GREENBAR STORAGE PH. 3

BUILDINGS #5 THROUGH #9

1500 NW MURPHY RD
PRINEVILLE,OREGON

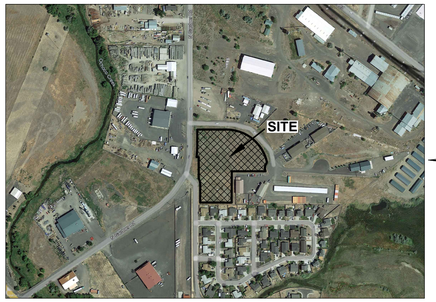
LEGAL DESCRIPTION

TAX LOT 141631BC-03900-16284

APPLICABLE BUILDING CODES

2019 OREGON STRUCTURAL SPECIALTY CODE (OSSC)
2019 OREGON MECHANICAL SPECIALTY CODE (OSMC)
2017 OREGON PLUMBING SPECIALTY CODE (OPSC)
2017 OREGON ELECTRICAL SPECIALTY CODE (OESC)
2014 OREGON FIRE CODE (OFC)
ANSI/ASHRAE/IES STANDARD 90.1-2016
2009 ICC/ANSI A117.1 ACCESSIBILITY CODE

AERIAL



PROJECT DATA

PROJECT NAME	GREENBAR STORAGE
OWNER/APPLICANT	GREENBAR PROPERTIES LLC PO BOX 7 PRINEVILLE, OR 97754
PROJECT ADDRESS	1500 NW MURPHY RD, PRINEVILLE OR
TAX LOT	141631BC-03900-16284
BUILDING AGENCY/JURISDICTION	CROOK COUNTY
DESIGN CRITERIA	PROJECT LOCATED IN SEISMIC DESIGN CATEGORY D 110 MPH WIND (3 SEC. GUST) 45 PSF SNOW LOAD
BUILDING OCCUPANCY	S1 NON-SEPARATED OCCUPANCY
CURRENT ZONING	M1
LOT SIZE	3.42 ACRES

BUILDING DATA

CONSTRUCTION TYPE	TYPE II-B (TYPICAL FOR STORAGE UNIT BUILDINGS)
EX. BUILDINGS	38,500 SQ. FT.
NEW BUILDING #5	1,700 SQ. FT.
NEW BUILDING #6	4,500 SQ. FT.
NEW BUILDING #7	4,500 SQ. FT.
NEW BUILDING #8	4,500 SQ. FT.
NEW BUILDING #9	2,700 SQ. FT.
TOTAL BUILDING AREA:	**56,400 SQ.FT.**
ALLOWABLE AREA:	
TYPE II-B:	17,500 S.F., PER TABLE 506.2 - MAX 12,000 S.F. PER 903.2.9
TESTED FIRE FLOW:	2,517 GPM (COMBINED HYDRANT FLOWS 1750 GPM REQ.)
MAXIMUM BUILDING ARE BASED ON AVAILABLE FIRE FLOW PER TABLE "B" 105.1(2): DTL A/CS	
TYPE II-B	MAXIMUM BUILDING AREA - 12,000 S.F.
BUILDING 3 (TYPE II-B)	13,600 S.F. EX. PROPOSED FIRE WALL (PER TABLE 706.4 / 707.3.10) REDUCES FIRE AREAS TO 7,200 S.F. MAX.
BUILDING 4 (TYPE II-B)	7,500 S.F. (BUILDING OK)
FIRE EXTINGUISHERS TO BE PLACED AT 75' INTERVALS MAXIMUM (MINIMUM 2A-10B:C RATING)	
ADA UNITS REQUIRED	1 - 200 UNITS: 5% BUT NO FEWER THAN 1 UNIT 200 OR MORE UNITS: 10, PLUS 2 PERCENT OF TOTAL NUMBER OF UNITS OVER 200 (EXISTING) 216 UNITS: 11 EXISTING ADA UNITS (PROPOSED) 125 UNITS = 216 + 125 = 341: 10 UNITS + (141 x .002) = 1 UNIT ADDITIONAL ADA UNITS REQUIRED: 1 UNIT

ACCESSIBILITY NOTES:

DOORS: REACH ISSUES - DOOR HARDWARE (I.E., HANDLES, PULLS, LATCHES, LOCKS) MAY NOT BE LOWER THAN 34 INCHES OR HIGHER THAN 48 INCHES.

