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48 HOURS BEFORE YOU DIG... CALL OKIE: 1-800-522-6543

LOCATION OF UNDERGROUND UTILITY LINES WERE OBTAINED FROM THE UTILITY OWNERS AND HAVE BEEN SHOWN TO THE EXTENT KNOWN. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF THE EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS WERE TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS EXACT OR COMPLETE. IT SHALL BE THE CONTRACTOR'S RESPONSIBLITY TO CALL "OKIE" 48 HOURS PRIOR TO ANY EXCAVATION TO DETERMINE AND VERIFY THE EXACT LOCATION AND DEPTH OF ALL EXSITING UTILITIES AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES HEREIN, PRIOR TO FURTHER CONSTRUCTION.

UTILITY COORDINATION BOX

| | NUMBER | NOTIFIED |
|-----------------------------------|--------------|----------|
| CITY OF TULSA UTILITY COORDINATOR | 918-596-9649 | |
| WATER DESIGN | 918-596-9580 | |
| WASTEWATER DESIGN | 918-596-9564 | |
| TRANSPORTATION DESIGN | 918-596-9636 | |
| TRAFFIC ENGINEERING DESIGN | 918-596-9741 | |
| STORMWATER DESIGN | 918-596-9498 | |
| PSO/AEP | 918-250-6257 | |
| OKLAHOMA NATURAL GAS COMPANY | 918-831-8261 | |
| AT&T | 918-576-2142 | |
| MCI | 918-325-0187 | |
| COX COMMUNICATIONS | 918-286-4716 | |
| EASYTEL COMMUNICATIONS | 918-523-8025 | |
| MOHAWK WATER TREATMENT PLANT | 918-591-4028 | |
| BUILDING MAINTENANCE & OPERATIONS | 918-596-9389 | |

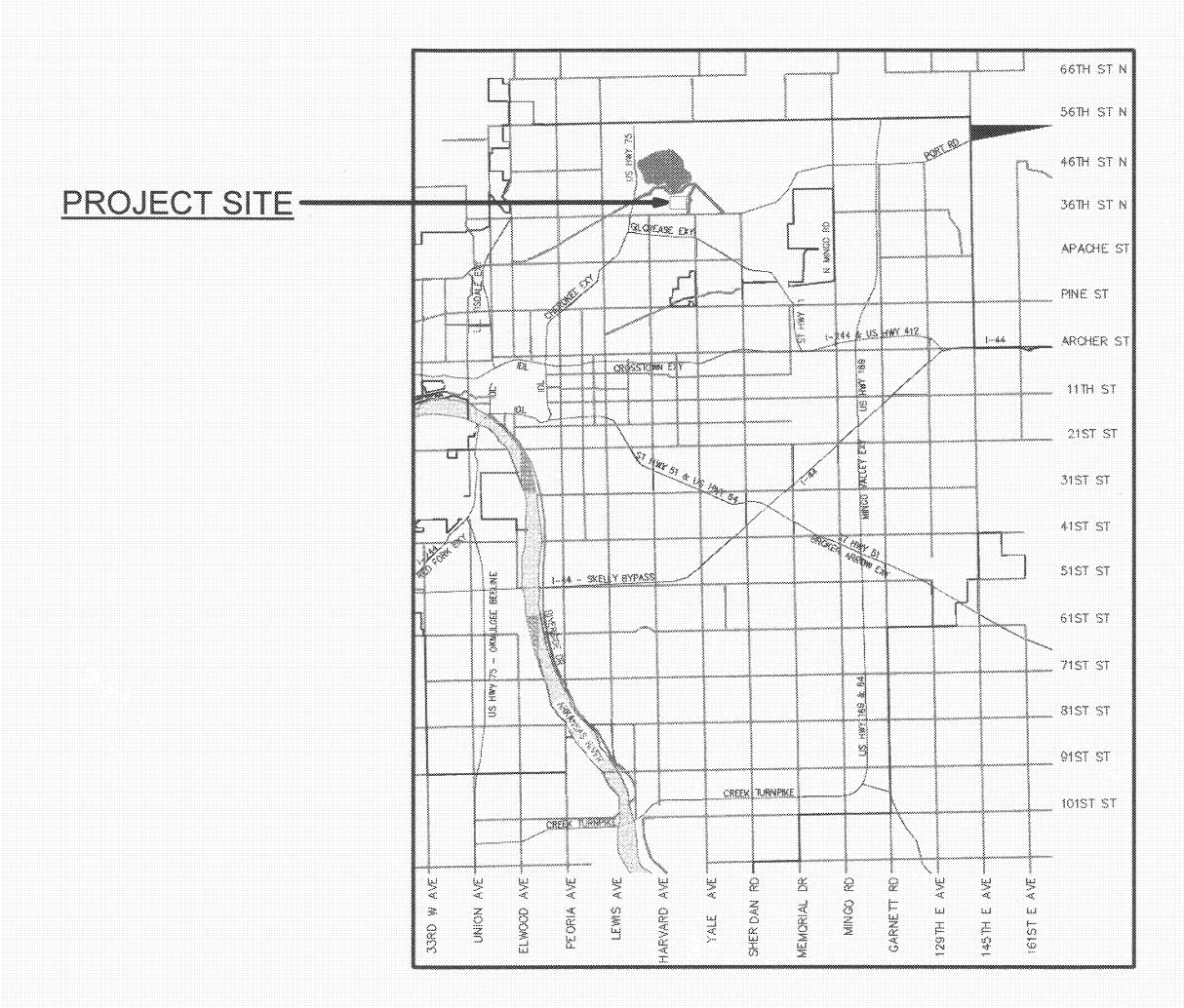
CONSTRUCTION DOCUMENTS FOR: TULSA METROPOLITAN UTILITY AUTHORITY

MOHAWK WATER TREATMENT PLANT STORAGE FACILITY

3600 MOHAWK BOULEVARD TULSA, OKLAHOMA 74115

CITY OF TULSA, OKLAHOMA ENGINEERING SERVICES DEPARTMENT

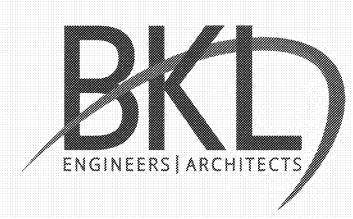
PROJECT NUMBER: TMUA-W-20-01



LOCATION MAP
N.T.S.
NOTE: ENTIRE PROJECT IS WITHIN THE
CORPORATE AND CITY LIMITS OF TULSA, OK



PLANS PREPARED BY:

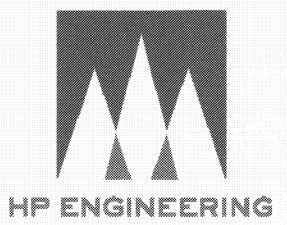


C.A.0049 (ARCH) RENEWAL DATE: 06-30-2021 C.A.0049 (PE) RENEWAL DATE: 06-30-2022 HAMMOCK@BKLINC.COM 918-835-9588

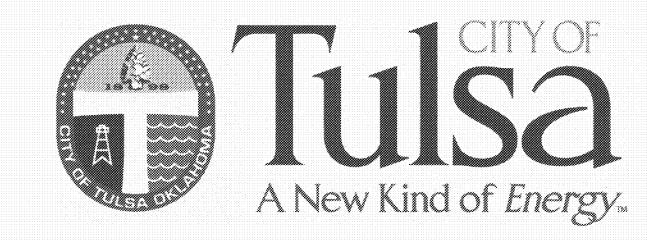


JENNIFER HAMMOCK, AIA, NCARB BKL. INCORPORATED

MECHANICAL/ELECTRICAL ENGINEER:



C.A.5338 RENEWAL DATE: 06-30-2021 HPENGINEERINGINC.COM 918-895-6510



APPROVED BY:

CITY ENGINEER

04.26.21 Date

CLANTIN EDWARDS

4·22·2|

WATER AND SEWER DIRECTOR DATE

CONSTRUCTION DOCUMENTS

04/15/21

ABBREVIATIONS:

ABOVE COR... . CORNER ABOVE FINISH FLOOR CG.... . CORNER GUARD .. CORRIDOR, CORRUGATED ACOUSTICAL CORR. ACOUSTICAL CEILING TILE CNTR. ..COUNTER .ADA SHOWER SEAT ADASS CFL.. . COUNTER FLASHING ADDENDUM COUNTERSUNK ADD CS., CRS... ADDL. **ADDITIONAL** COURSES ADH.. ADHESIVE CUBE. .CUBICAL **ADJUSTABLE** . CURTAIN TRACK CTRK.. ADMIN. **ADMINISTRATION CURTAIN WALL** CW... A/C... AIR CONDITIONING AHU.. AIR HANDLING UNIT DP. DAMPROOFING ALUMINUM DEMO. DEMOLISH, DEMOLITION DEPT. DEPARTMENT ALUM.. ALUMINUM **ALTERNATE** DTL. DETAIL ANCH. ANCHOR DIAGM. DIAGRAM DIAG. . DIAGONAL ANCHOR BOLT DIAMETER ANOD.. ANODIZED DIM. DIMENSION APPROX APPROXIMATE ARCH.. ARCHITECT, ARCHITECTURAL DIV.. DIVISION ARCHITECT-ENGINEER DOOR AREA DRAIN DBL. DOUBLE ASPHALT DN... DOWN ASSEMBLY ASSY. DOWNSPOUT AUTO.. AUTOMATIC DRN... DRAIN DRAWING DWG.. BCS.. BABY CHANGING STATION DWGS... . DRAWINGS BTRM. BATH ROOM BDRM. BEDROOM EA... EACH EACH FACE BTM **BITUMINOUS** BOARD EW.. . EACH WAY BELOW EAST BEL.. ELAST . ELASTIC, ELASTOMERIC BRICK BKT... BRACKET ELEC. ELECTRIC **BUILDING LINE** EWC... . ELECTRIC WATER COOLER BLDG.. EL, ELEV....ELEVATION BUILDING BLOCK, BLOCKING BLK... ELEV... . ELEVATOR BM BEAM ENCL. . ELNCLOSED, ENCLOSURE BNCHMK. . BENCH MARK E/E... END TO END BY OWNER ENGR. ENGINEER BOTTOM OF DECK ENT.. ENTRY ENTRANCE BOD BOM. **BOTTOM OF MULLION** EM... ENTRY MAT BOT. BOTTOM EPX.. EPOXY **BRICK PAVER** EQUAL EQ. .. BACKER ROD EQUIPMENT EQMT. **BATH STATION PULL CORD** ESC.. ESCAPE BSMT. BASEMENT . ETHYLENE PROPYLENE DIENE EPDM. MONOMER BENT BETWEEN EXC. EXCAVATE BTW. BEVELED EF... **EXHAUST FAN** BVI... BUTT JOINT EXIST. EXISTING FXPAN EXPANSION CAB.. CABINET EXPANSION JOIN CO2.. CARBON DIOXIDE EXP JT.. . EXPANSION JOINT CPT... CARPET EXP.. EXPOSED CASED OPENING EXT EXTERIOR .. EXTERIOR INSULATION FINISH SYSTEM CSG. CASING EIFS... CAST IRON EB, EXB..... EXPANSION BOLT CLG.. CEILING FABRIC WALL COVERING CHPTP CEILING HUNG PLASTIC TOILET PARTITION FA8.. FABRICATE, FABRICATED, FABRIC FACE BRICK CSS.. CEILING SUPPORT SYSTEM FACE OF STUD CEM CEMENT FOS. CTR. CENTER FACE TO FACE CENTER LINE FSTN... FASTENER CENTER TO CENTER C/C... FG... FIBERGLASS CER.. CERAMIC FV.... FIELD VERIF CERAMIC TILE FINISH CHAIR RAIL .. FINISH FLOOR FIN FLR... C. CHAN.. ... CHANNEL FIRE ALARM FIRE DEPARTMENT CONNECTION CIRCLE, CIRCULAR CLOUT CLEAN OUT FIRE EXTINGUISHER CLEAR, CLEARANCE FIRE EXTINGUISHER ON WALL BRACKET FIRE EXTINGUISHER IN WALL CABINET CLO.. CLOSET FEC. CH . COAT HOOK FHVC.. . FIRE HOSE VALVE CABINET COLD ROLLED .. FIRE RATED ... FIRE RETARDANT . COLUMN COL... COMPT.. .. COMPARTMENT ... FIXTURE . COMPRESSED, COMPRESSOR FLASHING COMPR FLASH... . CONCRETE .. FLEXIBLE CONC FLEX.... CONCRETE MANONRY UNIT FLOOR .. FLOOR DRAIN COND.. . CONDITION CONN... .. CONNECTION FLOORING CONST. .. CONSTRUCTION FLMAT... FLOOR MAT .. FLOOR MOUNTED PLASTIC CONTRACTOR PROVIDED / TOILET PARTITION CONTRACTOR INSTALLED CONTRACTOR PROVIDED AND INSTALLED FLOUR... ... FLUORESCENT CONTROL JOINT . FOOD WELL FW..... CONT.. CONTINUE, CONTINUOUS . FOOT, FEET CONTR.. . CONTRACTOR . FOOTING CONVENIENCE FOUNDATION

FRM ... FRAME, FRAMING FRZ... ... FREEZER FS. .. FURNISH FURR.....FURRED, FURRING GALV.... . GALVANIZED GAS

GA.. GAUGE GENERAL CONTRACTOR GFRC.... ... GLASS FIBER REINFORCED CONCRETE GLASS, GLAZED, GLAZING GB.. GRAS BARS GR.. GRADE GRA.. GRANITE GND. GROUND GRT. GROUT

GYPSUM BOARD GYP 8D .. GYPSUM BOARD GMGSB.. .. GLASS-MAT GYPSUM SHEATHING BOARD HDCP. . HANDICAP HR. HANDRAIL HS.. HAND SINK HDW. . HARDWARE

HDWD.. HARDWOOD HD... HEAD, HEADER HTR. HEATER HVAC.. HEATING, VENTILATION, & AIR CONDITIONING HVY.. HEAVY HEIGHT . THRESHHOLD

THHD... HPT.. HIGH POINT HC... HOLLOW CORE HOLLOW METAL HSS. HOLLOW STRUCTURAL SECTIONS HORZ. HORIZONTAL HB. . HOSE BIB HOSP. . HOSPITAL . HOT WATER

HYDROGEN ICE MACHINE INCAND.... INCANDESCENT INCH, INCHES IND.. INDUSTRIAL INFO.. INFORMATION INSIDE DIAMETER INST. INSULATE, INSULATION INTERIOR, INTERNAL INV. INVERT ISOL.. . ISOLATION

JANITOR JAN... JOINT JT..... JST.....JOIST .. JUNCTION JB, J-BOX.. JUNCTION BOX KIT. KITCHEN

KD.. KNOCK DOWN K/O.. . KNOCK OUT KOP.. KNOCK OUT PANEL LAB... LABORATORY LAM... . LAMINATE, LAMINATED LAND.... .. LANDING

LAV... HAVATORY HLAV... . LAVATORY, HANDICAPPED LEFT 134 LEFT HAND . LEFT HAND REVERSE LIGHT LTG.... .. LIGHTING .. LIGHT GAUGE METAL FRAMING

LIGHT WEIGHT IWT ... LIGHT WEIGHT CONCRETE LINEAR LDIF .. LINEAR DIFFUSER LIQ..... LIQUID . LOCAL KEY SWITCH .. LOCATION LOCKED KEY SWITCH LOCKER

LKS... LOC... LKR... LG..... LONG LONG LEG HORIZONTAL ... LONG LEG VERTICAL

LOUV...... LOUVER LOW POINT LBR. LUMBER

PFN

PRT

PREP.

PROD.

PROJ.

PS...

PUR...

POLYS...

R. RAD...

RECEPT...

RF RFF

RCV....

REC.

REG...

REINF

REQ...

RESIL.

RESI..

RW.

RET.

REV.

RT.

RH

RHR..

RBHK.

RD...

RTU.

RM

RO.

RB....

SNDU.

SCW...

SLNT..

SCD...

SEP

SHT.

SHL.

SCR.

SIM...

SGL

1SU.,

2SU.,

3SU.,

SC...

SDSF.

SAFB.

SPEC..

STAG

SST..

STD..

STA...

STIFF

STIR...

SUR.

SUS.

SCG..

SYM...

SYS.....

STOR...

STC.

SDISH.

SHWR.

SV.

SHTHG ..

SCHED ...

REBAR.

REPRO.

PL...

PROJECT. PROJECTOR

PROJECTION SCREEN

PROPERTY LINE

.. POLYSTYRENE

. QUARRY TILE

PURLIN

.. QUANTITY

RADIUS

RECIEVER

RECESSED

REFERENCE

RESILIENT

RESISTANT

RIGHT HAND

ROBE HOOK

ROOF DRAIN

. ROOF HATCH

. ROOF TOP UNIT

. ROUGH OPENING

SANITARY SEWER

. SCHEDULE, SCHEDULED

. SEAT COVER DISPENSER

. SANITARY-NAPKIN DISPOSAL UNIT

SHOWER CURTAIN, ROD, AND HOOKS

SOUND ATTENUATING FIRE BATT

SOUND TRANSMISSION COEFFICIENT

RUBBER BASE

. SCREW (S)

..SEALANT

SEPARATI

SHEET

SIMILAR

SHEATHING

SHEET VINYL

SHOWER ROD

SINGLE PLY

SOAP DISH

SOLID CORE

SOUTH

SOUARE

SQFT, SF... SQUARE FOOT

SPANDREL

STAGGERED

STAINDARD

STATION

... STIFFENER

STIRRUP

.. SURFACE

. SWITCH

. SYSTEM

.. STORAGE

STORFT..... STOREFRONT

STORM DRAIN

.. SUPPLY, SUPPORT

. SURGICAL LIGHT

. SUSPEND (ED)

.. SYMMETRICAL

. STRUCTURE, STRUCTURAL

SUSPENDED CEILING GRID

. STONE

SHELF, SHELVES

SINK UNIT - SINGLE

SINK UNIT - DOUBLE

SINK UNIT - TRIPLE

SOLID SURFACE

SPECIFICATION(S)

STAINLESS STEE

SECTION... SECTION

RETURN

RIGHT

RISER

. ROOM

. RETAINING WALL

REVISE, REVISION

RIGHT HAND REVERSE

LVT... LUXURY VINYL TILE MACH. MACHINE MAN. MANUAL MANHOLE MFR MANUFACTURER MFD.. MANUFACTURED MARK MKBD. . MARKER BOARD MAS. MASONRY

MO.. MASONRY OPENING MAT. MATERIAL MAXINUM MECH MECHANICAL MED.. MEDICAL MDF. MEDIUM DENSITY FIBER BOARD MEMB. MEMBRANE

MTL... METAL MEZZ.. MEZZANINE MI WK MILLWORK MIN... MINIMUM MIR. MIRROR MIRROR UNIT MISCELLANEOU MD MODEL, MODULE MONO. . MONOLITHIC MBHUS. . MOP/BROOM HOLDER UNIT W/ SHELF MOUNT, MOUNTED MULLION MULT.. MULIPLE

NATURAL NAT NRC. . NOISE REDUCTION COEFFICIENT NOM... . Nominal NON-SLIP NORTH NA. N/A.. ... NOT APPLICABLE NOT IN CONTRACT NIC. NTS. . NOT TO SCALE . NUMBER

NO, #... OFF. OFFICE OC... ON CENTER OPNG... OPENING OPPOSITE .. OPPOSITE HAND OH O/H ORIG... ORIGINAL OD. . OUTSIDE DIAMETER 0/0... OUT TO OUT OVERALL

OFRD. . OVERFLOW ROOF DRAIN O/H, OH. .OVERHEAD OFOI... OTHER FURNISH/OTHER INSTALL OTHER FURNISH / CONTRACTOR INSTALLED OFCI... OX, O2..... OXYGEN

PNT. PAINT PNTD.. PAINTED PAINT STAIN PANEL PAPER TOWEL DISPENSER PAPER TOWEL DISPENSER / WASTE PTWD.

RECEPTACLE PARA.. PARAGRAPH . PARALLEL PAR PARTICLE BOARD PTN PARTITION PED.. PEDESTAL, PEDESTRIAN PERF.. . PERFORATE(D) PERP PERPENDICULAR

PC WKST.. PERSONAL COMPUTER WORKSTATION ... PIECE PLAS, PL... PLASTER PLAM...... PLASTIC LAMINATE .. PLATE

PLAT..... PLATFORM PLB..... PLUMBING PNEUMATIC TUBE STATION POINT .. POLISH POUNDS PER SQUARE FOOT POWER PRECAST CONCRETE

PLWD..... PLYWOOD PEMB...... PRE-ENGINEERED METAL BUILDING PRE FAB... PREFABRICATED

(CMU) CONCRETE MASONARY UNIT

PREFINISHED TBD. TACKBOARD PREPARATION TEL. TELEPHONE PRINTER PRODUCTION

TELEVISION TV.. TEMP TEMPERED TRZ... TERRAZZO THK.. THICK TRHD.. THRESHOLD THRU. THROUGH TINTED GLASS TGL TLT, TOIL... TOILET

TOILET TISSUE (ROLL) DISPENSER TTD. T&G. TONGUE AND GROVE T&B. TOP AND BOTTOM TO. TOP OF TOP OF BEAM

. RECEPTACLE TOC. TOP OF CURB TOM. TOP OF MULLION TOS. TOP OF STEEL RFGR,FRG.REFRIGERATOR TOP OF WALL TOW... REGISTER, REGULATOR TOWEL BAR TB.... .. REINFORCING BAR TRACK REINFORCE, REIN FORCING T, TRD. TREAD . REPRODUCE TRTD.. TREATED REQUIRE (D) TRENCH DRAIN TUBULAR STEEL TS..

TYP.

UC... UNDERCOUNTER UG... UNDERGROUND UNDERWRITERS LABORATORIES, INC. DL. UNF. UNFINISHED UNIT HEATER

UNO... UNLESS NOTED OTHERWISE UR.... URINAL UTIL.... .. UTILITY

TYPICAL

. VALVE VB. . VALVE BOX VAR. VARIES, VARIABLE VIC.. VARIABLE INTENSITY CONTROL VTR.. VENT THROUGH ROOF VIF... VERIFY IN FIELD VERT.. VERTICAL

VEST.. VESTIBULE VIN... VINYL VT. VINYL TILE VINYL COMPOSITION TILE VCT.. VINYL WALL COVERING VWC... VOLUME VOL...

WSCT. . WAINSCOT WALL CABINET WCAB WARM-AIR DRYERS WAD... W RCPT... . WASTE RECEPTACLE WC.. WATER CLOSET WH. .WATER HEATER WP. . WATER PROOFING WR. .WATER RESISTANT WS.. . WEATHER STRIP(ING) WEST

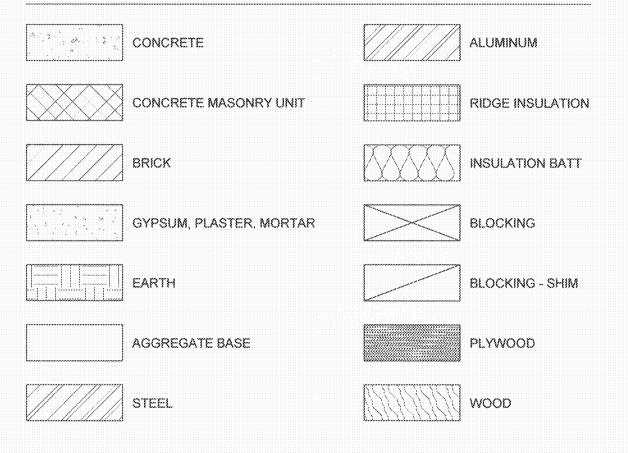
. WHEEL CHAIR WHC... WF, W... .. WIDE FLANGE WIDE WIDTH ...WINDOW WDW... WGL. WIRE GLASS W/.... WITH W/O... WITHOUT WD.. GOOW.

