

Approved

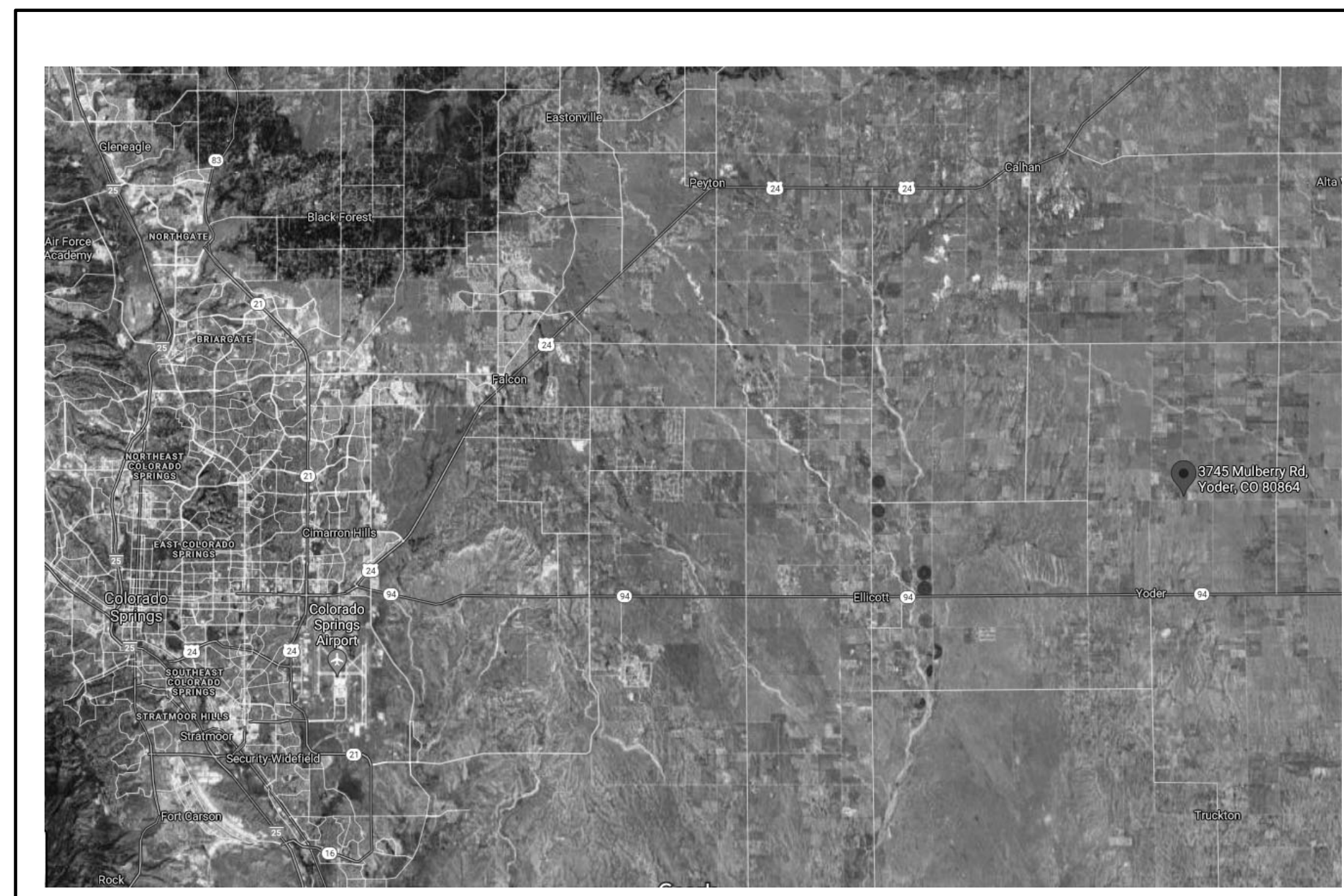
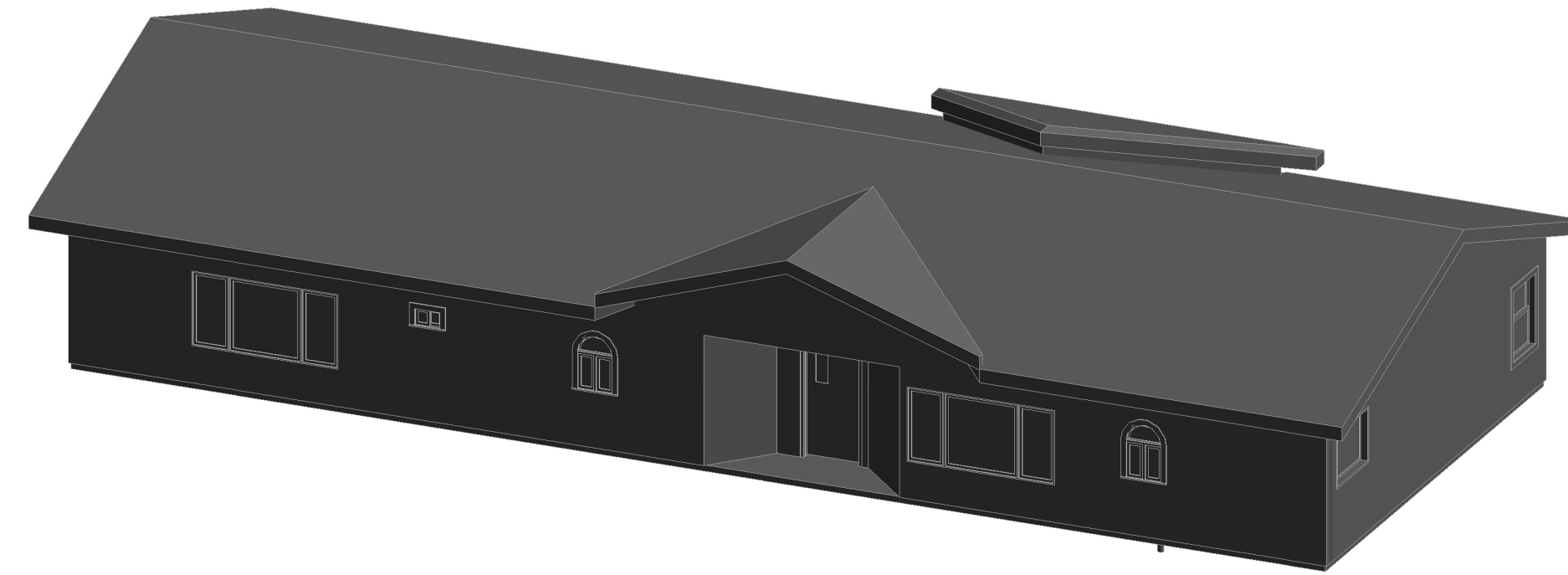
By: Kevin Mastin
Date: 06/01/2022

El Paso County Planning & Community Development



MULBERRY ROAD DEVELOPMENT

3745-3815 MULBERRY ROAD,
YODER, COLORADO 80864



VICINITY MAP



SHEET LIST	
SHEET NUMBER	SHEET NAME
DP.04A	DEVELOPMENT PLAN OFFICE
DP.05A	DEVELOPMENT GARAGE PLANS
DP.08A	DEVELOPMENT PLAN OPERATION CENTER
DP.01	DEVELOPMENT PLAN COVER SHEET
DP.02	DEVELOPMENT SITE PLAN
DP.03	ENLARGED DEVELOPMENT SITE PLAN
DP.04	DEVELOPMENT ELEVATIONS OFFICE
DP.05	DEVELOPMENT ELEVATIONS GARAGE
DP.06	DEVELOPMENT ELEVATIONS PEMB
DP.07	DEVELOPMENT ELEVATIONS TELESCOPE
DP.08	DEVELOPMENT ELEVATIONS OPERATION CENTER
L1	LANDSCAPE PLAN
L2	LANDSCAPE DETAILS
DP.11	PHOTOMETRIC PLAN
DP.12	PHOTOMETRIC DETAILS

PROJECT TEAM

CLIENT:
CMG CORPORATION, LLC
6615 VINCENT DR
COLORADO SPRINGS, COLORADO 80918
Contact: CHRIS RICHARDSON
chris@cmgcorporation.com
719-492-5076

ARCHITECT:
RMG-Rocky Mountain Group
19375 Beacon Lite Road
Monument, CO 80132
Contact: Keith Moore
KMoore@rmg-engineers.com
719-548-0600

MEP ENGINEER:
McShea Consulting, LLC
4445 Northpark Dr., Ste. 200
Colorado Springs, CO 80907
Contact: Michael McShea
mike@mcsheaconsulting.com
719-358-8208

LANDSCAPE ARCHITECT:
JWLA, LLC
P.O. Box 354
Palmer Lake, CO 80133
Contact: Jon Walsh
jwlandarch@gmail.com
719-640-9428

PROJECT INFORMATION

SITE AREA: 35.5AC (1,545,508 S.F.)
DEVELOPMENT NAME: MULBERRY ROAD DEVELOPMENT
DESCRIPTION: OBSERVATORY FACILITY
TAX SCHEDULE NO: 1300000469
LEGAL DESCRIPTION: TR in SW4 Sec 26-13-61 Desc as Fols, Beg at SW4 Cor Sec 26, Th N00<07'44" E1751.96 ft, N 88<30'20" E 882.18 ft, S 00<06'27" W1751.94 ft, S88<30'21" W 882.84 ft to POB

PROPERTY ADDRESS: 3745 MULBERRY ROAD
YODER, COLORADO 80864

EXISTING ZONING: A-35 (NO CHANGE)

BUILDING SETBACKS:
FRONT 25'-0"
SIDE (INTERIOR LOT LINE) 25'-0"
REAR (NEXT TO RR ZONE) 25'-0"

LANDSCAPE SETBACKS:
FRONT 20'-0"
SIDE (INTERIOR LOT LINE) 10'-0"
REAR (NEXT TO RR ZONE) 10'-0"

EXISTING LAND USE: RESIDENTIAL W/ VARIANCE FOR OBSERVATORY

PROPOSED LAND USE: RESIDENTIAL W/ VARIANCE FOR OBSERVATORY

BUILDING HEIGHT: 45' MAX ALLOWED (MAX 20' PROVIDED)

BUILDING INFO:
GROSS BUILDING AREA

OFFICE (B)	1,858 S.F.
GARAGE(U)	720 S.F.
TELESCOPE 1 (U)	640 S.F.
COM TOWER (U)	200 S.F.
METAL CONT.(U)	300 S.F.
SHED (U)	36 S.F.

TOTAL EXISTING BUILDINGS 3,754(E) S.F.

TELESCOPE 2 (U)	804 S.F.
TELESCOPE 3 (U)	900 S.F.
TELESCOPE OP CNTR (U)	1,056 S.F.
MINI TELESCOPES(U)	432 S.F.
4 METAL CONT.(U)	640 S.F.

TOTAL PROPOSED BUILDINGS 3,832(P) S.F.

TYPE OF CONSTRUCTION V-B (E&P)

FIRE SPRINKLER NO

AREA SEPERATION WALLS NONE

LOT DATA & COVERAGE:

LOT COVERAGE: .5%

IMPERVIOUS AREA:
BUILDINGS 7,586 S.F.
PAVED (GRAVEL) 33,446 S.F.
SIDEWALKS 2,827 S.F.
TOTAL 43,859 S.F. (2.8% LOT)

PERVIOUS AREA:
LANDSCAPING 4,905 S.F.

(E) PARKING DATA:

OFFICE	1/400	(1,858 S.F.) =	5 PS REQUIRED
OPERATION CENTER	1/400	(1,056 S.F.) =	3 PS REQUIRED
TOTAL			8 PS REQUIRED
			5 PS EXISTING
			11 ADDITIONAL PS
			16 TOTAL PS
			(INCL 1 HC)

PARKING PROVIDED:

SIGNAGE:

A SIGNAGE PERMIT FOR EACH SIGN MUST BE OBTAINED FROM THE TOWN PRIOR TO PLACING ANY SIGN ON THE PROPERTY. INCLUDE ALL ON-SITE DIRECTIONAL SIGNS.

PROPOSED DEV. SCHED. SPRING/SUMMER 2022

GENERAL NOTES

FLOODPLAIN STATEMENT:

THIS PROPERTY IS NOT LOCATED WITHIN FEMA DESIGNATED SPECIAL FLOOD HAZARD AREA "X" AREAS DETERMINED TO BE OUTSIDE THE 500-YEAR FLOODPLAIN AS INDICATED ON THE FLOOD INSURANCE RATE MAP (FIRM) FOR EL PASO COUNTY, COLORADO AND INCORPORATED AREAS-MAP NUMBER 08041C0276 G EFFECTIVE DECEMBER 7, 2018.

ADA STATEMENT:

THE PARTIES RESPONSIBLE FOR THIS PLAN HAVE FAMILIARIZED THEMSELVES WITH ALL CURRENT ACCESSIBILITY CRITERIA AND SPECIFICATIONS AND THE PROPOSED PLAN REFLECTS ALL SITE ELEMENTS REQUIRED BY THE APPLICABLE ADA DESIGN STANDARDS AND GUIDELINES AS PUBLISHED BY THE UNITED STATES DEPARTMENT OF JUSTICE. APPROVAL OF THIS PLAN BY EL PASO COUNTY DOES NOT ASSURE COMPLIANCE WITH THE ADA OR ANY REGULATIONS OR GUIDELINES ENACTED OR PROMULGATED UNDER OR WITH RESPECT TO SUCH LAWS.

PCD File # PPR-22-014



PRELIMINARY NOT FOR CONSTRUCTION

MULBERRY ROAD DEVELOPMENT

3745-3815 MULBERRY ROAD YODER, COLORADO 80864

CMG CORPORATION

DEVELOPMENT PLAN COVER SHEET

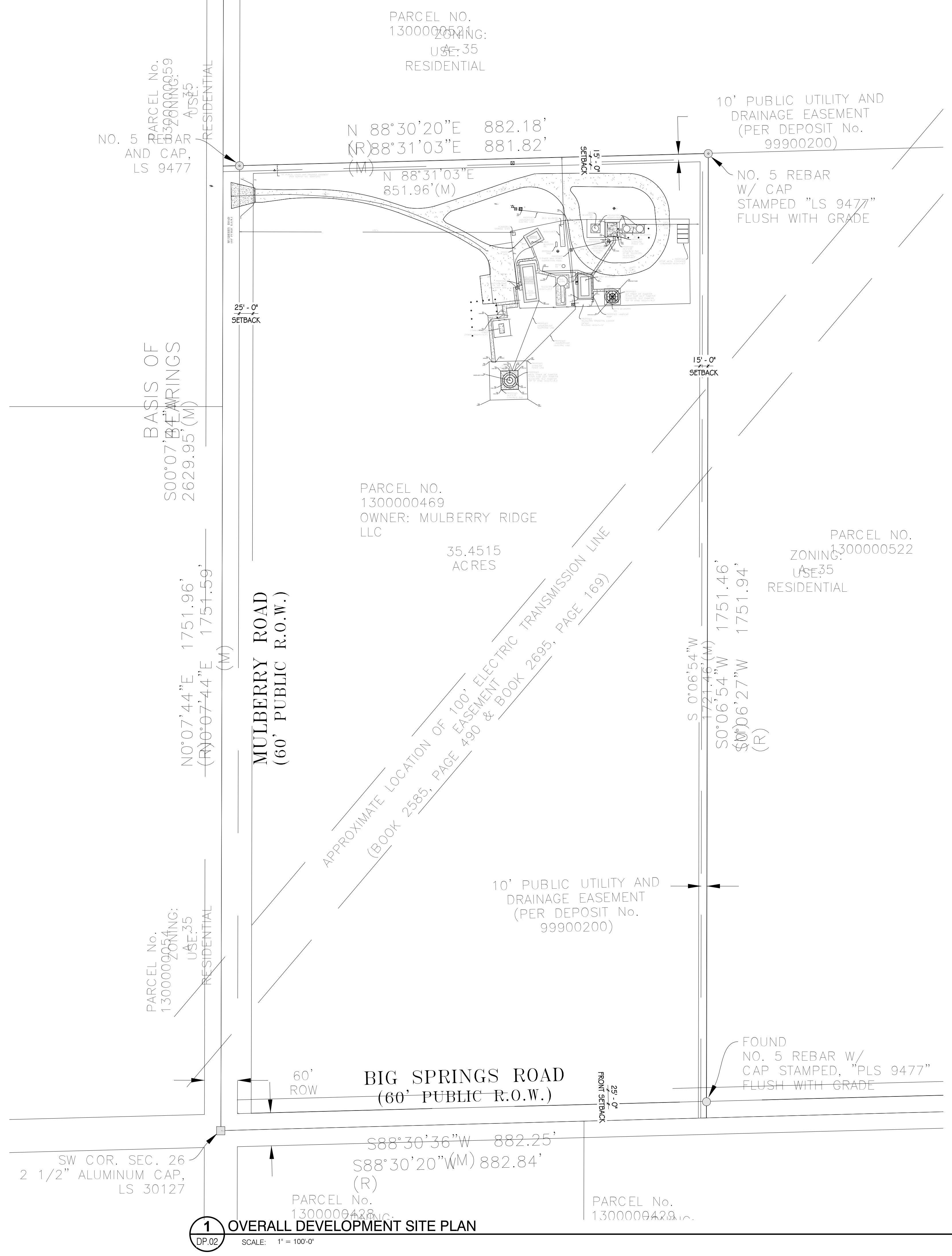
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DRAWN: JIZ
CHECKED: km

DATE
04.21.22

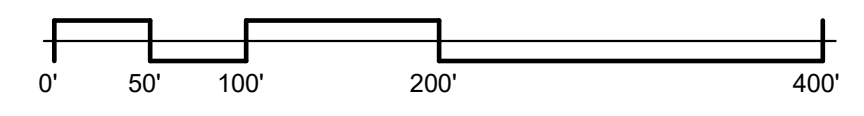
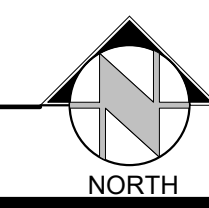
REVISION DATE

JOB NO: 186303


SHEET NO: DP.01



1 OVERALL DEVELOPMENT SITE PLAN
SCALE: 1" = 100'-0"



PCD File # PPR-22-014

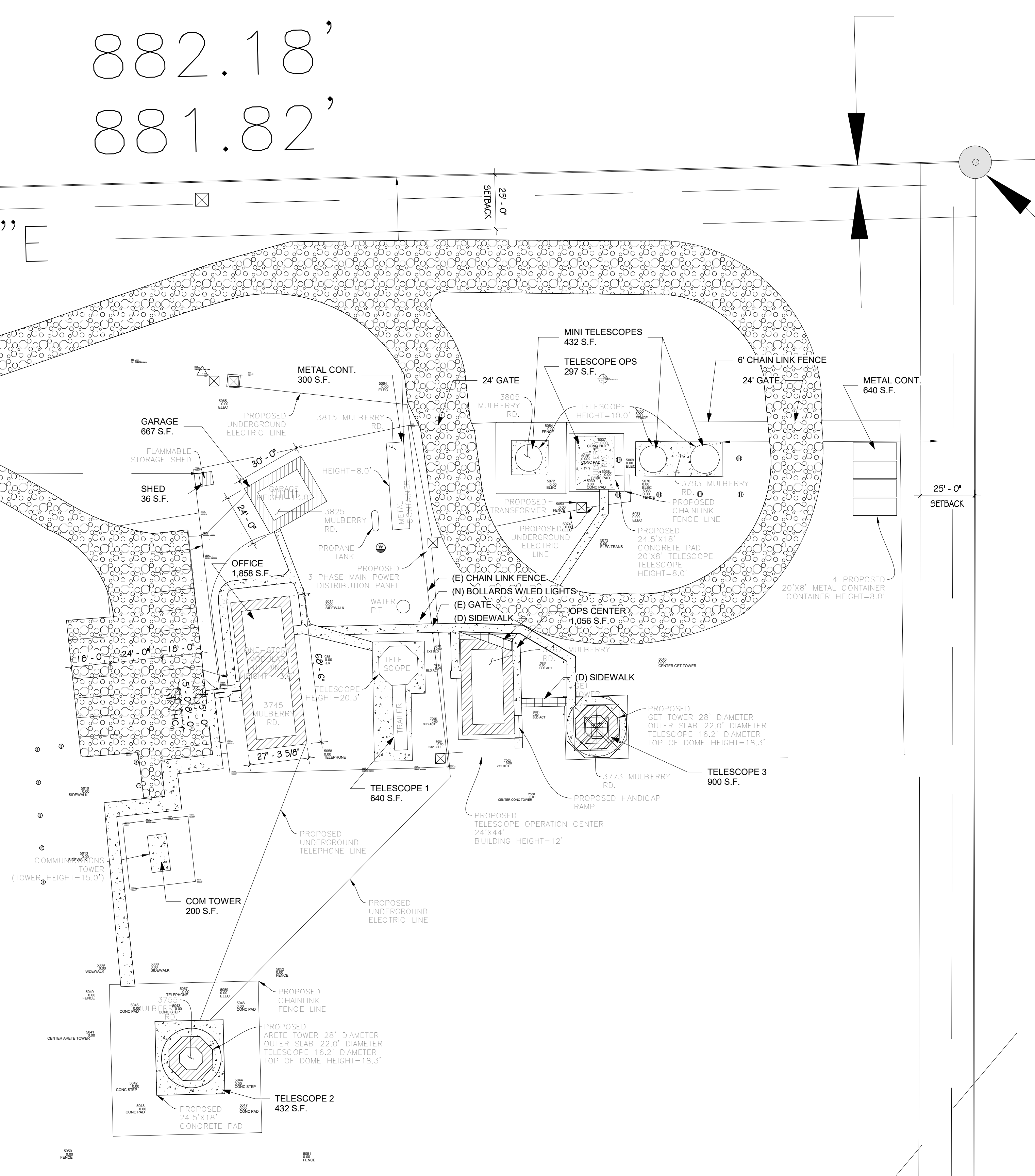
 <p>RMG Engineers / Architects</p> <p>Architectural Structural Electrical</p> <p>Southern Colorado CO 80132 1719 4892145 - WWW.RMGENGINEERS.COM SOUTHERN COLORADO, DENVER METRO, NORTHERN COLORADO</p>													
<p>PRELIMINARY NOT FOR CONSTRUCTION</p>													
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<p>3745-3815 MULBERRY ROAD YODER, COLORADO 80864</p>													
<p>CMG CORPORATION</p>													
<p><small>Please refer to the project/plan number in the RMG, Rocky Mountain Office or other offices. Any use, reproduction, copying or alteration of these plans without the express written consent of RMG, is strictly prohibited. Work is based on these plans, or use of these plans for any purpose without proper compensation is and the express written consent of RMG, is strictly prohibited.</small></p>													
<p>SHEET NAME DEVELOPMENT SITE PLAN</p>	<p>PROJECT STATUS DEVELOPMENT SET</p>												
<p>ARCHENGR: KEM</p> <p>DRAWN: JBJ</p> <p>CHECKED: km</p>	<p>DATE 04.21.22</p>												
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>#</th> <th>REVISION</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	#	REVISION	DATE										<p>JOB NO. 186303</p>
#	REVISION	DATE											
<p>SHEET NO. DP.02</p>													

RESIDE

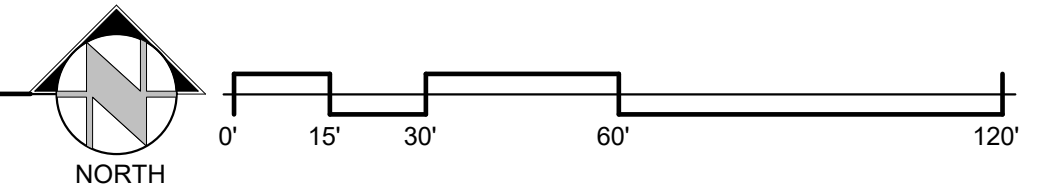
N 88°30'20"E 882.18'
 (R) 88°31'03"E 881.82'
 (M) N 88°31'03"E 851.96'(M)

10' PUBLIC UTILITY AND DRAINAGE EASEMENT
 (PER DEPOSIT NO. 99900200)

MULBERRY ROAD
 (60' PUBLIC R.O.W.)



1 ENLARGED DEVELOPMENT SITE PLAN
 DP.03 SCALE: 1" = 30'-0"



PCD File # PPR-22-014

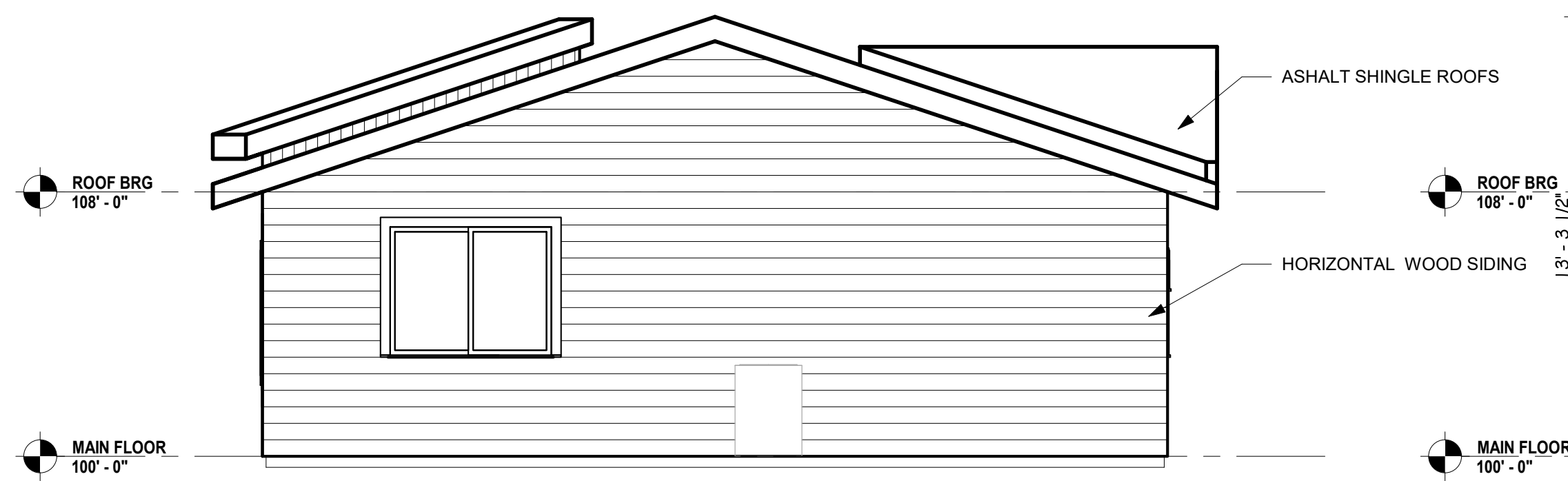
RMG
 Engineers / Architects
 1975 BAC
 SOUTHERN COLORADO CO 80132
 1719 4892145 - WWW.RMGENGINEERS.COM
 ARCHITECTURAL Structural Geotechnical
 SOUTHERN COLORADO, DENVER METRO, NORTHERN COLORADO

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 3745-3815 MULBERRY ROAD YODER, COLORADO 80864
 CMG CORPORATION

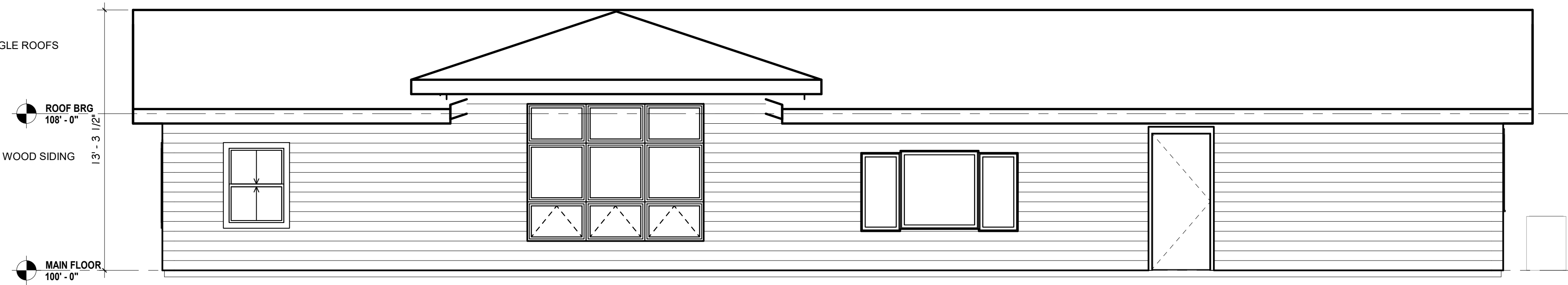
ENLARGED DEVELOPMENT SITE PLAN
 DEVELOPMENT SET

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PROJECT STATUS	DEVELOPMENT SET
ARCH/ENG	KEM
DRAWN	JDZ
CHECKED	km
DATE	04.21.22
#	REVISION DATE
JOB NO.	186303
SHEET NO.	DP.03



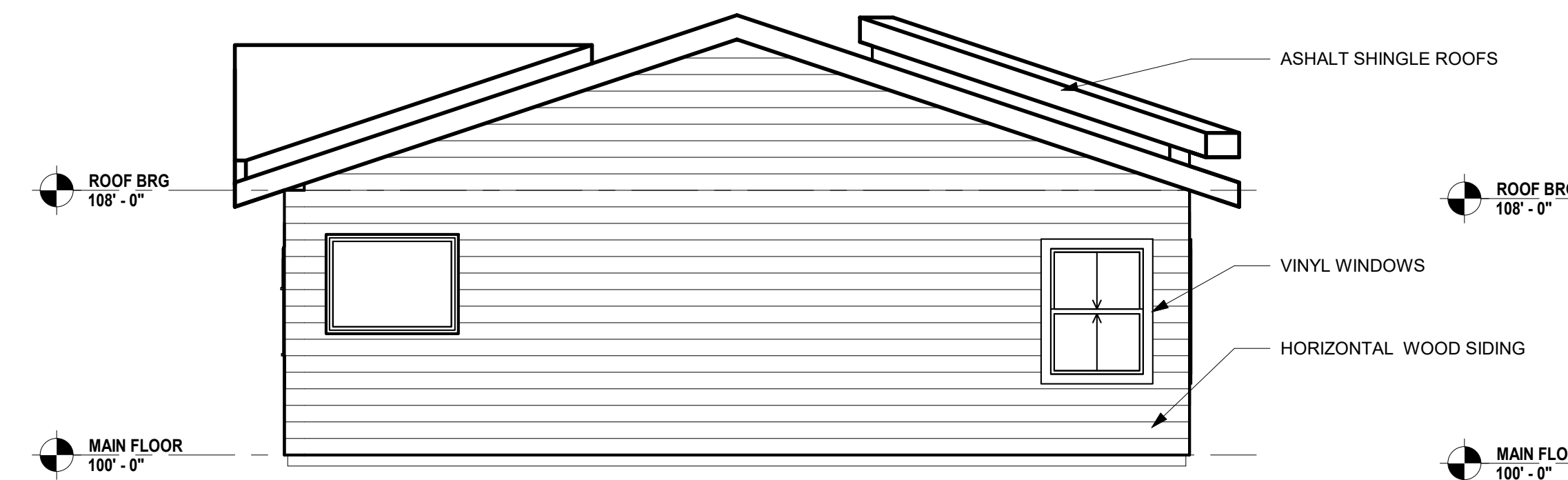
1 NORTH DEVELOPMENT OFFICE ELEVATION

DP.04 SCALE: 1/4" = 1'-0"