OPERATION: MUST BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING PINCHING OR TWISTING OF THE WRIST.

THRESHOLDS: MAXIMUM ½ INCH (13MM)

DOOR OPENING FORCE: 5.0 POUNDS MAXIMUM

BUILDING OCCUPANCY NOTE

THE BUILDINGS SHALL NOT TO BE OCCUPIED UNTIL FINAL OCCUPANCY HAS DETAINED FROM DESCHUTES COUNTY. ALL WORK SHALL CONFORM TO THE APPLICATIONS REQUIREMENTS OF THE CODE AND EDITIONS LISTED ABOVE.

DISCLOSURE NOTE

THESE DRAWINGS ARE BASED ON DESIGN BUILD WITH A SELECTED CONTRACTOR. DESIGN IS BASED ON INFORMATION AND DIMENSIONS SUPPLIED TO LB ENGINEERING, INC. EXISTING CONDITIONS MAY VARY, THEREFORE, CHANGES MAY BE REQUIRED BY USERS (OWNER, CONTRACTOR AND SUB CONTRACTORS, ENGINEERS, ETC.) OF THESE DRAWINGS.

L B ENGINEERING, INC. SHALL NOT BE RESPONSIBLE FOR ADDITIONAL COST DUE TO CHANGES OF ENGINEERING REQUIRED. LB ENGINEERING, INC. SHALL BE GIVEN ADEQUATE TIME TO RESPOND TO ALTERNATE DESIGN NEEDS.

L B ENGINEERING, INC. HAS APPRAISED OWNER OF POSSIBLE CHANGES. CONTRACTOR SHALL NEGOTIATE WITH OWNER, PRIOR TO CONSTRUCTION, OF THE POSSIBLE CHANGES AND INVESTIGATE REQUIREMENTS FOR THIS PROJECT.

PLUMBING, MECHANICAL, AND ELECTRICAL DESIGNS ARE BY OTHERS. THEY SHALL BE INTEGRATED INTO THE OVERALL DESIGN INTENT OF THESE DRAWINGS AND SHALL BE VERIFIED PRIOR TO CONSTRUCTION.

LB ENGINEERING, INC. SCOPE OF WORK

THESE DRAWINGS ARE INTENDED TO PROVIDE THE DESIGN AND STRUCTURAL ENGINEERING FOR THE PROPOSED OFFICE BUILDING AS INDICATED ON THESE DRAWINGS. ALL INTERIOR DEVELOPMENT NOT NOTED ON THESE PLANS, FINISHES, FINISH MATERIAL, DOORS, ELECTRICAL, MECHANICAL AND PLUMBING, FIRE SPRINKLER ITEMS ARE NOT THE RESPONSIBILITY OF L B ENGINEERING, INC. REVIEW OR DESIGN.

