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Owner

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PROJECT NAME:

DUTCHER HOTEL

PROJECT ADDRESS:

86 CENTER STREET

DOUGLAS, MICHIGAN 49406

OWNER:

1875 HOSPITALITY GROUP, LLC

ARCHITECT:

STUDIO TWO, LLC

433 AMITY LANE

P.O. BOX 669

DOUGLAS, MI 49406

(269) 455-5583

PROJECT DESCRIPTION:

RENOVATION, ALTERATIONS, AND ADDITION TO AN EXISTING HISTORIC TWO-STORY BUILDING WITH BASEMENT FOR USE AS A BOUTIQUE HOTEL, EVENT SPACE, BAR, AND WARMING KITCHEN. THE PROJECT INCLUDES NEW HOTEL GUEST ROOMS, PUBLIC RESTROOMS, BAR SERVICE AREA, WARMING KITCHEN, ELEVATOR, STAIR ADDITION, DECKS, PATIOS, AND ASSOCIATED MEP SYSTEMS.

BUILDING USE:

GROUP R-1 (HOTEL GUEST ROOMS)

GROUP A-2 (BAR / EVENT SPACE)

ACCESSORY SUPPORT AREAS INCLUDING KITCHEN, STORAGE, LAUNDRY, JANITOR, MECHANICAL, AND ELECTRICAL ROOMS.

NUMBER OF STORIES:

THREE LEVELS

- BASEMENT
- FIRST FLOOR
- SECOND FLOOR

BUILDING AREAS (ARCHITECTURAL)

| | |
|--------------|----------|
| BASEMENT | 1,463 SF |
| FIRST FLOOR | 3,175 SF |
| SECOND FLOOR | 3,175 SF |

TOTAL BUILDING AREA 7,813 SF

HOTEL GUEST ROOMS:
6 GUEST ROOMS

FIRST FLOOR OCCUPANT LOAD:
133 OCCUPANTS (PER ARCHITECTURAL PLANS)

CONSTRUCTION TYPE:
EXISTING HISTORIC BUILDING WITH ADDITIONS
(TYPE TO BE VERIFIED BY ARCHITECT)

FIRE PROTECTION:
BUILDING TO BE PROTECTED THROUGHOUT WITH AN AUTOMATIC NFPA
13 FIRE SPRINKLER SYSTEM UNDER SEPARATE DEFERRED SUBMITTAL.

WATER SERVICE / FIRE SERVICE DESIGN BASIS

EXISTING 2" DOMESTIC WATER SERVICE TO BUILDING SHALL REMAIN FOR
DOMESTIC WATER USE.

PROVIDE NEW SEPARATE FIRE SPRINKLER SERVICE TO BUILDING. FIRE
SERVICE SIZE, BACKFLOW PREVENTER, FIRE DEPARTMENT CONNECTION,
AND SPRINKLER SYSTEM SHALL BE DESIGNED BY LICENSED FIRE
SPRINKLER CONTRACTOR UNDER SEPARATE DEFERRED SUBMITTAL.

PRELIMINARY BASIS:

DOMESTIC WATER SERVICE: EXISTING 2"

DOMESTIC WATER METER: VERIFY EXISTING / 1-1/2" MIN. IF REPLACED

FIRE SPRINKLER SYSTEM: NFPA 13

PRELIMINARY FIRE SERVICE SIZE: 4" MIN., VERIFY BY HYDRAULIC
CALCULATION

FIRE SERVICE BACKFLOW: 4" DOUBLE CHECK DETECTOR ASSEMBLY OR AS
REQUIRED BY AHJ / WATER UTILITY

FDC: PROVIDE FIRE DEPARTMENT CONNECTION PER FIRE MARSHAL
LOCATION REQUIREMENTS

NOTE:

FINAL FIRE SPRINKLER SERVICE SIZE SHALL BE BASED ON HYDRANT
FLOW TEST, AVAILABLE WATER PRESSURE, BUILDING HAZARD
CLASSIFICATION, SPRINKLER LAYOUT, BACKFLOW PRESSURE LOSS, AND
NFPA 13 HYDRAULIC CALCULATIONS.

