

### ABBREVIATIONS

|           |  |        |                        |
|-----------|--|--------|------------------------|
| AB        | ANCHOR BOLT                                | MAX    | MAXIMUM                |
| ACI       | AMERICAN CONCRETE INSTITUTE                | MB     | MACHINE BOLT           |
| AISC      | AMERICAN INSTITUTE OF STEEL CONSTRUCTION   | MECH   | MECHANICAL             |
| APPROX    | APPROXIMATE                                | MEZZ   | MEZZANINE              |
| ARCH      | ARCHITECTURAL                              | MFR    | MANUFACTURER           |
| ASTM      | AMERICAN SOCIETY FOR TESTING AND MATERIALS | MIN    | MINIMUM                |
| AWS       | AMERICAN WELDING SOCIETY                   | MISC   | MISCELLANEOUS          |
|           |  | MPH    | MILES PER HOUR         |
| B/B       | BACK TO BACK                               | NIC    | NOT IN CONTRACT        |
| B/P       | BASE PLATE                                 | NS     | NEAR SIDE              |
| BM        | BEAM                                       | NTS    | NOT TO SCALE           |
| BOF       | BOTTOM OF FOOTING                          |        |                        |
| BOS       | BOTTOM OF STEEL                            |        |                        |
| BRGC      | BRACING                                    | OC     | ON CENTER              |
| BTE       | BEAM TUBE ENCLOSURE                        | OD     | OUTSIDE DIAMETER       |
|           |  | OH     | OPPOSITE HAND          |
| C         | CAMBER                                     | OPNG   | OPENING                |
| CC OR C/C | CENTER TO CENTER                           | OPP    | OPPOSITE               |
| CG        | CENTER OF GRAVITY                          | OTO    | OUT TO OUT             |
| CJ        | CONSTRUCTION JOINT                         | PCF    | POUNDS PER CUBIC FOOT  |
| CLG       | CEILING                                    | PL     | PLATE                  |
| CLR       | CLEAR                                      | PSF    | POUNDS PER SQUARE FOOT |
| CMU       | CONCRETE MASONRY UNIT                      | PSI    | POUNDS PER SQUARE INCH |
| COL       | COLUMN                                     | PT     | POINT                  |
| CONC      | CONCRETE                                   |        |                        |
| CONT      | CONTINUOUS                                 |        |                        |
| CU        | CUBIC                                      | R      | RADIUS                 |
|           |  | RD     | ROOF DRAIN             |
| DET       | DETAIL                                     | REF    | REFERENCE              |
| DIAG      | DIAGONAL                                   | REIN   | REINFORCING            |
| DIM       | DIMENSION                                  | REQD   | REQUIRED               |
| DL        | DEAD LOAD                                  | REV    | REVISE OR REVISION     |
| DO        | DITTO                                      |        |                        |
| DWG       | DRAWING                                    | SCHED  | SCHEDULE               |
| DWL       | DOWEL                                      | SECT   | SECTION                |
|           |  | SHT    | SHEET                  |
| EA        | EACH                                       | SIM    | SIMILAR                |
| EF        | EACH FACE                                  | SLV    | SHORT LEG VERTICAL     |
| EL        | ELEVATION                                  | SPA    | SPACED                 |
| ENCL      | ENCLOSURE                                  | ST STL | STAINLESS STEEL        |
| ENGR      | ENGINEER                                   | STD    | STANDARD               |
| EQ        | EQUAL                                      | STIF   | STIFFENER              |
| EQUIP     | EQUIPMENT                                  | SYM    | SYMMETRICAL            |
| ETC       | ETCETERA                                   |        |                        |
| EW        | EACH WAY                                   | T&B    | TOP AND BOTTOM         |
| EXIST     | EXISTING                                   | TKK    | THICKNESS              |
|           |  | TOC    | TOP OF CONCRETE        |
| FD        | FLOOR DRAIN                                | TOF    | TOP OF FOOTING         |
| FDN       | FOUNDATION                                 | TOS    | TOP OF STEEL           |
| FIN       | FINISH                                     | TOW    | TOP OF WALL            |
| FLR       | FLOOR                                      | TYP    | TYPICAL                |
| FLSHG     | FLASHING                                   |        |                        |
| FOC       | FACE OF CONCRETE                           | UON    | UNLESS OTHERWISE NOTED |
| FRMG      | FRAMING                                    |        |                        |
| FS        | FAR SIDE                                   | VE     | VACUUM EQUIPMENT       |
| FT        | FOOT, FEET                                 | VERT   | VERTICAL               |
| FTG       | FOOTING                                    |        |                        |
|           |  | W/     | WITH                   |
| GA        | GAUGE                                      | WP     | WATER PROOF            |
| GALV      | GALVANIZED                                 | WP     | WORKING POINT          |
| GR        | GRADE                                      | WS     | WELDED STUD            |
|           |  | WT     | WEIGHT                 |
| HORIZ     | HORIZONTAL                                 | WWF    | WELDED WIRE FABRIC     |
| HP        | HIGH POINT                                 | WWM    | WELDED WIRE MESH       |
| HR        | HANDRAIL                                   |        |                        |
| HSB       | HIGH STRENGTH BOLT                         |        |                        |
|           |  |        |                        |
| ID        | INSIDE DIAMETER                            |        |                        |
| IN        | INCH                                       |        |                        |
| INFO      | INFORMATION                                |        |                        |
| INSUL     | INSULATION                                 |        |                        |
|           |  |        |                        |
| JST       | JOIST                                      |        |                        |
| JT        | JOINT                                      |        |                        |

