City of Ocean Springs Building Department
1018 Porter Avenue / PO Box 1800 Ocean Springs, MS 39564
(228) 875-6712

DESIGN REVIEW APPLICATION

➢ **Indicate Project Type:** Commercial ☐ Multi-Family Residential ☐

Required for: 1) All new commercial or multi-family residential building and 2) additions/alterations to buildings of at least 50% of existing footprint or value of building.

Please reference Ordinance 19-2006 for detailed requirements and design review checklists. The City Planning Department can provide this document upon request. *Design Review application and plans are for the Design Review process only. Building permit applications must be made separately***.**

Effective January 1, 2023, the following application fees apply:

- ***ALL APPLICATIONS***……$1.00 additional fee (per Ordinance 2022-17 following the requirements of Section 25-60-5 MS code Annotated)
- Commercial Developments:
  - Greater than or equal to 10,000 sf……...$250.00
  - Less than 10,000 sf……..... $100.00
- Multi-family Developments:
  - Greater than or equal to 100 dwelling units……$250.00
  - Less than 100 dwelling units……...$100.00

Application Date: _____

Name of Project: _____

Address of Parcel(s): _____

Parcel ID(s): _____

Applicant Information

1. Applicant: _____ Phone _____
   Address _____ Email _____
2. Local Agent: _____ Phone _____
   Address _____ Email _____
3. Owner of Record: _____ Phone _____
   Address _____ Email _____
4. Engineer: _____ Phone _____
   Address _____ Email _____
5. Land Surveyor: _____ Phone _____
   Address _____ Email _____
6. Attorney: _____ Phone _____
   Address _____ Email _____

Property Information

1. Tax Map Designation: Section _____ Township: _____ Range: _____
2. Property Location: On the _____ side of _____
   _____ feet _____ of _____
   (direction) *(street)*
3. Zoning of Lot(s) _____
5. Total acreage of lot _____
6. Is the property located within a special district? (historic district, waterview preservation district, etc.)

   _____
7. Are there any easements or other legal restrictions on the property? If so, please explain.

   _____
8. Are there any existing structures on the property? If so, will they be kept or demolished? _____

   _____

Proposed Project Information

1. Is this a renovation or new construction? _____
2. Total acreage of land disturbing activity: _____
3. Is project construction to be phased over an extended period? If so, please provide details here and in plan set.

   _____
4. Are any variances being requested for the project as part of this application? If so, please explain. _____

   _____
5. Have there been any variances, exceptions, appeals or special uses previously granted for any properties in this request? _____☐_____Yes _____☐_____No If yes, please explain and state the date(s) it was approved:

   _____

Property Ownership

1. Are any adjacent parcels under the same ownership as the subject parcel?_____
   If so, list PID number(s): _____

Submittal Requirements (*Design Review*) The following must be included for a complete application package:

__☐__ Application
__☐__ Application Fee (only for 3rd and subsequent reviews)
__☐__ Plan Set (one full-size, one 11x17, one electronic PDF)
__☐__ Engineering Calculations, see below
__☐__ Parking Analysis (# existing and # required with new development)
__☐__ List of any Energy Star qualified products
__☐__ If land disturbance activity is 1<5 acres, submit Notice of Intent (NOI), Small Construction Permit and Stormwater Pollution Prevention Plan (SWPPP) to City.
__☐__ If land disturbance activity is >5 acres, submit Notice of Intent (NOI), Large Construction Permit and Stormwater Pollution Prevention Plan (SWPPP) to City and MDEQ.
__☐__ Evidence of ownership (most recent tax statement, deed, affidavit of ownership etc.)
__☐__ Signed Stormwater Erosion Control Agreement (see attached)
__☐__ Wetland permit, if applicable

Design Review Plan Requirements: The following informational list includes all elements of the plan that will be reviewed for compliance and considered for optional design points:

- ☐ Plan Set (one full-size, one 11x17, one electronic PDF), including but not limited to:
  - ☐ Vicinity Map
  - ☐ Site Plan
  - ☐ Exterior Lighting Plan
  - ☐ Landscaping Plan
  - ☐ Erosion Control Plan
  - ☐ Architectural Plans including: building form/materials, with details on colors, doors/windows, shutters, roof style/material/color, glazing
  - ☐ Elevation views of buildings, with color designations and color samples
  - ☐ Drainage, including retention ponds, if necessary
  - ☐ Grading, including use of removed topsoil

- ☐ Date, north arrow, scale and name of project
- ☐ Parcel ID number(s), lot and block numbers
- ☐ Name and address of owner(s)
- ☐ Names and addresses of all abutting property owners, as shown on tax records
- ☐ Lot lines, lot dimensions, total lot areas and setbacks of subject property
- ☐ Relationship of project to surrounding road system
- ☐ Location and dimensions of watercourses, wetlands, drains, utilities, railroads, water and sewer lines, bridges, culverts (location/size) and other important features.
- ☐ Zones of all parcels
- ☐ Existing and proposed driveway(s), roads, road easements/rights-of-way, and utility easements with dimensions, curb cuts, curb radii
- ☐ Parking: location, size, surface material, and analysis of required amount based on City zoning ordinance (Article VI, Section 604)
- ☐ Street names
- ☐ Proposed utilities (sewer, gas, water, telephone, cable television, electric): location and size; location of manholes, valves, hydrants, transformers, junction boxes; location of street lights and connections to existing system
- ☐ Proposed garbage collection area with design details (screening, pad, approach, etc.)
- ☐ Signage: size, location, materials and orientation of all exterior signs
- ☐ Lighting: location, height, and type of all exterior lighting
- ☐ Screening: location, area, type and dimensions of screening for all exterior trash/recyclables collection and mechanical/communication units
- ☐ Location of any existing structures on the lots, with nature, location and dimensions
- ☐ Location and type of any protected and unprotected trees (with caliper, if 5.75" or greater) and proposed landscaping
- ☐ Location/size of proposed permanent common fixtures (signs, monuments, plantings, walls, fences, etc.)
- ☐ Location of all proposed and existing sidewalks/crosswalks with dimensions and materials
- ☐ Areas that may be reserved for parks, conservation or open space, with dimensions
- ☐ Future phases with general layout, if applicable
- ☐ FEMA flood zone designations, base flood elevations and any areas within proposed subdivision subject to inundation by stormwater; plans to show proposal to eliminate ponding
- ☐ Site preparation: grading, erosion control, vegetated buffer areas
- ☐ Stormwater Pollution Prevention Plan (SWPPP)
- ☐ Name, signature and seal of licensed design professional who prepared drawings

Engineering Calculations

_☐_ Stormwater calculations (drainage and retention), if applicable
_☐_ Retaining wall calculations, if applicable
_☐_ Amount of impervious surface on property

Note:

1. Neither a building permit nor a use and occupancy permit can be issued for the construction until the development plan has met the mandatory and points-based requirements of the Design Review Ordinance (#19-2006).

Next Steps

Once the application is received (with all attachments), the Planning Department will distribute the plans for review to Public Works, Engineering, Planning and Building Departments. An initial review will occur, with comments submitted back to the applicant. A follow-up review will be conducted when the initial comments are incorporated and plans are resubmitted. If a third review is required, the applicant is required to pay a $250 fee to the City.

After design review approval, but before construction, the following must occur:

- Building permit application to be submitted and reviewed/approved by City.
- Approval from Jackson County Utility Authority must be received.

After building permit approval and completion of construction, the following must occur:

- Developer to submit as built plans to City.

Affidavit of Ownership

Attached hereto is an affidavit of ownership indicating the dates the respective holdings of land were acquired, together with the book and page of each conveyance into the present owner as recorded in the County Records of Deeds (Chancery Clerk) office. This affidavit shall indicate the legal ownership of the property, the contract owner of the property, and the date the contract of sale was executed.

I, (print name) _____, hereby certify that:

1. I am the owner of the property that is the subject of this application and that I have read and understand the requirements as outlined in the application.
2. There are no outstanding City of Ocean Springs property taxes or special assessments on the original parcel(s).

I further acknowledge that the information provided herein is true and correct to the best of my knowledge.

Owner(s) Name: _____

Parcel ID(s): _____

Date Property Acquired Date: _____

Book and Page of Each Conveyance: _____

Owner's Signature _____ Date _____

STATE OF _____

COUNTY OF _____

I_____, hereby depose and say that all the above statements and the statements contained in the papers submitted herewith are true.

Mailing Address _____

_____

Subscribed and sworn before me this _____ day of_____.

My commission expires:

_____

_____

Notary Signature

STORMWATER EROSION CONTROL AGREEMENT

This regulation is to prevent introduction of pollutants that may potentially enter the City Drainage System (CDS) or waterways. The following practices are the minimum requirements for construction sites that involve disturbance of the natural earth. No owner or their agent of any parcel of land or property, whether with or without a structure thereupon, shall permit the erosion or escape of soil, sand, gravel or similar material from said parcel onto any adjoining property, public street or into any drainage channel that receives rainwater runoff from said parcel in such quantities as to harm said adjoining property, public street, drainage channel, or stormwater drainage system. In the development or use of any site, the owner or their agents shall not construct or conduct any activity so as to cause the discharge of rainwater runoff in such a manner as to cause erosion or to increase blockage of any channel or storm drainage system. This includes both pre-construction and post-construction.

Minimum requirements for construction sites with land disturbance:

1. Storm control measures shall be installed at the onset of construction.
2. These measures shall capture sediment prior to it leaving the property.
3. Silt fencing is a last line control measure and should be maintained continuously.
4. Temporary and/or permanent revegetation of bare ground must be utilized in order to stabilize disturbed soil at the earliest practicable date.
5. Steep slopes require Hydro seeding/sod and/or the installation of erosion control mat.
6. Construction of on-site stormwater retention should function as temporary sedimentation retention until permanent revegetation of the subject tract is accomplished.
7. Other measures may be necessary to control erosion and sedimentation on a site-by-site basis.

During the construction, if at any time, these measures are not in compliance, the building department will issue a stop work order until the site is in compliance.

Requirements from the Ocean Springs Stormwater Ordinance:

0<0.9 acre of land disturbed: No permit or SWPPP currently required unless the disturbance is part of a Larger Common Plan of Development or Sale. A SWPPP may be requested or required if there are complaints or nuisance conditions.

1<5 acres of land disturbed: Permit required from City of Ocean Springs Code Enforcement Office. A Small Construction Notice of Intent (NOI) and SWPPP must be submitted to the Planning Department.

Above 5 acres: Permit required from the City and MDEQ. A SWPPP must be submitted to the City and a Large Construction NOI and SWPPP should also be submitted to MDEQ.

I certify under penalty of law that I understand the terms and conditions of the Mississippi Department of Environmental Quality's Large Construction and Small Construction General Permits. I also certify that I have received stormwater related education materials for construction activities from the City of Ocean Springs (materials included Small Construction General Permit; Large Construction General Permit; the *Planning and Design Manual for the Control of Erosion, Sediment, and Stormwater;* Ocean Springs' ordinance for Stormwater Runoff; Illicit Discharges and Illegal Connections). I will implement, install and properly maintain erosion and sediment controls at any site with land disturbance greater than 1 acre. I understand that failure to reasonably control sediment from land disturbing activities is considered a violation of City Ordinance, MDEQ's general permits, and the Clean Water Act and can result in suspension of work and monetary fines.

Sign: _____ Date: _____

Company: _____ Phone: _____

CITY OF OCEAN SPRINGS
DESIGN REVIEW REQUIREMENTS
SITE AND BUILDING

MANDATORY ELEMENTS – The following items are **MANDATORY** and **must** be addressed in submitted plans if applicable:

SITE:

1. **Site Preparation:**
   - ☐ Grading addressed
   - ☐ Erosion Control Plan Included
   - ☐ Topsoil retained on site
   - ☐ 6" and larger caliper trees identified with species noted
   - ☐ Identify areas of natural vegetation to be retained
   - ☐ Identify existing conditions including: property lines, fencerows, drainage ways, etc.

2. **Storm Water Drainage:**
   - ☐ Retention/Detention Facilities Provided
   - ☐ Wetlands Maintained
   - ☐ Storm water entry and discharge points maintained and protected from erosion
   - ☐ Banks of surface drainage ditch, creek, or riverbed

3. **Floodplain:**
   - ☐ All buildings **SHALL CONFORM** to the Ocean Springs Flood Damage Prevention Ordinance and the Ocean Springs Community Flood Plain Maps

4. **Sight/Vision Triangle:**
   - ☐ Addressed at corner lots, entry points of a private driveway or street to a public street

5. **Off-Site Improvements:**
   - ☐ Off-site improvements addressed - responsibility of applicant

6. **Utilities:**
   - ☐ All utilities and services located underground

7. **Engineering Plans:** All grading, drainage, and engineering plans will be reviewed for approval by City Engineer

8. **Landscape Plans:** Location and dimensions of all landscape areas, common open space areas, and buffer yard areas, including the location, number, type, and size of all landscaping materials, as well as any other proposed amenities. *Approved Plant List Attached –* ***Appendix A***

PARKING AND TRAFFIC CIRCULATION:

1. **Curb Cuts:**
   - ☐ Located a minimum of 75 feet or more from the end of the corner radius
   - ☐ Joint shared curb cut or located 10 feet from property line
   - ☐ Located directly opposite from curb cut on other side of street or offset 150'
   - ☐ Parking spaces do not conflict with entering or exiting traffic

2. **Entrances and Exits:**
   - ☐ Defined entrance and exit
   - ☐ Unlimited access prohibited

3. **Minimal Entrance/Exit Widths:**
   - ☐ Residential: 10’ at right-of-way / 14’ at curb line
   - ☐ Commercial: One-way – 14’ at right-of-way / 28’ at curb line
   - ☐ Industrial: Accepted standard for the proposed use

4. **Curb Radii:**
   - ☐ Minor Streets: 15’ at street right-of-way intersection / 25’ at back of curb or edge of pavement
   - ☐ Arterial or Collector Streets: As approved by the City Engineer

5. **Number of Curb Cuts:**
   - ☐ Maximum of one curb cut for every 100’ of street frontage

6. **Parking and Loading Areas:**
   - ☐ Parking and loading areas of hard surfaced or asphalt
   - ☐ All parking located on-site, no off-site parking
   - ☐ Minimum number of parking spaces provided per adopted Zoning Code
   - ☐ No parking spaces backing directly into the street
   - ☐ Parking stall width and depth, as well as traffic aisle width, meet minimum requirements

7. **Lighting:**
   - ☐ Lighting Plan submitted to include location of each pole and fixture, ground-mounted lights (flood, uplights, etc.) and exterior building lights.
   - ☐ All entrances and exits to buildings and parking areas to be lighted
   - ☐ Lighting fixtures no more than 15’ tall pole (except in industrial zones)
   - ☐ All luminaries have a cut-off value of 90%
   - ☐ No direct or reflected light or glare to adjacent residential properties
   - ☐ No direct or reflect light interfering with traffic on adjacent streets
   - ☐ No blinking, flashing, or fluttering lights
   - ☐ All luminaries shall be high pressure sodium, metal halide, or LED fixtures
   - ☐ Lighting fixtures shall be compatible with architecture of their associated buildings

8. **Fire Lanes:**
   - ☐ Building 35’ or less in height – 150’ or more from the nearest street
   - ☐ Building more than 35’ tall – 50’ or more from the nearest street
   - ☐ Fire lane otherwise required by Fire Chief

9. **Rear Access to Buildings:**
   - ☐ Vehicular access provided along the rear of all buildings

10. **Curbing and Wheel Stops:**
    - ☐ Concrete curb provided around all parking and loading areas
    - ☐ Wheel stops provided all at landscaped areas where parked cars may encroach

11. **Sidewalks:**
    - ☐ Minor and Collector Streets – 5’ wide sidewalks provided along the street frontage of all streets
    - ☐ Arterial Streets – sidewalks provided along all street frontage at a width approved by the City Engineer

- ☐ ADA compliant access ramps provided as needed
- ☐ Crosswalks provided as needed

12. Street Signs and Traffic Control Devices:

- ☐ Street signs, traffic regulatory signs, and traffic control devices provided as required by the City Engineer

BUILDING FORM AND MATERIALS:

1. Building Form:

- ☐ Multi-family Structures: designed to be compatible with the character of single-family residences
- ☐ Commercial and Office Structures: designed to be compatible with single-family residences where directly adjacent to residential zones
- ☐ Individual structure on a single lot: oriented parallel to the street
- ☐ Office or Commercial complexes clustered to create plazas or pedestrian mall areas
- ☐ Office or Commercial complexes link building pads with pedestrian ways
- ☐ Materials and colors included in the primary elevation must continue on sides and rear of the building
- ☐ No "stage front" facades

2. Building Setbacks:

- ☐ Building setbacks comply with the requirements of the currently adopted Zoning Code

3. Building Height:

- ☐ Building height complies with the requirements of the currently adopted Zoning Code

4. Garbage Collection Areas:

- ☐ Dumpster located on a concrete pad
- ☐ The approach to the dumpster is paved with heavy-duty cement or asphalt
- ☐ The screening for the dumpster is at least 2' taller than the dumpster and constructed of material consistent with the primary building
- ☐ Dumpster area must include a gate for
- ☐ Compaction units provide floor drain to the sanitary sewer

5. Parking Areas:

- ☐ 3' tall opaque barrier provided where parking adjoins public streets in accordance with Ordinance standards

6. Wall and Fence Standards:

- ☐ Minimum height of all fences and walls – 6'; except within front yard areas where they shall not exceed 3' in height
- ☐ Walls and fences do not impede or divert the flow of storm water
- ☐ Walls and fences do not block access to any above ground, pad-mounted transformers, and provides minimum clear access to the transformer doors
- ☐ Fences over 80'in length have at least 50% of the length setback 6' with evergreen plantings within the setback area

7. Retaining Walls:

- ☐ Construction plan stamped by civil engineer
- ☐ Retaining wall 3' or less in height constructed of split-face concrete block, or poured in place concrete with a decorative face

OPTIONAL PROVISIONS: The application will be reviewed by the following "cafeteria-style" list and ***assigned points by the City*** during staff review. **MINIMUM Points Required: 300**

THE SITE:

1. **Location:** Located in Central Business District (CBD) – 30 points

2. **Impervious Surface:** Points given for ratio of pervious to impervious surfaces on the following scale:
   - ▶ < 50 % impervious surface – 30 points
   - ▶ 50% - 65 % impervious surface – 20 points
   - ▶ 66% - 75 % impervious surface – 10 points
   - ▶ 76% - 100% impervious surface – 0 points

3. **Use of pervious surfaces for parking and driveway** – 30 points

4. **Design of Retention Pond** (subtract 10 points from minimum requirement if not applicable)
   - ▶ Retention pond function accomplished with subsurface storage underneath parking area – 30 points
   - ▶ Retention ponds include design elements such as fountains, waterfalls, aeration, or similar features – 15 points
   - ▶ Piers, bridges, benches, or other access elements to pond – 10 to 15 points

PARKING / TRAFFIC (subtract 30 points from total required if the development is exempt from parking regulations)

