



CRITICAL RESPONSE GROUP

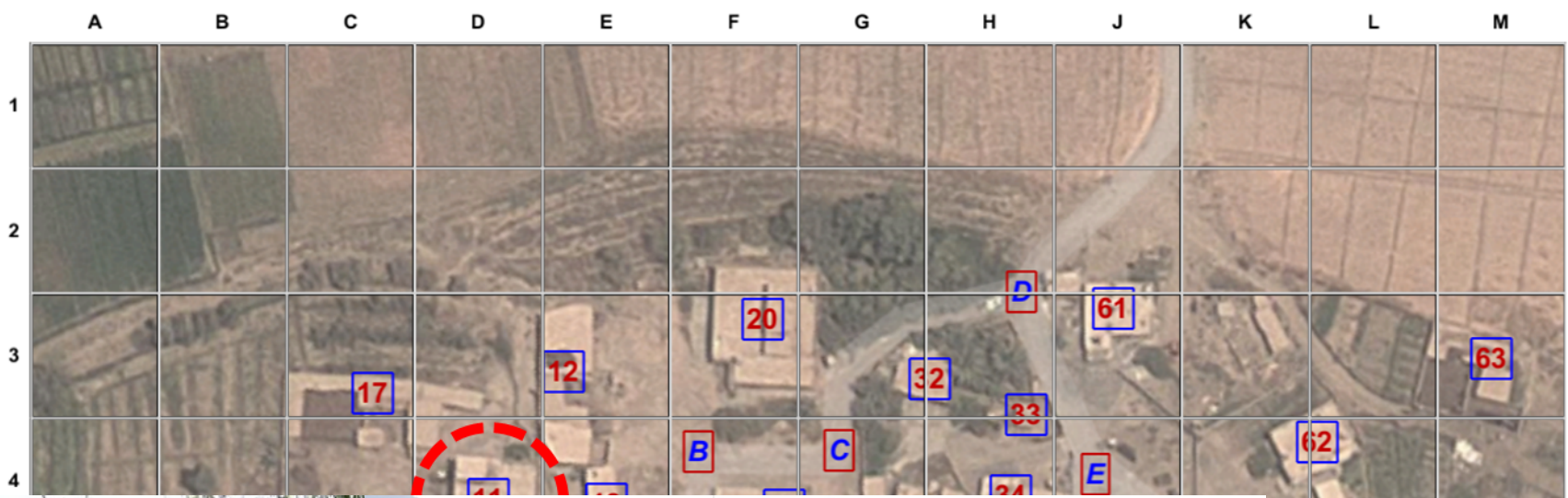
We work today to save lives tomorrow.

*Joe Hanson
Regional Director*



DEVELOPMENT OF THE GRIDDED REFERENCE GRAPHIC (GRG)





