

PRELIMINARY ONLY

M2250 CRAWLER CRANE + MAXER 2000
260' MAIN BOOM NO. 79 @ 80°
170' LUFFING JIB NO. 44
130' DERRICK MAST NO. 44
169,200 LBS CRANE CTWT
60,000 LBS CARBODY CTWT
BALLAST CARRIAGE AT 50' POSITION
462,000 LBS CTWT ON CARRIAGE
360° CHART

NEW SECTION - GRASSHOPE DUCT
LIFT AT I.P.

PICK WEIGHT: 85,500 LBS
HOOK BLOCK: 6,300 LBS
RIGGING: 5,644 LBS
LOAD LINE: 4,428 LBS*
TOTAL WEIGHT: 101,872 LBS

BOOM @ 80°
CAPACITY@ 125': 133,000 LBS
PERCENT CAPACITY: 76.6%

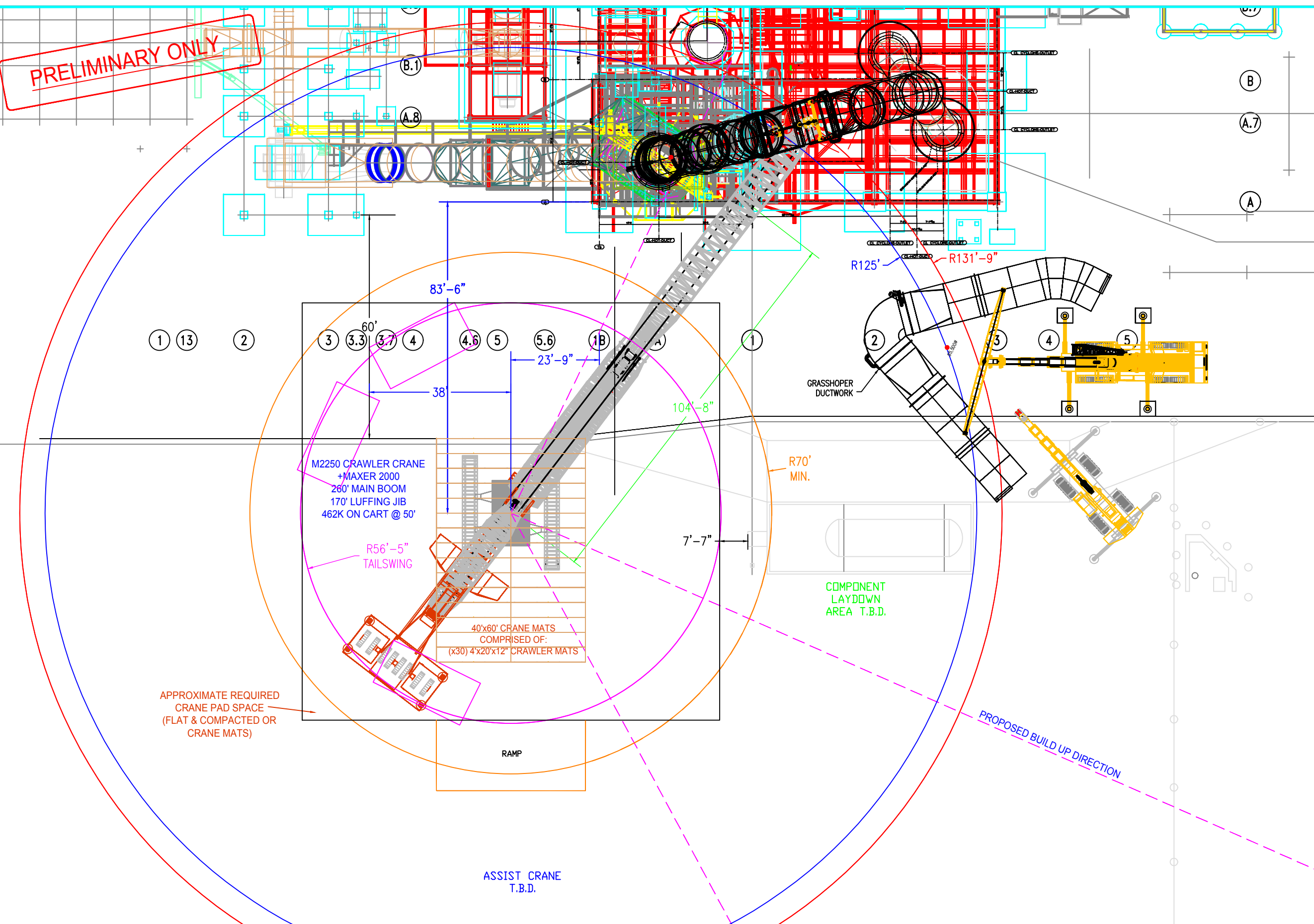
SET AT TOP OF STRUCTURE.
PICK WEIGHT: 85,500 LBS
HOOK BLOCK: 6,300 LBS
RIGGING: 5,644 LBS
LOAD LINE: 173 LBS*
TOTAL WEIGHT: 97,617 LBS