1. **Parking Areas Location:**
   - ▶ All parking spaces located in rear – 30 points
   - ▶ Parking in side and rear. Side parking shall not be located within front yard setback or beyond front building line. (Maximum 50% of parking to be in side yard to receive points) – 20 points
   - ▶ Parking in side and rear. Side parking shall not be located within front yard setback or beyond front building line. (Minimum 50% of parking to be in side yard to receive points) – 10 points
   - ▶ Parking areas organized as a series of small parking bays with landscaped islands separating them – 20 points
   - ▶ Parking located in front and sides of building – 0 points

2. **Shared Parking Areas:**
   - ▶ Parking is shared among adjacent or nearby sites – 10 points

3. **Parking Light Fixtures:**
   - ▶ Exterior light source(s) properly shielded to mitigate light pollution – 10 points

4. **Pedestrian Circulation:**
   - ▶ 6' wide sidewalk with 3' landscaping strip along entire length (dimensional standards per Administrative Official's discretion in CBD) – 30 points
   - ▶ 6'wide sidewalk from street to main entry with landscaping along more than 50 percent of its length – 20 points
   - ▶ 6' wide sidewalk from street to main entry with landscaping along 10% - 50% of its length – 10 points

5. **Private Sidewalk Materials:**
   - ▶ Brick pavers, tile, or stone – 20 points
   - ▶ Stamped or washed concrete – 15 Points

   **** Asphalt, cinders, crushed limestone, or no walkway provided is strictly prohibited.***

6. **Bicycles:**
   - ▶ Minimum of two (2) bicycle parking facilities conveniently located to building entrance that do not interfere with pedestrian accessibility – 10 points

7. **Outdoor Furniture:**
   - ▶ Outdoor seating or dining areas visible from right-of-way – 10 points

8. **Transit**
   - ▶ Bus shelter provided along CTA bus route – 20 points

BUILDING FORM / MATERIALS

1. **Building Height and Use:**
   - ▶ Two (2) or more story building with commercial on ground floor and residential above – 30 points
   - ▶ Two (2) or more story commercial building – 20 points
   - ▶ Varied massing of building clusters – 20 points

2. **Exterior Surface Material:**
   - ▶ 100% brick, cementious stucco, wooden lap, fiber cement siding, and stone – 30 points
   - ▶ 75% brick, cementious stucco, wooden lap, "Split-faced" concrete block, integrally colored masonry, vertical board and batten, and stone – 20 points
   - ▶ 50% brick, cementious stucco, wood simulated materials, clear or neutral tint curtain wall, pre-cast concrete panels with decorative face, and EIFS – 10 points
   - ▶ Vinyl and metal siding – 0 points

   * *EIFS may only be used in areas not accessible to either pedestrian or vehicular traffic*
   * *Vinyl siding prohibited for multifamily structures.*
   * *The use of flat-faced concrete block, mirror glass curtain wall, exposed steel, or other metal is subject to review by the Administrative Official.*

3. **Color of Predominate Exterior Surface Material:**
   - ▶ White, off-white, cream, dark subdued green, earth tones, pastels of earth tones, including rose, and terra cotta – 30 points
   - ▶ Pastels of non-earth tone hues, such as blues, yellows, greens, and grayish greens – 30 points
   - ▶ Flat matte finish of primary colors – 10 points
   - ▶ Varying, yet compatible, color schemes for multifamily developments with more than fifty (50) units – 10 points

   * *Use of following colors is strictly prohibited on the predominate exterior surface material: high intensity colors, metallic colors, gloss colors, finish primary colors, fluorescent, and full chroma colors.*
   * *The use of uncolored pre-cast concrete panelshot "tilt-up" slabs is prohibited.*

4. **Exterior Surface Design:**
   - ▶ Wall surfaces appear monolithic with at least 75% of the total wall area in one material and color – 10 points
   - ▶ Wall surfaces do not meet the criteria set forth above – 0 points
   - ▶ All loading docks, overhead doors, and truck parking are positioned on the subject property so as not to be visible from the public street – 10 points
   - ▶ Building design does not meet the criteria set forth above or does not incorporate loading docks or overhead doors – 0 points

5. **Doors and Windows:**
   - ▶ 100% of doors, windows, and glazed surfaces, with the exception of steel fire doors on the rear elevation of the building, have one or more of the following – 10 points each:
     a. Frames recessed a minimum of four (4) inches
     b. Encased with trim
     c. Have divided lights
     d. Have exposed or otherwise articulated lintels
   - ▶ > 50% of the doors, windows and glazed surfaces have one or more of the above referenced elements – 5 points each
   - ▶ < 50% of the doors, windows, and glazed surfaces meet the requirements as set forth above – 0 points

6. **Shutters:**
   - ▶ 100% of the windows have operable shutters – 20 points
   - ▶ > 50 percent of the windows have operable shutters – 10 points
   - ▶ 25% - 50% of the windows have operable shutters – 5 points
   - ▶ < 25% of the windows meet the requirements as set forth above – 0 points

7. **Glazing**
   - ▶ All glazing is clear, tinted neutral gray, leaded, frosted, or decorative glass – 10 points
   - ▶ Any use of colored glazing – 0 points

8. **Architectural Features:**
   - ▶ Use of arches for > 50% of all doorways, windows, and portals – 10 points
   - ▶ Use of decorative trim around the entire roof perimeter, all doors, windows, and signs – 10 points
   - ▶ Decorative gates, fencing, windows, and railings – 10 points
   - ▶ Architectural decorative accents, portal windows, stained glass, carved stone canters, or plaster – 10 points
   - ▶ Decorative use of brick, stucco, or stone accents around walls, columns, roof lines, doors and windows, including crown molding – 10 points
   - ▶ Decorative columns for support along front building façade – 10 points
   - ▶ Decorative towers, bell towers, cupolas, minarets, commercial balconies and porches, and courtyards – 20 points
   - ▶ Use of dormers in roof design – 10 points
   - ▶ Use of antique, pierced, ceramic, metal, or other decorative lighting fixture when compatible – 10 points

9. **Porches and Balconies, Multifamily:**
   - ▶ Porch or Balcony visible from ROW or parking area, minimum 48 s.f – 15 points
   - ▶ Porch or Balcony visible from ROW or parking area, minimum 30 s.f – 5 points

   ** For multifamily developments, more than 50 percent of all units shall include a porch or balcony.*

10. **Roof Standards Materials:**
    - ▶ Enameled standing seam metal, flat tiles of concrete or clay, copper metal – 15 points
    - ▶ Wood textured composition or architectural shingles – 10 points

    ****** *The use of plastic, fiberglass, other metal or glass visible to public view is strictly prohibited.*

11. **Roof Standards Design:**
    - ▶ Parapet roof (if no points provided for roof color) – 20 points
    - ▶ Gabled or hip roof with a minimum 6/12 pitch or a parapet – 15 points
    - ▶ Gabled or hip roof with a minimum 4/12 pitch or true mansard – 5 points
    - ▶ Roof styles not included above – 0 points

12. **Roof Color:**
    - ▶ Browns, earth tones, copper metal, light grays and blues, dark subdued green, hunter green, and terra cotta – 15 points
    - ▶ Low intensity flat colors – 5 points
    - ▶ White – 0 points

    ***** *The use of bright, high intensity colors is strictly prohibited. All other colors not listed above are subject to review by the Administrative Official.*

LANDSCAPING

- ▶ 10 points for every existing tree 5.75 inches or more in caliper, preserved on the site (maximum 20 points)
- ▶ 5 points for every existing tree 5.75 inches or more in caliper, replaced by new trees of the same size or in an appropriate multiple (maximum 10 points)

  * *In each case, whether maintaining or replacing existing trees, such trees shall be* ***in addition to*** *the other landscaping requirements of this Ordinance, and shall not be double-counted.*

SCREENING

- ▶ Mechanical units, HVAC, communications, meters, and service equipment, including satellite dishes and vent pipes are totally screened from public view by parapets or wall – 10 points
- ▶ All building mounted equipment set forth above is either screened from public view or is painted to visually match adjacent surfaces – 5 points

ENERGY / ENVIRONMENT

- ▶ LEED certification – 50 points
- ▶ Rain Garden installation – 1 point / 100 square feet (maximum 20 points)
- ▶ Green Roof installation – 2 points / 100 square feet (maximum 40 points)
- ▶ Use of Energy Star qualified products – 5 to 20 points
- ▶ Use of solar panels – 5 points / KWH per day of generation potential (maximum 50 points)

TRANSITIONAL USES AND DESIGN

- ▶ Project is designed in a manner to promote pedestrian activity and other aspects of good urban design. Includes design that is sensitive to adjacent properties in placement of parking, scale, mass, and design – 20 points
- ▶ Project features a functional urban park – 30 points
- ▶ Project features a piece of public art – 15 points

COMMERCIAL DEVELOPMENT CHECKLIST

FOR PLAN REVIEW

Revised 2-1-2018

This form was prepared to assist developers, engineers, contractors and The City of Ocean Springs with construction plan review. It is not a complete list of design requirements, only a starting point during plan review. The Developer's engineer shall complete and submit this check-off sheet along with stamped, signed construction plans clearly marked "Preliminary Plans – Not for Construction". (Last Revised 02/01/2018)

Name of Development: _____ Date Submitted: _____

Approx. Location: _____ Developer's Name: _____

Developer's Engineer: _____ Developer's Engineer: _____
(Print Name) (Sign Here – PE Seal or Stamp Below)

SEAL/STAMP

THE FOLLOWING NOTES AND STANDARD DETAILS
MUST BE INCLUDED ON THE PRELIMINARY CONSTRUCTION PLANS

Shown	Not Shown	Does Not Apply

GENERAL

NOTES TO BE INCLUDED ON UTILITY PLANS & REQUIREMENTS DURING CONSTRUCTION:

___ ___ ___ A Pre-construction meeting of the Owner/Developer/Contractor and Ocean Springs Public Works (OSPW) must be held a minimum of seventy-two (72) hours prior to the start of construction.

___ ___ ___ The Ocean Springs Public Works Department must be notified a minimum of forty-eight (48) hours prior to any tie-in to city utilities and a Public Works Department representative must be present during the tie-in. (228-875-3955)

___ ___ ___ The Ocean Springs Public Works Department and the City Engineer must approve any tie-ins to existing city water lines, sewer lines, sewer structures, storm drain lines or storm drain structures. The Owner/Developer is responsible for construction of the tie-ins.

___ ___ ___ The Ocean Springs Public Works Department must approve any road cuts or bores across or parallel to any city roads or streets required to connect new utilities to existing city utilities. The Owner/Developer will be responsible for maintaining road cuts and bore pits during construction including all necessary traffic control, warning signage safety equipment and measures until final repairs or construction is complete and approved by the Ocean Springs Public Works Department

Shown	Not Shown	Does Not Apply

___ ___ ___ The Owner/Developer is responsible for preparing, implementing and maintaining a traffic control plan which conforms to the current MUTCD.

___ ___ ___ The Ocean Springs Public Works Department must approve any required road closures and the department must be notified a minimum of seventy-two (72) hours prior to implementing any approved road closure. (228-875-3955).

___ ___ ___ An MDOT permit must be obtain for work on MDOT right of way and a copy of the permit and approved plan must be submitted to Ocean Springs Public Works Department with the construction plans.

___ ___ ___ A 14 gauge locate wire and warning tape shall be installed with all water mains and water services and all sewer mains and sewer service laterals. The locate wire shall be taped to the pipe at three (3) foot intervals. The locate wire should be continuous but if a splice is required it shall be soldered and encased in a water proof enclosure such as a "gel pack". The locate wire shall extend up to the finished grade of valve boxes and sewer locate wire boxes. Leave three (3) feet of wire coiled inside the valve box or sewer locate wire box. The locate wire shall be tested for continuity in the presence of an Ocean Springs Public Works representative at the completion of the project. The warning tape shall be marked "Waterline below" or "Sewerline below" and installed 18" above the respective pipe.

___ ___ ___ All water taps, water meter, sewer taps, sewer services, cleanouts and fire hydrants must be located on the street side of the right of way line and aligned with side lot lines where possible. The Ocean Springs Public Works Department must approve the location of fire hydrants if it is not possible to align them with side lot lines. Water taps, water meters, sewer taps, cleanouts and valve boxes shall not be placed in driveways or sidewalks or within 5 feet of a driveway. Electrical transformers, cable television, and telephone pedestals shall not be placed within five (5) feet of a sewer service connection point.

___ ___ ___ The size, type and location of all existing and proposed water, sewer and storm drain lines must be shown and labeled on all applicable plan sheets.

___ ___ ___ The Owner/Developer is responsible for construction of all water and sewer taps.

___ ___ ___ All materials and equipment required for tie-ins or taps must be furnished by the Owner/Developer or their Contractor and must be on site prior to starting a tie-in or tap.

___ ___ ___ Any necessary interruptions of water or sewer service must be approved by Ocean Springs Public Works and must be performed on Tuesday or Wednesday unless otherwise approved by OSPW.

___ ___ ___ All tap fees and inspection fees must be paid in full prior to any work being performed on water or sewer projects.

___ ___ ___ The Owner/Developer must provide 24 hour accessible phone numbers for the owner, developer and contractor.

Shown	Not Shown	Does Not Apply

___ ___ ___ New water and sewer mains that cross under driveways or streets must be ductile iron with a 10 foot wide keyed driveway panel centered over the pipe or the main must be cased. Casings shall be 0.25 inch wall coated steel pipe and shall include spacers and end seals.

___ ___ ___ If a problem occurs with the water or sewer connection while the development is under construction the problem must be repaired within two (2) days or the Building Department will be notified to issue a stop work order.

Water System Requirements:

___ ___ ___ The Owner/Developer shall furnish and install all water meter boxes. The water meter boxes shall be made of plastic composite material and installed flush to the finished grade of the site.

___ ___ ___ All water meters to be installed on public right of way shall be purchased from the City of Ocean Springs.

___ ___ ___ All water mains shall be a minimum of 6" diameter, PVC, AWWA C900, Class 150 pipe.

___ ___ ___ No 90 degree fittings shall be used on water mains. All 90 degree bends will be made with 2- 45 degree fittings.

___ ___ ___ All water mains shall be pressure tested in accordance with City requirements.

___ ___ ___ All water used for chlorination and flushing of water lines shall be metered and paid for by the Owner/Developer.

___ ___ ___ Curb stops shall be 3/4" x 1" x 5/8" swivel type, see attached detail, for standard water service.

___ ___ ___ All fire hydrants shall be painted yellow.

___ ___ ___ The Owner/Developer shall be responsible for construction of any required meter vault. The meter vault shall be constructed on city right of way and per the attached standard detail. The vault shall have an aluminum, lockable hatch with minimum dimension of 36" x 36" and shall be cast into a removable reinforced concrete top.

___ ___ ___ Master meters must be purchased from the City of Ocean Springs and paid for in advance of the meter being ordered. (Master meters usually take 5 to 6 weeks from order to delivery).

___ ___ ___ The size of water meters and back flow preventers shall be shown on the plans.

___ ___ ___ No irrigation meters shall be installed in meter vaults.

___ ___ ___ Back flow preventers shall be installed on city right of way at a location approved by Ocean Springs Public Works.

___ ___ ___ The Owner/Developer shall provide copies of the water bacterial test results to Ocean Springs Public Works.

Shown	Not Shown	Does Not Apply	
___	___	___	Existing water mains under new driveways shall be replaced with ductile iron pipe at the direction of Ocean Springs Public Works. A six (6) foot wide section of the driveway centered on the water main with keyways or expansion joints on each side shall be provided.
___	___	___	"WM" shall be stamped into the concrete curb at locations adjacent to water meters.
___	___	___	"WV" shall be stamped into the concrete curb at locations where water valves are adjacent to paved areas.

Sewer System Requirements:

___	___	___	An "S" shall be stamped into the concrete curb adjacent to each sewer service location.
___	___	___	A "MH" shall be stamped into the concrete curb where sewer manholes are adjacent to paved areas.
___	___	___	The Owner/Developer shall be responsible for furnishing and installing mechanical plugs in new sewer lines at all tie-in manholes. The plugs shall not be removed without approval of Ocean Springs Public Works. Sewer plug must be on site prior to start of tie-in construction.
___	___	___	The Owner/Developer is responsible for construction of manhole tie-ins and inverts.
___	___	___	Tie-ins to existing manholes shall be made by core drilling the manhole with the appropriate sized hole for the proposed pipe. The manhole penetrations shall be sealed inside and outside.
___	___	___	An Ocean Springs Public Works representative must be present when a manhole is being installed in city right of way.
___	___	___	A minimum of 12" of base material (57 stone or #4 limestone) must be installed under all manholes, lift stations and grease traps.
___	___	___	Sewer pipes shall extend 4" to 6" inside the manhole.
___	___	___	All joints in the manhole shall be grouted inside and outside.
___	___	___	Sewer manhole lids shall be East Jordan Iron Works model V1600-3 with a 25½" opening per attached detail.
___	___	___	The Owner/Developer must provide a 25½" rain tub for each manhole per attached detail.
___	___	___	"Doghouse" manholes are not permitted in the City of Ocean Springs.
___	___	___	Sewer service stub-out pipes shall be left a minimum of three (3) feet above finish grade until the permanent building tie-in is made.

Shown	Not Shown	Does Not Apply

Sewer Lift Station:

___ ___ ___ The finished grade of lift station wet wells, valve vaults and slabs must be 12" above adjacent area grade.

Grease Interceptors:

Grease interceptors must be sized and constructed to City standards.

Grease interceptor manhole tops must be above finished grade of surrounding area to prevent surface drainage from entering the sewer system.

Grease interceptor structures and manhole rings must be grouted inside and outside. Top ring of manhole must be set in concrete.

Dumpsters:

All dumpster pads must be covered with a roof.

All dumpster pad finished grades must be above adjacent area grades to prevent surface drainage from entering the sewer system.

Car wash:

Car washes must connect to city water and sewer system.

Car wash storm drain system and sewer and sewer system cannot be interconnected and no storm water surface drainage can enter the sewer system.

TESTING REQUIREMENTS AND PROCEDURES

Pressure Testing of Force Mains and Water Lines:

-All newly installed pipelines and appurtenances shall be tested by a hydrostatic pressure test conducted at a minimum of 150 psig, or static pressure plus 50% whichever is greater.
-After the water lines or isolated sections of the pipeline have been filled with water, the pressure shall be increased to the test pressure by means of a hydraulic force pump. The leakage test shall be in accordance with AWWA M23.
-The CONTRACTOR shall furnish all necessary equipment, material, make all taps in pipe and provide all labor for conducting the tests.
-The duration of the hydrostatic leakage test shall be two (2) hours or as specified by the City.
-The source of water for the pump suction shall be potable water from the City's distribution system. The vessel used must be approved by the City.
-All interior valves including valves on fire hydrants and other appurtenances shall be open during all tests.
-The maximum leakage per hour for ductile iron and P.V.C. pipe shall be as calculated from the following formula (All rubber gasket or O-ring joints):

$$\frac{L = ND\sqrt{P}}{7400}$$

L = allowable leakage, (gallons per hour)
N = number of joints
D = nominal diameter of pipe, (inches)
P = average test pressure during test, (psig)

Air Testing of Gravity Sewer Lines

-The CONTRACTOR shall perform the testing of manhole construction, pipe materials and/or other materials incorporated into the construction of the sanitary sewer system to determine leakage and water tightness. Testing to be supervised by the City.
-All gravity sewer lines shall be tested in accordance with the following procedures:

(a) Plug all pipe outlets with suitable test plugs. Brace each plug securely.
(b) Pipe air supply to the pipeline to be tested in such a manner that the air supply may be shut off, pressure observed and air pressure released from the pipe without workmen entering the manhole.
(c) Add air slowly to the portion of pipe under test until the internal pressure of the lien is raised to approximately 4 psig but less than 5 psig.
(d) Shut the air supply off and allow at least two minutes for the air pressure to stabilize.
(e) When the pressure has been bled down to 3 ½ psig and stabilized, start the test.
(f) If the pipe section does not drop below 3.0 psig in the allotted time the section passes the test.

