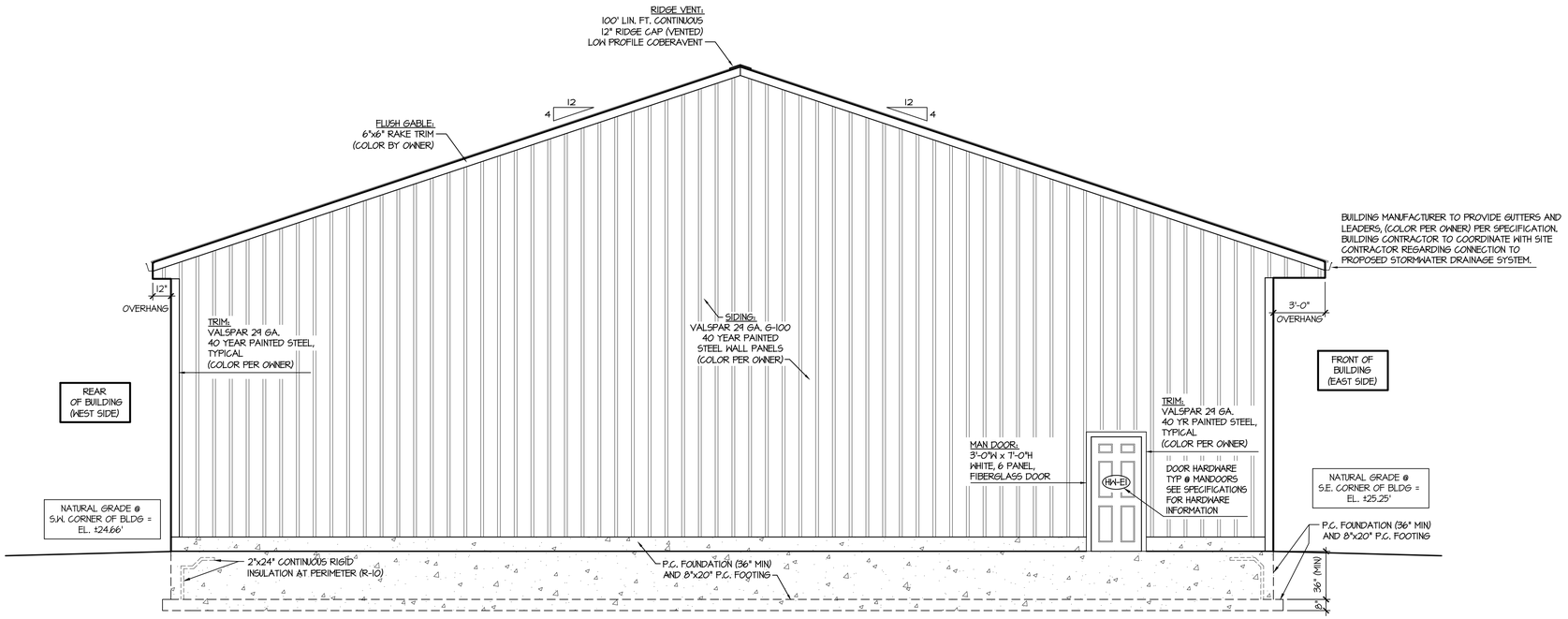


1 EXTERIOR ELEVATION - SOUTH SIDE

SCALE: 1/4" = 1'-0"

NOTE: ALL ENTRANCES TO MEET ADA REQUIREMENTS

DESIGN ROOF FOR 20#/S.F. SNOW LOAD
DESIGN FRAME, FLOOR, & SIDE WALLS FOR 130 M.P.H. WIND LOAD

PRE-ENGINEERED METAL BUILDING OLYMPIA OR APPROVED EQUAL. ALL ROOF PANELS SHALL BE INSULATED. BUILDING SUPPLIER TO PROVIDE LEADERS AND GUTTERS.

ROOF DRAINAGE CALCULATIONS:

EAST SLOPE: (AREA = 3,508 SQ.FT.)
FROM TABLE VI-403 @ 1/4" PER FOOT,
GUTTER DIAMETER TO BE 8" MIN.
LEADER DIAMETER TO BE 4" MIN.

WEST SLOPE: (AREA = 3,511 SQ.FT.)
FROM TABLE VI-403 @ 1/4" PER FOOT,
GUTTER DIAMETER TO BE 8" MIN.
LEADER DIAMETER TO BE 4" MIN.

PROJECT:
TOWN OF RIVERHEAD HIGHWAY DEPARTMENT

BUILDING:
PROPOSED METAL STORAGE BUILDING

USE: REPAIR AND MAINTENANCE OF TOWN EQUIPMENT, STORAGE OF SPARE PARTS

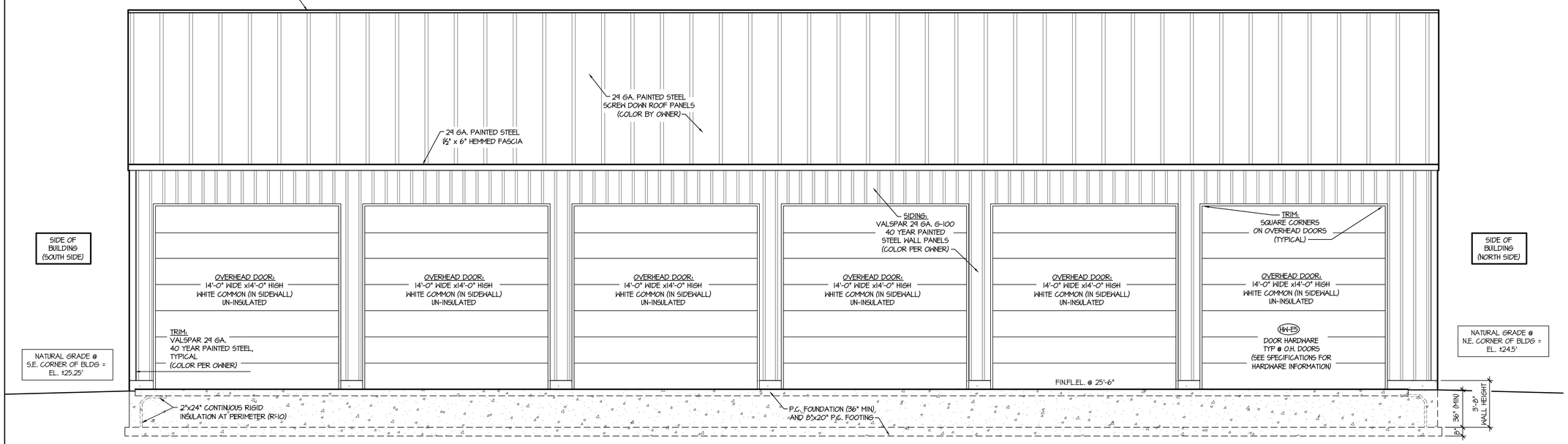
SIZE: 6600 SQ.FT.

CONSTRUCTION CLASSIFICATION: 2b

OCCUPANCY CLASSIFICATION: G3.2

ALL STRUCTURAL COMPONENTS BY BUILDING MANUFACTURER REFER TO SITE PLAN BY JEFFREY T. BUTLER, P.E., P.C. FOR BUILDING PLACEMENT AND RELATED SITE IMPROVEMENTS.

BUILDING MANUFACTURER TO VERIFY EAVE HEIGHT ALLOWS FOR 14'-0" OVERHEAD DOORS



2 EXTERIOR ELEVATION - FRONT - EAST SIDE

SCALE: 1/4" = 1'-0"

REVISIONS:
08-24-2016 UPDATED FOR BIDDING PURPOSES
11-16-2016 REVISED PER TOWN OF RIVERHEAD COMMENTS
01-10-2017 REVISED UTILITIES BASED ON PREBID MEETING

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ENGINEER:
JEFFREY T. BUTLER, P.E.

EXTERIOR ELEVATIONS FOR:
HIGHWAY DEPARTMENT METAL BUILDING
TOWN OF RIVERHEAD
1177 OSBORN AVE RIVERHEAD, N.Y. 11901
S.C.T.M.#: 0600-108-02-01
COUNTY OF SUFFOLK TOWN OF RIVERHEAD

JOB No.: 160041 DRAWN BY: RAG
DATE: 06.20.2016 APPROVED BY: JTB

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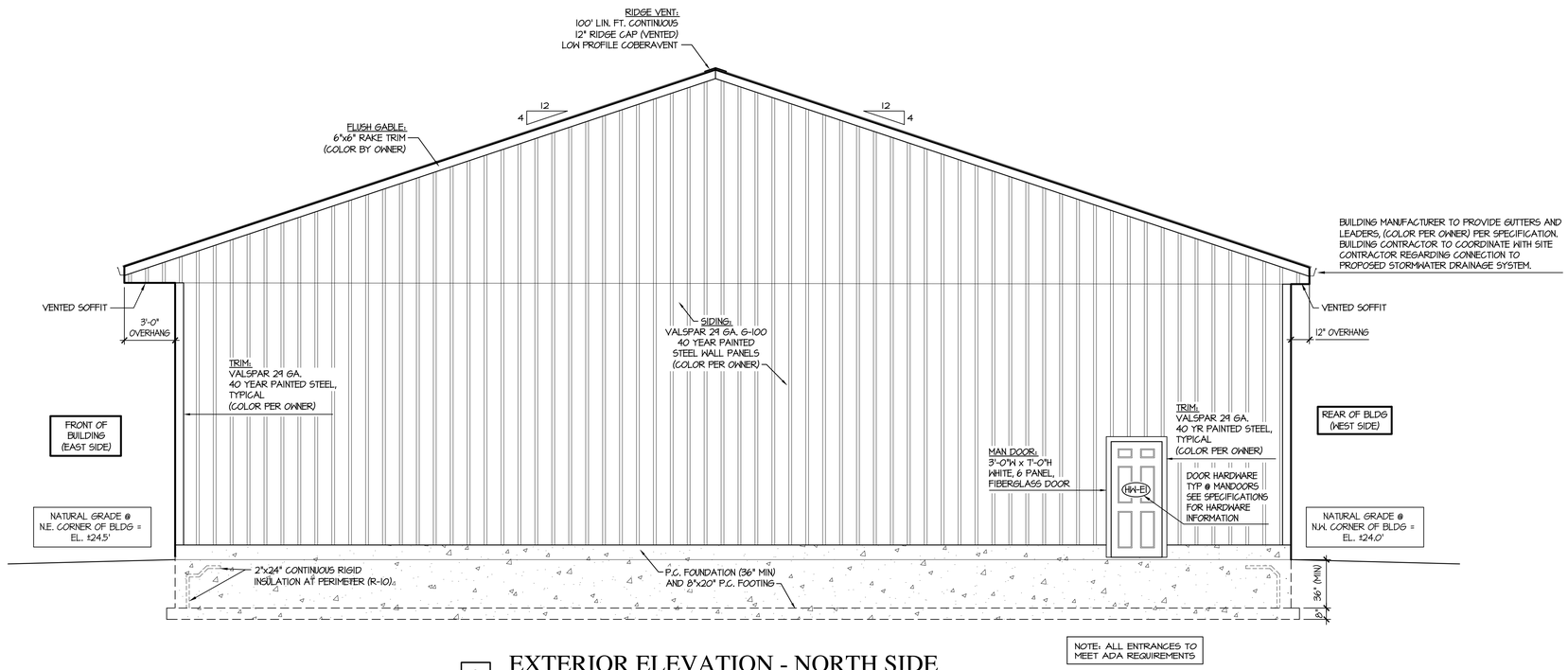
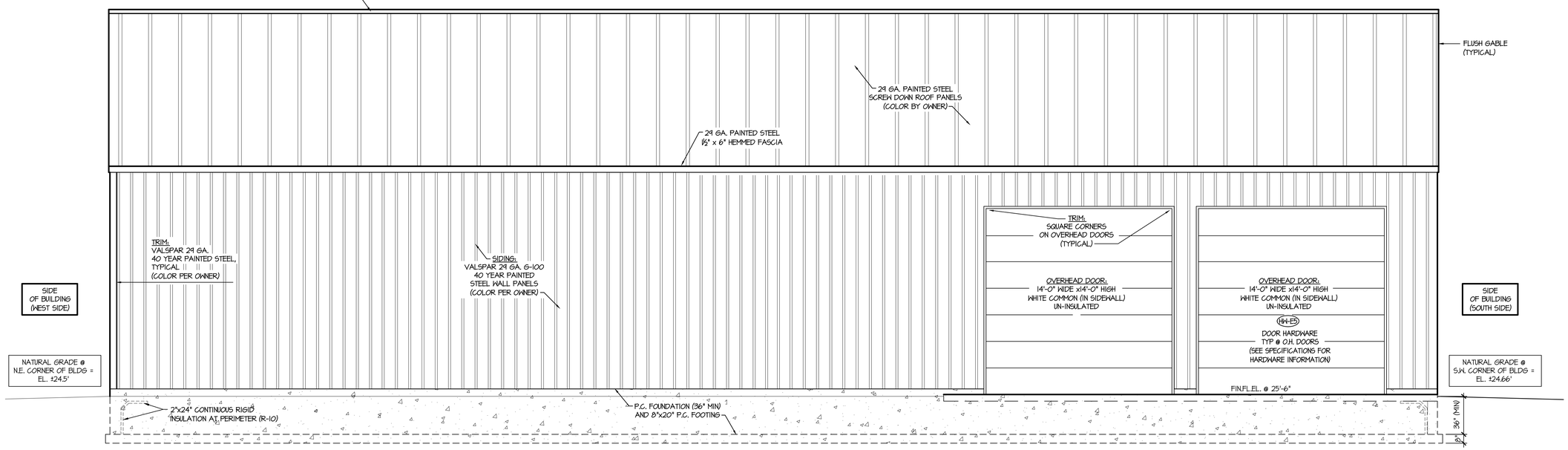


3 EXTERIOR ELEVATION - NORTH SIDE

SCALE: 1/4" = 1'-0"



4 EXTERIOR ELEVATION - REAR - WEST SIDE

SCALE: 1/4" = 1'-0"

REVISIONS:
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EXTERIOR ELEVATIONS FOR:
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TOWN OF RIVERHEAD
1177 OSBORN AVE RIVERHEAD, N.Y. 11901
S.C.T.M.# 0600-108-02-01
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FOUNDATION PLAN

SCALE: 1/4" = 1'-0"

100'-0" (EXTERIOR OVERALL)

10" 16'-2" 16'-0" 16'-0" 16'-0" 16'-0" 18'-2"

6" 66'-0" 14'-0" 2'-0" 14'-0" 4'-0"

REAR OF BUILDING (WEST SIDE)

4 / A1.1 — 5 / A4.0 — 1 / A3.0

6" THK REINFORCED P.C. APRON PITCH SLAB TO GRADE (¼"/L.F. MIN.) SEE REINF. PVMNT SECTION, DWG A4.0

5'-0"

14' X 14' O.H.D.

14' X 14' O.H.D.

M.O. DROP FOUNDATION WALL TO RECEIVE SLAB

P1 — REINFORCED CONCRETE PIER 'P1' TYP OF 4, 1 SHOWN, 1 OPP. HAND, 1 MIRROR AND 1 MIRROR-OPP. HAND (SEE DWG A-4.0 FOR DTLS)

P3 — PROPOSED SLAB @ FND WALL = EL. 25.17'

2" x 24" MIN. HORIZONTAL AND VERTICAL INSULATION FROM INTERIOR EDGE OF FOUNDATION WALL AND UNDERSIDE OF SLAB, TYP AT BUILDING PERIMETER (R10)

8"x20" P.C. FOOTING (4,000 PSI) TYPICAL REINFORCEMENT FOR POURED CONCRETE FOOTING: (6) #5

8" P.C. FOUNDATION WALL (36" MIN) TYPICAL REINFORCEMENT FOR A 8" THICK FOUNDATION WALL: (2) #5 @ 24" O.C. VERTICAL (2) #5 @ 24" O.C. HORIZONTAL

TYPICAL #5 HAIRPIN BAR

6" R.C. SLAB W/ 6X6 W1.4 X W1.4 W.W.M. 6 MIL VAPOR BARRIER OVER COMPACT FILL

SLAB PITCH = 1.24% TO EXTERIOR WALL (TYPICAL)

SLAB PITCH = 1.24% TO OVERHEAD DOORS (TYPICAL)

P2

PROPOSED RIDGE @

6" THICK REINFORCED P.C. SLAB

(4,000 PSI)
FINISH: HARD STEEL TROWEL BURNISHED

PITCH SLAB TO O.H. DOORS TO PROVIDE POSITIVE FLOW AT AN UNIFORM PITCH

SAW CUT SLAB FOR STRESS RELIEF AT 20' x 20' GRID

64'-8" (INTERIOR OVERALL) EQUAL

NOTE:
1. CONFIRM FOOTING LOCATIONS AND SIZE WITH BUILDING MANUFACTURE.
2. COORDINATE ANCHOR BOLT LOCATION AND PATERN (LOCATED ABOVE PIERS) WITH APPROVED BUILDING MANUFACTURE'S DRAWINGS.
3. COORDINATE STEEL BUILDING HIGH WIND CONNECTION REQUIREMENTS (BY OTHERS) WITH FOUNDATION CONNECTION LOCATIONS PROVIDE BY JEFFREY T. BUTLER, P.E., P.C.

PROPOSED RIDGE = EL. 25'-7" (EL. 25.58')

98'-8" (INTERIOR OVERALL)

1 / A1.0 — SIDE OF BUILDING (SOUTH SIDE)

3 / A1.1 — SIDE OF BUILDING (NORTH SIDE)

M.O. DROP FOUNDATION WALL TO RECEIVE SLAB (TYPICAL OF 8 BAYS)

PROPOSED SLAB @ FND WALL = EL. 25.17'

REINFORCED CONCRETE PIER 'P2' TYP OF 4, 2 SHOWN AND 2 OPP. HAND (SEE DWG A-4.0 FOR DTLS)

8" P.C. FOUNDATION WALL (36" MIN) AND 8"x20" P.C. FOOTING (TYPICAL U.O.N.)