North is UP



Date



25 Yard Grid

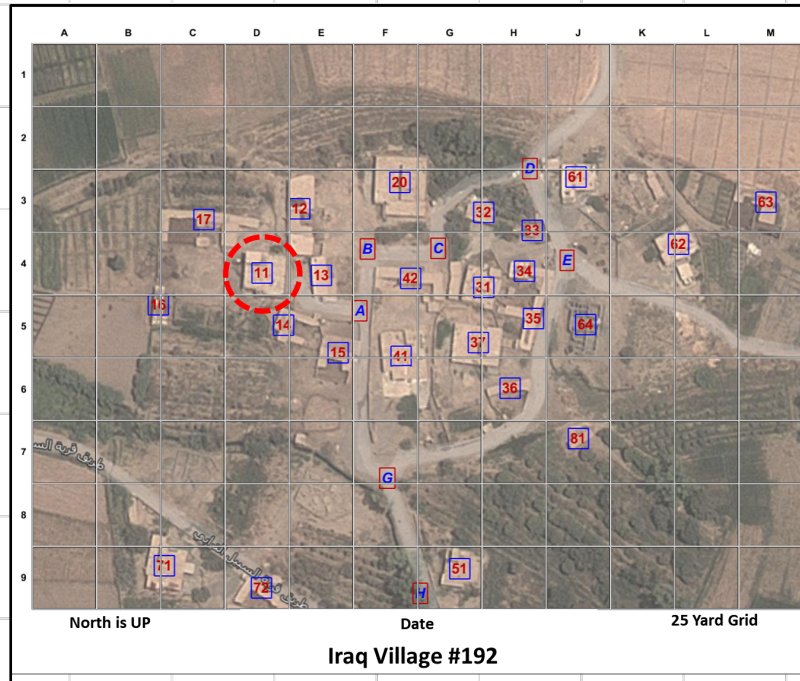
Iraq Village #192

MAPPING TECHNIQUE WAS DERIVED FROM A MILITARY BEST PRACTICE

VALIDATED AND IMPLEMENTED AT THE HIGHEST LEVEL



Navy SEAL Rob O'Neill



Sample Gridded Reference Graphic



GRG in use during Bin Laden raid

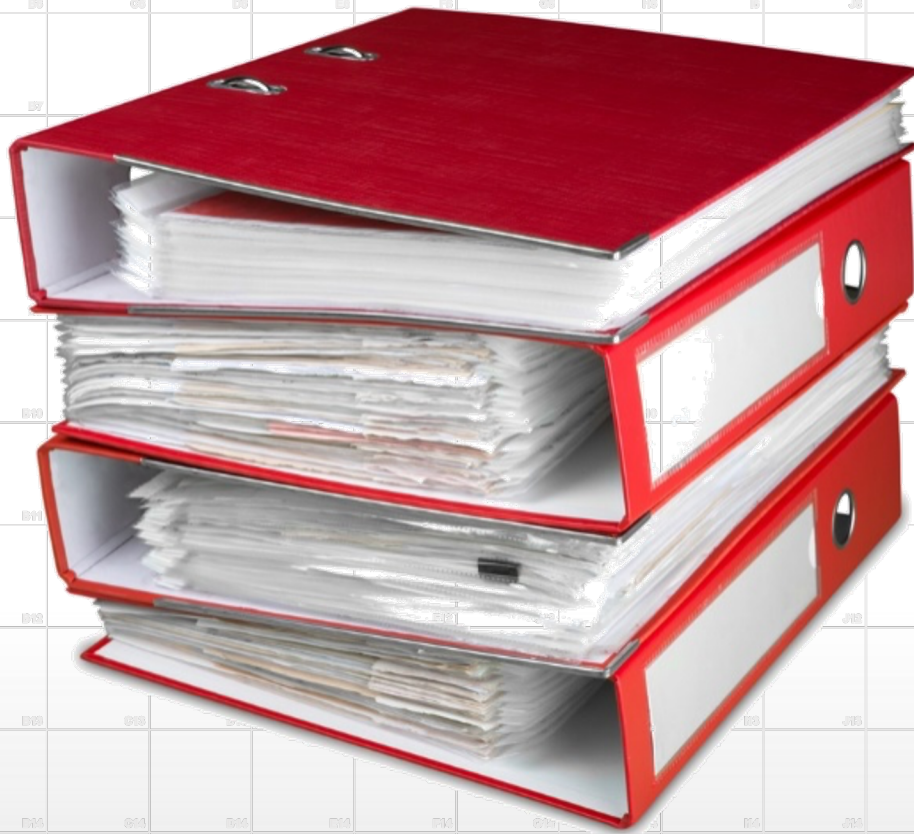
-Communication technique used by US Military Special Operations in every mission of the last 20 years.

-Turns the operational area into a **simple game of battleship**, so that operators from the different services, agencies, and nationalities can speak a common language about an unfamiliar location under stress

EVOLUTION OF THE GRG INTO THE CRG

COLLABORATIVE RESPONSE GRAPHICS

CRG



Vs.



Floor Plan Locations



Large format Prints



Binder Inserts



CDs

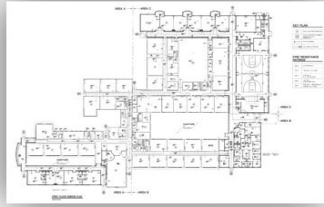


Local Hard Drives

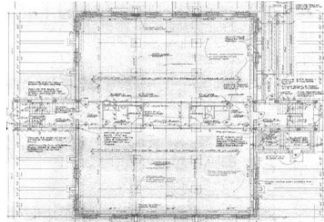


Various File Types

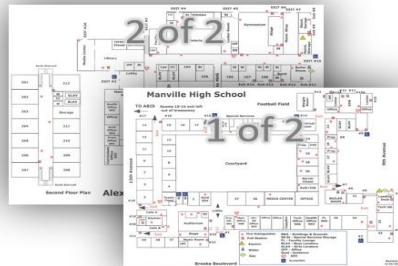
Floor Plan Conditions



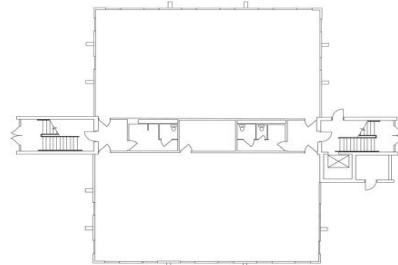
Raster Plans



Poor Quality Plans



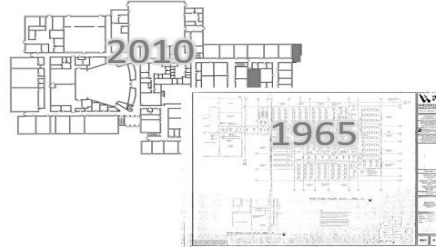
Segmented Plans



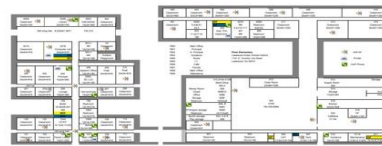
Unlabeled Plans



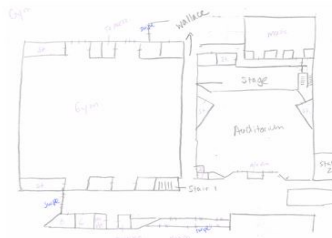
Vector Plans



Old and New Plans



Abstract Plans



Hand Drawn Plans

Collaborative Response Graphic



CRG File Types

Standard PDF

Geospatial PDF

GeoTIFF

MBTiles

JPEG 2000 (Geo)