Gravity Sewer Air Testing Time Requirements

Minimum Time Requirements for 0.5 PSIG
Pressure drop from 3.5 PSIG to 3.00 PSIG
(Not less than shown between manholes)

Pipe Size	Time
8"	5.0 minutes
10"	6.5 minutes
12"	7.5 minutes
15"	9.5 minutes
18"	11.5 minutes
24"	13.5 minutes

Manhole Vacuum Testing

-The manhole vacuum test shall be performed with suitable apparatus made for such purpose and shall draw a vacuum of 10" of mercury (Hg). The test shall pass if the vacuum remains at 10" of mercury (Hg) or drops to not less than 9" of mercury (Hg) in one minute. Vacuum test will be performed by construction CONTRACTOR. Test shall be witnessed and documented by the City. If, after three (3) attempts to perform a satisfactory vacuum test have failed, the City may require that the manhole be removed and replaced/repoured.

City Engineer (initials – after approval) _____

CITY OF OCEAN SPRINGS
PUBLIC WORKS DEPARTMENT

Request to Deviate from City Plan Review Guidelines

Name of Development: _____ Date Submitted: _____

Approx. Location: _____ Developer's Name: _____

Developer's Engineer: _____ Developer's Engineer: _____
(Print Name) (Sign Here)

Reviewed By: _____ Date Approved: _____
(City Engineer)

Approved	Not Approved	City Engineer's Initials
___	___	___

List Requested Deviations Here:

1. _____

2. _____

3. _____

CITY OF OCEAN SPRINGS

GREASE CONTROL PROGRAM ORDINANCE

Revised February 1, 2018

1. Purpose

The purpose of this ordinance is to control discharges of **Fats**, **Oil** and **Grease (FOG)**, waste food and sand into the public sewerage collection system. FOG, waste food and sand interfere with the operation of the sewerage system and cause blockages in the system lines. This ordinance establishes regulations for the sizing, installation, maintenance and operation of FOG, waste food and sand interceptors.

2. Definitions

The words, terms and phrases used in the interpretation and application of this ordinance shall have the following meanings:

A. **Black Water**. Waste water from sanitary fixtures such as toilets and urinals.

B. **Bulk Service Kitchen.** A facility which prepares bulk quantities of food, such as hospitals, schools or caterers.

C. **Common Grease Interceptor.** A device which receives grease waste from more than one facility having different operators or types of operations.

D. **Customer.** A user of the sanitary sewer system who produces waste from their process operations. The customer is responsible for disposing of the produced waste in accordance with all Federal, State and local disposal regulations.

E. **Food Courts.** Areas in which multiple food preparation establishments having different owners may be sharing seating space and/or plumbing facilities.

F. **Food Service Facility (FSF).** Any facility whose operations include cutting, cooking, baking, preparing or serving food or which disposes of food related waste.

G. **Garbage Grinder.** A device that chops, shreds or grinds up solid or semisolid waste materials into smaller portions for discharge into the sanitary sewer collection system.

H. **Gray Water.** All wastewater other than "Black Water" as defined in this section of the ordinance.

I. **Grease.** A waste material composed primarily from fats and oil of animal and vegetable origins. The terms fats, oil and grease as used in this ordinance shall be deemed as Grease by definition. Grease does not include petroleum based products.

J. **Grease Interceptor.** A large tank or device designed and constructed to separate, trap and hold grease substances from the sewage discharge from a facility and to prevent them from entering the sanitary sewer collection system. Grease Interceptors must be located outside of food service facilities.

K. **Hauler.** An individual or company who transfers waste from the site of a customer/waste producer to an approved disposal or treatment facility.

L. **NPDES.** Stands for the National Pollution Discharge Elimination System.

M. **POTW.** Stands for Publicly Owned Treatment Works as defined by Section 212 of the Clean Water Act (33 U.S.C. § 1292). This definition includes the sewer collection system owned by the City of Ocean Springs.

N. **Grease Control Program Coordinator.** The individual employed by the City of Ocean Springs who is responsible for administering and enforcing the Grease Control Program to ensure compliance by users with the applicable laws, rules, regulations, resolutions and ordinances related to the concentration of substances found in the waste discharged into the sewage collection system of the City of Ocean Springs.

O. **Sewage.** The liquid and/or water carried domestic, commercial or industrial waste from individual homes, commercial establishments, industrial facilities and institutions, whether treated or untreated. The terms "waste" and "wastewater" shall both be considered Sewage by this definition.

P. **Sewer Lateral.** A sewer line maintained and controlled by an individual or privately owned establishment for the purpose of conveying sewage from a waste producing location to the City of Ocean Springs sanitary sewer collection system.

Q. **Single Service Restaurant.** A restaurant or food service facility that serves meals only on throwaway plates, dishes and utensils.

R. **Standard Restaurant.** A restaurant or food service facility that serves meals on plates, dishes and utensils that are washed and reused.

S. **"Under the Sink" Grease Trap.** A container designed and constructed to separate, trap and hold fats, oil and grease that is placed under or near sinks or other facilities to prevent the discharge of these waste substances into the sanitary sewer collection system.

T. **User.** A City of Ocean Springs customer operating a "food service facility" (FSF) within the City of Ocean Springs wastewater collection system service area.

U. **Waste.** The liquid and/or water carried domestic, commercial or industrial waste from individual homes, commercial establishments, industrial facilities and institutions, whether treated or untreated. Waste may include but not be limited to discharges from sinks, dishwashing machines and floor drains located in areas where grease containing materials may exist. The terms "sewage" and "wastewater" shall be considered Waste by this definition.

3. **General Criteria**

A. **Installation Requirements for New Food Service Facilities.** All proposed or newly remodeled food service facilities located within the City of Ocean Springs wastewater collection system service area shall be required to install an approved, properly operated and maintained grease interceptor.

B. **Phased Implementation Plan for Existing Food Service Facilities.** All existing food service facilities located within the City of Ocean Springs wastewater collection system service area are required to conduct there operations in such a manner that grease originating at the facility is captured on the user's premises and then disposed of properly.

1) The City of Ocean Springs will inspect each Food Service Facility periodically or as necessary to assure that each facility is complying with the intent of the Grease Control Program.

2) The City of Ocean Springs will identify and target "grease problem areas" in the wastewater collection system through maintenance records and emergency call outs for grease related sewer problems. All Food Service Facilities located upstream of the identified "grease problem areas" that discharge their waste water into the "problem" lines will be subject to inspection of their grease interceptor sizing, condition and maintenance records.

3) Following the inspections, notification will be sent to the inspected food service facilities. The notification will contain an educational brochure on grease in the sewer system, a summary of the Grease Control Program requirements and the results of the inspection.

The inspections will result in one of the following actions:

a. Facilities meeting the intent of the Grease Control Program through the use of appropriate and adequately sized grease interceptors and effective grease control practices will be commended for their compliance.

b. Facilities not meeting the intent of the Grease Control Program will be required to submit a plan to the City of Ocean Springs outlining measures to be implemented by the facility to become compliant through improved housekeeping and increased maintenance and pumping of the existing grease interceptor. Follow up inspections will be conducted to determine if the plan is being followed and is successful in bringing the facility into compliance.

c. Facilities that are not successful in achieving compliance through improved housekeeping, increased maintenance and pumping of existing grease interceptors will be required to install the necessary interceptor or equipment required to bring the facility into compliance. An appropriate amount of time for the improvements to be installed and made operational will be agreed upon between the Cityof Ocean Springs and the Customer.

C. **Prohibited Discharges.** Black water shall not be discharged into the grease interceptor unless specifically approved, in writing, by the City of Ocean Springs.

D. **Floor Drains.** Only floor drains which discharge or have the potential to discharge grease shall be connected to the grease interceptor.

E. **Garbage Grinders and Dishwashers.** It is recommended by the City of Ocean Springs that solid food waste be disposed of through normal solid waste/garbage disposal

procedures. The City of Ocean Springs discourages the use of garbage grinders that discharge into the sanitary sewer but in the event the device is used in a commercial or industrial facility, it must be connected to the grease interceptor. Using a garbage grinder decreases the operational capacity of the grease interceptor and will require an increased pumping frequency to ensure continuous and effective operation. Commercial dishwasher connections must be connected to the grease interceptor.

F. **Location.** A grease interceptor shall be installed and connected so that it is easily accessible for inspection, cleaning and removal of the intercepted grease at any time. Grease interceptors must be installed outside of the building it serves. Location of grease interceptors must be approved by the City of Ocean Springs. The preferred location is on the outside of an outside wall and upstream from the black water drain line.

4. **Design Criteria**

A. **Construction of Grease Interceptors.** Grease interceptors shall be constructed in accordance with City of Ocean Springs standards. A minimum of two compartments with a separation baffle and inlet and outlet fittings designed for grease retention are required components of the grease interceptor. All grease interceptors and grease removal devices are subject to written approval of the City of Ocean Springs. A standard drawing for the type grease interceptor required by the City of Ocean Springs is included in Appendix A.

B. **Access.** All grease interceptors shall be constructed in a location outside the building they serve in such a manner that they are accessible for maintenance and inspection at all times. Two manholes shall be provided on each grease interceptor for access. The manhole access points shall be a minimum of one inch above the surrounding grade and shall consist of a cast iron frame and cover.

C. **Load-Bearing Capacity.** If the grease interceptor is located in an area subject to traffic or other loads, it shall be designed to have adequate load bearing capacity.

D. **Inlet and Outlet Piping.** One inlet and one outlet tee shall be provided for each grease interceptor. Wastewater shall enter the grease interceptor only through the inlet tee.

E. **Grease Interceptor Sizing.** The required minimum size of a grease interceptor shall be determined using the following formulas:

Grease Interceptor Sizing Criteria

How to Determine the Size of an Exterior, In-ground Grease Interceptor Using the Manning Formula:

The formula for calculating grease interceptor sizing is:

> *Gallons of interceptor* = [[**(1)** = GPM/fixture (derived from Manning formula) x **(2)** = total # fixture ratings of grease-laden waste streams] + **(3)** direct flow from a dishwasher, can wash, mop sink (in GPM)]] x **(4)** = 24 minute retention time

Components of equation =

1) **GPM/fixture** – This is derived from the Manning Formula. It takes into account the slope, roughness of the pipe (plastic) used, and pipe diameter size. When applying the Manning Formula, we arrive at the drainage rates of various pipe diameter sizes:

0.5 inch pipe diameter = 0.8 GPM/fixture
1.0 inch pipe diameter = 5.0 GPM/fixture
1.5 inch pipe diameter = 15 GPM/fixture
2.0 inch pipe diameter = 33 GPM/fixture
2.5 inch pipe diameter = 59 GPM/fixture
3.0 inch pipe diameter = 93 GPM/fixture

2) **Fixture Ratings of Grease-Laden Waste Streams:** Fixtures that have more grease in their waste stream received higher values while less grease corresponds to a lower value. The table is shown below:

Table of Common Commercial Kitchen Fixtures and their Corresponding Rating (each):

2, 3, or 4-compartment pot sink = 1.0
1 or 2-compartment meat prep sink = 0.75
Pre-rinse sink = 0.5
1 or 2-compartment vegetable prep sink = 0.25

3) **Direct Flow from Dishwasher, Can Wash, and Mop Sink:** Use the following gpm values: Dishwasher = 10 gpm; can wash and mop sink = 6 gpm

4) **Twenty-four minute retention time:** Engineers have determined that when applying several criteria to determine proper grease (animal and vegetable lipids) separation (using Stoke's Law, specific gravity of lipids, etc.), a twenty-four minute retention time is required.

Example #1: A restaurant has the following fixtures in their kitchen:

- (1) 3-compartment pot sink, 1.5 inch waste drain
- (1) pre-rinse sink, 1.5 inch waste drain
- (1) 1-compartment meat prep sink, 1.5 inch waste drain
- (1) 1-compartment vegetable prep sink, 1.5 inch waste drain
- (1) can wash (use 6 gpm)

Using the formula to size exterior grease interceptors, we get:

=[[15 GPM x [1 + 0.5 + 0.75 + 0.25] + 6 GPM] x 24 minutes
=[[15 GPM x 2.50] + 6 GPM] x 24 minutes
=[37.5 GPM + 6 GPM] x 24 minutes
=43.5 GPM x 24 minutes
=1,044 gallons ***Use 1,000 gallon interceptor size***

Example #2: A restaurant has the following fixtures:

	GPM x Grease Factor
• (1) 3-compartment pot sink, 2.0 inch waste drain	33 x 1.0 = 33.00 gpm
• (1) 1-compartment prep sink (meat) 1.5 inch waste drain	15 x 0.75 = 11.25 gpm
• (1) 1-compartment prep sink (vegetable), 1.5 inch waste drain	15 x 0.25 = 3.75 gpm
• (1) Pre-rinse sink, 2.0 inch waste drain	33 x 0.5 = 16.50 gpm
• (1) Dishwasher (use 10 gpm)	= 10.00 gpm
• (1) Mop sink, 3 inch waste drain (use 6 gpm)	= 6.00 gpm
	Total 80.50 gpm

Using the formula to size exterior grease interceptors, we get:

80.50 gpm x 24 minutes = 1,932 gallons ***Use 2,000 gallon interceptor size***

The minimum size grease interceptor shall be 500 gallons. If the calculated required capacity is in excess of 1,500 gallons, multiple units may be used in series. The City of Ocean Springs shall evaluate interceptor sizing on an individual basis for food service facilities.

F. **Upgrades or Changes.** Changes or upgrades proposed to be made to any existing or new food service facility that affects grease discharge into the City of Ocean Springs wastewater collection system must be reported to the City of Ocean Springs.

5. **Grease Interceptor Maintenance**

A. **Cleaning and Pumping.** The user shall bear all expenses to maintain the grease interceptor. Grease interceptor maintenance shall include the removal of all contents including floating matter, wastewater and sludge. No waste shall be disposed of back into the grease interceptor it was removed from or any other grease interceptor in an effort to reduce the volume of disposed material.

B. **Cleaning and Pumping Frequency.** The minimum frequency for pumping out of grease interceptors shall be three months unless a more frequent schedule is determined necessary from inspections of the system. Request to extend the cleaning schedule beyond three months must be supported by maintenance records and approval from the City of Ocean Springs. The grease interceptor must be completely pumped out at each cleaning. A depth of solids measurement equal to or greater than one fourth (25%) of the interceptor's depth shall be considered to be in non-compliance. The depth measurement may be determined by mechanical or electronic measurement.

C. **Disposal of Grease Interceptor Waste.** Waste removed from grease interceptors must be disposed of at a facility licensed to receive and process such waste. No waste removed from a grease interceptor shall be returned to any portion of the City of Ocean Springs' sanitary sewer collection system.

D. **Additives.** Any additive such as enzymes and bacteria introduced into the grease interceptor or buildings discharge line on a regular basis for the purpose of treating grease and/or sludge must be reported on the user's maintenance record. The use of additives does not in any way relieve the user from performing the maintenance requirements set forth herein.

E. **Drain Treatment.** Drain cleaners or acid used to dissolve grease shall be prevented from entering the grease interceptor.

F. **Records.** A written record must be kept by the user which confirms and tracks the pumping, hauling and disposal of waste collected from grease interceptors. The user must keep a copy of the service manifest from the hauler. The user is required to utilize licensed grease disposal service providers.

G. **Maintenance Log.** A Maintenance Record Log shall be maintained by each facility required to have a grease interceptor that tracks and documents all grease interceptor cleaning and pumping for the previous two year period. The Maintenance Record Log shall be readily available for inspection by the City of Ocean Springs and shall contain records of the date, time, volume pumped, grease disposal service provider and disposal site.

6. **Administrative Requirements.**

A. **Initial Data Acquisition.** Each Food Service Facility shall be inspected and a report completed by the City of Ocean Springs that contains all of the physical characteristics and a performance evaluation of the grease interceptor. A copy of the report will be furnished to the user and the original shall be maintained by the City of Ocean Springs.

B. **Inspection/Permit Fee.** A yearly fee shall be established by the City of Ocean Springs for facilities producing grease discharges to recover expenses for the inspection of grease interceptors and the record keeping associated with the Grease Control Program.

C. **Monitoring.** The user shall operate, maintain and provide safe accessibility to inspection and monitoring locations (manholes) of the grease interceptor. Ample area shall be provided at the monitoring locations for inspection and sampling.

D. **Inspection and Entry.** City of Ocean Springs' personnel with proper credentials and identification shall have the authority to enter a food service facility and perform a grease interceptor inspection or record review at any time and without prior notification.

7. **Enforcement.**

The enforcement of this ordinance shall be by the administrative authority of the City of Ocean Springs. Any user found to be violating or to have violated the requirements of this program is subject to corrective action by the City of Ocean Springs which may include but not be limited to the following:

A. **Notice of Violation.** Any user found to be in violation of the program requirements may be issued a written notice detailing the infraction. The user shall submit a plan for the satisfactory correction of the deficiency within 14 days of the date of the notice.

B. **Consent Order.** Agreements such as consent orders, assurances of voluntary compliance or other similar documents may be entered into by the City of Ocean Springs and a user responsible for noncompliance with the program. The agreement shall specify the action to be taken by the user and the time allowed for the noncompliance to be corrected.

C. **Administrative Order.** When a user is found to be in violation of the requirements of this program, the City of Ocean Springs may issue an order of compliance to the user responsible for the discharge. The order may contain any requirements deemed necessary and appropriate by the City of Ocean Springs to correct the noncompliance.

