



MADISON, WISCONSIN

# CITY OF MADISON

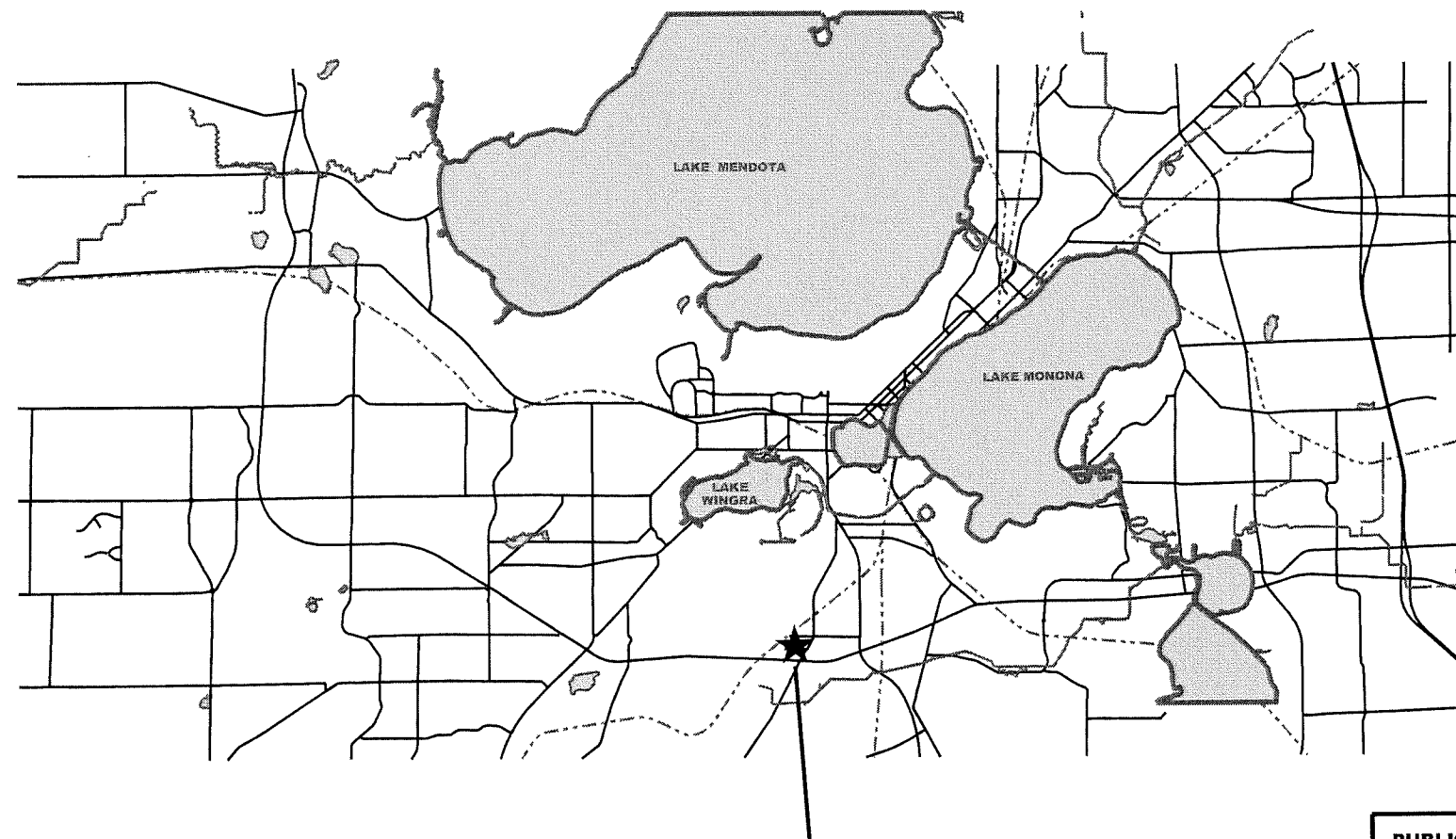
## ENGINEERING DIVISION

### DEPARTMENT OF PUBLIC WORKS

#### PLAN OF PROPOSED IMPROVEMENT

#### TRUCK SCALES PROJECT

PROJECT NO. 11021  
CONTRACT NO. 8465



WEST BADGER RD SITE LOCATION  
1501 W BADGER RD

#### SHEET INDEX

- 1 COVER
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- 6 REINFORCING PLAN AND DETAILS
- 7 ELECTRICAL SCHEMATIC

PUBLIC WORKS  
IMPROVEMENT PROJECT

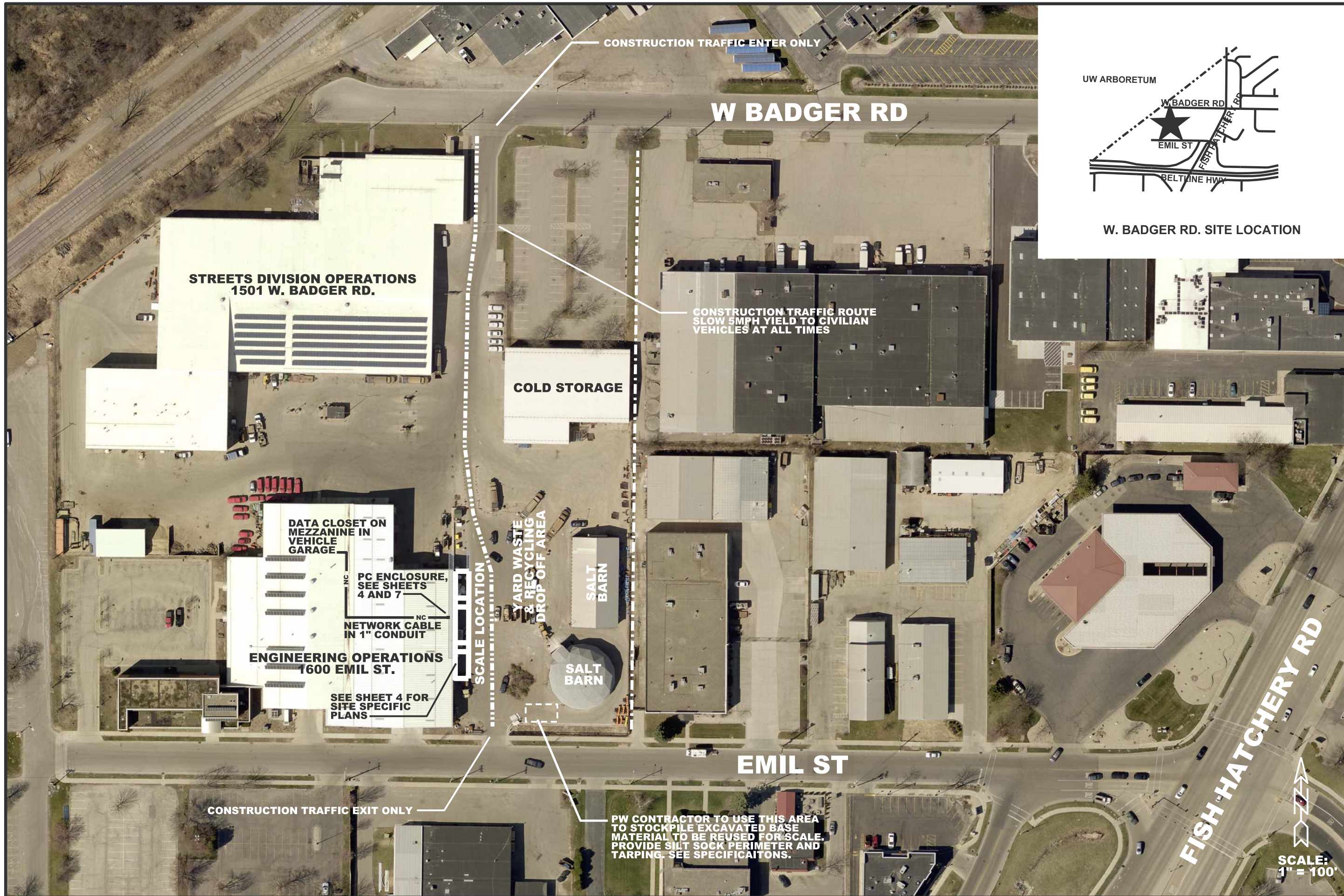
APPROVED BY THE  
COMMON COUNCIL OF  
MADISON WISCONSIN

RES: 19-00208  
FILE ID: 54826  
DATE: MARCH 25, 2019

PUBLIC WORKS IMPROVEMENT DESIGN

APPROVED BY  
*Chris Pappas for Robert Phillips*  
CITY ENGINEER

8/9/19  
DATE



CONSTRUCTION TRAFFIC ENTER ONLY

W BADGER RD

STREETS DIVISION OPERATIONS  
1501 W. BADGER RD.

CONSTRUCTION TRAFFIC ROUTE  
SLOW 5MPH YIELD TO CIVILIAN  
VEHICLES AT ALL TIMES

COLD STORAGE

DATA CLOSET ON  
MEZZANINE IN  
VEHICLE  
GARAGE

PC ENCLOSURE,  
SEE SHEETS  
4 AND 7

NETWORK CABLE  
IN 1" CONDUIT

ENGINEERING OPERATIONS  
1600 EMIL ST.

SEE SHEET 4 FOR  
SITE SPECIFIC  
PLANS

SCALE LOCATION

YARD WASTE  
& RECYCLING  
DROP OFF AREA

SALT  
BARN

SALT  
BARN

EMIL ST

CONSTRUCTION TRAFFIC EXIT ONLY

PW CONTRACTOR TO USE THIS AREA  
TO STOCKPILE EXCAVATED BASE  
MATERIAL TO BE REUSED FOR SCALE.  
PROVIDE SILT SOCK PERIMETER AND  
TARPING. SEE SPECIFICATIONS.