KMZ

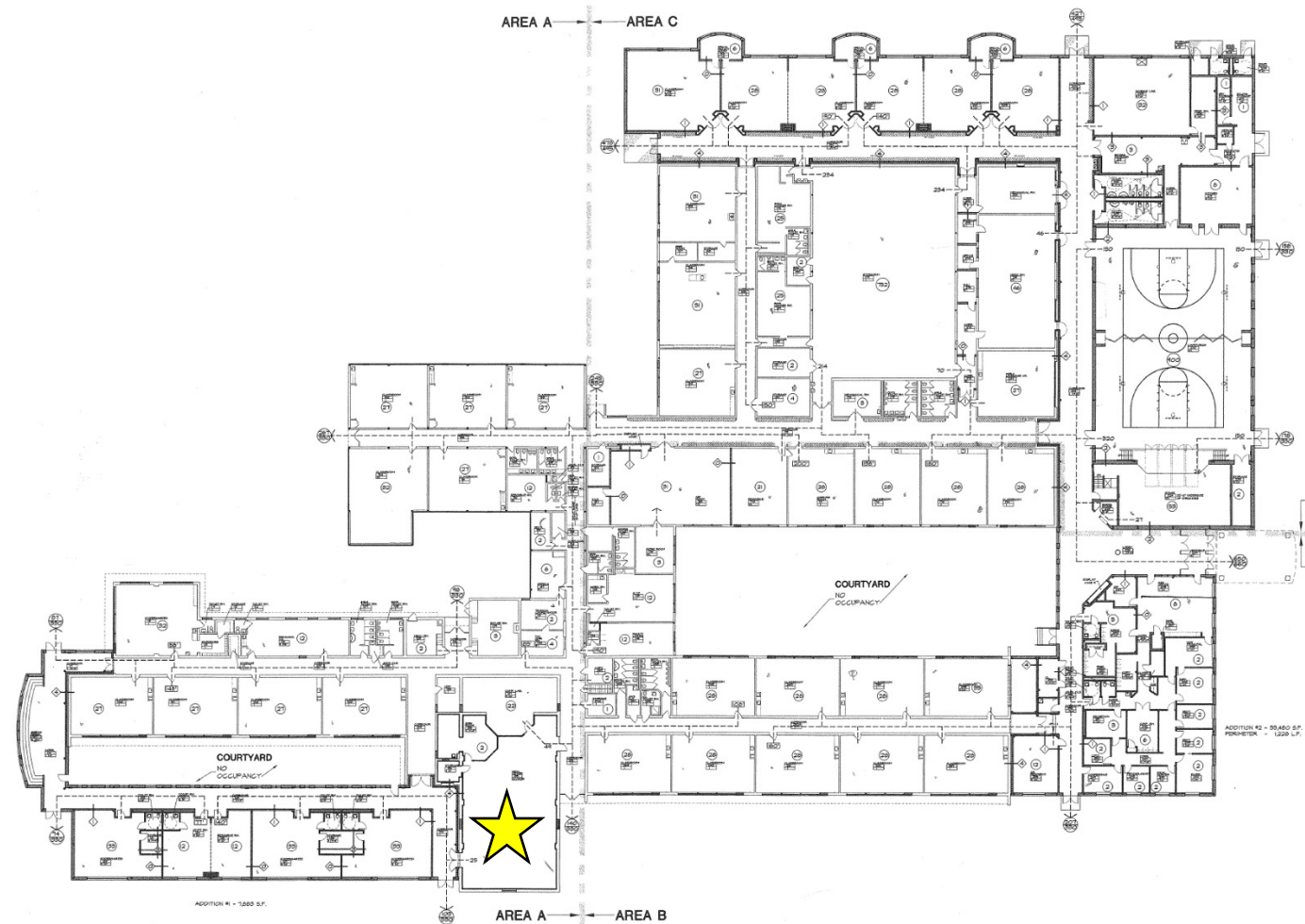
DWG



C3	D3		
A4	B4	C4	D4
A5	B5	C5	D5
A6	B6	C6	D6
A7	B7	C7	D7
A8	B8	C8	D8
A9	B9	C9	D9
A10	B10	C10	D10
A11	B11	C11	D11
A12	B12	C12	D12
A13	B13	C13	D13
A14	B14	C14	D14
A15	B15	C15	D15
A16	B16	C16	D16

V3	W3	X3	Y3
V4	W4	X4	Y4
V5	W5	X5	Y5
V6	W6	X6	Y6
V7	W7	X7	Y7
V8	W8	X8	Y8
V9	W9	X9	Y9
V10	W10	X10	Y10
V11	W11	X11	Y11
V12	W12	X12	Y12
V13	W13	X13	Y13
V14	W14	X14	Y14
V15	W15	X15	Y15
V16	W16	X16	Y16

E16	F16	G16	H16	I16	J16	K16	L16	M16	N16	O16	P16	Q4	R16	S16	T16	U16
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	----	-----	-----	-----	-----



FIRST FLOOR EGRESS PLAN
SCALE 1/8"=1'-0"

CODE ANALYSIS

BUILDING CODE ANALYSIS

APPLICABLE CODES:
 N.J.S.C. N.J.A.C. SECTION 5-29
 1909 B.O.C.A. BUILDING CODE B.O.C.A. MECHANICAL, 1909 B.O.C.A. PLUMBING, 1909 NATIONAL ELECTRICAL CODE AND THE 2010 INTERNATIONAL B.C. CODE

OCCUPANCY CLASSIFICATION (BEC 303)

EXISTING BUILDING
 "E" EDUCATION WITH "B" ACCESSORY
 "B" ASSEMBLY
 SPECIFIC OCCUPANCY AREAS (STORAGE ROOMS, BOILER ROOMS)

PROPOSED ADDITION
 "E" EDUCATION WITH "B" ACCESSORY
 SPECIFIC OCCUPANCY AREAS (STORAGE ROOMS)
 "A" ASSEMBLY
 SPECIFIC OCCUPANCY AREAS (STORAGE ROOMS)

FIRE PROTECTION SYSTEM (BEC 904)
 LIMITED AREA FIRE SUPPRESSION SYSTEM TO BE PROVIDED AT ALL NEW STORAGE ROOMS OVER 500 SF. ADDITIONALLY ALL EXISTING BOILER ROOMS AND STORAGE ROOMS OVER 500 SF TO BE SPRINKLED.

CONSTRUCTION TYPE (BEC 602)

EXISTING
 2C (SPRINKLED NONHURSTABLE)
 PROPOSED ADDITION
 2C (SPRINKLED NONHURSTABLE)
 FIRE RESISTANCE RATINGS OF STRUCTURAL MEMBERS AS LISTED IN B.O.C.A. TABLE 602 TO BE PROVIDED EQUAL TO 2C CONSTRUCTION.

