

TUNNEL TOOL-KIT

REFERENCE DETAILS, SUPPORTS & SECTIONS

For
Design Professionals Use if Deemed Applicable and Adequate for Project
 Not For Construction

UM TUNNEL TOOL KIT REFERENCE DETAILS, SUPPORTS & SECTIONS

FOR DESIGN PROFESSIONAL USE IF DEEMED APPLICABLE & ADEQUATE
 APPROVED BY
 AEC - Architecture & Engineering
 REPRESENTING
 PS/BB CAD PROJECT LEAD
 DRAWN BY CAD/BB PROJECT LEAD
 DESIGNED BY REVIEWED BY

MARK	ISSUED FOR/REVISIONS	DATE
•	Posted to Web	10/20/23
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Tunnels

Tool Kit

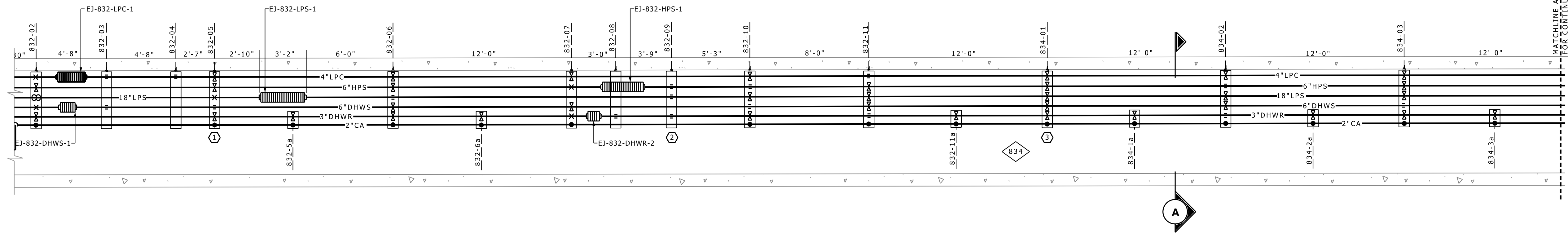
University Of Michigan
 Ann Arbor , MI

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 U OF M PROJECT NO. BUILDING NO.

