-	-	X	-	
78	CA-1	X	-	-	-	CHLORINE ANALYZER	TSPR	-	X	-	X	-	
79	LEAK ALARM 1	X	-	-	-	AREA LEAK ALARM	2	X	-	-	X	-	
80	LEAK ALARM 2	X	-	-	-	AREA LEAK ALARM	2	X	-	-	X	-	
81	FM-1	X	-	-	-	PUMP ROOM TEMPERATURE SENSOR	TSPR	-	-	X	X	-	
82		X	-	-	-	FLOW METER 1	TSPR	-	X	-	X	-	PROVIDE 120V POWER
83		X	-	-	-	BUILDING INTRUSION	TSPR	-	X	-	X	-	
84	GEN-1	-	X	-	-	GENSET READY	2	X	-	-	X	-	FROM GENERATOR CONTROL PANEL AT UNIT
85		-	X	-	-	GENSET RUNNING	2	X	-	-	X	-	FROM GENERATOR CONTROL PANEL AT UNIT
86		-	X	-	-	GENSET FAIL	2	X	-	-	X	-	FROM GENERATOR CONTROL PANEL AT UNIT
87		-	X	-	-	GENSET LOW FUEL PRESSURE	2	X	-	-	X	-	FROM GENERATOR CONTROL PANEL AT UNIT
88		-	X	-	-	GENERATOR BREAKER STATUS	2	X	-	-	X	-	FROM GENERATOR CONTROL PANEL AT UNIT
89	ATS	-	X	-	-	ATS POSITION	2	X	-	-	X	-	FROM ATS

LEGEND

PROGRAMMABLE LOGIC CONTROLLER

PLC

FIBER PATCH PANEL

VARIABLE FREQUENCY DRIVE (VFD)

UNINTERRUPTIBLE POWER SUPPLY

UPS

HMI

HUMAN MACHINE INTERFACE

MANAGED ETHERNET SWITCHES

ANTENNA

BUILDING OUTLINE

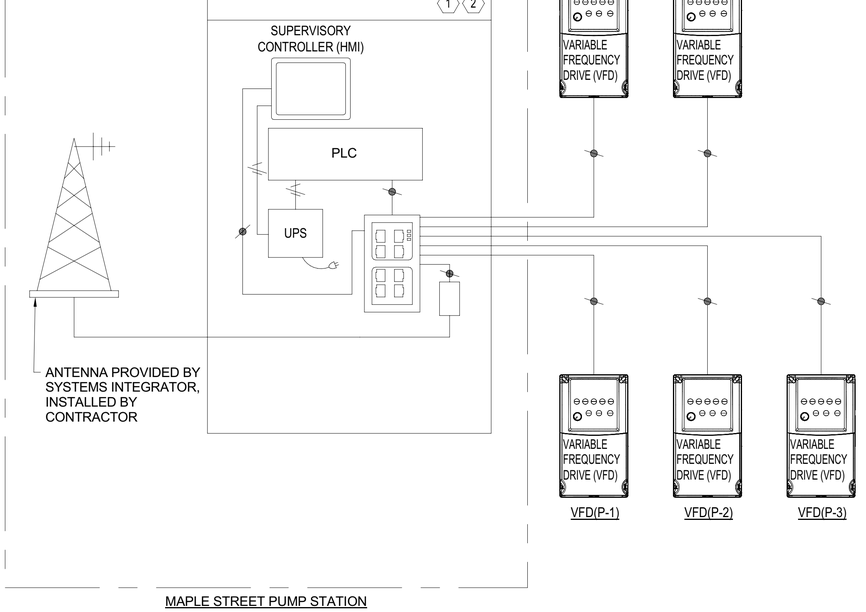
PANEL OUTLINE

CONTROL PANEL NOTES:

1. A CONDUIT FOR ANALOG CABLE SHALL TERMINATE IN EQUIPMENT ENCLOSURE AS CLOSE AS POSSIBLE TO THE TERMINALS. CABLES SHALL NOT PASS NEAR TO CABLES OR EQUIPMENT OPERATING ABOVE 24V.
2. INTERNAL AND EXTERNAL I/O SHALL BE LANDED ON TERMINAL STRIPS.
3. I/O IDENTIFIED ON CONTROL DIAGRAM SHEETS ARE FOR INPUTS & OUTSPUTS 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 & INSTALL CONDUIT AND WIRE REQUIRED FOR COMPLETE FUNCTIONLITY OF EQUIPMENT AS SPECIFIED AND AS IDENTIFIED BY THE MANUFACTURER. THE CONTRACTOR SHALL COORDINATE WITH EQUIPMENT MANUFACTURER TO DETERMINE FIELD WIRING REQUIREMENTS.
4. PROVIDE ADDITIONAL TERMINALS AND CARDS AS REQUIRED FOR EQUIPMENT CONNECTIONS. PROVIDE PROGRAMMING AS REQUIRED FOR EQUIPMENT CONTROL AND TO INTEGRATE WITH EXISTING CONTROL SYSTEM.
5. PROVIDE COMMUNICATION INTERFACE AND PROGRAMMING AS REQUIRED TO CONVERT FROM BACNET PROTOCOL PROVIDED BY RTU CONTROL PANEL.

KEY NOTES:

1. CP PROVIDED BY SYSTEMS INTEGRATOR. FIELD WIRING AND CONDUIT PROVIDED BY ELECTRICAL CONTRACTOR.
2. CONTROL PANEL SHALL BE PROVIDED WITH AN ETHERNET PORT FOR CONNECTION OF A LAPTOP COMPUTER.



MAPLE STREET PUMP STATION

CONTROL CABLES CONDUIT SCHEDULE

# OF CABLES	ESTIMATED CONDUIT SIZE
1	1/2"
2	3/4"
3	1"
5	1 1/4"
7	1 1/2"
13	2"
18	2 1/2"
29	3"
38	3 1/2"

NOTE:
ABOVE CONDUIT SIZES DEPEND ON ACTUAL CABLES INSTALLED. VERIFY CABLE SIZES & ADJUST CONDUIT AS REQUIRED. RUN ALL CONTROL CABLES IN SEPARATE CONDUIT FROM POWER CIRCUITS. ALSO RUN SHIELDED & LAN LAN CABLES IN SEPARATE CONDUIT FROM OTHER CONTROLS. CONTRACTOR CAN SIZE CONDUIT FOR ACTUAL CABLE SIZE, PER N.E.C. FILL TABLE WITH 25% SPARE CAPACITY. SUBMIT CALCULATIONS.

1 ELECTRICAL CONTROLS

N0 SCALE

Wichita-Sedgwick County Metropolitan Area Building and Construction Department

MABCD REVIEWER:

REVIEWED FOR CODE COMPLIANCE

CORRECTIONS OR COMMENTS MADE ON THESE DRAWINGS AND THIS DOCUMENT DURING THIS REVIEW DO NOT RELIEVE CONTRACTOR FROM COMPLIANCE WITH ALL REQUIREMENTS OF THE CODE OF THE MABCD, THE CITY OF WICHITA OR SEDGWICK COUNTY. THIS REVIEW IS ONLY FOR GENERAL CONFORMANCE OF THE CODE. THE CONTRACTOR IS RESPONSIBLE FOR CONFORMING AND CORRELATING ALL TECHNIQUES OF CONSTRUCTION. THIS APPROVAL IS SUBJECT TO PROVISIONS OF SECTION 107.4 OF THE 2012 INTERNATIONAL BUILDING CODE.

DATE: 04/22/25 BY: Gary Cox

PEC
PROFESSIONAL ENGINEERING CONSULTANTS
303 SOUTH TOPEKA
WICHITA, KS 67202
316-262-2691 www.pec1.com

CITY OF WICHITA

SUSAN PATRICK GERTTY LICENSED 28753 01/28/2025 PROFESSIONAL ENGINEER KANSAS

WICHITA MAPLE STREET BOOSTER PUMP STATION

PAUL GUNZELMAN, P.E. - CITY ENGINEER
CITY OF WICHITA PROJECT NO. 448-2019-028875

Issue:	
JOB NO.	35-200810-001-0042
DATE	JANUARY 2025
PM	RWG
DESIGNED BY	DCG
DRAWN BY	JSH
CHECKED BY	SPG

ELECTRICAL CONTROLS

E-620

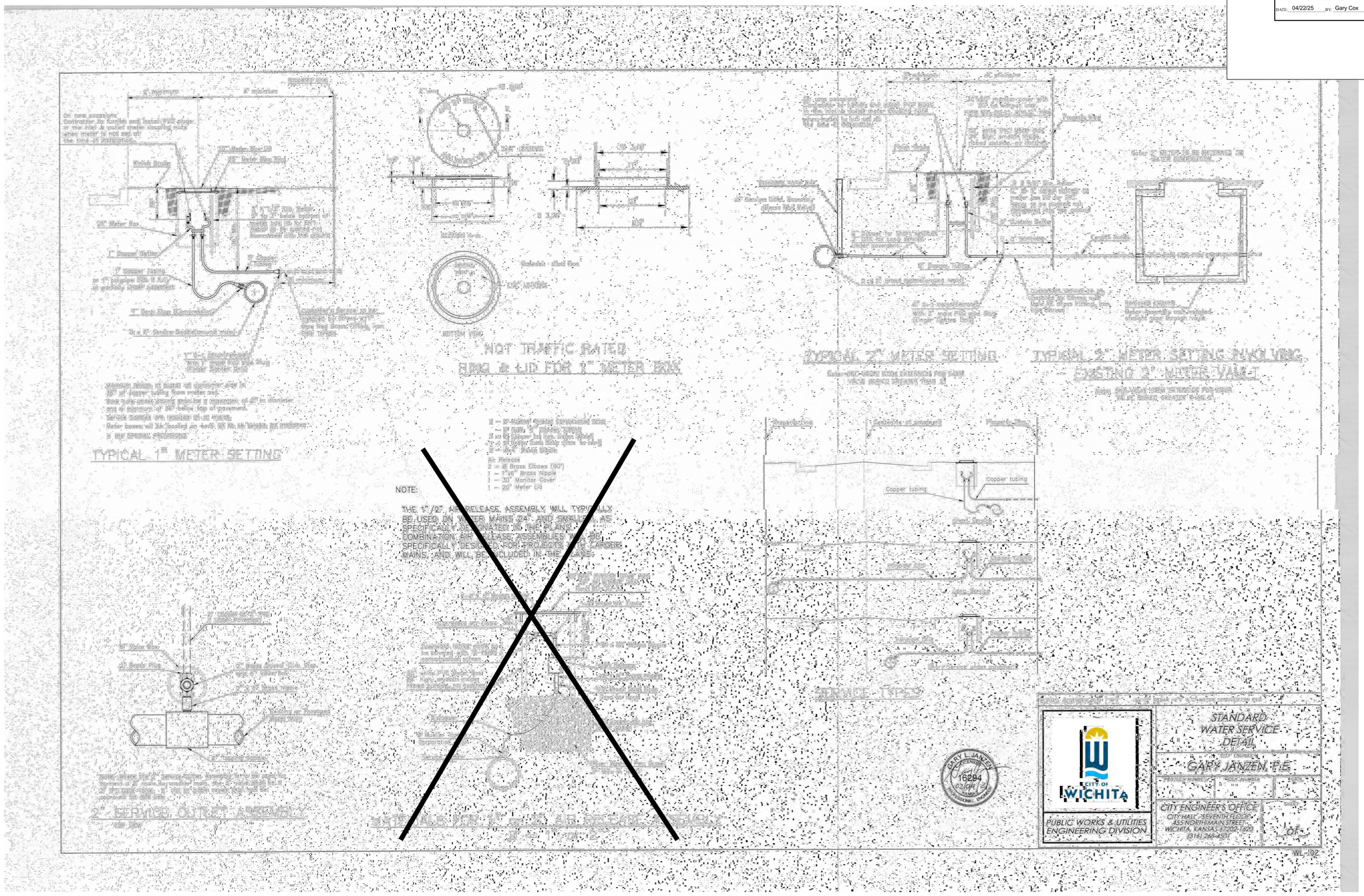
Wichita-Sedgwick County
Metropolitan Area Building
and Construction Department

MABCD REVIEWER:

REVIEWED FOR CODE COMPLIANCE

CORRECTIONS OR COMMENTS MADE ON THESE DRAWINGS AND THIS DOCUMENT DURING THIS REVIEW DO NOT RELIEVE CONTRACTOR FROM COMPLIANCE WITH ALL REQUIREMENTS OF THE CODE OF THE MABCD, THE CITY OF WICHITA OR SEDGWICK COUNTY. THIS REVIEW IS ONLY FOR GENERAL CONFORMANCE OF THE CODE. THE CONTRACTOR IS RESPONSIBLE FOR CONFORMING AND CORRELATING ALL TECHNIQUES OF CONSTRUCTION. THIS APPROVAL IS SUBJECT TO PROVISIONS OF SECTION 107.4 OF THE 2012 INTERNATIONAL BUILDING CODE.

DATE: 04/22/25 BY: Gary Cox



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CITY OF WICHITA

WICHITA MAPLE STREET BOOSTER PUMP STATION

PAUL GUNZELMAN, P.E. - CITY ENGINEER
CITY OF WICHITA PROJECT NO. 448-20190288

Issue:		

JOB NO.	35-200810-001-0042
DATE	JANUARY 2025
PM	RWG
DESIGNED BY	LY
DRAWN BY	CAE
CHECKED BY	RWG

STANDARD WATER SERVICE DETAIL

CU502

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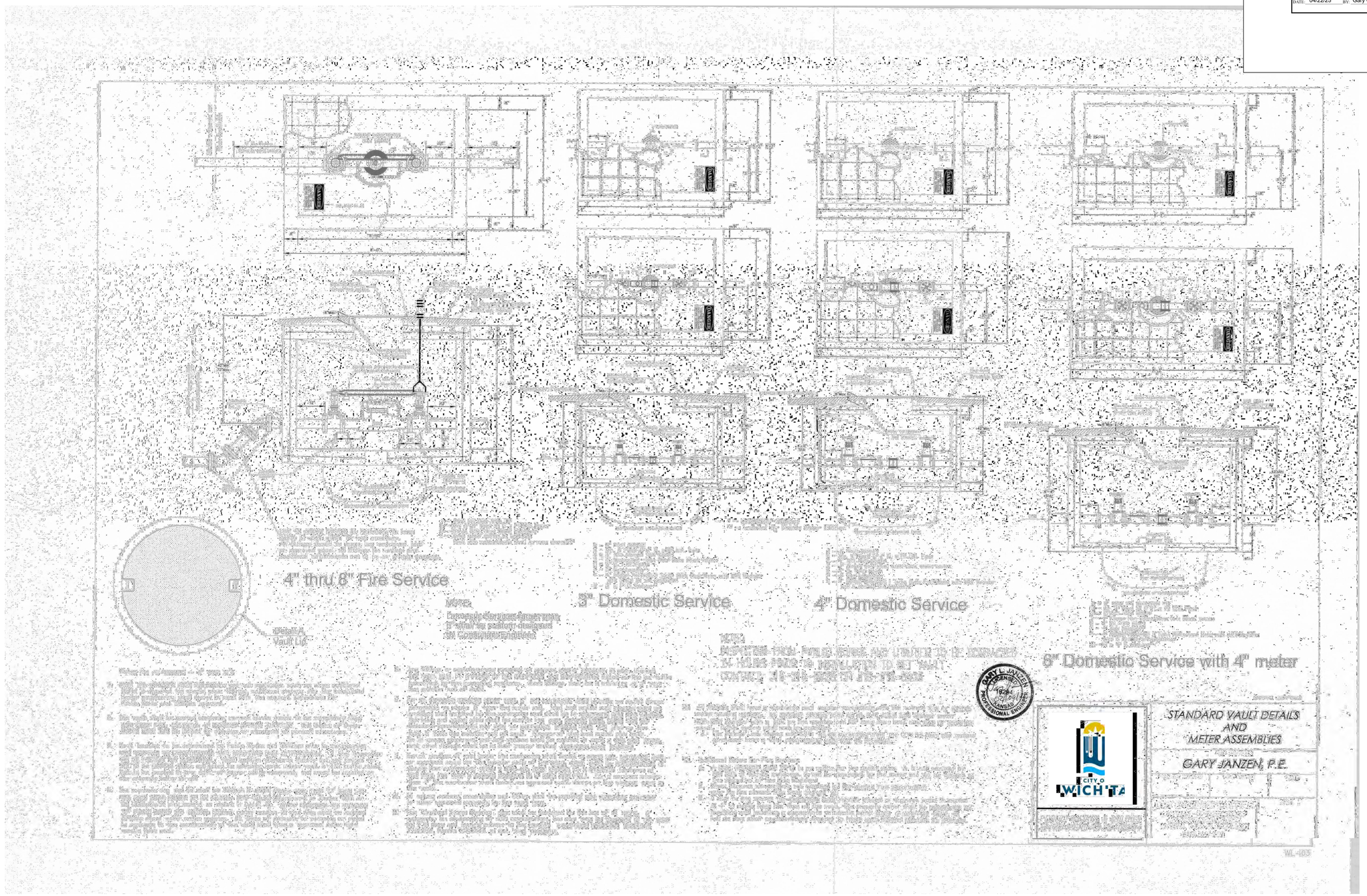

Wichita-Sedgwick County
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CITY OF WICHITA

WICHITA MAPLE STREET BOOSTER PUMP STATION

PAUL GUNZELMAN, P.E. - CITY ENGINEER
CITY OF WICHITA PROJECT NO. 448-20190-028875

Issue:		

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DATE	JANUARY 2025
PM	RWG
DESIGNED BY	LY
DRAWN BY	CAE
CHECKED BY	RWG

STANDARD VAULT DETAILS AND METER ASSEMBLIES

CU503

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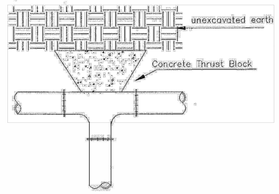
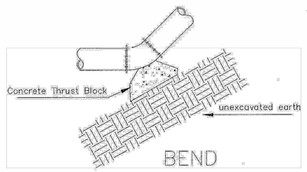
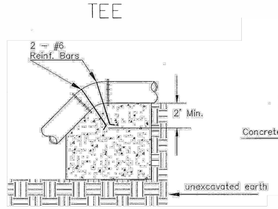


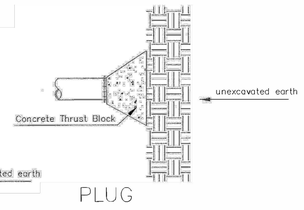
TEE



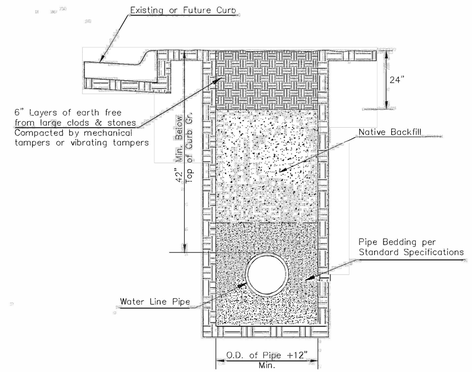
BEND



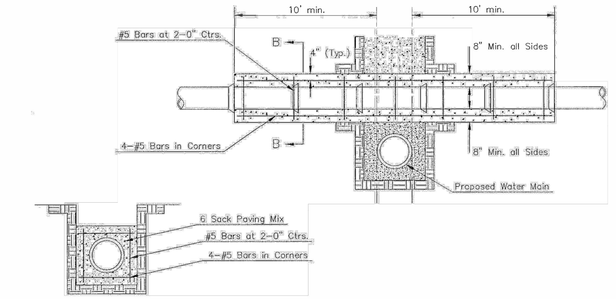
VERTICAL BEND



PLUG



TRENCH COMPACTION IN ROAD RIGHT-OF-WAY



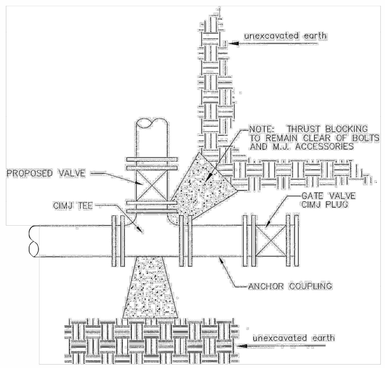
SECTION B-B

Note: Encasement to begin and end at a Bell on Sanitary Sewer Pipe.

REINFORCED CONCRETE ENCASEMENT OF SANITARY SEWER

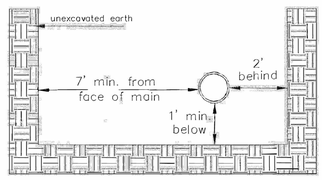
PIPE SIZE	THRUST AT FITTINGS IN TONS - AT 150#/IN^{2}P					
	PLUG	90°	45°	22 1/2°	11 1/4°	TEE
6"	2.8	3.95	2.15	1.09	.55	2.8
8"	4.9	6.95	3.75	1.90	.96	4.9
12"	11.4	16.1	8.75	4.45	2.25	11.4
16"	20.15	28.5	15.4	7.85	3.95	20.15
20"	31.15	44.0	23.85	12.15	6.10	31.15
24"	44.55	63.0	34.1	17.4	8.75	44.55

TYPICAL THRUST BLOCKS



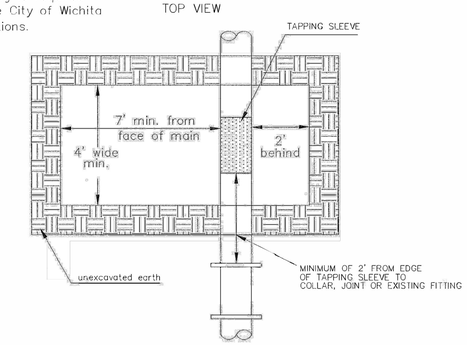
KEY BLOCK DETAIL

SIDE VIEW

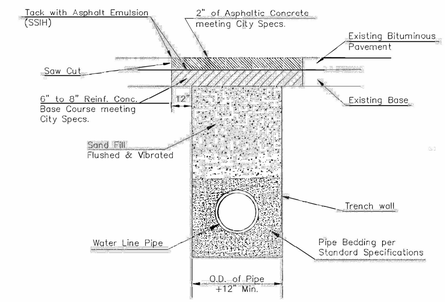


Note: When shoring is required it is to be per The City of Wichita Standard Specifications.

TOP VIEW



EXCAVATION FOR WET TAP



PAVEMENT REPLACEMENT & TRENCH COMPACTION UNDER EXISTING AND PROPOSED CITY ROADS

* PLANS GOVERN UNLESS OTHERWISE NOTED ON PLANS

GARY L. JANZEN — LICENSED — 16994 — KANSAS PROFESSIONAL ENGINEER — 01/21/25

REVISED: JULY 2015

CITY OF WICHITA
PUBLIC WORKS & UTILITIES ENGINEERING DIVISION

MISCELLANEOUS WATER DETAILS

CITY ENGINEER
GARY JANZEN, P.E..

PROJECT NUMBER	OCA NUMBER	DATE

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

SHEET

WL-104

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CITY OF WICHITA

WICHITA MAPLE STREET BOOSTER PUMP STATION

PAUL GUNZELMAN, P.E. - CITY ENGINEER
CITY OF WICHITA PROJECT NO. 448-2019-028875

Issue:		

JOB NO.	35-200810-001-0042
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MISCELLANEOUS WATER DETAILS

CU504

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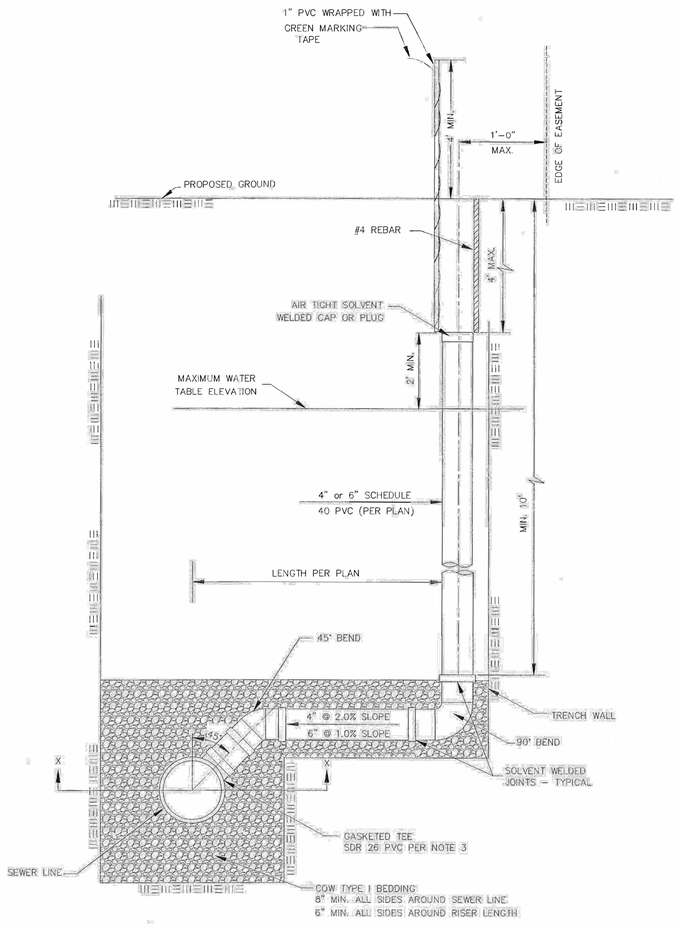
GENERAL NOTES

1. APPLICATION. Risers shall be installed to serve all lots or tracts where the sanitary sewer main is below the water table, where the sanitary sewer main depth is greater than 12' below the proposed ground elevation, where the main is adjacent to a pond or wherever service lines would have to cross under storm sewer pipe. Installation of risers because of field conditions shall be as approved by the City Engineer. The location of the risers to serve developed property shall be approved by the property owner and the Construction Engineer.
2. MANHOLE STUB RISERS. Manhole stub risers be installed in manholes where locations of manholes will provide satisfactory service connection as determined by the Construction Engineer. The vertical distance between the flowline of the manhole stub and the flowline of the sanitary sewer line out of the manhole shall not exceed 2'. Risers shall be utilized at manholes as indicated in Note 1. Manhole stub riser shall be set such that the top of the stub is not lower than the top of the sanitary sewer line.
3. SIZING. Risers shall be sized according to the plans and riser table where risers are indicated by the plans. Where risers are required because of field conditions, the risers shall be 6" diameter for commercial or industrial properties and 4" or 6" diameter for residential properties, based on lot size and sanitary sewer main depth. Sizing of risers shall be approved by the construction Engineer prior to installation.
4. RISER MATERIAL. Risers shall be constructed of Schedule 40 PVC Pipe, meeting the requirement of the latest revision of A.S.T.M.. All pipe joints shall be solvent welded. Full body tee shall be SDR 26 PVC pipe.
5. ROCK ENCASEMENT. Riser connection to clay pipe sanitary sewers shall be rock encased both ways from the riser centerline. The rock encasement shall extend three feet from the riser centerline or stop at the first sanitary sewer pipe joint within three feet of the riser centerline. Riser connections to PVC Sanitary sewer mains shall be rock encased one foot each way from the riser centerline. Crushed rock shall conform to ASTM C-33, Gradation No. 67, and shall meet all requirements for Portland Cement Concrete pavement Coarse Aggregate, Section 406.2, City of Wichita Standard Specifications.
6. BEDDING. Beyond the limits of the rock encasement, bedding around the sanitary sewer riser shall be compacted Pipe Bedding Type 1 or 2. The bedding shall be placed and compacted from the depth of the sanitary sewer main to the top of the sanitary sewer riser pipe. Compacted Pipe Bedding Type 1 or 2 shall be required for all risers whether constructed in vertical wall or sloped wall trenches. Bedding material and construction practices shall be approved by the Construction Engineer prior to installation.
7. SUPPORT OF RISERS. Sanitary sewer riser pipe shall be supported during trench backfill. The riser pipe shall be held in a vertical position at all times until trench backfill and compaction has been completed. Contractor's methods for supporting and back filling the riser pipe shall be approved by the Construction Engineer.
8. PLUGGING. The ends of the riser pipes and manhole stubs shall be plugged using an airtight solvent welded cap or plug. Cap or plug fittings shall be approved by the Construction Engineer prior to installation. Caps or plugs which do not provide an airtight seal will not be accepted.
9. TOP OF THE RISER PIPE. The top elevation of the sanitary sewer riser pipe shall be built per plan elevations, unless otherwise directed by the Construction Engineer. where riser elevations are not shown on the plans, the top of the risers shall be set at an elevation four feet below t he proposed ground surface. If ground water is encountered, the top of the riser pipe shall be set at an elevation 2' (min.) above the maximum water table elevation, regardless of the riser elevation shown on the plans.
10. MARKING. Locations of the ends of the sanitary sewer riser pipe shall be marked by installing 1" PVC from the top of the riser to a minimum of 4' above the top of finished grade. No. 4 rebar shall be placed centered over the riser from the cap to the existing ground. The 1" PVC pipe shall be wrapped with green colored plastic tape, for the full length above ground surface. The green tape shall be 4 mil Polyethylene film with a minimum width of three inches, specifically manufactured for the purpose of identification of underground sewers.
11. LOCATION MEASURES. The project inspector shall record and document the location of all risers constructed as measured from the nearest manhole, indicate the direction from the manhole, the direction and distance from the main, riser size, and elevation of the top of the riser in tabular format.
12. RISER LOCATION. the riser shall be located per plan if shown. If not shown on the plan, the riser shall be located at the center of the lot, within one foot of the property side of the easement for the lot being served. All riser locations shall be approved by the Construction Engineer prior to installation.
13. PAYMENT. "Riser Assembly, Vertical " shall be paid for at the contract unit price per each, which shall be full compensation for all pipe, fittings, marking tape, length of backfill, labor, site restoration, and any other items necessary to complete the work.

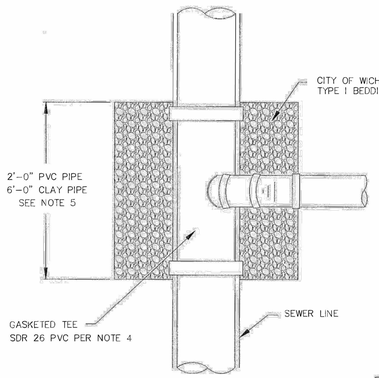
    "Riser Assembly, Manhole Stub" shall be paid for at the contract unit price per each, which shall be full compensation for all labor material and incidentals necessary to complete the work including all pipe, fittings, rock encasement, and all other items as required and listed for "Riser Assembly, Vertical "



NOTE: RISER PIPE REQUIREMENTS AT MANHOLE CONNECTION SHALL BE SIMILAR TO THOSE SHOWN ABOVE.

SANITARY SEWER RISER TABLE							FOR INFORMATION ONLY	
		LOCATION					APPROXIMATE LENGTH	
NUMBER	TYPE	LOT NO.	BLOCK NO.	LINE NO.	STATION	DIRECTION	VERTICAL (FT)	HORIZONTAL (FT)
1	4" MANHOLE CONNECTION							
2	6" MANHOLE CONNECTION							
3	4" TEE							
4	6" TEE							

NOTE: TABLE FOR REFERENCE ONLY AND SHOULD BE ON EACH APPLICABLE PLAN SHEET.



NOTE:
NON SHEAR COUPLING TO BE USED WHEN HOOKING TO CLAY PIPE.

TYPICAL SECTION X-X

GARY L. JANZEN LICENSED 16264 KANSAS PROFESSIONAL ENGINEER
07/21/15

REVISED: JULY 2015

SS-103

CITY OF WICHITA
PUBLIC WORKS & UTILITIES ENGINEERING DIVISION

VERTICAL RISER ASSEMBLY SEWER DETAIL

CITY ENGINEER
GARY JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE

CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202-1620
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PAUL GUNZELMAN, P.E. - CITY ENGINEER
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VERTICAL RISER ASSEMBLY SEWER DETAIL

CU505

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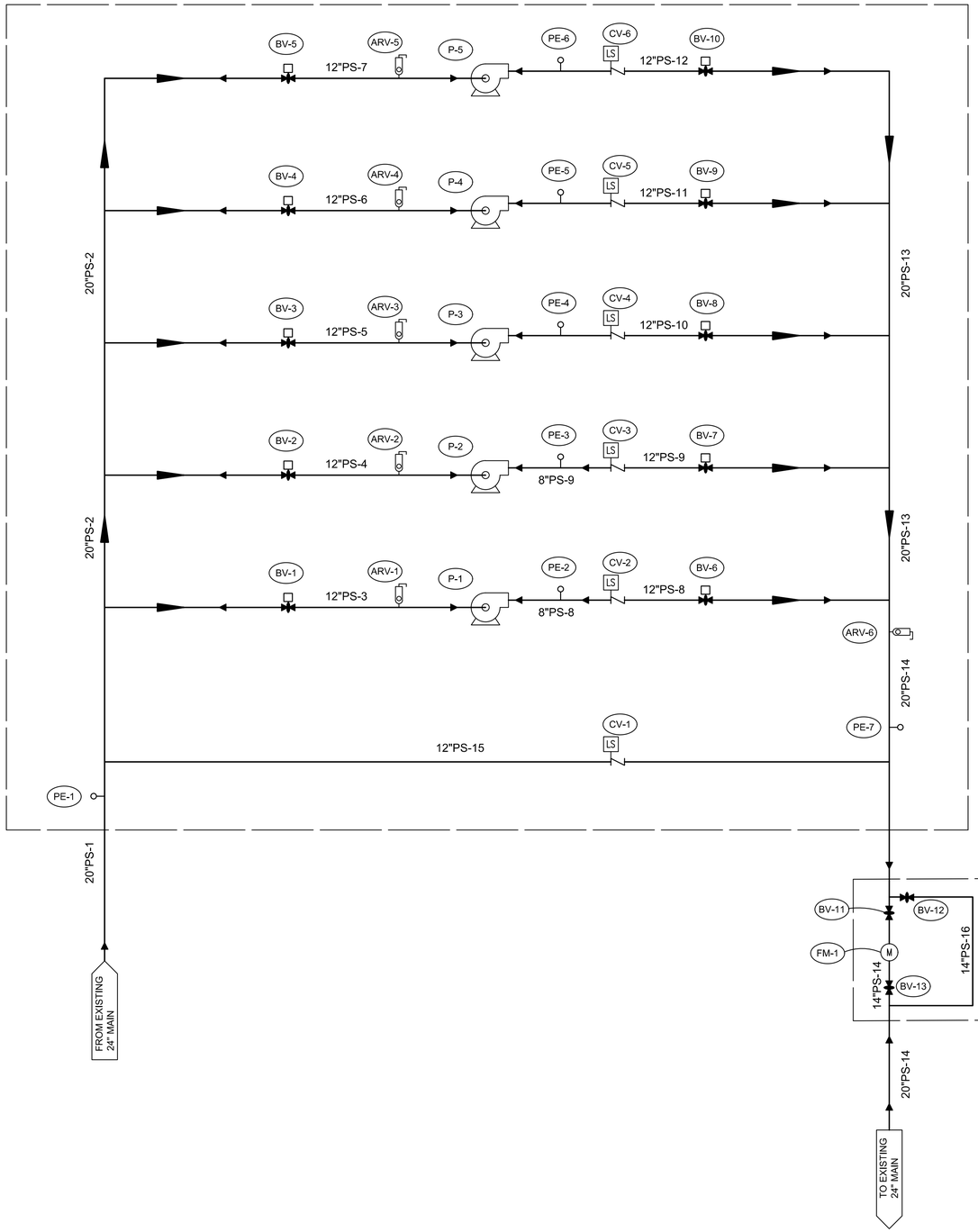

LEGEND

- BV- — BUTTERFLY VALVE W/ OPERATOR
- CV- — CHECK VALVE
- PE- — PRESSURE GAUGE
- FM- — FLOW METER
- P- — PUMP
- ARV- — AIR AND VACUUM RELIEF VALVE
- LS — LIMIT SWITCH
- REDUCER
- PROPOSED PIPE
- DIRECTION OF FLOW
- 8"PS-8 — PIPE DESIGNATION

Wichita-Sedgwick County
Metropolitan Area Building
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CITY OF WICHITA

RYAN WILLIAM GUNZELMAN
LICENSED
23090
01/22/2025
KANSAS
PROFESSIONAL ENGINEER

WICHITA MAPLE STREET BOOSTER PUMP STATION

PAUL GUNZELMAN, P.E. - CITY ENGINEER
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BOOSTER PUMP STATION CONTROLS P&ID

DI001

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DATE 04/22/25 BY Gary Cox

CHECK VALVE SCHEDULE

MARK	LOCATION	STATUS	SIZE	FITTINGS	OPERATOR	ACCESSORIES	SPEC.SECTION
CV-1	BYPASS LINE	NEW	20"	FL	SPRING AND LEVER	LIMIT SWITCH	33 12 16
CV-2	P-1 DISCHARGE	NEW	12"	FL	SPRING AND LEVER	LIMIT SWITCH	33 12 16
CV-3	P-2 DISCHARGE	NEW	12"	FL	SPRING AND LEVER	LIMIT SWITCH	33 12 16
CV-4	P-3 DISCHARGE	NEW	12"	FL	SPRING AND LEVER	LIMIT SWITCH	33 12 16
CV-5	P-4 DISCHARGE	NEW	12"	FL	SPRING AND LEVER	LIMIT SWITCH	33 12 16
CV-6	P-5 DISCHARGE	NEW	12"	FL	SPRING AND LEVER	LIMIT SWITCH	33 12 16