REINFORCED CONCRETE PIER 'P3' TYP OF 10, 5 SHOWN AND 5 OPP. HAND (SEE DWG A-4.0 FOR DTLS)

4 / A4.0

PROVIDE ANCHOR BOLTS AT EACH CORNER OF BUILDING (TYPE, SIZE AND LOCATION PER BUILDING MANUFACTURER)

PROVIDE ANCHOR BOLTS ALONG BUILDING FOUNDATION PERIMETER @ O.C. SPACING (TYPE, SIZE AND LOCATION PER BUILDING MANUFACTURER)

FRONT OF BUILDING (EAST SIDE) — 2 / A1.0

100'-0" (O.A. EXTERIOR)

66'-0" (O.A. EXTERIOR)

2'-0" 14'-0" 2'-0" 14'-0" 2'-0" 14'-0" 2'-0" 14'-0" 2'-0" 14'-0" 2'-6½" 1'-5½" 4'-0"

1 2 3 4 5 6 7

A B C D

REVISIONS:
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ENGINEER:
JEFFREY T. BUTLER, P.E.

FOUNDATION PLAN FOR:
HIGHWAY DEPARTMENT METAL BUILDING
TOWN OF RIVERHEAD
1177 OSBORN AVE RIVERHEAD, N.Y. 11901
S.C.T.M.# 0600-108-02-01
COUNTY OF SUFFOLK — TOWN OF RIVERHEAD

JOB No.: 160041 — DRAWN BY: RAC

DATE: 06.20.2016 — APPROVED BY: JTB

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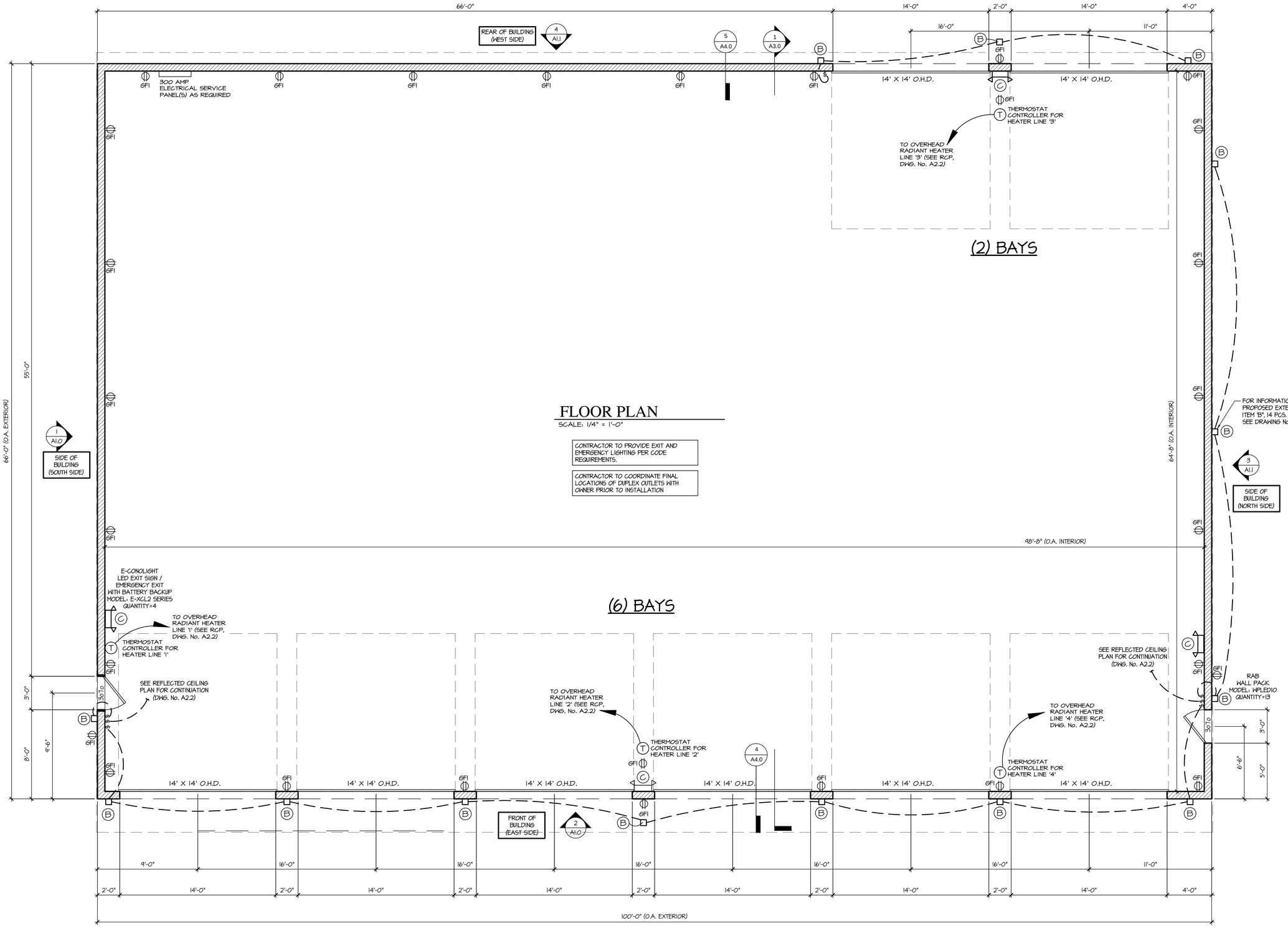
FLOOR PLAN

SCALE: 1/4" = 1'-0"

CONTRACTOR TO PROVIDE EXIT AND EMERGENCY LIGHTING PER CODE REQUIREMENTS.

CONTRACTOR TO COORDINATE FINAL LOCATIONS OF DUPLEX OUTLETS WITH OWNER PRIOR TO INSTALLATION



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FLOOR PLAN FOR:
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NOTE:
THE INSTALLATION OF HEATERS MUST CONFORM WITH LOCAL AND STATE CODES AND WITH THE NATIONAL FUEL GAS CODE, ANSI-Z223.1-1999 (NFPA54 CURRENT ADDITION).

FRESH AIR INLET

EXHAUST AIR OUTLET

4 / A1.1 — REAR OF BUILDING (WEST SIDE)

5 / A4.0

1 / A3.0

66'-0"

14'-0" | 2'-0" | 14'-0" | 4'-0"

PROVIDE SIDEWALL VENTING (TYPICAL OF 4) 4" COMBUSTION AIR INLET

BURNER CONTROL BOX, 60" POWER CORD CONNECTION (TYPICAL EACH LINE)

8'-2½"

FLOW

HOME RUN TO BREAKER PANEL

14' X 14' O.H.D.

PROVIDE SSE SIDE SHIELD EXTENSIONS IN LOCATIONS WITHIN CLOSE PROXIMITY TO OVERHEAD DOORS (TYPICAL)

17'-6"

±8'-4" | ±16'-0" | ±16'-0" | ±16'-0" | ±16'-0" | 16'-0" | 11'-0"

98'-8" (O.A. INTERIOR)

ALL HEATERS MUST MAINTAIN HL3 CLEARANCES TO COMBUSTABLES.

SUSPEND HEATERS A.F.F. = 16'-0" (TYPICAL)

19'-6"

(2) BAYS

64'-8" (O.A. INTERIOR)

14'-10"

24" MINIMUM

SEE FLOOR PLAN FOR CONTINUATION (DWG. No. A2.1)

E-CONOLIGHT
LED LOW BAY LUMINAIRE
MODEL: E-ALBIL01NJ
WHITE CYLINDRICAL METAL HOUSING W/ INTERATED HEAT SINK
MOUNTING HIEGHT = 16' A.F.F.
PENDANT, HOOK AND CORD MOUNT
QUANTITY = 18
AVERAGE ILLUMINANCE: 25 FC
LIGHTING POWER DENSITY (LPD): 0.24 W/S.F.

HEATER LINE (1)
RE-VERBER-RAY
INFRARED RADIANT HEATER
HL3 SERIES - 2 STAGE
MODEL No. HL3-50-150
HIGH FIRE: 150,000 BTU EA.
LOW FIRE: 100,000 BTU EA.
USE SSE SIDE SHIELD EXTENSIONS (THIS UNIT)

HEATER LINE (2)
RE-VERBER-RAY
INFRARED RADIANT HEATER
HL3 SERIES - 2 STAGE
MODEL No. HL3-50-150
HIGH FIRE: 150,000 BTU EA.
LOW FIRE: 100,000 BTU EA.

HEATER LINE (3)
RE-VERBER-RAY
INFRARED RADIANT HEATER
HL3 SERIES - 2 STAGE
MODEL No. HL3-50-150
HIGH FIRE: 150,000 BTU EA.
LOW FIRE: 100,000 BTU EA.

HEATER LINE (4)
RE-VERBER-RAY
INFRARED RADIANT HEATER
HL3 SERIES - 2 STAGE
MODEL No. HL3-50-150
HIGH FIRE: 150,000 BTU EA.
LOW FIRE: 100,000 BTU EA.
USE SSE SIDE SHIELD EXTENSIONS (THIS UNIT)

WIRE DIRECT TO BREAKER PANEL

(6) BAYS

FOR INFRARED RADIANT HEATER LOCAL CONTACT SEE:
ATI - APPLIED TECHNOLOGIES OF N.Y.
90 PLANT AVENUE
HAUPPAUGE, N.Y. 11788
PHONE: 631-331-0215
http://www.atiofny.com

FOR LED LOW BAY LIGHTING CONTACT SEE:
E-CONOLIGHT
1501 46th STREET, STURTEVENT, WI 53177
PHONE: 888-243-4445
www.e-conolight.com

1 / A1.0 — SIDE OF BUILDING (SOUTH SIDE)

3 / A1.1 — SIDE OF BUILDING (NORTH SIDE)

66'-0" (O.A. EXTERIOR)

55'-0"

19'-6"

14'-6"

17'-5"

17'-6"

14'-10"

3070

3'-0"

8'-0"

4'-6"

EXHAUST AIR OUTLET

6'-6"

5'-0"

REFLECTED CEILING PLAN
SCALE: 1/4" = 1'-0"

4 / A4.0

14' X 14' O.H.D.

FRONT OF BUILDING (EAST SIDE)

2 / A1.0

9'-0" | 16'-0" | 16'-0" | 16'-0" | 16'-0" | 16'-0" | 11'-0"

2'-0" | 14'-0" | 2'-0" | 14'-0" | 2'-0" | 14'-0" | 2'-0" | 14'-0" | 2'-0" | 14'-0" | 2'-0" | 14'-0" | 4'-0"

100'-0" (O.A. EXTERIOR)

REVISIONS:
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REFLECTED CEILING PLAN FOR:
HIGHWAY DEPARTMENT METAL BUILDING
TOWN OF RIVERHEAD
1177 OSBORN AVE RIVERHEAD, N.Y. 11901
S.C.T.M.# 0600-108-02-01
COUNTY OF SUFFOLK — TOWN OF RIVERHEAD

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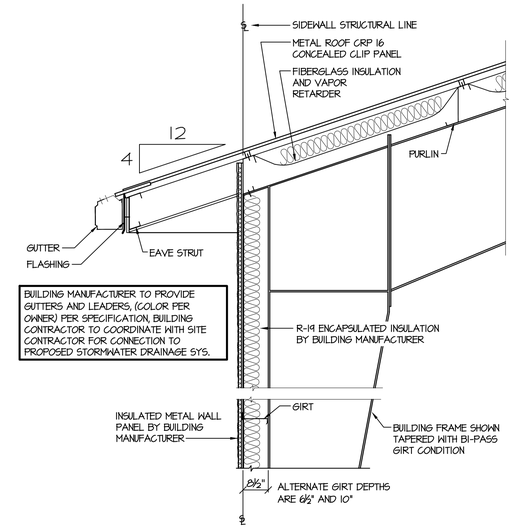
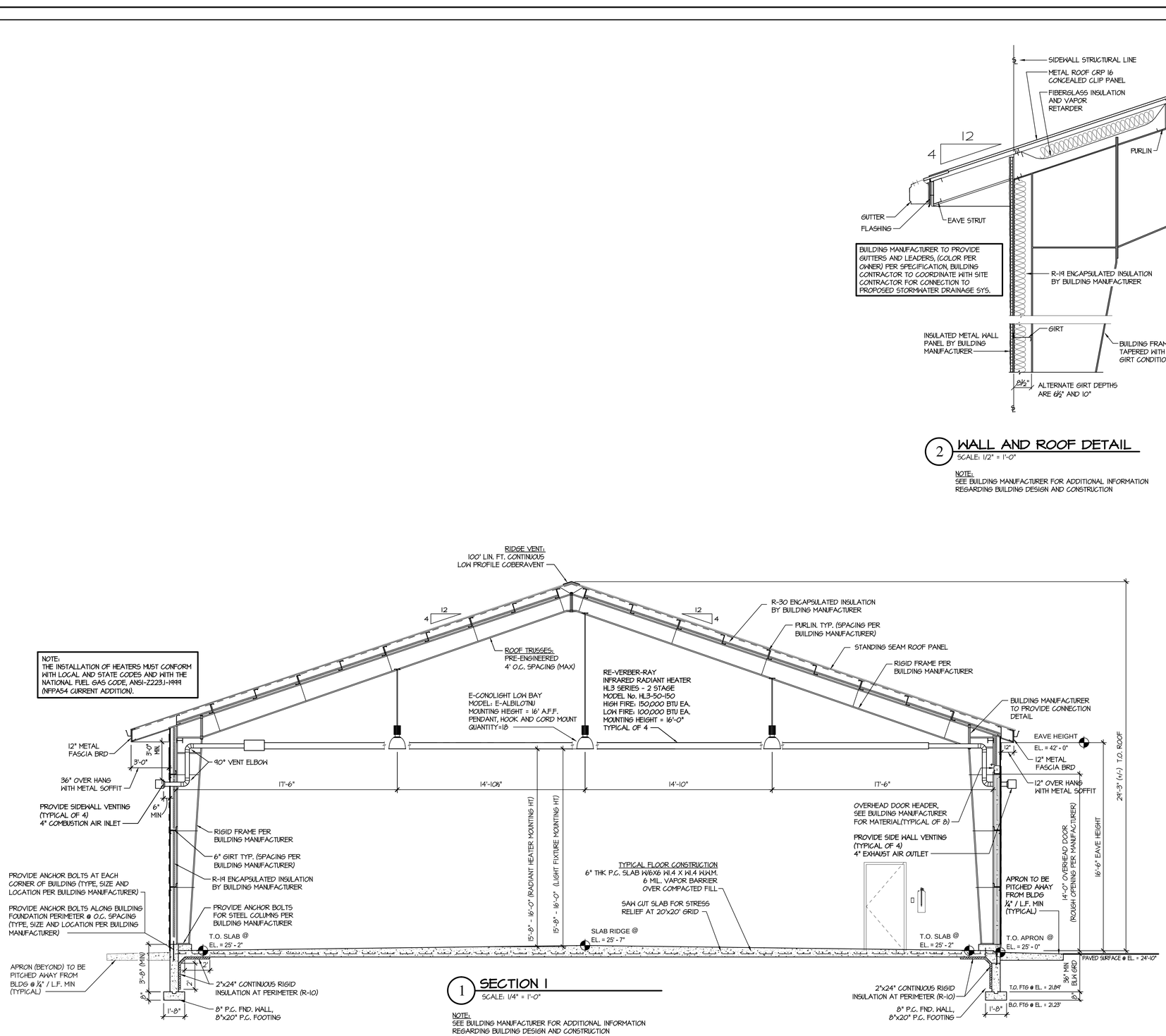


2 WALL AND ROOF DETAIL

SCALE: 1/2" = 1'-0"

NOTE:
SEE BUILDING MANUFACTURER FOR ADDITIONAL INFORMATION REGARDING BUILDING DESIGN AND CONSTRUCTION



1 SECTION 1

SCALE: 1/4" = 1'-0"

NOTE:
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BUILDING SECTION AND DETAILS FOR:
HIGHWAY DEPARTMENT METAL BUILDING
TOWN OF RIVERHEAD
1177 OSBORN AVE RIVERHEAD, N.Y. 11901
S.C.T.M.# 0600-108-02-01
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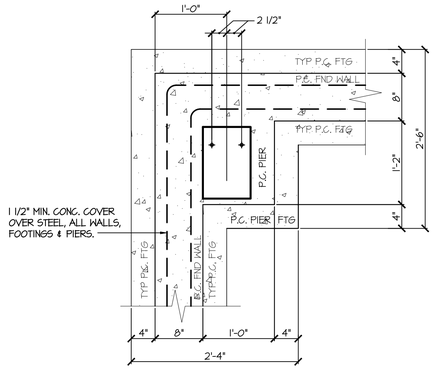
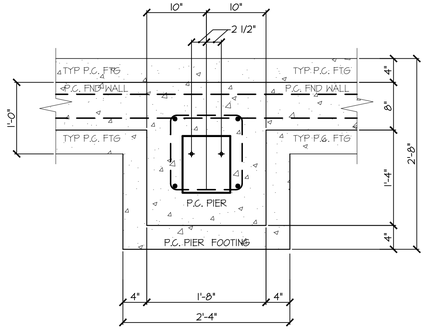


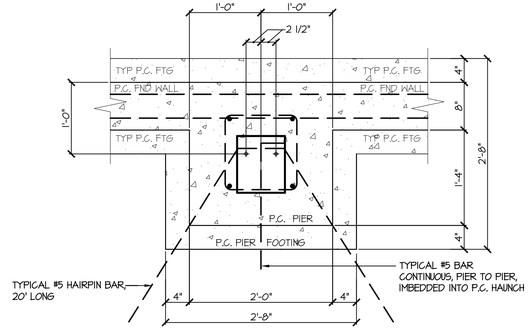
P1 (PLAN VIEW)

SCALE: 1" = 1'-0"



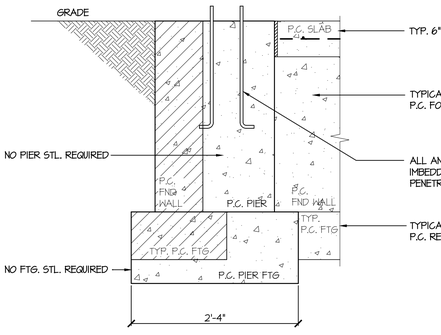
P2 (PLAN VIEW)

SCALE: 1" = 1'-0"



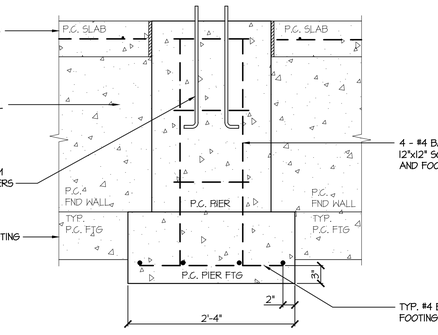
P3 (PLAN VIEW)