BOOM @ 80°
CAPACITY@131'-9"(135'): 129,200 LBS
PERCENT CAPACITY: 75.6%

*AT TIME OF INITIAL LIFT, LINE IS 410'
OF 2.7 LB/FT x 4 PARTS
AT TIME OF SET, LINE IS APPROX. 16'
OF LINEAR DISTANCE.

4 PART LINE GOOD FOR 128,000 LBS.

WIND ALLOWANCE: 16 MPH.
(Calculated for surface area of load.)



MR. CRANE

LIFTING AND RIGGING SOLUTIONS
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FED I.D. NO. 95-3007071 A California Corporation

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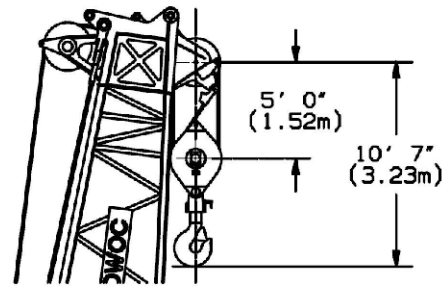
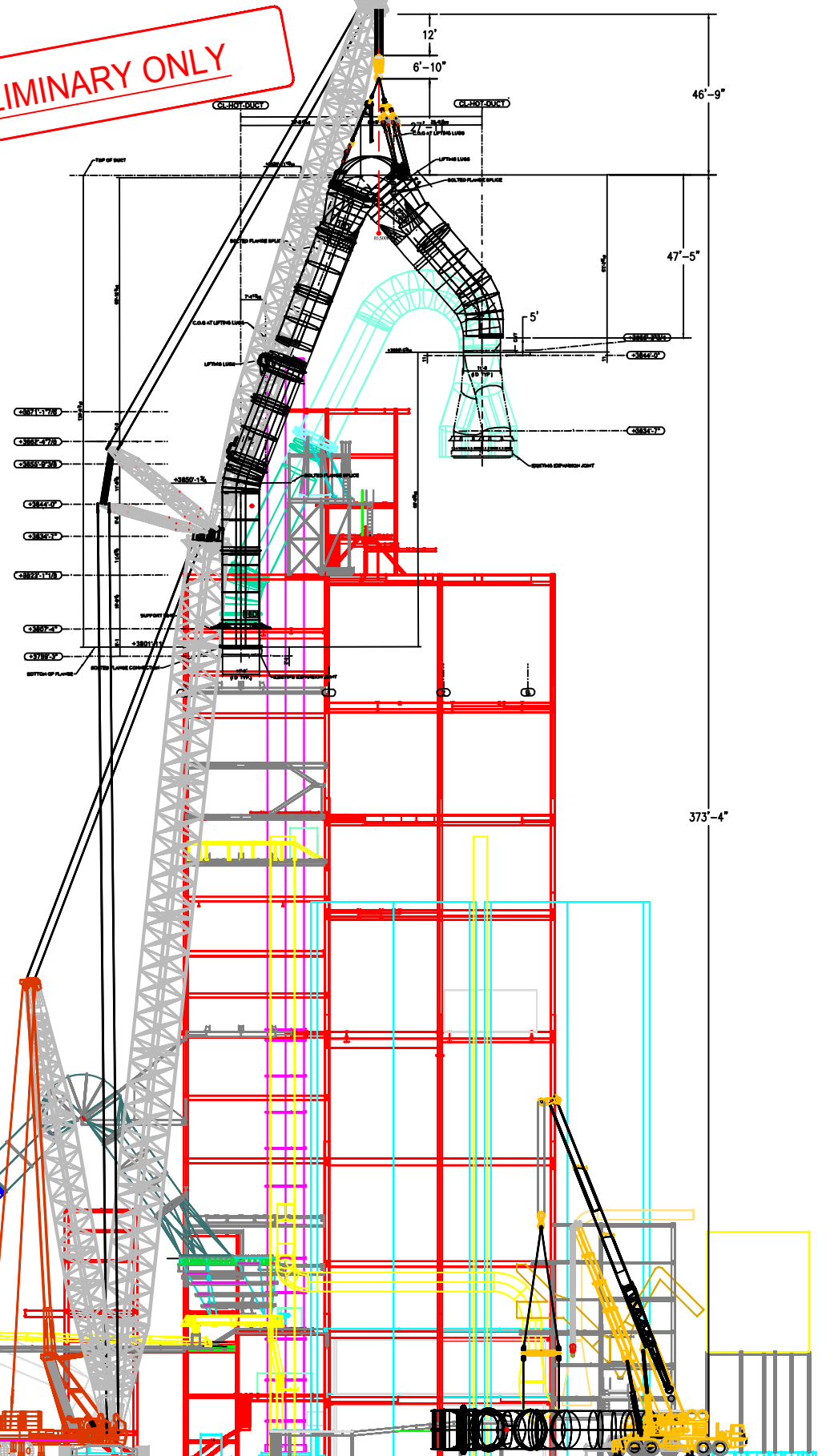
| 1 | 4.7.16 | ISSUE FOR REVIEW |
|-----|---------|--------------------|
| 2 | 6.16.16 | RIGGING REVISION |
| 3 | 6.17.16 | RIGGING CORRECTION |
| 4 | | |
| 5 | | |
| No. | Date | Revision |

