COLUMBIA FALLS ACE HARDWARE

1947 9TH STREET WEST

COLUMBIA FALLS, MONTANA 59912



ARCHITECTURAL

HGFA-ARCHITECTS 800 GRANITE TOWER 222 NORTH 32ND STREET **BILLINGS, MONTANA 59101** 406.248.7811



GENERAL CONTRACTOR

MARKOVICH CONSTRUCTION 2827 LEXINGTON AVENUE **BUTTE. MONTANA 59701** 406.494.3901

RECEIVING/STORAGE = 1,528 SF

COVERED DISPLAY = 1,466 SF

TOTAL AREA

= 19,564 SF



STRUCTURAL

CUSHING-TERRELL

406.222.0104

OCCUPANT LOAD: (TABLE 1004.5)

121 S MAIN STREET

LIVINGSTON, MONTANA 59047

CIVIL

KRIVONEN & ASSOCIATES **1004 DIVISION STREET BILLINGS, MONTANA 59101** 406.259.1184



MECHANICAL-ELECTRICAL

CON'EER ENGINEERING, INC. 1629 AVENUE D, SUITE 7C **BILLINGS. MONTANA 59102** 406.252.3237

LANDSCAPE

SECOND NATURE CONSULTING **1432 TETON AVENUE BILLINGS, MONTANA 59102** 406.850.0461



PROJECT LOCATION

MERCANTILE: 260 OCC. x (1/2) = 130 WOMEN \$ 130 MEN

= 130 OCC. x 1/500 = 0.26 W.C.

WOMEN = 130 OCC. x 1/500 = 0.26 W.C.

MSITE - VICINITY PLAN TI NOT-TO-SCALE

MINIMUM NUMBER OF PLUMBING FACILITIES: (ARM 24.301.351)

DRAWING INDEX TITLE T1 - TITLE & CODE INFORMATION

VOO1 TOPOGRAPHY VOO2 BOUNDARY/ EASEMENTS VOO3 DETAIL NOTES/ CERTIFICATION COO1 NOTES, LEGEND AND HORIZONTAL CONTROL

COO2 DEMOLITION PLAN C100 OVERALL SITE PLAN **ENLARGED SITE PLAN**

ENLARGED SITE PLAN ENLARGED SITE PLAN C200 OVERALL GRADING AND DRAINAGE PLA ENLARGED GRADING AND DRAINAGE PLAN C203 ENLARGED GRADING AND DRAINAGE PLA

C204 STORM DRAIN PLAN & PROFILE C205 STORM DRAIN PLAN & PROFILE C300 UTILITY PLAN C301 SANITARY SEWER PLAN & PROFIL

C400 CIVIL DETAILS C401 CIVIL DETAILS C402 CIVIL DETAILS C403 MONTANA DEPARTMENT OF TRAN DETAILS C404 UTILITY DETAILS

LANDSCAPE L11 - LANDSCAPE PLAN L1.2 - LANDSCAPE PLAN

L2.1 - IRRIGATION PLAN L2.2 - IRRIGATION PLAN L3.1 - LANDSCAPE & IRRIGATION DETAILS

ARCHITECTURAL A1.1 - DIMENSION FLOOR PLAN

C405 UTILITY DETAILS

A13 - GONDOLA/RACKING PLAN

A4.1 - EXTERIOR ELEVATIONS

A6.1 - WALL SECTIONS A6.2 - WALL SECTIONS A6.3 - DETAILS

A6.4 - DETAILS

A8.1 - DOOR AND WINDOW SCHEDULES A8.2 - ROOM FINISH SCHEDULE A8.3 - DOOR HARDWARE SCHEDULE A9.1 - TRASH ENCLOSURE PLAN & DETAILS