SCALE: 1" = 1'-0"



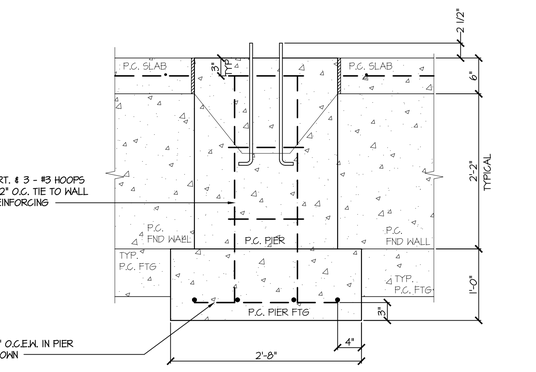
P1 (ELEVATION)

SCALE: 1" = 1'-0"



P2 (ELEVATION)

SCALE: 1" = 1'-0"



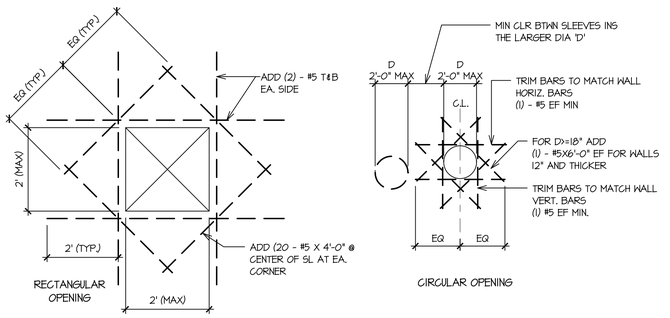
P3 (ELEVATION)

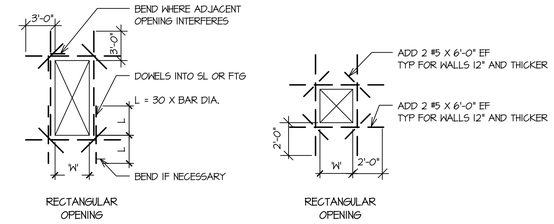
SCALE: 1" = 1'-0"

1 PIERS - PLANS AND ELEVATIONS

SCALE: 1" = 1'-0"

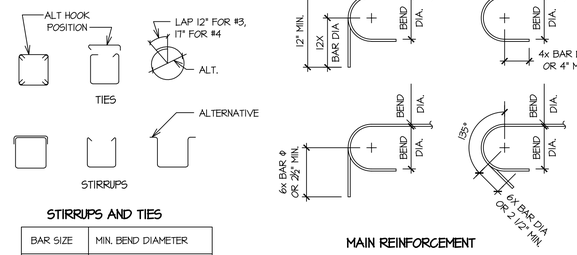
NOTE:
1. CONFIRM FOOTING LOCATIONS AND SIZE WITH BUILDING MANUFACTURE.
2. COORDINATE ANCHOR BOLT LOCATION AND PATERN (LOCATED ABOVE PIERS) WITH APPROVED BUILDING MANUFACTURE'S DRAWINGS.
3. COORDINATE STEEL BUILDING HIGH WIND CONNECTION REQUIREMENTS (BY OTHERS) WITH FOUNDATION CONNECTION LOCATIONS PROVIDE BY JEFFREY T. BUTLER, P.E., P.C.





2 TYPICAL CONCRETE WALL OPENINGS

SCALE: 1/8" = 1'-0"



STIRRUPS AND TIES

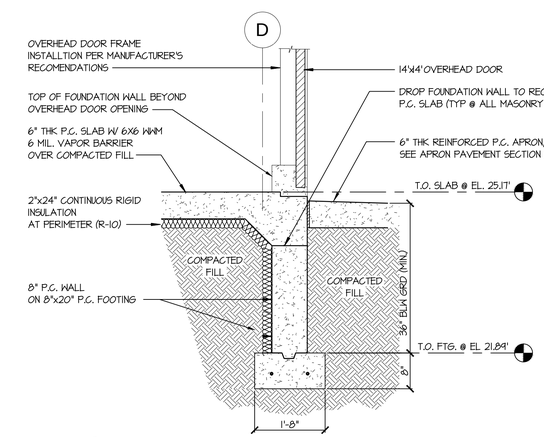
BAR SIZE	MIN. BEND DIAMETER
#3 - #8	6 X BAR DIA
#9 - #11	8 X BAR DIA
#14 - #18	10 X BAR DIA

MAIN REINFORCEMENT

BAR SIZE	MIN. BEND DIAMETER
#3 - #5 OTHERS	4 X BAR DIA SAME AS MAIN REINF.

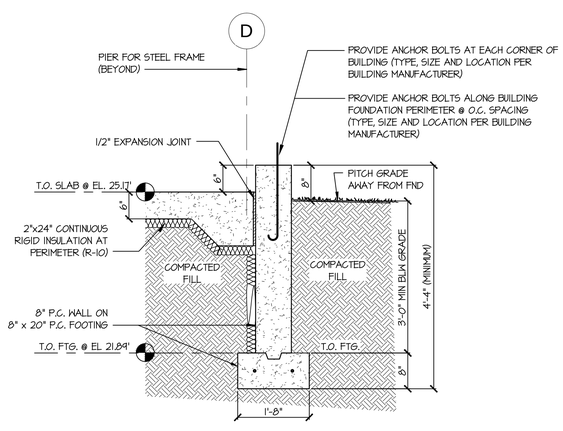
3 TYPICAL REINFORCING BAR HOOKS AND BENDS

SCALE: 1/8" = 1'-0"



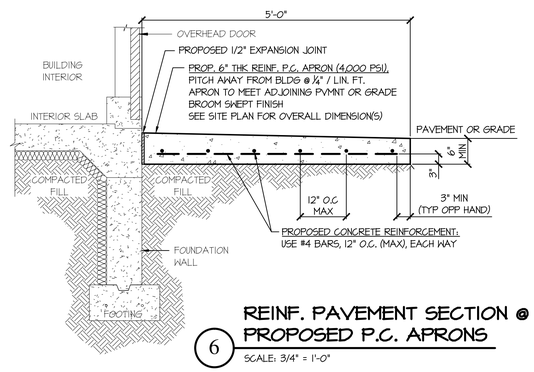
4 FOUNDATION DETAIL @ WALL OPENING

SCALE: 3/4" = 1'-0"



5 FOUNDATION DETAIL @ CONTINUOUS WALL

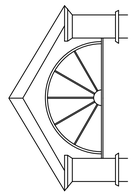
SCALE: 3/4" = 1'-0"



6 REINF. PAVEMENT SECTION @ PROPOSED P.C. APRONS

SCALE: 3/4" = 1'-0"

REVISIONS:
11-16-2016 REVISED PER TOWN OF RIVERHEAD COMMENTS
01-10-2017 REVISED UTILITIES BASED ON PREBID MEETING



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SHOREHAM, NEW YORK
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ENGINEER:
JEFFREY T. BUTLER, P.E.

DETAILS FOR:
HIGHWAY DEPARTMENT METAL BUILDING
TOWN OF RIVERHEAD
1177 OSBORN AVE RIVERHEAD, N.Y. 11901
S.C.T.M.# 0600-108-02-01
COUNTY OF SUFFOLK

TOWN OF RIVERHEAD
DRAWN BY: RAC
APPROVED BY: JTB
JOB No.: 160041
DATE: 06.20.2016

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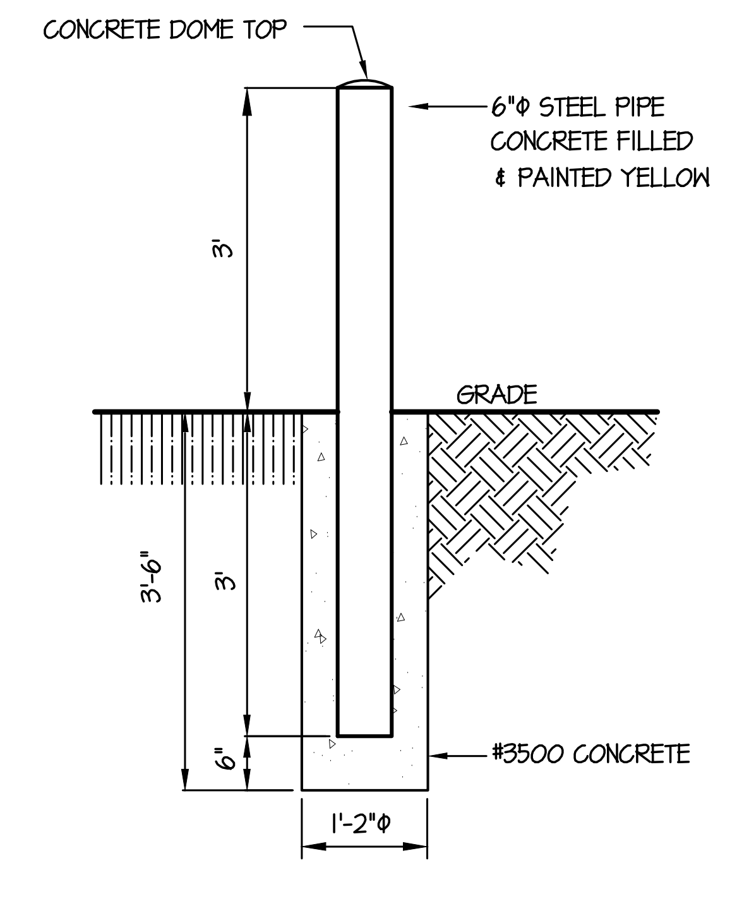
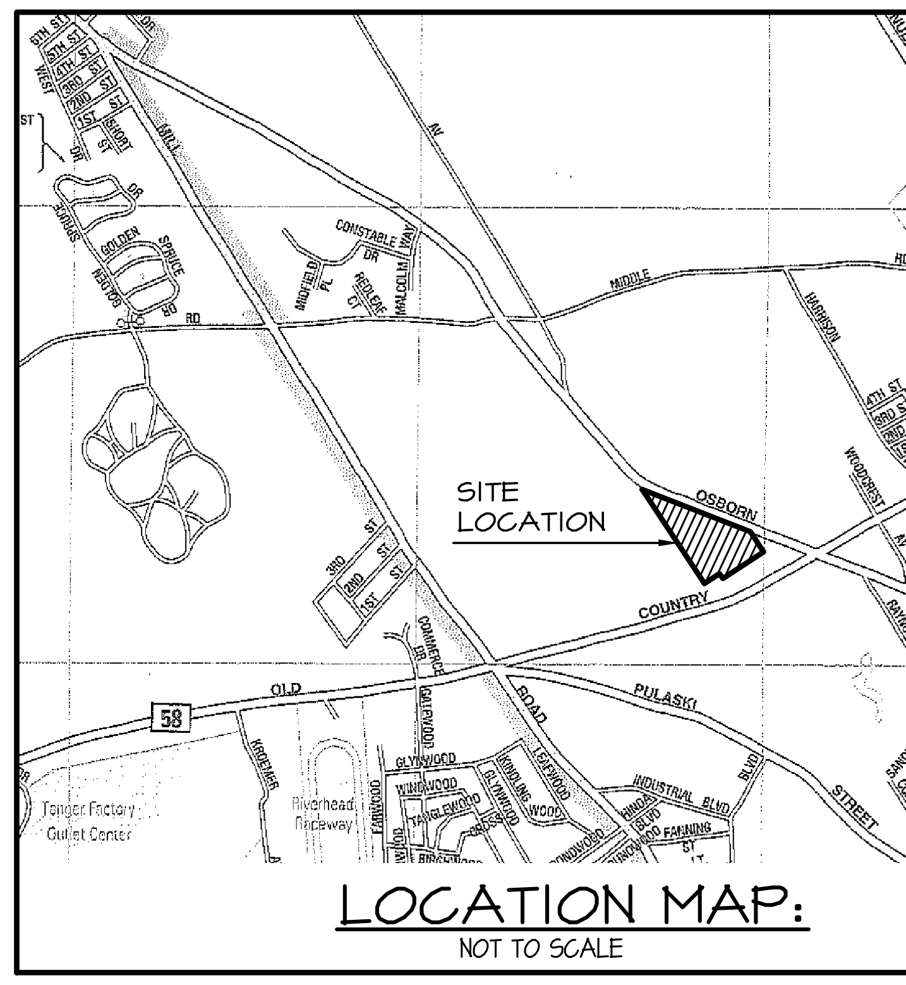


BOLLARD DETAIL

SCALE: N.T.S., QTY: 10

LINE / SYMBOL LEGEND

PROPERTY LINE	———
SETBACK LINE	—— — · — — · ——
EXISTING TO BE REMOVED/RELOCATED	··············
U/G SERVICES	— UG — UG — UG — UG —
STORM WATER PIPING	— SD — SD — SD —
VALLEY GUTTER	— —VG— —VG— —VG—
EXISTING FENCE	— o — o — o —
EROSION CONTROL: SILT FENCE	—×—×—×—×—×—×—×—×—
CONSTRUCTION FENCE	— ▯ — ▯ —
EXISTING CONTOUR	— 6 —
FINISHED FLOOR ELEVATION	F.FL.EL. =
PARKING SPACE	△#
STORM WATER FLOW	▷
CATCH BASIN	▦
LEACHING POOL w/ OPEN GRATE	⊕
EROSION CONTROL: INLET PROTECTION	⠿



LOCATION MAP:

NOT TO SCALE

PROPOSED SITE PLAN:

SITUATE AT:
1177 OSBORN AVENUE RIVERHEAD, NY 11901
TOWN OF RIVERHEAD
SUFFOLK COUNTY, NEW YORK
SCTM NO.: 0600-108-02-01
ZONING DISTRICT: BC (BUSINESS CENTER)
CURRENT USE:
TOWN HIGHWAY DEPT. GARAGE, STORAGE & STOCKPILE MATERIAL

SITE DATA:	EXISTING:	PROPOSED:
AREA OF SITE:	321,861 S.F. (7.389 AC.)	N.C.
BUILDING AREAS:		
BUILDING 'A':		
'A1'	11,072 S.F.	N.C.
'A2'	1,284 S.F.	N.C.
BLDG 'B'	2,610 S.F.	N.C.
BLDG 'C'	4,450 S.F.	N.C.
BLDG 'D'	2,986 S.F.	N.C.
BLDG 'E'	N/A	6,600 S.F.
P/O BLDG LOC'D ON NEIGHBORING LOT (SE CORNER):	56 S.F.	N.C.
TL. AREA:	22,458 S.F.	6,600 S.F.

SURVEY OF EXISTING CONDITIONS OF DESCRIBED PROPERTY: LIBER 4310 PAGE 26

SITE PLAN BASED ON ORIGINAL SURVEY BY:
F.C. WATSON LAND SURVEYOR, P.C.
P.O. BOX 178
BRIGHTWATERS, N.Y. 11718
PHONE: 631-328-3422
FAX: 631-677-3202
EMAIL: fcwatson@version.net
SURVEY CREATED: OCT. 2015

OWNER:
TOWN OF RIVERHEAD
200 HOWELL AVE.
RIVERHEAD, NY 11901

NOTES TO CONTRACTOR:

1. CONTRACTOR TO ENGAGE A LICENCED SURVEYOR FOR STAKE OUT PRIOR TO EXCAVATION. CONTRACTOR TO PROVIDE AS BUILT FOUNDATION PLAN TO TOWN OF RIVERHEAD PRIOR TO ERECTION OF BUILDING. CONTRACTOR TO PROVIDE AS BUILT SURVEY AT THE CONCLUSION OF JOB.

2. CONTRACTOR TO PROVIDE TOWN OF RIVERHEAD SIGNED AND SEALED (NEW YORK STATE) DRAWINGS FOR BUILDING FROM BUILDING MANUFACTURER ALONG WITH PROOF OF COMPLANCE WITH LOAD AS REQUIRED WITHIN 2015 NEW YORK STATE BUILDING CODE (130 MPH).

3. CONTRACTOR TO OBTAIN BUILDING PERMIT FROM TOWN OF RIVERHEAD. ENGINEER OF RECORD TO PROVIDE UPDATED FOUNDATION PLANS AFTER CONTRACTOR SUPPLIES ENGINEER WITH BUILDING REACTIONS AND BOLT PATTERNS FOR BUILDING SELECTED.

01-11-2017
4. CONTRACTOR TO COORDINATE UTILITY INSTALLATIONS AS SHOWN WITH UTILITY COMPANYS.