Project:

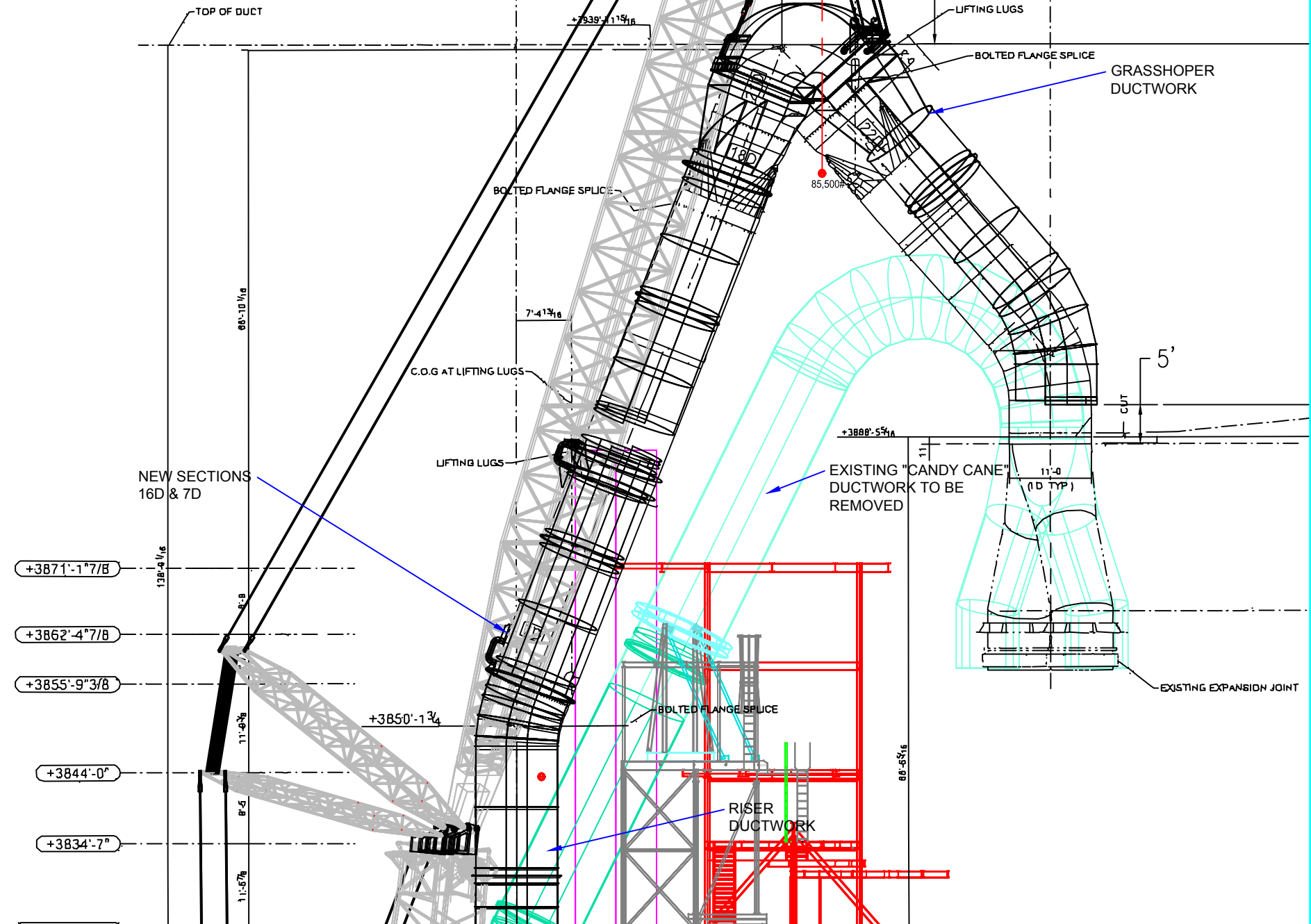
CALPORTLAND MOJAVE PLANT
DUCTWORK CHANGOUT
GRASSHOPPER DUCT SECTION
CRANE PLAN

Date: 4.7.16 Drawn By: MS Scale: NTS Dwg No.: MC25464HL Sht No.: 1

PRELIMINARY ONLY



100 TON BLOCK TO BOOM POINT
MINIMUM DISTANCE
#44 BOOM - 6 PARTS OF LINE
CRANE WILL HAVE SUFFICIENT
2-BLOCK DISTANCE WITH 4 PARTS
OF LINE AND CHOSEN BLOCK.
(LUFFING JIB IS NO. 44 TIP)