STRUCTURAL S11 - FOUNDATION PLAN

\$12 - FRAMING PLAN - CANOPY ENTRY 82.1 - SECTIONS & DETAILS

MECHANICAL / ELECTRICAL

82.2 - SECTIONS & DETAILS

82.3 - SECTIONS & DETAILS

82.4 - SECTIONS & DETAILS

MEL1 - SITE PLAN MIL1 - FLOOR PLAN - PLUMBING

> M2.1 - FLOOR PLAN - HVAC M3.1 - LEGEND, SPECIFICATIONS AND SCHEDULES

M3.2 - SCHEDULES AND DETAILS M3.3 - DETAILS E11 - FLOOR PLAN - POWER

E2.1 - FLOOR PLAN - LIGHTING E3.1 - LEGEND, SPECIFICATIONS AND SCHEDULES

E3.2 - SCHEDULES E3.3 - DETAILS

A12 - OVERALL FLOOR PLAN

A2.1 - REFLECTED CEILING PLAN A3.1 - ROOF PLAN

A5.1 - BUILDING SECTIONS

A7.1 - INTERIOR ELEVATIONS A7.2 - INTERIOR ELEVATIONS

ZONED CB-2, GENERAL BUSINESS

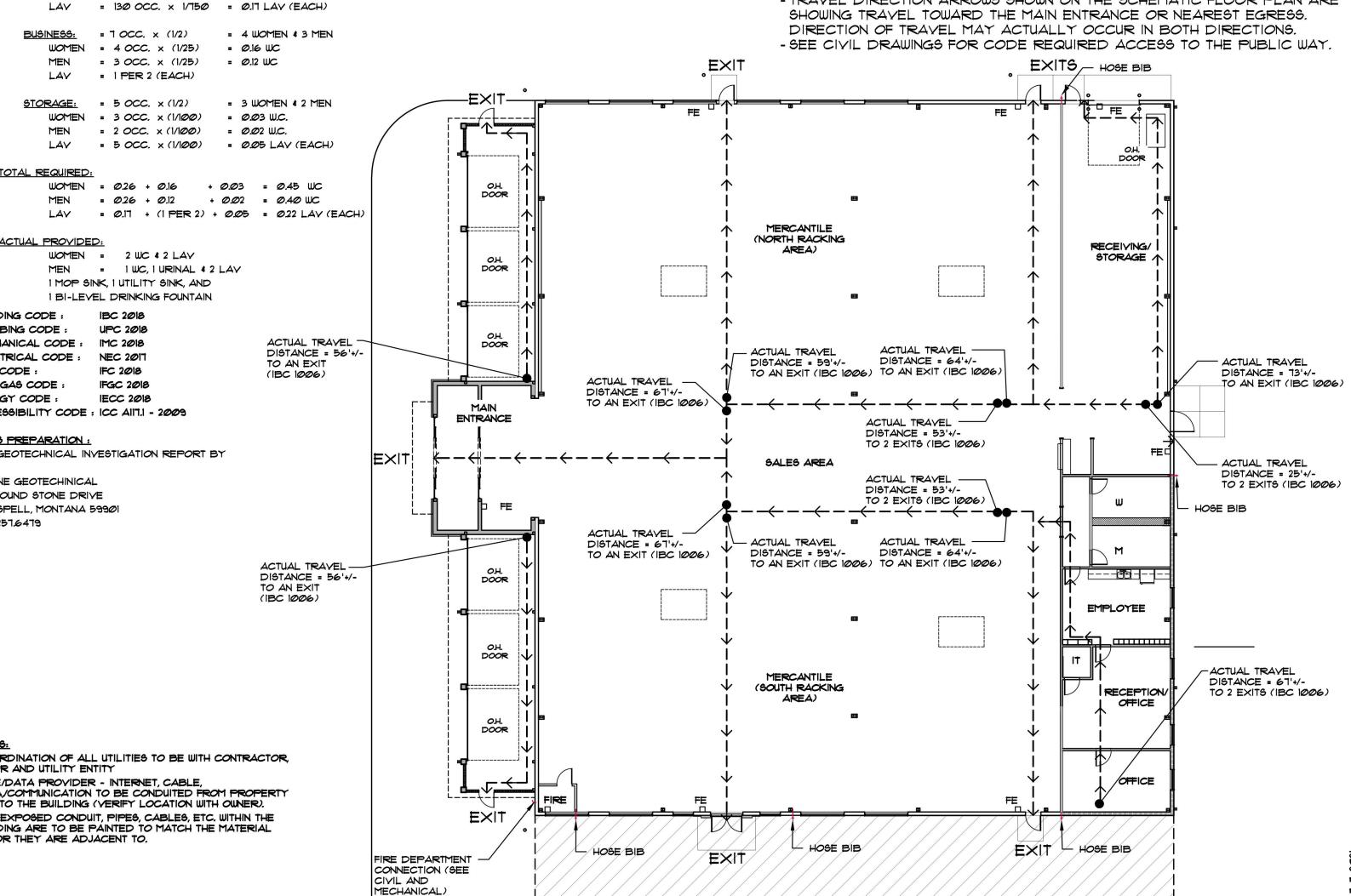
-GROUP 'M' OCCUPANCY

TYPE Y-B CONSTRUCTION · AUTOMATIC SPRINKLER SYSTEM TO BE INSTALLED THROUGHOUT THE BUILDING, PER IBC, IFC AND NFPAI3.

- NO HIGH PILE STORAGE TO OCCUR WITHIN THIS BUILDING. THERE WILL BE NO STORAGE OF MATERIALS WHERE THE TOP OF STORAGE IS GREATER THAN 12'-0" IN HEIGHT. YERIFY WITH OWNER.

-FE = FIRE EXTINGUISHER

- TRAVEL DIRECTION ARROWS SHOWN ON THE SCHEMATIC FLOOR PLAN ARE SHOWING TRAVEL TOWARD THE MAIN ENTRANCE OR NEAREST EGRESS.



CODE INFORMATION

NEW CONSTRUCTION **CODE :** IBC 2018 OCCUPANCY CLASSIFICATION: (IBC 309) GROUP 'M' OCCUPANCY TYPE OF CONSTRUCTION: (IBC 602.5) TYPE Y-B CONSTRUCTION