COMBINATION AIR RELEASE / VACUUM VALVE SCHEDULE

MARK	LOCATION	STATUS	SIZE	FITTING
ARV-1	PUMP 1 SUCTION	NEW	2"	FL
ARV-2	PUMP 2 SUCTION	NEW	2"	FL
ARV-3	PUMP 3 SUCTION	NEW	2"	FL
ARV-4	PUMP 4 SUCTION	NEW	2"	FL
ARV-5	PIUMP 5 SUCTION	NEW	2"	FL
ARV-6	PUMP DISCHARGE HEADER	NEW	3"	FL

FLOW METER SCHEDULE

MARK	LOCATION	STATUS	SIZE	FITTINGS	TYPE	SPEC. SECTION
FM-1	PUMP DISCHARGE VALVE VAULT (YARD)	NEW	14"	FL	MAGNETIC FLOW	43 21 29

BUTTERFLY VALVE SCHEDULE

MARK	LOCATION	STATUS	SIZE	FITTINGS	OPERATOR
BV-1	P-1 SUCTION	NEW	12"	FL	GEARED OPERATOR W/ HANDWHEEL
BV-2	P-2 SUCTION	NEW	12"	FL	GEARED OPERATOR W/ HANDWHEEL
BV-3	P-3 SUCTION	NEW	12"	FL	GEARED OPERATOR W/ HANDWHEEL
BV-4	P-4 SUCTION	NEW	12"	FL	GEARED OPERATOR W/ HANDWHEEL
BV-5	P-5 SUCTION	NEW	12"	FL	GEARED OPERATOR W/ HANDWHEEL
BV-6	P-1 DISCHARGE	NEW	12"	FL	GEARED OPERATOR W/ HANDWHEEL
BV-7	P-2 DISCHARGE	NEW	12"	FL	GEARED OPERATOR W/ HANDWHEEL
BV-8	P-3 DISCHARGE	NEW	12"	FL	GEARED OPERATOR W/ HANDWHEEL
BV-9	P-4 DISCHARGE	NEW	12"	FL	GEARED OPERATOR W/ HANDWHEEL
BV-10	P-5 DISCHARGE	NEW	12"	FL	GEARED OPERATOR W/ HANDWHEEL
BV-11	PUMP DISCHARGE HEADER	NEW	14"	FL	2" NUT WITH VALVE STEM
BV-12	FLOW METER BYPASS LINE	NEW	14"	FL	2" NUT WITH VALVE STEM
BV-13	PUMP DISCHARGE HEADER	NEW	14"	FL	2" NUT WITH VALVE STEM

PRESSURE ELEMENT SCHEDULE

MARK	LOCATION	STATUS	INDICATOR	TRANSMITTER	PS-LOW	PS - HIGH	DIAPHRAGM	Range (PSI)	SPEC. SECTION
PE-1	PUMP SUCTION HEADER	NEW	X	X	X		X	0-150	43 21 31
PE-2	P-1 DISCHARGE	NEW	X					0-150	43 21 31
PE-3	P-2 DISCHARGE	NEW	X					0-150	43 21 31
PE-4	P-3 DISCHARGE	NEW	X					0-150	43 21 31
PE-5	P-4 DISCHARGE	NEW	X					0-150	43 21 31
PE-6	P-5 DISCHARGE	NEW	X					0-150	43 21 31
PE-7	PUMP DISCHARGE HEADER	NEW	X	X		X	X	0-150	43 21 31

PUMP SCHEDULE

MARK	LOCATION	STATUS	NAME	TYPE	MINIMUM CAPACITY		EFFICIENCY	MIN. SIZE CONNECTION		MOTOR				SPEC. SECTION
					GPM	FT. HEAD		SUCTION	DISCHARGE	HP	RPM	SPEED	ELECTRICAL	
P-1	PUMP ROOM	NEW	POTABLE WATER	SPLIT CASE	537	111	70%	5"	3"	25	1780	VARIABLE	460/60/3	43 23 13
P-2	PUMP ROOM	NEW	POTABLE WATER	SPLIT CASE	537	111	70%	5"	3"	25	1780	VARIABLE	460/60/3	43 23 13
P-3	PUMP ROOM	NEW	POTABLE WATER	SPLIT CASE	1150	146	80%	6"	5"	75	1780	VARIABLE	460/60/3	43 23 13
P-4	PUMP ROOM	NEW	POTABLE WATER	SPLIT CASE	1150	146	80%	6"	5"	75	1780	VARIABLE	460/60/3	43 23 13
P-5	PUMP ROOM	NEW	POTABLE WATER	SPLIT CASE	1150	146	80%	6"	5"	75	1780	VARIABLE	460/60/3	43 23 13

PIPE SCHEDULE

MARK	STATUS	TYPE	FITTING	SIZE	LINE DESCRIPTION
PS-1	NEW	DI	FL	20"	SUCTION LINE
PS-2	NEW	DI	FL	20"	SUCTION HEADER
PS-3	NEW	DI	FL	12"	P-1 SUCTION LINE
PS-4	NEW	DI	FL	12"	P-2 SUCTION LINE
PS-5	NEW	DI	FL	12"	P-3 SUCTION LINE
PS-6	NEW	DI	FL	12"	P-4 SUCTION LINE
PS-7	NEW	DI	FL	12"	P-5 SUCTION LINE
PS-8	NEW	DI	FL	8"/ 12"	P-1 DISCHARGE LINE
PS-9	NEW	DI	FL	8"/ 12"	P-2 DISCHARGE LINE
PS-10	NEW	DI	FL	12"	P-3 DISCHARGE LINE
PS-11	NEW	DI	FL	12"	P-4 DISCHARGE LINE
PS-12	NEW	DI	FL	12"	P-5 DISCHARGE LINE
PS-13	NEW	DI	FL	20"	DISCHARGE HEADER
PS-14	NEW	DI	FL	20"/ 14"	DISCHARGE LINE
PS-15	NEW	DI	FL	14"	PUMP STATION BYPASS LINE
PS-16	NEW	DI	FL	14"	FLOW METER BYPASS LINE

NOTE: CONTRACTOR HAS THE OPTION TO USE WELDED STAINLESS STEEL PIPING OR FLANGED DUCTILE IRON PIPE FOR INTERIOR PIPES. PIPING SHALL MEET PROJECT SPECIFICATIONS. DUCTILE IRON SHALL BE USED FOR THE TRANSITION BETWEEN THE BELOW-GROUND PIPING INTO THE BUILDING, AND STAINLESS STEEL SHALL BE ALLOWED AT THE FIRST FLANGED CONNECTION TO THE DUCTILE IRON WITHIN THE BUILDING.

PIPE LEGEND
NOTE: NO BURIED PIPING TO BE PAINTED
LEGEND
DI - DUCTILE IRON
FL - FLANGED JOINT

MOTOR DRIVEN HOIST AND TROLLEY SCHEDULE

MARK	LOCATION	STATUS	CAPACITY (TON)	MIN. LIFT HEIGHT (FT)	MIN. LIFT SPEED	MAX HOIST HP	MAX TROLLEY HP	ELECTRICAL	SPEC. SECTION
H-1	PUMP ROOM	NEW	1	17	10	1.2	0.54	460/60/3	14 00 00

CHLORINE ANALYZER SCHEDULE

MARK	LOCATION	STATUS	SPEC. SECTION
CLA-1	PUMP ROOM	NEW	43 21 37

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CITY OF WICHITA

WICHITA MAPLE STREET BOOSTER PUMP STATION

PAUL GUNZELMAN, P.E. - CITY ENGINEER
CITY OF WICHITA PROJECT NO. 448-2019-028875

Issue:

JOB NO.	35-200810-001-0042
DATE	JANUARY 2025
PM	RWG
DESIGNED BY	LY
DRAWN BY	CAE
CHECKED BY	RWG

EQUIPMENT SCHEDULES

DI601

Wichita-Sedgwick County Metropolitan Area Building and Construction Department

MABCD REVIEWER:

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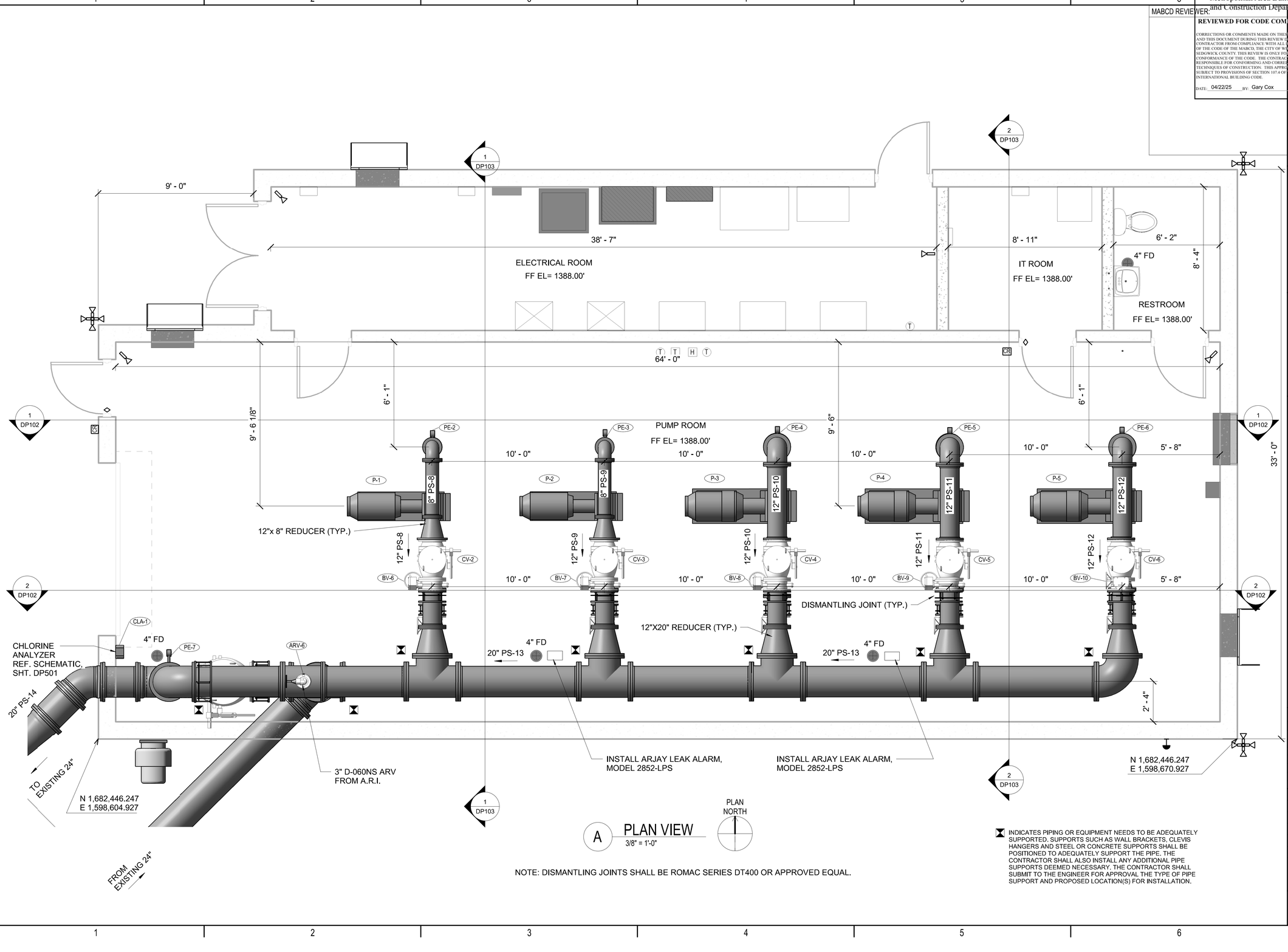
CITY OF WICHITA

WILLIAM GLEASON LICENSED 23090 01/22/2025 KANSAS PROFESSIONAL ENGINEER

WICHITA MAPLE STREET BOOSTER PUMP STATION

PAUL GUNZELMAN, P.E - CITY ENGINEER
CITY OF WICHITA PROJECT NO. 448-2019-028875



A PLAN VIEW
3/8" = 1'-0"

PLAN NORTH

NOTE: DISMANTLING JOINTS SHALL BE ROMAC SERIES DT400 OR APPROVED EQUAL.

INDICATES PIPING OR EQUIPMENT NEEDS TO BE ADEQUATELY SUPPORTED. SUPPORTS SUCH AS WALL BRACKETS, CLEVIS HANGERS AND STEEL OR CONCRETE SUPPORTS SHALL BE POSITIONED TO ADEQUATELY SUPPORT THE PIPE. THE CONTRACTOR SHALL ALSO INSTALL ANY ADDITIONAL PIPE SUPPORTS DEEMED NECESSARY. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR APPROVAL THE TYPE OF PIPE SUPPORT AND PROPOSED LOCATION(S) FOR INSTALLATION.

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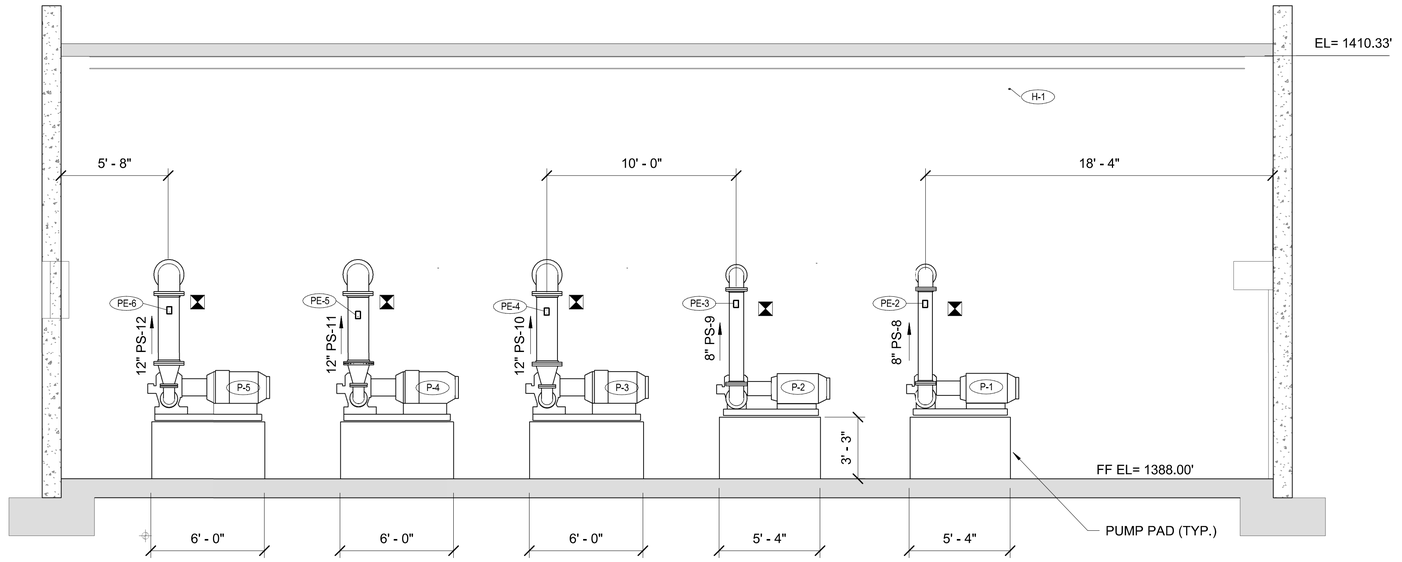
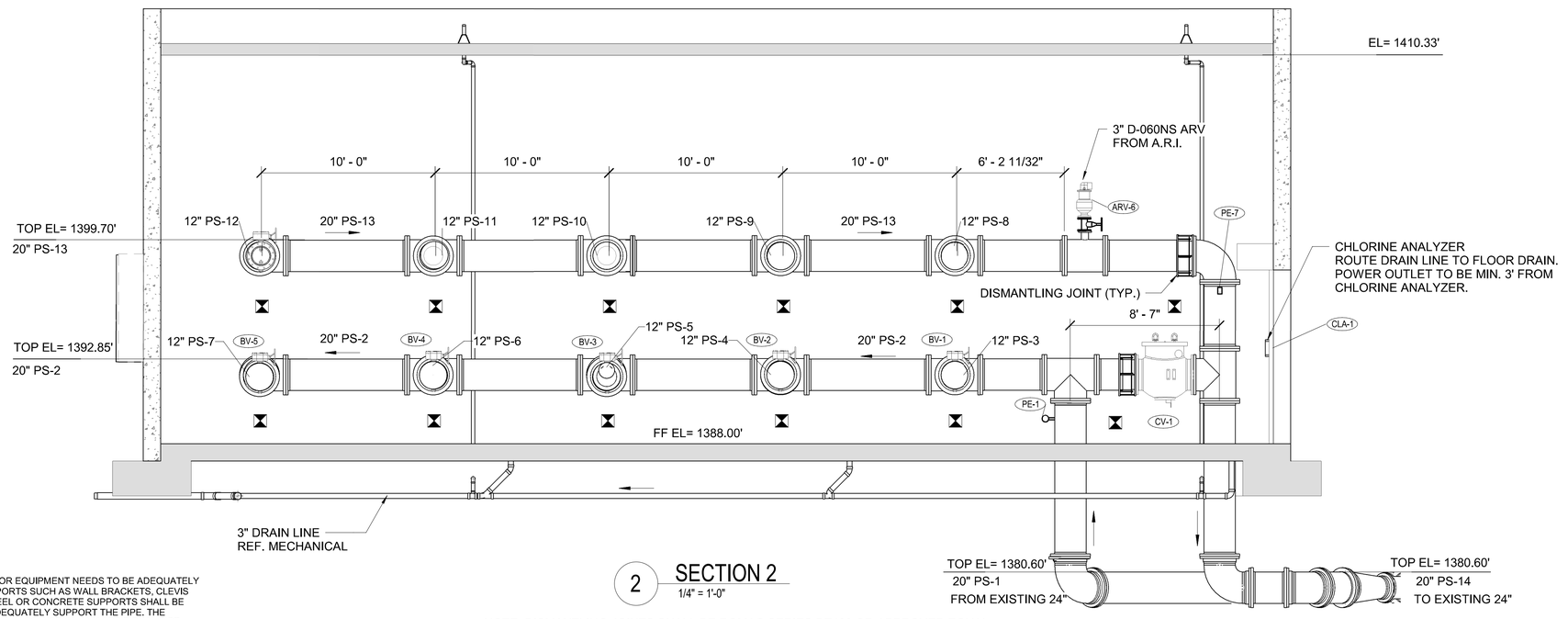
PUMP STATION PLAN

DP101

1/20/2025 9:38:13 AM
Autodesk Docs://200810-001 - COW Maple Booster Pump Station/200810-001_MUNI_PS_R22.rvt



1 SECTION 1
1/4" = 1'-0"



2 SECTION 2
1/4" = 1'-0"

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CITY OF WICHITA

WICHITA MAPLE STREET BOOSTER PUMP STATION

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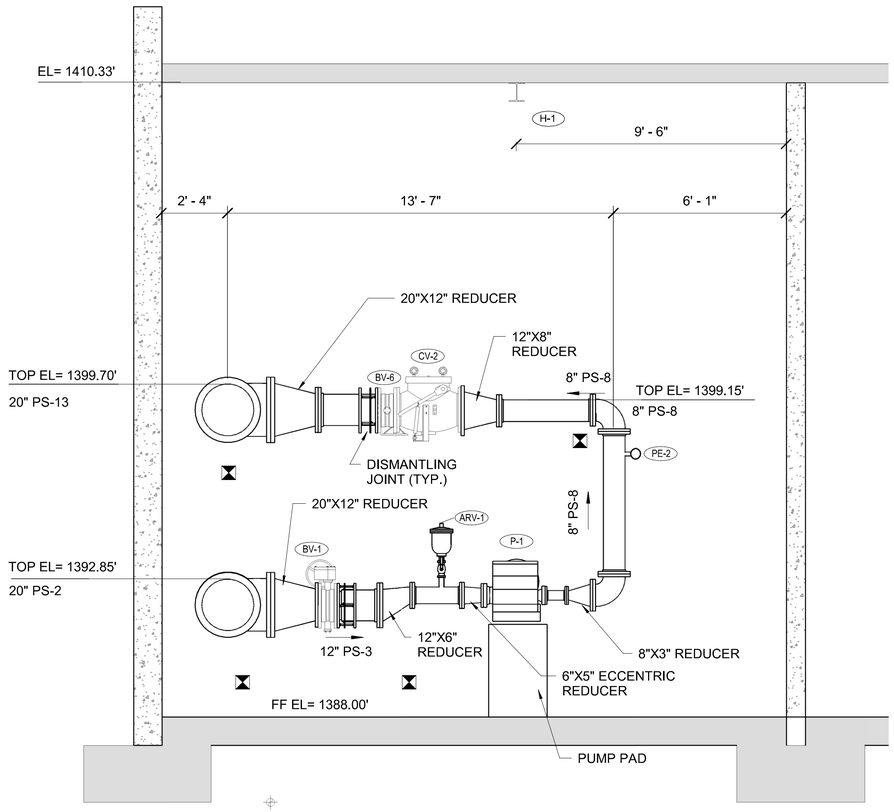
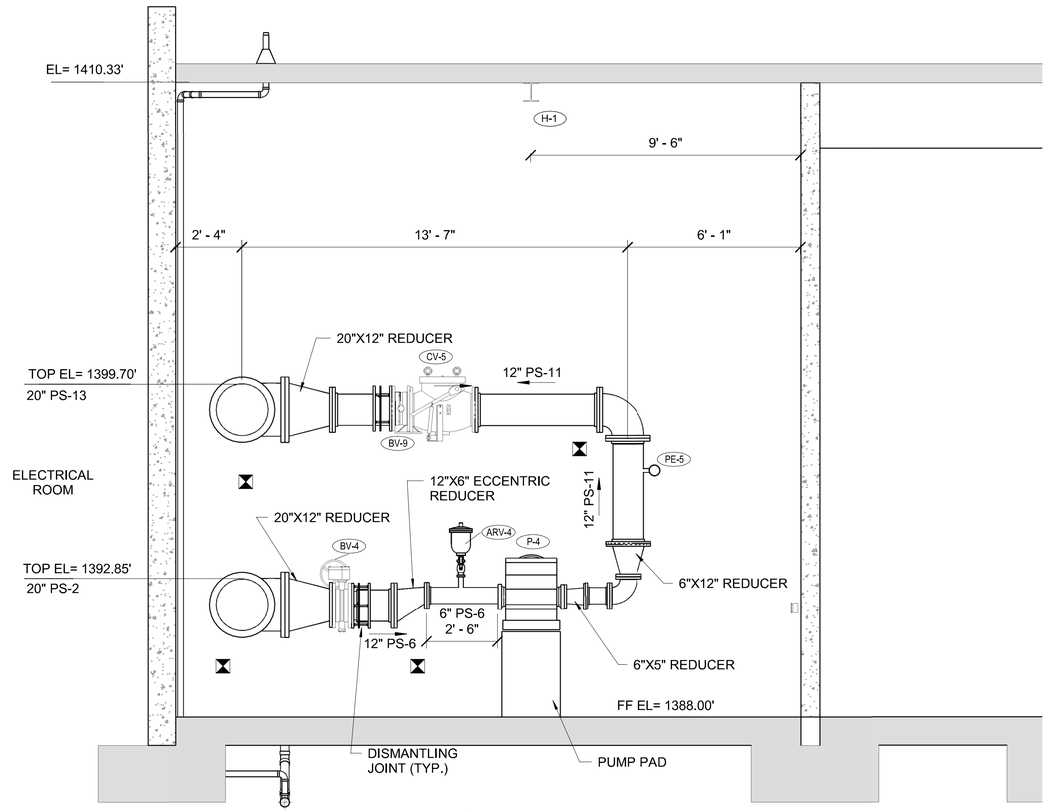
SECTIONS

DP102



1 SECTION 3
3/8" = 1'-0"



2 SECTION 4
3/8" = 1'-0"

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SECTIONS

DP103

1/20/2025 9:38:16 AM
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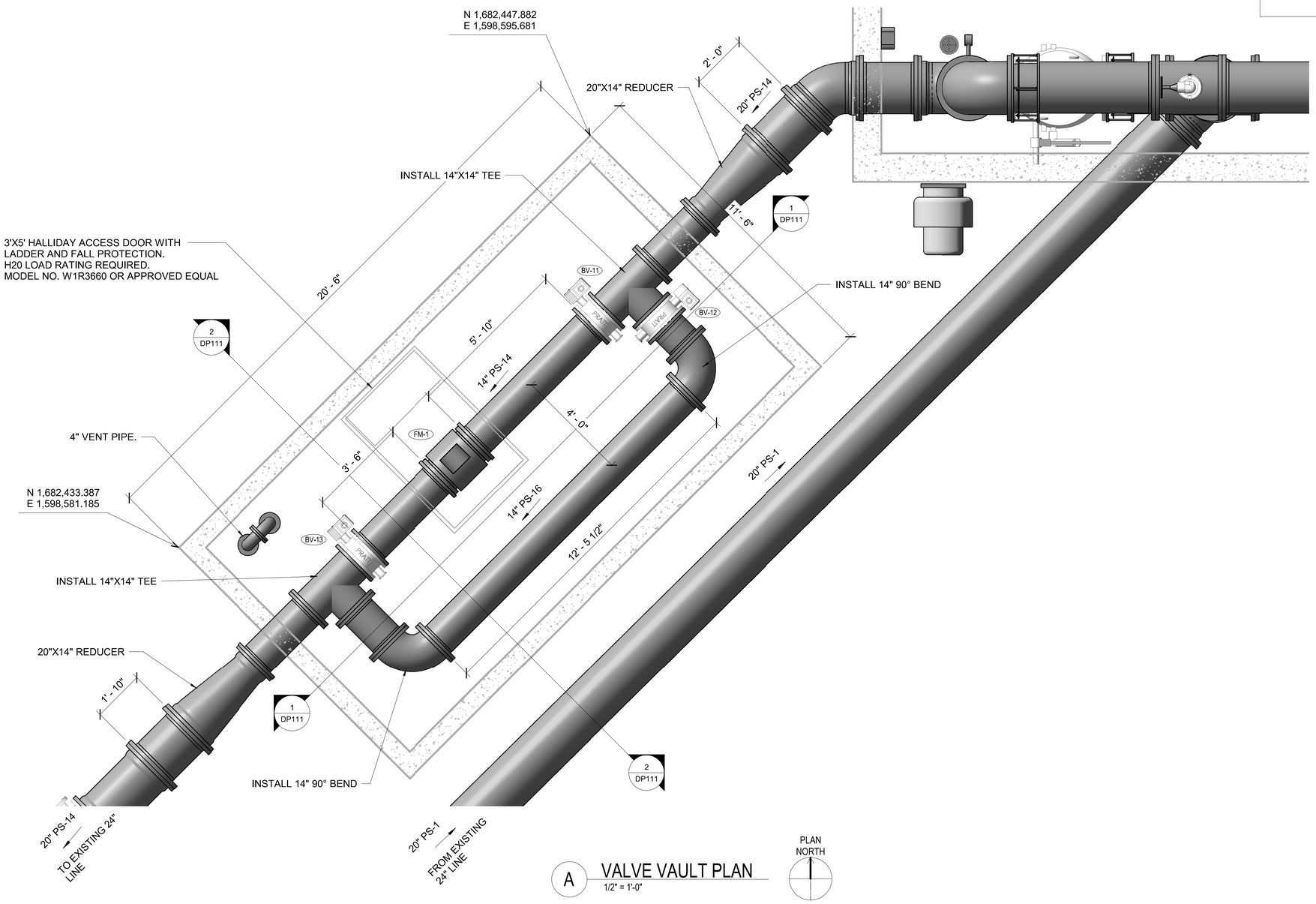

A VALVE VAULT PLAN
1/2" = 1'-0"

PLAN NORTH

Wichita-Sedgwick County
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CITY OF WICHITA

BRIAN WILLIAM GLESSNER LICENSED 23090 01/22/2025 KANSAS PROFESSIONAL ENGINEER

WICHITA MAPLE STREET BOOSTER PUMP STATION

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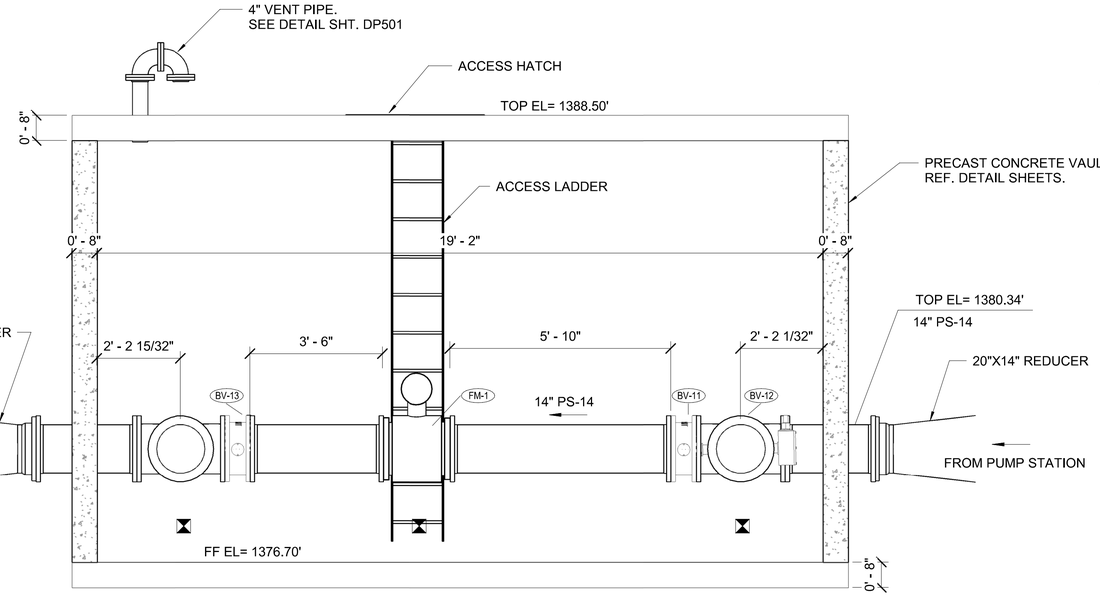
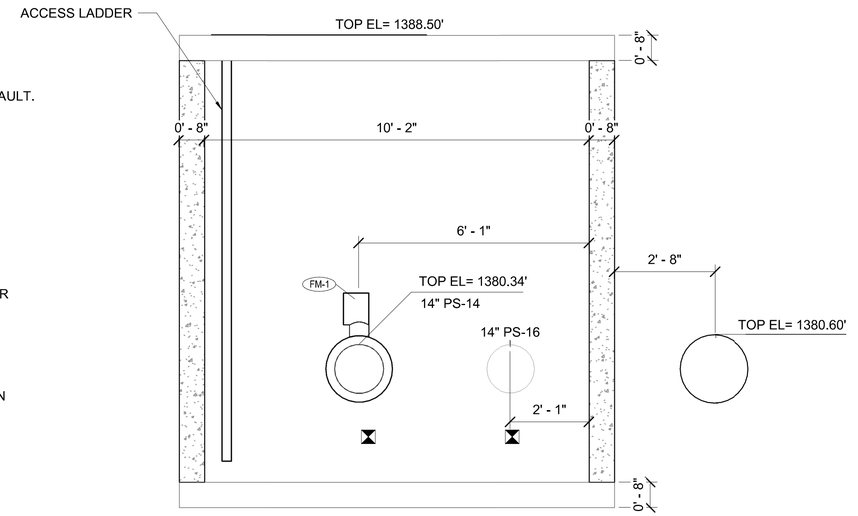
VALVE VAULT PLAN

DP110

1/20/2025 9:38:17 AM
Autodesk Docs://200810-001 - COW Maple Booster Pump Station/200810-001_MUNI_PS_R22.rvt



1 VAULT SECTION 1
1/2" = 1'-0"



2 VAULT SECTION 2
1/2" = 1'-0"

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CITY OF WICHITA

RYAN WILLIAM GLESSNER
LICENSED
23090
01/22/2025
KANSAS
PROFESSIONAL ENGINEER

WICHITA MAPLE STREET BOOSTER PUMP STATION

PAUL GUNZELMAN, P.E. - CITY ENGINEER
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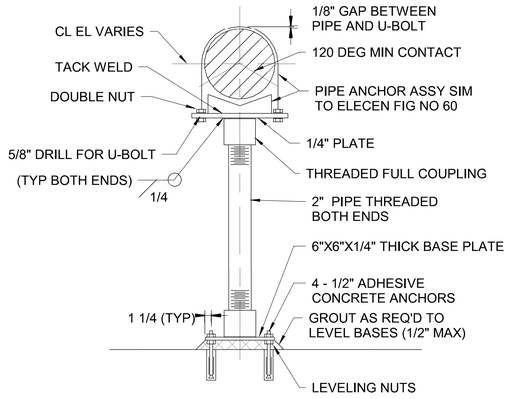
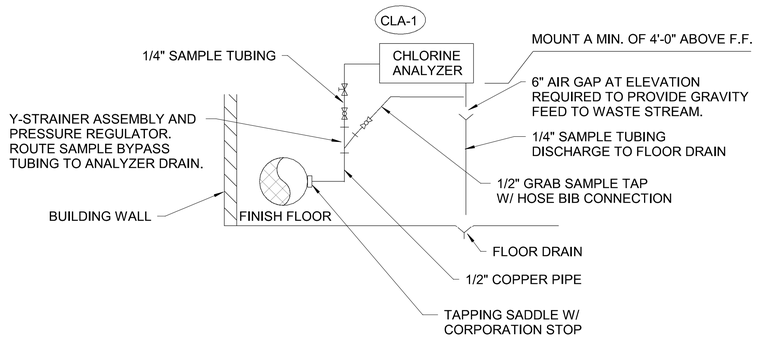
VALVE VAULT SECTIONS

DP111

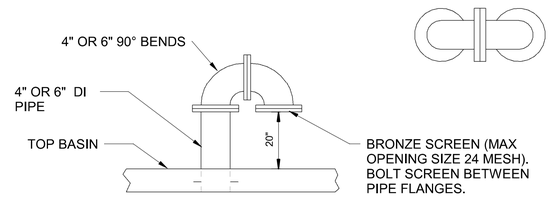


NOTE:
PROVIDE PIPE STRAP IN LIEU OF U-BOLT WHERE INDICATED.

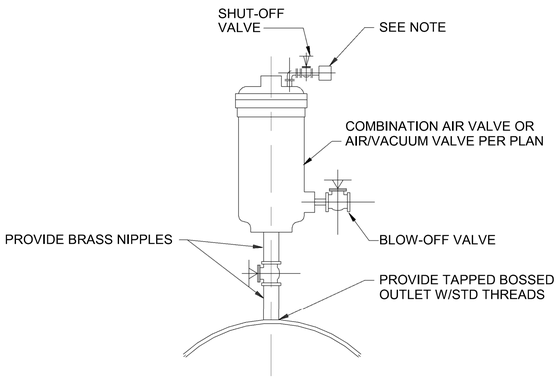
1 FLOOR PIPE SUPPORT DETAIL
NOT TO SCALE



2 CHLORINE ANALYZER SCHEMATIC
NOT TO SCALE

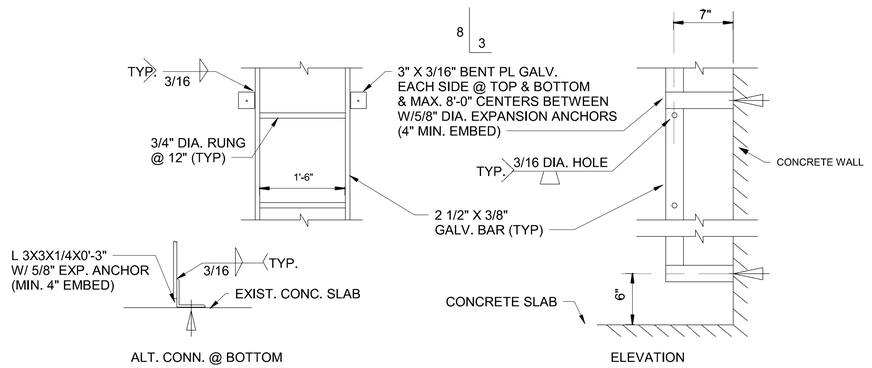


3 4" OR 6" AIR VENT DETAIL
NOT TO SCALE



NOTE:
1. ROUTE ALL DISCHARGES TO THE NEAREST TRENCH OR FLOOR DRAIN AND TERMINATE 6 INCHES ABOVE.