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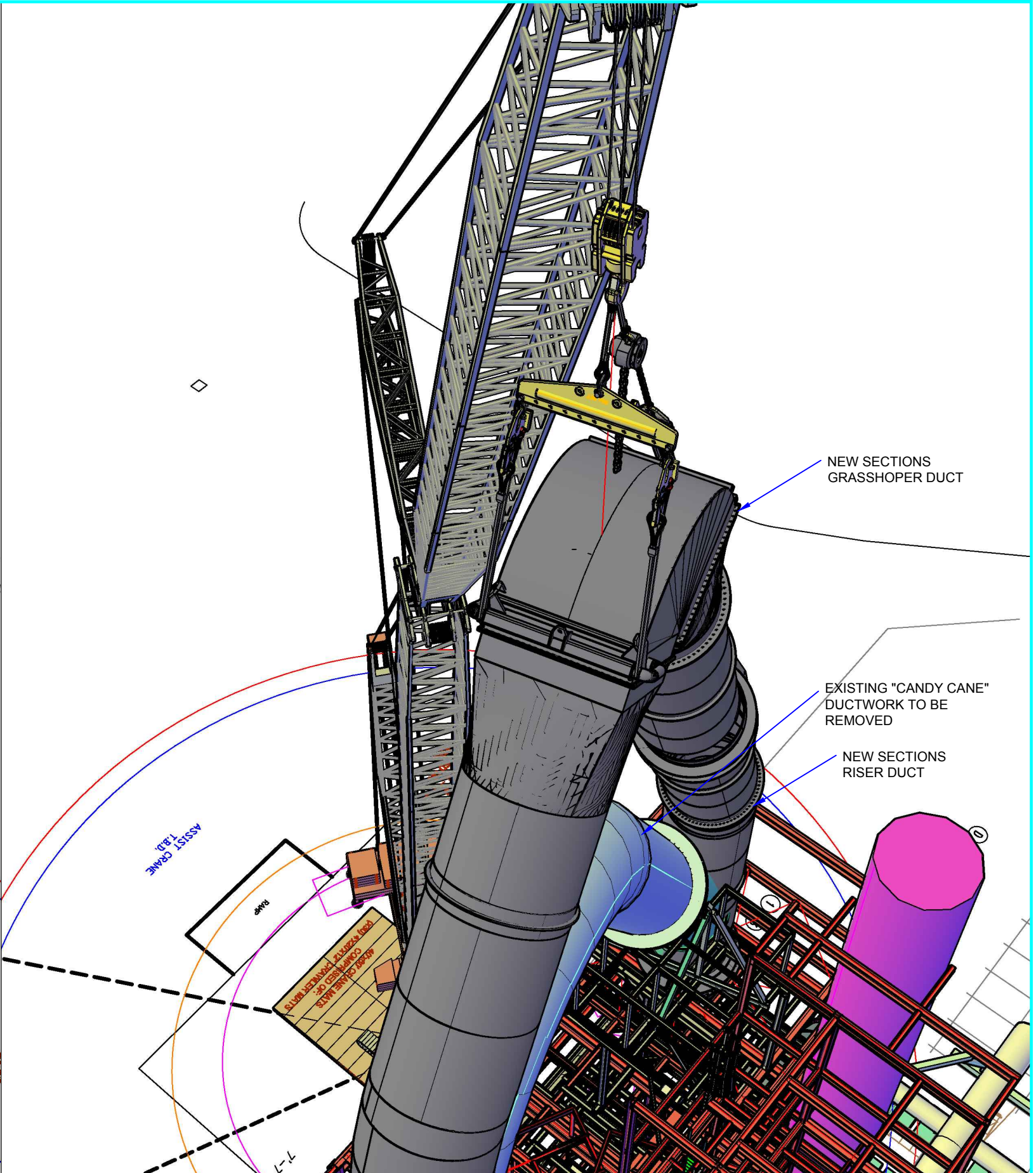
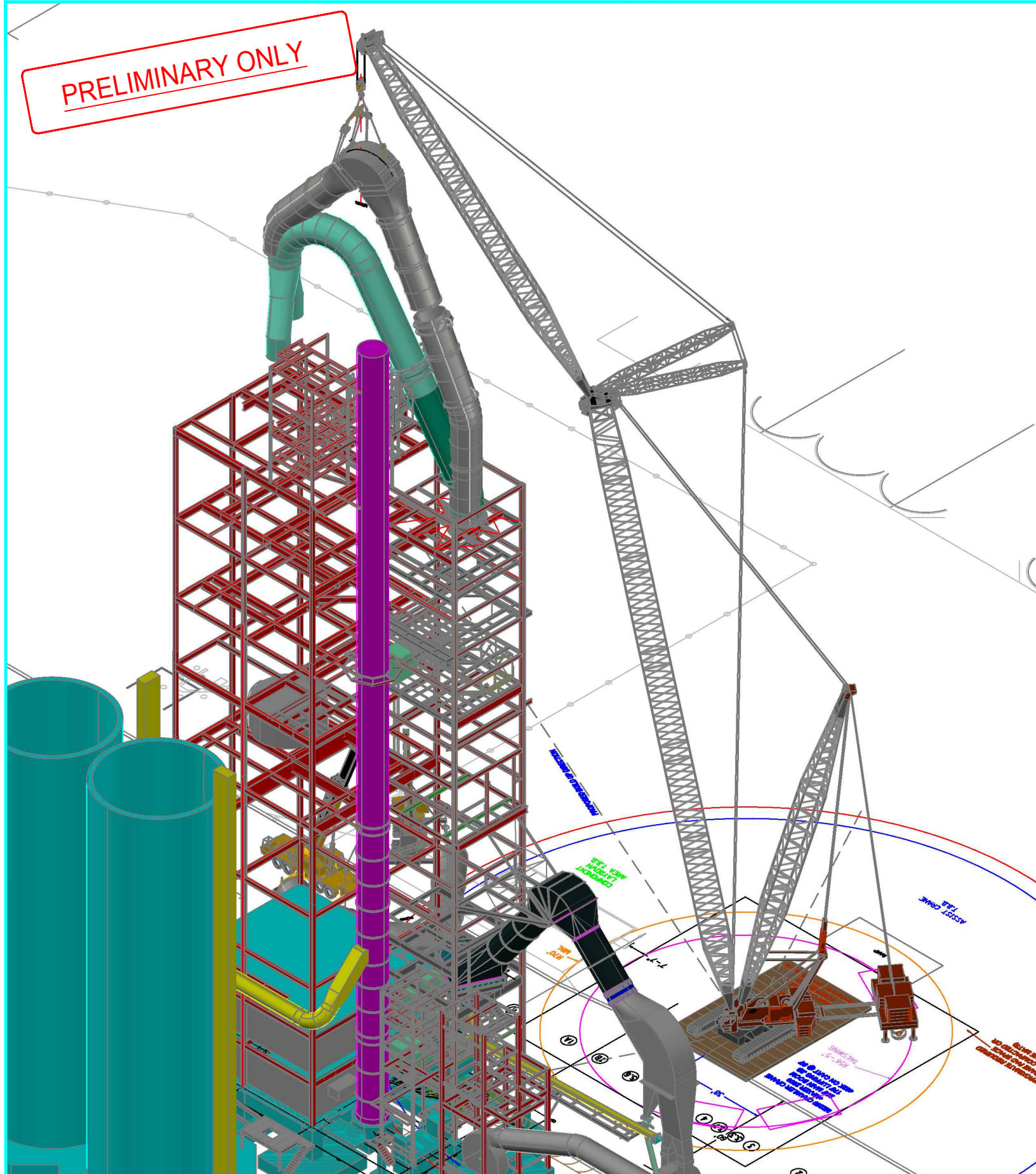
CALPORTLAND MOJAVE PLANT
DUCTWORK CHANGOUT
GRASSHOPPER DUCT SECTION
CRANE PLAN

Dwg Title:

M2250 CRAWLER WITH MAXER 2000
260' MAIN BOOM
170' LUFFING JIB
462K ON CART AT 50' POS.

