



HARBORCENTER

PMI BUFFALO PROJECT OF THE YEAR

September 29, 2015



VISION

DESTINATION

- ONE-OF-A-KIND HOCKEY AND ENTERTAINMENT COMPLEX

DEVELOPMENT

- WORLD-CLASS TRAINING AND DEVELOPMENT FOR PLAYERS AND COACHES AT ALL LEVELS

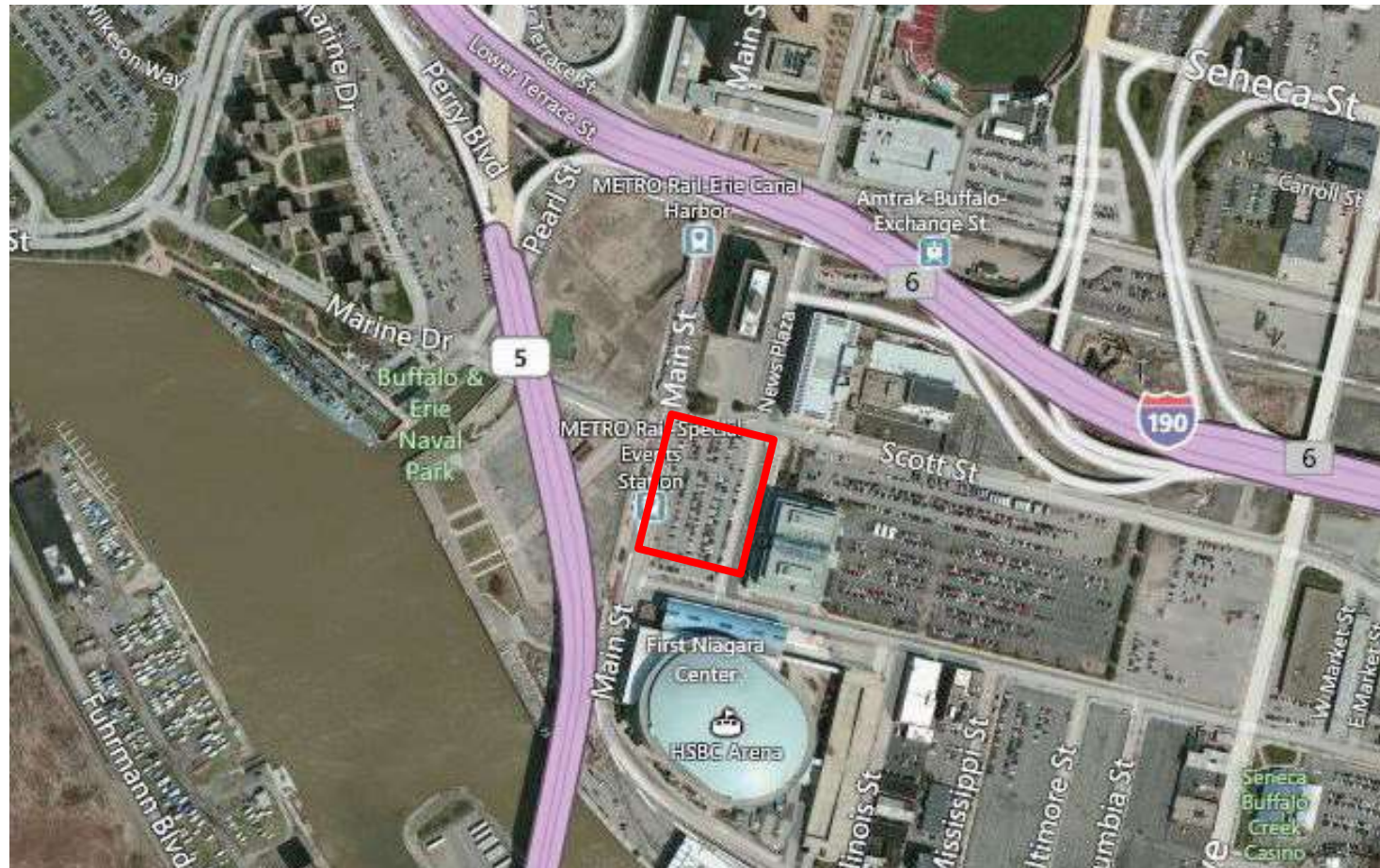
IMPACT

- ADVANCE AND ACCELERATE THE ECONOMIC GROWTH AND IMPACT OF CANALSIDE, BUFFALO, AND WESTERN NEW YORK

WHAT IT WAS



HARBORCENTER SITE



PROJECT GOALS

- DO SOMETHING GOOD FOR THE COMMUNITY
- CREATE A MAGNET FOR DOWNTOWN BUFFALO
- CATALYST
- RESPECT CANAL SIDE DESIGN GUIDELINES
- OPPORTUNITY FOR COMMUNITY THAT WILL NOT TAKE AWAY FROM OTHERS
- BECOME A DESTINATION