D. **Emergency Suspension of Service.** Water and wastewater services may be suspended to a user when deemed necessary by the City of Ocean Springs in order to prevent an actual or imminent discharge which:

1) may present in the opinion of the City of Ocean Springs an endangerment to the public or the environment;

2) causes sanitary sewer overflows as a result of stoppages or requires excessive maintenance to be performed on the sanitary sewer system to prevent stoppages;

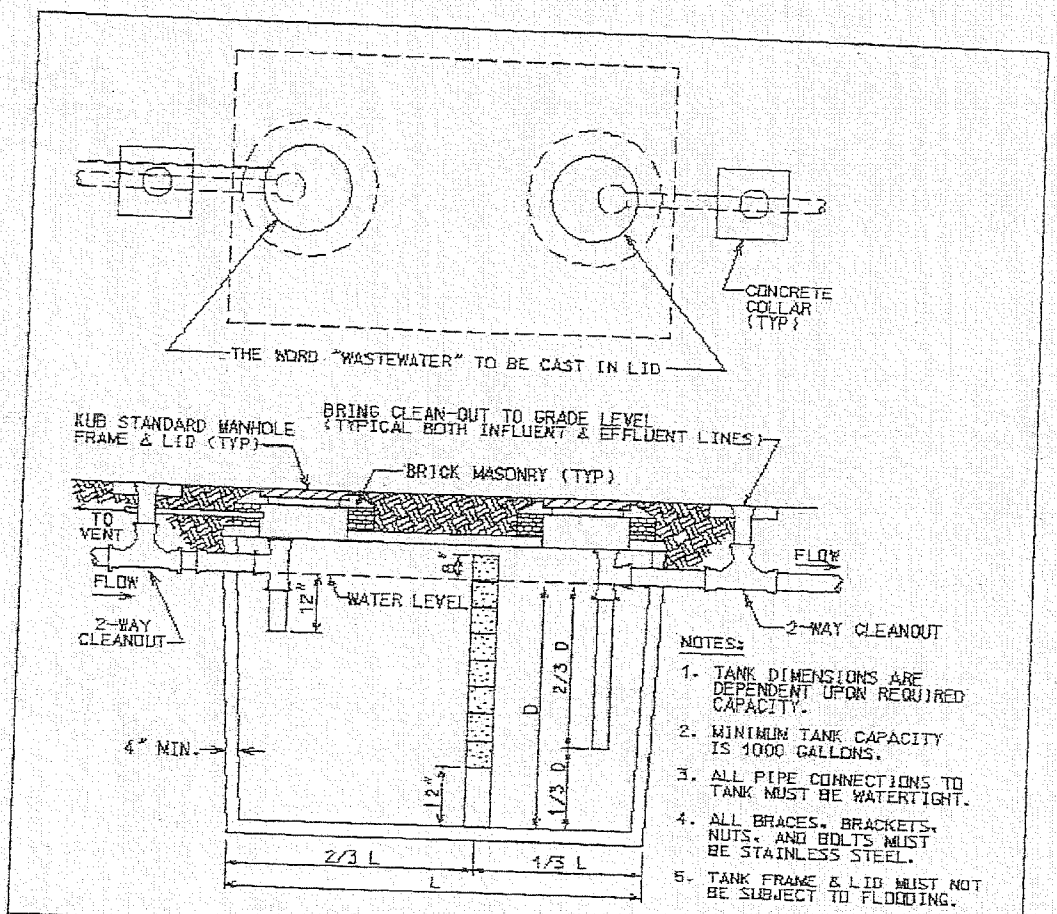
3) causes a violation to any of the conditions of the City of Ocean Springs' NPDES permits.

Any user notified of a suspension of water and sewer service shall immediately cease or eliminate the discharge. If the user fails to voluntary comply with the suspension order, the City of Ocean Springs may immediately terminate water and sewer service. Water and sewer services may be reinstated to the user when all conditions causing the suspension have been eliminated or corrected and the reconnection fee has been paid. The user causing the noncompliant discharge shall submit a written statement to the City of Ocean Springs detailing the cause of the incident and state the actions taken by the user to prevent future occurrences. The statement shall be submitted within 14 days of the occurrence of the discharge violation.

E. **Administrative Penalty.** Any user determined to have violated any provision of this program or any order issued to the user may be assessed an administrative penalty not to exceed $1,000.00 per violation. Each day on which a violation occurs or continues to occur shall be considered a separate violation. Assessments may be added to the user's next sewer charge and the City of Ocean Springs shall use all collection remedies as are available by law.

F. **Request for Hearing and Appeal.** Any user subjected to a penalty, order or directive of the City of Ocean Springs issued under the provisions of this program is entitled to a hearing before the City of Ocean Springs Board of Aldermen. Such appeal or hearing shall be requested in writing within ten days of the issuance of the penalty, order or directive. The requested hearing shall be held in a timely manner and the affected user shall have the opportunity to be heard. The City of Ocean Springs shall issue a written response to the user requesting the hearing.

EXHIBIT A



	GREASE INTERCEPTOR TYPICAL TANK CONFIGURATION	CHECKED:	DRAWING NO. 47
DATE: 6-1-99 SCALE: NONE		APPROVED:	DRAWN: D.K.W. / C.E.A.

APPENDIX A

Name of Property:_____ City: _____ State: _____ Zip Code:

Property Address:_____ Date of Inspection:

Contact Person: _____ Phone:

Grease Trap Inspection Form

Type of food facility?	Dine-in	Carry-out	Delivery	Drive-thru	Other
What is the number of seats in the food facility?	0-10	10-20	20-50	50-100	> 100
Number of meals served per day?	10-50	50-100	100-200	200-300	> 300
How many hours per day is food served or prepared?	1-4	4-6	6-10	10-15	> 15
Is there a grease trap or interceptor?	Yes	No			
If so, what type of grease interceptor?	Internal grease trap	External Interceptor	Other		
Garbage disposal/grinder?	Yes	No			
If so, is the garbage disposal connected to grease interceptor?	Yes	No			
Dishwasher?	Yes	No			
If so, is the dishwasher connected to the grease interceptor?	Yes	No			
If located inside the building, what is the capacity in pounds?	10 lb.	20 lb.	30 lb.	40 lb.	> 40 lb.
If located inside, is the flow restrictor still in place?	Yes	No			
If grease interceptor, what size in gallons?	500	750	1000	1500	> 2000
If grease interceptor, what are the approximate dimensions in feet?	Length	Width	Height	Depth	
Where is the grease interceptor located?	Exterior of building	Under sink	Separate Enclosure	Kitchen floor	Other
Description of trap condition?	Excellent	Good	Fair	Poor	
Who pumps the grease trap or interceptor?					
How often is the grease interceptor pumped?	Weekly	Monthly	Bi-monthly	Semi-Annual	Annually
Are chemicals used to control grease?	Yes	No			
If so, please list the chemical(s) used?					

Comments:

ANYTOWN USA
LIQUID WASTE HAULER MANIFEST

EMERGENCY PHONE NUMBER (615) ___-____

GENERATOR INFORMATION

Business Name: _____

Address: _____ City: _____ State: _____ Zip: _____

Phone: _____ Customer Billing: _____

Waste tank or Trap Capacity: _____gallons Pump Freq: _____

Waste From: ☐ Grease Trap ☐Grit Trap ☐ Other _____

I CERTIFY THAT, TO THE BEST OF MY KNOWLEDGE, THE WASTE MATERIAL REMOVED FROM THE ABOVE PREMISES CONTAINS NO HAZARDOUS MATERIAL. I ALSO CERTIFY THAT A REPRESENTATIVE OF THIS BUSINESS WITNESSED THE PUMPING OR INSPECTED THE TRAP AFTERWARDS.

_____
(Print Name)

_____ _____ _____
(Date) (Time In) (Signature)

TRANSPORTER INFORMATION

Business Name: _____

Address: _____ City: _____ State: _____ Zip: _____

Phone: _____ Truck License Number: _____

Gallons Received: _____ Vehicle Permit Number: _____

I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS CORRECT AND THAT ONLY THE TYPE WASTE SPECIFIED IS CONTAINED IN THE SERVICING VEHICLE.

_____ _____
(Driver's License No.) (Driver Name – Print)

_____ _____ _____
(Date) (Time Out) (Signature)

DISPOSAL INFORMATION

Business Name: _____

Address: _____ City: _____ State: _____ Zip: _____

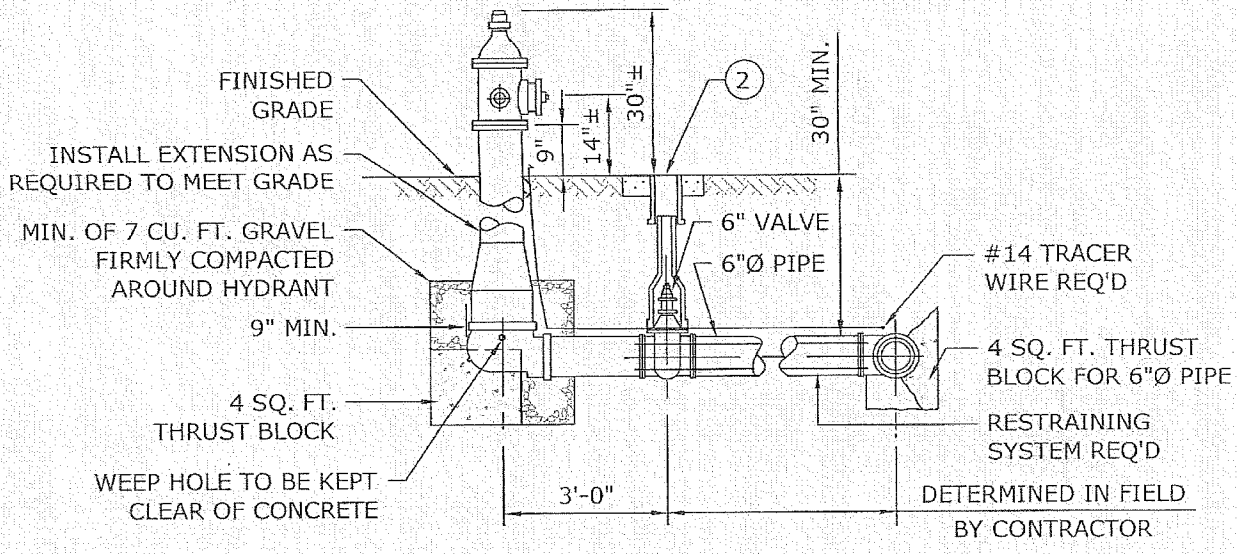
Phone: _____ Gallons Received: _____

I CERTIFY THAT I HAVE DISPOSED OF THE WASTE IN ACCORDANCE WITH ALL CITY, STATE, AND FEDERAL LAWS.

_____ _____
(Date and Time Received) (Print Name)

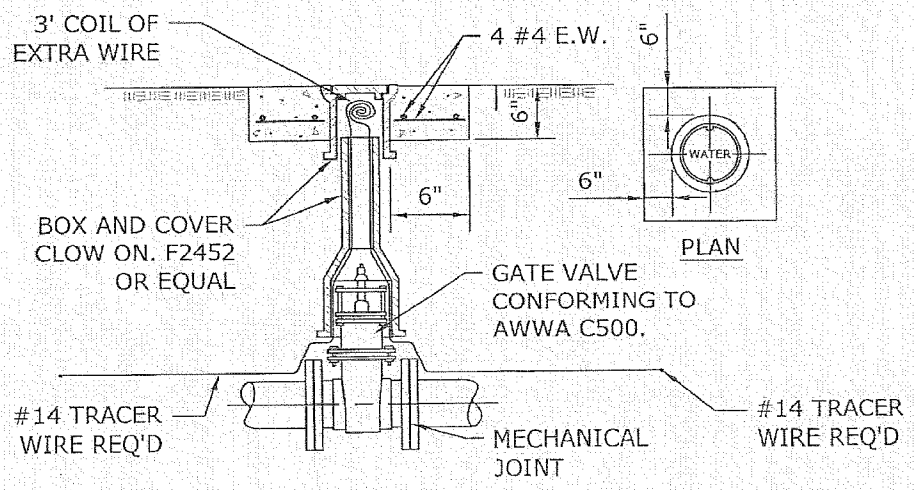
_____
(Signature)

White – City Yellow – Generator Pink – Disposal Site Green – Transporter Goldenrod – Returned to Generator



FIRE HYDRANT ASSEMBLY DETAIL
CITY OF OCEAN SPRINGS - (TYPICAL)

SCALE: NOT TO SCALE



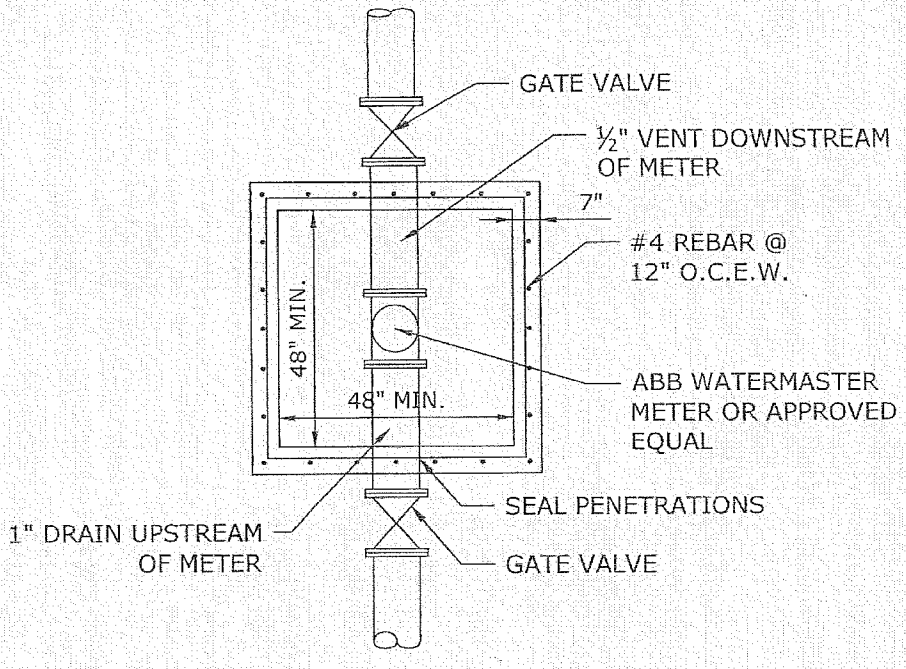
VALVE INSTALLATION
CITY OF OCEAN SPRINGS - (TYPICAL)

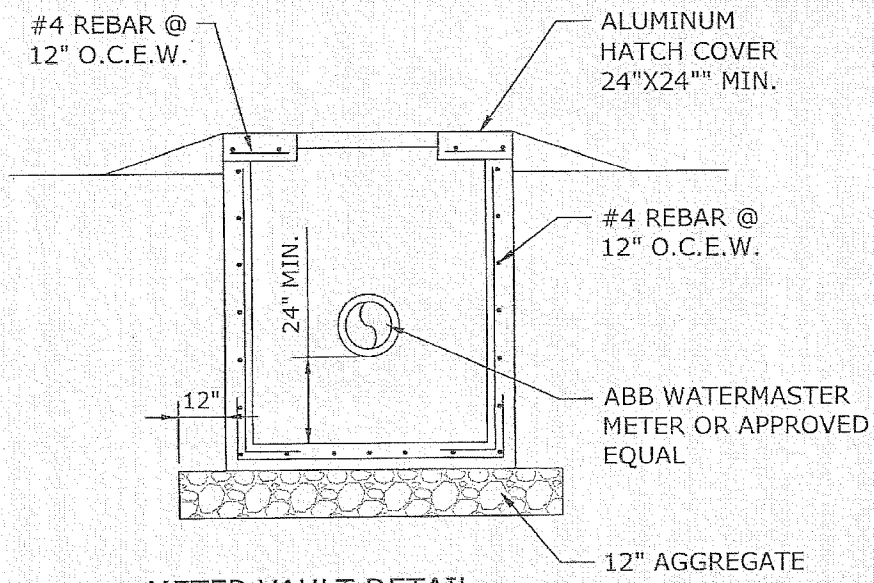
(2) SCALE: NOT TO SCALE

PREPARED BY:

COMPTON ENGINEERING, INC.
Engineering, Surveying, and Environmental Services
1706 Convent Avenue
Pascagoula, Mississippi 39567
Phone: (228) 762-3970 Fax: (228) 769-9079
E-mail: compton@comptonengineering.com

PREPARED FOR: City of Ocean Springs	DRAWN BY: JDL
PROJECT TITLE: CITY OF OCEAN SPRINGS - STANDARD DETAILS	DATE DRAWN: AUGUST 2015
NORTH ARROW	JOB NUMBER: 214-034.003
	SCALE: AS NOTED
FIGURE TITLE: FIRE HYDRANT ASSEMBLY AND VALVE INSTALLATION - PROFILE (TYPICAL)	REVISION NUMBER: A





METER VAULT DETAIL
CITY OF OCEAN SPRINGS - (TYPICAL)

SCALE: NOT TO SCALE

PREPARED BY:
COMPTON ENGINEERING, INC.
Engineering, Surveying, and Environmental Services
1706 Convent Avenue
Pascagoula, Mississippi 39567
Phone: (228) 762-3970 Fax: (228) 769-9079
E-mail: compton@comptonengineering.com

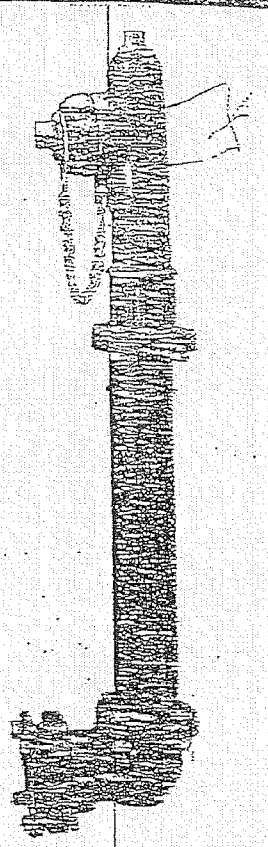
PREPARED FOR: City of Ocean Springs	DRAWN BY: JDL
PROJECT TITLE: CITY OF OCEAN SPRINGS - STANDARD DETAILS	DATE DRAWN: AUGUST 2015
	JOB NUMBER: 214-034.003
NORTH ARROW	SCALE: AS NOTED
FIGURE TITLE: METER VAULT DETAIL - PROFILE (TYPICAL)	REVISION NUMBER: A

Mueller Co.