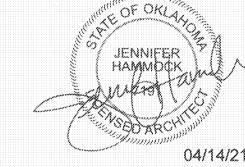
YARD YIELD POINT YS... YIELD STRENGTH

GENERAL NOTES:

- FOR ITEMS PROVIDED "BY OTHERS" PROVIDE AND INSTALL BLOCKING, MECHANICAL, ELECTRICAL, AND PLUMBING. REFERENCE MEP. DOCUMENTS. CONTRACTOR IS RESPONSIBLE FOR INSTALLATION COORDINATION.
- 2. STRUCTURAL, ARCHITECTURAL, AND MEP SHEETS ARE DRAWN ACCORDING TO A PLAN NORTH, REFER CIVIL DRAWINGS FOR TRUE
- 3. ALL CONSTRUCTION SHALL BE IN STRICT ACCORDANCE WITH CURRENT CITY OF TULSA CODES AND ORDINANCES, ENGINEERING SERVICES DEPARTMENT STANDARDS AND SPECIFICATIONS. (CITY OF TULSA ORDINANCES AND CODE AMENDMENTS SUPERCEDE
- 4. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS GOVERNING SAFETY, HEALTH AND SANITATION. THE CONTRACTOR SHALL PROVIDE ALL SAFEGUARDS, SAFETY DEVICES, AND PROTECTIVE EQUIPMENT AND TAKE ANY OTHER NEEDED ACTIONS ON AS HIS OWN RESPONSIBILITY PROTECT PROPERTY IN CONNECTION WITH THE PERFORMANCE OF WORK
- 5. ALL PUBLIC FEATURES OF THIS PROJECT RENOVATION SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT, ACCESSIBILITY GUIDELINES, AND THE INTERIM FINAL RULES FOR PUBLIC RIGHT-OF-WAY, PUBLISHED IN THE FEDERAL REGISTRY, TUESDAY, SEPTEMBER 3, 2002. WHERE SPATIAL LIMITATIONS OR EXISTING FEATURES WITHIN THE LIMITS OF THE PROJECT PREVENT FULL COMPLIANCE WITH THIS ACT, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER UPON DISCOVERY OF SUCH FEATURES ANY WORK, WHICH IS NOT PERFORMED WITHIN THE GUIDELINES OF THE ADA, FOR WHICH THE CONTRACTOR DOES NOT HAVE WRITTEN APPROVAL, SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
- 6. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO ALL STRUCTURES, LANDSCAPING, PAVING, AND ANY OTHER ITEMS LOCATED WITHIN AND OUTSIDE THE WORK AREA. ANY DAMAGE TO PERMANENT ITEMS INCURRED BY THE CONTRACTOR THROUGH HIS WORK IN THIS CONTRACT SHALL BE REPAIRED TO ORIGINAL CONDITION, BY THE CONTRACTOR, AT HIS OWN EXPENSE
- 7. ORANGE PROTECTIVE FENCING SHALL BE INSTALLED AROUND THE DRIP LINE OF ALL TREES TO REMAIN WITHIN THE LIMITS OF CONSTRUCTION AND STAGING AREA. ALL AREAS DISTURBED WITHIN AND BEYOND THE LIMIT OF CONSTRUCTION LINE SHALL BE RE-
- 8. IN ORDER TO ALLEVIATE DUST CONDITIONS DURING GRADING OR SIMILAR OPERATIONS AND BEFORE WORK IS COMPLETED, THE CONTRACTOR SHALL SPRINKLE GRADING AT INTERVALS APPROVED BY THE OWNER'S REPRESENTATIVE. COST OF SPRINKLING TO BE INCLUDED IN PRICE BID FOR OTHER ITEMS OF WORK.
- 9. RAMP SLOPES SHALL NOT EXCEED 12:1. 10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGES HE MAY INFLICT TO THE EXISTING UNDERGROUND UTILITIES WITHIN THE PROJECT AREA AS A RESULT OF HIS DIGGING, TRENCHING, BORING, ETC., DEPTH OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. PRIOR TO DIGGING, THE CONTRACTOR SHALL CALL THE CITY OF TULSA TO VERIFY UTILITIES SHOWN ON DRAWINGS AND FOR A LIST OF ALL UNDERGROUND FACILITIES REGISTERED IN THE AREA OF CONSTRUCTION LISTED WITH THE FOLLOWING AGENCIES:
- A. THE "OKIE" NOTIFICATION CENTER 1-800-522-6543, B. FACILITIES MAINTENANCE 918-527-0209
- 11. CONTRACTOR SHALL GIVE THE NOTIFICATION CENTER OF THE OKLAHOMA ONE-CALL SYSTEM, INC., NOTICE OF ANY EXCAVATION NO SOONER THAN TEN DAYS OR LATER THAN 48 HOURS, EXCLUDING SATURDAYS, SUNDAYS, LEGAL HOLIDAY PRIOR TO COMMENCEMENT
- 12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING ALL ENVIRONMENTAL PROTECTION AGENCY (EPA) AND OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY (ODEQ) REQUIREMENTS FOR STORM WATER MANAGEMENT FOR THIS PROJECT. ALL
- COST TO BE INCLUDED IN OTHER ITEMS OF WORK. 13. COORDINATE THE CONSTRUCTION STAGING AREA WITH THE OWNER'S REPRESENTATIVE. IF REQUIRED THE AREA SHALL BE STABILIZED WITH AGGREGATE BASE TO A DEPTH OF 6". THE GRAVEL IS TO BE REMOVED AT THE COMPLETION OF PROJECT. ALL
- COSTS TO BE INCLUDED IN LINE ITEM MOBILIZATION, DEMOBILIZATION, AND MISCELLANEOUS. 14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE INCURRED TO THE EXISTING SIDEWALK LIGHTING AND AMENITIES DURING CONSTRUCTION IF CAUSED BY CONSTRUCTION ACTIVITIES PERFORMED BY THE CONTRACTOR OR HIS SUBCONTRACTORS
- 15. WHERE IT IS NECESSARY TO CROSS CURBING, PROTECTION AGAINST DAMAGE SHALL BE PROVIDED BY THE CONTRACTOR AND ANY DAMAGE TO THE ROADWAY PAVEMENT, CURBS, SIDEWALKS, VEGETATION, OR DRIVEWAYS CAUSED BY THE CONTRACTOR'S OPERATION SHALL BE REPLACED AT THE CONTRACTOR'S SOLE EXPENSE. 16. FOR ITEMS PROVIDED "BY OTHERS" PROVIDE AND INSTALL BLOCKING AND POWER/DATA AS REQUIRED. COORDINATE INSTALLATION
- 17. ARCHITECTURAL "AREA OF WORK" IS NOTED ON ARCHITECTUAL SHEETS. REFERENCE CIVIL AND MEP DOCUMENTS FOR ADDITIONAL "AREA OF WORK 18. CONTRACTORS WILL COORDINATE WITH IDENTIFIED MAINTENANCE OPERATIONS PERSONNEL FOR APPLICATIONS, SHUT OFF, AND
- REMOVAL OF ALL UTILITIES REFER TO CIVIL DRAWINGS FOR ALL ELEVATIONS OF F.F. FF 100'-0" = 614.67

MATERIALS





PROJECT NO. TMUA-W-20-01

CITY OF TULSA, OKLAHOMA

ENGINEERING SERVICES DEPARTMENT

BKL, INCORPORATED

PLANS AND ESTIMATES PREPARED BY:

SYMBOLS MOHAWK WATER TREATMENT PLANT STORAGE FACILITY

MATERIAL OR COLOR CHANGE **EXTERIOR ELEVATION** WINDOW NUMBER **EXISTING PARTITION** PARTITION TYPE DEMOLISHED PARTITION. INTERIOR ELEVATION the section of the se SIGNAGE NUMBER (STARTING WITH "S") S100 GRID LINE CEILING TYPE AND HEIGHT CENTER LINE ? A.F.F. ROOM NAME AND NUMBER SMOKE BARRIER ?

NEW DOOR AND NUMBER

GYPSUM BOARD PARTITION

1 HOUR

DRAWING KEY, INDICATION AND SCALE LEVEL AND ELEVATION INDICATION

PLAN NORTH ARROW

ENGINEERS & ARCHITECTS PLAN SCALE: DRAWN JIB 4/15/21 APPROVED KDR 4/15/21 DESIGNED NO REVISION BY DATE As indicated PROFILE SCALE | PROJ. MGR. LEAD ENGR. HORIZONTAL: FIELD MGR. FLU 4/21 RECOMMENDED VERTICAL: DESIGN MANAGER FILE: ATLAS PAGE NO: SHEET NAME: **GENERAL NOTES**

DATE: 4.30.21 SHEET: 2 OF: 23 SHEET NO. G0-01

KEY NOTE

REVISION INDICATION AND KEY

EXISTING DOOR AND NUMBER

PAY QUANTITIES:

| *********** | BASE BID | ************************************** | *************** | | |
|-------------|-------------|--|---|--------------------------------------|------------------------|
| TEM NO. | SPEC NO. | DESCRIPTION | UNIT | QTY | NOTES |
| 1 | ODOT 641 | MOBILIZATION | EA | ·····1 | G-2, 1 |
| 2 | SPECIAL | OWNER'S ALLOWANCE | ALLOW | 1 | <u> </u> |
| 3 | ODOT 220 | SWPPP DOCUMENTATION AND MANAGEMENT | LS | 1 | E-6 |
| 4 | ODOT 221(C) | TEMPORARY SILT FENCE | LF | 400 | E-7, E-8, E-9 |
| 5 | ODOT 230(A) | SOLID SLAB SODDING | SY | 90 | E-10, E-11 |
| 6 | ODOT 303(A) | AGGREGATE BASE TYPE "A" | CY | 220 | E-5, S-1, S-2 |
| 7 | ODOT 501(E) | SELECT BACKFILL | CY | 250 | G-1, 5 |
| 8 | ODOT 610(B) | 6" CONCRETE DRIVE (H.E.S) | SY | 362 | S-12, S-13, S-16 |
| 9 | ODOT 611(G) | SPECIAL INLET DRAIN | EA | 1 | 100 |
| 10 | ODOT 619(B) | REMOVAL OF ASPHALT PAVEMENT | SY | 1,150 | R-1, R-2, R-3, R-4, R- |
| 11 | 033000 | CONCRETE FOOTINGS | CY | 20 | 7 |
| 12 | 033000 | CONCRETE FLOOR SLAB | CY | 125 | <u> </u> |
| 13 | 055000 | BOLLARDS | EA | 6 | 101, 10 |
| 14 | 079200 | SEALANTS | LOT | 3 | 4 |
| 15 | 081113 | HOLLOW METAL DOOR AND FRAME | EA | 2 | 4 |
| 16 | 083323-R | 12'X12' OVERHEAD COILING DOOR | EA | 1 | 4 |
| 17 | A3-01 | DOOR HARDWARE | SET | 2 | 4 |
| 18 | 099000 | PAINTING | EA | 1 | 4 |
| 19 | 104416 | FIRE EXTINGUISHER & BRACKET | EA | 2 | [4 |
| 20 | 133419 | PRE-ENGINEERED METAL BUILDING | EA | 4 | 9 |
| 21 | 133419 | R-19 VINYL FACED BATT INSULATION | SF | 6,800 | 4 |
| 22 | 133419 | R-11 VINYL FACED BATT INSULATION | SF | 4,000 | 4 |
| 23 | 133419 | METAL LINER PANEL | SF | 4,000 | 4 |
| 24 | 230002 | SCHEDULE 40 PVC AND WIRE (site electric) | LF | 360 | 14 |
| 25 | 262816 | ELECTRICAL PANEL | EA | 1 | 8 |
| 26 | 312000 | EXCAVATION, FILLING, GRADING, AND BACKFILLING | CY | 300 | E-3, E-4, E-5, R-1, R- |
| 27 | 312000 | ELECTRIC UTILITY TRENCH 6"WX24"D W/SAND BACKFILL | LF | 450 | 4 |
| 28 | 265119 | LIGHT FIXTURE A | EA | 6 | 8 |
| 29 | 265619 | LIGHT FIXTURE WE | EA | 2 | 8 |
| 30 | 265619 | LIGHT FIXTURE W | I EA | | 8 |
| 31 | 265119 | EXIT LIGHT X | EA | 2 | 8 |
| 32 | 265119 | FIXTURE E1 | EA | 4 | 8 |
| 33 | 260923 | 110V. DUPLEX RECEPTACLE, GFI WATERPROOF | EA | 4 | 8 |
| 34 | 260923 | ELECTRICAL EQUIPMENT POWER DISCONNECTS | EA | 4 | 8 |
| 35 | 260923 | 110V. DUPLEX RECEPTACLE | EA | 4 | 8 |
| | | | 8 2273 | , | |
| ~~ | ALTERNATE 1 | mpy were | * | | |
| 36 | 221113 | DRY WELL | EA | 1 | 4 |
| 37 | 221113 | 3/4" TYPE "L" COPPER PIPE | LF | 5 | 4 |
| 38 | 221113 | 3/4" YARD HYDRANT | <u>EA</u> | 1 | 4 |
| 39 | 221113 | BACKFLOW PREVENTER | EA | 1 | 4 |
| 40 | 221113 | 3/4" PVC WATER LINE (site water) | LF | 460 | |
| 41 | 221113 | VAULT WITH COVER FOR BACKFLOW | EA | 1 | 4 |
| 42 | 312000 | WATER UTILITY TRENCH 6"WX24"D W/SAND BACKFILL | LF | 460 | 4 |
| | ALTERNATE 2 | | *************************************** | ************************************ | |
| 43 | 238239.19 | UNIT HEATER | EA | 2 | 8, 4 |
| 44 | 238239.19 | UNIT HEATER MOUNTING BRACKET | EA | 2 | 4 |
| 45 | 238239.19 | UNIT HEATER THERMOSTAT | EA | 2 | 4 |

PAY QUANTITY KEY NOTES:

- 1. FURNISH ALL LABOR, EQUIPMENT AND MATERIAL NECESSARY TO COMPLETE THE PROJECT IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. ALL MISCELLANEOUS ITEMS NOT INCLUDED IN OTHER ITEMS OF WORK SHALL BE CONSIDERED INCLUDED IN THIS PAY ITEM.
- 2. FOR WORK & UNFORESEEN CONDITIONS NOT INCLUDED IN PAY ITEMS IN ACCORDANCE WITH SPEC SECTION 01022.
- 3. NOT USED.
- 4. INCLUDES ALL LABOR, EQUIPMENT, AND MATERIAL TO DELIVER AND INSTALL.
- 5. INCLUDES REMOVAL OF 12" UNSUITABLE MATERIAL BELOW CONCRETE SLAB AND AGGREGATE BASE; REPLACE WITH CLEAN, SELECTED MATERIALS AS DETERMINED BY ENGINEER. ANY SPOILS FROM EXCAVATING THE BUILDING PAD AND DRIVE, CAN BE DISPOSED ON SITE. (TOTAL EXCAVATION WITH THE 8" AGG BUILDING PAD WILL BE 18" AS NOTED IN SPEC SECTION 312000, 3.3,2)
- . NOT USED
- INCLUDES ALL LABOR, EQUIPMENT, AND MATERIAL TO INSTALL CONCRETE AND REINFORCING STEEL
- 8. COMPLETE WITH ELECTRICAL WIRE, CONDUIT, AND CONNECTION.
- INCLUDES METAL BUILDING SYSTEM COMPLETE AS SPECIFIED.
 COST PER BOLLARD INCLUDES FOOTING AND AGGREGATE COST.

ROADWAY PAY ITEM NOTES (11/14/2018)

EARTHWORK / EROSION CONTROL / SITE PREPARATION (E1 - E11)

E-1 & E-2: NOT USED

- E-3: THE CONTRACTOR SHALL BE PAID FOR UNCLASSIFIED EXCAVATION ON THE BASIS OF PLAN QUANTITY.

 ANY ADDITIONAL EXCAVATION REQUIRED OR OVERRUN OF PLAN QUANTITY WILL BE PAID FOR ON THE

 BASIS OF UNIT PRICE BID FOR THE ITEM. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING

 ADEQUATE SURVEY TO VERIFY ANY ADDITIONAL QUANTITIES.
- E-4: UNCLASSIFIED EXCAVATION INCLUDES REMOVAL OF AGGREGATE BASE AND MODIFIED SUBGRADE UNDER EXISTING PAVEMENT TO BE REPAIRED.
- E-5: THIS QUANTITY INCLUDES AN ADDITIONAL 10% ABOVE PLAN QUANTITY FOR UNDERCUTTING OF UNSUITABLE SUBGRADE MATERIAL OR ADDITIONAL PATCHING AS DIRECTED BY THE ENGINEER.
- E-6: THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROL AND MAINTENANCE OF THE STORM WATER DRAINAGE FROM THE CONSTRUCTION SITE. STORM WATER PONDING ON THE CONSTRUCTION SITE THAT IS THE RESULT OF CONSTRUCTION WILL NOT BE ALLOWED. ALL COST ASSOCIATED WITH STORM WATER MANAGEMENT, AS WELL AS REMOVAL OF ALL SILT AND DEBRIS FROM ALL DRAINAGE STRUCTURES, STORM SEWER PIPES AND APPURTENANCES WITHIN THE PROJECT LIMITS AT END OF PROJECT. SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THIS ITEM.
- E-7: EROSION PROTECTION SHALL BE PLACED AS FOLLOWS:
 - A) AROUND INLETS TO PREVENT INFLOW OF ERODED MATERIAL INTO STORM SEWER SYSTEM;
 B) IN LOCATIONS THROUGHOUT PROJECT SITE, AS DETERMINED BY THE ENGINEER, TO PREVENT WASH OF ERODED MATERIAL ONTO ADJACENT PROPERTY:
 - C) FOR ENTIRE DURATION OF PROJECT, WITH MAINTENANCE AND REPLACEMENTS. AS DIRECTED BY THE ENGINEER;
 - **D)** WITH PERIODIC REMOVAL OF SEDIMENT IN ACCORDANCE WITH STORMWATER MANAGEMENT PLAN. ALL COST FOR ITEMS A-D ABOVE SHALL BE INCLUDED IN UNIT PRICE BID FOR THIS ITEM.
- E-8: PRICE BID SHALL INCLUDE MAINTENANCE, SEDIMENT REMOVAL, DISPOSAL, AND REMOVAL OF FILTERS AT PROJECT COMPLETION.
- E-9: INCLUDES 14 TYPE I FILTERS.
- E-10: ESTIMATED QUANTITY IS BASED ON SODDING OF ALL DISTURBED AREAS OUTSIDE THE FINAL PAVING LIMITS AND WITHIN THE FINAL GRADING LIMITS AS INDICATED BY THE TOP-OF-CUT/TOE-OF-SLOPE LINE ON THE PLANS (EXCLUDING SURFACES OF STRUCTURES, FIXTURES AND APPURTENANCES). SOD SHALL BE OF LIKE-KIND TO EXISTING SOD. PRICE BID INCLUDES PLACEMENT AND COMPACTION OF SUITABLE BACKFILL. ANY EXISTING GRASSED AREAS BEYOND THE ABOVE STATED LIMITS THAT ARE DAMAGED AS A RESULT OF CONSTRUCTION OPERATIONS SHALL BE RESODDED TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S SOLE EXPENSE.
- E-11: COST OF WATERING AND FERTILIZING SHALL BE INCLUDED. FERTILIZERS SHALL BE 10-20-10 AND SHALL BE APPLIED AT THE RATE OF 1.5 LBS PER 10 SQ YDS. FERTILIZER SHALL BE APPLIED PER SECTION 230.04H OF ODOT STANDARD SPECIFICATIONS. WATERING SHALL BE APPLIED AS NECESSARY UNTIL VEGETATION IS ESTABLISHED OR UNTIL THE WORK IS ACCEPTED AS COMPLETE.

SURFACING / STRUCTURES (S1 - S21)

- S-1: TYPE A AGGREGATE BASE WAS ESTIMATED TO BE USED AS THE BASE MATERIAL FOR 90% OF THE PATCHING. QUICK SET FLOWABLE FILL WAS ESTIMATED TO BE USED AS THE BASE MATERIAL FOR 10% OF THE PATCHING. ACTUAL QUANTITIES TO BE DETERMINED BY THE ENGINEER.
- S-2: INCLUDES COMPACTION OF AGGREGATE TO 98% AASHTO T180 MODIFIED PROCTOR.

S-3 TO S-11: NOT USED

- S-12: THE USE OF FLY-ASH IN CONCRETE IS PROHIBITED.
- \$-13: INCLUDES ALL COST OF SAWED JOINTS AND SEALING OF ALL JOINTS INCLUDING LONGITUDINAL JOINTS.

S-14 TO S-15: NOT USED.

S-16: CURB, GUTTER, AND/OR SIDEWALK ASSOCIATED WITH THE DRIVEWAY AND THROUGH THE DRIVEWAY IS INCLUDED IN THE COST OF THE DRIVEWAY.

S-17 TO S-21: NOT USED

REMOVAL / ADJUSTMENT (R1 - R6)

- R-1: WASTE MATERIAL TO BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE IN A MANNER APPROVED BY THE ENGINEER.
- R-2: ALL SAW CUTTING AND REMOVAL SHALL BE INCLUDED IN THE COST OF THE ITEM TO BE ADJUSTED, REMOVED, REPAIRED, OR REPLACED.
- R-3: PAY ITEM INCLUDES REMOVAL OF ALL STRUCTURES AND OBSTRUCTIONS WITHIN PROJECT LIMITS NOT SPECIFIED BY OTHER ITEMS OF WORK.
- R-4: INCLUDES SAWING NOT INCLUDED IN OTHER ITEMS OF WORK.
- R-5: ITEMS TO BE REMOVED MAY OR MAY NOT BE PRESENT IN ANY SPECIFIED CONDITION.
- R-6: NOT USED

GENERAL (G1 - G10)

- G-1: LOCATIONS TO BE DETERMINED IN THE FIELD AND WORK TO BE PERFORMED AT THE DIRECTION OF THE FIELD ENGINEER. QUANTITY IS ESTIMATED AND MAY BE OMITTED IN ITS ENTIRETY.
- G-2: MAXIMUM OVERALL DOLLAR AMOUNT AND SCHEDULE OF PAYMENTS SHALL BE IN ACCORDANCE SECTION 641 OF THE OKLAHOMA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, CURRENT EDITION.

 EXCLUDES MOBILIZATION FOR WATERLINE WORK.

G-3 TO G-10: NOT USED

DRAINAGE (D1 - D15)

D-1 TO D-15: NOT USED

TRAFFIC (T1 - T7)

T-1 TO T-7: NOT USED

NOTES:

- 100. INCLUDED IN THIS ITEM IS ALL CONCRETE, STEEL, FRAME, COVER, AND ANY OTHER ITEMS THAT ARE NECESSARY FOR THE CONSTRUCTION OF NEENAH FOUNDARY PART NO. R-4990-HX WITH TYPE D SOLID COVER, OR AN APPROVED EQUAL.
- 101. INCLUDED IN THIS ITEM IS ALL CONCRETE, STEEL, EXCAVATION, AND ANY OTHER NECESSARY ITEMS REQUIRED TO COMPLETE THE BOLLARD INSTALLATION AS SHOWN IN THE PLANS.



MOHAWK WATER TREATMENT PLANT STORAGE FACILITY

PROJECT NO. TMUA-W-20-01

CITY OF TULSA, OKLAHOMA ENGINEERING SERVICES DEPARTMENT

BKL, INCORPORATED

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GENERAL CONSTRUCTION NOTES (9/12/2016):

- 1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE 2019 OKLAHOMA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AND THE CURRENT CITY OF TULSA ENGINEERING SERVICES DEPARTMENT'S STANDARD SPECIFICATIONS AND STANDARD DETAILS AND STANDARD DRAWINGS AND CITY OF TULSA SPECIAL PROVISIONS.
- 2. THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL LAWS GOVERNING SAFETY, HEALTH AND SANITATION. THE CONTRACTOR SHALL PROVIDE ALL SAFEGUARDS, SAFETY DEVICES AND PROTECTIVE EQUIPMENT, AND TAKE ANY OTHER NEEDED ACTION ON AS HIS OWN RESPONSIBILITY OR AS THE ENGINEER MAY DETERMINE REASONABLY NECESSARY TO PROTECT PROPERTY IN CONNECTION WITH THE PERFORMANCE OF WORK COVERED BY THE CONTRACT.
- 3. PAY ITEMS SHALL BE AS SPECIFIED ON THE CITY OF TULSA OR ON THE ODOT STANDARD DRAWINGS EXCEPT AS MODIFIED BY THE CONTRACT.
- 4. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK IN EACH AREA. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT RESULT FROM HIS FAILURE TO LOCATE AND PRESERVE ANY AND ALL UTILITIES.
- 5. THE LOCATIONS OF THE UTILITIES ARE SHOWN ACCORDING TO ALL AVAILABLE INFORMATION. THE CONTRACTOR SHALL NOTIFY EACH UTILITY OWNER PRIOR TO COMMENCEMENT OF WORK TO VERIFY BOTH HORIZONTAL AND VERTICAL LOCATIONS. THE FOLLOWING IS A LIST OF UTILITY OWNERS; AT&T, PUBLIC SERVICE COMPANY OF OKLAHOMA (AEP), OKLAHOMA NATURAL GAS (ONG), COX COMMUNICATIONS, MCI/VERIZON, EASYTEL COMMUNICATIONS, WELLSCO VALLOR TELECOM, CITY OF TULSA-WATER AND SEWER, CITY OF TULSA-TRAFFIC OPERATIONS. SEE TITLE SHEET FOR CONTACT INFORMATION.
- 6. THE CONTRACTOR SHALL GIVE THE NOTIFICATION CENTER OF OKLAHOMA ONE-CALL SYSTEM, INC. NOTICE OF ANY EXCAVATION NO SOONER THAN TEN DAYS NOR LATER THAN 48 HOURS, EXCLUDING SATURDAYS, SUNDAYS, AND LEGAL HOLIDAYS, PRIOR TO THE COMMENCEMENT OF WORK. PHONE 1-800-522-6543.
- 7. THE CONTRACTOR SHALL TAKE REASONABLE PRECAUTIONS TO PREVENT EXCESS MOISTURE FROM INCLEMENT WEATHER OR OTHER SOURCES FROM ENTERING ANY STREET EXCAVATION. IF EXCESS MOISTURE DOES ENTER THE EXCAVATION THROUGH THE NEGLIGENCE OF THE CONTRACTOR AND THE ADJOINING PAVEMENT IS ADVERSELY EFFECTED BY THE EXCESS MOISTURE, THE CONTRACTOR SHALL REPLACE THE ADJOINING PAVEMENT AND SUBBASE AT HIS SOLE EXPENSE.
- 8. THE CONTRACTOR SHALL PRESERVE THE INTEGRITY OF THE SANITARY SEWER STRUCTURES AND ALL OTHER UTILITY STRUCTURES WITHIN THE PROJECT EXTENTS.
- 9. THE CONTRACTOR SHALL WORK IN COOPERATION WITH THE CITY OF TULSA TO ESTABLISH, INSTALL, MAINTAIN, AND OPERATE COMPLETE, ADEQUATE, AND SAFE TRAFFIC CONTROLS DURING THE ENTIRE CONSTRUCTION PERIOD. ALL FLAGMEN, BARRICADES, AND TRAFFIC CONTROL DEVICES SHALL BE APPROVED BY THE FIELD ENGINEERING REPRESENTATIVE.
- 10. CONSTRUCTION SIGNAGE WILL BE INSTALLED IN A MANNER APPROVED BY THE ENGINEER, IN ACCORDANCE WITH CHAPTER VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT ADDITION, AND APPLICABLE ODOT STANDARD DRAWINGS. THE CONTRACTOR SHALL PROVIDE A PROPOSED TRAFFIC CONTROL PLAN FOR APPROVAL BY THE ENGINEER PRIOR TO BEGINNING WORK.
- 11. THE CONTRACTOR SHALL NOTIFY THE CITY OF TULSA FIELD ENGINEERING, 918-596-9404, A MINIMUM OF 48 HOURS PRIOR TO COMMENCING WORK OR PRIOR TO REMOVING TRAFFIC SIGNS.
- 12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPLACEMENT OF ALL EXISTING TRAFFIC SIGNS AND MARKINGS REMOVED OR DAMAGED AS LISTED IN THE SIGNAGE SCHEDULE FOR THE PROJECT. ALL SIGNS AND POLES PROVIDED SHALL BE NEW AND UNDAMAGED AND SHALL MEET THE REQUIREMENTS OF COT SPECIFICATION 608 TRAFFIC SIGNS. ALL TRAFFIC MATERIALS REMOVED SHALL BE HANDLED PER COT SPECIFICATION 625 REMOVAL OF TRAFFIC ITEMS.
- 13. THE CONTRACTOR WILL BE RESPONSIBLE FOR PREPARATION AND DISTRIBUTION OF A WRITTEN NOTICE TO RESIDENTS 48 HOURS PRIOR TO BEGINNING PAVEMENT REMOVAL AND MILLING AND OVERLAY OPERATIONS.
- 14. LOCAL AND THROUGH TRAFFIC SHALL BE MAINTAINED THROUGH THE PROJECT AT ALL TIMES.
- 15. ALL PUBLIC AND PRIVATE STREETS AND DRIVES SHALL BE ACCESSIBLE AT ALL TIMES.
- 16. ALL BROKEN CONCRETE, WASTE MATERIAL, AND OTHER DEBRIS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE LIMITS OF THE PROJECT AND DISPOSED OF IN A MANNER APPROVED BY THE ENGINEER. NO ADDITIONAL PAYMENT WILL BE MADE FOR THE DISPOSAL OF THIS MATERIAL.
- 17. ALL EXCAVATED MATERIAL NOT REQUIRED IN THE PROJECT SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF BY THE CONTRACTOR IN A MANNER ACCEPTABLE TO THE ENGINEER WITHOUT COST TO THE CITY. THE CONTRACTOR WILL BE REQUIRED TO OBTAIN AN EARTH CHANGE PERMIT IF ANY MATERIAL IS STORED ON THE PROJECT SITE AND/OR DISPOSED OF WITHIN THE CITY LIMITS.
- 18. ALL TREES, BRUSH AND OTHER DEBRIS THAT MIGHT INTERFERE WITH THE FLOW OF WATER IS TO BE CLEANED OUT TO THE RIGHT-OF-WAY LINE IN A MANNER APPROVED BY THE ENGINEER. ALL COST TO BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS OF WORK. TREES OUTSIDE THE FILL SLOPES AND THE TOP OF CUT SLOPES SHALL NOT BE DISTURBED EXCEPT WITH THE WRITTEN APPROVAL OF THE ENGINEER.
- 19. WHERE MATERIALS ARE TRANSPORTED IN THE PROSECUTION OF WORK, VEHICLES SHALL NOT BE LOADED BEYOND THE CAPACITY RECOMMENDED BY THE VEHICLE MANUFACTURER OR AS PRESCRIBED BY ANY FEDERAL, STATE OR LOCAL LAW OR REGULATION.
- 20. ANY DAMAGE TO THE ROADWAY PAVEMENT, CURB, DRIVEWAYS OR SIDEWALK CAUSED BY THE CONTRACTOR'S OPERATION SHALL BE REPAIRED TO THE ENGINEER'S SATISFACTION AND SHALL BE ACCOMPLISHED AT THE CONTRACTOR'S SOLE EXPENSE. ALL DISTURBED ITEMS SHALL BE REPAIRED TO MATCH EXISTING MATERIALS AND PATTERNING.
- 21. NOT USED