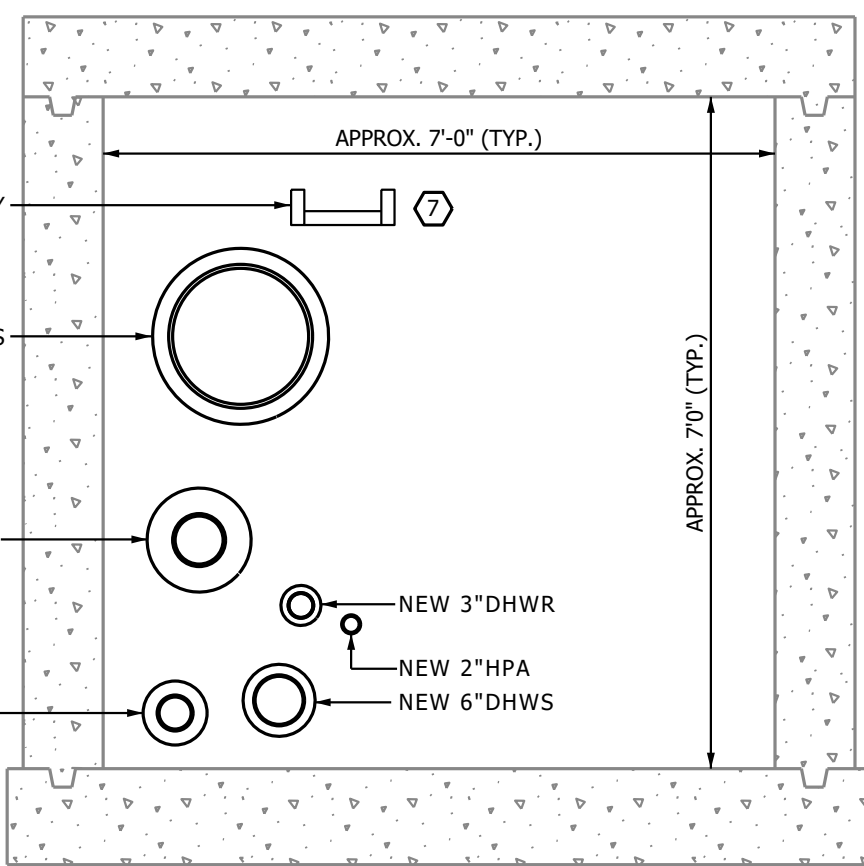
SHEET TITLE **Tunnels**

Typical Tunnel Construction Plan

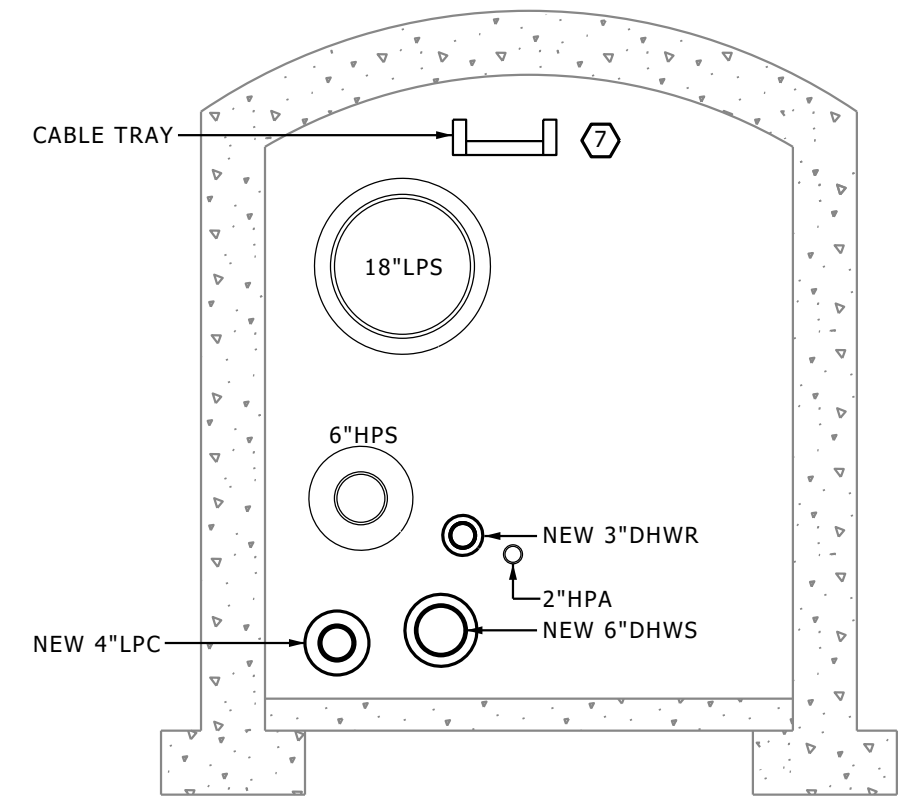
SHEET NO. **TK-1**
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TYPICAL TUNNEL CONSTRUCTION PLAN - NEW TUNNEL
 SCALE: 1/4" = 1'-0"



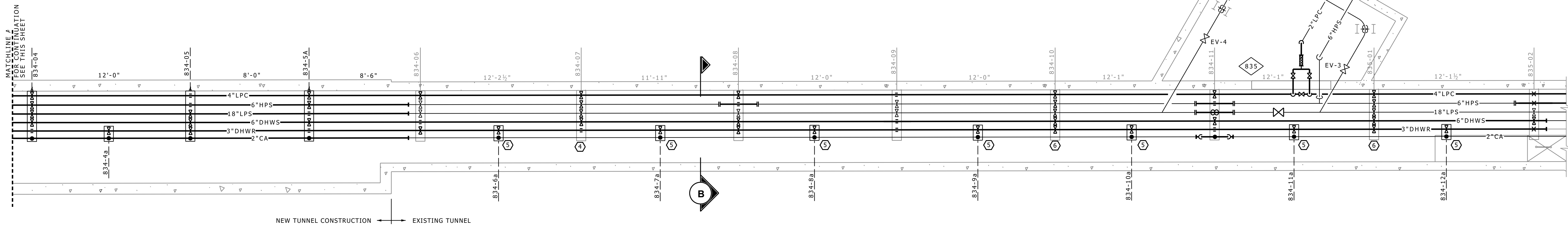
A TYPICAL NEW TUNNEL SECTION
 SCALE: 1/2" = 1'-0"