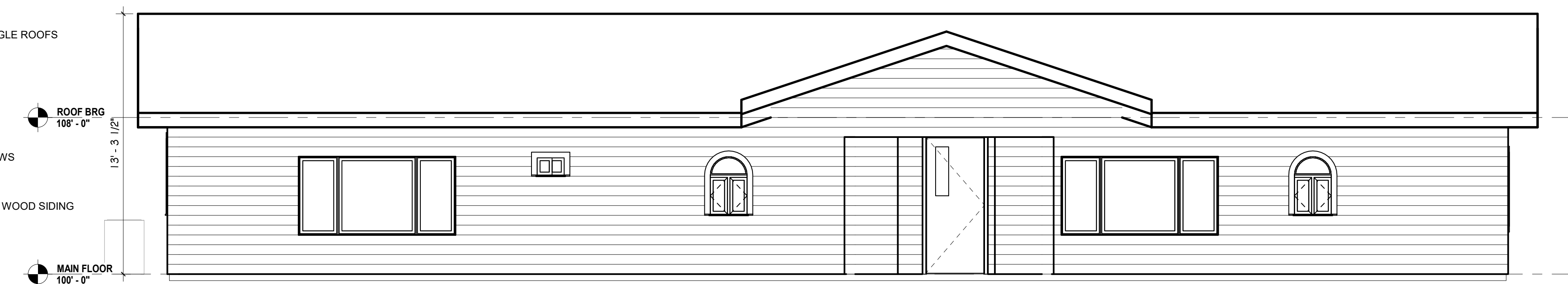
2 EAST DEVELOPMENT OFFICE ELEVATION

DP.04 SCALE: 1/4" = 1'-0"



3 SOUTH DEVELOPMENT OFFICE ELEVATION

DP.04 SCALE: 1/4" = 1'-0"



4 WEST DEVELOPMENT OFFICE ELEVATION

DP.04 SCALE: 1/4" = 1'-0"

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MULBERRY ROAD DEVELOPMENT

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CMG CORPORATION

DEVELOPMENT ELEVATIONS
OFFICE

DEVELOPMENT SET

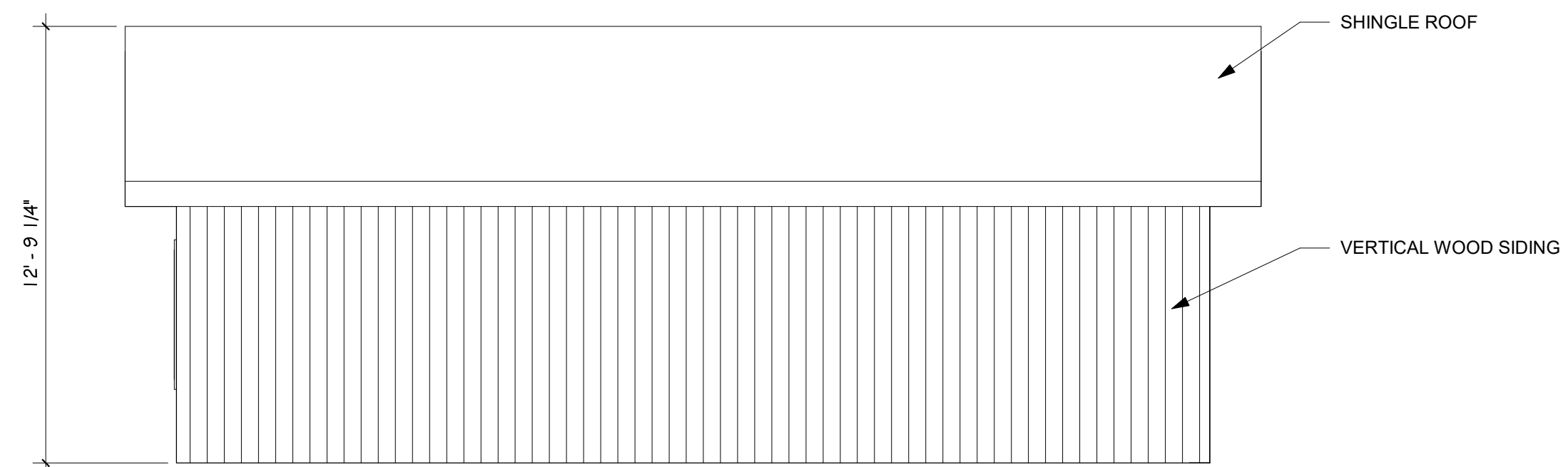
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 DRAWN: JDZ
 CHECKED: km

DATE
04.21.22

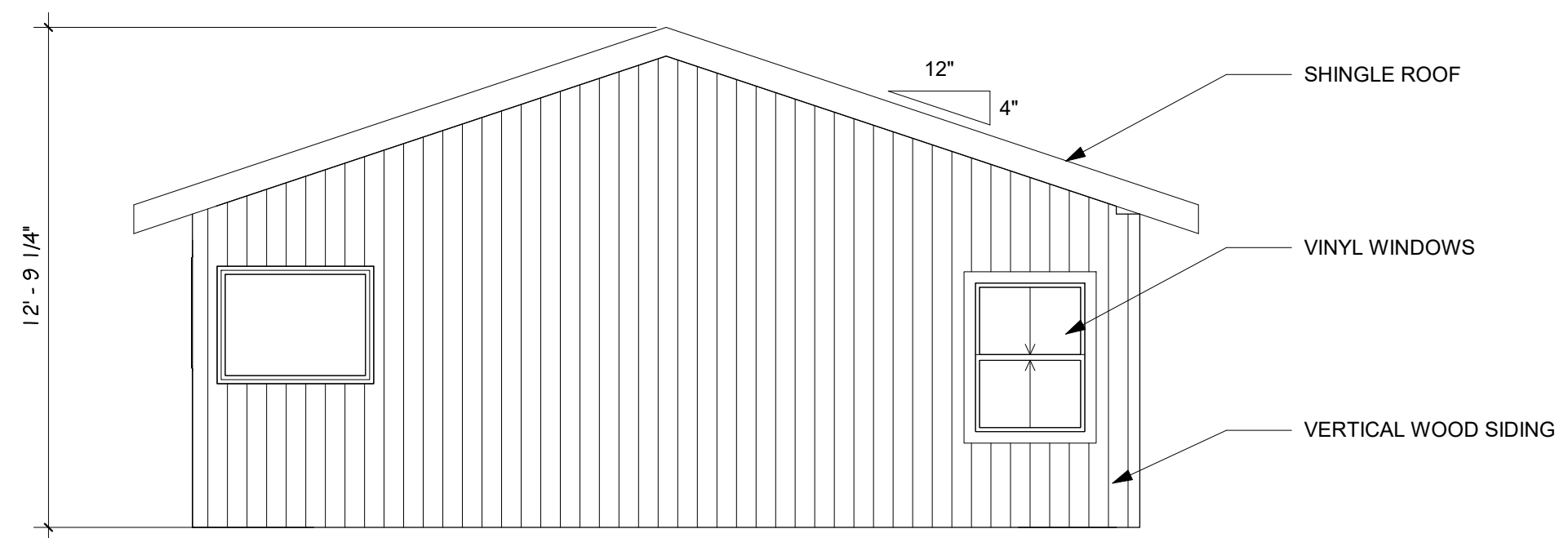
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JOB NO. 186303

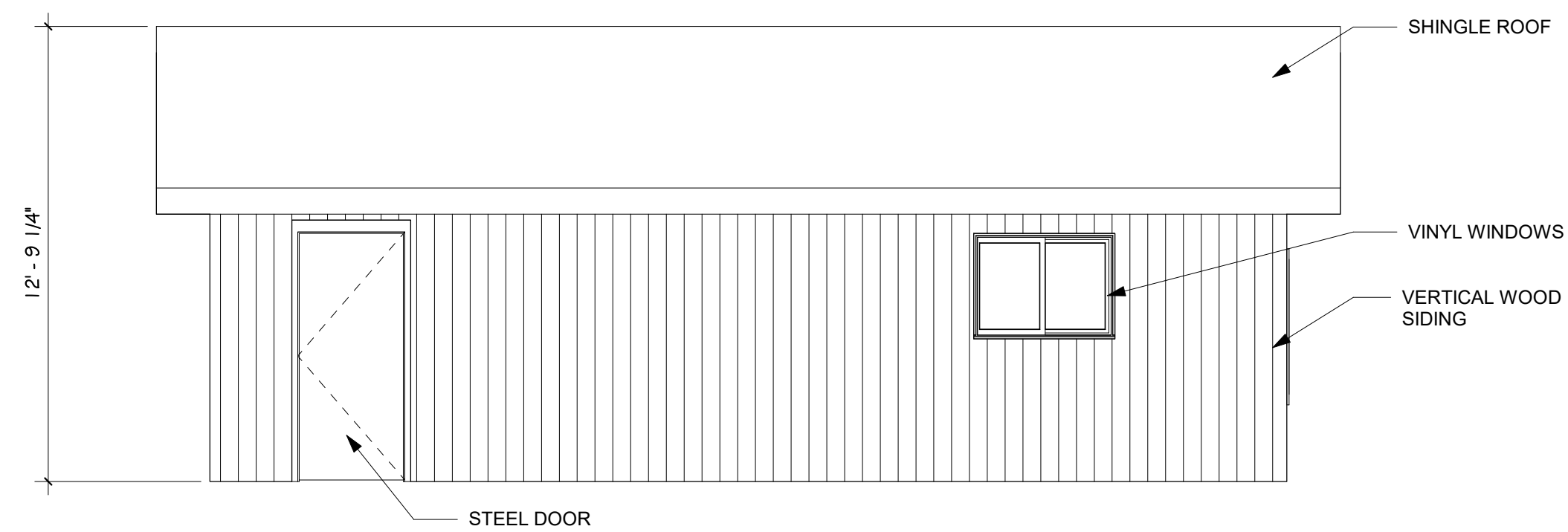
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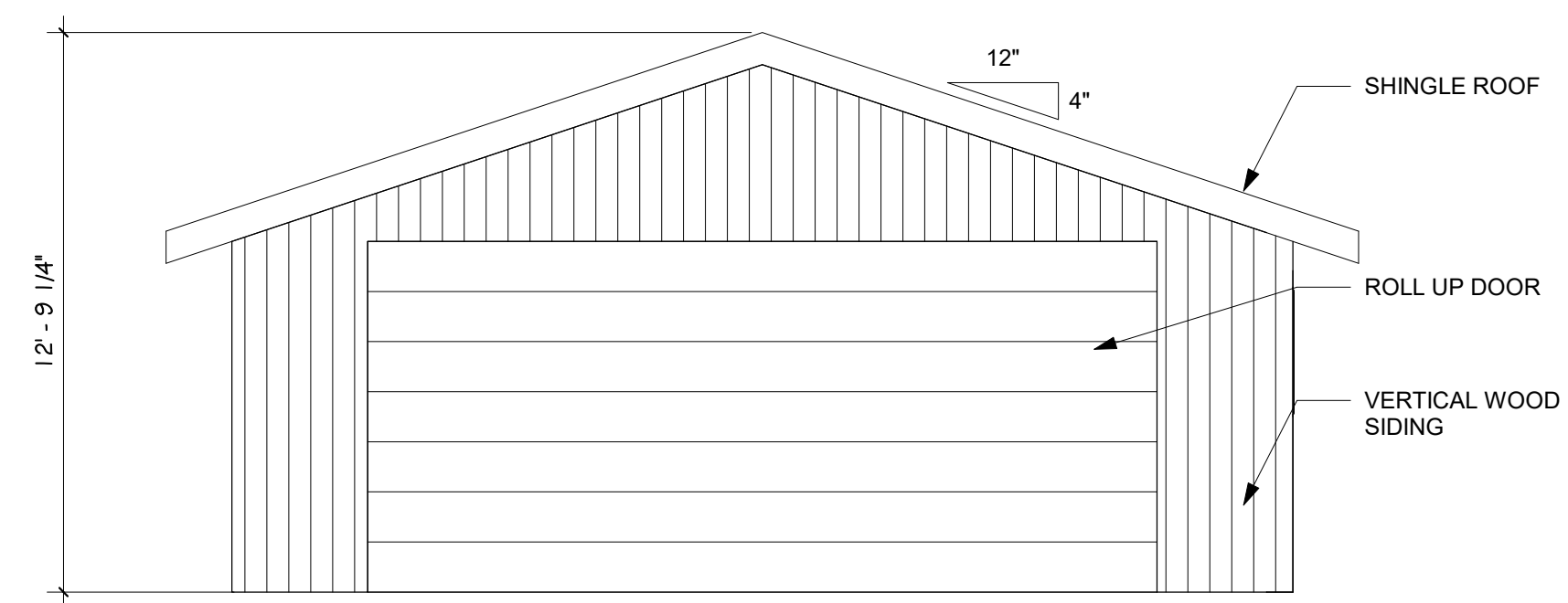
1 NORTH DEVELOPMENT GARAGE ELEVATION
 DP.05 SCALE: 1/4" = 1'-0"



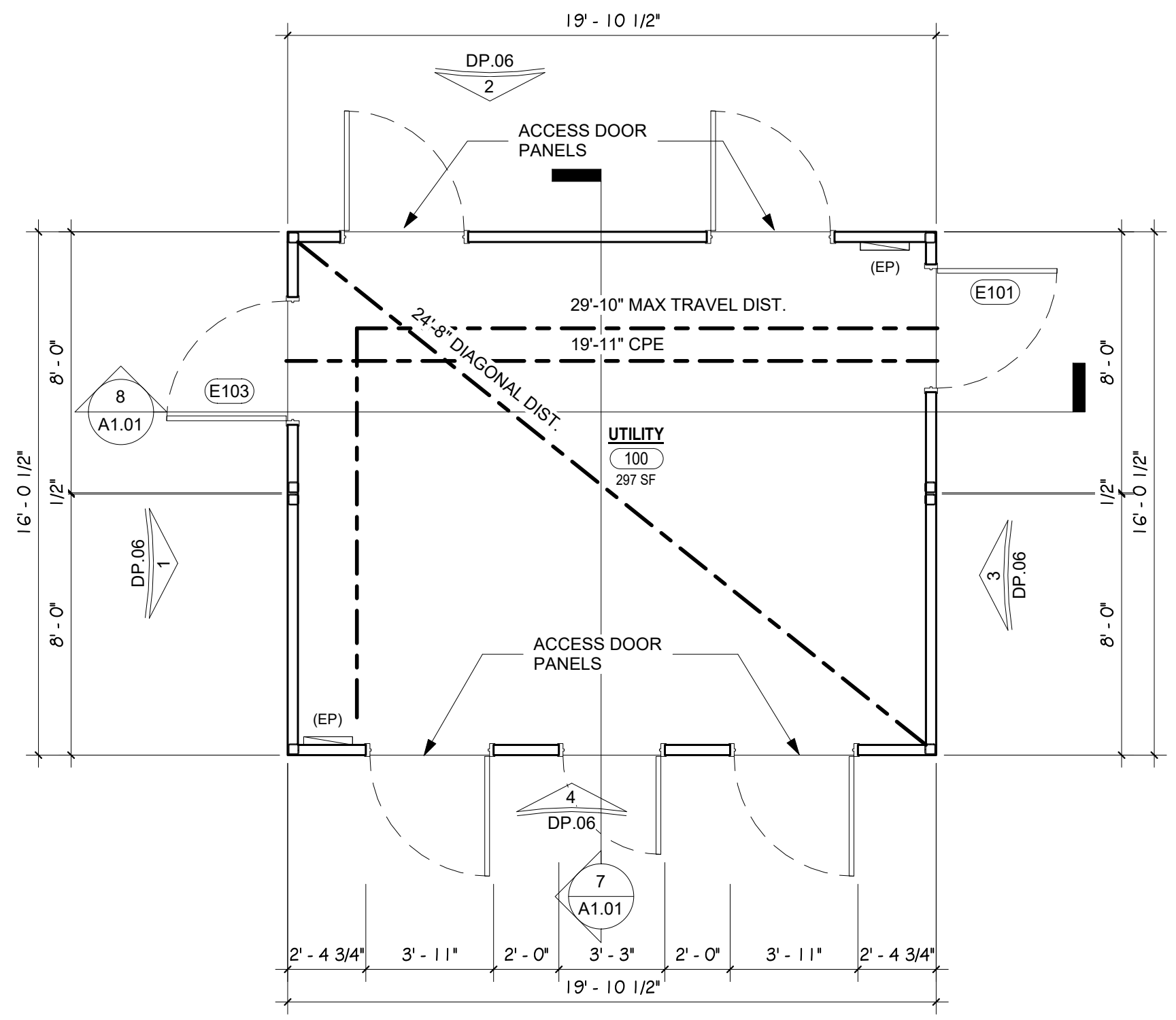
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 DP.05 SCALE: 1/4" = 1'-0"



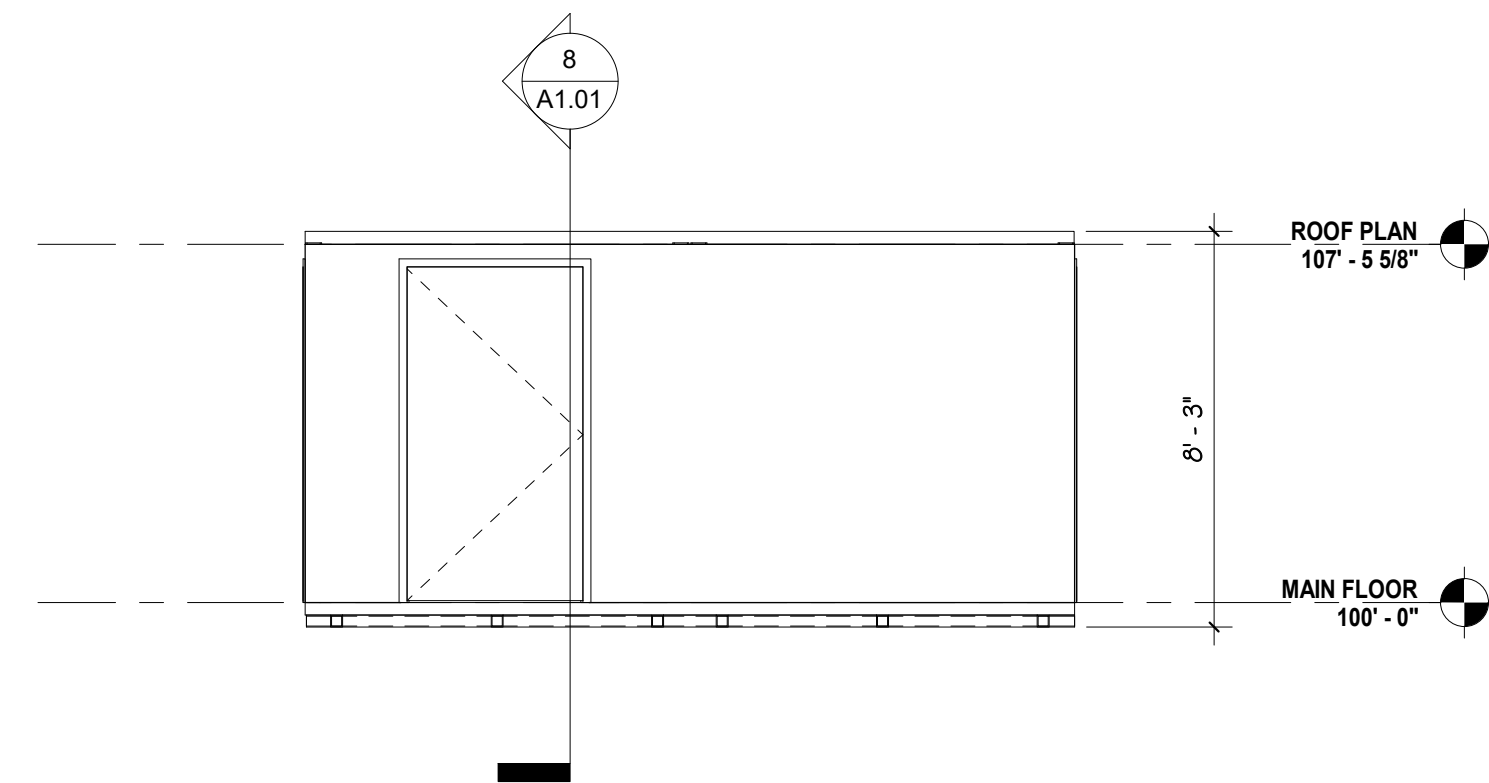
3 SOUTH DEVELOPMENT GARAGE ELEVATION
 DP.05 SCALE: 1/4" = 1'-0"



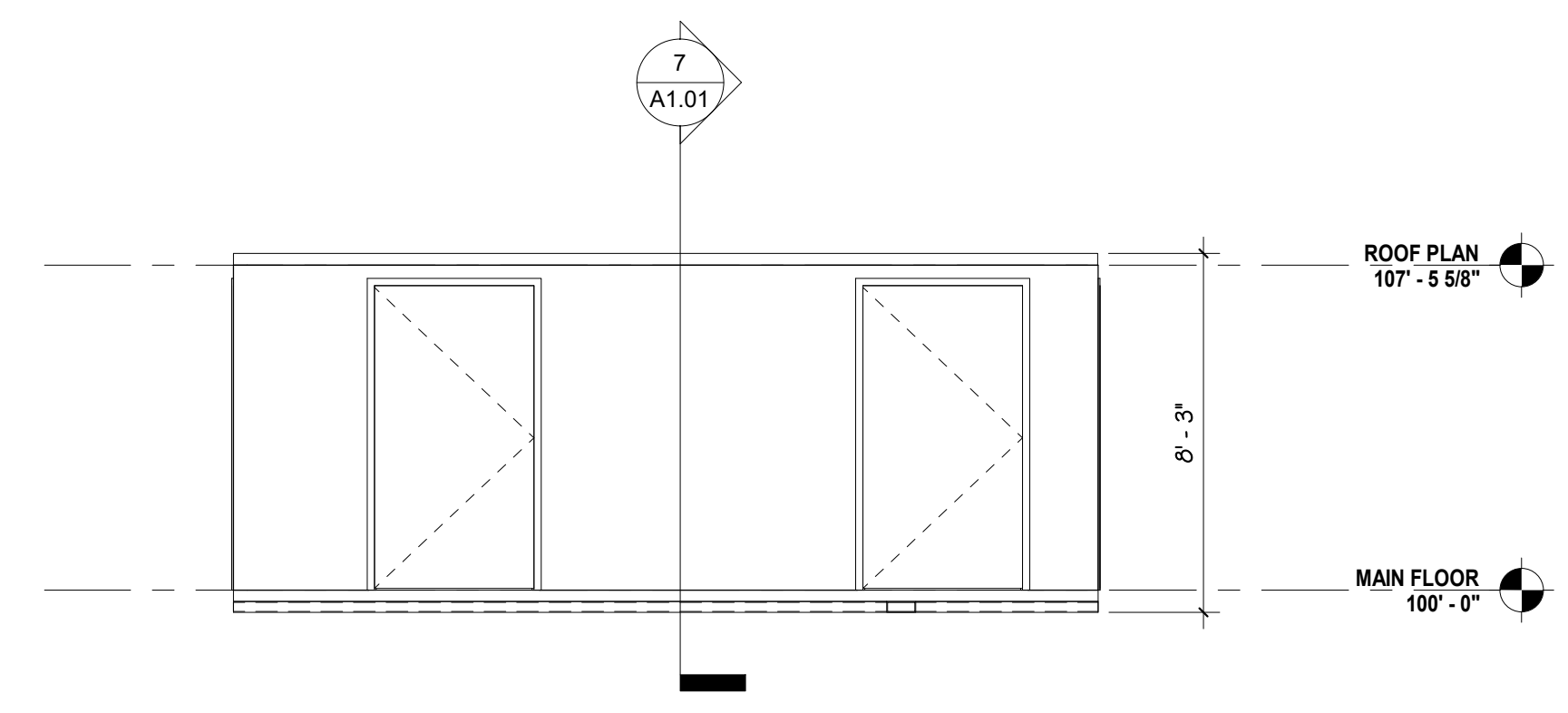
4 WEST DEVELOPMENT GARAGE ELEVATION
 DP.05 SCALE: 1/4" = 1'-0"



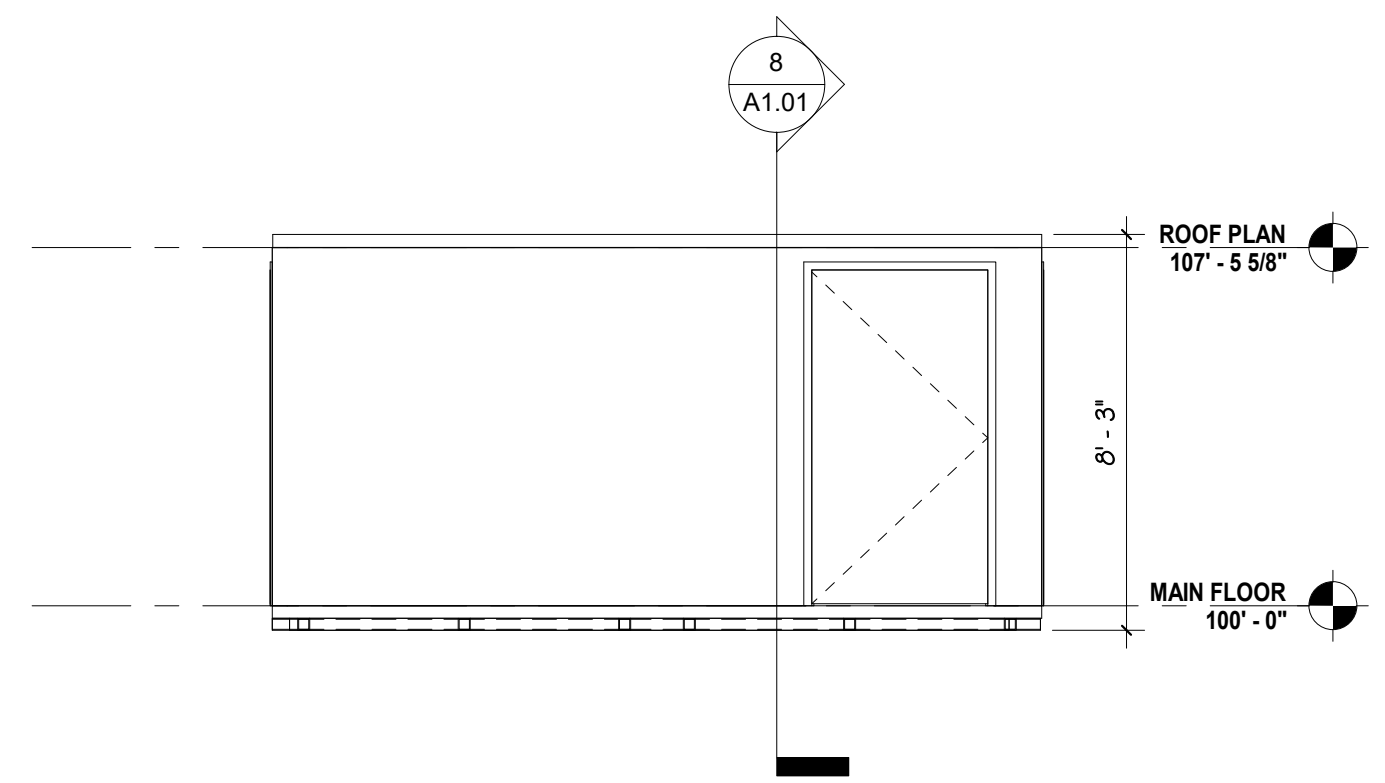
5 DEVELOPMENT FLOOR PLAN
 DP.06 SCALE: 1/4" = 1'-0"



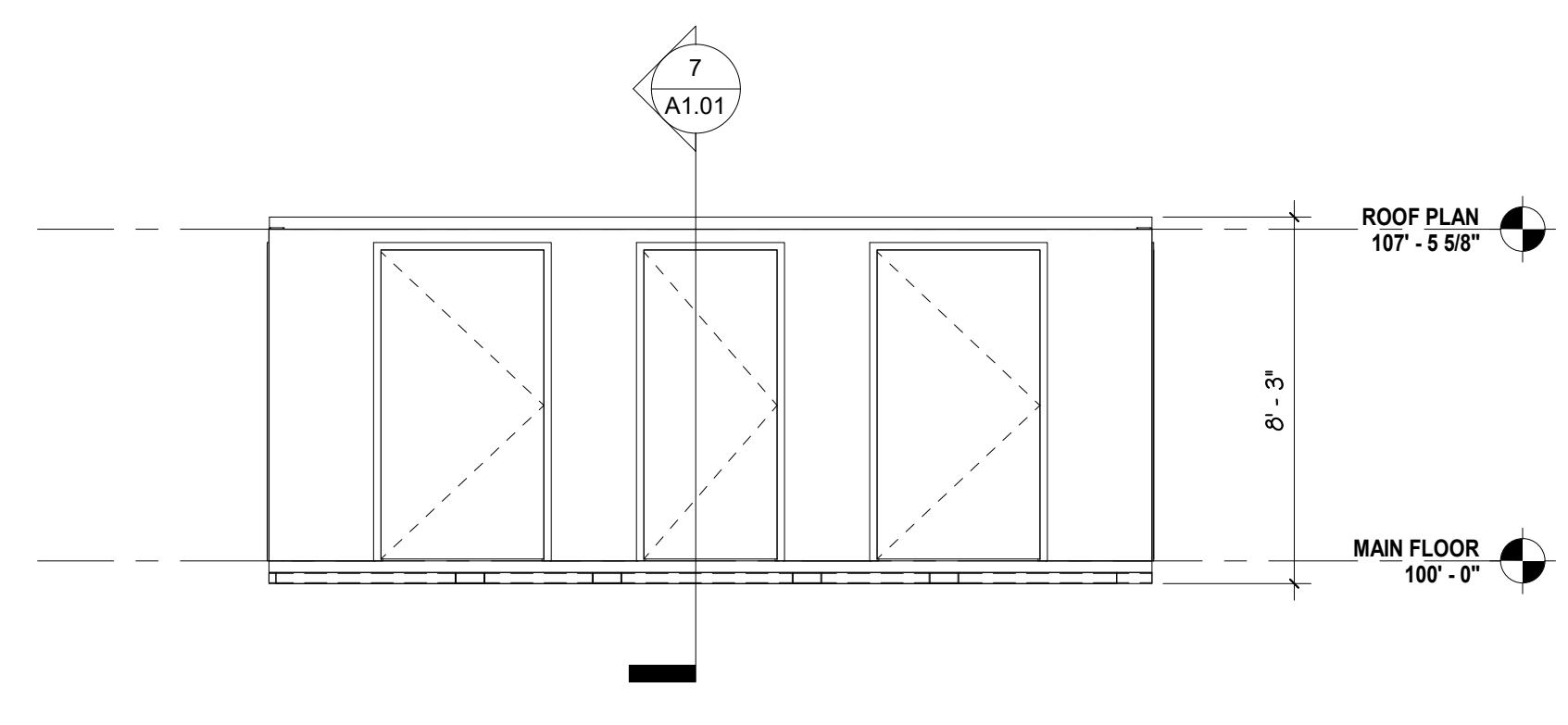
1 NORTH DEVELOPMENT ELEVATION
 DP.06 SCALE: 1/4" = 1'-0"