4 AIR VALVE DETAIL
NOT TO SCALE



5 TYP. LADDER DETAILS
NOT TO SCALE

Wichita-Sedgwick County Metropolitan Area Building and Construction Department

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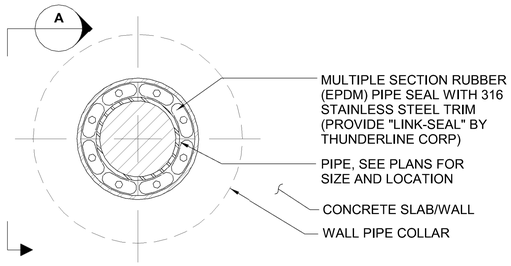
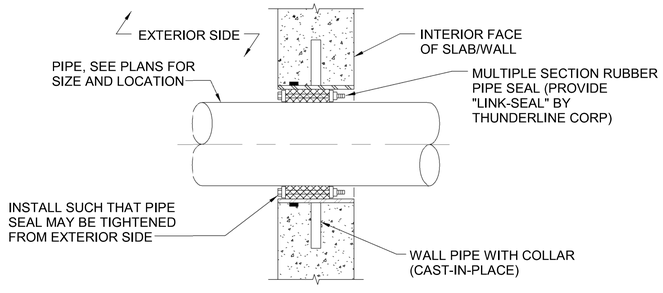
PROCESS DETAILS

DP501

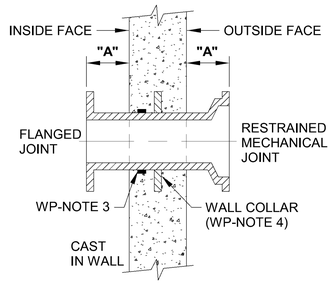


FRONT ELEVATION



1 PIPE PENETRATION - WALL PIPE AND LINK SEAL

NOT TO SCALE



WP-2

NEW WALL

WP-NOTES:

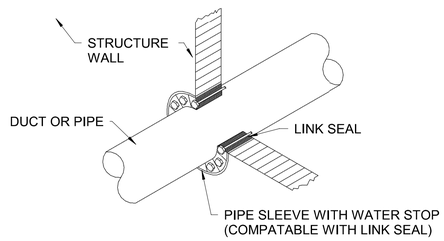
1. BREAK OUT, OR CORE DRILL WALL, A MINIMUM OF TWO (2) INCHES LARGER THAN WALL COLLAR, OR SYNKO-FLEX PLASTIC WATER STOP; THEN, INSTALL WALL PIPE AND/OR SYNKO-FLEX PLASTIC WATER STOP AND GROUT IN PLACE.
2. EPOXY BONDING AGENT SHALL BE APPLIED TO ALL CONCRETE SURFACES TO BE GROUTED.
3. SYNKO-FLEX PLASTIC WATER STOP. LOCATE ON THE INSIDE FACE "SIDE" OF THE PIPE PENETRATION WITH MINIMUM 2" CLEAR TO FACE OF CONCRETE. LOCATE BETWEEN OUTSIDE DIAMETER OF PIPE AND INSIDE EDGE OF WALL SURFACE. APPLICABLE AT ALL WATER AND WASTEWATER CONTAINING STRUCTURES.
4. WALL COLLAR SHALL BE LOCATED IN CENTER OF THE WALL.

WALL PIPE SCHEDULE	
PIPE DIAMETER	"A" *
2"	4"
4" THRU 12"	6"
14" THRU 20"	8"
24" THRU 30"	10"
36" THRU 48"	12"

* UNLESS NOTED OTHERWISE

2 PIPE PENETRATION - WALL PIPE

NOT TO SCALE



3 LINK SEAL DETAIL

NOT TO SCALE

Wichita-Sedgwick County Metropolitan Area Building and Construction Department

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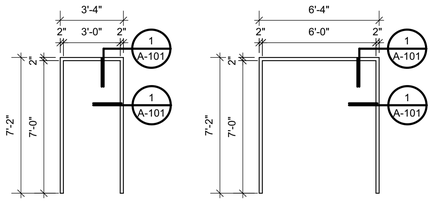
PROCESS DETAILS

DP502



HOLLOW METAL PAINTED

A

HOLLOW METAL PAINTED

B

FRAME TYPES

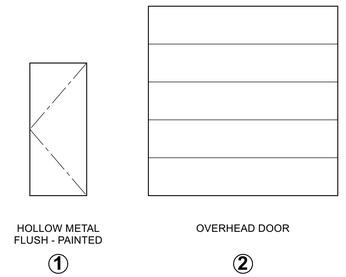
Scale: 1/4" = 1'-0"

ROOM FINISH SCHEDULE

RM NO.	ROOM NAME	FLOOR		BASE		WALLS								CEILING			REMARKS
		MAT	FIN	MAT	FIN	N. MAT	N. FIN	E. MAT	E. FIN	S. MAT	S. FIN	W. MAT	W. FIN	MAT	FIN	HT	
100	PUMP ROOM	CONC	SEAL	CONC	SEAL	CONC	-	CONC	-	CONC	-	CONC	-	STRUCT	-	-	
101	ELECTRICAL	CONC	SEAL	CONC	SEAL	CONC	-	CONC	-	CONC	-	CONC	-	STRUCT	-	-	
102	SERVER	CONC	SEAL	CONC	SEAL	CONC	-	OSB	-	CONC	-	OSB	-	WD	GB	9'-0"	
103	TOILET	CONC	SEAL	CONC	SEAL	CONC	-	CONC	-	CONC	-	OSB	-	WD	GB	9'-0"	

DOOR SCHEDULE

MARK	DOORS						FRAME					HDW	LABEL	REMARKS
	TYPE	MAT	WIDTH	HEIGHT	THKNS	GLASS	TYPE	MAT	JAMB	HEAD	THRT			
100A	1	HM	3'-0"	7'-0"	1 3/4"	-	A	HM	1/A-101	1/A-101	-	-	-	ELECTRONIC CARD READING DEVICE
100B	2	STL	10'-0"	10'-0"	-	-	-	-	4/A-101	3/A-101	-	-	-	OVERHEAD COILING DOOR
100C	1	HM	3'-0"	7'-0"	1 3/4"	-	A	HM	1/A-101	1/A-101	-	-	-	
101A	1	HM	(2) 3'-0"	7'-0"	1 3/4"	-	B	HM	1/A-101	1/A-101	-	-	-	
101B	1	HM	3'-0"	7'-0"	1 3/4"	-	A	HM	1/A-101	1/A-101	-	-	-	ELECTRONIC CARD READING DEVICE
102	1	HM	3'-0"	7'-0"	1 3/4"	-	A	HM	1/A-101	1/A-101	-	-	-	
103	1	HM	3'-0"	7'-0"	1 3/4"	-	A	HM	1/A-101	1/A-101	-	-	-	



HOLLOW METAL FLUSH - PAINTED

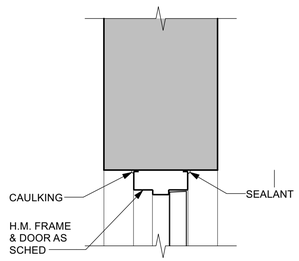
①

OVERHEAD DOOR

②

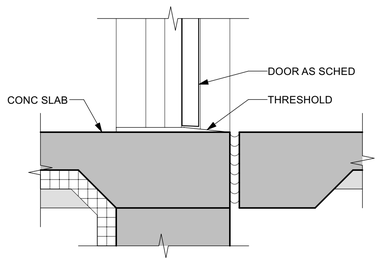
DOOR TYPES

Scale: 1/4" = 1'-0"



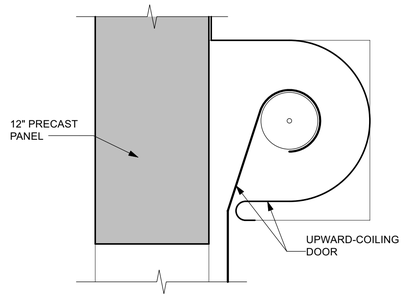
1 HEAD (JAMB SIM.)

1 1/2" = 1'-0"



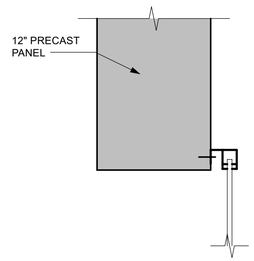
2 SILL

1 1/2" = 1'-0"



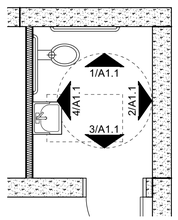
3 HEAD

1 1/2" = 1'-0"



4 JAMB

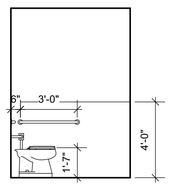
1 1/2" = 1'-0"



N

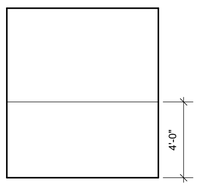
FLOOR PLAN

Scale: 1/4" = 1'-0"



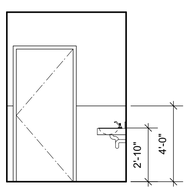
1 R/R 103

1/4" = 1'-0"



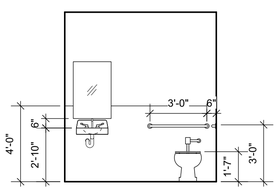
2 R/R 103

1/4" = 1'-0"



3 R/R 103

1/4" = 1'-0"



4 R/R 103

1/4" = 1'-0"

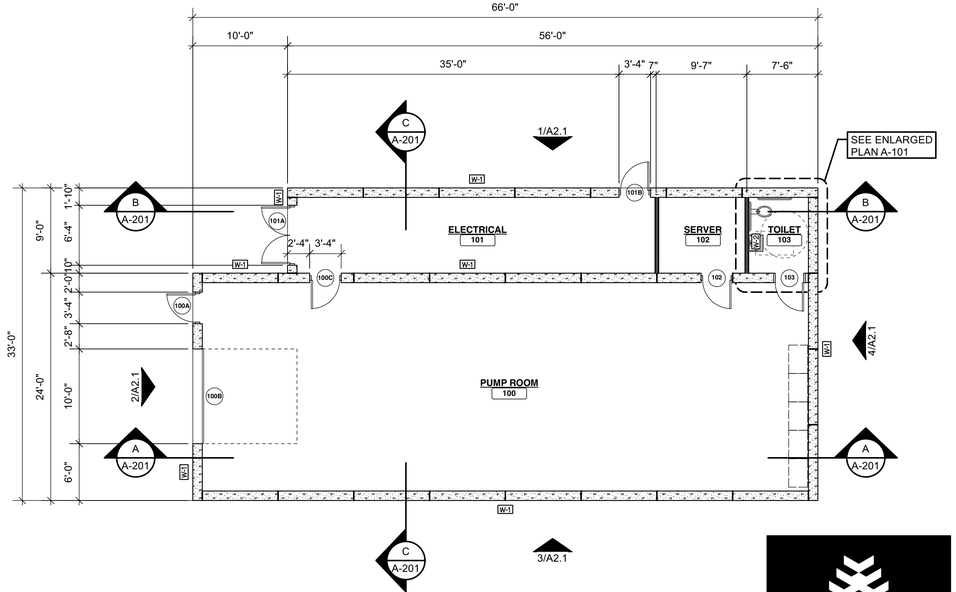
RESTROOM ACCESSORIES SCHEDULE

BOBRICK - (1) 1 1/4" DIAMETER STAINLESS STEEL GRAB BAR w/ SNAP FLANGE
MODEL #B-5806

WALL TYPES

W-1 - 12" PRECAST CONC

W-2 - 6" MTL STUDS @ 16" o.c. w/ 7/16" OSB BOTH SIDES



N

FLOOR PLAN

Scale: 1/8" = 1'-0"

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phone (316) 321 - 4774
www.gravityworks-architecture.com

G::W JOB NO. 22-1399

Wichita-Sedgwick County Metropolitan Area Building and Construction Department

MABCD REVIEWER:

REVIEWED FOR CODE COMPLIANCE

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DATE 04/22/25 BY Gary Cox

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CITY OF WICHITA

VINCENT A. BAKER 34S2 1-28-25 KANSAS PROFESSIONAL ARCHITECT

WICHITA MAPLE STREET BOOSTER PUMP STATION

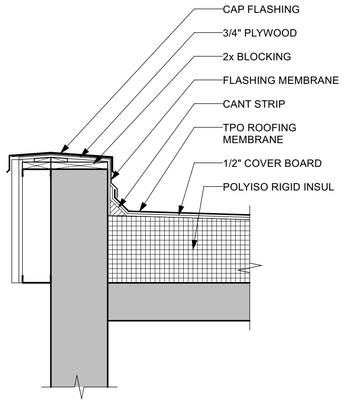
PAUL GUNZELMAN, P.E - CITY ENGINEER
CITY OF WICHITA PROJECT NO. 448-2019-028875

Issue:

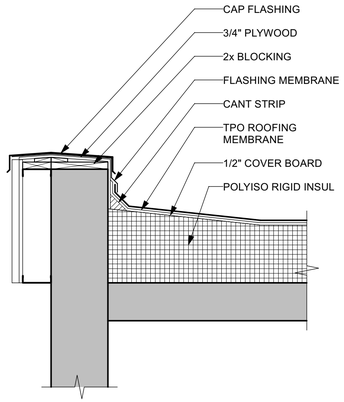
JOB NO.	35-200810-001-0042
DATE	JANUARY 2025
PM	VH
DESIGNED BY	VH
DRAWN BY	JL
CHECKED BY	VH

SCHEDULES / FRAME TYPES / DETAILS / FLOOR PLAN / INTERIOR ELEVATIONS

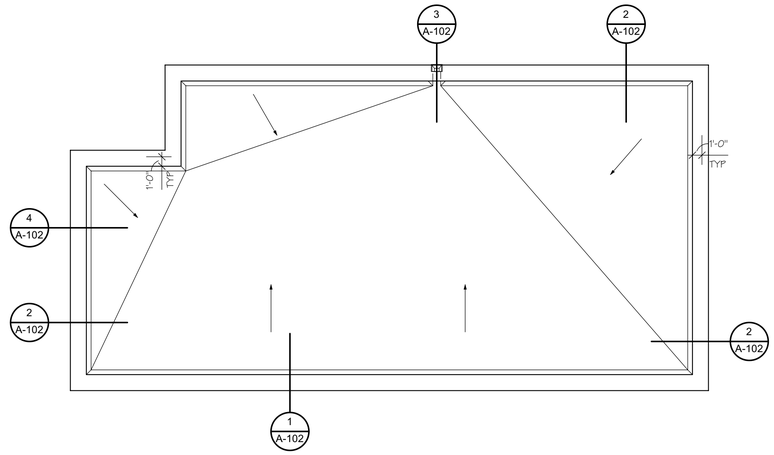
A-101



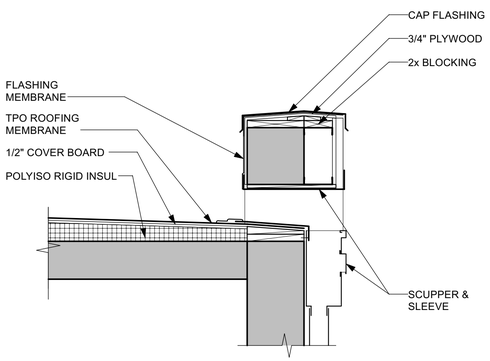
1 PARAPET
3/4" = 1'-0"



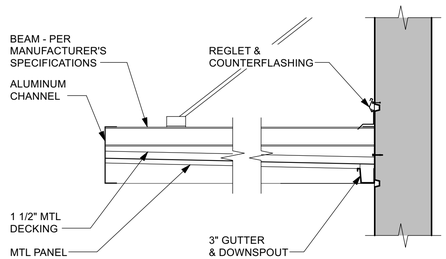
2 PARAPET
3/4" = 1'-0"



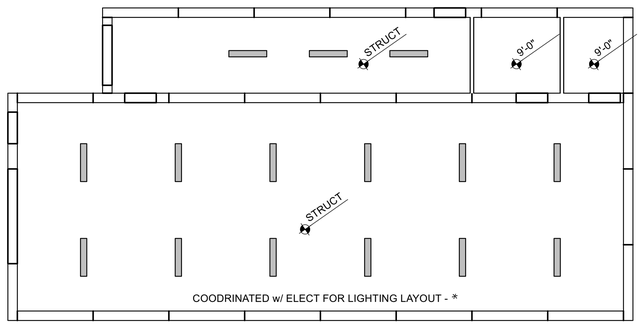
N ROOF PLAN
Scale: 1/8" = 1'-0"



3 SCUPPER
3/4" = 1'-0"



4 CANOPY
3/4" = 1'-0"



N REFLECTED CEILING PLAN
Scale: 1/8" = 1'-0"

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CITY OF WICHITA

WICHITA MAPLE STREET BOOSTER PUMP STATION

PAUL GUNZELMAN, P.E. - CITY ENGINEER
CITY OF WICHITA PROJECT NO. 448-2019-028875

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REFLCTED CEILING PLAN / ROOF PLAN

A-102

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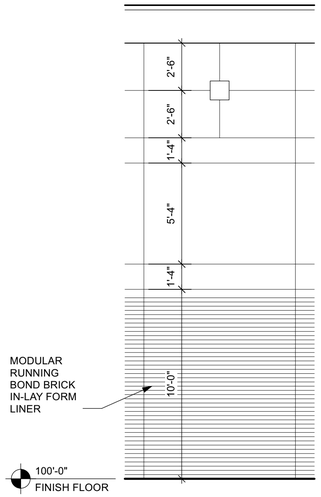
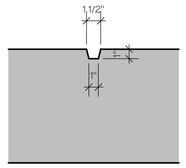
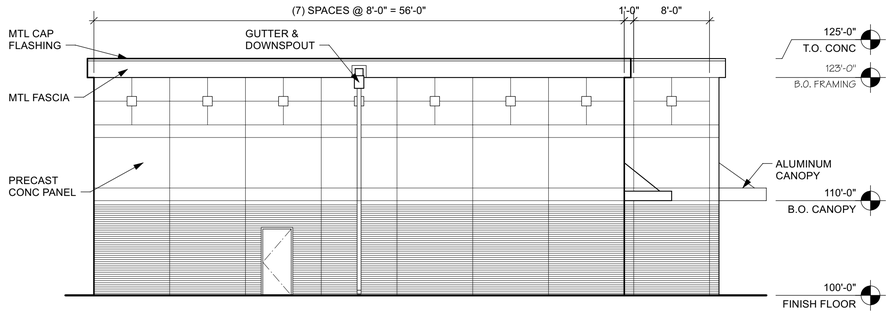
G::W JOB NO. 22-1399



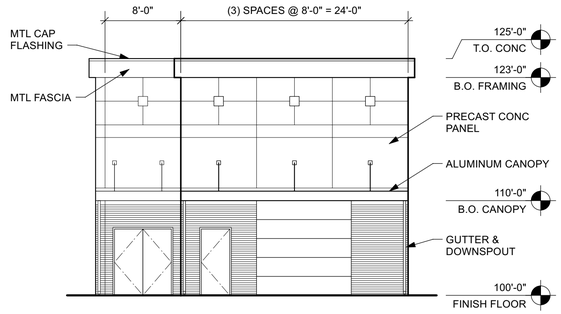
D RUSTICATION JOINTS
1/4" = 1'-0"



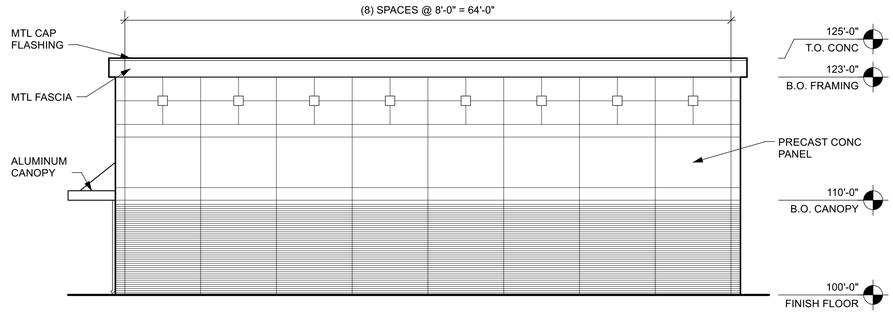
5 JOINT DETAIL
1 1/2" = 1'-0"



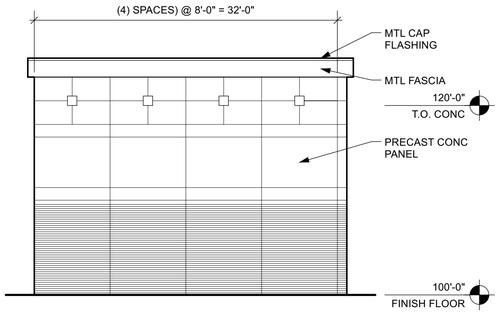
1 A-201 NORTH ELEVATION
1/8" = 1'-0"



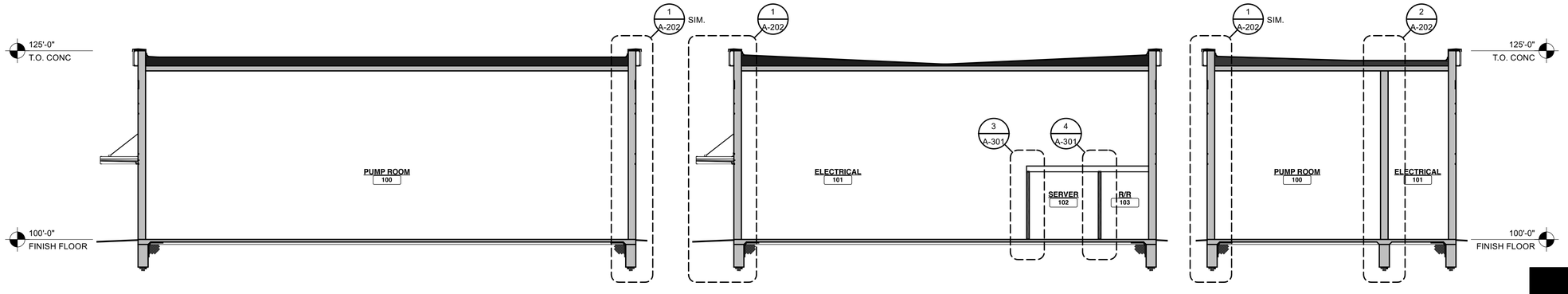
2 A-201 WEST ELEVATION
1/8" = 1'-0"



3 A-201 SOUTH ELEVATION
1/8" = 1'-0"



4 A-201 EAST ELEVATION
1/8" = 1'-0"



A BUILDING SECTION
1/8" = 1'-0"

B BUILDING SECTION
1/8" = 1'-0"

C BUILDING SECTION
1/8" = 1'-0"

Wichita-Sedgwick County Metropolitan Area Building and Construction Department

MABCD REVIEWER:

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DATE: 04/22/25 BY: Gary Cox

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CITY OF WICHITA

VINCENT A. HOWARD 34432 1-28-25 KANSAS PROFESSIONAL ARCHITECT

WICHITA MAPLE STREET BOOSTER PUMP STATION

PAUL GUNZELMAN, P.E. - CITY ENGINEER
CITY OF WICHITA PROJECT NO. 448-2019-028875

Issue:

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DATE	JANUARY 2025
PM	VH
DESIGNED BY	VH
DRAWN BY	JL
CHECKED BY	VH

EXTERIOR ELEVATIONS / BUILDING SECTIONS

A-201

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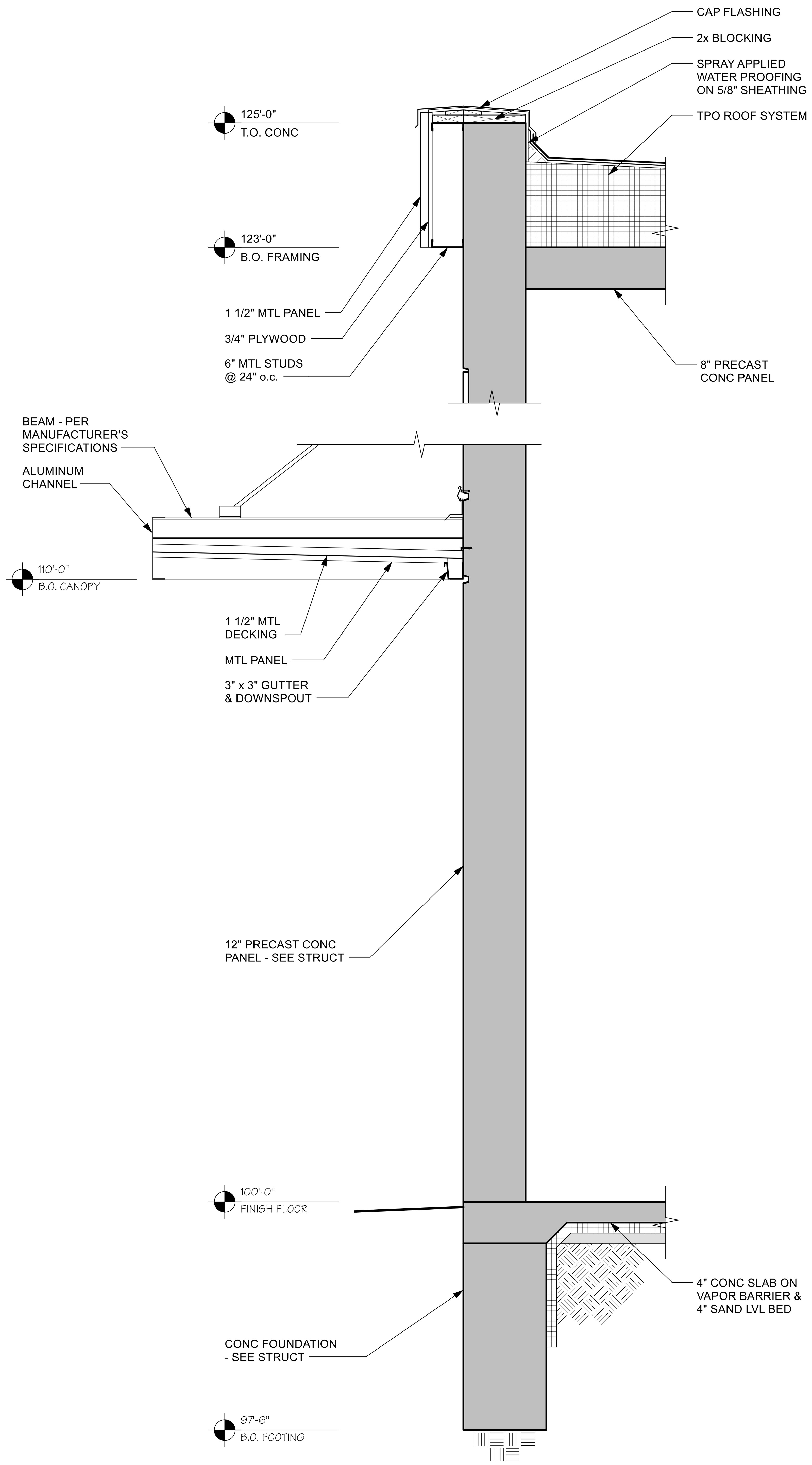
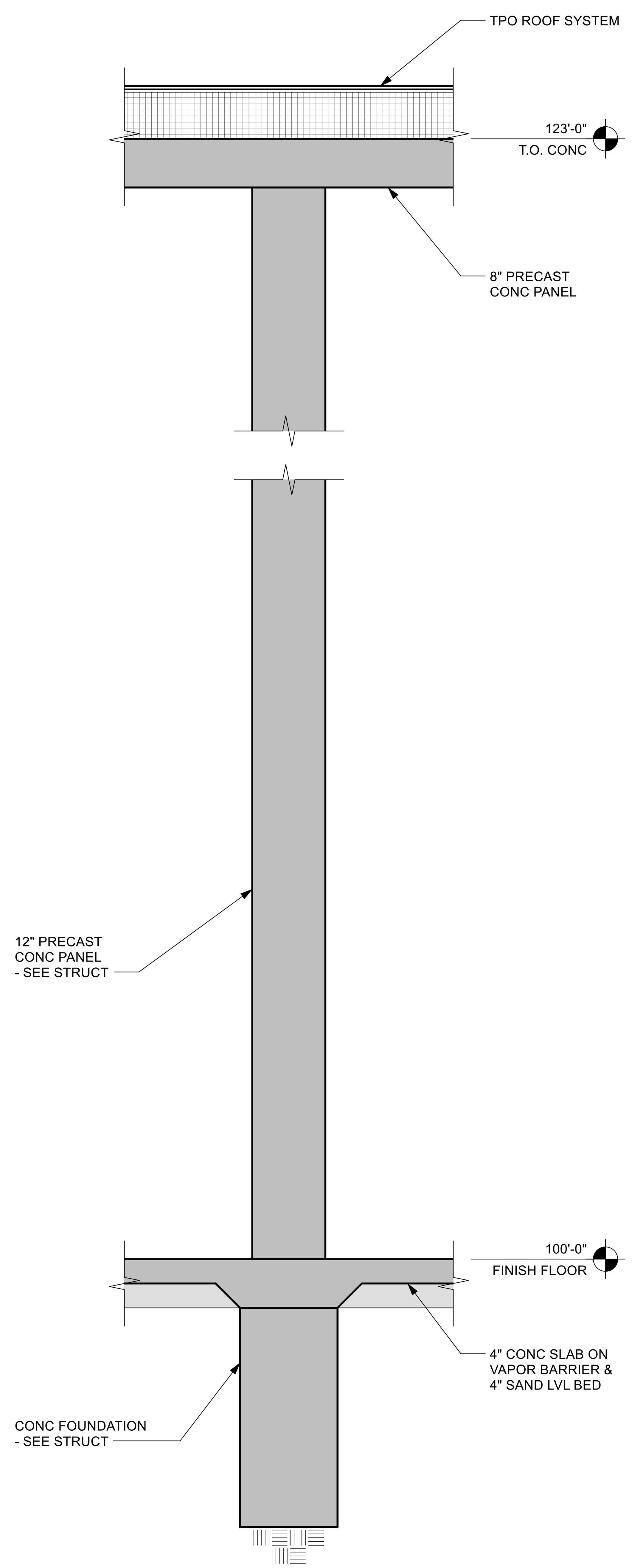
G::W JOB NO. 22-1399



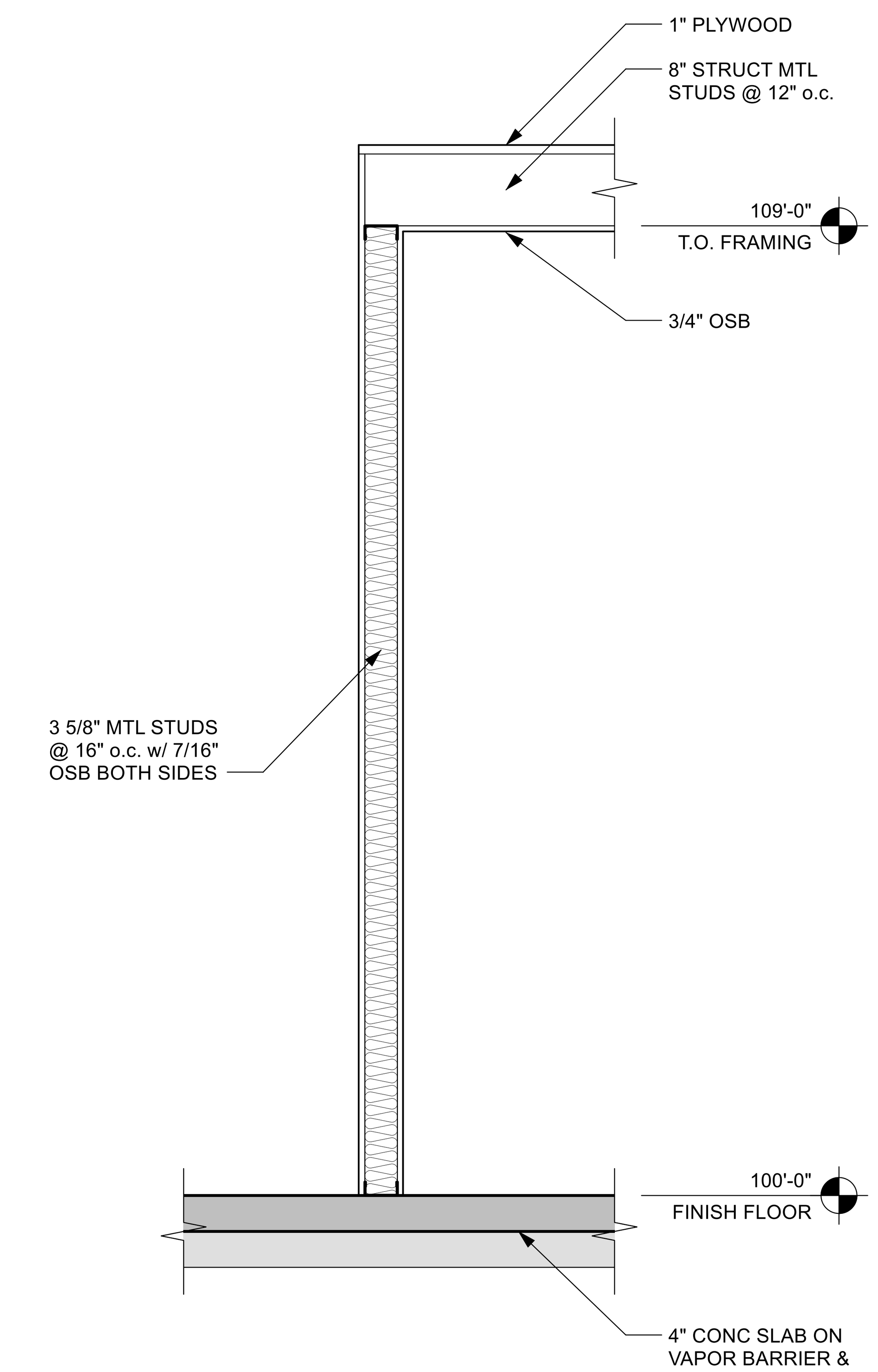
1 WALL SECTION

3/4" = 1'-0"



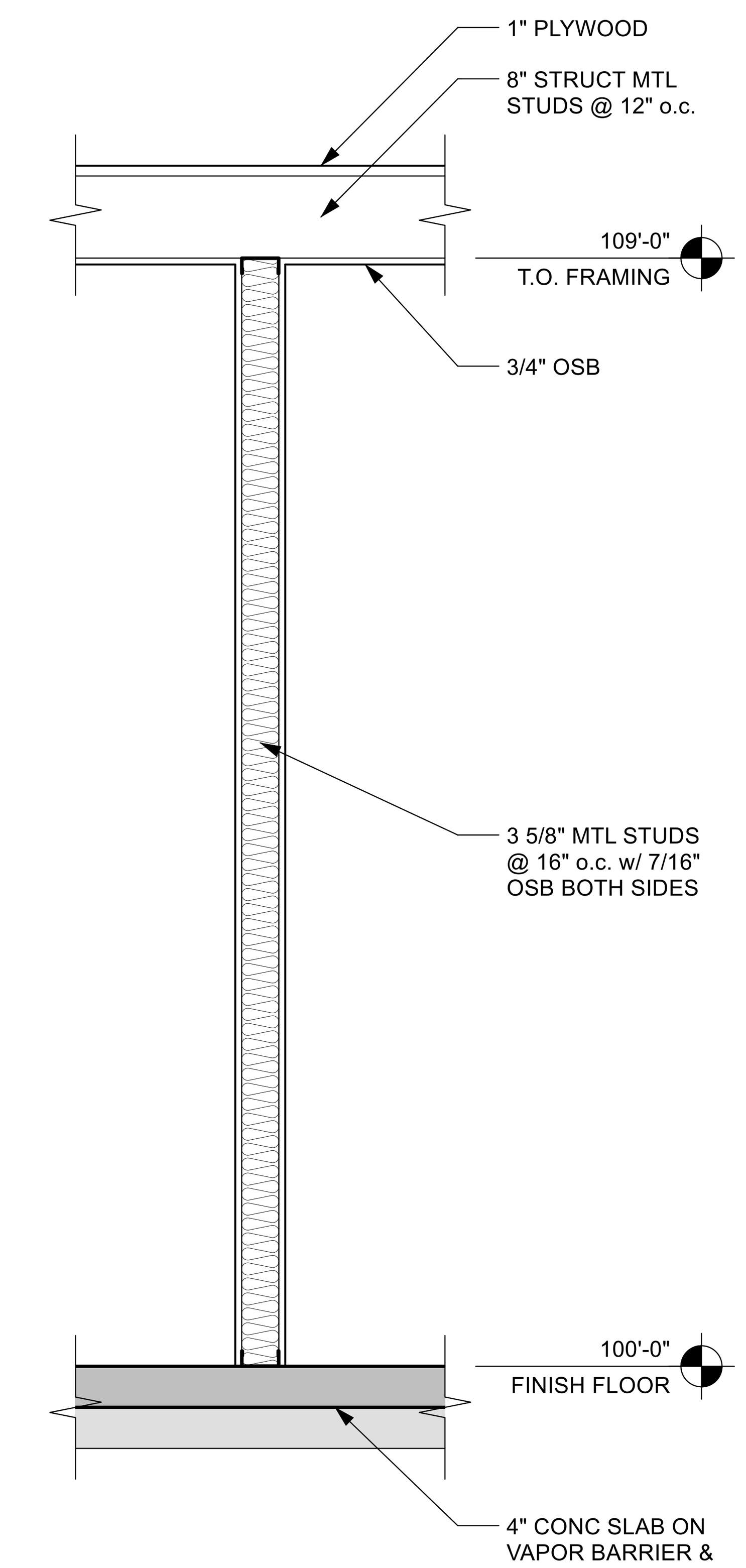
2 WALL SECTION

3/4" = 1'-0"



3 WALL SECTION

3/4" = 1'-0"



4 WALL SECTION

3/4" = 1'-0"

MABCD REVIEWER:

Wichita-Sedgwick County Metropolitan Area Building and Construction Department

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CITY OF WICHITA

1452 KANSAS PROFESSIONAL ARCHITECT 1·28·25

WICHITA MAPLE STREET BOOSTER PUMP STATION

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CITY OF WICHITA PROJECT NO. 448-2019-028875

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WALL SECTIONS

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A-202

12/8/2023 9:13:39 AM
Autodesk Docs://200810-001 - COW Maple Booster Pump Station/200810-001_MUNI_PS_R22.rvt

DESIGN CRITERIA

1. BUILDING CODE: INTERNATIONAL BUILDING CODE (IBC), 2018 EDITION, INCLUDING LOCAL SUPPLEMENTS. THE STRUCTURE IS CLASSIFIED AS A RISK CATEGORY IV FACILITY.