PROJECT SCOPE

PROJECT COMPONENTS & AMENITIES

- TWO NHL-SIZE RINKS
- HIGH PERFORMANCE OFF-ICE TRAINING FACILITY
- UPSCALE, SPORTS-THEMED RESTAURANT AND BAR
- RETAIL SPACE WITH COMPLEMENTARY SERVICE AND AMENITIES
- MARRIOTT FULL-SERVICE HOTEL WITH 205 ROOMS
- 750 SPACE PARKING RAMP
- CONNECTING PEDESTRIAN BRIDGE TO FIRST NIAGARA CENTER

PROJECT SCOPE

ALL HOCKEY ROADS PASS THROUGH BUFFALO

- CREATED A DEVELOPMENT DESTINATION FOR HOCKEY PLAYERS AND COACHES FROM AROUND THE WORLD
- ATTRACTED AND HOSTED MAJOR NHL, IIHF, USA HOCKEY, NCAA, JUNIOR AND YOUTH HOCKEY EVENTS
- HELP MAKE CANALSIDE A YEAR-ROUND DESTINATION
 - YOUTH PARTNERSHIP PROGRAM
 - 20 NEW YOUTH HOCKEY TOURNAMENTS









CHARACTER

PROJECT SCOPE

“ONE OF A KIND, FIRST-CLASS FACILITY”

716 FOOD AND SPORT: AN UPSCALE, SPORTS-THEMED RESTAURANT AND BAR

- 13,000 SQUARE FEET OVER TWO LEVELS
 - SEATING FOR 360+
- THREE BARS
 - CRAFT BEERS
 - SIGNATURE COCKTAILS
 - 40-FOOT-LONG FEATURE BAR THAT’S “BAR TOP” IS CREATED TO REPLICATE THE ICE IN A HOCKEY RINK. THE “ICE” IS ILLUMINATED TO CREATE A UNIQUE BAR EXPERIENCE YOU WONT FIND ANYWHERE ELSE
- 38 FOOT TELEVISION SCREEN
- WESTERN NEW YORK CULINARY FAVORITES
 - FEATURING LOCAL INGREDIENTS







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IT'S OUR CODE.



ARENA CAM



KEN DANEVKO - DEVILS TV ANALYST
DAMON SEVERSON THIS SEASON
11 GP, 4 G, 4 A, +6 RATING

LIVE

4:05MT

RED WINGS

SENATORS



JUST \$11.99!

PROJECT SCOPE

“ONE OF A KIND, FIRST-CLASS FACILITY”

THE NEXT GENERATION OF MARRIOTT HOTEL

- 205 INNOVATIVE GUEST ROOMS AND SUITES
- 5,000 SQUARE FEET OF EVENT SPACE
 - ACCOMODATING GROUPS UP TO 450
- FEATURING THE NEW MARRIOTT GREAT ROOM
 - A MULTI-USE SPACE TO WORK, RELAX, PLUG IN, AND SOCIALIZE
- FITNESS AND BUSINESS CENTERS