MUELLER® 2-1/8" POST TYPE FIRE HYDRANT

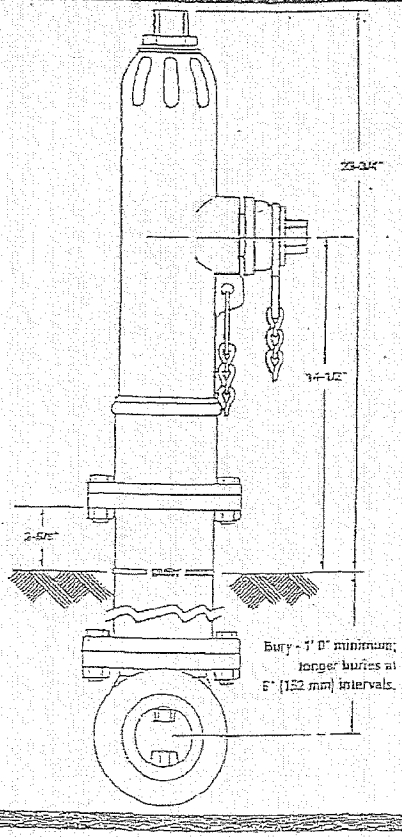
- ☐ Catalog numbers—
  A-411 2-1/8" main valve opening two way (two 1-1/2" hose nozzles)
  A-411 2-1/8" main valve opening one way (one 2-1/2" hose nozzle)
- ☐ Meets all applicable parts of ANSI/AWWA C502 Standard
- ☐ Post type dry barrel design
- ☐ Compression type main valve closes with pressure
- ☐ Operating nut available in wide variety of shapes and sizes
- ☐ Field replaceable hose nozzles
- ☐ Hose nozzles have large radius, full flow openings for low friction loss
- ☐ Contoured shoe is designed for full flow
- ☐ Dual bronze drain valves provide effective barrel drainage
- ☐ 150 psig (1034 kPa) maximum working pressure, 300 psig (2068 kPa) test pressure

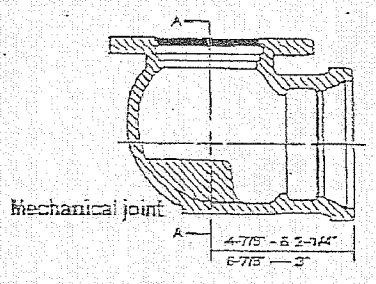
WATTS Drain Ports

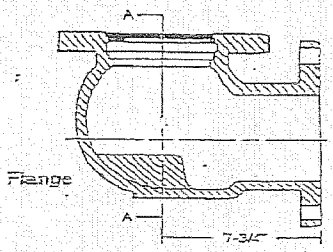


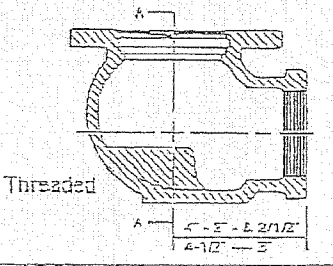
* INSTALL FOR ABOVE GROUND FLUSHING AT END OF LINES, WHERE APPLICABLE.

Dimensions





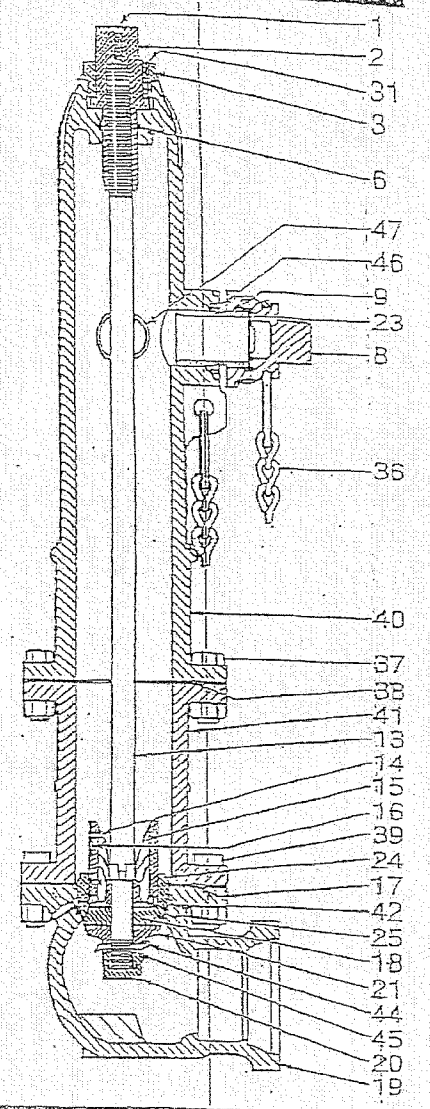




MUELLER 2-1/8" Post Type Fire Hydrant

Cat. part no.	Description	Material	Material standard
1	Oil screw for operating nut	Brass	ASTM B36
2	Operating nut	Bronze	ASTM B584
3	Hold down nut	Bronze	ASTM B584
6	Operating nut O-ring	Rubber	ASTM D2000 BUNA-N
8	Hose nozzle cap	Cast iron	ASTM A126 CL. B
9	Hose nozzle	Bronze	ASTM B584
13	Stem	Steel	ASTM A576 GR. B
14	Drain valve screw	Stainless steel	ASTM A307
15	Upper valve plate*	Bronze	ASTM B584
16	Drain valve facing	Plastic	
17	Shoe gasket	Rubber	ASTM D2000
18	Main valve	Rubber	ASTM D2000
19	Shoe	Cast iron	ASTM A126 CL. B
20	Valve plate nut	Bronze	ASTM B584
21	Lower valve plate	Cast iron	ASTM A126 CL.B
23	Hose nozzle O-ring	Rubber	ASTM D2000 Neoprene
24	Seat ring	Bronze	ASTM B584
25	Seat ring gasket	Copper	ASTM A372
31	Oil screw	Brass	ASTM B36
31B	O-ring (for oil screw)	Rubber	ASTM D2000 BUNA-N
36	Nozzle cap chain	Steel	Plated
37	Barrel flange bolt and nut	Steel	ASTM A307 Plated
38	Barrel flange gasket	Rubber	ASTM D2000
39	Shoe bolt and nut	Steel	ASTM A307 Plated
40	Upper barrel	Cast iron	ASTM A126 CL. B
41	Lower barrel	Cast iron	ASTM A126 CL. B
42	O-ring	Rubber	ASTM D2000
44	Valve nut washer	Stainless steel	ASTM A276
45	Valve nut seal	Rubber	ASTM D2000
46	Nozzle lock	Stainless steel	ASTM A276
47	Hose nozzle gasket	Rubber	ASTM D2000 Neoprene

*Includes items #14 and #16.
For pre-1986 models refer to parts drawing on page 9.37.



A-312

A-312 Operating wrench— operates nozzle caps, pin and lug type hose couplings, hydrant operating nut and hold down nut.

A-347

A-347 Seat wrench— Adjustable, used to remove main valve and seat ring from ground line level.

A-51

A-51 Hydrant lubricating oil— 10.5 ounce conta of all-weather oil

A-316

A-316 Nozzle wrench— Used to remove and install threaded in hose and pumper nozzles.

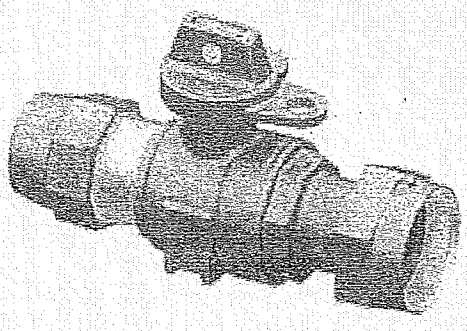
A-317

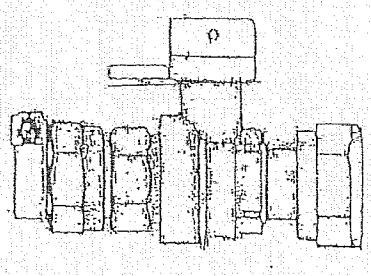
A-317 Nozzle lock installation tool— Used to install nozzle locking device.

Curb Stop Detail

¾" BALL VALVE, PAD WING
1" CTS PACK JOINT
⅝ " METER SWIVEL NUT

Ford Meter Box Co. – B43-344W or equal

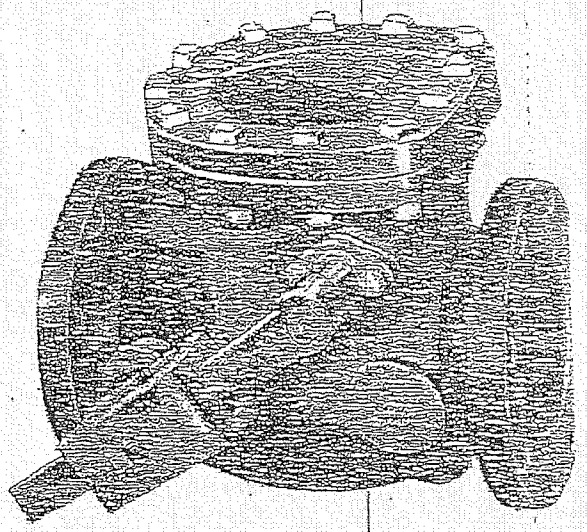




Mueller Co.

MUELLER® SWING TYPE LEVER AND WEIGHT CHECK VALVES WITH FL. X FL. ENDS

- ☐ Catalog number—
  A-2600-6-01 flanged ends, weight and lever operated with bronze disc facing
  A-2602-6-01 flanged ends, weight and lever operated with rubber disc facing
- ☐ Sizes—2-1/2", 3", 4", 4"x6", 4"x8", 6", 6"x8", 6"x10", 8", 10", 12", 14", 16", 18", 20", and 24"
- ☐ Meets all applicable parts of ANSI/AWWA C508 Standard
- ☐ Flanged end dimensions and drilling comply with ANSI B16.1, class 125
- ☐ Iron body, bronze mounted (IBBM)
- ☐ Choice of bronze or rubber disc facing
- ☐ For vertical or horizontal installation
- ☐ O-ring sealed stuffing box
- ☐ Adjustable weight to control opening and closing of clapper, lever can be installed on either side of valve
- ☐ 2-1/2"-12" sizes—175 psig (1207 kPa) maximum working pressure, 350 psig (2414 kPa) test pressure
- ☐ 14"-24" sizes—150 psig (1034 kPa) maximum working pressure, 300 psig (2068 kPa) test pressure

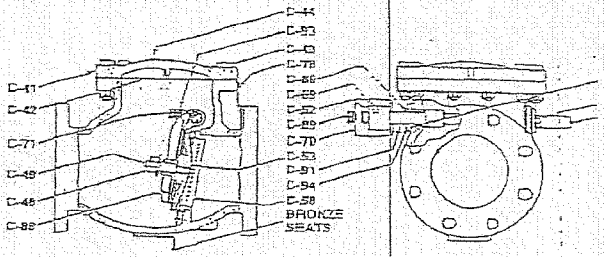


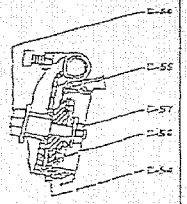
A-2600-6-01

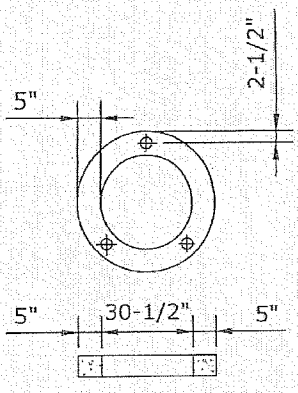
Check Valve parts

Catalog part No.	Description	Material	Material standard
C-41	Cover	Cast iron	ASTM A126 CL.B
C-42	Cover gasket	Rubber	ASTM D2000
C-43	Cover bolt and nut	Steel	ANSI B18.2.1
C-44	Test plug	Cast iron	
C-48	Stud nut	Bronze	ASTM B62
C-49	Disc stud	Bronze	ASTM B21
C-53	Disc*	Cast iron	ASTM A126 CL.B
C-58	Seat ring	Bronze	ASTM B584
C-66	Cap screw	Steel	ANSI B18.2.1
C-69	Pin	Steel	
C-70	Weight	Cast iron	ASTM A126 CL.B
C-71	Set screw	Stainless steel	ASTM A193
C-78	Body	Cast iron	ASTM A126 CL.B
C-86	Stuffing box w/bushing	Bronze	
C-88	Clapper arm	Bronze	ASTM B584
C-89	Set screw	Steel	ANSI B18.6.2
C-91	Hinge pin	Stainless steel	ASTM A582
C-92	Weight lever**	Steel	ASTM A36
C-93	Jam nut	Stainless steel	ASTM A194
C-94	Hinge pin O-ring	Rubber	ASTM D2000
C-95	Body O-ring	Rubber	ASTM D2000
Rubber faced disc parts			
C-50	Disc stud—rubber faced	Bronze	ASTM B21
C-54	Disc—rubber faced	Cast iron	ASTM A126 CL.B
C-55	Rubber disc facing	Rubber	ASTM D2000
C-56	Retaining washer	Bronze	ASTM B584
C-57	Stud nut	Bronze	ASTM B62

*2" and smaller valve use bronze ASTM B584
**2" and 6" sizes use ductile iron ASTM A536

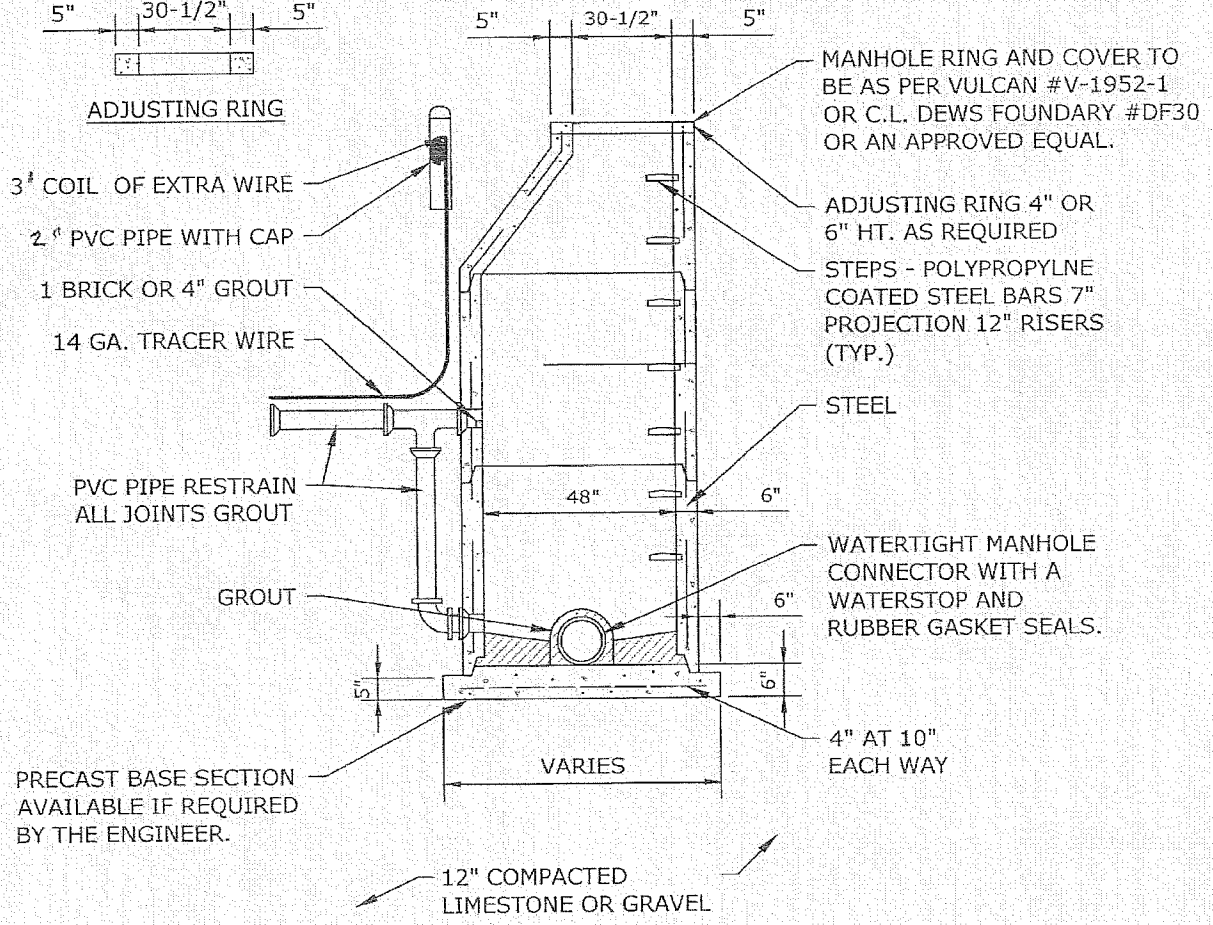






CONTRACTOR SHALL INSURE NEW MANHOLE TOP IS FLUSH WITH EXISTING GRADES UNLESS NOTED.

ADJUSTING RING



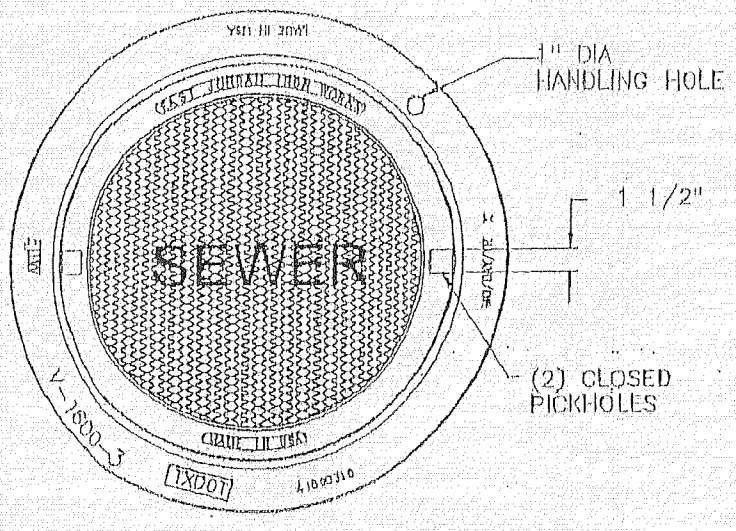
DROP MANHOLE
CITY OF OCEAN SPRINGS - (TYPICAL)

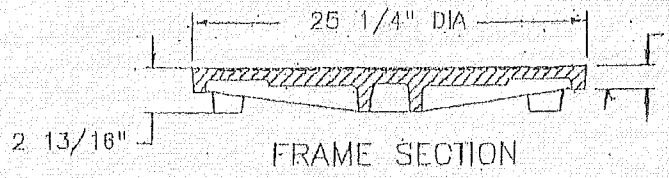
SCALE: NOT TO SCALE

PREPARED BY:

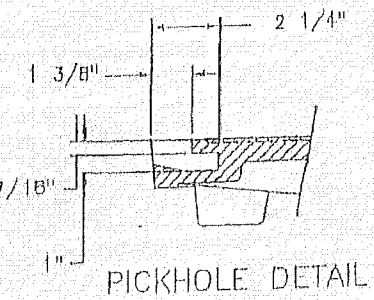
COMPTON ENGINEERING, INC.
Engineering, Surveying, and Environmental Services
1706 Convent Avenue
Pascagoula, Mississippi 39567
Phone: (228) 762-3970 Fax: (228) 769-9079
E-mail: compton@comptonengineering.com

PREPARED FOR: City of Ocean Springs	DRAWN BY: JDL
PROJECT TITLE: CITY OF OCEAN SPRINGS - STANDARD DETAILS	DATE DRAWN: AUGUST 2015
NORTH ARROW	JOB NUMBER: 214-034.003
	SCALE: AS NOTED
FIGURE TITLE: DROP MANHOLE - PROFILE (TYPICAL)	REVISION NUMBER: A

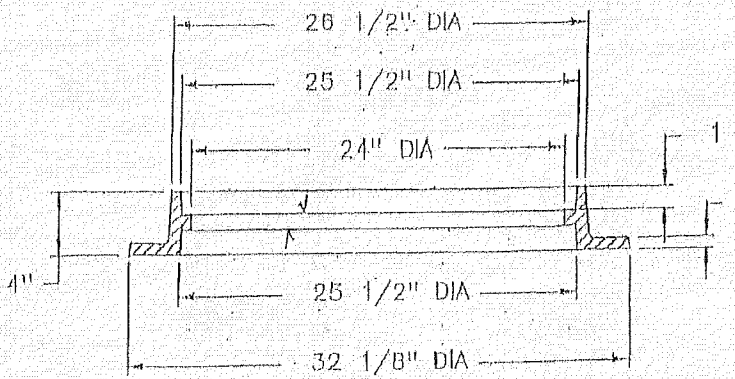




FRAME SECTION



PICKHOLE DETAIL



RING SECTION

NOTE: FRAME IS REVERSIBLE. WHEN ORDERING, SPECIFY TOP FLANGE OR BOTTOM FLANGE

EJIW EAST JORDAN IRON WORKS EST. 1868

800-626-4653
www.ejiw.com
MADE IN USA

PRODUCT NUMBER
41600306

CATALOG NUMBER
V1600-3

MANHOLE ASSEMBLY

LOAD RATING
HEAVY DUTY

COATING
UNDIPPED

ESTIMATED WEIGHT
COVER: 135 LBS
FRAME: 118 LBS
UNIT: 253 LBS

MATERIAL SPECIFICATION
COVER - GRAY IRON ASTM A48 CL35B
FRAME - GRAY IRON ASTM A48 CL35B

OPEN AREA
N/A

√ DESIGNATES MACHINED SURFACE

DRAWN	DATE
SBB	07/14/04
LAST REVISED	DATE
GAD	10/29/07

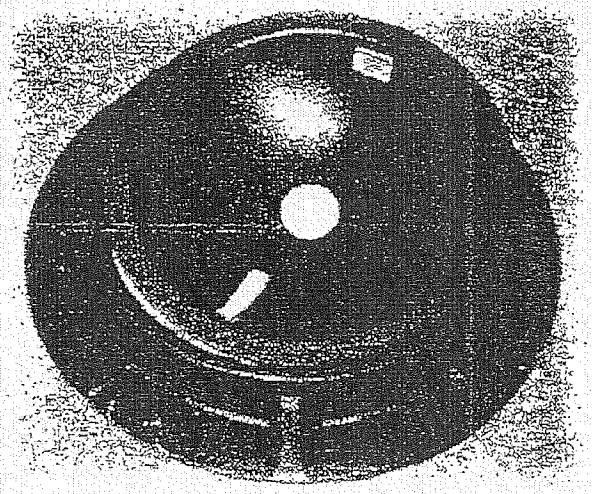
REFERENCE INFORMATION
41600310
41600320

Distributed by
ASSOCIATED PUMP& SUPPLY, INC.
9074 Park Avenue • Houma, LA 70363
Phone: 985-851-7077
6501 Sunplex Dr. • Ocean Springs, MS 39564
Phone: 228-818-6400

RainGuard Inflow Protectors

Reduces Inflow...

