

REFERENCES: ASSESSURS REF: PARCEL ID: E07-0140 DEED BK: 75259 Pg 281 ZONE: RESIDENTIAL A

REQUIRED

AREA 40,000
FRUNTAGE 180.00
FRUNT YARD 40.00
SIDE YARD 20.00
REAR YARD 30.00

GENERAL CONSERVATION NOTES:

- 1. ALL EROSION/SEDIMENTATION CONTROLS TO BE IN PLACE PRIOR TO CONSTRUCTION AND MAINTAINED THROUGHOUT THE PROJECT DURATION.
- 2. EROSION CONTROLS WILL BE MAINTAINED AND AUGEMENTED, REPAIRED AS CONSTRUCTION PHASING AND WEATHER DICTATE.
 3. ALL DISTURBED AREAS ARE TO BE COVERED WITH TOPSOIL, REGARDED AND SEEDED.
- 4. THERE SHALL BE NO WORK DONE WITHIN WETLANDS OR 100 FOOT BUFFER ZONE PRIOR TO THE APPROVAL FROM THE SUDBURY CONSERVATION COMMISSION.
- 5. WETLAND FLAGGING WAS DONE IN ACCORDANCE WITH THE MASSACHUSETTS WETLAND PROTECTION ACT (M.G.L. C.131 S.40)AND REGULATIONS (310 CMR 10.00) AND THE FEDERAL CLEAN WATER ACT (SECTION 404).
- 6. WHILE CONSTRUCTION ON THE SITE IS BEING PERFORMED, DUST WILL BE KEPT TO A MINIMUM BY WATERING AS CONDITIONS REQUIRE,

1. THE LOCATION OF ALL UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE APPROXIMATE ONLY AND ARE BASED UPON A FIELD SURVEY AND A COMPILATION OF AVAILABLE PLANS OF RECORD FROM THE VARIOUS UTILITY COMPANIES. THE INFORMATION PROVIDED IS FOR THE USE OF THE CONTRACTOR NEITHER WARRANTY NOR GUARANTEE OF THE INFOMATION IS PROVIDED, THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES BY CONTACTING THE RESPECTIVE UTILITY COMPANIES AND DIG-SAFE.
2. CONSTRUCTION SURVEY STAKEOUT IS RECOMMENDED TO ASSURE THE CORRECT PLACEMENT OF THE PROPOSED STRUCTURE.

GUARANTEED BUILDERS & DEVELOPERS INC. 14 WEST STREET DOUGLAS, MA. 01516 PHONE: [508] 476-1500 FAX [508] 476-1392

L	
COMP'D BY	SCALE:
BRS	1'=40'
DRAWN BY	DATE:
BRS	4/8/2024
Chk'D BY	ZONE
DET	Res-A
FIELD BY	FIELD Bk.Pg.
288	See DT

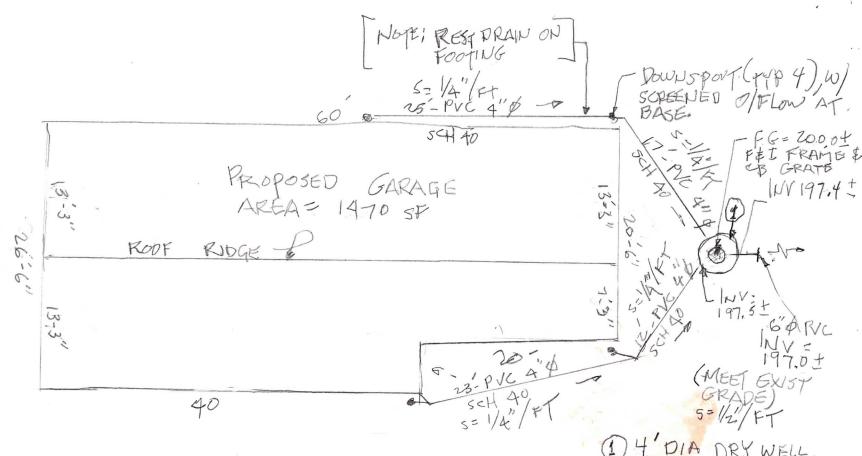
PROJECT LOCATION: 87 CUDWORTH LANE

87 CUDWORTH LANE SUDBURY, MASS, 01776

UWNER:

JEHANGIR & JULIE JUNGALWALA

87 Cudworth Lane Sudbury, Mass. 01776



NOTES;

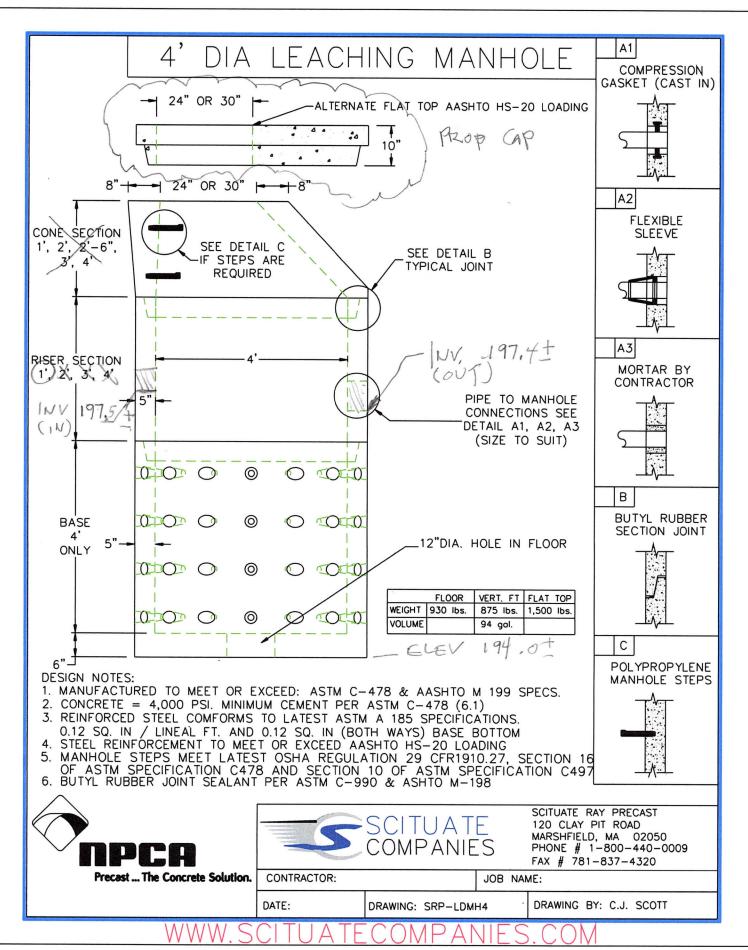
1. INSTALL OVERFLOW FUTTINGS ON DOWNSPOUTS