2. DEAD AND LIVE LOADS:

LOCATION	UNIFORM LIVE LOAD	CONCENTRATED LIVE LOAD	TOTAL DEAD LOAD*
ROOF	100 PSF	---------	120 PSF
SLAB ON GRADE	100 PSF	2,000 LB	----------

ROOF LIVE LOADS ON SUPPORTING ELEMENTS SHALL NOT BE REDUCED.
* TOTAL DEAD LOAD INCLUDES WEIGHT OF STRUCTURAL ELEMENTS. AN ALLOWANCE OF 20 PSF HAS BEEN INCLUDED FOR COLLATERAL LOAD.

3. SNOW LOADS

GROUND SNOW LOAD, P_g:	15 PSF
FLAT ROOF SNOW LOAD, P_f:	12.6 PSF
DESIGN SNOW LOAD:	18.0 PSF
SNOW EXPOSURE FACTOR, C_e:	1.0
SNOW IMPORTANCE FACTOR, I_s:	1.2
THERMAL FACTOR, C_t	1.0
ROOF SLOPE FACTOR, C_s	1.0

DRIFTING OF SNOW AND UNBALANCED SNOW SHALL BE IN ACCORDANCE WITH THE CODE.

4. WIND:

BASIC WIND SPEED, V:	250 MPH (3 SECOND GUST)
ALLOWABLE STRESS DESIGN WIND SPEED, V_{asd}:	194 MPH (3 SECOND GUST)
WIND EXPOSURE:	C
INTERNAL PRESSURE COEF.:	0.55

COMPONENTS AND CLADDING PRESSURE SHALL BE USED FOR DESIGN OF EXTERIOR WALLS, WINDOWS, DOORS, AND MISCELLANEOUS MATERIALS NOT SPECIFICALLY SHOWN ON THE PLANS.
FOR COMPONENTS AND CLADDING DESIGN WIND PRESSURES, REFERENCE COMPONENT AND CLADDING TABLE.

5. SEISMIC:

SITE CLASS:	D
SEISMIC DESIGN CATEGORY:	C
SEISMIC IMPORTANCE FACTOR:	1.5
S_S:	0.092
S_1:	0.054
S_{DS}:	0.098
S_{D1}:	0.086
SEISMIC FORCE RESISTING SYSTEM:	ORDINARY PRECAST SHEAR WALLS
RESPONSE MODIFICATION COEF., R	3
METHOD OF ANALYSIS:	EQUIVALENT LATERAL FORCE
C_S:	0.049

6. STORM SHELTER LOADING:

NO AREA WITHIN THIS BUILDING HAS BEEN DESIGNED TO MEET THE REQUIREMENTS OF FEMA P-361 OR ICC/NSSA-500. THE ARCHITECT MAY DESIGNATE AN AREA THAT, IN HIS/HER OPINION, HAS ENHANCED PROTECTION OVER THE REMAINDER OF THE BUILDING AS A PLACE OF REFUGE FROM HIGH WINDS. HOWEVER, IT SHOULD NOT BE CONSIDERED A SAFE ROOM/STORM SHELTER.

DELEGATED ENGINEERING OF STRUCTURAL COMPONENTS & SYSTEMS

1. ALL STRUCTURAL COMPONENTS & SYSTEMS SPECIFIED TO BE DELEGATED SHALL BE DESIGNED AND SEALED BY A SPECIALTY STRUCTURAL ENGINEER (SSE) AND SHALL MEET THE GUIDELINES PUBLISHED BY THE COUNCIL OF AMERICAN STRUCTURAL ENGINEERS (CASE) FOR DELEGATED SPECIALTY STRUCTURAL ENGINEERING.
2. REFERENCE THE GENERAL NOTES & DRAWINGS FOR BUILDING CODE, SERVICE CRITERIA, AND DESIGN LOADS.
3. SUBMITTALS FOR DELEGATED COMPONENTS & SYSTEMS SHALL INCLUDE THE FOLLOWING:
   A. A FULL DESIGN ANALYSIS, INCLUDING CALCULATIONS FOR GRAVITY AND LATERAL LOADS, WITH A SEALED COVER SHEET IDENTIFYING THE PROJECT NAME AND ADDRESS.
   B. THE SSE THAT SEALED THE CALCULATIONS SHALL ALSO SEAL THE FABRICATION, PLACING, AND ERECTION PLANS. EACH PLAN SHALL IDENTIFY THE PROJECT NAME AND ADDRESS.
   C. IF THE SSE THAT SEALED THE CALCULATIONS AND PLANS IS AN EMPLOYEE OF A COMPANY, THE COMPANY'S CERTIFICATE OF AUTHORIZATION NUMBER SHALL BE INCLUDED ON THE SUBMITTALS. BOTH THE SSE SEAL AND THE CERTIFICATE OF AUTHORIZATION SHALL BE ISSUED BY THE STATE IN WHICH THE PROJECT IS LOCATED, INCLUDING PROJECTS ON FEDERAL LAND.
   D. THE COMPANY THAT EMPLOYS THE SSE SHALL PROVIDE AN INSURANCE CERTIFICATE FOR PROFESSIONAL LIABILITY INSURANCE WITH AN AGGREGATE AMOUNT OF NO LESS THAN TWO MILLION DOLLARS ($2,000,000). CONTRACTS OR SUB-CONTRACTS FOR THIS PROJECT SHALL NOT INCLUDE A LIMIT OF LIABILITY CLAUSE.
   E. THE SSE THAT SEALED THE PLANS SHALL INCORPORATE A WRITTEN STATEMENT THAT THE CONTRACT DOCUMENT'S CRITERIA HAVE BEEN INCORPORATED INTO THE DESIGN.
4. THE CONTRACTOR SHALL REVIEW THE SUBMITTAL FOR QUANTITIES AND DIMENSIONS AND VERIFY THAT THE ABOVE INFORMATION HAS BEEN INCLUDED IN THE SUBMITTAL.
5. NO SUBMITTAL WILL BE REVIEWED UNLESS ALL OF THE ABOVE INFORMATION IS INCLUDED. THE ENGINEER OF RECORD SHALL NOT BE RESPONSIBLE FOR DELAYS CAUSED BY INCOMPLETE SUBMITTALS.
6. PRECAST CONCRETE
   A. PRECAST COMPONENTS & CONNECTIONS SHALL BE DESIGNED IN ACCORDANCE WITH THE PCI DESIGN HANDBOOK. NON-STANDARD MEMBER CROSS-SECTIONS SHALL BE APPROVED BY THE ENGINEER IN ADVANCE OF SHOP DRAWING PREPARATION. CONNECTIONS SHOWN ON THE PLANS ARE FOR CONCEPT. THE PRECAST ENGINEER SHALL DESIGN THE CONNECTIONS WITH THE CONFIGURATION SHOWN.
   B. ALL OPENINGS GREATER THAN 10" ON A SIDE SHALL BE NEATLY FORMED TO DIMENSIONS.
   C. BEARING PADS SHALL HAVE A MINIMUM THICKNESS OF 1/4" AND SHALL BE LOCATED 1/2" FROM THE FACE OF SUPPORT.
   D. BEARING STRIPS FOR SLABS SHALL BE 1/8" X 2" MINIMUM AND LOCATED 1/2" FROM THE FACE OF THE SUPPORT.
   E. CONCRETE SHALL MEET THE REQUIREMENTS OF THE MIX DESIGN SECTION UNDER CONCRETE. USE OF SELF-CONSOLIDATION CONCRETE SHALL NOT BE USED WITHOUT WRITTEN APPROVAL PRIOR TO USE.
   F. DO NOT REMOVE CONCRETE FROM FORMS UNTIL THE CONCRETE HAS ATTAINED 2500 PSI FOR PRECAST AND 3500 PSI FOR PRESTRESSED CONCRETE.
   G. GROUT UNDER COLUMNS AND WALL PANELS WITH NON-SHRINK, NON-METALLIC GROUT THAT MEETS OR EXCEEDS THE STRENGTH OF THE PRECAST.

SOIL PREPARATION AND FOUNDATIONS

1. THE FOUNDATION SYSTEM IS DESIGNED AS RECOMMENDED IN THE GEOTECHNICAL INVESTIGATION PREPARED BY PEC FIELD SERVICES, JOB NO. 200810-001. A COPY IS IN THE SPECIFICATIONS OR IS AVAILABLE FOR INSPECTION AT THE ENGINEER'S PLACE OF BUSINESS.
2. REMOVE TOP SOIL CONTAINING ORGANIC MATERIAL AND PREPARE THE BUILDING PAD IN ACCORDANCE WITH THE CIVIL ENGINEERING PLANS, SPECIFICATIONS, AND GEOTECHNICAL INVESTIGATION.
3. REMOVE SOIL AS REQUIRED TO ALLOW FOR A LOW VOLUME CHANGE ZONE 12" THICK UNDER THE FLOOR SLAB AND DRAINAGE MATERIAL. FILL TO SUBGRADE ELEVATION SHOWN ON THE DRAWINGS WITH NON-EXPANSIVE FILL OR STABILIZED SOIL PER SPECIFICATION.
4. SOIL SUPPORTED FOUNDATIONS:
   A. DESIGN BEARING PRESSURE (NET) IS 1800 PSF FOR FOUNDATIONS BEARING ON UNDISTURBED SOIL OR APPROVED ENGINEERED FILL MATERIAL. BEARING MATERIALS SHALL BE VERIFIED BY A LICENSED GEOTECHNICAL ENGINEER.
   B. ALL FOUNDATIONS ARE DESIGNED WITH EARTH FORMED SIDES; THE TOP 71/4" OF THE FOUNDATION SHALL BE FORMED TO THE DESIGN DIMENSION WHEN VISIBLE AFTER CONSTRUCTION IS COMPLETE. THE CONSTRUCTED FOUNDATION DIMENSION SHALL BE NO LESS THAN THE DESIGN DIMENSION, AND NO MORE THAT 6" GREATER THAN THE DESIGN DIMENSION.
5. DO NOT BACKFILL FOUNDATIONS/BASEMENT WALLS UNTIL THE RESTRAINING SLABS OR ADEQUATE BRACING ARE IN PLACE. ALL BACKFILL SHALL BE PLACED AND COMPACTED IN ACCORDANCE WITH THE SPECIFICATION.
6. EXTERIOR SLABS SHALL SLOPE AWAY FROM THE STRUCTURE A MINIMUM OF 1/4" PER FOOT UNLESS NOTED OTHERWISE.

CONCRETE

1. ALL CONCRETE HAS BEEN DESIGNED IN ACCORDANCE WITH ACI 318 AND THE BUILDING CODE, AND IN CONFORMANCE WITH THE CURRENT "ACI MANUAL OF CONCRETE PRACTICE."
2. THE CONCRETE REQUIREMENTS ARE:
   A. CEMENT SHALL BE TYPE I (L) OR II CONFORMING TO ASTM C150. FLY ASH CONFORMING TO ASTM C618 TYPE C OR F MAY BE USED TO REPLACE A MAXIMUM OF 20% OF THE CEMENT BY WEIGHT.
   B. FINE AGGREGATE FOR NORMAL WEIGHT CONCRETE SHALL MEET ASTM C33.
   C. COARSE AGGREGATES FOR NORMAL WEIGHT CONCRETE SHALL CONFORM TO ASTM C33, GRADE 67 OR LARGER. COARSE AGGREGATES SHALL BE NO LESS THAN 50% OF THE TOTAL AGGREGATE BY WEIGHT, UNLESS APPROVED BY THE ENGINEER PRIOR TO MIX DESIGN SUBMITTAL.
   D. MIX REQUIREMENTS ARE:

LOCATION	MINIMUM F'c (PSI)	MINIMUM CEM. (PCY)	MAX. W/C RATIO	AIR CONTENT	SLUMP INCHES§
FOUNDATIONS	4,000	470	0.45	5%±1%	2-5
INTERIOR SLAB	4,000	564	0.42	3%MAX.	2-5
PRECAST	5,000	611	0.45	5%±1%	2-5

§ PRIOR TO THE ADDITION OF WATER REDUCING ADMIXTURES. IF APPROVED BY ENGINEER, SLUMP MAY NOT EXCEED 8" WITH THE ADDITION OF WATER REDUCING ADMIXTURES

3. ADMIXTURES, HARDENERS, & CURING COMPOUNDS
   A. ALL CONCRETE ADMIXTURES SHALL, WHEN MIXED INTO CONCRETE, BE NON-CHLORIDE AND NON-CHLORIDE FORMING.
   B. ALL ADMIXTURES MUST CONFORM TO ASTM C-494 AND C-260.
   C. CONCRETE CURING COMPOUND AND SEALERS SHALL MEET ASTM C-309 TYPE 1 OR 1D.
   D. USE OF "SELF CONSOLIDATING" CONCRETE MUST BE SUBMITTED FOR APPROVAL WITH THE CONCRETE MIX DESIGN.
   E. CONCRETE PENETRATING HARDENER SEALERS SHALL BE USED ON ALL EXPOSED CONCRETE FLOORS UNLESS OTHER COATINGS ARE REQUIRED BY THE ARCHITECT.
4. MISCELLANEOUS CONCRETE DETAILS:
   A. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 3/4" INSIDE THE FORMS OR TOOLED TO 3/4" RADIUS UNLESS NOTED OTHERWISE.
   B. SLABS ON GRADE SHALL HAVE CONSTRUCTION JOINTS AND/OR CONTROL JOINTS (SAWN JOINTS) TO DIVIDE THE SLAB INTO PANELS, NOT TO EXCEED 256 SQUARE FEET. THE LONG DIMENSION SHALL NOT EXCEED THE SHORT DIMENSION BY MORE THAN 20%. CONTRACTOR TO SUBMIT PROPOSED LOCATIONS FOR APPROVAL.
   C. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN OF ALL FORMING AND SHORING.
   D. NO ALUMINUM SHALL BE EMBEDDED IN CONCRETE. CONDUITS AND PIPING EMBEDDED IN CONCRETE WALLS, SLABS, OR BEAMS SHALL BE SPACED A MINIMUM OF FOUR DIAMETERS AND THE OUTSIDE DIAMETER SHALL BE LESS THAN 30% OF THE MEMBER THICKNESS AND PLACED BETWEEN LAYERS OF REINFORCING.
   E. NO CONDUIT MAY BE EMBEDDED IN SLABS ON METAL DECK OR TOPPING SLABS ON PRECAST CONCRETE UNLESS SPECIFICALLY DETAILED OR NOTED OTHERWISE ON STRUCTURAL PLANS.
   F. SAW CUTTING OF EXISTING STRUCTURAL CONCRETE.
      a. THE CONTRACTOR SHALL HAVE ALL STRUCTURAL CONCRETE INTENDED TO BE CORED OR CUT INVESTIGATED WITH GROUND PENETRATING RADAR (GPR) PRIOR TO CUTTING/CORING. LOCATION OF REINFORCING SHALL BE REPORTED TO THE ENGINEER OF RECORD (EOR). THE EOR MAY DIRECT THE CONTRACTOR TO ADJUST THE OPENING LOCATION TO REDUCE THE QUANTITY OF EXISTING REINFORCING THAT WILL BE CUT.
      b. ALL NEW CIRCULAR OPENINGS SHALL BE CORE DRILLED. ALL NEW RECTANGULAR OPENINGS SHALL BE CORE DRILLED IN EACH CORNER TO PREVENT OVERCUTTING BEYOND THE INTENDED CORNERS. THE CONTRACTOR SHALL APPLY APPROPRIATE PRESSURE TO THE EQUIPMENT TO PREVENT SPALLING OVER 1/2" ON THE BACK SIDE OF THE OPENING.

CONCRETE REINFORCING

1. MATERIALS

	ASTM	GRADE
PLATE & ANGLE:	A36	---
REINFORCING STEEL:	A615	60
HEADED STUDS:	A108	---
ANCHOR RODS (BOLTS):	F1554	36

2. DETAILS:
   A. WELDING OF REINFORCING STEEL IS PROHIBITED UNLESS NOTED OTHERWISE.
   B. SHOP DRAWINGS SHALL BE SUBMITTED WITH REINFORCING STEEL IN ACCORDANCE WITH ACI 315.
3. PLACEMENT:
   A. ALL REINFORCING AND EMBEDMENTS SHALL BE SUPPORTED ON CHAIRS/BOLSTERS TO THE DESIGN DIMENSIONS. SPACING SHALL BE SUFFICIENTLY CLOSE TO PREVENT DISPLACEMENT OR PERMANENT DEFORMATION DUE TO CONCRETE PLACEMENT, FOOT TRAFFIC, OR VIBRATION. "PUDDLING IN" OR "PULLING UP" REINFORCING IS NOT AN ACCEPTABLE METHOD FOR PLACING REINFORCING. CHAIRS/BOLSTERS IN CONTACT WITH EARTH SHALL HAVE BOTTOM PLATES AND BE COATED TO PREVENT CORROSION. ANCHOR RODS SHALL BE HELD IN PLACE WITH TEMPLATES SUFFICIENTLY STRONG TO PREVENT DISPLACEMENT OR TILTING.
   B. MAINTAIN ACI CLEAR COVER ON REINFORCING AS LISTED BELOW UNLESS NOTED OTHERWISE.

CAST AGAINST EARTH (BOTTOM OR SIDES):	3"
FORMED - EXPOSED TO SOIL, WEATHER OR LIQUIDS:	2"
SLABS ON GRADE (FROM TOP OF SLAB):	1.5"

   C. PROVIDE CORNER BARS OF THE SAME SIZE AND SPACING AS ADJACENT REINFORCING.
   D. OPENINGS IN WALLS OR SLABS SHALL BE REINFORCED PER DETAIL.
   E. REINFORCING STEEL SHALL BE LAPPED PER LAP TABLE.

STRUCTURAL STEEL

1. STRUCTURAL STEEL SHALL MEET THE LATEST "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGE," AND HAS BEEN DESIGNED IN ACCORDANCE WITH THE BUILDING CODE AND THE LATEST EDITION OF AISC "MANUAL OF STEEL CONSTRUCTION".
2. STRUCTURAL STEEL SHALL BE NEW AND MEET THE FOLLOWING REQUIREMENTS UNLESS NOTED OTHERWISE ON THE DRAWINGS:

TYPE	ASTM	GRADE
W & WT SHAPES	A992	------
PLATES, CHANNELS, & ANGLES	A36	------

3. ALL BOLTED CONNECTIONS SHALL BE STANDARD AISC BEARING TYPE FRAMING CONNECTIONS. BOLTS SHALL BE TENSION-INDICATING FOR INSPECTION PURPOSES.
4. ALL CONNECTIONS NOT DETAILED OR OTHERWISE NOTED SHALL BE PROVIDED BY THE FABRICATOR AND HIGHLIGHTED FOR THE ENGINEER OF RECORD'S REVIEW.
5. ALL WELDING SHALL BE IN ACCORDANCE WITH LATEST AWS CODE, SECTION D1.1. ALL WELD MATERIAL SHALL BE 70 KSI TENSILE STRENGTH.
6. STEEL FRAMING MEMBERS SHALL NOT BE SPLICED.
7. OPENINGS SHALL NOT BE FIELD-CUT IN THE FLANGE OR WEBS OF STEEL MEMBERS.
8. GALVANIZED STRUCTURAL STEEL SHALL CONFORM TO ASTM A123 FOR MEMBERS AND ASTM A153 FOR CONNECTION ELEMENTS. REPAIR ANY DAMAGED GALVANIZING COATING IN ACCORDANCE WITH ASTM A780.

POST INSTALLED ANCHORING SYSTEMS

1. SUBSTITUTION OF POST INSTALLED ANCHORS FOR EMBEDDED ANCHORS SHOWN ON THE DRAWINGS WILL NOT BE PERMITTED UNLESS APPROVED BY THE ENGINEER IN ADVANCE.
2. ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII) AND THE EVALUATION REPORT (ER/ESR) SPECIFIED INCLUDING HOLE PREPARATION, TEMPERATURE AND MOISTURE CONDITIONS.
3. ADHESIVE ANCHORS:
   A. THE CONTRACTOR SHALL ARRANGE AN ANCHOR MANUFACTURER'S REPRESENTATIVE TO PROVIDE ONSITE INSTALLATION TRAINING FOR ALL ANCHOR PRODUCTS SPECIFIED. THE CONTRACTOR MUST MAINTAIN TRAINING RECORDS OF ALL CONTRACTOR PERSONNEL INSTALLING ANCHORS AND SUBMIT TO THE ENGINEER OF RECORD PRIOR TO INSTALLING ANCHORS UPON REQUEST.
   B. ADHESIVE ANCHORS SHALL BE USED IN CONJUNCTION WITH THE APPROPRIATE ADHESIVE SYSTEM. STANDARD REINFORCING STEEL ANCHORED IN CONCRETE SHALL BE IN ACCORDANCE WITH ASTM A615 GRADE 60 UNLESS NOTED OTHERWISE.
   C. APPROVED ADHESIVE ANCHORS FOR PREVIOUSLY CAST CONCRETE:

MANUFACTURER/PRODUCT	REPORT NUMBER
HILTI HIT-HY200 SSS* WITH HIT-Z ROD	ICC-ES ESR-3187
HILTI HIT-HY200 SSS* WITH HOLLOW BIT & HAS-E ROD	ICC-ES ESR-3187
HILTI HIT-HY200 SSS* WITH HOLLOW BIT & STEEL REINFORCING *SAFE SET SYSTEM	ICC-ES ESR-3187
SIMPSON STRONG-TIE SET-XP WITH SPEED CLEAN DXS SYSTEM	ICC-ES ESR-2508
SIMPSON STRONG-TIE AT-XP WITH SPEED CLEAN DXS SYSTEM	IAPMO-UES ER-263

CONTRACT/CONSTRUCTION DOCUMENTS

1. THE CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN A FULL SET OF THE MOST RECENT REVISIONS OF EACH DOCUMENT INCLUDING ALL PLANS, SPECIFICATIONS, ADDENDA, AND SUPPLEMENTAL INSTRUCTIONS.
2. THE CONTRACTOR SHALL REVIEW THE DOCUMENTS PRIOR TO FABRICATION AND/OR INSTALLATION OF ANY MATERIALS FOR CONFLICTS. IF CONFLICTS OCCUR THE CONTRACTOR SHALL USE THE MOST STRINGENT REQUIREMENT OR REQUEST A CLARIFICATION THROUGH A REQUEST FOR INFORMATION (RFI).
3. THE DOCUMENTS MAY NOT BE REPRODUCED IN WHOLE OR IN PART FOR USE ON PROJECTS OTHER THAN IDENTIFIED IN THE TITLE BLOCK. SHOULD THE CONTRACTOR USE THE DOCUMENTS AS A PORTION OF A SHOP DRAWING SUBMITTAL, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY CONSEQUENCES RESULTING FROM ERRORS IN THE REPRODUCED DOCUMENTS.
4. DO NOT SCALE THE PLANS AND DETAILS FOR THE PURPOSE OF ESTABLISHING DIMENSIONS.

Wichita-Sedgwick County Metropolitan Area Building and Construction Department

MABCD REVIEWER:

REVIEWED FOR CODE COMPLIANCE

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DATE: 04/22/25 BY: Gary Cox

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CITY OF WICHITA

DAVID K. CARPENTER LICENSED 23070 01/28/2025 KANSAS PROFESSIONAL ENGINEER

WICHITA MAPLE STREET BOOSTER PUMP STATION

PAUL GUNZELMAN, P.E. - CITY ENGINEER
CITY OF WICHITA PROJECT NO. 448-2019-028875

Issue:	
JOB NO.	35-200810-001-0042
DATE	JANUARY 2025
PM	RWG
DESIGNED BY	DKC
DRAWN BY	DGC
CHECKED BY	MWK

STRUCTURAL GENERAL NOTES

S-001

CONTRACTOR'S RESPONSIBILITY

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING ALL SUB-CONTRACTOR SUBMITTALS AND NOTING ALL DEVIATIONS FROM THE CONSTRUCTION DOCUMENTS PRIOR TO SUBMITTING TO THE ENGINEER FOR REVIEW.

2. SUBSTITUTION REQUESTS SHALL BE SUBMITTED IN WRITING WITH THE COST REDUCTION AMOUNT AND THE SCHEDULE IMPACT FOR THE OWNER (SUBMITTALS WITHOUT THE COST AND SCHEDULE IMPACT WILL NOT BE REVIEWED). A COMPARISON OF THE DATA WITH THE MATERIAL SPECIFIED INCLUDING CODE APPROVALS SHALL BE PROVIDED.

3. DEFECTIVE WORK REPORT (DWR) SHALL BE SUBMITTED TO THE ENGINEER. THE DWR SHALL REPORT THE DEFECT AND PROPOSE A REMEDIATION OF THE DEFECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE REMEDIATION OF THE DEFECT INCLUDING ENGINEERING COSTS, IF ANY.

4. WHEN THE CONTRACTOR BECOMES AWARE OF WHAT MAY BE AN UNFORESEEN CONDITION THAT COULD AFFECT COST OR SCHEDULE, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING. AFTER REVIEW AND ENGINEER'S DETERMINATION THAT AN UNFORESEEN CONDITION EXISTS; THE CONTRACTOR SHALL SUBMIT A CHANGE ORDER REQUEST FOR APPROVAL WITH BOTH COST AND SCHEDULE IMPACT ATTACHED.

5. THE CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR SITE SAFETY. THE ENGINEER'S PURPOSE OF A SITE VISIT IS SOLELY TO BECOME FAMILIAR WITH THE GENERAL PROGRESS AND QUALITY OF THE PROJECT. THE ENGINEER'S SITE VISIT IS NOT A QUALITY CONTROL FUNCTION.

CONSTRUCTION MEANS AND METHODS ISSUES

1. SLAB ON GRADE AND ELEVATED SLABS ARE NOT DESIGNED TO SUPPORT CRANES, FORKLIFTS, TRUCKS, MANLIFTS, OR OTHER CONSTRUCTION RELATED EQUIPMENT UNLESS NOTED AS SUCH. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE IF CONSTRUCTION EQUIPMENT CAN BE SAFELY OPERATED ON THESE SLABS AND TO REPAIR ANY DAMAGE THE EQUIPMENT MAY CAUSE.

2. THE CONSTRUCTION DOCUMENTS REPRESENT A STABLE STRUCTURE IN THE COMPLETED FORM. THE CONTRACTOR SHALL PROVIDE ANY TEMPORARY BRACING AND/OR SHORES TO SAFELY CONSTRUCT THE BUILDING AND PREVENT DAMAGE DURING CONSTRUCTION.

3. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS OF EXISTING CONSTRUCTION THAT MAY AFFECT THE PROJECT AND REPORT DISCREPANCIES TO THE ENGINEER. ANY DIMENSIONS FOR ELEVATIONS THAT IMPACT NEW WORK SHALL BE VERIFIED PRIOR TO FABRICATION OF ANY MATERIAL. EXISTING BUILDING ELEMENTS THAT ARE TO BE ABANDONED THAT INTERFERE WITH NEW CONSTRUCTION SHALL BE REMOVED.

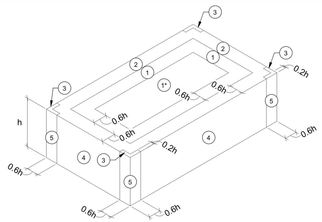
4. WHEN A PIECE OF EQUIPMENT (HVAC, ELECTRICAL, KITCHEN, ETC.) IS PROVIDED THAT IS DIFFERENT THAN THE EQUIPMENT THAT THE STRUCTURE WAS DESIGNED FOR EITHER BY SIZE, WEIGHT OR CONFIGURATION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE REMEDY OF THE SITUATION. THOSE COSTS SHALL INCLUDE THE ENGINEERING COSTS TO REDESIGN PORTIONS OF THE STRUCTURE TO ACCOMMODATE THE SUBSTITUTED EQUIPMENT.

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STRUCTURAL DESIGN AND MATERIALS FOR ATTACHING NON-STRUCTURAL ELEMENTS TO ANY PORTION OF THE STRUCTURE TO RESIST ALL LOADS, INCLUDING SEISMIC, IN A WAY THAT DOES NOT OVERSTRESS STRUCTURAL MEMBERS. NON-STRUCTURAL ELEMENTS CAN BE FOUND IN EACH OF THE OTHER DISCIPLINES (ARCHITECTURAL, MECHANICAL, ELECTRICAL, ETC.).

STRUCTURAL TESTS, INSPECTIONS, AND QUALITY ASSURANCE

1. ALL STRUCTURAL TESTS AND INSPECTIONS SHALL BE PERFORMED PER CHAPTER 17 OF THE BUILDING CODE WITH LOCAL SUPPLEMENTS, UNLESS MORE STRINGENT REQUIREMENTS ARE SPECIFIED.

COMPONENTS AND CLADDING TABLE



NOTES:

1. ALL WIND PRESSURES AND LOAD COMBINATIONS SHALL BE PROVIDED AND APPLIED PER ASCE 7-16.
2. PRESSURES SHOWN ARE APPLIED NORMAL TO THE SURFACE.
3. PLUS AND MINUS SIGNS SIGNIFY PRESSURES ACTING TOWARD AND AWAY FROM THE SURFACES, RESPECTIVELY.
4. FOR EFFECTIVE WIND AREAS BETWEEN THOSE GIVEN, STRAIGHT LINE INTERPOLATION MAY BE USED; OTHERWISE, USE THE VALUE ASSOCIATED WITH THE LOWER EFFECTIVE WIND AREA.
5. IF OVERHANGS EXIST, THE LESSER HORIZONTAL DIMENSION OF THE BUILDING SHALL NOT INCLUDE ANY OVERHANG DIMENSION, BUT THE EDGE DISTANCE, 'a', SHALL BE MEASURED FROM THE OUTSIDE EDGE OF THE OVERHANG.
6. h = MEAN ROOF HEIGHT IN FT., EXCEPT THAT EAVE HEIGHT SHALL BE USED FOR ROOF ANGLES < 10°.
7. A NET ROOF DEAD LOAD OF 15 PSF MAY BE ASSUMED TO RESIST JOIST UPLIFT FORCES.
8. C&C LOADS SHALL BE USED BY THE STEEL JOIST SUPPLIER AND ANY OTHER MANUFACTURER TO DETERMINE WALL DESIGNS, ROOF DESIGNS, CONNECTION DESIGNS, ETC.

PRESSURE (PSF)	WALL AND ROOF C&C PRESSURE												PARAPET C&C PRESSURE			
	KEY AREA 1		KEY AREA 1*		KEY AREA 2		KEY AREA 3		KEY AREA 4		KEY AREA 5		INTERIOR ZONE		CORNER ZONE	
	< 10 SF	> 100 SF	< 10 SF	> 100 SF	< 10 SF	> 100 SF	< 10 SF	> 100 SF	< 10 SF	> 100 SF	< 10 SF	> 100 SF	< 10 SF	> 100 SF	< 10 SF	> 100 SF
POSITIVE	60.6	48.0	60.6	48.0	60.6	48.0	60.6	48.0	149	127	149	127	424	334	540	381
NEGATIVE	238	186	137	137	313	247	427	293	162	140	200	155	270	225	309	241

Wichita-Sedgwick County Metropolitan Area Building and Construction Department

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WICHITA MAPLE STREET BOOSTER PUMP STATION

PAUL GUNZELMAN, P.E - CITY ENGINEER
CITY OF WICHITA PROJECT NO. 448-2019-028875

Issue:

JOB NO.	35-200810-001-0042
DATE	JANUARY 2025
PM	RWG
DESIGNED BY	DKC
DRAWN BY	DGC
CHECKED BY	MWK

STRUCTURAL GENERAL NOTES

S-002

1/28/2025 10:23:50 AM
Autodesk Docs://200810-001 - COW Maple Booster Pump Station/200810-001_STRUCT_R22.rvt

REQUIRED SPECIAL INSPECTIONS AND TESTS OF STRUCTURAL STEEL FOR WELDING PROCESS

Inspection Tasks Prior to Welding	QUALITY CONTROL	QUALITY ASSURANCE
Welding procedure specifications (WPSs) available	P	P
Manufacturer certifications for welding consumables available	P	P
Material identification (type/grade)	O	O
Welder identification system[1]	O	O
Fit-up of groove welds (including joint geometry) • Joint preparation • Dimensions (alignment, root opening, root face, bevel) • Cleanliness (condition of steel surfaces) • Tacking (tack weld quality and location) • Backing type and fit (if applicable)	O	O
Configuration and finish of access holes	O	O
Fit-up of fillet welds • Dimensions (alignment, gaps at root) • Cleanliness (condition of steel surfaces) • Tacking (tack weld quality and location)	O	O
Check welding equipment	O	--
Inspection Tasks During Welding	**QUALITY CONTROL**	**QUALITY ASSURANCE**
Use of qualified welders	O	O
Control and handling of welding consumables • Packaging • Exposure Control	O	O
No welding over cracked tack welds	O	O
Environmental conditions • Wind speed within limits • Precipitation and temperature	O	O
WPS followed • Settings on welding equipment • Travel speed • Selected welding materials • Shielding gas type/flow rate • Preheat applied • Interpass temperature maintained (min/max) • Proper position (F, V, H, OH)	O	O
Welding Techniques • Interpass and final cleaning • Each pass within profile limitations • Each pass meets quality requirements	O	O
Inspection Tasks After Welding	**QUALITY CONTROL**	**QUALITY ASSURANCE**
Welds cleaned	O	O
Size, length and location of welds	P	P
Welds meet visual acceptance criteria • Crack prohibition • Weld/base-metal fusion • Crater cross section • Weld profiles • Weld size • Undercut • Porosity	P	P
Arc strikes	P	P
k-area[2]	P	P
Backing removed and weld tabs removed (if required)	P	P
Repair activities	P	P
Document acceptance or rejection of welded joint or member	P	P

Quality Control - Requirements on the part of the steel fabricator and erector.
Quality Assurance - Requirements on the part of the project owner's representative.
P Perform these tasks for each weld joint or member.
O Observe these items on a random basis. Operations need not be delayed pending these inspections
1 The fabricator or erector, as applicable, shall maintain a system by which a welder who has welded a joint or member can be identified. Stamps, if used, shall be the low-stress type.
2 When welding of doubler plates, continuity plates or stiffeners has been performed in the k-area, visually inspect the web k-area for cracks within 3 inches (75 mm) of the weld.

REQUIRED SPECIAL INSPECTIONS AND TESTS OF SOILS

TYPE	FREQUENCY
1. Verify materials below shallow foundations are adequate to achieve the design bearing capacity.	Periodic
2. Verify excavations are extended to proper depth and have reached proper material.	Periodic
3. Perform classification and testing of compacted fill materials.	Periodic
4. Verify use of proper materials, densities and lift thicknesses during placement and compaction of compacted fill.	Continuous
5. Prior to placement of compacted fill, inspect subgrade and verify that site has been prepared properly.	Periodic

REQUIRED SPECIAL INSPECTIONS AND TESTS OF CONCRETE CONSTRUCTION

TYPE	FREQUENCY	REFERENCED STANDARD	IBC REFERENCE
1. Inspect reinforcement, including prestressing tendons, and verify placement.	Periodic	ACI 318 Ch. 20, 25.2, 25.3, 26.6.1-26.6.3	1908.4
2. Reinforcing bar welding: a. Verify weldability of reinforcing bars other than ASTM A706 b. Inspect single-pass fillet welds, maximum 5/16"; and c. Inspect all other welds.	Periodic Periodic Continuous	AWS D1.4 ACI 318: 26.6.4	
3. Inspect anchors cast in concrete.	Periodic	ACI 318: 17.8.2	
4. Inspection of anchors post installed in hardened concrete members.[b] a. Adhesive anchors installed in horizontally or upwardly inclined orientations to resist sustained tension loads. b. Mechanical anchors and adhesive anchors not defined in 4.a.	Continuous Periodic	ACI 318: 17.8.2.4 ACI 318: 17.8.2	
5. Verify use of required design mix.	Periodic	ACI318: Ch.19, 26.4.3, 26.4.4	1904.1, 1904.2 1908.2, 1908.3
6. Prior to concrete placement, fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete.	Continuous	ASTM C172, ASTM C31, ACI 318: 26.5, 26.12	1908.10
7. Inspection of concrete and shotcrete placement for proper application techniques.	Continuous	ACI 318: 26.5	1908.6, 1908.7, 1908.8
8. Verify maintenance of specified curing temperature and techniques.	Periodic	ACI 318: 26.5.3-26.5.5	1908.9
9. Inspection of prestressed concrete for: a. Application of prestressing forces; and b. Grouting of bonded prestressing tendons.	Continuous Continuous	ACI 318: 26.10 ACI 318: 26.10	
10. Inspect erection of precast concrete members.	Periodic	ACI 318: Ch. 26.9	
11. Verify in-situ concrete strength, prior to stressing of tendons in post-tensioned concrete and prior to removal of shores and forms from beams and structural slabs.	Periodic	ACI 318: 26.11.2	
12. Inspect formwork for shape, location and dimensions of the concrete member being formed.	Periodic	ACI 318: 26.11.1.2(b)	

(a) Where applicable, see Section 1705.12, Special inspections for seismic resistance.
(b) Specific requirements for special inspection shall be included in the research report for the anchor issued by an approved source in accordance with 17.8.2 in ACI 318, or other qualification procedures. Where specific requirements are not provided, special inspection requirements shall be specified by the registered design professional and shall be approved by the building official prior to the commencement of the work.