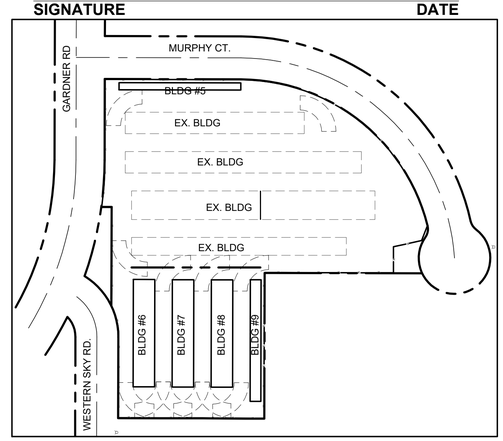
GENERAL NOTES

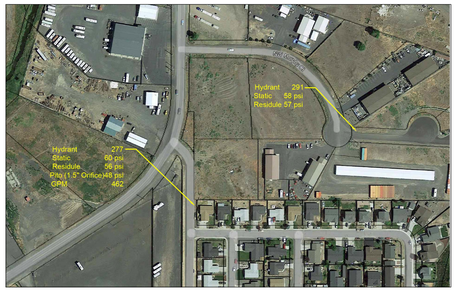
1. STRUCTURAL DETAILING AND REQUIREMENTS WILL HAVE PRECEDENCE OVER THE DESIGN DRAWINGS. SEE STRUCTURAL DRAWINGS FOR DIMENSIONS, CONNECTORS, ETC.
2. BUILDING DIMENSIONS ARE TAKEN TO FACE OF STUD, GRIDLINES, FACE OF MASONRY, AND FINISH FLOOR LEVELS UNLESS OTHERWISE NOTED.
3. SEE MECHANICAL DRAWINGS FOR LAYOUT, PLACEMENT, AND MOUNTING OF EQUIPMENT AND ASSOCIATED PARTS. VERIFY LOCATION OF FIRE RATED WALLS AND DAMPERS AND DAMPER TYPES REQUIRED.
4. ALL WORK TO BE IN STRICT COMPLIANCE WITH PERTINENT CODES.
5. DIMENSIONS AND CONDITIONS TO BE VERIFIED BY CONTRACTOR AND DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF L/B ENGINEERING, INC. PRIOR TO START OF CONSTRUCTION OR PORTION THEREOF.
6. SEE CIVIL AND LANDSCAPE DRAWINGS FOR SITE DEVELOPMENT. (NOT BY LB ENGINEERING. COORDINATE WITH DEVELOPER)
7. SEE ELECTRICAL FOR PANEL LOCATION, LIGHTING REQUIREMENTS AND ELECTRICAL LOADS.
8. SEE MECHANICAL DRAWINGS FOR EQUIPMENT DESIGN AND LAYOUT
9. SEAL, CAULK, GASKET, AND WEATHERSTRIP BUILDING EXTERIOR FOR A WEATHER-TIGHT STRUCTURE AS REQUIRED BY THESE DRAWINGS
10. WORK AT THE SITE SHALL COMMENCE WITHIN 180 DAYS AFTER BUILDING PERMIT IS ISSUED OR BUILDING PERMIT WILL BECOME NULL AND VOID. ANY CITY FEES THAT BECOME EFFECTIVE DURING THAT 180 DAYS MUST BE PAID WHEN BUILDING PERMIT IS RENEWED.
11. A COMPLETE SET OF STAMPED APPROVED CONSTRUCTION DOCUMENTS (E.G., DRAWINGS, SPECIFICATIONS, ENERGY COMPLIANCE CERTIFICATES, CALCULATIONS AND ATTACHMENTS) MUST BE ON THE JOB SITE.
12. CHANGES TO, OR DEVIATIONS FROM, THE APPROVED CONSTRUCTION DOCUMENTS, SHALL BE SUBMITTED TO THE BUILDING DIVISION FOR APPROVAL BEFORE SUCH CHANGES ARE INCORPORATED IN THE WORK. SUCH CHANGES OR DEVIATIONS MADE WITHOUT WRITTEN APPROVAL FROM THE BUILDING DIVISION SHALL BE REJECTED AND MAY CAUSE ASSESSMENT OF ADDITIONAL FEES, REQUIRE REMOVAL FROM THE WORK OR DELAY FINAL APPROVAL OF THE PROJECT.
13. BEFORE REQUESTING FINAL INSPECTION FROM THE BUILDING DEPT., EACH TESTING AGENCY, OR APPROVED FABRICATOR IF APPLICABLE, SHALL SUBMIT A FINAL SIGNED REPORT STATING THAT THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE TESTING AGENCY'S OR APPROVED FABRICATOR'S KNOWLEDGE, IN CONFORMANCE TO THE APPROVED PLANS AND SPECIFICATIONS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE OSSC.
14. ALL UTILITIES FOR THIS BUILDING ARE EXISTING BOTH ON SITE AND WITHIN THE BUILDING. IT IS THE GENERAL CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ALL EXISTING UTILITY LOCATION PRIOR TO CONSTRUCTION. LB ENGINEERING, INC. IS NOT RESPONSIBLE FOR THE LOCATION EXISTING UTILITY LOCATIONS NOR HAVE LOCATION BEEN VERIFIED BY LB ENGINEERING, INC.

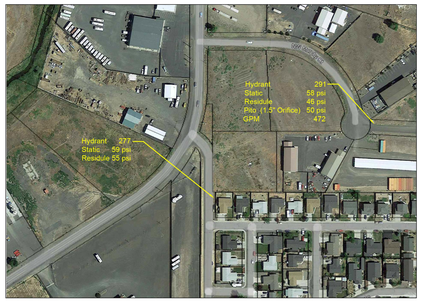
CROOK COUNTY FIRE AND RESCUE:

SITE PLAN APPROVAL

SIGNATURE **DATE**







LB ENGINEERING, INC.