1. INCLUDE SCREEN FITTING ON THE OVERFLOW FITTING

2. GRATE ON DRY WELL TO BE BY CYCLE SAFE.

PRE-CAST CONCRETE, LINE W/2 FT OF 3/4" STONE & NON-WOVEN FABRIC AGAINST EXIST EARTH, 2 OF STONE UNDER STRICTURE

REV D 5-21-24 N.T.5 SHEET 1 OF 2



SHEET, 2 0 - 24







ROOF TOP RUNOFF









Routing Diagram for DRAINAGE DESIGN 5-21-24
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Type II 24-hr 10 Rainfall=4.80" Printed 5/21/2024

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Summary for Subcatchment 1S: ROOF TOP RUNOFF

Runoff

=

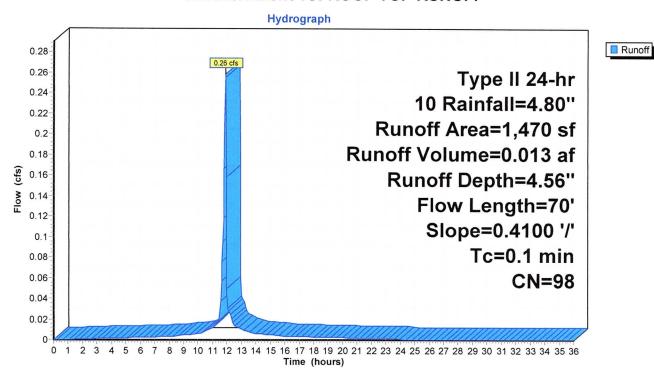
0.26 cfs @ 11.89 hrs, Volume=

0.013 af, Depth= 4.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs Type II 24-hr 10 Rainfall=4.80"

A	rea (sf)	CN I	Description		
	1,470	98 I	Roofs, HSG	A A	
	1,470		100.00% Im	pervious A	rea
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	70	0.4100	10.31		Shallow Concentrated Flow, ROOF FLOW Unpaved Kv= 16.1 fps

Subcatchment 1S: ROOF TOP RUNOFF



CUDWORTH-SUDBURY MA Type II 24-hr 10 Rainfall=4.80"

DRAINAGE DESIGN 5-21-24Prepared by NORTHWEST ENGINEERING SERVICES, LLC

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Printed 5/21/2024

Summary for Pond 2P: DRY WELL

Inflow Area = 0.034 ac,100.00% Impervious, Inflow Depth = 4.56" for 10 event

Inflow = 0.26 cfs @ 11.89 hrs, Volume= 0.013 af

Outflow = 0.16 cfs @ 11.95 hrs, Volume= 0.013 af, Atten= 40%, Lag= 3.9 min

Primary = 0.16 cfs @ 11.95 hrs, Volume= 0.013 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs Peak Elev= 194.10' @ 11.95 hrs Surf.Area= 64 sf Storage= 95 cf

Plug-Flow detention time= 12.4 min calculated for 0.013 af (100% of inflow)

Center-of-Mass det. time= 12.4 min (751.6 - 739.2)

Volume	Invert	Avail.Storage	Storage Description	
#1	194.00'	57 cf	4.00'D x 4.50'H Vertical Cone/Cylinder Inside #2	
#2	192.00'		8.00'W x 8.00'L x 7.00'H STONE BEDDING	
			448 cf Overall - 57 cf Embedded = 391 cf x 70.0% Voids	

331 cf Total Available Storage

Device	Routing	Invert	Outlet Devices		
#1	Primary	192.00'	30.000 in/hr Exfiltration over Wetted area		
			Conductivity to Groundwater Elevation = 190.00' Phase-In= 1.00'		
#2	Primary	197.40'	6.0" Round Culvert		
			L= 6.0' CPP, mitered to conform to fill, Ke= 0.700		
			Inlet / Outlet Invert= 197.40' / 197.00' S= 0.0667 '/' Cc= 0.900		
			n= 0.010 PVC, smooth interior, Flow Area= 0.20 sf		

Primary OutFlow Max=0.16 cfs @ 11.95 hrs HW=194.09' (Free Discharge)

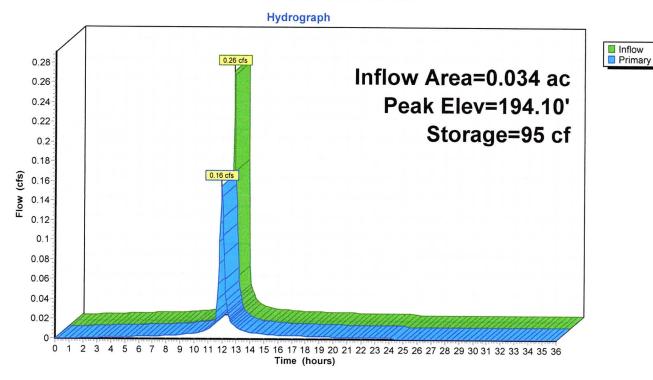
1=Exfiltration (Controls 0.16 cfs)

