

SEWAGE FLOW CALCULATIONS:

| TOWNHOMES | FLOW (GPD) |
|--|------------------|
| 20 3-BEDROOM TOWNHOMES @ 130 GPD/BEDROOM | 7,800 |
| MARINA | FLOW (GPD) |
| 40 BOAT SLIPS @ 20 GPD/SLIP* | 800 |
| TOTAL: | 8,600 GPD |

REFERENCE: NYSDEC DESIGN STANDARDS FOR WASTEWATER TREATMENT WORKS, 1988
 *24 BOAT SLIPS PROPOSED WITH POTENTIAL TO EXPAND TO 40 BOAT SLIPS IN THE FUTURE, AS PER TOWN CODE. 20 GPD/SLIP TAKEN FROM DRAFT VERSION OF 2012 NYSDEC DESIGN STANDARDS FOR WASTEWATER TREATMENT WORKS, AS THE CATEGORY DOES NOT EXIST IN THE CURRENT 1988 VERSION.

CONCEPTUAL SITE PLAN LEGEND:

| | |
|--|---------------------------------|
| | PROPOSED PROPERTY LINE |
| | PROPOSED BUILDING |
| | PROPOSED SANITARY SEWER LINE |
| | PROPOSED WATER LINE |
| | PROPOSED STORM DRAIN LINE |
| | PROPOSED CULVERT W/ END SECTION |
| | PROPOSED CATCH BASIN |
| | PROPOSED DRAINAGE MANHOLE |
| | PROPOSED HYDRANT |
| | PROPOSED SANITARY MANHOLE |
| | PROPOSED REDUCER |
| | PROPOSED WELL |
| | PROPOSED WATER VALVE |

1 CONCEPTUAL SITE PLAN
 SCALE: 1"=50'

PROPOSED RELOCATED WASTEWATER TREATMENT FACILITIES

EXISTING WELL

PROPOSED WATER TREATMENT FACILITIES (SAME LOCATION)

PROPOSED PRIMARY AND SECONDARY WELL FOR COMMUNITY WATER SUPPLY. ELEVATION OF WELL HEAD TO BE 2 FT ABOVE 100-YR FLOOD ELEVATION.

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CHAZEN ENGINEERING, LAND SURVEYING & LANDSCAPE ARCHITECTURE CO., P.C.

Office Locations:

| | | |
|--|--|--|
| Dutchess County Office: 21 Fox Street Poughkeepsie, New York 12601 Phone: (845) 454-3980 | Capital District Office: 547 River Street Troy, New York 12180 Phone: (518) 273-0055 | North Country Office: 100 Glen Street Geneva, New York 12801 Phone: (518) 812-0513 |
|--|--|--|

| rev. | date | description |
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MID HUDSON MARINA

RELOCATED WATER AND WASTEWATER FACILITIES

TOWN OF NEWBURGH, ORANGE COUNTY, NEW YORK

| | |
|-------------|---------|
| drawn | checked |
| KGA | GAC |
| date | scale |
| 07/24/12 | 1"=50' |
| project no. | |
| 80920.00 | |
| sheet no. | |
| CP2 | |
| 1 OF 1 | |

TEST PIT DATA:

TESTING PERFORMED JUNE 4-5, 2012

Deep Test 1

- 0'-1.5' Fill with Construction Debris
- 1.5'-9' Silty Fine Sand
- 9' Bottom of Hole at GWT

Deep Test 2

- 0'-1' Fill with Construction Debris
- 1'-4' Silty Fine Sand
- 4'-8' Sand
- 8'-9' Silty Fine Sand
- NONE No GWT

Deep Test 3

- 0'-2' Fill
- 2'-6' Loamy Sand
- 6'-8.5' Sand
- NONE No GWT

Deep Test 4

- 0'-1.25' Fill with Gravel
- 1.25'-4.5' Silty Fine Sand
- 4.5'-9' Sand
- NONE No GWT

Deep Test 5

- 0'-3' Silty Fine Sand
- 3'-9' Sand
- NONE No GWT

Deep Test 6

- 0'-1' Loamy Fill
- 1'-3' Silty Fine Sand
- 3'-9.5' Loamy Sand
- NONE No GWT

Deep Test 7

- 0'-1.5' Fill with Construction Debris
- 1.5'-3.5' Silty Fine Sand
- 3.5'-5.5' Loamy Sand
- 5.5'-8.5' Sand
- NONE No GWT