GENERAL BUILDING LIMITATIONS (BEC 503)

"E" USE / TYPE 2C CONSTRUCTION
 ALLOWED: HEADS OF FIRE FIGHT AREA 2 STORIES OR 30'-0" IN HEIGHT.

ADDITION #1
 AREA TABULATION (BEC 506)
 TABLE AREA = 100%
 SPINNAKER INCREASE = 0%
 HEIGHT REDUCTION = 0%
 OPEN PENETRATION = 0%
 PERIMETER = 1228 LF. = 324 LF. + 704 LF. (97%)
 578' x 2' 1/4"
 ALLOWED AREA = 2026
 MAX. ALLOWABLE PER FIRE AREA = 1400' x 2048' = 28736 SF
 PROPOSED ADDITION #1 = 1280 SF = 2437% ALLOWED

ADDITION #2
 AREA TABULATION (BEC 506)
 TABLE AREA = 100%
 SPINNAKER INCREASE = 0%
 HEIGHT REDUCTION = 0%
 OPEN PENETRATION = 0%
 PERIMETER = 1228 LF. = 324 LF. + 704 LF. (97%)
 578' x 2' 1/4"
 ALLOWED AREA = 2026
 MAX. ALLOWABLE PER FIRE AREA = 1400' x 2048' = 28736 SF
 PROPOSED ADDITION #2 = 2160 SF = 751% ALLOWED

GENERAL BUILDING LIMITATIONS (BEC 503) CONT.

"A" USE / TYPE 2C CONSTRUCTION
 ALLOWED: 8400 SF PER FIRE AREA
 2 STORIES OR 30'-0" IN HEIGHT.

ADDITION #3
 AREA TABULATION (BEC 506)
 TABLE AREA = 100%
 SPINNAKER INCREASE = 0%
 HEIGHT REDUCTION = 0%
 OPEN PENETRATION = 0%
 PERIMETER = 1228 LF. = 324 LF. + 704 LF. (97%)
 578' x 2' 1/4"
 ALLOWED AREA = 1028
 MAX. ALLOWABLE PER FIRE AREA = 8400 SF
 PROPOSED ADDITION #3 = 8400 SF = 800% SF ALLOWED

EXISTING BUILDING = 43200 SF

EGRESS WIDTHS (TABLE 1004.2)
 STAIRWAYS = 0.3' PER OCCUPANT
 DOORWAYS/CORRIDORS = 0.2' IN PER OCCUPANT
 LENGTH OF EXIT ACCESS TRAVEL (508.5)
 200 FT MAXIMUM (UNSPRINKLED)

EXISTING BUILDING = 43200 SF

FACILITY = 608' x 34' OCCUPANTS = DESIGN LOAD

UNIVERSAL TOILETS = 2

TOILETS PROVIDED - MALES
 WATER CLOSETS = 1
 URINALS = 1
 LAVATORIES = 1

TOILETS PROVIDED - FEMALES
 WATER CLOSETS = 2
 LAVATORIES = 2

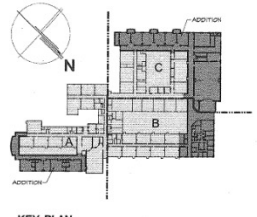
TOTAL CAPACITY = 480 OCCUPANTS = "E" USE!
TOTAL CAPACITY FOR PLUMBING FIXTURES IS BASED ON ACTUAL % OCCUPANCY WITH "A" OCCUPANCY CONSIDERED

UNIVERSAL TOILETS ARE LOCATED IN 8 CLASSROOMS
 RESERVING RESERVING THE DESIGN OCCUPANCY AS FOLLOWS:
 80 CLASSROOMS = 28 STUDENTS = 128
 180 STUDENTS = 128 STUDENTS + DESIGN OCCUPANCY OF 208 STUDENTS

STUDENTS
 208 STUDENTS x 608' x 34' OCCUPANTS = DESIGN LOAD

FIXTURES PROVIDED - BOYS
 WATER CLOSETS = 2
 LAVATORIES = 10

FIXTURES PROVIDED - GIRLS
 WATER CLOSETS = 2
 LAVATORIES = 2

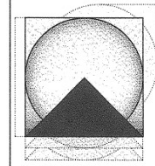


KEY PLAN

(O)	TOTAL OCCUPANTS PER ROOM
(O)	TOTAL OCCUPANTS + EGRESS DESIGN CAPACITY - OCCUPANTS
(O)	PATH OF EGRESS
(O)	MAX LENGTH OF TRAVEL

FIRE RESISTANCE RATINGS

(O)	NO FIRE RATING
(O)	1 HR. WALL - UL + UDCS
(O)	2 HR. WALL - UL + UDCS OR UDCS
(O)	1 HR. WALL - DRINK PARTITION
(O)	2 HR. WALL - FIRE SEPARATION ASSEMBLY (UL + UDCS)



Prisco & Edwards, AIA
 A Professional Association

Architecture
 Planning
 Technology
 Telecommunications
 Interiors
 Waterproofing &
 Roof Consultants
 Electrical Engineering

2025 Princeton Pike
 Lawrenceville, NJ 08648
 608.584.3090
 608.693.7454 (Fax)

William A. Edwards, AIA Lic # 4330, N.J.
 Lic # 47748, Pa.
 Lic # 084848, N.Y.
 Lic # 8106, Ga.

PROJECT TITLE
 BRIELLE SCHOOL DISTRICT
 ADDITIONS & ALTERATIONS

CLIENT
 BRIELLE SCHOOL DISTRICT
 605 UNION LANE
 BRIELLE, NJ 08703

DATE: 07/18/01
 PROJECT No. 00158A

DRAWING TITLE
 FLOOR PLAN

DRAWING No.