STORIES : 40,500 SF 19,564 SF MERCANTILE AREA = 15,567 SF OFFICE AREA = 1,003 SF

<u> ALLOWABLE HEIGHT6 & BUILDING: AREA:</u> (TABLE 504.3, 504.4, 506.2, & IBC 5062.1)

BUILDING AREA MODIFICATIONS: (IBC 5062.1) $Aa = At + (NS \times If)$

 $= (36,000 \text{ SF}) + (9,000 \text{ SF} \times 0.50)$ = 40,500 SF If = (F/P - 0.25) W/30

= (430'/570' - 025) 30/30

FIRE-RESISTANCE RATING REQUIREMENTS: (TABLE 601 \$ 602) PRIMARY STRUCTURAL FRAME: NONE REQUIRED WALLS COMPLY (SEE STRUCTURAL) NONE REQUIRED WALLS COMPLY (SEE PLANS & SECTIONS) EXTERIOR BEARING WALLS: NONE REQUIRED WALLS COMPLY (SEE PLANS & SECTIONS)

EXTERIOR NON-BEARING WALLS: NONE REQUIRED WALLS COMPLY (SEE PLANS & SECTIONS) INTERIOR NON-BEARING WALLS: NONE REQUIRED WALLS COMPLY (SEE PLANS & SECTIONS) FLOOR CONST. 4 SECONDARY: NONE REQUIRED FLOORS COMPLY (SEE SECTIONS) ROOF CONST. & SECONDARY: NONE REQUIRED ROOF/CEILING(S) COMPLY (SEE SECTIONS)

*EXTERIOR WALLS ARE NOT REQUIRED TO BE FIRE-RESISTANCE RATED SINCE THE FIRE SEPARATION DISTANCE IS GREATER THAN 10'-0" PER TABLE 602. MAXIMUM AREA OF EXTERIOR WALL OPENINGS: (TABLE 105.8)

= NO LIMIT - SPRINKLERED (20'-0" OR GREATER) UNPROTECTED

PROTECTED = NO LIMIT (20'-0" OR GREATER) EXTERIOR WALLS - PARAPETS: (IBC 705.11)

*APPLICABLE - NO PARAPET REQUIRED BECAUSE OF FIRE SEPARATION DISTANCE.