2 EAST DEVELOPEMNT ELEVATION
 DP.06 SCALE: 1/4" = 1'-0"

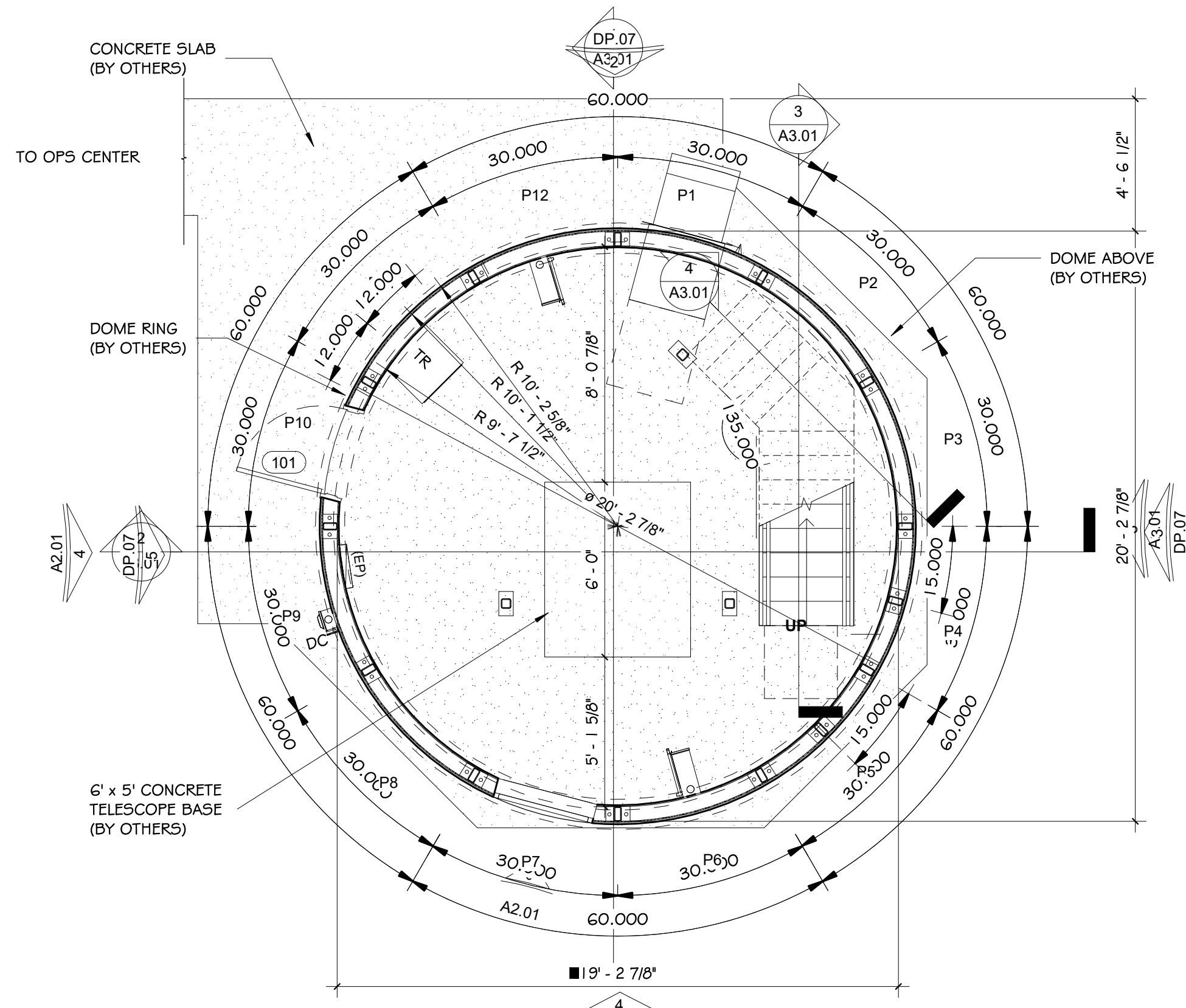


3 SOUTH DEVELOPMENT ELEVATION
 DP.06 SCALE: 1/4" = 1'-0"

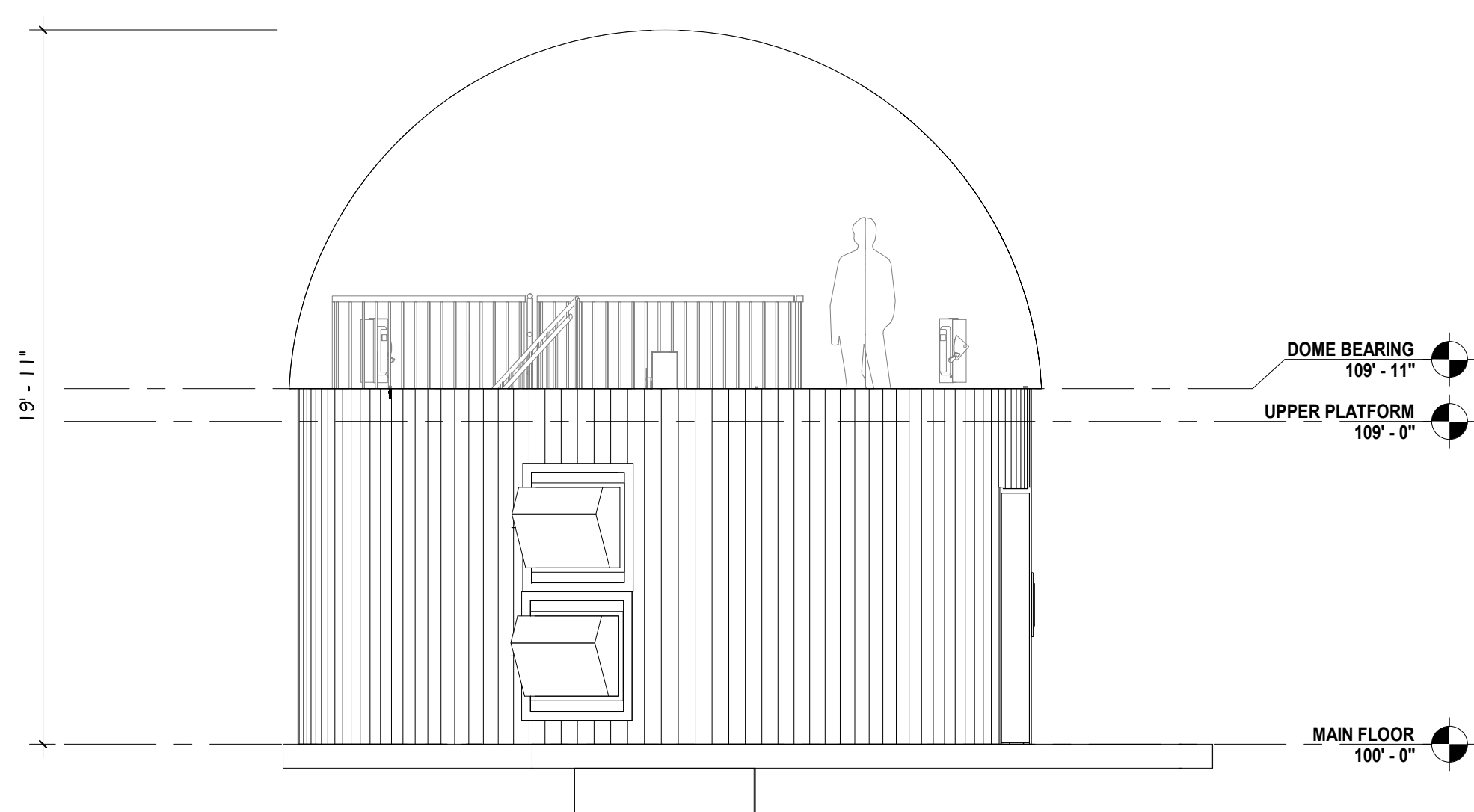


4 WEST DEVELOPMENT ELEVATION
 DP.06 SCALE: 1/4" = 1'-0"

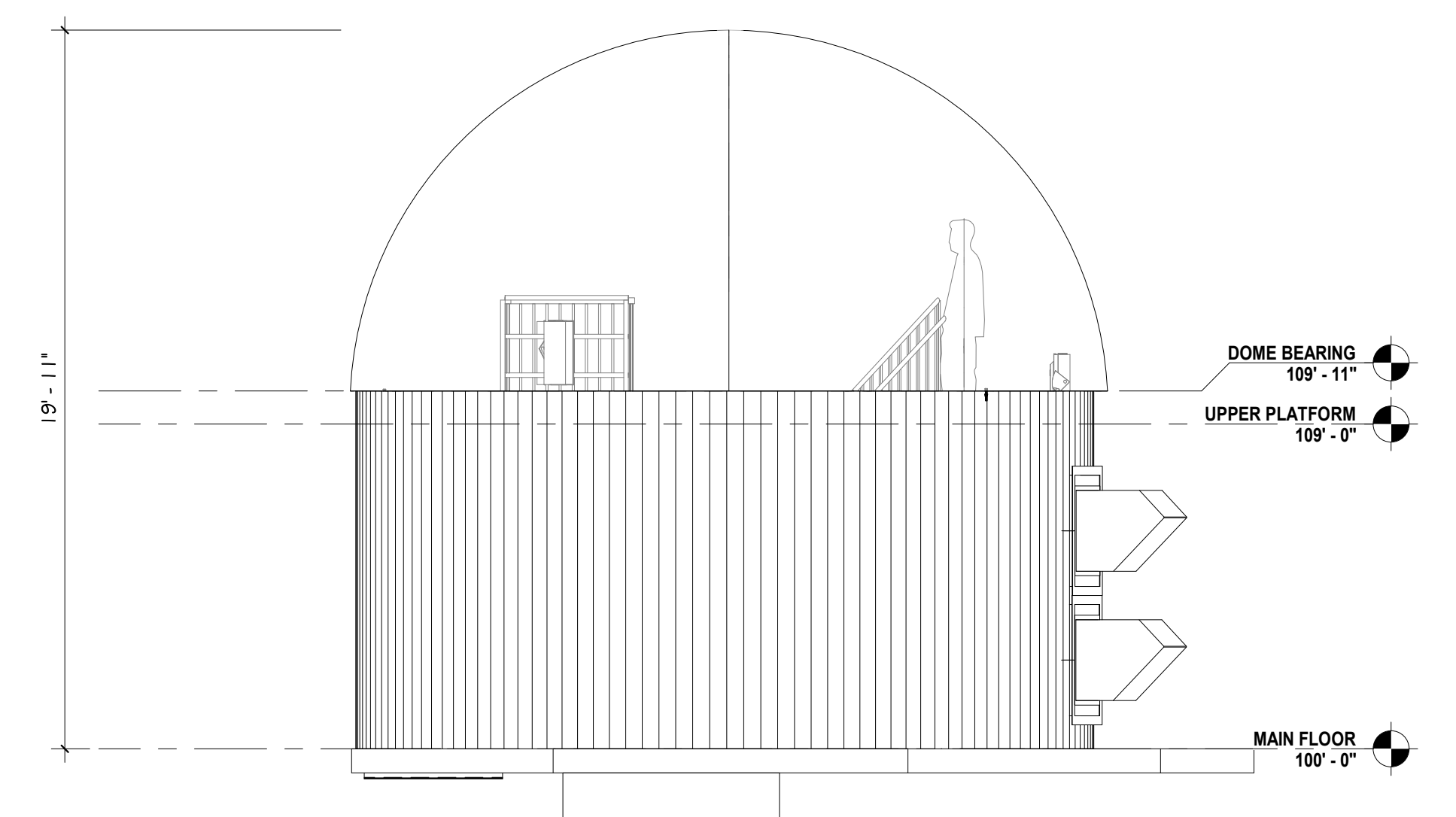
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ARCH/ENG	KEM	
DRAWN	JDZ	
CHECKED	km	
DATE	03.11.22	
#	REVISION	DATE
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JOB NO. 186303		
SHEET NO. DP.06		



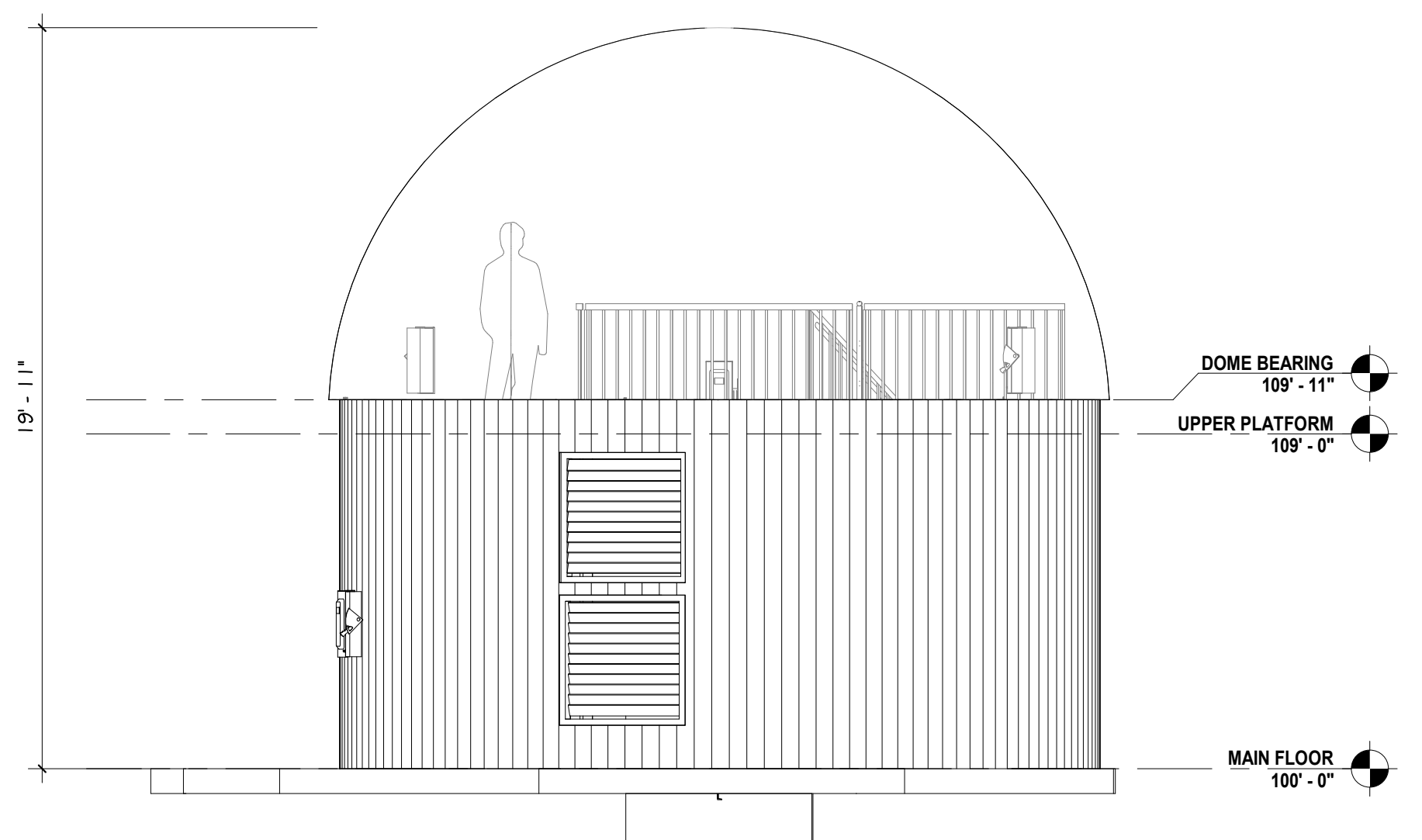
1 DEVELOPMENT FLOOR PLAN
 DP.07 SCALE: 1/4" = 1'-0"



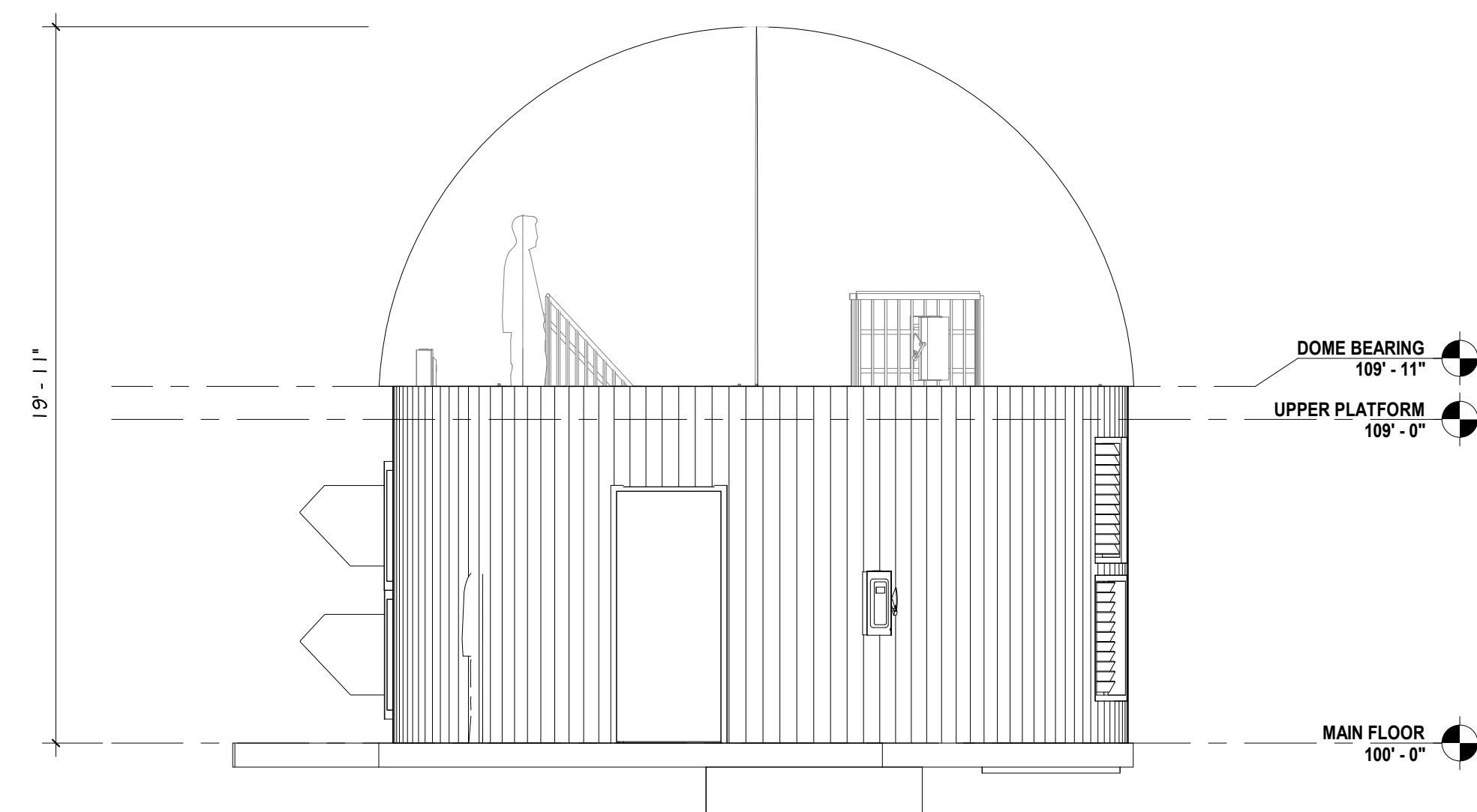
2 NORTH DEVELOPMENT ELEVATION
 DP.07 SCALE: 1/4" = 1'-0"



3 EAST DEVELOPMENT ELEVATION
 DP.07 SCALE: 1/4" = 1'-0"



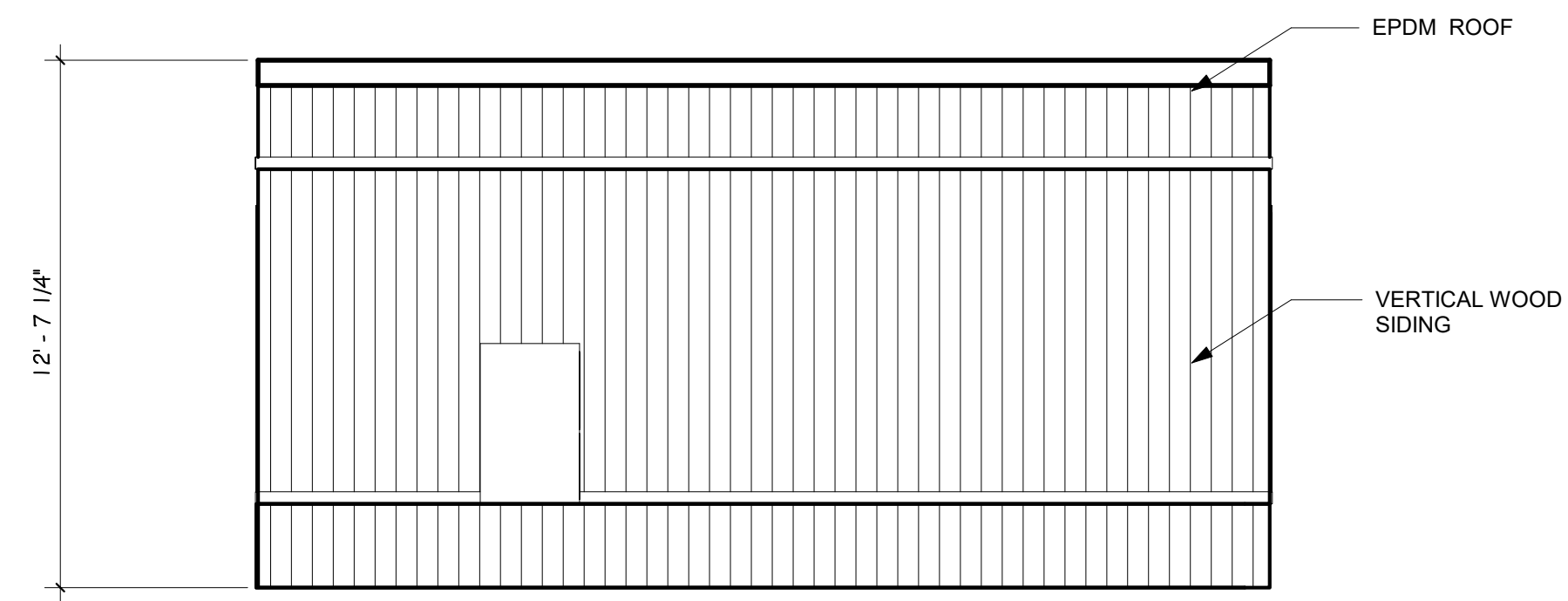
4 SOUTH DEVELOPMENT ELEVATION
 DP.07 SCALE: 1/4" = 1'-0"



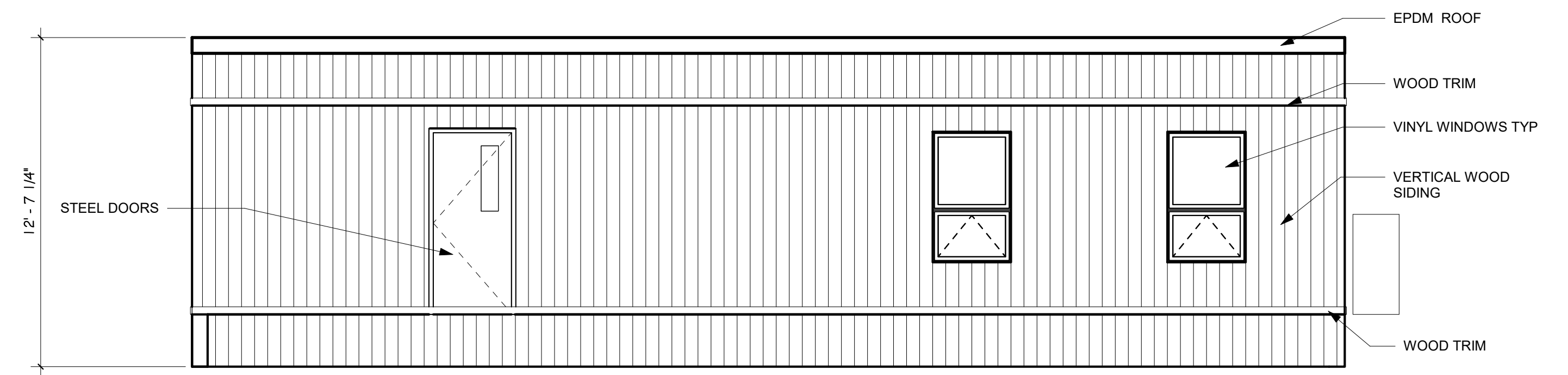
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 DP.07 SCALE: 1/4" = 1'-0"

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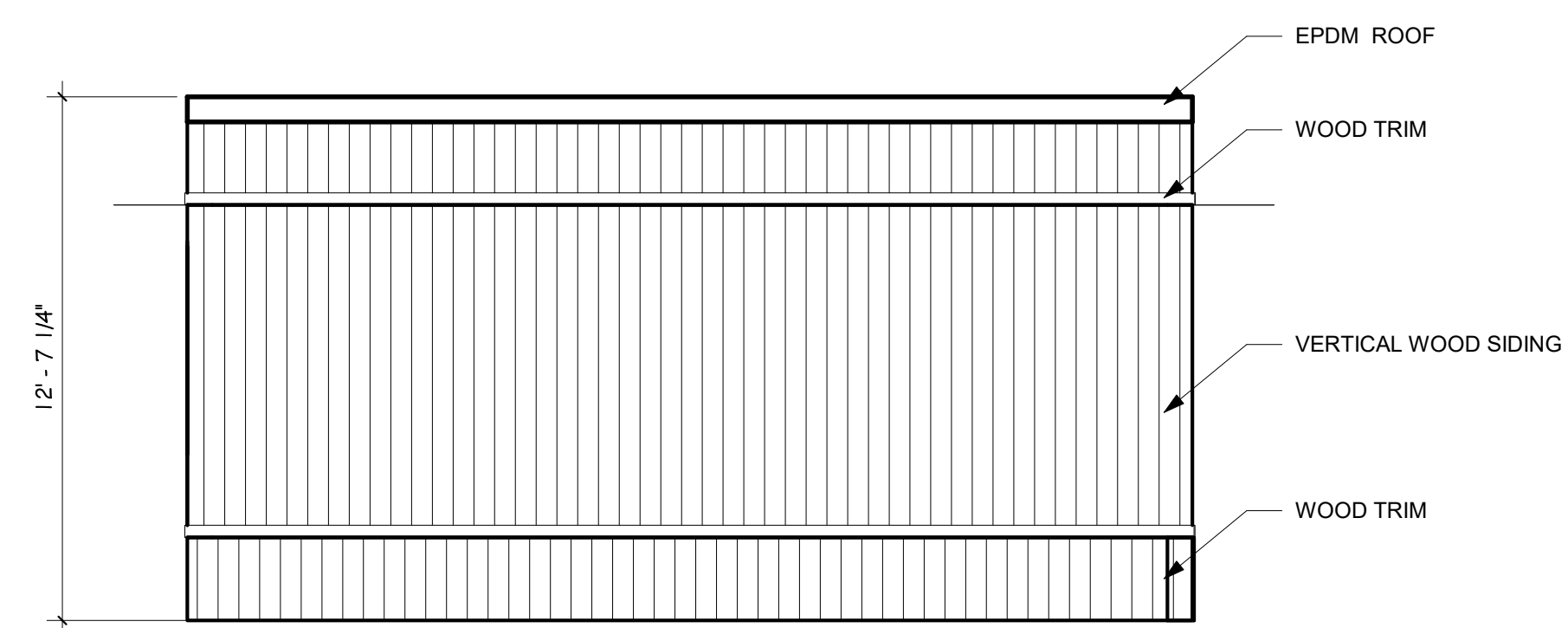
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PROJECT STATUS	DEVELOPMENT SET	
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DRAWN	JDZ	
CHECKED	km	
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#	REVISION	DATE
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SHEET NO.	DP.07	



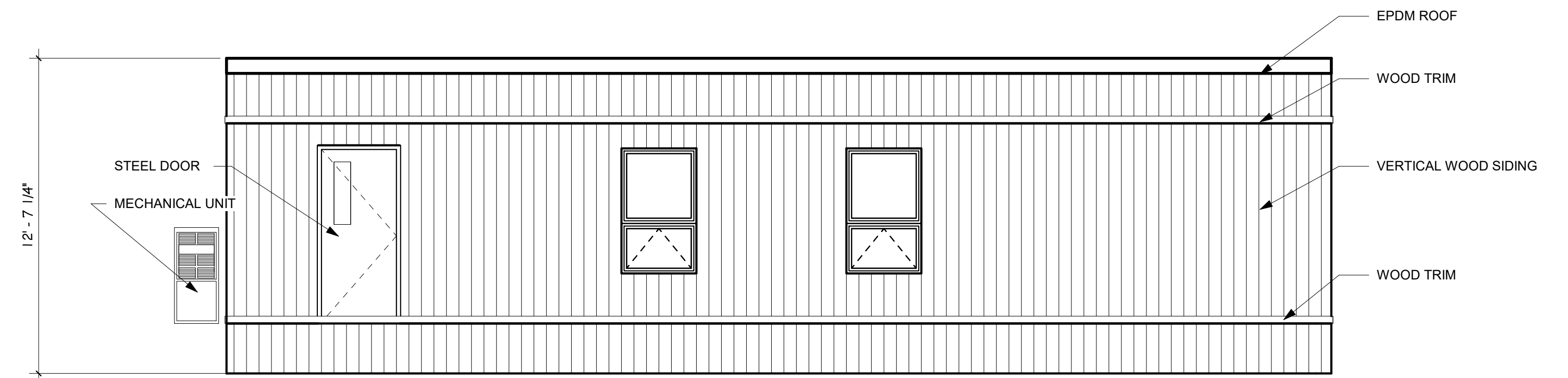
1 NORTH DEVELOPMENT OPERATION CENTER ELEVATION
 DP.08 SCALE: 1/4" = 1'-0"