A-10

DWG. OF

Grid lines V3 through V16 and Y3 through Y16 are present on the right side of the page.



**ACME
& ABC**

ROOM PLANS

123 N. There St.
Somewhere, NJ

Architecture • Interior Design
Planning • Project Management

CRITICAL RESPONSE GROUP

We work today to save lives tomorrow.

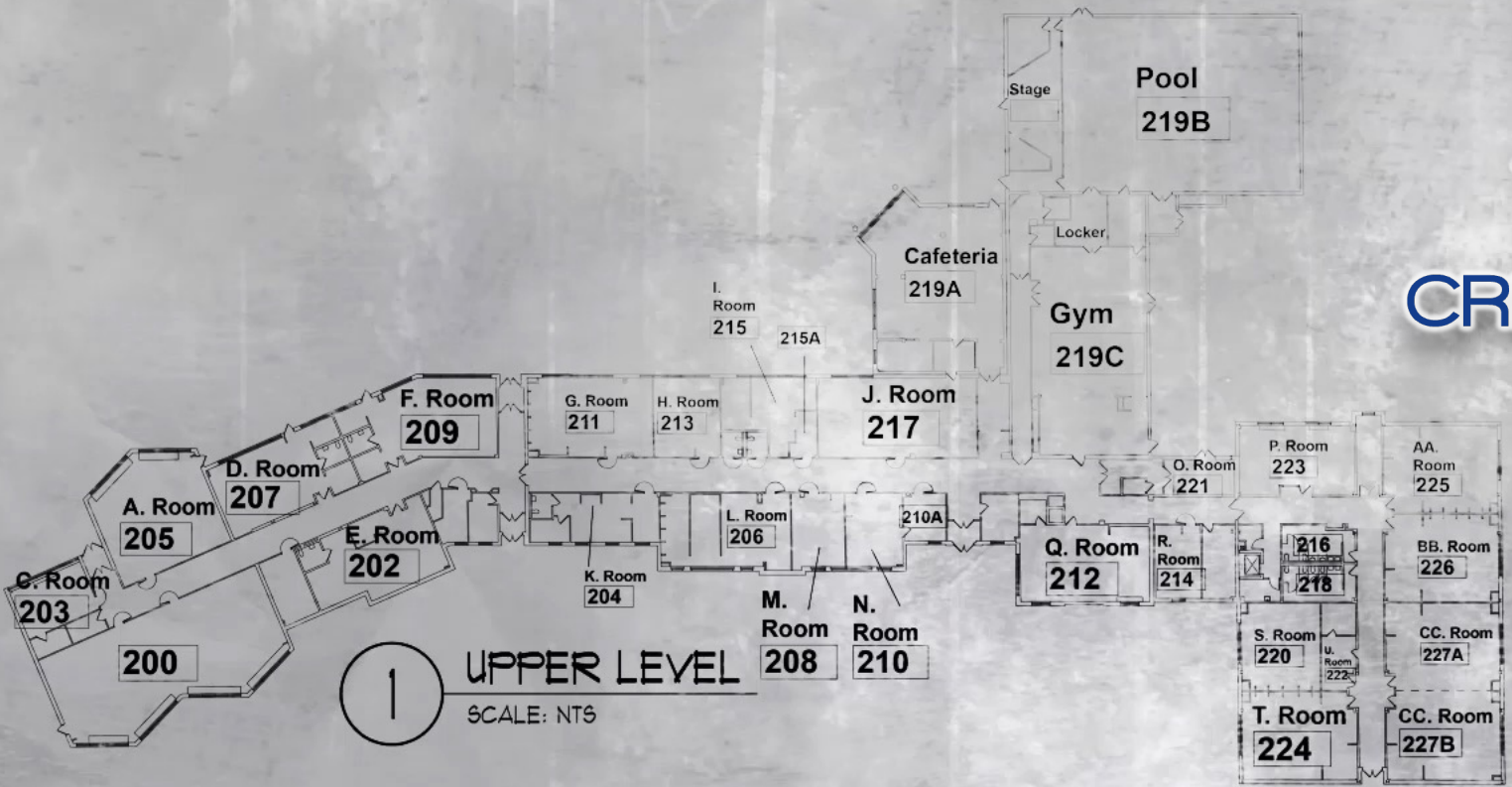
□ Chris Smith
□ Tom Penny

consultant:

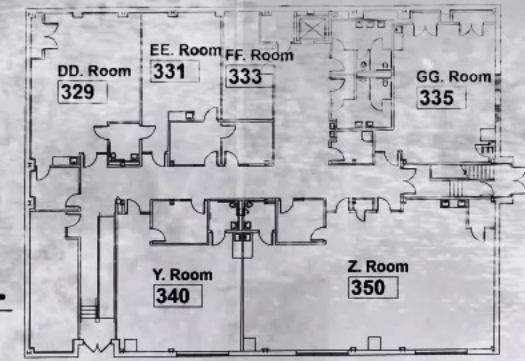
client/project:

THIS-SCHOOL
BOARD OF EDUCATION
LRFP
456 Over-there Rd.
Backroad, NJ 08000

drawing title:



1 UPPER LEVEL
SCALE: NT5



2 LOWER LEVEL
SCALE: NT5

REVISONS	002	
	no.	date
		description
drawn	check	scale
MP	MP	AS NOTED
issue date	project no.	
	0535	
drawing number		