1902 NE 4th St.
Bend, OR 97701
541-317-2939 phone 517-317-2940 fax

DATE: 18-Aug-22

Estimation of Fire Flow Availability

Project: **Greenbar Storage** Project #

HYDRANT #1

OBJECTIVES: 1.) Check if in the existing water main, Q, @ A @ 20 psi > $Q_{req\ (for\ fire)}$
2.) Check if in the new water main, Q, @ B @ 20 psi > $Q_{req\ (for\ fire)}$
(accounting for the head loss due to elevation and friction).

EXISTING HYDRANT INFORMATION
Location:
Hydrant # 291
Static (psi) 58 psi
Residual (psi) 46 psi
Flow 472 gpm

OBJECTIVE 1:

$$Q_r = Q_t \left(\frac{P_s - P_r}{P_s - P_t} \right)^{0.54}$$

Equation from AWWA M-17

Q, @ A= 880 gpm @ 20 PSI RESIDUAL PRESSURE IN THE WATER MAIN
(FLOW AT EXISTING FIRE HYDRANT)

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2.) Check if in the new water main, Q, @ B @ 20 psi > $Q_{req\ (for\ fire)}$
(accounting for the head loss due to elevation and friction).

EXISTING HYDRANT INFORMATION
Location:
Hydrant # 277
Static (psi) 60 psi
Residual (psi) 56 psi
Flow 472 gpm

OBJECTIVE 1:

$$Q_r = Q_t \left(\frac{P_s - P_r}{P_s - P_t} \right)^{0.54}$$

Equation from AWWA M-17

Q, @ A= 1637 gpm @ 20 PSI RESIDUAL PRESSURE IN THE WATER MAIN
(FLOW AT EXISTING FIRE HYDRANT)

NOTE:
COMBINED FIRE FLOW APPROVED PRINEVILLE FIRE DEPARTMENT PER PHONE CONVERSATION8/18/2022

TABLE B105.2
MINIMUM REQUIRED FIRE-FLOW AND FLOW DURATION FOR BUILDINGS

FIRE-FLOW CALCULATION AREA (square feet)					FIRE-FLOW (gallons per minute)[b]	FLOW DURATION (hours)
Type IA and IB[a]	Type IIA and IIA[a]	Type IV and V-A[a]	Type IIB and IIIB[a]	Type V-B[a]		
0-22,700	0-12,700	0-8,200	0-5,900	0-3,600	1,500	2
22,701-30,200	12,701-17,000	8,201-10,900	5,901-7,900	3,601-4,800	1,750	
30,201-38,700	17,001-21,800	10,901-12,900	7,901-9,800	4,801-6,200	2,000	
38,701-48,300	21,801-24,200	12,901-17,400	9,801-12,600	6,201-7,700	2,250	
48,301-59,000	24,201-33,200	17,401-21,300	12,601-15,400	7,701-9,400	2,500	
59,001-70,900	33,201-39,700	21,301-25,500	15,401-18,400	9,401-11,300	2,750	3
70,901-83,700	39,701-47,100	25,501-30,100	18,401-21,800	11,301-13,400	3,000	
83,701-97,700	47,101-54,900	30,101-35,200	21,801-25,900	13,401-15,600	3,250	
97,701-112,700	54,901-63,400	35,201-40,600	25,901-29,300	15,601-18,000	3,500	
112,701-128,700	63,401-72,400	40,601-46,400	29,301-33,500	18,001-20,600	3,750	
128,701-145,900	72,401-82,100	46,401-52,500	33,501-37,900	20,601-23,300	4,000	
145,901-164,200	82,101-92,400	52,501-59,100	37,901-42,700	23,301-26,300	4,250	
164,201-183,400	92,401-103,100	59,101-66,000	42,701-47,700	26,301-29,300	4,500	
183,401-203,700	103,101-114,600	66,001-73,300	47,701-53,000	29,301-32,600	4,750	
203,701-225,200	114,601-126,700	73,301-81,100	53,001-58,600	32,601-36,000	5,000	
225,201-247,700	126,701-139,400	81,101-89,200	58,601-65,400	36,001-39,600	5,250	
247,701-271,200	139,401-152,600	89,201-97,700	65,401-70,600	39,601-43,400	5,500	
271,201-295,900	152,601-166,500	97,701-106,500	70,601-77,000	43,401-47,400	5,750	
295,901-Greater	166,501-Greater	106,501-115,800	77,001-83,700	47,401-51,500	6,000	4
—	—	115,801-125,500	83,701-90,600	51,501-55,700	6,250	
—	—	125,501-135,500	90,601-97,900	55,701-60,200	6,500	
—	—	135,501-145,800	97,901-106,800	60,201-64,800	6,750	
—	—	145,801-156,700	106,801-113,200	64,801-69,600	7,000	
—	—	156,701-167,900	113,201-121,300	69,601-74,600	7,250	
—	—	167,901-179,400	121,301-129,600	74,601-79,800	7,500	
—	—	179,401-191,400	129,601-138,300	79,801-85,100	7,750	
—	—	191,401-Greater	138,301-Greater	85,101-Greater	8,000	