MARRIOTT

EXIT

WINDY

WINDY

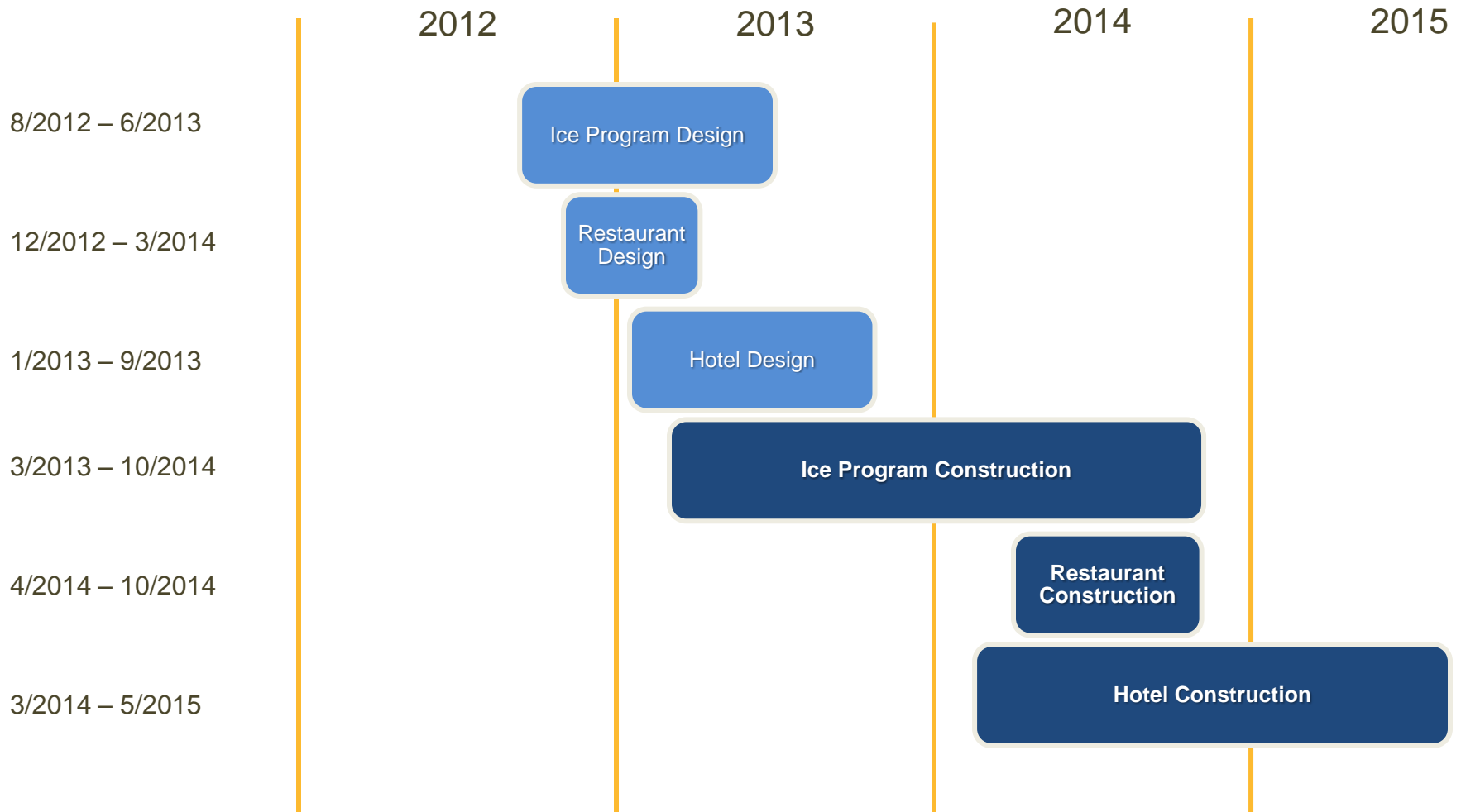
WINDY

WINDY





SCHEDULE



WINTER IN BUFFALO

8TH COLDEST WINTER OF ALL TIME

- COLDEST WINTER SINCE 1943

7TH MOST SNOW IN 130 YEARS

- 129" OF SNOW

15 LAKE EFFECT SNOW STORMS, 2 BLIZZARDS



HOW WE BUILT HARBORCENTER

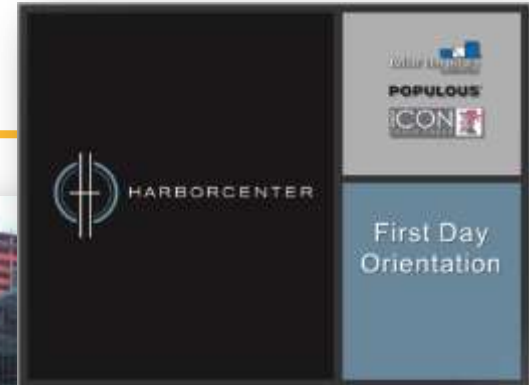
- SAFETY
- QUALITY
- SCHEDULE
- COMMUNICATION



SAFETY

OVER 400 WORKERS ON-SITE:

1. 1ST DAY 1ST HOUR ORIENTATION
2. DAILY BEND AND STRETCH
3. PRETASK PLANNING
4. COMMITMENT AT THE TOP
5. 1/20 WORKER / SAFETY PRO RATIO
6. INCENTIVES / SABRES EVENTS
7. EVENT MANAGEMENT
8. INCIDENT INVESTIGATION
9. LIGHT DUTY