| | | | | | | | | | |
|-------|--------|-----------|----|--------|-----|----------|-----------|----------|---|
| Date: | 4.7.16 | Drawn By: | MS | Scale: | NTS | Dwg No.: | MC25464HL | Sht No.: | 2 |
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Project:

CALPORTLAND MOJAVE PLANT
DUCTWORK CHANGOUT
GRASSHOPPER DUCT SECTION
CRANE PLAN

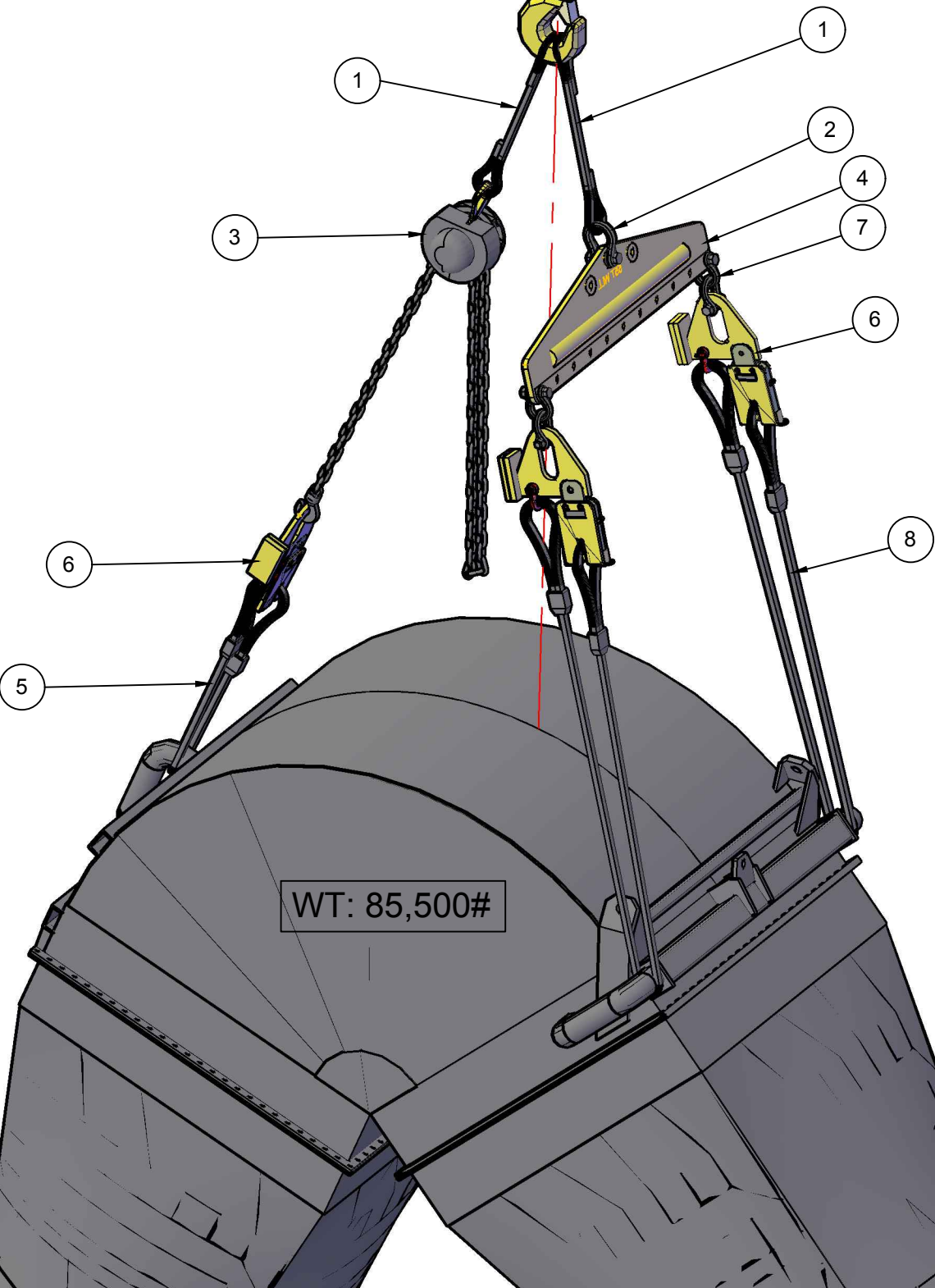
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| Date: | 4.7.16 | Drawn By: | MS | Scale: | NTS | Dwg No.: | MC25464HL | Sht No.: | 3 |
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Dwg Title:

M2250 CRAWLER WITH MAXER 2000
260' MAIN BOOM
170' LUFFING JIB
462K ON CART AT 50' POS.

