ICHD - ENVIRONMENTAL HEALTH DIVISION.

Statesville Office (704) 878-5305 | Mooresville Office (704) 660-3625

PERMIT # AP2022-0572

SEPTIC: IMPROVEMENT PERMIT / AUTHORIZATION TO CONSTRUCT / OPERATION PERMIT / EXISTING SYSTEM

PIN # 4646 -- 23 -- 9425

APPLICANT/OWNER: Helsman Homes

APPLICANT ADDRESS: PO Box 3965 Mooresville 28117

SITE ADDRESS: 134 Continental Dr Mooresville 28117

PHONE: (980) 500-1251

ALT. PHONE —

SITE DIRECTIONS: I-77S exit 33, R Williamson Rd, L on Ponderosa Cir, L Continental Dr

SAP CONTROLLED: ☐ YES ☑ NO

SUBDIVISION: Lake Norman Bonanza

SECTION: - LOT # 93 LOT AREA: .53 AC

DESIGN FLOW: 360 L.T.A.R.: .3

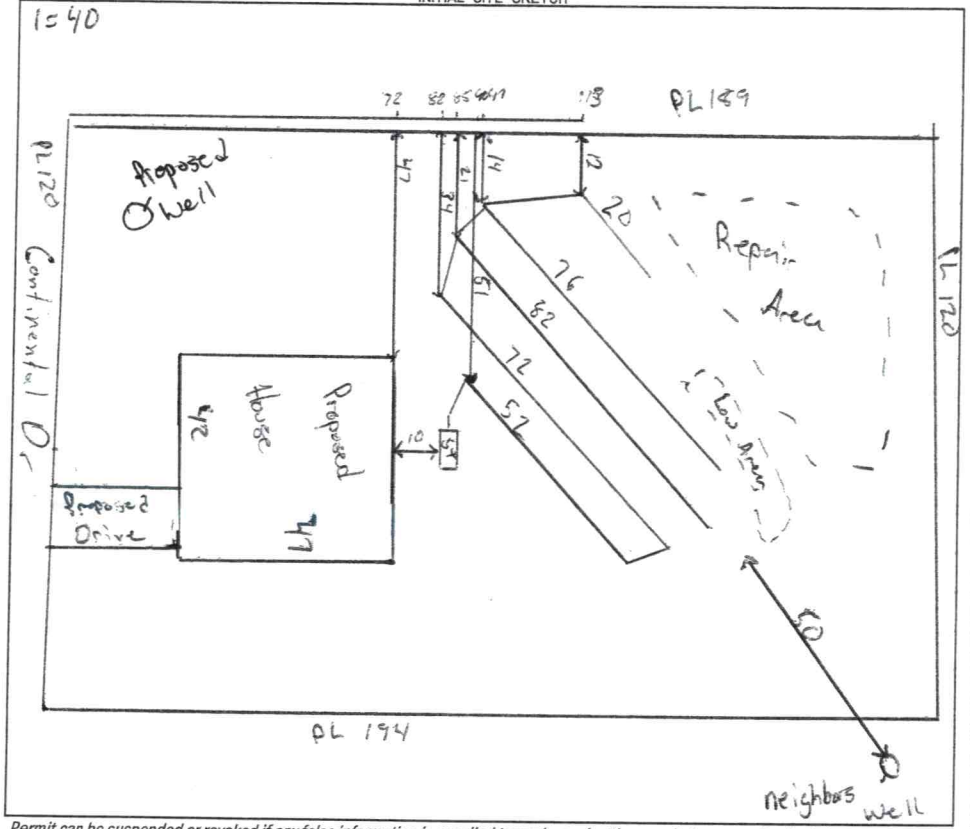
Septic Tank	1000	(gal)	STB		Date		☑ New System	☐ Repair	☐ Expansion	System Type: I II III IV V VI	
Pump Tank		(gal)	PT		Date		System Description:	Gravity 25% Reduction - Serial			
Pump Make			Model		Serial #		Repair System Description:	Repair Exempt			
# Nitrification Fields	1	# Lines	5		Linear Ft	302	Maintenance Agreement Required:	☐ YES	☑ NO		
Trench Width	36 in	Trench Bottom Depth	Max	36 in	Gravel Depth	N/A		☑ GRAVITY	☐ PRESSURE		

☑ Residence	No. Bedrooms	3	Water Supply
☐ Business	No. Persons	6	☑ Private
☐ Other	No. Employees		☐ Public
☑ Slab	☐ Crawl Space		☐ Community
☐ Basement w/plumbing			☐ Basement w/o plumbing

Comments / Conditions: Install on contour with 4Ft on center. Do not park, construct or cut septic area. Lot is repair exempt.