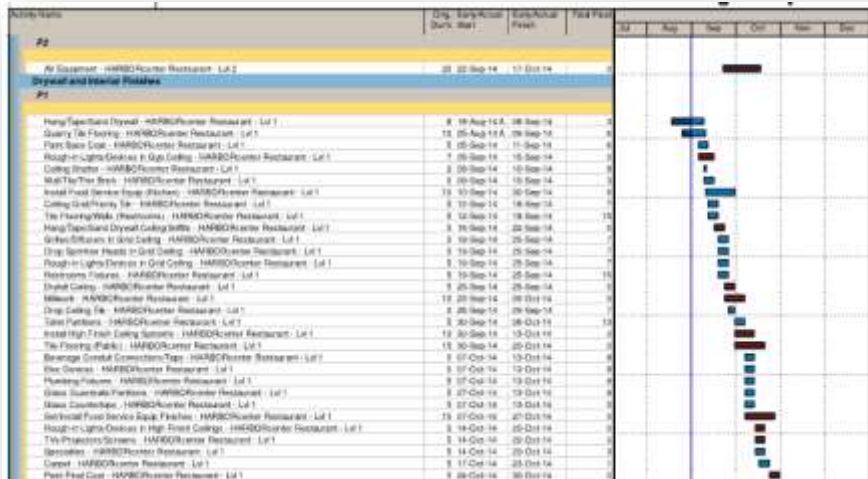
QUALITY

- **FOUR PHASE QC**
 - PRECONSTRUCTION MEETINGS
 - PREP MEETINGS
 - INITIAL INSPECTIONS
 - FOLLOW-UP INSPECTIONS

- **FAST TRACK JOB:** Ensure most current set of drawings with RFI's is in the hands of the builders

SCHEDULE

- MANAGEMENT
 - MONTHLY UPDATES
 - POD MEETINGS



IMPLEMENTATION



1

BIM / VDC are **visual communication** vehicles



2

Performance measures must **target customer & project team objectives**



3

VDC is a team sport, **outcomes are team based** not technology

PRE-PLANNING

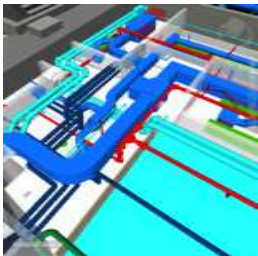
INTEGRATED APPROACH & CONSISTENT PROCESS



BIM PxP / Exhibit



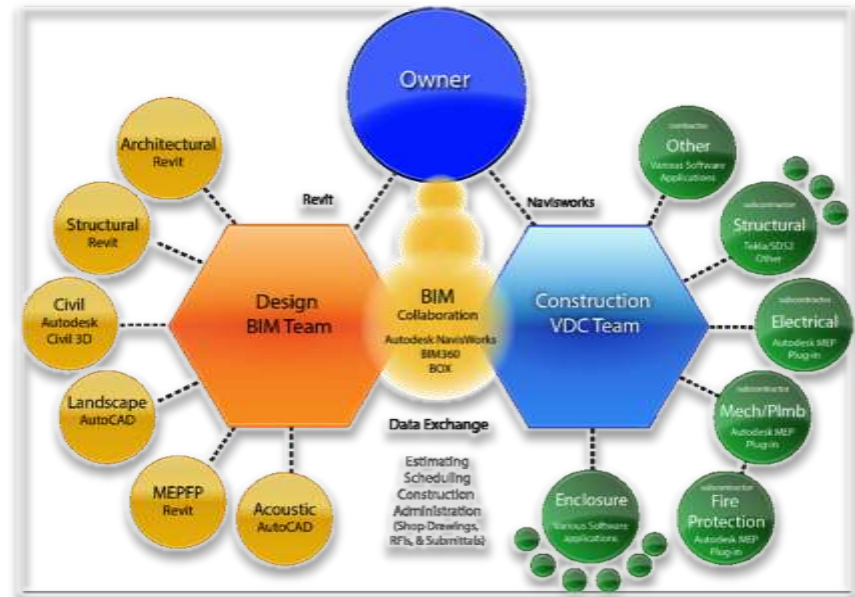
4D Model



3D Building Information Models



Digital Plan Table & Mobile Devices



DEVELOP A PROJECT EXECUTION PLAN TO SET THE PERFORMANCE EXPECTATIONS AND FORMALIZE THE PROCESS AND THE PEOPLE.