STORM DRAINAGE CALC:

(PROVIDED FOR PROPOSED BUILDING AND PROPOSED PAVED AREA ONLY)

VOLUME = AREA x RAINFALL x COEFFICIENT
PROPOSED BUILDING AREA = 6,600 S.F.
PROPOSED PAVED AREAS = 12,995 S.F.
RAINFALL = 2" = 0.167'
COEFFICIENT OF ASPHALT/ CONC. = 1.0

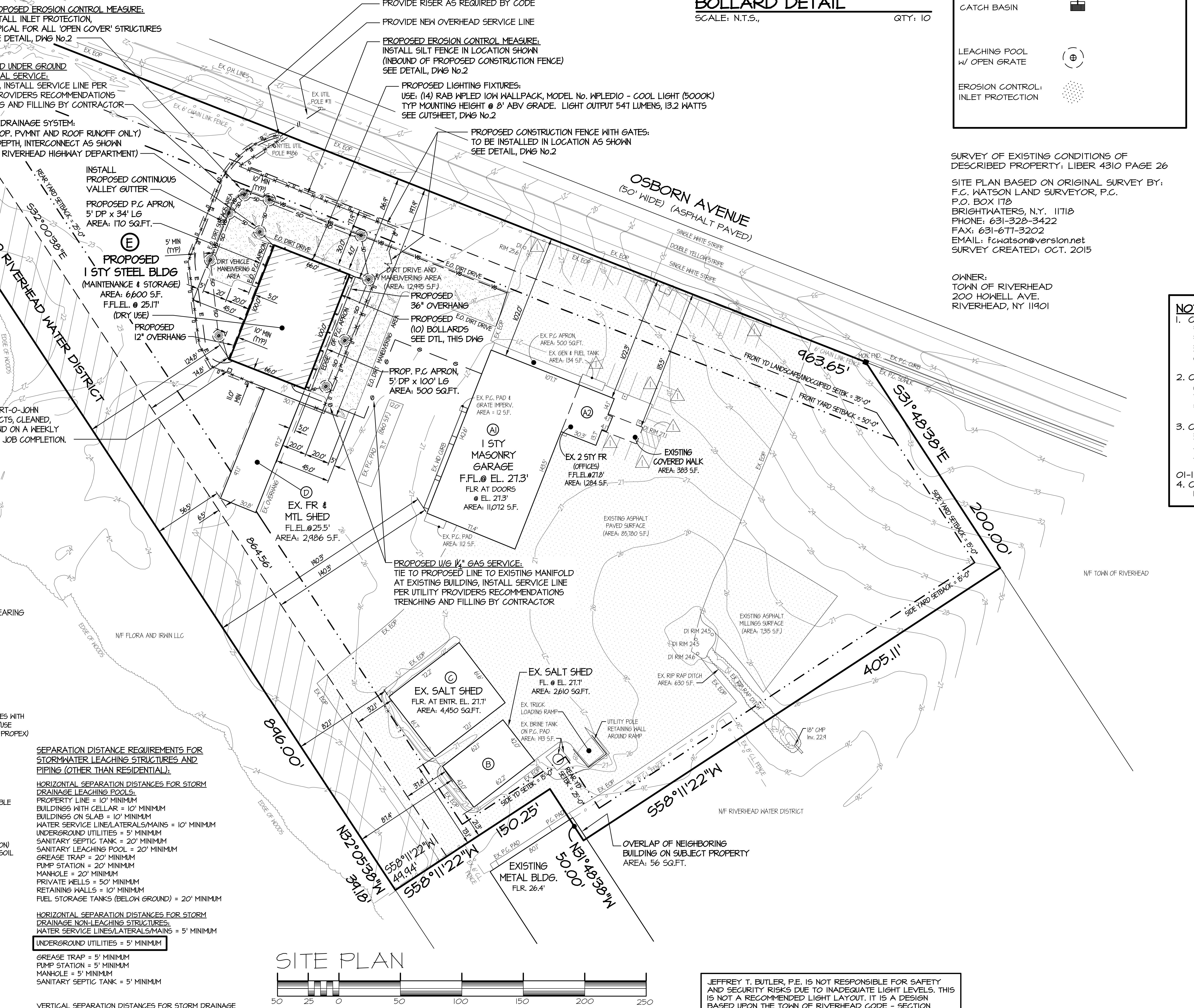
PROPOSED ROOF DRAINAGE CALC.:
6,600 S.F. x 0.167 x 1.0 = 1,102 CU.FT.
VOLUME REQUIRED: 1,102 CU.FT.

PROPOSED PAVED AREA CALC.:
12,995 S.F. x 0.167 x 1.0 = 2,170 CU.FT.
VOLUME REQUIRED: 2,170 CU.FT.

1,102 CU.FT. (BLDG) + 2,170 CU.FT. (PAVED) = 3,272 CU.FT.
TL VOLUME REQUIRED: 3,272 CU.FT.

USE: (10) 10'Φ STORMWATER LEACHING POOLS, 5' LIQ. DEPTH EA.
OPEN COVER, INTERCONNECT AS SHOWN
TL VOLUME PROVIDED: 3,421 CU.FT.

NOTE:
DRAINAGE CONNECTIONS, PIPING AND STRUCTURES SHALL BE PROVIDED AND NSTALLED BY THE TOWN OF RIVERHEAD HIGHWAY DEPARTMENT



PROPOSED EROSION CONTROL MEASURE:
INSTALL INLET PROTECTION,
TYPICAL FOR ALL 'OPEN COVER' STRUCTURES
SEE DETAIL, DWG No.2

PROPOSED UNDER GROUND ELECTRICAL SERVICE:
300 AMP, INSTALL SERVICE LINE PER UTILITY PROVIDERS RECOMMENDATIONS TRENCHING AND FILLING BY CONTRACTOR

PROPOSED STORM DRAINAGE SYSTEM:
(DEDICATED TO PROP. PVMNT AND ROOF RUNOFF ONLY)
10 - 10'Φ x 5' LIQ. DEPTH, INTERCONNECT AS SHOWN
(PROVIDED BY THE RIVERHEAD HIGHWAY DEPARTMENT)

INSTALL PROPOSED CONTINUOUS VALLEY GUTTER

PROPOSED P.C APRON,
5' DP x 34' LG
AREA: 170 SQ.FT.

PROVIDE RISER AS REQUIRED BY CODE

PROVIDE NEW OVERHEAD SERVICE LINE

PROPOSED EROSION CONTROL MEASURE:
INSTALL SILT FENCE IN LOCATION SHOWN
(INBOUND OF PROPOSED CONSTRUCTION FENCE)
SEE DETAIL, DWG No.2

PROPOSED LIGHTING FIXTURES:
USE: (14) RAB WPLED 10W WALLPACK, MODEL No. WPLED10 - COOL LIGHT (5000K)
TYP MOUNTING HEIGHT @ 8' ABV GRADE. LIGHT OUTPUT 547 LUMENS, 13.2 WATTS
SEE CUTSHEET, DWG No.2

PROPOSED CONSTRUCTION FENCE WITH GATES:
TO BE INSTALLED IN LOCATION AS SHOWN
SEE DETAIL, DWG No.2

PROPOSED (10) BOLLARDS
SEE DTL, THIS DWG

PROP. P.C APRON,
5' DP x 100' LG
AREA: 500 SQ.FT.

LOCATION OF PROPOSED PORT-O-JOHN TO BE SUPPLIED WITH PRODUCTS, CLEANED, MAINTAINED AND EMPTIED AND ON A WEEKLY BASIS (OR AS NEEDED) UNTIL JOB COMPLETION.

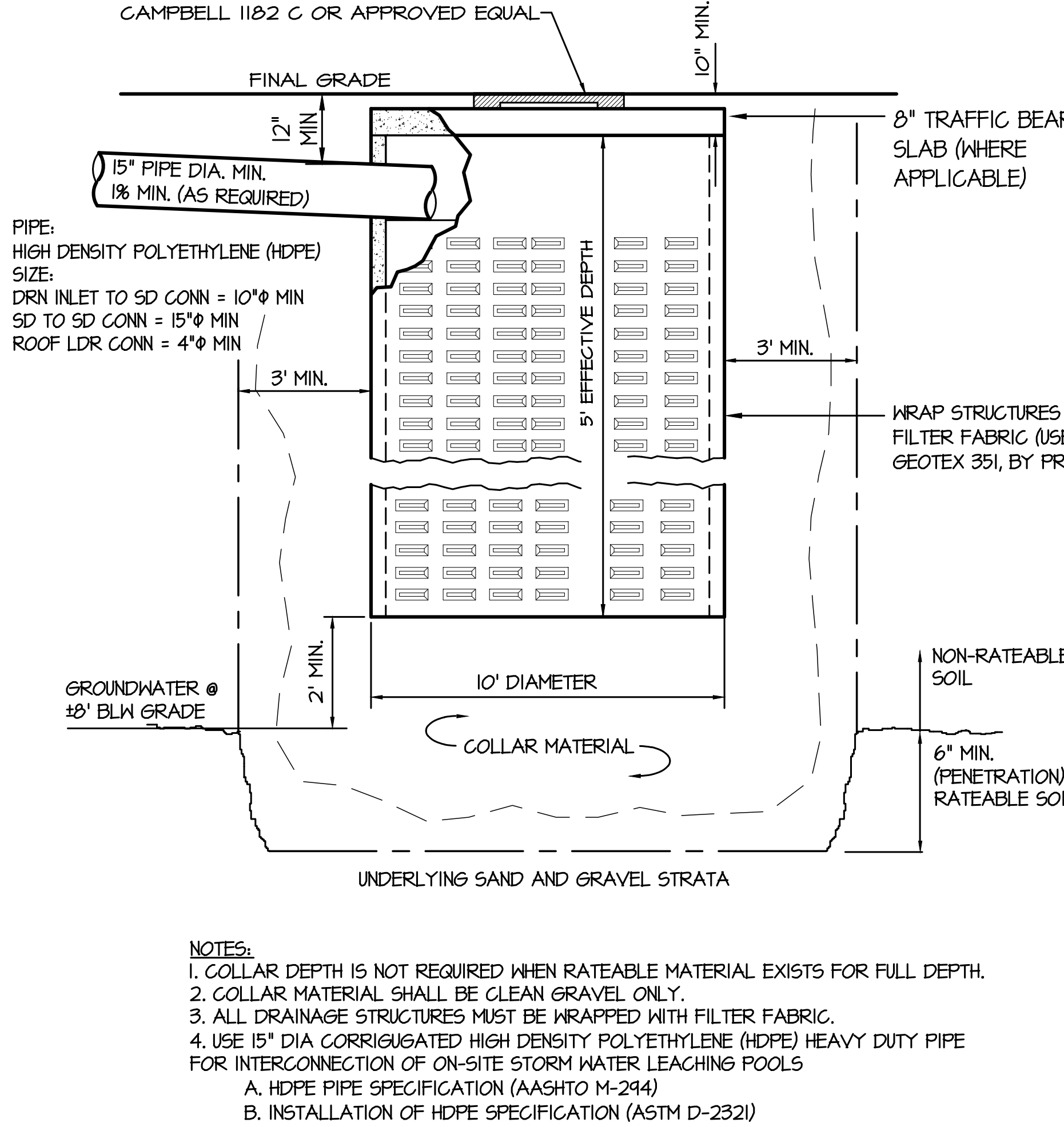
PROPOSED U/G 1¼" GAS SERVICE:
TIE TO PROPOSED LINE TO EXISTING MANIFOLD AT EXISTING BUILDING, INSTALL SERVICE LINE PER UTILITY PROVIDERS RECOMMENDATIONS TRENCHING AND FILLING BY CONTRACTOR

OVERLAP OF NEIGHBORING BUILDING ON SUBJECT PROPERTY
AREA: 56 SQ.FT.

SITE PLAN

50	25	0	50	100	150	200	250

GRAPHIC SCALE 1" = 50'-0"



PIPE:
HIGH DENSITY POLYETHYLENE (HDPE)
SIZE:
DRN INLET TO SD CONN = 10"Φ MIN
SD TO SD CONN = 15"Φ MIN
ROOF LDR CONN = 4"Φ MIN

NOTES:
1. COLLAR DEPTH IS NOT REQUIRED WHEN RATEABLE MATERIAL EXISTS FOR FULL DEPTH.
2. COLLAR MATERIAL SHALL BE CLEAN GRAVEL ONLY.
3. ALL DRAINAGE STRUCTURES MUST BE WRAPPED WITH FILTER FABRIC.
4. USE 15" DIA CORRIGUGATED HIGH DENSITY POLYETHYLENE (HDPE) HEAVY DUTY PIPE FOR INTERCONNECTION OF ON-SITE STORM WATER LEACHING POOLS
   - A. HDPE PIPE SPECIFICATION (AASHTO M-294)
   - B. INSTALLATION OF HDPE SPECIFICATION (ASTM D-2321)
   - C. WATER-TIGHT JOINT TESTING SPECIFICATION (ASTM D-3212)
   - D. GASKET SPECIFICATION (ASTM F-477)

TYPICAL STORM WATER LEACHING POOL (SD) DETAIL

NOT TO SCALE

SEPARATION DISTANCE REQUIREMENTS FOR STORMWATER LEACHING STRUCTURES AND PIPING (OTHER THAN RESIDENTIAL):

HORIZONTAL SEPARATION DISTANCES FOR STORM DRAINAGE LEACHING POOLS:
PROPERTY LINE = 10' MINIMUM
BUILDINGS WITH CELLAR = 10' MINIMUM
BUILDINGS ON SLAB = 10' MINIMUM
WATER SERVICE LINE/LATERALS/MAINS = 10' MINIMUM
UNDERGROUND UTILITIES = 5' MINIMUM
SANITARY SEPTIC TANK = 20' MINIMUM
SANITARY LEACHING POOL = 20' MINIMUM
GREASE TRAP = 20' MINIMUM
PUMP STATION = 20' MINIMUM
MANHOLE = 20' MINIMUM
PRIVATE WELLS = 50' MINIMUM
RETAINING WALLS = 10' MINIMUM
FUEL STORAGE TANKS (BELOW GROUND) = 20' MINIMUM

HORIZONTAL SEPARATION DISTANCES FOR STORM DRAINAGE NON-LEACHING STRUCTURES:
WATER SERVICE LINES/LATERALS/MAINS = 5' MINIMUM
UNDERGROUND UTILITIES = 5' MINIMUM
GREASE TRAP = 5' MINIMUM
PUMP STATION = 5' MINIMUM
MANHOLE = 5' MINIMUM
SANITARY SEPTIC TANK = 5' MINIMUM

VERTICAL SEPARATION DISTANCES FOR STORM DRAINAGE LINES:
WATER SERVICE LINES = 18" MINIMUM
SANITARY WASTE LINES = 18" MINIMUM

JEFFREY T. BUTLER, P.E. IS NOT RESPONSIBLE FOR SAFETY AND SECURITY RISKS DUE TO INADEQUATE LIGHT LEVELS. THIS IS NOT A RECOMMENDED LIGHT LAYOUT. IT IS A DESIGN BASED UPON THE TOWN OF RIVERHEAD CODE - SECTION 108-250 EXTERIOR LIGHTING STANDARDS

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JOB No.: 160041 DRAWN BY: RAC
DATE: 07-18-2016 APPROVED BY: JTB

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WPLED10

RAB LIGHTING

LED 10W & 13 Wallpacks. Patent Pending thermal management system. 100,000 hour L70 lifespan. 5 Year Warranty.

Color: Bronze

Weight: 3.3 lbs

Project: **Type:**

Prepared By: **Date:**

Driver Info		LED Info	
Type:	Constant Current	Watts:	10W
120V:	0.21A	Color Temp:	5000K
208V:	0.14A	Color Accuracy:	69 CRI
240V:	0.12A	L70 Lifespan:	100000
277V:	N/A	Lumens:	548
Input Watts:	13W	Efficacy:	42 LPW
Efficiency:	76%		

Technical Specifications

Listings

UL Listing:
Suitable for Wet Locations as a Downlight. Suitable for Damp Locations as an Uplight, Wall Mount only. Suitable for Mounting within 4ft. of ground.

Dark Sky Approved:
The International Dark Sky Association has approved this product as a full cutoff, fully shielded luminaire.

IESNA LM-79 & IESNA LM-80 Testing:
RAB LED luminaires have been tested by an independent laboratory in accordance with IESNA LM-79 and 80, and have received the Department of Energy "Lighting Facts" label.

LED Characteristics

Lifespan:
100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations.

Color Consistency:
7-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color.

Color Stability:
LED color temperature is warrantied to shift no more than 200K in CCT over a 5 year period.

Color Uniformity:
RAB's of CCT (Correlated color temperature) follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2015.

Construction

Finish:
Our environmentally friendly polyester powder coatings are formulated for high-durability and long-lasting color, and contains no VOC or toxic heavy metals.

Cold Weather Starting:
The minimum starting temperature is -40°C/-40°F

Ambient Temperature:
Suitable for use in 40°C (104°F) ambient temperatures

Thermal Management:
Cast aluminum Thermal Management system for optimal heat sinking. The LPACK is designed for cool operation, most efficient output and maximum LED life by minimizing LED junction temperature.

Housing:
Precision die cast aluminum housing, lens frame.

Mounting:
Junction box.

Green Technology:
RAB LEDs are Mercury, Arsenic and UV free.

For use on LEED Buildings:
IDA Dark Sky Approval means that this fixture can be used to achieve LEED Credits for Light Pollution Reduction.

Gaskets:
High Temperature Silicone.

Electrical

Driver:
Multi-chip 10W high output long life LED Driver Constant Current, Class II, 120V-240V, 50/60/ Hz, 350mA.

Optical

Lumen Maintenance:
The LED will deliver 70% of its initial lumens at 100,000 hours of operation.

Other

California Title 24:
See WPLED10/PC for a 2013 California Title 24 compliant model.

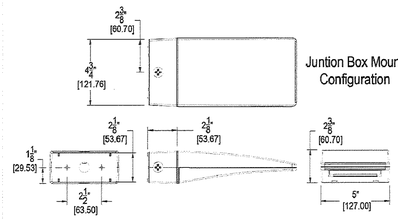
Patents:
The LPACK design is protected under patents in the U.S. Pat. D608,040, Canada Pat. 130,243, China Pat. 200930183252.2, and pending patents in Taiwan and Mexico.

Warranty:
RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish.

Equivalency:
The WPLED10 is Equivalent in delivered lumens to a 70W Metal Halide Wallpack

HID Replacement Range:
The WPLED10 can be used to replace 35-100W Metal Halide Wallpacks based on delivered lumens.

