CONSTRUCTION PLANS

BROOKLAND SPORTSPLEX

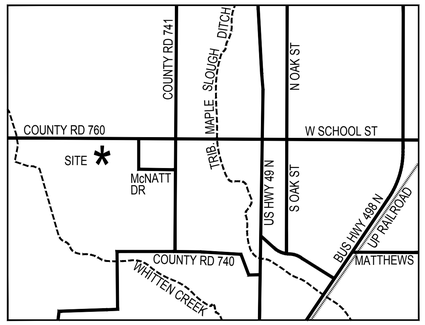
PHASE 2

BROOKLAND, ARKANSAS

PREPARED FOR:

THE CITY OF BROOKLAND, ARKANSAS

613 HOLMAN
BROOKLAND, AR
72417
MARCH 21, 2025



VICINITY MAP

HOWARD BRUCE CLAYTEIN
REGISTERED ARCHITECT
License Number 912254
3-21-2025
STATE OF ARKANSAS

ARCHITECT

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 12969
JORDAN W. LANE
03/21/2025

STRUCTURAL ENGINEER

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No.9873
DAVID W. COLLIER
03/21/25

MECHANICAL AND PLUMBING ENGINEER

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14044
JASON MacDONALD
3-21-2025

CIVIL ENGINEER

Registered Landscape Architect
ISABEL R. RITCH
4889
3-21-2025
Arkansas

LANDSCAPE ARCHITECT

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 10749
03-21-2025
DAVID E. CANUP, JR.

ELECTRICAL ENGINEER

CERTIFICATE OF AUTHORIZATION
FISHER & ARNOLD INC.
No. 248
ARKANSAS

FISHER & ARNOLD, INC.

NOTE:
N.I.C. LABEL INDICATES "NOT IN CONTRACT"

MAYOR KENNETH D JONES

CLERK / TREASURER JULIE THOMAS

ALDERMAN CANDI BISHOP

ALDERMAN JASON COOPER

ALDERMAN WILSON SHIPMAN

ALDERWOMAN PAM McGEE

ALDERMAN DAVID LOGGINS

ALDERMAN DAVID GAMBILL

FISHER ARNOLD
ENGINEERS | ARCHITECTS | CONSULTANTS | PLANNERS
404 Creath Avenue | Jonesboro, Arkansas 72404
870.932.2019 | Fax: 870.932.1076 | www.fisherarnold.com

DRAWING INDEX

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SHEET #	DRAWING TITLE
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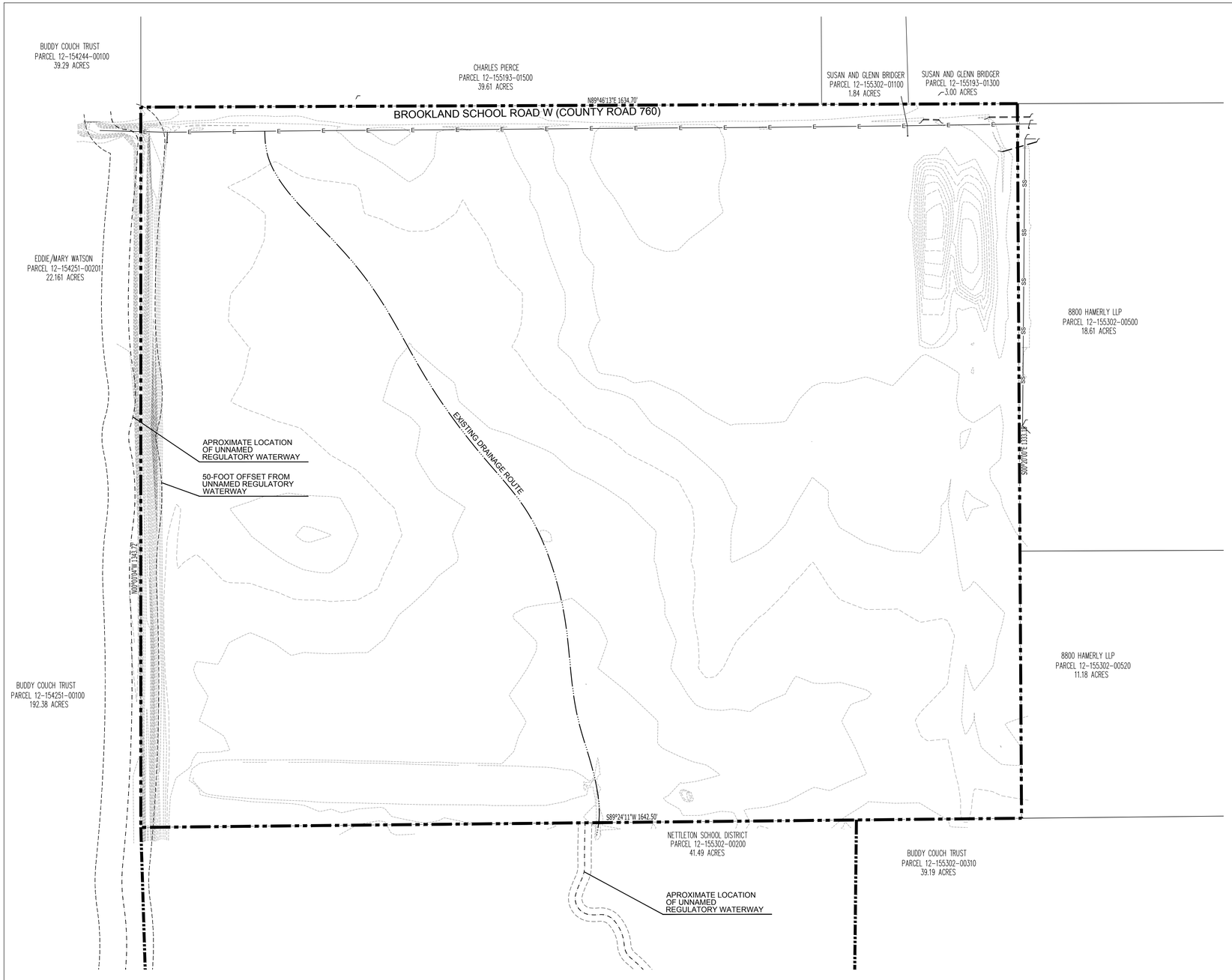
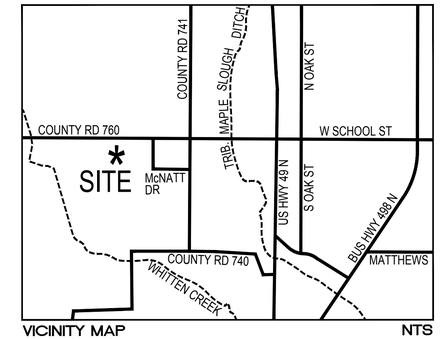
P201	PLUMBING DETAILS

Filename: Z:\CITYBRKLD\0003PL\planning\plans\construction plans Phase1_NORTH FIELD_field 2 only.dwg
Layout: Layout1
Plotted: Wednesday, March 26, 2025 — 3:17 pm
By: rritch



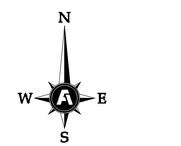
1 EXISTING CONDITIONS
SCALE: 1" = 100'-0"

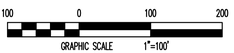


VICINITY MAP NTS

NOTE:

THIS SHEET IS INCLUDED FOR REFERENCE ONLY. MASS SITE GRADING AND DRAINAGE FOR IMPROVEMENTS SHOWN IN THESE DOCUMENTS HAVE BEEN COMPLETED BUT ARE NOT REFLECTED IN THE PLANS. CONTRACTOR SHALL MAINTAIN SOIL STABILIZATION MEASURES DURING CONSTRUCTION. NOTIFY ENGINEER IF DISCREPANCIES BETWEEN PLANS AND EXISTING CONDITIONS EXIST.





NOTE:

THIS PROPERTY DOES NOT LIE WITHIN THE LIMITS OF A FEMA/FIRM SPECIAL IDENTIFIED FLOOD ZONE ACCORDING TO PANELS 05031C 0062C AND 05031C 0075C, DATED SEPTEMBER 27, 1991.

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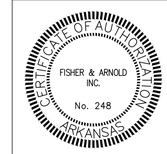
BROOKLAND SPORTSPLEX
PHASE 2

BROOKLAND, ARKANSAS

seal

ISOBEL R. RITCH - LANDSCAPE ARCHITECT
ARKANSAS - LA #4889



coa

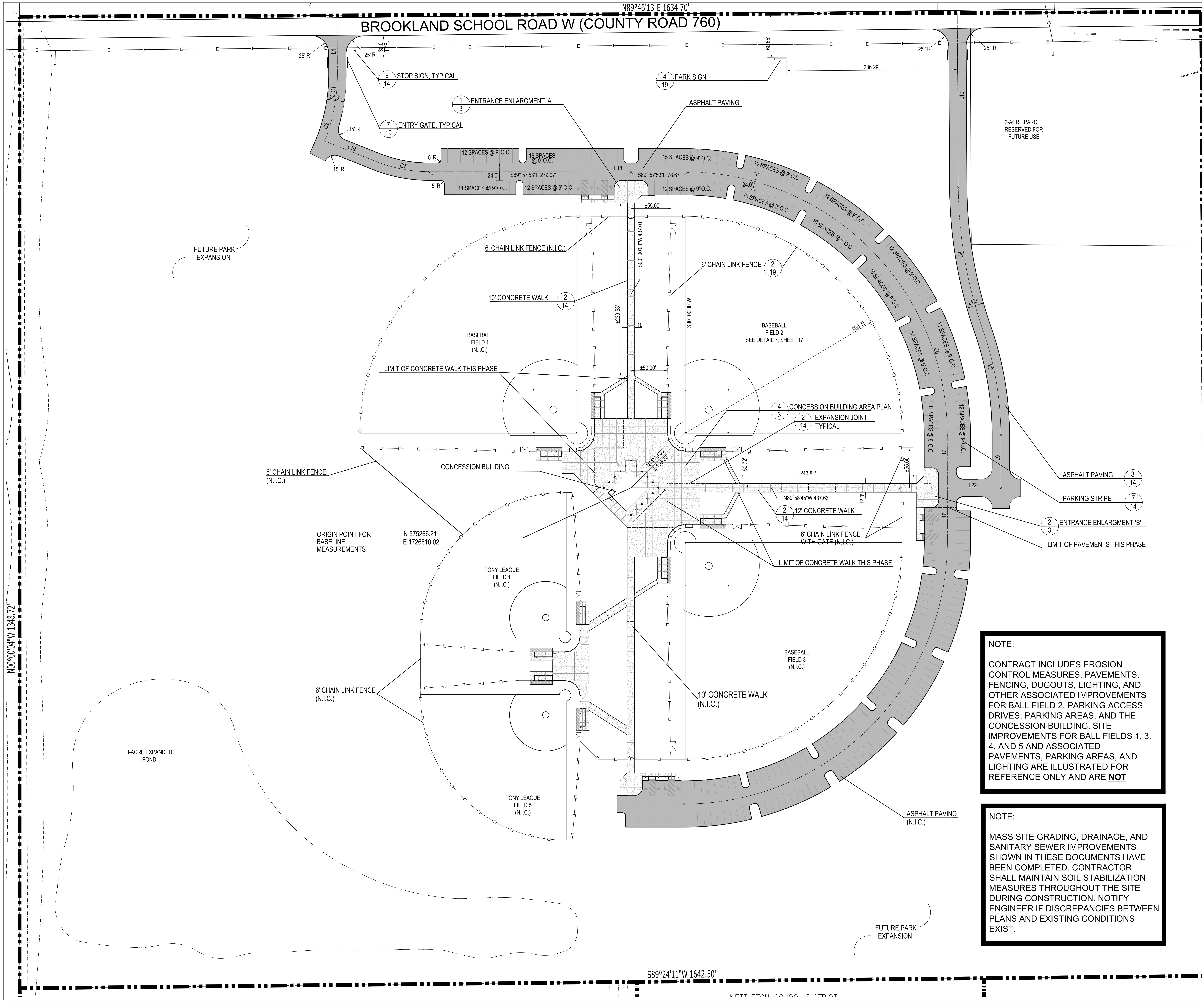
FISHER & ARNOLD, INC.
STATE-COA#
CLIENT:
CITY OF BROOKLAND, ARKANSAS

REVISIONS

DATE	BY	DESCRIPTION

EXISTING CONDITIONS

PROJECT NO.	
CTYBRKLD.003PL	
DRAWN BY	CHECKED BY
IRR	JAB
SHEET	SCALE
C1	1"=100'
DATE	
03/21/2025	1



NOTE:

CONTRACT INCLUDES EROSION CONTROL MEASURES, PAVEMENTS, FENCING, DUGOUTS, LIGHTING, AND OTHER ASSOCIATED IMPROVEMENTS FOR BALL FIELD 2, PARKING ACCESS DRIVES, PARKING AREAS, AND THE CONCESSION BUILDING. SITE IMPROVEMENTS FOR BALL FIELDS 1, 3, 4, AND 5 AND ASSOCIATED PAVEMENTS, PARKING AREAS, AND LIGHTING ARE ILLUSTRATED FOR REFERENCE ONLY AND ARE **NOT**

NOTE:

MASS SITE GRADING, DRAINAGE, AND SANITARY SEWER IMPROVEMENTS SHOWN IN THESE DOCUMENTS HAVE BEEN COMPLETED. CONTRACTOR SHALL MAINTAIN SOIL STABILIZATION MEASURES THROUGHOUT THE SITE DURING CONSTRUCTION. NOTIFY ENGINEER IF DISCREPANCIES BETWEEN PLANS AND EXISTING CONDITIONS EXIST.

LINE TABLE

LINE #	BEARING	DISTANCE
L1	N0° 13' 47"W	79.26'
L9	S0° 00' 03"W	73.08'
L10	S0° 19' 18"E	240.54'
L16	S0° 03' 06"E	72.86'
L17	S0° 03' 06"E	73.41'
L18	S89° 57' 53"E	357.74'
L19	S68° 19' 35"E	76.46'
L22	S89° 59' 57"E	73.93'

CURVE TABLE

CURVE #	LENGTH	RADIUS	DELTA ANGLE
C1	57.03'	250.00'	13.06
C2	39.67'	250.00'	9.09
C3	147.40'	438.09'	19.28
C4	202.48'	612.00'	18.96
C5	572.10'	364.00'	90.05
C6	565.37'	364.09'	88.97
C7	75.53'	200.00'	21.64

CONSTRUCTION LAYOUT GENERAL NOTES:

1. EROSION CONTROL MEASURES MUST BE IN PLACE PRIOR TO COMMENCEMENT OF ANY LAND DISTURBANCE ACTIVITIES. SEE CIVIL DETAILS ON SHEET 14, DETAIL 1.
2. CONTRACTOR SHALL REFERENCE THIS PLAN FOR LOCATION OF CONTROL AND EXPANSION JOINTS IN CONCRETE PAVEMENT. SEE DETAIL 2, SHEET 14.

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BROOKLAND SPORTSPLEX PHASE 2

BROOKLAND, ARKANSAS

ISOBEL R. RITCH 4889 3-21-2025 Arkansas

seal

ISOBEL R. RITCH - LANDSCAPE ARCHITECT
ARKANSAS - LA #4889

CERTIFICATE OF AUTHORIZATION FISHER & ARNOLD INC. No. 248 ARKANSAS

coa

FISHER & ARNOLD, INC.
STATE-COA-248

CLIENT:
CITY OF BROOKLAND, ARKANSAS

REVISIONS

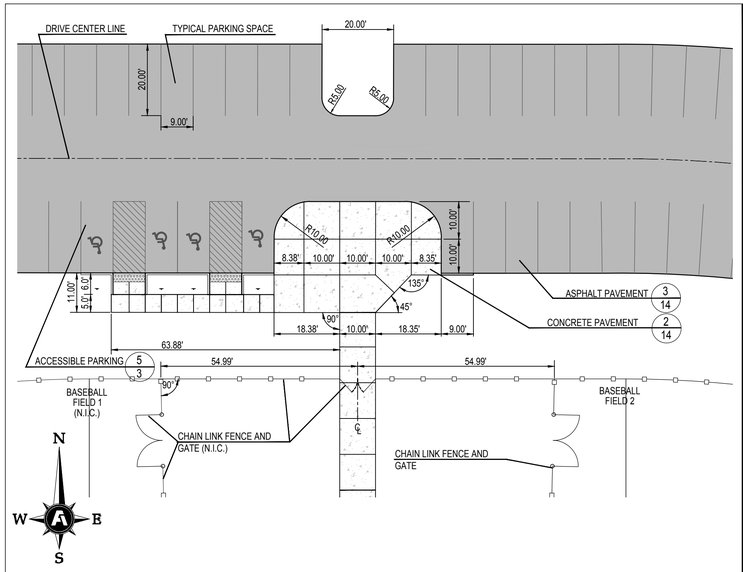
DATE	BY	DESCRIPTION

SITE LAYOUT

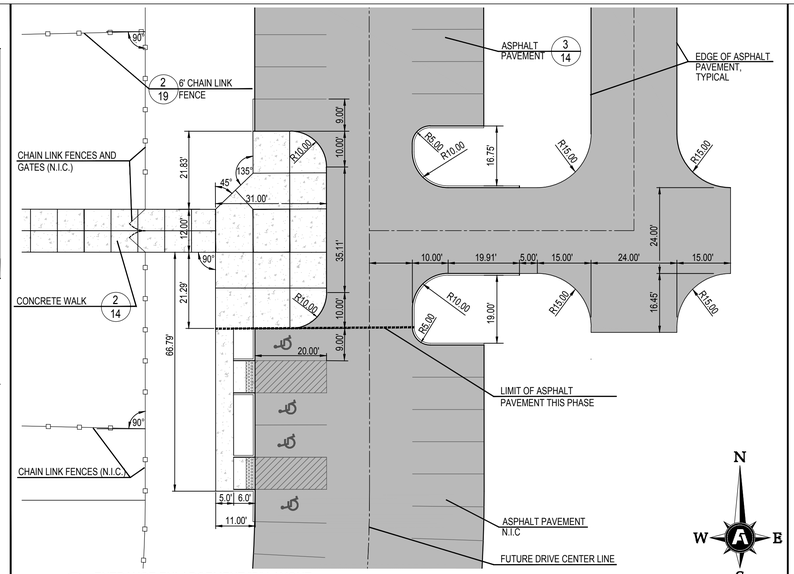
PROJECT NO. CTYBRKLD.003PL

DRAWN BY	CHECKED BY
IRR	JAB
SHEET: C2	SCALE: 1"=60'
DATE: 03/21/2025	2

Filename: Z:\CTYBRKLD\0003PL\planning\plans\construction plans Phase1_NORTH FIELD_field 2 only.dwg
Layout Name: 2 SITE LAYOUT
Plotted: Tuesday, March 25, 2025 – 3:33 pm
By: iritch



1 ENTRANCE ENLARGEMENT "A" LAYOUT
SCALE: 1" = 20'-0"



2 ENTRANCE ENLARGEMENT "B" LAYOUT
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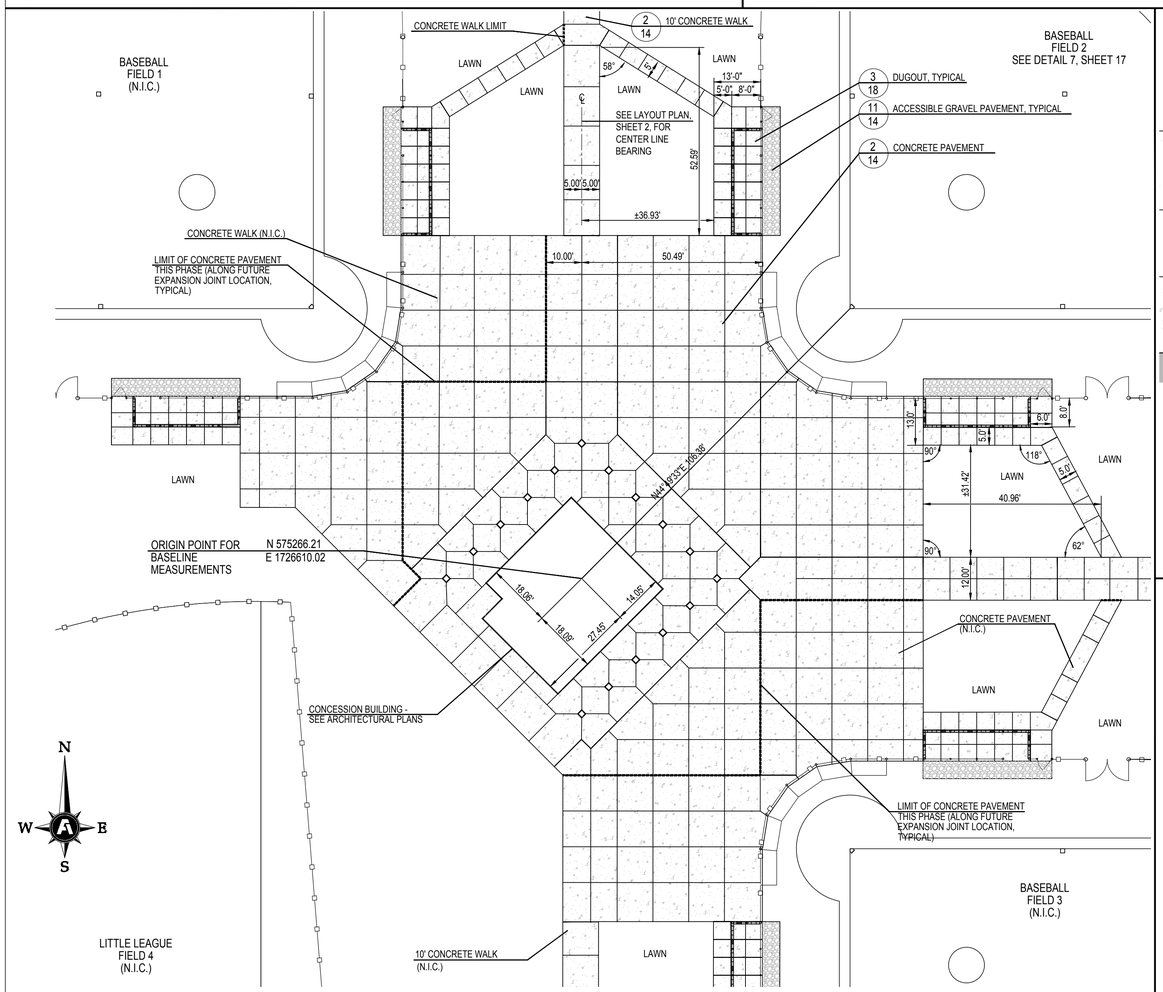
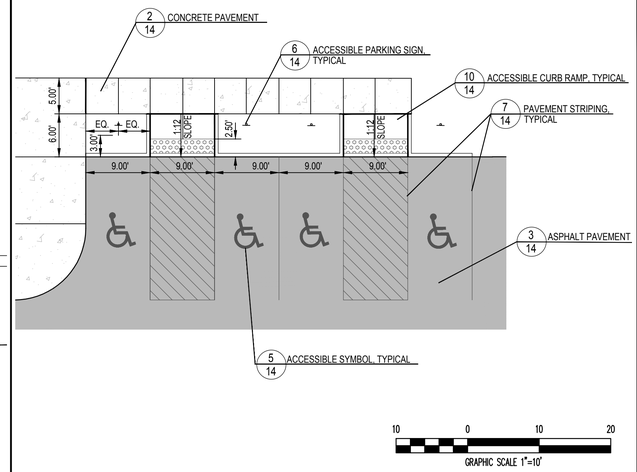


4 CONCESSION BUILDING AREA PLAN
SCALE: 1" = 20'-0"



5 TYPICAL ACCESSIBLE PARKING LAYOUT DETAIL
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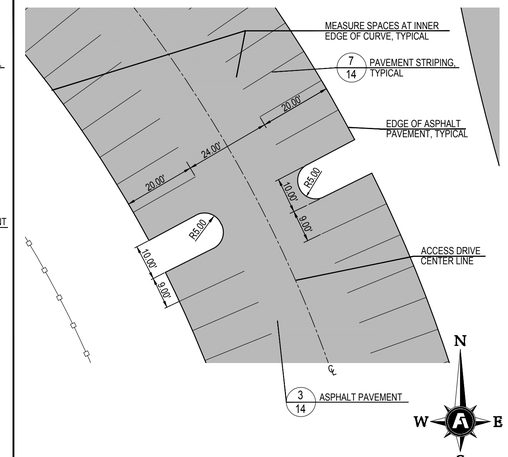

6 TYPICAL PARKING LAYOUT
SCALE: 1" = 20'-0"

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BROOKLAND SPORTSPLEX PHASE 2

BROOKLAND, ARKANSAS

Licensed Landscape Architect
ISOBEL R. RITCH
4889
3-21-2025
Arkansas

seal

ISOBEL R. RITCH - LANDSCAPE ARCHITECT
ARKANSAS - LA #4889

CERTIFICATE OF AUTHORIZATION
FISHER & ARNOLD INC.
No. 248
ARKANSAS

coa

FISHER & ARNOLD, INC.
STATE-COA-248

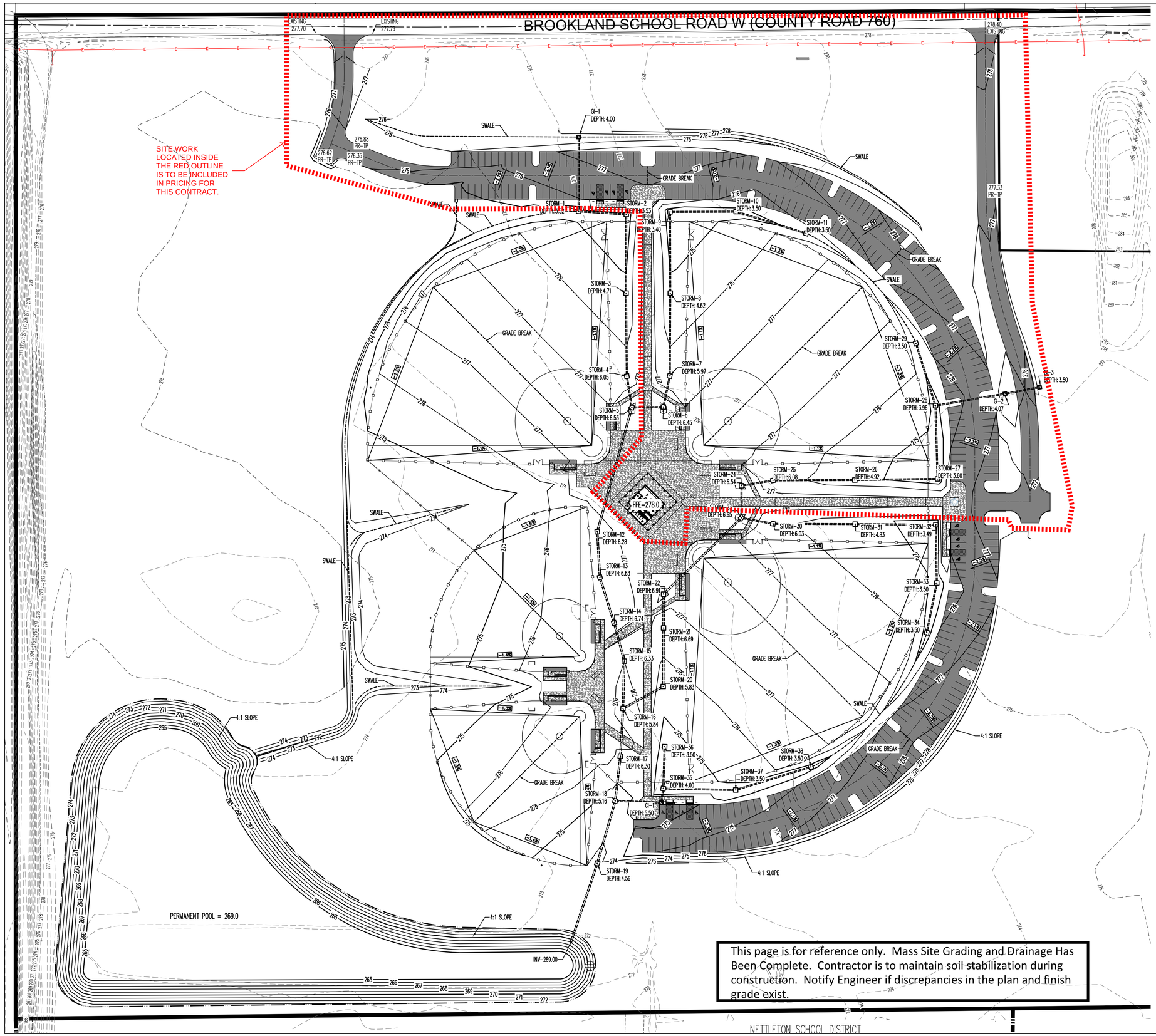
CLIENT:
CITY OF BROOKLAND, ARKANSAS

REVISIONS

DATE	BY	DESCRIPTION

LAYOUT DETAILS

PROJECT NO.	
CTYBRKLD.003PL	
DRAWN BY: IRR	CHECKED BY: JAB
SHEET: C3	SCALE: N.T.S.
DATE: 03/21/2025	3



This page is for reference only. Mass Site Grading and Drainage Has Been Complete. Contractor is to maintain soil stabilization during construction. Notify Engineer if discrepancies in the plan and finish grade exist.

STRUCTURE TABLE

STRUCTURE NAME:	DETAILS:	PIPES IN:	PIPES OUT	MANUFACTURER DESCRIPTION
CI-1 CURB INLET	RIM = 275.10 INV IN = 269.60 INV OUT = 269.60	18" RCP INV IN =269.60	18" RCP INV OUT =269.60	4'x4' CURB INLET BOX
CI-1 GRATE INLET	RIM = 275.00 INV IN = 271.00	18" RCP INV IN =271.00		4'x4' BOX W/BEETER #2230
CI-2 GRATE INLET	RIM = 275.00 INV IN = 270.93 INV OUT = 270.93	18" RCP INV IN =270.93	18" RCP INV OUT =270.93	4'x4' BOX W/BEETER #2230
CI-3 GRATE INLET	RIM = 274.50 INV IN = 271.00	18" RCP INV IN =271.00		4'x4' BOX W/BEETER #2230
STORM-1 DRAIN BASIN	RIM = 274.35 INV IN = 270.83 INV OUT = 270.83	18" ULTRA-FLO INV IN =270.83	18" RCP INV OUT =270.83	15" NYLOPLAST BASIN DRAIN W/ STANDARD GRATE
STORM-2 DRAIN BASIN	RIM = 274.25 INV IN = 270.72 INV OUT = 270.72	18" ULTRA-FLO INV IN =270.72	18" ULTRA-FLO INV OUT =270.72	15" NYLOPLAST BASIN DRAIN W/ STANDARD GRATE
STORM-3 DRAIN INLINE	RIM = 275.25 INV IN = 270.54 INV OUT = 270.54	18" ULTRA-FLO INV IN =270.54	18" ULTRA-FLO INV OUT =270.54	15" NYLOPLAST BASIN DRAIN W/ STANDARD GRATE
STORM-4 DRAIN INLINE	RIM = 276.40 INV IN = 270.35 INV OUT = 270.35	18" ULTRA-FLO INV IN =270.35	18" ULTRA-FLO INV OUT =270.35	15" NYLOPLAST BASIN DRAIN W/ STANDARD GRATE
STORM-5 DRAIN BASIN	RIM = 276.80 INV IN = 270.27 INV OUT = 270.27 INV OUT = 270.27	24" RCP INV IN =270.27	18" ULTRA-FLO INV OUT =270.27 18" ULTRA-FLO INV OUT =270.27	15" NYLOPLAST BASIN DRAIN W/ STANDARD GRATE
STORM-6 DRAIN BASIN	RIM = 276.80 INV IN = 270.35 INV OUT = 270.35	18" ULTRA-FLO INV IN =270.35	18" ULTRA-FLO INV OUT =270.35	15" NYLOPLAST BASIN DRAIN W/ STANDARD GRATE
STORM-7 DRAIN INLINE	RIM = 276.40 INV IN = 270.43 INV OUT = 270.43	18" ULTRA-FLO INV IN =270.43	18" ULTRA-FLO INV OUT =270.43	15" NYLOPLAST BASIN DRAIN W/ STANDARD GRATE
STORM-8 DRAIN INLINE	RIM = 275.25 INV IN = 270.63 INV OUT = 270.63	18" ULTRA-FLO INV IN =270.63	18" ULTRA-FLO INV OUT =270.63	15" NYLOPLAST BASIN DRAIN W/ STANDARD GRATE
STORM-9 DRAIN BASIN	RIM = 274.25 INV IN = 270.85 INV OUT = 270.85	18" ULTRA-FLO INV IN =270.85	15" ULTRA-FLO INV OUT =270.85	15" NYLOPLAST BASIN DRAIN W/ STANDARD GRATE
STORM-10 DRAIN BASIN	RIM = 274.50 INV IN = 271.00 INV OUT = 271.00	15" ULTRA-FLO INV IN =271.00	15" ULTRA-FLO INV OUT =271.00	15" NYLOPLAST BASIN DRAIN W/ STANDARD GRATE
STORM-11 DRAIN INLINE	RIM = 275.25 INV IN = 271.75	15" ULTRA-FLO INV IN =271.75		15" NYLOPLAST BASIN DRAIN W/ STANDARD GRATE
STORM-12 DRAIN BASIN	RIM = 276.25 INV IN = 269.97 INV OUT = 269.97	24" ULTRA-FLO INV IN =269.97	24" RCP INV OUT =269.97	15" NYLOPLAST BASIN DRAIN W/ STANDARD GRATE
STORM-13 DRAIN BASIN	RIM = 276.50 INV IN = 269.87 INV OUT = 269.87	24" ULTRA-FLO INV IN =269.87	24" ULTRA-FLO INV OUT =269.87	15" NYLOPLAST BASIN DRAIN W/ STANDARD GRATE
STORM-14 DRAIN INLINE	RIM = 276.50 INV IN = 269.76 INV OUT = 269.76	24" ULTRA-FLO INV IN =269.76	24" ULTRA-FLO INV OUT =269.76	15" NYLOPLAST BASIN DRAIN W/ STANDARD GRATE
STORM-15 DRAIN BASIN	RIM = 276.00 INV IN = 269.67 INV OUT = 269.67	24" ULTRA-FLO INV IN =269.67	24" ULTRA-FLO INV OUT =269.67	15" NYLOPLAST BASIN DRAIN W/ STANDARD GRATE
STORM-16 DRAIN BASIN	RIM = 275.40 INV IN = 269.56 INV OUT = 269.56 INV OUT = 269.56	24" ULTRA-FLO INV IN =269.56	24" ULTRA-FLO INV OUT =269.56 24" ULTRA-FLO INV OUT =269.56	15" NYLOPLAST BASIN DRAIN W/ STANDARD GRATE
STORM-17 DRAIN INLINE	RIM = 275.75 INV IN = 269.45 INV OUT = 269.45	24" ULTRA-FLO INV IN =269.45	24" ULTRA-FLO INV OUT =269.45	15" NYLOPLAST BASIN DRAIN W/ STANDARD GRATE
STORM-18 DRAIN BASIN	RIM = 274.50 INV IN = 269.34 INV OUT = 269.34 INV OUT = 269.34	24" ULTRA-FLO INV IN =269.34	24" ULTRA-FLO INV OUT =269.34 18" ULTRA-FLO INV OUT =269.34	15" NYLOPLAST BASIN DRAIN W/ STANDARD GRATE
STORM-19 DRAIN INLINE	RIM = 273.75 INV IN = 269.19 INV OUT = 269.19	24" ULTRA-FLO INV IN =269.19	24" ULTRA-FLO INV OUT =269.19	15" NYLOPLAST BASIN DRAIN W/ STANDARD GRATE
STORM-20 DRAIN BASIN	RIM = 275.50 INV IN = 269.67 INV OUT = 269.67	24" ULTRA-FLO INV IN =269.67	24" ULTRA-FLO INV OUT =269.67	15" NYLOPLAST BASIN DRAIN W/ STANDARD GRATE
STORM-21 DRAIN INLINE	RIM = 276.50 INV IN = 269.81 INV OUT = 269.81	24" ULTRA-FLO INV IN =269.81	24" ULTRA-FLO INV OUT =269.81	15" NYLOPLAST BASIN DRAIN W/ STANDARD GRATE
STORM-22 DRAIN BASIN	RIM = 276.80 INV IN = 269.89 INV OUT = 269.89	24" ULTRA-FLO INV IN =269.89	24" ULTRA-FLO INV OUT =269.89	15" NYLOPLAST BASIN DRAIN W/ STANDARD GRATE
STORM-23 DRAIN BASIN	RIM = 276.80 INV IN = 270.15 INV OUT = 270.15 INV OUT = 270.15	24" ULTRA-FLO INV IN =270.15	18" ULTRA-FLO INV OUT =270.15 18" ULTRA-FLO INV OUT =270.15	15" NYLOPLAST BASIN DRAIN W/ STANDARD GRATE
STORM-24 DRAIN BASIN	RIM = 276.80 INV IN = 270.26 INV OUT = 270.26	18" ULTRA-FLO INV IN =270.26	18" ULTRA-FLO INV OUT =270.26	15" NYLOPLAST BASIN DRAIN W/ STANDARD GRATE
STORM-25 DRAIN INLINE	RIM = 276.40 INV IN = 270.32 INV OUT = 270.32	18" ULTRA-FLO INV IN =270.32	18" ULTRA-FLO INV OUT =270.32	15" NYLOPLAST BASIN DRAIN W/ STANDARD GRATE
STORM-26 DRAIN INLINE	RIM = 275.40 INV IN = 270.48 INV OUT = 270.48	18" ULTRA-FLO INV IN =270.48	18" ULTRA-FLO INV OUT =270.48	15" NYLOPLAST BASIN DRAIN W/ STANDARD GRATE
STORM-27 DRAIN BASIN	RIM = 274.25 INV IN = 270.65 INV OUT = 270.65	18" ULTRA-FLO INV IN =270.65	18" ULTRA-FLO INV OUT =270.65	15" NYLOPLAST BASIN DRAIN W/ STANDARD GRATE
STORM-28 DRAIN BASIN	RIM = 274.75 INV IN = 270.79 INV OUT = 270.79 INV OUT = 270.79	18" ULTRA-FLO INV IN =270.79	15" ULTRA-FLO INV OUT =270.79 18" ULTRA-FLO INV OUT =270.79	15" NYLOPLAST BASIN DRAIN W/ STANDARD GRATE
STORM-29 DRAIN INLINE	RIM = 275.25 INV IN = 271.75	15" ULTRA-FLO INV IN =271.75		15" NYLOPLAST BASIN DRAIN W/ STANDARD GRATE
STORM-30 DRAIN BASIN	RIM = 276.25 INV IN = 270.22 INV OUT = 270.22	18" ULTRA-FLO INV IN =270.22	18" ULTRA-FLO INV OUT =270.22	15" NYLOPLAST BASIN DRAIN W/ STANDARD GRATE
STORM-31 DRAIN INLINE	RIM = 275.25 INV IN = 270.42 INV OUT = 270.42	18" ULTRA-FLO INV IN =270.42	18" ULTRA-FLO INV OUT =270.42	15" NYLOPLAST BASIN DRAIN W/ STANDARD GRATE
STORM-32 DRAIN BASIN	RIM = 274.10 INV IN = 270.61 INV OUT = 270.61	18" ULTRA-FLO INV IN =270.61	15" ULTRA-FLO INV OUT =270.61	15" NYLOPLAST BASIN DRAIN W/ STANDARD GRATE
STORM-33 DRAIN BASIN	RIM = 274.25 INV IN = 270.75 INV OUT = 270.75	15" ULTRA-FLO INV IN =270.75	15" ULTRA-FLO INV OUT =270.75	15" NYLOPLAST BASIN DRAIN W/ STANDARD GRATE
STORM-34 DRAIN INLINE	RIM = 274.50 INV IN = 271.00	15" ULTRA-FLO INV IN =271.00		15" NYLOPLAST BASIN DRAIN W/ STANDARD GRATE
STORM-35 DRAIN BASIN	RIM = 274.00 INV IN = 270.00 INV OUT = 270.00 INV OUT = 270.00	18" ULTRA-FLO INV IN =270.00	12" ULTRA-FLO INV OUT =270.00 12" ULTRA-FLO INV OUT =270.00	15" NYLOPLAST BASIN DRAIN W/ STANDARD GRATE
STORM-36 DRAIN INLINE	RIM = 274.50 INV IN = 271.00	12" ULTRA-FLO INV IN =271.00		15" NYLOPLAST BASIN DRAIN W/ STANDARD GRATE
STORM-37 DRAIN BASIN	RIM = 274.25 INV IN = 270.75 INV OUT = 270.75	12" ULTRA-FLO INV IN =270.75	12" ULTRA-FLO INV OUT =270.75	15" NYLOPLAST BASIN DRAIN W/ STANDARD GRATE
STORM-38 DRAIN INLINE	RIM = 274.50 INV IN = 271.00	12" ULTRA-FLO INV IN =271.00		15" NYLOPLAST BASIN DRAIN W/ STANDARD GRATE

LEGEND:

PR-TP PROPOSED TOP OF PAVEMENT
PR-TW PROPOSED TOP OF WALK
PR-TC PROPOSED TOP OF CURB

Know what's **below.** **Call** before you dig.

60 0 60 120
GRAPHIC SCALE 1"=60'

BASIS OF BEARING: ARKANSAS STATE PLANE GRID NORTH: ZONE (0301)

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BROOKLAND SPORTSPLEX PHASE 2

BROOKLAND, ARKANSAS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14044
JASON MacDONALD
3-21-2025
seal

JASON MacDONALD-CIVIL ENGINEER
ARKANSAS - PE #14044

CERTIFICATE OF AUTHORIZATION
FISHER & ARNOLD INC.
No. 248
ARKANSAS
coa

FISHER & ARNOLD, INC.
STATE-COA-248

CLIENT:
CITY OF BROOKLAND, ARKANSAS

REVISIONS

DATE	BY	DESCRIPTION

GRADING & DRAINAGE PLAN

PROJECT NO.	
CTYBRKLD.0003JB	
DRAWN BY: DK	CHECKED BY: JAB
SHEET: C4	SCALE: 1"=60'
DATE: 3-21-2025	4

LEGEND:

PR-TP PROPOSED TOP OF PAVEMENT
PR-TW PROPOSED TOP OF WALK
PR-TC PROPOSED TOP OF CURB
TAPER TAPER CURB HEAD TO FLUSH OVER 6' SPAN

BASIS OF BEARING: ARKANSAS STATE PLANE ORD NORTH ZONE (0301)

GRAPHIC SCALE 1"=30'

NOT IN CONTRACT

THIS SITE WORK IS INCLUDED IN THE PROJECT.

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BROOKLAND SPORTSPLEX PHASE 2

BROOKLAND, ARKANSAS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14044
JASON MacDONALD
3-21-2025
seal

JASON MacDONALD-CIVIL ENGINEER
ARKANSAS - PE #14044

CERTIFICATE OF AUTHORIZATION
FISHER & ARNOLD INC.
No. 248
ARKANSAS
coa

FISHER & ARNOLD, INC.
STATE-COA-248

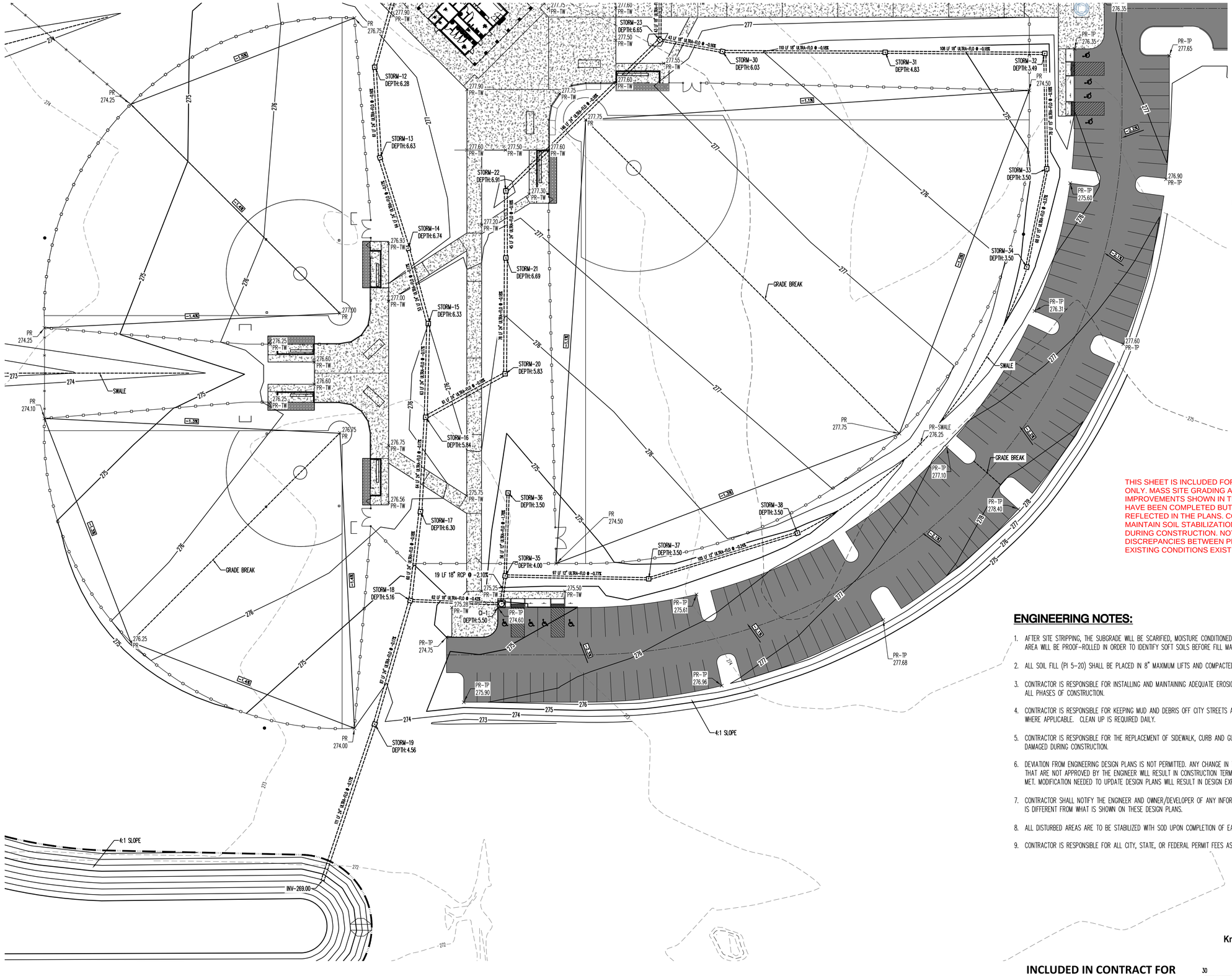
CLIENT:
CITY OF BROOKLAND, ARKANSAS

REVISIONS

DATE	BY	DESCRIPTION

GRADING & DRAINAGE PLAN

PROJECT NO.	
CTYBRKLD.0003JB	
DRAWN BY: DK	CHECKED BY: JAB
SHEET: C5	SCALE: 1"=30'
DATE: 3-21-2025	5



LEGEND:

PR-TP	PROPOSED TOP OF PAVEMENT
PR-TW	PROPOSED TOP OF WALK
PR-TC	PROPOSED TOP OF CURB
TAPER	TAPER CURB HEAD TO FLUSH OVER 6' SPAN

THIS SHEET IS INCLUDED FOR REFERENCE ONLY. MASS SITE GRADING AND DRAINAGE FOR IMPROVEMENTS SHOWN IN THESE DOCUMENTS HAVE BEEN COMPLETED BUT ARE NOT REFLECTED IN THE PLANS. CONTRACTOR SHALL MAINTAIN SOIL STABILIZATION MEASURES DURING CONSTRUCTION. NOTIFY ENGINEER IF DISCREPANCIES BETWEEN PLANS AND EXISTING CONDITIONS EXIST.

ENGINEERING NOTES:

1. AFTER SITE STRIPPING, THE SUBGRADE WILL BE SCARIFIED, MOISTURE CONDITIONED, & RECOMPACTED. THE PROJECT AREA WILL BE PROOF-ROLLED IN ORDER TO IDENTIFY SOFT SOILS BEFORE FILL MATERIALS ARE PLACED.
2. ALL SOIL FILL (PI 5-20) SHALL BE PLACED IN 8" MAXIMUM LIFTS AND COMPACTED TO 95% MODIFIED PROCTOR.
3. CONTRACTOR IS RESPONSIBLE FOR INSTALLING AND MAINTAINING ADEQUATE EROSION/SEDIMENTATION CONTROL DURING ALL PHASES OF CONSTRUCTION.
4. CONTRACTOR IS RESPONSIBLE FOR KEEPING MUD AND DEBRIS OFF CITY STREETS AND OFF OF PAVED DRIVEWAYS WHERE APPLICABLE. CLEAN UP IS REQUIRED DAILY.
5. CONTRACTOR IS RESPONSIBLE FOR THE REPLACEMENT OF SIDEWALK, CURB AND GUTTER AND/OR ASPHALT/CONCRETE DAMAGED DURING CONSTRUCTION.
6. DEVIATION FROM ENGINEERING DESIGN PLANS IS NOT PERMITTED. ANY CHANGE IN THE CONSTRUCTION DOCUMENTS THAT ARE NOT APPROVED BY THE ENGINEER WILL RESULT IN CONSTRUCTION TERMINATION UNTIL A RESOLUTION IS MET. MODIFICATION NEEDED TO UPDATE DESIGN PLANS WILL RESULT IN DESIGN EXPENSES FOR THE CONTRACTOR.
7. CONTRACTOR SHALL NOTIFY THE ENGINEER AND OWNER/DEVELOPER OF ANY INFORMATION FOUND IN THE FIELD THAT IS DIFFERENT FROM WHAT IS SHOWN ON THESE DESIGN PLANS.
8. ALL DISTURBED AREAS ARE TO BE STABILIZED WITH SOD UPON COMPLETION OF EARTHWORK (SEE SPECIFICATION).
9. CONTRACTOR IS RESPONSIBLE FOR ALL CITY, STATE, OR FEDERAL PERMIT FEES ASSOCIATED WITH CONSTRUCTION.

Know what's **below.** **Call** before you dig.

INCLUDED IN CONTRACT FOR FINISH GRADE

GRAPHIC SCALE 1"=30' (30 0 30 60)

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BROOKLAND SPORTSPLEX PHASE 2

BROOKLAND, ARKANSAS

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14044 JASON MacDONALD
3-21-2025
seal
JASON MacDONALD-CIVIL ENGINEER
ARKANSAS - PE #14044

CERTIFICATE OF AUTHORIZATION FISHER & ARNOLD INC. No. 248 ARKANSAS
coa
FISHER & ARNOLD, INC.
STATE-COA-248

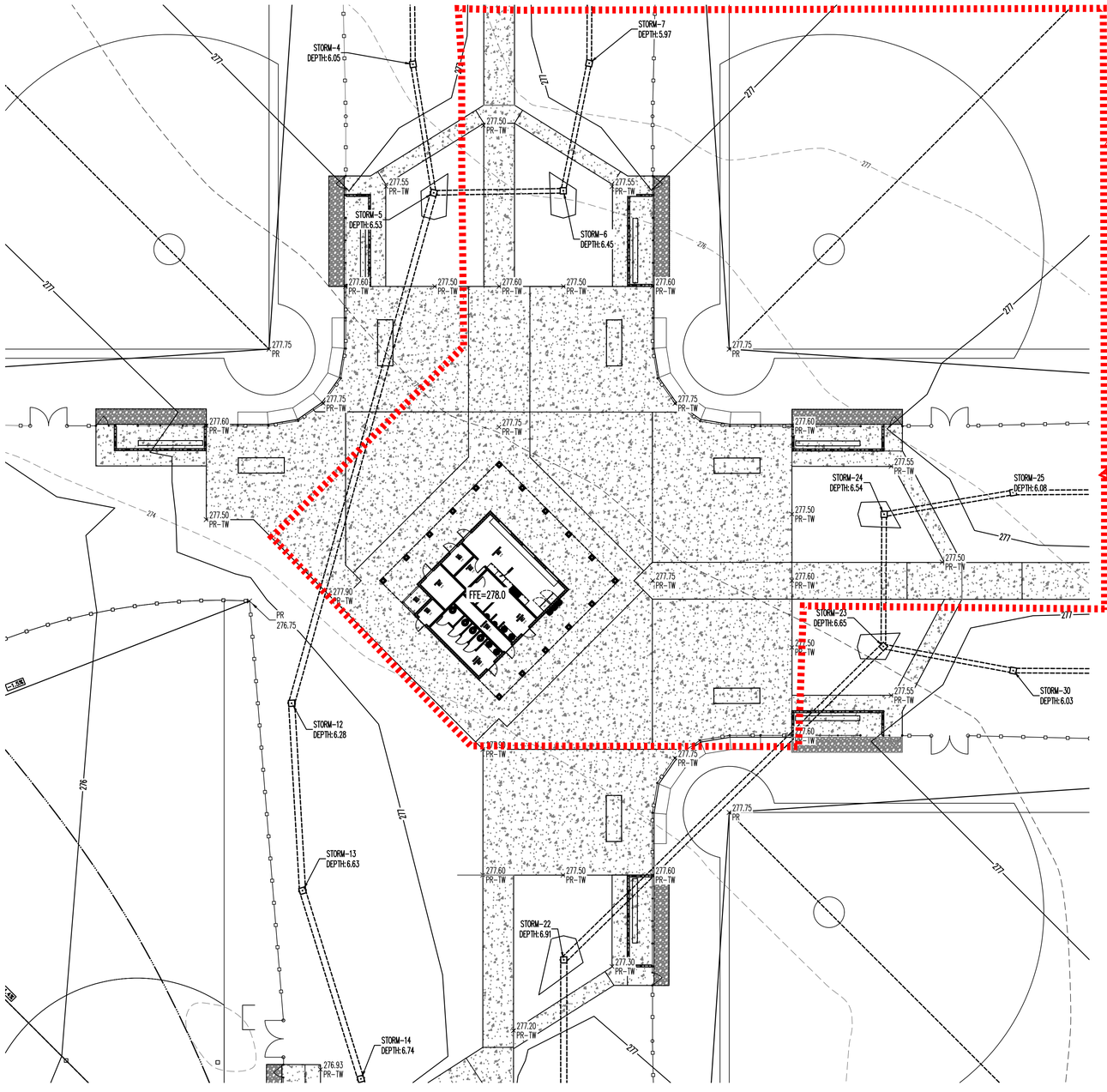
CLIENT:
CITY OF BROOKLAND, ARKANSAS

REVISIONS

DATE	BY	DESCRIPTION

GRADING & DRAINAGE PLAN

PROJECT NO. CTYBRKLD.0003JB	
DRAWN BY DK	CHECKED BY JAB
SHEET C6	SCALE 1"=30'
DATE 3-21-2025	6



SITE WORK LOCATED INSIDE THE RED OUTLINE IS TO BE INCLUDED IN PRICING FOR THIS CONTRACT.

LEGEND:

PR-TP	PROPOSED TOP OF PAVEMENT
PR-TW	PROPOSED TOP OF WALK
PR-TC	PROPOSED TOP OF CURB
TAPER	TAPER CURB HEAD TO FLUSH OVER 6' SPAN

N

BASIS OF BEARING: ARKANSAS STATE PLANE ORD NORTH ZONE (0301)

ENGINEERING NOTES:

1. AFTER SITE STRIPPING, THE SUBGRADE WILL BE SCARIFIED, MOISTURE CONDITIONED, & RECOMPACTED. THE PROJECT AREA WILL BE PROOF-ROLLED IN ORDER TO IDENTIFY SOFT SOILS BEFORE FILL MATERIALS ARE PLACED.
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9. CONTRACTOR IS RESPONSIBLE FOR ALL CITY, STATE, OR FEDERAL PERMIT FEES ASSOCIATED WITH CONSTRUCTION.

811 Know what's **below.** **Call** before you dig.

20 0 20 40
GRAPHIC SCALE 1"=20'

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BROOKLAND SPORTSPLEX PHASE 2

BROOKLAND, ARKANSAS

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14044 JASON MacDONALD
3-21-2025
seal

JASON MacDONALD-CIVIL ENGINEER
ARKANSAS - PE #14044

CERTIFICATE OF AUTHORIZATION FISHER & ARNOLD INC. No. 248 ARKANSAS
coa

FISHER & ARNOLD, INC.
STATE-COA-248

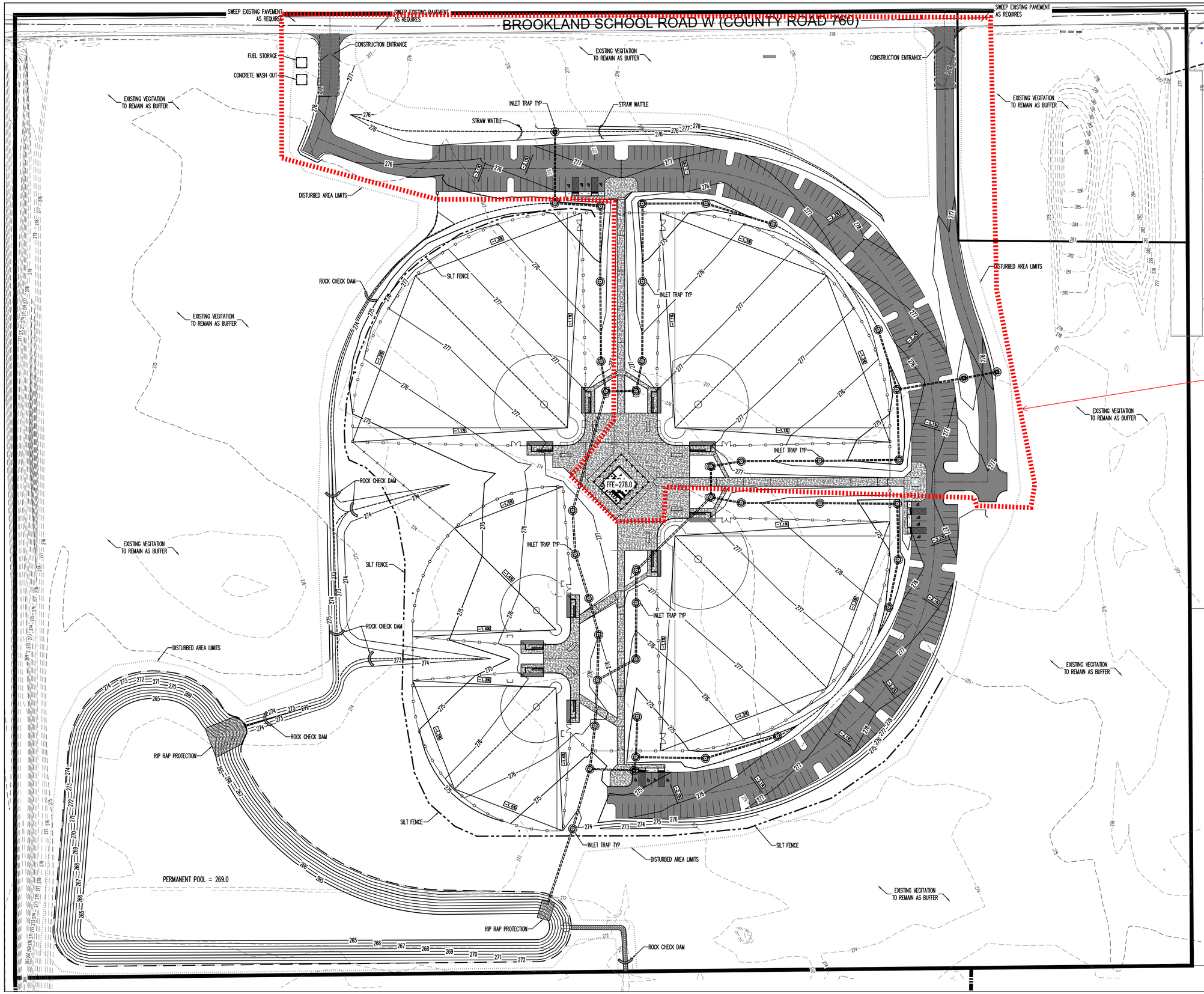
CLIENT:
CITY OF BROOKLAND, ARKANSAS

REVISIONS

DATE	BY	DESCRIPTION

GRADING & DRAINAGE PLAN

PROJECT NO. CTYBRKLD.0003JB	
DRAWN BY DK	CHECKED BY JAB
SHEET C7	SCALE 1"=20'
DATE 3-21-2025	7



NOTES:

1. EROSION CONTROL MEASURES WERE INSTALLED DURING PREVIOUS CONTRACT.
2. CONTRACTOR RESPONSIBLE FOR MAINTAINING CURRENTLY INSTALLED BEST MANAGEMENT PRACTICES.

Know what's **below.**
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60 0 60 120
GRAPHIC SCALE 1"=60'

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BROOKLAND SPORTSPLEX PHASE 2

BROOKLAND, ARKANSAS

STATE OF ARKANSAS
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3-21-2025
seal

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STATE-COA-248

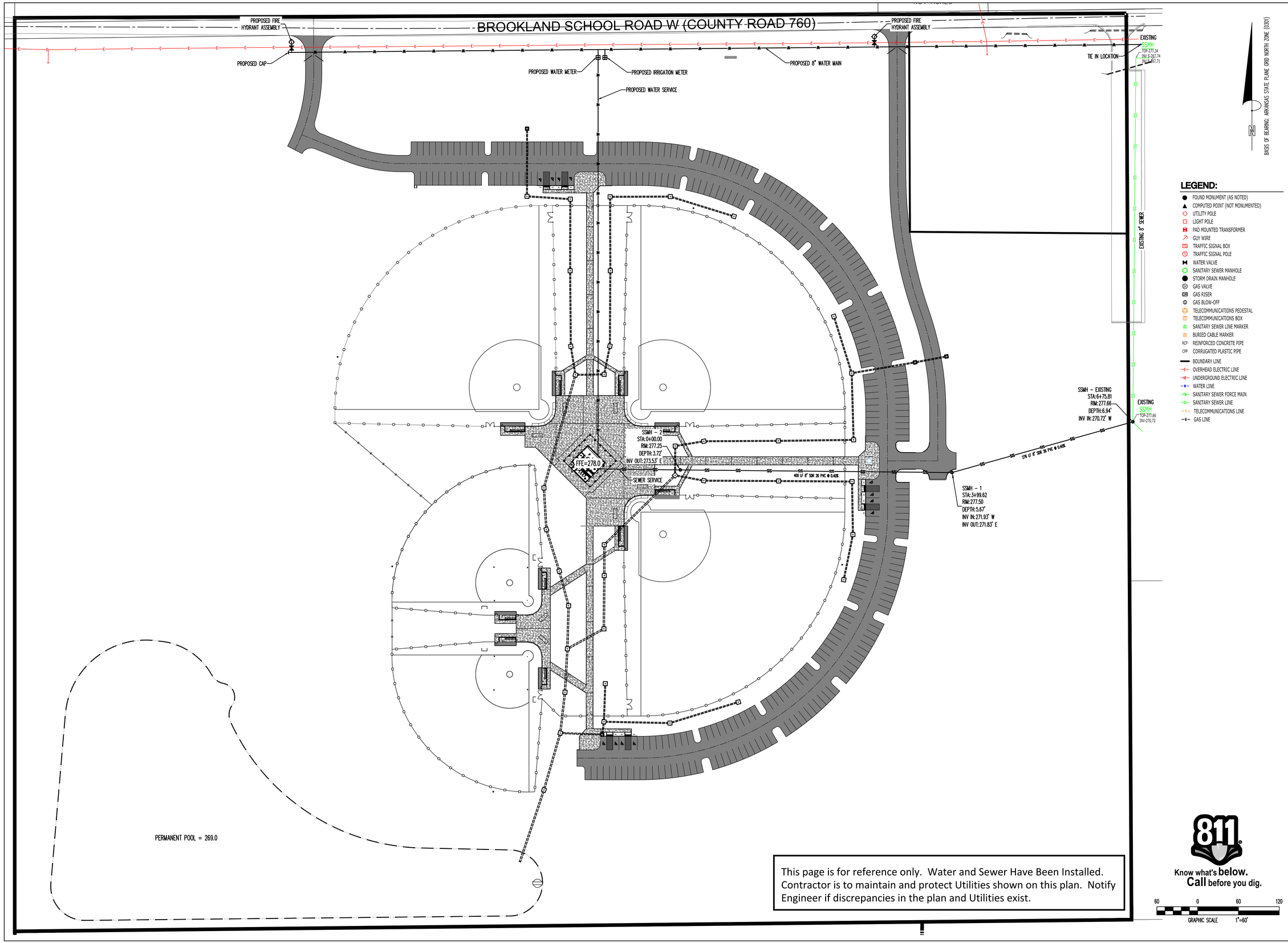
CLIENT:
CITY OF BROOKLAND, ARKANSAS

REVISIONS

DATE	BY	DESCRIPTION

EROSION CONTROL PLAN

PROJECT NO.	
CTYBRKLD.0003JB	
DRAWN BY: DK	CHECKED BY: JAB
SHEET: C8	SCALE: 1"=60'
DATE: 3-21-2025	8



This page is for reference only. Water and Sewer Have Been Installed. Contractor is to maintain and protect Utilities shown on this plan. Notify Engineer if discrepancies in the plan and Utilities exist.

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60 0 60 120
GRAPHIC SCALE 1"=60'

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BROOKLAND SPORTSPLEX PHASE 2

BROOKLAND, ARKANSAS

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14044 JASON MacDONALD
3-21-2025
seal

JASON MacDONALD-CIVIL ENGINEER
ARKANSAS - PE #14044

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FISHER & ARNOLD, INC.
STATE-COA-248

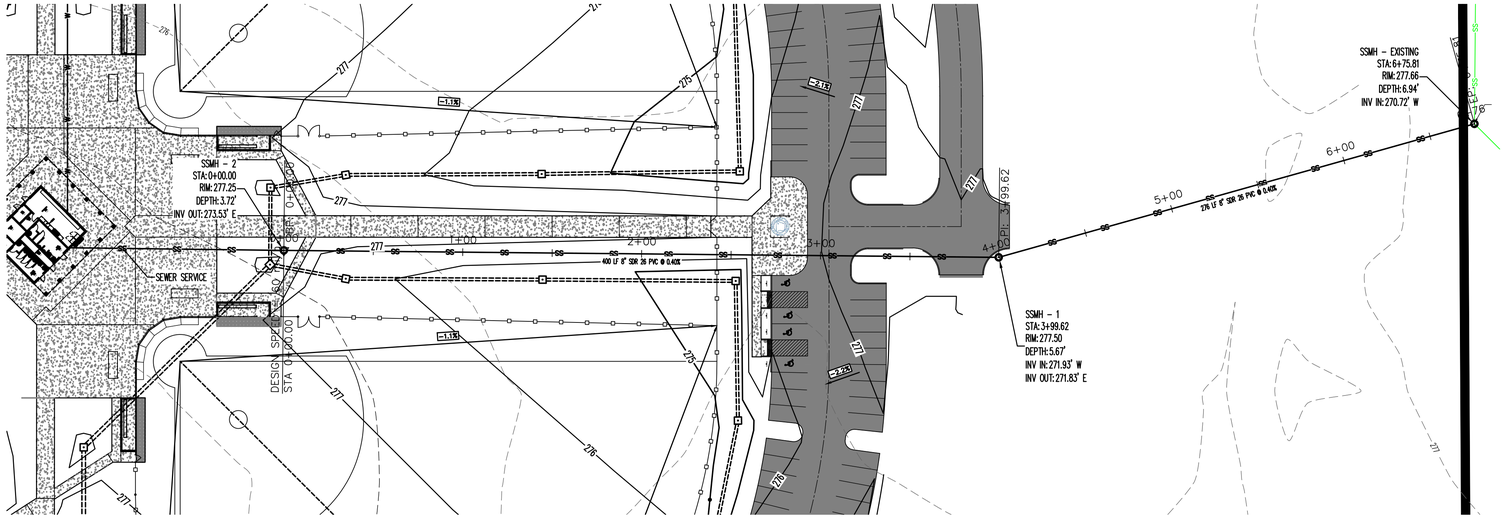
CLIENT:
CITY OF BROOKLAND, ARKANSAS

REVISIONS

DATE	BY	DESCRIPTION

UTILITY PLAN

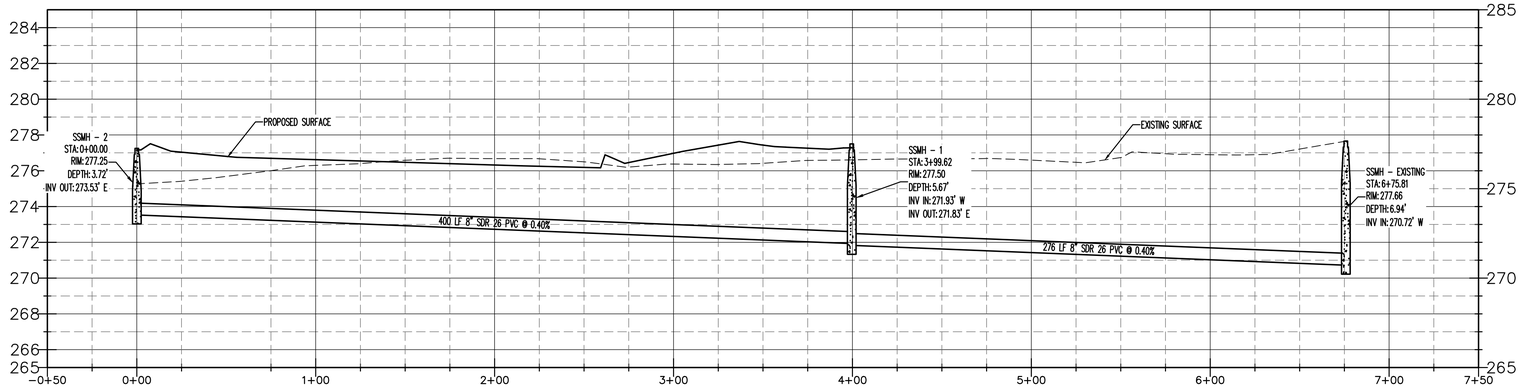
PROJECT NO.	CTYBRKLD.0003JB
DRAWN BY	CHECKED BY
DK	JAB
SHEET	SCALE
C9	1"=60'
DATE	
3-21-2025	9

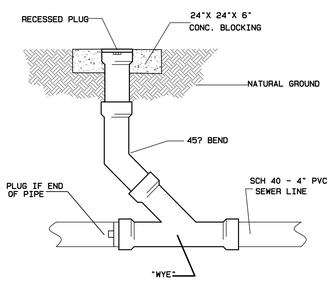


LEGEND:

- FOUND MONUMENT (AS NOTED)
- COMPUTED POINT (NOT MONUMENTED)
- UTILITY POLE
- LIGHT POLE
- PAD MOUNTED TRANSFORMER
- GUY WIRE
- TRAFFIC SIGNAL BOX
- TRAFFIC SIGNAL POLE
- WATER VALVE
- SANITARY SEWER MANHOLE
- STORM DRAIN MANHOLE
- GAS VALVE
- GAS RISER
- GAS BLOW-OFF
- TELECOMMUNICATIONS PEDESTAL
- TELECOMMUNICATIONS BOX
- SANITARY SEWER LINE MARKER
- BURIED CABLE MARKER
- RCP REINFORCED CONCRETE PIPE
- CPP CORRUGATED PLASTIC PIPE
- BOUNDARY LINE
- OVERHEAD ELECTRIC LINE
- UNDERGROUND ELECTRIC LINE
- WATER LINE
- SANITARY SEWER FORCE MAIN
- SANITARY SEWER LINE
- TELECOMMUNICATIONS LINE
- GAS LINE

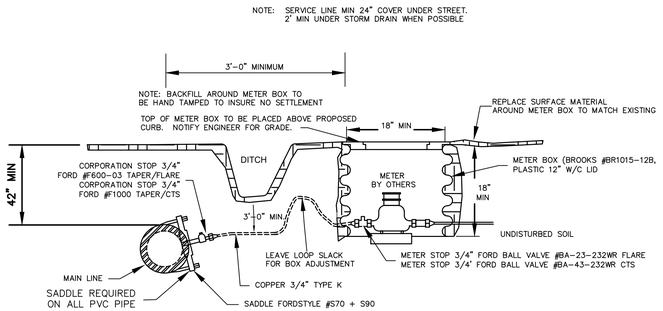
BASIS OF BEARING: ARKANSAS STATE PLANE ORD NORTH ZONE (0301)





CLEAN OUT DETAIL

N.T.S.



SERVICE CONNECTION AND METER SETTING

N.T.S.