INITIAL SITE SKETCH

1=40



AS BUILT SKETCH

FOR SEPTIC FINAL INSPECTION CALL: 704-664-3703 between 8am-9am
the day the inspection is needed. Be sure to speak with an inspector to confirm your time.

COPY

Permit can be suspended or revoked if any false information is supplied toward securing the permit / any unauthorized changes are made to the site / any unauthorized changes are made in the installation of the system. **CONTACT A LOCATOR SERVICE PRIOR TO ANY EXCAVATION**

☐ **IMPROVEMENT PERMIT** ***with plat*** *valid without expiration.* ☑ **IMPROVEMENT PERMIT** ***with site plan*** *valid for 60 mos.* ☐ **AUTHORIZATION TO CONSTRUCT** *valid for period equal to IMPROVEMENT PERMIT--not to exceed 60 mo.*

Owner / Applicant Signature: Online Signature Date: —

IMPROVEMENT PERMIT by: [signature] Date: 9/13/22

AUTHORIZATION TO CONSTRUCT by: [signature] Date: 9/13/22

Installed by: —

OPERATION PERMIT by: Sarah Bracken Date: 5/11/23

Existing System Inspected by: — Date: —

FOR SEPTIC FINAL INSPECTION: CALL 704-664-3703 between 8am-9am the day the inspection is needed.

DEPARTMENT OF HEALTH AND HUMAN SERVICES
DIVISION OF PUBLIC HEALTH, ENVIRONMENTAL HEALTH SECTION
ON-SITE WATER PROTECTION BRANCH

Sheet 1 of 1
PROPERTY ID #: 4646239425
COUNTY: Iredell

SOIL/SITE EVALUATION
***for* ON-SITE WASTEWATER SYSTEM**
(Complete all fields in full)

OWNER: Helsman Homes
ADDRESS: PO Box 3965 Mooresville 28117
PROPOSED FACILITY:
LOCATION OF SITE: 134 (Huntington)
APPLICATION DATE: 8/3/22
DATE EVALUATED: 9-12-22
PROPOSED DESIGN FLOW (.1949):
PROPERTY SIZE: .53 AC
PROPERTY RECORDED: yes

WATER SUPPLY: ☐ Private ☐ Public ☑ Well ☐ Spring ☐ Other
EVALUATION METHOD: ☐ Auger Boring ☑ Pit ☐ Cut
TYPE OF WASTEWATER: ☑ Sewage ☐ Industrial Process ☐ Mixed

PROFILE #	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941) .1941 STRUCTURE/ TEXTURE	SOIL MORPHOLOGY (.1941) .1941 CONSISTENCE/ MINERALOGY	OTHER PROFILE FACTORS .1942 SOIL WETNESS/ COLOR	OTHER PROFILE FACTORS .1943 SOIL DEPTH	OTHER PROFILE FACTORS .1956 SAPRO CLASS	OTHER PROFILE FACTORS .1944 RESTR HORIZ	PROFILE CLASS & LTAR
1	LS 7%	0-25	C/SBK	SS-SP-FR-SEXP	— Few rocks @ 32"	48"	—	—	PS .3
		25-48	CL/ABK	SS-SP-FR-SEXP					
2	LS 8%	0-10	SCL/GR	SS-SP-FR-SEXP	—	50"	—	—	PS .3
		10-32	C/SBK	SS-SP-FR-SEXP					
		32-50	CL/SBK	SS-SP-FR-SEXP					
3	LS 7%	0-7	SCL/GR		—	48"	—	—	PS .3
		7-30	C/SBK	SS-SP-FR-SEXP					
		30-48	CL/SBK	SS-SP-FR-SEXP					
4	LS 8%	0-10	SCL/GR	SS-SP-FR-SEXP	—	50"	—	—	PS .3
		10-34	C/SBK	SS-SP-FR-SEXP					
		34-50	CL/SBK	SS-SP-FR-SEXP					