2 EAST DEVELOPMENT OPERATION CENTER ELEVATION
 DP.08 SCALE: 1/4" = 1'-0"

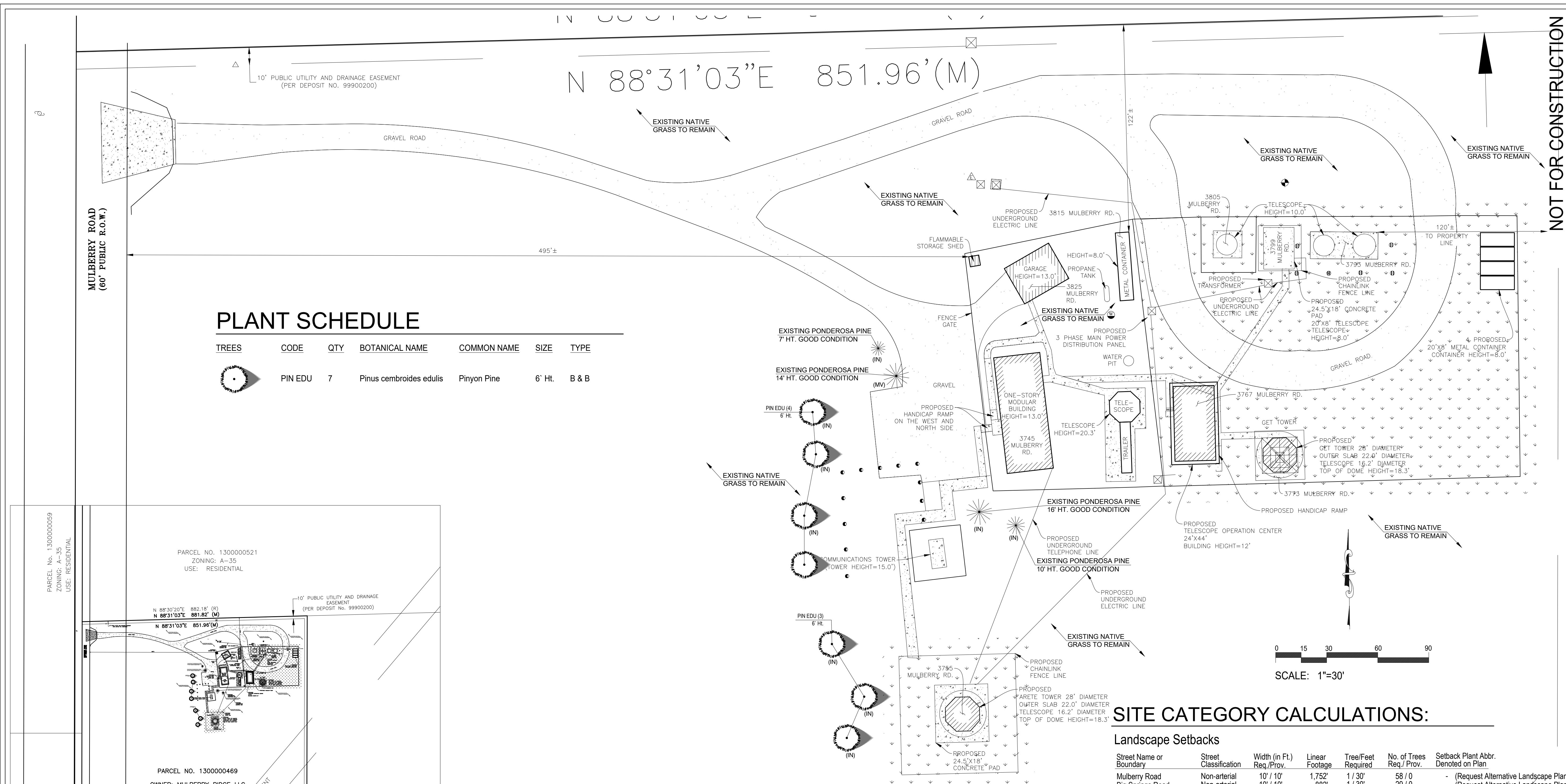


3 SOUTH DEVELOPMENT OPERATION CENTER ELEVATION
 DP.08 SCALE: 1/4" = 1'-0"



4 WEST DEVELOPMENT OPERATIONS CENTER ELEVATION
 DP.08 SCALE: 1/4" = 1'-0"

ARCHENGR:	KEM	
DRAWN:	JDZ	
CHECKED:	km	
DATE:	04.21.22	
#	REVISION	DATE
JOB NO.:	186303	
SHEET NO.:	DP.08	



SITE CATEGORY CALCULATIONS:

Landscape Setbacks

Street Name or Boundary	Street Classification	Width (in Ft.)	Linear Footage	Tree/Feet Required	No. of Trees Req./Prov.	Setback Plant Abbr. Denoted on Plan
Mulberry Road	Non-arterial	10' / 10'	1,752'	1 / 30'	58 / 0	- (Request Alternative Landscape Plan)
Big Springs Road	Non-arterial	10' / 10'	882'	1 / 30'	29 / 0	- (Request Alternative Landscape Plan)

Parking

No. of Vehicles Spaces Provided	Shade Trees Required/Provided	Abbr. on Plan	Vehicle Lot Frontages	Length of Frontage (excluding driveways)	2/3 Length of Frontage (ft.)
5	1 / 1	(MV)	None		

Min. 3' Screening Plants Req. / Prov. - / -

Evergreen Plants Req. (50%) / Prov. - / -

Length of Screening Wall or Berm Provided -

Vehicle Lot Plant Abbr. on Plan -

Percent Ground Plane Veg. Req. / Prov. - / -

Internal Landscaping

Net Site Area (SF) (less public ROW)	Percent Minimum Internal Area (%)	Internal Area (SF) Required / Provided	Internal Trees (1/500 SF) Required / Provided
98,100 s.f. (Approx. developed area)	5%	4,905 s.f. / 57,800 s.f.	10 / 10

Shrub Substitutes Required / Provided 0 / 0

Internal Plant Abbr. Denoted on Plan (IN)

Landscape Buffer & Screens

Street Name or Property Line	Width (in Ft.) Req. / Prov.	Linear Footage	Buffer Trees (1/20') Required / Provided	Evergreen Trees Req. (1/3) / Provided
None	- / -	-	- / -	- / -

Length of 8 Ft. Opaque Structure Req. / Prov. - / -

Buffer Tree Abbr. Denoted on Plan -

Percent Ground Plane Veg. Req. / Prov. - / -

ALTERNATIVE LANDSCAPE PLAN REQUEST-
 Because this is a rural site with low visibility from the very few neighbors adjacent to this site, an Alternative Landscape Plan is requested. Some tree screening is proposed adjacent to Mulberry Road where the development is most visible, but a waiver of typical landscape requirements is requested.

NOT FOR CONSTRUCTION

GENERAL NOTES

- ALL REFERENCES TO 'CONTRACTOR' REFER TO LANDSCAPE CONTRACTOR, UNLESS OTHERWISE NOTED.
- CONTRACTOR IS RESPONSIBLE FOR GETTING ALL UTILITY LOCATES PRIOR TO STARTING ANY WORK ON SITE AND ALSO HAVING UTILITIES RELOCATED AS NECESSARY FOR THE DURATION OF CONSTRUCTION.
- CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL LANDSCAPE SHOWN ON THIS PLAN. ANY DEFICIENCIES OR DEVIATIONS FROM THIS PLAN ARE TO BE APPROVED BY OWNER'S REPRESENTATIVE OR LANDSCAPE ARCHITECT. ANY CHANGES FROM THE APPROVED PLANS MAY REQUIRE APPROVAL FROM THE EL PASO COUNTY PLANNING DEPARTMENT AND MAY DELAY COMPLETION OF PROJECT.
- CONTRACTOR IS RESPONSIBLE FOR VERIFYING QUANTITIES OF MATERIALS NEEDED TO COMPLETE THIS PLAN IN THE FIELD. NOTIFY OWNER'S REPRESENTATIVE OF DISCREPANCIES BETWEEN THE DRAWINGS AND CONDITIONS IN THE FIELD. SUBSTITUTIONS OF LANDSCAPE MATERIALS ARE NOT ALLOWED WITHOUT APPROVAL FROM LANDSCAPE ARCHITECT GIVEN PRIOR TO INSTALLATION. NOTIFY LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION IF LANDSCAPE MATERIAL LOCATIONS NEED TO BE ALTERED DUE TO ON-SITE CONDITIONS.
- CONTRACTOR IS TO PROVIDE A ONE YEAR WARRANTY ON ALL PLANT MATERIALS, IRRIGATION COMPONENTS, NATIVE GRASS, AND WORKMANSHIP. CONTRACTOR IS TO PROVIDE OWNER WITH WARRANTY CONDITIONS AND COMMENCE WARRANTY PERIOD UPON FINAL ACCEPTANCE OF LANDSCAPE INSTALLATION.
- THE OWNER OF THIS PROPERTY AND ANY FUTURE OWNERS SHALL BE RESPONSIBLE FOR THE PROPER LANDSCAPE AND IRRIGATION MAINTENANCE OF THIS SITE. MAINTENANCE OF THIS SITE INCLUDES, BUT IS NOT LIMITED TO, IRRIGATION INSPECTIONS AND ADJUSTMENTS, IRRIGATION SYSTEM SHUT DOWN AND START UP, IRRIGATION LEAK REPAIR, LANDSCAPE WEEDING, MOWING, SEEDING, FERTILIZATION, PRUNING, AND PLANT MATERIAL REPLACEMENT.

PROJECT NOTES

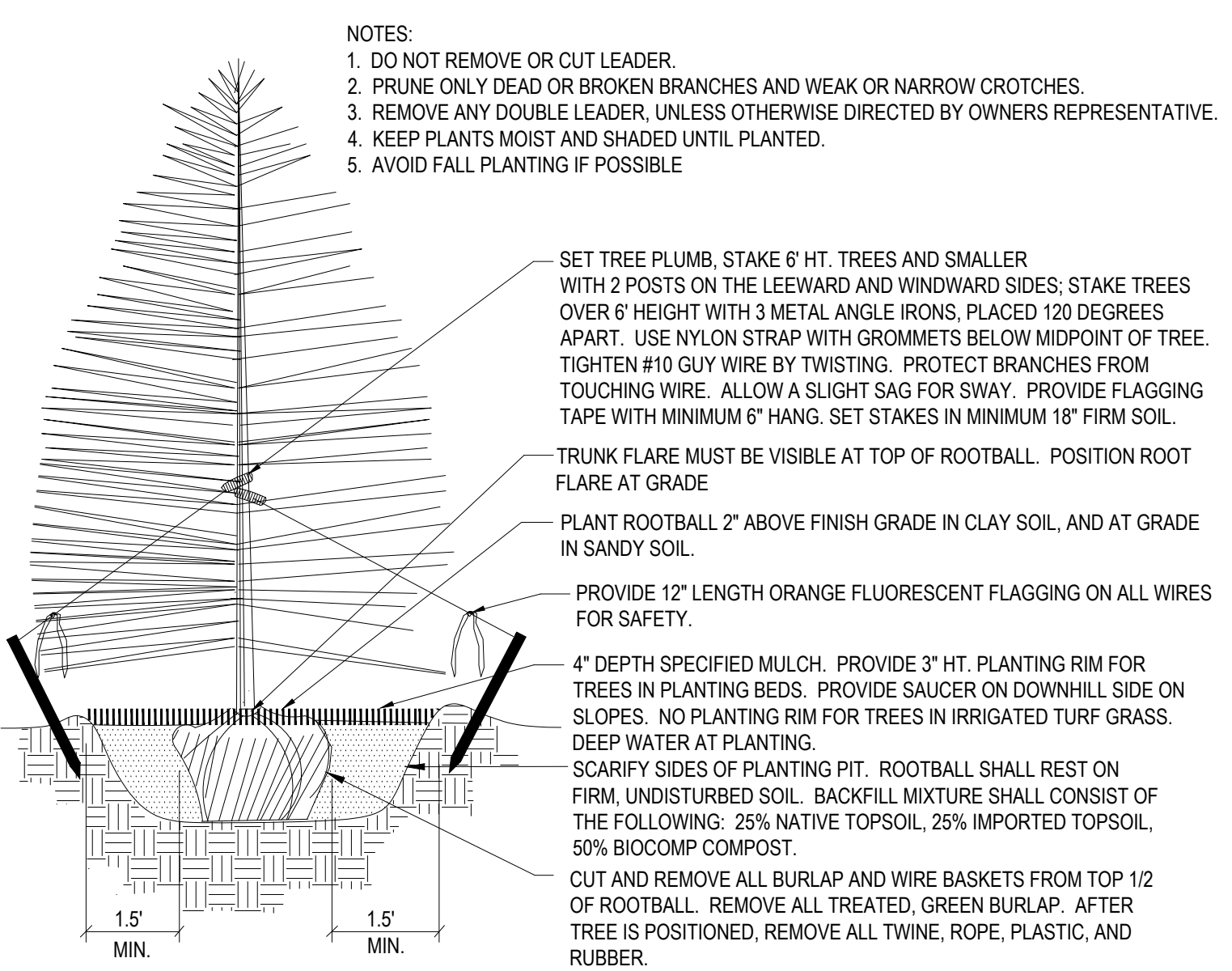
- FINE GRADING TO BE PERFORMED BY LANDSCAPE CONTRACTOR TO REFLECT FINISHED GRADES SHOWN ON THE PROJECT GRADING PLANS. ALL FINISHED GRADES ARE TO HAVE A MINIMUM 2% SLOPE. CONTRACTOR IS TO REPORT POOR DRAINAGE CONDITIONS OR ANY GRADES IN LANDSCAPE AREAS LESS THAN 2% TO GENERAL CONTRACTOR AND LANDSCAPE ARCHITECT PRIOR TO LANDSCAPE CONSTRUCTION WORK.
- CONTRACTOR IS TO PROVIDE FINAL GRADES ADJACENT TO HARDSCAPE SURFACES AT THE FOLLOWING SPECIFICATIONS:
 1" BELOW TOP OF CONCRETE FOR NATIVE SEED AREAS.
 CONTRACTOR IS TO COORDINATE THESE GRADING SPECIFICATIONS WITH GENERAL CONTRACTOR AND/OR WHOEVER IS PROVIDING ROUGH GRADING. FINAL GRADES IN ALL LANDSCAPE AREAS ARE TO BE ESTABLISHED USING ON-SITE STOCKPILED TOPSOIL.
- ALL DISTURBED NATIVE GRASS AREAS ARE TO BE SEEDDED WITH 'EL PASO COUNTY ALL PURPOSE MIX FOR UPLAND, TRANSITION, AND PERMANENT CONTROL MEASURE' BY HYDRO-MULCH SEEDING AT A RATE OF 1 LB. PER 1,000 SQ. FT. REFER TO NATIVE SEED ESTABLISHMENT SPECIFICATION FOR MORE DETAILED INSTRUCTIONS.
- WOOD MULCH IS TO BE PROVIDED AROUND ALL THE BASE OF ALL TREES, 4' DIAMETER, 4' DEPTH. NO LANDSCAPE FABRIC TO BE INSTALLED BENEATH MULCH.

SOIL PREPARATION NOTES

- PROPOSED NATIVE GRASS AREAS:** ALL SEEDED AREAS TO RECEIVE 2 CU. YDS. PER 1,000 SQ. FT. OF 'BIOCOMP' SOIL AMENDMENTS (C&C SAND) INCORPORATED INTO EXISTING SOIL AND ROTO-TILLED TO A 6" DEPTH.
- PROPOSED TREES AND SHRUBS:** ALL PROPOSED TREES ARE TO BE BACKFILLED WITH A MIXTURE OF 'BIOCOMP' SOIL AMENDMENT AND IMPORTED GRADE A TOPSOIL (C&C SAND). REFER TO PLANTING DETAIL.

IRRIGATION NOTES

- PROPOSED TREES ARE TO BE WATERED MANUALLY ONCE A WEEK DURING GROWING SEASON BY MEANS OF HOSE, WATER TRUCK, OR DRIP IRRIGATION SYSTEM.
- ALL NATIVE SEED AREAS TO BE IRRIGATED MANUALLY BY MEANS OF HOSES WITH OSCILLATING SPRINKLERS OR TEMPORARY ROTARY HEAD SPRAY IRRIGATION SYSTEM UNTIL ESTABLISHED.



1 Coniferous Tree Planting Detail
 NOT TO SCALE

EL PASO COUNTY ALL-PURPOSE MIX FOR UPLAND, TRANSITION AND PERMANENT CONTROL MEASURE AREAS

COMMON NAME	SCIENTIFIC NAME	GROWTH SEASON / FORM	% OF MIX	POUNDS PLS (PURE LIVE SEED)		
				-IRRIGATED BROADCAST -IRRIGATED HYDROSEEDED	-NON-IRRIGATED BROADCAST -NON-IRRIGATED HYDROSEEDED -IRRIGATED DRILLED	-NON-IRRIGATED DRILLED
				80 SEEDS/SQ. FT.	40 SEEDS/SQ. FT.	20 SEEDS/SQ. FT.
BIG BLUESTEM	Buchloe dactyloides	WARM, SOD	20%	4.4	2.2	1.1
BLUE GRAMA	Bouteloua gracilis	WARM, BUNCH	10%	0.5	0.25	0.13
GREEN NEEDLEGRASS	Nassella viridula	COOL, BUNCH	10%	2	1	0.5
WESTERN WHEATGRASS	Pascopyrum smithii	COOL, SOD	20%	6.4	3.2	1.6
SIDEOATS GRAMA	Bouteloua curtipendula	WARM, BUNCH	10%	2	1	0.5
SWITCHGRASS	Panicum virgatum	WARM, BUNCH/ SOD	10%	0.8	0.4	0.2
PRAIRIE SANDREED	Calamovilfa longifolia	WARM, BUNCH	10%	1.2	0.6	0.3
YELLOW INDIANGRASS	Sorghastrum nutans	WARM, SOD	10%	2	1	0.5
SEED RATE (LBS. PLS / ACRE)				19.3	9.7	4.8

NATIVE SEED ESTABLISHMENT

INITIAL PLANTING
 STOCKPILED TOPSOIL SHOULD BE SPREAD EVENLY OVER ALL AREAS TO RECEIVE NATIVE SEED. SEED BED IS TO BE WEED-FREE. SPECIFIED SOIL AMENDMENTS SHOULD BE SPREAD AND INCORPORATED INTO TOP 6" OF SOIL. SEED BED IS TO BE RAKED SMOOTH AND FREE OF DEBRIS LARGER THAN 1" IN DIAMETER. ANY AREAS THAT THE CONTRACTOR BELIEVES TO BE SUSCEPTIBLE TO EROSION ARE TO BE BROUGHT TO THE ATTENTION OF THE OWNER AND/OR GENERAL CONTRACTOR PRIOR TO SEEDING. THE SPECIFIED SEED MIX IS TO BE APPLIED BY HYDRO-MULCH SEEDING AT THE RATE SPECIFIED. SEED IS TO BE APPLIED BETWEEN APRIL 15 AND SEPTEMBER 15. SEED SHALL NOT BE SOWN IF GROUND IS IN A FROZEN STATE. SPECIFIED EROSION CONTROL BLANKET IS TO BE INSTALLED IMMEDIATELY AFTER SEEDING. BLANKET SHALL BE LAID AND SECURED WITH 6" METAL STAPLES AS PER MANUFACTURER'S INSTRUCTIONS. CONTRACTOR IS TO PROVIDE INCIDENTAL WATERING OF ALL SEEDED AREAS THREE TIMES A WEEK DURING GROWING SEASON FOR A MINIMUM OF 8 WEEKS, OR UNTIL ESTABLISHED AND MEETING COVERAGE REQUIREMENTS. MOWING MAY BE NECESSARY DURING THE FIRST GROWING SEASON TO KEEP INVASIVE WEEDS FROM SETTING SEEDS. CONTRACTOR IS RESPONSIBLE FOR KEEPING BROADLEAF WEEDS UNDER CONTROL FOR 12 MONTHS AFTER INITIAL SEEDING AND IS ALSO RESPONSIBLE FOR OVER SEEDING BARE AREAS UNTIL SPECIFIED NATIVE GRASSES COVER ALL AREAS AND AREAS WITHOUT SPECIFIED NATIVE GRASS DO NOT EXCEED 6" X 6".

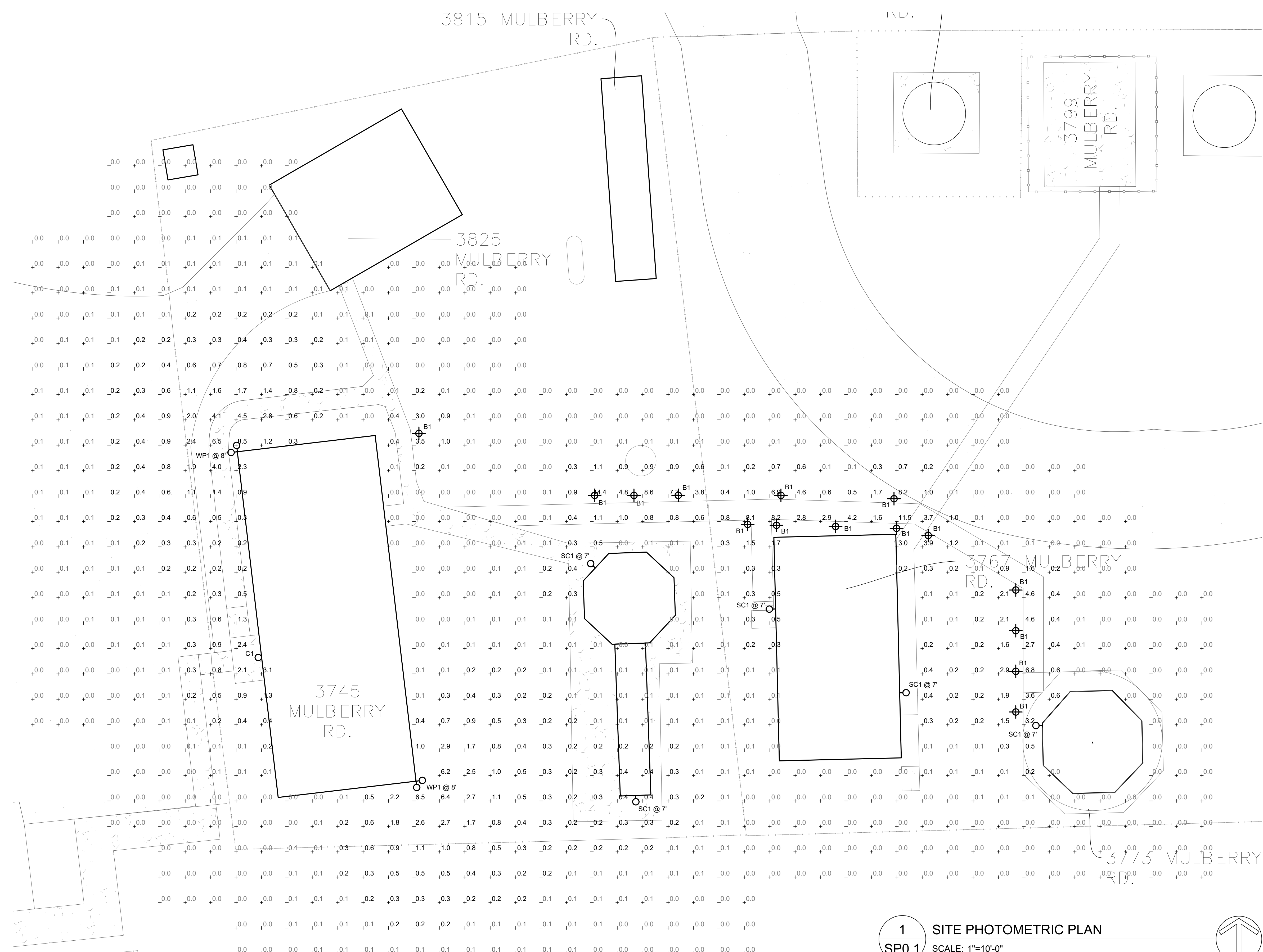
OVER SEEDING
 SIX WEEKS AFTER THE INITIAL SEEDING DURING THE FIRST GROWING SEASON AND/OR DURING THE SPRING OF THE SECOND GROWING SEASON CONTRACTOR IS TO REPAIR ANY ERODED AREAS AND OVER SEED ALL BARE NATIVE GRASS AREAS. CONTRACTOR IS TO USE SPECIFIED SEED MIX BY BROADCAST AND RAKING INTO TOP 1/4" TO 1/2" OF SOIL. INCIDENTAL WATERING IS TO BE PROVIDED TO ESTABLISH OVER-SEEDED AREAS. BROADLEAF WEEDS ARE TO BE KEPT UNDER CONTROL BY MANUALLY PULLING OR CUTTING WEEDS OR SPRAYING OF BROADLEAF WEED HERBICIDE. HERBICIDE AND APPLICATION SHALL CONFORM TO ALL APPLICABLE LAWS OF THE STATE OF COLORADO AND MANUFACTURERS INSTRUCTIONS.

LIGHT FIXTURE SCHEDULE

MARK	MANUF.	MODEL	LAMP			MOUNTING	DESCRIPTION	VOLTAGE	TOTAL WATTS	NOTES
			QTY.	WATT	TYPE					
B1	LITHONIA	RADB LED P1 27K SYM DBLXD BCCDBR	1	5.2	LED	GROUND	BOLLARD	120	5.2	

CALCULATION ZONE STATISTICS

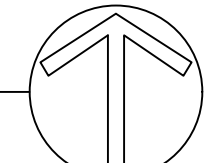
SYMBOL (fc)	AVERAGE (fc)	MAXIMUM (fc)	MINIMUM (fc)	MAX./MIN. (fc)	AVG./MIN. (fc)
+	0.2	14.4	0.0	N/A	N/A




2 RADB BOLLARD (B1)
SP0.1 SCALE: NONE



1 SITE PHOTOMETRIC PLAN
SP0.1 SCALE: 1"=10'-0"



PCD File # PPR-22-014


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03.18.2022


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 Colorado Springs, CO 80907
 fabian@mcsheaconsulting.com
 Project: 22-014

MULBERRY ROAD DEVELOPMENT
 3745-3815 MULBERRY ROAD YODER, COLORADO 80864
CMG CORPORATION
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SHEET NAME
SITE PHOTOMETRIC PLAN
 PROJECT STATUS
PRELIMINARY

ARCHING:	CCF
DRAWN:	MRM
CHECKED:	MRM
DATE	03.10.2022
REVISION	DATE
JOB NO.	186303
SHEET NO.	SP0.1

RADEAN Bollard
LED Site Luminaire

Specifications
 Diameter: 8.25" (210mm)
 Height: 41.5" Standard (1054mm)
 Weight: 20lbs (9.07kg)

Introduction
 The Radcan LED Bollard is an award-winning, energy-saving, long-life solution designed to perform the way a bollard should. The Radcan LED Bollard's rugged construction, durable finish and long-lasting LEDs will provide years of maintenance-free service.

Ordering Information
 EXAMPLE: RAD0B P4 30K SYM MVOLT BTS BCCDNATXD DBL0

Color	Reference	Color Temperature	Beam Spread	Output	Mounting Option	Shipping Weight
RA0B P4	PT	27K	270x4	AS7 Symmet*	MVOLT*	120
RA0B P4	PT	30K	300x4	S9M Symmet*	MVOLT*	120
RA0B P4	PT	40K	400x4	S9M Symmet*	MVOLT*	120
RA0B P4	PT	50K	500x4	S9M Symmet*	MVOLT*	120

Color	Reference	Color Temperature	Beam Spread	Output	Mounting Option	Shipping Weight
RA0B P4	PT	27K	270x4	AS7 Symmet*	MVOLT*	120
RA0B P4	PT	30K	300x4	S9M Symmet*	MVOLT*	120
RA0B P4	PT	40K	400x4	S9M Symmet*	MVOLT*	120
RA0B P4	PT	50K	500x4	S9M Symmet*	MVOLT*	120

Color	Reference	Color Temperature	Beam Spread	Output	Mounting Option	Shipping Weight
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RA0B P4	PT	30K	300x4	S9M Symmet*	MVOLT*	120
RA0B P4	PT	40K	400x4	S9M Symmet*	MVOLT*	120
RA0B P4	PT	50K	500x4	S9M Symmet*	MVOLT*	120

Color	Reference	Color Temperature	Beam Spread	Output	Mounting Option	Shipping Weight
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RA0B P4	PT	30K	300x4	S9M Symmet*	MVOLT*	120
RA0B P4	PT	40K	400x4	S9M Symmet*	MVOLT*	120
RA0B P4	PT	50K	500x4	S9M Symmet*	MVOLT*	120

Performance Data

DNAXD Finish*

Temp	Color	Beam	Output	Mounting	Shipping
Typical	PT	1	100	1	100
	PT	2	200	2	200
	PT	3	300	3	300
	PT	4	400	4	400
Diminished*	PT	1	100	1	100
	PT	2	200	2	200
	PT	3	300	3	300
	PT	4	400	4	400

Projected LED Lumen Maintenance

Temp	Color	Beam	Output	Mounting	Shipping
PT	1	100	1	100	100
PT	2	200	2	200	200
PT	3	300	3	300	300
PT	4	400	4	400	400

Electrical Load

Temp	Color	Beam	Output	Mounting	Shipping
PT	1	100	1	100	100
PT	2	200	2	200	200
PT	3	300	3	300	300
PT	4	400	4	400	400

Photometric Diagrams

Light distribution patterns for the RA0B P4. Diagrams show beam spread and illuminance levels at various mounting heights (3.5', 6.5', 9.5', 12.5', 15.5').