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40 0 40 80

GRAPHIC SCALE 1"=40'

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BROOKLAND SPORTSPLEX PHASE 2

BROOKLAND, ARKANSAS

ARKANSAS REGISTERED PROFESSIONAL ENGINEER JASON MacDONALD No. 14044

3-21-2025

seal

JASON MacDONALD-CIVIL ENGINEER
ARKANSAS - PE #14044

CERTIFICATE OF AUTHORIZATION FISHER & ARNOLD INC. No. 248 ARKANSAS

coa

FISHER & ARNOLD, INC.
STATE-COA-248

CLIENT:
CITY OF BROOKLAND, ARKANSAS

REVISIONS

DATE	BY	DESCRIPTION

SEWER PLAN & PROFILE

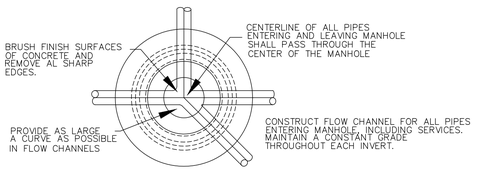
PROJECT NO.
CTYBRKLD.0003JB

DRAWN BY	CHECKED BY
DK	JAB
SHEET	SCALE
C10	1"=40'
DATE	
3-21-2025	10

① MANHOLE DETAILS
N.T.S.

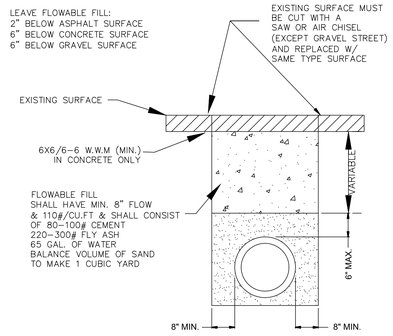
1. MANHOLE BASES TO BE 4000 PSI, 28 DAY STRENGTH, LIMESTONE MIX CONCRETE ON UNDISTURBED SUB-GRADE OR ON COMPACTED SELECT FILL MATERIAL AS AUTHORIZED.
2. MANHOLE SIDEWALL MATERIAL TO BE CONCRETE IN ACCORDANCE WITH PROPOSAL FORM REQUIREMENTS.
   a. 4' I.D. FOR SEWER SIZES 6" THRU 24"
   b. 5' I.D. FOR SEWER SIZES 24" THRU 30"
   c. 6' I.D. FOR SEWER SIZES 36" THRU 42"
3. SET MANHOLE TOPS AS FOLLOWS:
   a. IN STREETS, ROADS, HIGHWAYS, AND OTHER PAVED AREAS: FLUSH WITH FINISHED PAVING GRADE.
   b. UNDEVELOPED AREAS, SUCH AS FIELDS, WOODS, ETC..: 12" ABOVE GROUND.
   c. OTHER AREAS: 1" ABOVE GROUND.
4. MANHOLE FRAMES SHALL HAVE MIN. OPENING OF 22" DIA.

STANDARD MANHOLE



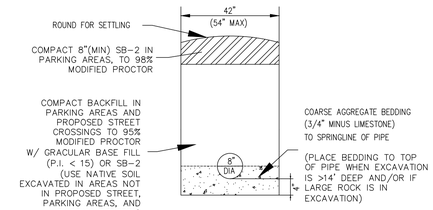
② EXISTING STREET LOCATIONS
N.T.S.

NOTE: (1) CONTRACTOR SHALL OBTAIN A STREET CROSSING PERMIT FROM THE CITY OF JONESBORO PRIOR TO CUTTING STREET.
(2) EXCAVATED MATERIAL SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR
(3) THIS REPAIR DETAIL IS REQUIRED FOR ALL EXCAVATION WITHIN 5' OF PAVED EDGE AND ALL TRANSVERSE EXCAVATIONS TO EXTEND 3' BEYOND PAVED EDGE.



③ NON-EXISTING STREET LOCATIONS SDR-26 PVC TRENCH DETAIL
N.T.S.

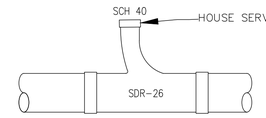
NOTES:
1. COARSE AGGREGATE SHALL BE MECHANICALLY TAMPED WHEN USED.
2. PIPE IN TRENCH SHALL BE PLACED ON NO LESS THAN 4" OF 3/4" MINUS LIMESTONE. ALL OVER EXCAVATION SHALL BE COMPACTED BACK TO GRADE W/ BEDDING MATERIAL.
3. PVC PIPE SHALL BE SDR-26 AND INSTALLED IN ACCORDANCE WITH UNI-BELL PVC PIPE ASSOCIATION'S RECOMMENDATIONS FOR CONSTRUCTION.



④ SINGLE WYE
N.T.S.

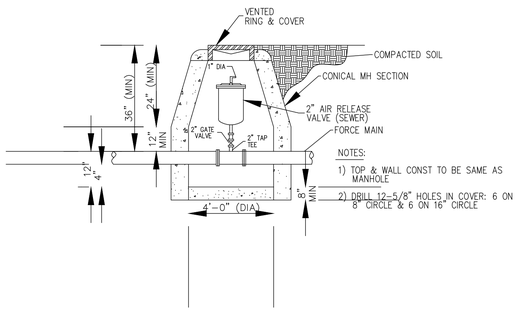
ALL SERVICE LINES UNDER PAVEMENT SHALL BE PVC SCH 40 PIPE W/ PVC SCH 40 COUPLINGS

TEE WYE ONLY

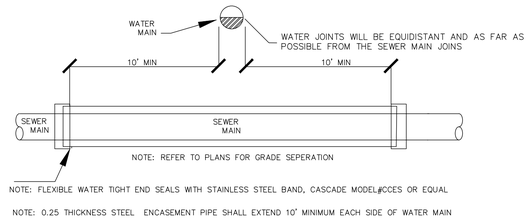


SDR-26 X SCH 40 PVC WYE

⑤ AIR/VACUUM RELEASE VALVE DETAIL
N.T.S.



NOTES:
1) TOP & WALL CONST TO BE SAME AS MANHOLE
2) DRILL 12-5/8" HOLES IN COVER: 6 ON 8" CIRCLE & 6 ON 16" CIRCLE



NOTE: REFER TO PLANS FOR GRADE SEPERATION

NOTE: FLEXIBLE WATER TIGHT END SEALS WITH STAINLESS STEEL BAND, CASCADE MODEL#CCES OR EQUAL

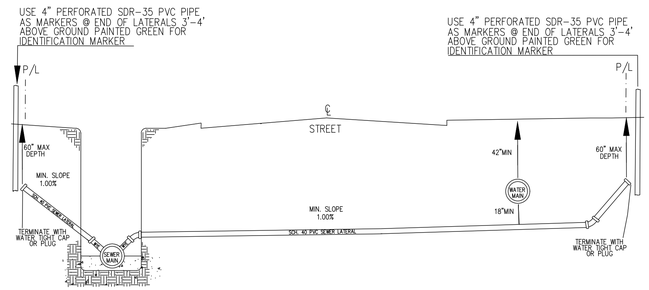
NOTE: 0.25 THICKNESS STEEL ENCASEMENT PIPE SHALL EXTEND 10' MINIMUM EACH SIDE OF WATER MAIN

⑥ ENCASEMENT FOR SEWER MAINS AT WATER CROSSINGS
N.T.S.

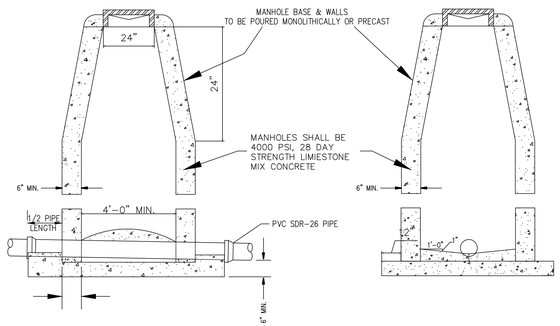
NOTE: WHEN 18" VERTICAL SEPERATION CANNOT BE MAINTAINED, JOINTS SHALL BE LOCATED SUCH THAT THEY ARE EQUAL DISTANCE BEFORE AND AFTER CROSSING.

SEWER LATERAL STUBOUT PERMITS REQUIRED BEFORE INSTALLATION
⑦
N.T.S.

USE SAME CONFIGURATION FOR MANHOLE STUBOUTS

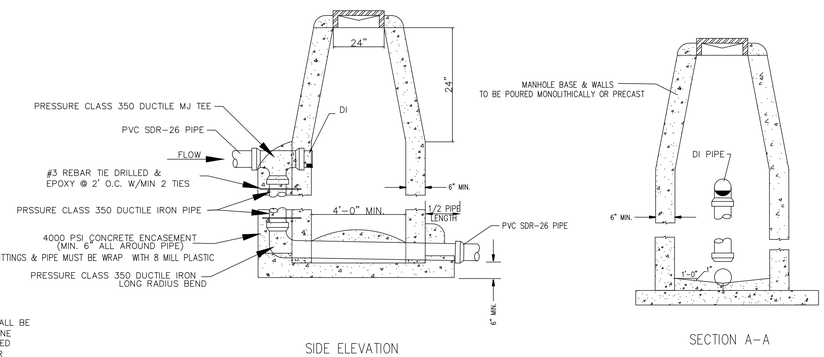


⑧ STANDARD MANHOLE
N.T.S.



SIDE ELEVATION

⑨ DROP MANHOLE
N.T.S.

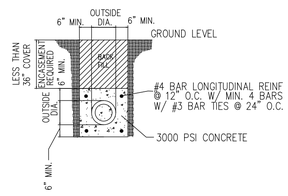


NOTE: MANHOLES SHALL BE PRECAST W/ NEOPRENE GASKETS AS APPROVED BY ENGINEER AND/OR UTILITY COMPANY

SIDE ELEVATION

SECTION A-A

⑩ CONCRETE ENCASEMENT FOR DITCH CROSSINGS
N.T.S.



NOTE: ENCASEMENT PIPE MUST BE PRESSURE CLASS 350 DUCTILE IRON AND WRAP DUCTILE IRON PIPE WITH 8 MILL PLASTIC

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BROOKLAND SPORTSPLEX PHASE 2

BROOKLAND, ARKANSAS

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14044 JASON MacDONALD
3-21-2025
seal

JASON MacDONALD-CIVIL ENGINEER
ARKANSAS - PE #14044

CERTIFICATE OF AUTHORIZATION FISHER & ARNOLD INC. No. 248 ARKANSAS
COA

FISHER & ARNOLD, INC.
STATE-COA-248

CLIENT:
CITY OF BROOKLAND, ARKANSAS

REVISIONS

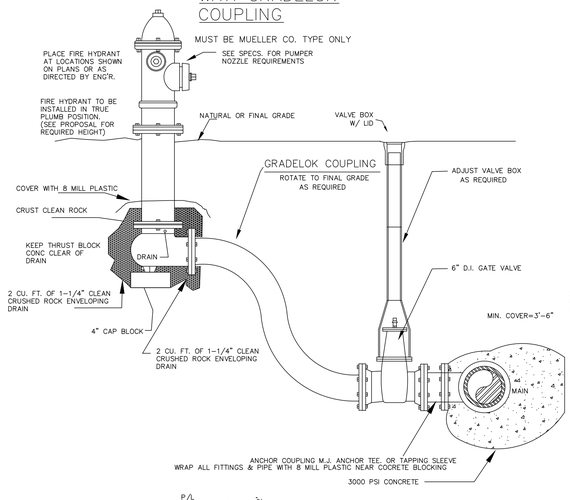
DATE	BY	DESCRIPTION

SEWER DETAILS

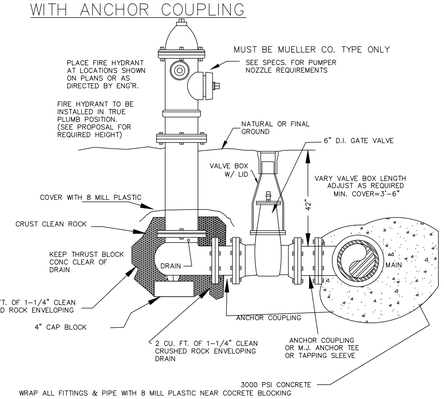
PROJECT NO. CTYBRKLD.0003JB

DRAWN BY	CHECKED BY
DK	JAB
SHEET C11	SCALE N.T.S.
DATE 3-21-2025	11

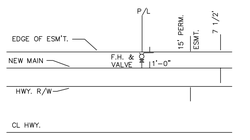
FIRE HYDRANT DETAIL WITH GRADELOK COUPLING



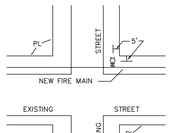
FIRE HYDRANT DETAIL WITH ANCHOR COUPLING



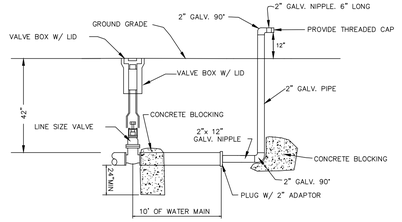
NOTES: (2) CWL WILL PROVIDE FIRE HYDRANTS, ANCHORING COUPLINGS, VALVES,
(1) PROVIDE TWO (2) MECHANICAL JOINT ANCHORING COUPLINGS VALVE BOXES AND TEES WITHIN CITY LIMITS.



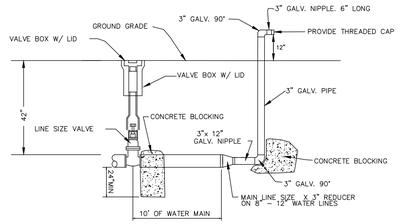
TYPICAL FIRE HYDRANT LOCATION ALONG HWY. RIGHT-OF-WAY



TYPICAL FIRE HYDRANT LOCATION



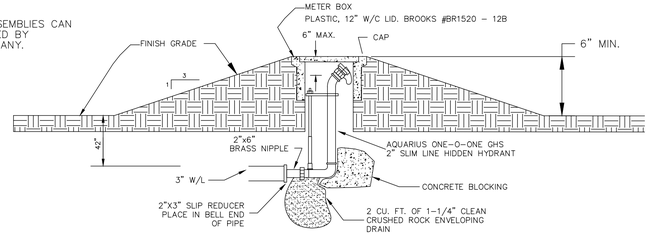
2" B.O. ASSEMBLY FOR THRU 6" LINES WITH FUTURE EXPANSION
(NOT REQ'D IN COVES OR DEAD END LINES)



3" B.O. ASSEMBLY FOR 8" TO 12" LINES WITH FUTURE EXPANSION
(NOT REQ'D IN COVES OR DEAD END LINES)

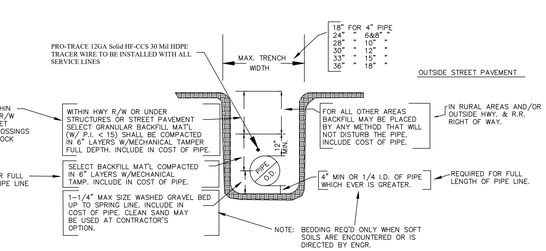
(2) BLOW-OFF ASSEMBLY DETAILS
N.T.S.

NOTE:
OTHER BLOW-OFF ASSEMBLIES CAN BE USED AS APPROVED BY LOCAL UTILITY COMPANY.



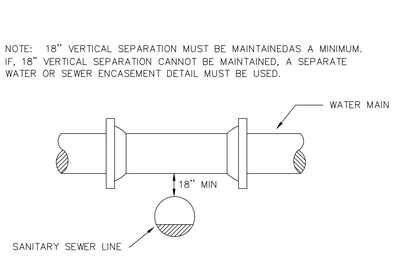
NOTE: ALL 1",2", OR 3" GALVANIZED PIPE AND FITTINGS ARE TO BE SCH 40

UNDERGROUND WASHOUT ASSEMBLY FOR COVES AND DEAD END LINES W/ NO FUTURE EXTENSION

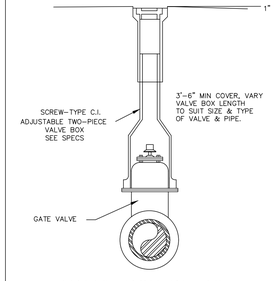


(3) TYPICAL WATER PIPE BEDDING AND BACKFILL DETAIL
N.T.S.

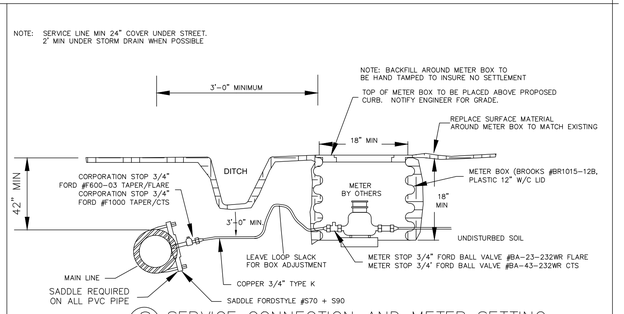
NOTE: 18" VERTICAL SEPARATION MUST BE MAINTAINEDAS A MINIMUM. IF, 18" VERTICAL SEPARATION CANNOT BE MAINTAINED, A SEPARATE WATER OR SEWER ENCASEMENT DETAIL MUST BE USED.



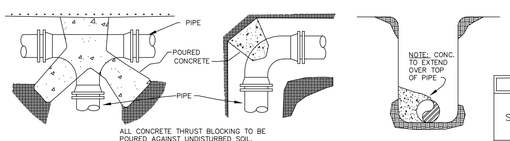
(4) TYPICAL SEWER & WATER CROSSINGS
N.T.S.



(5) VALVE BOX DETAIL
N.T.S.



(6) SERVICE CONNECTION AND METER SETTING
N.T.S.

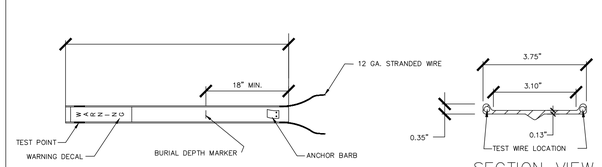


(7) THRUST BLOCK DETAILS
N.T.S.

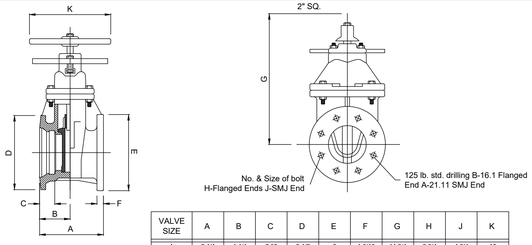
NOTES:
1. ALL BLOCKING SHALL BE AGAINST UNDISTURBED HAND DUG SOIL.
2. WHERE SOIL CONDITIONS MAKE IT NECESSARY TO POUR CONCRETE BLOCKING OVER JOINTS. THE ENDS OF THE ADJACENT PIPES MUST HAVE A BRACE BLOCK TO RESIST MOVEMENT OF THESE JOINTS.
3. PLUGS SHALL BE COVERED WITH PAPER WHEN BLOCKING TO PREVENT BONDING OF CONCRETE.
4. WHERE SHEAR IS HIGH PROPER REINFORCING MUST BE INSTALLED INTO THE BLOCKING AS DIRECTED BY ENGINEER.
5. COVER SHALL BE A MINIMUM OF 3' BELOW NATURAL GRADE.
6. CLEARANCE FROM OIL & GAS COMPANIES LINES SHALL BE A MINIMUM OF 18".
7. THRUST BLOCKING DIMENSIONS SHALL BE 150% OF THE THRUST CALCULATED FROM THE FORMULA (THRUST=2 AP SIN∅ WHERE A=PIPE END AREA, P=PRESSURE PRODUCED BY PUMPING LIQUID, & ∅=ANGLE OF BEND TO BE BLOCKED) AND SOIL BEARING CAPACITY OF 1500 PSF.
8. ALL CONCRETE SHALL BE 3000 PSI AT 28 DAY STRENGTH.

REACTION BACKING TABLE

SIZE	REQUIRED SQ. FT. OF UNDISTURBED EARTHWALL FOR REACTION BACKING			
	TYPE OF FITTINGS			
	TEE	90°	45°	22 1/2°
2"	1	1	1	1
3"	1	1	1	1
4"	1	2	1	1
6"	3	3	2	1
8"	4	4	3	2
10"	7	7	4	2
12"	10	10	5	3
14"	13	13	7	4
16"	17	17	9	5
18"	21	21	12	6
20"	26	26	14	7
24"	38	38	20	10
30"	59	59	32	16
36"	85	85	46	23



(8) WATER LINE & FORCE MAIN MARKER DETAIL
N.T.S.



VALVE SIZE	A	B	C	D	E	F	G	H	J	K
4	9-1/4	4-1/4	2.50	9-1/2	9	1-5/16	14-3/4	8-3/4	4-3/4	10
6	10-1/4	5	2.50	11-1/2	11	1	19	8-3/4	6-3/4	12
8	11	5-1/4	2.50	13-3/4	13-1/2	1-1/8	22-1/2	5-3/4	8-3/4	14
10	12-1/2	6	2.50	15-3/4	16	1-5/16	26-1/2	12-7/8	8-3/4	18
12	13-1/2	6-1/2	2.50	18	19	1-1/4	30	12-7/8	8-3/4	18
9	6-1/4	4-1/4	2.50	7-3/4	7-1/8	3/4	12-3/8	4-3/8	4-3/4	10

TAPPING SLEEVE
TAPPING VALVE DETAIL
N.T.S.

This page is for reference only. Water and Sewer Have Been Installed. Contractor is to maintain and protect Utilities shown on this plan. Notify Engineer if discrepancies in the plan and Utilities exist.

FISHER ARNOLD
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BROOKLAND SPORTSPLEX PHASE 2

BROOKLAND, ARKANSAS

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14044 JASON MacDONALD

3-21-2025

seal

JASON MacDONALD-CIVIL ENGINEER
ARKANSAS - PE #14044

CERTIFICATE OF AUTHORIZATION FISHER & ARNOLD INC. No. 248 ARKANSAS

coa

FISHER & ARNOLD, INC.
STATE-COA-248

CLIENT:
CITY OF BROOKLAND, ARKANSAS

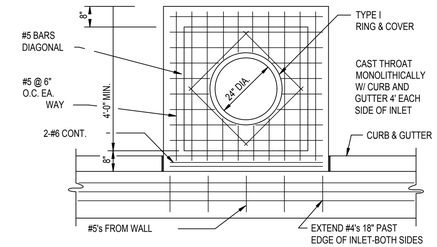
REVISIONS

DATE	BY	DESCRIPTION

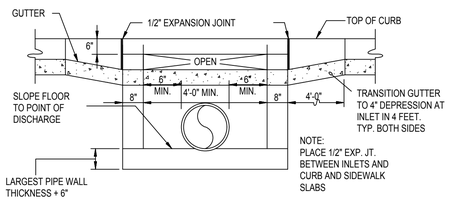
WATER DETAILS

PROJECT NO. CTYBRKLD.0003JB

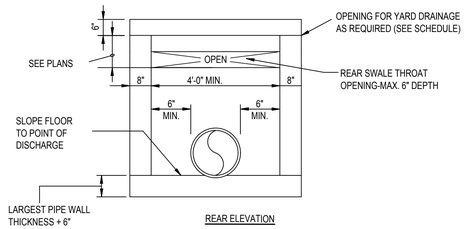
DRAWN BY	CHECKED BY
DK	JAB
SHEET C12	SCALE N.T.S.
DATE 3-21-2025	12



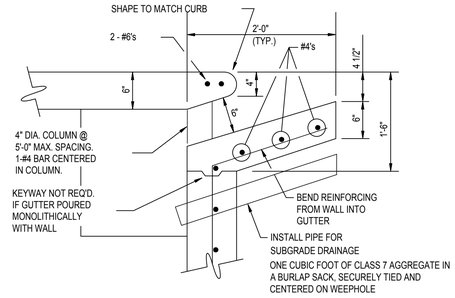
PLAN



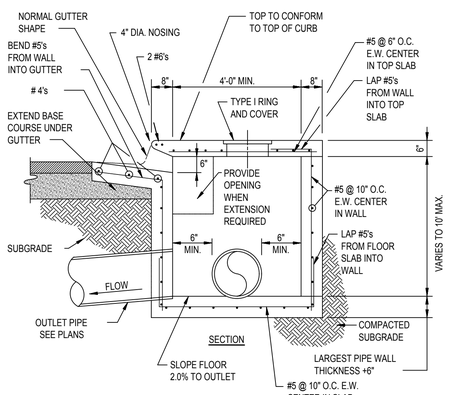
FRONT ELEVATION



REAR ELEVATION



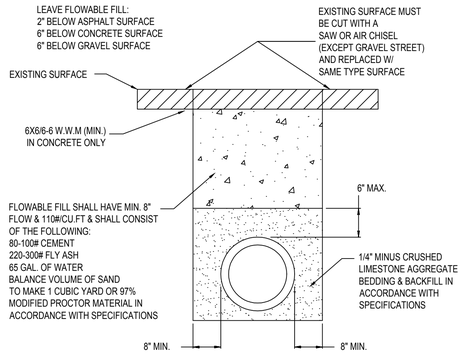
SECTION - CURB OPENING



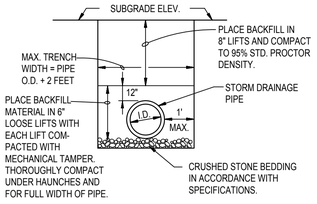
NOTE:
INLETS MORE THAN 3'-0" DEEP SHALL HAVE STANDARD MANHOLE STEPS PLACED AT 15" O.C. - MANHOLE FRAME AND COVER SHALL BE PLACED ADJACENT TO THE WALL WITH THE STEPS.

1 TYPICAL CURB INLET
N.T.S.

NOTE:
(1) EXCAVATED MATERIAL SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR
(2) THIS REPAIR DETAIL IS REQUIRED FOR ALL EXCAVATION WITHIN 5' OF PAVED EDGE AND ALL TRANSVERSE EXCAVATIONS TO EXTEND 3' BEYOND PAVED EDGE.

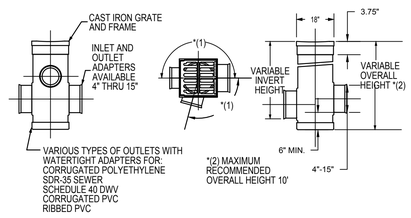


2 PIPE TRENCH DETAIL AT EXISTING STREET OR PROPOSED PAVING
N.T.S.

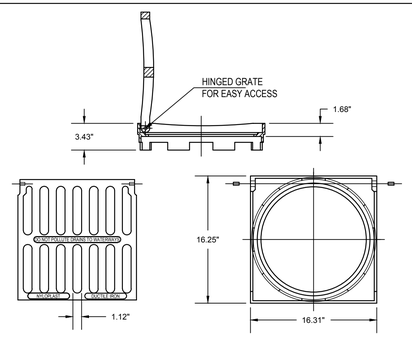


3 DRAINAGE / SEWER PIPE TRENCH DETAIL AT LAWN/LANDSCAPE AREAS
N.T.S.

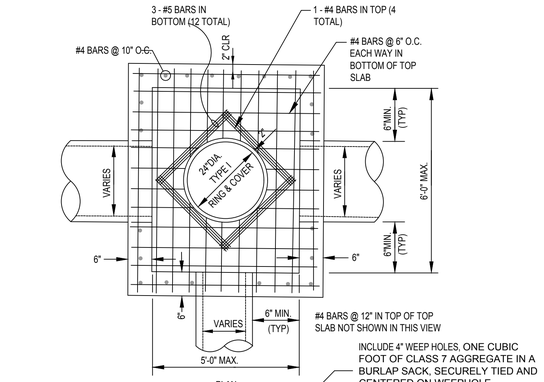
*(1) ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 359°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.



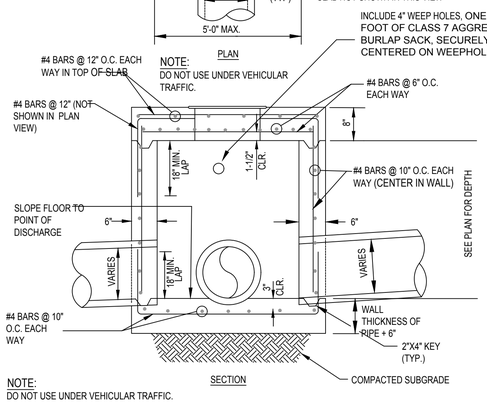
4 TYPICAL 15" NYLOPLAST DRAIN BASIN
N.T.S.



5 TYPICAL 15" STANDARD NYLOPLAST GRATE
N.T.S.



PLAN



NOTE:
DO NOT USE UNDER VEHICULAR TRAFFIC.

6 TYPICAL GRATE INLET
N.T.S.

This page is for reference only. Drainage Structures Have Been Installed. Contractor is to maintain and protect Utilities shown on this plan. Notify Engineer if discrepancies in the plan and Utilities exist.

FISHER ARNOLD
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BROOKLAND SPORTSPLEX
PHASE 2

BROOKLAND, ARKANSAS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14044
JASON MacDONALD
3-21-2025
seal

JASON MacDONALD-CIVIL ENGINEER
ARKANSAS - PE #14044

CERTIFICATE OF AUTHORIZATION
FISHER & ARNOLD INC.
No. 248
ARKANSAS
028

FISHER & ARNOLD, INC.
STATE-COA-248

CLIENT:
CITY OF BROOKLAND, ARKANSAS

REVISIONS

DATE	BY	DESCRIPTION

DRAINAGE DETAILS

PROJECT NO.
CTYBRKLD.003PL

DRAWN BY	CHECKED BY
IRR	JAB
SHEET	SCALE
C13	N.T.S.
DATE	
3-21-2025	13

GENERAL NOTES:

1. AFTER COMPLETION OF CONSTRUCTION THE NEW RUNOFF COEFFICIENT SHALL BE 0.80.
2. THE STORM WATER POLLUTION PREVENTION MEASURES PRESENTED ON THIS PLAN ARE INTENDED TO MINIMIZE POLLUTANT LOADS OCCURRING IN STORM WATER DISCHARGES, FROM THE CONSTRUCTION SITE. THE CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED BEYOND THE COMPLETION OF ALL CONSTRUCTION ACTIVITIES AND UNTIL 100% OF THE SITE HAS BEEN STABILIZED.
3. IMPLEMENTATION, INSTALLATION, APPLICATION AND MAINTENANCE OF THE STORM WATER POLLUTION PREVENTION CONTROL MEASURES SHALL BE IN COMPLIANCE WITH APPLICABLE STATE OR LOCAL WASTE DISPOSAL, SANITARY SEWER, OR SEPTIC SYSTEM REGULATIONS.
4. ALL DISTURBED AREAS ARE TO BE STABILIZED.

EROSION AND SEDIMENT CONTROL NOTES:

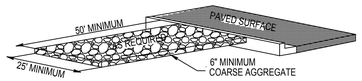
1. INSTALL EROSION AND SEDIMENT CONTROL MEASURES AND CONSTRUCTION ENTRANCES AT LOCATIONS AS INDICATED ON PLANS PRIOR TO EARTHWORK.
2. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE LOCATED AND MAINTAINED SUCH THAT THE LOCATION DOES NOT INTERFERE WITH CONSTRUCTION ACTIVITIES.
3. CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES ON SITE AND AT LEAST 20' FROM THE DISTURBED AREAS.

GENERAL NOTES: EROSION BALES

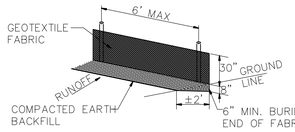
1. DESCRIPTION: STRAW OR HAY EROSION BALES MAY BE USED AS FILTERS ALONG THE TOE OF FILL SLOPES, AS EROSION CHECKS IN DITCHES, AND AS SEDIMENT TRAPS AT INLETS AND OUTLETS. STRAW BALES MAY BE PLACED BELOW FILL SLOPES TO PROTECT ROADS, AND AS ENGERY DISSIPATERS FOR HIGH VELOCITY RUNOFF.
2. CONSTRUCTION: BALES SHALL BE LAID TO MAINTAIN TIGHT JOINTS. EROSION BALES WILL NOT FILTER SEDIMENT OUT OF WATER IF THE WATER IS ALLOWED TO FLOW BETWEEN, AROUND, OR UNDERNEATH THE BALES. THE BALES SHOULD BE ENTRENCHED 6 INCHES AND ANCHORED SECURELY.
3. MAINTENANCE: EROSION BALES REQUIRE FREQUENT INSPECTION AS THEY DETERIDATE QUICKLY AND MAY NEED TO BE REPLACED. WHEN NO LONGER NEEDED, THE ACCUMULATED SEDIMENT SHALL BE SPREAD, SEEDED, AND MULCHED WITH THE EROSION BALES AS APPROVED BY COR.
4. HAY BALES ARE A TEMPORARY MEASURE ONLY. THEY SHALL BE INSTALLED, REPAIRED OR REPLACED AT THE DIRECTION OF COR.

MAINTENANCE AND OPERATION NOTES:

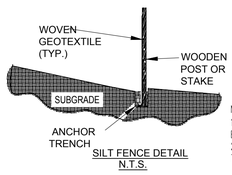
1. AN INSPECTION SHALL BE MADE EVERY 7 DAYS.
2. ALL OBSERVED DEFICIENCIES IN BEST MANAGEMENT PRACTICES (BMP's) WILL BE RECORDED.
3. SEDIMENT SHALL BE REMOVED BEHIND SILT FENCING OR STRAW BALES ONCE SEDIMENT REACHES 1/3 THE HEIGHT OF THE SILT FENCE OR STRAW BALES.



CONSTRUCTION ENTRANCE DETAIL
N.T.S.

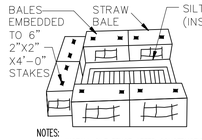


GEOTEXTILE FABRIC SHALL BE SPLICED TOGETHER WITH A SEWN SEAM ONLY AT A SUPPORT POST, OR TWO SECTIONS OF FENCE MAY BE OVERLAPPED INSTEAD. PAYMENT OF ADDITIONAL MATERIAL FOR OVERLAP WILL NOT BE MADE.



SILT FENCE DETAIL
N.T.S.

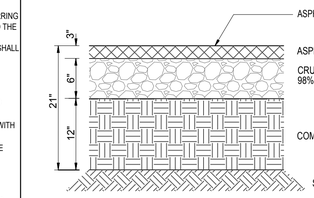
NOTES:
1. GEOTEXTILE ANCHORED IN TRENCH A MINIMUM OF 15 CM (6 IN). TRENCH BACKFILLED WITH TAMPED NATURAL SOIL.
2. DEPENDING UPON CONFIGURATION, ATTACH GEOTEXTILE TO STEEL POST WITH TIE WIRES OR WOOD POSTS WITH STAPLES.



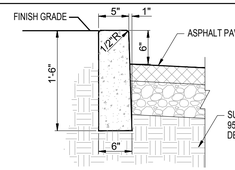
NOTES:
1. INSTALL SILT FENCE AFTER CONSTRUCTION OF INLET ACCORDING TO TYPICAL SILT FENCE DETAIL.
2. INSTALL STRAW BALES OUTSIDE OF SILT FENCE ACCORDING TO THE TYPICAL STRAW BALE DETAIL.

INLET TRAP DETAILS
N.T.S.

1 EROSION CONTROL DETAILS
N.T.S.



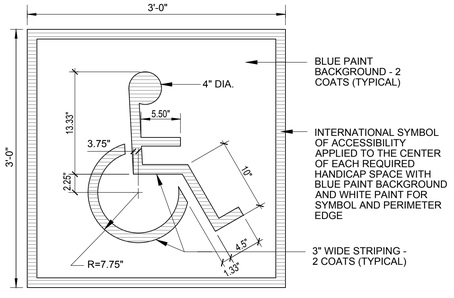
3 LIGHT DUTY ASPHALT PAVING
N.T.S.



CONCRETE CURB SECTION

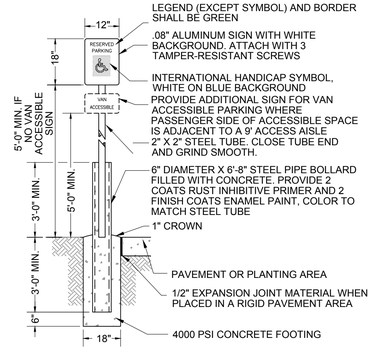
NOTE: CONTRACTION AND EXPANSION JOINTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS, MAXIMUM 10' ON CENTERS FOR CONTROL JOINTS AND 50' ON CENTERS FOR EXPANSION JOINTS.

4 VERTICAL CURB DETAIL
N.T.S.



NOTE:
SYMBOL TO BE PROVIDED ON ALL ACCESSIBLE SPACES. SEE SITE LAYOUT PLAN FOR LOCATIONS.

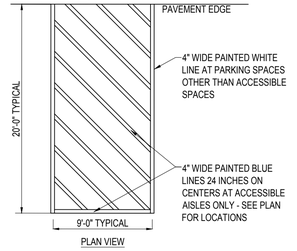
5 ACCESSIBLE SYMBOL
SCALE: 1/4" = 1'-0"



NOTES:
1. THE PRIMER AND FIRST COAT OF PAINT SHALL BE APPLIED BEFORE INSTALLATION. A SECOND COAT SHALL BE APPLIED AFTER INSTALLATION. COLORS TO BE SELECTED BY OWNER'S REPRESENTATIVE.
2. SIGNS SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT (ADA) SIGN GUIDELINES.

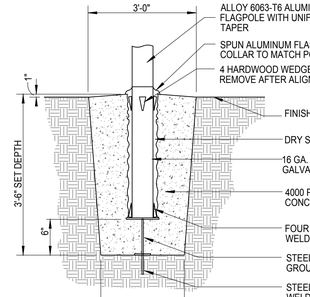
6 ACCESSIBLE PARKING SIGN
SCALE: 1/4" = 1'-0"

NOTES:
1. PARKING SPACE STRIPING SHALL BE INSTALLED PERPENDICULAR TO THE EDGE OF PAVEMENT UNLESS OTHERWISE SHOWN ON THE PLAN. SEE SITE LAYOUT PLAN FOR PARKING SPACE LAYOUT.
2. FOR PARKING SPACES ALONG CURVES, MEASURE SPACES AT THE NARROW END OF THE SPACE (SEE DETAIL 6, CIVIL DETAIL SHEET).
3. PAINT AND APPLICATION METHOD FOR STANDARD SPACES AND ACCESSIBLE SPACES SHALL BE IN CONFORMANCE WITH ARKANSAS DEPARTMENT OF TRANSPORTATION'S SPECIFICATION FOR REFLECTORIZED PAINT PAVEMENT MARKING. STANDARD PARKING SPACE STRIPING SHALL BE WHITE. ACCESSIBLE PARKING SPACE STRIPING SHALL BE BLUE.SEE ACCESSIBLE SYMBOL, DETAIL 5 THIS SHEET, FOR ACCESSIBLE SYMBOL COLORS.



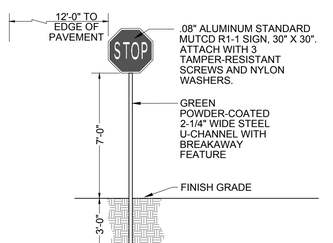
PLAN VIEW

7 PARKING SPACE LAYOUT
SCALE: 1/4" = 1'-0"



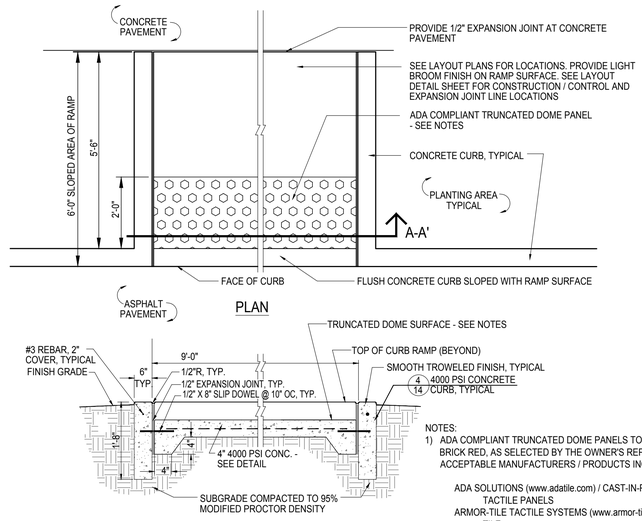
NOTES:
1. VERIFY INSTALLATION REQUIREMENTS WITH APPROVED FLAGPOLE MANUFACTURER.
2. FLAGPOLE TO BE 30' HEIGHT ABOVE GRADE. SANDED SATIN FINISH ALUMINUM WITH INTERNAL STAINLESS STEEL CABLE HALYARD WITH AUTOMATIC LOCKING WINCH, REVOLVING TRUCK ASSEMBLY WITH STAINLESS STEEL BEARING.
3. ACCESSORIES: STANDARD GOLD ANODIZED BALL FINIAL/TOPPER W/ FLUSH SEAM, REVOLVING INTERNAL HALYARD TRUCK CAST ALUMINUM SINGLE REVOLVING TRUCK ASSEMBLY WITH SHEAVE, BEADED RETAINER SLING WITH COUNTERWEIGHT AND WINCH CABLE, FLAGPOLE SNAPS, FLAGPOLE SNAP COVERS, MANUALLY OPERATED WINCH AND WINCH HANDLE, FLASH COLLAR, CORRUGATED GROUND SLEEVE WITH LIGHTNING ROD.
4. ACCEPTABLE MANUFACTURERS / MODELS INCLUDE THE FOLLOWING:
   FLAGPOLES ETC (www.flagpolesetc.com) / ECS30IH-IWW30C61
   BOB'S FLAGS (www.bobsflags.com) / AFP-IW30
   CONCORD AMERICAN FLAGPOLE (www.concordamericanflagpole.com) / ISW SOVEREIGNTY SERIES

8 FLAG POLE DETAIL
SCALE: 1/4" = 1'-0"



NOTES:
1. PROVIDE ONE (1) STOP SIGN AT THE INTERSECTION OF EACH PARK DRIVE WITH BROOKLAND SCHOOL ROAD WEST (TOTAL 2).

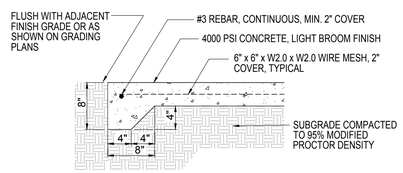
9 STOP SIGN DETAIL
SCALE: 1/4" = 1'-0"



NOTES:
1) ADA COMPLIANT TRUNCATED DOME PANELS TO BE FEDERAL YELLOW OR BRICK RED, AS SELECTED BY THE OWNER'S REPRESENTATIVE. ACCEPTABLE MANUFACTURERS / PRODUCTS INCLUDE THE FOLLOWING:

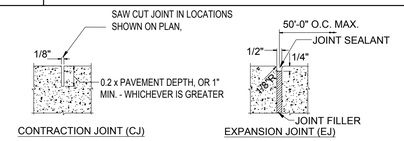
   ADA SOLUTIONS (www.adatile.com) / CAST-IN-PLACE REPLACEABLE TACTILE PANELS
   ARMOR-TILE TACTILE SYSTEMS (www.armor-tile.com) / CAST IN PLACE TILE
   W. W. GRAINGER, INC. (www.grainger.com.) / TUFTILE ADA WARNING PADS

10 ACCESSIBLE CURB RAMP DETAIL
SCALE: 1/2" = 1'-0"

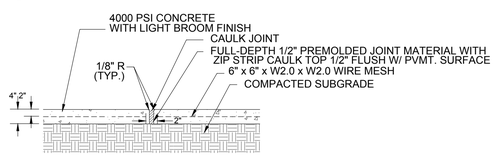


NOTE: PROVIDE GRADE BEAM AT ALL PAVEMENT EDGES WHERE WIDTH IS GREATER THAN 5'-0".

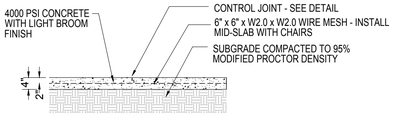
A GRADE BEAM SECTION



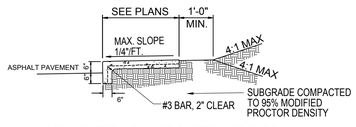
C CONCRETE JOINTS AT CURBS AND PAVEMENT



D EXPANSION JOINT



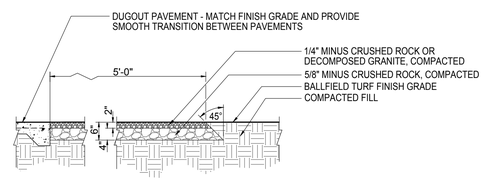
B CONCRETE PAVEMENT SECTION



E CONCRETE PAVEMENT SECTION AT CURB

NOTES:
1) INSTALL CONCRETE PAVEMENT CONTROL JOINTS IN LOCATIONS SHOWN ON THE PLANS.
2) PROVIDE EXPANSION JOINT WHERE CURBS OR SIDEWALKS ABUT OTHER STRUCTURES. PLACE EXPANSION JOINTS IN PAVEMENT AT MAX. 50' SPACING O.C. OR WHERE CONCRETE POURS ARE SUSPENDED. USE SELF-LEVELING SEALANT ON ALL EXPANSION JOINTS. MATCH CONCRETE COLOR. SEE DETAIL LAYOUT PLANS FOR LOCATIONS.
3) PAVEMENT FINISH TO BE LIGHT BROOM FINISH WITH 2" SMOOTH BAND AT ALL PAVEMENT EDGES, EXPANSION JOINTS, AND CONTROL JOINTS.
4) TOOL ALL EXPOSED EDGES 1/8" RADIUS.

2 CONCRETE PAVEMENT
N.T.S.



PAVEMENT SECTION

11 ACCESSIBLE GRAVEL PAVEMENT DETAIL
NOT TO SCALE

FISHER ARNOLD
ENGINEERS | ARCHITECTS | CONSULTANTS | PLANNERS
404 Creath Avenue | Jonesboro, Arkansas 72404
870.932.2019 | Fax: 870.932.1076 | www.fisherarnold.com

BROOKLAND SPORTSPLEX PHASE 2

BROOKLAND, ARKANSAS

Registered Landscape Architect ISOBEL RITCH 4889 3-21-2025 Arkansas

seal

ISOBEL R. RITCH - LANDSCAPE ARCHITECT
ARKANSAS - LA #4889

CERTIFICATE OF AUTHORIZATION
FISHER & ARNOLD INC.
No. 248
ARKANSAS

coa

FISHER & ARNOLD, INC.
STATE-COA-248

CLIENT:
CITY OF BROOKLAND, ARKANSAS

REVISIONS

DATE	BY	DESCRIPTION

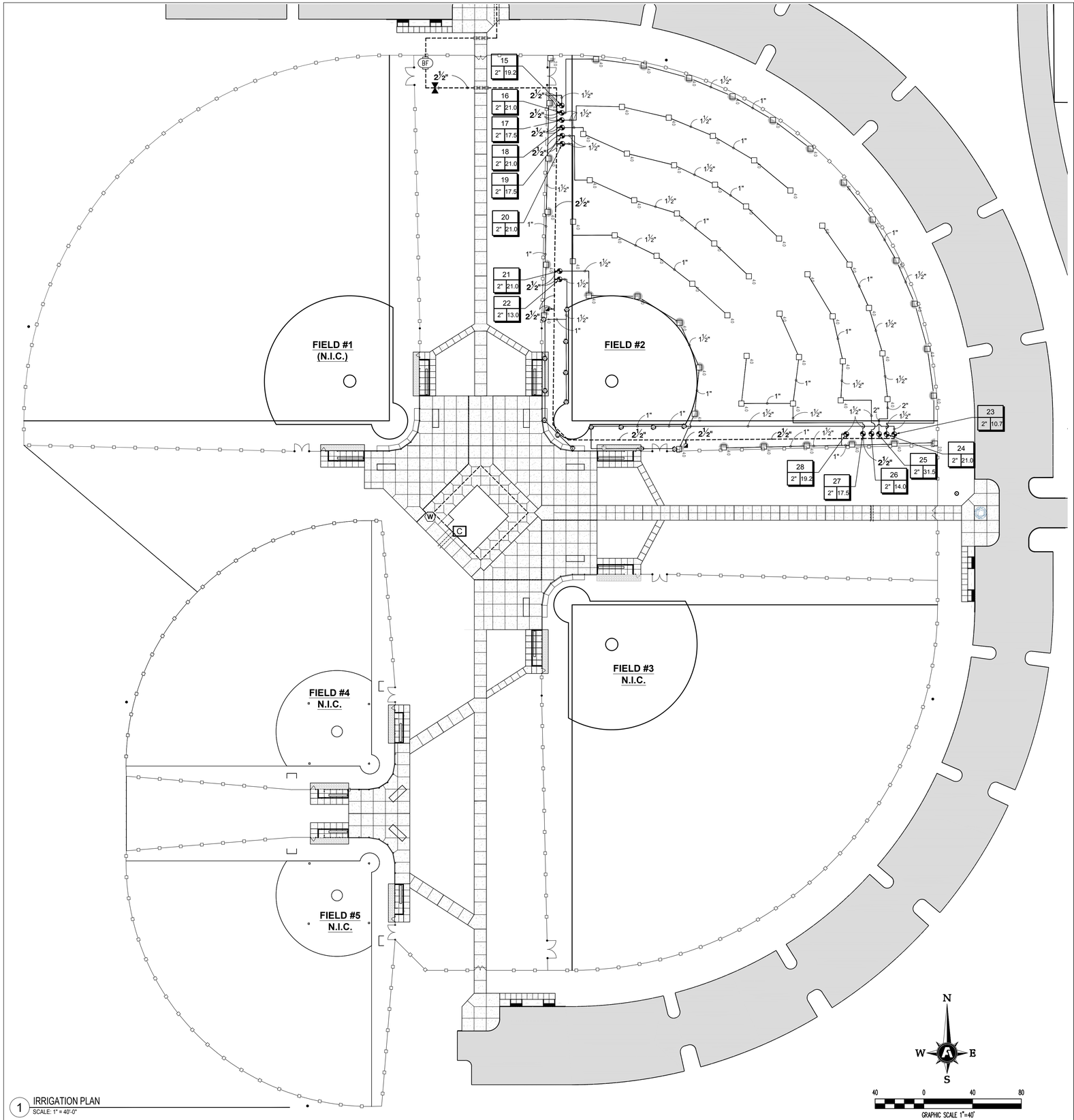
CIVIL DETAILS

PROJECT NO.
CTYBRKLD.003PL

DRAWN BY	CHECKED BY
IRR	JAB

SHEET	SCALE
C14	N.T.S.

DATE	
03/21/2025	14



1 IRRIGATION PLAN
SCALE: 1" = 40'-0"

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
K G R	Hunter MP2000 PROS-06-PRS40-CV Turf Rotator, 6" pop-up with factory installed check valve, pressure regulated to 40 psi, MP Rotator nozzle on PRS40 body. K=Black adj arc 90-210, G=Green adj arc 210-270, R=Red 360 arc.	3
B Y A	Hunter MP3000 PROS-06-PRS40-CV Turf Rotator, 6" pop-up with factory installed check valve, pressure regulated to 40 psi, MP Rotator nozzle on PRS40 body. B=Blue adj arc 90-210, Y=Yellow adj arc 210-270, A=Gray 360 arc.	14

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	GPM	RADIUS
2.0	Hunter I-20-06 2.0 Turf Rotor, 6" Pop-Up. Adjustable and Full Circle. Plastic Riser. Drain Check Valve. Standard Nozzle.	2	1.7	33'
4.0	Hunter I-20-06 4.0 Turf Rotor, 6" Pop-Up. Adjustable and Full Circle. Plastic Riser. Drain Check Valve. Standard Nozzle.	64	3.5	39'

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	Hunter ICV-G 1", 1-1/2", 2", and 3" Plastic Electric Remote Control Valves, Globe Configuration, with NPT Threaded Inlet/Outlet, for Commercial/Municipal Use.	14
	Hunter HQ-44LRC-AW Quick coupler valve, yellow rubber locking cover, red brass and stainless steel, with 1" NPT inlet, 2-piece body. Acme Key with Anti-Rotation Wings.	2
	Griswold Isolator Union Brass DWS Valve with Union Ball Valve. Includes Plug In Boss. Sizes 1/2" through 3", same size as irrigation line. 100 mesh stainless steel strainer and packing gland ball valve are ideal for dirty water applications.	1
BF	Zurn 350XL 2" Double Check Valve Assembly w/ EZSwap insert.	1
C	Hunter A2C-150D-M 150-Station decoder controller with one (1) A2C-D75 module in an outdoor metal wall mount enclosure.	1
W	Hunter WSS Wireless Solar, rain freeze sensor with outdoor interface, connects to Hunter PCC, Pro-C, and I-Core Controllers, install as noted. Includes 10 year lithium battery and rubber module cover, and gutter mount bracket.	1
	Irrigation Lateral Line: PVC Class 200 SDR 21	3,273 lf
	Irrigation Mainline: PVC Class 315 SDR 13.5	1,070 lf
	Pipe Sleeve: PVC Schedule 40	107.9 lf

Valve Callout

2 IRRIGATION SCHEDULE
NOT TO SCALE

IRRIGATION SYSTEM:
1. THE IRRIGATION WATER SUPPLY SHALL CONSIST OF A WATER METER (INSTALLED BY OTHERS AND SIZE AS SHOWN ON THE SCHEDULE), A 3" TYPE K COPPER WATER TUBE SERVICE LINE, AND BACKFLOW PREVENTION DEVICE AS SHOWN IN THE PLANS.
2. THE IRRIGATION SYSTEM HAS BEEN DESIGNED TO PROVIDE OPTIMUM DISTRIBUTION OF WATER, WITH ROTORS AND ROTARY SPRAYERS. THE SYSTEM WAS DESIGNED UTILIZING HUNTER INDUSTRIES PRODUCTS. ACCEPTABLE ALTERNATIVE MANUFACTURERS INCLUDE RAINBIRD AND TORO. USE OF ALTERNATE IRRIGATION PRODUCTS MAY REQUIRE REDESIGN OF THE PROPOSED SYSTEM, WHICH WOULD BE THE RESPONSIBILITY OF THE CONTRACTOR. PROVIDE SHOP DRAWING FOR ALTERNATE PRODUCT SYSTEM DESIGN FOR APPROVAL PRIOR TO SYSTEM INSTALLATION.
3. MINIMUM STATIC WATER PRESSURE AT EACH ZONE VALVE IS IDENTFIED ON THE VALVE SCHEDULE AND IS REQUIRED FOR THE EFFICIENT OPERATION OF THE IRRIGATION SYSTEM AS DESIGNED. THE INSTALLER SHALL VERIFY THAT ADEQUATE WATER PRESSURE IS AVAILABLE AT THE SITE PRIOR TO BEGINNING INSTALLATION. NOTIFY THE DESIGNER IN WRITING IF THE STATIC PRESSURE IS INSUFFICIENT.
4. UTILITIES ARE NOT LOCATED ON THE IRRIGATION PLANS. THE IRRIGATION INSTALLER IS RESPONSIBLE FOR LOCATING ALL UTILITIES ON THE PROJECT SITE.
5. LOCATIONS OF ELEMENTS ON THE DRAWINGS ARE SCHEMATIC. EXACT LOCATIONS ARE TO BE VERIFIED IN THE FIELD BY THE INSTALLER. PIPE LINES DRAWN SIDE BY SIDE MAY BE LAID IN THE SAME TRENCH. SOME PIPE LOCATIONS ARE SHOWN IN LOCATIONS OFFSET FROM OPTIMUM LOCATIONS (BACK OF CURB, ETC) TO CLEARLY SHOW THE INTENDED PIPE ROUTING.
6. THE INSTALLER SHALL ADJUST THE IRRIGATION COMPONENTS AS NECESSARY TO PROVIDE THE MOST BALANCED AND EFFICIENT WATER DISTRIBUTION.
7. LATERAL PIPE SIZES ARE MINIMUM 3/4" AND AS NOTED ON THE PLAN.
8. ALL IRRIGATION ZONES SHALL BE CLEARLY LABELED ON A ZONE CHART TO BE LOCATED IN OR NEAR THE CONTROLLER.
9. CONTRACTOR TO PROVIDE AS-BUILT PLANS UPON COMPLETION OF PROJECT.
10. EACH CONTROL VALVE SHALL BE IDENTIFIED BY CONTROLLER LETTER ZONE NUMBER, SIZE AND GPM.
11. ALL ROTOR AND ROTARY SPRINKLER WATERING SHALL TAKE PLACE AFTER 10:00 PM AND BEFORE 7:00 AM.
12. THE CONTRACTOR IS RESPONSIBLE FOR THE IRRIGATION SYSTEM FOR ONE (1) YEAR AFTER THE COMPLETION OF THE SYSTEM.
13. THIS IRRIGATION PLAN IS DIAGRAMMATIC IN NATURE. CONTRACTOR SHALL VERIFY ACTUAL FIELD CONDITIONS AS WELL AS LOCATION OF DISTRIBUTION PIPING, SLEEVING, AND SYSTEM CALCULATIONS PRIOR TO INSTALLATION TO OBTAIN A COMPLETE AND OPERATIONAL IRRIGATION SYSTEM. REPORT ANY AND ALL LAYOUT DISCREPANCIES IMMEDIATELY TO THE OWNER'S REPRESENTATIVE FOR DECISION.
14. CONTRACTOR TO CONFIRM ALL IRRIGATION SLEEVES ARE IN PLACE AND MARKED PRIOR TO START OF IRRIGATION WORK.
15. ALL IRRIGATION LINES RUNNING IN THE SAME TRENCH SHALL BE SEPARATED BY A MINIMUM OF 3" OF SOIL.
16. IRRIGATION CONTRACTOR TO REQUEST AND CONFIRM ALL ALIGNMENTS AND DEPTHS OF ALL PROPOSED OR EXISTING UTILITY LOCATIONS BEFORE ANY TRENCHING BEGINS.

TURF IRRIGATION DISTRIBUTION PIPING:
1. THE BURIAL DEPTH FOR THE MAIN LINE SHALL BE NO LESS THAN 24" AT FINISHED GRADE.
2. ALL MAIN LINE PIPING RUNS SHALL BE "SNAKED" IN THE TRENCH DURING INSTALLATION TO PREVENT EXCESSIVE STRAIN DUE TO THERMAL EXPANSION AND CONTRACTION.
3. ALL SLEEVING SHALL BE APPROPRIATELY SIZED NON-PERFORATED SCHEDULE 40 PVC PIPE UNLESS OTHERWISE NOTED. SLEEVING SHALL BE NO LESS THAN 24" DEEP UNDER PAVEMENT. PROVIDE SLEEVES UNDER ALL PAVEMENTS, INCLUDING SLEEVE FOR MAIN LINE CONNECTING FIELD #2 TO FIELD #3 (MAIN LINE CONNECTION NOT TO BE INSTALLED IN THIS LOCATION).
4. USE PURPLE PRIMER AND GLUE TO CONNECT PIPE.
5. MAIN LINE PIPE SIZE IS 2" UNLESS OTHERWISE NOTED.
6. LATERAL PIPE SIZE IS 3/4" UNLESS OTHERWISE NOTED.
7. CONTRACTOR SHALL INSTALL DETECTION TAPE OVER ALL IRRIGATION MAIN LINES.

CONTROL VALVES FOR SPRINKLERS AND ROTORS:
1. ALL VALVES SHALL BE INSTALLED IN APPROVED VALVE BOXES WITH LIDS. THEY ARE TO BE MOUNTED AT GRADE LEVEL.
2. REMOTE VALVES FOR ROTARY SPRAYERS AND ROTORS SHALL BE AS INDICATED ON THE SCHEDULE. CONTRACTOR SHALL PROVIDE ISOLATION VALVES INDICATED ON THE SCHEDULE AND IN LOCATIONS SHOWN ON THE PLAN, MATCHING THE MAIN LINE SIZE, TO ISOLATE EACH FIELD'S IRRIGATION SYSTEM.
3. ALL MANUALLY OPERATED VALVES IN THE SYSTEM SHALL BE RATED FOR A WORKING PRESSURE MINIMUM OF 150 PSI.
4. VALVE WIRING SHALL FOLLOW THE MAINLINE PIPING WHERE FEASIBLE AND SHALL BE LAID TO THE SIDE OF THE PIPING IN A COMMON TRENCH.
5. WIRE RUNS SHALL BE INSTALLED WITH ENOUGH SLACK AND/OR OCCASIONAL EXPANSION LOOPS TO PREVENT EXCESSIVE STRAIN DUE TO THERMAL CONTRACTION.
6. ALL WIRING SHALL BE INSTALLED IN ACCORDANCE WITH THE LOCAL CODE REQUIREMENTS.
7. VALVE BOX TOPS TO BE LABELED WITH VALUE NUMBER CORRESPONDING TO NUMBER IN CONTROLLER.

CONTROLLER:
1. THE IRRIGATION CONTROLLER AND ACCESSORIES SHALL BE AS NOTED ON THE SCHEDULE. A 2-WIRE DECODER HAS BEEN SELECTED TO PROVIDE THE MOST EFFICIENT WIRING OF THE SYSTEM. CONTROLLER SHALL BE MOUNTED IN THE ELECTRICAL ROOM OF THE CONCESSION BUILDING OR IN A SECURABLE LOCATION ELSEWHERE IN THE BUILDING AS DIRECTED BY THE OWNER'S REPRESENTATIVE. THE CONTROLLER SHALL HAVE MORE THAN ENOUGH STATIONS TO HANDLE THE NUMBER OF ZONES REQUIRED FOR ALL ZONES AT FULL BUILD-OUT.
2. THE CONTRACTOR SHALL PROVIDE AND INSTALL FLOW SENSORS FOR EACH FIELD. INSTALL SENSORS IN LOCATIONS RELATIVE TO ISOLATION VALVES AS RECOMMENDED BY THE MANUFACTURER.
3. THE CONTRACTOR SHALL INSTALL AND WIRE THE CONTROLLER TO THE IRRIGATION SYSTEM.
4. CONTRACTOR SHALL COORDINATE INSTALLATION OF THE CONTROLLER WITH THE ELECTRICAL CONTRACTOR.
5. ALL ELECTRICAL CONNECTIONS MUST BE IN ACCORDANCE WITH LOCAL CODE REQUIREMENTS.

BACKFLOW PREVENTER:
1. BACKFLOW PREVENTION SHALL BE INSTALLED AS SHOWN ON THE PLAN, AND IN STRICT ACCORDANCE WITH LOCAL CODE REQUIREMENTS.
2. THE SYSTEM SHALL ALSO BE SUPPLIED WITH ISOLATION VALVES AND BLOWOUT ASSEMBLY TO ALLOW FOR PROPER MAINTENANCE.
3. USE BACKFLOW DEVICE INDICATED ON THE SCHEDULE.

3 IRRIGATION GENERAL NOTES
NOT TO SCALE

FISHER ARNOLD
ENGINEERS | ARCHITECTS | CONSULTANTS | PLANNERS
404 Creath Avenue | Jonesboro, Arkansas 72404
870.932.2019 | Fax: 870.932.1076 | www.fisherarnold.com

BROOKLAND SPORTSPLEX
PHASE 2

BROOKLAND, ARKANSAS

Licensed Landscape Architect
ISOBEL R. RITCH
4889
3-21-2025
Arkansas
seal

ISOBEL R. RITCH - LANDSCAPE ARCHITECT
ARKANSAS - LA #4889

CERTIFICATE OF AUTHORIZATION
FISHER & ARNOLD INC.
No. 248
ARKANSAS
coa

FISHER & ARNOLD, INC.
STATE-COA-248

CLIENT:
CITY OF BROOKLAND, ARKANSAS

REVISIONS

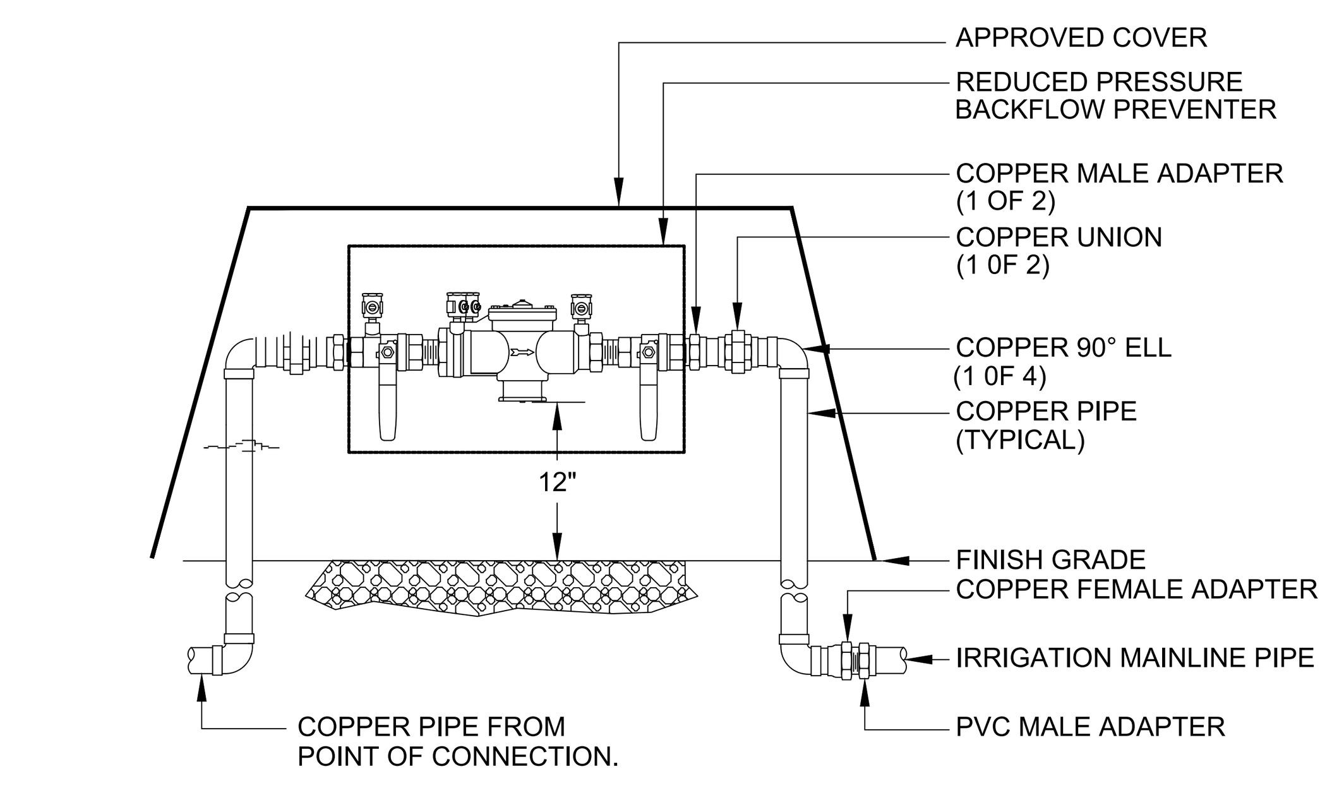
DATE	BY	DESCRIPTION

IRRIGATION PLAN

PROJECT NO.
CTYBRKLD.003PL

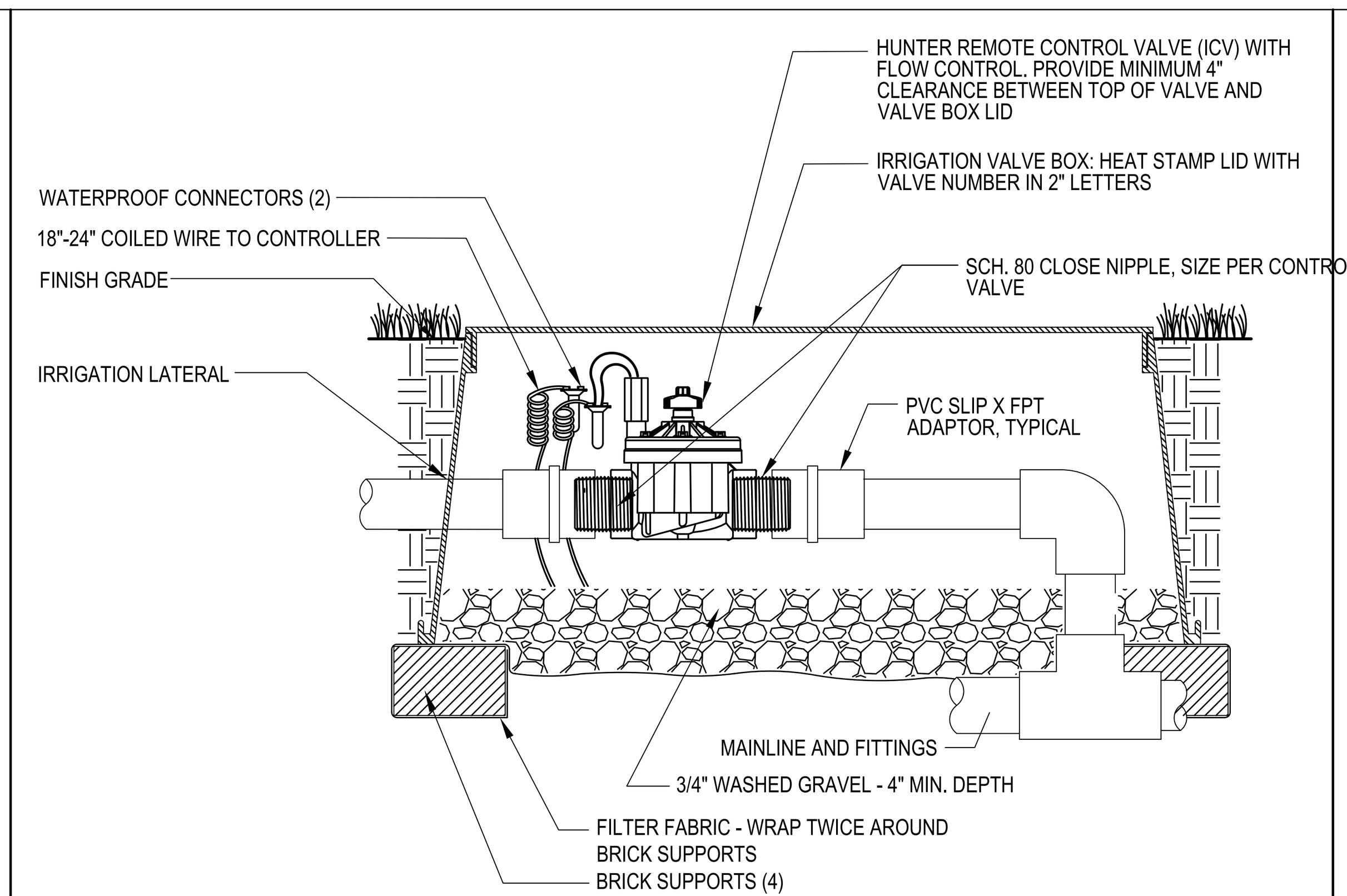
DRAWN BY	CHECKED BY
IRR	DBB
SHEET	SCALE
C15	1"=40'
DATE	
03/21/2025	15

Filename: Z:\CTYBRKLD\003PL\planning\plans\Irrigation plan Phase1_ball field 2 and concession building.dwg
Layout Name: IRRIGATION PLAN
Plotted: Tuesday, March 25, 2025 - 2:46 pm
By: iritch

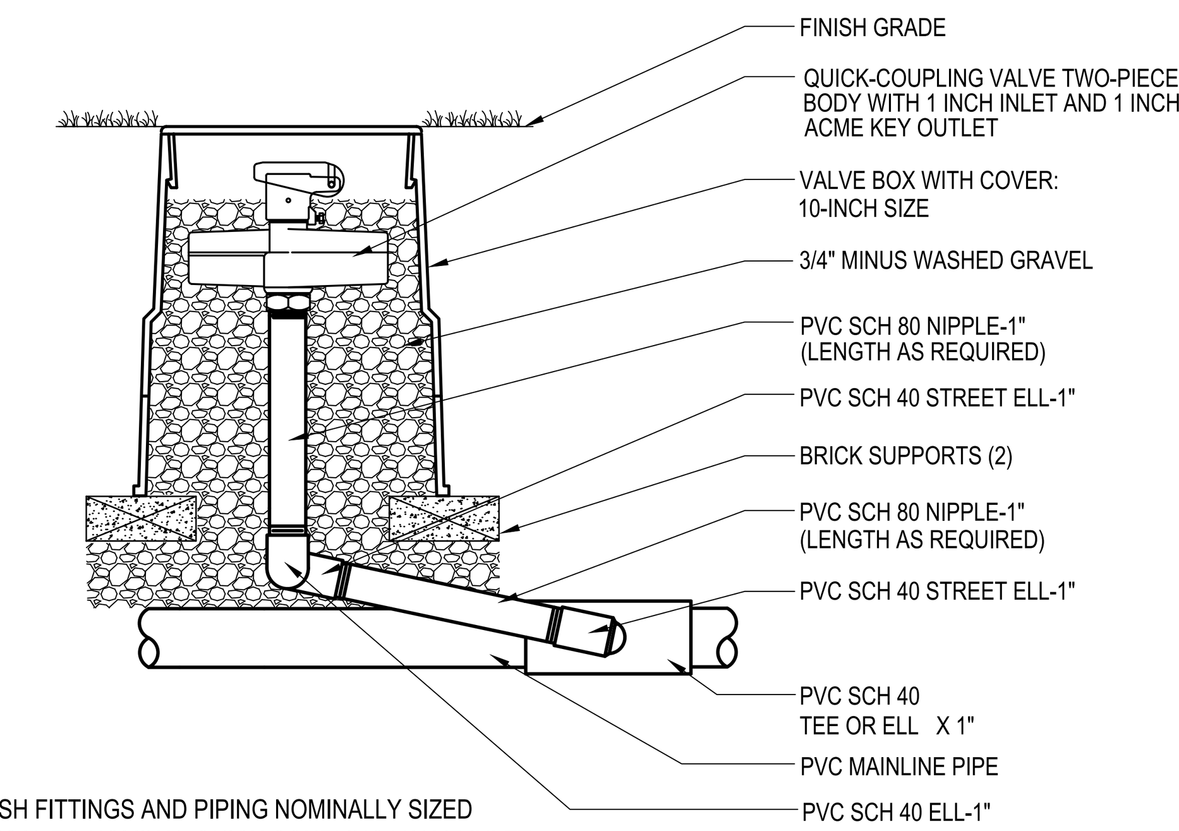


NOTE:
1. INSTALL BACKFLOW PREVENTER AS REQUIRED BY LOCAL CODES AND HEALTH DEPARTMENT. VERIFY LOCAL REQUIREMENTS PRIOR TO INSTALLATION.