With sewage treatment costs rising, and many city systems strained to the breaking point, city officials are taking a closer look at streamlining existing plant operations and sewer systems. One way to make treatment plants more efficient and cost effective is to eliminate rainwater and other run-off from the sewer system. LFM's RainGuard Inflow Protector solves the problem of infiltration into the sewer system through manholes. On an average rainy day, a manhole can allow anywhere from 3,000 to 12,000 gallons of rainwater to enter the sewer treatment system.



Reduces Sewage Treatment Costs...

The RainGuard Inflow Protector reduces sewage treatment costs by reducing the amount of rainwater and other run-off from entering the treatment system.

Strong and Lasting Construction...

The RainGuard Inflow Protector and its associated components are manufactured from a corrosion proof material called acrylonitrite-butadiene-styrene (ABS). This material is a high impact, high grade material manufactured under ASTM Specifications D-256 method A, D-638, D-790, D-785, D-648 method A and D-635. The RainGuard meets or exceeds all of these strict requirements. Its anti-corrosive nature makes it suitable for the harshest of sewer atmospheres. The RainGuard is impervious to such common sewer gases such as Hydrogen Sulfide and dilute Sulfuric Acid. The RainGuard Inflow Protector comes with a pressure sensitive adhesive gasket that is placed under the rim of the protector. The gasket is made of a high quality closed cell neoprene which is designed to give a long lasting bond in either wet or dry conditions.

Controls Manhole Odors...

Odors that come from a manhole can make the air we breathe rather unpleasant. The unique design of LFM's RainGuard Inflow Protector stops odors from rising out of a manhole.

Options...

Our RainGuard Inflow Protector can be built with many different options to serve your specific applications. LFM can install a gas relief valve, a strap and/or a vent onto the inflow protector. The gas relief valve is designed to relieve gases at a pressure of 1 psi and have a water leak down rate of approximately 5 gallons per 24 hour period. The RainGuard Inflow Protector can be built with handy straps attached, making access to the manhole easy. We build RainGuard Inflow Protectors in many different diameters and with many combinations of options to fit your specific need. Contact your LFM sales representative to find out which options and which size best fits your needs.

Quality Assurance...

The RainGuard Inflow Protector carries a full one year warranty against defects and workmanship. At LFM we stand behind the products we build.

Distributed by
ASSOCIATED PUMP& SUPPLY, INC.

9074 Park Avenue • Houma, LA 70363
Phone: 985-851-7077

6501 Sunplex Dr. • Ocean Springs, MS 39564
Phone: 228-818-6400

Doc.# IFS-1400 August 11, 1992

MANHOLE INFLOW PROTECTOR SPECIFICATION

A.1 **SCOPE:** Under this item the contractor shall supply and install to the manufacturer's recommendations a manhole - inflow protector - as specified hereafter. Rain Guard Model LFN-SV as fabricated by L.F. Manufacturing, Inc., Giddings, Texas or approved equal.

A.2 **DESIGN:** The manhole insert body shall be designed with six equally spaced re-enforcement ribs (1 1/2" wide, 1/2" deep, and 6 1/2" long) in the bottom and will support a minimum uniform load of 800 pounds. The insert body shall have a recessed area in the center of the bottom for protection of the valve body. The insert will have two nylon lifting straps designed to lift and support a minimum uniform load of 500 pounds. The completed manhole inflow protector and its associated valve body and components shall be manufactured from corrosion proof material suitable for atmospheres containing hydrogen sulfide and dilute sulfuric acid as well as other gases associated with wastewater collection systems.

A.3 **MATERIALS:**

INSERT BODY: The insert body shall be fabricated from **ACRYLONITRILE-BUTADIENE-STYRENE (ABS)** high impact, high grade LS material specifications under ASTM D-256 method A, D-638, D-790, D-785, D-648 method A and D-635 as manufactured by Borg Warner Grade LS Cycolac or equal.

RELIEF VALVE: The gas relief valve shall be designed to relieve at a pressure of 1 psi and have a water leak down rate not to exceed 5 gallons per 24 hours. The valve shall be installed by means of a threaded hole tapped in the center of the insert body by the manufacturer.

INSERT GASKET: The gasket shall be made of closed cell neoprene and have a pressure sensitive adhesive on one side and be placed under the insert body rim by the manufacturer. The adhesive shall be compatible with the insert body material so as to form a long lasting bond in either wet or dry conditions of use.

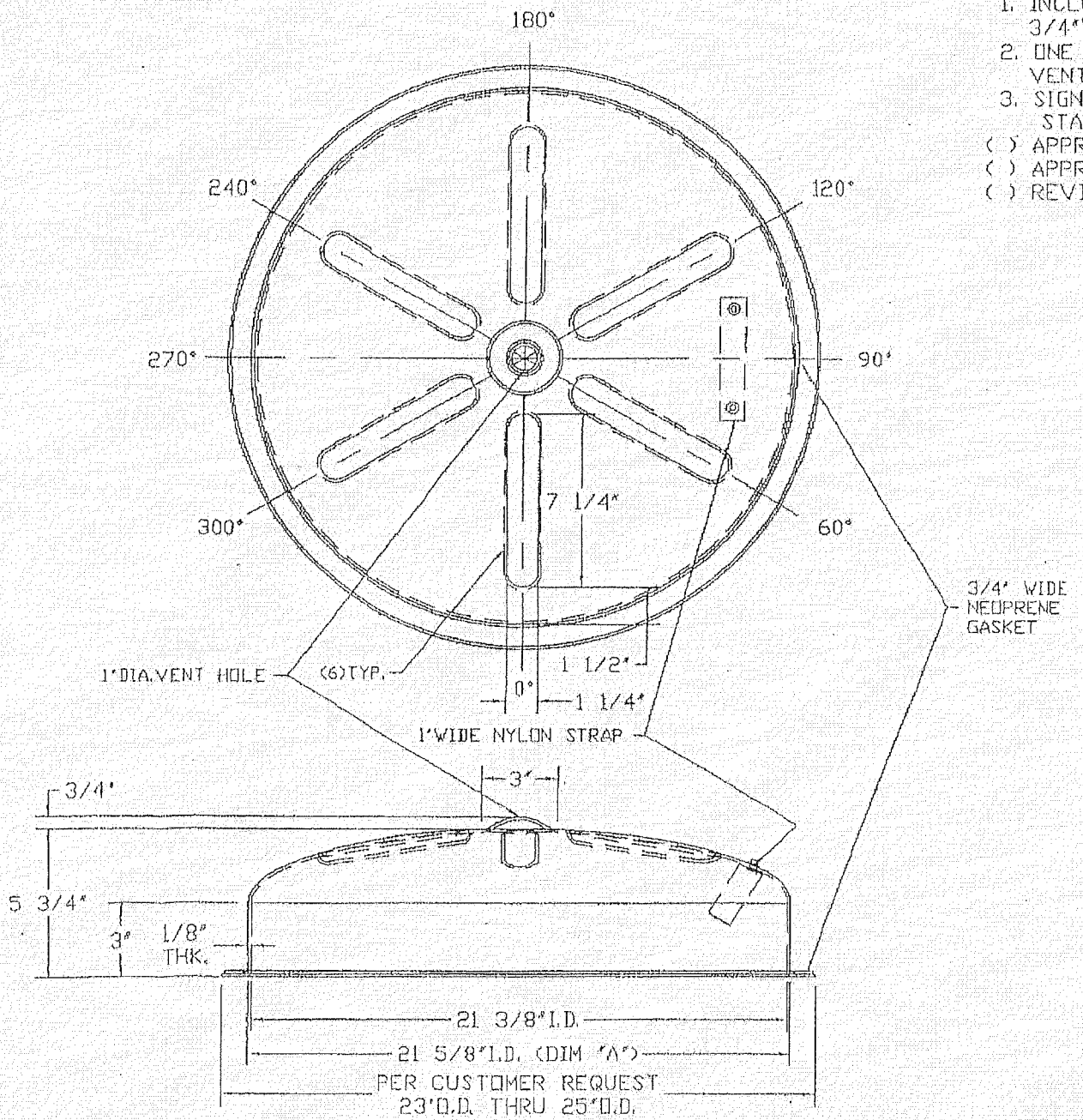
LIFTING STRAP: The lifting strap material shall be polypropylene webbing 1" wide, .100" thick, 1100# tensile strength and shall be fastened to the insert body with stainless steel rivets and fender washers.

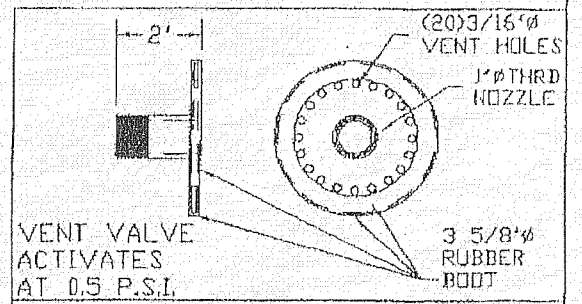
NOTES:
1. INCLUDES 1 HANDLE STRAP AND 1/8"THK.x 3/4"WIDE CLOSED CELL NEOPRENE GASKET.
2. ONE WAY VALVE OPTIONAL. SCREWS INTO VENT HOLE.
3. SIGNED APPROVED DRAWING REQUIRED BEFORE START OF MANUFACTURING. DATE: _____

( ) APPROVED _____

( ) APPROVED AS NOTED _____

( ) REVISE & RESUBMIT _____





DETAIL OF HYDRO-AEROBICS ONEWAY VENT VALVE

LFN-SV	STRAP & VALVE
LFN-S	STRAP ONLY
LFN-VH	VENT HOLE ONLY
LFN-VHS	STRAP & VENT HOLE

MODEL #	DESCRIPTION
DESCRIPTION: LFN RAINGUARD	TOLERANCES: FRACTION = ±1/4 DECIMAL .X = ±.250 .XX = ±.062 .XXX = ±.010 UNLESS OTHERWISE SPECIFIED

COLOR	RESIN	LINER

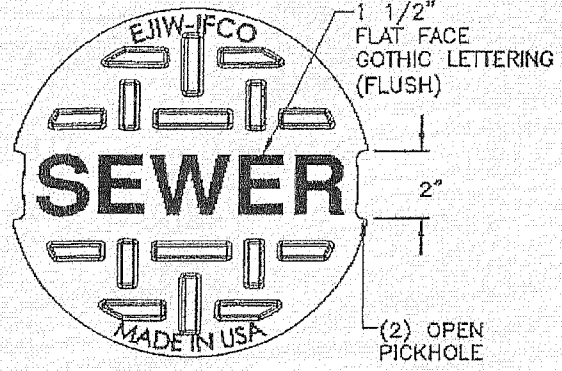
DESIGN TEMP.	OPERATING TEMP.	DESIGN PRESS.	OPER. PRESS.

SERVICE	DESIGN SP. GR.	OPERATING SP. GR.

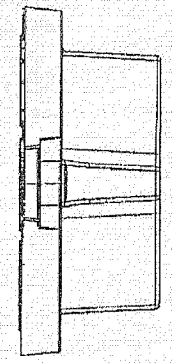
DWN BY	SCALE	REV.	S.O. NO.	DATE
NHR	NONE	REV. C 11/11/02 NHR		12/03/96
CHK BY	APP BY	DWG NO.	QUOTE NO.	SHT
TLV	JDM	A-MD0421		1 OF 1
SOLD BY	CUSTOMER:			

for Sewer Clean-out

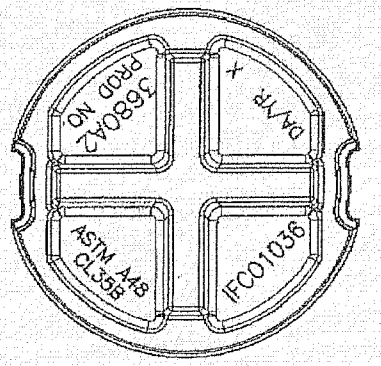
3680A2 COVER



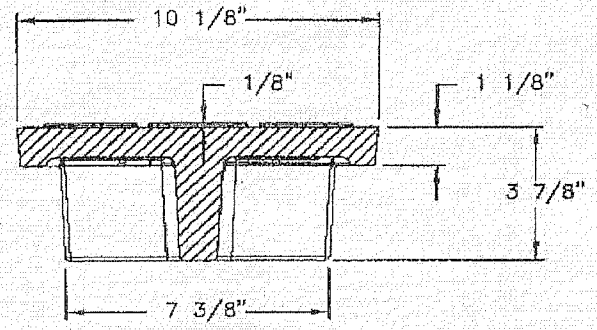
PLAN VIEW



SIDE VIEW



BOTTOM VIEW



SECTION VIEW

PRODUCT NUMBER

00368042

DESIGN FEATURES

MATERIALS
COVER-GRAY IRON
ASTM A48 CL35B

DESIGN LOAD
HEAVY DUTY

COATING
UNDIPPED

OPEN AREA
N/A

√ DESIGNATES MACHINED SURFACE

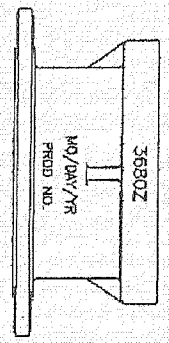
Corporate Headquarters
301 Spring Street
PO Box 439
East Jordan, MI
49727-0439
800.874.4100