GENERAL CONSTRUCTION NOTES (9/12/2016) (CONTINUED):

- 22. NOT USED
- 23. NO FLY ASH IS ALLOWED TO BE USED ON THIS PROJECT.
- 24. PHYSICAL TESTING FOR QUALITY ASSURANCE SHALL BE FURNISHED BY THE CITY.
- 25. CONTRACTOR IS RESPONSIBLE FOR ALL NECESSARY QUALITY CONTROL TESTING TO ENSURE THAT PROJECT REQUIREMENTS ARE MET.
- 26. NOT USED
- 27. NOT USED
- 28. NOT USED
- 29. NOT USED
- 30. REFLECTORIZED SHEETING ON SIGNS AND BARRICADES SHALL BE OF A CUBIC PRISMATIC TYPE AND SHALL MEET THE SPECIFICATIONS ESTABLISHED FOR ASTM D 4956-01 TYPE IX RETROREFLECTIVE SHEETING. REFLECTORIZED SHEETING ON DRUMS AND TUBE CHANNELIZERS SHALL BE OF A HIGH-INTENSITY TYPE AND SHALL MEET THE SPECIFICATIONS ESTABLISHED FOR ASTM D 4956-01 TYPE III RETROREFLECTIVE SHEETING.
- 31. NOT USED
- 32. NOT USED
- 33. NOT USED
- 34. NOT USED
- 35. THE CONTRACTOR SHALL REPLACE ANY SECTION CORNERS OR OTHER PERMANENT RIGHT OF WAY MARKERS REMOVED OR DISTURBED AS A RESULT OF THE CONSTRUCTION OF THIS PROJECT. REPLACEMENT OF SECTION CORNERS OR ANY OTHER MONUMENTS SHALL BE PERFORMED BY A LICENSED LAND SURVEYOR AUTHORIZED TO PERFORM WORK IN THE STATE OF OKLAHOMA.
- 36. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL AND MAINTENANCE OF THE STORMWATER DRAINAGE. STORMWATER PONDING ON THE CONSTRUCTION SITE THAT IS THE RESULT OF CONSTRUCTION WILL NOT BE ALLOWED.
- 37. STRAW OR HAY BALES AS STORMWATER BEST MANAGEMENT PRACTICES ARE NO LONGER ALLOWED ON CONSTRUCTION PROJECTS.
- 38. THE CONTRACTOR MUST CALL 1-800-458-4251 IMMEDIATELY IF A NATURAL GAS PIPELINE IS CUT, DAMAGED, OR OTHERWISE DISTURBED.
- 39. PRIOR TO FINAL ACCEPTANCE, ALL EXPOSED CURB SURFACES SHALL BE CLEANED OF ALL DISCOLORATION SUCH AS ASPHALT STAIN, TIRE MARKS, OR OTHER DISFIGUREMENT.
- 40. ALL FEATURES OF THIS PROJECT INCLUDING, BUT NOT LIMITED TO, SIDEWALKS, CURB RAMPS, AND CROSSWALKS SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT, ACCESSIBILITY GUIDELINES, AND THE PROPOSED ACCESSIBILITY GUIDELINES FOR PEDESTRIAN FACILITIES IN THE PUBLIC RIGHT-OF-WAY, PUBLISHED ON JULY 26, 2011 BY THE U.S. ACCESS BOARD. WHERE SPATIAL LIMITATIONS OR EXISTING FEATURES WITHIN THE LIMITS OF THE PROJECT PREVENT FULL COMPLIANCE WITH THIS ACT, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER UPON DISCOVERY OF SUCH FEATURES. THE CONTRACTOR SHALL NOT PROCEED WITH ANY ASPECT OF THE WORK, WHICH IS NOT IN FULL COMPLIANCE WITH THE ADA WITHOUT PRIOR WRITTEN APPROVAL FROM THE ENGINEER. ANY WORK, WHICH IS NOT PERFORMED WITHIN THE GUIDELINES OF THE ADA, FOR WHICH THE CONTRACTOR DOES NOT HAVE WRITTEN APPROVAL, SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
- 41. NOT USED
- 42. NOT USED



MOHAWK WATER TREATMENT PLANT STORAGE FACILITY

PROJECT NO. TMUA-W-20-01

CITY OF TULSA, OKLAHOMA

ENGINEERING SERVICES DEPARTMENT

ENGINEERING SERVICES DEFAR

BKL, INCORPORATED

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STORM WATER MANAGEMENT PLAN

SITE DESCRIPTION PROJECT LIMITS: MOHAWK WATER TREATMENT PLANT STORAGE FACILITY. PROJECT DESCRIPTION: ___ CONSTRUCT NEW METAL BUILDING IN SOUTHEAST CORNER OF EXISTING PARKING LOT, PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDING. SUGGESTED SEQUENCE OF EROSION CONTROL ACTIVITIES: _ PRIOR TO INITIATING SOIL DISTURBING ACTIVITIES, THE CONTRACTOR WILL STRIP, STOCKPILE, AND STABILIZE TOPSOIL. CLEAR AND GRUB ONLY IN AREAS NECESSARY, PRESERVING AS MUCH NATIVE VEGETATION AS POSSIBLE. INSTALL, MAINTAIN, AND/OR MOVE TEMPORARY SEDIMENT ITEMS AS PRACTICAL WITH CONSTRUCTION OPERATIONS. IF DIRECTED BY THE ENGINEER, PLANT TEMPORARY SEEDING, PLACE SALVAGE TOPSOIL AND DEVICES WHEN AN ACCEPTABLE VEGETATION COVER (AT LEAST 70%) HAS BEEN ATTAINED. AS SITE CONDITIONS WARRANT, THE CONTRACTOR MAY CHOOSE TO MODIFY THE TOPE OR ARRANGEMENT OF SPECIFIED PRACTICES TO IMPROVE THEIR EFFECTIVENESS AS APPROVED BY THE ENGINEER. THE CONTRACTOR WILL MAINTAIN A LOG OF THE DATES OF MAJOR SOIL DISTURBANCE ACTIVITIES AND ALSO THE DATES OF INSTALLATION OF EROSION CONTROL MEASURES. SOIL TYPE: COWETA-BATES COMPLEX AND DENNIS SILT LOAM TOTAL AREA OF THE CONSTRUCTION SITE: 0.50 ACRES ESTIMATED AREA TO BE DISTURBED: <u>0.50 ACRES</u> OFFSITE AREA TO BE DISTURBED: (FOR CONTRACTOR USE) TOTAL IMPERVIOUS AREA PRE-CONSTRUCTION: 0.45 ACRES TOTAL IMPERVIOUS AREA POST-CONSTRUCTION: 0.45 ACRES POST-CONSTRUCTION RUNOFF COEFFICIENT OF THE SITE: 0.90 LATITUDE & LONGITUDE OF CENTER OF PROJECT: LAT. 36°12'45.11"N. LONG. 95°55'47.24"W PROJECT WILL DISCHARGE TO: NAME OF RECEIVING WATERS: COAL CREEK NO X SENSITIVE WATERS OR WATERSHEDS: YES X NO 303(d) IMPAIRED WATERS: IF YES, LIST IMPAIRMENT: ESCHERICHIA COLI & MACROINVERTEBRATE BIO YES X NO LOCATED IN A TMDL: YES LAKE THUNDERBIRD TMDL: YES MS4 ENTITY IF YES, LOCATION: <u>TMDL ID 40582</u> THIS SHEET SHOULD BE USED IN CONJUNCTION WITH A DRAINAGE MAP THAT ILLUSTRATES THE ORAINAGE PATTERNS/PATHWAYS AND RECEIVING WATERS FOR THIS PROJECT. THIS SHEET SHOULD ALSO BE USED WITH THE EROSION CONTROL SUMMARIES, PAY ITEMS, & NOTES.

EROSION AND SEDIMENT CONTROLS

| SOIL STABILIZATION PRACTICES: | THE CONTRACTOR SHALL ALSO BE RESPONS FOLLOWING: |
|---|---|
| TEMPORARY SEEDING | i Vijijo Wiing. |
| X PERMANENT SODDING, SPRIGGING OR SEEDING | MAINTENANCE AND INSPECTION: |
| X VEGETATIVE MULCHING | ALL EROSION AND SEDIMENT CONTROLS WILL BE MAINTAINE |
| SOIL RETENTION BLANKET | THE BEGINNING OF CONSTRUCTION UNTIL AN ACCEPTABLE V INSPECTION BY THE CONTRACTOR AND ANY NECESSARY RE |
| X PRESERVATION OF EXISTING VEGETATION | 7 CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY STORI |
| NOTE: TEMPORARY EROSION CONTROL METHODS MUST BE USED ON | RECORDED BY A NON-FREEZING RAIN GAUGE TO BE LOCATEI AREAS, DRAINAGEWAYS, MATERIAL STORAGE, STRUCTUR. |
| ALL DISTURBED AREAS WHERE CONSTRUCTION ACTIVITIES HAVE CEASED | AND EXITS ALONG WITH EROSION AND SEDIMENT CONTROL I NEED TO BE INSPECTED. |
| FOR OVER 14 DAYS. METHODS USED WILL BE AS SHOWN ON PLANS, OR AS DIRECTED BY THE ENGINEER. | 7 MLLO ; O DL 11 101 LO ; LO. |
| ON ACOMECIED DE TREE ENOMEEN. | WASTE MATERIALS: |
| STRUCTURAL PRACTICES: | PROPER MANAGEMENT AND DISPOSAL OF CONSTRUCTION W CONTRACTOR. MATERIALS INCLUDE STOCKPILES, SURPLUS FROM THE CONSTRUCTION PROCESS, PRACTICES INCLUDE D SPILL PREVENTION AND CLEANUP MEASURES. CONTROLS AI |
| STABILIZED CONSTRUCTION EXIT | REQUIREMENTS OF ALL FEDERAL, STATE AND LOCAL AGENC |
| X TEMPORARY SILT FENCE | HAZARDOUS MATERIALS: |
| TEMPORARY SILT DIKES | PROPER MANAGEMENT AND DISPOSAL OF HAZARDOUS WAS |
| TEMPORARY FIBER LOG | CONTRACTOR IS RESPONSIBLE FOR FOLLOWING MANUFACTI FEDERAL REGULATIONS TO ENSURE CORRECT HANDLING, DI |
| DIVERSION, INTERCEPTOR OR PERIMETER DIKES | MEASURES. EXAMPLES INCLUDE BUT ARE NOT LIMITED TO: F |
| DIVERSION, INTERCEPTOR OR PERIMETER SWALES | CHEMICAL ADDITIVES, CONCRETE CURING COMPOUNDS AND |
| ROCK FILTER DAMS | GENERAL NOTES: |
| TEMPORARY SLOPE DRAIN | A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IS FOR OKLAHOMA POLLUTION DISCHARGE ELIMINATION SYSTEM (C |
| X PAVED DITCH W/ DITCH LINER PROTECTION | INITIATED DURING THE DESIGN PHASE, CONFIRMED IN THE PRI |
| TEMPORARY DIVERSION CHANNELS | ON THE JOB SITE ALONG WITH COPIES OF THE NOTICE OF INT |
| TEMPORARY SEDIMENT BASINS | QUALITY (ODEQ). THE PLAN MUST BE KEPT CURRENT WITH U |
| TEMPORARY SEDIMENT TRAPS | THE PROGRESSION OF THE PROJECT. ALL CONTRACTOR OFF THE PROJECT MUST BE DOCUMENTED IN THE SWPPP, I.E., BOF |
| TEMPORARY SEDIMENT FILTERS | SITES, ASPHALT/CONCRETE PLANTS, ETC. THE BASIC GOAL (|
| TEMPORARY SEDIMENT REMOVAL | IMPROVE WATER QUALITY BY REDUCING POLLUTANTS IN STO FROM CONSTRUCTION SITES HAS A POTENTIAL FOR POLLUT |
| DID DAD | THE PRESENCE OF HAZARDOUS MATERIALS USED IN THE CO |

OFFSITE VEHICLE TRACKING:

_____ INLET SEDIMENT FILTER

____ SANDBAG BERMS

___X___ HAUL ROADS DAMPENED FOR DUST CONTROL

____ TEMPORARY BRUSH SEDIMENT BARRIERS

..... TEMPORARY STREAM CROSSINGS

- ___X___ LOADED HAUL TRUCKS TO BE COVERED WITH TARPAULIN
- ___X___ EXCESS DIRT ON ROAD REMOVED DAILY

NOTES:

PROJECT IS MOSTLY FOR A NEW BUILDING SITE, ADJACENT GRADING AND VEGETATIVE SURFACES EXPECT MINIMAL DISTURBANCE.

SIBLE FOR THE

ED IN GOOD WORKING ORDER FROM /EGETATIVE COVER IS ESTABLISHED. PAIRS SHALL BE PERFORMED ONCE EVERY M EVENT GREATER THAN 0.5 INCH AS ED ON SITE. POTENTIALLY ERODIBLE AL DEVICES, CONSTRUCTION ENTRANCES LOCATIONS ARE EXAMPLES OF SITES THAT

ASTE MATERIAL IS REQUIRED BY THE DEBRIS AND ALL OTHER BY-PRODUCTS DISPOSAL, PROPER MATERIALS HANDLING, ND PRACTICES SHALL MEET THE

STE MATERIALS IS REQUIRED. THE URER'S RECOMMENDATIONS, STATE AND SPOSAL, SPILL PREVENTION AND CLEANUP PAINTS, ACIDS, CLEANING SOLVENTS, CONTAMINATED SOILS.

REQUIRED TO COMPLY WITH THE OPDES) REGULATIONS. THIS PLAN IS E-WORK MEETINGS AND AVAILABLE TENT (NOI) FORM AND PERMIT DEPARTMENT OF ENVIRONMENTAL JP-TO-DATE AMENDMENTS DURING -SITE OPERATIONS ASSOCIATED WITH OF STORM WATER MANAGEMENT IS TO ORM WATER DISCHARGES. RUNOFF TON DUE TO EXPOSED SOILS AND NSTRUCTION PROCESS. THE PREVENTION OF SOIL EROSION, CONTAINMENT OF HAZARDOUS MATERIALS AND/OR THE INTERCEPTION OF THESE POLLUTANTS BEFORE LEAVING THE CONSTRUCTION SITE ARE THE BEST PRACTICES FOR CONTROLLING STORM WATER POLLUTION.

THE FOLLOWING SECTIONS OF THE 2009 ODOT STANDARD SPECIFICATIONS SHOULD BE NOTED:

- 103.05 BONDING REQUIREMENTS
- 104.10 FINAL CLEANING UP
- 104.12 CONTRACTOR'S RESPONSIBILITY FOR WORK
- 104.13 ENVIRONMENTAL PROTECTION
- 106.08 STORAGE AND HANDLING OF MATERIAL
- 107.01 LAWS, RULES AND REGULATIONS TO BE OBSERVED
- 107.20 STORM WATER MANAGEMENT
- 220 MANAGEMENT OF EROSION, SEDIMENTATION AND STORM WATER POLLUTION PREVENTION AND CONTROL
- 221 TEMPORARY SEDIMENT CONTROL

IN ADDITION:

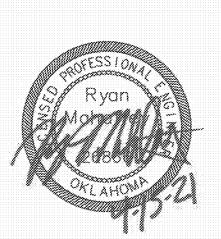
"ODEQ GENERAL PERMIT (OKR10) FOR STORM WATER DISCHARGES FROM CONSTRUCTION ACTIVITIES WITHIN THE STATE OF OKLAHOMA." ODEQ, WATER QUALITY DIVISION, SEPTEMBER 13, 2017.

MOHAWK WATER TREATMENT PLANT STORAGE FACILITY

PROJECT NO. TMUA-W-20-01

CITY OF TULSA, OKLAHOMA ENGINEERING SERVICES DEPARTMENT

PLANS AND ESTIMATES PREPARED BY: BKL, INCORPORATED **FNGINEERS & ARCHITECTS**

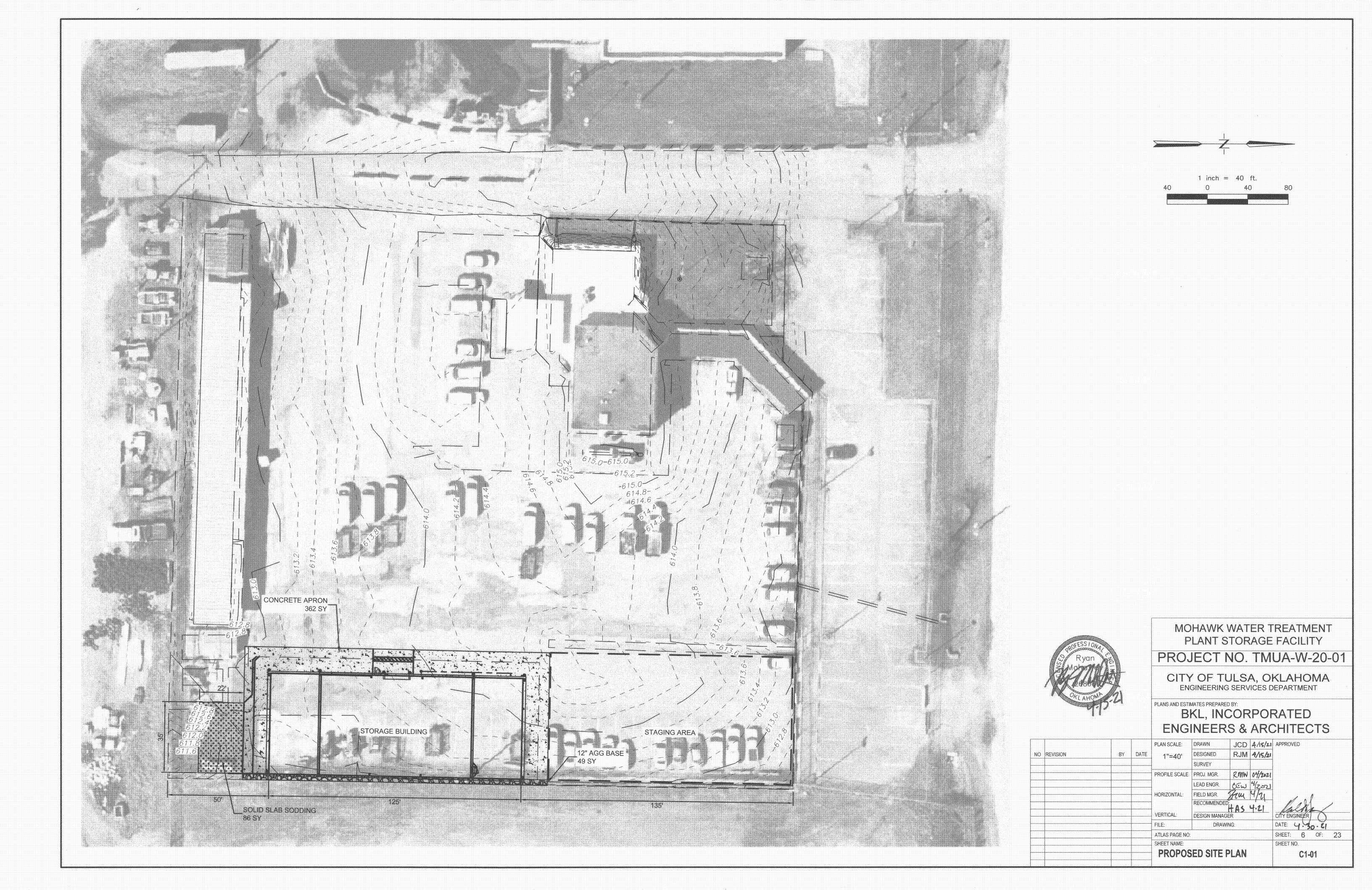


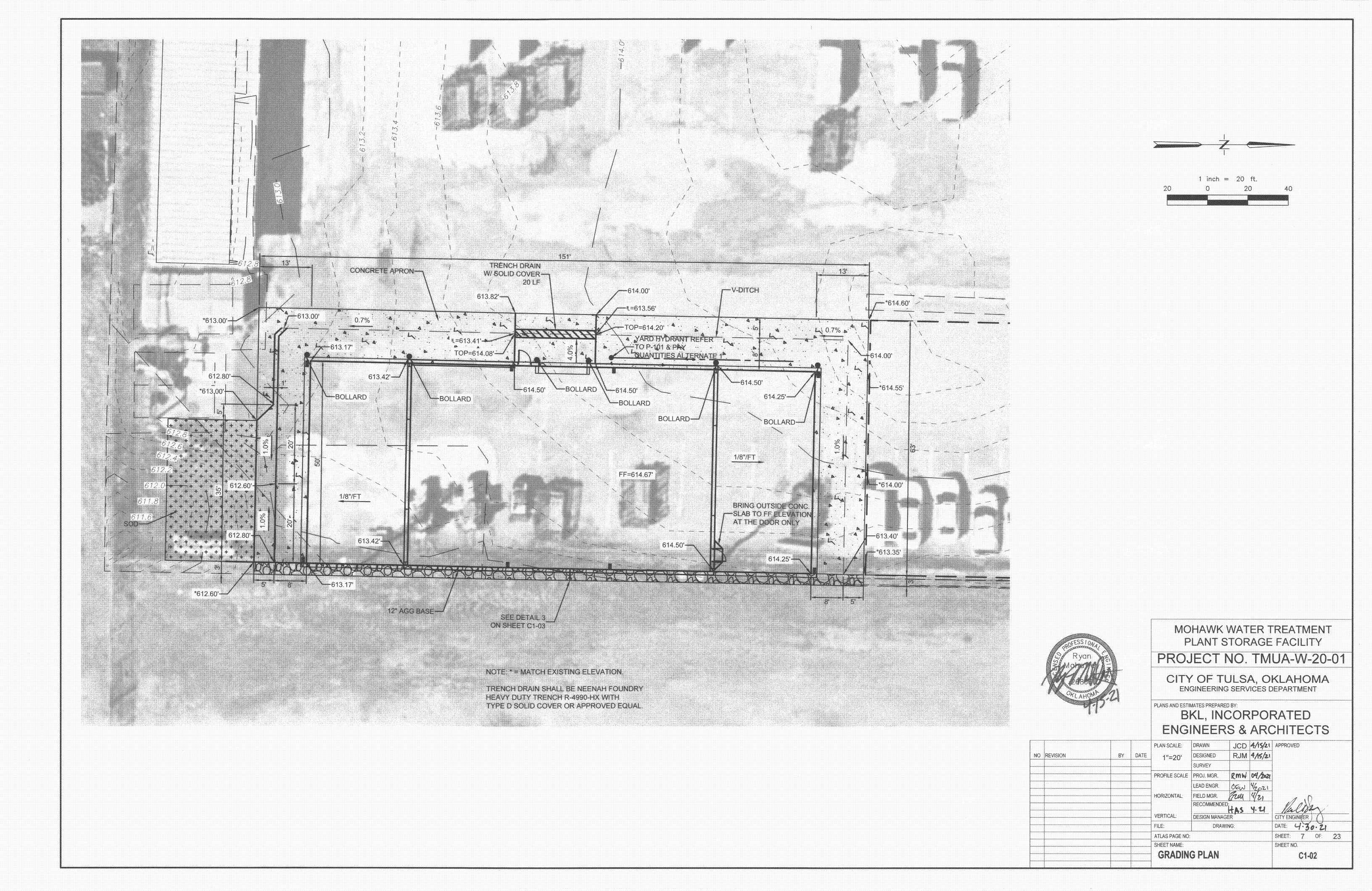
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| | | | *************************************** | PLAN SCALE: | DRAWN | JCD | 4/15/21 | APPROVED |
| NO | REVISION | BY | DATE | | DESIGNED | RJM | 4/15/21 | |
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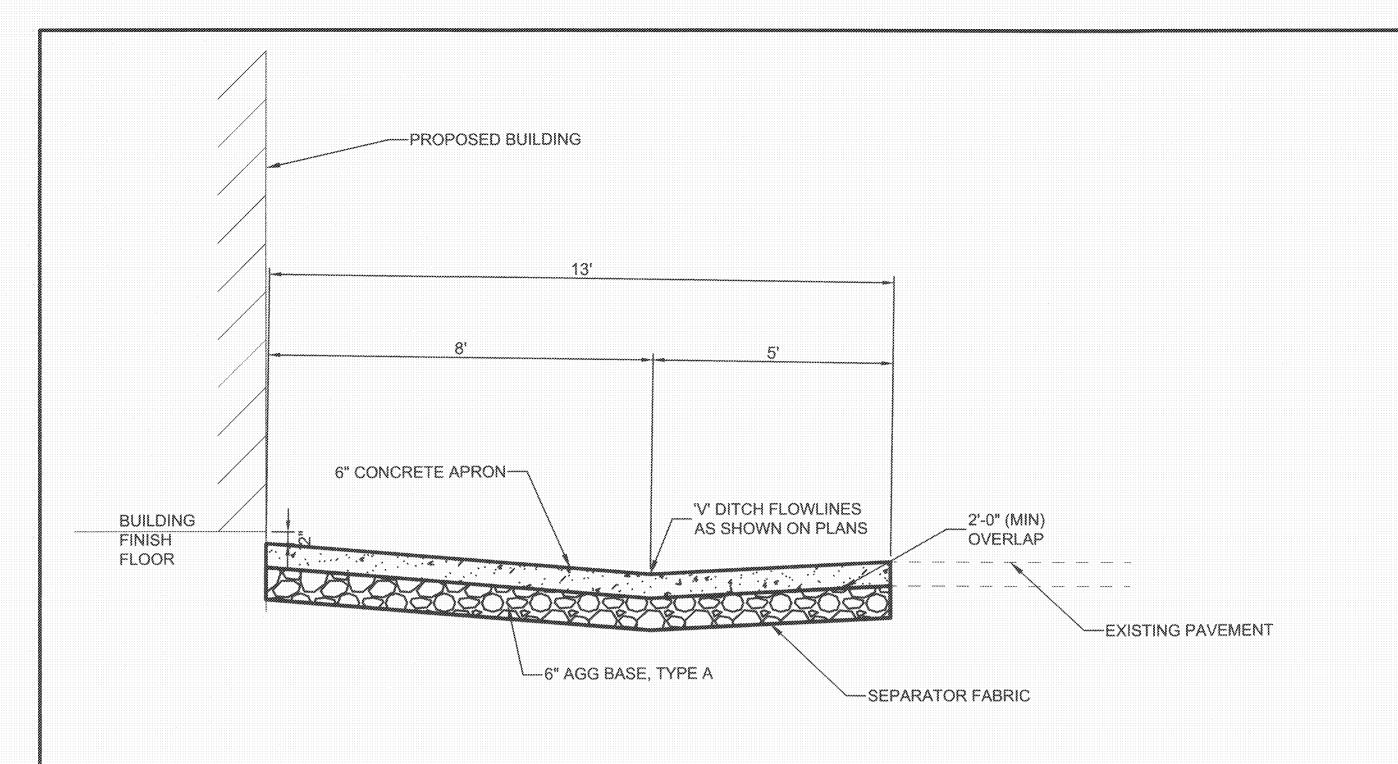
SHEET NAME: STORM WATER MANAGEMENT PLAN