REQUIRED SPECIAL INSPECTIONS AND TESTS OF STRUCTURAL STEEL FOR BOLTING PROCESS

Inspection Tasks Prior to Bolting	QUALITY CONTROL	QUALITY ASSURANCE
Manufacturer certifications available for fastener materials	O	P
Fasteners marked in accordance with ASTM requirements	O	O
Proper fasteners selected for the joint detail (grade, type, bolt length if threads are to be excluded from shear plane)	O	O
Proper bolting procedure selected for joint detail	O	O
Connecting elements, including the appropriate faying surface condition and hole preparation, if specified, meet applicable requirements	O	O
Pre-installation verification testing by installation personnel observed and documented for fastener assemblies and methods used	P	O
Proper storage provided for bolts, nuts, washers and other components	O	O
Inspection Tasks During Bolting	**QUALITY CONTROL**	**QUALITY ASSURANCE**
Fastener assemblies, of suitable condition, placed in all holes and washers (if required) are positioned as required	O	O
Joint brought to the snug-tight condition prior to the pretensioning operation	O	O
Fastener component not turned by the wrench prevented from rotating	O	O
Fasteners are pretentioned in accordance with the RCSC Specification, progressing systematically from the most rigid point toward the free edges	O	O
Inspection Tasks After Bolting	**QUALITY CONTROL**	**QUALITY ASSURANCE**
Document acceptance or rejection of bolted connections	P	P

Quality Control - Requirements on the part of the steel fabricator and erector.
Quality Assurance - Requirements on the part of the project owner's representative.
P Perform these tasks for each weld joint or member.
O Observe these items on a random basis. Operations need not be delayed pending these inspections

Special Inspection Additional Requirements:

- Additional items that need special inspection, in the opinion of the building official, shall be inspected.
- Coordination of Special Inspections with construction of the inspected items shall be the responsibility of the contractor.
- If Special Inspection is waived by the Authority having Jurisdiction, the general contractor shall provide the designer of record with a copy of the written exemption for each item that has been waived.
- The building official may perform inspections in addition to and/or concurrently with the Special Inspection's outlined in the tables.
- The general contractor is responsible for implementing a quality control program. The quality control program is in addition to the Special Inspection requirements and must meet or exceed those responsibilities required as part of the contract drawings and specifications.

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CITY OF WICHITA

DAVID K. CARPENTER LICENSED 23070 01/28/2025 KANSAS PROFESSIONAL ENGINEER

WICHITA MAPLE STREET BOOSTER PUMP STATION

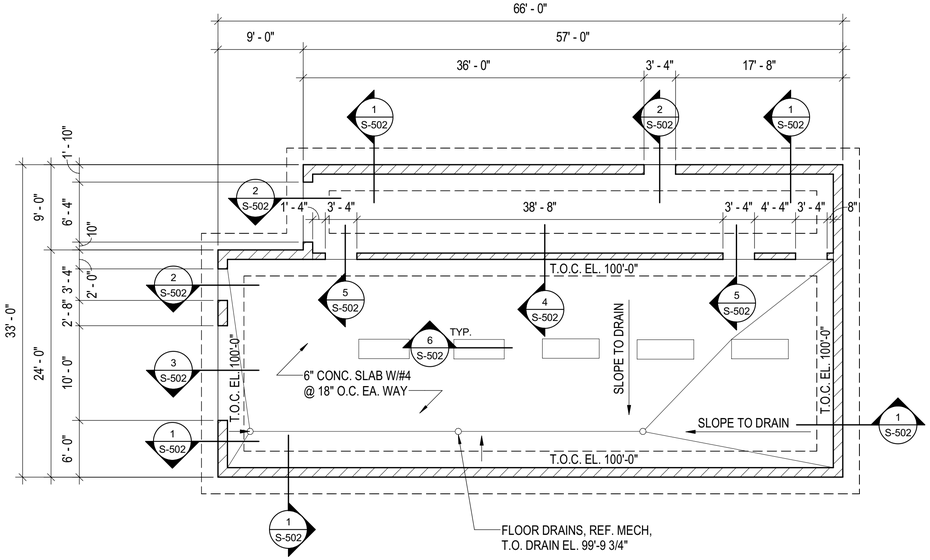
PAUL GUNZELMAN, P.E - CITY ENGINEER
CITY OF WICHITA PROJECT NO. 448-2019-028875

Issue:		

JOB NO.	35-200810-001-0042
DATE	JANUARY 2025
PM	RWG
DESIGNED BY	DKC
DRAWN BY	DGC
CHECKED BY	MWK

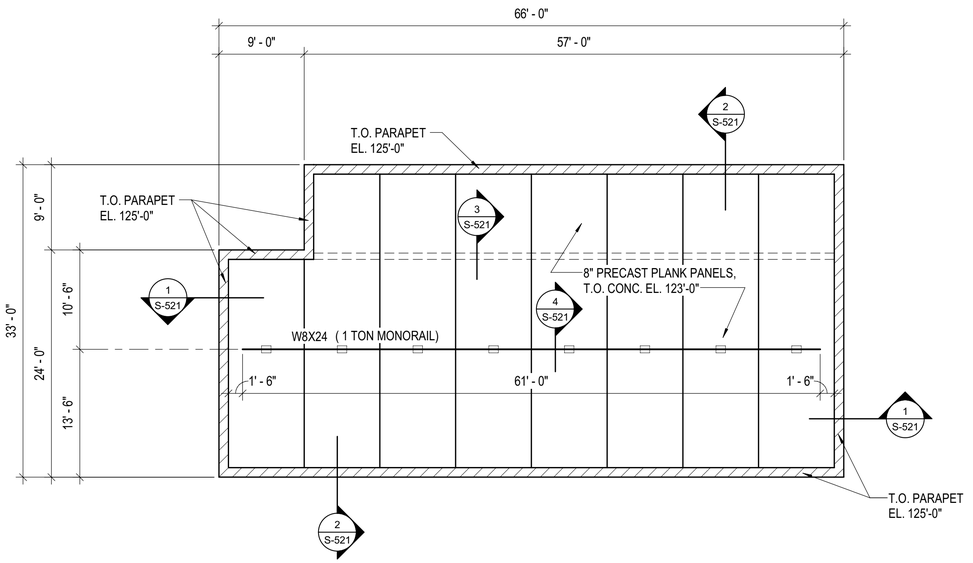
IBC INSPECTION TABLES

S-003



A FOUNDATION PLAN
1/8" = 1'-0"

PLAN NORTH



B ROOF FRAMING PLAN
1/8" = 1'-0"

PLAN NORTH

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STRUCTURAL PLANS

S-101

1/28/2025 10:23:51 AM
Autodesk Docs://200810-001 - COW Maple Booster Pump Station/200810-001_STRUCT_R22.rvt

CONCRETE REINFORCEMENT LAP, EMBEDMENT, AND HOOK LENGTHS

fy = 60,000 PSI **f'c = 4,000 PSI**

NOTES:

1. LENGTHS SHOWN CONFORM WITH NON-SEISMIC PROVISIONS OF ACI 318 FOR UNCOATED BARS.
2. BAR CLEAR SPACING IS THE CENTER TO CENTER BAR SPACING MINUS ONE BAR DIAMETER.
3. CLASS A LAP LENGTHS APPLY WHEN BAR LAPS ARE STAGGERED TO LAP HALF THE BARS AT THE SAME LOCATION. USE CLASS B LAP FOR ALL OTHER CASES.
4. TOP BARS ARE HORIZONTAL REINFORCEMENT PLACED SO THAT MORE THAN 12 INCHES OF CONCRETE IS CAST BELOW THE REINFORCEMENT.
5. MULTIPLY LENGTHS GIVEN BY 2.0 FOR BARS WITH CLEAR SPACING OF TWO BAR DIAMETERS OR LESS, OR CONCRETE COVER OF ONE BAR DIAMETER OR LESS.

BAR SIZE	CLEAR SPACING (S) (IN)			EMBEDMENT & CLASS A LAP (IN)						CLASS B LAP (IN)						HOOK EMBED (IN)
				TOP BAR			OTHER BARS			TOP BAR			OTHER BARS			
	2d	3d	5d	2d<s<3d	S>3d	S>5d	2d<s<3d	S>3d	S>5d	2d<s<3d	S>3d	S>5d	2d<s<3d	S>3d	S>5d	
3	3/4	1-1/8	1-7/8	28	18	12	21	14	12	36	24	14	28	18	12	8
4	1	1-1/2	2-1/2	37	25	15	28	19	12	48	32	19	37	25	15	10
5	1-1/4	1-7/8	3-1/8	46	31	18	36	24	14	60	40	24	46	31	18	12
6	1-1/2	2-1/4	3-3/4	55	37	22	43	28	17	72	48	29	55	37	22	15
7	1-3/4	2-5/8	4-3/8	81	54	32	62	42	25	105	70	42	81	54	32	18
8	2	3	5	92	62	37	71	47	28	120	80	48	92	62	37	20
9	2-1/4	3-3/8	5-5/8	104	70	42	80	54	32	136	90	54	104	70	42	22
10	2-1/2	3-3/4	6-3/8	117	78	47	90	60	36	153	102	61	117	78	47	25
11	2-7/8	4-1/4	7	130	87	52	100	67	40	170	113	68	130	87	52	27

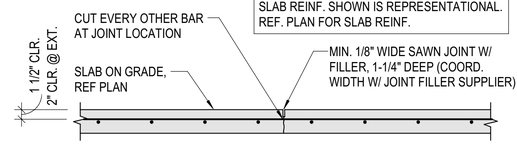
NOTE:
REINF. SHOWN APPLIES TO TOP, BOT. AND INTERMEDIATE BARS IN CONC. WALLS AND GRADE BEAMS U.N.O.

3 TYP. CORNER/INTERSECTION
NO SCALE

NOTE:
1. THE FDN. SHOWN IS REPRESENTATIONAL. ACTUAL FDN. CONFIGURATION MAY VARY.
2. ENCASEMENT MUST NOT BE GREATER THAN 5'-0" WIDE.
3. MULTIPLE ENCASEMENTS MUST BE SPACED GREATER THAN 2X THE DEPTH TO THE BOT. OF ENCASEMENT.
4. IF THESE CONDITIONS CANNOT BE MET, THE CONTRACTOR SHALL NOTIFY THE E.O.R. BEFORE PROCEEDING.

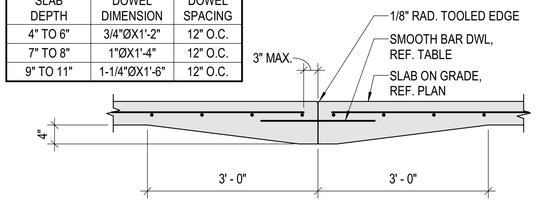
4 UTILITY ENCASEMENT UNDER FTG.
NO SCALE

NOTE:
SLAB REINF. SHOWN IS REPRESENTATIONAL. REF. PLAN FOR SLAB REINF.



REINFORCING SAWN JOINT (S.J.) DETAIL

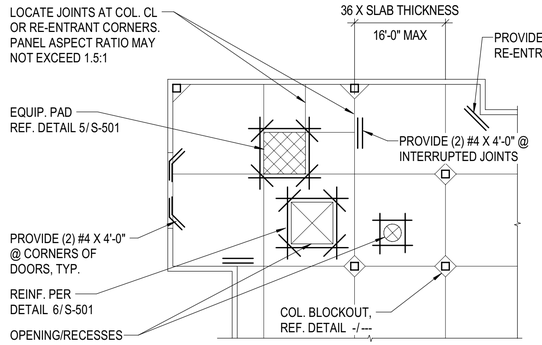
SMOOTH BAR DOWELS		
SLAB DEPTH	DOWEL DIMENSION	DOWEL SPACING
4" TO 6"	3/4"ØX1'-2"	12" O.C.
7" TO 8"	1"ØX1'-4"	12" O.C.
9" TO 11"	1-1/4"ØX1'-6"	12" O.C.



REINFORCING CONSTRUCTION JOINT (C.J.) DETAIL

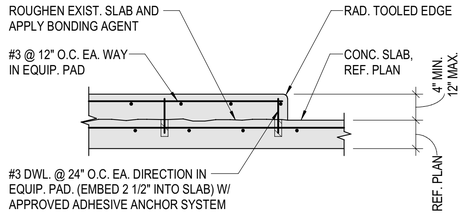
1 TYP. SLAB ON GRADE JOINT
NO SCALE

NOTE:
G.C. TO SUBMIT PROPOSED SLAB JOINT LAYOUT FOR APPROVAL



2 TYP. SLAB JOINT DETAIL
NO SCALE

NOTE:
REF. MECH. AND ELEC. FOR THE REQ'D PAD THICKNESS AND EQUIP. SIZE



5 TYP. INTERIOR EQUIP. PAD
NO SCALE

NOTE:
SHAPE OF OPENING IS REPRESENTATIONAL

NOTE:
1. USE THIS DETAIL FOR ALL OPENINGS GREATER THAN 8" IN CONC. WALLS AND SLABS. PROVIDE (2) #5 ON DIAGONAL AS SHOWN AND EXTEND BARS 2'-0" MIN. BEYOND EDGE OF OPENING. REPLACE ALL VERT. AND HORIZ. BARS INTERRUPTED BY THE OPENING WITH AN EQ. QUANTITY AND SIZE BARS EVENLY DIVIDED ON EA. SIDE OF THE OPENING U.N.O.
2. REF. PLANS FOR OPENING LOCATIONS.

6 TYP. CONC. OPENING REINF.
NO SCALE

NOTE:
THICKEN FDN. AS SHOWN WHERE SUBGRADE UTILITY LINE IS LESS THAN 2'-0" BELOW THE BOT. OF THE FDN., TYP.

7 TYP. UTILITY THRU FTG.
NO SCALE

Wichita-Sedgwick County Metropolitan Area Building and Construction Department

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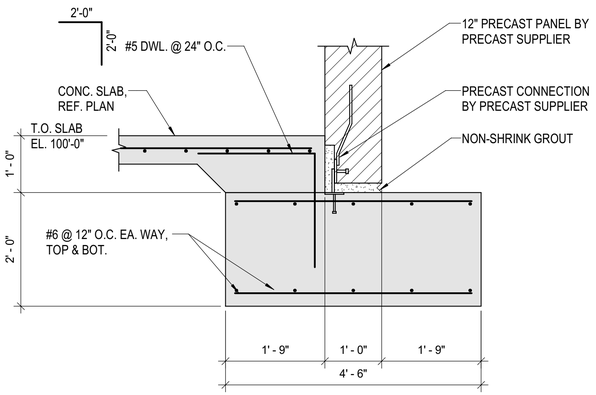
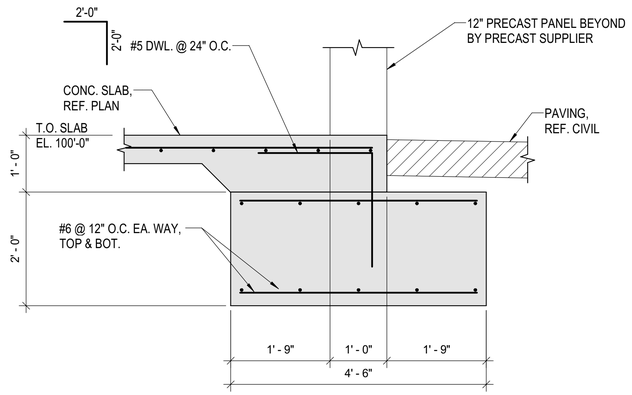
TYPICAL FOUNDATION DETAILS

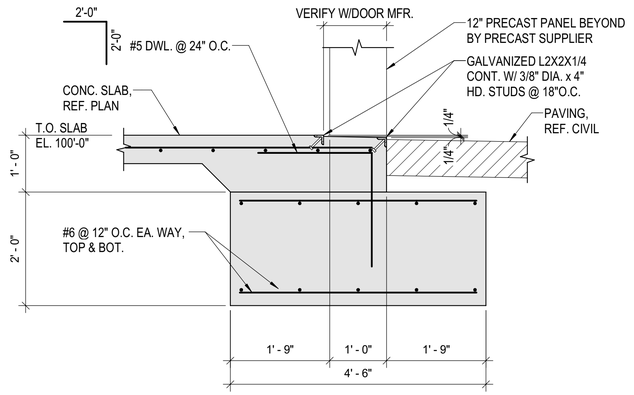
S-501



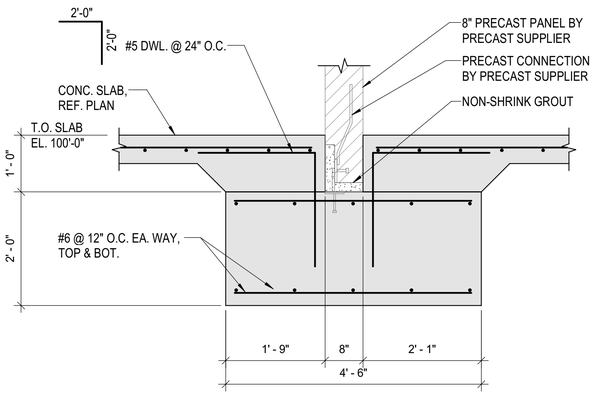
1 EXT. FDN. AT PRECAST WALL
3/4" = 1'-0"



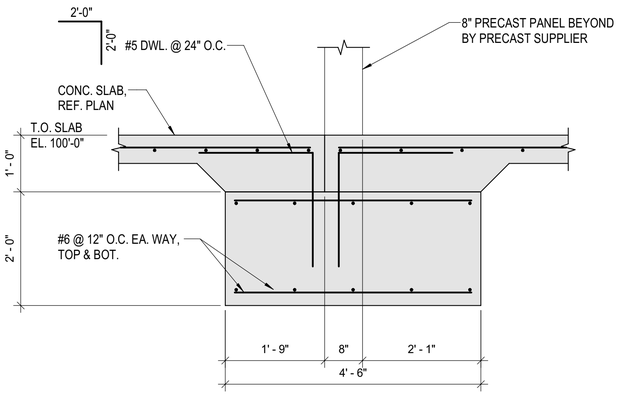
2 EXT. FDN. AT PRECAST WALL OPENING
3/4" = 1'-0"



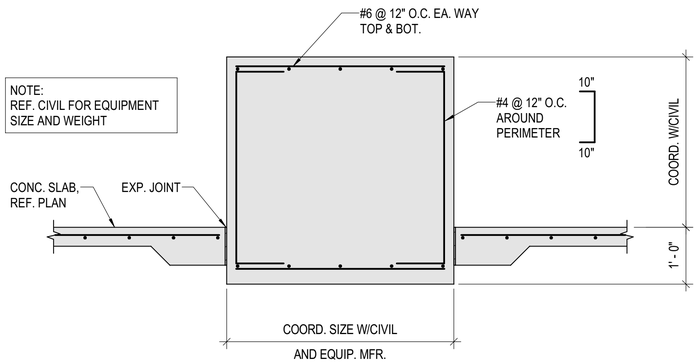
3 EXT. FDN. AT OVERHEAD DOOR OPENING
3/4" = 1'-0"



4 INT. FDN. AT PRECAST WALL
3/4" = 1'-0"



5 INT. FDN. AT PRECAST WALL OPENING
3/4" = 1'-0"



6 TYP. EQUIP. ISOLATION FOUNDATION PAD
NO SCALE

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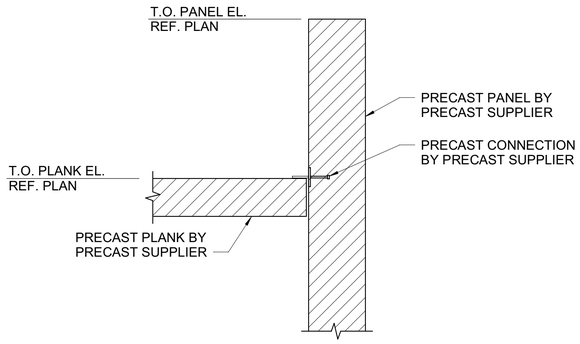
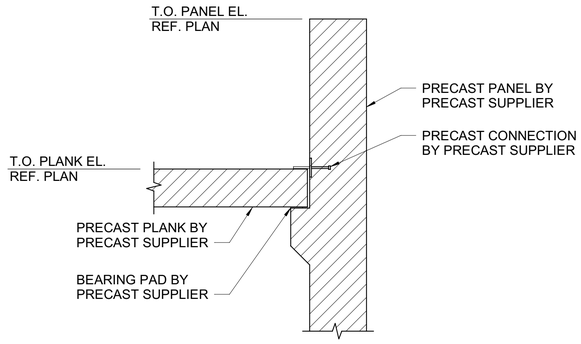
FOUNDATION DETAILS

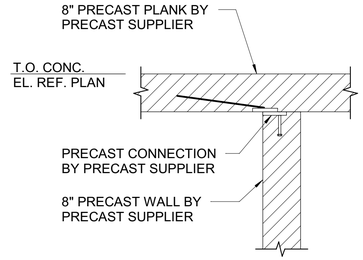
S-502



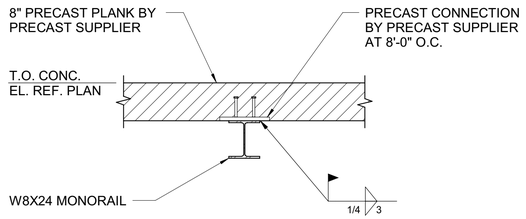
1 PRECAST FRAMING DETAIL
3/4" = 1'-0"



2 PRECAST FRAMING DETAIL
3/4" = 1'-0"



3 PRECAST FRAMING DETAIL
3/4" = 1'-0"



4 MONORAIL CONN. DETAIL
3/4" = 1'-0"

Wichita-Sedgwick County
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FRAMING DETAILS

S-521

HVAC & PLUMBING SYMBOL SCHEDULE

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
(#) (#) (#)	REFER TO PLAN NOTES	111	ROOM CALLOUT
(E)	EXISTING EQUIPMENT OR MATERIAL DESIGNATION	△	REVISION NUMBER
	EXISTING COMPONENT PEN WEIGHT		CONNECT NEW TO EXISTING. VERIFY EXACT LOCATION.
	DEMOLITION PEN WEIGHT - COMPONENT MAY ALSO BE SHADED		DISCONNECT FROM EXISTING. VERIFY EXACT LOCATION.
TCC	TEMPERATURE CONTROL CONTRACTOR	GC	GENERAL CONTRACTOR
EC	ELECTRICAL CONTRACTOR	MC	MECHANICAL CONTRACTOR
PC	PLUMBING CONTRACTOR	TYP. / (TYP)	TYPICAL ALL INSTANCES
UNO	UNLESS NOTED OTHERWISE	ETR	EXISTING TO REMAIN
24x12	(UP)DUCT SEC., POSITIVE PRESSURE-FIRST SIZE IS TOP DIM.(TYP.)		BALANCING DAMPER W/ MANUAL LOCKING QUADRANT
24x12	(DOWN) DUCT SECTION, POSITIVE PRESSURE		RECTANGULAR - OPPOSED BLADE / ROUND - BUTTERFLY
24x12	(UP) DUCT SECTION, NEGATIVE PRESSURE		BALANCING DAMPER W/ MOTORIZED LOCKING QUADRANT
24x12	(DOWN) DUCT SECTION, NEGATIVE PRESSURE		RECTANGULAR - OPPOSED BLADE / ROUND - BUTTERFLY
	SUPPLY DUCT DROP / RETURN DUCT DROP	18x12	DUCT SIZE, FIRST FIGURE IS SIDE SHOWN-CLEAR INSIDE DIM.
	SUPPLY DUCT RISER	→ R	DUCT CHANGE OF ELEVATION RISE(R) DROP(D)
	RETURN DUCT RISER		FLEXIBLE CONNECTION
	FLEXIBLE DUCT		SIDE WALL SUPPLY REGISTER
	TURNING VANES	RTU / AHU	ROOFTOP UNIT / AIR HANDLING UNIT
SA / OA	SUPPLY AIR / OUTSIDE AIR	VAV	VARIABLE AIR VOLUME UNIT
RA / EA	RETURN AIR / EXHAUST AIR	FTU / FCU	FAN POWERED TERMINAL UNIT / FAN COIL UNIT
OBD	OPPOSED BLADE DAMPER	MAU	MAKE-UP AIR UNIT
BOD	BOTTOM OF DUCT ELEVATION ABOVE FLOOR	SF	SUPPLY AIR FAN
BOS	BOTTOM OF STEEL	EF / RG	EXHAUST FAN / RETURN GRILLE
TOD	TOP OF DUCT ELEVATION ABOVE FLOOR	SR	SUPPLY REGISTER
DH	DUCT HEATER	F	FURNACE
DP	DIFFERENTIAL PRESSURE	UH	UNIT HEATER
CVR	CONSTANT VOLUME REHEAT UNIT	CRAC	COMPUTER ROOM AIR CONDITIONING UNIT
V V R	VARIABLE VOLUME REHEAT UNIT	H	HUMIDIFIER
V V T	VARIABLE VOLUME VARIABLE TEMPERATURE	VFD	VARIABLE FREQUENCY DRIVE
UV	ULTRAVIOLET STERILE CONDITIONER	FD	FIRE DAMPER IN WALL
R	RADIATION DAMPER	FD	FIRE DAMPER IN FLOOR
M	MOTOR	SD	SMOKE DAMPER
T	TEMPERATURE SENSOR	FSD	COMBINATION FIRE/SMOKE DAMPER IN WALL
H	HUMIDITY SENSOR	FSD	COMBINATION FIRE/SMOKE DAMPER IN FLOOR
H	ELECTRIC OR DDC HUMIDISTAT (HSTAT)	T	ELECTRIC OR DDC THERMOSTAT (TSTAT)
H	PNEUMATIC HUMIDISTAT	T	PNEUMATIC THERMOSTAT
	DOUBLE CHECK BACKFLOW ASSEMBLY		BALL VALVE
	REDUCED PRESSURE ZONE BACKFLOW ASSEMBLY		CIRCUIT SETTER - CALIBRATED BALANCE VALVE
	GAS COCK / GLOBE VALVE		BUTTERFLY VALVE
	VALVE IN DROP / VALVE IN RISER		2-WAY / 3-WAY CONTROL VALVE (PNEUMATIC)
	GATE VALVE - SHUT OFF VALVE		2-WAY / 3-WAY CONTROL VALVE (ELECTRIC)
	3 PIECE BALL VALVE / HYDRAULIC VALVE		CHECK VALVE
	EMERGENCY VALVE WITH FIRE LINK		PRESSURE REDUCING VALVE (PRV) / WAFER CHECK VALVE
	STRAINER / UNION OR FLANGE CONNECTION		AUTOMATIC FLOW CONTROL VALVE
	PLUG VALVE		CALIBRATED ORIFICE PLATE FLOW METER
	SPRING HANGER / PIPE HANGER		THERMOMETER / PRESSURE GAUGE
	CAP / CAPPED OUTLET		CONCENTRIC REDUCER OR INCREASER / ECCENTRIC REDUCER
	PIPE DROP / PIPE RISE		TOP CONNECTION, 45° OR 90° / BOTTOM CONNECTION, 45° OR 90°
	DIRECTION OF FLOW / ANCHOR		SIDE CONNECTION
	DOMESTIC COLD WATER LINE (CW)		ABOVE FLOOR WASTE LINE (W)
	DOMESTIC HOT WATER LINE (HW)		BELOW FLOOR WASTE LINE (W)
	HOT WATER RECIRC LINE (HWC)		PLUMBING VENT LINE (V)
F	FIRE PROTECTION LINE (F)	RL ORL	RAIN LEADER (RL) / OVERFLOW RAIN LEADER (ORL)
CA	COMPRESSED AIR (CA)	SWS	STORM SEWER (SWS)
TW	DOMESTIC TEMPERED WATER LINE (TW)	FS UF	FUEL SUPPLY / UNUSABLE FUEL
FCW	FILTERED COLD WATER LINE (FCW)	FOS FOR	FUEL OIL SUPPLY / FUEL OIL RETURN
SCW	SOFT COLD WATER LINE (SCW)	FOG	FUEL OIL GAUGE
RO	REVERSE OSMOSIS PURE WATER SUPPLY LINE (RO)	TOP / BOP	TOP OF PIPE / BOTTOM OF PIPE ELEVATION ABOVE FLOOR
ROR	REVERSE OSMOSIS PURE WATER RETURN LINE (ROR)	RD / ORD	ROOF DRAIN / OVERFLOW ROOF DRAIN
DI	DEIONIZED PURE WATER SUPPLY (DI)	CI	CAST IRON
IW	INDUSTRIAL WASTE	VCP / PVC	VITRIFIED CLAY PIPE / POLYVINYL CHLORIDE PIPE
G	NATURAL GAS LINE (G)	WH	WALL HYDRANT
CD	COOLING COIL CONDENSATE DRAIN LINE (CD)	WH-#	WATER HEATER CALLOUT
VTR	VENT THROUGH ROOF	F/S	FILTER-SEPARATOR
FD / TD	FLOOR DRAIN / TRENCH DRAIN	FS	FLOOR SINK
CO CO	CLEANOUT (FLOOR) / 2-WAY CLEANOUT (FLOOR)	FHC	FIRE HOSE CABINET
WCO CO	WALL CLEANOUT / END OF LINE CLEANOUT	DHWP	DOMESTIC HOT WATER PUMP
P-#	PLUMBING FIXTURE CALLOUT	HR / HB	HOSE REEL / HOSE BIBB
WHA#	WATER HAMMER ARRESTOR - PDI SIZE	TMV	THERMOSTATIC MIXING VALVE
FL	FLOW LINE ELEVATION		

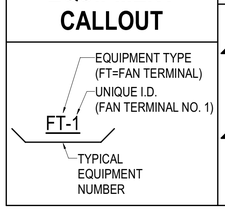
NOT ALL MAY BE USED ON PROJECT

GENERAL NOTES

1. VERIFY JOB SITE CONDITIONS AND DIMENSIONS BEFORE BEGINNING WORK. PLANS ARE SCHEMATIC IN NATURE. LAYOUT IS BASED ON BEST AVAILABLE INFORMATION. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS.
2. NO PIPING, DUCTWORK, ETC. SHALL PENETRATE STRUCTURAL MEMBERS.
3. PROVIDE MISCELLANEOUS CUTTING, PATCHING AND REPAIRING OF FINISHES, ROOF, WALLS, ETC., AS REQUIRED TO ACCOMMODATE THE NEW WORK.
4. G.C. IS TO PATCH ANY OPENINGS IN CORRIDORS REQUIRED TO BE CONSTRUCTED TO LIMIT THE TRANSFER OF SMOKE AND IN SMOKE BARRIERS AS REQUIRED TO MEET CODE REQUIREMENTS. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS.
5. COORDINATE ALL WORK WITH OTHER TRADES PRIOR TO INSTALLATION.
6. UNLESS OTHERWISE INDICATED, INSTALL ALL SPACE THERMOSTATS AND OTHER OCCUPANT ADJUSTABLE CONTROL DEVICES SAME HEIGHT AS ADJACENT LIGHT SWITCHES, BUT IN NO CASE HIGHER THAN 48 INCHES ABOVE FINISHED FLOOR PER ADA REQUIREMENTS. COORDINATE EXACT HEIGHT WITH ARCHITECT PRIOR TO INSTALLATION.
7. ALL CUTTING AND PATCHING SHALL BE CLOSELY COORDINATED WITH THE G.C.
8. COORDINATE ROUTING OF PLUMBING, AND HVAC PIPING WITH DUCTWORK, LIGHTS, ARCHITECTURAL CEILING AND STRUCTURAL ELEMENTS. PIPING SHALL RISE AND DROP, JOG OR OFFSET AS REQUIRED TO AVOID CONFLICTS. DUCTWORK SHALL TAKE PRECEDENCE OVER ALL PIPING, EXCEPT WHERE GRADE MUST BE MAINTAINED FOR DRAINAGE. REWORK OF INSTALLED WORK TO RESOLVE CONFLICTS RISING FROM LACK OF COORDINATION SHALL NOT JUSTIFY AN INCREASE IN THE CONTRACT AMOUNT.
9. SEAL TRANSVERSE AND LONGITUDINAL JOINTS OF ALL DUCTWORK USING HARDCAST DT TAPE AND FTA-20 ADHESIVE OR HARDCAST AFG-1402 "FOIL GRIP" PER MANUFACTURERS INSTRUCTIONS.
10. INSTALL BALANCE DAMPER WITH STANDOFF AND LOCKING QUADRANT IN AN ACCESSIBLE LOCATION AT EACH RUNOUT TO SUPPLY DIFFUSERS, EXHAUST GRILLES, AND RETURN GRILLES WHERE AIRFLOW IS INDICATED, OR AS INDICATED OTHERWISE.
11. ALL PENETRATIONS THROUGH FIRE RATED ASSEMBLIES SHALL BE FIRE STOPPED BY THE TRADE MAKING THE PENETRATION. REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR REQUIREMENTS.
12. DO NOT ROUTE PIPING OR DUCTWORK OVER ELECTRICAL PANELS OR EQUIPMENT. PIPING OR DUCTWORK SHALL NOT BE ROUTED THROUGH ELECTRICAL ROOMS, TELECOM ROOMS OR ELEVATOR EQUIPMENT ROOMS UNLESS SPECIFICALLY SERVING THAT ROOM. COORDINATE WITH E.C. PROVIDE WATERTIGHT DRIP PAN WITH DRAIN TO NEAREST APPROVED RECEPTOR WHERE REQUIRED.
13. COORDINATE SIZE AND LOCATION OF ACCESS DOORS IN CONSTRUCTION REQUIRED FOR ACCESS TO MECHANICAL EQUIPMENT WITH G.C.
14. COORDINATE SIZE AND LOCATION OF MECHANICAL EQUIPMENT PADS WITH G.C.
15. ALL WORK IS TO CONFORM WITH APPLICABLE CODES AND STANDARDS.
16. DUCT SIZES SHOWN ARE ACTUAL INSIDE CLEAR DIMENSIONS. INCREASE SHEET METAL DIMENSIONS AS REQUIRED TO ACCOMMODATE DUCT LINER WHERE LINER IS SPECIFIED.
17. ALL EQUIPMENT SUPPORT STANDS SHALL BE PRIMED AND PAINTED WITH EPOXY ENAMEL.
18. PAINT INSIDE OF DUCTWORK BLACK ANYWHERE VISIBLE THROUGH FACE OF GRILLE OR DIFFUSER.
19. UNDERGROUND-TYPE UTILITY MARKER: PROVIDED AND INSTALLED PER SPECIFICATION SECTIONS 220553 AND 230553 AT EVERY 100 FEET FOR ALL UNDERGROUND UTILITIES (INCLUDING HEAT PUMP WELL FIELD). LABEL WITH THE APPROPRIATE UTILITY. EACH VERTICAL GROUND SOURCE HEAT PUMP WELL/BORE SHALL BE LABELED "GCHP WELL #X WITH APPROPRIATE NUMERIC WELL NUMBER IDENTIFICATION.
20. MECHANICAL CONTRACTOR (M.C.) SHALL FURNISH AND ELECTRICAL CONTRACTOR (E.C.) SHALL INSTALL ALL LOW VOLTAGE WIRING AND ASSOCIATED CONDUIT REQUIRED FOR MECHANICAL CONTROL SYSTEM. WIRING SHALL BE IN CONDUIT INSIDE WALLS, IN ROOMS WITH EXPOSED CEILINGS, AND ABOVE HARD CEILINGS. LINE VOLTAGE WIRING AND ASSOCIATED CONDUIT SHALL BE PROVIDED AND INSTALLED BY E.C. CONTROL SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH SPECIFICATIONS.
21. CONTRACTOR TO INSTALL TEMPORARY FILTERS OVER ALL RETURN AND EXHAUST GRILLES IN WORK AREA DURING CONSTRUCTION.
22. THESE DRAWINGS ARE ACCOMPANIED BY SPECIFICATIONS. REFER TO SPECIFICATIONS FOR FURTHER INFORMATION.
23. EQUIPMENT THAT REQUIRES MAINTENANCE SHALL BE LOCATED A MINIMUM OF 10'-0" FROM THE BUILDING ROOF EDGE WHERE REQUIRED BY CODE.
24. SQUARE THROAT NOT ALLOWED ON RADIUS ELBOWS.