For SI: 1 square foot = 0.0929 m², 1 gallon per minute = 3.785 L/m, 1 pound per square inch = 6.895 kPa.
a. Types of construction are based on the *International Building Code*.
b. Measured at 20 psi residual pressure.

A CS FLOW REQUIRMENTS
SCALE: N.T.S.

B CS FIRE FLOW
SCALE: N.T.S.

STRUCTURAL
REGISTERED PROFESSIONAL ENGINEER
OREGON
PRELIMINARY NOT FOR CONSTRUCTION
EXPIRATION DATE: 12/31/2023
3/14/23

LB ENGINEERING, INC.
1902 NE 4TH ST.
BEND, OREGON 97701
(541) 317-2939 FAX. 317-2940

GREENBAR STORAGE PHASE 3
1500 NW MURPHY RD
PRINEVILLE OREGON

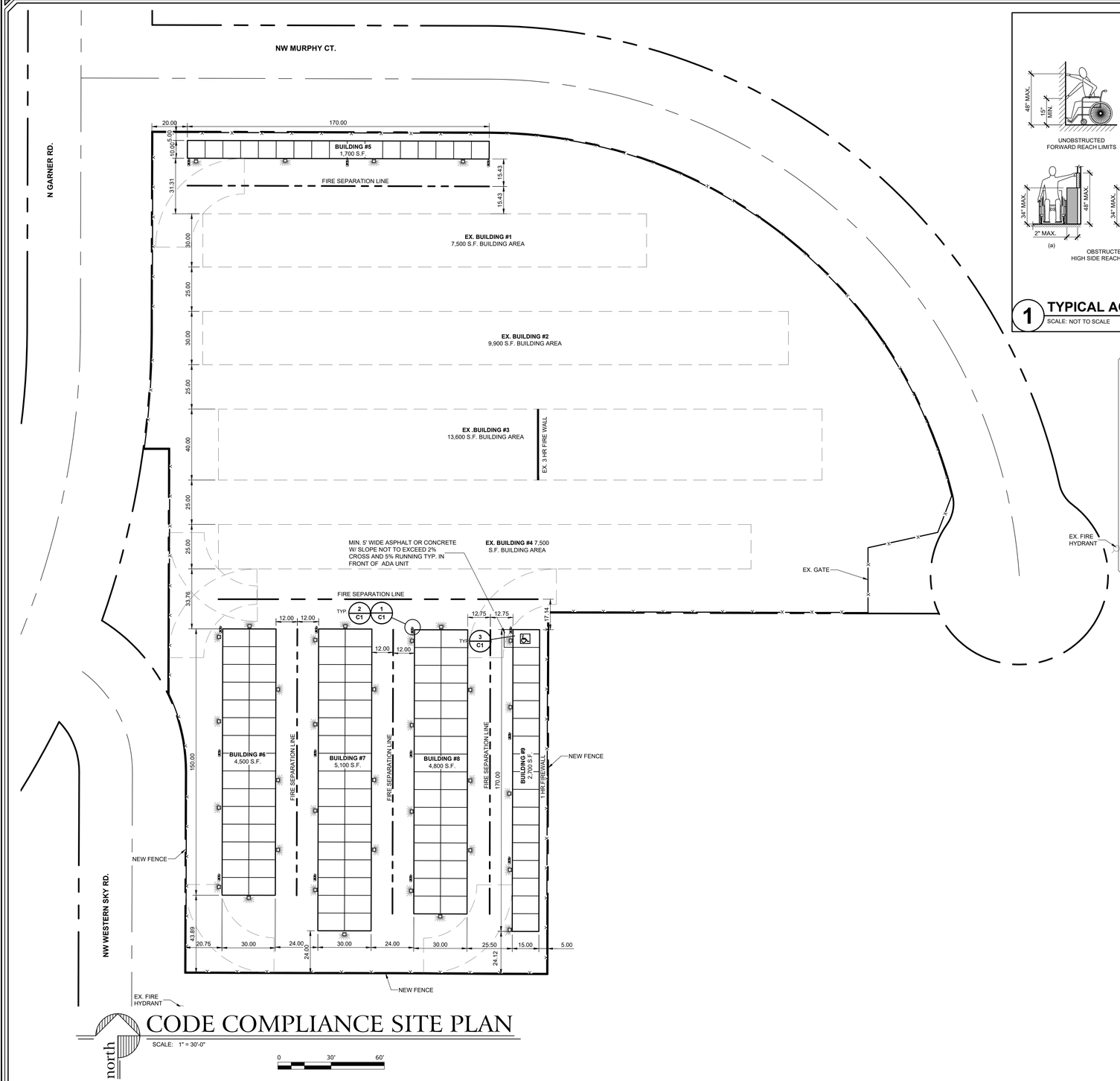
COVER SHEET

DRAWN BY	
ISSUE DATE	
MARK	REVISIONS

1.0

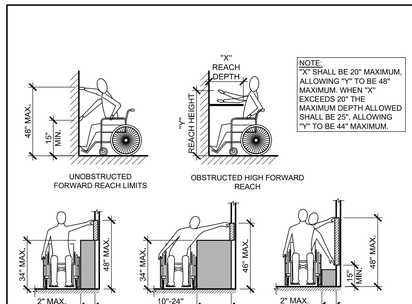
80-23

Z:\2023 JOB FILES\GREEN BAR STORAGE PHASE 3 (GREEN BAR EXCAVATION) 89-23\+LB DWG\CS-COVERSHEET-GREENBAR STORAGE.DWG 3/14/2023 10:31 AM



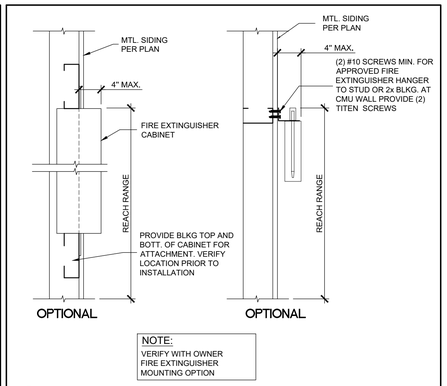
CODE COMPLIANCE SITE PLAN

SCALE: 1" = 30'-0"



1 TYPICAL ACCESSIBLE REACH RANGES

SCALE: NOT TO SCALE



2 FIRE EXTINGUISHER CABINET