Dimensions

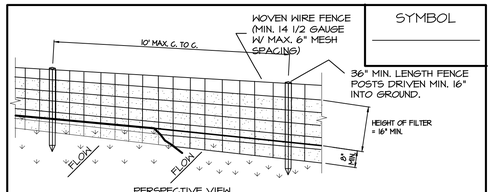


Features

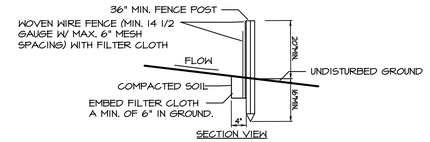
- High performance LED light engine
- Maintains 70% of initial lumens at 100,000 hours
- Weatherproof high temperature silicone gaskets
- Superior heat sinking with die cast aluminum housing and external fins
- 5-year warranty

Ordering Matrix

Family	Watts	Color Temp	Sensor	Surface Plate	Surface Place	Finish	Photocell
WPLED	10						
	10 = 10W 13 = 13W	= 5000K (Cool) Y = 3000K (Warm) N = 4000K (Neutral)	= No Sensor MS = Mini Sensor	= No Surface Plate	S = Surface Plate	= Bronze W = White	= No Photocell /PC = 120V Button /PCS = 120V Swivel /PC2 = 277V Button



PERSPECTIVE VIEW



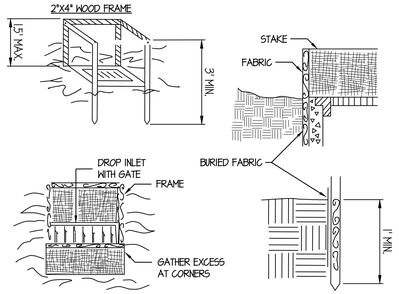
SECTION VIEW

CONSTRUCTION SPECIFICATIONS

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL EITHER "T" OR "U" TYPE OR HARDWOOD.
2. FILTER CLOTH TO BE TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE SHALL BE WOVEN WIRE, 12 1/2 GAUGE, 6" MAXIMUM MESH OPENING.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABILINKA T140N, OR APPROVED EQUIVALENT.
4. PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE, OR APPROVED EQUIVALENT.
5. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

U.S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE

SILT FENCE



CONSTRUCTION SPECIFICATIONS

1. FILTER FABRIC SHALL HAVE AN EOS OF 40-85. BURLAP MAY BE USED FOR SHORT TERM APPLICATIONS.
2. CUT FABRIC FROM A CONTINUOUS ROLL TO ELIMINATE JOINTS. IF JOINTS ARE NEEDED THEY WILL BE OVERLAPPED TO THE NEXT STAKE.
3. STAKE MATERIALS WILL BE STANDARD 2" x 4" WOOD OR EQUIVALENT. METAL WITH A MINIMUM LENGTH OF 3 FEET.
4. SPACE STAKES EVENLY AROUND INLET 3 FEET APART AND DRIVE A MINIMUM 18 INCHES DEEP. SPANS GREATER THAN 3 FEET MAY BE BRIDGED WITH THE USE OF WIRE MESH BEHIND THE FILTER FABRIC FOR SUPPORT.
5. FABRIC SHALL BE EMBEDDED 1 FOOT MINIMUM BELOW GROUND AND BACKFILLED. IT SHALL BE SECURELY FASTENED TO THE STAKES AND FRAME.
6. A 2" x 4" WOOD FRAME SHALL BE COMPLETED AROUND THE CREST OF THE FABRIC FOR OVER FLOW STABILITY. MAXIMUM DRAINAGE AREA 1 ACRE

U.S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE

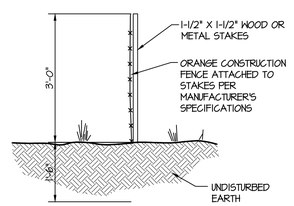
FILTER FABRIC DROP INLET PROTECTION

DigNet
of NEW YORK CITY & LONG ISLAND
800-272-4480 | 811

www.dignetnycli.com
or
www.call811.com
(for other states)

By law, excavators and contractors working in the five boroughs of New York City and Nassau and Suffolk Counties on Long Island must contact DigNet, 1-800-272-4480 or 811, at least 48 hours but no more than 10 working days (excluding weekends and legal holidays) prior to beginning any mechanized digging or excavation work to ensure underground lines are marked. Excavators and contractors can also submit locate requests online, through ITIC. If you do not currently use ITIC, please call 1-800-524-7603 for more information.

For safety reasons, homeowners are strongly encouraged to call as well when planning any type of digging on their property. Homeowners can contact us directly at 1-800-272-4480 or by calling 811, the national call before you dig number. For excavation work completed on personal property, it is the contractor's responsibility--NOT the homeowner's--to contact DigNet. Having utility lines marked prior to digging is free of charge.



NOTES:
1. STAKE SPACING MAY VARY PER MANUFACTURER'S RECOMMENDATIONS, UP TO A MAXIMUM OF 8' O.C.
2. JOIN CONSTRUCTION FENCE SECTIONS BY OVERLAPPING END STAKES
3. INSPECT AND REPAIR PERIODICALLY TO MAINTAIN THE CONSTRUCTION FOR THE CONSTRUCTION AREA.

TEMPORARY CONSTRUCTION FENCE DETAIL

(NOT TO SCALE)

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GENERAL NOTES:

1. Drawings are not to be scaled, dimensions to govern. The Engineer of Record shall be notified of any discrepancies.

2. Special care shall be taken to assure minimum disruption of all occupied premises, existing improvements and utilities.

3. General Contractor shall protect the safety of the general public by erecting all required barricades to permit safe passage during construction.

4. No material substitution shall be made without informing the engineer prior to commencement of work.

5. All materials are to be new as specified per construction documents. Any used fixtures or used materials are not acceptable except as noted.

6. General Contractor shall coordinate his work with the work of all other contractors, and Town Highway Superintendent.

7. General Contractor shall make good at his own expense for glass broken during construction. reasonable care shall be taken to protect all areas to remain as is.

8. Upon completing of all work by GC, and others, general contractor shall clean entire area including glass, mirror, interior and exterior windows, vinyl base, flooring, carpeting and all other finished surfaces.

9. All windows to be cleaned and any paint or residue on the glass to be removed.

10. All materials will be inspected and all defects and irregularities in materials and color matches or other special situations which require additional consideration shall be brought to the attention of the Engineer of Record for approval prior to installation.

11. All manufacturer's instructions shall be followed completely.

12. Remove all debris at end of each work day in order to assure a clean and well kept environment.

13. HVAC, Plumbing and Electrical Contractors are responsible for sign-off from building department upon completion of job.

14. Contractor shall level all floor surfaces and flash patch as required to receive new scheduled finish.

15. All work shall be guaranteed for a period of of one year unless otherwise noted. all contractors shall submit this guarantee in writing with request for final payment.

16. All materials used shall be of fire retardent quality.

17. General Contractor shall visit the site and verify all job conditions, dimensions and details prior to construction. The Engineer of Record shall be notified of any discrepancies or omissions which would interfere with the satisfactory completion of the work, prior to the start of construction.

18. Interior finish shall be class a per part 7.7.2.

19. Concealed spaces within wall, ceiling, partition, floor, stair, attic or cornice construction and around chimney, pipe and duct openings shall be fire-stopped in accordance with part 7.7.1.5.

20. General Contractor shall furnish the following insurance coverage: public liability, property damage, automobile liability, workman's compensation, etc., in amounts as specified by the local department of buildings and landlord. general contractor shall obtain and pay for all required permits, prior to commencing any work.

21. All work shall comply with state and local codes and regulations, (latest edition), and shall be subject to inspection and approval by all authorities having jurisdiction.

GENERAL MECHANICAL NOTES

1. Mechanical (heating, ventilating , air conditioning and plumbing Contractors shall coordinate all ductwork, piping, air distribution devices and other mechanical and plumbing work with other building trades such as Architectural, Electrical, Plumbing, and Building Structure to avoid conflicts and delays.

2. All duct connections to all air moving equipment shall be made with asbestos free flexible connections.

3. It is the responsibility of the Contractor to submit the size and design and the type of mechanical systems that will be used in sufficient detail as required by the Building Department.

4. The room thermostats shall be installed at same elevation as light switches.

5. All refrigerant suction lines and condensate drain lines, inside the building, shall be insulated with fiberglass insulation Johns Manville Micre Lok 650 or approved equal. Outdoor suction line shall be insulated with Johns Manville Aerotube Foamed Plastic insulation.

Pipe Sizes	Insulation Thickness
Suction Lines	1"
Condensate Drain Lines . .	1/2"

6. All ductwork shall be fabricated of galvanized steel sheets. They shall be fabricated and installed as per latest SMACNA Standards unless shown or rated otherwise. All transverse joints shall be pocket locks. All longitudinal joints shall be Pittsburgh locks. All internal and external duct insulation shall be applied as per latest SMACNA Standards.

7. All insulation and accessories, except aerotube, shall comply with all requirements of ASTM E-84, NFPA 225 and UL 723 and flame spread rating shall not be greater than 25 and smoke developed not to exceed 50.

8. All refrigerant lines shall be properly supported.

9. All air systems shall be cleaned after installation and shall be properly balanced using properly calibrated balancing devices. Type written balancing reports shall be submitted to the Engineer of Record.

10. After installation, all refrigerant systems shall be cleaned and charged with refrigerant and lubrication oil, and shall be put in satisfactorily operation conditions.

11. Refrigerant lines shall be Type - L copper tubing with sweat-type wrought copper fittings.

12. Mechanical and Plumbing Contractors shall apply for all required permits. They shall pay for all permit fees and other associated charges. The Contractors shall also provide all required cost estimates to Town and to local authorities to determine permit fees, if required.

13. The condensate drain lines shall be of Sch. 40 PVC.

14. Exact locations of all grilles and diffusers shall be field coordinated.

15. All rigid round ductwork shall be externally insulated with 1 1/2" thick external insulation. The insulation shall be Johns Manville Series "R" Microlite Fiberglass Duct Wrap with Kraft-Scrim-Foil vapor barrier jacket.

16. Where metal ducts pass through a fire rated assembly, U.L. listed fire dampers shall be properly installed.

17. All ceiling supply air diffusers shall have four-way throws unless shown otherwise.

18. All ductwork shall be installed in bays, and exposed where there is no ceiling.

19. Flexible ducts and connectors shall not pass through any wall, floor, ceiling or fire rated assembly.

20. Flexible duct (10' limit) shall be insulated type and rated for 6 inches of positive, 1 1/4 inches of negative pressure, and 4000 FPM maximum velocity and shall comply with all requirements of Cilty, UL-181, and NFPA 90A and 90B. Flexible duct shall be Certainteed Certaflex-25 or approved equal Thermaflex, or Flexmaster.

21. All insulation and accessories shall comply with all requirements of ASTM E-84, NFPA 225, and UL 723 and flame spread rating shall not be greater than 25 and smoke developed not to exceed 50.

22. The Contractors shall supply for approval six (6) copies of shop drawings to completely identify the quality of materials and/or equipment intended for installation.

23. The submission of a bid or proposal will be construed as evidence that the Contractor has familiarized himself with the plans and building site. Claims made subsequent to the proposal for materials and/or labor due to difficulties encountered will not be recognized unless the difficulties could not have been foreseen even though proper examination had been made.

24. All condensate lines shall be sloped minimum 1/8" per linear foot of run. All drain exits from A/C units shall include a trap and clean-out plug. Condensate drain line shall be mounted on 4" x 4" wood blocks.

25. The equipment rough-ins as shown are accurate to the best of our knowledge. However, in some instances the Town or supplier may substitute or the equipment item may vary from what is shown. Therefore the Contractor shall verify all critical dimensions prior to construction. Failure to verify dimensions shall place the responsibility for any subsequent relocation directly upon the Contractor.

GENERAL ELECTRICAL NOTES

1. The equipment rough-ins as shown are accurate to the best of our knowledge. However, in some instances the Town or Supplier may substitute or the equipment may vary from what is shown. Therefore, the Contractor shall verify all critical dimensions with the Town prior to construction. Failure of the Contractor to verify those dimensions shall place the responsibility for any subsequent relocation directly upon the Contractor.

2. All work shall be done in accordance with the latest edition of the N.E.C. and state and local codes as they apply.

3. Starters and related wiring shall be installed by Electrical Contractor. Overload units shall be installed as per given name plate data on equipment. Except for such items as are normally supplied with starters installed at their point of manufacture, all starters shall be supplied and installed by the Electrical Contractor. The Electrical Contractor shall mount all such starters as directed; and shall furnish supporting structures where necessary.

4. All fees associated with construction and inspection shall be borne by the Contractor in order to deliver to the Owner a finished building ready for occupancy and 100% operational.

5. Two (2) copies of operation and maintenance manuals for equipment herein installed shall be given to the Town prior to acceptance of the building for occupancy.

6. All panelboards and disconnect switches shall be labeled with respect to their title, voltage, amps and phase: i.e. "Panel A" 120/208/3PH,4W,100 AMP Label shall be phenolic plastic with white letters and black background. Labels shall be permanently fixed to equipment.

7. Panelboards shall contain a typewritten directory with a plastic cover affixed to the inside door.

8. Contractor shall submit six (6) of shop drawings to the Engineer of Record for approval for all equipment and devices installed.

9. Any deviation from plans without prior approval of the Engineer of Record shall be cause for the rejection of materials and/or methods, and any cost incurred to correct such deviation to the satisfaction of the Engineer of Record shall be borne by the Contractor.

10. Any costs incurred due to the lack of cooperation among trades shall be borne the Contractors.

11. The submission of a proposal shall be construed as evidence that the Contractor has familiarized himself with the plans and building site. Claims made subsequent to the proposal for materials and labor, because of difficulties encountered will not be recognized.

12. Trade names are given to clarify type of product and quality desired. Substitutions may be made pending approval of the Engineer of Record, unless other wise noted.

13. Contractors shall verify service voltage with utility company and revise service and balance load as required. If contractor is not qualified to revise service, contact the Town.

14. All remote equipment on roof or grounds shall have a disconnect switch at each piece of equipment.

15. All exterior receptacles, junction boxes, and equipment shall be weatherproof.

16. It shall be this Contractor's responsibility, prior to any individual circuit's installation, to verify with all other trades concerned that the circuit with devices as drawn is adequate in size and make-up for the mechanical equipment to be installed. If any conflict in voltage, phase , or load is encountered that would alter the circuit size, this Contractor shall notify the Engineer of Record and/or the Town immediately. Failure to verify these requirements shall place the responsibility for any subsequent circuit change directly upon the Contractor.

17. All exterior conduit for wiring should be minimized by routing in ceiling space. No exterior conduit will be accepted unless noted otherwise.

18. Refer to the mechanical drawings for the location of thermostats, air conditioning units, and other special equipment. Electrical Contractor is responsible for the installation of all conduits, junction boxes, disconnect switches, and control and power wiring for thermostats.

19. Contractor shall be responsible to verify the available short circuit current at the supply terminals from the Power Company. If let through current at service disconnect switch is greater than 10,000 AIC, contact the Engineer of Record.

20. All equipment identified as optional must be coordinated with construction representative prior to bidding.

21. All locations for receptacles, telephone outlets, etc.. shall be coordinated with Owner prior to installation.

22. All wiring along CMU walls shall be surface mounted. Coordinate with Engineer of Record for location of C.M.U. walls.

23. All conductors shall be copper Type THHN or THWN, Minimum size shall be #12 unless otherwise noted.

24. All conduits shall be a minimum of 1/2" Diameter unless otherwise noted.

25. All branch circuit conduits in slab shall be of 3/4" diameter rigid galvanized steel with rigid galv. steel fittings.

26. Contractor may use armored cables with GU ground wires for final connections between J-boxes and light fixtures and receptacles in concealed ceiling areas and in walls. Length of armored cables shall not be longer than 6'. Check with Riverhead Town Building Department authorities for their approval and comply with their requirements.

27. All wiring exposed to weather shall be in rigid galv. steel conduits with rigid galv. steel NEMA-3R fittings.

28. All underground wiring shall be in Sch. 40 PVC heavy wall Type II Conduits with green ground wires back to panel boards except as noted otherwise on drawings.

29. All wiring shall be in EMT rigid galv. steel or pvc conduits as noted here except noted in Note - 28.

30. All electrical installations shall be as per latest NEC and local codes.

31. All conduits shall be tested with a "Megger" Tester to determine that all systems are free of shorts and phase conductors are not grounded.

32. E.C. may combine electrical circuits per latest NEC. The circuits shall not be loaded beyond the permitted capacity allowed by the latest NEC and local codes.

33. All exit lights and night lights must not be switched.

34. E.C. shall coordinate all his work with other building trades to avoid conflicts and delays. E.C. shall also refer to Mechanical, Architectural, and Plumbing drawings and Specifications for his part of work and for exact locations of all equipment provided by them and provide power and final connections as required.

35. All disconnect switches shall be Square - D or approved equal by G.E. or Westinghouse.

36. All fuses shall be Bussman Dual Element Time Delay Fuses unless noted otherwise.

37. A dedicated receptacle served by a 20 Amp Circuit shall be rated for 20 Amp.

38. All equipment ground wires shall be copper and sized as per latest NEC Art. 250-45.

39. It shall be Contractor's responsibilities to furnish and install all mechanical and electrical systems per plans. All installations shall be carried out safely and properly without any injury to their employees. All work shall be done in full compliance with all requirements of local codes, OSHA, and NEC. The Town and/or Engineer of Record will not be held responsible for any injury to Contractor's employees or vendors because of poor installation practices and safety negligences.

40. Extra safety precautions must be taken while working near or with the live-electrically energized) components or new switchboards, panel boards, wireways, disconnect switches, starters, and other similar electrical equipment in the building or on the site.

41. Check all magnetic motor starters for proper size overload relays.

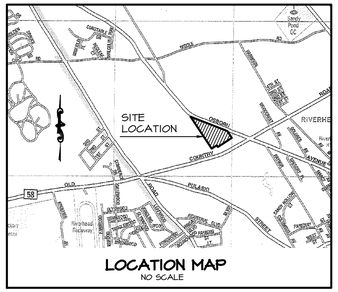
42. The electrical contractor shall apply and obtain all required permits as required by the Riverhead Building Department. He shall provide cost estimates when required by local authorities.

43. All electrical conduits in equipment wash bay shall be Sch 40 heavy wall, Type II w/ water tight NEMA-3R fittings. Where PVC conduits are not acceptable by local authorities having jurisdictions, the conduits shall be rigid galvanized steel (RGS) with NEMA-3R-RGS fittings.

NOTES TO CONTRACTOR:

1. CONTRACTOR TO ENGAGE A LICENCED SURVEYOR FOR STAKE OUT PRIOR TO EXCAVATION. CONTRACTOR TO PROVIDE AS BUILT FOUNDATION PLAN TO TOWN OF RIVERHEAD PRIOR TO ERECTION OF BUILDING. CONTRACTOR TO PROVIDE AS BUILT SURVEY AT THE CONCLUSION OF JOB.
2. CONTRACTOR TO PROVIDE TOWN OF RIVERHEAD SIGNED AND SEALED (NEW YORK STATE) DRAWINGS FOR BUILDING FROM BUILDING MANUFACTURER ALONG WITH PROOF OF COMPLANCE WITH LOAD AS REQUIRED WITHIN 2015 NEW YORK STATE BUILDING CODE (130 MPH).
3. CONTRACTOR TO OBTAIN BUILDING PERMIT FROM TOWN OF RIVERHEAD. ENGINEER OF RECORD TO PROVIDE UPDATED FOUNDATION PLANS AFTER CONTRACTOR SUPPLIES ENGINEER WITH BUILDING REACTIONS AND BOLT PATTERNS FOR BUILDING SELECTED.

01-11-2017
4. CONTRACTOR TO COORDINATE UTILITY INSTALLATIONS AS SHOWN ON DRAWING SP1 WITH UTILITY COMPANYS.