A-1



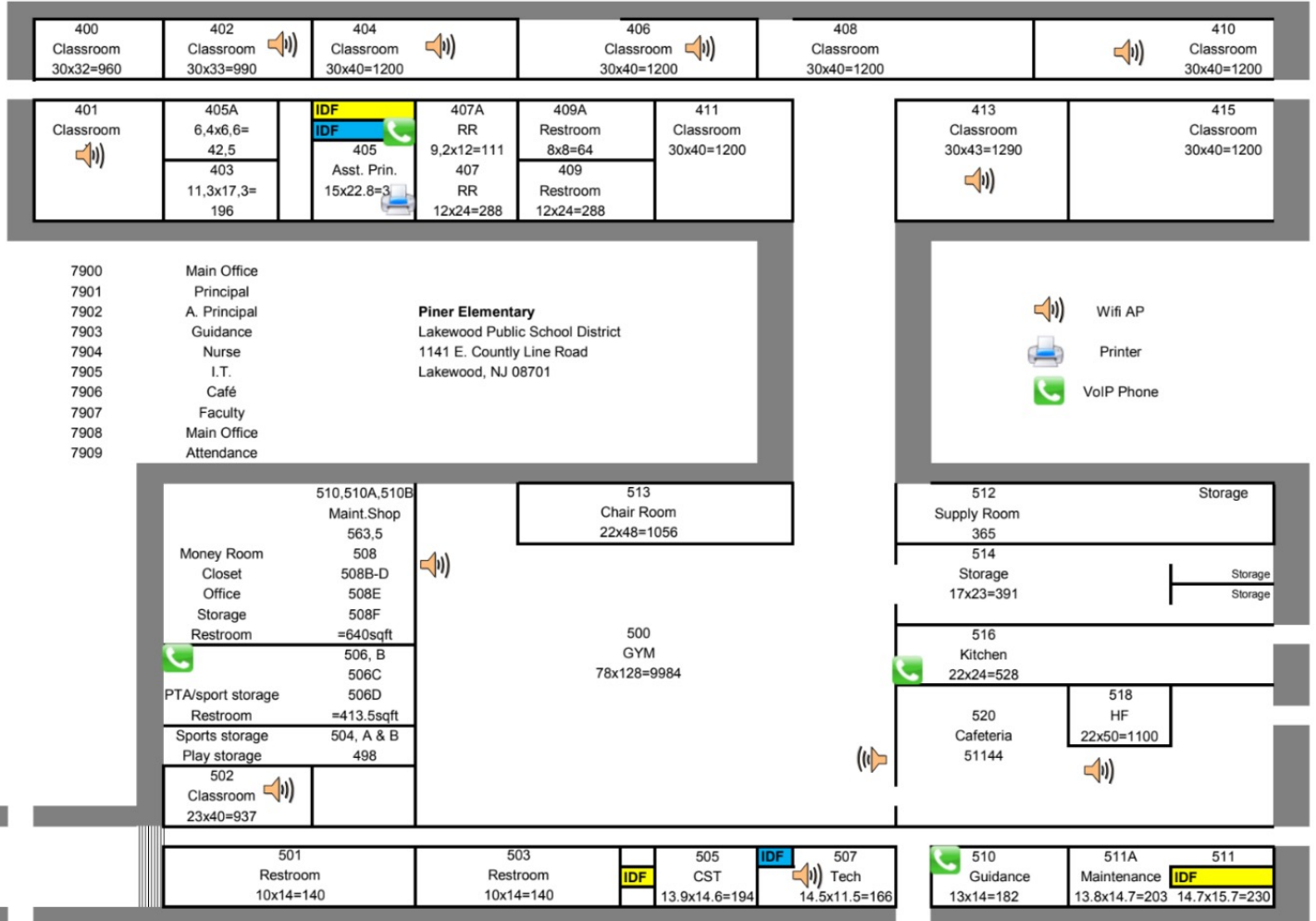
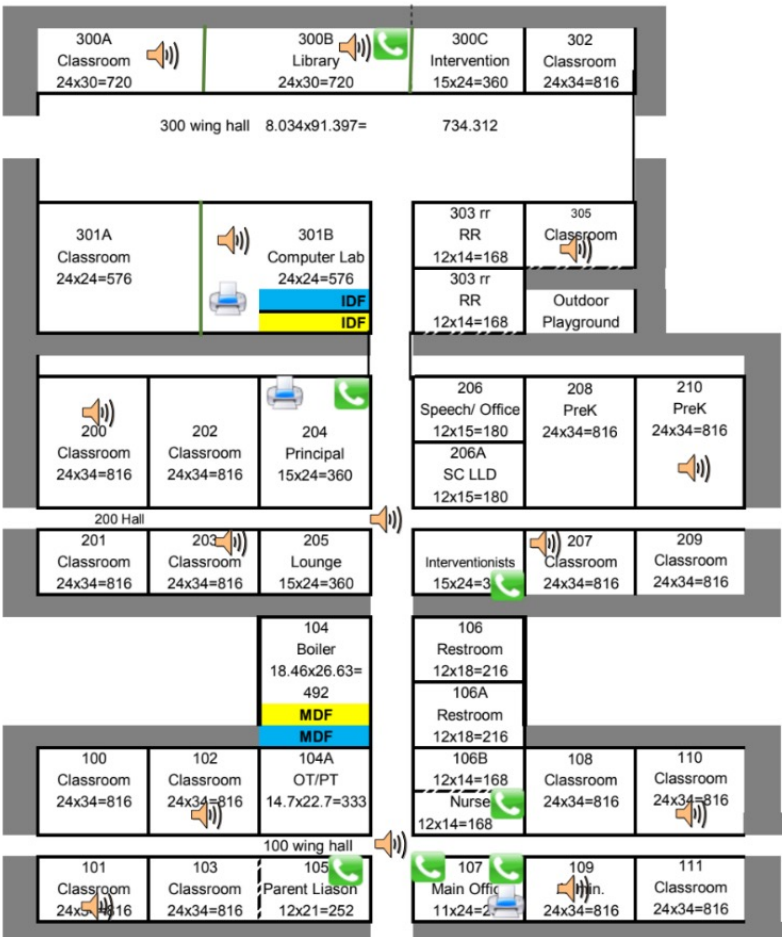
EPK 01 DEC 2017