DESIGN / PLAN

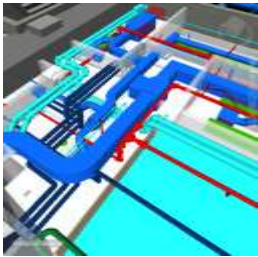
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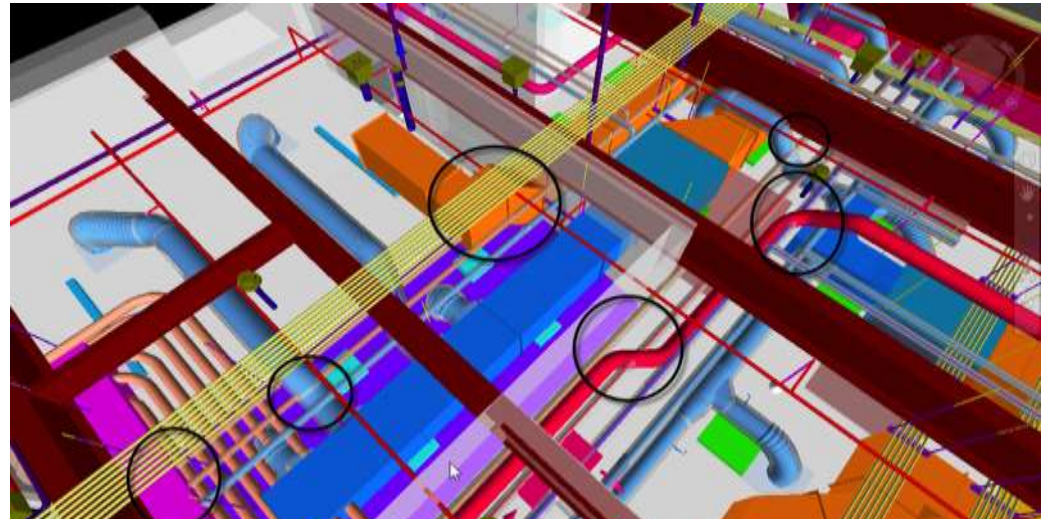
4D Model



3D Building Information Models



Digital Plan Table & Mobile Devices



IMPROVE COLLABORATION THROUGH A 3D MODEL TO DRIVE EARLY DECISIONS THAT COULD IMPACT DOWNSTREAM CONSTRUCTION PROCESSES.

CONSTRUCTION

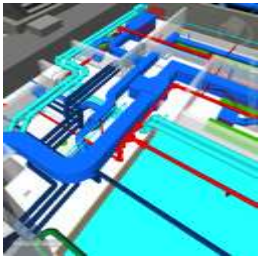
INTEGRATED APPROACH & CONSISTENT PROCESS



BIM PxP / Exhibit



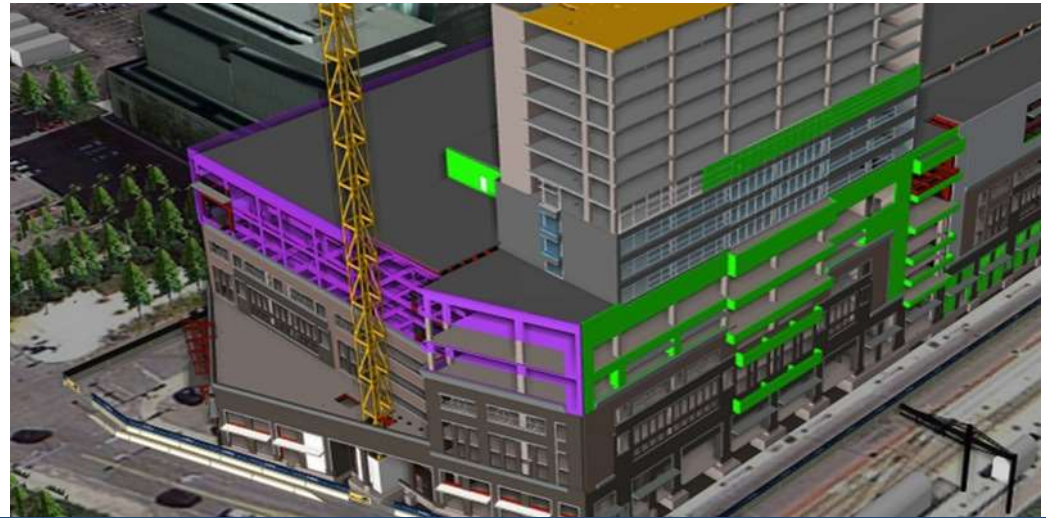
4D Model



3D Building Information Models



Digital Plan Table & Mobile Devices



DRIVE THE USE OF THE MODEL INTO THE FIELD BY USING TECHNOLOGY IN INNOVATIVE WAYS.