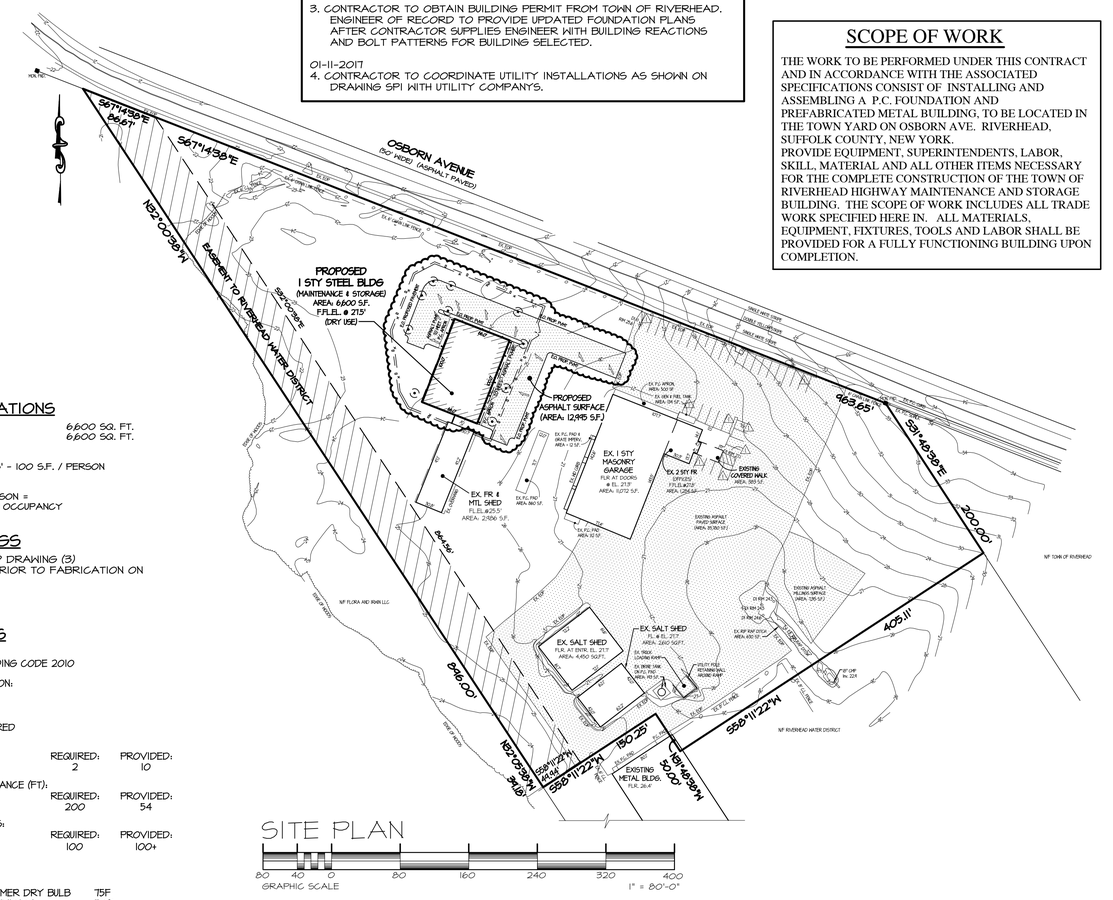
LOCATION MAP
NO SCALE

INDEX OF DRAWINGS

SHEET	DRAWING TITLE
T1.0	COVER SHEET
T1.1	CONCRETE NOTES
T1.2	GENERAL NOTES
A1.0	EXTERIOR ELEVATIONS - EAST AND SOUTH
A1.1	EXTERIOR ELEVATIONS - NORTH AND WEST
A2.0	FOUNDATION PLAN
A2.1	FLOOR PLAN
A2.2	REFLECTED CEILING PLAN
A3.0	BUILDING SECTION AND DETAILS
A4.0	DETAILS
SP1	SITE PLAN
SP2	SITE PLAN DETAILS

SCOPE OF WORK

THE WORK TO BE PERFORMED UNDER THIS CONTRACT AND IN ACCORDANCE WITH THE ASSOCIATED SPECIFICATIONS CONSIST OF INSTALLING AND ASSEMBLING A P.C. FOUNDATION AND PREFABRICATED METAL BUILDING, TO BE LOCATED IN THE TOWN YARD ON OSBORN AVE. RIVERHEAD, SUFFOLK COUNTY, NEW YORK.
PROVIDE EQUIPMENT, SUPERINTENDENTS, LABOR, SKILL, MATERIAL AND ALL OTHER ITEMS NECESSARY FOR THE COMPLETE CONSTRUCTION OF THE TOWN OF RIVERHEAD HIGHWAY MAINTENANCE AND STORAGE BUILDING. THE SCOPE OF WORK INCLUDES ALL TRADE WORK SPECIFIED HERE IN. ALL MATERIALS, EQUIPMENT, FIXTURES, TOOLS AND LABOR SHALL BE PROVIDED FOR A FULLY FUNCTIONING BUILDING UPON COMPLETION.



SITE PLAN
80 40 0 80 160 240 320 400
GRAPHIC SCALE
1" = 80'-0"

AREA CALCULATIONS

PROPOSED: 6,600 SQ. FT.
TOTAL: 6,600 SQ. FT.

OCCUPANCY: BUSINESS 'B' - 100 S.F. / PERSON

ALLOWABLE:
6,600 S.F. / 100 S.F./PERSON =
66 PERSON MAX. DESIGN OCCUPANCY

SHOP DRAWINGS

G.C. TO PROVIDE SHOP DRAWING (3) B/W FOR APPROVAL PRIOR TO FABRICATION ON ANY CUSTOM WORK.

CODE SYNOPSIS

CODE:
NEW YORK STATE BUILDING CODE 2010

USER GROUP CLASSIFICATION:
GROUP 2b

CONSTRUCTION TYPE:
TYPE IIB - UNSPRINKLERED

NUMBER OF EXITS:

	REQUIRED:	PROVIDED:
LOCATION: MAIN FLOOR	2	10

EXIT ACCESS TRAVEL DISTANCE (FT):

	REQUIRED:	PROVIDED:
LOCATION: MAIN FLOOR	200	54

STRUCTURAL FLOOR LOADS:

	REQUIRED:	PROVIDED:
LOCATION: MAIN FLOOR	100	100+

HEATING AND COOLING:

COOLING	INDOOR SUMMER DRY BULB	75F
	RELATIVE HUMIDITY	50%
HEATING	INDOOR WINTER DRY BULB	75F

REVISIONS:
11-16-2016 REVISED PER TOWN OF RIVERHEAD COMMENTS
01-10-2017 REVISED UTILITIES BASED ON PREBID MEETING

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ENGINEER:
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COVER SHEET FOR:
HIGHWAY DEPARTMENT METAL BUILDING
TOWN OF RIVERHEAD
1177 OSBORN AVE RIVERHEAD, N.Y. 11901
S.C.T.M.# 0600-108-02-01
COUNTY OF SUFFOLK TOWN OF RIVERHEAD

JOB No.: 160041 DRAWN BY: RAC
DATE: 06.20.2016 APPROVED BY: JTB

PAGE:
T1.0
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SECTION 1905 - CONCRETE QUALITY, MIXING AND PLACING

SECTION 1905.1 GENERAL. THE REQUIRED STRENGTH AND DURABILITY OF CONCRETE SHALL BE DETERMINED BY COMPLIANCE WITH THE PROPORTIONING, TESTING, MIXING AND PLACING PROVISIONS OF SECTION 1905.1.1 THROUGH SECTION 1905.13.

SECTION 1905.1.1 STRENGTH. CONCRETE SHALL BE PROPORTIONED TO PROVIDE AN AVERAGE COMPRESSIVE STRENGTH AS PRESCRIBED IN SECTION 1905.3, AS WELL AS SATISFY THE DURABILITY CRITERIA OF SECTION 1904. CONCRETE SHALL BE PRODUCED TO MINIMIZE FREQUENCY OF STRENGTHS BELOW F'C AS PRESCRIBED IN SECTION 1905.6.3.3. FOR CONCRETE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THIS CHAPTER, F'C SHALL NOT BE LESS THAN 2500 PSI (17.22 MPA).

SECTION 1905.1.2 CYLINDER TESTS. REQUIREMENTS FOR F'C SHALL BE BASED ON TESTS OF CYLINDERS MADE AND TESTED AS PRESCRIBED IN SECTION 1905.6.3.

SECTION 1905.1.3 BASIS OF F'C. UNLESS OTHERWISE SPECIFIED, F'C SHALL BE BASED ON 28-DAY TESTS. IF OTHER THAN 28 DAYS, TEST AGE FOR F'C SHALL BE AS INDICATED IN CONSTRUCTION DOCUMENTS.

SECTION 1905.1.4 LIGHTWEIGHT AGGREGATE CONCRETE. WHERE DESIGN CRITERIA IN ACI 318, SECTION 9.5.2.3, SECTION 11.2 AND SECTION 12.2.4, PROVIDE FOR USE OF A SPLITTING TENSILE STRENGTH VALUE OF CONCRETE (F'CT), LABORATORY TESTS SHALL BE MADE IN ACCORDANCE WITH ASTM C 330 TO ESTABLISH THE VALUE OF F'CT CORRESPONDING TO THE SPECIFIED VALUE OF F'C.

SECTION 1905.1.5 FIELD ACCEPTANCE. SPLITTING TENSILE STRENGTH TESTS SHALL NOT BE USED AS A BASIS FOR FIELD ACCEPTANCE OF CONCRETE.

SECTION 1905.2 SELECTION OF CONCRETE PROPORTIONS. CONCRETE PROPORTIONS SHALL BE DETERMINED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 1905.2.1 THROUGH SECTION 1905.2.3.

SECTION 1905.2.1 GENERAL. PROPORTIONS OF MATERIALS FOR CONCRETE SHALL BE ESTABLISHED TO PROVIDE:

1. WORKABILITY AND CONSISTENCY TO PERMIT CONCRETE TO BE WORKED READILY INTO FORMS AND AROUND REINFORCEMENT UNDER THE CONDITIONS OF PLACEMENT TO BE EMPLOYED, WITHOUT SEGREGATION OR EXCESSIVE BLEEDING.

2. RESISTANCE TO SPECIAL EXPOSURES AS REQUIRED BY SECTION 1904.

3. CONFORMANCE WITH THE STRENGTH TEST REQUIREMENTS OF SECTION 1905.6.

SECTION 1905.2.2 DIFFERENT MATERIALS. WHERE DIFFERENT MATERIALS ARE TO BE USED FOR DIFFERENT PORTIONS OF PROPOSED WORK, EACH COMBINATION SHALL BE EVALUATED.

SECTION 1905.2.3 BASIS OF PROPORTIONS. CONCRETE PROPORTIONS, INCLUDING WATER-CEMENTITIOUS MATERIALS RATIO, SHALL BE ESTABLISHED ON THE BASIS OF FIELD EXPERIENCE AND/OR TRIAL MIXTURES WITH MATERIALS TO BE EMPLOYED IN ACCORDANCE WITH SECTION 1905.3, EXCEPT AS PERMITTED IN SECTION 1905.4, OR REQUIRED BY SECTION 1904.

SECTION 1905.3 PROPORTIONING ON THE BASIS OF FIELD EXPERIENCE AND/OR TRIAL MIXTURES. CONCRETE PROPORTIONING DETERMINED ON THE BASIS OF FIELD EXPERIENCE AND/OR TRIAL MIXTURES SHALL BE DONE IN ACCORDANCE WITH ACI 318, SECTION 5.3.

SECTION 1905.4 PROPORTIONING WITHOUT FIELD EXPERIENCE OR TRIAL MIXTURES. CONCRETE PROPORTIONING DETERMINED WITHOUT FIELD EXPERIENCE OR TRIAL MIXTURES SHALL BE DONE IN ACCORDANCE WITH ACI 318, SECTION 5.4.

SECTION 1905.5 AVERAGE STRENGTH REDUCTION. AS DATA BECOME AVAILABLE DURING CONSTRUCTION, IT IS PERMISSIBLE TO REDUCE THE AMOUNT BY WHICH THE AVERAGE COMPRESSIVE STRENGTH (F'CR) IS REQUIRED TO EXCEED THE SPECIFIED VALUE OF F'C IN ACCORDANCE WITH ACI 318, SECTION 5.5.

SECTION 1905.6 EVALUATION AND ACCEPTANCE OF CONCRETE. THE CRITERIA FOR EVALUATION AND ACCEPTANCE OF CONCRETE SHALL BE AS SPECIFIED IN SECTION 1905.6.2 THROUGH SECTION 1905.6.5.5.

SECTION 1905.6.1 QUALIFIED TECHNICIANS. CONCRETE SHALL BE TESTED IN ACCORDANCE WITH THE REQUIREMENTS IN SECTION 1905.6.2 THROUGH SECTION 1905.6.5. QUALIFIED FIELD TESTING TECHNICIANS SHALL PERFORM TESTS ON FRESH CONCRETE AT THE JOB SITE, PREPARE SPECIMENS REQUIRED FOR CURING UNDER FIELD CONDITIONS, PREPARE SPECIMENS REQUIRED FOR TESTING IN THE LABORATORY, AND RECORD THE TEMPERATURE OF THE FRESH CONCRETE WHEN PREPARING SPECIMENS FOR STRENGTH TESTS. QUALIFIED LABORATORY TECHNICIANS SHALL PERFORM ALL REQUIRED LABORATORY TESTS.

SECTION 1905.6.2 FREQUENCY OF TESTING. THE FREQUENCY OF CONDUCTING STRENGTH TESTS OF CONCRETE SHALL BE AS SPECIFIED IN SECTION 1905.6.2.1 THROUGH SECTION 1905.6.2.4.

SECTION 1905.6.2.1 MINIMUM FREQUENCY. SAMPLES FOR STRENGTH TESTS OF EACH CLASS OF CONCRETE PLACED EACH DAY SHALL BE TAKEN NOT LESS THAN ONCE A DAY, NOR LESS THAN ONCE FOR EACH 150 CUBIC YARDS (115 M3) OF CONCRETE, NOR LESS THAN ONCE FOR EACH 5,000 SQUARE FEET (465 M2) OF SURFACE AREA FOR SLABS OR WALLS.

SECTION 1905.6.2.2 MINIMUM NUMBER. ON A GIVEN PROJECT, IF THE TOTAL VOLUME OF CONCRETE IS SUCH THAT THE FREQUENCY OF TESTING REQUIRED BY SECTION 1905.6.2.1 WOULD PROVIDE LESS THAN FIVE STRENGTH TESTS FOR A GIVEN CLASS OF CONCRETE, TESTS SHALL BE MADE FROM AT LEAST FIVE RANDOMLY SELECTED BATCHES OR FROM EACH BATCH IF FEWER THAN FIVE BATCHES ARE USED.

SECTION 1905.6.2.3 SMALL VOLUME. WHEN THE TOTAL VOLUME OF A GIVEN CLASS OF CONCRETE IS LESS THAN 50 CUBIC YARDS (38 M3), STRENGTH TESTS ARE NOT REQUIRED WHEN EVIDENCE OF SATISFACTORY STRENGTH IS SUBMITTED TO AND APPROVED BY THE CODE ENFORCEMENT OFFICIAL.

SECTION 1905.6.2.4 STRENGTH TEST. A STRENGTH TEST SHALL BE THE AVERAGE OF THE STRENGTHS OF TWO CYLINDERS MADE FROM THE SAME SAMPLE OF CONCRETE AND TESTED AT 28 DAYS OR AT THE TEST AGE DESIGNATED FOR THE DETERMINATION OF F'C.

SECTION 1905.6.3 LABORATORY-CURED SPECIMENS. LABORATORY-CURED SPECIMENS SHALL COMPLY WITH THE PROVISIONS OF SECTION 1905.6.3.1 THROUGH SECTION 1905.6.3.4.

SECTION 1905.6.3.1 SAMPLING. SAMPLES FOR STRENGTH TESTS SHALL BE TAKEN IN ACCORDANCE WITH ASTM C 172.

SECTION 1905.6.3.2 CYLINDERS. CYLINDERS FOR STRENGTH TESTS SHALL BE MOLDED AND LABORATORY CURED IN ACCORDANCE WITH ASTM C 31 AND TESTED IN ACCORDANCE WITH ASTM C 39.

SECTION 1905.6.3.3 ACCEPTANCE OF RESULTS. THE STRENGTH LEVEL OF AN INDIVIDUAL CLASS OF CONCRETE SHALL BE CONSIDERED SATISFACTORY IF BOTH OF THE FOLLOWING REQUIREMENTS ARE MET:

1. EVERY ARITHMETIC AVERAGE OF ANY THREE CONSECUTIVE STRENGTH TESTS EQUALS OR EXCEEDS F'C.

2. NO INDIVIDUAL STRENGTH TEST (AVERAGE OF TWO CYLINDERS) FALLS BELOW F'C BY MORE THAN 500 PSI (3.45 MPA).

SECTION 1905.6.3.4 CORRECTION. IF EITHER OF THE REQUIREMENTS OF SECTION 1905.6.3.3 ARE NOT MET, STEPS SHALL BE TAKEN TO INCREASE THE AVERAGE OF SUBSEQUENT STRENGTH TEST RESULTS. THE REQUIREMENTS OF SECTION 1905.6.5 SHALL BE OBSERVED IF THE REQUIREMENT OF SECTION 1905.6.3.3, ITEM 2 IS NOT MET.

SECTION 1905.6.4 FIELD-CURED SPECIMENS. FIELD-CURED SPECIMENS SHALL COMPLY WITH THE PROVISIONS OF SECTION 1905.6.4.1 THROUGH SECTION 1905.6.4.4.

SECTION 1905.6.4.1 WHEN REQUIRED. WHERE REQUIRED BY THE CODE ENFORCEMENT OFFICIAL, THE RESULTS OF STRENGTH TESTS OF CYLINDERS CURED UNDER FIELD CONDITIONS SHALL BE PROVIDED.

SECTION 1905.6.4.2 CURING. FIELD-CURED CYLINDERS SHALL BE CURED UNDER FIELD CONDITIONS IN ACCORDANCE WITH ASTM C 31.

SECTION 1905.6.4.3 SAMPLING. FIELD-CURED TEST CYLINDERS SHALL BE MOLDED AT THE SAME TIME AND FROM THE SAME SAMPLES AS LABORATORY-CURED TEST CYLINDERS.