UW ARBORETUM

W BADGER RD

EMIL ST

FISH HATCHERY RD

BELTLINE HWY

W. BADGER RD. SITE LOCATION

CITY OF MADISON - ENGINEERING  
CONTRACT 8465  
STREET DIVISION TRUCK SCALES

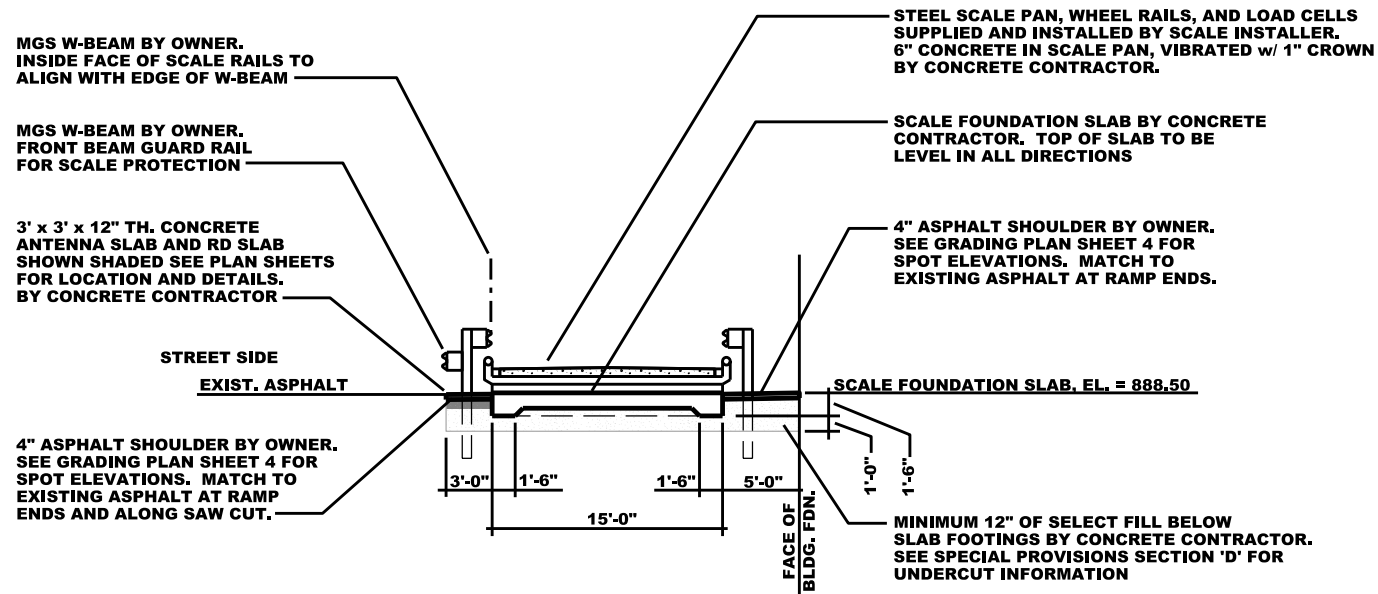
W. BADGER RD.  
GENERAL SITE PLAN

2

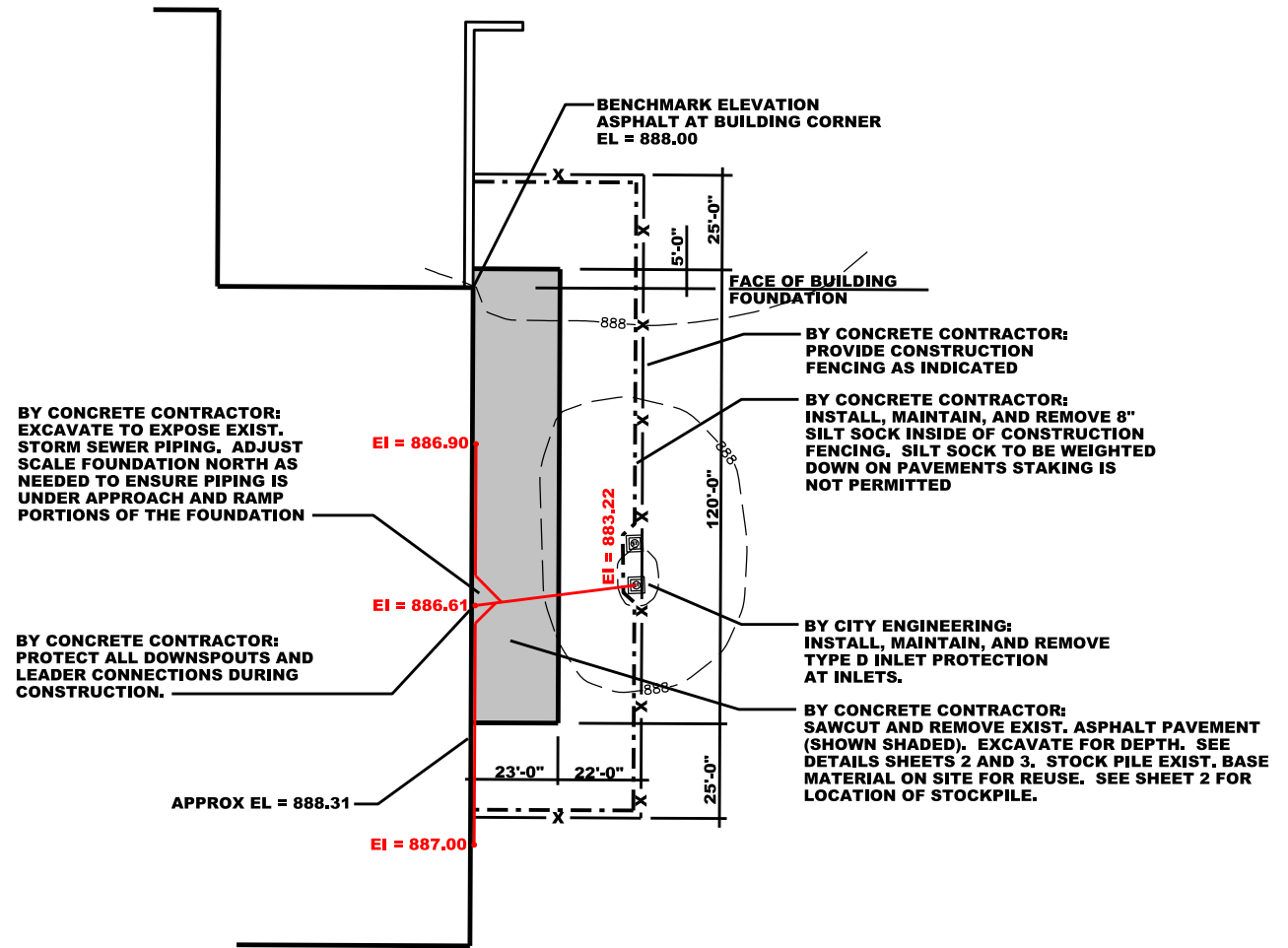
SCALE:  
1" = 100'

**GENERAL NOTES:**

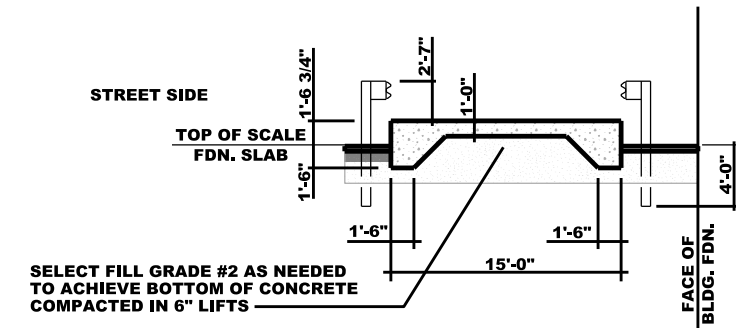
1. THE CONCRETE CONTRACTOR SHALL COORDINATE WITH THE CITY PROJECT MANAGER AND OTHERS AS NEEDED FOR WORK BEING DONE BY OTHERS. SEE SECTION 'D' OF THE SPECIAL PROVISIONS FOR MORE INFORMATION ON WORK BY OTHERS.
2. THE CONCRETE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SITE PREPARATION EXCEPT WHERE NOTED AS BY OTHERS, ALL EXCAVATIONS, MATERIAL DISPOSAL, INSTALLATION OF ALL BASE MATERIALS, INSTALLATION OF ALL CONCRETE AND RE-BAR, GENERAL SITE CLEANUP; AND OTHER MISCELLANEOUS WORK ASSOCIATED WITH COMPLETING THE INTENT OF THIS CONTRACT.
3. THE CONCRETE CONTRACTOR SHALL FIELD LOCATE AND EXPOSE EXISTING STORM LEADERS DURING PROJECT LAYOUT. ADJUST LAYOUT TO THE NORTH IF NEEDED SO STORM PIPING IS LOCATED UNDER OFF APPROACH AND RAMP AS DEPICTED IN DETAIL 3 ON THIS SHEET. EXPOSING PIPE IS INCIDENTAL TO EXCAVATION.
4. THE CONCRETE CONTRACTOR SHALL USE CAUTION WHEN EXCAVATING AROUND THE EXISTING STORM SEWER PIPING FOR THE EXISTING ROOF DRAINS. THE CONCRETE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL CONDITIONS IN THE FIELD WITH PLANS AND DETAILS. NOTIFY THE CITY PROJECT MANAGER OF DIFFERING CONDITIONS AFFECTING DETAILS PRIOR TO BEGINNING ANY WORK.
5. THE CONCRETE CONTRACTOR SHALL REMOVE AND STOCKPILE EXISTING SELECT FILL MATERIALS BELOW ASPHALT FOR REUSE. 8" SILT SOCK AROUND STOCKPILES AND TARPS TO COVER THE STOCKPILE IS INCIDENTAL TO THE EXCAVATION.
6. THE CONCRETE CONTRACTOR SHALL REVIEW BID ITEM 20101 EXCAVATION CUT IN THE SPECIAL PROVISIONS FOR INFORMATION REGARDING UNDERCUT.