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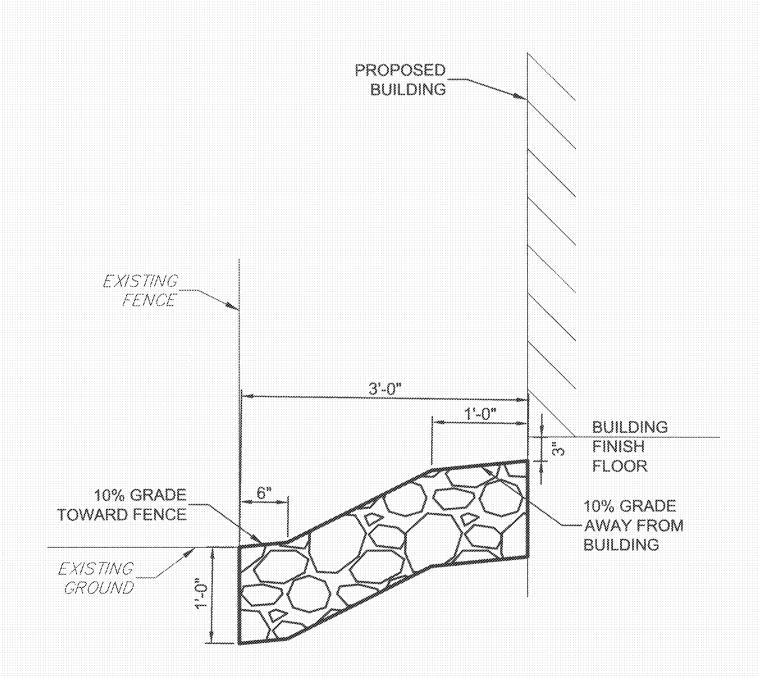
REVISED 08 / 18 / 2017







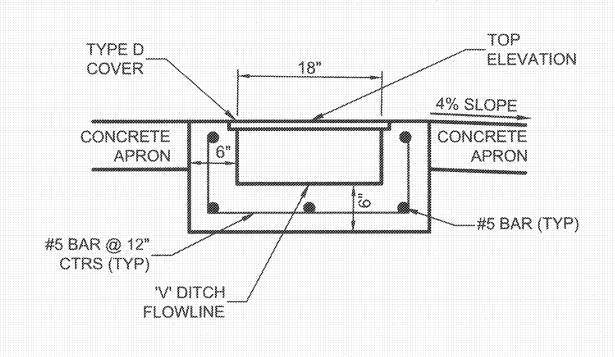
TYPICAL APRON SECTION SCALE 1:2



TYPICAL TBSC SECTION

SCALE 1:1

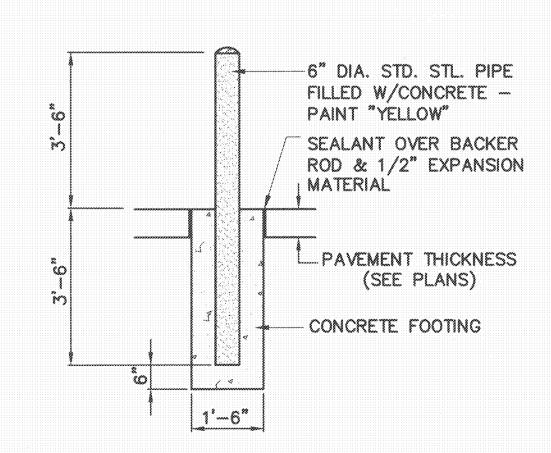
NOTE: DO NOT DAMAGE EXISTING FENCE. ANY DAMAGE WILL BE REPAIRED BY CONTRACTOR WITHOUT ADDITIONAL COMPENSATION.



TRENCH DRAIN DETAIL

SCALE 1:1

NEENAH FOUNDARY HEAVY DUTY TRENCH (R-4990-HX) WITH TYPE D SOLID COVER OR APPROVED EQUAL



BOLLARD DETAIL (6 REQUIRED) SCALE 1:2

NOTE: SEE PLANS FOR LOCATION.



MOHAWK WATER TREATMENT PLANT STORAGE FACILITY

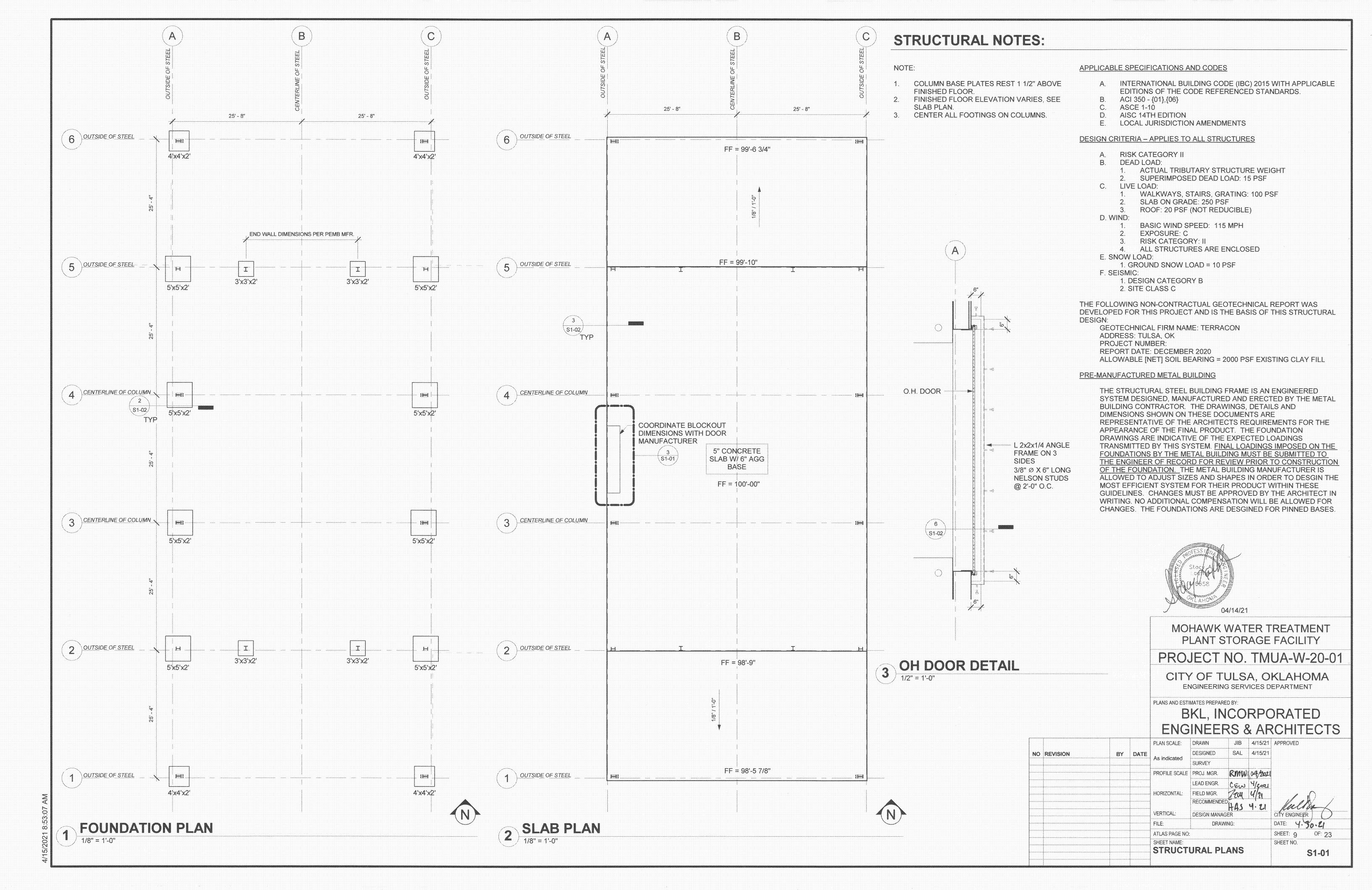
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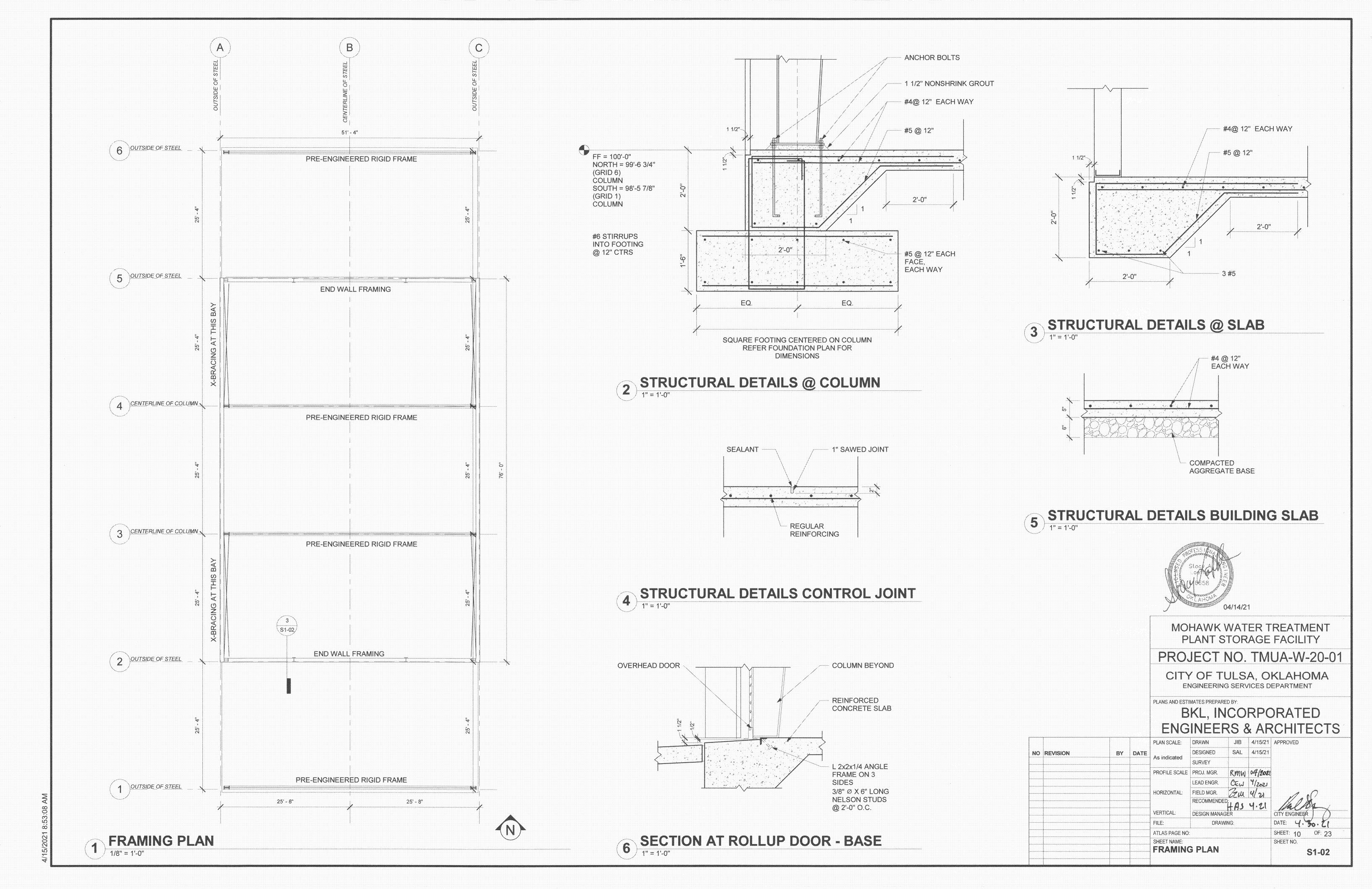
CITY OF TULSA, OKLAHOMA ENGINEERING SERVICES DEPARTMENT

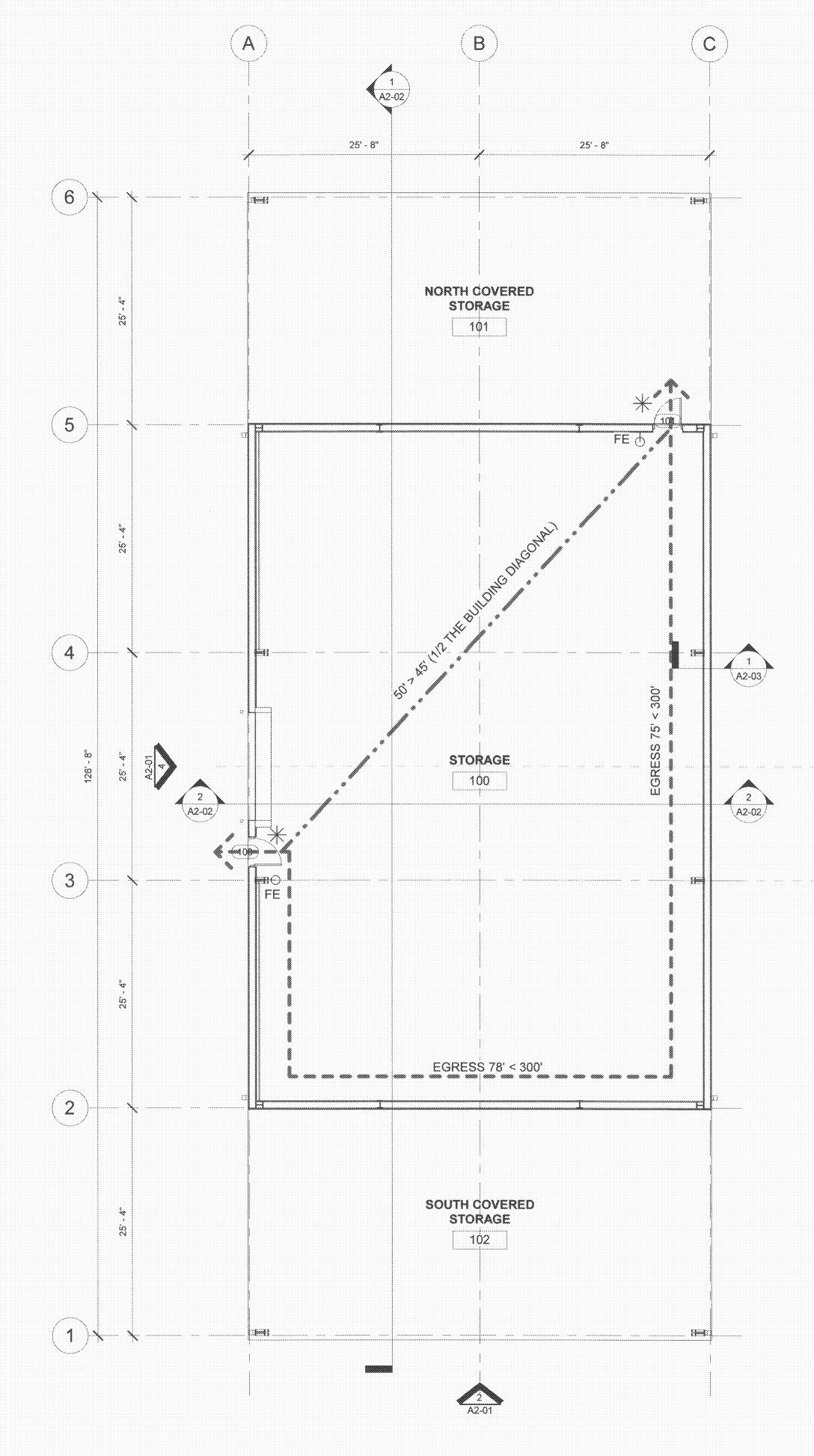
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GENERAL ARCHITECTURAL CODE REVIEW

BUILDING DESCRIPTION:

A PRE-ENGINEERED METAL BUILDING USED AS STORAGE FOR PARTS AND EQUIPMENT. NO FLAMMABLE LIQUIDS, NO VEHICLES PARKED IN BUILDING.

APPLICABLE CODES:

2015 INTERNATIONAL BUILDING CODE (IBC)
2015 INTERNATIONAL MECHANICAL CODE (IMC)
2014 NATIONAL ELECTRIC CODE (NEC)
2015 INTERNATIONAL PLUMBING CODE (IPC)
2015 INTERNATIONAL FIRE CODE (IFC)
2009 ACCESSIBILITY CODE (ICC/ANSI 117.1)

USE AND OCCUPANCY:

311.3 USE GROUP S-2 (LOW HAZARD STORAGE)

GENERAL BUILDING AREA:

502.1 BUILDING AREA - TOTAL

6,250 SF

TYPE OF CONSTRUCTION:

602.2 TYPE IIB

OCCUPANCY LOAD:

TABLE 1004.1.1

STORAGE

FLOOR AREA(SF)

6,250 SF

LOAD FACTOR

500 GROSS

MEANS OF EGRESS:

TABLE 1005.1

TABLE 1017.2

EGRESS WIDTH PER OCCUPANT

LOAD FACTOR

<u>r. regor</u> 2.6 IN.

REQUIRED PROVIDED

2.6 IN. 72 IN.

OCCUPANTS

0.20

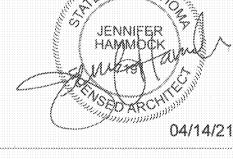
LENGTH OF EXIT ACCESS TRAVEL 300 FEET MAX. FOR GROUP S-2 WITHOUT SPRINKLER SYSTEM. THIS PROJECT COMPLIES WITH THIS REQUIREMENT.

<u>LEGEND:</u>

* BUILDING EXIT

MEANS OF EGRESS

→ FE FIRE EXTINGUISHER ON BRACKET



MOHAWK WATER TREATMENT PLANT STORAGE FACILITY

PROJECT NO. TMUA-W-20-01

CITY OF TULSA, OKLAHOMA ENGINEERING SERVICES DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:

BUILDING CODE PLAN

BKL, INCORPORATED ENGINEERS & ARCHITECT

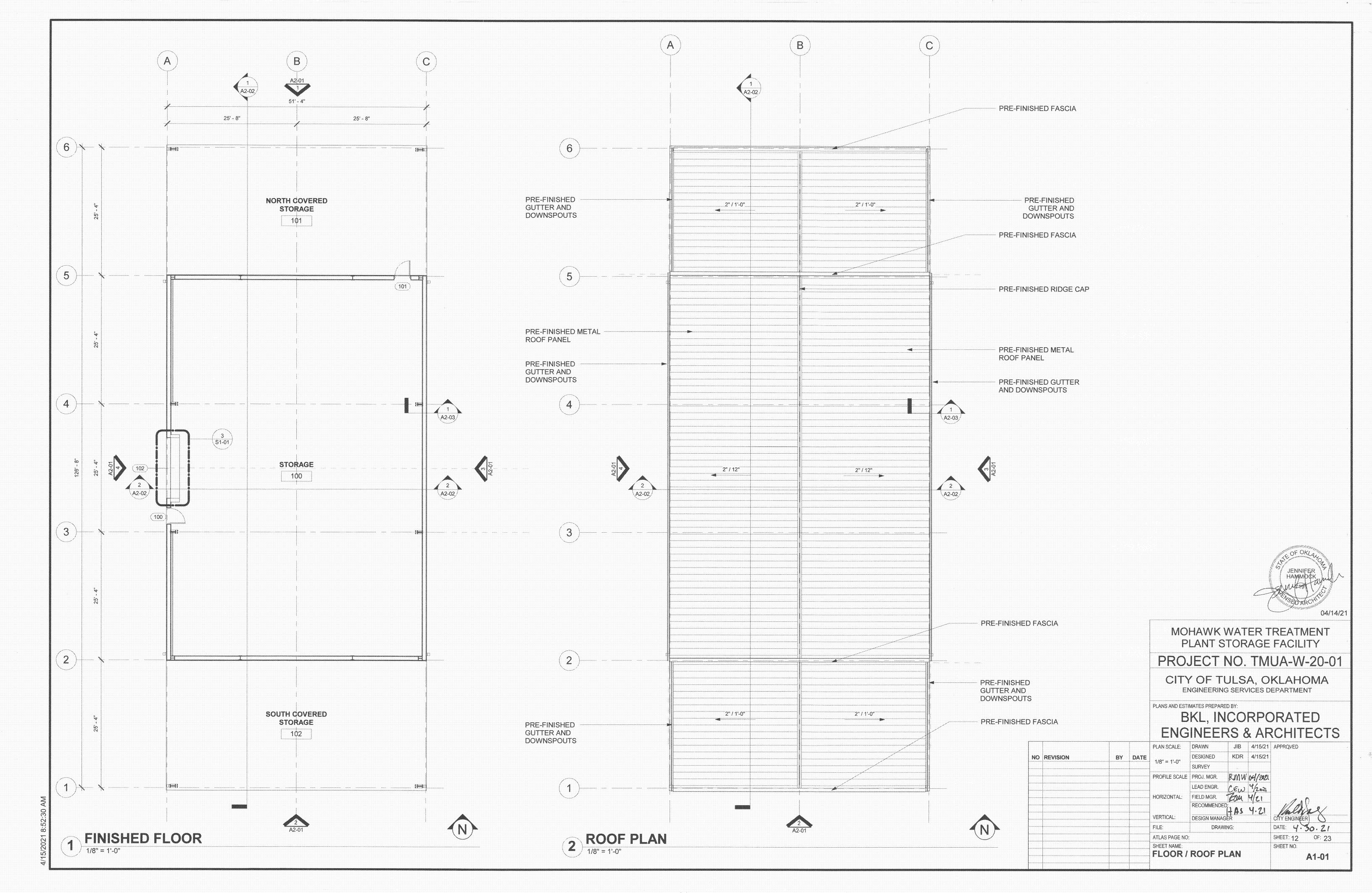
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| | | | | 1/0 = 1-0 | SURVEY | | | |
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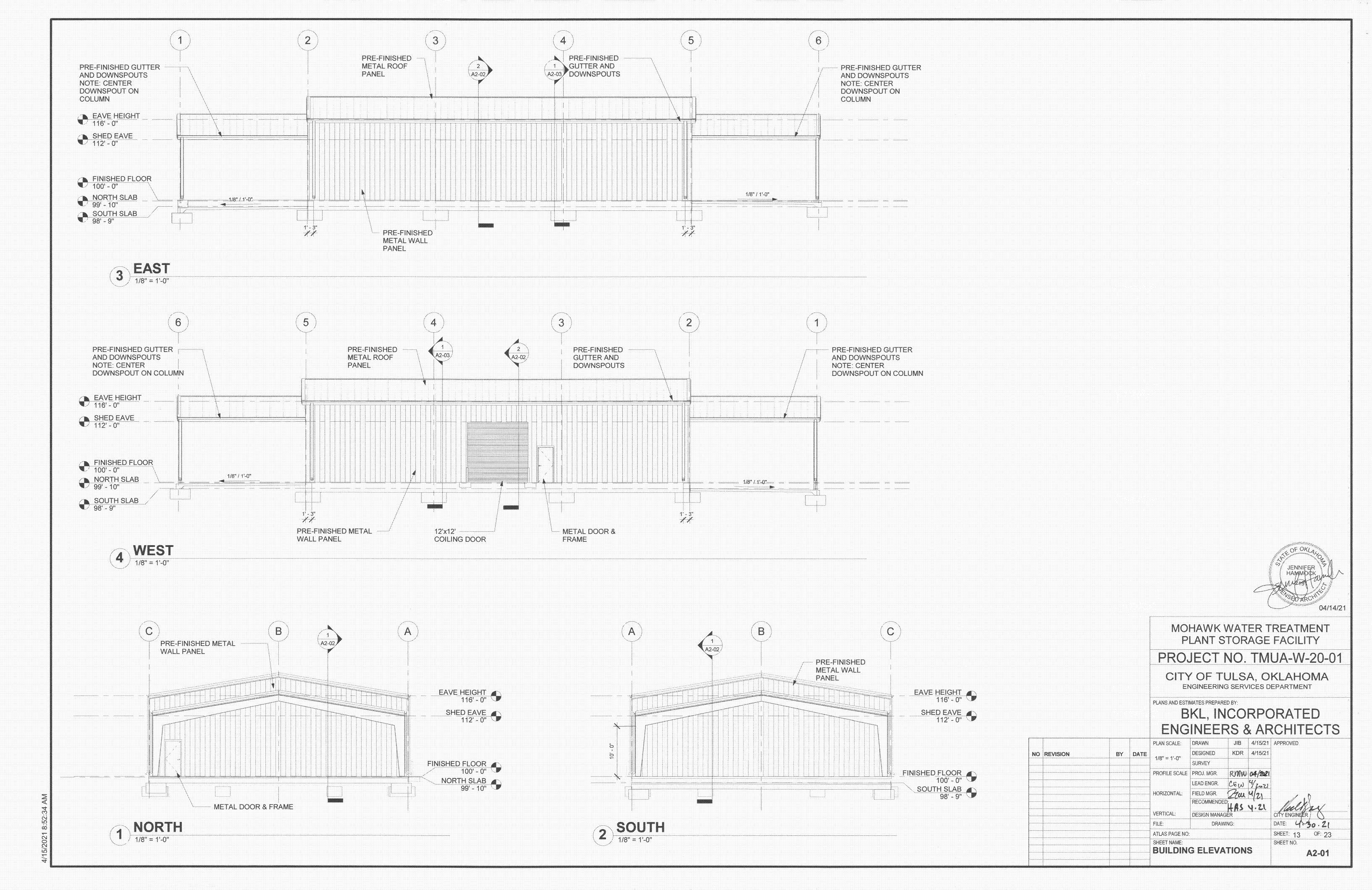