(1) BACKFLOW PREVENTER
NOT TO SCALE

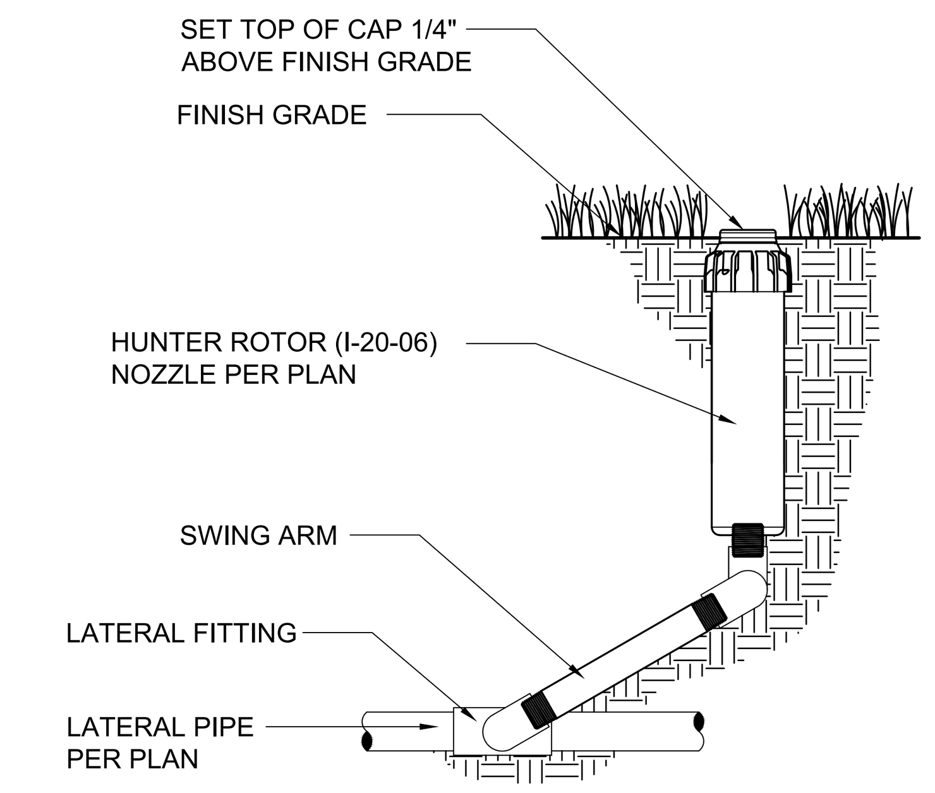


(2) REMOTE CONTROL VALVE
NOT TO SCALE

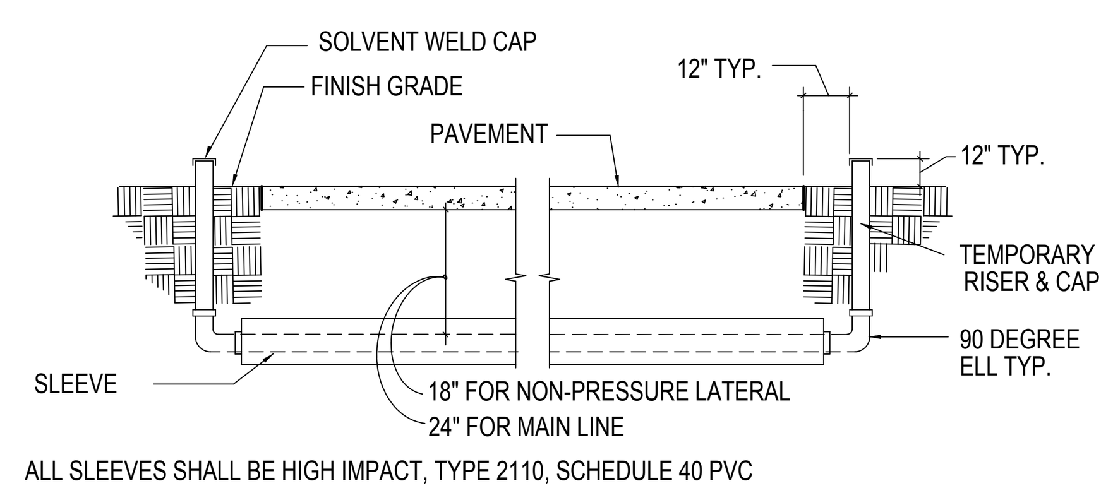


NOTE:
1. FURNISH FITTINGS AND PIPING NOMINALLY SIZED IDENTICAL TO NOMINAL QUICK COUPLING VALVE INLET SIZE.

(3) QUICK COUPLER VALVE
NOT TO SCALE



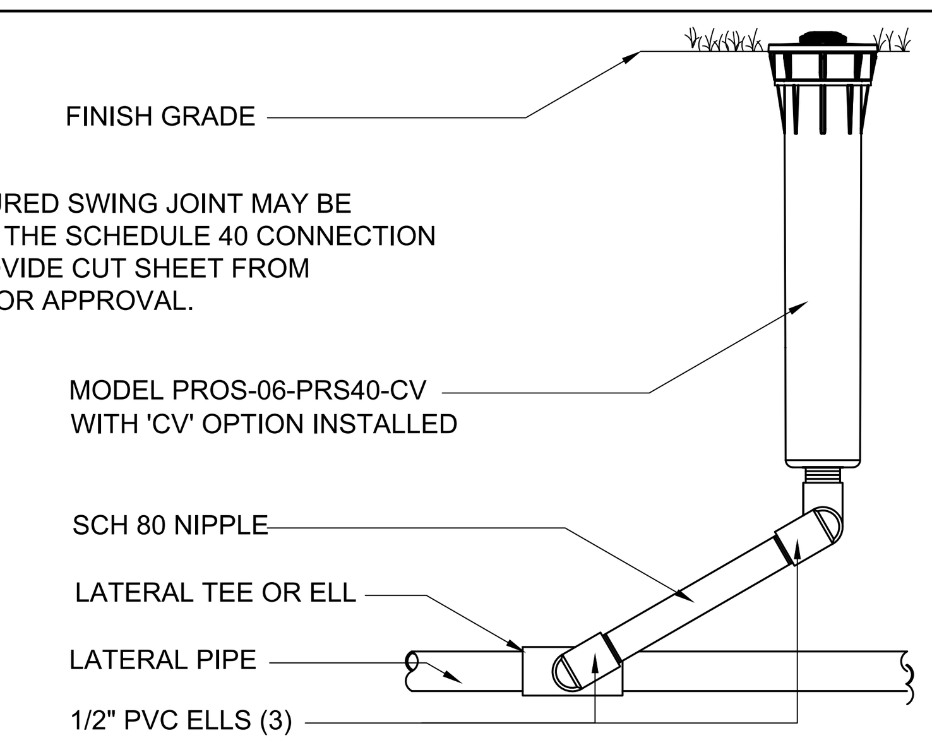
(4) POP-UP ROTOR
NOT TO SCALE



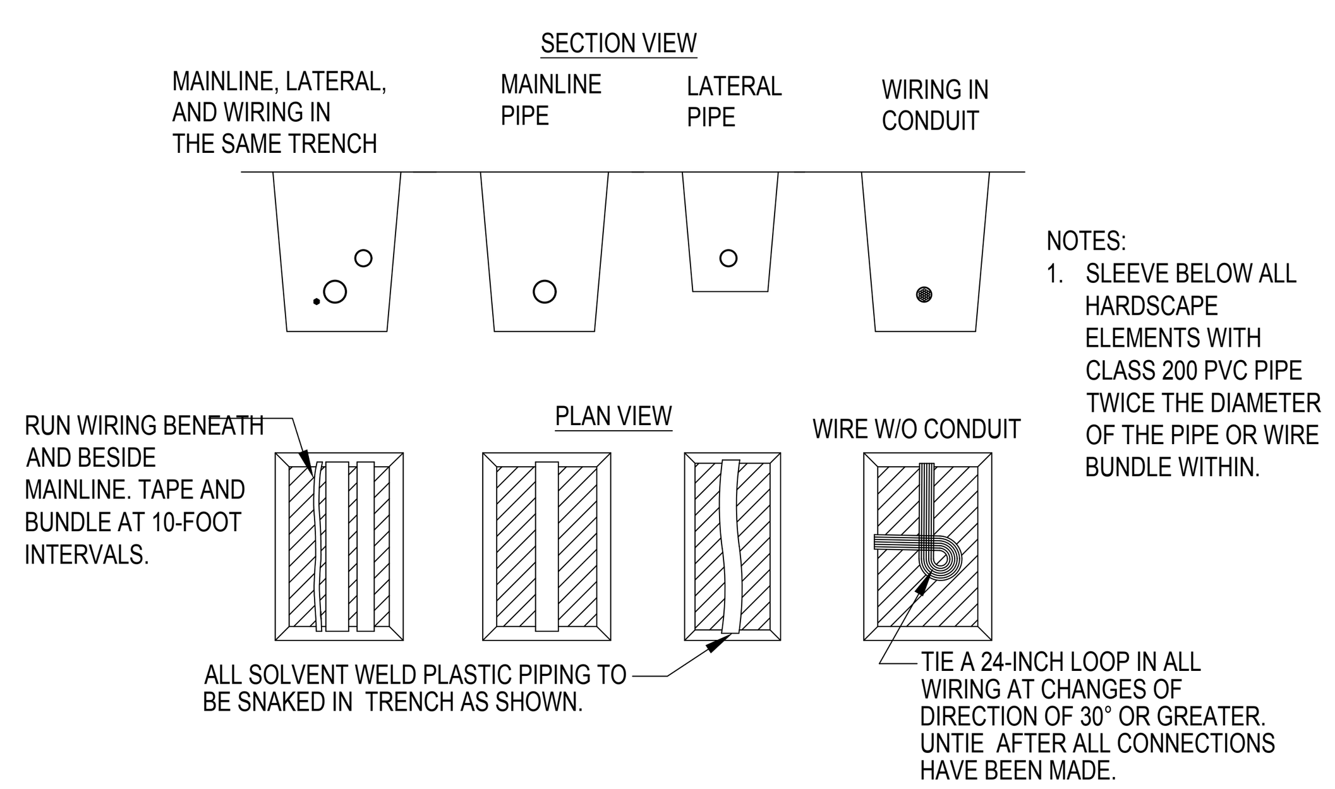
ALL SLEEVES SHALL BE HIGH IMPACT, TYPE 2110, SCHEDULE 40 PVC

(5) TYPICAL SLEEVE DETAIL
NOT TO SCALE

NOTE: MANUFACTURED SWING JOINT MAY BE SUBSTITUTED FOR THE SCHEDULE 40 CONNECTION TO LATERALS. PROVIDE CUT SHEET FROM MANUFACTURER FOR APPROVAL.

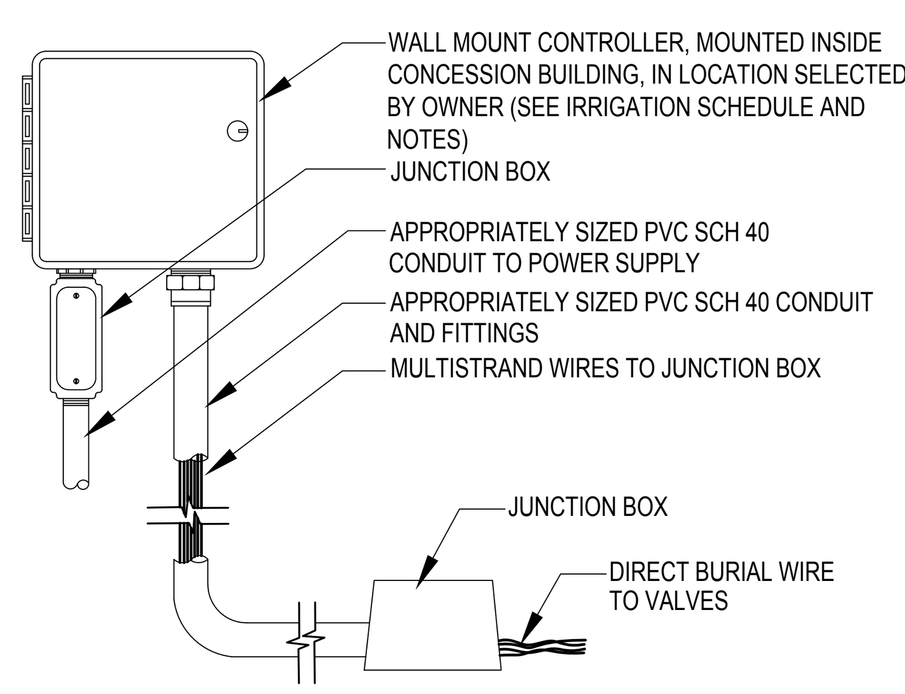


(6) ROTARY SPRINKLER
NOT TO SCALE



NOTES:
1. SLEEVE BELOW ALL HARDSCAPE ELEMENTS WITH CLASS 200 PVC PIPE TWICE THE DIAMETER OF THE PIPE OR WIRE BUNDLE WITHIN.

(7) PIPE AND WIRE TRENCHING
NOT TO SCALE



(8) CONTROLLER
NOT TO SCALE

Generated:	2025-03-25 14:43
P.O.C. NUMBER: 01	
Water Source Information:	Brookland utilities
FLOW AVAILABLE	
Water Meter Size:	2"
Flow Available	120 GPM
PRESSURE AVAILABLE	
Static Pressure at POC:	54 PSI
Elevation Change:	0.00 ft
Service Line Size:	3"
Length of Service Line:	240 ft
Pressure Available:	49 PSI
DESIGN ANALYSIS	
Maximum Station Flow:	31.5 GPM
Flow Available at POC:	120 GPM
Residual Flow Available:	88.5 GPM
Critical Station:	23
Design Pressure:	40 PSI
Friction Loss:	1.92 PSI
Fittings Loss:	0.19 PSI
Elevation Loss:	0 PSI
Loss through Valve:	0.8 PSI
Pressure Req. at Critical Station:	42.9 PSI
Loss for Fittings:	0.05 PSI
Loss for Main Line:	0.46 PSI
Loss for POC to Valve Elevation:	0 PSI
Loss for Backflow:	5 PSI
Loss for Water Meter:	0.4 PSI
Critical Station Pressure at POC:	48.8 PSI
Pressure Available:	49 PSI
Residual Pressure Available:	0.18 PSI

(9) CRITICAL ANALYSIS
NOT TO SCALE

VALVE_SCHEDULE_BALL_FIELD_2

NUMBER	MODEL	SIZE	TYPE	GPM	WIRE	PSI	PSI @ POC	PRECIP
15	Hunter ICV-G	2"	Turf Rotor	19.2	399.8	36.9	43.0	0.69 in/h
16	Hunter ICV-G	2"	Turf Rotor	21	393.8	37.6	43.8	0.45 in/h
17	Hunter ICV-G	2"	Turf Rotor	17.5	387.8	37.0	43.0	0.23 in/h
18	Hunter ICV-G	2"	Turf Rotor	21	381.8	37.0	43.3	0.25 in/h
19	Hunter ICV-G	2"	Turf Rotor	17.5	375.3	37.0	43.0	0.22 in/h
20	Hunter ICV-G	2"	Turf Rotor	21	368.8	37.3	43.7	0.24 in/h
21	Hunter ICV-G	2"	Turf Rotor	21	263.9	37.3	43.8	0.6 in/h
22	Hunter ICV-G	2"	Turf Rotary	13.04	257.2	42.1	47.9	0.46 in/h
23	Hunter ICV-G	2"	Turf Rotary	10.67	404.8	42.9	48.8	0.49 in/h
24	Hunter ICV-G	2"	Turf Rotor	21	398.6	37.6	44.8	0.46 in/h
25	Hunter ICV-G	2"	Turf Rotor	31.5	392.6	36.9	46.5	0.24 in/h
26	Hunter ICV-G	2"	Turf Rotor	14	386.8	36.7	42.9	0.23 in/h
27	Hunter ICV-G	2"	Turf Rotor	17.5	379.4	36.9	43.6	0.22 in/h
28	Hunter ICV-G	2"	Turf Rotor	19.2	365.5	36.6	43.4	0.51 in/h
	Common Wire				1,070			

(10) VALVE SCHEDULE
NOT TO SCALE

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BROOKLAND SPORTSPLEX PHASE 2

BROOKLAND, ARKANSAS

Registered Landscape Architect
ISOBEL R. RITCH
4889
3-21-2025
Arkansas
seal

ISOBEL R. RITCH - LANDSCAPE ARCHITECT
ARKANSAS - LA #4889

CERTIFICATE OF AUTHORIZATION
FISHER & ARNOLD INC.
No. 248
ARKANSAS
coa

FISHER & ARNOLD, INC.
STATE-COA-248

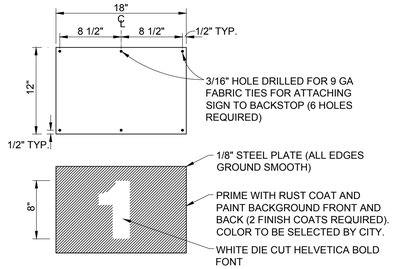
CLIENT:
CITY OF BROOKLAND, ARKANSAS

REVISIONS

DATE	BY	DESCRIPTION

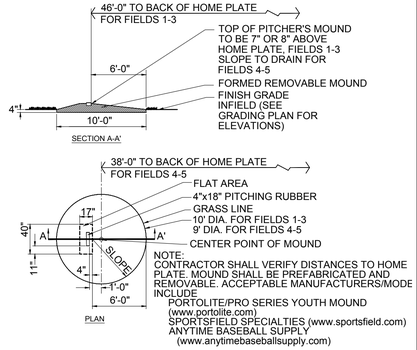
IRRIGATION DETAILS

PROJECT NO.	CTYBRKLD.003PL
DRAWN BY: IRR	CHECKED BY: DBB
SHEET: C16	SCALE: N.T.S.
DATE: 03/21/2025	16

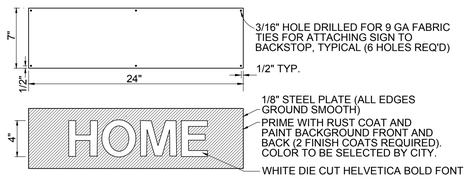


NOTE: ATTACH SIGN TO FENCE FABRIC, 11'-0" ABOVE FINISH GRADE, TO THE RIGHT OF THE CENTER BACKSTOP POST. SEE LAYOUT PLAN FOR CORRECT NUMBER FOR EACH FIELD.

1 BALLFIELD MARKER (1 REQUIRED FOR EACH FIELD)
SCALE: 1" = 10'-0"

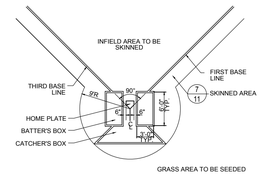


2 PITCHING MOUND DETAIL
SCALE: 1" = 10'-0"

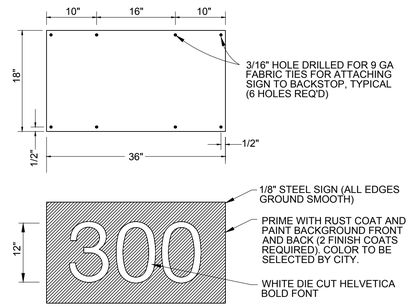


NOTE: FOUR SIGNS REQUIRED - 2 "HOME" AND 2 "VISITOR". ATTACH SIGN TO FENCE FABRIC AT DUGOUTS IN LOCATIONS APPROVED BY THE OWNER'S REPRESENTATIVE.

3 DUGOUT MARKER (10 REQUIRED)
SCALE: 1/8" = 1'-0"

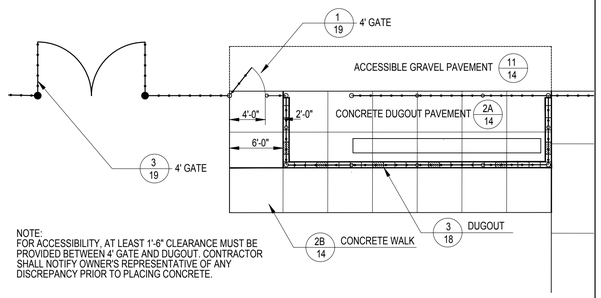


4 HOME PLATE LAYOUT DETAIL
SCALE: 1" = 10'-0"



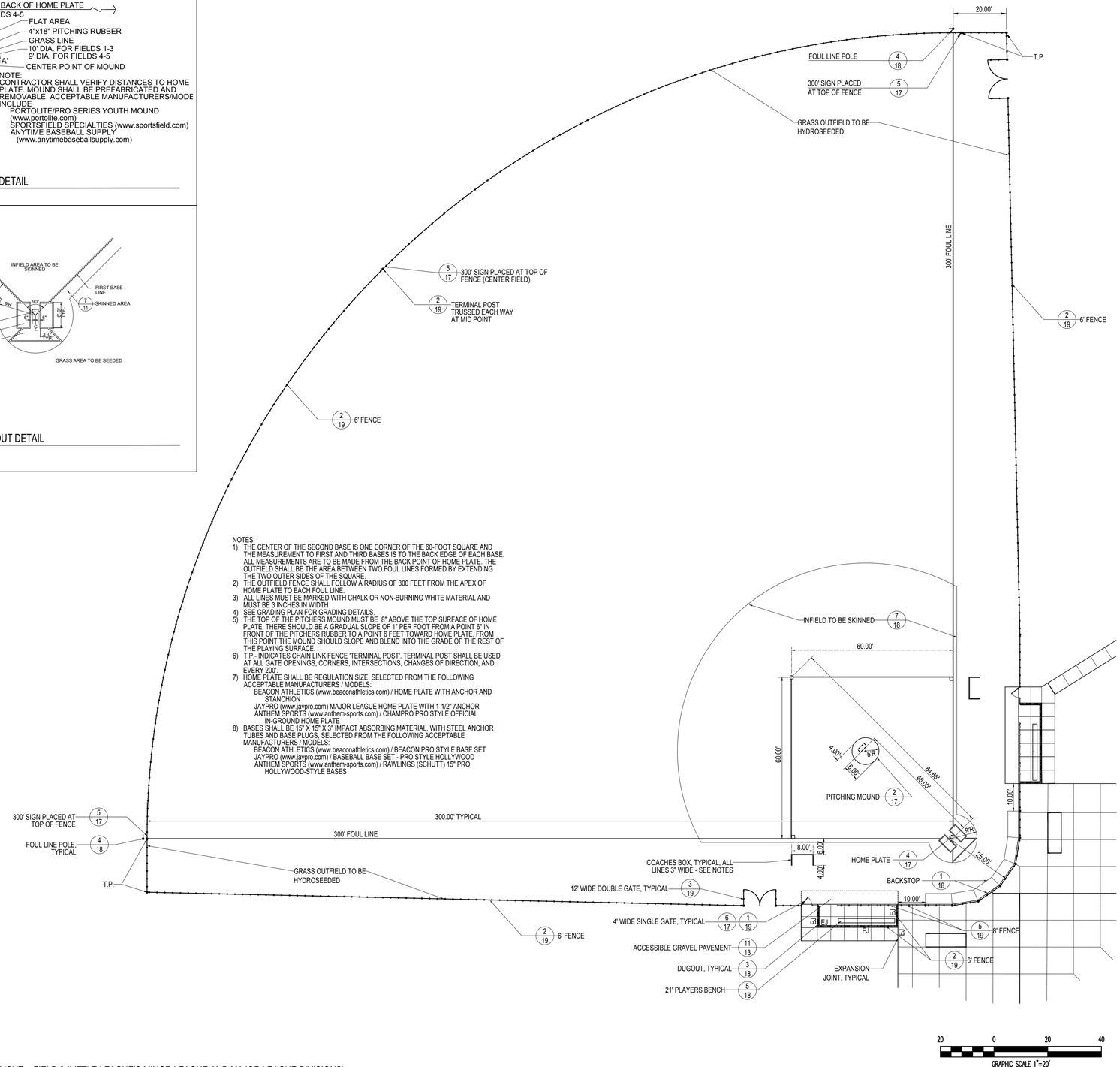
NOTE: FIFTEEN SIGNS REQUIRED - 9 "300" AND 6 "200". ATTACH SIGN TO FENCE FABRIC IN LOCATIONS NOTED ON BALLFIELD LAYOUT PLANS.

5 OUTFIELD MARKER (15 REQUIRED)
SCALE: 1/8" = 1'-0"



NOTE:
FOR ACCESSIBILITY, AT LEAST 1'-6" CLEARANCE MUST BE PROVIDED BETWEEN 4' GATE AND DUGOUT. CONTRACTOR SHALL NOTIFY OWNER'S REPRESENTATIVE OF ANY DISCREPANCY PRIOR TO PLACING CONCRETE.

6 4' SINGLE GATE LAYOUT DETAIL
SCALE: 1/8" = 1'-0"



7 BALLFIELD LAYOUT - FIELD 2 (LITTLE LEAGUE'S MINOR LEAGUE AND MAJOR LEAGUE DIVISIONS)
SCALE: 1" = 20'-0"

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BROOKLAND SPORTSPLEX PHASE 2

BROOKLAND, ARKANSAS

Registered Landscape Architect ISOBEL RITCH 4889 3-21-2025 Arkansas

seal

ISOBEL R. RITCH - LANDSCAPE ARCHITECT
ARKANSAS - LA #4889

CERTIFICATE OF AUTHORIZATION FISHER & ARNOLD INC. No. 248 ARKANSAS

coa

FISHER & ARNOLD, INC.
STATE-COA-248

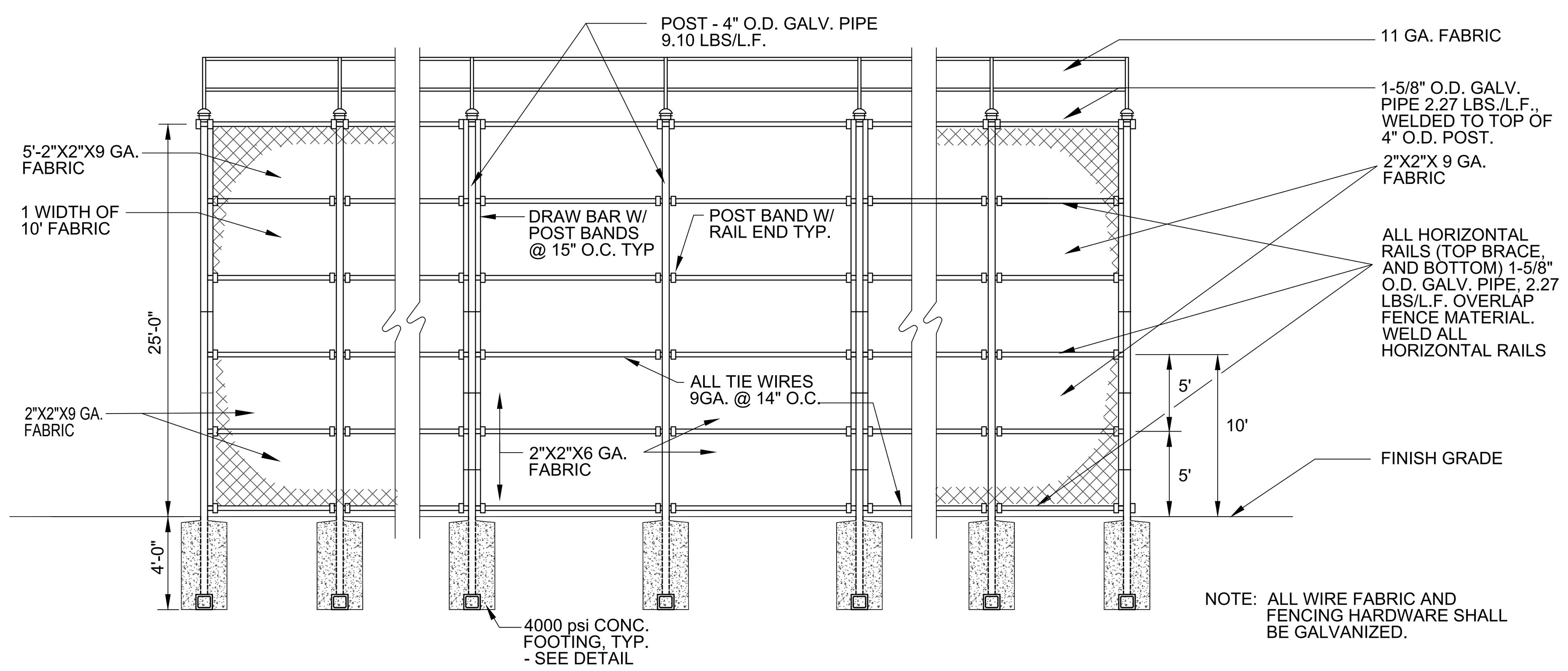
CLIENT:
CITY OF BROOKLAND, ARKANSAS

REVISIONS

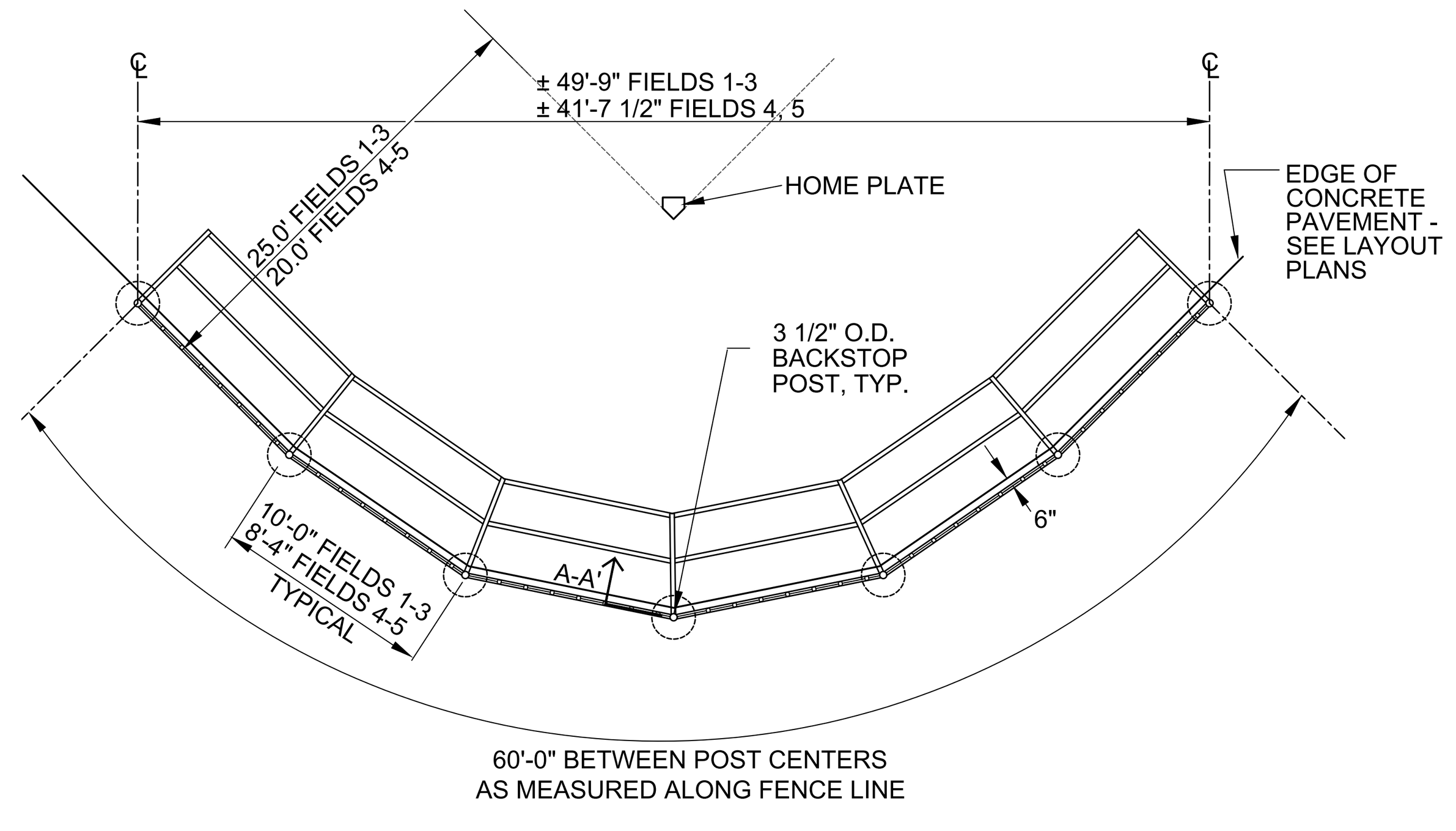
DATE	BY	DESCRIPTION

BASEBALL LAYOUT

PROJECT NO.	
CTYBRKLD.003PL	
DRAWN BY: IRR	CHECKED BY: DBB
SHEET: C17	SCALE: 1"=60'
DATE: 03/21/2025	17

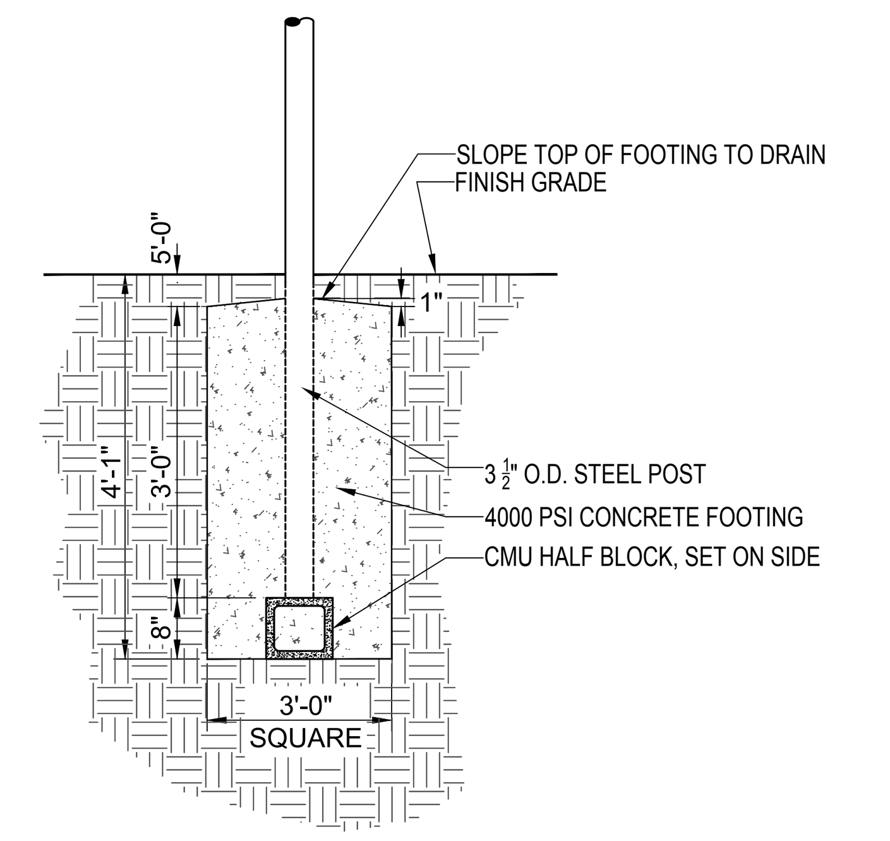


BACKSTOP ELEVATION

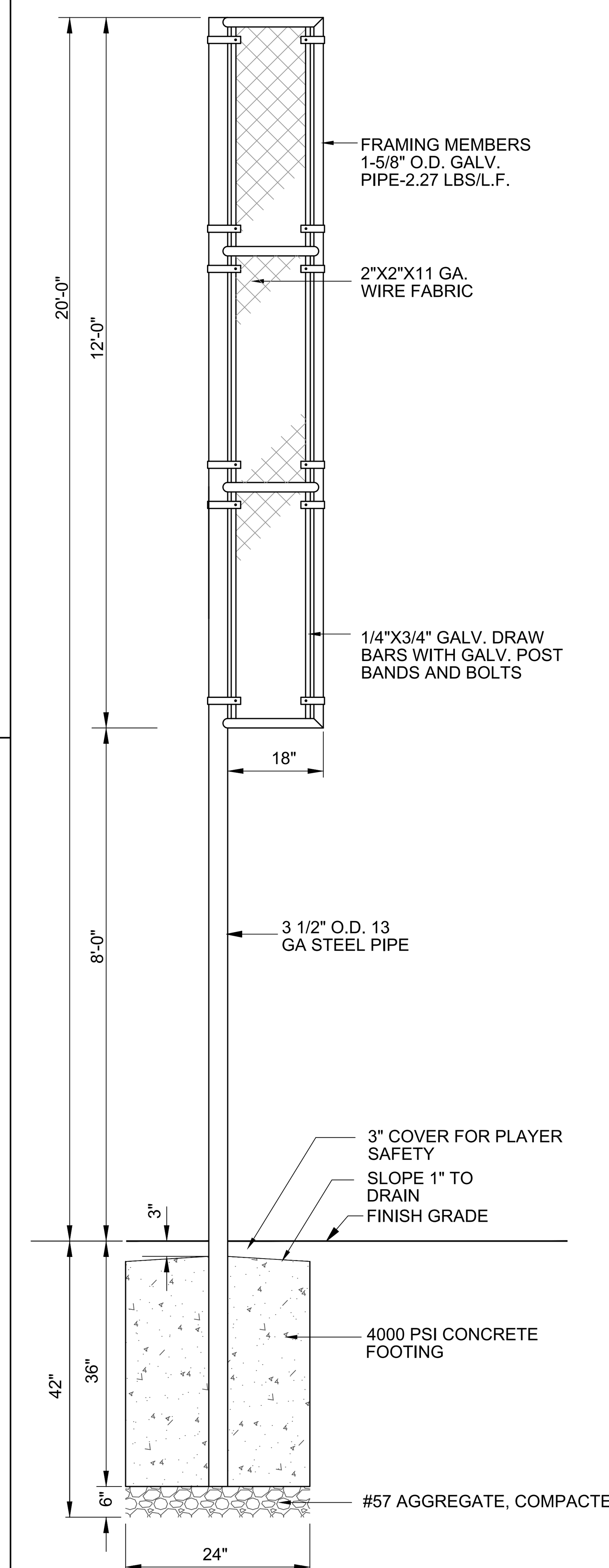


BACKSTOP PLAN

1 BACKSTOP LAYOUT
NOT TO SCALE

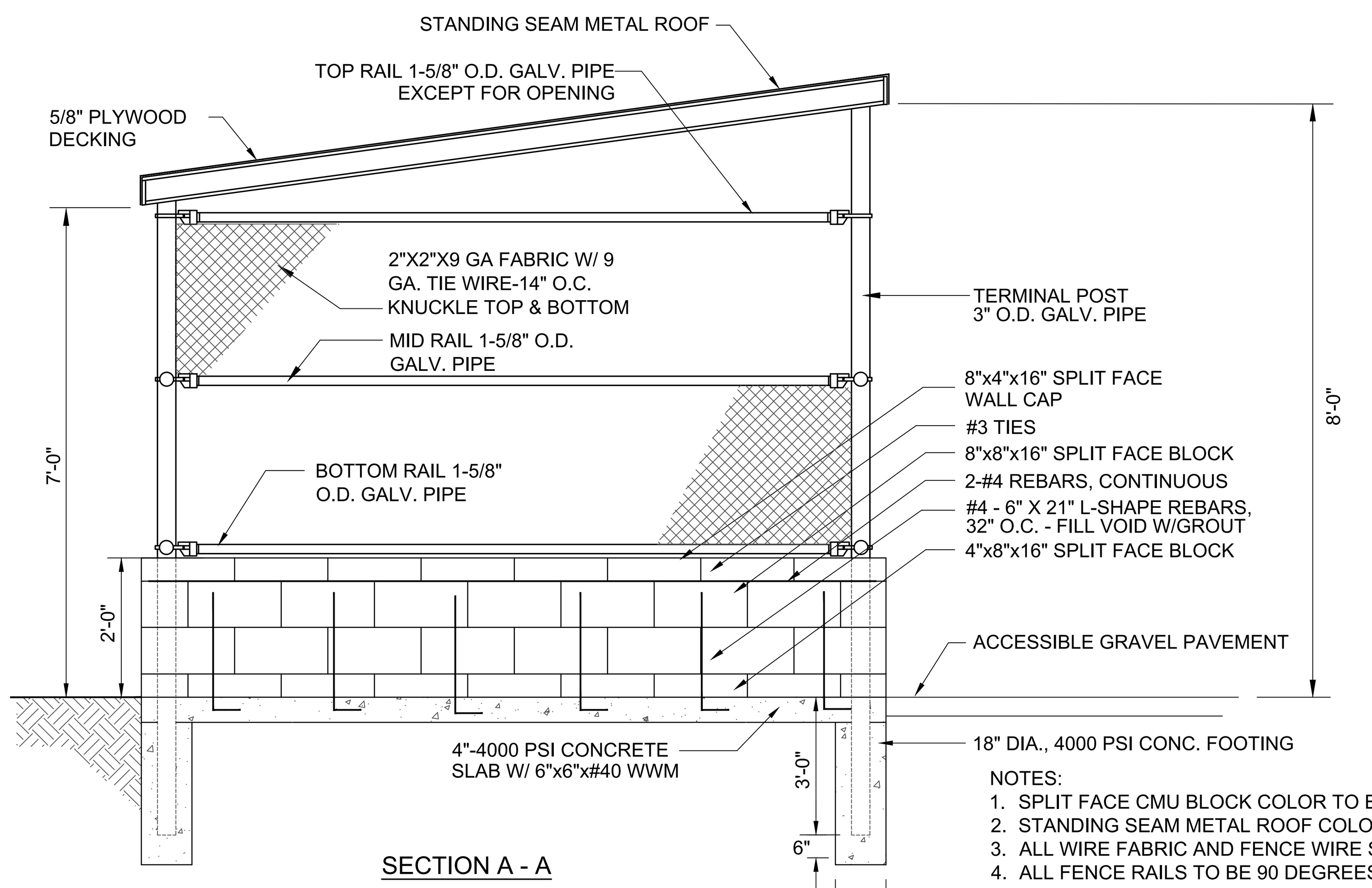


2 BACKSTOP POST FOOTING DETAIL
SCALE: 1/2" = 1'-0"



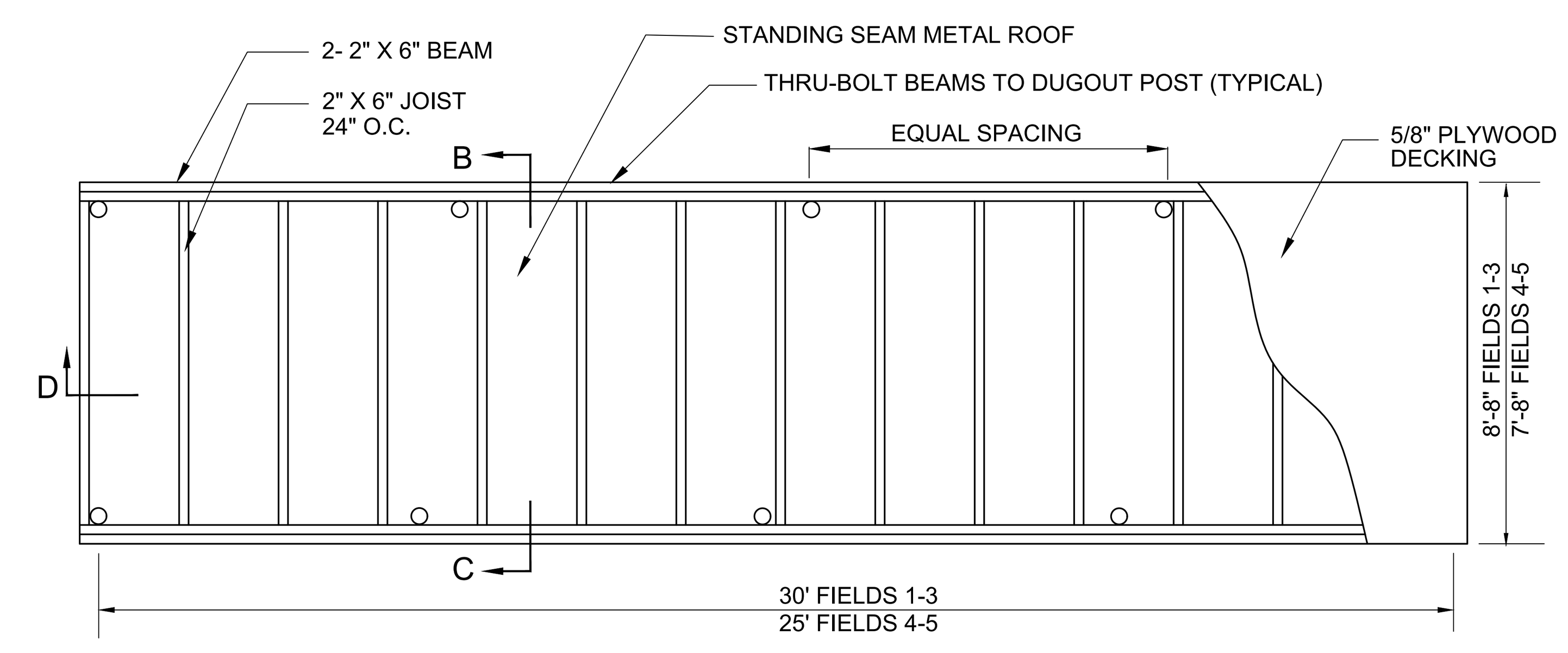
NOTES:
1) THE POLE STRUCTURE FRAME PANEL SHALL BE PLACED INSIDE THE LIMITS OF PLAY.
2) ENTIRE FOUL LINE POLE AND FRAME PANEL SHALL BE PAINTED WITH 2 COATS ENAMEL PAINT.
3) STANDARD COLORS TO BE SELECTED BY THE OWNER. EACH FIELD REQUIRES A DIFFERENT COLOR.
4) SUBMIT SHOP DRAWINGS FOR APPROVAL.

4 FOUL POLE DETAIL
1/2" = 1'-0"

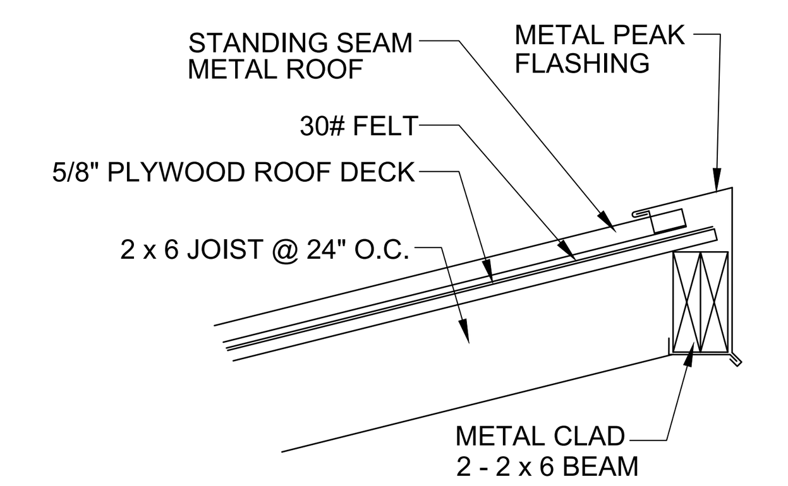


SECTION A - A

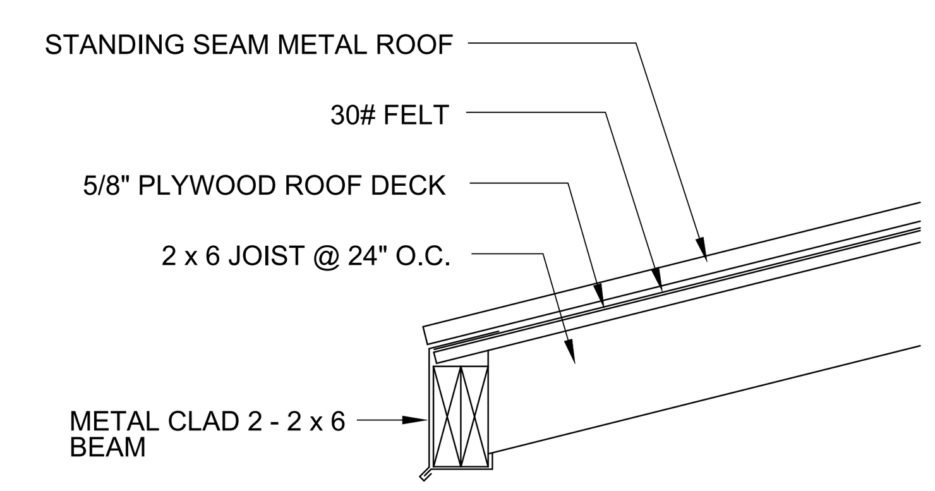
NOTES:
1. SPLIT FACE CMU BLOCK COLOR TO BE SELECTED BY THE ARCHITECT.
2. STANDING SEAM METAL ROOF COLOR TO BE SELECTED BY THE ARCHITECT.
3. ALL WIRE FABRIC AND FENCE WIRE SHALL BE GALVANIZED.
4. ALL FENCE RAILS TO BE 90 DEGREES TO POSTS
5. ALL ROOF DECK NAILS TO BE "PINCHED OFF" ON UNDERSIDE OF ROOF.



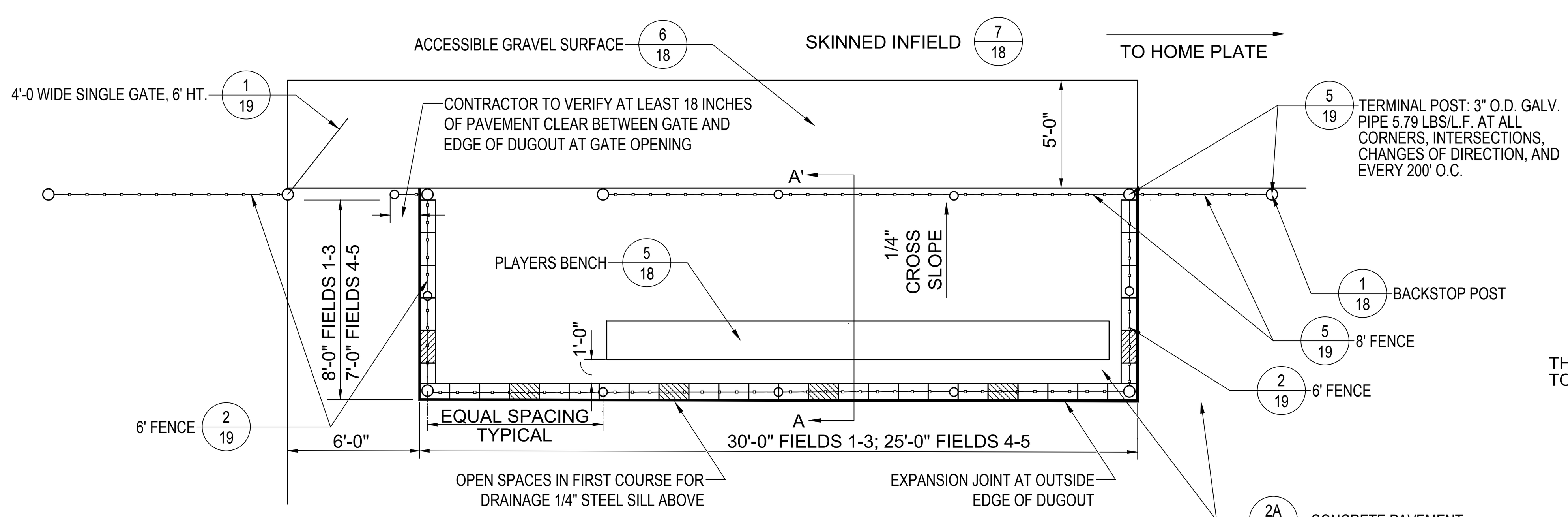
ROOFING PLAN



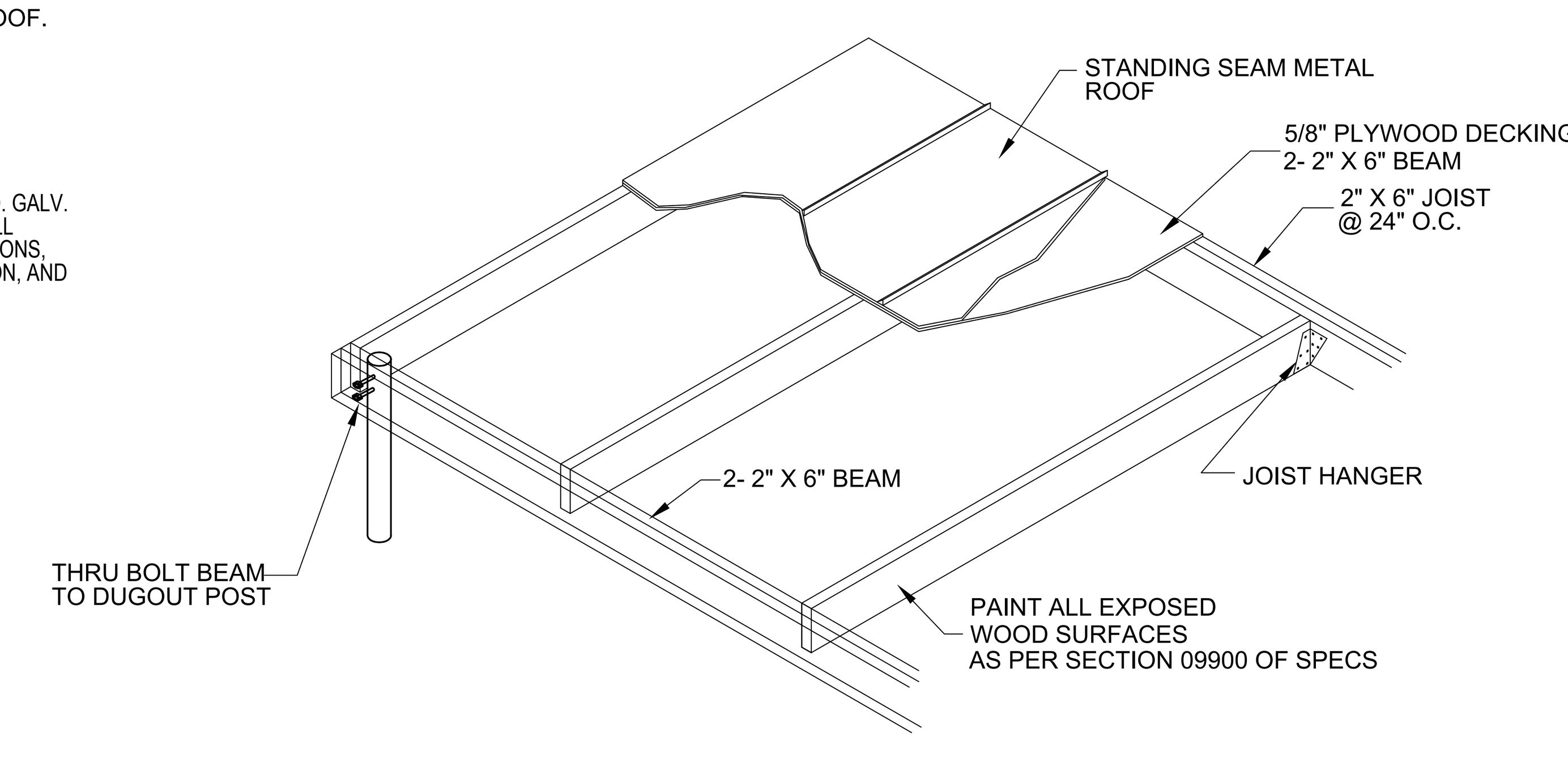
SECTION B



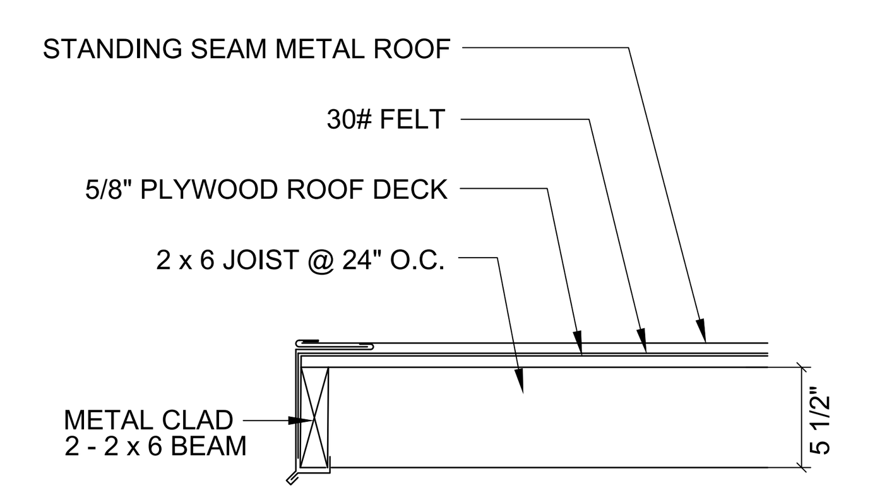
SECTION C



DUGOUT PLAN

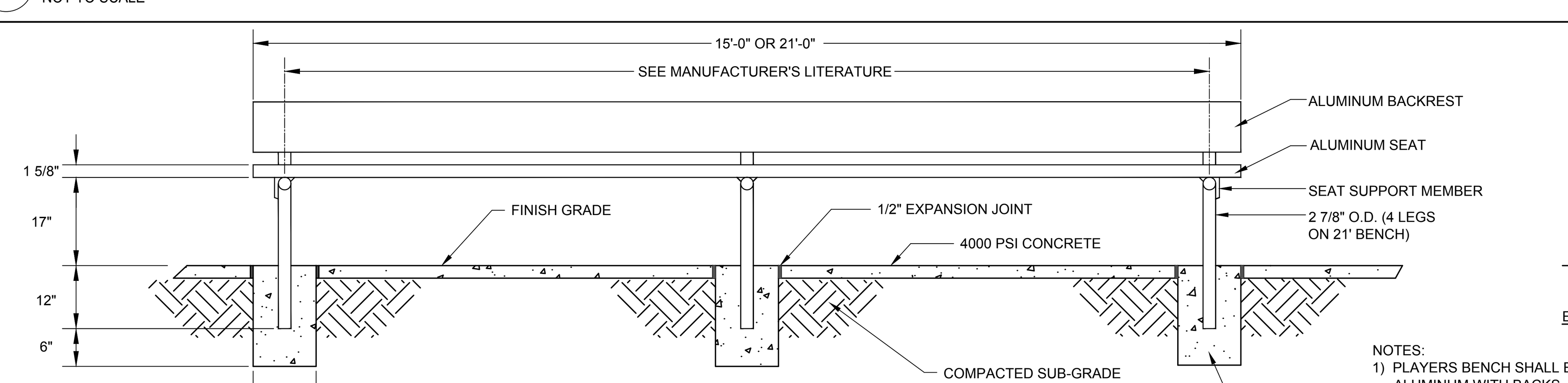


ROOFING ISOMETRIC VIEW

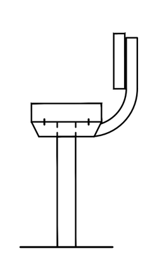


SECTION D

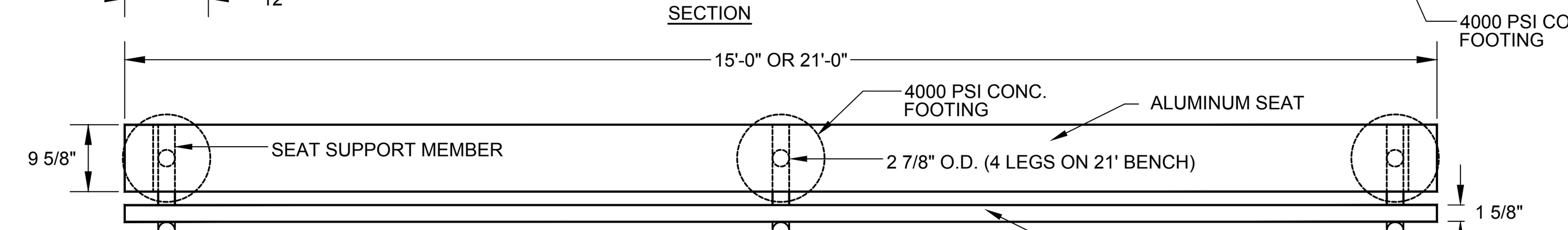
3 DUGOUT DETAILS
NOT TO SCALE



SECTION



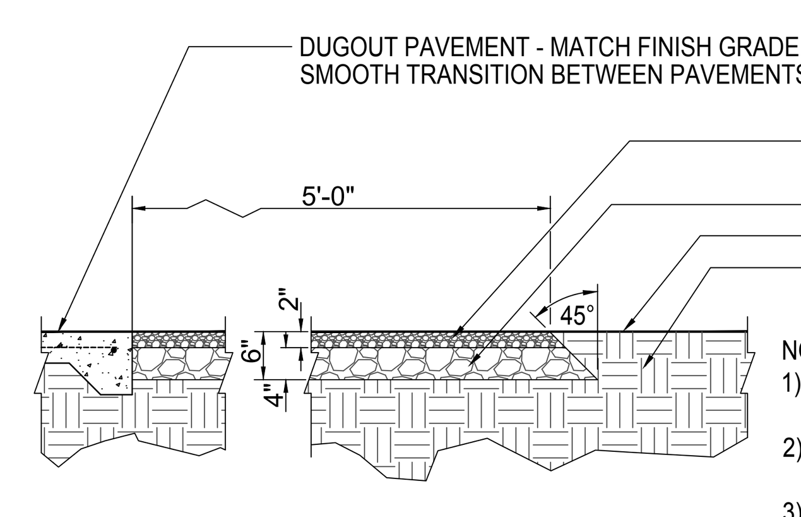
END VIEW



PLAN

NOTES:
1) PLAYERS BENCH SHALL BE CLEAR ANODIZED ALUMINUM WITH BACKS. BENCH LENGTH SHALL BE 21 FEET FOR BALL FIELDS 1, 2, AND 3; LENGTH SHALL BE 15 FEET FOR BALL FIELDS 4 AND 5. BENCHES SHALL BE ASSEMBLED ON SITE AND INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.
2) ACCEPTABLE MANUFACTURERS / MODELS INCLUDE THE FOLLOWING:
ALUMINUM ATHLETIC EQUIPMENT (www.AAEsports.com) /
BELSON OUTDOORS (www.belson.com) /
SPARTAN ATHLETIC COMPANY (www.spartanathleticco.com)

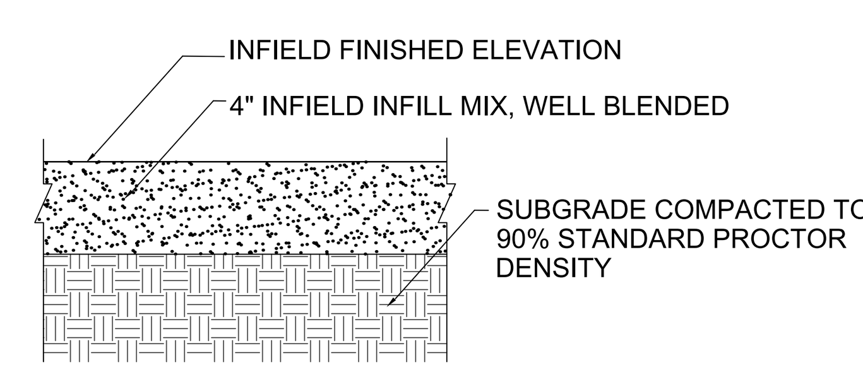
5 PLAYERS' BENCH
NOT TO SCALE



PAVEMENT SECTION

NOTES:
1) ALL MATERIALS TO BE COMPACTED TO 90% STANDARD PROCTOR DENSITY.
2) SEE GRADING PLAN FOR PERCENT AND DIRECTION OF SLOPE FOR DRAINAGE.
3) CROSS-SLOPE CANNOT EXCEED 2 PERCENT (1:50)
4) GRAVEL PAVEMENT MUST MATCH SURFACE ELEVATION OF ADJACENT DUGOUT AND WALK PAVEMENTS, WITHIN 1/2".

6 ACCESSIBLE GRAVEL DETAIL
NOT TO SCALE



NOTES:
1. THE SKINNED AREAS OF THE INFIELD AND BATTER'S BOX AREAS SHALL RECEIVE INFIELD SOIL MIX. SEE SPECIFICATION SECTION 32 92 20.
2. THE PITCHER'S MOUND SHALL BE PREFABRICATED. SEE DETAIL 2, SHEET 17.

7 SKINNED INFIELD DETAIL
NOT TO SCALE

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BROOKLAND SPORTSPLEX PHASE 2
BROOKLAND, ARKANSAS

Registered Landscape Architect — ISOBEL R. RITCH — 4889 — 3-21-2025 — Arkansas
seal

ISOBEL R. RITCH - LANDSCAPE ARCHITECT
ARKANSAS - LA #4889

CERTIFICATE OF AUTHORIZATION — FISHER & ARNOLD INC. — No. 248 — ARKANSAS
coa

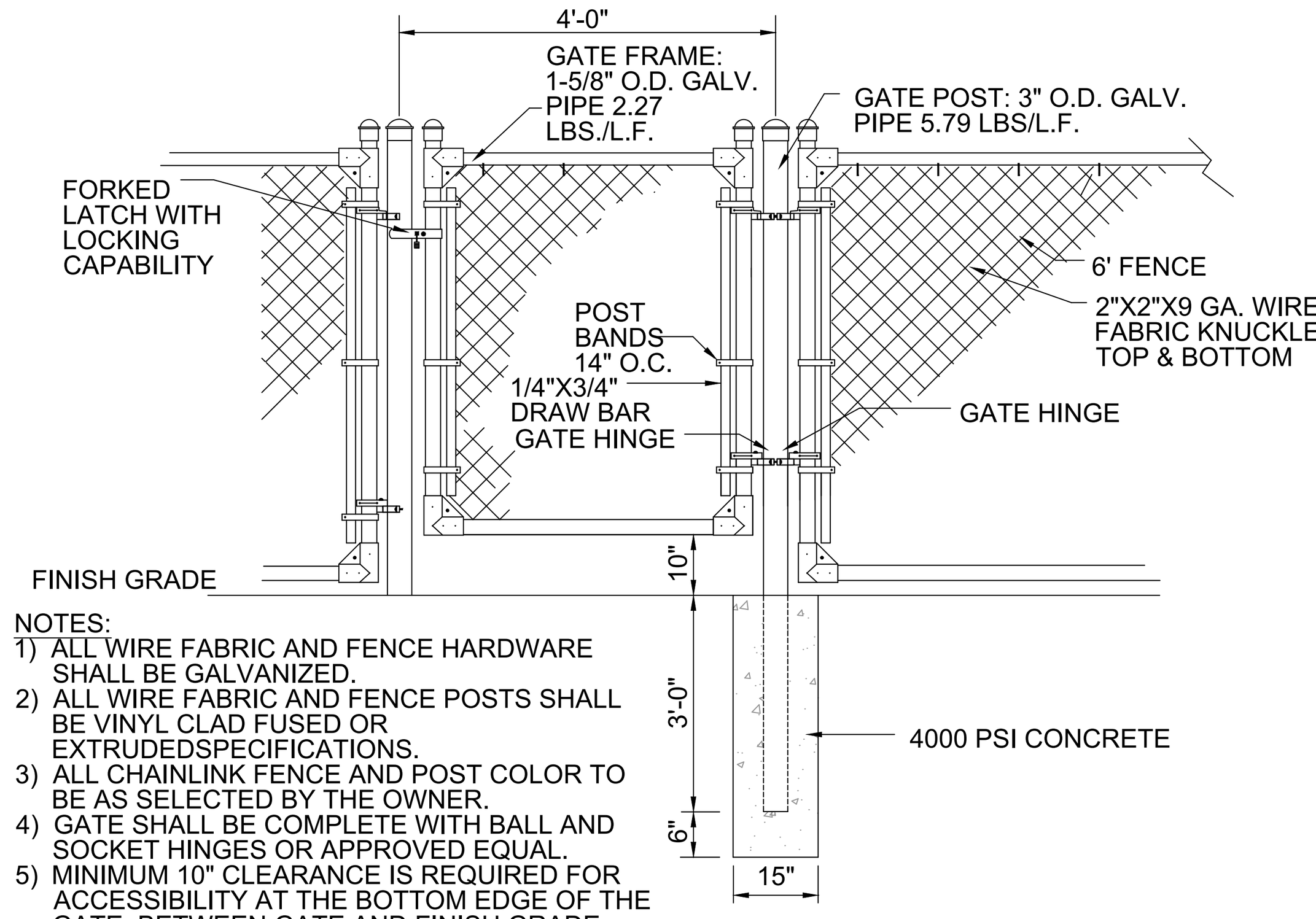
FISHER & ARNOLD, INC.
STATE-COA-248
CLIENT:
CITY OF BROOKLAND, ARKANSAS

REVISIONS

DATE	BY	DESCRIPTION

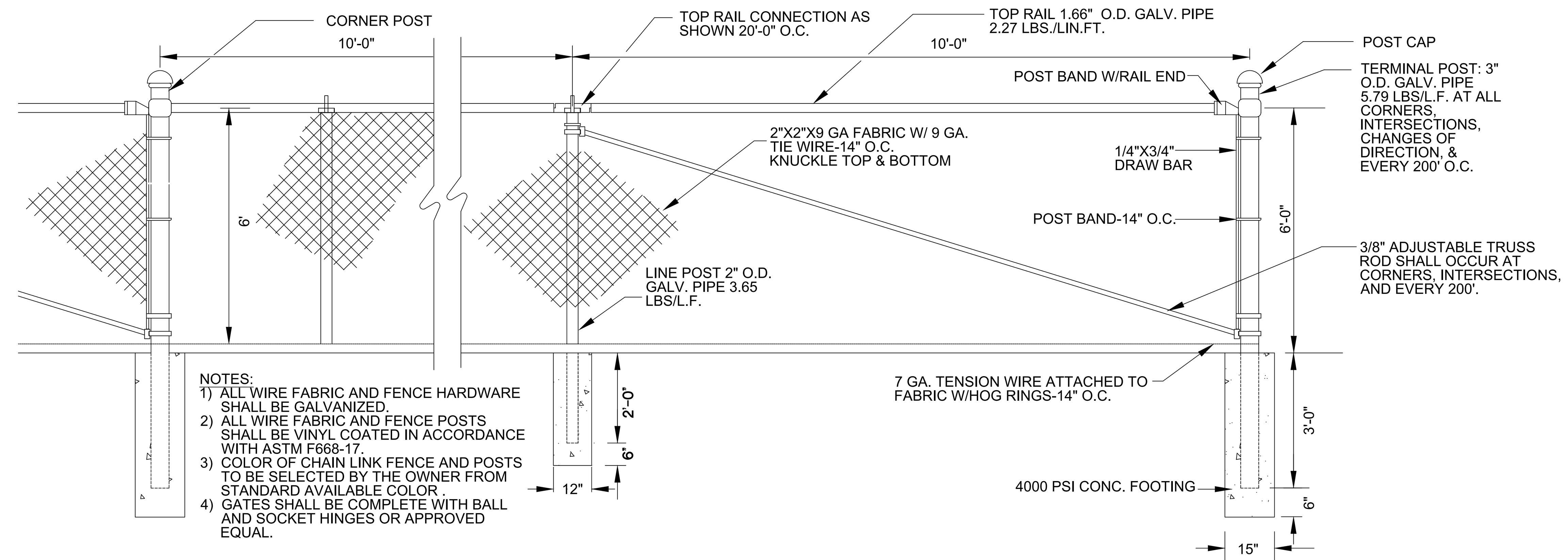
FIELD DETAILS

PROJECT NO.	CTYBRKLD.003PL
DRAWN BY: IRR	CHECKED BY: DBB
SHEET: C18	SCALE: N.T.S.
DATE: 03/21/2025	18



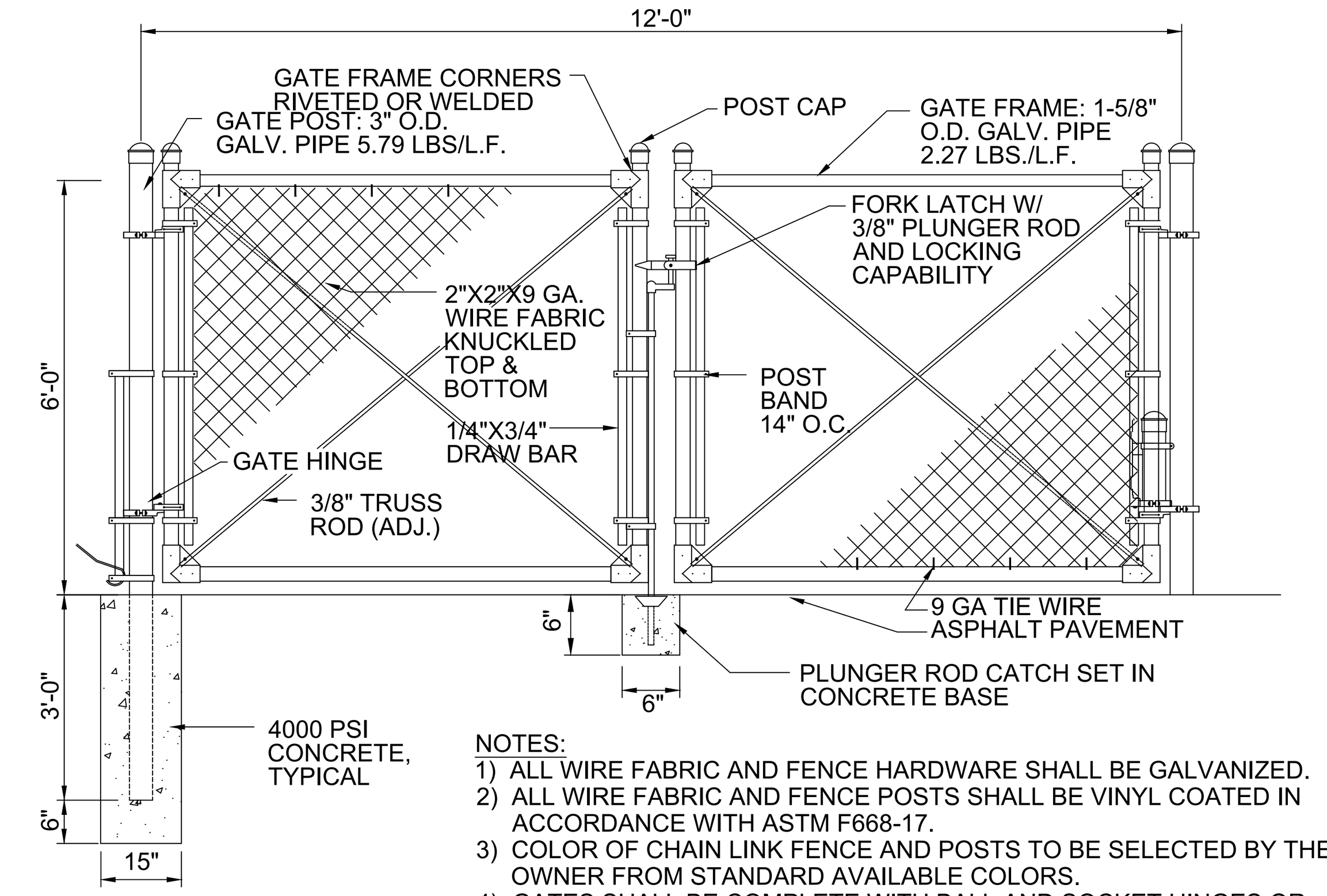
NOTES:
1) ALL WIRE FABRIC AND FENCE HARDWARE SHALL BE GALVANIZED.
2) ALL WIRE FABRIC AND FENCE POSTS SHALL BE VINYL CLAD FUSED OR EXTRUDEDSPECIFICATIONS.
3) ALL CHAINLINK FENCE AND POST COLOR TO BE AS SELECTED BY THE OWNER.
4) GATE SHALL BE COMPLETE WITH BALL AND SOCKET HINGES OR APPROVED EQUAL.
5) MINIMUM 10" CLEARANCE IS REQUIRED FOR ACCESSIBILITY AT THE BOTTOM EDGE OF THE GATE, BETWEEN GATE AND FINISH GRADE.