FEATURES & SPECIFICATIONS

INTENDED USE
 The rugged construction and maintenance-free performance of the Radcan LED Bollard is ideal for illuminating building entrances, walkways, parking lots and pedestrian zones, as well as any other location requiring a low-maintenance high-light source.

CONSTRUCTION
 Cast aluminum extruded aluminum with thick side walls for maximum durability and die-cast reflector and top cap. Four 3/8" x 7/8" anchor bolts with die-cast nuts and washers and ESD* nut.

FINISH
 Exterior parts are protected by a one-layer clear die-cast UV resistant powder coat finish that provides superior protection to corrosion and weathering. For maximum protection, a 2nd layer of powder coat can be applied. The powder coat has a minimum 3-mil thickness for a finish that can withstand the elements without cracking or peeling. Available in both standard and non-standard finishes.

OPTICS
 Multiple beam patterns are available: symmetrical and asymmetrical. PM available LED light engine provides smooth, graduated illumination. Light engines are available in 270K, 300K, 350K, 400K or 500K.

ELECTRICAL
 Light engines consist of high-efficiency LEDs mounted to metal-core circuit boards to maximize heat dissipation and permitting long life (30,000-100,000 hours at 25°C). Class 2 electronic drivers are designed to be operated for 100,000 hours with a 1% failure rate. Electrical components are mounted on a removable power tray.

LISTINGS
 CSA certified in U.S. and Canadian markets. Light engines are PMA tested, rated for 40°C maximum ambient. Emergency battery back-up tested for 10°C minimum ambient. International Data Group Association (IDA) Future Proof of Approval (FPoA) available for all products on this page utilizing 3000K color or less. U.S. Patent No. 8,971,000.

RY AMERICAN
 The product is registered to the U.S. and meets the Buy American government procurement requirements. See RYAMERICAN.COM and D371. Please visit www.radcan.com for additional information.

WARRANTY
 Five-year limited warranty. This is the only warranty provided and all other statements in this specification shall remain as marketing or sales aids. All other warranties and implied warranties are disclaimed. Complete warranty terms located at www.radcan.com/usa/technical-specifications/usa/usa-warranty-terms.

Notes: Actual performance may differ as a result of end-user environment and application and color. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

COMMERCIAL OUTDOOR One Lithonia Way • Conley, Georgia 30124 • Phone: 1-800-735-SERV (7378) • www.lithonia.com

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LITHONIA LIGHTING

RMG Engineers / Architects

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 SOUTHERN COLORADO ENGINEERS, ARCHITECTS
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PRELIMINARY REVIEW SET, NOT FOR CONSTRUCTION 03.18.2022

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MULBERRY ROAD DEVELOPMENT

3745-3815 MULBERRY ROAD YODER, COLORADO 80864

CMG CORPORATION

SITE PHOTOMETRIC PLAN

PRELIMINARY

PROJECT STATUS: PRELIMINARY

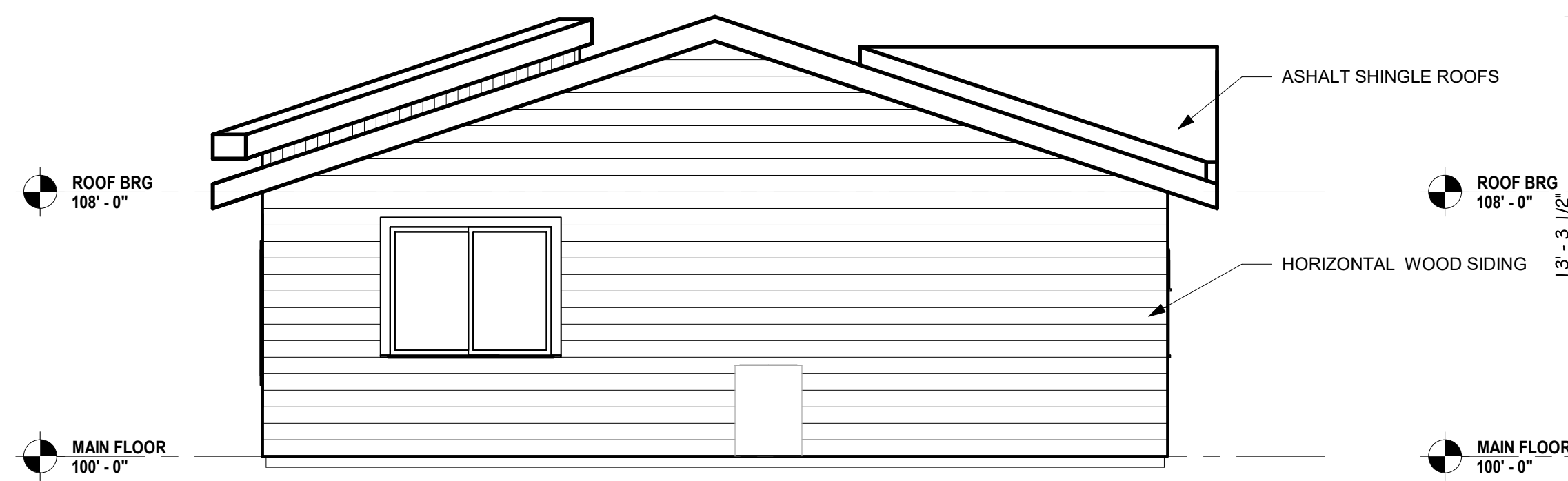
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 CHECKED: MRM

DATE: 03.10.2022

REVISION	DATE

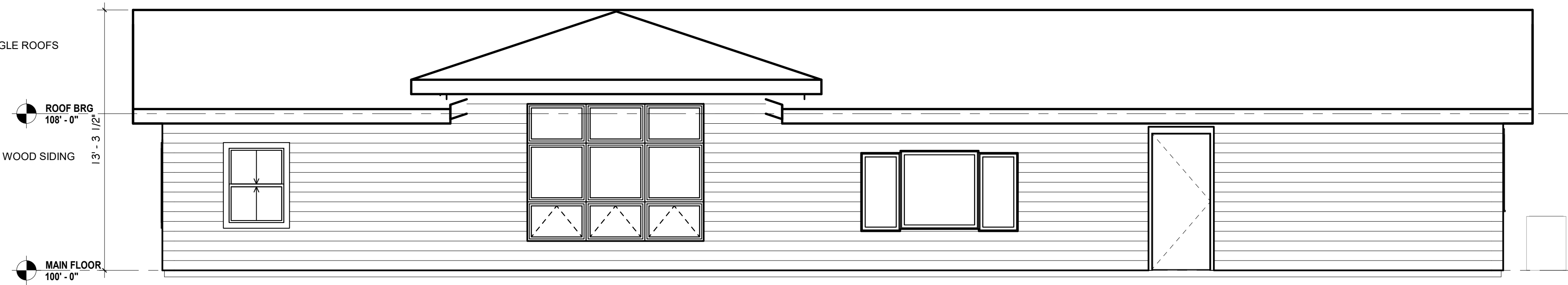
JOB NO: 186303

SHEET NO: SP.0.2



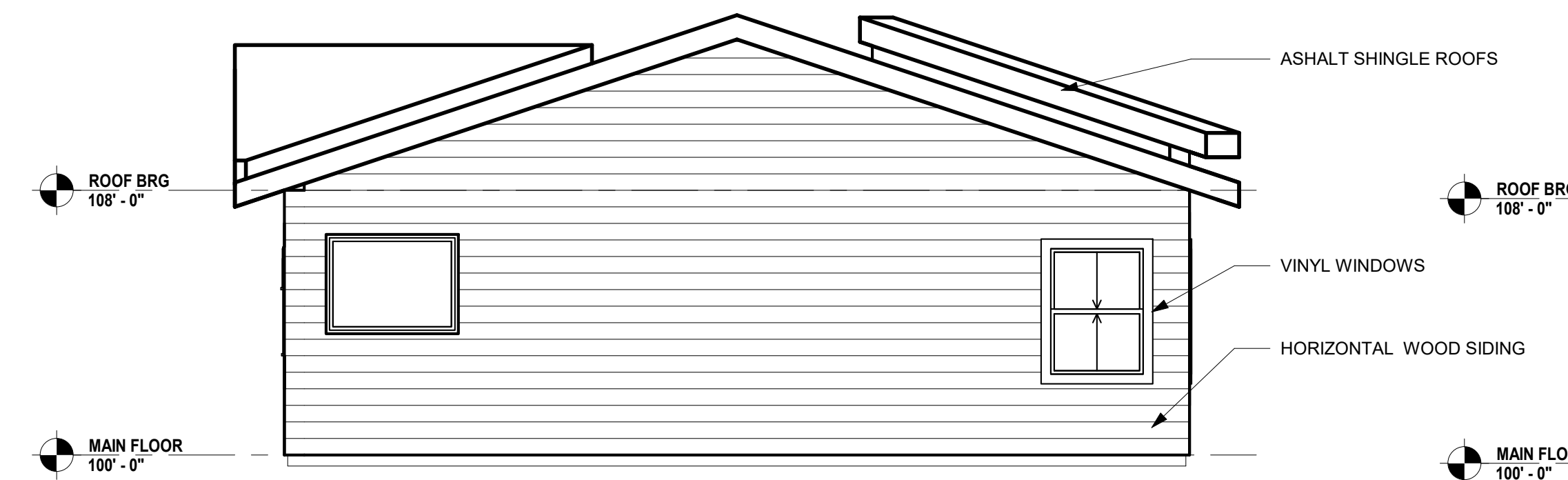
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DP.04 SCALE: 1/4" = 1'-0"



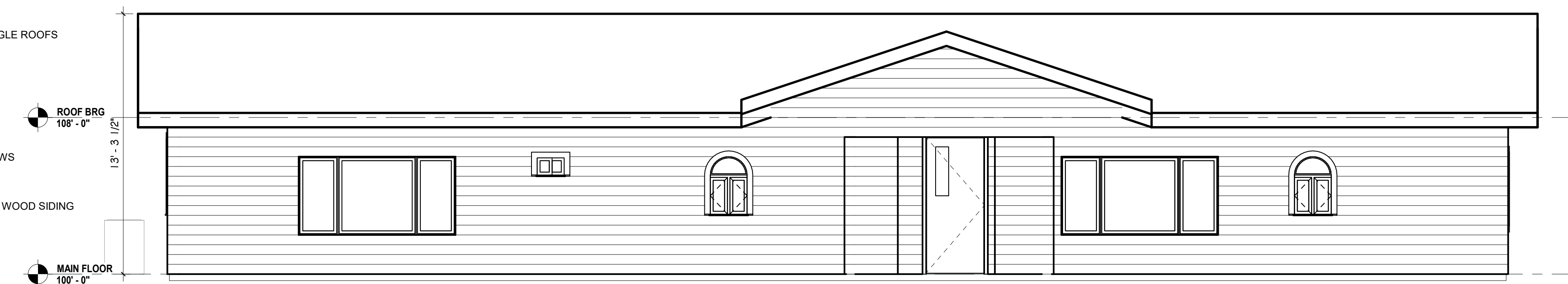
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DP.04 SCALE: 1/4" = 1'-0"



3 SOUTH DEVELOPMENT OFFICE ELEVATION

DP.04 SCALE: 1/4" = 1'-0"



4 WEST DEVELOPMENT OFFICE ELEVATION

DP.04 SCALE: 1/4" = 1'-0"

PRELIMINARY NOT FOR CONSTRUCTION

MULBERRY ROAD DEVELOPMENT

3745-3815 MULBERRY ROAD YODER, COLORADO 80864

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DEVELOPMENT ELEVATIONS
OFFICE

DEVELOPMENT SET

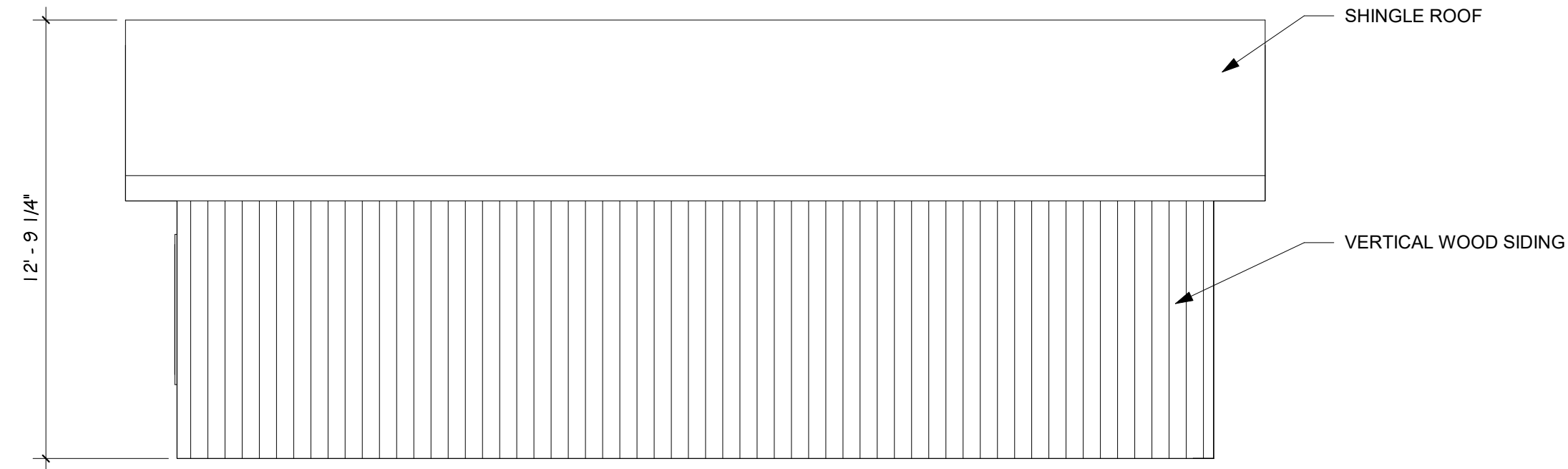
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DATE
03.07.22

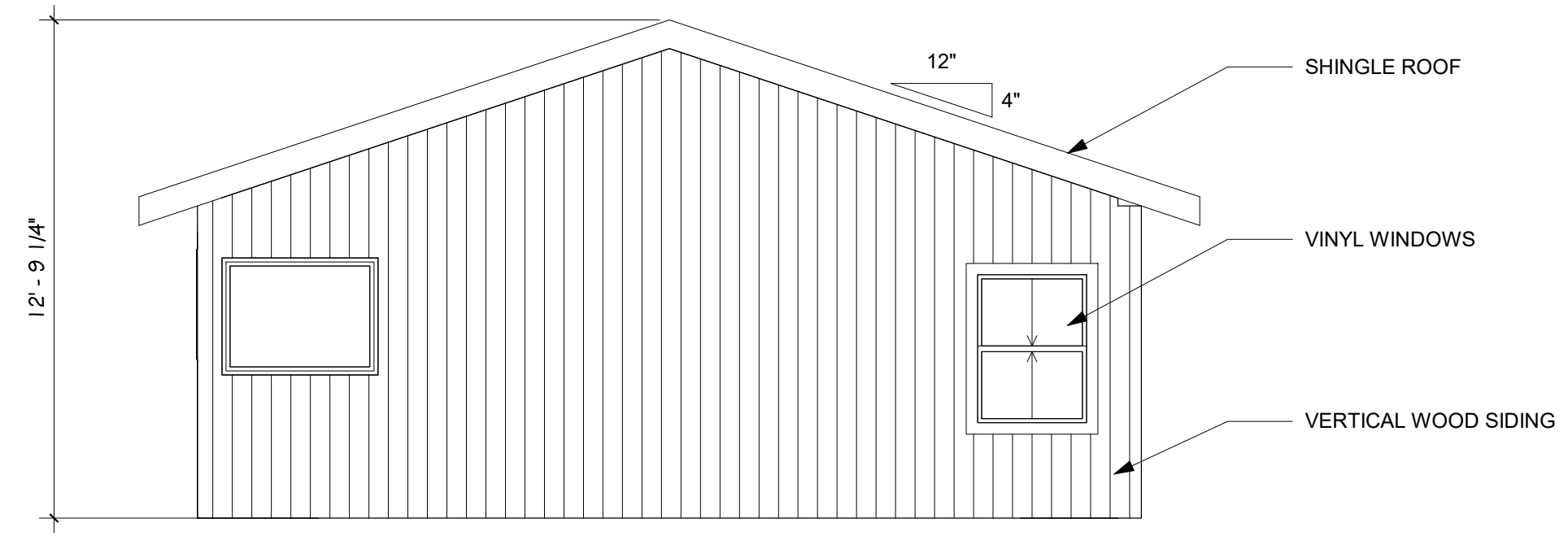
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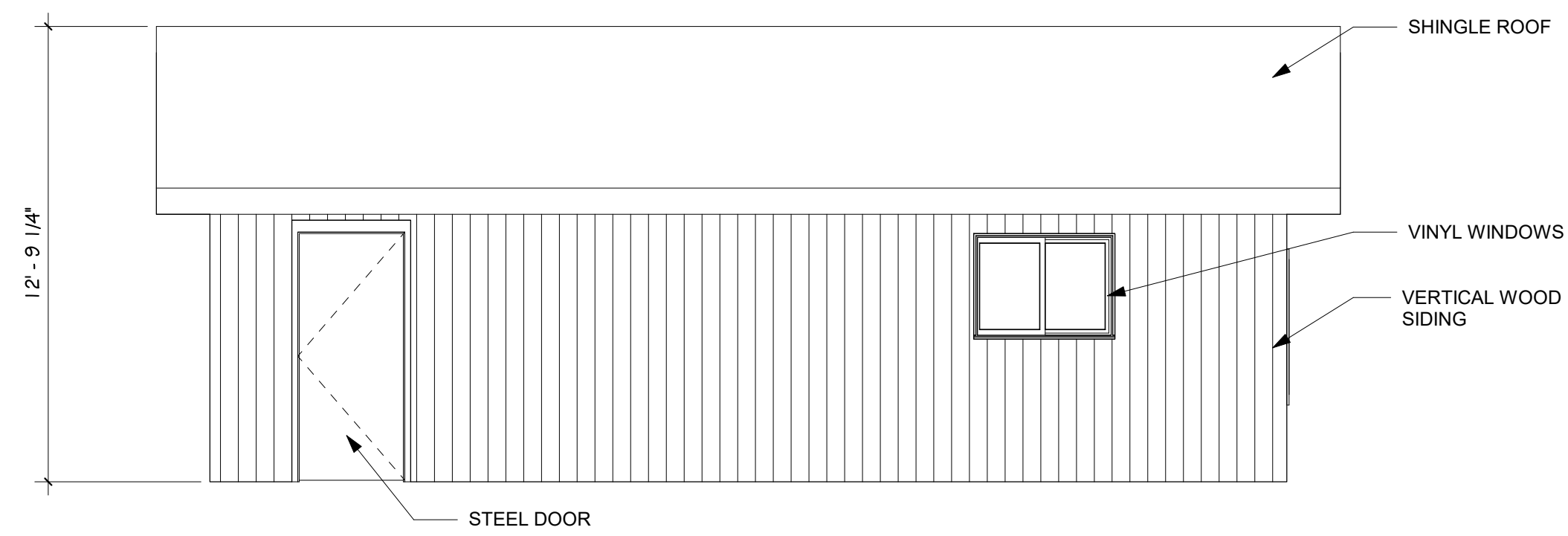
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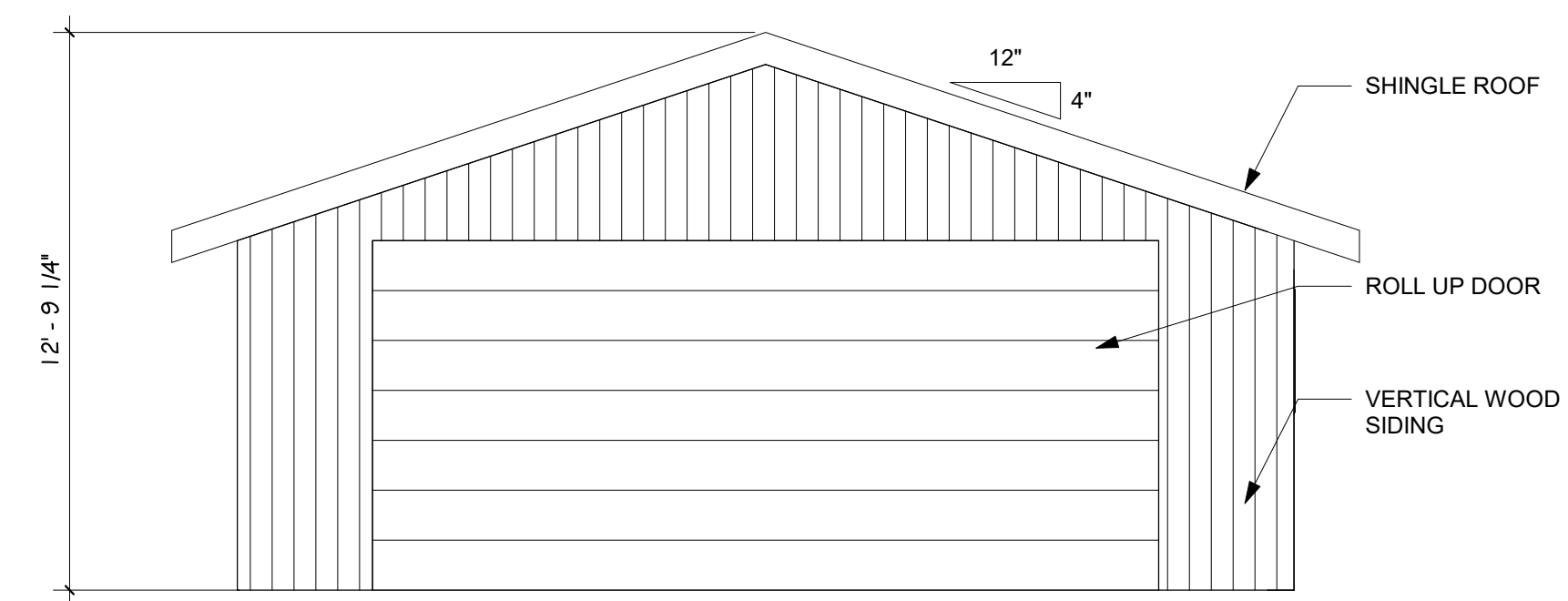
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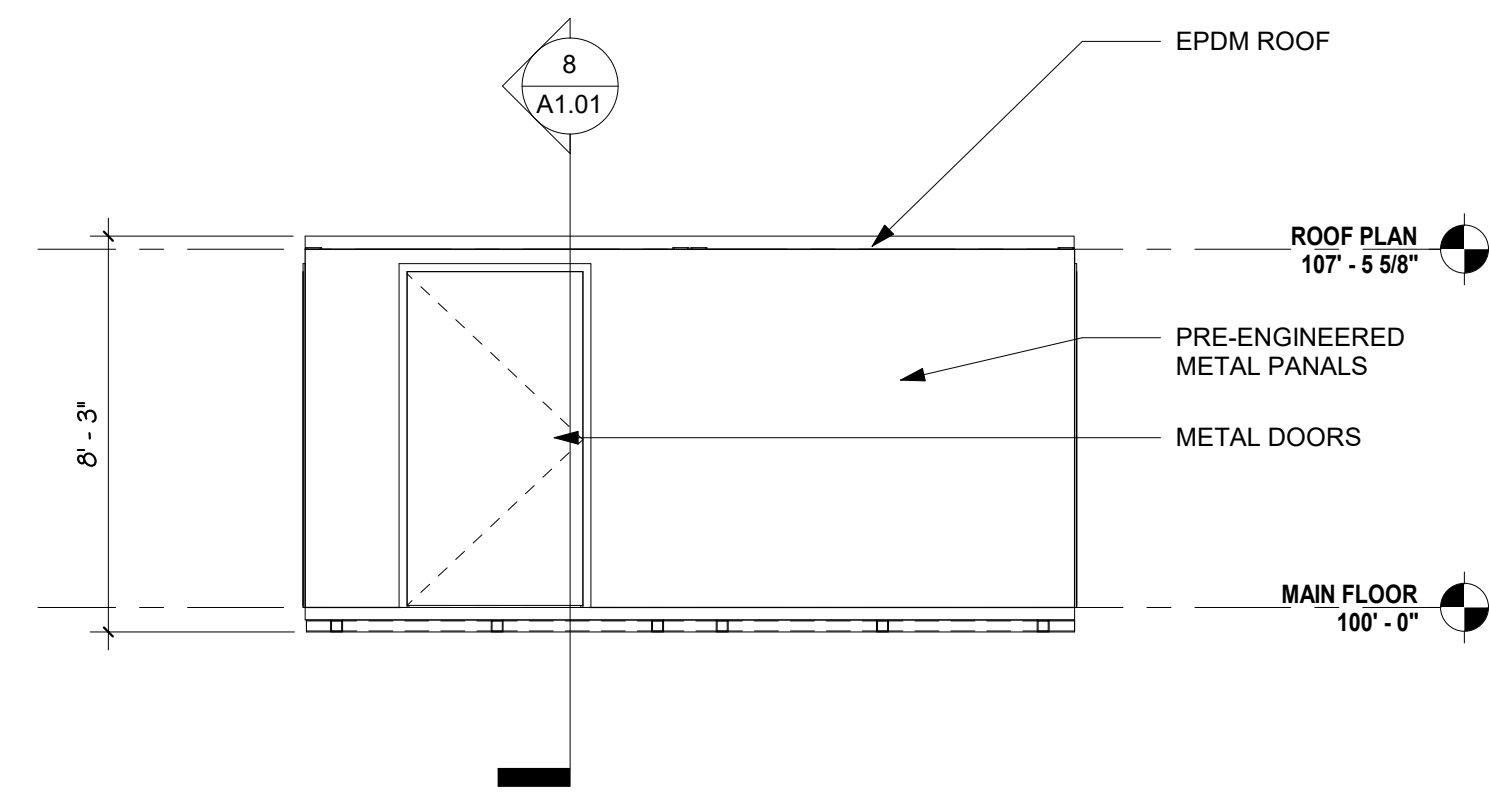
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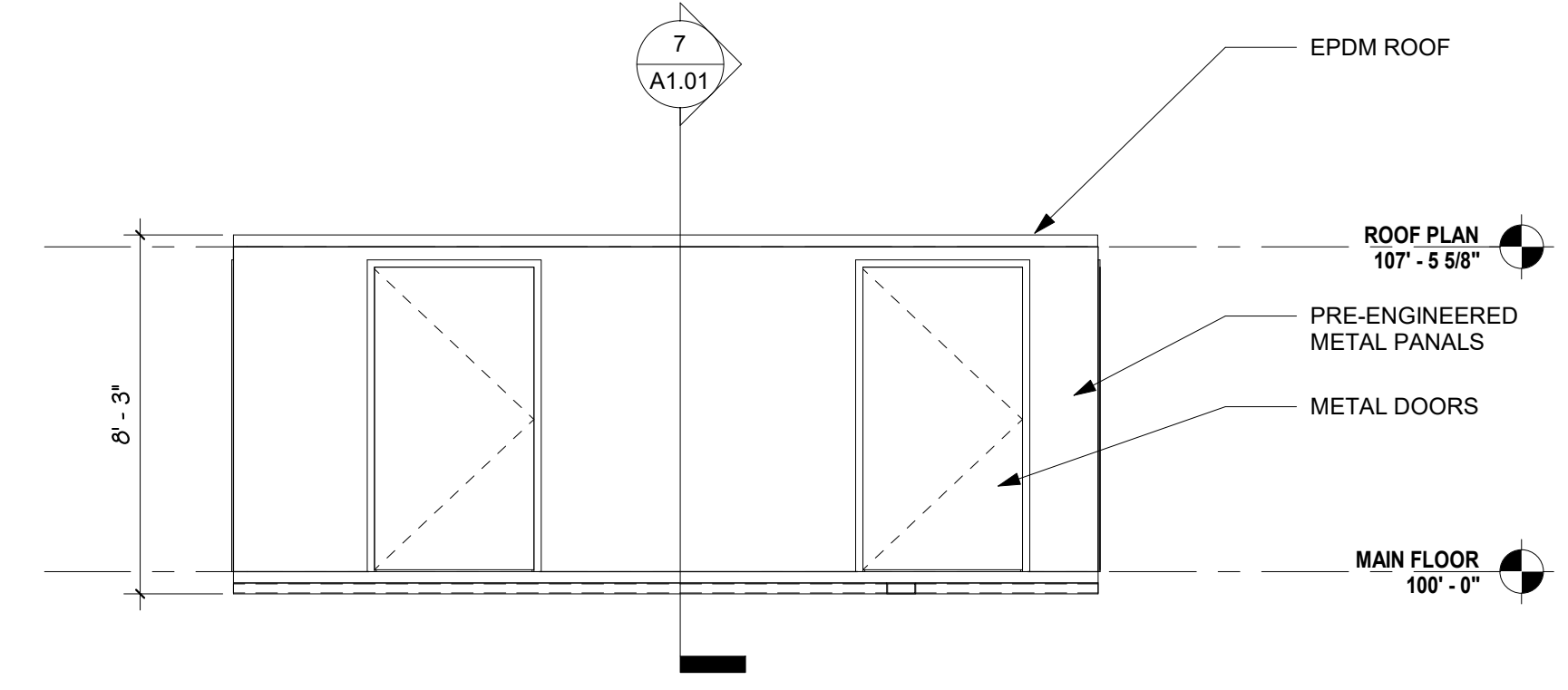
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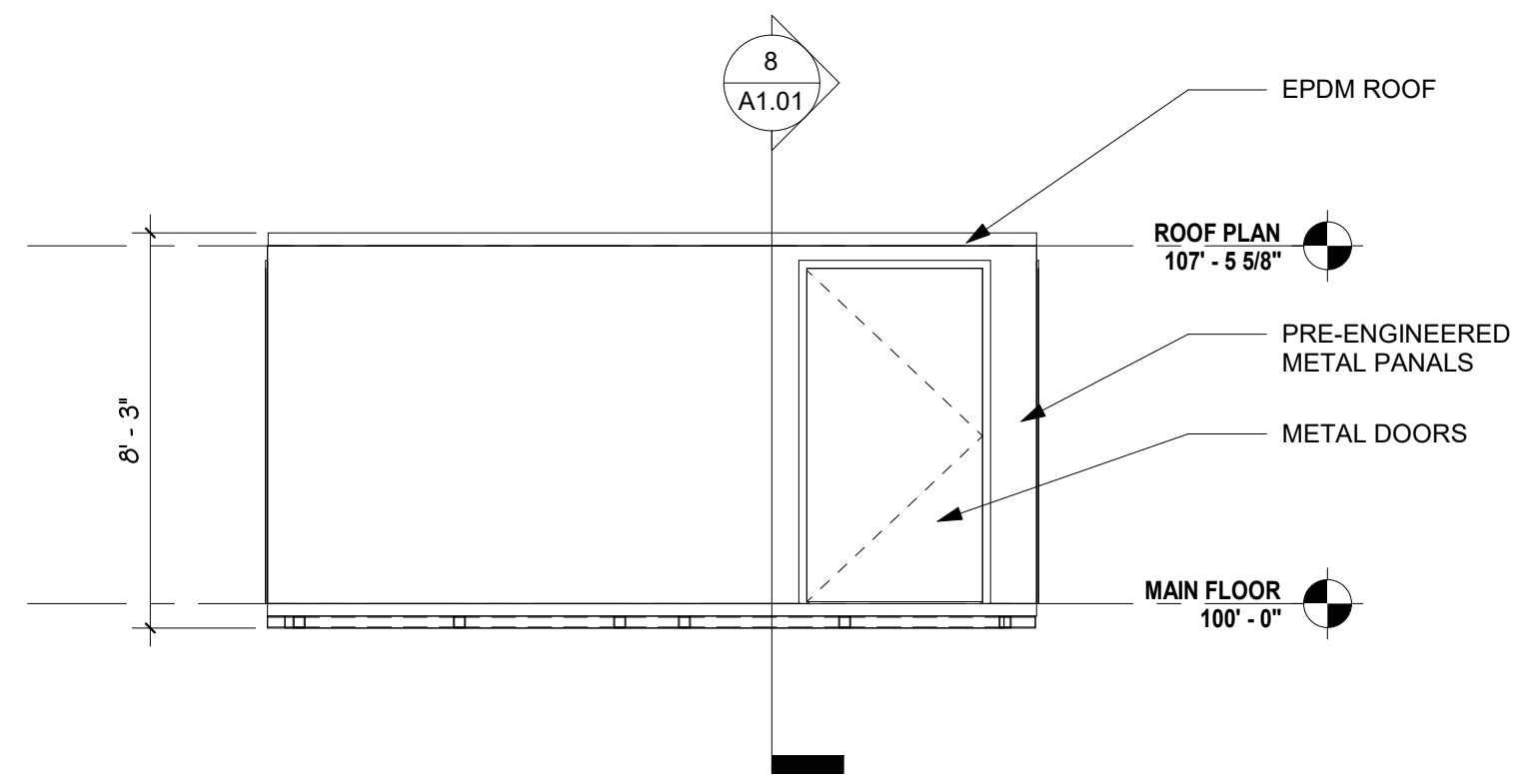
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 DP.05 SCALE: 1/4" = 1'-0"