7. THE CONCRETE CONTRACTOR SHALL COMPACT ALL GRANULAR FILL WITH A VIBRATORY TYPE DEVICE TO 95% MAXIMUM DRY DENSITY. COMPACTION WITH A BACKHOE BUCKET SHALL NOT BE PERMITTED. THE CONCRETE CONTRACTOR SHALL NOTIFY THE CPM AT LEAST 2 DAYS BEFORE NEEDING THE MATERIALS TESTING CONTRACTOR ON SITE. THE CPM WILL COORDINATE THE COMPACTION TESTING WITH THE MATERIALS TESTING CONTRACTOR.
8. SEE REBAR SCHEDULE ON SHEET 6 FOR SPECIFICATIONS ON REINFORCING STEEL. THE CONCRETE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING QUANTITIES AND LENGTHS REQUIRED INCLUDING OVERLAPS.
9. THE CITY PROJECT MANAGER SHALL REVIEW ALL REBAR PLACEMENT PRIOR TO THE CONCRETE POUR. THE CONCRETE CONTRACTOR SHALL PROVIDE THE CPM WITH 2 WORKING DAY NOTICE BEFORE NEEDING REVIEW.
10. AT THE DISCRETION OF THE CONCRETE CONTRACTOR A MONOLITHIC POUR OF THE SCALE FOUNDATION SLAB, RAMPS AND APPROACHES SHALL BE ALLOWED. THE CONCRETE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND INSTALLING ALL CONTROL JOINTS.
11. ALL CONCRETE SHALL BE  $f_c = 4000$  psi @ 28 DAYS STRENGTH. THE CONCRETE CONTRACTOR SHALL NOTIFY THE CPM AT LEAST 2 DAYS BEFORE NEEDING THE MATERIALS TESTING CONTRACTOR ON SITE FOR ANY CONCRETE POUR. THE CPM WILL COORDINATE THE TESTING OF EACH CONCRETE POUR.
12. THE SCALE FOUNDATION SLAB SHALL BE LEVEL IN ALL DIRECTIONS AT THE ELEVATION SPECIFIED IN THE PLANS AND DETAILS.
13. ALL CONCRETE SHALL HAVE A BROOM SWEPT FINISH.
14. THE SCALE INSTALLER SHALL BE RESPONSIBLE FOR THE DELIVERY AND INSTALLATION OF ALL SCALE EQUIPMENT AFTER THE CONTRACTOR HAS COMPLETED HIS/HER PORTION OF THE SITE PREPARATION.
15. THE CONCRETE CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULING AND POURING THE SCALE PAN CONCRETE AFTER THE INSTALLATION OF ALL SCALE EQUIPMENT IS COMPLETED. THE CONCRETE CONTRACTOR SHALL VERIFY ALL CONCRETE AND INSTALLATION REQUIREMENTS WITH THE SCALE INSTALLER PRIOR TO ORDERING THE CONCRETE.