-2=Culvert (Controls 0.00 cfs)

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Pond 2P: DRY WELL



CUDWORTH-SUDBURY MA
Type II 24-hr 25 Rainfall=5.40"
Printed 5/21/2024
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Summary for Subcatchment 1S: ROOF TOP RUNOFF

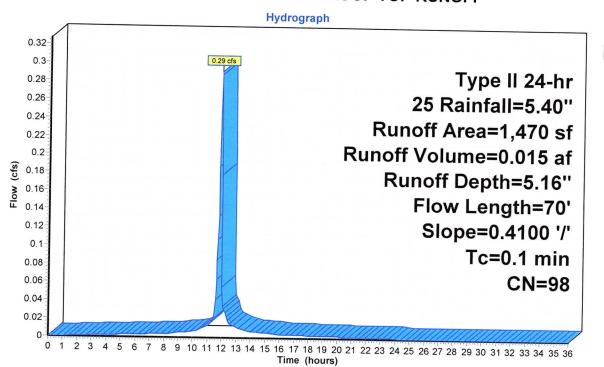
Runoff = 0.29 cfs @ 11.89 hrs, Volume=

0.015 af, Depth= 5.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs Type II 24-hr 25 Rainfall=5.40"

A	rea (sf)	CN	Description		
	1,470	98	Roofs, HSG	A A	
	1,470		100.00% Im	pervious A	rea
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	70	0.4100	10.31		Shallow Concentrated Flow, ROOF FLOW Unpaved Kv= 16.1 fps

Subcatchment 1S: ROOF TOP RUNOFF





DRAINAGE DESIGN 5-21-24

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CUDWORTH-SUDBURY MA Type II 24-hr 25 Rainfall=5.40" Printed 5/21/2024 Page 6

Summary for Pond 2P: DRY WELL

0.034 ac,100.00% Impervious, Inflow Depth = 5.16" for 25 event Inflow Area =

Inflow 0.29 cfs @ 11.89 hrs, Volume= 0.015 af

Outflow = 0.17 cfs @ 11.95 hrs, Volume= 0.015 af, Atten= 41%, Lag= 3.9 min

Primary 0.17 cfs @ 11.95 hrs, Volume= = 0.015 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs Peak Elev= 194.38 @ 11.95 hrs Surf.Area= 64 sf Storage= 108 cf

Plug-Flow detention time= 12.4 min calculated for 0.014 af (100% of inflow)

Center-of-Mass det. time= 12.4 min (749.6 - 737.2)

Volume	Invert	Avail.Storage	Storage Description
#1	194.00'		4.00'D x 4.50'H Vertical Cone/Cylinder Inside #2
#2	192.00'	2/4 ct	8.00'W x 8.00'L x 7.00'H STONE BEDDING
			448 cf Overall - 57 cf Embedded = 391 cf x 70.0% Voids
		331 cf	Total Available Standard

331 cf Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	192.00'	30.000 in/hr Exfiltration over Wetted area
#2	Primary		Conductivity to Groundwater Elevation = 190.00' Phase-In= 1.00' 6.0" Round Culvert
			L= 6.0' CPP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 197.40' / 197.00' S= 0.0667 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.20 sf

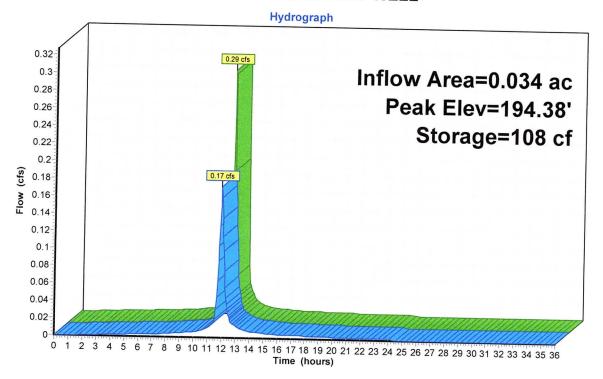
Primary OutFlow Max=0.17 cfs @ 11.95 hrs HW=194.36' (Free Discharge) -1=Exfiltration (Controls 0.17 cfs)

-2=Culvert (Controls 0.00 cfs)

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Pond 2P: DRY WELL





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1. BUILDER

A. NAME: GBI.

NUMBER OF SHEETS IN EACH SET: 8

Guaranteed Builders, Inc.

14 WEST STREET, DOUGLAS MA. 01516 Phone: (508) 476-1500

FOR

1470 Sq FEET SINGLE STORY GARAGE 87 CUDWORTH LANE, SUDBURY, MA. 0177

3. BUILDING INFORMATION:

A. PROJECT NAME AND BUILDING LOCATION:

Jehangir Jungalwala 87 Cudworth lane Sudbury, MA 01776

TEL: 508-320-8982

C. MANUFACTURING PLANT ADDRESS: 14 WEST STREET DOUGLAS, MA 01516

B. AREA OF BUILDING: 1470 Sq. Ft.

C. AMOUNT OF ENCLOSED SPACE 1384.5 D. HEIGHT OF BUILDING ABOVE GRADE

1. STORIES: 1

2. INDEX OF DRAWINGS & PERMINENT INFORMATION SHEETS ARE AS FOLLOWS 2. FEET 25'-0"

T-0	TITLE PAGE	DWG DATE	4/16/24	E. BUILDING DESIG
A-1	FOUNDATION PLAN	DWG DATE	4/16/24	1.CEILING DEAD L
A-2	FLOOR PLAN	DWG DATE	4/16/24	2. ROOF 50 PSF
A-3	FRONT ELEVATION	DWG DATE	4/16/24	3. BOTTOM CHOR
4 -4	REAR ELEVATION	DWG DATE	4/16/24	4. CONCRETE FLO
A-5	LEFT & RIGHT ELEVATIONS	DWG DATE	4/16/24	
A-6	CROSS SECTION DETAIL	DWG DATE	4/16/24	
A-7	SHEAR WALL DETAIL	DWG DATE	4/16/24	F. WIND: ASCE 7-0