PROJECT USAGE

ADOPTION OF TECHNOLOGY

SOFTWARE SOLUTIONS

CLOUD PLATFORMS

DOCUMENT COMPARISON

MOBILE DEVICES

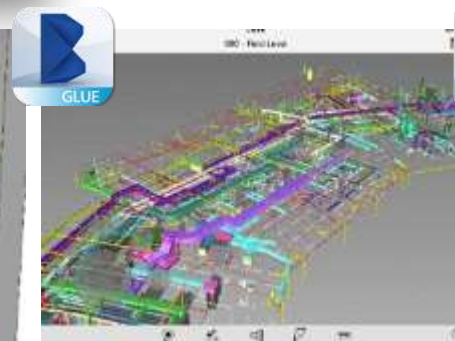
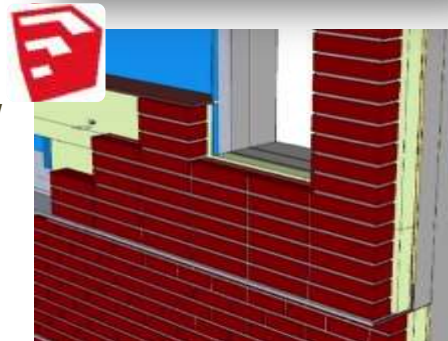


VDC SOLUTIONS

CONSTRUCTIBILITY REVIEW

VISUALIZATION TOOLS

POINT LAYOUT



PROVEN OUTCOMES



ADOPTION OF BIM IS DRIVEN BY LEADERSHIP

INTEGRATE THE RIGHT TECHNOLOGY PLATFORMS TO SUPPORT PEOPLE AND PROCESS

INTEGRATE BIM/VDC INTO FIELD OPERATIONS TO ADD VALUE

DEPLOY MOBILE TECHNOLOGY TO FACILITATE PROJECT DATA ACCESS

WHAT IT WAS

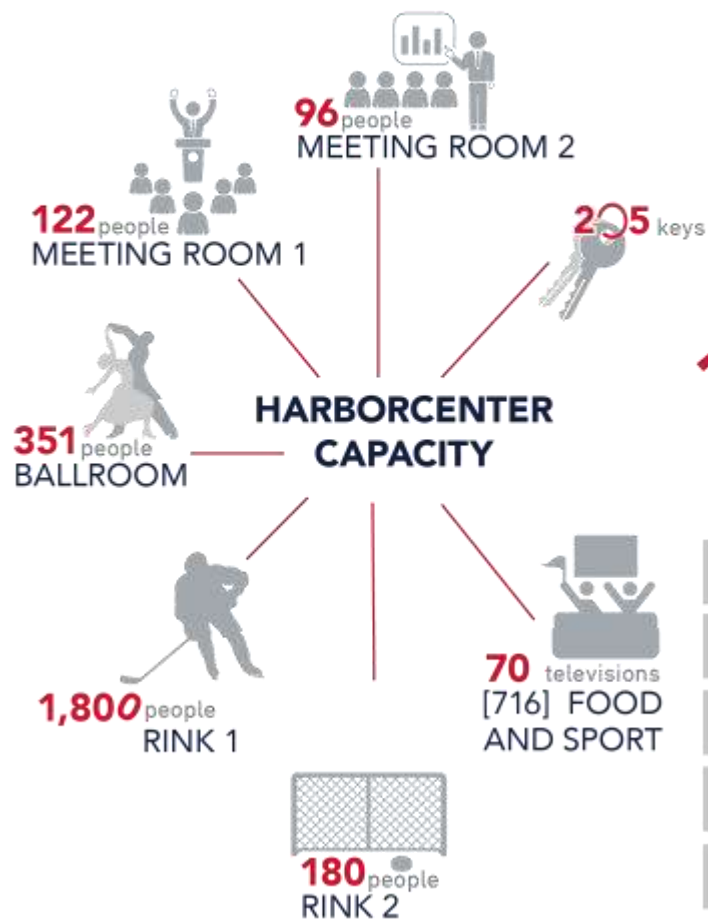


WHAT IT HAS BECOME



HARBORCENTER IMPACT

HARBOCENTER by the numbers



1.5-2.0M

estimated visitors per year at
HARBORCENTER and First Niagara Center