Deep Test 8

- 0'-2' Silty Fine Sand
- 2'-9' Sand
- NONE No GWT

Deep Test 9

- 0'-2.5' Fill, mostly Silty Fine Sand
- 2.5'-4.5' Loamy Fill with Construction Debris
- 4.5'-8.5' Loamy Sand
- NONE No GWT

Percolation Test 1 (24" From Existing Grade)

| Start | End | Rate (min/in) |
|----------|----------|---------------|
| 12:31:00 | 12:36:45 | 5:45 |
| 12:37:20 | 12:45:00 | 7:40 |
| 12:48:15 | 12:56:00 | 7:45 |
| 8 min | | |

Percolation Test 4 (24" From Existing Grade)

| Start | End | Rate (min/in) |
|---------|---------|---------------|
| 1:31:00 | 1:34:30 | 3:30 |
| 1:35:15 | 1:40:15 | 5:00 |
| 1:40:30 | 1:47:00 | 6:30 |
| 1:47:15 | 1:53:45 | 6:30 |
| 7 min | | |

Percolation Test 5 (36" From Existing Grade)

| Start | End | Rate (min/in) |
|---------|---------|---------------|
| 4:22:00 | 4:24:00 | 2:00 |
| 4:25:40 | 4:27:45 | 2:05 |
| 4:28:25 | 4:30:20 | 1:55 |
| 2 min | | |

Percolation Test 6 (36" From Existing Grade)

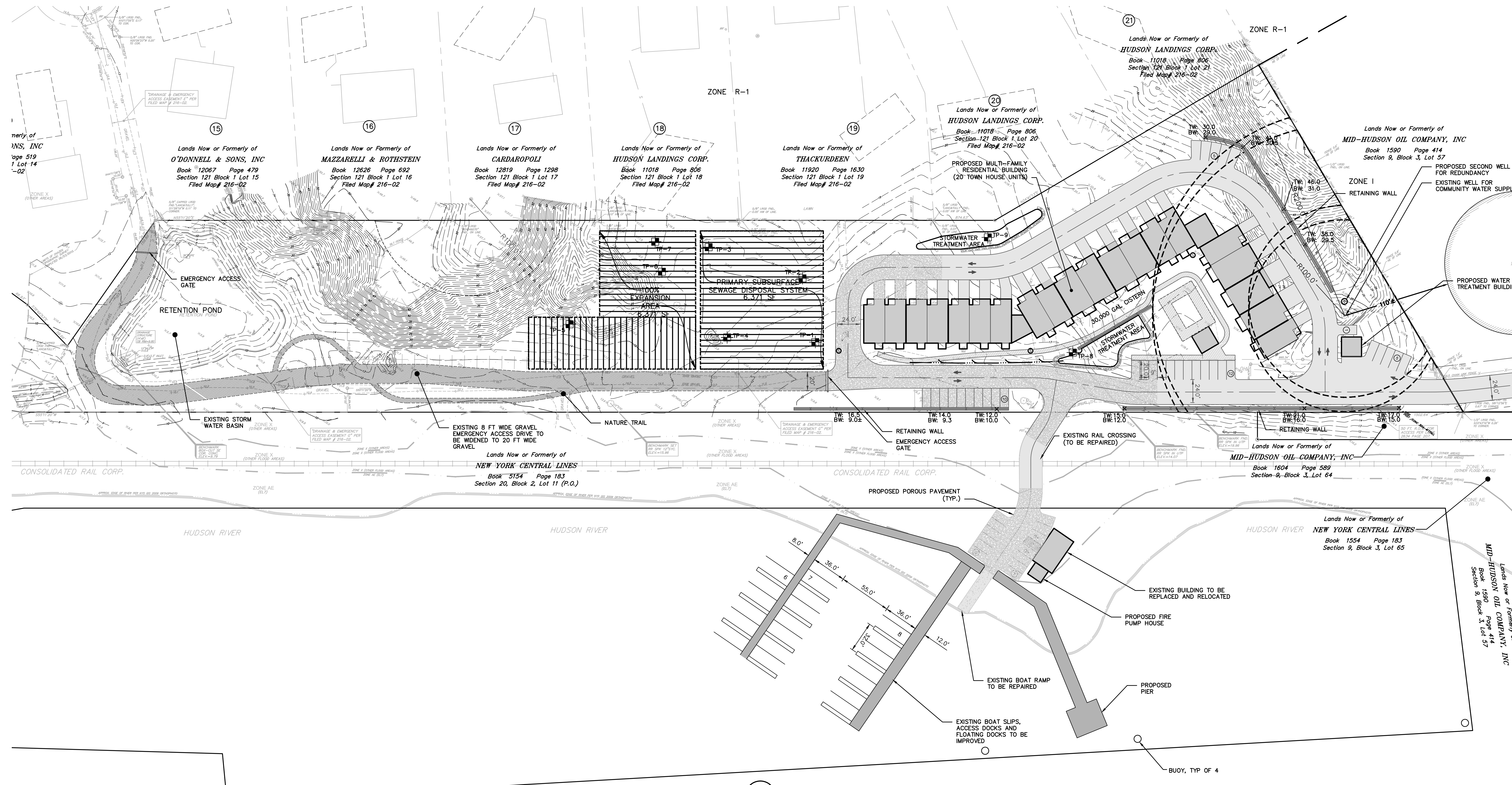
| Start | End | Rate (min/in) |
|---------|---------|---------------|
| 2:14:30 | 2:19:30 | 5:00 |
| 2:20:00 | 2:27:35 | 7:35 |
| 2:29:30 | 2:37:30 | 8:00 |
| 8 min | | |