B. ADDRESS: 14 WEST STREET., DOUGLAS, MA 01516

IGN LIVE LOADS: LOAD 10 PSF

RD LIVE LOAD 10 PSF

OOR 4000 PSI

F. WIND: ASCE 7-02: 110MPH: TCDL=6.0 PSF; BCDL=6.0 PSF; H=25FT.; CAT II; EXP B; ENCLOSED; MWFRS (LOW RISE); GABLE END ZONE AND C-C EXTERIOR (2) 0-10-0 TO 2-2-0, INTERIOR (1) 2-2-0 TO 9-0-0, EXTERIOR (2) 9-0-0 TO 12-0-0, INTERIOR (1) 15-0-0 TO 21-10-0 ZONE; CANTILEVER LEFT AND RIGHT EXPOSED; END VERTICAL LEFT AND RIGHT EXPOSED; C-C FOR MEMBERS AND FORCES & MWFRS FOR

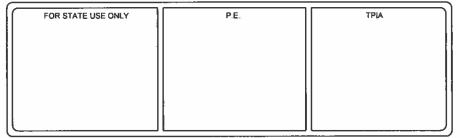
REACTIONS SHOWN; LUMBER DOL=1.6 PLATE GRIP DOL=1.6

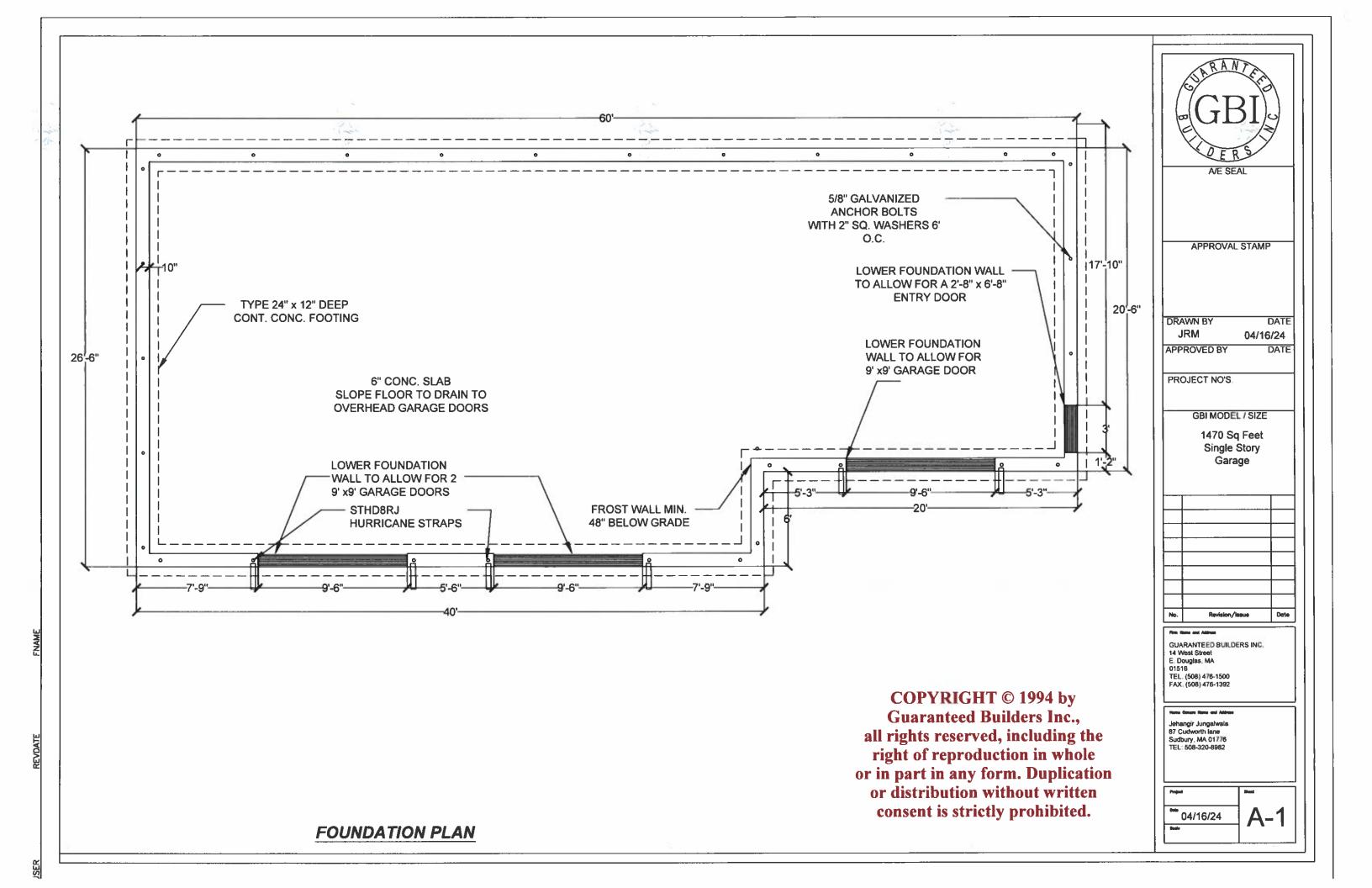
JOB NUMBER: 27-2023 SHEET NO. TITLE DATE: 4/16/24