EJ GROUP

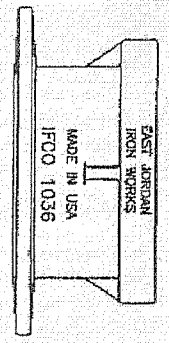
DRAWING DETAILS

ORIGINAL DRAWING:	DEF	08/09/11
REVISED BY:	DEF	08/10/11

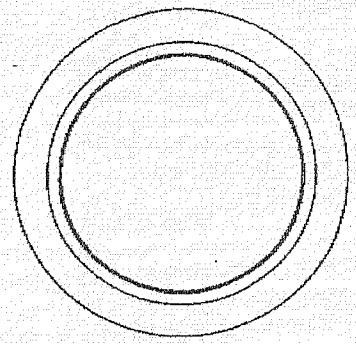
3680Z FRAME



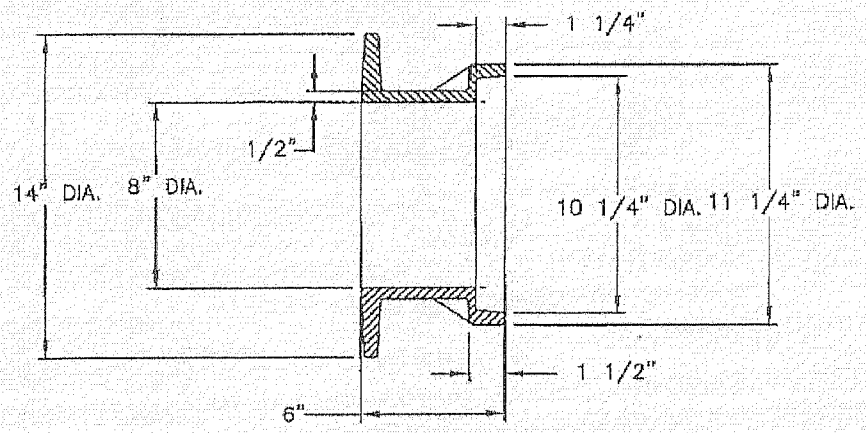
SIDE VIEW



SIDE VIEW



TOP VIEW



SECTION VIEW

PRODUCT NUMBER

00368010

DESIGN FEATURES

MATERIALS
FRAME-GRAY IRON
ASTM A48 CL35B

DESIGN LOAD
HEAVY DUTY

COATING
DIPPED

OPEN AREA
N/A

√ DESIGNATES MACHINED SURFACE

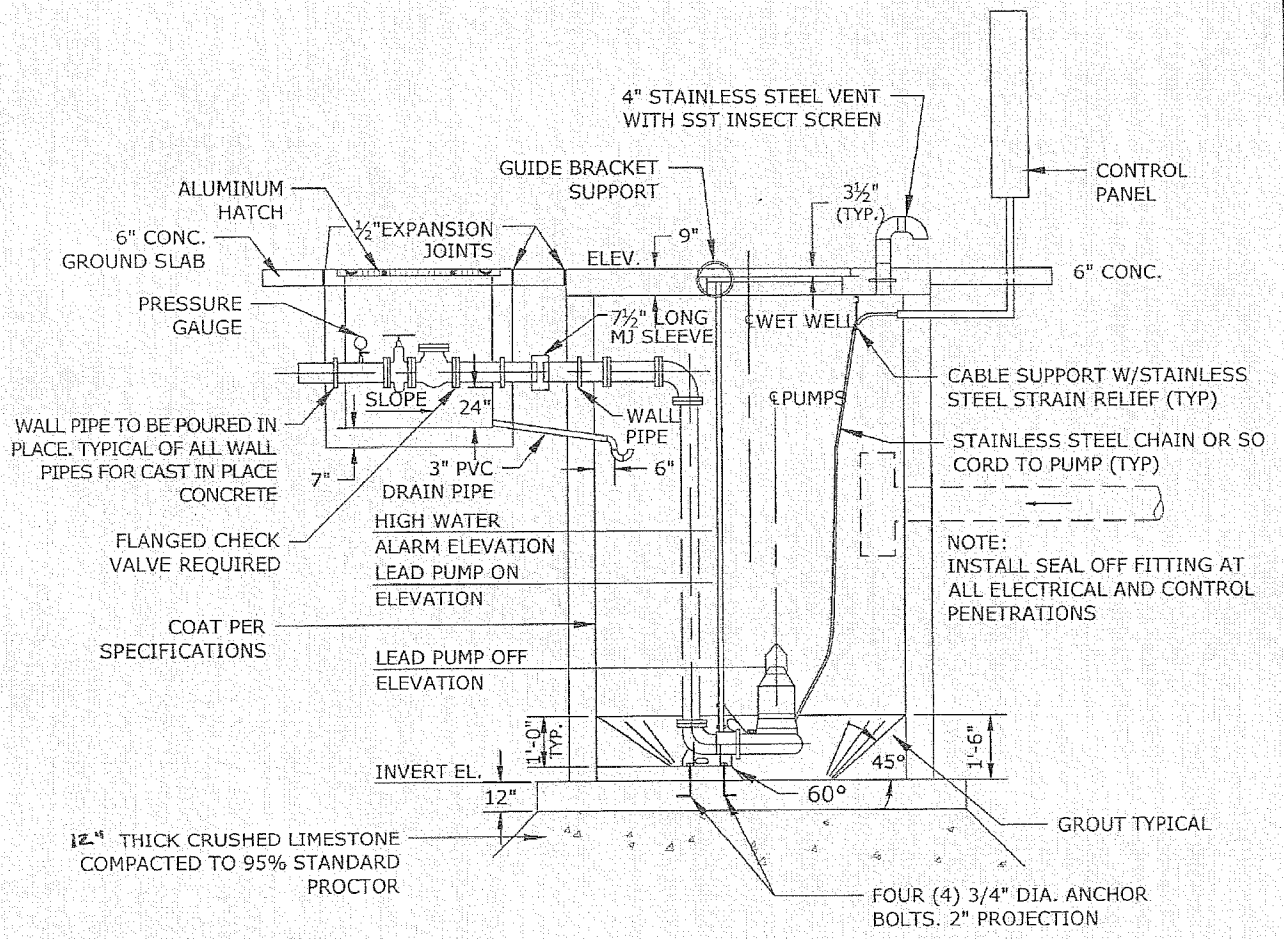
Corporate
Headquarters
301 Spring Street
PO Box 439
East Jordan, MI
49727-0439
800.874.4100

GROUP

- Weights (lbs./kg.) dimensions (inches/mm), and drawings provided for your guidance.
- We reserve the right to modify specifications without prior notice.
- Uncontrolled distribution.

DRAWING DETAILS

ORIGINAL DRAWING:	DEW	08/18/05
REVISED BY:	JJD	05/30/10



LIFT (PUMP) STATION PROFILE
CITY OF OCEAN SPRINGS - (TYPICAL)

SCALE: NOT TO SCALE

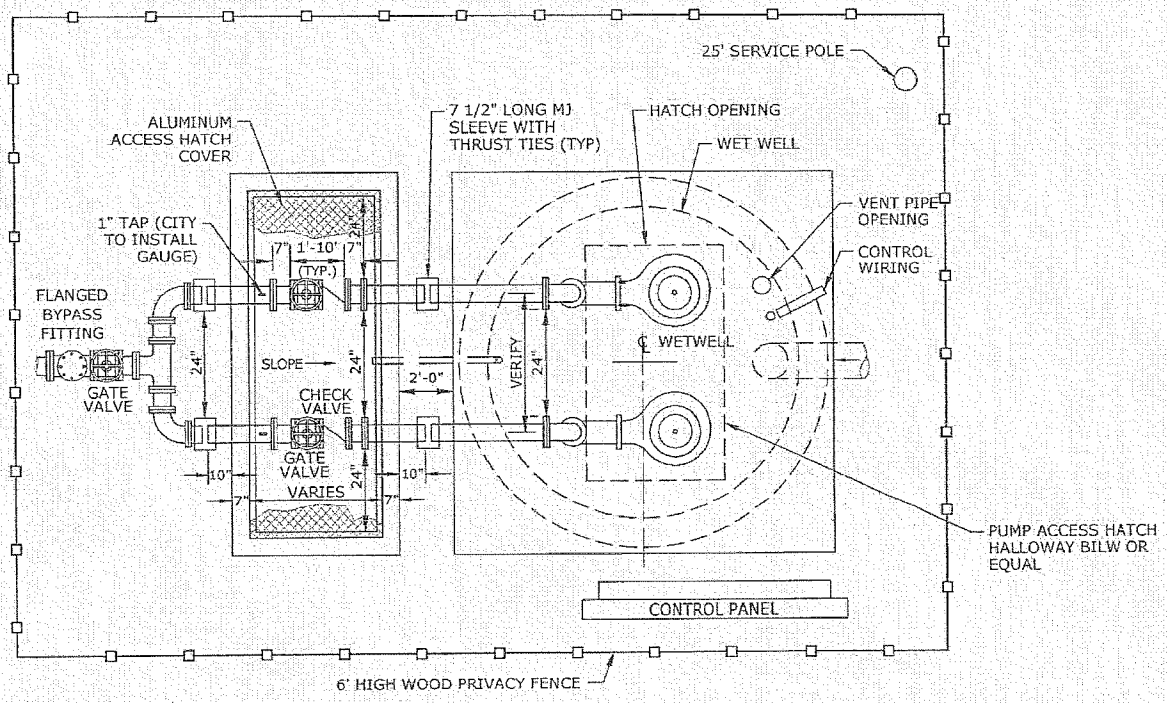
NOTES:

1. ALL DIMENSIONS NOTED SHALL BE VERIFIED BY MANUFACTURER.
2. ALL NUTS AND BOLTS SHALL BE 316 STAINLESS STEEL.

PREPARED BY:

COMPTON ENGINEERING, INC.
Engineering, Surveying, and Environmental Services
1706 Convent Avenue
Pascagoula, Mississippi 39567
Phone: (228) 762-3970 Fax: (228) 769-9079
E-mail: compton@comptonengineering.com

PREPARED FOR: City of Ocean Springs	DRAWN BY: NMB
PROJECT TITLE: CITY OF OCEAN SPRINGS - STANDARD DETAILS	DATE DRAWN: JUNE 2015
NORTH ARROW	JOB NUMBER: 214-034.003
	SCALE: AS NOTED
FIGURE TITLE: LIFT (PUMP) STATION - PROFILE (TYPICAL)	REVISION NUMBER: A



LIFT (PUMP) STATION PLAN
CITY OF OCEAN SPRINGS - (TYPICAL)
SCALE: NOT TO SCALE

PREPARED BY:

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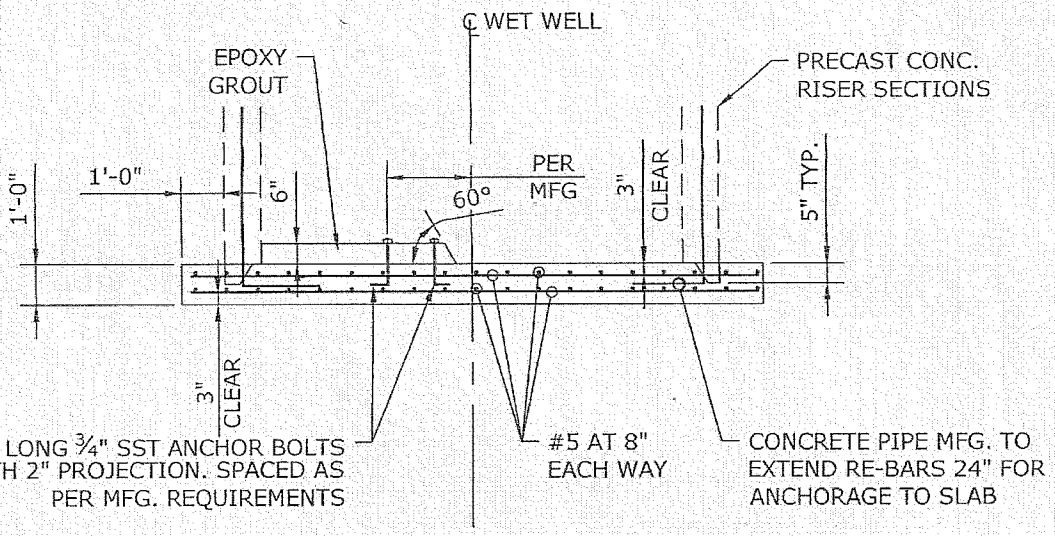
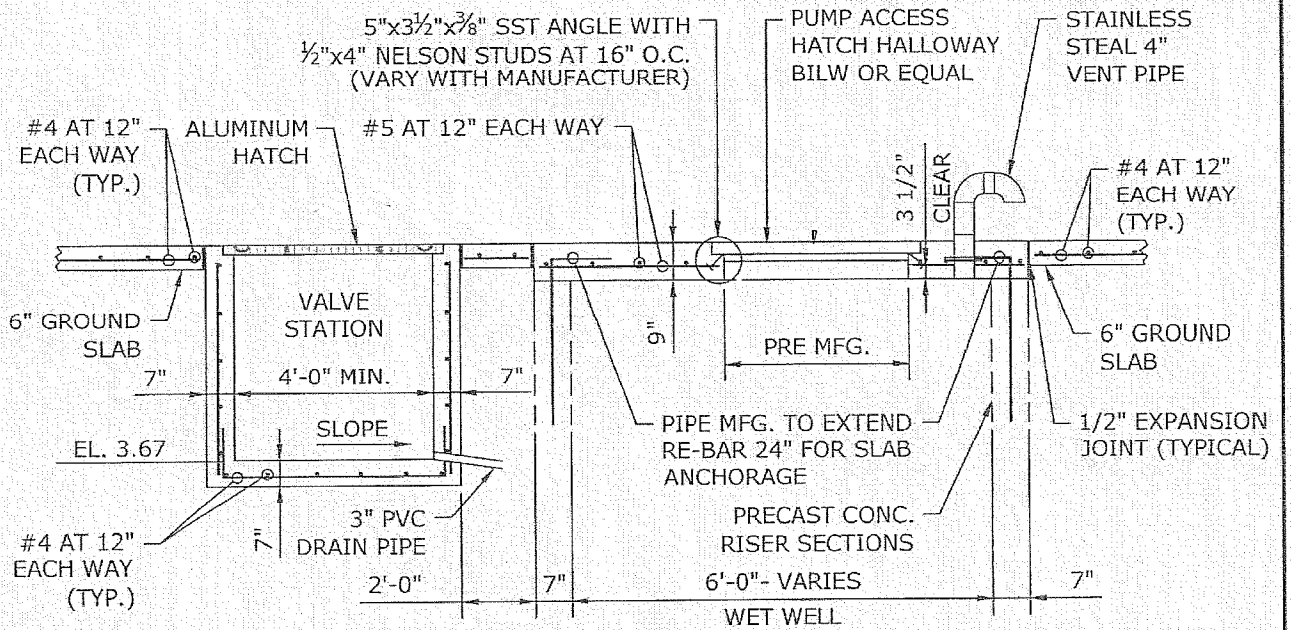
Engineering, Surveying, and Environmental Services
1706 Convent Avenue
Pascagoula, Mississippi 39567
Phone: (228) 762-3970 Fax: (228) 769-9079
E-mail: compton@comptonengineering.com

PREPARED FOR: City of Ocean Springs	DRAWN BY: NMB
PROJECT TITLE: CITY OF OCEAN SPRINGS - STANDARD DETAILS	DATE DRAWN: JUNE 2015
NORTH ARROW	JOB NUMBER: 214-034.003
	SCALE: AS NOTED
FIGURE TITLE: LIFT (PUMP) STATION - PLAN (TYPICAL)	REVISION NUMBER: A



WET WELL FOUNDATION SECTION CITY OF OCEAN SPRINGS - (TYPICAL)

SCALE: NOT TO SCALE



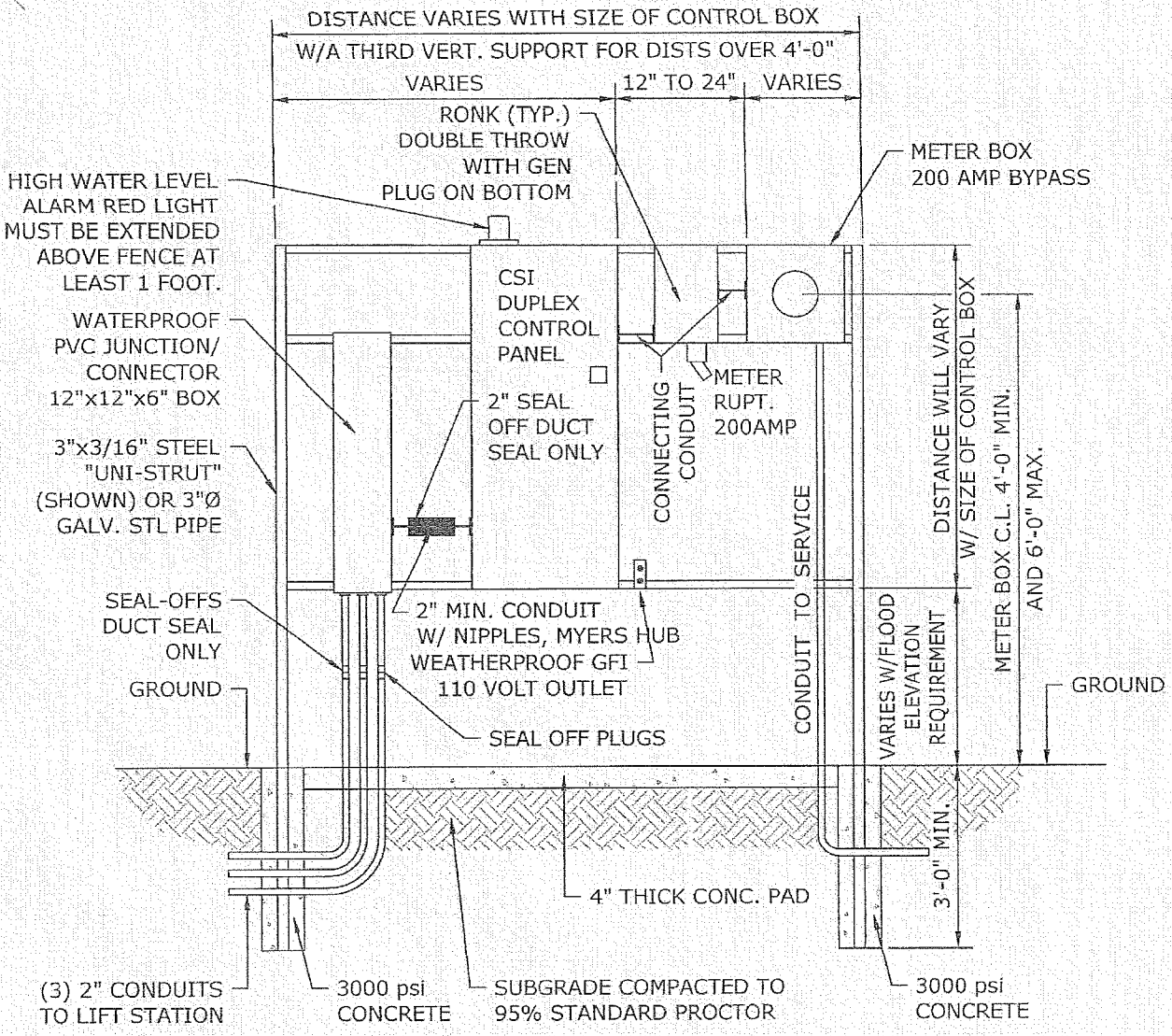
VALVE STATION, WET WELL TOP AND GROUND SLAB SECTION CITY OF OCEAN SPRINGS - (TYPICAL)

SCALE: NOT TO SCALE

PREPARED BY:

COMPTON ENGINEERING, INC.
Engineering, Surveying, and Environmental Services
1706 Convent Avenue
Pascagoula, Mississippi 39567
Phone: (228) 762-3970 Fax: (228) 769-9079
E-mail: compton@comptonengineering.com

PREPARED FOR: City of Ocean Springs	DRAWN BY: JDL
PROJECT TITLE: CITY OF OCEAN SPRINGS - STANDARD DETAILS	DATE DRAWN: AUGUST 2015
NORTH ARROW	JOB NUMBER: 214-034.003
	SCALE: AS NOTED
FIGURE TITLE: VALVE STATION, WET WELL TOP AND GROUND SLAB - PROFILE (TYPICAL)	REVISION NUMBER: A



NOTES:

1. ALL CONTROL CABLES FROM LIFT STATION TO BE CONNECTED TO A NSI BLOCK (J-BAR). EACH CONDUCTOR MUST HAVE WATERPROOF TAG.
2. CONTROL CABLES FROM PUMPS AND FLOATS SHOULD NOT BE CUT. EXTRA CABLES SHOULD BE COILED AND SECURED IN THE WETWELL WITH STAINLESS STEEL STRAIN RELEASE. ENSURE CABLES ARE LONG ENOUGH TO REACH CONTROL PANEL WITHOUT SPLICING.

