THRESHOLD INSPECTION PLAN

PROJECT TITLE: TOWN OF SURFSIDE – COMMUNITY CENTER

A/E PROJECT NO. 60028604

A/E OF RECORD: SPILLIS CANDELA DMJM

PREFACE: These guidelines are intended as "guidelines" for the Special Inspector and are not intended to surrogate the requirements of the Building Official. Further, it is not intended that the Contractor's contractual and statutory obligations are in anyway relieved or foregone by the presence of the Special Inspector. The Contractor has the sole responsibility for deviations from the Official Contract Documents. The Special Inspector does not replace the duties of the Building Official nor the quality control personnel of the Contractor.

I. OBLIGATIONS

The Special Inspector is obligated to both the Owner and the Building Official for observing that the work is executed in substantive accordance with the Official Contract Documents, which are defined in the Project Manual.

It is the obligation of the Special Inspector to notify the Contractor, the Building Official, the Architect–Engineer of Record, and the Owner of the following:

A. The use of materials, equipment, or workmanship which do not conform to the Official Contract Documents or which will cause improper construction which is not acceptable.

B. Work which is not being done in accordance with the approved Official Contract Documents.

C. The recommended removal or repair of faulty construction or of construction performed without inspection and not capable of being inspected or tested in place.

D. File reports hereinafter described with the Building Official, and the Architect–Engineer of Record and the Owner.

E. Write and file such other structural reports as may be required by the Building Official.

F. Make other structural inspections as required by the Building Official.

II. REPORTING INFORMATION AND OBSERVATIONS

The Special Inspector's reports are secondary to actual observation during construction. However, they are of extreme importance in that they enable the Building Official, the Architect–Engineer of Record, and Owner to keep current with the work while it is in progress and will be of value in case of changes in the structure or its use in the future. The report may consist of a record of the progress, working conditions, observations given to the contractors, deviations from the Official Contract Documents, and problems encountered. The reports shall be in writing and shall be made out promptly at the end of the period covered. The reports may consist of and or all of the following:

A. Report of each inspection.
B. Jobsite log of area inspected.
C. Special records, mill tests, concrete tests, welding tests and reports, soil compaction tests, soil densification test and reports, and welding reports.
D. Record of placing and curing concrete.
E. Changes made in the field during a particular observation.
F. Photographs.
G. Erection of structural steel.

Reports shall be filed weekly.

III. PREPARATION CHECKLIST

A. Note permits which have been obtained
B. Licensed contractor's representative and contact person
C. Adequate supervision/organization/men/equipment
D. Approved Official Construction Documents/shop drawings/ shoring and reshoring plan/activity schedule
E. Log/daily diary set up
F. Arrangements for testing have been made
G. Preconstruction meeting/construction coordination meetings

IV. DETAILED INSPECTION CHECKLIST

The Special Inspector shall inspect the following:

A. Foundation

1. Excavation/subsurface preparation/bearing capacity
2. Independent testing records/approvals (density tests, and soil densification records/approvals
3. Placement and sizes of anchor bolts/rebar/dowels – grade of steel
4. Concrete cover
5. Provision for utilities/conduit in structural elements (note structural integrity of footing)
6. Moisture protection
7. Excavation, effect of construction on existing structures
8. Grade and elevations verified by Contractor
9. Review of soil reports/borings/density test reports
10. A testing laboratory will provide the inspection, tests and reports of the soil densification and pile installation. A testing laboratory will make the required soil density (compaction) tests. A testing laboratory will conduct the required pile load tests and will provide the pile load test report. Include those reports with those required herein.
11. Review of log of piling installation and of pile load tests.

B. Concrete

Proper inspection requires adequate inspection personnel during the placing of concrete and finishing. It includes preparations prior to the start of placement such as proper formwork, placing reinforcing, cleaning the surface of the formwork, etc., as well as proper protection and curing of the finished concrete.

1. Rebar

a. check shipment mill inspection/damage/excessive rust
b. size/grade/bending
c. placement (location – disturbance after placement)
d. support/tie/degree of support and stability during pour
e. cover
f. length and splices/laps/hooked bars
g. check from engineering drawings
h. clean before pour
i. record and deviations from drawings such as additional steel or larger diameter bars

2. Provide signed and sealed letter from "shoring" specialty engineer indicating adecuacy of shoring and reshoring.

3. Embedded items:
a. Anchor bolts
b. Inserts
c. Pipe sleeves

4. Verify that specific mix is used including admixture, type of cement and water cement ratio.

5. Placement
a. methods used for transportation, handling and placing concrete shall be reviewed for avoidance of whatever may cause poor consistency control or segregation.
b. the number and condition of concrete vibrators shall be verified including extra stand–bys to eliminate air and rock pockets.
c. preplanned construction joints or emergency joints should be substantiated. Joints shall be located and made so at least to impair the strength of the structure. Joints shall be prepared prior to making the secondary pour.
d. drop, vibration, consolidation
e. tests conducted
f. water added
g. age
h. disruption to rebar
i. clean up prior to placement
j. slump test on deck (not at truck) prior to placement