**A-A/3 SECTION THRU SCALE PAN  
(NOT TO SCALE)**



**1. EXISTING SITE PLAN**

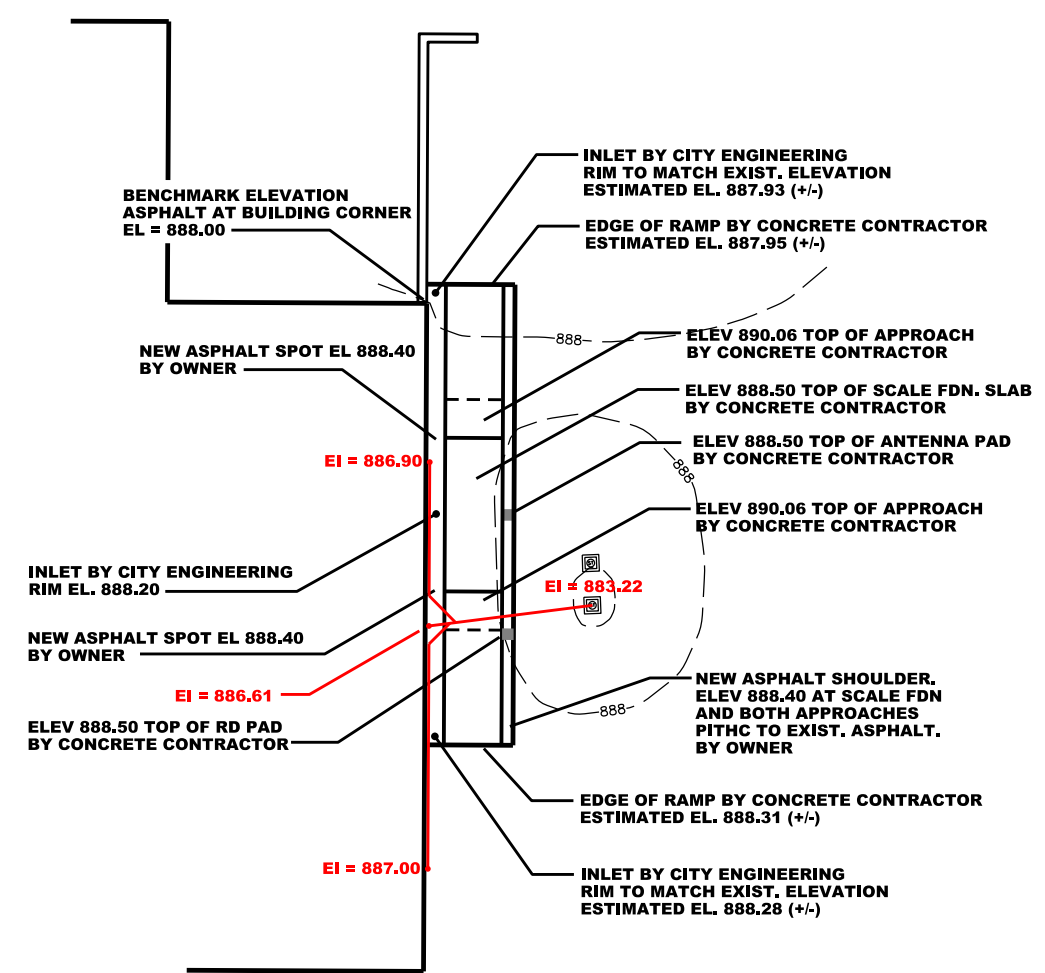


**B-B/3 SECTION THRU APPROACH/RAMPS  
(NOT TO SCALE)**

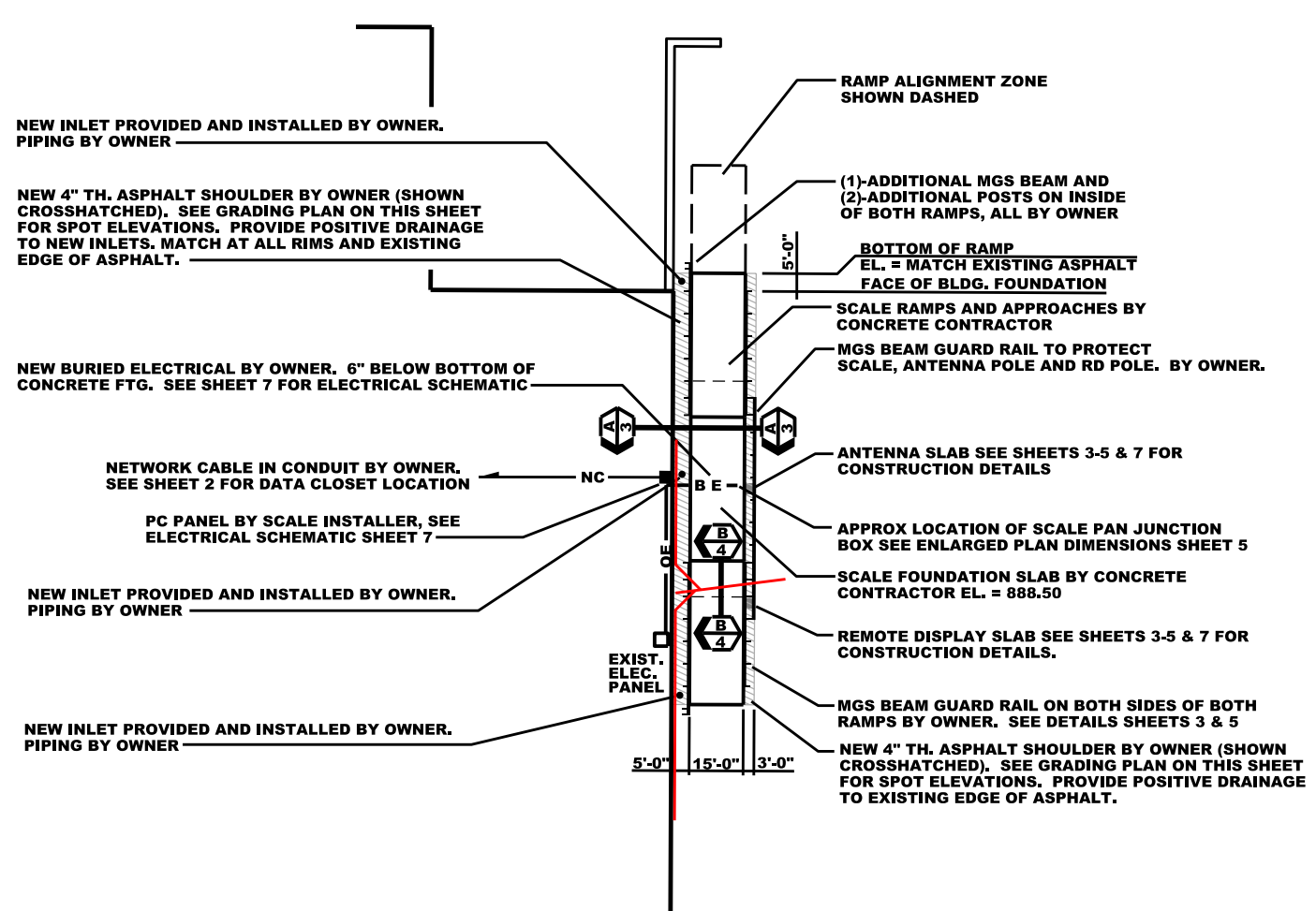
SCALE:  
1" = 50'

**CITY OF MADISON - ENGINEERING  
CONTRACT 8465  
STREET DIVISION TRUCK SCALES**

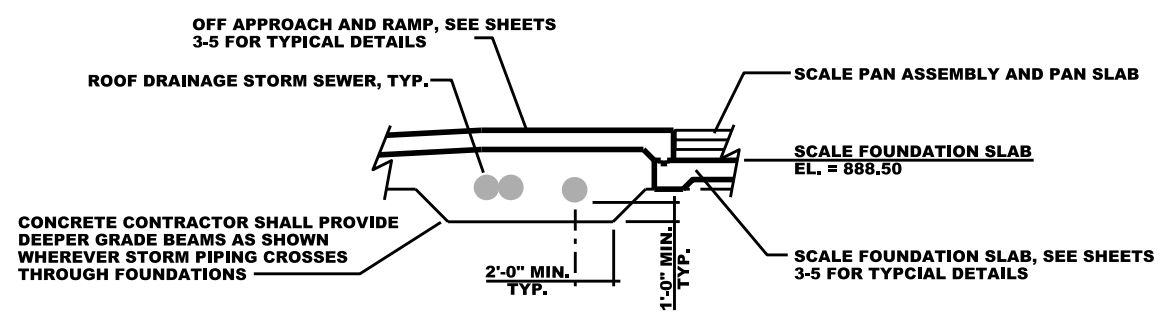
**EXISTING SITE PLAN,  
DETAILS, GENERAL NOTES**