B TYPICAL EXISTING TUNNEL SECTION
 SCALE: 1/2" = 1'-0"

EXAMPLE CONSTRUCTION REFERENCE NOTES

1. PROVIDE NEW STRUCTURAL STEEL; ANCHOR ON LPS; ROLLERS ON LPC, HPS AND DHWR; GUIDE ON DHWS; SUPPORT ON HPA PER DETAIL 1-TK-2.
2. PROVIDE NEW STRUCTURAL STEEL AND GUIDES ON HPS, LPS AND DHWR PER DETAIL 2-TK-2.
3. PROVIDE NEW STRUCTURAL STEEL; ROLLERS ON LPS, LPC, HPS, DHWS AND DHWR; SUPPORT ON HPA PER DETAIL 3-TK-2.
4. PROVIDE NEW STRUCTURAL STEEL; ROLLERS ON LPS, LPC, HPS AND DHWS; GUIDE ON DHWR; SUPPORT ON HPA PER DETAIL 4-TK-2.
5. PROVIDE NEW STRUCTURAL STEEL; ROLLER ON DHWR AND SUPPORT ON HPA PER DETAILS 5-TK-3 & G-TK-5.
6. PROVIDE NEW STRUCTURAL STEEL; ROLLERS ON LPS, LPC, HPS, DHWS AND DHWR; SUPPORT ON HPA PER DETAIL 5-TK-2.
7. CONTRACTOR SHALL TEMPORARILY RE-LOCATE EXISTING CABLE TRAY, CONDUIT, CABLES AS NEEDED TO PERFORM THE WORK, SUBMIT PROPOSED DETAILS.
8. UM WILL LABEL ALL PIPE SUPPORTS AND TAG ALL EXPANSION JOINTS & VALVES.



TYPICAL TUNNEL CONSTRUCTION PLAN - EXISTING TUNNEL
 SCALE: 1/4" = 1'-0"

Tool Kit Overview

1. THIS TOOL KIT IS INTENDED TO INDICATE PLANS/DETAILS THAT WERE SUCCESSFUL IN PAST TUNNEL PROJECTS BID DOCUMENTS.
2. THESE DETAILS ARE NOT 'CUT AND PASTE' FOR ALL PROJECTS. DESIGN PROFESSIONAL IS ULTIMATELY RESPONSIBLE FOR CONTENT OF ALL BID DOCUMENTS.

Notes to Designer

1. THIS TOOL KIT CONSTRUCTION PLAN REPRESENTS THE MINIMUM LEVEL OF DETAIL REQUIRED ON BID DOCUMENTS FOR ALL TUNNEL PROJECTS.
2. SYSTEM COMPONENTS WILL BE SHOWN ON PLAN, INCLUDING BUT NOT LIMITED TO EXPANSION JOINTS, ANCHORS, GUIDES, ROLLERS AND VALVES. ALL PIPE SUPPORTS WILL BE LOCATED WITH FIELD VERIFIED DIMENSIONS BETWEEN MEMBERS.
3. ALL POINTS OF REFERENCE (POR) SHALL BE INDICATED ON PLANS.
4. NEW EXPANSION JOINTS AND VALVES ON PLANS SHALL BE TAGGED TO CLOSEST POR SUPPORT AS SHOWN. PROVIDE TAGGING OF EXISTING SYSTEM COMPONENTS WITHIN WORK ZONE TO REMAIN.
5. EACH SUPPORT SHOULD HAVE A CONSTRUCTION REFERENCE NOTE REFERRING TO A SECTION DETAIL. SUPPORTS THAT ARE IDENTICAL MAY USE THE SAME NOTE AND SECTION DETAIL (AS IN CONSTRUCTION REFERENCE NOTES 5 AND 6). NOT ALL SUPPORTS HAVE BEEN DETAILED FOR THIS EXAMPLE.
6. GIVE EXISTING CONDITIONS TO SUPPORT ACCURATE BIDDING. CONSULT AEC FOR AVAILABLE DRAWING AND/OR LASER SCAN FILES.