20 YARD GRID



W3	X3	Y3
W4	X4	Y4
W5	X5	Y5
W6	X6	Y6
W7	X7	Y7
W8	X8	Y8
W9	X9	Y9
W10	X10	Y10
W11	X11	Y11
W12	X12	Y12
W13	X13	Y13
W14	X14	Y14
W15	X15	Y15
W16	X16	Y16





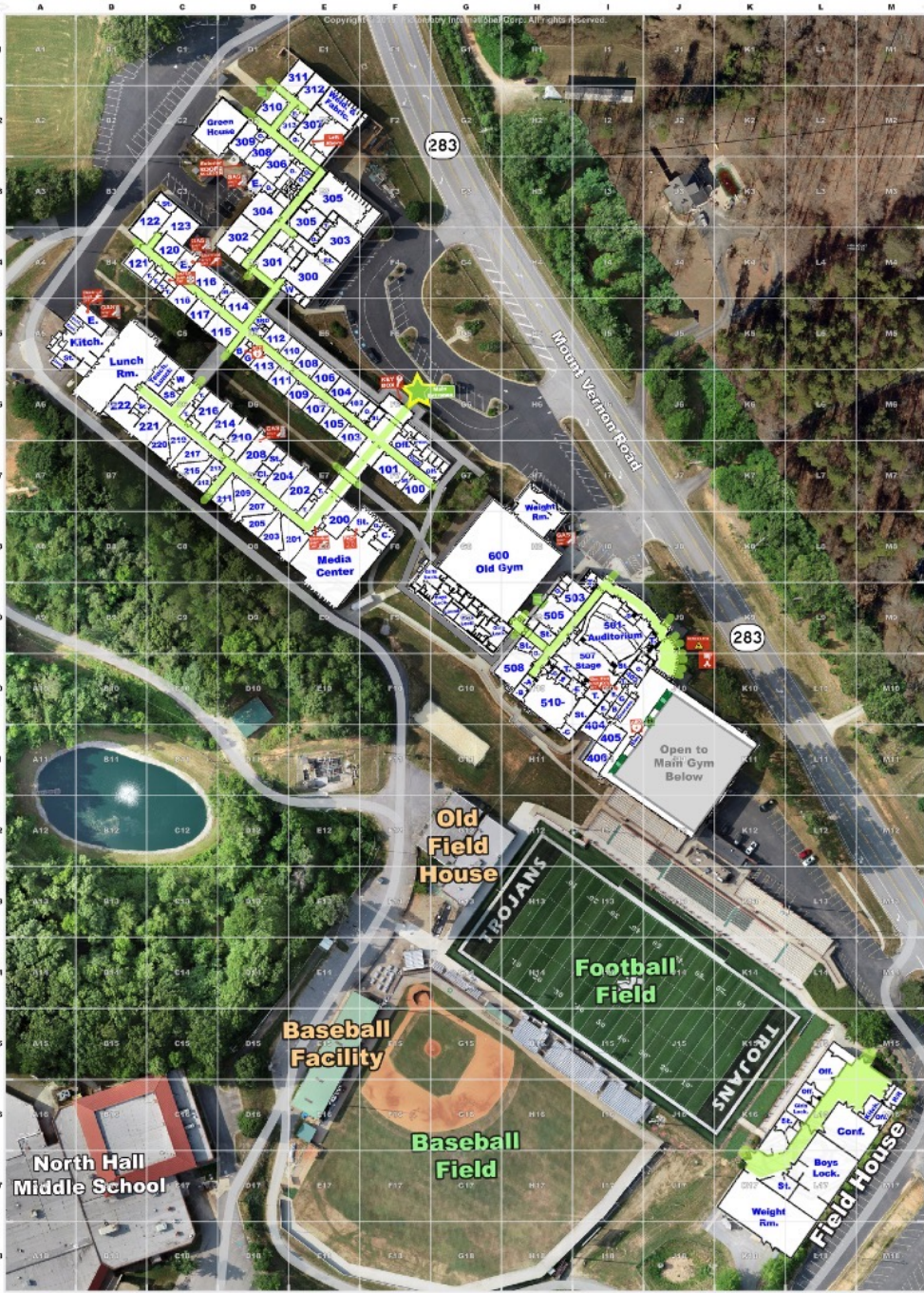
North UP
Version Control #
15 YARD GRID V1.1

Micro
Piner Elementary School
1141 East County Line Rd, Lakewood, NJ 08701



SEP 2019 146.103596, -74.172573 | USNG: 18T WK 7922Z 20083 | USA | New Jersey | Ocean Co. | Lakewood Township | Grades: PreK-1 | PGP -500

V3	W3	X3	Y3
V4	W4	X4	Y4
V5	W5	X5	Y5
V6	W6	X6	Y6
V7	W7	X7	Y7
V8	W8	X8	Y8
V9	W9	X9	Y9
V10	W10	X10	Y10
V11	W11	X11	Y11
V12	W12	X12	Y12
V13	W13	X13	Y13
V14	W14	X14	Y14
V15	W15	X15	Y15
V16	W16	X16	Y16



Copyright © 2019, CRG, Inc. All rights reserved. DEC 2019 134-428413 - 403-8810798 | INVERS-175-KU-37992-13124 | USA | Georgia | Hall Co. | City of Gainesville | Gender: 9/12 | POB: -1 | 150

Upper Level - Micro
 North Hall High School
 4885 Mt. Vernon Rd, Gainesville, GA 30506