EXCEPTIONS: A PARAPET NEED NOT BE PROVIDED ON AN EXTERIOR WALL WHERE ANY OF THE FOLLOWING CONDITIONS EXIST: EXCEPTION *1: THE WALL IS NOT REQUIRED TO BE FIRE-RESISTANCE RATED IN ACCORDANCE WITH TABLE 602 BECAUSE OF FIRE-SEPARATION DISTANCE.

AUTOMATIC SPRINKLER SYSTEMS: (IBC 9032.7)

GROUP M: AN AUTOMATIC SPRINKLER SYSTEM SHALL BE PROVIDED THROUGHOUT BUILDINGS CONTAINING A GROUP M OCCUPANCY WHERE ONE OF THE FOLLOWING CONDITIONS EXISTS: 1. A GROUP M FIRE AREA EXCEEDS 12,000 SF.

*APPLICABLE - AUTOMATIC SPRINKLER SYSTEM SHALL BE PROVIDED THROUGHOUT THE BUILDING SINCE THE FIRE AREA EXCEEDS 12,000 SF.

AN AUTOMATIC SPRINKLER SYSTEM SHALL BE PROVIDED IN ACCORDANCE WITH THE IFC IN ALL BUILDINGS OF GROUP 'M' WHERE STORAGE OF MERCHANDISE IS IN HIGH PILED OR RACK STORAGE ${}^{\hspace{-1pt} +}$ NO HIGH-PILED STORAGE TO OCCUR WITHIN THE BUILDING PER IBC AND IFC - VERIFY WITH OWNER.

<u>AUTOMATIC SPRINKLER SYSTEMS- INSTALLATION REQUIREMENTS:</u> (IBC) 903.3) AUTOMATIC SPRINKLER SYSTEMS SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH SECTIONS 903.3.1 THROUGH 903.3.6. *APPLICABLE - AUTOMATIC SPRINKLER SYSTEMS SHALL BE INSTALLED PER IBC 903.3.1.1 AND

PORTABLE FIRE EXTINGUISHERS SHALL BE INSTALLED IN LOCATIONS AS REQUIRED BY THE IBC AND IFC.

PORTABLE FIRE EXTINGUISHERS: (IBC 906)

FIRE ALARM AND DETECTION SYSTEMS: (IBC 9072.7)

NFPA 13 SPRINKLER SYSTEM REQUIREMENTS.

<u>AUTOMATIC SPRINKLER SYSTEMS- HIGH PILED STORAGE:</u> (IBC 9032.7.1)

EXCEPTION *2: MANUAL FIRE ALARM BOXES ARE NOT REQUIRED WHERE THE BUILDING IS EQUIPPED HROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM INSTALLED IN ACCORDANCE WITH SECTION 903.3.1.1 AND THE OCCUPANT NOTIFICATION APPLIANCES WILL AUTOMATICALLY ACTIVATE THROUGHOUT THE NOTIFICATION ZONES UPON SPRINKLER WATERFLOW.

*APPLICABLE - AUTOMATIC SPRINKLER SYSTEM AND NOTIFICATION APPLIANCES TO BE INSTALLED PER IBC AND IFC REQUIREMENTS.

GROUP M: MERCANTILE AREA = 60 SF/OCCUPANT $= (15,567 \text{ SF}) \times (1/60) = 259.45 \text{ OCC.}$ BUSINESS AREA = 150 SF/OCCUPANT $= (1,003 \text{ SF}) \times (1/150) = 6.68 \text{ OCC}.$ = 300 SF/ OCCUPANT $= (1.528 \text{ SF}) \times 1/3000 = 5.09 \text{ OCC}$ TOTAL OCCUPANT LOAD = (259.45) + (668) + (509) = 271.22 = 272 OCCUPANT6 MEANS OF EGRESS SIZING: (IBC 1005.3) GROUP M (OTHER EGRESS COMPONENTS): = 260 OCC. × 02"/OCC. = 52" MERCANTILE AREA REQUIRED = 288" ACTUAL BUSINESS AREA = 7 OCC. x Ø2"/OCC. = 1.4" REQUIRED ACTUAL STORAGE, STOCK & SHIPPING AREA = 5 OCC. x 02"/0CC. = 1" REQUIRED = 72" COMMON PATH OF EGRESS TRAVEL: (TABLE 10062.1) GROUP M: SHALL NOT EXCEED 15' * SEE SCHEMATIC AND FLOOR PLANS TWO EXITS OR EXIT ACCESS DOORWAYS: (IBC 1007) DIAGONAL DIMENSION OF THE AREA SERVED. DIAGONAL DIMENSION x 1/3 = REQUIRED SEPARATION DISTANCE = 63' +/- REQUIRED = 89' +/- ACTUAL