6. Curing and Strength

a. special provisions called for
b. test reports verified
c. additional tests needed
d. reshoring
e. removal of forms
f. finishing, repairing surface defects

C. Steel/Structural

a. Erection procedures (sequence)
b. Accepted shop drawings
c. Mill test reports, if required by specifications

1. The structural steel may be inspected in the shop by a testing laboratory, primarily for welding, shop bolting and quality of materials. See AWS Chapter 6 and specifications.
2. The structural steel will be inspected in the field by a testing laboratory for field welds and field bolting (torquing).
3. Bolting: Verify that bolts have proper torquing, if specified.
4. Surface finish/shop construction – galvanized, painted or bare/any apparent manufacturing defect.
5. Identification of ASTM specification mark
6. Welding electrodes
7. Field verification for loading during construction for composite beam.
8. Field verification of steel sections and their location and compliance with shop drawings.
9. Inspection of welds and stud welding by testing lab before being covered.
10. Fire protection: Spray fireproofing will be inspected by a testing laboratory.

D. Roof

1. Connection details
2. Drainage/slope – roof drains
3. Parapet walls/bracing
4. Equipment supports
5. Signs and appurtenances
6. Overflow scuppers and outlets
7. Ponding immediately after rain

E. Glazing

1. Verify that connections comply with shop drawings.
2. Accepted system/compliance with accepted shop drawings
3. Safety glazing identification

F. Masonry

1. Non–reinforced

a. tie beam/tie columns – spacing size/location/ placement of concrete before or after black wall/ dovetails if required/vertical inserts
b. durowall/reinforcing
c. grouted cells
d. mortar mix adequate
e. shear transfer – clips/dowels – as called for

2. Reinforced and Partially Reinforced

a. steel placement/lap lengths/location of poured in place dowels/vertical steel in same cell as dowel/clean out opening at bottom of cell to be grouted.
b. alignment of cells to be filled/slump of grout/cells to be wet before pouring/only grout the cells as specified/cells adjacent to opening and corner to be grouted/vertical bar embedment length in tie beam
c. verification of filled cells/observation holes
d. mortar mix adequate

G. Miscellaneous Structural Components such as Handrails, Guardrails and Light Gauge Metal Framing

1. Verify light gauge metal framing and connections with shop drawings.

2. Verify handrails, guardrails, stairways with shop drawings.

H. General Observations

1. Check Local Failures

a. hairline cracks
b. deflection
c. settlement
d. overloads due to storage of materials
e. honey combing/exposed reinforcing steel/rust spots
f. structural member behavior in case of 60 mph wind
g. design and presence of barricades as required.

I. Records

1. Concrete

a. Slump test ASTM C143
b. compression tests of molded cylinders ASTM C31, C39 four specimens per 50 cy
c. cylindrical cores (ASTM C42)

2. Soils

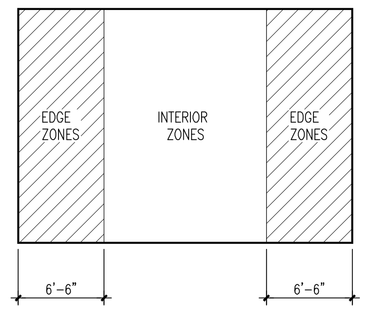
a. Densification and inspection reports
b. Soil compaction and reports
c. Log of piling installation
d. Pile load test report

3. Steel: Welding inspection reports, check welder's certification

4. Building Official Standard Reporting Forms, as may be required

5. Other records as may be deemed necessary by the Special Inspector such as:

a. concrete test cylinder reports
b. changes by the design A/E
c. soil density test reports
d. observe any holes drilled in slabs, walls, columns without prior acceptance
e. any exposed reinforcing steel exposed at face of reinforced concrete member
f. at end of the week special inspector shall issue a report regarding status of discrepancies found in that week or before if not fixed
g. send copy of inspection reports to Architect, design Engineer, Owner,Contractor, and any other as requested by the Owner.