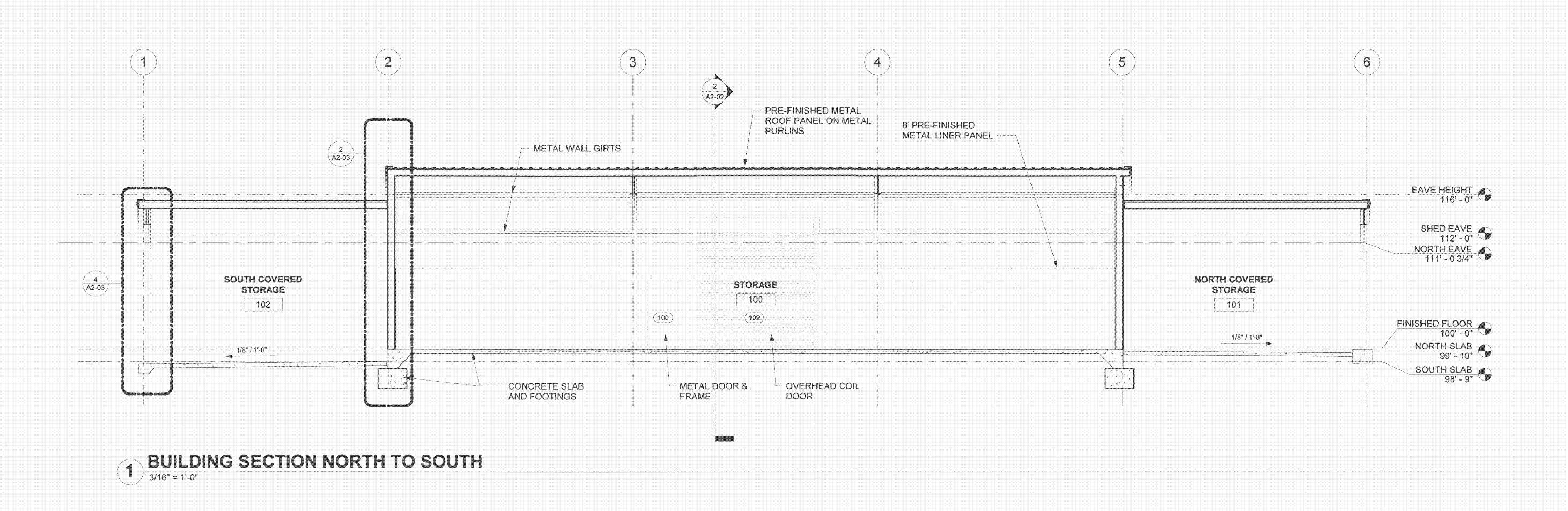
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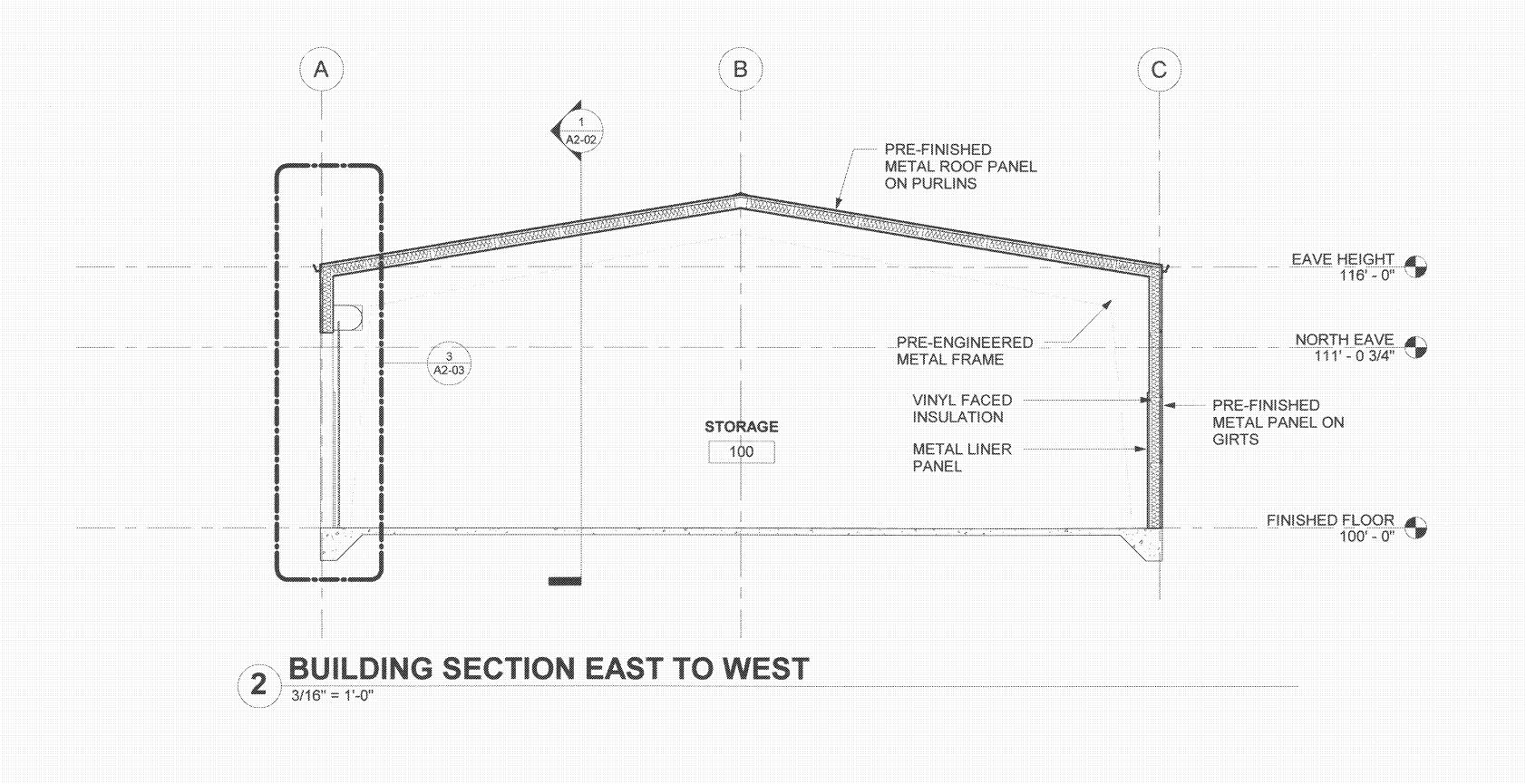
EGRESS PLAN

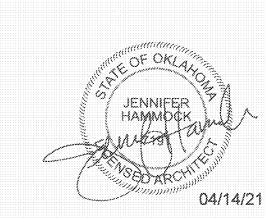
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MOHAWK WATER TREATMENT PLANT STORAGE FACILITY

PROJECT NO. TMUA-W-20-01

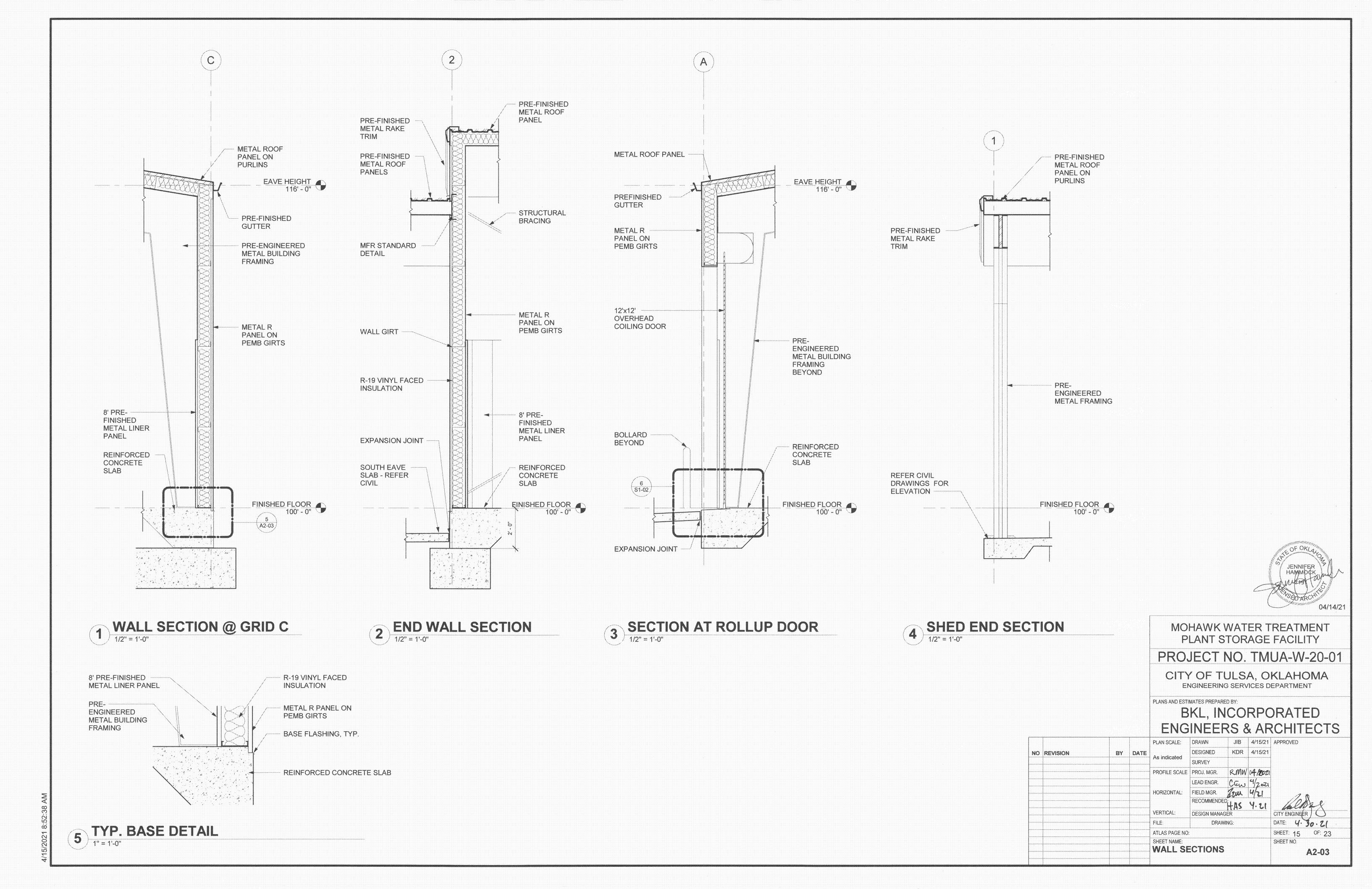
CITY OF TULSA, OKLAHOMA ENGINEERING SERVICES DEPARTMENT

PLANS AND ESTIMATES PREPARED BY: BKL, INCORPORATED

ENGINEERS & ARCHITECTS JIB 4/15/21 APPROVED NO REVISION BY DATE PROFILE SCALE PROJ. MGR. RMW 64/2021 HORIZONTAL: FIELD MGR. Zuw 4/4 RECOMMENDED HAS Y'ZI VERTICAL: ATLAS PAGE NO:

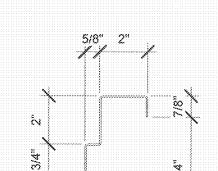
BUILDING SECTIONS

SHEET: 14 OF: 23 A2-02



| | | | | DOC | OR SCH | IEDUL | E (Di | IVISI(| ON 8) | | |
|-------------|----------|----------|----------|------|-----------------|----------|-------|--------|----------|--------|-----------------|
| | | | DOOR | | | F | RAME | | - | FIRE | |
| DOOR NUMBER | WIDTH | HEIGHT | MATERIAL | TYPE | FINISH | MATERIAL | TYPE | FINISH | HARDWARE | RATING | NOTES |
| | | | | | | | | | | | |
| 100 | 3' - 0" | 7' - 0" | HM | Α | PAINT | HM | C | PAINT | 1 | NONE | |
| 101 | 3' - 0" | 7' - 0" | HM | A | PAINT | HM | С | PAINT | 4 | NONE | |
| IVI | | , | | 4 7 | , , , , , , , , | 3 3686 | | | | 140146 | |
| 102 | 12' - 0" | 12' - 0" | STEEL | В | PRE-FINISH | | | | 2 | NONE | OH COILING DOOR |

| | ر 12' - 0" | GROUP #2 DO |
|-----------------|------------|--------------------------|
| | | ALL HARDWAR |
| 3'-0" | | |
| | | PRE-FINISHED STEEL SLATS |
| ▼ FLUSH DOOR | | 72 |
| | | |
| A | <u> </u> | |



1 HM FRAME AND DOOR TYPES

1/2" = 1'-0"

2 HM FRAME PROFILE
3" = 1'-0"

HARDWARE SCHEDULE GROUP #1 DOOR #'S 100, 101 CATALOG NO. DESCRIPTION 630 626 IVE HW HINGE 5BB1HW 4.5 X 4.5 PANIC HARDWARE 99-L-996-06 VON 626 SFIC RIM CYLINDER 80-159 W/KEYED CONST. CORE SCH SFIC EVEREST CORE 80-037 626 SCH SURFACE CLOSER 4040XP SCUSH X MTG BRKT, LCN SPCR & PLATE AS REQ'D X ST3596

IVE

ZER

ZER

ZER

ZER

8400 10" X 2" LDW B-CS 6

8198AA LENGTH AS REQ'D

65A LENGTH AS REQ'D

328AA H & J

42A DW + 4"

DOOR # 102

3 EA.

1 EA.

1 EA.

1 EA.

1 EA.

1 EA.

1 SET

1 EA.

1 EA.

1 EA.

ARE BY DOOR SUPPLIER

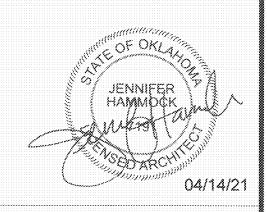
KICK PLATE

DOOR SWEEP

OH RAIN DRIP 1

THRESHOLD

SEALS



MOHAWK WATER TREATMENT PLANT STORAGE FACILITY

PROJECT NO. TMUA-W-20-01

CITY OF TULSA, OKLAHOMA ENGINEERING SERVICES DEPARTMENT

BKL, INCORPORATED ENGINEERS & ARCHITECTS

| | | | | PLAN SCALE: | DRAWN | JIB | 4/15/21 | APPROVED | |
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| | | | | DOOR SCHEDULE AND DETAILS | | | A3-01 | | |

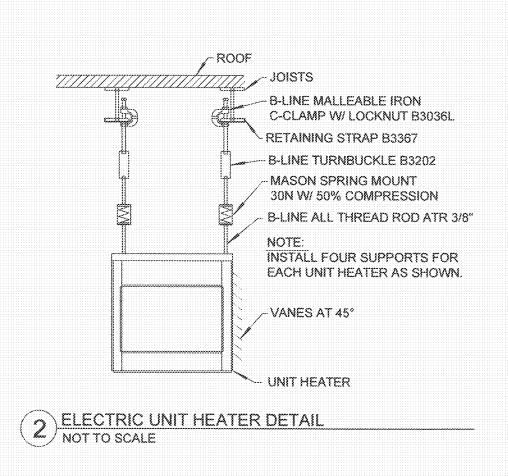
| | MECHANIC | AL LEGEND | |
|------------|--|-----------|--|
| T | THERMOSTAT (MOUNTED AT 48" A.F.F) | | EXHAUST GRILLE (CEILING MOUNTED) |
| Π | TEMPERATURE SENSOR (MOUNTED AT 48" A.F.F) | | SUPPLY DIFFUSER (CEILING MOUNTED) |
| CFM A | DIFFUSER CALLOUT TAG | | RETURN GRILLE (CEILING MOUNTED) |
| XXX XXX | EQUIPMENT OR DEVICE TAG | (D) | DUCT MOUNTED SMOKE DETECTOR |
| > <-\/ | AIR FLOW ARROW | De | —— MANUAL BALANCE DAMPER |
| с | CONDENSATE PIPE | | SIDEWALL AIR DEVICE |
| —-R— | REFRIGERANT PIPE | 24x12 | RECTANGULAR DUCT (FIRST DIMENSION, SIDE SHOWN) |
| B.O.D. | BOTTOM OF DUCT | { 16"ø } | ROUND DUCT |
| 8.0.8. | BOTTOM OF BEAM | { 16"ø } | DOUBLE WALL ROUND DUCT |
| AF.F | ABOVE FINISHED FLOOR | CFM | STANDARD CUBIC FEET PER MINUTE |
| AF.G. | ABOVE FINISHED GRADE | FD > | FIRE DAMPER |
| | | Э | HUMIDISTAT (MOUNTED AT 48" A.F.F) |

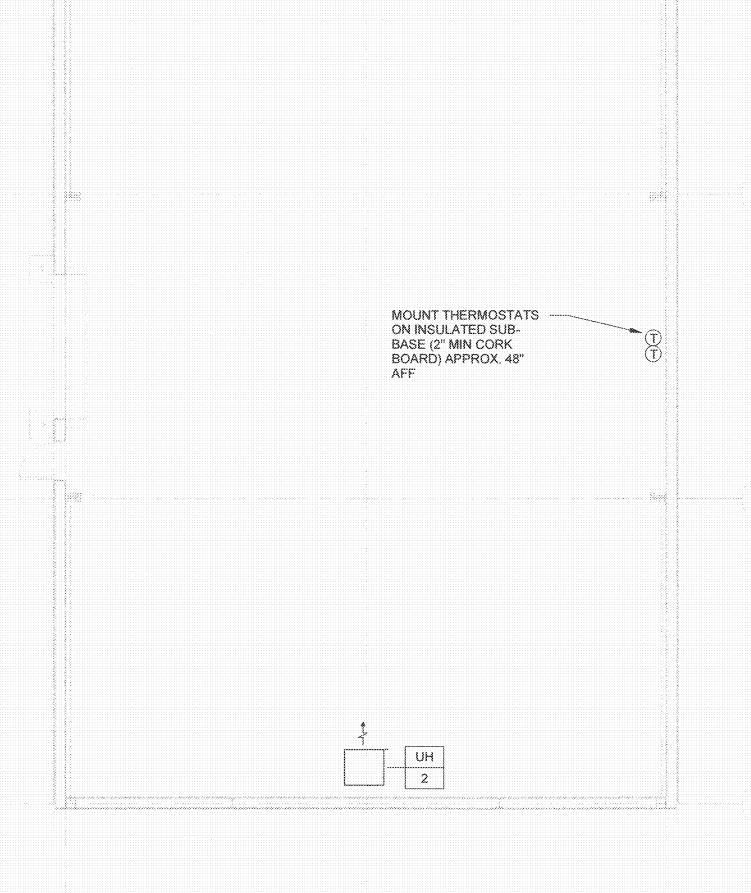
| | | ELEC | | | EATER (| | | | | |
|--------|--------------|-----------------------|------|---------------|---------------|----------------------|-------------|----------|------------------|-------|
| TAG | SERVICE | MANUFACTURER MODEL | CFM | MOTOR (HP) | ELEMENT KW | FULL LOAD AMPS | MOCP (A) | V/PH/HZ | WEIGHT (LBS.) | NOTES |
| UH-1 | STORAGE ROOM | REZNOR EGHB25 | 1400 | 1/3 | 25 | 72 | 90 | 208/3/60 | 85 | ALL |
| UH-2 | STORAGE ROOM | REZNOR EGHB25 | 1400 | 1/3 | 25 | 72 | 90 | 208/3/60 | 85 | ALL |
| NOTES: | | | | | | | | | | 1, |

1. COORDINATE WITH ELECTRICAL CONTRACTOR.

2. SET THERMOSTAT TO 60°F.
3. MOUNT 12FT ABOVE FINISHED FLOOR, PITCH DISCHARGE VANES DOWN 45°.

3. MOUNT 12FT ABOVE FINISHED FLOOR, PITCH DISCHARGE VANES DOWN 45". 4. PROVIDE A TIMER SO THAT UNIT HEATERS DO NOT RUN FOR MORE THAN 2 HOURS (ADJUSTABLE).

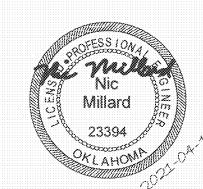




1) HVAC FLOOR PLAN 1/8" = 1'-0"

GENERAL MECHANICAL NOTES

- 1. SUBMISSION OF PROPOSAL IN CONNECTION WITH THIS WORK SHALL IMPLY THAT THE BIDDER HAS EXAMINED THE JOB SITE UNDER WHICH HE WILL BE OBLIGATED TO OPERATE SHOULD HE BE AWARDED THE WORK UNDER THIS CONTRACT. NO EXTRA CHARGE WILL BE ALLOWED FOR FAILURE OF ANY BIDDER TO EXAMINE THE SITE PRIOR TO BID
- 2. ALL WORK SHALL CONFORM TO STATE AND LOCAL CODES, RULES, REGULATIONS, AND ORDINANCES, WHICH SHALL TAKE PRECEDENCE OVER THE PLANS IF CONFLICTS EXIST BETWEEN THEM.
- 3. THE DRAWINGS INDICATE THE GENERAL LAYOUT REQUIREMENTS FOR EQUIPMENT, FIXTURES, PIPING, DUCTWORK, ETC. FINAL LAYOUT SHALL BE MODIFIED TO FIT ACTUAL SITE CONDITIONS.
- 4. COORDINATE ALL WORK WITH THE ARCHITECT, OWNER'S REPRESENTATIVE OR ENGINEER AND ALL OTHER CONTRACTORS. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RIGGING, HANDLING, AND PROTECTION OF MATERIALS. PROVIDE LABOR TO RECEIVE, UNLOAD, STORE, PROTECT, AND TRANSFER TO POINT OF INSTALLATION OF ANY OWNER FURNISHED ITEMS.
- 5. CONTRACTOR IS RESPONSIBLE FOR VERIFYING THAT ALL SYSTEMS AND COMPONENTS WILL FIT PROPERLY PRIOR TO FABRICATION OR ORDERING. INSTALLED DUCTS MAY BE RESIZED BY THE CONTRACTOR TO FIT FIELD CONDITIONS AS LONG AS THE INSTALLED DUCTS SHALL HAVE EQUAL FRICTION LOSS TO THOSE SHOWN. PROVIDE COMPLETE SHEET METAL SHOP DRAWINGS TO ENGINEER SHOWING ACTUAL DUCT SIZES, ARRANGEMENTS, AND UNIT LOCATIONS TO BE INSTALLED. THIS SHALL BE DONE PRIOR TO FABRICATION OR INSTALLATION.
- 6. PROVIDE A COMPLETE AND OPERATING MECHANICAL SYSTEM, INCLUDING ALL INCIDENTAL ITEMS AND CONNECTIONS
 NECESSARY FOR PROPER OPERATION OR CUSTOMARILY INCLUDED, EVEN THOUGH EACH AND EVERY ITEM MAY NOT BE
 INDICATED.
- 7. REFER TO ARCH, PLANS AND DETAILS FOR EXACT LOCATION OF ALL WALL AND CEILING MOUNTED DEVICES. ADJUST LOCATION OF SIDEWALL DEVICES AS NECESSARY TO AVOID INTERFERENCE WITH MOLDING OR OTHER ELECTRICAL DEVICES.
- 8. CONTRACTOR TO AVOID INSTALLATION OF THERMOSTAT/SENSOR ON WALLS EXPOSED TO THE OUTDOOR. IF UNAVOIDABLE PROVIDE AN INSULATED BACK ON ALL THERMOSTATS AND TEMPERATURE SENSORS THAT ARE MOUNTED ON CMU OR HOLLOW WALLS. PROVIDE SHALLOW DEVICE EXTENSION BOX BEHIND T-STATS AND SENSORS ON MASONRY WALLS.
- THE MECHANICAL INSTALLATION SHALL BE SAFE, RELIABLE, ENERGY EFFICIENT AND EASILY MAINTAINED WITH ADEQUATE PROVISIONS ALLOWED FOR ACCESS TO EQUIPMENT.
- 10. THE MECHANICAL SYSTEM SHALL OPERATE QUIETLY WITH NOISE LEVELS BELOW THE CRITERIA RECOMMENDED FOR THE APPLICATION BY ASHRAE, PROVIDE CORRECTIVE ACTION AS REQUIRED TO REDUCE OBJECTIONABLE NOISE OR
- 11. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CORING AND BEAM PENETRATIONS AS IT RELATES TO HIS WORK.
- 12. ANY LINE VOLTAGE WIRING THAT IS RUN BY THE MECHANICAL CONTRACTOR SHALL BE INSTALLED IN ACCORDANCE WITH THE ELECTRICAL PLANS, NOTES, AND SPECIFICATIONS.
- 13. SEISMIC PROTECTION FOR CONCERNS OF ALL BUILDING SYSTEMS INCLUDING BUT NOT LIMITED TO MECHANICAL, PLUMBING, AND ELECTRICAL MUST MEET MINIMUM REQUIREMENTS OF ALL APPLICABLE CODES FOR BUILDINGS' CLASSIFIED SEISMIC PROTECTION MEASURES TO BE APPLIED SHALL BE INSTALLED IN STRICT ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND/OR FEDERAL CODES AND WITH MANUFACTURERS'S REQUIREMENTS, THE MOST STRINGENT SHALL APPLY.
- DRAWINGS ARE GRAPHIC REPRESENTATIONS OF THE WORK UPON WHICH THE CONTRACT IS BASED. THEY SHOW THE MATERIALS AND THEIR RELATIONSHIP TO ONE ANOTHER, INCLUDING SIZES, SHAPES, LOCATIONS, AND CONNECTIONS. THEY ALSO CONVEY THE SCOPE OF WORK, INDICATING THE INTENDED GENERAL ARRANGEMENT OF THE EQUIPMENT AND OTHER MATERIALS WITHOUT SHOWING ALL OF THE EXACT DETAILS AS TO ELEVATIONS, OFFSETS, CONTROL LINES, AND OTHER INSTALLATION REQUIREMENTS. USE THE DRAWINGS AS A GUIDE WHEN LAYING OUT THE WORK AND TO VERIFY THAT MATERIALS AND EQUIPMENT WILL FIT INTO THE DESIGNATED SPACES, AND WHICH, WHEN INSTALLED PER MANUFACTURERS' REQUIREMENTS, WILL ENSURE A COMPLETE, COORDINATED, SATISFACTORY AND PROPERLY OPERATING SYSTEM. DETERMINE EXACT LOCATIONS BY JOB MEASUREMENTS, BYCHECKING THE REQUIREMENTS OF OTHER TRADES, AND BY REVIEWING ALL CONTRACT DOCUMENTS. CORRECT ERRORS THAT COULD HAVE BEEN AVOIDED BY PROPER CHECKING AND INSPECTION, AT NO ADDITIONAL COST TO THE OWNER.