SCALE: N.T.S.

LEGEND

- PROP.FIRE EXTINGUISHER AT 75' INTERVALS MAX. REACH RANGE PER DTL. 1 / 2.0 AND 2 / 2.0
- LUMARK 30W WALL PACK
- EX. CHAINLINK FENCE
- ACCESSIBLE UNITS

DOORS: REACH ISSUES - DOOR HARDWARE (I.E., HANDLES, PULLS, LATCHES, LOCKS) MAY NOT BE LOWER THAN 34 INCHES OR HIGHER THAN 48 INCHES.

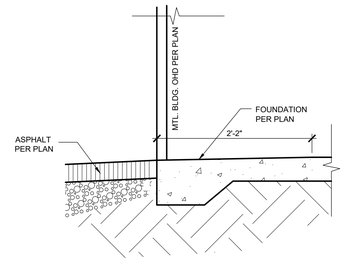
OPERATION: MUST BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING PINCHING OR TWISTING OF THE WRIST.

THRESHOLDS: MAXIMUM ½ INCH (13MM)

DOOR OPENING FORCE: 5.0 POUNDS MAXIMUM

NOTES:

1. SEE STEEL BUILDING PLAN DETAILS FOR FIREWALL DETAILS.



3 ADA UNIT THRESHOLD

SCALE: 1"=1'-0"

STRUCTURAL
REGISTERED PROFESSIONAL ENGINEER
OREGON
JANUARY 28, 1994
PRELIMINARY NOT FOR CONSTRUCTION
3/14/23
EXPIRATION DATE: 12/31/2023

LB ENGINEERING, INC.
1902 NE 4TH ST.
BEND, OREGON 97701
(541) 317-2939 FAX. 317-2940

GREENBAR STORAGE PHASE 3
1500 NW MURPHY RD
PRINEVILLE OREGON

CODE COMPLIANCE
SITE PLAN

DRAWN BY	
ISSUE DATE	
MARK	REVISIONS

2.0

80-23