### SYMBOLS

|    |                               |   |                 |
|----|-------------------------------|---|-----------------|
| L  | ANGLE                         | △ | DELTA           |
| C  | CHANNEL                       | ⊕ | SQUARE FEET     |
| PL | PLATE                         | # | NUMBER OF POUND |
| ℄  | CENTER LINE                   | & | AND             |
| ∅  | DIAMETER OR ROUND             | @ | AT              |
| ◆  | WORK POINT OR ELEV BENCH MARK |   |                 |

  

|  |                      |
|--|----------------------|
|  | ROOM NUMBER          |
|  | REVISED AREA CLOUDED |

  

|  |                    |
|--|--------------------|
|  | DETAIL             |
|  | SECTION            |
|  | REF                |
|  | DET/SECT CROSS REF |

### GENERAL NOTES

#### GENERAL

1. ALL WORKMANSHIP AND MATERIALS SHALL CONFORM TO THE PROJECT SPECIFICATIONS.
2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AFFECTING THE WORK AND SHALL NOTIFY THE CONSTRUCTION MANAGER OF ANY DISCREPANCY WITH THE INFORMATION SHOWN ON THE DRAWINGS PRIOR TO PROCEEDING WITH THE WORK.
3. FOR TOP OF CONCRETE SLAB FOR BEAM TUBE ENCLOSURE SEE CIVIL DRAWINGS.
4. INSTALLATION AND SEALING OF BEAM TUBE ENCLOSURE SEGMENTS ARE INCLUDED IN THIS CONTRACT.
5. INSTALLATION OF DOORS ARE INCLUDED IN THIS CONTRACT.

#### STRUCTURAL AND MISC METAL WORKS

1. STRUCTURAL AND MISCELLANEOUS STEEL SHALL CONFORM TO ASTM A36.
2. ALL WELDING AND ELECTRODES SHALL CONFORM TO THE REQUIREMENTS OF AWS D1.1 STRUCTURAL WELDING CODE.
3. FIELD WELDING SHALL BE PERFORMED BY CERTIFIED WELDERS AND CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER PRIOR TO WELDING.

### DRAWING INDEX

|           |   |
|-----------|---|
| LA-S-601  | GENERAL NOTES, ABBREVIATIONS & LEGEND                   |
| LA-S-602  | KEY PLAN OF BEAM TUBE ENCLOSURE & PARTIAL ENLARGED PLAN |
| LA-S-602A | SOUTHEAST ARM BEAM TUBE ENCLOSURE PARTIAL ENLARGED PLAN |
| LA-S-603  | BEAM TUBE ENCLOSURE PLANS, SECTIONS & DETAILS           |

### MATERIALS LEGEND

|  |          |  |                     |
|--|----------|--|---------------------|
|  | CONCRETE |  | WELDED WIRE FABRIC  |
|  | GRAVEL   |  | EARTH               |
|  |          |  | STRUCTURAL BACKFILL |

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E  
D  
C  
B  
A

|  |   |  |  |   |   |
|--|---|--|--|---|---|
| REFERENCES<br>NO. DATE BY CHKD ENGR PROJ DESCRIPTION | REVISIONS<br>NO. DATE BY CHKD ENGR PROJ DESCRIPTION | DRAWN MCS<br>CHECKED<br>ENGINEER<br>PROJ                     | 100 WEST WALNUT STREET<br>PASADENA, CALIFORNIA | CALIFORNIA INSTITUTE OF TECHNOLOGY<br>MASSACHUSETTS INSTITUTE OF TECHNOLOGY | LASER INTERFEROMETER<br>GRAVITATIONAL-WAVE OBSERVATORY<br>BTE INSTALLATION - LIVINGSTON, LA |
|  |   | A 6-14-96 MCS [Signature] PH [Signature] FINAL DESIGN REVIEW |  |   | TITLE<br>STRUCTURAL<br>BEAM TUBE ENCLOSURE<br>GENERAL NOTES,<br>ABBREVIATIONS & LEGEND      |
| DRAWING NO. 5  |   | 3  |  | 2   |   |