PRELIMINARY ONLY
NOT FOR CONSTRUCTION

HOOK BLOCK
160T, 6,300 Lbs.

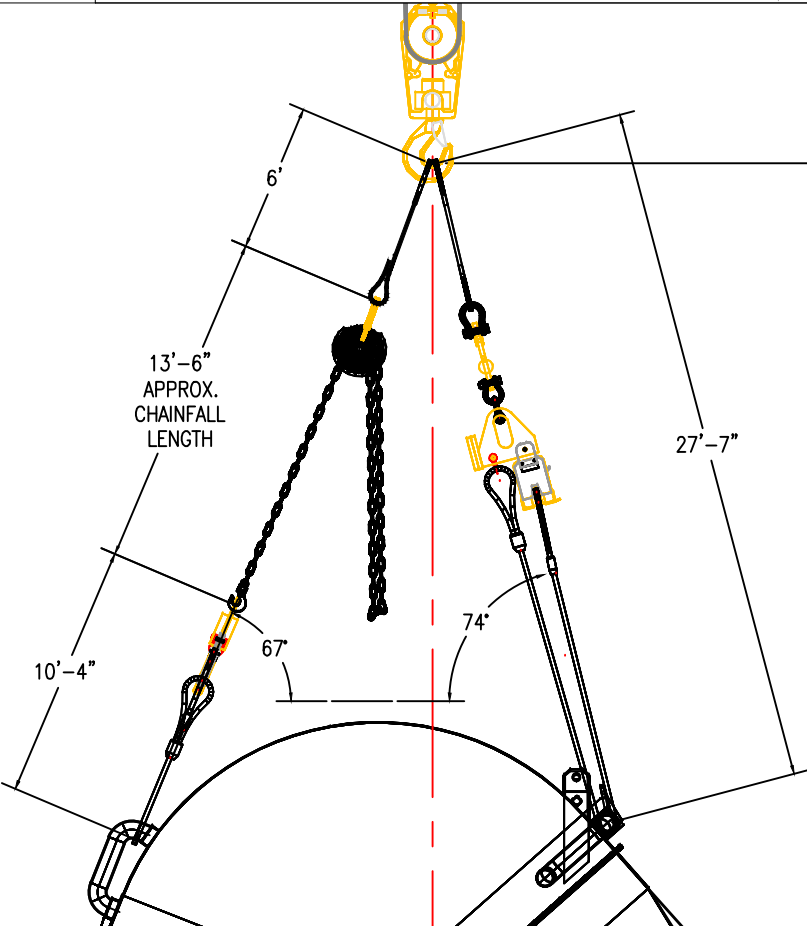
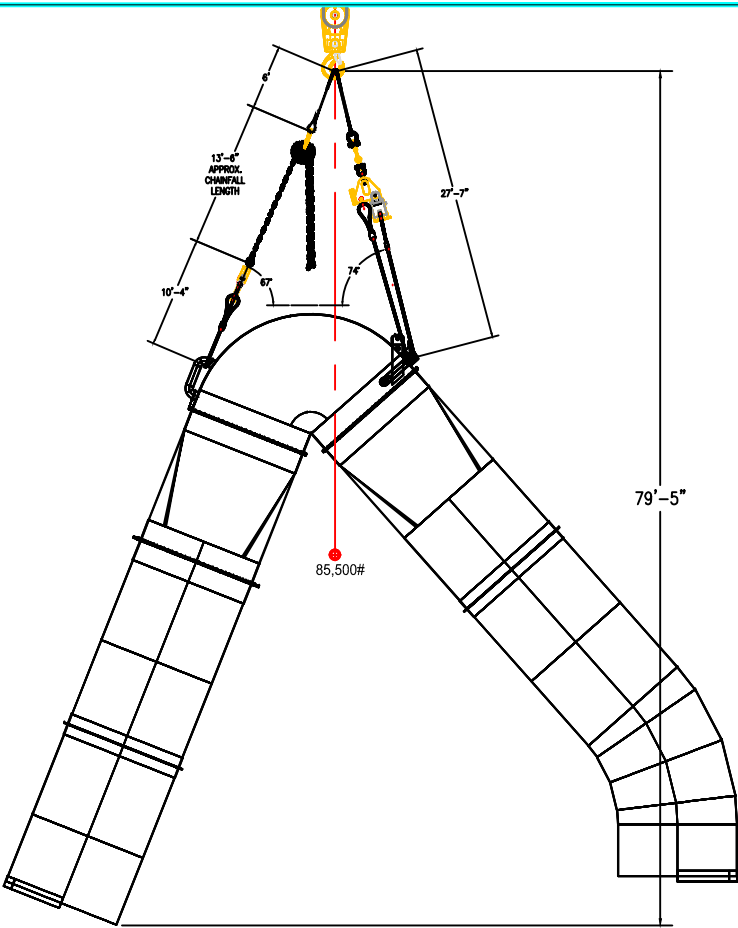