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	360	360
System Type(s)	25%	Repair exempt
Site LTAR	.3	

OTHER FACTORS (.1946):
SITE CLASSIFICATION (.1948): PS
EVALUATED BY: Matthew W.
OTHER(S) PRESENT:

COMMENTS:

Updated February 2014

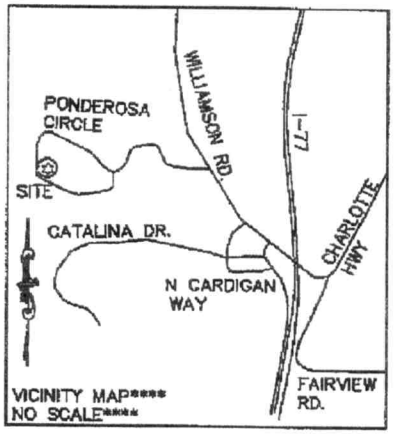
1=40

DAS DON ALLEN & ASSOCIATES, P.A.
"Since 1971"
Commercial * Residential * Mortgage Surveys * Multi-Family
Construction Staking * Subdivision Design * Topographical
131 Crosslake Park Drive – Suite 102 * Mooresville * NC * 28117
(704) 664-7029 (704) 664-8041 Fax

I, certify that this map was drawn under my supervision from an actual survey made under my supervision recorded in deed book 1448, page 1943, and/or plat book 7, page 7, that the ratio of precision is 1':10,000, that this map was prepared in accordance with the General Statutes of North Carolina Chapter 89C. my hand and seal on the 10, day of MARCH, A.D. 20 22.

WILLIAM M. ALLEN, PLS

NORTH CAROLINA PROFESSIONAL SEAL L-3499 LAND SURVEYOR WILLIAM M. ALLEN



LOT 81
JOYCE P.
NEEDHAM
2519/559

LOT 79 & 80
COURTNEY L. &
BRIAN T. BROWNEWELL
2552/662

N64°59'00"W 120.00'

35' REAR

septic

LOT 93
(0.53 AC.)

188.72'

N26°50'20"E 194.22'

15' SIDE

15' SIDE

S26°51'15"W

42.5'

THE JIB
ELEV. A

43.9'

25' BLD LINE
PER PB.7 PG.7

CONC WALK

CONC DRIVE

26.0'

well

LOT 94
BRADLEY H.
ANDERSON
1717/469

LOT 92
ALYSON B.
REID
2575/917

PB.7 PG.7

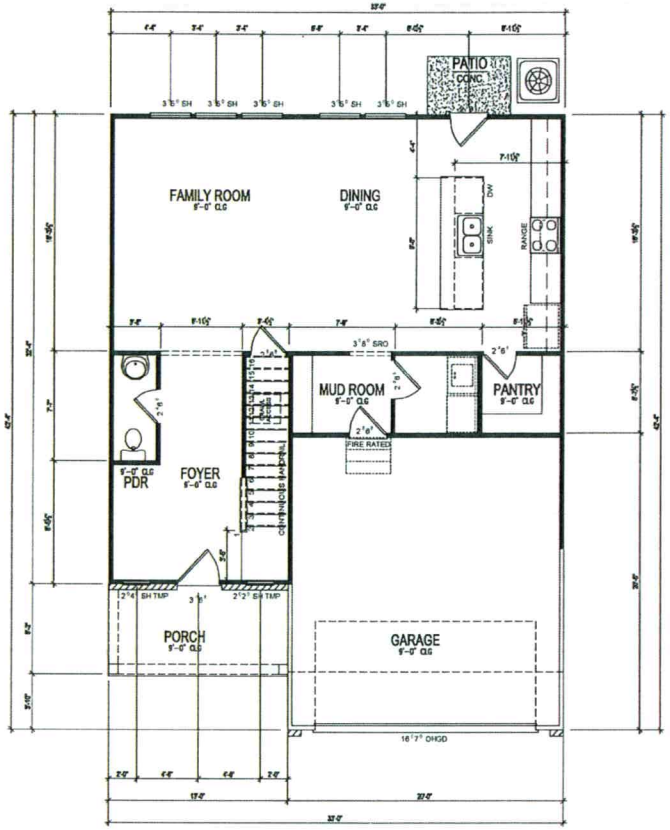
CONCRETE CALCULATION:
DRIVE: 513 SQ. FT.
WALK: 73 SQ. FT.
TOTAL: 586 SQ. FT.