Percolation Test 8 (24" From Existing Grade)

| Start | End | Rate (min/in) |
|----------|----------|---------------|
| 11:26:20 | 11:30:30 | 4:10 |
| 11:31:45 | 11:35:00 | 3:15 |
| 11:35:10 | 11:39:10 | 4:00 |
| 4 min | | |

Percolation Test 9 (30" From Existing Grade)

| Start | End | Rate (min/in) |
|----------|----------|---------------|
| 11:43:45 | 11:50:00 | 6:15 |
| 11:52:30 | 12:00:00 | 7:30 |
| 12:02:00 | 12:10:00 | 8:00 |
| 8 min | | |



SEWAGE FLOW CALCULATIONS:

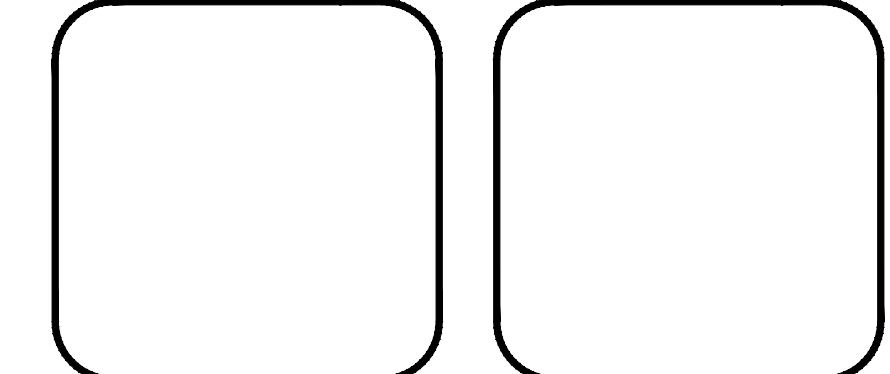
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|--|------------------|
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| MARINA | 800 |
| 40 BOAT SLIPS @ 20 GPD/SLIP* | 800 |
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 - PROPOSED REDUCER
 - PROPOSED WELL
 - PROPOSED WATER VALVE

1 CONCEPTUAL SITE PLAN
 SCALE: 1"=50'

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800-962-7962
 www.digsafelynewyork.com



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THE Chazen COMPANIES
 Engineers/Surveyors
 Planners
 Environmental Scientists
 Landscape Architects

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MID HUDSON MARINA
CONCEPTUAL SITE PLAN
 TOWN OF NEWBURGH, ORANGE COUNTY, NEW YORK

| drawn | checked |
|-------------|----------|
| KGA | CV |
| date | scale |
| 07/23/10 | 1"=50' |
| project no. | 80920.00 |
| sheet no. | CP1 |
| | 1 OF 1 |