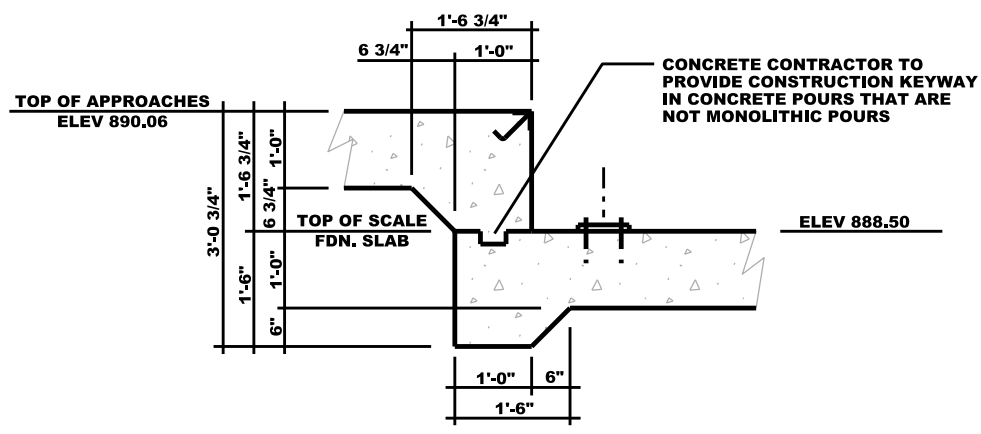
**1. NEW GRADING PLAN**



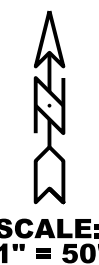
**2. CONSTRUCTION PLAN**



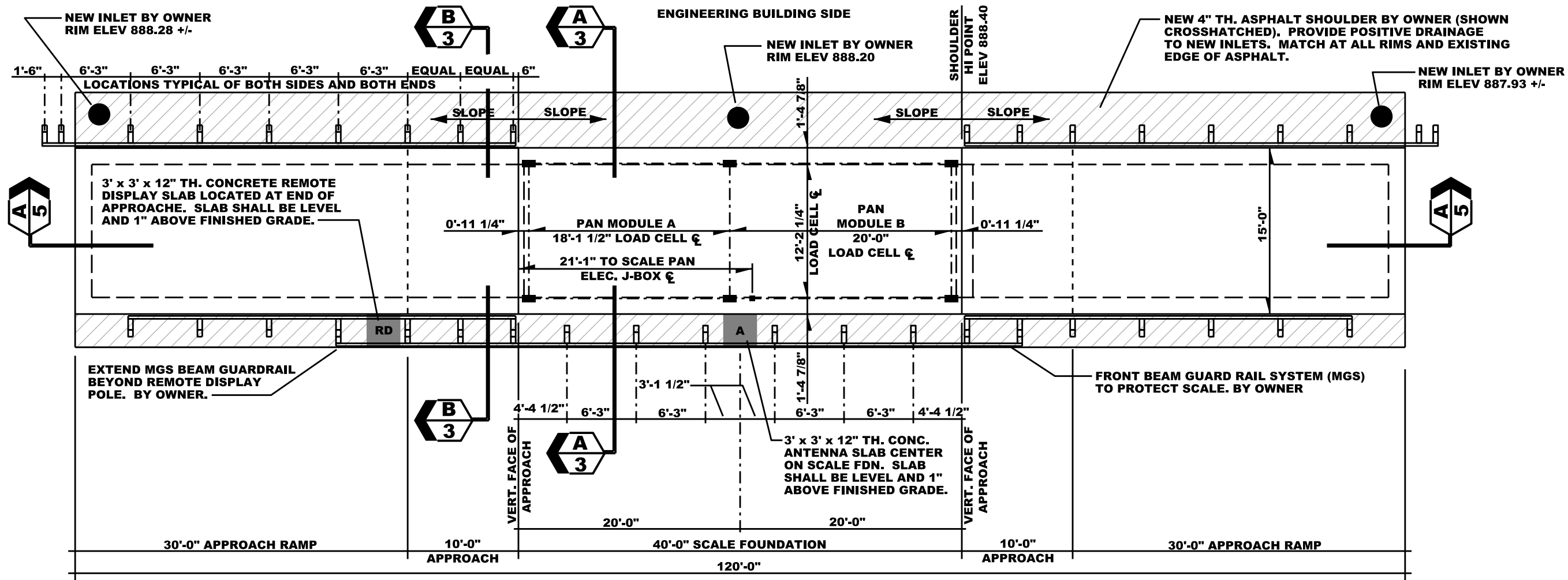
**B-B/4 STORM PIPE CROSSING DETAIL  
 (NOT TO SCALE)**



**C/4 TYPICAL DETAIL**

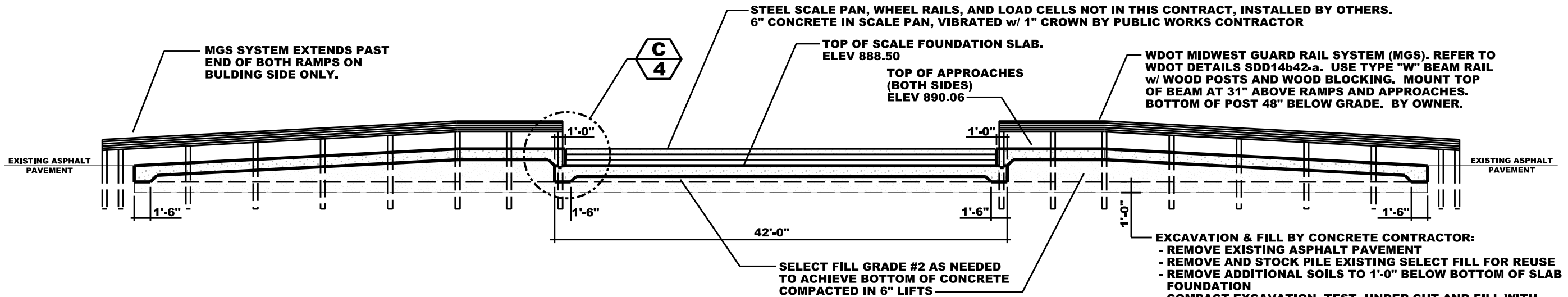


SCALE:  
 1" = 50'



NOTE: ANTENNA SIDE IS "STREET SIDE" FOR ALL LOCATIONS

**TYPICAL PLAN VIEW - FOUNDATION SLAB AND VEHICLE APPROACHES**



SELECT FILL NOTE FOR ALL DETAILS, PER CITY OF MADISON STANDARD SPECIFICATIONS FOR PUBLIC WORKS:

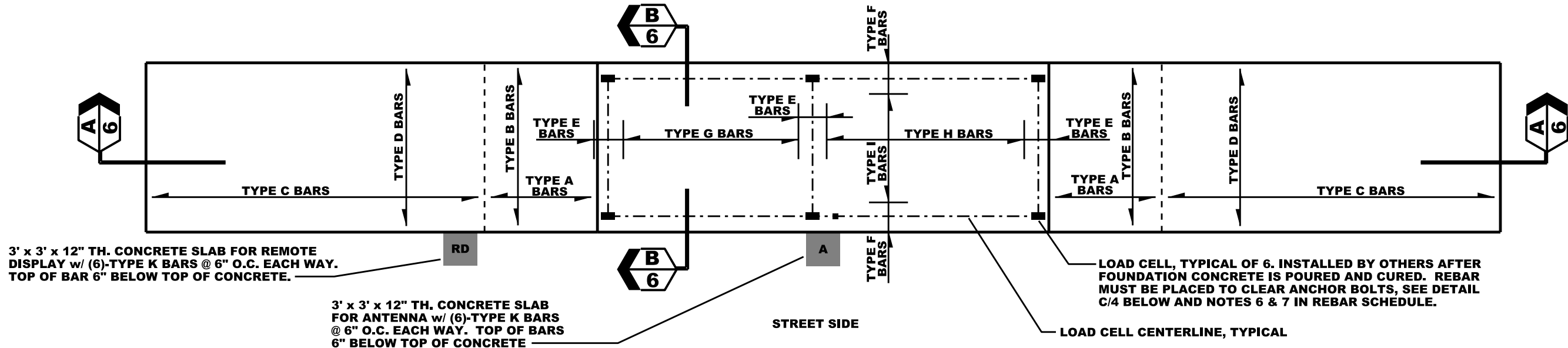
1. SELECT FILL GRADATION # 2 SHALL BE 1-1/4" UNWASHED CRUSHED STONE
2. SELECT FILL GRADATION #5 SHALL BE BREAKER RUN BASE