MOHAWK WATER TREATMENT PLANT STORAGE FACILITY

PROJECT NO. TMUA-W-20-01

CITY OF TULSA, OKLAHOMA ENGINEERING SERVICES DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:

BKL, INCORPORATED ENGINEERS & ARCHITECTS

HP ENGINEERING - MECHANICAL HP ENGINEERING - ELECTRICAL

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| | | | PLAN SCALE: | DRAWN | SD | 4/12/21 | APPROVED |
| REVISION | BY | DATE | | DESIGNED | SD | 4/12/21 | |
| | | | As indicated | SURVEY | | | |
| | | | PROFILE SCALE | PROJ. MGR. | RYNW | 04/2021 | |
| | | | | LEAD ENGR. | CEW | 1/2024 | |
| | | | HORIZONTAL: | FIELD MGR. | Zon | 4/21 | 7.0 |
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| | | | SHEET NAME: HVAC PL | .ANS | | | SHEET NO. M1-01 |

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ABBREVIATIONS

ABOVE COUNTER ARC FAULT CIRCUIT INTERRUPTER ABOVE FINISHED FLOOR CIRCUIT BREAKER

EXISTING ELECTRICAL CONTRACTOR EXPLOSION PROOF GFI GROUND FAULT CIRCUIT INTERRUPTER UG GR GROUND

HORSE POWER

ISOLATED GROUND

HP

IG.

MCC MOTOR CONTROL CENTER NEC NATIONAL ELECTRICAL CODE NATIONAL ELECTRICAL NEMA MANUFACTURERS ASSOC. NOT IN CONTRACT NIGHT LIGHT TAMPER RESISTANT

UNDERGROUND UNLESS OTHERWISE NOTED UON WP WEATHERPROOF WEATHER RESISTANT

WIRING

WIRING CONCEALED IN CEILING OR WALLS UON. ALL WIRE IS NUMBER #12 AWG MINIMUM.

——— EXPOSED RACEWAY ---- WINDERGROUND RACEWAY; TYPE, SIZE, CONDUCTORS, AND ARRANGEMENT BY NOTATION OR SCHEDULE.

SWITCHES

SWITCH MOUNTED AT +48", SINGLE POLE UON. LOWER CASE LETTER, WHEN PRESENT, INDICATES FIXTURES CONTROLLED.

DOUBLE POLE SWITCH

3-WAY SWITCH

4-WAY SWITCH

DIMMER SWITCH (SHALL BE COMPATABLE WITH FIXTURE BEING DIMMED) FAN SWITCH: DUAL OPERATION WITH DIMMER

KEYED SWITCH MOTOR RATED SWITCH

OS DUAL TECHNOLOGY OCCUPANCY SENSOR VOLUME CONTROL SWITCH

CEILING MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR WITH SPARE DRY CONTACTS. HUBBELL OMNIDIARP SERIES

RECEPTACLES

DUPLEX RECEPTACLE (NEMA 5-20R)

DUPLEX RECEPTACLE (NEMA 5-20R); MOUNTED 8" ABOVE COUNTERTOP.

 $\Phi_{\rm U}$ (ALL RECEPTACLE TYPES) WITH USB CHARGING PORTS

GFI DUPLEX RECEPTACLE (NEMA 5-20R)

GFI DUPLEX RECEPTACLE (NEMA 5-20R); MOUNTED 8" ABOVE COUNTERTOP.

QUADRUPLEX RECEPTACLE (TWO NEMA 5-20R)

SPECIAL RECEPTACLE: VERIFY NEMA TYPE WITH MANUFACTURER

FLOOR BOX WITH DATA: LEGRAND WIREMOLD SERIES RFB4E-OG OR RFB6E-OG WITH EVOLUTION COVER. ROUTE (2)1" FOR DATA FROM FLOOR BOX TO NEAREST ACCESSIBLE CEILING SPACE. ON FLOOR LEVELS WITH ACCESSIBLE SPACE BELOW, USE POKE-THRU STYLE FLOOR BOXES: LEGRAND 6AT SERIES. SEE ARCHITECTURAL PLANS FOR LOCATION UON.

SINGLE RECEPTACLE (NEMA 5-20R)

SPLIT WIRED DUPLEX RECEPTACLE (NEMA 5-20R)

DIRECT EQUIPMENT CONNECTION: VERIFY CONNECTION DETAILS WITH

FLOOR BOX: HUBBEL 3SFBSS WITH 3SFBC COVER, EC SHALL ROUTE A 1"C FOR FLOOR BOX TO NEAREST ACCESSIBLE CEILING SPACE, ON FLOOR LEVELS WITH ACCESSIBLE SPACE BELOW, USE POKE-THRU STYLE FLOOR BOXES: HUBBELL PT2X2 SERIES. SEE ARCHITECTURAL PLANS FOR LOCATION UON. CEILING MOUNTED RECEPTACLE(NEMA 5-20R)

PANELS AND MISC.

LIGHT OR POWER PANEL

(J) 4x4 JUNCTION BOX.

EQUIPMENT DISCONNECT: INTERIOR DISCONNECTS SHALL BE NEMA 1 TYPE. EXTERIOR DISCONNECTS SHALL BE NEMA 3R TYPE. SIZE AS INDICATED IN THE PLANS AND PER NAMEPLATE RATING.

PHONE/DATA: PROVIDE 4"X4", 30-1/4 CUBIC INCH OUTLET BOX AT 8" ABOVE COUNTER (UON) WITH (2) 3/4" CONDUITS (WITH PULL STRINGS) ROUTED TO ACCESSIBLE CEILING SPACE. PROVIDE SINGLE GANG MUD RING WITH BLANK COVER, PROVIDE PLASTIC BUSHINGS ON EXPOSED CONDUIT ENDS, WIRING BY

PHONE/DATA: PROVIDE 4"X4", 30-1/4 CUBIC INCH OUTLET BOX AT +18" (UON) WITH (2) 3/4" CONDUITS (WITH PULL STRINGS) ROUTED TO ACCESSIBLE CEILING SPACE. PROVIDE SINGLE GANG MUD RING WITH BLANK COVER, PROVIDE PLASTIC BUSHINGS ON EXPOSED CONDUIT ENDS. WIRING BY OTHERS.

PHONE/DATA: PROVIDE 4"X4", 30-1/4 CUBIC INCH OUTLET BOX IN CEILING. PROVIDE SINGLE GANG MUD RING WITH BLANK COVER, WIRING BY OTHERS.

TELEVISION: PROVIDE 4X4 JUNCTION BOX WITH (2) 3/4" CONDUITS (WITH PULL STRINGS) ROUTED TO ACCESSIBLE CEILING SPACE, PROVIDE SINGLE GANG MUD. RING WITH BLANK COVER. CONFRIM HEIGHTS WITH ARCHITECT PRIOR TO ROUGH-IN.

CEILING MOUNTED SPEAKER

CARD READER: REFER TO SYSTEM PLANS AND SPECIFICATIONS, AT EACH DOOR WITH A CARD READER PROVIDE ALL ELECTRICAL CONNECTIONS FOR DOOR HARDWARE SYSTEMS AS REQUIRED TO MAKE A COMPLETE OPERATIONAL SYSTEM. WHERE REQUIRED, BACK TO BACK 2"X4" BOXES ARE ALLOWED FOR CARD READER AND PUSH TO EXIT SWITCH, PROVIDE POWER TO THE LOCK SYSTEM IN THE I.T. ROOM WHERE NEEDED BY CONTRACTOR INSTALLING SYSTEM.

GENERAL ELECTRICAL NOTES

DRAWINGS ARE DIAGRAMMATIC ONLY AND REPRESENT THE GENERAL SCOPE OF THE WORK. REVIEW ALL GENERAL NOTES, SPECIFICATIONS AND PLANS FOR ADDITIONAL REQUIREMENTS THAT MAY NOT BE SPECIFICALLY CALLED OUT IN THIS PORTION OF THE CONSTRUCTION DOCUMENTS.

SPECIAL ATTENTION SHALL BE GIVEN TO ALL RACEWAYS WITHIN FINISHED AREAS WITHOUT CEILINGS AND EXPOSED TO STRUCTURE. IN GENERAL, ALL RACEWAYS SHALL BE CONCEALED WITHIN WALLS. ABOVE STRUCTURE FINISH, OR BELOW FLOOR SLABS WHEN SPECIFIED. WHERE EXPOSED CONDITIONS ARE NECESSARY OR UNAVOIDABLE DUE TO OTHER CONDITIONS, THE BID SHALL INCLUDE ANY REASONABLE MEANS TO MINIMIZE THE AMOUNT OF SURFACE MOUNTED EQUIPMENT PRIOR TO ROUGH-IN, COORDINATE ALL EXPOSED RACEWAY AND BOX CONDITIONS WITH ARCHITECT PRIOR TO CONSTRUCTION OF WALLS, ROOF DECK, OR FLOOR SLABS. ATTACHMENT TO ROOF DECK OR JOIST WEBBINGS IS NOT ALLOWED, MAINTAIN A MINIMUM SPACING OF 1-1/2" FROM CONDUIT TO ROOF DECK. IN AREAS WHERE EXPOSED RACEWAYS ARE REQUIRED, INSTALL SYSTEMS SQUARE AND TIGHT TO STRUCTURE AND PAINT TO MATCH THE STRUCTURE PER ARCHITECT AND/OR OWNER SPECIFICATIONS, FAILURE TO PROPERLY COORDINATE THE ROUTING OF EXPOSED RACEWAYS MAY RESULT IN RELOCATION OF SUCH RACEWAYS AT NO ADDITIONAL COST TO THE OWNER.

OPENINGS AROUND ELECTRICAL PENETRATIONS THROUGH FIRE-RESISTANT-RATED WALLS, PARTITIONS, FLOORS OR CEILINGS SHALL BE FIRESTOPPED USING APPROVED METHODS TO MAINTAIN THE FIRE RESISTANCE RATING. PROVIDE PENETRATION FIRE STOPPING WITH RATINGS DETERMINED PER ASTM E 814 OR UL 1479. FIRE STOPPING SHALL NOT BE LESS THAN FIRE RESISTANCE RATING OF CONSTRUCTED PENETRATIONS.

FIELD MOUNTED DEVICES SUCH AS SWITCHES, MOTOR STARTERS, RECEPTACLES, ETC., ARE SHOWN IN THEIR APPROXIMATE LOCATION. SWITCH MOUNTING HEIGHT SHALL BE 48" ABOVE FINISHED FLOOR AND RECEPTACLE MOUNTING HEIGHT SHALL BE 18" ABOVE FINISHED FLOOR UON, REFER TO THE TYPICAL MOUNTING HEIGHT DETAIL.

INSTALL EQUIPMENT IN A MANNER TO REMAIN ACCESSIBLE WITH REASONABLE MEANS BY THE OWNER FOLLOWING COMPLETION OF WORK. SPECIAL ATTENTION AND ADDITIONAL COORDINATION IS EXPECTED IN AREAS OF THE BUILDING WHERE THE CEILING AND STRUCTURE HEIGHTS HAVE SIGNIFICANT DIFFERENT ELEVATIONS. EQUIPMENT REQUIRING POSSIBLE FUTURE ACCESS SHALL BE INSTALLED SUCH THAT IT MAY BE SAFELY ACCESSED FROM A STANDARD STEP LADDER OR PERSONNEL LIFT SUITABLE FOR THE LOCATION AND CEILING HEIGHT, WITHOUT REMOVING OR DAMAGING THE CEILING GRID STRUCTURE.

ALL WIRING DEVICE COVERPLATES SHALL INDICATE PANELBOARD AND CIRCUIT SERVING THE DEVICE. UTILIZE CLEAR VINYL (BLACK LETTERING) IDENTIFICATION LABLES MANUFACTURED BY 3M COMPANY (OR APPROVED EQUIVALENT). JUNCTION BOXES LOCATED ABOVE GRID CEILINGS SHALL BE LOCATED NO GREATER THAN 4-FEET ABOVE THE CEILING IN A LOCATION ACCESSIBLE VIA A LADDER FROM

ROOM NAMES/NUMBERS SHOWN IN PANELBOARD SCHEDULES ARE PER ARCHITECTURAL FLOOR PLANS. CONTRACTOR SHALL PROVIDE FINALIZED PANELBOARD SCHEDULES AT COMPLETION OF PROJECT WITH OWNER PROVIDED ROOM NAMES/NUMBERS

PROVIDE A MINIMUM OF (3) SPARE 1° CONDUITS FROM RECESSED PANELBOARD, UP TO ACCESSIBLE CEILING SPACE.

ALL WORK IS TO BE PERFORMED IN STRICT COMPLIANCE WITH THE NATIONAL ELECTRICAL CODE, STATE LAWS, AND ALL OTHER REGULATIONS GOVERNING WORK OF THIS NATURE

THE CONTRACTOR IS RESPONSIBLE FOR ALL WORK, MATERIAL, AND LABOR TO SATISFY A COMPLETE AND WORKING SYSTEM WHETHER SPECIFIED OR IMPLIED. CONTRACTOR TO CONFIRM EXACT LOCATION OF EXISTING AND NEW EQUIPMENT THE CONTRACTOR SHALL FURNISH AND INSTALL ALL GROUNDING SYSTEMS (AS

REQUIRED) IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE. ALL ELECTRIC MATERIALS AND EQUIPMENT FOR THE PROJECT SHALL BE NEW AND U.L. OR EQUALLY LISTED.

SUBMIT TO THE OWNER CERTIFICATES OF INSPECTIONS IN DUPLICATE FROM AN APPROVED INSPECTION AGENCY UPON COMPLETION. THE CONTRACTOR SHALL SECURE ALL PERMITS OR APPLICATIONS AND PAY ANY AND

ALL FEES AS REQUIRED. THE CONTRACTOR SHALL FURNISH ALL INSTRUMENTS AND QUALIFIED PERSONNEL OR FIRM TO PERFORM ALL REQUIRED TESTS.

NO EQUIPMENT SHALL BE ENERGIZED UNTIL ALL TEST AND ADJUSTMENTS HAVE BEEN MADE. THREE COPIES OF ALL TEST RESULTS SHALL BE DELIVERED TO THE OWNER ALL ELECTRICAL WORK SHALL BE COORDINATED WITH THE MECHANICAL WORK AS CALLED FOR IN MECHANICAL SPECIFICATIONS AND PLANS

COORDINATE ALL CEILING MOUNTED ELECTRICAL ITEMS WITH OTHER DISCIPLINES, WITH CEILING, AND STRUCTURE, REFER TO ARCHITECTURAL REFLECTED CEILING

FIELD VERIFY LOCATIONS OF EXISTING ELECTRICAL EQUIPMENT. INCLUDING POWER POLES, TELEPHONE PEDESTALS, OVERHEAD AND UNDERGROUND FEEDERS, METERS, PANELS, DEVICES, ETC. PROVIDE FOR COORDINATION WITH EXISTING EQUIPMENT. CONDUCTORS FOR BRANCH CIRCUITS AS DEFINED IN ARTICLE 100, SHALL BE SIZED TO

PREVENT A VOLTAGE DROP EXCEEDING 3% AT THE FARTHEST LOAD, AND WHERE THE MAXIMUM TOTAL VOLTAGE DROP ON BOTH FEEDERS AND BRANCH CIRCUITS TO THE FARTHEST LOAD DOES NOT EXCCED 5%. UNDERGROUND UTILITIES/FEEDERS/BRANCH CIRCUITS/ETC. SHALL NOT BE ROUTED THROUGH OR WITHIN 25 FEET OF ANY AREAS DEDICATED FOR FUTURE BUILDING

UNLESS NOTED OTHERWISE PROVIDE MINIMUM #8 AWG CONDUCTORS IN 1" CONDUIT(S) FOR ALL UNDERGROUND SITE POWER AND LIGHTING CIRCUITS. INCREASE CONDUCTOR AND RELATED CONDUIT SIZE AS NOTED OR OTHERWISE REQUIRED TO LIMIT VOLTAGE DROP TO LESS THAN 5% FOR THE ENTIRE LENGTH OF

THE TYPE OF CONDUIT SHALL BE AS FOLLOWS FOR ALL FEEDERS AND DISTRIBUTION CIRCUITS, UNLESS OTHERWISE SPECIFIED.

APPLICATION - TYPE OF CONDUIT

BURIED IN CONCRETE OR OUTDOORS - PVC WITH RIGID GALVANIZED STEEL ELBOWS SERVICE ENTRANCE - GALVANIZED RIGID STEEL OR SERVICE UTILITY SPECIFICATIONS.

SEISMIC PROTECTION FOR SEISMIC CONCERNS OF ALL BUILDING SYSTEMS INCLUDING BUT NOT LIMITED TO MECHANICAL, PLUMBING, AND ELECTRICAL MUST MEET MINIMUM REQUIREMENTS OF ALL APPLICABLE CODES FOR BUILDINGS' CLASSIFIED SEISMIC USE GROUP AND SEISMIC DESIGN CATEGORY. ANY REQUIREMENTS FOR SEISMIC PROTECTION MEASURES TO BE APPLIED SHALL BE INSTALLED IN STRICT ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND/OR FEDERAL CODES AND WITH MANUFACTURER'S REQUIREMENTS, THE MOST STRINGENT SHALL APPLY.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE TYPE AND LOCATION OF SEISMIC RESTRAINTS REQUIRED FOR THE VARIOUS SYSTEM'S ELEMENTS CONTAINED IN THE CONSTRUCTION DOCUMENTS BASED ON THE RELATED SEISMIC CODE CRITERIA. THE SIZE AND WEIGHT OF THE SUPPORTED ELEMENT AND THE DISTANCE FROM STRUCTURE THAT THE ELEMENT WILL BE INSTALLED. IF REQUIRED BY LOCAL. STATE, FEDERAL CODES AND/OR OTHER AUTHORITY HAVING JURISDICTION (AHJ) THE CONTRACTOR SHALL SUBMIT DESCRIPTIVE CATALOG DATA OF SEISMIC RESTRAINTS, SHOP DRAWINGS SHOWING THE TYPES, LOCATIONS AND INSTALLATION DETAILS OF SEISMIC RESTRAINTS AND CALCULATIONS SHOWING THAT THE SEISMIC RESTRAINTS MEET THE SEISMIC REQUIREMENTS TO THE LOCAL AHJ FOR REVIEW AND APPROVAL, CALCULATIONS SHALL BE SIGNED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER, LICENSED IN THE STATE OF THE PROJECT LOCATION AND EMPLOYED BY THE MANUFACTURER OF THE SEISMIC RESTRAINT PRODUCTS. CALCULATIONS SHALL INCLUDE DEAD LOADS, STATIC SEISMIC LOADS AND CAPACITY OF MATERIALS UTILIZED FOR CONNECTIONS TO EQUIPMENT AND STRUCTURE.

ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING COVER PLATES AT ANY UNUSED OPENINGS OR JUNCTION BOXES FOR ELECTRICAL AND LOW VOLTAGE BACK BOXES.

GENERAL POWER NOTES

ALL RECEPTACLES SHALL BE GROUNDING TYPE ALL RECEPTACLES INSTALLED IN BATHROOMS, OUTDOORS AND KITCHENS

SHALL HAVE GROUND-FAULT CIRCUIT INTERRUPTER PROTECTION AS REQUIRED BY THE NATIONAL ELECTRIC CODE.

COORDINATE MECHANICAL EQUIPMENT CONNECTION REQUIREMENTS WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN, LOCATE FEEDERS, DISCONNECTS AND MAINTENANCE RECEPTACLES SO THAT THEY WILL NOT INTERFERE WITH OPERATION OR MAINTENANCE OF MECHANICAL

PROVIDE POWER TO MECHANICAL, PLUMBING, AND ALL OTHER EQUIPMENT AS REQUIRED FOR PROPER OPERATION, COORDINATE AND VERIFY EACH PIECE OF EQUIPMENTS POWER/CONTROL REQUIRMENTS PRIOR TO ORDERING RELATED ELECTRICAL EQUIPMENT. REFER TO RELATED MECHANICAL, PLUMBING, AND OTHER RELATED DOCUMENTS FOR LOCATIONS OF EQUIPMENT AND REQUIRED CLEARANCES AROUND

COORDINATE EXACT MOUNTING HEIGHT OF EACH ABOVE COUNTER RECEPTACLE WITH ARCHITECT AND OWNER PRIOR TO ROUGHIN.

ALL OUTLETS IN AREAS REQUIRING GROUND-FAULT CIRCUIT INTERRUPTER. PROTECTION PER NEC-210 SHALL CONSIST OF A GFCI PROTECTED DEVICE. EVEN IF NOT SPECIFICALLY INDICATED IN THE DRAWINGS. THE GROUND-FAULT CIRCUIT INTERRUPTER SHALL BE INSTALLED IN A READILY ACCESSIBLE LOCATION AS DEFINED IN THE NEC. ALL RECEPTACLES SUPPLIED THROUGH A GROUND-FAULT CIRCUIT INTERRUPTER SHALL BE MARKED 'GFCI PROTECTED."

DO NOT USE MULTI-CONDUCTOR CIRCUITS, WITH A SHARED NEUTRAL, FOR ANY GFCI CIRCUIT BREAKER OR RECEPTACLE CIRCUIT.

CONTRACTOR SHALL INTERCONNECT MINI SPLIT FAN UNITS AS REQUIRED WITH ASSOCIATED CONDENSING UNIT(S). CONTRACTOR SHALL PROVIDE AND INSTALL DISCONNECT SWITCH, CONDUIT, CONDUCTORS, AND OTHER NECESSARY APPURTENANCES REQUIRED TO PROVIDE A COMPLETE AND OPERATIONAL SYSTEM PER MANUFACTURERS RECOMMENDATIONS. CONTRACTOR SHALL NOT SHARE NEUTRALS.

GENERAL LIGHTING NOTES

WHERE RECESSED LIGHTING FIXTURES ARE INDICATED IN A FIRE RATED CEILING, PROVIDE A ONE HOUR RATED "TENT" FOR FIXTURE PROVIDE ALL MOUNTING AND SUPPORT HARDWARE FOR LIGHT FIXTURES. TO MEET SPECIFIED MOUNTING HEIGHTS, REFER TO ARCHITECTURAL

FIXTURE DESIGNATED AS NIGHT LIGHT SERVING THE SPACE.

ELEVATIONS FOR EXACT MOUNTING HEIGHTS OF FIXTURES. CONNECT "UN-SWITCHED" HOT CONDUCTOR FROM CIRCUIT SERVING SPACE LIGHTING TO EACH EXIT SIGN, EMERGENCY LIGHT, AND ANY

COORDINATE ALL DEVICES AND WALL-MOUNTED LIGHT FIXTURE LOCATIONS WITH THE ARCHITECTURAL WALL FINISHES AND ELEVATIONS. SPECIAL ATTENTION AND COORDINATION OF WALL TYPES AND FINISHES IS REQUIRED PRIOR TO ROUGH-IN. EXACT LOCATION OF DEVICES SHALL BE COORDINATED WITH THE ARCHITECT PRIOR TO ROUGH-IN TO AVOID INSTALLATION ON SPECIAL ARCHITCTURAL WALL FINISHES. DEVICES NOT PROPERLY COORDINATED WITH THE SPECIAL WALL FINISHES INDICATED IN THE CONSTRUCTION DOCUMENTS PRIOR TO ROUGH-IN SHALL BE RELOCATED AT NO ADDITIONAL COST TO THE OWNER.

ELECTRICAL CONTRATOR SHALL VERIFY CHEVRON DIRECTIONS OF ALL EXIT SIGNS PRIOR TO ORDERING.

FOR BATTERY FED EMERGENCY LIGHTS: PROVIDE EMERGENCY BALLAST. PROVIDE "HOT" WIRE TO EMERGENCY BALLAST, SWITCH FIXTURE AS INDICATED ON PLANS.

COORDINATE AND PROVIDE DIMMER SWITCHES RATED FOR AND COMPATABLE WITH INTENDED LIGHT FIXTURE(S) TO BE CONTROLLED. CIRCUITS CONTROLLED WITH LINE-VOLTAGE DIMMER SWITCHES SHALL NOT SHARE NEUTRAL CONDUCTORS.

GENERAL LOW VOLTAGE NOTES

PROVIDE 4'WIDE X 4'TALL X 3/4" FIRE RATED. PAINTED CDX PLYWOOD BACKBOARD WHERE SHOWN ON DRAWINGS OR AS REQUIRED FOR TELEPHONE, CATV, ALARM SYSTEM EQUIPMENT, ECT. COORDINATE EXACT LOCATION(S) WITH RESPONSIBLE CONTRACTOR(S).

PROVIDE (1) 1/2" CONDUIT, AND 4" SQUARE BOX WITH SINGLE GANG DEVICE RING FOR ALL THERMOSTAT LOCATIONS INDICATED ON THE MECHANICAL DRAWINGS, ROUTE CONDUIT FROM BOX TO ACCESSIBLE CEILING CAVITY. PROVIDE PLASTIC BUSHINGS ON EXPOSED CONDUIT ENDS. PROVIDE PULL STRING IN ALL EMPTY CONDUIT SYSTEMS. COORDINATE EXACT LOCATIONS AND MOUNTING HEIGHTS WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN

PROVIDE CABLE HOOKS ABOVE CEILING ON 6' CENTERS IN ALL

CORRIDORS, MOUNT 6 INCHES ABOVE CEILING. PROVIDE ROUGH-IN OF ALL BACK BOXES, CONDUITS (WITH BUSHINGS AND

PULL STRINGS) AND OTHER WIRE WAYS AS REQUIRED FOR LOW VOLTAGE SYSTEMS, COORDINATE ALL REQUIRED LOCATIONS WITH OWNER AND RESPONSIBLE CONTRACTOR(S).

FURNISH AND INSTALL A TELEPHONE SERVICE CONDUIT(S) PER TELEPHONE SERVICE PROVIDER SPECIFICATIONS. STUB UP AT DESIGNATED EQUIPMENT BOARD.