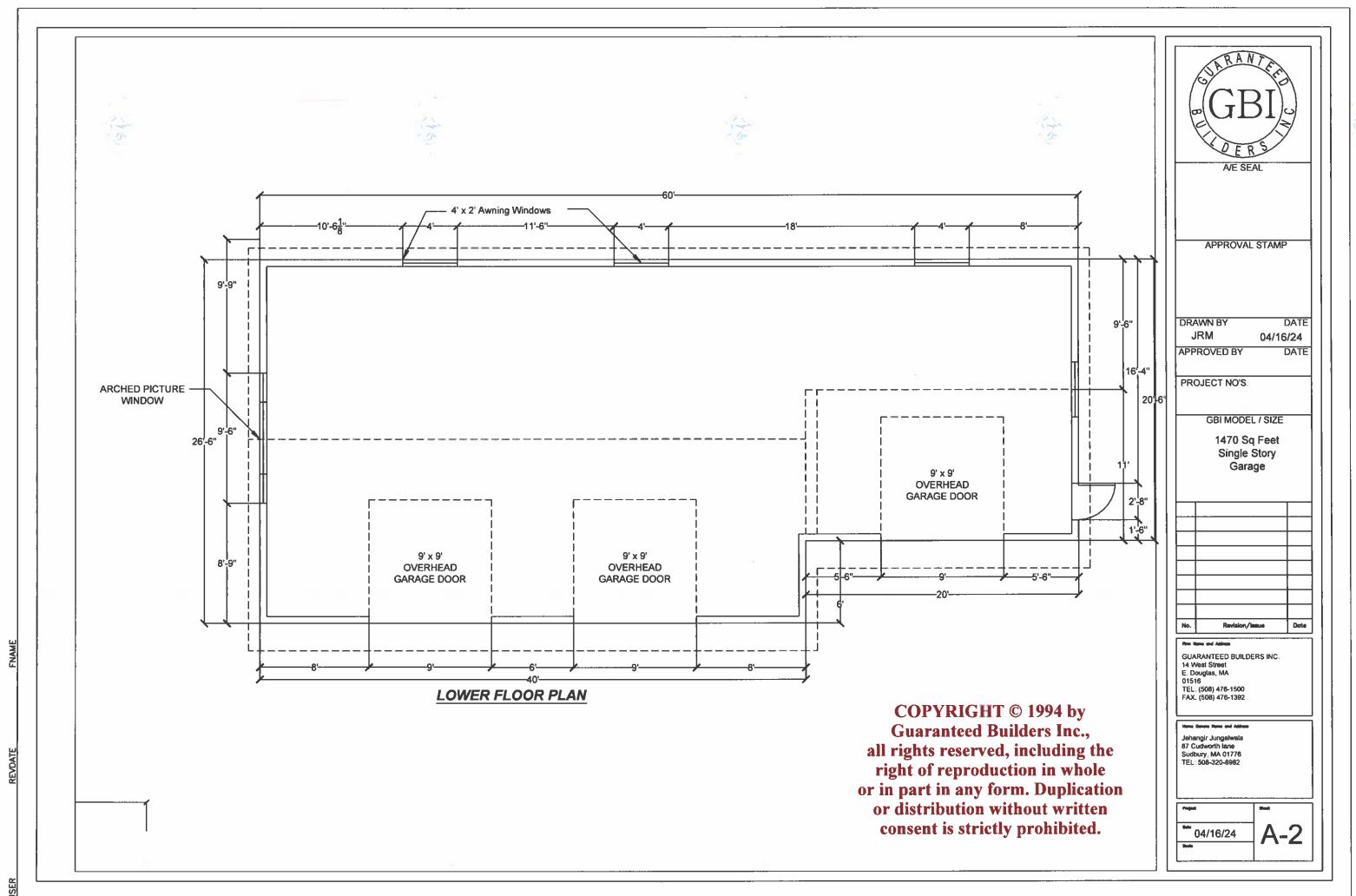
nufactured by:

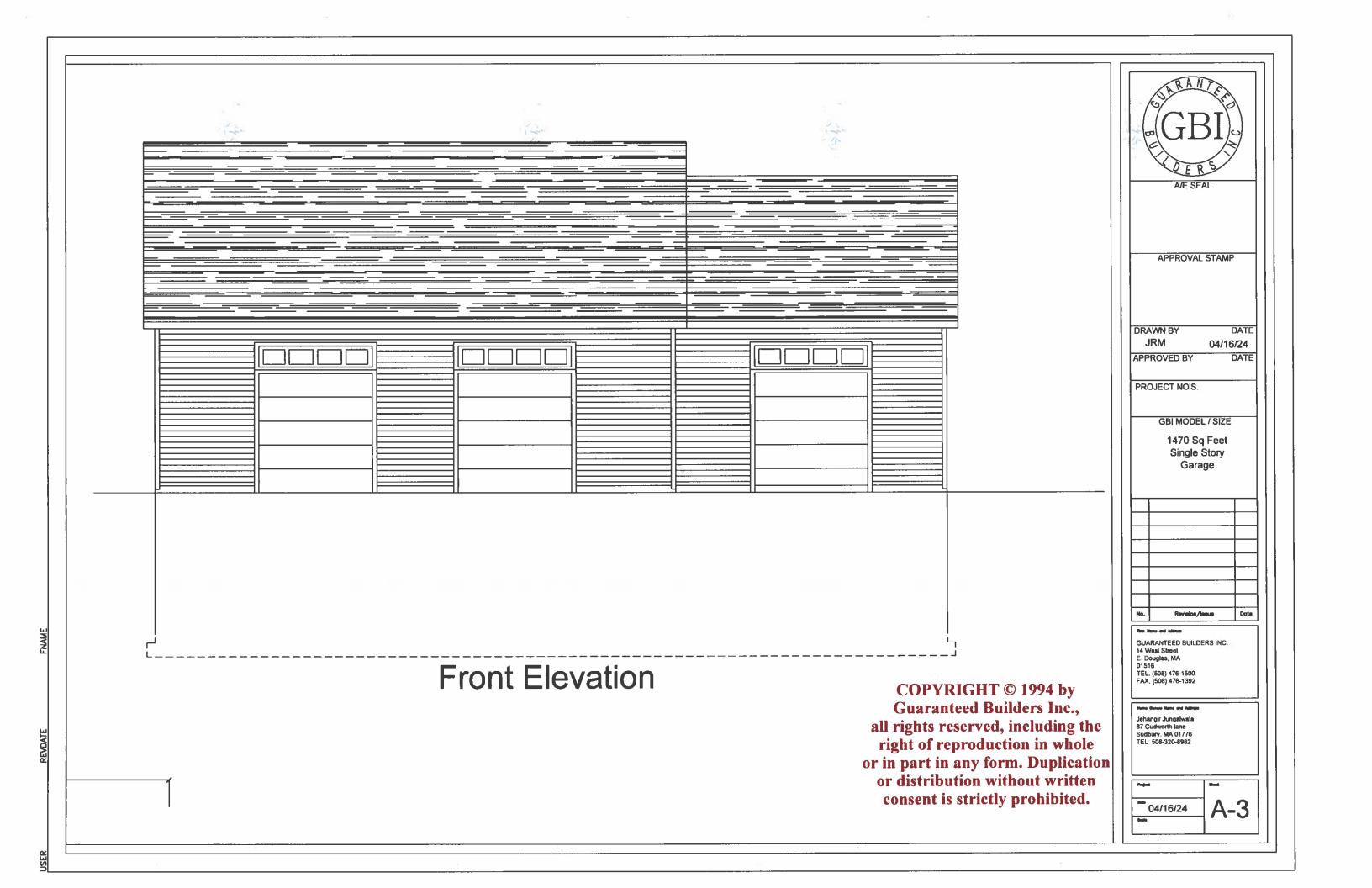
GUARANTEED BUILDINGS, INC.