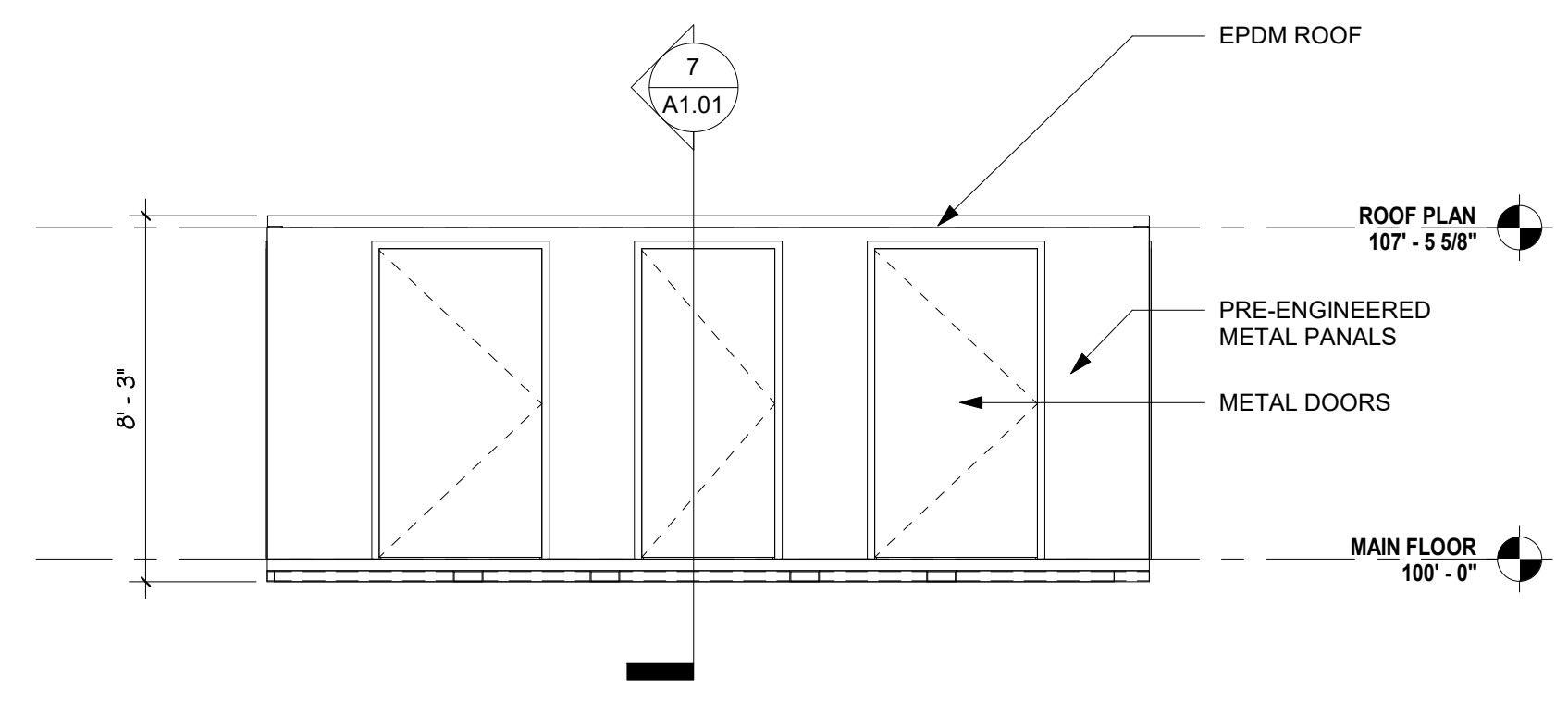
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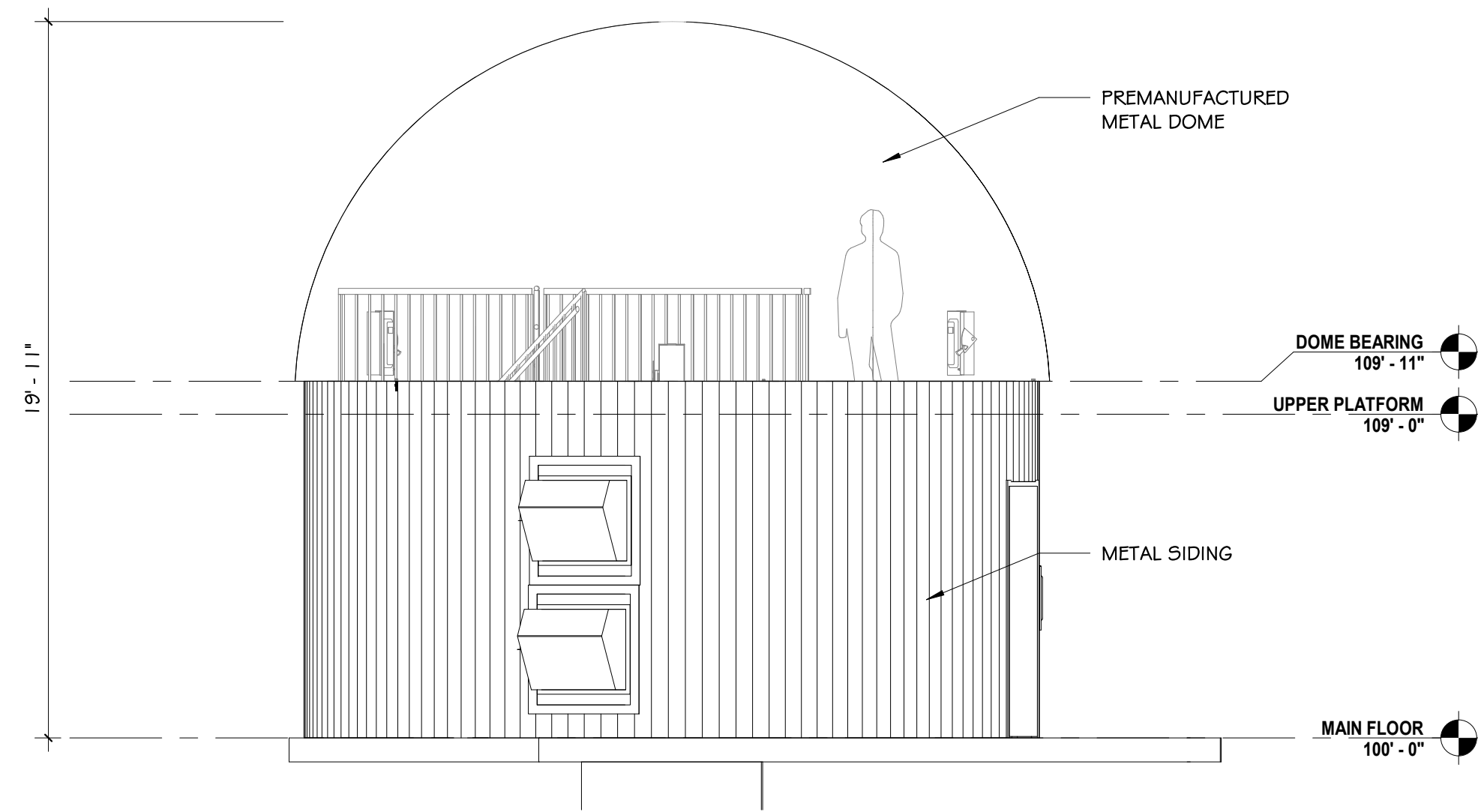


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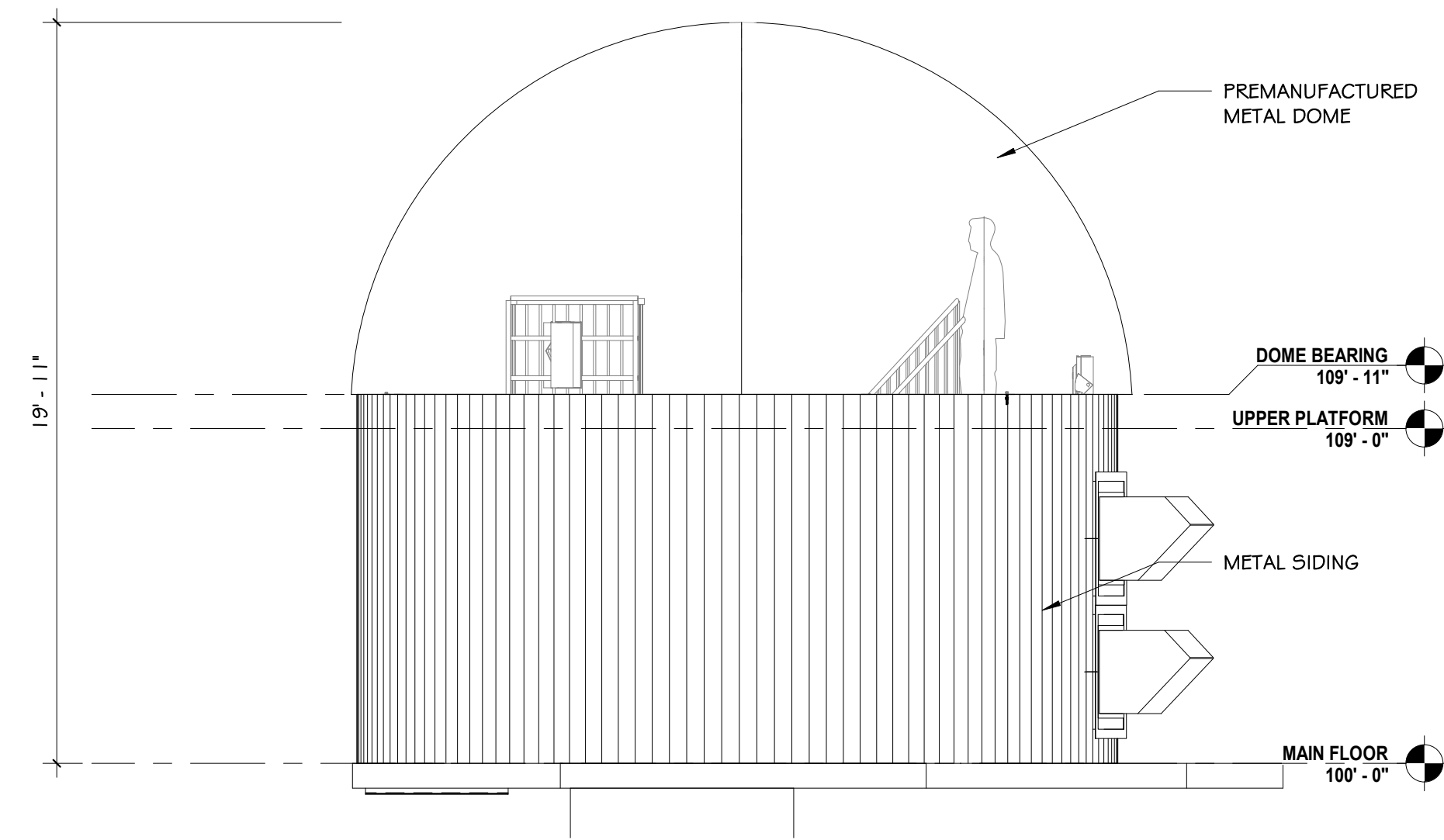


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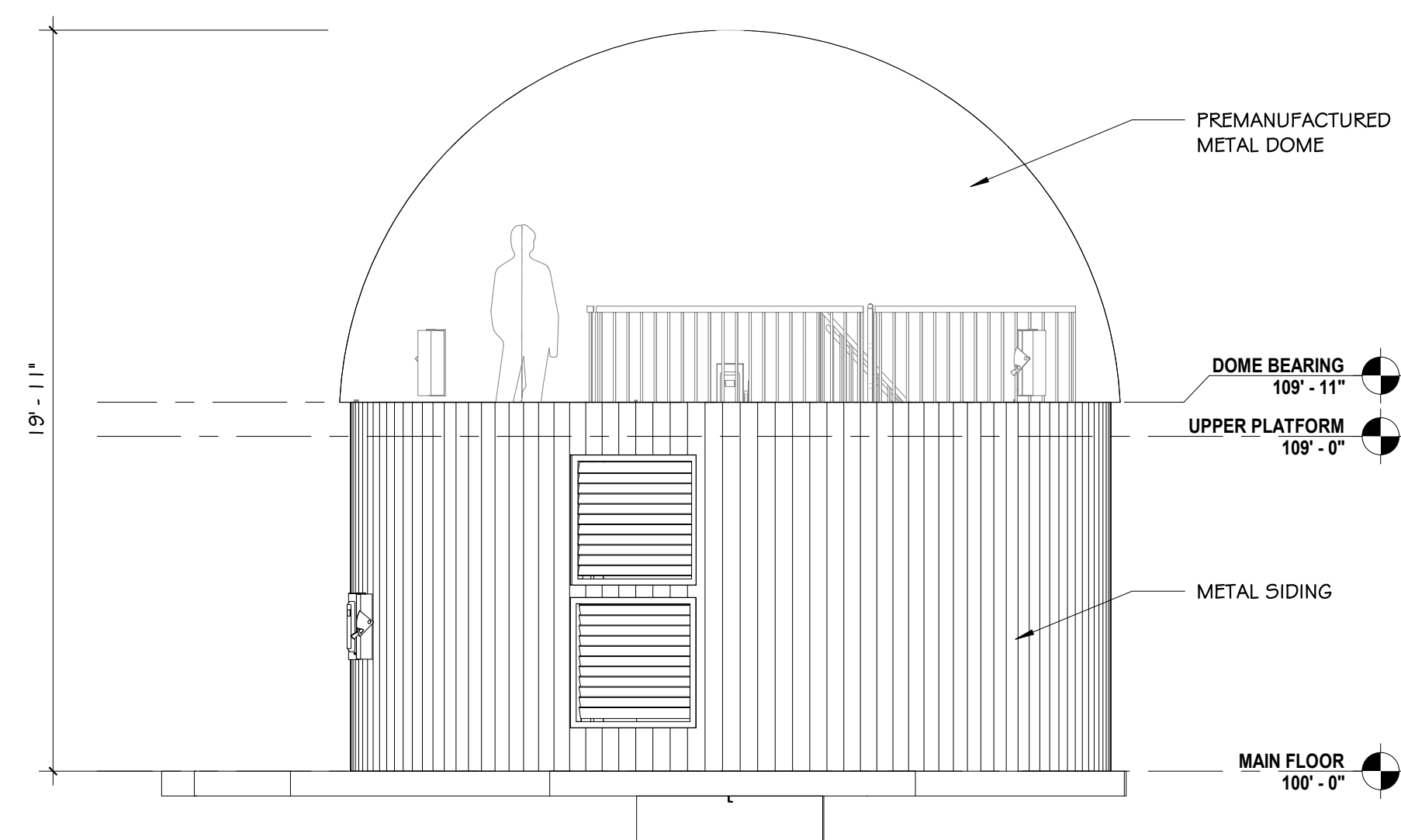
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#	REVISION	DATE
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JOB NO.:	186303	
SHEET NO.:	DP.06	



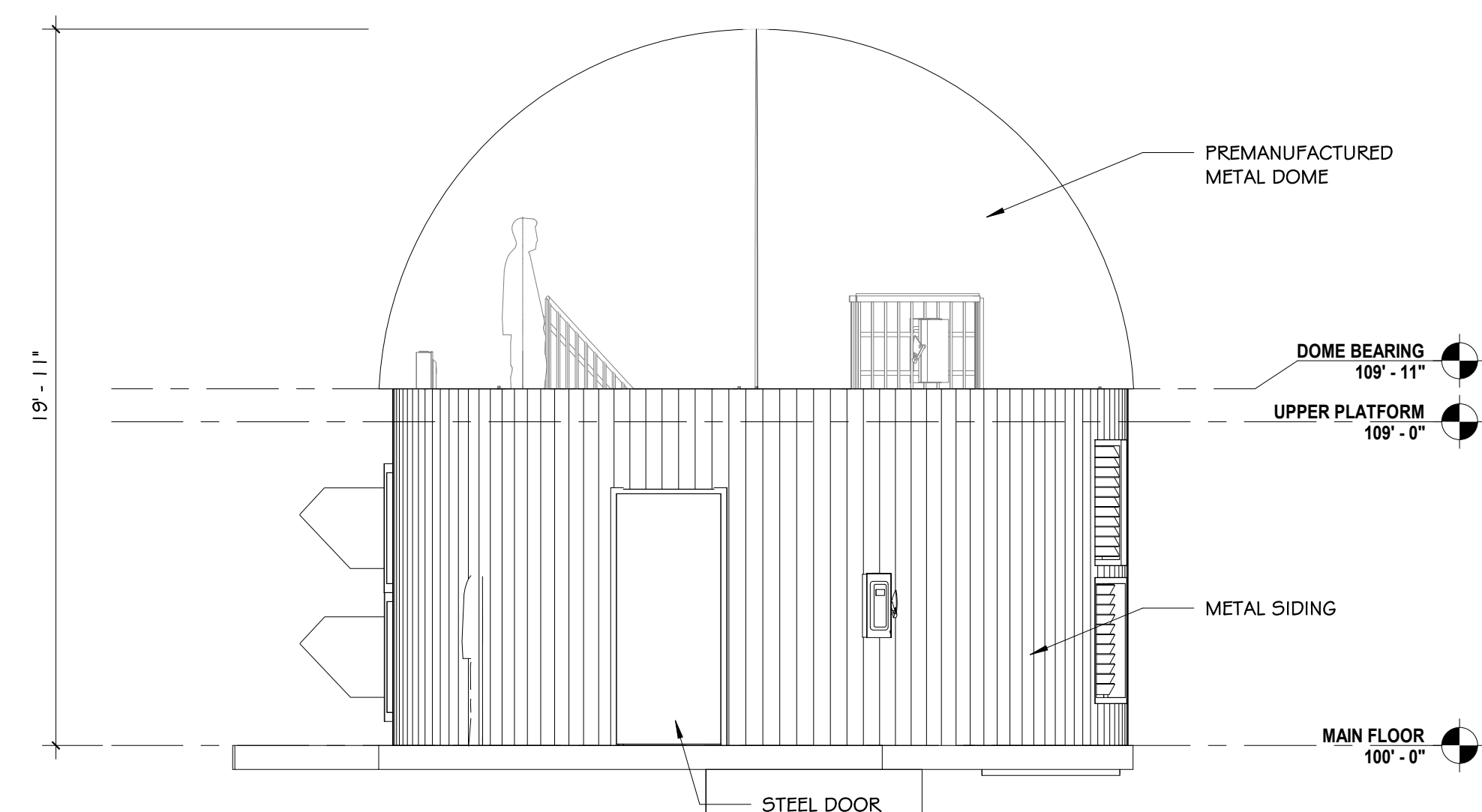
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 DP.07 SCALE: 1/4" = 1'-0"



4 SOUTH DEVELOPMENT ELEVATION
 DP.07 SCALE: 1/4" = 1'-0"



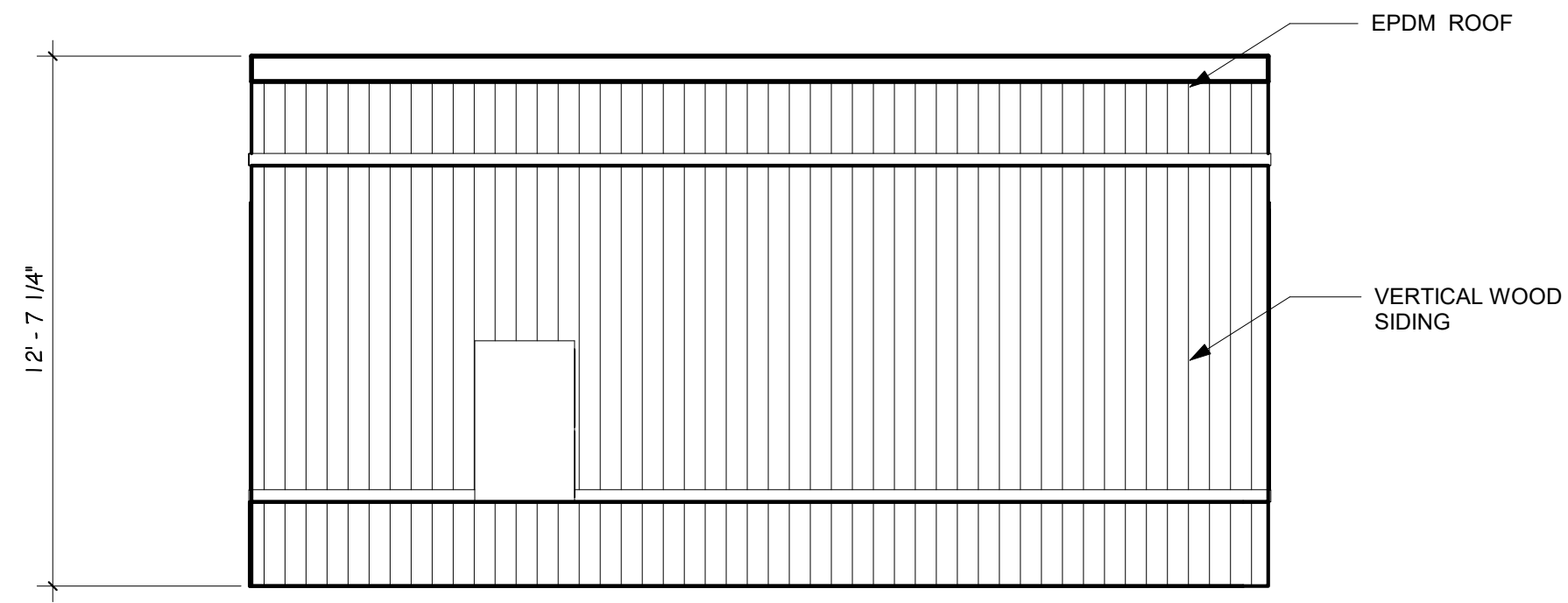
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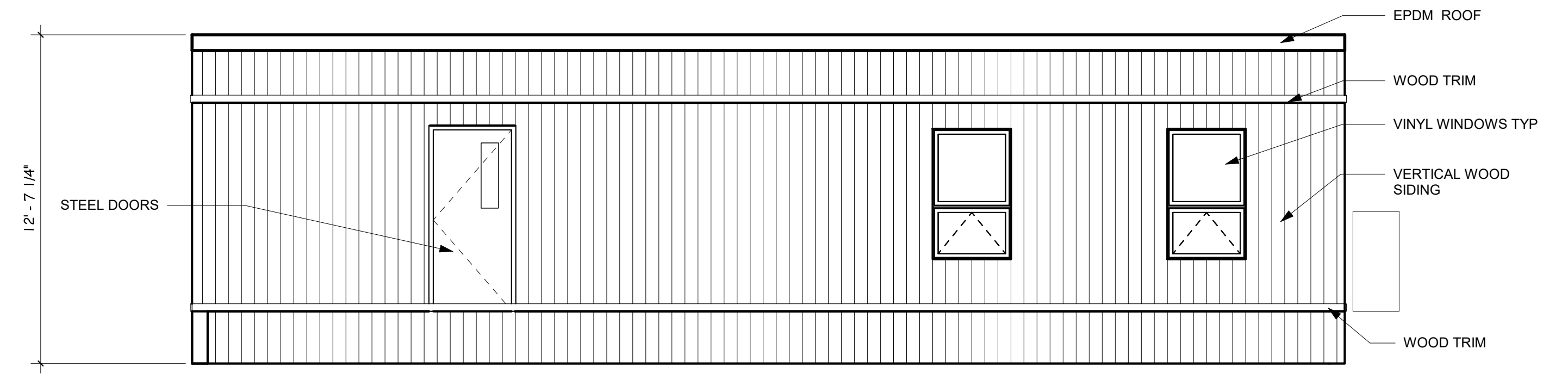
YODER TELESCOPE
 3773 MULBERRY ROAD, YODER, COLORADO 80864
L3HARRIS TECHNOLOGIES, INC

DEVELOPMENT TELESCOPE ELEVATIONS
 PERMIT SET

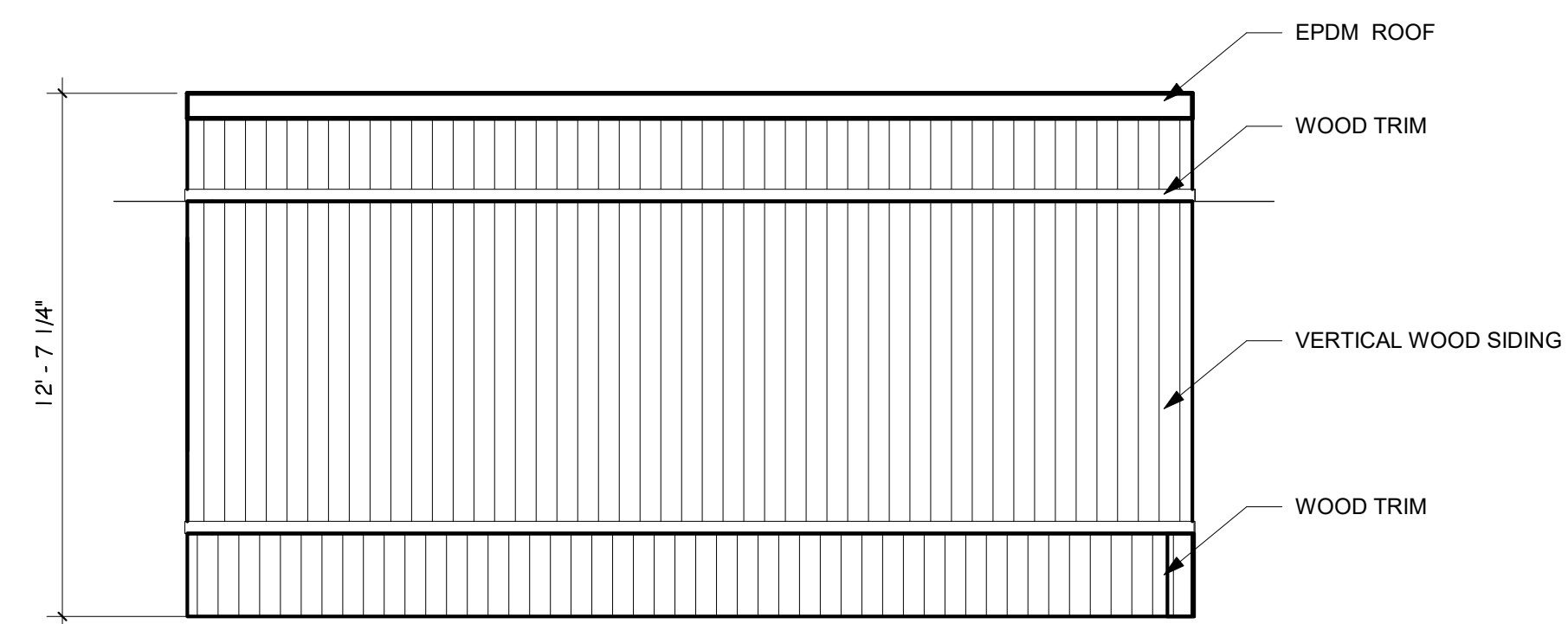
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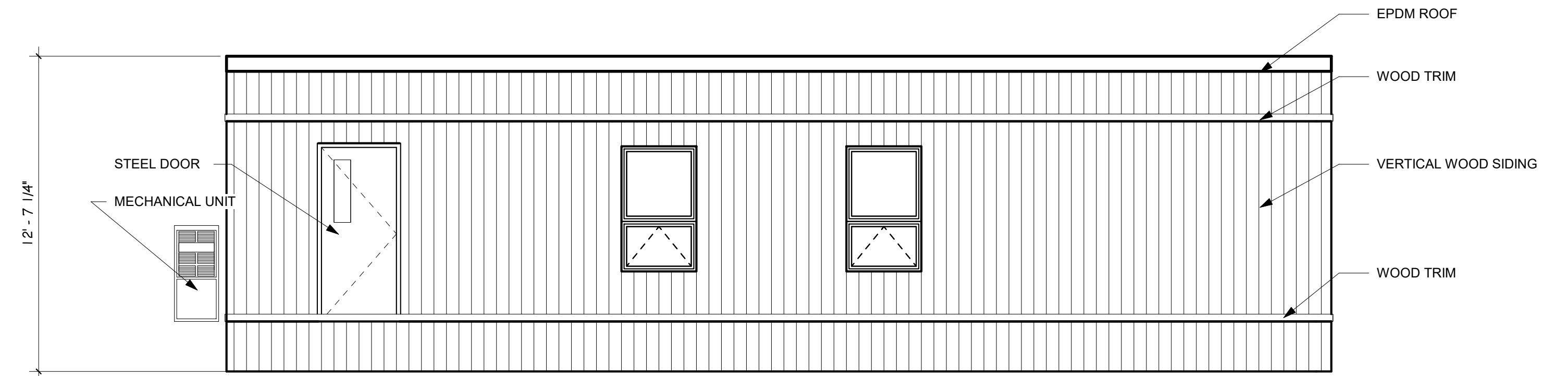
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 DP.08 SCALE: 1/4" = 1'-0"