- EXCAVATION & FILL BY CONCRETE CONTRACTOR:
- REMOVE EXISTING ASPHALT PAVEMENT
  - REMOVE AND STOCK PILE EXISTING SELECT FILL FOR REUSE
  - REMOVE ADDITIONAL SOILS TO 1'-0" BELOW BOTTOM OF SLAB FOUNDATION
  - COMPACT EXCAVATION, TEST, UNDER CUT AND FILL WITH #5 BREAKER RUN AS NEEDED
  - RE-INSTALL EXISTING SELECT FILL AND COMPACT IN 6" LIFTS
  - SUPPLEMENT WITH SELECT FILL GRADE #2 AS REQUIRED BY DETAILS

**A-A/5 TYPICAL SECTION DETAIL**

BUILDING SIDE

STREET SIDE



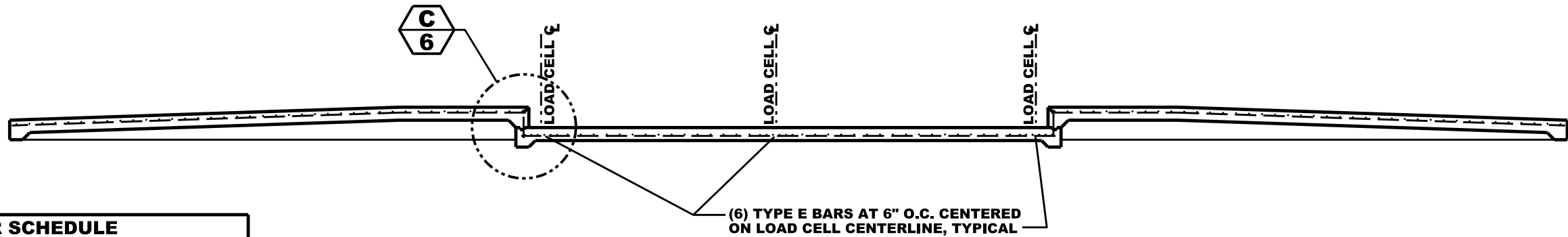
3' x 3' x 12" TH. CONCRETE SLAB FOR REMOTE DISPLAY w/ (6)-TYPE K BARS @ 6" O.C. EACH WAY. TOP OF BAR 6" BELOW TOP OF CONCRETE.

3' x 3' x 12" TH. CONCRETE SLAB FOR ANTENNA w/ (6)-TYPE K BARS @ 6" O.C. EACH WAY. TOP OF BARS 6" BELOW TOP OF CONCRETE

LOAD CELL, TYPICAL OF 6. INSTALLED BY OTHERS AFTER FOUNDATION CONCRETE IS POURED AND CURED. REBAR MUST BE PLACED TO CLEAR ANCHOR BOLTS, SEE DETAIL C/4 BELOW AND NOTES 6 & 7 IN REBAR SCHEDULE.

LOAD CELL CENTERLINE, TYPICAL

**REINFORCING BAR PLAN**



(6) TYPE E BARS AT 6" O.C. CENTERED ON LOAD CELL CENTERLINE, TYPICAL

**A-A/6 SECTION DETAIL**

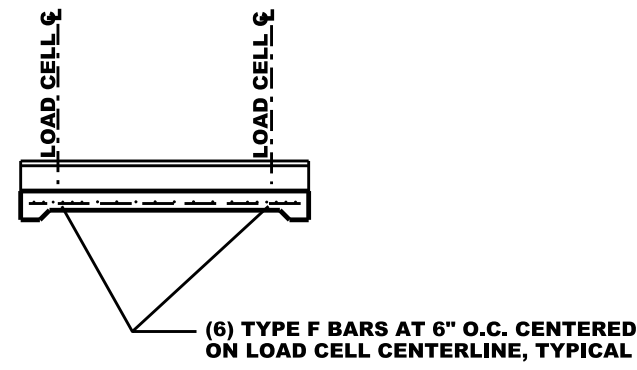
**REBAR SCHEDULE**

ID NO.	SIZE	SPACING	REMARKS
A	# 5	@ 12" O.C.	NOTE 5
B	# 5	@ 12" O.C.	NOTE 5
C	# 5	@ 12" O.C.	NOTE 5
D	# 5	@ 12" O.C.	NOTE 5
E	# 5	@ 6" O.C.	NOTE 6 & 7
F	# 5	@ 6" O.C.	NOTE 6 & 8
G	# 5	@ 12" O.C.	NOTE 5
H	# 5	@ 12" O.C.	NOTE 5
I	# 5	@ 12" O.C.	NOTE 5
J	# 5	@ 12" O.C.	NOTE 5
K	# 5	@ 6" O.C.	EACH WAY

1. REINFORCING STEEL SHALL BE DEFORMED BARS MEETING ASTM A615 GRADE 60.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING QUANTITY AND LENGTHS OF REBAR REQUIRED FOR A COMPLETE INSTALLATION.
3. CONTRACTOR SHALL LAP REBARS A MINIMUM OF 40 BAR DIAMETERS.
4. ALL REBAR SHALL BE TIED PRIOR TO CONCRETE PLACEMENT.
5. MINIMUM COVER ON REBAR SHALL BE 2" UNLESS NOTED OTHERWISE.
6. CENTER BAR SPACING ON LOAD CELL CENTERLINE.
7. MINIMUM COVER ON REBAR SHALL BE 6".
8. MINIMUM COVER ON REBAR SHALL BE 6-5/8".