1 4' CHAIN LINK GATE DETAIL
NOT TO SCALE



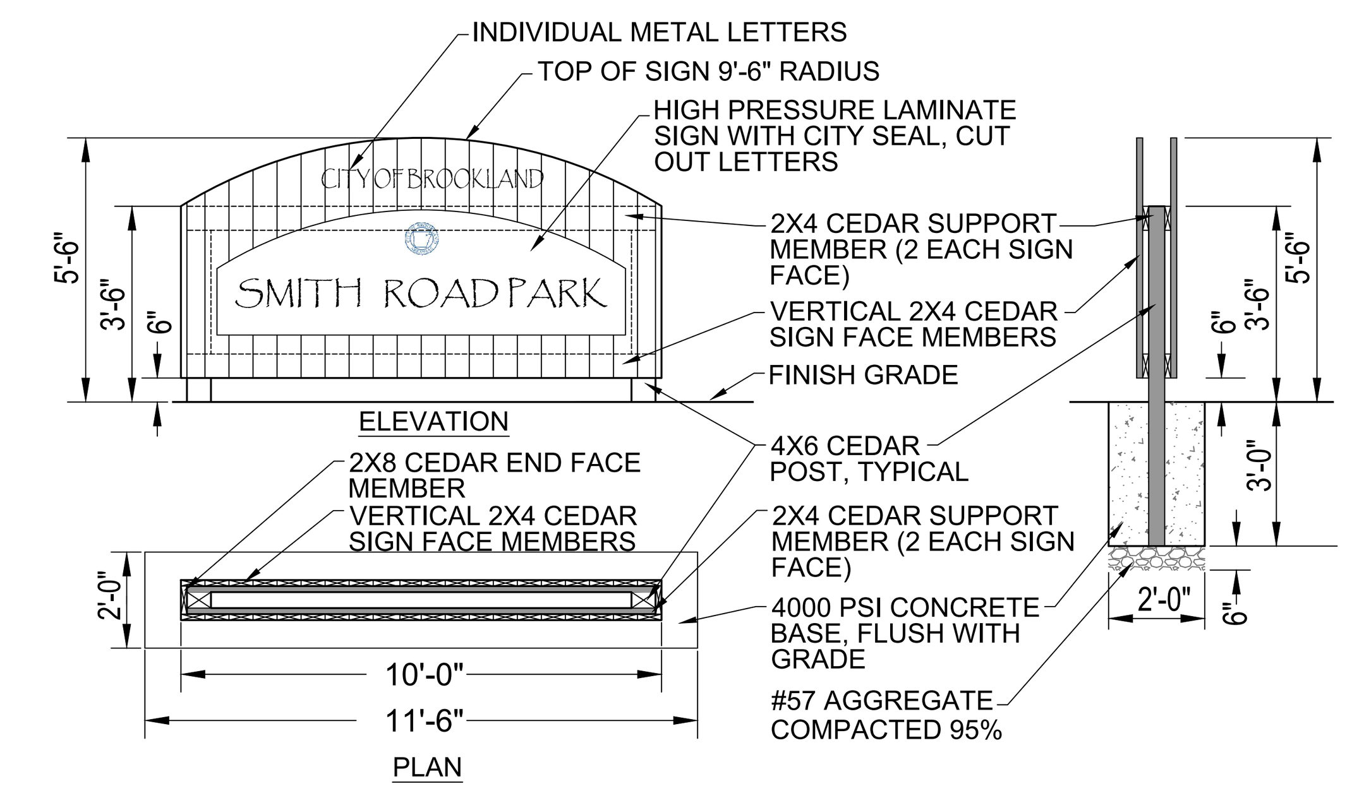
NOTES:
1) ALL WIRE FABRIC AND FENCE HARDWARE SHALL BE GALVANIZED.
2) ALL WIRE FABRIC AND FENCE POSTS SHALL BE VINYL COATED IN ACCORDANCE WITH ASTM F668-17.
3) COLOR OF CHAIN LINK FENCE AND POSTS TO BE SELECTED BY THE OWNER FROM STANDARD AVAILABLE COLOR .
4) GATES SHALL BE COMPLETE WITH BALL AND SOCKET HINGES OR APPROVED EQUAL.

2 6' CHAIN LINK FENCE DETAIL
NOT TO SCALE

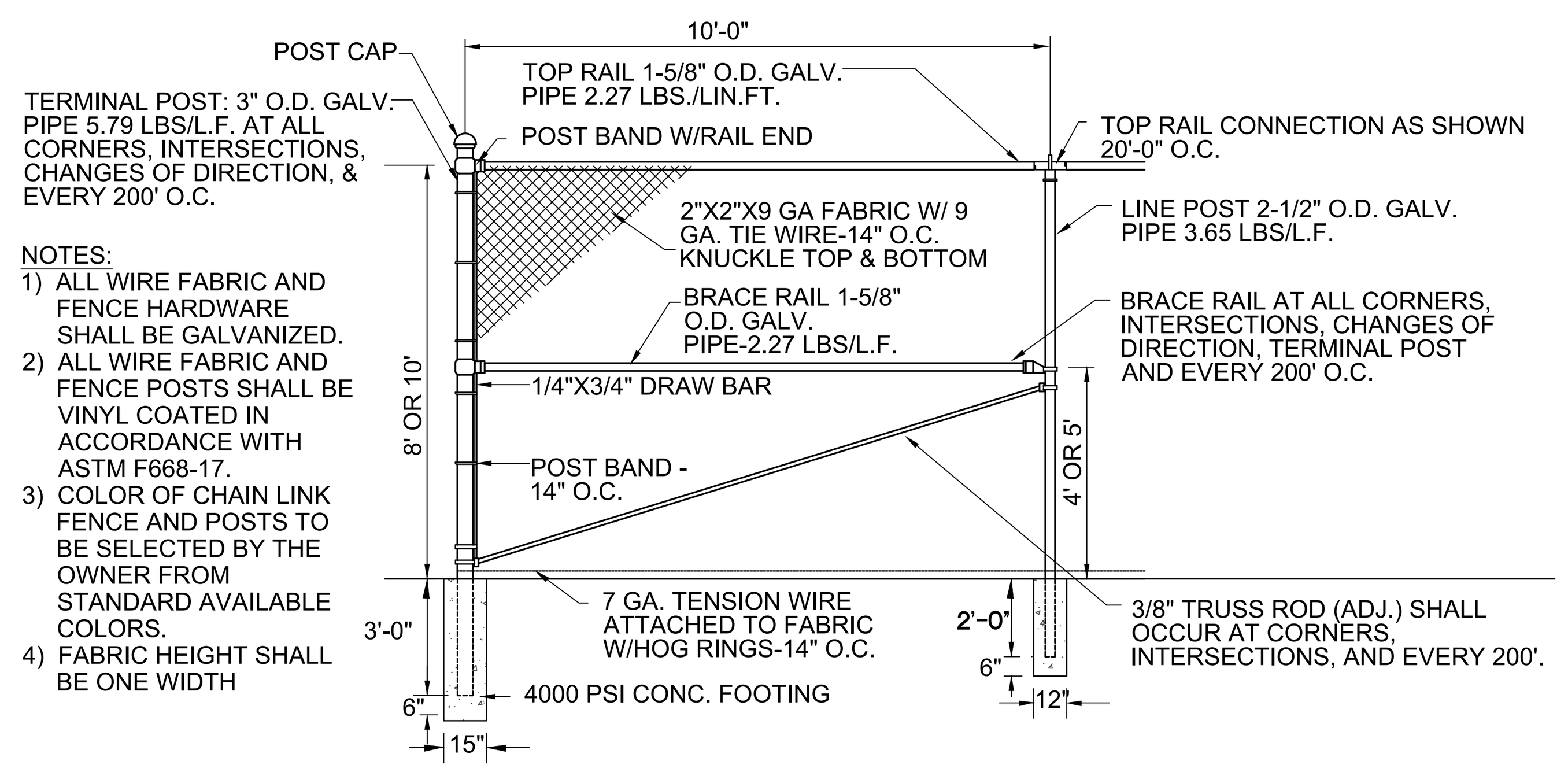


NOTES:
1) ALL WIRE FABRIC AND FENCE HARDWARE SHALL BE GALVANIZED.
2) ALL WIRE FABRIC AND FENCE POSTS SHALL BE VINYL COATED IN ACCORDANCE WITH ASTM F668-17.
3) COLOR OF CHAIN LINK FENCE AND POSTS TO BE SELECTED BY THE OWNER FROM STANDARD AVAILABLE COLORS.
4) GATES SHALL BE COMPLETE WITH BALL AND SOCKET HINGES OR APPROVED EQUAL.

3 12' CHAIN LINK GATE DETAIL
NOT TO SCALE

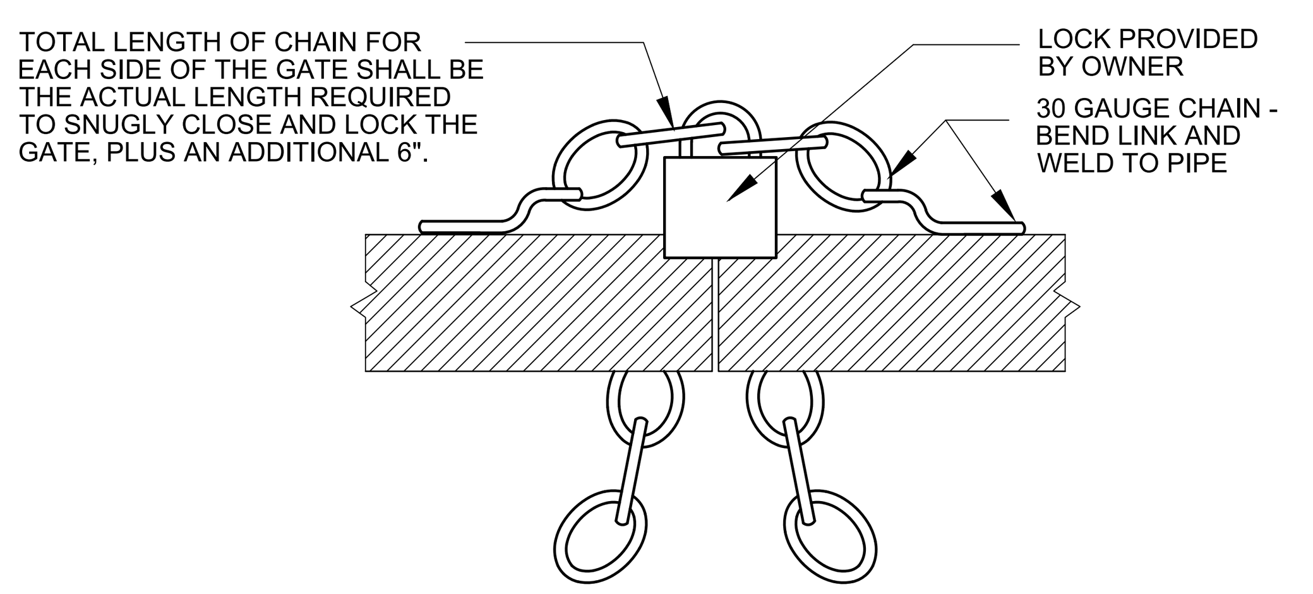


4 SIGN DETAIL
SCALE: 1/4" = 1'-0"

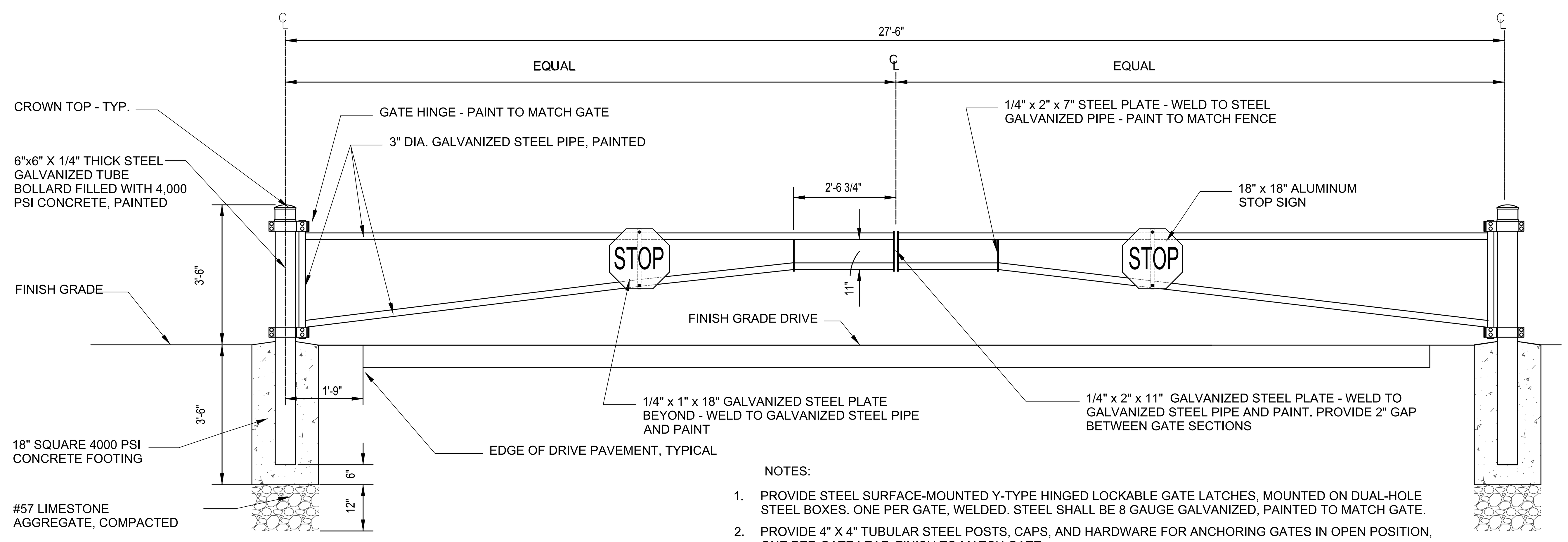


NOTES:
1) ALL WIRE FABRIC AND FENCE HARDWARE SHALL BE GALVANIZED.
2) ALL WIRE FABRIC AND FENCE POSTS SHALL BE VINYL COATED IN ACCORDANCE WITH ASTM F668-17.
3) COLOR OF CHAIN LINK FENCE AND POSTS TO BE SELECTED BY THE OWNER FROM STANDARD AVAILABLE COLORS.
4) FABRIC HEIGHT SHALL BE ONE WIDTH

5 8' CHAIN LINK FENCE DETAIL
NOT TO SCALE



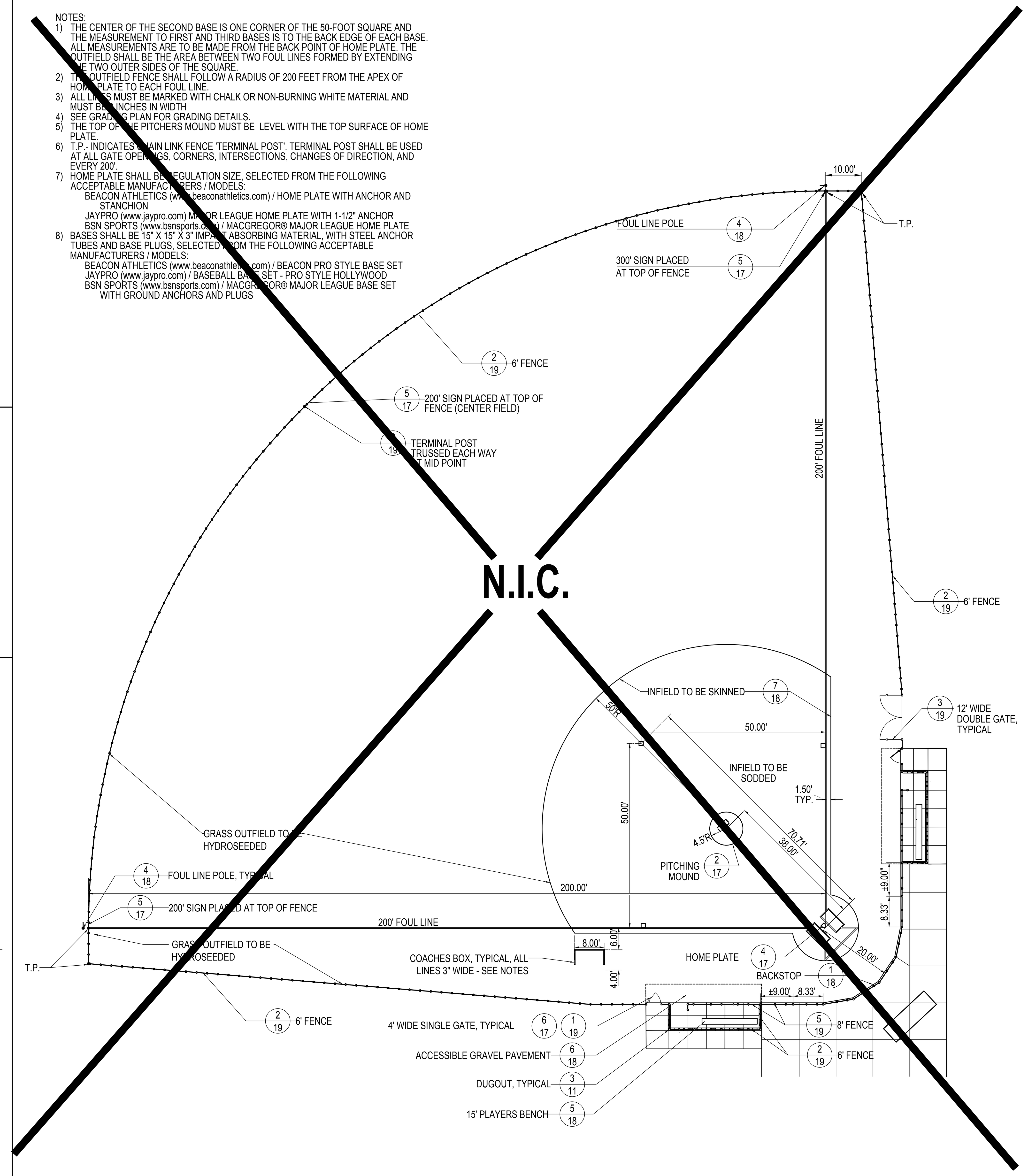
6 VEHICULAR GATE LOCKING ATTACHMENT DETAIL
NOT TO SCALE



NOTES:
1. PROVIDE STEEL SURFACE-MOUNTED Y-TYPE HINGED LOCKABLE GATE LATCHES, MOUNTED ON DUAL-HOLE STEEL BOXES. ONE PER GATE, WELDED. STEEL SHALL BE 8 GAUGE GALVANIZED, PAINTED TO MATCH GATE.
2. PROVIDE 4" X 4" TUBULAR STEEL POSTS, CAPS, AND HARDWARE FOR ANCHORING GATES IN OPEN POSITION, ONE PER GATE LEAF, FINISH TO MATCH GATE.
3. PRIME ENTIRE GATE SURFACE WITH 2 COATS RUST PREVENTATIVE AND 2 FINISH COATS ENAMEL PAINT, STANDARD COLOR TO TO BE SELECTED BY OWNER'S REPRESENTATIVE.
4. PROVIDE SHOP DRAWING FOR APPROVAL BY OWNER'S REPRESENTATIVE PRIOR TO GATE FABRICATION.

7 VEHICULAR GATE
SCALE: 1/4" = 1'-0"

NOTES:
1) THE CENTER OF THE SECOND BASE IS ONE CORNER OF THE 50-FOOT SQUARE AND THE MEASUREMENT TO FIRST AND THIRD BASES IS TO THE BACK EDGE OF EACH BASE. ALL MEASUREMENTS ARE TO BE MADE FROM THE BACK POINT OF HOME PLATE. THE OUTFIELD SHALL BE THE AREA BETWEEN TWO FOUL LINES FORMED BY EXTENDING THE TWO OUTER SIDES OF THE SQUARE.
2) THE OUTFIELD FENCE SHALL FOLLOW A RADIUS OF 200 FEET FROM THE APEX OF HOME PLATE TO EACH FOUL LINE.
3) ALL LINES MUST BE MARKED WITH CHALK OR NON-BURNING WHITE MATERIAL AND MUST BE 3 INCHES IN WIDTH
4) SEE GRADING PLAN FOR GRADING DETAILS.
5) THE TOP OF THE PITCHERS MOUND MUST BE LEVEL WITH THE TOP SURFACE OF HOME PLATE.
6) T.P.- INDICATES CHAIN LINK FENCE 'TERMINAL POST'. TERMINAL POST SHALL BE USED AT ALL GATE OPENINGS, CORNERS, INTERSECTIONS, CHANGES OF DIRECTION, AND EVERY 200'.
7) HOME PLATE SHALL BE REGULATION SIZE, SELECTED FROM THE FOLLOWING ACCEPTABLE MANUFACTURERS / MODELS:
   BEACON ATHLETICS (www.beaconathletics.com) / HOME PLATE WITH ANCHOR AND STANCHION
   JAYPRO (www.jaypro.com) MAJOR LEAGUE HOME PLATE WITH 1-1/2" ANCHOR
   BSN SPORTS (www.bsnsports.com) / MACGREGOR® MAJOR LEAGUE HOME PLATE
8) BASES SHALL BE 15" X 15" X 3" IMPACT ABSORBING MATERIAL, WITH STEEL ANCHOR TUBES AND BASE PLUGS, SELECTED FROM THE FOLLOWING ACCEPTABLE MANUFACTURERS / MODELS:
   BEACON ATHLETICS (www.beaconathletics.com) / BEACON PRO STYLE BASE SET
   JAYPRO (www.jaypro.com) / BASEBALL BASE SET - PRO STYLE HOLLYWOOD
   BSN SPORTS (www.bsnsports.com) / MACGREGOR® MAJOR LEAGUE BASE SET WITH GROUND ANCHORS AND PLUGS



8 BALLFIELD LAYOUT - FIELDS 4-5 (LITTLE LEAGUE'S T-BALL DIVISION, PONY LEAGUE'S FOAL AND SHETLAND DIVISIONS)
SCALE: 1" = 20'-0"

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BROOKLAND SPORTSPLEX PHASE 2
BROOKLAND, ARKANSAS

seal
ISOBEL R. RITCH - LANDSCAPE ARCHITECT
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FISHER & ARNOLD, INC.
STATE-COA-248
CLIENT:
CITY OF BROOKLAND, ARKANSAS

REVISIONS		
DATE	BY	DESCRIPTION

FENCE DETAILS

PROJECT NO. CTYBRKLD.003PL	
DRAWN BY IRR	CHECKED BY DBB
SHEET C19	SCALE N.T.S.
DATE 03/21/2025	19

Filename: Z:\CTYBRKLD.003PL\planning\plans Phase1_NORTH FIELDS\construction plans Phase1_NORTH FIELDS_field details.dwg
Layout Name: 19 FENCE DETAILS
Plotted: Thursday, March 20, 2025 — 3:29 pm
By: iritch

ELECTRICAL LEGEND

SYMBOLS

- (1) BRANCH CIRCUIT WIRE & CONDUIT RUN CONCEALED IN WALL OR ABOVE CEILING, HOME RUN TO PANELBOARD. A NUMERAL, IF PRESENT AT ARROW HEAD, INDICATES CIRCUIT NUMBER. ANY HOME RUN SHOWN WITHOUT TICK MARKS INDICATES A CONDUIT CONTAINING (3) #12 AWG CONDUCTORS (HOT, NEUTRAL & GROUND). TICK MARKS, IF PRESENT, INDICATE THE FOLLOWING:
  - SHORT TICK MARK: HOT CONDUCTOR OR SWITCH LEG
  - LONG TICK MARK: NEUTRAL CONDUCTOR
  - SLANTED TICK MARK: EQUIPMENT GROUNDING CONDUCTOR
- EMERGENCY LIGHTING UNIT
- COMBO EXIT SIGN & EMERGENCY LIGHTING UNIT
- CEILING MOUNTED EXIT SIGN
- WALL MOUNTED EXIT SIGN
- EMERGENCY REMOTE LIGHTING HEADS
- EQUIPMENT CONNECTION
- MOTOR
- $M MANUAL MOTOR CONTROLLER
- J JUNCTION BOX
- SINGLE (SIMPLEX) RECEPTACLE
- DUPLEX RECEPTACLE
- GFCI RECEPTACLE
- IG ISOLATED GROUND RECEPTACLE
- TR TAMPER-RESISTANT RECEPTACLE
- DOUBLE-DUPLEX (QUADRAPLEX) RECEPTACLE
- CEILING MOUNTED DUPLEX RECEPTACLE
- SPECIAL PURPOSE RECEPTACLE (AS NOTED)
- GB GROUND BAR
- TV RECESSED TV OUTLET
- $ SPST WALL SWITCH
- $nL LINE-VOLTAGE POWERED WIRELESS DIMMING SWITCH (nLIGHT #rPODLA-DX-XX)
- DT DUAL-TECHNOLOGY CEILING MOUNTED OCCUPANCY SENSOR
- DS DUAL-TECHNOLOGY CORNER MOUNTED OCCUPANCY SENSOR
- LC REMOTE LIGHTING CONTROLLER
- DATA OUTLET
- TELEPHONE OUTLET
- DATA & TELEPHONE OUTLET

ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AIC	AMPERE INTERRUPTING CAPACITY
ATS	AUTOMATIC TRANSFER SWITCH
BKR	BREAKER
CKT	CIRCUIT
CFCI	CONTRACTOR FURNISHED, CONTRACTOR INSTALLED
EDF	ELECTRIC DRINKING FOUNTAIN
IG	ISOLATED GROUND
NF	NON-FUSED
OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
PLA	PADLOCK ATTACHMENT
RGS	RIGID GALVANIZED STEEL
SOWB	SPACE ONLY WITH BUS
SPD	SURGE PROTECTIVE DEVICE
TR	TAMPER RESISTANT
UNO	UNLESS NOTED OTHERWISE
WP	WEATHERPROOF
XFMR	TRANSFORMER
3P	3-POLE
3PH	3-PHASE
4W	4-WIRE
30/3	30-AMP, 3-POLE
30/3/NF	30-AMP, 3-POLE, NON-FUSED
30/3/15A	30-AMP, 3-POLE, FUSED @ 15 AMPS

GENERAL PROJECT NOTES

1. THE SCOPE OF THE ELECTRICAL WORK FOR THIS PROJECT IS NOT LIMITED TO THE REQUIREMENTS OF ANY ONE DRAWING, ANY PORTION OF THE DRAWINGS, ANY ONE SPECIFICATION DIVISION, OR ANY PORTION OF THE SPECIFICATIONS WHOSE MAIN THEME IS ELECTRICAL. THE SCOPE OF THE ELECTRICAL WORK FOR THIS PROJECT CONSISTS OF ALL ELECTRICAL WORK REQUIRED TO OBTAIN COMPLETE AND OPERATING SYSTEMS AND EQUIPMENT AS INDICATED ON OR AS CAN BE REASONABLE INFERRED FROM ALL DRAWINGS AND SPECIFICATIONS.
2. REVIEW ALL DRAWINGS AND ADJUST ALL WORK TO CONFORM TO ALL CONDITIONS SHOWN THEREIN. DISCREPANCIES BETWEEN DIFFERENT DRAWINGS, OR BETWEEN DRAWINGS AND SPECIFICATIONS OR CODES AND REGULATIONS GOVERNING THE INSTALLATION SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE PRIOR TO THE DATE OF BID OPENING.
3. THE LOCATIONS OF EQUIPMENT, MOTORS, ETC., AS INDICATED ON THE DRAWINGS ARE APPROXIMATE ONLY. VERIFY ALL DIMENSIONS WITH THE APPROPRIATE EQUIPMENT INSTALLER BEFORE ROUGH-IN. WHERE CONDUIT, WIRING, SERVICE EQUIPMENT, LIGHTS, SWITCHES, OR OTHER ELECTRICAL EQUIPMENT INTERFERE WITH CONSTRUCTION; REMOVE, RELOCATE AND REARRANGE SUCH MATERIAL AND EQUIPMENT AS REQUIRED TO MAKE A COMPLETE AND SATISFACTORY INSTALLATION.
4. PROPERLY SEAL ALL PENETRATIONS THROUGH FIRE AND/OR SMOKE RATED ASSEMBLIES. ALL MATERIAL USED TO SEAL SUCH PENETRATIONS SHALL BE UL LISTED FOR THE INTENDED USE. SEE ARCHITECTURAL PLANS FOR LOCATIONS OF ALL RATED ASSEMBLIES.
5. OUTLET BOXES LOCATED ON OPPOSITE SIDES OF FIRE-RESISTANT RATED WALLS SHALL BE SEPARATED BY A HORIZONTAL DISTANCE OF 24 INCHES OR BOTH BOXES SHALL BE FULLY WRAPPED WITH LISTED PUTTY PADS.
6. RACEWAYS, CABLES, BOXES, AND FITTINGS SHALL BE SECURELY FASTENED TO THE BUILDING STRUCTURE. CEILING GRIDS AND ASSOCIATED SUPPORT WIRES SHALL NOT BE USED AS SUPPORTING MEANS.
7. ALL CONDUIT ELBOWS INSTALLED BELOW GRADE INCLUDING ALL SLAB PENETRATIONS UP TO 6 INCHES AFF SHALL BE MADE OF GALVANIZED RIGID STEEL.
8. THESE DRAWINGS DO NOT INDICATE CONTROL WIRING; HOWEVER, ALL SYSTEMS ARE REQUIRED TO BE FULLY FUNCTIONAL AT THE TIME OF PROJECT COMPLETION. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH OTHER TRADES REGARDING THE PROCUREMENT AND INSTALLATION OF ALL CONTROL WIRING, CONDUIT, AND CONTROL RELATED DEVICES REQUIRED FOR THE PROPER OPERATION OF ALL MECHANICAL, PLUMBING, AND ELECTRICAL SYSTEMS.
9. THESE DRAWINGS ARE DIAGRAMMATIC ONLY AND SHALL NOT BE USED FOR SCALING PURPOSES. REFER TO ARCHITECTURAL DRAWINGS FOR ALL SCALES AND DIMENSIONS.
10. THESE DRAWINGS DO NOT CONSTITUTE SHOP DRAWINGS. THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS USING MANUFACTURER'S PUBLISHED DIMENSIONS FOR THE ACTUAL EQUIPMENT PURCHASED FOR THIS PROJECT.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE LOCATIONS OF ALL ELECTRICAL EQUIPMENT WITH EQUIPMENT OF OTHER TRADES. THE CONTRACTOR SHALL REVIEW THE CIVIL, STRUCTURAL, MECHANICAL, PLUMBING, FIRE PROTECTION, AND ARCHITECTURAL DRAWINGS AND DETERMINE AREAS WHERE INTERFERENCE MAY OCCUR. ALL AREAS OF INTERFERENCE SHALL BE PROMPTLY BROUGHT TO THE ATTENTION OF THE DESIGN PROFESSIONAL.
12. THE FOLLOWING CONDUCTOR SIZES SHALL BE PROVIDED FOR 15A AND 20A, 1-PHASE BRANCH CIRCUITS (HOT, NEUTRAL, GROUND) BASED ON CIRCUIT LENGTH TO NEAREST DEVICE. INCREASE SIZES OF RACEWAYS AS REQUIRED.

COND. SIZE	120V	240V	480V
#12 AWG	0-60FT	0-110FT	0-245FT
#10 AWG	61-100FT	111-175FT	246-405FT
#8 AWG	101-155FT	176-265FT	406-615FT
#6 AWG	156-240FT	266-415FT	616-960FT

GENERAL POWER & SYSTEMS NOTES

1. ALL OUTLETS SHALL BE MOUNTED AT 18 INCHES AFF TO CENTER UNLESS NOTED OTHERWISE ON THE DRAWINGS.
2. MOUNTING HEIGHTS INDICATED ON THE DRAWINGS SHALL BE TO CENTER OF DEVICES AND SHALL BE USED FOR REFERENCE ONLY. CONTRACTOR SHALL COORDINATE FINAL MOUNTING HEIGHTS WITH FURNITURE AND MILLWORK TO AVOID INTERFERENCE. OUTLETS INSTALLED ABOVE COUNTERTOPS SHALL BE MOUNTED 2 INCHES CLEAR ABOVE BACKSPLASHES. OUTLETS IN MASONRY WALLS SHALL BE ADJUSTED AS REQUIRED TO AVOID INTERFERENCE WITH COURSING.
3. INSTALL A RECESSED 4-INCH SQUARE BOX WITH SINGLE-GANG PLASTER RING AND 3/4"C TO NEAREST ACCESSIBLE CEILING SPACE FOR EACH TELEPHONE/DATA OUTLET.
4. INSTALL NYLON BUSHINGS AT ENDS OF ALL TELECOM CONDUITS TO PREVENT DAMAGE TO CABLE INSULATION.
5. INSTALL BLANK COVER PLATES OVER ALL UNUSED TELECOM WALL BOXES. COVER PLATES SHALL MATCH COLOR AND MATERIAL OF ALL OTHER WIRING DEVICE PLATES.
6. ALL 15- AND 20-AMP, 125- AND 250-VOLT NON-LOCKING RECEPTACLES LOCATED IN DAMP OR WET LOCATIONS SHALL BE LISTED WEATHER-RESISTANT TYPE.
7. ALL 15- AND 20-AMP, 125- AND 250-VOLT RECEPTACLES LOCATED IN WET LOCATIONS AND OUTDOORS WHERE SUBJECT TO BEATING RAIN OR WATER RUNOFF SHALL BE EQUIPPED WITH AN OUTLET BOX HOOD IDENTIFIED AS "EXTRA-DUTY" AND SHALL BE MADE ENTIRELY OF HEAVY DUTY DIE-CAST METAL CONSTRUCTION.
8. ARRANGEMENT OF EQUIPMENT IN ELECTRICAL ROOMS IS FOR REFERENCE ONLY. CONTRACTOR SHALL UTILIZE DIMENSIONS SUPPLIED BY EQUIPMENT MANUFACTURERS AND ADJUST LOCATIONS AS REQUIRED TO PROVIDE ADEQUATE WORKING CLEARANCES.
9. PROVIDE LINE VOLTAGE POWER FOR ALL CONTROL EQUIPMENT AND COMPONENTS REQUIRED FOR THE PROPER OPERATION OF ALL OWNER-FURNISHED EQUIPMENT OR EQUIPMENT OF OTHER TRADES. CONTRACTOR SHALL COORDINATE CONTROL REQUIREMENTS OF ALL SYSTEMS WITH RESPECTIVE TRADES PRIOR TO CONSTRUCTION.
10. FURNISH AND INSTALL ALL MANUAL MOTOR STARTER SWITCHES, DISCONNECT SWITCHES, RECEPTACLES, ETC. AS REQUIRED FOR THE PROPER INSTALLATION OF OWNER-FURNISHED EQUIPMENT OR EQUIPMENT OF OTHER TRADES. CONTRACTOR SHALL COORDINATE INSTALLATION REQUIREMENTS OF ALL EQUIPMENT PRIOR TO ORDERING MATERIAL. SIZES OF DISCONNECTS, FUSES AND/OR CIRCUIT BREAKERS NOTED ON THE DRAWINGS ARE BASED ON INFORMATION AVAILABLE DURING DESIGN AND SHALL BE ADJUSTED AS REQUIRED TO CONFORM WITH ACTUAL EQUIPMENT NAMEPLATE DATA.

GENERAL LIGHTING NOTES

1. CONTRACTOR SHALL INSTALL A SEPARATE, UNSWITCHED HOT CONDUCTOR (UPSTREAM OF ANY SWITCHES, RELAYS, ETC.) TO EACH EMERGENCY LIGHTING UNIT, AND EXIT SIGN. HOT CONDUCTOR MUST BE DERIVED FROM SAME BRANCH CIRCUIT SERVING NORMAL LIGHTING IN ASSOCIATED AREA, AS REQUIRED BY ARTICLE 700 OF NEC, UNLESS NOTED OTHERWISE.
2. COORDINATE CEILING TYPES WITH ARCHITECTURAL DRAWINGS PRIOR TO CONSTRUCTION. FURNISH ALL HARDWARE REQUIRED TO PROPERLY INSTALL LIGHTING FIXTURES IN RESPECTIVE CEILING TYPES.
3. COORDINATE LIGHTING FIXTURES WITH RESPECTIVE CIRCUIT VOLTAGES AS INDICATED ON THE DRAWINGS.
4. SUPPORT EACH RECESSED LIGHT FIXTURE INDEPENDENTLY OF THE ASSOCIATED CEILING GRID. CONTRACTOR SHALL SUPPORT EACH DOWNLIGHT (<10LBS) WITH ONE (1) SLACK #12 SAFETY WIRE. ALL OTHER RECESSED FIXTURES (UP TO 2'X4' AND <56LBS) SHALL BE SUPPORTED WITH TWO (2) #12 SAFETY WIRES CONNECTED AT OPPOSITE, DIAGONAL CORNERS. WIRING SHALL BE LOOPED THROUGH HANGER TABS INTEGRAL WITH FIXTURE HOUSINGS AND SHALL BE SECURELY FASTENED TO STRUCTURE SAME AS CEILING SYSTEMS. EACH END OF SAFETY WIRE SHALL BE WRAPPED WITH MINIMUM THREE (3) TURNS (1-1/2" LENGTH).
5. WALL SWITCHES SHALL BE MOUNTED AT 48 INCHES AFF TO CENTER UNLESS NOTED OTHERWISE. SWITCHES MOUNTED IN MASONRY WALLS SHALL BE ADJUSTED AS REQUIRED TO AVOID INTERFERENCE WITH COURSING.
6. LOW-VOLTAGE CONTROL WIRING IS NOT SHOWN ON THE DRAWINGS. CONTRACTOR SHALL FURNISH AND INSTALL ALL WIRING REQUIRED FOR THE PROPER OPERATION OF ALL LIGHTING CONTROL SYSTEMS. CONTROL WIRING MAY BE INSTALLED OPENLY WHERE RUN HORIZONTALLY ABOVE ACCESSIBLE CEILINGS. ALL OTHER INSTALLATIONS, INCLUDING VERTICAL DROPS TO DEVICES, SHALL BE INSTALLED IN 3/4" EMT, CONCEALED WITHIN BUILDING FINISHES. OPEN WIRING SHALL BE SUPPORTED WITH J-HOOKS OR BRIDLE RINGS AND SHALL BE KEPT INDEPENDENT FROM ALL OTHER WIRING. CONTROL WIRING SHALL BE PLENUM-RATED.

MECHANICAL EQUIPMENT SCHEDULE

NOTES:

1. PROVIDE LINE VOLTAGE POWER FOR ALL CONTROL EQUIPMENT AND COMPONENTS REQUIRED FOR THE PROPER OPERATION OF ALL EQUIPMENT. CONTRACTOR SHALL COORDINATE CONTROL REQUIREMENTS WITH RESPECTIVE TRADES PRIOR TO CONSTRUCTION.

2. FURNISH AND INSTALL ALL MANUAL MOTOR STARTER SWITCHES, DISCONNECT SWITCHES, RECEPTACLES, ETC. AS REQUIRED FOR THE PROPER INSTALLATION OF EQUIPMENT. CONTRACTOR SHALL COORDINATE INSTALLATION REQUIREMENTS OF ALL EQUIPMENT PRIOR TO ORDERING MATERIAL. VALUES NOTED BELOW ARE BASED ON INFORMATION AVAILABLE DURING DESIGN AND SHALL BE ADJUSTED AS REQUIRED TO CONFORM WITH ACTUAL EQUIPMENT NAMEPLATE DATA.

Equip. Name	Equip. Number	Equip. Voltage	No. of Poles	Total Equip. Load (VA)	HP	FLA	MCA	MOCP	Wire	Conduit	Disconnect	Comments	Panel	Circuit Number
AHU	1	240 V	2	6960 VA	-	-	29	30	2#10, #10G	1/2"	30A/2P/NF		LP	19,21
EF	1	120 V	1	528 VA	1/10	-	-	-	2#12, #12G	1/2"	FACTORY INSTALLED		LP	11
EH	1a	240 V	2	3000 VA	-	12.5	-	-	2#12, #12G	1/2"	FACTORY INSTALLED		LP	14,16
EH	1b	240 V	2	3000 VA	-	12.5	-	-	2#12, #12G	1/2"	FACTORY INSTALLED		LP	15,17
EH	2	240 V	2	1500 VA	-	6.25	-	-	2#12, #12G	1/2"	FACTORY INSTALLED		LP	23,25
EWH	1	240 V	2	4500 VA	-	18.75	-	-	2#10, #10G	1/2"	MOTOR-RATED TOGGLE		LP	22,24
HP	1	240 V	2	3360 VA	-	-	14	25	2#10, #10G	1/2"	30A/2P/NF NEMA3R		LP	18,20

LIGHTING FIXTURE SCHEDULE

NOTE: LIGHT FIXTURES INDICATED BELOW SHALL BE CONSIDERED THE BASIS OF DESIGN. ALTERNATE FIXTURES MAY BE SUBSTITUTED WHERE APPROVED AS AN EQUAL BY THE PROJECT ENGINEER.

TYPE MARK	DESCRIPTION	VOLTAGE	MANUFACTURER	MODEL	LIGHT SOURCE	COLOR TEMP	FINISH	MOUNTING	Fixture Notes
A5-6	LED SPORTS LIGHT	480 V	MUSCO	TLC-LED-1200/TLC-LED-600/TLC-LED-900/TLC-BT-575	LED	5700 K		POLE	
A8-9	LED SPORTS LIGHT	480 V	MUSCO	(2)TLC-LED-600/TLC-BT-575	LED	5700 K		POLE	
A10.4	LED SPORTS LIGHT	480 V	MUSCO	(2)TLC-LED-600/TLC-BT-575	LED	5700 K		POLE	
A10.5	LED SPORTS LIGHT	480 V	MUSCO	(2)TLC-LED-600/TLC-BT-575	LED	5700 K		POLE	
B1-4	LED SPORTS LIGHT	480 V	MUSCO	(3)TLC-LED-1200/(2)TLC-LED-900/TLC-BT-575	LED	5700 K		POLE	
B5-6	LED SPORTS LIGHT	480 V	MUSCO	(3)TLC-LED-1500/(2)TLC-LED-900/TLC-BT-575	LED	5700 K		POLE	
B7-10	LED SPORTS LIGHT	480 V	MUSCO	(4)TLC-LED-1200/TLC-BT-575	LED	5700 K		POLE	
C5-6	LED SPORTS LIGHT	480 V	MUSCO	(3)TLC-LED-1200/(2)TLC-BT-575	LED	5700 K		POLE	
D	2'x4' LED TROFFER	120 V	LITHONIA	EPANL 2X4 4800LM 80CRI 35K EZ1 MVOLT NLTAIR2 RIO	LED	3500 K	WHITE	RECESSED	
Ds	2'x4' LED TROFFER	120 V	LITHONIA	EPANL 2X4 4800LM 80CRI 35K EZ1 MVOLT NLTAIR2 RES7PDT	LED	3500 K	WHITE	RECESSED	
EM	LED EMERGENCY LIGHT	120 V	LITHONIA	ELM2L-SDRT	LED		WHITE	WALL	
F4	4' LED WRAP	120 V	LITHONIA	BLWP4 33L ADSM MVOLT EZ1 LP835 NLTAIR2 RES7PDT	LED	3500 K	WHITE	SURFACE	
F8	8' LED WRAP	120 V	LITHONIA	BLWP8 80L ADSM MVOLT EZ1 LP835 NLTAIR2 RES7PDT	LED	3500 K	WHITE	SURFACE	
G	SURFACE MOUNT ROUND LED	120 V	LUMINAIRE	ARV17 NODIM 40W 35K MVOLT OP WHT	LED	3500 K	BRONZE	SURFACE	

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BROOKLAND SPORTSPLEX PHASE 2

BROOKLAND, ARKANSAS

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER
No. 10749
05-21-2025
DAVID E. CANUP, JR.
seal

CERTIFICATE OF AUTHORIZATION
CANUP ENGINEERING INC.
NO. 1139
ARKANSAS-ENGINEER
coa

FISHER & ARNOLD, INC.
Arkansas - 1139

CLIENT:
CITY OF BROOKLAND, ARKANSAS

REVISIONS

DATE	BY	DESCRIPTION

LEGEND, NOTES & SCHEDULES

PROJECT NO.	CTYBRKLD.003PL
DRAWN BY: DPW	CHECKED BY: DEC
SHEET: E001	SCALE: AS NOTED
DATE: 03/21/2025	1 OF 6

Branch Panel: HP

Location: Space 13 | **Volts:** 480/240 Single | **A.I.C. Rating:** 35,000
Supply From: | **Phases:** 1 | **Mains Type:** Circuit Breaker
Mounting: Surface | **Wires:** 3 | **Mains Rating:** 400 A
Enclosure: Type 1 | | **MCB Rating:** 400 A

Notes:

Notes	CKT	Circuit Description	Trip	Poles	A		B		Poles	Trip	Circuit Description	CKT	Notes
	1	POLE A3	15 A	2	1905...	3865...			2	20 A	POLE B3	2	
	3						1905...	3865...				4	
	5	POLE C3	20 A	2	3435...	1905...			2	15 A	POLE A4	6	
	7						3435...	1905...				8	
	9	POLE B4	20 A	2	3865...	3435...			2	20 A	POLE C4	10	
	11						3865...	3435...				12	
	13	Spare	15 A	2	0 VA	0 VA			2	15 A	Spare	14	
	15						0 VA	0 VA				16	
	17	Spare	15 A	2	0 VA	0 VA			2	15 A	Spare	18	
	19						0 VA	0 VA				20	
	21	Spare	20 A	2	0 VA	0 VA			2	20 A	Spare	22	
	23						0 VA	0 VA				24	
	25	Spare	20 A	2	0 VA	0 VA			2	20 A	Spare	26	
	27						0 VA	0 VA				28	
	29	Spare	20 A	2	0 VA	0 VA			2	20 A	Spare	30	
	31						0 VA	0 VA				32	
	33	Spare	20 A	2	0 VA	0 VA			2	20 A	Spare	34	
	35						0 VA	0 VA				36	
	37	Spare	20 A	2	0 VA	0 VA			2	20 A	Spare	38	
	39						0 VA	0 VA				40	
	41	PARKING LIGHTING (N.I.C.)	20 A	1	1309...	1496...			1	20 A	PARKING LIGHTING (N.I.C.)	42	
	43	Spare	20 A	2			0 VA	0 VA	2	15 A	Spare	44	
	45				0 VA	0 VA						46	
	47	Spare	20 A	2			0 VA	0 VA	2	20 A	Spare	48	
	49				0 VA	0 VA						50	
	51	Space	--	1			--	0 VA	2	20 A	Spare	52	
	53	Space	--	1	--	0 VA						54	
	55	Space	--	1			--	0 VA	2	15 A	Spare	56	
	57	Space	--	1	--	0 VA						58	
	59	Space	--	1			--	--	1	--	Space	60	
	61	Space	--	1	--	--			1	--	Space	62	
	63	Space	--	1			--	--	1	--	Space	64	
	65	Space	--	1	--	--			1	--	Space	66	
	67	Space	--	1			--	--	1	--	Space	68	
	69	Space	--	1	--	--			1	--	Space	70	
	71	Space	--	1			--	--	1	--	Space	72	
				Total Load:	21215 VA		18410 VA						
				Total Amps:	88 A		77 A						

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Lighting	2805 VA	125.00%	3506 VA		
Lighting - Exterior	36820 VA	125.00%	46025 VA	**Total Conn. Load:**	39625 VA
				Total Est. Demand:	49531 VA
				Total Conn.:	83 A
				Total Est. Demand:	103 A

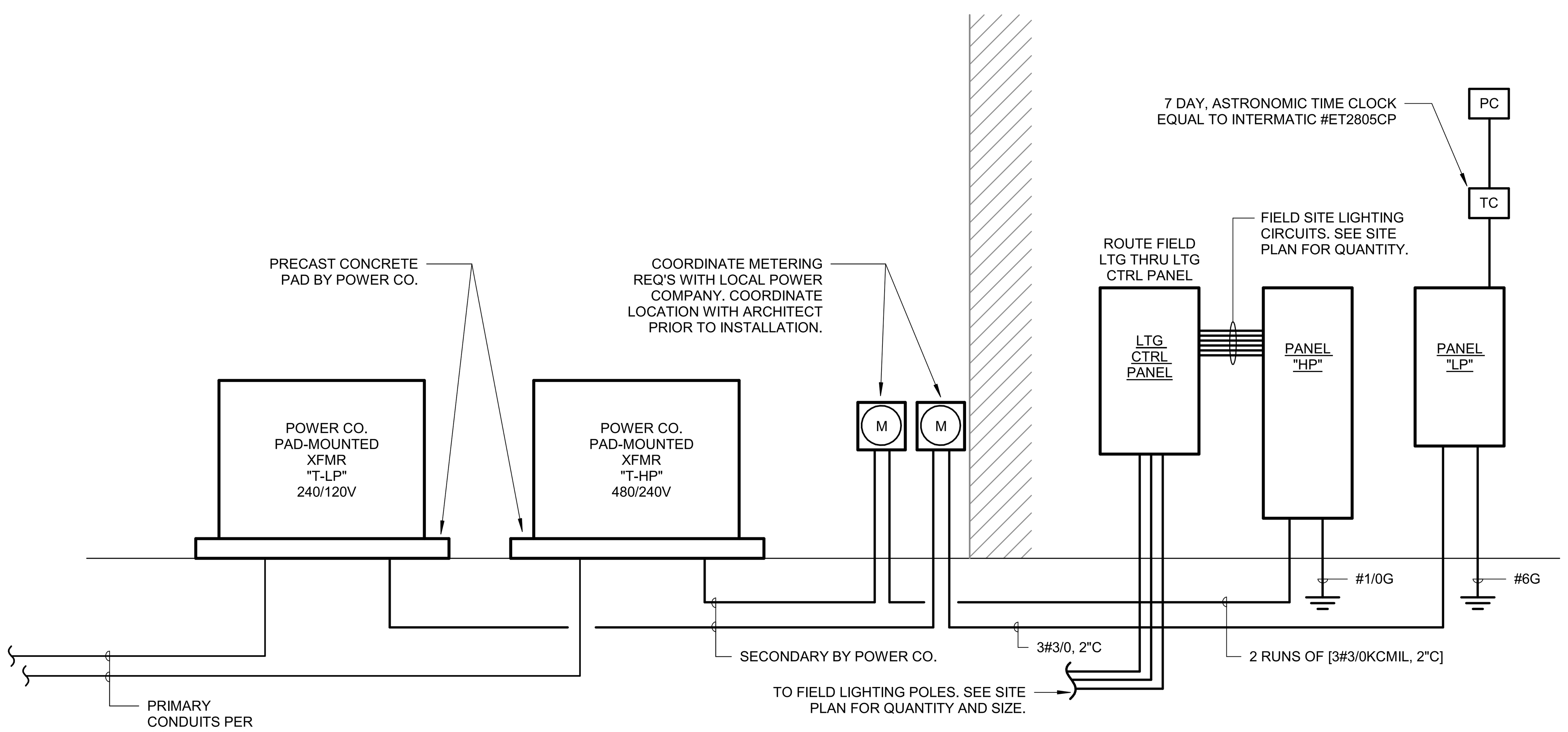
Branch Panel: LP

Location: Space 13 | **Volts:** 120/240 Single | **A.I.C. Rating:** 10,000
Supply From: | **Phases:** 1 | **Mains Type:** Circuit Breaker
Mounting: Surface | **Wires:** 3 | **Mains Rating:** 225 A
Enclosure: Type 1 | | **MCB Rating:** 200 A

Notes:

Notes	CKT	Circuit Description	Trip	Poles	A		B		Poles	Trip	Circuit Description	CKT	Notes
GFCI	1	RECEPTACLE	20 A	1	360 VA	360 VA			1	20 A	RECEPTACLE	2	GFCI
GFCI	3	RECEPTACLE	20 A	1			360 VA	600 VA	1	20 A	RECEPTACLE	4	GFCI
GFCI	5	RECEPTACLE	20 A	1	600 VA	1260...			1	20 A	RECEPTACLE	6	GFCI
	7	RECEPTACLE	20 A	1			1800...	957 VA	1	20 A	LIGHTING	8	
GFCI	9	RECEPTACLE	20 A	1	1200...	221 VA			1	20 A	LIGHTING	10	
	11	EF-1	20 A	1			528 VA	1000...	1	20 A	LIGHTING CONTROL PANEL	12	
	13	IRRIGATION CONROL	20 A	1	120 VA	1500...			2	20 A	EH-1a	14	
	15	EH-1b	20 A	2			1500...	1500...				16	
	17				1500...	1680...			2	25 A	HP-1	18	
	19	AHU-1	30 A	2			3480...	1680...				20	
	21				3480...	2250...			2	25 A	EWH-1	22	
	23	EH-2	20 A	2			750 VA	2250...				24	
	25				750 VA	0 VA			1	20 A	FUTURE SCOREBOARD	26	
	27	FUTURE SCOREBOARD	20 A	1			0 VA	0 VA	1	20 A	FUTURE SCOREBOARD	28	
	29	FUTURE SCOREBOARD	20 A	1	0 VA	0 VA			1	20 A	FUTURE SCOREBOARD	30	
GFCI	31	EDF	20 A	1			1200...	0 VA	1	20 A	Spare	32	
	33					0 VA			1	20 A	Spare	34	
	35	Spare	20 A	1			0 VA	0 VA	1	20 A	Spare	36	
	37	Spare	20 A	1	0 VA	0 VA			1	20 A	Spare	38	
	39	Spare	20 A	1			0 VA	0 VA	1	20 A	Spare	40	
	41	Spare	20 A	1	0 VA	0 VA			1	20 A	Spare	42	
				Total Load:	15281 VA		17595 VA						
				Total Amps:	127 A		147 A						

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Equipment	2320 VA	100.00%	2320 VA		
Heating	7500 VA	125.00%	9375 VA	**Total Conn. Load:**	32876 VA
Lighting	1176 VA	125.00%	1470 VA	**Total Est. Demand:**	35043 VA
Motor	528 VA	100.00%	528 VA	**Total Conn.:**	137 A
Receptacle	6540 VA	100.00%	6540 VA	**Total Est. Demand:**	146 A
Cooling and Heating	14820 VA	100.00%	14820 VA		



1 Riser Diagram
None

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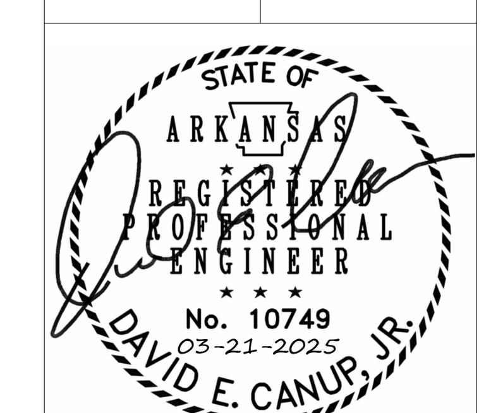
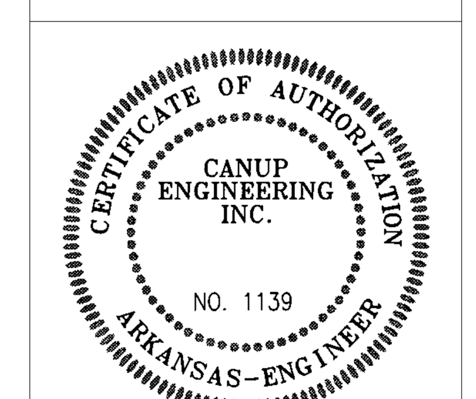
BROOKLAND SPORTSPLEX PHASE 2

BROOKLAND, ARKANSAS



seal



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Arkansas - 1139

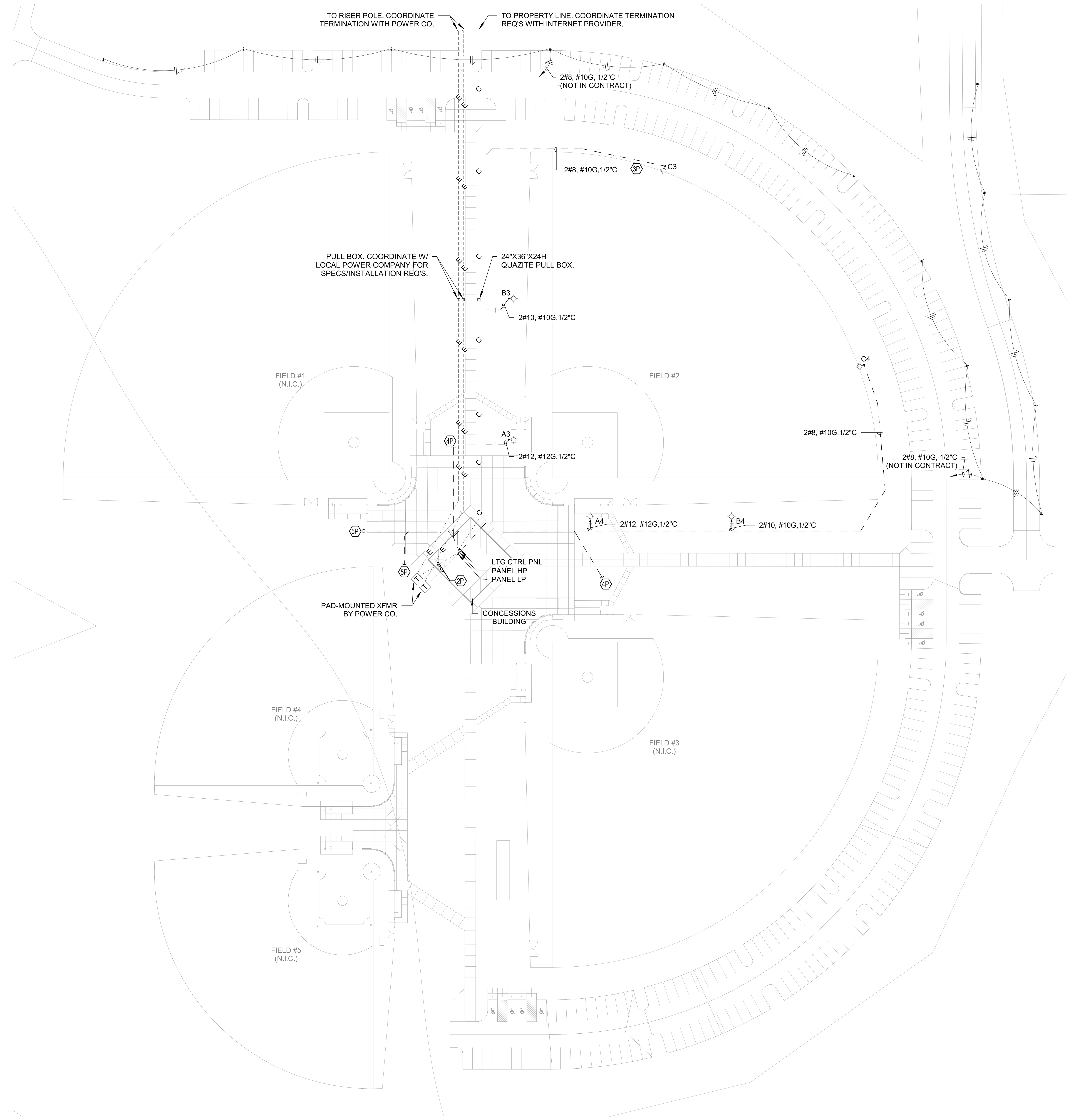
CLIENT:
CITY OF BROOKLAND, ARKANSAS

REVISIONS

DATE	BY	DESCRIPTION

PANEL SCHEDULES & RISER DIAGRAM

PROJECT NO.	CTYBRKLD.003PL
DRAWN BY: DPW	CHECKED BY: DEC
SHEET: E002	SCALE: AS NOTED
DATE: 03/21/2025	2 OF 6



① Site Plan
1" = 50'-0"

NOTES:

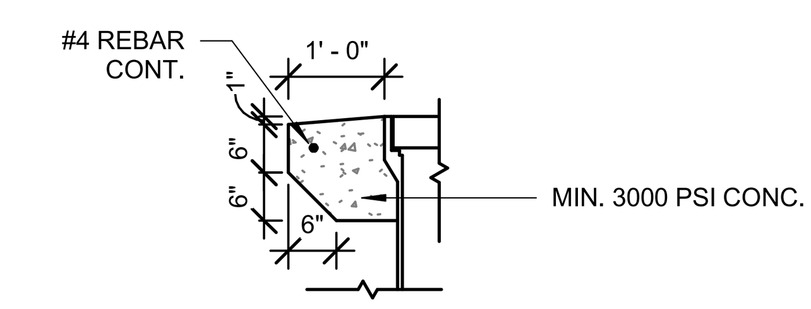
1. ALL ATHLETIC LIGHTING FIXTURE CIRCUITS SHALL BE ROUTED THROUGH THE LIGHTING CONTROL PANEL.
2. REFER TO PANEL "HP" ON SHEET E002 FOR CIRCUIT NUMBERS.

PARKING LOT NOTES:

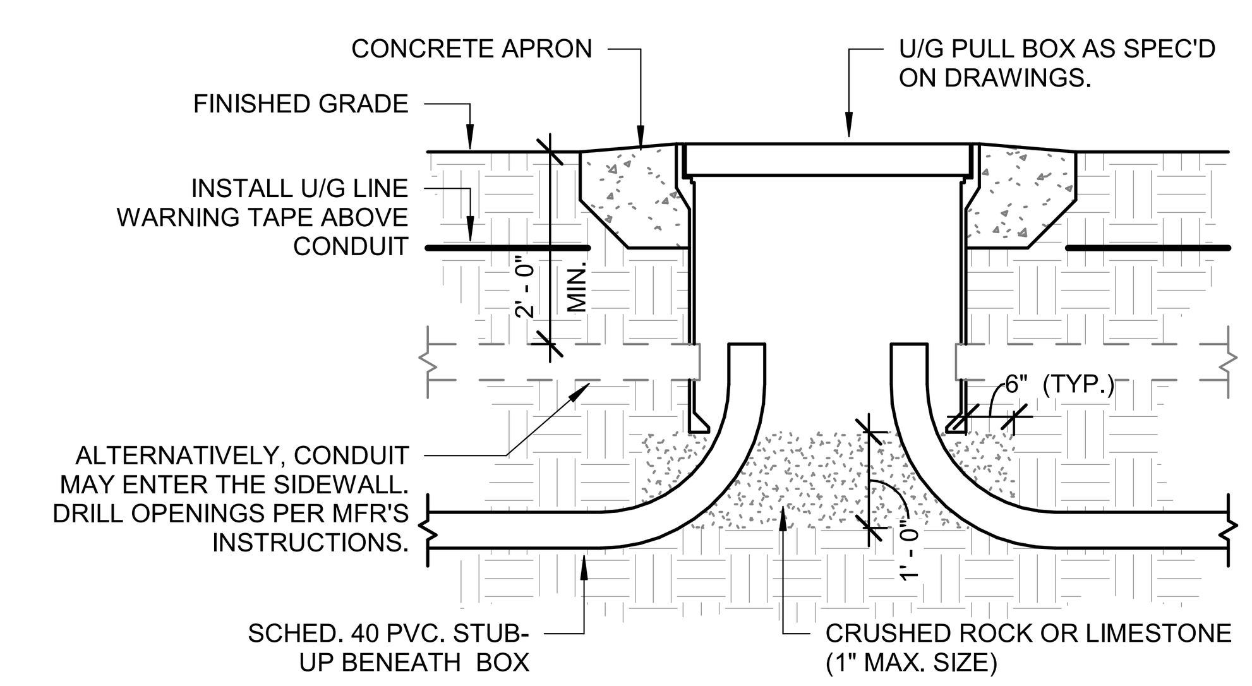
1. ALL PARKING LOT LIGHTING IS NOT IN THIS CONTRACT.

PWR & SYS KEY NOTES

1P	STUB UP 2-4"C IN ELEC ROOM.
2P	SECONDARY FROM XFMR TO PANEL.
3P	CONTRACTOR SHALL PROVIDE 1"C FROM ELEC ROOM FOR FUTURE SCOREBOARD. STUB UP AND CAP ON OUTSIDE OF NEAREST FENCE POST. INSTALL PULL BOX EVERY 300FT. REFER TO ARCH DWGS FOR EXACT LOCATION OF FUTURE SCOREBOARDS.
4P	CONSTRACTOR SHALL INSTALL (3) 1/2"C BEYOND EXTENT OF CONCRETE FOR FUTURE USE. CAP CONDUIT BELOW GRADE. PROVIDE CONCRETE MARKER FLUSH WITH GRADE TO DENOTE END LOCATION.
5P	CONSTRACTOR SHALL INSTALL (6) 1/2"C BEYOND EXTENT OF CONCRETE FOR FUTURE USE. CAP CONDUIT BELOW GRADE. PROVIDE CONCRETE MARKER FLUSH WITH GRADE TO DENOTE END LOCATION.



