

A/E REVIEW CHECKLIST

STEAM DISTRIBUTION

Reviewers should - Use Checklists when reviewing any type of VA construction project for the following disciplines:

- Site and Landscape,
- Architectural,
- Structural,
- Plumbing, Fire Protection, and Sanitary,
- Heating, Ventilating, and Air Conditioning (HVAC),
- Steam Generation,
- Steam Distribution,
- Electrical.

Reviewers should - Insure that A/E Submission Instructions (PG-18-15) for Schematic, Design Development, and Construction Documents are followed for various types of VA construction projects.

Reviewers should - Insure that every VA construction project is in compliance with all life safety issues.

Reviewers should - Be aware that these checklists are not all-inclusive but only provide minimum review items.

A/E CHECKLIST

TITLE _____ **PROJECT NO.** _____
LOCATION _____ **DATE** _____
REVIEWED BY _____
ORGANIZATION _____

GENERAL INFORMATION FOR REVIEWERS	
STEAM DISTRIBUTION REVIEWS	
<p>The reviewer should be thoroughly familiar with the following VA standards before conducting a design review. These are available on <i>Internet</i>: http://www.va.gov/facmgt/standard</p>	
1.	DESIGN MANUALS (PG-18-10)
2.	MASTER CONSTRUCTION SPECIFICATIONS (PG-18-1)
3.	STANDARD DETAILS (PG-18-4) (Available in AutoCADD 2000 Format)
4.	DESIGN AND CONSTRUCTION PROCEDURES (formerly Construction Standards) (H-18-3) (Policies defining the minimum level of excellence in the design of VA facilities)
5.	DESIGN GUIDES (PG-18-12) (Graphic information on specific programs in the design development of VA facilities)
6.	DESIGN ALERTS (These alerts are issued on a regular basis for design and construction related issues)
7.	A/E QUALITY ALERTS (These alerts are issued to guard against common and repeat design errors)
8.	A/E SUBMISSION INSTRUCTIONS (PG-18-15)
9.	TECHNICAL SUMMARIES (The summaries of HVAC design requirements for special and critical areas)
10.	NATIONAL CAD STANDARD
11.	VA NATIONAL CAD STANDARD APPLICATION GUIDE

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SCHEMATIC 1		
STEAM DISTRIBUTION REVIEW		
NO.	ITEM	COMMENTS/ YES/NO/NA
1	Have A/E Submission Requirements (PG-18-15) for this review been met? List omissions.	
2	Does A/E have latest VA Master Specifications?	
3	Does A/E have latest VA Standard Details?	
4	Does A/E have latest VA Design Manual?	
5	Does A/E have access to Corps of Engineers Concrete Shallow Trench Details?	
6.	Compliance with VA National CAD Standard Application Guide and applicable National CAD Standard modules.	

SCHEMATIC 2		
STEAM DISTRIBUTION REVIEW		
NO.	ITEM	COMMENTS/ YES/NO/NA
1	Have A/E Submission Requirements (PG-18-15) for this review been met? List omissions.	
2	Life cycle cost method complies with NIST Handbook 135?	
3	Acceptable responses to previous comments?	
4.	Compliance with VA National CAD Standard Application Guide and applicable National CAD Standard modules.	

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DESIGN DEVELOPMENT 1		
STEAM DISTRIBUTION REVIEW		
NO.	ITEM	COMMENTS/ YES/NO/NA
1	Have A/E Submission Requirements (PG-18-15) for this review been met? List omissions.	
2	System design complies with Outside Steam Distribution Design Manual.	
3	Steam and condensate load calculations acceptable?	
4	Pipe sizing calculations acceptable?	
5	Plan view and sections of tunnels or manholes show adequate space for maintenance access?	
6	Manholes properly ventilated?	
7	Manholes properly drained?	
8	Piping in manholes arranged to allow thermal expansion without overstress?	
9	System layout drawings show all other underground systems within 20 feet of new system.	
10	Acceptable responses to previous comments?	
11	Coordination with other disciplines	
12	Compliance with VA National CAD Standard Application Guide and applicable National CAD Standard modules.	

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DESIGN DEVELOPMENT 2		
STEAM DISTRIBUTION REVIEW		
NO.	ITEM	COMMENTS/ YES/NO/NA
1	Have A/E Submission Requirements (PG-18-15) for this review been met? List omissions.	
2	System Design complies with VA Outside Steam Distribution Design Manual.	
3	Are calculations complete including pipe and equipment sizing, steam traps, thermal expansion, pipe stress?	
4	Are Master Specs to be utilized of current issue?	
5	Is all pipe stress within ASME B31.1 limits?	
6	Do expansion joint movement requirements include safety factor?	
7	Has adequate clearance been shown for maintenance access in manholes and tunnels?	
8	Have steam lines been shown in profile with proper slope and drip traps?	
9	Have warm-up bypasses been provided for all steam main gate valves?	
10	Have drip pockets and steam traps been provided ahead of all steam main gate valves?	
11	Acceptable responses to previous comments?	
12	Coordination with other disciplines	
13	Compliance with VA National CAD Standard Application Guide and applicable National CAD Standard modules.	

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CONSTRUCTION DOCUMENTS 1		
STEAM DISTRIBUTION REVIEW		
NO.	ITEM	COMMENTS/ YES/NO/NA
1	Have A/E Submission Requirements (PG-18-15) for the review been met? List omissions.	
2	Acceptable responses to previous comments?	
3	Have any major steam lines been relocated since last review? This would require a revised stress analysis.	
4	Are all valves, steam traps, and expansion joints accessible for maintenance?	
5	Do structural and architectural drawings show complete details of manhole, tunnel, or trench construction?	
6	Are locations of all pipe hangers and supports shown and types of hangers identified?	
7	Are structural supports for pipe anchors and pipe supports in tunnels, manholes and trenches shown?	
8	Are pipe anchors detailed for tunnels, trenches, manholes?	
9	Coordination with other disciplines	
10	Compliance with VA National CAD Standard Application Guide and applicable National CAD Standard modules.	