DOMESTIC WATER:

COLD WATER FIXTURE UNIT CALCULATION-

BASEMENT

| FIXTURE | COUNT | CWFU/EA | TOTAL CWFU |
|-------------------------|-------|---------|------------|
| WATER CLOSET, TANK TYPE | 1 | 2.5 | 2.5 |
| LAVATORY | 1 | 1.0 | 1.0 |
| MOP / SERVICE SINK | 1 | 0 | 2.5 |
| FLOOR DRAIN | 2 | 0 | 0 |
| CLOTHES WASHER | 2 | 2.5 | 5.0 |
| BASEMENT TOTAL | | | 11.0 |

FIRST FLOOR

| FIXTURE | COUNT | CWFU/EA | TOTAL CWFU |
|-------------------------|-------|---------|------------|
| WATER CLOSET, TANK TYPE | 3 | 2.5 | 7.5 |
| LAVATORY | 3 | 1.0 | 3.0 |
| 4-COMPARTMENT BAR SINK | 1 | 2.0 | 2.0 |
| KITCHEN SINK | 1 | 1.5 | 1.5 |
| HUB DRAIN / CONDENSATE | 1 | 0.0 | 0.0 |
| MOP / SERVICE SINK | 1 | 2.5 | 2.5 |
| FLOOR DRAIN | 2 | 0.0 | 0.0 |
| FIRST FLOOR TOTAL | | | 16.5 |

SECOND FLOOR

| FIXTURE | COUNT | CWFU/EA | TOTAL CWFU |
|-------------------------|-------|---------|------------|
| WATER CLOSET, TANK TYPE | 6 | 2.5 | 15.0 |
| LAVATORY | 6 | 1.0 | 6.0 |
| BATHTUB / SHOWER | 6 | 2.0 | 12.0 |
| MOP / SERVICE SINK | 1 | 0 | 2.5 |
| SECOND FLOOR TOTAL | | | 35.5 |

BUILDING TOTAL COLD WATER FIXTURE UNITS 63 CWFU

ESTIMATED PEAK COLD WATER DEMAND

- RECOMMENDED MINIMUM BUILDING COLD WATER MAIN 1-1/2"
- RECOMMENDED RISER TO SECOND FLOOR HOTEL ROOMS 1-1/4"
- RECOMMENDED BRANCH TO INDIVIDUAL BATHROOM GROUP 1/2" H&CW
- RECOMMENDED BRANCH TO FIRST FLOOR TOILET GROUP 3/4" MIN.
- RECOMMENDED BRANCH TO BAR / KITCHEN AREA 3/4" MIN.

SANITARY SEWER:
EXISTING PUBLIC SANITARY SEWER.

SANITARY PIPE SIZING - PRELIMINARY

| PIPE / AREA | LOAD | MINIMUM SIZE |
|----------------------------------|--------|--------------|
| INDIVIDUAL LAVATORY WASTE | 1 DFU | 1-1/2" |
| INDIVIDUAL SHOWER / TEdWASTE | 2 DFU | 2" |
| INDIVIDUAL FLOOR DRAIN | 2 DFU | 2" |
| INDIVIDUAL MOP SINK WASTE | 3 DFU | 3" |
| INDIVIDUAL WATER CLOSET WASTE | 4 DFU | 3" |
| HOTEL ROOM BATHROOM GROUP BRANCH | 7 DFU | 3" |
| SECOND FLOOR SANITARY STACK | 42 DFU | 4" |
| FIRST FLOOR SANITARY MAIN | 29 DFU | 4" |
| BASEMENT SANITARY MAIN | 12 DFU | 4" |
| BUILDING SANITARY MAIN | 92 DFU | 4" MINIMUM |
| BUILDING SANITARY TO SITE/SEWER | 92 DFU | 4" MINIMUM |

MECHANICAL, ELECTRICAL, AND PLUMBING:
NEW MEP SYSTEMS TO SERVE THE RENOVATED HOTEL, EVENT SPACE,
BAR, WARMING KITCHEN, PUBLIC RESTROOMS, LAUNDRY, AND SUPPORT
AREAS.

Please call if you have any question or need revisions

Thanks

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