CONCRETE COLLAR



② UG Pull Box Detail
No Scale

CANUP ENGINEERING, INC.
ELECTRICAL ENGINEERING CONSULTANTS

FISHER ARNOLD
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BROOKLAND SPORTSPLEX PHASE 2
BROOKLAND, ARKANSAS

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 10749 03-21-2025 DAVID E. CANUP, JR.

seal

CERTIFICATE OF AUTHORIZATION CANUP ENGINEERING INC. NO. 1139 ARKANSAS-ENGINEER

coa

FISHER & ARNOLD, INC.
Arkansas - 1139

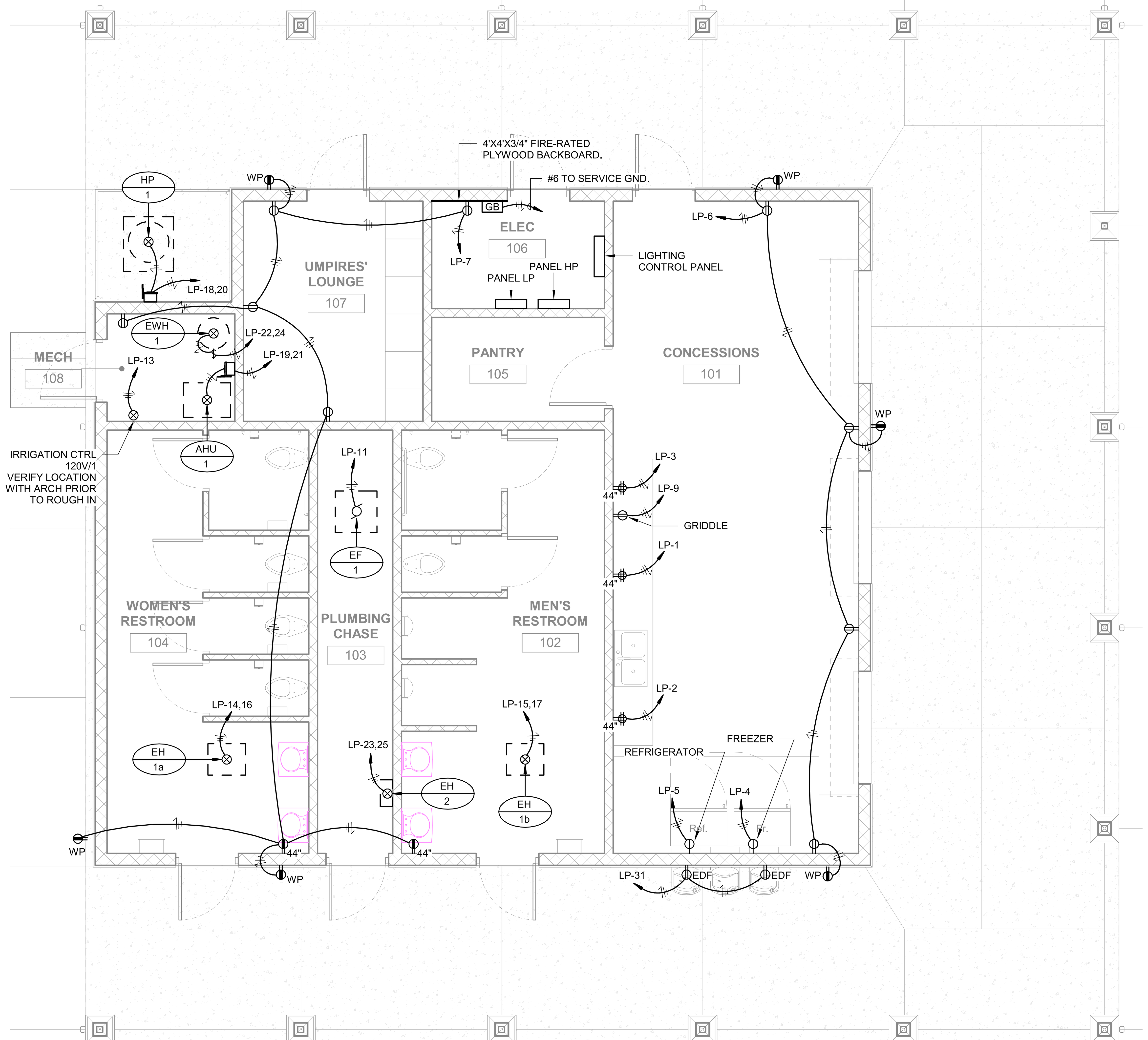
CLIENT:
CITY OF BROOKLAND, ARKANSAS

REVISIONS

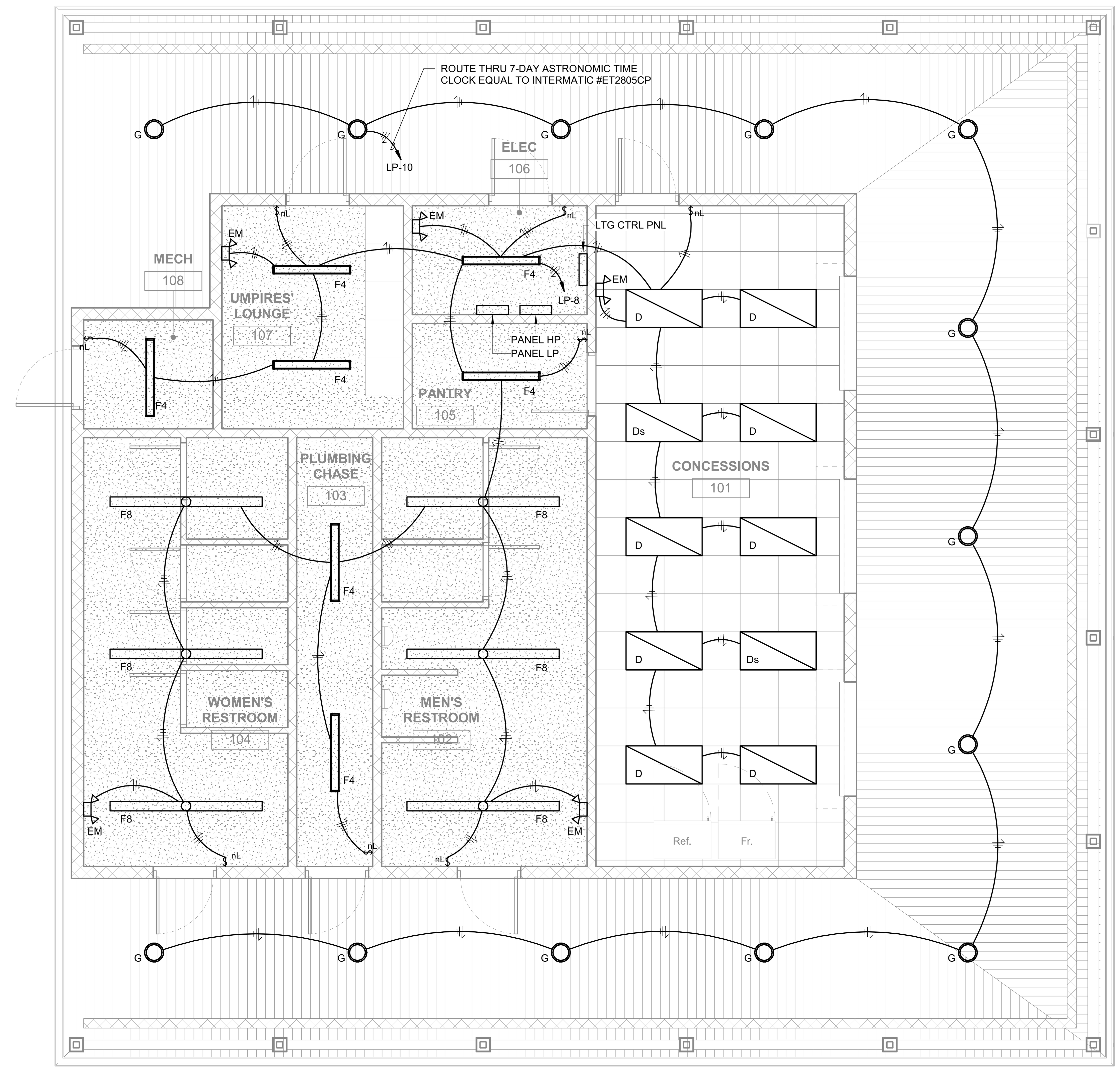
DATE	BY	DESCRIPTION

ELECTRICAL SITE PLAN

PROJECT NO. CTYBRKLD.003PL	
DRAWN BY DPW	CHECKED BY DEC
SHEET E100	SCALE AS NOTED
DATE 03/21/2025	3 OF 6



1 Concession Building Floor Plan
1/4" = 1'-0"



2 Concession Building Lighting Plan
1/4" = 1'-0"

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BROOKLAND SPORTSPLEX PHASE 2
BROOKLAND, ARKANSAS

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 10749 05-21-2025 DAVID E. CANUP, JR.

seal

CERTIFICATE OF AUTHORIZATION CANUP ENGINEERING INC. NO. 1139 ARKANSAS-ENGINEER

FISHER & ARNOLD, INC.
Arkansas - 1139

CLIENT:
CITY OF BROOKLAND, ARKANSAS

REVISIONS

DATE	BY	DESCRIPTION

CONCESSIONS BUILDING ELECTRICAL PLANS

PROJECT NO.
CTYBRKLD.003PL

DRAWN BY	CHECKED BY
DPW	DEC
SHEET	SCALE
E101	AS NOTED
DATE	
03/21/2025	4 OF 6

CANUP ENGINEERING, INC.
ELECTRICAL ENGINEERING CONSULTANTS

1.1 WORK INCLUDED

A. THE ELECTRICAL WORK REQUIRED FOR THIS PROJECT CONSISTS OF FURNISHING ALL LABOR, EQUIPMENT AND MATERIALS NECESSARY TO OBTAIN COMPLETE AND OPERATIONAL ELECTRICAL SYSTEMS AS INDICATED ON THE DRAWINGS AND AS SPECIFIED HEREIN.

B. THE CONTRACTOR SHALL FURNISH ALL MATERIAL AND LABOR AS REQUIRED FOR THE INSTALLATION OF THE NEW ELECTRIC SERVICE PER THE LOCAL POWER COMPANY'S REQUIREMENTS. THE CONTRACTOR SHALL COORDINATE WITH THE LOCAL POWER COMPANY FOR ALL REQUIREMENTS.

C. THE CONTRACTOR SHALL FURNISH ALL MATERIAL AND LABOR AS REQUIRED FOR THE INSTALLATION OF THE NEW TELECOM SERVICE(S) PER THE LOCAL SERVICE PROVIDER(S)' REQUIREMENTS. THE CONTRACTOR SHALL COORDINATE WITH THE LOCAL SERVICE PROVIDER(S) FOR ALL REQUIREMENTS.

D. THE OWNER WILL FURNISH AND INSTALL ALL COMMUNICATIONS WIRING AND EQUIPMENT AND WILL MAKE ALL FINAL COMMUNICATIONS CONNECTIONS AFTER EMPTY CONDUIT SYSTEMS HAVE BEEN INSTALLED AS SPECIFIED HEREIN.

1.2 CODES AND PERMITS

A. ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH TE REQUIREMENTS OF THE 2020 EDITION OF THE NATIONAL ELECTRICAL CODE, AND THE LATEST EDITION OF ALL LOCAL OR STATE CODES, LAWS, ORDINANCES, AND THE REQUIREMENTS OF THE LOCAL ELECTRIC UTILITY.

B. THIS CONTRACTOR SHALL APPLY FOR, OBTAIN, AND PAY FOR ALL PERMITS REQUIRED AT THE CONCLUSION OF THE INSTALLATION. HE OR SHE SHALL SECURE A CERTIFICATE OF INSPECTION, PROPERLY SIGNED BY THE CONTROLLING BUILDING DEPARTMENT, WHICH SHALL STATE THAT ALL RULES HAVE BEEN COMPLIED WITH AND THAT THE WORK IS SATISFACTORY.

C. SHOULD ANY PART OF THE PLANS OR SPECIFICATIONS BE FOUND TO BE IN CONFLICT WITH APPLICABLE CODES OR ORDINANCES, THE CONTRACTOR SHALL NOTIFY THE ENGINEER BEFORE SUBMITTING HIS OR HER BID.

1.3 TRADE NAMES AND EQUALS

A. MANUFACTURER'S TRADE NAMES OR CATALOG NUMBERS USED IN THESE SPECIFICATIONS AND INDICATED ON THE DRAWINGS DENOTE TYPE, SIZE, QUALITY, AND DESIGN OF EQUIPMENT REQUIRED.

B. WHERE EQUIPMENT IS SPECIFIED AS "EQUAL", OR "APPROVED EQUAL", IT SHALL MEAN EQUAL IN THE OPINION OF THE ENGINEER. THIS CONTRACTOR IS FREE TO OFFER SUBSTITUTIONS FOR CONSIDERATION AS EQUAL. AFTER THE CONTRACT IS SIGNED; HOWEVER, HE OR SHEE SHALL BE PREPARED TO FURNISH SPECIFIED MATERIALS WHERE SUBSTITUTIONS ARE NOT APPROVED.

1.4 MATERIAL AND EQUIPMENT

A. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND OF THE QUALITY SPECIFIED.

B. MATERIAL OR EQUIPMENT THAT HAS BEEN STORED OUTDOORS UNPROTECTED FOR LONG PERIODS OF TIME OR OTHERWISE DAMAGED IS NOT ACCEPTABLE AS NEW MATERIAL.

C. APPARATUS AND MATERIALS USED IN THIS WORK WHICH ARE SUBJECT TO APPROVAL OF UNDERWRITERS LABORATORIES (UL) SHALL BEAR THE UL LABEL, OR BE UNDERWRITERS LISTED.

1.5 DELIVERY, STORAGE, AND HANDLING OF MATERIAL AND EQUIPMENT

A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PURCHASE, DELIVERY, AND STORAGE OF ALL MATERIALS AND EQUIPMENT INDICATED TO BE SUPPLIED, AND IT SHALL BE HIS OR HER RESPONSIBILITY TO SCHEDULE THE DELIVERY OF MATERIALS AND EQUIPMENT AT SUCH STAGES OF THE WORK AS WILL PERMIT UNINTERRUPTED CONSTRUCTION OF ALL PHASES OF THE WORK.

B. WHERE OWNER FURNISHED EQUIPMENT IS TO BE TURNED OVER TO THIS CONTRACTOR FOR INSTALLATION, IT SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR TO RECEIVE SUCH EQUIPMENT AND STORE IN A SAFE, DRY LOCATION.

C. THIS CONTRACTOR SHALL DO ALL REQUIRED RIGGING, HOISTING, TRANSPORTING, ETC. OF ALL EQUIPMENT FURNISHED UNDER THIS CONTRACT, AND SHALL FURTHER FURNISH ANY ADDITIONAL STRUCTURAL MEMBERS, AS MAY BE REQUIRED, FOR THE PROPER SUPPORT OF ANY AND ALL EQUIPMENT FURNISHED HERE UNDER.

1.6 ACCURACY OF DATA

A. THE DRAWINGS ARE GENERALLY DIAGRAMMATIC, AND EXCEPT WHERE DIMENSIONS ARE SHOWN, ARE NOT INTENDED TO SHOW THE EXACT LOCATIONS OF OUTLETS, CONDUITS, SWITCHES, FIXTURES, ETC. ALL WORK SHALL BE INSTALLED AS NEARLY AS POSSIBLE IN THE LOCATIONS INDICATED, WITH ONLY SUCH MINOR ADJUSTMENTS AS WILL BE REQUIRED TO AVOID INTERFERENCES WITH STRUCTURE OR THE WORK OF OTHER TRADES.

B. SHOULD ANY STRUCTURAL OR MECHANICAL INTERFERENCES PREVENT THE INSTALLATION OF CONDUIT, SETTING OF JUNCTION BOXES AND CABINETS, ARRANGEMENT OF LIGHTING FIXTURES AND METHOD OF SUSPENSION, ETC., IN THE LOCATIONS INDICATED ON THE DRAWINGS, THE NECESSARY DEVIATIONS THEREFROM MUST BE MADE WITHOUT ADDITIONAL COST TO THE OWNER, WHERE RELOCATION IS NOT OVER FIVE (5) FEET FROM THE LOCATION SHOWN ON THE DRAWINGS.

C. THE DRAWINGS ARE FURTHER NOT INTENDED TO SHOW ALL JUNCTION OR PULL BOXES, FITTINGS AND CONNECTIONS, AND DETAILS OF WORK TO BE DONE. THIS CONTRACTOR SHALL SUPPLY ALL NECESSARY BOXES, FITTINGS, AND CONNECTIONS FOR COMPLETE INSTALLATION IN A SATISFACTORY MANNER.

D. ANY OFFSETS IN CONDUIT REQUIRED OR NECESSARY TO AVOID INTERFERENCES WITH STRUCTURE, OR THE WORK OF OTHER TRADES, ETC., SHALL BE MADE AT NO ADDITIONAL COST TO THE OWNER.

E. REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR ALL DIMENSIONS OF BUILDING SPACES.

F. THIS CONTRACTOR SHALL PREPARE SHOP DRAWINGS, AS NECESSARY, FOR HIS OR HER USE IN COORDINATING THE WORK TO AVOID INTERFERENCE.

G. THE DRAWINGS AND SPECIFICATIONS ARE COMPLEMENTARY TO EACH OTHER, AND WHAT IS CALLED FOR BY ONE SHALL BE AS BINDING AS IF CALLED FOR BY BOTH.

1.7 COORDINATION

A. THE ELECTRICAL CONTRACTOR SHALL COORDINATE HIS OR HER WORK WITH THAT OF OTHER SUBCONTRACTORS ON THE JOB AND ALSO WITH THAT OF THE OWNER IN ORDER THAT THERE BE NO DELAY IN THE PROPER INSTALLATION AND COMPLETION OF THE SEVERAL PARTS OF THE WORK.

B. THIS CONTRACTOR SHALL USE EVERY PRECAUTION TO PROTECT THE WORK OF OTHERS, AND HE WILL BE HELD RESPONSIBLE FOR ALL DAMAGE DONE BY HIS OR HER WORKERS TO THE WORK OF OTHER TRADES. HE OR SHE SHALL ALSO PROTECT HIS OR HER WORK FROM DANGER OF BREAKAGE, DIRT, FOREIGN MATERIALS, ETC., AND SHALL REPLACE ALL WORK SO DAMAGED.

C. COORDINATE PHASES OF THE WORK WITH THE OWNER AND OTHER TRADES TO ALLOW THE OWNER TO CONTINUE NORMAL BUSINESS OPERATIONS THROUGHOUT THE DURATION OF THE PROJECT. ANY NECESSARY POWER OUTAGES SHALL BE SCHEDULED FOR OTHER THAN THE OWNER'S HOURS OF OPERATION, OR BE PRE-ARRANGED WITH THE OWNER.

1.8 MANUFACTURER'S RECOMMENDATIONS

A. UNLESS SPECIFICALLY INDICATED OTHERWISE, ALL EQUIPMENT AND MATERIALS SHALL BE INSTALLED IN ACCORDANCE WITH THE BEST RECOMMENDATION OF THE MANUFACTURER. A COPY OF THE MANUFACTURER'S INSTALLATION RECOMMENDATIONS SHALL BE KEPT IN THE JOB SUPERINTENDENT'S OFFICE AND SHALL BE AVAILABLE TO THE OWNER'S REPRESENTATIVE AT ALL TIMES.

1.9 FEEDER, SWITCH AND DEVICE RATINGS

A. THE SIZES OF FEEDERS, MOTOR STARTERS, SWITCHES, PROTECTIVE DEVICES, AND OTHER ELECTRICAL DEVICES INDICATED ON THE DRAWINGS FOR ELECTRICALLY OPERATED EQUIPMENT ARE BASED ON THE AVERAGE CURRENT OR HORSEPOWER RATINGS OF ELECTRICALLY OPERATED EQUIPMENT OF THE SAME GENERAL TYPES AND SIZES UPON WHICH THE DESIGNS OF THE VARIOUS SYSTEMS ARE BASED. HORSEPOWER AND CURRENT RATINGS INDICATED ON THE DRAWINGS ARE FOR GUIDANCE ONLY AND SHALL NOT LIMIT THE SIZE OF THE EQUIPMENT OR FEEDERS.

B. CHECK THE CURRENT AND HORSEPOWER RATINGS OF ALL ELECTRICALLY OPERATED EQUIPMENT ACTUALLY FURNISHED AND INSTALLED. ADJUST THE SIZES OF ALL FEEDERS, STARTERS, SWITCHES, PROTECTIVE DEVICES AND OTHER ELECTRICAL DEVICES AS REQUIRED TO PROVIDE PROPER PROTECTION AND SATISFACTORY OPERATION OF THE EQUIPMENT ACTUALLY INSTALLED. THIS SHALL INCLUDE INCREASING TO THE NEXT LARGER SIZE, OR DECREASING TO THE NEXT SMALLER SIZE, ANY INDIVIDUAL FEEDER, STARTER, SWITCH, PROTECTIVE DEVICE, OR OTHER ELECTRICAL DEVICE TO MATCH THE EQUIPMENT SIZES ACTUALLY INSTALLED, AS REQUIRED, EXCEPT THAT NO SIZES SHALL BE DECREASED WITHOUT APPROVAL IN WRITING FROM THE ENGINEER.

1.10 CUTTING AND PATCHING

A. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING REQUIRED FOR THE INSTALLATION OF HIS WORK, AND HE SHALL EMPLOY WORKERS SKILLED IN THE TRADES REQUIRED FOR ALL CUTTING AND PATCHING WORK.

B. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER LOCATION OF ALL CHASES, RECESSES, AND OPENINGS REQUIRED FOR HIS WORK.

C. THIS CONTRACTOR SHALL PROVIDE ALL SLEEVES, ETC., REQUIRED FOR THE INTRODUCTION AND PLACEMENT OF HIS WORK, AND SHALL BE RESPONSIBLE FOR THE CORRECT LOCATION OF SAME.

D. BEAMS OR COLUMNS SHALL NOT BE PIERCED WITHOUT PERMISSION OF THE STRUCTURAL ENGINEER, AND THEN ONLY AS DIRECTED.

1.11 PROTECTION OF FLOORS

A. THIS CONTRACTOR'S ATTENTION IS DIRECTED TO THE NEED TO PROTECT FINISHED FLOORS, AND HE OR SHE WILL BE HELD RESPONSIBLE FOR DAMAGE HE OR SHE MAY CAUSE TO FINISHED FLOORS. WHERE HEAVY EQUIPMENT IS TO BE MOVED ACROSS FINISHED FLOORS, THIS CONTRACTOR SHALL MAKE PROVISIONS TO PROTECT THE FLOOR.

B. WHERE PIPE CUTTINGS AND THREADING OPERATIONS ARE CARRIED ON BY THIS CONTRACTOR, HE OR SHE SHALL PROVIDE A SUITABLE COVERING MATERIAL OVER THE FLOOR WHICH WILL ASSURE THAT OIL AND PIPE CUTTINGS DO NOT COME IN CONTACT WITH THE FINISHED FLOOR. TEMPORARY FLOOR COVERING SHALL BE PLYWOOD OR OTHER MATERIALS AS MAY BE APPROVED BY THE ENGINEER.

C. THIS CONTRACTOR SHALL REMOVE ALL TEMPORARY FLOOR COVERING, AS HE OR SHE COMPLETES HIS OR HER WORK IN EACH AREA. ANY DAMAGE RESULTING FROM ACTIVITIES OF THIS CONTRACTOR SHALL BE REPAIRED AT HIS OR HER OWN EXPENSE.

1.12 PAINTING

A. THE ELECTRICAL CONTRACTOR SHALL REFINISH AND RESTORE TO THE ORIGINAL CONDITION AND APPEARANCE, ALL ELECTRICAL EQUIPMENT WHICH HAS SUSTAINED DAMAGE TO MANUFACTURER'S FINISH PAINT. FINISHES SHALL INCLUDE GALVANIZING THAT HAS BEEN REMOVED DURING INSTALLATION.

B. ALL ELECTRICAL EQUIPMENT SHALL BE PROVIDED WITH FACTORY APPLIED PRIME AND FINISH PAINT, UNLESS OTHERWISE SPECIFIED.

1.13 SHOP DRAWINGS & SUBMITTALS

A. SHOP DRAWINGS, SUBMITTALS, AND/OR MANUFACTURER'S DESCRIPTIVE DATA OF A NATURE TO COMPLETELY IDENTIFY THE EQUALITY OF THE MATERIAL OR EQUIPMENT INTENDED FOR INSTALLATION SHALL BE SUBMITTED FOR APPROVAL BEFORE BEGINNING ANY CONSTRUCTION AND WITHIN THIRTY DAYS AFTER SIGNING CONTRACT. FAILURE TO SUBMIT DATA FOR APPROVAL WITHIN THIRTY DAYS TIME LIMIT WILL BE CONSTRUED AS MEANING EQUIPMENT CALLED FOR BY NAME WILL BE FURNISHED. DATA SHALL BE ORGANIZED IN SAME ORDER AS LISTED BELOW AND COMBINED INTO A SINGLE ELECTRONIC FILE IN PORTABLE DOCUMENT FORMAT (PDF). CONTRACTOR SHALL ALLOW TEN (10) BUSINESS DAYS FOR REVIEW.

B. SUBMIT THE FOLLOWING FOR APPROVAL:
1. RACEWAYS, BOXES & CABINETS
2. WIRES & CABLES
3. GROUNDING & BONDING EQUIPMENT
4. HANGERS & SUPPORTS
5. PANELBOARDS
6. SURGE PROTECTIVE DEVICES
7. FUSES
8. WIRING DEVICES
9. ENCLOSED SWITCHES & CIRCUIT BREAKERS
10. LIGHT FIXTURES & LIGHTING CONTROL EQUIPMENT
11. FIRE ALARM
12. CABLE TRAYS
13. TRANSFORMERS

1.14 RECORD DRAWINGS

A. THIS CONTRACTOR SHALL MAINTAIN A COMPLETE UP-TO-DATE SET OF RECORD DRAWINGS AND SPECIFICATIONS ON THE JOB SITE. DRAWINGS SHALL BE MAINTAINED IN A NEAT CONDITION AND SHALL CLEARLY SHOW ANY CHANGES FROM ORIGINAL DRAWINGS AND SPECIFICATIONS.

B. CONTRACTOR SHALL USE A DESIGNATED SET OF PRINTS OF THE CONTRACT DOCUMENTS, AS PREPARED BY THE ENGINEER, TO MARK UP FOR RECORD DRAWING PURPOSES.

C. THE CONTRACTOR SHALL PREPARE A SET OF REPRODUCIBLE RECORD DRAWINGS. THESE DRAWINGS AND A SET OF SPECIFICATIONS SHALL BE TURNED OVER AND SHALL BECOME THE PROPERTY OF THE OWNER.

1.15 OPERATION & MAINTENANCE MANUALS

A. CONTRACTOR SHALL PROVIDE A COPY OF OPERATIONAL AND MAINTENANCE MANUALS IN PORTABLE DOCUMENT FORMAT (PDF) FOR ALL EQUIPMENT INSTALLED UNDER THIS DIVISION OF THE SPECIFICATIONS.

B. IN ADDITION TO A COPY OF APPROVED SHOP DRAWINGS/SUBMITTAL DATA, THE O&M MANUAL CONTENTS SHALL INCLUDE, BUT SHALL NOT BE LIMITED TO THE FOLLOWING:
1. NAME AND ADDRESS OF CONTRACTOR, EQUIPMENT MANUFACTURER AND SUPPLIER
2. SET OF APPROVED SHOP DRAWINGS OR APPROVED SUBMITTAL DATA
3. WIRING DIAGRAMS AND INSTALLATION DRAWINGS
4. SPARE PARTS AND REPLACEMENT PARTS LISTS AS RECOMMENDED BY THE MANUFACTURER
5. PROPER OPERATIONAL PROCEDURES AND MAINTENANCE PROCEDURES
6. INSTALLATION AND OPERATIONAL MANUALS
7. MAINTENANCE AND SERVICE MANUALS
8. COPY OF WARRANTIES AND GUARANTEES

C. O&M MANUALS SHALL BE TURNED OVER AND SHALL BECOME THE PROPERTY OF THE OWNER.

1.16 TEMPORARY CONSTRUCTION POWER AND LIGHTING

A. TEMPORARY INSTALLATIONS SHALL COMPLY WITH NEC ARTICLE 590.

B. THIS CONTRACTOR SHALL FURNISH AND INSTALL ALL TEMPORARY WIRING FOR CONSTRUCTION POWER AND LIGHTING FOR THE PROJECT AS REQUIRED.

C. A TEMPORARY ELECTRICAL SERVICE, IF REQUIRED, FOR CONSTRUCTION POWER AND LIGHTING SHALL BE OBTAINED BY THIS CONTRACTOR IN THE NAME OF THE OWNER, WHO WILL PAY ALL POWER AND ENERGY CHARGES. ANY COST FOR THE TEMPORARY SERVICE CONNECTION SHALL BE PAID BY THIS CONTRACTOR.

1.17 TESTS

A. THE ENTIRE BUILDING WIRING SYSTEM SHALL BE THOROUGHLY TESTED AND CORRECTED OF ALL DEFECTS. ALL ELECTRICAL WIRING SHALL BE TESTED FOR CONTINUITY, SHORTS, IMPROPER GROUNDS AND INSULATION RESISTANCE. MOTORS SHALL BE CHECKED FOR PROPER ROTATION AND BRANCH CIRCUIT AND OVERLOAD PROTECTION. PANELBOARDS SHALL BE CHECKED FOR BALANCED LOADING AND CORRECT PHASE ROTATION. ALL DISCREPANCIES SHALL BE CORRECTED. THIS CONTRACTOR SHALL FURNISH TEST EQUIPMENT AND MATERIAL, AND SHALL BE RESPONSIBLE FOR REPLACEMENT OR REPAIR OF DAMAGE DUE TO TEST FAILURES.

B. AFTER INSTALLATION IS COMPLETE, VOLTAGE MEASUREMENTS SHALL BE MADE AT EACH PANELBOARD TO VERIFY PROPER SYSTEM VOLTAGES. VOLTAGE SHALL BE MEASURED UNDER LOAD CONDITIONS WHERE POSSIBLE. VOLTAGE READINGS SHALL BE RECORDED.

C. CHECK ALL CONTROL AND INTERLOCKING WIRING FOR PROPER OPERATIONS. PERFORM OPERATIONAL TESTS TO ASSURE THAT CONTROL WIRING HAS BEEN PROPERLY INSTALLED.

D. PRIOR TO FINAL ACCEPTANCE, CONTRACTOR SHALL PROVIDE ALL TEST RESULTS TO ENSURE THAT SYSTEM IS FREE OF DEFECTS AND FULLY OPERATIONAL.

E. AFTER ALL TESTS HAVE BEEN COMPLETED, THIS CONTRACTOR SHALL CLEAN ALL LIGHT FIXTURES AND ELECTRICAL GEAR AND SHALL CLEAR ALL DEBRIS CREATED BY THE EXECUTION OF THE ELECTRICAL WORK . THIS CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO KEEP PANELS, ESPECIALLY CIRCUIT BREAKER HANDLES, CLEAN DURING CONSTRUCTION.

1.18 GUARANTEE

A. THE CONTRACTOR SHALL GUARANTEE TO THE OWNER ALL WORK PERFORMED UNDER THIS CONTRACT TO BE FREE FROM DEFECTS IN WORKMANSHIP AND MATERIAL FOR A PERIOD OF ONE (1) YEAR FROM DATE OF SUBSTANTIAL COMPLETION. DEFECTS ARISING DURING THIS PERIOD WILL BE PROMPTLY REMEDIED BY THE CONTRACTOR AT HIS OR HER OWN EXPENSE UPON NOTICE BY THE OWNER.

2.1 SITE WORK

A. BEFORE STARTING EXCAVATION, ESTABLISH THE LOCATION OF UNDERGROUND AND OVERHEAD UTILITIES IN THE WORK AREA. EXERCISE CARE TO PROTECT EXISTING UTILITITES DURING EARTHWORK OPERATIONS. PERFORM EXCAVATION WORK NEAR UTILITIES BY HAND AND PROVIDE NECESSARY SHORING, SHEETING, AND SUPPORTS AS THE WORK PROGRESSES.

B. MAINTAIN, PROTECT, RELOCATE, OR EXTEND AS REQUIRED EXISTING UTILITY LINES TO REMAIN WHICH PASS THROUGH THE WORK AREA.

C. IN COORDINATION WITH LOCAL ORDINANCES, REMOVE ABANDONED UTILITY SERVICE LINES FROM AREAS OF EXCAVATION. IF DISCOVERED CAP, PLUG, OR SEAL ABANDONED LINES AND IDENTIFY TERMINATION POINTS AT GRADE LEVEL WITH MARKERS.

D. BACKFILL TRENCHES ONLY AFTER CONDUITS HAVE BEEN INSPECTED AND THE LOCATIONS OF CONDUITS HAVE BEEN RECORDED ON AS-BUILT DRAWINGS.

E. AFTER CONDUIT HAS BEEN LAID AND JOINTED, THE CONDUIT SHALL BE BEDDED IN THE TRENCH AND MADE SECURE AGAINST MOVEMENT BY BACKFILLING THE TRENCH BY HAND WITH 3/4" WASHED GRAVEL OR SAND TO A DEPTH OF 12" ABOVE THE TOP OF THE CONDUIT.

F. BACKFILL REMAINING DEPTH WITH EXCAVATED MATERIAL, EXCEPT THAT THE MATERIAL MAY CONTAIN STONES, ROCKS, CONCRETE, OR MASONRY MATERIALS (BUT NO CINDERS), WITH A MAXIMUM DIMENSION OF FOUR (4) INCHES PROVIDED THAT THE VOIDS IN SUCH COARSE MATERIALS ARE COMPLETELY FILLED WITH EARTH OR GRANULAR MATERIAL.

G. INSTALL UNDERGROUND WARNING TAPE (I.E., BRADY IDENTOLINE) APPROXIMATELY 12 INCHES BELOW GRADE ALONG FULL LENGTH OF DIRECT BURIED CONDUITS. TAPE SHALL BE MADE OF POLYETHYLENE AND SHALL BE COATED TO PROTECT LEGEND FROM SOIL SUBSTANCES. LEGENDS SHALL INDICATE APPROPRIATE CONDUIT USE SUCH AS ELECTRIC OR COMMUNICATIONS. TAPE INSTALLED ABOVE COMMUNICATIONS CONDUITS SHALL BE DETECTABLE TYPE OR A SUITABLE TRACER WIRE INSTALLED FOR FUTURE LOCATING.

H. THOROUGHLY COMPACT BACKFILL BY TAMPING WITH A MANUAL TAMP OR AN APPROVED MECHANICAL TAMPING DEVICE.

I. WHERE PLACEMENT OF UNDERGROUND CONDUIT DISTURBS PAVED AREAS, THE PAVEMENT SHALL BE REPAIRED WITH MATERIALS OF THE SAME TYPE AND STRENGTH AS THAT REMOVED.

2.2 RACEWAYS

A. ALL CIRCUITS SHALL CONSIST OF INDIVIDUAL WIRING IN CONDUITS UNLESS OTHERWISE NOTED IN THESE SPECIFICATIONS. CONDUIT SHALL BE INSTALLED CONCEALED WHEREVER POSSIBLE.

B. CONDUIT INSTALLED OUTDOORS SHALL BE AS FOLLOWS:
1. BELOW GRADE, SLAB: SCHEDULE 40 PVC.
2. ABOVE GRADE, EXPOSED: GALVANIZED RIGID STEEL.
3. ABOVE GRADE, CONCEALED: EMT.
4. CONNECTING TO VIBRATING EQUIPMENT (TRANSFORMERS, MOTOR-DRIVEN EQUIPMENT, ETC.): LIQUID-TIGHT FLEXIBLE STEEL CONDUIT.

C. CONDUIT INSTALLED INDOORS SHALL BE AS FOLLOWS:
1. BELOW SLAB: SCHEDULE 40 PVC.
2. ABOVE SLAB AND NOT SUBJECT TO PHYSICAL DAMAGE: EMT.
3. ABOVE SLAB AND SUBJECT TO PHYSICAL DAMAGE: GALVANIZED RIGID STEEL.
4. DAMP OR WET LOCATIONS INCLUDING ROOF PENETRATIONS: GALVANIZED RIGID STEEL.
5. CONNECTING TO VIBRATING EQUIPMENT (TRANSFORMERS, MOTOR-DRIVEN EQUIPMENT, ETC.): FLEXIBLE STEEL CONDUIT.

D. CONTRACTOR MAY INSTALL TYPE MC CABLE IN LIEU OF EMT CONDUIT OR FLEXIBLE METAL CONDUIT WHERE CONCEALED IN WALLS OR CEILINGS FOR LIGHTING AND RECEPTACLE CIRCUITS. DO NOT USE TYPE MC CABLE FOR FIRE ALARM, HVAC EQUIPMENT, IN EXPOSED LOCATIONS, OUTDOORS, OR FOR CIRCUITS LARGER THAN 20 AMPS.

E. ALL HOMERUNS SHALL BE WIRING IN CONDUIT. MC CABLE HOMERUNS ARE NOT PERMITTED.

F. EXPOSED CONDUIT SHALL BE RUN IN PARALLEL ROWS NEATLY RACKED PARALLEL OR PERPENDICULAR TO WALLS AND STRUCTURAL MEMBERS.

G. INSTALL CONDUIT ONLY AFTER PROPOSED RUNS HAVE BEEN CHECKED ON PLANS AND AT SITE FOR INTERFERENCE WITH OTHER TRADES. WHEREVER POSSIBLE, LOCATE CONDUIT OVER PIPING OF OTHER TRADES. ALL HORIZONTAL CONDUIT RUNS IN ATTIC SHALL BE RUN AS HIGH AS POSSIBLE IN ORDER TO PROVIDE FREE SPACE ABOVE CEILING FOR INSTALLATION OF AIR DISTRIBUTION DUCT AND PIPING.

H. ROUGHING-IN DIMENSIONS OF ELECTRICALLY OPERATED EQUIPMENT WILL BE BY TRADES SUPPLYING SAME. SET CONDUIT AND BOXES FOR CONNECTING TO EQUIPMENT ONLY AFTER RECEIVING APPROVED DIMENSIONS AND AFTER CHECKING LOCATIONS WITH OTHER CONTRACTORS.

I. PLUG THE ENDS OF EACH RACEWAY WITH AN APPROVED CAP, OR CAPPED BUSHING TO PREVENT THE ENTRANCES OF FOREIGN MATERIAL DURING THE CONSTRUCTION PERIOD. CONDUIT LEFT EMPTY FOR FUTURE WIRING SHALL BE CAPPED.

J. ARRANGEMENTS OF CONDUIT, WIRING AND EQUIPMENT THAT DIFFER MATERIALLY FROM THE OBVIOUS INTENT OF THE PLANS WILL NOT BE PERMITTED, EXCEPT WHERE NECESSARY TO AVOID INTERFERENCES AND ONLY WHERE SPECIFICALLY APPROVED BY THE ENGINEER.

K. CONDUIT SHALL BE SIZED AS INDICATED ON THE PLANS AND WHERE NOT INDICATED, SIZES SHALL MEET NEC REQUIREMENTS FOR NUMBER OF CONDUCTORS TO BE ACCOMMODATED, BASED ON TYPE THHN INSULATED CONDUCTORS.

L. MINIMUM SIZE BRANCH CIRCUIT CONDUIT SHALL BE 1/2" NOMINAL SIZE.

M. CONDUITS PROJECTING THROUGH ROOFING SHALL BE MADE WATERTIGHT BY PROPER FLASHING AND PITCH POCKETS WITH STORM COLLAR SECURELY FASTENED TO CONDUIT ABOVE THE FLASHING.

N. ALL RIGID AND IMC CONDUIT COUPLINGS, FITTINGS AND CONNECTORS SHALL BE THREADED TYPE.

O. ALL OPENINGS WHERE CONDUIT PENETRATES WALLS OR FLOORS SHALL BE SEALED WATER AND AIRTIGHT.

P. ALL RIGID CONDUIT COUPLINGS, FITTINGS AND CONNECTORS SHALL BE THREADED TYPE.

Q. CONNECTORS AND COUPLINGS FOR EMT CONDUIT SHALL BE MADE OF STEEL AND MAY BE EITHER SET-SCREW OR COMPRESSION TYPE..

R. WHERE THE USE OF PVC CONDUIT IS INDICATED, ALL JOINTS SHALL BE SOLVENT WELDED WITH CEMENT FURNISHED BY THE CONDUIT MANUFACTURER. PROVIDE SUITABLE ADAPTERS WHERE PVC CONDUITS ARE COUPLED TO METALLIC CONDUITS. ALL ELBOWS SHALL BE MADE OF GALVANIZED RIGID STEEL CONDUIT.

2.3 BUILDING WIRE, CABLE, AND CONNECTORS

A. BUILDING WIRE AND CONNECTORS SHALL BE UL LISTED AND LABELED. COMPLY WITH NEMA, ICEA, ANSI AND ASTM STANDARDS PERTAINING TO MATERIALS, CONSTRUCTION AND TESTING OF BUILDING WIRE AND CABLE.

B. EXCEPT AS OTHERWISE INDICATED, PROVIDE WIRE, CABLE AND CONNECTORS OF MANUFACTURER'S STANDARD MATERIALS, AS INDICATED BY PUBLISHED PRODUCT INFORMATION, DESIGNED AND CONSTRUCTED AS RECOMMENDED BY MANUFACTURER AND AS REQUIRED FOR THE INSTALLATION.

C. PROVIDE FACTORY FABRICATED 600 VOLT INSULATED BUILDING WIRE OF SIZES, RATINGS, MATERIALS, AND TYPES INDICATED BELOW:

1. UL TYPE: THHN/THWN
2. MATERIAL: COPPER
3. CONDUCTORS: #10 AWG AND SMALLER: SOLID OR STRANDED
4. CONDUCTORS: #8 AWG AND LARGER CONCENTRIC-LAY-STRANDED (STANDARD FLEXIBILITY)

D. CONDUCTOR IDENTIFICATION: CONDUCTORS SHALL BE IDENTIFIED BY COLOR AS FOLLOWS:

	240/120V VOLT SYSTEMS	480/240V VOLT SYSTEMS
A PHASE	BLACK	BROWN
B PHASE	RED	ORANGE
NEUTRAL	WHITE	GRAY
GROUND	GREEN	GREEN
ISOLATED GROUND	GREEN W/ YELLOW STRIPE	

E. MINIMUM SIZE BRANCH CIRCUIT CONDUCTOR SHALL BE #12 AWG.

F. COLOR FOR CONDUCTORS #10 AWG AND SMALLER SHALL BE PERMANENT FACTORY APPLIED. CONDUCTORS #8 AWG AND LARGER SHALL BE BLACK COLOR CODED PHASE TAPE APPLIED AT THE TERMINATIONS. WHERE TYPE MC CABLE IS USED, CIRCUIT NUMBERS SHALL BE APPLIED AT ALL WIRE SPLICES AND TERMINATIONS.

G. INSTALL ELECTRICAL BUILDING WIRES AND CABLES, AS INDICATED, IN COMPLIANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS, APPLICABLE REQUIREMENTS OF NEC, AND IN ACCORDANCE WITH RECOGNIZED INDUSTRY PRACTICES.

H. WIRE SHALL BE PROTECTED DURING STORAGE AND HANDLING AND SHALL BE IN FIRST CLASS CONDITION WHEN INSTALLED.

I. NO GREASE OF ANY KIND AND NO COMPOUND OTHER THAN A NEUTRAL LUBRICANT AS APPROVED BY THE WIRE OR CABLE MANUFACTURER SHALL BE USED AS A PULLING COMPOUND.

J. WHEN WIRES ARE INSTALLED IN CONDUIT, SUFFICIENT SLACK SHALL BE ALLOWED TO PERMIT THE CONNECTION OF FIXTURES OR WIRING DEVICES WITHOUT ADDITIONAL SPLICE.

K. ALL CONDUCTORS SHALL BE CONTINUOUS FROM OUTLET TO OUTLET OR FROM PANEL TO OUTLET OR DEVICE. NO SPLICES WILL BE PERMITTED IN CONDUIT RUNS.

L. FEEDERS SHALL BE RUN IN INDIVIDUAL CONDUITS FROM THE FEEDER SOURCE TO THE LOAD TERMINATIONS, AS INDICATED ON THE DRAWINGS. DO NOT COMBINE MULTIPLE FEEDERS IN A WIREWAY OR JUNCTION BOX.

M. USE COMPRESSION TYPE WIRE CONNECTORS FOR STRANDED CONDUCTORS, FOR MOTOR CONNECTIONS, AND ALL OTHER CONNECTIONS OR SPLICES SUBJECT TO VIBRATION. WIRE NUTS MAY BE USED ELSEWHERE.

N. BRANCH CIRCUITS FOR MOTORS, AS INDICATED ON THE DRAWINGS, ARE APPROXIMATE SIZE ONLY. THIS CONTRACTOR IS CAUTIONED TO OBTAIN THE EXACT RATING OF THE MOTOR OPERATED EQUIPMENT FROM THE MECHANICAL CONTRACTOR, AND HE OR SHE SHALL ADJUST THE SIZE OF THE PROTECTIVE DEVICE AND WIRE TO CONFORM TO THE REQUIREMENTS OF THE EQUIPMENT. ALL SUCH CHANGES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

O. AT EACH OUTLET LOCATION, THE TERMINATING CONDUCTORS SHALL BE LEFT NOT LESS THAN 6" LONG WITHIN THE OUTLETS.

P. USE PULLING MEANS, INCLUDING FISH TAPE, CABLE, OR ROPE WHICH CANNOT DAMAGE RACEWAY.

Q. TORQUE ALL BOLTED LUGS AND CONNECTORS TO TORQUE VALUES RECOMMENDED BY THE EQUIPMENT MANUFACTURER. WHERE TORQUE VALUES ARE NOT GIVEN, USE APPLICABLE TORQUE VALUES GIVEN BY UL STANDARDS #486A AND #486B.

R. AS FAR AS POSSIBLE, CONDUCTORS SHALL BE PULLED THROUGH WITHOUT SPLICE. WHERE SPLICES ARE NECESSARY AND APPROVED BY THE ENGINEER, THEY SHALL BE MADE IN JUNCTION OR PULL BOXES ONLY.

S. FIELD CONNECTIONS AT PANELBOARDS SHALL PROVIDE THE PROPER PHASE RELATIONSHIP, AS INDICATED ON THE DRAWINGS, OR AS SPECIFIED HEREIN.

2.4 GROUNDING

A. FURNISH AND INSTALL SYSTEM, ENCLOSURE, AND EQUIPMENT GROUNDING FOR ALL ELECTRIC WIRING FOR THE BUILDING IN FULL COMPLIANCE WITH THE REQUIREMENTS OF LOCAL CODES AND THE NEC. ALL GROUNDING CONDUCTORS SHALL BE COPPER.

B. PROVIDE GROUNDING PRODUCTS THAT ARE UL LISTED AND LABELED AND COMPLY WITH ESTABLISHED INDUSTRY STANDARDS FOR APPLICATIONS INDICATED.

C. GROUND RODS SHALL BE COPPER-CLAD STEEL, 3/4 INCH DIA. X 10 FEET.

D. A CONTINUOUS, INSULATED EQUIPMENT GROUNDING CONDUCTOR SHALL BE PROVIDED WITH ALL FEEDERS AND BRANCH CIRCUITS. GROUNDING CONDUCTOR SHALL BE SIZED IN ACCORDANCE WITH ARTICLE 250 OF THE NEC AND SHALL TERMINATE BY MEANS OF COMPRESSION LUGS AT EACH GROUND BUS, PANELBOARD GROUNDING BAR, PULL BOXES, DISCONNECT SWITCHES, STARTERS, MOTORS, AND OTHER DEVICES.

2.5 BOXES AND FITTINGS

A. IN GENERAL, APPLICATION OF ELECTRICAL BOX AND ELECTRICAL FITTING WORK IS INDICATED BY THE DRAWINGS, SCHEDULES AND THESE SPECIFICATIONS. PROVIDE ADDITIONAL ELECTRICAL BOXES AND FITTINGS AS MAY BE REQUIRED FOR A COMPLETE ELECTRICAL INSTALLATION.

B. TYPES OF ELECTRICAL BOXES AND FITTINGS IN THIS SECTION INCLUDE THE FOLLOWING:

1. OUTLET BOXES
2. JUNCTION BOXES
3. PULL BOXES
4. CONDUIT BODIES
5. BUSHINGS
6. LOCKNUTS

C. ALL BOXES SHALL BE LISTED AND LABELED IN ACCORDANCE WITH NFPA 70 AND MARKED FOR INTENDED LOCATION AND USE. COMPLY WITH NFPA 70 AS APPLICABLE TO CONSTRUCTION AND INSTALLATION OF ELECTRICAL WIRING BOXES AND FITTINGS.

D. PROVIDE GALVANIZED PRESSED STEEL INTERIOR OUTLET WIRING BOXES, OF TYPES, SHAPES, AND SIZES, INCLUDING BOX DEPTHS, TO SUIT EACH RESPECTIVE LOCATION AND INSTALLATION, AND WITH THREADED SCREW HOLES WITH CORROSION RESISTANT SCREWS FOR SECURING BOX COVERS AND WIRING DEVICES.

E. PROVIDE OUTLET BOX ACCESSORIES AS REQUIRED FOR EACH INSTALLATION, INCLUDING MOUNTING BRACKETS, WALL BOARD HANGERS, EXTENSION RINGS, FIXTURE STUDS, CABLE CLAMPS, AND METAL STRAPS FOR SUPPORTING OUTLET BOXES, WHICH ARE COMPATIBLE WITH OUTLET BOXES BEING USED AND WHICH FULFILL REQUIREMENTS OF INDIVIDUAL WIRING SITUATIONS.

F. OUTLET BOXES INSTALLED EXPOSED SHALL BE DIE-CAST ALUMINUM WITH THREADED CONDUIT HUBS AND A POWDER-COATED FINISH. APPROPRIATE CAST METAL OUTLET COVERS OR "IN-USE" HOODS WITH INTERNAL GASKETS SHALL BE INSTALLED FOR ALL OUTLETS LOCATED IN DAMP OR WET LOCATIONS OR WHERE LOCATED OUTDOORS.

G. PROVIDE GALVANIZED CAST METAL CONDUIT BODIES OF TYPES, SHAPES AND SIZES TO SUIT RESPECTIVE LOCATIONS AND INSTALLATION. CONSTRUCT WITH THREADED-CONDUIT-ENTRANCE ENDS, REMOVABLE COVERS AND CORROSION RESISTANT SCREWS.

H. INDOOR PULL BOXES SHALL BE MADE OF GALVANIZED SHEET STEEL WITH SCREW-ON COVERS AND WELDED SEAMS. OVERSIZED COVERS SHALL BE PROVIDED FOR ALL BOXES INTENDED TO BE RECESSED FLUSH IN WALLS. DO NOT USE KNOCKOUT TYPE BOXES FOR ANY APPLICATION IN SIZES LARGER THAN 4-11/16".

I. PROVIDE CORROSION-RESISTANT PUNCHED-STEEL BOX KNOCKOUT CLOSURES, CONDUIT LOCKNUTS AND MALLEABLE IRON CONDUIT BUSHINGS, AND OFFSET CONNECTORS OF TYPES AND SIZES TO SUIT RESPECTIVE USE AND INSTALLATION.

J. INSTALL ELECTRICAL BOXES AND FITTINGS, WHERE INDICATED OR REQUIRED, COMPLYING WITH APPLICABLE REQUIREMENTS OF NFPA 70, NECA "NATIONAL ELECTRICAL INSTALLATION STANDARDS," AND WITH RECOGNIZED INDUSTRY PRACTICES.

K. PROVIDE KNOCKOUT CLOSURES AT UNUSED KNOCKOUT HOLES WHERE BLANKS HAVE BEEN REMOVED.

L. PROVIDE SEPARATE STRUCTURAL SUPPORTS FOR ALL BOXES AND PULL BOXES IN ACCORDANCE WITH CODE REQUIREMENTS.

M. PROVIDE SUITABLE COVERS DURING CONSTRUCTION TO PREVENT THE ENTRY OF FOREIGN MATERIAL DURING CONSTRUCTION. CLEAN ALL OUTLET BOXES FREE OF FOREIGN DEBRIS BEFORE INSTALLING WIRING DEVICES.

N. PROVIDE PULL BOXES AND JUNCTION BOXES, AS INDICATED ON THE PLANS, OR AS REQUIRED. BOXES SHALL BE SIZED AS INDICATED ON THE PLANS AND WHERE NOT INDICATED, THEY SHALL BE SIZED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.

O. PROVIDE COVERPLATES FOR ALL OUTLET BOXES. REFER TO SECTION "WIRING DEVICES."

P. WHERE TWO OR MORE DEVICES ARE INSTALLED IN GANG BOXES, GANG PLATES WITH SUITABLE OPENINGS SHALL BE PROVIDED.

Q. EXCEPT WHERE INDICATED OTHERWISE ON THE DRAWINGS, OUTLET BOXES SHALL BE LOCATED AS FOLLOWS (DIMENSIONS TO CENTER OF BOX):

1. CEILING LIGHTING FIXTURES - SYMMETRICALLY IN CEILING, OR AS INDICATED ON THE PLANS.
2. RECEPTACLES - 1'-6" ABOVE FINISHED FLOOR.
3. LIGHT SWITCHES/DIMMERS - 4'-0" ABOVE FINISHED FLOOR.
4. OUTLETS FOR TELEPHONE/DATA - 1'-6" ABOVE FINISHED FLOOR.

2.6 WIRING DEVICES

A. SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE THE FOLLOWING PRODUCTS, OR AN APPROVED EQUAL:

1. TOGGLE SWITCHES: 20 AMPERE, 120-277 VOLT, AC ONLY, QUIET TYPE, COMMERCIAL SPECIFICATION GRADE.
2. GENERAL PURPOSE RECEPTACLES: NEMA 5-20R, GROUNDING TYPE, COMMERCIAL SPECIFICATION GRADE.
3. DEDICATED USE RECEPTACLES: NEMA 5-20R, GROUNDING TYPE, COMMERCIAL SPECIFICATION GRADE.
4. GROUND FAULT CIRCUIT INTERRUPTING RECEPTACLES: NEMA 5-20R, GROUNDING TYPE, COMMERCIAL SPECIFICATION GRADE.

B. COORDINATE DEVICE FINISH COLORS WITH ARCHITECT.

C. PROVIDE COVERPLATES FOR ALL WIRING DEVICES. PROVIDE BLANK OUTLET PLATES FOR ALL TELEPHONE, DATA, AND OTHER BLANK OUTLET BOXES. PROVIDE METAL SCREWS FOR SECURING PLATES TO DEVICES.

D. COVERPLATES SHALL BE MADE OF HIGH-IMPACT UNBREAKABLE NYLON. COORDINATE FINISH COLOR WITH ARCHITECT.

E. OUTLETS INSTALLED IN WET LOCATIONS OR WHERE LOCATED OUTDOORS AND SUBJECT TO BEATING RAIN AND/OR WATER RUNOFF SHALL BE EQUIPPED WITH CAST ALUMINUM HOODS INDENTIFIED AS EXTRA-DUTY THAT ARE WEATHERPROOF WHETHER OR NOT THE ATTACHMENT PLUG IS INSERTED.

F. MULTIPLE OUTLETS SHALL BE PROVIDED WITH MULTIPLE GANG PLATES OF ONE-PIECE CONSTRUCTION.

G. ALL 125V OR 250V, 15A AND 20A NON-LOCKING TYPE RECEPTACLES INSTALLED IN DAMP OR WET LOCATIONS SHALL BE LISTED WEATHER-RESISTANT TYPE.

H. ALL 125V OR 250V, 15A AND 20A NON-LOCKING TYPE RECEPTACLES INSTALLED IN AREAS LISTED IN NEC ARTICLE 406.12 SHALL BE LISTED TAMPER-RESISTANT.

2.7 PANELBOARDS

A. PANELBOARDS SHALL BE OF DEAD-FRONT CONSTRUCTION EQUIPPED WITH CIRCUIT BREAKERS AS INDICATED ON THE SCHEDULES AND AS SPECIFIED HEREIN. PANELBOARDS SHALL BE DESIGNED TO MEET UL 67 AND NEMA STANDARD PB1.

B. BUS BARS FOR PANELBOARDS SHALL BE TIN-PLATED ALUMINUM.

C. HINGED FRONT COVER: ENTIRE FRONT TRIM HINGED TO BOX AND WITH STANDARD DOOR WITHIN HINGED TRIM COVER. TRIMS SHALL COVER ALL LIVE PARTS AND SHALL HAVE NO EXPOSED HARDWARE. A CIRCUIT DIRECTORY FRAME AND CARD WITH CLEAR PLASTIC COVERING SHALL BE PROVIDED ON THE INSIDE OF THE DOOR.

D. FUTURE DEVICES: PANELBOARDS SHALL HAVE MOUNTING BRACKETS, BUS CONNECTIONS, FILLER PLATES, AND NECESSARY APPURTENANCES REQUIRED FOR FUTURE INSTALLATION OF DEVICES.

E. PANELBOARD SHORT-CIRCUIT CURRENT RATING: RATED FOR SERIES-CONNECTED SYSTEM WITH INTEGRAL OR REMOTE UPSTREAM OVERCURRENT PROTECTIVE DEVICES AND LABELED BY AN NRTL. INCLUDE LABEL OR MANUAL WITH SIZE AND TYPE OF ALLOWABLE UPSTREAM AND BRANCH DEVICES LISTED AND LABELED BY AN NRTL FOR SERIES-CONNECTED SHORT-CIRCUIT RATING.

F. CIRCUIT BREAKERS SHALL BE THERMAL MAGNETIC, MOLDED CASE TYPE DESIGNED FOR BOLT-ON INSTALLATIONS UNLESS NOTED OTHERWISE. INTERRUPTING RATINGS SHALL BE AS INDICATED ON DRAWINGS. ALL CIRCUIT BREAKERS SERVING HVAC EQUIPMENT SHALL BE THE "HACR" TYPE. FURNISH ALL CIRCUIT BREAKERS SERVING EMERGENCY AND/OR LIFE SAFETY EQUIPMENT WITH PADLOCK ATTACHMENTS DESIGNED TO LOCK THE BREAKER HANDLE IN EITHER THE ON OR OFF POSITION.

G. EACH PANELBOARD SHALL BE EQUIPPED WITH A BARE UNINSULATED EQUIPMENT GROUNDING BAR FOR USE IN TERMINATING SEPARATE EQUIPMENT GROUNDING CONDUCTORS.

H. EACH SERVICE DISCONNECTING MEANS RATED 1000 AMPS OR MORE IN SOLIDLY GROUNDED SYSTEMS RATED 150V OR MORE TO GROUND SHALL BE EQUIPPED WITH GROUND FAULT PROTECTION OF EQUIPMENT. PROVIDE PERFORMANCE TESTING FOR ALL GROUND FAULT PROTECTIVE DEVICES IN SERVICE EQUIPMENT AS REQUIRED BY NEC ARTICLE 230.95(C).

I. A MEANS TO REDUCE ARC ENERGY SHALL BE PROVIDED FOR ALL FUSES AND CIRCUIT BREAKERS RATED 1200A OR MORE, REGARDLESS OF VOLTAGE, IN ACCORDANCE WITH NEC ARTICLES 240.67 AND/OR 240.87.

J. EACH SECTION OF A MULTI-SECTION PANELBOARD LINE-UP SHALL HAVE SAME SIZED CABINETS.

K. MOUNT ALL PANELBOARDS TO COMPLY WITH NEC ARTICLE 404.8(A). THE CENTER OF THE GRIP OF THE OPERATING HANDLE OF THE HIGHEST CIRCUIT BREAKER SHALL BE NO MORE THAN 6'-7" ABOVE THE FINISHED FLOOR LINE.

L. PROVIDE A TYPEWRITTEN CIRCUIT DIRECTORY CARD UPON COMPLETION OF THE INSTALLATION WORK.

2.8 ENCLOSED SWITCHES AND CIRCUIT BREAKERS

A. ALL FUSED AND NON-FUSED SAFETY SWITCHES SHALL BE TYPE HD, HEAVY DUTY AND UL 98 AND NEMA KS1 LISTED, 240 VOLT OR 600 VOLT RATING AS REQUIRED.

B. SWITCHES SHALL BE HORSEPOWER RATED AND EQUIPPED WITH A HANDLE INTERLOCKED WITH COVER IN CLOSED POSITION THAT CAN ACCEPT THREE PADLOCKS.

C. ENCLOSED CIRCUIT BREAKERS SHALL BE COMPRISED OF MOLDED CASE, THERMAL-MAGNETIC CIRCUIT BREAKERS, COMPLYING WITH UL 489 WITH INTERRUPTING CAPACITY SUITABLE FOR AVAILABLE FAULT CURRENTS.

D. UNLESS NOTED OTHERWISE, SWITCHES AND CIRCUIT BREAKERS SHALL BE MOUNTED IN NEMA TYPE 1 ENCLOSURES WHERE LOCATED INDOORS AND NEMA 3R ENCLOSURES WHERE LOCATED OUTDOORS. SWITCHES AND CIRCUIT BREAKERS MOUNTED IN KITCHEN/FOOD PREP AREAS SHALL BE MOUNTED IN NEMA 4X STAINLESS STEEL ENCLOSURES.

E. FURNISH AND INSTALL SAFETY SWITCHES WHERE INDICATED ON THE DRAWINGS AND/OR WHERE REQUIRED BY CODE. SAFETY SWITCHES SHALL BE FUSIBLE OR NON-FUSIBLE, AS INDICATED OR REQUIRED, TO PROVIDE THE REQUIRED DISCONNECT MEANS AND/OR BRANCH CIRCUIT PROTECTION.

F. LUGS FOR SAFETY SWITCHES AND CIRCUIT BREAKERS SHALL BE SUITABLE FOR 75ºC RATED WIRE.

G. EQUIPMENT GROUND KIT: INTERNALLY MOUNTED AND LABELED FOR COPPER AND ALUMINUM GROUND CONDUCTORS.

H. NEUTRAL KIT: INTERNALLY MOUNTED; INSULATED, CAPABLE OF BEING GROUNDED AND BONDED; LABELED FOR COPPER AND ALUMINUM NEUTRAL CONDUCTORS.

I. ISOLATED GROUND KIT: INTERNALLY MOUNTED; INSULATED, LABELED FOR COPPER AND ALUMINUM NEUTRAL CONDUCTORS.

J. CLASS R FUSE KIT: PROVIDES REJECTION OF OTHER FUSE TYPES WHEN CLASS R FUSES ARE SPECIFIED.

K. SWITCHES SHALL BE FURNISHED WITH MECHANICALLY INTERLOCKED AUXILIARY CONTACTS THAT CHANGE STATE WHEN SWITCH IS OPENED AND CLOSED.

L. ALL SWITCHES USED AS A SERVICE DISCONNECTING MEANS SHALL BE LABELED FOR USE AS SERVICE EQUIPMENT.

2.9 TRANSFORMERS

A. TRANSFORMERS SHALL BE FACTORY-ASSEMBLED AND TESTED, AIR-COOLED UNITS FOR 60-HZ SERVICE AND SHALL BE LISTED AND LABELED AS COMPLYING WITH UL 1561.

B. ENCLOSURE SHALL BE VENTILATED, NEMA 250, TYPE 2.

C. COILS SHALL BE MADE OF ALUMINUM.

D. INSULATION CLASS SHALL BE 220 DEG C COMPRISED OF A UL-COMPONENT-RECOGNIZED INSULATION SYSTEM WITH A MAXIMUM OF 150 DEG C RISE ABOVE 40 DEG C AMBIENT TEMPERATURE.

E. TRANSFORMERS SHALL COMPLY WITH 10 CFR 431 (DOE 2016) EFFICIENCY LEVELS AND SHALL BE TESTED IN ACCORDANCE WITH NEMA TP-2.

F. MOUNT TRANSFORMERS ON 4-INCH CONCRETE HOUSEKEEPING PADS AND INSTALL ANCHORING ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS.

G. INSTALL ENGRAVED, LAMINATED-PLASTIC OR METAL NAMEPLATES ON FRONT OF TRANSFORMERS.

2.10 ELECTRICAL IDENTIFICATION

A. FURNISH AND INSTALL A CONDUCTOR IDENTIFICATION BAND ON EACH CONDUCTOR IN EACH BOX/ENCLOSURE/CABINET WHERE WIRES OF MORE THAN ONE CIRCUIT ARE PRESENT, EXCEPT WHERE ANOTHER FORM OF IDENTIFICATION, SUCH AS COLOR CODED CONDUCTORS, IS PROVIDED.

B. INSTALL UNDERGROUND WARNING TAPE (I.E., BRADY IDENTOLINE) APPROXIMATELY 12 INCHES BELOW GRADE ALONG FULL LENGTH OF DIRECT BURIED CONDUITS. TAPE SHALL BE MADE OF POLYETHYLENE AND SHALL BE COATED TO PROTECT LEGEND FROM SOIL SUBSTANCES. LEGENDS SHALL INDICATE APPROPRIATE CONDUIT USE SUCH AS ELECTRIC OR COMMUNICATIONS. TAPE INSTALLED ABOVE COMMUNICATIONS CONDUITS SHALL BE DETECTABLE TYPE OR A SUITABLE TRACER WIRE INSTALLED FOR FUTURE LOCATING.

C. FURNISH AND INSTALL AN ENGRAVED PLASTIC LAMINATE IDENTIFICATION PLATE AT EACH PANELBOARD AND DISCONNECT SWITCH. SECURE WITH STAINLESS STEEL SCREWS. INCLUDE THE FOLLOWING INFORMATION:

1. DISTRIBUTION LIGHTING AND APPLIANCE PANELBOARDS - PANEL NAME IN 1/4" LETTERS, VOLTAGE AND PHASE IN 1/8" LETTERS (E.G., "PANEL M, 120/208V, 3-PHASE, 4 WIRE").

2. EACH SEPARATE SWITCH UNIT AT DISTRIBUTION PANELS - CIRCUIT NUMBER AND LOAD SERVED IN 1/8" LETTERS (E.G., "#13, PANEL A").

3. EACH DISCONNECT SWITCH - LOAD SERVED, VOLTAGE AND PHASE, PANEL AND CIRCUIT NUMBER IN 1/8" LETTERS (E.G., "ACU-1, 208V, 3-PHASE, M-6").

2.11 SUPPORTING DEVICES

A. PROVIDE SUPPORTS FOR ALL ELECTRICAL WORK AS INDICATED ON THE DRAWINGS, AS SPECIFIED HEREIN, OR AS REQUIRED BY CODE.

B. COMPLY WITH NEC AS APPLICABLE TO CONSTRUCTION AND INSTALLATION OF ELECTRICAL SUPPORTING DEVICES.

C. COMPLY WITH APPLICABLE REQUIREMENTS OF ANSI/NEMA STD. PUB. NO. FB 1, "FITTINGS AND SUPPORTS FOR CONDUIT AND CABLE ASSEMBLIES".

D. COMPLY WITH APPLICABLE MSS STANDARD REQUIREMENTS PERTAINING TO FABRICATION AND INSTALLATION PRACTICES FOR PIPE HANGERS AND SUPPORTS.

E. COMPLY WITH THE NECA "NATIONAL ELECTRICAL INSTALLATION STANDARDS" PERTAINING TO ANCHORS, FASTENERS, HANGERS, SUPPORTS AND EQUIPMENT MOUNTING.

F. WHERE MANUFACTURED SUPPORTING DEVICES ARE PROVIDED, THEY SHALL COMPLY WITH MANUFACTURER'S STANDARD MATERIALS, DESIGN, AND CONSTRUCTION IN ACCORDANCE WITH PUBLISHED PRODUCT INFORMATION.

G. PROVIDE U-CHANNEL STRUT SYSTEM FOR SUPPORTING SURFACE MOUNTED ELECTRICAL EQUIPMENT, 12 GAUGE MINIMUM SIZE HOT-DIPPED GALVANIZED STEEL OF TYPES AND SIZES INDICATED (UNISTRUT P-1000 MINIMUM SIZE).

H. FURNISH AND INSTALL ALL NECESSARY HANGERS, SUPPORTS, ETC., AS REQUIRED, FOR RIGIDLY AND SECURELY MOUNTING ALL SWITCHES, CONNECTOR BOXES, LIGHTING FIXTURES, PANELBOARDS, PULL BOXES, CONDUIT, OUTLET BOXES, AND ALL OTHER ITEMS OF ELECTRICAL WORK INCLUDED IN THIS PROJECT.

I. ALL HANGERS AND SUPPORTS SHALL BE FASTENED TO THE BUILDING STRUCTURE BY MEANS OF BOLTS, U-CHANNEL STRUT SYSTEM, ANCHORS AND RODS, OR OTHER APPROVED MEANS.

J. LIGHTING FIXTURES SHALL BE SECURELY SUPPORTED FROM THE BUILDING STRUCTURE, AS INDICATED ON THE DRAWINGS OR AS SPECIFIED HEREIN.

K. DO NOT USE PERFORATED STRAP IRON HANGERS ON THIS PROJECT FOR ANY PURPOSE.

L. SUPPORT BOXES FROM BUILDING STRUCTURE IN AN APPROVED MANNER; MAKE SUPPORT INDEPENDENT OF CONDUIT TO WHICH THEY ARE CONNECTED. ROD HANGERS SHALL BE USED WHERE SUITABLE. WHERE ROD HANGERS ARE NOT SUITABLE, PROVIDE U-CHANNEL STRUT SUPPORTS FROM BUILDING STRUCTURE.

M. WHERE MULTIPLE RUNS OF EXPOSED CONDUIT ARE REQUIRED, PROVIDE UNISTRUT SUPPORTS FOR CONDUIT.

N. WHERE CONDUIT IS SUPPORTED BY SUSPENDED HANGERS, THE TOTAL LENGTH TO THE BOTTOM OF THE HANGER SHALL NOT EXCEED 12", OTHERWISE APPROPRIATE RESTRAINTS SHALL BE INSTALLED AS REQUIRED TO SUSTAIN SEISMIC LOADING.

O. ALL SUPPORT SYSTEMS UTILIZED ON THIS PROJECT SHALL EMPLOY SCREWS OR BOLTS AND NUTS TO SECURE CABLES, CONDUIT, AND CONDUIT SUPPORT.

2.12 LIGHTING

A. PROVIDE ONLY LIGHTING FIXTURES, EXIT SIGNS AND EMERGENCY LIGHTING UNITS WHICH ARE UL LISTED AND LABELED.

B. ALL NEW LED FIXTURES SHALL CARRY A MINIMUM FIVE YEAR FULL REPLACEMENT WARRANTY FROM DEFECTS.

C. SUPPORT EACH RECESSED LIGHT FIXTURE INDEPENDENTLY OF THE ASSOCIATED CEILING GRID. SUPPORT EACH DOWNLIGHT (<10LBS) WITH ONE (1) SLACK #12 SAFETY WIRE. ALL OTHER RECESSED FIXTURES (UP TO 2'X4' AND <56LBS) SHALL BE SUPPORTED WITH TWO (2) #12 SAFETY WIRES CONNECTED AT OPPOSITE, DIAGONAL CORNERS. WIRING SHALL BE LOOPED THROUGH HANGER TABS INTEGRAL WITH FIXTURE HOUSINGS AND SHALL BE SECURELY FASTENED TO STRUCTURE SAME AS CEILING SYSTEMS. EACH END OF SAFETY WIRE SHALL BE WRAPPED WITH MINIMUM THREE (3) TURNS (1-1/2" LENGTH).

D. BATTERY OPERATED EXIT SIGNS AND EMERGENCY LIGHTING UNITS SHALL BE PERMANENTLY WIRED TO THE BUILDING ELECTRICAL SYSTEM. WHERE INSTALLED IN SWITCHED FIXTURES, EMERGENCY LED DRIVERS SHALL BE WIRED UNSWITCHED, AND NORMAL LED DRIVERS SHALL BE WIRED SWITCHED.

E. CLEAN LIGHTING FIXTURES OF DIRT AND DEBRIS UPON PROJECT COMPLETION. PROTECT INSTALLED FIXTURES FROM DAMAGE DURING REMAINDER OF CONSTRUCTION PERIOD.

F. TEST FOR EMERGENCY LIGHTING: INTERRUPT POWER SUPPLY TO DEMONSTRATE PROPER OPERATION. VERIFY TRANSFER FROM NORMAL POWER TO BATTERY POWER AND RETRANSFER TO NORMAL.

G. PROVIDE FACTORY START-UP AND PROGRAMMING OF LIGHTING CONTROL SYSTEM. PROVIDE 4 HOURS OF OWNER TRAINING ON THE OPERATION AND ADJUSTMENT OF CONTROL SETTINGS AND SCHEDULES.

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BROOKLAND SPORTSPLEX
PHASE 2
BROOKLAND, ARKANSAS

No. 10749
DAVID E. CANUP, JR.
03-21-2025
seal

NO. 1139
coa

FISHER & ARNOLD, INC.
Arkansas - 1139

CLIENT:
CITY OF BROOKLAND, ARKANSAS

REVISIONS

DATE	BY	DESCRIPTION

SPECIFICATIONS

PROJECT NO.
CTYBRKLD.003PL

DRAWN BY	CHECKED BY
DPW	DEC
SHEET	SCALE
E200	AS NOTED
DATE	
03/21/2025	5 OF 6

SECTION 26 56 68 – EXTERIOR ATHLETIC LIGHTING

Lighting System with LED Light Source

PART 1 – GENERAL

1.1 SUMMARY

A. Work covered by this section of the specifications shall conform to the contract documents, engineering plans as well as state and local codes.

B. The purpose of these specifications is to define the lighting system performance and design standards for Brookland Sportsplex using an LED Lighting source. The manufacturer / contractor shall supply lighting equipment to meet or exceed the standards set forth in these specifications.

C. The sports lighting will be for the following venues:

1. Field 2

D. The primary goals of this sports lighting project are:

1. Guaranteed Light Levels: Selection of appropriate light levels impact the safety of the players and the enjoyment of spectators. Therefore light levels are guaranteed to not drop below specified target values for a period of 25 years.
2. Environmental Light Control: It is the primary goal of this project to minimize spill light to adjoining properties and glare to the players, spectators and neighbors.
3. Cost of Ownership: In order to reduce the operating budget, the preferred lighting system shall be energy efficient and cost effective to operate. All maintenance costs shall be eliminated for the duration of the warranty.
4. Control and Monitoring: To allow for optimized use of labor resources and avoid unneeded operation of the facility, customer requires a remote on/off control system for the lighting system. Fields should be proactively monitored to detect luminaire outages over a 25-year life cycle. All communication and monitoring costs for 25-year period shall be included in the bid.

1.2 LIGHTING PERFORMANCE

A. Illumination Levels and Design Factors: Playing surfaces shall be lit to an average target illumination level and uniformity as specified in the chart below. Lighting calculations shall be developed and field measurements taken on the grid spacing with the minimum number of grid points specified below. Appropriate light loss factors shall be applied and submitted for the basis of design. Average illumination level shall be measured in accordance with the IESNA LM-5-04 (IESNA Guide for Photometric Measurements of Area and Sports Lighting Installations). Illumination levels shall not to drop below desired target values in accordance to IES RP-6-15, Page 2, Maintained Average Illuminance and shall be guaranteed for the full warranty period.

Area of Lighting	Average Target Illumination Levels	Maximum to Minimum Uniformity Ratio	Grid Points	Grid Spacing
Field 2	50 Footcandles on the infield 30 Footcandles on the infield	2:1 2.5:1	25 176	20'x20'

B. Color: The lighting system shall have a minimum color temperature of 5700K and a CRI of 75.

C. Mounting Heights: To ensure proper aiming angles for reduced glare and to provide better playability, minimum mounting heights shall be as described below. Higher mounting heights may be required based on photometric report and ability to ensure the top of the field angle is a minimum of 10 degrees below horizontal.

# of Poles	Pole Designation	Pole Height
4	A3, A4, C3, C4	60'
2	B3, B4	70'

1.3 ENVIRONMENTAL LIGHT CONTROL

A. Light Control Luminaires: All luminaires shall utilize spill light and glare control devices including, but not limited to, internal shields, louvers and external shields. No symmetrical beam patterns are accepted.

C. Spill Scans: Spill scans must be submitted indicating the amount of horizontal and vertical footcandles along the specified lines. Light levels shall be taken at 30-foot intervals along the boundary line. Readings shall be taken with the meter orientation at both horizontal and aimed towards the most intense bank of lights. Illumination level shall be measured in accordance with the IESNA LM-5-04 after 1 hour warm up.

D. The first page of a photometric report for all luminaire types proposed showing horizontal and vertical axial candle power shall be provided to demonstrate the capability of achieving the specified performance. Reports shall be certified by a qualified testing laboratory with a minimum of five years experience or by a manufacturer's laboratory with a current accreditation under the National Voluntary Laboratory Accreditation Program for Energy Efficient Lighting Products. A summary of the horizontal and vertical aiming angles for each luminaire shall be included with the photometric report.

1.4 Cost of Ownership

A. Manufacturer shall submit a 25 year Cost of Ownership summary that includes energy consumption, anticipated maintenance costs, and control costs. All costs associated with faulty luminaire replacement - equipment rentals, removal and installation labor, and shipping - are to be included in the maintenance costs.