SECTION 1905.6.4.4 CORRECTION PROCEDURES FOR PROTECTING AND CURING CONCRETE SHALL BE IMPROVED WHEN THE STRENGTH OF FIELD-CURED CYLINDERS AT THE TEST AGE DESIGNATED FOR DETERMINATION OF F'C IS LESS THAN 85 PERCENT OF THAT OF COMPANION LABORATORY-CURED CYLINDERS. THE 85 PERCENT LIMITATION SHALL NOT APPLY IF THE FIELD-CURED STRENGTH EXCEEDS F'C BY MORE THAN 500 PSI (3.45 MPA).

SECTION 1905.6.5 LOW-STRENGTH TEST RESULTS. THE INVESTIGATION OF LOW-STRENGTH TEST RESULTS SHALL BE IN ACCORDANCE WITH THE PROVISIONS OF SECTION 1905.6.5.1 THROUGH SECTION 1905.6.5.5.

SECTION 1905.6.5.1 PRECAUTION. IF ANY STRENGTH TEST (SEE SECTION 1905.6.2.4) OF LABORATORY-CURED CYLINDERS FALLS BELOW THE SPECIFIED VALUE OF F'C BY MORE THAN 500 PSI (3.45 MPA) (SEE SECTION 1905.6.3.3, ITEM 2), OR IF TESTS OF FIELD-CURED CYLINDERS INDICATE DEFICIENCIES IN PROTECTION AND CURING (SEE SECTION 1905.6.4.4), STEPS SHALL BE TAKEN TO ASSURE THAT THE LOAD-CARRYING CAPACITY OF THE STRUCTURE IS NOT JEOPARDIZED.

SECTION 1905.6.5.2 CORE TESTS. IF THE LIKELIHOOD OF LOW-STRENGTH CONCRETE IS CONFIRMED AND CALCULATIONS INDICATE THAT LOAD-CARRYING CAPACITY IS SIGNIFICANTLY REDUCED, TESTS OF CORES DRILLED FROM THE AREA IN QUESTION IN ACCORDANCE WITH ASTM C 42 IS PERMITTED. IN SUCH CASES, THREE CORES SHALL BE TAKEN FOR EACH STRENGTH TEST MORE THAN 500 PSI (3.45 MPA) BELOW THE SPECIFIED VALUE OF F'C.

SECTION 1905.6.5.3 CONDITION OF CORES. IF CONCRETE IN THE STRUCTURE WILL BE DRY UNDER SERVICE CONDITIONS, CORES SHALL BE AIR DRIED AT TEMPERATURES BETWEEN 60°F (16°C) AND 80°F (27°C) AND RELATIVE HUMIDITY LESS THAN 60 PERCENT FOR SEVEN DAYS BEFORE TESTING AND SHALL BE TESTED DRY. IF CONCRETE IN THE STRUCTURE WILL BE MORE THAN SUPERFICIALLY WET UNDER SERVICE CONDITIONS, CORES SHALL BE IMMERSED IN WATER FOR AT LEAST 40 HOURS AND BE TESTED WET.

SECTION 1905.6.5.4 TEST RESULTS. CONCRETE IN AN AREA REPRESENTED BY CORE TESTS SHALL BE CONSIDERED STRUCTURALLY ADEQUATE IF THE AVERAGE OF THREE CORES IS EQUAL TO AT LEAST 85 PERCENT OF F'C AND IF NO SINGLE CORE IS LESS THAN 75 PERCENT OF F'C. ADDITIONAL TESTING OF CORES EXTRACTED FROM LOCATIONS REPRESENTED BY ERRATIC CORE STRENGTH RESULTS IS PERMITTED.

SECTION 1905.6.5.5 STRENGTH EVALUATION. IF THE CRITERIA OF SECTION 1905.6.5.4 ARE NOT MET AND IF THE STRUCTURAL ADEQUACY REMAINS IN DOUBT, THE CODE ENFORCEMENT OFFICIAL IS PERMITTED TO ORDER A STRENGTH EVALUATION IN ACCORDANCE WITH ACI 318, CHAPTER 20, FOR THE QUESTIONABLE PORTION OF THE STRUCTURE, OR TAKE OTHER APPROPRIATE ACTION.

SECTION 1905.7 PREPARATION OF EQUIPMENT AND PLACE OF DEPOSIT. PREPARATION BEFORE CONCRETE PLACEMENT SHALL INCLUDE THE FOLLOWING:

1. EQUIPMENT FOR MIXING AND TRANSPORTING CONCRETE SHALL BE CLEAN.

2. DEBRIS AND ICE SHALL BE REMOVED FROM SPACES TO BE OCCUPIED BY CONCRETE.

3. FORMS SHALL BE PROPERLY COATED.

4. MASONRY FILLER UNITS THAT WILL BE IN CONTACT WITH CONCRETE SHALL BE WELL DRENCHED.

5. REINFORCEMENT SHALL BE THOROUGHLY CLEAN OF ICE OR OTHER DELETERIOUS COATINGS.

6. WATER SHALL BE REMOVED FROM THE PLACE OF DEPOSIT BEFORE CONCRETE IS PLACED UNLESS A TREMIE IS TO BE USED OR UNLESS OTHERWISE PERMITTED BY THE RIVERHEAD BUILDING DEPARTMENT.

7. LAITANCE AND OTHER UNSOUND MATERIAL SHALL BE REMOVED BEFORE ADDITIONAL CONCRETE IS PLACED AGAINST HARDENED CONCRETE.

SECTION 1905.8 MIXING. MIXING OF CONCRETE SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 1905.8.1 THROUGH SECTION 1905.8.3.

SECTION 1905.8.1 GENERAL. CONCRETE SHALL BE MIXED UNTIL THERE IS A UNIFORM DISTRIBUTION OF MATERIALS AND SHALL BE DISCHARGED COMPLETELY BEFORE THE MIXER IS RECHARGED.

SECTION 1905.8.2 READY-MIXED CONCRETE. READY-MIXED CONCRETE SHALL BE MIXED AND DELIVERED IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM C 94 OR ASTM C 685.

SECTION 1905.8.3 JOB-MIXED CONCRETE. JOB-MIXED CONCRETE SHALL COMPLY WITH ACI 318, SECTION 5.8.3.

SECTION 1905.9 CONVEYING. THE METHOD AND EQUIPMENT FOR CONVEYING CONCRETE TO THE PLACE OF DEPOSIT SHALL COMPLY WITH SECTION 1905.9.1 AND SECTION 1905.9.2.

SECTION 1905.9.1 METHOD OF CONVEYANCE. CONCRETE SHALL BE CONVEYED FROM THE MIXER TO THE PLACE OF FINAL DEPOSIT BY METHODS THAT WILL PREVENT SEPARATION OR LOSS OF MATERIALS.

SECTION 1905.9.2 CONVEYING EQUIPMENT. THE CONVEYING EQUIPMENT SHALL BE CAPABLE OF PROVIDING A SUPPLY OF CONCRETE AT THE SITE OF PLACEMENT WITHOUT SEPARATION OF INGREDIENTS AND WITHOUT INTERRUPTIONS SUFFICIENT TO PERMIT THE LOSS OF PLASTICITY BETWEEN SUCCESSIVE INCREMENTS.

SECTION 1905.10 DEPOSITING. THE DEPOSITING OF CONCRETE SHALL COMPLY WITH THE PROVISIONS OF SECTION 1905.10.1 THROUGH SECTION 1905.10.8.

SECTION 1905.10.1 SEGREGATION. CONCRETE SHALL BE DEPOSITED AS NEARLY AS PRACTICABLE TO ITS FINAL POSITION TO AVOID SEGREGATION DUE TO REHANDLING OR FLOWING.

SECTION 1905.10.2 PLACEMENT TIMING. CONCRETING OPERATIONS SHALL BE CARRIED ON AT SUCH A RATE THAT THE CONCRETE IS AT ALL TIMES PLASTIC AND FLOWS READILY INTO SPACES BETWEEN REINFORCEMENT.

SECTION 1905.10.3 UNACCEPTABLE CONCRETE. CONCRETE THAT HAS PARTIALLY HARDENED OR BEEN CONTAMINATED BY FOREIGN MATERIALS SHALL NOT BE DEPOSITED IN THE STRUCTURE.

SECTION 1905.10.4 RETEMPERING. RETEMPERED CONCRETE OR CONCRETE THAT HAS BEEN REMIXED AFTER INITIAL SET SHALL NOT BE USED UNLESS APPROVED BY THE REGISTERED DESIGN PROFESSIONAL.

SECTION 1905.10.5 CONTINUOUS OPERATION. AFTER CONCRETING HAS STARTED, IT SHALL BE CARRIED ON AS A CONTINUOUS OPERATION UNTIL PLACING OF A PANEL OR SECTION, AS DEFINED BY ITS BOUNDARIES OR PREDETERMINED JOINTS, IS COMPLETED, EXCEPT AS PERMITTED OR PROHIBITED BY SECTION 1906.4.

SECTION 1905.10.6 PLACEMENT IN VERTICAL LIFTS. THE TOP SURFACES OF VERTICALLY FORMED LIFTS SHALL BE GENERALLY LEVEL.

SECTION 1905.10.7 CONSTRUCTION JOINTS. WHEN CONSTRUCTION JOINTS ARE REQUIRED, THEY SHALL BE MADE IN ACCORDANCE WITH SECTION 1906.4.

SECTION 1905.10.8 CONSOLIDATION. CONCRETE SHALL BE THOROUGHLY CONSOLIDATED BY SUITABLE MEANS DURING PLACEMENT AND SHALL BE THOROUGHLY WORKED AROUND REINFORCEMENT AND EMBEDDED FIXTURES AND INTO CORNERS OF THE FORMS.

SECTION 1905.11 CURING. THE CURING OF CONCRETE SHALL BE IN ACCORDANCE WITH SECTION 1905.11.1 THROUGH SECTION 1905.11.3.

SECTION 1905.11.1 REGULAR CONCRETE (OTHER THAN HIGH-EARLY-STRENGTH) SHALL BE MAINTAINED ABOVE 50°F (10°C) AND IN A MOIST CONDITION FOR AT LEAST THE FIRST SEVEN DAYS AFTER PLACEMENT, EXCEPT WHEN CURED IN ACCORDANCE WITH SECTION 1905.11.3.

SECTION 1905.11.2 HIGH-EARLY-STRENGTH. HIGH-EARLY-STRENGTH CONCRETE SHALL BE MAINTAINED ABOVE 50°F (10°C) AND IN A MOIST CONDITION FOR AT LEAST THE FIRST THREE DAYS, EXCEPT WHEN CURED IN ACCORDANCE WITH SECTION 1905.11.3.

SECTION 1905.11.3 ACCELERATED CURING. ACCELERATED CURING OF CONCRETE SHALL COMPLY WITH ACI 318, SECTION 5.11.3.

SECTION 1905.12 COLD WEATHER REQUIREMENTS. CONCRETE THAT IS TO BE PLACED DURING FREEZING OR NEAR-FREEZING WEATHER SHALL COMPLY WITH THE FOLLOWING:

1. ADEQUATE EQUIPMENT SHALL BE PROVIDED FOR HEATING CONCRETE MATERIALS AND PROTECTING CONCRETE DURING FREEZING OR NEAR-FREEZING WEATHER.

2. CONCRETE MATERIALS AND REINFORCEMENT, FORMS, FILLERS AND GROUND WITH WHICH CONCRETE IS TO COME IN CONTACT SHALL BE FREE FROM FROST.

3. FROZEN MATERIALS OR MATERIALS CONTAINING ICE SHALL NOT BE USED.

SECTION 1905.13 HOT WEATHER REQUIREMENTS. DURING HOT WEATHER, PROPER ATTENTION SHALL BE GIVEN TO INGREDIENTS, PRODUCTION METHODS, HANDLING, PLACING, PROTECTION AND CURING TO PREVENT EXCESSIVE CONCRETE TEMPERATURES OR WATER EVAPORATION THAT COULD IMPAIR THE REQUIRED STRENGTH OR SERVICEABILITY OF THE MEMBER OR STRUCTURE.

SECTION 1907 - DETAILS OF REINFORCEMENT

SECTION 1907.1 HOOKS. STANDARD HOOKS ON REINFORCING BARS USED IN CONCRETE CONSTRUCTION SHALL COMPLY WITH ACI 318, SECTION 7.1.

SECTION 1907.1.2 MINIMUM BEND DIAMETERS. MINIMUM REINFORCEMENT BEND DIAMETERS UTILIZED IN CONCRETE CONSTRUCTION SHALL COMPLY WITH ACI 318, SECTION 7.2.

SECTION 1907.1.3 BENDING. THE BENDING OF REINFORCEMENT SHALL COMPLY WITH SECTION 1907.3.1 AND SECTION 1907.3.2.

SECTION 1907.3.1 COLD BENDING. REINFORCEMENT SHALL BE BENT COLD, UNLESS OTHERWISE PERMITTED BY THE REGISTERED DESIGN PROFESSIONAL.

SECTION 1907.3.2 EMBEDDED REINFORCEMENT. REINFORCEMENT PARTIALLY EMBEDDED IN CONCRETE SHALL NOT BE FIELD BENT, EXCEPT AS SHOWN ON THE CONSTRUCTION DOCUMENTS OR PERMITTED BY THE REGISTERED DESIGN PROFESSIONAL.

SECTION 1907.4 SURFACE CONDITIONS OF REINFORCEMENT. THE SURFACE CONDITIONS OF REINFORCEMENT SHALL COMPLY WITH THE PROVISIONS OF SECTION 1907.4.1 THROUGH SECTION 1907.4.3.

SECTION 1907.4.1 COATINGS. AT THE TIME CONCRETE IS PLACED, REINFORCEMENT SHALL BE FREE FROM MUD, OIL OR OTHER NONMETALLIC COATINGS THAT DECREASE BOND. EPOXY COATINGS OF STEEL REINFORCEMENT IN ACCORDANCE WITH ACI 318, SECTION 3.5.3.1 AND SECTION 3.5.3.8 IS PERMITTED.

SECTION 1907.4.2 RUST OR MILL SCALE. EXCEPT FOR PRESTRESSING TENDONS, STEEL REINFORCEMENT WITH RUST, MILL SCALE OR A COMBINATION OF BOTH, SHALL BE CONSIDERED SATISFACTORY, PROVIDED THE MINIMUM DIMENSIONS, INCLUDING HEIGHT OF DEFORMATIONS AND HEIGHT OF A HAND-WIRE-BRUSHED TEST SPECIMEN, COMPLY WITH APPLICABLE ASTM SPECIFICATIONS. SEE SECTION 1903.5.

SECTION 1907.4.3 PRESTRESSING TENDONS. PRESTRESSING TENDONS SHALL BE CLEAN AND FREE OF OIL, DIRT, SCALE, PITTING AND EXCESSIVE RUST. A LIGHT COATING OF RUST IS PERMITTED.

SECTION 1907.5 PLACING REINFORCEMENT. THE PLACEMENT OF CONCRETE REINFORCEMENT SHALL COMPLY WITH THE PROVISIONS OF SECTION 1907.5.1 THROUGH SECTION 1907.5.4.

SECTION 1907.5.1 SUPPORT. REINFORCEMENT, PRESTRESSING TENDONS, AND DUCTS SHALL BE ACCURATELY PLACED AND ADEQUATELY SUPPORTED BEFORE CONCRETE IS PLACED, AND SHALL BE SECURED AGAINST DISPLACEMENT WITHIN TOLERANCES PERMITTED IN SECTION 1907.5.2. WHERE APPROVED BY THE REGISTERED DESIGN PROFESSIONAL, EMBEDDED ITEMS (SUCH AS DOWELS OR INSERTS) THAT EITHER PROTRUDE FROM PRECAST CONCRETE MEMBERS OR REMAIN EXPOSED FOR INSPECTION ARE PERMITTED TO BE EMBEDDED WHILE THE CONCRETE IS IN A PLASTIC STATE, PROVIDED THE FOLLOWING CONDITIONS ARE MET:

1. EMBEDDED ITEMS ARE NOT REQUIRED TO BE HOOKED OR TIED TO REINFORCEMENT WITHIN THE CONCRETE.

2. EMBEDDED ITEMS ARE MAINTAINED IN THE CORRECT POSITION WHILE THE CONCRETE REMAINS PLASTIC.

3. THE CONCRETE IS PROPERLY CONSOLIDATED AROUND THE EMBEDDED ITEM.

SECTION 1907.5.2 TOLERANCES. UNLESS OTHERWISE SPECIFIED BY THE REGISTERED DESIGN PROFESSIONAL, REINFORCEMENT, PRESTRESSING TENDONS AND PRESTRESSING DUCTS SHALL BE PLACED WITHIN THE TOLERANCES SPECIFIED IN SECTION 1907.5.2.1 AND SECTION 1907.5.2.2.

SECTION 1907.5.2.1 DEPTH AND COVER. TOLERANCE FOR DEPTH D, AND MINIMUM CONCRETE COVER IN FLEXURAL MEMBERS, WALLS AND COMPRESSION MEMBERS SHALL BE AS SHOWN IN TABLE 1907.5.2.1, EXCEPT THAT TOLERANCE FOR THE CLEAR DISTANCE TO FORMED SOFFITS SHALL BE MINUS 1/4 INCH (6.4 MM) AND TOLERANCE FOR COVER SHALL NOT EXCEED MINUS ONE-THIRD THE MINIMUM CONCRETE COVER REQUIRED IN THE DESIGN DRAWINGS OR SPECIFICATIONS.

TABLE 1907.5.2.1
TOLERANCES

DEPTH (d) (INCHES)	TOLERANCE ON d (INCH)	TOLERANCE ON MINIMUM CONCRETE COVER (INCH)
d > 8	± 3/8	- 3/8
d > 8	± 1/2	- 1/2

FOR SI: 1 INCH = 25.4 MM.

SECTION 1907.5.2.2 BENDS AND ENDS. TOLERANCE FOR LONGITUDINAL LOCATION OF BENDS AND ENDS OF REINFORCEMENT SHALL BE ± 2 INCHES (± 51 MM) EXCEPT AT DISCONTINUOUS ENDS OF MEMBERS WHERE THE TOLERANCE SHALL BE ± 1/2 INCH (± 12.7 MM).

SECTION 1907.5.3 WELDED WIRE FABRIC. WELDED WIRE FABRIC WITH WIRE SIZE NOT GREATER THAN W5 OR D5 USED IN SLABS NOT EXCEEDING 10 FEET (3048 MM) IN SPAN IS PERMITTED TO BE CURVED FROM A POINT NEAR THE TOP OF THE SLAB OVER THE SUPPORT TO A POINT NEAR THE BOTTOM OF THE SLAB AT MIDSPAN, PROVIDED SUCH REINFORCEMENT IS EITHER CONTINUOUS OVER, OR SECURELY ANCHORED AT SUPPORT.