2 EAST DEVELOPMENT OPERATION CENTER ELEVATION
 DP.08 SCALE: 1/4" = 1'-0"



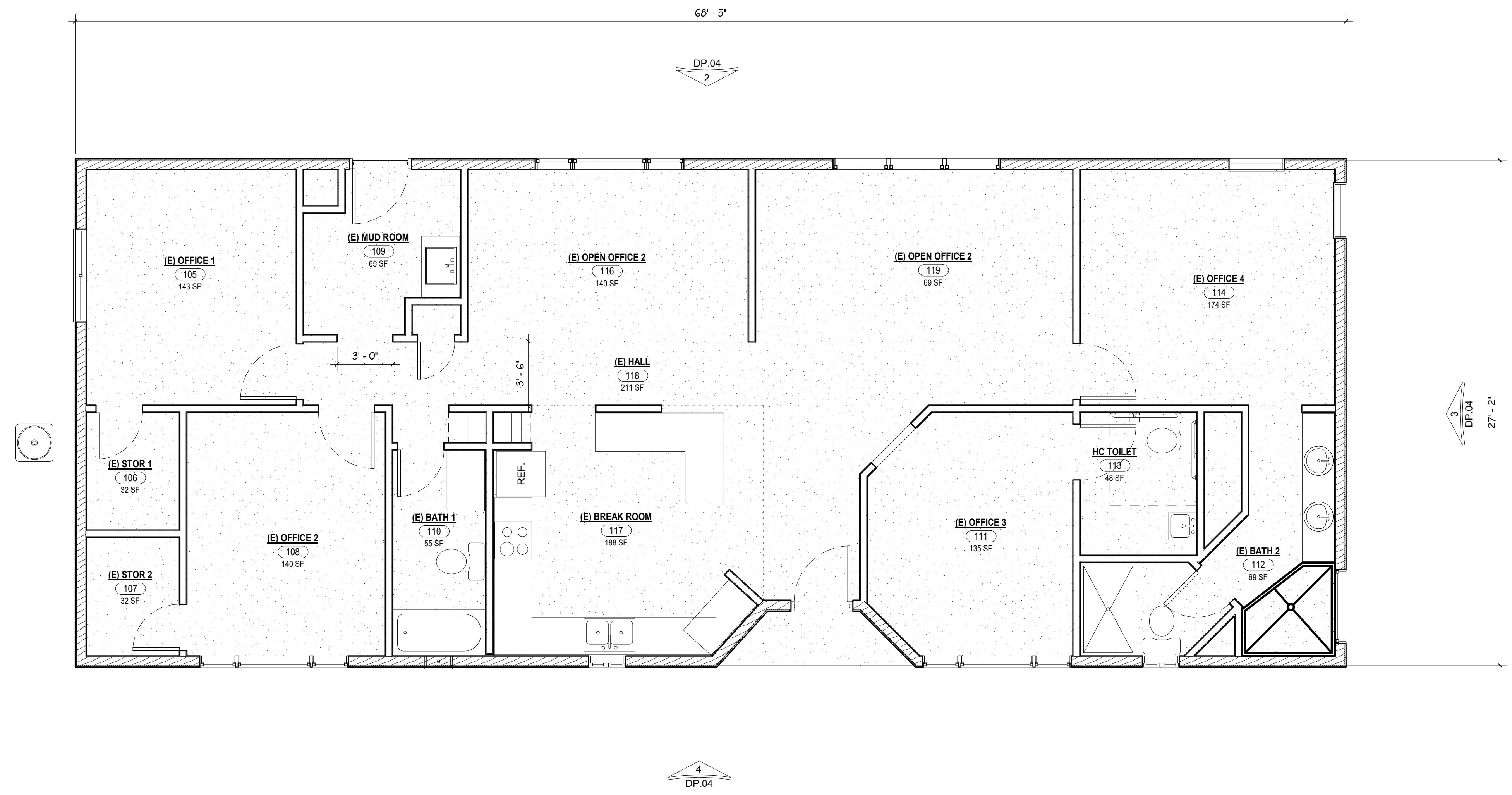
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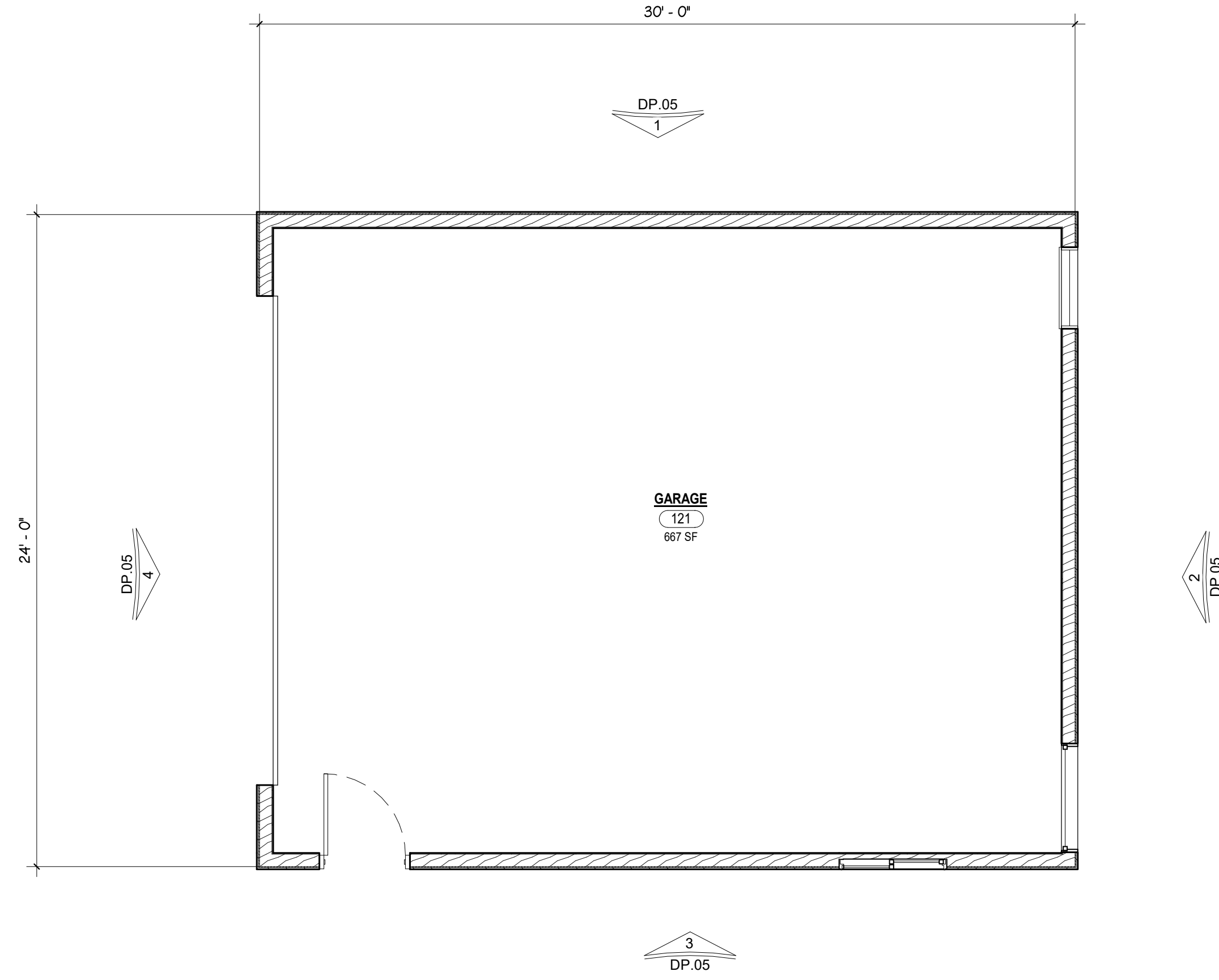
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DRAWN:	JDZ	
CHECKED:	km	
DATE:	03.07.22	
#	REVISION	DATE
JOB NO.:	186303	
SHEET NO.:	DP.08	

1 DEVELOPMENT (EXISTING) OFFICE FLOOR PLAN
 DP.04A SCALE: 1/4" = 1'-0"



SHEET NAME	DEVELOPMENT PLAN OFFICE	
PROJECT STATUS	DEVELOPMENT SET	
ARCH/ENG:	KEM	
DRAWN:	JDZ	
CHECKED:	km	
DATE	03.07.22	
#	REVISION	DATE
1		
JOB NO.	186303	
SHEET NO.	DP.04A	



1 DEVELOPMENT (EXISTING) GARAGE FLOOR PLAN
 DP.05A SCALE: 1/4" = 1'-0"

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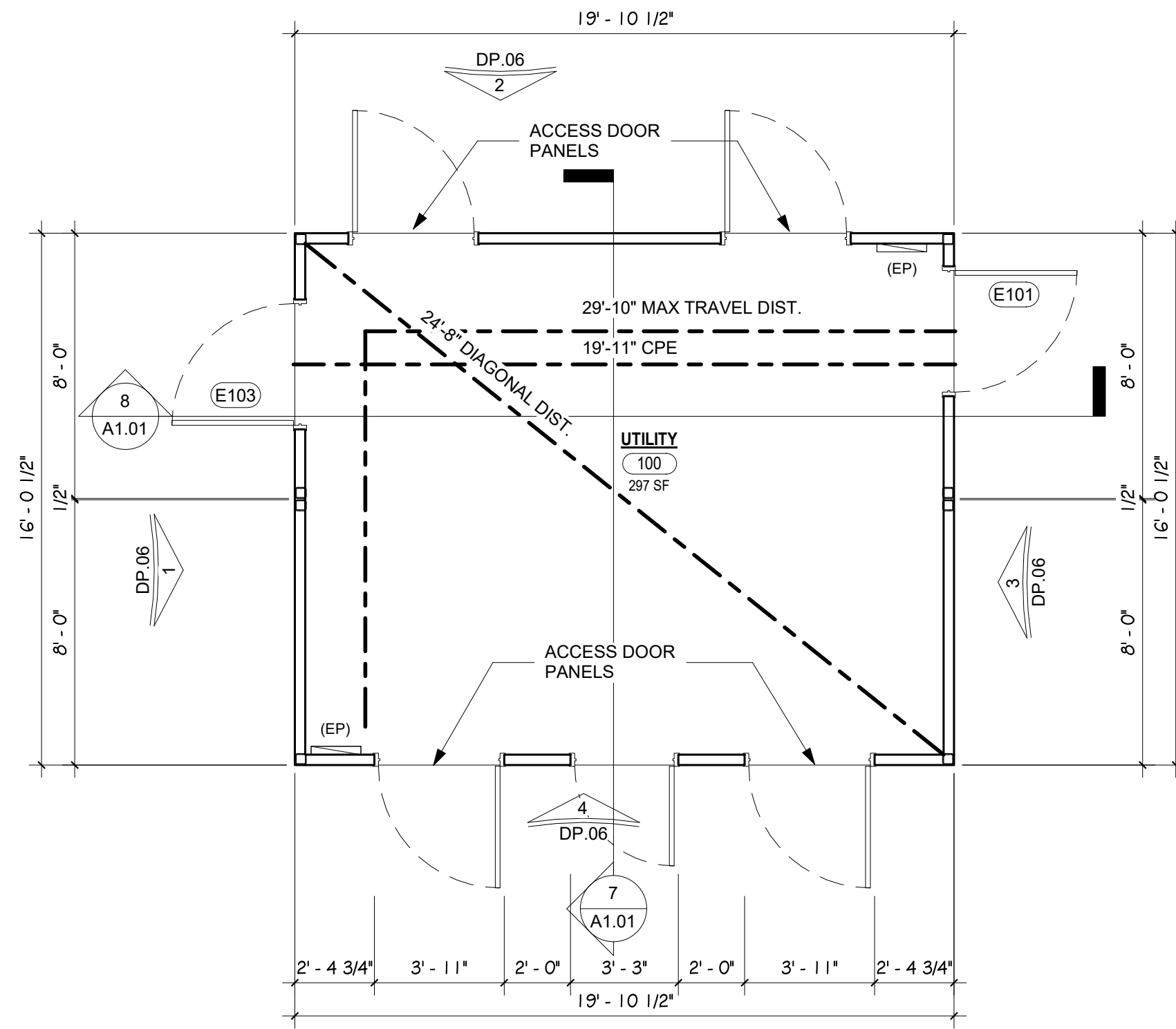
MULBERRY ROAD DEVELOPMENT
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SHEET NAME: **DEVELOPMENT GARAGE PLANS**
 PROJECT STATUS: **DEVELOPMENT SET**

ARCH/ENG: KEM
 DRAWN: JDZ
 CHECKED: km
 DATE: 03.07.22

#	REVISION	DATE

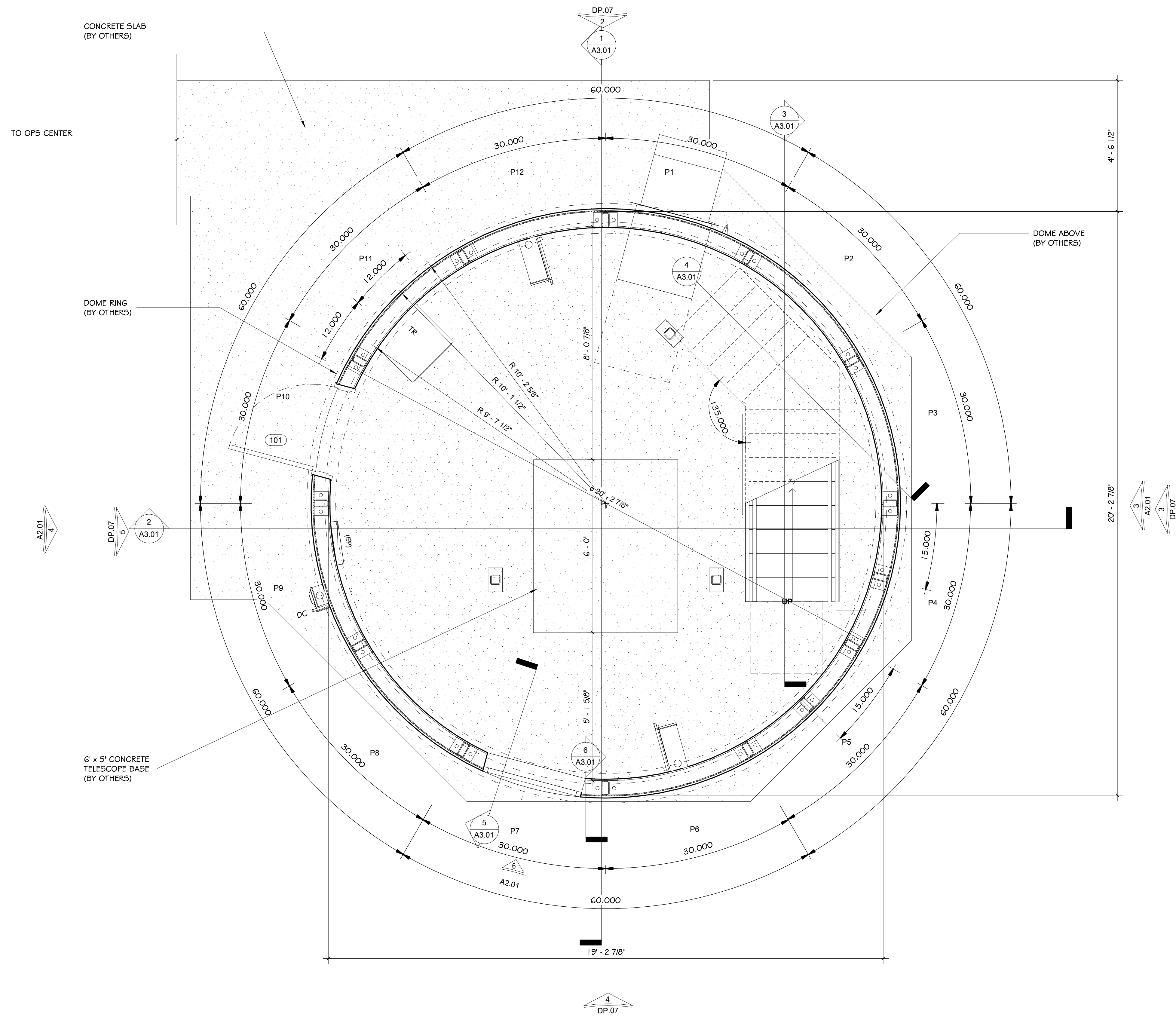
JOB NO: 186303
 SHEET NO: DP.05A



1 DEVELOPMENT FLOOR PLAN
 DP.06A SCALE: 1/4" = 1'-0"

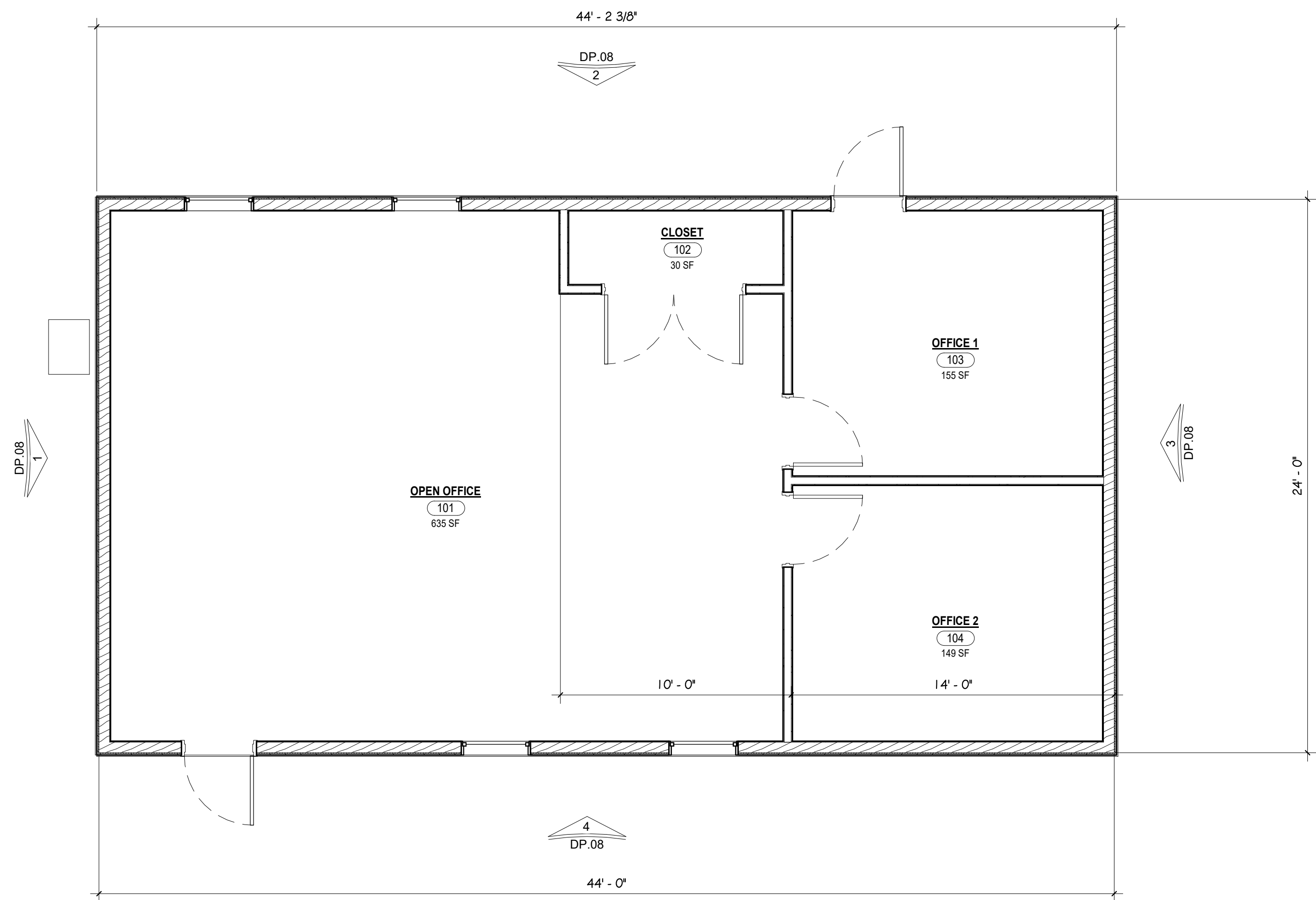
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DRAWN:	JDZ	
CHECKED:	km	
DATE:	03.11.22	
#	REVISION	DATE
JOB NO.:	186303	
SHEET NO.:	DP.06A	

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1 DEVELOPMENT TELESCOPE FLOOR PLAN
 DP.07A SCALE: 1/2" = 1'-0"

SHEET NAME	DEVELOPMENT TELESCOPE PLAN	
PROJECT STATUS	PERMIT SET	
ARCHENGR	KEM	
DRAWN	JDZ	
CHECKED	km	
DATE	3.11.22	
#	REVISION	DATE
1		
JOB NO.	182832	
SHEET NO.	DP.07A	

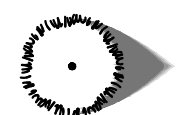


1 DEVELOPMENT OPERATION CENTER FLOOR PLAN
 DP.08A SCALE: 1/4" = 1'-0"

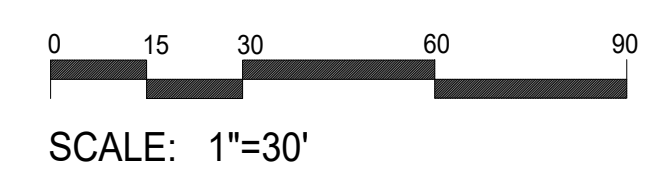
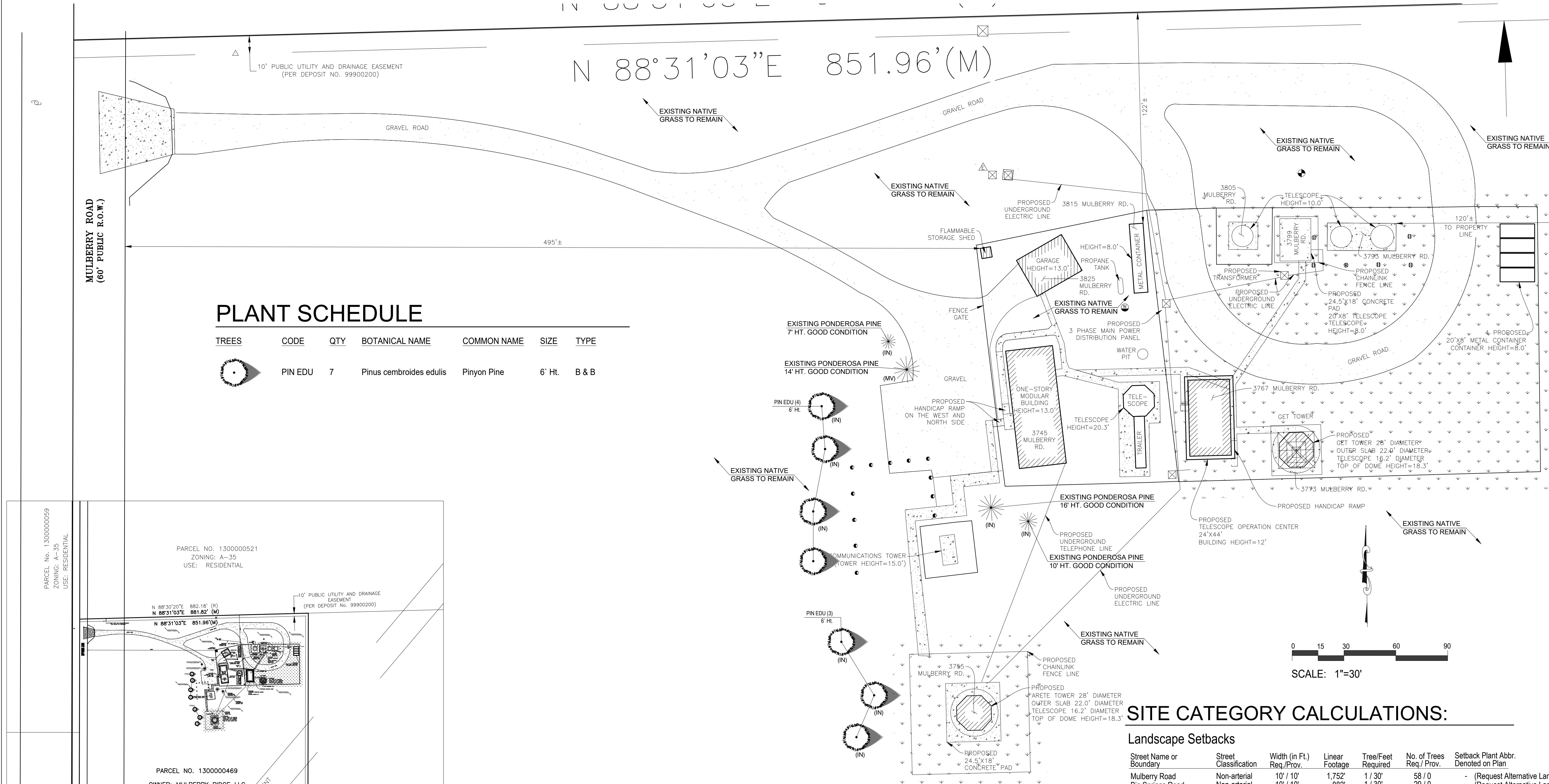
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DRAWN:	JDZ	
CHECKED:	km	
DATE:	03.07.22	
#	REVISION	DATE
JOB NO.:	186303	
SHEET NO.:	DP.08A	

N 88°31'03"E 851.96'(M)

PLANT SCHEDULE

TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	TYPE
	PIN EDU	7	Pinus cembroides edulis	Pinyon Pine	6" Ht.	B & B

NOT FOR CONSTRUCTION



SITE CATEGORY CALCULATIONS:

Landscape Setbacks

Street Name or Boundary	Street Classification	Width (in Ft.)	Linear Footage	Tree/Feet Required	No. of Trees Req./Prov.	Setback Plant Abbr. Denoted on Plan
Mulberry Road	Non-arterial	10' / 10'	1,752'	1 / 30'	58 / 0	- (Request Alternative Landscape Plan)
Big Springs Road	Non-arterial	10' / 10'	882'	1 / 30'	29 / 0	- (Request Alternative Landscape Plan)

Parking

No. of Vehicles Spaces Provided	Shade Trees Required/Provided	Abbr. on Plan	Vehicle Lot Frontages	Length of Frontage (excluding driveways)	2/3 Length of Frontage (ft.)
5	1 / 1	(MV)	None		

Min. 3' Screening Plants Req. /Prov. - / -
 Evergreen Plants Req. (50%) / Prov. - / -
 Length of Screening Wall or Berm Provided - / -
 Vehicle Lot Plant Abbr. on Plan - / -
 Percent Ground Plane Veg. Req. / Prov. - / -

Internal Landscaping

Net Site Area (SF) (less public ROW)	Percent Minimum Internal Area (%)	Internal Area (SF) Required / Provided	Internal Trees (1/500 SF) Required / Provided
98,100 s.f. (Approx. developed area)	5%	4,905 s.f. / 57,800 s.f.	10 / 10

Shrub Substitutes Required / Provided: 0 / 0
 Internal Plant Abbr. Denoted on Plan: (IN)

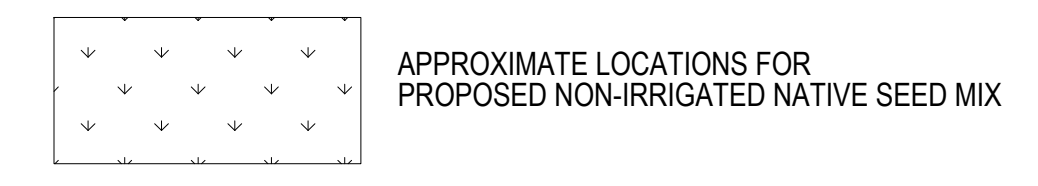
Landscape Buffer & Screens

Street Name or Property Line	Width (in Ft.) Req. / Prov.	Linear Footage	Buffer Trees (1/20') Required / Provided	Evergreen Trees Req. (1/3) / Provided
None	- / -	- / -	- / -	- / -