Copyright © 2019, CRG, Inc. All rights reserved. DEC 2019 134-428413 - 403-8810798 | INVERS-175-KU-37992-13124 | USA | Georgia | Hall Co. | City of Gainesville

MACRO
 North Hall High & Middle School
 4885 Mt. Vernon Rd. & 4856 Rilla Rd, Gainesville, GA 30506

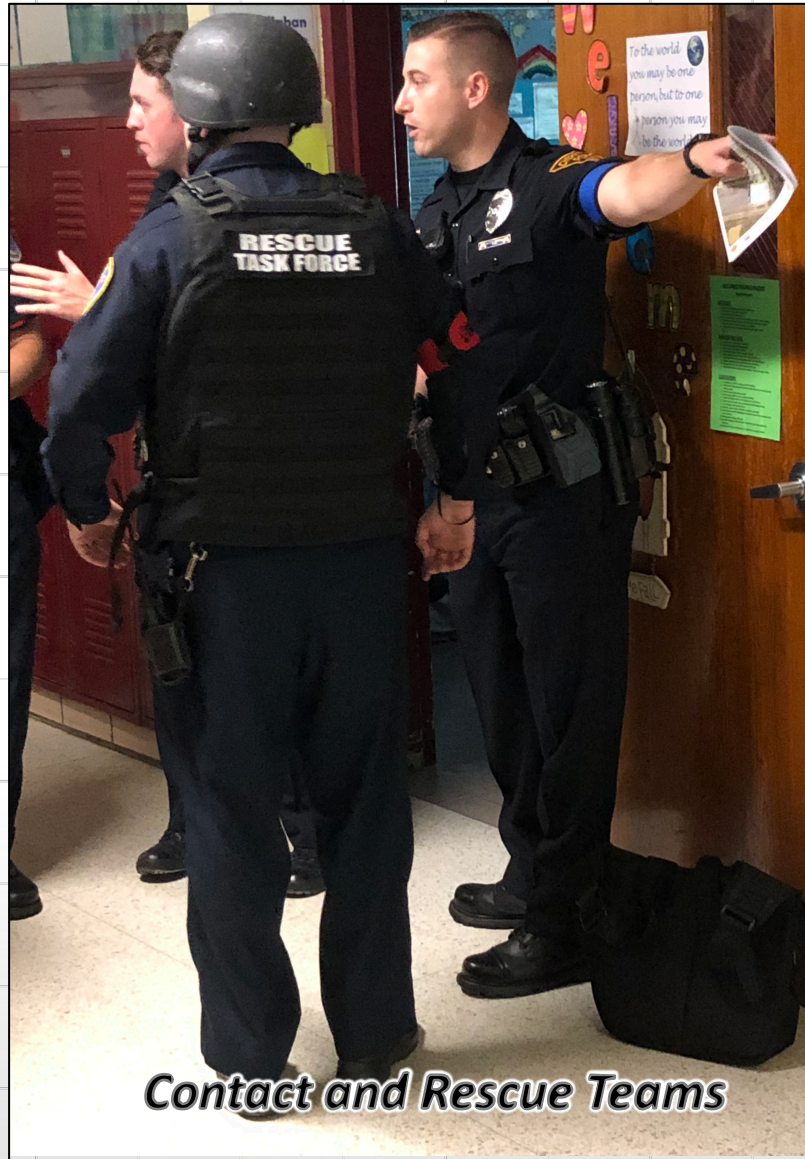
For All
 Copyrighted by Hall County Schools

DISSEMINATION AND IMPLEMENTATION

USED BY ALL DISCIPLINES AT ALL STAGES OF RESPONSE



Initial Incident Command



Contact and Rescue Teams



Staging Coordination



Unified Command Posts



CRGs in Multiple Platforms

Collaborative Response Graphic



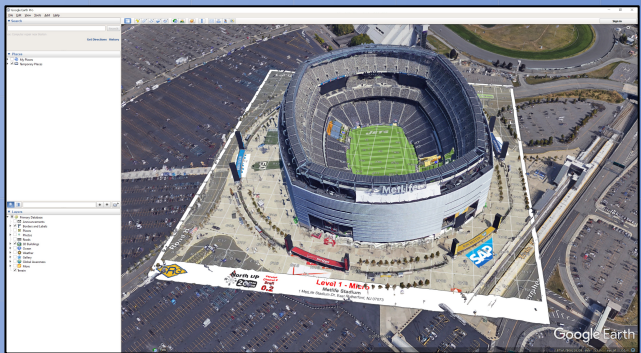
CRGs printed as handouts, used hastily on hood, and posted on command vehicle



CRGs on Mobile App: GXP OnScene, ATAK, Avenza Maps



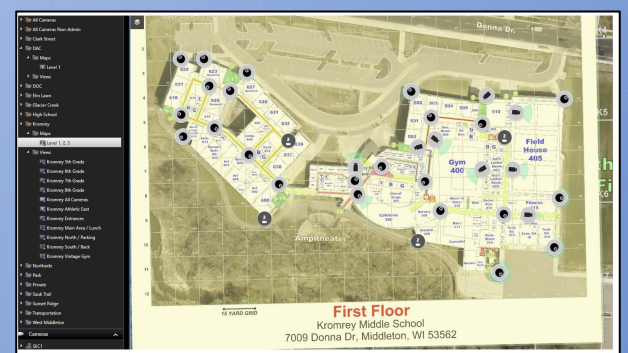
CRG accessed through Mobile Data Terminal



CRG with 3D modeling on Google Earth



CRG layered on Motorola's Spillman Flex CAD platform



CRG layer in Milestone Video Management



CRG used by ZeroEyes Threat Analytics