DRAWING SYMBOLS

EQUIPMENT CALLOUT



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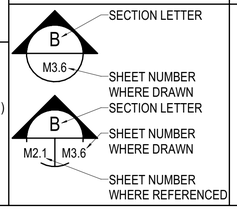
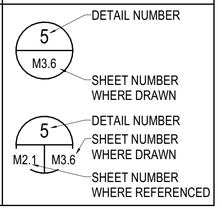


DETAILS



MECHANICAL SHEET INDEX

HVAC DESIGN CONDITIONS

REMARKS:
1. HUMIDITY CONTROL IN COOLING MODE ONLY.

SPACE OR AREA	OUTDOOR AIR		INDOOR HEATING °F	INDOOR COOLING °F	RELATIVE HUMIDITY %RH	REMARKS
	SUMMER DB/WB °F	WINTER DB °F				
BOOSTER PUMP STATION	97/78	8	55	75	50	1
ELECTRICAL ROOM	97/78	8	55	80	50	2

Wichita-Sedgwick County Metropolitan Area Building and Construction Department

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CITY OF WICHITA

BRANDON W. CLASSEN
LICENSED
19365
2025-01-28
KANSAS
PROFESSIONAL ENGINEER

WICHITA MAPLE STREET BOOSTER PUMP STATION

PAUL GUNZELMAN, P.E. - CITY ENGINEER
CITY OF WICHITA PROJECT NO. 448-2019-028875

Issue:

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MECHANICAL COVER SHEET

MP001

1/24/2025 3:15:19 PM
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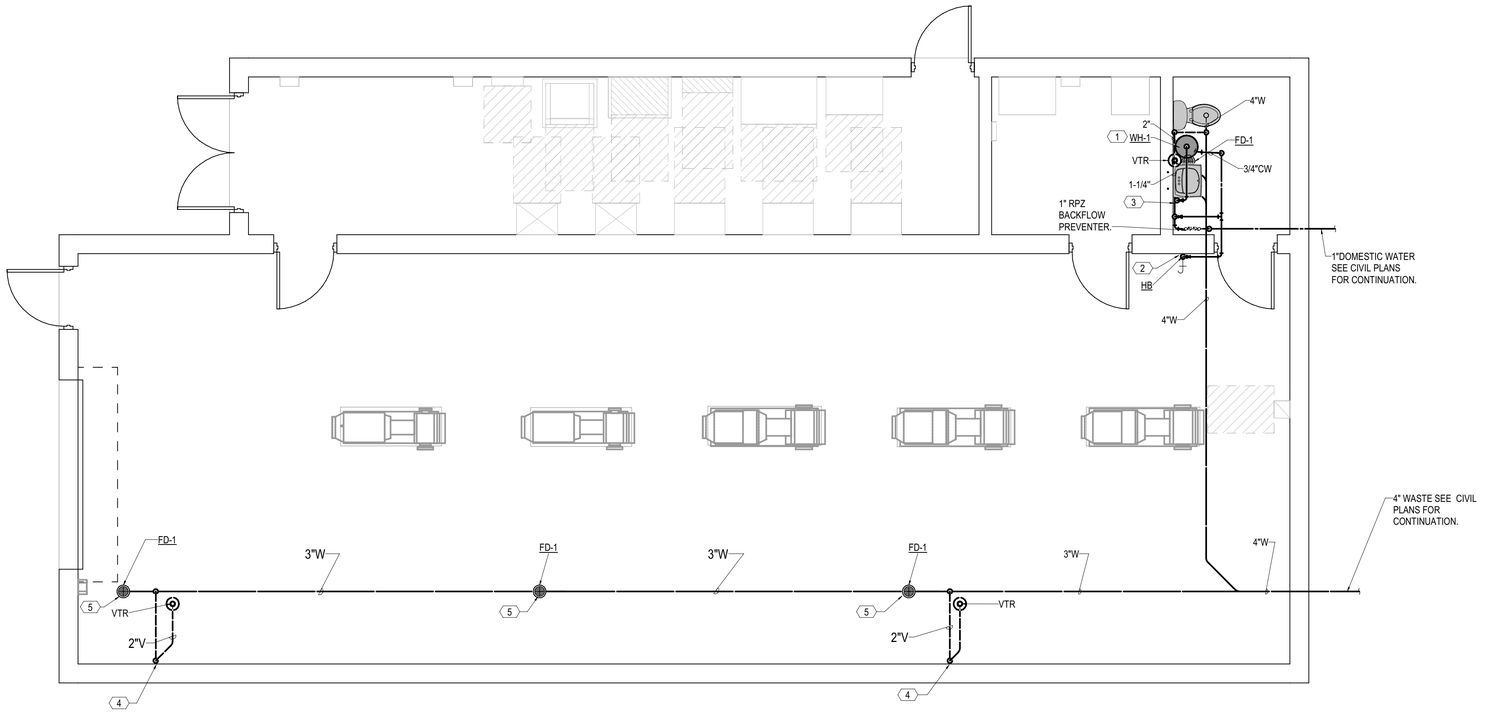

1 FIRST FLOOR WASTE AND VENT PLAN

0' 2' 4' 6' 1/4" = 1'-0"

NORTH

Wichita-Sedgwick County
Metropolitan Area Building
and Construction Department

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MABCD REVIEWER:

PLUMBING GENERAL NOTES

1. REFER TO THE PLUMBING FIXTURE SCHEDULE FOR PIPE SIZES TO INDIVIDUAL FIXTURES.
2. NOT ALL REQUIRED CLEANOUTS ARE NECESSARILY SHOWN ON THESE PLANS. PROVIDE CLEANOUTS ON WASTE, VENT AND STORM PIPING AS REQUIRED BY CODE AND FOR REASONABLE MAINTENANCE BASED ON ACTUAL FIELD INSTALLATION.
3. PIPING ON EXTERIOR WALLS OR PRE-CAST WALLS TO BE ROUTED IN FRAMED WALL ON INTERIOR SIDE OF INSULATION.
4. TERMINATE PLUMBING VENTS NOT LESS THAN 12" ABOVE ROOF AND A MINIMUM OF 10'-0" FROM MECHANICAL OUTDOOR AIR INTAKES.
5. AVOID ROUTING OVER ELECTRICAL ROOMS AND ELECTRICAL PANELS; MAINTAIN N.E.C. CLEARANCES. COORDINATE ROUTING WITH ELECTRICAL CONTRACTOR.
6. PIPING MAY BE ROUTED TIGHT TO THE WALL WHERE POSSIBLE, IT IS NOT THE INTENT OF THIS PLAN TO SHOW EXACT ROUTING BUT RATHER SIZES AND GENERAL ROUTING.
7. PROVIDE ACCESSIBLE SHUT-OFF VALVES TO ALL APPLIANCES AND EQUIPMENT.
8. VERIFY AND REFER TO ARCHITECTURAL DIMENSIONAL FLOOR PLAN FOR EXACT LOCATIONS OF ALL FIXTURES AND EQUIPMENT.

SHEET KEYNOTES

1 PROVIDE CATCH PAN FOR WATER HEATER, ROUTE DRAIN FROM PAN AND WATER HEATER RELIEF DOWN TO FLOOR DRAIN.

2 1/2" CW DOWN TO HOSE BIBB, SURFACE MOUNT VERTICAL PIPE.

3 ROUTE 3/4" CW ACROSS FROM BACKFLOW PREVENTER AND 1/2" HW SURFACE MOUNTED DOWN WALL, CONNECT 1/2" CW AND 1/2" HW TO LAVATORY AND 3/4" CW TO WATER CLOSET SEE PLUMBING FIXTURE SCHEDULE FOR ACCESORIES.

4 ROUTE VENT OVER TO EXTERIOR WALL, SURFACE MOUNT ON WALL UP TO ROOF. VTR SHALL BE MINIMUM 3 FEET FROM ROOF EDGE.

5 FLOOR MUST SLOPE AT 1/8" PER FOOT TO THE FLOOR DRAIN, COORDINATE LOCATIONS AND SLOPE WITH STRUCTURAL DRAWINGS.

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CITY OF WICHITA

BRANDON W. CLAASSEN LICENSED 19365 2025-01-28 KANSAS PROFESSIONAL ENGINEER

WICHITA MAPLE STREET BOOSTER PUMP STATION

PAUL GUNZELMAN, P.E. - CITY ENGINEER
CITY OF WICHITA PROJECT NO. 448-2019-028875

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FIRST FLOOR PLUMBING PLAN

P-101

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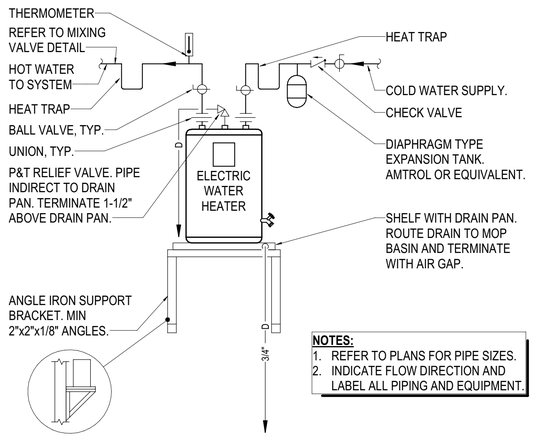
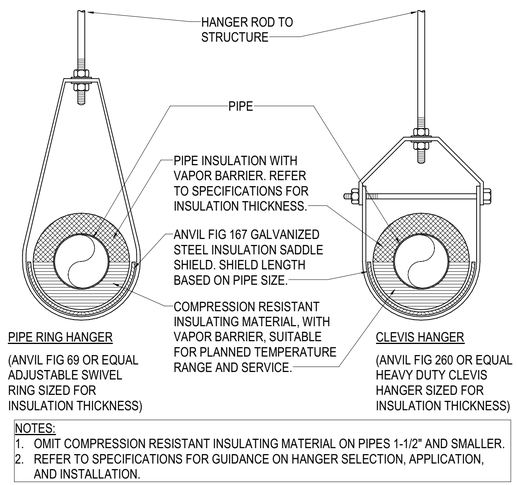


2 WATER HEATER DETAIL - ELECTRIC - WALL MOUNTED

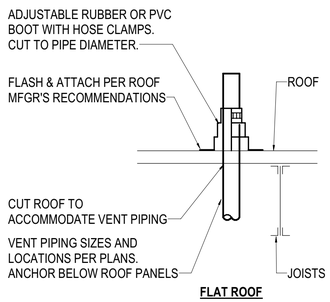
NO SCALE



NOTES:
1. OMIT COMPRESSION RESISTANT INSULATING MATERIAL ON PIPES 1-1/2" AND SMALLER.
2. REFER TO SPECIFICATIONS FOR GUIDANCE ON HANGER SELECTION, APPLICATION, AND INSTALLATION.

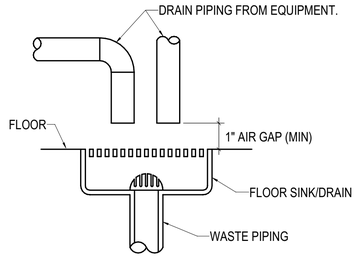
3 INSULATED PIPE AT HANGER DETAIL

NO SCALE



6 VENT THRU ROOF DETAIL

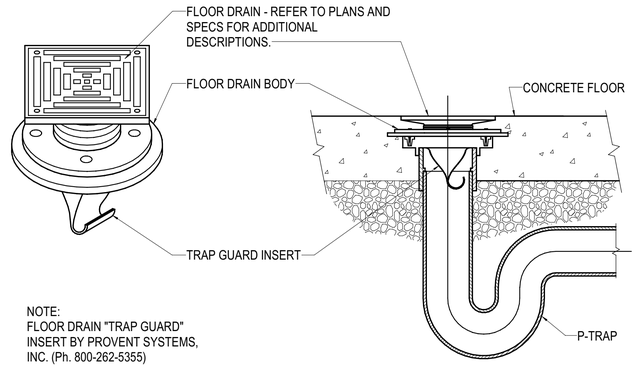
NO SCALE



DRAIN PIPING SHALL TERMINATE OVER THE OPEN PORTION OF THE FLOOR SINK WHEN HALF GRATING IS PROVIDED.

5 INDIRECT WASTE CONNECTION DETAIL

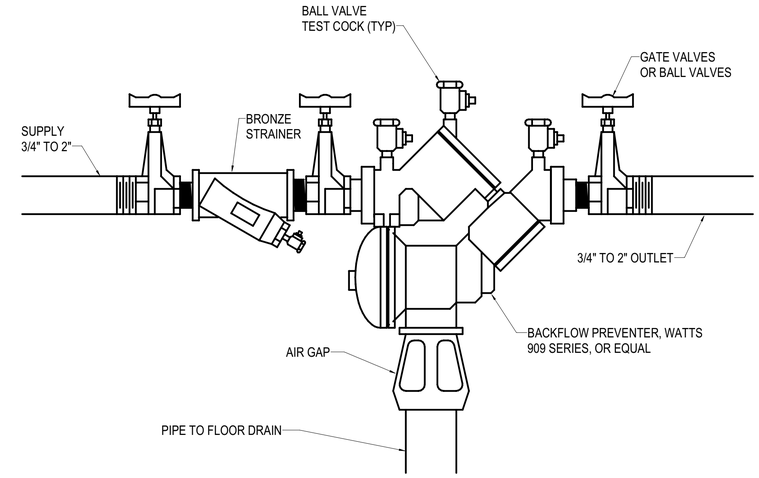
NO SCALE



NOTE:
FLOOR DRAIN "TRAP GUARD" INSERT BY PROVENT SYSTEMS, INC. (Ph. 800-262-5355)

4 FLOOR DRAIN WITH 'TRAP GUARD' DETAIL

NO SCALE



REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER DETAIL

SCALE: NONE

LEGEND:

PVB	PRESSURE TYPE VACUUM BREAKER
DC	DOUBLE CHECK VALVE ASSEMBLY
ODC	OUTLET DOUBLE CHECK VALVE
HCVB	HOSE CONNECTION VACUUM BREAKER
RP	REDUCED PRESSURE PRINCIPLE

GENERAL NOTES:

1. INSTALLATION OF ALL BACKFLOW PREVENTERS SHALL BE IN STRICT ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS.
2. ACCESS & CLEARANCE SHALL BE PROVIDED FOR REQUIRED TESTING, MAINTENANCE & REPAIR; INCLUDING A MINIMUM OF 1'-0" BETWEEN LOWEST PORTION OF ASSEMBLY, AND FLOOR OR PLATFORM. ASSEMBLIES INSTALLED MORE THAN 5'-0" ABOVE FLOOR SHALL BE PROVIDED WITH A PERMANENT PLATFORM CAPABLE OF SUPPORTING A TESTER OR MAINTENANCE PERSON.
3. BEECH MUST SPECIFICALLY APPROVE ANY MANUFACTURER OTHER THAN WATTS.

1 BACKFLOW PREVENTER DETAILS

NO SCALE

Wichita-Sedgwick County Metropolitan Area Building and Construction Department

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CITY OF WICHITA

BRANDON W. CLASSEN LICENSED 19365 2025-01-28 KANSAS PROFESSIONAL ENGINEER

WICHITA MAPLE STREET BOOSTER PUMP STATION

PAUL GUNZELMAN, P.E - CITY ENGINEER
CITY OF WICHITA PROJECT NO. 448-2019-028875

Issue:

JOB NO.	35-200810-001-0042
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PLUMBING DETAILS

P-501

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CITY OF WICHITA

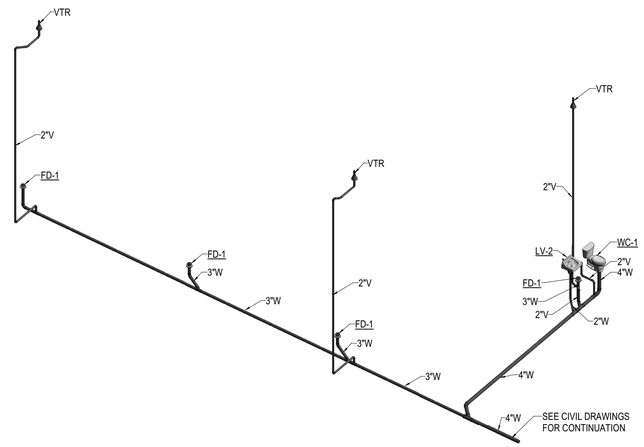
PLUMBING FIXTURE SCHEDULE

MARK	DESCRIPTION	MANUFACTURER	MODEL	DIMENSIONS	ADA COMPLIANT	MATERIAL DESCRIPTION AND FINISH	TRIM				FLOW		PIPE RUNOUT SIZES				SPECIFICATION
							MANUFACTURER	MODEL	CONTROL TYPE	POWER	GALLONS PER MINUTE (GPM)	GALLONS PER FLUSH (GPF)	COLD WATER	HOT WATER	WASTE	VENT	
HB-1	ANTI-SIPHIN HOSE BIBB	WOODFORD	MODEL 24	--	--		--	--	MANUAL	--	1		1/2"	--	--	--	
WC-1	WATER CLOSET - FLUSH TANK - FLOOR MOUNTED	KOHLER	K-25087 "KINGSTON"	17" MIN. - 19" MAX. SEAT HEIGHT	YES	WHITE VITREOUS CHINA	--	--	MANUAL	--	--	1.28	1/2"	--	3"	2"	TWO-PIECE - ELONGATED BOWL - CLASS FIVE CANISTER FLUSHING SYSTEM WITH 3" OPENING - CHROME PLATED WALL SUPPLIES WITH LOOSE KEY STOPS - WHITE, SOLID PLASTIC ELONGATED OPEN FRONT SEAT - MOUNT FLUSH VALVE HANDLE ON DOOR SIDE OF ROOM
LV-2	LAVATORY - WALL HUNG	KOHLER	K-2005 "KINGSTON"	21-1/4" x 18-1/8", 16" x 10" BOWL	YES	WHITE VITREOUS CHINA	CHICAGO FAUCET	420-ABCP	MANUAL	--	0.5	--	1/2"	1/2"	2"	1-1/2"	LAVATORY WITH 3 HOLES ON 4" CENTERS - DRILLED FOR CONCEALED ARM CARRIER - ASSE 1070 THERMOSTATIC MIXING VALVE SET TO 105°F - DRAIN WITH GRID SRAINER - CHROME PLATED WALL SUPPLIES WITH LOOSE KEY QUARTER TURN STOPS - 1-1/4" CHROME PLATED CAST BRASS P-TRAP - FLOOR-MOUNTED CONCEALED ARM CARRIER - INSULATE P-TRAP AND HOT WATER SUPPLY
FD-1	FLOOR DRAIN	WATTS	FD-100-A	6" STRAINER TOP	--	EPOXY COATED IRON	--	--	--	--	--	--	--	--	3"	1-1/2"	WATTS FD-100-A EPOXY COATED CST IRON FLOOR DRAIN WITH ANCHOR FLANGE REVERSIBLE CLAMPING COLLAR WITH PRIMARY AND SECONDARY WEEP HOLES, ADJUSTABLE ROUND HEEL PROOF NICKLE BRONZE STRAINER AND NO HUB OUTLET.

WATER HEATER SCHEDULE

REMARKS:
1. MOUNT WATER HEATER OVERHEAD SEE DETAIL.

MARK	LOC. AT ROOM	MFR.	MODEL	TYPE	MIN. CAPACITY		ELECTRIC			REMARKS
					STOR. (GAL)	GPH RECOVERY AT 100° RISE	TOTAL KW	NO. ELEMENTS	VOLT/ PHASE	
WH-1	RESTROOM	A.O. SMITH	DEL-6	ELECTRIC	6	8	2	1	480/3	1



1 Plumbing Riser-Waste & Vent
NTS

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PLUMBING SCHEDULES AND DETAILS

P-701

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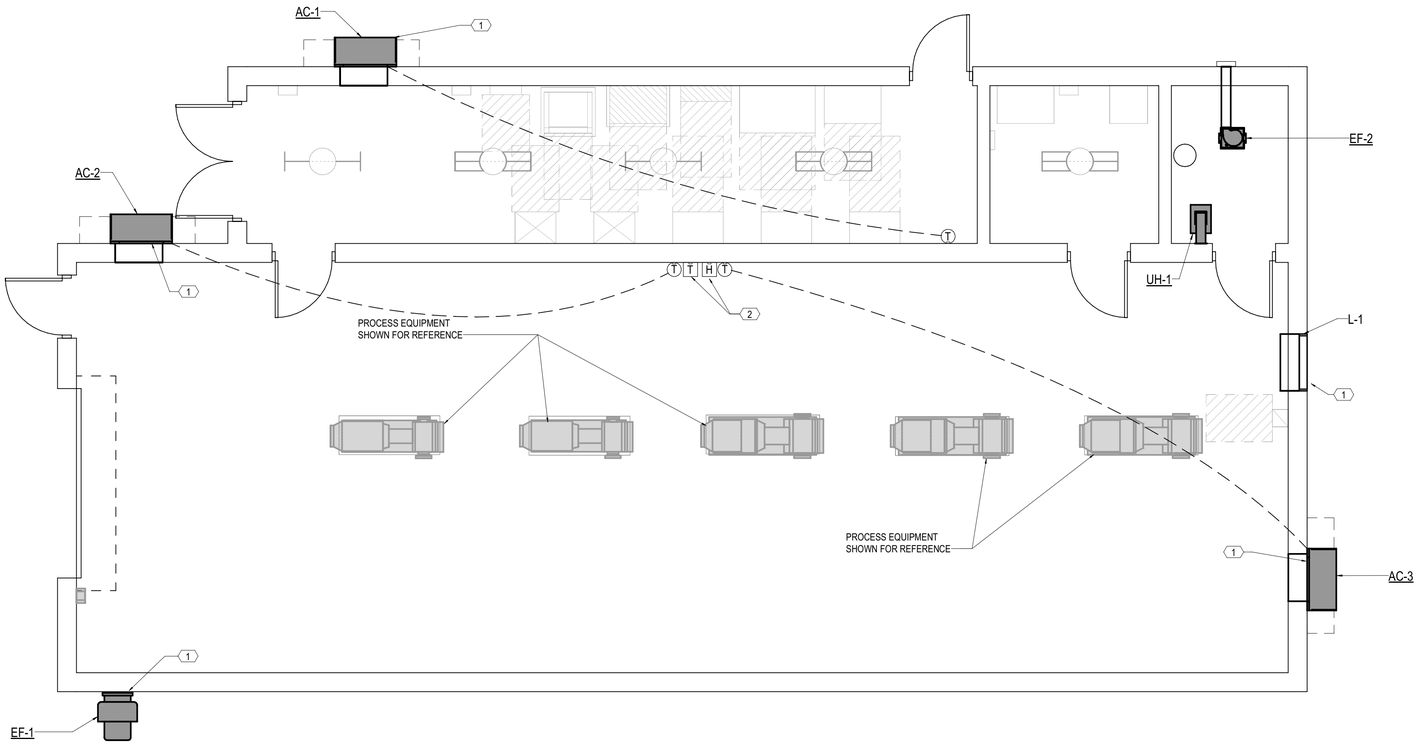

A FIRST FLOOR HVAC PLAN

NORTH

0' 2' 4' 6'

1/4" = 1'-0"

Wichita-Sedgwick County
Metropolitan Area Building
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CITY OF WICHITA

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PROFESSIONAL ENGINEER

HVAC GENERAL NOTES

1. DUCT SIZES SHOWN ARE ACTUAL INSIDE CLEAR DIMENSIONS. INSULATION THICKNESS HAS NOT BEEN ACCOUNTED FOR. DUCTWORK EXPOSED TO SPACE SHALL NOT HAVE EXTERIOR INSULATION.
2. T-STATS SHALL BE LOCATED NEXT TO LIGHT SWITCH WITHIN THE ROOM SHOWN. COORDINATE WITH GC AND ELECTRICAL CONTRACTOR TO MATCH HEIGHT AND LOCATION.
3. AVOID ROUTING DUCTWORK OVER ELECTRICAL ROOMS AND ELECTRICAL PANELS. MAINTAIN N.E.C. CLEARANCES. COORDINATE ROUTING WITH ELECTRICAL CONTRACTOR.
4. PROVIDE FLEXIBLE DUCT AND PIPE CONNECTIONS TO ALL MOTORIZED EQUIPMENT.
5. COORDINATE FINISH OF ALL EXPOSED DUCT WITH ARCHITECT. DUCTWORK THAT IS TO BE PAINTED SHALL HAVE A PAINT GRIP FINISH ACCEPTABLE FOR PAINTING.

SHEET KEYNOTES

1 COORDINATE EXACT LOCATION OF EQUIPMENT WITH PRECAST SEAMS. COORDINATE OPENINGS WITH PRECAST MANUFACTURER.

2 PROVIDE TEMPERATURE AND HUMIDITY SENSOR TO CONNECT INTO SCADA SYSTEM. COORDINATE WITH SCADA PROGRAMMER.

WICHITA MAPLE STREET BOOSTER PUMP STATION

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FIRST FLOOR HVAC PLAN

M-101

EXHAUST FAN SCHEDULE

REMARKS:

1. ALL EXHAUST FANS SHALL HAVE PERMANENTLY LUBRICATED BEARINGS AND DISCONNECT SWITCH PROVIDED AND INSTALLED BY EC.
2. DOWNBLAST AND UPBLAST EXHAUST FANS SHALL BE PROVIDED WITH ECM MOTOR, FAN SPEED CONTROLLER, BACKDRAFT DAMPER, BIRDSCREEN, INTERNAL WIRING PIGTAIL AND ROOF CURB. VFD PROVIDED BY EQUIPMENT MANUFACTURER WHERE APPLICABLE.
3. INLINE EXHAUST FANS SHALL BE PROVIDED WITH ECM/VFD MOTOR, DISCONNECT SWITCH, FAN SPEED CONTROLLER, WIRING PIGTAIL, BACKDRAFT DAMPER, AND VIBRATION ISOLATORS.

MARK	LOC. AT ROOM	MFR.	MODEL	TYPE	MIN CAP.		FAN RPM	DRIVE	MOTOR (BY M.C.)				UNIT WT. (LBS.)	REMARKS
					FLOW (CFM)	SP (IN WC)			HP	RPM	VOLT.	PH.		
EF-1	WEST WALL	LOREN COOK	180W11D	SIDEWALL	3250	0.5	1140	DIRECT	1	1725	208	3	47	1,2
EF-2	RESTROOM	LOREN COOK	GC-146	INLINE	75	0.375	900	DIRECT	34 W	900	120	1	15	3

LOUVER SCHEDULE

REMARKS:

1. PROVIDE WITH BIRD SCREEN AND BAROMETRIC BACKDRAFT DAMPER.

MARK	MFR.	MODEL	TYPE	MATERIAL	HEIGHT	WIDTH	DEPTH	FINISH	USE	DESIGN AIR FLOW (CFM)	MAX. APD (IN WC)	MIN. FREE AREA	TOP AT AFF	REMARKS
L-1	RUSKIN	ELF375DX	STATIONARY	ALUMINUM	24"	30"	4"	MILL	INTAKE	1700	0.16	2.12	10"	1

UNIT HEATER SCHEDULE - ELECTRIC

REMARKS:

1. PROVIDE WITH MANUFACTURER'S WALL MOUNTING BRACKET, DISCONNECT AND UNIT MOUNTED THERMOSTAT.

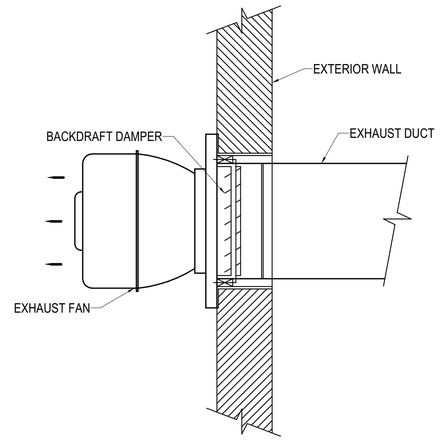
MARK	LOC. AT ROOM	MFR.	MODEL	TYPE	FAN AIR FLOW (CFM)	KW	WEIGHT (LBS)	VOLT/PH	AMPS	REMARKS
UH-1	RESTROOM	QMARK	QWD03432	WATERPROOF	700	3	60	480/3	3.6	1

WALL-MOUNT AHU SCHEDULE - DX COOL

REMARKS:

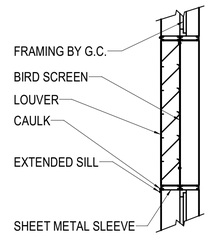
1. BASIS OF DESIGN IS A WALL-MOUNTED BARD W SERIES
2. PROVIDE MANUFACTURER'S WALL MOUNTED THERMOSTAT.

MARK	MFR	MODEL	MIN OA (CFM)	SUPPLY FAN			ELECTRICAL		DX COOLING					SEER (EER)	ELECTRICAL HEAT					FILTER	UNIT WT (LBS)			REMARKS
				AIRFLOW (CFM)	ESP (IN WC)	MOTOR HP	VOLT	PHASE	EAT DB (°F)	EAT WB (°F)	LAT DB (°F)	LAT WB (°F)	COOLING CAPACITY TOTAL (MBH)		AIRFLOW (CFM)	KW	STEPS	VOLT	PHASE	MERV		MCA	MOCP	
AC-1	BARD	W42ACPB	20	1350	0.2	1/3	460	3	70	62	55	54	42	11.0	--	--	--	--	--	8	490	12	15	1,2
AC-2	BARD	W60ACPC	45	1750	0.2	1/3	460	3	78	65	55	54	57	11.0	1750	15	1	460	3	8	505	26	30	1,2
AC-3	BARD	W60ACPC	45	1750	0.2	1/3	460	3	78	65	55	54	57	11.0	1750	15	1	460	3	8	505	26	30	1,2



1 SIDEWALL EXHAUST FAN DETAIL

NO SCALE



2 LOUVER DETAIL - STATIONARY

NO SCALE

Wichita-Sedgwick County Metropolitan Area Building and Construction Department

MABCD REVIEWER:

REVIEWED FOR CODE COMPLIANCE

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DATE: 04/22/25 BY: Gary Cox

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CITY OF WICHITA

BRANDON W. CLAASSEN LICENSED 19365 2025-01-28 KANSAS PROFESSIONAL ENGINEER

WICHITA MAPLE STREET BOOSTER PUMP STATION

PAUL GUNZELMAN, P.E - CITY ENGINEER
CITY OF WICHITA PROJECT NO. 448-2019-028875

Issue:

JOB NO.	35-200810-001-0042
DATE	JANUARY 2025
PM	RWG
DESIGNED BY	AFL
DRAWN BY	AFL
CHECKED BY	MS

MECHANICAL SCHEDULES AND DETAILS

M-701

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Autodesk Docs://200810-001 - COW Maple Booster Pump Station/200810-001_MECH_R22.rvt

ELECTRICAL SHEET INDEX

SYMBOL LIST

SYMBOL	DESCRIPTION	MOUNTING	SYMBOL	DESCRIPTION	MOUNTING
ONE-LINE					
LSIG, GFI, ST, K	CIRCUIT BREAKER ACCESSORIES: LSIG = LONG TIME, SHORT TIME, INSTANTANEOUS, GROUND FAULT; GFI = GROUND FAULT; ST = SHUNT TRIP; K = KIRK KEY INTERLOCK		# A A 2P	FUSIBLE SWITCH (CIRCUIT NUMBER / SWITCH SIZE / FUSE SIZE / # OF POLES) (# OF POLES IF OTHER THAN 3)	
	CONTACTS (N.O., N.C.)		# # A AF AT 2P 2P	CIRCUIT BREAKER (MOLDED CASE NON-ADJUSTABLE TRIP / ADJUSTABLE TRIP) (CIRCUIT NUMBER / TRIP SIZE / # OF POLES) (FRAME SIZE / TRIP SIZE) (# OF POLES IF OTHER THAN 3)	
	FUSE				
	CIRCUIT BREAKER				
	DISCONNECT SWITCH (SEE EQUIP CONN SCHED) (VOLTAGE / SWITCH SIZE / FUSE SIZE / # OF POLES - NOTED IF EQUIPMENT NOT SCHEDULED)			3Ø TRANSFORMER (DELTA PRIMARY / WYE SECONDARY)	
	STARTER (SEE EQUIP CONN SCHED) (VOLTAGE / STARTER SIZE / # OF POLES - NOTED IF EQUIPMENT NOT SCHEDULED)		PANEL SPD	PANELBOARD (BUILT-IN SPD)	
	GROUND CONNECTION				
	LIGHTNING ARRESTOR		N E ATS	TRANSFER SWITCH (ATS = AUTOMATIC, MTS = MANUAL) (AMP SIZE / VOLTAGE / POLES / AIC RATING / NEMA RATING) (NEMA RATING IF OTHER THAN NEMA-1)	
1	FEEDER DESIGNATION				
SPD	SURGE PROTECTIVE DEVICE				
M W	METER (UTILITY / PANEL MOUNTED)		'1' RV AT	MOTOR STARTER [SINGLE SPEED ACROSS-THE-LINE (UON)] (NEMA SIZE / RV AT= REDUCED VOLTAGE / AUTO-TRANSFORMER / SS = SOLID STATE)	
HP KW	EQUIPMENT (SINGLE MOTOR / MULTI-MOTOR OR OTHER TYPE AS NOTED)				
VFD	VARIABLE FREQUENCY DRIVE (HP SIZE IF NOT SCHEDULED)				

PEN WEIGHT LEGEND

ALL DEVICES, LIGHT FIXTURES, ETC., DRAWN IN DARK SOLID LINES ARE NEW TO BE INSTALLED		ALL DEVICES, LIGHT FIXTURES, ETC., DRAWN IN DARK DASHED LINES ARE EXISTING TO BE REMOVED	
	NEW DUPLEX GROUNDED RECEPTACLE		DUPLEX GROUNDED REC TO BE REMOVED
	NEW LIGHT FIXTURE		LIGHT FIXTURE TO BE REMOVED
ALL DEVICES, LIGHT FIXTURES, ETC., DRAWN IN HALFTONE SOLID LINES ARE EXISTING TO REMAIN		**ALL DEVICES, LIGHT FIXTURES, ETC., DRAWN IN LIGHT DASHED LINES ARE EXISTING TO BE RELOCATED**	
	EXISTING DUPLEX GROUNDED REC TO REMAIN		DUPLEX GROUNDED REC TO BE RELOCATED
	EXISTING LIGHT FIXTURE TO REMAIN		LIGHT FIXTURE TO BE RELOCATED

- - - SYMBOL LIST IS FOR REFERENCE ONLY. ALL SYMBOLS MAY NOT BE USED ON THIS PROJECT. - - -

GENERAL NOTES

1. ALL ELECTRICAL WORK SHALL COMPLY WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (NEC) & THE AMERICANS WITH DISABILITIES ACT (ADA).
2. REFER TO RELATED ARCHITECTURAL, MECHANICAL, STRUCTURAL, AND CIVIL DRAWINGS FOR RELATED INFORMATION.
3. REFER TO THE SPECIFICATIONS FOR DATA NOT ON THE DRAWINGS.
4. E.C. SHALL REFER TO MECHANICAL DRAWINGS AND SPECIFICATIONS FOR THE REQUIREMENTS ASSOCIATED WITH WIRING AND CONNECTION OF INTERLOCKING AND CONTROLS OF MECHANICAL UNITS AND THERMOSTAT LOCATIONS.
5. COORDINATE OUTLET BOX LOCATIONS WITH MASONRY TO MINIMIZE CUTTING OF BRICK OR BLOCK.
6. ALL MOUNTING HEIGHTS TO CENTERLINE OF ITEM UNLESS OTHERWISE NOTED. VERIFY ALL OUTLET LOCATIONS ON THE JOB PRIOR TO ROUGH-IN.
7. CONDUIT RUN W/CONDUCTORS AS INDICATED & GROUND WIRE SIZED PER N.E.C. 250.122. CONDUIT SIZE AS REQUIRED.
8. WHEN INCREASED CONDUCTOR SIZES ARE SHOWN ON THE PLANS, THE LARGER CONDUCTOR SIZE SHALL BE USED THROUGHOUT THE LENGTH OF THE CIRCUIT, INCLUDING NEUTRAL AND GROUND.
9. E.C. SHALL REFERENCE ARCHITECTURAL FINISH DRAWINGS FOR LOCATIONS AND HEIGHTS OF RIGID WALL COVERINGS, TILE, CHAIR RAIL, WAINSCOATING, ETC. AND ADJUST ELECTRICAL BOX ROUGH-IN HEIGHTS SO THAT COVERPLATES DO NOT PARTIALLY OVERLAP THESE ITEMS.
10. BRANCH CIRCUITS ARE INDICATED AS ONE CIRCUIT HOME RUNS WITH INDIVIDUAL NEUTRALS. A MAXIMUM OF THREE CIRCUITS (MAXIMUM OF THREE PHASE CONDUCTORS) MAY BE GROUPED IN A SINGLE CONDUIT. WHERE MULTIPLE CIRCUITS ARE LOCATED IN THE SAME RACEWAY, JUNCTION BOX OR ENCLOSURE, NEUTRALS SHALL BE MARKED OR LABELED TO INDICATE WHICH CIRCUIT THEY ARE ASSOCIATED WITH. SEE SPECIFICATION SECTION "LOW VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES" FOR ADDITIONAL INFORMATION.
11. LABEL THE FRONT OF EACH RECEPTACLE COVERPLATE WITH PANEL DESIGNATION AND CIRCUIT NUMBER USING CLEAR THERMAL TRANSFER (ELECTRONIC DYMO) LABELS WITH 1/8" HIGH BLACK LETTERS (OR CONTRASTING COLOR IF COVERPLATES ARE BLACK OR BROWN). LABELS SHALL BE SUITABLE FOR INDOOR/OUTDOOR USE. LABEL THE BACK OF EACH LIGHT SWITCH COVERPLATE WITH PANEL DESIGNATION AND CIRCUIT NUMBER USING A FINE BLACK PERMANENT MARKER.