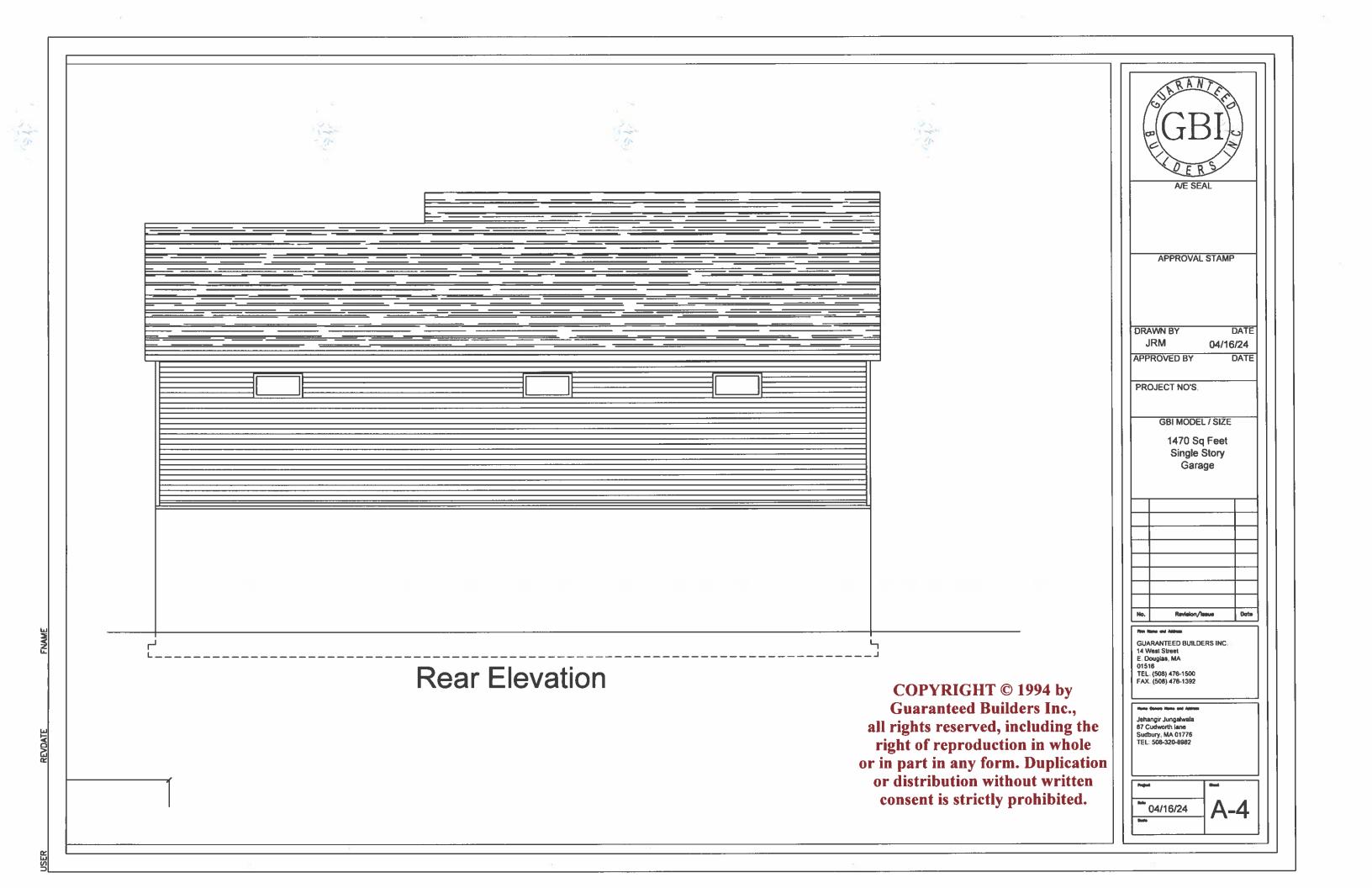
14 WEST STREET DOUGLAS, MASS PHONE: (508) 476-1500 FAX: (508) 476-1392