R/W

120.00' S62°21'05"E

R/W

CONTINENTAL DRIVE



FIRST FLOOR PLAN

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

Acknowledgement Of
Plans Submittal ONLY!

Date 9/13/22

Date

WALL STUD REQUIREMENTS	
EXT. WALL HEIGHT (h)	STUD SIZE AND SPACING
h < 10'-0"	2x4 @ 16" O.C
10'-0" < h < 11'-0"	2x4 @ 12" O.C
11'-0" < h < 16'-0"	2x6 @ 16" O.C
h > 16'-0"	CONSULT ENGINEER

SQUARE FOOTAGE	
FIRST FLOOR (HEATED)	831
SECOND FLOOR (HEATED)	1187
TOTAL (HEATED)	2018

I-JOIST NOTES

FRAMING CONSTRUCTION NOTES:

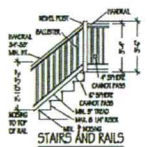
BRACED WALL LINE NOTE
THIS STRUCTURE HAS BEEN ANALYZED FOR LATERAL LOADING USING CONTINUOUSLY SHEATHED WALL SHEATHING AS INDICATED IN THE GENERAL NOTES. WHERE BRACED WALLS DO NOT MEET THE PRESCRIPTIVE REQUIREMENTS OF SECTION R602.10 OF THE CODE, IT HAS BEEN ANALYZED BY ENGINEERING ANALYSIS INCORPORATING ENGINEERED LATERAL BRACING ELEMENTS WHERE NEEDED TO MEET THE INTENT OF THE CODE

1. I-JOISTS ARE DESIGNED TO BE CONTINUOUS IN SOME AREAS. I-JOIST MANUFACTURER TO STOP AND START JOISTS WHERE SHOWN ON PLAN TO ALLOW FOR CONTINUOUS ACTION
2. "DBL" INDICATES DOUBLE JOIST
3. RIM BOARDS AND BANDS PARALLEL TO FLOOR FRAMING TO BE DOUBLED
4. ALL LOAD- BEARING HEADERS SHALL BE (2)2X8 SPF#2 UNLESS OTHERWISE NOTED ON THE PLAN
5. WHERE DIMENSIONS ARE NOT INDICATED, BEAMS THAT RUN PARALLEL TO FLOOR JOISTS ARE INTENDED TO ALIGH UNDER LOAD BEARING WALLS. SEE THE ARCHITECTURAL PLANS FOR DIMENSIONS TO WALLS
6. ALL WALLS UP TO 10 FT. TALL SHALL BE 2X4 SPF#2 @ 16" O.C UNLESS NOTED OTHERWISE ON THE PLAN. TALLER WALLS SHALL COMPLY WITH TABLE R602.3(4) OF THE CODE OR AS NOTED ON THE PLAN
7. WOOD BEAMS SHALL BE SUPPORTED BY METAL HANGERS OF ADEQUATE CAPACITY WHERE FRAMING INTO BEAMS OR LEDGERS. THE FOLLOWING HANGER SCHEDULE MAY BE USED UNLESS NOTED OTHERWISE ON THE PLAN

MEMBER SIZE	SIMPSON HANGERS
(2) 2X8	LUS 28-2
(2) 2X10	LUS 210-2
(2) 2X12	LUS 210-2
(2) 1¾" X 9¼" LVL	HUS 410
(2) 1¾" X 11⅞" LVL	HUS 412
(2) 1¾" X 14" LVL	HUS 412
ALL TRIPLE LVLs	HHUS 5.50/10