PART 2 – PRODUCT

2.2 SPORTS LIGHTING SYSTEM CONSTRUCTION

A. Manufacturing Requirements: All components shall be designed and manufactured as a system. All luminaires, wire harnesses, drivers and other enclosures shall be factory assembled, aimed, wired and tested.

B. Durability: All exposed components shall be constructed of corrosion resistant material and/or coated to help prevent corrosion. All exposed carbon steel shall be hot dip galvanized per ASTM A123. All exposed aluminum shall be powder coated with high performance polyester or anodized. All exterior reflective inserts shall be anodized, coated, and protected from direct environmental exposure to prevent reflective degradation or corrosion. All exposed hardware and fasteners shall be stainless steel, passivated and

coated with aluminum-based thermosetting epoxy resin for protection against corrosion and stress corrosion cracking. Structural fasteners may be carbon steel and galvanized meeting ASTM A153 and ISO/EN 1461 (for hot dipped galvanizing), or ASTM B695 (for mechanical galvanizing). All wiring shall be enclosed within the cross-arms, pole, or electrical components enclosure.

C. System Description: Lighting system shall consist of the following:

1. Galvanized steel poles and cross-arm assembly.
2. Non-approved pole technology:
   a. Square static cast concrete poles will not be accepted.
   b. Direct bury steel poles which utilize the extended portion of the steel shaft for their foundation will not be accepted due to potential for internal and external corrosive reaction to the soils and long term performance concerns.
3. Lighting systems shall use concrete foundations. See Section 2.4 for details.
   a. For a foundation using a pre-stressed concrete base embedded in concrete backfill the concrete shall be air-entrained and have a minimum compressive design strength at 28 days of 3,000 PSI. 3,000 PSI concrete specified for early pole erection, actual required minimum allowable concrete strength is 1,000 PSI. All piers and concrete backfill must bear on and against firm undisturbed soil.
   b. For anchor bolt foundations or foundations using a pre-stressed concrete base in a suspended pier or re-inforced pier design pole erection may occur after 7 days. Or after a concrete sample from the same batch achieves a certain strength.
4. Manufacturer will supply all drivers and supporting electrical equipment
   a. Remote drivers and supporting electrical equipment shall be mounted approximately 10 feet above grade in aluminum enclosures. The enclosures shall be touch-safe and include drivers and fusing with indicator lights on fuses to notify when a fuse is to be replaced for each luminaire. Disconnect per circuit for each pole structure will be located in the enclosure. Integral drivers are not allowed.
   b. Alternate: Integral drivers mounted at the top of the pole will require a pole mounted enclosure approximately 10 feet above grade. The enclosure shall include a disconnect per circuit, individual luminaire fusing, and surge protection.
   c. Manufacturer shall provide surge protection at the pole equal to or greater than 40 kA for each line to ground (Common Mode) as recommended by IEEE C62.41.2_2002.
5. Wire harness complete with an abrasion protection sleeve, strain relief and plug-in connections for fast, trouble-free installation.
6. All luminaires, visors, and cross-arm assemblies shall withstand 150 mi/h winds and maintain luminaire aiming alignment.
7. Control cabinet to provide remote on-off control and monitoring Section 2.3 for further details.
8. Contactor cabinet to provide on-off control.
9. Manufacturer shall provide lightning grounding as defined by NFPA 780 and be UL Listed per UL 96 and UL 96A.
   a. Integrated grounding via concrete encased electrode grounding system.
   b. If grounding is not integrated into the structure, the manufacturer shall supply grounding electrodes, copper down conductors, and exothermic weld kits. Electrodes and conductors shall be sized as required by NFPA 780.The grounding electrode shall be minimum size of 5/8 inch diameter and 8 feet long, with a minimum of 10 feet embedment. Grounding electrode shall be connected to the structure by a grounding electrode conductor with a minimum size of 2 AWG for poles with 75 feet mounting height or less, and 2/0 AWG for poles with more than 75 feet mounting height.

D. Safety: All system components shall be UL listed for the appropriate application.

2.2 ELECTRICAL

A. Electric Power Requirements for the Sports Lighting Equipment:
1. Electric power: 480 Volt, 3 Phase
2. Maximum total voltage drop: Voltage drop to the disconnect switch located on the poles shall not exceed three (3) percent of the rated voltage.

B. Energy Consumption: The kW consumption for the field lighting system shall not exceed 150kW.

2.3 CONTROL

A. Instant On/Off Capabilities: System shall provide for instant on/off of luminaires.

B. Lighting contactor cabinet(s) constructed of NEMA Type 4 aluminum, designed for easy installation with contactors, labeled to match field diagrams and electrical design. Manual off-on-auto selector switches shall be provided.

Remove items C thru I if no controls (LCC only).

C. Dimming: System shall provide for 3-stage (high-medium-low)

D. Remote Lighting Control System: System shall allow owner and users with a security code to schedule on/off system operation via a web site, phone, fax or email up to ten years in advance. Manufacturer shall provide and maintain a two-way TCP/IP communication link. Trained staff shall be available 24/7 to provide scheduling support and assist with reporting needs.

The owner may assign various security levels to schedulers by function and/or fields. This function must be flexible to allow a range of privileges such as full scheduling capabilities for all fields to only having permission to execute "early off" commands by phone. Scheduling tool shall be capable of setting curfew limits.

Controller shall accept and store 7-day schedules, be protected against memory loss during power outages, and shall reboot once power is regained and execute any commands that would have occurred during outage.

E. Remote Monitoring System: System shall monitor lighting performance and notify manufacturer if individual luminaire outage is detected so that appropriate maintenance can be scheduled. The controller shall determine switch position (manual or auto) and contactor status (open or closed).

F. Management Tools: Manufacturer shall provide a web-based database and dashboard tool of actual field usage and provide reports by facility and user group. Dashboard shall also show current status of luminaire outages, control operation and service. Mobile application will be provided suitable for IOS, Android and Blackberry devices.

Hours of Usage: Manufacturer shall provide a means of tracking actual hours of usage for the field lighting system that is readily accessible to the owner.
1. Cumulative hours: shall be tracked to show the total hours used by the facility
2. Report hours saved by using early off and push buttons by users.

G. Communication Costs: Manufacturer shall include communication costs for operating the control and monitoring system for a period of 25 years.

H. Communication with luminaire drivers: Control system shall interface with drivers in electrical components enclosures by means of powerline communication.

2.4 STRUCTURAL PARAMETERS

(Use for 2012 IBC)

A. Wind Loads: Wind loads shall be based on the 2012 International Building Code. Wind loads to be calculated using ASCE 7-10, an ultimate design wind speed of 115 and exposure category C.

B. Pole Structural Design: The stress analysis and safety factor of the poles shall conform to 2009 AASHTO Standard Specification for Structural Supports for Highway Signs, Luminaires, and Traffic Signals (LTS-5).

C. Foundation Design: The foundation design shall be based on soils that meet or exceed those of a Class 5 material as defined by 2012 IBC Table 1806.2.

PART 3 – EXECUTION

3.1 SOIL QUALITY CONTROL

A. It shall be the Contractor's responsibility to notify the Owner if soil conditions exist other than those on which the foundation design is based, or if the soil cannot be readily excavated. Contractor may issue a change order request / estimate for the Owner's approval / payment for additional costs associated with:

1. Providing engineered foundation embedment design by a registered engineer in the State of Arkansas for soils other than specified soil conditions;
2. Additional materials required to achieve alternate foundation;
3. Excavation and removal of materials other than normal soils, such as rock, caliche, etc.

3.2 DELIVERY TIMING

A. Delivery Timing Equipment On-Site: The equipment must be on-site 8-12 Weeks from receipt of approved submittals and receipt of complete order information.

3.3 FIELD QUALITY CONTROL

A. Illumination Measurements: Upon substantial completion of the project and in the presence of the Contractor, Project Engineer, Owner's Representative, and Manufacturer's Representative, illumination measurements shall be taken and verified. The illumination measurements shall be conducted in accordance with IESNA LM-5-04.

B. Field Light Level Accountability

1. Light levels are guaranteed not to fall below the target maintained light levels for the entire warranty period of 25 years. These levels will be specifically stated as "guaranteed" on the illumination summary provided by the manufacturer.
2. The contractor/manufacturer shall be responsible for conducting initial light level testing and an additional inspection of the system, in the presence of the owner, one year from the date of commissioning of the lighting.
3. The contractor/manufacturer will be held responsible for any and all changes needed to bring these fields back to compliance for light levels and uniformities. Contractor/Manufacturer will be held responsible for any damage to the fields during these repairs.

C. Correcting Non-Conformance: If, in the opinion of the Owner or his appointed Representative, the actual performance levels including footcandles and uniformity ratios are not in conformance with the requirements of the performance specifications and submitted information, the Manufacturer shall be required to make adjustments to meet specifications and satisfy Owner.

3.4 WARRANTY AND GUARANTEE

A. 25-Year Warranty: Each manufacturer shall supply a signed warranty covering the entire system for 25 years from the date of shipment. Warranty shall guarantee specified light levels. Manufacturer shall maintain specifically-funded financial reserves to assure fulfillment of the warranty for the full term. Warranty does not cover weather conditions events such as lightning or hail damage, improper installation, vandalism or abuse, unauthorized repairs or alterations, or product made by other manufacturers.

B. Maintenance: Manufacturer shall monitor the performance of the lighting system, including on/off status, hours of usage and luminaire outage for 25 years from the date of equipment shipment. Parts and labor shall be covered such that individual luminaire outages will be repaired when the usage of any field is materially impacted. Manufacturer is responsible for removal and replacement of failed luminaires, including all parts, labor, shipping, and equipment rental associated with maintenance. Owner agrees to check fuses in the event of a luminaire outage.

PART 4 – DESIGN APPROVAL

4.0 PRE-BID SUBMITTAL REQUIREMENTS (Non-Musco)

A. Design Approval: The owner / engineer will review pre-bid submittals per section 4.0.B from all the manufacturers to ensure compliance to the specification 10 days prior to bid. If the design meets the design requirements of the specifications, a letter and/or addendum will be issued to the manufacturer indicating approval for the specific design submitted.

B. Approved Product: Musco's Light-Structure System™ with TLC for LED™ is the approved product. All substitutions must provide a complete submittal package for approval as outlined in Submittal Information at the end of this section at least 10 days prior to bid. Special manufacturing to meet the standards of this specification may be required. An addendum will be issued prior to bid listing any other approved lighting manufacturers and designs.

C. All listed manufacturers not pre-approved shall submit the information at the end of this section at least 10 days prior to bid. An addendum will be issued prior to bid; listing approved lighting manufacturers and the design method to be used.

D. Bidders are required to bid only products that have been approved by this specification or addendum by the owner or owner's representative. Bids received that do not utilize an approved system/design, will be rejected.

CANUP ENGINEERING, INC.
ELECTRICAL ENGINEERING CONSULTANTS
3100 APPLING ROAD * BARTLETT, TENNESSEE 38133
PHONE: (901) 379-9762 * www.canupeng.com

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BROOKLAND SPORTSPLEX PHASE 2
BROOKLAND, ARKANSAS

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 10749 05-21-2025 DAVID E. CANUP, JR.
seal

CERTIFICATE OF AUTHORIZATION CANUP ENGINEERING INC. NO. 1139 ARKANSAS-ENGINEER
coa

FISHER & ARNOLD, INC.
Arkansas - 1139

CLIENT:
CITY OF BROOKLAND, ARKANSAS

REVISIONS

DATE	BY	DESCRIPTION

SPECIFICATIONS - SPORTS LIGHTING

PROJECT NO. CTYBRKLD.003PL	
DRAWN BY DPW	CHECKED BY DEC
SHEET E201	SCALE AS NOTED
DATE 03/21/2025	6 OF 6

ABBREVIATIONS:

ABBREVIATION	DEFINITION
X:XX	X RISE IN XX RUN
&	AND
@	AT
A/C	AIR CONDITION (ED)/(ING)
ACT	ACOUSTICAL CEILING TILE (PANEL)
ADA	AMERICANS WITH DISABILITIES ACT
ADAAG	AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES
ADD	ADDENDUM
ADJ	ADJACENT
AFF	ABOVE FINISHED FLOOR
ALT	ALTERNATE
ALUM	ALUMINUM
ANOD	ANNODIZE (D)
AP	ACCESS PANEL
AUTO	AUTOMATIC
BD	BOARD
BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
B.O.	BOTTOM OF
BRG	BEARING
C/C	CENTER TO CENTER
CEM	CEMENT (-TITIOUS)
CJ	CONTROL JOINT
CL	CENTER LINE
CLG.	CEILING
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
CNTR.	CENTER
CONC	CONCRETE
CONF.	CONFERENCE
CONT.	CONTINIOUS
CPT	CARPET (ED)(ING)
CT	CERAMIC TILE
DBL.	DOUBLE
DIA	DIAMETER
DIM	DIMENSION
DN	DOWN
DS	DOWNSPOUT
DW	DISHWASHER
DNG(s)	DRAWING (s)
DRWR(s)	DRAWER (s)
EA	EACH
EDF	ELECTRIC DRINKING FOUNTAIN
EIFS	EXTERIOR INSULATION FINISH SYSTEM
EJ	EXPANSION JOINT
ELEC	ELECTRIC (AL)
ELEV	ELEVATOR
E.O.S.	EDGE OF SLAB
EQ	EQUAL
EQUIP. OR EQPM.	EQUIPMENT
ETC.	ET CETERA
EXIST	EXISTING
EXP	EXPOSED
EXT	EXTERIOR
FD	FLOOR DRAIN
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FIN	FINISH (ED)
FLR	FLOOR (ING)
FT	FOOT / FEET
F.O.	FACE OF
F.O.B.	FACE OF BRICK
GA	GAUGE
GAL	GALLON
GB	GRAB BAR (S)
GC	GENERAL CONTRACTOR
GFI	GROUND FAULT INTERRUPT
GNB	GYPSUM WALLBOARD (CONSTRUCTION)
GYP. BD.	GYPSUM BOARD
HC	HANDICAPPED
HDR	HEADER
HDWR	HARDWARE
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HR.	HOUR
HT.	HEIGHT
HVAC	HEATING/ VENTILATING/ AIR CONDITIONING
HWD	HARDWOOD
IBC	INTERNATIONAL BUILDING CODE
I.D.	INSIDE DIAMETER
IN	INCH (ES)
INT	INTERIOR
JNT	JOINT
JST	JOIST
LAM	LAMINATE
LAV	LAVATORY
LH	LEFT HAND

ABBREVIATION	DEFINITION
MAX	MAXIMUM
MECH	MECHANICAL
MED	MEDICAL
MFR / MANUF.	MANUFACTURE (ER)(ING)
MIN	MINIMUM
MISC	MISCELLANEOUS
MTL	METAL
MULL	MULLION
N	NORTH
N/A	NOT APPLICABLE
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NO.	NUMBER
NOM	NOMINAL
NTS	NOT TO SCALE
O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER
O.F.O.I.	OWNER FURNISHED, OWNER INSTALLED
OPG	OPENING
OPP.	OPPOSITE
PBD	PARTICLE BOARD
PEMB	PRE-ENGINEERED METAL BUILDING
PLAM	PLASTIC LAMINATE
PLWD / PWD	PLYWOOD
PREFAB	PREFABRICATED
PT	PORCELAIN TILE
PTD	PAINTED
PVC	POLYVINYL CHLORIDE
PVMT	PAVEMENT
QT	QUARRY TILE
RAD	RADIUS
RB	RUBBER BASE
RD	ROOF DRAIN
REFRIG. OR REF.	REFRIGERATOR
REINF	REINFORCE (D)(ING)(MENT)
REQ'D.	REQUIRED
REV	REVISION (S) / REVISED
RH	RIGHT HAND
RM	ROOM
R.O.	ROUGH OPENING
SHT	SHEET
SIM.	SIMILAR
SPECS	SPECIFICATIONS
STD	STANDARD
STL.	STEEL
STOR. OR STO.	STORAGE
STRUCT	STRUCTURE (AL)
SUSP	SUSPENDED
SYM	SYMMETRY (ICAL)
SYS	SYSTEM
THR	THRESHOLD
TOL	TOLERANCE
T.O.	TOP OF
TV	TELEVISION
TYP.	TYPICAL
UFC	UNIFIED FACILITIES CRITERIA
UNF	UNFINISHED
UNO	UNLESS NOTED OTHERWISE
VCT	VINYL COMPOSITION TILE
VERT	VERTICAL
V/F	VERIFY IN FIELD
VWC	VINYL WALL COVERING
W/	WITH
WC	WATER CLOSET
WD	WOOD
WG	WIRED GLASS
WH	WATER HEATER
WIN	WINDOW
W/O	WITHOUT
W.P.	WEATHERPROOF
W.R.	WATER RESISTANT
WWM	WELDED WIRE MESH

GENERAL NOTES:

1. REFER TO THIS SHEET FOR THE MATERIAL AND SYMBOLS INDICATION KEY. NOT ALL SYMBOLS/ ABBREVIATIONS/ DETAILS MAY BE USED.

2. ALL WORK SHALL BE PERFORMED IN STRICT COMPLIANCE WITH ALL GOVERNING CODES AND STANDARDS.

3. WHERE DISCREPANCIES OCCUR BETWEEN FLOOR PLANS, DETAILS AND LARGERSCALE PLANS, CONSULT ARCHITECT FOR CLARIFICATIONS PRIOR TO PROCEEDING WITH WORK. WHERE DISCREPANCIES OCCUR BETWEEN ARCHITECTURAL AND ENGINEERING DRAWINGS, CONSULT ARCHITECT FOR CLARIFICATION.

4. COORDINATE ALL WORK BETWEEN ALL TRADES PRIOR TO PROCEEDING WITH WORK.

5. CONTRACTOR, MATERIAL SUPPLIERS & INSTALLERS ARE RESPONSIBLE TO FIELD VERIFY ALL CONDITIONS PRIOR TO PROCEEDING WITH ANY WORK. ALL DISCREPANCIES BETWEEN FIELD CONDITIONS AND DRAWINGS SHALL BE REPORTED TO THE ARCHITECT BEFORE PROCEEDING WITH ANY WORK.

6. DO NOT SCALE DRAWINGS. IF DIMENSIONS CAN NOT BE OBTAINED BASED ON THE DRAWING INFORMATION, CONSULT THE ARCHITECT FOR CLARIFICATION.

7. INTERIOR DIMENSIONS ON FLOOR PLANS ARE TO FACE OF WALLBOARD OR MASONRY, UNLESS NOTED OTHERWISE. EXTERIOR DIMENSIONS ARE TO FACE OF EXTERIOR SHEATHING OR MASONRY, UNLESS NOTED OTHERWISE.

8. ALL DIMENSIONS SHOWN ON PLANS FOR MASONRY OR CONCRETE WALLS ARE TO THE NOMINAL FACE OF MASONRY OR CONCRETE, UNLESS NOTED OTHERWISE.

9. SEPARATE ALL DISSIMILAR MATERIALS AS REQUIRED TO PREVENT CORROSION AS RECOMMENDED BY THE RESPECTIVE PRODUCT MANUFACTURER.

10. MASONRY OPENINGS ON FLOOR PLANS AND PLAN DETAILS ARE NOMINAL.

11. ALL INTERIOR MASONRY LEFT EXPOSED SHALL HAVE BULL NOSED OUTSIDE CORNERS, UNLESS OTHERWISE NOTED.

12. REFER TO PLUMBING, FIRE PROTECTION, HVAC AND ELECTRICAL DOCUMENTS FOR INFORMATION PERTAINING TO THAT RESPECTIVE TRADE. FIELD VERIFY AND COORDINATE PLACEMENT OF ALL RESPECTIVE MEP FIXTURES, AND REPORT ANY AND ALL DISCREPANCIES TO THE ARCHITECT PRIOR TO PROCEEDING WITH WORK.

13. REFER TO PLUMBING, FIRE PROTECTION, HVAC AND ELECTRICAL DOCUMENTS FOR LOCATION AND NUMBER OF ALL REQUIRED WALL AND/OR CEILING ACCESS PANELS. CLARIFY WITH THE ARCHITECT THE EXACT LOCATION OF ALL ACCESS PANELS INDICATED ON THE PLUMBING, FIRE PROTECTION, HVAC AND ELECTRICAL DOCUMENTS, BUT NOT SHOWN ON THE ARCHITECTURAL DOCUMENTS.

14. ALL EXTERIOR OUTWARD SWINGING DOORS ARE TO BE PROVIDED WITH LATCH GUARDS TO PREVENT DOOR STRIKES FROM BEING PICKED.

15. ALL POWER/DATA/CABLE/PHONE OUTLETS AND COVERS - COLOR TO BE SELECTED BY ARCHITECT.

16. ALL POWER/DATA/CABLE/PHONE OUTLETS LOCATED IN FINISHED WOODWORK TO BE SELECTED BY ARCHITECT - ALL COVERS TO BE WOOD - STAINED TO MATCH SURROUNDING WOOD.

17. ALL SLOPED ROOF STRUCTURES TO BE PROVIDED WITH RAIN COLLECTORS AND DOWNSPOUTS.

18. ALL DOWNSPOUTS ARE TO BE CONNECTED TO THE SITE STORM SYSTEM UNLESS OTHERWISE NOTED.

19. ANY RETROFIT REQUIRING DEMOLITION OF EXISTING TILE WORK WILL REQUIRE THE CONTRACTOR TO REMOVE THE TILE AND GROUT BEDS, ANY LOOSE MATERIAL AND POUR NEW SELF-LEVELING MUD BEDS TO PROVIDE A NEW SOUND SURFACE TO WHICH TO INSTALL THE NEW TILE WORK.

20. ALL HANDRAILS TO BE PROVIDED WITH 1'-0" EXTENSION AT THE TOP AND BOTTOM OF RAMPS AND STAIRS.

21. GROMMET HOLES AND ROUNDED (EASED) EXPOSED CORNERS ARE REQUIRED TO BE PROVIDED ON ALL BUILT-IN WORK SURFACES AND COUNTERTOPS.

22. NO OTHER NOTES, COMMENTS OR ADDENDA CAN OR WILL OVER RULE THE INSTALLER'S OBLIGATIONS TO PROVIDE ANY ADDITIONAL COMPONENT NECESSARY TO PROVIDE THE SPECIFIED WARRANTY PERIOD OF THEIR PRODUCT.

23. IF DISCREPANCIES OCCUR BETWEEN DRAWINGS AND SPECIFICATIONS, BETWEEN SPECIFICATION SECTIONS, OR WITHIN SPECIFICATION SECTIONS THEMSELVES, THE CONTRACTOR IS TO NOTIFY THE ARCHITECT IMMEDIATELY BUT ASSUME AND INCLUDE THE MOST INVOLVED AND COSTLY OPTION IN THE CALCULATION OF THE BID.

PLAN LEGEND:

- BATT INSULATION
- BRICK
- CONCRETE
- CONCRETE MASONRY UNIT (CMU)
- EARTH
- GRAVEL
- GROUT
- GYPSUM BOARD
- RIGID INSULATION
- PLYWOOD
- STEEL
- STONE
- WOOD
- XXX — DOOR NUMBER
- XXX — ROOM NUMBER
- X — WINDOW ELEVATION
- X — WALL TYPE REFERENCE
- X / XXX — SECTION KEY
- X / XXX — ELEVATION KEY
- 0'-0" — SPOT ELEVATION KEY

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404 Creath Avenue Jonesboro, Arkansas 72404
870.932.2019 Fax: 870.932.1076 www.fisherarnold.com

BROOKLAND SPORTSPLEX PHASE 2

BROOKLAND, ARKANSAS

REGISTERED ARCHITECT — HOWARD BRUCE GLATSTEIN — License Number 912254 — STATE OF ARKANSAS

3-21-2025

seal

HOWARD GLATSTEIN - ARCHITECT
ARKANSAS - AR #912254

CERTIFICATE OF AUTHORIZATION — FISHER & ARNOLD INC. — No. 248 — ARKANSAS

COA

FISHER & ARNOLD, INC.

CLIENT:
CITY OF BROOKLAND, ARKANSAS

REVISIONS

DATE	BY	DESCRIPTION

GENERAL

PROJECT NO.
CTYBRKLD.0003PL

DRAWN BY	CHECKED BY
AM	HG

SHEET	SCALE
G001	

DATE
3-21-2025

CODE INFORMATION AND CODE REVIEW

APPLICABLE BUILDING CODES
2012 EXISTING BUILDING CODE
2012 INTERNATIONAL EXISTING BUILDING CODE (IEBC)
2012 ARKANSAS FIRE PREVENTION CODE VOL. I: FIRE
2012 ARKANSAS FIRE PREVENTION CODE VOL. II: BUILDING
2012 ARKANSAS FIRE PREVENTION CODE VOL. III: RESIDENTIAL
2006 APC: ARKANSAS PLUMBING CODES
2010 AMC: ARKANSAS MECHANICAL CODES
2011 NEC: NATIONAL ELECTRICAL CODES
2006 AFGC: ARKANSAS FUEL AND GAS CODES
2014 ARKANSAS ENERGY CODE (2009 IECC W/ SUPPLEMENTS & AMENDMENTS)
2003 ICC/ANSI A117.1: AMERICAN NATIONAL STANDARDS(ADA REQUIREMENTS)

BUILDING CODE SUMMARY:

USE AND OCCUPANCY CLASSIFICATION: SINGLE (CHAPTER 3)
M - MERCANTILE

CONSTRUCTION TYPE: V-B (TABLE 601)

SPRINKLER FIRE PROTECTION: NO

FIRE ALARM SYSTEM: NO

BUILDING AREAS:

OVERALL FIRST FLOOR
(INCLUDING UNDER ROOF): 3,106 S.F.

ALLOWABLE BUILDING AREA: (TABLE 503)

MERCANTILE (M): 9,000 S.F./FLOOR

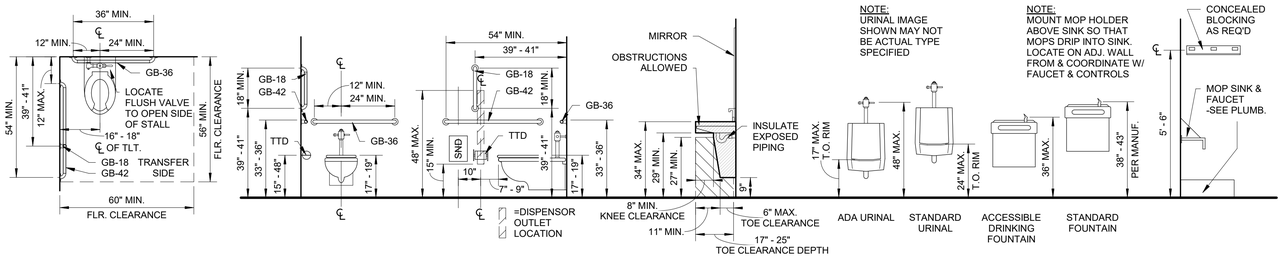
BUILDING HEIGHTS:

CONCESSION STAND: 12'-6"

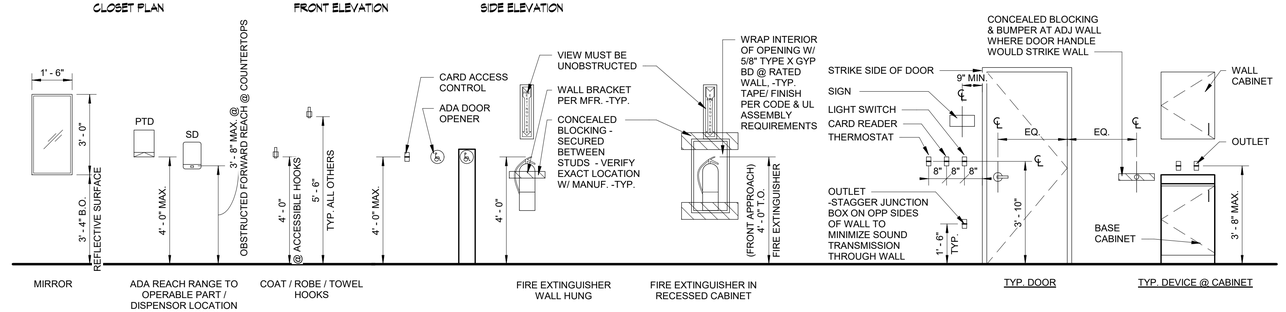
ALLOWABLE BUILDING HEIGHT: (TABLE 503)

MERCANTILE (M): 40'-0" (1 STORY)

TYPICAL ACCESSIBLE DETAILS:



ADA WATER CLOSET PLAN | ADA WATER CLOSET FRONT ELEVATION | ADA WATER CLOSET SIDE ELEVATION | ADA LAVATORY | URINAL MOUNTING HEIGHTS | DRINKING FOUNTAINS | MOP SINK / HOLDER



MIRROR | ADA REACH RANGE TO OPERABLE PART / DISPENSOR LOCATION OF ACCESSORY | COAT / ROBE / TOWEL HOOKS | FIRE EXTINGUISHER WALL HUNG | FIRE EXTINGUISHER IN RECESSED CABINET | TYP. DOOR | TYP. DEVICE @ CABINET

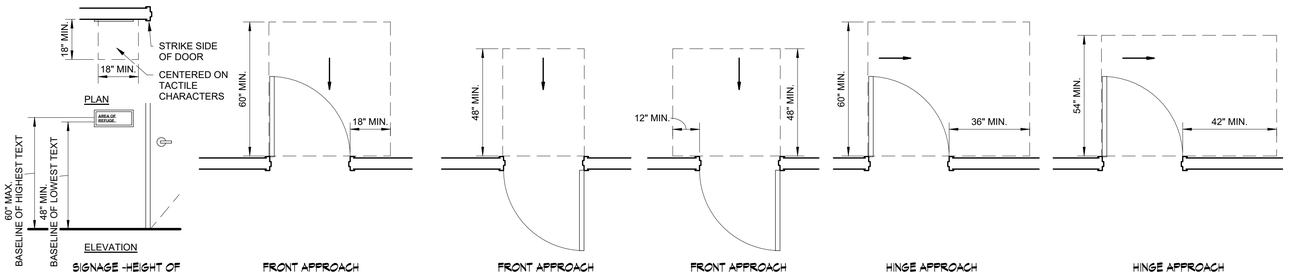
TYPICAL ACCESSIBLE TOILET ROOM ACCESSORIES MOUNTING HEIGHTS | ACCESS INTERFACES | EMERGENCY EQUIPMENT MOUNTING HEIGHTS | DEVICES AND SIGNAGE

NOTES:
1. CONTRACTORS TO VERIFY THAT ALL ACCESSORIES ARE MOUNTED AT ADA COMPLIANT HEIGHT AND PER MANUFACTURER'S RECOMMENDATIONS. CONSULT THE ARCHITECT FOR ANY CLARIFICATION NEEDED.

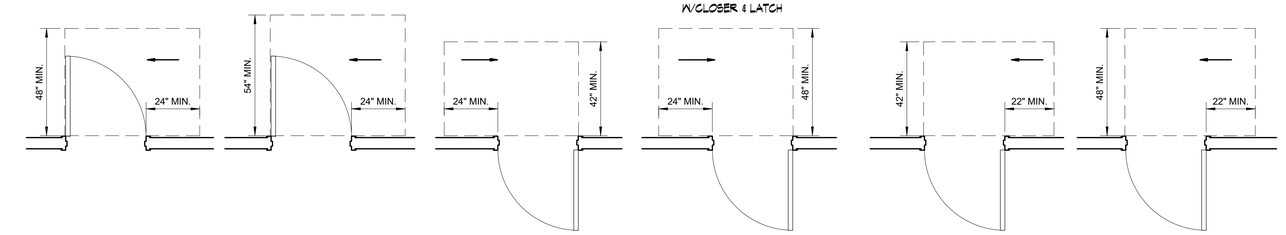
2. GENERAL CONTRACTOR TO PROVIDE FIRE TREATED WOOD BLOCKING BETWEEN STUDS OR SECURE ANCHORS PER CODE FOR ALL GRAB BARS & ACCESSORIES PER MANUFACTURER'S RECOMMENDATIONS.

3. SIMILAR ACCESSORIES ARE TO BE MOUNTED AT CONSISTANT HEIGHTS THROUGHOUT THE ENTIRE PROJECT.

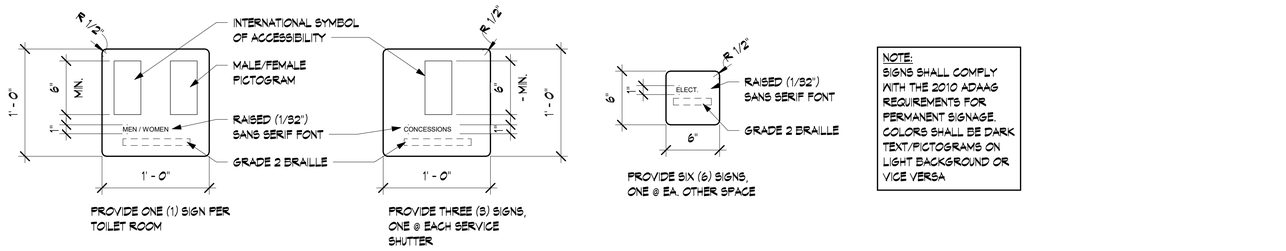
4. WHERE ACCESSORIES ARE ADJACENT TO ONE ANOTHER, MOUNT SO THAT TOP OF ACCESSORIES ALIGN WHERE POSSIBLE.



SIGNAGE -HEIGHT OF CHARACTERS | FRONT APPROACH PULL SIDE | FRONT APPROACH PUSH SIDE | FRONT APPROACH PUSH SIDE W/CLOSER & LATCH | HINGE APPROACH PULL SIDE | HINGE APPROACH PULL SIDE



LATCH APPROACH PULL SIDE | LATCH APPROACH PULL SIDE W/CLOSER | LATCH APPROACH PUSH SIDE | LATCH APPROACH PUSH SIDE W/CLOSER | HINGE APPROACH PUSH SIDE | HINGE APPROACH PUSH SIDE W/CLOSER & LATCH



PROVIDE ONE (1) SIGN PER TOILET ROOM | PROVIDE THREE (3) SIGNS, ONE @ EACH SERVICE SHUTTER | PROVIDE SIX (6) SIGNS, ONE @ EA. OTHER SPACE

NOTE:
SIGNS SHALL COMPLY WITH THE 2010 ADAAG REQUIREMENTS FOR PERMANENT SIGNAGE. COLORS SHALL BE DARK TEXT/PICTOGRAMS ON LIGHT BACKGROUND OR VICE VERSA

FISHER ARNOLD
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BROOKLAND SPORTSPLEX PHASE 2

BROOKLAND, ARKANSAS

REGISTERED ARCHITECT HOWARD BRUCE GLATSTEIN License Number 912254 STATE OF ARKANSAS

3-21-2025

seal

HOWARD GLATSTEIN - ARCHITECT
ARKANSAS - AR #912254

CERTIFICATE OF AUTHORIZATION FISHER & ARNOLD INC. No. 248 ARKANSAS

coa

FISHER & ARNOLD, INC.

CLIENT:
CITY OF BROOKLAND, ARKANSAS

REVISIONS

DATE	BY	DESCRIPTION

GENERAL

PROJECT NO.
CTYBRKLD.0003PL

DRAWN BY	CHECKED BY
AM	HG

SHEET
G002

SCALE

DATE
3-21-2025

DIVISION 01 00 00 – GENERAL REQUIREMENTS
SECTION 01 11 13 - Work Covered by Contract Documents:

1.1 The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the work by the Contractor including all blocking, anchorage or other minor construction required for installation of materials and equipment, even though not specifically called for by the drawings and/or specifications.

1.2 For the purposes of this specification, the terms Design-Builder, Contractor, and Subcontractor shall be interchangeable.

1.3 The Contractor shall utilize the areas within the limits of the site for storage of material unless noted otherwise.

1.4 Contractor shall not scale drawings. Written or implied dimensions will govern. Contractor shall verify all dimensions and conditions at job site and notify Architect in writing of conflicts or discrepancies before proceeding. Contractor shall not delay work.

1.5 The Contractor shall protect the work and all adjacent property from loss or damage resulting from operations. In the event of such loss or damage, Contractor shall make such replacements or repairs as required without additional cost to Owner.

1.6 The Architect reserves the right to reject items incorporated into the work which failed to meet the specified minimum requirements. The Architect further reserves the right and without prejudice for other recourse so that the Architect may make acceptable any non-compliant items subject to an adjustment in the contract amount as approved by the Architect and the Owner.

SECTION 01 25 13 - Substitutions:

1.1 Wherever in the specifications or on the drawings, a material or article is specified or shown by using the name of a proprietary product of a manufacturer or vendor, the item named is intended to set the standard of design, substance, performance, and quality of such material or article.

1.2 Contractors may propose equal substitutions for all products called for in any section of this specification, whether or not the section so states. He is encouraged to do so when a substitution would result in a savings to the Owner with no sacrifice of quality or design intent.

SECTION 01 33 00 - Submittals:

1.1 Contractor shall provide the following submittals:
- A. Product Data
  1. Contractor shall submit no less than one PDF copy for each stock manufactured item.
  2. Contractor shall indicate item to be used where data for more than one product is provided.
- B. Shop Drawings
  1. Contractor shall submit one PDF for all custom fabricated products and products not fully identified by product data.
- C. Manufacturers' Samples
  1. Contractor shall provide two samples of each exposed finish, minimum size 6" square.

SECTION 01 41 00 - Regulatory Requirements:

1.1 All materials and construction shall conform to the requirements of all applicable building, electrical, safety and sanitary laws enforced in the state and city where this project is located. The Contractor and Subcontractors shall be responsible for any violation of the same and shall make all work acceptable to the public department involved without extra charge.

1.2 All work shall conform to all Local, State and Federal Codes. Each trade or Subcontractor shall be responsible for verifying all requirements pertaining to work performed in the project and any required permits. All trades or Subcontractors shall direct all questions, changes or requests through the General Contractor. The General Contractor shall submit all requests, changes or questions to the Architect.

SECTION 01 41 26 - Permits:

1.1 All permits (Occupancy, Electrical, Plumbing and all others) required by State and Local Codes to be secured by the General Contractor with copies to the Architect with the exception as required or noted for Subcontractors. All permits required by Subcontractors shall be paid for by the Subcontractor and submitted to the General Contractor for record. All fees to be paid by General Contractor, unless otherwise specified.

SECTION 01 66 26 – Temporary Fencing

1.1 General: Submit product data including manufacturer's technical data specifications, and installation instructions for the following:
- A. Products: Fence: Galvanized steel fence 6'-0" high conforming to ASTM F 761 with a 2" mesh of 0.120 in-diameter (11-gauge) wire of the following material: Steel wire with coating: Galvanized (zinc-coated). Provide 1-3/8" top rail, 1-5/8" line posts (10'-0" oc max), and 2" terminal, corner, and gate posts.
- B. Fittings and Accessories: Comply with ASTM F 626. Posts and line caps: Provide weather tight cap for each post. Provide line post with loop to receive tension wire or top rail.
- C. Concrete: Portland cement, 1" maximum aggregate size, potable water, producing concrete with a 3" slump and 28-day compressive strength of at least 3,000 psi.

SECTION 01 71 23 - Field Engineering:

1.1 Contractor shall provide field engineering services, establish grades, lines and levels by use of recognized engineering and surveying practices. Contractor is responsible for all required layout. Contractor must review actual site and is responsible for all field conditions. Conflicts with field conditions and construction documents shall be brought immediately to the attention of Architect.

SECTION 01 74 13 - Cleaning:

1.1 Contractor will keep the premises free from accumulation of waste materials or rubbish caused by contractor or contractor's employees.

DIVISION 03 00 00 – CONCRETE
SECTION 03 30 00 – Cast-In-Place Concrete

1.1 General:
- A. Conform to American Concrete Institute Standards, ACI 301 and 318 and referenced ACI and ASTM standards therein.

1.2 Forming:
- A. Architectural finish shall be smooth.
- B. Forming for exposed face concrete shall be steel forms, where indicated. (All other vertical surfaces shall be rubbed.)

1.3 Reinforcing:
- A. ASTM A 615, 60 ksi yield.

1.4 Concrete: Ready-mixed ASTM C 94
- A. Type 1 cement, except Type 2 for concrete in contact with earth.
- B. 3,000 psi strength at 28 days, for interior slabs and all footings.
- C. 4,000 psi with 4% air content strength at 28 days for exterior flatwork.

1.5 Finishing:
- A. Exposed, formed surfaces: As cast, minor repair.
- B. Flatwork: Smooth troweled with a surface tolerance of 1/8" in 10'-0" except light broom texture for exterior.

1.6 Testing:
- A. Paid for by Contractor, approved by Owner.
- B. Include slump, air content, compressive strength. 1.Four cylinders for each 50 c.y. or major fraction.
- C. One copy of test reports to be sent to Owner, and one sent to Architect.

DIVISION 04 00 00 – MASONRY
SECTION 04 33 00 – Reinforced Unit Masonry

A.1 General:
- A. Mock-up – Erect a 48" x 48" square sample on site. Panel shall include texture, color range, mortar color, bond and joint tooling.
- B. Provide shapes indicated and as follows:
  a. Provide special shapes for lintels, corners, jambs, sash, control joints, headers, bonding, and other special conditions.
  b. Provide bullnose units for outside corners, unless otherwise indicated. Provide square-edged units for outside corners, unless indicated as bullnose.

1.2 Mortar Mixes
- A. Mortar for Unit Masonry: Comply with ASTM C 270, Proportion Specification.
- B. Mortar for Unit Masonry: Comply with ASTM C 270, Property Specification.
  a. Limit cementitious materials in mortar to Portland cement and lime.
  b. Limit cementitious materials in mortar for exterior and reinforced masonry to Portland cement and lime.
  c. For masonry below grade, in contact with earth, and where indicated, use Type M.
  d. For reinforced masonry and where indicated, use Type S.
  e. Do not use masonry cement (ASTM C91) in load bearing CMU walls and CMU shearwalls.
- C. Pigmented Mortar: Select and proportion pigments with other ingredients to produce color required. Limit pigments to the following percentages of cement content by weight:
  a. For mineral-oxide pigments and Portland cement-lime mortar, not more than 10 percent.
  b. For mineral-oxide pigments and masonry cement or mortar cement mortar, not more than 5 percent.
- D. Dry Integral Water Repellent (IWR) Admixture: for exterior exposure, single wythe walls.
  a. Material Description: Dry preblended mortar mixture incorporating dry SPEC MIX Integral Water-Repellent Mortar Admixture.
  b. Water Penetration of Masonry, ASTM E514: No dampness reported.
  c. Mortar Type: Property Mixture Type S.
  d. Compressive Strength of Masonry Mortar, ASTM C1384: Greater than 95% of control mortar, containing no admixtures.

1.3 Concrete Masonry Units (CMU)
- A. ASTM C 90 and as follows:
  Unit Compressive Strength: Provide units with minimum average net-area compressive strength of 1900 psi.
- B. Exterior Exposed Faces:
  a. Provide units made with integral water repellant (IWR)
  b. Standard Pattern: split-face finish on exterior exposure. Provide corner units with adjacent split faces.
  c. Provide color and texture from Manufacturer's standard range unless otherwise indicated.

A.2 Reinforcement
- A. General: ASTM A 951 and as follows:
  a. Hot-dip galvanized, carbon-steel wire for exterior walls.
  b. Wire Size for Side Rods: W1.7 or 0.148-inch (3.8-mm).
  c. Wire Size for Cross Rods: W1.7 or 0.148-inch (3.8-mm) diameter.
  d. Provide in lengths of not less than 10 feet (3 m), with prefabricated corner and tee units.
- B. For single-wythe masonry, provide either ladder or truss type with single pair of side rods and cross rods spaced not more than 16 inches (407 mm) o.c.

1.5 Laying Masonry Walls
- A. Lay out walls in advance for accurate spacing of surface bond patterns with uniform joint thicknesses and for accurate location of openings, movement-type joints, returns, and offsets. Avoid using less-than-half-size units, particularly at corners, jambs, and, where possible, at other locations.
- B. Bond Pattern for Exposed Masonry: Lay exposed masonry in the following bond pattern; do not use units with less than nominal 4-inch (100-mm) horizontal face dimensions at corners or jambs.
- C. One-half running bond with vertical joint in each course centered on units in courses above and below.

1.6 Pointing and Cleaning
- A. Upon completion of work, point up exposed masonry work, fill joints, remove loose mortar, cut out defective joints and repoint as necessary.
- B. Thoroughly wet panel or section prior to cleaning with brush. Use only non-hydrochloric-acid type masonry cleaner (such as Sure-Clean).

DIVISION 05 00 00 – METALS
SECTION 05 10 00 – Structural Metal Framing

1.1 Structural Steel
- A. ASTM A 36 steel, fabrication, design and erection conforming to AISC standard specifications.
- B. Connections: Shop welded; field welded and bolted.

SECTION 05 40 00 – Cold-Formed Metal Framing

1.1 General:
- A. Conform to AISC Specifications for the Design of Cold-Formed Steel Structural Members.

1.2 Wall/Stud Framing:
- A. Cee studs, runners, plates and bracing, 14 gauge and heavier, painted; 16 gauge and lighter, galvanized finish, unless noted otherwise. All wall framing to be 25 gauge galvanized.

DIVISION 06 00 00 – WOOD, PLASTICS, AND COMPOSITES
SECTION 06 10 00 – Rough Carpentry

1.1 Lumber Standards:
- A. PS20

1.2 Plywood Standard:
- A. N.F.P.A. Manual for House Framing

1.3 Materials:
- A. Douglas Fir, Pine or Poplar – Larch, No. 2 and better.
- B. Plywood sheathing, 5/8" plywood, APA 40/20 CDX.
- C. Blocking.
- D. Preservative Treatment:
  1. Roof associated curbs, blocking.
  2. All wood in contact with slab or grade.
- D. Treatment for Noncombustibility: all lumber (with the exception of interior trims and finishes) and plywood used in building.

SECTION 06 83 16 - Fiber-cement Panels and Trim

1.1 Vertical Panels
- A. Basis of Design: Hardiepanel Vertical Siding – Smooth by James Hardie. 231 S. LaSalle St., Suite 2000, Chicago, Illinois 60604. Phone 1-888-542-7343. Website http://jameshardie.com
  1. Thickness: 0.312"
  2. Length: 120" boards
  3. Widths: 48"
  4. Texture: Smooth

2.2 Trim
- A. Basis of Design: Hardietrim Boards 4/4 Smooth by James Hardie. 231 S. LaSalle St., Suite 2000, Chicago, Illinois 60604. Phone 1-888-542-7343. Website http://jameshardie.com
  1. Thickness: 3/4"
  2. Length: 144" boards
  3. Widths: 3.5", 5.5", 7.25", 9.25" and 11.25"
  4. Exposures: 3.5", 5.5", 7.25", 9.25" and 11.25"
  5. Texture: Smooth

2.3 Soffit
- A. Basis of Design: Hardietrim Panels VentedPlus Smooth by James Hardie. 231 S. LaSalle St., Suite 2000, Chicago, Illinois 60604. Phone 1-888-542-7343. Website http://jameshardie.com
  1. Thickness: 0.25"
  2. Length: 144" boards
  3. Widths: 16"
  4. Exposures: 16"
  5. Texture: Smooth

DIVISION 07 00 00 – THERMAL & MOISURE PROTECTION

SECTION 07 20 00 – Thermal Protection

1. Batt insulation R-40 minimum in truss spaces above all interior spaces.

SECTION 07 26 00 - VAPOR RETARDERS

1. POLYOLEFIN VAPOR RETARDERS
- A. Polyolefin Vapor Retarders:
  a. 15-mil, multi-layer plastic extrusion.
  b. Permeance of less than 0.01 Perms as tested in accordance with ASTM E1745 Section 7.1
  c. Strength: Class A

Basis of Design: Stego Wrap Vapor Barrier (15 mil) by Stego Industries LLC

SECTION 07 40 00 – Roofing Panels

1. General: Performance requirements: Provide preformed panel systems that comply with performance requirements indicated based on pretesting of installed panels.
Air infiltration: ASTM E 283 Water penetration: ASTM E 331
Structural Properties: ASTM E 330 Thermal: ASTM C 236
- A. Submittals: Submit the following:
  Manufacturer's product data describing roof and wall panels, and structural support system.
  Shop drawings showing lay-out of wall and roof panels and special details.
  Samples of finish material and certification by manufacturer that products have been tested and comply with performance requirements indicated.
- B. Warranty: Warranty factory applied exterior finishes on wall and roof panels for a period of 20 years after the date of substantial completion.
- C. Manufacturers:
  Steel Lite Metal Building Company, AEP-SPAN, Berridge Manufacturing Co., Metal Building Components, Inc., MBCI, MM Systems Corporation, Metal Sales Inc.
- D. Accessories: Provide manufacturer's standard and accessories as required for a complete installation including trim, copings, fascia, gravel stops, mullions, sills, flashing, corner units, vented ridge closures, clips, seam closures, battens, gutters, downspouts, louvers, gaskets, sealants and similar items.
- E. Installation: Comply with manufacturer's instructions for anchorage, joint sealers, flashing, and trim for the proper and permanent installation of panels, with provisions for thermal expansion, erected in panel pattern indicated.

2. Self-adhering underlayments:
- A. WeatherLock® Mat: As manufactured by Owens Corning Roofing and Asphalt, LLC.
  1. Mat-faced skid resistant surface, self-adhering, self-sealing, bituminous ice and water barrier.
  2. Roll Width: 36 in (914 mm).
  3. Selvage: 3 in (76 mm).
  4. Standards/Qualifications: ASTM D1970, ASTM E108/UL 790 (Class A Fire Resistance1), UL ER19380-01, Florida Product Approval, and Miami-Dade County Product Approval.

Basis of design: Berridge "Tee Panel"

SECTION 07 60 00 – Flashing and Sheet Metal

1.1 Exposed Work:
- A. Galvanized, field paint, pre-finished
  1. Include: Gutters, scuppers, leaders, downspouts, flashing and counter-flashing, copings, and expansion joints, edge trims. Color to match
  -- Manufacturer roof specialties

SECTION 07 92 00 – Joint Sealants

1.1 Multipart non-sag urethane, sealant for exterior joints. Provide Tremco Dymeric with "Color Pak" or approved equal.

DIVISION 08 00 00 – OPENINGS
SECTION 08 11 00 – Metal Doors & Frames

1.1 General:
- A. Provide systems manufactured by Curries Company or approved equal and complying with ANSI/SDI 100 and ADA requirements.
  1. Exterior doors shall be galvanized
- B. Fire-Rated Door Assemblies: Comply with NFPA 80, identical to assemblies tested per ASTM E 152, and labeled and listed by UL, Warnock Hersey, or another testing and inspecting agency acceptable to authorities having jurisdiction for doors, frames, hardware, closers, and all other accessories related to Door Assembly. Provide required hardware such as closers and positive latching hardware; comply with NFPA 101 7.2.1.8.1 and NFPA 80 2.4.1.2 and 3.4.3.2.

1.2 Products:
- A. Cold-rolled steel sheets: Commercial quality carbon steel complying with ASTM A366 (ASTM A 336M).
- B. Fasteners: Materials warranted to be non-corrosive and compatible with system components. Do not use exposed fasteners except for application of hardware.

1.3 Door Hardware:
- A. Door handles leading to hazardous areas such as boiler rooms, electrical equipment rooms, stages, loading docks, or platforms, etc. are to have textured surfaces.
- B. Hinges: Ball bearing type.
- C. Lockset: Grade 2 cylindrical type with lever handles.
- D. Closures: Standard surface type.
- E. Panic Devices: Rim push type as required by local code. Contractor to determine code requirement with sufficient time to secure desired finish.
- F. Miscellaneous items:
  1. Include door stops, push and pull sets, kick plates, weather-stripping, thresholds, silencers, etc.
- G. All exterior doors shall have closers, thresholds, drip cap, weather-stripping and stainless steel hinges.
- H. Finishes: Comply with NAAMM "Metal Finishes Manual" for recommendations.

1.4 Installation:
- A. Comply with manufacturer's instructions. Set units plumb, level, and true to line, without warp or rack of framing members, doors, or panels.
- B. Set sill members in bed of sealant, or with joint fillers or gaskets.

SECTION 08 33 13 –COILING SERVICE SHUTTER DOORS

1.1 Furnish and install insulated sectional doors as manufactured by **RAYNOR** model "DuraShutter" or approved equal tested to meet current codes.
- A. Install doors in size and configuration as indicated on drawings and as recommended by manufacturer.
- B. Doors shall be manual crank operated.
- C. Provide Brush seals

DIVISION 09 00 00 – FINISHES
SECTION 09 20 00 – Plaster and Gypsum Board

1.3 Gypsum Board:
- A. Ceilings:
  1. 5/8" thickness, unless otherwise noted.
  2. Type: Moisture resistant type
  3. All finished Gypsum Board surfaces shall have expansion control joints at a maximum of 20'-0" on center located as approved in the field if not shown on the drawings. Provide control joints above the head of all doors and above and below all windows.
- B. Screw apply all gypsum board to support. Use S.S. screws at M.R. board locations.

SECTION 09 51 00 – Acoustical Ceilings

1.1 2 x 2 Tegular AT: Ceiling and grid furnished by USG or approved equal. Suspended acoustical ceiling systems shall be installed in accordance with the provisions of ASTM C635 and ASTM C636. Ceiling tile shall be vinyl faced, food service quality.

SECTION 09 65 13 – Wall and Base Accessories

1.1 Base to be 4" rubber unless indicated otherwise. Color as Selected from manufacturer's full range of colors.

SECTION 09 91 00 – Painting

1.1 General:
- A. Examine surfaces to receive paint and finishes for acceptance prior to beginning work.
- B. Provide samples as required for Owner's approval for colors and sheens as selected. Paint full wall sample for Owner's approval prior to starting work.
- C. Fill holes, voids, cracks as required prior to painting or finishing.
- D. Initial primer coat shall slightly vary from final coat.
- E. Sand and dust between each coat.
- F. Finish coat must have full coverage, no "holidays", voids, skipped or missed spots. Finish coat must be smooth, free of brush, spray or roller marks, laps, streaks or piled up paint.
- G. Refinish whole wall where finish is damaged or where finish is not acceptable.
- H. Paint or finish all exposed surfaces that are not prefinished from the manufacturer.

1.2 Exterior:
- A. Oil-base paint systems
  1. Paint galvanized metal where indicated, shop prime steel.
  2. Prime all wood unless stain grade indicated.
- B. Oil base for metals, trim.
- D. Paint galvanized metal, shop primed steel

1.3 Interior:
- A. Water based catalyzed epoxy for CMU walls.
- B. Oil base for metals.
- C. Hi-solid Polyester for painted doors.

DIVISION 10 00 00 – SPECIALTIES

SECTION 10 14 00 – Signage

1.1 Provide and install signage as indicated on drawings

SECTION 10 21 13 – Toilet Partitions, Changing Compartments

1.1 Toilet Partitions and Changing Compartments shall be floor mounted, overhead braced, Phenolic core partitions with Zamac Hardware as manufactured by American Sanitary Partition Corp., Ocoee, Florida or approved equal. Install as per manufacturer's recommendations and provide all blocking, furring and support required for proper installation. Color shall be as selected by Owner from standard colors.

SECTION 10 28 13 – Toilet and Bath Accessories

1.1 Furnish, complete, and install all public toilet and bath accessories as shown on drawings or herein specified. Install as recommended by manufacturer and at heights to accommodate ADA requirements.

1.2 All public toilet rooms shall have the following accessories as manufactured by Bradley Corp.:
One Stainless Steel surface mounted towel dispenser and waste receptacle #234
One surfaced mounted two roll toilet tissue dispenser #5263 per each toilet stall.
Grab bars are to be Series #812, length as indicated on plans.
Where indicated on plans, an additional Paper Towel dispenser # 250-15.

1.3 Mirrors shall be ¼" continuous plate mirrors full length of vanity. Over wall hung lavatory provide 24" x 42" stainless steel framed mirror #780 Series by Bradley Corp.

1.4 Custodial Accessories (by Bradley Corp):

1.4.1 Stainless steel utility shelf 6" deep x 16" long

1.4.2 Mop and broom hanger 36" long with shelf, hooks, holders, and rod suspended beneath shelf.

SECTION 10 44 16 – Fire Extinguishers

1.1 Furnish and install two (2) UL Rated fire extinguishers and cabinets by Larsen's Mfg. Location as required by local building official or fire marshal meeting all local and federal codes.

1.2 Extinguishers shall be 10-pound Multi Purpose Dry Chemical, Tagged MP-10 (4A60BC)

1.3 Cabinets shall be Medallion Series #B2409-R3 Semi Recessed Cabinet, SS #304, Vertical Duo.

SECTION 10 51 13 – Metal Lockers

1.1 Furnish and install eight (8) 18" wide x 24" deep metal Penco Stadium type KD lockers by Penco. General location as shown on drawings.

1.2 Provide security box, coat hooks, and foot locker.

1.4 Submit shop drawings for owner / architect approval.

1.5 Color to be selected by owner from full range of standard colors.

ACCESSIBILITY NOTES:

1. While it is the intent of the Architect to adhere to all aspects and regulations of the Americans with Disabilities Act (A.D.A.), the Contractor shall not be relieved of sole responsibility to verify all requirements of said act as pertaining to contract documents contained herein prior to commencement of any work. .
2. The bottom 9" of all doors shall have a smooth uninterrupted surface to allow door to be opened by a wheelchair footrest, with no threshold exceeding ½" in height
3. Hand operated door opening hardware shall not require ability to grasp in order to operate and shall be mounted no higher than 48" above finished floor. A textured surface is required on door handles leading to hazardous areas such as: Boiler Rooms, Electrical Rooms, Stages, Platforms, and Loading Docks, etc.
5. Maximum force required to open exterior doors shall not exceed 8.5 lbs. Maximum force required to open interior doors (both hinged and folding) shall not exceed 5 lbs.
6. Provide signage with international symbols of accessibility in accordance with ANSI A117.1 (latest edition) and A.D.A. requirements.
7. Lavatories shall have a minimum clearance of 29" from the floor to the bottom edge of the apron with a minimum knee clearance of 8" in depth and 30" x 48" clear floor area. Toe clearance shall be no less than 17" deep from front edge of the lavatory with all plumbing insulated or covered under lavatories so that there are no sharp, abrasive, or hot surfaces.
8. Faucet control and operating mechanisms shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist. The force required to activate controls shall be no greater than 5 lbs. If self-closing valves are used, the faucet shall remain open a minimum of 10 seconds.

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BROOKLAND SPORTSPLEX PHASE 2
BROOKLAND, ARKANSAS

REGISTERED ARCHITECT HOWARD BRUCE GLATSTEIN License Number 912254 STATE OF ARKANSAS

3-21-2025

seal

HOWARD GLATSTEIN - ARCHITECT
ARKANSAS - AR #912254

CERTIFICATE OF AUTHORIZATION FISHER & ARNOLD INC. No. 248 ARKANSAS

coa

FISHER & ARNOLD, INC.

CLIENT:
CITY OF BROOKLAND, ARKANSAS

REVISIONS

DATE	BY	DESCRIPTION

SPECIFICATIONS

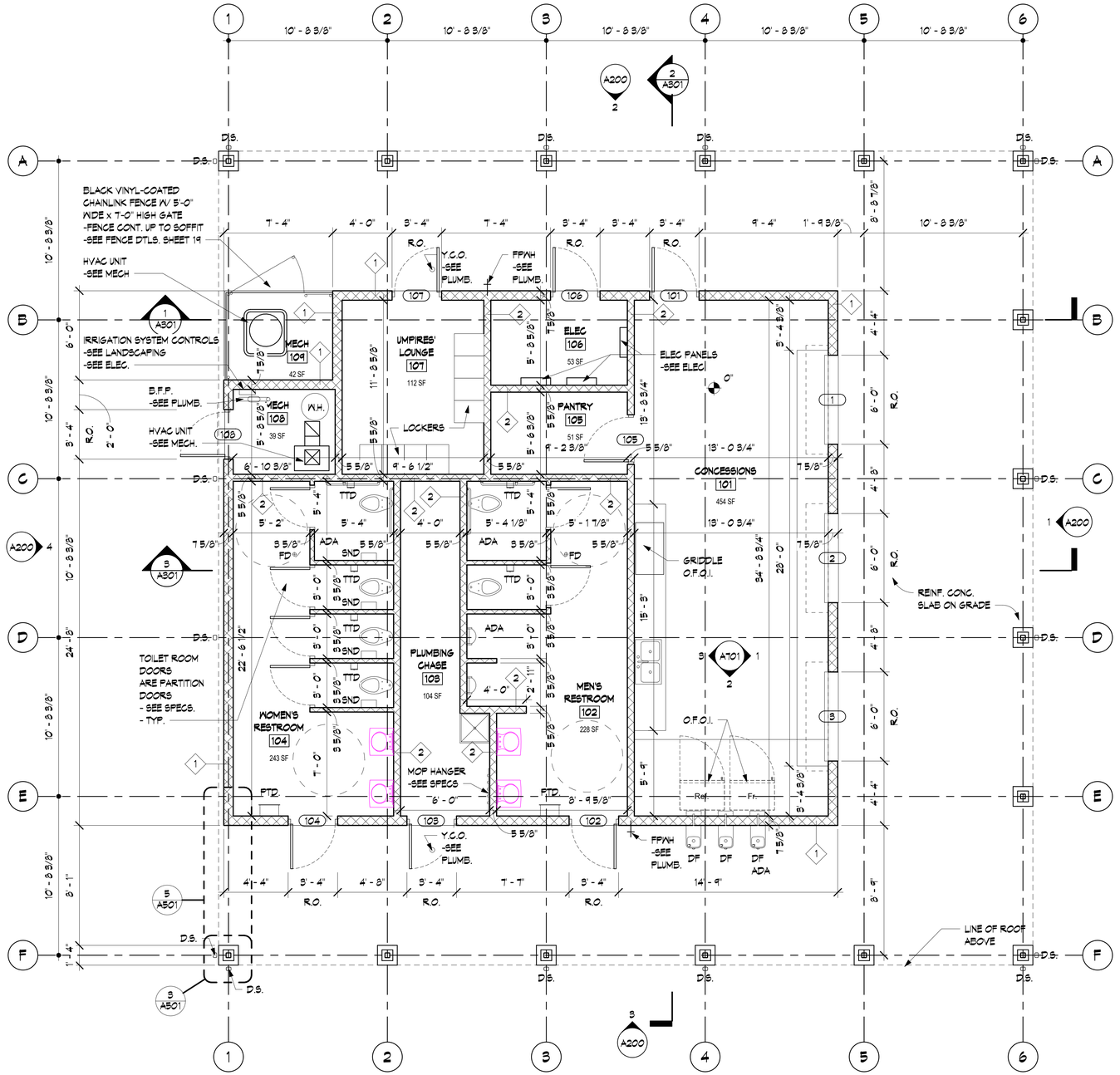
PROJECT NO.
CTYBRKLD.0003PL

DRAWN BY	CHECKED BY
AM	HG

SHEET
G003

SCALE

DATE
3-21-2025



1 FIRST FLOOR PLAN

1/4" = 1'-0"

Room Finish Schedule						
Number	Name	Floor Finish	Base Finish	Wall Finish	Ceilng Material	Ceiling Finish
101	CONCESSIONS	S.C.	VINYL BASE	PAINT	ACT	VINYL FACED ACT
102	MEN'S RESTROOM	S.C.	VINYL BASE	PAINT	GYP. BD.	PAINT
103	PLUMBING CHASE	S.C.	-	PAINT	GYP. BD.	PAINT
104	WOMEN'S RESTROOM	S.C.	VINYL BASE	PAINT	GYP. BD.	PAINT
105	PANTRY	S.C.	VINYL BASE	PAINT	GYP. BD.	PAINT
106	ELEC	S.C.	VINYL BASE	PAINT	GYP. BD.	PAINT
107	UMPIRES' LOUNGE	S.C.	VINYL BASE	PAINT	GYP. BD.	PAINT
108	MECH	S.C.	VINYL BASE	PAINT	GYP. BD.	PAINT
109	MECH	S.C.	VINYL BASE	PAINT	GYP. BD.	PAINT

Door Schedule										
Mark	Width	Height	Thickness	Door Type	Door Material	Door Finish	Frame Type	Frame Material	Frame Finish	Remarks
1	6' - 0"	3' - 8"	2"	3	STEEL	PRE-FIN.	B	STEEL	PRE-FIN.	4, 6
2	6' - 0"	3' - 8"	2"	3	STEEL	PRE-FIN.	B	STEEL	PRE-FIN.	4, 6
3	6' - 0"	3' - 8"	2"	3	STEEL	PRE-FIN.	B	STEEL	PRE-FIN.	4, 6
101	3' - 0"	7' - 0"	1 3/4"	1	H.M.	PAINT	A	H.M.	PAINT	1, 2, 3, 5
102	3' - 0"	7' - 0"	1 3/4"	2	H.M.	PAINT	A	H.M.	PAINT	1, 2, 3, 7
103	3' - 0"	7' - 0"	1 3/4"	1	H.M.	PAINT	A	H.M.	PAINT	1, 2, 3, 5
104	3' - 0"	7' - 0"	1 3/4"	2	H.M.	PAINT	A	H.M.	PAINT	1, 2, 3, 7
105	3' - 0"	7' - 0"	1 3/4"	1	H.M.	PAINT	A	H.M.	PAINT	5
106	3' - 0"	7' - 0"	1 3/4"	1	H.M.	PAINT	A	H.M.	PAINT	1, 2, 3, 5
107	3' - 0"	7' - 0"	1 3/4"	1	H.M.	PAINT	A	H.M.	PAINT	1, 2, 3, 5
108	3' - 0"	7' - 0"	1 3/4"	1	H.M.	PAINT	A	H.M.	PAINT	1, 2, 3, 5

DOOR SCHEDULE REMARKS:

1. PROVIDE CLOSER
2. PROVIDE FULL PERIMETER WEATHER SEAL W/ BOTTOM SWEEP
3. PROVIDE ADA COMPLIANT ALUMINUM SADDLE THRESHOLD
4. PROVIDE BOTTOM EDGE WEATHER SEAL
5. PROVIDE STOREROOM FUNCTION LOCKSET W/ DEADEBOLT (COORDINATE FUNCTION W/ OWNER PRIOR TO ORDERING OF HARDWARE)
6. CHAIN OPERATED, PROVIDE LATCHING INTERIOR LOCK
7. PUSH-PULL OPERATION W/ KEY OPERATED DEADBOLT @ EXT. (COORDINATE FUNCTION W/ OWNER PRIOR TO ORDERING OF HARDWARE)

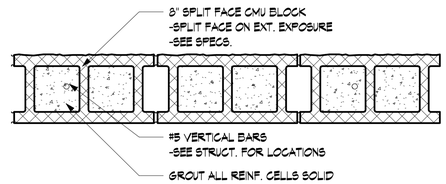
GENERAL FLOOR PLAN DEFINITIONS AND NOTES:

ADA = FIXTURE, GRAB BARS, ACCESSORIES, ETC TO BE MOUNTED @ ADA HEIGHTS
WR = WASTE RECEPTACLE
PTD = PAPER TOWEL DISPENSER
SND = SANITARY NAPKIN DISPOSAL
TTD = TOILET TISSUE DISPENSER

1. SEE G102 FOR REQUIRED MOUNTING HEIGHTS FOR BOTH ADA AND STANDARD HEIGHT ACCESSORIES.

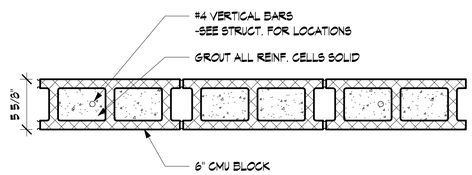
WALL TYPE 1

-UP TO 10'-0" A.F.F.



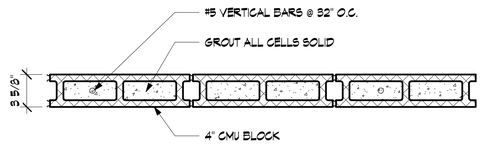
WALL TYPE 2

-UP TO 10'-0" A.F.F.



WALL TYPE 3

TOILET PARTITION WALLS
-UP TO 7'-4" A.F.F.



2 WALL TYPES

1 1/2" = 1'-0"

FISHER ARNOLD
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870.932.2019 Fax: 870.932.1076 www.fisherarnold.com

BROOKLAND SPORTSPLEX PHASE 2

BROOKLAND, ARKANSAS

REGISTERED ARCHITECT HOWARD BRUCE GLATSTEIN License Number 912254 STATE OF ARKANSAS

3-21-2025

seal

HOWARD GLATSTEIN - ARCHITECT
ARKANSAS - AR #912254

CERTIFICATE OF AUTHORIZATION FISHER & ARNOLD INC. No. 248 ARKANSAS

008

FISHER & ARNOLD, INC.

CLIENT:
CITY OF BROOKLAND, ARKANSAS

REVISIONS

DATE	BY	DESCRIPTION

FLOOR PLAN

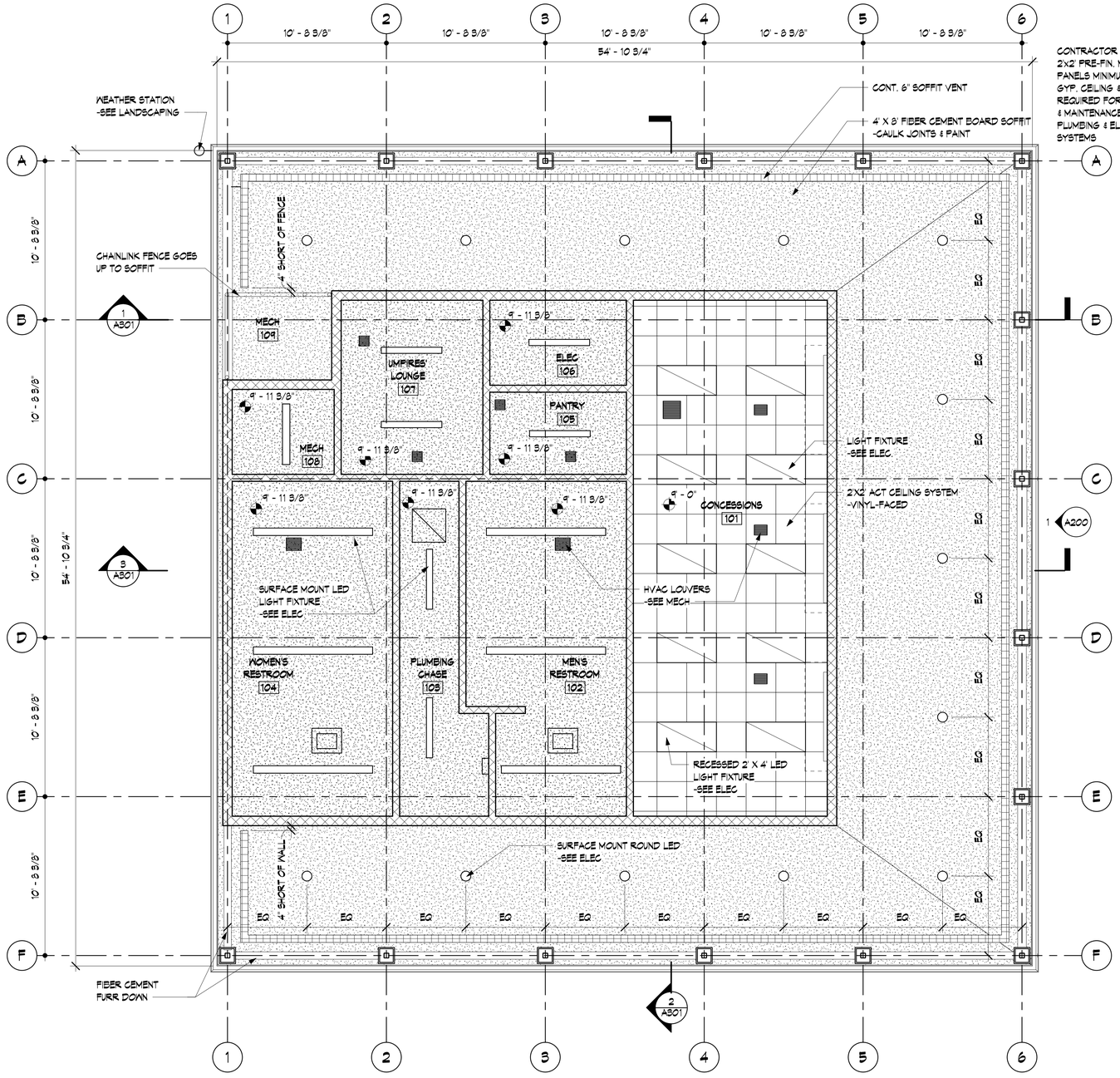
PROJECT NO.
CTYBRKLD.0003PL

DRAWN BY	CHECKED BY
AM	HG

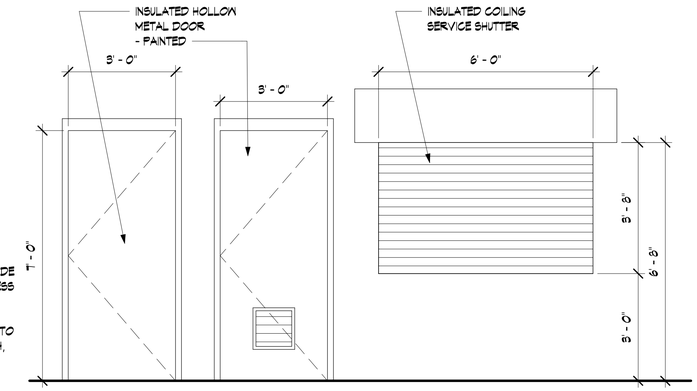
SHEET
A101

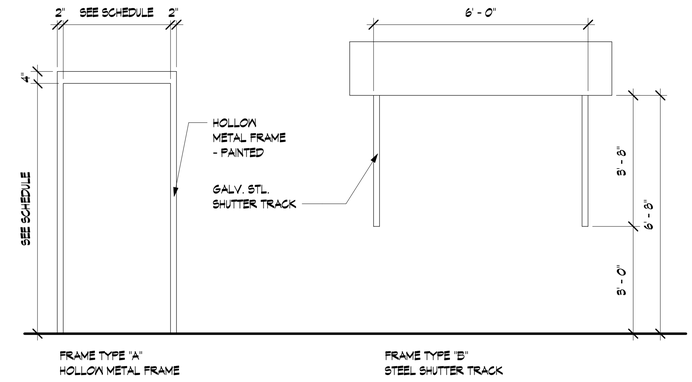
SCALE

DATE
3-21-2025



1 FIRST FLOOR REFLECTED CEILING PLAN
1/4" = 1'-0"





2 DOOR & DOOR FRAME LEGEND
1/2" = 1'-0"

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BROOKLAND SPORTSPLEX PHASE 2

BROOKLAND, ARKANSAS

REGISTERED ARCHITECT
HOWARD BRUCE GLATSTEIN
License Number 912254
STATE OF ARKANSAS

3-21-2025

seal

HOWARD GLATSTEIN - ARCHITECT
ARKANSAS - AR #912254

CERTIFICATE OF AUTHORIZATION
FISHER & ARNOLD INC.
No. 248
ARKANSAS

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FISHER & ARNOLD, INC.