EXCEPTION *2: WHERE A BUILDING IS EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM IN ACCORDANCE WITH SECTION 903.3.1.1 OR 903.3.1.2, THE SEPARATION DISTANCE OF THE EXIT DOORS OR EXIT ACCESS DOORWAYS SHALL NOT BE LESS THAN 1/3 OF THE LENGTH OF THE MAXIMUM OVERALL

. 6 EXIT DOORS PROVIDED FROM THE BUILDING

<u>EXIT ACCESS TRAVEL DISTANCE:</u> (TABLE 1017.2) GROUP M: 250' MAXIMUM (WITH SPRINKLER SYSTEM)

AISLE IN GROUP B AND M: (IBC 1018.3)

IN GROUPS B AND M OCCUPANCIES, THE MINIMUM CLEAR AISLE WIDTH SHALL BE DETERMINED BY SECTION 1005.1 FOR THE OCCUPANT LOAD SERVED, BUT SHALL NOT BE LESS THAN 36". MERCANTILE (NORTH RACKING AREA) = 52" x 1/2 = 26" REQUIRED - MINIMUM AIGLE WIDTH $(130 \ OCC. \times 02") = 26"$ = 36" ACTUAL - NARROWEST AISLE WIDTH MERCANTILE (SOUTH RACKING AREA) = 52" x 1/2 = 26" REQUIRED - MINIMUM AISLE WIDTH

= 36" ACTUAL - NARROWEST AISLE WIDTH $(130 \ OCC. \times 0.2") = 26"$ STORAGE, STOCK AND SHIPPING = 1" x 1/2 = 0.5" REQUIRED - MINIMUM AISLE WIDTH $(5 \ OCC. \times \emptyset.2") = 1"$ = 30" ACTUAL - VERIFY WITH OWNER

AISLE ACCESSWAY IN GROUP M: (IBC 1018.4) AN AISLE ACCESSWAY SHALL BE PROVIDED ON AT LEAST ONE SIDE OF EACH ELEMENT WITHIN THE

MERCHANDISE PAD. MINIMUM CLEAR WIDTH FOR AN AISLE ACCESSWAY NOT REQUIRED TO BE ACCESSIBLE SHALL BE 30". THE REQUIRED CLEAR WIDTH OF THE AISLE ACCESSIVAY SHALL BE MEASURED PERPENDICULAR TO THE ELEMENTS AND MERCHANDISE WITHIN THE MERCHANDISE PAD. THE 30" MINIMUM CLEAR WIDTH SHALL BE MAINTAINED TO PROVIDE A PATH TO AN ADJACENT AISLE OR AISLE ACCESSWAY. THE COMMON PATH OF THE TRAVEL SHALL NOT EXCEED 30' FROM ANY POINT IN THE MERCHANDISE PAD. *APPLICABLE - SEE GONDOLA/RACKING PLAN

CORRIDOR FIRE-RESISTANCE RATING: (TABLE 1018.1) Ø HOUR REQUIRED FIRE-RESISTANCE RATING (EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM PER IBC 903.3.1.1 (NFPA 13)