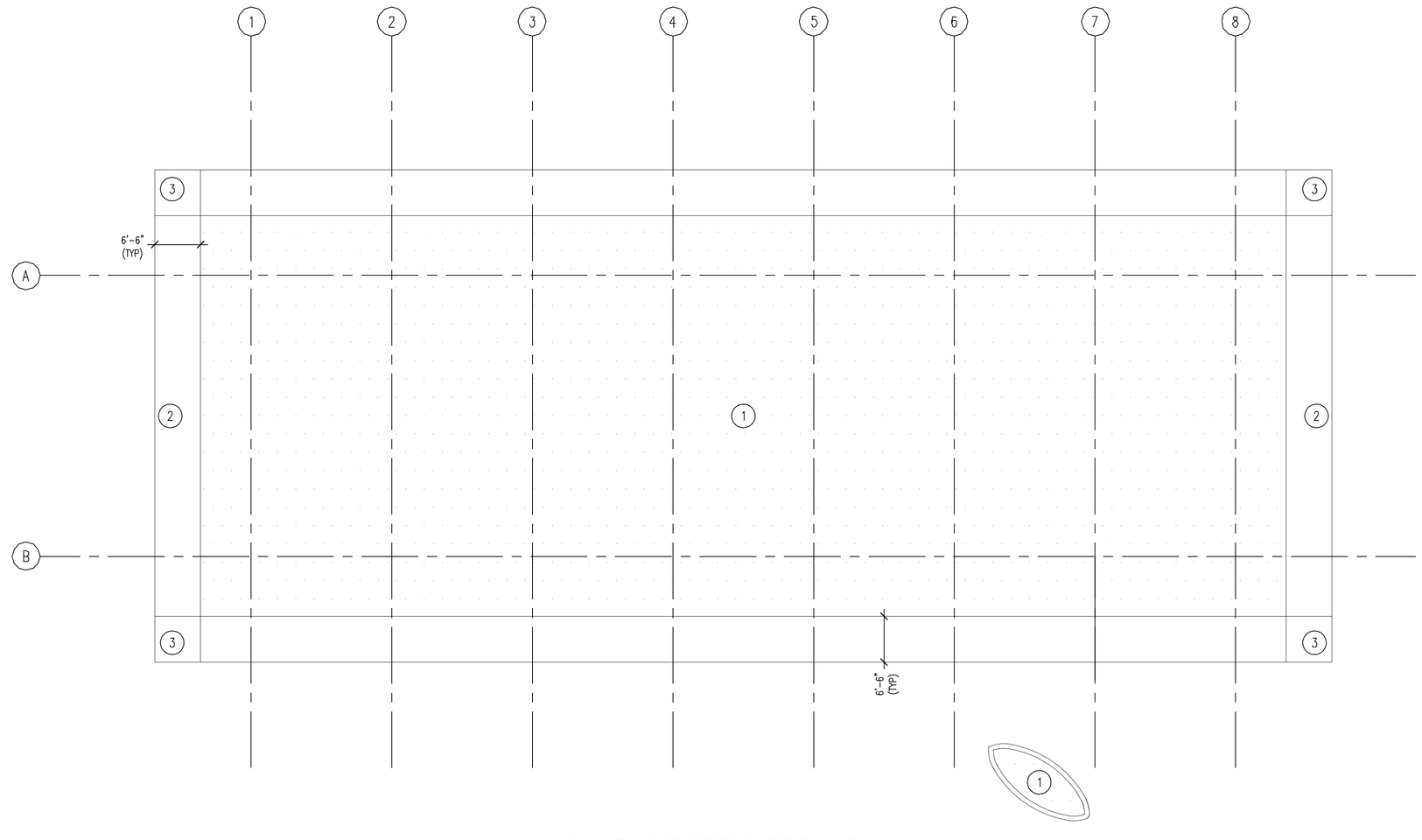
WIND PRESSURE DIAGRAM FOR WALLS (PSF)

WIND PRESSURES FOR OPENINGS IN WALLS, SUCH AS DOORS, GLAZING, WINDOWS, STOREFRONT, ETC.

TRIBUTARY AREA OF MEMBER ELEV. (SF)	POSITIVE PRESSURE (PSF)	NEGATIVE PRESSURE (PSF)	
		INTERIOR ZONES	EDGE ZONES
< 10	+57	–56	–70
10 TO 20	+55	–54	–65
20 TO 50	+50	–51	–59
50 TO 100	+48	–49	–54
100 TO 200	+46	–48	–50
200 TO 500	+38	–44	–44
> 500	+38	–44	–44

WIND PRESSURE DIAGRAM (PSF)

ZONE	ROOFING	
1	–57	
2	–95	
3	–143	



MAIN ROOF WIND PRESSURE DIAGRAM

CLIENT

TOWN OF SURFSIDE COMMUNITY CENTER
9301 Collins Avenue, Surfside, Florida 33154

DESIGNER

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CONSULTANTS

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LEED CONSULTANT
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REGISTRATION

PROFESSIONAL OF RECORD: W. RONALD HUNT
DISCIPLINE: STRUCTURAL ENGINEERING
REGISTRATION NO.: 19689

ISSUE

MARK	DATE	DESCRIPTION

PROJECT NO:	60028604
DRAWN BY:	ALEJANDROP
CHECKED BY:	
DATE:	10–22–2009

KEY PLAN

SHEET TITLE

THRESHOLD INSPECTION PLAN - ROOF WIND PRESSURE DIAGRAM

S0.1.01