ONE #6 COPPER INSULATED GROUND WIRE FROM THE ELECTRICAL SERVICE GROUND TO THE TELEPHONE EQUIPMENT BOARD, LEAVE 36" EXTRA WIRE AT FREE END. FURNISH AND INSTALL A CABLE TV SERVICE CONDUIT(S) PER CABLE TV

PROVIDER SPECIFICATIONS, STUB UP AT SERVICE POINT. REFER TO SITE UTILITIES PLAN AND COORDINATE ENTIRE INSTALLATION WITH CABLE TV SERVICE PROVIDER. REFER TO SITE UTILITIES PLAN AND COORDINATE ENTIRE INSTALLATION

WITH PHONE SERVICE PROVIDER. PROVIDE BACK BOX AND CONDUIT TO ABOVE THE ACCESSIBLE CEILING AS REQUIRED FOR THE HVAC BUILDING AUTOMATION SYSTEM DEVICES.

COORDINATE EXACT LOCATIONS AND OTHER REQUIREMENTS WITH RELATIVE MEP DRAWINGS AND THE CONTROLS CONTRACTOR PRIOR TO ROUGH-IN. THERMOSTATS, TEMPERATURE SENSORS, STATIC PRESSURE SENSORS, HUMIDISTATS, ETC. SHALL BE INSTALLED AT THE SAME ELEVATION AS THE LIGHT SWITCHES UNLESS REQUIRED OTHERWISE.

EXISTING ELECTRICAL AND DEMOLITION

PRIOR TO SUBMITTING BID. VISIT THE JOB SITE AND BECOME FULLY ACQUAINTED WITH THE EXISTING CONDITIONS OF THE FACILITY AND RELATED SITE, REVIEW THE GENERAL NOTES AND ALL OTHER TRADE DRAWINGS FOR ADDITIONAL REQUIREMENTS THAT MAY NOT BE CALLED OUT IN THIS PORTION OF THE CONSTRUCTION DOCUMENTS. NOTIFY ARCHITECT, ENGINEER OR OWNER, AS SPECIFIED, OF ANY CONFLICTS OR DISCREPANCIES PRIOR TO SUBMITTING BID.

ANY EXISTING CONDITIONS REFLECTED WERE TAKEN FROM ORIGINAL DRAWINGS AND SITE VISITS AND MAY NOT REFLECT EXACT "AS-BUILT" CONDITIONS. FIELD VERIFY ALL EXISTING CONDITIONS AND CAREFULLY COORDINATE NEW WORK AND DEMOLITION WITH ALL OTHER DISCIPLINES AND EXISTING CONDITIONS.

PROVIDE ALL DEMOLITION OF EXISTING ELECTRICAL SYSTEMS AND NEW ELECTRICAL SYSTEM MODIFICATIONS REQUIRED BECAUSE OF BUILDING REMODELING, AS NOTED ON THE DRAWINGS, OR NECESSARY FOR PROPER OPERATION AND NEW CONSTRUCTION. REMOVE ALL ABANDONED CABLES AND WIRING ABOVE ACCESSIBLE CEILINGS AND VENTILATION SHAFTS.

COORDINATE INTERUPTION OF ALL BUILDING SERVICES INCLUDING BUT NOT LIMITED TO BRANCH CIRCUITS, DATA, TELEPHONE, ETC WITH BUILDING OWNER PRIOR TO INTERUPTION. PROVIDE LABOR AND MATERIALS AS REQUIRED TO REDUCE INTERUPTIONS IN ORDER TO MAINTAIN EXISTING OPERATION.

PAY SPECIAL ATTENTION NOT TO DAMAGE THE FINISH OF EXISTING WALLS AND CEILINGS THAT ARE TO REMAIN WHEN REMOVING OR REPLACING LIGHT FIXTURES AND OTHER ELECTRICAL DEVICES. REPAIR ANY DAMAGE CAUSED DURING WORK AT NO EXTRA COST TO THE OWNER. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.

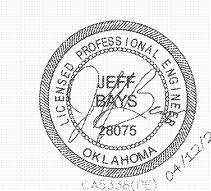
RELOCATE ALL EXISTING ELECTRICAL, FIRE ALARM, AND OTHER LOW-VOLTAGE SYSTEMS REQUIRED TO BE IN OPERATION AT SUBSTANTIAL COMPLETION OF THE CONTRACT, IF REQUIRED, AS A RESULT OF WORK INCLUDED UNDER THIS CONTRACT, EVEN IF NOT SPECIFICALLY INDICATED IN THE DRAWINGS OR SPECIFICATIONS.

SEAL ALL PENETRATIONS THROUGH FLOORS, WALLS, CEILINGS, AND ROOF WHERE ELECTRICAL COMPONENTS ARE REMOVED AND WHERE THE EXISTING PENETRATION IS NOT USED FOR THE NEW INSTALLATION. REPAIR DAMAGED SURFACES TO MATCH ADJACENT AREAS OR AS DIRECTED BY THE

UNLESS NOTED OTHERWISE, ABANDONED CONDUIT ASSEMBLIES SERVING DEMOLISHED DEVICES SHALL BE REMOVED BACK TO NEAREST JUNCTION BOX OUTSIDE OF AREA OF DEMOLITION AND LABLED AS REQUIRED FOR FUTURE USE. ASSOCIATED WIRING SHALL BE REMOVED BACK TO SERVING PANELBOARD, UPDATE PANELBOARD CIRCUIT DIRECTORY AS REQUIRED TO INDICATE RELATED CIRCUIT(S) AS "SPARE".

ANY PANELBOARD CIRCUIT DISCRIPTIONS SHOWN AS "existing" OR IN OTHER LOWER CASE LETTERING IS INTENDED TO REFLECT AN EXISTING CIRCUIT TO REMAIN UNLESS OTHERWISE IDENTIFIED DIFFERENTLY THRU THE COURSE OF CONSTRUCTION.

ALL CIRCUIT BREAKERS SERVING BRANCH CIRCUITS TO BE REMOVED SHALL REMAIN IN RESPECTIVE PANELBOARD FOR FUTURE USE UNLESS NOTED OTHERWISE.



MOHAWK WATER TREATMENT PLANT STORAGE FACILITY

PROJECT NO. TMUA-W-20-01

CITY OF TULSA, OKLAHOMA

ENGINEERING SERVICES DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:

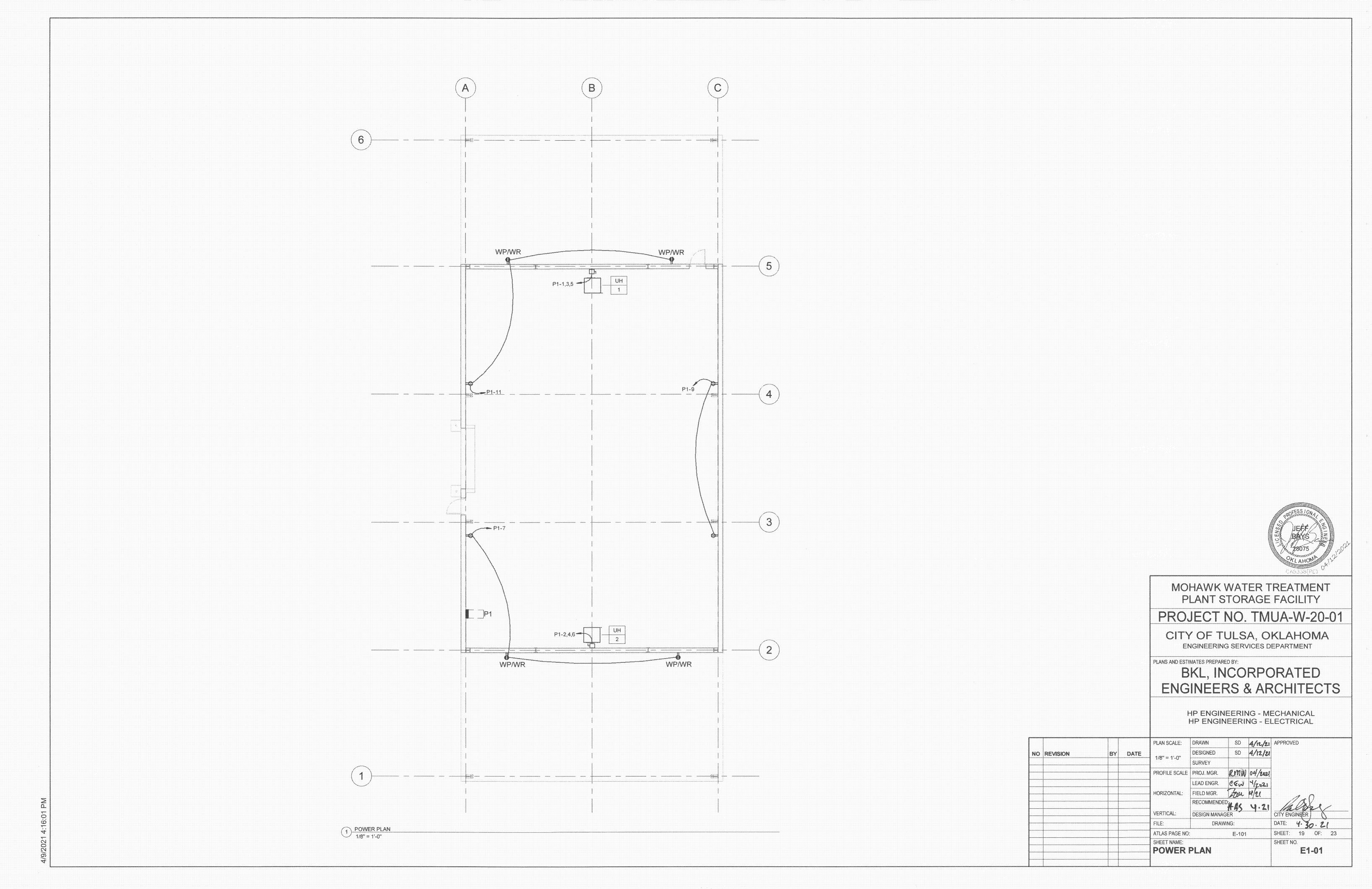
BKL, INCORPORATED **ENGINEERS & ARCHITECTS**

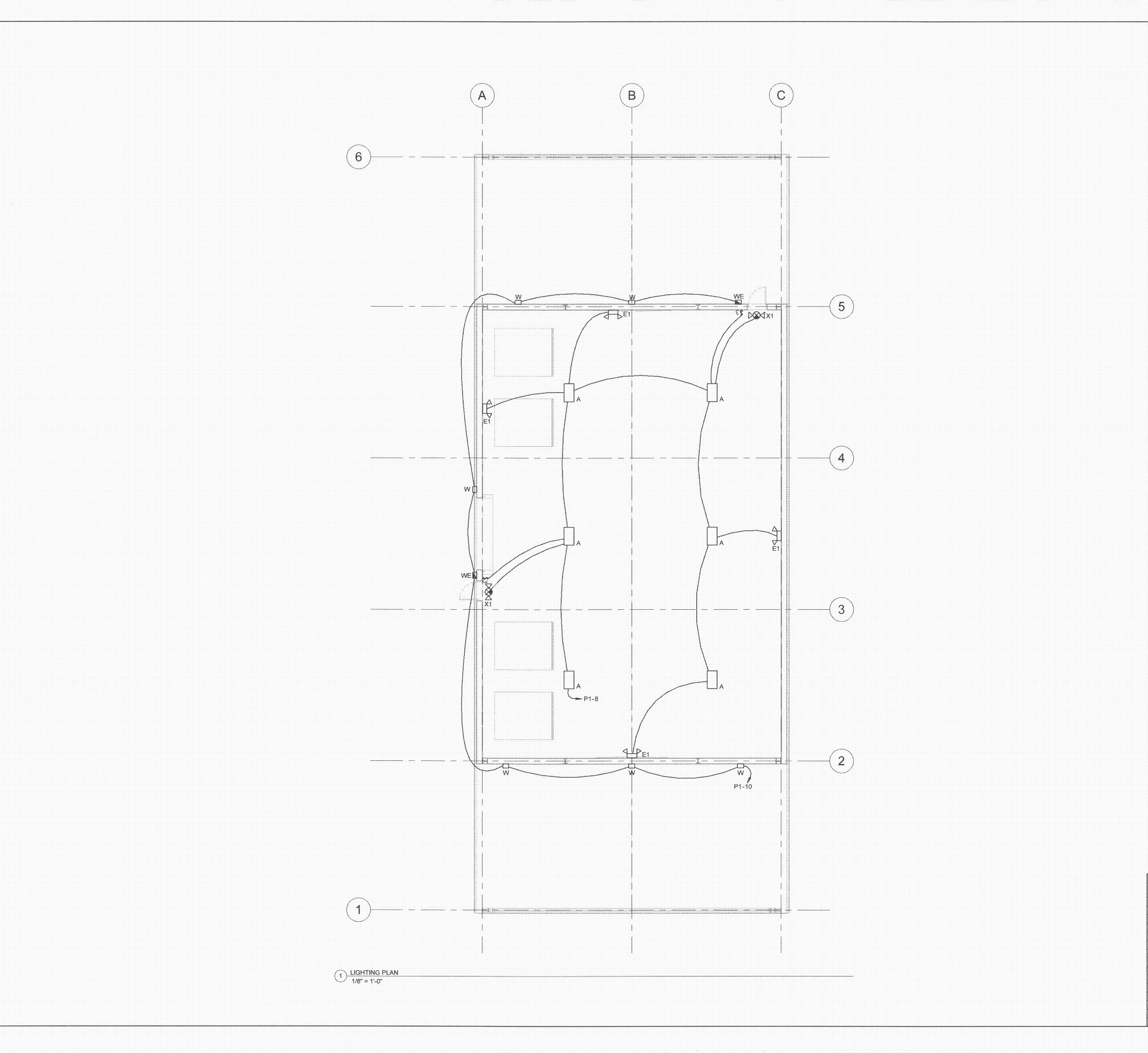
> HP ENGINEERING - MECHANICAL HP ENGINEERING - ELECTRICAL

| | | | PLAN SCALE: | DRAWN | SD | 4/12/21 | APPROVED | |
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| REVISION | 8Y | DATE | | DESIGNED | SD | 4/12/21 | | |
| | | | | SURVEY | | | | |
| | | | PROFILE SCALE | PROJ. MGR. | RMW | 04/2021 | | |
| | | | | LEAD ENGR. | OGW | 4/2021 | | |
| | | | HORIZONTAL: | FIELD MGR. | Vm. | 4/21 | / .n | |
| | | | | RECOMMENDE | HAG | J. Z1 | Mallow 2 | |
| | <u> </u> | | VERTICAL: | DESIGN MANAG | ER | | CITY ENGINEER) | |
| | | | FILE: | DRAW | ING: | | DATE: 4-30.21 | |
| | | | ATLAS PAGE NO: | | E-001 | | SHEET: 18 OF: 23 | |
| | | | SHEET NAME: ELECTRI | CAL NOT | res a | ND | SHEET NO. E0-01 | |

LEGEND

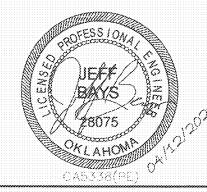






GENERAL NOTES

A) EXTERIOR LIGHTS SHALL BE CONTROLLED VIA PHOTOCELL/ TIME CLOCK.



MOHAWK WATER TREATMENT PLANT STORAGE FACILITY

PROJECT NO. TMUA-W-20-01

CITY OF TULSA, OKLAHOMA ENGINEERING SERVICES DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:

BKL, INCORPORATED ENGINEERS & ARCHITECTS

HP ENGINEERING - MECHANICAL HP ENGINEERING - ELECTRICAL

| | | PLAN SCALE: | DRAWN | SD | 4/12/21 | APPROVED |
|-------------|---------|---------------------|--------------|-------|---------|------------------------|
| NO REVISION | BY DATE | As indicated | DESIGNED | SD | 4/12/21 | |
| | | — As muicateu | SURVEY | | | |
| | | PROFILE SCALE | PROJ. MGR. | MM | 04/2021 | |
| | | | LEAD ENGR. | cen | 4/22u | |
| | | | FIELD MGR. | | 4/4 | 2 A |
| | | | RECOMMENDE | H#3 | 4.21 | 16 lear |
| | | VERTICAL: | DESIGN MANAG | | 4 | CITY ENGINEER \ |
| | | FILE: | DRAW | ING: | | DATE: 4.30.21 |
| | | ATLAS PAGE NO | | E-201 | | SHEET: 20 OF: 23 |
| | | SHEET NAME: LIGHTIN | G PLAN | | | SHEET NO. E2-01 |

| | | | LUMINAIRE SCHEI | DULE | | | | | |
|------|--|------------------------|-------------------|------------|--------|----------|-----------------------|-------|--|
| TYPE | DESCRIPTION | MANUFACTURER (PRE-BID) | MODEL # (PRE-BID) | LAMP | LOAD | MOUNTING |) | NOTES | |
| А | 3' LED HIGH BAY, 4000K, WHITE, MEDIUM | DIALIGHT | RHU SERIES | LED, 4000K | 199 VA | PENDANT | STAINLESS STEEL CHAIN | | |
| E1 | EMERGENCY LIGHT, BUGEYE, SELF DIAGNOSTIC | SURE-LITES | APC/APCH | LED | 10 VA | WALL | | | |
| W | WALL PACK, 6000LM | LUMARK | XTOR SEIRES | LED, 5000K | 58 VA | WALL | | | |
| WE | WALL PACK, 6000LM, EMER | LUMARK | XTOR SEIRES | LED, 5000K | 58 VA | WALL | | | |
| X1 | EXIT/EMERGENCY COMBO, SELF DIAGNOSTIC, RED LETTERS, WHITE | SURE-LITES | APC/APCH | LED | 15 VA | WALL | | | |

FEEDER SCHEDULE

3/4"

3/4"

344"

1 1/4"

1 1/4"

AMPERAGE SETS OF CONDUIT

(1)

(1)

(1)

(8)

(1)

15A

28A

25A

38A

48A

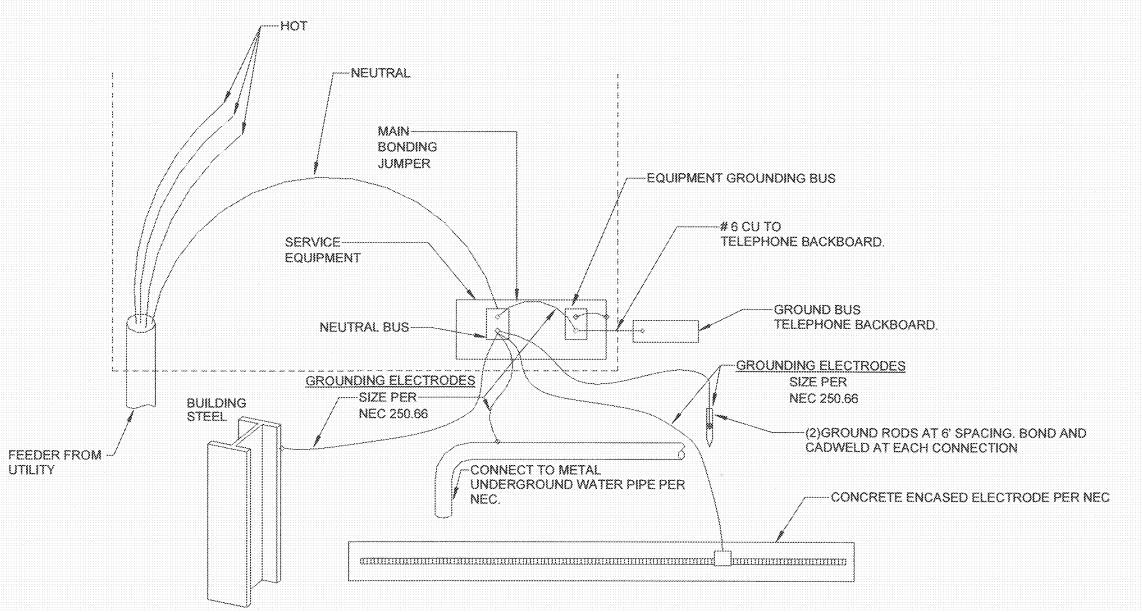
45A

68A

68A

78A

COMOUNT



| | 00A | 423 | 8 882 | 648.80 | (1) 888 | į |
|----|------|-----|--------|-----------|---------|---|
| | 99A | (1) | 1 1/2" | (4) 82 | (1)#8 | İ |
| | 180A | (1) | 27 | (4) 81 | (1)#8 | |
| | 126A | (1) | 7 | (4) #1 | (1) 256 | |
| | 150A | (1) | 2" | (4) \$170 | (1) 8% | |
| :C | 175A | (1) | T | (4) 8230 | (1) #8 | |
| | 288A | (1) | 2 1/2" | (4) #3/0 | (1) 8% | |
| | | | | | | |

FEEDER SØE GENERAL NOTES:

1. CONDUCTOR QUANTITY BASED ON 3-PHASE, 4-WINE; FOR EQUIPMENT THAT DOES NOT REQUIRE A NEUTRAL OR IS SINGLE PHASE DEDUCT FROM QUANTITY AS REQUIRED.

SELECTOME

SUSE PATED

CONCOUNTS

OTWISTE

(1) #8

(1) 88

(1) 20

(1) #8

(1) 88

(1) ##

(1) #8

(1) 88

(1) 88

(1) 88

(1) 88

(1) 86

(1) 26

(1) 26

(1) #4

(1) 24

AMPERAGE

388A

1200A

4000A

SETS OF

COMBUIT

(1)

(2)

(2)

(2)

(2)

(2)

(7)

(8)

(10)

COMBUIT

2 3720

Z

2 172"

2 172"

3 1/2"

3 172"

3 1/2"

3 1/2"

3 1/2"

3 1/2"

3 1/2"

COUPMENT

GROUND

OTY/SEE

(1) #12

(1) &12

(1) #10

(1) #18

(1) 210

COMBUCTOR

(4) #12

(4) #10

(4) 818

(4) 88

(4) #8

(4) 26

(4) 84

- 2. COMMUCTOR SIZES BASED ON NEC TABLE 318.16 COPPER
- 60°C UP TO 100A, 75°C GREATER THAN 100A. 3. GROUND SIZES: EQUIPMENT GROUND BASED ON NEC TABLE 250.122 - COPPER, SUSE RATED GROUND BASED ON NEC TABLE 250.66 - COPPER
- 4. COMBUIT FILL BASED ON NEC ANNEX C THW CONDUCTOR INSULATION

ELECTRICAL SERVICE NOTES PANELBOARD NOTES (#)

- THE ELECTRICAL CONTRACTOR SHALL VERIFY ALL SERVICE AND METERING REQUIREMENTS WITH THE UTILTY COMPANY PRIOR TO BID AND SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL MATERIAL AS REQUIRED BY THE SERVING UTILITY AS WELL AS COST INCURRED BY SERVING UTILITY.
- THE ELECTRICAL CONTRACTOR SHALL VERIFY THE FAULT CURRENT AT THE SECONDARY OF THE TRANSFORMER WITH THE UTILITY COMPANY AND ADJUST THE ELECTRICAL PANEL AIC RATINGS TO THE NEXT HIGHER STANDARD RATING. USED WHERE ABSOLUTELY NECESSARY OR REQUIRED BY THE OWNER. CONTRACTOR TO CONTACT ENGINEER FOR SIZING. WHERE ALUMINUM CONDUCTORS ARE USED, THE OWNER SHALL PROVIDE ANNUAL MAINTENANCE OF ALL TERMINATIONS TO ENSURE SECURE CONNECTIONS. ALUMINUM WIRE WILL EXPAND AND CONTRACT AND OVER TIME MAY BECOME BRITTLE. THE OWNER SHALL ASSUME RESPONSIBILITY FOR USING ALUMINUM CONDUCTORS WITHOUT PROPER
- INSTALLATION, CARE, AND MAINTENANCE. COORDINATE ALL SERVICE AND METERING DETAILS INCLUDING ANY RELOCATION OF EXISTING UTILITY LINES WITH POWER COMPANY.
- CONTRACTOR TO CONFIRM EXACT LOCATION OF METERS WITH ELECTRIC UTILITY PAY ANY POWER COMPANY FEES CHARGED TO OWNER FOR SERVICE AND UTILITY LINE WORK ASSOCIATED WITH THIS PROJECT. THESE COSTS SHALL BE INCLUDED IN
- FURNISH AND INSTALL MATERIALS FOR A TEMPORARY CONSTRUCTION SERVICE AS
- FURNISH AND/OR INSTALL ALL REQUIRED MATERIAL AND LABOR IN COMPLIANCE WITH POWER COMPANY REQUIREMENTS TO PROVIDE A COMPLETE ELECTRICAL SERVICE, INCLUDING TRENCHING AND BACK FILLING, PRIMARY CONDUIT, CONCRETE TRANSFORMER PAD, SECONDARY CONDUITS AND CABLES, C.T. CABINET, METERING AND GROUNDING SYSTEM.

BUILDING EXTERIOR **BUILDING INTERIOR** METER <xxxx> PAD MOUNTED NEW UTILITY XFMR PANEL P1 100 AMP 208 VOL1 3-PHASE NEMA 1 MCB <xx.xxx> PADS BY E.C. (TYPICAL) -REFER TO FEEDER SCHEDULE (TYPICAL)

GENERAL LUMINAIRE SCHEDULE NOTES

A) CONFIRM ALL FINISH OPTIONS WITH ARCHITECT PRIOR TO ORDERING. B) PROVIDE A SUBMITTAL PACKAGE INCLUDING CUTSSHEETS FOR

C) VERIFY THE MOUNTING TYPE OF EACH FIXTURE IS COMPATIBLE WITH ITS FINAL INSTALLATION SURFACE PRIOR TO ORDERING FIXTURES. D) PROVIDE ALL ACCESSORIES REQUIRED FOR A COMPLETE ASSEMBLY INCLUDING MOUNTING HARDWARE.

E) SUBSTITUTION REQUESTS MUST BE MADE AT LEAST (5) FULL BUSINESS DAYS PRIOR TO THE CLOSE OF BID.

F) SITE LIGHTING AND ARCHITECTURAL LANDSCAPING FIXTURE SUBSTITUTION REQUESTS WILL NOT BE REVIEWED UNLESS ACCOMPANIED BY A PHOTOMETRIC LAYOUT.

EQUIPMENT LABELS

ALL SWITCHBOARDS AND PANELBOARDS SHALL HAVE A LABEL APPLIED TO WARN OF POTENTIAL ARC FLASH



ARC FLASH AND SHOCK HAZARD. APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT (PPE) REQUIRED.

EACH FIXTURES.

SELECTOME

SUSE RATED

GROUND

(1) #2

(1) 82

(1) 82

(1) #1/0

(1) 82/0

(1) #2/0

(1) #3/8

(1) 2320

(1) #3#0

(1) 8380

(1) 83/0

(1) #3/8

(1) #3/8

(1) 83/0

(1) #3/0

(1) #3/8

QTY/SEE

ECOLUMNIEN T

GROUND

OTY/SEE

(1) 84

(1) #6

(1) 88

(1) #3

(1) #2

(1) #2

(1)#1

(1) #3/0

(1) #250 KCM8.

(1) 8480 KCM8.

(4) 8600 KCMB. (1) 8600 KCMB.