| RIGGING SUMMARY - GRASSHOPER | | | | |
|------------------------------|---|-----------|--------------|----------------|
| Mark | Description | Qty. (ea) | Wt. Ea. (lb) | Total Wt. (lb) |
| 1 | 1.5" Dia. X 6' IWRC Sling, one end thimbled | 2 | 34 | 68 |
| 2 | 82t Shackle (Skookum No. 320) | 1 | 85 | 85 |
| 3 | 40t Chain Fall (59" Min. x 20' Takeup) | 1 | 1,500 | 1,500 |
| 4 | 55T Spreader Bar x 10' | 1 | 1,050 | 1,050 |
| 5 | 1.5" Dia x 16' IWRC Sling in Basket | 1 | 104 | 104 |
| 6 | 30t Rig Release Device | 3 | 675 | 2,025 |
| 7 | 35t Shackle (G-2130) | 4 | 52 | 209 |
| 8 | 1.5" Dia x 30' IWRC Sling in Basket | 2 | 167 | 334 |
| 9 | Misc. | 5% | | 269 |

Total Rigging Weight 5,644

TOP SLING TENSION CHECK
85,000 LBS + RIGGING BELOW(5,662 LBS) = 90,662 LBS
90,662 / 2 = 45,331 LBS
45,331 LBS / SIN 67° = 49,246 LBS TENSION

SLINGS USED ARE 1.75" DIA. IWRC, CAPACITY: 56,000 LBS. TENSION
SLING MARGIN = 88%



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| 1 | 6.10.16 | ISSUE FOR REVIEW |
|-----|---------|--------------------|
| 2 | 6.14.16 | NEW TOP CONNECTION |
| 3 | 6.17.16 | LIST CORRECTION |
| 4 | | |
| 5 | | |
| No. | Date | Revision |

Project:

CAL PORTLAND
CPC MOJAVE
GRASSHOPER DUCTWORK
RIGGING PLAN - PRIMARY CRANE

Date: 6.10.16 Drawn By: MS Scale: NTS

Dwg Title:
M2250 CRAWLER CRANE WITH MAXER 2000
260' MAIN BOOM
170' LUFFING JIB
CART @ 50 POS. W/ 462K CTWT

Dwg No.: MC26142HL Sht No.: 1

PRELIMINARY ONLY

M2250 CRAWLER CRANE + MAXER 2000
260' MAIN BOOM NO. 79 @ 80°
170' LUFFING JIB NO. 44
130' DERRICK MAST NO. 44
169,200 LBS CRANE CTWT
60,000 LBS CARBODY CTWT
BALLAST CARRIAGE AT 50' POSITION
462,000 LBS CTWT ON CARRIAGE

Diagram illustrating the approximate required crane pad space (flat & compacted or crane mats) for a 40'x60' crane mat. The diagram shows a grid of numbered circles (1-10) and dimensions for the required space.

- Overall dimensions: 112' (width) x 60' (length).
- Required space dimensions: 56'-5" (width) x 83'-6" (length).
- Crane mat dimensions: 40'x60'.
- Crane mat orientation: The mat is oriented diagonally, with the 40' side parallel to the 56'-5" dimension.
- Crane mat placement: The mat is positioned within the required space, with its 60' side parallel to the 83'-6" dimension.
- Crane mat area: The area within the 40'x60' mat is labeled "40'x60' CRANE MATS".
- Crane mat area: The area within the 40'x60' mat is labeled "R56'-5" TAILSWING".

ASSIST CRANE WORKS
ALONG PATHWAY

50' /
APPROX.
REQUIRED PA
FOR BUILD-U

BUILD UP DIRECTION

$$24' - 5''$$

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Project:

CALPORTLAND MOJAVE PLANT
DUCTWORK CHANGOUT
LARGE DUCT SECTIONS
CRANE LAYDOWN AREA

Dwg Title:

M2250 CRAWLER WITH MAXER 2000
260' MAIN BOOM
170' LUFFING JIB
462K ON CART AT 50' POS.

| | | | | | | | | | |
|-------|--------|-----------|----|--------|-----|----------|-----------|----------|---|
| Date: | 6.6.16 | Drawn By: | MS | Scale: | NTS | Dwg No.: | MC26143HL | Sht No.: | 1 |
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