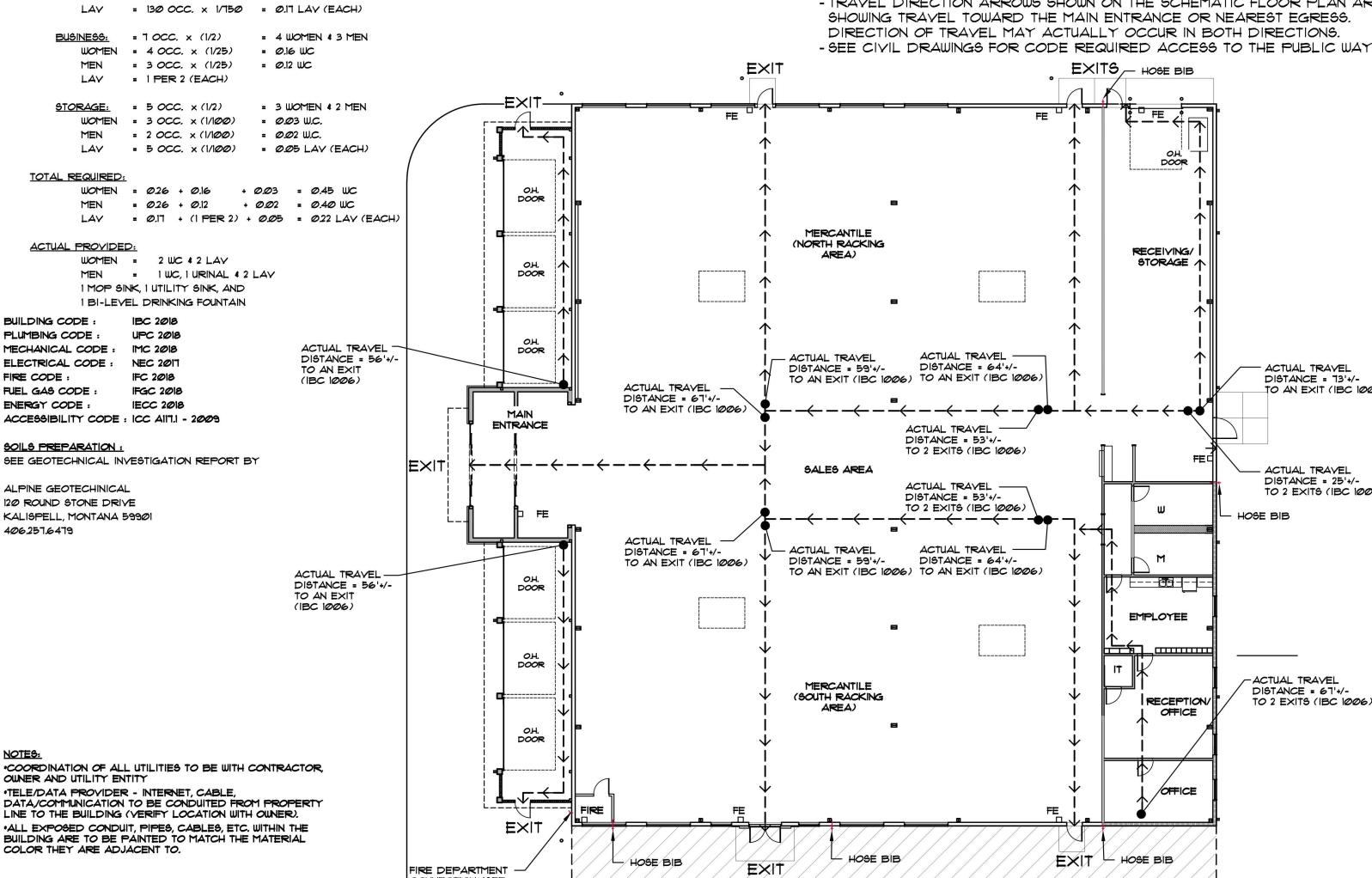
CORRIDOR - DEAD ENDS: (IBC 1020.4) EXCEPTION *2: IN OCCUPANCIES IN GROUP M, WHERE EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM IN ACCORDANCE WITH SECTION 903.3.1.1, THE LENGTH OF THE DEAD-END CORRIDORS

ROOF COVERING CLASSIFICATIONS: (TABLE 1505.1)

SHALL NOT EXCEED 50'.

= CLASS A ROOF ASSEMBLY ACTUAL (VERIFY WITH PEMB SUPPLIER)

TYPE Y-B CONSTRUCTION = CLASS C ROOF ASSEMBLY MINIMUM



2 SCHEMATIC FLOOR PLAN



SHEET