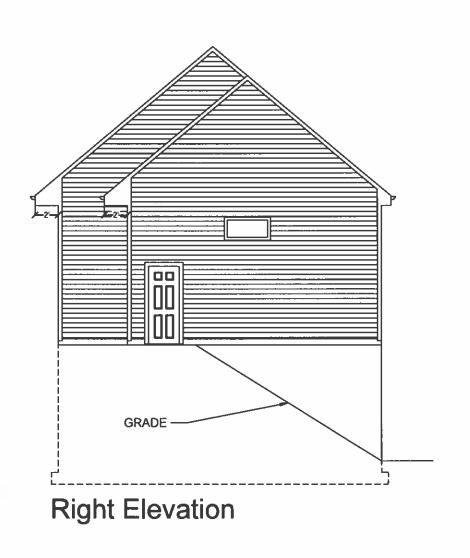


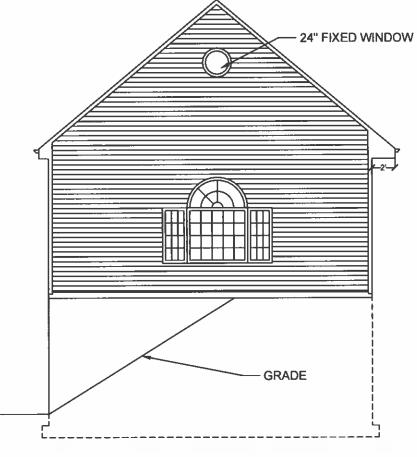






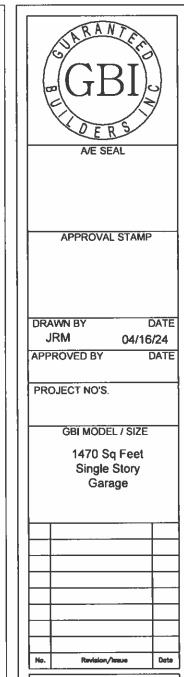






Left Elevation

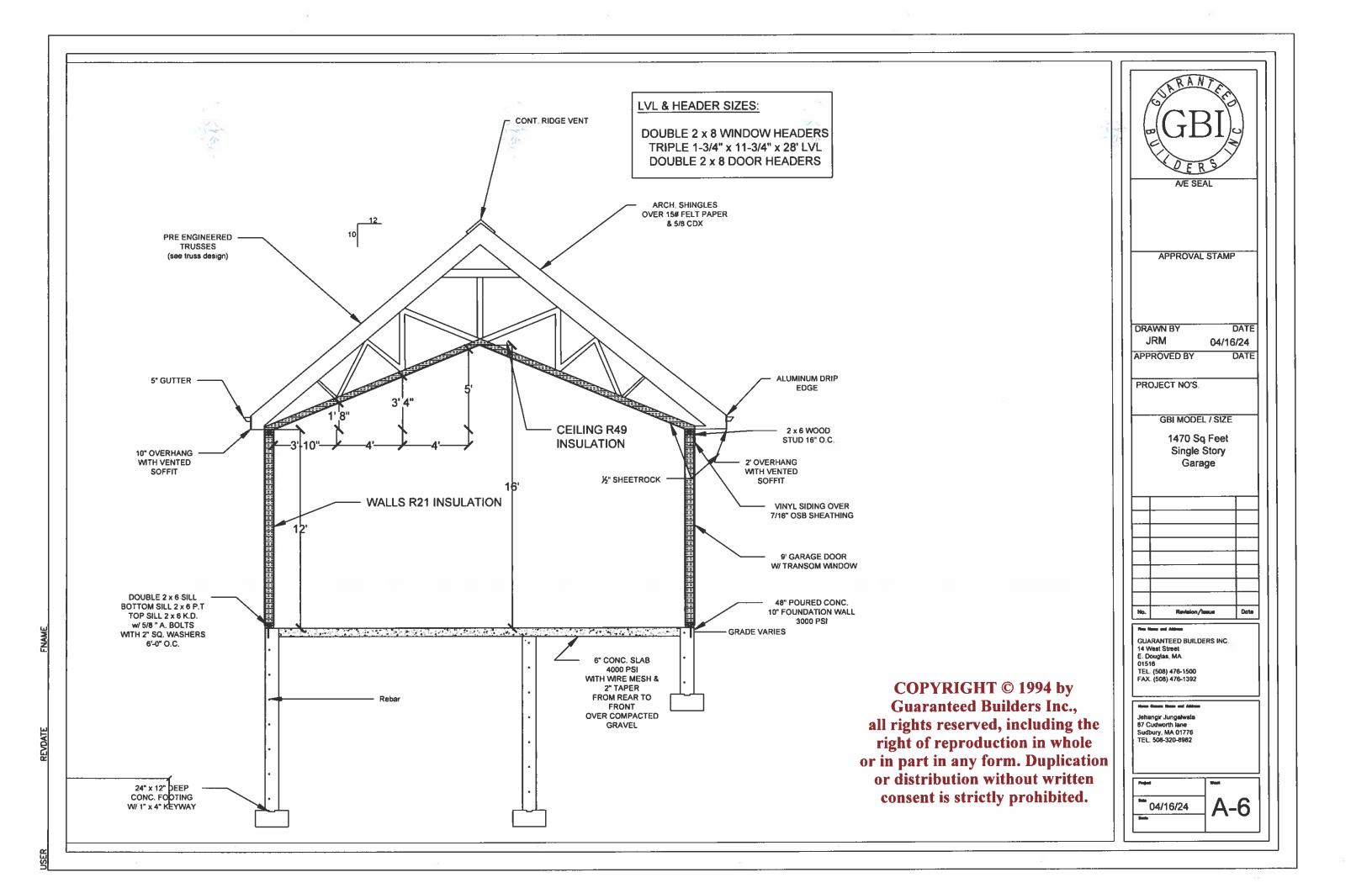
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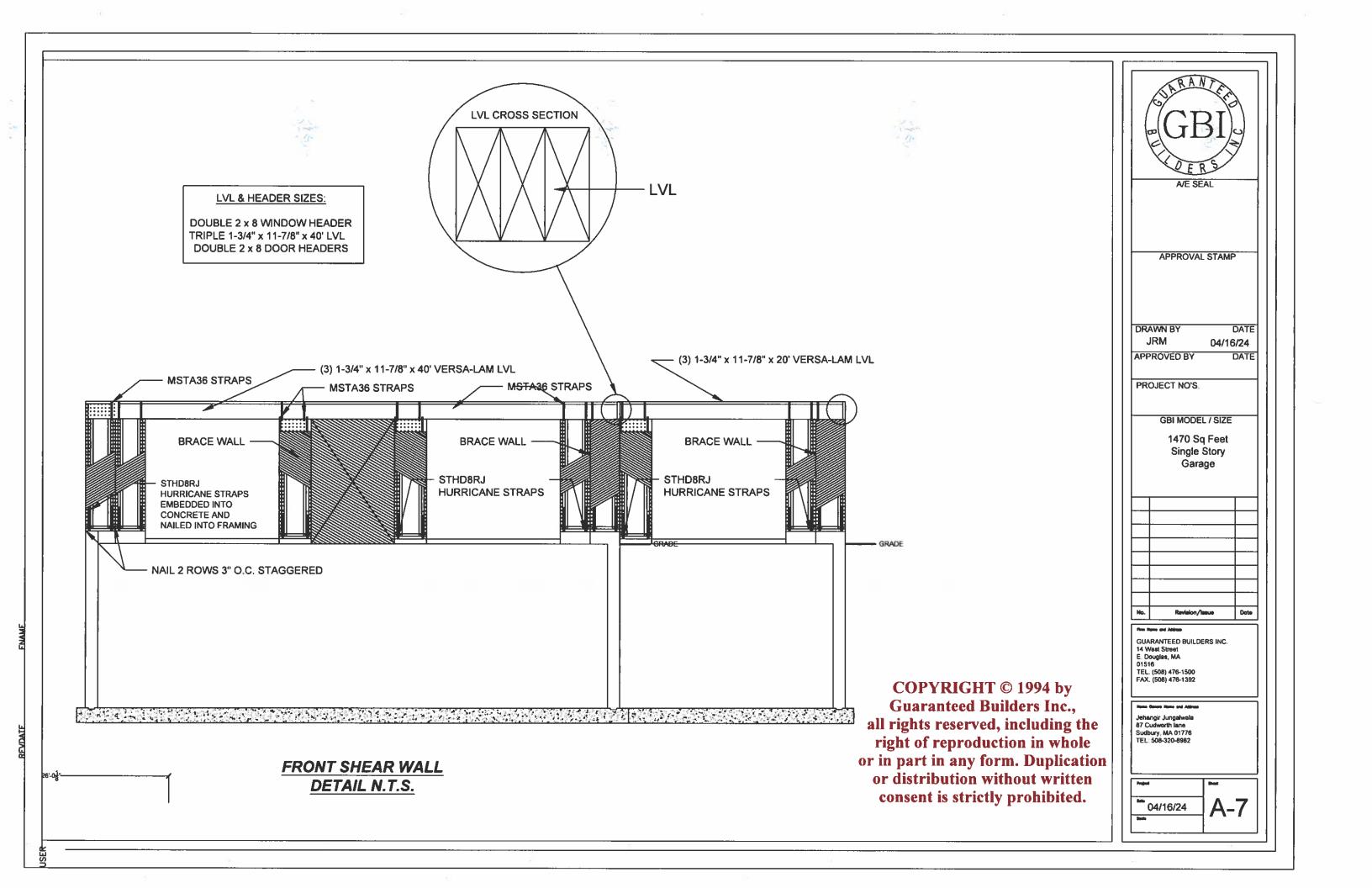