SYMBOL LIST

SYMBOL	DESCRIPTION	MOUNTING	SYMBOL	DESCRIPTION	MOUNTING
ABBREVIATIONS					
EM	ON EMERGENCY POWER		AFF	ABOVE FINISHED FLOOR	
WP	WEATHERPROOF		AFG	ABOVE FINISHED GRADE	
UON	UNLESS OTHERWISE NOTED		GAP	GENERATOR ANNUNCIATOR PANEL	
W	WALL				
CONDUIT AND WIRING					
X	EMERGENCY CIRCUIT	CLG/WALL		CONDUIT HOME RUN, 1 CIRCUIT. 2#12 & 1#12 GRD. - 1/2"C.	CLG/WALL
	MASTER/SLAVE FIXTURE WHIP	CEILING		CONDUIT HOME RUN, 2 CIRCUITS. 4#12 & 1#12 GRD. - 1/2"C.	CLG/WALL
	LOW VOLTAGE WIRING	CLG/WALL		CONDUIT HOME RUN, 3 CIRCUITS. 6#12 & 1#12 GRD. - 1/2"C.	CLG/WALL
	CDT RUN 2#12 & 1#12 GRD.- 1/2"C. OR CDT RUN AS NOTED ON PLAN	CLG/WALL		CONDUIT HOME RUN, 2 CIRCUITS PHASE CONDUCTORS/ NEUTRAL CONDUCTOR (#12 UON) SWITCH LEGS (#12 UON) GROUND CONDUCTOR (#12 UON)	CLG/WALL
	CDT RUN 2#12 & 1#12 GRD.- 3/4"C. OR CDT RUN AS NOTED ON PLAN	EARTH/ FLOOR			
#10	CONDUIT HOME RUN, 1 CIRCUIT. 2#10 & 1#10 GRD. (GEN. NOTES 7 & 8)	CLG/WALL			
	CONDUIT RUN PARTIAL CIRCUIT. 2#12 & 1#12 GRD. - 1/2"C.	CLG/WALL			
	MISC. EQUIPMENT CONNECTION				
LIGHTING, SWITCHES AND SENSORS					
A A	LIGHT FIXTURE & FIXTURE LETTER	CLG SURF/ RECESSED	$ $2 $3 $4	SWITCHES (1-POLE, 2-POLE, 3-WAY, 4-WAY)	46" AFF
A	STRIP LIGHT FIXTURE & FIXT LETTER	CEILING	$K $P $T	SWITCHES (KEYED, PILOT, TIMER)	46" AFF
A A A A	LIGHT FIXTURE & FIXTURE LETTER	CLG SURF/ RECESSED	a, b, c	INDICATES SWITCHING SCHEME	
A	LIGHT FIXTURE & FIXTURE LETTER	WALL	M	1 RELAY OCCUPANCY SENSOR SW	46" AFF
A	LIGHT FIXTURE & FIXTURE LETTER	WALL	2M	2 RELAY OCCUPANCY SENSOR SW	46" AFF
A A	FIXTURE WITH SHADED LAMP(S) ON EMERGENCY POWER	CLG SURF/ RECESSED	$	LOW VOLTAGE SWITCH	46" AFF
			$1	ON/OFF SWITCH	46" AFF
			$2	ON/OFF/0-10V DIMMING SWITCH	46" AFF
A	EMERGENCY BATTERY LIGHT FIXT	CEIL/WALL	$3	DUAL TECH ON/OFF SENSOR	46" AFF
A	COMB EXIT SIGN/EM BATTERY LIGHT	WALL	$4	16-SCENE WALL CONTROLLER	46" AFF
POWER					
	SINGLE GROUNDED RECEPTACLE	18" AFF	A	BRANCH CIRCUIT PANEL AND PANEL DESIGNATION	72" TO TOP
	DUPLEX GROUNDED RECEPTACLE	18" AFF		ELECTRICAL DISTRIBUTION EQUIP	
	DUPLEX GROUNDED RECEPTACLE	CEILING	XX XX	EQUIPMENT - SEE EQUIPMENT CONNECTION SCHEDULE	
	DOUBLE DUPLEX GROUNDED REC	18" AFF		CONDUIT SLEEVE	
	GROUND FAULT DUPLEX REC	18" AFF	M	MOTOR	
	GRD FAULT DOUBLE DUPLEX REC	18" AFF		DISCONNECT SWITCH	
	DUPLEX GRD REC BOTTOM SWITCHD	18" AFF	$M	MANUAL STARTER	
	TAMPER-PROOF DUPLEX REC	18" AFF		CIRCUIT BREAKER	
	TAMPER-PROOF GFCI DUPLEX REC	18" AFF		STARTER OR ATS (AS NOTED)	
A A	SPECIAL OUTLET (SEE SCHEDULE OR AS NOTED)	FLOOR/WALL		COMBINATION STARTER/DISC	
	SPECIAL DEVICE (AS NOTED)		R	RELAY	
2	FEEDER DESIGNATION			PUSHBUTTON (1-, 2-, 3-BUTTON)	46" AFF
J	JUNCTION BOX - 1-GANG		T	BOX MOUNTED TRANSFORMER	
J	JUNCTION BOX - 2-GANG		C	CONTACTOR	
F	FUSTAT BUSS #SSY			METER	
SECURITY					
	CCTV CAMERA - PAN/TILT/ZOOM	CEILING	CR	CARD READER	
W	CCTV CAMERA - PAN/TILT/ZOOM	WALL	ED	REQUEST TO EXIT DEVICE (MOTION)	
	CCTV CAMERA - FIXED	CEILING	E	ELECTRIC DOOR STRIKE	
W	CCTV CAMERA - FIXED	WALL			

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Wichita-Sedgwick County Metropolitan Area Building and Construction Department

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DATE: 04/22/25 BY: Gary Cox

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CITY OF WICHITA

SUSAN PATRICK GERTY LICENSED 28753 01/28/2025 PROFESSIONAL ENGINEER KANSAS

WICHITA MAPLE STREET BOOSTER PUMP STATION

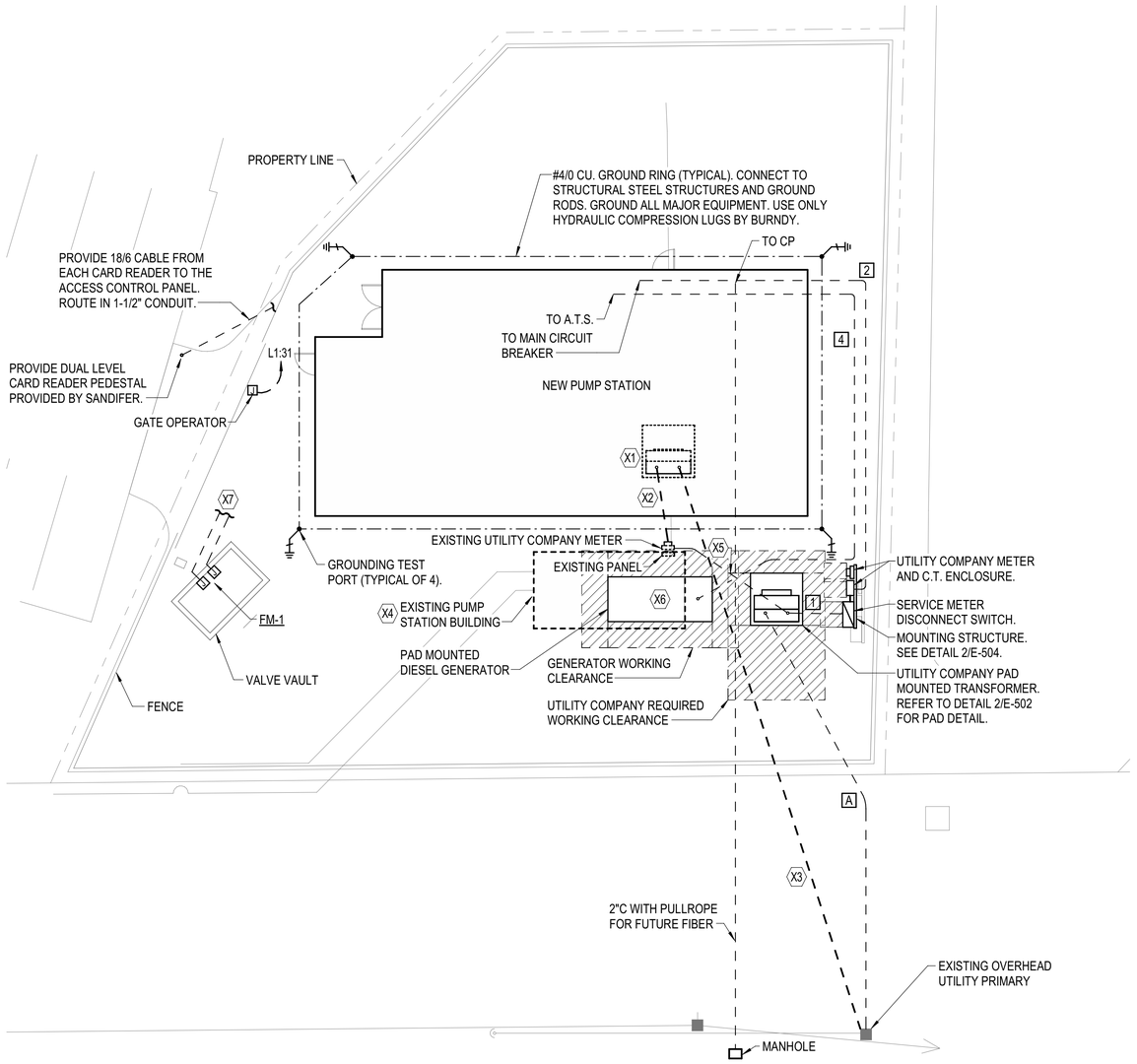
PAUL GUNZELMAN, P.E - CITY ENGINEER
CITY OF WICHITA PROJECT NO. 448-2019-028875

Issue:		

JOB NO.	35-200810-001-0042
DATE	JANUARY 2025
PM	RWG
DESIGNED BY	DCG
DRAWN BY	JSH
CHECKED BY	SPG

ELECTRICAL GENERAL NOTES AND SYMBOLS

E-001



A ELECTRICAL SITE PLAN

0' 5' 10' 15' 1" = 10'-0"

Wichita-Sedgwick County Metropolitan Area Building and Construction Department

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DATE 04/22/25 BY Gary Cox

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.
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.

KEYED NOTES

#	
X1	EXISTING UTILITY PAD MOUNTED TRANSFORMER TO BE REMOVED. REFER TO PHASING NOTES.
X2	EXISTING SECONDARY FEEDER TO BE REMOVED. REFER TO PHASING NOTES.
X3	EXISTING PRIMARY FEEDER TO BE REMOVED. REFER TO PHASING NOTES.
X4	EXISTING PUMP STATION TO BE REMOVED AFTER NEW PUMP STATION IS FULLY OPERATIONAL. DISCONNECT AND REMOVE ALL ELECTRICAL COMPONENTS.
X5	INSTALL (4)#3/0 CU. IN 2-1/2" CONDUIT FOR TEMPORARY SERVICE TO EXISTING PUMP STATION.
X6	INSTALL NEW PAD MOUNTED DIESEL GENERATOR AFTER EXISTING PUMP STATION IS FULLY REMOVED.
X7	(2)#12, (1)#12 GRD IN 1"C FOR FM-1 POWER, CONNECT TO L1:33. 1"C FOR FM-1 CONTROL. TERMINATE IN CONTROL PANEL.

ELECTRICAL SERVICE PHASING NOTES:

1. INSTALL NEW PAD MOUNTED TRANSFORMER.
2. INSTALL TEMPORARY SERVICE TO EXISTING PUMP STATION.
3. REMOVE EXISTING PAD MOUNTED TRANSFORMER, PRIMARY AND SECONDARY FEEDERS ASSOCIATED WITH EXISTING PUMP STATION.
4. INSTALL SECONDARY FEEDER FOR NEW PUMP STATION ELECTRICAL SERVICE.
5. REMOVE TEMPORARY SERVICE TO EXISTING PUMP STATION AFTER NEW PUMP STATION IS FULLY ON-LINE.

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CITY OF WICHITA

SUSAN PATRICK GERTY
LICENSED
28753
01/28/2025
PROFESSIONAL ENGINEER
KANSAS

WICHITA MAPLE STREET BOOSTER PUMP STATION

PAUL GUNZELMAN, P.E. - CITY ENGINEER
CITY OF WICHITA PROJECT NO. 448-2019-028875

Issue:		

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DESIGNED BY	DCG
DRAWN BY	JSH
CHECKED BY	SPG

ELECTRICAL SITE PLAN

E-111

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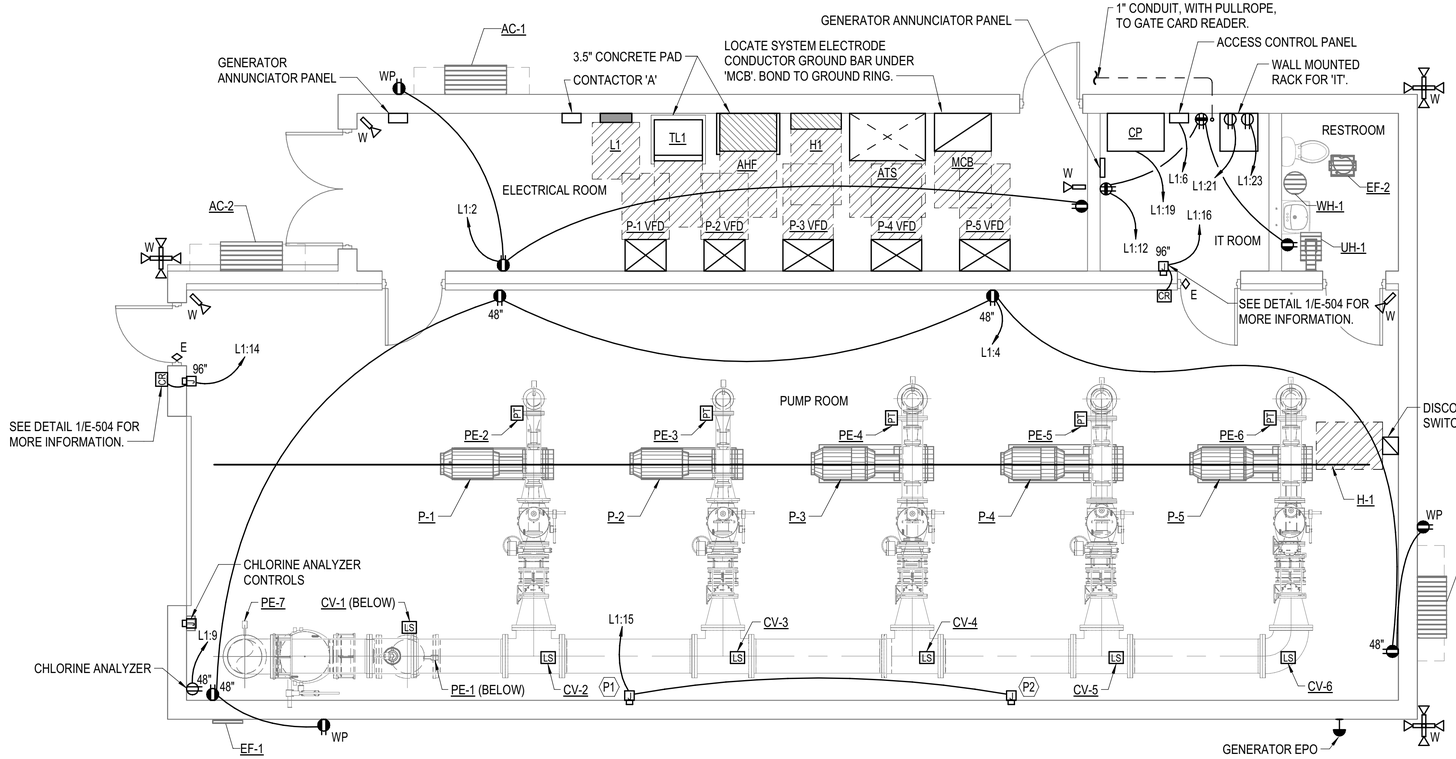

A POWER PLAN

0' 2' 4' 6' 1/4" = 1'-0"

PLAN NORTH

POWER PLAN NOTES:

1. BRANCH CIRCUITS ARE INDICATED AS ONE CIRCUIT HOME RUNS WITH INDIVIDUAL NEUTRALS. A MAXIMUM OF THREE CIRCUITS (MAXIMUM OF THREE PHASE CONDUCTORS) MAY BE GROUPED IN A SINGLE CONDUIT. WHERE MULTIPLE CIRCUITS ARE LOCATED IN THE SAME RACEWAY, JUNCTION BOX OR ENCLOSURE, NEUTRALS SHALL BE MARKED OR LABELED TO INDICATE WHICH CIRCUIT THEY ARE ASSOCIATED WITH. SEE SPECIFICATION SECTION "LOW VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES" FOR ADDITIONAL INFORMATION.
2. A GROUND CONDUCTOR SIZED PER N.E.C. ARTICLE 250 IS REQUIRED IN ALL CONDUITS.
3. FOR CONNECTION REQUIREMENTS TO MECHANICAL UNITS, SEE MECHANICAL EQUIPMENT CONNECTION SCHEDULE.

KEYED NOTES

P1	CONNECT AREA LEAK ALARM 1 AS REQUIRED.
P2	CONNECT AREA LEAK ALARM 2 AS REQUIRED.

ACCESS AND VIDEO SYSTEM NOTES:

1. CONTACT GARY PARK WITH SANDIFER ENGINEERING AND CONTROLS FOR A.A.V.S. REQUIREMENTS AND QUOTES FOR EQUIPMENT AND COMMISSIONING FOR A COMPLETE AND OPERABLE SYSTEM.
2. ALL COMPONENTS OF THE A.A.V.S. SHALL MEET CITY OF WICHITA REQUIREMENTS.
3. E.C. SHALL INSTALL RACEWAYS AND CABLING AS REQUIRED BY SANDIFER'S DRAWINGS.
4. SUBMIT A COMPLETE SYSTEM LAYOUT AND SPECIFICATIONS FOR COMPONENTS TO BE PROVIDED FOR APPROVAL BY THE CITY OF WICHITA AND ENGINEER.

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SEAN PATRICK GERTY LICENSED 28753 01/28/2025 PROFESSIONAL ENGINEER KANSAS

WICHITA MAPLE STREET BOOSTER PUMP STATION

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POWER PLAN

E-131

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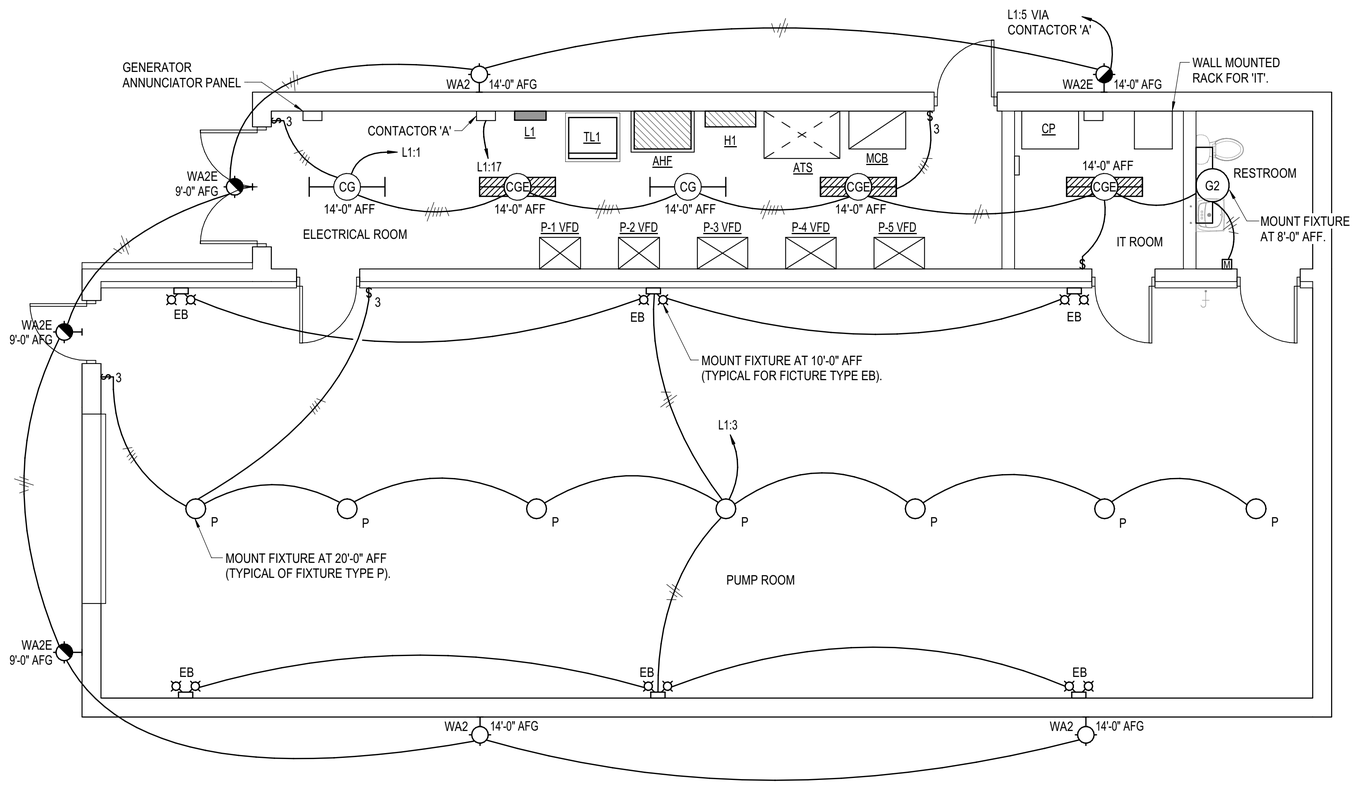

LIGHTING PLAN NOTES:

1. BRANCH CIRCUITS ARE INDICATED AS ONE CIRCUIT HOME RUNS WITH INDIVIDUAL NEUTRALS. A MAXIMUM OF THREE CIRCUITS (MAXIMUM OF THREE PHASE CONDUCTORS) MAY BE GROUPED IN A SINGLE CONDUIT. WHERE MULTIPLE CIRCUITS ARE LOCATED IN THE SAME RACEWAY, JUNCTION BOX OR ENCLOSURE, NEUTRALS SHALL BE MARKED OR LABELED TO INDICATE WHICH CIRCUIT THEY ARE ASSOCIATED WITH. SEE SPECIFICATION SECTION "LOW VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES" FOR ADDITIONAL INFORMATION.
2. A GROUND CONDUCTOR SIZED PER N.E.C. ARTICLE 250 IS REQUIRED IN ALL CONDUITS.

A LIGHTING PLAN
0' 2' 4' 6' 1/4" = 1'-0"

PLAN NORTH

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DATE	JANUARY 2025
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LIGHTING PLAN

E-141

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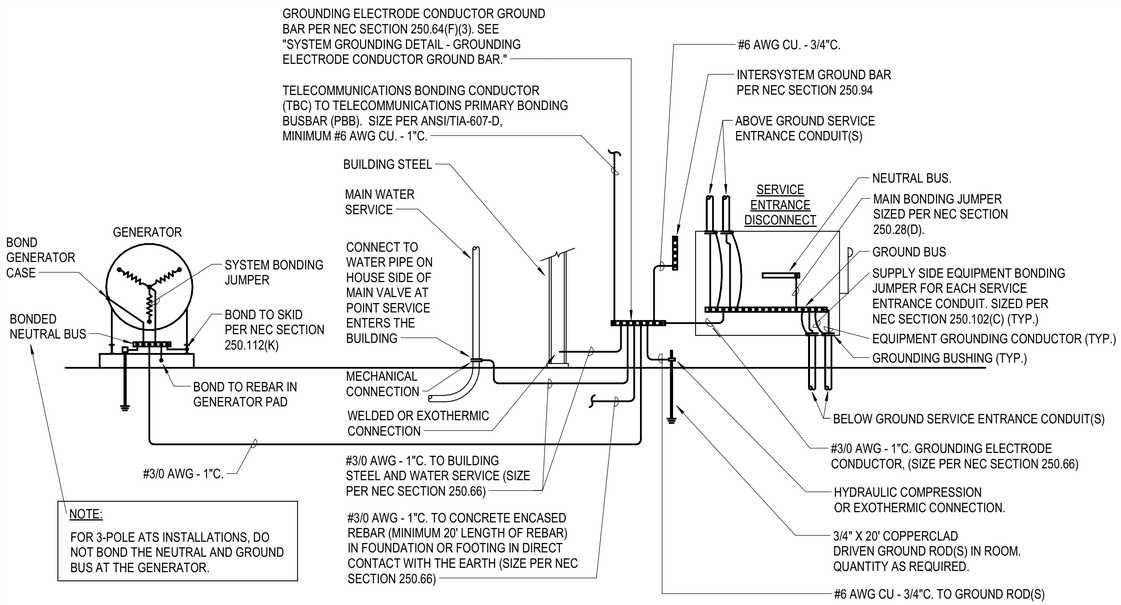
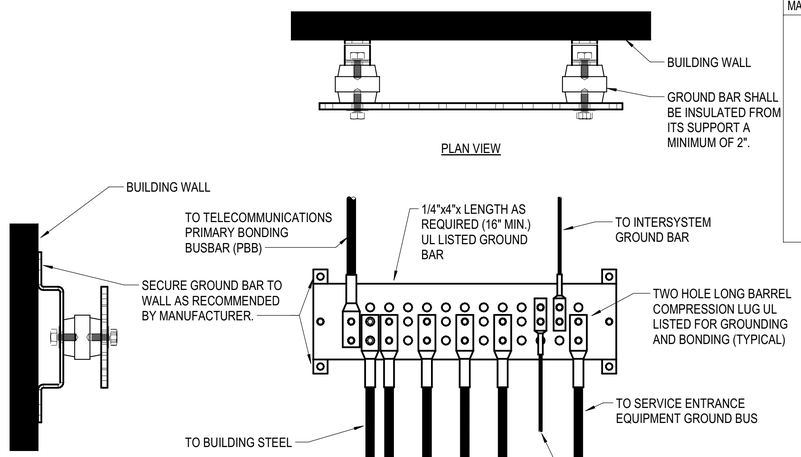


NOTES:

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.

1 SYSTEM GROUNDING DETAIL - DISCONNECT WITH 4-POLE ATS

N0 SCALE

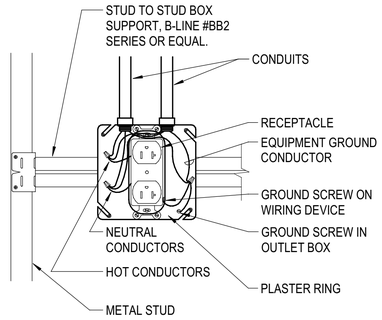


NOTES:

1. PROVIDE OTHER GROUNDING CONNECTIONS AS SPECIFIED IN NEC SECTION 250.50.
2. LABEL EACH GROUND CONDUCTOR TO INDICATE USE.
3. PROVIDE NON-FERROUS CONDUIT (SIZE AS NOTED) WHERE CONDUCTORS ARE SUBJECT TO PHYSICAL DAMAGE. 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.

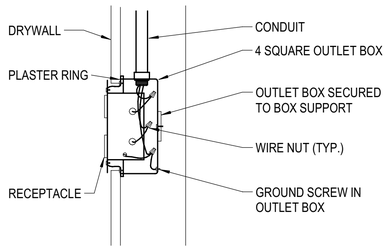
2 SYSTEM GROUNDING DETAIL - GROUNDING ELECTRODE CONDUCTOR GROUND BAR

N0 SCALE



3 TYPICAL RECEPTACLE MOUNTING DETAIL

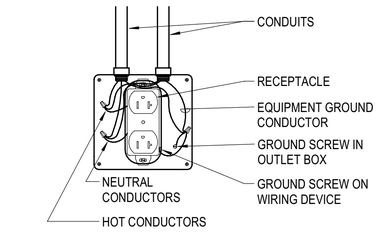
N0 SCALE

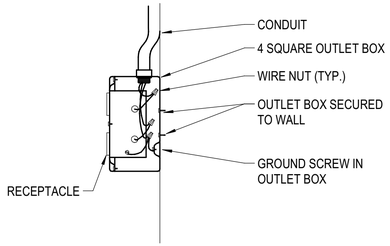


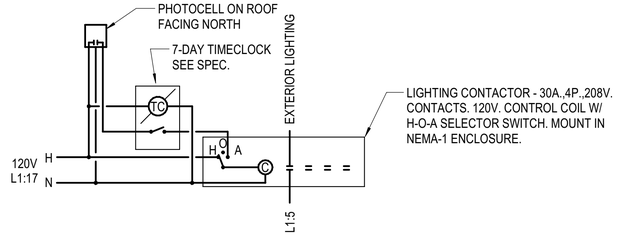
TYPICAL SURFACE MOUNTED RECEPTACLE MOUNTING DETAIL

4

N0 SCALE







5 LIGHTING CONTROLS DIAGRAM

N0 SCALE

Wichita-Sedgwick County Metropolitan Area Building and Construction Department

MABCD REVIEWER:

REVIEWED FOR CODE COMPLIANCE

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DATE: 04/22/25 BY: Gary Cox

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CITY OF WICHITA

SEAN PATRICK CERTTY
LICENSED
28753
01/28/2025
PROFESSIONAL ENGINEER
KANSAS

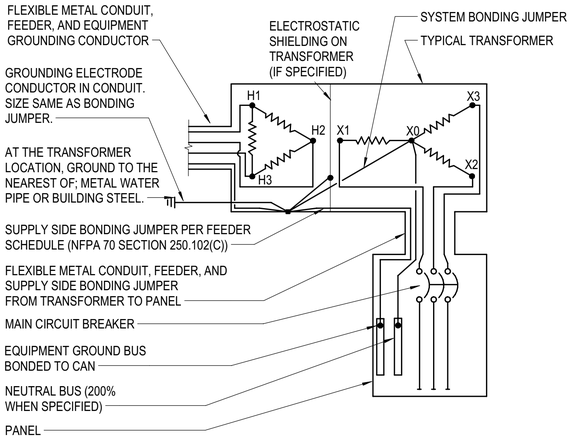
WICHITA MAPLE STREET BOOSTER PUMP STATION

PAUL GUNZELMAN, P.E. - CITY ENGINEER
CITY OF WICHITA PROJECT NO. 448-2019-028875

Issue:	
JOB NO.	35-200810-001-0042
DATE	JANUARY 2025
PM	RWG
DESIGNED BY	DCG
DRAWN BY	JSH
CHECKED BY	SPG

ELECTRICAL DETAILS

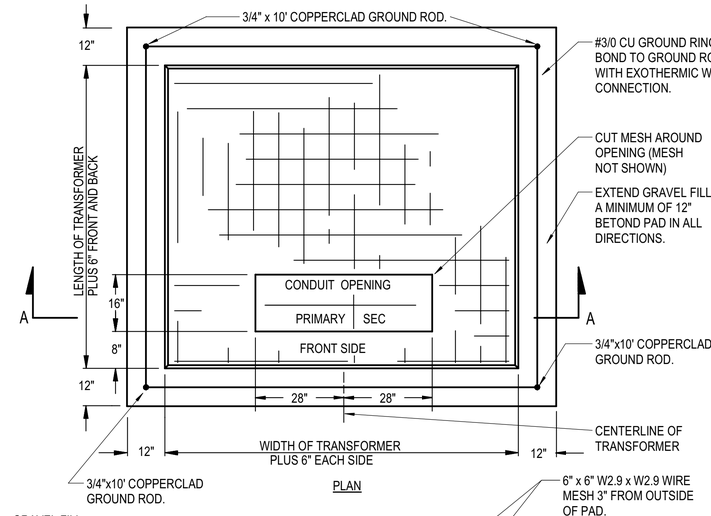
E-501



NOTE: WHERE METAL WATER PIPING OR BUILDING STEEL IS UNAVAILABLE, GROUND TO ANY OF THE OTHER ELECTRODES IDENTIFIED IN NFPA 70 SECTION 250.52(A).

1 TYPICAL TRANSFORMER GROUNDING DETAIL

N0 SCALE

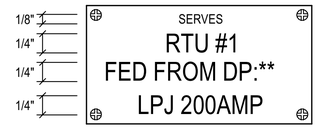


NOTES:
1. VERIFY ALL CONDUIT OPENING AND PAD DIMENSIONS WITH TRANSFORMER PROVIDED. PAD SIZE SHALL BE 3" LARGER THAN TRANSFORMER DIMENSION ON ALL SIDES.
2. TRANSFORMER SHALL BE ANCHOR BOLTED TO TRANSFORMER PAD.
3. ALL CONNECTIONS TO GROUND RODS AND GROUND RING SHALL BE BY THERMOWELD CONNECTION. RING SHALL BE BY THERMOWELD CONNECTION.

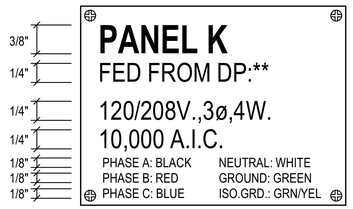
2 TRANSFORMER PAD DETAIL

N0 SCALE

SWITCHBOARD/DISTRIBUTION PANEL/MOTOR CONTROL CENTER BREAKER/SWITCH



DISCONNECT SWITCH

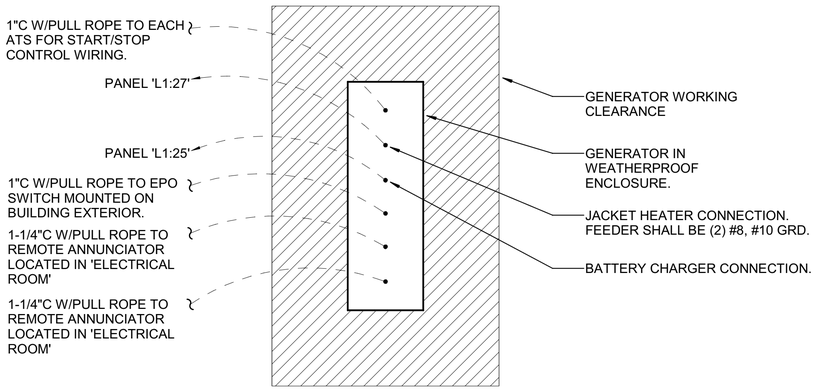


BRANCH CIRCUIT/DISTRIBUTION PANEL

NOTE:
SEE SPECIFICATION SECTION 260500 FOR NAMEPLATE COLOR REQUIREMENTS

3 TYPICAL NAMEPLATES

N0 SCALE



NOTE:
ALL CONDUIT SHALL BE 1" MINIMUM UNLESS OTHERWISE NOTED.