COMOUCTOR

(4) 94/8

(4) #250 KC#8L

(4) #1/0

(4) 84/8

(4) 8258 KC888

(4) 8358 KC888.

(4) \$300 KCMB.

(4) 8400 KCMM.

(4) \$350 KCMM.

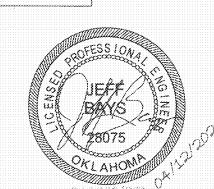
(4) 9400 WC388.

(4) #400 KCME.

(4) #500 KCML

 A. ALL SWITCHBOARDS AND PANELBOARDS SHALL HAVE A COMMERCIALLY PRODUCED PERMANENT LABEL APPLIED, SIMILAR TO THE ABOVE, TO WARN OF POTENTIAL ARC FLASH HAZARDS, IN ACCORDANCE WITH NEC 110.16 AND NFPA 70E.

B. LABELING MAY BE COMPLETED BY EQUIPMENT MANUFACTURER, EQUIPMENT VENDOR/SUPPLIER, OR THE CONTRACTOR. THE CONTRACTOR SHALL VERIFY THAT ALL SWITCHBOARDS AND PANELBOARDS ARE PROPERLY LABELED IN THE FIELD.



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BKL, INCORPORATED **ENGINEERS & ARCHITECTS**

> HP ENGINEERING - MECHANICAL HP ENGINEERING - ELECTRICAL

| | | | | PLAN SCALE: | DRAWN | SD | 4/12/21 | APPROVED | |
|-----|----------|----|------|------------------------|-------------|-------|---------|------------------------|--|
| VO. | REVISION | BY | DATE | 40" 41 0" | DESIGNED | SD | 4/12/21 | | |
| | | | | 12" = 1'-0" | SURVEY | | | | |
| | | | | PROFILE SCALE | PROJ. MGR. | RMW | 04/2021 | | |
| | | | | | LEAD ENGR. | CEW | 4/2021 | | |
| | | | | HORIZONTAL: | FIELD MGR. | CIII. | | / . n | |
| | | | | | RECOMMENDE | | | 160000 1 | |
| | | | | VERTICAL: | DESIGN MANA | | } 6xx \ | CITY ENGINEER O | |
| | | | | FILE: | DRAW | /ING: | | DATE: 4. 30 . 21 | |
| | | | | ATLAS PAGE NO: | | E-601 | | SHEET: 21 OF: 23 | |
| | | | | SHEET NAME: ELECTRI | CAL SCI | 4EDU | LES | SHEET NO. E6-01 | |

AND RISER

ED-U1

FAULT CURRENT NOTE

A.I.C. Rating: (7) A.I.C. FULLY RATED

Panel Totals

Total Conn. Load: 54898 VA

Total Est. Demand: 55313 VA

Total Conn. Current: 152 A

Total Est. Demand... 154 A

Mains Type: MCB

Mains Rating: 200 A

INTERIOR LIGHTING

20 EXTERIOR LIGHTING

20 SPARE

#2 | 3 | 90 | UH-2

REPRESENTS THE AVAILIBLE FAULT CURRENT IN RMS SYMMETRICAL AMPS AT THE RESPECTIVE TRANSFORMER, PANEL, OR EQUIPMENT.

FAULT CURRENT CALCULATIONS ARE BASED ON AVAILABLE FAULT CURRENT OF XX.XXX AT THE SECONDARY OF THE TRANSFORMER PROVIDED BY THE ELECTRIC UTILITY PROVIDER.

PANELBOARD (LOCK-OFF FOR MAINTENANCE). INSTALL LOCKING DEVICE FURNISHED WITH PANELBOARD (LOCK-ON FOR CRITICAL LOAD) 4. GFI BREAKER FOR PERSONNEL PROTECTION (5 mA). 5. GFI BREAKER FOR EQUIPMENT PROTECTION (30 mA) 6. CONDUCTOR SIZE SHOWN IN PANEL SCHEDULE HAS BEEN INCREASED FOR VOLTAGE DROP. SIZE EQUIPMENT GROUND PROPORTIONALLY PER NEC. REFERENCE GROUND WIRE SIZING CHART. REFER TO ONE-LINE DIAGRAM FOR AVAILABLE FAULT CURRENT FOR INTERRUPT RATINGS. 8. REFER TO ONE-LINE DIAGRAM FOR WIRE SIZES. 9. FACTORY WIRED TO LOAD. 10. THRU CONTROLLER, REFER TO LIGHTING CONTROLLER DETAIL. 11. ADD CIRCUIT BREAKER TO EXISTING PANEL.

TERMINATE GROUND ON ISOLATED GROUND BUS.

INSTALL LOCKING DEVICE FURNISHED WITH

EQUIPMENT GROUNDING CONDUCTOR SIZING CHART

| AMPS | | | VVII | RE SIZE | | |
|-------|--------|----|------|---------|-----|-----|
| 15-20 | PHASE | 12 | 10 | 8 | 6 | 4 |
| | GROUND | 12 | 10 | 8 | 6 | 4 |
| 25-30 | PHASE | 10 | 8 | 6 | 4 | 3 |
| | GROUND | 10 | 8 | 6 | 4 | 3 |
| 35-50 | PHASE | 8 | 6 | 4 | 3 | 2 |
| | GROUND | 10 | 8 | 4 | 4 | 4 |
| 60 | PHASE | 6 | 4 | 3 | 2 | 1 |
| | GROUND | 10 | 6 | 6 | 4 | 4 |
| 70 | PHASE | 6 | 4 | 3 | 2 | 1 |
| | GROUND | 8 | 4 | 4 | 3 | 2 |
| 80-90 | PHASE | 4 | 3 | 2 | 1 | 1/0 |
| | GROUND | 8 | 6 | 4 | 4 | 3 |
| 100 | PHASE | 3 | 2 | 1 | 1/0 | 2/0 |
| , OV | GROUND | 8 | 6 | 4 | 4 | 3 |

CONTRACTOR SHALL ROUTE CONDUIT -AND PULL STRING TO UTILITY CONNECTION POINT AS REQUIRED. CONTRACTOR SHALL PROVIDE TRENCHING, BACKFILL, COMPACTION. AND OTHER NECESSARY APPURTENANCES REQUIRED PER UTILITY PROVIDER REQUIREMENTS

INCLUDE COSTS IN BASE BID. 1 ELECTRICAL RISER NTS

2 TYPICAL GROUNDING DETAIL 12" = 1'-0"

Location: Space 1

Mounting: SURFACE

Enclosure: NEMA 1

Branch Panel: P1

Notes:

3 UH-1

13 SPARE

15 SPARE

17 SPARE

19 SPARE

Lighting

Power

Receptacle

Load Classification

7 RECEPTS - INTERIOR 9 RECEPTS - INTERIOR

11 RECEPTS - INTERIOR

Volts: 120/208 WYE

Phases: 3

8633 8633

Total Load: | 19001 VA | 18091 VA | 17807 VA

125.00%

100.00%

100.00%

Total Amps: 159 A 151 A 148 A

Connected Load

1658 VA

51800 VA

1440 VA

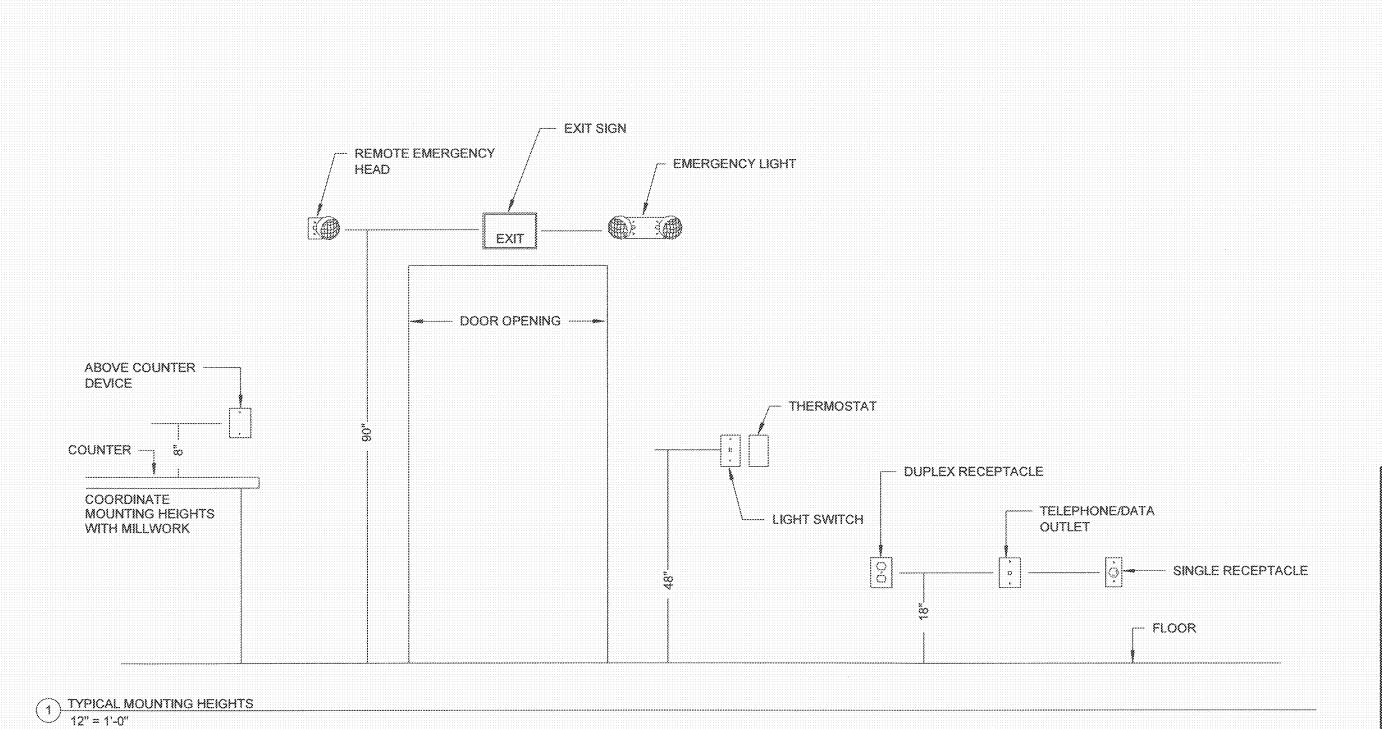
Wires: 4

Demand Factor Estimated Demand

2073 VA

51800 VA

1440 VA





MOHAWK WATER TREATMENT PLANT STORAGE FACILITY

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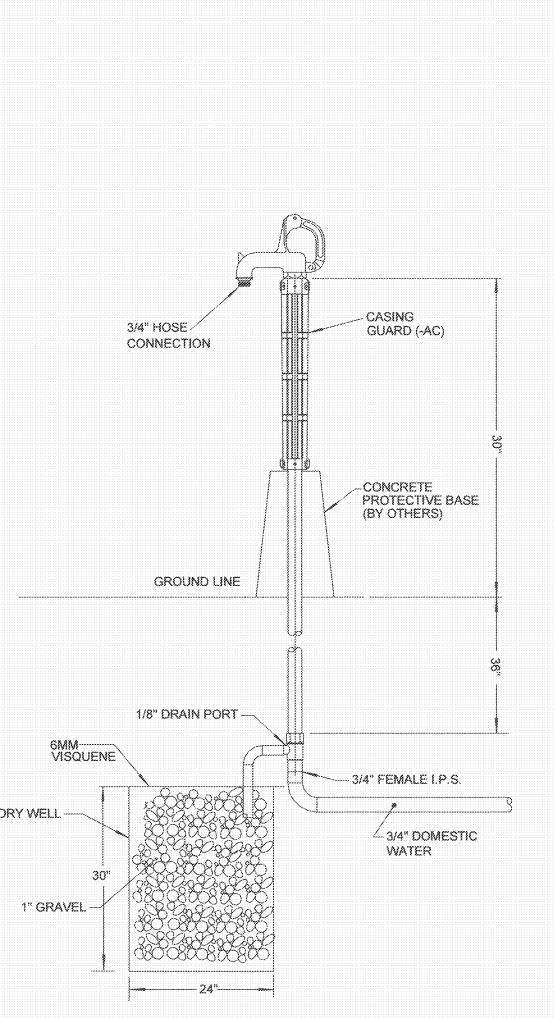
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|---|----------|----|------|----------------|--------------|--------------|---------|------------------|
| NO | REVISION | 8Y | DATE | 12" = 1'-0" | DESIGNED | SD | 4/12/21 | |
| | | | |] 12 - 1-0 | SURVEY | | | |
| | | | | PROFILE SCALE | PROJ. MGR. | RMW | 04/2021 | |
| | | | | | LEAD ENGR. | CEns | 4/2021 | |
| | | | | HORIZONTAL: | FIELD MGR. | 90112 | ulm | 100 |
| | | | | | RECOMMENDE | Puar | 4.21 | 1000V |
| | | | | VERTICAL: | DESIGN MANAG | GER | | CITY ENGINEER () |
| | | | | FILE: | DRAV | /ING: | | DATE: 4. 30-21 |
| | | | | ATLAS PAGE NO: | | E-701 | | SHEET: 22 OF: 23 |
| ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | | | | SHEET NAME: | | | | SHEET NO. |
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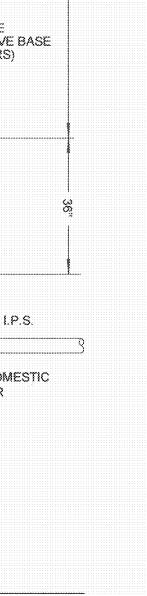
| 130 | IN-I NEEZE | /ARD HYDRAN | II OVIIL | |
|------|------------------------------|------------------------|------------------------------|---------|
| TAG | TYPE | MANUFACTURER MODEL# | MISC. | REMARKS |
| YH-1 | NON-FREEZING YARD HYDRANT | ZURN Z1396XL-AS-VB | PROVIDE VACUUM BREAKER | 1 |

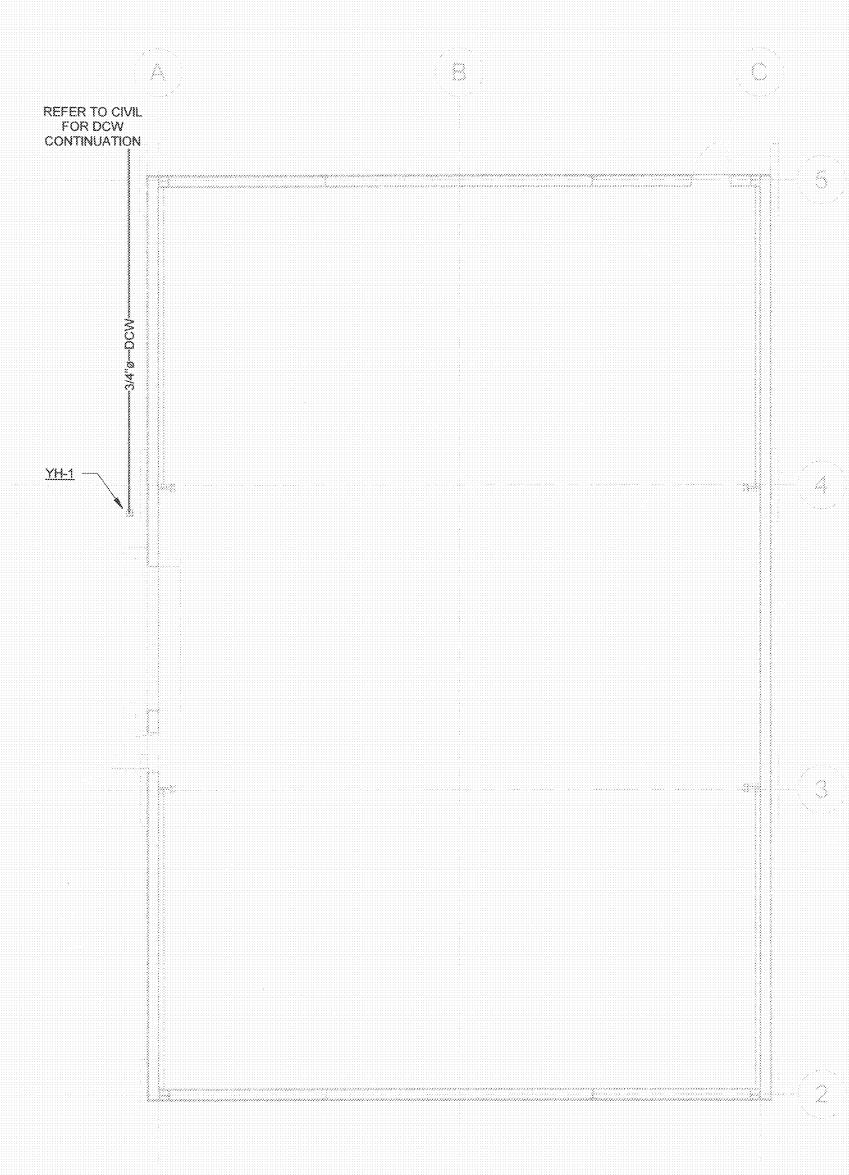
| | PLUMBING | LEGEND | |
|--------------------|------------------------------|--------------------|---|
| LINE TYPE / SYMBOL | DESCRIPTION | LINE TYPE / SYMBOL | DESCRIPTION |
| SS | SANITARY SEWER | D.F.U | DRAIN FIXTURE UNITS |
| GW | GREASE WASTE | B.F.F | BELOW FINISHED FLOOR |
| V | VENT | A.F.F | ABOVE FINISHED FLOOR |
| ——DCW—— | DOMESTIC COLD WATER | GPM | GALLONS PER MINUTE |
| ———DHW——— | DOMESTIC HOT WATER | F.L | FLOW LINE INVERT |
| DHWR | DOMESTIC HOT WATER RETURN | Ø | FLOOR DRAIN (FD-1) |
| G | LOW PRESSURE GAS | # | FROST PROOF WALL HYDRANT (FPWH-1) |
| MPG | MEDIUM PRESSURE GAS | | HOSE BIBB (HB-1) |
| RD | ROOF DRAIN | 3 | LINE CAP |
| ORD | OVERFLOW ROOF DRAIN | | LEANOUT (FCO-1) / FINISHE DE CLEANOUT (FGCO-1) |
| FL | FIRE LINE | CHI WALLO | LEAN OUT (WCO-1) / STACK CLEAN OUT (SCO-1 |
| H N O | VALVE IN RISER | ->4- | VALVE |



YARD HYDRANT DETAIL

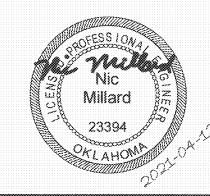
SCALE: N.T.S.





GENERAL PLUMBING NOTES

- 1. THE ENTIRE PLUMBING SYSTEM SHALL BE IN ACCORDANCE WITH THE CURRENT INTERNATIONAL PLUMBING CODE, AND ALL OTHER GOVERNING STATE AND LOCAL CODES, STATUTES, REGULATIONS, AND REQUIREMENTS OFAUTHORITY HAVING JURISDICTION.
- 2. THE EXISTING PIPING INDICATED ON THESE PLANS SHALL BE VERIFIED IN THE FIELD FOR EXACT LOCATIONS, QUANTITY, AND PIPE SIZES.
- 3. THE PIPING INDICATED ON THESE PLANS IS DIAGRAMMATICAL. ALL WORK SHALL BE COORDINATED WITH ALL OTHER TRADES PRIOR TO INSTALLATION. CONTRACTOR SHALL COORDINATE ROUTING OF ALL PIPING WITH EXISTING CONDITIONS AND SHALL PROVIDE ANY NECESSARY OFFSETS, REROUTING, TEES, ELBOWS, ETC. REQUIRED FOR A COMPLETE AND COORDINATED INSTALLATION.
- 4. THE CONTRACTOR SHALL OBTAIN AND PAY ALL FEES RELATED TO PERMITTING, INSPECTION, TAP-ON FEES, ETC.
- 5. THE CONTRACTOR SHALL COORDINATE ANY PLUMBING OR PIPING SYSTEM SHUTDOWN WITH THE OWNER A MINIMUM 48 HOURS IN ADVANCE.
- 6. ALL DOMESTIC WATER, NATURAL GAS PIPING SHOWN IS ABOVE CEILING, EXPOSED OVERHEAD, AND WITHIN WALLS UNLESS OTHERWISE NOTED. WATER HAMMER ARRESTORS SHALL BE INSTALLED AT DISHWASHERS, WASHING MACHINES, SUPPLY BOXES, AND QUICK CLOSING VALVES NOT LISTED. INSTALL WHA-1 AS CLOSE TO QUICK CLOSING VALVE AS POSSIBLE PER MANUFACTURES RECOMMENDATIONS. ISOLATION VALVES SHALL BE INSTALLED ON ALL SUPPLY FIXTURE GROUPS AND HOT WATER BALANCING VALVES.
- 7. INSTALL ISOLATION VALVES IN PIPING CONNECTION TO EACH INDIVIDUAL FIXTURE, PIECE OF EQUIPMENT, AND FIXTURE GROUPS.
- 8. PROVIDE SHUT-OFF VALVES FOR PROPER OPERATION AND SERVICING OF DOMESTIC WATER DISTRIBUTION SYSTEM. LOCATION SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING: AT EACH FIXTURE GROUP. AT EACH BRANCH TAKE-OFF FROM MAINS AND AT THE BASE OF EACH RISER. COORDINATE WITH ARCHITECTURAL PLAN FOR ACCESS DOOR LOCATIONS.
- 9. REFER TO PLUMBING DETAILS FOR INSTALLATION, MOUNTING, SUPPORT, AND PIPING CONNECTION INFORMATION NOT INDICATED ON FLOORPLANS.
- 10. FROST PROOF HOSE BIBB AND SUPPLY PIPING SHALL BE INSTALLED ON THE INSIDE OF BUILDING INSULATION BARRIER. SEAL SHEATHING PENETRATION AIR AND WATER TIGHT.
- 11. ALL PIPING PENETRATIONS THROUGH NEW WALLS, EXISTING WALLS OR FLOOR SHALL BE SEALED TO EQUAL THE RATING OF THE NEW WALL, EXISTING WALL OR FLOOR.
- 12. THE ENTIRE DOMESTIC WATER SYSTEM (EXISTING/NEW) SHALL BE CLEANED AND DISINFECTED IN ACCORDANCE WITH SPECIFICATIONS, LOCAL CODE AND HEALTH DEPARTMENT REQUIREMENTS.
- 13. THE PLUMBING SYSTEMS SHALL BE TESTED AS REQUIRED IN ACCORDANCE WITH SPECIFICATIONS, LOCAL CODE AND AUTHORITY HAVING JURISDICTION.
- 14. DOMESTIC WATER AND SEWER LOCATED OUTSIDE OF FOOTING SHALL MAINTAIN A 10' SEPARATION UNLESS WRITTEN PERMISSION IS OBTAINED FROM LOCAL AUTHORITIES AND/OR PROPER CONTAMINATION PROVISIONS PER LOCAL CODE HAVE BEEN MET.
- 15. CONTRACTOR SHALL COORDINATE AND PROVIDE ALL NECESSARY PIPING & PLUMBING FITTINGS, PIPING, MISCELLANEOUS ITEMS REQUIRED FOR A COMPLETE INSTALLATION OF ALL PLUMBING RELATED ITEMS.
- 16. ALL PIPING ON ROOF SHALL BE ANCHORED TO STEEL RIB FASTENERS APPROVED BY THE ROOF MANUFACTURER, INSTALL ANCHORS PER MANUFACTURERS RECOMMENDATION.
- 17. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ALL UNDER SLAB PIPING WITH EXISTING STRUCTURAL FOUNDATIONS. UNDERGROUND UTILITY LOCATIONS SHALL BE VERIFIED PRIOR TO ANY WORK BEING PERFORMED. CONTRACTOR SHALL REPAIR OR REPLACE ALL PIPING NOT IN PROPER WORKING ORDER OR DAMAGED DURING INSTALLATION OF THE NEW UNDERGROUND PIPING.
- 18. ALL PLUMBING & PIPING SYSTEMS SHALL BE SUPPORTED AS REQUIRED BY THE LOCAL CODE REQUIREMENTS AND PER MANUFACTURER'S RECOMMENDATIONS.
- 19. THE BACKFLOW PREVENTION DEVICE SHALL BE INSTALLED PER LOCAL CODE & PER AUTHORITY HAVING JURISDICTION REQUIREMENTS. NON-LEAD TYPE ONLY.
- 20. REGULATORS INSTALLED ON THE INTERIOR OF THE BUILDING SHALL BE VENTED TO THE EXTERIOR PER LOCAL AND STATE CODES.
- 21. IT IS THE PLUMBING CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH THE SITE CONTRACTOR TO CONFIRM THAT THE INVERTS AND LOCATIONS OF THE BUILDING UTILITIES ARE COMPATABLE WITH THE SITE UTILITIES PRIOR TO BEGINNING WORK.
- 22. CONTRACTOR SHALL PROVIDE A PRESSURE REDUCING VALVE (PRV-1) SHOULD THE WATER PRESSURE EXCEED 75 PSI. CONTRACTOR SHALL CONFIRM WITH ON SITE CONDITIONS AND LOCAL UTILITY.
- 23. PROVIDE BALANCING VALVES FOR PROPER OPERATION AND PRESSURE OF DOMESTIC WATER DISTRIBUTION SYSTEM. LOCATION SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING: AT EACH FIXTURE GROUP, AT EACH BRANCH TAKE-OFF FROM MAINS AND AT THE EACH RISER. INSTALL PER MANUFACTURE'S REQUIREMENTS.
- 24. THE PLUMBING CONTRACTOR SHALL INSPECT EXISTING CONDITIONS PRIOR TO BEGINNING WORK, FIELD VERIFY SIZE AND LOCATION OF ALL EXISTING SERVICES TO BE TIED INTO.



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|----|----------|----|------|----------------------------|---------------------|-------|------------------------|------------------|
| NO | REVISION | BY | DATE | An indicated | DESIGNED | SD | 4/12/21 | |
| | | | | As indicated | SURVEY | | | |
| | | | | PROFILE SCALE | PROJ. MGR. | RMW | 04/2021 | |
| | | | | | LEAD ENGR. | CEW | 4/202 | |
| | | | | HORIZONTAL: | FIELD MGR. | Tous. | W m | , s |
| | | | | | RECOMMENDED HAS Y.U | | V.71 | dh Od Sir |
| | | | | VERTICAL: | DESIGN MANA | GÉR | | CITY ENGINER R \ |
| | | | | FILE: | DRAWING: | | | DATE: 4.30.21 |
| | | | | ATLAS PAGE NO: P-101 | | | SHEET: 23 OF: 23 | |
| | | | | SHEET NAME: PLUMBING PLANS | | | SHEET NO. P1-01 | |

1 PLUMBING FLOOR PLAN
1/8" = 1'-0"