CLIENT:
CITY OF BROOKLAND, ARKANSAS

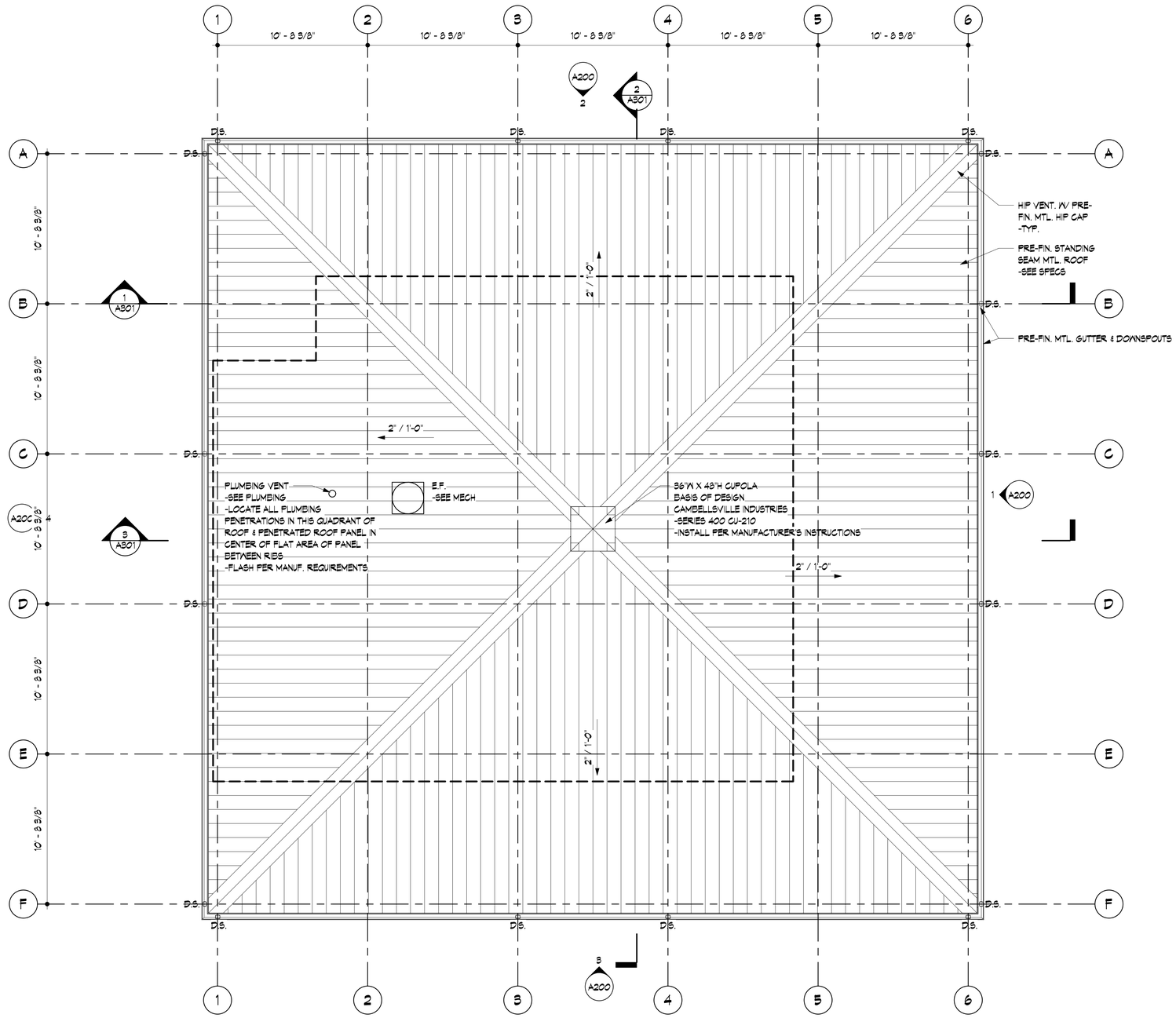
REVISIONS

DATE	BY	DESCRIPTION

REFLECTED CEILING PLAN

PROJECT NO.
CTYBRKLD.0003PL

DRAWN BY	CHECKED BY
AM	HG
SHEET	SCALE
A102	
DATE	
3-21-2025	



1 1/4" = 1'-0"

ROOF PLAN

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BROOKLAND SPORTSPLEX PHASE 2

BROOKLAND, ARKANSAS

REGISTERED ARCHITECT
HOWARD BRUCE GLATSTEIN
License Number 912254
STATE OF ARKANSAS

3-21-2025

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HOWARD GLATSTEIN - ARCHITECT
ARKANSAS - AR #912254

CERTIFICATE OF AUTHORIZATION
FISHER & ARNOLD INC.
No. 248
ARKANSAS

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FISHER & ARNOLD, INC.

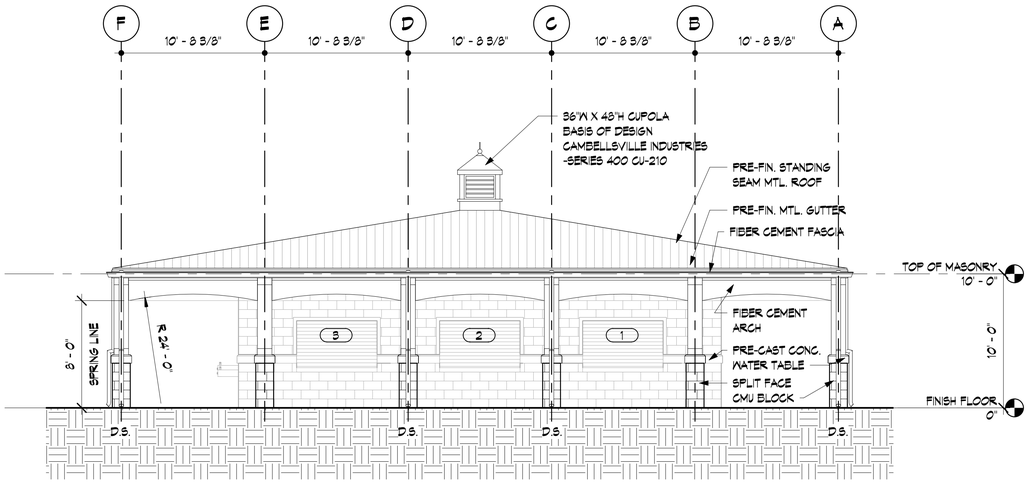
CLIENT:
CITY OF BROOKLAND, ARKANSAS

REVISIONS

DATE	BY	DESCRIPTION

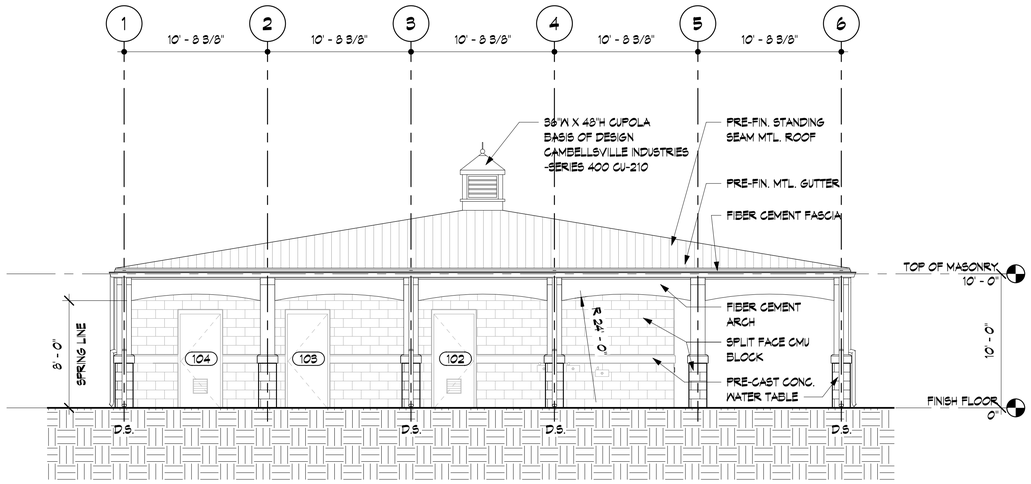
ROOF PLAN

PROJECT NO.	
CTYBRKLD.0003PL	
DRAWN BY: AM	CHECKED BY: HG
SHEET: A103	SCALE:
DATE: 3-21-2025	



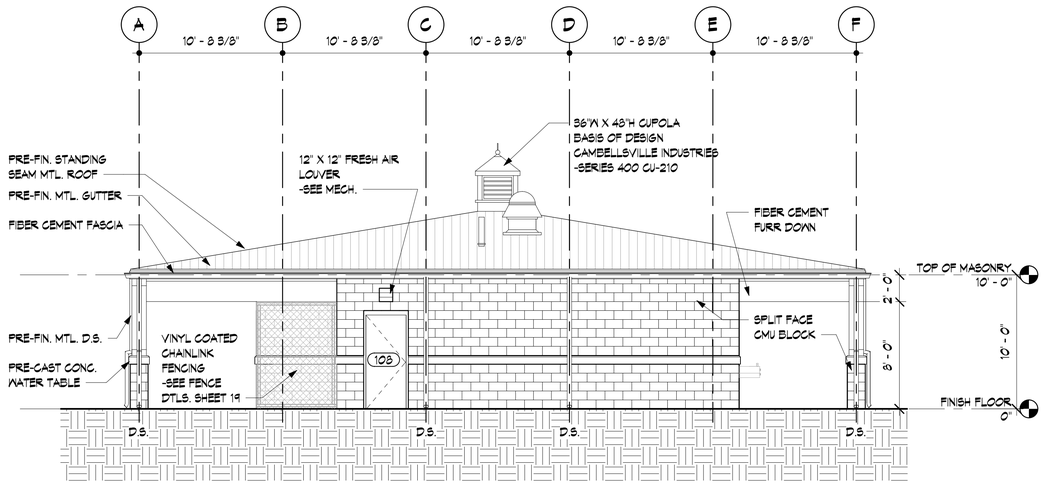
1 NE ELEVATION

3/16" = 1'-0"



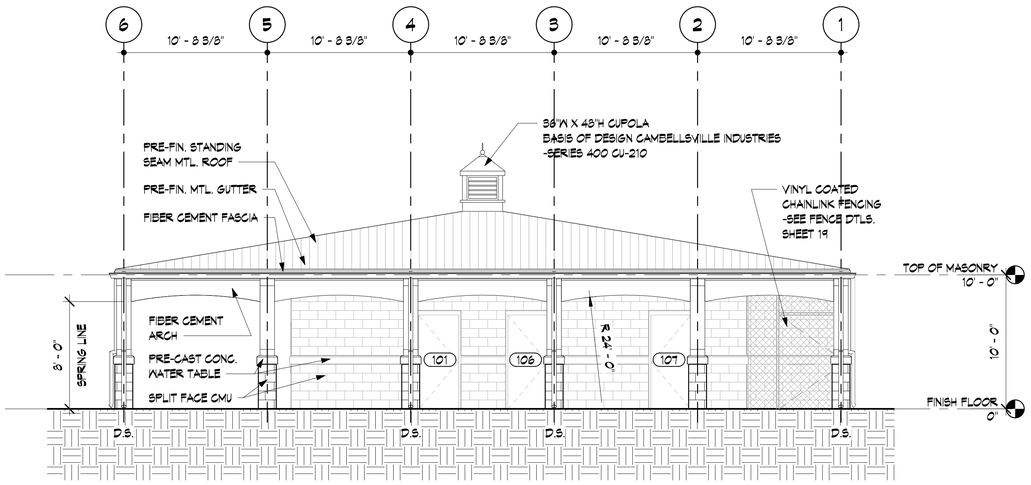
3 SE ELEVATION

3/16" = 1'-0"



4 SW ELEVATION

3/16" = 1'-0"



2 NW ELEVATION

3/16" = 1'-0"

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BROOKLAND SPORTSPLEX PHASE 2

BROOKLAND, ARKANSAS

REGISTERED ARCHITECT
HOWARD BRUCE GLATSTEIN
License Number 912254
STATE OF ARKANSAS

3-21-2025

seal

HOWARD GLATSTEIN - ARCHITECT
ARKANSAS - AR #912254

CERTIFICATE OF AUTHORIZATION
FISHER & ARNOLD INC.
No. 248
ARKANSAS

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FISHER & ARNOLD, INC.

CLIENT:
CITY OF BROOKLAND, ARKANSAS

REVISIONS

DATE	BY	DESCRIPTION

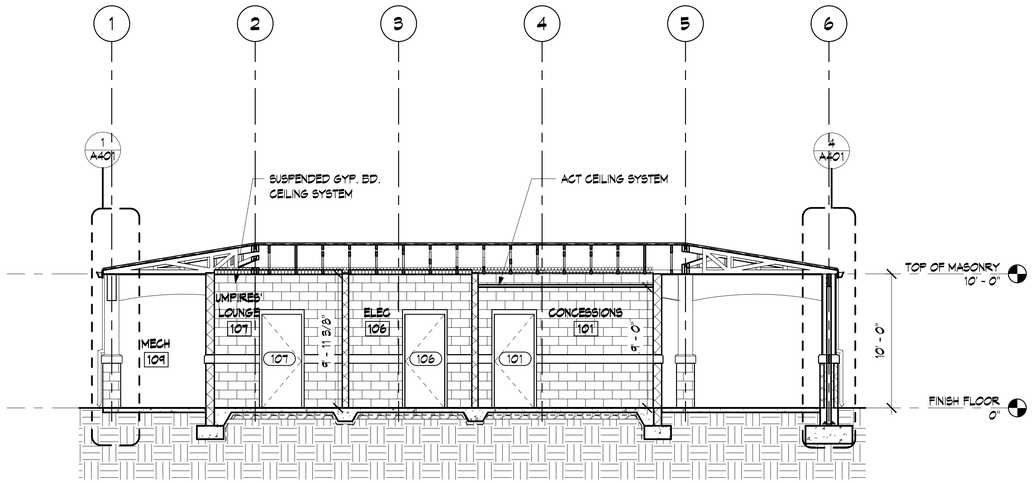
ELEVATIONS

PROJECT NO.
CTYBRKLD.0003PL

DRAWN BY	CHECKED BY
AM	HG

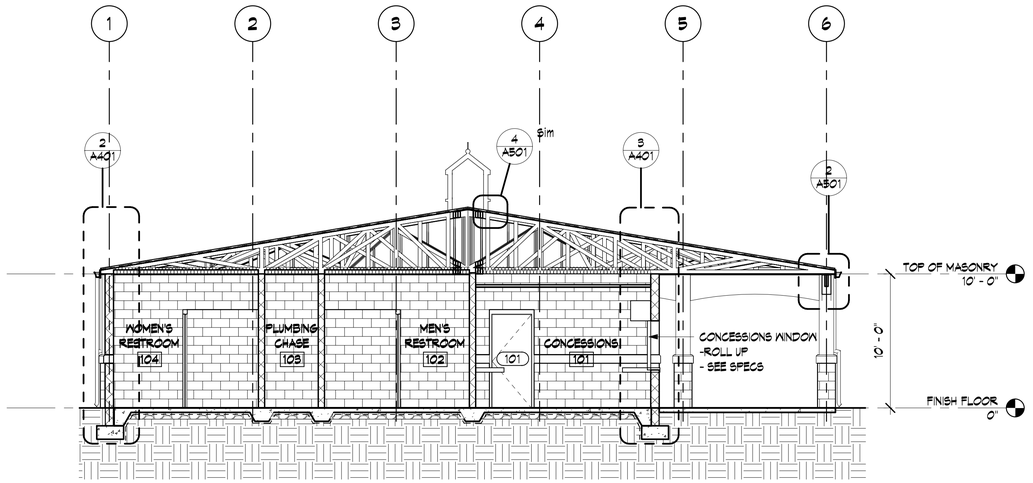
SHEET	SCALE
A200	

DATE
3-21-2025



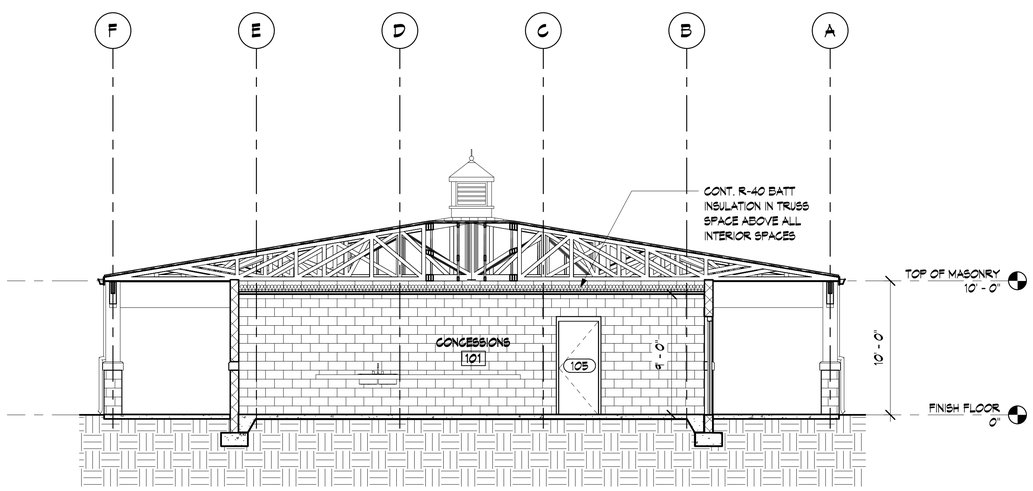
1 CROSS SECTION 1

3/16" = 1'-0"



3 CROSS SECTION 2

3/16" = 1'-0"



2 LONGITUDINAL SECTION

3/16" = 1'-0"

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BROOKLAND SPORTSPLEX PHASE 2

BROOKLAND, ARKANSAS

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HOWARD BRUCE GLATSTEIN
License Number 912254
STATE OF ARKANSAS

3-21-2025

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HOWARD GLATSTEIN - ARCHITECT
ARKANSAS - AR #912254

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CITY OF BROOKLAND, ARKANSAS

REVISIONS

DATE	BY	DESCRIPTION

SECTIONS

PROJECT NO.
CTYBRKLD.0003PL

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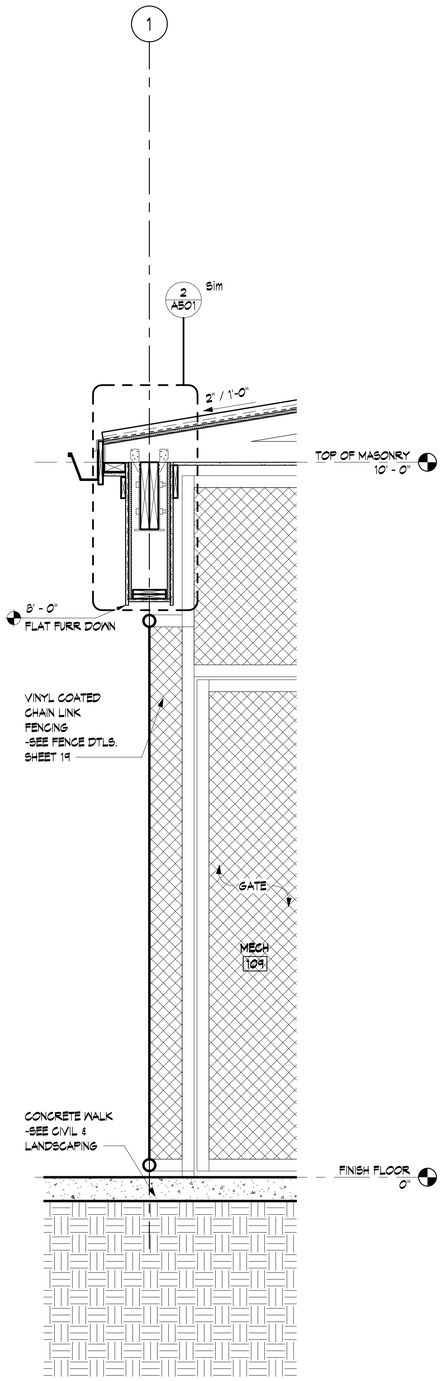
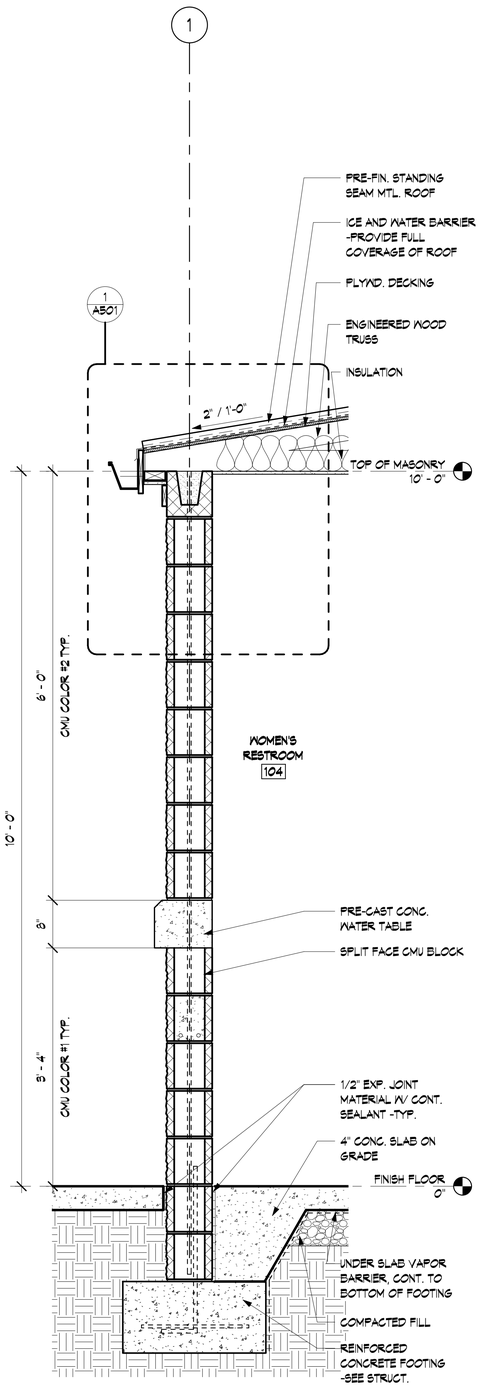
AM	HG
SHEET: A301	SCALE
DATE: 3-21-2025	



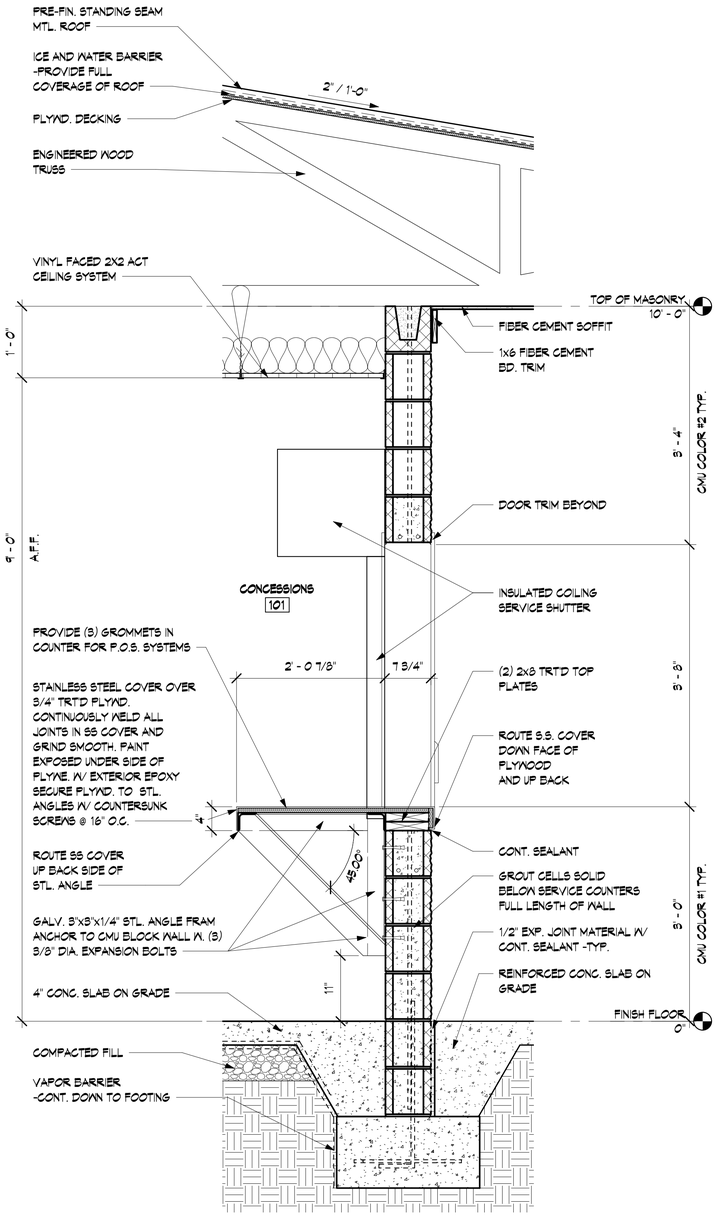
1 SECTION @ MECH. ENCLOSURE

1" = 1'-0"



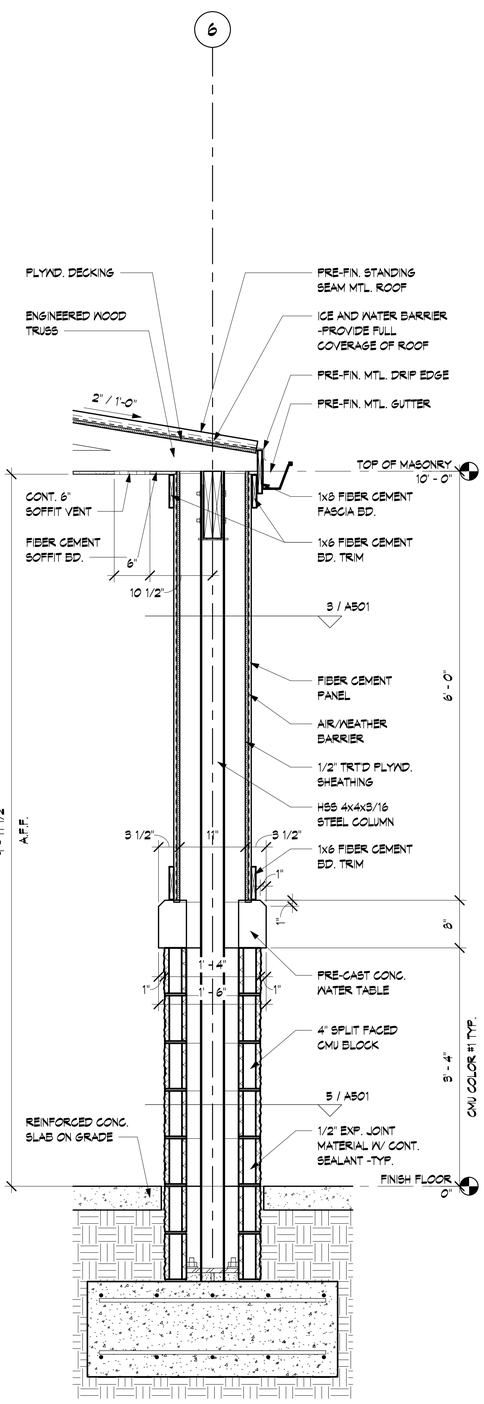
2 SECTION @ BACK WALL

1" = 1'-0"



3 SECTION @ CONCESSIONS WINDOW

1" = 1'-0"



4 SECTION @ COLUMN

1" = 1'-0"

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BROOKLAND SPORTSPLEX PHASE 2

BROOKLAND, ARKANSAS

REGISTERED ARCHITECT HOWARD BRUCE GLATSTEIN License Number 912254 STATE OF ARKANSAS

3-21-2025

HOWARD GLATSTEIN - ARCHITECT
ARKANSAS - AR #912254

CERTIFICATE OF AUTHORIZATION FISHER & ARNOLD INC. No. 248 ARKANSAS

FISHER & ARNOLD, INC.

CLIENT:
CITY OF BROOKLAND, ARKANSAS

REVISIONS

DATE	BY	DESCRIPTION

WALL SECTIONS

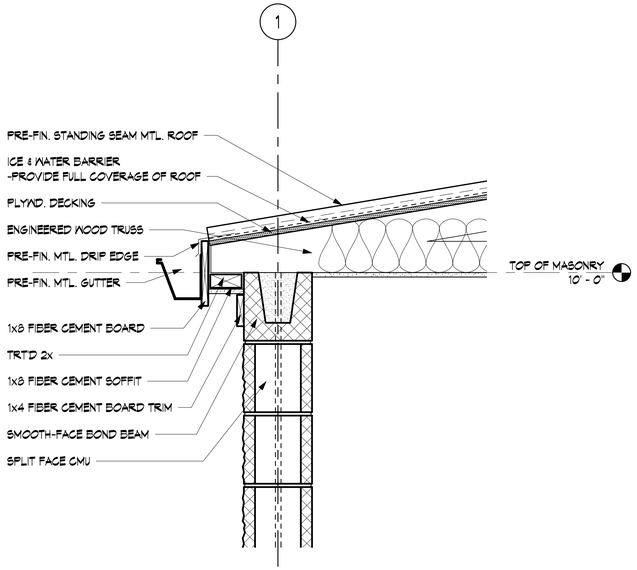
PROJECT NO.
CTYBRKLD.0003PL

DRAWN BY	CHECKED BY
AM	HG

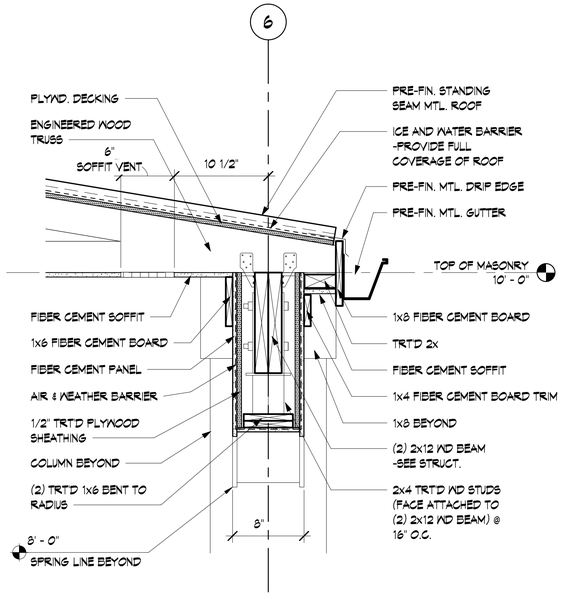
SHEET
A401

SCALE

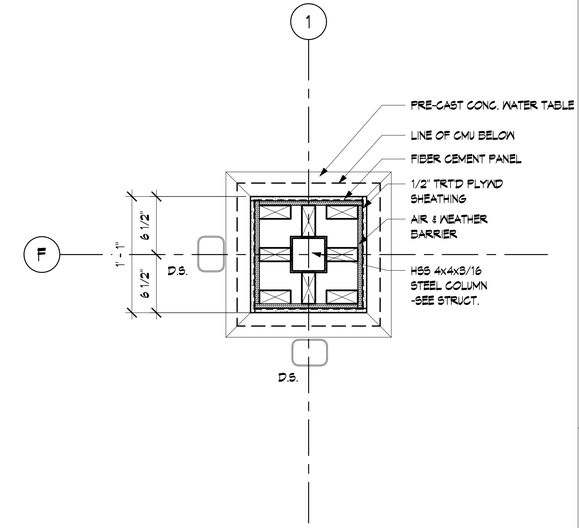
DATE
3-21-2025



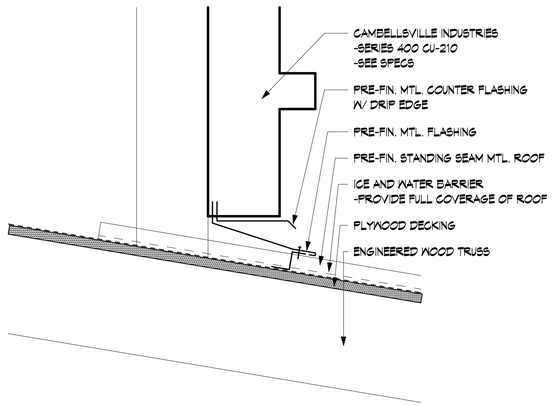
1 DETAIL @ BACK WALL
1/2" = 1'-0"



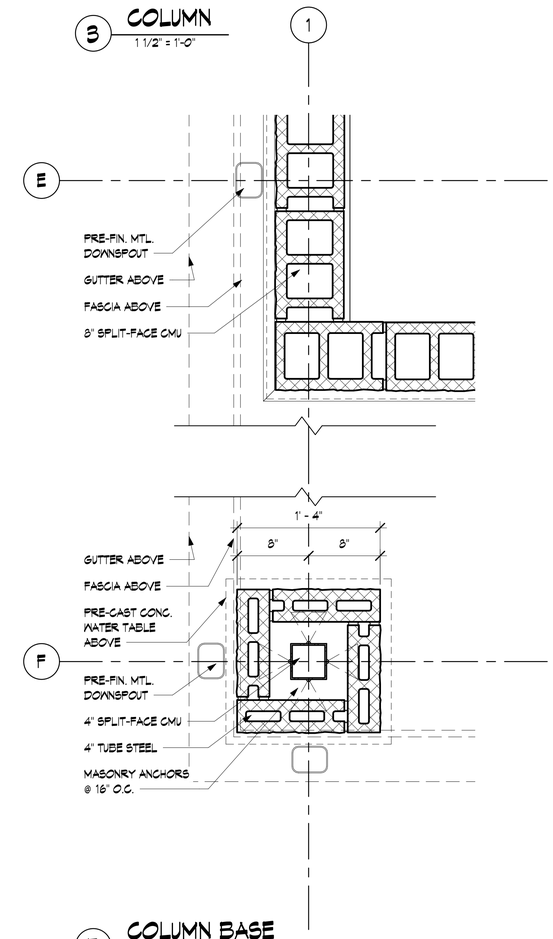
2 ARCH
1 1/2" = 1'-0"



3 COLUMN
1 1/2" = 1'-0"



4 CUPOLA FLASHING DETAIL
3" = 1'-0"



5 COLUMN BASE
1 1/2" = 1'-0"

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BROOKLAND SPORTSPLEX PHASE 2

BROOKLAND, ARKANSAS

REGISTERED ARCHITECT
HOWARD BRUCE GLATSTEIN
License Number 912254
STATE OF ARKANSAS

3-21-2025

seal

HOWARD GLATSTEIN - ARCHITECT
ARKANSAS - AR #912254

CERTIFICATE OF AUTHORIZATION
FISHER & ARNOLD INC.
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FISHER & ARNOLD, INC.

CLIENT:
CITY OF BROOKLAND, ARKANSAS

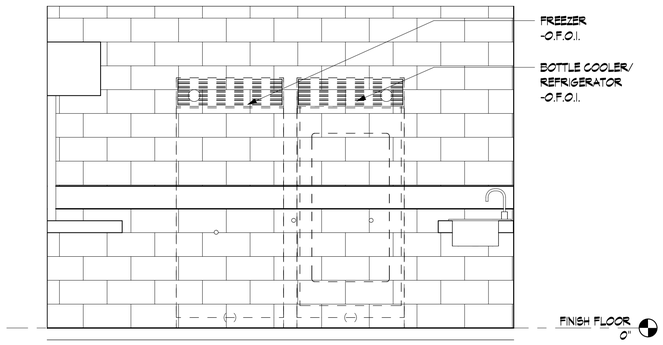
REVISIONS

DATE	BY	DESCRIPTION

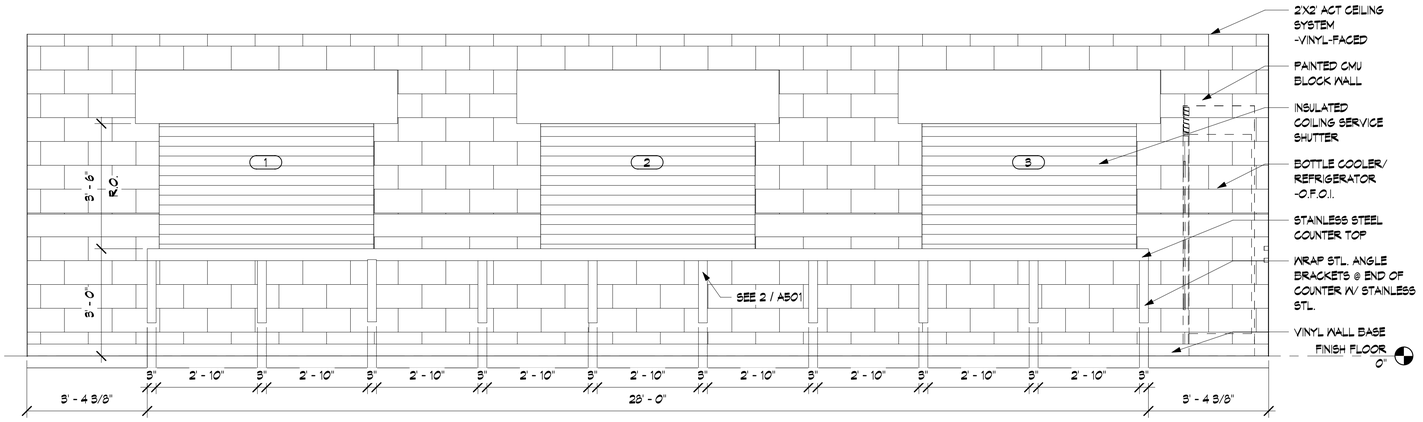
DETAILS

PROJECT NO.
CTYBRKLD.0003PL

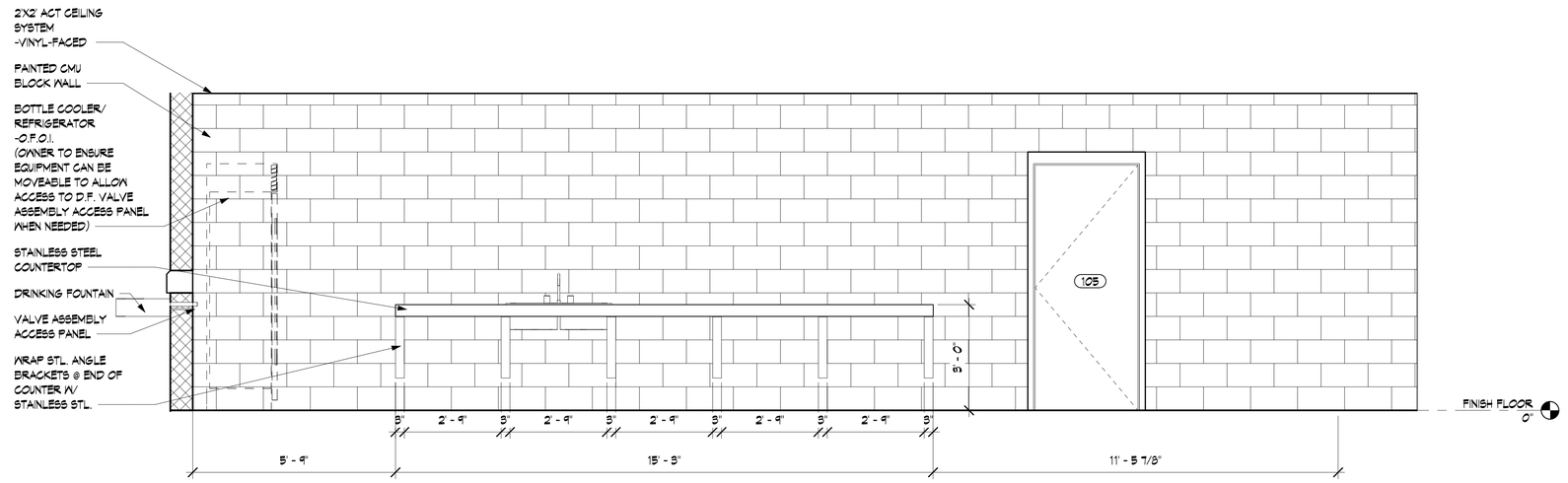
DRAWN BY	CHECKED BY
AM	HG
SHEET **A501**	SCALE
DATE 3-21-2025	



2 CONCESSIONS ELEVATION 2
1/2" = 1'-0"



1 ELEVATION @ SERVICE COUNTER
1/2" = 1'-0"



3 ELEVATION @ SINK
1/2" = 1'-0"

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BROOKLAND SPORTSPLEX PHASE 2

BROOKLAND, ARKANSAS

REGISTERED ARCHITECT
HOWARD BRUCE GLATSTEIN
License Number 912254
STATE OF ARKANSAS

3-21-2025

seal

HOWARD GLATSTEIN - ARCHITECT
ARKANSAS - AR #912254

CERTIFICATE OF AUTHORIZATION
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No. 248
ARKANSAS

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FISHER & ARNOLD, INC.

CLIENT:
CITY OF BROOKLAND, ARKANSAS

REVISIONS

DATE	BY	DESCRIPTION

INTERIOR ELEVATIONS

PROJECT NO.
CTYBRKLD.0003PL

DRAWN BY	CHECKED BY
AM	HG
SHEET	SCALE
A701	
DATE	
3-21-2025	

STRUCTURAL DESIGN CRITERIA

DESIGN SUMMARY:
THE STRUCTURAL DESIGN OF THIS BUILDING STRUCTURE CONSISTS OF LOAD BEARING CMU WALLS WITH STEEL TUBE COLUMNS SUPPORTING THE ROOF SYSTEM WHICH CONSISTS OF PREFABRICATED WOOD TRUSSES AND PLYWOOD DECKING.

DESIGN CODE: 2012 ARKANSAS FIRE PREVENTION CODE
(BASED ON THE 2012 INTERNATIONAL BUILDING CODE)

ALSO REFERENCE ASCE 7-10

RISK CATEGORY:	II
GRAVITY LOADS:	
DEAD LOAD:	MATERIAL WEIGHT (15 PSF FOR TRUSS DESIGN)
LIVE LOADS:	
TYPICAL ROOF LIVE LOAD:	20 PSF
SNOW LOADS:	
GROUND SNOW LOAD:	PG= 10 PSF
LATERAL LOADS:	
WIND:	
ULTIMATE WIND SPEED	Vult = 115 MPH
NOMINAL WIND SPEED	Vasd = 89 MPH
IMPORTANCE FACTOR	Iw = 1.0
EXPOSURE CATEGORY	C
SEISMIC:	
SOIL SITE CLASS	D (ASSUMED)
IMPORTANCE FACTOR	Ie = 1.0
MAPPED SPECTRAL RESPONSE ACCELERATION PARAMETERS	Ss = 1.504 S1 = 0.524
MCE/R SPECTRAL RESPONSE ACCELERATION PARAMETERS	Sms = 1.504 Sm1 = 0.785
DESIGN SPECTRAL RESPONSE ACCELERATION PARAMETERS	Sds = 1.003 Sd1 = 0.524
SEISMIC DESIGN CATEGORY	D
LATERAL SYSTEM	SPECIAL REINFORCED MASONRY SHEAR WALLS
RESPONSE MODIFICATION FACTOR	R = 5
SEISMIC RESPONSE COEFF.	Cs = 0.201
DESIGN PROCEDURE	EQUIV. LATERAL FORCE

STRUCTURAL GENERAL NOTES

A. SPECIAL INSPECTIONS:

1. ALL SPECIAL INSPECTIONS AND TESTS REQUIRED IN ACCORDANCE WITH CHAPTER 17 OF THE INTERNATIONAL BUILDING CODE SHALL BE PERFORMED BY A QUALIFIED INSPECTOR AND REPORTS SHALL BE FURNISHED.

B. MISCELLANEOUS:

1. CONTRACTOR SHALL COMPLY WITH ALL OSHA SAFETY STANDARDS DURING CONSTRUCTION.
2. CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. ALL UNDERGROUND UTILITIES MAY NOT BE SHOWN ON THE DRAWINGS.
3. CONTRCTOR SHALL COORDINATE WORK FROM ALL DISCIPLINES AS REQUIRED.
4. ANY CONFLICTS OR CONTRADICTIONS BETWEEN DIFFERENT DETAILS WITHIN THE DRAWINGS OR SPECIFICATIONS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE FOR CLARIFICATION/RESOLUTION.

C. EARTHWORK:

1. FOUNDATIONS ARE DESIGNED BASED ON AN ALLOWABLE BEARING CAPACITY OF 2000 PSF AND THIS SHALL BE VERIFIED DURING CONSTRUCTION DURING SITE COMPACTION BY THE GEOTECHNICAL ENGINEER LICENSED IN THE STATE OF ARKANSAS.
2. UNDERCUT A MINIMUM OF 1'-0" BELOW FOOTING BEARING ELEVATION, PROVIDE ACCEPTABLE FILL AND COMPACT IN 8" MAX LIFTS TO AT LEAST 95% OF STANDARD PROCTOR MAXIMUM DRY DENSITY. COMPLETE ADDITIONAL UNDERCUTTING AS REQUIRED BY GEOTECHNICAL ENGINEER.
3. FINAL FIELD REPORT BY GEOTECHNICAL ENGINEER SHALL BE FURNISHED TO ENGINEER AND OWNER.

D. CONCRETE AND REINFORCING:

1. ALL CONCRETE AND REINFORCEMENT SHALL CONFORM TO THE LATEST ACI CODE.
2. ALL REINFORCING BARS SHALL BE A-615 GRADE 60 STEEL.
3. LAP ALL REINFORCING BARS 48 BAR DIAMETERS MIN.
4. ALL CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH AT 28 DAYS (f'c) OF 3500 PSI.
5. MAXIMUM AGGREGATE SIZE IN FOOTINGS SHALL BE 1 1/2", MAXIMUM AND AGGREGATE SIZE IN SLABS SHALL BE 1".
6. CONCRETE EXPOSED TO WEATHER SHALL HAVE 5.5% AIR ENTRAINMENT.
7. PROVIDE CORNER BARS AT INTERSECTIONS OF ALL CONCRETE MEMBERS. MATCH SIZE AND SPACING OF REBAR IN FOOTING.
8. SLAB EDGE TOLERANCE SHALL BE ±1/2" U.N.O.
9. PLACE AND CURE CONCRETE IN ACCORDANCE TO ACI 305R AND 306R FOR HIGH AND LOW AIR TEMPERATURES AT PLACEMENT, RESPECTIVELY.
10. THE CONCRETE FOUNDATION HAS BEEN DESIGNED IN ACCORDANCE WITH ACT 1100, 1991 OF THE STATE OF ARKANSAS.

E. STRUCTURAL STEEL:

1. ALL WIDE FLANGE STEEL MEMBERS SHALL CONFORM TO ASTM A992, Fy = 50 KSI, ALL STEEL HSS MEMBERS SHALL CONFORM TO ASTM A500 GR. B., ALL CHANNELS, ANGLES, PLATES, AND OTHER MISCELLANEOUS STEEL SHALL CONFORM TO ASTM A36, FY = 36 KSI MIN. U.N.O.
2. PROVIDE LEVELING NUTS OR SHIM PACKS AS REQUIRED TO LEVEL COLUMN BASE PLATES. IF SHIM PACKS ARE USED, EITHER ENCASE SHIM PACKS WITH 1" MIN COVER OF NON-SHRINK GROUT WHEN PLACING GROUT UNDER BASE PLATE OR REMOVE THE SHIM PACKS (AFTER GROUT UNDER THE BASE PLATE HAS CURED) AND FULLY GROUT REMAINING CAVITIES. GROUT SHALL BE NON-METALLIC AND HAVE A COMPRESSIVE STRENGTH OF 7500 PSI MINIMUM.
3. ALL ANCHOR RODS ARE TO BE F1554 GRADE 36 MINIMUM ANCHOR RODS WITH NUTS TACK WELDED AT THE END OF THE ROD WITH 12 INCHES OF EMBEDMENT MINIMUM (EMBEDMENT IS THE AMOUNT OF CONCRETE ABOVE THE TACK WELDED NUT). PROVIDE HEAVY DUTY WASHERS PER AISC TYPICAL.
4. ALL WELDING SHALL BE PERFORMED BY CERTIFIED WELDERS IN ACCORDANCE WITH AWS SPECIFICATIONS LATEST EDITIONS.
5. ALL WELDS SHALL BE E-70 SERIES ELECTRODES OR EQUAL.
6. ALL BOLTS SHALL BE HIGH-STRENGTH BOLTS 3/4-INCH MINIMUM AND ASTM F1852 TWIST OFF TYPE BOLTS FOR THE CONVENTIONAL STEEL FRAME CONNECTIONS.

F. MASONRY

1. ALL MASONRY CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH IBC 2012 AND ACI 530-11.
2. MASONRY COMPRESSIVE STRENGTH, f'm, SHALL BE 1500 PSI AND SHALL BE VERIFIED PER THE REQUIREMENTS IN THE IBC.
3. STRUTURAL MASONRY SHALL BE HOLLOW, LIGHT OR MEDIUM WEIGHT (COORD. WITH ARCHITECTURAL REQUIREMENTS) CONFORMING TO ASTM C90. BLOCK TEST DATA BY A CERTIFIED LAB SHALL BE SUBMITTED AS A PART OF THE SHOP DRAWING REVIEW. ALL BLOCKS SHALL BE PLACED IN RUNNING BOND WITH THE VERTICAL CELLS ALIGNED.
4. GROUT SHALL CONFORM TO REQUIREMENTS OF IBC AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI AT 28 DAYS. THE GROUT SHALL FLOW INTO ALL JOINTS OF THE MASONRY. ONLY GROUT SOILID CELLS WITH REINFORCING.
5. USE TYPE S MORTAR AND FOLLOW ASTM C-144.
6. REINFORCING SHALL BE SECURED IN ITS PROPER POSITION WITHIN THE CELL TO PREVENT LATERAL MOVEMENT PRIOR TO OR DURING GROUTING.

G. WOOD

1. DESIGN OF WOOD MEMBERS IS BASED ON THE 2018 EDITION OF THE NATIONAL DESIGN SPECIFICATION (NDS) FOR WOOD CONSTRUCTION.
2. FRAMING LUMBER SHALL BE SOUTHERN PINE STUD GRADE OR BETTER U.N.O. WOOD IN CONTACT WITH CONCRETE SHALL BE PRESSURE TREATED.
3. ALL PLYWOOD SHALL BE STRUCTURAL 1 CONFORMING TO PRODUCT STANDARD PS 1 WITH EXTERIOR GLUE.
4. BOLT HOLES SHALL BE 1/16" LARGER THAN THE BOLT SIZE. RE-TIGHTEN ALL NUTS PRIOR TO CLOSING IN.
5. STANDARD CUT WASHERS SHALL BE USED UNDER HEAD AND NUTS AGAINST WOOD.
6. THE BOLTS FOR PLATES SHALL BE PLACED 8" FROM THE END OF A PLATE AND PLACED AT INTERVALS NOTED ON THE PLAN.
7. DO NOT NOTCH BOTTOMS OF WOOD MEMBERS, EXCEPT WHERE SHOWN IN DETAILS. OBTAIN A/E APPROVAL FOR ANY HOLES IN ALL WOOD MEMBERS EXCEPT AS NOTED BELOW. HOLES THROUGH SILLS, PLATES, STUDS, AND DOUBLE PLATES IN INTERIOR, BEARING AND SHEAR WALLS SHALL NOT EXCEED ONE-THIRD THE PLATE WIDTH AND SHALL BE BORED HOLES PLACED IN THE CENTER OF THE STUD OR PLATE. NOTCHING IS NOT PERMITTED.
8. ALL NAILS SHALL BE COMMON WIRE NAILS. WHERE DRIVING OF NAILS CAUSES SPLITTING, HOLES FOR THE NAILS SHALL BE PRE-DRILLED.
9. NAILED CONNECTIONS SHALL CONFORM TO TABLE 2304.9.1 OF THE 2012 IBC, U.N.O.
   a. END DISTANCE, EDGE DISTANCE AND SPACING OF NAILS SHALL BE SUCH TO AVOID SPLITTING OF THE WOOD.
   b. THE PENETRATION OF NAILS INTO THE PIECE RECEIVING THE POINT SHALL BE NOT LESS THAN ONE-HALF THE LENGTH OF THE NAIL PROVIDED, HOWEVER, 16D NAILS MAY BE USED TO CONNECT PIECES OF 2" NOMINAL THICKNESS.
   c. NAILING NOT NOTED SHALL BE AT LEAST TWO NAILS AT ALL CONTACT POINTS USING 8D NAILS THROUGH 1" MATERIAL AND 16D NAILS THROUGH 2" MATERIAL.
10. PROVIDE A MINIMUM 1/8" GAP BETWEEN ALL PLYWOOD ROOF SHEATHING.
11. SPLICE DOUBLE TOP PLATES WITH MINIMUM 4 FOOT OVERLAP WITH MINIMUM 8-16D NAILS EACH SIDE OF THE JOINT.
12. ALL CONNECTORS, NAILS AND CONNECTION MATERIAL INCLUDING ANCHOR BOLTS, IN CONTACT WITH PRESSURE TREATED WOOD SHALL BE HOT-DIP GALVANIZED WITH A MINIMUM 185 COATING, TYPE 304 STAINLESS STEEL, OR TYPE 316 STAINLESS STEAL. DO NOT USE STAINLESS STEEL IN CONTACT WITH HOT-DIPPED GALVANIZED STEEL.
13. ANY CONCENTRATED LOAD, SUCH AS BEARING LOCATIONS OF BEAMS AND TRUSSES, SHALL BE SUPPORTED BY MINIMUM OF A DOUBLE WALL STUD.

H. PREFABRICATED WOOD TRUSSES:

1. THE DESIGN OF PREFABRICATED WOOD TRUSSES SHALL BE BASED ON THE 2012 EDITION OF THE NATIONAL DESIGN SPECIFICATION (NDS) FOR WOOD CONSTRUCTION. TRUSSES SHALL BE DESIGNED AND STAMPED BY A PROFESSIONAL ENGINEER IN THE STATE OF ARKANSAS.
2. THE PREFABRICATED WOOD TRUSS MANUFACTURER SHALL:
   a. DESIGN FOR THE FORCES INDICATE INDICATED IN THE DRAWINGS OR MINIMUM LOADS PER THE ASCE 7.
   b. PROVIDED TRUSSES AT THE INDICATED SPACING. WHEN SINGLE PLY TRUSSES ARE INSUFFICIENT PROVIDE MULTI-PLY TRUSSES.
   c. DESIGN TRUSS MEMBERS UTILIZING #2 GRADE LUMBER OR BETTER.
   d. DESIGN TRUSSES TO BEAR ONLY ON WALLS INDICATED AS BEARING WALLS OR AS INDICATED ON THE DRAWINGS.
   e. DESIGN AND PROVIDE ALL PERMANENT BRACING REQUIRED FOR THE STABILITY OF THE TRUSSES.
   f. DESIGN AND PROVIDE CONNECTOR MATERIAL AS REQUIRED TO FASTEN TRUSSES TO SUPPORTING STRUCTURAL ELEMENTS AND OTHER CONNECTOR MATERIAL REQUIRED BY THE TRUSS DESIGN BUT NOT SHOWN ON THE DRAWINGS.
   g. ATTACH TAGS TO THE TRUSSES INDICATING LOCATIONS WHERE WEB BRACING AND PERMANENT LATERAL BRACING IS TO BE INSTALLED.
   h. TRUSSES SHALL HAVE DIAGONAL BLOCKING TO PREVENT ROLLOVER AT ALL BEARING WALLS AND AT A MINIMUM SHALL OCCUR BETWEEN EVERY OTHER TRUSS AND BE NAILED IN PLACE.
3. EXERCISE CARE DURING LIFTING OPERATIONS TO PREVENT FLAT WISE BENDING OF THE TRUSSES. TRUSSES ARE NOT DESIGNED TO BEND IN THIS FASHION; BUCKLING OF MEMBERS OR DAMAGE TO THE CONNECTIONS MAY OCCUR.
4. IN ORDER TO DEVELOP THE DESIGN CAPACITY, PREFABRICATED ROOF TRUSSES SHALL BE INSTALLED PLUMB AND STRAIGHT. THE PLUMB AND STRAIGHTNESS OF EACH TRUSS SHALL BE VERIFIED. TRUSSES SHALL BE HELD IN CORRECT ALIGNMENT WITH THE SPECIFIED TEMPORARY AND PERMANENT BRACING UNTIL SHEATHING IS INSTALLED.
5. DO NOT PLACE LOADS ON TRUSSES UNTIL ALL SPECIFIED BRACING HAS BEEN INSTALLED AND THE SHEATHING PERMANENTLY ANCHORED. BUNDLES OF PLYWOOD SHALL NOT BE PLACED ON TRUSSES. LIFT PLYWOOD SHEETS ONTO ROOF ONLY AS REQUIRED DURING THE SHEATHING PROCESS.
6. MECHANICAL EQUIPMENT SHALL BE PLACED ON THE ROOF ONLY AFTER COMPLETION OF THE ENTIRE ROOF STRUCTURAL SYSTEM. ENSURE THAT EACH PIECE OF EQUIPMENT IS CORRECTLY POSITIONED OVER THE SPECIFIED TRUSSES BEFORE SLOWLY LOWERING INTO PLACE. AVOID BUMPING THE TRUSSES.
7. ROOF SHEATHING SHALL BE CONTINUOUS UNDER VALLEY SETS. ATTACH VALLEY JACKS TO SUPPORTING TRUSSES AS REQUIRED BY THE TRUSS MANUFACTURER. TRUSSES SHALL BEAR DIRECTLY OVER STUDS OR A DOUBLE TOP PLATE MEMBER SHALL BE USED. IF A TRUSS CENTERLINE IS MORE THAN THREE INCHES FROM THE CENTERLINE OF THE CLOSEST STUD WITH A SINGLE TOP PLATE MEMBER, PROVIDE AN ADDITIONAL STUD DIRECTLY UNDER THE TRUSS BEARING.
8. ALL ROOF TRUSSES SHALL HAVE HOLD DOWNS FOR WIND UPLIFT AT EACH END OF THE TRUSS AS A MINIMUM AND AT ALL STRUCTURAL SUPPORT WALLS. EACH WIND UPLIFT CONNECTION SHALL BE NAILED TO THE WOOD TRUSS MEMBER AND SCREWED INTO THE STRUCTURAL SUPPORT WALL.

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BROOKLAND SPORTSPLEX PHASE 2
BROOKLAND, ARKANSAS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 12969
JORDAN W. LANE
03/21/2025
seal

NORTH DELTA ENGINEERING #3535
CERTIFICATE OF AUTHORIZATION
ARKANSAS ENGINEER
coa

FISHER & ARNOLD, INC.

CLIENT:
CITY OF BROOKLAND, ARKANSAS

REVISIONS

DATE	BY	DESCRIPTION

GENERAL NOTES

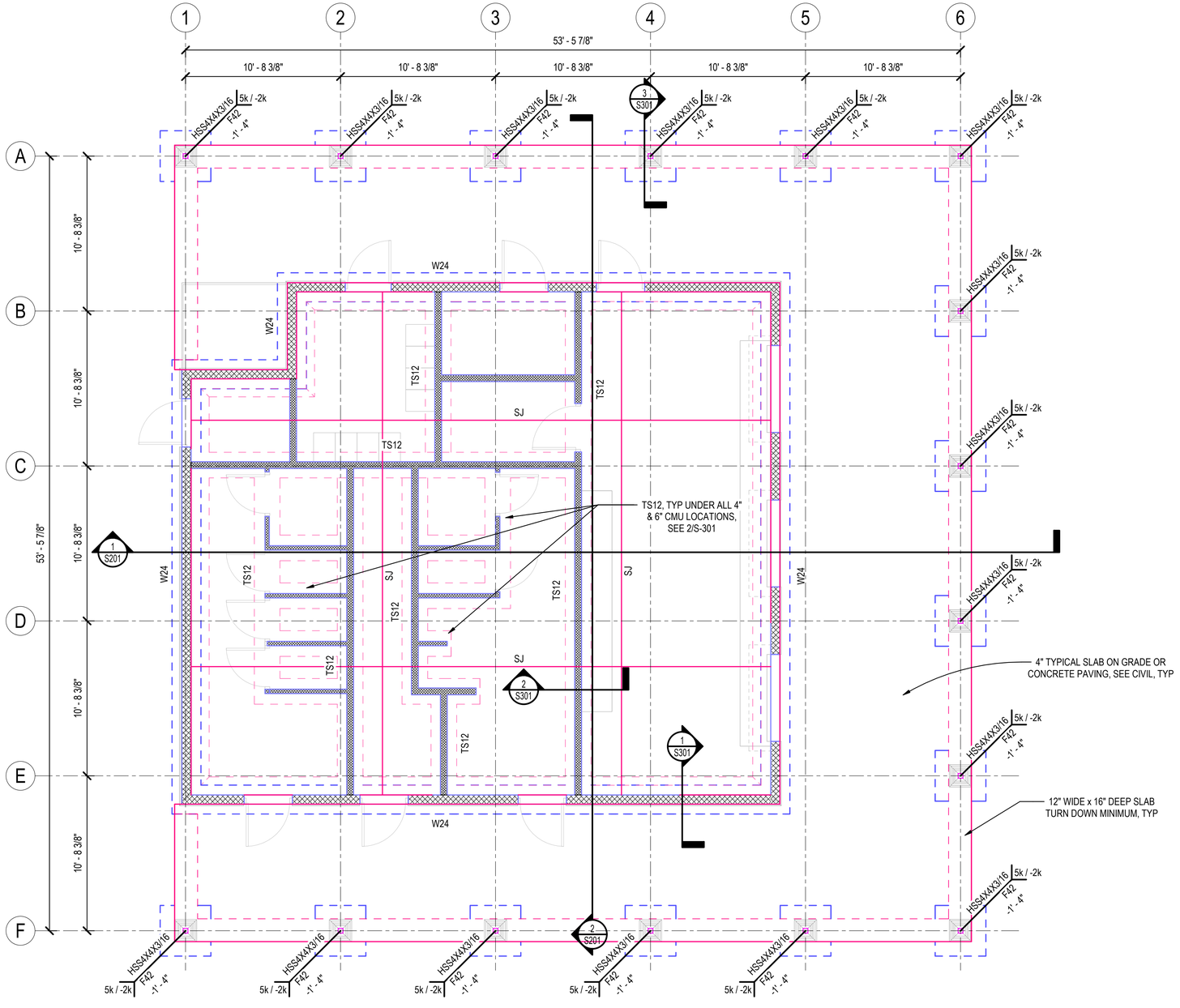
PROJECT NO.
CTYBRKLD.003PL

DRAWN BY	CHECKED BY
AEP	JWL

SHEET
S001

SCALE

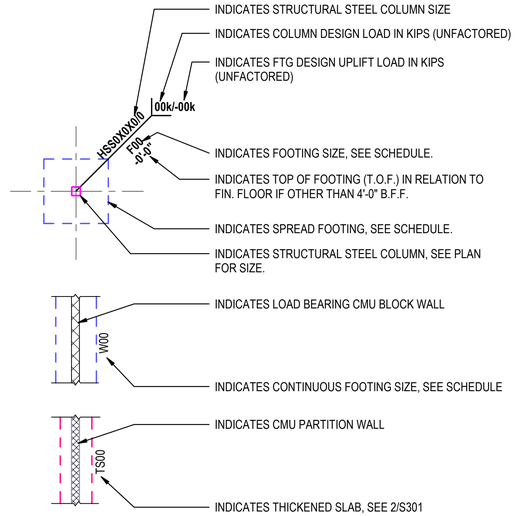
DATE
03/21/2025



1 FOUNDATION AND SLAB PLAN

1/4" = 1'-0"

FOUNDATION AND SLAB LEGEND



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BROOKLAND SPORTSPLEX PHASE 2

BROOKLAND, ARKANSAS

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 12969 JORDAN W. LANE
05/21/2025
seal

CERTIFICATE OF AUTHORIZATION NORTH DELTA ENGINEERING #3535 ARKANSAS ENGINEER
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CITY OF BROOKLAND, ARKANSAS

REVISIONS

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FOUNDATION AND SLAB PLAN

PROJECT NO.
CTYBRKLD.003PL

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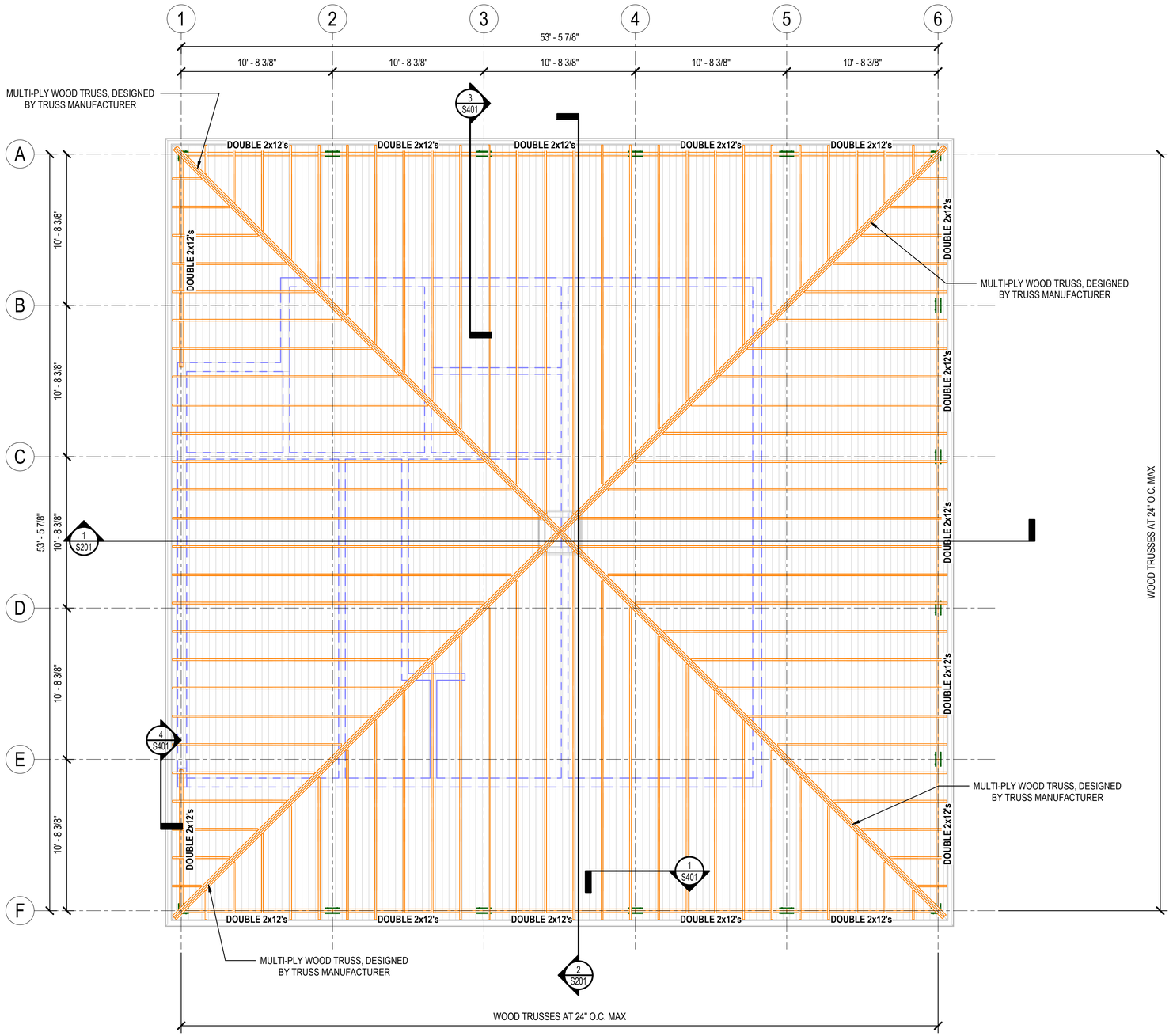
SHEET **S101**	SCALE
DATE 03/21/2025	



1 ROOF FRAMING PLAN

1/4" = 1'-0"

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ROOF FRAMING PLAN

PROJECT NO.
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SHEET
S102

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DATE
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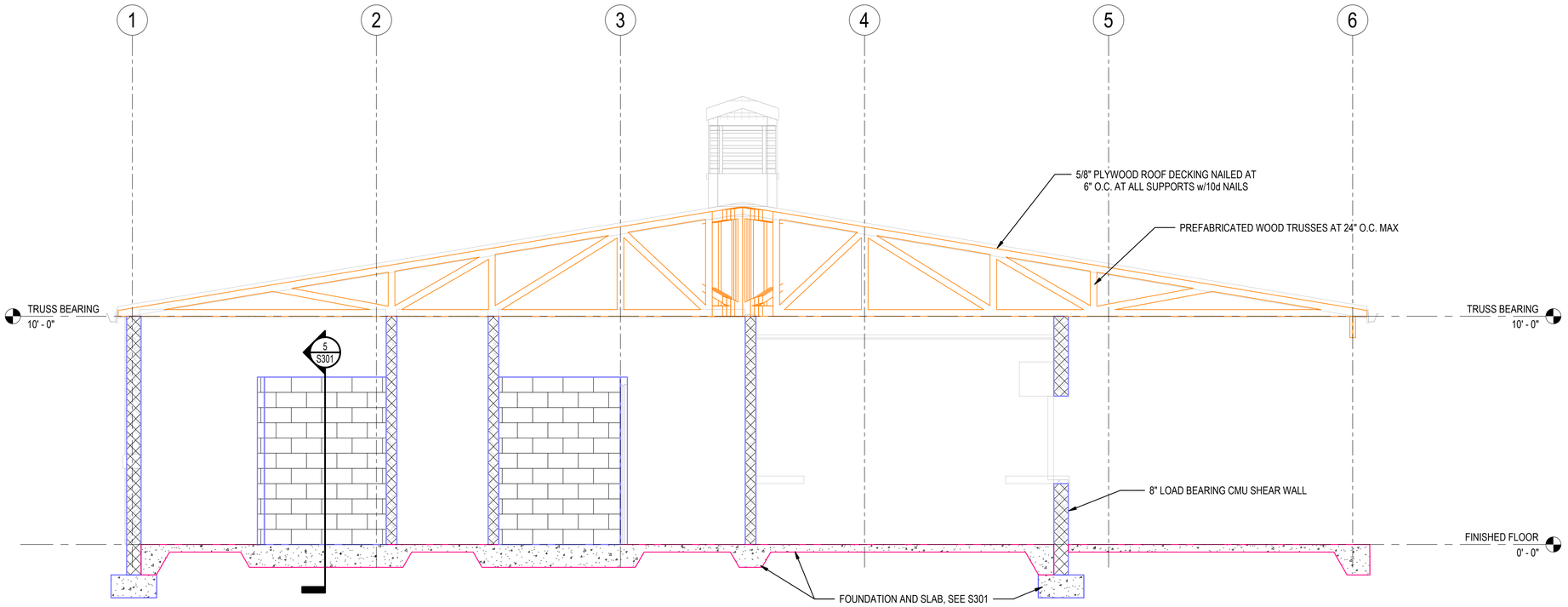
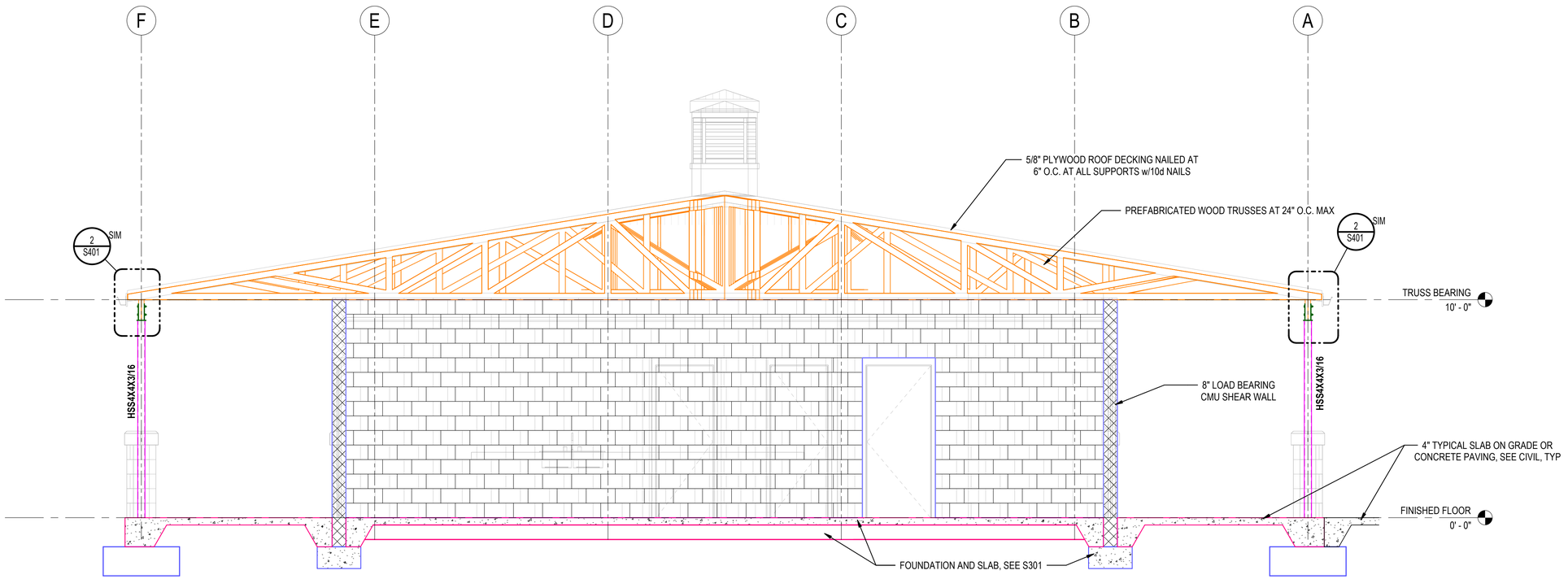


1 BUILDING ELEVATION

3/8" = 1'-0"



2 BUILDING ELEVATION

3/8" = 1'-0"

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ELEVATIONS

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CTYBRKLD.003PL

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AEP	JWL

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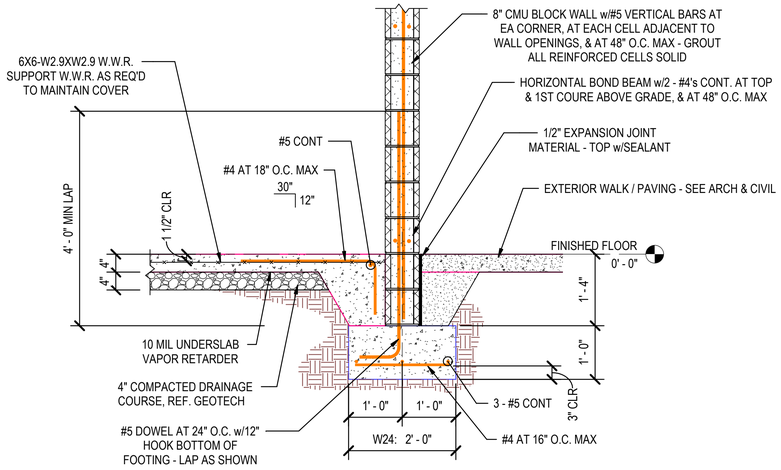
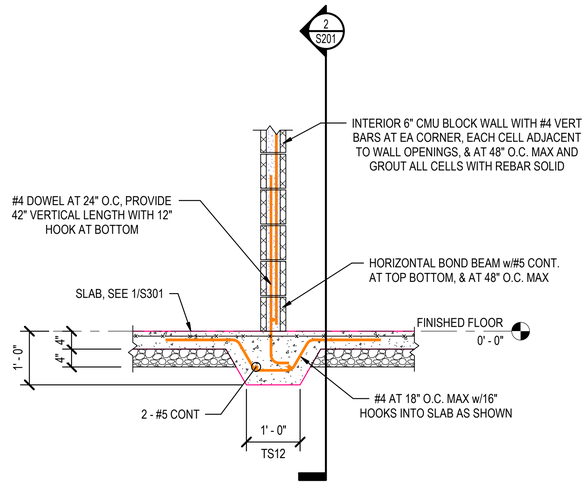
S201	

DATE
03/21/2025



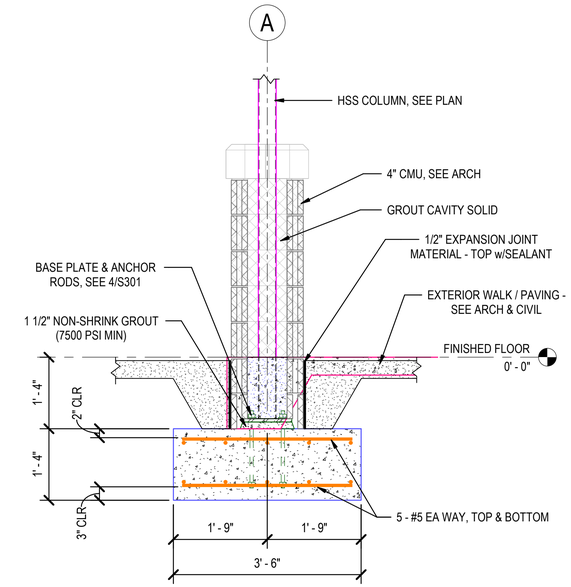
1 TYPICAL EXTERIOR 8" CMU WALL DETAIL

3/4" = 1'-0"



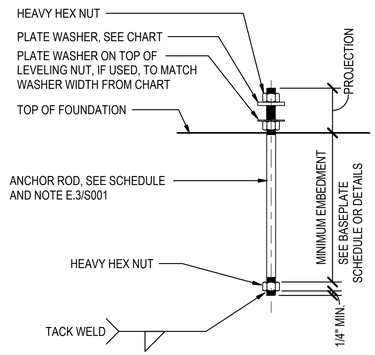
2 TYPICAL DETAIL AT INTERIOR 6" CMU WALL

3/4" = 1'-0"

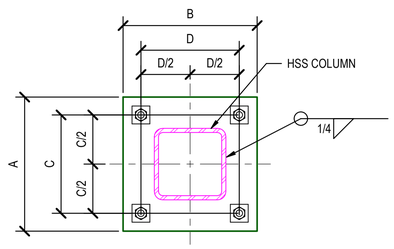


3 TYPICAL DETAIL AT EXTERIOR COLUMN FOOTING

3/4" = 1'-0"



TYPICAL ANCHOR ROD DETAIL



TYPICAL COLUMN BASEPLATE

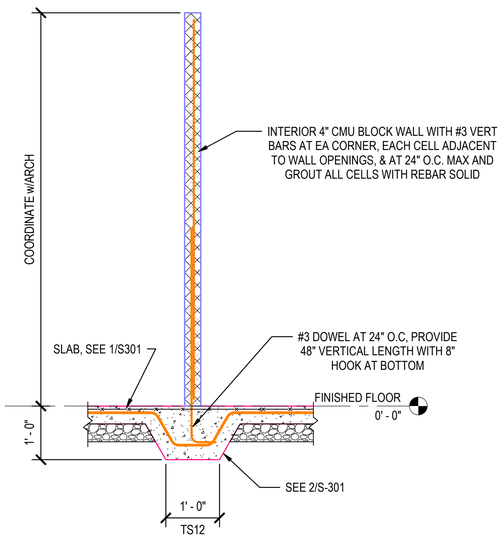
SIZES FOR ANCHOR ROD WASHERS AND HOLES IN BASE PLATES			
ANCHOR ROD DIA., (IN.)	MAX HOLE DIA., (IN.)	MIN. WASHER DIMENSION, (IN.)	MIN. WASHER THICKNESS, (IN)
3/4	1 5/16	2	1/4

TYPICAL BASE PLATE SCHEDULE							
COL SIZE	PLATE THICKNESS	A	B	C	D	ANCHOR ROD ø	MIN. EMBEDMENT
HSS4X4	3/4"	11"	11"	7"	7"	3/4"	1'-0"

NOTES:
1. LATEST VERSION OF AISC TABLE 14-2 TAKES PRECEDENCE.
2. CIRCULAR OR SQUARE WASHERS MEETING THE SIZE SHOWN ARE ACCEPTABLE.
3. ADEQUATE CLEARANCE MUST BE PROVIDED FOR THE WASHER SIZE SELECTED

4 BASEPLATE SCHEDULE AND DETAILS

NOT TO SCALE



5 TYPICAL DETAIL AT INTERIOR 4" CMU WALL

3/4" = 1'-0"

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BROOKLAND SPORTSPLEX PHASE 2

BROOKLAND, ARKANSAS

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER JORDAN W. LANE No. 12969
03/21/2025
seal

NORTH DELTA ENGINEERING #3535 CERTIFICATE OF AUTHORIZATION ARKANSAS ENGINEER
COA

FISHER & ARNOLD, INC.