GUARANTEED BUILDERS INC. 14 West Street E. Douglas, MA 01516 TEL. (508) 476-1500 FAX. (508) 476-1392

Jehangir Jungalwala 87 Cudworth lane Sudbury, MA 01776 TEL 508-320-8982

04/16/24







FOR TREES & SHRUBS AT TOP IN GRASS LOCATION FULL SUN

(2) Acer rubrum, Red Maple, 12-18" #2 cntr

https://g.co/kgs/i2PeXmF

(2) Betula populifolia, Grey Birch

https://g.co/kgs/nxRAByv

(4) Photinia melanocarpa, Black Chokeberry, 18-24", #1pot https://g.co/kgs/36GZm2q

- (2) Clethra alnifolia, Sweet Pepperbush, 18-24", #1pot https://g.co/kgs/qMyAn5p
- (2) Cornus racemosa, Gray Dogwood, 6-12", #1pot https://g.co/kgs/WxP49Lb

TREES AT BOTTOM FOR FULL SUN

- (5) Acer saccharinum, Silver Maple, 3-4ft, #2 cntr https://g.co/kgs/VYAiHCz
- (5) Larix laricina, Eastern Larch, 3-4', #2 cntr https://g.co/kgs/HnAwGCi
- (3) Quercus palustris, Pin Oak, 3-4', #2 https://g.co/kgs/uCxRvh9

SHRUBS & HERBACEOUS NEAR STREAM FULL SHADE

- (10) Cornus sericea, Red-osier Dogwood, 3-4ft, #1pot https://g.co/kgs/SMmB5dj
- (10) Myrica gale, Sweetgale 6-12", #1pot https://g.co/kgs/9MdSDBV
- (10) Vaccinium corymbosum, Highbush Blueberry, 18-24", #1pot $\underline{\text{https://g.co/kgs/atruXam}}$
- (100) Poa palustris, Fowl Bluegrass, 2" plug (50/tray) https://g.co/kgs/iC7dphA