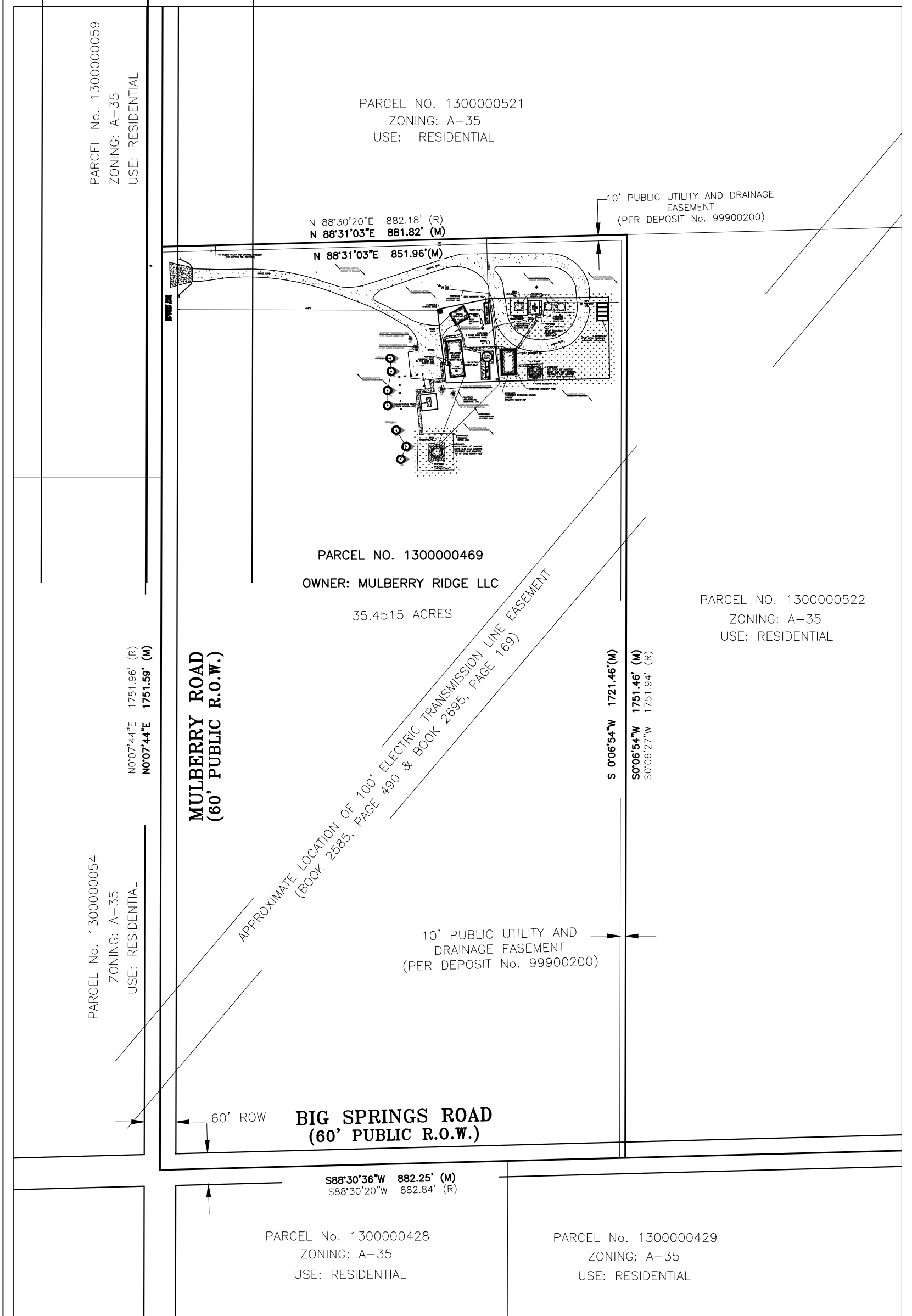
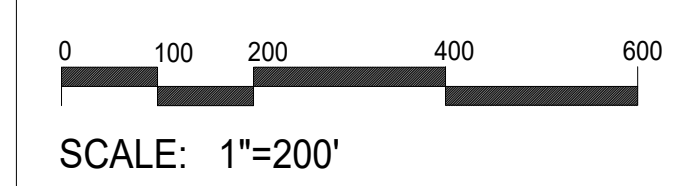
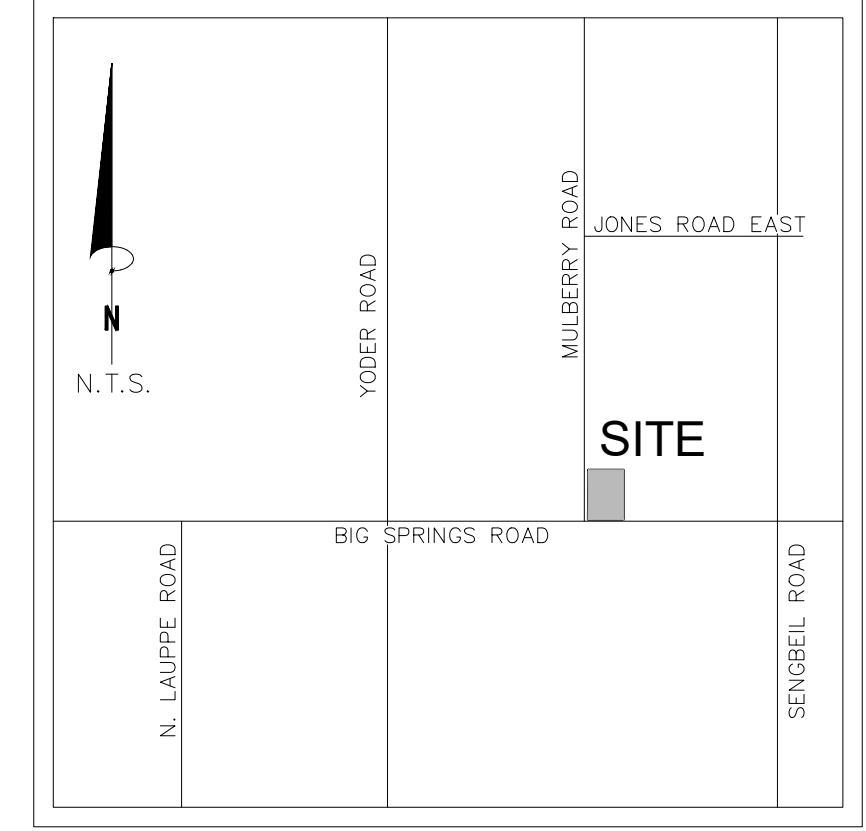
Length of 8 Ft. Opaque Structure Req. / Prov. - / -
 Buffer Tree Abbr. Denoted on Plan - / -
 Percent Ground Plane Veg. Req. / Prov. - / -

ALTERNATIVE LANDSCAPE PLAN REQUEST-
 Because this is a rural site with low visibility from the very few neighbors adjacent to this site, an Alternative Landscape Plan is requested. Some tree screening is proposed adjacent to Mulberry Road where the development is most visible, but a waiver of typical landscape requirements is requested.

PROPOSED GROUND PLANE TREATMENT



VICINITY MAP



NOT FOR CONSTRUCTION

GENERAL NOTES

- ALL REFERENCES TO 'CONTRACTOR' REFER TO LANDSCAPE CONTRACTOR, UNLESS OTHERWISE NOTED.
- CONTRACTOR IS RESPONSIBLE FOR GETTING ALL UTILITY LOCATES PRIOR TO STARTING ANY WORK ON SITE AND ALSO HAVING UTILITIES RELOCATED AS NECESSARY FOR THE DURATION OF CONSTRUCTION.
- CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL LANDSCAPE SHOWN ON THIS PLAN. ANY DEFICIENCIES OR DEVIATIONS FROM THIS PLAN ARE TO BE APPROVED BY OWNER'S REPRESENTATIVE OR LANDSCAPE ARCHITECT. ANY CHANGES FROM THE APPROVED PLANS MAY REQUIRE APPROVAL FROM THE EL PASO COUNTY PLANNING DEPARTMENT AND MAY DELAY COMPLETION OF PROJECT.
- CONTRACTOR IS RESPONSIBLE FOR VERIFYING QUANTITIES OF MATERIALS NEEDED TO COMPLETE THIS PLAN IN THE FIELD. NOTIFY OWNER'S REPRESENTATIVE OF DISCREPANCIES BETWEEN THE DRAWINGS AND CONDITIONS IN THE FIELD. SUBSTITUTIONS OF LANDSCAPE MATERIALS ARE NOT ALLOWED WITHOUT APPROVAL FROM LANDSCAPE ARCHITECT GIVEN PRIOR TO INSTALLATION. NOTIFY LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION IF LANDSCAPE MATERIAL LOCATIONS NEED TO BE ALTERED DUE TO ON-SITE CONDITIONS.
- CONTRACTOR IS TO PROVIDE A ONE YEAR WARRANTY ON ALL PLANT MATERIALS, IRRIGATION COMPONENTS, NATIVE GRASS, AND WORKMANSHIP. CONTRACTOR IS TO PROVIDE OWNER WITH WARRANTY CONDITIONS AND COMMENCE WARRANTY PERIOD UPON FINAL ACCEPTANCE OF LANDSCAPE INSTALLATION.
- THE OWNER OF THIS PROPERTY AND ANY FUTURE OWNERS SHALL BE RESPONSIBLE FOR THE PROPER LANDSCAPE AND IRRIGATION MAINTENANCE OF THIS SITE. MAINTENANCE OF THIS SITE INCLUDES, BUT IS NOT LIMITED TO, IRRIGATION INSPECTIONS AND ADJUSTMENTS, IRRIGATION SYSTEM SHUT DOWN AND START UP, IRRIGATION LEAK REPAIR, LANDSCAPE WEEDING, MOWING, SEEDING, FERTILIZATION, PRUNING, AND PLANT MATERIAL REPLACEMENT.

PROJECT NOTES

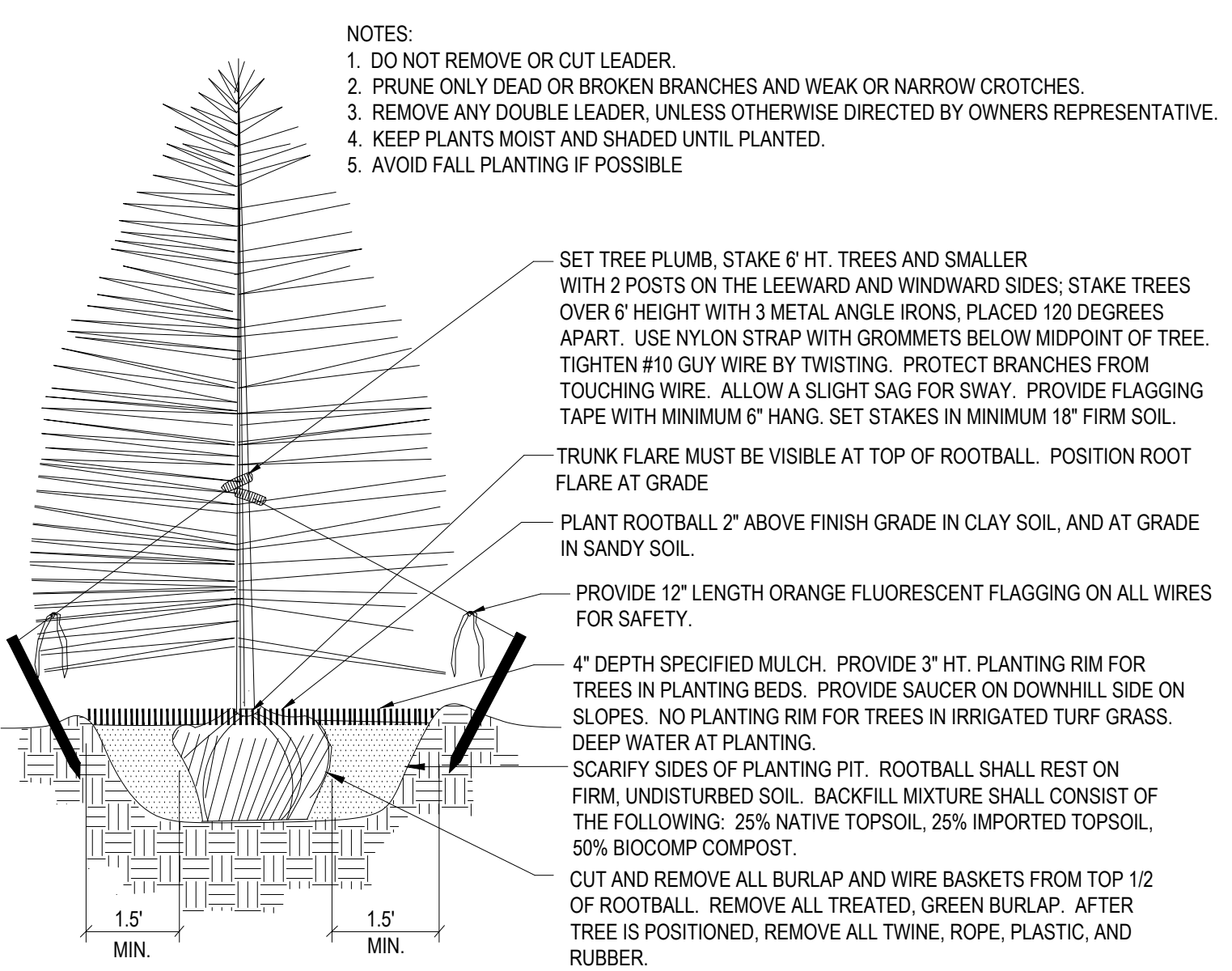
- FINE GRADING TO BE PERFORMED BY LANDSCAPE CONTRACTOR TO REFLECT FINISHED GRADES SHOWN ON THE PROJECT GRADING PLANS. ALL FINISHED GRADES ARE TO HAVE A MINIMUM 2% SLOPE. CONTRACTOR IS TO REPORT POOR DRAINAGE CONDITIONS OR ANY GRADES IN LANDSCAPE AREAS LESS THAN 2% TO GENERAL CONTRACTOR AND LANDSCAPE ARCHITECT PRIOR TO LANDSCAPE CONSTRUCTION WORK.
- CONTRACTOR IS TO PROVIDE FINAL GRADES ADJACENT TO HARDSCAPE SURFACES AT THE FOLLOWING SPECIFICATIONS:
 1" BELOW TOP OF CONCRETE FOR NATIVE SEED AREAS.
 CONTRACTOR IS TO COORDINATE THESE GRADING SPECIFICATIONS WITH GENERAL CONTRACTOR AND/OR WHOEVER IS PROVIDING ROUGH GRADING. FINAL GRADES IN ALL LANDSCAPE AREAS ARE TO BE ESTABLISHED USING ON-SITE STOCKPILED TOPSOIL.
- ALL DISTURBED NATIVE GRASS AREAS ARE TO BE SEEDDED WITH 'EL PASO COUNTY ALL PURPOSE MIX FOR UPLAND, TRANSITION, AND PERMANENT CONTROL MEASURE' BY HYDRO-MULCH SEEDING AT A RATE OF 1 LB. PER 1,000 SQ. FT. REFER TO NATIVE SEED ESTABLISHMENT SPECIFICATION FOR MORE DETAILED INSTRUCTIONS.
- WOOD MULCH IS TO BE PROVIDED AROUND ALL THE BASE OF ALL TREES, 4' DIAMETER, 4' DEPTH. NO LANDSCAPE FABRIC TO BE INSTALLED BENEATH MULCH.

SOIL PREPARATION NOTES

- PROPOSED NATIVE GRASS AREAS:** ALL SEEDED AREAS TO RECEIVE 2 CU. YDS. PER 1,000 SQ. FT. OF 'BIOCOMP' SOIL AMENDMENTS (C&C SAND) INCORPORATED INTO EXISTING SOIL AND ROTO-TILLED TO A 6" DEPTH.
- PROPOSED TREES AND SHRUBS:** ALL PROPOSED TREES ARE TO BE BACKFILLED WITH A MIXTURE OF 'BIOCOMP' SOIL AMENDMENT AND IMPORTED GRADE A TOPSOIL (C&C SAND). REFER TO PLANTING DETAIL.

IRRIGATION NOTES

- PROPOSED TREES ARE TO BE WATERED MANUALLY ONCE A WEEK DURING GROWING SEASON BY MEANS OF HOSE, WATER TRUCK, OR DRIP IRRIGATION SYSTEM.
- ALL NATIVE SEED AREAS TO BE IRRIGATED MANUALLY BY MEANS OF HOSES WITH OSCILLATING SPRINKLERS OR TEMPORARY ROTARY HEAD SPRAY IRRIGATION SYSTEM UNTIL ESTABLISHED.



1 **Coniferous Tree Planting Detail**
 NOT TO SCALE

EL PASO COUNTY ALL-PURPOSE MIX FOR UPLAND, TRANSITION AND PERMANENT CONTROL MEASURE AREAS

COMMON NAME	SCIENTIFIC NAME	GROWTH SEASON / FORM	% OF MIX	POUNDS PLS (PURE LIVE SEED)		
				-IRRIGATED BROADCAST -IRRIGATED HYDROSEEDED	-NON-IRRIGATED BROADCAST -NON-IRRIGATED HYDROSEEDED -IRRIGATED DRILLED	-NON-IRRIGATED DRILLED
				80 SEEDS/SQ. FT.	40 SEEDS/SQ. FT.	20 SEEDS/SQ. FT.
BIG BLUESTEM	Buchloe dactyloides	WARM, SOD	20%	4.4	2.2	1.1
BLUE GRAMA	Bouteloua gracilis	WARM, BUNCH	10%	0.5	0.25	0.13
GREEN NEEDLEGRASS	Nassella viridula	COOL, BUNCH	10%	2	1	0.5
WESTERN WHEATGRASS	Pascopyrum smithii	COOL, SOD	20%	6.4	3.2	1.6
SIDEOATS GRAMA	Bouteloua curtipendula	WARM, BUNCH	10%	2	1	0.5
SWITCHGRASS	Panicum virgatum	WARM, BUNCH/ SOD	10%	0.8	0.4	0.2
PRAIRIE SANDREED	Calamovilfa longifolia	WARM, BUNCH	10%	1.2	0.6	0.3
YELLOW INDIANGRASS	Sorghastrum nutans	WARM, SOD	10%	2	1	0.5
SEED RATE (LBS. PLS / ACRE)				19.3	9.7	4.8

NATIVE SEED ESTABLISHMENT

INITIAL PLANTING
 STOCKPILED TOPSOIL SHOULD BE SPREAD EVENLY OVER ALL AREAS TO RECEIVE NATIVE SEED. SEED BED IS TO BE WEED-FREE. SPECIFIED SOIL AMENDMENTS SHOULD BE SPREAD AND INCORPORATED INTO TOP 6" OF SOIL. SEED BED IS TO BE RAKED SMOOTH AND FREE OF DEBRIS LARGER THAN 1" IN DIAMETER. ANY AREAS THAT THE CONTRACTOR BELIEVES TO BE SUSCEPTIBLE TO EROSION ARE TO BE BROUGHT TO THE ATTENTION OF THE OWNER AND/OR GENERAL CONTRACTOR PRIOR TO SEEDING. THE SPECIFIED SEED MIX IS TO BE APPLIED BY HYDRO-MULCH SEEDING AT THE RATE SPECIFIED. SEED IS TO BE APPLIED BETWEEN APRIL 15 AND SEPTEMBER 15. SEED SHALL NOT BE SOWN IF GROUND IS IN A FROZEN STATE. SPECIFIED EROSION CONTROL BLANKET IS TO BE INSTALLED IMMEDIATELY AFTER SEEDING. BLANKET SHALL BE LAID AND SECURED WITH 6" METAL STAPLES AS PER MANUFACTURER'S INSTRUCTIONS. CONTRACTOR IS TO PROVIDE INCIDENTAL WATERING OF ALL SEEDED AREAS THREE TIMES A WEEK DURING GROWING SEASON FOR A MINIMUM OF 8 WEEKS, OR UNTIL ESTABLISHED AND MEETING COVERAGE REQUIREMENTS. MOWING MAY BE NECESSARY DURING THE FIRST GROWING SEASON TO KEEP INVASIVE WEEDS FROM SETTING SEEDS. CONTRACTOR IS RESPONSIBLE FOR KEEPING BROADLEAF WEEDS UNDER CONTROL FOR 12 MONTHS AFTER INITIAL SEEDING AND IS ALSO RESPONSIBLE FOR OVER SEEDING BARE AREAS UNTIL SPECIFIED NATIVE GRASSES COVER ALL AREAS AND AREAS WITHOUT SPECIFIED NATIVE GRASS DO NOT EXCEED 6" X 6".

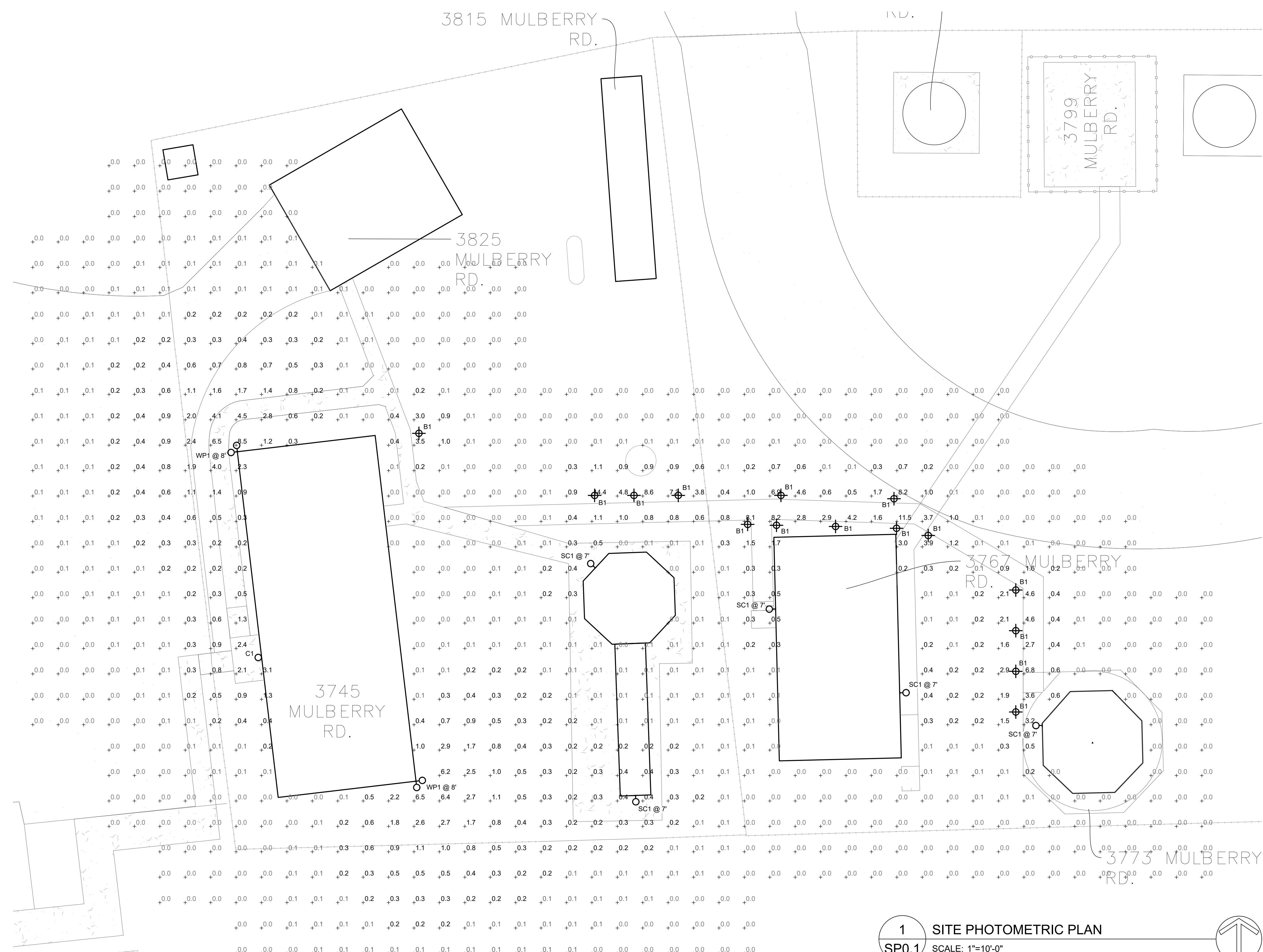
OVER SEEDING
 SIX WEEKS AFTER THE INITIAL SEEDING DURING THE FIRST GROWING SEASON AND/OR DURING THE SPRING OF THE SECOND GROWING SEASON CONTRACTOR IS TO REPAIR ANY ERODED AREAS AND OVER SEED ALL BARE NATIVE GRASS AREAS. CONTRACTOR IS TO USE SPECIFIED SEED MIX BY BROADCAST AND RAKING INTO TOP 1/4" TO 1/2" OF SOIL. INCIDENTAL WATERING IS TO BE PROVIDED TO ESTABLISH OVER-SEEDED AREAS. BROADLEAF WEEDS ARE TO BE KEPT UNDER CONTROL BY MANUALLY PULLING OR CUTTING WEEDS OR SPRAYING OF BROADLEAF WEED HERBICIDE. HERBICIDE AND APPLICATION SHALL CONFORM TO ALL APPLICABLE LAWS OF THE STATE OF COLORADO AND MANUFACTURERS INSTRUCTIONS.

LIGHT FIXTURE SCHEDULE

MARK	MANUF.	MODEL	LAMP			MOUNTING	DESCRIPTION	VOLTAGE	TOTAL WATTS	NOTES
			QTY.	WATT	TYPE					
B1	LITHONIA	RADB LED P1 27K SYM DBLXD BCCDBR	1	5.2	LED	GROUND	BOLLARD	120	5.2	


CALCULATION ZONE STATISTICS

SYMBOL (fc)	AVERAGE (fc)	MAXIMUM (fc)	MINIMUM (fc)	MAX./MIN. (fc)	AVG./MIN. (fc)
+	0.2	14.4	0.0	N/A	N/A



2 RADB BOLLARD (B1)
SP0.1 SCALE: NONE

1 SITE PHOTOMETRIC PLAN
SP0.1 SCALE: 1"=10'-0"


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03.18.2022


McShea Consulting, LLC
 MECHANICAL • ELECTRICAL • PLUMBING
 4445 Northpark Dr. Suite 200
 Colorado Springs, CO 80907
 fabian@mcshaconsulting.com
 Project: 22-4567

MULBERRY ROAD DEVELOPMENT
 3745-3815 MULBERRY ROAD YODER, COLORADO 80864
CMG CORPORATION
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SHEET NAME
SITE PHOTOMETRIC PLAN
 PROJECT STATUS
PRELIMINARY

ARCHING:	CCF
DRAWN:	MRM
CHECKED:	MRM
DATE	03.10.2022
REVISION	DATE
JOB NO.	186303
SHEET NO.	SP0.1



RADEAN Bollard LED Site Luminaire

Country	
Number	
Name	
Type	

Introduction

The Radean LED Bollard is an award-winning, energy-saving, long-life solution designed to perform the way a bollard should. The Radean LED Bollard's rugged construction, durable finish and long-lasting LEDs will provide years of maintenance-free service.

Specifications

Dimensions
Height: 41.5" Standard (106.7cm)
Weight: 20lbs (9.1kg)

Ordering Information

Label	Reference	Configuration	Options	Notes	Ordering Info	Shipping Info
RDE-LED	PT	276	276A	AST Finish	A6171	Shipped installed
	PT	276	276B	SIN Finish	A6172	Shipped installed
	PT	408	408A	AST Finish	A6173	Shipped installed
	PT	408	408B	SIN Finish	A6174	Shipped installed

Finish	Top	Side	Bottom
AST	AST	AST	AST
SIN	SIN	SIN	SIN
WH	WH	WH	WH
BR	BR	BR	BR
AL	AL	AL	AL

Accessories
SMB601 Arch-cap
SMB602 SMD - Replacement surface-mount LEDs
SMB603 SMD - Replacement surface-mount LEDs

NOTES
1. PT only available in 10' increments.
2. AST finish available in 10' increments only.
3. SIN finish available in 10' increments only.
4. WH, BR, AL finishes available in 10' increments only.
5. AST finish and color options available. Additional finishes and colors available upon request.

LITHONIA LIGHTING COMMERCIAL OUTDOOR One Lithonia Way • Conley, Georgia 30124 • Phone: 1-800-735-SERV (7378) • www.lithonia.com 8406-LED Rev. 01/22

Options

FIB: Full bollard with 3" opening
ISO: Intermediate bollard with 2" opening
EMH: End-mount bollard with 1.5" opening
FS: Full bollard with 1.5" opening

Performance Data

Beam Spread

Beam Spread	15°	20°	25°	30°	35°	40°	45°	50°
Beam Diameter (ft)	1.4	1.7	2.0	2.3	2.6	2.9	3.2	3.5
Beam Area (sq ft)	1.6	2.2	3.1	4.2	5.3	6.6	8.2	10.1
Beam Circumference (ft)	4.5	5.3	6.3	7.3	8.3	9.4	10.5	11.8

Footcandle Distribution

Beam Spread	15°	20°	25°	30°	35°	40°	45°	50°
Footcandle at 10' (fc)	1.4	0.9	0.6	0.4	0.3	0.2	0.15	0.1
Footcandle at 20' (fc)	0.4	0.2	0.15	0.1	0.07	0.05	0.04	0.03

Projected LED Lumen Maintenance

Temp. (°C)	15°C	20°C	25°C	30°C	35°C	40°C	45°C	50°C
Lumen Maintenance (%)	100	99	98	97	96	95	94	93

Lumen Ambient Temperature (LAT) Multipliers

LAT (°C)	10	15	20	25	30	35	40	45	50
Multiplier	1.0	0.9	0.8	0.7	0.6	0.5	0.4	0.3	0.2

Electrical Load

Model	Power (W)	Voltage (V)	Current (A)	Frequency (Hz)	Power Factor
RDE-LED-10	150	120	1.25	60	0.9
RDE-LED-15	225	120	1.88	60	0.9
RDE-LED-20	300	120	2.5	60	0.9

Photometric Diagrams

FEATURES & SPECIFICATIONS

INTENDED USE: The rugged construction and maintenance-free performance of the Radean LED Bollard is ideal for illuminating building entrances, walkways and parking lots, as well as any other outdoor lighting application requiring a low-maintenance, long-life lighting fixture.

CONSTRUCTION: The Radean LED Bollard is constructed of high-strength, extruded aluminum with a thick side wall for maximum durability and the cast reflector and top cap. Four 3/8" x 7/16" anchor bolts with 1/2" x 1/2" nuts and washers and 1/2" x 7/16" nuts are included for easy installation. Overall height is 41.5" standard.

FINISH: Exterior parts are protected by a non-toxic, powder-coated finish. The cast reflector and top cap are finished with a clear, protective powder-coat finish. A minimum 3-year warranty is provided for all finishes. For more information on finish options, contact your distributor.

OPTICS: The Radean LED Bollard is available in a variety of beam spreads. The standard beam spread is 30°. The Radean LED Bollard is available in 15°, 20°, 25°, 35°, 40°, 45°, and 50° beam spreads. The Radean LED Bollard is also available in a variety of finishes. For more information on finish options, contact your distributor.

ELECTRICAL: The Radean LED Bollard is available in a variety of electrical options. The Radean LED Bollard is available in 120V, 277V, and 480V versions. The Radean LED Bollard is available in 60Hz and 50Hz versions. The Radean LED Bollard is available in 1-phase and 3-phase versions. The Radean LED Bollard is available in 1-wire and 2-wire versions. The Radean LED Bollard is available in 1-wire and 2-wire versions.

LITHONIA LIGHTING COMMERCIAL OUTDOOR One Lithonia Way • Conley, Georgia 30124 • Phone: 1-800-735-SERV (7378) • www.lithonia.com 8406-LED Rev. 01/22

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PRELIMINARY
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SHEET NAME: SITE PHOTOMETRIC PLAN
PROJECT STATUS: PRELIMINARY
ARCH: CCF
DRAWN: CCF
CHECKED: MRM
DATE: 03.10.2022

REVISION	DATE

JOB NO.: 186303
SHEET NO.: SP.0.2