8. NOTE: FILL ALL OF THE HOLES IN HANGERS WITH 10d x 3(" COMMON NAILS (3(" x 0.162") OR 16d x 2(" (2(" x 0.162") NAILS UNLESS OTHERWISE SPECIFIED BY THE MANUFACTURER. DO NOT BEND OR MODIFY THE HANGER OR USE INAPPROPRIATE FASTENERS. DO NOT USE 10dX 1(" "HANGER NAILS" UNLESS OTHERWISE NOTED ON THE PLANS OR IN SITUATIONS WHERE ONLY 1(" OR LESS OF WOOD IS PROVIDED TO NAIL INTO
9. STEEL BEAMS MUST HAVE (3)-2X4 OR (4)-2X6 STUDS UNDER EACH END SUPPORT UNLESS NOTED OTHERWISE
10. "LVL" AND GLU-LAM BEAMS MUST HAVE ENOUGH STUDS TO SUPPORT ALL PLIES AT EACH END WITH A MINIMUM OF (3)-2X4 OR (2)-2X6 STUDS UNDER EACH END UNLESS NOTED OTHERWISE
11. ALL POINT LOADS FROM ROOF BRACES, JACK STUDS, BEAM SUPPORTS -WHETHER WOOD OR STEEL-CANNOT BEAR ON SHEATHING ALONE. BLOCKING EQUAL TO OR BETTER THAN THE POINT LOAD SUPPORTS ABOVE MUST BE CARRIED THROUGH ALL CONSTRUCTION TO THE FOUNDATION. INSTALL 2X4 EQUASH BLOCKS (S.B.) OF EQUAL NUMBER TO COLUMN ABOVE BETWEEN SUBFLOOR AND FOUNDATION WALL OR LOWER PLATE. RIM BOARDS AND I-JOIST BLOCKING SHALL NOT BE CONSIDERED AS AN ACCEPTABLE MEANS OF SUPPORT UNDER CONCENTRATE POINT LOADS FROM LVL AND STEEL BEAMS OR WHERE "S.B." IS INDICATED ON THE PLAN
12. FASTEN ALL TRIPLE PLY LVLs TOGETHER WITH TWO ROWS OF 5" LONG TRUSSLOK OR SIMPSON SDS SCREWS @ 16" O.C. AND FOUR PLY LVLs WITH TWO ROWS OF 6¼" TRUSSLOK SCREWS @ 16" O.C. UNLESS NOTED OTHERWISE ON THE PLANS. THE SCREWS SHALL BE LOCATED A MINIMUM OF 2" AND A MAXIMUM OF 3" FROM THE TOP OR BOTTOM OF THE BEAM
13. FASTEN FIRST KING STUD TO LUMBER HEADER WITH AT LEAST THREE 16D (3(".0.162") IN EACH PLY
14. JACK AND KING STUD SCHEDULE AT WALL OPENINGS
TO BE INSTALLED AT EACH END OF OPENING UNLESS OTHERWISE NOTED AS "HJ" OR "HK" ON PLAN.

SPANS UP TO 4'-0"	1 JACK, 1 KING
SPANS > 4'-0" TO 5'-6"	1 JACK, 2 KINGS
SPANS > 5'-6" TO 6'-6"	2 JACK, 3 KINGS
SPANS > 6'-6"	SEE PLAN



STAIRS AND RAILS

ELEVATION "A" - FARMHOUSE

238 Rosemary Drive Suite J
Mooresville, NC 28117
PH: 704-208-4251

Township/County

Engineer

Stamp/seal

Project name/owner

2018 REEF PLAN

HELMSMAN HOMES
235 RACEWAY DR
MOORESVILLE, NC
28117
PH: 704-208-4251

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Date
April 5, 2022

Drawn by
MCML

Reviewed by
HELMSMAN

Plan set scale
24x36 sheet
1/4" = 1'-0"
11x17 sheet
1/8" = 1'-0"