4 ENLARGED GENERATOR DETAIL

N0 SCALE

Wichita-Sedgwick County Metropolitan Area Building and Construction Department

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CITY OF WICHITA

SUSAN PATRICK GERTY LICENSED 28753 01/28/2025 PROFESSIONAL ENGINEER KANSAS

WICHITA MAPLE STREET BOOSTER PUMP STATION

PAUL GUNZELMAN, P.E. - CITY ENGINEER
CITY OF WICHITA PROJECT NO. 448-2019-028875

Issue:		

JOB NO.	35-200810-001-0042
DATE	JANUARY 2025
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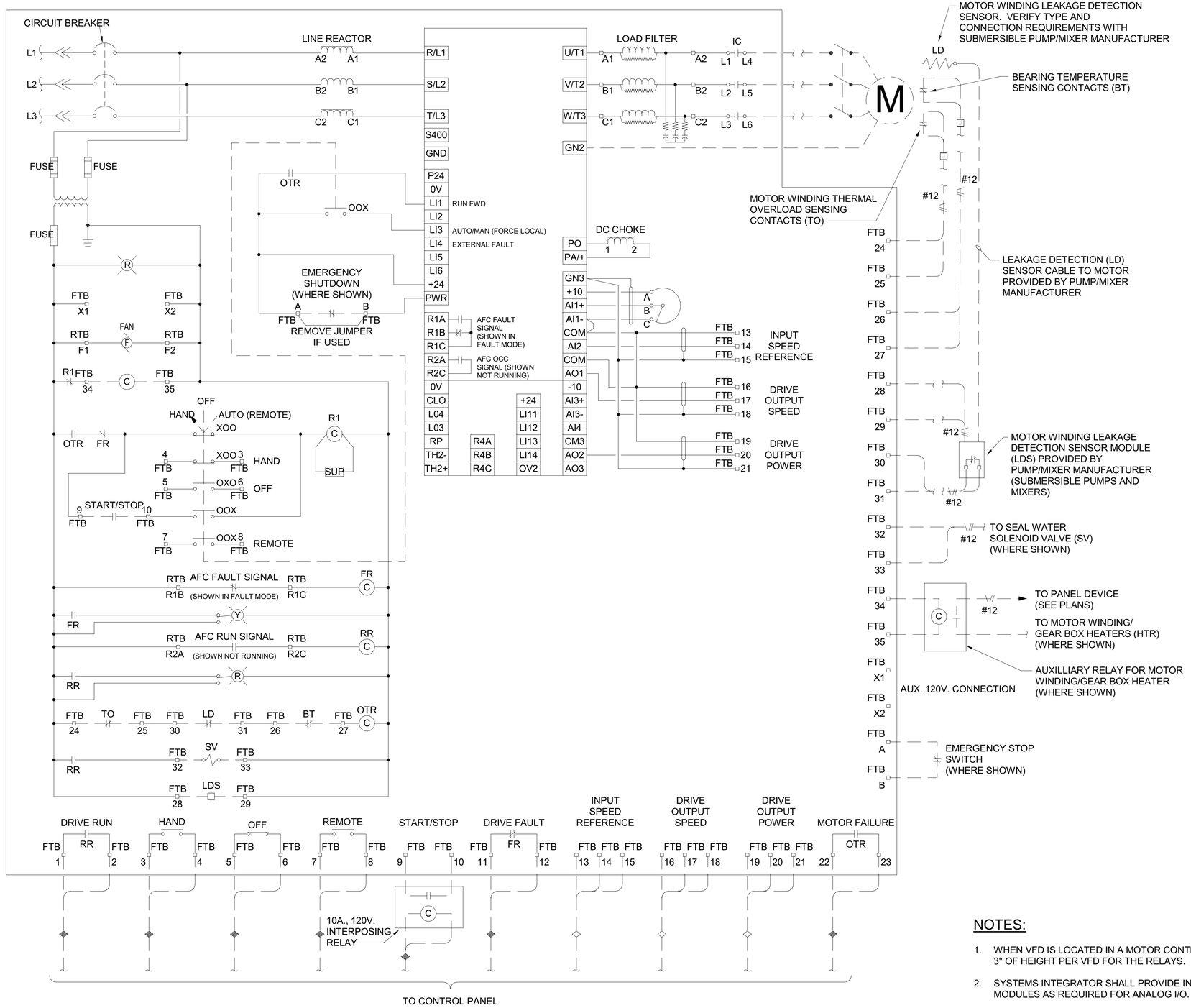
DESIGNED BY	DCG
DRAWN BY	JSH
CHECKED BY	SPG

ELECTRICAL DETAILS

E-502



1 VARIABLE FREQUENCY DRIVE WIRING DIAGRAM

N0 SCALE

NOTES:

1. WHEN VFD IS LOCATED IN A MOTOR CONTROL CENTER, ALLOW AN ADDITIONAL 3" OF HEIGHT PER VFD FOR THE RELAYS.
2. SYSTEMS INTEGRATOR SHALL PROVIDE INPUT AND OUTPUT ISOLATION MODULES AS REQUIRED FOR ANALOG I/O.
3. ALL VARIABLE FREQUENCY DRIVES SHOWN IN PROCESS EQUIPMENT CONNECTION SCHEDULES SHALL BE PROVIDED WITH THE RELAYS AND EQUIPMENT AS SHOWN IN THIS DIAGRAM.

Wichita-Sedgwick County Metropolitan Area Building and Construction Department

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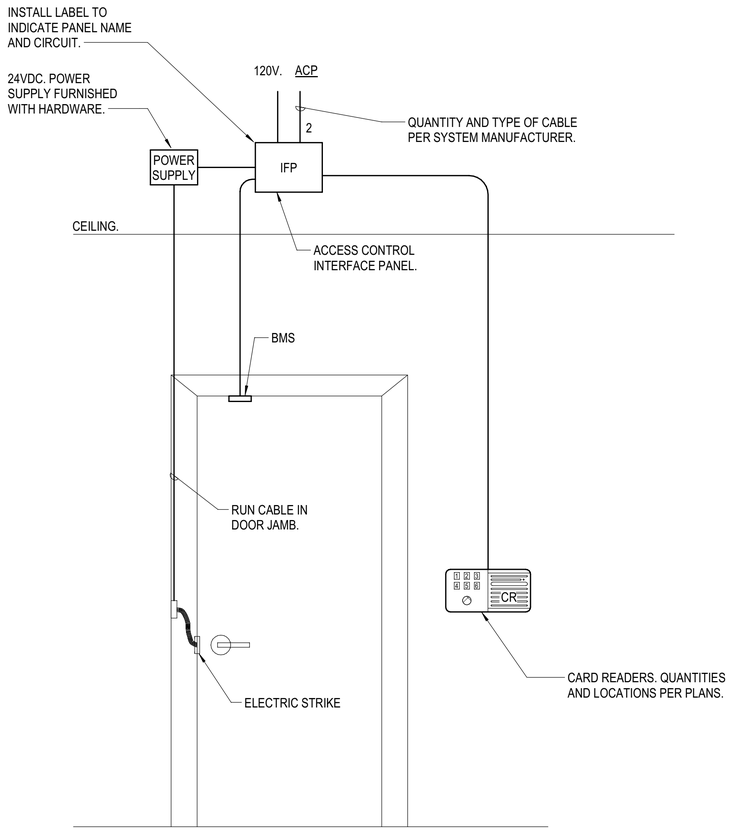
ELECTRICAL DETAILS

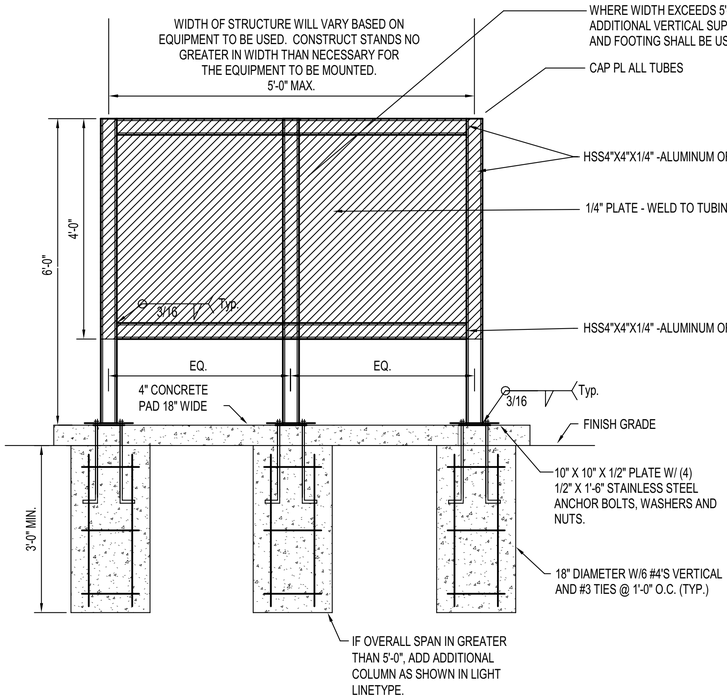
E-503



VERIFY DOOR TYPE WITH ARCHITECTURAL DOOR HARDWARE SCHEDULE.

1 ACCESS CONTROL DETAIL

N0 SCALE



CONTRACTOR OPTION TO FABRICATE ENTIRE STRUCTURE OF STAINLESS STEEL OR ALUMINUM. IF STAND IS CONSTRUCTED OF STAINLESS STEEL THE SAME TUBING, PLATE SIZES, AND WELDS SHALL BE USED.

CONNECT ALL EQUIPMENT TO STRUCTURE USING STAINLESS STEEL BOLT AND/OR SCREWS.

IF ALUMINUM IS USED A 10" X 10" X 1/16" RUBBER PAD SHALL BE INSTALLED BETWEEN THE HOUSKEEPING PAD AND THE PLATES AT THE BOTTOM OF EACH STAND VERTICIAL MEMBER WHERE THEY ATTACH TO THE ANCHOR BOLTS

2 TYPICAL ELECTRICAL STRUCTURE DETAIL

N0 SCALE

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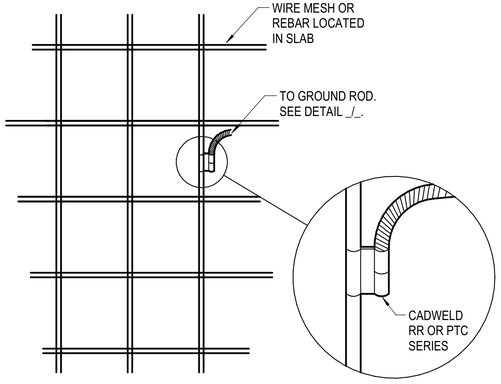
ELECTRICAL DETAILS

E-504

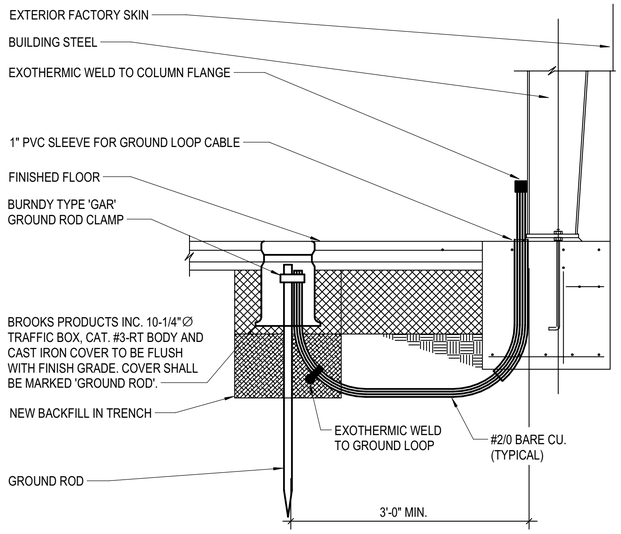


ALL NUMBERS IN TABLES ARE "ERICO"

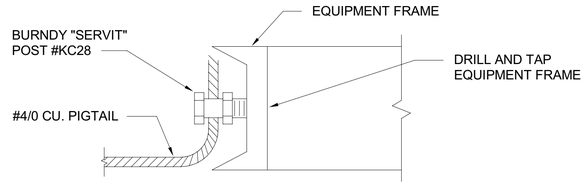
REBAR SIZE	CABLE SIZE	CADWELD MOLD NO.
4	#4/0	RRC-522Q
5	#4/0	RRC-532Q
6	#4/0	RRH-542Q
7	#4/0	RRH-552Q
8	#4/0	RRH-562Q

WIRE MESH SIZE	CABLE SIZE	CADWELD MOLD NO.
1.4	#4/0	PTC-2Q1D
2.1	#4/0	PTC-2Q1G
2.9	#4/0	PTC-2Q1L
4.0	#4/0	PTC-2Q1L

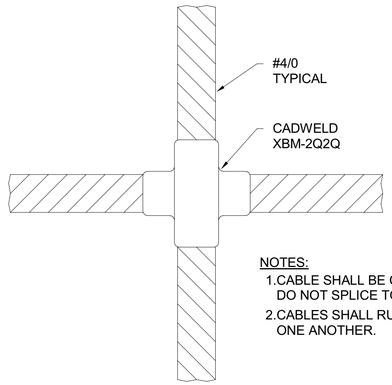
1 CABLE TO WIRE MESH INSTALLATION DETAIL
N0 SCALE



2 GROUND LOOP AT COLUMN DETAIL
N0 SCALE



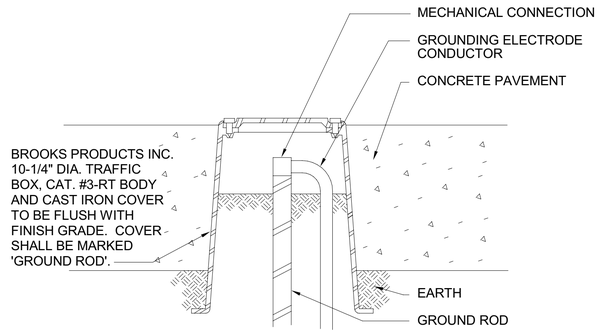
3 EQUIPMENT GROUNDING DETAIL
NO SCALE



4 CABLE CADWELD DETAIL
NO SCALE

NOTES:
1. CABLE SHALL BE CONTINUOUS. DO NOT SPLICE TOGETHER.
2. CABLES SHALL RUN ON TOP OF ONE ANOTHER.

5 CABLE CADWELD DETAIL
NO SCALE



6 GROUND ROD TEST PORT
NO SCALE — LOCATE WITHIN 36" OF BUILDING OR COLUMN

NOTE: PROVIDE TEST PORT AT ALL GROUND RODS LOCATED IN PAVED/SLAB AREAS.

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ELECTRICAL DETAILS

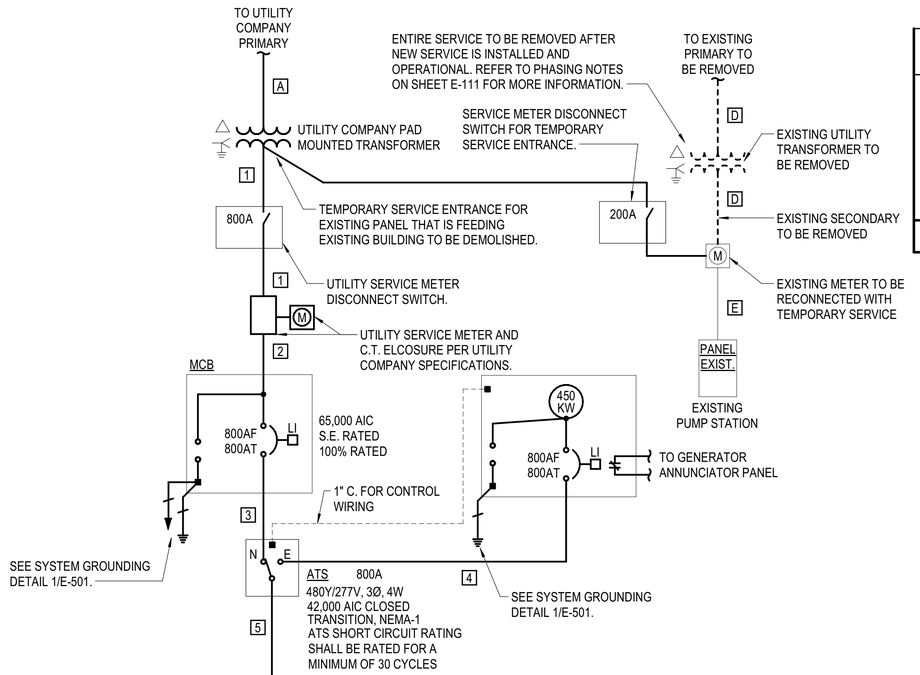
E-505

TRANSFORMER SCHEDULE

TRANSFORMER DESIGNATION	EQUIPMENT TYPE	KVA SIZE	PRIMARY VOLTAGE	SECONDARY VOLTAGE	GRNDING ELECTR COND	NOTES
TL1	DRY-TYPE DOE 2016	30	480/3Ph/3W	208/120/3Ph/4W	#6 CU	

GENERAL ONE-LINE DIAGRAM NOTES:

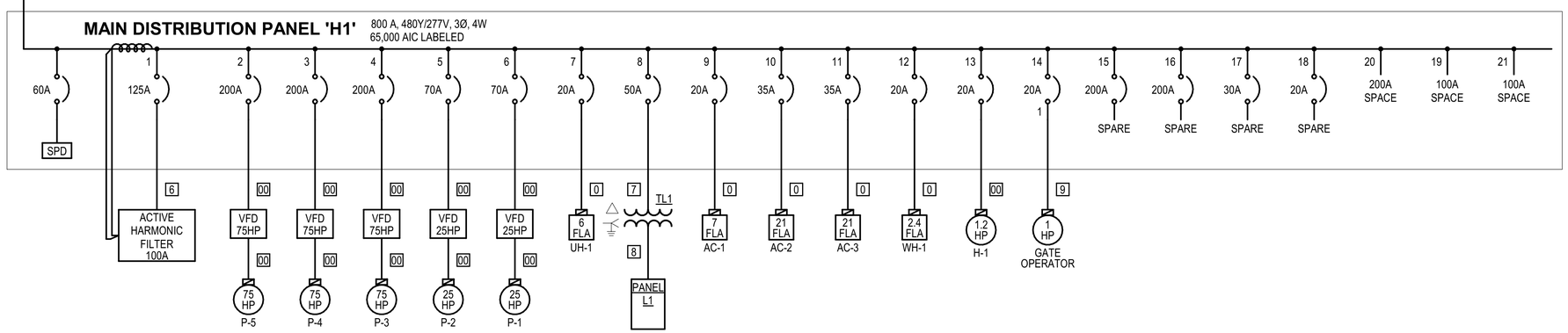
1. UNLESS OTHERWISE NOTED, ALL CIRCUIT BREAKERS AND/OR SWITCHES ARE THREE POLE.
2. ALL ELECTRICAL EQUIPMENT AND WIRING SHOWN IN A LIGHT LINE, IS EXISTING TO REMAIN.
3. ALL ELECTRICAL EQUIPMENT AND WIRING SHOWN IN A DARK LINE, IS NEW WORK UNDER THIS CONTRACT.
4. ALL ELECTRICAL EQUIPMENT AND WIRING SHOWN IN A DARK DASHED LINE, IS TO BE REMOVED UNDER THIS CONTRACT.



DISTRIBUTION PANEL: H1	CONNECTED KVA:				DEMAND		CONT.	SIZING AMPS:			
	PH-A	PH-B	PH-C	TOTAL	FACTOR	KVA	FACT	TOTAL	PH-A	PH-B	PH-C
Lighting	0.4	0.5	0.4	1.3	1	1.3	1.25	2.0	2.0	2.2	1.8
Receptacle	1.1	1.2	1.1	3.4	1	3.4	1	4.1	4.0	4.3	4.0
Largest Motor	0.0	0.0	0.0	0.0	1	0.0	0.25	24.0	24.0	24.0	24.0
Cooling	1.4	1.4	1.4	4.2	1	4.2	1	5.1	5.1	5.1	5.1
Motor	102.2	102.0	102.0	306.3	1	306.3	1	368.4	369.1	368.3	368.3
Heating	12.9	13.5	13.5	40.0	1	40.0	1.25	60.1	58.3	61.1	61.1
Power	1.9	1.7	1.8	5.3	1	5.3	1	6.4	6.8	6.0	6.3
Water Heating	0.7	0.7	0.7	2.0	1	2.0	1.25	3.0	3.0	3.0	3.0
Transformer Losses	0.2	0.2	0.2	0.7	1	0.7	1	0.9	0.8	0.9	0.9
Spare					0.2	72.7	1	87.4	87.4	87.4	87.4
TOTAL KVA:	120.9	121.2	121.1	363.3		435.9		TOTAL AMPS:	PH-A	PH-B	PH-C
TOTAL AMPS:	436.4	437.7	437.3	436.9				561.3	560.5	562.4	561.9

FEEDER SCHEDULE

DESIG.	EQUIPMENT SERVED	CONDUCTORS			GROUND SIZE PER SET	ISOLATED GROUND SIZE	CONDUIT SIZE PER SET	SPARE CONDUIT
		SETS	NO.	SIZE				
D	EXIST. FEEDER TO BE REMOVED	--	--	--	--	--	--	
E	EXIST. FEEDER TO REMAIN	--	--	--	--	--	--	
A	UTILITY CO. PRIMARY	--	--	W/PYLLROPE	--	--	4"C.	--
1	C.T./METER	3	4	#300 KCMIL CU	--	--	--	--
2	MAIN DISCONNECT: MCB	3	4	#300 KCMIL CU	--	--	--	--
3	AUTOMATIC TRANSFER SWITCH	3	4	#300 KCMIL CU	#2/0	--	3-1/2"C.	--
4	GEN SET	3	4	#300 KCMIL CU	#2/0	--	3-1/2"C.	--
5	MAIN DISTRIBUTION PANEL: MDP	3	4	#300 KCMIL CU	#2/0	--	3-1/2"C.	--
6	ACTIVE HARMONIC FILTER	1	4	#3 AWG CU	#8	--	1-1/2"C.	--
7	TRANSFORMER: TL1	1	3	#6 AWG CU	#10	--	1"C.	--
8	PANELBOARD: L1	1	4	#1 AWG CU	#6	--	2"C.	--
9	GATE OPERATOR	1	2	#12 AWG CU	#12	--	1/2"C.	--
0	SEE MECHANICAL EQUIPMENT CONNECTION SCHEDULE				--	--	--	--
00	SEE PROCESS EQUIPMENT CONNECTION SCHEDULE				--	--	--	--



1 ELECTRICAL ONE-LINE DIAGRAM

N0 SCALE

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ELECTRICAL ONE-LINE DIAGRAM

E-601

(1)(2)(3)(4)

(P.E.C. - WICHITA)

LIGHTING FIXTURE SCHEDULE

1. GENERAL CONTRACTOR SHALL PROVIDE FIREPROOFING AROUND RECESSED FIXTURES INSTALLED IN FIRE RATED CEILING PER U.L. REQUIREMENTS. ELECTRICAL CONTRACTOR WILL COORDINATE.
2. MANUFACTURERS LISTED IN THIS SCHEDULE OR APPROVED BY WRITTEN ADDENDUM WILL BE THE ONLY APPROVED MANUFACTURERS TO BID THE LIGHTING FIXTURES FOR THIS PROJECT. CONTRACTORS AND SUPPLIERS USING PRICING FROM MANUFACTURERS NOT LISTED ON SCHEDULE OR BY ADDENDUM DO SO AT THEIR OWN RSK.
3. LIGHT FIXTURE SELECTIONS ARE BASED ON THE MANUFACTURER IN THE LEFT MOST COLUMN AS LISTED IN THE SCHEDULE. FIXTURES APPROVED AS EQUALS IN THIS SCHEDULE OR BY ADDENDUM SHALL BE EQUAL TO THE UNIT SPECIFIED IN THE LEFT MOST COLUMN, IE: SPRING LOADED LATCHES, POST PAINTED FINISH, PHOTOMETRICS.
4. ALL LIGHT FIXTURES SHALL BE SECURED TO THE CEILING FRAMING SYSTEM BY MECHANICAL MEANS (SUCH AS BOLTS, SCREWS, OR RIVETS) OR BY CLIPS IDENTIFIED FOR USE WITH THE TYPE OF CEILING FRAMING MEMBER AND LIGHT FIXTURE.
5. LIGHT FIXTURES SHALL BE PROVIDED WITH 0-10V DIMMING DRIVERS. DRIVERS SHALL BE CAPABLE OF DIMMING TO A MINIMUM OF 10% TOTAL LIGHT OUTPUT. LED DRIVERS SHALL HAVE A DISCONNECTING MEANS MEETING THE REQUIREMENTS OF NEC SECTION 410.130(G), EXCEPT FOR THOSE INSTALLED IN CORD AND PLUG CONNECTED FIXTURES. WHERE APPLICABLE, WHEN DIMMING SWITCHES ARE NOT PROVIDED AS PART OF THE DESIGN, CONTRACTOR SHALL CAP OFF THE 0-10V DIMMING WIRES FOR FUTURE EXTENSION BY THE OWNER.

.

MARK	DESCRIPTION	MANUFACTURER 1 CATALOG NUMBER	MANUFACTURER 2 CATALOG NUMBER	MANUFACTURER 3 CATALOG NUMBER	MANUFACTURER 4 CATALOG NUMBER	LIGHT SOURCE				LENS/LOUVER/FINISH	DIMENSIONS			REF. NOTE	REMARKS
						#	TYPE	WATTS	VOLTS		W	L	D		
CG	4' STRIP DAMP LABEL	WILLIAMS 96-4-L100/840-HIAFR-DIM	LITHONIA VAP-12000LM-FST-WD-MVOLT-GZ10-40K-80CRI			1	LED	74	UNV	ACRYLIC				5	10000LM; 4000K; 80CRI. ENCLOSED AND GASKETED. MOUNT FIXTURE AT 14' A.F.F.
CGE	4' STRIP DAMP LABEL	WILLIAMS 96-4-L100/840-HIAFR-EM/10W-DIM	LITHONIA VAP-612000LM-FST-WD-MVOLT-GZ10-40K-80CRI-BSL722C			1	LED	74	UNV	ACRYLIC				5	1000LM; 4000K; 80CRI. ENCLOSED AND GASKETED. PROVIDE EMERGENCY BATTERY BACK-UP. MOUNT FIXTURE 14' A.F.F.
EB	WALL MTD EM LT	EMERGI-LITE JSM9-210LA-AD-FM	DUAL LITE LZ2I-03L			2	LED MR16	26	UNV	WHITE					W/SELF-DIAGNOSTICS
G2	4' WALL MOUNTED	WILLIAMS WMA-4-L80/840-AF-DIM	COOPER MWLDL-4-73-UNV-L840-EDD-1-BT			1	LED	63	UNV	ACRYLIC				5	8000LM; 4000K; 80CRI.
P	PENDANT	METALUX UHB-12-UNV-L840-CD	SPECGRADELED HBF-90-40-90-V01-WT-CM-V DIM-80C			1	LED	90	UNV	WHITE				5	12,000LM; 4000K; 80CRI.
WA2	WALL PACK - TYPE III	WILLIAMS VWP-V-L30-730-T3-BLK-SDGL-DIM-UNV	LITHONIA ARC1 LED-P3-30K-MVOLT-DBLXD			1	LED	27	UNV	DARK BRONZE					3000LM; 3000K; 70CRI
WA2E	WALL PACK - TYPE III	WILLIAMS VWP-V-L30-730-T3-BLK-SDGL-EM/10WC-DIM-UNV	LITHONIA ARC1 LED-P3-30K-MVOLT-E4WH-DBLXD			1	LED	27	UNV	DARK BRONZE					3000LM; 3000K; 70CRI. PROVIDE EMERGENCY BATTERY BACK-UP.

Wichita-Sedgwick County Metropolitan Area Building and Construction Department

MABCD REVIEWER:

REVIEWED FOR CODE COMPLIANCE

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DATE: 04/22/25 BY: Gary Cox

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CITY OF WICHITA

SUSAN PATRICK GERTTY LICENSED 28753 01/28/2025 KANSAS PROFESSIONAL ENGINEER

WICHITA MAPLE STREET BOOSTER PUMP STATION

PAUL GUNZELMAN, P.E - CITY ENGINEER
CITY OF WICHITA PROJECT NO. 448-2019-028875

Issue:		

JOB NO.	35-200810-001-0042
DATE	JANUARY 2025
PM	RWG
DESIGNED BY	DCG
DRAWN BY	JSH
CHECKED BY	SPG

LIGHTING FIXTURE SCHEDULE

E-611

1/27/2025 3:50:23 PM
Autodesk Docs://200810-001 - COW Maple Booster Pump Station/200810-001_ELEC_R22.rvt

EQUIPMENT CONNECTION SCHEDULE

MECHANICAL EQUIPMENT CONNECTIONS

UNIT DESIG	UNIT VOLTAGE	LOAD H.P.	LOAD FLA	LOAD KVA	PANEL DEVICE CIRCUIT NUMBER	PANEL DEVICE BKR. AMPS	PANEL DEVICE SW. AMPS	PANEL DEVICE FUSE AMPS	PANEL DEVICE POLE	PANEL DEVICE NEMA START SIZE	DEVICE AT UNIT BKR. AMPS	DEVICE AT UNIT SW. AMPS	DEVICE AT UNIT FUSE AMPS	DEVICE AT UNIT POLE	DEVICE AT UNIT NEMA START SIZE	DEVICE AT UNIT OTHER	STS	FEEDER DESCRIPTION OR SEE THE FEEDER SCHEDULE	REMARKS OR SEE THE INDICATED NOTES BELOW
AC	AIR HANDLING UNIT																		
1	480/3	5.1A	7.0	5.82	H1:9	20		3			30	10	3			NEMA-3R	1	3 #12 AWG THWN; #12 AWG GRD; 1/2"C.	
2	480/3	1.6A	20.5	17.07	H1:10	35		3			30	30	3			NEMA-3R	1	3 #8 AWG THWN; #10 AWG GRD; 3/4"C.	
3	480/3	1.6A	20.5	17.07	H1:11	35		3			30	30	3			NEMA-3R	1	3 #8 AWG THWN; #10 AWG GRD; 3/4"C.	
UH	UNIT HEATER																		
(4) 1	480/3		6.0	4.988	H1:7	20		3			30	8	3			NEMA-3R	1	3 #12 AWG THWN; #12 AWG GRD; 1/2"C.	
EF	EXHAUST FAN																		
1	208/3	1	4.6	1.657	L1:18	30		3			30	20	3			NEMA-4XSS	1	3 #10 AWG THWN; #10 AWG GRD; 1/2"C.	
2	120/1		0.3	0.034	L1:24	20		1								FUSTAT	1	2 #12 AWG THWN; #12 AWG GRD; 1/2"C.	
WH	WATER HEATER																		
1	480/3		2.4	2.000	H1:12	20		3					3			TOGGLE	1	3 #12 AWG THWN; #12 AWG GRD; 1/2"C.	

(1) ALL CONNECTIONS AND ELECTRICAL EQUIPMENT LISTED IN SCHEDULE SHALL BE PROVIDED AND INSTALLED BY THE ELECTRICAL CONTRACTOR. FIELD VERIFY CONNECTION REQUIREMENTS AND EQUIPMENT PROVIDED BY OTHERS PRIOR TO ROUGH-IN.

(2) REFER TO MECHANICAL DRAWINGS AND SPECIFICATIONS FOR THE REQUIREMENTS ASSOCIATED WITH WIRING AND CONNECTIONS OF INTERLOCKING, THERMOSTAT LOCATIONS, EXHAUST FAN CONTROL SWITCHES, AND OTHER CONTROLS OF MECHANICAL EQUIPMENT.

(3) SIZE FUSES FOR MOTOR FUSTATS BASED ON 125% OF MANUFACTURER'S NAMEPLATE FULL LOAD AMPERAGE UNLESS OTHERWISE NOTED ON THE DRAWINGS.

(4) PROVIDED WITH FACTORY INSTALL DISCONNECT SWITCH.

EQUIPMENT CONNECTION SCHEDULE

PROCESS EQUIPMENT CONNECTIONS

UNIT DESIG	UNIT VOLTAGE	LOAD H.P.	LOAD FLA	LOAD KVA	PANEL DEVICE CIRCUIT NUMBER	PANEL DEVICE BKR. AMPS	PANEL DEVICE SW. AMPS	PANEL DEVICE FUSE AMPS	PANEL DEVICE POLE	PANEL DEVICE NEMA START SIZE	DEVICE AT UNIT BKR. AMPS	DEVICE AT UNIT SW. AMPS	DEVICE AT UNIT FUSE AMPS	DEVICE AT UNIT POLE	DEVICE AT UNIT NEMA START SIZE	DEVICE AT UNIT OTHER	STS	FEEDER DESCRIPTION OR SEE THE FEEDER SCHEDULE	REMARKS OR SEE THE INDICATED NOTES BELOW
P	PUMP																		
1	480/3	25	34.0	28.26	H1:6	70		3			60	50	3	VFD		NEMA-4XSS	1	3 #4 AWG THWN; #8 AWG GRD; 1-1/4"C.	
2	480/3	25	34.0	28.26	H1:5	70		3			60	50	3	VFD		NEMA-4XSS	1	3 #4 AWG THWN; #8 AWG GRD; 1-1/4"C.	
3	480/3	75	96.0	79.81	H1:4	200		3			200	150	3	VFD		NEMA-4XSS	1	3 #3/0 AWG THWN; #6 AWG GRD; 2"C.	
4	480/3	75	96.0	79.81	H1:3	200		3			200	150	3	VFD		NEMA-4XSS	1	3 #3/0 AWG THWN; #6 AWG GRD; 2"C.	
5	480/3	75	96.0	79.81	H1:2	200		3			200	150	3	VFD		NEMA-4XSS	1	3 #3/0 AWG THWN; #6 AWG GRD; 2"C.	
H	HOIST																		
1	480/3		2.4	2.026	H1:13	20		3			30	4	3			NEMA-4XSS	1	3 #12 AWG THWN; #12 AWG GRD; 1/2"C.	

(1) ALL CONNECTIONS AND ELECTRICAL EQUIPMENT LISTED IN SCHEDULE SHALL BE PROVIDED AND INSTALLED BY THE ELECTRICAL CONTRACTOR. FIELD VERIFY CONNECTION REQUIREMENTS AND EQUIPMENT PROVIDED BY OTHERS PRIOR TO ROUGH-IN.

(2) REFER TO CIVIL DRAWINGS AND SPECIFICATIONS FOR THE REQUIREMENTS ASSOCIATED WITH WIRING AND CONNECTIONS OF INTERLOCKING, INSTRUMENT LOCATIONS, REMOTE CONTROL PANELS AND DEVICES, AND OTHER CONTROLS OF PROCESS EQUIPMENT.

(3) SIZE FUSES FOR MOTOR FUSTATS BASED ON 125% OF MANUFACTURER'S NAMEPLATE FULL LOAD AMPERAGE UNLESS OTHERWISE NOTED ON THE DRAWINGS.

PANELBOARD: L1

W/GRD. BUS

208Y/120 VOLTS, 3 PHASE, 4 WIRE
110 AMP MAIN BKR, SURFACE MTD.
10000 AIC LABELED

CIRC NO.	LOAD V. A.	LOAD TYPE	LOAD DESCRIPTION	P.	AMP SIZE	PHASE	AMP SIZE	P.	LOAD DESCRIPTION	LOAD TYPE	LOAD V. A.	CIRC NO.
1	433	LGHT	ELEC RM, DATA RM, RESTRM LIGHTS	1	20	A	20	1	ELEC RM, N EXT RECEPTS	RCPT	600	2
3	630	LGHT	PUMP RM LIGHTS	1	20	B	20	1	PUMP RM, E EXT., S EXT. RECEPTS	RCPT	1000	4
5	189	LGHT	EXTERIOR LIGHTS	1	20	C	20	1	GATE ACCESS CONTROL PANEL	POWR	400	6
7	200	RCPT	FLOW SWITCH AND ANAL. READOUT	1	20	A	20	1	SPARE			8
9	200	RCPT	CHLORINE ANALYZER (CA-1)	1	20	B	20	1	SPARE			10
11	500	POWR	CHLORINE CONTROL AND CQ1	1	20	C	20	1	DATA RM, RESTRM RECEPTS	RCPT	1000	12
13	200	RCPT	INSTRUMENT DISPLAY CABINET	1	20	A	20	1	PUMP RM CARD READER	POWR	200	14
15	400	POWR	AREA LEAK ALARMS	1	20	B	20	1	DATA RM CARD READER	POWR	200	16
17	200	POWR	CONTACTOR 'A'	1	20	C	30	3	EF-1	MOTR	1657	18
19	800	POWR	CONTROL PANEL CP	1	20	A	|	---	----------	---	----	20
21	1000	POWR	DATA RACK #1	1	20	B	|	---	----------	---	----	22
23	1000	POWR	DATA RACK #2	1	20	C	20	1	EF-2	MOTR	34	24
25	1200	POWR	GEN SET BATTERY CHARGER	1	20	A	20	1	SPARE			26
27	5000	HEAT	GEN SET ENGINE JACKET HEATER	2	35	B	20	1	SPARE			28
29	----	---	----------	---	|	C	20	1	SPARE			30
31	864	MOTR	GATE OPERATOR	1	20	A	20	1	SPARE			32
33	50	EQPT	FLOW METER FM-1	1	20	B	20	1	SPARE			34
35			SPARE	1	20	C	20	1	SPARE			36
37			SPARE	1	20	A	20	1	SPARE			38
39			SPARE	1	20	B	20	1	SPARE			40
41			SPARE	1	20	C	20	1	SPARE			42

PANELBOARD: L1

	CONNECTED KVA: PH-A	PH-B	PH-C	TOTAL	DEMAND FACTOR	KVA	CONT. FACT	SIZING AMPS: TOTAL	PH-A	PH-B	PH-C
Lighting	0.4	0.6	0.2	1.3	1	1.3	1.25	4.3	4.5	6.6	2.0
Receptacle	1.0	1.4	1.0	3.4	1	3.4	1	9.4	8.3	11.7	8.3
Largest Motor	0.0	0.0	0.0	0.0	1	0.0	0.25	1.2	1.2	1.2	1.2
Motor	1.4	0.6	0.6	2.6	1	2.6	1	7.1	11.8	4.6	4.9
Equipment	0.0	0.0	0.0	0.0	1	0.0	1	0.1	0.0	0.4	0.0
Heating	0.0	2.5	2.5	5.0	1	5.0	1.25	17.4	0.0	26.0	26.0
Power	2.2	1.4	2.1	5.7	1	5.7	1	15.8	18.3	11.7	17.5
Spare					0.2	3.6	1	10.0	10.0	10.0	10.0
TOTAL KVA:	5.0	6.5	6.4	18.0		21.5		TOTAL AMPS:	PH-A	PH-B	PH-C
TOTAL AMPS:	42.1	54.4	53.1	49.8				65.3	54.1	72.1	69.9

Wichita-Sedgwick County Metropolitan Area Building and Construction Department

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CITY OF WICHITA

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01/28/2025
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KANSAS

WICHITA MAPLE STREET BOOSTER PUMP STATION

PAUL GUNZELMAN, P.E - CITY ENGINEER
CITY OF WICHITA PROJECT NO. 448-2019-028875

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ELECTRICAL SCHEDULES

E-612