CLIENT:
CITY OF BROOKLAND, ARKANSAS

REVISIONS

DATE	BY	DESCRIPTION

FOUNDATION DETAILS

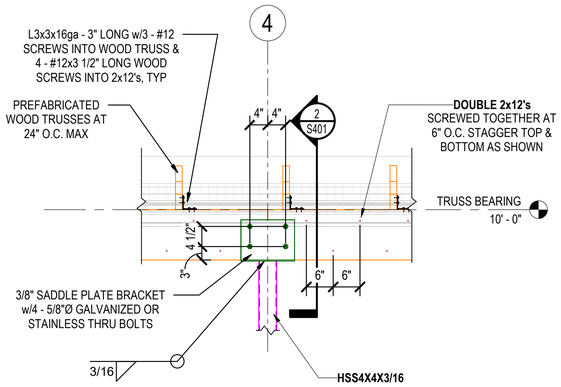
PROJECT NO.
CTYBRKLD.003PL

DRAWN BY	CHECKED BY
AEP	JWL

SHEET
S301

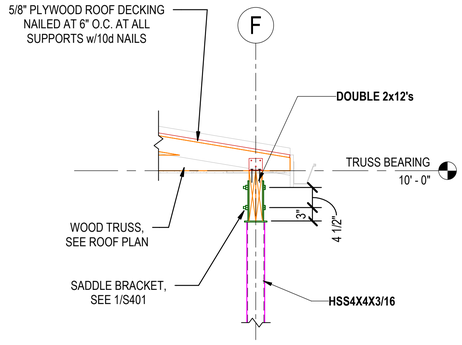
SCALE

DATE
03/21/2025



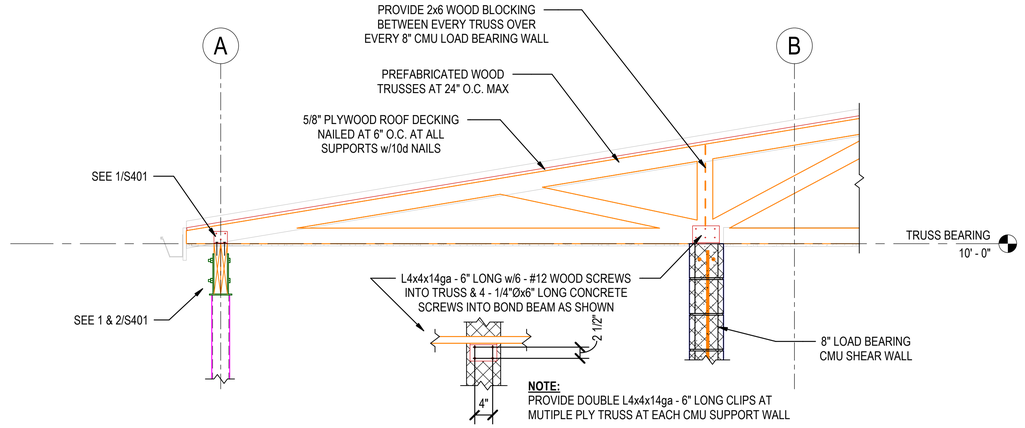
1 FRAMING DETAIL

3/4" = 1'-0"



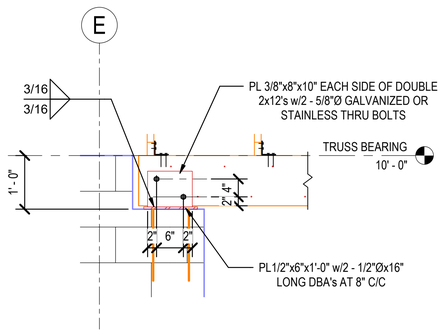
2 FRAMING DETAIL

3/4" = 1'-0"



3 FRAMING DETAIL

3/4" = 1'-0"



4 DOUBLE 2x12 BEAM CONNECTION TO 8" BLOCK WALL

3/4" = 1'-0"

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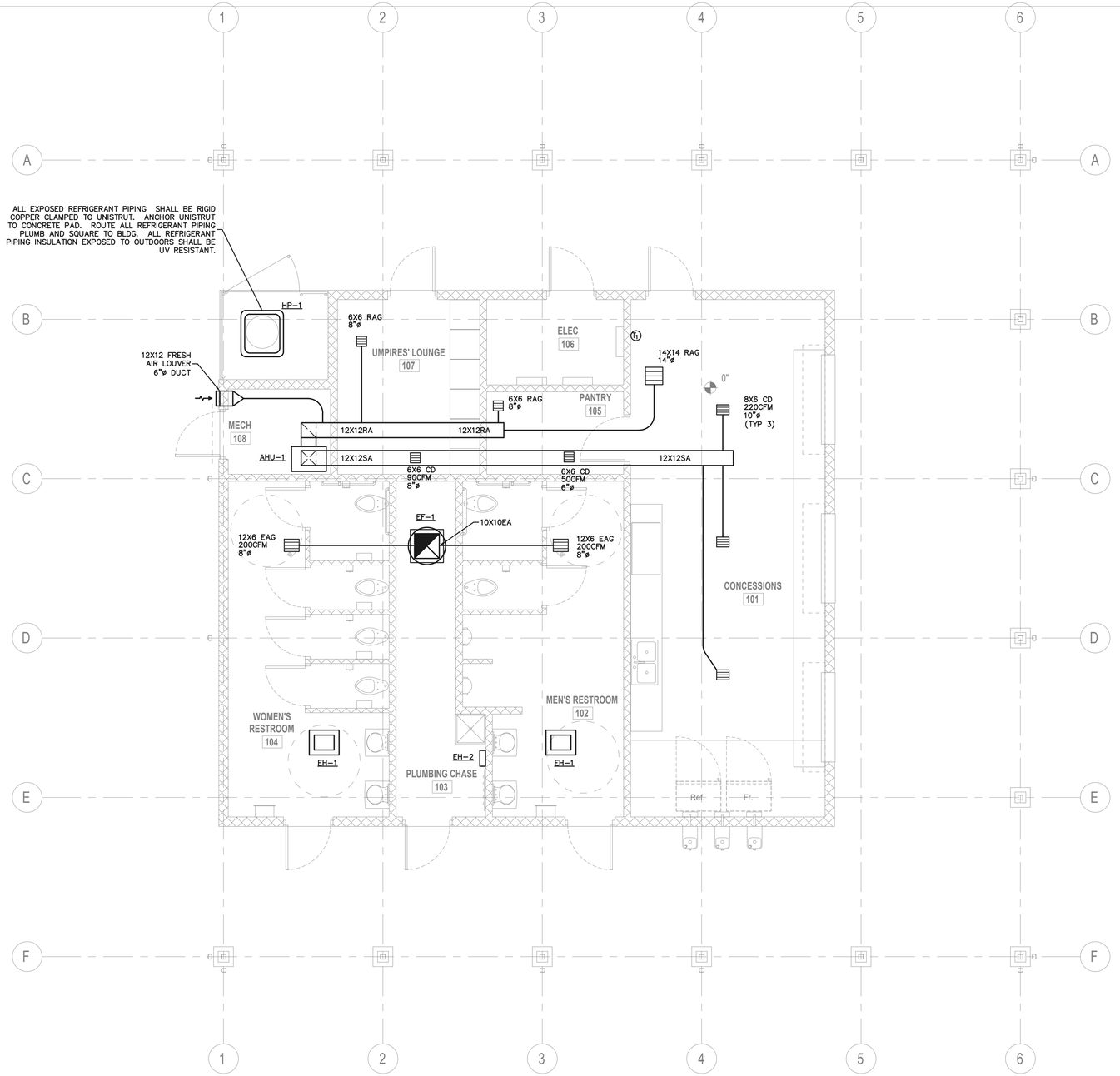
DATE	BY	DESCRIPTION

FRAMING DETAILS

PROJECT NO.
CTYBRKLD.003PL

DRAWN BY	CHECKED BY
AEP	JWL
SHEET	SCALE
S401	
DATE	
03/21/2025	



1 HVAC PLAN
1/4" = 1'-0"

GENERAL NOTES:

1. DUCT SIZES INDICATED ARE ACTUAL SHEET METAL DIMENSIONS. WRAP ALL DUCTS WITH FOIL BACKED FIBERGLASS INSULATION EQUAL TO CERTAINTEED SOFT TOUCH DUCT WRAP, TYPE 75, R-8 MINIMUM. SECURE EXTERNAL INSULATION TO RECTANGULAR DUCTWORK WITH TAPE AND STAPLES, AND INSTALL PANDUIT STRAPS ON 4' CENTERS TO PREVENT SAGGING. SECURE EXTERNAL INSULATION TO ROUND DUCTWORK WITH TAPE AND STAPLES.
2. ROUTE TRAPPED, INSULATED PVC CONDENSATE TO FD-1.

LEGEND

	CEILING REGISTER
TS	THERMOSTAT
	TURNING VANE
SA	SUPPLY AIR
RA	RETURN AIR
FA	FRESH AIR/OUTSIDE AIR
EA	EXHAUST AIR

AIR FLOW RATING (-X-)(RAG) (---CFM) (--"ø) — DIMENSION; DUCT SIZE

RAG – RETURN AIR GRILLE
CD – CEILING DIFFUSER
EAG – EXHAUST AIR GRILLE
SWG – SIDEWALL GRILLE
TAG – TRANSFER AIR GRILLE

DWCEI PROJECT NO. 22-109

FISHER ARNOLD
ENGINEERS | ARCHITECTS | CONSULTANTS | PLANNERS
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BROOKLAND SPORTSPLEX PHASE 2

BROOKLAND, ARKANSAS

STATE OF ARKANSAS
DAVID W. COLLIER
PROFESSIONAL ENGINEER
No.9873
03/21/25
seal

CERTIFICATE OF AUTHORIZATION
DW COLLIER ENGINEERING, INC.
No. 1174
ARKANSAS - ENGINEER
coa

FISHER & ARNOLD, INC.

CLIENT:
CITY OF BROOKLAND, ARKANSAS

REVISIONS

DATE	BY	DESCRIPTION

HVAC PLAN

PROJECT NO.
CTYBRKLD.0003PL

DRAWN BY	CHECKED BY

SHEET
M101

SCALE
AS SHOWN

DATE

COLLIER
DW COLLIER ENGINEERING, INC.
720 BROADWAY STREET
SUITE 100
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www.dwcolliereng.com

MECHANICAL NOTES:

1. ALL WORK SHALL BE EXECUTED AND INSPECTED IN ACCORDANCE WITH ALL LOCAL AND STATE CODES, LAWS, ORDINANCES, RULES AND REGULATIONS APPLICABLE TO THE PARTICULAR CLASS OF WORK. IF, TO THE KNOWLEDGE OF THE CONTRACTOR, THE DRAWINGS AND SPECIFICATIONS ARE IN CONFLICT WITH THE ABOVE, HE SHALL PROMPTLY NOTIFY THE ENGINEER IN WRITING SO THAT ANY NECESSARY CHANGES CAN BE PROVIDED FOR IN HIS CONTRACT. IF THE CONTRACTOR PERFORMS ANY WORK WITHOUT NOTICE AS REQUIRED, HE SHALL BEAR ALL COSTS OF CORRECTIVE ACTION.
2. THE CONTRACTOR SHALL INCLUDE IN HIS QUOTATION ALL APPLICABLE SERVICE CHARGES, FEES, PERMITS, ROYALTIES, AND OTHER SIMILAR COSTS IN CONNECTION WITH THE WORK. OBTAIN PERMITS, AND REQUEST INSPECTIONS FROM AUTHORITY HAVING JURISDICTION.
3. INSTALL WORK IN LOCATIONS SHOWN ON DRAWINGS, UNLESS PREVENTED BY PROJECT CONDITIONS. FOR PURPOSES OF CLEARNESS AND LEGIBILITY, DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC, AND ALTHOUGH SIZE AND LOCATION OF EQUIPMENT ARE DRAWN TO SCALE WHENEVER POSSIBLE, THE CONTRACTOR SHALL REVIEW THE STRUCTURAL, ELECTRICAL, ARCHITECTURAL, FIRE PROTECTIONS, ETC. DRAWINGS AND DETERMINE AREAS OF INTERFERENCE. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER OF INTERFERENCE'S PRIOR TO FABRICATION OF DUCTWORK OR PIPING.
4. THE DRAWINGS INDICATE REQUIRED SIZE AND POINTS OF TERMINATION OF PIPES AND DUCTS, AND SUGGEST PROPER ROUTES OF PIPE TO CONFORM TO STRUCTURE, AVOID OBSTRUCTIONS AND PRESERVE CLEARANCES. HOWEVER, IT IS NOT INTENDED THAT DRAWINGS INDICATE ALL NECESSARY OFFSETS, AND IT SHALL BE THE WORK OF THIS SECTION TO INSTALL PIPING AND DUCTS IN SUCH A MANNER AS TO CONFORM TO STRUCTURE, AVOID ALL OBSTRUCTIONS, PRESERVE HEADROOM AND KEEP OPENINGS AND PASSAGEWAYS CLEAR WITHOUT FURTHER INSTRUCTION OR COST TO THE OWNER. VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION. EXISTING LAYOUT, IF SHOWN, WAS DETERMINED FROM SITE OBSERVATIONS AND AS BUILT DRAWINGS. CONTRACTOR SHALL NOTIFY ENGINEER SHOULD EXISTING CONDITIONS DIFFER FROM THESE DRAWINGS
5. CONTRACTOR SHALL GUARANTEE ALL WORK PERFORMED UNDER THIS CONTRACT TO BE FREE FROM DEFECTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM DATE OF CERTIFICATE OF SUBSTANTIAL COMPLETION.
6. THE MECHANICAL CONTRACTOR SHALL PREPARE SUBMITTALS ON ALL EQUIPMENT AND MATERIALS APPLICABLE TO THIS PROJECT AND SUBMIT TO ENGINEER FOR REVIEW PRIOR TO PROCUREMENT, FABRICATION OR ANY CONSTRUCTION. SUBMITTALS MAY BE MAILED VIA APPROPRIATE CHANNELS OR SUBMITTED IN PDF FORM VIA EMAIL. PARTIAL SUBMITTALS WILL NOT BE REVIEWED.
7. MOTORS FOR ALL MECHANICAL EQUIPMENT SHALL BE FURNISHED BY SUPPLIERS OF SUCH EQUIPMENT AND SHALL BE THE TYPE THAT HAS CHARACTERISTICS SUITABLE FOR CONTINUOUS OPERATING CONDITIONS.
8. TRANSPORT AND HANDLE PRODUCTS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
9. STORE AND PROTECT PRODUCTS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS, WITH SEALS AND LABELS INTACT AND LEGIBLE.
10. ALL MECHANICAL EQUIPMENT, AS APPLICABLE, SHALL HAVE U.L. LISTING OR EQUIVALENT. VERIFY THAT EACH PIECE OF EQUIPMENT OR SYSTEM HAS BEEN CHECKED FOR PROPER LUBRICATION, DRIVE ROTATION, BELT TENSION, CONTROL SEQUENCE, OR FOR OTHER CONDITIONS WHICH MAY CAUSE DAMAGE.
11. DEMONSTRATE OPERATION AND MAINTENANCE OF PRODUCTS TO OWNER'S PERSONNEL ONE WEEK PRIOR TO DATE OF FINAL INSPECTION.
12. EXECUTE FINAL CLEANING PRIOR TO FINAL PROJECT ASSESSMENT.
13. SEISMICALLY RESTRAIN HVAC EQUIPMENT, GAS PIPING AND HYDRONIC PIPING AS REQUIRED BY LOCAL CODE. PROVIDE SUPPORT AND EQUIPMENT REQUIRED TO CONTROL EXPANSION AND CONTRACTION OF PIPING. PROVIDE LOOPS, PIPE OFFSETS, AND SWING JOINTS, OR EXPANSION JOINTS WHERE REQUIRED.
14. ENTIRE HVAC SYSTEM AND HYDRONIC SYSTEM (AS APPLICABLE) SHALL BE BALANCED BY AN INDEPENDENT CERTIFIED TEST & BALANCE CONTRACTOR. ALL AIR FLOW RATES SHALL BE WITHIN 5% OF SPECIFIED FLOW RATE. PROVIDE CERTIFIED TEST & BALANCE REPORT AT END OF PROJECT.
15. DISPOSE OF CONDENSATE IN ACCORDANCE WITH LOCAL CODE REQUIREMENTS. PROVIDE TRAP IN CONDENSATE DRAIN LINE AT EACH COIL OR 90+ FURNACE IN ACCORDANCE WITH PUBLISHED MANUFACTURER'S INSTRUCTIONS. EACH TRAP SHALL BE PROVIDED WITH A TEE TO ALLOW FOR CLEANING. CONDENSATE PIPING SHALL BE SCH 40 PVC UNLESS NOTED OTHERWISE OR PROHIBITED BY CODES. INSULATE CONDENSATE DRAIN PIPING, SLOPE TO DRAIN, AND TERMINATE IN ACCORDANCE WITH CODE OR AS SHOWN ON THESE DRAWINGS.
16. PROVIDE NON-CONDUCTING DIELECTRIC CONNECTIONS WHEREVER JOINTING DISSIMILAR METALS.
17. ALL DUCTWORK SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH THE 2005 EDITION "SMACNA HVAC DUCT CONSTRUCTION STANDARDS – METAL AND FLEXIBLE", AND AS INDICATED. PROVIDE RADIUS ELBOW OR TURNING VANES IN ALL 90° ELBOWS. PROVIDE DUCT MATERIAL, GAGES, REINFORCING, AND SEALING FOR OPERATING PRESSURES INDICATED. DUCTWORK SHALL BE FABRICATED FROM ASTM A525 AND ASTM A527 GALVANIZED STEEL SHEET, LOCK-FORMING QUALITY, HAVING G90 ZINC COATING OF IN CONFORMANCE WITH ASTM A90. ALL DUCTS SHALL BE GALVANIZED STEEL UNLESS OTHERWISE NOTED ON DRAWINGS. DUCTBOARD WILL NOT BE ACCEPTED.
18. PROVIDE TEMPORARY PROTECTION FOR EQUIPMENT DURING CONSTRUCTION TO PREVENT DAMAGE TO EQUIPMENT AND COILS. PROVIDE TEMPORARY FILTERS AT EACH RETURN AIR INLET DURING CONSTRUCTION. PROVIDE AND INSTALL A NEW, CLEAN SET OF FILTERS FOR EACH SYSTEM AT PROJECT COMPLETION.
19. FLEXIBLE DUCTWORK SHALL BE EQUIVALENT TO THERMAFLEX WITH R-6.0 MINIMUM, R-8.0 IF IN ATTIC SPACE, FIBERGLASS INSULATION AND VAPOR BARRIER. FLEXIBLE DUCTWORK SHALL BE U.L. LISTED AND APPROVED.
20. SEAL ALL LONGITUDINAL AND TRANSVERSE SEAMS BEFORE APPLYING INSULATION. SEALANT SHALL BE NON-HARDENING, WATER RESISTANT, FIRE RESISTIVE, COMPATIBLE WITH MATING MATERIALS, LIQUID USED ALONE OR WITH TAPE, OR HEAVY MASTIC.
21. CLEARANCES: MAINTAIN MINIMUM 30"X30" WORKING CLEARANCE ON THE CONTROL SIDE OF ALL MECHANICAL EQUIPMENT. LOCATE DUCTS WITH SUFFICIENT SPACE AROUND EQUIPMENT TO ALLOW NORMAL OPERATING AND MAINTENANCE ACTIVITIES.
22. PROVIDE CANVAS, FLAME RETARDENT DUCT CONNECTORS AT ALL CONNECTIONS OF FANS TO DUCTWORK.
23. ALL LOW VOLTAGE CONTROL WIRING SHALL BE PROVIDED BY MECHANICAL CONTRACTOR. CONTROL WIRING SHALL BE PROVIDED IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL CODES. CONTROL WIRING CONCEALED IN WALLS, LOCATED OUTDOORS, OR INSTALLED IN RETURN AIR PLENUM SHALL BE INSTALLED IN CONDUIT. CONDUIT TO BE PROVIDED AND INSTALLED BY MECHANICAL CONTRACTOR.
24. ROUTE REFRIGERANT LINES FROM OUTDOOR UNITS TO COOLING COIL. SIZE PER MANUFACTURER'S RECOMMENDATIONS AND PROVIDE ADDITIONAL CHARGE AS REQUIRED. REFRIGERANT SUCTION PIPES LESS THAN 1 1/2" IN SIZE TO RECEIVE 1/2" ARMAFLEX INSULATION AND ALL LIQUID LINES INSTALLED IN NON-CONDITIONED SPACES SHALL RECEIVE 1" INSULATION. ALL EXPOSED REFRIGERANT PIPING INSTALLED OUTDOORS SHALL BE RIGID COPPER. ROUTE ALL REFRIGERANT PIPING PLUMB AND SQUARE WITH THE BUILDING AS POSSIBLE. EXTERIOR PIPING SHALL BE INSTALLED ON UNISTRUT AND SECURED WITH UNISTRUT CLAMPS. UNISTRUT TO BE ANCHORED TO CONCRETE PAD.
25. ROUND DUCT BRANCH SIZE SHALL BE SAME AS NECK SIZE SPECIFIED FOR DIFFUSER, UNLESS OTHERWISE NOTED ON DRAWINGS.
26. ALL EXTERIOR WALL LOUVERS USED FOR MECHANICAL EXHAUST, MECHANICAL FRESH AIR INTAKE, OR MECHANICAL COMBUSTION AIR SHALL BE EXTRUDED ALUMINUM, WITH 1/4" INSECT SCREEN. COORDINATE COLOR WITH ARCHITECT.
27. VERIFY FLOOR PLAN AND WALL/FLOOR/CEILING RATINGS WITH ARCHITECTURAL PLANS. PROVIDE RATED PENETRATIONS AT EACH INSTANCE WHERE MECHANICAL INSTALLATION PENETRATES A RATED ASSEMBLY. PENETRATIONS SHALL BE PER DETAILS ON THE DRAWINGS OR SOME OTHER U.L. LISTED DESIGN.
28. NATURAL GAS PIPING, IF SHOWN ON THESE DRAWINGS, SHALL BE SCH. 40 BLACK STEEL ABOVE GROUND WITH EITHER WELDED OR THREADED FITTINGS. PAINT PIPING LOCATED OUTDOORS. ALL NATURAL GAS PIPING PERMANENTLY CONCEALED IN WALLS, CHASES, ETC. SHALL HAVE WELDED CONNECTIONS. IF APPROVED BY THE LOCAL GAS UTILITY, PIPE BELOW GRADE MAY BE DRISCOPIPE 6500, OR APPROVED POLYETHYLENE TYPE, INSTALLED TO CONFORM TO MANUFACTURER'S RECOMMENDATIONS AND LOCAL UTILITY REQUIREMENTS. PROVIDE YELLOW COPPER TRACER WIRE OR OTHER APPROVED CONDUCTOR INSTALLED ADJACENT TO UNDERGROUND NONMETALLIC PIPING. ACCESS SHALL BE PROVIDED TO THE TRACER WIRE OR THE TRACER WIRE SHALL TERMINATE ABOVE GROUND AT EACH END OF THE NONMETALLIC PIPING. THE TRACER WIRE SHALL NOT BE LESS THAN 18 AWG AND THE INSULATION TYPE SHALL BE SUITABLE FOR DIRECT BURIAL. ALL NEW OR MODIFIED NATURAL GAS SYSTEMS SHALL BE TESTED AND PURGED PER 2012 IFGC CHAPTER 406.
29. UNLESS OTHERWISE NOTED ON DRAWINGS, AIR DISTRIBUTION SHALL BE AS FOLLOWS OR EQUAL:
    CEILING SUPPLY, LAY-IN CEILINGS – NAILOR 6500 SERIES, TYPE L FRAME, FULLY LOUVERED FACE, NO FILLER PANEL, FLUSH WITH CEILING, LESS DAMPER.
    SIDEWALL OR DRYWALL CEILING SUPPLY – NAILOR 61D SERIES, DOUBLE DEFLECTION, WITH DAMPER AND PLASTER RING (AS APPLICABLE).
    CEILING RETURN AND EXHAUST, LAY-IN CEILINGS – NAILOR 4360 SERIES, FLUSH FACE, TYPE L FRAME.
    SIDEWALL OR DRYWALL CEILING RETURN – NAILOR 51FH-HD WITH PLASTER RING.
    LINEAR BAR SUPPLY GRILLES – NAILOR 49-240, LESS DAMPER, WITH PLASTER RING.
    INSTALL AIR DISTRIBUTION SYMMETRICALLY WHERE POSSIBLE. ALL AIR DISTRIBUTION MOUNTING FRAMES SHALL MATCH CEILING TYPE. VERIFY CEILING AND COLORS WITH ARCHITECTURAL DRAWINGS. ALL AIR DISTRIBUTION SHALL HAVE POWDER COAT FINISH. GRILLES INSTALLED IN SIDEWALL OF DUCT SHALL MATCH DUCT FINISH AND COLOR. PROVIDE PREINSULATED SUPPLY GRILLE. WHERE ADAPTERS ARE USED, PAINT TO MATCH GRILLE.
30. DUCT PENETRATIONS THROUGH RATED WALLS DO NOT REQUIRE FIRE DAMPERS PROVIDED THE FOLLOWING MINIMUM REQUIREMENTS ARE MET:
    FIRE PARTITIONS:
    a. THE DUCT DOES NOT EXCEED 100 SQ. INCHES.
    b. THE DUCT IS OF 0.0217 INCH MINIMUM STEEL.
    c. THE DUCT SHALL NOT HAVE OPENINGS THAT COMMUNICATE THE CORRIDOR WITH ADJACENT SPACES OR ROOMS.
    d. THE DUCT IS INSTALLED ABOVE A CEILING.
    e. THE DUCT SHALL NOT TERMINATE AT A WALL REGISTER IN THE FIRE RESISTANCE RATED WALL.
    f. A MIN. 12" LONG BY 0.06" THICK STEEL SLEEVE SHALL BE CENTERED IN EACH DUCT OPENING. THE SLEEVE SHALL BE SECURED TO BOTH SIDES OF THE WALL AND ALL FOUR SIDES OF THE SLEEVE WITH MIN. 1 1/2" X 1 1/2" X 0.06" STEEL RETAINING ANGLES. SECURE RETAINING ANGLES TO THE SLEEVE AND WALL WITH NO 10 SCREWS. FILL ANNULAR SPACE BETWEEN THE WALL AND SLEEVE WITH MINERAL WOOL.
    FIRE BARRIERS:
    a. WALL IS RATED 1 HR OR LESS
    b. WALLS ARE IN AREAS OTHER THAN GROUP H
    c. BUILDING IS EQUIPPED THROUGHOUT WITH AUTOMATIC FIRE PROTECTION SYSTEM
    d. THE DUCT IS OF 26GA (0.0217 INCH) STEEL MINIMUM.
    e. DUCT IS CONTINUOUS FROM THE AIR HANDLER TO THE AIR OUTLET.
31. UNLESS SHOWN OTHERWISE ON DRAWINGS, FRESH AIR DUCTWORK SHALL BE ROUND GALVANIZED DUCT WITH FOIL-BACKED INSULATION, R-6 MINIMUM. EXHAUST DUCTS DO NOT REQUIRE INSULATION. PROVIDE ACCESSIBLE BALANCING DAMPER. SIZE DUCT AS FOLLOWS: 1-100 CFM – 6", 101-200 CFM – 8", 201-400 CFM – 10". SEE NOTE 25 FOR INTAKE LOUVER REQUIREMENTS. EACH FRESH AIR INTAKE DUCT SHALL BE PROVIDED WITH AN ACCESSIBLE BALANCING DAMPER. EXHAUST DUCTS DO NOT REQUIRE INSULATION.
32. CONDENSATE DRAINS, ELECTRICAL CONDUIT AND NATURAL GAS PIPING SHALL NOT BE ROUTED IN THE ROOF CURB OR UNIT HOUSING. CONDENSATE PIPING, ELECTRICAL CONDUIT AND NATURAL GAS PIPING SHALL PENETRATE THE ROOF, AS APPLICABLE, ADJACENT TO THE ROOF CURB AND CONNECT TO THE UNIT EXTERNALLY.
33. PROVIDE AND INSTALL HARDWIRED THERMOSTATS FOR EACH SYSTEM. VERIFY EXACT LOCATION WITH OWNER EQUIPMENT PRIOR TO ROUGH-IN. THERMOSTAT INSTALLATION SHALL BE IN ACCORDANCE WITH ALL LOCAL CODES. THERMOSTATS SHALL BE INSTALLED AT 48"AFF. THERMOSTATS SHALL BE 7-DAY PROGRAMMABLE STYLE. MERCURY OPERATED THERMOSTATS ARE NOT ACCEPTABLE.
34. ALL BARE SHEETMETAL SURFACES VISIBLE BEHIND ANY SIDEWALL HVAC GRILLE SHALL BE PAINTED FLAT BLACK.
35. CONTRACTOR SHALL IDENTIFY ALL SCHEDULED EQUIPMENT AND ASSOCIATED THERMOSTATS. IDENTIFICATION SHALL BE ENGRAVED TAG PERMANENTLY ADHERED TO EQUIPMENT. THERMOSTATS MAY BE IDENTIFIED WITH PERMANENT INK ON INSIDE OF REMOVABLE COVER.
36. THIS CONTRACTOR SHALL EXAMINE THE ENTIRE DRAWING PACKAGE AND INCLUDE ALL NECESSARY MATERIAL AND LABOR TO PROVIDE A COMPLETE AND OPERABLE SYSTEM AS INDICATED IN THE ENTIRE DRAWING SET FOR HIS RESPECTIVE SYSTEMS.
37. ALL RECTANGULAR OR SQUARE ELBOWS OR TEES SHALL BE INSTALLED WITH TURNING VANES AS PER SMACNA GUIDELINES.
38. ALL HYDRONIC PIPING SHALL BE TYPE L COPPER OR SCH 40 STEEL. 2" PIPE AND SMALLER MAY BE THREADED. ALL NEW CHILLED WATER PIPING (UP TO 8") SHALL HAVE 1" INSULATION. (KRAFT BACK FIBERGLASS). NEW HOT WATER PIPING UP TO 1 1/4" SHALL HAVE 1 1/2" INSULATION (KRAFT BACK FIBERGLASS), 1 1/2" AND ABOVE SHALL HAVE 2" (KRAFT BACK FIBERGLASS).
39. PROVIDE FLEXIBLE CONNECTIONS FOR ALL EQUIPMENT CONNECTIONS TO HYDRONIC SYSTEM.
40. COORDINATE POWER REQUIREMENTS FOR ALL EQUIPMENT WITH ELECTRICAL CONTRACTOR PRIOR TO ORDERING EQUIPMENT.
41. SHOULD AHU BE USED DURING CONSTRUCTION, CONTRACTOR SHALL PROVIDE AIR FILTERS AND REPLACE EVERY TWO WEEKS AND PRIOR TO FINAL ACCEPTANCE OF THE BUILDING.

ELECTRIC HEATER SCHEDULE:

TAG	EH-1	EH-2
QUANTITY REQUIRED	2	1
AREA SERVED	RR	CHASE
MANUFACTURER	MARKEL	MARKEL
MODEL NUMBER	H3483	HF33151ZRPW
TYPE	RECESSED	WALL MOUNT
KW	3	1.5
ELECTRICAL	240/1/60	240/1/60
NOTES	2,3,4	1,2,3

NOTES:

1. INSTALL AT +/- 12"AFF
2. INTEGRAL THERMOSTAT
3. INTEGRAL DISCONNECT
4. SEISMICALLY RESTRAIN HEATER AS PER CODE. PROVIDE 1/4" CABLE RESTRAINTS AT EACH CORNER (FOUR REQUIRED). ATTACH TO HEATER WITH ANGLE CLIP BOLTED TO HEATER. SPLAY CABLES AT 45° ANGLES AND LOOP AROUND NEARBY BUILDING STRUCTURAL STEEL. SECURE LOOP WITH CLEVIS CLAMPS. PROVIDE ENGINEER CERTIFIED SUBMITTAL FOR APPROVAL.

FAN SCHEDULE

TAG	EF-1	
AREA SERVED	RR	
QUANTITY	1	
USE	EXHAUST	
MANUFACTURER	GREENHECK	
MODEL NUMBER	G-090-VG	
CFM	400	
STATIC PRESSURE	0.35"	
TYPE	CENTRIFUGAL	
ELECTRICAL	115/1/60	
POWER	1/10 HP	
SONES	5.6	
INTERLOCK	--	
WEIGHT	50	
NOTES	ALL	

NOTES:

1. BACKDRAFT DAMPER
2. SPEED CONTROLLER PROVIDED BY DIVISION 15, MOUNTED AND WIRED BY DIVISION 16.
3. INTEGRAL SERVICE DISCONNECT
4. DIRECT DRIVE
5. INSECT SCREEN
6. ON WITH LIGHTS
7. ROOF CURB

AIR HANDLER SCHEDULE:

TAG	AHU-1	
MANUFACTURER	TRANE	
MODEL NUMBER	GAM5B0A24	
HEATER MODEL #	BAYEAAC05	
NOMINAL TONS	2	
SUPPLY AIR CFM	800	
OUTSIDE AIR CFM	80	
ENTERING AIR (DB/WB)	80/67	
SENSIBLE COOLING (MBH)	18	
TOTAL COOLING (MBH)	24	
HEAT (KW)	4.8	
ELECTRICAL	240/1/60	
MCA	29	
MOCP	30	
WEIGHT (LB)	--	
NOTES	ALL	

NOTES:

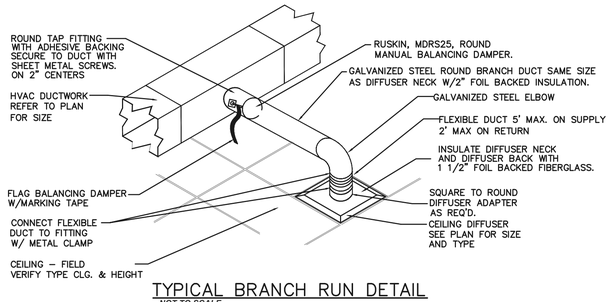
1. 2" PLEATED RETURN AIR FILTER SIZED FOR CFM INDICATED THIS SCHEDULE.
2. RECTORSEAL EZ TRAP WITH BRUSH, LESS FLOAT SWITCH.
3. SINGLE POINT ELECTRICAL CONNECTION
4. HONEYWELL, VISION PRO 8000 MODEL TH8321WF1001 PROGRAMMABLE WI-FI THERMOSTAT. THERMOSTAT SHALL ALLOW AUX HEAT TO BE ENERGIZED ONLY WHEN HEAT PUMP CAN NOT MEET HEATING LOAD.

HEAT PUMP SCHEDULE:

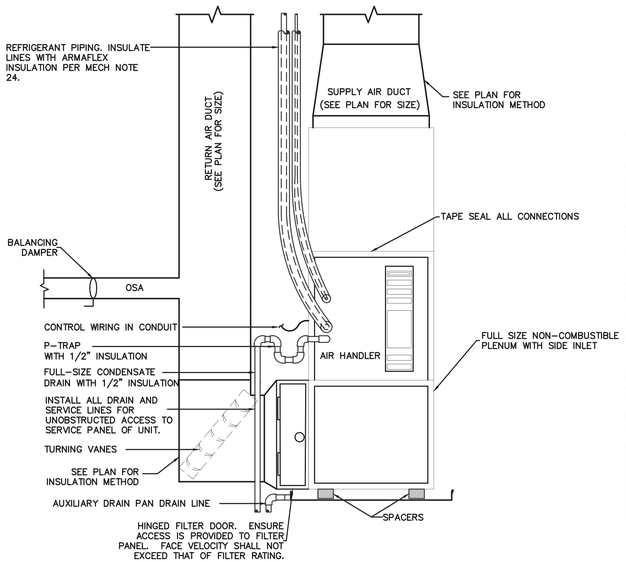
TAG	HP-1	
AIR SYSTEM	AHU-1	
MANUFACTURER	TRANE	
MODEL NUMBER	4TWR4024	
NOMINAL TONS	2	
COND'R ENTERING AIR TEMP.	98°	
ELECTRICAL	240/1/60	
MCA	14	
MOCP	25	
WEIGHT	--	
NOTES	ALL	

NOTES:

1. INSTALL ON LEVEL PAD
2. HIGH AND LOW PRESSURE SWITCHES
3. CRANKCASE HEATER
4. EVAPORATOR DEFROST CONTROL WITH TXV TO 30°F.
5. 5-YEAR COMPRESSOR WARRANTY
6. SIGHT GLASS AND LIQUID LINE DRIER
7. INSTALL PER MANUFACTURER'S RECOMMENDATIONS FOR CLEARANCES
8. SIZE REFRIGERANT LINE IN EXCESS OF 50' (HORIZONTAL) OR 20' (VERTICAL) AS PER MANUFACTURER'S RECOMMENDATION
9. ALL REFRIGERANT PIPING INSTALLED OUTDOORS SHALL BE RIGID COPPER CLAMPED TO UNISTRUT, ANCHOR UNISTRUT TO CONCRETE PAD. ROUTE PIPING PLUMB AND SQUARE TO BLDG.
10. PROVIDE EQUIPMENT FROM MANUFACTURER AS SPECIFIED OR EQUAL. EQUIVALENT MANUFACTURES ARE TRANE, CARRIER, JOHNSON CONTROLS, LENNOX, AMERICAN STANDARD, BRYANT.



TYPICAL BRANCH RUN DETAIL
NOT TO SCALE



UPFLOW AIR HANDLER INSTALLATION DETAIL
NOT TO SCALE

GENERAL INSTALLATION NOTES:

1. INSTALL ALL DRAIN AND SERVICE LINES AND HANGERS FOR UNOBSTRUCTED ACCESS TO SERVICE PANEL OF UNIT.
2. INSTALL UNIT SUCH THAT SERVICE SIDE OF UNIT IS NOT BLOCKED BY STRUCTURE, WALLS, OTHER TRADES, ETC. AS TO PREVENT SERVICE OF UNIT.
3. INSTALL AND ORIENT FILTER SUCH THAT FILTER ELEMENT CAN BE REMOVED AND REPLACED.
4. AHU SHALL BE INSTALLED LEVEL.
5. LABEL AHU WITH MINIMUM 3" TALL LETTERS THE UNIT NUMBER AS SHOWN ON THE PLAN. LABEL CONDENSING UNIT OR HEAT PUMP WITH CORRESPONDING IDENTIFICATION.
6. PROVIDE RAIL/BLOCKING BETWEEN AIR HANDLER AND PAN TO ALLOW FOR ADEQUATE CONDENSATE TRAP. DRAW THRU CONFIGURATIONS MAY REQUIRE ADDITIONAL HEIGHT.
7. SEISMICALLY RESTRAIN AS PER IMC 301.15, IBC 1613 AND ASCE 7-10 13.1.3. TWO AXIS LATERAL SEISMIC SNUBBER EQUAL TO KINETICS MODEL HS-2 ON 1/4"X2"X2" ANGLE IRON. PROVIDE CERTIFIED CALCULATIONS AND SHOP DRAWINGS AS A SUBMITTAL. SEAL WATERTIGHT AT AUXILIARY DRAIN PAN.
8. PROVIDE FULL RETURN PLENUM FOR UNITS REQUIRING BOTTOM RETURN. RETURN DUCT SHALL CONNECT TO PLENUM.
9. PROVIDE AUXILIARY DRAIN PAN. AUXILIARY DRAIN PAN SHALL HAVE A MINIMUM DEPTH OF 1 1/2" AND SHALL BE NOT LESS THAN 3" LARGER THAN UNIT DIMENSIONS IN WIDTH AND LENGTH, AND SHALL BE CONSTRUCTED OF NOT LESS THAN 0.0276" GALVANIZED SHEET STEEL. PROVIDE A FLOAT SWITCH OR A SEPARATE DRAIN LINE OF NOT LESS THAN 3/4". TERMINATE AT A CONSPICUOUS POINT TO SERVE AS AN ALARM THAT THE REGULAR DRAIN IS RESTRICTED.

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BROOKLAND SPORTSPLEX PHASE 2

BROOKLAND, ARKANSAS

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PROJECT NO.
CTYBRKLD.0003PL

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SHEET **M201** | SCALE AS SHOWN | DATE

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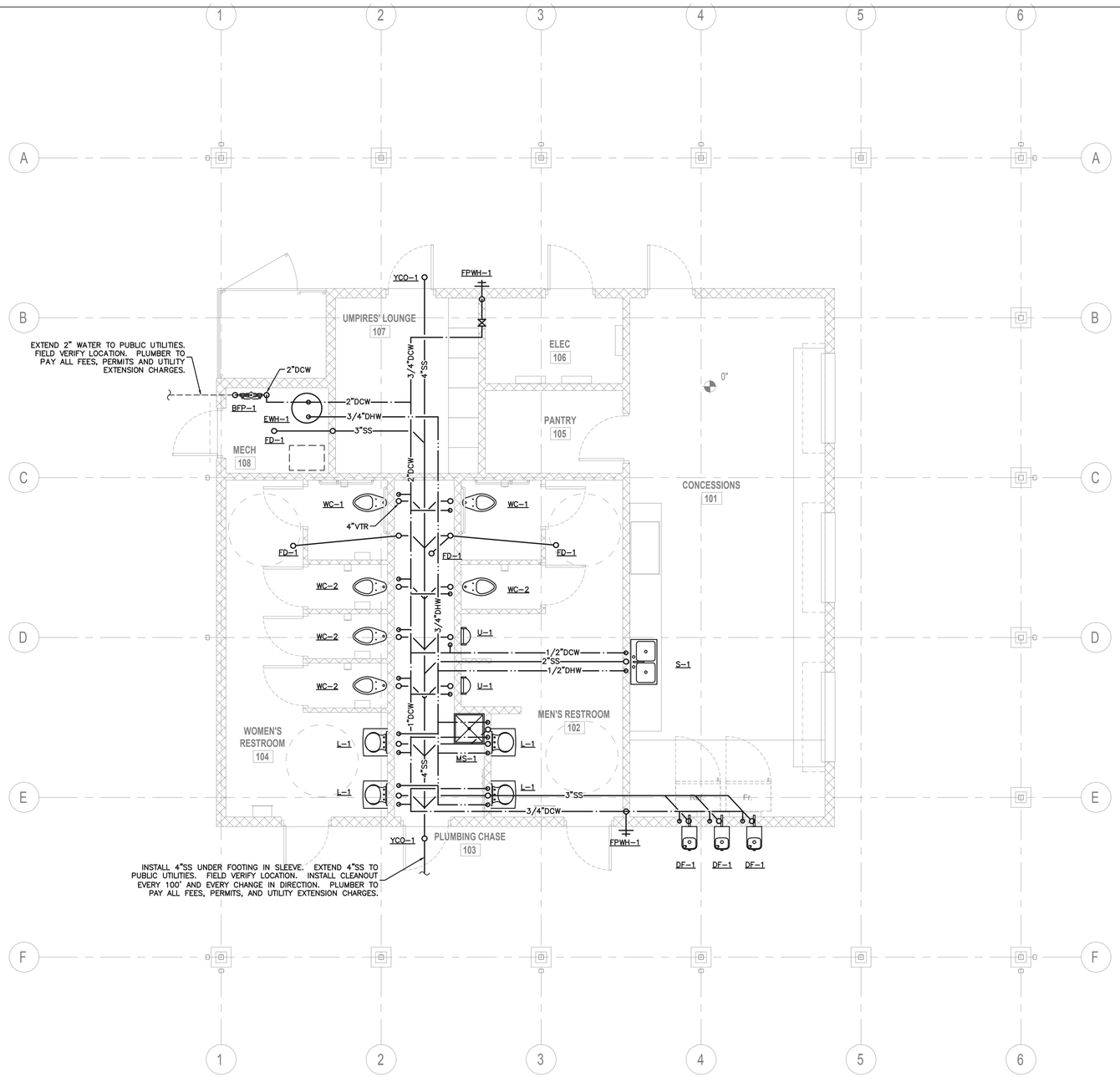

1 PLUMBING PLAN
1/4" = 1'-0"

GENERAL NOTES:

1. ALL WATER CLOSETS SHALL RECEIVE A 2" VENT, ALL OTHERS SHALL RECEIVE 1 1/2" VENT UNLESS OTHERWISE NOTED. COORDINATE VENT THROUGH ROOF (VTR) LOCATIONS WITH ROOFTOP EQUIPMENT AND FRESH AIR INTAKES. MAINTAIN 10' MINIMUM CLEARANCE FROM FRESH AIR INTAKES.
2. ALL WATER CLOSETS SHALL RECEIVE A 4"SS CONNECTION, ALL FLOOR DRAINS SHALL RECEIVE A 3"SS CONNECTION, ALL OTHERS SHALL BE 2"SS UNLESS OTHERWISE NOTED.
3. ALL WATER CLOSETS SHALL RECEIVE 1"DCW, ALL FPWH AND URINALS SHALL RECEIVE 3/4"DCW, ALL OTHER FIXTURES SHALL RECEIVE 1/2" UNLESS OTHERWISE SPECIFIED.
4. COORDINATE KITCHEN PLUMBING REQUIREMENTS WITH FINAL EQUIPMENT SELECTIONS AS PROVIDED BY OWNER. CONNECT EQUIPMENT TO PLUMBING LINES AS REQUIRED.
5. WATER PIPING SHALL BE INSTALLED BELOW BOTTOM CHORD OF TRUSS. DO NOT INSTALL IN AREAS SUBJECT TO FREEZING.

LEGEND

——SS——	SANITARY SEWER
– – – V – – –	VENT, VTR(VENT THRU ROOF)
—·—DCW—·—	DOMESTIC COLD WATER
—··—DHW—··—	DOMESTIC HOT WATER

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PROFESSIONAL ENGINEER
No.9873
DAVID W. COLLIER
03/21/25
seal

CERTIFICATE OF AUTHORIZATION
DW COLLIER ENGINEERING, INC.
No. 1174
ARKANSAS ENGINEER
coa

FISHER & ARNOLD, INC.

CLIENT:
CITY OF BROOKLAND, ARKANSAS

REVISIONS

DATE	BY	DESCRIPTION

PLUMBING PLAN

PROJECT NO.
CTYBRKLD.0003PL

DRAWN BY	CHECKED BY

SHEET
P101

SCALE
AS SHOWN

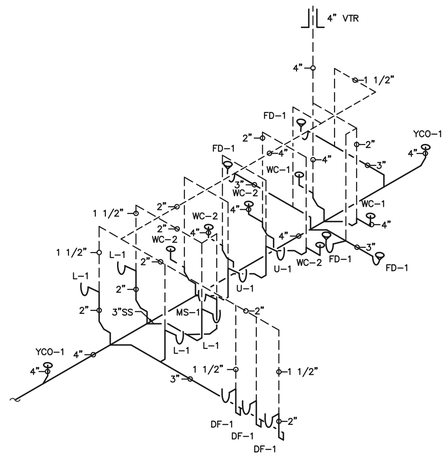
DATE

COLLIER
DW COLLIER ENGINEERING, INC.
720 BROADWAY STREET
SUITE 100
SOUTH FULTON, TN 38257
PH. (731) 479-2115
www.dwcolliereng.com

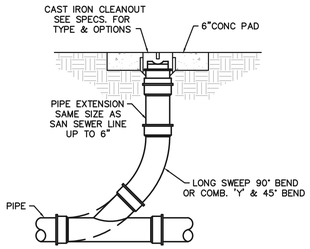
DWCEI PROJECT NO. 22-109

GENERAL PLUMBING NOTES:

1. ALL WORK SHALL BE EXECUTED AND INSPECTED IN ACCORDANCE WITH ALL LOCAL OR STATE CODES, LAWS, ORDINANCES, RULES AND REGULATIONS APPLICABLE TO THE PARTICULAR CLASS OF WORK. IF, TO THE KNOWLEDGE OF THE CONTRACTOR, THE DRAWINGS AND SPECIFICATIONS ARE IN CONFLICT WITH THE ABOVE, HE SHALL PROMPTLY NOTIFY THE ENGINEER IN WRITING SO THAT ANY NECESSARY CHANGES CAN BE PROVIDED FOR IN HIS CONTRACT. IF THE CONTRACTOR PERFORMS ANY WORK WITHOUT NOTICE AS REQUIRED, HE SHALL BEAR ALL COSTS OF CORRECTIVE ACTION.
2. THE CONTRACTOR SHALL INCLUDE IN HIS QUOTATION ALL APPLICABLE SERVICE CHARGES, FEES, PERMITS, ROYALTIES, AND OTHER SIMILAR COSTS IN CONNECTION WITH THE WORK. OBTAIN PERMITS, AND REQUEST INSPECTIONS FROM AUTHORITY HAVING JURISDICTION.
3. INSTALL WORK IN LOCATIONS SHOWN ON DRAWINGS, UNLESS PREVENTED BY PROJECT CONDITIONS. FOR PURPOSES OF CLEARNESS AND LEGIBILITY, DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC, AND ALTHOUGH SIZE AND LOCATION OF EQUIPMENT ARE DRAWN TO SCALE WHENEVER POSSIBLE, THE CONTRACTOR SHALL MAKE USE OF ALL DATA IN ALL OF THE CONTRACT DOCUMENTS AND SHALL VERIFY THIS INFORMATION AT THE SITE. VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION. EXISTING LAYOUT, IF SHOWN, DETERMINED FROM SITE OBSERVATIONS AND AS BUILT DRAWINGS. CONTRACTOR SHALL NOTIFY ENGINEER SHOULD EXISTING CONDITIONS DIFFER FROM THESE DRAWINGS
4. THE DRAWINGS INDICATE REQUIRED SIZE AND POINTS OF TERMINATION OF PIPES AND DUCTS, AND SUGGEST PROPER ROUTES OF PIPE TO CONFORM TO STRUCTURE, AVOID OBSTRUCTIONS AND PRESERVE CLEARANCES FROM ELECTRICAL PANELS. PLUMBING LINES SHALL NOT BE RUN DIRECTLY OVER ELECTRICAL PANELS. HOWEVER, IT IS NOT INTENDED THAT DRAWINGS INDICATE ALL NECESSARY OFFSETS, AND IT SHALL BE THE WORK OF THIS SECTION TO INSTALL PIPING AND DUCTS IN SUCH A MANNER AS TO CONFORM TO STRUCTURE, AVOID ALL OBSTRUCTIONS, PRESERVE HEADROOM AND KEEP OPENINGS AND PASSAGEWAYS CLEAR WITHOUT FURTHER INSTRUCTION OR COST TO THE OWNER.
5. CONTRACTOR SHALL GUARANTEE ALL WORK PERFORMED UNDER THIS CONTRACT TO BE FREE FROM DEFECTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM DATE OF CERTIFICATE OF SUBSTANTIAL COMPLETION.
6. THE PLUMBING CONTRACTOR SHALL PREPARE SUBMITTALS ON ALL EQUIPMENT AND MATERIALS APPLICABLE TO THIS PROJECT AND SUBMIT TO ENGINEER FOR REVIEW PRIOR TO PROCUREMENT, FABRICATION OR ANY CONSTRUCTION. SUBMITTALS MAY BE MAILED VIA APPROPRIATE CHANNELS OR SUBMITTED IN PDF FORM VIA EMAIL. PARTIAL SUBMITTALS WILL NOT BE REVIEWED.
7. TRANSPORT AND HANDLE PRODUCTS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
8. STORE AND PROTECT PRODUCTS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS, WITH SEALS AND LABELS INTACT AND LEGIBLE.
9. ALL WATER HEATERS, PUMPS, ETC. SHALL HAVE U.L. LISTING OR EQUIVALENT. VERIFY THAT EACH PIECE OF EQUIPMENT OR SYSTEM HAS BEEN CHECKED FOR PROPER LUBRICATION, DRIVE ROTATION, BELT TENSION, CONTROL SEQUENCE, OR FOR OTHER CONDITIONS WHICH MAY CAUSE DAMAGE.
10. DEMONSTRATE OPERATION AND MAINTENANCE OF PRODUCTS TO OWNER'S PERSONNEL ONE WEEK PRIOR TO DATE OF FINAL INSPECTION.
11. EXECUTE FINAL CLEANING PRIOR TO FINAL PROJECT ASSESSMENT.
12. SEISMICALLY RESTRAIN SUSPENDED PLUMBING EQUIPMENT, GAS PIPING AND HYDRONIC PIPING AS REQUIRED BY LOCAL CODE. PROVIDE SUPPORT AND EQUIPMENT REQUIRED TO CONTROL EXPANSION AND CONTRACTION OF PIPING. PROVIDE LOOPS, PIPE OFFSETS, AND SWING JOINTS, OR EXPANSION JOINTS WHERE REQUIRED.
13. SANITARY DRAIN/VENT PIPING LOCATED IN RETURN PLENUM SHALL BE SERVICE WEIGHT CAST IRON (ASTM A74). ALL OTHER SANITARY DRAIN/VENT PIPING MAY BE SCHEDULE 40 PVC (ASTM 2665) OR SERVICE WEIGHT CAST IRON (ASTM A74). CONFORM TO LOCAL CODE REQUIREMENTS.
14. DOMESTIC WATER PIPING ON PUBLIC WATER SYSTEMS SHALL BE TYPE "L" COPPER (ASTM B88) WITH SOLDER CONNECTIONS. UNDERGROUND WATER PIPING SHALL BE TYPE "K" COPPER OR SCHEDULE 40 PVC (ASTM D1785), AS LOCAL CODES ALLOW. ANY PIPING ON A DOMESTIC WELL SHALL BE SCH 40 PVC/CPVC OR PEX. INSULATE DOMESTIC WATER LINES WITH 1/2" THICK FIBERGLASS. HOT WATER LINES AND ALL RECIRCULATING LOOPS UP TO 1 1/2" SHALL BE INSULATED WITH 1" THICK FIBERGLASS INSULATION. HOT WATER LINES 2" AND LARGER SHALL HAVE 2" THICK FIBERGLASS INSULATION
15. BEFORE COMMENCING WORK ON SANITARY SEWER, CHECK INVERTS AND ENSURE THAT THESE CAN BE PROPERLY CONNECTED WITH SLOPE FOR DRAINAGE AND COVER TO AVOID FREEZING.
16. PROVIDE NEW WATER SERVICE COMPLETE WITH REDUCED PRESSURE BACKFLOW PREVENTOR. WHERE WATER PRESSURES EXCEED 80PSI, PROVIDE PRESSURE REDUCING VALVE WITH STRAINER UPSTREAM OF BACKFLOW PREVENTOR.
17. PROVIDE NON-CONDUCTING DIELECTRIC CONNECTIONS WHEREVER JOINTING DISSIMILAR METALS.
18. PROVIDE ACCESSIBLE STOPS IN PIPING CONNECTIONS TO ALL PLUMBING FIXTURES.
19. ASSURE EXTERIOR WALL CHASES ARE INSULATED TO PREVENT FREEZING. WATER LINES SHALL NOT BE INSTALLED IN AREAS SUBJECT TO FREEZING TEMPERATURES.
20. VERIFY MILLWORK DIMENSIONS WITH ARCHITECTURAL DRAWINGS PRIOR TO ORDERING SINKS AND LAVATORIES. PROVIDE INSULATING ADA PLUMBING JACKETS UNDER EACH ADA FIXTURE WITH EXPOSED DRAIN AND WATER PIPING.
21. PROVIDE PIPE LABELS FOR ALL PIPING SYSTEMS.
22. PROVIDE TRAP PRIMERS FOR ALL FLOOR DRAINS AND ENSURE THAT FLOOR SLOPES TO DRAIN AT FLOOR DRAIN.
23. PROVIDE AND INSTALL WADE SHOCKSTOPS FOR DOMESTIC WATER PIPING SYSTEM. TWO REQUIRED PER BATHROOM UNIT. ONE DCW AND ONE DHW. PROVIDE SHUTOFF VALVE FOR SERVICING SHOCKSTOP.
24. VERIFY FLOOR PLAN AND WALL/FLOOR/CEILING RATINGS WITH ARCHITECTURAL PLANS. PROVIDE RATED PENETRATIONS AT EACH INSTANCE WHERE PLUMBING INSTALLATION PENETRATES A RATED ASSEMBLY. PENETRATIONS SHALL BE PER DETAILS ON THE DRAWINGS OR SOME OTHER U.L. LISTED DESIGN.
25. THIS CONTRACTOR SHALL EXAMINE THE ENTIRE DRAWING PACKAGE AND INCLUDE ALL NECESSARY MATERIAL AND LABOR TO PROVIDE A COMPLETE AND OPERABLE SYSTEM AS INDICATED IN THE ENTIRE DRAWING SET FOR HIS RESPECTIVE SYSTEMS.
26. THE PLUMBER SHALL PROVIDE A COMPLETE AND OPERABLE PLUMBING SYSTEM INCLUDING BUT NOT LIMITED TO ALL FIXTURES, BUILDING WATER PIPING AND INSULATION, SITE WATER PIPING, BUILDING WASTE AND VENT PIPING, SITE SEWER, PUBLIC SYSTEM TAP FEES, EXTENSION CHARGES, CLEANING OF WATER SYSTEM, IDENTIFICATION OF ALL PIPING, ETC.
27. THE DRAINAGE SYSTEM(S) AND THE VENT SYSTEM(S) SHALL BE TESTED, IN ITS ENTIRETY, FOR 15 MINUTES, WITH A 10 FOOT HEAD OF WATER. THE SYSTEM SHALL PROVE TIGHT AT ALL POINTS. TESTING SHALL BE THUS OR AS PER OTHER METHOD APPROVED BY THE ENGINEER OR LOCAL INSPECTOR. TEST SHALL OCCUR BEFORE ANY BACKFILLING ON UNDERGROUND PORTIONS.
28. THE WATER SUPPLY SYSTEM SHALL BE TESTED, IN ITS ENTIRETY, BY FILLING WITH WATER AND PRESSURING TO OPERATING PRESSURE. SYSTEMS OTHER THAN PLASTIC MAY BE PNEUMATICALLY TESTED AT 50 PSI FOR 15 MINUTES IN LIEU OF WATER TEST. ALL TESTS SHALL PROVE THE SYSTEM TIGHT.
29. PROVIDE 3/8" DCW CONNECTION TO ICE MAKER IF NECESSARY.



SANITARY SEWER ISOMETRIC
NOT TO SCALE



EXTERIOR CLEANOUT DETAIL
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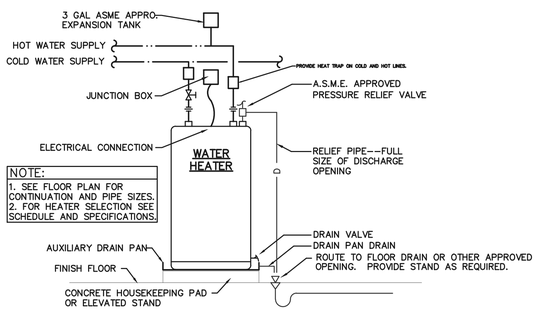
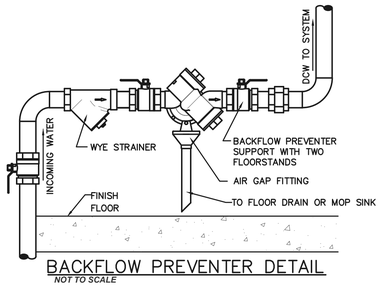


ELECTRIC WATER HEATER
NOT TO SCALE



BACKFLOW PREVENTER DETAIL
NOT TO SCALE

PLUMBING SCHEDULE:

TAG	RUN OUT SIZE SEWER	DCW	DHW	DESCRIPTION
WC-1	4"	1"	--	AMERICAN STANDARD, 2257001.020, WALL-HUNG, FLUSH VALVE TOILET. 17" RIM HEIGHT. 1.6 GPF. ELONGATED BOWL WITH SLOAN REGAL 111 FLUSH VALVE, AND SEAT. ADA. WADE 311HD OR 330HD SERIES CARRIER FITTING DEPENDING ON PLUMBING CONFIGURATION.
WC-2	4"	1"	--	AMERICAN STANDARD, 2257101.020, WALL-HUNG, FLUSH VALVE TOILET. 14" RIM HEIGHT. 1.6 GPF. ELONGATED BOWL WITH SLOAN REGAL 111 FLUSH VALVE, AND SEAT. WADE 311HD OR 330HD SERIES CARRIER FITTING DEPENDING ON PLUMBING CONFIGURATION.
U-1	1 1/2"	3/4"	--	AMERICAN STANDARD, WASHBROOK, 6590001, URINAL, ADA, WITH SLOAN, REGAL, 186-1, FLUSH VALVE AND WALL CARRIER. COORDINATE HEIGHT WITH ARCHITECTURAL DWGS.
L-1	1 1/2"	1/2"	1/2"	AMERICAN STANDARD, 0958008EC, WALL-HUNG LAVATORY, ADA, WITH AMERICAN STANDARD, MONTEREY, 6540.170, WIDESPREAD FAUCET WITH 0.5GPM AERATOR. PROVIDE MIXING VALVE WITH 110°F MAX DELIVERY. BRASS CRAFT, DEARBORN, #507, P-TRAP, 155A, STRAINER, AND #2165 SUPPLIES & STOPS. PROVIDE ZURN Z1231 WALL CARRIER WITH CONCEALED SUPPORT ARMS. PROVIDE WITH PORCELAIN SHROUD.
S-1	1 1/2"	1/2"	1/2"	ELKAY, CRX3322, DOUBLE BOWL, STAINLESS STEEL SINK WITH AMERICAN STANDARD, 4285001, GOOSENECK FAUCET WITH SPRAY, SINGLE LEVER, AND SUPPLIES & STOPS.
YCO-1	4"	--	--	ZURN, EXTERIOR GRADE CLEANOUT.
FPWH-1	--	3/4"	--	ZURN Z-1310 FROSTPROOF WALL HYDRANT.
FD-1	3"	--	--	J.R. SMITH, MODEL 2005-1, FLOOR DRAIN. PROVIDE WITH TRAP PRIMER.
BFP-1	--	1 1/2"	--	WATTS, SERIES LF919, REDUCED PRESSURE BACKFLOW PREVENTOR ASSEMBLY WITH STRAINER AND AIR GAP.
DF-1	1 1/2"	1/2"	--	HAWS, 1109FR, NON-REFRIGERATED FROST PROOF DRINKING FOUNTAIN. ADA. 6521 VALVE SYSTEM WITH ACCESS PANEL, BRASS CRAFT, DEARBORN, #507, P-TRAP, AND #2165 SUPPLIES & STOPS. STAINLESS STEEL FINISH.
MS-1	3"	1/2"	1/2"	FIAT, MSBID2424, 24x24 MOP SINK. FIAT, 830-AA, FAUCET WITH FIAT, A32-AA, HOSE AND BRACKET. PROVIDE STAINLESS BACKSPLASH.

ELECTRIC WATER HEATER SCHEDULE:

TAG	EWH-1	
LOCATION	MECH	
QUANTITY	1	
MANUFACTURER	STATE	
MODEL NUMBER	ES6 52 DORT	
TYPE	ELECTRIC	
STORAGE (GAL)	50	
ELEMENTS	4500W	
ELECTRICAL	240/1/60	
NOTES	ALL	

1. MINIMUM WATER TEMPERATURE 125°F
2. AUXILLIARY DRAIN PAN.

PLUMBING SYSTEM DESIGN BASIS:

TOTAL WATER SUPPLY FIXTURE UNITS	77
WATER SUPPLY DEMAND (GPM)	57
BUILDING WATER SERVICE SIZE	2"
TOTAL DRAINAGE FIXTURE UNITS	61
BUILDING SEWER SIZE	4"

FISHER ARNOLD
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BROOKLAND SPORTSPLEX PHASE 2

BROOKLAND, ARKANSAS

STATE OF ARKANSAS
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