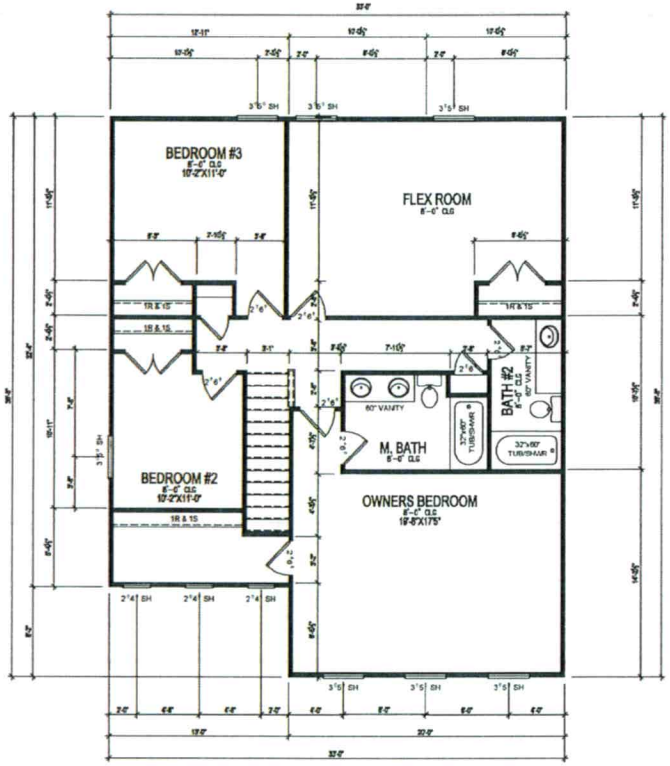
Project/plan code
XXXX XXXX

Drawing set
FOR CONSTRUCTION

Sheet title/description

Sheet no
A-3.0A

Master plan version
REVISED 11-14-2021



SECOND FLOOR PLAN

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

WALL STUD REQUIREMENTS	
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10'-0" < h <11'-0"	2x4 @ 12" O.C
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(2) 2X10	LUS 210-2
(2) 2X12	LUS 210-2
(2) 1¾" X 9⅛" LVL	HUS 419
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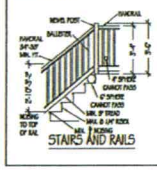
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14 JACK AND KING STUD SCHEDULE AT WALL OPENINGS
TO BE INSTALLED AT EACH END OF OPENING UNLESS OTHERWISE NOTED AS "KJ" OR "HK" ON PLAN

SPANS UP TO 4'-0" ..... 1 JACK, 1 KING
SPANS >4'-0" TO 5'-6" ..... 1 JACK, 2 KINGS
SPANS >5'-6" TO 8'-6" ..... 2 JACK, 3 KINGS
SPANS >8'-6" ..... SEE PLAN

1. STAIRWAYS SHALL BE NO LESS THAN 36" IN WIDTH.
2. THE LENGTH OF RUN AND WIDTH OF TREDS SHALL NOT VARY MORE THAN ⅜" IN ENTIRE RUN OF STAIRS
3. STAIRS ARE REQUIRED TO BE ILLUMINATED
4. OPEN RISERS PERMITTED IF OPENING IS LESS THAN 4"
5. HEADROOM, REQUIRED ON DECKS AND STAIRWAYS MORE THAN 30" ABOVE GRADE OR FLOOR BELOW
6. Handrails with a circular cross section shall have an outside diameter of not less than 1 ¼" and not greater than 2". If the handrail is not circular, it shall have a perimeter dimension of not less than 4 inches (102 mm) and not greater than 6¼" with a cross section of dimension of not more than 2 ¼". Edges shall have a radius of not less than 0.01 inch



STAIRS AND RAILS

ELEVATION "A" - FARMHOUSE

#36 Raceway Drive Suite J
Mooresville, NC 28117
PH: 704-208-4251

Township/County

Engineer

Stamp/seal

Project name/owner

2018 REEP PLAN

HELMSMAN HOMES
236 RACEWAY DR
MOORESVILLE, NC
28117
PH: 704-206-4251

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Date
April 5, 2022

Drawn by
MCML

Reviewed by
HELMSMAN

Plan set scale
24x36 sheet
1/8" = 1'-0"
11x17 sheet
1/8" = 1'-0"

Project/plan code
XX XX XXXX

Drawing set
FOR CONSTRUCTION

Sheet title/description

Sheet no
A-4.0A

Master plan version
REVISED 11-14-2021