SECTION 1907.5.4 WELDING. WELDING OF CROSSING BARS SHALL NOT BE PERMITTED FOR ASSEMBLY OF REINFORCEMENT UNLESS AUTHORIZED BY THE REGISTERED DESIGN PROFESSIONAL.

SECTION 1907.6 SPACING LIMITS FOR REINFORCEMENT. THE CLEAR DISTANCE BETWEEN REINFORCING BARS, BUNDLED BARS, PRESTRESSING TENDONS AND DUCTS SHALL COMPLY WITH ACI 318, SECTION 7.6.

SECTION 1907.7 CONCRETE PROTECTION FOR REINFORCEMENT. THE MINIMUM CONCRETE COVER FOR REINFORCEMENT SHALL COMPLY WITH SECTION 1907.7.1 THROUGH SECTION 1907.7.7.

SECTION 1907.7.1 CAST-IN-PLACE CONCRETE (NONPRESTRESSED). MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCEMENT IN NONPRESTRESSED, CAST-IN-PLACE CONCRETE CONSTRUCTION IN ACCORDANCE WITH TABLE 1907.7.1.

TABLE 1907.7.1
MINIMUM CONCRETE COVER

CONCRETE EXPOSURE	MINIMUM COVER INCHES
1. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	3
2. CONCRETE EXPOSED TO EARTH OR WEATHER NO. 6 THROUGH NO. 18 BAR NO. 5 BAR, W31 OR D31 WIRE, AND SMALLER	2 1-1/2
3. CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND SLABS, WALLS, JOISTS: NO. 14 AND NO. 18 BARS NO. 11 BAR AND SMALLER BEAMS, COLUMNS: PRIMARY REINFORCEMENT, TIES, STIRRUPS, SPIRALS SHELLS, FOLDED PLATE MEMBERS: NO. 6 BAR AND LARGER NO. 5 BAR, W31 OR D31 WIRE, AND SMALLER	 1-1/2 3/4 1-1/2 3/4 1/2

FOR SI: 1 INCH = 25.4 MM.

SECTION 1907.1.2 PRECAST CONCRETE (MANUFACTURED UNDER PLANT CONTROL CONDITIONS). THE MINIMUM CONCRETE COVER FOR REINFORCEMENT IN PRECAST CONCRETE MANUFACTURED UNDER PLANT CONTROL CONDITIONS SHALL COMPLY WITH ACI 318, SECTION 7.1.2.

SECTION 1907.1.3 PRESTRESSED CONCRETE. THE MINIMUM CONCRETE COVER FOR REINFORCEMENT IN PRESTRESSED CONCRETE SHALL COMPLY WITH ACI 318, SECTION 7.1.3.

SECTION 1907.1.4 BUNDLED BARS. THE MINIMUM CONCRETE COVER FOR BUNDLED BARS SHALL COMPLY WITH ACI 318, SECTION 7.1.4.

SECTION 1907.1.5 CORROSIVE ENVIRONMENTS. IN CORROSIVE ENVIRONMENTS OR OTHER SEVERE EXPOSURE CONDITIONS, THE AMOUNT OF CONCRETE PROTECTION SHALL BE SUITABLY INCREASED, AND THE DENSENESS AND NONPOROSITY OF THE PROTECTING CONCRETE SHALL BE CONSIDERED, OR OTHER PROTECTION SHALL BE PROVIDED.

SECTION 1907.1.6 FUTURE EXTENSIONS. EXPOSED REINFORCEMENT, INSERTS AND PLATES INTENDED FOR BONDING WITH FUTURE EXTENSIONS SHALL BE PROTECTED FROM CORROSION.

SECTION 1907.1.7 FIRE PROTECTION. WHEN THIS CODE REQUIRES A THICKNESS OF COVER FOR FIRE PROTECTION GREATER THAN THE MINIMUM CONCRETE COVER SPECIFIED IN SECTION 1907.7, SUCH GREATER THICKNESS SHALL BE USED.

SECTION 1907.8 SPECIAL REINFORCEMENT DETAILS FOR COLUMNS. OFFSET BENT LONGITUDINAL BARS IN COLUMNS AND LOAD TRANSFER IN STRUCTURAL STEEL CORES OF COMPOSITE COMPRESSION MEMBERS SHALL COMPLY WITH THE PROVISIONS OF ACI 318, SECTION 7.8.

SECTION 1907.9 CONNECTIONS. CONNECTIONS BETWEEN CONCRETE FRAMING MEMBERS SHALL COMPLY WITH THE PROVISIONS OF ACI 318, SECTION 7.9.

SECTION 1907.10 LATERAL REINFORCEMENT FOR COMPRESSION MEMBERS. LATERAL REINFORCEMENT FOR CONCRETE COMPRESSION MEMBERS SHALL COMPLY WITH THE PROVISIONS OF ACI 318, SECTION 7.10.

SECTION 1907.11 LATERAL REINFORCEMENT FOR FLEXURAL MEMBERS. LATERAL REINFORCEMENT FOR COMPRESSION REINFORCEMENT IN CONCRETE FLEXURAL MEMBERS SHALL COMPLY WITH THE PROVISIONS OF ACI 318, SECTION 7.11.

SECTION 1907.12 SHRINKAGE AND TEMPERATURE REINFORCEMENT. REINFORCEMENT FOR SHRINKAGE AND TEMPERATURE STRESSES IN CONCRETE MEMBERS SHALL COMPLY WITH THE PROVISIONS OF ACI 318, SECTION 7.12.

SECTION 1907.13 REQUIREMENTS FOR STRUCTURAL INTEGRITY. THE DETAILING OF REINFORCEMENT AND CONNECTIONS BETWEEN CONCRETE MEMBERS SHALL COMPLY WITH THE PROVISIONS OF ACI 318, SECTION 7.13 TO IMPROVE STRUCTURAL INTEGRITY.

NOTE:
PROTECT TOPS OF EXPOSED REBAR PER OSHA REQUIREMENTS.

NOTE:
FOUNDATION WALLS ARE DESIGNED IN ACCORDANCE WITH TABLE 1805.5 (2) OF THE NEW YORK STATE BUILDING CODE.
WALL HEIGHT = 3'-8"
FOOTING HEIGHT = 8"
SOIL CLASS = LOAM, SP AND GW

1905.8.2 READY-MIXED CONCRETE. READY-MIXED CONCRETE SHALL BE MIXED AND DELIVERED IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM C 94 OR ASTM C 685.

CONCRETE MIXTURES [NYSEC - CHAPTER 19 (TABLE 1904.2.1) (JOB MIXED)]

CLASS	APPLICATION	EXPOSURE	F'C	NOMINAL MAXIMUM AGGREGATE SIZE [1]	AIR CONTENT	MAXIMUM WATER CEMENTITIOUS MATERIAL RATIO BY WEIGHT	CEMENTITIOUS MATERIALS	ADMIXTURES	MAXIMUM WATER SOLUBLE CHLORIDE ION (CL-) IN CONCRETE, BY WEIGHT OF CEMENT
3	SLABS ON GRADE	FREEZE/THAW, DEICING CHEMICALS, SULFATE (SEVERE)	3500 PSI	1-1/2"	5-1/2 %[2]	0.45	LIMITS ON HYDRAULIC CEMENT[3] LIMITS ON FLY ASH, SLAG, AND SILICA FUME 4	NO CALCIUM CHLORIDE ADMIXTURES	0.15
3	FOUNDATION WALLS	FREEZE/THAW, DEICING CHEMICALS, SULFATE (SEVERE)	3,000 PSI	1-1/2"	5-1/2 %[2]	0.45	LIMITS ON HYDRAULIC CEMENT [3] LIMITS ON FLY ASH, SLAG, AND SILICA FUME 4	NO CALCIUM CHLORIDE ADMIXTURES	0.15
4	FOOTINGS	SULFATE (SEVERE)	3500 PSI	1-1/2"	5-1/2 %[2]	0.45	LIMITS ON HYDRAULIC CEMENT3	NO CALCIUM CHLORIDE ADMIXT

COMPACTED BACKFILL
SHALL COMPLY WITH SECTION 1803 OF B.C.N.Y. + AS NOTED BELOW

SOIL TESTING, SOIL CLASSIFICATION AND BEARING CAPACITIES, FOOTING AND FOUNDATION DESIGN SHALL BE IN ACCORDANCE WITH N.Y.S. BUILDING CODE CHAPTER 18.

A. MATERIALS

1. FILL AND BACKFILL MATERIAL OBTAINED FROM ON-SITE CUTTING OR EXCAVATION OR SOURCES LOCATED AWAY FROM THE CONSTRUCTION SITE (BORROWED) SHALL BE CLEAN SAND, GRAVEL, EARTH OR A MIXTURE OF THESE CONTAINING NO ORGANIC MATTER WITH A MAXIMUM SIZE OF 4".

2. COMPACTED FILL UNDER SLAB ON GRADE SHALL BE WELL GRADED SAND OR 'BANK RUN'. GRAVEL FROM SITE OR SOURCE APPROVED BY THE SOILS ENGINEER AND APPROVED AS SUITABLE MATERIAL FOR THE PURPOSE OF SUPPORTING THE SLAB ON GRADE. MINIMUM BEARING CAPACITY TO BE 2 TONS PER SQUARE FOOT + 3 TON PER SQUARE FOOT FOR FOOTINGS.

B. COMPACTED BACKFILL

1. PROMPTLY BACKFILL EXCAVATIONS AS WORK PERMITS, BUT NOT BEFORE CONCRETE WALLS AND FOOTINGS HAVE ATTAINED FULL DESIGN STRENGTH AND PIPING AND OTHER ITEMS BELOW BACKFILL HAVE BEEN TESTED AND APPROVED.

2. BACKFILL AND FILL TO NEW SURFACE GRADES AS REQUIRED. IF SUFFICIENT SOUND AND APPROVED FILL MATERIALS ARE NOT ON HAND TO COMPLETE FILLING OPERATIONS TO REQUIRED GRADES, PROVIDE SAME.

3. FILL SHALL BE CONSIDERED AS SATISFACTORY BEARING MATERIAL, THEN PLACED IN ACCORDANCE WITH THE FOLLOWING PROCEDURE:

A) BEFORE PLACEMENT OF FILL THE EXISTING GROUND SURFACE SHALL BE STRIPPED OF ALL ORGANIC GROWTH, WOOD, RUBBISH, DEBRIS AND OTHER DELETERIOUS OR UNSUITABLE MATERIALS. AFTER STRIPPING, THE GROUND SURFACE SHOULD BE COMPACTED TO THE DENSITY DESCRIBED BELOW.

B) MATERIALS FOR FILL SHALL CONSIST OF CLEAN GRANULAR SOIL CONTAINING NO DELETERIOUS MATTER. IT SHALL CONTAIN NO PARTICLES EXCEEDING 4" IN ITS LARGEST DIMENSION, BE WELL GRADED AND CONTAIN NO MORE THAN 12% BY WEIGHT OF MATERIAL PASSING THE NUMBER 200 SIEVE.

C) FILL SHALL BE PLACED AND COMPACTED AT ITS OPTIMUM MOISTURE CONTENT, IN UNIFORM LAYERS NOT GREATER THAN ONE FOOT THICK AND EACH LAYER SHALL BE COMPACTED TO A DENSITY OF 98% OF ITS MAXIMUM DENSITY AT FOOTINGS + 95% OF ITS MAXIMUM DENSITY AT SLABS AS DETERMINED BY ASTM D1557 (MODIFIED PROTOR DENSITY) FIELD DENSITY SHALL BE VERIFIED BY IN-PLACE DENSITY TESTS MADE IN ACCORDANCE WITH ASTM D1556 (SAND CONE METHOD). FILL SHALL NOT BE PLACED WHEN FROZEN OR ON FROZEN SUBGRADE.

D) COMPACTED FILL OPERATIONS SHALL BE CONTINUOUSLY INSPECTED BY A SOILS MECHANIC. CONTRACTOR TO INCLUDE ALL FEES FOR THIS SERVICE IN BID.

ALLOWABLE DEFLECTION OF STRUCTURAL MEMBERS

STRUCTURAL MEMBER	ALLOWABLE DEFLECTION
RAFTERS HAVING SLOPES GREATER THAN 3 / 12 WITH NO FINISHED CEILING ATTACHED TO RAFTERS	L/180
ROOF TRUSSES	L/360
INTERIOR WALLS AND PARTITIONS	H/180
FLOORS AND PLASTER CEILINGS	L/360
ALL STRUCTURAL MEMBERS	L/240
EXTERIOR WALL WITH PLASTER OR STUCCO FINISH	H/360
EXTERIOR WALLS - WIND LOADS WITH BRITTLE FINISHES [a]	L/240
EXTERIOR WALLS - WIND LOADS WITH FLEXIBLE FINISHES [a]	L/120

NOTE: L = SPAN LENGTH, H = SPAN HEIGHT
a. THE WIND LOAD SHALL BE PERMITTED TO BE TAKEN AS 0.7 TIMES THE COMPONENT AND CLADDING LOADS FOR THE PURPOSE OF THE DETERMINING DEFLECTION LIMITS HEREIN.

(TABLE 1704.4)
REQ'D VERIFICATION & INSPECTION OF CONCRETE CONSTRUCTION

VERIFICATION AND INSPECTION	CONT.	PERIODIC	REFERENCED STANDARD	BC-NYS REFERENCED
1. INSPECTION OF REINFORCING STEEL, INCLUDING PRE-STRESSING TENDONS, AND PLACEMENT.		X	ACI 318: 3.5, 7.1- 7.7	1903.5, 1907.1, 1907.7, 1914.4
2. INSPECTION OF REINFORCING STEEL WELDING IN ACCORDANCE WITH TABLE 1704.3, ITEM 5B.			AWS D1.4 ACI 318: 3.5.2	1903.5.2
3. INSPECT BOLTS TO BE INSTALLED IN CONCRETE PRIOR TO AND DURING PLACEMENT OF CONCRETE WHERE ALLOWABLE LOADS HAVE BEEN INCREASED.	X			1912.5
4. VERIFYING USE OF REQUIRED DESIGN UNIT.		X	ACI 318: CH.4 5.2-5.4	1904, 1905.2 & 4, 1914.2 & 3
5. AT THE TIME FRESH CONCRETE IS SAMPLED TO FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X		ASTM C 172 ASTM C 31 ACT 318: 5.6, 5.8	1905.6, 1914.10
6. INSPECTION OF CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X		ACI 318: 5.9, 5.10	1905.9 & 10, 1914.6, 7 & 8
7. INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.		X	ACI 318: 5.11-5.13	1905.11, 1905.13, 1914.9

(TABLE 1704.3)
REQ'D VERIFICATION & INSPECTION OF STEEL CONSTRUCTION

VERIFICATION AND INSPECTION	CONT.	PERIODIC	REFERENCED STANDARD	BC-NYS REFERENCED
1. MATERIAL VERIFICATION OF HIGH-STRENGTH BOLTS, NUTS AND WASHERS: A. IDENTIFICATION MARKING TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS. B. MANUFACTURERS CERTIFICATE OF COMPLIANCE REQUIRED.	-	X	APPLICABLE ASTM MAT'L SPECS. AISC ASD: SEC. A3.4 AISC LRFD: SEC. A3.3	-
2. INSPECTION OF HIGH-STRENGTH BOLTING: A. BEARING - TYPE CONSTRUCTION B. SLIP-CRITICAL CONNECTIONS		X	AISC LRFD: SEC. M2.5	1704.3.3
3. MATERIAL VERIFICATION OF STRUCTURAL STEEL: A. IDENTIFICATION MARKING TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS. B. MANUFACTURERS CERTIFICATE OF MILL TEST REPORTS.	-		ASTM A 6 OR ASTM A 568 ASTM A 6 OR ASTM A 568	1708.4
4. MATERIAL VERIFICATION OF WELD FILLER MATERIALS: A. IDENTIFICATION MARKING TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS. B. MANUFACTURERS CERTIFICATE OF COMPLIANCE REQUIRED.	-	-	AISC. ASC: SEC. A3.6 AISC LRFD: SEC. A3.5	-
5. INSPECTION OF WELDING: A. STRUCTURAL STEEL: 1. COMPLETE AND PARTIAL PENETRATION GROOVE WELDS. 2. MULTIPASS FILLET WELDS 3. SINGLE PASS FILLET WELDS > 5/16" 4. SINGLE PASS FILLET WELDS < OF = 5/16" 5. FLOOR AND DECK WELDS B. REINFORCING STEEL:	X X X X	 X X	AWS D1.1 AWS D1.3	1704.3.1
6. INSPECTION OF STEEL FRAME JOINT DETAILS FOR COMPLIANCE WITH APPROVED CONSTRUCTION DOCUMENTS: A. DETAILS SUCH AS BRACING AND STIFFENING B. MEMBER LOCATIONS C. APPLICATION OF JOINT DETAILS AT EACH CONNECTION.	-	X		1704.3.2
1. VERIFICATION OF WELDABILITY OF REINFORCING STEEL OTHER THAN ASTM A 706 2. REINFORCING STEEL-RESISTING FLEXURAL AND AXIAL FORCES IN INTERMEDIATE AND SPECIAL MOMENT FRAMES, AND BOUNDARY ELEMENTS OF SPECIAL REINFORCED CONCRETE SHEAR WALLS AND SHEAR REINFORCEMENT. 3. SHEAR REINFORCEMENT 4. OTHER REINFORCING STEEL.	X X	 X	AWS D1.4 ACI 318: 3.5.2	1903.5.2

NOTE:
THE ENGINEER IS RETAINED FOR INSPECTIONS.

REVISIONS:
09-24-2016 UPDATED FOR BIDDING PURPOSES
10-05-2016 UPDATED FOR BIDDING PURPOSES
11-16-2016 REVISED PER TOWN OF RIVERHEAD COMMENTS
01-10-2017 REVISED UTILITIES BASED ON PREBID MEETING

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GENERAL NOTES FOR:
HIGHWAY DEPARTMENT METAL BUILDING
TOWN OF RIVERHEAD
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S.C.T.M.# 0600-108-02-01
COUNTY OF SUFFOLK TOWN OF RIVERHEAD

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