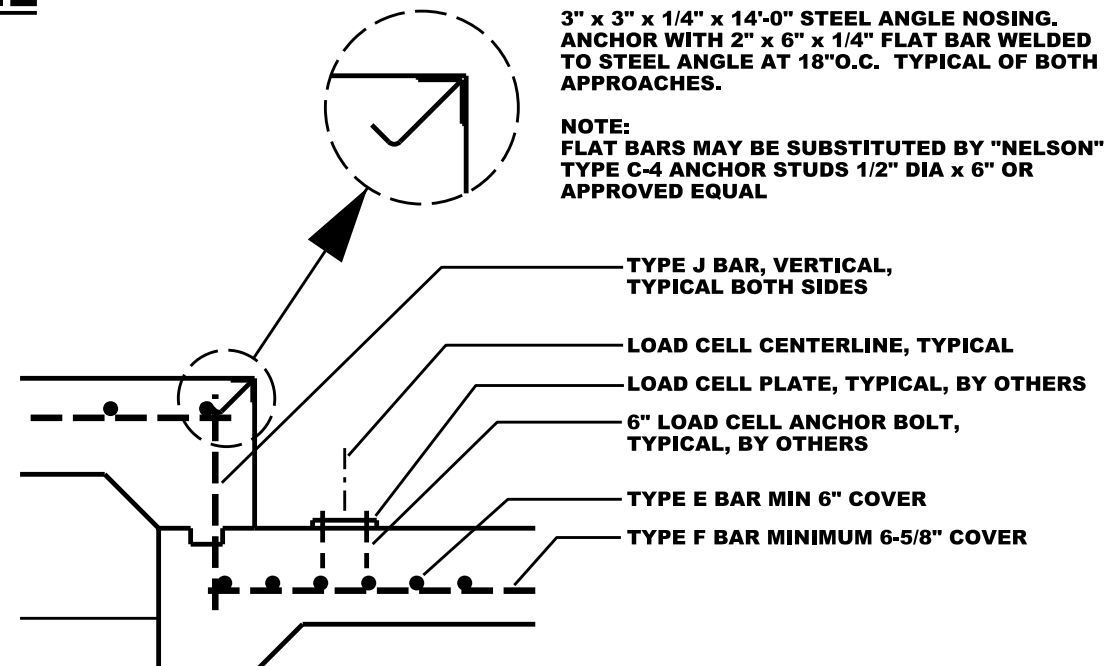
3" x 3" x 1/4" x 14'-0" STEEL ANGLE NOSING. ANCHOR WITH 2" x 6" x 1/4" FLAT BAR WELDED TO STEEL ANGLE AT 18" O.C. TYPICAL OF BOTH APPROACHES.

NOTE:  
 FLAT BARS MAY BE SUBSTITUTED BY "NELSON" TYPE C-4 ANCHOR STUDS 1/2" DIA x 6" OR APPROVED EQUAL



(6) TYPE F BARS AT 6" O.C. CENTERED ON LOAD CELL CENTERLINE, TYPICAL

**B-B/6 SECTION DETAIL**



TYPE J BAR, VERTICAL, TYPICAL BOTH SIDES

LOAD CELL CENTERLINE, TYPICAL

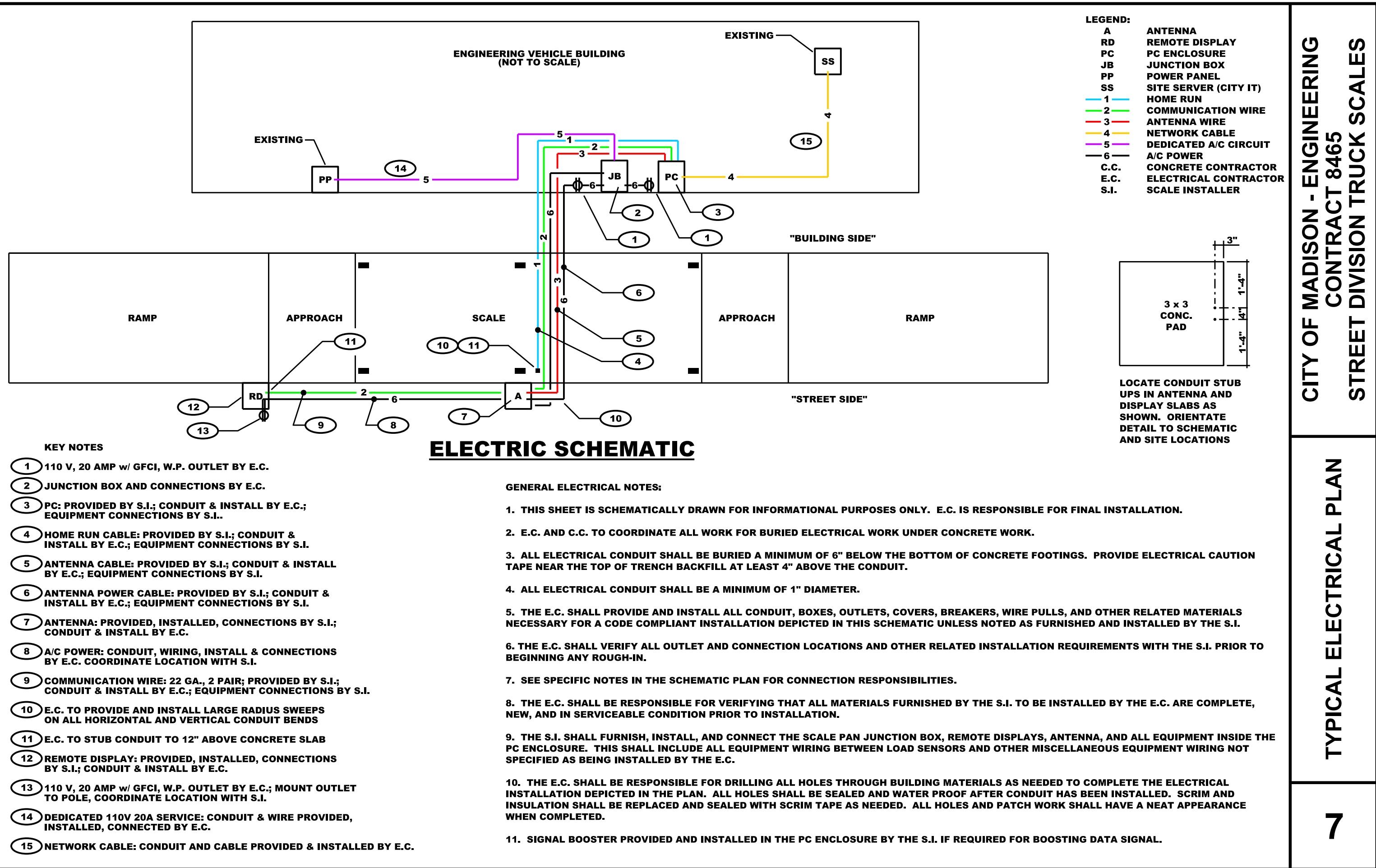
LOAD CELL PLATE, TYPICAL, BY OTHERS

6" LOAD CELL ANCHOR BOLT, TYPICAL, BY OTHERS

TYPE E BAR MIN 6" COVER

TYPE F BAR MINIMUM 6-5/8" COVER

**C/6 ENLARGED DETAILS**



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 CONTRACT 8465  
 STREET DIVISION TRUCK SCALES

TYPICAL ELECTRICAL PLAN

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