LIFT (PUMP) STATION CONTROL PANEL MOUNT CITY OF OCEAN SPRINGS - (TYPICAL)

SCALE: NOT TO SCALE

PREPARED BY:
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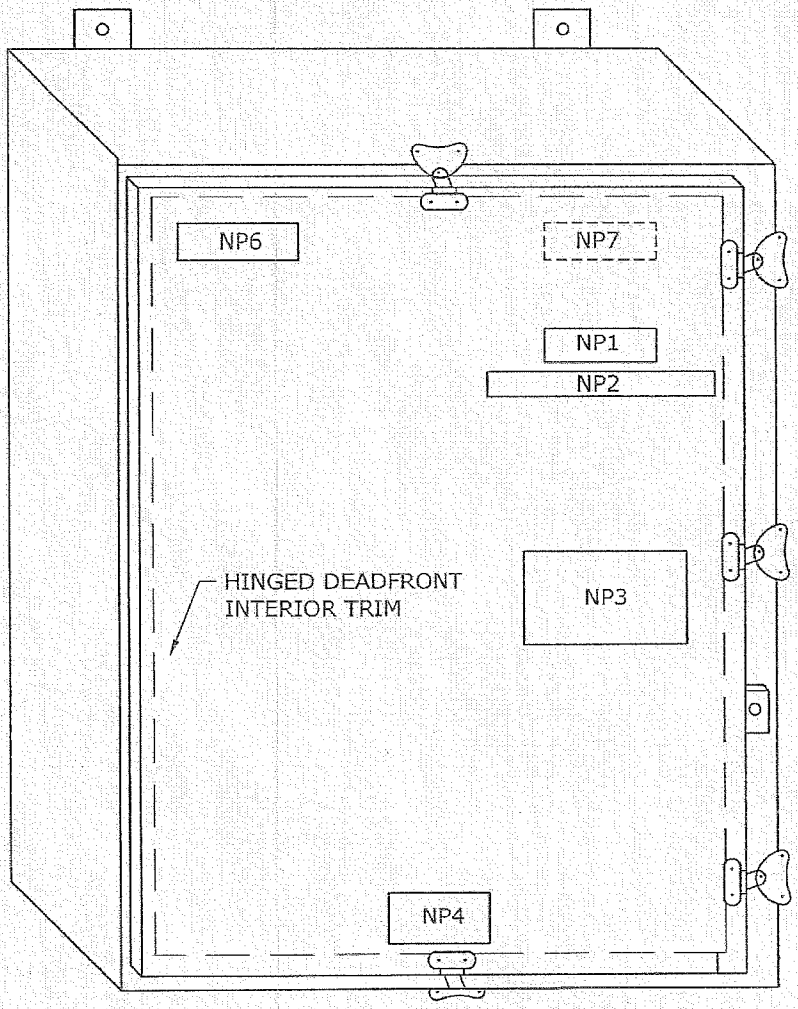
Engineering, Surveying, and Environmental Services
1706 Convent Avenue
Pascagoula, Mississippi 39567
Phone: (228) 762-3970 Fax: (228) 769-9079
E-mail: compton@comptonengineering.com

PREPARED FOR: City of Ocean Springs	DRAWN BY: JDL
PROJECT TITLE: CITY OF OCEAN SPRINGS - STANDARD DETAILS	DATE DRAWN: AUGUST 2015
NORTH ARROW	JOB NUMBER: 214-034.003
	SCALE: AS NOTED
FIGURE TITLE: LIFT (PUMP) STATION CONTROL PANEL MOUNT - PROFILE (TYPICAL)	REVISION NUMBER: A

* ALARM LIGHT SHIPPED INSIDE CABINET FOR FIELD MOUNTING

*PUMP STATION POWER SHALL BE 3 PHASE, 240 VOLT WITH STINGER



NEMA 4X FIBERGLASS ENCLOSURE (30"Hx24"Wx8"D) CITY OF OCEAN SPRINGS - (TYPICAL)

SCALE: NOT TO SCALE

PREPARED BY:

COMPTON ENGINEERING, INC.
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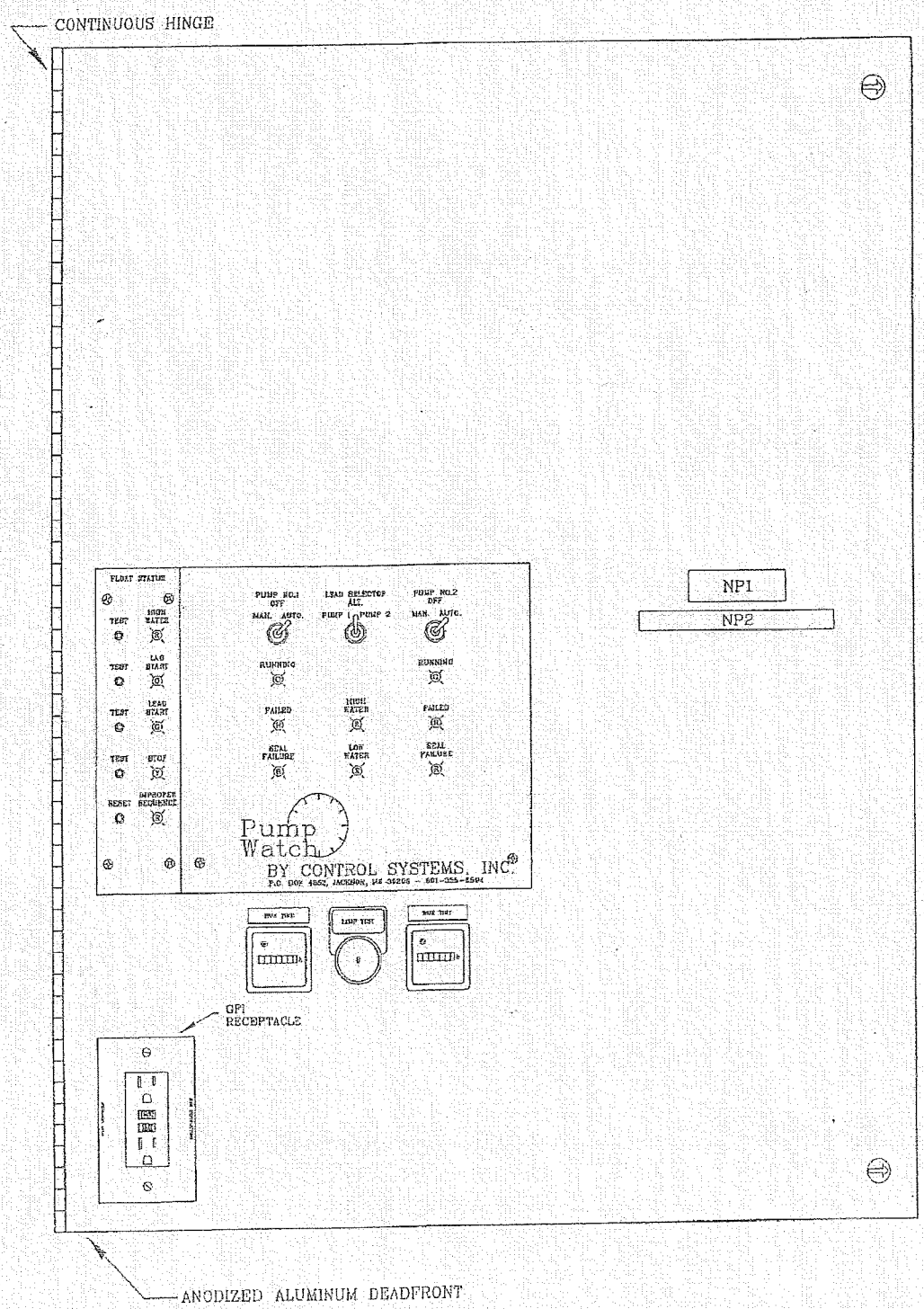
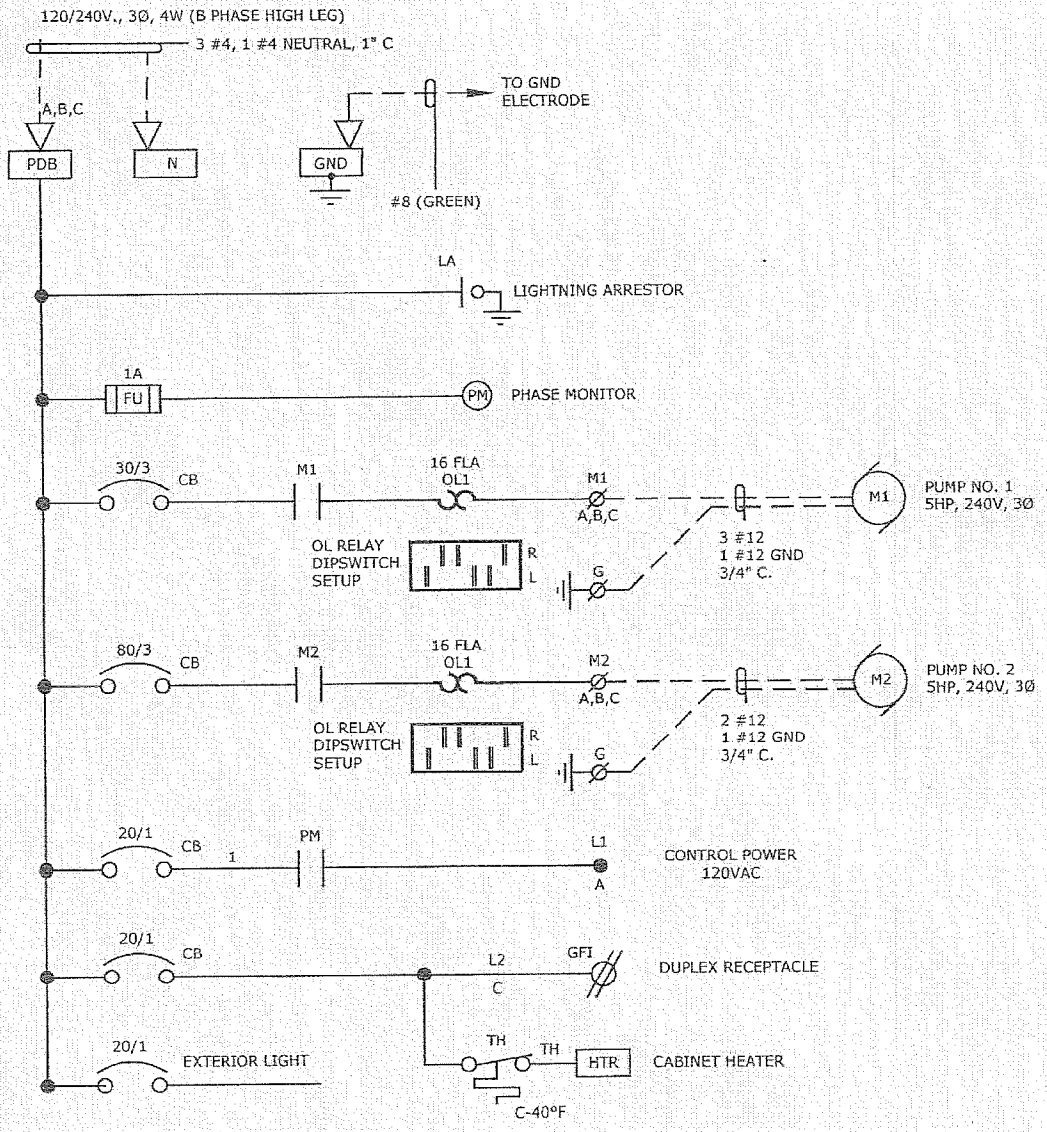
1706 Convent Avenue
Pascagoula, Mississippi 39567
Phone: (228) 762-3970 Fax: (228) 769-9079
E-mail: compton@comptonengineering.com

PREPARED FOR: City of Ocean Springs	DRAWN BY: JDL
PROJECT TITLE: CITY OF OCEAN SPRINGS - STANDARD DETAILS	DATE DRAWN: AUGUST 2015
NORTH ARROW	JOB NUMBER: 214-034.003
	SCALE: AS NOTED
FIGURE TITLE: NEMA 4X FIBERGLASS ENCLOSURE - PROFILE (TYPICAL)	REVISION NUMBER: A

DUPLEX CONTROL PANEL
DEADFRONT DETAIL





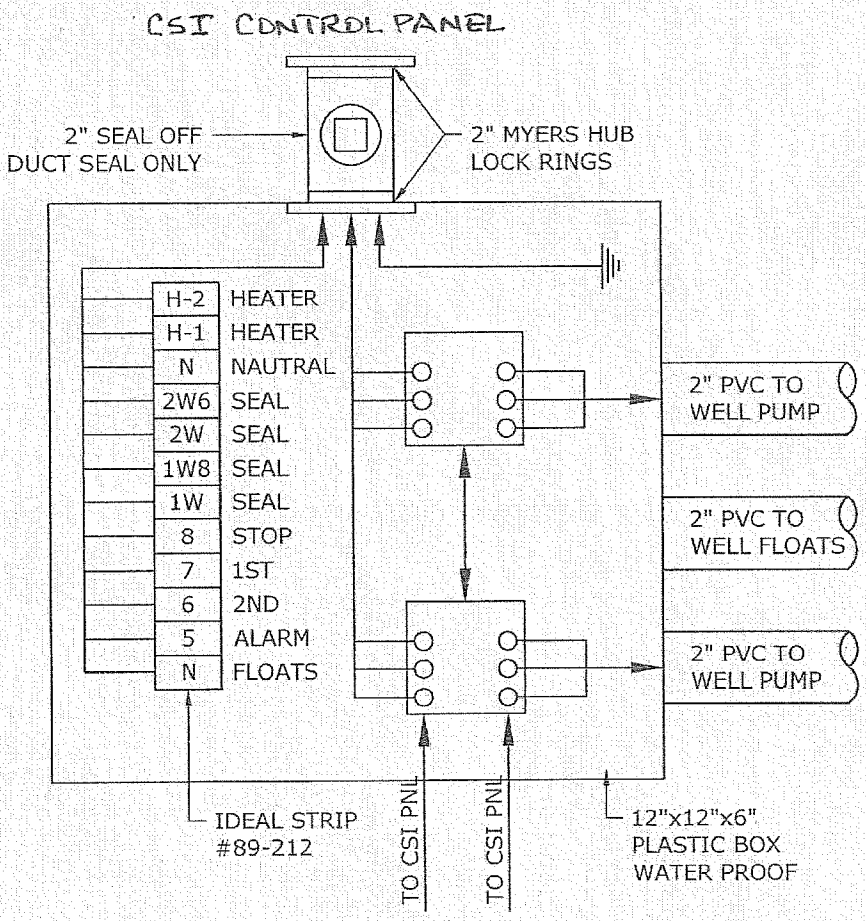
DUPLEX CONTROL PANEL
ONE LINE POWER SCHEMATIC
CITY OF OCEAN SPRINGS - (TYPICAL)

SCALE: NOT TO SCALE

PREPARED BY:

COMPTON ENGINEERING, INC.
Engineering, Surveying, and Environmental Services
1706 Convent Avenue
Pascagoula, Mississippi 39567
Phone: (228) 762-3970 Fax: (228) 769-9079
E-mail: compton@comptonengineering.com

PREPARED FOR: City of Ocean Springs	DRAWN BY: JDL
PROJECT TITLE: CITY OF OCEAN SPRINGS - STANDARD DETAILS	DATE DRAWN: AUGUST 2015
NORTH ARROW	JOB NUMBER: 214-034.003
	SCALE: AS NOTED
FIGURE TITLE: DUPLEX CONTROL PANEL ONE LINE POWER SCHEMATIC - PROFILE (TYPICAL)	REVISION NUMBER: A



MAKE UP BOX

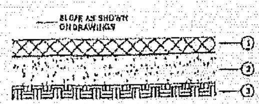
CITY OF OCEAN SPRINGS - (TYPICAL)

SCALE: NOT TO SCALE

PREPARED BY:

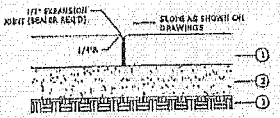
COMPTON ENGINEERING, INC.
Engineering, Surveying, and Environmental Services
1706 Convent Avenue
Pascagoula, Mississippi 39567
Phone: (228) 762-3970 Fax: (228) 769-9079
E-mail: compton@comptonengineering.com

PREPARED FOR: City of Ocean Springs	DRAWN BY: JDL
PROJECT TITLE: CITY OF OCEAN SPRINGS - STANDARD DETAILS	DATE DRAWN: AUGUST 2015
NORTH ARROW	JOB NUMBER: 214-034.003
	SCALE: AS NOTED
FIGURE TITLE: CONTROL PNL CSI - PROFILE (TYPICAL)	REVISION NUMBER: A



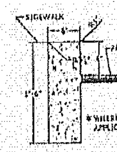
1. 2" HOT BITUMINOUS ASPHALT SURFACE COURSE (BC-1,TYPE 8)
2. 6" SELECT FILL SUB BASE COURSE (COMPACT TO 95% MODIFIED PROCTOR DENSITY).
3. SUBGRADE (NATIVE SOIL OR SELECT FILL-COMPACTED TO 95% STANDARD PROCTOR DENSITY)

ASPHALT PAVING TYPICAL SECTION
NTS

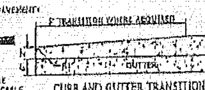


1. 5" REINFORCED CONCRETE (3,000 psi AT 28 DAYS) WITH A BROOM FINISH (SEE SPECIFICATIONS)
2. 6" SELECT FILL SUB BASE COURSE (COMPACT TO 95% MODIFIED PROCTOR DENSITY).
3. SUBGRADE (NATIVE SOIL OR SELECT FILL-COMPACTED TO 95% STANDARD PROCTOR DENSITY)

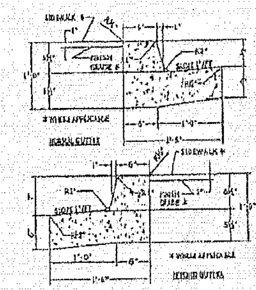
CONCRETE PAVING TYPICAL SECTION
NTS



HEADER CURB

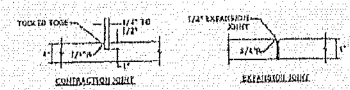


CURB AND GUTTER TRANSITION
NTS



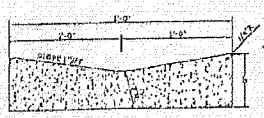
NOTES:
1. 1/2" EXPANSION JOINTS SHALL BE PROVIDED AT INTERVALS NOT TO EXCEED 32' AT THE ENDS AND MID-POINT OF RETURNS, AND AT ANY POINT WHERE THE NEW CURB AND GUTTER ABUTS OTHER CONCRETE STRUCTURES. CONTRACTION JOINTS SHALL BE PROVIDED ON 10' CENTERS.
2. 5' LONG TRANSITIONS SHALL BE PROVIDED BETWEEN NORMAL GUTTER AND PITCHED GUTTER UNLESS OTHERWISE NOTED.

COMBINATION CONCRETE CURB AND GUTTER AND HEADER CURB

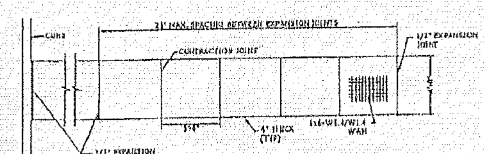


CONTRACTION JOINT

EXPANSION JOINT



CONCRETE VALLEY GUTTER
NTS



CONCRETE SIDEWALK STANDARD
NTS

COMPTON ENGINEERING, INC.
Engineering, Surveying, and Environmental Services
1706 Convent Avenue
Pascagoula, Mississippi 39567
Phone: (228) 762-3970 Fax: (228) 769-5079
E-mail: compton@comptonengineering.com

City of Ocean Springs
Standard Details

Civil Details

SCALE:	None
JOB NO.:	253-253.031
DATE:	Jan. 2005
DESIGN:	DJ Oit
DWG. BY:	R. Shelton
CHK.:	
APVD.:	